

Fig.S1. Maximum likelihood tree of concatenated sequences of seven housekeeping genes from 8 Typhimurium and 15 other *S. enterica* subsp. I strains. The housekeeping genes (*aroC*, *dnaN*, *hemD*, *hisD*, *purE*, *sucA* and *thrA*) used in multi-locus sequence typing (MLST) were selected for the analysis.

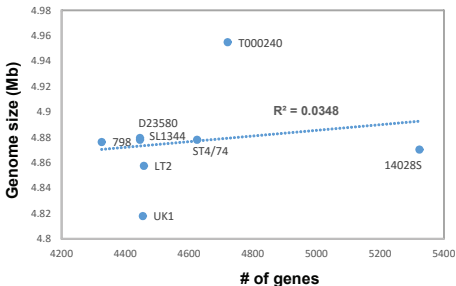
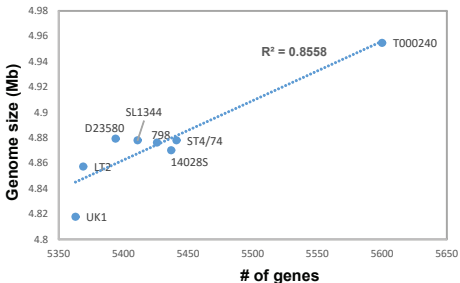
A**B**

Fig.S2. Correlation among the genome size and the number of protein-coding genes in 8 Typhimurium strains, using (A) existing annotation, and (B) re-annotation. The blue dotted lines depict linear fit, and the R^2 value for each fit is shown.

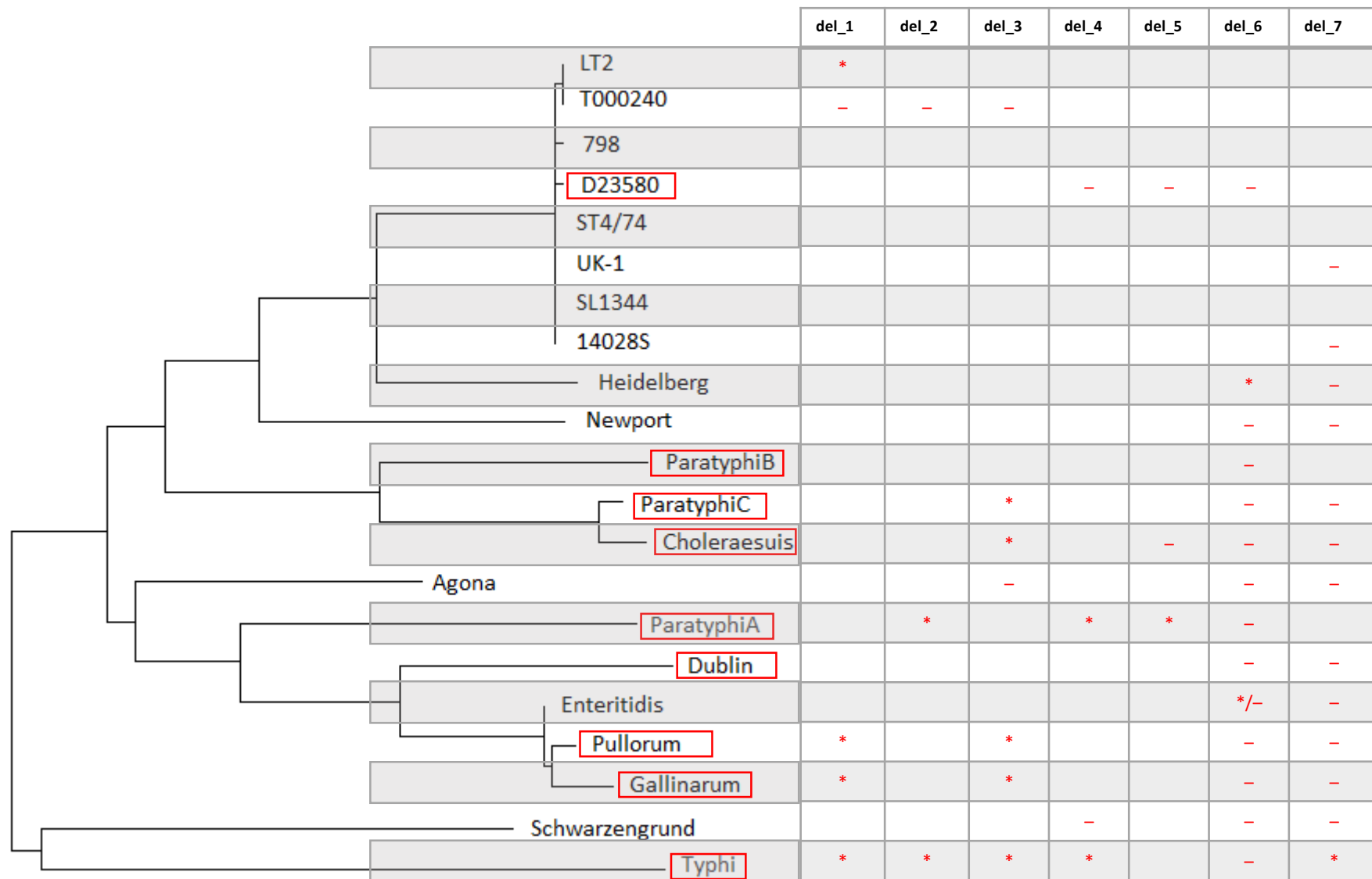


Fig.S3. Distribution of 7 mosaic deleted regions in other *S. enterica* subsp. I strains considered in Fig.S1. The human invasive strains are marked by red rectangular boxes. In a particular genome, the genes absent or carrying pre-mature stop codons are marked by “-” or “*”, respectively.

Table S1. List of re-annotated genes in 8 Typhimurium strains analyzed.

Genome name	Gene Name	Reference details				Gene annotated in 14028S		
		GI	Strand	CDS-region	Product	Coordinate	Strand	Length (bp)
ST474	STM474_0083	379699298	-	92031-92228	hypothetical protein	92740-92937	-	198
ST474	STM474_0114	379699329	+	128578-128724	hypothetical protein	129287-129433	+	147
ST474	STM474_0115	379699330	+	128926-129039	hypothetical protein	129635-129748	+	114
LT2	STM04630	409994397	-	139338-139487	hypothetical protein	140050-140199	-	150
D23580	STMMW_02971	378443738	+	336610-336873	hypothetical protein	337324-337587	+	264
LT2	STM04655	409994398	-	339629-339871	hypothetical protein	340314-340556	-	243
ST474	STM474_0312	379699516	+	341562-341681	hypothetical protein	342769-342888	+	120
D23580	STMMW_03133	378443750	+	348247-348378	putative transposase	348961-349092	+	132
UK1	STMUK_0331	378987726	+	369132-369353	putative inner membrane protein	369843-370064	+	222
T000240	STMDT12_C04560	378982997	+	482933-483049	hypothetical protein	445581-445697	+	117
ST474	STM474_0431	379699631	+	466787-466939	hypothetical protein	467994-468146	+	153
ST474	STM474_0464	379699664	-	497880-498002	hypothetical protein	499087-499209	-	123
T000240	STMDT12_C07050	378983246	-	742985-743125	hypothetical protein	705428-705568	-	141
T000240	STMDT12_C07730	378983314	-	820062-820163	hypothetical protein	781729-781830	-	102
ST474	STM474_0763	379699951	+	807598-807723	hypothetical protein	808684-808809	+	126
ST474	STM474_0764	379699952	-	808597-808710	hypothetical protein	809683-809796	-	114
ST474	STM474_0818	379700001	+	857893-858006	hypothetical protein	858979-859092	+	114
ST474	STM474_0999	379700176	+	1061436-1061582	hypothetical protein	1063228-1063374	+	147
ST474	STM474_1001	379700178	+	1061983-1062096	hypothetical protein	1063775-1063888	+	114
140285	STM14_3197	378451364	+	2811771-2811908	hypothetical protein	1073076-1073213	-	138
D23580	STMMW_10422	378444470	+	1114868-1115074	prophage protein	1077351-1077557	+	207
ST474	STM474_1045	379700222	-	1098511-1098666	hypothetical protein	1100534-1100689	+	156
T000240	STMDT12_C11030	378983644	+	1169756-1169860	hypothetical protein	1130415-1130519	+	105
140285	STM14_3174	378451342	-	2792931-2793668	tail assembly protein K-like protein	1321462-1322199	+	738
ST474	STM474_1893	379701046	-	1920052-1920177	arsenical pump membrane protein	1330396-1330521	+	126
LT2	STM05040	409994415	-	1327664-1327867	hypothetical protein	1337639-1337842	-	204
ST474	STM474_1249	379700419	-	1291877-1292050	hypothetical protein	1344999-1345172	-	174
ST474	STM474_1289	379700457	+	1320526-1320669	hypothetical protein	1373649-1373792	+	144
ST474	STM474_1315	379700483	+	1347752-1347886	hypothetical protein	1400875-1401009	+	135
ST474	STM474_1353	379700521	+	1384122-1384307	hypothetical protein	1437245-1437430	+	186
ST474	STM474_1383	379700550	-	1418471-1418587	hypothetical protein	1471595-1471711	-	117
ST474	STM474_1395	379700562	+	1431868-1432002	hypothetical protein	1484992-1485126	+	135
T000240	STMDT12_C14990	378984040	-	1560231-1560323	hypothetical protein	1572520-1572612	+	93
ST474	STM474_1518	379700677	-	1542834-1542947	hypothetical protein	1595958-1596071	-	114
T000240	STMDT12_C15310	378984072	-	1591761-1591856	hypothetical protein	1604048-1604143	-	96
UK1	STMUK_1520	378988892	+	1587048-1587440	hypothetical protein	1638857-1639249	+	393
UK1	STMUK_1521	378988893	+	1587577-1587705	hypothetical protein	1639386-1639514	+	129
ST474	STM474_1578	379700736	-	1602385-1602519	hypothetical protein	1655509-1655643	-	135
T000240	STMDT12_C16480	378984189	-	1717552-1717677	hypothetical protein	1729838-1729963	-	126
ST474	STM474_1641	379700799	+	1676859-1677014	hypothetical protein	1729983-1730138	+	156
T000240	STMDT12_C16570	378984198	-	1726118-1726213	hypothetical protein	1738404-1738499	-	96
T000240	STMDT12_C16740	378984215	-	1744637-1744789	hypothetical protein	1756923-1757075	-	153
ST474	ymia	379700885	-	1764839-1764967	hypothetical protein	1818675-1818803	-	129
T000240	STMDT12_C18620	378984403	-	1934900-1935001	hypothetical protein	1948960-1949061	-	102
ST474	STM474_1877	379701031	-	1908925-1909098	hypothetical protein	1962762-1962935	-	174
D23580	STMMW_18461	378445260	+	1947071-1947241	hypothetical protein	1965246-1965416	+	171
ST474	STM474_1884	379701038	-	1913724-1913852	hypothetical protein	1967561-1967689	-	129
T000240	STMDT12_C19080	378984449	+	1972383-1972478	hypothetical protein	1988247-1988342	+	96
D23580	STMMW_19262	378445334	+	2022476-2022553	hypothetical protein	2050371-2050448	-	78
ST474	STM474_2026	379701174	+	2034563-2034694	hypothetical protein	2088400-2088531	+	132
D23580	STMMW_20121	378445417	+	2090064-2090498	phage protein	2117960-2118394	+	435
T000240	STMDT12_C20240	378984565	-	2079358-2079462	hypothetical protein	2135368-2135472	-	105
SL1344	SL1344_1980	378699918	+	2082737-2083009	hypothetical protein	2136573-2136845	+	273
ST474	STM474_2085	379701227	-	2082744-2082878	hypothetical protein	2136580-2136714	-	135
ST474	STM474_2089	379701231	+	2088148-2088282	hypothetical protein	2141984-2142118	+	135
798	UMN798_2172	383496723	+	2087536-2087634	hypothetical protein	2142011-2142109	-	99
T000240	STMDT12_C20320	378984573	+	2086418-2086567	hypothetical protein	2142428-2142577	+	150
ST474	STM474_2091	379701233	+	2088820-2088942	hypothetical protein	2142656-2142778	+	123
D23580	STMMW_20421	378445447	+	2116462-2116623	hypothetical protein	2144358-2144519	+	162
ST474	STM474_2254	379701393	+	2258581-2258763	hypothetical protein	2312418-2312600	+	183
ST474	STM474_2293	379701432	-	2300273-2300395	hypothetical protein	2354110-2354232	-	123
UK1	STMUK_2237	378989594	-	2307167-2307274	hypothetical protein	2358975-2359082	-	108
T000240	STMDT12_C22520	378984793	-	2327280-2327405	hypothetical protein	2383290-2383415	-	126
ST474	STM474_2412	379701547	-	2421293-2421412	hypothetical protein	2475129-2475248	-	120
T000240	STMDT12_C24200	378984961	+	2507125-2507337	hypothetical protein	2563134-2563346	+	213
T000240	STMDT12_C25240	378985065	+	2617191-2617382	putative cytoplasmic protein	2673319-2673510	+	192
ST474	STM474_2618	379701745	+	2646222-2646344	hypothetical protein	2700058-2700180	+	123
ST474	STM474_2636	379701763	+	2671480-2671593	hypothetical protein	2725316-2725429	+	114
ST474	STM474_2692	379701819	-	2729509-2729628	integrase, catalytic region	2783351-2783470	-	120
SL1344	SL1344_2548	378700486	-	2730253-2730318	bacteriophage protein	2784095-2784160	-	66
D23580	STMMW_26031	378446002	-	2757050-2757262	putative prophage protein	2784223-2784435	-	213
ST474	STM474_2898	379702018	-	2927700-2927858	hypothetical protein	2925359-2925517	-	159
T000240	STMDT12_C28220	378985362	-	2935935-2936111	hypothetical protein	2932604-2932780	-	177
D23580	STMMW_27451	378446140	-	2919280-2919612	putative inner membrane protein	2946530-2946862	-	333
D23580	STMMW_28661	378446261	+	3039872-3039979	pathogenicity island 1 protein	3067121-3067228	+	108
ST474	STM474_3077	379702190	+	3100048-3100164	hypothetical protein	3098212-3098328	+	117
ST474	STM474_3093	379702206	+	3116333-3116446	hypothetical protein	3114497-3114610	+	114
D23580	STMMW_29721	378446366	-	3162322-3162468	hypothetical protein	3190121-3190267	-	147
T000240	STMDT12_C30880	378985628	+	3219618-3219734	hypothetical protein	3215494-3215610	+	117
ST474	STM474_3231	379702341	+	3267369-3267485	putative racemase	3265788-3265904	+	117
T000240	STMDT12_C31860	378985726	+	3314720-3314875	hypothetical protein	3309709-3309864	+	156

ST474	STM474_3301	379702409	-	3334473-3334658	hypothetical protein	3332021-3332206	-	186
ST474	STM474_3318	379702426	-	3348584-3348700	hypothetical protein	3346132-3346248	-	117
ST474	STM474_3334	379702442	-	3364546-3364662	hypothetical protein	3362094-3362210	-	117
T000240	STMDT12_C32520	378985792	+	3381047-3381148	hypothetical protein	3376036-3376137	+	102
ST474	STM474_3403	379702507	+	3435178-3435297	hypothetical protein	3432726-3432845	+	120
T000240	STMDT12_C34190	378985959	+	3551875-3551970	hypothetical protein	3542510-3542605	+	96
ST474	STM474_3527	379702628	-	3554690-3554815	hypothetical protein	3547169-3547294	-	126
T000240	STMDT12_C34520	378985992	-	3595480-3595632	hypothetical protein	3586074-3586226	-	153
ST474	STM474_3611	379702705	+	3620933-3621070	hypothetical protein	3613309-3613446	+	138
SL1344	SL1344_3427	378701354	+	3633385-3633606	hypothetical protein	3625761-3625982	+	222
ST474	STM474_3868	379702957	-	3911348-3911467	hypothetical protein	3903724-3903843	-	120
T000240	STMDT12_C38190	378986359	-	3984324-3984416	hypothetical protein	3975120-3975212	-	93
ST474	STM474_3981	379703066	-	4028417-4028551	hypothetical protein	4020795-4020929	-	135
ST474	STM474_3986	379703070	-	4031907-4032026	hypothetical protein	4024285-4024404	-	120
ST474	STM474_4022	379703106	-	4071364-4071624	hypothetical protein	4063742-4064002	-	261
T000240	STMDT12_C40060	378986546	-	4156200-4156427	hypothetical protein	4064781-4065008	-	228
ST474	STM474_4144	379703214	+	4193636-4193764	hypothetical protein	4185781-4185909	+	129
ST474	STM474_4210	379703274	-	4263051-4263284	hypothetical protein	4255196-4255429	-	234
ST474	STM474_4231	379703295	+	4283542-4283655	hypothetical protein	4275687-4275800	+	114
ST474	STM474_4282	379703346	+	4329998-4330159	hypothetical protein	4322144-4322305	+	162
T000240	STMDT12_C43680	378986908	+	4559620-4559715	hypothetical protein	4468073-4468168	+	96
ST474	STM474_4451	379703497	+	4498500-4498640	hypothetical protein	4490749-4490889	+	141
SL1344	SL1344_4256	378702162	-	4584964-4585098	hypothetical protein	4577214-4577348	-	135
ST474	STM474_4515	379703561	-	4585588-4585743	hypothetical protein	4577837-4577992	-	156
ST474	STM474_4516	379703562	-	4586025-4586150	hypothetical protein	4578274-4578399	-	126
ST474	STM474_4616	379703657	+	4681690-4681806	hypothetical protein	4673938-4674054	+	117
ST474	STM474_4627	379703668	-	4695124-4695237	hypothetical protein	4687373-4687486	-	114
ST474	STM474_4653	379703693	+	4719860-4719991	hypothetical protein	4712109-4712240	+	132
UK1	STMUK_4448	378991724	+	4665460-4665600	putative cytoplasmic protein	4717855-4717995	+	141
T000240	STMDT12_C45910	378987131	+	4803005-4803103	hypothetical protein	4718456-4718554	+	99
T000240	STMDT12_C46080	378987148	+	4822036-4822131	hypothetical protein	4737487-4737582	+	96
ST474	STM474_4722	379703761	-	4794952-4795101	hypothetical protein	4787201-4787350	-	150
ST474	smp	379703819	+	4853656-4853805	phosphoserine phosphatase	4845908-4846057	+	150

Genome name	Gene Name	GI	Reference details			Gene annotated in D23580		
			Strand	CDS-region	Product	Coordinate	Strand	Length (bp)
14028S	STM14_0012	378448286	+	11257-11424	hypothetical protein	11257-11424	+	168
14028S	STM14_0015	378448289	+	14845-14958	hypothetical protein	14845-14958	+	114
14028S	STM14_0020	378448294	-	17613-17741	hypothetical protein	17613-17741	-	129
14028S	STM14_0021	378448295	+	17665-17787	hypothetical protein	17665-17787	+	123
14028S	STM14_0024	378448298	+	23091-23240	hypothetical protein	23091-23240	+	150
14028S	STM14_0026	378448300	-	24094-24198	hypothetical protein	24094-24198	-	105
14028S	STM14_0027	378448301	+	24316-24426	hypothetical protein	24316-24426	+	111
14028S	STM14_0040	378448314	+	34828-34974	hypothetical protein	34828-34974	+	147
14028S	STM14_0057	378448331	+	57203-57334	hypothetical protein	57203-57334	+	132
14028S	STM14_0068	378448342	-	68513-68671	hypothetical protein	68513-68671	-	159
14028S	STM14_0076	378448350	-	74964-75239	hypothetical protein	74964-75239	-	276
14028S	STM14_0089	378448363	+	89119-89328	hypothetical protein	88408-88617	+	210
ST474	STM474_0083	379699298	-	92031-92228	hypothetical protein	92029-92226	-	198
14028S	STM14_0097	378448371	-	95263-95379	hypothetical protein	94552-94668	-	117
14028S	STM14_0102	378448376	+	98738-99019	hypothetical protein	98027-98308	+	282
14028S	STM14_0105	378448379	-	101349-101474	hypothetical protein	100638-100763	-	126
14028S	STM14_0113	378448387	-	108892-109053	hypothetical protein	108181-108342	-	162
14028S	STM14_0128	378448402	-	127427-127546	putative lipoprotein	126716-126835	-	120
14028S	STM14_0130	378448404	-	129166-129492	hypothetical protein	128455-128781	-	327
ST474	STM474_0114	379699329	+	128578-128724	hypothetical protein	128576-128722	+	147
ST474	STM474_0115	379699330	+	128926-129039	hypothetical protein	128924-129037	+	114
14028S	STM14_0136	378448410	-	134689-134793	hypothetical protein	133978-134082	-	105
14028S	STM14_0137	378448411	+	135067-135210	hypothetical protein	134356-134499	+	144
14028S	STM14_0141	378448415	-	138755-138877	hypothetical protein	138044-138166	-	123
LT2	STM04630	409994397	-	139338-139487	hypothetical protein	139339-139488	-	150
14028S	STM14_0143	378448417	-	140204-140338	hypothetical protein	139493-139627	-	135
14028S	STM14_0144	378448418	+	140496-140633	hypothetical protein	139785-139922	+	138
14028S	STM14_0165	378448438	+	162875-162979	LysR family transcriptional regulator	162164-162268	+	105
14028S	STM14_0173	378448446	-	168890-169072	hypothetical protein	168179-168361	-	183
14028S	STM14_0179	378448452	-	173962-174090	hypothetical protein	173251-173379	-	129
14028S	STM14_0181	378448454	+	175672-175794	hypothetical protein	174961-175083	+	123
14028S	STM14_0186	378448459	+	183222-183350	hypothetical protein	182511-182639	+	129
14028S	STM14_0210	378448482	-	209796-209966	hypothetical protein	209085-209255	-	171
14028S	STM14_0215	378448487	-	213058-213171	hypothetical protein	212347-212460	-	114
14028S	STM14_0224	378448496	+	221426-221587	hypothetical protein	220715-220876	+	162
14028S	STM14_0225	378448497	-	221522-221629	hypothetical protein	220811-220918	-	108
14028S	STM14_0227	378448499	-	224289-224429	hypothetical protein	223578-223718	-	141
14028S	STM14_0232	378448504	+	230459-230665	hypothetical protein	229748-229954	+	207
14028S	STM14_0233	378448505	+	231001-231144	hypothetical protein	230290-230433	+	144
14028S	STM14_0242	378448514	+	239222-239365	hypothetical protein	238510-238653	+	144
14028S	STM14_0256	378448527	+	254799-255083	30S ribosomal protein S2	254086-254370	+	285
14028S	STM14_0262	378448533	+	259830-260033	hypothetical protein	259117-259320	+	204
14028S	yaeD	378448560	+	288944-289510	D,D-heptose 1,7-bisphosphate phosphatase	288231-288797	+	567
14028S	STM14_0292	378448562	-	289616-289819	hypothetical protein	288903-289106	-	204
14028S	STM14_0310	378448574	-	304859-304966	hypothetical protein	304146-304253	-	108
14028S	STM14_0312	378448575	+	305167-305274	hypothetical protein	304453-304560	+	108
14028S	STM14_0337	378448600	+	330303-330512	hypothetical protein	329589-329798	+	210
14028S	STM14_0344	378448607	+	339345-339485	hypothetical protein	338631-338771	+	141
LT2	STM04655	409994398	-	339629-339871	hypothetical protein	339600-339842	-	243
ST474	STM474_0312	379699516	+	341562-341681	hypothetical protein	342055-342174	+	120
14028S	STM14_0361	378448621	-	351322-351450	hypothetical protein	350608-350736	-	129
14028S	STM14_0377	378448636	-	366783-366935	hypothetical protein	366609-366221	-	153
T000240	STM04655	378982903	+	385663-385842	hypothetical protein	385844-386023	+	180
UK1	STMUK_0331	378987726	+	369132-369353	putative inner membrane protein	409654-409875	+	222
14028S	STM14_0397	378448654	-	385733-385843	hypothetical protein	425544-425654	-	111
14028S	STM14_0403	378448660	-	390802-390939	hypothetical protein	430613-430750	-	138
14028S	STM14_0411	378448668	+	399120-399233	hypothetical protein	438931-439044	+	114
14028S	STM14_0415	378448672	+	402243-402422	putative metal-binding transport protein	442054-442233	+	180
14028S	STM14_0419	378448676	+	409084-409218	hypothetical protein	448895-449029	+	135
14028S	STM14_0420	378448677	-	409118-409237	hypothetical protein	448929-449048	-	120
14028S	STM14_0430	378448687	+	418467-418640	hypothetical protein	458278-458451	+	174
14028S	STM14_0436	378448693	+	425565-425684	hypothetical protein	465376-465495	+	120
14028S	STM14_0437	378448694	-	425675-425827	hypothetical protein	465486-465638	-	153
14028S	STM14_0441	378448698	-	430751-430909	hypothetical protein	470562-470720	-	159
14028S	STM14_0442	378448699	+	430925-431059	hypothetical protein	470736-470870	+	135
14028S	STM14_0446	378448703	+	433714-433827	hypothetical protein	473525-473638	+	114
14028S	STM14_0451	378448708	+	437620-437742	hypothetical protein	477431-477553	+	123
14028S	STM14_0453	378448710	-	438082-438243	hypothetical protein	477893-478054	-	162
14028S	STM14_0457	378448714	+	440792-440941	hypothetical protein	480603-480752	+	150
14028S	STM14_0464	378448721	-	444556-444687	hypothetical protein	484367-484498	-	132
T000240	STM04655	378982997	+	482933-483049	hypothetical protein	485392-485508	+	117
14028S	STM14_0472	378448729	-	453755-453904	hypothetical protein	493565-493714	-	150
14028S	STM14_0479	378448736	+	461340-461450	DNA metabolism protein	501150-501260	+	111
14028S	STM14_0487	378448744	+	467631-467846	hypothetical protein	507441-507656	+	216
ST474	STM474_0431	379699631	+	466787-466939	hypothetical protein	507804-507956	+	153
14028S	STM14_0491	378448747	+	469965-470111	hypothetical protein	509775-509921	+	147
14028S	STM14_0498	378448754	-	473976-474284	hypothetical protein	513786-514094	-	309
14028S	STM14_0509	378448765	-	484792-484902	hypothetical protein	524602-524712	-	111
ST474	STM474_0464	379699664	-	497880-498002	hypothetical protein	538897-539019	-	123
14028S	STM14_0526	378448781	+	501468-501653	hypothetical protein	541278-541463	+	186
14028S	STM14_0528	378448783	-	502053-502166	hypothetical protein	541863-541976	-	114
14028S	STM14_0531	378448786	+	504670-504774	hypothetical protein	544480-544584	+	105
14028S	STM14_0536	378448791	-	511028-511390	hypothetical protein	550838-551200	-	363
14028S	STM14_0562	378448816	-	535085-535210	hypothetical protein	574896-575021	-	126
14028S	STM14_0573	378448827	-	546597-546818	hypothetical protein	586408-586629	-	222
14028S	STM14_0575	378448829	+	547392-547598	hypothetical protein	587203-587409	+	207
14028S	STM14_0580	378448834	+	552798-552923	hypothetical protein	592609-592734	+	126
14028S	STM14_0597	378448851	+	570227-570331	hypothetical protein	610038-610142	+	105
14028S	STM14_0599	378448853	-	571546-571650	hypothetical protein	611357-611461	-	105
14028S	STM14_0633	378448887	-	604316-604444	hypothetical protein	642432-642560	-	129
14028S	STM14_0634	378448888	+	604400-604555	hypothetical protein	642516-642671	+	156

140285	STM14_0645	378448899	+	614019-614189	hypothetical protein	652135-652305	+	171
140285	STM14_0647	378448900	-	614287-614475	integrase	652403-652591	-	189
140285	STM14_0649	378448901	+	615283-615441	hypothetical protein	653399-653557	+	159
140285	STM14_0659	378448908	-	622266-622520	hypothetical protein	660382-660636	-	255
140285	STM14_0665	378448914	+	627603-627788	hypothetical protein	665719-665904	+	186
140285	STM14_0677	378448926	+	639577-639684	hypothetical protein	677693-677800	+	108
140285	STM14_0683	378448932	-	644504-644635	hypothetical protein	682620-682751	-	132
140285	STM14_0698	378448947	+	661861-661971	hypothetical protein	699977-700087	+	111
140285	STM14_0714	378448963	+	678228-678434	hypothetical protein	716542-716748	+	207
140285	STM14_0715	378448964	-	678399-678539	hypothetical protein	716713-716853	-	141
140285	STM14_0726	378448975	+	688331-688513	hypothetical protein	726645-726827	+	183
140285	STM14_0730	378448979	+	692333-692443	hypothetical protein	730647-730757	+	111
140285	STM14_0735	378448984	+	694969-695076	hypothetical protein	733283-733390	+	108
140285	STM14_0738	378448987	-	696364-696498	hypothetical protein	734678-734812	-	135
140285	STM14_0740	378448989	-	697584-697727	hypothetical protein	735898-736041	-	144
140285	STM14_0742	378448991	+	698354-698719	hypothetical protein	736668-737033	+	366
140285	STM14_0745	378448994	+	700128-700277	hypothetical protein	738442-738591	+	150
T000240	STM14_0774	378983246	-	742985-743125	hypothetical protein	743742-743882	-	141
140285	STM14_0774	378449022	+	730309-730596	hypothetical protein	768623-768910	+	288
140285	STM14_0777	378449025	-	733102-733251	hypothetical protein	771416-771565	-	150
140285	STM14_0780	378449028	-	734838-734957	hypothetical protein	773152-773271	-	120
140285	STM14_0791	378449032	+	739310-739477	hypothetical protein	777624-777791	+	168
140285	STM14_0797	378449038	-	745470-745595	hypothetical protein	783784-783909	-	126
140285	STM14_0800	378449041	+	749621-749734	hypothetical protein	787935-788048	+	114
140285	STM14_0801	378449042	+	749864-750154	hypothetical protein	788178-788468	+	291
140285	STM14_0809	378449050	+	757442-757591	hypothetical protein	795756-795905	+	150
140285	STM14_0812	378449053	+	758607-758720	hypothetical protein	796921-797034	+	114
140285	STM14_0819	378449060	-	766193-766318	hypothetical protein	804507-804632	-	126
140285	STM14_0820	378449061	+	766472-766585	hypothetical protein	804786-804899	+	114
140285	STM14_0826	378449067	-	774532-774729	K ⁺ -transporting ATPase subunit F	812846-813043	-	198
T000240	STM14_0859	378449100	+	808472-808597	hypothetical protein	846785-846910	+	126
ST474	STM474_0763	379699951	+	807598-807723	hypothetical protein	846997-847122	+	126
ST474	STM474_0764	379699952	-	808597-808710	hypothetical protein	847996-848109	-	114
140285	STM14_0860	378449101	-	809819-809962	hypothetical protein	848132-848275	-	144
140285	STM14_0864	378449105	+	812877-813017	hypothetical protein	851190-851330	+	141
140285	STM14_0873	378449114	-	818715-819254	hypothetical protein	857028-857567	-	540
140285	STM14_0879	378449115	-	820227-820322	hypothetical protein	858539-858634	-	96
140285	STM14_0897	378449132	-	837473-837664	hypothetical protein	875784-875975	-	192
140285	STM14_0903	378449138	+	843123-843230	hypothetical protein	881434-881541	+	108
ST474	STM474_0818	379700001	+	857893-858006	hypothetical protein	897290-897403	+	114
140285	STM14_0924	378449158	+	864209-864493	hypothetical protein	902520-902804	+	285
140285	STM14_0925	378449159	+	864550-864777	hypothetical protein	902861-903088	+	228
140285	STM14_946	378449180	-	881747-881884	hypothetical protein	919347-919484	-	138
140285	STM14_952	378449186	-	888006-888110	hypothetical protein	925606-925710	-	105
140285	STM14_956	378449190	+	891948-892067	hypothetical protein	929548-929667	+	120
140285	STM14_958	378449192	-	892325-892444	hypothetical protein	929925-930044	-	120
140285	STM14_961	378449195	+	895674-895811	hypothetical protein	933274-933411	+	138
140285	STM14_965	378449199	-	898059-898181	hypothetical protein	935659-935781	-	123
140285	STM14_967	378449201	-	899158-899316	hypothetical protein	936758-936916	-	159
140285	STM14_969	378449203	-	900254-900415	hypothetical protein	937854-938015	-	162
140285	STM14_970	378449204	-	900375-900506	hypothetical protein	937975-938106	-	132
140285	STM14_973	378449207	+	902910-903080	hypothetical protein	940506-940676	+	171
140285	STM14_974	378449208	-	903009-903137	hypothetical protein	940605-940733	-	129
140285	STM14_0363	378448623	-	352120-352227	hypothetical protein	945393-945500	-	108
140285	STM14_982	378449216	+	911396-911509	hypothetical protein	948992-949105	+	114
140285	STM14_986	378449220	-	915878-916033	hypothetical protein	953474-953629	-	156
140285	STM14_989	378449223	+	917997-918137	hypothetical protein	955593-955733	+	141
140285	STM14_995	378449229	-	924480-924599	hypothetical protein	962076-962195	-	120
140285	STM14_997	378449231	+	925933-926067	hypothetical protein	963529-963663	+	135
140285	STM14_999	378449233	+	926622-926762	hypothetical protein	964218-964358	+	141
140285	STM14_1000	378449234	+	926970-927134	hypothetical protein	964566-964730	+	165
140285	STM14_1006	378449239	-	931103-931243	hypothetical protein	968699-968839	-	141
140285	STM14_1010	378449243	+	934780-934917	hypothetical protein	972376-972513	+	138
140285	STM14_1019	378449251	+	942902-943027	hypothetical protein	980498-980623	+	126
140285	STM14_1034	378449266	+	955378-955569	hypothetical protein	992974-993165	+	192
140285	STM14_1038	378449270	-	958765-958895	hypothetical protein	996361-996561	-	201
140285	STM14_1053	378449285	+	972908-973111	hypothetical protein	1010489-1010692	+	204
140285	STM14_1055	378449287	+	973986-974153	hypothetical protein	1011567-1011734	+	168
140285	STM14_1060	378449292	-	980013-980138	hypothetical protein	1017592-1017717	-	126
140285	STM14_1061	378449293	+	980033-980176	hypothetical protein	1017612-1017755	+	144
140285	STM14_1067	378449299	-	984062-984343	hypothetical protein	1021641-1021922	-	282
140285	STM14_1081	378449312	-	994689-994946	hypothetical protein	1032268-1032525	-	258
140285	STM14_1082	378449313	-	994867-995142	hypothetical protein	1032446-1032721	-	276
140285	STM14_1087	378449318	+	1001941-1002111	hypothetical protein	1039520-1039690	+	171
140285	STM14_1092	378449323	+	1007647-1007754	hypothetical protein	1045226-1045333	+	108
140285	STM14_1093	378449324	-	1007837-1007968	hypothetical protein	1045416-1045547	-	132
140285	STM14_1102	378449333	+	1018831-1018959	hypothetical protein	1056410-1056538	+	129
140285	STM14_1104	378449335	+	1019641-1019754	hypothetical protein	1057220-1057333	+	114
140285	STM14_1108	378449339	-	1023127-1023381	hypothetical protein	1060706-1060960	-	255
140285	STM14_1118	378449349	-	1033792-1033944	hypothetical protein	1071371-1071523	-	153
140285	STM14_1129	378449360	-	1047995-1048126	hypothetical protein	1085574-1085705	-	132
140285	STM14_1131	378449362	+	1049521-1049673	hypothetical protein	1087100-1087252	+	153
140285	STM14_1133	378449364	-	1051307-1051426	hypothetical protein	1088886-1089005	-	120
140285	STM14_1135	378449366	-	1051897-1052118	hypothetical protein	1089476-1089697	-	222
140285	STM14_1137	378449368	+	1053504-1053662	hypothetical protein	1091083-1091241	+	159
ST474	STM474_0999	379700176	+	1061436-1061582	hypothetical protein	1100807-1100953	+	147
ST474	STM474_1001	379700178	+	1061983-1062096	hypothetical protein	1101354-1101467	+	114
140285	STM14_1149	378449380	+	1063939-1064178	hypothetical protein	1101518-1101757	+	240
140285	STM14_1157	378449388	+	1068009-1068230	hypothetical protein	1105527-1105748	+	222
140285	STM14_1159	378449390	+	1068921-1069121	hypothetical protein	1106439-1106639	+	201
140285	STM14_1197	378451364	+	2811771-2811908	hypothetical protein	1110593-1110730	-	138
140285	STM14_1189	378449420	+	1094525-1094767	hypothetical protein	1132042-1132284	+	243

ST474	STM474_1045	379700222	+	1098511-1098666	hypothetical protein	1138879-1139034	+	156
140285	STM14_1201	378449431	-	1106320-1106445	hypothetical protein	1144665-1144790	-	126
140285	STM14_1209	378449439	-	1115818-1116021	hypothetical protein	1154164-1154367	-	204
140285	STM14_1216	378449446	-	1121248-1121352	hypothetical protein	1159594-1159698	-	105
T000240	STM14_1234	378449463	+	1135671-1135796	hypothetical protein	1174016-1174141	+	126
140285	STM14_1244	378449473	-	1143230-1143337	hypothetical protein	1180853-1180960	-	108
140285	STM14_1245	378449474	+	1143361-1143543	hypothetical protein	1180984-1181166	+	183
140285	STM14_1249	378449478	-	1146275-1146388	hypothetical protein	1183898-1184011	-	114
140285	STM14_1254	378449483	-	1150549-1150701	hypothetical protein	1188172-1188324	-	153
140285	STM14_1260	378449489	-	1155618-1155782	hypothetical protein	1193241-1193405	-	165
140285	STM14_1262	378449491	+	1156832-1156987	hypothetical protein	1194455-1194610	+	156
140285	STM14_1273	378449502	+	1164294-1164521	hypothetical protein	1201917-1202144	+	228
140285	STM14_1279	378449506	-	1170030-1170278	hypothetical protein	1207653-1207901	-	249
140285	STM14_1280	378449507	-	1170167-1170286	hypothetical protein	1207790-1207909	-	120
140285	STM14_1282	378449509	+	1172347-1172457	hypothetical protein	1209970-1210080	+	111
140285	STM14_1283	378449510	+	1172451-1172747	hypothetical protein	1210074-1210370	+	297
140285	STM14_1286	378449512	+	1174679-1174783	hypothetical protein	1212302-1212406	+	105
140285	STM14_1288	378449514	+	1176314-1176421	hypothetical protein	1213937-1214044	+	108
140285	STM14_1289	378449515	-	1176396-1176605	hypothetical protein	1214019-1214228	-	210
140285	STM14_1291	378449517	-	1177413-1177520	hypothetical protein	1215036-1215143	-	108
140285	STM14_1292	378449518	+	1177573-1177704	hypothetical protein	1215196-1215327	+	132
140285	STM14_1298	378449523	-	1183064-1183228	hypothetical protein	1220687-1220851	-	165
140285	STM14_1307	378449532	-	1188559-1188696	hypothetical protein	1226194-1226331	-	138
140285	STM14_1308	378449533	-	1188894-1189040	hypothetical protein	1226529-1226675	-	147
140285	STM14_1316	378449541	-	1194339-1194509	hypothetical protein	1231976-1232146	-	171
140285	STM14_1322	378449547	+	1200601-1201062	hypothetical protein	1238238-1238699	+	462
140285	STM14_1327	378449552	+	1204177-1204380	hypothetical protein	1241814-1242017	+	204
140285	yceO	378449553	-	1204429-1204542	putative inner membrane protein	1242066-1242179	-	114
140285	STM14_1339	378449564	-	1212983-1213159	hypothetical protein	1250620-1250796	-	177
140285	STM14_1344	378449569	-	1216241-1216396	flagellar basal body P-ring biosynthesis protein FlgA	1253878-1254033	-	156
140285	STM14_1356	378449581	-	1226280-1226474	hypothetical protein	1263917-1264111	-	195
140285	STM14_1376	378449600	-	1244261-1244398	hypothetical protein	1281898-1282035	-	138
140285	STM14_1390	378449614	-	1256910-1257065	hypothetical protein	1294547-1294702	-	156
140285	STM14_1399	378449623	-	1267794-1267916	hypothetical protein	1305431-1305553	-	123
140285	STM14_1401	378449625	-	1269076-1269240	hypothetical protein	1306713-1306877	-	165
140285	STM14_1487	378449708	-	1337214-1337372	hypothetical protein	1323750-1323908	-	159
140285	STM14_1488	378449709	+	1337312-1337452	hypothetical protein	1323848-1323988	+	141
140285	STM14_1489	378449710	+	1337337-1337585	hypothetical protein	1323873-1324121	+	249
LT2	STM05040	409994415	-	1327664-1327867	hypothetical protein	1324175-1324378	-	204
140285	STM14_1494	378449714	-	1340405-1340575	hypothetical protein	1326941-1327111	-	171
140285	STM14_1496	378449716	-	1341060-1341188	hypothetical protein	1327596-1327724	-	129
140285	STM14_1499	378449718	+	1341718-1341825	hypothetical protein	1328254-1328361	+	108
140285	STM14_1500	378449719	-	1342043-1342192	hypothetical protein	1328579-1328728	-	150
140285	STM14_1502	378449721	-	1342962-1343096	hypothetical protein	1329498-1329632	-	135
140285	STM14_1506	378449723	-	1344493-1344636	hypothetical protein	1331029-1331172	-	144
140285	STM14_1507	378449724	+	1344742-1344867	putative lipoprotein	1331278-1331403	+	126
ST474	STM474_1249	379700419	-	1291877-1292050	hypothetical protein	1331535-1331708	-	174
140285	STM14_1510	378449727	-	1346067-1346216	putative inner membrane protein	1332603-1332752	-	150
140285	STM14_1514	378449731	-	1348508-1348666	hypothetical protein	1335044-1335202	-	159
140285	STM14_1524	378449740	-	1356451-1356600	hypothetical protein	1342987-1343136	-	150
140285	STM14_1528	378449744	+	1358977-1359201	hypothetical protein	1345513-1345737	+	225
140285	STM14_1533	378449749	-	1361225-1361380	hypothetical protein	1347761-1347916	-	156
140285	STM14_1536	378449752	-	1362034-1362159	hypothetical protein	1348570-1348695	-	126
140285	STM14_1540	378449756	-	1363413-1363529	hypothetical protein	1349949-1350065	-	117
140285	STM14_1541	378449757	-	1363501-1363599	hypothetical protein	1350037-1350135	-	99
140285	STM14_1545	378449761	-	1364743-1364856	hypothetical protein	1351279-1351392	-	114
140285	STM14_1546	378449762	+	1364774-1364911	hypothetical protein	1351310-1351447	+	138
140285	STM14_1550	378449766	+	1367385-1367522	hypothetical protein	1353921-1354058	+	138
140285	STM14_1551	378449767	+	1367589-1367696	putative inner membrane protein	1354125-1354232	+	108
140285	STM14_1554	378449770	+	1370048-1370245	hypothetical protein	1356584-1356781	+	198
140285	STM14_1555	378449771	+	1370136-1370267	salivary secreted protein	1356672-1356803	+	132
140285	STM14_1557	378449773	+	1371682-1371801	hypothetical protein	1358218-1358337	+	120
ST474	STM474_1289	379700457	+	1320526-1320669	hypothetical protein	1360185-1360328	+	144
140285	STM14_1559	378449775	-	1373854-1374027	hypothetical protein	1360389-1360562	-	174
140285	STM14_1566	378449782	+	1379655-1379795	hypothetical protein	1366190-1366330	+	141
140285	STM14_1569	378449785	+	1380898-1381002	hypothetical protein	1367434-1367538	+	105
140285	STM14_1572	378449788	+	1382785-1382889	hypothetical protein	1369321-1369425	+	105
140285	STM14_1581	378449797	+	1391859-1392038	hypothetical protein	1378395-1378574	+	180
140285	STM14_1587	378449803	+	1398234-1398449	hypothetical protein	1384770-1384985	+	216
ST474	STM474_1315	379700483	+	1347752-1347886	hypothetical protein	1387411-1387545	+	135
140285	STM14_1591	378449807	-	1400923-1401129	hypothetical protein	1387459-1387665	-	207
140285	STM14_1593	378449809	+	1401610-1401732	hypothetical protein	1388146-1388268	+	123
140285	STM14_1601	378449817	+	1409372-1409509	hypothetical protein	1395908-1396045	+	138
140285	STM14_1602	378449818	-	1409399-1409647	hypothetical protein	1395935-1396183	-	249
140285	STM14_1617	378449833	+	1421769-1421954	hypothetical protein	1408305-1408490	+	186
140285	STM14_1618	378449834	+	1421956-1422090	hypothetical protein	1408492-1408626	+	135
140285	STM14_1623	378449839	-	1425398-1425562	hypothetical protein	1411934-1412098	-	165
140285	STM14_1631	378449847	-	1432577-1432696	hypothetical protein	1419113-1419232	-	120
140285	STM14_1636	378449852	+	1436467-1436571	hypothetical protein	1423003-1423107	+	105
ST474	STM474_1353	379700521	+	1384122-1384307	hypothetical protein	1423781-1423966	+	186
140285	STM14_1638	378449854	-	1437586-1437699	hypothetical protein	1424122-1424235	-	114
140285	STM14_1645	378449861	-	1445506-1445658	hypothetical protein	1432042-1432194	-	153
140285	STM14_1652	378449868	+	1452598-1452744	hypothetical protein	1439134-1439280	+	147
140285	STM14_1653	378449869	-	1452728-1452838	hypothetical protein	1439264-1439374	-	111
140285	STM14_1658	378449873	-	1456308-1456475	hypothetical protein	1442844-1443011	-	168
140285	lppB	378449885	-	1469033-1469272	putative methyl-accepting chemotaxis protein	1455569-1455808	-	240
140285	lpp	378449886	-	1469355-1469591	murein lipoprotein	1455891-1456127	-	237
ST474	STM474_1383	379700550	-	1418471-1418587	hypothetical protein	1458131-1458247	-	117
ST474	STM474_1395	379700562	+	1431868-1432002	hypothetical protein	1471528-1471662	+	135
140285	STM14_1685	378449900	-	1486016-1486129	hypothetical protein	1472552-1472665	-	114
140285	STM14_1692	378449907	+	1493410-1493517	hypothetical protein	1479946-1480053	+	108
140285	STM14_1719	378449934	+	1511477-1511602	hypothetical protein	1498013-1498138	+	126

140285	STM14_1728	378449941	+	1519171-1519452	hypothetical protein	1505707-1505988	+	282
140285	STM14_1751	378449964	+	1538110-1538277	hypothetical protein	1524646-1524813	+	168
140285	STM14_1761	410023179	-	1546024-1546179	hypothetical protein	1532960-1532715	-	156
140285	STM14_1764	378449977	+	1548438-1548683	hypothetical protein	1534974-1535219	+	246
140285	STM14_1771	378449982	+	1553745-1553906	fumarase A	1540281-1540442	+	162
140285	STM14_1776	378449987	-	1559385-1559690	outer membrane protein	1545921-1546226	-	306
140285	STM14_1782	378449992	-	1563882-1564016	putative amino acid permease	1550418-1550552	-	135
140285	STM14_1783	378449993	-	1563914-1564087	hypothetical protein	1550450-1550623	-	174
140285	STM14_1784	378449994	+	1564099-1564224	hypothetical protein	1550635-1550760	+	126
140285	STM14_1786	378449996	+	1565234-1565359	hypothetical protein	1551770-1551895	+	126
140285	STM14_1790	378450000	+	1569946-1570116	hypothetical protein	1556482-1556652	+	171
140285	STM14_1794	378450004	-	1571734-1572027	hypothetical protein	1558270-1558563	-	294
140285	STM14_1796	378450006	-	1572462-1572653	hypothetical protein	1558998-1559189	-	192
T00240	STMDT12_C14990	378984040	+	1560231-1560323	hypothetical protein	1559056-1559148	+	93
140285	STM14_1810	378450020	-	1586812-1587033	putative dimethyl sulfoxide reductase subunit A	1573348-1573569	-	222
140285	STM14_1816	378450026	-	1591641-1591757	hypothetical protein	1578177-1578293	-	117
ST474	STM474_1518	379700677	-	1542834-1542947	hypothetical protein	1582494-1582607	-	114
140285	STM14_1827	378450036	-	1601704-1601919	hypothetical protein	1588240-1588455	-	216
140285	STM14_1828	378450037	+	1601786-1601923	peptidyl-di-peptidase dcp	1588322-1588459	+	138
140285	STM14_1831	378450040	-	1602970-1603068	hypothetical protein	1589506-1589604	-	99
140285	STM14_1833	378450042	-	1603865-1604014	hypothetical protein	1590401-1590550	-	150
T00240	STMDT12_C15310	378984072	-	1591761-1591856	hypothetical protein	1590584-1590679	-	96
140285	STM14_1847	378450056	+	1615524-1615850	putative inner membrane protein	1602043-1602369	+	327
140285	STM14_1858	378450067	-	1625009-1625161	hypothetical protein	1611528-1611680	-	153
140285	STM14_1867	378450076	-	1634718-1634879	hypothetical protein	1621234-1621395	-	162
UK1	STMUK_1521	378988893	+	1587577-1587705	hypothetical protein	1621924-1622052	+	129
ST474	STM474_1578	379700736	-	1602385-1602519	hypothetical protein	1638047-1638181	-	135
140285	STM14_1890	378450098	+	1657503-1657634	hypothetical protein	1640041-1640172	+	132
140285	STM14_1895	378450103	+	1663489-1663641	hypothetical protein	1646027-1646179	+	153
140285	STM14_1897	378450105	-	1664885-1665067	hypothetical protein	1647423-1647605	-	183
140285	STM14_1902	378450110	+	1668962-1669093	hypothetical protein	1651500-1651631	+	132
140285	STM14_1904	378450112	-	1670559-1670702	hypothetical protein	1653097-1653240	-	144
140285	STM14_1911	378450119	-	1679194-1679457	hypothetical protein	1661732-1661995	-	264
140285	STM14_1913	378450121	+	1680178-1680390	hypothetical protein	1662716-1662928	+	213
140285	STM14_1914	378450122	-	1680335-1680472	hypothetical protein	1662873-1663010	-	138
140285	STM14_1915	378450123	+	1680342-1680476	hypothetical protein	1662880-1663014	+	135
140285	STM14_1919	378450127	-	1683664-1683783	hypothetical protein	1666202-1666321	-	120
140285	STM14_1922	378450130	+	1686850-1686969	hypothetical protein	1669388-1669507	+	120
140285	STM14_1923	378450131	-	1686958-1687080	hypothetical protein	1669496-1669618	-	123
140285	STM14_1932	410023183	+	1696611-1696706	hypothetical protein	1679149-1679244	+	96
140285	STM14_1933	378450141	+	1696703-1696807	hypothetical protein	1679241-1679345	+	105
140285	STM14_1939	378450147	-	1701681-1701785	hypothetical protein	1684219-1684323	-	105
140285	STM14_1950	378450158	+	1711642-1711749	hypothetical protein	1694180-1694287	+	108
140285	STM14_1961	378450169	+	1719701-1719814	hypothetical protein	1702239-1702352	+	114
140285	STM14_1967	378450175	+	1727480-1727695	hypothetical protein	1710018-1710233	+	216
T00240	STMDT12_C16480	378984189	-	1717552-1717677	hypothetical protein	1712376-1712501	-	126
ST474	STM474_1641	379700799	+	1676859-1677014	hypothetical protein	1712521-1712676	+	156
140285	STM14_1972	378450180	-	1731028-1731132	hypothetical protein	1713566-1713670	-	105
140285	STM14_1973	378450181	+	1731115-1731225	hypothetical protein	1713653-1713763	+	111
140285	STM14_1976	378450184	-	1733662-1733814	hypothetical protein	1716200-1716352	-	153
T00240	STMDT12_C16570	378984198	-	1726118-1726213	hypothetical protein	1720942-1721037	-	96
140285	STM14_1996	378450204	-	1755685-1755894	hypothetical protein	1738223-1738432	-	210
T00240	STMDT12_C16740	378984215	-	1744637-1744789	hypothetical protein	1739461-1739613	-	153
140285	STM14_2004	378450212	-	1762419-1762580	hypothetical protein	1744957-1745118	-	162
140285	STM14_2024	378450229	-	1779789-1779902	hypothetical protein	1762327-1762440	-	114
140285	STM14_2048	378450253	-	1800491-1800637	hypothetical protein	1782317-1782463	-	147
140285	STM14_2049	378450254	+	1800647-1800769	hypothetical protein	1782473-1782595	+	123
140285	STM14_2054	378450259	-	1803682-1803798	hypothetical protein	1785508-1785624	-	117
140285	STM14_2057	378450262	+	1807079-1807216	hypothetical protein	1788905-1789042	+	138
140285	STM14_2059	378450264	+	1809302-1809514	hypothetical protein	1791128-1791340	+	213
140285	STM14_2061	378450266	+	1810467-1810628	hypothetical protein	1792293-1792454	+	162
140285	osmB	378450267	+	1810612-1810830	lipoprotein	1792438-1792656	+	219
140285	STM14_2065	378450270	+	1812029-1812142	hypothetical protein	1793855-1793968	+	114
140285	STM14_2071	378450276	-	1818504-1818674	hypothetical protein	1800330-1800500	-	171
ST474	ymia	379700885	-	1764839-1764967	hypothetical protein	1800501-1800629	-	129
140285	STM14_2073	378450278	+	1820026-1820190	hypothetical protein	1801852-1802016	+	165
140285	STM14_2076	378450281	-	1823233-1823364	hypothetical protein	1805059-1805190	-	132
140285	STM14_2079	378450284	+	1824904-1825014	hypothetical protein	1806730-1806840	+	111
140285	trpL	378450289	+	1829100-1829144	trp operon leader peptide	1810926-1810970	+	45
140285	STM14_2102	378450306	-	1843241-1843414	hypothetical protein	1825067-1825240	-	174
140285	STM14_2117	378450320	+	1858398-1858580	hypothetical protein	1840224-1840406	+	183
140285	STM14_2123	378450326	-	1863160-1863279	hypothetical protein	1844986-1845105	-	120
140285	STM14_2128	378450328	+	1865980-1866144	hypothetical protein	1847806-1847970	+	165
140285	STM14_2133	378450333	+	1872924-1873043	hypothetical protein	1854750-1854869	+	120
140285	STM14_2135	378450335	-	1874718-1874903	hypothetical protein	1856544-1856729	-	186
140285	STM14_2148	378450348	-	1886567-1886695	hypothetical protein	1868393-1868521	-	129
140285	STM14_2151	378450351	-	1888181-1888351	hypothetical protein	1870007-1870177	-	171
140285	STM14_2152	378450352	-	1888329-1888433	hypothetical protein	1870155-1870259	-	105
140285	STM14_2158	378450358	-	1893588-1893701	hypothetical protein	1875414-1875527	-	114
140285	STM14_2160	378450360	-	1895293-1895421	hypothetical protein	1877119-1877247	-	129
140285	STM14_2169	378450369	+	1903787-1903876	hypothetical protein	1885613-1885702	+	90
140285	STM14_2171	378450371	-	1905555-1905662	hypothetical protein	1887381-1887488	-	108
140285	STM14_2180	378450380	-	1914824-1914934	hypothetical protein	1896650-1896760	-	111
140285	STM14_2187	378450387	+	1920441-1920557	hypothetical protein	1902267-1902383	+	117
140285	STM14_2189	378450389	-	1920801-1920899	hypothetical protein	1902627-1902725	-	99
140285	STM14_2200	378450400	+	1928329-1928535	hypothetical protein	1910154-1910360	+	207
140285	STM14_2219	378450419	-	1946749-1946859	hypothetical protein	1928574-1928684	-	111
140285	yobF	378450421	-	1947174-1947317	putative cytoplasmic protein	1928999-1929142	-	144
140285	STM14_2222	378450422	+	1947434-1947541	hypothetical protein	1929259-1929366	+	108
140285	STM14_2223	378450423	+	1947556-1947696	hypothetical protein	1929381-1929521	+	141
140285	STM14_2224	378450424	-	1947624-1947740	hypothetical protein	1929449-1929565	-	117
140285	STM14_2225	378450425	-	1947966-1948253	hypothetical protein	1929791-1930078	-	288
140285	yobG	378450426	-	1948324-1948467	hypothetical protein	1930149-1930292	-	144

140285	STM14_2803	378450980	-	2425164-2425280	hypothetical protein	2397277-2397393	-	117
140285	STM14_2805	378450982	+	2427980-2428210	hypothetical protein	2400093-2400323	+	231
140285	STM14_2806	378450983	+	2428153-2428293	hypothetical protein	2400266-2400406	+	141
140285	STM14_2811	378450988	+	2432657-2432773	hypothetical protein	2404770-2404886	+	117
140285	STM14_2822	378450999	+	2445948-2446052	hypothetical protein	2418061-2418165	+	105
140285	STM14_2823	378451000	+	2446155-2446358	hypothetical protein	2418268-2418471	+	204
140285	STM14_2834	378451011	+	2455277-2455405	hypothetical protein	2427390-2427518	+	129
140285	elaB	378451026	-	2470331-2470642	hypothetical protein	2442444-2442755	-	312
ST474	STM474_2412	379701547	-	2421293-2421412	hypothetical protein	2447243-2447362	-	120
140285	STM14_2854	378451030	-	2475407-2475529	hypothetical protein	2447521-2447643	-	123
140285	STM14_2855	378451031	+	2475538-2475645	hypothetical protein	2447652-2447759	+	108
140285	STM14_2856	378451032	+	2475654-2475836	hypothetical protein	2447768-2447950	+	183
140285	nuoK	378451036	-	2481051-2481353	NADH dehydrogenase subunit K	2453165-2453467	-	303
140285	STM14_2870	378451046	+	2491031-2491153	hypothetical protein	2463145-2463267	+	133
140285	STM14_2871	378451047	-	2491241-2491357	hypothetical protein	2463355-2463471	-	117
140285	STM14_2880	378451056	-	2499179-2499430	hypothetical protein	2471293-2471544	-	252
140285	STM14_2881	378451057	+	2499320-2499454	hypothetical protein	2471434-2471568	+	135
140285	STM14_2890	378451066	+	2508681-2508854	hypothetical protein	2480795-2480968	+	174
140285	STM14_2902	378451078	+	2517875-2518045	hypothetical protein	2489989-2490159	+	171
140285	STM14_2911	378451087	-	2527947-2528102	hypothetical protein	2500061-2500216	-	156
140285	STM14_2921	378451097	+	2537322-2537438	hypothetical protein	2509436-2509552	+	117
140285	STM14_2940	378451116	+	2553683-2553823	hypothetical protein	2525797-2525937	+	141
140285	STM14_2941	378451117	-	2553820-2553948	hypothetical protein	2525934-2526062	-	129
T000240	STM14_2952	378984961	+	2507125-2507337	hypothetical protein	2535248-2535460	+	213
140285	STM14_2952	378451127	-	2565752-2565865	hypothetical protein	2537866-2537979	-	114
140285	STM14_2959	378451134	+	2575387-2575775	hypothetical protein	2545701-2545889	+	189
140285	STM14_2975	378451144	-	2584882-2585040	hypothetical protein	2556996-2557154	-	159
140285	STM14_2986	378451155	+	2595762-2595923	hypothetical protein	2567876-2568037	+	162
140285	STM14_2987	410023203	-	2595873-2595998	hypothetical protein	2567987-2568112	-	126
140285	STM14_2988	378451157	+	2595966-2596094	hypothetical protein	2568080-2568208	+	129
140285	STM14_3032	378451201	+	2633812-2634012	hypothetical protein	2605926-2606126	+	201
140285	STM14_3043	378451212	-	2645096-2645227	hypothetical protein	2617212-2617343	-	132
140285	STM14_3047	378451216	+	2650401-2650601	hypothetical protein	2622517-2622717	+	201
140285	STM14_3055	378451224	-	2657708-2658061	putative glycerate kinase	2629824-2630177	-	354
140285	STM14_3056	378451225	-	2657883-2658191	hypothetical protein	2629999-2630307	-	309
140285	STM14_3063	378451232	-	2664349-2664552	hypothetical protein	2637176-2637379	-	204
140285	STM14_3071	378451240	+	2672763-2672954	putative inner membrane protein	2645590-2645781	+	192
T000240	STM14_3079	378985065	+	2617191-2617382	putative cytoplasmic protein	2646146-2646337	+	192
140285	STM14_3079	378451248	+	2685671-2685784	hypothetical protein	2658498-2658611	+	114
140285	STM14_3080	378451249	+	2685675-2685857	hypothetical protein	2658502-2658684	+	183
140285	STM14_3081	378451250	-	2685854-2685967	hypothetical protein	2658681-2658794	-	114
ST474	STM474_2618	379701745	+	2646222-2646344	hypothetical protein	2672885-2673007	+	123
140285	STM14_3086	378451254	+	2702354-2702470	hypothetical protein	2675181-2675297	+	117
140285	STM14_3087	378451255	-	2702529-2702684	hypothetical protein	2675356-2675511	-	156
140285	STM14_3090	378451258	+	2704480-2704581	hypothetical protein	2677307-2677408	+	102
140285	STM14_3096	378451264	-	2710094-2710216	type IV pilus biogenesis/stability protein PilW	2682921-2683043	-	123
140285	STM14_3099	378451267	+	2712052-2712147	hypothetical protein	2684879-2684974	+	96
140285	STM14_3107	378451275	-	2725280-2725504	hypothetical protein	2698107-2698331	-	225
ST474	STM474_2636	379701763	+	2671480-2671593	hypothetical protein	2698143-2698256	+	114
140285	STM14_3109	378451277	-	2726253-2726387	hypothetical protein	2699080-2699214	-	135
140285	STM14_3119	378451287	+	2734356-2734475	hypothetical protein	2707183-2707302	+	120
140285	STM14_3122	378451290	+	2735856-2735978	hypothetical protein	2708683-2708805	+	123
140285	STM14_3123	378451291	-	2735883-2735993	hypothetical protein	2708710-2708820	-	111
140285	STM14_3134	378451302	-	2746625-2746771	hypothetical protein	2719452-2719598	-	147
140285	STM14_3144	378451312	+	2759420-2759548	hypothetical protein	2732247-2732375	+	129
140285	STM14_3146	378451314	+	2763716-2763949	hypothetical protein	2736543-2736776	+	234
140285	STM14_3165	378451333	-	2782226-2782354	hypothetical protein	2755053-2755181	-	129
ST474	STM474_2692	379701819	-	2729509-2729628	integrase, catalytic region	2756178-2756297	-	120
SL1344	SL1344_2548	378700486	-	2730253-2730318	bacteriophage protein	2756922-2756987	-	66
140285	STM14_1473	378449695	-	1321447-1322052	hypothetical protein	2765905-2766510	+	606
140285	STM14_3199	378451366	-	2812905-2813093	hypothetical protein	2785727-2785915	-	189
140285	STM14_3202	378451368	-	2814160-2814285	hypothetical protein	2786982-2787107	-	126
140285	STM14_3204	378451370	-	2815110-2815250	hypothetical protein	2787932-2788072	-	141
140285	STM14_3206	378451372	-	2815861-2816061	hypothetical protein	2788683-2788883	-	201
140285	STM14_3209	378451375	+	2816906-2817040	prophage DinI	2789728-2789862	+	135
140285	STM14_3216	378451382	-	2820999-2821259	hypothetical protein	2793821-2794081	-	261
140285	STM14_3229	378451395	+	2830868-2831005	hypothetical protein	2803690-2803827	+	138
140285	STM14_3230	378451396	-	2831002-2831118	hypothetical protein	2803824-2803940	-	117
140285	STM14_3235	378451401	-	2833834-2833998	hypothetical protein	2806656-2806820	-	165
140285	STM14_3236	378451402	-	2833998-2834177	hypothetical protein	2806820-2806999	-	180
140285	STM14_3239	378451405	-	2836525-2836725	putative methyltransferase	2809347-2809547	-	201
140285	STM14_3249	378451415	+	2846371-2846505	hypothetical protein	2819193-2819327	+	135
140285	STM14_3259	378451420	+	2855709-2855837	hypothetical protein	2828448-2828576	+	129
140285	STM14_3260	378451421	+	2855915-2856031	hypothetical protein	2828654-2828770	+	117
140285	STM14_3267	378451427	+	2861933-2862097	hypothetical protein	2834672-2834836	+	165
140285	STM14_3272	378451432	+	2866577-2866735	hypothetical protein	2839316-2839474	+	159
140285	STM14_3273	378451433	-	2866637-2866750	hypothetical protein	2839376-2839489	-	114
140285	STM14_3280	378451440	-	2870862-2871008	hypothetical protein	2843601-2843747	-	147
140285	STM14_3282	378451442	+	2872506-2872700	putative cytochrome c-type biogenesis protein (heme exporter)	2845245-2845439	+	195
UK1	STMUK_2717	378990059	-	2824344-2824538	putative cytoplasmic protein	2848831-2849025	-	195
140285	STM14_3291	378451450	-	2879362-2879469	hypothetical protein	2852102-2852209	-	108
140285	STM14_3295	378451454	+	2881056-2881160	hypothetical protein	2853796-2853900	+	105
140285	STM14_3296	378451455	-	2881388-2881540	hypothetical protein	2854128-2854280	-	153
140285	STM14_3301	378451459	-	2898012-2898236	hypothetical protein	2870752-2870976	-	225
140285	STM14_3312	378451470	-	2908421-2908582	hypothetical protein	2881161-2881322	-	162
140285	STM14_3324	378451481	-	2917712-2917867	hypothetical protein	2890452-2890607	-	156
140285	STM14_3326	378451483	-	2919626-2919739	hypothetical protein	2892366-2892479	-	114
ST474	STM474_2898	379702018	-	2927700-2927858	hypothetical protein	2898099-2898257	-	159
T000240	STM14_3340	378985362	-	2935935-2936111	hypothetical protein	2905354-2905530	-	177
140285	STM14_3340	378451496	+	2935806-2935976	hypothetical protein	2908556-2908726	+	171
140285	STM14_3341	378451497	-	2936002-2936229	hypothetical protein	2908752-2908979	-	228
140285	STM14_3342	378451498	-	2936297-2936449	hypothetical protein	2909047-2909199	-	153
140285	STM14_3343	378451499	+	2936325-2936507	hypothetical protein	2909075-2909257	+	183

14028S	STM14_5413	378453480	+	4775969-4776121	hypothetical protein	4785126-4785278	+	153
14028S	STM14_5415	378453482	+	4776954-4777076	hypothetical protein	4786111-4786233	+	123
14028S	STM14_5416	378453483	-	4776976-4777107	hypothetical protein	4786133-4786264	-	132
14028S	STM14_5426	378453493	-	4786173-4786316	hypothetical protein	4795330-4795473	-	144
14028S	STM14_5427	378453494	+	4786386-4786523	hypothetical protein	4795543-4795680	+	138
14028S	STM14_5429	378453496	-	4787107-4787220	hypothetical protein	4796252-4796365	-	114
ST474	STM474_4722	379703761	-	4794952-4795101	hypothetical protein	4796346-4796495	-	150
14028S	yjiS	378453499	+	4788866-4789030	putative cytoplasmic protein	4798011-4798175	+	165
14028S	STM14_5435	378453502	-	4790281-4790412	hypothetical protein	4799426-4799557	-	132
14028S	STM14_5440	378453507	+	4798305-4798442	hypothetical protein	4807450-4807587	+	138
14028S	STM14_5447	378453514	-	4804689-4804838	hypothetical protein	4813834-4813983	-	150
14028S	STM14_5455	378453522	+	4812431-4812535	hypothetical protein	4821576-4821680	+	105
14028S	STM14_5462	378453529	-	4818419-4818574	hypothetical protein	4827564-4827719	-	156
14028S	STM14_5468	378453535	+	4823006-4823134	hypothetical protein	4832151-4832279	+	129
14028S	STM14_5474	378453538	+	4824998-4825105	hypothetical protein	4834143-4834250	+	108
14028S	STM14_5479	378453543	+	4828502-4828636	hypothetical protein	4837647-4837781	+	135
14028S	STM14_5481	378453545	+	4829440-4829619	hypothetical protein	4838575-4838754	+	180
14028S	STM14_5486	378453550	+	4833992-4834120	hypothetical protein	4843127-4843255	+	129
14028S	STM14_5496	378453560	+	4843995-4844144	hypothetical protein	4853130-4853279	+	150
ST474	smp	379703819	+	4853656-4853805	phosphoserine phosphatase	4855043-4855192	+	150

Genome name	Gene Name	GI	Reference details			Gene annotated in SL1344		
			Strand	CDS-region	Product	Coordinate	Strand	Length (bp)
140285	STM14_0012	378448286	+	11257-11424	hypothetical protein	11257-11424	+	168
140285	STM14_0015	378448289	+	14845-14958	hypothetical protein	14845-14958	+	114
140285	STM14_0020	378448294	+	17613-17741	hypothetical protein	17613-17741	-	129
140285	STM14_0021	378448295	+	17665-17787	hypothetical protein	17665-17787	+	123
140285	STM14_0024	378448298	+	23091-23240	hypothetical protein	23091-23240	+	150
140285	STM14_0026	378448300	+	24094-24198	hypothetical protein	24094-24198	-	105
140285	STM14_0027	378448301	+	24315-24426	hypothetical protein	24315-24426	+	111
140285	STM14_0040	378448317	+	34828-34974	hypothetical protein	34828-34974	+	147
140285	STM14_0057	378448331	+	57203-57334	hypothetical protein	57203-57334	+	132
140285	STM14_0068	378448342	+	68513-68671	hypothetical protein	68513-68671	-	159
140285	STM14_0076	378448350	+	74964-75239	hypothetical protein	74967-75242	-	276
140285	STM14_0089	378448363	+	89119-89328	hypothetical protein	88410-88619	+	210
ST474	STM474_0083	379699298	+	92031-92228	hypothetical protein	92031-92228	-	198
140285	STM14_0097	378448371	+	95263-95379	hypothetical protein	94554-94670	-	117
140285	STM14_0102	378448376	+	98738-99019	hypothetical protein	98029-98310	+	282
140285	STM14_0105	378448379	-	101349-101474	hypothetical protein	100640-100765	-	126
140285	STM14_0113	378448387	+	108892-109053	hypothetical protein	108183-108344	-	162
140285	STM14_0128	378448402	-	127427-127546	putative lipoprotein	126718-126837	-	120
140285	STM14_0130	378448404	+	129166-129492	hypothetical protein	128457-128783	-	327
ST474	STM474_0114	379699329	+	128578-128724	hypothetical protein	128578-128724	+	147
ST474	STM474_0115	379699330	+	128926-129039	hypothetical protein	128926-129039	+	114
140285	STM14_0136	378448410	+	134689-134793	hypothetical protein	133980-134084	-	105
140285	STM14_0137	378448411	+	135067-135210	hypothetical protein	134358-134501	+	144
140285	STM14_0141	378448415	+	138755-138877	hypothetical protein	138046-138168	-	123
LT2	STM04630	409994397	+	139338-139487	hypothetical protein	139341-139490	-	150
140285	STM14_0143	378448417	+	140204-140338	hypothetical protein	139495-139629	-	135
140285	STM14_0144	378448418	+	140406-140633	hypothetical protein	139787-139924	+	138
140285	STM14_0165	378448438	+	162875-162929	LysR family transcriptional regulator	162166-162270	+	105
140285	STM14_0173	378448446	+	168890-169072	hypothetical protein	168181-168363	-	183
140285	STM14_0179	378448452	+	173962-174090	hypothetical protein	173253-173381	-	129
140285	STM14_0181	378448454	+	175672-175794	hypothetical protein	174963-175085	+	123
140285	STM14_0186	378448459	+	183222-183350	hypothetical protein	182513-182641	+	129
140285	STM14_0215	378448487	+	213058-213171	hypothetical protein	212350-212463	-	114
140285	STM14_0224	378448496	+	221426-221587	hypothetical protein	220718-220879	+	162
140285	STM14_0225	378448497	+	221522-221629	hypothetical protein	220814-220921	-	108
140285	STM14_0227	378448499	+	224289-224429	hypothetical protein	223581-223721	-	141
140285	STM14_0232	378448504	+	230459-230665	hypothetical protein	229751-229957	+	207
140285	STM14_0233	378448505	+	231001-231144	hypothetical protein	230293-230436	+	144
140285	STM14_0242	378448514	+	239222-239365	hypothetical protein	238514-238657	+	144
140285	STM14_0256	378448527	+	254799-255083	30S ribosomal protein S2	254090-254374	+	285
140285	STM14_0262	378448533	+	259830-260033	hypothetical protein	259121-259324	+	204
140285	STM14_0292	378448562	+	289616-289819	hypothetical protein	288907-289110	-	204
140285	STM14_0310	378448574	+	304859-304966	hypothetical protein	304150-304257	-	108
140285	STM14_0312	378448575	+	305167-305274	hypothetical protein	304458-304565	+	108
140285	STM14_0322	378448585	+	316755-316865	invasol Sra	316046-316156	+	111
140285	STM14_0337	378448600	+	330303-330512	hypothetical protein	329594-329803	+	210
140285	STM14_0343	378448606	+	339144-339275	hypothetical protein	337931-338068	+	132
140285	STM14_0344	378448607	+	339345-339485	hypothetical protein	338138-338278	+	141
140285	STM14_0346	378448609	+	340013-340288	hypothetical protein	338806-339081	-	276
LT2	STM04655	409994398	+	339629-339871	hypothetical protein	339107-339349	-	243
ST474	STM474_0312	379699516	+	341562-341681	hypothetical protein	341562-341681	+	120
140285	STM14_0357	378448617	+	348560-348820	hypothetical protein	347353-347613	+	261
D23580	STMWW_03133	378443750	+	348247-348378	putative transposase	347754-347885	+	132
140285	STM14_0361	378448621	-	351322-351450	hypothetical protein	350115-350243	-	129
140285	STM14_0377	378448636	+	366783-366953	hypothetical protein	365576-365728	+	153
UK1	STMUK_0331	378987726	+	361332-369353	putative inner membrane protein	368636-368857	+	222
140285	STM14_0397	378448654	+	385733-385843	hypothetical protein	384526-384636	-	111
140285	STM14_0403	378448660	-	390802-390939	hypothetical protein	389595-389732	-	138
140285	STM14_0411	378448668	+	399120-399233	hypothetical protein	397913-398026	+	114
140285	STM14_0415	378448672	+	402243-402422	putative metal-binding transport protein	401036-401215	+	180
140285	STM14_0419	378448676	+	409084-409218	hypothetical protein	407877-408011	+	135
140285	STM14_0420	378448677	+	409118-409237	hypothetical protein	407911-408030	-	120
140285	STM14_0430	378448687	+	418467-418640	hypothetical protein	417260-417433	+	174
140285	STM14_0436	378448693	+	425565-425684	hypothetical protein	424358-424477	+	120
140285	STM14_0437	378448694	+	426755-425827	hypothetical protein	424468-424620	-	153
140285	STM14_0441	378448698	+	430751-430929	hypothetical protein	429544-429702	-	159
140285	STM14_0442	378448699	+	430925-431059	hypothetical protein	429718-429852	+	135
140285	STM14_0446	378448703	+	433714-433827	hypothetical protein	432507-432620	+	114
140285	STM14_0451	378448708	+	437620-437742	hypothetical protein	436413-436535	+	123
140285	STM14_0453	378448710	+	438082-438243	hypothetical protein	436875-437036	-	162
140285	STM14_0457	378448714	+	440792-440941	hypothetical protein	439585-439734	+	150
140285	STM14_0464	378448721	+	444556-444687	hypothetical protein	443349-443480	-	132
000240	STM012_C04560	378982997	+	482933-483049	hypothetical protein	444374-444490	+	117
140285	STM14_0469	378448726	+	451315-451446	hypothetical protein	450108-450239	-	132
140285	STM14_0472	378448729	+	453755-453904	hypothetical protein	452548-452697	-	150
140285	STM14_0479	378448736	+	461340-461450	DNA metabolism protein	460133-460243	+	111
140285	STM14_0487	378448744	+	467631-467846	hypothetical protein	466424-466639	+	216
D23580	STMWW_04821	378443916	+	507659-507985	hypothetical protein	466642-466968	-	327
ST474	STM474_0431	379699631	+	466787-466939	hypothetical protein	466787-466939	+	153
140285	STM14_0491	378448747	+	469965-470111	hypothetical protein	468758-468904	+	147
140285	STM14_0498	378448754	+	473976-474284	hypothetical protein	472769-473077	+	309
140285	STM14_0509	378448765	+	484792-484902	hypothetical protein	483585-483695	-	111
ST474	STM474_0464	379699664	+	497880-498002	hypothetical protein	497880-498002	-	123
140285	STM14_0526	378448781	+	501468-501653	hypothetical protein	500261-500446	+	186
140285	STM14_0528	378448783	+	502053-502166	hypothetical protein	500846-500959	+	114
140285	STM14_0531	378448785	+	504670-504774	hypothetical protein	503463-503569	+	105
140285	STM14_0536	378448791	+	511028-511390	hypothetical protein	509821-510183	-	363
140285	STM14_0562	378448816	+	535085-535210	hypothetical protein	533879-534004	-	126
140285	ybaN	378448821	+	540406-540783	hypothetical protein	539200-539577	+	378
140285	STM14_0573	378448827	+	546597-546818	hypothetical protein	545391-545612	-	222
140285	STM14_0575	378448829	+	547392-547598	hypothetical protein	546186-546392	+	207
140285	STM14_0580	378448834	+	552798-552923	hypothetical protein	551592-551717	+	126
140285	STM14_0597	378448851	+	570227-570331	hypothetical protein	569021-569125	+	105
140285	STM14_0599	378448853	+	571546-571650	hypothetical protein	570340-570444	-	105
140285	STM14_0633	378448887	+	604316-604444	hypothetical protein	603110-603238	-	129
140285	STM14_0634	378448888	+	604400-604555	hypothetical protein	603194-603349	+	156
140285	STM14_0645	378448899	+	614019-614189	hypothetical protein	612813-612983	+	171
140285	STM14_0647	378448900	+	614287-614475	integrase	613081-613269	-	189
140285	STM14_0649	378448901	+	615283-615441	hypothetical protein	614077-614235	+	159
140285	STM14_0659	378448908	+	622266-622520	hypothetical protein	621060-621314	-	255
140285	STM14_0665	378448914	+	627603-627788	hypothetical protein	626397-626582	+	186
140285	STM14_0677	378448926	+	639577-639684	hypothetical protein	638371-638478	+	108
140285	STM14_0683	378448932	+	644504-644635	hypothetical protein	643298-643429	-	132
140285	STM14_0698	378448947	+	661861-661971	hypothetical protein	660655-660765	+	111
140285	STM14_0714	378448963	+	678228-678434	hypothetical protein	677220-677426	+	207

