

Table S1. RNA-seq sample and sequencing information.

Condition	² Bio #	³ Tech #	⁴ rRNA deplete	⁵ Prep	Platform	⁶ Facility	Read Mapper	⁷ Total reads	⁸ # map	⁹ % map	¹⁰ # m/ncRNA	¹¹ % m/ncRNA
biofilm	1	1	Express	NEB (S)	SOLiD V4	UTGSAF	SHRIMP 2.2.1	6,323,061	886,203	14%	85,547	10%
		2	Express	NEB (S)	SOLiD V4	UTGSAF	SHRIMP 2.2.1	9,817,673	2,354,500	24%	200,164	9%
biofilm	2	1	Tex	NEB (S)	SOLiD V4	UTGSAF	SHRIMP 2.2.1	14,060,736	3,165,547	23%	50,282	2%
		2	Tex	Epicentre	HiSeq2000	Tufts	Bowtie 2.0.2	12,632,073	132,635	1%	16,235	12%
		3	NA	Epicentre	HiSeq2000	Tufts	Bowtie 2.0.2	8,208,689	557,369	7%	120,289	22%
abscess (6) ¹	1	1	Enrich	NEB (I)	HiSeq2000	UTGSAF	Bowtie 2.0.2	25,297,104	5,798,615	23%	434,191	7%
abscess (2)	2	1	Enrich	NEB (I)	HiSeq2000	UTGSAF	Bowtie 2.0.2	42,804,092	25,539,796	60%	839,805	3%
abscess (2)	3	1	Enrich	NEB (I)	HiSeq2000	UTGSAF	Bowtie 2.0.2	52,165,722	31,983,011	61%	915,676	3%

¹abscess (#): “#” indicates the number of abscesses pooled per replicate

²Bio #: biological replicate for each condition

³Tech #: technical replicate for each biological replicate

⁴rRNA deplete: Express=Ambion MICROExpress kit, Enrich=Ambion MICROEnrich kit, Tex=Epicentre Terminator 5' monophosphate dependent exonuclease, and NA=no depletion method was utilized

⁵Prep: Library preparation kit used. NEB (S)=NEB Next Small RNA Sample Prep Set 3 for SOLiD, Epicentre=Epicentre ScriptMiner Small RNA Library Preparation kit, NEB (I)=NEB Next Multiplex Small RNA Library Prep Set for Illumina.

⁶Facility: Sequencing facility. UTGSAF=University of Texas Genome Sequencing and Analysis Facility, Tufts=Tufts University Core Facility Genomics.

⁷Total reads: the number of reads sequenced

⁸# map: the number of reads mapping to the *A. actinomycetemcomitans* genome

⁹% map: the percentage of reads mapping to the *A. actinomycetemcomitans* genome

¹⁰# map m/ncRNA: the number of reads mapping to an mRNA or ncRNA

¹¹% map m/ncRNA: percentage of *A. actinomycetemcomitans* reads mapping to an mRNA or ncRNA

Table S2. *A. actinomycetemcomitans* mRNA 5' ends.

Locus tag	Strand	Location
D7S_0002	-	1043
D7S_0003	+	1245
D7S_0007	+	3771
D7S_0009	-	6554
D7S_0010	+	6680
D7S_0011	+	7997
D7S_0013	-	11453
D7S_0020	-	19228
D7S_0022	-	22231
D7S_0031	-	32204
D7S_0047	+	43172
D7S_0056	-	54459
D7S_0058	-	56413
D7S_0059	+	56773
D7S_0068	-	68466
D7S_0076	-	83001
D7S_0077	-	83790
D7S_0078	-	84259
D7S_0079	+	84351
D7S_0081	-	87603
D7S_0086	-	95480
D7S_0093	+	100507
D7S_0097	-	103646
D7S_0105	-	108910
D7S_0106	+	109030
D7S_0107	-	111330
D7S_0108	+	111544
D7S_0110	-	116124
D7S_0111	+	116253
D7S_0115	-	119354
D7S_0117	-	120460
D7S_0121	-	127359
D7S_0123	-	128225
D7S_0124	-	130159
D7S_0125	+	130248
D7S_0126	-	131085
D7S_0146	-	147852
D7S_0149	-	150062
D7S_0149	-	150053
D7S_0150	+	150160
D7S_0152	-	153530
D7S_0156	-	156554
D7S_0159	-	160264
D7S_0166	-	169514
D7S_0167	+	169531
D7S_0168	+	170404

D7S_0170	+	171896
D7S_0171	+	174628
D7S_0177	-	179773
D7S_0177	-	179942
D7S_0179	-	181359
D7S_0180	+	181595
D7S_0184	-	188946
D7S_0185	+	189181
D7S_0195	-	202657
D7S_0196	+	202772
D7S_0202	+	208352
D7S_0204	+	210954
D7S_0205	+	211434
D7S_0213	-	219426
D7S_0214	+	219589
D7S_0219	-	224927
D7S_0229	-	235293
D7S_0233	+	237059
D7S_0235	-	240333
D7S_0236	+	240628
D7S_0238	+	242811
D7S_0247	-	253036
D7S_0248	+	253048
D7S_0248	+	253079
D7S_0250	+	255444
D7S_0256	-	264572
D7S_0262	-	267795
D7S_0266	-	271779
D7S_0268	+	271887
D7S_0295	-	288047
D7S_0296	+	288174
D7S_0305	+	296158
D7S_0316	-	308142
D7S_0323	-	315182
D7S_0324	+	315478
D7S_0325	-	319314
D7S_0329	-	324697
D7S_0331	+	325481
D7S_0337	-	332359
D7S_0339	+	334983
D7S_0349	-	346430
D7S_0352	+	348115
D7S_0355	-	351741
D7S_0357	+	352901
D7S_0364	-	361549
D7S_0380	-	370235
D7S_0381	+	371312
D7S_0383	-	376191
D7S_0384	+	376272

D7S_0387	+	379549
D7S_0389	+	382156
D7S_0397	+	388728
D7S_0401	-	395251
D7S_0402	-	396662
D7S_0402	-	396620
D7S_0407	-	402277
D7S_0408	-	403511
D7S_0413	-	407926
D7S_0414	+	408065
D7S_0434	-	426427
D7S_0435	-	427865
D7S_0436	-	428742
D7S_0439	-	430951
D7S_0440	-	431511
D7S_0441	+	432599
D7S_0443	+	434829
D7S_0445	+	435406
D7S_0447	-	438236
D7S_0448	-	440406
D7S_0451	-	442691
D7S_0459	+	451207
D7S_0460	-	452875
D7S_0461	-	454033
D7S_0462	+	454166
D7S_0464	-	456260
D7S_0465	-	458041
D7S_0467	+	459154
D7S_0471	-	463347
D7S_0472	+	463483
D7S_0480	+	467126
D7S_0483	+	469219
D7S_0485	-	472853
D7S_0486	+	473964
D7S_0487	+	474988
D7S_0490	-	479149
D7S_0491	+	479281
D7S_0495	+	482075
D7S_0498	-	485773
D7S_0499	+	485853
D7S_0506	+	492528
D7S_0507	+	492988
D7S_0508	+	494393
D7S_0510	-	496520
D7S_0515	-	500322
D7S_0516	+	501007
D7S_0519	+	503303
D7S_0522	+	504519
D7S_0526	+	506388

D7S_0537	-	517925
D7S_0546	+	526122
D7S_0552	-	536527
D7S_0554	+	537152
D7S_0560	+	545545
D7S_0562	+	546826
D7S_0563	+	547801
D7S_0565	-	551362
D7S_0574	-	559019
D7S_0576	-	559931
D7S_0577	+	560084
D7S_0578	+	561588
D7S_0581	-	564200
D7S_0594	-	575523
D7S_0595	+	575799
D7S_0604	-	585408
D7S_0606	+	585720
D7S_0611	-	593307
D7S_0616	-	602064
D7S_0617	-	603597
D7S_0618	-	604325
D7S_0622	+	605900
D7S_0625	-	610251
D7S_0633	-	613750
D7S_0638	-	617816
D7S_0641	-	621173
D7S_0642	+	621419
D7S_0644	-	623495
D7S_0646	-	624662
D7S_0647	-	625352
D7S_0648	-	625821
D7S_0649	-	627207
D7S_0650	+	627410
D7S_0654	-	630643
D7S_0658	+	636618
D7S_0660	+	638742
D7S_0662	+	640245
D7S_0664	-	643770
D7S_0668	-	646012
D7S_0669	+	646143
D7S_0677	+	650882
D7S_0684	-	657390
D7S_0688	+	658919
D7S_0695	+	664946
D7S_0696	-	666503
D7S_0698	-	668726
D7S_0712	-	678181
D7S_0713	+	678277
D7S_0722	-	686914

D7S_0723	+	687037
D7S_0736	-	699272
D7S_0748	+	707118
D7S_0749	+	708020
D7S_0750	+	709650
D7S_0752	+	713175
D7S_0755	-	721595
D7S_0757	+	721735
D7S_0758	+	723735
D7S_0761	+	729153
D7S_0767	-	733648
D7S_0768	-	734259
D7S_0781	-	749030
D7S_0809	-	762604
D7S_0813	-	765934
D7S_0828	+	777979
D7S_0838	+	785058
D7S_0841	+	787131
D7S_0847	-	793363
D7S_0848	+	793358
D7S_0849	-	795016
D7S_0851	+	795571
D7S_0850	-	795446
D7S_0854	+	797852
D7S_0860	-	802803
D7S_0861	+	802969
D7S_0864	+	806416
D7S_0871	-	812099
D7S_0873	-	812815
D7S_0874	+	812945
D7S_0875	-	817368
D7S_0877	+	818396
D7S_0879	+	819968
D7S_0881	-	822601
D7S_0883	-	823783
D7S_0884	-	824072
D7S_0885	-	825592
D7S_0886	+	825662
D7S_0889	+	827967
D7S_0897	-	836303
D7S_0902	+	836900
D7S_0903	-	840390
D7S_0905	-	842686
D7S_0906	+	842753
D7S_0908	-	844887
D7S_0910	+	845624
D7S_0912	-	848597
D7S_0913	+	848643
D7S_0917	-	853034

