

Inventory of Supplementary Figures and Tables

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Table S2 qPCR validation of the custom microarray expression data for the 1 percent ENCODE region for HeLa cells, human primary keratinocytes and HEK-293 cells. Related to Figure 2.

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Transcript ID	HeLa	Keratinocytes	HEK-293
AC000123.2-001	V	V	V
AC000123.3-001	V	V	
AC000124.1-001		V	
AC005538.3-002	V	V	V
AC005592.1-001		V	
AC063976.3-001	V	V	
AC104389.16-001			V
AC113617.1-002		V	
AL163953.3-002		V	
AP002856.7-001		V	
RP1-149A16.12-001	V		
RP11-629E24.2-001	V		
RP11-65J3.1-001	V	V	V
RP1-90G24.6-001			V
RP3-477O4.15-001	V	V	V
RP1-149M18.4-001	V		V

Table S2. qPCR validation of the custom microarray expression data for the 1 percent ENCODE region for HeLa cells, human primary keratinocytes and HEK-293 cells. Related to Figure 2.

Table S4. Expression data for knock-down analyses of ncRNA-a loci. Related to Figure 3.

Name	ID	Affected gene	Cell line
ncRNA-a1	OTTHUMT00000087261	ECM1	HEK293
ncRNA-a2	OTTHUMT00000099182	KLHL12	HeLa
ncRNA-a3	OTTHUMT00000021645	TAL1	MCF-7
ncRNA-a4	OTTHUMT00000021648	CMPK1	Jurkat
ncRNA-a5	OTTHUMT00000324045	ROCK2	HeLa
ncRNA-a6	OTTHUMT00000280498	Snai2	A549
ncRNA-a7	OTTHUMT00000079667	Snai1	A549
	OTTHUMT00000054962	N/A	HEK293
	OTTHUMT00000048112	N/A	Hs68
	OTTHUMT00000040694	N/A	HeLa
	OTTHUMT00000089836	N/A	HeLa
	OTTHUMT00000256004	N/A	HepG2

Table S5. ID of the long ncRNAs tested in knock-down experiments. Related to Figure 4.

Gencode Gene Id	Gencode Transcript Id	Location	Strand	Size (bp)
OTTHUMG0000001097	OTTHUMT00000003226	chr1:79414-80968	-	1317
OTTHUMG00000002481	OTTHUMT00000007038	chr1:129653-130202	-	321
OTTHUMG00000002479	OTTHUMT00000007035	chr1:131337-139570	-	4858
OTTHUMG00000002479	OTTHUMT00000007036	chr1:132671-136694	-	515
OTTHUMG00000002525	OTTHUMT00000007169	chr1:150309-151388	+	455
OTTHUMG00000002480	OTTHUMT00000007037	chr1:154268-163727	-	966
OTTHUMG00000002480	OTTHUMT00000007168	chr1:155752-158630	-	275
OTTHUMG00000002858	OTTHUMT00000007997	chr1:410069-411705	+	802
OTTHUMG00000002856	OTTHUMT00000007990	chr1:440750-443805	+	496
OTTHUMG00000002856	OTTHUMT00000007989	chr1:443080-443811	+	404
OTTHUMG00000002855	OTTHUMT00000007988	chr1:443496-450343	-	605
OTTHUMG00000002855	OTTHUMT00000007987	chr1:443690-450328	-	424
OTTHUMG00000002854	OTTHUMT00000007985	chr1:449519-461231	+	1832
OTTHUMG00000002854	OTTHUMT00000007986	chr1:451017-453713	+	2233
OTTHUMG00000002854	OTTHUMT00000007984	chr1:455073-461231	+	590
OTTHUMG00000002261	OTTHUMT00000006453	chr1:511232-513696	-	839
OTTHUMG00000002329	OTTHUMT00000006707	chr1:512872-520011	+	605
OTTHUMG00000002329	OTTHUMT00000006706	chr1:512911-519817	+	400
OTTHUMG00000002330	OTTHUMT00000006708	chr1:519696-520458	+	435
OTTHUMG00000002330	OTTHUMT00000006709	chr1:519702-522741	+	496
OTTHUMG00000002407	OTTHUMT00000006890	chr1:667056-675259	-	4858
OTTHUMG00000002409	OTTHUMT00000006892	chr1:684275-690168	-	293
OTTHUMG00000002408	OTTHUMT00000006891	chr1:686154-687232	+	454
OTTHUMG00000002406	OTTHUMT00000006889	chr1:690100-703869	-	1310
OTTHUMG00000002402	OTTHUMT00000006884	chr1:704025-707434	+	564
OTTHUMG00000002402	OTTHUMT00000006885	chr1:704299-730118	+	438
OTTHUMG00000002466	OTTHUMT00000007013	chr1:707188-709933	+	511
OTTHUMG00000002403	OTTHUMT00000006886	chr1:726122-735404	-	519
OTTHUMG00000002404	OTTHUMT00000006887	chr1:730042-732708	+	415
OTTHUMG00000002404	OTTHUMT000000099678	chr1:730175-735303	+	578
OTTHUMG00000002467	OTTHUMT00000007014	chr1:735352-742955	-	400
OTTHUMG00000002471	OTTHUMT00000007025	chr1:742614-745077	+	1942
OTTHUMG000000040716	OTTHUMT000000097856	chr1:836678-840191	+	3041
OTTHUMG000000040717	OTTHUMT000000097857	chr1:839414-840214	+	441
OTTHUMG000000040718	OTTHUMT000000097858	chr1:842113-844935	-	1385
OTTHUMG000000040718	OTTHUMT000000097859	chr1:842613-843777	-	628
OTTHUMG00000002913	OTTHUMT00000008136	chr1:1350695-1353042	-	441
OTTHUMG000000153395	OTTHUMT000000331012	chr1:1351419-1352868	+	280
OTTHUMG00000002914	OTTHUMT00000008137	chr1:1353365-1355498	-	1208
OTTHUMG000000041065	OTTHUMT000000098494	chr1:1934512-1936829	-	1952
OTTHUMG00000001636	OTTHUMT00000004637	chr1:2347279-2351949	+	369
OTTHUMG00000000818	OTTHUMT000000002188	chr1:2471219-2472566	-	629
OTTHUMG00000000818	OTTHUMT000000002186	chr1:2471219-2473405	-	1626
OTTHUMG00000000818	OTTHUMT000000002189	chr1:2471219-2476518	-	498

OTTHUMG0000000818	OTTHUMT0000002185	chr1:2471219-2476569	-	1510
OTTHUMG0000000818	OTTHUMT0000002187	chr1:2471582-2476423	-	3601
OTTHUMG0000000818	OTTHUMT0000002190	chr1:2471871-2474474	-	512
OTTHUMG0000000819	OTTHUMT0000002191	chr1:2502859-2505832	+	623
OTTHUMG0000000564	OTTHUMT0000001337	chr1:2718275-2719117	-	605
OTTHUMG0000000565	OTTHUMT0000001338	chr1:2720857-2721423	-	427
OTTHUMG0000000499	OTTHUMT0000001801	chr1:3900533-3909271	+	558
OTTHUMG0000000499	OTTHUMT0000001241	chr1:3900537-3915182	+	3239
OTTHUMG0000000731	OTTHUMT0000001812	chr1:3907069-3908900	-	934
OTTHUMG0000000733	OTTHUMT0000001814	chr1:4371971-4384607	+	2071
OTTHUMG0000000646	OTTHUMT0000001544	chr1:4511655-4512065	+	354
OTTHUMG0000000647	OTTHUMT0000001545	chr1:4531468-4543341	+	677
OTTHUMG00000041729	OTTHUMT00000099750	chr1:5046379-5050819	-	445
OTTHUMG00000041453	OTTHUMT00000099317	chr1:5570015-5650942	-	361
OTTHUMG0000001785	OTTHUMT0000004978	chr1:6707284-6710055	+	1684
OTTHUMG0000001785	OTTHUMT0000004979	chr1:6707284-6712659	+	505
OTTHUMG0000001785	OTTHUMT0000004980	chr1:6710174-6712659	+	377
OTTHUMG0000001222	OTTHUMT0000003621	chr1:7988661-7989371	-	408
OTTHUMG0000001769	OTTHUMT0000004930	chr1:8191319-8197857	+	493
OTTHUMG0000001770	OTTHUMT0000004931	chr1:8200837-8203176	-	475
OTTHUMG0000001762	OTTHUMT0000004910	chr1:9150914-9185265	-	544
OTTHUMG0000001764	OTTHUMT0000004915	chr1:9164858-9166442	+	267
OTTHUMG0000001278	OTTHUMT0000003726	chr1:9483738-9486117	-	706
OTTHUMG0000002076	OTTHUMT0000005777	chr1:11592175-11595999	+	1282
OTTHUMG00000013154	OTTHUMT00000036896	chr1:12510353-12511049	+	436
OTTHUMG00000041465	OTTHUMT00000099354	chr1:12805136-12805609	-	376
OTTHUMG00000009500	OTTHUMT00000026266	chr1:13069364-13069843	+	382
OTTHUMG00000008038	OTTHUMT00000022044	chr1:13302221-13302694	+	376
OTTHUMG00000007914	OTTHUMT00000021789	chr1:13523018-13523497	+	382
OTTHUMG00000007915	OTTHUMT00000021790	chr1:13856393-13859620	-	1005
OTTHUMG00000002047	OTTHUMT00000005700	chr1:14420973-14422200	-	280
OTTHUMG00000002044	OTTHUMT00000005696	chr1:14548037-14550105	-	577
OTTHUMG00000035305	OTTHUMT00000085369	chr1:16358348-16360965	+	542
OTTHUMG00000002490	OTTHUMT00000007047	chr1:16719776-16720890	+	340
OTTHUMG00000002201	OTTHUMT00000006252	chr1:17050285-17051881	-	605
OTTHUMG00000002201	OTTHUMT00000006251	chr1:17050403-17052211	-	731
OTTHUMG00000002202	OTTHUMT00000006253	chr1:17054489-17058366	+	879
OTTHUMG00000002291	OTTHUMT00000006615	chr1:17388865-17396699	+	4673
OTTHUMG00000002515	OTTHUMT00000007156	chr1:17916769-17949060	+	606
OTTHUMG00000002437	OTTHUMT00000006932	chr1:18584910-18587595	+	489
OTTHUMG00000002703	OTTHUMT00000007685	chr1:20353418-20359648	+	1081
OTTHUMG00000002703	OTTHUMT00000007686	chr1:20356772-20359646	+	2491
OTTHUMG00000002707	OTTHUMT00000007692	chr1:20442175-20443735	+	478
OTTHUMG00000002842	OTTHUMT00000007957	chr1:20559659-20627862	-	2981
OTTHUMG00000002842	OTTHUMT00000007958	chr1:20597185-20627819	-	780

OTTHUMG00000002842	OTTHUMT00000007959	chr1:20597796-20630314	-	349
OTTHUMG00000002843	OTTHUMT00000007960	chr1:20611384-20612333	-	373
OTTHUMG00000002945	OTTHUMT00000008191	chr1:21614978-21616572	+	604
OTTHUMG00000002945	OTTHUMT00000008192	chr1:21615402-21616454	+	602
OTTHUMG000000037843	OTTHUMT000000092373	chr1:21785552-21790267	+	819
OTTHUMG00000002754	OTTHUMT00000007790	chr1:22223074-22224048	-	613
OTTHUMG00000002757	OTTHUMT000000096539	chr1:22224268-22229983	+	807
OTTHUMG00000002757	OTTHUMT000000096538	chr1:22224591-22229880	+	768
OTTHUMG00000002757	OTTHUMT00000007795	chr1:22224614-22230303	+	1052
OTTHUMG00000002757	OTTHUMT000000096537	chr1:22227419-22229692	+	372
OTTHUMG000000037485	OTTHUMT000000091258	chr1:23748217-23749993	-	454
OTTHUMG00000003038	OTTHUMT00000008408	chr1:24399317-24410770	+	1847
OTTHUMG00000003326	OTTHUMT00000009330	chr1:25242785-25312197	-	487
OTTHUMG00000003326	OTTHUMT00000009331	chr1:25309536-25312198	-	612
OTTHUMG000000041667	OTTHUMT000000099668	chr1:25407217-25407947	+	418
OTTHUMG000000041621	OTTHUMT000000099620	chr1:25452385-25466963	-	775
OTTHUMG00000004419	OTTHUMT00000012834	chr1:25780556-25789434	+	481
OTTHUMG00000004228	OTTHUMT00000012180	chr1:27075211-27077323	+	304
OTTHUMG00000003517	OTTHUMT00000009779	chr1:27724903-27729659	+	281
OTTHUMG00000003519	OTTHUMT00000009783	chr1:27859426-27861820	-	439
OTTHUMG00000003650	OTTHUMT00000010343	chr1:29066674-29070366	+	1744
OTTHUMG00000003651	OTTHUMT00000010344	chr1:29069582-29076435	-	1082
OTTHUMG00000003931	OTTHUMT00000011215	chr1:29528719-29549213	-	2145
OTTHUMG000000037527	OTTHUMT000000091409	chr1:29954285-29954981	-	496
OTTHUMG00000003683	OTTHUMT00000010417	chr1:30259386-30283046	-	2512
OTTHUMG00000003685	OTTHUMT00000010419	chr1:30385697-30387041	+	549
OTTHUMG00000003682	OTTHUMT00000010416	chr1:30654994-30657072	-	504
OTTHUMG000000037511	OTTHUMT000000091345	chr1:30661259-30666542	+	478
OTTHUMG00000003704	OTTHUMT00000010457	chr1:31055812-31060987	-	442
OTTHUMG00000003749	OTTHUMT00000010559	chr1:31069662-31079280	+	666
OTTHUMG00000003749	OTTHUMT00000010557	chr1:31070109-31079167	+	443
OTTHUMG000000043647	OTTHUMT000000102020	chr1:31103592-31105688	+	1745
OTTHUMG00000003882	OTTHUMT00000011056	chr1:31756623-31762433	+	2738
OTTHUMG00000003882	OTTHUMT000000091360	chr1:31760551-31761777	+	1120
OTTHUMG00000003927	OTTHUMT00000011211	chr1:32080207-32093756	-	2255
OTTHUMG00000007633	OTTHUMT00000020212	chr1:32587382-32588851	-	685
OTTHUMG000000037927	OTTHUMT000000092577	chr1:32589442-32590610	+	657
OTTHUMG00000007632	OTTHUMT00000020210	chr1:32589709-32591730	+	264
OTTHUMG00000007855	OTTHUMT00000021667	chr1:32719218-32726048	+	2798
OTTHUMG000000041501	OTTHUMT000000099440	chr1:32955922-32963425	-	393
OTTHUMG00000004048	OTTHUMT00000011553	chr1:35088882-35089743	+	718
OTTHUMG00000004157	OTTHUMT00000012077	chr1:35414566-35415849	-	438
OTTHUMG00000004157	OTTHUMT00000011997	chr1:35414566-35418833	-	2832
OTTHUMG00000004157	OTTHUMT00000012076	chr1:35414568-35417293	-	658
OTTHUMG00000004157	OTTHUMT00000011998	chr1:35414568-35417434	-	1428

OTTHUMG00000004157	OTTHUMT00000012071	chr1:35414568-35419532	-	430
OTTHUMG00000004157	OTTHUMT00000012075	chr1:35414568-35419794	-	689
OTTHUMG00000004157	OTTHUMT00000012074	chr1:35415397-35416324	-	337
OTTHUMG00000004187	OTTHUMT00000012051	chr1:37011328-37013956	+	461
OTTHUMG00000004188	OTTHUMT00000012052	chr1:37500927-37563288	-	592
OTTHUMG00000000479	OTTHUMT00000001202	chr1:38447293-38453026	-	2279
OTTHUMG00000000481	OTTHUMT00000001204	chr1:38713455-38714743	+	787
OTTHUMG000000007457	OTTHUMT00000019595	chr1:40907348-40925847	-	466
OTTHUMG000000007731	OTTHUMT00000020814	chr1:41102173-41114929	+	468
OTTHUMG000000007603	OTTHUMT00000020145	chr1:46413745-46414737	-	393
OTTHUMG000000007814	OTTHUMT00000021455	chr1:46684932-46687963	-	1126
OTTHUMG000000007985	OTTHUMT00000021917	chr1:46694082-46720734	+	352
OTTHUMG000000007981	OTTHUMT00000021894	chr1:46996534-47005887	+	484
OTTHUMG000000007848	OTTHUMT00000021645	chr1:47416428-47417530	-	361
OTTHUMG000000007850	OTTHUMT00000021648	chr1:47417509-47418416	+	477
OTTHUMG000000007965	OTTHUMT00000021847	chr1:47619187-47646736	-	480
OTTHUMG000000007949	OTTHUMT00000021830	chr1:47670392-47672900	-	2508
OTTHUMG000000007956	OTTHUMT00000021838	chr1:47926722-47941642	+	812
OTTHUMG000000007958	OTTHUMT00000021840	chr1:47999391-48003806	-	405
OTTHUMG000000007960	OTTHUMT00000021842	chr1:48003895-48039882	-	1153
OTTHUMG000000007961	OTTHUMT00000021843	chr1:48056325-48058496	+	1805
OTTHUMG000000007952	OTTHUMT00000021833	chr1:48291804-48295035	+	509
OTTHUMG000000007952	OTTHUMT00000021834	chr1:48292468-48305460	+	786
OTTHUMG000000008050	OTTHUMT00000022065	chr1:48317046-48320455	-	290
OTTHUMG000000007963	OTTHUMT00000021845	chr1:48339974-48400130	-	640
OTTHUMG000000007957	OTTHUMT00000021839	chr1:48444224-48445102	+	267
OTTHUMG000000007882	OTTHUMT00000021721	chr1:50444343-50461386	-	248
OTTHUMG000000008195	OTTHUMT00000022441	chr1:51433355-51473356	-	2364
OTTHUMG000000008075	OTTHUMT00000022105	chr1:53586748-53587493	-	381
OTTHUMG000000008077	OTTHUMT00000022107	chr1:53604928-53606505	-	848
OTTHUMG000000008363	OTTHUMT00000023025	chr1:54650969-54651727	-	451
OTTHUMG000000008362	OTTHUMT00000023024	chr1:54654517-54659121	+	287
OTTHUMG000000008359	OTTHUMT00000023021	chr1:54754673-54755520	-	681
OTTHUMG000000008243	OTTHUMT00000022600	chr1:56062068-56106509	+	640
OTTHUMG000000008245	OTTHUMT00000022602	chr1:56183348-56188380	+	451
OTTHUMG000000008126	OTTHUMT00000022251	chr1:56383981-56393484	+	728
OTTHUMG000000008128	OTTHUMT00000022253	chr1:56653223-56654226	+	541
OTTHUMG000000008327	OTTHUMT00000022925	chr1:57061940-57065181	-	1822
OTTHUMG000000008374	OTTHUMT00000023039	chr1:59076708-59089514	-	392
OTTHUMG000000008375	OTTHUMT00000023040	chr1:59121128-59134925	-	1207
OTTHUMG000000008375	OTTHUMT00000023041	chr1:59134105-59134963	-	217
OTTHUMG000000008373	OTTHUMT00000023037	chr1:59258647-59271323	+	527
OTTHUMG000000008373	OTTHUMT00000023038	chr1:59258848-59282874	+	302
OTTHUMG000000008373	OTTHUMT00000023093	chr1:59258859-59261280	+	149
OTTHUMG000000008401	OTTHUMT00000023099	chr1:59292657-59294309	-	169

OTTHUMG0000008402	OTTHUMT00000023100	chr1:59294259-59316376	-	314
OTTHUMG0000008404	OTTHUMT00000023103	chr1:59294903-59326455	-	619
OTTHUMG0000008403	OTTHUMT00000023101	chr1:59370196-59384987	-	960
OTTHUMG0000008403	OTTHUMT00000023102	chr1:59370774-59436881	-	769
OTTHUMG0000008767	OTTHUMT00000024223	chr1:60011055-60027108	+	544
OTTHUMG0000008994	OTTHUMT00000024949	chr1:60353135-60387939	+	680
OTTHUMG0000009978	OTTHUMT00000027657	chr1:60778509-60878751	-	1788
OTTHUMG0000008422	OTTHUMT00000023196	chr1:60897891-61063844	-	2338
OTTHUMG00000057525	OTTHUMT000000127843	chr1:63134268-63139898	+	445
OTTHUMG0000009147	OTTHUMT00000025348	chr1:63238756-63249184	-	353
OTTHUMG0000009147	OTTHUMT00000025347	chr1:63238756-63249527	-	488
OTTHUMG0000009147	OTTHUMT00000025346	chr1:63238756-63250730	-	443
OTTHUMG0000009148	OTTHUMT00000025349	chr1:63262466-63263917	+	357
OTTHUMG00000013351	OTTHUMT00000037178	chr1:63316340-63317290	-	155
OTTHUMG0000009144	OTTHUMT00000025342	chr1:63377509-63401412	+	820
OTTHUMG0000009145	OTTHUMT00000025343	chr1:63488282-63490030	+	752
OTTHUMG0000009304	OTTHUMT00000025777	chr1:65304898-65306008	-	308
OTTHUMG0000009373	OTTHUMT00000025987	chr1:67767901-67770600	+	405
OTTHUMG0000009216	OTTHUMT00000025521	chr1:69294169-69423274	+	622
OTTHUMG0000009218	OTTHUMT00000025523	chr1:69481643-69487694	-	432
OTTHUMG0000009217	OTTHUMT00000025522	chr1:69671526-69673680	+	456
OTTHUMG0000009349	OTTHUMT00000025915	chr1:70944724-71024739	+	2079
OTTHUMG0000009350	OTTHUMT00000025916	chr1:70954204-70958560	-	430
OTTHUMG0000009658	OTTHUMT00000026633	chr1:71489270-71490390	+	516
OTTHUMG0000009453	OTTHUMT00000026184	chr1:72987192-73137411	-	494
OTTHUMG0000009452	OTTHUMT00000026183	chr1:73013542-73029551	+	1325
OTTHUMG0000009566	OTTHUMT00000026413	chr1:73544441-73577148	+	3867
OTTHUMG0000009566	OTTHUMT00000026416	chr1:73544500-73586583	+	360
OTTHUMG0000009566	OTTHUMT00000026417	chr1:73544505-73593522	+	355
OTTHUMG0000009566	OTTHUMT00000026415	chr1:73544510-73545843	+	439
OTTHUMG0000009566	OTTHUMT00000026414	chr1:73545487-73557932	+	477
OTTHUMG0000009567	OTTHUMT00000026418	chr1:73873487-73947852	+	554
OTTHUMG0000009568	OTTHUMT00000026419	chr1:73947639-73953485	+	318
OTTHUMG00000042097	OTTHUMT000000100228	chr1:75201586-75203390	+	337
OTTHUMG0000009790	OTTHUMT00000026985	chr1:76249597-76257629	+	366
OTTHUMG0000009791	OTTHUMT00000026986	chr1:76279964-76304501	+	397
OTTHUMG0000009684	OTTHUMT00000026685	chr1:76996397-77017540	-	445
OTTHUMG0000009688	OTTHUMT00000026695	chr1:77306193-77316755	+	493
OTTHUMG0000009742	OTTHUMT00000026864	chr1:79562042-79563122	+	340
OTTHUMG0000009712	OTTHUMT00000026797	chr1:80611637-80612894	-	578
OTTHUMG0000000506	OTTHUMT00000001249	chr1:80773251-80822636	-	347
OTTHUMG0000000507	OTTHUMT00000001250	chr1:80774028-80885061	+	540
OTTHUMG0000000507	OTTHUMT00000001251	chr1:80774028-80885061	+	587
OTTHUMG0000000507	OTTHUMT00000001252	chr1:80879557-80885061	+	470
OTTHUMG0000009845	OTTHUMT00000027201	chr1:82453492-82499405	-	669

OTTHUMG0000009769	OTTHUMT00000026937	chr1:83141454-83405086	+	1701
OTTHUMG0000009769	OTTHUMT00000026938	chr1:83145833-83235832	+	334
OTTHUMG0000009770	OTTHUMT00000026940	chr1:83212153-83223193	-	1523
OTTHUMG0000009770	OTTHUMT00000026939	chr1:83212200-83224479	-	1473
OTTHUMG0000009772	OTTHUMT00000026942	chr1:83684324-83693042	+	734
OTTHUMG0000009930	OTTHUMT00000027492	chr1:83814047-84099267	-	3174
OTTHUMG0000009931	OTTHUMT00000027497	chr1:84028551-84039736	+	680
OTTHUMG0000009930	OTTHUMT00000027496	chr1:84039787-84098817	-	1988
OTTHUMG0000009930	OTTHUMT00000027494	chr1:84069892-84099214	-	468
OTTHUMG0000009930	OTTHUMT00000027493	chr1:84069892-84099241	-	380
OTTHUMG0000009930	OTTHUMT00000027495	chr1:84069892-84099294	-	397
OTTHUMG00000010575	OTTHUMT00000029185	chr1:85837402-85839005	+	253
OTTHUMG00000010252	OTTHUMT00000028275	chr1:87591795-87609926	-	885
OTTHUMG00000037985	OTTHUMT00000092710	chr1:88138180-88143985	-	784
OTTHUMG00000010585	OTTHUMT00000029206	chr1:90001692-90008050	+	1833
OTTHUMG00000010584	OTTHUMT00000029205	chr1:90027061-90028639	+	507
OTTHUMG00000010672	OTTHUMT00000029425	chr1:90193813-90194869	-	596
OTTHUMG00000010017	OTTHUMT00000027723	chr1:90749055-90771617	-	227
OTTHUMG00000010018	OTTHUMT00000027724	chr1:91067692-91074306	-	2984
OTTHUMG00000010018	OTTHUMT00000027725	chr1:91069670-91089763	-	806
OTTHUMG00000010018	OTTHUMT00000027726	chr1:91070014-91089795	-	709
OTTHUMG00000010019	OTTHUMT00000027727	chr1:91089904-91092431	+	578
OTTHUMG00000010623	OTTHUMT00000029326	chr1:94383255-94383763	+	350
OTTHUMG00000010648	OTTHUMT00000029383	chr1:94486052-94487636	+	210
OTTHUMG00000010651	OTTHUMT00000029386	chr1:94556623-94562713	-	590
OTTHUMG00000010650	OTTHUMT00000029385	chr1:94571411-94572992	+	478
OTTHUMG00000010718	OTTHUMT00000029603	chr1:94823700-94830441	-	2169
OTTHUMG00000010719	OTTHUMT00000029604	chr1:94859295-94862328	-	2270
OTTHUMG00000010911	OTTHUMT00000030082	chr1:95549072-95556407	-	380
OTTHUMG00000010912	OTTHUMT00000030083	chr1:95589395-95590398	-	600
OTTHUMG00000010913	OTTHUMT00000030084	chr1:95594163-95619144	-	1010
OTTHUMG00000010913	OTTHUMT00000030085	chr1:95594379-95619116	-	841
OTTHUMG00000010909	OTTHUMT00000030074	chr1:95712881-95717500	+	2751
OTTHUMG00000010665	OTTHUMT00000030151	chr1:95748304-95752873	+	780
OTTHUMG00000010665	OTTHUMT00000029413	chr1:95748311-96020486	+	710
OTTHUMG00000010665	OTTHUMT00000030150	chr1:95748314-95860878	+	317
OTTHUMG00000010665	OTTHUMT00000030152	chr1:95748484-95753608	+	1437
OTTHUMG00000010691	OTTHUMT00000029471	chr1:96176045-96261010	+	477
OTTHUMG00000010691	OTTHUMT00000029474	chr1:96227951-96261010	+	856
OTTHUMG00000010691	OTTHUMT00000029472	chr1:96230212-96261010	+	794
OTTHUMG00000010691	OTTHUMT00000029473	chr1:96230609-96261024	+	464
OTTHUMG00000010690	OTTHUMT00000029470	chr1:96492213-96612269	-	1988
OTTHUMG00000010681	OTTHUMT00000029438	chr1:98448891-98510802	+	2226
OTTHUMG00000010769	OTTHUMT00000029680	chr1:99710506-99772159	-	491
OTTHUMG00000010984	OTTHUMT00000030217	chr1:100582621-100583386	+	465

OTTHUMG00000040491	OTTHUMT00000097435	chr1:100865193-100867088	-	372
OTTHUMG00000010834	OTTHUMT00000029907	chr1:101561481-101588320	+	258
OTTHUMG00000010834	OTTHUMT00000029906	chr1:101561981-101615457	+	469
OTTHUMG00000010834	OTTHUMT00000029905	chr1:101588193-101628447	+	769
OTTHUMG00000010944	OTTHUMT00000030148	chr1:101961886-101967758	+	476
OTTHUMG00000010865	OTTHUMT00000029981	chr1:102437883-102627774	-	651
OTTHUMG00000010873	OTTHUMT00000030002	chr1:103001466-103091986	-	924
OTTHUMG00000041346	OTTHUMT00000099059	chr1:103590357-103600943	+	416
OTTHUMG00000041347	OTTHUMT00000099060	chr1:103593557-103608574	-	436
OTTHUMG00000041347	OTTHUMT00000099061	chr1:103594232-103608574	-	352
OTTHUMG00000041349	OTTHUMT00000099064	chr1:103730089-103740675	+	416
OTTHUMG00000011003	OTTHUMT00000030257	chr1:105933839-105963063	-	406
OTTHUMG00000011003	OTTHUMT00000030256	chr1:105946297-105963080	-	1822
OTTHUMG00000011006	OTTHUMT00000030260	chr1:106271769-106297039	-	551
OTTHUMG00000011006	OTTHUMT00000030357	chr1:106271769-106367357	-	455
OTTHUMG00000011006	OTTHUMT00000030261	chr1:106271770-106297634	-	373
OTTHUMG00000000497	OTTHUMT00000001239	chr1:107162384-107182338	+	731
OTTHUMG00000011012	OTTHUMT00000030278	chr1:108415627-108418664	+	429
OTTHUMG00000011012	OTTHUMT00000030279	chr1:108416516-108418638	+	426
OTTHUMG00000011637	OTTHUMT00000032165	chr1:110172500-110215581	+	472
OTTHUMG00000011641	OTTHUMT00000032186	chr1:110228321-110230409	-	448
OTTHUMG00000040850	OTTHUMT00000098110	chr1:110552979-110554132	-	746
OTTHUMG00000040851	OTTHUMT00000098111	chr1:110626679-110627245	+	219
OTTHUMG00000012183	OTTHUMT00000033693	chr1:112521379-112704673	-	545
OTTHUMG00000012022	OTTHUMT00000033259	chr1:113164315-113193960	-	763
OTTHUMG00000012022	OTTHUMT00000033258	chr1:113164319-113194788	-	1812
OTTHUMG00000012022	OTTHUMT00000033532	chr1:113164435-113193924	-	699
OTTHUMG00000012023	OTTHUMT00000033261	chr1:113194173-113222016	+	584
OTTHUMG00000012023	OTTHUMT00000033260	chr1:113194221-113222012	+	488
OTTHUMG00000012131	OTTHUMT00000033546	chr1:113352399-113391200	+	375
OTTHUMG00000012131	OTTHUMT00000033547	chr1:113377818-113391200	+	434
OTTHUMG00000011899	OTTHUMT00000032873	chr1:114550572-114606423	+	330
OTTHUMG00000011879	OTTHUMT00000032831	chr1:115443816-115446802	+	489
OTTHUMG00000012009	OTTHUMT00000033222	chr1:116263520-116270052	+	1393
OTTHUMG00000012112	OTTHUMT00000033488	chr1:116508428-116510385	+	912
OTTHUMG00000014035	OTTHUMT00000039476	chr1:116767869-116822953	-	450
OTTHUMG00000014035	OTTHUMT00000097629	chr1:116796791-116822987	-	617
OTTHUMG00000014035	OTTHUMT00000097634	chr1:116797179-116810587	-	536
OTTHUMG00000014035	OTTHUMT00000097630	chr1:116797180-116822372	-	458
OTTHUMG00000014035	OTTHUMT00000097631	chr1:116797180-116822971	-	432
OTTHUMG00000014035	OTTHUMT00000097635	chr1:116807866-116810597	-	478
OTTHUMG00000019417	OTTHUMT00000051445	chr1:116837168-116843357	-	2293
OTTHUMG00000012147	OTTHUMT00000033591	chr1:117639665-117665481	+	508
OTTHUMG00000012337	OTTHUMT00000034368	chr1:119344490-119345538	-	651
OTTHUMG00000012338	OTTHUMT00000034371	chr1:119344764-119345551	-	408

OTTHUMG00000012411	OTTHUMT00000034533	chr1:119604411-119671449	-	895
OTTHUMG00000012409	OTTHUMT00000034531	chr1:119672322-119674961	+	439
OTTHUMG00000012409	OTTHUMT00000034530	chr1:119672398-119700328	+	387
OTTHUMG00000013092	OTTHUMT00000036739	chr1:120840137-120906506	+	3660
OTTHUMG00000013086	OTTHUMT00000036733	chr1:120868446-120872657	+	493
OTTHUMG00000013087	OTTHUMT00000036734	chr1:121017267-121023845	-	424
OTTHUMG00000013089	OTTHUMT00000036736	chr1:141494816-141500693	+	962
OTTHUMG00000013378	OTTHUMT00000037256	chr1:141510789-141529757	-	359
OTTHUMG00000085417	OTTHUMT000000193207	chr1:141892358-141898239	-	964
OTTHUMG00000013472	OTTHUMT00000037571	chr1:141960227-142035865	-	695
OTTHUMG00000013471	OTTHUMT00000037563	chr1:141960584-141999600	+	1227
OTTHUMG00000013471	OTTHUMT00000037562	chr1:141960584-142047620	+	549
OTTHUMG00000013471	OTTHUMT00000037559	chr1:141960584-142073279	+	651
OTTHUMG00000013471	OTTHUMT00000037561	chr1:141960584-142073841	+	611
OTTHUMG00000013471	OTTHUMT00000037560	chr1:141960584-142074940	+	1782
OTTHUMG00000013474	OTTHUMT00000037573	chr1:141996016-142011483	+	846
OTTHUMG00000013472	OTTHUMT00000037564	chr1:142025399-142035762	-	1883
OTTHUMG00000013472	OTTHUMT00000037565	chr1:142028285-142038326	-	1102
OTTHUMG00000013472	OTTHUMT00000037568	chr1:142030032-142037357	-	552
OTTHUMG00000013472	OTTHUMT00000037566	chr1:142030318-142038326	-	1406
OTTHUMG00000013473	OTTHUMT00000037572	chr1:142030351-142031218	+	468
OTTHUMG00000013472	OTTHUMT00000037567	chr1:142030957-142052593	-	2497
OTTHUMG00000013472	OTTHUMT00000037569	chr1:142035412-142037409	-	659
OTTHUMG00000013472	OTTHUMT00000037570	chr1:142035425-142038326	-	721
OTTHUMG00000013469	OTTHUMT00000037545	chr1:142189481-142206564	+	506
OTTHUMG00000013469	OTTHUMT00000037544	chr1:142189493-142218222	+	932
OTTHUMG00000013469	OTTHUMT00000037546	chr1:142189502-142193006	+	306
OTTHUMG00000013469	OTTHUMT00000037547	chr1:142190263-142193006	+	356
OTTHUMG00000013470	OTTHUMT00000037552	chr1:142196486-142306961	-	1785
OTTHUMG00000013469	OTTHUMT00000037542	chr1:142196785-142221426	+	2600
OTTHUMG00000013470	OTTHUMT00000037553	chr1:142197588-142309055	-	677
OTTHUMG00000013470	OTTHUMT00000037551	chr1:142198148-142308827	-	1109
OTTHUMG00000013469	OTTHUMT00000037548	chr1:142203231-142218260	+	770
OTTHUMG00000013469	OTTHUMT00000037543	chr1:142203497-142213839	+	332
OTTHUMG00000013469	OTTHUMT00000037549	chr1:142203500-142216696	+	350
OTTHUMG00000013469	OTTHUMT00000037550	chr1:142203514-142209713	+	275
OTTHUMG00000013630	OTTHUMT00000037971	chr1:142218804-142240412	+	2489
OTTHUMG00000013630	OTTHUMT00000037978	chr1:142220259-142222487	+	677
OTTHUMG00000013470	OTTHUMT00000037554	chr1:142223768-142309155	-	1334
OTTHUMG00000013630	OTTHUMT00000037975	chr1:142233049-142233627	+	370
OTTHUMG00000013630	OTTHUMT00000037976	chr1:142233091-142235967	+	734
OTTHUMG00000013630	OTTHUMT00000037973	chr1:142233091-142241051	+	1406
OTTHUMG00000013630	OTTHUMT00000037974	chr1:142233091-142241336	+	497
OTTHUMG00000013630	OTTHUMT00000037970	chr1:142233091-142243056	+	1102
OTTHUMG00000013630	OTTHUMT00000037979	chr1:142233966-142241337	+	385

OTTHUMG00000013630	OTTHUMT00000037977	chr1:142233973-142235967	+	659
OTTHUMG00000013630	OTTHUMT00000037972	chr1:142235617-142245938	+	1882
OTTHUMG00000013630	OTTHUMT00000037980	chr1:142235674-142241337	+	288
OTTHUMG00000013470	OTTHUMT00000037558	chr1:142240935-142309181	-	780
OTTHUMG00000013470	OTTHUMT00000037555	chr1:142271395-142309167	-	1301
OTTHUMG00000013470	OTTHUMT00000037557	chr1:142306168-142309136	-	835
OTTHUMG00000013470	OTTHUMT00000037556	chr1:142306903-142309127	-	298
OTTHUMG00000013631	OTTHUMT00000037981	chr1:142339867-142358822	+	358
OTTHUMG00000013632	OTTHUMT00000037982	chr1:142368928-142374795	-	961
OTTHUMG00000013632	OTTHUMT00000037983	chr1:142369408-142370746	-	303
OTTHUMG00000042242	OTTHUMT00000100473	chr1:144084411-144086911	-	664
OTTHUMG00000042244	OTTHUMT00000100475	chr1:144087482-144093754	-	811
OTTHUMG00000042244	OTTHUMT00000100477	chr1:144087524-144089129	-	645
OTTHUMG00000042244	OTTHUMT00000100476	chr1:144087684-144093719	-	868
OTTHUMG00000042244	OTTHUMT00000100478	chr1:144088423-144089406	-	370
OTTHUMG00000013881	OTTHUMT00000038921	chr1:144837900-144870459	-	858
OTTHUMG00000043709	OTTHUMT00000102088	chr1:144940123-144941802	-	724
OTTHUMG00000043709	OTTHUMT00000102089	chr1:144940359-144941367	-	591
OTTHUMG00000041476	OTTHUMT00000099377	chr1:145452782-145456323	-	698
OTTHUMG00000042022	OTTHUMT00000100088	chr1:145636538-145638085	+	444
OTTHUMG00000042020	OTTHUMT00000100086	chr1:145716324-145727689	+	478
OTTHUMG00000043433	OTTHUMT00000101759	chr1:145960714-145964796	+	491
OTTHUMG00000043433	OTTHUMT00000101760	chr1:145963300-145964796	+	437
OTTHUMG00000017423	OTTHUMT00000046023	chr1:147194946-147199544	+	197
OTTHUMG00000017423	OTTHUMT00000046024	chr1:147194946-147218218	+	546
OTTHUMG00000017423	OTTHUMT00000046025	chr1:147194955-147199992	+	265
OTTHUMG00000017423	OTTHUMT00000097809	chr1:147199409-147200203	+	423
OTTHUMG00000041570	OTTHUMT00000099548	chr1:147452927-147453997	+	903
OTTHUMG00000041573	OTTHUMT00000099556	chr1:147497340-147499178	+	1071
OTTHUMG00000041568	OTTHUMT00000099630	chr1:147551269-147553599	+	473
OTTHUMG00000041568	OTTHUMT00000099546	chr1:147551269-147553730	+	692
OTTHUMG00000041633	OTTHUMT00000099634	chr1:147572534-147579700	-	534
OTTHUMG00000041032	OTTHUMT00000098435	chr1:147638916-147646270	-	3538
OTTHUMG00000013949	OTTHUMT00000039131	chr1:147843215-147843920	-	559
OTTHUMG00000013950	OTTHUMT00000039132	chr1:147857376-147858386	-	396
OTTHUMG00000013953	OTTHUMT00000039135	chr1:147939621-147943911	+	1986
OTTHUMG00000013955	OTTHUMT00000039137	chr1:147958056-147965229	-	534
OTTHUMG00000035849	OTTHUMT00000087261	chr1:148754857-148757132	+	564
OTTHUMG00000012244	OTTHUMT00000034017	chr1:150444958-150446157	+	395
OTTHUMG00000012386	OTTHUMT00000034506	chr1:150894577-150895904	+	299
OTTHUMG00000012449	OTTHUMT00000034662	chr1:151169140-151188310	-	1995
OTTHUMG00000013934	OTTHUMT00000039103	chr1:151413618-151430776	+	2251
OTTHUMG00000017459	OTTHUMT00000046191	chr1:154227805-154238202	+	399
OTTHUMG00000017460	OTTHUMT00000046192	chr1:154232738-154238979	-	427
OTTHUMG00000031021	OTTHUMT00000075987	chr1:154624642-154632025	+	5584

