

Table S1. Oligonucleotides used in this study.

Oligo #	Oligo name	Sequences
1	SL oligo	ACAGTTTCTGTAATATATTG
2	DD-RTPCR-R	ACGTCG AAAATAAATTTAAAN
3	rRNA-F	ATCCACTTCGGATTGGTGACCCA
4	rRNA-R	GAAGAATGCCTTCGCTGTAGTT
5	Tubulin-F	TGCGTGAGATTGTGTGCGTTCAGG
6	Tubulin-R	AGTGCAGACGAGGGAACGGCACCA
7	PK3'UTR-F	AGTCAAGCTTAAGGTCCATGGATAAAGGGACG
8	PK3'UTR-R	AGTCCTCGAGCCCATAGTATCCTTGCCCAATC
9	R-MTPKup	CAAGAGCGGCCGCTGCAACAAGCACGATAATAATAA TAACC
10	F-MTPKdown	GTTGCAGCGGCCGCTCTTGCTTCCTTAATTATATTTTGTATTTG TTC
11	PK-ARE-R	ACAAGAAGAAATACAAAATATA
12	TS31310-F	GGCCTGTGCAGGCCCAAAGCTT
13	TS31310-R	CACTCTGAATGTGGAGCCCAAGAC
14	TS&MASP-R	AAAATAAATTTAAAATACGCAA
15	NTF-2-F	AATTGGTGTGGCTTTTGTGCGGCA
16	NTF-2-R	TGTCTTGTGCCAGGTGAAAGACGT
17	β AP-3-F	ACATTGTGTCACGGGCCCGCTCAC
18	β AP-3-R	AGAAATAGCAGCCGTCTTTCGCAC
19	NRBP-F	CGGCTGAAGGCGATGCTGCAGTT
20	NRBP-R	GCCAACACAATCTTTGCGTAAAGC
21	KDNA-F	TTCGACGCACGATGACGGCGCT
22	KDNA-R	GATGCCTTGCCTTCGGAGTTGC
23	GTP-F	GCGGTGCCGGCATTATTGGTCTCC
24	GTP-R	CCTCCAGGTCGGCAAGCACAAAGCT
25	CYC2-F	AATATCTGCCGAGGAGTCGTA
26	CYC2-R	CATTGCACCTGTAGACATAGCGGT
27	eGFP-F	ATTCATGAGTAAAGGAGAAGA
28	eGFP-R	TTCTCATTTGTATAGTTCATCC
29	FAD-F	TGCTCTGGGAACAGCGTAGA
30	FAD-R	ACGCACAGACACGCTCTCTC
31	T7-WTPK4	TAATACGACTCACTATAGGGACTTTATTTTATTATTGTTTAAA TTTATTTTTATTTTTATTTT
32	R-WTPK4	TCGAGAAAATAAAAATAAAAATAAATTTAAACAATAATCAAA ATAAA
33	T7-MTPK4	TAATACGACTCACTATAGGGACTTTATGGTGCTTGTTGCAGCG GCCGCTCTTGCTTCC
34	R-MTPK4	TCGAGGGAAGCAAGAGCGGCCGCTGCAACAAGCACCATAAA
35	F-ANCHOR	GGCCACGCGTCGACTAGTACGGGIIIGGGIIIGGGIIIG
36	MASP-F	CACACCACCTCCCCTCTTTT
37	MASP-R	CGTGCAAAAGAGAGACACCAA
38	RBP-F	ATGTACGGTCAGCAGTTTCCA
39	RBP-R	ACACGGTTATGATTGCGCTGAC
40	NH2/AS-ubp1	ATCGGGCTCGGGGTTTCATCTG
41	C1	TGCCCTGTCAAGTGCGTACCC
42	C2	AGATGTGAGGCAAGTACACG
43	Amastin-F	ACTGCGTCCAATCACCTGT
44	Amastin-R	ACAAAATCGCCATCACCGC

Table S2. Genes containing the 43-nt U-rich element in the genome of *T. cruzi*. Only 1.3% of the genes have the element within the ORFs (denoted by negative distances)

Motif Location	Upstream Gene	Distance	Gene Product
TcChr29-S:745743..745786	Tc00.1047053508209.100		262 10 kDa heat shock protein, putative
TcChr29-S:748218..748261	Tc00.1047053508209.90		278 10 kDa heat shock protein, putative
TcChr18-P:114335..114378	Tc00.1047053508851.180		156 14-3-3 protein, putative
TcChr38-S:44467..44510	Tc00.1047053511469.100		28 2-oxoisovalerate dehydrogenase beta subunit, mitochondrial precursor, putative
TcChr29-S:673371..673414	Tc00.1047053503899.30		12 40S ribosomal protein S16, putative
TcChr24-S:693674..693717	Tc00.1047053506413.30		35 40S ribosomal protein S33, putative
TcChr26-P:723265..723308	Tc00.1047053509875.210		31 60S ribosomal protein L17, putative
TcChr38-S:160533..160576	Tc00.1047053511001.120		419 60S ribosomal protein L18a, putative