14028S	STM14_0715	378448964	-	678399-678539	hypothetical protein	677391-677531	-	141
14028S	STM14_0726	378448975	+	688331-688513	hypothetical protein	687323-687505	+	183
14028S	STM14_0730	378448979	+	692333-692443	hypothetical protein	691325-691435	+	111
14028S	STM14_0735	378448984	+	694969-695076	hypothetical protein	693961-694068	+	108
14028S	STM14_0738	378448987	+	696364-696498	hypothetical protein	695356-695490	+	135
14028S	STM14_0740	378448989	+	697584-697727	hypothetical protein	696576-696719	+	144
14028S	STM14_0742	378448991	+	698354-698719	hypothetical protein	697346-697711	+	366
14028S	STM14_0745	378448994	+	700128-700277	hypothetical protein	699120-699269	+	150
T000240	STM00240_C07050	378489346	+	742985-743125	hypothetical protein	740342-740482	+	141
14028S	STM14_0774	378449022	+	730309-730596	hypothetical protein	729223-729510	+	288
14028S	STM14_0777	378449025	+	733102-733251	hypothetical protein	732016-732165	+	150
14028S	STM14_0780	378449028	+	734838-734957	hypothetical protein	733752-733871	+	120
14028S	STM14_0791	378449032	+	739310-739477	hypothetical protein	738224-738391	+	168
14028S	STM14_0797	378449038	+	745470-745595	hypothetical protein	744384-744509	+	126
14028S	STM14_0800	378449041	+	749621-749734	hypothetical protein	748535-748648	+	114
14028S	STM14_0801	378449042	+	749864-750154	hypothetical protein	748778-749068	+	291
14028S	STM14_0809	378449050	+	757442-757591	hypothetical protein	756356-756505	+	150
14028S	STM14_0812	378449053	+	758607-758720	hypothetical protein	757521-757634	+	114
14028S	STM14_0819	378449060	+	766193-766318	hypothetical protein	765107-765232	+	126
14028S	STM14_0820	378449061	+	766472-766585	hypothetical protein	765386-765499	+	114
14028S	STM14_0826	378449067	+	774532-774729	K ⁺ -transporting ATPase subunit F	773446-773643	+	198
T000240	STM00240_C07730	378983314	-	820062-820163	hypothetical protein	820643-780744	-	102
14028S	STM14_0859	378449100	+	808472-808597	hypothetical protein	807386-807511	+	126
ST474	STM474_0763	379699951	+	807598-807723	hypothetical protein	807598-807723	+	126
ST474	STM474_0764	379699952	+	808597-808710	hypothetical protein	808597-808710	+	114
14028S	STM14_0860	378449101	-	809819-809962	hypothetical protein	808733-808876	-	144
14028S	STM14_0864	378449105	+	812877-813017	hypothetical protein	811791-811931	+	141
14028S	STM14_0873	378449114	+	818715-819254	hypothetical protein	817629-818168	+	540
14028S	STM14_0875	378449115	+	819027-820322	hypothetical protein	819341-819482	+	96
14028S	STM14_0897	378449132	+	837473-837664	hypothetical protein	836389-836578	+	190
14028S	STM14_0903	378449138	+	843123-843230	hypothetical protein	842037-842144	+	108
ST474	STM474_0818	379700001	+	857899-858006	hypothetical protein	857899-858006	+	114
14028S	STM14_0924	378449158	+	864209-864493	hypothetical protein	863123-863407	+	285
14028S	STM14_0925	378449159	+	864550-864777	hypothetical protein	863464-863691	+	228
14028S	STM14_927	378449161	+	867104-867277	putative cytoplasmic protein	866018-866191	+	174
14028S	STM14_946	378449180	+	881747-881884	hypothetical protein	879950-880087	+	138
14028S	STM14_952	378449186	+	888006-888110	hypothetical protein	886209-886313	+	105
14028S	STM14_956	378449190	+	891948-892067	hypothetical protein	890151-890270	+	120
14028S	STM14_958	378449192	+	892325-892444	hypothetical protein	890528-890647	+	120
14028S	STM14_961	378449195	+	895674-895811	hypothetical protein	893883-894020	+	138
14028S	STM14_965	378449199	+	898059-898181	hypothetical protein	896268-896390	+	123
14028S	STM14_967	378449201	+	899158-899316	hypothetical protein	897367-897525	+	159
14028S	STM14_969	378449203	+	900254-900415	hypothetical protein	898463-898624	+	162
14028S	STM14_970	378449204	+	900375-900506	hypothetical protein	898584-898715	+	132
14028S	STM14_973	378449207	+	902910-903080	hypothetical protein	901119-901289	+	171
14028S	STM14_974	378449208	+	903009-903137	hypothetical protein	901218-901346	+	129
14028S	STM14_982	378449216	+	911396-911509	hypothetical protein	909605-909718	+	114
14028S	STM14_986	378449220	+	915878-916033	hypothetical protein	914087-914242	+	156
14028S	STM14_989	378449223	+	917997-918137	hypothetical protein	916206-916346	+	141
14028S	STM14_995	378449232	+	924480-924599	hypothetical protein	922689-922808	+	120
14028S	STM14_997	378449231	+	925933-926067	hypothetical protein	924142-924276	+	135
14028S	STM14_999	378449233	+	926622-926762	hypothetical protein	924831-924971	+	141
14028S	STM14_1000	378449234	+	926970-927134	hypothetical protein	925179-925343	+	165
14028S	STM14_1006	378449239	+	931103-931243	hypothetical protein	929312-929452	+	141
14028S	STM14_1010	378449243	+	934780-934917	hypothetical protein	932989-933126	+	138
14028S	STM14_1019	378449251	+	942902-943027	hypothetical protein	941111-941236	+	126
14028S	STM14_1034	378449266	+	955378-955569	hypothetical protein	953586-953777	+	192
14028S	STM14_1038	378449270	+	958765-958965	hypothetical protein	956973-957173	+	201
14028S	STM14_1053	378449285	+	972908-973111	hypothetical protein	971116-971319	+	204
14028S	STM14_1055	378449287	+	973986-974153	hypothetical protein	972194-972361	+	168
14028S	STM14_1060	378449292	+	980013-980138	hypothetical protein	978221-978346	+	126
14028S	STM14_1061	378449293	+	980033-980176	hypothetical protein	978241-978384	+	144
14028S	STM14_1067	378449299	+	984062-984343	hypothetical protein	982270-982551	+	282
14028S	STM14_1069	378449301	+	985102-985260	hypothetical protein	983310-983468	+	159
14028S	STM14_1081	378449312	+	994689-994946	hypothetical protein	992897-993154	+	258
14028S	STM14_1082	378449313	+	994867-995142	hypothetical protein	993075-993350	+	276
14028S	STM14_1087	378449318	+	1001941-1002111	hypothetical protein	1000149-1000319	+	171
14028S	STM14_1092	378449323	+	1007647-1007754	hypothetical protein	1006295-1006592	+	108
14028S	STM14_1093	378449324	+	1007837-1007968	hypothetical protein	1006045-1006392	+	108
14028S	STM14_1102	378449333	+	1018831-1018959	hypothetical protein	1017039-1017167	+	119
14028S	STM14_1104	378449335	+	1019641-1019754	hypothetical protein	1017849-1017962	+	124
14028S	STM14_1108	378449339	+	1023127-1023381	hypothetical protein	1021335-1021589	+	255
14028S	STM14_1118	378449349	+	1033792-1033944	hypothetical protein	1032000-1032152	+	153
14028S	STM14_1129	378449360	+	1047995-1048126	hypothetical protein	1046203-1046334	+	132
14028S	STM14_1131	378449362	+	1049521-1049673	hypothetical protein	1047729-1047881	+	153
14028S	STM14_1133	378449364	+	1051307-1051426	hypothetical protein	1049515-1049634	+	120
14028S	STM14_1135	378449366	+	1051897-1052118	hypothetical protein	1050105-1050326	+	222
14028S	STM14_1137	378449368	+	1053504-1053662	hypothetical protein	1051712-1051870	+	159
ST474	STM474_0999	379700176	+	1061436-1061582	hypothetical protein	1061436-1061582	+	147
ST474	STM474_1001	379700178	+	1061983-1062096	hypothetical protein	1061983-1062096	+	114
14028S	STM14_1149	378449380	+	1063939-1064178	hypothetical protein	1062147-1062386	+	240
14028S	STM14_1157	378449388	+	1068009-1068230	hypothetical protein	1066217-1066438	+	222
14028S	STM14_1159	378449390	+	1068921-1069121	hypothetical protein	1067129-1067329	+	201
D23580	STM00240_C1022	378444470	+	1114868-1115074	prophage protein	1075559-1075765	+	207
14028S	STM14_1189	378449420	+	1094525-1094767	hypothetical protein	1092733-1092975	+	243
ST474	STM474_1045	379700222	+	1098631-1098666	hypothetical protein	1098511-1098666	+	126
14028S	STM14_1201	378449431	+	1106320-1106445	hypothetical protein	1104297-1104422	+	156
14028S	STM14_1209	378449439	+	1105818-1116021	hypothetical protein	1103796-1113999	+	204
14028S	STM14_1216	378449446	+	1121248-1121352	hypothetical protein	1119226-1119330	+	105
T000240	STM00240_C11030	378983644	+	1169756-1169860	hypothetical protein	1128393-1128497	+	105
14028S	STM14_1234	378449463	+	1135671-1135796	hypothetical protein	1133649-1133774	+	126
14028S	STM14_1245	378449474	+	1143361-1143543	hypothetical protein	1141339-1141521	+	183
14028S	STM14_1249	378449478	+	1146275-1146388	hypothetical protein	1144253-1144366	+	114
14028S	STM14_1254	378449483	+	1150549-1150701	hypothetical protein	1148527-1148679	+	153
14028S	STM14_1260	378449489	+	1155618-1155782	hypothetical protein	1153596-1153760	+	165
14028S	STM14_1262	378449491	+	1156832-1156987	hypothetical protein	1154810-1154965	+	156
14028S	STM14_1265	378449494	+	1158383-1158577	hypothetical protein	1156361-1156555	+	195
14028S	STM14_1273	378449502	+	1164294-1164521	hypothetical protein	1162272-1162499	+	228
14028S	STM14_1279	378449506	+	1170030-1170278	hypothetical protein	1168008-1168256	+	249
14028S	STM14_1280	378449507	+	1170167-1170286	hypothetical protein	1168145-1168264	+	120
14028S	STM14_1282	378449509	+	1172347-1172457	hypothetical protein	1170325-1170435	+	111
14028S	STM14_1283	378449510	+	1172451-1172747	hypothetical protein	1170429-1170725	+	297
14028S	STM14_1286	378449512	+	1174679-1174783	hypothetical protein	1172657-1172761	+	105
14028S	STM14_1288	378449514	+	1176314-1176421	hypothetical protein	1174292-1174399	+	108
14028S	STM14_1289	378449515	+	1176396-1176605	hypothetical protein	1174374-1174583	+	210
14028S	STM14_1291	378449517	+	1177413-1177520	hypothetical protein	1175391-1175498	+	108
14028S	STM14_1292	378449518	+	1177573-1177704	hypothetical protein	1175551-1175682	+	132

140285	STM14_1298	378449523	-	1183064-1183228	hypothetical protein	1181042-1181206	-	165
140285	STM14_1307	378449532	-	1188559-1188696	hypothetical protein	1186537-1186674	-	138
140285	STM14_1308	378449533	-	1188894-1189040	hypothetical protein	1186872-1187018	-	147
140285	STM14_1316	378449541	-	1194339-1194509	hypothetical protein	1192318-1192488	-	171
140285	STM14_1322	378449547	+	1200601-1201062	hypothetical protein	1198580-1199041	+	462
140285	STM14_1327	378449552	+	1204177-1204380	hypothetical protein	1202156-1202359	+	204
140285	STM14_1339	378449564	+	1212983-1213159	hypothetical protein	1210962-1211138	-	177
140285	STM14_1344	378449569	+	1216241-1216396	flagellin basal body P-ring biosynthesis protein FlaG	1214420-1214373	-	156
140285	STM14_1356	378449581	-	1226285-1226474	hypothetical protein	1224259-1224403	-	185
140285	STM14_1376	378449600	-	1244261-1244398	hypothetical protein	1242240-1242377	-	138
140285	STM14_1390	378449614	-	1256910-1257065	hypothetical protein	1254889-1255044	-	156
140285	STM14_1399	378449623	-	1267794-1267916	hypothetical protein	1265773-1265895	-	123
140285	STM14_1401	378449625	-	1269076-1269240	hypothetical protein	1267055-1267219	-	165
140285	STM14_1487	378449708	-	1337214-1337372	hypothetical protein	1284092-1284250	-	159
140285	STM14_1488	378449709	+	1337312-1337452	hypothetical protein	1284190-1284330	+	141
140285	STM14_1489	378449710	+	1337337-1337585	hypothetical protein	1284215-1284463	+	249
LT2	STM05040	409994415	-	1327664-1327867	hypothetical protein	1284517-1284720	-	204
140285	STM14_1494	378449714	-	1340405-1340575	hypothetical protein	1287283-1287453	-	171
140285	STM14_1496	378449716	-	1341060-1341188	hypothetical protein	1287938-1288066	-	129
140285	STM14_1499	378449718	+	1341718-1341825	hypothetical protein	1288596-1288703	+	108
140285	STM14_1500	378449719	-	1342043-1342192	hypothetical protein	1288921-1289070	-	150
140285	STM14_1502	378449721	-	1342962-1343096	hypothetical protein	1289840-1289974	-	135
140285	STM14_1506	378449723	-	1344493-1344636	hypothetical protein	1291371-1291514	-	144
140285	STM14_1507	378449724	+	1344742-1344867	putative lipoprotein	1291620-1291745	+	126
ST474	STM474_1249	379700419	-	1291877-1292050	hypothetical protein	1291877-1292050	-	174
140285	STM14_1510	378449727	-	1346067-1346216	putative inner membrane protein	1292945-1293094	-	150
140285	STM14_1514	378449731	-	1348508-1348666	hypothetical protein	1295386-1295544	-	159
140285	STM14_1524	378449740	-	1356451-1356600	hypothetical protein	1303329-1303478	-	150
140285	STM14_1528	378449744	+	1362977-1362977	hypothetical protein	1303585-1303607	+	225
140285	STM14_1537	378449749	-	1361225-1361380	hypothetical protein	1308103-1308258	-	156
140285	STM14_1536	378449752	-	1362034-1362159	hypothetical protein	1308911-1309036	-	126
140285	STM14_1540	378449756	-	1363413-1363529	hypothetical protein	1310290-1310406	-	117
140285	STM14_1541	378449757	-	1363501-1363599	hypothetical protein	1310378-1310476	-	99
140285	STM14_1545	378449761	-	1364743-1364856	hypothetical protein	1311620-1311733	-	114
140285	STM14_1546	378449762	+	1364774-1364911	hypothetical protein	1311651-1311788	+	138
140285	STM14_1550	378449766	+	1367385-1367522	hypothetical protein	1314262-1314399	+	138
140285	STM14_1551	378449767	+	1367589-1367696	putative inner membrane protein	1314466-1314573	+	108
140285	STM14_1554	378449770	+	1370048-1370245	hypothetical protein	1316925-1317122	+	192
140285	STM14_1555	378449771	+	1370136-1370267	salivary secreted protein	1317013-1317144	+	138
140285	STM14_1557	378449773	+	1371682-1371801	hypothetical protein	1318559-1318678	+	120
ST474	STM474_1289	379700457	+	1320526-1320669	hypothetical protein	1320526-1320669	+	144
140285	STM14_1559	378449775	-	1373854-1374027	hypothetical protein	1320730-1320903	-	174
140285	STM14_1566	378449782	+	1379655-1379795	hypothetical protein	1326531-1326671	+	141
140285	STM14_1569	378449785	+	1380898-1381002	hypothetical protein	1327775-1327879	+	105
140285	STM14_1572	378449788	+	1382785-1382889	hypothetical protein	1329662-1329766	+	105
140285	STM14_1581	378449797	+	1391859-1392038	hypothetical protein	1338736-1338915	+	180
140285	STM14_1587	378449803	+	1398234-1398449	hypothetical protein	1345111-1345226	+	216
ST474	STM474_1315	379700483	+	1347752-1347886	hypothetical protein	1347752-1347886	+	135
140285	STM14_1591	378449807	+	1400923-1401129	hypothetical protein	1347800-1348006	+	207
140285	STM14_1593	378449809	+	1401610-1401732	hypothetical protein	1348487-1348609	+	123
140285	STM14_1601	378449817	+	1409372-1409509	hypothetical protein	1356249-1356386	+	138
140285	STM14_1602	378449818	-	1409399-1409647	hypothetical protein	1356276-1356524	-	249
140285	STM14_1617	378449833	+	1421769-1421954	hypothetical protein	1368646-1368831	+	186
140285	STM14_1618	378449834	+	1421956-1422090	hypothetical protein	1368833-1368967	+	135
140285	STM14_1623	378449839	-	1425398-1425562	hypothetical protein	1372275-1372439	-	165
140285	STM14_1631	378449847	-	1432577-1432696	hypothetical protein	1379454-1379573	-	120
140285	STM14_1636	378449852	+	1436467-1436571	hypothetical protein	1383344-1383448	+	105
ST474	STM474_1353	379700521	+	1384122-1384307	hypothetical protein	1384122-1384307	+	186
140285	STM14_1638	378449854	-	1437586-1437699	hypothetical protein	1384463-1384576	-	114
140285	STM14_1645	378449861	-	1445506-1445658	hypothetical protein	1392383-1392535	-	153
140285	STM14_1652	378449868	+	1452598-1452744	hypothetical protein	1399474-1399620	+	147
140285	STM14_1653	378449869	-	1452728-1452838	hypothetical protein	1399604-1399714	-	111
140285	STM14_1658	378449873	-	1456308-1456475	hypothetical protein	1403184-1403351	-	168
ST474	STM474_1383	379700550	+	1418471-1418587	hypothetical protein	1418471-1418587	+	117
ST474	STM474_1395	379700562	+	1431868-1432002	hypothetical protein	1431868-1432002	+	135
140285	STM14_1685	378449900	-	1486016-1486129	hypothetical protein	1432892-1433005	-	114
140285	STM14_1692	378449907	+	1493140-1493517	hypothetical protein	1440286-1440393	+	108
140285	STM14_1719	378449934	+	1511477-1511603	hypothetical protein	1548662-1548779	+	126
140285	STM14_1728	378449943	+	1519191-1519352	hypothetical protein	1466047-1466328	+	281
140285	STM14_1751	378449964	+	1538110-1538277	hypothetical protein	1484986-1485153	+	168
140285	STM14_1761	410023179	-	1546024-1546179	hypothetical protein	1492900-1493055	-	156
140285	STM14_1764	378449977	+	1548438-1548683	hypothetical protein	1495314-1495559	+	246
140285	STM14_1771	378449982	+	1553745-1553906	fumarase A	1500621-1500782	+	162
140285	STM14_1776	378449987	-	1559385-1559690	outer membrane protein	1506261-1506566	-	306
140285	STM14_1782	378449992	-	1563882-1564016	putative amino acid permease	1510758-1510892	-	135
140285	STM14_1783	378449993	-	1563914-1564087	hypothetical protein	1510790-1510963	-	174
140285	STM14_1784	378449994	+	1564099-1564224	hypothetical protein	1510975-1511100	+	126
140285	STM14_1786	378449996	+	1565234-1565359	hypothetical protein	1512110-1512235	+	126
140285	STM14_1790	378450000	+	1569946-1570116	hypothetical protein	1516822-1516992	+	171
140285	STM14_1794	378450004	-	1571734-1572027	hypothetical protein	1518610-1518903	-	294
140285	STM14_1796	378450006	-	1572462-1572653	hypothetical protein	1519338-1519529	-	192
T000240	STMDT12_C14990	378984040	+	1560231-1560323	hypothetical protein	1519396-1519488	+	92
140285	STM14_1810	378450020	-	1586812-1587033	putative dimethyl sulfoxide reductase subunit A	1533688-1533909	-	223
140285	STM14_1816	378450026	-	1591641-1591757	hypothetical protein	1538517-1538633	-	117
ST474	STM474_1518	379700677	-	1542834-1542947	hypothetical protein	1542834-1542947	-	114
140285	STM14_1827	378450036	-	1601704-1601919	hypothetical protein	1548580-1548795	-	218
140285	STM14_1828	378450037	+	1601786-1601923	peptidyl-dipeptidase dcp	1548662-1548779	+	136
140285	STM14_1831	378450040	-	1602670-1603068	hypothetical protein	1549846-1549994	-	209
140285	STM14_1833	378450042	-	1603865-1604014	hypothetical protein	1550741-1550890	-	150
T000240	STMDT12_C15130	378984072	-	1591761-1591856	hypothetical protein	1550924-1551019	-	96
140285	STM14_1847	378450056	-	1615524-1615850	putative inner membrane protein	1562400-1562726	+	327
140285	STM14_1858	378450067	-	1625009-1625161	hypothetical protein	1571885-1572037	-	153
140285	STM14_1867	378450076	-	1634718-1634879	hypothetical protein	1581594-1581755	-	162
140285	STM14_1872	378450081	+	1637216-1637431	putative phage-related secreted protein	1584092-1584307	+	216
UK1	STMUK_1520	378988892	+	1587048-1587440	hypothetical protein	1585733-1586125	+	393
UK1	STMUK_1521	378988893	+	1587577-1587705	hypothetical protein	1586262-1586390	+	129
140285	STM14_1876	378450084	-	1639903-1640112	hypothetical protein	1586779-1586988	-	210
ST474	STM474_1578	379700736	-	1602385-1602519	hypothetical protein	1602385-1602519	-	135
140285	STM14_1890	378450098	+	1657503-1657634	hypothetical protein	1604379-1604510	+	132
140285	STM14_1895	378450103	+	1663489-1663641	hypothetical protein	1610365-1610517	+	153
140285	STM14_1897	378450105	-	1664885-1665067	hypothetical protein	1611761-1611943	-	183
140285	STM14_1902	378450110	+	1668962-1669093	hypothetical protein	1615838-1615969	+	132
140285	STM14_1904	378450112	-	1670559-1670702	hypothetical protein	1617435-1617578	-	144
140285	STM14_1911	378450119	-	1679194-1679457	hypothetical protein	1626070-1626333	-	264
140285	STM14_1913	378450121	+	1680178-1680390	hypothetical protein	1627054-1627266	+	213
140285	STM14_1914	378450122	+	1680335-1680472	hypothetical protein	1627211-1627348	+	138
140285	STM14_1915	378450123	+	1680342-1680476	hypothetical protein	1627218-1627352	+	135

140285	STM14_1919	378450127	-	1683664-1683783	hypothetical protein	1630540-1630659	-	120
140285	STM14_1922	378450130	+	1686850-1686969	hypothetical protein	1633726-1633845	+	120
140285	STM14_1923	378450131	+	1686958-1687080	hypothetical protein	1633834-1633956	+	123
140285	STM14_1932	410023183	+	1696611-1696706	hypothetical protein	1643487-1643582	+	96
140285	STM14_1933	378450141	+	1696703-1696807	hypothetical protein	1643579-1643683	+	105
140285	STM14_1939	378450147	+	1701681-1701785	hypothetical protein	1648557-1648661	+	105
140285	STM14_1950	378450158	+	1711642-1711749	hypothetical protein	1658518-1658625	+	108
140285	STM14_1961	378450169	+	1719701-1719814	hypothetical protein	1666577-1666690	+	114
140285	STM14_1967	378450173	+	1721480-1721695	hypothetical protein	1674356-1674571	+	216
T000240	STMDT12_C16480	378984189	+	1717552-1717677	hypothetical protein	1676714-1676839	+	126
ST474	STM474_1641	379700799	+	1676859-1677014	hypothetical protein	1676859-1677014	+	156
140285	STM14_1972	378450180	+	1731028-1731132	hypothetical protein	1677904-1678008	+	105
140285	STM14_1973	378450181	+	1731115-1731225	hypothetical protein	1677991-1678101	+	111
140285	STM14_1976	378450184	+	1733662-1733814	hypothetical protein	1680538-1680690	+	153
T000240	STMDT12_C16570	378984198	+	1726118-1726213	hypothetical protein	1685280-1685375	+	96
140285	STM14_1996	378450204	+	1755685-1755894	hypothetical protein	1702561-1702770	+	210
T000240	STMDT12_C16740	378984215	+	1744637-1744789	hypothetical protein	1703799-1703951	+	153
140285	STM14_2004	378450212	+	1762419-1762580	hypothetical protein	1709295-1709456	+	162
140285	STM14_2024	378450229	+	1779789-1779902	hypothetical protein	1726665-1726778	+	114
140285	STM14_2048	378450253	+	1800491-1800637	hypothetical protein	1746655-1746801	+	147
140285	STM14_2049	378450254	+	1800647-1800769	hypothetical protein	1746811-1746933	+	123
140285	STM14_2054	378450259	+	1803682-1803798	hypothetical protein	1749846-1749962	+	117
140285	STM14_2057	378450262	+	1807079-1807216	hypothetical protein	1753243-1753380	+	138
140285	STM14_2061	378450266	+	1810467-1810628	hypothetical protein	1756631-1756792	+	162
140285	STM14_2065	378450270	+	1812029-1812142	hypothetical protein	1758193-1758306	+	114
140285	STM14_2071	378450276	+	1818504-1818674	hypothetical protein	1764668-1764838	+	171
ST474	ymia	379700885	+	1764839-1764967	hypothetical protein	1764839-1764967	+	129
140285	STM14_2073	378450278	+	1820026-1820190	hypothetical protein	1766190-1766354	+	165
140285	STM14_2076	378450281	+	1823233-1823364	hypothetical protein	1769397-1769528	+	132
140285	STM14_2079	378450284	+	1824904-1825014	hypothetical protein	1771068-1771178	+	111
140285	trpI	378450289	+	1829100-1829144	trp operon leader peptide	1775264-1775308	+	45
140285	STM14_2102	378450306	+	1843241-1843414	hypothetical protein	1789405-1789578	+	174
140285	STM14_2117	378450320	+	1858398-1858580	hypothetical protein	1804562-1804744	+	183
140285	STM14_2123	378450326	+	1863160-1863279	hypothetical protein	1809324-1809443	+	120
140285	STM14_2128	378450328	+	1865980-1866144	hypothetical protein	1812144-1812308	+	165
140285	STM14_2133	378450333	+	1872924-1873043	hypothetical protein	1819088-1819207	+	120
140285	STM14_2135	378450335	+	1874718-1874903	hypothetical protein	1820882-1821067	+	186
140285	STM14_2148	378450348	+	1886567-1886695	hypothetical protein	1832731-1832859	+	129
140285	STM14_2151	378450351	+	1888181-1888351	hypothetical protein	1834345-1834515	+	171
140285	STM14_2152	378450352	+	1888329-1888433	hypothetical protein	1834493-1834597	+	105
140285	STM14_2158	378450358	+	1893588-1893701	hypothetical protein	1839752-1839865	+	114
140285	STM14_2160	378450360	+	1895293-1895421	hypothetical protein	1841457-1841585	+	129
140285	STM14_2171	378450371	+	1905555-1905662	hypothetical protein	1851719-1851826	+	108
140285	STM14_2180	378450380	+	1914824-1914934	hypothetical protein	1860988-1861098	+	111
140285	STM14_2187	378450387	+	1920441-1920557	hypothetical protein	1866605-1866721	+	117
140285	STM14_2189	378450389	+	1920801-1920899	hypothetical protein	1866965-1867063	+	99
140285	STM14_2200	378450400	+	1928329-1928535	hypothetical protein	1874492-1874698	+	207
140285	STM14_2211	378450411	+	1939453-1939788	putative cytoplasmic protein	1885616-1885951	+	336
140285	STM14_2219	378450419	+	1946749-1946859	hypothetical protein	1892912-1893032	+	111
140285	STM14_2222	378450422	+	1947434-1947541	hypothetical protein	1893597-1893704	+	108
140285	STM14_2223	378450423	+	1947556-1947696	hypothetical protein	1893719-1893859	+	141
140285	STM14_2224	378450424	+	1947624-1947740	hypothetical protein	1893787-1893903	+	117
T000240	STMDT12_C18620	378984403	+	1934900-1935001	hypothetical protein	1895123-1895224	+	102
140285	STM14_2229	378450429	+	1949871-1949978	hypothetical protein	1896034-1896141	+	108
140285	STM14_2238	378450438	+	1961391-1961522	hypothetical protein	1907554-1907685	+	132
ST474	STM474_1877	379701031	+	1908925-1909098	hypothetical protein	1908925-1909098	+	174
140285	STM14_2243	378450443	+	1963183-1963311	hypothetical protein	1909346-1909474	+	129
140285	STM14_2245	378450445	+	1964429-1964551	hypothetical protein	1910592-1910714	+	123
140285	STM14_2246	378450446	+	1964644-1964787	hypothetical protein	1910807-1910950	+	144
D23580	STM14_18461	378445260	+	1947071-1947241	hypothetical protein	1911409-1911579	+	171
140285	STM14_2250	378450450	+	1966960-1967154	hypothetical protein	1913123-1913317	+	195
ST474	STM474_1884	379701038	+	1913724-1913852	hypothetical protein	1913724-1913852	+	129
140285	STM14_2260	378450457	+	1973190-1973366	hypothetical protein	1919353-1919529	+	177
140285	STM14_2261	378450458	+	1973229-1973375	hypothetical protein	1919392-1919538	+	147
ST474	STM474_1893	379701046	+	1920052-1920177	arsenical pump membrane protein	1920052-1920177	+	126
140285	STM14_2263	378450459	+	1973981-1974151	hypothetical protein	1920144-1920314	+	171
140285	STM14_2264	378450460	+	1974277-1974393	tail fiber assembly protein	1920404-1920556	+	117
140285	STM14_2268	378450464	+	1976735-1976723	hypothetical protein	1922386-1922586	+	189
140285	STM14_2270	378450466	+	1976705-1976788	hypothetical protein	1922868-1923041	+	178
140285	STM14_2271	378450467	+	1976808-1976927	hypothetical protein	1922971-1923090	+	120
140285	STM14_2276	378450471	+	1979312-1979440	hypothetical protein	1925475-1925603	+	129
140285	STM14_2277	378450472	+	1979524-1979643	putative cytoplasmic protein	1925687-1925806	+	120
T000240	STMDT12_C19080	378984449	+	1972383-1972478	hypothetical protein	1934410-1934505	+	96
140285	STM14_2291	378450486	+	1990827-1990885	hypothetical protein	1936990-1937148	+	159
140285	STM14_2293	378450488	+	1992662-1992787	hypothetical protein	1938825-1938950	+	126
140285	STM14_2294	378450489	+	1992755-1992874	hypothetical protein	1938918-1939037	+	120
140285	STM14_2298	378450493	+	1996367-1996594	hypothetical protein	1942530-1942757	+	228
140285	STM14_2305	378450500	+	2002147-2002269	hypothetical protein	1948310-1948432	+	123
140285	STM14_2306	378450501	+	2002264-2002389	hypothetical protein	1948427-1948552	+	126
140285	STM14_2313	378450507	+	2008446-2008562	hypothetical protein	1954609-1954725	+	117
140285	STM14_2321	378450515	+	2013869-2013985	hypothetical protein	1960032-1960148	+	117
140285	STM14_2323	378450517	+	2015793-2015897	hypothetical protein	1961956-1962060	+	105
140285	STM14_2329	378450523	+	2022930-2023187	hypothetical protein	1969093-1969350	+	258
140285	STM14_2339	378450533	+	2032400-2032531	hypothetical protein	1978563-1978694	+	132
140285	STM14_2342	378450536	+	2033684-2033827	hypothetical protein	1979847-1979990	+	144
140285	STM14_2343	378450537	+	2034145-2034261	hypothetical protein	1980308-1980424	+	117
140285	STM14_2349	378450542	+	2038156-2038305	hypothetical protein	1984319-1984468	+	150
T000240	STMDT12_C19550	378984453	+	2022485-2022580	hypothetical protein	1984512-1984657	+	96
D23580	STM14_19262	378445334	+	2022476-2022553	hypothetical protein	1996534-1996611	+	78
140285	STM14_2366	378450556	+	2050620-2050775	putative inner membrane protein	1996783-1996938	+	156
140285	STM14_2379	378450569	+	2060568-2060705	hypothetical protein	2006731-2006868	+	138
140285	STM14_2389	378450579	+	2067774-2067902	hypothetical protein	2013937-2014065	+	129
140285	STM14_2411	378450600	+	2084253-2084468	hypothetical protein	2030416-2030631	+	216
ST474	STM474_2026	379701174	+	2034563-2034694	hypothetical protein	2034563-2034694	+	132
140285	STM14_2417	378450606	+	2088483-2088962	hypothetical protein	2035006-2035125	+	213
140285	STM14_2419	378450608	+	2090431-2090643	putative cold-shock protein	2036594-2036806	+	210
140285	STM14_2421	378450610	+	2091089-2091208	hypothetical protein	2037252-2037371	+	120
140285	STM14_2429	378450617	+	2095348-2095497	hypothetical protein	2041511-2041660	+	150
140285	STM14_2442	378450629	+	2106970-2107134	hypothetical protein	2053134-2053298	+	165
140285	STM14_2451	378450638	+	2112246-2112428	hypothetical protein	2058410-2058592	+	183
140285	STM14_2456	378450643	+	2115612-2115710	hypothetical protein	2061776-2061874	+	99
140285	STM14_2461	378450648	+	2117839-2117967	hypothetical protein	2064003-2064131	+	129
D23580	STM14_20121	378445417	+	2090064-2090498	phage protein	2064124-2064558	+	435
140285	STM14_2466	378450653	+	2112122-2112161	crossover junction protein	2067386-2067775	+	390
140285	STM14_2470	378450657	+	2123800-2124024	hypothetical protein	2069964-2070188	+	225
140285	STM14_2478	378450665	+	2125952-2125923	hypothetical protein	2075757-2075987	+	231
T000240	STMDT12_C20240	378984563	+	2079358-2079462	hypothetical protein	2081532-2081636	+	105

ST474	STM474_2085	379701227	-	2082744-2082878	hypothetical protein	2082744-2082878	-	135	
ST474	STM474_2089	379701231	+	2088148-2088282	hypothetical protein	2088148-2088282	+	135	
	798	UMN798_2172	383496723	+	2087536-2087634	hypothetical protein	2088175-2088273	-	99
140285	STM14_2493	378450677	+	2142163-2142336	hypothetical protein	2088327-2088500	+	174	
T000240	STMDT12_C20320	378984573	+	2086418-2086567	hypothetical protein	2088592-2088841	+	150	
ST474	STM474_2091	379701233	+	2088820-2088942	hypothetical protein	2088820-2088942	+	123	
D23580	STMWV_20421	378445447	+	2116462-2116623	hypothetical protein	2090522-2090683	+	162	
140285	STM14_2501	378450684	+	2147387-2147539	hypothetical protein	2093551-2093703	-	153	
140285	STM14_2524	378450706	+	2165668-2165799	hypothetical protein	2111832-2111983	+	132	
140285	STM14_2549	378450731	+	2185570-2185701	hypothetical protein	2131733-2131884	+	132	
140285	STM14_2556	378450738	+	2192950-2193219	hypothetical protein	2139113-2139282	-	270	
140285	STM14_2558	378450740	+	2195674-2195796	hypothetical protein	2141837-2141959	-	123	
140285	STM14_2561	378450743	+	2198729-2198896	hypothetical protein	2144892-2145059	+	168	
140285	STM14_2562	378450744	+	2198740-2198937	hypothetical protein	2144903-2145100	-	198	
140285	STM14_2599	378450781	+	2239941-2240216	hypothetical protein	2186104-2186279	+	276	
140285	STM14_2614	378450796	+	2254277-2254522	hypothetical protein	2200440-2200685	+	246	
140285	STM14_2619	378450801	+	2259828-2259998	hypothetical protein	2205991-2206161	-	171	
140285	STM14_2623	378450805	+	2265633-2265749	hypothetical protein	2211796-2211912	-	117	
140285	STM14_2635	378450816	+	2282708-2282821	hypothetical protein	2228871-2228984	-	114	
140285	STM14_2639	378450819	+	2285114-2285233	hypothetical protein	2232177-2231396	+	120	
140285	STM14_2649	378450829	+	2293497-2293682	hypothetical protein	2239660-2239845	-	186	
140285	STM14_2651	378450831	-	2294185-2294343	hypothetical protein	2240348-2240506	-	159	
ST474	STM474_2254	379701393	+	2258581-2258763	hypothetical protein	2258581-2258763	+	183	
140285	STM14_2671	378450851	+	2315124-2315237	hypothetical protein	2261287-2261400	-	114	
140285	STM14_2674	378450854	+	2317916-2318191	hypothetical protein	2264079-2264354	-	276	
140285	STM14_2676	378450856	+	2318810-2318917	hypothetical protein	2264973-2265080	+	108	
140285	STM14_2680	378450860	+	2322009-2322206	hypothetical protein	2268172-2268369	+	198	
140285	STM14_2697	378450877	+	2338065-2338184	hypothetical protein	2284228-2284347	+	120	
140285	STM14_2704	378450881	+	2343649-2343762	hypothetical protein	2286846-2286947	+	165	
140285	STM14_2705	378450885	+	2342720-2342848	hypothetical protein	2288812-2288925	+	114	
140285	STM14_2706	378450886	+	2342834-2343067	hypothetical protein	2288883-2289011	-	120	
140285	STM14_2710	378450890	+	2345635-2345787	hypothetical protein	2289997-2289230	+	234	
140285	STM14_2714	378450894	+	2349999-2350304	hypothetical protein	2291798-2291950	-	153	
140285	STM14_2716	378450896	+	2351963-2352097	hypothetical protein	2296162-2296467	+	306	
140285	STM14_2718	378450898	+	2352991-2353110	hypothetical protein	2298126-2298260	-	135	
ST474	STM474_2293	379701432	+	2300273-2300395	hypothetical protein	2299154-2299273	-	120	
140285	STM14_2724	378450904	+	2358928-2359059	hypothetical protein	2300273-2300395	-	123	
UK1	STMUK_2237	378989594	+	2307167-2307274	hypothetical protein	2305091-2305222	+	132	
140285	STM14_2725	378450905	+	2359144-2359266	hypothetical protein	2305138-2305245	-	108	
140285	STM14_2726	378450906	+	2359149-2359277	hypothetical protein	2305307-2305429	+	123	
140285	STM14_2730	378450910	+	2361472-2361576	hypothetical protein	2305312-2305440	-	129	
140285	STM14_2736	378450915	+	2364975-2365205	hypothetical protein	2307635-2307739	-	105	
140285	STM14_2738	378450917	+	2365897-2366040	hypothetical protein	2311138-2311368	-	231	
140285	STM14_2750	378450929	+	2378246-2378392	hypothetical protein	2312060-2312203	+	144	
T000240	STMDT12_C22520	378984793	+	2327280-2327405	hypothetical protein	2324409-2324555	-	147	
140285	STM14_2764	378450942	+	2389094-2389207	hypothetical protein	2329453-2329578	-	126	
140285	STM14_2774	378450952	+	2397715-2397861	hypothetical protein	2332527-2335370	-	114	
140285	STM14_2791	378450969	+	2411310-2411441	hypothetical protein	2343878-2344024	+	147	
140285	STM14_2798	378450976	+	2418131-2418256	hypothetical protein	2357473-2357604	+	132	
140285	STM14_2803	378450980	+	2425164-2425280	hypothetical protein	2364294-2364419	-	126	
140285	STM14_2805	378450982	+	2427980-2428210	hypothetical protein	2371327-2371443	-	117	
140285	STM14_2806	378450983	+	2428153-2428293	hypothetical protein	2374143-2374373	+	231	
140285	STM14_2811	378450988	+	2432657-2432773	hypothetical protein	2374316-2374456	+	141	
140285	STM14_2822	378450999	+	2445948-2446052	hypothetical protein	2378820-2378936	+	117	
140285	STM14_2823	378451000	+	2446155-2446358	hypothetical protein	2392111-2392215	+	105	
140285	STM14_2834	378451011	+	2455277-2455405	hypothetical protein	2392318-2392521	+	204	
ST474	STM474_2412	379701547	-	2421293-2421412	hypothetical protein	2401440-2401568	+	129	
140285	STM14_2854	378451030	+	2475407-2475529	hypothetical protein	2421293-2421412	-	120	
140285	STM14_2855	378451031	+	2475538-2475645	hypothetical protein	2421571-2421693	-	123	
140285	STM14_2856	378451032	+	2475654-2475836	hypothetical protein	2421702-2421809	+	108	
140285	STM14_2870	378451046	+	2491031-2491153	hypothetical protein	2421818-2422000	+	183	
140285	STM14_2871	378451047	+	2491241-2491357	hypothetical protein	2437195-2437317	+	123	
140285	STM14_2880	378451056	+	2499179-2499430	hypothetical protein	2437405-2437521	-	117	
140285	STM14_2881	378451057	+	2499320-2499454	hypothetical protein	2445343-2445594	-	252	
140285	STM14_2890	378451066	+	2508681-2508854	hypothetical protein	2445484-2445618	+	135	
140285	STM14_2902	378451078	+	2517875-2518045	hypothetical protein	2454845-2455018	+	174	
140285	STM14_2911	378451087	+	2527947-2528102	hypothetical protein	2464099-2464209	+	171	
140285	STM14_2921	378451097	+	2537322-2537438	hypothetical protein	2474111-2474282	+	156	
140285	STM14_2940	378451116	+	2553683-2553823	hypothetical protein	2483486-2483602	+	117	
140285	STM14_2941	378451117	+	2553820-2553948	hypothetical protein	2499847-2499987	-	149	
T000240	STMDT12_C24200	378984961	+	2507125-2507337	hypothetical protein	2499884-2500112	-	121	
140285	STM14_2952	378451127	+	2565752-2565865	hypothetical protein	2509298-2509510	+	213	
140285	STM14_2955	378451130	+	2569137-2569283	hypothetical protein	2511916-2512029	-	114	
140285	STM14_2959	378451134	+	2573587-2573775	hypothetical protein	2515301-2515447	-	147	
140285	STM14_2986	378451155	+	2595762-2595923	hypothetical protein	2519751-2519939	+	189	
140285	STM14_2987	410023203	+	2595873-2595998	hypothetical protein	2541926-2542087	+	162	
140285	STM14_2988	378451157	+	2595966-2596094	hypothetical protein	2542037-2542162	-	126	
140285	STM14_3032	378451201	+	2633812-2634012	hypothetical protein	2542130-2542258	+	129	
140285	STM14_3036	378451205	+	2637342-2637476	hypothetical protein	2579976-2580176	+	201	
140285	STM14_3043	378451212	+	2645096-2645227	hypothetical protein	2583506-2583640	-	135	
140285	STM14_3056	378451225	+	2657883-2658191	hypothetical protein	2591260-2591391	-	132	
140285	STM14_3063	378451232	+	2664349-2664552	hypothetical protein	2604047-2604355	-	309	
140285	STM14_3069	378451238	+	2672447-2672584	putative cytoplasmic protein	2610513-2610716	-	204	
140285	STM14_3072	378451241	+	2673033-2673269	putative inner membrane protein	2618611-2618748	-	138	
T000240	STMDT12_C25240	378985065	+	2617191-2617382	putative cytoplasmic protein	2619197-2619433	-	237	
140285	STM14_3079	378451248	+	2685671-2685784	hypothetical protein	2619483-2619674	+	192	
140285	STM14_3080	378451249	+	2685875-2685957	hypothetical protein	2631835-2631948	+	114	
140285	STM14_3081	378451250	+	2685854-2685967	hypothetical protein	2641839-2642023	+	183	
ST474	STM474_2618	379701765	+	2646222-2646344	hypothetical protein	2632018-2632131	-	114	
140285	STM14_3086	378451254	+	2702354-2702470	hypothetical protein	2646222-2646344	+	123	
140285	STM14_3087	378451255	+	2702529-2702684	hypothetical protein	2648518-2648634	+	117	
140285	STM14_3090	378451258	+	2704480-2704581	hypothetical protein	2648693-2648848	-	156	
140285	STM14_3096	378451264	+	2710094-2710216	type IV pilus biogenesis/stability protein PilW	2650644-2650745	+	102	
140285	STM14_3099	378451267	+	2712052-2712147	hypothetical protein	2656258-2656380	-	123	
140285	STM14_3107	378451275	+	2725280-2725504	hypothetical protein	2658216-2658311	+	96	
ST474	STM474_2636	379701763	+	2671480-2671593	hypothetical protein	2671444-2671668	-	225	
140285	STM14_3109	378451277	+	2726253-2726387	hypothetical protein	2671480-2671593	+	114	
140285	STM14_3119	378451287	+	2734356-2734475	hypothetical protein	2672417-2672551	-	135	
140285	STM14_3122	378451290	+	2735856-2735978	hypothetical protein	2680520-2680639	+	120	
140285	STM14_3123	378451291	+	2735883-2735993	hypothetical protein	2682020-2682142	+	123	
140285	STM14_3134	378451302	+	2746625-2746771	hypothetical protein	2682047-2682157	-	111	
140285	STM14_3144	378451312	+	2759420-2759548	hypothetical protein	2692789-2692935	-	147	
140285	STM14_3146	378451314	+	2763716-2763949	hypothetical protein	2705584-2705712	+	129	
140285	STM14_3165	378451333	+	2782226-2782354	hypothetical protein	2709880-2710113	+	234	
ST474	STM474_2692	379701819	+	2729509-2729628	integrase, catalytic region	2728390-2728518	-	129	
D23580	STMWV_26031	378446002	+	2757050-2757262	putative prophage protein	2729509-2729628	-	120	
						2730381-2730593	-	213	

140285	STM14_1473	378449695	-	1321447-1322052	hypothetical protein	2739236-2739841	+	606
140285	STM14_1167	410023163	+	1073250-1073585	hypothetical protein	2757552-2757887	-	336
140285	STM14_3197	378451364	+	2811771-2811908	hypothetical protein	2757924-2758061	+	138
140285	STM14_3199	378451366	-	2812905-2813093	hypothetical protein	2759058-2759246	-	189
140285	STM14_3202	378451368	-	2814160-2814285	hypothetical protein	2760313-2760438	-	126
140285	STM14_3209	378451375	+	2816906-2817040	prophage Dini	2763059-2763193	+	135
140285	STM14_1430	410023172	+	1293547-1293774	hypothetical protein	2768125-2768352	-	228
140285	STM14_1425	378449648	-	1290945-1291135	hypothetical protein	2770784-2770954	+	171
140285	STM14_3230	378451395	+	2830688-2831005	hypothetical protein	2777447-2777584	+	138
140285	STM14_3238	378451396	+	2831002-2831118	hypothetical protein	2777581-2777607	-	117
140285	STM14_3235	378451401	-	2832834-2833998	hypothetical protein	2780413-2780577	-	165
140285	STM14_3236	378451402	-	2833998-2834177	hypothetical protein	2780577-2780756	-	180
140285	STM14_3239	378451405	-	2836525-2836725	putative methyltransferase	2783104-2783304	-	201
140285	STM14_3249	378451415	+	2846371-2846505	hypothetical protein	2792950-2793084	+	135
140285	STM14_3259	378451420	+	2855709-2855837	hypothetical protein	2802205-2802333	+	129
140285	STM14_3260	378451421	+	2855915-2856031	hypothetical protein	2802411-2802527	+	117
140285	STM14_3267	378451427	+	2861933-2862097	hypothetical protein	2808429-2808593	+	165
140285	STM14_3272	378451432	+	2866577-2866735	hypothetical protein	2813073-2813231	+	159
140285	STM14_3273	378451433	-	2866637-2866750	hypothetical protein	2813133-2813246	-	114
140285	STM14_3280	378451440	-	2870862-2871008	hypothetical protein	2828133-2828279	-	147
140285	STM14_3282	378451442	+	2872506-2872700	putative cytochrome c-type biogenesis protein (heme exporter)	2829777-2829971	+	195
UK1	STMUK_2717	378990059	-	2824344-2824538	putative cytoplasmic protein	2833362-2833556	-	195
140285	STM14_3291	378451450	-	2879362-2879469	hypothetical protein	2836633-2836740	-	108
140285	STM14_3295	378451454	+	2881056-2881160	hypothetical protein	2838327-2838431	+	105
140285	STM14_3296	378451455	-	2881388-2881540	hypothetical protein	2838659-2838811	-	153
ST474	STM474_2816	379701937	+	2855546-2855689	hypothetical protein	2855546-2855689	+	144
ST474	STM474_2853	379701973	+	2881219-2881347	hypothetical protein	2881219-2881347	+	129
ST474	STM474_2856	379701976	+	2884712-2884939	hypothetical protein	2884712-2884939	+	228
ST474	STM474_2868	379701988	+	2885673-2885810	hypothetical protein	2885673-2885810	+	180
ST474	STM474_2868	379701988	+	2895927-2896202	hypothetical protein	2885927-2886202	+	276
ST474	STM474_2869	379701989	+	2896539-2896805	phage DNA binding protein	2896539-2896805	+	267
140285	STM14_3309	378451467	+	2905915-2906040	hypothetical protein	2908255-2908380	+	126
140285	STM14_3324	378451481	-	2917172-2917867	hypothetical protein	2920053-2920208	-	156
140285	STM14_3326	378451483	-	2919626-2919739	hypothetical protein	2921967-2922080	-	114
ST474	STM474_2898	379702018	-	2927700-2927858	hypothetical protein	2927700-2927858	-	159
000240	STMDT12_C28220	378985362	-	2935935-2936111	hypothetical protein	2934945-2935121	-	177
140285	STM14_3340	378451496	+	2935806-2935976	hypothetical protein	2938147-2938317	+	171
140285	STM14_3341	378451497	-	2936002-2936229	hypothetical protein	2938343-2938570	-	228
140285	STM14_3342	378451498	-	2936297-2936449	hypothetical protein	2938638-2938790	-	153
140285	STM14_3343	378451499	+	2936325-2936507	hypothetical protein	2938666-2938848	+	183
D23580	STMMW_27451	378446140	-	2919280-2919612	putative inner membrane protein	2948871-2949203	-	333
140285	STM14_3351	378451506	+	2948161-2948499	hypothetical protein	2950502-2950840	+	339
140285	STM14_3353	378451508	+	2949636-2949833	hypothetical protein	2951977-2952174	+	198
140285	STM14_3355	378451510	-	2950805-2950957	hypothetical protein	2953146-2953288	-	153
140285	STM14_3356	378451511	+	2951059-2951226	hypothetical protein	2953400-2953567	+	168
140285	STM14_3357	378451512	+	2951242-2951355	hypothetical protein	2953583-2953696	+	114
140285	STM14_3364	378451519	+	2957937-2958050	hypothetical protein	2960278-2960391	+	114
140285	STM14_3372	378451527	+	2965822-2965938	hypothetical protein	2968163-2968279	+	117
140285	STM14_3376	378451531	+	2967191-2967370	hypothetical protein	2969532-2969911	+	180
140285	STM14_3378	378451533	+	2968220-2968345	hypothetical protein	2970561-2970686	+	126
140285	STM14_3379	378451534	+	2968355-2968534	hypothetical protein	2970696-2970875	+	180
140285	STM14_3382	378451537	+	2969378-2969494	hypothetical protein	2971719-2971835	+	117
140285	STM14_3394	378451549	+	2979522-2979632	hypothetical protein	2981863-2981973	+	111
140285	STM14_3396	378451551	-	2981060-2981167	hypothetical protein	2983401-2983508	-	108
140285	STM14_3398	378451553	-	2981900-2982022	hypothetical protein	2984241-2984363	-	123
140285	STM14_3411	378451561	+	2991063-2991173	hypothetical protein	2993404-2993514	+	111
140285	STM14_3414	378451564	+	2994186-2994350	hypothetical protein	2996527-2996691	+	165
140285	STM14_3415	378451565	-	2994269-2994475	hypothetical protein	2996610-2996816	-	207
140285	STM14_3419	378451569	+	2996927-2997172	hypothetical protein	2999268-2999513	+	246
140285	STM14_3421	378451571	+	2998326-2998466	hypothetical protein	3000667-3000807	+	141
140285	STM14_3427	378451577	-	3001727-3001867	hypothetical protein	3004068-3004208	-	141
140285	STM14_3433	378451583	-	3007751-3007963	hydrogenase maturation protein	3010092-3010304	-	213
140285	STM14_3435	378451585	-	3010214-3010348	hypothetical protein	3012555-3012689	-	135
140285	STM14_3437	378451587	-	3010872-3011006	hypothetical protein	3013213-3013347	-	135
140285	STM14_3447	378451597	-	3019238-3019342	hypothetical protein	3021579-3021683	-	105
140285	STM14_3449	378451599	+	3019869-3020072	hypothetical protein	3022210-3022413	+	204
140285	STM14_3457	378451607	+	3026426-3026551	hypothetical protein	3028767-3028892	+	126
140285	STM14_3464	378451614	+	3032112-3032319	hypothetical protein	3035514-3035938	+	108
140285	STM14_3466	378451616	+	3033296-3033403	hypothetical protein	3035535-3035742	+	261
140285	STM14_3479	378451629	+	3044345-3044605	putative cytoplasmic protein	3046684-3046944	+	261
140285	STM14_3502	378451652	+	3066393-3066497	hypothetical protein	3068732-3068836	+	105
140285	STM14_3504	378451654	+	3067340-3067483	hypothetical protein	3069679-3069822	+	144
140285	STM14_3508	378451657	+	3068687-3068806	hypothetical protein	3071026-3071145	+	120
140285	STM14_3528	378451677	+	3087981-3088118	hypothetical protein	3090305-3090442	+	138
140285	STM14_3535	378451684	-	3092010-3092120	hypothetical protein	3094334-3094444	-	111
ST474	STM474_3077	379702190	+	3100048-3100164	hypothetical protein	3100048-3100164	+	117
140285	STM14_3549	378451698	-	3106978-3107112	hypothetical protein	3108814-3108948	-	135
ST474	STM474_3093	379702206	+	3116333-3116446	hypothetical protein	3116333-3116446	+	114
000240	STMDT12_C30020	378985542	+	3118836-3119024	hypothetical protein	3117419-3117607	+	189
ST474	STM474_3094	379702207	+	3117516-3117629	hypothetical protein	3117516-3117629	+	114
140285	STM14_3560	378451709	+	3121321-3121458	hypothetical protein	3122974-3123111	+	138
140285	STM14_3571	378451720	+	3134509-3134736	hypothetical protein	3136162-3136389	+	228
140285	STM14_3579	378451727	+	3140022-3140165	hypothetical protein	3141675-3141818	+	144
140285	STM14_3580	378451728	+	3140255-3140359	hypothetical protein	3141908-3142012	+	105
140285	STM14_3583	378451731	+	3143293-3143478	hypothetical protein	3144946-3145131	+	186
140285	STM14_3585	378451733	+	3144205-3144342	L-1,2-propanediol oxidoreductase	3145858-3145995	+	138
140285	STM14_3588	378451736	+	3146280-3146447	hypothetical protein	3147933-3148100	+	168
140285	STM14_3600	378451747	+	3152163-3152585	hypothetical protein	3154916-3155338	+	123
140285	STM14_3616	378451761	+	3177651-3177833	hypothetical protein	3179304-3179486	+	183
140285	STM14_3619	378451764	+	3179499-3179657	hypothetical protein	3181152-3181310	+	159
140285	STM14_3622	378451767	+	3182548-3182661	hypothetical protein	3184201-3184314	+	114
140285	STM14_3623	378451768	+	3182641-3182757	hypothetical protein	3184294-3184410	+	117
140285	STM14_3624	378451769	+	3182858-3183004	hypothetical protein	3184511-3184657	+	147
140285	STM14_3625	378451770	+	3183029-3183154	hypothetical protein	3184682-3184807	+	126
140285	STM14_3626	378451771	+	3183053-3183160	hypothetical protein	3184706-3184813	+	108
140285	STM14_3628	378451773	+	3183985-3184095	hypothetical protein	3185638-3185748	+	111
140285	STM14_3631	378451776	+	3185172-3185342	hypothetical protein	3186825-3186995	+	171
D23580	STMMW_29721	378446366	-	3162322-3162468	hypothetical protein	3191774-3191920	-	147
140285	STM14_3635	378451780	+	3190309-3190434	hypothetical protein	3191962-3192087	+	126
140285	STM14_3642	378451787	+	3197131-3197247	hypothetical protein	3198784-3198900	+	117
140285	STM14_3645	378451790	+	3199028-3199198	hypothetical protein	3200681-3200851	+	171
140285	STM14_3649	378451794	+	3202193-3202315	hypothetical protein	3203846-3203968	+	123
140285	STM14_3658	378451803	+	3210549-3210968	hypothetical protein	3212130-3212549	+	420
140285	STM14_3662	378451807	+	3213534-3213719	hypothetical protein	3215115-3215300	+	186
140285	STM14_3666	378451810	+	3215425-3215670	hypothetical protein	3217006-3217251	+	246
000240	STMDT12_C30880	378985628	+	3219618-3219734	hypothetical protein	3217075-3217191	+	117
140285	STM14_3670	378451813	+	3217519-3217686	hypothetical protein	3219100-3219267	+	168

140285	STM14_3680	378451823	+	3225806-3226042	hypothetical protein	3227387-3227623	+	237
140285	STM14_3686	378451829	-	3230904-3231050	immunoglobulin VH domain protein	3232485-3232631	-	147
140285	STM14_3690	378451833	+	3235813-3235968	hypothetical protein	3237394-3237549	+	156
140285	STM14_3691	378451834	+	3236175-3236279	hypothetical protein	3237756-3237860	+	105
140285	STM14_3693	378451836	+	3237457-3237624	hypothetical protein	3239038-3239205	+	168
140285	STM14_3700	378451843	+	3243685-3243795	hypothetical protein	3245266-3245376	+	111
140285	STM14_3702	378451845	+	3244595-3244732	hypothetical protein	3246176-3246313	+	138
140285	STM14_3704	378451847	+	3245634-3245885	hypothetical protein	3247215-3247466	+	252
140285	STM14_3711	378451854	+	3251233-3252433	hypothetical protein	3253814-3254014	+	201
140285	STM14_3718	378451863	+	3257540-3257698	hypothetical protein	3259921-3259979	+	159
140285	STM14_3722	378451865	+	3260720-3260824	hypothetical protein	3262301-3262405	+	105
ST474	STM474_3231	379702341	+	3267369-3267485	putative racemase	3267369-3267485	+	117
UK1	STMUK_3076	378990408	+	3217903-3218067	putative cytoplasmic protein	3271879-3272043	+	165
140285	STM14_3734	378451876	+	3271996-3272121	hypothetical protein	3273577-3273702	-	126
140285	STM14_3751	378451893	+	3285668-3285820	hypothetical protein	3287249-3287401	-	153
140285	STM14_3757	378451899	+	3289138-3289263	hypothetical protein	3290719-3290844	-	126
140285	STM14_3759	378451901	+	3290425-3290550	hypothetical protein	3292006-3292131	-	126
140285	STM14_3762	378451903	+	3293235-3293459	hypothetical protein	3295685-3295909	-	225
140285	STM14_3763	378451904	+	3293413-3293547	hypothetical protein	3295863-3295997	+	135
140285	STM14_3773	378451913	+	3301831-3301965	hypothetical protein	3304281-3304415	-	135
140285	STM14_3774	378451914	+	3302110-3302214	hypothetical protein	3304560-3304664	+	105
140285	STM14_3778	378451918	+	3305157-3305300	hypothetical protein	3307607-3307750	-	144
140285	STM14_3779	378451919	+	3305240-3305395	putative cytoplasmic protein	3307690-3307845	-	156
140285	STM14_3783	378451923	+	3308724-3308864	hypothetical protein	3311174-3311314	+	141
T000240	STMdT12_C31860	378985276	+	3314720-3314875	hypothetical protein	3312159-3312314	+	156
140285	STM14_3786	378451926	+	3310018-3310173	hypothetical protein	3312468-3312623	+	156
140285	STM14_3789	378451928	+	3312290-3312427	hypothetical protein	3314742-3314879	+	138
140285	STM14_3790	378451929	+	3312496-3312606	hypothetical protein	3314948-3315058	-	111
140285	STM14_3791	378451931	+	3314050-3314181	hypothetical protein	3316502-3316633	+	182
140285	STM14_3793	378451932	+	3314188-3314334	hypothetical protein	3316640-3316786	+	147
140285	STM14_3794	378451933	+	3314216-3314410	hypothetical protein	3316668-3316862	+	192
140285	STM14_3798	378451937	+	3318584-3318703	hypothetical protein	3321036-3321155	+	120
140285	STM14_3800	378451939	+	3319990-3320106	hypothetical protein	3322442-3322558	-	117
140285	STM14_3801	378451940	+	3320290-3320487	hypothetical protein	3322742-3322939	+	198
140285	STM14_3803	378451942	+	3322464-3322571	hypothetical protein	3324916-3325023	-	108
ST474	STM474_3301	379702409	+	3334473-3334658	hypothetical protein	3334473-3334658	-	186
140285	STM14_3815	378451954	+	3332051-3332179	hypothetical protein	3334503-3334631	+	129
140285	STM14_0363	378448623	+	352120-352227	hypothetical protein	3337626-3337733	+	108
140285	STM14_3830	378451969	+	3342234-3342434	hypothetical protein	3344686-3344886	+	201
140285	STM14_3833	378451972	+	3344492-3344629	hypothetical protein	3346944-3347081	-	138
140285	STM14_3834	378451973	+	3344530-3344640	hypothetical protein	3346982-3347092	+	111
ST474	STM474_3318	379702426	+	3348584-3348700	hypothetical protein	3348584-3348700	-	117
140285	STM14_3837	378451976	+	3346625-3346789	hypothetical protein	3349077-3349241	+	165
140285	STM14_3838	378451977	+	3346793-3346924	hypothetical protein	3349245-3349376	-	132
140285	STM14_3840	378451979	+	3349441-3349545	hypothetical protein	3351893-3351997	-	105
140285	STM14_3851	378451990	+	3361049-3361165	hypothetical protein	3363501-3363617	+	117
ST474	STM474_3334	379702442	+	3364546-3364662	hypothetical protein	3364546-3364662	+	117
140285	STM14_3860	378451999	+	3368299-3368398	hypothetical protein	3370743-3370850	+	108
140285	STM14_3865	378452004	+	3371178-3372354	hypothetical protein	3374630-3374806	-	177
T000240	STMdT12_C2520	378985792	+	3381047-3381148	hypothetical protein	3378488-3378589	+	102
140285	STM14_3872	378452011	+	3377873-3378022	hypothetical protein	3380325-3380474	-	150
140285	STM14_3875	378452014	+	3380454-3380651	hypothetical protein	3382906-3383103	+	198
140285	STM14_3884	378452023	+	3390891-3391163	hypothetical protein	3393343-3393615	+	273
140285	STM14_3895	378452033	+	3402540-3402695	hypothetical protein	3404992-3405147	+	156
140285	STM14_3901	378452039	+	3408358-3408459	hypothetical protein	3410810-3410911	-	102
140285	STM14_3904	378452042	+	3410298-3410435	hypothetical protein	3412750-3412887	+	138
140285	STM14_3907	378452045	+	3412994-3413194	hypothetical protein	3415446-3415646	+	201
140285	ymqD	378452049	+	3415051-3415356	putative inner membrane protein	3417503-3417808	+	306
ST474	STM474_3403	379702507	+	3435178-3435297	hypothetical protein	3435178-3435297	+	120
D23580	STMWV_32461	378446633	+	3437229-3437615	hypothetical protein	3435510-3435896	+	387
140285	STM14_3932	378452069	+	3436508-3436648	hypothetical protein	3438960-3439100	-	141
140285	STM14_3933	378452070	+	3436575-3436694	hypothetical protein	3439027-3439146	+	120
140285	STM14_3934	378452071	+	3436648-3436776	hypothetical protein	3439100-3439228	+	129
140285	STM14_3938	378452075	+	3440518-3440661	hypothetical protein	3442970-3443113	+	144
140285	yhbT	378452090	+	3452716-3453240	putative lipid carrier protein	3460237-3460761	-	525
140285	STM14_3965	378452100	+	3446611-3446718	hypothetical protein	3472132-3472239	+	108
140285	STM14_3985	378452118	+	3482355-3482456	hypothetical protein	3489876-3489977	-	102
140285	STM14_3987	378452120	+	3483883-3484117	hypothetical protein	3493698-3493850	+	135
140285	STM14_3996	378452128	+	3490436-3490546	hypothetical protein	3497957-3498063	+	111
140285	STM14_4018	378452150	+	3508092-3508241	hypothetical protein	3515613-3515762	+	150
140285	STM14_4019	378452151	+	3508281-3508475	hypothetical protein	3515802-3515996	-	195
140285	STM14_4023	378452155	+	3515633-3515794	hypothetical protein	3523154-3523315	+	162
140285	STM14_4034	378452166	+	3525086-3525205	hypothetical protein	3532607-3532726	+	120
140285	STM14_4051	378452183	+	3540466-3540597	malate dehydrogenase	3547987-3548118	-	132
140285	STM14_4053	378452185	+	3541795-3541923	hypothetical protein	3549316-3549444	+	129
T000240	STMdT12_C34190	378985959	+	3551875-3551970	hypothetical protein	3550031-3550126	+	96
ST474	STM474_3527	379702628	+	3554690-3554815	hypothetical protein	3554690-3554815	-	126
140285	STM14_4069	378452201	+	3558566-3558757	hypothetical protein	3566087-3566278	+	192
140285	STM14_4074	378452206	+	3563669-3563851	hypothetical protein	3571190-3571372	-	183
140285	STM14_4075	378452207	+	3563867-3563971	hypothetical protein	3571388-3571492	+	105
140285	STM14_4081	378452213	+	3568595-3568738	hypothetical protein	3576116-3576259	-	144
140285	STM14_4088	378452220	+	3574592-3574753	hypothetical protein	3582113-3582274	-	162
140285	STM14_4089	378452221	+	3574662-3574820	hypothetical protein	3582183-3582341	+	159
140285	STM14_4093	378452225	+	3579746-3579922	hypothetical protein	3587267-3587443	+	177
140285	STM14_4094	378452226	+	3580182-3580316	hypothetical protein	3587703-3587837	-	135
140285	STM14_4095	378452227	+	3580370-3580480	hypothetical protein	3587891-3588001	+	111
T000240	STMdT12_C34250	378985992	+	3595480-3595632	hypothetical protein	3593698-3593850	+	153
140285	STM14_4215	378452273	+	3611988-3612179	elongation factor Tu	3619612-3619803	+	192
ST474	STM474_3611	379702705	+	3620933-3621070	hypothetical protein	3620933-3621070	-	138
140285	STM14_4163	378452290	+	3623551-3623655	hypothetical protein	3631175-3631279	+	105
140285	STM14_4167	378452293	+	3623655-3623680	hypothetical protein	3633979-3634104	+	126
140285	STM14_4172	378452298	+	3629162-3629344	hypothetical protein	3636786-3636968	+	183
140285	STM14_4180	378452306	+	3635785-3635937	hypothetical protein	3643409-3643561	+	153
140285	STM14_4182	378452308	+	3637245-3637421	hypothetical protein	3644869-3645045	-	177
140285	STM14_4185	378452311	+	3640241-3640396	hypothetical protein	3647865-3648020	-	156
140285	STM14_4192	378452318	+	3649991-3650131	hypothetical protein	3657615-3657755	-	141
140285	STM14_4207	378452333	+	3663870-3663983	hypothetical protein	3671494-3671607	-	114
140285	STM14_4213	378452339	+	3670273-3670407	hypothetical protein	3677897-3678031	-	135
140285	STM14_4214	378452340	+	3670242-3670449	hypothetical protein	3677966-3678073	+	108
140285	STM14_4220	378452346	+	3677538-3677768	hypothetical protein	3685162-3685392	+	231
140285	STM14_4224	378452350	+	3680653-3680766	hypothetical protein	3688277-3688990	+	114
140285	STM14_4229	378452355	+	3684140-3684289	hypothetical protein	3691764-3691913	-	150
140285	STM14_4233	378452359	+	3690393-3690500	hypothetical protein	3698017-3698214	-	108
140285	STM14_4240	378452366	+	3698369-3698491	hypothetical protein	3705993-3706115	+	123
140285	STM14_4243	378452369	+	3700901-3701017	hypothetical protein	3708524-3708640	-	117
140285	STM14_4259	378452384	+	3722125-3722298	hypothetical protein	3729748-3729921	-	174
140285	STM14_4261	378452386	+	3723463-3723627	hypothetical protein	3731086-3731250	+	165

14028S	STM14_4263	378452387	+	3723698-3723940	putative inner membrane protein	3731321-3731563	+	243
14028S	STM14_4269	378452393	+	3728906-3729031	hypothetical protein	3736529-3736654	+	126
14028S	STM14_4270	378452394	+	3729191-3729319	hypothetical protein	3736814-3736942	+	129
ST474	STM474_3713	379702806	-	3737509-3737628	hypothetical protein	3737508-3737627	-	120
14028S	STM14_4277	378452401	+	3735927-3736031	hypothetical protein	3743551-3743655	+	105
14028S	STM14_4291	378452415	+	3747318-3747434	hypothetical protein	3754942-3755058	+	117
14028S	STM14_4293	378452417	+	3747983-3748117	putative cytoplasmic protein	3755607-3755741	+	135
14028S	STM14_4296	378452420	+	3750462-3750605	hypothetical protein	3758086-3758229	+	144
14028S	STM14_4316	378452440	+	3770533-3770684	hypothetical protein	3778117-3778308	+	132
14028S	STM14_4325	378452449	+	3781138-3781305	hypothetical protein	3788762-3788929	+	168
14028S	STM14_4333	378452457	+	3789092-3789217	hypothetical protein	3796716-3796841	+	126
14028S	STM14_4336	378452460	+	3792675-3792815	hypothetical protein	3800299-3800439	+	141
14028S	STM14_4339	378452463	+	3794036-3794179	hypothetical protein	3801660-3801803	+	144
14028S	STM14_4340	378452464	+	3794140-3794265	hypothetical protein	3801764-3801889	+	126
14028S	STM14_4343	378452467	+	3796527-3796667	hypothetical protein	3804151-3804291	+	141
14028S	STM14_4347	378452471	+	3801111-3801227	hypothetical protein	3808735-3808851	+	117
14028S	STM14_4350	378452474	+	3803739-3803876	hypothetical protein	3811363-3811500	+	138
14028S	STM14_4352	378452476	+	3805315-3805461	hypothetical protein	3812939-3813085	+	147
14028S	STM14_4354	378452478	+	3807400-3807591	hypothetical protein	3815024-3815215	+	192
14028S	STM14_4361	378452485	+	3818231-3818344	hypothetical protein	3825855-3825968	+	114
ST474	ldrd	379702886	-	3829507-3829632	Small toxic polypeptide ldrD	3829506-3829631	-	126
14028S	STM14_4366	378452489	-	3822083-3822277	hypothetical protein	3829707-3829901	-	195
14028S	STM14_4374	378452497	-	3827982-3828201	hypothetical protein	3835606-3835725	-	120
14028S	STM14_4378	378452501	-	3832781-3832954	hypothetical protein	3840405-3840578	-	174
14028S	STM14_4379	378452502	+	3832815-3832976	hypothetical protein	3840439-3840600	+	162
14028S	STM14_4388	378452509	+	3842019-3842180	hypothetical protein	3849643-3849804	+	162
14028S	STM14_4393	378452514	+	3846344-3846445	hypothetical protein	3853968-3854069	+	102
14028S	STM14_4395	378452516	+	3847245-3847379	hypothetical protein	3854869-3855003	+	135
14028S	STM14_4400	378452524	+	3852193-3852324	hypothetical protein	3859817-3859953	+	132
14028S	STM14_4408	378452530	+	3856473-3856610	hypothetical protein	3864097-3864234	+	138
14028S	STM14_4410	378452530	+	3856798-3857019	hypothetical protein	3864422-3864643	+	222
14028S	STM14_4415	378452535	+	3861460-3861693	hypothetical protein	3869084-3869317	+	234
14028S	STM14_4416	378452536	+	3861562-3861738	hypothetical protein	3869186-3869362	+	177
14028S	STM14_4419	378452539	+	3863890-3864222	hypothetical protein	3871514-3871846	+	333
14028S	STM14_4424	378452544	+	3869165-3869311	hypothetical protein	3876789-3876935	+	147
14028S	STM14_4437	378452557	+	3881551-3881694	hypothetical protein	3889175-3889318	+	144
14028S	STM14_4448	378452568	+	3893735-3893932	hypothetical protein	3901359-3901556	+	198
ST474	STM474_3868	379702957	-	3911348-3911467	hypothetical protein	3911347-3911466	-	120
14028S	STM14_4456	378452576	+	3904878-3905129	hypothetical protein	3912501-3912752	+	252
14028S	STM14_4485	378452605	-	3932731-3932850	hypothetical protein	3940353-3940472	-	120
14028S	STM14_4497	378452617	+	3941019-3941198	hypothetical protein	3948641-3948820	+	180
14028S	STM14_4501	378452621	+	3943928-3944110	hypothetical protein	3951550-3951732	+	183
14028S	STM14_4504	378452624	+	3946552-3946725	hypothetical protein	3954174-3954347	+	174
14028S	STM14_4512	378452632	+	3954806-3954916	hypothetical protein	3962428-3962538	+	111
14028S	STM14_4518	378452637	+	3962472-3962597	hypothetical protein	3970094-3970219	+	126
14028S	STM14_4520	378452639	+	3963213-3963356	hypothetical protein	3970835-3970978	+	144
14028S	STM14_4521	378452640	+	3963387-3963497	hypothetical protein	3971009-3971119	+	111
D23580	STM14_37441	378447121	-	3975758-3975931	ISaC3 transposase	3974196-3974369	-	174
D23580	STM14_37491	378447125	-	3981984-3982097	putative product	3980422-3980535	-	114
14028S	STM14_4531	378452648	+	3973251-3973476	hypothetical protein	3980973-3981098	+	126
14028S	STM14_3040	378451209	+	2640806-2640913	hypothetical protein	2981874-2981981	+	108
14028S	STM14_4535	378452652	+	3974935-3975075	hypothetical protein	3982557-3982697	+	141
T000240	STM14_C38190	378986359	-	3984324-3984416	hypothetical protein	3982742-3982834	-	93
14028S	STM14_4537	378452654	+	3978059-3978172	hypothetical protein	3985681-3985794	+	114
14028S	STM14_4539	378452656	+	3979055-3979171	hypothetical protein	3986677-3986793	+	117
14028S	STM14_4540	378452657	+	3979172-3979297	hypothetical protein	3986794-3986919	+	126
14028S	STM14_4549	378452666	+	3986024-3986146	hypothetical protein	3993646-3993768	+	123
14028S	STM14_4551	378452668	+	3989051-3989164	hypothetical protein	3996673-3996786	+	114
14028S	STM14_4553	378452670	+	3989514-3989657	hypothetical protein	3997136-3997279	+	144
14028S	STM14_4565	378452682	+	3999123-3999230	hypothetical protein	4006744-4006851	+	108
14028S	STM14_4578	378452695	+	4011296-4011472	hypothetical protein	4018916-4019092	+	177
14028S	STM14_4580	378452697	+	4011519-4011680	hypothetical protein	4019139-4019300	+	162
14028S	STM14_4581	378452698	+	4011613-4011768	hypothetical protein	4019233-4019388	+	156
14028S	STM14_4582	378452699	+	4011777-4011950	hypothetical protein	4019397-4019570	+	174
D23580	STM14_37861	378447163	+	4021208-4021303	hypothetical protein	4019645-4019740	+	96
D23580	STM14_37871	378447164	+	4021319-4021408	putative LexA-regulated protein Tis8	4019756-4019845	+	90
14028S	STM14_4589	378452704	+	4016572-4016697	hypothetical protein	4024193-4024318	+	126
14028S	STM14_4596	378452710	+	4020774-4020987	hypothetical protein	4028395-4028508	+	114
ST474	STM474_3981	379703066	-	4028417-4028551	hypothetical protein	4028416-4028550	-	135
14028S	STM14_4598	378452712	+	4022921-4023073	hypothetical protein	4030542-4030694	+	153
14028S	STM14_4601	378452715	+	4024130-4024306	hypothetical protein	4031751-4031927	+	177
ST474	STM474_3986	379703070	-	4031907-4032026	hypothetical protein	4031906-4032025	-	120
14028S	STM14_4630	378452743	+	4056093-4056239	hypothetical protein	4063714-4063860	+	147
14028S	STM14_4633	378452746	+	4059079-4059237	hypothetical protein	4066700-4066858	+	159
ST474	STM474_4022	379703106	-	4071364-4071624	hypothetical protein	4071363-4071623	-	261
T000240	STM14_C40060	378986546	-	4156200-4156427	hypothetical protein	4072399-4072626	-	228
14028S	STM14_4658	378452770	+	4086316-4086504	hypothetical protein	4093934-4094122	+	189
14028S	STM14_4669	378452781	+	4094364-4094507	hypothetical protein	4101982-4102125	+	144
14028S	STM14_4696	378452801	+	4122161-4122346	hypothetical protein	4130015-4130200	+	186
14028S	ilvL	378452802	+	4122426-4122524	ilvG operon leader peptide	4130280-4130378	+	99
14028S	STM14_4733	378452833	+	4155257-4155382	hypothetical protein	4163111-4163236	+	126
14028S	STM14_4738	378452838	+	4159908-4160012	hypothetical protein	4167762-4167866	+	105
14028S	STM14_4740	378452840	+	4162570-4162710	hypothetical protein	4170424-4170564	+	141
14028S	STM14_4753	378452852	+	4171444-4171629	hypothetical protein	4179298-4179483	+	186
14028S	STM14_4759	378452858	+	4175211-4175348	hypothetical protein	4183065-4183202	+	138
14028S	STM14_4768	378452867	+	4183187-4183360	hypothetical protein	4191041-4191214	+	174
ST474	STM474_4144	379703214	+	4193636-4193764	hypothetical protein	4193635-4193763	+	129
14028S	STM14_4770	378452869	+	4185870-4186004	hypothetical protein	4193724-4193858	+	135
14028S	STM14_4771	378452870	+	4185906-4186052	hypothetical protein	4193760-4193906	+	147
14028S	STM14_4784	378452883	+	4197098-4197223	hypothetical protein	4204952-4205077	+	126
14028S	STM14_4800	378452894	+	4215049-4215231	hypothetical protein	4222903-4223085	+	183
14028S	STM14_4801	378452895	+	4215077-4215433	hypothetical protein	4222931-4223287	+	357
14028S	STM14_4808	378452902	+	4219525-4219656	hypothetical protein	4227379-4227510	+	132
14028S	STM14_4811	378452904	+	4222708-4222851	hypothetical protein	4230562-4230705	+	144
14028S	STM14_4813	378452906	+	4223708-4223932	putative cytoplasmic protein	4231562-4231786	+	225
14028S	STM14_4816	378452909	+	4226121-4226246	hypothetical protein	4233975-4234100	+	126
14028S	STM14_4819	378452912	+	4228860-4229039	hypothetical protein	4236714-4236893	+	180
14028S	STM14_4821	378452914	+	4230571-4230990	putative cytoplasmic protein	4238425-4238844	+	420
14028S	STM14_4837	378452930	+	4248232-4248351	hypothetical protein	4256086-4256205	+	120
ST474	STM474_4210	379703274	-	4263051-4263284	hypothetical protein	4263050-4263283	-	234
14028S	STM14_4854	378452947	+	4262409-4262564	hypothetical protein	4270263-4270418	+	156
14028S	STM14_4856	378452949	+	4263770-4263904	hypothetical protein	4271624-4271758	+	135
14028S	STM14_4858	378452951	+	4265002-4265130	hypothetical protein	4272856-4272984	+	129
14028S	STM14_4867	378452960	+	4272347-4272496	hypothetical protein	4280201-4280350	+	150
14028S	STM14_4868	378452961	+	4272426-4272560	hypothetical protein	4280280-4280414	+	135
14028S	STM14_4872	378452965	+	4275521-4275652	hypothetical protein	4283375-4283506	+	132
ST474	STM474_4231	379703293	+	4283542-4283655	hypothetical protein	4283541-4283654	+	114

140285	STM14_5481	378453545	+	4829440-4829619	hypothetical protein	4837190-4837369	+	180
140285	STM14_5486	378453550	+	4833992-4834120	hypothetical protein	4841739-4841867	+	129
140285	STM14_5496	378453560	+	4843995-4844144	hypothetical protein	4851742-4851891	+	150
ST474	smp	379703819	+	4853656-4853805	phosphoserine phosphatase	4853655-4853804	+	150