D7S_0919	-	854388
D7S_0947	-	881570
D7S_0957	-	891565
D7S_0959	-	893375
D7S_0960	+	893484
D7S_0963	-	899750
D7S_0969	+	903755
D7S_0972	-	906595
D7S_0975	+	907885
D7S_0984	-	920035
D7S_0985	+	920143
D7S_0989	-	922341
D7S_0996	-	926631
D7S_0998	+	927256
D7S_1002	-	932527
D7S_1003	+	932615
D7S_1008	-	944894
D7S_1010	+	945089
D7S_1012	+	946672
D7S_1014	+	948442
D7S_1025	-	962830
D7S_1026	+	962897
D7S_1031	+	965390
D7S_1035	-	970452
D7S_1036	+	970509
D7S_1041	+	974814
D7S_1042	+	975422
D7S_1051	-	984509
D7S_1054	-	987961
D7S_1062	-	994137
D7S_1065	+	994659
D7S_1069	-	996889
D7S_1072	+	998440
D7S_1080	-	1006856
D7S_1081	+	1006912
D7S_1084	+	1009161
D7S_1087	+	1011284
D7S_1097	-	1022623
D7S_1099	-	1025883
D7S_1100	+	1025983
D7S_1102	-	1028856
D7S_1103	+	1028961
D7S_1109	-	1033556
D7S_1116	+	1035722
D7S_1120	-	1039251
D7S_1122	-	1042872
D7S_1128	+	1046725
D7S_1138	-	1056597
D7S_1139	+	1056691

D7S_1145	-	1061753
D7S_1146	+	1061791
D7S_1151	-	1067455
D7S_1153	-	1070199
D7S_1158	-	1071633
D7S_1158	-	1071663
D7S_1160	-	1073444
D7S_1161	-	1074449
D7S_1162	-	1075060
D7S_1163	-	1075614
D7S_1164	+	1075653
D7S_1166	+	1077729
D7S_1169	+	1079242
D7S_1172	-	1083350
D7S_1173	+	1083435
D7S_1181	-	1088962
D7S_1182	+	1089062
D7S_1186	+	1092204
D7S_1188	+	1094186
D7S_1189	+	1095834
D7S_1192	+	1097456
D7S_1195	+	1101206
D7S_1200	-	1105902
D7S_1201	+	1106011
D7S_1204	-	1108478
D7S_1205	+	1108641
D7S_1210	+	1113221
D7S_1216	+	1117859
D7S_1219	-	1121198
D7S_1220	+	1121406
D7S_1234	+	1133115
D7S_1242	-	1139413
D7S_1243	+	1139353
D7S_1244	-	1140502
D7S_1245	+	1140541
D7S_1248	-	1145644
D7S_1249	-	1147238
D7S_1250	+	1147416
D7S_1256	-	1151991
D7S_1257	+	1152123
D7S_1259	+	1153245
D7S_1265	+	1157613
D7S_1274	-	1165680
D7S_1277	+	1167698
D7S_1279	-	1179524
D7S_1281	-	1172113
D7S_1282	+	1172363
D7S_1282	+	1172285
D7S_1310	+	1195141

D7S_1312	-	1198195
D7S_1313	-	1198748
D7S_1314	+	1198917
D7S_1318	-	1204953
D7S_1321	+	1206747
D7S_1333	-	1220996
D7S_1345	+	1232014
D7S_1346	-	1233644
D7S_1352	+	1237043
D7S_1359	-	1244843
D7S_1362	-	1248259
D7S_1363	+	1248467
D7S_1374	-	1261690
D7S_1386	-	1272472
D7S_1387	+	1272648
D7S_1392	-	1276986
D7S_1393	+	1277095
D7S_1395	-	1280356
D7S_1396	+	1280490
D7S_1397	-	1282381
D7S_1400	+	1284246
D7S_1402	-	1286686
D7S_1403	+	1286820
D7S_1410	-	1294936
D7S_1415	-	1299850
D7S_1416	-	1303146
D7S_1417	+	1303305
D7S_1424	+	1307245
D7S_1427	+	1309068
D7S_1429	+	1310044
D7S_1454	-	1330196
D7S_1456	-	1333995
D7S_1457	-	1334732
D7S_1459	+	1336820
D7S_1463	-	1342151
D7S_1488	-	1363040
D7S_1489	+	1363427
D7S_1491	+	1364297
D7S_1493	+	1366956
D7S_1495	+	1368463
D7S_1496	+	1372012
D7S_1497	+	1372738
D7S_1500	+	1376057
D7S_1502	+	1377919
D7S_1514	+	1391218
D7S_1518	+	1396220
D7S_1520	+	1397580
D7S_1522	+	1399999
D7S_1524	+	1402077

D7S_1528	-	1405402
D7S_1530	+	1406535
D7S_1532	+	1409085
D7S_1536	-	1414780
D7S_1538	+	1414922
D7S_1544	+	1420989
D7S_1548	+	1424133
D7S_1551	+	1424905
D7S_1553	-	1426295
D7S_1558	-	1431161
D7S_1559	+	1431359
D7S_1561	-	1434822
D7S_1562	-	1434811
D7S_1564	+	1434840
D7S_1568	+	1441024
D7S_1574	-	1448012
D7S_1575	-	1449238
D7S_1576	+	1449401
D7S_1586	-	1461563
D7S_1588	+	1461750
D7S_1589	-	1463037
D7S_1590	-	1464961
D7S_1592	+	1465083
D7S_1599	-	1470756
D7S_1600	-	1471887
D7S_1604	+	1474116
D7S_1607	-	1477998
D7S_1625	-	1492051
D7S_1627	+	1492742
D7S_1629	+	1493698
D7S_1632	+	1496051
D7S_1637	-	1504429
D7S_1647	+	1513672
D7S_1653	+	1518449
D7S_1656	-	1520838
D7S_1659	-	1524231
D7S_1660	-	1525165
D7S_1661	+	1525406
D7S_1662	+	1527206
D7S_1665	-	1531695
D7S_1667	+	1531772
D7S_1669	-	1533942
D7S_1672	-	1536590
D7S_1673	+	1536723
D7S_1683	-	1546312
D7S_1684	-	1548056
D7S_1687	-	1549614
D7S_1688	+	1549759
D7S_1691	+	1552179

D7S_1694	-	1555156
D7S_1695	+	1555258
D7S_1696	+	1556128
D7S_1700	+	1558861
D7S_1702	+	1559404
D7S_1704	+	1561358
D7S_1712	+	1567345
D7S_1714	-	1569874
D7S_1715	-	1570368
D7S_1717	-	1572282
D7S_1717	-	1572259
D7S_1719	-	1572822
D7S_1720	-	1573449
D7S_1727	-	1580035
D7S_1729	+	1580167
D7S_1731	+	1581991
D7S_1734	-	1584594
D7S_1746	-	1600106
D7S_1751	-	1602528
D7S_1752	-	1603659
D7S_1764	-	1613368
D7S_1766	-	1614940
D7S_1767	+	1615039
D7S_1776	-	1627100
D7S_1777	+	1627163
D7S_1778	-	1629230
D7S_1779	-	1629890
D7S_1780	-	1630934
D7S_1781	+	1630941
D7S_1791	-	1640402
D7S_1793	+	1641254
D7S_1797	+	1645382
D7S_1800	+	1647779
D7S_1806	-	1655291
D7S_1809	+	1656217
D7S_1816	-	1662867
D7S_1816	-	1662904
D7S_1817	+	1663051
D7S_1818	+	1663726
D7S_1822	+	1668787
D7S_1828	+	1675296
D7S_1832	+	1679699
D7S_1839	+	1684846
D7S_1842	+	1685814
D7S_1844	-	1688299
D7S_1845	+	1688412
D7S_1847	-	1691925
D7S_1848	+	1692036
D7S_1856	+	1700448

D7S_1857	+	1701583
D7S_1857	+	1701467
D7S_1875	-	1713111
D7S_1877	+	1713224
D7S_1882	-	1718419
D7S_1888	-	1722888
D7S_1889	-	1723672
D7S_1892	+	1725104
D7S_1891	-	1725234
D7S_1893	-	1726503
D7S_1894	+	1726569
D7S_1895	+	1728217
D7S_1898	+	1729671
D7S_1903	+	1735042
D7S_1906	+	1737242
D7S_1913	-	1745843
D7S_1921	-	1755676
D7S_1923	+	1755948
D7S_1924	+	1758580
D7S_1928	+	1762689
D7S_1936	-	1769966
D7S_1938	+	1770154
D7S_1940	-	1774065
D7S_1946	+	1775993
D7S_1954	+	1784458
D7S_1955	+	1785432
D7S_1958	-	1788624
D7S_1959	+	1788660
D7S_1960	+	1788959
D7S_1963	-	1792917
D7S_1964	+	1792960
D7S_1965	-	1795131
D7S_1966	+	1795137
D7S_1969	+	1799004
D7S_1970	+	1799490
D7S_1980	+	1807633
D7S_1982	+	1809698
D7S_1991	+	1816595
D7S_1993	+	1818041
D7S_1998	+	1822395
D7S_2002	-	1828085
D7S_2003	+	1828217
D7S_2006	-	1832727
D7S_2008	+	1832830
D7S_2010	+	1833683
D7S_2011	+	1835494
D7S_2015	-	1841430
D7S_2016	-	1841978
D7S_2017	+	1842197