TcChr38-S:1296745..1299182	Tc00.1047053511181.100	4967, 7404	60S ribosomal protein L2, putative
TcChr38-S:90531..90574	Tc00.1047053503453.40		215 60S ribosomal protein L30, putative
TcChr29-S:834410..834453	Tc00.1047053508207.100		756 60S ribosomal protein L7, putative
TcChr5-S:118775..118818	Tc00.1047053508951.29	98, 172	actin-like protein, putative
TcChr15-S:54859..54902	Tc00.1047053511867.140		406 acyl carrier protein, mitochondrial precursor, putative
TcChr18-P:101226..101269	Tc00.1047053508851.120		304 ADP-ribosylation factor GTPase activating protein, putative
TcChr38-S:55837..55880	Tc00.1047053511469.24		269 ADP-ribosylation factor, putative
TcChr15-S:290645..290688	Tc00.1047053509233.140		193 aldehyde dehydrogenase (pseudogene), putative
TcChr33-S:147829..147872	Tc00.1047053506829.80		498 alpha/beta-hydrolase, putative
TcChr21-S:301562..301605	Tc00.1047053507811.100		162 amino acid permease, putative
TcChr35-S:413182..413225	Tc00.1047053511543.30		2066 amino acid transporter, putative, amino acid permease, putative
TcChr35-S:501338..501381	Tc00.1047053511545.80		852 amino acid transporter, putative, amino acid permease, putative
TcChr36-S:777847..777890	Tc00.1047053508181.40		252 aminoalcohol phosphotransferase, putative
TcChr27-P:222760..222803	Tc00.1047053508799.240		462 aminopeptidase, putative, metallo-peptidase, Clan MF, Family M17, putative
TcChr24-S:160338..160381	Tc00.1047053506953.45		274 ascorbate-dependent peroxidase (pseudogene), putative
TcChr29-S:687466..687509	Tc00.1047053503899.90		26 asparagine synthetase a, putative
TcChr15-S:298469..298512	Tc00.1047053509233.180	407, 958,	1328 ATPase beta subunit, putative
TcChr29-S:778892..778935	Tc00.1047053503579.70		535 ATPase subunit 9, putative
TcChr28-S:189299..189342	Tc00.1047053508387.130		465 ATPase, putative
TcChr38-S:115677..115720	Tc00.1047053510997.50	167, 429, 1852, 2177, 2540, 3069,	3432 ATP-dependent DEAD/H RNA helicase (pseudogene), putative
TcChr15-S:10423..10466	Tc00.1047053506713.30		235 ATP-dependent DEAD/H RNA helicase, putative
TcChr4-S:80365..80408	Tc00.1047053506553.40		9 ATP-dependent RNA helicase (pseudogene), putative
TcChr16-S:330161..330204	Tc00.1047053506673.60		132 beta-adaptin 3, putative, AP-3 adapter complex beta subunit, putative
TcChr40-P:698255..698298	Tc00.1047053511277.560		272 calcium-dependent lipid binding protein, putative, synaptotagmin, putative
TcChr24-S:414962..415005	Tc00.1047053503513.10		379 casein kinase II, alpha chain, putative
TcChr38-S:343724..343844	Tc00.1047053504929.10	148, 268, 409, 454,	1306 casein kinase, delta isoform, putative
TcChr13-S:396402..396445	Tc00.1047053508323.60		129 centrin, putative, Ca2 -binding EF-hand protein, putative
TcChr29-S:501337..501380	Tc00.1047053506289.74		662 chaperone DNAJ protein, putative