T000240	STMDT12_C07050	378983246	-	742985-743125	hypothetical protein	704342-704482	-	141
140285	STM14_0774	378449022	+	730309-730596	hypothetical protein	729223-729510	+	288
140285	STM14_0777	378449025	-	733102-733251	hypothetical protein	732016-732165	-	150
140285	STM14_0780	378449028	-	734838-734957	hypothetical protein	733752-733871	-	120
140285	STM14_0791	378449032	+	739310-739477	hypothetical protein	738224-738391	+	168
140285	STM14_0797	378449038	-	745470-745595	hypothetical protein	744384-744509	-	126
140285	STM14_0800	378449041	+	749621-749734	hypothetical protein	748535-748648	+	114
140285	STM14_0801	378449042	+	749864-750154	hypothetical protein	748778-749068	+	291
140285	STM14_0809	378449050	+	757442-757591	hypothetical protein	756356-756505	+	150
140285	STM14_0812	378449053	+	758607-758720	hypothetical protein	757521-757634	+	114
140285	STM14_0819	378449060	-	766193-766318	hypothetical protein	765107-765232	-	126
140285	STM14_0826	378449067	-	774532-774729	K ⁺ -transporting ATPase subunit F	773446-773643	-	198
T000240	STMDT12_C07730	378983314	-	820062-820163	hypothetical protein	780643-780744	-	102
140285	STM14_0859	378449100	+	808472-808597	hypothetical protein	807386-807511	+	126
140285	STM14_0860	378449101	-	809819-809962	hypothetical protein	808733-808876	-	144
140285	STM14_0864	378449105	+	812877-813017	hypothetical protein	811791-811931	+	141
140285	STM14_0873	378449114	-	818715-819254	hypothetical protein	817629-818168	-	540
140285	STM14_0879	378449115	-	820227-820322	hypothetical protein	819141-819236	-	96
140285	STM14_0897	378449132	-	837473-837664	hypothetical protein	836387-836578	-	192
140285	STM14_0903	378449138	+	843123-843230	hypothetical protein	842037-842144	+	108
140285	STM14_0924	378449158	+	864209-864493	hypothetical protein	863123-863407	+	285
140285	STM14_0925	378449159	+	864550-864777	hypothetical protein	863464-863691	+	228
140285	STM14_927	378449161	+	867104-867277	putative cytoplasmic protein	866018-866191	+	174
140285	STM14_946	378449180	-	881747-881884	hypothetical protein	879950-880087	-	138
140285	STM14_952	378449186	-	888006-888110	hypothetical protein	886209-886313	-	105
140285	STM14_956	378449190	+	891948-892067	hypothetical protein	890151-890270	+	120
140285	STM14_958	378449192	-	892325-892444	hypothetical protein	890528-890647	-	120
140285	STM14_961	378449195	+	895674-895811	hypothetical protein	893883-894020	+	138
140285	STM14_965	378449199	-	898059-898181	hypothetical protein	896268-896390	-	123
140285	STM14_967	378449201	-	899158-899316	hypothetical protein	897367-897525	-	159
140285	STM14_969	378449203	-	900254-900415	hypothetical protein	898463-898624	-	162
140285	STM14_970	378449204	-	900375-900506	hypothetical protein	898584-898715	-	132
140285	STM14_973	378449207	+	902910-903080	hypothetical protein	901119-901289	+	171
140285	STM14_974	378449208	-	903009-903137	hypothetical protein	901218-901346	-	129
140285	STM14_982	378449216	+	911396-911509	hypothetical protein	909605-909718	+	114
140285	STM14_986	378449220	-	915878-916033	hypothetical protein	914087-914242	-	156
140285	STM14_989	378449223	+	917997-918137	hypothetical protein	916206-916346	+	141
140285	STM14_995	378449229	-	924480-924599	hypothetical protein	922689-922808	-	120
140285	STM14_999	378449233	+	926622-926762	hypothetical protein	924831-924971	+	141
140285	STM14_1000	378449234	+	926970-927134	hypothetical protein	925179-925343	+	165
140285	STM14_1006	378449239	-	931103-931243	hypothetical protein	929312-929452	-	141
140285	STM14_1010	378449243	+	934780-934917	hypothetical protein	932989-933126	+	138
140285	STM14_1019	378449251	+	942902-943027	hypothetical protein	941111-941236	+	126
140285	ybjC	378449256	+	946559-946849	hypothetical protein	944768-945058	+	291
140285	STM14_1034	378449266	+	955378-955569	hypothetical protein	953586-953777	+	192
140285	STM14_1038	378449270	-	958765-958965	hypothetical protein	956973-957173	-	201
140285	STM14_1053	378449285	+	972908-973111	hypothetical protein	971116-971319	+	204
140285	STM14_1055	378449287	+	973986-974153	hypothetical protein	972194-972361	+	168
140285	STM14_1060	378449292	-	980013-980138	hypothetical protein	978221-978346	-	126
140285	STM14_1061	378449293	+	980033-980176	hypothetical protein	978241-978384	+	144
140285	STM14_1067	378449299	-	984062-984343	hypothetical protein	982270-982551	-	282
140285	STM14_1069	378449301	-	985102-985260	hypothetical protein	983310-983468	-	159
140285	STM14_1081	378449312	-	994689-994946	hypothetical protein	992897-993154	-	258
140285	STM14_1082	378449313	-	994867-995142	hypothetical protein	993075-993350	-	276
140285	STM14_1087	378449318	+	1001941-1002111	hypothetical protein	1000149-1000319	+	171
140285	STM14_1092	378449323	+	1007647-1007754	hypothetical protein	1005855-1005962	+	108
140285	STM14_1093	378449324	-	1007837-1007968	hypothetical protein	1006045-1006176	-	132
140285	STM14_1102	378449333	+	1018831-1018959	hypothetical protein	1017039-1017167	+	129
140285	STM14_1104	378449335	+	1019641-1019754	hypothetical protein	1017849-1017962	+	114
140285	STM14_1108	378449339	-	1023127-1023381	hypothetical protein	1021335-1021589	-	255
140285	STM14_1118	378449349	-	1033792-1033944	hypothetical protein	1032000-1032152	-	153
140285	STM14_1129	378449360	-	1047995-1048126	hypothetical protein	1046203-1046334	-	132
140285	STM14_1133	378449364	-	1051307-1051426	hypothetical protein	1049515-1049634	-	120
140285	STM14_1135	378449366	-	1051897-1052118	hypothetical protein	1050105-1050326	-	222
140285	STM14_1137	378449368	+	1053504-1053662	hypothetical protein	1051712-1051870	+	159
140285	STM14_1146	378449377	-	1062948-1063106	hypothetical protein	1061156-1061314	-	159
140285	STM14_1149	378449380	+	1063939-1064178	hypothetical protein	1062147-1062386	+	240
140285	STM14_1157	378449388	+	1068009-1068230	hypothetical protein	1066217-1066438	+	222
D23580	STMMW_10422	378444470	+	1114868-1115074	prophage protein	1075559-1075765	+	207
140285	STM14_1201	378449431	-	1106320-1106445	hypothetical protein	1104297-1104422	-	126
140285	STM14_1209	378449439	-	1115818-1116021	hypothetical protein	1113796-1113999	-	204
140285	STM14_1216	378449446	-	1121248-1121352	hypothetical protein	1119226-1119330	-	105
T000240	STMDT12_C11030	378983644	+	1169756-1169860	hypothetical protein	1128393-1128497	+	105
140285	STM14_1234	378449463	+	1135671-1135796	hypothetical protein	1133649-1133774	+	126
140285	STM14_1245	378449474	+	1143361-1143543	hypothetical protein	1141339-1141521	+	183
140285	STM14_1249	378449478	-	1146275-1146388	hypothetical protein	1144253-1144366	-	114
140285	STM14_1254	378449483	-	1150549-1150701	hypothetical protein	1148527-1148679	-	153
140285	STM14_1260	378449489	-	1155618-1155782	hypothetical protein	1153596-1153760	-	165
140285	STM14_1265	378449494	-	1158383-1158577	hypothetical protein	1156361-1156555	-	195
140285	STM14_1279	378449506	-	1170030-1170278	hypothetical protein	1168008-1168256	-	249
140285	STM14_1280	378449507	-	1170167-1170286	hypothetical protein	1168145-1168264	-	120
140285	STM14_1282	378449509	+	1172347-1172457	hypothetical protein	1170325-1170435	+	111
140285	STM14_1283	378449510	+	1172451-1172747	hypothetical protein	1170429-1170725	+	297
140285	STM14_1286	378449512	+	1174679-1174783	hypothetical protein	1172657-1172761	+	105
140285	STM14_1288	378449514	+	1176314-1176421	hypothetical protein	1174292-1174399	+	108
140285	STM14_1289	378449515	-	1176396-1176605	hypothetical protein	1174374-1174583	-	210
140285	STM14_1291	378449517	-	1177413-1177520	hypothetical protein	1175391-1175498	-	108
140285	STM14_1292	378449518	+	1177573-1177704	hypothetical protein	1175551-1175682	+	132
140285	STM14_1307	378449532	-	1188559-1188696	hypothetical protein	1186537-1186674	-	138
140285	STM14_1308	378449533	-	1188894-1189040	hypothetical protein	1186872-1187018	-	147
140285	STM14_1316	378449541	-	1194339-1194509	hypothetical protein	1192318-1192488	-	171
140285	STM14_1322	378449547	+	1200601-1201062	hypothetical protein	1198580-1199041	+	462
140285	STM14_1339	378449564	-	1212983-1213159	hypothetical protein	1210962-1211138	-	177

14028S	STM14_1344	378449569	-	1216241-1216396	flagellar basal body P-ring biosynthesis protein FlgA	1214220-1214375	-	156
14028S	STM14_1356	378449581	-	1226280-1226474	hypothetical protein	1224259-1224453	-	195
14028S	STM14_1361	378449585	+	1232358-1232582	hypothetical protein	1230337-1230561	+	225
14028S	STM14_1376	378449600	-	1244261-1244398	hypothetical protein	1242240-1242377	-	138
14028S	STM14_1390	378449614	-	1256910-1257065	hypothetical protein	1254889-1255044	-	156
14028S	STM14_1399	378449623	-	1267794-1267916	hypothetical protein	1265773-1265895	-	123
14028S	STM14_1401	378449625	-	1269076-1269240	hypothetical protein	1267055-1267219	-	165
14028S	STM14_1487	378449708	-	1337214-1337372	hypothetical protein	1284092-1284250	-	159
14028S	STM14_1488	378449709	+	1337312-1337452	hypothetical protein	1284190-1284330	+	141
14028S	STM14_1489	378449710	+	1337337-1337585	hypothetical protein	1284215-1284463	+	249
LT2	STM05040	409994415	-	1327664-1327867	hypothetical protein	1284517-1284720	-	204
14028S	STM14_1494	378449714	-	1340405-1340575	hypothetical protein	1287283-1287453	-	171
14028S	STM14_1496	378449716	-	1341060-1341188	hypothetical protein	1287938-1288066	-	129
14028S	STM14_1499	378449718	+	1341718-1341825	hypothetical protein	1288596-1288703	+	108
14028S	STM14_1500	378449719	-	1342043-1342192	hypothetical protein	1288921-1289070	-	150
14028S	STM14_1502	378449721	-	1342962-1343096	hypothetical protein	1289840-1289974	-	135
14028S	STM14_1506	378449723	-	1344493-1344636	hypothetical protein	1291371-1291514	-	144
14028S	STM14_1510	378449727	-	1346067-1346216	putative inner membrane protein	1292945-1293094	-	150
14028S	STM14_1514	378449731	-	1348508-1348666	hypothetical protein	1295386-1295544	-	159
14028S	STM14_1524	378449740	-	1356451-1356600	hypothetical protein	1303329-1303478	-	150
14028S	STM14_1528	378449744	+	1358977-1359201	hypothetical protein	1305855-1306079	+	225
14028S	STM14_1533	378449749	-	1361225-1361380	hypothetical protein	1308103-1308258	-	156
14028S	STM14_1536	378449752	-	1362034-1362159	hypothetical protein	1308911-1309036	-	126
14028S	STM14_1541	378449757	-	1363501-1363599	hypothetical protein	1310378-1310476	-	99
14028S	STM14_1545	378449761	-	1364743-1364856	hypothetical protein	1311620-1311733	-	114
14028S	STM14_1546	378449762	+	1364774-1364911	hypothetical protein	1311651-1311788	+	138
14028S	STM14_1550	378449766	+	1367385-1367522	hypothetical protein	1314262-1314399	+	138
14028S	STM14_1554	378449770	+	1370048-1370245	hypothetical protein	1316925-1317122	+	198
14028S	STM14_1555	378449771	+	1370136-1370267	salivary secreted protein	1317013-1317144	+	132
14028S	STM14_1557	378449773	+	1371682-1371801	hypothetical protein	1318559-1318678	+	120
14028S	STM14_1559	378449775	-	1373854-1374027	hypothetical protein	1320730-1320903	-	174
14028S	STM14_1564	378449780	-	1378335-1378511	hypothetical protein	1325211-1325387	-	177
14028S	STM14_1566	378449782	+	1379655-1379795	hypothetical protein	1326531-1326671	+	141
14028S	STM14_1569	378449785	+	1380898-1381002	hypothetical protein	1327775-1327879	+	105
14028S	STM14_1572	378449788	+	1382785-1382889	hypothetical protein	1329662-1329766	+	105
14028S	STM14_1581	378449797	+	1391859-1392038	hypothetical protein	1338736-1338915	+	180
14028S	STM14_1587	378449803	+	1398234-1398449	hypothetical protein	1345111-1345326	+	216
14028S	STM14_1591	378449807	-	1400923-1401129	hypothetical protein	1347800-1348006	-	207
14028S	STM14_1593	378449809	+	1401610-1401732	hypothetical protein	1348487-1348609	+	123
14028S	STM14_1601	378449817	+	1409372-1409509	hypothetical protein	1356249-1356386	+	138
14028S	STM14_1602	378449818	-	1409399-1409647	hypothetical protein	1356276-1356524	-	249
14028S	STM14_1615	378449831	+	1419534-1419740	hypothetical protein	1366411-1366617	+	207
14028S	STM14_1617	378449833	+	1421769-1421954	hypothetical protein	1368646-1368831	+	186
14028S	STM14_1618	378449834	+	1421956-1422090	hypothetical protein	1368833-1368967	+	135
14028S	STM14_1623	378449839	-	1425398-1425562	hypothetical protein	1372275-1372439	-	165
14028S	STM14_1631	378449847	-	1432577-1432696	hypothetical protein	1379454-1379573	-	120
14028S	STM14_1636	378449852	+	1436467-1436571	hypothetical protein	1383344-1383448	+	105
14028S	STM14_1638	378449854	-	1437586-1437699	hypothetical protein	1384463-1384576	-	114
14028S	STM14_1645	378449861	-	1445506-1445658	hypothetical protein	1392383-1392535	-	153
14028S	STM14_1652	378449868	+	1452598-1452744	hypothetical protein	1399474-1399620	+	147
14028S	STM14_1653	378449869	-	1452728-1452838	hypothetical protein	1399604-1399714	-	111
14028S	STM14_1658	378449873	-	1456308-1456475	hypothetical protein	1403184-1403351	-	168
14028S	STM14_1685	378449900	-	1486016-1486129	hypothetical protein	1432892-1433005	-	114
14028S	STM14_1692	378449907	+	1493410-1493517	hypothetical protein	1440286-1440393	+	108
14028S	STM14_1719	378449934	+	1511477-1511602	hypothetical protein	1458353-1458478	+	126
14028S	STM14_1728	378449941	+	1519171-1519452	hypothetical protein	1466047-1466328	+	282
14028S	STM14_1751	378449964	+	1538110-1538277	hypothetical protein	1484986-1485153	+	168
14028S	STM14_1761	410023179	-	1546024-1546179	hypothetical protein	1492900-1493055	-	156
14028S	STM14_1764	378449977	+	1548438-1548683	hypothetical protein	1495314-1495559	+	246
14028S	STM14_1771	378449982	+	1553745-1553906	fumarase A	1500621-1500782	+	162
14028S	STM14_1776	378449987	-	1559385-1559690	outer membrane protein	1506261-1506566	-	306
14028S	STM14_1782	378449992	-	1563882-1564016	putative amino acid permease	1510758-1510892	-	135
14028S	STM14_1783	378449993	-	1563914-1564087	hypothetical protein	1510790-1510963	-	174
14028S	STM14_1784	378449994	+	1564099-1564224	hypothetical protein	1510975-1511100	+	126
14028S	STM14_1786	378449996	+	1565234-1565359	hypothetical protein	1512110-1512235	+	126
14028S	STM14_1794	378450004	-	1571734-1572027	hypothetical protein	1518610-1518903	-	294
14028S	STM14_1796	378450006	-	1572462-1572653	hypothetical protein	1519338-1519529	-	192
T000240	STMDT12_C14990	378984040	+	1560231-1560323	hypothetical protein	1519396-1519488	+	93
14028S	STM14_1810	378450020	-	1586812-1587033	putative dimethyl sulfoxide reductase subunit A	1533688-1533909	-	222
14028S	STM14_1816	378450026	-	1591641-1591757	hypothetical protein	1538517-1538633	-	117
14028S	STM14_1827	378450036	-	1601704-1601919	hypothetical protein	1548580-1548795	-	216
14028S	STM14_1828	378450037	+	1601786-1601923	peptidyl-diipeptidase dcp	1548662-1548799	+	138
14028S	STM14_1831	378450040	-	1602970-1603068	hypothetical protein	1549846-1549944	-	99
14028S	STM14_1833	378450042	-	1603865-1604014	hypothetical protein	1550741-1550890	-	150
T000240	STMDT12_C15310	378984072	-	1591761-1591856	hypothetical protein	1550924-1551019	-	96
14028S	STM14_1847	378450056	+	1615524-1615850	putative inner membrane protein	1562400-1562726	+	327
14028S	STM14_1867	378450076	-	1634718-1634879	hypothetical protein	1581594-1581755	-	162
14028S	STM14_1872	378450081	+	1637216-1637431	putative phage-related secreted protein	1584092-1584307	+	216
UK1	STMUK_1520	378988892	+	1587048-1587440	hypothetical protein	1585733-1586125	+	393
UK1	STMUK_1521	378988893	+	1587577-1587705	hypothetical protein	1586262-1586390	+	129
14028S	STM14_1876	378450084	-	1639903-1640112	hypothetical protein	1586779-1586988	-	210
14028S	STM14_1890	378450098	+	1657503-1657634	hypothetical protein	1604379-1604510	+	132
14028S	STM14_1895	378450103	+	1663489-1663641	hypothetical protein	1610365-1610517	+	153
14028S	STM14_1897	378450105	-	1664885-1665067	hypothetical protein	1611761-1611943	-	183
14028S	STM14_1902	378450110	+	1668962-1669093	hypothetical protein	1615838-1615969	+	132
14028S	STM14_1904	378450112	-	1670559-1670702	hypothetical protein	1617435-1617578	-	144
14028S	STM14_1911	378450119	-	1679194-1679457	hypothetical protein	1626070-1626333	-	264
14028S	STM14_1913	378450121	+	1680178-1680390	hypothetical protein	1627054-1627266	+	213
14028S	STM14_1914	378450122	-	1680335-1680472	hypothetical protein	1627211-1627348	-	138
14028S	STM14_1915	378450123	+	1680342-1680476	hypothetical protein	1627218-1627352	+	135
14028S	STM14_1919	378450127	-	1683664-1683783	hypothetical protein	1630540-1630659	-	120
14028S	STM14_1922	378450130	+	1686850-1686969	hypothetical protein	1633726-1633845	+	120
14028S	STM14_1923	378450131	-	1686958-1687080	hypothetical protein	1633834-1633956	-	123

140285	STM14_1932	410023183	+	1696611-1696706	hypothetical protein	1643487-1643582	+	96
140285	STM14_1933	378450141	+	1696703-1696807	hypothetical protein	1643579-1643683	+	105
140285	STM14_1937	378450145	+	1700960-1701190	putative inner membrane protein	1647836-1648066	-	231
140285	STM14_1939	378450147	-	1701681-1701785	hypothetical protein	1648557-1648661	-	105
140285	STM14_1950	378450158	+	1711642-1711749	hypothetical protein	1658518-1658625	+	108
140285	STM14_1961	378450169	+	1719701-1719814	hypothetical protein	1666577-1666690	+	114
140285	STM14_1967	378450175	+	1727480-1727695	hypothetical protein	1674356-1674571	+	216
140285	STM14_1970	378450178	+	1729598-1729999	putative dipicolinate reductase	1676474-1676875	+	402
T000240	STMDT12_C16480	378984189	-	1717552-1717677	hypothetical protein	1676714-1676839	-	126
140285	STM14_1972	378450180	-	1731028-1731132	hypothetical protein	1677904-1678008	-	105
140285	STM14_1973	378450181	+	1731115-1731225	hypothetical protein	1677991-1678101	+	111
140285	STM14_1976	378450184	-	1733662-1733814	hypothetical protein	1680538-1680690	-	153
T000240	STMDT12_C16570	378984198	-	1726118-1726213	hypothetical protein	1685280-1685375	-	96
140285	STM14_1996	378450204	-	1755685-1755894	hypothetical protein	1702561-1702770	-	210
T000240	STMDT12_C16740	378984215	-	1744637-1744789	hypothetical protein	1703799-1703951	-	153
140285	STM14_2004	378450212	-	1762419-1762580	hypothetical protein	1709295-1709456	-	162
140285	STM14_2024	378450229	-	1779789-1779902	hypothetical protein	1726665-1726778	-	114
140285	STM14_2048	378450253	-	1800491-1800637	hypothetical protein	1746655-1746801	-	147
140285	STM14_2049	378450254	+	1800647-1800769	hypothetical protein	1746811-1746933	+	123
140285	STM14_2054	378450259	-	1803682-1803798	hypothetical protein	1749846-1749962	-	117
140285	STM14_2057	378450262	+	1807079-1807216	hypothetical protein	1753243-1753380	+	138
140285	STM14_2061	378450266	-	1810467-1810628	hypothetical protein	1756631-1756792	-	162
140285	STM14_2065	378450270	+	1812029-1812142	hypothetical protein	1758193-1758306	+	114
140285	STM14_2073	378450278	+	1820026-1820190	hypothetical protein	1766190-1766354	+	165
140285	STM14_2076	378450281	-	1823233-1823364	hypothetical protein	1769397-1769528	-	132
140285	STM14_2079	378450284	+	1824904-1825014	hypothetical protein	1771068-1771178	+	111
140285	STM14_2111	378450314	+	1851996-1852310	putative inner membrane protein	1798160-1798474	+	315
140285	STM14_2117	378450320	+	1858398-1858580	hypothetical protein	1804562-1804744	+	183
140285	STM14_2123	378450326	-	1863160-1863279	hypothetical protein	1809324-1809443	-	120
140285	STM14_2133	378450333	+	1872924-1873043	hypothetical protein	1819088-1819207	+	120
140285	STM14_2135	378450335	-	1874718-1874903	hypothetical protein	1820882-1821067	-	186
140285	STM14_2152	378450352	-	1888329-1888433	hypothetical protein	1834493-1834597	-	105
140285	STM14_2160	378450360	-	1895293-1895421	hypothetical protein	1841457-1841585	-	129
140285	STM14_2180	378450380	-	1914824-1914934	hypothetical protein	1860988-1861098	-	111
140285	STM14_2187	378450387	+	1920441-1920557	hypothetical protein	1866605-1866721	+	117
140285	STM14_2189	378450389	-	1920801-1920899	hypothetical protein	1866965-1867063	-	99
140285	STM14_2200	378450400	+	1928329-1928535	hypothetical protein	1874492-1874698	+	207
140285	STM14_2219	378450419	-	1946749-1946859	hypothetical protein	1892912-1893022	-	111
140285	STM14_2222	378450422	+	1947434-1947541	hypothetical protein	1893597-1893704	+	108
140285	STM14_2224	378450424	-	1947624-1947740	hypothetical protein	1893787-1893903	-	117
T000240	STMDT12_C18620	378984403	-	1934900-1935001	hypothetical protein	1895123-1895244	-	102
140285	STM14_2229	378450429	-	1949871-1949978	hypothetical protein	1896034-1896141	-	108
140285	STM14_2238	378450438	+	1961391-1961522	hypothetical protein	1907554-1907685	+	132
140285	STM14_2243	378450443	+	1963183-1963311	hypothetical protein	1909346-1909474	+	129
140285	STM14_2245	378450445	+	1964429-1964551	hypothetical protein	1910592-1910714	+	123
140285	STM14_2246	378450446	-	1964644-1964781	hypothetical protein	1910807-1910950	-	144
D23580	STM14_18461	378445260	+	1947071-1947241	hypothetical protein	1911409-1911579	+	171
140285	STM14_2250	378450450	-	1966960-1967154	hypothetical protein	1913123-1913317	-	195
140285	STM14_2255	378450453	-	1970094-1970294	hypothetical protein	1916257-1916457	-	201
140285	STM14_2260	378450457	-	1973190-1973366	hypothetical protein	1919353-1919529	-	177
140285	STM14_2263	378450459	-	1973981-1974151	hypothetical protein	1920144-1920314	-	171
140285	STM14_2264	378450460	+	1974277-1974393	tail fiber assembly protein	1920440-1920556	+	117
140285	STM14_2270	378450466	+	1976705-1976878	hypothetical protein	1922868-1923041	+	174
140285	STM14_2276	378450471	-	1979312-1979440	hypothetical protein	1925475-1925603	-	129
T000240	STMDT12_C19080	378984449	+	1972383-1972478	hypothetical protein	1934410-1934505	+	96
140285	STM14_2291	378450486	-	1990827-1990985	hypothetical protein	1936990-1937148	-	159
140285	STM14_2293	378450488	+	1992662-1992787	hypothetical protein	1938825-1938950	+	126
140285	STM14_2294	378450489	-	1992755-1992874	hypothetical protein	1938918-1939037	-	120
140285	STM14_2298	378450493	+	1996367-1996594	hypothetical protein	1942530-1942757	+	228
140285	STM14_2305	378450500	+	2002147-2002269	hypothetical protein	1948310-1948432	+	123
140285	STM14_2313	378450507	+	2008446-2008562	hypothetical protein	1954609-1954725	+	117
140285	STM14_2321	378450515	+	2013869-2013985	hypothetical protein	1960032-1960148	+	117
140285	STM14_2323	378450517	+	2015793-2015897	hypothetical protein	1961956-1962060	+	105
140285	STM14_2329	378450523	+	2022930-2023187	hypothetical protein	1969093-1969350	+	258
140285	STM14_2339	378450533	-	2032400-2032531	hypothetical protein	1978563-1978694	-	132
140285	STM14_2342	378450536	-	2033684-2033827	hypothetical protein	1979847-1979990	-	144
140285	STM14_2343	378450537	+	2034145-2034261	hypothetical protein	1980308-1980424	+	117
140285	STM14_2349	378450542	+	2038156-2038305	hypothetical protein	1984319-1984468	+	150
T000240	STMDT12_C19550	378984496	-	2022485-2022580	hypothetical protein	1984512-1984607	-	96
D23580	STM14_19262	378445334	-	2022476-2022553	hypothetical protein	1996534-1996611	-	78
140285	STM14_2366	378450556	+	2050620-2050775	putative inner membrane protein	1996783-1996938	+	156
140285	STM14_2379	378450569	-	2060568-2060705	hypothetical protein	2006731-2006868	-	138
140285	STM14_2387	378450577	+	2066907-2067293	putative 50S ribosomal protein	2013070-2013456	+	387
140285	STM14_2411	378450600	+	2084253-2084468	hypothetical protein	2030416-2030631	+	216
140285	STM14_2417	378450606	+	2088843-2088962	hypothetical protein	2035006-2035125	+	120
140285	STM14_2419	378450608	-	2090431-2090643	putative cold-shock protein	2036594-2036806	-	213
140285	STM14_2421	378450610	-	2091089-2091208	hypothetical protein	2037252-2037371	-	120
140285	STM14_2425	378450614	-	2093253-2093495	hypothetical protein	2039416-2039658	-	243
140285	STM14_2429	378450617	-	2095348-2095497	hypothetical protein	2041511-2041660	-	150
140285	STM14_2442	378450629	-	2106970-2107134	hypothetical protein	2053134-2053298	-	165
140285	STM14_2455	378450642	-	2115201-2115503	hypothetical protein	2061365-2061667	-	303
140285	STM14_2456	378450643	-	2115612-2115710	hypothetical protein	2061776-2061874	-	99
140285	STM14_2462	378450649	-	2118324-2118683	hypothetical protein	2064488-2064847	-	360
140285	STM14_2466	378450653	-	2121222-2121611	crossover junction protein	2067386-2067775	-	390
140285	STM14_2468	378450655	-	2122501-2123025	putative transcriptional activator	2068665-2069189	-	525
140285	STM14_2470	378450657	-	2123800-2124024	hypothetical protein	2069964-2070188	-	225
140285	STM14_2473	378450660	-	2125758-2125982	DNA binding protein	2071922-2072146	-	225
140285	STM14_2478	378450665	+	2129593-2129823	hypothetical protein	2075757-2075987	+	231
140285	STM14_2479	378450666	+	2129820-2130335	hypothetical protein	2075984-2076499	+	516
140285	STM14_2483	378450670	+	2132377-2132619	hypothetical protein	2078541-2078783	+	243
T000240	STMDT12_C20240	378984565	-	2079358-2079462	hypothetical protein	2081532-2081636	-	105
SL1344	SL1344_1980	378699918	+	2082737-2083009	hypothetical protein	2082737-2083009	+	273
798	UMN798_2172	383496723	-	2087536-2087634	hypothetical protein	2088175-2088273	-	99

T000240	STMDT12_C20320	378984573	+	2086418-2086567	hypothetical protein	2088592-2088741	+	150
140285	STM14_2494	378450678	-	2142487-2142741	hypothetical protein	2088651-2088905	-	255
140285	STM14_2497	378450681	-	2144828-2145214	hypothetical protein	2090992-2091378	-	387
140285	STM14_2501	378450684	-	2147387-2147539	hypothetical protein	2093551-2093703	-	153
140285	STM14_2524	378450706	-	2165668-2165799	hypothetical protein	2111832-2111963	-	132
140285	STM14_2549	378450731	-	2185570-2185701	hypothetical protein	2131733-2131864	-	132
140285	STM14_2556	378450738	-	2192950-2193219	hypothetical protein	2139113-2139382	-	270
140285	STM14_2558	378450740	-	2195674-2195796	hypothetical protein	2141837-2141959	-	123
140285	STM14_2561	378450743	+	2198729-2198896	hypothetical protein	2144892-2145059	+	168
140285	STM14_2562	378450744	-	2198740-2198937	hypothetical protein	2144903-2145100	-	198
140285	STM14_2599	378450781	+	2239941-2240216	hypothetical protein	2186104-2186379	+	276
140285	STM14_2614	378450796	+	2254277-2254522	hypothetical protein	2200440-2200685	+	246
140285	STM14_2635	378450816	-	2282708-2282821	hypothetical protein	2228871-2228984	-	114
140285	STM14_2639	378450819	+	2285114-2285233	hypothetical protein	2231277-2231396	+	120
140285	STM14_2649	378450829	-	2293497-2293682	hypothetical protein	2239660-2239845	-	186
140285	STM14_2651	378450831	-	2294185-2294343	hypothetical protein	2240348-2240506	-	159
140285	STM14_2671	378450851	-	2315124-2315237	hypothetical protein	2261287-2261400	-	114
140285	STM14_2674	378450854	-	2317916-2318191	hypothetical protein	2264079-2264354	-	276
140285	STM14_2676	378450856	+	2318810-2318917	hypothetical protein	2264973-2265080	+	108
140285	STM14_2697	378450877	+	2338065-2338184	hypothetical protein	2284228-2284347	+	120
140285	STM14_2701	378450881	+	2340683-2340847	hypothetical protein	2286846-2287010	+	165
140285	STM14_2704	378450884	-	2342649-2342762	hypothetical protein	2288812-2288925	-	114
140285	STM14_2705	378450885	-	2342720-2342848	hypothetical protein	2288883-2288911	-	129
140285	STM14_2706	378450886	+	2342834-2343067	hypothetical protein	2288997-2289230	+	234
140285	STM14_2710	378450890	-	2345635-2345787	hypothetical protein	2291798-2291950	-	153
140285	STM14_2714	378450894	+	2349999-2350304	hypothetical protein	2296162-2296467	+	306
140285	STM14_2716	378450896	-	2351963-2352097	hypothetical protein	2298126-2298260	-	135
140285	STM14_2724	378450904	+	2358928-2359059	hypothetical protein	2305091-2305222	+	132
UK1	STMUK_2237	378989594	-	2307167-2307274	hypothetical protein	2305138-2305245	-	108
140285	STM14_2726	378450906	-	2359149-2359277	hypothetical protein	2305312-2305440	-	129
140285	STM14_2730	378450910	-	2361472-2361576	hypothetical protein	2307635-2307739	-	105
140285	STM14_2736	378450915	-	2364975-2365205	hypothetical protein	2311138-2311368	-	231
140285	STM14_2738	378450917	+	2365897-2366040	hypothetical protein	2312060-2312203	+	144
140285	STM14_2750	378450929	-	2378246-2378392	hypothetical protein	2324409-2324555	-	147
T000240	STMDT12_C22520	378984793	-	2327280-2327405	hypothetical protein	2329453-2329578	-	126
140285	STM14_2764	378450942	-	2389094-2389207	hypothetical protein	2335257-2335370	-	114
140285	STM14_2774	378450952	+	2397715-2397861	hypothetical protein	2343878-2344024	+	147
140285	STM14_2791	378450969	+	2411310-2411441	hypothetical protein	2357473-2357604	+	132
140285	STM14_2798	378450976	+	2418131-2418256	hypothetical protein	2364294-2364419	+	126
140285	STM14_2803	378450980	-	2425164-2425280	hypothetical protein	2371327-2371443	-	117
140285	STM14_2805	378450982	+	2427980-2428210	hypothetical protein	2374143-2374373	+	231
140285	STM14_2806	378450983	+	2428153-2428293	hypothetical protein	2374316-2374456	+	141
140285	STM14_2811	378450988	+	2432657-2432773	hypothetical protein	2378820-2378936	+	117
140285	STM14_2822	378450999	+	2445948-2446052	hypothetical protein	2392111-2392215	+	105
140285	STM14_2823	378451000	+	2446155-2446358	hypothetical protein	2392318-2392521	+	204
140285	STM14_2834	378451011	+	2455277-2455405	hypothetical protein	2401440-2401568	+	129
140285	STM14_2854	378451030	-	2475407-2475529	hypothetical protein	2421571-2421693	-	123
140285	STM14_2855	378451031	+	2475538-2475645	hypothetical protein	2421702-2421809	+	108
140285	STM14_2856	378451032	+	2475654-2475836	hypothetical protein	2421818-2422000	+	183
140285	STM14_2870	378451046	+	2491031-2491153	hypothetical protein	2437195-2437317	+	123
140285	STM14_2871	378451047	-	2491241-2491357	hypothetical protein	2437405-2437521	-	117
140285	STM14_2880	378451056	-	2499179-2499430	hypothetical protein	2445343-2445594	-	252
140285	STM14_2881	378451057	+	2499320-2499454	hypothetical protein	2445484-2445618	+	135
140285	STM14_2890	378451066	+	2508681-2508854	hypothetical protein	2454845-2455018	+	174
140285	STM14_2921	378451097	+	2537322-2537438	hypothetical protein	2483486-2483602	+	117
140285	STM14_2940	378451116	+	2553683-2553823	hypothetical protein	2499847-2499987	+	141
140285	STM14_2941	378451117	-	2553820-2553948	hypothetical protein	2499984-2500112	-	129
T000240	STMDT12_C24200	378984961	+	2507125-2507337	hypothetical protein	2509298-2509510	+	213
140285	STM14_2959	378451134	+	2573587-2573775	hypothetical protein	2519751-2519939	+	189
140285	STM14_2986	378451155	+	2595762-2595923	hypothetical protein	2541926-2542087	+	162
140285	STM14_2988	378451157	+	2595966-2596094	hypothetical protein	2542130-2542258	+	129
140285	STM14_3032	378451201	+	2633812-2634012	hypothetical protein	2579976-2580176	+	201
140285	STM14_3036	378451205	-	2637342-2637476	hypothetical protein	2583506-2583640	-	135
140285	STM14_3043	378451212	-	2645096-2645227	hypothetical protein	2591260-2591391	-	132
140285	STM14_3063	378451232	-	2664349-2664552	hypothetical protein	2610513-2610716	-	204
140285	STM14_3069	378451238	-	2672447-2672584	putative cytoplasmic protein	2618611-2618748	-	138
140285	STM14_3072	378451241	-	2673033-2673269	putative inner membrane protein	2619197-2619433	-	237
T000240	STMDT12_C25240	378985065	+	2617191-2617382	putative cytoplasmic protein	2619483-2619674	+	192
140285	STM14_3079	378451248	+	2685671-2685784	hypothetical protein	2631835-2631948	+	114
140285	STM14_3080	378451249	+	2685675-2685857	hypothetical protein	2631839-2632021	+	183
140285	STM14_3081	378451250	-	2685854-2685967	hypothetical protein	2632018-2632131	-	114
140285	STM14_3086	378451254	+	2702354-2702470	hypothetical protein	2648518-2648634	+	117
140285	STM14_3087	378451255	-	2702529-2702684	hypothetical protein	2648693-2648848	-	156
140285	STM14_3090	378451258	+	2704480-2704581	hypothetical protein	2650644-2650745	+	102
140285	STM14_3096	378451264	-	2710094-2710216	type IV pilus biogenesis/stability protein PilW	2656258-2656380	-	123
140285	STM14_3099	378451267	+	2712052-2712147	hypothetical protein	2658216-2658311	+	96
140285	STM14_3107	378451275	-	2725280-2725504	hypothetical protein	2671444-2671668	-	225
140285	STM14_3109	378451277	-	2726253-2726387	hypothetical protein	2672417-2672551	-	135
140285	STM14_3119	378451287	+	2734356-2734475	hypothetical protein	2680520-2680639	+	120
140285	STM14_3122	378451290	+	2735856-2735978	hypothetical protein	2682020-2682142	+	123
140285	STM14_3123	378451291	-	2735883-2735993	hypothetical protein	2682047-2682157	-	111
140285	STM14_3144	378451312	+	2759420-2759548	hypothetical protein	2705584-2705712	+	129
SL1344	SL1344_2548	378700486	-	2730253-2730318	bacteriophage protein	2730253-2730318	-	66
D23580	STMMW_26031	378446002	-	2757050-2757262	putative prophage protein	2730381-2730593	-	213
140285	STM14_1473	378449695	-	1321447-1322058	hypothetical protein	2739236-2739841	+	606
140285	STM14_3197	378451364	+	2811771-2811908	hypothetical protein	2757924-2758061	+	138
140285	STM14_3202	378451368	-	2814160-2814285	hypothetical protein	2760313-2760438	-	126
140285	STM14_1440	378449663	+	1298794-1299042	putative bacteriophage protein	2762857-2763105	-	249
140285	STM14_3209	378451375	+	2816906-2817040	prophage DinI	2763059-2763193	+	135
140285	STM14_1438	378449661	+	1297994-1298185	hypothetical protein	2763714-2763905	-	192
140285	STM14_1430	410023172	+	1293547-1293774	hypothetical protein	2768125-2768352	-	228
140285	STM14_1427	378449650	+	1291515-1291721	hypothetical protein	2770178-2770384	-	207
140285	STM14_3229	378451395	+	2830868-2831005	hypothetical protein	2777447-2777584	+	138

14028S	STM14_3693	378451836	+	3237457-3237624	hypothetical protein	3239038-3239205	+	168
14028S	STM14_3700	378451843	+	3243685-3243795	hypothetical protein	3245266-3245376	+	111
14028S	STM14_3702	378451845	+	3244595-3244732	hypothetical protein	3246176-3246313	+	138
14028S	STM14_3704	378451847	+	3245634-3245885	hypothetical protein	3247215-3247466	+	252
14028S	STM14_3711	378451854	+	3252233-3252433	hypothetical protein	3253814-3254014	+	201
14028S	STM14_3718	378451861	+	3257540-3257698	hypothetical protein	3259121-3259279	+	159
14028S	STM14_3722	378451865	+	3260720-3260824	hypothetical protein	3262301-3262405	+	105
UK1	STMUK_3076	378990408	+	3217903-3218067	putative cytoplasmic protein	3271879-3272043	+	165
14028S	STM14_3734	378451876	-	3271996-3272121	hypothetical protein	3273577-3273702	-	126
14028S	STM14_3751	378451893	-	3285668-3285820	hypothetical protein	3287249-3287401	-	153
14028S	STM14_3757	378451899	-	3289138-3289263	hypothetical protein	3290719-3290844	-	126
14028S	STM14_3759	378451901	-	3290425-3290550	hypothetical protein	3292006-3292131	-	126
14028S	STM14_3762	378451903	-	3293235-3293459	hypothetical protein	3295685-3295909	-	225
14028S	STM14_3773	378451913	-	3301831-3301965	hypothetical protein	3304281-3304415	-	135
14028S	STM14_3774	378451914	+	3302110-3302214	hypothetical protein	3304560-3304664	+	105
14028S	STM14_3778	378451918	-	3305157-3305300	hypothetical protein	3307607-3307750	-	144
14028S	STM14_3779	378451919	-	3305240-3305395	putative cytoplasmic protein	3307690-3307845	-	156
14028S	STM14_3783	378451923	+	3308724-3308864	hypothetical protein	3311174-3311314	+	141
T00240	STMDT12_C31860	378985726	+	3314720-3314875	hypothetical protein	3312159-3312314	+	156
14028S	STM14_3789	378451928	+	3312290-3312427	hypothetical protein	3314742-3314879	+	138
14028S	STM14_3790	378451929	+	3312496-3312606	hypothetical protein	3314948-3315058	-	111
14028S	STM14_3792	378451931	+	3314050-3314181	hypothetical protein	3316502-3316633	+	132
14028S	STM14_3793	378451932	-	3314188-3314334	hypothetical protein	3316640-3316786	-	147
14028S	STM14_3794	378451933	+	3314216-3314410	hypothetical protein	3316668-3316862	+	195
14028S	STM14_3798	378451937	+	3318584-3318703	hypothetical protein	3321036-3321155	+	120
14028S	STM14_3800	378451939	+	3319990-3320106	hypothetical protein	3322442-3322558	-	117
14028S	STM14_3801	378451940	+	3320290-3320487	hypothetical protein	3322742-3322939	+	198
14028S	STM14_3803	378451942	-	3322464-3322571	hypothetical protein	3324916-3325203	-	108
14028S	STM14_3815	378451954	+	3332051-3332179	hypothetical protein	3334503-3334631	+	129
14028S	STM14_0363	378448623	-	352120-352227	hypothetical protein	3337626-3337733	+	108
14028S	STM14_3830	378451969	+	3342234-3342434	hypothetical protein	3344686-3344886	+	201
14028S	STM14_3833	378451972	-	3344492-3344629	hypothetical protein	3346944-3347081	-	138
14028S	STM14_3834	378451973	+	3344530-3344640	hypothetical protein	3346982-3347092	+	111
14028S	STM14_3837	378451976	+	3346625-3346789	hypothetical protein	3349077-3349241	+	165
14028S	STM14_3840	378451979	-	3349441-3349545	hypothetical protein	3351893-3351997	-	105
14028S	STM14_3851	378451990	+	3361049-3361165	hypothetical protein	3363501-3363617	+	117
14028S	STM14_3860	378451999	+	3368291-3368398	hypothetical protein	3370743-3370850	+	108
T00240	STMDT12_C32520	378985792	+	3381047-3381148	hypothetical protein	3378488-3378589	+	102
14028S	STM14_3872	378452011	-	3377873-3378022	hypothetical protein	3380325-3380474	-	150
14028S	STM14_3875	378452014	+	3380454-3380651	hypothetical protein	3382906-3383103	+	198
14028S	STM14_3884	378452023	+	3390891-3391163	hypothetical protein	3393343-3393615	+	273
14028S	STM14_3895	378452033	+	3402540-3402695	hypothetical protein	3404992-3405147	+	156
14028S	STM14_3901	378452039	-	3408358-3408459	hypothetical protein	3410810-3410911	-	102
14028S	STM14_3904	378452042	+	3410298-3410435	hypothetical protein	3412750-3412887	+	138
14028S	STM14_3907	378452045	-	3412994-3413194	hypothetical protein	3415446-3415646	-	201
D23580	STMMW_32461	378446633	+	3437229-3437615	hypothetical protein	3435510-3435896	+	387
14028S	STM14_3932	378452069	-	3436508-3436648	hypothetical protein	3438960-3439100	-	141
14028S	STM14_3933	378452070	+	3436575-3436694	hypothetical protein	3439027-3439146	+	120
14028S	STM14_3934	378452071	+	3436648-3436776	hypothetical protein	3439100-3439228	+	129
14028S	STM14_3938	378452075	+	3440518-3440661	hypothetical protein	3442970-3443113	+	144
14028S	STM14_3965	378452100	-	3464611-3464718	hypothetical protein	3472132-3472239	-	108
14028S	STM14_3985	378452118	-	3482355-3482456	hypothetical protein	3489876-3489977	-	102
14028S	STM14_3996	378452128	-	3490436-3490546	hypothetical protein	3497957-3498067	-	111
14028S	STM14_4018	378452150	-	3508092-3508241	hypothetical protein	3515613-3515762	-	150
14028S	STM14_4019	378452151	-	3508281-3508475	hypothetical protein	3515802-3515996	-	195
14028S	STM14_4023	378452155	+	3515633-3515794	hypothetical protein	3523154-3523315	+	162
14028S	STM14_4034	378452166	+	3525086-3525205	hypothetical protein	3532607-3532726	+	120
14028S	STM14_4051	378452183	-	3540466-3540597	malate dehydrogenase	3547987-3548118	-	132
14028S	STM14_4053	378452185	+	3541795-3541923	hypothetical protein	3549316-3549444	+	129
T00240	STMDT12_C34190	378985959	+	3551875-3551970	hypothetical protein	3550031-3550126	+	96
14028S	STM14_4074	378452206	-	3563669-3563851	hypothetical protein	3571190-3571372	-	183
14028S	STM14_4075	378452207	+	3563867-3563971	hypothetical protein	3571388-3571492	+	105
14028S	STM14_4081	378452213	-	3568595-3568738	hypothetical protein	3576116-3576259	-	144
14028S	STM14_4089	378452221	+	3574662-3574820	hypothetical protein	3582183-3582341	+	159
14028S	STM14_4093	378452225	+	3579746-3579922	hypothetical protein	3587267-3587443	+	177
14028S	STM14_4094	378452226	-	3580182-3580316	hypothetical protein	3587703-3587837	-	135
14028S	STM14_4095	378452227	+	3580370-3580480	hypothetical protein	3587891-3588001	+	111
T00240	STMDT12_C34520	378985992	-	3595480-3595632	hypothetical protein	3593698-3593850	-	153
14028S	STM14_4148	378452275	-	3611988-3612179	elongation factor Tu	3619612-3619803	-	192
14028S	STM14_4163	378452290	+	3623551-3623655	hypothetical protein	3631175-3631279	+	105
14028S	STM14_4167	378452293	+	3626355-3626480	hypothetical protein	3633979-3634104	+	126
14028S	STM14_4172	378452298	+	3629162-3629344	hypothetical protein	3636786-3636968	+	183
14028S	STM14_4180	378452306	+	3635785-3635937	hypothetical protein	3643409-3643561	+	153
14028S	STM14_4182	378452308	-	3637245-3637421	hypothetical protein	3644869-3645045	-	177
14028S	STM14_4185	378452311	-	3640241-3640396	hypothetical protein	3647865-3648020	-	156
14028S	STM14_4192	378452318	-	3649991-3650131	hypothetical protein	3657615-3657755	-	141
14028S	STM14_4207	378452333	-	3663870-3663983	hypothetical protein	3671494-3671607	-	114
14028S	STM14_4213	378452339	-	3670273-3670407	hypothetical protein	3677897-3678031	-	135
14028S	STM14_4214	378452340	+	3670342-3670449	hypothetical protein	3677966-3678073	+	108
14028S	STM14_4220	378452346	+	3677538-3677768	hypothetical protein	3685162-3685392	+	231
14028S	STM14_4229	378452355	-	3684140-3684289	hypothetical protein	3691764-3691913	-	150
14028S	STM14_4233	378452359	-	3690393-3690500	hypothetical protein	3698017-3698124	-	108
14028S	STM14_4240	378452366	-	3698369-3698491	hypothetical protein	3705993-3706115	-	123
14028S	STM14_4243	378452369	-	3700901-3701017	hypothetical protein	3708525-3708641	-	117
14028S	STM14_4259	378452384	-	3722125-3722298	hypothetical protein	3729749-3729922	-	174
14028S	STM14_4261	378452386	+	3723463-3723627	hypothetical protein	3731087-3731251	+	165
14028S	STM14_4263	378452387	+	3723698-3723940	putative inner membrane protein	3731322-3731564	+	243
14028S	STM14_4269	378452393	+	3728906-3729031	hypothetical protein	3736530-3736655	+	126
14028S	STM14_4270	378452394	+	3729191-3729319	hypothetical protein	3736815-3736943	+	129
14028S	STM14_4277	378452401	+	3735927-3736031	hypothetical protein	3743552-3743656	+	105
14028S	STM14_4291	378452415	-	3747318-3747434	hypothetical protein	3754943-3755059	-	117
14028S	STM14_4296	378452420	+	3750462-3750605	hypothetical protein	3758087-3758230	+	144
14028S	STM14_4325	378452449	+	3781138-3781305	hypothetical protein	3788763-3788930	+	168

140285	STM14_4333	378452457	+	3789092-3789217	hypothetical protein	3796717-3796842	+	126
140285	STM14_4336	378452460	-	3792675-3792815	hypothetical protein	3800300-3800440	-	141
140285	STM14_4339	378452463	-	3794036-3794179	hypothetical protein	3801661-3801804	-	144
140285	STM14_4340	378452464	+	3794140-3794265	hypothetical protein	3801765-3801890	+	126
140285	STM14_4343	378452467	+	3796527-3796667	hypothetical protein	3804152-3804292	+	141
140285	STM14_4347	378452471	-	3801111-3801227	hypothetical protein	3808736-3808852	-	117
140285	STM14_4350	378452474	+	3803739-3803876	hypothetical protein	3811364-3811501	+	138
140285	STM14_4352	378452476	-	3805315-3805461	hypothetical protein	3812940-3813086	-	147
140285	STM14_4354	378452478	-	3807400-3807591	hypothetical protein	3815025-3815216	-	192
140285	STM14_4361	378452485	+	3818231-3818344	hypothetical protein	3825856-3825969	+	114
140285	STM14_4366	378452489	-	3822083-3822277	hypothetical protein	3829708-3829902	-	195
140285	STM14_4374	378452497	-	3827982-3828101	hypothetical protein	3835607-3835726	-	120
140285	STM14_4378	378452501	-	3832781-3832954	hypothetical protein	3840406-3840579	-	174
140285	STM14_4379	378452502	+	3832815-3832976	hypothetical protein	3840440-3840601	+	162
140285	STM14_4388	378452509	+	3842019-3842180	hypothetical protein	3849644-3849805	+	162
140285	STM14_4393	378452514	+	3846344-3846445	hypothetical protein	3853969-3854070	+	102
140285	STM14_4395	378452516	-	3847245-3847379	hypothetical protein	3854870-3855004	-	135
140285	STM14_4403	378452524	-	3852193-3852324	hypothetical protein	3859818-3859949	-	132
140285	STM14_4408	378452528	+	3856473-3856610	hypothetical protein	3864098-3864235	+	138
140285	STM14_4410	378452530	-	3856798-3857019	hypothetical protein	3864423-3864644	-	222
140285	STM14_4415	378452535	+	3861460-3861693	hypothetical protein	3869085-3869318	+	234
140285	STM14_4416	378452536	-	3861562-3861738	hypothetical protein	3869187-3869363	-	177
140285	STM14_4419	378452539	+	3863890-3864222	hypothetical protein	3871515-3871847	+	333
140285	STM14_4424	378452544	-	3869165-3869311	hypothetical protein	3876790-3876936	-	147
140285	STM14_4437	378452557	+	3881551-3881694	hypothetical protein	3889176-3889319	+	144
140285	STM14_4448	378452568	+	3893735-3893932	hypothetical protein	3901360-3901557	+	198
140285	STM14_4456	378452576	+	3904878-3905129	hypothetical protein	3912502-3912753	+	252
140285	STM14_4485	378452605	-	3932731-3932850	hypothetical protein	3940354-3940473	-	120
140285	STM14_4501	378452621	+	3943928-3944110	hypothetical protein	3951551-3951733	+	183
140285	STM14_4504	378452624	+	3946552-3946725	hypothetical protein	3954175-3954348	+	174
140285	STM14_4512	378452632	-	3954806-3954916	hypothetical protein	3962429-3962539	-	111
140285	STM14_4520	378452639	+	3963213-3963356	hypothetical protein	3970836-3970979	+	144
140285	STM14_4521	378452640	-	3963387-3963497	hypothetical protein	3971010-3971120	-	111
D23580	STM14_37441	378447121	-	3975758-3975931	iXac3 transposase	3974197-3974370	-	174
D23580	STM14_37491	378447126	-	3981984-3982097	putative product	3980423-3980536	-	114
140285	STM14_3040	378451209	+	2640806-2640913	hypothetical protein	3981875-3981982	-	108
140285	STM14_4535	378452652	+	3974935-3975075	hypothetical protein	3982558-3982698	+	141
T000240	STM14_C38190	378986359	-	3984324-3984416	hypothetical protein	3982743-3982835	-	93
140285	STM14_4537	378452654	+	3978059-3978172	hypothetical protein	3985682-3985795	+	114
140285	STM14_4539	378452656	+	3979055-3979171	hypothetical protein	3986678-3986794	+	117
140285	STM14_4540	378452657	-	3979172-3979297	hypothetical protein	3986795-3986920	-	126
140285	STM14_4549	378452666	+	3986024-3986146	hypothetical protein	3993647-3993769	+	123
140285	STM14_4551	378452668	-	3989051-3989164	hypothetical protein	3996674-3996787	-	114
140285	STM14_4553	378452670	+	3989514-3989657	hypothetical protein	3997137-3997280	+	144
140285	STM14_4565	378452682	-	3999123-3999230	hypothetical protein	4006745-4006852	-	108
140285	STM14_4578	378452695	+	4011296-4011472	hypothetical protein	4018917-4019093	+	177
140285	STM14_4580	378452697	+	4011519-4011680	hypothetical protein	4019140-4019301	+	162
140285	STM14_4581	378452698	-	4011613-4011768	hypothetical protein	4019234-4019389	-	156
140285	STM14_4582	378452699	+	4011777-4011950	hypothetical protein	4019398-4019571	+	174
D23580	STM14_37861	378447163	+	4021208-4021303	hypothetical protein	4019646-4019741	+	96
D23580	STM14_37871	378447164	+	4021319-4021408	putative LexA-regulated protein TisB	4019757-4019846	+	90
140285	STM14_4589	378452704	-	4016572-4016697	hypothetical protein	4024194-4024319	-	126
140285	STM14_4595	378452710	+	4020774-4020887	hypothetical protein	4028396-4028509	+	114
140285	STM14_4598	378452712	+	4022921-4023073	hypothetical protein	4030543-4030695	+	153
140285	STM14_4601	378452715	+	4024130-4024306	hypothetical protein	4031752-4031928	+	177
140285	STM14_4630	378452743	+	4056093-4056239	hypothetical protein	4063715-4063861	+	147
140285	STM14_4633	378452746	+	4059079-4059237	hypothetical protein	4066701-4066859	+	159
T000240	STM14_C40060	378986546	-	4156200-4156427	hypothetical protein	4072400-4072627	-	228
140285	STM14_4658	378452770	+	4086316-4086504	hypothetical protein	4093935-4094123	+	189
140285	STM14_4669	378452781	-	4094364-4094507	hypothetical protein	4101983-4102126	-	144
140285	STM14_4696	378452801	+	4122161-4122346	hypothetical protein	4130016-4130201	+	186
140285	STM14_4733	378452833	+	4155257-4155382	hypothetical protein	4163112-4163237	+	126
140285	STM14_4738	378452838	-	4159908-4160012	hypothetical protein	4167763-4167867	-	105
140285	STM14_4740	378452840	+	4162570-4162710	hypothetical protein	4170425-4170565	+	141
140285	STM14_4753	378452852	-	4171444-4171629	hypothetical protein	4179299-4179484	-	186
140285	STM14_4759	378452858	-	4175211-4175348	hypothetical protein	4183066-4183203	-	138
140285	STM14_4768	378452867	+	4183187-4183360	hypothetical protein	4191042-4191215	+	174
140285	STM14_4770	378452869	-	4185870-4186004	hypothetical protein	4193725-4193859	-	135
140285	STM14_4771	378452870	+	4185906-4186052	hypothetical protein	4193761-4193907	+	147
140285	STM14_4784	378452883	+	4197098-4197223	hypothetical protein	4204953-4205078	+	126
140285	STM14_4800	378452894	-	4215049-4215231	hypothetical protein	4222904-4223086	-	183
140285	STM14_4801	378452895	+	4215077-4215433	hypothetical protein	4222932-4223288	+	357
140285	STM14_4808	378452902	-	4219525-4219656	hypothetical protein	4227380-4227511	-	132
140285	STM14_4811	378452904	+	4222708-4222851	hypothetical protein	4230563-4230706	+	144
140285	STM14_4816	378452909	-	4226121-4226246	hypothetical protein	4233976-4234101	-	126
140285	STM14_4819	378452912	-	4228860-4229039	hypothetical protein	4236715-4236894	-	180
140285	STM14_4821	378452914	-	4230571-4230990	putative cytoplasmic protein	4238426-4238845	-	420
140285	STM14_4837	378452930	-	4248232-4248351	hypothetical protein	4256087-4256206	-	120
140285	STM14_4854	378452947	-	4262409-4262564	hypothetical protein	4270264-4270419	-	156
140285	STM14_4856	378452949	+	4263770-4263904	hypothetical protein	4271625-4271759	+	135
140285	STM14_4858	378452951	+	4265002-4265130	hypothetical protein	4272857-4272985	+	129
140285	STM14_4867	378452960	+	4272347-4272496	hypothetical protein	4280202-4280351	+	150
140285	STM14_4868	378452961	-	4272426-4272560	hypothetical protein	4280281-4280415	-	135
140285	STM14_4872	378452965	+	4275521-4275652	hypothetical protein	4283376-4283507	+	132
140285	STM14_4886	378452979	-	4286951-4287055	hypothetical protein	4294806-4294910	-	105
140285	STM14_4898	378452991	-	4296957-4297091	hypothetical protein	4304811-4304945	-	135
140285	STM14_4909	378453002	-	4305795-4305962	hypothetical protein	4313649-4313816	-	168
140285	STM14_4914	378453007	+	4310547-4310666	hypothetical protein	4318401-4318520	+	120
140285	STM14_4934	378453027	-	4332008-4332127	hypothetical protein	4339862-4339981	-	120
140285	STM14_4938	378453031	+	4336017-4336178	hypothetical protein	4343871-4344032	+	162
140285	STM14_4943	378453035	-	4340772-4340927	hypothetical protein	4348626-4348781	-	156
140285	STM14_4950	378453042	+	4346732-4346872	hypothetical protein	4354586-4354726	+	141
140285	STM14_4951	378453043	+	4346784-4346900	hypothetical protein	4354638-4354754	+	117

14028S	STM14_4953	378453045	+	4348703-4348810	hypothetical protein	4356557-4356664	+	108
14028S	STM14_4961	378453053	-	4358974-4359162	hypothetical protein	4366828-4367016	-	189
14028S	STM14_0296	378448563	+	291760-291876	hypothetical protein	4374452-4374568	+	117
14028S	STM14_4983	378453065	+	4375382-4375510	hypothetical protein	4383133-4383261	+	129
14028S	STM14_4995	378453077	+	4388644-4388847	hypothetical protein	4396395-4396598	+	204
14028S	STM14_4997	378453079	+	4389931-4390140	hypothetical protein	4397682-4397891	+	210
14028S	STM14_5018	378453099	+	4407683-4407805	hypothetical protein	4415434-4415556	+	123
14028S	STM14_5019	378453100	-	4407796-4407918	hypothetical protein	4415547-4415669	-	123
14028S	STM14_5020	378453101	+	4407851-4407991	hypothetical protein	4415602-4415742	+	141
14028S	STM14_5025	378453102	-	4413499-4413630	hypothetical protein	4421250-4421381	-	132
14028S	STM14_5057	378453133	-	4441014-4441139	hypothetical protein	4448765-4448890	-	126
14028S	STM14_5072	378453147	+	4451435-4451575	hypothetical protein	4459186-4459326	+	141
14028S	STM14_5083	378453158	-	4462681-4462857	hypothetical protein	4470432-4470608	-	177
14028S	STM14_5084	378453159	+	4462737-4462877	hypothetical protein	4470488-4470628	+	141
14028S	STM14_5088	378453163	+	4466972-4467136	hypothetical protein	4474723-4474887	+	165
T000240	STMDT12_C43680	378986908	+	4559620-4559715	hypothetical protein	4475824-4475919	+	96
14028S	STM14_5101	378453176	+	4478537-4478704	hypothetical protein	4486288-4486455	+	168
14028S	STM14_5115	378453190	-	4490374-4490565	hypothetical protein	4498125-4498316	-	192
14028S	STM14_5116	378453191	+	4490568-4490723	hypothetical protein	4498319-4498474	+	156
14028S	STM14_5124	378453199	+	4515420-4515557	hypothetical protein	4523171-4523308	+	138
14028S	STM14_5125	378453200	-	4515741-4515845	hypothetical protein	4523492-4523596	-	105
14028S	STM14_5129	378453204	-	4518503-4518631	hypothetical protein	4526254-4526382	-	129
14028S	STM14_5131	378453206	-	4519322-4519456	hypothetical protein	4527073-4527207	-	135
14028S	STM14_5134	378453209	-	4521030-4521188	hypothetical protein	4528781-4528939	-	159
14028S	STM14_5149	378453224	-	4536353-4536481	hypothetical protein	4544104-4544232	-	129
14028S	STM14_5150	378453225	+	4536377-4536649	hypothetical protein	4544128-4544400	+	273
14028S	STM14_5152	378453227	+	4537849-4538022	hypothetical protein	4545600-4545773	+	174
14028S	STM14_5154	378453229	-	4538728-4538883	hypothetical protein	4546479-4546634	-	156
14028S	STM14_5160	378453235	+	4544189-4544284	hypothetical protein	4551940-4552035	+	96
14028S	STM14_5162	378453237	+	4546069-4546173	hypothetical protein	4553820-4553924	+	105
14028S	STM14_5168	378453243	+	4552110-4552238	hypothetical protein	4559861-4559989	+	129
14028S	STM14_5183	378453258	+	4571436-4571549	hypothetical protein	4579187-4579300	+	114
14028S	STM14_5189	378453264	+	4574725-4574850	hypothetical protein	4582476-4582601	+	126
SL1344	SL1344_4256	378702162	-	4584964-4585098	hypothetical protein	4584965-4585099	-	135
14028S	STM14_5194	378453269	-	4578381-4578758	ethyl tert-butyl ether degradation EthD	4586132-4586509	-	378
14028S	STM14_5196	378453271	-	4579152-4579388	hypothetical protein	4586903-4587139	-	237
14028S	STM14_5203	378453277	-	4585245-4585367	hypothetical protein	4592996-4593118	-	123
14028S	STM14_5208	378453282	-	4589666-4589833	hypothetical protein	4597417-4597584	-	168
14028S	STM14_5211	378453285	+	4591089-4591223	hypothetical protein	4598840-4598974	+	135
14028S	STM14_5212	378453286	-	4591232-4591378	hypothetical protein	4598983-4599129	-	147
14028S	STM14_5225	378453299	+	4599983-4600087	hypothetical protein	4607734-4607838	+	105
14028S	STM14_5272	378453343	-	4642797-4642994	hypothetical protein	4650548-4650745	-	198
14028S	STM14_5273	378453344	+	4642921-4643028	hypothetical protein	4650672-4650779	+	108
14028S	STM14_5288	378453359	-	4654346-4654567	hypothetical protein	4662097-4662318	-	222
14028S	STM14_5291	378453362	-	4655902-4656081	hypothetical protein	4663653-4663832	-	180
14028S	STM14_5295	378453366	+	4658725-4658841	hypothetical protein	4666476-4666592	+	117
14028S	STM14_5303	378453374	-	4669323-4669508	hypothetical protein	4677075-4677260	-	186
14028S	STM14_5305	378453376	-	4670877-4671137	hypothetical protein	4678629-4678889	-	261
14028S	STM14_5306	378453377	+	4671075-4671302	hypothetical protein	4678827-4679054	+	228
14028S	STM14_5309	378453380	-	4673931-4674110	hypothetical protein	4681683-4681862	-	180
14028S	STM14_5313	378453384	-	4678291-4678593	putative cytoplasmic protein	4686043-4686345	-	303
14028S	STM14_5315	378453386	+	4679544-4679654	hypothetical protein	4687295-4687405	+	111
14028S	STM14_5323	378453393	+	4689572-4689691	hypothetical protein	4697323-4697442	+	120
14028S	STM14_5347	378453416	+	4711078-4711185	hypothetical protein	4718829-4718936	+	108
UK1	STMUK_4448	378991724	+	4665460-4665600	putative cytoplasmic protein	4725606-4725746	+	141
14028S	STM14_5356	378453425	-	4718450-4718566	hypothetical protein	4726201-4726317	-	117
T000240	STMDT12_C45910	378987131	+	4803005-4803103	hypothetical protein	4726207-4726305	+	99
14028S	STM14_5359	378453428	-	4721103-4721225	hypothetical protein	4728854-4728976	-	123
14028S	STM14_5362	378453431	+	4723479-4723670	hypothetical protein	4731230-4731421	+	192
T000240	STMDT12_C46080	378987148	+	4822036-4822131	hypothetical protein	4745238-4745333	+	96
14028S	STM14_5381	378453450	+	4741810-4741944	hypothetical protein	4749561-4749695	+	135
14028S	STM14_5399	378453466	+	4766523-4766714	hypothetical protein	4774274-4774465	+	192
14028S	STM14_5402	378453469	-	4768806-4769102	hypothetical protein	4776557-4776853	-	297
14028S	STM14_5407	378453474	-	4772241-4772357	hypothetical protein	4779992-4780108	-	117
14028S	STM14_5410	378453477	+	4773638-4773850	hypothetical protein	4781389-4781601	+	213
14028S	STM14_5415	378453482	+	4776954-4777076	hypothetical protein	4784705-4784827	+	123
14028S	STM14_5416	378453483	-	4776976-4777107	hypothetical protein	4784727-4784858	-	132
14028S	STM14_5426	378453493	-	4786173-4786316	hypothetical protein	4793924-4794067	-	144
14028S	STM14_5427	378453494	+	4786386-4786523	hypothetical protein	4794137-4794274	+	138
14028S	STM14_5435	378453502	-	4790281-4790412	hypothetical protein	4798032-4798163	-	132
14028S	STM14_5440	378453507	+	4798305-4798442	hypothetical protein	4806056-4806193	+	138
14028S	STM14_5447	378453514	-	4804689-4804838	hypothetical protein	4812440-4812589	-	150
14028S	STM14_5455	378453522	+	4812431-4812535	hypothetical protein	4820182-4820286	+	105
14028S	STM14_5462	378453529	-	4818419-4818574	hypothetical protein	4826170-4826325	-	156
14028S	STM14_5468	378453535	+	4823006-4823134	hypothetical protein	4830757-4830885	+	129
14028S	STM14_5474	378453538	+	4824998-4825105	hypothetical protein	4832749-4832856	+	108
14028S	STM14_5486	378453550	+	4833992-4834120	hypothetical protein	4841740-4841868	+	129
14028S	STM14_5496	378453560	+	4843995-4844144	hypothetical protein	4851743-4851892	+	150

Genome name	Gene Name	Reference details					Gene annotated in 798		
		GI	Strand	CDS-region	Product	Coordinate	Strand	Length (bp)	
14028S	thrL	378448275	+	190-255	thr operon leader peptide	190-255	+	66	
14028S	STM14_0012	378448286	+	11257-11424	hypothetical protein	11257-11424	+	168	
14028S	STM14_0015	378448289	+	14845-14958	hypothetical protein	14845-14958	+	114	
14028S	STM14_0020	378448294	+	17613-17741	hypothetical protein	17613-17741	-	129	
14028S	STM14_0021	378448295	+	17665-17787	hypothetical protein	17665-17787	+	123	
14028S	STM14_0024	378448298	+	23091-23240	hypothetical protein	23091-23240	+	150	
14028S	STM14_0026	378448300	-	24094-24198	hypothetical protein	24094-24198	-	105	
14028S	STM14_0027	378448301	+	24316-24426	hypothetical protein	24316-24426	+	111	
14028S	STM14_0040	378448314	+	34828-34974	hypothetical protein	34828-34974	+	147	
14028S	yaaY	378448327	+	52649-52864	putative cytoplasmic protein	52650-52865	+	216	
14028S	STM14_0057	378448331	+	57203-57334	hypothetical protein	57204-57335	+	132	
14028S	STM14_0068	378448342	-	68513-68671	hypothetical protein	68513-68671	-	159	
14028S	STM14_0076	378448350	-	74964-75239	hypothetical protein	74967-75242	-	276	
ST474	STM474_0083	379699298	-	92031-92228	hypothetical protein	92030-92227	-	198	
14028S	STM14_0097	378448371	-	95263-95379	hypothetical protein	94553-94669	-	117	
14028S	STM14_0102	378448376	+	98738-99019	hypothetical protein	98028-98309	+	282	
14028S	STM14_0105	378448379	-	101349-101474	hypothetical protein	100639-100764	-	126	
14028S	STM14_0113	378448387	-	108892-109053	hypothetical protein	108182-108343	-	162	
14028S	STM14_0128	378448402	-	127427-127546	putative lipoprotein	126717-126836	-	120	
14028S	STM14_0130	378448404	-	129166-129492	hypothetical protein	128456-128782	-	327	
ST474	STM474_0114	379699329	+	128578-128724	hypothetical protein	128577-128723	+	147	
ST474	STM474_0115	379699330	+	128926-129039	hypothetical protein	128925-129038	+	114	
14028S	leuL	378448409	+	134538-134624	leu operon leader peptide	133828-133914	-	87	
14028S	STM14_0136	378448410	-	134689-134793	hypothetical protein	133979-134083	-	105	
14028S	STM14_0137	378448411	+	135067-135210	hypothetical protein	134357-134500	+	144	
14028S	STM14_0141	378448415	-	138755-138877	hypothetical protein	138045-138167	-	123	
LT2	STM04630	409994397	-	139338-139487	hypothetical protein	139340-139489	-	150	
14028S	STM14_0143	378448417	-	140204-140338	hypothetical protein	139494-139628	-	135	
14028S	STM14_0144	378448418	+	140496-140633	hypothetical protein	139786-139923	+	138	
14028S	STM14_0165	378448438	+	162875-162979	LysR family transcriptional regulator	162165-162269	+	105	
14028S	STM14_0173	378448446	-	168890-169072	hypothetical protein	168180-168362	-	183	
14028S	STM14_0179	378448452	-	173962-174090	hypothetical protein	173252-173380	-	129	
14028S	STM14_0181	378448454	+	175672-175794	hypothetical protein	174962-175084	+	123	
14028S	STM14_0186	378448459	+	183222-183350	hypothetical protein	182512-182640	+	129	
14028S	STM14_0210	378448482	-	209796-209966	hypothetical protein	209086-209256	-	171	
14028S	STM14_0215	378448487	-	213058-213171	hypothetical protein	212348-212461	-	114	
14028S	STM14_0224	378448496	+	221426-221587	hypothetical protein	220716-220877	+	162	
14028S	STM14_0225	378448497	-	221522-221629	hypothetical protein	220812-220919	-	108	
14028S	STM14_0227	378448499	-	224289-224429	hypothetical protein	223579-223719	-	141	
14028S	STM14_0232	378448504	+	230459-230665	hypothetical protein	229749-229955	+	207	
14028S	STM14_0233	378448505	+	231001-231144	hypothetical protein	230290-230433	+	144	
14028S	STM14_0242	378448514	+	239222-239365	hypothetical protein	238511-238654	+	144	
14028S	STM14_0256	378448527	+	254799-255083	30S ribosomal protein S2	254087-254371	+	285	
14028S	STM14_0262	378448533	+	259830-260033	hypothetical protein	259118-259321	+	204	
14028S	rcsF	378448556	+	285700-286104	outer membrane lipoprotein	284989-285393	+	405	
14028S	STM14_0291	378448561	-	289581-289703	hypothetical protein	288870-288992	-	123	
14028S	STM14_0292	378448562	-	289616-289819	hypothetical protein	288905-289108	-	204	
14028S	STM14_0296	378448563	+	291760-291876	hypothetical protein	291049-291165	+	117	
14028S	STM14_0310	378448574	-	304859-304966	hypothetical protein	304148-304255	-	108	
14028S	STM14_0312	378448575	+	305167-305274	hypothetical protein	304456-304563	+	108	
14028S	STM14_0322	378448585	+	316755-316865	invasol SirA	316044-316154	+	111	
14028S	STM14_0323	378448586	+	316878-317324	putative cytoplasmic protein	316167-316613	+	447	
14028S	STM14_0337	378448600	+	330303-330512	hypothetical protein	329592-329801	+	210	
14028S	STM14_0343	378448606	+	339144-339275	hypothetical protein	337935-338066	+	132	
14028S	STM14_0344	378448607	+	339345-339485	hypothetical protein	338136-338276	+	141	
14028S	STM14_0346	378448609	-	340013-340288	hypothetical protein	338804-339079	-	276	
LT2	STM04655	409994398	-	339629-339871	hypothetical protein	339105-339347	-	243	
ST474	STM474_0312	379699516	+	341562-341681	hypothetical protein	341560-341679	+	120	
14028S	safA	378448612	+	342894-343406	putative outer membrane protein	341685-342197	+	513	
14028S	STM14_0357	378448617	+	348560-348820	hypothetical protein	347351-347611	+	261	
D23580	STM14_03133	378443750	+	348247-348378	putative transposase	347752-347883	+	132	
14028S	STM14_0359	378448619	+	350359-350574	putative cytoplasmic protein	349150-349365	+	216	
14028S	STM14_0361	378448621	-	351322-351450	hypothetical protein	350113-350241	-	129	
14028S	STM14_0377	378448636	-	366783-366935	hypothetical protein	365573-365725	-	153	
UK1	STMUK_0331	378987726	+	369132-369353	putative inner membrane protein	368633-368854	+	222	
14028S	STM14_0390	378448647	+	378258-378530	putative cytoplasmic protein	377048-377320	+	273	
14028S	STM14_0391	378448648	+	379221-379619	putative outer membrane protein	378011-378409	+	399	
14028S	STM14_0397	378448654	-	385733-385843	hypothetical protein	384523-384633	-	111	
14028S	STM14_0403	378448660	-	390802-390939	hypothetical protein	389592-389729	-	138	
14028S	STM14_0406	378448663	+	392401-392625	putative inner membrane protein	391191-391415	+	225	
14028S	STM14_0411	378448668	+	399120-399233	hypothetical protein	397910-398023	+	114	
14028S	STM14_0415	378448672	+	402243-402422	putative metal-binding transport protein	401033-401212	+	180	
14028S	STM14_0419	378448676	+	409084-409218	hypothetical protein	407874-408008	+	135	
14028S	STM14_0420	378448677	-	409118-409237	hypothetical protein	407908-408027	-	120	
14028S	STM14_0424	378448681	+	411886-412110	putative cytoplasmic protein	410676-410900	+	225	
14028S	STM14_0430	378448687	+	418467-418640	hypothetical protein	417257-417430	+	174	
14028S	STM14_0436	378448693	+	425565-425684	hypothetical protein	424355-424474	+	120	
14028S	STM14_0437	378448694	-	425675-425827	hypothetical protein	424465-424617	-	153	
14028S	STM14_0441	378448698	-	430751-430909	hypothetical protein	429541-429699	-	159	
14028S	STM14_0442	378448699	+	430925-431059	hypothetical protein	429715-429849	+	135	
14028S	STM14_0446	378448703	+	433714-433827	hypothetical protein	432504-432617	+	114	
14028S	STM14_0451	378448708	+	437620-437742	hypothetical protein	436410-436532	+	123	
14028S	STM14_0453	378448710	-	438082-438243	hypothetical protein	436872-437033	-	162	
14028S	STM14_0457	378448714	+	440792-440941	hypothetical protein	439582-439731	+	150	
14028S	STM14_0464	378448721	-	444556-444687	hypothetical protein	443346-443477	-	132	
T000240	STM04560	378982997	+	482933-483049	hypothetical protein	444371-444487	+	117	
14028S	STM14_0469	378448726	-	451315-451446	hypothetical protein	450105-450236	-	132	
14028S	STM14_0472	378448729	-	453755-453904	hypothetical protein	452545-452694	-	150	
14028S	STM14_0479	378448736	+	461340-461450	DNA metabolism protein	460130-460240	+	111	
14028S	STM14_0487	378448744	+	467631-467846	hypothetical protein	466421-466636	+	216	
D23580	STM14_04821	378443916	-	507659-507985	hypothetical protein	466639-466965	-	327	

ST474	STM474_0431	379699631	+	466787-466939	hypothetical protein	466784-466936	+	153
140285	STM14_0491	378448747	+	469965-470111	hypothetical protein	468755-468901	+	147
140285	STM14_0498	378448754	-	473976-474284	hypothetical protein	472766-473074	-	309
140285	STM14_0509	378448765	-	484792-484902	hypothetical protein	483582-483692	-	111
ST474	STM474_0464	379699664	-	497880-498002	hypothetical protein	497877-497999	-	123
140285	STM14_0526	378448781	+	501468-501653	hypothetical protein	500258-500443	+	186
140285	STM14_0528	378448783	-	502053-502166	hypothetical protein	500843-500956	-	114
140285	STM14_0531	378448786	+	504670-504774	hypothetical protein	503460-503564	+	105
140285	STM14_0536	378448791	-	511028-511390	hypothetical protein	509818-510180	-	363
140285	STM14_0562	378448816	-	535085-535210	hypothetical protein	533877-534002	-	126
140285	ybaN	378448821	+	540406-540783	hypothetical protein	539198-539575	+	378
140285	STM14_0573	378448827	-	546597-546818	hypothetical protein	545389-545610	-	222
140285	STM14_0575	378448829	+	547392-547598	hypothetical protein	546184-546390	+	207
140285	STM14_0580	378448834	+	552798-552923	hypothetical protein	551590-551715	+	126
140285	STM14_0597	378448851	+	570227-570331	hypothetical protein	569018-569122	+	105
140285	STM14_0599	378448853	-	571546-571650	hypothetical protein	570337-570441	-	105
140285	STM14_0633	378448887	-	604316-604444	hypothetical protein	603107-603235	-	129
140285	STM14_0634	378448888	+	604400-604555	hypothetical protein	603191-603346	+	156
140285	STM14_0645	378448899	+	614019-614189	hypothetical protein	612810-612980	+	171
140285	STM14_0647	378448900	-	614287-614475	integrase	613078-613266	-	189
140285	STM14_0649	378448901	+	615283-615441	hypothetical protein	614074-614232	+	159
140285	STM14_0659	378448908	-	622266-622520	hypothetical protein	621057-621311	-	255
140285	STM14_0665	378448914	+	627603-627788	hypothetical protein	626394-626579	+	186
140285	STM14_0677	378448926	+	639577-639684	hypothetical protein	638368-638475	+	108
140285	STM14_0683	378448932	-	644504-644635	hypothetical protein	643295-643426	-	132
140285	STM14_0698	378448947	+	661861-661971	hypothetical protein	660652-660762	+	111
140285	STM14_0714	378448963	+	678228-678434	hypothetical protein	677205-677411	+	207
140285	STM14_0715	378448964	-	678399-678539	hypothetical protein	677376-677516	-	141
140285	STM14_0726	378448975	+	688331-688513	hypothetical protein	687308-687490	+	183
140285	STM14_0730	378448979	+	692333-692443	hypothetical protein	691310-691420	+	111
140285	STM14_0735	378448984	+	694969-695076	hypothetical protein	693946-694053	+	108
140285	STM14_0738	378448987	-	696364-696498	hypothetical protein	695341-695475	-	135
140285	STM14_0740	378448989	-	697584-697727	hypothetical protein	696561-696704	-	144
140285	STM14_0742	378448991	+	698354-698719	hypothetical protein	697331-697696	+	366
140285	STM14_0745	378448994	+	700128-700277	hypothetical protein	699105-699254	+	150
T000240	STMDT12_C077050	378983246	-	742985-743125	hypothetical protein	704327-704667	-	141
140285	ybeV	378449014	+	721536-723008	putative molecular chaperone	720435-721907	+	1473
140285	STM14_0774	378449022	+	730309-730596	hypothetical protein	729208-729495	+	288
140285	STM14_0777	378449025	-	733102-733251	hypothetical protein	732001-732150	-	150
140285	STM14_0780	378449028	-	734838-734957	hypothetical protein	733737-733856	-	120
140285	STM14_0791	378449032	+	739310-739477	hypothetical protein	738211-738378	+	168
140285	STM14_0797	378449038	-	745470-745595	hypothetical protein	744371-744496	-	126
140285	STM14_0800	378449041	+	749621-749734	hypothetical protein	748522-748635	+	114
140285	STM14_0801	378449042	+	749864-750154	hypothetical protein	748765-749055	+	291
140285	STM14_0809	378449050	+	757442-757591	hypothetical protein	756343-756492	+	150
140285	STM14_0812	378449053	+	758607-758720	hypothetical protein	757508-757621	+	114
140285	STM14_0819	378449060	-	766193-766318	hypothetical protein	765094-765219	-	126
140285	STM14_0820	378449061	+	766472-766585	hypothetical protein	765373-765486	+	114
140285	STM14_0826	378449067	-	774532-774729	K ⁺ -transporting ATPase subunit F	773433-773630	-	198
T000240	STMDT12_C07730	378983314	-	820062-820163	hypothetical protein	780630-780731	-	102
140285	STM14_0836	378449077	+	783151-783486	putative inner membrane protein	782052-782387	+	336
140285	STM14_0850	378449091	+	797694-798080	putative inner membrane protein	796594-796980	+	387
140285	STM14_0859	378449100	+	808472-808597	hypothetical protein	807372-807497	+	126
ST474	STM474_0763	379699951	+	807598-807723	hypothetical protein	807584-807709	+	126
ST474	STM474_0764	379699952	-	808597-808710	hypothetical protein	808583-808696	-	114
140285	STM14_0860	378449101	-	809819-809962	hypothetical protein	808719-808862	-	144
140285	STM14_0864	378449105	+	812877-813017	hypothetical protein	811777-811917	+	141
140285	STM14_0873	378449114	-	818715-819254	hypothetical protein	817614-818153	-	540
140285	STM14_0879	378449115	-	820227-820322	hypothetical protein	819126-819221	-	96
140285	STM14_0897	378449132	-	837473-837664	hypothetical protein	836375-836566	-	192
140285	STM14_0903	378449138	+	843123-843230	hypothetical protein	842026-842133	+	108
ST474	STM474_0818	379700001	+	857893-858006	hypothetical protein	857882-857995	+	114
140285	STM14_0924	378449158	+	864209-864493	hypothetical protein	863112-863396	+	285
140285	STM14_0925	378449159	+	864550-864777	hypothetical protein	863453-863680	+	228
140285	STM14_0927	378449161	+	867104-867277	putative cytoplasmic protein	866007-866180	+	174
140285	STM14_0946	378449180	-	881747-881884	hypothetical protein	879939-880076	-	138
140285	STM14_0952	378449186	-	888006-888110	hypothetical protein	886198-886302	-	105
140285	STM14_0956	378449190	+	891948-892067	hypothetical protein	890140-890259	+	120
140285	STM14_0958	378449192	-	892325-892444	hypothetical protein	890517-890636	-	120
140285	STM14_0961	378449195	+	895674-895811	hypothetical protein	893866-894003	+	138
140285	STM14_0965	378449199	-	898059-898181	hypothetical protein	896251-896373	-	123
140285	STM14_0967	378449201	-	899158-899316	hypothetical protein	897350-897508	-	159
140285	STM14_0969	378449203	-	900254-900415	hypothetical protein	898446-898607	-	162
140285	STM14_0970	378449204	-	900375-900506	hypothetical protein	898567-898698	-	132
140285	STM14_0973	378449207	+	902910-903080	hypothetical protein	901102-901272	+	171
140285	STM14_0974	378449208	-	903009-903137	hypothetical protein	901201-901329	-	129
140285	STM14_0982	378449216	+	911396-911509	hypothetical protein	909588-909701	+	114
140285	STM14_0986	378449220	-	915878-916033	hypothetical protein	914070-914225	-	156
140285	STM14_0989	378449223	+	917997-918137	hypothetical protein	916189-916329	+	141
140285	STM14_0995	378449229	-	924480-924599	hypothetical protein	922672-922791	-	120
140285	STM14_0997	378449231	+	925933-926067	hypothetical protein	924125-924259	+	135
140285	STM14_0999	378449233	+	926622-926762	hypothetical protein	924814-924954	+	141
140285	STM14_1000	378449234	+	926970-927134	hypothetical protein	925162-925326	+	165
140285	STM14_1006	378449239	-	931103-931243	hypothetical protein	929295-929435	-	141
140285	STM14_1010	378449243	+	934780-934917	hypothetical protein	932973-933110	+	138
140285	STM14_1019	378449251	+	942902-943027	hypothetical protein	941093-941218	+	126
140285	STM14_1034	378449266	+	955378-955569	hypothetical protein	953569-953760	+	192
140285	STM14_1038	378449270	-	958765-958965	hypothetical protein	956956-957156	-	201
140285	STM14_1053	378449285	+	972908-973111	hypothetical protein	971099-971302	+	204
140285	STM14_1055	378449287	-	973986-974153	hypothetical protein	972177-972344	+	168
140285	STM14_1060	378449292	-	980013-980138	hypothetical protein	978204-978329	-	126
140285	STM14_1061	378449293	+	980033-980176	hypothetical protein	978224-978367	+	144
140285	STM14_1067	378449299	-	984062-984343	hypothetical protein	982253-982534	-	282