OTTHUMG00000033094	OTTHUMT00000080560	chr1:154682828-154692882	-	519
OTTHUMG00000033094	OTTHUMT00000080561	chr1:154689313-154692993	-	672
OTTHUMG00000041297	OTTHUMT00000098960	chr1:154924113-154928413	-	4118
OTTHUMG00000041299	OTTHUMT00000098965	chr1:154948628-154949590	-	431
OTTHUMG00000041327	OTTHUMT00000099026	chr1:155421802-155423819	+	469
OTTHUMG00000017482	OTTHUMT00000046272	chr1:155468645-155473550	-	397
OTTHUMG00000017483	OTTHUMT00000046273	chr1:155524117-155524467	-	154
OTTHUMG00000022441	OTTHUMT00000058349	chr1:156368458-156377044	-	645
OTTHUMG00000022441	OTTHUMT00000058348	chr1:156368458-156377053	-	831
OTTHUMG00000022444	OTTHUMT00000058352	chr1:156434336-156440291	-	1997
OTTHUMG00000022736	OTTHUMT00000059019	chr1:157702735-157719790	+	850
OTTHUMG00000024077	OTTHUMT00000060639	chr1:158197632-158213526	+	801
OTTHUMG00000024077	OTTHUMT00000060638	chr1:158197638-158215475	+	1110
OTTHUMG00000028600	OTTHUMT00000071456	chr1:159168153-159170794	-	573
OTTHUMG00000043773	OTTHUMT00000102153	chr1:159792704-159793492	-	460
OTTHUMG00000034467	OTTHUMT00000083315	chr1:159874062-159874842	-	460
OTTHUMG00000024048	OTTHUMT00000060554	chr1:160275430-160275981	+	451
OTTHUMG00000033149	OTTHUMT00000080770	chr1:161496264-161497073	+	467
OTTHUMG00000034564	OTTHUMT00000083637	chr1:163834324-163859192	+	488
OTTHUMG00000034556	OTTHUMT00000096761	chr1:164570745-164571623	+	420
OTTHUMG00000033265	OTTHUMT00000081455	chr1:164623588-164688493	-	807
OTTHUMG00000034319	OTTHUMT00000082879	chr1:165131572-165143941	-	559
OTTHUMG00000034431	OTTHUMT00000083235	chr1:165411778-165431650	-	966
OTTHUMG00000034431	OTTHUMT00000083236	chr1:165411935-165431341	-	927
OTTHUMG00000034431	OTTHUMT00000083238	chr1:165412082-165431609	-	902
OTTHUMG00000034431	OTTHUMT00000083237	chr1:165412208-165431653	-	852
OTTHUMG00000034644	OTTHUMT00000083820	chr1:166636691-166658518	-	1797
OTTHUMG00000034644	OTTHUMT00000097958	chr1:166637345-166643136	-	386
OTTHUMG00000040769	OTTHUMT00000097974	chr1:166700076-166731506	-	514
OTTHUMG00000034550	OTTHUMT00000083614	chr1:166999227-167010352	-	416
OTTHUMG00000034551	OTTHUMT00000083615	chr1:167022801-167028748	+	952
OTTHUMG00000034591	OTTHUMT00000083698	chr1:167339986-167340769	+	566
OTTHUMG00000035449	OTTHUMT00000086102	chr1:167678500-167696314	-	1485
OTTHUMG00000035449	OTTHUMT00000086103	chr1:167690253-167696283	-	424
OTTHUMG00000035812	OTTHUMT00000087108	chr1:167998694-168000413	-	675
OTTHUMG00000035969	OTTHUMT00000087599	chr1:168507368-168514697	-	1454
OTTHUMG00000035969	OTTHUMT00000087600	chr1:168507532-168519973	-	385
OTTHUMG00000035229	OTTHUMT00000085233	chr1:168823014-168824001	-	128
OTTHUMG00000035230	OTTHUMT00000085234	chr1:168834619-168883104	+	1920
OTTHUMG00000034834	OTTHUMT00000084267	chr1:171142663-171143447	+	656
OTTHUMG00000034840	OTTHUMT00000084275	chr1:171410062-171411265	-	688
OTTHUMG00000034807	OTTHUMT00000084227	chr1:171653555-171697124	-	1813
OTTHUMG00000034807	OTTHUMT00000084228	chr1:171653836-171677859	-	1013
OTTHUMG00000037217	OTTHUMT00000090606	chr1:172097913-172099702	+	851
OTTHUMG00000034823	OTTHUMT00000084254	chr1:172245028-172251967	-	446

OTTHUMG00000034820	OTTHUMT00000084248	chr1:172258270-172258746	+	333
OTTHUMG00000034947	OTTHUMT00000084593	chr1:173438987-173440608	-	773
OTTHUMG00000034985	OTTHUMT00000084671	chr1:174140521-174156272	-	654
OTTHUMG00000040861	OTTHUMT00000098153	chr1:175587345-175602031	+	487
OTTHUMG00000040862	OTTHUMT00000098154	chr1:175629046-175812707	-	795
OTTHUMG00000040862	OTTHUMT00000098155	chr1:175629438-175833467	-	542
OTTHUMG00000040863	OTTHUMT00000098156	chr1:175936282-175946088	+	1662
OTTHUMG00000035264	OTTHUMT00000085303	chr1:178065367-178071882	-	351
OTTHUMG00000035112	OTTHUMT00000084991	chr1:178794735-178802277	+	1486
OTTHUMG00000035182	OTTHUMT00000085150	chr1:179142410-179144925	+	539
OTTHUMG00000035182	OTTHUMT00000085149	chr1:179143560-179144701	+	440
OTTHUMG00000035180	OTTHUMT00000085146	chr1:179410243-179417967	+	539
OTTHUMG00000035180	OTTHUMT00000085147	chr1:179411096-179417966	+	538
OTTHUMG00000035181	OTTHUMT00000085148	chr1:179426230-179426908	-	530
OTTHUMG00000035177	OTTHUMT00000085141	chr1:179472147-179474363	+	256
OTTHUMG00000037300	OTTHUMT00000090790	chr1:180322309-180325870	+	1142
OTTHUMG00000037400	OTTHUMT00000091034	chr1:180363055-180364423	-	625
OTTHUMG00000041043	OTTHUMT00000098468	chr1:180948620-180950302	+	257
OTTHUMG00000035458	OTTHUMT00000086125	chr1:182564828-182568583	+	331
OTTHUMG00000035578	OTTHUMT00000086351	chr1:183794134-183801386	+	613
OTTHUMG00000035577	OTTHUMT00000086350	chr1:183842939-183864282	-	637
OTTHUMG00000035513	OTTHUMT00000086238	chr1:185328597-185596078	+	854
OTTHUMG00000035479	OTTHUMT00000086169	chr1:185679361-185705994	+	288
OTTHUMG00000035479	OTTHUMT00000086170	chr1:185679383-185712977	+	421
OTTHUMG00000035627	OTTHUMT00000086449	chr1:186744292-186772219	+	742
OTTHUMG00000035544	OTTHUMT00000086293	chr1:186941377-186946634	-	731
OTTHUMG00000035545	OTTHUMT00000086294	chr1:187105231-187123188	-	464
OTTHUMG00000035542	OTTHUMT00000086291	chr1:187141442-187273016	+	782
OTTHUMG00000035526	OTTHUMT00000086267	chr1:188011218-188050671	+	447
OTTHUMG00000035527	OTTHUMT00000086268	chr1:188103754-188104281	-	412
OTTHUMG00000040635	OTTHUMT00000097707	chr1:188716132-188730050	+	504
OTTHUMG00000041127	OTTHUMT00000098604	chr1:189456912-189464220	+	297
OTTHUMG00000041126	OTTHUMT00000098602	chr1:190094460-190102713	-	613
OTTHUMG00000041126	OTTHUMT00000098603	chr1:190094516-190125982	-	581
OTTHUMG00000041131	OTTHUMT00000098608	chr1:190111248-190247013	+	2030
OTTHUMG00000041135	OTTHUMT00000098612	chr1:190753392-190802970	-	394
OTTHUMG00000041136	OTTHUMT00000098613	chr1:190765332-190773855	+	681
OTTHUMG00000041137	OTTHUMT00000098614	chr1:191173053-191184010	-	274
OTTHUMG00000035686	OTTHUMT00000086758	chr1:191540498-191601706	+	775
OTTHUMG00000035690	OTTHUMT00000086762	chr1:191914647-191962936	+	546
OTTHUMG00000035685	OTTHUMT00000086757	chr1:191919999-191924182	-	847
OTTHUMG00000035603	OTTHUMT00000086407	chr1:192586696-192588179	+	438
OTTHUMG00000035609	OTTHUMT00000086414	chr1:194280749-194296826	-	619
OTTHUMG00000035655	OTTHUMT00000086543	chr1:196833477-196834621	-	361
OTTHUMG00000035888	OTTHUMT00000087435	chr1:197043245-197062968	-	940

OTTHUMG00000035888	OTTHUMT00000087434	chr1:197043410-197173162	-	927
OTTHUMG00000035888	OTTHUMT00000087436	chr1:197135770-197173181	-	754
OTTHUMG00000035890	OTTHUMT00000087438	chr1:197219073-197220953	+	832
OTTHUMG00000035890	OTTHUMT00000087439	chr1:197219376-197221152	+	914
OTTHUMG00000035892	OTTHUMT00000087441	chr1:197241792-197256789	-	1782
OTTHUMG00000035893	OTTHUMT00000087442	chr1:197251885-197312487	+	659
OTTHUMG00000035719	OTTHUMT00000086874	chr1:198709671-198714044	+	505
OTTHUMG00000035782	OTTHUMT00000087047	chr1:199158442-199202419	+	2542
OTTHUMG00000035782	OTTHUMT000000331146	chr1:199194578-199202261	+	547
OTTHUMG00000041399	OTTHUMT00000099181	chr1:201046713-201047664	+	746
OTTHUMG00000041399	OTTHUMT00000099182	chr1:201046713-201047664	+	632
OTTHUMG00000041380	OTTHUMT00000099140	chr1:201056017-201062976	+	2807
OTTHUMG00000041219	OTTHUMT00000098768	chr1:201522903-201524552	+	772
OTTHUMG00000041219	OTTHUMT00000098769	chr1:201523521-201524285	+	351
OTTHUMG00000037202	OTTHUMT00000090406	chr1:203691680-203704775	+	2882
OTTHUMG00000036117	OTTHUMT00000087994	chr1:204330707-204332893	+	269
OTTHUMG00000036254	OTTHUMT00000088207	chr1:205489035-205549089	+	913
OTTHUMG00000036552	OTTHUMT00000088900	chr1:206113763-206119041	-	562
OTTHUMG00000036136	OTTHUMT00000088025	chr1:206968656-206973152	+	523
OTTHUMG00000036137	OTTHUMT00000088026	chr1:207212422-207215275	+	593
OTTHUMG00000036133	OTTHUMT00000088022	chr1:207387235-207395069	-	470
OTTHUMG00000036265	OTTHUMT00000088228	chr1:207565424-207568500	+	489
OTTHUMG00000036266	OTTHUMT00000088229	chr1:207607630-207619658	+	722
OTTHUMG00000036266	OTTHUMT00000088230	chr1:207612023-207613527	+	324
OTTHUMG00000036359	OTTHUMT00000088523	chr1:207768423-207807641	-	858
OTTHUMG00000036359	OTTHUMT00000088524	chr1:207768509-207787548	-	635
OTTHUMG00000041139	OTTHUMT00000098617	chr1:209422121-209423069	-	114
OTTHUMG00000037001	OTTHUMT00000089836	chr1:209875871-209882832	+	583
OTTHUMG00000036999	OTTHUMT00000089833	chr1:209879660-209894546	+	1202
OTTHUMG00000036999	OTTHUMT00000089834	chr1:209879773-209894141	+	354
OTTHUMG00000037124	OTTHUMT00000090163	chr1:209926487-209930068	+	458
OTTHUMG00000037125	OTTHUMT00000090164	chr1:209955893-209965367	-	172
OTTHUMG00000037131	OTTHUMT00000090178	chr1:210408172-210430224	+	506
OTTHUMG00000037132	OTTHUMT00000090179	chr1:210465243-210474511	-	334
OTTHUMG00000037132	OTTHUMT00000090180	chr1:210465245-210466503	-	335
OTTHUMG00000037132	OTTHUMT00000090181	chr1:210465245-210478942	-	359
OTTHUMG00000036746	OTTHUMT00000089295	chr1:210706781-210707708	-	357
OTTHUMG00000036749	OTTHUMT00000089301	chr1:210785659-210796030	+	329
OTTHUMG00000036786	OTTHUMT00000089347	chr1:210893964-210905399	-	470
OTTHUMG00000041155	OTTHUMT00000098642	chr1:211732267-211786413	+	438
OTTHUMG00000041157	OTTHUMT00000098644	chr1:211971382-212034553	+	345
OTTHUMG00000036947	OTTHUMT00000089728	chr1:212059601-212206231	-	3296
OTTHUMG00000036947	OTTHUMT00000089729	chr1:212080694-212206224	-	492
OTTHUMG00000041154	OTTHUMT00000098641	chr1:212205860-212226119	+	474
OTTHUMG00000039497	OTTHUMT00000095287	chr1:216132866-216160769	+	1582

OTTHUMG00000039495	OTTHUMT00000095285	chr1:216271800-216273625	+	213
OTTHUMG00000039496	OTTHUMT00000095286	chr1:216283470-216299105	+	1724
OTTHUMG00000041229	OTTHUMT00000098810	chr1:217152722-217156149	-	387
OTTHUMG00000037143	OTTHUMT00000090219	chr1:217462213-217465462	-	1124
OTTHUMG00000041231	OTTHUMT00000098812	chr1:217649646-217651906	-	809
OTTHUMG00000041230	OTTHUMT00000098811	chr1:217675117-217682607	-	448
OTTHUMG00000041227	OTTHUMT00000098808	chr1:217797157-217797666	+	180
OTTHUMG00000037358	OTTHUMT00000090919	chr1:218599696-218600148	-	243
OTTHUMG00000037350	OTTHUMT00000090897	chr1:218725069-218727008	-	388
OTTHUMG00000037355	OTTHUMT00000090916	chr1:219069220-219072394	+	958
OTTHUMG00000037165	OTTHUMT00000090308	chr1:219748524-219750944	+	805
OTTHUMG00000037268	OTTHUMT00000090715	chr1:220067631-220080631	-	419
OTTHUMG00000037423	OTTHUMT00000091109	chr1:220120946-220158677	-	715
OTTHUMG00000037423	OTTHUMT00000091110	chr1:220153613-220218488	-	601
OTTHUMG00000037424	OTTHUMT00000091112	chr1:220206306-220223108	+	452
OTTHUMG00000037424	OTTHUMT00000091111	chr1:220206375-220224929	+	1145
OTTHUMG00000037425	OTTHUMT00000091113	chr1:220281670-220304728	-	559
OTTHUMG00000037291	OTTHUMT00000090768	chr1:220692705-220694670	-	313
OTTHUMG00000037767	OTTHUMT00000092152	chr1:221054987-221077349	+	540
OTTHUMG00000037767	OTTHUMT00000092505	chr1:221055002-221077304	+	553
OTTHUMG00000037767	OTTHUMT00000092153	chr1:221055012-221077194	+	380
OTTHUMG00000037767	OTTHUMT00000092154	chr1:221055016-221077349	+	358
OTTHUMG00000037767	OTTHUMT00000092501	chr1:221055025-221077347	+	762
OTTHUMG00000037767	OTTHUMT00000092503	chr1:221055026-221077349	+	574
OTTHUMG00000037767	OTTHUMT00000100398	chr1:221055040-221067276	+	128
OTTHUMG00000037767	OTTHUMT00000092499	chr1:221055043-221077348	+	512
OTTHUMG00000037767	OTTHUMT00000092500	chr1:221055076-221067547	+	214
OTTHUMG00000037767	OTTHUMT00000092504	chr1:221055094-221077265	+	442
OTTHUMG00000037767	OTTHUMT00000092502	chr1:221063849-221077349	+	545
OTTHUMG00000037767	OTTHUMT00000092506	chr1:221070945-221077349	+	546
OTTHUMG00000037935	OTTHUMT00000092591	chr1:221421109-221428119	+	484
OTTHUMG00000037537	OTTHUMT00000091468	chr1:222463072-222464737	-	435
OTTHUMG00000037537	OTTHUMT00000091467	chr1:222463072-222467604	-	788
OTTHUMG00000037716	OTTHUMT00000092017	chr1:223021225-223027666	+	421
OTTHUMG00000037519	OTTHUMT00000091396	chr1:223701568-223719668	-	395
OTTHUMG00000037519	OTTHUMT00000091397	chr1:223702316-223719608	-	654
OTTHUMG00000037739	OTTHUMT00000092057	chr1:223954929-224006568	+	1527
OTTHUMG00000037740	OTTHUMT00000092058	chr1:223965293-223990599	-	531
OTTHUMG00000041341	OTTHUMT00000099052	chr1:224341205-224344616	+	404
OTTHUMG00000037610	OTTHUMT00000091687	chr1:225764920-225774801	-	613
OTTHUMG00000041351	OTTHUMT00000099069	chr1:227295185-227297275	-	597
OTTHUMG00000037661	OTTHUMT00000091837	chr1:227425831-227429932	-	790
OTTHUMG00000039465	OTTHUMT00000095234	chr1:228077920-228088122	-	383
OTTHUMG00000037758	OTTHUMT00000092103	chr1:228205100-228209532	+	652
OTTHUMG00000037760	OTTHUMT00000092105	chr1:228795029-228797952	+	401

OTTHUMG00000037789	OTTHUMT00000092235	chr1:229026010-229027076	-	309
OTTHUMG00000037791	OTTHUMT00000092238	chr1:229077215-229081384	+	791
OTTHUMG00000039488	OTTHUMT00000095276	chr1:229793661-229814459	-	595
OTTHUMG00000037849	OTTHUMT00000092379	chr1:230362460-230388012	+	815
OTTHUMG00000037832	OTTHUMT00000092348	chr1:230377301-230382482	-	2239
OTTHUMG00000037848	OTTHUMT00000092378	chr1:230513861-230515480	+	1080
OTTHUMG00000037823	OTTHUMT00000092332	chr1:230920440-230924619	+	369
OTTHUMG00000037825	OTTHUMT00000092334	chr1:230929623-230945084	-	2038
OTTHUMG00000037976	OTTHUMT00000092696	chr1:232730260-232734148	-	2857
OTTHUMG00000037976	OTTHUMT00000092697	chr1:232732311-232734134	-	802
OTTHUMG00000037977	OTTHUMT00000092698	chr1:232767667-232772457	+	388
OTTHUMG00000037979	OTTHUMT00000092700	chr1:232831680-232837149	+	2268
OTTHUMG00000037980	OTTHUMT00000092701	chr1:232848658-232863293	+	1369
OTTHUMG00000037980	OTTHUMT00000092702	chr1:232858494-232883491	+	419
OTTHUMG00000037982	OTTHUMT00000092707	chr1:232862640-232869473	+	930
OTTHUMG00000037983	OTTHUMT00000092708	chr1:232871892-232898523	-	3562
OTTHUMG00000037980	OTTHUMT00000092703	chr1:232876465-232885545	+	628
OTTHUMG00000038016	OTTHUMT00000092804	chr1:232911628-232918384	+	2532
OTTHUMG00000038016	OTTHUMT00000092805	chr1:232911758-232922346	+	1004
OTTHUMG00000038017	OTTHUMT00000092806	chr1:232927771-232934013	+	3572
OTTHUMG00000038015	OTTHUMT00000092803	chr1:233159601-233162359	+	421
OTTHUMG00000038014	OTTHUMT00000092798	chr1:233159712-233166369	-	885
OTTHUMG00000038014	OTTHUMT00000092799	chr1:233162031-233166197	-	315
OTTHUMG00000038014	OTTHUMT00000092800	chr1:233162033-233165558	-	551
OTTHUMG00000038014	OTTHUMT00000092802	chr1:233162036-233172432	-	423
OTTHUMG00000038014	OTTHUMT00000092801	chr1:233163746-233165496	-	357
OTTHUMG00000041431	OTTHUMT00000099241	chr1:234172476-234173728	-	738
OTTHUMG00000041435	OTTHUMT00000099245	chr1:234187802-234201748	-	188
OTTHUMG00000041437	OTTHUMT00000099247	chr1:236505960-236516939	+	195
OTTHUMG00000039532	OTTHUMT00000095377	chr1:236710307-236715946	-	1535
OTTHUMG00000039564	OTTHUMT00000095448	chr1:237499648-237527860	-	446
OTTHUMG00000040503	OTTHUMT00000097470	chr1:238969352-238973534	-	444
OTTHUMG00000039598	OTTHUMT00000095491	chr1:239654215-239663251	+	501
OTTHUMG00000039598	OTTHUMT00000095492	chr1:239654321-239663415	+	471
OTTHUMG00000039859	OTTHUMT00000096158	chr1:241235770-241237393	-	789
OTTHUMG00000039860	OTTHUMT00000096159	chr1:241259437-241277750	-	621
OTTHUMG00000039860	OTTHUMT00000096160	chr1:241261197-241277794	-	472
OTTHUMG00000039860	OTTHUMT00000096161	chr1:241268839-241278449	-	820
OTTHUMG00000039860	OTTHUMT00000096162	chr1:241277662-241282177	-	344
OTTHUMG00000039861	OTTHUMT00000096167	chr1:241285754-241287788	-	1712
OTTHUMG00000039861	OTTHUMT00000096163	chr1:241286239-241331669	-	3816
OTTHUMG00000039861	OTTHUMT00000096164	chr1:241286801-241287773	-	322
OTTHUMG00000039861	OTTHUMT00000096166	chr1:241286937-241287346	-	124
OTTHUMG00000039861	OTTHUMT00000096165	chr1:241287156-241287772	-	522
OTTHUMG00000039861	OTTHUMT00000099304	chr1:241296101-241296795	-	122

OTTHUMG00000039861	OTTHUMT00000096175	chr1:241308782-241312050	-	430
OTTHUMG00000039861	OTTHUMT00000096174	chr1:241308913-241321439	-	481
OTTHUMG00000039861	OTTHUMT00000096171	chr1:241317960-241322523	-	439
OTTHUMG00000039861	OTTHUMT00000096168	chr1:241318053-241331643	-	668
OTTHUMG00000039861	OTTHUMT00000096173	chr1:241321316-241322515	-	316
OTTHUMG00000039861	OTTHUMT00000096172	chr1:241321391-241322483	-	362
OTTHUMG00000039861	OTTHUMT00000096170	chr1:241325916-241327512	-	528
OTTHUMG00000039861	OTTHUMT00000096169	chr1:241326799-241331658	-	772
OTTHUMG00000040014	OTTHUMT00000096514	chr1:242147327-242277242	+	1787
OTTHUMG00000040015	OTTHUMT00000096515	chr1:242337290-242338936	+	565
OTTHUMG00000040628	OTTHUMT00000097697	chr1:244919972-244921746	+	520
OTTHUMG00000040649	OTTHUMT00000097749	chr1:245754604-245756677	-	1636
OTTHUMG00000041417	OTTHUMT00000099211	chr1:246714169-246715408	-	965
OTTHUMG00000153448	OTTHUMT00000331248	chr1:246922115-246929034	+	576
OTTHUMG00000017523	OTTHUMT00000046373	chr10:50001-50544	-	345
OTTHUMG00000017531	OTTHUMT00000046388	chr10:779932-780898	+	422
OTTHUMG00000017533	OTTHUMT00000046393	chr10:968966-978683	+	404
OTTHUMG00000017547	OTTHUMT00000046440	chr10:2037667-2046542	-	2094
OTTHUMG00000017547	OTTHUMT00000046438	chr10:2044459-2046542	-	774
OTTHUMG00000017547	OTTHUMT00000046439	chr10:2044847-2045605	-	482
OTTHUMG00000017544	OTTHUMT00000046434	chr10:2104039-2113291	+	430
OTTHUMG00000017544	OTTHUMT00000046433	chr10:2104124-2104923	+	427
OTTHUMG00000017545	OTTHUMT00000046435	chr10:2198526-2201654	+	2319
OTTHUMG00000017546	OTTHUMT00000046436	chr10:2201334-2208626	-	295
OTTHUMG00000017546	OTTHUMT00000046437	chr10:2201350-2208626	-	185
OTTHUMG00000017548	OTTHUMT00000046441	chr10:2337277-2347269	-	739
OTTHUMG00000017549	OTTHUMT00000046442	chr10:2478447-2479546	-	754
OTTHUMG00000017549	OTTHUMT00000046444	chr10:2478447-2479546	-	762
OTTHUMG00000017549	OTTHUMT00000046443	chr10:2478452-2479546	-	712
OTTHUMG00000017550	OTTHUMT00000046445	chr10:2531913-2532762	+	330
OTTHUMG00000017551	OTTHUMT00000046447	chr10:2533975-2599431	+	916
OTTHUMG00000017551	OTTHUMT00000046446	chr10:2533995-2569817	+	318
OTTHUMG00000017553	OTTHUMT00000046449	chr10:3016556-3017331	+	413
OTTHUMG00000017554	OTTHUMT00000046450	chr10:3042723-3045303	+	605
OTTHUMG00000017559	OTTHUMT00000046476	chr10:3237908-3238816	+	463
OTTHUMG00000017561	OTTHUMT00000046488	chr10:3256008-3259599	+	594
OTTHUMG00000017555	OTTHUMT00000046451	chr10:3272563-3289402	-	386
OTTHUMG00000017562	OTTHUMT00000046489	chr10:3298195-3299207	+	461
OTTHUMG00000017563	OTTHUMT00000046490	chr10:3519086-3535030	-	827
OTTHUMG00000017564	OTTHUMT00000046491	chr10:3564286-3569223	-	428
OTTHUMG00000017564	OTTHUMT00000046492	chr10:3567304-3569049	-	370
OTTHUMG00000017566	OTTHUMT00000046494	chr10:3783259-3795418	+	752
OTTHUMG00000017565	OTTHUMT00000046493	chr10:3800107-3800943	+	311
OTTHUMG00000017568	OTTHUMT00000046501	chr10:3866142-3866920	+	534
OTTHUMG00000017569	OTTHUMT00000046503	chr10:3964896-3968004	+	401

OTTHUMG00000017569	OTTHUMT00000046502	chr10:3966711-3968004	+	588
OTTHUMG00000017570	OTTHUMT00000046504	chr10:4057132-4060586	+	631
OTTHUMG00000017571	OTTHUMT00000046505	chr10:4083918-4121205	+	2283
OTTHUMG00000017572	OTTHUMT00000046507	chr10:4267752-4275835	-	361
OTTHUMG00000017572	OTTHUMT00000046506	chr10:4275142-4275981	-	444
OTTHUMG00000017573	OTTHUMT00000046508	chr10:4416438-4442804	+	2388
OTTHUMG00000017573	OTTHUMT00000046509	chr10:4438694-4441443	+	867
OTTHUMG00000017574	OTTHUMT00000046510	chr10:4447497-4458371	-	687
OTTHUMG00000017576	OTTHUMT00000046512	chr10:4683009-4710346	-	842
OTTHUMG00000017576	OTTHUMT00000046514	chr10:4683295-4688992	-	415
OTTHUMG00000017576	OTTHUMT00000046513	chr10:4683353-4710324	-	698
OTTHUMG00000017575	OTTHUMT00000046511	chr10:4687619-4694611	+	1742
OTTHUMG00000017587	OTTHUMT00000046539	chr10:5266321-5295165	+	475
OTTHUMG00000017590	OTTHUMT00000046542	chr10:5297996-5303199	-	690
OTTHUMG00000017601	OTTHUMT00000046559	chr10:5626954-5678087	-	700
OTTHUMG00000017600	OTTHUMT00000046558	chr10:5690444-5692762	-	608
OTTHUMG00000017599	OTTHUMT00000046557	chr10:5698831-5700130	-	654
OTTHUMG00000017615	OTTHUMT00000046626	chr10:6203697-6208010	-	369
OTTHUMG00000017614	OTTHUMT00000046625	chr10:6208011-6219526	-	405
OTTHUMG00000017624	OTTHUMT00000046667	chr10:6700684-6707314	+	495
OTTHUMG00000017625	OTTHUMT00000046668	chr10:6819350-6820994	+	915
OTTHUMG00000017627	OTTHUMT00000046670	chr10:6861566-6924874	+	3065
OTTHUMG00000017626	OTTHUMT00000046669	chr10:6973425-7002440	-	296
OTTHUMG00000017628	OTTHUMT00000046671	chr10:7179120-7179643	+	434
OTTHUMG00000017631	OTTHUMT00000046676	chr10:7527526-7553910	-	553
OTTHUMG00000017632	OTTHUMT00000046677	chr10:7615175-7618533	+	711
OTTHUMG00000017645	OTTHUMT00000046728	chr10:8341300-8342773	-	363
OTTHUMG00000017645	OTTHUMT00000046727	chr10:8341300-8350274	-	911
OTTHUMG00000017646	OTTHUMT00000046729	chr10:8380866-8383636	+	899
OTTHUMG00000017648	OTTHUMT00000046731	chr10:8482829-8543832	+	426
OTTHUMG00000017650	OTTHUMT00000046733	chr10:8979958-8996565	+	362
OTTHUMG00000017651	OTTHUMT00000046734	chr10:9052094-9055437	+	675
OTTHUMG00000017652	OTTHUMT00000046735	chr10:9357802-9369026	+	492
OTTHUMG00000017654	OTTHUMT00000046737	chr10:9840752-9841206	-	342
OTTHUMG00000017655	OTTHUMT00000046738	chr10:10140691-10145471	+	571
OTTHUMG00000017657	OTTHUMT00000046740	chr10:10447149-10448456	-	333
OTTHUMG00000017658	OTTHUMT00000046741	chr10:10517918-10544254	-	1246
OTTHUMG00000017660	OTTHUMT00000046745	chr10:10866408-10876883	-	869
OTTHUMG00000017660	OTTHUMT00000046743	chr10:10868609-10876936	-	396
OTTHUMG00000017660	OTTHUMT00000046744	chr10:10868613-10876949	-	252
OTTHUMG00000017661	OTTHUMT00000046748	chr10:11016909-11018632	-	512
OTTHUMG00000017661	OTTHUMT00000046746	chr10:11016909-11034064	-	1038
OTTHUMG00000017661	OTTHUMT00000046747	chr10:11028875-11034121	-	737
OTTHUMG00000017662	OTTHUMT00000046749	chr10:11042120-11052785	+	534
OTTHUMG00000017671	OTTHUMT00000046763	chr10:11535951-11537392	+	501

OTTHUMG00000017697	OTTHUMT00000046861	chr10:13497208-13505139	+	452
OTTHUMG00000017698	OTTHUMT00000046862	chr10:13610522-13612268	+	378
OTTHUMG00000017736	OTTHUMT00000046999	chr10:16360706-16371053	+	432
OTTHUMG00000017736	OTTHUMT00000046998	chr10:16360706-16377863	+	454
OTTHUMG00000017743	OTTHUMT00000047014	chr10:17296244-17308903	-	1347
OTTHUMG00000017769	OTTHUMT00000047086	chr10:19075368-19076788	+	546
OTTHUMG00000017777	OTTHUMT00000047094	chr10:20039263-20057485	-	1399
OTTHUMG00000017777	OTTHUMT00000047095	chr10:20050632-20057485	-	819
OTTHUMG00000017777	OTTHUMT00000047096	chr10:20050913-20057485	-	704
OTTHUMG00000017792	OTTHUMT00000047127	chr10:21669168-21701885	-	434
OTTHUMG00000017831	OTTHUMT00000047247	chr10:25441993-25446292	+	786
OTTHUMG00000017833	OTTHUMT00000047252	chr10:25980710-26011580	+	437
OTTHUMG00000017840	OTTHUMT00000047267	chr10:26906611-26908030	-	430
OTTHUMG00000017840	OTTHUMT00000047266	chr10:26906611-26908242	-	419
OTTHUMG00000017839	OTTHUMT00000047265	chr10:26918800-26923259	+	1081
OTTHUMG00000017847	OTTHUMT00000047282	chr10:26972163-26973951	+	470
OTTHUMG00000017842	OTTHUMT00000047272	chr10:26976921-26982381	+	1215
OTTHUMG00000017842	OTTHUMT00000047273	chr10:26977035-26982389	+	876
OTTHUMG00000017842	OTTHUMT00000047274	chr10:26978267-26982046	+	410
OTTHUMG00000017843	OTTHUMT00000047275	chr10:26993141-27005094	-	316
OTTHUMG00000017849	OTTHUMT00000047294	chr10:27260141-27263858	-	866
OTTHUMG00000017849	OTTHUMT00000047292	chr10:27260141-27266794	-	1783
OTTHUMG00000017849	OTTHUMT00000047293	chr10:27260141-27270936	-	3615
OTTHUMG00000017850	OTTHUMT00000047295	chr10:27272258-27273353	-	643
OTTHUMG00000017875	OTTHUMT00000047375	chr10:29072680-29073598	+	515
OTTHUMG00000017876	OTTHUMT00000047376	chr10:29118123-29124908	-	3956
OTTHUMG00000017876	OTTHUMT00000047377	chr10:29121504-29125048	-	594
OTTHUMG00000017877	OTTHUMT00000047378	chr10:29135882-29137154	+	404
OTTHUMG00000017886	OTTHUMT00000047412	chr10:30609021-30609845	-	512
OTTHUMG00000017896	OTTHUMT00000047431	chr10:30882789-30883418	-	539
OTTHUMG00000017897	OTTHUMT00000047432	chr10:30905634-30909117	+	376
OTTHUMG00000017899	OTTHUMT00000047435	chr10:30984424-30986470	+	483
OTTHUMG00000017902	OTTHUMT00000047438	chr10:31052186-31052675	+	406
OTTHUMG00000017909	OTTHUMT00000047455	chr10:31933534-31935152	+	419
OTTHUMG00000017910	OTTHUMT00000047456	chr10:32022018-32036322	-	345
OTTHUMG00000017937	OTTHUMT00000047515	chr10:33425191-33445606	-	550
OTTHUMG00000017939	OTTHUMT00000047517	chr10:33907865-33928974	-	858
OTTHUMG00000017940	OTTHUMT00000047518	chr10:34013689-34015998	+	450
OTTHUMG00000017942	OTTHUMT00000047520	chr10:34238172-34246738	+	626
OTTHUMG00000017954	OTTHUMT00000047566	chr10:35548828-35559532	-	378
OTTHUMG00000017959	OTTHUMT00000047578	chr10:36225808-36227897	-	866
OTTHUMG00000017960	OTTHUMT00000047579	chr10:36418020-36418323	-	185
OTTHUMG00000017963	OTTHUMT00000047583	chr10:36767550-36768731	+	396
OTTHUMG00000017963	OTTHUMT00000047582	chr10:36767550-36771326	+	318
OTTHUMG00000017969	OTTHUMT00000047593	chr10:37569821-37570983	+	332

OTTHUMG00000017976	OTTHUMT00000047602	chr10:38104305-38113065	-	709
OTTHUMG00000017984	OTTHUMT00000047618	chr10:38493582-38506964	+	425
OTTHUMG00000018001	OTTHUMT00000047660	chr10:38973919-39022206	-	1515
OTTHUMG00000018001	OTTHUMT00000047661	chr10:38974088-38983415	-	386
OTTHUMG00000018001	OTTHUMT00000047659	chr10:38977632-39022206	-	1329
OTTHUMG00000017999	OTTHUMT00000047656	chr10:39046332-39052613	+	490
OTTHUMG00000017999	OTTHUMT00000047657	chr10:39050990-39052513	+	500
OTTHUMG00000018010	OTTHUMT00000047672	chr10:42290997-42310790	+	2259
OTTHUMG00000018010	OTTHUMT00000047673	chr10:42291082-42310790	+	2258
OTTHUMG00000018017	OTTHUMT00000047687	chr10:42489651-42507177	-	515
OTTHUMG00000018021	OTTHUMT00000047691	chr10:42686975-42689514	+	1712
OTTHUMG00000018022	OTTHUMT00000047692	chr10:42794471-42796961	-	497
OTTHUMG00000018026	OTTHUMT00000047697	chr10:43139119-43143386	+	388
OTTHUMG00000018028	OTTHUMT00000047701	chr10:43236053-43237260	+	300
OTTHUMG00000018041	OTTHUMT00000047721	chr10:43481122-43482459	+	460
OTTHUMG00000018047	OTTHUMT00000047730	chr10:43593016-43594080	-	332
OTTHUMG00000018047	OTTHUMT00000047729	chr10:43593016-43594279	-	406
OTTHUMG00000018049	OTTHUMT00000047732	chr10:43674865-43710887	+	1969
OTTHUMG00000018052	OTTHUMT00000047735	chr10:43716819-43727780	-	491
OTTHUMG00000018050	OTTHUMT00000047733	chr10:43727898-43729690	+	511
OTTHUMG00000018051	OTTHUMT00000047734	chr10:43729353-43729960	-	463
OTTHUMG00000018053	OTTHUMT00000047736	chr10:43754457-43759920	+	2121
OTTHUMG00000018055	OTTHUMT00000047740	chr10:44075056-44077267	-	839
OTTHUMG00000018056	OTTHUMT00000047741	chr10:44107712-44109163	-	913
OTTHUMG00000018058	OTTHUMT00000047743	chr10:44406662-44417558	-	730
OTTHUMG00000018092	OTTHUMT00000047811	chr10:45630882-45632778	-	320
OTTHUMG00000018097	OTTHUMT00000047821	chr10:46218376-46229027	-	706
OTTHUMG00000018106	OTTHUMT00000047835	chr10:46371559-46373614	+	551
OTTHUMG00000018109	OTTHUMT00000047838	chr10:46516460-46519722	-	2441
OTTHUMG00000018120	OTTHUMT00000047852	chr10:46699198-46700341	-	489
OTTHUMG00000018120	OTTHUMT00000047851	chr10:46699198-46709839	-	706
OTTHUMG00000018125	OTTHUMT00000047857	chr10:47026171-47036810	+	157
OTTHUMG00000018126	OTTHUMT00000047858	chr10:47040519-47043861	-	165
OTTHUMG00000018129	OTTHUMT00000047861	chr10:47128240-47171449	+	2114
OTTHUMG00000018129	OTTHUMT00000047862	chr10:47128255-47135134	+	631
OTTHUMG00000018129	OTTHUMT00000047863	chr10:47138563-47151741	+	498
OTTHUMG00000018129	OTTHUMT00000047864	chr10:47138648-47151741	+	422
OTTHUMG00000018145	OTTHUMT00000047886	chr10:47944794-47952203	-	595
OTTHUMG00000018152	OTTHUMT00000047900	chr10:48608127-48609274	-	489
OTTHUMG00000018152	OTTHUMT00000047899	chr10:48608127-48618772	-	706
OTTHUMG00000018174	OTTHUMT00000047941	chr10:49542250-49550475	-	333
OTTHUMG00000018252	OTTHUMT00000048112	chr10:53880643-53885038	-	969
OTTHUMG00000018252	OTTHUMT00000048111	chr10:53881080-53900299	-	566
OTTHUMG00000018253	OTTHUMT00000048114	chr10:53986468-53990871	-	538
OTTHUMG00000018253	OTTHUMT00000048113	chr10:53986749-54185175	-	366

OTTHUMG00000018255	OTTHUMT00000048117	chr10:54403254-54405581	-	412
OTTHUMG00000018257	OTTHUMT00000048119	chr10:54720838-54740831	-	595
OTTHUMG00000018267	OTTHUMT00000048141	chr10:59734319-59735387	+	326
OTTHUMG00000018273	OTTHUMT00000048153	chr10:60429392-60431309	+	475
OTTHUMG00000018280	OTTHUMT00000048170	chr10:61018914-61041012	+	533
OTTHUMG00000018296	OTTHUMT00000048231	chr10:63211520-63251010	-	473
OTTHUMG00000018310	OTTHUMT00000048248	chr10:64553704-64555303	-	502
OTTHUMG00000018322	OTTHUMT00000048267	chr10:65466111-65467046	-	620
OTTHUMG00000018325	OTTHUMT00000048270	chr10:66332891-66354282	-	579
OTTHUMG00000018329	OTTHUMT00000048274	chr10:66743549-66744734	+	304
OTTHUMG00000018330	OTTHUMT00000048275	chr10:67015452-67111226	+	741
OTTHUMG00000018345	OTTHUMT00000048310	chr10:69663014-69672142	-	462
OTTHUMG00000018345	OTTHUMT00000048311	chr10:69663016-69665196	-	415
OTTHUMG00000018350	OTTHUMT00000048332	chr10:69907761-69910527	-	1778
OTTHUMG00000018384	OTTHUMT00000048457	chr10:71005569-71006916	+	501
OTTHUMG00000018393	OTTHUMT00000048466	chr10:71096990-71121535	+	1892
OTTHUMG00000018393	OTTHUMT00000048467	chr10:71096998-71148005	+	3035
OTTHUMG00000018395	OTTHUMT00000048479	chr10:71424388-71437598	-	521
OTTHUMG00000018418	OTTHUMT00000048530	chr10:72359688-72361820	+	1961
OTTHUMG00000018428	OTTHUMT00000048552	chr10:73308120-73308871	+	523
OTTHUMG00000018522	OTTHUMT00000048822	chr10:76709490-76713135	-	345
OTTHUMG00000018522	OTTHUMT00000048821	chr10:76709495-76713110	-	376
OTTHUMG00000018524	OTTHUMT00000048824	chr10:76726154-76791442	+	1857
OTTHUMG00000018553	OTTHUMT00000048932	chr10:79723605-79730766	+	518
OTTHUMG00000018554	OTTHUMT00000048933	chr10:79782360-79785863	+	379
OTTHUMG00000018557	OTTHUMT00000048938	chr10:79958514-80104730	+	341
OTTHUMG00000018556	OTTHUMT00000048937	chr10:80125825-80126785	-	577
OTTHUMG00000018570	OTTHUMT00000048970	chr10:81058519-81061950	-	603
OTTHUMG00000018570	OTTHUMT00000048971	chr10:81060517-81061948	-	383
OTTHUMG00000018573	OTTHUMT00000048976	chr10:81194492-81216205	-	2219
OTTHUMG00000018580	OTTHUMT00000048993	chr10:81253726-81255935	-	331
OTTHUMG00000018575	OTTHUMT00000048979	chr10:81378441-81381879	-	603
OTTHUMG00000018575	OTTHUMT00000048980	chr10:81380446-81381877	-	383
OTTHUMG00000018587	OTTHUMT00000049008	chr10:81576439-81588217	+	883
OTTHUMG00000018595	OTTHUMT00000049018	chr10:81654634-81681537	+	812
OTTHUMG00000018595	OTTHUMT00000049017	chr10:81669914-81672855	+	1421
OTTHUMG00000018612	OTTHUMT00000049069	chr10:82083507-82084162	+	337
OTTHUMG00000018616	OTTHUMT00000049090	chr10:82279333-82285678	-	596
OTTHUMG00000018618	OTTHUMT00000049095	chr10:82399533-82403468	+	367
OTTHUMG00000018629	OTTHUMT00000049106	chr10:85422142-85425175	-	348
OTTHUMG00000018630	OTTHUMT00000049107	chr10:85661390-85662658	-	307
OTTHUMG00000018638	OTTHUMT00000049127	chr10:86029716-86044395	+	2679
OTTHUMG00000018638	OTTHUMT00000049128	chr10:86029727-86038731	+	671
OTTHUMG00000018644	OTTHUMT00000049141	chr10:86943157-86947694	-	2026
OTTHUMG00000018645	OTTHUMT00000049142	chr10:87181679-87182251	-	401