D7S_2026	-	1849269
D7S_2027	+	1849433
D7S_2029	+	1852884
D7S_2030	+	1853814
D7S_2032	-	1856957
D7S_2033	+	1857007
D7S_2036	-	1860344
D7S_2037	-	1861912
D7S_2038	-	1862767
D7S_2042	-	1866744
D7S_2045	+	1868206
D7S_2048	-	1871948
D7S_2053	-	1878151
D7S_2055	+	1878294
D7S_2058	-	1883141
D7S_2060	-	1885342
D7S_2061	+	1885383
D7S_2062	-	1888813
D7S_2064	-	1890877
D7S_2065	+	1891187
D7S_2065	+	1891150
D7S_2066	-	1893462
D7S_2068	-	1894959
D7S_2069	-	1896256
D7S_2070	+	1896385
D7S_2073	-	1898633
D7S_2077	-	1901508
D7S_2079	+	1901710
D7S_2086	-	1907788
D7S_2088	+	1908298
D7S_2090	-	1910123
D7S_2091	-	1911281
D7S_2093	-	1913265
D7S_2100	+	1917397
D7S_2102	-	1922378
D7S_2105	-	1926865
D7S_2106	-	1927851
D7S_2107	+	1928079
D7S_2111	-	1933428
D7S_2112	+	1933542
D7S_2116	-	1938990
D7S_2117	+	1939009
D7S_2123	-	1943858
D7S_2124	+	1943964
D7S_2125	+	1945322
D7S_2126	+	1946666
D7S_2128	-	1948519
D7S_2129	-	1950864
D7S_2130	+	1951079

D7S_2139	+	1956853
D7S_2141	+	1964544
D7S_2143	+	1967945
D7S_2147	+	1970186
D7S_2147	+	1970247
D7S_2152	+	1973612
D7S_2156	-	1978223
D7S_2162	+	1982617
D7S_2161	-	1982639
D7S_2166	-	1986526
D7S_2168	-	1987668
D7S_2169	+	1987802
D7S_2171	+	1990297
D7S_2185	+	2006686
D7S_2191	+	2012300
D7S_2195	-	2019824
D7S_2196	+	2020049
D7S_2197	-	2022411
D7S_2201	-	2026559
D7S_2202	+	2026692
D7S_2204	-	2031982
D7S_2205	+	2032135
D7S_2212	+	2038044
D7S_2220	-	2049114
D7S_2232	-	2062005
D7S_2233	+	2062176
D7S_2238	-	2070033
D7S_2238	-	2070038
D7S_2242	-	2072616
D7S_2243	+	2072769
D7S_2244	+	2074291
D7S_2249	-	2078917
D7S_2252	+	2081552
D7S_2261	-	2090084
D7S_2262	-	2091080
D7S_2263	+	2091007
D7S_2266	-	2093698
D7S_2267	+	2093462
D7S_2274	-	2101826
D7S_2276	-	2105256
D7S_2277	+	2104582
D7S_2278	-	2106816
D7S_2279	+	2106840
D7S_2279	+	2106856
D7S_2280	-	2107842
D7S_2281	+	2107962
D7S_2283	-	2109264
D7S_2284	+	2109972
D7S_2285	+	2110891

D7S_2288	+	2115486
D7S_2289	-	2119468
D7S_2291	+	2119473
D7S_2295	+	2123163
D7S_2297	+	2124428
D7S_2301	-	2128715
D7S_2309	+	2131489
D7S_2311	-	2134192
D7S_2312	+	2134269
D7S_2313	+	2135256
D7S_2324	-	2146798
D7S_2325	+	2146939
D7S_2330	-	2151578
D7S_2334	-	2156128
D7S_2336	-	2158071
D7S_2341	-	2163186
D7S_2344	+	2166606
D7S_2345	+	2166885
D7S_2346	+	2167864
D7S_2348	+	2169008
D7S_2363	-	2179137
D7S_2364	+	2179129
D7S_2365	+	2180381
D7S_2367	+	2182578
D7S_2368	-	2185329
D7S_2369	+	2185389
D7S_2378	-	2193195
D7S_2382	+	2195695
D7S_2384	-	2198350
D7S_2385	+	2198408
D7S_2391	-	2202748
D7S_2392	+	2202921
D7S_2401	-	2212354
D7S_2403	-	2213563
D7S_2404	+	2213729
D7S_2408	-	2219193
D7S_2412	+	2220932
D7S_2413	+	2221377
D7S_2414	-	2224612
D7S_2416	-	2227820
D7S_2417	+	2227982
D7S_2424	+	2231434
D7S_2433	+	2240761
D7S_2439	+	2247620
D7S_2450	-	2257764
D7S_2453	+	2259711
D7S_2460	-	2269924
D7S_2462	+	2270269
D7S_2466	-	2275008

D7S_2474	-	2282730
D7S_2475	+	2284947
D7S_2477	-	2284315
D7S_2479	+	2285812
D7S_2483	-	2289440
D7S_2484	+	2289503
D7S_2489	+	2294176
D7S_2497	-	2303058

Table S3. A. actinomycetemcomitans ncRNAs.

Locus tag	Start	Stop	Strand	Product
D7S_0016.1	14947	14962	-	cis-antisense to D7S_0016
D7S_0017.1	15764	15781	-	cis-antisense to D7S_0017
D7S_0031.1	32497	33701	+	sRNA
D7S_0043.1	41437	41836	+	sRNA, RNaseP A
D7S_0102.1	106478	106550	+	cis-antisense to D7S_0102
D7S_0104.1	106909	107092	-	cis-antisense to D7S_0104
D7S_0140.1	139731	139747	+	cis-antisense to D7S_0140
D7S_0150.1	150160	150357	+	riboswitch, lysine riboswitch
D7S_0157.1	156975	156990	+	cis-antisense to D7S_0157
D7S_0157.2	157367	157382	+	cis-antisense to D7S_0157
D7S_0159.1	159928	159944	+	cis-antisense to D7S_0159
D7S_0164.1	167019	167036	+	cis-antisense to D7S_0164
D7S_0167.1	170245	170260	-	cis-antisense to D7S_0167
D7S_0168.1	170404	170654	+	sRNA
D7S_0170.1	173749	173764	-	cis-antisense to D7S_0170
D7S_0185.1	191678	192283	-	CRISPR1 crRNA
D7S_0219.1	223814	223831	+	cis-antisense to D7S_0219
D7S_0222.1	227103	227157	+	cis-antisense to D7S_0222
D7S_0222.2	227938	228045	+	cis-antisense to D7S_0222
D7S_0235.1	240380	240648	-	sRNA, GcvB
D7S_0246.1	250512	250563	-	cis-antisense to D7S_0246
D7S_0247.1	252200	252216	+	cis-antisense to D7S_0247
D7S_0252.1	258997	259130	-	sRNA
D7S_0257.1	264893	264909	+	cis-antisense to D7S_0257
D7S_0268.1	275375	283978	+	CRISPR2 crRNA
D7S_0307.1	298320	299386	-	cis-antisense to D7S_0307
D7S_0317.1	308638	308899	-	cis-antisense to D7S_0317
D7S_0322.1	313712	313779	+	cis-antisense to D7S_0322
D7S_0331.1	325762	325945	+	sRNA, same strand as D7S_0331 with internal promoter
D7S_0343.1	340697	340887	+	sRNA, tfoR
D7S_0344.1	340808	341027	-	cis-antisense to D7S_0344 and D7S_0343.1
D7S_0348.1	345114	345184	-	sRNA
D7S_0349.1	345784	345803	+	cis-antisense to D7S_0349
D7S_0349.2	346495	346710	-	sRNA
D7S_0356.1	352763	352835	+	sRNA
D7S_0389.1	382720	382760	-	cis-antisense to D7S_0389
D7S_0396.1	388578	388605	+	cis-antisense to D7S_0396
D7S_0396.2	388608	388678	-	sRNA
D7S_0403.1	400019	400051	-	cis-antisense to D7S_0403
D7S_0408.1	402651	402666	+	cis-antisense to D7S_0408
D7S_0415.1	410451	410499	-	cis-antisense to D7S_0415
D7S_0447.1	437242	437333	+	cis-antisense to D7S_0447
D7S_0452.1	442836	442943	+	sRNA
D7S_0456.2	448372	448501	-	sRNA
D7S_0467.1	460649	460671	-	cis-antisense to D7S_0467
D7S_0470.1	462343	462401	-	cis-antisense to D7S_0470
D7S_0482.1	468848	468950	-	cis-antisense to D7S_0482.1
D7S_0482.2	469050	469190	-	sRNA

D7S_0485.1	473534	473626	-	sRNA
D7S_0495.1	482773	482831	+	sRNA
D7S_0497.1	484257	484271	+	cis-antisense to D7S_0497
D7S_0515.1	500015	500149	-	sRNA, internal to D7S_0515
D7S_0515.2	500612	500912	+	sRNA
D7S_0517.1	502039	502070	-	cis-antisense to D7S_0517
D7S_0526.1	507883	507949	+	sRNA
D7S_0538.1	518055	518318	+	sRNA
D7S_0551.1	534760	534804	+	cis-antisense to D7S_0551
D7S_0553.1	536951	536993	+	sRNA
D7S_0553.2	537029	537080	+	sRNA
D7S_0554.1	538498	538513	-	cis-antisense to D7S_0554
D7S_0572.1	555010	555112	-	cis-antisense to D7S_0572
D7S_0574.1	556575	556613	+	cis-antisense to D7S_0574
D7S_0574.2	558114	558129	+	cis-antisense to D7S_0574
D7S_0578.1	561890	562248	-	cis-antisense to D7S_0578
D7S_0597.2	578495	578858	-	cis-antisense to D7S_0597
D7S_0634.1	614750	614804	+	cis-antisense to D7S_0634
D7S_0647.1	625156	625264	+	cis-antisense to D7S_0647
D7S_0649.1	625936	625954	+	cis-antisense to D7S_0649
D7S_0656.1	633616	633694	+	cis-antisense to D7S_0656
D7S_0661.1	640001	640182	+	sRNA, his leader
D7S_0684.1	657498	657572	-	sRNA
D7S_0742.1	704584	704734	-	sRNA
D7S_0743.1	704845	704936	-	tRNA
D7S_0751.1	712928	712948	-	cis-antisense to D7S_0751
D7S_0752.1	713687	713705	-	cis-antisense to D7S_0752
D7S_0761.1	731348	731492	+	sRNA
D7S_0762.1	731606	731703	+	sRNA
D7S_0810.1	763555	763593	+	cis-antisense to D7S_0810
D7S_0836.1	784901	785002	+	sRNA
D7S_0846.1	791940	791989	+	cis-antisense to D7S_0846
D7S_0847.1	792446	792461	+	cis-antisense to D7S_0847
D7S_0847.2	792646	792686	+	cis-antisense to D7S_0847
D7S_0849.1	794824	795016	-	sRNA, 6S RNA
D7S_0897.1	835688	835733	+	cis-antisense to D7S_0897
D7S_0924.1	859790	859821	-	cis-antisense to D7S_0924
D7S_0939.1	874282	874311	+	sRNA
D7S_1003.1	933877	933937	-	cis-antisense to D7S_1003
D7S_1037.1	972598	972720	+	sRNA
D7S_1042.1	976574	976619	-	cis-antisense to D7S_1042
D7S_1070.1	997006	997048	+	cis-antisense to D7S_1070
D7S_1076.1	1002883	1002918	-	cis-antisense to D7S_1076
D7S_1093.1	1016903	1016943	+	cis-antisense to D7S_1093
D7S_1120.1	1039142	1039215	+	cis-antisense to D7S_1120
D7S_1144.1	1061183	1061215	+	cis-antisense to D7S_1144
D7S_1156.1	1070845	1070862	+	cis-antisense to D7S_1156
D7S_1171.1	1081777	1081864	+	sRNA
D7S_1171.2	1081874	1081905	+	sRNA
D7S_1184.1	1090894	1090910	-	cis-antisense to D7S_1184
D7S_1188.1	1095662	1095700	-	cis-antisense to D7S_1188