140285	STM14_1069	378449301	-	985102-985260	hypothetical protein	983293-983451	-	159
140285	STM14_1076	378449307	-	988822-989205	putative inner membrane protein	987013-987396	-	384
140285	STM14_1081	378449312	-	994689-994946	hypothetical protein	992880-993137	-	258
140285	STM14_1082	378449313	-	994867-995142	hypothetical protein	993058-993333	-	276
140285	STM14_1087	378449318	+	1001941-1002111	hypothetical protein	1000132-1000302	+	171
140285	STM14_1092	378449323	+	1007647-1007754	hypothetical protein	1005838-1005945	+	108
140285	STM14_1093	378449324	-	1007837-1007968	hypothetical protein	1006028-1006159	-	132
140285	STM14_1097	378449328	-	1011963-1012289	putative cytoplasmic protein	1010154-1010480	-	327
140285	STM14_1102	378449333	+	1018831-1018959	hypothetical protein	1017022-1017150	+	129
140285	STM14_1104	378449335	+	1019641-1019754	hypothetical protein	1017832-1017945	+	114
140285	STM14_1108	378449339	-	1023127-1023381	hypothetical protein	1021318-1021572	-	255
140285	STM14_1118	378449349	-	1033792-1033944	hypothetical protein	1031983-1032135	-	153
140285	STM14_1129	378449360	-	1047995-1048126	hypothetical protein	1046186-1046317	-	132
140285	STM14_1131	378449362	+	1049521-1049673	hypothetical protein	1047712-1047864	+	153
140285	STM14_1133	378449364	-	1051307-1051426	hypothetical protein	1049498-1049617	-	120
140285	STM14_1135	378449366	-	1051897-1052118	hypothetical protein	1050088-1050309	-	222
140285	STM14_1137	378449368	+	1053504-1053662	hypothetical protein	1051694-1051852	+	159
140285	STM14_1142	378449373	-	1058213-1058452	hypothetical protein	1056403-1056642	-	240
140285	STM14_1145	378449376	-	1062627-1062926	hypothetical protein	1060859-1061158	-	300
ST474	STM474_0999	379700176	+	1061436-1061582	hypothetical protein	1061460-1061606	+	147
140285	STM14_1148	378449379	-	1063409-1063819	regulatory protein	1061641-1062051	-	411
ST474	STM474_1001	379700178	+	1061983-1062096	hypothetical protein	1062007-1062120	+	114
140285	STM14_1149	378449380	+	1063939-1064178	hypothetical protein	1062171-1062410	+	240
140285	STM14_1157	378449388	+	1068009-1068230	hypothetical protein	1066241-1066462	+	222
140285	STM14_1159	378449390	+	1068921-1069121	hypothetical protein	1067153-1067353	+	201
140285	STM14_1161	378449392	+	1069732-1069878	hypothetical protein	1067964-1068110	+	147
140285	STM14_1164	378449395	+	1071223-1071348	hypothetical protein	1069455-1069580	+	126
140285	STM14_1165	378449396	-	1071484-1071933	hypothetical protein	1067916-1070165	-	450
140285	STM14_3197	378451364	+	2811771-2811908	hypothetical protein	1071308-1071445	-	138
D23580	STM14_10422	378444470	+	1114868-1115074	prophage protein	1075583-1075789	+	207
ST474	STM474_1045	379700222	+	1098511-1098666	hypothetical protein	1098767-1098922	+	156
140285	STM14_1196	378449426	-	1100627-1100926	hypothetical protein	1098860-1099159	-	300
140285	STM14_1201	378449431	-	1106320-1106445	hypothetical protein	1104553-1104678	-	126
140285	STM14_1209	378449439	-	1115818-1116021	hypothetical protein	1114053-1114256	-	204
140285	rmf	378449440	+	1115985-1116152	ribosome modulation factor	1114220-1114387	+	168
140285	STM14_1216	378449446	-	1121248-1121352	hypothetical protein	1119483-1119587	-	105
T000240	STM14_C11030	378983644	+	1169756-1169860	hypothetical protein	1128650-1128754	+	105
140285	STM14_1234	378449463	+	1135671-1135796	hypothetical protein	1133906-1134031	+	126
140285	STM14_1235	378449464	+	1135887-1136207	putative inner membrane protein	1134122-1134442	+	321
140285	orfX	378449467	+	1138592-1138762	putative cytoplasmic protein	1136827-1136997	+	171
140285	STM14_1239	378449468	-	1138763-1138873	putative cytoplasmic protein	1136998-1137108	-	111
140285	STM14_1245	378449474	+	1143361-1143543	hypothetical protein	1141596-1141778	+	183
140285	STM14_1249	378449478	-	1146275-1146388	hypothetical protein	1144510-1144623	-	114
140285	STM14_1254	378449483	-	1150549-1150701	hypothetical protein	1148784-1148936	-	153
140285	STM14_1260	378449489	-	1155618-1155782	hypothetical protein	1153853-1154017	-	165
140285	STM14_1261	378449490	-	1156022-1156384	hypothetical protein	1154257-1154619	-	363
140285	STM14_1262	378449491	+	1156832-1156987	hypothetical protein	1155067-1155222	+	156
140285	STM14_1265	378449494	-	1158383-1158577	hypothetical protein	1156618-1156812	-	195
140285	STM14_1273	378449502	+	1164294-1164521	hypothetical protein	1162529-1162756	+	228
140285	STM14_1279	378449506	-	1170030-1170278	hypothetical protein	1168265-1168513	-	249
140285	STM14_1280	378449507	-	1170167-1170286	hypothetical protein	1168402-1168521	-	120
140285	STM14_1282	378449509	+	1172347-1172457	hypothetical protein	1170582-1170692	+	111
140285	STM14_1283	378449510	+	1172451-1172747	hypothetical protein	1170686-1170982	+	297
140285	STM14_1286	378449512	+	1174679-1174783	hypothetical protein	1172914-1173018	+	105
140285	STM14_1288	378449514	+	1176314-1176421	hypothetical protein	1174549-1174656	+	108
140285	STM14_1289	378449515	-	1176396-1176605	hypothetical protein	1174631-1174840	-	210
140285	STM14_1291	378449517	-	1177413-1177520	hypothetical protein	1175648-1175755	-	108
140285	STM14_1292	378449518	+	1177573-1177704	hypothetical protein	1175808-1175939	+	132
140285	STM14_1298	378449523	-	1183064-1183228	hypothetical protein	1181115-1181279	-	165
140285	STM14_1307	378449532	-	1188559-1188696	hypothetical protein	1186610-1186747	-	138
140285	STM14_1308	378449533	-	1188894-1189040	hypothetical protein	1186945-1187091	-	147
140285	STM14_1316	378449541	-	1194339-1194509	hypothetical protein	1192391-1192561	-	171
140285	STM14_1322	378449547	+	1200601-1201062	hypothetical protein	1198653-1199114	+	462
140285	STM14_1327	378449552	+	1204177-1204380	hypothetical protein	1202229-1202432	+	204
140285	STM14_1339	378449564	-	1212983-1213159	hypothetical protein	1211035-1211211	-	177
140285	STM14_1344	378449569	-	1216241-1216396	flagellar basal body P-ring biosynthesis protein FlgA	1214293-1214448	-	156
140285	STM14_1356	378449581	-	1226280-1226474	hypothetical protein	1224332-1224526	-	195
140285	rpmF	378449588	+	1234009-1234182	50S ribosomal protein L32	1232061-1232234	+	174
140285	STM14_1376	378449600	-	1244261-1244398	hypothetical protein	1242313-1242450	-	138
140285	STM14_1390	378449614	-	1256910-1257065	hypothetical protein	1254962-1255117	-	156
140285	STM14_1399	378449623	-	1267794-1267916	hypothetical protein	1265846-1265968	-	123
140285	STM14_1401	378449625	-	1269076-1269240	hypothetical protein	1267128-1267292	-	165
140285	STM14_1487	378449708	-	1337214-1337372	hypothetical protein	1284165-1284323	-	159
140285	STM14_1488	378449709	+	1337312-1337452	hypothetical protein	1284263-1284403	+	141
140285	STM14_1489	378449710	+	1337337-1337585	hypothetical protein	1284288-1284536	+	249
LT2	STM05040	409994415	-	1327664-1327867	hypothetical protein	1284590-1284793	-	204
140285	envE	378449713	-	1339871-1340392	putative envelope protein	1286822-1287343	-	522
140285	STM14_1494	378449714	-	1340405-1340575	hypothetical protein	1287356-1287526	-	171
140285	STM14_1495	378449715	-	1340807-1341019	cold shock-like protein	1287758-1287970	-	213
140285	STM14_1496	378449716	-	1341060-1341188	hypothetical protein	1288011-1288139	-	129
140285	pagD	378449717	-	1341151-1341414	virulence protein PAGD precursor	1288102-1288365	-	264
140285	STM14_1499	378449718	+	1341718-1341825	hypothetical protein	1288669-1288776	+	108
140285	STM14_1500	378449719	-	1342043-1342192	hypothetical protein	1288994-1289143	-	150
140285	STM14_1502	378449721	-	1342962-1343096	hypothetical protein	1289913-1290047	-	135
140285	STM14_1506	378449723	-	1344493-1344636	hypothetical protein	1291444-1291587	-	144
140285	STM14_1507	378449724	+	1344742-1344867	putative lipoprotein	1291693-1291818	+	126
ST474	STM474_1249	379700419	-	1291877-1292050	hypothetical protein	1291950-1292123	-	174
140285	STM14_1508	378449725	+	1345067-1345339	putative cytoplasmic protein	1292018-1292290	+	273
140285	STM14_1510	378449727	-	1346067-1346216	putative inner membrane protein	1293018-1293167	-	150
140285	STM14_1513	378449730	-	1348102-1348416	putative outer membrane lipoprotein	1295053-1295367	-	315
140285	STM14_1514	378449731	-	1348508-1348666	hypothetical protein	1295459-1295617	-	159
140285	STM14_1524	378449740	-	1356451-1356600	hypothetical protein	1303402-1303551	-	150
140285	STM14_1528	378449744	+	1358977-1359201	hypothetical protein	1305928-1306152	+	225

14028S	STM14_1533	378449749	-	1361225-1361380	hypothetical protein	1308177-1308332	-	156
14028S	STM14_1536	378449752	-	1362034-1362159	hypothetical protein	1308985-1309110	-	126
14028S	STM14_1540	378449756	-	1363413-1363529	hypothetical protein	1310364-1310480	-	117
14028S	STM14_1541	378449757	-	1363501-1363599	hypothetical protein	1310452-1310550	-	99
14028S	STM14_1545	378449761	-	1364743-1364856	hypothetical protein	1311694-1311807	-	114
14028S	STM14_1546	378449762	+	1364774-1364911	hypothetical protein	1311725-1311862	+	138
14028S	STM14_1550	378449766	+	1367385-1367522	hypothetical protein	1314336-1314473	+	138
14028S	STM14_1551	378449767	+	1367589-1367696	putative inner membrane protein	1314540-1314647	+	108
14028S	STM14_1557	378449773	+	1371682-1371801	hypothetical protein	1318635-1318754	+	120
ST474	STM474_1289	379700457	+	1320526-1320669	hypothetical protein	1320602-1320745	+	144
14028S	STM14_1559	378449775	-	1373854-1374027	hypothetical protein	1320805-1320978	-	174
14028S	STM14_1564	378449780	-	1378335-1378511	hypothetical protein	1325286-1325462	-	177
14028S	STM14_1566	378449782	+	1379655-1379795	hypothetical protein	1326606-1326746	+	141
14028S	STM14_1569	378449785	+	1380898-1381002	hypothetical protein	1327850-1327954	+	105
14028S	STM14_1572	378449788	+	1382785-1382889	hypothetical protein	1329737-1329841	+	105
14028S	STM14_1581	378449797	+	1391859-1392038	hypothetical protein	1338811-1338990	+	180
14028S	STM14_1587	378449803	+	1398234-1398449	hypothetical protein	1345186-1345401	+	216
ST474	STM474_1315	379700483	+	1347752-1347886	hypothetical protein	1347827-1347961	+	135
14028S	STM14_1591	378449807	-	1400923-1401129	hypothetical protein	1347875-1348081	-	207
14028S	STM14_1593	378449809	+	1401610-1401732	hypothetical protein	1348562-1348684	+	123
14028S	STM14_1601	378449817	+	1409372-1409509	hypothetical protein	1356324-1356461	+	138
14028S	STM14_1602	378449818	-	1409399-1409647	hypothetical protein	1356351-1356599	-	249
14028S	STM14_1615	378449831	+	1419534-1419740	hypothetical protein	1366486-1366692	+	207
14028S	STM14_1617	378449833	+	1421769-1421954	hypothetical protein	1368721-1368906	+	186
14028S	STM14_1618	378449834	+	1421956-1422090	hypothetical protein	1368908-1369042	+	135
14028S	STM14_1623	378449839	-	1425398-1425562	hypothetical protein	1372350-1372514	-	165
14028S	STM14_1631	378449847	-	1432577-1432696	hypothetical protein	1379529-1379648	-	120
14028S	STM14_1636	378449852	+	1436467-1436571	hypothetical protein	1383419-1383523	+	105
ST474	STM474_1353	379700521	+	1384122-1384307	hypothetical protein	1384197-1384382	+	186
14028S	STM14_1638	378449854	-	1437586-1437699	hypothetical protein	1384538-1384651	-	114
14028S	STM14_1645	378449861	-	1445506-1445658	hypothetical protein	1392458-1392610	-	153
14028S	STM14_1652	378449868	+	1452598-1452744	hypothetical protein	1399549-1399695	+	147
14028S	STM14_1653	378449869	-	1452728-1452838	hypothetical protein	1399679-1399789	-	111
14028S	STM14_1658	378449873	-	1456308-1456475	hypothetical protein	1403256-1403423	-	168
ST474	STM474_1383	379700550	-	1418471-1418587	hypothetical protein	1418542-1418658	-	117
ST474	STM474_1395	379700562	+	1431868-1432002	hypothetical protein	1431939-1432073	+	135
14028S	STM14_1685	378449900	-	1486016-1486129	hypothetical protein	1432963-1433076	-	114
14028S	ssaB	378449903	+	1489975-1490376	secreted effector protein	1436922-1437323	+	402
14028S	STM14_1692	378449907	+	1493410-1493517	hypothetical protein	1440357-1440464	+	108
14028S	STM14_1693	378449908	+	1493577-1493903	secretion system chaperone protein	1440524-1440850	+	327
14028S	sseE	378449913	+	1497033-1497449	secreted effector protein	1443980-1444396	+	417
14028S	sseG	378449916	+	1498730-1499419	secreted effector protein	1445677-1446366	+	690
14028S	ssaM	378449924	+	1503279-1503647	type III secretion system apparatus protein	1450226-1450594	+	369
14028S	ssaS	378449931	+	1509364-1509630	type III secretion system apparatus protein	1456311-1456577	+	267
14028S	STM14_1719	378449934	+	1511477-1511602	hypothetical protein	1458424-1458549	+	126
14028S	STM14_1728	378449941	+	1519171-1519452	hypothetical protein	1466118-1466399	+	282
14028S	ydH	378449954	-	1529425-1529661	putative inner membrane protein	1476373-1476609	-	237
14028S	STM14_1751	378449964	+	1538110-1538277	hypothetical protein	1485058-1485225	+	168
14028S	STM14_1761	410023179	-	1546024-1546179	hypothetical protein	1492785-1492940	-	156
14028S	STM14_1764	378449977	+	1548438-1548683	hypothetical protein	1495199-1495444	+	246
14028S	STM14_1771	378449982	+	1553745-1553906	fumarase A	1500506-1500667	+	162
14028S	STM14_1776	378449987	-	1559385-1559690	outer membrane protein	1506146-1506451	-	306
14028S	STM14_1782	378449992	-	1563882-1564016	putative amino acid permease	1510643-1510777	-	135
14028S	STM14_1783	378449993	-	1563914-1564087	hypothetical protein	1510675-1510848	-	174
14028S	STM14_1784	378449994	+	1564099-1564224	hypothetical protein	1510860-1510985	+	126
14028S	STM14_1786	378449996	+	1565234-1565359	hypothetical protein	1511995-1512120	+	126
14028S	STM14_1790	378450000	+	1569946-1570116	hypothetical protein	1516707-1516877	+	171
14028S	STM14_1794	378450004	-	1571734-1572027	hypothetical protein	1518495-1518788	-	294
14028S	STM14_1795	378450005	-	1572036-1572284	acid shock protein	1518797-1519045	-	249
14028S	STM14_1796	378450006	-	1572462-1572653	hypothetical protein	1519223-1519414	-	192
T000240	STMDT12_C14990	378984040	+	1560231-1560323	hypothetical protein	1519281-1519373	+	93
14028S	STM14_1810	378450020	-	1586812-1587033	putative dimethyl sulfoxide reductase subunit A	1533573-1533794	-	222
14028S	STM14_1816	378450026	-	1591641-1591757	hypothetical protein	1538402-1538518	-	117
ST474	STM474_1518	379700677	-	1542834-1542947	hypothetical protein	1542719-1542832	-	114
14028S	STM14_1827	378450036	-	1601704-1601919	hypothetical protein	1548465-1548680	-	216
14028S	STM14_1828	378450037	+	1601786-1601923	peptidyl-di-peptidase dcp	1548547-1548684	+	138
14028S	STM14_1831	378450040	-	1602970-1603068	hypothetical protein	1549731-1549829	-	99
14028S	STM14_1833	378450042	-	1603865-1604014	hypothetical protein	1550626-1550775	-	150
T000240	STMDT12_C15310	378984072	-	1591761-1591856	hypothetical protein	1550809-1550904	-	96
14028S	STM14_1847	378450056	+	1615524-1615850	putative inner membrane protein	1562284-1562610	+	327
14028S	STM14_1858	378450067	-	1625009-1625161	hypothetical protein	1571769-1571921	-	153
14028S	STM14_1867	378450076	-	1634718-1634879	hypothetical protein	1581478-1581639	-	162
14028S	STM14_1871	378450080	-	1636816-1637064	putative cytoplasmic protein	1583576-1583824	-	249
14028S	STM14_1872	378450081	+	1637216-1637431	putative phage-related secreted protein	1583976-1584191	+	216
UK1	STMUK_1520	378988892	+	1587048-1587440	hypothetical protein	1585617-1586009	+	393
UK1	STMUK_1521	378988893	+	1587577-1587705	hypothetical protein	1586146-1586274	+	129
14028S	STM14_1876	378450084	-	1639903-1640112	hypothetical protein	1586663-1586872	-	210
14028S	rpsV	378450096	+	1655468-1655611	30S ribosomal subunit S22	1602227-1602370	+	144
ST474	STM474_1578	379700736	-	1602385-1602519	hypothetical protein	1602268-1602402	-	135
14028S	STM14_1890	378450098	+	1657503-1657634	hypothetical protein	1604262-1604393	+	132
14028S	STM14_1895	378450103	+	1663489-1663641	hypothetical protein	1610248-1610400	+	153
14028S	STM14_1897	378450105	-	1664885-1665067	hypothetical protein	1611644-1611826	-	183
14028S	STM14_1902	378450110	+	1668962-1669093	hypothetical protein	1615721-1615852	+	132
14028S	STM14_1904	378450112	-	1670559-1670702	hypothetical protein	1617318-1617461	-	144
14028S	STM14_1911	378450119	-	1679194-1679457	hypothetical protein	1625953-1626216	-	264
14028S	STM14_1913	378450121	+	1680178-1680390	hypothetical protein	1626937-1627149	+	213
14028S	STM14_1914	378450122	-	1680335-1680472	hypothetical protein	1627094-1627231	-	138
14028S	STM14_1915	378450123	+	1680342-1680476	hypothetical protein	1627101-1627235	+	135
14028S	STM14_1919	378450127	-	1683664-1683783	hypothetical protein	1630423-1630542	-	120
14028S	STM14_1922	378450130	+	1686850-1686699	hypothetical protein	1633609-1633728	+	120
14028S	STM14_1923	378450131	-	1686958-1687080	hypothetical protein	1633717-1633839	-	123
14028S	STM14_1932	410023183	+	1696611-1696706	hypothetical protein	1643370-1643465	+	96
14028S	STM14_1933	378450141	+	1696703-1696807	hypothetical protein	1643462-1643566	+	105

14028S	STM14_1937	378450145	-	1700960-1701190	putative inner membrane protein	1647719-1647949	-	231
14028S	ugtL	378450146	-	1701223-1701621	hypothetical protein	1647982-1648380	-	399
14028S	STM14_1939	378450147	-	1701681-1701785	hypothetical protein	1648440-1648544	-	105
14028S	STM14_1950	378450158	+	1711642-1711749	hypothetical protein	1658401-1658508	+	108
14028S	STM14_1961	378450169	+	1719701-1719814	hypothetical protein	1666460-1666573	+	114
14028S	STM14_1967	378450175	+	1727480-1727695	hypothetical protein	1674239-1674454	+	216
14028S	STM14_1970	378450178	+	1729598-1729999	putative dipicolinate reductase	1676357-1676758	+	402
T000240	STMDT12_C16480	378984189	-	1717552-1717677	hypothetical protein	1676597-1676722	-	126
ST474	STM474_1641	379700799	+	1676859-1677014	hypothetical protein	1676742-1676897	+	156
14028S	STM14_1972	378450180	-	1731028-1731132	hypothetical protein	1677787-1677891	-	105
14028S	STM14_1973	378450181	+	1731115-1731225	hypothetical protein	1677874-1677984	+	111
14028S	STM14_1976	378450184	-	1733662-1733814	hypothetical protein	1680421-1680573	-	153
T000240	STMDT12_C16570	378984198	-	1726118-1726213	hypothetical protein	1685163-1685258	-	96
14028S	STM14_1994	378450202	+	1751742-1752041	hypothetical protein	1698501-1698800	+	300
14028S	STM14_1996	378450204	-	1755685-1755894	hypothetical protein	1702444-1702653	-	210
T000240	STMDT12_C16740	378984215	-	1744637-1744789	hypothetical protein	1703682-1703834	-	153
14028S	STM14_2004	378450212	-	1762419-1762580	hypothetical protein	1709178-1709339	-	162
14028S	STM14_2024	378450229	-	1779789-1779902	hypothetical protein	1726548-1726661	-	114
14028S	STM14_2048	378450253	-	1800491-1800673	hypothetical protein	1746538-1746684	-	147
14028S	STM14_2049	378450254	+	1800647-1800769	hypothetical protein	1746694-1746816	+	123
14028S	STM14_2051	378450256	+	1802254-1802433	hypothetical protein	1748301-1748480	+	180
14028S	ycjE	378450257	+	1802408-1802707	putative cytoplasmic protein	1748455-1748754	+	300
14028S	STM14_2054	378450259	-	1803682-1803798	hypothetical protein	1749729-1749845	-	117
14028S	STM14_2057	378450262	+	1807079-1807216	hypothetical protein	1753126-1753263	+	138
14028S	STM14_2061	378450266	-	1810467-1810628	hypothetical protein	1756514-1756675	-	162
14028S	STM14_2065	378450270	+	1812029-1812142	hypothetical protein	1758076-1758189	+	114
14028S	STM14_2071	378450276	-	1818504-1818674	hypothetical protein	1764551-1764721	-	171
ST474	ymia	379700885	-	1764839-1764967	hypothetical protein	1764722-1764850	-	129
14028S	STM14_2073	378450278	+	1820026-1820190	hypothetical protein	1766073-1766237	+	165
14028S	STM14_2076	378450281	-	1823233-1823364	hypothetical protein	1769280-1769411	-	132
14028S	STM14_2079	378450284	+	1824904-1825014	hypothetical protein	1770951-1771061	+	111
14028S	trpL	378450289	+	1829100-1829144	trp operon leader peptide	1775147-1775191	+	45
14028S	STM14_2102	378450306	-	1843241-1843414	hypothetical protein	1789288-1789461	-	174
14028S	STM14_2111	378450314	+	1851996-1852310	putative inner membrane protein	1798043-1798357	+	315
14028S	STM14_2117	378450320	+	1858398-1858580	hypothetical protein	1804445-1804627	+	183
14028S	STM14_2123	378450326	-	1863160-1863279	hypothetical protein	1809207-1809326	-	120
14028S	STM14_2128	378450328	+	1865980-1866144	hypothetical protein	1811505-1811669	+	165
14028S	STM14_2133	378450333	+	1872924-1873043	hypothetical protein	1818449-1818568	+	120
14028S	STM14_2135	378450335	-	1874718-1874903	hypothetical protein	1820243-1820428	-	186
14028S	STM14_2148	378450348	-	1886567-1886695	hypothetical protein	1832092-1832220	-	129
14028S	STM14_2151	378450351	-	1888181-1888351	hypothetical protein	1833706-1833876	-	171
14028S	STM14_2152	378450352	-	1888329-1888433	hypothetical protein	1833854-1833958	-	105
14028S	STM14_2158	378450358	-	1893588-1893701	hypothetical protein	1839113-1839226	-	114
14028S	STM14_2160	378450360	-	1895293-1895421	hypothetical protein	1840818-1840946	-	129
14028S	STM14_2169	378450369	+	1903787-1903876	hypothetical protein	1849312-1849401	+	90
14028S	STM14_2171	378450371	-	1905555-1905662	hypothetical protein	1851080-1851187	-	108
14028S	STM14_2180	378450380	-	1914824-1914934	hypothetical protein	1860349-1860459	-	111
14028S	STM14_2187	378450387	+	1920441-1920557	hypothetical protein	1865966-1866082	+	117
14028S	STM14_2188	378450388	-	1920620-1920757	putative cytoplasmic protein	1866145-1866282	-	138
14028S	STM14_2189	378450389	-	1920801-1920899	hypothetical protein	1866326-1866424	-	99
14028S	STM14_2200	378450400	+	1928329-1928355	hypothetical protein	1873853-1874059	+	207
14028S	STM14_2211	378450411	-	1939453-1939788	putative cytoplasmic protein	1884977-1885312	-	336
14028S	STM14_2219	378450419	-	1946749-1946859	hypothetical protein	1892273-1892383	-	111
14028S	yobF	378450421	-	1947174-1947317	putative cytoplasmic protein	1892698-1892841	-	144
14028S	STM14_2222	378450422	+	1947434-1947541	hypothetical protein	1892958-1893065	+	108
14028S	STM14_2223	378450423	+	1947556-1947696	hypothetical protein	1893080-1893220	+	141
14028S	STM14_2224	378450424	-	1947624-1947740	hypothetical protein	1893148-1893264	-	117
14028S	STM14_2229	378450429	-	1949871-1949978	hypothetical protein	1895396-1895503	-	108
14028S	STM14_2238	378450438	+	1961391-1961522	hypothetical protein	1906916-1907047	+	132
ST474	STM474_1877	379701031	-	1908925-1909098	hypothetical protein	1908287-1908460	-	174
14028S	STM14_2243	378450443	+	1963183-1963311	hypothetical protein	1908708-1908836	+	129
14028S	STM14_2245	378450445	+	1964429-1964551	hypothetical protein	1909954-1910076	+	123
14028S	STM14_2246	378450446	-	1964644-1964787	hypothetical protein	1910169-1910312	-	144
D23580	STMMW_18461	378445260	+	1947071-1947241	hypothetical protein	1910771-1910941	+	171
14028S	STM14_2249	378450449	-	1966412-1966831	putative acetyltransferase	1911937-1912356	-	420
14028S	STM14_2250	378450450	-	1966960-1967154	hypothetical protein	1912485-1912679	-	195
ST474	STM474_1884	379701038	-	1913724-1913852	hypothetical protein	1913086-1913214	-	129
14028S	STM14_2255	378450453	-	1970094-1970294	hypothetical protein	1915619-1915819	-	201
14028S	STM14_2260	378450457	-	1973190-1973366	hypothetical protein	1918716-1918892	-	177
14028S	STM14_2261	378450458	+	1973229-1973375	hypothetical protein	1918755-1918901	+	147
ST474	STM474_1893	379701046	-	1920052-1920177	arsenical pump membrane protein	1919415-1919540	-	126
14028S	STM14_2263	378450459	-	1973981-1974151	hypothetical protein	1919507-1919677	-	171
14028S	STM14_2264	378450460	+	1974277-1974393	tail fiber assembly protein	1919803-1919919	+	117
14028S	pagK	378450461	+	1974584-1974784	PagK	1920110-1920310	+	201
14028S	STM14_2268	378450464	+	1976235-1976423	hypothetical protein	1921761-1921949	+	189
14028S	STM14_2270	378450466	+	1976705-1976878	hypothetical protein	1922231-1922404	+	174
14028S	STM14_2271	378450467	+	1976808-1976927	hypothetical protein	1922334-1922453	+	120
14028S	STM14_2276	378450471	-	1979312-1979440	hypothetical protein	1924838-1924966	-	129
14028S	STM14_2277	378450472	-	1979524-1979643	putative cytoplasmic protein	1925050-1925169	-	120
T000240	STMDT12_C19080	378984449	+	1972383-1972478	hypothetical protein	1933773-1933868	+	96
14028S	STM14_2291	378450486	-	1990827-1990985	hypothetical protein	1936353-1936511	-	159
14028S	STM14_2293	378450488	+	1992662-1992778	hypothetical protein	1938188-1938313	+	126
14028S	STM14_2294	378450489	-	1992755-1992874	hypothetical protein	1938281-1938400	-	120
14028S	STM14_2298	378450493	+	1996367-1996594	hypothetical protein	1941893-1942120	+	228
14028S	STM14_2305	378450500	+	2002147-2002269	hypothetical protein	1947673-1947795	+	123
14028S	STM14_2306	378450501	-	2002264-2002389	hypothetical protein	1947790-1947915	-	126
14028S	STM14_2313	378450507	+	2008446-2008562	hypothetical protein	1953972-1954088	+	117
14028S	STM14_2321	378450515	+	2013869-2013985	hypothetical protein	1959395-1959511	+	117
14028S	STM14_2323	378450517	+	2015793-2015897	hypothetical protein	1961319-1961423	+	105
14028S	STM14_2329	378450523	+	2022930-2023187	hypothetical protein	1968456-1968713	+	258
14028S	STM14_2339	378450533	-	2032400-2032531	hypothetical protein	1977926-1978057	-	132
14028S	STM14_2342	378450536	-	2033684-2033827	hypothetical protein	1979210-1979353	-	144
14028S	STM14_2343	378450537	+	2034145-2034261	hypothetical protein	1979671-1979787	+	117

140285	STM14_2349	378450542	+	2038156-2038305	hypothetical protein	1983682-1983831	+	150
T000240	STMDT12_C19550	378984496	-	2022485-2022580	hypothetical protein	1983875-1983970	-	96
D23580	STM14_19262	378445334	-	2022476-2022533	hypothetical protein	1995896-1995973	-	78
140285	STM14_2366	378450556	+	2050620-2050775	putative inner membrane protein	1996145-1996300	+	156
140285	STM14_2379	378450569	-	2060568-2060705	hypothetical protein	2006092-2006229	-	138
140285	STM14_2387	378450577	+	2066907-2067293	putative S05 ribosomal protein	2012431-2012817	+	387
140285	STM14_2389	378450579	-	2067774-2067902	hypothetical protein	2013298-2013426	-	129
140285	STM14_2409	410023192	-	2083025-2083210	putative cytoplasmic protein	2028549-2028734	-	186
140285	STM14_2411	378450600	+	2084253-2084468	hypothetical protein	2029777-2029992	+	216
ST474	STM474_2026	379701174	+	2034563-2034694	hypothetical protein	2033924-2034055	+	132
140285	STM14_2417	378450606	+	2088843-2088962	hypothetical protein	2034367-2034486	+	120
140285	STM14_2419	378450608	-	2090431-2090643	putative cold-shock protein	2035955-2036167	-	213
140285	STM14_2421	378450610	-	2091089-2091208	hypothetical protein	2036613-2036732	-	120
140285	STM14_2425	378450614	-	2093253-2093495	hypothetical protein	2038777-2039019	-	243
140285	STM14_2429	378450617	-	2095348-2095497	hypothetical protein	2040872-2041021	-	150
140285	STM14_2442	378450629	-	2106970-2107134	hypothetical protein	2052495-2052659	-	165
140285	STM14_2451	378450638	-	2112246-2112428	hypothetical protein	2057771-2057953	-	183
140285	STM14_2454	378450641	-	2114790-2115140	hypothetical protein	2060315-2060665	-	351
140285	STM14_2455	378450642	-	2115201-2115503	hypothetical protein	2060726-2061028	-	303
140285	STM14_2456	378450643	-	2115612-2115710	hypothetical protein	2061137-2061235	-	99
140285	STM14_2457	378450644	-	2115723-2116142	hypothetical protein	2061248-2061667	-	420
140285	STM14_2461	378450648	+	2117839-2117967	hypothetical protein	2063364-2063492	+	129
D23580	STM14_20121	378445417	+	2090064-2090498	phage protein	2063485-2063919	+	435
140285	STM14_2466	378450653	-	2121222-2121611	crossover junction protein	2066747-2067136	-	390
140285	STM14_2468	378450655	-	2122501-2123025	putative transcriptional activator	2068026-2068550	-	525
140285	STM14_2470	378450657	-	2123800-2124024	hypothetical protein	2069325-2069549	-	225
140285	STM14_2473	378450660	-	2125758-2125982	DNA binding protein	2071283-2071507	-	225
140285	STM14_2478	378450665	+	2129593-2129823	hypothetical protein	2075118-2075348	+	231
140285	STM14_2483	378450670	+	2132377-2132619	hypothetical protein	2077902-2078144	+	243
T000240	STMDT12_C20240	378984565	-	2079358-2079462	hypothetical protein	2080893-2080997	-	105
SL1344	SL1344_1980	378699918	+	2082737-2083009	hypothetical protein	2082098-2082370	+	273
ST474	STM474_2085	379701227	+	2082744-2082878	hypothetical protein	2082105-2082239	-	135
ST474	STM474_2089	379701231	+	2088148-2088282	hypothetical protein	2087509-2087643	+	135
140285	STM14_2493	378450677	+	2142163-2142336	hypothetical protein	2087688-2087861	+	174
T000240	STMDT12_C20320	378984573	+	2086418-2086567	hypothetical protein	2087953-2088102	+	150
140285	STM14_2494	378450678	-	2142487-2142741	hypothetical protein	2088012-2088266	-	255
ST474	STM474_2091	379701233	+	2088820-2088942	hypothetical protein	2088181-2088303	+	123
D23580	STM14_20421	378445447	+	2116462-2116623	hypothetical protein	2089883-2090044	+	162
140285	STM14_2496	378450680	-	2144508-2144834	putative cytoplasmic protein	2090033-2090359	-	327
140285	STM14_2497	378450681	-	2144828-2145214	hypothetical protein	2090353-2090739	-	387
140285	STM14_2498	378450682	+	2145540-2145707	hypothetical protein	2091065-2091232	+	168
140285	STM14_2501	378450684	-	2147387-2147539	hypothetical protein	2092912-2093064	-	153
140285	STM14_2524	378450706	-	2165668-2165799	hypothetical protein	2111193-2111324	-	132
140285	STM14_2549	378450731	-	2185570-2185701	hypothetical protein	2131096-2131227	-	132
140285	STM14_2556	378450738	-	2192950-2193219	hypothetical protein	2138476-2138745	-	270
140285	STM14_2558	378450740	-	2195674-2195796	hypothetical protein	2141200-2141322	-	123
140285	STM14_2561	378450743	+	2198729-2198896	hypothetical protein	2144255-2144422	+	168
140285	STM14_2562	378450744	-	2198740-2198937	hypothetical protein	2144266-2144463	-	198
140285	rfbC	378450770	-	2226670-2227221	dTDP-4-deoxyrihamnose 3,5 epimerase	2172196-2172747	-	552
140285	STM14_2599	378450781	+	2239941-2240216	hypothetical protein	2185467-2185742	+	276
140285	STM14_2614	378450796	+	2254277-2254522	hypothetical protein	2199803-2200048	+	246
140285	STM14_2619	378450801	-	2259828-2259998	hypothetical protein	2205354-2205524	-	171
140285	STM14_2623	378450805	-	2265633-2265749	hypothetical protein	2211159-2211275	-	117
140285	STM14_2635	378450816	-	2282708-2282821	hypothetical protein	2228234-2228347	-	114
140285	STM14_2638	378450818	-	2284669-2285004	putative inner membrane protein	2230195-2230530	-	336
140285	STM14_2639	378450819	+	2285114-2285233	hypothetical protein	2230640-2230759	+	120
140285	STM14_2649	378450829	-	2293497-2293682	hypothetical protein	2239023-2239208	-	186
140285	STM14_2651	378450831	-	2294185-2294343	hypothetical protein	2239711-2239869	-	159
ST474	STM474_2254	379701393	+	2258581-2258763	hypothetical protein	2257944-2258126	+	183
140285	STM14_2671	378450851	-	2315124-2315237	hypothetical protein	2260650-2260763	-	114
140285	STM14_2674	378450854	-	2317916-2318191	hypothetical protein	2263442-2263717	-	276
140285	STM14_2676	378450856	+	2318810-2318917	hypothetical protein	2264336-2264443	+	108
140285	STM14_2680	378450860	+	2322009-2322206	hypothetical protein	2267535-2267732	+	198
140285	STM14_2697	378450877	+	2338065-2338184	hypothetical protein	2283591-2283710	+	120
140285	STM14_2701	378450881	+	2340683-2340847	hypothetical protein	2286209-2286373	+	165
140285	STM14_2704	378450884	-	2342649-2342762	hypothetical protein	2288175-2288288	-	114
140285	STM14_2705	378450885	-	2342720-2342848	hypothetical protein	2288246-2288374	-	129
140285	STM14_2706	378450886	+	2342834-2343067	hypothetical protein	2288360-2288593	+	234
140285	STM14_2710	378450890	-	2345635-2345787	hypothetical protein	2291161-2291313	-	153
140285	STM14_2714	378450894	+	2349999-2350304	hypothetical protein	2295525-2295830	+	306
140285	STM14_2716	378450896	-	2351963-2352097	hypothetical protein	2297489-2297623	-	135
140285	STM14_2718	378450898	-	2352991-2353110	hypothetical protein	2298517-2298636	-	120
ST474	STM474_2293	379701432	-	2300273-2300395	hypothetical protein	2299636-2299758	-	123
140285	STM14_2724	378450904	+	2358928-2359059	hypothetical protein	2304454-2304585	+	132
UK1	STMUK_2237	378989594	-	2307167-2307274	hypothetical protein	2304501-2304608	-	108
140285	STM14_2725	378450905	+	2359144-2359266	hypothetical protein	2304670-2304792	+	123
140285	STM14_2726	378450906	-	2359149-2359277	hypothetical protein	2304675-2304803	-	129
140285	STM14_2730	378450910	-	2361472-2361576	hypothetical protein	2306998-2307102	-	105
140285	STM14_2731	378450911	-	2361699-2361953	hypothetical protein	2307225-2307479	-	255
140285	STM14_2736	378450915	-	2364975-2365205	hypothetical protein	2310501-2310731	-	231
140285	STM14_2738	378450917	+	2365897-2366040	hypothetical protein	2311423-2311566	+	144
140285	STM14_2750	378450929	-	2378246-2378392	hypothetical protein	2323773-2323919	-	147
140285	STM14_2756	378450934	-	2382514-2382984	DNA polymerase V subunit	2328041-2328511	-	471
140285	STM14_2757	378450935	+	2383045-2383335	virulence protein	2328572-2328862	+	291
T000240	STMDT12_C22520	378984793	-	2327280-2327405	hypothetical protein	2328817-2328942	-	126
140285	STM14_2764	378450942	-	2389094-2389207	hypothetical protein	2334621-2334734	-	114
140285	STM14_2766	410023200	-	2390737-2391102	putative phage antiterminator	2336264-2336629	-	366
140285	STM14_2770	378450948	-	2394973-2395176	putative phage tail fiber protein	2340500-2340703	-	204
140285	STM14_2774	378450952	+	2397715-2397861	hypothetical protein	2343242-2343388	+	147
140285	napF	378450968	-	2410707-2411198	ferredoxin-type protein	2356234-2356725	-	492
140285	STM14_2791	378450969	+	2411310-2411441	hypothetical protein	2356837-2356968	+	132
140285	STM14_2798	378450976	+	2418131-2418256	hypothetical protein	2363658-2363783	+	126
140285	STM14_2803	378450980	-	2425164-2425280	hypothetical protein	2370691-2370807	-	117

140285	STM14_2805	378450982	+	2427980-2428210	hypothetical protein	2373507-2373737	+	231
140285	STM14_2806	378450983	+	2428153-2428293	hypothetical protein	2373680-2373820	+	141
140285	STM14_2811	378450988	+	2432657-2432773	hypothetical protein	2378184-2378300	+	117
140285	STM14_2822	378450999	+	2445948-2446052	hypothetical protein	2391475-2391579	+	105
140285	STM14_2823	378451000	+	2446155-2446358	hypothetical protein	2391682-2391885	+	204
140285	STM14_2834	378451011	+	2455277-2455405	hypothetical protein	2400804-2400932	+	129
ST474	STM474_2412	379701547	-	2421293-2421412	hypothetical protein	2420657-2420776	-	120
140285	STM14_2854	378451030	-	2475407-2475529	hypothetical protein	2420935-2421057	-	123
140285	STM14_2855	378451031	+	2475538-2475645	hypothetical protein	2421066-2421173	+	108
140285	STM14_2856	378451032	+	2475654-2475836	hypothetical protein	2421182-2421364	+	183
140285	STM14_2870	378451046	+	2491031-2491153	hypothetical protein	2436559-2436681	+	123
140285	STM14_2871	378451047	-	2491241-2491357	hypothetical protein	2436769-2436885	-	117
140285	STM14_2880	378451056	-	2499179-2499430	hypothetical protein	2444707-2444958	-	252
140285	STM14_2881	378451057	+	2499320-2499454	hypothetical protein	2444848-2444982	+	135
140285	STM14_2890	378451066	+	2508681-2508854	hypothetical protein	2454209-2454382	+	174
140285	STM14_2902	378451078	+	2517875-2518045	hypothetical protein	2463403-2463573	+	171
140285	STM14_2911	378451087	-	2527947-2528102	hypothetical protein	2473475-2473630	-	156
140285	STM14_2921	378451097	+	2537322-2537438	hypothetical protein	2482850-2482966	+	117
140285	STM14_2924	378451100	+	2538467-2538835	putative cytoplasmic protein	2483995-2484363	+	369
140285	STM14_2940	378451116	+	2553683-2553823	hypothetical protein	2499211-2499351	+	141
140285	STM14_2941	378451117	-	2553820-2553948	hypothetical protein	2499348-2499476	-	129
T00240	STMDT12_C24200	378984961	+	2507125-2507337	hypothetical protein	2508662-2508874	+	213
140285	STM14_2952	378451127	-	2565752-2565865	hypothetical protein	2511280-2511393	-	114
140285	STM14_2955	378451130	-	2569137-2569283	hypothetical protein	2514665-2514811	-	147
140285	STM14_2959	378451134	+	2573587-2573775	hypothetical protein	2519115-2519303	+	189
140285	STM14_2986	378451155	+	2595762-2595923	hypothetical protein	2541291-2541452	+	162
140285	STM14_2987	410023203	-	2595873-2595998	hypothetical protein	2541402-2541527	-	126
140285	STM14_2988	378451157	+	2595966-2596094	hypothetical protein	2541495-2541623	+	129
140285	STM14_3032	378451201	+	2633812-2634012	hypothetical protein	2579341-2579541	+	201
140285	STM14_3036	378451205	-	2637342-2637476	hypothetical protein	2582871-2583005	-	135
140285	STM14_3043	378451212	-	2645096-2645227	hypothetical protein	2590625-2590756	-	132
140285	STM14_3063	378451232	-	2664349-2664552	hypothetical protein	2609878-2610081	-	204
140285	STM14_3069	378451238	-	2672447-2672584	putative cytoplasmic protein	2617975-2618112	-	138
140285	STM14_3070	378451239	-	2672655-2672915	putative inner membrane protein	2618183-2618443	-	261
140285	STM14_3072	378451241	-	2673033-2673269	putative inner membrane protein	2618561-2618797	-	237
T00240	STMDT12_C25240	378985065	+	2617191-2617382	putative cytoplasmic protein	2618847-2619038	+	192
140285	STM14_3073	410023207	+	2673510-2673824	putative cytoplasmic protein	2619038-2619352	+	315
140285	STM14_3074	378451243	-	2673844-2674200	putative transposase	2619372-2619728	-	357
140285	STM14_3079	378451248	+	2685671-2685784	hypothetical protein	2631199-2631312	+	114
140285	STM14_3080	378451249	+	2685675-2685857	hypothetical protein	2631203-2631385	+	183
140285	STM14_3081	378451250	-	2685854-2685967	hypothetical protein	2631382-2631495	-	114
ST474	STM474_2618	379701745	+	2646222-2646344	hypothetical protein	2645586-2645708	+	123
140285	STM14_3086	378451254	+	2702354-2702470	hypothetical protein	2647882-2647998	+	117
140285	STM14_3087	378451255	-	2702529-2702864	hypothetical protein	2648057-2648212	-	156
140285	ylfJ	378451256	-	2702699-2702920	putative cytoplasmic protein	2648227-2648448	-	222
140285	STM14_3090	378451258	+	2704480-2704581	hypothetical protein	2650008-2650109	+	102
140285	STM14_3096	378451264	-	2710094-2710216	type IV pilus biogenesis/stability protein PilW	2655622-2655744	-	123
140285	STM14_3099	378451267	+	2712052-2712147	hypothetical protein	2657580-2657675	+	96
140285	STM14_3107	378451275	-	2725280-2725504	hypothetical protein	2670808-2671032	-	225
ST474	STM474_2636	379701763	+	2671480-2671593	hypothetical protein	2670844-2670957	+	114
140285	STM14_3119	378451287	+	2734356-2734475	hypothetical protein	2679886-2680005	+	120
140285	STM14_3122	378451290	+	2735856-2735978	hypothetical protein	2681386-2681508	+	123
140285	STM14_3123	378451291	-	2735883-2735993	hypothetical protein	2681413-2681523	-	111
140285	STM14_3134	378451302	-	2746625-2746771	hypothetical protein	2692155-2692301	-	147
140285	STM14_3144	378451312	+	2759420-2759548	hypothetical protein	2704950-2705078	+	129
140285	STM14_3146	378451314	+	2763716-2763949	hypothetical protein	2709246-2709479	+	234
140285	STM14_3165	378451333	-	2782226-2782354	hypothetical protein	2727757-2727885	-	129
T00240	STMDT12_C26070	378985147	+	2726268-2726375	hypothetical protein	2727926-2728033	+	108
140285	STM14_3166	378451334	+	2782885-2783430	transposase-like protein	2728422-2728967	+	546
ST474	STM474_2692	379701819	-	2729509-2729628	integrase, catalytic region	2728888-2729007	-	120
SL1344	SL1344_2548	378700486	-	2730253-2730318	bacteriophage protein	2729632-2729697	-	66
D23580	STM14_26031	378446002	-	2757050-2757262	putative prophage protein	2729760-2729972	-	213
140285	STM14_3167	378451335	+	2784542-2784769	PhaK-like protein	2730079-2730306	+	228
140285	STM14_3171	410023208	-	2788681-2788923	hypothetical protein	2734218-2734460	-	243
140285	STM14_1473	378449695	-	1321447-1322052	hypothetical protein	2738615-2739220	+	606
140285	STM14_1471	378449693	+	1320418-1320747	phage tail component M-like protein	2739920-2740249	+	330
140285	STM14_1466	378449688	+	1315412-1315813	phage minor tail protein U	2744854-2745255	+	402
140285	STM14_1463	410023174	+	1313135-1313518	minor capsid protein Fil	2747149-2747532	-	384
140285	STM14_3199	378451366	-	2812905-2813093	hypothetical protein	2758436-2758624	-	189
140285	STM14_3202	378451368	-	2814160-2814285	hypothetical protein	2759691-2759816	-	126
140285	STM14_3204	378451370	-	2815110-2815250	hypothetical protein	2760641-2760781	-	141
140285	STM14_3206	378451372	-	2815861-2816061	hypothetical protein	2761392-2761592	-	201
140285	STM14_1440	378449663	+	1298794-1299042	putative bacteriophage protein	2762235-2762483	-	249
140285	STM14_3209	378451375	+	2816906-2817040	prophage Dint	2762437-2762571	+	135
140285	STM14_3211	378451377	-	2817545-2818177	hypothetical protein	2763076-2763708	-	633
140285	STM14_3213	378451379	-	2818997-2819692	phage replication protein P	2764528-2765223	-	696
140285	STM14_3215	378451381	-	2820665-2821039	prophage ci protein	2766196-2766570	-	375
140285	STM14_3216	378451382	-	2820999-2821259	hypothetical protein	2766530-2766790	-	261
140285	STM14_3217	410023211	+	2821341-2821736	putative regulator	2766872-2767267	+	396
140285	STM14_3219	410023212	+	2822627-2823013	hypothetical protein	2768158-2768544	+	387
140285	STM14_3220	378451386	+	2823013-2823675	hypothetical protein	2768544-2769206	+	663
140285	STM14_3223	378451389	+	2824312-2824662	hypothetical protein	2769844-2770194	+	351
140285	STM14_3226	378451392	+	2828879-2829118	putative cytoplasmic protein	2774411-2774650	+	240
140285	STM14_3227	378451393	+	2829159-2829443	excisionase-like protein	2774691-2774975	+	285
140285	STM14_3229	378451395	+	2830868-2831005	hypothetical protein	2776400-2776537	+	138
140285	STM14_3230	378451396	-	2831002-2831118	hypothetical protein	2776534-2776650	+	117
140285	STM14_3235	378451401	-	2833834-2833998	hypothetical protein	2779366-2779530	-	165
140285	STM14_3236	378451402	-	2833998-2834177	hypothetical protein	2779530-2779709	-	180
140285	STM14_3239	378451405	-	2836525-2836725	putative methyltransferase	2782057-2782257	-	201
140285	STM14_3249	378451415	+	2846371-2846505	hypothetical protein	2791903-2792037	+	135
140285	STM14_3259	378451420	+	2855709-2855837	hypothetical protein	2801158-2801286	+	129
140285	STM14_3260	378451421	+	2855915-2856031	hypothetical protein	2801364-2801480	+	117
140285	STM14_3267	378451427	+	2861933-2862097	hypothetical protein	2807382-2807546	+	165

140285	STM14_3272	378451432	+	2866577-2866735	hypothetical protein	2812026-2812184	+	159
140285	STM14_3273	378451433	-	2866637-2866750	hypothetical protein	2812086-2812199	-	114
SL1344	SL1344_2632	378700571	-	2816456-2816794	hypothetical protein	2815409-2815747	-	339
SL1344	SL1344_2640	378700579	+	2819701-2820222	bacteriophage-like protein	2818654-2819175	+	522
SL1344	gpb	378700584	+	2825697-2825915	bacteriophage late control gene	2824650-2824868	+	219
140285	STM14_3280	378451440	-	2870862-2871008	hypothetical protein	2827086-2827232	-	147
140285	STM14_3282	378451442	+	2872506-2872700	putative cytochrome c-type biogenesis protein (heme exporter)	2828730-2828924	+	195
UK1	STMUK_2717	378990059	-	2824344-2824538	putative cytoplasmic protein	2832314-2832508	-	195
140285	STM14_3291	378451450	-	2879362-2879469	hypothetical protein	2835585-2835692	-	108
140285	STM14_3295	378451454	+	2881056-2881160	hypothetical protein	2837279-2837383	+	105
140285	STM14_3296	378451455	-	2881388-2881540	hypothetical protein	2837611-2837763	-	153
ST474	STM474_2816	379701937	+	2855546-2855689	hypothetical protein	2854498-2854641	+	144
LT2	STM2694	16766007	-	2844427-2844645	late control-like protein	2854568-2854786	-	219
SL1344	SL1344_2697	378700636	-	2879070-2879447	bacteriophage protein	2877812-2878189	-	378
SL1344	SL1344_2700	378700639	-	2880885-2881073	bacteriophage protein	2879627-2879815	-	189
ST474	STM474_2853	379701973	-	2881219-2881347	hypothetical protein	2879961-2880089	-	129
SL1344	SL1344_2703	378700642	-	2884485-2884712	bacteriophage protein	2883227-2883454	-	228
SL1344	SL1344_2705	378700644	-	2885312-2885608	bacteriophage protein	2884054-2884350	-	297
ST474	STM474_2858	379701978	+	2885673-2885810	hypothetical protein	2884415-2884552	+	138
SL1344	cl	378700647	+	2886920-2887495	bacteriophage repressor protein cl	2885662-2886237	+	576
SL1344	SL1344_2714	378700652	-	2892957-2893190	hypothetical protein	2891699-2891932	-	234
SL1344	SL1344_2717	378700655	-	2895025-2895267	bacteriophage gene regulatory protein	2893767-2894009	-	243
ST474	STM474_2868	379701988	+	2895927-2896202	hypothetical protein	2894669-2894944	+	276
ST474	STM474_2869	379701989	+	2896539-2896805	phage DNA binding protein	2895281-2895547	+	267
SL1344	SL1344_2719	378700657	+	2896802-2897353	bacteriophage protein	2895544-2896095	+	552
140285	STM14_3309	378451467	+	2905915-2906040	hypothetical protein	2906997-2907122	+	126
140285	STM14_3313	378451471	-	2908598-2908954	putative transcriptional regulator	2909680-2910036	-	357
140285	STM14_3324	378451481	-	2917712-2917867	hypothetical protein	2918794-2918949	-	156
140285	STM14_3326	378451483	-	2919626-2919739	hypothetical protein	2920708-2920821	-	114
ST474	STM474_2898	379702018	-	2927700-2927858	hypothetical protein	2926441-2926599	-	159
140285	STM14_3333	378451489	-	2928020-2928658	putative cytoplasmic protein	2929102-2929740	-	639
T000240	STMDT12_C28220	378985362	-	2935935-2936111	hypothetical protein	2933686-2933862	-	177
140285	STM14_3340	378451496	+	2935806-2935976	hypothetical protein	2936888-2937058	+	171
140285	STM14_3341	378451497	-	2936002-2936229	hypothetical protein	2937084-2937311	-	228
140285	STM14_3342	378451498	-	2936297-2936449	hypothetical protein	2937379-2937531	-	153
140285	STM14_3343	378451499	+	2936325-2936507	hypothetical protein	2937407-2937589	+	183
D23580	STM14_27451	378446140	+	2919280-2919612	putative inner membrane protein	2947612-2947944	+	333
140285	STM14_3351	378451506	+	2948161-2948499	hypothetical protein	2949243-2949581	+	339
140285	STM14_3353	378451508	+	2949636-2949833	hypothetical protein	2950717-2950914	+	198
140285	STM14_3355	378451510	+	2950805-2950957	hypothetical protein	2951886-2952038	-	153
140285	STM14_3356	378451511	+	2951059-2951226	hypothetical protein	2952140-2952307	+	168
140285	STM14_3357	378451512	+	2951242-2951355	hypothetical protein	2952323-2952436	+	114
140285	STM14_3364	378451519	+	2957937-2958050	hypothetical protein	2959018-2959131	+	114
140285	STM14_3372	378451527	+	2965822-2965938	hypothetical protein	2966903-2967019	+	117
140285	STM14_3376	378451531	+	2967191-2967370	hypothetical protein	2968272-2968451	+	180
140285	STM14_3378	378451533	+	2968220-2968345	hypothetical protein	2969301-2969426	+	126
140285	STM14_3379	378451534	+	2968355-2968534	hypothetical protein	2969436-2969615	+	180
140285	STM14_3382	378451537	-	2969378-2969494	hypothetical protein	2970459-2970575	-	117
140285	STM14_3386	378451541	+	2971817-2971993	hypothetical protein	2972898-2973073	+	177
140285	STM14_3394	378451549	+	2979522-2979632	hypothetical protein	2980603-2980713	+	111
140285	STM14_3396	378451551	-	2981060-2981167	hypothetical protein	2982141-2982248	-	108
140285	STM14_3398	378451553	-	2981900-2982022	hypothetical protein	2982981-2983103	-	123
140285	STM14_3411	378451561	+	2991063-2991173	hypothetical protein	2992144-2992254	+	111
140285	STM14_3414	378451564	+	2994186-2994350	hypothetical protein	2995267-2995431	+	165
140285	STM14_3415	378451565	-	2994269-2994475	hypothetical protein	2995350-2995556	-	207
140285	STM14_3419	378451569	+	2996927-2997172	hypothetical protein	2998008-2998253	+	246
140285	STM14_3421	378451571	+	2998326-2998466	hypothetical protein	2999407-2999547	+	141
140285	STM14_3427	378451577	-	3001727-3001867	hypothetical protein	3002808-3002948	-	141
140285	STM14_3433	378451583	-	3007751-3007963	hydrogenase maturation protein	3008832-3009044	-	213
140285	STM14_3435	378451585	-	3010214-3010348	hypothetical protein	3011295-3011429	-	135
140285	STM14_3447	378451597	-	3019238-3019342	hypothetical protein	3020319-3020423	-	105
140285	STM14_3449	378451599	+	3019869-3020072	hypothetical protein	3020950-3021153	+	204
140285	STM14_3457	378451607	+	3026426-3026551	hypothetical protein	3027507-3027632	+	126
140285	STM14_3464	378451614	+	3032212-3032319	hypothetical protein	3033291-3033398	+	108
140285	STM14_3466	378451616	-	3033296-3033403	hypothetical protein	3034375-3034482	-	108
140285	STM14_3479	378451629	-	3044345-3044605	putative cytoplasmic protein	3045424-3045684	-	261
140285	STM14_3500	378451650	+	3065500-3065949	putative cytoplasmic protein	3066579-3067028	+	450
140285	STM14_3501	378451651	+	3065934-3066281	putative cytoplasmic protein	3067013-3067360	+	348
140285	STM14_3502	378451652	-	3066393-3066497	hypothetical protein	3067472-3067576	-	105
D23580	STM14_28661	378446261	+	3039872-3039979	pathogenicity island 1 protein	3068200-3068307	+	108
140285	STM14_3504	378451654	+	3067340-3067483	hypothetical protein	3068419-3068562	+	144
140285	STM14_3508	378451657	+	3068687-3068806	hypothetical protein	3069766-3069885	+	120
140285	STM14_3510	378451659	-	3069836-3070357	putative cytoplasmic protein	3070915-3071436	-	522
140285	STM14_3528	378451677	+	3087981-3088118	hypothetical protein	3089060-3089197	+	138
140285	STM14_3535	378451684	-	3092010-3092120	hypothetical protein	3093089-3093199	-	111
ST474	STM474_3077	379702190	+	3100048-3100164	hypothetical protein	3099213-3099329	+	117
140285	STM14_3549	378451698	-	3106978-3107112	hypothetical protein	3107979-3108113	-	135
140285	STM14_3555	378451704	-	3113560-3114357	putative metal-dependent hydrolase	3114561-3115358	-	798
ST474	STM474_3093	379702206	+	3116333-3116446	hypothetical protein	3115498-3115611	+	114
140285	STM14_3560	378451709	+	3121321-3121458	hypothetical protein	3122078-3122215	+	138
140285	STM14_3561	378451710	+	3121826-3121978	putative fimbrial subunit	3122582-3122734	+	153
140285	STM14_3571	378451720	+	3134509-3134736	hypothetical protein	3135265-3135492	+	228
140285	STM14_3579	378451727	+	3140022-3140165	hypothetical protein	3140777-3140920	+	144
140285	STM14_3580	378451728	+	3140255-3140359	hypothetical protein	3141010-3141114	+	105
140285	STM14_3583	378451731	-	3143293-3143478	hypothetical protein	3144048-3144233	-	186
140285	STM14_3585	378451733	-	3144205-3144342	L-1,2-propanediol oxidoreductase	3144960-3145097	-	138
140285	STM14_3588	378451736	-	3146280-3146447	hypothetical protein	3147035-3147202	-	168
140285	STM14_3600	378451747	+	3157563-3157685	hypothetical protein	3158318-3158440	+	123
140285	STM14_3616	378451761	+	3177651-3177833	hypothetical protein	3178406-3178588	+	183
140285	STM14_3619	378451764	-	3179499-3179657	hypothetical protein	3180254-3180412	-	159
140285	STM14_3622	378451767	-	3182548-3182661	hypothetical protein	3183303-3183416	-	114
140285	STM14_3623	378451768	+	3182641-3182757	hypothetical protein	3183396-3183512	+	117
140285	STM14_3624	378451769	-	3182858-3183004	hypothetical protein	3183613-3183759	-	147

140285	STM14_3625	378451770	+	3183029-3183154	hypothetical protein	3183784-3183909	+	126
140285	STM14_3626	378451771	-	3183053-3183160	hypothetical protein	3183808-3183915	-	108
140285	STM14_3628	378451773	+	3183985-3184095	hypothetical protein	3184740-3184850	+	111
140285	STM14_3631	378451776	+	3185172-3185342	hypothetical protein	3185927-3186097	+	171
D23580	STMMW_29721	378446366	-	3162322-3162468	hypothetical protein	3190876-3191022	-	147
140285	STM14_3635	378451780	-	3190309-3190434	hypothetical protein	3191064-3191189	-	126
140285	STM14_3642	378451787	-	3197131-3197247	hypothetical protein	3197886-3198002	-	117
140285	STM14_3645	378451790	-	3199028-3199198	hypothetical protein	3199783-3199953	-	171
140285	STM14_3649	378451794	+	3202193-3202315	hypothetical protein	3202948-3203070	+	123
140285	STM14_3658	378451803	+	3210549-3210968	hypothetical protein	3211232-3211651	+	420
140285	STM14_3661	378451806	-	3212953-3213489	Ail/OmpX-like protein	3213636-3214172	-	537
140285	STM14_3662	378451807	-	3213534-3213719	hypothetical protein	3214217-3214402	-	186
140285	STM14_3664	378451809	-	3214693-3215070	putative virulence-associated protein	3215376-3215753	-	378
140285	STM14_3666	378451810	-	3215425-3215670	hypothetical protein	3216108-3216353	-	246
T00240	STMDT12_C30880	378985628	+	3219618-3219734	hypothetical protein	3216177-3216293	+	117
140285	STM14_3670	378451813	+	3217519-3217686	hypothetical protein	3218202-3218369	+	168
140285	STM14_3680	378451823	+	3225806-3226042	hypothetical protein	3226489-3226725	+	237
140285	STM14_3685	378451828	-	3229927-3230280	putative outer membrane protein	3230610-3231503	-	894
140285	STM14_3686	378451829	-	3230904-3231050	immunoglobulin VH domain protein	3231587-3231733	-	147
140285	STM14_3690	378451833	+	3235813-3235968	hypothetical protein	3236496-3236651	+	156
140285	STM14_3691	378451834	+	3236175-3236279	hypothetical protein	3236858-3236962	+	105
140285	STM14_3693	378451836	+	3237457-3237624	hypothetical protein	3238140-3238307	+	168
140285	STM14_3700	378451843	+	3243685-3243795	hypothetical protein	3244368-3244478	+	111
140285	STM14_3702	378451845	+	3244595-3244732	hypothetical protein	3245278-3245415	+	138
140285	STM14_3704	378451847	+	3245634-3245885	hypothetical protein	3246317-3246568	+	252
140285	STM14_3711	378451854	+	3252233-3252433	hypothetical protein	3252916-3253116	+	201
140285	STM14_3718	378451861	+	3257540-3257698	hypothetical protein	3258223-3258381	+	159
140285	STM14_3722	378451865	+	3260720-3260824	hypothetical protein	3261403-3261507	+	105
ST474	STM474_3231	379702341	+	3267369-3267485	putative racemase	3266671-3266587	+	117
UK1	STMUK_3076	378990408	+	3217903-3218067	putative cytoplasmic protein	3270981-3271145	+	165
140285	yggD	378451874	-	3270459-3270758	putative inner membrane protein	3271142-3271441	-	300
140285	STM14_3734	378451876	-	3271996-3272124	hypothetical protein	3272679-3272804	-	126
140285	STM14_3751	378451893	-	3285668-3285820	hypothetical protein	3286351-3286503	-	153
140285	STM14_3757	378451899	-	3289138-3289263	hypothetical protein	3289821-3289946	-	126
140285	STM14_3759	378451901	-	3290425-3290550	hypothetical protein	3291108-3291233	-	126
140285	STM14_3762	378451903	-	3293235-3293459	hypothetical protein	3294787-3295011	-	225
140285	STM14_3763	378451904	+	3293413-3293547	hypothetical protein	3294965-3295099	+	135
140285	STM14_3766	378451906	-	3294633-3295067	putative lactoylglutathione lyase	3296185-3296619	-	435
140285	STM14_3773	378451913	-	3301831-3301965	hypothetical protein	3303383-3303517	-	135
140285	STM14_3774	378451914	+	3302110-3302214	hypothetical protein	3303662-3303766	+	105
140285	STM14_3778	378451918	-	3305157-3305300	hypothetical protein	3306709-3306852	-	144
140285	STM14_3779	378451919	-	3305240-3305395	putative cytoplasmic protein	3306792-3306947	-	156
140285	STM14_3783	378451923	+	3308724-3308864	hypothetical protein	3310276-3310416	+	141
T00240	STMDT12_C31860	378985726	+	3314720-3314875	hypothetical protein	3311261-3311416	+	156
140285	STM14_3786	378451926	+	3310018-3310173	hypothetical protein	3311570-3311725	+	156
140285	STM14_3789	378451928	+	3312290-3312427	hypothetical protein	3313844-3313981	+	138
140285	STM14_3790	378451929	-	3312496-3312606	hypothetical protein	3314050-3314160	-	111
140285	STM14_3792	378451931	+	3314050-3314181	hypothetical protein	3315604-3315735	+	132
140285	STM14_3793	378451932	+	3314188-3314334	hypothetical protein	3315742-3315888	-	147
140285	STM14_3794	378451933	+	3314216-3314410	hypothetical protein	3315770-3315964	+	195
140285	STM14_3798	378451937	+	3318584-3318703	hypothetical protein	3320138-3320257	+	120
140285	STM14_3800	378451939	-	3319990-3320106	hypothetical protein	3321544-3321660	-	117
140285	STM14_3801	378451940	+	3320290-3320487	hypothetical protein	3321844-3322041	+	198
140285	STM14_3803	378451942	-	3322464-3322571	hypothetical protein	3324018-3324125	-	108
ST474	STM474_3301	379702409	-	3334473-3334658	hypothetical protein	3333575-3333760	-	186
140285	STM14_3815	378451954	+	3332051-3332179	hypothetical protein	3333605-3333733	+	129
140285	STM14_3826	378451965	-	3338987-3339136	putative inner membrane protein	3340541-3340690	-	150
140285	STM14_3830	378451969	+	3342234-3342434	hypothetical protein	3343788-3343988	+	201
140285	STM14_3833	378451972	-	3344492-3344629	hypothetical protein	3346046-3346183	-	138
140285	STM14_3834	378451973	+	3344530-3344640	hypothetical protein	3346084-3346194	+	111
ST474	STM474_3318	379702426	-	3348584-3348700	hypothetical protein	3347686-3347802	-	117
140285	STM14_3837	378451976	+	3346625-3346789	hypothetical protein	3348179-3348343	+	165
140285	STM14_3838	378451977	-	3346793-3346924	hypothetical protein	3348347-3348478	-	132
140285	STM14_3840	378451979	-	3349441-3349545	hypothetical protein	3350995-3351099	-	105
140285	STM14_3851	378451990	+	3361049-3361165	hypothetical protein	3362603-3362719	+	117
ST474	STM474_3334	379702442	-	3364546-3364662	hypothetical protein	3363648-3363764	-	117
140285	STM14_3860	378451999	+	3368291-3368398	hypothetical protein	3369845-3369952	+	108
140285	STM14_3865	378452004	-	3372178-3372354	hypothetical protein	3373732-3373908	-	177
T00240	STMDT12_C32520	378985792	+	3381047-3381148	hypothetical protein	3377590-3377691	+	102
140285	STM14_3872	378452011	-	3377873-3378022	hypothetical protein	3379427-3379576	-	150
140285	STM14_3875	378452014	+	3380454-3380651	hypothetical protein	3382008-3382205	+	198
140285	STM14_3884	378452023	+	3390891-3391163	hypothetical protein	3392444-3392716	+	273
140285	STM14_3895	378452033	+	3402540-3402695	hypothetical protein	3404093-3404248	+	156
140285	STM14_3901	378452039	-	3408358-3408459	hypothetical protein	3409911-3410012	-	102
140285	STM14_3904	378452042	+	3410298-3410435	hypothetical protein	3411851-3411988	+	138
140285	STM14_3907	378452045	-	3412994-3413194	hypothetical protein	3414546-3414746	-	201
140285	yqjD	378452049	+	3415051-3415356	putative inner membrane protein	3416603-3416908	+	306
140285	yhaL	378452057	+	3419991-3420155	putative cytoplasmic protein	3421543-3421707	+	165
ST474	STM474_3403	379702507	+	3435178-3435297	hypothetical protein	3434278-3434397	+	120
D23580	STMMW_32461	378446633	+	3437229-3437615	hypothetical protein	3434610-3434996	+	387
140285	STM14_3932	378452069	-	3436508-3436648	hypothetical protein	3438060-3438200	-	141
140285	STM14_3933	378452070	+	3436575-3436694	hypothetical protein	3438127-3438246	+	120
140285	STM14_3934	378452071	+	3436648-3436776	hypothetical protein	3438200-3438328	+	129
140285	STM14_3938	378452075	+	3440518-3440661	hypothetical protein	3442070-3442213	+	144
140285	STM14_3965	378452100	-	3464611-3464718	hypothetical protein	3471232-3471339	-	108
140285	STM14_3985	378452118	-	3482355-3482456	hypothetical protein	3488978-3489079	-	102
140285	STM14_3987	378452120	+	3483983-3484117	hypothetical protein	3490606-3490740	+	135
140285	STM14_3996	378452128	-	3490436-3490546	hypothetical protein	3497059-3497169	-	111
140285	STM14_4018	378452150	-	3508092-3508241	hypothetical protein	3514715-3514864	-	150
140285	STM14_4019	378452151	-	3508281-3508475	hypothetical protein	3514904-3515098	-	195
140285	STM14_4023	378452155	+	3515633-3515794	hypothetical protein	3522256-3522417	+	162
140285	STM14_4034	378452166	+	3525086-3525205	hypothetical protein	3531709-3531828	+	120
140285	STM14_4051	378452183	-	3540466-3540597	malate dehydrogenase	3547088-3547219	-	132

140285	STM14_4053	378452185	+	3541795-3541923	hypothetical protein	3548417-3548545	+	129
T000240	STMDT12_C34190	378985959	+	3551875-3551970	hypothetical protein	3549132-3549227	+	96
ST474	STM474_3527	379702628	-	3554690-3554815	hypothetical protein	3553791-3553916	-	126
140285	STM14_4069	378452201	+	3558566-3558757	hypothetical protein	3565188-3565379	+	192
140285	STM14_4074	378452206	-	3563669-3563851	hypothetical protein	3570291-3570473	-	183
140285	STM14_4075	378452207	+	3563867-3563971	hypothetical protein	3570489-3570593	+	105
140285	STM14_4081	378452213	-	3568595-3568738	hypothetical protein	3575217-3575360	-	144
140285	STM14_4088	378452220	-	3574592-3574753	hypothetical protein	3581214-3581375	-	162
140285	STM14_4089	378452221	+	3574662-3574820	hypothetical protein	3581284-3581442	+	159
140285	yhvD	378452224	+	3579521-3579742	putative outer membrane lipoprotein	3586143-3586364	+	222
140285	STM14_4093	378452225	+	3579746-3579922	hypothetical protein	3586268-3586544	+	177
140285	STM14_4094	378452226	-	3580182-3580316	hypothetical protein	3586804-3586938	-	135
140285	STM14_4095	378452227	+	3580370-3580480	hypothetical protein	3586992-3587102	+	111
T000240	STMDT12_C34520	378985992	-	3595480-3595632	hypothetical protein	3592696-3592848	-	153
140285	STM14_4114	378452241	-	3595496-3595765	putative cytoplasmic protein	3602118-3602387	-	270
140285	rpmJ_2	378452249	-	3599737-3599853	SOS ribosomal protein L36	3606359-3606475	-	117
140285	STM14_4148	378452275	-	3611988-3612179	elongation factor Tu	3618610-3618801	-	192
ST474	STM474_3611	379702705	+	3620933-3621070	hypothetical protein	3619931-3620068	+	138
140285	STM14_4163	378452290	+	3623551-3623655	hypothetical protein	3630172-3630276	+	105
140285	STM14_4167	378452293	+	3626355-3626480	hypothetical protein	3632976-3633101	+	126
140285	STM14_4172	378452298	+	3629162-3629344	hypothetical protein	3635783-3635965	+	183
140285	yhfg	378452304	-	3634805-3634972	hypothetical protein	3641426-3641593	-	168
140285	STM14_4180	378452306	+	3635785-3635937	hypothetical protein	3642406-3642558	+	153
140285	STM14_4182	378452308	-	3637245-3637421	hypothetical protein	3643866-3644402	-	177
140285	STM14_4185	378452311	-	3640241-3640396	hypothetical protein	3646862-3647017	-	156
140285	STM14_4192	378452318	-	3649991-3650131	hypothetical protein	3656444-3656584	-	141
140285	STM14_4207	378452333	-	3663870-3663983	hypothetical protein	3670323-3670436	-	114
140285	STM14_4213	378452339	-	3670273-3670407	hypothetical protein	3676726-3676860	-	135
140285	STM14_4214	378452340	+	3670342-3670449	hypothetical protein	3676795-3676902	+	108
140285	STM14_4220	378452346	+	3677538-3677768	hypothetical protein	3683991-3684221	+	231
140285	STM14_4224	378452350	+	3680653-3680766	hypothetical protein	3687106-3687219	+	114
140285	STM14_4229	378452355	-	3684140-3684289	hypothetical protein	3690593-3690742	-	150
140285	STM14_4233	378452359	-	3690393-3690500	hypothetical protein	3696846-3696953	-	108
140285	STM14_4235	378452361	-	3693591-3693866	putative cytoplasmic protein	3700044-3700319	-	276
140285	STM14_4240	378452366	-	3698369-3698491	hypothetical protein	3704822-3704944	-	123
140285	STM14_4243	378452369	-	3700901-3701017	hypothetical protein	3707354-3707470	-	117
140285	STM14_4259	378452384	-	3722125-3722298	hypothetical protein	3728578-3728751	-	174
140285	STM14_4261	378452386	+	3723463-3723627	hypothetical protein	3729916-3730080	+	165
140285	STM14_4263	378452387	+	3723698-3723940	putative inner membrane protein	3730151-3730393	+	243
140285	STM14_4269	378452393	+	3728906-3729031	hypothetical protein	3735359-3735484	+	126
140285	STM14_4270	378452394	+	3729191-3729319	hypothetical protein	3735644-3735772	+	129
ST474	STM474_3713	379702806	-	3737509-3737628	hypothetical protein	3736338-3736457	-	120
140285	STM14_4277	378452401	+	3735927-3736031	hypothetical protein	3742381-3742485	+	105
140285	STM14_4293	378452417	+	3747983-3748117	putative cytoplasmic protein	3754436-3754570	+	135
140285	STM14_4296	378452420	+	3750462-3750605	hypothetical protein	3756915-3757058	+	144
140285	STM14_4316	378452440	+	3770553-3770684	hypothetical protein	3777006-3777137	+	132
140285	STM14_4325	378452449	+	3781138-3781305	hypothetical protein	3787591-3787758	+	168
140285	STM14_4333	378452457	+	3789092-3789217	hypothetical protein	3795545-3795670	+	126
140285	STM14_4336	378452460	-	3792675-3792815	hypothetical protein	3799128-3799268	-	141
140285	STM14_4339	378452463	-	3794036-3794179	hypothetical protein	3800489-3800632	-	144
140285	STM14_4340	378452464	+	3794140-3794265	hypothetical protein	3800593-3800718	+	126
140285	STM14_4343	378452467	+	3796527-3796667	hypothetical protein	3802980-3803120	+	141
140285	STM14_4347	378452471	-	3801111-3801227	hypothetical protein	3807564-3807680	-	117
140285	STM14_4350	378452474	+	3803739-3803876	hypothetical protein	3810192-3810329	+	138
140285	STM14_4352	378452476	-	3805315-3805461	hypothetical protein	3811768-3811914	-	147
140285	STM14_4354	378452478	-	3807400-3807591	hypothetical protein	3813853-3814044	-	192
140285	STM14_4361	378452485	+	3818231-3818344	hypothetical protein	3824684-3824797	+	114
ST474	ldrD	379702886	-	3829507-3829632	Small toxic polypeptide ldrD	3828335-3828460	-	126
140285	STM14_4366	378452489	-	3822083-3822277	hypothetical protein	3828536-3828730	-	195
140285	STM14_4374	378452497	-	3827982-3828101	hypothetical protein	3834435-3834554	-	120
140285	STM14_4378	378452501	-	3832781-3832954	hypothetical protein	3839234-3839407	-	174
140285	STM14_4379	378452502	+	3832815-3832976	hypothetical protein	3839268-3839429	+	162
140285	STM14_4388	378452509	+	3842019-3842180	hypothetical protein	3848471-3848632	+	162
140285	STM14_4393	378452514	+	3846344-3846445	hypothetical protein	3852796-3852897	+	102
140285	STM14_4395	378452516	-	3847245-3847379	hypothetical protein	3853697-3853831	-	135
140285	STM14_4401	378452522	-	3851427-3851912	putative acetyltransferase	3857879-3858364	-	486
140285	STM14_4403	378452524	-	3852193-3852324	hypothetical protein	3858645-3858776	-	132
140285	STM14_4404	378452525	-	3852365-3852832	putative acetyltransferase	3858817-3859284	-	468
140285	STM14_4408	378452528	+	3856473-3856610	hypothetical protein	3862925-3863062	+	138
140285	STM14_4410	378452530	-	3856798-3857019	hypothetical protein	3863250-3863471	-	222
140285	STM14_4415	378452535	+	3861460-3861693	hypothetical protein	3867912-3868145	+	234
140285	STM14_4416	378452536	-	3861562-3861738	hypothetical protein	3868014-3868190	-	177
140285	STM14_4419	378452539	+	3863890-3864222	hypothetical protein	3870342-3870674	+	333
140285	STM14_4424	378452544	-	3869165-3869311	hypothetical protein	3875617-3875763	-	147
140285	STM14_4437	378452557	+	3881551-3881694	hypothetical protein	3888002-3888145	+	144
140285	STM14_4448	378452568	+	3893735-3893932	hypothetical protein	3900186-3900383	+	198
ST474	STM474_3868	379702957	-	3911348-3911467	hypothetical protein	3910174-3910293	-	120
140285	STM14_4456	378452576	+	3904878-3905129	hypothetical protein	3911328-3911579	+	252
140285	yjvR	378452601	-	3929375-3929608	putative inner membrane protein	3935824-3936057	-	234
140285	STM14_4485	378452605	-	3932731-3932850	hypothetical protein	3939180-3939299	-	120
140285	STM14_4497	378452617	+	3941019-3941198	hypothetical protein	3947468-3947647	+	180
140285	STM14_4501	378452621	+	3943928-3944110	hypothetical protein	3950377-3950559	+	183
140285	STM14_4504	378452624	+	3946552-3946725	hypothetical protein	3953001-3953174	+	174
140285	STM14_4512	378452632	-	3954806-3954916	hypothetical protein	3961256-3961366	-	111
140285	STM14_4518	378452637	+	3962472-3962597	hypothetical protein	3968922-3969047	+	126
140285	STM14_4520	378452639	+	3963213-3963556	hypothetical protein	3969663-3969806	+	144
140285	STM14_4521	378452640	-	3963387-3963497	hypothetical protein	3969837-3969947	-	111
D23580	STMMW_37441	378447121	-	3975758-3975931	ISxAc3 transposase	3973024-3973197	-	174
D23580	STMMW_37491	378447126	-	3981984-3982097	putative product	3979250-3979363	-	114
140285	STM14_4531	378452648	+	3973351-3973476	hypothetical protein	3979801-3979926	+	126
140285	STM14_0363	378448623	-	352120-352227	hypothetical protein	3980702-3980809	-	108
140285	STM14_4535	378452652	+	3974935-3975075	hypothetical protein	3981385-3981525	+	141
T000240	STMDT12_C38190	378986359	-	3984324-3984416	hypothetical protein	3981570-3981662	-	93