TcChr38-S:1316839..1320667	Tc00.1047053508805.30	98, 3926	choline/ethanolamine kinase (pseudogene), putative
TcChr4-P:87317..87360	Tc00.1047053509715.30		118 cullin-like protein, putative
TcChr28-S:122281..122324	Tc00.1047053508385.30	1669, 2185,	2640 CYC2-like cyclin, putative
TcChr15-S:392449..392492	Tc00.1047053509455.140		318, 389 cyclin, putative
TcChr41-P:2304335..2304378	Tc00.1047053510355.269		1297 cytochrome b5, putative
TcChr41-S:2305535..2305578	Tc00.1047053506753.110		97 cytochrome b5-like, putative
TcChr15-S:17554..17597	Tc00.1047053509231.10		1108 cytochrome P450, putative
TcChr21-S:322601..322644	Tc00.1047053507811.20		466 delta-adaptin, putative, adaptor complex protein AP-3 delta subunit 1, putative
TcChr11-P:319166..319209	Tc00.1047053506983.60		1115 DNA excision repair protein, putative, SNF2 family helicase-like protein, putative
TcChr15-S:375772..375815	Tc00.1047053509455.70	40, 249	DNA polymerase delta subunit 2, putative
TcChr30-P:339601..339644	Tc00.1047053510131.70		188 DNA polymerase kappa, putative, DNA polymerase IV, putative
TcChr29-S:771449..771492	Tc00.1047053503579.30		498 DNA polymerase sigma-like protein, putative
TcChr28-S:201117..201160	Tc00.1047053508387.170	372, 1303	double-strand-break repair protein rad21 homolog, putative

TcChr28-P:201394..201437	Tc00.1047053506789.130	1062 double-strand-break repair protein rad21 homolog, putative
TcChr37-S:732408..732451	Tc00.1047053504625.50	353 dual specificity protein phosphatase or MAP kinase phosphatase, putative
TcChr28-S:126556..126599	Tc00.1047053508385.40	480, 659 dual specificity protein phosphatase, putative
TcChr36-S:574688..574731	Tc00.1047053503671.39	14130 dynamin, putative
TcChr15-S:76005..76048	Tc00.1047053511871.4	541 dynein heavy chain, putative
TcChr22-S:581829..581872	Tc00.1047053509769.148	127 dynein heavy chain, putative
TcChr30-S:288613..288656	Tc00.1047053504073.10	1830 endonuclease/exonuclease/phosphatase, putative
TcChr25-S:109610..109653	Tc00.1047053508837.189	285 endoplasmic reticulum oxidoreductin, putative
TcChr32-S:608076..608119	Tc00.1047053506941.9	11112 endosomal trafficking protein RME-8, putative
TcChr33-S:62157..62200	Tc00.1047053511585.190	371 eukaryotic initiation factor 4a, putative
TcChr36-S:1067646..1067689	Tc00.1047053504119.10	52 eukaryotic translation initiation factor 5, putative
TcChr30-S:569735..569778	Tc00.1047053509205.30	613 eukaryotic translation initiation factor, putative
TcChr14-S:69254..69297	Tc00.1047053506181.90	117 F-actin capping protein, putative,CapZ-alpha, putative
TcChr24-S:256997..257040	Tc00.1047053429257.20	612 fatty acid desaturase, putative
TcChr11-P:294139..294182	Tc00.1047053511245.160	741 fatty acid elongase, putative
TcChr12-P:284408..284451	Tc00.1047053509561.20	1391 flagellum-adhesion glycoprotein, putative