D7S_1198.1	1104145	1104317	+	cis-antisense to D7S_1198
D7S_1215.1	1117427	1117467	-	cis-antisense to D7S_1215
D7S_1245.1	1140829	1140844	-	cis-antisense to D7S_1245
D7S_1258.1	1153014	1153080	+	sRNA
D7S_1261.1	1156006	1156051	+	cis-antisense to D7S_1261
D7S_1262.1	1156183	1156200	+	cis-antisense to D7S_1262
D7S_1287.1	1177085	1177114	-	cis-antisense to D7S_1287
D7S_1287.2	1178600	1178705	-	sRNA
D7S_1295.1	1185139	1185452	-	cis-antisense to D7S_1295
D7S_1314.1	1200430	1200462	+	sRNA
D7S_1340.1	1228871	1228917	-	cis-antisense to D7S_1340
D7S_1349.1	1234765	1234808	+	cis-antisense to D7S_1349
D7S_1355.1	1239939	1240032	-	cis-antisense to D7S_1355
D7S_1357.1	1242024	1242040	-	cis-antisense to D7S_1357
D7S_1370.1	1257230	1258225	+	cis-antisense to D7S_1371
D7S_1426.1	1308993	1309085	-	sRNA
D7S_1442.1	1322703	1322802	-	sRNA
D7S_1442.2	1323184	1323273	-	sRNA, C4
D7S_1445.1	1324187	1324246	+	sRNA
D7S_1453.1	1328727	1328812	-	sRNA
D7S_1454.1	1330343	1330779	-	sRNA tmRNA
D7S_1456.1	1333819	1333854	+	cis-antisense to D7S_1456
D7S_1470.1	1348215	1348288	-	cis-antisense to D7S_1470
D7S_1472.1	1349399	1349626	+	cis-antisense to D7S_1472
D7S_1494.1	1367977	1368055	+	sRNA
D7S_1499.1	1374646	1374693	-	cis-antisense to D7S_1499
D7S_1506.1	1382162	1382212	-	cis-antisense to D7S_1506
D7S_1507.1	1383609	1383641	-	cis-antisense to D7S_1507
D7S_1507.2	1383666	1383704	-	cis-antisense to D7S_1507
D7S_1507.3	1384160	1384175	-	cis-antisense to D7S_1507
D7S_1515.1	1393292	1393336	-	cis-antisense to D7S_1515
D7S_1523.1	1401855	1401942	+	sRNA
D7S_1525.1	1403416	1403668	-	cis-antisense to D7S_1525
D7S_1551.1	1424905	1424934	+	sRNA
D7S_1553.1	1426152	1426193	+	cis-antisense to D7S_1553
D7S_1564.1	1435506	1435611	+	sRNA
D7S_1568.1	1442328	1442363	+	sRNA
D7S_1588.1	1462976	1463013	+	sRNA
D7S_1605.1	1475587	1475632	+	sRNA
D7S_1605.2	1475915	1475962	+	sRNA
D7S_1607.1	1477807	1477998	-	riboswtich, FMN riboswitch
D7S_1613.1	1483249	1483324	+	cis-antisense to D7S_1613
D7S_1630.1	1494145	1494175	-	cis-antisense to D7S_1630
D7S_1636.1	1503367	1503464	+	sRNA
D7S_1636.2	1503370	1503503	-	sRNA
D7S_1653.1	1518749	1518782	-	cis-antisense to D7S_1653
D7S_1655.1	1520580	1520641	+	sRNA
D7S_1716.1	1572027	1572259	-	riboswitch, glycine riboswitch
D7S_1718.1	1572415	1572460	+	cis-antisense to D7S_1718
D7S_1732.1	1583072	1583192	-	cis-antisense to D7S_1732
D7S_1752.1	1602865	1603069	+	cis-antisense to D7S_1752

D7S_1761.1	1609880	1609918	+	cis-antisense to D7S_1761
D7S_1767.1	1615039	1615163	+	sRNA
D7S_1775.1	1625510	1625647	-	sRNA
D7S_1778.1	1628997	1629020	+	cis-antisense to D7S_1778
D7S_1782.1	1632121	1632141	+	sRNA
D7S_1797.1	1645382	1645670	+	sRNA
D7S_1810.1	1656737	1656807	-	cis-antisense to D7S_1810
D7S_1846.1	1689712	1689794	+	cis-antisense to D7S_1846
D7S_1856.1	1700858	1700908	-	cis-antisense to D7S_1856
D7S_1867.1	1706719	1706809	-	sRNA
D7S_1868.1	1707072	1707347	+	cis-antisense to D7S_1868
D7S_1888.1	1722858	1722888	-	sRNA
D7S_1888.2	1722955	1723039	-	sRNA
D7S_1907.1	1738826	1738866	-	cis-antisense to D7S_1907
D7S_1911.1	1743052	1743092	+	cis-antisense to D7S_1911
D7S_1913.1	1745736	1745960	+	sRNA
D7S_1951.1	1781732	1781833	+	sRNA
D7S_1976.1	1804114	1804164	+	cis-antisense to D7S_1976
D7S_1982.1	1810023	1810068	-	cis-antisense to D7S_1982
D7S_1988.1	1814620	1814658	-	cis-antisense to D7S_1988
D7S_2023.1	1847194	1847474	+	cis-antisense to D7S_2023
D7S_2044.1	1867693	1867734	-	cis-antisense to D7S_2044
D7S_2053.1	1878003	1878151	-	sRNA
D7S_2063.1	1888879	1888950	-	sRNA
D7S_2076.1	1900304	1900357	+	cis-antisense to D7S_2076
D7S_2102.1	1922286	1922383	+	cis-antisense to D7S_2102
D7S_2116.1	1938281	1938331	+	cis-antisense to D7S_2116
D7S_2134.1	1953778	1953813	-	cis-antisense to D7S_2134
D7S_2162.1	1982826	1982925	-	cis-antisense to D7S_2162
D7S_2177.1	2000337	2000483	+	CRISPR associated sRNA
D7S_2184.1	2005945	2006618	+	CRISPR3 crRNA
D7S_2202.1	2027982	2028056	-	sRNA
D7S_2206.1	2032994	2033043	-	cis-antisense to D7S_2206
D7S_2213.1	2041033	2041063	-	cis-antisense to D7S_2213
D7S_2231.1	2060780	2060828	+	cis-antisense to D7S_2231
D7S_2242.1	2072534	2072549	+	cis-antisense to D7S_2242
D7S_2250.1	2079744	2079790	+	cis-antisense to D7S_2250
D7S_2270.1	2096164	2096331	+	sRNA bacterial SRP
D7S_2277.1	2105271	2105349	+	sRNA
D7S_2289.1	2116928	2117222	+	cis-antisense to D7S_2289
D7S_2303.1	2129430	2129471	+	cis-antisense to D7S_2303
D7S_2303.2	2129615	2129652	+	cis-antisense to D7S_2303
D7S_2307.1	2131026	2131123	-	sRNA, upstream of transposase
D7S_2313.1	2135514	2135600	+	sRNA
D7S_2321.1	2143796	2143836	+	cis-antisense to D7S_2321
D7S_2328.1	2150815	2150850	-	sRNA
D7S_2336.1	2158023	2158059	+	cis-antisense to D7S_2336
D7S_2341.1	2163072	2163186	-	sRNA
D7S_2341.2	2163321	2163458	-	sRNA
D7S_2350.1	2170929	2170970	-	cis-antisense to D7S_2350
D7S_2351.1	2172577	2172722	+	sRNA

D7S_2363.1	2178947	2178961	+	cis-antisense to D7S_2363
D7S_2364.1	2179938	2179979	-	cis-antisense to D7S_2364
D7S_2365.1	2180664	2180705	-	cis-antisense to D7S_2365
D7S_2383.1	2197276	2197308	-	sRNA
D7S_2395.1	2204771	2204868	-	sRNA
D7S_2430.1	2238476	2238491	-	cis-antisense to D7S_2430
D7S_2436.1	2243568	2243608	-	cis-antisense to D7S_2436
D7S_2443.1	2250251	2250292	-	cis-antisense to D7S_2443
D7S_2502.1	2307237	2307338	-	cis-antisense to D7S_2502

Table S4. A. *actinomycescomitans* genes and ncRNAs up-regulated *in vivo*.