14028S	STM14_4537	378452654	+	3978059-3978172	hypothetical protein	3984509-3984622	+	114
14028S	STM14_4539	378452656	+	3979055-3979171	hypothetical protein	3985505-3985621	+	117
14028S	STM14_4540	378452657	+	3979172-3979297	hypothetical protein	3985622-3985747	-	126
14028S	STM14_4549	378452666	+	3986024-3986146	hypothetical protein	3992474-3992596	+	123
14028S	STM14_4551	378452668	-	3989051-3989164	hypothetical protein	3995501-3995614	-	114
14028S	STM14_4553	378452670	+	3989514-3989657	hypothetical protein	3995964-3996107	+	144
14028S	STM14_4557	378452674	+	3992829-3993152	putative DNA-binding protein	3999278-3999601	+	324
14028S	STM14_4565	378452682	-	3999123-3999230	hypothetical protein	4005572-4005679	-	108
14028S	STM14_4578	378452695	+	4011296-4011472	hypothetical protein	4017744-4017920	+	177
14028S	ivbL	378452696	-	4011404-4011502	ivb operon leader peptide	4017852-4017950	-	99
14028S	STM14_4580	378452697	+	4011519-4011680	hypothetical protein	4017967-4018128	+	162
14028S	STM14_4581	378452698	-	4011613-4011768	hypothetical protein	4018061-4018216	-	156
14028S	STM14_4582	378452699	+	4011777-4011950	hypothetical protein	4018225-4018398	+	174
D23580	STMMW_37861	378447163	+	4021208-4021303	hypothetical protein	4018473-4018568	+	96
D23580	STMMW_37871	378447164	+	4021319-4021408	putative LexA-regulated protein TisB	4018584-4018673	+	90
14028S	STM14_4587	378452702	-	4014492-4015577	hypothetical protein	4020941-4022026	-	1086
14028S	STM14_4589	378452704	-	4016572-4016697	hypothetical protein	4023021-4023146	-	126
14028S	STM14_4595	378452710	+	4020774-4020887	hypothetical protein	4027223-4027336	+	114
ST474	STM474_3981	379703066	-	4028417-4028551	hypothetical protein	4027244-4027378	-	135
14028S	STM14_4598	378452712	+	4022921-4023073	hypothetical protein	4029370-4029522	+	153
14028S	STM14_4601	378452715	+	4024130-4024306	hypothetical protein	4030579-4030755	+	177
ST474	STM474_3986	379703070	-	4031907-4032026	hypothetical protein	4030734-4030853	-	120
14028S	STM14_4630	378452743	+	4056093-4056239	hypothetical protein	4062550-4062696	+	147
14028S	STM14_4633	378452746	+	4059079-4059237	hypothetical protein	4065536-4065694	+	159
14028S	STM14_4636	378452749	+	4059858-4060115	hypothetical protein	4066315-4066572	+	258
ST474	STM474_4022	379703106	-	4071364-4071624	hypothetical protein	4070199-4070459	-	261
T00240	STMD12_C40060	378986546	-	4156200-4156427	hypothetical protein	4071235-4071462	-	228
14028S	STM14_4658	378452770	+	4086316-4086504	hypothetical protein	4092770-4092958	+	189
14028S	STM14_4669	378452781	-	4094364-4094507	hypothetical protein	4100818-4100961	-	144
14028S	STM14_4696	378452801	+	4122161-4122346	hypothetical protein	4128612-4128797	+	186
14028S	ivL	378452802	+	4122426-4122524	ivG operon leader peptide	4128877-4128975	+	99
14028S	STM14_4733	378452833	+	4155257-4155382	hypothetical protein	4161708-4161833	+	126
14028S	STM14_4738	378452838	-	4159908-4160012	hypothetical protein	4166359-4166463	-	105
14028S	STM14_4740	378452840	+	4162570-4162710	hypothetical protein	4169021-4169161	+	141
14028S	STM14_4743	378452843	+	4163805-4164167	putative cytoplasmic protein	4170256-4170618	+	363
14028S	STM14_4753	378452852	-	4171444-4171629	hypothetical protein	4177895-4178080	-	186
14028S	yigG	378452855	-	4173261-4173719	hypothetical protein	4179712-4180170	-	459
14028S	STM14_4759	378452858	-	4175211-4175348	hypothetical protein	4181662-4181799	-	138
14028S	yigM	378452865	+	4181464-4182363	putative transport protein	4187915-4188814	+	900
14028S	STM14_4768	378452867	+	4183187-4183360	hypothetical protein	4189638-4189811	+	174
ST474	STM474_4144	379703214	+	4193636-4193764	hypothetical protein	4192232-4192360	+	129
14028S	STM14_4770	378452869	-	4185870-4186004	hypothetical protein	4192321-4192455	-	135
14028S	STM14_4771	378452870	+	4185906-4186052	hypothetical protein	4192357-4192503	+	147
14028S	STM14_4784	378452883	+	4197098-4197223	hypothetical protein	4203549-4203674	+	126
14028S	STM14_4800	378452894	-	4215049-4215231	hypothetical protein	4221500-4221682	-	183
14028S	STM14_4801	378452895	+	4215077-4215433	hypothetical protein	4221528-4221884	+	357
14028S	STM14_4808	378452902	-	4219525-4219656	hypothetical protein	4225976-4226107	-	132
14028S	STM14_4811	378452904	+	4222708-4222851	hypothetical protein	4229159-4229302	+	144
14028S	STM14_4813	378452906	+	4223708-4223932	putative cytoplasmic protein	4230159-4230383	+	225
14028S	STM14_4816	378452909	-	4226121-4226246	hypothetical protein	4232572-4232697	-	126
14028S	STM14_4819	378452912	-	4228860-4229039	hypothetical protein	4235311-4235490	-	180
14028S	STM14_4821	378452914	-	4230571-4230990	putative cytoplasmic protein	4237022-4237441	-	420
14028S	STM14_4837	378452930	-	4248232-4248351	hypothetical protein	4254683-4254802	-	120
14028S	STM14_4844	378452937	-	4253233-4253661	putative cytoplasmic protein	4259684-4260112	-	429
ST474	STM474_4210	379703274	-	4263051-4263284	hypothetical protein	4261647-4261880	-	234
14028S	STM14_4847	378452940	+	4255220-4255531	hypothetical protein	4261671-4261982	+	312
14028S	STM14_4854	378452947	-	4262409-4262564	hypothetical protein	4268859-4269014	-	156
14028S	STM14_4856	378452949	+	4263770-4263904	hypothetical protein	4270220-4270354	+	135
14028S	STM14_4858	378452951	+	4265002-4265130	hypothetical protein	4271452-4271580	+	129
14028S	STM14_4867	378452960	+	4272347-4272496	hypothetical protein	4278797-4278946	+	150
14028S	STM14_4868	378452961	-	4272426-4272560	hypothetical protein	4278876-4279010	-	135
14028S	STM14_4872	378452965	+	4275521-4275652	hypothetical protein	4281971-4282102	+	132
ST474	STM474_4231	379703295	+	4283542-4283655	hypothetical protein	4282137-4282250	+	114
14028S	STM14_4873	378452966	+	4275986-4276111	hypothetical protein	4282436-4282561	+	126
14028S	STM14_4886	378452979	-	4286951-4287055	hypothetical protein	4293358-4293462	-	105
14028S	STM14_4893	378452986	+	4293425-4293589	hypothetical protein	4299832-4299996	+	165
14028S	STM14_4898	378452991	-	4296957-4297091	hypothetical protein	4303363-4303497	-	135
14028S	STM14_4909	378453002	-	4305795-4305962	hypothetical protein	4312200-4312367	-	168
14028S	STM14_4914	378453007	+	4310547-4310666	hypothetical protein	4316952-4317071	+	120
14028S	STM14_4916	378453009	-	4311024-4311164	hypothetical protein	4317429-4317569	-	141
ST474	STM474_4282	379703346	+	4329998-4330159	hypothetical protein	4328549-4328710	+	162
14028S	STM14_4934	378453027	-	4332008-4332127	hypothetical protein	4338413-4338532	-	120
14028S	STM14_4938	378453031	+	4336017-4336178	hypothetical protein	4342422-4342583	+	162
14028S	STM14_4943	378453035	-	4340772-4340927	hypothetical protein	4347177-4347332	-	156
14028S	STM14_4950	378453042	+	4346732-4346872	hypothetical protein	4353137-4353277	+	141
14028S	STM14_4951	378453043	+	4346784-4346900	hypothetical protein	4353189-4353305	+	117
14028S	STM14_4953	378453045	+	4348703-4348810	hypothetical protein	4355108-4355215	+	108
14028S	STM14_4961	378453053	-	4358974-4359162	hypothetical protein	4365379-4365567	-	189
14028S	STM14_4977	378453063	-	4373434-4373607	putative cytoplasmic protein	4379839-4380012	-	174
14028S	STM14_4983	378453065	+	4375382-4375510	hypothetical protein	4381787-4381915	+	129
14028S	STM14_4994	378453076	-	4388486-4388623	hypothetical protein	4394891-4395028	-	138
14028S	STM14_4995	378453077	+	4388644-4388847	hypothetical protein	4395049-4395252	+	204
14028S	STM14_4997	378453079	+	4389931-4390140	hypothetical protein	4396336-4396545	+	210
14028S	STM14_5018	378453099	+	4407683-4407805	hypothetical protein	4414088-4414210	+	123
14028S	STM14_5019	378453100	-	4407796-4407918	hypothetical protein	4414201-4414323	-	123
14028S	STM14_5020	378453101	+	4407851-4407991	hypothetical protein	4414256-4414396	+	141
14028S	STM14_5025	378453102	-	4413499-4413630	hypothetical protein	4419910-4420041	-	132
14028S	STM14_5026	378453103	+	4413565-4413795	hypothetical protein	4419976-4420206	+	231
14028S	STM14_5031	378453108	+	4418519-4418641	hypothetical protein	4424930-4425052	+	123
14028S	STM14_5044	378453120	-	4431313-4431468	hypothetical protein	4437724-4437879	-	156
14028S	STM14_5046	378453122	-	4432382-4432672	putative inner membrane protein	4438793-4439083	-	291
14028S	STM14_5053	378453129	+	4437882-4438004	hypothetical protein	4444293-4444415	+	123
14028S	STM14_5057	378453133	-	4441014-4441139	hypothetical protein	4447425-4447550	-	126

14028S	STM14_5072	378453147	+	4451435-4451575	hypothetical protein	4457846-4457986	+	141
14028S	yjbe	378453151	+	4455796-4456038	putative outer membrane protein	4462207-4462449	+	243
14028S	STM14_5083	378453158	+	4462681-4462857	hypothetical protein	4469092-4469268	-	177
14028S	STM14_5084	378453159	+	4462737-4462877	hypothetical protein	4469148-4469288	-	141
14028S	STM14_5088	378453163	+	4466972-4467136	hypothetical protein	4473383-4473547	+	165
T000240	STMDT12_C43680	378986908	+	4559620-4559715	hypothetical protein	4474484-4474579	+	96
14028S	STM14_5096	378453171	+	4474899-4475012	putative cytoplasmic protein	4481310-4481423	+	114
14028S	STM14_5101	378453176	+	4478537-4478704	hypothetical protein	4484948-4485115	+	168
14028S	STM14_5113	378453188	+	4489545-4489661	putative cytoplasmic protein	4495956-4496072	+	117
14028S	STM14_5115	378453190	+	4490374-4490565	hypothetical protein	4496785-4496976	-	192
14028S	STM14_5116	378453191	+	4490568-4490723	hypothetical protein	4496979-4497134	+	156
ST474	STM474_4451	379703497	+	4498500-4498640	hypothetical protein	4497160-4497300	+	141
14028S	STM14_5117	378453192	+	4491399-4492031	hypothetical protein	4497810-4498442	+	633
14028S	STM14_5124	378453199	+	4515420-4515557	hypothetical protein	4521831-4521968	+	138
14028S	STM14_5125	378453200	-	4515741-4515845	hypothetical protein	4522152-4522256	-	105
14028S	STM14_5129	378453204	-	4518503-4518631	hypothetical protein	4524914-4525042	-	129
14028S	STM14_5131	378453206	-	4519322-4519456	hypothetical protein	4525733-4525867	-	135
14028S	STM14_5132	378453207	-	4519489-4519611	hypothetical protein	4525900-4526022	-	123
14028S	STM14_5134	378453209	-	4521030-4521188	hypothetical protein	4527441-4527599	-	159
14028S	STM14_5142	378453217	+	4529401-4529547	putative cytoplasmic protein	4535812-4535958	+	147
14028S	STM14_5149	378453224	+	4536353-4536481	hypothetical protein	4542764-4542892	-	129
14028S	STM14_5150	378453225	+	4536377-4536649	hypothetical protein	4542788-4543060	+	273
14028S	STM14_5152	378453227	+	4537849-4538022	hypothetical protein	4544260-4544433	+	174
14028S	STM14_5154	378453229	+	4538728-4538883	hypothetical protein	4545139-4545294	-	156
14028S	STM14_5160	378453235	+	4544189-4544284	hypothetical protein	4550600-4550695	+	96
14028S	STM14_5162	378453237	+	4546069-4546173	hypothetical protein	4552480-4552584	+	105
14028S	STM14_5168	378453243	+	4552110-4552238	hypothetical protein	4558521-4558649	+	129
14028S	STM14_5183	378453258	+	4571436-4571549	hypothetical protein	4577847-4577966	+	114
14028S	STM14_5187	378453262	+	4573428-4573715	putative regulatory protein	4579839-4580126	-	288
14028S	STM14_5189	378453264	+	4574725-4574850	hypothetical protein	4581136-4581261	+	126
14028S	STM14_5190	378453265	+	4574852-4575073	putative cytoplasmic protein	4581263-4581484	-	222
ST474	STM474_4515	379703561	-	4585588-4585743	hypothetical protein	4584248-4584403	-	156
ST474	STM474_4516	379703562	-	4586025-4586150	hypothetical protein	4584685-4584810	-	126
14028S	STM14_5194	378453269	-	4578381-4578758	ethyl tert-butyl ether degradation EthD	4584792-4585169	-	378
14028S	STM14_5195	378453270	+	4578830-4579162	putative regulatory protein	4585241-4585573	+	333
14028S	STM14_5196	378453271	-	4579152-4579388	hypothetical protein	4585563-4585799	-	237
14028S	STM14_5203	378453277	-	4585245-4585367	hypothetical protein	4591656-4591778	-	123
14028S	STM14_5208	378453282	-	4589666-4589833	hypothetical protein	4596077-4596244	-	168
14028S	STM14_5211	378453285	+	4591089-4591223	hypothetical protein	4597500-4597634	+	135
14028S	STM14_5212	378453286	-	4591232-4591378	hypothetical protein	4597643-4597789	-	147
14028S	ecnB	378453290	+	4593310-4593456	entericidin B membrane lipoprotein	4599721-4599867	+	147
14028S	STM14_5225	378453299	+	4599983-4600087	hypothetical protein	4606394-4606498	+	105
14028S	yjeT	378453317	+	4621626-4621823	putative inner membrane protein	4627805-4628002	+	198
14028S	STM14_5247	378453318	+	4621703-4621933	hypothetical protein	4627882-4628112	+	231
14028S	STM14_5272	378453343	-	4642797-4642994	hypothetical protein	4648895-4649172	-	198
14028S	STM14_5273	378453344	+	4642921-4643028	hypothetical protein	4649099-4649206	+	108
14028S	STM14_5274	378453345	+	4643067-4643273	putative cytoplasmic protein	4649245-4649451	+	207
14028S	priB	378453347	+	4643746-4644060	primosomal replication protein N	4649924-4650238	+	315
14028S	STM14_5288	378453359	-	4654346-4654567	hypothetical protein	4660524-4660745	-	222
14028S	STM14_5291	378453362	-	4655902-4656081	hypothetical protein	4662080-4662259	-	180
14028S	STM14_5295	378453366	+	4658725-4658841	hypothetical protein	4664903-4665019	+	117
14028S	STM14_5303	378453374	-	4669323-4669508	hypothetical protein	4675502-4675687	-	186
14028S	STM14_5305	378453376	-	4670877-4671137	hypothetical protein	4677056-4677316	-	261
14028S	STM14_5306	378453377	+	4671075-4671302	hypothetical protein	4677254-4677481	+	228
14028S	STM14_5309	378453380	-	4673931-4674110	hypothetical protein	4680110-4680289	-	180
ST474	STM474_4616	379703657	+	4681690-4681806	hypothetical protein	4680117-4680233	+	117
14028S	STM14_5313	378453384	-	4678291-4678593	putative cytoplasmic protein	4684470-4684772	-	303
14028S	STM14_5315	378453386	+	4679544-4679654	hypothetical protein	4685723-4685833	+	111
ST474	STM474_4627	379703668	-	4695124-4695237	hypothetical protein	4693552-4693665	-	114
14028S	STM14_5323	378453393	+	4689572-4689691	hypothetical protein	4695751-4695870	+	120
14028S	STM14_5347	378453416	+	4711078-4711185	hypothetical protein	4717257-4717364	+	108
ST474	STM474_4653	379703693	+	4719860-4719991	hypothetical protein	4718288-4718419	+	132
14028S	pvrL	378453423	+	4717774-4717875	pvrBI operon leader peptide	4723953-4724054	-	102
UK1	STMUK_4448	378991724	+	4665460-4665600	putative cytoplasmic protein	4724034-4724174	+	141
14028S	STM14_5356	378453425	-	4718450-4718566	hypothetical protein	4724629-4724745	-	117
T000240	STMDT12_C45910	378987131	+	4803005-4803103	hypothetical protein	4724635-4724733	+	99
14028S	STM14_5359	378453428	-	4721103-4721225	hypothetical protein	4727282-4727404	-	123
14028S	STM14_5362	378453431	+	4723479-4723670	hypothetical protein	4729658-4729849	+	192
14028S	STM14_5367	378453436	-	4727023-4727145	hypothetical protein	4733202-4733324	-	123
14028S	STM14_5374	378453443	-	4734836-4734955	putative cytoplasmic protein	4741015-4741134	-	120
T000240	STMDT12_C46080	378987148	+	4822036-4822131	hypothetical protein	4743666-4743761	+	96
14028S	STM14_5381	378453450	+	4741810-4741944	hypothetical protein	4747989-4748123	+	135
14028S	STM14_5396	378453464	-	4764865-4765110	molybdopterin-guanine dinucleotide biosynthesis protein MobA	4771044-4771289	-	246
14028S	STM14_5399	378453466	+	4766523-4766714	hypothetical protein	4772702-4772893	+	192
14028S	STM14_5402	378453469	-	4768806-4769102	hypothetical protein	4774985-4775281	-	297
14028S	STM14_5406	378453473	+	4772201-4772314	hypothetical protein	4778380-4778493	+	114
14028S	STM14_5407	378453474	-	4772241-4772357	hypothetical protein	4778420-4778536	-	117
14028S	STM14_5410	378453477	+	4773638-4773850	hypothetical protein	4779817-4780029	+	213
14028S	STM14_5413	378453480	+	4775969-4776121	hypothetical protein	4782148-4782300	+	153
14028S	STM14_5415	378453482	+	4776954-4777076	hypothetical protein	4783133-4783255	+	123
14028S	STM14_5416	378453483	-	4776976-4777107	hypothetical protein	4783155-4783286	-	132
14028S	STM14_5426	378453493	-	4786173-4786316	hypothetical protein	4792352-4792495	-	144
14028S	STM14_5427	378453494	+	4786386-4786523	hypothetical protein	4792565-4792702	+	138
14028S	STM14_5429	378453496	-	4787107-4787220	hypothetical protein	4793286-4793399	-	114
ST474	STM474_4722	379703761	-	4794952-4795101	hypothetical protein	4793380-4793529	-	150
14028S	STM14_5431	378453498	-	4788756-4788899	putative cytoplasmic protein	4794935-4795078	-	144
14028S	yjiS	378453499	+	4788866-4789030	putative cytoplasmic protein	4795045-4795209	+	165
14028S	STM14_5435	378453502	-	4790281-4790412	hypothetical protein	4796460-4796591	-	132
14028S	STM14_5440	378453507	+	4798305-4798442	hypothetical protein	4804484-4804621	+	138
14028S	STM14_5447	378453514	-	4804689-4804838	hypothetical protein	4810868-4811017	-	150
14028S	STM14_5455	378453522	+	4812431-4812535	hypothetical protein	4818610-4818714	+	105
14028S	STM14_5462	378453529	-	4818419-4818574	hypothetical protein	4824598-4824753	-	156
14028S	yjiQ	378453530	+	4818950-4819675	putative transcriptional regulator	4825129-4825854	+	726

14028S	STM14_5468	378453535	+	4823006-4823134	hypothetical protein	4829185-4829313	+	129
14028S	STM14_5474	378453538	+	4824998-4825105	hypothetical protein	4830945-4831052	+	108
14028S	STM14_5479	378453543	+	4828502-4828636	hypothetical protein	4834449-4834583	+	135
14028S	STM14_5481	378453545	+	4829440-4829619	hypothetical protein	4835387-4835566	+	180
14028S	STM14_5486	378453550	+	4833992-4834120	hypothetical protein	4839939-4840067	+	129
14028S	STM14_5491	378453555	-	4838731-4839303	putative outer membrane protein	4844678-4845250	-	573
14028S	STM14_5496	378453560	+	4843995-4844144	hypothetical protein	4849942-4850091	+	150
ST474	smp	379703819	+	4853656-4853805	phosphoserine phosphatase	4851855-4852004	+	150
14028S	vjjY	378453584	+	4869015-4869155	putative inner membrane protein	4874962-4875102	+	141

Genome name	Gene Name	GI	Reference details				Gene annotated in LT2		
			Strand	CDS-region	Product	Coordinate	Strand	Length (bp)	
14028S	STM14_0012	378448286	+	11257-11424	hypothetical protein	11257-11424	+	168	
14028S	STM14_0015	378448289	+	14845-14958	hypothetical protein	14845-14958	+	114	
14028S	STM14_0020	378448294	-	17613-17741	hypothetical protein	17613-17741	-	129	
14028S	STM14_0021	378448295	+	17665-17787	hypothetical protein	17665-17787	+	123	
14028S	STM14_0024	378448298	+	23091-23240	hypothetical protein	23091-23240	+	150	
14028S	STM14_0026	378448300	-	24094-24198	hypothetical protein	24094-24198	-	105	
14028S	STM14_0027	378448301	+	24316-24426	hypothetical protein	24316-24426	+	111	
14028S	STM14_0040	378448314	+	34828-34974	hypothetical protein	34828-34974	+	147	
14028S	STM14_0057	378448331	+	57203-57334	hypothetical protein	57203-57334	+	132	
14028S	STM14_0068	378448342	-	68513-68671	hypothetical protein	68513-68671	-	159	
ST474	STM474_0083	379699298	-	92031-92228	hypothetical protein	92028-92225	-	198	
14028S	STM14_0097	378448371	-	95263-95379	hypothetical protein	94551-94667	-	117	
14028S	STM14_0102	378448376	+	98738-99019	hypothetical protein	98026-98307	+	282	
14028S	STM14_0105	378448379	-	101349-101474	hypothetical protein	100637-100762	-	126	
14028S	STM14_0113	378448387	-	108892-109053	hypothetical protein	108180-108341	-	162	
14028S	STM14_0128	378448402	-	127427-127546	putative lipoprotein	126715-126834	-	120	
14028S	STM14_0130	378448404	-	129166-129492	hypothetical protein	128454-128780	-	327	
ST474	STM474_0114	379699329	+	128578-128724	hypothetical protein	128575-128721	+	147	
ST474	STM474_0115	379699330	+	128926-129039	hypothetical protein	128923-129036	+	114	
14028S	STM14_0136	378448410	-	134689-134793	hypothetical protein	133977-134081	-	105	
14028S	STM14_0137	378448411	+	135067-135210	hypothetical protein	134355-134498	+	144	
14028S	STM14_0141	378448415	-	138755-138877	hypothetical protein	138043-138165	-	123	
14028S	STM14_0143	378448417	-	140204-140338	hypothetical protein	139492-139626	-	135	
14028S	STM14_0144	378448418	+	140496-140633	hypothetical protein	139784-139921	+	138	
14028S	STM14_0165	378448438	+	162875-162979	LysR family transcriptional regulator	162162-162266	+	105	
14028S	STM14_0173	378448446	-	168890-169072	hypothetical protein	168177-168359	-	183	
14028S	STM14_0179	378448452	-	173962-174090	hypothetical protein	173249-173377	-	129	
14028S	STM14_0181	378448454	+	175672-175794	hypothetical protein	174959-175081	+	123	
14028S	STM14_0186	378448459	+	183222-183350	hypothetical protein	182509-182637	+	129	
14028S	STM14_0215	378448487	-	213058-213171	hypothetical protein	212354-212467	-	114	
14028S	STM14_0227	378448499	-	224289-224429	hypothetical protein	223584-223724	-	141	
14028S	STM14_0232	378448504	+	230459-230665	hypothetical protein	229754-229960	+	207	
14028S	STM14_0233	378448505	+	231001-231144	hypothetical protein	230297-230440	+	144	
14028S	STM14_0242	378448514	+	239222-239365	hypothetical protein	238518-238661	+	144	
14028S	STM14_0256	378448527	+	254799-255083	30S ribosomal protein S2	254094-254378	+	285	
14028S	STM14_0262	378448533	+	259830-260033	hypothetical protein	259125-259328	+	204	
14028S	STM14_0292	378448562	-	289616-289819	hypothetical protein	288916-289119	-	204	
14028S	STM14_0310	378448574	-	304859-304966	hypothetical protein	304159-304266	-	108	
14028S	STM14_0312	378448575	+	305167-305274	hypothetical protein	304467-304574	+	108	
14028S	STM14_0337	378448600	+	330303-330512	hypothetical protein	329618-329827	+	210	
D23580	STM14_0343	378443738	+	336610-336873	hypothetical protein	336639-336902	+	264	
14028S	STM14_0343	378448606	+	339144-339275	hypothetical protein	338459-338590	+	132	
14028S	STM14_0344	378448607	+	339345-339485	hypothetical protein	338660-338800	+	141	
ST474	STM474_0312	379699516	+	341562-341681	hypothetical protein	342084-342203	+	120	
D23580	STM14_0313	378443750	+	348247-348378	putative transposase	348276-348407	+	132	
14028S	STM14_0361	378448621	-	351322-351450	hypothetical protein	350637-350765	-	129	
14028S	STM14_0377	378448636	-	366783-366935	hypothetical protein	366098-366250	-	153	
UK1	STMUK_0331	378987726	+	369132-369353	putative inner membrane protein	369158-369379	+	222	
14028S	STM14_0397	378448654	-	385733-385843	hypothetical protein	385042-385152	-	111	
14028S	STM14_0403	378448660	-	390802-390939	hypothetical protein	390109-390246	-	138	
14028S	STM14_0411	378448668	+	399120-399233	hypothetical protein	398427-398540	+	114	
14028S	STM14_0415	378448672	+	402243-402422	putative metal-binding transport protein	401550-401729	+	180	
14028S	STM14_0419	378448676	+	409084-409218	hypothetical protein	408391-408525	+	135	
14028S	STM14_0420	378448677	-	409118-409237	hypothetical protein	408425-408544	-	120	
14028S	STM14_0430	378448687	+	418467-418640	hypothetical protein	417774-417947	+	174	
14028S	STM14_0436	378448693	+	425565-425684	hypothetical protein	424872-424991	+	120	
14028S	STM14_0437	378448694	-	425675-425827	hypothetical protein	424982-425134	-	153	
14028S	STM14_0441	378448698	-	430751-430909	hypothetical protein	430058-430216	-	159	
14028S	STM14_0442	378448699	+	430925-431059	hypothetical protein	430232-430366	+	135	
14028S	STM14_0446	378448703	+	433714-433827	hypothetical protein	433021-433134	+	114	
14028S	STM14_0451	378448708	+	437620-437742	hypothetical protein	436927-437049	+	123	
14028S	STM14_0453	378448710	-	438082-438243	hypothetical protein	437389-437550	-	162	
14028S	STM14_0457	378448714	+	440792-440941	hypothetical protein	440099-440248	+	150	
14028S	STM14_0464	378448721	-	444556-444687	hypothetical protein	443863-443994	-	132	
T000240	STM14_0469	378982997	+	482933-483049	hypothetical protein	444888-445004	+	117	
14028S	STM14_0472	378448726	+	451315-451446	hypothetical protein	450622-450753	-	132	
14028S	STM14_0479	378448729	+	453755-453904	hypothetical protein	453062-453211	-	150	
14028S	STM14_0479	378448736	+	461340-461450	DNA metabolism protein	460647-460757	+	111	
14028S	STM14_0487	378448744	+	467631-467846	hypothetical protein	466938-467153	+	216	
ST474	STM474_0431	379699631	+	466787-466939	hypothetical protein	467301-467453	+	153	
14028S	STM14_0491	378448747	+	469965-470111	hypothetical protein	469272-469418	+	147	
14028S	STM14_0498	378448754	-	473976-474284	hypothetical protein	473283-473591	-	309	
14028S	STM14_0509	378448765	-	484792-484902	hypothetical protein	484099-484209	-	111	
ST474	STM474_0464	379699664	-	497880-498002	hypothetical protein	498394-498516	-	123	
14028S	STM14_0526	378448781	+	501468-501653	hypothetical protein	500775-500960	+	186	
14028S	STM14_0528	378448783	-	502053-502166	hypothetical protein	501360-501473	-	114	
14028S	STM14_0531	378448786	+	504670-504774	hypothetical protein	503977-504081	+	105	
14028S	STM14_0562	378448816	-	535085-535210	hypothetical protein	534391-534516	-	126	
14028S	STM14_0573	378448827	-	546597-546818	hypothetical protein	545903-546124	-	222	
14028S	STM14_0575	378448829	+	547392-547598	hypothetical protein	546698-546904	+	207	
14028S	STM14_0580	378448834	+	552798-552923	hypothetical protein	552104-552229	+	126	
14028S	STM14_0597	378448851	+	570227-570331	hypothetical protein	569533-569637	+	105	
14028S	STM14_0599	378448853	-	571546-571650	hypothetical protein	570852-570956	-	105	
14028S	STM14_0633	378448887	-	604316-604444	hypothetical protein	603622-603750	-	129	
14028S	STM14_0634	378448888	+	604400-604555	hypothetical protein	603706-603861	+	156	
14028S	STM14_0645	378448899	+	614019-614189	hypothetical protein	613325-613495	+	171	
14028S	STM14_0649	378448901	+	615283-615441	hypothetical protein	614589-614747	+	159	
14028S	STM14_0659	378448908	-	622266-622520	hypothetical protein	621572-621826	-	255	
14028S	STM14_0665	378448914	+	627603-627788	hypothetical protein	626909-627094	+	186	
14028S	STM14_0677	378448926	+	639577-639684	hypothetical protein	638883-638990	+	108	
14028S	STM14_0683	378448932	-	644504-644635	hypothetical protein	643810-643941	-	132	

140285	STM14_0698	378448947	+	661861-661971	hypothetical protein	661167-661277	+	111
140285	STM14_0714	378448963	+	678228-678434	hypothetical protein	677732-677938	+	207
140285	STM14_0715	378448964	+	678399-678539	hypothetical protein	677903-678043	-	141
140285	STM14_0726	378448975	+	688331-688513	hypothetical protein	687835-688017	+	183
140285	STM14_0730	378448979	+	692333-692443	hypothetical protein	691837-691947	+	111
140285	STM14_0735	378448984	+	694969-695076	hypothetical protein	694473-694580	+	108
140285	STM14_0738	378448987	-	696364-696498	hypothetical protein	695868-696002	-	135
140285	STM14_0740	378448989	-	697584-697727	hypothetical protein	697088-697231	-	144
140285	STM14_0742	378448991	+	698354-698719	hypothetical protein	697858-698223	+	366
140285	STM14_0745	378448994	+	700128-700277	hypothetical protein	699632-699781	+	150
T000240	STMDT12_C07050	378983246	-	742985-743125	hypothetical protein	704932-705072	-	141
140285	STM14_0774	378449022	+	730309-730596	hypothetical protein	729812-730099	+	288
140285	STM14_0777	378449025	-	733102-733251	hypothetical protein	732605-732754	-	150
140285	STM14_0780	378449028	-	734838-734957	hypothetical protein	734341-734460	-	120
140285	STM14_0791	378449032	+	739310-739477	hypothetical protein	738813-738980	+	168
140285	STM14_0797	378449038	-	745470-745595	hypothetical protein	744973-745098	-	126
140285	STM14_0800	378449041	+	749621-749734	hypothetical protein	749124-749237	+	114
140285	STM14_0801	378449042	+	749864-750154	hypothetical protein	749367-749657	+	291
140285	STM14_0809	378449050	+	757442-757591	hypothetical protein	756945-757094	+	150
140285	STM14_0812	378449053	+	758607-758720	hypothetical protein	758110-758223	+	114
140285	STM14_0819	378449060	-	766193-766318	hypothetical protein	765696-765821	-	126
140285	STM14_0820	378449061	+	766472-766585	hypothetical protein	765975-766088	+	114
140285	STM14_0826	378449067	-	774532-774729	K+-transporting ATPase subunit F	774035-774232	-	198
T000240	STMDT12_C07730	378983314	-	820062-820163	hypothetical protein	781232-781333	-	102
140285	STM14_0859	378449100	+	808472-808597	hypothetical protein	807975-808100	+	126
ST474	STM474_0763	379699951	+	807598-807723	hypothetical protein	808187-808312	+	126
ST474	STM474_0764	379699952	-	808597-808710	hypothetical protein	809186-809299	-	114
140285	STM14_0860	378449101	-	809819-809962	hypothetical protein	809322-809465	-	144
140285	STM14_0864	378449105	+	812877-813017	hypothetical protein	812380-812520	+	141
140285	STM14_0873	378449114	-	818715-819254	hypothetical protein	818218-818757	-	540
140285	STM14_0879	378449115	-	820227-820322	hypothetical protein	819885-819980	-	96
140285	STM14_0897	378449132	-	837473-837664	hypothetical protein	837133-837324	-	192
140285	STM14_0903	378449138	+	843123-843230	hypothetical protein	842783-842890	+	108
ST474	STM474_0818	379700001	+	857893-858006	hypothetical protein	858638-858751	+	114
140285	STM14_0924	378449158	+	864209-864493	hypothetical protein	863868-864152	+	285
140285	STM14_0925	378449159	+	864550-864777	hypothetical protein	864209-864436	+	228
140285	STM14_927	378449161	+	867104-867277	putative cytoplasmic protein	866763-866936	+	174
140285	STM14_946	378449180	-	881747-881884	hypothetical protein	880695-880832	-	138
140285	STM14_952	378449186	-	888006-888110	hypothetical protein	886954-887058	-	105
140285	STM14_956	378449190	+	891948-892067	hypothetical protein	890896-891015	+	120
140285	STM14_958	378449192	-	892325-892444	hypothetical protein	891273-891392	-	120
140285	STM14_961	378449195	+	895674-895811	hypothetical protein	894622-894759	+	138
140285	STM14_965	378449199	-	898059-898181	hypothetical protein	897007-897129	-	123
140285	STM14_967	378449201	-	899158-899316	hypothetical protein	898106-898264	-	159
140285	STM14_969	378449203	-	900254-900415	hypothetical protein	899202-899363	-	162
140285	STM14_970	378449204	-	900375-900506	hypothetical protein	899323-899544	-	132
140285	STM14_973	378449207	+	902910-903080	hypothetical protein	901858-902028	+	171
140285	STM14_974	378449208	-	903009-903137	hypothetical protein	901957-902085	-	129
140285	STM14_982	378449216	+	911396-911509	hypothetical protein	910344-910457	+	114
140285	STM14_986	378449220	-	915878-916033	hypothetical protein	914826-914981	-	156
140285	STM14_989	378449223	+	917997-918137	hypothetical protein	916945-917085	+	141
140285	STM14_995	378449229	-	924480-924599	hypothetical protein	923428-923547	-	120
140285	STM14_997	378449231	+	925933-926067	hypothetical protein	924881-925015	+	135
140285	STM14_999	378449233	+	926622-926762	hypothetical protein	925570-925710	+	141
140285	STM14_1000	378449234	+	926970-927134	hypothetical protein	925918-926082	+	165
140285	STM14_1006	378449239	-	931103-931243	hypothetical protein	930051-930191	-	141
140285	STM14_1010	378449243	+	934780-934917	hypothetical protein	933728-933865	+	138
140285	STM14_1019	378449251	+	942902-943027	hypothetical protein	941850-941975	+	126
140285	STM14_1034	378449266	+	955378-955569	hypothetical protein	954326-954517	+	192
140285	STM14_1038	378449270	-	958765-958965	hypothetical protein	957173-957913	-	201
140285	STM14_1053	378449285	+	972908-973111	hypothetical protein	1014579-1014782	+	204
140285	STM14_1055	378449287	+	973986-974153	hypothetical protein	1015657-1015824	+	168
140285	STM14_1060	378449292	-	980013-980138	hypothetical protein	1021684-1021809	-	126
140285	STM14_1061	378449293	+	980033-980176	hypothetical protein	1021704-1021847	+	144
140285	STM14_1067	378449299	-	984062-984343	hypothetical protein	1025733-1026014	-	282
140285	STM14_1069	378449301	-	985102-985260	hypothetical protein	1026773-1026931	-	159
140285	STM14_1081	378449312	-	994689-994946	hypothetical protein	1036360-1036617	-	258
140285	STM14_1082	378449313	-	994867-995142	hypothetical protein	1036538-1036813	-	276
140285	STM14_1087	378449318	+	1001941-1002111	hypothetical protein	1043582-1043752	+	171
140285	STM14_1092	378449323	+	1007647-1007754	hypothetical protein	1049288-1049395	+	108
140285	STM14_1093	378449324	-	1007837-1007968	hypothetical protein	1049478-1049609	-	132
140285	STM14_1102	378449333	+	1018831-1018959	hypothetical protein	1060472-1060600	+	129
140285	STM14_1104	378449335	+	1019641-1019754	hypothetical protein	1061282-1061395	+	114
140285	STM14_1108	378449339	-	1023127-1023381	hypothetical protein	1064768-1065022	-	255
140285	STM14_1118	378449349	-	1033792-1033944	hypothetical protein	1075433-1075585	-	153
140285	STM14_1129	378449360	-	1047995-1048126	hypothetical protein	1089636-1089767	-	132
140285	STM14_1131	378449362	+	1049521-1049673	hypothetical protein	1091162-1091314	+	153
140285	STM14_1133	378449364	-	1051307-1051426	hypothetical protein	1092948-1093067	-	120
140285	STM14_1135	378449366	-	1051897-1052118	hypothetical protein	1093538-1093759	-	222
140285	STM14_1137	378449368	+	1053504-1053662	hypothetical protein	1095145-1095303	+	159
ST474	STM474_0999	379700176	+	1061436-1061582	hypothetical protein	1104869-1105015	+	147
ST474	STM474_1001	379700178	+	1061983-1062096	hypothetical protein	1105416-1105529	+	114
140285	STM14_1149	378449380	+	1063939-1064178	hypothetical protein	1105580-1105819	+	240
140285	STM14_1157	378449388	+	1068009-1068230	hypothetical protein	1109650-1109871	+	222
140285	STM14_1159	378449390	+	1068921-1069121	hypothetical protein	1110562-1110762	+	201
140285	STM14_3197	378451364	+	2811771-2811908	hypothetical protein	1114717-1114854	-	138
D23580	STMMW_10422	378444470	+	1114868-1115074	prophage protein	1118992-1119198	+	207
ST474	STM474_1045	379700222	+	1098511-1098666	hypothetical protein	1142189-1142344	+	156
140285	STM14_1201	378449431	-	1106320-1106445	hypothetical protein	1147975-1148100	-	126
140285	STM14_1209	378449439	-	1115818-1116021	hypothetical protein	1157474-1157677	-	204
140285	STM14_1216	378449446	-	1121248-1121352	hypothetical protein	1162904-1163008	-	105
T000240	STMDT12_C11030	378983644	+	1169756-1169860	hypothetical protein	1172071-1172175	+	105
140285	STM14_1234	378449463	+	1135671-1135796	hypothetical protein	1177327-1177452	+	126

140285	STM14_1244	378449473	-	1143230-1143337	hypothetical protein	1184886-1184993	-	108
140285	STM14_1245	378449474	+	1143361-1143543	hypothetical protein	1185017-1185199	+	183
140285	STM14_1249	378449478	-	1146275-1146388	hypothetical protein	1187931-1188044	-	114
140285	STM14_1254	378449483	-	1150549-1150701	hypothetical protein	1192205-1192357	-	153
140285	STM14_1260	378449489	-	1155618-1155782	hypothetical protein	1197274-1197438	-	165
140285	STM14_1262	378449491	+	1156832-1156987	hypothetical protein	1198488-1198643	+	156
140285	STM14_1265	378449494	-	1158383-1158577	hypothetical protein	1200039-1200233	-	195
140285	STM14_1273	378449502	+	1164294-1164521	hypothetical protein	1205950-1206177	+	228
140285	STM14_1279	378449506	-	1170030-1170278	hypothetical protein	1211685-1211933	-	249
140285	STM14_1280	378449507	-	1170167-1170286	hypothetical protein	1211822-1211941	-	120
140285	STM14_1282	378449509	+	1172347-1172457	hypothetical protein	1214002-1214112	+	111
140285	STM14_1286	378449512	+	1174679-1174783	hypothetical protein	1216334-1216438	+	105
140285	STM14_1288	378449514	+	1176314-1176421	hypothetical protein	1217969-1218076	+	108
140285	STM14_1289	378449515	-	1176396-1176605	hypothetical protein	1218051-1218260	-	210
140285	STM14_1291	378449517	-	1177413-1177520	hypothetical protein	1219068-1219175	-	108
140285	STM14_1292	378449518	+	1177573-1177704	hypothetical protein	1219228-1219359	+	132
140285	STM14_1307	378449532	-	1188559-1188696	hypothetical protein	1230397-1230534	-	138
140285	STM14_1308	378449533	-	1188894-1189040	hypothetical protein	1230732-1230878	-	147
140285	STM14_1316	378449541	-	1194339-1194509	hypothetical protein	1236177-1236347	-	171
140285	STM14_1322	378449547	+	1200601-1201062	hypothetical protein	1242439-1242900	+	462
140285	STM14_1327	378449552	+	1204177-1204380	hypothetical protein	1246015-1246218	+	204
140285	STM14_1339	378449564	-	1212983-1213159	hypothetical protein	1254821-1254997	-	177
140285	STM14_1344	378449569	-	1216241-1216396	flagellar basal body P-ring biosynthesis protein FlgA	1258078-1258233	-	156
140285	STM14_1356	378449581	-	1226280-1226474	hypothetical protein	1268117-1268311	-	195
140285	STM14_1376	378449600	-	1244261-1244398	hypothetical protein	1286098-1286235	-	138
140285	STM14_1390	378449614	-	1256910-1257065	hypothetical protein	1298747-1298902	-	156
140285	STM14_1399	378449623	-	1267794-1267916	hypothetical protein	1309631-1309753	-	123
140285	STM14_1401	378449625	-	1269076-1269240	hypothetical protein	1310913-1311077	-	165
140285	STM14_1487	378449708	-	1337214-1337372	hypothetical protein	1327239-1327397	-	159
140285	STM14_1488	378449709	+	1337312-1337452	hypothetical protein	1327337-1327477	+	141
140285	STM14_1489	378449710	+	1337337-1337585	hypothetical protein	1327362-1327610	+	249
140285	STM14_1494	378449714	-	1340405-1340575	hypothetical protein	1330430-1330600	-	171
140285	STM14_1496	378449716	-	1341060-1341188	hypothetical protein	1331085-1331213	-	129
140285	STM14_1499	378449718	+	1341718-1341825	hypothetical protein	1331743-1331850	+	108
140285	STM14_1500	378449719	-	1342043-1342192	hypothetical protein	1332068-1332217	-	150
140285	STM14_1502	378449721	-	1342962-1343096	hypothetical protein	1332987-1333121	-	135
140285	STM14_1506	378449723	-	1344493-1344636	hypothetical protein	1334518-1334661	-	144
140285	STM14_1507	378449724	+	1344742-1344867	putative lipoprotein	1334767-1334892	+	126
ST474	STM474_1249	379700419	-	1291877-1292050	hypothetical protein	1335024-1335197	-	174
140285	STM14_1510	378449727	-	1346067-1346216	putative inner membrane protein	1336092-1336241	-	150
140285	STM14_1514	378449731	-	1348508-1348666	hypothetical protein	1338533-1338691	-	159
140285	STM14_1524	378449740	-	1356451-1356600	hypothetical protein	1346476-1346625	-	150
140285	STM14_1528	378449744	+	1358977-1359201	hypothetical protein	1349002-1349226	+	225
140285	STM14_1533	378449749	-	1361225-1361380	hypothetical protein	1351250-1351405	-	156
140285	STM14_1536	378449752	-	1362034-1362159	hypothetical protein	1352059-1352184	-	126
140285	STM14_1540	378449756	-	1363413-1363529	hypothetical protein	1353438-1353554	-	117
140285	STM14_1541	378449757	-	1363501-1363599	hypothetical protein	1353526-1353624	-	99
140285	STM14_1545	378449761	-	1364743-1364856	hypothetical protein	1354768-1354881	-	114
140285	STM14_1546	378449762	+	1364774-1364911	hypothetical protein	1354799-1354936	+	138
140285	STM14_1550	378449766	+	1367385-1367522	hypothetical protein	1357409-1357546	+	138
140285	STM14_1554	378449770	+	1370048-1370245	hypothetical protein	1360072-1360269	+	198
140285	STM14_1555	378449771	+	1370136-1370267	salivary secreted protein	1360160-1360291	+	132
140285	STM14_1557	378449773	+	1371682-1371801	hypothetical protein	1361706-1361825	+	120
ST474	STM474_1289	379700457	+	1320526-1320669	hypothetical protein	1363673-1363816	+	144
140285	STM14_1559	378449775	-	1373854-1374027	hypothetical protein	1363877-1364050	-	174
140285	STM14_1564	378449780	-	1378335-1378511	hypothetical protein	1368358-1368534	-	177
140285	STM14_1566	378449782	+	1379655-1379795	hypothetical protein	1369678-1369818	+	141
140285	STM14_1569	378449785	+	1380898-1381002	hypothetical protein	1370922-1371026	+	105
140285	STM14_1572	378449788	+	1382785-1382889	hypothetical protein	1372809-1372913	+	105
140285	STM14_1581	378449797	+	1391859-1392038	hypothetical protein	1381883-1382062	+	180
140285	STM14_1587	378449803	+	1398234-1398449	hypothetical protein	1388258-1388473	+	216
ST474	STM474_1315	379700483	+	1347752-1347886	hypothetical protein	1390899-1391033	+	135
140285	STM14_1591	378449807	+	1400923-1401129	hypothetical protein	1390947-1391153	+	207
140285	STM14_1593	378449809	+	1401610-1401732	hypothetical protein	1391634-1391756	+	123
140285	STM14_1601	378449817	+	1409372-1409509	hypothetical protein	1399396-1399533	+	138
140285	STM14_1602	378449818	-	1409399-1409647	hypothetical protein	1399423-1399671	-	249
140285	STM14_1615	378449831	+	1419534-1419740	hypothetical protein	1409558-1409764	+	207
140285	STM14_1617	378449833	+	1421769-1421954	hypothetical protein	1411793-1411978	+	186
140285	STM14_1618	378449834	+	1421956-1422090	hypothetical protein	1411980-1412114	+	135
140285	STM14_1623	378449839	-	1425398-1425562	hypothetical protein	1415422-1415586	-	165
140285	STM14_1631	378449847	-	1432577-1432696	hypothetical protein	1422601-1422720	-	120
140285	STM14_1636	378449852	+	1436467-1436571	hypothetical protein	1426491-1426595	+	105
ST474	STM474_1353	379700521	+	1384122-1384307	hypothetical protein	1427269-1427454	+	186
140285	STM14_1638	378449854	-	1437586-1437699	hypothetical protein	1427610-1427723	-	114
140285	STM14_1652	378449868	+	1452598-1452744	hypothetical protein	1442622-1442768	+	147
140285	STM14_1653	378449869	-	1452728-1452838	hypothetical protein	1442752-1442862	-	111
140285	STM14_1658	378449873	-	1456308-1456475	hypothetical protein	1446332-1446499	-	168
ST474	STM474_1383	379700550	-	1418471-1418587	hypothetical protein	1461619-1461735	-	117
ST474	STM474_1395	379700562	+	1431868-1432002	hypothetical protein	1475016-1475150	+	135
140285	STM14_1685	378449900	-	1486016-1486129	hypothetical protein	1476040-1476153	-	114
140285	STM14_1692	378449907	+	1493410-1493517	hypothetical protein	1483434-1483541	+	108
140285	STM14_1719	378449934	+	1511477-1511602	hypothetical protein	1501501-1501626	+	126
140285	STM14_1728	378449941	+	1519171-1519452	hypothetical protein	1509195-1509476	+	282
140285	STM14_1751	378449964	+	1538110-1538277	hypothetical protein	1528134-1528301	+	168
140285	STM14_1761	410023179	+	1546024-1546179	hypothetical protein	1536048-1536203	-	156
140285	STM14_1764	378449977	+	1548438-1548683	hypothetical protein	1538462-1538707	+	246
140285	STM14_1776	378449987	-	1559385-1559906	outer membrane protein	1549408-1549713	-	306
140285	STM14_1782	378449992	-	1563882-1564016	putative amino acid permease	1553905-1554039	-	135
140285	STM14_1783	378449993	-	1563914-1564087	hypothetical protein	1553937-1554110	-	174
140285	STM14_1786	378449996	+	1565234-1565359	hypothetical protein	1555256-1555381	+	126
140285	STM14_1790	378450000	+	1569946-1570116	hypothetical protein	1559968-1560138	+	171
140285	STM14_1794	378450004	-	1571734-1572027	hypothetical protein	1561756-1562049	-	294
140285	STM14_1796	378450006	-	1572462-1572653	hypothetical protein	1562484-1562675	-	192

T000240	STMDT12_C14990	378984040	+	1560231-1560323	hypothetical protein	1562542-1562634	+	93
140285	STM14_1810	378450020	-	1586812-1587033	putative dimethyl sulfoxide reductase subunit A	1576834-1577055	-	222
140285	STM14_1816	378450026	-	1591641-1591757	hypothetical protein	1581663-1581779	-	117
ST474	STM474_1518	379700677	-	1542834-1542947	hypothetical protein	1585980-1586093	-	114
140285	STM14_1827	378450036	-	1601704-1601919	hypothetical protein	1591726-1591941	-	216
140285	STM14_1828	378450037	+	1601786-1601923	peptidyl-dipeptidase dcp	1591808-1591945	+	138
140285	STM14_1831	378450040	-	1602970-1603068	hypothetical protein	1592992-1593090	-	99
T000240	STMDT12_C15310	378984072	-	1591761-1591856	hypothetical protein	1594071-1594166	-	96
140285	STM14_1847	378450056	+	1615524-1615850	putative inner membrane protein	1605547-1605873	+	327
140285	STM14_1858	378450067	-	1625009-1625161	hypothetical protein	1615032-1615184	-	153
140285	STM14_1867	378450076	-	1634718-1634879	hypothetical protein	1624741-1624902	-	162
140285	STM14_1872	378450081	+	1637216-1637431	putative phage-related secreted protein	1627239-1627454	+	216
UK1	STMUK_1520	378988892	+	1587048-1587440	hypothetical protein	1628880-1629272	+	393
UK1	STMUK_1521	378988893	+	1587577-1587705	hypothetical protein	1629409-1629537	+	129
ST474	STM474_1578	379700736	-	1602385-1602519	hypothetical protein	1645532-1645666	-	135
140285	STM14_1890	378450098	+	1657503-1657634	hypothetical protein	1647526-1647657	+	132
140285	STM14_1895	378450103	+	1663489-1663641	hypothetical protein	1653512-1653664	+	153
140285	STM14_1897	378450105	-	1664885-1665067	hypothetical protein	1654908-1655090	-	183
140285	STM14_1902	378450110	+	1668962-1669093	hypothetical protein	1658986-1659117	+	132
140285	STM14_1904	378450112	-	1670559-1670702	hypothetical protein	1660583-1660726	-	144
140285	STM14_1911	378450119	-	1679194-1679457	hypothetical protein	1669218-1669481	-	264
140285	STM14_1914	378450122	-	1680335-1680472	hypothetical protein	1670358-1670495	-	138
140285	STM14_1915	378450123	+	1680342-1680476	hypothetical protein	1670365-1670499	+	135
140285	STM14_1919	378450127	-	1683664-1683783	hypothetical protein	1673687-1673806	-	120
140285	STM14_1922	378450130	+	1686850-1686969	hypothetical protein	1676873-1676992	+	120
140285	STM14_1923	378450131	-	1686958-1687080	hypothetical protein	1676981-1677103	-	123
140285	STM14_1932	410023183	+	1696611-1696706	hypothetical protein	1686634-1686729	+	96
140285	STM14_1933	378450141	+	1696703-1696807	hypothetical protein	1686726-1686830	+	105
140285	STM14_1937	378450145	-	1700960-1701190	putative inner membrane protein	1690983-1691213	-	231
140285	STM14_1939	378450147	-	1701681-1701785	hypothetical protein	1691704-1691808	-	105
140285	STM14_1950	378450158	+	1711642-1711749	hypothetical protein	1701665-1701772	+	108
140285	STM14_1961	378450169	+	1719701-1719814	hypothetical protein	1709724-1709837	+	114
140285	STM14_1967	378450175	+	1727480-1727695	hypothetical protein	1717503-1717718	+	216
140285	STM14_1970	378450178	+	1729598-1729999	putative dipicolinate reductase	1719621-1720022	+	402
T000240	STMDT12_C16480	378984189	-	1717552-1717677	hypothetical protein	1719861-1719986	-	126
ST474	STM474_1641	379700799	+	1676859-1677014	hypothetical protein	1720006-1720161	+	156
140285	STM14_1972	378450180	-	1731028-1731132	hypothetical protein	1721051-1721155	-	105
140285	STM14_1973	378450181	+	1731115-1731225	hypothetical protein	1721138-1721248	+	111
140285	STM14_1976	378450184	-	1733662-1733814	hypothetical protein	1723685-1723837	-	153
T000240	STMDT12_C16570	378984198	-	1726118-1726213	hypothetical protein	1728427-1728522	-	96
140285	STM14_1996	378450204	-	1755685-1755894	hypothetical protein	1745708-1745917	-	210
T000240	STMDT12_C16740	378984215	-	1744637-1744789	hypothetical protein	1746946-1747098	-	153
140285	STM14_2004	378450212	-	1762419-1762580	hypothetical protein	1752442-1752603	-	162
140285	STM14_2024	378450229	-	1779789-1779902	hypothetical protein	1769811-1769924	-	114
140285	STM14_2048	378450253	-	1800491-1800637	hypothetical protein	1789802-1789948	-	147
140285	STM14_2049	378450254	+	1800647-1800769	hypothetical protein	1789958-1790080	+	123
140285	STM14_2054	378450259	-	1803682-1803798	hypothetical protein	1792993-1793109	-	117
140285	STM14_2057	378450262	+	1807079-1807216	hypothetical protein	1796390-1796527	+	138
140285	STM14_2061	378450266	-	1810467-1810628	hypothetical protein	1799778-1799939	-	162
140285	STM14_2065	378450270	+	1812029-1812142	hypothetical protein	1801340-1801453	+	114
140285	STM14_2071	378450276	-	1818504-1818674	hypothetical protein	1807815-1807985	-	171
ST474	ymia	379700885	-	1764839-1764967	hypothetical protein	1807986-1808114	-	129
140285	STM14_2073	378450278	+	1820026-1820190	hypothetical protein	1809337-1809501	+	165
140285	STM14_2076	378450281	-	1823233-1823364	hypothetical protein	1812544-1812675	-	132
140285	STM14_2079	378450284	+	1824904-1825014	hypothetical protein	1814215-1814325	+	111
140285	STM14_2102	378450306	-	1843241-1843414	hypothetical protein	1832552-1832725	-	174
140285	STM14_2111	378450314	+	1851996-1852310	putative inner membrane protein	1841307-1841621	+	315
140285	STM14_2117	378450320	+	1858398-1858580	hypothetical protein	1847709-1847891	+	183
140285	STM14_2123	378450326	-	1863160-1863279	hypothetical protein	1852471-1852590	-	120
140285	STM14_2128	378450328	+	1865980-1866144	hypothetical protein	1855291-1855455	+	165
140285	STM14_2133	378450333	+	1872924-1873043	hypothetical protein	1862235-1862354	+	120
140285	STM14_2135	378450335	-	1874718-1874903	hypothetical protein	1864029-1864214	-	186
140285	STM14_2148	378450348	-	1886567-1886695	hypothetical protein	1875878-1876006	-	129
140285	STM14_2151	378450351	-	1888181-1888351	hypothetical protein	1877492-1877662	-	171
140285	STM14_2152	378450352	-	1888329-1888433	hypothetical protein	1877640-1877744	-	105
140285	STM14_2158	378450358	-	1893588-1893701	hypothetical protein	1882899-1883012	-	114
140285	STM14_2160	378450360	-	1895293-1895421	hypothetical protein	1884604-1884732	-	129
140285	STM14_2171	378450371	-	1905555-1905662	hypothetical protein	1894866-1894973	-	108
140285	STM14_2180	378450380	-	1914824-1914934	hypothetical protein	1904135-1904245	-	111
140285	STM14_2187	378450387	+	1920441-1920557	hypothetical protein	1909752-1909868	+	117
140285	STM14_2189	378450389	-	1920801-1920899	hypothetical protein	1910112-1910210	-	99
140285	STM14_2200	378450400	+	1928329-1928535	hypothetical protein	1916927-1917133	+	207
140285	STM14_2219	378450419	-	1946749-1946859	hypothetical protein	1935344-1935454	-	111
140285	STM14_2222	378450422	+	1947434-1947541	hypothetical protein	1936029-1936136	+	108
140285	STM14_2223	378450423	+	1947556-1947696	hypothetical protein	1936151-1936291	+	141
140285	STM14_2224	378450424	-	1947624-1947740	hypothetical protein	1936219-1936335	-	117
T000240	STMDT12_C18620	378984403	-	1934900-1935001	hypothetical protein	1937555-1937656	-	102
140285	STM14_2229	378450429	-	1949871-1949978	hypothetical protein	1938466-1938573	-	108
140285	STM14_2238	378450438	+	1961391-1961522	hypothetical protein	1949986-1950117	+	132
ST474	STM474_1877	379701031	-	1908925-1909098	hypothetical protein	1951357-1951530	-	174
140285	STM14_2243	378450443	+	1963183-1963311	hypothetical protein	1951778-1951906	+	129
140285	STM14_2245	378450445	+	1964429-1964551	hypothetical protein	1953024-1953146	+	123
140285	STM14_2246	378450446	-	1964644-1964787	hypothetical protein	1953239-1953382	-	144
D23580	STMMW_18461	378445260	+	1947071-1947241	hypothetical protein	1953841-1954011	+	171
140285	STM14_2250	378450450	-	1966960-1967154	hypothetical protein	1955555-1955749	-	129
ST474	STM474_1884	379701038	-	1913724-1913852	hypothetical protein	1956156-1956284	-	195
140285	STM14_2255	378450453	-	1970094-1970294	hypothetical protein	1958689-1958889	-	201
140285	STM14_2260	378450457	-	1973190-1973366	hypothetical protein	1961785-1961961	-	177
140285	STM14_2261	378450458	+	1973229-1973375	hypothetical protein	1961824-1961970	+	147
ST474	STM474_1893	379701046	-	1920052-1920177	arsenical pump membrane protein	1962484-1962609	-	126
140285	STM14_2263	378450459	-	1973981-1974151	hypothetical protein	1962576-1962746	-	171
140285	STM14_2264	378450460	+	1974277-1974393	tail fiber assembly protein	1962872-1962988	+	117
140285	STM14_2268	378450464	+	1976235-1976423	hypothetical protein	1964830-1965018	+	189

140285	STM14_2270	378450466	+	1976705-1976878	hypothetical protein	1965300-1965473	+	174
140285	STM14_2271	378450467	+	1976808-1976927	hypothetical protein	1965403-1965522	+	120
140285	STM14_2276	378450471	-	1979312-1979440	hypothetical protein	1967907-1968035	-	129
T000240	STMDT12_C19080	378984449	+	1972383-1972478	hypothetical protein	1976842-1976937	+	96
140285	STM14_2291	378450486	-	1990827-1990985	hypothetical protein	1979422-1979580	-	159
140285	STM14_2293	378450488	+	1992662-1992787	hypothetical protein	1981257-1981382	+	126
140285	STM14_2294	378450489	-	1992755-1992874	hypothetical protein	1981350-1981469	-	120
140285	STM14_2298	378450493	+	1996367-1996594	hypothetical protein	1984962-1985189	+	228
140285	STM14_2305	378450500	+	2002147-2002269	hypothetical protein	1990742-1990864	+	123
140285	STM14_2306	378450501	-	2002264-2002389	hypothetical protein	1990859-1990984	-	126
140285	STM14_2313	378450507	+	2008446-2008562	hypothetical protein	1997042-1997158	+	117
140285	STM14_2321	378450515	+	2013869-2013985	hypothetical protein	2002465-2002581	+	117
140285	STM14_2323	378450517	+	2015793-2015897	hypothetical protein	2004389-2004493	+	105
140285	STM14_2329	378450523	+	2022930-2023187	hypothetical protein	2011526-2011783	+	258
140285	STM14_2339	378450533	-	2032400-2032531	hypothetical protein	2020996-2021127	-	132
140285	STM14_2342	378450536	-	2033684-2033827	hypothetical protein	2022280-2022423	-	144
140285	STM14_2343	378450537	+	2034145-2034261	hypothetical protein	2022741-2022857	+	117
140285	STM14_2349	378450542	+	2038156-2038305	hypothetical protein	2026751-2026900	+	150
T000240	STMDT12_C19550	378984496	-	2022485-2022580	hypothetical protein	2026944-2027039	-	96
D23580	STMMW_19262	378445334	-	2022476-2022553	hypothetical protein	2038966-2039043	-	78
140285	STM14_2366	378450556	+	2050620-2050775	putative inner membrane protein	2039215-2039370	+	156
140285	STM14_2379	378450569	-	2060568-2060705	hypothetical protein	2049163-2049300	-	138
140285	STM14_2389	378450579	-	2067774-2067902	hypothetical protein	2056369-2056497	-	129
140285	STM14_2411	378450600	+	2084253-2084468	hypothetical protein	2072848-2073063	+	216
ST474	STM474_2026	379701174	+	2034563-2034694	hypothetical protein	2076995-2077126	+	132
140285	STM14_2417	378450606	+	2088843-2088962	hypothetical protein	2077438-2077557	+	120
140285	STM14_2419	378450608	-	2090431-2090643	putative cold-shock protein	2079026-2079238	-	213
140285	STM14_2421	378450610	-	2091089-2091208	hypothetical protein	2079684-2079803	-	120
140285	STM14_2425	378450614	-	2093253-2093495	hypothetical protein	2081848-2082090	-	243
T000240	STMDT12_C20240	378984565	-	2079358-2079462	hypothetical protein	2083817-2083921	-	105
SL1344	SL1344_1980	378699918	+	2082737-2083009	hypothetical protein	2085022-2085294	+	273
ST474	STM474_2085	379701227	-	2082744-2082878	hypothetical protein	2085029-2085163	-	135
ST474	STM474_2089	379701231	+	2088148-2088282	hypothetical protein	2090433-2090567	+	135
798	UMN798_2172	383496723	-	2087536-2087634	hypothetical protein	2090460-2090558	-	99
T000240	STMDT12_C20320	378984573	+	2086418-2086567	hypothetical protein	2090877-2091026	+	150
140285	STM14_2494	378450678	-	2142487-2142741	hypothetical protein	2090936-2091190	-	255
ST474	STM474_2091	379701233	+	2088820-2088942	hypothetical protein	2091105-2091227	+	123
D23580	STMMW_20421	378445447	+	2116462-2116623	hypothetical protein	2092807-2092968	+	162
140285	STM14_2497	378450681	-	2144828-2145214	hypothetical protein	2093277-2093663	-	387
140285	STM14_2501	378450684	-	2147387-2147539	hypothetical protein	2095836-2095988	-	153
140285	STM14_2524	378450706	-	2165668-2165799	hypothetical protein	2114117-2114248	-	132
140285	STM14_2549	378450731	-	2185570-2185701	hypothetical protein	2134018-2134149	-	132
140285	STM14_2556	378450738	-	2192950-2193219	hypothetical protein	2141398-2141667	-	270
140285	STM14_2558	378450740	-	2195674-2195796	hypothetical protein	2144122-2144244	-	123
140285	STM14_2561	378450743	+	2198729-2198896	hypothetical protein	2147177-2147344	+	168
140285	STM14_2562	378450744	-	2198740-2198937	hypothetical protein	2147188-2147385	-	198
140285	STM14_2599	378450781	+	2239941-2240216	hypothetical protein	2188389-2188664	+	276
140285	STM14_2614	378450796	+	2254277-2254522	hypothetical protein	2202724-2202969	+	246
140285	STM14_2619	378450801	-	2259828-2259998	hypothetical protein	2208275-2208445	-	171
140285	STM14_2623	378450805	-	2265633-2265749	hypothetical protein	2214080-2214196	-	117
140285	STM14_2635	378450816	-	2282708-2282821	hypothetical protein	2231155-2231268	-	114
140285	STM14_2639	378450819	+	2285114-2285233	hypothetical protein	2233561-2233680	+	120
140285	STM14_2649	378450829	-	2293497-2293682	hypothetical protein	2241944-2242129	-	186
140285	STM14_2651	378450831	-	2294185-2294343	hypothetical protein	2242632-2242790	-	159
ST474	STM474_2254	379701393	+	2258581-2258763	hypothetical protein	2260865-2261047	+	183
140285	STM14_2671	378450851	-	2315124-2315237	hypothetical protein	2263571-2263684	-	114
140285	STM14_2674	378450854	-	2317916-2318191	hypothetical protein	2266363-2266638	-	276
140285	STM14_2676	378450856	+	2318810-2318917	hypothetical protein	2267257-2267364	+	108
140285	STM14_2680	378450860	+	2322009-2322206	hypothetical protein	2270456-2270653	+	198
140285	STM14_2697	378450877	+	2338065-2338184	hypothetical protein	2286512-2286631	+	120
140285	STM14_0363	378448623	-	352120-352227	hypothetical protein	2287791-2287898	+	108
140285	STM14_2701	378450881	+	2340683-2340847	hypothetical protein	2289130-2289294	+	165
140285	STM14_2704	378450884	-	2342649-2342762	hypothetical protein	2291096-2291209	-	114
140285	STM14_2705	378450885	-	2342720-2342848	hypothetical protein	2291167-2291295	-	129
140285	STM14_2706	378450886	+	2342834-2343067	hypothetical protein	2291281-2291514	+	234
140285	STM14_2710	378450890	-	2345635-2345787	hypothetical protein	2294081-2294233	-	153
140285	STM14_2716	378450896	-	2351963-2352097	hypothetical protein	2300410-2300544	-	135
140285	STM14_2718	378450898	-	2352991-2353110	hypothetical protein	2301438-2301557	-	120
ST474	STM474_2293	379701432	-	2300273-2300395	hypothetical protein	2302557-2302679	-	123
140285	STM14_2724	378450904	+	2358928-2359059	hypothetical protein	2307375-2307506	+	132
UK1	STMUK_2237	378989594	-	2307167-2307274	hypothetical protein	2307422-2307529	-	108
140285	STM14_2725	378450905	+	2359144-2359266	hypothetical protein	2307591-2307713	+	123
140285	STM14_2726	378450906	-	2359149-2359277	hypothetical protein	2307596-2307724	-	129
140285	STM14_2730	378450910	-	2361472-2361576	hypothetical protein	2309919-2310023	-	105
140285	STM14_2736	378450915	-	2364975-2365205	hypothetical protein	2313422-2313652	-	231
140285	STM14_2738	378450917	+	2365897-2366040	hypothetical protein	2314344-2314487	+	144
140285	STM14_2750	378450929	-	2378246-2378392	hypothetical protein	2326693-2326839	-	147
T000240	STMDT12_C22520	378984793	-	2327280-2327405	hypothetical protein	2331737-2331862	-	126
140285	STM14_2764	378450942	-	2389094-2389207	hypothetical protein	2337541-2337654	-	114
140285	STM14_2768	378450946	-	2392117-2392347	KilA-N domain protein	2340564-2340794	-	231
140285	STM14_2774	378450952	+	2397715-2397861	hypothetical protein	2346162-2346308	+	147
140285	STM14_2791	378450969	+	2411310-2411441	hypothetical protein	2359757-2359888	+	132
140285	STM14_2798	378450976	+	2418131-2418256	hypothetical protein	2366578-2366703	+	126
140285	STM14_2803	378450980	-	2425164-2425280	hypothetical protein	2373611-2373727	-	117
140285	STM14_2805	378450982	+	2427980-2428210	hypothetical protein	2376427-2376657	+	231
140285	STM14_2806	378450983	+	2428153-2428293	hypothetical protein	2376600-2376740	+	141
140285	STM14_2811	378450988	+	2432657-2432773	hypothetical protein	2381104-2381220	+	117
140285	STM14_2822	378450999	+	2445948-2446052	hypothetical protein	2394395-2394499	+	105
140285	STM14_2823	378451000	+	2446155-2446358	hypothetical protein	2394602-2394805	+	204
140285	STM14_2834	378451011	+	2455277-2455405	hypothetical protein	2403724-2403852	+	129
ST474	STM474_2412	379701547	-	2421293-2421412	hypothetical protein	2423577-2423696	-	120
140285	STM14_2854	378451030	-	2475407-2475529	hypothetical protein	2423855-2423977	-	123
140285	STM14_2855	378451031	+	2475538-2475645	hypothetical protein	2423986-2424093	+	108

14028S	STM14_2856	378451032	+	2475654-2475836	hypothetical protein	2424102-2424284	+	183
14028S	STM14_2870	378451046	+	2491031-2491153	hypothetical protein	2439479-2439601	+	123
14028S	STM14_2871	378451047	-	2491241-2491357	hypothetical protein	2439689-2439805	-	117
14028S	STM14_2880	378451056	-	2499179-2499430	hypothetical protein	2447627-2447878	-	252
14028S	STM14_2881	378451057	+	2499320-2499454	hypothetical protein	2447768-2447902	+	135
14028S	STM14_2902	378451078	+	2517875-2518045	hypothetical protein	2466323-2466493	+	171
14028S	STM14_2911	378451087	-	2527947-2528102	hypothetical protein	2476395-2476550	-	156
14028S	STM14_2921	378451097	+	2537322-2537438	hypothetical protein	2485770-2485886	+	117
14028S	STM14_2940	378451116	+	2553683-2553823	hypothetical protein	2502131-2502271	+	141
14028S	STM14_2941	378451117	-	2553820-2553948	hypothetical protein	2502268-2502396	-	129
T000240	STMDT12_C24200	378984961	+	2507125-2507337	hypothetical protein	2511582-2511794	+	213
14028S	STM14_2952	378451127	-	2565752-2565865	hypothetical protein	2514200-2514313	-	114
14028S	STM14_2955	378451130	-	2569137-2569283	hypothetical protein	2517585-2517731	-	147
14028S	STM14_2959	378451134	+	2573587-2573775	hypothetical protein	2522035-2522223	+	189
14028S	STM14_2986	378451155	+	2595762-2595923	hypothetical protein	2544210-2544371	+	162
14028S	STM14_2987	410023203	-	2595873-2595998	hypothetical protein	2544321-2544446	-	126
14028S	STM14_2988	378451157	+	2595966-2596094	hypothetical protein	2544414-2544542	+	129
14028S	STM14_3032	378451201	+	2633812-2634012	hypothetical protein	2582260-2582460	+	201
14028S	STM14_3036	378451205	-	2637342-2637476	hypothetical protein	2585790-2585924	-	135
14028S	STM14_3040	378451209	+	2640806-2640913	hypothetical protein	2589254-2589361	+	108
14028S	STM14_3043	378451212	-	2645096-2645227	hypothetical protein	2593544-2593675	-	132
14028S	STM14_3063	378451232	-	2664349-2664552	hypothetical protein	2612797-2613000	-	204
14028S	STM14_3069	378451238	-	2672447-2672584	putative cytoplasmic protein	2620895-2621032	-	138
14028S	STM14_3072	378451241	-	2673033-2673269	putative inner membrane protein	2621481-2621717	-	237
T000240	STMDT12_C25240	378985065	+	2617191-2617382	putative cytoplasmic protein	2621767-2621958	+	192
14028S	STM14_3079	378451248	+	2685671-2685784	hypothetical protein	2634118-2634231	+	114
14028S	STM14_3080	378451249	+	2685675-2685857	hypothetical protein	2634122-2634304	+	183
14028S	STM14_3081	378451250	-	2685854-2685967	hypothetical protein	2634301-2634414	-	114
ST474	STM474_2618	379701745	+	2646222-2646344	hypothetical protein	2648506-2648628	+	123
14028S	STM14_3086	378451254	+	2702354-2702470	hypothetical protein	2650802-2650918	+	117
14028S	STM14_3087	378451255	-	2702529-2702684	hypothetical protein	2650977-2651132	-	156
14028S	STM14_3090	378451258	+	2704480-2704581	hypothetical protein	2652928-2653029	+	102
14028S	STM14_3096	378451264	-	2710094-2710216	type IV pilus biogenesis/stability protein PilW	2658542-2658664	-	123
14028S	STM14_3099	378451267	+	2712052-2712147	hypothetical protein	2660500-2660595	+	96
14028S	STM14_3107	378451275	-	2725280-2725504	hypothetical protein	2673728-2673952	-	225
ST474	STM474_2636	379701763	+	2671480-2671593	hypothetical protein	2673764-2673877	+	114
14028S	STM14_3109	378451277	-	2726253-2726387	hypothetical protein	2674701-2674835	-	135
14028S	STM14_3122	378451290	+	2735856-2735978	hypothetical protein	2684303-2684425	+	123
14028S	STM14_3123	378451291	-	2735883-2735993	hypothetical protein	2684330-2684440	-	111
14028S	STM14_3134	378451302	-	2746625-2746771	hypothetical protein	2695072-2695218	-	147
14028S	STM14_3144	378451312	+	2759420-2759548	hypothetical protein	2707867-2707995	+	129
14028S	STM14_3165	378451333	-	2782226-2782354	hypothetical protein	2730673-2730801	-	129
ST474	STM474_2692	379701819	-	2729509-2729628	integrase, catalytic region	2731822-2731941	-	120
SL1344	SL1344_2548	378700486	-	2730253-2730318	bacteriophage protein	2732566-2732631	-	66
D23580	STMMW_26031	378446002	-	2757050-2757262	putative prophage protein	2732694-2732906	-	213
14028S	STM14_3171	410023208	-	2788681-2788923	hypothetical protein	2737152-2737394	-	243
14028S	STM14_1473	378449695	-	1321447-1322052	hypothetical protein	2741548-2742153	+	606
14028S	STM14_3202	378451368	-	2814160-2814285	hypothetical protein	2762624-2762749	-	126
14028S	STM14_3206	378451372	-	2815861-2816061	hypothetical protein	2764325-2764525	-	201
14028S	STM14_3229	378451395	+	2830868-2831005	hypothetical protein	2777034-2777171	+	138
14028S	STM14_3230	378451396	-	2831002-2831118	hypothetical protein	2777168-2777284	-	117
14028S	STM14_3235	378451401	-	2833834-2833998	hypothetical protein	2780000-2780164	-	165
14028S	STM14_3236	378451402	-	2833998-2834177	hypothetical protein	2780164-2780343	-	180
14028S	STM14_3239	378451405	-	2836525-2836725	putative methyltransferase	2782691-2782891	-	201
14028S	STM14_3249	378451415	+	2846371-2846505	hypothetical protein	2792537-2792671	+	135
14028S	STM14_3259	378451420	+	2855709-2855837	hypothetical protein	2801792-2801920	+	129
14028S	STM14_3260	378451421	+	2855915-2856031	hypothetical protein	2801998-2802114	+	117
14028S	STM14_3267	378451427	+	2861933-2862097	hypothetical protein	2808016-2808180	+	165
14028S	STM14_3272	378451432	+	2866577-2866735	hypothetical protein	2812660-2812818	+	159
14028S	STM14_3273	378451433	-	2866637-2866750	hypothetical protein	2812720-2812833	-	114
14028S	STM14_3280	378451440	-	2870862-2871008	hypothetical protein	2816945-2817091	-	147
14028S	STM14_3282	378451442	+	2872506-2872700	putative cytochrome c-type biogenesis protein (heme exporter)	2818589-2818783	+	195
14028S	STM14_3291	378451450	-	2879362-2879469	hypothetical protein	2825445-2825552	-	108
14028S	STM14_3295	378451454	+	2881056-2881160	hypothetical protein	2827139-2827243	+	105
14028S	STM14_3296	378451455	-	2881388-2881540	hypothetical protein	2827471-2827623	-	153
ST474	STM474_2816	379701937	+	2855546-2855689	hypothetical protein	2844357-2844500	+	144
14028S	STM14_3309	378451467	+	2905915-2906040	hypothetical protein	2885690-2885815	+	126
14028S	STM14_3312	378451470	-	2908421-2908582	hypothetical protein	2888196-2888357	-	162
14028S	STM14_3324	378451481	-	2917712-2917867	hypothetical protein	2897487-2897642	-	156
14028S	STM14_3326	378451483	-	2919626-2919739	hypothetical protein	2899401-2899514	-	114
ST474	STM474_2898	379702018	-	2927700-2927858	hypothetical protein	2905134-2905292	-	159
T000240	STMDT12_C28220	378985362	-	2935935-2936111	hypothetical protein	2912369-2912545	-	177
14028S	STM14_3340	378451496	+	2935806-2935976	hypothetical protein	2915571-2915741	+	171
14028S	STM14_3341	378451497	-	2936002-2936229	hypothetical protein	2915767-2915994	-	228
14028S	STM14_3342	378451498	-	2936297-2936449	hypothetical protein	2916062-2916214	-	153
14028S	STM14_3343	378451499	+	2936325-2936507	hypothetical protein	2916090-2916272	+	183
D23580	STMMW_27451	378446140	-	2919280-2919162	putative inner membrane protein	2926295-2926267	-	333
14028S	STM14_3351	378451506	+	2948161-2948499	hypothetical protein	2927926-2928264	+	339
14028S	STM14_3353	378451508	+	2949636-2949833	hypothetical protein	2929401-2929598	+	198
14028S	STM14_3355	378451510	-	2950805-2950957	hypothetical protein	2930570-2930722	-	153
14028S	STM14_3356	378451511	+	2951059-2951226	hypothetical protein	2930824-2930991	+	168
14028S	STM14_3357	378451512	+	2951242-2951355	hypothetical protein	2931007-2931120	+	114
14028S	STM14_3364	378451519	+	2957937-2958050	hypothetical protein	2937702-2937815	+	114
14028S	STM14_3372	378451527	+	2965822-2965938	hypothetical protein	2945587-2945703	+	117
14028S	STM14_3378	378451533	+	2968220-2968345	hypothetical protein	2947985-2948110	+	126
14028S	STM14_3379	378451534	+	2968355-2968534	hypothetical protein	2948120-2948299	+	180
14028S	STM14_3382	378451537	-	2969378-2969494	hypothetical protein	2949143-2949259	-	117
14028S	STM14_3394	378451549	+	2979522-2979632	hypothetical protein	2959287-2959397	+	111
14028S	STM14_3396	378451551	-	2981060-2981167	hypothetical protein	2960825-2960932	-	108
14028S	STM14_3398	378451553	-	2981900-2982022	hypothetical protein	2961665-2961787	-	123
14028S	STM14_3411	378451561	+	2991063-2991173	hypothetical protein	2970828-2970938	+	111
14028S	STM14_3414	378451564	+	2994186-2994350	hypothetical protein	2973951-2974115	+	165
14028S	STM14_3415	378451565	-	2994269-2994475	hypothetical protein	2974034-2974240	-	207