OTTHUMG00000018646	OTTHUMT00000049143	chr10:87182599-87194665	+	498
OTTHUMG00000018647	OTTHUMT00000049144	chr10:87199329-87241733	+	1481
OTTHUMG00000018673	OTTHUMT00000049215	chr10:89092661-89105167	+	887
OTTHUMG00000018680	OTTHUMT00000049225	chr10:89341344-89355761	-	166
OTTHUMG00000018723	OTTHUMT00000049326	chr10:91444032-91447665	-	665
OTTHUMG00000018726	OTTHUMT00000049333	chr10:91579247-91590598	+	4268
OTTHUMG00000018726	OTTHUMT00000049334	chr10:91579293-91590598	+	3888
OTTHUMG00000018728	OTTHUMT00000049336	chr10:91665226-91707110	-	1856
OTTHUMG00000018731	OTTHUMT00000049342	chr10:92152258-92290542	-	974
OTTHUMG00000018729	OTTHUMT00000049337	chr10:92203907-92251177	+	2365
OTTHUMG00000018729	OTTHUMT00000049339	chr10:92204417-92211238	+	872
OTTHUMG00000018729	OTTHUMT00000049340	chr10:92204435-92252705	+	458
OTTHUMG00000018729	OTTHUMT00000049338	chr10:92204435-92280853	+	780
OTTHUMG00000018730	OTTHUMT00000049341	chr10:92212454-92217689	+	828
OTTHUMG00000018737	OTTHUMT00000049360	chr10:92710813-92747485	-	361
OTTHUMG00000018736	OTTHUMT00000049359	chr10:92744357-92756127	+	378
OTTHUMG00000018806	OTTHUMT00000049504	chr10:96891672-96918172	-	416
OTTHUMG00000018885	OTTHUMT00000049800	chr10:101276828-101278008	+	390
OTTHUMG00000018909	OTTHUMT00000049862	chr10:102123362-102133115	+	2549
OTTHUMG00000018926	OTTHUMT00000049927	chr10:102931437-102943894	+	845
OTTHUMG00000018928	OTTHUMT00000049932	chr10:102981999-102988239	+	551
OTTHUMG00000018928	OTTHUMT00000049931	chr10:102985815-102988595	+	2551
OTTHUMG00000018928	OTTHUMT00000049930	chr10:102987685-103019895	+	415
OTTHUMG00000018928	OTTHUMT00000049929	chr10:102987750-102988606	+	418
OTTHUMG00000018930	OTTHUMT00000049934	chr10:103002568-103013297	-	2219
OTTHUMG00000018929	OTTHUMT00000049933	chr10:103060765-103061252	+	380
OTTHUMG00000018931	OTTHUMT00000049935	chr10:103072390-103072753	-	280
OTTHUMG00000018941	OTTHUMT00000050002	chr10:103454399-103458148	-	289
OTTHUMG00000019008	OTTHUMT00000050218	chr10:106224687-106230022	-	1010
OTTHUMG00000019009	OTTHUMT00000050219	chr10:106365850-106366721	+	367
OTTHUMG00000019012	OTTHUMT00000050223	chr10:107239344-107252103	-	447
OTTHUMG00000019015	OTTHUMT00000050226	chr10:107558523-107568945	-	453
OTTHUMG00000019016	OTTHUMT00000050227	chr10:107890012-107938470	+	458
OTTHUMG00000019016	OTTHUMT00000050228	chr10:107890039-107907893	+	549
OTTHUMG00000019016	OTTHUMT00000050230	chr10:107913096-107938368	+	661
OTTHUMG00000019016	OTTHUMT00000050229	chr10:107934133-107949128	+	681
OTTHUMG00000019019	OTTHUMT00000050239	chr10:109126298-109150984	+	524
OTTHUMG00000019020	OTTHUMT00000050240	chr10:109621324-109819042	-	717
OTTHUMG00000019022	OTTHUMT00000050242	chr10:110297723-110311563	-	572
OTTHUMG00000019024	OTTHUMT00000050244	chr10:110460266-110589111	+	477
OTTHUMG00000019052	OTTHUMT00000050374	chr10:113099687-113101851	-	425
OTTHUMG00000019067	OTTHUMT00000050408	chr10:114638482-114655860	+	314
OTTHUMG00000019095	OTTHUMT00000050506	chr10:116744406-116746342	+	341
OTTHUMG00000019116	OTTHUMT00000050558	chr10:118908157-118918556	-	2379
OTTHUMG00000019124	OTTHUMT00000050570	chr10:119311585-119321958	-	472

OTTHUMG00000019126	OTTHUMT00000050576	chr10:119484814-119485908	+	242
OTTHUMG00000019130	OTTHUMT00000050591	chr10:119991066-119991576	+	409
OTTHUMG00000019130	OTTHUMT00000050588	chr10:119991145-119997375	+	489
OTTHUMG00000019130	OTTHUMT00000050589	chr10:119991147-119997375	+	400
OTTHUMG00000019130	OTTHUMT00000050590	chr10:119991154-120017212	+	552
OTTHUMG00000019132	OTTHUMT00000050603	chr10:120106610-120108705	+	577
OTTHUMG00000019132	OTTHUMT00000050604	chr10:120107047-120108705	+	315
OTTHUMG00000019132	OTTHUMT00000050606	chr10:120107061-120114605	+	485
OTTHUMG00000019132	OTTHUMT00000050605	chr10:120107257-120114605	+	483
OTTHUMG00000019140	OTTHUMT00000050620	chr10:120753038-120753386	-	227
OTTHUMG00000019164	OTTHUMT00000050697	chr10:121930732-121958497	+	475
OTTHUMG00000019169	OTTHUMT00000050704	chr10:122511314-122526386	-	2012
OTTHUMG00000019169	OTTHUMT00000050705	chr10:122512903-122541427	-	903
OTTHUMG00000019170	OTTHUMT00000050706	chr10:122675049-122730203	-	941
OTTHUMG00000019173	OTTHUMT00000050713	chr10:122928204-122935470	+	2862
OTTHUMG00000019174	OTTHUMT00000050714	chr10:123364929-123365343	-	308
OTTHUMG00000019202	OTTHUMT00000050847	chr10:125105956-125267214	+	826
OTTHUMG00000019201	OTTHUMT00000050846	chr10:125175219-125177146	-	414
OTTHUMG00000019202	OTTHUMT00000050848	chr10:125198859-125238842	+	572
OTTHUMG00000019203	OTTHUMT00000050849	chr10:125323733-125333273	+	435
OTTHUMG00000019207	OTTHUMT00000050855	chr10:125663080-125681103	-	386
OTTHUMG00000019220	OTTHUMT00000050895	chr10:126607442-126609952	-	428
OTTHUMG00000019244	OTTHUMT00000050968	chr10:128092428-128100438	-	1164
OTTHUMG00000019256	OTTHUMT00000051004	chr10:130004536-130008468	-	344
OTTHUMG00000019259	OTTHUMT00000051007	chr10:130585756-130586223	-	198
OTTHUMG00000019258	OTTHUMT00000051006	chr10:130601133-130604525	+	445
OTTHUMG00000019257	OTTHUMT00000051005	chr10:130647026-130648316	-	372
OTTHUMG00000019260	OTTHUMT00000051008	chr10:130966505-130979976	+	473
OTTHUMG00000019263	OTTHUMT00000051013	chr10:131457098-131457689	+	493
OTTHUMG00000019264	OTTHUMT00000051014	chr10:131471107-131474801	+	2702
OTTHUMG00000019271	OTTHUMT00000051028	chr10:131874435-131875120	+	550
OTTHUMG00000019272	OTTHUMT00000051029	chr10:131891128-131891382	-	222
OTTHUMG00000019273	OTTHUMT00000051030	chr10:132127321-132171408	-	295
OTTHUMG00000019287	OTTHUMT00000051076	chr10:134082577-134084447	+	295
OTTHUMG00000019288	OTTHUMT00000051077	chr10:134097227-134104978	-	1011
OTTHUMG00000019290	OTTHUMT00000051080	chr10:134175120-134181685	-	632
OTTHUMG00000019291	OTTHUMT00000051081	chr10:134184321-134185943	-	1622
OTTHUMG00000019299	OTTHUMT00000051102	chr10:134607461-134628783	-	2617
OTTHUMG00000019299	OTTHUMT00000051101	chr10:134607461-134628918	-	2617
OTTHUMG00000019300	OTTHUMT00000051103	chr10:134624834-134625731	-	602
OTTHUMG00000019308	OTTHUMT00000051117	chr10:134910383-134911380	+	256
OTTHUMG00000019326	OTTHUMT00000051177	chr10:135130468-135131906	+	944
OTTHUMG00000045388	OTTHUMT000000105392	chr11:1754736-1756194	-	336
OTTHUMG000000150032	OTTHUMT000000315844	chr11:1880453-1885721	+	312
OTTHUMG00000012473	OTTHUMT00000034754	chr11:1968902-1971275	+	719

OTTHUMG00000011701	OTTHUMT00000032331	chr11:3167352-3167735	+	291
OTTHUMG00000066612	OTTHUMT000000142819	chr11:5083868-5085336	-	867
OTTHUMG00000066679	OTTHUMT000000142980	chr11:5182847-5185114	+	520
OTTHUMG000000141269	OTTHUMT000000280452	chr11:60139785-60211198	+	766
OTTHUMG000000141269	OTTHUMT000000280451	chr11:60139800-60211198	+	845
OTTHUMG00000045125	OTTHUMT000000104844	chr11:63849098-63853552	-	669
OTTHUMG000000150041	OTTHUMT000000315945	chr11:63918390-63919879	-	983
OTTHUMG000000150231	OTTHUMT000000316962	chr11:63934124-63944263	-	416
OTTHUMG00000066368	OTTHUMT000000141968	chr11:63952209-63956718	+	311
OTTHUMG00000066367	OTTHUMT000000141967	chr11:64024901-64029434	+	519
OTTHUMG00000045137	OTTHUMT000000104866	chr11:115872826-115876557	-	919
OTTHUMG00000045138	OTTHUMT000000104867	chr11:116015349-116034179	+	580
OTTHUMG00000045138	OTTHUMT000000104868	chr11:116015407-116031116	+	366
OTTHUMG00000046113	OTTHUMT000000106282	chr11:116189130-116189929	-	331
OTTHUMG00000066362	OTTHUMT000000141934	chr11:130562127-130564858	+	633
OTTHUMG000000150049	OTTHUMT000000316014	chr11:130580104-130590268	+	560
OTTHUMG000000150045	OTTHUMT000000316004	chr11:130609643-130626921	+	567
OTTHUMG00000066363	OTTHUMT000000141935	chr11:130628527-130675876	+	582
OTTHUMG000000140394	OTTHUMT000000277174	chr12:9980445-9987361	-	974
OTTHUMG00000059745	OTTHUMT000000132852	chr12:38836308-38847681	+	468
OTTHUMG00000059745	OTTHUMT000000133438	chr12:38846321-38847776	+	557
OTTHUMG00000016451	OTTHUMT00000043974	chr13:18012637-18022837	+	839
OTTHUMG00000016454	OTTHUMT00000043977	chr13:18144967-18148303	+	456
OTTHUMG00000016461	OTTHUMT00000043984	chr13:18190907-18191869	-	428
OTTHUMG00000016469	OTTHUMT00000043992	chr13:18377579-18379950	+	556
OTTHUMG00000016470	OTTHUMT00000043993	chr13:18394029-18395905	+	744
OTTHUMG00000016478	OTTHUMT00000044003	chr13:18734937-18735285	-	348
OTTHUMG00000016478	OTTHUMT00000044002	chr13:18734937-18736013	-	397
OTTHUMG00000016497	OTTHUMT00000044027	chr13:19059258-19060490	+	420
OTTHUMG00000016499	OTTHUMT00000044033	chr13:19146764-19148024	-	374
OTTHUMG00000016502	OTTHUMT00000044038	chr13:19146896-19150078	-	442
OTTHUMG00000016500	OTTHUMT00000044034	chr13:19150830-19151837	+	261
OTTHUMG00000016506	OTTHUMT00000044048	chr13:19574840-19575369	+	429
OTTHUMG00000016533	OTTHUMT00000044106	chr13:20706707-20707343	+	403
OTTHUMG00000046188	OTTHUMT000000106493	chr13:20759545-20766997	+	675
OTTHUMG00000016547	OTTHUMT00000044133	chr13:21344909-21348817	-	1620
OTTHUMG00000016555	OTTHUMT00000044141	chr13:22324135-22324991	+	531
OTTHUMG00000016559	OTTHUMT00000044145	chr13:22641974-22642736	+	262
OTTHUMG00000016566	OTTHUMT00000044154	chr13:22942186-22958449	+	395
OTTHUMG00000016567	OTTHUMT00000044155	chr13:22970935-22975013	+	550
OTTHUMG00000016572	OTTHUMT00000044167	chr13:23411696-23418921	-	2792
OTTHUMG00000016572	OTTHUMT000000276085	chr13:23413108-23418363	-	636
OTTHUMG00000016605	OTTHUMT00000044224	chr13:24653579-24661898	+	768
OTTHUMG00000016610	OTTHUMT00000044235	chr13:25524414-25525523	-	433
OTTHUMG00000016629	OTTHUMT00000044269	chr13:26708419-26708948	-	418

OTTHUMG00000016631	OTTHUMT00000044280	chr13:26845485-26846503	+	578
OTTHUMG00000147351	OTTHUMT00000303976	chr13:29344750-29360542	+	911
OTTHUMG00000016662	OTTHUMT00000044343	chr13:29390784-29398788	-	573
OTTHUMG00000055980	OTTHUMT00000125970	chr13:29494158-29495937	-	1779
OTTHUMG00000016663	OTTHUMT00000125960	chr13:29575315-29581005	-	2616
OTTHUMG00000016663	OTTHUMT00000044344	chr13:29579736-29581012	-	478
OTTHUMG00000055982	OTTHUMT00000125972	chr13:29624023-29631758	-	6850
OTTHUMG00000016664	OTTHUMT00000044345	chr13:29626203-29626723	+	372
OTTHUMG00000055979	OTTHUMT00000125969	chr13:29668580-29669018	-	438
OTTHUMG00000016667	OTTHUMT00000044348	chr13:29788497-29792040	-	428
OTTHUMG00000016668	OTTHUMT00000125966	chr13:29812407-29846036	-	1584
OTTHUMG00000016668	OTTHUMT00000044350	chr13:29813496-29839804	-	504
OTTHUMG00000016668	OTTHUMT00000044349	chr13:29814597-29837898	-	1040
OTTHUMG00000016668	OTTHUMT00000044352	chr13:29829402-29836333	-	588
OTTHUMG00000016668	OTTHUMT00000044351	chr13:29829879-29849282	-	1050
OTTHUMG00000016668	OTTHUMT00000125967	chr13:29829882-29844511	-	420
OTTHUMG00000016668	OTTHUMT00000044353	chr13:29835313-29845169	-	465
OTTHUMG00000016668	OTTHUMT00000303977	chr13:29842609-29846051	-	273
OTTHUMG00000016668	OTTHUMT00000044354	chr13:29846140-29849101	-	536
OTTHUMG00000055981	OTTHUMT00000125971	chr13:29891656-29894374	-	446
OTTHUMG00000016676	OTTHUMT00000044371	chr13:30275343-30282782	+	904
OTTHUMG00000016678	OTTHUMT00000044374	chr13:30354688-30355532	+	409
OTTHUMG00000016680	OTTHUMT00000044377	chr13:30402814-30403619	-	433
OTTHUMG00000016684	OTTHUMT00000044383	chr13:30467299-30468275	-	397
OTTHUMG00000153574	OTTHUMT00000331670	chr13:31457822-31463134	+	147
OTTHUMG00000016695	OTTHUMT00000044404	chr13:31770291-31770849	+	435
OTTHUMG00000016703	OTTHUMT00000044431	chr13:32349569-32383788	-	899
OTTHUMG00000016726	OTTHUMT00000044468	chr13:35169661-35171138	+	374
OTTHUMG00000016726	OTTHUMT00000044469	chr13:35169864-35171393	+	641
OTTHUMG00000016750	OTTHUMT00000044565	chr13:36953604-36956906	-	507
OTTHUMG00000016755	OTTHUMT00000044593	chr13:37522954-37615369	-	515
OTTHUMG00000016755	OTTHUMT00000044595	chr13:37525835-37533585	-	523
OTTHUMG00000016755	OTTHUMT00000044594	chr13:37526057-37533590	-	495
OTTHUMG00000016756	OTTHUMT00000044596	chr13:38005480-38017436	-	789
OTTHUMG00000016758	OTTHUMT00000044598	chr13:38048777-38051131	+	432
OTTHUMG00000016770	OTTHUMT00000044627	chr13:39653946-39661165	+	830
OTTHUMG00000016771	OTTHUMT00000044628	chr13:39816094-39822440	-	442
OTTHUMG00000016772	OTTHUMT00000044629	chr13:39923131-39953143	-	697
OTTHUMG00000016772	OTTHUMT00000044630	chr13:39924794-39932546	-	181
OTTHUMG00000016801	OTTHUMT00000044693	chr13:41515863-41516383	-	361
OTTHUMG00000016810	OTTHUMT00000044706	chr13:42283973-42284428	+	190
OTTHUMG00000016811	OTTHUMT00000044707	chr13:42314550-42315023	-	225
OTTHUMG00000016815	OTTHUMT00000044714	chr13:42630767-42631602	+	545
OTTHUMG00000016827	OTTHUMT00000044728	chr13:43494624-43502073	+	1882
OTTHUMG00000016827	OTTHUMT00000044729	chr13:43497455-43502073	+	3206

OTTHUMG00000016828	OTTHUMT00000044730	chr13:43578514-43609372	-	337
OTTHUMG00000016832	OTTHUMT00000044735	chr13:43704061-43708195	-	321
OTTHUMG00000016834	OTTHUMT00000044739	chr13:43872487-43878002	-	856
OTTHUMG00000016839	OTTHUMT00000044747	chr13:44123948-44173152	+	292
OTTHUMG00000016840	OTTHUMT00000044748	chr13:44271639-44281766	-	2033
OTTHUMG00000016843	OTTHUMT00000044756	chr13:44518725-44555260	+	238
OTTHUMG00000016847	OTTHUMT00000044765	chr13:44816514-44817045	+	223
OTTHUMG00000016846	OTTHUMT00000044764	chr13:44822458-44823485	+	308
OTTHUMG00000016850	OTTHUMT00000044770	chr13:44847069-44853297	+	2370
OTTHUMG00000016859	OTTHUMT00000044784	chr13:45153226-45154555	-	518
OTTHUMG00000016875	OTTHUMT00000044822	chr13:45927489-45930374	-	560
OTTHUMG00000016885	OTTHUMT00000044839	chr13:47297466-47308092	-	408
OTTHUMG00000016886	OTTHUMT00000044840	chr13:47377465-47379493	-	212
OTTHUMG00000016904	OTTHUMT00000044892	chr13:48042776-48045454	-	411
OTTHUMG00000016905	OTTHUMT00000044893	chr13:48049111-48050225	-	960
OTTHUMG00000016929	OTTHUMT00000044963	chr13:49536817-49538736	+	785
OTTHUMG00000016932	OTTHUMT00000044966	chr13:49993070-49999586	-	728
OTTHUMG00000016940	OTTHUMT00000045015	chr13:50476390-50479997	-	527
OTTHUMG00000016939	OTTHUMT00000045013	chr13:50555938-50557536	+	604
OTTHUMG000000153575	OTTHUMT000000331673	chr13:50557561-50583079	-	428
OTTHUMG00000016974	OTTHUMT00000045100	chr13:51956297-51956816	-	283
OTTHUMG00000016975	OTTHUMT00000045101	chr13:51961129-51971280	+	669
OTTHUMG00000016975	OTTHUMT00000045102	chr13:51961129-51971441	+	718
OTTHUMG00000016983	OTTHUMT00000045115	chr13:52618675-52623944	-	574
OTTHUMG00000016984	OTTHUMT00000045118	chr13:53587925-53605002	-	1053
OTTHUMG00000016984	OTTHUMT00000045116	chr13:53596460-53604749	-	1028
OTTHUMG00000016984	OTTHUMT00000045117	chr13:53598998-53605002	-	1017
OTTHUMG00000016997	OTTHUMT00000045157	chr13:57683826-57705252	+	800
OTTHUMG00000017005	OTTHUMT00000045171	chr13:59686487-59687081	-	417
OTTHUMG00000017008	OTTHUMT00000045180	chr13:60157334-60166203	+	400
OTTHUMG00000017008	OTTHUMT00000045179	chr13:60157334-60166663	+	321
OTTHUMG00000017010	OTTHUMT00000045182	chr13:60389177-60390140	+	401
OTTHUMG00000017014	OTTHUMT00000045186	chr13:61476227-61501682	-	706
OTTHUMG00000017017	OTTHUMT00000045189	chr13:61696231-61722081	+	315
OTTHUMG00000017016	OTTHUMT00000045188	chr13:61793439-61794532	+	553
OTTHUMG00000017019	OTTHUMT00000045191	chr13:62144419-62204314	-	429
OTTHUMG00000017019	OTTHUMT00000045192	chr13:62203994-62204493	-	400
OTTHUMG00000017020	OTTHUMT00000045193	chr13:62655235-62699190	-	345
OTTHUMG00000017022	OTTHUMT00000045196	chr13:63139815-63189152	-	402
OTTHUMG00000017022	OTTHUMT00000045195	chr13:63139816-63210152	-	411
OTTHUMG00000017023	OTTHUMT00000045197	chr13:63220133-63223214	+	774
OTTHUMG00000017025	OTTHUMT00000045199	chr13:63300903-63303986	-	788
OTTHUMG00000017028	OTTHUMT00000045202	chr13:63458505-63548145	-	1872
OTTHUMG00000017032	OTTHUMT00000045206	chr13:65338307-65350352	+	493
OTTHUMG00000017041	OTTHUMT00000045216	chr13:66844520-66852109	+	608

OTTHUMG00000017052	OTTHUMT00000045227	chr13:68694479-68764287	+	813
OTTHUMG00000017053	OTTHUMT00000045228	chr13:68783466-68794234	+	819
OTTHUMG00000017059	OTTHUMT00000045235	chr13:70487274-70640550	+	944
OTTHUMG00000017077	OTTHUMT00000045269	chr13:72885611-73018979	-	280
OTTHUMG00000017077	OTTHUMT00000045270	chr13:73018526-73120391	-	483
OTTHUMG00000017076	OTTHUMT00000045268	chr13:73036382-73060208	+	554
OTTHUMG00000017079	OTTHUMT00000045273	chr13:73703595-73732114	+	3338
OTTHUMG00000017081	OTTHUMT00000045275	chr13:73891311-73907297	+	722
OTTHUMG00000017082	OTTHUMT00000045276	chr13:74024981-74028022	+	822
OTTHUMG00000017082	OTTHUMT00000045277	chr13:74024988-74027974	+	811
OTTHUMG00000017086	OTTHUMT00000045281	chr13:74722617-74724149	+	385
OTTHUMG00000017095	OTTHUMT00000045308	chr13:75485160-75486638	+	275
OTTHUMG00000017108	OTTHUMT00000045342	chr13:77134636-77135276	+	516
OTTHUMG00000017113	OTTHUMT00000045353	chr13:77300358-77306086	+	596
OTTHUMG00000017112	OTTHUMT00000045352	chr13:77461508-77462782	-	544
OTTHUMG00000017115	OTTHUMT00000045356	chr13:77502116-77509355	+	244
OTTHUMG00000017115	OTTHUMT00000045355	chr13:77503072-77509355	+	205
OTTHUMG00000017116	OTTHUMT00000045357	chr13:77661744-77746473	+	172
OTTHUMG00000017117	OTTHUMT00000045358	chr13:77747856-77749650	-	340
OTTHUMG00000017124	OTTHUMT00000045365	chr13:78259455-78264443	-	373
OTTHUMG00000017135	OTTHUMT00000045379	chr13:79038882-79042984	-	346
OTTHUMG00000017137	OTTHUMT00000045383	chr13:79276554-79277821	+	426
OTTHUMG00000017139	OTTHUMT00000045385	chr13:79344722-79390080	+	884
OTTHUMG00000017144	OTTHUMT00000045391	chr13:80515806-80516578	+	655
OTTHUMG00000017146	OTTHUMT00000045393	chr13:80755309-80774543	+	286
OTTHUMG00000017154	OTTHUMT00000045401	chr13:84034500-84035372	+	610
OTTHUMG00000017155	OTTHUMT00000045402	chr13:84537223-84551056	-	596
OTTHUMG00000017156	OTTHUMT00000045403	chr13:84835737-85016706	+	909
OTTHUMG00000017159	OTTHUMT00000045406	chr13:85532949-85643026	+	191
OTTHUMG00000017162	OTTHUMT00000045409	chr13:86362174-86387063	+	294
OTTHUMG00000017165	OTTHUMT00000045412	chr13:86877470-86878529	-	508
OTTHUMG00000017166	OTTHUMT00000045413	chr13:86894248-87121219	-	1664
OTTHUMG00000017166	OTTHUMT00000045414	chr13:87035114-87121515	-	837
OTTHUMG00000017166	OTTHUMT00000045415	chr13:87065819-87121362	-	612
OTTHUMG00000017169	OTTHUMT00000045418	chr13:87251292-87254064	+	341
OTTHUMG00000017171	OTTHUMT00000045420	chr13:87991120-87992762	+	885
OTTHUMG00000017171	OTTHUMT00000045421	chr13:87992541-87995765	+	305
OTTHUMG00000017173	OTTHUMT00000045423	chr13:88665102-88687145	-	773
OTTHUMG00000017173	OTTHUMT00000045424	chr13:88665151-88670814	-	683
OTTHUMG00000017175	OTTHUMT00000045426	chr13:88723458-88730495	+	732
OTTHUMG00000017177	OTTHUMT00000045428	chr13:88927863-88950764	-	664
OTTHUMG00000017179	OTTHUMT00000045431	chr13:88998946-89004059	-	682
OTTHUMG00000017179	OTTHUMT00000045430	chr13:89001488-89002644	-	328
OTTHUMG00000017184	OTTHUMT00000045436	chr13:89943542-89985335	+	736
OTTHUMG00000017185	OTTHUMT00000045437	chr13:90341209-90376852	-	2012

OTTHUMG00000017187	OTTHUMT00000045439	chr13:90537509-90539848	-	351
OTTHUMG00000017188	OTTHUMT00000045441	chr13:90577868-90581662	-	429
OTTHUMG00000017188	OTTHUMT00000045440	chr13:90577907-90581620	-	461
OTTHUMG00000017195	OTTHUMT00000045448	chr13:90798075-90804834	+	927
OTTHUMG00000017201	OTTHUMT00000045456	chr13:92506911-92508180	+	208
OTTHUMG00000017212	OTTHUMT00000045470	chr13:94149949-94153117	-	1841
OTTHUMG00000017215	OTTHUMT00000045477	chr13:94752706-94754402	-	1014
OTTHUMG00000017237	OTTHUMT00000045522	chr13:96622724-96629877	-	690
OTTHUMG00000017241	OTTHUMT00000045530	chr13:97125266-97128218	-	690
OTTHUMG00000017271	OTTHUMT00000045601	chr13:98941538-98942752	-	333
OTTHUMG00000017273	OTTHUMT00000045606	chr13:99027367-99030623	+	649
OTTHUMG00000017293	OTTHUMT00000045661	chr13:100391117-100394619	-	459
OTTHUMG00000017311	OTTHUMT00000045714	chr13:102193341-102195575	+	1945
OTTHUMG00000017308	OTTHUMT00000045702	chr13:102330287-102331518	+	359
OTTHUMG00000017314	OTTHUMT00000045717	chr13:102875551-102878036	+	490
OTTHUMG00000017317	OTTHUMT00000045720	chr13:105157219-105212145	+	1232
OTTHUMG00000017317	OTTHUMT00000045721	chr13:105157826-105211748	+	576
OTTHUMG00000017318	OTTHUMT00000045722	chr13:105180236-105182064	+	482
OTTHUMG00000017319	OTTHUMT00000045724	chr13:105826912-105827724	+	494
OTTHUMG00000017319	OTTHUMT00000045723	chr13:105826912-105828566	+	628
OTTHUMG00000017319	OTTHUMT00000045725	chr13:105827141-105827994	+	737
OTTHUMG00000017334	OTTHUMT00000045751	chr13:108732322-108738082	+	696
OTTHUMG00000017336	OTTHUMT00000045753	chr13:108760484-108762122	+	662
OTTHUMG00000017337	OTTHUMT00000045754	chr13:108851044-108851989	+	412
OTTHUMG00000017340	OTTHUMT00000045757	chr13:109178630-109180355	+	471
OTTHUMG00000017341	OTTHUMT00000045758	chr13:109503633-109505300	+	433
OTTHUMG00000017351	OTTHUMT00000045793	chr13:110433655-110440912	+	682
OTTHUMG00000017352	OTTHUMT00000045794	chr13:110546186-110553445	+	647
OTTHUMG00000017361	OTTHUMT00000045816	chr13:111602300-111603491	+	374
OTTHUMG00000017361	OTTHUMT00000045815	chr13:111602303-111603251	+	345
OTTHUMG00000017364	OTTHUMT00000045819	chr13:111808410-111809197	-	426
OTTHUMG00000017363	OTTHUMT00000045818	chr13:111809434-111810330	+	543
OTTHUMG00000017366	OTTHUMT00000045824	chr13:112024882-112033540	-	654
OTTHUMG00000017393	OTTHUMT00000045944	chr13:113525635-113527303	-	523
OTTHUMG00000017392	OTTHUMT00000045941	chr13:113527415-113531717	+	559
OTTHUMG00000017392	OTTHUMT00000045942	chr13:113529478-113532270	+	776
OTTHUMG00000017392	OTTHUMT00000045943	chr13:113529484-113530438	+	501
OTTHUMG00000017397	OTTHUMT00000045950	chr13:113531594-113533362	-	342
OTTHUMG00000017405	OTTHUMT00000045980	chr13:114113136-114117525	-	511
OTTHUMG000000133700	OTTHUMT000000316369	chr14:52905849-53062710	+	551
OTTHUMG000000133689	OTTHUMT000000257940	chr14:53136300-53150494	-	724
OTTHUMG000000150105	OTTHUMT000000316372	chr14:53305410-53387350	-	598
OTTHUMG00000028948	OTTHUMT00000072281	chr14:59456184-59600030	+	4867
OTTHUMG000000149923	OTTHUMT000000313932	chr14:89991327-89994963	+	666
OTTHUMG000000149923	OTTHUMT000000313930	chr14:89991368-89995001	+	2023

OTTHUMG00000149923	OTTHUMT00000313931	chr14:89991426-89995002	+	1373
OTTHUMG00000150113	OTTHUMT00000316408	chr14:98380986-98381687	+	476
OTTHUMG00000150114	OTTHUMT00000316409	chr14:98694506-98695759	+	559
OTTHUMG00000029060	OTTHUMT00000072585	chr14:100485068-100488842	+	605
OTTHUMG00000029060	OTTHUMT00000072580	chr14:100485068-100492267	+	732
OTTHUMG00000029060	OTTHUMT00000072587	chr14:100485068-100494640	+	792
OTTHUMG00000029060	OTTHUMT00000072584	chr14:100493191-100496263	+	513
OTTHUMG00000067435	OTTHUMT00000144425	chr14:100496916-100501856	+	504
OTTHUMG00000067436	OTTHUMT00000144426	chr14:100497117-100503130	+	621
OTTHUMG00000029067	OTTHUMT00000072600	chr14:100606001-100609024	+	2636
OTTHUMG00000029067	OTTHUMT00000072602	chr14:100606577-100609024	+	2401
OTTHUMG00000029067	OTTHUMT00000072601	chr14:100607897-100608648	+	383
OTTHUMG00000045024	OTTHUMT00000104668	chr14:100610054-100613761	-	516
OTTHUMG00000056663	OTTHUMT00000126738	chr15:23281071-23375031	-	2487
OTTHUMG00000056666	OTTHUMT00000126742	chr15:24191312-24243014	+	603
OTTHUMG00000056666	OTTHUMT00000126741	chr15:24229614-24242841	+	514
OTTHUMG00000133525	OTTHUMT00000257500	chr15:82659068-82689726	-	2538
OTTHUMG00000133525	OTTHUMT00000257498	chr15:82659068-82689892	-	2518
OTTHUMG00000133525	OTTHUMT00000257499	chr15:82659069-82689894	-	2845
OTTHUMG00000131587	OTTHUMT00000254468	chr16:21927031-22006356	+	1352
OTTHUMG00000060108	OTTHUMT00000133428	chr16:26236968-26241803	+	893
OTTHUMG00000060108	OTTHUMT00000133427	chr16:26236968-26253250	+	451
OTTHUMG00000060108	OTTHUMT00000156139	chr16:26241050-26253212	+	391
OTTHUMG00000060136	OTTHUMT00000133457	chr16:26503577-26513635	-	292
OTTHUMG00000132462	OTTHUMT00000314297	chr16:31623102-31624840	+	579
OTTHUMG00000132462	OTTHUMT00000314298	chr16:31624492-31626173	+	719
OTTHUMG00000150106	OTTHUMT00000316376	chr16:61187777-61189854	+	556
OTTHUMG00000137643	OTTHUMT00000269085	chr16:83874065-83877070	+	1564
OTTHUMG00000133563	OTTHUMT00000257641	chr16:87753129-87757584	+	2239
OTTHUMG00000132133	OTTHUMT00000255178	chr17:33615-37038	-	785
OTTHUMG00000132866	OTTHUMT00000256341	chr17:8064685-8068086	-	2079
OTTHUMG00000132847	OTTHUMT00000256321	chr17:10638955-10648079	-	1466
OTTHUMG00000058766	OTTHUMT00000129946	chr17:12394011-12481229	+	2762
OTTHUMG00000058770	OTTHUMT00000129954	chr17:13143226-13150802	-	480
OTTHUMG00000058771	OTTHUMT00000129955	chr17:13620676-13636592	-	2996
OTTHUMG00000058802	OTTHUMT00000129988	chr17:13776762-13784636	-	402
OTTHUMG00000058806	OTTHUMT00000129994	chr17:13868527-13869706	+	642
OTTHUMG00000058806	OTTHUMT00000129993	chr17:13868538-13869716	+	765
OTTHUMG00000058809	OTTHUMT00000129997	chr17:14054530-14061964	+	1534
OTTHUMG00000058807	OTTHUMT00000129995	chr17:14103976-14109601	+	515
OTTHUMG00000058811	OTTHUMT00000130000	chr17:14218181-14265068	+	799
OTTHUMG00000058813	OTTHUMT00000130002	chr17:14569771-14573728	+	230
OTTHUMG00000058804	OTTHUMT00000129991	chr17:14682004-14744596	+	624
OTTHUMG00000058962	OTTHUMT00000130382	chr17:15111503-15116332	-	1771
OTTHUMG00000058964	OTTHUMT00000130384	chr17:15120604-15123519	-	342

OTTHUMG0000059147	OTTHUMT00000131039	chr17:15650705-15661668	-	410
OTTHUMG0000059261	OTTHUMT00000131473	chr17:16820038-16825392	-	2198
OTTHUMG0000059602	OTTHUMT00000132550	chr17:19262940-19268262	+	518
OTTHUMG0000059607	OTTHUMT00000132556	chr17:19300995-19302296	-	523
OTTHUMG0000059606	OTTHUMT00000132555	chr17:19315024-19336814	-	431
OTTHUMG0000059465	OTTHUMT00000132249	chr17:19473356-19477730	+	1146
OTTHUMG00000130762	OTTHUMT00000253268	chr17:20919461-20934520	+	748
OTTHUMG00000132826	OTTHUMT00000256289	chr17:24364009-24367656	+	222
OTTHUMG00000132826	OTTHUMT00000256290	chr17:24366486-24367656	+	493
OTTHUMG00000132776	OTTHUMT00000256182	chr17:28256793-28257715	+	510
OTTHUMG00000132738	OTTHUMT00000256096	chr17:29830444-29831060	+	319
OTTHUMG00000132738	OTTHUMT00000256095	chr17:29830466-29831089	+	321
OTTHUMG00000132706	OTTHUMT00000256004	chr17:33232982-33236872	-	475
OTTHUMG00000133184	OTTHUMT00000256893	chr17:34439685-34454720	+	3235
OTTHUMG00000133607	OTTHUMT00000257715	chr17:36959384-36964273	-	2138
OTTHUMG00000132071	OTTHUMT00000255660	chr17:44065923-44079151	-	537
OTTHUMG00000132071	OTTHUMT00000255096	chr17:44068653-44079384	-	899
OTTHUMG00000132489	OTTHUMT00000255664	chr17:44068900-44071646	-	433
OTTHUMG00000132489	OTTHUMT00000255665	chr17:44068907-44071471	-	376
OTTHUMG00000132354	OTTHUMT00000255476	chr17:48294480-48331947	+	679
OTTHUMG00000132345	OTTHUMT00000255467	chr17:50959324-50993451	-	586
OTTHUMG00000132075	OTTHUMT00000255102	chr17:60393130-60402148	-	3420
OTTHUMG00000132075	OTTHUMT00000255101	chr17:60394618-60402156	-	2255
OTTHUMG00000132303	OTTHUMT00000255408	chr17:63609345-63623253	+	703
OTTHUMG00000132249	OTTHUMT00000255327	chr17:65102521-65136087	+	3082
OTTHUMG00000132247	OTTHUMT00000255325	chr17:65469443-65491209	+	623
OTTHUMG00000132247	OTTHUMT00000255324	chr17:65469498-65491274	+	660
OTTHUMG00000132240	OTTHUMT00000255309	chr17:67104074-67105014	+	559
OTTHUMG00000132240	OTTHUMT00000255310	chr17:67104212-67105015	+	430
OTTHUMG00000132237	OTTHUMT00000255305	chr17:67529587-67533733	-	378
OTTHUMG00000132234	OTTHUMT00000255302	chr17:67578779-67623752	-	3025
OTTHUMG00000132234	OTTHUMT00000255301	chr17:67578779-67744939	-	2045
OTTHUMG00000132235	OTTHUMT00000255303	chr17:67580069-67601217	+	2057
OTTHUMG00000132231	OTTHUMT00000255297	chr17:67598195-67649516	-	740
OTTHUMG00000132231	OTTHUMT00000255296	chr17:67598557-67618284	-	441
OTTHUMG00000132231	OTTHUMT00000255295	chr17:67617914-67618460	-	392
OTTHUMG00000132227	OTTHUMT00000255287	chr17:67892038-68100538	-	1743
OTTHUMG00000132227	OTTHUMT00000255286	chr17:67911064-68100536	-	1951
OTTHUMG00000132642	OTTHUMT00000255891	chr17:73511844-73539525	+	512
OTTHUMG00000132645	OTTHUMT00000255896	chr17:73823405-73855474	+	796
OTTHUMG0000060637	OTTHUMT00000134071	chr18:59898223-59967244	-	869
OTTHUMG0000060637	OTTHUMT00000134072	chr18:59898516-59916824	-	336
OTTHUMG0000060637	OTTHUMT00000134073	chr18:59957667-59967088	-	215
OTTHUMG0000060638	OTTHUMT00000134074	chr18:59965423-59977508	+	634
OTTHUMG0000060638	OTTHUMT00000134075	chr18:59974429-59977513	+	384