Locus tag	Fold Change	P-value	COG¹	Product
D7S_0029	5.94	1.00E-04	[C]	oxaloacetate decarboxylase beta chain
D7S_0030	4.35	9.20E-04	[C]	oxaloacetate decarboxylase alpha subunit
D7S_0031	8.65	1.40E-05	[C]	oxaloacetate decarboxylase gamma chain 3
D7S_0108	12.14	1.70E-06	[C]	cytochrome c-type protein TorY
D7S_0109	10.24	1.50E-06	[C]	biotin sulfoxide reductase
D7S_0465	8.34	4.60E-02	[C]	glycerol-3-phosphate dehydrogenase
D7S_0546	2.74	2.50E-02	[C]	oxidoreductase domain protein
D7S_1060	3.71	3.20E-02	[C]	NADH:ubiquinone oxidoreductase
D7S_1414	9.88	3.80E-03	[C]	anaerobic dimethyl sulfoxide reductase chain B
D7S_1533	9.97	6.80E-04	[C]	fumarate reductase subunit D
D7S_1534	11.77	3.00E-06	[C]	fumarate reductase subunit C
D7S_1535	10.97	1.50E-05	[C]	fumarate reductase iron-sulfur subunit
D7S_1536	11.14	6.30E-06	[C]	fumarate reductase, flavoprotein subunit
D7S_1995	5.39	2.20E-03	[C]	cytochrome c nitrite reductase, Fe-S protein
D7S_2162	4.06	4.80E-03	[C]	acylphosphatase
D7S_2219	30.88	4.00E-05	[C]	formate dehydrogenase, alpha subunit
D7S_2220	133.47	1.30E-06	[C]	formate dehydrogenase H
D7S_2222	9.08	1.60E-04	[C]	hydrogenase maturation peptidase Hycl
D7S_2224	5.31	3.70E-04	[C]	hydrogenase-4 component I
D7S_2225	14.36	2.40E-06	[C]	hydrogenase-4 component H
D7S_2226	10.34	1.50E-06	[C]	hydrogenase-4 component G
D7S_2228	15.35	7.20E-06	[C]	hydrogenase-4 component E
D7S_2230	8.21	2.70E-03	[C]	hydrogenase-4 component C
D7S_2232	13.68	2.20E-06	[C]	electron transport protein HydN
D7S_2391	3.05	1.80E-02	[C]	ferredoxin--NADP reductase
D7S_2227	23.6	2.30E-04	[CP]	hydrogenase-4 component F
D7S_2229	4.91	3.80E-02	[CP]	hydrogenase-4 component D
D7S_2231	10.55	1.30E-03	[CP]	hydrogenase-4 component B
D7S_1515	4.56	2.20E-02	[D]	cell division protein FtsA
D7S_1516	2.24	4.80E-02	[D]	cell division protein FtsZ
D7S_1709	4.28	1.30E-02	[D]	sodium/pantothenate symporter
D7S_1673	3.03	3.50E-02	[E]	D, D-heptose 1, 7-bisphosphate phosphatase
D7S_1848	3.36	4.70E-02	[E]	ornithine carbamoyltransferase
D7S_1982	2.9	1.40E-02	[E]	heme ABC exporter, ATP-binding protein CcmA
D7S_2036	5.93	1.00E-04	[E]	tyrosine-specific transporter
D7S_2039	3.61	6.10E-03	[E]	DNA repair protein RecO
D7S_2065	2.52	3.30E-02	[E]	glutamine synthetase, type I
D7S_2202	3.99	5.90E-03	[E]	peptidase T
D7S_0681	8.3	2.30E-04	[EP]	oligopeptide transport system permease protein OppC
D7S_1708	2.89	1.80E-02	[ER]	sodium/pantothenate symporter
D7S_1817	3.69	5.20E-03	[F]	guanylate kinase
D7S_0082	2.94	2.90E-02	[G]	starch synthase

D7S_0083	5.66	2.90E-02	[G]	glucose-1-phosphate adenylyltransferase
D7S_0084	4.42	8.00E-03	[G]	glycogen debranching enzyme GlgX
D7S_0086	7.35	1.60E-04	[G]	4-alpha-glucanotransferase
D7S_0439	3.54	1.80E-02	[G]	pts system maltose- and glucose-specific eicb component
D7S_0592	4.43	2.50E-03	[G]	hexulose-6-phosphate isomerase, putative
D7S_0981	5.91	3.30E-04	[G]	MglA protein
D7S_1256	2.9	4.90E-02	[G]	fructose-1, 6-bisphosphatase, class II
D7S_1573	5.38	1.20E-02	[G]	ribose import ATP-binding protein RbsA
D7S_1794	5.29	1.50E-03	[G]	fructose permease iic component
D7S_1795	3.09	1.60E-02	[G]	mannose permease iid component
D7S_1909	4.42	5.00E-03	[G]	keto-hydroxyglutarate-aldolase/keto-deoxy-phosphogluconate aldolase
D7S_1912	3.51	3.20E-02	[G]	mannonate dehydratase
D7S_1913	3.08	3.40E-02	[G]	DctP protein
D7S_1914	5.66	2.20E-02	[G]	TRAP dicarboxylate transporter, DctM subunit
D7S_2384	4.91	1.80E-03	[G]	fructosamine kinase
D7S_2398	5.53	3.50E-04	[G]	tagatose-bisphosphate aldolase noncatalytic subunit
D7S_1218	2.93	8.60E-03	[GEPR]	transporter protein
D7S_1981	3.25	1.10E-02	[GEPR]	Bcr/CflA subfamily drug resistance transporter
D7S_0006	2.65	3.60E-02	[H]	molybdopterin converting factor, subunit 2
D7S_0011	4.13	2.50E-03	[H]	dethiobiotin synthase
D7S_2055	2.72	2.70E-02	[H]	nicotinamide phosphoribosyltransferase
D7S_2312	4	1.40E-03	[H]	biotin--protein ligase
D7S_0301	4.82	1.40E-03	[I]	phospholipase D/Transphosphatidylase
D7S_1194	6.3	1.80E-04	[I]	phospholipase D/Transphosphatidylase
D7S_1385	3.26	1.30E-02	[I]	1-acyl-sn-glycerol-3-phosphate acyltransferase
D7S_0153	19.37	1.90E-02	[J]	putative translation initiation inhibitor, YjgF family protein
D7S_0361	3.46	2.60E-02	[J]	ribosome-binding factor A
D7S_0362	4.6	3.00E-04	[J]	translation initiation factor IF-2
D7S_1538	5.23	2.90E-04	[J]	putative lysyl-tRNA synthetase-like protein GenX
D7S_1710	3.45	1.70E-02	[J]	ribosomal protein L11 methyltransferase
D7S_1889	6.26	2.40E-02	[J]	peptidyl-tRNA hydrolase
D7S_1980	3.94	1.20E-02	[J]	ribosomal small subunit pseudouridine synthase A
D7S_2331	2.51	1.80E-02	[J]	hypothetical protein
D7S_0919	5.8	5.80E-05	[K]	RNA polymerase sigma factor RpoE
D7S_0989	3.38	6.40E-03	[K]	LysR family transcriptional regulator
D7S_1049	2.93	2.90E-02	[K]	YqgE like protein
D7S_1219	3.15	3.30E-02	[K]	transcription termination factor Rho
D7S_1245	3.52	5.30E-03	[K]	DNA-binding transcriptional regulator OxyR
D7S_1263	5.14	3.70E-02	[K]	transcriptional regulator, HxIR family
D7S_1818	2.65	2.40E-02	[K]	DNA-directed RNA polymerase, omega subunit
D7S_0593	3.42	4.00E-02	[KG]	HTH-type transcriptional regulator UlaR

D7S_2171	2.74	3.30E-02	[KL]	putative DEAD/DEAH box helicase
D7S_0873	3.54	7.00E-03	[KT]	LexA repressor
D7S_1772	2.82	3.20E-02	[KT]	sugar diacid utilization regulator
D7S_2309	5.61	5.90E-03	[KT]	ImpA protein
D7S_0101	6.5	6.30E-03	[L]	Transposase for insertion sequence element ISAp11
D7S_0102	7.75	4.90E-03	[L]	Transposase
D7S_0104	2.69	2.40E-02	[L]	transposase, IS4 family protein
D7S_0290	3.14	2.10E-02	[L]	Tra5 protein
D7S_0291	3.71	4.80E-03	[L]	Tra5 protein
D7S_0292	7.05	1.30E-04	[L]	Tra5 protein
D7S_0427	6.73	5.00E-04	[L]	D-alanyl-D-alanine carboxypeptidase/endopeptidase
D7S_1107	2.88	1.80E-02	[L]	heptosyltransferase family
D7S_1459	2.67	2.20E-02	[L]	protein RecA
D7S_1472	4.51	1.40E-03	[L]	Tra5 protein
D7S_1561	7.37	1.20E-03	[L]	RecN protein
D7S_1723	3.53	1.10E-02	[L]	Tra5 protein
D7S_1724	9.86	2.90E-05	[L]	Tra5 protein
D7S_1813	7.9	2.10E-05	[L]	integrase, catalytic region
D7S_1868	5.05	2.80E-03	[L]	Tra5 protein
D7S_2182	2.87	4.80E-02	[L]	CRISPR-associated protein Cas4
D7S_2244	2.87	1.50E-02	[L]	DNA helicase II
D7S_1769	3.78	2.10E-03	[LKJ]	preprotein translocase subunit SecF
D7S_1148	3.35	1.40E-02	[LR]	translocase
D7S_0843	3.2	3.10E-02	[M]	excinuclease ABC subunit B
D7S_1096	3.82	5.80E-03	[M]	AcrA protein
D7S_1097	3.34	2.20E-02	[M]	AcrR protein
D7S_1503	2.92	1.70E-02	[M]	S-adenosyl-methyltransferase MraW
D7S_1513	4.23	1.80E-02	[M]	D-alanine--D-alanine ligase B
D7S_1514	2.59	2.20E-02	[M]	cell division protein FtsQ
D7S_1559	10.87	1.10E-02	[M]	outer membrane protein W precursor
D7S_1560	5.48	1.50E-03	[M]	outer membrane protein W precursor
D7S_2252	7.92	1.60E-05	[M]	Lsg locus putative protein 4
D7S_0033	3.47	3.20E-03	[O]	hydrogenase assembly chaperone HypC/HupF
D7S_0254	3.23	1.50E-02	[O]	hydrogenase expression/formation protein HypE
D7S_0255	4.95	2.70E-04	[O]	hydrogenase expression/formation protein HypD
D7S_0615	3.44	2.00E-02	[O]	hemolysin-activating lysine-acyltransferase HlyC
D7S_0764	7.4	6.70E-04	[O]	anaerobic ribonucleotide reductase-activating protein
D7S_1312	3.21	6.20E-03	[O]	chaperonin GroS
D7S_1395	20.39	4.60E-10	[O]	ATP-dependent chaperone ClpB
D7S_1564	2.7	1.80E-02	[O]	co-chaperone GrpE
D7S_1923	3.6	2.50E-03	[O]	ATP-dependent protease La
D7S_1962	2.54	2.80E-02	[O]	oxido-reductase
D7S_2129	4.81	1.40E-02	[O]	chaperone protein DnaK