140285	STM14_3419	378451569	+	2996927-2997172	hypothetical protein	2976692-2976937	+	246
140285	STM14_3421	378451571	+	2998326-2998466	hypothetical protein	2978091-2978231	+	141
140285	STM14_3427	378451577	-	3001727-3001867	hypothetical protein	2981492-2981632	-	141
140285	STM14_3433	378451583	-	3007751-3007963	hydrogenase maturation protein	2987516-2987728	-	213
140285	STM14_3435	378451585	-	3010214-3010348	hypothetical protein	2989979-2990113	-	135
140285	STM14_3437	378451587	-	3010872-3011006	hypothetical protein	2990637-2990771	-	135
140285	STM14_3447	378451597	-	3019238-3019342	hypothetical protein	2999003-2999107	-	105
140285	STM14_3449	378451599	+	3019869-3020072	hypothetical protein	2999634-2999837	+	204
140285	STM14_3457	378451607	+	3026426-3026551	hypothetical protein	3006188-3006313	+	126
140285	STM14_3464	378451614	+	3032212-3032319	hypothetical protein	3011975-3012082	+	108
140285	STM14_3466	378451616	-	3033296-3033403	hypothetical protein	3013059-3013166	-	108
140285	STM14_3502	378451652	-	3066393-3066497	hypothetical protein	3046156-3046260	-	105
D23580	STMMW_28661	378446261	+	3039872-3039979	pathogenicity island 1 protein	3046884-3046991	+	108
140285	STM14_3504	378451654	-	3067340-3067483	hypothetical protein	3047103-3047246	-	144
140285	STM14_3508	378451657	+	3068687-3068806	hypothetical protein	3048450-3048569	+	120
140285	STM14_3528	378451677	+	3087981-3088118	hypothetical protein	3067744-3067881	+	138
140285	STM14_3535	378451684	-	3092010-3092120	hypothetical protein	3071773-3071883	-	111
140285	STM14_3549	378451698	-	3106978-3107112	hypothetical protein	3086802-3086936	-	135
ST474	STM474_3093	379702206	+	3116333-3116446	hypothetical protein	3094321-3094434	+	114
T000240	STMDT12_C30010	378985541	+	3118721-3118852	hypothetical protein	3095475-3095606	+	132
T000240	STMDT12_C30020	378985542	+	3118836-3119024	hypothetical protein	3095590-3095778	+	189
ST474	STM474_3094	379702207	-	3117516-3117629	hypothetical protein	3095687-3095800	-	114
140285	STM14_3560	378451709	+	3121321-3121458	hypothetical protein	3101511-3101648	+	138
140285	STM14_3561	378451710	+	3121826-3121978	putative fibrillar subunit	3102016-3102168	+	153
140285	STM14_3571	378451720	+	3134509-3134736	hypothetical protein	3114699-3114926	+	228
140285	STM14_3579	378451727	+	3140022-3140165	hypothetical protein	3120212-3120355	+	144
140285	STM14_3580	378451728	+	3140255-3140359	hypothetical protein	3120445-3120549	+	105
140285	STM14_3583	378451731	-	3143293-3143478	hypothetical protein	3123483-3123668	-	186
140285	STM14_3585	378451733	-	3144205-3144342	L-1,2-propanediol oxidoreductase	3124395-3124532	-	138
140285	STM14_3588	378451736	-	3146280-3146447	hypothetical protein	3126470-3126637	-	168
140285	STM14_3600	378451747	+	3157563-3157685	hypothetical protein	3137754-3137876	+	123
140285	STM14_3616	378451761	+	3177651-3177833	hypothetical protein	3157842-3158024	+	183
140285	STM14_3619	378451764	-	3179499-3179657	hypothetical protein	3159690-3159848	-	159
140285	STM14_3622	378451767	-	3182548-3182661	hypothetical protein	3162739-3162852	-	114
140285	STM14_3623	378451768	+	3182641-3182757	hypothetical protein	3162832-3162948	+	117
140285	STM14_3625	378451770	+	3183029-3183154	hypothetical protein	3163220-3163345	+	126
140285	STM14_3626	378451771	-	3183053-3183160	hypothetical protein	3163244-3163351	-	108
140285	STM14_3628	378451773	+	3183985-3184095	hypothetical protein	3164176-3164286	+	111
140285	STM14_3631	378451776	+	3185172-3185342	hypothetical protein	3165363-3165533	+	171
D23580	STMMW_29721	378446366	-	3162322-3162468	hypothetical protein	3170312-3170458	-	147
140285	STM14_3635	378451780	-	3190309-3190434	hypothetical protein	3170500-3170625	-	126
140285	STM14_3642	378451787	-	3197131-3197247	hypothetical protein	3177322-3177438	-	117
140285	STM14_3645	378451790	-	3199028-3199198	hypothetical protein	3179219-3179389	-	171
140285	STM14_3649	378451794	+	3202193-3202315	hypothetical protein	3182384-3182506	+	123
140285	STM14_3658	378451803	+	3210549-3210968	hypothetical protein	3190698-3191117	+	420
140285	STM14_3662	378451807	-	3213534-3213719	hypothetical protein	3193683-3193868	-	186
140285	STM14_3666	378451810	-	3215425-3215670	hypothetical protein	3196286-3196531	-	246
T000240	STMDT12_C30880	378985628	+	3219618-3219734	hypothetical protein	3196355-3196471	+	117
140285	STM14_3670	378451813	+	3217519-3217686	hypothetical protein	3198380-3198547	+	168
140285	STM14_3686	378451829	-	3230904-3231050	immunoglobulin VH domain protein	3211765-3211911	-	147
140285	STM14_3690	378451833	+	3235813-3235968	hypothetical protein	3216674-3216829	+	156
140285	STM14_3691	378451834	+	3236175-3236279	hypothetical protein	3217036-3217140	+	105
140285	STM14_3693	378451836	+	3237457-3237624	hypothetical protein	3218318-3218485	+	168
140285	STM14_3700	378451843	+	3243685-3243795	hypothetical protein	3224546-3224656	+	111
140285	STM14_3702	378451845	+	3244595-3244732	hypothetical protein	3225456-3225593	+	138
140285	STM14_3704	378451847	+	3245634-3245885	hypothetical protein	3226495-3226746	+	252
140285	STM14_3711	378451854	+	3252233-3252433	hypothetical protein	3233094-3233294	+	201
140285	STM14_3718	378451861	+	3257540-3257698	hypothetical protein	3238401-3238559	+	159
140285	STM14_3722	378451865	+	3260720-3260824	hypothetical protein	3241581-3241685	+	105
T000240	STMDT12_C31370	378985677	+	3269942-3270046	hypothetical protein	3246679-3246783	+	105
140285	STM14_3734	378451876	-	3271996-3272121	hypothetical protein	3252875-3253000	-	126
140285	STM14_3751	378451893	-	3285668-3285820	hypothetical protein	3266546-3266698	-	153
140285	STM14_3757	378451899	-	3289138-3289263	hypothetical protein	3270016-3270141	-	126
140285	STM14_3759	378451901	-	3290425-3290550	hypothetical protein	3271303-3271428	-	126
140285	STM14_3762	378451903	-	3293235-3293459	hypothetical protein	3274982-3275206	-	225
140285	STM14_3763	378451904	+	3293413-3293547	hypothetical protein	3275160-3275294	+	135
140285	STM14_3773	378451913	+	3301831-3301965	hypothetical protein	3283578-3283712	+	135
140285	STM14_3774	378451914	+	3302110-3302214	hypothetical protein	3283857-3283991	+	105
140285	STM14_3778	378451918	-	3305157-3305300	hypothetical protein	3286904-3287047	-	144
140285	STM14_3779	378451919	-	3305240-3305395	putative cytoplasmic protein	3286987-3287142	-	156
140285	STM14_3783	378451923	+	3308724-3308864	hypothetical protein	3290471-3290611	+	141
T000240	STMDT12_C31860	378985726	+	3314720-3314875	hypothetical protein	3291456-3291611	+	156
140285	STM14_3786	378451926	+	3310018-3310173	hypothetical protein	3291765-3291920	+	156
140285	STM14_3789	378451928	+	3312290-3312427	hypothetical protein	3294039-3294176	+	138
140285	STM14_3790	378451929	-	3312496-3312606	hypothetical protein	3294245-3294355	-	111
140285	STM14_3792	378451931	+	3314050-3314181	hypothetical protein	3295799-3295930	+	132
140285	STM14_3793	378451932	+	3314188-3314334	hypothetical protein	3295937-3296083	-	147
140285	STM14_3794	378451933	+	3314216-3314410	hypothetical protein	3295965-3296159	+	195
140285	STM14_3798	378451937	+	3318584-3318703	hypothetical protein	3300333-3300452	+	120
140285	STM14_3800	378451939	-	3319990-3320106	hypothetical protein	3301739-3301855	-	117
140285	STM14_3801	378451940	+	3320290-3320487	hypothetical protein	3302039-3302236	+	198
140285	STM14_3803	378451942	-	3322464-3322571	hypothetical protein	3304213-3304320	-	108
ST474	STM474_3301	379702409	-	3334473-3334658	hypothetical protein	3313770-3313955	-	186
140285	STM14_3815	378451954	+	3332051-3332179	hypothetical protein	3313800-3313928	+	129
140285	STM14_3830	378451969	+	3342234-3342434	hypothetical protein	3323983-3324183	+	201
140285	STM14_3833	378451972	-	3344492-3344629	hypothetical protein	3326241-3326378	-	138
140285	STM14_3834	378451973	+	3344530-3344640	hypothetical protein	3326279-3326389	+	111
ST474	STM474_3318	379702426	-	3348584-3348700	hypothetical protein	3327880-3327996	-	117
140285	STM14_3837	378451976	+	3346625-3346789	hypothetical protein	3328373-3328537	+	165
140285	STM14_3840	378451979	-	3349441-3349545	hypothetical protein	3331189-3331293	-	105
140285	STM14_3851	378451990	+	3361049-3361165	hypothetical protein	3342797-3342913	+	117
ST474	STM474_3334	379702442	-	3364546-3364662	hypothetical protein	3343842-3343958	-	117
140285	STM14_3860	378451999	+	3368291-3368398	hypothetical protein	3350039-3350146	+	108

T000240	STMDT12_C32520	378985792	+	3381047-3381148	hypothetical protein	3357783-3357884	+	102
140285	STM14_3872	378452011	-	3377873-3378022	hypothetical protein	3359620-3359769	-	150
140285	STM14_3875	378452014	+	3380454-3380651	hypothetical protein	3362201-3362398	+	198
140285	STM14_3884	378452023	+	3390891-3391163	hypothetical protein	3372638-3372910	+	273
140285	STM14_3895	378452033	+	3402540-3402695	hypothetical protein	3384287-3384442	+	156
140285	STM14_3901	378452039	-	3408358-3408459	hypothetical protein	3390105-3390206	-	102
140285	STM14_3904	378452042	+	3410298-3410435	hypothetical protein	3392045-3392182	-	138
140285	STM14_3907	378452045	-	3412994-3413194	hypothetical protein	3394741-3394941	-	201
ST474	STM474_3403	379702507	+	3435178-3435297	hypothetical protein	3414473-3414592	+	120
140285	STM14_3932	378452069	-	3436508-3436648	hypothetical protein	3418255-3418395	-	141
140285	STM14_3933	378452070	+	3436575-3436694	hypothetical protein	3418322-3418441	+	120
140285	STM14_3934	378452071	+	3436648-3436776	hypothetical protein	3418395-3418523	+	129
140285	STM14_3938	378452075	+	3440518-3440661	hypothetical protein	3422265-3422408	+	144
140285	STM14_3965	378452100	-	3464611-3464718	hypothetical protein	3451427-3451534	-	108
140285	STM14_3985	378452118	-	3482355-3482456	hypothetical protein	3468460-3468561	-	102
140285	STM14_3987	378452120	+	3483983-3484117	hypothetical protein	3470088-3470222	-	135
140285	STM14_3996	378452128	-	3490436-3490546	hypothetical protein	3476540-3476650	-	111
140285	STM14_4018	378452150	-	3508092-3508241	hypothetical protein	3494196-3494345	-	150
140285	STM14_4019	378452151	-	3508281-3508475	hypothetical protein	3494385-3494579	-	195
140285	STM14_4023	378452155	+	3515633-3515794	hypothetical protein	3501737-3501898	+	162
140285	STM14_4034	378452166	+	3525086-3525205	hypothetical protein	3511190-3511309	+	120
140285	STM14_4051	378452183	-	3540466-3540597	malate dehydrogenase	3526567-3526698	-	132
140285	STM14_4053	378452185	+	3541795-3541923	hypothetical protein	3527896-3528024	+	129
T000240	STMDT12_C34190	378985959	+	3551875-3551970	hypothetical protein	3528611-3528706	+	96
ST474	STM474_3527	379702628	-	3554690-3554815	hypothetical protein	3533270-3533395	-	126
140285	STM14_4074	378452206	-	3563669-3563851	hypothetical protein	3549770-3549952	-	183
140285	STM14_4075	378452207	+	3563867-3563971	hypothetical protein	3549968-3550072	+	105
140285	STM14_4081	378452213	-	3568595-3568738	hypothetical protein	3554696-3554839	-	144
140285	STM14_4088	378452220	-	3574592-3574753	hypothetical protein	3560693-3560854	-	162
140285	STM14_4089	378452221	+	3574662-3574820	hypothetical protein	3560763-3560921	+	159
140285	STM14_4093	378452225	+	3579746-3579922	hypothetical protein	3565847-3566023	+	177
140285	STM14_4094	378452226	-	3580182-3580316	hypothetical protein	3566283-3566417	-	135
140285	STM14_4095	378452227	+	3580370-3580480	hypothetical protein	3566471-3566581	+	111
T000240	STMDT12_C34520	378985992	-	3595480-3595632	hypothetical protein	3572216-3572368	-	153
140285	STM14_4148	378452275	-	3611988-3612179	elongation factor Tu	3598130-3598321	-	192
ST474	STM474_3611	379702705	+	3620933-3621070	hypothetical protein	3599451-3599588	+	138
140285	STM14_4163	378452290	+	3623551-3623655	hypothetical protein	3609693-3609797	+	105
SL1344	SL1344_3427	378701354	+	3633385-3633606	hypothetical protein	3611903-3612124	+	222
140285	STM14_4167	378452293	+	3626355-3626480	hypothetical protein	3612497-3612622	+	126
140285	STM14_4172	378452298	+	3629162-3629344	hypothetical protein	3615303-3615485	+	183
140285	STM14_4180	378452306	+	3635785-3635937	hypothetical protein	3621926-3622078	+	153
140285	STM14_4182	378452308	-	3637245-3637421	hypothetical protein	3623386-3623562	-	177
140285	STM14_4185	378452311	-	3640241-3640396	hypothetical protein	3626382-3626537	-	156
140285	STM14_4192	378452318	-	3649991-3650131	hypothetical protein	3636096-3636236	-	141
140285	STM14_4207	378452333	-	3663870-3663983	hypothetical protein	3649975-3650088	-	114
140285	STM14_4213	378452339	-	3670273-3670407	hypothetical protein	3656378-3656512	-	135
140285	STM14_4214	378452340	+	3670342-3670449	hypothetical protein	3656447-3656554	+	108
140285	STM14_4220	378452346	+	3677538-3677768	hypothetical protein	3663640-3663870	+	231
140285	STM14_4224	378452350	+	3680653-3680766	hypothetical protein	3666755-3666868	+	114
140285	STM14_4229	378452355	-	3684140-3684289	hypothetical protein	3670242-3670391	-	150
140285	STM14_4233	378452359	-	3690393-3690500	hypothetical protein	3676495-3676602	-	108
140285	STM14_4240	378452366	-	3698369-3698491	hypothetical protein	3684671-3684793	-	123
140285	STM14_4243	378452369	-	3700901-3701017	hypothetical protein	3687203-3687319	-	117
140285	STM14_4259	378452384	-	3722125-3722298	hypothetical protein	3708426-3708599	-	174
140285	STM14_4261	378452386	+	3723463-3723627	hypothetical protein	3709764-3709928	+	165
140285	STM14_4263	378452387	+	3723698-3723940	putative inner membrane protein	3709999-3710241	+	243
140285	STM14_4269	378452393	+	3728906-3729031	hypothetical protein	3715207-3715332	+	126
140285	STM14_4270	378452394	+	3729191-3729319	hypothetical protein	3715492-3715620	+	129
ST474	STM474_3713	379702806	-	3737509-3737628	hypothetical protein	3716186-3716305	-	120
140285	STM14_4277	378452401	+	3735927-3736031	hypothetical protein	3722229-3722333	+	105
140285	STM14_4291	378452415	-	3747318-3747434	hypothetical protein	3733620-3733736	-	117
140285	STM14_4296	378452420	+	3750462-3750605	hypothetical protein	3736764-3736907	+	144
140285	STM14_4316	378452440	+	3770553-3770684	hypothetical protein	3756855-3756986	+	132
140285	STM14_4325	378452449	+	3781138-3781305	hypothetical protein	3767437-3767604	+	168
140285	STM14_4333	378452457	+	3789092-3789217	hypothetical protein	3775391-3775516	+	126
140285	STM14_4336	378452460	-	3792675-3792815	hypothetical protein	3778974-3779114	-	141
140285	STM14_4339	378452463	-	3794036-3794179	hypothetical protein	3780335-3780478	-	144
140285	STM14_4340	378452464	+	3794140-3794265	hypothetical protein	3780439-3780564	+	126
140285	STM14_4343	378452467	+	3796527-3796667	hypothetical protein	3782826-3782966	+	141
140285	STM14_4347	378452471	-	3801111-3801227	hypothetical protein	3787410-3787526	-	117
140285	STM14_4350	378452474	+	3803739-3803876	hypothetical protein	3790038-3790175	+	138
140285	STM14_4352	378452476	-	3805315-3805461	hypothetical protein	3791614-3791760	-	147
140285	STM14_4354	378452478	-	3807400-3807591	hypothetical protein	3793699-3793890	-	192
140285	STM14_4361	378452485	+	3818231-3818344	hypothetical protein	3804530-3804643	+	114
140285	STM14_4366	378452489	-	3822083-3822277	hypothetical protein	3808382-3808576	-	195
140285	STM14_4374	378452497	-	3827982-3828101	hypothetical protein	3814281-3814400	-	120
140285	STM14_4378	378452501	-	3832781-3832954	hypothetical protein	3819080-3819253	-	174
140285	STM14_4379	378452502	+	3832815-3832976	hypothetical protein	3819114-3819275	+	162
140285	STM14_4388	378452509	+	3842019-3842180	hypothetical protein	3828328-3828489	+	162
140285	STM14_4393	378452514	+	3846344-3846445	hypothetical protein	3832653-3832754	+	102
140285	STM14_4395	378452516	-	3847245-3847379	hypothetical protein	3833554-3833688	-	135
140285	STM14_4403	378452524	-	3852193-3852324	hypothetical protein	3838502-3838633	-	132
140285	STM14_4408	378452528	+	3856473-3856610	hypothetical protein	3842782-3842919	+	138
140285	STM14_4410	378452530	-	3856798-3857019	hypothetical protein	3843107-3843328	-	222
140285	STM14_4415	378452535	+	3861460-3861693	hypothetical protein	3847769-3848002	+	234
140285	STM14_4416	378452536	-	3861562-3861738	hypothetical protein	3847871-3848047	-	177
140285	STM14_4419	378452539	+	3863890-3864222	hypothetical protein	3850199-3850531	+	333
140285	STM14_4424	378452544	-	3869165-3869311	hypothetical protein	3855474-3855620	-	147
140285	STM14_4437	378452557	+	3881551-3881694	hypothetical protein	3867860-3868003	+	144
140285	STM14_4448	378452568	+	3893735-3893932	hypothetical protein	3880044-3880241	+	198
ST474	STM474_3868	379702957	-	3911348-3911467	hypothetical protein	3890032-3890151	-	120
140285	STM14_4456	378452576	+	3904878-3905129	hypothetical protein	3891186-3891437	+	252
140285	STM14_4485	378452605	-	3932731-3932850	hypothetical protein	3919039-3919158	-	120

14028S	STM14_4497	378452617	+	3941019-3941198	hypothetical protein	3927327-3927506	+	180
14028S	STM14_4501	378452621	+	3943928-3944110	hypothetical protein	3930236-3930418	+	183
14028S	STM14_4504	378452624	+	3946552-3946725	hypothetical protein	3932860-3933033	+	174
14028S	STM14_4512	378452632	-	3954806-3954916	hypothetical protein	3941114-3941224	-	111
14028S	STM14_4518	378452637	+	3962472-3962597	hypothetical protein	3948780-3948905	+	126
14028S	STM14_4520	378452639	+	3963213-3963356	hypothetical protein	3949521-3949664	+	144
14028S	STM14_4521	378452640	-	3963387-3963497	hypothetical protein	3949695-3949805	-	111
14028S	STM14_4531	378452648	+	3973351-3973476	hypothetical protein	3959659-3959784	+	126
14028S	STM14_4533	378452650	-	3974252-3974359	hypothetical protein	3960560-3960667	-	108
14028S	STM14_4535	378452652	+	3974935-3975075	hypothetical protein	3961243-3961383	+	141
T000240	STMDT12_C38190	378986359	-	3984324-3984416	hypothetical protein	3961428-3961520	-	93
14028S	STM14_4537	378452654	+	3978059-3978172	hypothetical protein	3964367-3964480	+	114
14028S	STM14_4539	378452656	+	3979055-3979171	hypothetical protein	3965363-3965479	+	117
14028S	STM14_4540	378452657	-	3979172-3979297	hypothetical protein	3965480-3965605	-	126
14028S	STM14_4549	378452666	+	3986024-3986146	hypothetical protein	3972332-3972454	+	123
14028S	STM14_4551	378452668	+	3989051-3989164	hypothetical protein	3975359-3975472	-	114
14028S	STM14_4553	378452670	+	3989514-3989657	hypothetical protein	3975822-3975965	+	144
14028S	STM14_4565	378452682	-	3999123-3999230	hypothetical protein	3985431-3985538	-	108
14028S	STM14_4567	378452684	-	3999764-3999871	hypothetical protein	3986072-3986179	-	108
14028S	STM14_4578	378452695	+	4011296-4011472	hypothetical protein	3997604-3997780	+	177
14028S	STM14_4580	378452697	+	4011519-4011680	hypothetical protein	3997827-3997988	+	162
14028S	STM14_4581	378452698	-	4011613-4011768	hypothetical protein	3997921-3998076	-	156
14028S	STM14_4582	378452699	+	4011777-4011950	hypothetical protein	3998085-3998258	+	174
14028S	STM14_4589	378452704	-	4016572-4016697	hypothetical protein	4002880-4003005	-	126
14028S	STM14_4595	378452710	+	4020774-4020887	hypothetical protein	4007082-4007195	+	114
ST474	STM474_3981	379703066	-	4028417-4028551	hypothetical protein	4007103-4007237	-	135
14028S	STM14_4598	378452712	+	4022921-4023073	hypothetical protein	4009229-4009381	+	153
14028S	STM14_4601	378452715	+	4024130-4024306	hypothetical protein	4010438-4010614	+	177
ST474	STM474_3986	379703070	-	4031907-4032026	hypothetical protein	4010593-4010712	-	120
14028S	STM14_4630	378452743	+	4056093-4056239	hypothetical protein	4042400-4042546	+	147
14028S	STM14_4633	378452746	+	4059079-4059237	hypothetical protein	4045386-4045544	+	159
ST474	STM474_4022	379703106	-	4071364-4071624	hypothetical protein	4050049-4050309	-	261
T000240	STMDT12_C40060	378986546	-	4156200-4156427	hypothetical protein	4051088-4051315	-	228
14028S	STM14_4658	378452770	+	4086316-4086504	hypothetical protein	4072623-4072811	+	189
14028S	STM14_4669	378452781	-	4094364-4094507	hypothetical protein	4080671-4080814	-	144
14028S	STM14_4696	378452801	+	4122161-4122346	hypothetical protein	4108470-4108655	+	186
14028S	STM14_4733	378452833	+	4155257-4155382	hypothetical protein	4141566-4141691	+	126
14028S	STM14_4738	378452838	-	4159908-4160012	hypothetical protein	4146217-4146321	-	105
14028S	STM14_4740	378452840	+	4162570-4162710	hypothetical protein	4148879-4149019	+	141
14028S	STM14_4753	378452852	-	4171444-4171629	hypothetical protein	4157753-4157938	-	186
14028S	STM14_4759	378452858	-	4175211-4175348	hypothetical protein	4161520-4161657	-	138
14028S	STM14_4768	378452867	+	4183187-4183360	hypothetical protein	4169496-4169669	+	174
ST474	STM474_4144	379703214	+	4193636-4193764	hypothetical protein	4172090-4172218	+	129
14028S	STM14_4770	378452869	-	4185870-4186004	hypothetical protein	4172179-4172313	-	135
14028S	STM14_4771	378452870	+	4185906-4186052	hypothetical protein	4172215-4172361	+	147
14028S	STM14_4784	378452883	+	4197098-4197223	hypothetical protein	4183407-4183532	+	126
14028S	STM14_4800	378452894	-	4215049-4215231	hypothetical protein	4201465-4201647	-	183
14028S	STM14_4801	378452895	+	4215077-4215433	hypothetical protein	4201493-4201849	+	357
14028S	STM14_4808	378452902	-	4219525-4219656	hypothetical protein	4205941-4206072	-	132
14028S	STM14_4811	378452904	+	4222708-4222851	hypothetical protein	4209124-4209267	+	144
14028S	STM14_4816	378452909	-	4226121-4226246	hypothetical protein	4212537-4212662	-	126
14028S	STM14_4819	378452912	-	4228860-4229039	hypothetical protein	4215276-4215455	-	180
14028S	STM14_4821	378452914	-	4230571-4230990	putative cytoplasmic protein	4216987-4217406	-	420
14028S	STM14_4837	378452930	-	4248232-4248351	hypothetical protein	4234648-4234767	-	120
ST474	STM474_4210	379703274	-	4263051-4263284	hypothetical protein	4241612-4241845	-	234
14028S	STM14_4854	378452947	-	4262409-4262564	hypothetical protein	4248825-4248980	-	156
14028S	STM14_4856	378452949	+	4263770-4263904	hypothetical protein	4250186-4250320	+	135
14028S	STM14_4858	378452951	+	4265002-4265130	hypothetical protein	4251418-4251546	+	129
14028S	STM14_4867	378452960	+	4272347-4272496	hypothetical protein	4258763-4258912	+	150
14028S	STM14_4868	378452961	-	4272426-4272560	hypothetical protein	4258842-4258976	-	135
14028S	STM14_4872	378452965	+	4275521-4275652	hypothetical protein	4261937-4262068	+	132
ST474	STM474_4231	379703295	+	4283542-4283655	hypothetical protein	4262103-4262216	+	114
14028S	STM14_4873	378452966	+	4275986-4276111	hypothetical protein	4262402-4262527	+	126
14028S	STM14_4886	378452979	-	4286951-4287055	hypothetical protein	4273367-4273471	-	105
14028S	STM14_4898	378452991	-	4296957-4297091	hypothetical protein	4283372-4283506	-	135
14028S	STM14_4909	378453002	-	4305795-4305962	hypothetical protein	4292210-4292377	-	168
14028S	STM14_4914	378453007	+	4310547-4310666	hypothetical protein	4296962-4297081	+	120
14028S	STM14_4916	378453009	-	4311024-4311164	hypothetical protein	4297439-4297579	-	141
ST474	STM474_4282	379703346	+	4329998-4330159	hypothetical protein	4308559-4308720	+	162
14028S	STM14_4934	378453027	-	4332008-4332127	hypothetical protein	4318423-4318542	-	120
14028S	STM14_4938	378453031	+	4336017-4336178	hypothetical protein	4322432-4322593	+	162
14028S	STM14_4943	378453035	-	4340772-4340927	hypothetical protein	4327187-4327342	-	156
14028S	STM14_4950	378453042	+	4346732-4346872	hypothetical protein	4333147-4333287	+	141
14028S	STM14_4951	378453043	+	4346784-4346900	hypothetical protein	4333199-4333315	+	117
14028S	STM14_4953	378453045	+	4348703-4348810	hypothetical protein	4335118-4335225	+	108
14028S	STM14_4961	378453053	-	4358974-4359162	hypothetical protein	4345389-4345577	-	189
14028S	STM14_0296	378448563	+	291760-291876	hypothetical protein	4353013-4353129	+	117
14028S	STM14_4983	378453065	+	4375382-4375510	hypothetical protein	4361801-4361929	+	129
14028S	STM14_4994	378453076	-	4388486-4388623	hypothetical protein	4374905-4375042	-	138
14028S	STM14_4995	378453077	+	4388644-4388847	hypothetical protein	4375063-4375266	+	204
14028S	STM14_4997	378453079	+	4389931-4390140	hypothetical protein	4376350-4376559	+	210
14028S	STM14_5018	378453099	+	4407683-4407805	hypothetical protein	4394102-4394224	+	123
14028S	STM14_5019	378453100	-	4407796-4407918	hypothetical protein	4394215-4394337	-	123
14028S	STM14_5020	378453101	+	4407851-4407991	hypothetical protein	4394270-4394410	+	141
14028S	STM14_0291	378448561	-	289581-289703	hypothetical protein	4394377-4394499	-	123
14028S	STM14_5025	378453102	-	4413499-4413630	hypothetical protein	4399960-4400091	-	132
14028S	STM14_5026	378453103	+	4413565-4413795	hypothetical protein	4400026-4400256	+	231
14028S	STM14_5031	378453108	+	4418519-4418641	hypothetical protein	4404980-4405102	+	123
14028S	STM14_5044	378453120	+	4431313-4431468	hypothetical protein	4417774-4417929	+	156
14028S	STM14_5053	378453129	+	4437882-4438004	hypothetical protein	4424343-4424465	+	123
14028S	STM14_5057	378453133	-	4441014-4441139	hypothetical protein	4427475-4427600	-	126
14028S	STM14_5072	378453147	+	4451435-4451575	hypothetical protein	4437894-4438034	+	141
14028S	STM14_5083	378453158	-	4462681-4462857	hypothetical protein	4449140-4449316	-	177

14028S	STM14_5084	378453159	+	4462737-4462877	hypothetical protein	4449196-4449336	+	141
14028S	STM14_5088	378453163	+	4466972-4467136	hypothetical protein	4453431-4453595	+	165
T000240	STMDT12_C43680	378986908	+	4559620-4559715	hypothetical protein	4454532-4454627	+	96
14028S	STM14_5101	378453176	+	4478537-4478704	hypothetical protein	4464995-4465162	+	168
14028S	STM14_5115	378453190	-	4490374-4490565	hypothetical protein	4476832-4477023	-	192
14028S	STM14_5116	378453191	+	4490568-4490723	hypothetical protein	4477026-4477181	-	156
ST474	STM474_4451	379703497	+	4498500-4498640	hypothetical protein	4477207-4477347	+	141
14028S	STM14_5124	378453199	+	4515420-4515557	hypothetical protein	4501878-4502015	-	138
14028S	STM14_5125	378453200	-	4515741-4515845	hypothetical protein	4502199-4502303	-	105
14028S	STM14_5129	378453204	-	4518503-4518631	hypothetical protein	4504961-4505089	-	129
14028S	STM14_5131	378453206	-	4519322-4519456	hypothetical protein	4505780-4505914	-	135
14028S	STM14_5132	378453207	-	4519489-4519611	hypothetical protein	4505947-4506069	-	123
14028S	STM14_5134	378453209	-	4521030-4521188	hypothetical protein	4507488-4507646	-	159
14028S	STM14_5149	378453224	-	4536353-4536481	hypothetical protein	4522811-4522939	-	129
14028S	STM14_5150	378453225	+	4536377-4536649	hypothetical protein	4522835-4523107	+	273
14028S	STM14_5152	378453227	+	4537849-4538022	hypothetical protein	4524307-4524480	+	174
14028S	STM14_5154	378453229	-	4538728-4538883	hypothetical protein	4525186-4525341	-	156
14028S	STM14_5160	378453235	+	4544189-4544284	hypothetical protein	4530647-4530742	+	96
14028S	STM14_5162	378453237	+	4546069-4546173	hypothetical protein	4532527-4532631	+	105
14028S	STM14_5168	378453243	+	4552110-4552238	hypothetical protein	4538568-4538696	+	129
14028S	STM14_5183	378453258	+	4571436-4571549	hypothetical protein	4557894-4558007	+	114
14028S	STM14_5189	378453264	+	4574725-4574850	hypothetical protein	4561895-4562020	+	126
SL1344	SL1344_4256	378702162	-	4584964-4585098	hypothetical protein	4564384-4564518	-	135
ST474	STM474_4515	379703561	-	4585588-4585743	hypothetical protein	4565007-4565162	-	156
ST474	STM474_4516	379703562	-	4586025-4586150	hypothetical protein	4565443-4565568	-	126
14028S	STM14_5196	378453271	-	4579152-4579388	hypothetical protein	4566321-4566557	-	237
14028S	STM14_5203	378453277	-	4585245-4585367	hypothetical protein	4572414-4572536	-	123
14028S	STM14_5208	378453282	-	4589666-4589833	hypothetical protein	4576835-4577002	-	168
14028S	STM14_5211	378453285	+	4591089-4591223	hypothetical protein	4578258-4578399	+	135
14028S	STM14_5212	378453286	-	4591232-4591378	hypothetical protein	4578401-4578547	-	147
14028S	STM14_5225	378453299	+	4599983-4600087	hypothetical protein	4587152-4587256	+	105
14028S	STM14_5272	378453343	-	4642797-4642994	hypothetical protein	4629967-4630164	-	198
14028S	STM14_5273	378453344	+	4642921-4643028	hypothetical protein	4630091-4630198	+	108
14028S	STM14_5288	378453359	-	4654346-4654567	hypothetical protein	4641516-4641737	-	222
14028S	STM14_5291	378453362	-	4655902-4656081	hypothetical protein	4643072-4643251	-	180
14028S	STM14_5295	378453366	+	4658725-4658841	hypothetical protein	4645895-4646011	+	117
14028S	STM14_5303	378453374	-	4669323-4669508	hypothetical protein	4656493-4656678	-	186
14028S	STM14_5305	378453376	-	4670877-4671137	hypothetical protein	4658047-4658307	-	261
14028S	STM14_5306	378453377	+	4671075-4671302	hypothetical protein	4658245-4658472	+	228
14028S	STM14_5309	378453380	-	4673931-4674110	hypothetical protein	4661101-4661280	-	180
ST474	STM474_4616	379703657	+	4681690-4681806	hypothetical protein	4661108-4661224	+	117
14028S	STM14_5313	378453384	-	4678291-4678593	putative cytoplasmic protein	4665461-4665763	-	303
14028S	STM14_5315	378453386	+	4679544-4679654	hypothetical protein	4666714-4666824	+	111
ST474	STM474_4627	379703668	-	4695124-4695237	hypothetical protein	4674542-4674655	-	114
14028S	STM14_5323	378453393	+	4689572-4689691	hypothetical protein	4676740-4676859	+	120
14028S	STM14_5347	378453416	+	4711078-4711185	hypothetical protein	4698245-4698352	+	108
ST474	STM474_4653	379703693	+	4719860-4719991	hypothetical protein	4699276-4699407	+	132
UK1	STMUK_4448	378991724	+	4665460-4665600	putative cytoplasmic protein	4705022-4705162	+	141
14028S	STM14_5356	378453425	-	4718450-4718566	hypothetical protein	4705617-4705733	-	117
T000240	STMDT12_C45910	378987131	+	4803005-4803103	hypothetical protein	4705623-4705721	+	99
14028S	STM14_5359	378453428	-	4721103-4721225	hypothetical protein	4708270-4708392	-	123
14028S	STM14_5362	378453431	+	4723479-4723670	hypothetical protein	4710646-4710837	+	192
14028S	STM14_5367	378453436	-	4727023-4727145	hypothetical protein	4714190-4714312	-	123
T000240	STMDT12_C46080	378987148	+	4822036-4822131	hypothetical protein	4724654-4724749	+	96
14028S	STM14_5381	378453450	+	4741810-4741944	hypothetical protein	4728977-4729111	+	135
14028S	STM14_5396	378453464	-	4764865-4765110	molybdopterin-guanine dinucleotide biosynthesis protein MobA	4752032-4752277	-	246
14028S	STM14_5399	378453466	+	4766523-4766714	hypothetical protein	4753690-4753881	+	192
14028S	STM14_5402	378453469	-	4768806-4769102	hypothetical protein	4755973-4756269	-	297
14028S	STM14_5406	378453473	+	4772201-4772314	hypothetical protein	4759368-4759481	+	114
14028S	STM14_5407	378453474	-	4772241-4772357	hypothetical protein	4759408-4759524	-	117
14028S	STM14_5410	378453477	+	4773638-4773850	hypothetical protein	4760805-4761017	+	213
14028S	STM14_5415	378453482	+	4776954-4777076	hypothetical protein	4764121-4764243	+	123
14028S	STM14_5416	378453483	-	4776976-4777107	hypothetical protein	4764143-4764274	-	132
14028S	STM14_5426	378453493	-	4786173-4786316	hypothetical protein	4773340-4773483	-	144
14028S	STM14_5427	378453494	+	4786386-4786523	hypothetical protein	4773553-4773690	+	138
14028S	STM14_5429	378453496	-	4787107-4787220	hypothetical protein	4774274-4774387	-	114
ST474	STM474_4722	379703761	-	4794952-4795101	hypothetical protein	4774368-4774517	-	150
14028S	STM14_5435	378453502	-	4790281-4790412	hypothetical protein	4777448-4777579	-	132
14028S	STM14_5440	378453507	+	4798305-4798442	hypothetical protein	4785472-4785609	+	138
14028S	STM14_5447	378453514	-	4804689-4804838	hypothetical protein	4791856-4792005	-	150
14028S	STM14_5455	378453522	+	4812431-4812535	hypothetical protein	4799598-4799702	+	105
14028S	STM14_5462	378453529	-	4818419-4818574	hypothetical protein	4805586-4805741	-	156
14028S	STM14_5468	378453535	+	4823006-4823134	hypothetical protein	4810173-4810301	+	129
14028S	STM14_5474	378453538	+	4824998-4825105	hypothetical protein	4812165-4812272	+	108
14028S	STM14_5479	378453543	+	4828502-4828636	hypothetical protein	4815669-4815803	+	135
14028S	STM14_5486	378453550	+	4833992-4834120	hypothetical protein	4821159-4821287	+	129
14028S	STM14_5496	378453560	+	4843995-4844144	hypothetical protein	4831162-4831311	+	150
ST474	smf	379703819	+	4853656-4853805	phosphoserine phosphatase	4833075-4833224	+	150

Genome name	Gene Name	GI	Strand	Reference details		Product	Gene annotated in T000240		
				CDS-region	Coordinate		Strand	Length (bp)	
14028S	thrL	378448275	+	190-255		thr operon leader peptide	190-255	+	66
14028S	STM14_0012	378448286	+	11257-11424		hypothetical protein	11257-11424	+	168
14028S	STM14_0015	378448289	+	14845-14958		hypothetical protein	14845-14958	+	114
14028S	STM14_0020	378448294	-	17613-17741		hypothetical protein	17613-17741	-	129
14028S	STM14_0021	378448295	+	17665-17787		hypothetical protein	17665-17787	+	123
14028S	STM14_0024	378448298	+	23091-23240		hypothetical protein	23091-23240	+	150
14028S	STM14_0026	378448300	-	24094-24198		hypothetical protein	24094-24198	-	105
14028S	STM14_0027	378448301	+	24316-24426		hypothetical protein	24316-24426	+	111
14028S	STM14_0040	378448314	+	34828-34974		hypothetical protein	34828-34974	+	147
14028S	STM14_0057	378448331	+	57203-57334		hypothetical protein	57203-57334	+	132
14028S	STM14_0068	378448342	-	68513-68671		hypothetical protein	68513-68671	-	159
ST474	STM474_0083	379699298	-	92031-92228		hypothetical protein	92028-92225	-	198
14028S	STM14_0097	378448371	-	95263-95379		hypothetical protein	94551-94667	-	117
14028S	STM14_0102	378448376	+	98738-99019		hypothetical protein	98026-98307	+	282
14028S	STM14_0105	378448379	-	101349-101474		hypothetical protein	100637-100762	-	126
14028S	STM14_0113	378448387	-	108892-109053		hypothetical protein	108180-108341	-	162
14028S	STM14_0128	378448402	-	127427-127546		putative lipoprotein	126715-126834	-	120
14028S	STM14_0130	378448404	-	129166-129492		hypothetical protein	128454-128780	-	327
ST474	STM474_0115	379699330	+	128926-129039		hypothetical protein	128923-129036	+	114
14028S	leuL	378448409	-	134538-134624		leu operon leader peptide	133826-133912	-	87
14028S	STM14_0136	378448410	-	134689-134793		hypothetical protein	133977-134081	-	105
14028S	STM14_0137	378448411	+	135067-135210		hypothetical protein	134355-134498	+	144
14028S	STM14_0141	378448415	-	138755-138877		hypothetical protein	138043-138165	-	123
LT2	STM04630	409994397	-	139338-139487		hypothetical protein	139338-139487	-	150
14028S	STM14_0143	378448417	-	140204-140338		hypothetical protein	139492-139626	-	135
14028S	STM14_0144	378448418	+	140496-140633		hypothetical protein	139784-139921	+	138
14028S	STM14_0165	378448438	+	162875-162979		LysR family transcriptional regulator	162162-162266	+	105
14028S	STM14_0173	378448446	-	168890-169072		hypothetical protein	168177-168359	-	183
14028S	STM14_0179	378448452	-	173962-174090		hypothetical protein	173249-173377	-	129
14028S	STM14_0181	378448454	+	175672-175794		hypothetical protein	174959-175081	+	123
14028S	STM14_0186	378448459	+	183222-183350		hypothetical protein	182509-182637	+	129
14028S	STM14_0215	378448487	-	213058-213171		hypothetical protein	212354-212467	-	114
14028S	STM14_0224	378448496	+	221426-221587		hypothetical protein	220722-220883	+	162
14028S	STM14_0225	378448497	-	221522-221629		hypothetical protein	220818-220925	-	108
14028S	STM14_0227	378448499	-	224289-224429		hypothetical protein	223585-223725	-	141
14028S	STM14_0232	378448504	+	230459-230665		hypothetical protein	229755-229961	+	207
14028S	STM14_0233	378448505	+	231001-231144		hypothetical protein	230298-230441	+	144
14028S	STM14_0242	378448514	+	239222-239365		hypothetical protein	238519-238662	+	144
14028S	STM14_0256	378448527	+	254799-255083		30S ribosomal protein S2	254095-254379	+	285
14028S	STM14_0262	378448533	+	259830-260033		hypothetical protein	259126-259329	+	204
14028S	STM14_0292	378448562	-	289616-289819		hypothetical protein	288917-289120	-	204
14028S	STM14_0310	378448574	-	304859-304966		hypothetical protein	304160-304267	-	108
14028S	STM14_0322	378448585	+	316755-316865		invasol SirA	316071-316181	+	111
14028S	STM14_0323	378448586	+	316878-317324		putative cytoplasmic protein	316194-316640	+	447
14028S	STM14_0337	378448600	+	330303-330512		hypothetical protein	329619-329828	+	210
14028S	STM14_0343	378448606	+	339144-339275		hypothetical protein	338460-338591	+	132
LT2	STM04655	409994398	-	339629-339871		hypothetical protein	339630-339872	-	243
ST474	STM474_0312	379699516	+	341562-341681		hypothetical protein	342085-342204	+	120
14028S	STM14_0359	378448619	+	350359-350574		putative cytoplasmic protein	349675-349890	+	216
14028S	STM14_0361	378448621	-	351322-351450		hypothetical protein	350638-350766	-	129
14028S	STM14_0377	378448636	-	366783-366935		hypothetical protein	366099-366251	-	153
D23580	STM03491	378443784	+	376059-376205		prophage protein	374854-375000	-	147
UK1	STMUK_0331	378987726	+	369132-369353		putative inner membrane protein	410549-410770	+	222
14028S	STM14_0390	378448647	-	378258-378530		putative cytoplasmic protein	418964-419236	-	273
14028S	STM14_0403	378448660	-	390802-390939		hypothetical protein	428154-428291	-	138
14028S	STM14_0411	378448668	+	399120-399233		hypothetical protein	436472-436585	+	114
14028S	STM14_0415	378448672	+	402243-402422		putative metal-binding transport protein	439595-439774	+	180
14028S	STM14_0419	378448676	+	409084-409218		hypothetical protein	446436-446570	+	135
14028S	STM14_0420	378448677	-	409118-409237		hypothetical protein	446470-446589	-	120
14028S	STM14_0430	378448687	+	418467-418640		hypothetical protein	455819-455992	+	174
14028S	STM14_0436	378448693	+	425565-425684		hypothetical protein	462917-463036	+	120
14028S	STM14_0437	378448694	-	425675-425827		hypothetical protein	463027-463179	-	153
14028S	STM14_0441	378448698	-	430751-430909		hypothetical protein	468103-468261	-	159
14028S	STM14_0442	378448699	+	430925-431059		hypothetical protein	468277-468411	+	135
14028S	STM14_0446	378448703	+	433714-433827		hypothetical protein	471066-471179	+	114
14028S	STM14_0451	378448708	+	437620-437742		hypothetical protein	474972-475094	+	123
14028S	STM14_0453	378448710	-	438082-438243		hypothetical protein	475434-475595	-	162
14028S	STM14_0457	378448714	+	440792-440941		hypothetical protein	478144-478293	+	150
14028S	STM14_0464	378448721	-	444556-444687		hypothetical protein	481908-482039	-	132
14028S	STM14_0472	378448729	-	453755-453904		hypothetical protein	491107-491256	-	150
14028S	STM14_0479	378448736	+	461340-461450		DNA metabolism protein	498692-498802	+	111
14028S	STM14_0487	378448744	+	467631-467846		hypothetical protein	504983-505198	+	216
D23580	STM04821	378443916	-	507659-507985		hypothetical protein	505201-505527	-	327
14028S	STM14_0491	378448747	+	469965-470111		hypothetical protein	507317-507463	+	147
14028S	STM14_0498	378448754	-	473976-474284		hypothetical protein	511328-511636	-	309
14028S	STM14_0509	378448765	-	484792-484902		hypothetical protein	522144-522254	-	111
ST474	STM474_0464	379699664	-	497880-498002		hypothetical protein	536439-536561	-	123
14028S	STM14_0526	378448781	+	501468-501653		hypothetical protein	538820-539005	+	186
14028S	STM14_0528	378448783	-	502053-502166		hypothetical protein	539405-539518	-	114
14028S	STM14_0531	378448786	+	504670-504774		hypothetical protein	542022-542126	+	105
14028S	STM14_0536	378448791	-	511028-511390		hypothetical protein	548380-548742	-	363
14028S	STM14_0562	378448816	-	535085-535210		hypothetical protein	572438-572563	-	126
14028S	STM14_0573	378448827	-	546597-546818		hypothetical protein	583950-584171	-	222
14028S	STM14_0575	378448829	+	547392-547598		hypothetical protein	584745-584951	+	207
14028S	STM14_0599	378448853	-	571546-571650		hypothetical protein	608899-609003	-	105
14028S	STM14_0633	378448887	-	604316-604444		hypothetical protein	641669-641797	-	129
14028S	STM14_0634	378448888	+	604400-604555		hypothetical protein	641753-641908	+	156
14028S	STM14_0645	378448899	+	614019-614189		hypothetical protein	651372-651542	+	171
14028S	STM14_0647	378448900	-	614287-614475		integrase	651640-651828	-	189
14028S	STM14_0659	378448908	-	622266-622520		hypothetical protein	659619-659873	-	255
14028S	STM14_0665	378448914	+	627603-627788		hypothetical protein	664956-665141	+	186

140285	STM14_0677	378448926	+	639577-639684	hypothetical protein	676936-677043	+	108
140285	STM14_0683	378448932	-	644504-644635	hypothetical protein	681863-681994	-	132
140285	STM14_0698	378448947	+	661861-661971	hypothetical protein	699220-699330	+	111
140285	STM14_0714	378448963	+	678228-678434	hypothetical protein	715785-715991	+	207
140285	STM14_0715	378448964	-	678399-678539	hypothetical protein	715956-716096	-	141
140285	STM14_0726	378448975	+	688331-688513	hypothetical protein	725888-726070	+	183
140285	STM14_0730	378448979	+	692333-692443	hypothetical protein	729890-730000	+	111
140285	STM14_0735	378448984	+	694969-695076	hypothetical protein	732526-732633	+	108
140285	STM14_0738	378448987	-	696364-696498	hypothetical protein	733921-734055	-	135
140285	STM14_0740	378448989	-	697584-697727	hypothetical protein	735141-735284	-	144
140285	STM14_0742	378448991	+	698354-698719	hypothetical protein	735911-736276	+	366
140285	STM14_0745	378448994	+	700128-700277	hypothetical protein	737685-737834	+	150
140285	STM14_0774	378449022	+	730309-730596	hypothetical protein	767865-768152	+	288
140285	STM14_0777	378449025	-	733102-733251	hypothetical protein	770658-770807	-	150
140285	STM14_0780	378449028	-	734838-734957	hypothetical protein	772394-772513	-	120
140285	STM14_0791	378449032	+	739310-739477	hypothetical protein	776866-777033	+	168
140285	STM14_0797	378449038	-	745470-745595	hypothetical protein	783026-783151	-	126
140285	STM14_0800	378449041	+	749621-749734	hypothetical protein	787177-787290	+	114
140285	STM14_0801	378449042	+	749864-750154	hypothetical protein	787420-787710	+	291
140285	STM14_0809	378449050	+	757442-757591	hypothetical protein	794998-795147	+	150
140285	STM14_0812	378449053	+	758607-758720	hypothetical protein	796163-796276	+	114
140285	STM14_0819	378449060	-	766193-766318	hypothetical protein	803749-803874	-	126
140285	STM14_0826	378449067	-	774532-774729	K+-transporting ATPase subunit F	812088-812285	-	198
140285	STM14_0834	378449075	+	781934-782065	putative cytoplasmic protein	820267-820398	+	132
140285	STM14_0850	378449091	+	797694-798080	putative inner membrane protein	836027-836413	+	387
140285	STM14_0859	378449100	+	808472-808597	hypothetical protein	846805-846930	+	126
ST474	STM474_0763	379699951	+	807598-807723	hypothetical protein	847017-847142	+	126
ST474	STM474_0764	379699952	-	808597-808710	hypothetical protein	848016-848129	-	114
140285	STM14_0860	378449101	-	809819-809962	hypothetical protein	848152-848295	-	144
140285	STM14_0873	378449114	-	818715-819254	hypothetical protein	857048-857587	-	540
140285	STM14_0879	378449115	-	820227-820322	hypothetical protein	858715-858810	-	96
140285	STM14_0897	378449132	-	837473-837664	hypothetical protein	875961-876152	-	192
140285	STM14_0903	378449138	+	843123-843230	hypothetical protein	881611-881718	+	108
ST474	STM474_0818	379700001	+	857893-858006	hypothetical protein	897466-897579	+	114
140285	STM14_0924	378449158	+	864209-864493	hypothetical protein	902696-902980	+	285
140285	STM14_0925	378449159	+	864550-864777	hypothetical protein	903037-903264	+	228
140285	STM14_0927	378449161	+	867104-867277	putative cytoplasmic protein	905591-905764	+	174
140285	STM14_0946	378449180	-	881747-881884	hypothetical protein	920299-920436	-	138
140285	STM14_0952	378449186	-	888006-888110	hypothetical protein	926558-926662	-	105
140285	STM14_0956	378449190	+	891948-892067	hypothetical protein	930500-930619	+	120
140285	STM14_0958	378449192	-	892325-892444	hypothetical protein	930877-930996	-	120
140285	STM14_0961	378449195	+	895674-895811	hypothetical protein	934226-934363	+	138
140285	STM14_0965	378449199	-	898059-898181	hypothetical protein	936611-936733	-	123
140285	STM14_0967	378449201	-	899158-899316	hypothetical protein	937710-937868	-	159
140285	STM14_0969	378449203	-	900254-900415	hypothetical protein	938806-938967	-	162
140285	STM14_0970	378449204	-	900375-900506	hypothetical protein	938927-939058	-	132
140285	STM14_0973	378449207	+	902910-903080	hypothetical protein	941462-941632	+	171
140285	STM14_0982	378449216	+	911396-911509	hypothetical protein	949948-950061	+	114
140285	STM14_0986	378449220	-	915878-916033	hypothetical protein	954430-954585	-	156
140285	STM14_0989	378449223	+	917997-918137	hypothetical protein	956549-956689	+	141
140285	STM14_0995	378449229	-	924480-924599	hypothetical protein	963032-963151	-	120
140285	STM14_0997	378449231	+	925933-926067	hypothetical protein	964485-964619	+	135
140285	STM14_0999	378449233	+	926622-926762	hypothetical protein	965174-965314	+	141
140285	STM14_1000	378449234	+	926970-927134	hypothetical protein	965522-965686	+	165
140285	STM14_1006	378449239	-	931103-931243	hypothetical protein	969655-969795	-	141
140285	STM14_1010	378449243	+	934780-934917	hypothetical protein	973332-973469	+	138
140285	STM14_1019	378449251	+	942902-943027	hypothetical protein	981454-981579	+	126
140285	STM14_1034	378449266	+	955378-955569	hypothetical protein	994707-994898	+	192
140285	STM14_1038	378449270	-	958765-958965	hypothetical protein	998094-998294	-	201
140285	STM14_1053	378449285	+	972908-973111	hypothetical protein	1012237-1012440	+	204
140285	STM14_1055	378449287	+	973986-974153	hypothetical protein	1013315-1013482	+	168
140285	STM14_1060	378449292	-	980013-980138	hypothetical protein	1019342-1019467	-	126
140285	STM14_1061	378449293	+	980033-980176	hypothetical protein	1019362-1019505	+	144
140285	STM14_1067	378449299	-	984062-984343	hypothetical protein	1023391-1023672	-	282
140285	STM14_1069	378449301	-	985102-985260	hypothetical protein	1024431-1024589	-	159
140285	STM14_1076	378449307	-	988822-989205	putative inner membrane protein	1028151-1028534	-	384
140285	STM14_1081	378449312	-	994689-994946	hypothetical protein	1034018-1034275	-	258
140285	STM14_1082	378449313	-	994867-995142	hypothetical protein	1034196-1034471	-	276
140285	STM14_1087	378449318	+	1001941-1002111	hypothetical protein	1041240-1041410	+	171
140285	STM14_1092	378449323	+	1007647-1007754	hypothetical protein	1046946-1047053	+	108
140285	STM14_1093	378449324	-	1007837-1007968	hypothetical protein	1047136-1047267	-	132
140285	STM14_1097	378449328	-	1011963-1012289	putative cytoplasmic protein	1051262-1051588	-	327
140285	STM14_1102	378449333	+	1018831-1018959	hypothetical protein	1058130-1058258	+	129
140285	STM14_1104	378449335	+	1019641-1019754	hypothetical protein	1058940-1059053	+	114
140285	STM14_1108	378449339	-	1023127-1023381	hypothetical protein	1062426-1062680	-	255
140285	STM14_1118	378449349	-	1033792-1033944	hypothetical protein	1073091-1073243	-	153
140285	STM14_1129	378449360	-	1047995-1048126	hypothetical protein	1087294-1087425	-	132
140285	STM14_1131	378449362	+	1049521-1049673	hypothetical protein	1088820-1088972	+	153
140285	STM14_1133	378449364	-	1051307-1051426	hypothetical protein	1090606-1090725	-	120
140285	STM14_1137	378449368	+	1053504-1053662	hypothetical protein	1092803-1092961	+	159
ST474	STM474_0999	379700176	+	1061436-1061582	hypothetical protein	1102569-1102715	+	147
ST474	STM474_1001	379700178	+	1061983-1062096	hypothetical protein	1103116-1103229	+	114
140285	STM14_1150	378449381	+	1064144-1064518	regulatory protein	1103485-1103859	+	375
140285	STM14_1157	378449388	+	1068009-1068230	hypothetical protein	1107350-1107571	+	222
140285	STM14_1161	378449392	+	1069732-1069878	hypothetical protein	1109073-1109219	+	147
140285	STM14_1164	378449395	+	1071223-1071348	hypothetical protein	1110564-1110689	+	126
140285	STM14_3197	378451364	+	2811771-2811908	hypothetical protein	1112417-1112554	-	138
ST474	STM474_1045	379700222	+	1098511-1098666	hypothetical protein	1139874-1140029	+	156
140285	STM14_1196	378449426	-	1100627-1100926	hypothetical protein	1139967-1140266	-	300
140285	STM14_1201	378449431	-	1106320-1106445	hypothetical protein	1145660-1145785	-	126
140285	STM14_1209	378449439	-	1115818-1116021	hypothetical protein	1155159-1155362	-	204
140285	STM14_1216	378449446	-	1121248-1121352	hypothetical protein	1160589-1160693	-	105
140285	STM14_1234	378449463	+	1135671-1135796	hypothetical protein	1175012-1175137	+	126

140285	STM14_1235	378449464	+	1135887-1136207	putative inner membrane protein	1175228-1175548	+	321
140285	orfX	378449467	+	1138592-1138762	putative cytoplasmic protein	1177933-1178103	+	171
140285	STM14_1239	378449468	-	1138763-1138873	putative cytoplasmic protein	1178104-1178214	-	111
140285	STM14_1245	378449474	+	1143361-1143543	hypothetical protein	1182702-1182884	+	183
140285	STM14_1249	378449478	-	1146275-1146388	hypothetical protein	1185616-1185729	-	114
140285	STM14_1254	378449483	-	1150549-1150701	hypothetical protein	1189890-1190042	-	153
140285	STM14_1260	378449489	-	1155618-1155782	hypothetical protein	1194959-1195123	-	165
140285	STM14_1265	378449494	-	1158383-1158577	hypothetical protein	1197724-1197918	-	195
140285	STM14_1273	378449502	+	1164294-1164521	hypothetical protein	1203635-1203862	+	228
140285	STM14_1279	378449506	-	1170030-1170278	hypothetical protein	1209371-1209619	-	249
140285	STM14_1280	378449507	-	1170167-1170286	hypothetical protein	1209508-1209627	-	120
140285	STM14_1282	378449509	+	1172347-1172457	hypothetical protein	1211688-1211798	+	111
140285	STM14_1286	378449512	+	1174679-1174783	hypothetical protein	1214020-1214124	+	105
140285	STM14_1288	378449514	+	1176314-1176421	hypothetical protein	1215655-1215762	+	108
140285	STM14_1289	378449515	-	1176396-1176605	hypothetical protein	1215737-1215946	-	210
140285	STM14_1291	378449517	-	1177413-1177520	hypothetical protein	1216754-1216861	-	108
140285	STM14_1292	378449518	+	1177573-1177704	hypothetical protein	1216914-1217045	+	132
140285	STM14_1298	378449523	-	1183064-1183228	hypothetical protein	1222589-1222753	-	165
140285	STM14_1307	378449532	-	1188559-1188696	hypothetical protein	1228083-1228220	-	138
140285	STM14_1308	378449533	-	1188894-1189040	hypothetical protein	1228418-1228564	-	147
140285	STM14_1316	378449541	-	1194339-1194509	hypothetical protein	1233863-1234033	-	171
140285	STM14_1322	378449547	+	1200601-1201062	hypothetical protein	1240125-1240586	+	462
140285	STM14_1327	378449552	+	1204177-1204380	hypothetical protein	1243701-1243904	+	204
140285	STM14_1339	378449564	-	1212983-1213159	hypothetical protein	1252507-1252683	-	177
140285	STM14_1344	378449569	-	1216241-1216396	flagellar basal body P-ring biosynthesis protein FigA	1255765-1255920	-	156
140285	STM14_1356	378449581	-	1226280-1226474	hypothetical protein	1265804-1265998	-	195
140285	STM14_1376	378449600	-	1244261-1244398	hypothetical protein	1283785-1283922	-	138
140285	STM14_1390	378449614	-	1256910-1257065	hypothetical protein	1296344-1296589	-	156
140285	STM14_1399	378449623	-	1267794-1267916	hypothetical protein	1307318-1307440	-	123
140285	STM14_1401	378449625	-	1269076-1269240	hypothetical protein	1308600-1308764	-	165
140285	STM14_1487	378449708	-	1337214-1337372	hypothetical protein	1324926-1325084	-	159
140285	STM14_1488	378449709	+	1337312-1337452	hypothetical protein	1325024-1325164	+	141
140285	STM14_1489	378449710	+	1337337-1337585	hypothetical protein	1325049-1325297	+	249
140285	STM14_1494	378449714	-	1340405-1340575	hypothetical protein	1328117-1328287	-	171
140285	STM14_1496	378449716	-	1341060-1341188	hypothetical protein	1328772-1328900	-	129
140285	pagD	378449717	-	1341151-1341414	virulence protein PAGD precursor	1328863-1329126	-	264
140285	STM14_1499	378449718	+	1341718-1341825	hypothetical protein	1329430-1329537	+	108
140285	STM14_1500	378449719	-	1342043-1342192	hypothetical protein	1329755-1329904	-	150
140285	STM14_1502	378449721	-	1342962-1343096	hypothetical protein	1330674-1330808	-	135
140285	STM14_1506	378449723	-	1344493-1344636	hypothetical protein	1332205-1332348	-	144
ST474	STM474_1249	379700419	-	1291877-1292050	hypothetical protein	1332711-1332884	-	174
140285	STM14_1510	378449727	-	1346067-1346216	putative inner membrane protein	1333779-1333928	-	150
140285	STM14_1514	378449731	-	1348508-1348666	hypothetical protein	1336219-1336377	-	159
140285	STM14_1524	378449740	-	1356451-1356600	hypothetical protein	1344162-1344311	-	120
140285	STM14_1528	378449744	+	1358977-1359201	hypothetical protein	1346688-1346912	+	255
140285	STM14_1533	378449749	-	1361225-1361380	hypothetical protein	1348936-1349091	-	156
140285	STM14_1536	378449752	-	1362034-1362159	hypothetical protein	1349745-1349870	-	126
140285	STM14_1538	378449754	+	1362921-1363106	hypothetical protein	1350632-1350817	+	186
140285	STM14_1540	378449756	-	1363413-1363529	hypothetical protein	1351124-1351240	-	117
140285	STM14_1541	378449757	-	1363501-1363599	hypothetical protein	1351212-1351310	-	99
140285	STM14_1545	378449761	-	1364743-1364856	hypothetical protein	1352454-1352567	-	114
140285	STM14_1546	378449762	+	1364774-1364911	hypothetical protein	1352485-1352622	+	138
140285	STM14_1550	378449766	+	1367385-1367522	hypothetical protein	1355096-1355233	+	138
140285	STM14_1554	378449770	+	1370048-1370245	hypothetical protein	1357759-1357956	+	198
140285	STM14_1555	378449771	+	1370136-1370267	salivary secreted protein	1357847-1357978	+	132
140285	STM14_1557	378449773	+	1371682-1371801	hypothetical protein	1359393-1359512	+	120
ST474	STM474_1289	379700457	+	1320526-1320669	hypothetical protein	1361360-1361503	+	144
140285	STM14_1559	378449775	-	1373854-1374027	hypothetical protein	1361564-1361737	-	174
140285	STM14_1566	378449782	+	1379655-1379795	hypothetical protein	1367365-1367505	+	141
140285	STM14_1569	378449785	+	1380898-1381002	hypothetical protein	1368609-1368713	+	105
140285	STM14_1572	378449788	+	1382785-1382889	hypothetical protein	1370496-1370600	+	105
140285	STM14_1581	378449797	+	1391859-1392038	hypothetical protein	1379570-1379749	+	180
140285	STM14_1587	378449803	+	1398234-1398449	hypothetical protein	1385945-1386160	+	216
ST474	STM474_1315	379700483	+	1347752-1347886	hypothetical protein	1388586-1388720	+	135
140285	STM14_1591	378449807	-	1400923-1401129	hypothetical protein	1388634-1388840	-	207
140285	STM14_1593	378449809	+	1401610-1401732	hypothetical protein	1389321-1389443	+	123
140285	STM14_1601	378449817	+	1409372-1409509	hypothetical protein	1397083-1397220	+	138
140285	STM14_1602	378449818	-	1409399-1409647	hypothetical protein	1397110-1397358	-	249
140285	STM14_1615	378449831	+	1419534-1419740	hypothetical protein	1407245-1407451	+	207
140285	STM14_1617	378449833	+	1421769-1421954	hypothetical protein	1409480-1409665	+	186
140285	STM14_1618	378449834	+	1421956-1422090	hypothetical protein	1409667-1409801	+	135
140285	STM14_1623	378449839	-	1425398-1425562	hypothetical protein	1413109-1413273	-	165
140285	STM14_1631	378449847	+	1432577-1432696	hypothetical protein	1420288-1420407	-	120
140285	STM14_1636	378449852	+	1436467-1436571	hypothetical protein	1424178-1424282	+	105
ST474	STM474_1353	379700521	+	1384122-1384307	hypothetical protein	1424956-1425141	+	186
140285	STM14_1645	378449861	-	1445506-1445658	hypothetical protein	1433217-1433369	-	153
140285	STM14_1652	378449868	+	1452598-1452744	hypothetical protein	1440309-1440455	+	147
140285	STM14_1653	378449869	-	1452728-1452838	hypothetical protein	1440439-1440549	-	111
140285	STM14_1658	378449873	-	1456308-1456475	hypothetical protein	1444019-1444186	-	168
ST474	STM474_1383	379700550	-	1418471-1418587	hypothetical protein	1459306-1459422	-	117
ST474	STM474_1395	379700562	+	1431868-1432002	hypothetical protein	1472703-1472837	+	135
140285	STM14_1685	378449900	-	1486016-1486129	hypothetical protein	1473727-1473840	-	114
140285	STM14_1692	378449907	+	1493410-1493517	hypothetical protein	1481121-1481228	+	108
140285	STM14_1719	378449934	+	1511477-1511602	hypothetical protein	1499188-1499313	+	126
140285	STM14_1728	378449941	+	1519171-1519452	hypothetical protein	1506882-1507163	+	282
140285	STM14_1751	378449964	+	1538110-1538277	hypothetical protein	1525821-1525988	+	168
140285	STM14_1761	410023179	-	1546024-1546179	hypothetical protein	1533735-1533890	-	156
140285	STM14_1764	378449977	+	1548438-1548683	hypothetical protein	1536149-1536394	+	246
140285	STM14_1771	378449982	+	1553745-1553906	fumarase A	1541456-1541617	+	162
140285	STM14_1776	378449987	-	1559385-1559690	outer membrane protein	1547096-1547401	-	306
140285	STM14_1782	378449992	-	1563882-1564016	putative amino acid permease	1551593-1551727	-	135
140285	STM14_1783	378449993	-	1563914-1564087	hypothetical protein	1551625-1551798	-	174
140285	STM14_1784	378449994	+	1564099-1564224	hypothetical protein	1551810-1551935	+	126

140285	STM14_1786	378449996	+	1565234-1565359	hypothetical protein	1552945-1553070	+	126
140285	STM14_1790	378450000	+	1569946-1570116	hypothetical protein	1557657-1557827	+	171
140285	STM14_1794	378450004	-	1571734-1572027	hypothetical protein	1559445-1559738	-	294
140285	STM14_1796	378450006	-	1572462-1572653	hypothetical protein	1560173-1560364	-	192
140285	STM14_1810	378450020	-	1586812-1587033	putative dimethyl sulfoxide reductase subunit A	1574523-1574744	-	222
140285	STM14_1816	378450026	-	1591641-1591757	hypothetical protein	1579352-1579468	-	117
ST474	STM474_1518	379700677	-	1542834-1542947	hypothetical protein	1583669-1583782	-	114
140285	STM14_1827	378450036	-	1601704-1601919	hypothetical protein	1589415-1589630	-	216
140285	STM14_1828	378450037	+	1601786-1601923	peptidyl-dipeptidase dcp	1589497-1589634	+	138
140285	STM14_1831	378450040	-	1602970-1603068	hypothetical protein	1590681-1590779	-	99
140285	STM14_1847	378450056	+	1615524-1615850	putative inner membrane protein	1603237-1603563	+	327
140285	STM14_1867	378450076	-	1634718-1634879	hypothetical protein	1622431-1622592	-	162
140285	STM14_1872	378450081	+	1637216-1637431	putative phage-related secreted protein	1624929-1625144	+	216
UK1	STMUK_1520	378988892	+	1587048-1587440	hypothetical protein	1626570-1626962	+	393
UK1	STMUK_1521	378988893	+	1587577-1587705	hypothetical protein	1627099-1627227	+	129
ST474	STM474_1578	379700736	-	1602385-1602519	hypothetical protein	1643222-1643356	-	135
140285	STM14_1890	378450098	+	1657503-1657634	hypothetical protein	1645216-1645347	+	132
140285	STM14_1895	378450103	+	1663489-1663641	hypothetical protein	1651202-1651354	+	153
140285	STM14_1897	378450105	-	1664885-1665067	hypothetical protein	1652598-1652780	-	183
140285	STM14_1902	378450110	+	1668962-1669093	hypothetical protein	1656676-1656807	+	132
140285	STM14_1904	378450112	-	1670559-1670702	hypothetical protein	1658273-1658416	-	144
140285	STM14_1911	378450119	-	1679194-1679457	hypothetical protein	1666908-1667171	-	264
140285	STM14_1913	378450121	+	1680178-1680390	hypothetical protein	1667892-1668104	+	213
140285	STM14_1914	378450122	-	1680335-1680472	hypothetical protein	1668049-1668186	-	138
140285	STM14_1915	378450123	+	1680342-1680476	hypothetical protein	1668056-1668190	+	135
140285	STM14_1919	378450127	-	1683664-1683783	hypothetical protein	1671378-1671497	-	120
140285	STM14_1922	378450130	+	1686850-1686969	hypothetical protein	1674564-1674683	+	120
140285	STM14_1923	378450131	-	1686958-1687080	hypothetical protein	1674672-1674794	-	123
140285	STM14_1933	378450141	+	1696703-1696807	hypothetical protein	1684417-1684521	+	105
140285	STM14_1937	378450145	-	1700960-1701190	putative inner membrane protein	1688674-1688904	-	231
140285	STM14_1939	378450147	-	1701681-1701785	hypothetical protein	1689935-1689499	-	105
140285	STM14_1950	378450158	+	1711642-1711749	hypothetical protein	1699356-1699463	+	108
140285	STM14_1961	378450169	+	1719701-1719814	hypothetical protein	1707415-1707528	+	114
140285	STM14_1967	378450175	+	1727480-1727695	hypothetical protein	1715194-1715409	+	216
140285	STM14_1970	378450178	+	1729598-1729999	putative dipicolinate reductase	1717312-1717713	+	402
ST474	STM474_1641	379700799	+	1676859-1677014	hypothetical protein	1717697-1717852	+	156
140285	STM14_1972	378450180	-	1731028-1731132	hypothetical protein	1718742-1718846	-	105
140285	STM14_1973	378450181	+	1731115-1731225	hypothetical protein	1718829-1718939	+	111
140285	STM14_1976	378450184	-	1733662-1733814	hypothetical protein	1721376-1721528	-	153
140285	STM14_1994	378450202	+	1751742-1752041	hypothetical protein	1739456-1739755	+	300
140285	STM14_2004	378450212	-	1762419-1762580	hypothetical protein	1750133-1750294	-	162
140285	STM14_2024	378450229	-	1779789-1779902	hypothetical protein	1767502-1767615	-	114
140285	STM14_2048	378450253	-	1800491-1800637	hypothetical protein	1787493-1787639	-	147
140285	STM14_2049	378450254	+	1800647-1800769	hypothetical protein	1787649-1787771	+	123
140285	STM14_2051	378450256	+	1802254-1802433	hypothetical protein	1789256-1789435	+	180
140285	ycjE	378450257	+	1802408-1802707	putative cytoplasmic protein	1789410-1789709	+	300
140285	STM14_2054	378450259	-	1803682-1803798	hypothetical protein	1790684-1790800	-	117
140285	STM14_2057	378450262	+	1807079-1807216	hypothetical protein	1794081-1794218	+	138
140285	STM14_2061	378450266	-	1810467-1810628	hypothetical protein	1797469-1797630	-	162
140285	STM14_2065	378450270	+	1812029-1812142	hypothetical protein	1799031-1799144	+	114
140285	STM14_2073	378450278	+	1820026-1820190	hypothetical protein	1807028-1807192	+	165
140285	STM14_2076	378450281	-	1823233-1823364	hypothetical protein	1810235-1810366	-	132
140285	STM14_2079	378450284	+	1824904-1825014	hypothetical protein	1811906-1812016	+	111
140285	trpL	378450289	+	1829100-1829144	trp operon leader peptide	1816102-1816146	+	45
140285	ycjG	378450295	+	1836247-1836429	putative cytoplasmic protein	1823249-1823431	+	183
140285	STM14_2111	378450314	+	1851996-1852310	putative inner membrane protein	1838998-1839312	+	315
140285	STM14_2117	378450320	+	1858398-1858580	hypothetical protein	1845400-1845582	+	183
140285	STM14_2123	378450326	-	1863160-1863279	hypothetical protein	1850162-1850281	-	120
140285	STM14_2133	378450333	+	1872924-1873043	hypothetical protein	1859577-1859696	+	120
140285	STM14_2135	378450335	-	1874718-1874903	hypothetical protein	1861371-1861556	-	186
140285	STM14_2151	378450351	-	1888181-1888351	hypothetical protein	1874834-1875004	-	171
140285	STM14_2152	378450352	-	1888329-1888433	hypothetical protein	1874982-1875086	-	105
140285	STM14_2158	378450358	-	1893588-1893701	hypothetical protein	1880241-1880354	-	114
140285	STM14_2160	378450360	-	1895293-1895421	hypothetical protein	1881946-1882074	-	129
140285	STM14_2171	378450371	-	1905555-1905662	hypothetical protein	1892208-1892315	-	108
140285	STM14_2180	378450380	-	1914824-1914934	hypothetical protein	1901477-1901587	-	111
140285	STM14_2187	378450387	+	1920441-1920557	hypothetical protein	1907094-1907210	+	117
140285	STM14_2188	378450388	-	1920620-1920757	putative cytoplasmic protein	1907273-1907410	-	138
140285	STM14_2200	378450400	+	1928329-1928535	hypothetical protein	1914269-1914475	+	207
140285	STM14_2211	378450411	-	1939453-1939788	putative cytoplasmic protein	1925393-1925728	-	336
140285	STM14_2219	378450419	-	1946749-1946859	hypothetical protein	1932689-1932799	-	111
140285	STM14_2222	378450422	+	1947434-1947541	hypothetical protein	1933374-1933481	+	108
140285	STM14_2223	378450423	+	1947556-1947696	hypothetical protein	1933496-1933636	+	141
140285	STM14_2224	378450424	-	1947624-1947740	hypothetical protein	1933564-1933680	-	117
140285	STM14_2229	378450429	-	1949871-1949978	hypothetical protein	1935811-1935918	-	108
140285	STM14_2238	378450438	+	1961391-1961522	hypothetical protein	1947331-1947462	+	132
ST474	STM474_1877	379701031	+	1908925-1909098	hypothetical protein	1948702-1948875	-	174
140285	STM14_2243	378450443	+	1963183-1963311	hypothetical protein	1949123-1949251	+	129
140285	STM14_2245	378450445	+	1964429-1964551	hypothetical protein	1950369-1950491	+	123
140285	STM14_2246	378450446	-	1964644-1964787	hypothetical protein	1950584-1950727	-	144
D23580	STM14_18461	37845260	+	1947071-1947241	hypothetical protein	1951186-1951356	+	171
140285	STM14_2250	378450450	-	1966960-1967154	hypothetical protein	1952900-1953094	-	195
ST474	STM474_1884	379701038	-	1913724-1913852	hypothetical protein	1953501-1953629	-	129
140285	STM14_2261	378450458	+	1973229-1973375	hypothetical protein	1959169-1959315	+	147
140285	STM14_2270	378450466	+	1976705-1976878	hypothetical protein	1960841-1961014	+	174
140285	STM14_2271	378450467	+	1976808-1976927	hypothetical protein	1960944-1961063	+	120
140285	STM14_2276	378450471	-	1979312-1979440	hypothetical protein	1963448-1963576	-	129
140285	STM14_2277	378450472	-	1979524-1979643	putative cytoplasmic protein	1963660-1963779	-	120
140285	STM14_2291	378450486	-	1990827-1990985	hypothetical protein	1974963-1975121	-	159
140285	STM14_2293	378450488	+	1992662-1992787	hypothetical protein	1976798-1976923	+	126
140285	STM14_2294	378450489	+	1992755-1992874	hypothetical protein	1976891-1977010	+	120
140285	STM14_2298	378450493	+	1996367-1996594	hypothetical protein	1980503-1980730	+	228
140285	STM14_2305	378450500	+	2002147-2002269	hypothetical protein	1986283-1986405	+	123

140285	STM14_2306	378450501	-	2002264-2002389	hypothetical protein	1986400-1986525	-	126
140285	STM14_2313	378450507	+	2008446-2008562	hypothetical protein	1992583-1992699	+	117
140285	STM14_2321	378450515	+	2013869-2013985	hypothetical protein	1998006-1998122	+	117
140285	STM14_2323	378450517	+	2015793-2015897	hypothetical protein	1999930-2000034	+	105
140285	STM14_2329	378450523	+	2022930-2023187	hypothetical protein	2007067-2007324	+	258
140285	STM14_2339	378450533	-	2032400-2032531	hypothetical protein	2016537-2016668	-	132
140285	STM14_2342	378450536	-	2033684-2033827	hypothetical protein	2017821-2017964	-	144
140285	STM14_2343	378450537	+	2034145-2034261	hypothetical protein	2018282-2018398	+	117
140285	STM14_2349	378450542	+	2038156-2038305	hypothetical protein	2022292-2022441	+	150
D23580	STMMW_19262	378445334	-	2022476-2022553	hypothetical protein	2034507-2034584	-	78
140285	STM14_2379	378450569	-	2060568-2060705	hypothetical protein	2044704-2044841	-	138
140285	STM14_2389	378450579	-	2067774-2067902	hypothetical protein	2051910-2052038	-	129
140285	STM14_2411	378450600	+	2084253-2084468	hypothetical protein	2068389-2068604	+	216
140285	STM14_2417	378450606	+	2088843-2088962	hypothetical protein	2072979-2073098	+	120
140285	STM14_2419	378450608	-	2090431-2090643	putative cold-shock protein	2074567-2074779	-	213
140285	STM14_2421	378450610	-	2091089-2091208	hypothetical protein	2075225-2075344	-	120
140285	STM14_2425	378450614	-	2093253-2093495	hypothetical protein	2077389-2077631	-	243
SL1344	SL1344_1980	378699918	+	2082737-2083009	hypothetical protein	2080563-2080835	+	273
ST474	STM474_2085	379701227	-	2082744-2082878	hypothetical protein	2080570-2080704	-	135
798	UMN798_2172	383496723	-	2087536-2087634	hypothetical protein	2086001-2086099	-	99
140285	STM14_2494	378450678	-	2142487-2142741	hypothetical protein	2086477-2086731	-	255
D23580	STMMW_20421	378445447	+	2116462-2116623	hypothetical protein	2088348-2088509	+	162
140285	STM14_2497	378450681	-	2144828-2145214	hypothetical protein	2088818-2089204	-	387
140285	STM14_2498	378450682	+	2145540-2145707	hypothetical protein	2089530-2089697	+	168
140285	STM14_2501	378450684	-	2147387-2147539	hypothetical protein	2091377-2091529	-	153
140285	STM14_2524	378450706	-	2165668-2165799	hypothetical protein	2109658-2109789	-	132
140285	STM14_2549	378450731	-	2185570-2185701	hypothetical protein	2129559-2129690	-	132
140285	STM14_2556	378450738	-	2192950-2193219	hypothetical protein	2136939-2137208	-	270
140285	STM14_2558	378450740	-	2195674-2195796	hypothetical protein	2139663-2139785	-	123
140285	STM14_2561	378450743	+	2198729-2198896	hypothetical protein	2142718-2142885	+	168
140285	STM14_2562	378450744	-	2198740-2198937	hypothetical protein	2142729-2142926	-	198
140285	STM14_2599	378450781	+	2239941-2240216	hypothetical protein	2183930-2184205	+	276
140285	STM14_2614	378450796	+	2254277-2254522	hypothetical protein	2198266-2198511	+	246
140285	STM14_2623	378450805	-	2265633-2265749	hypothetical protein	2209622-2209738	-	117
140285	STM14_2635	378450816	-	2282708-2282821	hypothetical protein	2226697-2226810	-	114
140285	STM14_2638	378450818	-	2284669-2285004	putative inner membrane protein	2228658-2228993	-	336
140285	STM14_2639	378450819	+	2285114-2285233	hypothetical protein	2229103-2229222	+	120
140285	STM14_2640	378450820	-	2285366-2285482	hypothetical protein	2229355-2229471	-	117
140285	STM14_2649	378450829	-	2293497-2293682	hypothetical protein	2237486-2237671	-	186
140285	STM14_2651	378450831	-	2294185-2294343	hypothetical protein	2238174-2238332	-	159
ST474	STM474_2254	379701393	+	2258581-2258763	hypothetical protein	2256407-2256589	+	183
140285	STM14_2671	378450851	-	2315124-2315237	hypothetical protein	2259113-2259226	-	114
140285	STM14_2674	378450854	-	2317916-2318191	hypothetical protein	2261905-2262180	-	276
140285	STM14_2676	378450856	+	2318810-2318917	hypothetical protein	2262799-2262906	+	108
140285	STM14_2680	378450860	+	2322009-2322206	hypothetical protein	2265998-2266195	+	198
140285	STM14_2697	378450877	+	2338065-2338184	hypothetical protein	2282054-2282173	+	120
140285	STM14_2701	378450881	+	2340683-2340847	hypothetical protein	2284672-2284836	+	165
140285	STM14_2704	378450884	-	2342649-2342762	hypothetical protein	2286638-2286751	-	114
140285	STM14_2705	378450885	-	2342720-2342848	hypothetical protein	2286709-2286837	-	129
140285	STM14_2706	378450886	+	2342834-2343067	hypothetical protein	2286823-2287056	+	234
140285	STM14_2710	378450890	-	2345635-2345787	hypothetical protein	2289624-2289776	-	153
140285	STM14_2716	378450896	-	2351963-2352097	hypothetical protein	2295953-2296087	-	135
140285	STM14_2718	378450898	-	2352991-2353110	hypothetical protein	2296981-2297100	-	120
ST474	STM474_2293	379701432	-	2300273-2300395	hypothetical protein	2298100-2298222	-	123
140285	STM14_2724	378450904	+	2358928-2359059	hypothetical protein	2302918-2303049	+	132
UK1	STMUK_2237	378989594	-	2307167-2307274	hypothetical protein	2302965-2303072	-	108
140285	STM14_2725	378450905	+	2359144-2359266	hypothetical protein	2303134-2303256	+	123
140285	STM14_2726	378450906	-	2359149-2359277	hypothetical protein	2303139-2303267	-	129
140285	STM14_2729	378450909	-	2361189-2361311	putative inner membrane protein	2305179-2305301	-	123
140285	STM14_2730	378450910	-	2361472-2361576	hypothetical protein	2305462-2305566	-	105
140285	STM14_2736	378450915	-	2364975-2365205	hypothetical protein	2308965-2309195	-	231
140285	STM14_2738	378450917	+	2365897-2366040	hypothetical protein	2309887-2310030	+	144
140285	STM14_2750	378450929	-	2378246-2378392	hypothetical protein	2322236-2322382	-	147
140285	STM14_2764	378450942	-	2389094-2389207	hypothetical protein	2333084-2333197	-	114
140285	STM14_2770	378450948	-	2394973-2395176	putative phage tail fiber protein	2338963-2339166	-	204
140285	STM14_2774	378450952	+	2397715-2397861	hypothetical protein	2341705-2341851	+	147
140285	STM14_2791	378450969	+	2411310-2411441	hypothetical protein	2355300-2355431	+	132
140285	STM14_2798	378450976	+	2418131-2418256	hypothetical protein	2362121-2362246	+	126
140285	STM14_2803	378450980	-	2425164-2425280	hypothetical protein	2369154-2369270	-	117
140285	STM14_2805	378450982	+	2427980-2428210	hypothetical protein	2371970-2372200	+	231
140285	STM14_2806	378450983	+	2428153-2428293	hypothetical protein	2372143-2372283	+	141
140285	STM14_2811	378450988	+	2432657-2432773	hypothetical protein	2376647-2376763	+	117
140285	STM14_2822	378450999	+	2445948-2446052	hypothetical protein	2389938-2390042	+	105
140285	STM14_2823	378451000	+	2446155-2446358	hypothetical protein	2390145-2390348	+	204
140285	STM14_2834	378451011	+	2455277-2455405	hypothetical protein	2399267-2399395	+	129
140285	STM14_2854	378451030	-	2475407-2475529	hypothetical protein	2419398-2419520	-	123
140285	STM14_2855	378451031	+	2475538-2475645	hypothetical protein	2419529-2419636	+	108
140285	STM14_2856	378451032	+	2475654-2475836	hypothetical protein	2419645-2419827	+	183
140285	STM14_2870	378451046	+	2491031-2491153	hypothetical protein	2435022-2435144	+	123
140285	STM14_2871	378451047	-	2491241-2491357	hypothetical protein	2435232-2435348	-	117
140285	STM14_2872	378451048	-	2491445-2491597	putative cytoplasmic protein	2435436-2435588	-	153
140285	STM14_2880	378451056	-	2499179-2499430	hypothetical protein	2443170-2443421	-	252
140285	STM14_2881	378451057	+	2499320-2499454	hypothetical protein	2443311-2443445	+	135
140285	STM14_2902	378451078	+	2517875-2518045	hypothetical protein	2461866-2462036	+	171
140285	STM14_2911	378451087	-	2527947-2528102	hypothetical protein	2471938-2472093	-	156
140285	STM14_2921	378451097	+	2537322-2537438	hypothetical protein	2481313-2481429	+	117
140285	STM14_2940	378451116	+	2553683-2553823	hypothetical protein	2497674-2497814	+	141
140285	STM14_2941	378451117	-	2553820-2553948	hypothetical protein	2497811-2497939	-	129
140285	STM14_2955	378451130	-	2569137-2569283	hypothetical protein	2513128-2513274	-	147
140285	STM14_2959	378451134	+	2573587-2573775	hypothetical protein	2517578-2517766	+	189
140285	STM14_2986	378451155	+	2595762-2595923	hypothetical protein	2539635-2539796	+	162
140285	STM14_2988	378451157	+	2595966-2596094	hypothetical protein	2539839-2539967	+	129
140285	STM14_3032	378451201	+	2633812-2634012	hypothetical protein	2577685-2577885	+	201