OTTHUMG0000048095	OTTHUMT00000109453	chr19:40589327-40592235	+	471
OTTHUMG0000048097	OTTHUMT00000109455	chr19:40615699-40616560	-	374
OTTHUMG0000048109	OTTHUMT00000109475	chr19:40780649-40784243	+	359
OTTHUMG0000048114	OTTHUMT00000109485	chr19:40890112-40890998	+	345
OTTHUMG0000048167	OTTHUMT00000109585	chr19:42434668-42439261	+	459
OTTHUMG00000141285	OTTHUMT00000280514	chr19:44861854-44868848	+	2556
OTTHUMG00000141285	OTTHUMT00000280515	chr19:44861873-44867731	+	1805
OTTHUMG00000141285	OTTHUMT00000280516	chr19:44867724-44877057	+	287
OTTHUMG00000151543	OTTHUMT00000323071	chr19:48349271-48356854	+	497
OTTHUMG00000151543	OTTHUMT00000323072	chr19:48349505-48351151	+	546
OTTHUMG0000064912	OTTHUMT00000139382	chr19:59270029-59271625	-	527
OTTHUMG0000065934	OTTHUMT00000141240	chr19:59913803-59916767	+	607
OTTHUMG00000151377	OTTHUMT00000322421	chr2:187569-192605	+	4773
OTTHUMG00000151363	OTTHUMT00000322389	chr2:295841-297157	-	443
OTTHUMG00000151363	OTTHUMT00000322388	chr2:296059-299379	-	588
OTTHUMG00000151365	OTTHUMT00000322392	chr2:307912-326465	+	843
OTTHUMG00000151365	OTTHUMT00000322393	chr2:308053-332118	+	848
OTTHUMG00000151367	OTTHUMT00000322402	chr2:378412-406885	+	547
OTTHUMG00000151358	OTTHUMT00000322349	chr2:411057-412156	+	422
OTTHUMG00000151358	OTTHUMT00000322348	chr2:411133-412303	+	596
OTTHUMG00000151362	OTTHUMT00000322387	chr2:480944-482655	-	508
OTTHUMG00000151361	OTTHUMT00000322386	chr2:535805-536667	+	658
OTTHUMG00000151360	OTTHUMT00000322385	chr2:548204-568145	+	757
OTTHUMG00000151375	OTTHUMT00000322419	chr2:682083-683235	-	569
OTTHUMG00000151379	OTTHUMT00000322425	chr2:714966-721195	-	491
OTTHUMG00000151379	OTTHUMT00000322424	chr2:719306-721224	-	387
OTTHUMG00000151376	OTTHUMT00000322420	chr2:731977-739856	+	254
OTTHUMG00000151380	OTTHUMT00000322426	chr2:732488-737767	+	533
OTTHUMG00000151368	OTTHUMT00000322403	chr2:769837-854112	-	1517
OTTHUMG00000151368	OTTHUMT00000322404	chr2:770348-853877	-	533
OTTHUMG00000151369	OTTHUMT00000322405	chr2:885902-891137	-	690
OTTHUMG00000151369	OTTHUMT00000322406	chr2:887183-890983	-	365
OTTHUMG00000151383	OTTHUMT00000322440	chr2:1529444-1602892	-	783
OTTHUMG00000151384	OTTHUMT00000322441	chr2:1555333-1563090	+	553
OTTHUMG00000151382	OTTHUMT00000322439	chr2:1603289-1608198	-	1639
OTTHUMG00000151395	OTTHUMT00000322466	chr2:2624768-2639409	-	545
OTTHUMG00000151394	OTTHUMT00000322465	chr2:2712687-2713736	-	366
OTTHUMG00000151393	OTTHUMT00000322464	chr2:2817043-2821170	-	571
OTTHUMG00000151428	OTTHUMT00000322598	chr2:2853337-2854010	-	576
OTTHUMG00000151432	OTTHUMT00000322624	chr2:2854870-2855536	+	470
OTTHUMG00000151432	OTTHUMT00000322625	chr2:2854917-2855536	+	442
OTTHUMG00000151427	OTTHUMT00000322597	chr2:2877827-3108805	-	2337
OTTHUMG00000151429	OTTHUMT00000322600	chr2:3114360-3115884	-	716
OTTHUMG00000151429	OTTHUMT00000322599	chr2:3114764-3128558	-	414
OTTHUMG00000151435	OTTHUMT00000322641	chr2:3139534-3140575	+	432

OTTHUMG00000151491	OTTHUMT00000322867	chr2:3869649-3872876	+	715
OTTHUMG00000151486	OTTHUMT00000322859	chr2:3983120-3999535	-	2451
OTTHUMG00000151486	OTTHUMT00000322858	chr2:3985116-3999484	-	1470
OTTHUMG00000151486	OTTHUMT00000322860	chr2:3985727-3999492	-	809
OTTHUMG00000151486	OTTHUMT00000322861	chr2:3998310-3999160	-	379
OTTHUMG00000151486	OTTHUMT00000322862	chr2:3998311-3999143	-	389
OTTHUMG00000151487	OTTHUMT00000322863	chr2:4162109-4166196	-	604
OTTHUMG00000151581	OTTHUMT00000323189	chr2:4653687-4681680	-	2658
OTTHUMG00000151581	OTTHUMT00000323191	chr2:4655665-4668820	-	625
OTTHUMG00000151581	OTTHUMT00000323190	chr2:4655665-4681668	-	503
OTTHUMG00000151420	OTTHUMT00000322559	chr2:5607363-5613614	-	317
OTTHUMG00000151424	OTTHUMT00000322563	chr2:5660088-5749071	-	466
OTTHUMG00000151425	OTTHUMT00000322564	chr2:5675910-5748701	-	1051
OTTHUMG00000151425	OTTHUMT00000322565	chr2:5734725-5748629	-	240
OTTHUMG00000151422	OTTHUMT00000322561	chr2:5784032-5787925	+	1744
OTTHUMG00000151421	OTTHUMT00000322560	chr2:5868224-5870179	-	407
OTTHUMG00000151460	OTTHUMT00000322747	chr2:6370537-6383229	-	576
OTTHUMG00000151457	OTTHUMT00000322744	chr2:6423593-6433005	-	4206
OTTHUMG00000151632	OTTHUMT00000323351	chr2:6683692-6691370	-	291
OTTHUMG00000151632	OTTHUMT00000323352	chr2:6683695-6692289	-	537
OTTHUMG00000151631	OTTHUMT00000323349	chr2:6696706-6708102	-	567
OTTHUMG00000151631	OTTHUMT00000323695	chr2:6706688-6707893	-	421
OTTHUMG00000151631	OTTHUMT00000323350	chr2:6706688-6708027	-	614
OTTHUMG00000151631	OTTHUMT00000323694	chr2:6706689-6707826	-	356
OTTHUMG00000151630	OTTHUMT00000323348	chr2:6785760-6788905	-	420
OTTHUMG00000151630	OTTHUMT00000323347	chr2:6786751-6788809	-	599
OTTHUMG00000151630	OTTHUMT00000323346	chr2:6786751-6827893	-	2125
OTTHUMG00000151730	OTTHUMT00000323697	chr2:6886096-6891113	-	796
OTTHUMG00000151730	OTTHUMT00000323698	chr2:6886462-6898046	-	502
OTTHUMG00000151592	OTTHUMT00000323246	chr2:7729186-7729828	-	467
OTTHUMG00000151591	OTTHUMT00000323245	chr2:7783383-7788287	+	241
OTTHUMG00000151596	OTTHUMT00000323256	chr2:8196983-8200850	+	445
OTTHUMG00000151623	OTTHUMT00000323303	chr2:8601173-8633082	-	1033
OTTHUMG00000151622	OTTHUMT00000323302	chr2:8617414-8641373	-	8833
OTTHUMG00000151622	OTTHUMT00000323326	chr2:8627912-8634536	-	294
OTTHUMG00000151626	OTTHUMT00000323324	chr2:8782855-8784798	-	409
OTTHUMG00000151821	OTTHUMT00000324050	chr2:11415092-11423213	-	1059
OTTHUMG00000151819	OTTHUMT00000324048	chr2:11445600-11447944	-	623
OTTHUMG00000151818	OTTHUMT00000324044	chr2:11451558-11459823	+	496
OTTHUMG00000151818	OTTHUMT00000324046	chr2:11456579-11459685	+	486
OTTHUMG00000151818	OTTHUMT00000324045	chr2:11456631-11459835	+	397
OTTHUMG00000151818	OTTHUMT00000324047	chr2:11456746-11459838	+	370
OTTHUMG00000151822	OTTHUMT00000324062	chr2:11739037-11740900	+	1057
OTTHUMG00000151822	OTTHUMT00000324061	chr2:11739038-11740905	+	1168
OTTHUMG00000151709	OTTHUMT00000323603	chr2:11906199-11923861	+	556

OTTHUMG00000151709	OTTHUMT00000323602	chr2:11923462-12367536	+	437
OTTHUMG00000151709	OTTHUMT00000323599	chr2:12064693-12189162	+	619
OTTHUMG00000151709	OTTHUMT00000323583	chr2:12064705-12635925	+	2177
OTTHUMG00000151709	OTTHUMT00000323601	chr2:12064751-12141195	+	318
OTTHUMG00000151709	OTTHUMT00000323600	chr2:12164161-12189125	+	475
OTTHUMG00000151709	OTTHUMT00000323598	chr2:12371894-12618842	+	574
OTTHUMG00000151710	OTTHUMT00000323586	chr2:12656564-12662722	+	395
OTTHUMG00000151714	OTTHUMT00000323609	chr2:13595249-13666744	+	453
OTTHUMG00000151716	OTTHUMT00000323616	chr2:13768107-14458538	-	591
OTTHUMG00000151713	OTTHUMT00000323608	chr2:13780624-13815728	+	829
OTTHUMG00000151716	OTTHUMT00000323615	chr2:14286449-14458533	-	3499
OTTHUMG00000151715	OTTHUMT00000323610	chr2:14674003-14687767	+	343
OTTHUMG00000151715	OTTHUMT00000323611	chr2:14674003-14687767	+	262
OTTHUMG00000151726	OTTHUMT00000323666	chr2:14944222-14965239	-	464
OTTHUMG00000151725	OTTHUMT00000323665	chr2:15621745-15631443	+	405
OTTHUMG00000151727	OTTHUMT00000323667	chr2:15726259-15738059	-	565
OTTHUMG00000151723	OTTHUMT00000323661	chr2:15859322-15868452	-	485
OTTHUMG00000151751	OTTHUMT00000323749	chr2:16054622-16120458	-	514
OTTHUMG00000151744	OTTHUMT00000323739	chr2:16108000-16143374	+	1092
OTTHUMG00000151744	OTTHUMT00000323740	chr2:16130971-16138690	+	471
OTTHUMG00000151742	OTTHUMT00000323736	chr2:16142795-16163414	-	638
OTTHUMG00000151742	OTTHUMT00000323737	chr2:16153999-16163235	-	850
OTTHUMG00000151746	OTTHUMT00000323742	chr2:16247179-16248975	+	634
OTTHUMG00000151750	OTTHUMT00000323748	chr2:16268796-16273889	+	836
OTTHUMG00000151749	OTTHUMT00000323747	chr2:16271776-16272943	-	413
OTTHUMG00000151743	OTTHUMT00000323738	chr2:16361073-16364315	-	738
OTTHUMG00000151752	OTTHUMT00000323751	chr2:16399005-16477451	+	314
OTTHUMG00000151752	OTTHUMT00000323750	chr2:16399934-16477451	+	428
OTTHUMG00000151748	OTTHUMT00000323745	chr2:16567925-16574136	+	543
OTTHUMG00000151748	OTTHUMT00000323746	chr2:16567939-16574187	+	542
OTTHUMG00000151740	OTTHUMT00000323731	chr2:16772872-16812157	+	561
OTTHUMG00000151740	OTTHUMT00000323730	chr2:16772872-16812303	+	594
OTTHUMG00000151745	OTTHUMT00000323741	chr2:17014782-17019245	+	198
OTTHUMG0000090675	OTTHUMT00000323816	chr2:17842313-17844906	-	582
OTTHUMG00000151764	OTTHUMT00000323820	chr2:18829554-18832499	+	366
OTTHUMG00000151766	OTTHUMT00000323831	chr2:19031210-19090207	-	1945
OTTHUMG00000151766	OTTHUMT00000323832	chr2:19067188-19369296	-	566
OTTHUMG00000151766	OTTHUMT00000323837	chr2:19089896-19369279	-	548
OTTHUMG00000151766	OTTHUMT00000323836	chr2:19108103-19409990	-	621
OTTHUMG00000151772	OTTHUMT00000323861	chr2:19521462-19532203	-	1707
OTTHUMG00000151774	OTTHUMT00000323866	chr2:19538692-19552092	+	751
OTTHUMG00000151775	OTTHUMT00000323867	chr2:19774957-19780818	+	441
OTTHUMG00000151773	OTTHUMT00000323864	chr2:19932102-19940635	+	2234
OTTHUMG00000151773	OTTHUMT00000323862	chr2:19932116-19948289	+	2985
OTTHUMG00000151773	OTTHUMT00000323865	chr2:19932133-19935772	+	517

OTTHUMG00000151773	OTTHUMT00000323863	chr2:19932133-19940777	+	2466
OTTHUMG00000151787	OTTHUMT00000323916	chr2:20127098-20170071	-	744
OTTHUMG00000151780	OTTHUMT00000323901	chr2:20514284-20516189	+	306
OTTHUMG00000151783	OTTHUMT00000323904	chr2:20923012-20924902	+	1496
OTTHUMG00000151796	OTTHUMT00000323950	chr2:21297552-22047336	+	482
OTTHUMG00000151796	OTTHUMT00000324017	chr2:21297562-21340463	+	502
OTTHUMG00000151793	OTTHUMT00000323946	chr2:21394037-21637690	+	489
OTTHUMG00000151793	OTTHUMT00000324012	chr2:21472453-21479551	+	377
OTTHUMG00000151793	OTTHUMT00000324011	chr2:21472960-21479551	+	580
OTTHUMG00000151806	OTTHUMT00000324014	chr2:21706925-21712686	-	536
OTTHUMG00000151809	OTTHUMT00000324019	chr2:21714808-21725879	-	371
OTTHUMG00000151809	OTTHUMT00000324018	chr2:21714808-21725940	-	545
OTTHUMG00000151807	OTTHUMT00000324015	chr2:21763811-21787000	-	2095
OTTHUMG00000151805	OTTHUMT00000324013	chr2:22020986-22041928	-	577
OTTHUMG00000151815	OTTHUMT00000324041	chr2:22453971-22558381	+	565
OTTHUMG00000151816	OTTHUMT00000324042	chr2:22612856-22614665	+	437
OTTHUMG00000151813	OTTHUMT00000324038	chr2:23094502-23167213	-	710
OTTHUMG00000151813	OTTHUMT00000324039	chr2:23103486-23106798	-	530
OTTHUMG00000151813	OTTHUMT00000324297	chr2:23106980-23275432	-	502
OTTHUMG00000151898	OTTHUMT00000324314	chr2:23407040-23408420	-	521
OTTHUMG00000151900	OTTHUMT00000324320	chr2:23424030-23428240	+	890
OTTHUMG00000151905	OTTHUMT00000324350	chr2:23433892-23436752	-	531
OTTHUMG00000151891	OTTHUMT00000324284	chr2:23451605-23457675	-	537
OTTHUMG00000151891	OTTHUMT00000324283	chr2:23451740-23457631	-	566
OTTHUMG00000152010	OTTHUMT00000324840	chr2:25280686-25285575	+	464
OTTHUMG00000152130	OTTHUMT00000325375	chr2:25445546-25452218	-	417
OTTHUMG00000151995	OTTHUMT00000324720	chr2:26747626-26750836	-	564
OTTHUMG00000151996	OTTHUMT00000324732	chr2:27126055-27126636	-	405
OTTHUMG00000151942	OTTHUMT00000324542	chr2:28524538-28526555	-	847
OTTHUMG00000152012	OTTHUMT00000324850	chr2:28785323-28812575	-	724
OTTHUMG00000152012	OTTHUMT00000324851	chr2:28785695-28812562	-	482
OTTHUMG00000152012	OTTHUMT00000324852	chr2:28798810-28812479	-	720
OTTHUMG00000152002	OTTHUMT00000324765	chr2:30000854-30006332	+	803
OTTHUMG00000152052	OTTHUMT00000325099	chr2:30423029-30428801	+	2183
OTTHUMG00000152056	OTTHUMT00000325123	chr2:31872396-31882553	-	413
OTTHUMG00000152136	OTTHUMT00000325401	chr2:32904014-33005264	+	1789
OTTHUMG00000152136	OTTHUMT00000325403	chr2:32919585-32980694	+	686
OTTHUMG00000152136	OTTHUMT00000325402	chr2:32961372-33005093	+	1356
OTTHUMG00000152135	OTTHUMT00000325400	chr2:33005698-33006976	+	479
OTTHUMG00000152139	OTTHUMT00000325407	chr2:34145797-34148121	+	594
OTTHUMG00000152141	OTTHUMT00000325415	chr2:34462359-34713911	+	564
OTTHUMG00000152144	OTTHUMT00000325418	chr2:34756150-34801134	+	1106
OTTHUMG00000152144	OTTHUMT00000325419	chr2:34792161-34816802	+	1202
OTTHUMG00000152140	OTTHUMT00000325414	chr2:34813546-34815687	+	167
OTTHUMG00000152143	OTTHUMT00000325417	chr2:34878421-35241682	+	574

OTTHUMG00000152142	OTTHUMT00000325416	chr2:35076849-35078731	-	491
OTTHUMG00000152509	OTTHUMT00000326529	chr2:37405987-37407444	+	502
OTTHUMG00000152558	OTTHUMT00000326759	chr2:37824980-37827693	+	382
OTTHUMG00000152169	OTTHUMT00000326757	chr2:37906894-37910079	-	1920
OTTHUMG00000152169	OTTHUMT00000326756	chr2:37908256-37956510	-	658
OTTHUMG00000152169	OTTHUMT00000325579	chr2:37920685-37956921	-	548
OTTHUMG00000153433	OTTHUMT00000331179	chr2:38511940-38514219	+	378
OTTHUMG00000152401	OTTHUMT00000326080	chr2:40827131-40848096	+	545
OTTHUMG00000152302	OTTHUMT00000325744	chr2:41957718-41958599	-	532
OTTHUMG00000152301	OTTHUMT00000325742	chr2:41958199-41974683	+	1800
OTTHUMG00000152301	OTTHUMT00000325743	chr2:41958200-41973690	+	739
OTTHUMG00000152505	OTTHUMT00000325751	chr2:42012243-42014109	-	636
OTTHUMG00000152505	OTTHUMT00000325752	chr2:42012263-42014367	-	766
OTTHUMG00000152306	OTTHUMT00000325754	chr2:42096269-42105946	-	343
OTTHUMG00000152656	OTTHUMT00000327196	chr2:42446314-42505732	-	599
OTTHUMG00000152375	OTTHUMT00000326020	chr2:43081966-43086884	-	398
OTTHUMG00000152373	OTTHUMT00000326016	chr2:43108496-43120186	-	2150
OTTHUMG00000152373	OTTHUMT00000326017	chr2:43113144-43120190	-	799
OTTHUMG00000152373	OTTHUMT00000326018	chr2:43113876-43120184	-	783
OTTHUMG00000152376	OTTHUMT00000326021	chr2:43121836-43124425	-	567
OTTHUMG00000152374	OTTHUMT00000326019	chr2:43178388-43183333	-	950
OTTHUMG00000152420	OTTHUMT00000326184	chr2:45001720-45016287	-	1450
OTTHUMG00000152420	OTTHUMT00000326185	chr2:45003990-45019842	-	608
OTTHUMG00000152420	OTTHUMT00000326186	chr2:45010507-45016294	-	754
OTTHUMG00000152420	OTTHUMT00000326187	chr2:45011820-45016082	-	459
OTTHUMG00000152422	OTTHUMT00000326189	chr2:45035307-45049401	+	2677
OTTHUMG00000152444	OTTHUMT00000326243	chr2:45093857-45094311	-	365
OTTHUMG00000152442	OTTHUMT00000326240	chr2:45249226-45250057	+	551
OTTHUMG00000153138	OTTHUMT00000329731	chr2:46472940-46474810	-	567
OTTHUMG00000151712	OTTHUMT00000323597	chr2:47306437-47319850	+	559
OTTHUMG00000151712	OTTHUMT00000323596	chr2:47307560-47319868	+	589
OTTHUMG00000151756	OTTHUMT00000323780	chr2:48022339-48321626	-	1799
OTTHUMG00000151842	OTTHUMT00000324131	chr2:51282723-51302406	-	496
OTTHUMG00000151842	OTTHUMT00000324134	chr2:51282723-51302406	-	483
OTTHUMG00000151845	OTTHUMT00000324138	chr2:52453760-52470654	+	602
OTTHUMG00000152267	OTTHUMT00000325653	chr2:52575330-52581394	-	635
OTTHUMG00000152414	OTTHUMT00000326160	chr2:52944877-52947273	+	331
OTTHUMG00000152405	OTTHUMT00000326132	chr2:54163195-54165707	-	730
OTTHUMG00000152469	OTTHUMT00000326321	chr2:54827744-54829045	-	395
OTTHUMG00000152122	OTTHUMT00000325331	chr2:55705577-55712077	+	2384
OTTHUMG00000152029	OTTHUMT00000324929	chr2:56043830-56127965	-	897
OTTHUMG00000152028	OTTHUMT00000324928	chr2:56158056-56171021	-	710
OTTHUMG00000152120	OTTHUMT00000325322	chr2:58356516-58377187	+	810
OTTHUMG00000152616	OTTHUMT00000327021	chr2:59515852-59522900	+	435
OTTHUMG00000152619	OTTHUMT00000327027	chr2:60431234-60433655	-	2003

OTTHUMG00000152618	OTTHUMT00000327025	chr2:60439855-60472014	-	701
OTTHUMG00000152618	OTTHUMT00000327026	chr2:60440359-60463675	-	466
OTTHUMG00000152523	OTTHUMT00000326581	chr2:62543766-62544709	+	422
OTTHUMG00000152520	OTTHUMT00000326578	chr2:62670894-62743293	-	569
OTTHUMG00000152520	OTTHUMT00000326577	chr2:62692511-62743267	-	924
OTTHUMG00000152631	OTTHUMT00000327083	chr2:64166988-64168884	-	561
OTTHUMG00000152633	OTTHUMT00000327085	chr2:64265716-64286123	-	3301
OTTHUMG00000152671	OTTHUMT00000327286	chr2:64411124-64412769	-	287
OTTHUMG00000152672	OTTHUMT00000327291	chr2:64418705-64422285	-	402
OTTHUMG00000152676	OTTHUMT00000327305	chr2:64566991-64581542	+	569
OTTHUMG00000152679	OTTHUMT00000327323	chr2:64687613-64696637	+	1382
OTTHUMG00000152679	OTTHUMT00000327324	chr2:64687999-64697120	+	1718
OTTHUMG00000152703	OTTHUMT00000327469	chr2:64926768-64944264	-	1972
OTTHUMG00000152704	OTTHUMT00000327471	chr2:64982478-64985775	-	2926
OTTHUMG00000152699	OTTHUMT00000327462	chr2:65111365-65118135	-	492
OTTHUMG00000152699	OTTHUMT00000327461	chr2:65111385-65133655	-	1015
OTTHUMG00000152909	OTTHUMT00000328530	chr2:66316013-66316849	-	364
OTTHUMG00000152908	OTTHUMT00000328528	chr2:66407985-66409279	+	1022
OTTHUMG00000152808	OTTHUMT00000328009	chr2:66407985-66409477	+	771
OTTHUMG00000152908	OTTHUMT00000328529	chr2:66407997-66409620	+	902
OTTHUMG00000152809	OTTHUMT00000328010	chr2:66463942-66473086	+	1676
OTTHUMG00000152832	OTTHUMT00000328199	chr2:66507371-66514106	-	703
OTTHUMG00000152839	OTTHUMT00000328221	chr2:66777761-66783863	-	762
OTTHUMG00000152839	OTTHUMT00000328222	chr2:66777794-66783833	-	216
OTTHUMG00000152839	OTTHUMT00000328220	chr2:66777798-66783833	-	409
OTTHUMG00000152853	OTTHUMT00000328263	chr2:66985072-67052098	+	620
OTTHUMG00000152852	OTTHUMT00000328261	chr2:67002146-67003093	-	394
OTTHUMG00000152853	OTTHUMT00000328262	chr2:67002330-67039556	+	383
OTTHUMG00000152857	OTTHUMT00000328269	chr2:67121182-67122602	+	565
OTTHUMG00000152864	OTTHUMT00000328290	chr2:67167082-67376711	+	1068
OTTHUMG00000152856	OTTHUMT00000328266	chr2:67203993-67295955	-	2092
OTTHUMG00000152856	OTTHUMT00000328268	chr2:67205306-67258628	-	747
OTTHUMG00000152856	OTTHUMT00000328267	chr2:67256059-67295913	-	566
OTTHUMG00000152863	OTTHUMT00000328289	chr2:67294044-67325210	+	527
OTTHUMG00000152865	OTTHUMT00000328291	chr2:67341439-67370030	+	715
OTTHUMG00000152879	OTTHUMT00000328343	chr2:67405263-67405940	+	572
OTTHUMG00000152486	OTTHUMT00000326403	chr2:67642703-67654680	+	1002
OTTHUMG00000152562	OTTHUMT00000326766	chr2:67646240-67764713	-	165
OTTHUMG00000152485	OTTHUMT00000326402	chr2:67876690-67906198	-	722
OTTHUMG00000152623	OTTHUMT00000327034	chr2:68912680-68918344	+	434
OTTHUMG00000152624	OTTHUMT00000327036	chr2:68913452-68917828	-	1015
OTTHUMG00000152623	OTTHUMT00000327035	chr2:68915640-68918360	+	572
OTTHUMG00000152688	OTTHUMT00000327365	chr2:69780828-69794483	-	418
OTTHUMG00000153133	OTTHUMT00000329697	chr2:70204672-70205953	-	660
OTTHUMG00000153164	OTTHUMT00000329815	chr2:70483570-70503314	+	573

OTTHUMG00000153230	OTTHUMT00000330276	chr2:70968509-70968986	+	371
OTTHUMG00000152824	OTTHUMT00000328143	chr2:74065767-74066978	+	388
OTTHUMG00000152932	OTTHUMT00000328658	chr2:74998783-75013429	+	562
OTTHUMG00000152930	OTTHUMT00000328654	chr2:75000190-75005481	-	761
OTTHUMG00000152932	OTTHUMT00000328656	chr2:75008874-75013659	+	3660
OTTHUMG00000152932	OTTHUMT00000328657	chr2:75012063-75019053	+	437
OTTHUMG00000152931	OTTHUMT00000328655	chr2:75020893-75023305	+	1264
OTTHUMG00000152939	OTTHUMT00000328703	chr2:75555087-75563213	+	334
OTTHUMG00000152842	OTTHUMT00000328231	chr2:77633200-77673953	-	594
OTTHUMG00000152843	OTTHUMT00000328232	chr2:77733047-77735302	-	282
OTTHUMG00000152841	OTTHUMT00000328224	chr2:77752849-77754426	+	795
OTTHUMG00000152845	OTTHUMT00000328254	chr2:77996568-77998643	+	632
OTTHUMG00000152846	OTTHUMT00000328255	chr2:78169364-78208440	+	1097
OTTHUMG00000152871	OTTHUMT00000328311	chr2:78678545-78680040	-	369
OTTHUMG00000152890	OTTHUMT00000328439	chr2:80780024-80950826	-	764
OTTHUMG00000152947	OTTHUMT00000328738	chr2:81543330-81547581	-	518
OTTHUMG00000152955	OTTHUMT00000328765	chr2:82063907-82086335	-	483
OTTHUMG00000152956	OTTHUMT00000328766	chr2:82557770-82619346	-	683
OTTHUMG00000152969	OTTHUMT00000328819	chr2:83603449-83604137	+	301
OTTHUMG00000153166	OTTHUMT00000329846	chr2:85895764-85906025	+	1708
OTTHUMG00000152992	OTTHUMT00000328926	chr2:97333063-97335485	+	553
OTTHUMG00000152993	OTTHUMT00000328927	chr2:97435687-97438109	-	553
OTTHUMG00000153173	OTTHUMT00000329948	chr2:98744833-98751905	-	923
OTTHUMG00000153172	OTTHUMT00000329947	chr2:98751856-98754975	-	546
OTTHUMG00000153132	OTTHUMT00000329691	chr2:100191148-100234378	+	3112
OTTHUMG00000153132	OTTHUMT00000329692	chr2:100225525-100232156	+	578
OTTHUMG00000153149	OTTHUMT00000329774	chr2:100589922-100592245	+	515
OTTHUMG00000153149	OTTHUMT00000329775	chr2:100590138-100592252	+	436
OTTHUMG00000153160	OTTHUMT00000329809	chr2:100652786-100658932	-	560
OTTHUMG00000153159	OTTHUMT00000329808	chr2:100705115-100705776	-	234
OTTHUMG00000153096	OTTHUMT00000329513	chr2:102856230-102878612	-	704
OTTHUMG00000153097	OTTHUMT00000329514	chr2:102950298-102967319	-	433
OTTHUMG00000153094	OTTHUMT00000329502	chr2:102970213-102971455	+	546
OTTHUMG00000153099	OTTHUMT00000329516	chr2:102994669-103002788	+	476
OTTHUMG00000153111	OTTHUMT00000329587	chr2:103092649-103159150	-	634
OTTHUMG00000153045	OTTHUMT00000329211	chr2:103839860-103863099	-	577
OTTHUMG00000153043	OTTHUMT00000329209	chr2:103848636-103852578	-	541
OTTHUMG00000153044	OTTHUMT00000329210	chr2:104108158-104130119	-	524
OTTHUMG00000153047	OTTHUMT00000329239	chr2:104394091-104398502	+	469
OTTHUMG00000153049	OTTHUMT00000329241	chr2:104395117-104396898	-	491
OTTHUMG00000153056	OTTHUMT00000329251	chr2:104563711-104564780	-	435
OTTHUMG00000153055	OTTHUMT00000329250	chr2:104566042-104568244	+	449
OTTHUMG00000153057	OTTHUMT00000329252	chr2:104642227-104647727	+	557
OTTHUMG00000153052	OTTHUMT00000329247	chr2:104648329-104649746	+	532
OTTHUMG00000153054	OTTHUMT00000329249	chr2:104686648-104688399	+	707

OTTHUMG00000153066	OTTHUMT00000329333	chr2:104729528-104738645	-	2109
OTTHUMG00000153066	OTTHUMT00000329332	chr2:104729530-104740609	-	2430
OTTHUMG00000153066	OTTHUMT00000329334	chr2:104732274-104737765	-	479
OTTHUMG00000153065	OTTHUMT00000329330	chr2:104790462-104834351	-	633
OTTHUMG00000153065	OTTHUMT00000329328	chr2:104790463-104834343	-	671
OTTHUMG00000153065	OTTHUMT00000329329	chr2:104790463-104836073	-	603
OTTHUMG00000153065	OTTHUMT00000329327	chr2:104790467-104834348	-	743
OTTHUMG00000153065	OTTHUMT00000329331	chr2:104790467-104834366	-	718
OTTHUMG00000153079	OTTHUMT00000329371	chr2:105127003-105128112	+	795
OTTHUMG00000153079	OTTHUMT00000329372	chr2:105127013-105127802	+	513
OTTHUMG00000153079	OTTHUMT00000329373	chr2:105127032-105128314	+	412
OTTHUMG00000153152	OTTHUMT00000329797	chr2:105941972-105944894	-	422
OTTHUMG00000153152	OTTHUMT00000329798	chr2:105942075-105943197	-	186
OTTHUMG00000153181	OTTHUMT00000329973	chr2:106504791-106520967	-	551
OTTHUMG00000153180	OTTHUMT00000329972	chr2:106525902-106527185	+	509
OTTHUMG00000153205	OTTHUMT00000330102	chr2:107237579-107348761	-	856
OTTHUMG00000153205	OTTHUMT00000330089	chr2:107249041-107348431	-	485
OTTHUMG00000153144	OTTHUMT00000329746	chr2:107345170-107389148	+	646
OTTHUMG00000153144	OTTHUMT00000330059	chr2:107345207-107390217	+	612
OTTHUMG00000153144	OTTHUMT00000330060	chr2:107364080-107383574	+	317
OTTHUMG00000153200	OTTHUMT00000330061	chr2:107368520-107525537	-	604
OTTHUMG00000153209	OTTHUMT00000330097	chr2:107512375-107539214	+	1536
OTTHUMG00000153209	OTTHUMT00000330347	chr2:107525637-107538527	+	578
OTTHUMG00000153313	OTTHUMT00000330678	chr2:107737000-107805017	+	535
OTTHUMG00000153313	OTTHUMT00000330679	chr2:107737033-107795236	+	573
OTTHUMG00000153366	OTTHUMT00000330878	chr2:108032088-108035643	-	385
OTTHUMG00000153177	OTTHUMT00000329963	chr2:108150636-108200729	-	606
OTTHUMG00000153216	OTTHUMT00000330149	chr2:108305126-108336687	+	1871
OTTHUMG00000131194	OTTHUMT00000253918	chr2:110326395-110328018	-	1030
OTTHUMG00000153641	OTTHUMT00000331942	chr2:111084962-111086450	+	745
OTTHUMG00000153642	OTTHUMT00000331943	chr2:111183623-111190643	-	4392
OTTHUMG00000153690	OTTHUMT00000332141	chr2:111739331-111753928	+	615
OTTHUMG00000153695	OTTHUMT00000332149	chr2:111965321-111985038	+	755
OTTHUMG00000153698	OTTHUMT00000332152	chr2:111965578-111975056	+	1952
OTTHUMG00000153694	OTTHUMT00000332148	chr2:111965991-111968859	-	879
OTTHUMG00000153696	OTTHUMT00000332150	chr2:112081889-112086566	+	790
OTTHUMG00000153300	OTTHUMT00000330617	chr2:113064844-113065987	+	527
OTTHUMG00000153341	OTTHUMT00000330815	chr2:113898542-113899371	+	506
OTTHUMG00000153367	OTTHUMT00000330895	chr2:113977652-113978654	+	411
OTTHUMG00000047830	OTTHUMT00000330896	chr2:113986401-113989358	+	1589
OTTHUMG00000047830	OTTHUMT00000109049	chr2:113986510-113989532	+	742
OTTHUMG00000047820	OTTHUMT00000109027	chr2:114051429-114052956	+	1090
OTTHUMG00000047820	OTTHUMT00000109026	chr2:114051662-114052823	+	818
OTTHUMG00000153498	OTTHUMT00000331368	chr2:114303437-114305166	-	414
OTTHUMG00000153496	OTTHUMT00000331365	chr2:114305096-114305774	-	576

OTTHUMG00000153496	OTTHUMT00000331364	chr2:114305235-114317403	-	387
OTTHUMG00000153529	OTTHUMT00000331497	chr2:114453616-114481349	+	842
OTTHUMG00000153531	OTTHUMT00000331503	chr2:114453956-114457305	+	813
OTTHUMG00000153530	OTTHUMT00000331498	chr2:114596321-114597340	-	463
OTTHUMG00000141319	OTTHUMT00000280683	chr2:118231609-118278220	-	588
OTTHUMG00000058513	OTTHUMT00000129613	chr2:118307983-118315704	+	3088
OTTHUMG00000153418	OTTHUMT00000331097	chr2:118606174-118660432	-	774
OTTHUMG00000153418	OTTHUMT00000331098	chr2:118656985-118660419	-	577
OTTHUMG00000153418	OTTHUMT00000331099	chr2:118657067-118660432	-	456
OTTHUMG00000153330	OTTHUMT00000330753	chr2:121652373-121656626	+	542
OTTHUMG00000153333	OTTHUMT00000330765	chr2:122264490-122270748	+	790
OTTHUMG00000153333	OTTHUMT00000330763	chr2:122264506-122269086	+	647
OTTHUMG00000153333	OTTHUMT00000330764	chr2:122264511-122270402	+	761
OTTHUMG00000153333	OTTHUMT00000330766	chr2:122264538-122268965	+	346
OTTHUMG00000153425	OTTHUMT00000331145	chr2:123539367-123541768	+	799
OTTHUMG00000153424	OTTHUMT00000331144	chr2:123540197-123547527	-	581
OTTHUMG00000153426	OTTHUMT00000331148	chr2:123917312-123918491	-	267
OTTHUMG00000153369	OTTHUMT00000330898	chr2:126185016-126239889	+	666
OTTHUMG00000153386	OTTHUMT00000330992	chr2:126584146-126592032	+	620
OTTHUMG00000153398	OTTHUMT00000331044	chr2:127863176-127874626	+	2688
OTTHUMG00000153416	OTTHUMT00000331084	chr2:129054535-129055620	-	355
OTTHUMG00000153414	OTTHUMT00000331082	chr2:129537889-129545768	-	658
OTTHUMG00000153413	OTTHUMT00000331081	chr2:129716216-129747891	-	2208
OTTHUMG00000153602	OTTHUMT00000331804	chr2:131876944-131883092	+	1857
OTTHUMG00000153621	OTTHUMT00000331858	chr2:132111068-132123658	+	3514
OTTHUMG00000153621	OTTHUMT00000331859	chr2:132112785-132118467	+	709
OTTHUMG00000153714	OTTHUMT00000332207	chr2:132303844-132306074	-	559
OTTHUMG00000153603	OTTHUMT00000331805	chr2:132759838-132768420	-	319
OTTHUMG00000153580	OTTHUMT00000331712	chr2:136551932-136552553	+	467
OTTHUMG00000153618	OTTHUMT00000331841	chr2:138352794-138400447	-	1267
OTTHUMG00000153616	OTTHUMT00000331839	chr2:138575924-138579945	+	550
OTTHUMG00000153617	OTTHUMT00000331840	chr2:138944696-138947972	+	823
OTTHUMG00000153631	OTTHUMT00000331892	chr2:139078550-139087207	+	678
OTTHUMG00000153648	OTTHUMT00000331960	chr2:139840205-139853187	+	553
OTTHUMG00000153649	OTTHUMT00000331961	chr2:139943815-139951787	+	464
OTTHUMG00000153650	OTTHUMT00000331967	chr2:140298935-140299916	-	296
OTTHUMG00000153651	OTTHUMT00000331968	chr2:140577622-140605819	-	440
OTTHUMG00000153725	OTTHUMT00000332234	chr2:144273506-144293638	+	461
OTTHUMG00000153703	OTTHUMT00000332166	chr2:145162450-145164222	-	797
OTTHUMG00000153704	OTTHUMT00000332167	chr2:145768315-145805885	-	343
OTTHUMG00000153709	OTTHUMT00000332188	chr2:146043332-146062062	-	829
OTTHUMG00000153710	OTTHUMT00000332189	chr2:146074945-146077461	-	404
OTTHUMG00000153722	OTTHUMT00000332224	chr2:146389128-146405184	+	743
OTTHUMG00000153712	OTTHUMT00000332203	chr2:147353947-147375970	+	525
OTTHUMG00000151885	OTTHUMT00000324253	chr2:161809496-161813807	+	2331

OTTHUMG00000151885	OTTHUMT00000324254	chr2:161809512-161812211	+	762
OTTHUMG00000150131	OTTHUMT00000316474	chr2:220259953-220287652	+	494
OTTHUMG00000059376	OTTHUMT00000131979	chr2:220303076-220310708	+	359
OTTHUMG00000059377	OTTHUMT00000131980	chr2:220477016-220477854	-	610
OTTHUMG00000153378	OTTHUMT00000330941	chr2:224071735-224077573	+	805
OTTHUMG00000153377	OTTHUMT00000330940	chr2:224078438-224083895	+	785
OTTHUMG00000153471	OTTHUMT00000331297	chr2:226753004-226758331	-	1132
OTTHUMG00000153589	OTTHUMT00000331758	chr2:229056221-229184355	-	674
OTTHUMG00000153588	OTTHUMT00000331757	chr2:229256497-229257540	-	425
OTTHUMG00000133221	OTTHUMT00000256956	chr2:231569085-231598014	+	1609
OTTHUMG00000059127	OTTHUMT00000131003	chr2:234438881-234440744	-	1863
OTTHUMG00000059209	OTTHUMT00000131317	chr2:234682099-234682864	+	595
OTTHUMG00000153145	OTTHUMT00000329757	chr2:235658205-235661969	-	688
OTTHUMG00000153146	OTTHUMT00000329758	chr2:235751279-235752288	+	661
OTTHUMG00000153025	OTTHUMT00000329067	chr2:237306764-237326188	+	558
OTTHUMG00000153025	OTTHUMT00000329068	chr2:237326156-237327745	+	878
OTTHUMG00000153026	OTTHUMT00000329069	chr2:237621981-237629549	-	2224
OTTHUMG00000153018	OTTHUMT00000329029	chr2:237696292-237697479	-	667
OTTHUMG00000152959	OTTHUMT00000328769	chr2:238186359-238199907	+	2055
OTTHUMG00000152883	OTTHUMT00000328354	chr2:238872090-238874000	-	560
OTTHUMG00000152849	OTTHUMT00000328258	chr2:239084070-239128434	-	1972
OTTHUMG00000152844	OTTHUMT00000328239	chr2:239362039-239363107	-	590
OTTHUMG00000152836	OTTHUMT00000328213	chr2:239496916-239497169	+	253
OTTHUMG00000152416	OTTHUMT00000326162	chr2:240212329-240217470	+	346
OTTHUMG00000152377	OTTHUMT00000326022	chr2:240815650-240844125	-	426
OTTHUMG00000151554	OTTHUMT00000323096	chr2:242107060-242108335	+	820
OTTHUMG00000151513	OTTHUMT00000322958	chr2:242278502-242282377	+	413
OTTHUMG00000151392	OTTHUMT00000322463	chr2:242435205-242435861	+	569
OTTHUMG00000151385	OTTHUMT00000322442	chr2:242638519-242674962	-	557
OTTHUMG00000031663	OTTHUMT00000077517	chr20:1290266-1291229	+	478
OTTHUMG00000153691	OTTHUMT00000332142	chr20:1702011-1708392	-	743
OTTHUMG00000031681	OTTHUMT00000077567	chr20:1732662-1746252	-	342
OTTHUMG00000031689	OTTHUMT00000077577	chr20:2135863-2141797	+	413
OTTHUMG00000031689	OTTHUMT00000077578	chr20:2135873-2141797	+	534
OTTHUMG00000031776	OTTHUMT00000077801	chr20:4121714-4124375	+	477
OTTHUMG00000031781	OTTHUMT00000077814	chr20:4359808-4360320	-	406
OTTHUMG00000031780	OTTHUMT00000077813	chr20:4404285-4453846	+	166
OTTHUMG00000031805	OTTHUMT00000077866	chr20:5360638-5361249	-	440
OTTHUMG00000031805	OTTHUMT00000077868	chr20:5360638-5374332	-	1537
OTTHUMG00000031805	OTTHUMT00000077867	chr20:5362519-5374392	-	672
OTTHUMG00000031810	OTTHUMT00000077878	chr20:5428969-5433259	-	1855
OTTHUMG00000031810	OTTHUMT00000077879	chr20:5430168-5431436	-	468
OTTHUMG00000031808	OTTHUMT00000077876	chr20:5436521-5438648	-	355
OTTHUMG00000031831	OTTHUMT00000077916	chr20:6375370-6457106	+	1481
OTTHUMG00000031832	OTTHUMT00000077917	chr20:6659905-6664783	-	929