D7S_2233	7.47	2.80E-02	[O]	HypF protein
D7S_2469	3.07	2.50E-02	[O]	putative M22 peptidase-like protein YeaZ
D7S_0256	3.22	6.60E-03	[OK]	hydrogenase accessory protein HypB
D7S_0068	2.63	3.40E-02	[P]	nonheme iron-containing ferritin
D7S_0905	2.79	4.60E-02	[P]	iron donor protein CyaY
D7S_1993	7.12	6.00E-05	[P]	cytochrome c nitrite reductase
D7S_1996	14.85	3.40E-05	[P]	NrfD protein
D7S_2027	2.6	3.30E-02	[P]	formate/nitrite transporter
D7S_2383	8.81	4.20E-02	[P]	small multidrug resistance protein
D7S_1093	11.61	3.40E-02	[QR]	methyltransferase domain family
D7S_0130	3.31	1.10E-02	[R]	Zn-ribbon-containing, possibly nucleic-acid-binding protein
D7S_0151	3.08	4.70E-02	[R]	Sel1 domain protein repeat-containing protein
D7S_0594	3.85	5.30E-03	[R]	putative L-ascorbate 6-phosphate lactonase
D7S_1196	3.39	6.90E-03	[R]	Sel1 domain protein repeat-containing protein
D7S_1375	3.45	1.10E-02	[R]	putative membrane protein
D7S_1412	4.86	3.20E-02	[R]	Twin-arginine leader-binding protein DmsD
D7S_1490	7.52	5.70E-04	[R]	putative metalloprotease in flp 5' region
D7S_1588	2.57	2.50E-02	[R]	magnesium and cobalt efflux protein CorC
D7S_1768	2.41	2.30E-02	[R]	lipoprotein Nlpl
D7S_1796	2.6	4.40E-02	[R]	Cof protein
D7S_2176	2.55	4.70E-02	[R]	virulence protein
D7S_2195	3.23	1.20E-02	[R]	C4-dicarboxylate membrane transporter
D7S_2330	2.7	2.30E-02	[R]	RNA-binding protein Hfq
D7S_2341	2.98	1.20E-02	[R]	sulfatase
D7S_2374	3.07	1.30E-02	[R]	Sel1 domain protein repeat-containing protein
D7S_0302	2.71	1.60E-02	[S]	Rhs element Vgr protein
D7S_0330	14.51	4.50E-02	[S]	membrane protein
D7S_0419	8.2	5.50E-06	[S]	Rhs element Vgr protein
D7S_0725	3.92	7.60E-04	[S]	Rhs element Vgr protein
D7S_1193	3.11	4.80E-03	[S]	Rhs element Vgr protein
D7S_1502	3.3	1.20E-02	[S]	MraZ protein
D7S_1601	2.79	1.70E-02	[S]	tRNA pseudouridine synthase D
D7S_1690	4.31	7.30E-03	[S]	Rhs element Vgr protein
D7S_1707	3.07	3.30E-02	[S]	acetyl-CoA carboxylase biotin carboxylase subunit
D7S_2157	34.02	8.40E-06	[S]	smr domain protein
D7S_2248	5.9	2.70E-03	[S]	toxin
D7S_2376	5.55	2.90E-03	[S]	Rhs element Vgr protein
D7S_2377	3.32	3.20E-03	[S]	Rhs family protein
D7S_0917	3.02	2.80E-02	[T]	periplasmic negative regulator of sigmaE
D7S_0918	4.53	1.00E-03	[T]	sigma-E factor negative regulatory protein
D7S_0684	3.34	5.50E-03	[TK]	TorCAD operon transcriptional regulatory protein TorR
D7S_0759	2.42	4.80E-02	[UW]	extracellular matrix protein adhesin A
D7S_0016.1	128.15	4.00E-11	-	cis-antisense to D7S_0016
D7S_0017.1	Inf	5.10E-03	-	cis-antisense to D7S_0017
D7S_0140.1	Inf	6.80E-04	-	cis-antisense to D7S_0140
D7S_0152	4.59	3.80E-02	-	hypothetical protein
D7S_0159.1	Inf	4.60E-05	-	cis-antisense to D7S_0159

D7S_0164.1	91.02	3.40E-02	-	cis-antisense to D7S_0164
D7S_0219.1	49.69	3.00E-03	-	cis-antisense to D7S_0219
D7S_0247.1	5.6	4.00E-02	-	cis-antisense to D7S_0247
D7S_0253	4.34	1.30E-02	-	hypothetical protein
D7S_0408.1	88.86	4.50E-05	-	cis-antisense to D7S_0408
D7S_0420	4.6	4.20E-03	-	glycoside hydrolase, family 19, putative
D7S_0421	4.15	1.70E-03	-	glycoside hydrolase, family 19, putative
D7S_0456.2	13.32	8.10E-03	-	sRNA
D7S_0467.1	119.87	4.60E-11	-	cis-antisense to D7S_0467
D7S_0482.1	7.79	5.10E-05	-	cis-antisense to D7S_0482.1
D7S_0482.2	4.17	4.30E-03	-	sRNA
D7S_0497.1	Inf	1.40E-04	-	cis-antisense to D7S_0497
D7S_0578.1	3.94	9.90E-03	-	cis-antisense to D7S_0578
D7S_0616	9.53	6.10E-03	-	serine hydroxymethyltransferase
D7S_0649.1	Inf	1.20E-02	-	cis-antisense to D7S_0649
D7S_0656.1	7.94	4.50E-02	-	cis-antisense to D7S_0656
D7S_0706	2.79	2.40E-02	-	hypothetical protein
D7S_0752.1	579.87	2.20E-16	-	cis-antisense to D7S_0752
D7S_0761.1	4.03	3.40E-02	-	sRNA
D7S_0762.1	3.12	6.90E-03	-	sRNA
D7S_0836.1	9.72	1.00E-02	-	sRNA
D7S_1062	12.52	8.10E-07	-	hypothetical protein
D7S_1192	3.76	4.60E-03	-	hypothetical protein
D7S_1198.1	6.31	2.20E-03	-	cis-antisense to D7S_1198
D7S_1245.1	Inf	1.80E-07	-	cis-antisense to D7S_1245
D7S_1262.1	Inf	7.30E-05	-	cis-antisense to D7S_1262
D7S_1297	3.85	1.40E-02	-	FHA domain protein
D7S_1305	13.78	8.30E-07	-	hypothetical protein
D7S_1306	18.38	3.90E-05	-	hypothetical protein
D7S_1365	3.31	1.80E-02	-	hypothetical protein
D7S_1370.1	11.3	2.10E-02	-	cis-antisense to D7S_1371
D7S_1393	5.04	2.50E-02	-	lipoprotein, putative
D7S_1411	9.49	3.40E-04	-	ferredoxin
D7S_1423	2.52	2.50E-02	-	S-ribosylhomocysteinase
D7S_1439	6.28	3.60E-02	-	hypothetical protein
D7S_1441	5.29	3.70E-03	-	hypothetical protein
D7S_1551	3.92	4.50E-02	-	hypothetical protein
D7S_1630.1	5.94	2.70E-03	-	cis-antisense to D7S_1630
D7S_1634	3.16	1.50E-02	-	hypothetical protein
D7S_1636.1	4.29	1.60E-03	-	sRNA
D7S_1636.2	21.36	5.50E-08	-	sRNA
D7S_1706	3.02	1.20E-02	-	chromosomal replication initiation protein
D7S_1732.1	3	3.90E-02	-	cis-antisense to D7S_1732
D7S_1737	3.27	2.80E-02	-	heavy metal-binding protein, putative
D7S_1757	6.76	5.00E-04	-	hypothetical protein
D7S_1778.1	100.03	7.80E-03	-	cis-antisense to D7S_1778
D7S_1784	9.69	3.30E-03	-	hypothetical protein
D7S_1797.1	2.61	2.80E-02	-	sRNA
D7S_1913.1	30.22	7.80E-07	-	sRNA

D7S_1955	3.09	1.20E-02	-	putative lipoprotein
D7S_1976	3.54	2.50E-02	-	hypothetical protein
D7S_1994	6.02	6.80E-04	-	cytochrome c nitrite reductase, pentaheme subunit
D7S_2102.1	33.85	1.80E-06	-	cis-antisense to D7S_2102
D7S_2126	3.65	2.10E-02	-	hypothetical protein
D7S_2223	11.01	2.60E-04	-	hydrogenase-4 component J
D7S_2242.1	Inf	3.90E-03	-	cis-antisense to D7S_2242
D7S_2265	30.01	5.20E-11	-	outer-membrane lipoprotein carrier protein precursor
D7S_2307.1	8.78	6.80E-05	-	sRNA, upstream of transposase
D7S_2313	2.91	1.60E-02	-	hypothetical protein
D7S_2313.1	2.66	2.90E-02	-	sRNA
D7S_2328.1	12.09	3.30E-04	-	sRNA
D7S_2346	4.52	8.90E-03	-	hypothetical protein
D7S_2348	2.84	1.20E-02	-	cytolethal distending toxin protein A
D7S_2351.1	2.27	3.80E-02	-	sRNA
D7S_2363.1	116.28	3.80E-03	-	cis-antisense to D7S_2363
D7S_2393	5.75	1.50E-03	-	hypothetical protein
D7S_2430.1	291.91	4.80E-03	-	cis-antisense to D7S_2430
D7S_2502	4.74	5.30E-03	-	putative tail fiber assembly protein

¹COG definitions: C, energy production and conversion; D, cell cycle control and mitosis; E, amino acid metabolism and transport; F, nucleotide metabolism and transport; G, carbohydrate metabolism and transport; H, coenzyme metabolism; I, lipid metabolism; J, translation; K, transcription; L, replication and repair; M, cell wall/membrane/envelope biogenesis; N, cell motility; O, post-translational modification, protein turnover, chaperone functions; P, inorganic ion transport and metabolism; Q, secondary structure; R, general function prediction only; S, function unknown; T, signal transduction; U, intracellular trafficking and secretion; V, defense mechanisms; W, extracellular structures.