14028S	STM14_3036	378451205	-	2637342-2637476	hypothetical protein	2581215-2581349	-	135
14028S	STM14_3043	378451212	-	2645096-2645227	hypothetical protein	2588969-2589100	-	132
14028S	STM14_3063	378451232	-	2664349-2664552	hypothetical protein	2608221-2608424	-	204
14028S	STM14_3069	378451238	-	2672447-2672584	putative cytoplasmic protein	2616319-2616456	-	138
14028S	STM14_3070	378451239	-	2672655-2672915	putative inner membrane protein	2616527-2616787	-	261
14028S	STM14_3072	378451241	-	2673033-2673269	putative inner membrane protein	2616905-2617141	-	237
14028S	STM14_3079	378451248	+	2685671-2685784	hypothetical protein	2629543-2629656	+	114
14028S	STM14_3080	378451249	+	2685675-2685857	hypothetical protein	2629547-2629729	+	183
ST474	STM474_2618	379701745	+	2646222-2646344	hypothetical protein	2643931-2644053	+	123
14028S	STM14_3086	378451254	+	2702354-2702470	hypothetical protein	2646227-2646343	+	117
14028S	STM14_3087	378451255	-	2702529-2702684	hypothetical protein	2646402-2646557	-	156
14028S	STM14_3090	378451258	+	2704480-2704581	hypothetical protein	2648353-2648454	+	102
14028S	STM14_3096	378451264	-	2710094-2710216	type IV pilus biogenesis/stability protein PilV	2653967-2654089	-	123
14028S	STM14_3099	378451267	+	2712052-2712147	hypothetical protein	2655925-2656020	+	96
14028S	STM14_3107	378451275	-	2725280-2725504	hypothetical protein	2669153-2669377	-	225
ST474	STM474_2636	379701763	+	2671480-2671593	hypothetical protein	2669189-2669302	+	114
14028S	STM14_3119	378451287	+	2734356-2734475	hypothetical protein	2678229-2678348	+	120
14028S	STM14_3122	378451290	+	2735856-2735978	hypothetical protein	2679729-2679851	+	123
14028S	STM14_3123	378451291	-	2735883-2735993	hypothetical protein	2679756-2679866	-	111
14028S	STM14_3134	378451302	-	2746625-2746771	hypothetical protein	2690498-2690644	-	147
14028S	STM14_3144	378451312	+	2759420-2759548	hypothetical protein	2703293-2703421	+	129
14028S	STM14_3166	378451334	+	2782885-2783430	transposase-like protein	2726764-2727309	+	546
SL1344	SL1344_2548	378700486	-	2730253-2730318	bacteriophage protein	2727974-2728039	-	66
D23580	STM14_26031	378446002	-	2757050-2757262	putative prophage protein	2728102-2728314	-	213
14028S	STM14_3167	378451335	+	2784542-2784769	PagK-like protein	2728421-2728648	+	228
14028S	STM14_1473	378449695	-	1321447-1322052	hypothetical protein	2736957-2737562	+	606
14028S	STM14_3202	378451368	-	2814160-2814285	hypothetical protein	2758034-2758159	-	126
14028S	STM14_3227	378451393	+	2829159-2829443	excisionase-like protein	2770726-2771010	+	285
14028S	STM14_3229	378451395	+	2830868-2831005	hypothetical protein	2772435-2772572	+	138
14028S	STM14_3230	378451396	-	2831002-2831118	hypothetical protein	2772569-2772685	-	117
14028S	STM14_3235	378451401	-	2833834-2833998	hypothetical protein	2775401-2775565	-	165
14028S	STM14_3236	378451402	-	2833998-2834177	hypothetical protein	2775565-2775744	-	180
14028S	STM14_3239	378451405	-	2836525-2836725	putative methyltransferase	2778092-2778292	-	201
14028S	STM14_3249	378451415	+	2846371-2846505	hypothetical protein	2787938-2788072	+	135
14028S	STM14_3259	378451420	+	2855709-2855837	hypothetical protein	2797193-2797321	+	129
14028S	STM14_3260	378451421	+	2855915-2856031	hypothetical protein	2797399-2797515	+	117
14028S	STM14_3272	378451432	+	2866577-2866735	hypothetical protein	2836226-2836384	+	159
14028S	STM14_3273	378451433	-	2866637-2866750	hypothetical protein	2836286-2836399	-	114
14028S	STM14_3280	378451440	-	2870862-2871008	hypothetical protein	2840511-2840657	-	147
14028S	STM14_3282	378451442	+	2872506-2872700	putative cytochrome c-type biogenesis protein (heme exporter)	2842155-2842349	+	195
UK1	STMUK_2717	378990059	-	2824344-2824538	putative cytoplasmic protein	2845740-2845934	-	195
14028S	STM14_3291	378451450	-	2879362-2879469	hypothetical protein	2849011-2849118	-	108
14028S	STM14_3295	378451454	+	2881056-2881160	hypothetical protein	2850705-2850809	+	105
14028S	STM14_3296	378451455	-	2881388-2881540	hypothetical protein	2851037-2851189	-	153
ST474	STM474_2816	379701937	+	2855546-2855689	hypothetical protein	2867924-2868067	+	144
14028S	STM14_3309	378451467	+	2905915-2906040	hypothetical protein	2909256-2909381	+	126
14028S	STM14_3312	378451470	-	2908421-2908582	hypothetical protein	2911762-2911923	-	162
14028S	STM14_3324	378451481	-	2917712-2917867	hypothetical protein	2921053-2921208	-	156
14028S	STM14_3326	378451483	-	2919626-2919739	hypothetical protein	2922967-2923080	-	114
ST474	STM474_2898	379702018	-	2927700-2927858	hypothetical protein	2928700-2928858	-	159
14028S	STM14_3340	378451496	+	2935806-2935976	hypothetical protein	2939137-2939307	+	171
14028S	STM14_3341	378451497	-	2936002-2936229	hypothetical protein	2939333-2939560	-	228
14028S	STM14_3342	378451498	-	2936297-2936449	hypothetical protein	2939628-2939780	-	153
14028S	STM14_3343	378451499	+	2936325-2936507	hypothetical protein	2939656-2939838	+	183
D23580	STM14_27451	378446140	-	2919280-2919612	putative inner membrane protein	2949861-2950193	-	333
14028S	STM14_3351	378451506	+	2948161-2948499	hypothetical protein	2951492-2951830	+	339
14028S	STM14_3353	378451508	+	2949636-2949833	hypothetical protein	2952967-2953164	+	198
14028S	STM14_3355	378451510	-	2950805-2950957	hypothetical protein	2954136-2954288	-	153
14028S	STM14_3356	378451511	+	2951059-2951226	hypothetical protein	2954390-2954557	+	168
14028S	STM14_3364	378451519	+	2957937-2958050	hypothetical protein	2961268-2961381	+	114
14028S	STM14_3372	378451527	+	2965822-2965938	hypothetical protein	2969153-2969269	+	117
14028S	STM14_3378	378451533	+	2968220-2968345	hypothetical protein	2971551-2971676	+	126
14028S	STM14_3379	378451534	+	2968355-2968534	hypothetical protein	2971686-2971865	+	180
14028S	STM14_3382	378451537	-	2969378-2969494	hypothetical protein	2972709-2972825	-	117
14028S	STM14_3386	378451541	+	2971817-2971993	hypothetical protein	2975148-2975324	+	177
14028S	STM14_3394	378451549	+	2979522-2979632	hypothetical protein	2982853-2982963	+	111
14028S	STM14_3396	378451551	-	2981060-2981167	hypothetical protein	2984391-2984498	-	108
14028S	STM14_3398	378451553	-	2981900-2982022	hypothetical protein	2985231-2985353	-	123
14028S	STM14_3411	378451561	+	2991063-2991173	hypothetical protein	2994255-2994365	+	111
14028S	STM14_3414	378451564	+	2994186-2994350	hypothetical protein	2997378-2997542	+	165
14028S	STM14_3415	378451565	+	2994269-2994475	hypothetical protein	2997461-2997667	-	207
14028S	STM14_3419	378451569	+	2996927-2997172	hypothetical protein	3000119-3000364	+	246
14028S	STM14_3421	378451571	+	2998326-2998466	hypothetical protein	3001518-3001658	+	141
14028S	STM14_3427	378451577	-	3001727-3001867	hypothetical protein	3004919-3005059	-	141
14028S	STM14_3433	378451583	-	3007751-3007963	hydrogenase maturation protein	3010943-3011155	-	213
14028S	STM14_3435	378451585	-	3010214-3010348	hypothetical protein	3013406-3013540	-	135
14028S	STM14_3437	378451587	-	3010872-3011006	hypothetical protein	3014064-3014198	-	135
14028S	STM14_3447	378451597	-	3019238-3019342	hypothetical protein	3022430-3022534	-	105
14028S	STM14_3449	378451599	+	3019869-3020072	hypothetical protein	3023061-3023264	+	204
14028S	STM14_3457	378451607	+	3026426-3026551	hypothetical protein	3029618-3029743	+	126
14028S	STM14_3464	378451614	+	3032212-3032319	hypothetical protein	3035405-3035512	+	108
14028S	STM14_3466	378451616	-	3033296-3033403	hypothetical protein	3036489-3036596	-	108
14028S	STM14_3502	378451652	-	3066393-3066497	hypothetical protein	3069586-3069690	-	105
D23580	STM14_28661	378446261	+	3039872-3039979	pathogenicity island 1 protein	3070314-3070421	+	108
14028S	STM14_3504	378451654	-	3067340-3067483	hypothetical protein	3070533-3070676	-	144
14028S	STM14_3508	378451657	+	3068687-3068806	hypothetical protein	3071880-3071999	+	120
14028S	STM14_3510	378451659	-	3069836-3070357	putative cytoplasmic protein	3073029-3073550	-	522
14028S	STM14_3528	378451677	+	3087981-3088118	hypothetical protein	3091174-3091311	+	138
14028S	STM14_3535	378451684	-	3092010-3092120	hypothetical protein	3095203-3095313	-	111
14028S	STM14_3549	378451698	-	3106978-3107112	hypothetical protein	3110048-3110182	-	135
ST474	STM474_3093	379702206	+	3116333-3116446	hypothetical protein	3117567-3117680	+	114
ST474	STM474_3094	379702207	-	3117516-3117629	hypothetical protein	3118933-3119046	-	114
14028S	STM14_3560	378451709	+	3121321-3121458	hypothetical protein	3124757-3124894	+	138

140285	STM14_3561	378451710	+	3121826-3121978	putative fibrin subunit	3125262-3125414	+	153
140285	STM14_3571	378451720	+	3134509-3134736	hypothetical protein	3137945-3138172	+	228
140285	STM14_3579	378451727	+	3140022-3140165	hypothetical protein	3143458-3143601	+	144
140285	STM14_3580	378451728	+	3140255-3140359	hypothetical protein	3143691-3143795	+	105
140285	STM14_3583	378451731	-	3143293-3143478	hypothetical protein	3146729-3146914	-	186
140285	STM14_3585	378451733	-	3144205-3144342	L-1,2-propanediol oxidoreductase	3147641-3147778	-	138
140285	STM14_3588	378451736	-	3146280-3146447	hypothetical protein	3149716-3149883	-	168
140285	STM14_3600	378451747	+	3157563-3157685	hypothetical protein	3160999-3161121	+	123
140285	STM14_3616	378451761	+	3177651-3177833	hypothetical protein	3181087-3181269	+	183
140285	STM14_3619	378451764	-	3179499-3179657	hypothetical protein	3182935-3183093	-	159
140285	STM14_3622	378451767	-	3182548-3182661	hypothetical protein	3185984-3186097	-	114
140285	STM14_3623	378451768	+	3182641-3182757	hypothetical protein	3186077-3186193	+	117
140285	STM14_3624	378451769	-	3182858-3183004	hypothetical protein	3186294-3186440	-	147
140285	STM14_3625	378451770	+	3183029-3183154	hypothetical protein	3186465-3186590	+	126
140285	STM14_3626	378451771	-	3183053-3183160	hypothetical protein	3186489-3186596	-	108
140285	STM14_3628	378451773	+	3183985-3184095	hypothetical protein	3187421-3187531	+	111
140285	STM14_3631	378451776	+	3185172-3185342	hypothetical protein	3188860-3188778	+	171
D23580	STMMW_29721	378446366	-	3162322-3162468	hypothetical protein	3193557-3193703	-	147
140285	STM14_3635	378451780	-	3190309-3190434	hypothetical protein	3193745-3193870	-	126
140285	STM14_3642	378451787	-	3197131-3197247	hypothetical protein	3200567-3200683	-	117
140285	STM14_3645	378451790	-	3199028-3199198	hypothetical protein	3202464-3202634	-	171
140285	STM14_3649	378451794	+	3202193-3202315	hypothetical protein	3205629-3205751	+	123
140285	STM14_3658	378451803	+	3210549-3210968	hypothetical protein	3213961-3214380	+	420
140285	STM14_3662	378451807	-	3213534-3213719	hypothetical protein	3216946-3217131	-	186
140285	STM14_3666	378451810	-	3215425-3215670	hypothetical protein	3219549-3219794	-	246
140285	STM14_3670	378451813	+	3217519-3217686	hypothetical protein	3221643-3221810	+	168
140285	STM14_3686	378451829	-	3230904-3231050	immunoglobulin VH domain protein	3235028-3235174	-	147
140285	STM14_3690	378451833	+	3235813-3235968	hypothetical protein	3239937-3240092	+	156
140285	STM14_3691	378451834	+	3236175-3236279	hypothetical protein	3240299-3240403	+	105
140285	STM14_3693	378451836	+	3237457-3237624	hypothetical protein	3241581-3241748	+	168
140285	STM14_3700	378451843	+	3243685-3243795	hypothetical protein	3247809-3247919	+	111
140285	STM14_3702	378451845	+	3244595-3244732	hypothetical protein	3248719-3248856	+	138
140285	STM14_3704	378451847	+	3245634-3245885	hypothetical protein	3249758-3250009	+	252
140285	STM14_3711	378451854	+	3252233-3252433	hypothetical protein	3256357-3256557	+	201
140285	STM14_3718	378451861	+	3257540-3257698	hypothetical protein	3261664-3261822	+	159
140285	STM14_3722	378451865	+	3260720-3260824	hypothetical protein	3264844-3264948	+	105
UK1	STMUK_3076	378990408	+	3217903-3218067	putative cytoplasmic protein	3274440-3274604	+	165
140285	STM14_3734	378451876	-	3271996-3272121	hypothetical protein	3276138-3276263	-	126
140285	STM14_3751	378451893	-	3285668-3285820	hypothetical protein	3289810-3289962	-	153
140285	STM14_3757	378451899	-	3289138-3289263	hypothetical protein	3293280-3293405	-	126
140285	STM14_3759	378451901	-	3290425-3290550	hypothetical protein	3294567-3294692	-	126
140285	STM14_3762	378451903	-	3293235-3293459	hypothetical protein	3298246-3298470	-	225
140285	STM14_3773	378451913	-	3301831-3301965	hypothetical protein	3306842-3306976	-	135
140285	STM14_3774	378451914	+	3302110-3302214	hypothetical protein	3307121-3307225	+	105
140285	STM14_3779	378451919	-	3305240-3305395	putative cytoplasmic protein	3310251-3310406	-	156
140285	STM14_3783	378451923	+	3308724-3308864	hypothetical protein	3313735-3313875	+	141
140285	STM14_3786	378451926	+	3310018-3310173	hypothetical protein	3315029-3315184	+	156
140285	STM14_3789	378451928	+	3312290-3312427	hypothetical protein	3317303-3317440	+	138
140285	STM14_3790	378451929	-	3312496-3312606	hypothetical protein	3317509-3317619	-	111
140285	STM14_3792	378451931	+	3314050-3314181	hypothetical protein	3319063-3319194	+	132
140285	STM14_3793	378451932	-	3314188-3314334	hypothetical protein	3319201-3319347	-	147
140285	STM14_3794	378451933	+	3314216-3314410	hypothetical protein	3319229-3319423	+	195
140285	STM14_3798	378451937	+	3318584-3318703	hypothetical protein	3323597-3323716	+	120
140285	STM14_3800	378451939	-	3319990-3320106	hypothetical protein	3325003-3325119	-	117
140285	STM14_3801	378451940	+	3320290-3320487	hypothetical protein	3325303-3325500	+	198
140285	STM14_3803	378451942	-	3322464-3322571	hypothetical protein	3327477-3327584	-	108
ST474	STM474_3301	379702409	-	3334473-3334658	hypothetical protein	3337034-3337219	-	186
140285	STM14_3815	378451954	+	3332051-3332179	hypothetical protein	3337064-3337192	+	129
140285	STM14_0363	378448623	-	352120-352227	hypothetical protein	3340187-3340294	+	108
140285	STM14_3830	378451969	+	3342234-3342434	hypothetical protein	3347247-3347447	+	201
140285	STM14_3833	378451972	-	3344492-3344629	hypothetical protein	3349505-3349642	-	138
140285	STM14_3834	378451973	+	3344530-3344640	hypothetical protein	3349543-3349653	+	111
ST474	STM474_3318	379702426	-	3348584-3348700	hypothetical protein	3351144-3351260	-	117
140285	STM14_3837	378451976	+	3346625-3346789	hypothetical protein	3351637-3351801	+	165
140285	STM14_3840	378451979	-	3349441-3349545	hypothetical protein	3354453-3354557	-	105
140285	STM14_3851	378451990	+	3361049-3361165	hypothetical protein	3366061-3366177	+	117
ST474	STM474_3334	379702442	-	3364546-3364662	hypothetical protein	3367106-3367222	-	117
140285	STM14_3860	378451999	+	3368291-3368398	hypothetical protein	3373303-3373410	+	108
140285	STM14_3872	378452011	-	3377873-3378022	hypothetical protein	3382884-3383033	-	150
140285	STM14_3875	378452014	+	3380454-3380651	hypothetical protein	3385465-3385662	+	198
140285	STM14_3895	378452033	+	3402540-3402695	hypothetical protein	3407551-3407706	+	156
140285	STM14_3901	378452039	-	3408358-3408459	hypothetical protein	3413369-3413470	-	102
140285	STM14_3904	378452042	+	3410298-3410435	hypothetical protein	3415309-3415446	+	138
140285	STM14_3907	378452045	-	3412994-3413194	hypothetical protein	3418005-3418205	-	201
ST474	STM474_3403	379702507	+	3435178-3435297	hypothetical protein	3437737-3437856	+	120
D23580	STMMW_32461	378446633	+	3437229-3437615	hypothetical protein	3438069-3438455	+	387
140285	STM14_3932	378452069	-	3436508-3436648	hypothetical protein	3441519-3441659	-	141
140285	STM14_3933	378452070	+	3436575-3436694	hypothetical protein	3441586-3441705	+	120
140285	STM14_3934	378452071	+	3436648-3436776	hypothetical protein	3441659-3441787	+	129
140285	STM14_3938	378452075	+	3440518-3440661	hypothetical protein	3445529-3445672	+	144
140285	STM14_3965	378452100	-	3464611-3464718	hypothetical protein	3474691-3474798	-	108
140285	STM14_3996	378452128	-	3490436-3490546	hypothetical protein	3499804-3499914	-	111
140285	STM14_4018	378452150	-	3508092-3508241	hypothetical protein	3517460-3517609	-	150
140285	STM14_4019	378452151	-	3508281-3508475	hypothetical protein	3517649-3517843	-	195
140285	STM14_4023	378452155	+	3515633-3515794	hypothetical protein	3525001-3525162	+	162
140285	STM14_4034	378452166	+	3525086-3525205	hypothetical protein	3534454-3534573	+	120
140285	STM14_4051	378452183	-	3540466-3540597	malate dehydrogenase	3549831-3549962	-	132
140285	STM14_4053	378452185	+	3541795-3541923	hypothetical protein	3551160-3551288	+	129
ST474	STM474_3527	379702628	-	3554690-3554815	hypothetical protein	3556534-3556659	-	126
140285	STM14_4069	378452201	+	3558566-3558757	hypothetical protein	3567931-3568122	+	192
140285	STM14_4074	378452206	-	3563669-3563851	hypothetical protein	3573034-3573216	-	183
140285	STM14_4075	378452207	+	3563867-3563971	hypothetical protein	3573232-3573336	+	105
140285	STM14_4081	378452213	-	3568595-3568738	hypothetical protein	3577960-3578103	-	144

140285	STM14_4088	378452220	-	3574592-3574753	hypothetical protein	3583957-3584118	-	162
140285	STM14_4089	378452221	+	3574662-3574820	hypothetical protein	3584027-3584185	+	159
140285	STM14_4093	378452225	+	3579746-3579922	hypothetical protein	3589111-3589287	+	177
140285	STM14_4094	378452226	-	3580182-3580316	hypothetical protein	3589547-3589681	-	135
140285	STM14_4095	378452227	+	3580370-3580480	hypothetical protein	3589735-3589845	+	111
140285	STM14_4148	378452275	-	3611988-3612179	elongation factor Tu	3621394-3621585	-	192
ST474	STM474_3611	379702705	+	3620933-3621070	hypothetical protein	3622715-3622852	+	138
140285	STM14_4163	378452290	+	3623551-3623655	hypothetical protein	3632957-3633061	+	105
140285	STM14_4167	378452293	+	3626355-3626480	hypothetical protein	3635761-3635886	+	126
140285	STM14_4180	378452306	+	3635785-3635937	hypothetical protein	3645191-3645343	+	153
140285	STM14_4182	378452308	-	3637245-3637421	hypothetical protein	3646651-3646827	-	177
140285	STM14_4185	378452311	-	3640241-3640396	hypothetical protein	3649647-3649802	-	156
140285	STM14_4192	378452318	-	3649991-3650131	hypothetical protein	3659361-3659501	-	141
140285	STM14_4207	378452333	-	3663870-3663983	hypothetical protein	3673240-3673353	-	114
140285	STM14_4213	378452339	-	3670273-3670407	hypothetical protein	3679643-3679777	-	135
140285	STM14_4214	378452340	+	3670342-3670449	hypothetical protein	3679712-3679819	+	108
140285	STM14_4220	378452346	+	3677538-3677768	hypothetical protein	3686908-3687138	+	231
140285	STM14_4224	378452350	+	3680653-3680766	hypothetical protein	3690023-3690136	+	114
140285	STM14_4229	378452355	-	3684140-3684289	hypothetical protein	3693510-3693659	-	150
140285	STM14_4233	378452359	-	3690393-3690500	hypothetical protein	3699763-3699870	-	108
140285	STM14_4240	378452366	-	3698369-3698491	hypothetical protein	3707939-3708061	-	123
140285	STM14_4243	378452369	-	3700901-3701017	hypothetical protein	3710471-3710587	-	117
140285	STM14_4259	378452384	-	3722125-3722298	hypothetical protein	3731695-3731868	-	174
140285	STM14_4261	378452386	+	3723463-3723627	hypothetical protein	3733033-3733197	+	165
140285	STM14_4263	378452387	+	3723698-3723940	putative inner membrane protein	3733268-3733510	+	243
140285	STM14_4269	378452393	+	3728906-3729031	hypothetical protein	3738476-3738601	+	126
140285	STM14_4270	378452394	+	3729191-3729319	hypothetical protein	3738761-3738889	+	129
140285	STM14_4277	378452401	+	3735927-3736031	hypothetical protein	3745498-3745602	+	105
140285	STM14_4291	378452415	-	3747318-3747434	hypothetical protein	3756889-3757005	-	117
140285	STM14_4293	378452417	+	3747983-3748117	putative cytoplasmic protein	3757554-3757688	+	135
140285	STM14_4296	378452420	+	3750462-3750605	hypothetical protein	3760033-3760176	+	144
140285	STM14_4316	378452440	+	3770553-3770684	hypothetical protein	3780124-3780255	+	132
140285	STM14_4325	378452449	+	3781138-3781305	hypothetical protein	3790706-3790873	+	168
140285	STM14_4333	378452457	+	3789092-3789217	hypothetical protein	3798287-3798412	+	126
140285	STM14_4336	378452460	-	3792675-3792815	hypothetical protein	3801870-3802010	-	141
140285	STM14_4339	378452463	-	3794036-3794179	hypothetical protein	3803231-3803374	-	144
140285	STM14_4340	378452464	+	3794140-3794265	hypothetical protein	3803335-3803460	+	126
140285	STM14_4343	378452467	+	3796527-3796667	hypothetical protein	3805722-3805862	+	141
140285	STM14_4347	378452471	-	3801111-3801227	hypothetical protein	3810306-3810422	-	117
140285	STM14_4350	378452474	+	3803739-3803876	hypothetical protein	3812934-3813071	+	138
140285	STM14_4352	378452476	-	3805315-3805461	hypothetical protein	3814510-3814656	-	147
140285	STM14_4354	378452478	-	3807400-3807591	hypothetical protein	3816595-3816786	-	192
140285	STM14_4361	378452485	+	3818231-3818344	hypothetical protein	3827426-3827539	+	114
140285	STM14_4366	378452489	-	3822083-3822277	hypothetical protein	3831278-3831472	-	195
140285	STM14_4374	378452497	-	3827982-3828101	hypothetical protein	3837177-3837296	-	120
140285	STM14_4379	378452502	+	3832815-3832976	hypothetical protein	3842010-3842171	+	162
140285	STM14_4388	378452509	+	3842019-3842180	hypothetical protein	3851224-3851385	+	162
140285	STM14_4393	378452514	+	3846344-3846445	hypothetical protein	3855549-3855650	+	102
140285	STM14_4395	378452516	-	3847245-3847379	hypothetical protein	3856450-3856584	-	135
140285	STM14_4403	378452524	-	3852193-3852324	hypothetical protein	3861398-3861529	-	132
140285	STM14_4408	378452528	+	3856473-3856610	hypothetical protein	3865678-3865815	+	138
140285	STM14_4410	378452530	-	3856798-3857019	hypothetical protein	3866003-3866224	-	222
140285	STM14_4415	378452535	+	3861460-3861693	hypothetical protein	3870665-3870898	+	234
140285	STM14_4416	378452536	-	3861562-3861738	hypothetical protein	3870767-3870943	-	177
140285	STM14_4419	378452539	+	3863890-3864222	hypothetical protein	3873095-3873427	+	333
140285	STM14_4424	378452544	-	3869165-3869311	hypothetical protein	3878370-3878516	-	147
140285	STM14_4437	378452557	+	3881551-3881694	hypothetical protein	3890756-3890899	+	144
140285	STM14_4448	378452568	+	3893735-3893932	hypothetical protein	3902940-3903137	+	198
ST474	STM474_3868	379702957	+	3911348-3911467	hypothetical protein	3912928-3913047	-	120
140285	STM14_4456	378452576	+	3904878-3905129	hypothetical protein	3914082-3914333	+	252
140285	STM14_4485	378452605	-	3932731-3932850	hypothetical protein	3941935-3942054	-	120
140285	STM14_4497	378452617	+	3941019-3941198	hypothetical protein	3950223-3950402	+	180
140285	STM14_4501	378452621	+	3943928-3944110	hypothetical protein	3953132-3953314	+	183
140285	STM14_4504	378452624	+	3946552-3946725	hypothetical protein	3955756-3955929	+	174
140285	STM14_4512	378452632	-	3954806-3954916	hypothetical protein	3964010-3964120	-	111
140285	STM14_4518	378452637	+	3962472-3962597	hypothetical protein	3971676-3971801	+	126
140285	STM14_4520	378452639	+	3963213-3963356	hypothetical protein	3972417-3972560	+	144
140285	STM14_4521	378452640	-	3963387-3963497	hypothetical protein	3972591-3972701	-	111
D23580	STM14_37491	378447126	-	3981984-3982097	putative product	3982004-3982117	-	114
140285	STM14_4531	378452648	+	3973351-3973476	hypothetical protein	3982555-3982680	+	126
140285	STM14_3040	378451209	+	2640806-2640913	hypothetical protein	3983456-3983563	-	108
140285	STM14_4535	378452652	+	3974935-3975075	hypothetical protein	3984139-3984279	+	141
140285	STM14_4537	378452654	+	3978059-3978172	hypothetical protein	3987263-3987376	+	114
140285	STM14_4539	378452656	+	3979055-3979171	hypothetical protein	3988259-3988375	+	117
140285	STM14_4540	378452657	-	3979172-3979297	hypothetical protein	3988376-3988501	-	126
140285	STM14_4549	378452666	+	3986024-3986146	hypothetical protein	3995228-3995350	+	123
140285	STM14_4551	378452668	-	3989051-3989164	hypothetical protein	3998255-3998368	-	114
140285	STM14_4553	378452670	+	3989514-3989657	hypothetical protein	3998718-3998861	+	144
140285	STM14_4565	378452682	-	3999123-3999230	hypothetical protein	4090542-4090649	-	108
140285	STM14_4567	378452684	-	3999764-3999871	hypothetical protein	4091183-4091290	-	108
140285	STM14_4578	378452695	+	4011296-4011472	hypothetical protein	4102715-4102891	+	177
140285	ivbL	378452696	-	4011404-4011502	ivb operon leader peptide	4102823-4102921	-	99
140285	STM14_4580	378452697	+	4011519-4011680	hypothetical protein	4102938-4103099	+	162
140285	STM14_4581	378452698	-	4011613-4011768	hypothetical protein	4103032-4103187	-	156
140285	STM14_4582	378452699	+	4011777-4011950	hypothetical protein	4103196-4103369	+	174
D23580	STM14_37861	378447163	+	4021208-4021303	hypothetical protein	4103444-4103539	+	96
D23580	STM14_37871	378447164	+	4021319-4021408	putative LexA-regulated protein TisB	4103555-4103644	+	90
140285	STM14_4589	378452704	-	4016572-4016697	hypothetical protein	4107991-4108116	-	126
140285	STM14_4595	378452710	+	4020774-4020887	hypothetical protein	4112193-4112306	+	114
ST474	STM474_3981	379703066	+	4028417-4028551	hypothetical protein	4112214-4112348	-	135
140285	STM14_4598	378452712	+	4022921-4023073	hypothetical protein	4114340-4114492	+	153
140285	STM14_4601	378452715	+	4024130-4024306	hypothetical protein	4115549-4115725	+	177
ST474	STM474_3986	379703070	-	4031907-4032026	hypothetical protein	4115704-4115823	-	120

140285	STM14_4630	378452743	+	4056093-4056239	hypothetical protein	4147512-4147658	+	147
140285	STM14_4633	378452746	+	4059079-4059237	hypothetical protein	4150498-4150656	+	159
140285	rpmH	378452747	+	4059378-4059518	SOS ribosomal protein L34	4150797-4150937	+	141
ST474	STM474_4022	379703106	-	4071364-4071624	hypothetical protein	4155161-4155421	-	261
140285	STM14_4658	378452770	+	4086316-4086504	hypothetical protein	4177735-4177923	+	189
140285	STM14_4669	378452781	-	4094364-4094507	hypothetical protein	4185783-4185926	-	144
140285	ihvL	378452802	+	4122426-4122524	ihvG operon leader peptide	4213847-4213945	+	99
140285	STM14_4733	378452833	+	4155257-4155382	hypothetical protein	4246678-4246803	+	126
140285	STM14_4738	378452838	-	4159908-4160012	hypothetical protein	4251329-4251433	-	105
140285	STM14_4740	378452840	+	4162570-4162710	hypothetical protein	4253991-4254131	+	141
140285	STM14_4743	378452843	+	4163805-4164167	putative cytoplasmic protein	4255226-4255588	+	363
140285	STM14_4753	378452852	-	4171444-4171629	hypothetical protein	4262865-4263050	-	186
140285	STM14_4759	378452858	-	4175211-4175348	hypothetical protein	4266632-4266769	-	138
140285	STM14_4768	378452867	+	4183187-4183360	hypothetical protein	4274608-4274781	+	174
ST474	STM474_4144	379703214	+	4193636-4193764	hypothetical protein	4277202-4277330	+	129
140285	STM14_4771	378452870	+	4185906-4186052	hypothetical protein	4277327-4277473	+	147
140285	STM14_4784	378452883	+	4197098-4197223	hypothetical protein	4288519-4288644	+	126
140285	STM14_4800	378452894	-	4215049-4215231	hypothetical protein	4306575-4306757	-	183
140285	STM14_4801	378452895	+	4215077-4215433	hypothetical protein	4306603-4306959	+	357
140285	STM14_4808	378452902	-	4219525-4219656	hypothetical protein	4311051-4311182	-	132
140285	STM14_4811	378452904	+	4222708-4222851	hypothetical protein	4314234-4314377	+	144
140285	STM14_4816	378452909	-	4226121-4226246	hypothetical protein	4317647-4317772	-	126
140285	STM14_4819	378452912	-	4228860-4229039	hypothetical protein	4320386-4320565	-	180
140285	STM14_4821	378452914	-	4230571-4230990	putative cytoplasmic protein	4322097-4322516	-	420
140285	STM14_4837	378452930	-	4248232-4248351	hypothetical protein	4339737-4339856	-	120
140285	STM14_4854	378452947	-	4262409-4262654	hypothetical protein	4353914-4354069	-	156
140285	STM14_4856	378452949	+	4263770-4263904	hypothetical protein	4355275-4355409	+	135
140285	STM14_4858	378452951	+	4265002-4265130	hypothetical protein	4356507-4356635	+	129
140285	STM14_4867	378452960	+	4272347-4272496	hypothetical protein	4363852-4364001	+	150
140285	STM14_4868	378452961	-	4272426-4272560	hypothetical protein	4363931-4364065	-	135
140285	STM14_4872	378452965	+	4275521-4275652	hypothetical protein	4367026-4367157	+	132
ST474	STM474_4231	379703295	+	4283542-4283655	hypothetical protein	4367192-4367305	+	114
140285	STM14_4886	378452979	-	4286951-4287055	hypothetical protein	4378456-4378560	-	105
140285	STM14_4898	378452991	-	4296957-4297091	hypothetical protein	4388461-4388595	-	135
140285	STM14_4909	378453002	-	4305795-4305962	hypothetical protein	4397299-4397466	-	168
140285	STM14_4914	378453007	+	4310547-4310666	hypothetical protein	4402051-4402170	+	120
140285	STM14_4916	378453009	-	4311024-4311164	hypothetical protein	4402528-4402668	-	141
140285	STM14_4934	378453027	-	4332008-4332127	hypothetical protein	4423512-4423631	-	120
140285	STM14_4938	378453031	+	4336017-4336178	hypothetical protein	4427521-4427682	+	162
140285	STM14_4943	378453035	-	4340772-4340927	hypothetical protein	4432276-4432431	-	156
140285	STM14_4950	378453042	+	4346732-4346872	hypothetical protein	4438236-4438376	+	141
140285	STM14_4951	378453043	+	4346784-4346900	hypothetical protein	4438288-4438404	+	117
140285	STM14_4953	378453045	+	4348703-4348810	hypothetical protein	4440207-4440314	+	108
140285	STM14_4961	378453053	-	4358974-4359162	hypothetical protein	4450478-4450666	-	189
140285	STM14_0296	378448563	+	291760-291876	hypothetical protein	4458102-4458218	+	117
140285	STM14_4977	378453063	+	4373434-4373607	putative cytoplasmic protein	4464940-4465113	-	174
140285	STM14_4983	378453065	+	4375382-4375510	hypothetical protein	4466888-4467016	+	129
140285	STM14_4995	378453077	+	4388644-4388847	hypothetical protein	4480150-4480353	+	204
140285	STM14_4997	378453079	+	4389931-4390140	hypothetical protein	4481437-4481646	+	210
140285	STM14_5018	378453099	+	4407683-4407805	hypothetical protein	4499189-4499311	+	123
140285	STM14_5019	378453100	-	4407796-4407918	hypothetical protein	4499302-4499424	-	123
140285	STM14_5020	378453101	+	4407851-4407991	hypothetical protein	4499357-4499497	+	141
140285	STM14_0291	378448561	-	289581-289703	hypothetical protein	4499464-4499586	-	123
140285	STM14_5025	378453102	-	4413499-4413630	hypothetical protein	4505064-4505177	-	132
140285	STM14_5026	378453103	+	4413565-4413795	hypothetical protein	4505112-4505342	+	231
140285	STM14_5031	378453108	+	4418519-4418641	hypothetical protein	4510066-4510188	+	123
140285	STM14_5038	378453115	+	4428296-4428397	putative cytoplasmic protein	4519843-4519944	+	102
140285	STM14_5044	378453120	+	4431313-4431468	hypothetical protein	4522860-4523015	+	156
140285	STM14_5057	378453133	-	4441014-4441139	hypothetical protein	4532561-4532686	-	126
140285	STM14_5072	378453147	+	4451435-4451575	hypothetical protein	4542982-4543122	+	141
140285	STM14_5083	378453158	+	4462681-4462857	hypothetical protein	4554228-4554404	-	177
140285	STM14_5084	378453159	+	4462737-4462877	hypothetical protein	4554284-4554424	+	141
140285	STM14_5088	378453163	+	4466972-4467136	hypothetical protein	4558519-4558683	+	165
140285	STM14_5101	378453176	+	4478537-4478704	hypothetical protein	4570084-4570251	+	168
140285	STM14_5113	378453188	+	4489545-4489661	putative cytoplasmic protein	4581092-4581208	+	117
140285	STM14_5115	378453190	-	4490374-4490565	hypothetical protein	4581921-4582112	-	192
140285	STM14_5116	378453191	+	4490568-4490723	hypothetical protein	4582115-4582270	+	156
ST474	STM474_4451	379703497	+	4498500-4498640	hypothetical protein	4582296-4582436	+	141
140285	STM14_5124	378453199	+	4515420-4515557	hypothetical protein	4606967-4607104	+	138
140285	STM14_5125	378453200	-	4515741-4515845	hypothetical protein	4607288-4607392	-	105
140285	STM14_5129	378453204	-	4518503-4518631	hypothetical protein	4610050-4610178	-	129
140285	STM14_5131	378453206	-	4519322-4519456	hypothetical protein	4610869-4611003	-	135
140285	STM14_5132	378453207	-	4519489-4519611	hypothetical protein	4611036-4611158	-	123
140285	STM14_5142	378453217	+	4529401-4529547	putative cytoplasmic protein	4620948-4621094	+	147
140285	STM14_5149	378453224	-	4536353-4536481	hypothetical protein	4627888-4628016	-	129
140285	STM14_5150	378453225	+	4536377-4536649	hypothetical protein	4627912-4628184	+	273
140285	STM14_5152	378453227	+	4537849-4538022	hypothetical protein	4629384-4629557	+	174
140285	STM14_5154	378453229	-	4538728-4538883	hypothetical protein	4630263-4630418	-	156
140285	STM14_5160	378453235	+	4544189-4544284	hypothetical protein	4635724-4635819	+	96
140285	STM14_5175	378453250	-	4562136-4562402	putative cytoplasmic protein	4645988-4646254	-	267
140285	STM14_5183	378453258	+	4571436-4571549	hypothetical protein	4655288-4655401	+	114
140285	STM14_5190	378453265	-	4574852-4575073	putative cytoplasmic protein	4659416-4659637	-	222
SL1344	SL1344_4256	378702162	-	4584964-4585098	hypothetical protein	4661778-4661912	-	135
ST474	STM474_4515	379703561	-	4585588-4585743	hypothetical protein	4662401-4662556	-	156
ST474	STM474_4516	379703562	-	4586025-4586150	hypothetical protein	4662837-4662962	-	126
140285	STM14_5196	378453271	-	4579152-4579388	hypothetical protein	4663715-4663951	-	237
140285	STM14_5203	378453277	-	4585245-4585367	hypothetical protein	4669808-4669930	-	123
140285	STM14_5208	378453282	-	4589666-4589833	hypothetical protein	4674229-4674396	-	168
140285	STM14_5211	378453285	+	4591089-4591223	hypothetical protein	4675652-4675786	+	135
140285	STM14_5212	378453286	-	4591232-4591378	hypothetical protein	4675795-4675941	-	147
140285	STM14_5225	378453299	+	4599983-4600087	hypothetical protein	4684546-4684650	+	105
140285	STM14_5272	378453343	-	4642797-4642994	hypothetical protein	4727360-4727557	-	198
140285	STM14_5273	378453344	+	4642921-4643028	hypothetical protein	4727484-4727591	+	108

14028S	STM14_5274	378453345	+	4643067-4643273	putative cytoplasmic protein	4727630-4727836	+	207
14028S	STM14_5288	378453359	-	4654346-4654567	hypothetical protein	4738909-4739130	-	222
14028S	STM14_5291	378453362	-	4655902-4656081	hypothetical protein	4740465-4740644	-	180
14028S	STM14_5295	378453366	+	4658725-4658841	hypothetical protein	4743274-4743390	+	117
14028S	STM14_5303	378453374	-	4669323-4669508	hypothetical protein	4753872-4754057	-	186
14028S	STM14_5306	378453377	+	4671075-4671302	hypothetical protein	4755624-4755851	+	228
ST474	STM474_4616	379703657	+	4681690-4681806	hypothetical protein	4758487-4758603	+	117
14028S	STM14_5313	378453384	-	4678291-4678593	putative cytoplasmic protein	4762840-4763142	-	303
14028S	STM14_5315	378453386	+	4679544-4679654	hypothetical protein	4764093-4764203	+	111
ST474	STM474_4627	379703668	-	4695124-4695237	hypothetical protein	4771922-4772035	-	114
14028S	STM14_5323	378453393	+	4689572-4689691	hypothetical protein	4774121-4774240	+	120
14028S	STM14_5344	378453414	+	4707729-4707899	hypothetical protein	4792278-4792448	+	171
14028S	STM14_5347	378453416	+	4711078-4711185	hypothetical protein	4795627-4795734	+	108
ST474	STM474_4653	379703693	+	4719860-4719991	hypothetical protein	4796658-4796789	+	132
UK1	STMUK_4448	378991724	+	4665460-4665600	putative cytoplasmic protein	4802404-4802544	+	141
14028S	STM14_5356	378453425	-	4718450-4718566	hypothetical protein	4802999-4803115	-	117
14028S	STM14_5359	378453428	-	4721103-4721225	hypothetical protein	4805652-4805774	-	123
14028S	STM14_5362	378453431	+	4723479-4723670	hypothetical protein	4808028-4808219	+	192
14028S	STM14_5367	378453436	-	4727023-4727145	hypothetical protein	4811572-4811694	-	123
14028S	STM14_5374	378453443	-	4734836-4734955	putative cytoplasmic protein	4819385-4819504	-	120
14028S	STM14_5381	378453450	+	4741810-4741944	hypothetical protein	4826359-4826493	+	135
14028S	STM14_5399	378453466	+	4766523-4766714	hypothetical protein	4851072-4851263	+	192
14028S	STM14_5402	378453469	-	4768806-4769102	hypothetical protein	4853355-4853651	-	297
14028S	STM14_5406	378453473	+	4772201-4772314	hypothetical protein	4856750-4856863	+	114
14028S	STM14_5407	378453474	-	4772241-4772357	hypothetical protein	4856790-4856906	-	117
14028S	STM14_5410	378453477	+	4773638-4773850	hypothetical protein	4858187-4858399	+	213
14028S	STM14_5413	378453480	+	4775969-4776121	hypothetical protein	4860518-4860670	+	153
14028S	STM14_5415	378453482	+	4776954-4777076	hypothetical protein	4861503-4861625	+	123
14028S	STM14_5416	378453483	-	4776976-4777107	hypothetical protein	4861525-4861656	-	132
14028S	STM14_5426	378453493	-	4786173-4786316	hypothetical protein	4870722-4870865	-	144
14028S	STM14_5427	378453494	+	4786386-4786523	hypothetical protein	4870935-4871072	+	138
ST474	STM474_4722	379703761	-	4794952-4795101	hypothetical protein	4871750-4871899	-	150
14028S	STM14_5431	378453498	-	4788756-4788899	putative cytoplasmic protein	4873305-4873448	-	144
14028S	STM14_5435	378453502	-	4790281-4790412	hypothetical protein	4874830-4874961	-	132
14028S	STM14_5440	378453507	+	4798305-4798442	hypothetical protein	4882854-4882991	+	138
14028S	STM14_5447	378453514	-	4804689-4804838	hypothetical protein	4889238-4889387	-	150
14028S	STM14_5455	378453522	+	4812431-4812535	hypothetical protein	4896980-4897084	+	105
14028S	STM14_5462	378453529	-	4818419-4818574	hypothetical protein	4902968-4903123	-	156
14028S	STM14_5468	378453535	+	4823006-4823134	hypothetical protein	4907555-4907683	+	129
14028S	STM14_5474	378453538	+	4824998-4825105	hypothetical protein	4909547-4909654	+	108
14028S	STM14_5479	378453543	+	4828502-4828636	hypothetical protein	4913051-4913185	+	135
14028S	STM14_5486	378453550	+	4833992-4834120	hypothetical protein	4918541-4918669	+	129
14028S	STM14_5496	378453560	+	4843995-4844144	hypothetical protein	4928544-4928693	+	150
ST474	smp	379703819	+	4853656-4853805	phosphoserine phosphatase	4930457-4930606	+	150
14028S	vjjy	378453584	+	4869015-4869155	putative inner membrane protein	4953564-4953704	+	141

Reference details						Gene annotated in UK1		
Genome name	Gene Name	GI	Strand	CDS-region	Product	Coordinate	Strand	Length (bp)
14028S	STM14_0012	378448286	+	11257-11424	hypothetical protein	11258-11425	+	168
14028S	STM14_0015	378448289	+	14845-14958	hypothetical protein	14846-14959	+	114
14028S	STM14_0020	378448294	-	17613-17741	hypothetical protein	17614-17742	-	129
14028S	STM14_0021	378448295	+	17665-17787	hypothetical protein	17666-17788	+	123
14028S	STM14_0024	378448298	+	23091-23240	hypothetical protein	23092-23241	+	150
14028S	STM14_0026	378448300	-	24094-24198	hypothetical protein	24095-24199	-	105
14028S	STM14_0027	378448301	+	24316-24426	hypothetical protein	24317-24427	+	111
14028S	STM14_0040	378448314	+	34828-34974	hypothetical protein	34829-34975	+	147
14028S	STM14_0057	378448331	+	57203-57334	hypothetical protein	57204-57335	+	132
14028S	STM14_0068	378448342	-	68513-68671	hypothetical protein	68514-68672	-	159
14028S	STM14_0089	378448363	+	89119-89328	hypothetical protein	88409-88618	+	210
ST474	STM474_0083	379699298	-	92031-92228	hypothetical protein	92030-92227	-	198
14028S	STM14_0097	378448371	-	95263-95379	hypothetical protein	94553-94669	-	117
14028S	STM14_0102	378448376	+	98738-99019	hypothetical protein	98028-98309	+	282
14028S	STM14_0105	378448379	-	101349-101474	hypothetical protein	100639-100764	-	126
14028S	STM14_0113	378448387	-	108892-109053	hypothetical protein	108182-108343	-	162
14028S	STM14_0128	378448402	-	127427-127546	putative lipoprotein	126717-126836	-	120
14028S	STM14_0130	378448404	-	129166-129492	hypothetical protein	128456-128782	-	327
ST474	STM474_0115	379699330	+	128926-129039	hypothetical protein	128925-129038	+	114
14028S	STM14_0136	378448410	-	134689-134793	hypothetical protein	133979-134083	-	105
14028S	STM14_0137	378448411	+	135067-135210	hypothetical protein	134357-134500	+	144
14028S	STM14_0141	378448415	-	138755-138877	hypothetical protein	138045-138167	-	123
LT2	STM04630	409994397	-	139338-139487	hypothetical protein	139340-139489	-	150
14028S	STM14_0143	378448417	-	140204-140338	hypothetical protein	139494-139628	-	135
14028S	STM14_0144	378448418	+	140496-140633	hypothetical protein	139786-139923	+	138
14028S	STM14_0165	378448438	+	162875-162979	LysR family transcriptional regulator	162165-162269	+	105
14028S	STM14_0173	378448446	-	168890-169072	hypothetical protein	168180-168362	-	183
14028S	STM14_0179	378448452	-	173962-174090	hypothetical protein	173252-173380	-	129
14028S	STM14_0181	378448454	+	175672-175794	hypothetical protein	174962-175084	+	123
14028S	STM14_0186	378448459	+	183222-183350	hypothetical protein	182512-182640	+	129
14028S	STM14_0210	378448482	-	209796-209966	hypothetical protein	209086-209256	-	171
14028S	STM14_0215	378448487	-	213058-213171	hypothetical protein	212348-212461	-	114
14028S	STM14_0224	378448496	+	221426-221587	hypothetical protein	220716-220877	+	162
14028S	STM14_0225	378448497	-	221522-221629	hypothetical protein	220812-220919	-	108
14028S	STM14_0227	378448499	-	224289-224429	hypothetical protein	223579-223719	-	141
14028S	STM14_0232	378448504	+	230459-230665	hypothetical protein	229749-229955	+	207
14028S	STM14_0233	378448505	+	231001-231144	hypothetical protein	230291-230434	+	144
14028S	STM14_0242	378448514	+	239222-239365	hypothetical protein	238511-238654	+	144
14028S	STM14_0256	378448527	+	254799-255083	30S ribosomal protein S2	254087-254371	+	285
14028S	STM14_0262	378448533	+	259830-260033	hypothetical protein	259118-259321	+	204
14028S	STM14_0291	378448561	-	289581-289703	hypothetical protein	288869-288991	-	123
14028S	STM14_0292	378448562	-	289616-289819	hypothetical protein	288904-289107	-	204
14028S	STM14_0296	378448563	+	291760-291876	hypothetical protein	291048-291164	+	117
14028S	STM14_0310	378448574	-	304859-304966	hypothetical protein	304147-304254	-	108
14028S	STM14_0312	378448575	+	305167-305274	hypothetical protein	304456-304563	+	108
14028S	STM14_0337	378448600	+	330303-330512	hypothetical protein	329592-329801	+	210
14028S	STM14_0343	378448606	+	339144-339275	hypothetical protein	338433-338564	+	132
LT2	STM04655	409994398	-	339629-339871	hypothetical protein	339603-339845	-	243
ST474	STM474_0312	379699516	+	341562-341681	hypothetical protein	342058-342177	+	120
14028S	STM14_0357	378448617	+	348560-348820	hypothetical protein	347849-348109	+	261
D23580	STM04655	378443750	+	348247-348378	putative transposase	348250-348381	+	132
14028S	STM14_0361	378448621	-	351322-351450	hypothetical protein	350611-350739	-	129
14028S	STM14_0377	378448636	-	366783-366935	hypothetical protein	366072-366224	-	153
14028S	STM14_0397	378448654	-	385733-385843	hypothetical protein	385022-385132	-	111
14028S	STM14_0403	378448660	-	390802-390939	hypothetical protein	390091-390228	-	138
14028S	STM14_0411	378448668	+	399120-399233	hypothetical protein	398409-398522	+	114
14028S	STM14_0415	378448672	+	402243-402422	putative metal-binding transport protein	401532-401711	+	180
14028S	STM14_0419	378448676	+	409084-409218	hypothetical protein	408373-408507	+	135
14028S	STM14_0420	378448677	-	409118-409237	hypothetical protein	408407-408526	-	120
14028S	STM14_0436	378448693	+	425565-425684	hypothetical protein	424853-424972	+	120
14028S	STM14_0437	378448694	-	425675-425827	hypothetical protein	424963-425115	-	153
14028S	STM14_0441	378448698	-	430751-430909	hypothetical protein	430039-430197	-	159
14028S	STM14_0442	378448699	+	430925-431059	hypothetical protein	430213-430347	+	135
14028S	STM14_0446	378448703	+	433714-433827	hypothetical protein	433002-433115	+	114
14028S	STM14_0451	378448708	+	437620-437742	hypothetical protein	436908-437030	+	123
14028S	STM14_0453	378448710	-	438082-438243	hypothetical protein	437370-437531	-	162
14028S	STM14_0457	378448714	+	440792-440941	hypothetical protein	440080-440229	+	150
14028S	STM14_0464	378448721	-	444556-444687	hypothetical protein	443844-443975	-	132
T000240	STMDT12_C04560	378982997	+	482933-483049	hypothetical protein	444869-444985	+	117
14028S	STM14_0469	378448726	-	451315-451446	hypothetical protein	450603-450734	-	132
14028S	STM14_0472	378448729	-	453755-453904	hypothetical protein	453043-453192	-	150
14028S	STM14_0479	378448736	+	461340-461450	DNA metabolism protein	460628-460738	+	111
14028S	STM14_0487	378448744	+	467631-467846	hypothetical protein	466919-467134	+	216
ST474	STM474_0431	379699631	+	466787-466939	hypothetical protein	467282-467434	+	153
14028S	STM14_0491	378448747	+	469965-470111	hypothetical protein	469253-469399	+	147
14028S	STM14_0498	378448754	-	473976-474284	hypothetical protein	473264-473572	-	309
14028S	STM14_0509	378448765	-	484792-484902	hypothetical protein	484080-484190	-	111
ST474	STM474_0464	379699664	-	497880-498002	hypothetical protein	498375-498497	-	123
14028S	STM14_0526	378448781	+	501468-501653	hypothetical protein	500756-500941	+	186
14028S	STM14_0528	378448783	-	502053-502166	hypothetical protein	501341-501454	-	114
14028S	STM14_0531	378448786	+	504670-504774	hypothetical protein	503958-504062	+	105
14028S	STM14_0536	378448791	-	511028-511390	hypothetical protein	510316-510678	-	363
14028S	STM14_0562	378448816	-	535085-535210	hypothetical protein	535085-535210	-	126
14028S	STM14_0573	378448827	-	546597-546818	hypothetical protein	546597-546818	-	222
14028S	STM14_0575	378448829	+	547392-547598	hypothetical protein	547392-547598	+	207
14028S	STM14_0580	378448834	+	552798-552923	hypothetical protein	552798-552923	+	126
14028S	STM14_0597	378448851	+	570227-570331	hypothetical protein	570227-570331	+	105
14028S	STM14_0599	378448853	-	571546-571650	hypothetical protein	571546-571650	-	105
14028S	STM14_0633	378448887	-	604316-604444	hypothetical protein	604316-604444	-	129
14028S	STM14_0634	378448888	+	604400-604555	hypothetical protein	604400-604555	+	156
14028S	STM14_0645	378448899	+	614019-614189	hypothetical protein	614019-614189	+	171

140285	STM14_0649	378448901	+	615283-615441	hypothetical protein	615282-615440	+	159
140285	STM14_0659	378448908	-	622266-622520	hypothetical protein	622265-622519	-	255
140285	STM14_0665	378448914	+	627603-627788	hypothetical protein	627602-627787	+	186
140285	STM14_0677	378448926	+	639577-639684	hypothetical protein	639576-639683	+	108
140285	STM14_0683	378448932	-	644504-644635	hypothetical protein	644503-644634	-	132
140285	STM14_0698	378448947	+	661861-661971	hypothetical protein	661860-661970	+	111
140285	STM14_0714	378448963	+	678228-678434	hypothetical protein	678227-678433	+	207
140285	STM14_0715	378448964	-	678399-678539	hypothetical protein	678398-678538	-	141
140285	STM14_0726	378448975	+	688331-688513	hypothetical protein	688330-688512	+	183
140285	STM14_0730	378448979	+	692333-692443	hypothetical protein	692332-692442	+	111
140285	STM14_0735	378448984	+	694969-695076	hypothetical protein	694968-695075	+	108
140285	STM14_0738	378448987	-	696364-696498	hypothetical protein	696363-696497	-	135
140285	STM14_0740	378448989	-	697584-697727	hypothetical protein	697583-697726	-	144
140285	STM14_0742	378448991	+	698354-698719	hypothetical protein	698353-698718	+	366
140285	STM14_0745	378448994	+	700128-700277	hypothetical protein	700127-700276	+	150
T000240	STMDT12_C07050	378983246	-	742985-743125	hypothetical protein	705427-705567	-	141
140285	STM14_0774	378449022	+	730309-730596	hypothetical protein	730308-730595	+	288
140285	STM14_0777	378449025	-	733102-733251	hypothetical protein	733101-733250	-	150
140285	STM14_0780	378449028	-	734838-734957	hypothetical protein	734837-734956	-	120
140285	STM14_0791	378449032	+	739310-739477	hypothetical protein	739309-739476	+	168
140285	STM14_0797	378449038	-	745470-745595	hypothetical protein	745469-745594	-	126
140285	STM14_0800	378449041	+	749621-749734	hypothetical protein	749620-749733	+	114
140285	STM14_0801	378449042	+	749864-750154	hypothetical protein	749863-750153	+	291
140285	STM14_0809	378449050	+	757442-757591	hypothetical protein	757441-757590	+	150
140285	STM14_0812	378449053	+	758607-758720	hypothetical protein	758606-758719	+	114
140285	STM14_0819	378449060	-	766193-766318	hypothetical protein	766192-766317	-	126
140285	STM14_0826	378449067	-	774532-774729	K+-transporting ATPase subunit F	774531-774728	-	198
T000240	STMDT12_C07730	378983314	-	820062-820163	hypothetical protein	781728-781829	-	102
140285	STM14_0859	378449100	+	808472-808597	hypothetical protein	808471-808596	+	126
ST474	STM474_0763	379699951	+	807598-807723	hypothetical protein	808683-808808	+	126
ST474	STM474_0764	379699952	-	808597-808710	hypothetical protein	809682-809795	-	114
140285	STM14_0860	378449101	-	809819-809962	hypothetical protein	809818-809961	-	144
140285	STM14_0864	378449105	+	812877-813017	hypothetical protein	812876-813016	+	141
140285	STM14_0873	378449114	-	818715-819254	hypothetical protein	818714-819253	-	540
140285	STM14_0879	378449115	-	820227-820322	hypothetical protein	820227-820322	-	96
140285	STM14_0897	378449132	-	837473-837664	hypothetical protein	837473-837664	-	192
140285	STM14_0903	378449138	+	843123-843230	hypothetical protein	843123-843230	+	108
ST474	STM474_0818	379700001	+	857893-858006	hypothetical protein	858979-859092	+	114
140285	STM14_0924	378449158	+	864209-864493	hypothetical protein	864209-864493	+	285
140285	STM14_0925	378449159	+	864550-864777	hypothetical protein	864550-864777	+	228
140285	STM14_0946	378449180	-	881747-881884	hypothetical protein	881036-881173	-	138
140285	STM14_0952	378449186	-	888006-888110	hypothetical protein	887295-887399	-	105
140285	STM14_0956	378449190	+	891948-892067	hypothetical protein	891237-891356	+	120
140285	STM14_0958	378449192	-	892325-892444	hypothetical protein	891614-891733	-	120
140285	STM14_0961	378449195	+	895674-895811	hypothetical protein	894963-895100	+	138
140285	STM14_0965	378449199	-	898059-898181	hypothetical protein	897348-897470	-	123
140285	STM14_0967	378449201	-	899158-899316	hypothetical protein	898447-898605	-	159
140285	STM14_0969	378449203	-	900254-900415	hypothetical protein	899543-899704	-	162
140285	STM14_0970	378449204	-	900375-900506	hypothetical protein	899664-899795	-	132
140285	STM14_0974	378449208	-	903009-903137	hypothetical protein	902298-902426	-	129
140285	STM14_0982	378449216	+	911396-911509	hypothetical protein	910685-910798	+	114
140285	STM14_0986	378449220	-	915878-916033	hypothetical protein	915167-915322	-	156
140285	STM14_0989	378449223	+	917997-918137	hypothetical protein	917286-917426	+	141
140285	STM14_0995	378449229	-	924480-924599	hypothetical protein	923769-923888	-	120
140285	STM14_0997	378449231	+	925933-926067	hypothetical protein	925222-925356	+	135
140285	STM14_0999	378449233	+	926622-926762	hypothetical protein	925911-926051	+	141
140285	STM14_1000	378449234	+	926970-927134	hypothetical protein	926259-926423	+	165
140285	STM14_1006	378449239	-	931103-931243	hypothetical protein	930392-930532	-	141
140285	STM14_1010	378449243	+	934780-934917	hypothetical protein	934069-934206	+	138
140285	STM14_1019	378449251	+	942902-943027	hypothetical protein	942191-942316	+	126
140285	STM14_1034	378449266	+	955378-955569	hypothetical protein	954667-954858	+	192
140285	STM14_1038	378449270	-	958765-958965	hypothetical protein	958054-958254	-	201
140285	STM14_1053	378449285	+	972908-973111	hypothetical protein	972197-972400	+	204
140285	STM14_1055	378449287	+	973986-974153	hypothetical protein	973275-973442	+	168
140285	STM14_1060	378449292	-	980013-980138	hypothetical protein	979302-979427	-	126
140285	STM14_1061	378449293	+	980033-980176	hypothetical protein	979322-979465	+	144
140285	STM14_1067	378449299	-	984062-984343	hypothetical protein	983351-983632	-	282
140285	STM14_1069	378449301	-	985102-985260	hypothetical protein	984391-984549	-	159
140285	STM14_1081	378449312	-	994689-994946	hypothetical protein	993979-994236	-	258
140285	STM14_1082	378449313	-	994867-995142	hypothetical protein	994157-994432	-	276
140285	ftsK	378449315	+	995700-999785	DNA translocase FtsK	994990-999075	+	4086
140285	STM14_1087	378449318	+	1001941-1002111	hypothetical protein	1001231-1001401	+	171
140285	STM14_1092	378449323	+	1007647-1007754	hypothetical protein	1006937-1007044	+	108
140285	STM14_1093	378449324	-	1007837-1007968	hypothetical protein	1007127-1007258	-	132
140285	STM14_1102	378449333	+	1018831-1018959	hypothetical protein	1018121-1018249	+	129
140285	STM14_1104	378449335	+	1019641-1019754	hypothetical protein	1018931-1019044	+	114
140285	STM14_1108	378449339	-	1023127-1023381	hypothetical protein	1022417-1022671	-	255
140285	STM14_1118	378449349	-	1033792-1033944	hypothetical protein	1033082-1033234	-	153
140285	STM14_1129	378449360	-	1047995-1048126	hypothetical protein	1047285-1047416	-	132
140285	STM14_1131	378449362	+	1049521-1049673	hypothetical protein	1048811-1048963	+	153
140285	STM14_1133	378449364	-	1051307-1051426	hypothetical protein	1050597-1050716	-	120
140285	STM14_1135	378449366	-	1051897-1052118	hypothetical protein	1051187-1051408	-	222
140285	STM14_1137	378449368	+	1053504-1053662	hypothetical protein	1052794-1052952	+	159
140285	STM14_1146	378449377	-	1062948-1063106	hypothetical protein	1062238-1062396	-	159
ST474	STM474_0999	379700176	+	1061436-1061582	hypothetical protein	1062518-1062664	+	147
ST474	STM474_1001	379700178	+	1061983-1062096	hypothetical protein	1063065-1063178	+	114
140285	STM14_1149	378449380	+	1063939-1064178	hypothetical protein	1063229-1063468	+	240
140285	STM14_1157	378449388	+	1068009-1068230	hypothetical protein	1067299-1067520	+	222
140285	STM14_1161	378449392	+	1069732-1069878	hypothetical protein	1069022-1069168	+	147
ST474	STM474_1045	379700222	+	1098511-1098666	hypothetical protein	1099824-1099979	+	156
140285	STM14_1201	378449431	-	1106320-1106445	hypothetical protein	1105610-1105735	-	126
140285	STM14_1209	378449439	-	1115818-1116021	hypothetical protein	1115109-1115312	-	204
140285	STM14_1216	378449446	-	1121248-1121352	hypothetical protein	1120539-1120643	-	105

T000240	STMDT12_C11030	378983644	+	1169756-1169860	hypothetical protein	1129706-1129810	+	105
140285	STM14_1234	378449463	+	1135671-1135796	hypothetical protein	1134962-1135087	+	126
140285	STM14_1244	378449473	-	1143230-1143372	hypothetical protein	1142521-1142628	-	108
140285	STM14_1245	378449474	+	1143361-1143543	hypothetical protein	1142652-1142834	+	183
140285	STM14_1249	378449478	-	1146275-1146388	hypothetical protein	1145566-1145679	-	114
140285	STM14_1254	378449483	-	1150549-1150701	hypothetical protein	1149840-1149992	-	153
140285	STM14_1260	378449489	-	1155618-1155782	hypothetical protein	1154909-1155073	-	165
140285	STM14_1262	378449491	+	1156832-1156987	hypothetical protein	1156123-1156278	+	156
140285	STM14_1265	378449494	-	1158383-1158577	hypothetical protein	1157674-1157868	-	195
140285	STM14_1273	378449502	+	1164294-1164521	hypothetical protein	1163585-1163812	+	228
140285	STM14_1279	378449506	-	1170030-1170278	hypothetical protein	1169321-1169569	-	249
140285	STM14_1280	378449507	-	1170167-1170286	hypothetical protein	1169458-1169577	-	120
140285	STM14_1282	378449509	+	1172347-1172457	hypothetical protein	1171638-1171748	+	111
140285	STM14_1283	378449510	+	1172451-1172747	hypothetical protein	1171742-1172038	+	297
140285	STM14_1286	378449512	+	1174679-1174783	hypothetical protein	1173970-1174074	+	105
140285	STM14_1288	378449514	+	1176314-1176421	hypothetical protein	1175605-1175712	+	108
140285	STM14_1289	378449515	-	1176396-1176605	hypothetical protein	1175687-1175896	-	210
140285	STM14_1291	378449517	-	1177413-1177520	hypothetical protein	1176704-1176811	-	108
140285	STM14_1292	378449518	+	1177573-1177704	hypothetical protein	1176864-1176995	+	132
140285	STM14_1298	378449523	-	1183064-1183228	hypothetical protein	1182355-1182519	-	165
140285	STM14_1307	378449532	-	1188559-1188696	hypothetical protein	1187850-1187987	-	138
140285	STM14_1308	378449533	-	1188894-1189040	hypothetical protein	1188185-1188331	-	147
140285	STM14_1316	378449541	-	1194339-1194509	hypothetical protein	1193630-1193800	-	171
140285	STM14_1322	378449547	+	1200601-1201062	hypothetical protein	1199892-1200353	+	462
140285	STM14_1327	378449552	+	1204177-1204380	hypothetical protein	1203468-1203671	+	204
140285	STM14_1339	378449564	-	1212983-1213159	hypothetical protein	1212274-1212450	-	177
140285	STM14_1344	378449569	-	1216241-1216396	flagellar basal body P-ring biosynthesis protein FlgA	1215532-1215687	-	156
140285	STM14_1356	378449581	-	1226280-1226474	hypothetical protein	1225571-1225765	-	195
140285	STM14_1376	378449600	-	1244261-1244398	hypothetical protein	1243552-1243689	-	138
140285	STM14_1390	378449614	-	1256910-1257065	hypothetical protein	1256201-1256356	-	156
140285	STM14_1399	378449623	-	1267794-1267916	hypothetical protein	1267085-1267207	-	123
140285	STM14_1401	378449625	-	1269076-1269240	hypothetical protein	1268367-1268531	-	165
140285	STM14_1487	378449708	-	1337214-1337372	hypothetical protein	1285404-1285562	-	159
140285	STM14_1488	378449709	+	1337312-1337452	hypothetical protein	1285502-1285642	+	141
140285	STM14_1489	378449710	+	1337337-1337585	hypothetical protein	1285527-1285775	+	249
140285	STM14_1494	378449714	-	1340405-1340575	hypothetical protein	1288595-1288765	-	171
140285	STM14_1496	378449716	-	1341060-1341188	hypothetical protein	1289250-1289378	-	129
140285	STM14_1499	378449718	+	1341718-1341825	hypothetical protein	1289908-1290015	+	108
140285	STM14_1500	378449719	-	1342043-1342192	hypothetical protein	1290233-1290382	-	150
140285	STM14_1502	378449721	-	1342962-1343096	hypothetical protein	1291152-1291286	-	135
140285	STM14_1506	378449723	-	1344493-1344636	hypothetical protein	1292683-1292826	-	144
140285	STM14_1507	378449724	+	1344742-1344867	putative lipoprotein	1292932-1293057	+	126
ST474	STM474_1249	379700419	-	1291877-1292050	hypothetical protein	1293189-1293362	-	174
140285	STM14_1510	378449727	-	1346067-1346216	putative inner membrane protein	1294257-1294406	-	150
140285	STM14_1514	378449731	-	1348508-1348666	hypothetical protein	1296698-1296856	-	159
140285	STM14_1524	378449740	-	1356451-1356600	hypothetical protein	1304641-1304790	-	150
140285	STM14_1528	378449744	+	1358977-1359201	hypothetical protein	1307167-1307391	+	225
140285	STM14_1533	378449749	-	1361225-1361380	hypothetical protein	1309415-1309570	-	156
140285	STM14_1536	378449752	-	1362034-1362159	hypothetical protein	1310224-1310349	-	126
140285	STM14_1538	378449754	+	1362921-1363106	hypothetical protein	1311111-1311296	+	186
140285	STM14_1540	378449756	-	1363413-1363529	hypothetical protein	1311603-1311719	-	117
140285	STM14_1541	378449757	-	1363501-1363599	hypothetical protein	1311691-1311789	-	99
140285	STM14_1545	378449761	-	1364743-1364856	hypothetical protein	1312933-1313046	-	114
140285	STM14_1546	378449762	+	1364774-1364911	hypothetical protein	1312964-1313101	+	138
140285	STM14_1550	378449766	+	1367385-1367522	hypothetical protein	1315575-1315712	+	138
140285	STM14_1554	378449770	+	1370048-1370245	hypothetical protein	1318238-1318435	+	198
140285	STM14_1555	378449771	+	1370136-1370267	salivary secreted protein	1318326-1318457	+	132
140285	STM14_1557	378449773	+	1371682-1371801	hypothetical protein	1319872-1319991	+	120
ST474	STM474_1289	379700457	+	1320526-1320669	hypothetical protein	1321839-1321982	+	144
140285	STM14_1559	378449775	-	1373854-1374027	hypothetical protein	1322043-1322216	-	174
140285	STM14_1564	378449780	-	1378335-1378511	hypothetical protein	1326524-1326700	-	177
140285	STM14_1566	378449782	+	1379655-1379795	hypothetical protein	1327844-1327984	+	141
140285	STM14_1569	378449785	+	1380898-1381002	hypothetical protein	1329088-1329192	+	105
140285	STM14_1572	378449788	+	1382785-1382889	hypothetical protein	1330975-1331079	+	105
140285	STM14_1581	378449797	+	1391859-1392038	hypothetical protein	1340049-1340228	+	180
140285	STM14_1587	378449803	+	1398234-1398449	hypothetical protein	1346424-1346639	+	216
ST474	STM474_1315	379700483	+	1347752-1347886	hypothetical protein	1349065-1349199	+	135
140285	STM14_1591	378449807	-	1400923-1401129	hypothetical protein	1349113-1349319	-	207
140285	STM14_1593	378449809	+	1401610-1401732	hypothetical protein	1349800-1349922	+	123
140285	STM14_1601	378449817	+	1409372-1409509	hypothetical protein	1357562-1357699	+	138
140285	STM14_1602	378449818	-	1409399-1409647	hypothetical protein	1357589-1357837	-	249
140285	STM14_1617	378449833	+	1421769-1421954	hypothetical protein	1369959-1370144	+	186
140285	STM14_1618	378449834	+	1421956-1422090	hypothetical protein	1370146-1370280	+	135
140285	STM14_1623	378449839	-	1425398-1425562	hypothetical protein	1373588-1373752	-	165
140285	STM14_1631	378449847	-	1432577-1432696	hypothetical protein	1380767-1380886	-	120
140285	STM14_1636	378449852	+	1436467-1436571	hypothetical protein	1384657-1384761	+	105
ST474	STM474_1353	379700521	+	1384122-1384307	hypothetical protein	1385435-1385620	+	186
140285	STM14_1638	378449854	-	1437586-1437699	hypothetical protein	1385776-1385889	-	114
140285	STM14_1645	378449861	-	1445506-1445658	hypothetical protein	1393696-1393848	-	153
140285	STM14_1652	378449868	+	1452598-1452744	hypothetical protein	1400788-1400934	+	147
140285	STM14_1653	378449869	-	1452728-1452838	hypothetical protein	1400918-1401028	-	111
140285	STM14_1658	378449873	-	1456308-1456475	hypothetical protein	1404499-1404666	-	168
ST474	STM474_1383	379700550	+	1418471-1418587	hypothetical protein	1419786-1419902	-	117
ST474	STM474_1395	379700562	+	1431868-1432002	hypothetical protein	1433183-1433317	+	135
140285	STM14_1685	378449900	-	1486016-1486129	hypothetical protein	1434207-1434320	-	114
140285	STM14_1692	378449907	+	1493410-1493517	hypothetical protein	1441601-1441708	+	108
140285	STM14_1719	378449934	+	1511477-1511602	hypothetical protein	1459668-1459793	+	126
140285	STM14_1728	378449941	+	1519171-1519452	hypothetical protein	1467362-1467643	+	282
140285	STM14_1751	378449964	+	1538110-1538277	hypothetical protein	1486301-1486468	+	168
140285	STM14_1761	410023179	-	1546024-1546179	hypothetical protein	1494215-1494370	-	156
140285	STM14_1764	378449977	+	1548438-1548683	hypothetical protein	1496629-1496874	+	246
140285	STM14_1771	378449982	+	1553745-1553906	fumarate A	1501936-1502097	+	162
140285	STM14_1776	378449987	-	1559385-1559690	outer membrane protein	1507576-1507881	-	306