OTTHUMG00000031835	OTTHUMT00000077920	chr20:6998261-7075303	+	379
OTTHUMG00000031836	OTTHUMT00000077921	chr20:7075114-7182849	-	866
OTTHUMG00000031837	OTTHUMT00000077922	chr20:7185227-7186861	-	386
OTTHUMG00000031838	OTTHUMT00000077923	chr20:7276114-7296279	+	745
OTTHUMG00000031862	OTTHUMT00000077973	chr20:10102168-10125638	+	347
OTTHUMG00000031861	OTTHUMT00000077972	chr20:10108883-10114423	+	443
OTTHUMG00000031876	OTTHUMT00000078007	chr20:10681738-10682614	+	436
OTTHUMG00000031877	OTTHUMT00000078008	chr20:10681926-10693934	-	726
OTTHUMG00000031879	OTTHUMT00000078010	chr20:10793303-10795830	+	265
OTTHUMG00000031883	OTTHUMT00000078015	chr20:11162818-11230173	-	1097
OTTHUMG00000031883	OTTHUMT00000078014	chr20:11194764-11197483	-	412
OTTHUMG00000031891	OTTHUMT00000078024	chr20:12172543-12172944	-	278
OTTHUMG00000031892	OTTHUMT00000078025	chr20:12234261-12245133	-	471
OTTHUMG00000031897	OTTHUMT00000078030	chr20:12793850-12881167	-	3021
OTTHUMG00000031894	OTTHUMT00000078027	chr20:12864687-12865842	+	482
OTTHUMG00000031895	OTTHUMT00000078028	chr20:12878986-12880275	+	599
OTTHUMG00000031936	OTTHUMT00000078115	chr20:16786607-16792793	-	830
OTTHUMG00000031951	OTTHUMT00000078135	chr20:17816007-17816804	-	630
OTTHUMG00000031958	OTTHUMT00000078146	chr20:17988137-17999652	+	398
OTTHUMG00000057435	OTTHUMT000000127626	chr20:18251196-18287944	-	2485
OTTHUMG00000057435	OTTHUMT000000127627	chr20:18252299-18287903	-	450
OTTHUMG00000031986	OTTHUMT00000078198	chr20:18716295-18722637	-	1710
OTTHUMG00000031986	OTTHUMT00000078197	chr20:18717191-18722979	-	730
OTTHUMG00000031986	OTTHUMT00000078196	chr20:18717308-18722933	-	958
OTTHUMG00000031992	OTTHUMT00000078204	chr20:19686352-19728320	+	285
OTTHUMG00000031992	OTTHUMT00000078205	chr20:19686792-19737926	+	412
OTTHUMG00000031992	OTTHUMT00000078206	chr20:19728217-19738319	+	675
OTTHUMG00000032011	OTTHUMT00000078248	chr20:20650317-20651034	-	388
OTTHUMG00000032013	OTTHUMT00000078250	chr20:20899089-20901203	+	510
OTTHUMG00000032017	OTTHUMT00000078256	chr20:21022190-21030200	-	478
OTTHUMG00000032017	OTTHUMT00000078255	chr20:21022199-21034975	-	357
OTTHUMG00000032023	OTTHUMT00000078271	chr20:21327531-21329015	+	506
OTTHUMG00000032029	OTTHUMT00000078277	chr20:21458840-21459382	+	447
OTTHUMG00000032035	OTTHUMT00000078283	chr20:21876285-21899421	+	567
OTTHUMG00000032036	OTTHUMT00000078284	chr20:21982831-22003238	+	516
OTTHUMG00000032037	OTTHUMT00000078285	chr20:22149192-22151921	+	436
OTTHUMG00000032039	OTTHUMT00000078287	chr20:22208866-22211310	-	501
OTTHUMG00000032040	OTTHUMT00000078288	chr20:22328989-22349281	-	1662
OTTHUMG00000032044	OTTHUMT00000078294	chr20:22516160-22536155	-	656
OTTHUMG00000032047	OTTHUMT00000078299	chr20:22604710-22613516	-	2318
OTTHUMG00000032047	OTTHUMT00000078300	chr20:22612300-22613982	-	562
OTTHUMG00000032052	OTTHUMT00000078306	chr20:22938846-22959422	-	715
OTTHUMG000000133099	OTTHUMT000000256764	chr20:23053705-23061258	-	1892
OTTHUMG00000032057	OTTHUMT00000078311	chr20:23116765-23118944	+	554
OTTHUMG00000032063	OTTHUMT00000078322	chr20:23285231-23286492	-	451

OTTHUMG00000032063	OTTHUMT00000078321	chr20:23285231-23286642	-	511
OTTHUMG00000032063	OTTHUMT00000078323	chr20:23285432-23286753	-	503
OTTHUMG00000032077	OTTHUMT00000078342	chr20:23583862-23585027	-	434
OTTHUMG000000133141	OTTHUMT000000256830	chr20:23726778-23734300	+	793
OTTHUMG00000032097	OTTHUMT00000078369	chr20:24071226-24073022	-	532
OTTHUMG00000032098	OTTHUMT00000078370	chr20:24128403-24153224	+	2372
OTTHUMG00000032099	OTTHUMT00000078371	chr20:24226221-24246722	-	498
OTTHUMG00000032103	OTTHUMT00000078375	chr20:24608183-24609627	+	803
OTTHUMG00000032113	OTTHUMT00000078391	chr20:25069425-25077426	-	3164
OTTHUMG00000032113	OTTHUMT00000078389	chr20:25071876-25077894	-	465
OTTHUMG00000032113	OTTHUMT00000078390	chr20:25072001-25076100	-	289
OTTHUMG00000032113	OTTHUMT00000078392	chr20:25072001-25077876	-	340
OTTHUMG00000032135	OTTHUMT00000078460	chr20:25679854-25681397	+	318
OTTHUMG00000032138	OTTHUMT00000078467	chr20:25792905-25796315	+	1691
OTTHUMG000000150168	OTTHUMT000000316666	chr20:25884448-25897924	+	4600
OTTHUMG00000032140	OTTHUMT00000078469	chr20:25930172-25930935	-	441
OTTHUMG00000032141	OTTHUMT00000078470	chr20:25937427-25939167	-	540
OTTHUMG00000032148	OTTHUMT00000078482	chr20:26061523-26062834	-	269
OTTHUMG00000032149	OTTHUMT00000078483	chr20:26115655-26137527	-	1124
OTTHUMG00000032149	OTTHUMT00000078484	chr20:26115655-26137869	-	1208
OTTHUMG00000032150	OTTHUMT00000078485	chr20:26119625-26122582	+	624
OTTHUMG000000133197	OTTHUMT000000256907	chr20:28127243-28134874	-	3326
OTTHUMG00000032152	OTTHUMT00000078487	chr20:28135298-28136648	-	551
OTTHUMG00000032154	OTTHUMT00000078491	chr20:28172149-28184024	-	715
OTTHUMG00000032154	OTTHUMT00000078489	chr20:28179417-28210067	-	456
OTTHUMG00000032169	OTTHUMT00000078509	chr20:29472900-29480644	-	496
OTTHUMG000000133269	OTTHUMT000000257046	chr20:30684322-30703341	-	3451
OTTHUMG00000032251	OTTHUMT00000078679	chr20:31245072-31261929	+	1194
OTTHUMG00000032251	OTTHUMT000000257118	chr20:31249676-31256636	+	565
OTTHUMG000000150044	OTTHUMT000000315979	chr20:33564810-33568774	+	3964
OTTHUMG00000032376	OTTHUMT00000078969	chr20:34137588-34139528	-	614
OTTHUMG00000032422	OTTHUMT000000276659	chr20:35554288-35571047	-	711
OTTHUMG00000032422	OTTHUMT00000079119	chr20:35554350-35557578	-	592
OTTHUMG00000046198	OTTHUMT000000276668	chr20:35681114-35684935	-	540
OTTHUMG00000032445	OTTHUMT00000079172	chr20:36468072-36478858	-	2002
OTTHUMG00000032466	OTTHUMT00000079223	chr20:37275834-37286805	-	1514
OTTHUMG00000032468	OTTHUMT00000079225	chr20:37847777-37875285	+	478
OTTHUMG00000032469	OTTHUMT00000079226	chr20:38066533-38070301	+	535
OTTHUMG00000032469	OTTHUMT00000079227	chr20:38066540-38070585	+	728
OTTHUMG00000032470	OTTHUMT00000079228	chr20:38093641-38105945	+	637
OTTHUMG00000032472	OTTHUMT00000079230	chr20:38183096-38188412	+	423
OTTHUMG00000032473	OTTHUMT00000079231	chr20:38759949-38760670	-	271
OTTHUMG00000032491	OTTHUMT00000079281	chr20:40076088-40077532	-	414
OTTHUMG00000032514	OTTHUMT00000079326	chr20:41851998-41888416	+	2418
OTTHUMG00000032515	OTTHUMT00000079327	chr20:41956774-41957522	+	522

OTTHUMG00000032534	OTTHUMT00000079368	chr20:42510831-42512146	-	409
OTTHUMG00000032542	OTTHUMT00000079376	chr20:42718506-42725553	-	997
OTTHUMG00000032542	OTTHUMT000000127822	chr20:42718506-42758151	-	1410
OTTHUMG00000032569	OTTHUMT00000079420	chr20:43292923-43295386	+	553
OTTHUMG00000032593	OTTHUMT00000079474	chr20:43509456-43510396	+	512
OTTHUMG00000032629	OTTHUMT00000079542	chr20:44082665-44083773	-	489
OTTHUMG00000032631	OTTHUMT00000079544	chr20:44083822-44089845	+	246
OTTHUMG00000032631	OTTHUMT00000079545	chr20:44083896-44085635	+	397
OTTHUMG00000032644	OTTHUMT00000079565	chr20:44230450-44233283	-	2135
OTTHUMG00000032669	OTTHUMT00000079600	chr20:45454080-45474478	-	746
OTTHUMG00000032676	OTTHUMT00000079611	chr20:46012950-46014206	+	423
OTTHUMG00000032677	OTTHUMT00000079612	chr20:46020173-46020754	+	454
OTTHUMG00000032678	OTTHUMT00000079613	chr20:46042639-46050895	-	427
OTTHUMG00000032679	OTTHUMT00000079614	chr20:46045555-46046464	+	448
OTTHUMG00000032682	OTTHUMT00000079619	chr20:46417364-46428914	+	505
OTTHUMG00000032681	OTTHUMT00000079616	chr20:46420836-46421847	-	549
OTTHUMG00000032682	OTTHUMT00000079620	chr20:46422100-46432779	+	3539
OTTHUMG00000032682	OTTHUMT00000079617	chr20:46422162-46423054	+	436
OTTHUMG00000032682	OTTHUMT00000079618	chr20:46427797-46432779	+	3068
OTTHUMG00000032680	OTTHUMT00000079615	chr20:46445473-46447045	-	402
OTTHUMG00000032683	OTTHUMT00000079621	chr20:46533630-46563854	+	275
OTTHUMG00000032711	OTTHUMT00000079667	chr20:48090660-48091448	-	460
OTTHUMG00000032717	OTTHUMT00000079675	chr20:48213408-48216046	+	731
OTTHUMG00000032716	OTTHUMT00000079673	chr20:48216306-48219439	+	423
OTTHUMG00000032716	OTTHUMT00000079674	chr20:48219290-48221686	+	339
OTTHUMG00000032718	OTTHUMT00000079677	chr20:48222494-48223314	+	500
OTTHUMG00000032718	OTTHUMT00000079676	chr20:48222534-48226503	+	570
OTTHUMG00000032721	OTTHUMT00000079681	chr20:48317430-48329739	+	2006
OTTHUMG00000032721	OTTHUMT00000079682	chr20:48317443-48328371	+	536
OTTHUMG00000032721	OTTHUMT00000079683	chr20:48326261-48328981	+	1055
OTTHUMG00000032721	OTTHUMT00000079684	chr20:48327478-48328359	+	684
OTTHUMG00000032727	OTTHUMT00000079692	chr20:48695415-48710235	+	635
OTTHUMG00000032727	OTTHUMT00000258384	chr20:48703146-48712219	+	535
OTTHUMG00000134283	OTTHUMT00000258921	chr20:49881743-49912858	-	2323
OTTHUMG00000032757	OTTHUMT00000079750	chr20:50501410-50505565	-	428
OTTHUMG00000134296	OTTHUMT00000259124	chr20:50537868-50550537	-	571
OTTHUMG00000032760	OTTHUMT00000259163	chr20:50721863-50740554	+	481
OTTHUMG00000032760	OTTHUMT00000079752	chr20:50724357-50731524	+	461
OTTHUMG00000032760	OTTHUMT00000259161	chr20:50731374-50740526	+	534
OTTHUMG00000032760	OTTHUMT00000259162	chr20:50731374-50740526	+	318
OTTHUMG00000032760	OTTHUMT00000259164	chr20:50731374-50740526	+	180
OTTHUMG00000032760	OTTHUMT00000079753	chr20:50735068-50740875	+	371
OTTHUMG00000033074	OTTHUMT00000080493	chr20:50908284-50912801	-	457
OTTHUMG00000032767	OTTHUMT00000079761	chr20:51658300-51684536	+	378
OTTHUMG00000032768	OTTHUMT00000079762	chr20:51849769-51851264	-	343

OTTHUMG00000134311	OTTHUMT00000259284	chr20:53470281-53477142	-	2287
OTTHUMG00000032780	OTTHUMT00000259285	chr20:53472988-53518159	+	1332
OTTHUMG00000032780	OTTHUMT00000079781	chr20:53473010-53476735	+	610
OTTHUMG00000032784	OTTHUMT00000079785	chr20:54304430-54307623	-	451
OTTHUMG00000032803	OTTHUMT00000259432	chr20:54586026-54604589	+	692
OTTHUMG00000032803	OTTHUMT00000079821	chr20:54604773-54607084	+	296
OTTHUMG00000032807	OTTHUMT00000079825	chr20:54738860-54739923	-	481
OTTHUMG00000032809	OTTHUMT00000079827	chr20:55114204-55115591	+	374
OTTHUMG00000032808	OTTHUMT00000079826	chr20:55123378-55130555	+	767
OTTHUMG00000032826	OTTHUMT00000079852	chr20:55608157-55609662	-	821
OTTHUMG00000137362	OTTHUMT00000267816	chr20:55965588-55968122	-	1852
OTTHUMG00000032833	OTTHUMT00000079862	chr20:56077516-56080522	-	1010
OTTHUMG00000032833	OTTHUMT00000079863	chr20:56077516-56080532	-	742
OTTHUMG00000137387	OTTHUMT00000268118	chr20:57360645-57366224	-	591
OTTHUMG00000137385	OTTHUMT00000268116	chr20:57369377-57373223	-	618
OTTHUMG00000137386	OTTHUMT00000268117	chr20:57523641-57524489	+	564
OTTHUMG00000032882	OTTHUMT00000079946	chr20:58482854-58489127	+	427
OTTHUMG00000032885	OTTHUMT00000079959	chr20:59085675-59086267	-	498
OTTHUMG00000032884	OTTHUMT00000079958	chr20:59087591-59088630	+	389
OTTHUMG00000032918	OTTHUMT00000080037	chr20:60437999-60439963	+	475
OTTHUMG00000032921	OTTHUMT00000080041	chr20:60735478-60737301	-	495
OTTHUMG00000032922	OTTHUMT00000080042	chr20:60735569-60737659	+	459
OTTHUMG00000032931	OTTHUMT00000080060	chr20:60875925-60877209	-	538
OTTHUMG00000032954	OTTHUMT00000080109	chr20:61139808-61155660	+	1228
OTTHUMG00000140135	OTTHUMT00000276286	chr20:61197595-61204076	-	549
OTTHUMG00000140136	OTTHUMT00000276287	chr20:61204002-61206183	+	1880
OTTHUMG00000140137	OTTHUMT00000276288	chr20:61268594-61282700	-	540
OTTHUMG00000032968	OTTHUMT00000080138	chr20:61604084-61606908	+	374
OTTHUMG00000032990	OTTHUMT00000080171	chr20:61909873-61918318	+	530
OTTHUMG00000074167	OTTHUMT00000157562	chr21:13293868-13310884	-	321
OTTHUMG00000074200	OTTHUMT00000157663	chr21:14064124-14065932	+	456
OTTHUMG00000074314	OTTHUMT00000157907	chr21:15041937-15047653	-	813
OTTHUMG00000074314	OTTHUMT00000157906	chr21:15041937-15048057	-	740
OTTHUMG00000074319	OTTHUMT00000157919	chr21:15055902-15057282	+	693
OTTHUMG00000074318	OTTHUMT00000157918	chr21:15212726-15241288	+	779
OTTHUMG00000074330	OTTHUMT00000157934	chr21:15265662-15287046	+	821
OTTHUMG00000074332	OTTHUMT00000157936	chr21:15361262-15362029	+	444
OTTHUMG00000074333	OTTHUMT00000157937	chr21:15664712-15696495	-	993
OTTHUMG00000078773	OTTHUMT00000171763	chr21:15788122-15790314	-	1374
OTTHUMG00000074396	OTTHUMT00000158059	chr21:16925017-16934823	+	548
OTTHUMG00000074396	OTTHUMT00000158060	chr21:16925631-16934873	+	501
OTTHUMG00000074394	OTTHUMT00000158057	chr21:17048709-17109878	-	434
OTTHUMG00000074395	OTTHUMT00000158058	chr21:17157066-17167882	-	373
OTTHUMG00000074507	OTTHUMT00000158208	chr21:17953465-17954573	-	514
OTTHUMG00000074500	OTTHUMT00000158194	chr21:18129204-18179796	-	1114

OTTHUMG00000074544	OTTHUMT00000158276	chr21:18855454-19054192	-	849
OTTHUMG00000074544	OTTHUMT00000158277	chr21:18855804-19053993	-	668
OTTHUMG00000074544	OTTHUMT00000158278	chr21:18906251-19047217	-	612
OTTHUMG00000074543	OTTHUMT00000158275	chr21:18908620-18944549	+	876
OTTHUMG00000074549	OTTHUMT00000158283	chr21:19212123-19230048	-	782
OTTHUMG00000074546	OTTHUMT00000158280	chr21:19247453-19261247	-	422
OTTHUMG00000074542	OTTHUMT00000158274	chr21:19340500-19341874	+	788
OTTHUMG00000074550	OTTHUMT00000158284	chr21:19424712-19428612	+	467
OTTHUMG00000074551	OTTHUMT00000158285	chr21:19595801-19597927	+	634
OTTHUMG00000074607	OTTHUMT00000158341	chr21:20187464-20193940	-	409
OTTHUMG00000074606	OTTHUMT00000158340	chr21:20550936-20553004	-	862
OTTHUMG00000078063	OTTHUMT00000170848	chr21:21036779-21097252	-	1843
OTTHUMG00000078063	OTTHUMT00000170849	chr21:21036784-21097287	-	1996
OTTHUMG00000078063	OTTHUMT00000170851	chr21:21037110-21097259	-	1753
OTTHUMG00000078063	OTTHUMT00000170850	chr21:21037110-21097297	-	1618
OTTHUMG00000078063	OTTHUMT00000170852	chr21:21037928-21097275	-	822
OTTHUMG00000078122	OTTHUMT00000170919	chr21:21860955-21909629	+	607
OTTHUMG00000078124	OTTHUMT00000170921	chr21:21949230-21980520	-	475
OTTHUMG00000078123	OTTHUMT00000170920	chr21:22017484-22031510	-	609
OTTHUMG00000078125	OTTHUMT00000170923	chr21:22041164-22091606	+	478
OTTHUMG00000078125	OTTHUMT00000170922	chr21:22041176-22091606	+	755
OTTHUMG00000078257	OTTHUMT00000171059	chr21:22227506-22269871	-	527
OTTHUMG00000078243	OTTHUMT00000171045	chr21:22303134-22312346	-	792
OTTHUMG00000078243	OTTHUMT00000171043	chr21:22303348-22392649	-	891
OTTHUMG00000078243	OTTHUMT00000171044	chr21:22335364-22348559	-	462
OTTHUMG00000078244	OTTHUMT00000171046	chr21:22392807-22410718	+	720
OTTHUMG00000078249	OTTHUMT00000171051	chr21:22504129-22715010	+	432
OTTHUMG00000078247	OTTHUMT00000171049	chr21:22794795-22814248	-	974
OTTHUMG00000078246	OTTHUMT00000171048	chr21:23655297-23679053	-	1720
OTTHUMG00000078245	OTTHUMT00000171047	chr21:23771831-23784914	+	859
OTTHUMG00000078274	OTTHUMT00000171079	chr21:24182985-24184728	-	677
OTTHUMG00000078275	OTTHUMT00000171080	chr21:24255091-24261459	-	776
OTTHUMG00000078273	OTTHUMT00000171078	chr21:24337443-24337812	+	215
OTTHUMG00000078273	OTTHUMT00000171077	chr21:24337443-24344472	+	845
OTTHUMG00000078333	OTTHUMT00000171147	chr21:24449355-24482526	-	690
OTTHUMG00000078332	OTTHUMT00000171146	chr21:24598734-24615561	-	2003
OTTHUMG00000078326	OTTHUMT00000171137	chr21:24722925-24784492	+	2903
OTTHUMG00000078326	OTTHUMT00000171139	chr21:24722943-24735509	+	491
OTTHUMG00000078326	OTTHUMT00000171138	chr21:24722966-24842127	+	2173
OTTHUMG00000078331	OTTHUMT00000171145	chr21:25134735-25351930	+	2715
OTTHUMG00000078329	OTTHUMT00000171142	chr21:25180861-25196941	-	538
OTTHUMG00000078324	OTTHUMT00000171135	chr21:25232616-25238165	-	250
OTTHUMG00000078324	OTTHUMT00000171134	chr21:25232616-25246342	-	439
OTTHUMG00000078324	OTTHUMT00000171133	chr21:25232616-25287000	-	307
OTTHUMG00000078328	OTTHUMT00000171141	chr21:25349719-25364090	+	475

OTTHUMG00000078330	OTTHUMT00000171143	chr21:25389206-25397854	+	574
OTTHUMG00000078330	OTTHUMT00000171144	chr21:25389226-25397854	+	681
OTTHUMG00000078327	OTTHUMT00000171140	chr21:25421653-25429432	+	287
OTTHUMG00000078368	OTTHUMT00000171188	chr21:25680004-25725884	-	1376
OTTHUMG00000078368	OTTHUMT00000171189	chr21:25680004-25725884	-	1471
OTTHUMG00000078368	OTTHUMT00000171191	chr21:25690377-25718892	-	737
OTTHUMG00000078368	OTTHUMT00000171190	chr21:25690670-25724192	-	627
OTTHUMG00000078370	OTTHUMT00000171193	chr21:25809656-25812521	-	1044
OTTHUMG00000078482	OTTHUMT00000171423	chr21:26643970-26644824	-	514
OTTHUMG00000078707	OTTHUMT00000171682	chr21:27932883-27947681	+	465
OTTHUMG00000078708	OTTHUMT00000171683	chr21:28016569-28045423	+	520
OTTHUMG00000078708	OTTHUMT00000171684	chr21:28016588-28045423	+	505
OTTHUMG00000078708	OTTHUMT00000171685	chr21:28018989-28045423	+	568
OTTHUMG00000074159	OTTHUMT00000157552	chr21:28249111-28279485	+	569
OTTHUMG00000074158	OTTHUMT00000157551	chr21:28307553-28317423	+	605
OTTHUMG00000078709	OTTHUMT00000171686	chr21:28342604-28431801	+	1749
OTTHUMG00000078709	OTTHUMT00000171689	chr21:28342637-28397770	+	1120
OTTHUMG00000078709	OTTHUMT00000171688	chr21:28384504-28396980	+	447
OTTHUMG00000078709	OTTHUMT00000171687	chr21:28384635-28397430	+	819
OTTHUMG00000078706	OTTHUMT00000171679	chr21:28410284-28522857	-	4480
OTTHUMG00000078706	OTTHUMT00000171680	chr21:28457792-28464333	-	273
OTTHUMG00000078706	OTTHUMT00000171681	chr21:28506496-28522670	-	439
OTTHUMG00000078747	OTTHUMT00000171733	chr21:28738741-28920797	-	678
OTTHUMG00000078747	OTTHUMT00000171732	chr21:28738741-28969041	-	895
OTTHUMG00000078748	OTTHUMT00000171735	chr21:28833511-28834548	+	868
OTTHUMG00000078748	OTTHUMT00000171736	chr21:28833511-28834548	+	512
OTTHUMG00000078747	OTTHUMT00000171734	chr21:28965174-28968966	-	441
OTTHUMG00000078877	OTTHUMT00000171972	chr21:29476219-29481987	-	325
OTTHUMG00000081871	OTTHUMT00000182259	chr21:30503340-30505972	-	421
OTTHUMG00000057796	OTTHUMT00000128248	chr21:31123228-31123949	-	721
OTTHUMG00000085307	OTTHUMT00000193089	chr21:32374500-32380479	-	435
OTTHUMG00000085307	OTTHUMT00000193088	chr21:32374500-32491996	-	424
OTTHUMG00000064921	OTTHUMT00000139402	chr21:32687310-32688140	+	830
OTTHUMG00000064934	OTTHUMT00000139450	chr21:33138547-33144114	-	382
OTTHUMG00000065034	OTTHUMT00000139665	chr21:33253066-33254744	+	574
OTTHUMG00000065060	OTTHUMT00000139726	chr21:33352005-33359159	+	748
OTTHUMG00000065062	OTTHUMT00000139728	chr21:33405875-33417879	-	1358
OTTHUMG00000065063	OTTHUMT00000139729	chr21:33450808-33453286	+	447
OTTHUMG00000065530	OTTHUMT00000140453	chr21:33776676-33778435	-	663
OTTHUMG00000065819	OTTHUMT00000141032	chr21:34225334-34271862	+	9121
OTTHUMG00000065819	OTTHUMT00000193773	chr21:34225388-34265357	+	2087
OTTHUMG00000085959	OTTHUMT00000193777	chr21:34243100-34258130	+	2259
OTTHUMG00000086190	OTTHUMT00000194069	chr21:34474848-34477416	+	653
OTTHUMG00000086190	OTTHUMT00000194070	chr21:34474915-34482733	+	394
OTTHUMG00000086190	OTTHUMT00000194072	chr21:34474919-34484090	+	1196

OTTHUMG00000086190	OTTHUMT00000194071	chr21:34482519-34483368	+	743
OTTHUMG00000086234	OTTHUMT00000194141	chr21:35017975-35031348	-	687
OTTHUMG00000086233	OTTHUMT00000194139	chr21:35039924-35079053	+	2629
OTTHUMG00000086233	OTTHUMT00000194140	chr21:35040004-35042534	+	765
OTTHUMG00000086303	OTTHUMT00000194246	chr21:35430805-35433389	+	696
OTTHUMG00000086463	OTTHUMT00000194413	chr21:36299506-36301769	+	809
OTTHUMG00000086614	OTTHUMT00000194629	chr21:36377027-36384582	+	346
OTTHUMG00000153500	OTTHUMT00000331385	chr21:36399049-36403858	+	2334
OTTHUMG00000086644	OTTHUMT00000194710	chr21:36926849-36931201	-	1131
OTTHUMG00000090768	OTTHUMT00000207543	chr21:38617427-38627156	-	603
OTTHUMG00000090768	OTTHUMT00000207542	chr21:38620144-38627213	-	419
OTTHUMG00000086700	OTTHUMT00000194935	chr21:39140041-39142438	+	485
OTTHUMG00000066036	OTTHUMT00000194933	chr21:39174101-39250262	-	403
OTTHUMG00000066032	OTTHUMT00000141402	chr21:39268225-39271570	-	1595
OTTHUMG00000066035	OTTHUMT00000141409	chr21:39282503-39299949	-	1409
OTTHUMG00000086702	OTTHUMT00000194937	chr21:39300444-39305125	-	506
OTTHUMG00000066033	OTTHUMT00000141403	chr21:39322331-39322923	-	290
OTTHUMG00000133705	OTTHUMT00000257965	chr21:39610955-39617014	+	466
OTTHUMG00000086723	OTTHUMT00000195003	chr21:40021552-40024477	+	1539
OTTHUMG00000086723	OTTHUMT00000195004	chr21:40021643-40023481	+	698
OTTHUMG00000086741	OTTHUMT00000195053	chr21:41435297-41441930	-	2086
OTTHUMG00000086741	OTTHUMT00000195054	chr21:41436939-41441220	-	347
OTTHUMG00000086741	OTTHUMT00000195055	chr21:41436977-41441230	-	577
OTTHUMG00000086925	OTTHUMT00000195852	chr21:44729888-44734599	+	910
OTTHUMG00000090296	OTTHUMT00000206656	chr21:45234207-45238412	-	2133
OTTHUMG00000090296	OTTHUMT00000206655	chr21:45234207-45238429	-	2153
OTTHUMG00000090292	OTTHUMT00000206637	chr21:45243550-45249070	-	732
OTTHUMG00000084875	OTTHUMT00000192579	chr21:45478695-45503073	+	527
OTTHUMG00000090409	OTTHUMT00000206835	chr21:45544588-45549600	-	2320
OTTHUMG00000090402	OTTHUMT00000206822	chr21:45581050-45583008	+	377
OTTHUMG00000090404	OTTHUMT00000206824	chr21:45582933-45586333	-	453
OTTHUMG00000090400	OTTHUMT00000206820	chr21:45622544-45623967	-	317
OTTHUMG00000090400	OTTHUMT00000206819	chr21:45622679-45623978	-	186
OTTHUMG00000090408	OTTHUMT00000206834	chr21:45837996-45841351	+	672
OTTHUMG00000090408	OTTHUMT00000206833	chr21:45838020-45841433	+	818
OTTHUMG00000090405	OTTHUMT00000206825	chr21:45994970-45997328	+	746
OTTHUMG00000090417	OTTHUMT00000206848	chr21:46072303-46080761	-	3463
OTTHUMG00000090443	OTTHUMT00000206885	chr21:46281394-46284149	+	2196
OTTHUMG00000090442	OTTHUMT00000206884	chr21:46296938-46297447	+	413
OTTHUMG00000090439	OTTHUMT00000206876	chr21:46300858-46301909	+	353
OTTHUMG00000140195	OTTHUMT00000276574	chr22:14442157-14443236	+	584
OTTHUMG00000140260	OTTHUMT00000276778	chr22:14579666-14592276	-	516
OTTHUMG00000140260	OTTHUMT00000276779	chr22:14579666-14611333	-	621
OTTHUMG00000140260	OTTHUMT00000276955	chr22:14579793-14581002	-	530
OTTHUMG00000140353	OTTHUMT00000277001	chr22:14753081-14757055	+	1727

OTTHUMG00000153504	OTTHUMT00000331389	chr22:15607759-15609535	-	1239
OTTHUMG00000147348	OTTHUMT00000303966	chr22:15730368-15732016	+	498
OTTHUMG00000150027	OTTHUMT00000315626	chr22:15897460-15919682	+	2722
OTTHUMG00000150027	OTTHUMT00000315824	chr22:15898102-15917448	+	542
OTTHUMG00000150063	OTTHUMT00000316076	chr22:16117749-16127623	-	1912
OTTHUMG00000150065	OTTHUMT00000316085	chr22:16189924-16190122	+	198
OTTHUMG00000153506	OTTHUMT00000331424	chr22:16892151-16900734	+	2377
OTTHUMG00000149977	OTTHUMT00000314912	chr22:17338027-17362141	+	5487
OTTHUMG00000149977	OTTHUMT00000314911	chr22:17338038-17398742	+	1280
OTTHUMG00000149977	OTTHUMT00000316630	chr22:17338096-17358396	+	564
OTTHUMG00000149977	OTTHUMT00000316503	chr22:17365787-17382299	+	763
OTTHUMG00000150429	OTTHUMT00000318064	chr22:18034546-18035078	+	285
OTTHUMG00000150567	OTTHUMT00000318944	chr22:18566296-18572440	+	2179
OTTHUMG00000150594	OTTHUMT00000319043	chr22:18705557-18712103	+	412
OTTHUMG00000150594	OTTHUMT00000319042	chr22:18705590-18709425	+	539
OTTHUMG00000150594	OTTHUMT00000319010	chr22:18706328-18730457	+	3278
OTTHUMG00000150594	OTTHUMT00000319011	chr22:18706399-18730450	+	1850
OTTHUMG00000150594	OTTHUMT00000319041	chr22:18706433-18719632	+	563
OTTHUMG00000150594	OTTHUMT00000319044	chr22:18706440-18720116	+	560
OTTHUMG00000150594	OTTHUMT00000319045	chr22:18706468-18722070	+	742
OTTHUMG00000150594	OTTHUMT00000319074	chr22:18708439-18709229	+	321
OTTHUMG00000150594	OTTHUMT00000319012	chr22:18708520-18721557	+	1856
OTTHUMG00000150605	OTTHUMT00000319056	chr22:18710726-18711888	-	444
OTTHUMG00000150610	OTTHUMT00000319069	chr22:18716866-18718449	-	373
OTTHUMG00000150610	OTTHUMT00000319068	chr22:18717736-18721114	-	818
OTTHUMG00000150594	OTTHUMT00000319075	chr22:18719070-18720012	+	476
OTTHUMG00000150594	OTTHUMT00000319013	chr22:18721496-18730456	+	3786
OTTHUMG00000150594	OTTHUMT00000319014	chr22:18721808-18725074	+	878
OTTHUMG00000150594	OTTHUMT00000319065	chr22:18725296-18730454	+	429
OTTHUMG00000150594	OTTHUMT00000319066	chr22:18725317-18725766	+	325
OTTHUMG00000150646	OTTHUMT00000322210	chr22:18757669-18758803	+	851
OTTHUMG00000152507	OTTHUMT00000319436	chr22:18758814-18760089	+	458
OTTHUMG00000152507	OTTHUMT00000319437	chr22:18758909-18760045	+	348
OTTHUMG00000152507	OTTHUMT00000319430	chr22:18758933-18760071	+	469
OTTHUMG00000152507	OTTHUMT00000319426	chr22:18758938-18760071	+	316
OTTHUMG00000152507	OTTHUMT00000319431	chr22:18759276-18760440	+	784
OTTHUMG00000150683	OTTHUMT00000319604	chr22:18962132-18986828	-	1850
OTTHUMG00000150683	OTTHUMT00000319602	chr22:18970889-18986782	-	547
OTTHUMG00000150683	OTTHUMT00000319603	chr22:18970968-18991407	-	718
OTTHUMG00000150684	OTTHUMT00000319605	chr22:18974408-18975991	+	373
OTTHUMG00000150686	OTTHUMT00000319609	chr22:19022509-19036406	+	468
OTTHUMG00000150795	OTTHUMT00000320107	chr22:19985279-20009331	-	3203
OTTHUMG00000150795	OTTHUMT00000320109	chr22:19985280-19994170	-	3711
OTTHUMG00000150795	OTTHUMT00000320108	chr22:19985286-20009331	-	1921
OTTHUMG00000150795	OTTHUMT00000320115	chr22:19994110-20007143	-	1850

OTTHUMG00000150795	OTTHUMT00000320111	chr22:19996029-20009226	-	563
OTTHUMG00000150795	OTTHUMT00000320110	chr22:19996029-20009331	-	665
OTTHUMG00000150793	OTTHUMT00000320091	chr22:19997209-19999193	+	773
OTTHUMG00000150795	OTTHUMT00000320112	chr22:20003559-20009256	-	412
OTTHUMG00000150795	OTTHUMT00000320113	chr22:20006237-20009256	-	573
OTTHUMG00000150795	OTTHUMT00000320114	chr22:20006430-20007224	-	325
OTTHUMG00000151038	OTTHUMT00000321097	chr22:20978098-20979159	+	522
OTTHUMG00000151209	OTTHUMT00000321813	chr22:21365263-21365797	-	449
OTTHUMG00000150838	OTTHUMT00000320286	chr22:21998803-22000680	+	344
OTTHUMG00000150668	OTTHUMT00000319542	chr22:22105751-22107258	+	914
OTTHUMG00000150668	OTTHUMT00000319543	chr22:22106358-22106918	+	335
OTTHUMG00000150840	OTTHUMT00000320304	chr22:22184681-22185789	+	475
OTTHUMG00000150865	OTTHUMT00000320348	chr22:23938709-23939652	+	480
OTTHUMG00000150906	OTTHUMT00000320493	chr22:24005496-24008258	-	426
OTTHUMG00000150906	OTTHUMT00000320492	chr22:24007253-24008641	-	423
OTTHUMG00000150906	OTTHUMT00000320494	chr22:24007804-24009061	-	566
OTTHUMG00000151344	OTTHUMT00000322322	chr22:24887800-24890269	+	186
OTTHUMG00000151345	OTTHUMT00000322323	chr22:24887876-24889180	-	354
OTTHUMG00000150979	OTTHUMT00000320766	chr22:25584597-25591749	+	6040
OTTHUMG00000151357	OTTHUMT00000322347	chr22:25629255-25634076	+	506
OTTHUMG00000151357	OTTHUMT00000322346	chr22:25629303-25646574	+	514
OTTHUMG00000150945	OTTHUMT00000320625	chr22:25869439-25885840	+	471
OTTHUMG00000150949	OTTHUMT00000320629	chr22:25930173-25931088	+	306
OTTHUMG00000150955	OTTHUMT00000320636	chr22:25947310-25950688	-	634
OTTHUMG00000150955	OTTHUMT00000320635	chr22:25949258-25950618	-	549
OTTHUMG00000150952	OTTHUMT00000320632	chr22:26002201-26012310	+	271
OTTHUMG00000150956	OTTHUMT00000320637	chr22:26033444-26044499	-	575
OTTHUMG00000150947	OTTHUMT00000320627	chr22:26036612-26043417	+	5050
OTTHUMG00000150950	OTTHUMT00000320630	chr22:26057748-26105226	+	567
OTTHUMG00000150954	OTTHUMT00000320634	chr22:26183208-26186021	-	768
OTTHUMG00000150951	OTTHUMT00000320631	chr22:26289800-26299534	-	574
OTTHUMG00000150948	OTTHUMT00000320628	chr22:26402556-26440959	-	814
OTTHUMG00000150946	OTTHUMT00000320626	chr22:26433578-26435929	+	113
OTTHUMG00000150974	OTTHUMT00000320736	chr22:26442468-26447665	+	449
OTTHUMG00000151290	OTTHUMT00000322096	chr22:28197930-28204059	-	568
OTTHUMG00000030444	OTTHUMT00000075332	chr22:29695643-29704831	+	6474
OTTHUMG00000030444	OTTHUMT00000158310	chr22:29697353-29704831	+	4888
OTTHUMG00000058207	OTTHUMT00000128923	chr22:30689344-30696387	+	471
OTTHUMG00000150005	OTTHUMT00000315721	chr22:30696810-30699461	+	176
OTTHUMG00000150005	OTTHUMT00000315722	chr22:30696848-30699462	+	295
OTTHUMG00000073689	OTTHUMT00000156190	chr22:30867254-30869259	+	272
OTTHUMG00000073688	OTTHUMT00000156189	chr22:30999407-31003173	+	588
OTTHUMG00000058271	OTTHUMT00000129026	chr22:31053158-31069092	-	359
OTTHUMG00000058267	OTTHUMT00000129022	chr22:31102651-31110330	+	1555
OTTHUMG00000150006	OTTHUMT00000315723	chr22:31109773-31111618	+	442