Table S5. A. *actinomycescomitans* genes and ncRNAs down-regulated *in vivo*.

Locus tag	Fold change	P-value	COG¹	Product
D7S_0319	-2.8	2.30E-02	[C]	dihydrolipoyl dehydrogenase
D7S_0320	-3.2	1.40E-02	[C]	dihydrolipoyl dehydrogenase
D7S_0321	-2.8	1.60E-02	[C]	dihydrolipoamide acetyltransferase component of pyruvate dehydrogenase complex
D7S_0322	-3	9.70E-03	[C]	pyruvate dehydrogenase subunit E1
D7S_0508	-4.8	9.20E-05	[C]	L-lactate transport
D7S_0716	-2.2	4.30E-02	[C]	FeS cluster assembly scaffold IscU
D7S_0720	-7.1	5.30E-05	[C]	ferredoxin, 2Fe-2S type, ISC system
D7S_0865	-2.4	4.30E-02	[C]	glycerophosphoryl diester phosphodiesterase
D7S_1353	-2.4	3.70E-02	[C]	periplasmic nitrate reductase, large subunit
D7S_1354	-2.7	1.50E-02	[C]	periplasmic nitrate reductase, large subunit
D7S_1358	-2.9	2.00E-02	[C]	cytochrome c-type protein TorC
D7S_1953	-3.2	9.70E-03	[C]	malic enzyme
D7S_2016	-5.1	1.50E-03	[C]	autonomous glycyl radical cofactor
D7S_2235	-6.7	6.80E-05	[C]	formate dehydrogenase, gamma subunit
D7S_2237	-6.3	1.40E-05	[C]	formate dehydrogenase, alpha subunit
D7S_2238	-9.4	2.40E-08	[C]	formate dehydrogenase, alpha subunit
D7S_0723	-2.7	4.50E-02	[D]	Mrp ATPase family protein
D7S_0058	-5	3.50E-04	[E]	aspartate aminotransferase
D7S_0677	-4.6	6.10E-04	[E]	oligopeptide ABC transporter, periplasmic oligopeptide-binding protein
D7S_0750	-2.3	3.40E-02	[E]	glutamate dehydrogenase
D7S_1883	-5.8	3.20E-03	[E]	protein CysZ
D7S_1940	-2.3	4.50E-02	[E]	serine transporter
D7S_2198	-5.5	6.60E-05	[E]	ABC transporter ATPase component
D7S_1938	-3.2	8.10E-03	[EJ]	L-asparaginase, putative
D7S_2060	-2.5	1.90E-02	[EM]	dihydrodipicolinate synthase
D7S_0022	-2.7	9.50E-03	[F]	ribonucleoside-diphosphate reductase, alpha chain
D7S_2026	-3.9	4.70E-02	[FGR]	HIT family protein
D7S_1039	-10.5	4.40E-08	[FR]	amidohydrolase family protein SsnA
D7S_0017	-28.8	1.30E-13	[G]	rhamnose ABC transporter, rhamnose-binding protein
D7S_0348	-16.1	7.50E-10	[G]	spermidine/putrescine import ATP-binding protein PotA
D7S_0738	-2.8	3.60E-02	[G]	D-ribose transporter ATP binding protein
D7S_0740	-3.1	2.00E-02	[G]	D-ribose transporter subunit RbsB
D7S_0864	-2.4	4.80E-02	[G]	glycerol-3-phosphate transporter
D7S_0980	-3.3	6.90E-03	[G]	monosaccharide-transporting ATPase
D7S_1318	-2.4	3.60E-02	[G]	PTS system mannose-specific EIIAB component
D7S_2024	-2.8	1.60E-02	[G]	beta-hexosaminidase
D7S_2104	-2.2	4.20E-02	[G]	binding-protein-dependent transport systems inner membrane component
D7S_2462	-5.9	1.50E-05	[G]	maltose/maltodextrin import ATP-binding protein MalK

D7S_1113	-2.5	4.00E-02	[H]	phosphopantothenoylecysteine decarboxylase/phosphopantothenate--cysteine ligase
D7S_2189	-2.6	3.90E-02	[H]	biotin synthase
D7S_2262	-2.6	4.70E-02	[H]	GTP cyclohydrolase II
D7S_0462	-3	2.00E-02	[I]	fmn-dependent NADH-azoreductase
D7S_0885	-2.4	3.30E-02	[I]	phosphatidylserine synthase
D7S_1434	-2.1	4.80E-02	[I]	phospholipase D/Transphosphatidylase
D7S_1602	-2.5	3.30E-02	[I]	2-C-methyl-D-erythritol 4-phosphate cytidyltransferase
D7S_1568	-2.4	3.30E-02	[IQ]	beta-ketoacyl-acyl-carrier-protein synthase II
D7S_1167	-5.5	5.60E-05	[IQR]	short-chain dehydrogenase/reductase SDR
D7S_0116	-4.5	3.60E-03	[J]	30S ribosomal protein S9
D7S_0200	-17.5	2.70E-09	[J]	peptide chain release factor 3
D7S_0854	-3.3	9.00E-03	[J]	ribosomal protein S16
D7S_0886	-9.5	1.30E-07	[J]	ATP-dependent RNA helicase SrmB
D7S_0897	-2	4.20E-02	[J]	translation elongation factor Tu
D7S_0922	-2.3	3.30E-02	[J]	prolyl-tRNA synthetase
D7S_0975	-2.3	4.50E-02	[J]	hypothetical protein
D7S_0979	-2.7	1.00E-02	[J]	translation elongation factor Tu
D7S_1089	-4.4	1.70E-04	[J]	RNA methyltransferase
D7S_1590	-3.1	1.10E-02	[J]	translation initiation factor IF-1
D7S_1630	-192.5	2.10E-13	[J]	hypothetical protein
D7S_1863	-2.4	3.50E-02	[J]	ribosomal protein L22
D7S_1864	-3	1.10E-02	[J]	ribosomal protein S3
D7S_1867	-2.2	4.00E-02	[J]	ribosomal protein S17
D7S_1893	-2.3	3.60E-02	[J]	30S ribosomal protein S20
D7S_2394	-4.2	2.80E-04	[J]	50S ribosomal protein L20
D7S_0238	-3.5	1.00E-02	[K]	transcriptional regulator NrdR
D7S_0069	-2.5	2.10E-02	[L]	exodeoxyribonuclease I
D7S_0645	-3.8	9.20E-03	[L]	Holliday junction resolvase
D7S_0661	-5.3	6.00E-04	[L]	ribonuclease T
D7S_0870	-2.5	4.40E-02	[L]	single-strand binding protein family
D7S_1014	-3.9	6.70E-04	[L]	DNA-binding protein HU
D7S_1110	-3.6	2.20E-03	[L]	DNA repair protein RadC
D7S_1143	-3.2	9.80E-03	[L]	integrase, catalytic region
D7S_1880	-4	1.60E-03	[L]	DNA ligase, NAD-dependent
D7S_2004	-2.4	3.20E-02	[L]	DNA replication and repair protein RecF
D7S_0043	-3.6	6.50E-03	[M]	arabinose 5-phosphate isomerase
D7S_1045	-2.2	4.10E-02	[M]	UTP-glucose-1-phosphate uridylyltransferase
D7S_1360	-2.9	2.50E-02	[M]	lipopolysaccharide heptosyltransferase II
D7S_1803	-2.5	1.90E-02	[M]	biofilm PGA synthesis N-glycosyltransferase PgaC
D7S_0212	-3.2	1.40E-02	[O]	formate dehydrogenase accessory protein FdhE
D7S_0266	-2.8	9.10E-03	[O]	thiol:disulfide interchange protein DsbC
D7S_0406	-3	4.30E-02	[O]	thioredoxin peroxidase
D7S_0718	-3.1	2.00E-02	[O]	Fe-S protein assembly co-chaperone HscB
D7S_1244	-3.4	1.80E-03	[O]	peroxiredoxin like protein
D7S_1580	-2.8	2.40E-02	[O]	DsbB family disulfide bond formation protein