140285	STM14_1782	378449992	-	1563882-1564016	putative amino acid permease	1512073-1512207	-	135
140285	STM14_1783	378449993	-	1563914-1564087	hypothetical protein	1512105-1512278	-	174
140285	STM14_1784	378449994	+	1564099-1564224	hypothetical protein	1512290-1512415	+	126
140285	STM14_1786	378449996	+	1565234-1565359	hypothetical protein	1513425-1513550	+	126
140285	STM14_1790	378450000	+	1569946-1570116	hypothetical protein	1518137-1518307	+	171
140285	STM14_1794	378450004	-	1571734-1572027	hypothetical protein	1519925-1520218	-	294
140285	STM14_1796	378450006	-	1572462-1572653	hypothetical protein	1520653-1520844	-	192
T000240	STMDT12_C14990	378984040	+	1560231-1560323	hypothetical protein	1520711-1520803	+	93
140285	STM14_1810	378450020	-	1586812-1587033	putative dimethyl sulfoxide reductase subunit A	1535003-1535224	-	222
140285	STM14_1816	378450026	-	1591641-1591757	hypothetical protein	1539832-1539948	-	117
ST474	STM474_1518	379700677	-	1542834-1542947	hypothetical protein	1544149-1544262	-	114
140285	STM14_1827	378450036	-	1601704-1601919	hypothetical protein	1549895-1550110	-	216
140285	STM14_1828	378450037	+	1601786-1601923	peptidyl-dipeptidase dcp	1549977-1550114	+	138
140285	STM14_1831	378450040	-	1602970-1603068	hypothetical protein	1551161-1551259	-	99
140285	STM14_1833	378450042	-	1603865-1604014	hypothetical protein	1552056-1552205	-	150
140285	STM14_1867	378450076	-	1634718-1634879	hypothetical protein	1582909-1583070	-	162
140285	STM14_1872	378450081	+	1637216-1637431	putative phage-related secreted protein	1585407-1585622	+	216
ST474	STM474_1578	379700736	-	1602385-1602519	hypothetical protein	1603701-1603835	-	135
140285	STM14_1890	378450098	+	1657503-1657634	hypothetical protein	1605695-1605826	+	132
140285	STM14_1895	378450103	+	1663489-1663641	hypothetical protein	1611681-1611833	+	153
140285	STM14_1897	378450105	-	1664885-1665067	hypothetical protein	1613077-1613259	-	183
140285	STM14_1902	378450110	+	1668962-1669093	hypothetical protein	1617154-1617285	+	132
140285	STM14_1904	378450112	-	1670559-1670702	hypothetical protein	1618751-1618894	-	144
140285	STM14_1911	378450119	-	1679194-1679457	hypothetical protein	1627386-1627649	-	264
140285	STM14_1913	378450121	+	1680178-1680390	hypothetical protein	1628370-1628582	+	213
140285	STM14_1914	378450122	-	1680335-1680472	hypothetical protein	1628527-1628664	-	138
140285	STM14_1915	378450123	+	1680342-1680476	hypothetical protein	1628534-1628668	+	135
140285	STM14_1919	378450127	-	1683664-1683783	hypothetical protein	1631856-1631975	-	120
140285	STM14_1922	378450130	+	1686850-1686969	hypothetical protein	1635042-1635161	+	120
140285	STM14_1923	378450131	-	1686958-1687080	hypothetical protein	1635150-1635272	-	123
140285	STM14_1932	410023183	+	1696611-1696706	hypothetical protein	1644803-1644898	+	96
140285	STM14_1933	378450141	+	1696703-1696807	hypothetical protein	1644895-1644999	+	105
140285	STM14_1939	378450147	-	1701681-1701785	hypothetical protein	1649873-1649977	-	105
140285	STM14_1950	378450158	+	1711642-1711749	hypothetical protein	1659834-1659941	+	108
140285	STM14_1961	378450169	+	1719701-1719814	hypothetical protein	1667893-1668006	+	114
140285	STM14_1967	378450175	+	1727480-1727695	hypothetical protein	1675672-1675887	+	216
T000240	STMDT12_C16480	378984189	-	1717552-1717677	hypothetical protein	1678030-1678155	-	126
ST474	STM474_1641	379700799	+	1676859-1677014	hypothetical protein	1678175-1678330	+	156
140285	STM14_1972	378450180	-	1731028-1731312	hypothetical protein	1679220-1679324	-	105
140285	STM14_1973	378450181	+	1731115-1731225	hypothetical protein	1679307-1679417	+	111
140285	STM14_1976	378450184	-	1733662-1733814	hypothetical protein	1681854-1682006	-	153
T000240	STMDT12_C16570	378984198	-	1726118-1726213	hypothetical protein	1686596-1686691	-	96
140285	STM14_1996	378450204	-	1755685-1755894	hypothetical protein	1703877-1704086	-	210
T000240	STMDT12_C16740	378984215	-	1744637-1744789	hypothetical protein	1705115-1705267	-	153
140285	STM14_2004	378450212	-	1762419-1762580	hypothetical protein	1710611-1710722	-	162
140285	STM14_2024	378450229	-	1779789-1779902	hypothetical protein	1727981-1728094	-	114
140285	STM14_2048	378450253	-	1800491-1800637	hypothetical protein	1748683-1748829	-	147
140285	STM14_2049	378450254	+	1800647-1800769	hypothetical protein	1748839-1748961	+	123
140285	STM14_2054	378450259	-	1803682-1803798	hypothetical protein	1751874-1751990	-	117
140285	STM14_2057	378450262	+	1807079-1807216	hypothetical protein	1755271-1755408	+	138
140285	STM14_2061	378450266	-	1810467-1810628	hypothetical protein	1758659-1758820	-	162
140285	STM14_2065	378450270	+	1812029-1812142	hypothetical protein	1760221-1760334	+	114
140285	STM14_2071	378450276	-	1818504-1818674	hypothetical protein	1766696-1766866	-	171
140285	STM14_2073	378450278	+	1820026-1820190	hypothetical protein	1768218-1768382	+	165
140285	STM14_2076	378450281	-	1823233-1823364	hypothetical protein	1771425-1771556	-	132
140285	STM14_2079	378450284	+	1824904-1825014	hypothetical protein	1773096-1773206	+	111
140285	STM14_2117	378450320	+	1858398-1858580	hypothetical protein	1806590-1806772	+	183
140285	STM14_2123	378450326	-	1863160-1863279	hypothetical protein	1811352-1811471	-	120
140285	STM14_2128	378450328	+	1865980-1866144	hypothetical protein	1814172-1814336	+	165
140285	STM14_2133	378450333	+	1872924-1873043	hypothetical protein	1821116-1821235	+	120
140285	STM14_2135	378450335	-	1874718-1874903	hypothetical protein	1822910-1823095	-	186
140285	STM14_2148	378450348	-	1886567-1886695	hypothetical protein	1834759-1834887	-	129
140285	STM14_2151	378450351	-	1888181-1888351	hypothetical protein	1836373-1836543	-	171
140285	STM14_2152	378450352	-	1888329-1888433	hypothetical protein	1836521-1836625	-	105
140285	STM14_2158	378450358	-	1893588-1893701	hypothetical protein	1841780-1841893	-	114
140285	STM14_2160	378450360	-	1895293-1895421	hypothetical protein	1843485-1843613	-	129
140285	STM14_2171	378450371	-	1905555-1905662	hypothetical protein	1853747-1853854	-	108
140285	STM14_2180	378450380	-	1914824-1914934	hypothetical protein	1863016-1863126	-	111
140285	STM14_2187	378450387	+	1920441-1920559	hypothetical protein	1868633-1868749	+	117
140285	STM14_2189	378450389	-	1920801-1920897	hypothetical protein	1868993-1869091	-	99
140285	STM14_2200	378450400	+	1928329-1928535	hypothetical protein	1876520-1876726	+	207
140285	STM14_2219	378450419	-	1946749-1946859	hypothetical protein	1894940-1895050	-	111
140285	STM14_2222	378450422	+	1947434-1947541	hypothetical protein	1895625-1895732	+	108
140285	STM14_2223	378450423	+	1947556-1947696	hypothetical protein	1895747-1895887	+	141
140285	STM14_2224	378450424	-	1947624-1947740	hypothetical protein	1895815-1895931	-	117
T000240	STMDT12_C18620	378984403	-	1934900-1935001	hypothetical protein	1897151-1897252	-	102
140285	STM14_2229	378450429	-	1949871-1949978	hypothetical protein	1898062-1898169	-	108
140285	STM14_2238	378450438	+	1961391-1961522	hypothetical protein	1909582-1909713	+	132
ST474	STM474_1877	379701031	-	1908925-1909098	hypothetical protein	1910953-1911126	-	174
140285	STM14_2243	378450443	+	1963183-1963311	hypothetical protein	1911374-1911502	+	129
140285	STM14_2245	378450445	+	1964429-1964551	hypothetical protein	1912620-1912742	+	123
140285	STM14_2246	378450446	-	1964644-1964787	hypothetical protein	1912835-1912978	-	144
D23580	STMWW_18461	378445260	+	1947071-1947241	hypothetical protein	1913437-1913607	+	171
140285	STM14_2250	378450450	-	1966960-1967154	hypothetical protein	1915151-1915345	-	195
ST474	STM474_1884	379701038	-	1913724-1913852	hypothetical protein	1915752-1915880	-	129
140285	STM14_2255	378450453	-	1970094-1970294	hypothetical protein	1918285-1918485	-	209
140285	STM14_2261	378450458	+	1973229-1973375	hypothetical protein	1921420-1921566	+	147
ST474	STM474_1893	379701046	-	1920052-1920177	arsenical pump membrane protein	1922080-1922205	-	126
140285	STM14_2263	378450459	-	1973981-1974151	hypothetical protein	1922172-1922342	-	171
140285	STM14_2264	378450460	+	1974277-1974393	tail fiber assembly protein	1922468-1922584	+	117
140285	STM14_2268	378450464	+	1976235-1976423	hypothetical protein	1924426-1924614	+	189
140285	STM14_2270	378450466	+	1976705-1976878	hypothetical protein	1924896-1925069	+	174
140285	STM14_2271	378450467	+	1976808-1976927	hypothetical protein	1924999-1925118	+	120

14028S	STM14_2276	378450471	-	1979312-1979440	hypothetical protein	1927503-1927631	-	129
T000240	STMDT12_C19080	378984449	+	1972383-1972478	hypothetical protein	1936438-1936533	+	96
14028S	STM14_2291	378450486	-	1990827-1990985	hypothetical protein	1939018-1939176	-	159
14028S	STM14_2293	378450488	+	1992662-1992787	hypothetical protein	1940853-1940978	+	126
14028S	STM14_2294	378450489	-	1992755-1992874	hypothetical protein	1940946-1941065	-	120
14028S	STM14_2298	378450493	+	1996367-1996594	hypothetical protein	1944558-1944785	+	228
14028S	STM14_2305	378450500	+	2002147-2002269	hypothetical protein	1950338-1950460	+	123
14028S	STM14_2306	378450501	-	2002264-2002389	hypothetical protein	1950455-1950580	-	126
14028S	STM14_2313	378450507	+	2008446-2008562	hypothetical protein	1956637-1956753	+	117
14028S	STM14_2321	378450515	+	2013869-2013985	hypothetical protein	1962060-1962176	+	117
14028S	STM14_2323	378450517	+	2015793-2015897	hypothetical protein	1963984-1964088	+	105
14028S	STM14_2329	378450523	+	2022930-2023187	hypothetical protein	1971121-1971378	+	258
14028S	STM14_2339	378450533	-	2032400-2032531	hypothetical protein	1980591-1980722	-	132
14028S	STM14_2342	378450536	-	2033684-2033827	hypothetical protein	1981875-1982018	-	144
14028S	STM14_2349	378450542	+	2038156-2038305	hypothetical protein	1986347-1986496	+	150
D23580	STMMW_19262	378445334	-	2022476-2022553	hypothetical protein	1998563-1998640	-	78
14028S	STM14_2379	378450569	-	2060568-2060705	hypothetical protein	2008760-2008897	-	138
14028S	STM14_2389	378450579	-	2067774-2067902	hypothetical protein	2015966-2016094	-	129
14028S	STM14_2411	378450600	+	2084253-2084468	hypothetical protein	2032445-2032660	+	216
ST474	STM474_2026	379701174	+	2034563-2034694	hypothetical protein	2036592-2036723	+	132
14028S	STM14_2417	378450606	+	2088843-2088962	hypothetical protein	2037035-2037154	+	120
14028S	STM14_2419	378450608	-	2090431-2090643	putative cold-shock protein	2038623-2038835	-	213
14028S	STM14_2421	378450610	-	2091089-2091208	hypothetical protein	2039281-2039400	-	120
14028S	STM14_2425	378450614	-	2093253-2093495	hypothetical protein	2041445-2041687	-	243
14028S	STM14_2454	378450641	-	2114790-2115140	hypothetical protein	2062983-2063333	-	351
14028S	STM14_2455	378450642	-	2115201-2115503	hypothetical protein	2063394-2063696	-	303
14028S	STM14_2456	378450643	-	2115612-2115710	hypothetical protein	2063805-2063903	-	99
14028S	STM14_2459	378450646	-	2116837-2117451	lytic enzyme (putative glycohydrolase)	2065030-2065644	-	615
14028S	STM14_2461	378450648	+	2117839-2117967	hypothetical protein	2066032-2066160	+	129
D23580	STMMW_20121	378445417	+	2090064-2090498	phage protein	2066153-2066587	+	435
14028S	STM14_2468	378450655	-	2122501-2123025	putative transcriptional activator	2070694-2071218	-	525
14028S	STM14_2478	378450665	+	2129593-2129823	hypothetical protein	2077786-2078016	+	231
T000240	STMDT12_C20240	378984565	-	2079358-2079462	hypothetical protein	2083561-2083665	-	105
SL1344	SL1344_1980	378699918	+	2082737-2083000	hypothetical protein	2084766-2085038	+	273
ST474	STM474_2085	379701227	-	2082744-2082878	hypothetical protein	2084773-2084907	-	135
ST474	STM474_2089	379701231	+	2088148-2088282	hypothetical protein	2090177-2090311	+	135
798	UMN798_2172	383496723	-	2087536-2087634	hypothetical protein	2090204-2090302	-	99
T000240	STMDT12_C20320	378984573	+	2086418-2086567	hypothetical protein	2090621-2090770	+	150
14028S	STM14_2494	378450678	-	2142487-2142741	hypothetical protein	2090680-2090934	-	255
ST474	STM474_2091	379701233	+	2088820-2088942	hypothetical protein	2090849-2090971	+	123
14028S	STM14_2497	378450681	-	2144828-2145214	hypothetical protein	2093021-2093407	-	387
14028S	STM14_2498	378450682	+	2145540-2145707	hypothetical protein	2093733-2093900	+	168
14028S	STM14_2501	378450684	-	2147387-2147539	hypothetical protein	2095580-2095732	-	153
14028S	STM14_2524	378450706	-	2165668-2165799	hypothetical protein	2113861-2113992	-	132
14028S	STM14_2549	378450731	-	2185570-2185701	hypothetical protein	2133762-2133893	-	132
14028S	STM14_2556	378450738	-	2192950-2193219	hypothetical protein	2141142-2141411	-	270
14028S	STM14_2558	378450740	-	2195674-2195796	hypothetical protein	2143866-2143988	-	123
14028S	STM14_2561	378450743	+	2198729-2198896	hypothetical protein	2146921-2147088	+	168
14028S	STM14_2562	378450744	-	2198740-2198937	hypothetical protein	2146932-2147129	-	198
14028S	STM14_2599	378450781	+	2239941-2240216	hypothetical protein	2188134-2188409	+	276
14028S	STM14_2614	378450796	+	2254277-2254522	hypothetical protein	2202470-2202715	+	246
14028S	STM14_2619	378450801	-	2259828-2259998	hypothetical protein	2208021-2208191	-	171
14028S	STM14_2623	378450805	-	2265633-2265749	hypothetical protein	2213825-2213941	-	117
14028S	STM14_2635	378450816	-	2282708-2282821	hypothetical protein	2230900-2231013	-	114
14028S	STM14_2639	378450819	+	2285114-2285233	hypothetical protein	2233306-2233425	+	120
14028S	STM14_2640	378450820	-	2285366-2285482	hypothetical protein	2233558-2233674	-	117
14028S	STM14_2649	378450829	-	2293497-2293682	hypothetical protein	2241689-2241874	-	186
14028S	STM14_2651	378450831	-	2294185-2294343	hypothetical protein	2242377-2242535	-	159
ST474	STM474_2254	379701393	+	2258581-2258763	hypothetical protein	2260610-2260792	+	183
14028S	STM14_2671	378450851	-	2315124-2315237	hypothetical protein	2263316-2263429	-	114
14028S	STM14_2674	378450854	-	2317916-2318191	hypothetical protein	2266108-2266383	-	276
14028S	STM14_2676	378450856	+	2318810-2318917	hypothetical protein	2267002-2267109	+	108
14028S	STM14_2697	378450877	+	2338065-2338184	hypothetical protein	2286257-2286376	+	120
14028S	STM14_2701	378450881	+	2340683-2340847	hypothetical protein	2288875-2289039	+	165
14028S	STM14_2704	378450884	-	2342649-2342762	hypothetical protein	2290841-2290954	-	114
14028S	STM14_2705	378450885	-	2342720-2342848	hypothetical protein	2290912-2291040	-	129
14028S	STM14_2706	378450886	+	2342834-2343067	hypothetical protein	2291026-2291259	+	234
14028S	STM14_2710	378450890	-	2345635-2345787	hypothetical protein	2293827-2293979	-	153
14028S	STM14_2714	378450894	+	2349999-2350304	hypothetical protein	2298191-2298496	+	306
14028S	STM14_2716	378450896	-	2351963-2352097	hypothetical protein	2300155-2300289	-	135
14028S	STM14_2718	378450898	-	2352991-2353110	hypothetical protein	2301183-2301302	-	120
ST474	STM474_2293	379701432	-	2300273-2300395	hypothetical protein	2302302-2302424	-	123
14028S	STM14_2724	378450904	+	2358928-2359059	hypothetical protein	2307120-2307251	+	132
14028S	STM14_2725	378450905	+	2359144-2359266	hypothetical protein	2307336-2307458	+	123
14028S	STM14_2726	378450906	-	2359149-2359277	hypothetical protein	2307341-2307469	-	129
14028S	STM14_2730	378450910	-	2361472-2361576	hypothetical protein	2309664-2309768	-	105
14028S	STM14_2731	378450911	-	2361699-2361953	hypothetical protein	2309891-2310145	-	255
14028S	STM14_2736	378450915	-	2364975-2365205	hypothetical protein	2313167-2313397	-	231
14028S	STM14_2738	378450917	+	2365897-2366040	hypothetical protein	2314089-2314232	+	144
14028S	STM14_2750	378450929	-	2378246-2378392	hypothetical protein	2326438-2326584	-	147
T000240	STMDT12_C22520	378984793	-	2327280-2327405	hypothetical protein	2331482-2331607	-	126
14028S	STM14_2764	378450942	-	2389094-2389207	hypothetical protein	2337286-2337399	-	114
14028S	STM14_2774	378450952	+	2397715-2397861	hypothetical protein	2345907-2346053	+	147
14028S	STM14_2791	378450969	+	2411310-2411441	hypothetical protein	2359502-2359633	+	132
14028S	STM14_2798	378450976	+	2418131-2418256	hypothetical protein	2366323-2366448	+	126
14028S	STM14_2803	378450980	-	2425164-2425280	hypothetical protein	2373356-2373472	-	117
14028S	STM14_2805	378450982	+	2427980-2428210	hypothetical protein	2376172-2376402	+	231
14028S	STM14_2806	378450983	+	2428153-2428293	hypothetical protein	2376345-2376485	+	141
14028S	STM14_2811	378450988	+	2432657-2432773	hypothetical protein	2380849-2380965	+	117
14028S	STM14_2822	378450999	+	2445948-2446052	hypothetical protein	2394140-2394244	+	105
14028S	STM14_2823	378451000	+	2446155-2446358	hypothetical protein	2394347-2394550	+	204
14028S	STM14_2834	378451011	+	2455277-2455405	hypothetical protein	2403469-2403597	+	129
ST474	STM474_2412	379701547	-	2421293-2421412	hypothetical protein	2423322-2423441	-	120

140285	STM14_2854	378451030	-	2475407-2475529	hypothetical protein	2423600-2423722	-	123
140285	STM14_2855	378451031	+	2475538-2475645	hypothetical protein	2423731-2423838	+	108
140285	STM14_2856	378451032	-	2475654-2475836	hypothetical protein	2423847-2424029	+	183
140285	STM14_2870	378451046	+	2491031-2491153	hypothetical protein	2439224-2439346	+	123
140285	STM14_2871	378451047	-	2491241-2491357	hypothetical protein	2439434-2439550	-	117
140285	STM14_2880	378451056	-	2499179-2499430	hypothetical protein	2447372-2447623	-	252
140285	STM14_2881	378451057	+	2499320-2499454	hypothetical protein	2447513-2447647	+	135
140285	STM14_2890	378451066	+	2508681-2508854	hypothetical protein	2456874-2457047	+	174
140285	STM14_2902	378451078	+	2517875-2518045	hypothetical protein	2466068-2466238	+	171
140285	STM14_2911	378451087	-	2527947-2528102	hypothetical protein	2476140-2476295	-	156
140285	STM14_2921	378451097	+	2537322-2537438	hypothetical protein	2485515-2485631	+	117
140285	STM14_2940	378451116	+	2553683-2553823	hypothetical protein	2501876-2502016	+	141
140285	STM14_2941	378451117	-	2553820-2553948	hypothetical protein	2502013-2502141	-	129
T000240	STMDT12_C24200	378984961	+	2507125-2507337	hypothetical protein	2511327-2511539	+	213
140285	STM14_2955	378451130	-	2569137-2569283	hypothetical protein	2517330-2517476	-	147
140285	STM14_2959	378451134	+	2573587-2573775	hypothetical protein	2521780-2521968	+	189
140285	STM14_2986	378451155	+	2595762-2595923	hypothetical protein	2543955-2544116	+	162
140285	STM14_2987	410023203	-	2595873-2595998	hypothetical protein	2544066-2544191	-	126
140285	STM14_2988	378451157	+	2595966-2596094	hypothetical protein	2544159-2544287	+	129
140285	STM14_3032	378451201	+	2633812-2634012	hypothetical protein	2582005-2582205	+	201
140285	STM14_3036	378451205	-	2637342-2637476	hypothetical protein	2585535-2585669	-	135
140285	STM14_3040	378451209	+	2640806-2640913	hypothetical protein	2588999-2589106	+	108
140285	STM14_3043	378451212	-	2645096-2645227	hypothetical protein	2593289-2593420	-	132
140285	STM14_3063	378451232	-	2664349-2664552	hypothetical protein	2612542-2612745	-	204
T000240	STMDT12_C25240	378985065	+	2617191-2617382	putative cytoplasmic protein	2621512-2621703	+	192
140285	STM14_3079	378451248	+	2685671-2685784	hypothetical protein	2633864-2633977	+	114
140285	STM14_3080	378451249	+	2685675-2685857	hypothetical protein	2633868-2634050	+	183
140285	STM14_3081	378451250	-	2685854-2685967	hypothetical protein	2634047-2634160	-	114
ST474	STM474_2618	379701745	+	2646222-2646344	hypothetical protein	2648251-2648373	+	123
140285	STM14_3086	378451254	+	2702354-2702470	hypothetical protein	2650547-2650663	+	117
140285	STM14_3087	378451255	-	2702529-2702684	hypothetical protein	2650722-2650877	-	156
140285	STM14_3090	378451258	+	2704480-2704581	hypothetical protein	2652673-2652774	+	102
140285	STM14_3096	378451264	-	2710094-2710216	type IV pilus biogenesis/stability protein PilW	2658287-2658409	-	123
140285	STM14_3099	378451267	+	2712052-2712147	hypothetical protein	2660245-2660340	+	96
140285	STM14_3107	378451275	-	2725280-2725504	hypothetical protein	2673491-2673715	-	225
ST474	STM474_2636	379701763	+	2671480-2671593	hypothetical protein	2673527-2673640	+	114
140285	STM14_3109	378451277	-	2726253-2726387	hypothetical protein	2674464-2674598	-	135
140285	STM14_3119	378451287	+	2734356-2734475	hypothetical protein	2682567-2682686	+	120
140285	STM14_3122	378451290	+	2735856-2735978	hypothetical protein	2684067-2684189	+	123
140285	STM14_3123	378451291	-	2735883-2735993	hypothetical protein	2684094-2684204	-	111
140285	STM14_3134	378451302	-	2746625-2746771	hypothetical protein	2694836-2694982	-	147
140285	STM14_3144	378451312	+	2759420-2759548	hypothetical protein	2707631-2707759	+	129
140285	STM14_3165	378451333	-	2782226-2782354	hypothetical protein	2730437-2730565	-	129
ST474	STM474_2692	379701819	+	2729509-2729628	integrase, catalytic region	2731556-2731675	-	120
SL1344	SL1344_2548	378700486	-	2730253-2730318	bacteriophage protein	2732300-2732365	-	66
D23580	STM474_26031	378446002	-	2757050-2757262	putative prophage protein	2732428-2732640	-	213
140285	STM14_1473	378449695	-	1321447-1322052	hypothetical protein	2741283-2741888	+	606
140285	STM14_3197	378451364	+	2811771-2811908	hypothetical protein	2759971-2760108	+	138
140285	STM14_3202	378451368	-	2814160-2814285	hypothetical protein	2762360-2762485	-	126
140285	STM14_3206	378451372	-	2815861-2816061	hypothetical protein	2764061-2764261	-	201
140285	STM14_1440	378449663	+	1298794-1299042	putative bacteriophage protein	2764904-2765152	-	249
140285	STM14_3209	378451375	+	2816906-2817040	prophage DinI	2765106-2765240	+	135
140285	STM14_3229	378451395	+	2830868-2831005	hypothetical protein	2779120-2779257	+	138
140285	STM14_3230	378451396	-	2831002-2831118	hypothetical protein	2779254-2779370	-	117
140285	STM14_3235	378451401	-	2833834-2833998	hypothetical protein	2782086-2782250	-	165
140285	STM14_3236	378451402	-	2833998-2834177	hypothetical protein	2782250-2782429	-	180
140285	STM14_3239	378451405	-	2836525-2836725	putative methyltransferase	2784777-2784977	-	201
140285	STM14_3249	378451415	+	2846371-2846505	hypothetical protein	2794623-2794757	+	135
140285	STM14_3259	378451420	+	2855709-2855837	hypothetical protein	2803962-2804090	+	129
140285	STM14_3260	378451421	+	2855915-2856031	hypothetical protein	2804168-2804284	+	117
140285	STM14_3267	378451427	+	2861933-2862097	hypothetical protein	2810186-2810350	+	165
140285	STM14_3272	378451432	+	2866577-2866735	hypothetical protein	2814830-2814988	+	159
140285	STM14_3273	378451433	-	2866637-2866750	hypothetical protein	2814890-2815003	-	114
140285	STM14_3280	378451440	-	2870862-2871008	hypothetical protein	2819115-2819261	-	147
140285	STM14_3282	378451442	+	2872506-2872700	putative cytochrome c-type biogenesis protein (heme exporter)	2820759-2820953	+	195
140285	STM14_3291	378451450	-	2879362-2879469	hypothetical protein	2827615-2827722	-	108
140285	STM14_3295	378451454	+	2881056-2881160	hypothetical protein	2829309-2829413	+	105
140285	STM14_3296	378451455	-	2881388-2881540	hypothetical protein	2829641-2829793	-	153
140285	STM14_3301	378451459	-	2898012-2898236	hypothetical protein	2846265-2846489	-	225
140285	STM14_3309	378451467	+	2905915-2906040	hypothetical protein	2854168-2854293	+	126
140285	STM14_3312	378451470	-	2908421-2908582	hypothetical protein	2856674-2856835	-	162
140285	STM14_3324	378451481	-	2917712-2917867	hypothetical protein	2865965-2866120	-	156
140285	STM14_3326	378451483	-	2919626-2919739	hypothetical protein	2867879-2867992	-	114
ST474	STM474_2898	379702018	-	2927700-2927858	hypothetical protein	2873612-2873770	-	159
T000240	STMDT12_C28220	378985362	-	2935935-2936111	hypothetical protein	2880857-2881033	-	177
140285	STM14_3340	378451496	+	2935806-2935976	hypothetical protein	2884059-2884229	+	171
140285	STM14_3341	378451497	-	2936002-2936229	hypothetical protein	2884255-2884482	-	228
140285	STM14_3342	378451498	-	2936297-2936449	hypothetical protein	2884550-2884702	-	153
140285	STM14_3343	378451499	+	2936325-2936507	hypothetical protein	2884578-2884760	+	183
140285	STM14_3351	378451506	+	2948161-2948499	hypothetical protein	2896414-2896752	+	339
140285	STM14_3353	378451508	+	2949636-2949833	hypothetical protein	2897889-2898086	+	198
140285	STM14_3355	378451510	-	2950805-2950957	hypothetical protein	2899058-2899210	-	153
140285	STM14_3356	378451511	+	2951059-2951226	hypothetical protein	2899312-2899479	+	168
140285	STM14_3364	378451519	+	2957937-2958050	hypothetical protein	2906190-2906303	+	114
140285	STM14_3372	378451527	+	2965822-2965938	hypothetical protein	2914075-2914191	+	117
140285	STM14_3378	378451533	+	2968220-2968345	hypothetical protein	2916473-2916598	+	126
140285	STM14_3379	378451534	+	2968355-2968534	hypothetical protein	2916608-2916787	+	180
140285	STM14_3382	378451537	-	2969378-2969494	hypothetical protein	2917631-2917747	-	117
140285	STM14_3386	378451541	+	2971817-2971993	hypothetical protein	2920070-2920246	+	177
140285	STM14_3394	378451549	+	2979522-2979632	hypothetical protein	2927775-2927885	+	111
140285	STM14_3396	378451551	-	2981060-2981167	hypothetical protein	2929313-2929420	-	108
140285	STM14_3398	378451553	-	2981900-2982022	hypothetical protein	2930153-2930275	-	123
140285	STM14_3411	378451561	+	2991063-2991173	hypothetical protein	2939316-2939426	+	111

140285	STM14_3414	378451564	+	2994186-2994350	hypothetical protein	2942439-2942603	+	165
140285	STM14_3415	378451565	-	2994269-2994475	hypothetical protein	2942522-2942728	-	207
140285	STM14_3419	378451569	+	2996927-2997172	hypothetical protein	2945180-2945425	+	246
140285	STM14_3421	378451571	+	2998326-2998466	hypothetical protein	2946579-2946719	+	141
140285	STM14_3427	378451577	-	3001727-3001867	hypothetical protein	2949980-2950120	-	141
140285	STM14_3433	378451583	-	3007751-3007963	hydrogenase maturation protein	2956004-2956216	-	213
140285	STM14_3435	378451585	-	3010214-3010348	hypothetical protein	2958467-2958601	-	135
140285	STM14_3437	378451587	-	3010872-3011006	hypothetical protein	2959125-2959259	-	135
140285	STM14_3447	378451597	-	3019238-3019342	hypothetical protein	2967491-2967595	-	105
140285	STM14_3449	378451599	+	3019869-3020072	hypothetical protein	2968122-2968325	+	204
140285	STM14_3457	378451607	+	3026426-3026551	hypothetical protein	2974679-2974804	+	126
140285	STM14_3464	378451614	+	3032212-3032319	hypothetical protein	2980465-2980572	+	108
140285	STM14_3466	378451616	-	3033296-3033403	hypothetical protein	2981549-2981656	-	108
140285	STM14_3502	378451652	-	3066393-3066497	hypothetical protein	3014646-3014750	-	105
D23580	STMMW_28661	378446261	+	3039872-3039979	pathogenicity island 1 protein	3015374-3015481	+	108
140285	STM14_3504	378451654	+	3067340-3067483	hypothetical protein	3015593-3015736	-	144
140285	STM14_3508	378451657	+	3068687-3068806	hypothetical protein	3016940-3017059	+	120
140285	STM14_3528	378451677	+	3087981-3088118	hypothetical protein	3036221-3036358	+	138
140285	STM14_3535	378451684	-	3092010-3092120	hypothetical protein	3040250-3040360	-	111
ST474	STM474_3077	379702190	+	3100048-3100164	hypothetical protein	3045964-3046080	+	117
140285	STM14_3549	378451698	-	3106978-3107112	hypothetical protein	3054730-3054864	-	135
ST474	STM474_3093	379702206	+	3116333-3116446	hypothetical protein	3062249-3062362	+	114
140285	STM14_3560	378451709	+	3121321-3121458	hypothetical protein	3068890-3069027	+	138
140285	STM14_3561	378451710	+	3121826-3121978	putative fibrillar subunit	3069395-3069547	+	153
140285	STM14_3562	378451711	-	3121988-3122278	hypothetical protein	3069557-3069847	-	291
140285	STM14_3571	378451720	+	3134509-3134736	hypothetical protein	3082078-3082305	+	228
140285	STM14_3579	378451727	+	3140022-3140165	hypothetical protein	3087591-3087734	+	144
140285	STM14_3580	378451728	+	3140255-3140359	hypothetical protein	3087824-3087928	+	105
140285	STM14_3583	378451731	-	3143293-3143478	hypothetical protein	3090862-3091047	-	186
140285	STM14_3585	378451733	-	3144205-3144342	L-1,2-propanediol oxidoreductase	3091774-3091911	-	138
140285	STM14_3588	378451736	-	3146280-3146447	hypothetical protein	3093849-3094016	-	168
140285	STM14_3600	378451747	+	3157563-3157685	hypothetical protein	3105132-3105254	+	123
140285	STM14_3616	378451761	+	3177651-3177833	hypothetical protein	3125220-3125402	+	183
140285	STM14_3619	378451764	-	3179499-3179657	hypothetical protein	3127068-3127226	-	159
140285	STM14_3622	378451767	-	3182548-3182661	hypothetical protein	3130117-3130230	-	114
140285	STM14_3623	378451768	+	3182641-3182757	hypothetical protein	3130210-3130326	+	117
140285	STM14_3624	378451769	-	3182858-3183004	hypothetical protein	3130427-3130573	-	147
140285	STM14_3625	378451770	+	3183029-3183154	hypothetical protein	3130598-3130723	+	126
140285	STM14_3626	378451771	-	3183053-3183160	hypothetical protein	3130622-3130729	-	108
140285	STM14_3628	378451773	+	3183985-3184095	hypothetical protein	3131554-3131664	+	111
140285	STM14_3631	378451776	+	3185172-3185342	hypothetical protein	3132741-3132911	+	171
D23580	STMMW_29721	378446366	-	3162322-3162468	hypothetical protein	3137690-3137836	-	147
140285	STM14_3635	378451780	-	3190309-3190434	hypothetical protein	3137878-3138003	-	126
140285	STM14_3642	378451787	-	3197131-3197247	hypothetical protein	3144700-3144816	-	117
140285	STM14_3645	378451790	-	3199028-3199198	hypothetical protein	3146597-3146767	-	171
140285	STM14_3649	378451794	+	3202193-3202315	hypothetical protein	3149762-3149884	+	123
140285	STM14_3658	378451803	+	3210549-3210968	hypothetical protein	3158154-3158573	+	420
140285	STM14_3662	378451807	-	3213534-3213719	hypothetical protein	3161139-3161324	-	186
140285	STM14_3666	378451810	-	3215425-3215670	hypothetical protein	3163030-3163275	-	246
T000240	STMDT12_C30880	378985628	+	3219618-3219734	hypothetical protein	3163099-3163215	+	117
140285	STM14_3670	378451813	+	3217519-3217686	hypothetical protein	3165124-3165291	+	168
140285	STM14_3680	378451823	+	3225806-3226042	hypothetical protein	3173411-3173647	+	237
140285	STM14_3686	378451829	-	3230904-3231050	immunoglobulin VH domain protein	3178509-3178655	-	147
140285	STM14_3690	378451833	+	3235813-3235968	hypothetical protein	3183418-3183573	+	156
140285	STM14_3691	378451834	+	3236175-3236279	hypothetical protein	3183780-3183884	+	105
140285	STM14_3693	378451836	+	3237457-3237624	hypothetical protein	3185062-3185229	+	168
140285	STM14_3700	378451843	+	3243685-3243795	hypothetical protein	3191290-3191400	+	111
140285	STM14_3702	378451845	+	3244595-3244732	hypothetical protein	3192200-3192337	+	138
140285	STM14_3704	378451847	+	3245634-3245885	hypothetical protein	3193239-3193490	+	252
140285	STM14_3711	378451854	+	3252233-3252433	hypothetical protein	3199838-3200038	+	201
140285	STM14_3718	378451861	+	3257540-3257698	hypothetical protein	3205145-3205303	+	159
140285	STM14_3722	378451865	+	3260720-3260824	hypothetical protein	3208325-3208429	+	105
ST474	STM474_3231	379702341	+	3267369-3267485	putative racemase	3213393-3213509	+	117
140285	STM14_3734	378451876	-	3271996-3272121	hypothetical protein	3219601-3219726	-	126
140285	STM14_3751	378451893	-	3285668-3285820	hypothetical protein	3233273-3233425	-	153
140285	STM14_3757	378451899	-	3289138-3289263	hypothetical protein	3236743-3236868	-	126
140285	STM14_3759	378451901	-	3290425-3290550	hypothetical protein	3238030-3238155	-	126
140285	STM14_3762	378451903	-	3293235-3293459	hypothetical protein	3240840-3241064	-	225
140285	STM14_3763	378451904	+	3293413-3293547	hypothetical protein	3241018-3241152	+	135
140285	STM14_3773	378451913	-	3301831-3301965	hypothetical protein	3249436-3249570	-	135
140285	STM14_3774	378451914	+	3302110-3302214	hypothetical protein	3249715-3249819	+	105
140285	STM14_3778	378451918	-	3305157-3305300	hypothetical protein	3252762-3252905	-	144
140285	STM14_3779	378451919	-	3305240-3305395	putative cytoplasmic protein	3252845-3253000	-	156
140285	STM14_3783	378451923	+	3308724-3308864	hypothetical protein	3256329-3256469	+	141
T000240	STMDT12_C31860	378985726	+	3314720-3314875	hypothetical protein	3257314-3257469	+	156
140285	STM14_3786	378451926	+	3310018-3310173	hypothetical protein	3257623-3257778	+	156
140285	STM14_3789	378451928	+	3312290-3312427	hypothetical protein	3259897-3260034	+	138
140285	STM14_3790	378451929	-	3312496-3312606	hypothetical protein	3260103-3260213	-	111
140285	STM14_3792	378451931	+	3314050-3314181	hypothetical protein	3261657-3261788	+	132
140285	STM14_3793	378451932	-	3314188-3314334	hypothetical protein	3261795-3261941	-	147
140285	STM14_3794	378451933	+	3314216-3314410	hypothetical protein	3261823-3262017	+	195
140285	STM14_3798	378451937	+	3318584-3318703	hypothetical protein	3266191-3266310	+	120
140285	STM14_3800	378451939	-	3319990-3320106	hypothetical protein	3267597-3267713	-	117
140285	STM14_3801	378451940	+	3320290-3320487	hypothetical protein	3267897-3268094	+	198
140285	STM14_3803	378451942	-	3322464-3322571	hypothetical protein	3270071-3270178	-	108
ST474	STM474_3301	379702409	-	3334473-3334658	hypothetical protein	3279628-3279813	-	186
140285	STM14_3815	378451954	+	3332051-3332179	hypothetical protein	3279658-3279786	+	129
140285	STM14_3830	378451969	+	3342234-3342434	hypothetical protein	3289841-3290041	+	201
140285	STM14_3833	378451972	-	3344492-3344629	hypothetical protein	3292099-3292236	-	138
140285	STM14_3834	378451973	+	3344530-3344640	hypothetical protein	3292137-3292247	+	111
ST474	STM474_3318	379702426	-	3348584-3348700	hypothetical protein	3293739-3293855	-	117
140285	STM14_3837	378451976	+	3346625-3346789	hypothetical protein	3294232-3294396	+	165
140285	STM14_3840	378451979	-	3349441-3349545	hypothetical protein	3297048-3297152	-	105

14028S	STM14_3851	378451990	+	3361049-3361165	hypothetical protein	3308656-3308772	+	117
ST474	STM474_3334	379702442	-	3364546-3364662	hypothetical protein	3309701-3309817	-	117
14028S	STM14_3860	378451999	+	3368291-3368398	hypothetical protein	3315898-3316005	+	108
T000240	STM14_3872	378452011	-	3377873-3378022	hypothetical protein	3325480-3325629	-	150
14028S	STM14_3875	378452014	+	3380454-3380651	hypothetical protein	3328061-3328258	+	198
14028S	STM14_3884	378452023	+	3390891-3391163	hypothetical protein	3338498-3338770	+	273
14028S	STM14_3895	378452033	+	3402540-3402695	hypothetical protein	3350147-3350302	+	156
14028S	STM14_3901	378452039	-	3408358-3408459	hypothetical protein	3355965-3356066	-	102
14028S	STM14_3904	378452042	+	3410298-3410435	hypothetical protein	3357905-3358042	+	138
14028S	STM14_3907	378452045	-	3412994-3413194	hypothetical protein	3360601-3360801	-	201
ST474	STM474_3403	379702507	+	3435178-3435297	hypothetical protein	3380333-3380452	+	120
D23580	STMMW_32461	378446633	+	3437229-3437615	hypothetical protein	3380665-3381051	+	387
14028S	STM14_3932	378452069	-	3436508-3436648	hypothetical protein	3384115-3384255	-	141
14028S	STM14_3933	378452070	+	3436575-3436694	hypothetical protein	3384182-3384301	+	120
14028S	STM14_3934	378452071	+	3436648-3436776	hypothetical protein	3384255-3384383	+	129
14028S	STM14_3938	378452075	+	3440518-3440661	hypothetical protein	3388125-3388268	+	144
14028S	STM14_3965	378452100	-	3464611-3464718	hypothetical protein	3412218-3412325	-	108
14028S	STM14_3987	378452120	+	3483983-3484117	hypothetical protein	3431590-3431724	+	135
14028S	STM14_3996	378452128	-	3490436-3490546	hypothetical protein	3438043-3438153	-	111
14028S	STM14_4018	378452150	-	3508092-3508241	hypothetical protein	3455699-3455848	-	150
14028S	STM14_4019	378452151	-	3508281-3508475	hypothetical protein	3455888-3456082	-	195
14028S	STM14_4023	378452155	+	3515633-3515794	hypothetical protein	3463240-3463401	+	162
14028S	STM14_4034	378452166	+	3525086-3525205	hypothetical protein	3472693-3472812	+	120
14028S	STM14_4051	378452183	-	3540466-3540597	malate dehydrogenase	3488073-3488204	+	132
14028S	STM14_4053	378452185	+	3541795-3541923	hypothetical protein	3489402-3489530	+	129
T000240	STM14_4059	378452192	+	3551875-3551970	hypothetical protein	3490117-3490212	+	96
ST474	STM474_3527	379702628	-	3554690-3554815	hypothetical protein	3494776-3494901	-	126
14028S	STM14_4069	378452201	+	3558566-3558757	hypothetical protein	3506173-3506364	+	192
14028S	STM14_4074	378452206	-	3563669-3563851	hypothetical protein	3511276-3511458	-	183
14028S	STM14_4075	378452207	+	3563867-3563971	hypothetical protein	3511474-3511578	+	105
14028S	STM14_4081	378452213	-	3568595-3568738	hypothetical protein	3516202-3516345	-	144
14028S	STM14_4088	378452220	-	3574592-3574753	hypothetical protein	3522199-3522360	-	162
14028S	STM14_4089	378452221	+	3574662-3574820	hypothetical protein	3522269-3522427	+	159
14028S	STM14_4093	378452225	+	3579746-3579922	hypothetical protein	3527353-3527529	+	177
14028S	STM14_4094	378452226	-	3580182-3580316	hypothetical protein	3527789-3527923	-	135
14028S	STM14_4095	378452227	+	3580370-3580480	hypothetical protein	3527977-3528087	+	111
T000240	STM14_4148	378452275	-	3611988-3612179	elongation factor Tu	3559595-3559786	-	192
ST474	STM474_3611	379702705	+	3620933-3621070	hypothetical protein	3560916-3561053	+	138
14028S	STM14_4163	378452290	+	3623551-3623655	hypothetical protein	3571158-3571262	+	105
14028S	STM14_4167	378452293	+	3626355-3626480	hypothetical protein	3573962-3574087	+	126
14028S	STM14_4172	378452298	+	3629162-3629344	hypothetical protein	3576769-3576951	+	183
14028S	STM14_4180	378452306	+	3635785-3635937	hypothetical protein	3583392-3583544	+	153
14028S	STM14_4182	378452308	-	3637245-3637421	hypothetical protein	3584852-3585028	-	177
14028S	STM14_4185	378452311	-	3640241-3640396	hypothetical protein	3587848-3588003	-	156
14028S	STM14_4192	378452318	-	3649991-3650131	hypothetical protein	3597598-3597738	-	141
14028S	STM14_4207	378452333	-	3663870-3663983	hypothetical protein	3611477-3611590	-	114
14028S	STM14_4213	378452339	-	3670273-3670407	hypothetical protein	3617880-3618014	-	135
14028S	STM14_4214	378452340	+	3670342-3670449	hypothetical protein	3617949-3618056	+	108
14028S	STM14_4220	378452346	+	3677538-3677768	hypothetical protein	3625145-3625375	+	231
14028S	STM14_4224	378452350	+	3680653-3680766	hypothetical protein	3628260-3628373	+	114
14028S	STM14_4229	378452355	-	3684140-3684289	hypothetical protein	3631747-3631896	-	150
14028S	STM14_4233	378452359	-	3690393-3690500	hypothetical protein	3638000-3638107	-	108
14028S	STM14_4240	378452366	-	3698369-3698491	hypothetical protein	3645975-3646097	-	123
14028S	STM14_4243	378452369	-	3700901-3701017	hypothetical protein	3648507-3648623	-	117
14028S	STM14_4259	378452384	-	3722125-3722298	hypothetical protein	3669731-3669904	-	174
14028S	STM14_4261	378452386	+	3723463-3723627	hypothetical protein	3671069-3671233	+	165
14028S	STM14_4269	378452393	+	3728906-3729031	hypothetical protein	3676512-3676637	+	126
14028S	STM14_4270	378452394	+	3729191-3729319	hypothetical protein	3676797-3676925	+	129
ST474	STM474_3713	379702806	-	3737509-3737628	hypothetical protein	3677491-3677610	-	120
14028S	STM14_4277	378452401	+	3735927-3736031	hypothetical protein	3683534-3683638	+	105
14028S	STM14_4291	378452415	-	3747318-3747434	hypothetical protein	3694925-3695041	-	117
14028S	STM14_4296	378452420	+	3750462-3750605	hypothetical protein	3698069-3698212	+	144
14028S	STM14_4316	378452440	+	3770553-3770684	hypothetical protein	3718160-3718291	+	132
14028S	STM14_4325	378452449	+	3781138-3781305	hypothetical protein	3728745-3728912	+	168
14028S	STM14_4333	378452457	+	3789092-3789217	hypothetical protein	3736699-3736824	+	126
14028S	STM14_4336	378452460	-	3792675-3792815	hypothetical protein	3740282-3740422	-	141
14028S	STM14_4339	378452463	-	3794036-3794179	hypothetical protein	3741643-3741786	-	144
14028S	STM14_4340	378452464	+	3794140-3794265	hypothetical protein	3741747-3741872	+	126
14028S	STM14_4343	378452467	+	3796527-3796667	hypothetical protein	3744134-3744274	+	141
14028S	STM14_4347	378452471	-	3801111-3801227	hypothetical protein	3748718-3748834	-	117
14028S	STM14_4350	378452474	+	3803739-3803876	hypothetical protein	3751346-3751483	+	138
14028S	STM14_4352	378452476	-	3805315-3805461	hypothetical protein	3752922-3753068	-	147
14028S	STM14_4354	378452478	-	3807400-3807591	hypothetical protein	3755007-3755198	-	192
14028S	STM14_4361	378452485	+	3818231-3818344	hypothetical protein	3765838-3765951	+	114
14028S	STM14_4366	378452489	-	3822083-3822277	hypothetical protein	3769690-3769884	-	195
14028S	STM14_4374	378452497	-	3827982-3828101	hypothetical protein	3775589-3775708	-	120
14028S	STM14_4378	378452501	-	3832781-3832954	hypothetical protein	3780388-3780561	-	174
14028S	STM14_4379	378452502	+	3832815-3832976	hypothetical protein	3780422-3780583	+	162
14028S	STM14_4388	378452509	+	3842019-3842180	hypothetical protein	3789626-3789787	+	162
14028S	STM14_4393	378452514	+	3846344-3846445	hypothetical protein	3793951-3794052	+	102
14028S	STM14_4395	378452516	-	3847245-3847379	hypothetical protein	3794852-3794986	-	135
14028S	STM14_4403	378452524	-	3852193-3852324	hypothetical protein	3799800-3799931	-	132
14028S	STM14_4408	378452528	+	3856473-3856610	hypothetical protein	3804080-3804217	+	138
14028S	STM14_4410	378452530	-	3856798-3857019	hypothetical protein	3804405-3804626	-	222
14028S	STM14_4415	378452535	+	3861460-3861693	hypothetical protein	3809067-3809300	+	234
14028S	STM14_4416	378452536	-	3861562-3861738	hypothetical protein	3809169-3809345	-	177
14028S	STM14_4419	378452539	+	3863890-3864222	hypothetical protein	3811497-3811829	+	333
14028S	STM14_4424	378452544	-	3869165-3869311	hypothetical protein	3816772-3816918	-	147
14028S	STM14_4437	378452557	+	3881551-3881694	hypothetical protein	3829158-3829301	+	144
14028S	STM14_4448	378452568	+	3893735-3893932	hypothetical protein	3841342-3841539	+	198
ST474	STM474_3868	379702957	-	3911348-3911467	hypothetical protein	3851331-3851450	-	120

140285	STM14_4456	378452576	+	3904878-3905129	hypothetical protein	3852485-3852736	+	252
140285	STM14_4485	378452605	-	3932731-3932850	hypothetical protein	3880338-3880457	-	120
140285	STM14_4497	378452617	+	3941019-3941198	hypothetical protein	3888626-3888805	+	180
140285	STM14_4501	378452621	+	3943928-3944110	hypothetical protein	3891535-3891717	+	183
140285	STM14_4504	378452624	+	3946552-3946725	hypothetical protein	3894159-3894332	+	174
140285	STM14_4512	378452632	-	3954806-3954916	hypothetical protein	3902413-3902523	-	111
140285	STM14_4518	378452637	+	3962472-3962597	hypothetical protein	3910079-3910204	+	126
140285	STM14_4520	378452639	+	3963213-3963356	hypothetical protein	3910820-3910963	+	144
140285	STM14_4521	378452640	-	3963387-3963497	hypothetical protein	3910994-3911104	-	111
D23580	STMMW_37441	378447121	-	3975758-3975931	ISxac3 transposase	3914181-3914354	-	174
140285	STM14_4531	378452648	+	3973351-3973476	hypothetical protein	3920958-3921083	+	126
140285	STM14_0363	378448623	-	352120-352227	hypothetical protein	3921859-3921966	-	108
140285	STM14_4535	378452652	+	3974935-3975075	hypothetical protein	3922542-3922682	+	141
T00240	STMDT12_C38190	378986359	-	3984324-3984416	hypothetical protein	3922727-3922819	-	93
140285	STM14_4537	378452654	+	3978059-3978172	hypothetical protein	3925666-3925779	+	114
140285	STM14_4539	378452656	+	3979055-3979171	hypothetical protein	3926662-3926778	+	117
140285	STM14_4540	378452657	-	3979172-3979297	hypothetical protein	3926779-3926904	-	126
140285	STM14_4549	378452666	+	3986024-3986146	hypothetical protein	3933631-3933753	+	123
140285	STM14_4551	378452668	-	3989051-3989164	hypothetical protein	3936658-3936771	-	114
140285	STM14_4553	378452670	+	3989514-3989657	hypothetical protein	3937121-3937264	+	144
140285	STM14_4565	378452682	-	3999123-3999230	hypothetical protein	3946730-3946837	-	108
140285	STM14_4567	378452684	-	3999764-3999871	hypothetical protein	3947371-3947478	-	108
140285	STM14_4578	378452695	+	4011296-4011472	hypothetical protein	3958903-3959079	+	177
140285	STM14_4580	378452697	+	4011519-4011680	hypothetical protein	3959126-3959287	+	162
140285	STM14_4581	378452698	-	4011613-4011768	hypothetical protein	3959220-3959375	-	156
140285	STM14_4582	378452699	+	4011777-4011950	hypothetical protein	3959384-3959557	+	174
D23580	STMMW_37861	378447163	+	4021208-4021303	hypothetical protein	3959632-3959727	+	96
140285	STM14_4589	378452704	-	4016572-4016697	hypothetical protein	3964179-3964304	-	126
140285	STM14_4595	378452710	+	4020774-4020887	hypothetical protein	3968381-3968494	+	114
ST474	STM474_3981	379703066	-	4028417-4028551	hypothetical protein	3968402-3968536	-	135
140285	STM14_4598	378452712	+	4022921-4023073	hypothetical protein	3970528-3970680	+	153
140285	STM14_4601	378452715	+	4024130-4024306	hypothetical protein	3971737-3971913	+	177
ST474	STM474_3986	379703070	-	4031907-4032026	hypothetical protein	3971892-3972011	-	120
140285	STM14_4630	378452743	+	4056093-4056239	hypothetical protein	4003700-4003846	+	147
140285	STM14_4633	378452746	+	4059079-4059237	hypothetical protein	4006686-4006844	+	159
ST474	STM474_4022	379703106	-	4071364-4071624	hypothetical protein	4011349-4011609	-	261
T00240	STMDT12_C40060	378986546	-	4156200-4156427	hypothetical protein	4012388-4012615	-	228
140285	STM14_4658	378452770	+	4086316-4086504	hypothetical protein	4033923-4034111	+	189
140285	STM14_4669	378452781	-	4094364-4094507	hypothetical protein	4041970-4042113	-	144
140285	STM14_4696	378452801	+	4122161-4122346	hypothetical protein	4069767-4069952	+	186
140285	STM14_4733	378452833	+	4155257-4155382	hypothetical protein	4102863-4102988	+	126
140285	STM14_4738	378452838	-	4159908-4160012	hypothetical protein	4107514-4107618	-	105
140285	STM14_4740	378452840	+	4162570-4162710	hypothetical protein	4110176-4110316	+	141
140285	STM14_4753	378452852	-	4171444-4171629	hypothetical protein	4119050-4119235	-	186
140285	STM14_4759	378452858	-	4175211-4175348	hypothetical protein	4122817-4122954	-	138
140285	STM14_4768	378452867	+	4183187-4183360	hypothetical protein	4130793-4130966	+	174
ST474	STM474_4144	379703214	+	4193636-4193764	hypothetical protein	4133387-4133515	+	129
140285	STM14_4770	378452869	-	4185870-4186004	hypothetical protein	4133476-4133610	-	135
140285	STM14_4771	378452870	+	4185906-4186052	hypothetical protein	4133512-4133658	+	147
140285	STM14_4784	378452883	+	4197098-4197223	hypothetical protein	4144704-4144829	+	126
140285	STM14_4800	378452894	-	4215049-4215231	hypothetical protein	4162655-4162837	-	183
140285	STM14_4801	378452895	+	4215077-4215433	hypothetical protein	4162683-4163039	+	357
140285	STM14_4808	378452902	-	4219525-4219656	hypothetical protein	4167131-4167262	-	132
140285	STM14_4811	378452904	+	4222708-4222851	hypothetical protein	4170314-4170457	+	144
140285	STM14_4816	378452909	-	4226121-4226246	hypothetical protein	4173727-4173852	-	126
140285	STM14_4819	378452912	-	4228860-4229039	hypothetical protein	4176466-4176645	-	180
140285	STM14_4837	378452930	-	4248232-4248351	hypothetical protein	4195838-4195957	-	120
ST474	STM474_4210	379703274	-	4263051-4263284	hypothetical protein	4202802-4203035	-	234
140285	STM14_4854	378452947	-	4262409-4262564	hypothetical protein	4210015-4210170	-	156
140285	STM14_4856	378452949	+	4263770-4263904	hypothetical protein	4211376-4211510	+	135
140285	STM14_4858	378452951	+	4265002-4265130	hypothetical protein	4212608-4212736	+	129
140285	STM14_4867	378452960	+	4272347-4272496	hypothetical protein	4219953-4220102	+	150
140285	STM14_4868	378452961	-	4272426-4272560	hypothetical protein	4220032-4220166	-	135
140285	STM14_4872	378452965	+	4275521-4275652	hypothetical protein	4223127-4223258	+	132
ST474	STM474_4231	379703295	+	4283542-4283655	hypothetical protein	4223293-4223406	+	114
140285	STM14_4873	378452966	+	4275986-4276111	hypothetical protein	4223592-4223717	+	126
140285	STM14_4886	378452979	-	4286951-4287051	hypothetical protein	4234557-4234661	-	105
140285	STM14_4898	378452991	-	4296957-4297091	hypothetical protein	4244563-4244697	-	135
140285	STM14_4909	378453002	-	4305795-4305962	hypothetical protein	4253401-4253568	-	168
140285	STM14_4914	378453007	+	4310547-4310666	hypothetical protein	4258153-4258272	+	120
140285	STM14_4916	378453009	-	4311024-4311164	hypothetical protein	4258630-4258770	-	141
ST474	STM474_4282	379703346	+	4329998-4330159	hypothetical protein	4269750-4269911	+	162
140285	STM14_4934	378453027	-	4332008-4332127	hypothetical protein	4279614-4279733	-	120
140285	STM14_4938	378453031	+	4336017-4336178	hypothetical protein	4283623-4283784	+	162
140285	STM14_4943	378453035	-	4340772-4340927	hypothetical protein	4288378-4288533	-	156
140285	STM14_4950	378453042	+	4346732-4346872	hypothetical protein	4294338-4294478	+	141
140285	STM14_4951	378453043	+	4346784-4346900	hypothetical protein	4294390-4294506	+	117
140285	STM14_4953	378453045	+	4348703-4348810	hypothetical protein	4296309-4296416	+	108
140285	STM14_4961	378453053	-	4358974-4359162	hypothetical protein	4306580-4306768	-	189
140285	STM14_4983	378453065	+	4375382-4375510	hypothetical protein	4322988-4323116	+	129
140285	STM14_4995	378453077	+	4388644-4388847	hypothetical protein	4336250-4336453	+	204
140285	STM14_4997	378453079	+	4389931-4390140	hypothetical protein	4337537-4337746	+	210
140285	STM14_5018	378453099	+	4407683-4407805	hypothetical protein	4355289-4355411	+	123
140285	STM14_5019	378453100	-	4407796-4407918	hypothetical protein	4355402-4355524	-	123
140285	STM14_5020	378453101	+	4407851-4407991	hypothetical protein	4355457-4355597	+	141
140285	STM14_5025	378453102	-	4413499-4413630	hypothetical protein	4361105-4361236	-	132
140285	STM14_5026	378453103	+	4413565-4413795	hypothetical protein	4361171-4361401	+	231
140285	STM14_5031	378453108	+	4418519-4418641	hypothetical protein	4366125-4366247	+	123
140285	STM14_5044	378453120	+	4431313-4431468	hypothetical protein	4378919-4379074	+	156
140285	STM14_5053	378453129	+	4437882-4438004	hypothetical protein	4385488-4385610	+	123
140285	STM14_5057	378453133	-	4441014-4441139	hypothetical protein	4388620-4388745	-	126
140285	STM14_5072	378453147	+	4451435-4451575	hypothetical protein	4399041-4399181	+	141
140285	STM14_5083	378453158	-	4462681-4462857	hypothetical protein	4410287-4410463	-	177

14028S	STM14_5084	378453159	+	4462737-4462877	hypothetical protein	4410343-4410483	+	141
14028S	STM14_5088	378453163	+	4466972-4467136	hypothetical protein	4414578-4414742	+	165
T000240	STMDT12_C43680	378986908	+	4559620-4559715	hypothetical protein	4415679-4415774	+	96
14028S	STM14_5101	378453176	+	4478537-4478704	hypothetical protein	4426143-4426310	+	168
14028S	STM14_5115	378453190	-	4490374-4490565	hypothetical protein	4437980-4438171	-	192
14028S	STM14_5116	378453191	+	4490568-4490723	hypothetical protein	4438174-4438329	+	156
ST474	STM474_4451	379703497	+	4498500-4498640	hypothetical protein	4438355-4438495	+	141
14028S	STM14_5124	378453199	+	4515420-4515557	hypothetical protein	4463026-4463163	+	138
14028S	STM14_5125	378453200	-	4515741-4515845	hypothetical protein	4463347-4463451	-	105
14028S	STM14_5129	378453204	-	4518503-4518631	hypothetical protein	4466109-4466237	-	129
14028S	STM14_5131	378453206	-	4519322-4519456	hypothetical protein	4466928-4467062	-	135
14028S	STM14_5132	378453207	-	4519489-4519611	hypothetical protein	4467095-4467217	-	123
14028S	STM14_5134	378453209	-	4521030-4521188	hypothetical protein	4468636-4468794	-	159
14028S	STM14_5149	378453224	-	4536353-4536481	hypothetical protein	4483959-4484087	-	129
14028S	STM14_5150	378453225	+	4536377-4536649	hypothetical protein	4483983-4484255	+	273
14028S	STM14_5152	378453227	+	4537849-4538022	hypothetical protein	4485455-4485628	+	174
14028S	STM14_5154	378453229	-	4538728-4538883	hypothetical protein	4486334-4486489	-	156
14028S	STM14_5160	378453235	+	4544189-4544284	hypothetical protein	4491795-4491890	+	96
14028S	STM14_5162	378453237	+	4546069-4546173	hypothetical protein	4493675-4493779	+	105
14028S	STM14_5168	378453243	+	4552110-4552238	hypothetical protein	4499716-4499844	+	129
14028S	STM14_5183	378453258	+	4571436-4571549	hypothetical protein	4519042-4519155	+	114
14028S	STM14_5189	378453264	+	4574725-4574850	hypothetical protein	4522331-4522456	+	126
SL1344	SL1344_4256	378702162	-	4584964-4585098	hypothetical protein	4524820-4524954	-	135
ST474	STM474_4515	379703561	-	4585588-4585743	hypothetical protein	4525443-4525598	-	156
ST474	STM474_4516	379703562	-	4586025-4586150	hypothetical protein	4525880-4526005	-	126
14028S	STM14_5196	378453271	-	4579152-4579388	hypothetical protein	4526758-4526994	-	237
14028S	STM14_5203	378453277	-	4585245-4585367	hypothetical protein	4532851-4532973	-	123
14028S	STM14_5208	378453282	-	4589666-4589833	hypothetical protein	4537272-4537439	-	168
14028S	STM14_5211	378453285	+	4591089-4591223	hypothetical protein	4538695-4538829	+	135
14028S	STM14_5212	378453286	-	4591232-4591378	hypothetical protein	4538838-4538984	-	147
14028S	STM14_5225	378453299	+	4599983-4600087	hypothetical protein	4547589-4547693	+	105
14028S	STM14_5272	378453343	-	4642797-4642994	hypothetical protein	4590403-4590600	-	198
14028S	STM14_5273	378453344	+	4642921-4643028	hypothetical protein	4590527-4590634	+	108
14028S	STM14_5288	378453359	-	4654346-4654567	hypothetical protein	4601952-4602173	-	222
14028S	STM14_5291	378453362	-	4655902-4656081	hypothetical protein	4603508-4603687	-	180
14028S	STM14_5295	378453366	+	4658725-4658841	hypothetical protein	4606331-4606447	+	117
14028S	STM14_5303	378453374	-	4669323-4669508	hypothetical protein	4616929-4617114	-	186
14028S	STM14_5306	378453377	+	4671075-4671302	hypothetical protein	4618681-4618908	+	228
ST474	STM474_4616	379703657	+	4681690-4681806	hypothetical protein	4621544-4621660	+	117
14028S	STM14_5315	378453386	+	4679544-4679654	hypothetical protein	4627149-4627259	+	111
ST474	STM474_4627	379703668	-	4695124-4695237	hypothetical protein	4634978-4635091	-	114
14028S	STM14_5323	378453393	+	4689572-4689691	hypothetical protein	4637177-4637296	+	120
14028S	STM14_5344	378453414	+	4707729-4707899	hypothetical protein	4655334-4655504	+	171
14028S	STM14_5347	378453416	+	4711078-4711185	hypothetical protein	4658683-4658790	+	108
ST474	STM474_4653	379703693	+	4719860-4719991	hypothetical protein	4659714-4659845	+	132
14028S	STM14_5356	378453425	-	4718450-4718566	hypothetical protein	4666055-4666171	-	117
T000240	STMDT12_C45910	378987131	+	4803005-4803103	hypothetical protein	4666061-4666159	+	99
14028S	STM14_5359	378453428	-	4721103-4721225	hypothetical protein	4668708-4668830	-	123
14028S	STM14_5362	378453431	+	4723479-4723670	hypothetical protein	4671084-4671275	+	192
14028S	STM14_5367	378453436	-	4727023-4727145	hypothetical protein	4674628-4674750	-	123
T000240	STMDT12_C46080	378987148	+	4822036-4822131	hypothetical protein	4685092-4685187	+	96
14028S	STM14_5381	378453450	+	4741810-4741944	hypothetical protein	4689415-4689549	+	135
14028S	STM14_5399	378453466	+	4766523-4766714	hypothetical protein	4714127-4714318	+	192
14028S	STM14_5402	378453469	-	4768806-4769102	hypothetical protein	4716410-4716706	-	297
14028S	STM14_5406	378453473	+	4772201-4772314	hypothetical protein	4719805-4719918	+	114
14028S	STM14_5407	378453474	-	4772241-4772357	hypothetical protein	4719845-4719961	-	117
14028S	STM14_5410	378453477	+	4773638-4773850	hypothetical protein	4721242-4721454	+	213
14028S	STM14_5413	378453480	+	4775969-4776121	hypothetical protein	4723573-4723725	+	153
14028S	STM14_5415	378453482	+	4776954-4777076	hypothetical protein	4724558-4724680	+	123
14028S	STM14_5416	378453483	-	4776976-4777107	hypothetical protein	4724580-4724711	-	132
14028S	STM14_5426	378453493	-	4786173-4786316	hypothetical protein	4733777-4733920	-	144
14028S	STM14_5427	378453494	+	4786386-4786523	hypothetical protein	4733990-4734127	+	138
14028S	STM14_5429	378453496	-	4787107-4787220	hypothetical protein	4734711-4734824	-	114
ST474	STM474_4722	379703761	-	4794952-4795101	hypothetical protein	4734805-4734954	-	150
14028S	STM14_5435	378453502	-	4790281-4790412	hypothetical protein	4737885-4738016	-	132
14028S	STM14_5440	378453507	+	4798305-4798442	hypothetical protein	4745909-4746046	+	138
14028S	STM14_5447	378453514	-	4804689-4804838	hypothetical protein	4752293-4752442	-	150
14028S	STM14_5455	378453522	+	4812431-4812535	hypothetical protein	4760035-4760139	+	105
14028S	STM14_5462	378453529	-	4818419-4818574	hypothetical protein	4766023-4766178	-	156
14028S	STM14_5468	378453535	+	4823006-4823134	hypothetical protein	4770610-4770738	+	129
14028S	STM14_5474	378453538	+	4824998-4825105	hypothetical protein	4772602-4772709	+	108
14028S	STM14_5479	378453543	+	4828502-4828636	hypothetical protein	4776106-4776240	+	135
14028S	STM14_5486	378453550	+	4833992-4834120	hypothetical protein	4781596-4781724	+	129
14028S	STM14_5496	378453560	+	4843995-4844144	hypothetical protein	4791599-4791748	+	150
ST474	smp	379703819	+	4853656-4853805	phosphoserine phosphatase	4793512-4793661	+	150

Table S2. Numbers of re-annotated genes and the range of gene-lengths for 8 Typhimurium strains.

Genomes	# of newly annotated genes	Max length (bp)	Min length (bp)	Median length (bp)
Tm14028S	114	738	66	132
TmST4/74	820	690	66	141
TmT000240	880	606	45	141
TmUK1	910	4086	66	138
TmLT2	913	606	66	138
TmD23580	948	1932	45	139.5
TmSL1344	965	606	45	138
Tm798	1123	1473	45	147

Table S3. List of PFAST identified prophage regions in re-annotated Typhimurium strains. The 'intact' prophage regions are labeled as provided by PFAST, and the 'incomplete'/'questionable' regions are labeled based on their orthology among 8 Typhimurium strains.

Salmonella enterica Typhimurium strain 798						
REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	6.6Kb	incomplete	30	612708-619349	45.21%	I6
2	30.1Kb	incomplete	60	960447-990602	54.09%	I1
3	45.8Kb	intact	150	1054728-1100598	51.09%	Gifsy2
4	21.2Kb	incomplete	50	1909591-1930791	46.43%	Q2
5	56.9Kb	intact	150	2036154-2093068	50.44%	ST64B
6	14.2Kb	incomplete	40	2328041-2342297	47.49%	I5
7	55.5Kb	intact	150	2723856-2779369	50.73%	Gifsy1
8	14.1Kb	incomplete	10	2810841-2824943	49.18%	I3
9	83.5Kb	intact	150	2824596-2908177	51.62%	Fels-2 like
10	47.9Kb	questionable	70	2907919-2955899	48.01%	Q1
11	20.4Kb	incomplete	30	4437868-4458287	50.58%	I4
Salmonella enterica Typhimurium strain 140285						
REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	6.6Kb	incomplete	30	613917-620558	45.21%	I6
2	30.1Kb	incomplete	60	962256-992411	54.09%	I1
3	45.8Kb	intact	150	1056538-1102365	51.08%	Gifsy2
4	53.2Kb	intact	150	1282096-1335316	51.60%	Gifsy3
5	13.8Kb	questionable	80	1969279-1983175	46.38%	Q2
6	56.9Kb	intact	150	2090630-2147543	50.45%	ST64B
7	14.2Kb	incomplete	60	2382514-2396770	47.49%	I5
8	55.5Kb	intact	150	2778325-2833837	50.75%	Gifsy1
9	31.3Kb	questionable	90	2920065-2951425	46.36%	Q1
10	20.4Kb	incomplete	30	4431457-4451876	50.57%	I4
Salmonella enterica Typhimurium strain D23580						
REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	41.6Kb	intact	140	368797-410493	47.55%	BTP1
2	6.6Kb	incomplete	40	652033-658674	45.18%	I6
3	46.5Kb	intact	150	1094117-1140710	51.12%	Gifsy2
4	56.9Kb	intact	150	2062733-2119647	50.44%	ST64B
5	14.2Kb	incomplete	50	2354617-2368883	47.47%	I5
6	55.5Kb	intact	150	2751152-2806659	50.75%	Gifsy1
7	31.3Kb	questionable	70	2892805-2924175	46.36%	Q1
8	37.4Kb	intact	107	3364058-3401459	52.65%	BTP5
9	18.9Kb	incomplete	30	4442090-4461045	51.82%	I4
Salmonella enterica Typhimurium strain LT2						
REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	6.6Kb	incomplete	30	613223-619864	45.21%	I6
2	41.7Kb	intact	150	960294-1002017	52.63%	Fels1

3	34.6Kb	incomplete	60	1001531-1036138	52.64%	I1
4	45.8Kb	intact	150	1098179-1144020	51.09%	Gifsy2
5	8.5Kb	incomplete	50	1963179-1971770	48.98%	I2
6	14.2Kb	incomplete	60	2330961-2345217	47.49%	I5
7	53.2Kb	intact	150	2726772-2780003	51.32%	Gifsy1
8	38.8Kb	intact	150	2840524-2879414	52.86%	Fels2
9	31.3Kb	questionable	70	2899840-2931190	46.36%	Q1
10	20.4Kb	incomplete	30	4417918-4438335	50.59%	I4

Salmonella enterica Typhimurium strain SL1344

REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	30.1Kb	incomplete	60	960464-990619	54.10%	I1
2	45.5Kb	intact	150	1054746-1100342	51.00%	Gifsy2
3	27Kb	incomplete	50	1905337-1932378	47.29%	I2
4	56.9Kb	intact	150	2036793-2093707	50.45%	ST64B
5	14.2Kb	incomplete	50	2328677-2342933	47.49%	I5
6	55.9Kb	intact	150	2724489-2780416	51.17%	Gifsy1
7	14.1Kb	incomplete	10	2811888-2825990	49.18%	I3
8	62Kb	intact	150	2838219-2900242	52.30%	Fels2 like
9	31.3Kb	questionable	70	2922406-2953766	46.36%	Q1
10	20.4Kb	incomplete	30	4439207-4459626	50.58%	I4

Salmonella enterica Typhimurium strain ST4/74

REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	6.6Kb	incomplete	30	612711-619352	45.21%	I6
2	30.1Kb	incomplete	60	960464-990619	54.10%	I1
3	43.6Kb	intact	150	1056421-1100036	51.15%	Gifsy2
4	13.8Kb	questionable	70	1915442-1929338	46.38%	Q2
5	53.7Kb	intact	150	2036793-2090551	50.59%	ST64B
6	14.2Kb	incomplete	60	2328677-2342933	47.49%	I5
7	55.9Kb	intact	150	2724489-2780416	51.17%	Gifsy1
8	14.1Kb	incomplete	10	2811888-2825990	49.18%	I3
9	63.7Kb	intact	150	2838219-2901979	52.29%	Fels2 like
10	31.3Kb	questionable	80	2922406-2953766	46.36%	Q1
11	20.4Kb	incomplete	30	4439208-4459627	50.58%	I4

Salmonella enterica Typhimurium strain T000240

REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	42.5Kb	intact	138	368827-411388	47.54%	ST104
2	6.6Kb	incomplete	40	651270-657911	45.21%	I6
3	10.9Kb	incomplete	50	1013518-1024428	52.24%	I1
4	45.8Kb	intact	150	1095837-1141705	51.10%	Gifsy2
5	12.1Kb	questionable	70	1955180-1967311	47.01%	Q2
6	53.2Kb	intact	150	2722198-2775404	51.33%	Gifsy1

7	26.5Kb	questionable	90	2804985-2831512	51.52%	Q3
8	38.8Kb	intact	150	2864091-2902980	52.85%	Fels2
9	20.4Kb	incomplete	30	4523004-4543423	50.59%	I4
<i>Salmonella enterica</i> Typhimurium strain UK1						
REGION	REGION LENGTH	COMPLETENESS	SCORE	REGION POSITION	GC PERCENTAGE	Region
1	6.6Kb	incomplete	40	613917-620557	45.20%	I6
2	30.1Kb	incomplete	60	961545-991701	54.09%	I1
3	45.8Kb	intact	150	1055828-1101655	51.09%	Gifsy2
4	13.9Kb	questionable	70	1917431-1931366	46.39%	Q2
5	56.9Kb	intact	150	2038822-2095736	50.44%	ST64B
6	14.2Kb	incomplete	60	2330706-2344962	47.50%	I5
7	55.5Kb	intact	150	2726536-2782089	51.02%	Gifsy1
8	31.3Kb	questionable	90	2868318-2899678	46.36%	Q1
9	20.4Kb	incomplete	30	4379063-4399482	50.57%	I4

Table S4. List of 51 mosaic genes identified in 8 Typhimurium strains. The mosaic gene clusters which were deleted from 1 or 2 strains are marked.

Reference Genome	Gene Name	GI	Strand	CDS-region	Product	Protein length	Region	Absent from Strain(s)	Note
140285	STM14_0340	378448603	+	333236-337330	putative RHS-like protein	1364	51474.5L1344.798		
ST474	rhlA	379699507	+	332521-336123	rhlA protein	1200	T000240	140285,LT2,D23580,UK1	Both are same gene, 488bp deleted from middle from smaller gene (rhlA)
140285	stbB	378448652	-	384271-385032	putative fimbrial chaperone	253	T000240		
140285	stbA	378448653	-	385094-385630	putative fimbrial major subunit	178	T000240		
140285	STM14_0397	378448654	-	385733-385843	hypothetical protein	36	del_1 T000240		
140285	STM14_0398	378448655	+	386264-387028	putative inner membrane protein	254	T000240		
140285	STM14_0399	378448656	+	387001-387501	hypothetical protein	166	T000240		
140285	STM14_0400	378448657	+	387801-389375	hypothetical protein	524	T000240		
140285	allP	410023158	+	583119-584573	allantoin permease	484	del_4 D23580		
140285	allS	378448869	+	584652-586013	allantoinase	459	D23580		
140285	STM14_0711	378448960	+	676674-677033	molibdopterin-containing oxidoreductase iron-sulfur subunit	119	51474.5L1344.798,T000240,D23580,LT2		Both are same gene, 198bp deleted in middle from small one (STM14_0711)
D23580	STMWW_06771	378444106	+	714790-715347	molibdopterin-containing oxidoreductase iron-sulfur subunit	185	140285,UK1		
140285	ripA	378448995	-	700248-701393	rare lipoprotein A	381	51474.5L1344.798		Both are same gene, 788bp deleted in middle from small one (ripA of ST474)
ST474	ripA	379699856	-	699240-700307	rare lipoprotein A	355	T000240,D23580,LT2,D23580,UK1		
140285	mdhA	378449257	+	946813-947555	nitroreductase A	240	T000240		This gene is disrupted by 768 bp IS3 transposases in T000240 leading to generate two truncated ORFs STM14_039300 and STM14_039330
140285	orfX	378449467	+	1138959-1138962	putative cytoplasmic protein	56	D23580		
140285	STM14_1239	378449468	-	1138763-1138873	putative cytoplasmic protein	36	del_5 D23580		
140285	pipD	378449469	-	1138982-1140544	pathogenicity island-encoded protein D	520	D23580		
140285	STM14_1756	378449969	+	1541546-1543753	electron transport complex protein RnfC	735	798		Partially deleted/frameshift at the end part of same annotated (RnfC) gene is present in 798 as unique one
140285	STM14_1868	378450077	+	1634851-1635930	putative S-adenosylmethionine/80kDa-vibriovibryltransferase-isomerase	359	D23580		
140285	STM14_1869	378450078	-	1635982-1636371	putative translation initiation inhibitor	129	D23580		
140285	STM14_1870	378450079	-	1636542-1636826	putative cytoplasmic protein	94	D23580		
140285	STM14_1871	378450080	-	1636816-1637064	putative cytoplasmic protein	82	del_6 D23580		
140285	STM14_1872	378450081	+	1637216-1637431	putative phage-related secreted protein	71	D23580		
140285	STM14_1873	378450082	+	1637421-1637753	hypothetical protein	110	D23580		
140285	STM14_1874	378450083	+	1637896-1638804	putative cytoplasmic protein	302	D23580		
140285	Re-annotated	-	+	1638857-1639249	hypothetical protein	130	D23580		
140285	STM14_3267	378451427	+	2861933-2862097	hypothetical protein	54	T000240		This gene is disrupted by a unique hypothetical protein (STM14_039300) followed by a questionable phase region (q3) predicted by PHAST, this hypothetical protein may be also a part of this phase region
140285	ymmM	378451797	+	3203985-3204834	nickel/cobalt efflux protein YmmA	302	D23580,51474.5L1344.798		78bp deleted in middle from small one Re-annotated in D23580 (13 repeats of CGACCA)
D23580	Re-annotated	-	+	31276184-31277014	putative High affinity Nickel transport protein	276	140285,UK1,T000240		
140285	Re-annotated	-	+	3265788-3265904	putative racemase	38	T000240,LT2		18bp duplication present in T000240 and LT2 (2 repeat regions of ATGCTCGCATGCTCGG) and annotated to be starting from different location
LT2	Re-annotated	-	+	3246679-3246783	hypothetical protein	34	140285,UK1,51474.5L1344.798,D23580		
140285	bigA	378452314	+	3643029-3648923	putative surface-exposed virulence protein	1964	798		Annotated as pseudogene in 798
140285	STM14_4330	378452454	-	3786168-3787013	putative sugar kinase	281	T000240		
140285	STM14_4331	378452455	-	3787077-3788054	putative phosphoglycerate isomerase	325	T000240		
140285	STM14_4564	378452681	-	3998131-3998874	putative regulatory protein	247	T000240		Disrupted in two truncated genes STM14_039440 and STM14_039420 in T000240 due to the insertion of DT12 genomic island
140285	STM14_4876	378452969	-	4278277-4278792	putative C4-dicarboxylate transport system	171	798		43 bp deletion in 798, annotated as small truncated protein in 798 and that is found as core
140285	adiY	378453242	-	4551180-4551941	transcriptional activator	253	T000240		
140285	STM14_5168	378453243	+	4552110-4552238	hypothetical protein	42	T000240		
140285	adi	378453244	-	4552239-4554509	catabolic arginine decarboxylase	756	T000240		
140285	meIR	410023222	-	4554739-4555671	DNA-binding transcriptional regulator MeIR	310	del_3 T000240		
140285	meIA	378453246	+	4555940-4557295	alpha-galactosidase	451	T000240		
140285	meIB	378453247	+	4557370-4558809	melibiose/sodium symporter	476	T000240		
140285	fumB	378453248	-	4558907-4560553	fumarate B	548	T000240		
D23580	STMWW_30741	378446465	+	3262696-3263952	nucleoside permease nupg (nucleoside-transport system protein)	418	140285,UK1		869bp deleted from 140285 and UK1 leading to a pseudo gene
D23580	STMWW_32551	378446642	+	3446835-3448262	PTS system fructose-specific EIIBC component	475	140285,UK1		
D23580	STMWW_32561	378446643	+	3448249-3449055	PTS-transport family phosphoryl transfer protein	268	140285,UK1		
D23580	STMWW_32571	378446644	+	3449253-3450524	putative sugar kinase	423	140285,UK1		
D23580	STMWW_32581	378446645	+	3450539-3451003	PTS system galactitol-specific transporter subunit IIA	154	del_7 140285,UK1		
D23580	STMWW_32591	378446646	+	3451034-3451318	PTS system galactitol-specific transporter subunit IIB	94	140285,UK1		
D23580	STMWW_32601	378446647	+	3451322-3452695	PTS system galactitol-specific transporter subunit IIC	457	140285,UK1		

Table S5. List of 12 additional Typhimurium strains analyzed in our study.

Organism Name	Strain	CladeID	BioSample	BioProject
Salmonella entericasubsp. enterica serovar Typhimurium	U288	19669	SAMN02604233	PRJNA157919
Salmonella entericasubsp. enterica serovar Typhimurium	CFSAN001921	19669	SAMN01832087	PRJNA184140
Salmonella entericasubsp. enterica serovar Typhimurium	DT2	19669	SAMEA2272227	PRJEB4149
Salmonella entericasubsp. enterica serovar Typhimurium	DT104	19669	SAMEA2272504	PRJEB1666
Salmonella entericasubsp. enterica serovar Typhimurium	138736	19669	SAMN02692256	PRJNA242139
Salmonella entericasubsp. enterica serovar Typhimurium	VNP20009	19669	SAMN02798502	PRJNA242737
Salmonella entericasubsp. enterica serovar Typhimurium	ATCC 13311	19669	SAMN02943517	PRJNA256479
Salmonella entericasubsp. enterica serovar Typhimurium	L-3553	19669	-	PRJDA63645
Salmonella entericasubsp. enterica serovar Typhimurium	USDA-ARS-USMARC-1899	19669	SAMN02712198	PRJNA236708
Salmonella entericasubsp. enterica serovar Typhimurium	CDC 2011K-0870	19669	SAMN02712200	PRJNA236711
Salmonella entericasubsp. enterica serovar Typhimurium	33676	19669	SAMN03795193	PRJNA288148
Salmonella entericasubsp. enterica	YU39	19669	SAMN03653812	PRJNA271539

Table S6. Functional classification analysis of the genes in strain T000240-specific genomic island GI-DT12, based on different Gene Ontology (GO) categories using DAVID online software. The p-values below 0.5 are shown in red to designate the corresponding functional clusters as enriched (or overrepresented) in the genes of this island.

GO classification	Functional classes	# of genes	Enrichment score p-value
Biological process	response to mercury ion	2	0
	transposition, DNA-mediated	9	2.86495E-11
	DNA integration	6	1.137E-06
	siderophore biosynthetic process	2	6.79725E-05
	response to antibiotic	4	7.6933E-05
	metal ion transport	2	0.001030659
	negative regulation of transcription, DNA-templated	2	0.01946015
	DNA recombination	2	0.04665809
	transport	3	0.05398292
	regulation of transcription, DNA-templated	5	0.06052506
	transcription, DNA-templated	3	0.1274072
	transmembrane transport	2	0.2993324
	Molecular function	mercury ion transmembrane transporter activity	3
mercury ion binding		3	0
transposase activity		7	9.12138E-10
siderophore transmembrane transporter activity		3	1.53037E-05
ATPase activity, coupled to transmembrane movement of substances		2	0.00627801
N-acetyltransferase activity		2	0.01461433
DNA binding		15	0.02293418
oxidoreductase activity		4	0.034507
nucleic acid binding		3	0.04967318
sequence-specific DNA binding transcription factor activity		1	0.05151002
ATPase activity		3	0.06561876
ATP binding		7	0.08668284
metal ion binding		2	0.1283472
transporter activity		1	0.2165272
magnesium ion binding		2	0.3132017
zinc ion binding		2	0.3922711
iron ion binding		1	0.5392793
flavin adenine dinucleotide binding		1	0.6550501
Cellular components	plasma membrane	5	0.2106683
	integral component of membrane	11	0.2604585
	membrane	2	0.3551638
	cell outer membrane	1	0.5655445
	periplasmic space	1	0.6621441
	integral component of plasma membrane	1	0.6763958

Significantly changed GO groups are in red color (p-value < 0.05)