OTTHUMG00000030382	OTTHUMT00000128992	chr22:31831369-31832045	-	435
OTTHUMG00000151001	OTTHUMT00000320911	chr22:37647178-37650659	+	676
OTTHUMG00000151004	OTTHUMT00000321237	chr22:37678692-37679367	+	564
OTTHUMG00000151191	OTTHUMT00000321691	chr22:37817585-37818806	+	589
OTTHUMG00000153516	OTTHUMT00000331463	chr22:38018939-38021514	+	1776
OTTHUMG00000150700	OTTHUMT00000319662	chr22:40995703-41000812	+	1240
OTTHUMG00000150700	OTTHUMT00000319663	chr22:40995710-41001146	+	473
OTTHUMG00000150700	OTTHUMT00000319664	chr22:40995718-41000983	+	547
OTTHUMG00000150697	OTTHUMT00000319657	chr22:41002305-41003001	+	542
OTTHUMG00000150696	OTTHUMT00000319656	chr22:41090350-41095118	-	778
OTTHUMG00000150696	OTTHUMT00000319655	chr22:41090352-41095158	-	473
OTTHUMG00000150696	OTTHUMT00000319654	chr22:41090475-41095186	-	1140
OTTHUMG00000150919	OTTHUMT00000320530	chr22:41163973-41172145	+	568
OTTHUMG00000150565	OTTHUMT00000318937	chr22:42126281-42135631	+	947
OTTHUMG00000150468	OTTHUMT00000318225	chr22:43217871-43219332	+	627
OTTHUMG00000149974	OTTHUMT00000314900	chr22:43381483-43399963	-	496
OTTHUMG00000151333	OTTHUMT00000322253	chr22:44210408-44223288	-	543
OTTHUMG00000150449	OTTHUMT00000318140	chr22:44650543-44662292	-	802
OTTHUMG00000150406	OTTHUMT00000317992	chr22:44814810-44819154	-	2581
OTTHUMG00000150406	OTTHUMT00000317993	chr22:44815553-44819397	-	489
OTTHUMG00000150405	OTTHUMT00000317991	chr22:45316056-45322757	+	2947
OTTHUMG00000150328	OTTHUMT00000317578	chr22:46119983-46147955	+	4360
OTTHUMG00000150319	OTTHUMT00000317554	chr22:46635084-46636475	+	217
OTTHUMG00000150320	OTTHUMT00000317555	chr22:46819191-46823030	-	370
OTTHUMG00000150310	OTTHUMT00000317512	chr22:47223366-47225693	+	566
OTTHUMG00000030424	OTTHUMT00000317435	chr22:48195429-48205090	-	737
OTTHUMG00000150297	OTTHUMT00000317428	chr22:48497705-48504158	-	3773
OTTHUMG00000153517	OTTHUMT00000331464	chr22:48612268-48617438	+	1565
OTTHUMG00000153518	OTTHUMT00000331465	chr22:48769920-48773655	+	1014
OTTHUMG00000118999	OTTHUMT00000239196	chr4:1135160-1137489	+	2163
OTTHUMG00000151319	OTTHUMT00000322216	chr4:74794883-74799108	+	572
OTTHUMG00000059449	OTTHUMT00000132196	chr4:118455201-118501243	-	728
OTTHUMG00000059445	OTTHUMT00000132190	chr4:118501953-118513339	+	598
OTTHUMG00000059450	OTTHUMT00000291362	chr4:118569000-118831628	+	2339
OTTHUMG00000059447	OTTHUMT00000132194	chr4:118975004-119010551	+	574
OTTHUMG00000131146	OTTHUMT00000253838	chr5:43077434-43081249	+	1341
OTTHUMG00000131146	OTTHUMT00000253837	chr5:43077952-43081249	+	2421
OTTHUMG00000150053	OTTHUMT00000316046	chr5:56102383-56103880	+	776
OTTHUMG00000099413	OTTHUMT00000216872	chr5:70707369-70717292	+	1828
OTTHUMG00000099413	OTTHUMT00000280612	chr5:70707369-70717292	+	609
OTTHUMG00000099413	OTTHUMT00000280613	chr5:70707369-70717292	+	571
OTTHUMG00000099413	OTTHUMT00000280615	chr5:70707369-70717292	+	647
OTTHUMG00000099413	OTTHUMT00000280616	chr5:70707369-70717292	+	651
OTTHUMG00000099413	OTTHUMT00000280614	chr5:70707369-70717576	+	1837
OTTHUMG00000122084	OTTHUMT00000314058	chr5:95213692-95218440	+	584

OTTHUMG00000122084	OTTHUMT00000242845	chr5:95213692-95221593	+	2048
OTTHUMG00000122084	OTTHUMT00000314057	chr5:95213695-95221590	+	1805
OTTHUMG00000059642	OTTHUMT00000132641	chr5:131542826-131544720	-	379
OTTHUMG00000059704	OTTHUMT00000132743	chr5:142105349-142120747	+	2233
OTTHUMG00000014111	OTTHUMT00000039619	chr6:100135-101639	+	748
OTTHUMG00000014110	OTTHUMT00000039618	chr6:169950-171400	+	841
OTTHUMG00000014118	OTTHUMT00000039629	chr6:903563-907511	-	401
OTTHUMG00000014123	OTTHUMT00000039634	chr6:2582169-2585234	+	832
OTTHUMG00000014127	OTTHUMT00000039645	chr6:2799890-2821743	-	1585
OTTHUMG00000014132	OTTHUMT00000039657	chr6:2862127-2862966	+	482
OTTHUMG00000014138	OTTHUMT00000039667	chr6:2996334-2997316	-	270
OTTHUMG00000014138	OTTHUMT00000039668	chr6:2996334-2998986	-	333
OTTHUMG00000014138	OTTHUMT00000039666	chr6:2997196-2998997	-	314
OTTHUMG00000014139	OTTHUMT00000039669	chr6:3001123-3001994	+	396
OTTHUMG00000014141	OTTHUMT00000039674	chr6:3127977-3140980	-	1467
OTTHUMG00000014141	OTTHUMT00000039673	chr6:3127977-3140989	-	1503
OTTHUMG00000014145	OTTHUMT00000039687	chr6:3539480-3569980	-	786
OTTHUMG00000014150	OTTHUMT00000039697	chr6:3838359-3839523	+	438
OTTHUMG00000014150	OTTHUMT00000039696	chr6:3839073-3839523	+	450
OTTHUMG00000014161	OTTHUMT00000039726	chr6:4100169-4101132	+	475
OTTHUMG00000014164	OTTHUMT00000039729	chr6:4171934-4172504	+	234
OTTHUMG00000014165	OTTHUMT00000039730	chr6:4290976-4292270	-	328
OTTHUMG00000014182	OTTHUMT00000039751	chr6:5796738-5815452	+	409
OTTHUMG00000014185	OTTHUMT00000039755	chr6:5820163-5821102	-	359
OTTHUMG00000014191	OTTHUMT00000039763	chr6:6637976-6659207	+	895
OTTHUMG00000014193	OTTHUMT00000039765	chr6:6703510-6704523	-	386
OTTHUMG00000014195	OTTHUMT00000039767	chr6:6846254-6863947	+	931
OTTHUMG00000014196	OTTHUMT00000039768	chr6:6938423-6940786	+	514
OTTHUMG00000014222	OTTHUMT00000039800	chr6:8273383-8287687	+	524
OTTHUMG00000014223	OTTHUMT00000039801	chr6:8287169-8288253	-	744
OTTHUMG00000014225	OTTHUMT00000039803	chr6:8729410-8730677	+	487
OTTHUMG00000014226	OTTHUMT00000039804	chr6:9069453-9107009	-	658
OTTHUMG00000014230	OTTHUMT00000039808	chr6:10531359-10534395	-	536
OTTHUMG00000014232	OTTHUMT00000039810	chr6:10582719-10586721	-	254
OTTHUMG00000014256	OTTHUMT00000039859	chr6:11525569-11589458	+	696
OTTHUMG00000014261	OTTHUMT00000039866	chr6:11918821-11919467	+	552
OTTHUMG00000014263	OTTHUMT00000039868	chr6:12098562-12100231	-	274
OTTHUMG00000014264	OTTHUMT00000039869	chr6:12115889-12117075	+	781
OTTHUMG00000014269	OTTHUMT00000039875	chr6:12691133-12693622	-	892
OTTHUMG00000014282	OTTHUMT00000039915	chr6:14113130-14115111	+	384
OTTHUMG00000014284	OTTHUMT00000039917	chr6:14337985-14339780	-	468
OTTHUMG00000014285	OTTHUMT00000039918	chr6:14388337-14393355	-	3150
OTTHUMG00000014287	OTTHUMT00000039920	chr6:14499441-14501498	-	485
OTTHUMG00000014286	OTTHUMT00000039919	chr6:14502536-14512499	+	402
OTTHUMG00000014288	OTTHUMT00000039921	chr6:14705724-14707900	-	145

OTTHUMG00000014289	OTTHUMT00000039922	chr6:14949434-14979938	+	175
OTTHUMG00000014290	OTTHUMT00000039923	chr6:15084998-15198213	-	1013
OTTHUMG00000014297	OTTHUMT00000039937	chr6:16103154-16108007	+	843
OTTHUMG00000014304	OTTHUMT00000039944	chr6:17218705-17228968	+	713
OTTHUMG00000014305	OTTHUMT00000039945	chr6:17236148-17239582	+	2083
OTTHUMG00000014323	OTTHUMT00000039967	chr6:19151959-19169046	+	195
OTTHUMG00000014325	OTTHUMT00000039969	chr6:19398529-19429231	-	379
OTTHUMG00000014332	OTTHUMT00000039978	chr6:19798035-19861323	-	188
OTTHUMG00000014331	OTTHUMT00000039976	chr6:19838637-19842777	-	468
OTTHUMG00000014332	OTTHUMT00000039977	chr6:19848387-19857903	-	209
OTTHUMG00000014330	OTTHUMT00000039975	chr6:19911581-19912856	-	1014
OTTHUMG00000014330	OTTHUMT00000039974	chr6:19911817-19912952	-	370
OTTHUMG00000014341	OTTHUMT00000039988	chr6:21462621-21463506	+	385
OTTHUMG00000014342	OTTHUMT00000039989	chr6:21630686-21631982	-	541
OTTHUMG00000014344	OTTHUMT00000039991	chr6:22088793-22089680	-	363
OTTHUMG00000014345	OTTHUMT00000039992	chr6:22164754-22219136	+	325
OTTHUMG00000014347	OTTHUMT00000039994	chr6:22697345-22702041	-	739
OTTHUMG00000014350	OTTHUMT00000039997	chr6:23445918-23454767	+	308
OTTHUMG00000014382	OTTHUMT00000040034	chr6:25150046-25164871	+	574
OTTHUMG00000014379	OTTHUMT00000040031	chr6:25161834-25165280	-	426
OTTHUMG00000014380	OTTHUMT00000040032	chr6:25169832-25171714	-	469
OTTHUMG00000014456	OTTHUMT00000040121	chr6:26630055-26634786	+	4731
OTTHUMG00000014466	OTTHUMT00000040133	chr6:27096211-27099682	+	504
OTTHUMG00000014466	OTTHUMT00000040134	chr6:27096394-27099682	+	336
OTTHUMG00000014513	OTTHUMT00000040181	chr6:28237538-28245351	+	1623
OTTHUMG00000016245	OTTHUMT00000043560	chr6:28724042-28724822	-	535
OTTHUMG00000084883	OTTHUMT00000192595	chr6:28913625-28914762	-	707
OTTHUMG000000031281	OTTHUMT00000076613	chr6:28972286-28973078	+	411
OTTHUMG000000031267	OTTHUMT00000076582	chr6:29061959-29063240	+	1029
OTTHUMG000000031270	OTTHUMT00000076588	chr6:29062556-29064292	+	315
OTTHUMG00000085915	OTTHUMT00000193728	chr6:29199966-29204664	+	387
OTTHUMG00000086581	OTTHUMT00000194570	chr6:29573265-29586312	+	873
OTTHUMG00000065812	OTTHUMT00000140988	chr6:29605176-29609324	+	2774
OTTHUMG00000065812	OTTHUMT00000194569	chr6:29605232-29607913	+	395
OTTHUMG00000132773	OTTHUMT00000256179	chr6:30592022-30594973	+	849
OTTHUMG000000031193	OTTHUMT00000076389	chr6:30842581-30868006	+	1198
OTTHUMG000000031193	OTTHUMT00000257580	chr6:30857714-30868006	+	1173
OTTHUMG00000133550	OTTHUMT00000257578	chr6:30915282-30923915	-	796
OTTHUMG000000031229	OTTHUMT00000076474	chr6:30942738-30951674	-	3992
OTTHUMG00000133673	OTTHUMT00000257856	chr6:31105668-31110464	+	609
OTTHUMG000000031179	OTTHUMT00000076351	chr6:31129963-31135632	+	1977
OTTHUMG000000031054	OTTHUMT00000156311	chr6:31249491-31253655	-	590
OTTHUMG00000133747	OTTHUMT00000258150	chr6:31517423-31522729	+	2139
OTTHUMG00000140119	OTTHUMT00000276168	chr6:32793760-32794582	+	379
OTTHUMG00000140119	OTTHUMT00000276169	chr6:32793785-32794587	+	393

OTTHUMG00000140119	OTTHUMT00000276170	chr6:32794140-32794590	+	300
OTTHUMG00000031166	OTTHUMT00000076308	chr6:33220538-33223522	+	715
OTTHUMG00000014537	OTTHUMT00000040212	chr6:33989839-34000438	+	564
OTTHUMG00000014542	OTTHUMT00000040220	chr6:34355460-34360244	+	4784
OTTHUMG00000014544	OTTHUMT00000040223	chr6:34360245-34362523	+	2278
OTTHUMG00000014573	OTTHUMT00000040303	chr6:35620387-35621424	+	592
OTTHUMG00000014610	OTTHUMT00000040379	chr6:37015841-37020429	+	477
OTTHUMG00000014621	OTTHUMT00000040405	chr6:37619307-37622509	-	732
OTTHUMG00000014622	OTTHUMT00000040406	chr6:37622306-37623468	+	511
OTTHUMG00000014623	OTTHUMT00000040407	chr6:37625758-37626614	+	440
OTTHUMG00000014631	OTTHUMT00000040429	chr6:38238555-38239558	-	437
OTTHUMG00000014635	OTTHUMT00000040437	chr6:38789805-38790971	+	398
OTTHUMG00000014657	OTTHUMT00000040480	chr6:40347283-40351954	-	536
OTTHUMG00000014660	OTTHUMT00000040485	chr6:40410671-40455602	+	914
OTTHUMG00000014660	OTTHUMT00000040486	chr6:40416182-40455602	+	739
OTTHUMG00000014659	OTTHUMT00000040482	chr6:40434461-40445191	-	822
OTTHUMG00000014660	OTTHUMT00000040483	chr6:40454054-40455602	+	1012
OTTHUMG00000014660	OTTHUMT00000040484	chr6:40454054-40455602	+	1163
OTTHUMG00000014664	OTTHUMT00000040490	chr6:40789128-40791080	-	610
OTTHUMG00000014672	OTTHUMT00000040501	chr6:41215572-41216548	-	447
OTTHUMG00000014672	OTTHUMT00000040502	chr6:41215643-41216548	-	512
OTTHUMG00000014672	OTTHUMT00000040503	chr6:41215779-41216548	-	376
OTTHUMG00000046223	OTTHUMT00000106561	chr6:41457108-41457548	-	440
OTTHUMG00000046224	OTTHUMT00000106562	chr6:41481535-41482277	+	742
OTTHUMG00000014707	OTTHUMT00000040563	chr6:43016080-43019686	+	675
OTTHUMG00000014749	OTTHUMT00000040694	chr6:43798501-43813549	-	345
OTTHUMG00000014751	OTTHUMT00000040698	chr6:43927472-43928048	-	392
OTTHUMG00000014754	OTTHUMT00000040705	chr6:44149628-44153667	+	1606
OTTHUMG00000014768	OTTHUMT00000040744	chr6:44600974-44602469	+	470
OTTHUMG00000014791	OTTHUMT00000040804	chr6:46829442-46834120	+	2549
OTTHUMG00000014792	OTTHUMT00000040805	chr6:46833992-46836854	-	759
OTTHUMG00000014802	OTTHUMT00000040822	chr6:47805522-47816436	-	195
OTTHUMG00000014825	OTTHUMT00000040873	chr6:49892427-49893157	+	158
OTTHUMG00000014826	OTTHUMT00000040874	chr6:49893102-49896114	+	378
OTTHUMG00000014828	OTTHUMT00000040876	chr6:49899384-49900454	-	397
OTTHUMG00000014829	OTTHUMT00000040877	chr6:50169383-50174954	+	690
OTTHUMG00000014830	OTTHUMT00000040878	chr6:50589707-50596776	+	283
OTTHUMG00000014831	OTTHUMT00000040880	chr6:50663279-50712537	-	441
OTTHUMG00000014831	OTTHUMT00000040879	chr6:50674263-50712877	-	558
OTTHUMG00000014842	OTTHUMT00000040895	chr6:52119571-52124182	-	514
OTTHUMG00000014878	OTTHUMT00000040960	chr6:53355094-53355491	-	354
OTTHUMG00000014879	OTTHUMT00000040961	chr6:53542048-53546022	-	379
OTTHUMG00000014881	OTTHUMT00000040964	chr6:53601137-53604151	+	563
OTTHUMG00000014883	OTTHUMT00000040966	chr6:53713506-53719779	-	847
OTTHUMG00000014887	OTTHUMT00000040975	chr6:53902938-53970052	+	2593

OTTHUMG00000014886	OTTHUMT00000040974	chr6:53927195-53927853	-	599
OTTHUMG00000014890	OTTHUMT00000040978	chr6:53971647-53979909	+	639
OTTHUMG00000014898	OTTHUMT00000040993	chr6:54812875-54813612	-	584
OTTHUMG00000014922	OTTHUMT00000041048	chr6:57798854-57799604	+	313
OTTHUMG00000014933	OTTHUMT00000041063	chr6:58596847-58596986	+	139
OTTHUMG00000014954	OTTHUMT00000041090	chr6:64574688-64590494	+	1452
OTTHUMG00000014957	OTTHUMT00000041093	chr6:65145647-65179393	+	521
OTTHUMG00000014978	OTTHUMT00000041116	chr6:68821964-68827115	+	490
OTTHUMG00000014979	OTTHUMT00000041117	chr6:68993585-69096512	-	670
OTTHUMG00000014981	OTTHUMT00000041119	chr6:69399276-69400937	-	532
OTTHUMG00000014989	OTTHUMT00000041135	chr6:71161311-71165841	+	394
OTTHUMG00000015002	OTTHUMT00000041156	chr6:72095366-72096230	+	350
OTTHUMG00000015006	OTTHUMT00000041155	chr6:72110768-72186527	-	658
OTTHUMG00000015006	OTTHUMT00000041167	chr6:72111010-72186690	-	662
OTTHUMG00000015006	OTTHUMT00000041168	chr6:72180870-72187193	-	2953
OTTHUMG00000015006	OTTHUMT00000041165	chr6:72182808-72186691	-	448
OTTHUMG00000015006	OTTHUMT00000041166	chr6:72182901-72186691	-	471
OTTHUMG00000015005	OTTHUMT00000041164	chr6:72217258-72225298	+	450
OTTHUMG00000015045	OTTHUMT00000041236	chr6:75408820-75418438	+	439
OTTHUMG00000015064	OTTHUMT00000041290	chr6:77288887-77360059	+	566
OTTHUMG000000153472	OTTHUMT000000331298	chr6:78457261-78527590	+	102
OTTHUMG00000015068	OTTHUMT00000041294	chr6:79370903-79372472	-	385
OTTHUMG00000015069	OTTHUMT00000041295	chr6:79576151-79579739	-	2630
OTTHUMG00000015075	OTTHUMT00000041303	chr6:80036814-80037388	+	258
OTTHUMG00000015079	OTTHUMT00000041307	chr6:80186733-80187741	+	471
OTTHUMG00000015082	OTTHUMT00000041310	chr6:80570019-80573661	-	478
OTTHUMG00000015084	OTTHUMT00000041312	chr6:80638309-80641046	+	323
OTTHUMG00000015092	OTTHUMT00000041321	chr6:81209780-81232363	+	678
OTTHUMG00000015092	OTTHUMT00000041323	chr6:81209892-81229643	+	754
OTTHUMG00000015092	OTTHUMT00000041322	chr6:81209892-81232291	+	727
OTTHUMG00000015099	OTTHUMT00000041334	chr6:82579722-82580593	-	518
OTTHUMG00000015101	OTTHUMT00000041336	chr6:82611621-82699916	-	819
OTTHUMG00000015116	OTTHUMT00000041359	chr6:84494493-84502963	-	349
OTTHUMG00000015119	OTTHUMT00000041365	chr6:84750166-84773761	+	831
OTTHUMG00000015120	OTTHUMT00000041366	chr6:84789493-84790991	+	338
OTTHUMG00000015137	OTTHUMT00000041386	chr6:86153656-86156623	-	2511
OTTHUMG00000015172	OTTHUMT00000041439	chr6:88138030-88159238	+	538
OTTHUMG00000015187	OTTHUMT00000041466	chr6:89065388-89187471	-	302
OTTHUMG00000015211	OTTHUMT00000041506	chr6:90686636-90688200	+	754
OTTHUMG00000015218	OTTHUMT00000041535	chr6:92156752-92159439	-	439
OTTHUMG00000015221	OTTHUMT00000041538	chr6:92396354-92456867	-	729
OTTHUMG00000015224	OTTHUMT00000041541	chr6:93489442-93490268	-	591
OTTHUMG00000015229	OTTHUMT00000041547	chr6:94653339-94655849	+	482
OTTHUMG00000015230	OTTHUMT00000041548	chr6:94930359-94961097	+	263
OTTHUMG00000015244	OTTHUMT00000041565	chr6:97339734-97350418	+	478

OTTHUMG00000015250	OTTHUMT00000041578	chr6:98256878-98262700	+	499
OTTHUMG00000015251	OTTHUMT00000041579	chr6:98262356-98287309	+	355
OTTHUMG00000015252	OTTHUMT00000041580	chr6:98265550-98271794	-	496
OTTHUMG00000015254	OTTHUMT00000041582	chr6:98764617-98769280	+	769
OTTHUMG00000015255	OTTHUMT00000041583	chr6:98829743-98834456	+	224
OTTHUMG00000015256	OTTHUMT00000041584	chr6:99113031-99113168	+	137
OTTHUMG00000015265	OTTHUMT00000041605	chr6:100075290-100086437	+	878
OTTHUMG00000015298	OTTHUMT00000041660	chr6:106167235-106186764	-	583
OTTHUMG00000015300	OTTHUMT00000041665	chr6:106913134-106914285	-	412
OTTHUMG00000015306	OTTHUMT00000041683	chr6:107250103-107254562	+	416
OTTHUMG00000015305	OTTHUMT00000041679	chr6:107272020-107341993	-	1380
OTTHUMG00000015305	OTTHUMT00000041678	chr6:107272560-107341999	-	799
OTTHUMG00000015305	OTTHUMT00000041680	chr6:107279183-107294655	-	646
OTTHUMG00000015305	OTTHUMT00000041676	chr6:107301653-107326861	-	258
OTTHUMG00000015305	OTTHUMT00000041677	chr6:107301658-107342042	-	567
OTTHUMG00000015305	OTTHUMT00000041682	chr6:107301818-107342003	-	524
OTTHUMG00000015305	OTTHUMT00000041681	chr6:107326686-107342047	-	624
OTTHUMG00000015320	OTTHUMT00000041714	chr6:108551412-108584595	+	715
OTTHUMG00000015320	OTTHUMT00000041713	chr6:108551530-108587289	+	3332
OTTHUMG00000015322	OTTHUMT00000041716	chr6:108703539-108704443	+	630
OTTHUMG00000015330	OTTHUMT000000317438	chr6:109179550-109196352	+	1782
OTTHUMG00000015330	OTTHUMT000000317437	chr6:109179550-109197014	+	591
OTTHUMG00000015330	OTTHUMT000000317439	chr6:109179552-109197838	+	1746
OTTHUMG00000015330	OTTHUMT000000317440	chr6:109179714-109196352	+	597
OTTHUMG00000015330	OTTHUMT000000317441	chr6:109187057-109197014	+	595
OTTHUMG00000015330	OTTHUMT000000317442	chr6:109187061-109197014	+	1113
OTTHUMG00000015330	OTTHUMT00000041725	chr6:109187357-109196901	+	324
OTTHUMG00000015353	OTTHUMT00000041773	chr6:110254418-110256681	+	463
OTTHUMG00000015374	OTTHUMT00000041829	chr6:111705828-111706638	+	555
OTTHUMG00000015381	OTTHUMT00000041866	chr6:112328385-112329747	+	760
OTTHUMG00000015393	OTTHUMT00000041888	chr6:112904433-112909531	-	486
OTTHUMG00000015398	OTTHUMT00000041893	chr6:113784898-113795839	-	504
OTTHUMG00000015399	OTTHUMT00000041895	chr6:113856435-113861316	-	522
OTTHUMG00000015399	OTTHUMT00000041894	chr6:113856446-113860536	-	509
OTTHUMG00000015400	OTTHUMT00000041896	chr6:113959013-113971688	+	594
OTTHUMG00000015401	OTTHUMT00000041897	chr6:114051430-114077969	-	324
OTTHUMG00000015401	OTTHUMT00000041898	chr6:114051674-114060409	-	462
OTTHUMG00000015403	OTTHUMT00000041900	chr6:114219725-114265249	+	373
OTTHUMG00000015405	OTTHUMT00000041902	chr6:114297855-114298592	-	411
OTTHUMG00000015409	OTTHUMT00000041907	chr6:114423826-114427655	+	352
OTTHUMG00000015414	OTTHUMT00000041913	chr6:114543973-114560160	+	340
OTTHUMG00000015415	OTTHUMT00000041914	chr6:114595334-114596297	-	287
OTTHUMG00000015417	OTTHUMT00000041916	chr6:114657998-114667056	+	556
OTTHUMG00000015418	OTTHUMT00000041917	chr6:114905207-114916538	-	249
OTTHUMG00000015418	OTTHUMT00000041918	chr6:114909282-114916609	-	784

OTTHUMG00000015419	OTTHUMT00000041919	chr6:114951308-114963732	-	400
OTTHUMG00000015421	OTTHUMT00000041921	chr6:116061399-116062048	-	281
OTTHUMG00000015478	OTTHUMT00000042022	chr6:121752735-121753726	+	268
OTTHUMG00000015493	OTTHUMT00000042044	chr6:123433143-123435761	+	2618
OTTHUMG00000015494	OTTHUMT00000042045	chr6:123434015-123434763	+	658
OTTHUMG00000015507	OTTHUMT00000042070	chr6:125733056-125737169	-	818
OTTHUMG00000015508	OTTHUMT00000042071	chr6:125788472-125808028	-	278
OTTHUMG00000015509	OTTHUMT00000042072	chr6:126037198-126080937	+	839
OTTHUMG00000015516	OTTHUMT00000042102	chr6:126540032-126565078	+	579
OTTHUMG00000015548	OTTHUMT00000042188	chr6:129889464-129915425	-	721
OTTHUMG00000015548	OTTHUMT00000042189	chr6:129902186-129909466	-	355
OTTHUMG00000015558	OTTHUMT00000042202	chr6:131060150-131060616	+	333
OTTHUMG00000055854	OTTHUMT000000125838	chr6:132264796-132283398	+	2303
OTTHUMG00000055854	OTTHUMT000000316059	chr6:132264797-132270363	+	598
OTTHUMG00000055854	OTTHUMT000000316060	chr6:132266481-132270363	+	710
OTTHUMG00000055852	OTTHUMT000000316065	chr6:132447917-132462112	+	550
OTTHUMG00000055852	OTTHUMT000000125834	chr6:132453366-132462059	+	488
OTTHUMG00000015574	OTTHUMT000000316061	chr6:132494748-132499766	+	1827
OTTHUMG00000015574	OTTHUMT00000042240	chr6:132496811-132509891	+	1343
OTTHUMG00000015574	OTTHUMT00000042241	chr6:132497244-132532207	+	566
OTTHUMG00000015574	OTTHUMT00000042242	chr6:132523597-132532194	+	510
OTTHUMG00000015574	OTTHUMT00000042243	chr6:132523598-132527324	+	743
OTTHUMG00000015607	OTTHUMT00000042291	chr6:134123016-134208782	-	241
OTTHUMG00000015606	OTTHUMT00000042289	chr6:134183978-134214119	+	810
OTTHUMG00000015606	OTTHUMT00000042290	chr6:134200015-134214631	+	772
OTTHUMG00000015618	OTTHUMT00000042327	chr6:134969130-134972268	-	477
OTTHUMG00000015619	OTTHUMT00000042328	chr6:134999320-135005326	+	367
OTTHUMG00000015621	OTTHUMT00000042332	chr6:135068891-135070180	-	927
OTTHUMG00000015628	OTTHUMT00000042346	chr6:135622827-135623764	+	214
OTTHUMG00000015634	OTTHUMT00000042362	chr6:135992236-135993099	-	529
OTTHUMG00000015637	OTTHUMT00000042366	chr6:136169979-136171297	-	775
OTTHUMG00000015652	OTTHUMT00000042390	chr6:137344995-137356064	-	1354
OTTHUMG00000015652	OTTHUMT00000042391	chr6:137344995-137356064	-	1346
OTTHUMG00000015659	OTTHUMT00000042407	chr6:138036290-138037384	+	520
OTTHUMG00000015661	OTTHUMT00000042409	chr6:138093000-138101813	-	734
OTTHUMG00000015661	OTTHUMT00000042410	chr6:138093000-138101813	-	701
OTTHUMG00000015662	OTTHUMT00000042411	chr6:138186503-138188724	-	1023
OTTHUMG00000015665	OTTHUMT00000042419	chr6:138305909-138308632	-	571
OTTHUMG00000015667	OTTHUMT00000042422	chr6:138308196-138314404	+	533
OTTHUMG00000015667	OTTHUMT00000042421	chr6:138308196-138335352	+	379
OTTHUMG00000015690	OTTHUMT00000042462	chr6:139670512-139671052	-	489
OTTHUMG00000015693	OTTHUMT00000042465	chr6:139832994-139835885	-	487
OTTHUMG00000015697	OTTHUMT00000042470	chr6:140217680-140222638	+	705
OTTHUMG00000015697	OTTHUMT00000042469	chr6:140217749-140222981	+	953
OTTHUMG00000015698	OTTHUMT00000042471	chr6:140218934-140240221	-	784

OTTHUMG00000015699	OTTHUMT00000042472	chr6:140430265-140456551	+	1249
OTTHUMG00000015699	OTTHUMT00000042473	chr6:140445925-140451260	+	873
OTTHUMG00000015699	OTTHUMT00000042474	chr6:140449512-140456495	+	753
OTTHUMG00000015700	OTTHUMT00000042475	chr6:141208788-141215754	-	451
OTTHUMG00000015706	OTTHUMT00000042482	chr6:142495920-142497981	+	910
OTTHUMG00000015708	OTTHUMT00000042486	chr6:142614677-142622462	-	347
OTTHUMG00000015712	OTTHUMT00000042494	chr6:142889285-143000719	-	2290
OTTHUMG00000015716	OTTHUMT00000042500	chr6:143313041-143319476	+	551
OTTHUMG00000015718	OTTHUMT00000042502	chr6:143329254-143400412	-	1897
OTTHUMG00000015718	OTTHUMT00000042503	chr6:143329863-143384783	-	780
OTTHUMG00000015720	OTTHUMT00000042505	chr6:143402255-143405154	-	550
OTTHUMG00000015760	OTTHUMT00000042589	chr6:147222010-147225910	+	452
OTTHUMG00000015761	OTTHUMT00000042590	chr6:147521754-147543821	+	450
OTTHUMG00000015764	OTTHUMT00000042603	chr6:147750493-147753294	+	1475
OTTHUMG00000015769	OTTHUMT00000042615	chr6:148023532-148316766	+	770
OTTHUMG00000015769	OTTHUMT00000042612	chr6:148023566-148100385	+	403
OTTHUMG00000015769	OTTHUMT00000042613	chr6:148038904-148100385	+	401
OTTHUMG00000015769	OTTHUMT00000042614	chr6:148055227-148100385	+	410
OTTHUMG00000015768	OTTHUMT00000042611	chr6:148104263-148106153	-	601
OTTHUMG00000015770	OTTHUMT00000042616	chr6:148380251-148383803	-	443
OTTHUMG00000015771	OTTHUMT00000042617	chr6:148496638-148500233	-	424
OTTHUMG00000015782	OTTHUMT00000042631	chr6:149580755-149584116	+	796
OTTHUMG00000015782	OTTHUMT00000042630	chr6:149580830-149592988	+	463
OTTHUMG00000015782	OTTHUMT00000042632	chr6:149581527-149606901	+	421
OTTHUMG00000015781	OTTHUMT00000042629	chr6:149606128-149606830	-	560
OTTHUMG00000015791	OTTHUMT00000042647	chr6:149923981-149926778	+	376
OTTHUMG00000015830	OTTHUMT00000042709	chr6:151559509-151560466	-	802
OTTHUMG00000015852	OTTHUMT00000042754	chr6:153157324-153194741	-	439
OTTHUMG00000015852	OTTHUMT00000042755	chr6:153167581-153167956	-	242
OTTHUMG00000015860	OTTHUMT00000042775	chr6:153667423-153671810	-	435
OTTHUMG00000015884	OTTHUMT00000042820	chr6:155743337-155744009	-	552
OTTHUMG00000015885	OTTHUMT00000042822	chr6:156856052-156862597	-	530
OTTHUMG00000015885	OTTHUMT00000042821	chr6:156860572-156861792	-	398
OTTHUMG00000015922	OTTHUMT00000042889	chr6:159405748-159406293	-	329
OTTHUMG00000015925	OTTHUMT00000042895	chr6:159448811-159457073	+	841
OTTHUMG00000015926	OTTHUMT00000042896	chr6:159506929-159508373	+	383
OTTHUMG00000015930	OTTHUMT00000042902	chr6:159694944-159695695	-	418
OTTHUMG00000015931	OTTHUMT00000042903	chr6:159724553-159737465	+	769
OTTHUMG000000141283	OTTHUMT000000280510	chr6:159927977-159930191	-	2000
OTTHUMG00000015939	OTTHUMT00000042920	chr6:159980329-159981123	-	739
OTTHUMG00000015943	OTTHUMT00000042929	chr6:160240208-160243532	+	593
OTTHUMG00000015949	OTTHUMT00000042942	chr6:160613639-160617152	+	465
OTTHUMG00000015954	OTTHUMT00000042954	chr6:161039310-161041654	+	290
OTTHUMG00000015954	OTTHUMT00000042955	chr6:161039515-161041654	+	120
OTTHUMG00000015958	OTTHUMT00000042967	chr6:161156572-161158373	-	1187

OTTHUMG00000015961	OTTHUMT00000042973	chr6:161267391-161268184	+	377
OTTHUMG00000015962	OTTHUMT00000042974	chr6:161272102-161310793	+	569
OTTHUMG00000015978	OTTHUMT00000043019	chr6:163927605-163929187	+	598
OTTHUMG00000015979	OTTHUMT00000043020	chr6:164044926-164100863	+	717
OTTHUMG00000015980	OTTHUMT00000043021	chr6:164449642-164450716	-	446
OTTHUMG00000015981	OTTHUMT00000043022	chr6:164687512-164689667	-	464
OTTHUMG00000015982	OTTHUMT00000043023	chr6:165161229-165163096	+	309
OTTHUMG00000015988	OTTHUMT00000043033	chr6:166087667-166109258	+	1120
OTTHUMG00000015989	OTTHUMT00000043034	chr6:166106679-166108664	-	357
OTTHUMG00000015993	OTTHUMT00000043040	chr6:166433143-166446751	+	1032
OTTHUMG00000016006	OTTHUMT00000043074	chr6:167237176-167238313	+	625
OTTHUMG00000016020	OTTHUMT00000043124	chr6:167570986-167573958	-	577
OTTHUMG00000016019	OTTHUMT00000043123	chr6:167575369-167579394	+	203
OTTHUMG00000016038	OTTHUMT00000043184	chr6:168120111-168121902	-	273
OTTHUMG00000016040	OTTHUMT00000043187	chr6:168337887-168348030	+	447
OTTHUMG00000016041	OTTHUMT00000043188	chr6:168368808-168370046	-	453
OTTHUMG00000016042	OTTHUMT00000043189	chr6:168373261-168384244	+	470
OTTHUMG00000016043	OTTHUMT00000043190	chr6:168386467-168406110	+	2241
OTTHUMG00000016045	OTTHUMT00000043192	chr6:168443712-168445643	-	443
OTTHUMG00000016049	OTTHUMT00000043200	chr6:168858670-168865529	+	554
OTTHUMG00000016053	OTTHUMT00000043209	chr6:169104630-169106361	-	912
OTTHUMG00000016052	OTTHUMT00000043208	chr6:169176217-169177662	-	932
OTTHUMG00000016051	OTTHUMT00000043206	chr6:169209838-169211436	+	391
OTTHUMG00000016051	OTTHUMT00000043207	chr6:169209919-169211444	+	302
OTTHUMG00000016054	OTTHUMT00000043210	chr6:169300112-169304944	-	645
OTTHUMG00000016054	OTTHUMT000000105434	chr6:169300281-169304321	-	599
OTTHUMG00000045406	OTTHUMT000000105437	chr6:169428554-169429496	-	652
OTTHUMG00000045406	OTTHUMT000000105436	chr6:169428554-169431236	-	476
OTTHUMG00000016055	OTTHUMT00000043212	chr6:169512018-169530405	-	586
OTTHUMG00000016055	OTTHUMT00000043211	chr6:169515701-169530405	-	2280
OTTHUMG00000016062	OTTHUMT00000043229	chr6:169867112-169867875	-	400
OTTHUMG00000016063	OTTHUMT00000043230	chr6:169867525-169881013	+	333
OTTHUMG00000016072	OTTHUMT00000043247	chr6:169951339-169952123	-	692
OTTHUMG00000016073	OTTHUMT00000043248	chr6:170319666-170320176	+	427
OTTHUMG00000016075	OTTHUMT00000043250	chr6:170405347-170413582	-	1327
OTTHUMG00000016077	OTTHUMT00000043253	chr6:170426387-170430482	+	316
OTTHUMG00000016077	OTTHUMT00000043252	chr6:170427952-170430482	+	344
OTTHUMG00000016088	OTTHUMT00000043280	chr6:170846326-170847963	+	803
OTTHUMG00000016089	OTTHUMT00000043281	chr6:170876210-170879501	+	756
OTTHUMG00000016090	OTTHUMT00000043282	chr6:170886764-170887558	+	331
OTTHUMG00000016092	OTTHUMT00000043284	chr6:170887186-170888790	-	436
OTTHUMG000000151399	OTTHUMT000000322474	chr7:36367-54637	-	676
OTTHUMG000000151399	OTTHUMT000000322473	chr7:45934-59133	-	931
OTTHUMG000000151404	OTTHUMT000000322487	chr7:84840-93617	-	347
OTTHUMG000000151404	OTTHUMT000000322486	chr7:87617-93849	-	645

OTTHUMG00000151404	OTTHUMT00000322484	chr7:87699-98231	-	428
OTTHUMG00000151396	OTTHUMT00000322467	chr7:89518-90597	+	455
OTTHUMG00000151404	OTTHUMT00000322481	chr7:93442-130563	-	1895
OTTHUMG00000151404	OTTHUMT00000322483	chr7:93609-102930	-	487
OTTHUMG00000151404	OTTHUMT00000322485	chr7:97102-98194	-	361
OTTHUMG00000151404	OTTHUMT00000322482	chr7:112690-130529	-	1001
OTTHUMG00000151403	OTTHUMT00000322480	chr7:166055-166918	-	757
OTTHUMG00000151400	OTTHUMT00000322475	chr7:172121-175501	+	603
OTTHUMG00000151405	OTTHUMT00000322488	chr7:230936-244445	-	658
OTTHUMG00000151405	OTTHUMT00000322489	chr7:239527-240513	-	503
OTTHUMG00000151405	OTTHUMT00000322490	chr7:243411-244549	-	427
OTTHUMG00000151405	OTTHUMT00000322491	chr7:243412-244521	-	494
OTTHUMG00000151398	OTTHUMT00000322469	chr7:244680-250548	+	5006
OTTHUMG00000151398	OTTHUMT00000322470	chr7:244814-248573	+	588
OTTHUMG00000151398	OTTHUMT00000322471	chr7:244861-249021	+	883
OTTHUMG00000151398	OTTHUMT00000322472	chr7:247762-248906	+	551
OTTHUMG00000151402	OTTHUMT00000322479	chr7:270003-271096	+	565
OTTHUMG00000151413	OTTHUMT00000322539	chr7:490270-502281	-	417
OTTHUMG00000152023	OTTHUMT00000324911	chr7:1273515-1275429	+	431
OTTHUMG00000151728	OTTHUMT00000323690	chr7:1514817-1515589	-	240
OTTHUMG00000151498	OTTHUMT00000322898	chr7:1626816-1627567	+	435
OTTHUMG00000151495	OTTHUMT00000322893	chr7:1715250-1751313	+	1011
OTTHUMG00000151496	OTTHUMT00000322894	chr7:1744792-1748434	-	635
OTTHUMG00000151496	OTTHUMT00000322895	chr7:1745145-1748453	-	634
OTTHUMG00000151516	OTTHUMT00000322975	chr7:2390282-2394758	+	606
OTTHUMG00000152044	OTTHUMT00000325029	chr7:2443924-2454011	+	2065
OTTHUMG00000152108	OTTHUMT00000325234	chr7:2723993-2729148	-	3286
OTTHUMG00000152116	OTTHUMT00000325282	chr7:3089412-3092581	-	435
OTTHUMG00000151735	OTTHUMT00000323712	chr7:3202784-3204414	-	415
OTTHUMG00000151887	OTTHUMT00000324257	chr7:6087260-6091413	+	521
OTTHUMG00000151887	OTTHUMT00000324256	chr7:6087260-6099209	+	543
OTTHUMG00000151887	OTTHUMT00000324258	chr7:6087828-6099242	+	536
OTTHUMG00000151853	OTTHUMT00000324169	chr7:6621773-6627705	+	1113
OTTHUMG00000152026	OTTHUMT00000324926	chr7:7956009-7956865	-	690
OTTHUMG00000151925	OTTHUMT00000324434	chr7:9743476-9775667	+	613
OTTHUMG00000151921	OTTHUMT00000324427	chr7:9967176-9987969	+	358
OTTHUMG00000151923	OTTHUMT00000324429	chr7:10708828-10713558	+	447
OTTHUMG00000152349	OTTHUMT00000325955	chr7:13107541-13108539	+	573
OTTHUMG00000152349	OTTHUMT00000326010	chr7:13107622-13710299	+	521
OTTHUMG00000152350	OTTHUMT00000325956	chr7:13345351-13371199	-	837
OTTHUMG00000152366	OTTHUMT00000326000	chr7:13860505-13865175	-	357
OTTHUMG00000152389	OTTHUMT00000326054	chr7:15072357-15074801	+	651
OTTHUMG00000152388	OTTHUMT00000326053	chr7:15694528-15701641	+	695
OTTHUMG00000152392	OTTHUMT00000326060	chr7:15695225-15697004	-	310
OTTHUMG00000152394	OTTHUMT00000326062	chr7:15847447-15848510	-	326