D7S_0696	-3.2	4.00E-03	[OC]	thioredoxin
D7S_0221	-13.1	8.90E-05	[P]	high-affinity zinc uptake system membrane protein ZnuB
D7S_0388	-6.4	3.00E-05	[P]	periplasmic protein-probably involved in high-affinity Fe ²⁺ transport
D7S_0565	-2.9	6.40E-03	[P]	DNA protection during starvation protein
D7S_0659	-6	4.50E-02	[P]	outer membrane protein 64
D7S_0751	-3.2	8.10E-03	[P]	catalase
D7S_1352	-2.4	3.70E-02	[P]	NapD protein
D7S_2002	-3.5	4.60E-03	[P]	copper/zinc superoxide dismutase
D7S_2166	-2.8	1.60E-02	[P]	iron ABC superfamily ATP binding cassette transporter, binding protein
D7S_2187	-3.4	5.10E-03	[P]	thiamine/thiamine pyrophosphate ABC transporter, permease protein
D7S_0467	-3.6	2.10E-03	[R]	lipoprotein LppC protein
D7S_1025	-2.5	3.30E-02	[R]	conserved ATP-binding protein
D7S_1040	-21.2	5.00E-05	[R]	nucleoside triphosphate pyrophosphohydrolase
D7S_1173	-2.6	3.70E-02	[R]	CcmC protein
D7S_1618	-74.4	9.40E-20	[R]	flavodoxin fold family protein
D7S_1669	-3.9	2.50E-03	[R]	PEBP family protein
D7S_0171	-5.2	1.40E-04	[S]	acetyl-CoA carboxylase subunit beta
D7S_0877	-10	1.10E-05	[S]	alkylhydroperoxidase AhpD core
D7S_1257	-3.4	1.20E-02	[S]	transcriptional regulator
D7S_1610	-2.3	4.30E-02	[S]	protein SapB
D7S_1627	-3.1	3.40E-02	[S]	YihD like protein
D7S_1645	-76.3	2.00E-18	[S]	4-hydroxy-3-methylbut-2-enyl diphosphate reductase
D7S_2131	-2.3	3.80E-02	[S]	hypothetical protein
D7S_2144	-9.4	1.80E-03	[S]	Rhs family protein
D7S_2159	-3.5	7.50E-03	[S]	inner membrane protein YccF
D7S_2161	-2.5	5.00E-02	[S]	hypothetical protein
D7S_2369	-2.2	4.70E-02	[S]	hypothetical protein
D7S_2477	-6.4	6.00E-05	[S]	secreted protein
D7S_0541	-3.2	9.00E-03	[U]	preprotein translocase subunit YajC
D7S_1251	-2.4	2.90E-02	[U]	protein-export chaperone SecB
D7S_1790	-2.4	3.00E-02	[U]	cell division protein FtsY
D7S_0339	-3.6	1.90E-03	[V]	lipid A export permease/ATP-binding protein MsbA
D7S_0150.1	-12.6	1.60E-02	-	riboswitch, lysine riboswitch
D7S_0154	-2.4	3.00E-02	-	hypothetical protein
D7S_0180	-3.2	2.50E-02	-	TonB-dependent receptor
D7S_0192	-2.7	1.90E-02	-	CRISPR-associated RAMP Csd1 family protein
D7S_0234	-2.9	9.40E-03	-	hypothetical protein
D7S_0235.1	-18.4	5.30E-11	-	sRNA, GcvB
D7S_0322.1	-141.2	1.80E-15	-	cis-antisense to D7S_0322
D7S_0454	-4.1	4.80E-04	-	outer membrane protein 100
D7S_0517.1	-60.4	1.60E-11	-	cis-antisense to D7S_0517
D7S_0526.1	-8.7	1.10E-02	-	sRNA
D7S_0538	-2.6	2.30E-02	-	hypothetical protein
D7S_0551.1	-Inf	1.10E-09	-	cis-antisense to D7S_0551

D7S_0553.1	-167.2	3.30E-07	-	sRNA
D7S_0572.1	-11.7	2.60E-06	-	cis-antisense to D7S_0572
D7S_0574.1	-215.4	5.60E-18	-	cis-antisense to D7S_0574
D7S_0646	-5.8	2.10E-05	-	excinuclease ABC subunit A
D7S_0726	-10.8	2.30E-08	-	hypothetical protein
D7S_0743	-17.4	2.20E-05	-	hypothetical protein
D7S_0776	-87.2	2.80E-02	-	cell wall-associated hydrolase
D7S_0810.1	-421.2	1.30E-03	-	cis-antisense to D7S_0810
D7S_0926	-4.4	4.70E-04	-	glycoside hydrolase, family 19, putative
D7S_0939.1	-948.6	2.30E-03	-	sRNA
D7S_1093.1	-216.4	7.30E-15	-	cis-antisense to D7S_1093
D7S_1144.1	-81.4	1.30E-05	-	cis-antisense to D7S_1144
D7S_1215.1	-173.4	6.00E-04	-	cis-antisense to D7S_1215
D7S_1261.1	-54.7	6.00E-12	-	cis-antisense to D7S_1261
D7S_1282	-4.6	2.20E-04	-	putative FHA domain protein
D7S_1283	-3.2	1.20E-02	-	hypothetical protein
D7S_1287.1	-Inf	7.30E-05	-	cis-antisense to D7S_1287
D7S_1287.2	-74	9.20E-19	-	sRNA
D7S_1349.1	-115	3.80E-10	-	cis-antisense to D7S_1349
D7S_1426.1	-5.5	1.00E-04	-	sRNA
D7S_1445.1	-6.4	7.40E-05	-	sRNA
D7S_1456	-3.8	1.40E-03	-	hypothetical protein
D7S_1515.1	-18811.8	4.20E-50	-	cis-antisense to D7S_1515
D7S_1551.1	-4.2	1.40E-02	-	sRNA
D7S_1553.1	-7.5	2.50E-05	-	cis-antisense to D7S_1553
D7S_1704	-3	1.70E-02	-	hypothetical protein
D7S_1718.1	-Inf	1.40E-16	-	cis-antisense to D7S_1718
D7S_1785	-5	3.70E-02	-	hypothetical protein
D7S_1804	-4.1	7.80E-03	-	hypothetical protein
D7S_1856.1	-566.2	1.40E-17	-	cis-antisense to D7S_1856
D7S_1867.1	-19.7	2.10E-02	-	sRNA
D7S_1868.1	-2.5	1.70E-02	-	cis-antisense to D7S_1868
D7S_1888.1	-7.4	6.50E-07	-	sRNA
D7S_1907.1	-Inf	1.50E-03	-	cis-antisense to D7S_1907
D7S_1911.1	-Inf	7.30E-15	-	cis-antisense to D7S_1911
D7S_1946	-2.8	1.00E-02	-	putative FHA domain protein
D7S_2044.1	-82.5	1.60E-13	-	cis-antisense to D7S_2044
D7S_2076.1	-628.2	1.80E-26	-	cis-antisense to D7S_2076
D7S_2134.1	-Inf	4.10E-06	-	cis-antisense to D7S_2134
D7S_2143	-3.5	2.90E-03	-	hypothetical protein
D7S_2184.1	-3.9	3.90E-02	-	CRISPR3 crRNA
D7S_2213.1	-112.9	3.60E-12	-	cis-antisense to D7S_2213
D7S_2231.1	-Inf	3.00E-33	-	cis-antisense to D7S_2231
D7S_2289.1	-4.6	4.10E-02	-	cis-antisense to D7S_2289
D7S_2321.1	-38.8	5.40E-04	-	cis-antisense to D7S_2321
D7S_2341.2	-2.7	1.90E-02	-	sRNA
D7S_2350.1	-34.8	3.60E-03	-	cis-antisense to D7S_2350
D7S_2436.1	-Inf	5.60E-16	-	cis-antisense to D7S_2436
D7S_2464	-2.6	4.20E-02	-	maltose operon periplasmic protein

¹COG definitions: C, energy production and conversion; D, cell cycle control and mitosis; E, amino acid metabolism and transport; F, nucleotide metabolism and transport; G, carbohydrate metabolism and transport; H, coenzyme metabolism; I, lipid metabolism; J, translation; K, transcription; L, replication and repair; M, cell wall/membrane/envelope biogenesis; N, cell motility; O, post-translational modification, protein turnover, chaperone functions; P, inorganic ion transport and metabolism; Q, secondary structure; R, general function prediction only; S, function unknown; T, signal transduction; U, intracellular trafficking and secretion; V, defense mechanisms; W, extracellular structures.

Table S6. Primer sequences.

Primer	Sequence (5'-3')
fdhKO-P1F-USS	AAGTGCGGTCCGGTCAGATTCGTACATACAAC
fdhKO-P1R-Sp	CATGTATTCACGAACGAAAATCGAGTAATGTCCTTATTTGAGCTACAAC
fdhKO-P2F-Sp	GAAAACAATAAACCCCTTGCATATGATTTAACGAAAATTACAGCCGC
fdhKO-P2R-USS	AAGTGCGGTTGGCTATCTCTAATAAAAGTTGGGAG
fdhKO-verify	CTTCAACGCCACTCAATATTTATCC
frdKO-P1F-USS	AAGTGCGGTGCCACCCGTAAATCTTCCG
frdKO-P1R-Sp	CATGTATTCACGAACGAAAATCGGATATTCCTCCAAGTAAAGGGATAG
frdKO-P2F-Sp	GAAAACAATAAACCCCTTGCATATGCAACAAAAAACGCCCTCAATG
frdKO-P2R-USS	AAGTGCGGTGACCGCACTTTTGCTAACG
frdKO-verify	CGCTGGTGATTATCCTGTTC
pflKO-P1F-USS	AAGTGCGGTTGGTATCTCCGGCAGAAATG
pflKO-P1R-Sp	CATGTATTCACGAACGAAAATCGAACAAATTATCTACGACCGGGAAAG
pflKO-P2F-Sp	GAAAACAATAAACCCCTTGCATATGCAGCCGTTTACCATTTAGGTAAG
pflKO-P2R-USS	AAGTGCGGTGCGACTATTGTAGTGCGCTTTG
pflKO-verify	GAATTCACCCGAACGGGTTATG
Spec-F	CGTTTTTCGTTTCGTGAATACATG
Spec-R	CATATGCAAGGGTTTATTGTTTTTC
clpX-F	GCAGAAACCATGGCGCGTATG
clpX-R	CAATTCGCTTAATGGCGCCAC