OTTHUMG00000152729	OTTHUMT00000327606	chr7:17381016-17472813	+	833
OTTHUMG00000152727	OTTHUMT00000327603	chr7:17440626-17466821	-	584
OTTHUMG00000152727	OTTHUMT00000327604	chr7:17442179-17463585	-	385
OTTHUMG00000152731	OTTHUMT00000327610	chr7:17469594-17565058	-	438
OTTHUMG00000152728	OTTHUMT00000327605	chr7:17685698-17686808	+	271
OTTHUMG00000152496	OTTHUMT00000326462	chr7:19118622-19120419	+	1709
OTTHUMG00000152498	OTTHUMT00000326466	chr7:19126081-19128064	+	690
OTTHUMG00000152489	OTTHUMT00000326428	chr7:19359682-19584754	+	560
OTTHUMG00000152511	OTTHUMT00000326541	chr7:19819833-19837564	-	648
OTTHUMG00000152502	OTTHUMT00000326472	chr7:20302856-20317860	+	1119
OTTHUMG00000152502	OTTHUMT00000326474	chr7:20304442-20306773	+	373
OTTHUMG00000152502	OTTHUMT00000326473	chr7:20311859-20317860	+	989
OTTHUMG00000152530	OTTHUMT00000326621	chr7:22569481-22580140	+	2428
OTTHUMG00000152532	OTTHUMT00000326623	chr7:22577751-22667936	-	1280
OTTHUMG00000152531	OTTHUMT00000326622	chr7:22595849-22597766	+	555
OTTHUMG00000150712	OTTHUMT00000319722	chr7:22656104-22671677	-	2587
OTTHUMG00000152653	OTTHUMT00000327184	chr7:23212157-23214189	+	1997
OTTHUMG00000152567	OTTHUMT00000326774	chr7:24202806-24261863	-	525
OTTHUMG00000152596	OTTHUMT00000326928	chr7:25327446-25332959	-	359
OTTHUMG00000152593	OTTHUMT00000326921	chr7:25553907-25557207	-	207
OTTHUMG00000152862	OTTHUMT00000328277	chr7:26557966-26563344	+	2779
OTTHUMG00000152862	OTTHUMT00000328279	chr7:26557983-26561258	+	573
OTTHUMG00000152862	OTTHUMT00000328278	chr7:26558040-26561420	+	568
OTTHUMG00000150031	OTTHUMT00000315832	chr7:27192717-27199592	-	554
OTTHUMG00000065280	OTTHUMT00000317667	chr7:27208165-27213378	+	2601
OTTHUMG00000065280	OTTHUMT00000140062	chr7:27208174-27213403	+	3155
OTTHUMG00000065292	OTTHUMT00000140107	chr7:27245387-27247372	-	755
OTTHUMG00000133703	OTTHUMT00000257963	chr7:27367987-27416082	+	562
OTTHUMG00000065294	OTTHUMT00000140109	chr7:27386706-27387350	+	644
OTTHUMG00000064693	OTTHUMT00000139052	chr7:27418308-27419035	+	727
OTTHUMG00000152858	OTTHUMT00000328270	chr7:28993169-28995040	+	576
OTTHUMG00000152754	OTTHUMT00000327682	chr7:29642552-29644065	+	804
OTTHUMG00000152762	OTTHUMT00000327706	chr7:30182528-30185155	-	672
OTTHUMG00000152789	OTTHUMT00000327891	chr7:30590841-30592113	-	750
OTTHUMG00000152878	OTTHUMT00000328336	chr7:31420784-31427425	-	571
OTTHUMG00000153006	OTTHUMT00000328965	chr7:34215663-34262480	+	508
OTTHUMG00000063284	OTTHUMT00000137349	chr7:89779746-89789842	+	730
OTTHUMG00000133696	OTTHUMT00000257953	chr7:114488827-114658645	-	559
OTTHUMG00000065346	OTTHUMT00000140193	chr7:114506248-114553604	+	1183
OTTHUMG00000065346	OTTHUMT00000140192	chr7:114506288-114553081	+	741
OTTHUMG00000066051	OTTHUMT00000141445	chr7:115702896-115713954	-	1955
OTTHUMG00000066048	OTTHUMT00000141439	chr7:115990884-115998524	-	690
OTTHUMG00000064097	OTTHUMT00000138331	chr7:115998250-116001034	-	467
OTTHUMG00000064097	OTTHUMT00000315762	chr7:115998442-116041973	-	465
OTTHUMG00000064097	OTTHUMT00000316598	chr7:116000775-116042110	-	623

OTTHUMG00000150172	OTTHUMT00000316690	chr7:117426148-117431335	-	432
OTTHUMG00000066283	OTTHUMT00000141830	chr7:126777123-126777583	-	460
OTTHUMG00000148663	OTTHUMT00000308984	chr7:126777418-126778813	+	514
OTTHUMG00000066284	OTTHUMT00000141831	chr7:126787075-126792049	-	4974
OTTHUMG00000064344	OTTHUMT00000138623	chr7:126904173-126913094	+	953
OTTHUMG00000043895	OTTHUMT00000102291	chr7:130216291-130248609	-	2224
OTTHUMG00000152719	OTTHUMT00000327545	chr7:145003908-145009395	-	670
OTTHUMG00000151503	OTTHUMT00000322914	chr7:148726228-148729480	+	3118
OTTHUMG00000151464	OTTHUMT00000322756	chr7:152727938-152740252	-	1003
OTTHUMG00000151464	OTTHUMT00000322755	chr7:152733511-152741954	-	428
OTTHUMG00000151464	OTTHUMT00000280517	chr7:152739252-152741981	-	2622
OTTHUMG00000151323	OTTHUMT00000322232	chr7:154626790-154627832	+	365
OTTHUMG00000151328	OTTHUMT00000322242	chr7:154689942-154690695	+	453
OTTHUMG00000151348	OTTHUMT00000322326	chr7:154906662-154942555	-	531
OTTHUMG00000151447	OTTHUMT00000322680	chr7:155917978-155921288	-	430
OTTHUMG00000151444	OTTHUMT00000322673	chr7:155923244-155931043	-	2695
OTTHUMG00000152642	OTTHUMT00000327102	chr7:156951686-156985171	+	4045
OTTHUMG00000152645	OTTHUMT00000327108	chr7:156986777-156989032	+	543
OTTHUMG00000152640	OTTHUMT00000327100	chr7:156998749-157002296	+	289
OTTHUMG00000152648	OTTHUMT00000327123	chr7:158076082-158076573	+	392
OTTHUMG00000141277	OTTHUMT00000280498	chr8:49665514-49669734	+	3547
OTTHUMG00000019423	OTTHUMT00000051453	chr9:62701-78826	+	391
OTTHUMG00000019423	OTTHUMT00000051452	chr9:62706-65298	+	526
OTTHUMG00000019423	OTTHUMT00000051454	chr9:62716-65298	+	572
OTTHUMG00000021018	OTTHUMT00000055437	chr9:90804-92850	-	610
OTTHUMG00000021018	OTTHUMT00000055438	chr9:91002-92941	-	571
OTTHUMG00000019424	OTTHUMT00000051455	chr9:102716-103754	-	411
OTTHUMG00000019439	OTTHUMT00000051497	chr9:1031219-1032520	-	778
OTTHUMG00000019446	OTTHUMT00000051518	chr9:2531097-2531635	+	204
OTTHUMG00000019454	OTTHUMT00000051538	chr9:3171589-3188517	+	882
OTTHUMG00000019458	OTTHUMT00000051552	chr9:3637335-3638338	+	726
OTTHUMG00000019459	OTTHUMT00000051553	chr9:3664546-3681814	+	534
OTTHUMG00000019460	OTTHUMT00000051554	chr9:3674076-3679626	-	674
OTTHUMG00000019514	OTTHUMT00000051653	chr9:6037360-6056714	+	497
OTTHUMG00000019527	OTTHUMT00000051681	chr9:6694471-6697780	+	420
OTTHUMG00000019530	OTTHUMT00000051684	chr9:6706548-6713630	+	1496
OTTHUMG00000019530	OTTHUMT00000051686	chr9:6708810-6709370	+	470
OTTHUMG00000019530	OTTHUMT00000051685	chr9:6709068-6717438	+	828
OTTHUMG00000019540	OTTHUMT00000051706	chr9:7920827-7925137	-	193
OTTHUMG00000046176	OTTHUMT00000106442	chr9:7950413-7951080	-	499
OTTHUMG00000019550	OTTHUMT00000051723	chr9:10621750-10622203	-	155
OTTHUMG00000019554	OTTHUMT00000051727	chr9:11265314-11266314	-	283
OTTHUMG00000019555	OTTHUMT00000051728	chr9:12088660-12149147	-	557
OTTHUMG00000019563	OTTHUMT00000051737	chr9:13436525-13477510	+	475
OTTHUMG00000019566	OTTHUMT00000051740	chr9:14015970-14020114	+	433

OTTHUMG00000019570	OTTHUMT00000051744	chr9:14307084-14347853	+	962
OTTHUMG00000019570	OTTHUMT00000051745	chr9:14337319-14347907	+	791
OTTHUMG00000019587	OTTHUMT00000051772	chr9:16111131-16112432	+	310
OTTHUMG00000019602	OTTHUMT00000051798	chr9:18350595-18352218	-	235
OTTHUMG00000019689	OTTHUMT00000051925	chr9:22103677-22110837	+	665
OTTHUMG00000019689	OTTHUMT00000051926	chr9:22108643-22110712	+	542
OTTHUMG00000019692	OTTHUMT00000051934	chr9:22193989-22204671	-	439
OTTHUMG00000019695	OTTHUMT00000051937	chr9:22757174-22758315	+	445
OTTHUMG00000019699	OTTHUMT00000051942	chr9:23661786-23662397	-	235
OTTHUMG00000019702	OTTHUMT00000051950	chr9:23819671-23839912	+	1422
OTTHUMG00000019703	OTTHUMT00000051951	chr9:23884988-23888054	-	687
OTTHUMG00000019705	OTTHUMT00000051953	chr9:25770054-25774560	+	460
OTTHUMG00000019711	OTTHUMT00000051963	chr9:27235682-27272791	-	2896
OTTHUMG00000019749	OTTHUMT00000052014	chr9:32633101-32635024	-	837
OTTHUMG00000000399	OTTHUMT00000001034	chr9:33502957-33504771	-	392
OTTHUMG00000000405	OTTHUMT00000001042	chr9:33592499-33595291	+	897
OTTHUMG00000000405	OTTHUMT00000001041	chr9:33594295-33595279	+	543
OTTHUMG00000000412	OTTHUMT00000001049	chr9:33709688-33712553	+	1142
OTTHUMG00000000413	OTTHUMT00000001050	chr9:33722973-33728414	-	484
OTTHUMG00000000413	OTTHUMT00000001051	chr9:33722973-33728414	-	397
OTTHUMG00000000449	OTTHUMT00000001153	chr9:34654780-34655976	-	832
OTTHUMG00000000449	OTTHUMT00000001151	chr9:34655025-34656025	-	462
OTTHUMG00000000449	OTTHUMT00000001152	chr9:34655025-34656109	-	474
OTTHUMG00000000451	OTTHUMT00000001163	chr9:34655662-34671295	+	662
OTTHUMG00000000448	OTTHUMT00000001150	chr9:34716543-34719451	-	717
OTTHUMG00000019865	OTTHUMT00000052320	chr9:35632511-35633514	+	677
OTTHUMG00000019866	OTTHUMT00000052321	chr9:35636267-35637096	+	572
OTTHUMG00000019884	OTTHUMT00000052387	chr9:35776643-35780429	+	405
OTTHUMG00000019888	OTTHUMT00000052397	chr9:35920009-35927148	+	354
OTTHUMG00000019903	OTTHUMT00000052420	chr9:36297039-36305276	+	502
OTTHUMG00000019904	OTTHUMT00000052421	chr9:36322947-36324969	-	386
OTTHUMG00000019909	OTTHUMT00000052435	chr9:37063528-37065789	-	945
OTTHUMG00000019910	OTTHUMT00000052436	chr9:37069893-37080398	+	4373
OTTHUMG00000019910	OTTHUMT00000052437	chr9:37069932-37076871	+	309
OTTHUMG00000019911	OTTHUMT00000052438	chr9:37102915-37105487	-	942
OTTHUMG00000019916	OTTHUMT00000052460	chr9:37373175-37374431	-	241
OTTHUMG00000019939	OTTHUMT00000052493	chr9:38350424-38366427	+	665
OTTHUMG00000019951	OTTHUMT00000052508	chr9:38838558-38841913	+	791
OTTHUMG00000067122	OTTHUMT00000143659	chr9:39374503-39395302	-	473
OTTHUMG00000067120	OTTHUMT00000143657	chr9:39385734-39387403	-	1075
OTTHUMG00000067142	OTTHUMT00000143679	chr9:39915026-39916970	-	1123
OTTHUMG00000067148	OTTHUMT00000143686	chr9:40730776-40732447	-	845
OTTHUMG00000066730	OTTHUMT00000143041	chr9:41267733-41288538	+	473
OTTHUMG00000066734	OTTHUMT00000143045	chr9:41275357-41277306	+	1124
OTTHUMG00000058151	OTTHUMT00000128845	chr9:41506046-41513018	+	1716

OTTHUMG00000058154	OTTHUMT00000128848	chr9:41519583-41540387	-	479
OTTHUMG00000066715	OTTHUMT00000143026	chr9:42353044-42357088	-	3198
OTTHUMG00000013274	OTTHUMT00000037045	chr9:43130533-43132735	-	380
OTTHUMG00000013273	OTTHUMT00000037044	chr9:43134976-43150004	-	954
OTTHUMG00000013277	OTTHUMT00000037052	chr9:43174019-43179407	-	1756
OTTHUMG00000067212	OTTHUMT00000143910	chr9:44324581-44331701	+	3611
OTTHUMG00000067216	OTTHUMT00000143914	chr9:44763709-44775517	+	715
OTTHUMG00000013244	OTTHUMT00000037012	chr9:44941903-44943113	-	437
OTTHUMG00000013243	OTTHUMT00000037011	chr9:44944875-44963232	+	490
OTTHUMG00000013242	OTTHUMT00000037010	chr9:44974953-44987141	-	715
OTTHUMG00000013241	OTTHUMT00000037007	chr9:45048388-45052528	+	928
OTTHUMG00000013241	OTTHUMT00000037009	chr9:45048417-45049827	+	577
OTTHUMG00000013241	OTTHUMT00000037008	chr9:45048577-45052463	+	743
OTTHUMG00000058669	OTTHUMT00000129824	chr9:45104574-45152497	+	888
OTTHUMG00000013261	OTTHUMT00000037029	chr9:46160782-46164924	-	928
OTTHUMG00000013261	OTTHUMT00000037030	chr9:46160847-46164895	-	1010
OTTHUMG00000013262	OTTHUMT00000037031	chr9:46249238-46270253	-	526
OTTHUMG00000013300	OTTHUMT00000037086	chr9:46501238-46502589	-	540
OTTHUMG00000013300	OTTHUMT00000037087	chr9:46501440-46502833	-	493
OTTHUMG00000067237	OTTHUMT00000143935	chr9:46538570-46545301	-	3220
OTTHUMG00000058150	OTTHUMT00000128844	chr9:46666488-46673315	+	3318
OTTHUMG00000013198	OTTHUMT00000036955	chr9:65207603-65208846	+	417
OTTHUMG00000058153	OTTHUMT00000128847	chr9:65227093-65234068	-	1720
OTTHUMG00000058153	OTTHUMT000000313670	chr9:65228116-65234060	-	772
OTTHUMG00000067240	OTTHUMT00000143938	chr9:65620353-65623705	-	791
OTTHUMG00000058148	OTTHUMT00000128842	chr9:67169627-67172979	-	790
OTTHUMG00000058662	OTTHUMT00000129817	chr9:67887698-67891579	-	2815
OTTHUMG00000019963	OTTHUMT00000052545	chr9:70033387-70034048	+	338
OTTHUMG00000019960	OTTHUMT00000052540	chr9:70112129-70113181	+	414
OTTHUMG00000019968	OTTHUMT00000052552	chr9:70348277-70350852	-	491
OTTHUMG00000019968	OTTHUMT00000052553	chr9:70348277-70351325	-	334
OTTHUMG00000019980	OTTHUMT00000052579	chr9:71232984-71233457	-	396
OTTHUMG00000020009	OTTHUMT00000052650	chr9:74062072-74062519	+	359
OTTHUMG00000020007	OTTHUMT00000052642	chr9:74110165-74120200	+	670
OTTHUMG00000020007	OTTHUMT00000052641	chr9:74110172-74147946	+	2073
OTTHUMG00000020007	OTTHUMT00000052643	chr9:74110253-74120200	+	586
OTTHUMG00000020015	OTTHUMT00000052661	chr9:74676464-74678804	-	590
OTTHUMG00000020015	OTTHUMT00000052660	chr9:74676464-74678834	-	624
OTTHUMG00000020015	OTTHUMT00000052662	chr9:74676464-74678845	-	579
OTTHUMG00000020021	OTTHUMT00000052687	chr9:75378351-75384234	+	621
OTTHUMG00000020024	OTTHUMT00000052690	chr9:76176267-76188266	+	645
OTTHUMG00000020036	OTTHUMT00000052713	chr9:77384405-77393284	+	456
OTTHUMG00000020070	OTTHUMT00000052782	chr9:81310539-81337077	-	326
OTTHUMG00000020070	OTTHUMT00000052783	chr9:81322608-81337077	-	700
OTTHUMG00000020074	OTTHUMT00000052798	chr9:81679431-81691413	-	522

OTTHUMG00000020075	OTTHUMT00000052799	chr9:81835314-81839290	+	444
OTTHUMG00000020080	OTTHUMT00000052804	chr9:82674493-82676030	-	788
OTTHUMG00000020094	OTTHUMT00000052819	chr9:84209923-84210974	+	453
OTTHUMG00000020097	OTTHUMT00000052822	chr9:84258080-84259960	+	596
OTTHUMG00000020101	OTTHUMT00000052827	chr9:85024066-85038977	+	441
OTTHUMG00000020140	OTTHUMT00000052927	chr9:88436882-88501231	+	527
OTTHUMG00000020143	OTTHUMT00000052930	chr9:88753434-88806768	+	4380
OTTHUMG00000020156	OTTHUMT00000052953	chr9:89668901-89671025	+	450
OTTHUMG00000020178	OTTHUMT00000052985	chr9:90814769-90815213	-	444
OTTHUMG00000020188	OTTHUMT00000053003	chr9:91506386-91524405	+	820
OTTHUMG00000067508	OTTHUMT000000144686	chr9:91640962-91663020	+	913
OTTHUMG00000067507	OTTHUMT000000144685	chr9:91642994-91644328	-	926
OTTHUMG00000020189	OTTHUMT00000053004	chr9:91780384-91789588	+	455
OTTHUMG00000020191	OTTHUMT00000053006	chr9:91822756-91843601	-	2716
OTTHUMG00000020194	OTTHUMT00000053009	chr9:92103004-92235591	-	1010
OTTHUMG00000020194	OTTHUMT00000053010	chr9:92185712-92235607	-	752
OTTHUMG00000020197	OTTHUMT00000053013	chr9:92265626-92269047	-	407
OTTHUMG00000020197	OTTHUMT00000053014	chr9:92265761-92384846	-	785
OTTHUMG00000020197	OTTHUMT00000053015	chr9:92363131-92384796	-	289
OTTHUMG00000020201	OTTHUMT00000053023	chr9:92759363-92767496	-	293
OTTHUMG00000020202	OTTHUMT00000053024	chr9:92907060-92909407	-	812
OTTHUMG00000020204	OTTHUMT00000053026	chr9:92921241-92965190	-	504
OTTHUMG00000020203	OTTHUMT00000053025	chr9:92961872-92967679	+	2743
OTTHUMG00000020208	OTTHUMT00000053037	chr9:93228341-93229247	+	472
OTTHUMG00000020216	OTTHUMT00000053052	chr9:93943401-93950409	+	736
OTTHUMG00000020216	OTTHUMT00000053054	chr9:93943542-93950409	+	700
OTTHUMG00000020216	OTTHUMT00000053051	chr9:93943570-93961711	+	1996
OTTHUMG00000020216	OTTHUMT00000053056	chr9:93943699-93947213	+	420
OTTHUMG00000020216	OTTHUMT00000053053	chr9:93947044-93950409	+	474
OTTHUMG00000020216	OTTHUMT00000053050	chr9:93949695-93950409	+	465
OTTHUMG00000020216	OTTHUMT00000053049	chr9:93949815-93950409	+	454
OTTHUMG00000020214	OTTHUMT00000053047	chr9:93952484-93959548	-	209
OTTHUMG00000020216	OTTHUMT00000053055	chr9:93954697-93960591	+	790
OTTHUMG00000020244	OTTHUMT00000053137	chr9:94949143-94950659	+	407
OTTHUMG00000020245	OTTHUMT00000053138	chr9:95232445-95233402	-	639
OTTHUMG00000020246	OTTHUMT00000053139	chr9:95237435-95239224	-	689
OTTHUMG00000020254	OTTHUMT00000053163	chr9:95659186-95660436	+	389
OTTHUMG00000020259	OTTHUMT00000053172	chr9:95978705-96006639	-	1283
OTTHUMG00000020266	OTTHUMT00000053185	chr9:96287803-96289898	+	153
OTTHUMG00000020281	OTTHUMT00000053234	chr9:97217602-97228899	-	737
OTTHUMG00000020283	OTTHUMT00000053236	chr9:97401648-97408389	-	392
OTTHUMG00000020291	OTTHUMT00000053254	chr9:97897314-97904015	+	1571
OTTHUMG00000020301	OTTHUMT00000053285	chr9:98489159-98523224	+	423
OTTHUMG00000020320	OTTHUMT00000053308	chr9:99035304-99037117	+	279
OTTHUMG00000020335	OTTHUMT00000053343	chr9:99608038-99612111	-	202

OTTHUMG00000020352	OTTHUMT00000053389	chr9:100985476-100986994	+	437
OTTHUMG00000020357	OTTHUMT00000053396	chr9:101333799-101339027	+	417
OTTHUMG00000020358	OTTHUMT00000053397	chr9:101387889-101621992	-	1537
OTTHUMG00000020391	OTTHUMT00000053458	chr9:104092223-104093015	+	711
OTTHUMG00000020399	OTTHUMT00000053466	chr9:104942626-105127137	-	3728
OTTHUMG00000020398	OTTHUMT00000053465	chr9:105045829-105055273	+	200
OTTHUMG00000020399	OTTHUMT00000053467	chr9:105066714-105126881	-	583
OTTHUMG00000020400	OTTHUMT00000053468	chr9:105164055-105231995	-	525
OTTHUMG00000020419	OTTHUMT00000053496	chr9:106792898-106793883	-	604
OTTHUMG00000020432	OTTHUMT00000053524	chr9:107863456-107867095	-	434
OTTHUMG00000020433	OTTHUMT00000053526	chr9:108080494-108406897	+	1679
OTTHUMG00000020433	OTTHUMT00000053525	chr9:108252918-108406897	+	1309
OTTHUMG00000020437	OTTHUMT00000053531	chr9:108386244-108394054	-	369
OTTHUMG00000020434	OTTHUMT00000053527	chr9:108417180-108417908	-	595
OTTHUMG00000020435	OTTHUMT00000053529	chr9:108418160-108481900	+	2048
OTTHUMG00000020435	OTTHUMT00000053528	chr9:108466852-108504764	+	686
OTTHUMG00000020447	OTTHUMT00000053552	chr9:109222386-109232904	-	404
OTTHUMG00000020447	OTTHUMT00000053553	chr9:109229342-109230504	-	205
OTTHUMG00000020457	OTTHUMT00000053566	chr9:110054255-110056921	-	222
OTTHUMG00000020459	OTTHUMT00000053568	chr9:110503471-110505193	+	395
OTTHUMG00000020483	OTTHUMT00000053625	chr9:112401576-112407320	+	632
OTTHUMG00000020487	OTTHUMT00000053635	chr9:112941347-113086937	-	741
OTTHUMG00000020528	OTTHUMT00000053742	chr9:115421329-115424735	+	3041
OTTHUMG00000020530	OTTHUMT00000053744	chr9:115453057-115484956	+	1220
OTTHUMG00000020544	OTTHUMT00000053785	chr9:116458405-116459873	-	434
OTTHUMG00000020544	OTTHUMT00000053786	chr9:116458405-116464475	-	402
OTTHUMG00000020542	OTTHUMT00000053783	chr9:116468537-116473850	-	546
OTTHUMG00000020548	OTTHUMT00000053790	chr9:116921639-116940509	-	1519
OTTHUMG00000020550	OTTHUMT00000053794	chr9:117541763-117546332	+	386
OTTHUMG00000020552	OTTHUMT00000053796	chr9:117814461-117815065	+	507
OTTHUMG00000020560	OTTHUMT00000053806	chr9:119264393-119268359	-	749
OTTHUMG00000020561	OTTHUMT00000053807	chr9:119450705-119459126	+	1293
OTTHUMG00000020564	OTTHUMT00000053810	chr9:119585547-119670170	+	520
OTTHUMG00000020563	OTTHUMT00000053809	chr9:119642421-119699355	-	621
OTTHUMG00000020566	OTTHUMT00000053812	chr9:120489851-120508059	-	384
OTTHUMG00000020567	OTTHUMT00000053813	chr9:120542662-120547411	+	254
OTTHUMG00000020570	OTTHUMT00000053818	chr9:121775193-121776421	+	379
OTTHUMG00000020610	OTTHUMT00000053940	chr9:124203070-124205006	-	295
OTTHUMG00000020611	OTTHUMT00000053941	chr9:124205507-124251077	+	824
OTTHUMG00000020654	OTTHUMT00000054028	chr9:126317038-126318156	+	264
OTTHUMG00000020682	OTTHUMT00000054083	chr9:127545854-127547840	-	507
OTTHUMG00000020685	OTTHUMT00000054108	chr9:127859680-127961713	+	314
OTTHUMG00000020686	OTTHUMT00000054109	chr9:128072221-128078018	-	2099
OTTHUMG00000020688	OTTHUMT00000054116	chr9:128318517-128320908	+	717
OTTHUMG00000020689	OTTHUMT00000054117	chr9:128329718-128332443	+	337

OTTHUMG00000020698	OTTHUMT00000054147	chr9:129026711-129043415	+	2624
OTTHUMG00000020726	OTTHUMT00000054329	chr9:129841235-129859462	-	378
OTTHUMG00000020737	OTTHUMT00000054410	chr9:129913271-129920793	-	3796
OTTHUMG00000020753	OTTHUMT00000054468	chr9:130465234-130465678	-	332
OTTHUMG00000020777	OTTHUMT00000054571	chr9:131060454-131061946	+	963
OTTHUMG00000020776	OTTHUMT00000054570	chr9:131061162-131063681	+	393
OTTHUMG00000020775	OTTHUMT00000054569	chr9:131084558-131087828	+	580
OTTHUMG00000020778	OTTHUMT00000054572	chr9:131136006-131149499	+	897
OTTHUMG00000020780	OTTHUMT000000315870	chr9:131232752-131249390	-	1844
OTTHUMG00000020779	OTTHUMT00000054574	chr9:131240316-131241218	+	798
OTTHUMG00000020780	OTTHUMT00000054575	chr9:131248732-131253522	-	457
OTTHUMG00000020783	OTTHUMT00000054578	chr9:131285551-131306374	+	1399
OTTHUMG00000020783	OTTHUMT00000054579	chr9:131290645-131306374	+	1884
OTTHUMG00000020783	OTTHUMT00000106519	chr9:131291200-131307181	+	1957
OTTHUMG00000020783	OTTHUMT00000054580	chr9:131291207-131315768	+	1649
OTTHUMG00000020783	OTTHUMT00000054583	chr9:131292919-131304614	+	602
OTTHUMG00000020783	OTTHUMT00000106520	chr9:131293092-131305674	+	563
OTTHUMG00000020783	OTTHUMT00000054581	chr9:131300439-131305765	+	467
OTTHUMG00000046208	OTTHUMT00000106525	chr9:131304090-131315786	+	380
OTTHUMG00000020783	OTTHUMT00000054582	chr9:131305102-131315617	+	735
OTTHUMG00000020784	OTTHUMT00000054584	chr9:131377509-131386656	+	2445
OTTHUMG00000020831	OTTHUMT00000054768	chr9:133681400-133686196	+	826
OTTHUMG00000020845	OTTHUMT00000054804	chr9:134812277-134816764	+	524
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OTTHUMG00000020880	OTTHUMT00000054937	chr9:135880438-135883045	+	2298
OTTHUMG00000020883	OTTHUMT00000054944	chr9:136325598-136327064	-	741
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OTTHUMG00000020886	OTTHUMT00000054947	chr9:136558849-136576911	-	426
OTTHUMG00000020885	OTTHUMT00000054946	chr9:136584405-136585564	+	278
OTTHUMG00000020888	OTTHUMT00000054951	chr9:136614146-136616857	+	2396
OTTHUMG00000020889	OTTHUMT00000054952	chr9:136659497-136661073	+	597
OTTHUMG00000020894	OTTHUMT00000054962	chr9:136968818-136974862	+	459
OTTHUMG00000020899	OTTHUMT00000054979	chr9:137236389-137269264	-	525
OTTHUMG00000020898	OTTHUMT00000054978	chr9:137277363-137284375	-	884
OTTHUMG00000020901	OTTHUMT00000054981	chr9:137384351-137385887	+	387
OTTHUMG00000020906	OTTHUMT00000054990	chr9:137496165-137496547	-	246
OTTHUMG00000020905	OTTHUMT00000054989	chr9:137499755-137503916	+	793
OTTHUMG00000153545	OTTHUMT000000331581	chr9:137645963-137647175	+	200
OTTHUMG00000020999	OTTHUMT00000055377	chr9:140210204-140213596	-	536
OTTHUMG00000021049	OTTHUMT00000055574	chrX:201725-202586	+	426
OTTHUMG00000021054	OTTHUMT00000055588	chrX:870956-875100	+	586
OTTHUMG00000021061	OTTHUMT00000055604	chrX:1475918-1478295	-	367
OTTHUMG00000021062	OTTHUMT00000055605	chrX:1811477-1820881	+	442
OTTHUMG00000021062	OTTHUMT00000055606	chrX:1813010-1834878	+	380
OTTHUMG00000021064	OTTHUMT00000055610	chrX:1846240-1847669	+	546

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OTTHUMG00000021071	OTTHUMT00000055621	chrX:2537435-2566370	+	974
OTTHUMG00000021072	OTTHUMT00000055623	chrX:2541029-2543388	-	1338
OTTHUMG00000021071	OTTHUMT00000055622	chrX:2543993-2566369	+	2744
OTTHUMG00000067420	OTTHUMT00000144380	chrX:3857910-3865896	-	2116
OTTHUMG00000021088	OTTHUMT00000055663	chrX:4555241-4561613	-	1181
OTTHUMG00000021092	OTTHUMT00000055668	chrX:5581462-5653998	-	624
OTTHUMG00000021092	OTTHUMT00000055667	chrX:5581462-5654346	-	857
OTTHUMG00000021092	OTTHUMT00000055669	chrX:5581464-5654121	-	443
OTTHUMG00000021098	OTTHUMT00000055680	chrX:6595906-6649585	-	514
OTTHUMG00000021104	OTTHUMT00000055689	chrX:7935419-7946201	+	175
OTTHUMG00000021111	OTTHUMT00000055698	chrX:8791902-8795642	-	463
OTTHUMG00000021115	OTTHUMT00000055705	chrX:9177960-9203246	+	1713
OTTHUMG00000021126	OTTHUMT00000055733	chrX:10170379-10293363	+	606
OTTHUMG00000021149	OTTHUMT00000055788	chrX:13194088-13231432	-	1494
OTTHUMG00000021149	OTTHUMT00000107231	chrX:13194582-13231492	-	925
OTTHUMG00000021151	OTTHUMT00000055790	chrX:13263281-13269865	+	573
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OTTHUMG00000021161	OTTHUMT00000055820	chrX:13883433-13891944	+	694
OTTHUMG00000021163	OTTHUMT00000055825	chrX:13908106-13916860	-	542
OTTHUMG00000021210	OTTHUMT00000055939	chrX:17898238-18032685	-	703
OTTHUMG00000021238	OTTHUMT00000056029	chrX:21821639-21829947	+	7617
OTTHUMG00000021246	OTTHUMT00000056041	chrX:22626495-22697004	+	380
OTTHUMG00000021281	OTTHUMT00000056119	chrX:25806377-25821582	+	546
OTTHUMG00000021297	OTTHUMT00000056135	chrX:27086943-27104336	-	589
OTTHUMG00000021313	OTTHUMT00000056151	chrX:28499570-28514433	-	753
OTTHUMG00000021338	OTTHUMT00000056203	chrX:33654546-33870318	+	492
OTTHUMG00000021338	OTTHUMT00000056204	chrX:33670156-33870273	+	336
OTTHUMG00000024091	OTTHUMT00000060654	chrX:38514528-38543855	+	1175
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OTTHUMG00000024095	OTTHUMT00000060659	chrX:39049154-39071560	-	1769
OTTHUMG00000024095	OTTHUMT00000144797	chrX:39049832-39071559	-	671
OTTHUMG00000024096	OTTHUMT00000060660	chrX:39111483-39135972	-	874
OTTHUMG00000024097	OTTHUMT00000060661	chrX:39145450-39179022	-	782
OTTHUMG00000024099	OTTHUMT00000060663	chrX:39753473-39756379	+	2689
OTTHUMG00000033140	OTTHUMT00000080721	chrX:40007114-40031917	+	2997
OTTHUMG00000033140	OTTHUMT00000080722	chrX:40007163-40011419	+	705
OTTHUMG00000021366	OTTHUMT00000056247	chrX:41019936-41020975	+	833
OTTHUMG00000021379	OTTHUMT00000056291	chrX:41792080-41799033	-	476
OTTHUMG00000021383	OTTHUMT00000056295	chrX:41996656-42443486	+	887
OTTHUMG00000021383	OTTHUMT00000056296	chrX:42200774-42443580	+	709
OTTHUMG00000021384	OTTHUMT00000056297	chrX:42921187-42970791	+	2222
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OTTHUMG00000021406	OTTHUMT00000056341	chrX:45254673-45374391	+	634
OTTHUMG00000021411	OTTHUMT00000056348	chrX:45592272-45595391	-	1958

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OTTHUMG00000021416	OTTHUMT00000056353	chrX:46070303-46072024	-	624
OTTHUMG00000021439	OTTHUMT00000056411	chrX:47042195-47043064	+	475
OTTHUMG00000021486	OTTHUMT00000056483	chrX:48078054-48078818	-	268
OTTHUMG00000024122	OTTHUMT00000060763	chrX:48323106-48324489	-	448
OTTHUMG00000021533	OTTHUMT00000056582	chrX:51116536-51156054	-	449
OTTHUMG00000021532	OTTHUMT00000056581	chrX:51156103-51158122	+	584
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OTTHUMG00000021535	OTTHUMT00000056584	chrX:51261682-51270597	-	456
OTTHUMG00000021599	OTTHUMT00000056721	chrX:53139617-53140765	-	613
OTTHUMG00000021671	OTTHUMT00000056896	chrX:56661549-56667616	+	711
OTTHUMG00000021679	OTTHUMT00000056910	chrX:57016668-57017954	+	642
OTTHUMG00000021699	OTTHUMT00000056936	chrX:62646547-62697654	-	526
OTTHUMG00000021722	OTTHUMT00000056978	chrX:64724986-64726374	+	536
OTTHUMG00000021722	OTTHUMT00000056979	chrX:64725003-64737355	+	484
OTTHUMG00000021722	OTTHUMT00000056980	chrX:64725009-64730030	+	380
OTTHUMG00000021729	OTTHUMT00000056991	chrX:65136318-65137638	+	855
OTTHUMG00000021757	OTTHUMT00000057038	chrX:68706237-68706925	-	453
OTTHUMG00000021796	OTTHUMT00000057132	chrX:70320134-70334750	-	724
OTTHUMG00000022722	OTTHUMT00000058987	chrX:70799570-70802328	-	691
OTTHUMG00000022722	OTTHUMT00000058988	chrX:70799573-70800846	-	620
OTTHUMG00000022702	OTTHUMT00000058911	chrX:70850946-70852962	-	527
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OTTHUMG00000021805	OTTHUMT00000057168	chrX:70897350-70898234	-	217
OTTHUMG00000021804	OTTHUMT00000057167	chrX:70901763-70903779	+	527
OTTHUMG00000035613	OTTHUMT00000086423	chrX:71918414-71919179	-	432
OTTHUMG00000035613	OTTHUMT00000086424	chrX:71918414-71919209	-	450
OTTHUMG00000021819	OTTHUMT00000057212	chrX:71943984-71944739	-	430
OTTHUMG00000021819	OTTHUMT00000057213	chrX:71943984-71944769	-	448
OTTHUMG00000021839	OTTHUMT00000083628	chrX:72957211-72963015	-	718
OTTHUMG00000021839	OTTHUMT00000057241	chrX:72957213-72963366	-	444
OTTHUMG00000021839	OTTHUMT00000083629	chrX:72957216-72962861	-	721
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OTTHUMG00000021839	OTTHUMT00000057239	chrX:72957216-72989313	-	19269
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OTTHUMG00000021838	OTTHUMT00000057238	chrX:73085533-73086118	+	449
OTTHUMG00000021850	OTTHUMT00000057256	chrX:73384424-73430087	-	702
OTTHUMG00000021850	OTTHUMT00000057255	chrX:73414934-73429160	-	2593
OTTHUMG00000021850	OTTHUMT00000057257	chrX:73416961-73428911	-	575
OTTHUMG00000021850	OTTHUMT00000057258	chrX:73417021-73428635	-	650
OTTHUMG00000021850	OTTHUMT00000057259	chrX:73418265-73421422	-	262

OTTHUMG00000021872	OTTHUMT00000057290	chrX:75039665-75041418	+	1232
OTTHUMG00000021932	OTTHUMT00000057387	chrX:84352368-84361360	+	1131
OTTHUMG00000021953	OTTHUMT00000057423	chrX:88565393-88583566	+	279
OTTHUMG00000021953	OTTHUMT00000057422	chrX:88565393-88588638	+	305
OTTHUMG00000021958	OTTHUMT00000057428	chrX:90449436-90450533	+	739
OTTHUMG00000022014	OTTHUMT00000057506	chrX:100145477-100149618	-	3214
OTTHUMG00000022085	OTTHUMT00000057680	chrX:102025998-102047742	+	1127
OTTHUMG00000022085	OTTHUMT00000057681	chrX:102039165-102047275	+	435
OTTHUMG00000022105	OTTHUMT00000057735	chrX:102767660-102768076	-	359
OTTHUMG00000022115	OTTHUMT00000057749	chrX:103058661-103060787	-	1225
OTTHUMG00000022220	OTTHUMT00000057955	chrX:112746245-112748097	-	467
OTTHUMG00000033102	OTTHUMT00000080578	chrX:114863553-114865637	+	441
OTTHUMG00000033102	OTTHUMT00000080579	chrX:114863599-114865639	+	278
OTTHUMG00000022240	OTTHUMT00000057981	chrX:114946547-114999450	-	2441
OTTHUMG00000022248	OTTHUMT00000057990	chrX:115710906-115712184	-	510
OTTHUMG00000022260	OTTHUMT00000058013	chrX:117857547-117875877	+	2283
OTTHUMG00000022267	OTTHUMT00000058023	chrX:118270802-118275674	-	916
OTTHUMG00000022271	OTTHUMT00000058027	chrX:118309520-118353601	+	2903
OTTHUMG00000022289	OTTHUMT00000058082	chrX:119028703-119033529	-	768
OTTHUMG00000022291	OTTHUMT00000058084	chrX:119135580-119137638	-	276
OTTHUMG00000022295	OTTHUMT00000058088	chrX:119254333-119263116	-	2387
OTTHUMG00000022349	OTTHUMT00000058182	chrX:125071426-125077226	+	636
OTTHUMG00000022456	OTTHUMT00000058374	chrX:133511669-133521619	+	721
OTTHUMG00000022462	OTTHUMT00000058387	chrX:133911245-133915078	+	958
OTTHUMG00000022468	OTTHUMT00000058397	chrX:134056681-134057260	-	303
OTTHUMG00000022468	OTTHUMT00000058395	chrX:134056809-134060054	-	468
OTTHUMG00000022468	OTTHUMT00000058396	chrX:134058543-134060320	-	865
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OTTHUMG00000022476	OTTHUMT00000058408	chrX:134214406-134215197	+	386
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OTTHUMG00000022479	OTTHUMT00000058412	chrX:134383534-134387348	+	2911
OTTHUMG00000022524	OTTHUMT00000058522	chrX:136466016-136473750	-	301
OTTHUMG00000022524	OTTHUMT00000058523	chrX:136470494-136474212	-	584
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OTTHUMG00000022543	OTTHUMT00000058576	chrX:139125853-139126622	-	580
OTTHUMG00000022547	OTTHUMT00000058580	chrX:139590937-139597536	-	320
OTTHUMG00000022550	OTTHUMT00000058584	chrX:139841569-139907279	+	214
OTTHUMG00000022592	OTTHUMT00000058630	chrX:144122141-144122831	-	376
OTTHUMG00000022599	OTTHUMT00000058638	chrX:145698994-145699619	+	434
OTTHUMG00000022600	OTTHUMT00000058639	chrX:145703316-145703936	-	429
OTTHUMG00000022605	OTTHUMT00000058654	chrX:146789388-146790669	-	532
OTTHUMG00000024161	OTTHUMT00000060865	chrX:149834944-149840069	+	516
OTTHUMG00000024161	OTTHUMT00000060866	chrX:149836294-149840069	+	439
OTTHUMG00000032120	OTTHUMT00000078422	chrX:150434679-150435373	+	480
OTTHUMG00000022647	OTTHUMT00000058759	chrX:151639851-151640796	-	846

OTTHUMG00000024194	OTTHUMT00000060942	chrX:152088524-152092921	-	917
OTTHUMG00000024194	OTTHUMT00000060943	chrX:152088866-152092931	-	539
OTTHUMG00000024201	OTTHUMT00000060955	chrX:152529343-152531574	+	615
OTTHUMG00000022655	OTTHUMT00000058774	chrX:153215504-153216581	-	339
OTTHUMG00000022671	OTTHUMT00000058813	chrX:154351141-154369901	+	551

Table S1

Transcript ID	Fold	5' RefSeq gene id	5' HUGO gene id	3' Refseq gene id
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OTTHUMT00000034662	8.32	NM_173080	SPRR4	NM_005547
OTTHUMT00000055788	7.65	NM_001135995	ATXN3L	NM_174901
OTTHUMT00000047811	6.53	NM_133446	AGAP4	NM_015262
OTTHUMT00000107231	6.29	NM_001135995	ATXN3L	NM_174901
OTTHUMT00000034506	6.25	NM_178431	LCE3A	NM_178430
OTTHUMT00000034017	3.16	NM_001122965	RPTN	NM_001009931
OTTHUMT00000171683	2.9	NM_007038	ADAMTS5	NM_013240
OTTHUMT00000132190	2.76	NM_152402	TRAM1L1	NM_004784
OTTHUMT00000171684	2.7	NM_007038	ADAMTS5	NM_013240
OTTHUMT00000171685	2.61	NM_007038	ADAMTS5	NM_013240
OTTHUMT00000255302	2.51	NM_000346	SOX9	NM_000891
OTTHUMT00000129613	2.39	NM_006773	DDX18	NM_019044
OTTHUMT00000041310	2.29	NM_022726	ELOVL4	NM_031469
OTTHUMT00000006706	2.25	NM_001005484	OR4F5	NR_024321
OTTHUMT00000042411	2.24	NM_006290	TNFAIP3	NM_175747
OTTHUMT00000007987	2.24	NR_024321	NCRNA00115	NM_001005484
OTTHUMT00000079542	2.22	NM_020708	SLC12A5	NM_004994
OTTHUMT00000332207	2.21	NM_001508	GPR39	NM_214461
OTTHUMT00000012834	2.21	NM_015627	LDLRAP1	NM_020379
OTTHUMT00000046559	2.12	NM_024701	ASB13	NM_005185
OTTHUMT00000053525	2.05	NM_018112	TMEM38B	NM_021224
OTTHUMT00000053526	2.04	NM_018112	TMEM38B	NM_021224
OTTHUMT00000099181	2.02	NM_006618	KDM5B	NR_002929
OTTHUMT00000099182	2.02	NM_006618	KDM5B	NR_002929
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OTTHUMT00000058397	1.92	NM_017863	CXorf48	NM_001134321
OTTHUMT00000046763	1.92	NM_001083591	CUGBP2	NM_001080491
OTTHUMT00000045413	1.91	NM_015567	SLITRK5	NM_032229
OTTHUMT00000058412	1.89	NM_152695	ZNF449	NM_182540
OTTHUMT00000047729	1.89	NR_002726	HNRNPA3P1	NM_006973
OTTHUMT00000046999	1.83	NM_024948	C10orf97	NM_001001484
OTTHUMT00000087261	1.82	NM_022664	ECM1	NM_025008
OTTHUMT00000046998	1.81	NM_024948	C10orf97	NM_001001484
OTTHUMT00000058395	1.77	NM_017863	CXorf48	NM_001134321
OTTHUMT00000054579	1.76	NM_001012715	C9orf106	NM_199350
OTTHUMT00000007986	1.76	NM_001005484	OR4F5	NR_024321
OTTHUMT00000171679	1.75	NM_013240	N6AMT1	NM_007038
OTTHUMT00000054578	1.75	NM_001012715	C9orf106	NM_199350
OTTHUMT00000006708	1.74	NM_001005484	OR4F5	NR_024321
OTTHUMT00000090219	1.74	NM_018713	SLC30A10	NM_138794
OTTHUMT00000006615	1.71	NM_007365	PADI2	NM_013358
OTTHUMT00000255296	1.68	NM_000346	SOX9	NM_000891

OTTHUMT00000051076	1.67	NM_138499	PWWP2B	NM_173541
OTTHUMT00000055604	1.66	NM_001141919	XG	NM_000718
OTTHUMT00000132196	1.64	NM_004784	NDST3	NM_152402
OTTHUMT00000318140	1.62	NM_058238	WNT7B	NM_013236
OTTHUMT00000046513	1.62	NM_001040177	AKR1CL2	NM_001300
OTTHUMT00000046512	1.61	NM_001040177	AKR1CL2	NM_001300
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OTTHUMT00000079684	1.6	NM_005194	CEBPB	NM_002827
OTTHUMT00000040503	1.55	NM_178174	TREML1	NM_021705
OTTHUMT00000057680	1.55	NM_001142530	BHLHB9	NM_001031834
OTTHUMT00000319437	1.54	NM_033257	DGCR6L	NR_003563
OTTHUMT00000039131	1.54	NR_024510_dup1	NA	NM_178230_dup2
OTTHUMT00000046668	1.54	NM_006257	PRKCQ	NM_001029880
OTTHUMT00000040501	1.53	NM_178174	TREML1	NM_021705
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OTTHUMT00000319426	1.52	NM_033257	DGCR6L	NR_003563
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OTTHUMT000000055622	1.52	NM_000718	CACNA1B	NM_001141919
OTTHUMT00000075332	1.51	NM_014941	MORC2	NM_006932
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OTTHUMT00000314057	1.5	NM_002064	GLRX	NM_012081
OTTHUMT000000054581	1.5	NM_001012715	C9orf106	NM_199350
OTTHUMT000000055621	1.5	NM_000718	CACNA1B	NM_001141919
OTTHUMT000000037573	1.5	NR_003955	LOC647121	NM_001123068
OTTHUMT000000050558	1.5	NM_181840	KCNK18	NM_001112704
OTTHUMT000000077578	-1.5	NM_080836	STK35	NM_003245
OTTHUMT00000001042	-1.5	NM_139235	NOL6	NR_003573
OTTHUMT000000092153	-1.5	NM_207468	FAM177B	NM_032890
OTTHUMT000000077577	-1.51	NM_080836	STK35	NM_003245
OTTHUMT000000054584	-1.51	NM_001012715	C9orf106	NM_199350
OTTHUMT000000046024	-1.51	NM_001102663_dup1	NA	NM_001128589
OTTHUMT00000255101	-1.51	NM_006572	GNA13	NM_199340
OTTHUMT000000078010	-1.52	NM_000214	JAG1	NM_181443
OTTHUMT000000080060	-1.57	NM_018270	C2orf20	NM_002531
OTTHUMT00000324253	-1.58	NM_004180	TANK	NM_005805
OTTHUMT00000193777	-1.58	NM_001697	ATP5O	NM_032476
OTTHUMT00000144685	-1.59	NM_017594	DIRAS2	NR_024280
OTTHUMT000000047657	-1.66	NR_024497	LOC399744	NR_024380
OTTHUMT000000007984	-1.66	NM_001005484	OR4F5	NR_024321
OTTHUMT000000057749	-1.73	NM_194324	TMSB15B	NM_016370
OTTHUMT000000097859	-1.74	NM_152486	SAMD11	NR_015368
OTTHUMT00000216872	-1.8	NM_031966	CCNB1	NM_005909
OTTHUMT000000047656	-1.85	NR_024497	LOC399744	NR_024380

OTTHUMT00000012071	-1.99	NM_005066	SFPQ	NM_024772
OTTHUMT00000012075	-2	NM_005066	SFPQ	NM_024772
OTTHUMT00000280613	-2.17	NM_031966	CCNB1	NM_005909
OTTHUMT00000280614	-2.31	NM_031966	CCNB1	NM_005909
OTTHUMT00000280612	-2.33	NM_031966	CCNB1	NM_005909
OTTHUMT00000280615	-2.37	NM_031966	CCNB1	NM_005909
OTTHUMT00000280616	-2.38	NM_031966	CCNB1	NM_005909
OTTHUMT00000060639	-2.72	NM_033438	SLAMF9	NM_145167
OTTHUMT00000060638	-2.8	NM_033438	SLAMF9	NM_145167
OTTHUMT00000046743	-3.46	NM_001025077	CUGBP2	NM_002051
OTTHUMT00000046744	-3.55	NM_001025077	CUGBP2	NM_002051

Table S3

3' HUGO gene id
DUSP10
IVL
FAM9C
FAM21C
FAM9C
LCE2D
HRNR
N6AMT1
NDST3
N6AMT1
N6AMT1
KCNJ2
CCDC93
SH3BGRL2
NCRNA00115
OLIG3
OR4F5
MMP9
C2orf27B
MAN1C1
CALML3
ZNF462
ZNF462
LOC148709
LOC148709
SFMBT2
FAM127B
USP6NL
SLITRK6
DDX26B
ZNF32
PTER
ADAMTSL4
PTER
FAM127B
C9orf50
NCRNA00115
ADAMTS5
C9orf50
NCRNA00115
LYPLAL1
PADI1
KCNJ2

C10orf91
CACNA1B
TRAM1L1
ATXN10
KLF6
KLF6
KCNJ2
PTPN1
NFYA
RAB40AL
PI4KAP1
NA
SFMBT2
NFYA
OR4F5
PI4KAP1
PI4KAP1
XG
SMTN
ERRFI1
SMTN
ELL2
C9orf50
XG
PPIAL4G
VAX1
TGM3
ANXA2P2
DISP1
TGM3
C9orf50
NA
LRRC37A3
BTBD3
NTSR1
PSMD14
MRPS6
LOC100129066
LOC441666
NCRNA00115
RAB9B
LOC643837
MAP1B
LOC441666

ZMYM1

ZMYM1

MAP1B

MAP1B

MAP1B

MAP1B

MAP1B

PIGM

PIGM

GATA3

GATA3

SYMBOL	Control siRNA	Snai1 siRNA	ncRNA-a7 siRNA
CIDEC	1	8.59	5.99
CLDN2	1	6.60	8.95
PPARG	1	3.93	3.22
MUC5AC	1	3.69	1.19
DCBLD2	1	3.27	3.38
KIAA1199	1	2.98	4.54
STK39	1	2.81	2.64
SCD5	1	2.74	1.88
IGFBP1	1	2.71	1.44
PLAU	1	2.64	2.26
IGSF3	1	2.51	2.69
LRRC26	1	2.47	1.08
GALNTL4	1	2.44	1.75
OSTbeta	1	2.43	2.84
PDLIM7	1	2.39	1.51
LOC441282	1	2.37	3.53
IFIT1	1	2.36	2.98
LBP	1	2.36	1.47
REEP1	1	2.34	1.72
LARP6	1	2.34	1.99
NUP210	1	2.33	1.86
APPL2	1	2.32	2.21
PKIB	1	2.25	1.97
PKP2	1	2.24	1.74
MPRIP	1	2.20	1.93
BTBD11	1	2.20	2.35
TIMP2	1	2.17	1.83
ESAM	1	2.16	1.39
PIGN	1	2.16	1.82
WBSCR22	1	2.15	1.97
NOTCH3	1	2.15	1.33
CDH2	1	2.10	2.02
HAS3	1	2.10	1.59
SLC16A4	1	2.05	1.42
UGT1A1	1	2.01	1.44
DHRS9	1	2.00	1.67
DKK1	1	2.00	2.10
LOC653631	1	2.00	1.99
NT5E	1	1.99	1.77
ASGR1	1	1.98	2.17
PVRL3	1	1.97	1.97
C11orf9	1	1.97	1.15
MORC4	1	1.97	2.75
FTHL11	1	1.95	1.65
MANBAL	1	1.94	1.86
LUZP1	1	1.93	1.78

PPPDE1	1	1.93	1.63
ANXA10	1	1.91	1.26
SLC11A2	1	1.91	1.28
AXL	1	1.91	1.92
FTHL3	1	1.90	1.64
TPR	1	1.90	1.11
CD68	1	1.90	1.48
FTHL2	1	1.90	1.75
CXorf39	1	1.89	1.08
AGTR1	1	1.89	1.63
NNMT	1	1.89	1.68
FAM113B	1	1.88	1.92
CD14	1	1.88	1.76
MPP5	1	1.88	1.24
ERBB3	1	1.86	1.50
S100A3	1	1.85	2.03
PI4K2B	1	1.85	1.45
IL4R	1	1.85	1.34
TNFRSF12A	1	1.85	2.20
TGM2	1	1.85	2.76
EPAS1	1	1.84	1.86
CD24	1	1.84	1.77
TBC1D8	1	1.83	1.87
PRKCA	1	1.83	1.77
DLK2	1	1.83	1.46
LAMC1	1	1.82	2.13
STMN1	1	1.82	1.47
KLHL4	1	1.82	1.86
LIMA1	1	1.82	1.39
IQGAP2	1	1.81	1.66
DDAH1	1	1.81	1.92
SERPINE2	1	1.81	1.65
SIRT4	1	1.81	1.77
ADRA1B	1	1.80	1.77
WASPIP	1	1.80	1.29
NR1H4	1	1.80	1.74
CXCR7	1	1.79	1.36
SHPK	1	1.79	1.32
SPRED1	1	1.79	2.20
SEMA4B	1	1.79	1.56
AHNAK	1	1.79	1.60
FAM108C1	1	1.78	1.55
SRPX	1	1.78	2.06
SPAG9	1	1.77	1.54
ITGB4	1	1.77	1.65
RASSF2	1	1.77	1.94
TRIM31	1	1.77	1.05

PLCE1	1	1.76	1.23
KCNF1	1	1.76	1.62
FCGBP	1	1.76	2.22
RSPO3	1	1.76	1.21
BMP1	1	1.76	2.15
NRP2	1	1.75	1.08
ACPL2	1	1.75	1.40
ST3GAL5	1	1.73	1.33
ITGA3	1	1.73	2.14
CD70	1	1.73	1.31
TYMS	1	1.73	1.48
SLC39A8	1	1.73	1.51
CACNG6	1	1.73	1.93
CIDECP	1	1.73	1.35
IGFBP2	1	1.72	1.67
GPR56	1	1.72	2.05
GABRE	1	1.72	1.49
EVL	1	1.72	1.34
DDC	1	1.70	1.86
E2F5	1	1.69	1.89
S100P	1	1.69	1.04
HNF4A	1	1.69	1.20
TRIM9	1	1.69	1.30
TUBB4	1	1.68	1.37
BDNF	1	1.68	1.43
AGTR1	1	1.68	1.47
ACLY	1	1.67	1.46
GALNT5	1	1.67	1.49
NIPA1	1	1.67	1.38
HMGCS1	1	1.66	1.32
NOSTRIN	1	1.66	2.28
KIF3B	1	1.66	1.49
PPFIBP2	1	1.66	1.95
FLNB	1	1.66	1.84
FBN2	1	1.66	1.07
RRAGD	1	1.65	1.73
CLDND2	1	1.65	1.31
F2RL1	1	1.65	1.34
ACSS1	1	1.65	1.36
LOC730996	1	1.65	1.67
BCAS1	1	1.64	2.62
EPHB2	1	1.64	1.64
LMNA	1	1.63	1.99
RND1	1	1.63	1.63
SPAG9	1	1.63	1.43
A1CF	1	1.63	1.46
DCP1A	1	1.63	1.16

RALA	1	1.63	1.35
ALDH3A1	1	1.63	1.94
DAB2	1	1.63	1.65
CDC2L2	1	1.63	1.23
MTSS1	1	1.63	1.16
PLEKHA5	1	1.63	1.42
ATP6VOE2	1	1.62	1.71
C19orf12	1	1.62	1.58
FAM175B	1	1.62	1.47
IDS	1	1.62	1.63
GLCE	1	1.62	1.39
CIDEC	1	1.62	1.36
KIF3B	1	1.62	1.69
CREB3L3	1	1.61	1.13
ALDH9A1	1	1.61	1.64
ARFIP1	1	1.61	1.45
CUGBP1	1	1.61	0.68
WRB	1	1.61	1.36
PPP1R14A	1	1.61	1.54
MUC13	1	1.61	1.30
LBH	1	1.61	2.12
ARHGAP23	1	1.61	1.23
GPRC5A	1	1.60	1.21
IGFBP6	1	1.60	1.46
RNASE4	1	1.60	1.73
VAV3	1	1.60	1.96
TGM2	1	1.60	1.10
SLC9A3R1	1	1.59	1.33
C14orf32	1	1.59	1.43
ACOX2	1	1.59	1.62
C1QTNF1	1	1.59	1.94
C4orf31	1	1.59	1.28
C2orf7	1	1.59	1.69
MET	1	1.58	1.48
DOK4	1	1.58	1.30
ANXA8L2	1	1.58	1.60
COX11	1	1.58	1.38
FXVD2	1	1.58	2.08
ATP7A	1	1.58	2.03
C13orf23	1	1.58	1.02
VTN	1	1.58	1.32
ASPH	1	1.58	1.20
PLSCR4	1	1.58	1.76
MAP7D2	1	1.58	0.96
CIRBP	1	1.58	1.43
GXYLT1	1	1.57	0.78
CDH1	1	1.57	1.53

TSPAN14	1	1.57	1.43
WIPF1	1	1.57	1.30
CBFB	1	1.56	1.38
LOC647947	1	1.56	1.27
AKR1C2	1	1.56	1.06
ELFN2	1	1.56	1.36
BIN1	1	1.56	1.95
BDKRB1	1	1.56	2.02
MGAT2	1	1.56	1.64
SLC39A11	1	1.56	2.03
DCLK1	1	1.56	1.53
DUSP5	1	1.55	1.50
PPIC	1	1.55	1.85
STX1A	1	1.55	1.88
TM4SF4	1	1.55	0.91
CD47	1	1.55	1.29
SLC22A18	1	1.55	2.38
OSBPL10	1	1.55	1.31
FTHL8	1	1.55	1.58
HGD	1	1.55	2.15
TMEM158	1	1.55	1.25
SLIT3	1	1.54	1.79
ST3GAL2	1	1.54	1.49
MYCN	1	1.54	1.83
EPHX1	1	1.54	1.77
SDC4	1	1.54	0.66
SSFA2	1	1.54	0.97
GPD1L	1	1.54	1.20
BCL3	1	1.54	0.95
MRPL35	1	1.53	1.76
GOLSYN	1	1.53	1.41
FSCN1	1	1.53	1.23
SESTD1	1	1.53	1.23
ABCC3	1	1.53	2.44
DLL3	1	1.53	0.93
NUP50	1	1.53	1.07
F8A1	1	1.53	1.23
PDE9A	1	1.52	1.51
C5orf15	1	1.52	1.57
MGC26718	1	1.52	1.42
EGFR	1	1.52	0.97
FAM127A	1	1.52	1.43
PCOLCE2	1	1.52	1.63
ETS2	1	1.52	1.17
DNM2	1	1.52	1.36
STAMBPL1	1	1.52	1.51
C20orf107	1	1.52	1.11

PRCC	1	1.52	1.26
PC	1	1.52	1.77
C21orf63	1	1.52	1.53
FARP1	1	1.52	1.80
SCNN1A	1	1.51	1.61
GABRB3	1	1.51	1.44
SYTL2	1	1.51	1.71
PLOD2	1	1.51	1.79
SKP2	1	1.51	0.96
LEF1	1	1.51	1.13
CTNNA1	1	1.51	1.46
DEPDC7	1	1.51	1.27
LNPEP	1	1.51	1.23
AKR1B15	1	1.51	1.68
VGLL4	1	1.51	1.24
PDZD8	1	1.50	1.60
RAB20	1	1.50	1.30
F3	1	1.50	1.05
NEDD4	1	1.50	1.25
OSTM1	1	1.50	1.31
APLP2	1	1.50	1.37
KIF16B	1	1.50	1.17
TMEM38B	1	1.50	1.68
SELT	1	1.50	1.12
BCAR3	1	1.50	1.71
DPY19L1	1	1.50	3.50
RAB8B	1	1.50	1.63
SLC22A18AS	1	1.49	1.88
CA12	1	1.49	1.58
EGLN3	1	1.49	1.60
FMO5	1	1.48	1.57
LOC375295	1	1.48	1.79
FTHL11	1	1.48	1.51
LAD1	1	1.47	1.65
CCL26	1	1.45	1.75
MRPL35	1	1.45	1.89
TSPYL1	1	1.44	1.53
H1FO	1	1.44	1.78
ADAMTS9	1	1.44	1.64
BRMS1L	1	1.43	1.54
LAMA5	1	1.43	1.55
ABCA1	1	1.43	2.18
RAB37	1	1.43	3.73
ENDOD1	1	1.43	1.76
NKX3-1	1	1.42	1.68
RNASE4	1	1.42	1.67
DKK1	1	1.42	1.66

SMAP1	1	1.42	1.52
TM4SF5	1	1.42	2.42
SERPINB1	1	1.42	1.59
RECK	1	1.42	1.86
CLCF1	1	1.42	1.52
PMEP1A1	1	1.42	1.63
PRSS3	1	1.42	1.60
GRK5	1	1.41	1.66
SLC29A3	1	1.41	1.61
APIP	1	1.41	1.53
RAP1GAP	1	1.41	2.31
GSDMD	1	1.41	1.59
LOC653110	1	1.40	1.73
NEB	1	1.40	1.79
AKR1B10	1	1.39	1.58
MYO18A	1	1.39	1.80
IFI6	1	1.39	2.59
PPIC	1	1.38	1.55
KATNAL1	1	1.38	1.62
ITIH2	1	1.38	1.59
SLC3A1	1	1.38	1.61
AHNAK	1	1.38	1.57
RHOBTB3	1	1.37	1.86
EXT2	1	1.37	1.58
ACTA2	1	1.37	1.72
CYBRD1	1	1.36	1.55
BCAS1	1	1.36	2.71
SNX24	1	1.36	1.56
ITGA2	1	1.36	1.59
AK3L1	1	1.36	2.07
RETSAT	1	1.35	1.51
LOC644799	1	1.35	1.55
GALNT10	1	1.35	1.72
C17orf48	1	1.35	1.60
BIN1	1	1.34	1.82
EHD1	1	1.33	1.56
VIL1	1	1.33	1.62
C14orf78	1	1.33	2.52
PIP5K1C	1	1.33	1.60
RERG	1	1.33	1.50
SGSM1	1	1.33	2.07
FAM81A	1	1.32	1.60
LMNA	1	1.32	1.65
VGLL3	1	1.31	1.76
SERPINA3	1	1.31	1.64
NFIA	1	1.31	1.87
KLHL4	1	1.30	1.55

F5	1	1.30	1.54
NDRG4	1	1.30	1.56
DDX60	1	1.30	1.53
SEL1L	1	1.30	1.52
PPP1R3C	1	1.30	1.86
LRIG1	1	1.29	1.53
BNIP3L	1	1.29	1.62
DPH3	1	1.29	1.54
FLJ20254	1	1.29	1.50
ALDH3B1	1	1.28	1.88
C20orf100	1	1.28	1.72
TIAF1	1	1.28	1.72
TMED10	1	1.28	2.35
SPATA20	1	1.27	1.64
C19orf33	1	1.27	1.85
EMP1	1	1.27	1.88
OLFML2A	1	1.27	1.62
MTMR11	1	1.27	1.57
SUSD2	1	1.27	2.16
QPCT	1	1.27	1.64
COL18A1	1	1.27	1.65
MAPRE3	1	1.26	1.63
PARP9	1	1.26	1.53
NEU1	1	1.26	1.74
FIBP	1	1.26	1.69
TM4SF19	1	1.25	1.64
PRODH	1	1.25	1.60
SLC46A3	1	1.25	1.85
TSC22D1	1	1.25	1.83
DAB2	1	1.25	1.94
MGLL	1	1.25	1.77
ACYP2	1	1.24	1.59
TBXAS1	1	1.24	2.10
PDZK1	1	1.24	2.08
SLCO2B1	1	1.24	1.74
RIOK3	1	1.24	1.65
MALL	1	1.23	1.93
MLPH	1	1.23	1.65
DKK3	1	1.22	1.77
TSPAN4	1	1.22	1.55
SETBP1	1	1.22	1.55
ANXA9	1	1.22	1.66
PLD5	1	1.21	1.69
FXYD2	1	1.21	1.53
BAIAP2L2	1	1.21	1.70
C14orf149	1	1.20	1.69
PPM1B	1	1.20	1.51

CAST	1	1.20	1.59
RDX	1	1.20	1.62
HIST1H1C	1	1.19	1.96
GFPT2	1	1.19	1.60
ITGAM	1	1.19	1.51
KIAA1539	1	1.19	1.54
ABCG1	1	1.19	1.57
ADCY1	1	1.18	1.52
CNTNAP3	1	1.17	1.54
PPL	1	1.16	1.54
APOH	1	1.16	1.66
C9orf152	1	1.16	1.97
CACNA1G	1	1.16	2.20
COL7A1	1	1.15	2.12
LOC388814	1	1.15	1.56
SLC23A1	1	1.15	1.59
CDCP1	1	1.15	1.64
CDH6	1	1.15	1.55
NAP1L5	1	1.15	1.61
MYO5B	1	1.15	1.59
MB	1	1.14	1.63
LHPP	1	1.14	1.77
RBKS	1	1.13	1.67
CACNG6	1	1.13	1.63
ADORA2B	1	1.13	1.58
BCMO1	1	1.13	1.75
ECHDC2	1	1.13	1.55
MGC4677	1	1.12	1.53
S100A4	1	1.12	1.51
CEACAM1	1	1.11	1.84
KIAA0514	1	1.11	1.84
NAV2	1	1.11	1.57
FAM122B	1	1.11	0.56
MICB	1	1.10	0.58
PCDH7	1	1.10	1.57
AKAP13	1	1.09	1.55
ETFB	1	1.08	1.62
SCARA3	1	1.08	1.90
ABCB6	1	1.08	1.68
TOR1AIP2	1	1.08	0.36
HIST2H2AA3	1	1.08	1.68
PEA15	1	1.08	1.61
C9orf103	1	1.08	1.63
C14orf45	1	1.08	1.57
EIF4EBP2	1	1.08	0.42
LOC730316	1	1.07	0.45
YIPF3	1	1.07	1.51

MYLK	1	1.07	1.54
SVIL	1	1.07	1.53
AP1S2	1	1.06	1.69
POLD4	1	1.06	1.59
C1orf97	1	1.06	1.50
LGALS1	1	1.05	1.81
C3orf52	1	1.05	0.54
ANXA3	1	1.04	1.59
OCRL	1	1.04	0.56
SLC12A2	1	1.04	1.50
TMEM175	1	1.04	1.69
RNPS1	1	1.03	0.59
ODC1	1	1.03	0.54
BTBD10	1	1.03	0.50
SFRP1	1	1.02	1.63
KRCC1	1	1.02	1.61
FBXO10	1	1.01	1.57
RBBP4	1	1.01	0.45
TMEM194	1	1.01	0.50
TMEFF2	1	1.01	1.64
CRTAP	1	1.00	1.62
ACY1	1	1.00	1.66
CYB5R1	1	1.00	1.63
AURKA	1	1.00	0.60
F7	1	1.00	1.53
SPATA7	1	0.99	1.52
C21orf45	1	0.99	0.58
B4GALT6	1	0.99	0.56
CXorf38	1	0.99	0.59
PPP2R5A	1	0.99	0.47
TRIOBP	1	0.98	1.71
SMAD6	1	0.98	1.68
HPGD	1	0.98	1.52
PGM1	1	0.98	0.57
HSPD1	1	0.97	0.53
MMP24	1	0.97	1.62
UBXN2A	1	0.97	0.59
CAPZA1	1	0.97	0.50
ROR1	1	0.97	1.99
PTGES3	1	0.97	0.59
CABC1	1	0.97	0.44
FAM18B2	1	0.96	0.56
UROS	1	0.96	1.65
MXD4	1	0.96	1.72
WISP2	1	0.96	1.53
KIAA0427	1	0.96	1.51
TCN2	1	0.95	1.67

SHANK2	1	0.95	1.55
UGT2B7	1	0.95	1.54
STRA6	1	0.94	2.01
C6orf85	1	0.94	1.52
NUDT3	1	0.94	0.59
LOC441050	1	0.93	0.51
ANXA13	1	0.93	2.08
CASC4	1	0.93	1.61
LOC648695	1	0.93	0.41
MXRA7	1	0.92	1.60
ARSD	1	0.92	1.70
DNAJC25-GNG10	1	0.92	0.59
NIP7	1	0.92	0.54
HIST1H2BD	1	0.91	1.83
GATS	1	0.91	1.81
ARHGAP19	1	0.90	0.47
CTGF	1	0.90	1.64
GTF2H1	1	0.90	0.56
TAF1A	1	0.89	0.60
SRF	1	0.89	0.55
DICER1	1	0.89	0.58
RCC2	1	0.89	0.50
LOC643300	1	0.87	0.33
TM4SF20	1	0.87	1.93
OTUD6B	1	0.87	0.58
C2orf37	1	0.86	0.56
SERP1	1	0.86	0.59
MKI67IP	1	0.86	0.54
TRNP1	1	0.85	1.54
DCUN1D4	1	0.85	0.58
PEF1	1	0.85	0.54
SAMD5	1	0.85	1.62
GAL	1	0.85	0.55
TNPO1	1	0.84	0.54
NAF1	1	0.84	0.54
KCNJ16	1	0.83	1.86
FAM18B	1	0.83	0.51
WDR40A	1	0.82	0.42
BRIX1	1	0.81	0.59
SPTY2D1	1	0.81	0.59
GNG10	1	0.81	0.46
CLEC2D	1	0.81	0.59
SERPINE1	1	0.81	2.03
HNRNPAB	1	0.81	0.60
LOC642031	1	0.80	0.47
TCEA1	1	0.79	0.59
TUBE1	1	0.79	0.58

SDHALP1	1	0.78	0.59
SIPA1L2	1	0.78	0.57
RFC3	1	0.78	0.57
TRMT11	1	0.77	0.53
ATF4	1	0.77	0.60
LOC653820	1	0.77	0.52
DNMT3B	1	0.77	0.56
SCO1	1	0.77	0.59
GART	1	0.77	0.58
SLC7A1	1	0.77	0.57
CASP9	1	0.76	0.49
BCAT1	1	0.76	0.49
HSP90AB1	1	0.75	0.56
FEM1A	1	0.75	0.56
C9orf6	1	0.75	0.56
CAPN2	1	0.75	1.70
SLC16A9	1	0.74	0.53
LYAR	1	0.74	0.56
DFFA	1	0.74	0.60
YRDC	1	0.73	0.52
LOC646849	1	0.73	0.42
CD55	1	0.71	0.45
PUS1	1	0.71	0.60
MAK16	1	0.70	0.57
SLC38A1	1	0.70	0.58
YOD1	1	0.70	0.54
KLF4	1	0.69	0.51
EIF4EBP1	1	0.69	0.56
DCP2	1	0.68	0.51
HMOX1	1	0.68	0.57
LOC285216	1	0.68	0.58
HSPA1B	1	0.68	0.50
ALDH1L2	1	0.67	0.50
CRB3	1	0.67	0.60
LOC493869	1	0.67	0.53
CTH	1	0.67	0.47
HIATL1	1	0.67	0.60
MSI2	1	0.66	0.58
TIPARP	1	0.65	0.58
RPS7	1	0.65	0.53
PHF5A	1	0.65	0.58
PHACTR2	1	0.65	0.59
NOLA1	1	0.64	0.58
SYNJ2BP	1	0.64	0.53
MTHFD2	1	0.64	0.40
BMPR2	1	0.64	1.54
MARS	1	0.64	0.58

CARS	1	0.64	0.50
USP53	1	0.64	0.57
GTF2E1	1	0.64	0.55
C1orf19	1	0.63	0.59
LGSN	1	0.63	0.60
THOC4	1	0.62	0.56
DIO2	1	0.61	0.59
PSMG3	1	0.61	0.58
LOC644762	1	0.61	0.56
PHF17	1	0.61	0.54
ID2	1	0.61	0.60
YARS	1	0.60	0.56
C9orf100S	1	0.60	0.84
PSMC3IP	1	0.60	0.66
KCNJ6	1	0.60	1.01
STEAP2	1	0.60	0.78
NOLC1	1	0.60	0.60
TMEM189	1	0.60	1.03
KIF5B	1	0.60	0.86
WTIP	1	0.60	0.77
B3GALT6	1	0.60	1.13
RFXANK	1	0.60	1.02
ZNF189	1	0.60	1.02
TCEAL1	1	0.60	1.10
UBA52	1	0.60	0.76
WDFY1	1	0.59	0.87
FOXO3	1	0.59	0.60
NDUFA10	1	0.59	0.82
BPNT1	1	0.59	0.90
BIRC3	1	0.59	0.58
CNOT8	1	0.59	0.88
HAX1	1	0.59	0.88
MAP1LC3A	1	0.59	0.82
RNGTT	1	0.59	1.00
SNTB1	1	0.59	0.61
CHM	1	0.59	0.88
IGFBP3	1	0.59	0.79
GPT2	1	0.59	0.56
PAWR	1	0.59	0.55
WDR45	1	0.59	0.82
CHAC1	1	0.59	0.58
LOC653147	1	0.59	0.79
PHGDH	1	0.59	0.54
KIT	1	0.59	0.65
FAM83H	1	0.59	0.90
ATF5	1	0.59	0.74
KCTD20	1	0.59	0.73

C11orf1	1	0.59	0.91
LOC401074	1	0.59	0.66
DDIT3	1	0.58	0.51
TRIM65	1	0.58	0.77
ASB1	1	0.58	0.88
ZBED1	1	0.58	0.89
SLC22A3	1	0.58	1.04
PPP3R1	1	0.58	0.66
RBBP9	1	0.58	0.88
H2AFY	1	0.58	1.08
AGBL5	1	0.58	0.83
C17orf91	1	0.58	0.99
TOP3A	1	0.58	0.89
CYB5D1	1	0.58	0.84
ERMP1	1	0.58	0.96
CRBN	1	0.58	0.76
ID4	1	0.58	0.39
CIAO1	1	0.58	0.91
GNL3L	1	0.58	0.67
CLCN7	1	0.58	0.91
NAT9	1	0.58	0.79
PYCR1	1	0.57	0.66
SLC39A1	1	0.57	0.96
C20orf177	1	0.57	0.65
GARS	1	0.57	0.49
GDAP1	1	0.57	0.57
RRAGB	1	0.57	0.73
GTPBP6	1	0.57	0.87
DNAJB6	1	0.57	0.73
PET112L	1	0.57	0.88
MRPL10	1	0.57	0.77
KRT7	1	0.57	0.94
MMGT1	1	0.57	0.64
TIMM10	1	0.57	0.69
SGK	1	0.57	0.88
LOC283932	1	0.57	0.75
ZNF239	1	0.57	0.73
TMX3	1	0.57	1.06
DUS4L	1	0.57	0.69
SLC6A9	1	0.57	0.56
FKBP14	1	0.57	0.93
LOC649970	1	0.57	0.56
RPL9	1	0.56	0.65
SSBP1	1	0.56	0.94
DIXDC1	1	0.56	0.70
LOC652489	1	0.56	0.88
SEC23B	1	0.56	0.78

ADAT1	1	0.56	0.95
FAM136A	1	0.56	0.91
FAM129A	1	0.56	0.53
RNF149	1	0.56	0.98
PCK2	1	0.56	0.59
LOC391045	1	0.56	0.54
TRAPPC6B	1	0.56	1.10
LIAS	1	0.56	0.69
TESC	1	0.56	0.75
GABARAPL1	1	0.56	0.82
THBS1	1	0.56	0.77
PGM5	1	0.56	0.96
COQ3	1	0.56	0.72
LARP1	1	0.56	0.80
CBX6	1	0.56	0.73
TDG	1	0.56	0.61
RRM2	1	0.55	0.85
PANK1	1	0.55	0.99
DENND5B	1	0.55	1.29
TRMT2B	1	0.55	0.82
TYSND1	1	0.55	0.71
FAM3C	1	0.55	1.13
REEP3	1	0.55	1.06
ZNF286A	1	0.55	0.80
KLHL12	1	0.55	0.65
CHMP4A	1	0.55	0.75
SUMO2	1	0.55	1.05
ZNF281	1	0.55	0.88
LOC650428	1	0.55	0.59
CTNS	1	0.55	1.01
SLC35A2	1	0.55	0.66
ARL6IP6	1	0.54	0.78
RPL7L1	1	0.54	0.72
LGSN	1	0.54	0.59
FLRT3	1	0.54	0.65
DIRAS3	1	0.54	0.58
SNRPD1	1	0.54	0.83
CHGB	1	0.54	0.62
NUAK2	1	0.54	0.80
LOC554203	1	0.54	0.92
SRGAP1	1	0.54	0.82
TMEM79	1	0.54	0.50
SNAPC5	1	0.54	0.71
STK36	1	0.54	0.93
LOC645236	1	0.54	0.62
B4GALT4	1	0.53	0.96
C1orf24	1	0.53	0.46

NKIRAS2	1	0.53	0.89
BIRC3	1	0.53	0.61
ULK1	1	0.53	0.60
CCNC	1	0.53	0.78
KRT80	1	0.53	1.85
ULBP1	1	0.53	0.42
C12orf43	1	0.53	0.69
RPL28	1	0.53	0.54
LOC643357	1	0.53	0.88
ATF3	1	0.53	0.54
PDCD2	1	0.53	0.53
CPSF2	1	0.53	0.73
ADPGK	1	0.53	0.88
ATP5S	1	0.53	0.67
BICD2	1	0.53	0.94
PSAT1	1	0.53	0.33
GRPEL2	1	0.52	0.59
RIPK5	1	0.52	0.83
ADM	1	0.52	0.79
TFAP2A	1	0.52	0.72
ID2	1	0.52	0.47
ARL2BP	1	0.52	1.26
C2orf82	1	0.52	0.58
SCRN1	1	0.51	1.05
C17orf97	1	0.51	0.95
ADH1C	1	0.51	0.72
PPAP2A	1	0.51	0.84
ERLIN2	1	0.51	1.11
GADD45B	1	0.51	0.65
ZNF544	1	0.51	0.71
NINJ1	1	0.51	1.00
NPC1	1	0.51	0.76
FBXO18	1	0.51	0.94
EPDR1	1	0.50	0.86
SLC30A9	1	0.50	0.96
DDIT4L	1	0.50	0.56
ADH1A	1	0.50	0.70
RFTN1	1	0.50	0.88
CUTL1	1	0.49	0.78
SLC39A9	1	0.49	0.85
ZMAT3	1	0.49	1.41
ILF3	1	0.49	0.68
SLC1A5	1	0.49	0.55
EIF2S1	1	0.49	0.94
GDF15	1	0.49	0.71
MRPL11	1	0.49	0.87
PGAM5	1	0.48	0.73

PMM2	1	0.48	0.76
SLC2A14	1	0.48	0.50
ASNS	1	0.47	0.38
LOC644033	1	0.47	0.58
AKIRIN1	1	0.47	0.66
PAFAH1B1	1	0.47	1.27
CBS	1	0.47	0.44
EID3	1	0.46	0.52
BEX2	1	0.46	0.66
NR4A2	1	0.46	0.37
ULK1	1	0.46	0.56
PRTFDC1	1	0.46	1.22
SRXN1	1	0.46	0.62
SAR1A	1	0.46	0.97
SLC2A3	1	0.45	0.35
PPP1R14B	1	0.45	0.93
ARMC1	1	0.45	0.88
UROD	1	0.45	1.29
NECAP1	1	0.45	0.93
TACSTD1	1	0.44	0.33
C14orf126	1	0.44	0.86
S100A10	1	0.43	1.54
BCL2L2	1	0.43	0.70
SLC16A6	1	0.43	1.23
B4GALT7	1	0.42	1.14
NETO2	1	0.41	1.04
IFRD1	1	0.40	0.38
TFPI2	1	0.40	0.79
TERF1	1	0.40	0.78
HORMAD1	1	0.38	0.76
LXN	1	0.37	0.59
H19	1	0.36	0.68
RASD1	1	0.31	0.25
STC2	1	0.29	0.20

Table S6