TcChr17-S:349157..349200	Tc00.1047053511313.30	375 formin, putative
TcChr15-S:89662..89705	Tc00.1047053511871.80	325, 473, 752 frataxin-like, mitochondrial precursor, putative
TcChr8-P:313826..313869	Tc00.1047053508351.10	246 fructose-1,6-bisphosphatase, cytosolic, putative
TcChr34-P:615146..615189	Tc00.1047053506559.300	410 G-actin binding protein, putative,twinfilin, putative
TcChr15-S:63472..63515	Tc00.1047053511867.190	253 gamma-tubulin, putative
TcChr24-S:157632..157675	Tc00.1047053436535.19	731 Glucose-6-phosphate dehydrogenase, putative
TcChr34-S:55562..55605	Tc00.1047053507875.20	1292 glutamate dehydrogenase, putative
TcChr21-S:199124..199167	Tc00.1047053508373.10	1124 glutamine dependent carbamoyl-phosphate synthase, putative
TcChr21-P:253568..253611	Tc00.1047053507059.80	1125 glutamine-dependent carbamoyl-phosphate synthetase, putative
TcChr28-S:187015..187058	Tc00.1047053508387.120	332 glutaminyl cyclase, putative
TcChr29-S:693477..693520	Tc00.1047053503899.110	481 glutathione peroxidase-like protein, putative
TcChr29-S:695330..695373	Tc00.1047053503899.130	96, 888 glutathione peroxidase-like protein, putative
TcChr11-P:336219..336262	Tc00.1047053508865.10	1690 glutathione synthetase, putative
TcChr29-S:854059..854102	Tc00.1047053508207.10	30, 578 glycine dehydrogenase (pseudogene), putative
TcChr38-S:15825..15868	Tc00.1047053511471.90	581 glycine dehydrogenase [decarboxylating] (pseudogene), putative
TcChr13-S:156949..156992	Tc00.1047053506857.10	88, 322 glycogen synthase kinase-3 alpha, putative
TcChr30-S:551121..551164	Tc00.1047053509203.40	209 glycosomal membrane protein, putative
TcChr16-S:259948..259991	Tc00.1047053510283.70	356 glycosyl hydrolase-like protein, putative
TcChr15-S:379128..379171	Tc00.1047053509455.80	63, 117, 935, 988, 1274 GTP-binding nuclear protein rtb2, putative
TcChr23-S:354803..354846	Tc00.1047053509099.10	129 GTP-binding protein, putative
TcChr29-S:428510..428553	Tc00.1047053507747.185	4473 H/ACA snoRNA, TC10C1H1
TcChr32-S:699244..699287	Tc00.1047053511745.10	399 heat shock 70 kDa protein, mitochondrial precursor, putative
TcChr15-S:277171..277214	Tc00.1047053509233.80	208, 449 heat shock protein DNAJ, putative
TcChr5-S:116867..116910	Tc00.1047053508951.20	259 hexokinase, putative
TcChr40-S:310541..310584	Tc00.1047053506503.150	261 histone H3 variant, putative
TcChr18-P:192492..192535	Tc00.1047053511233.160	270 hypothetical protein
TcChr18-P:203393..203436	Tc00.1047053508853.30	270 hypothetical protein
TcChr41-P:626802..626845	Tc00.1047053506459.140	2480 hypothetical protein
TcChr41-P:1687808..1687851	Tc00.1047053504081.370	355 hypothetical protein
TcChr41-P:1900520..1900563	Tc00.1047053508221.480	2576 hypothetical protein
TcChr29-S:466593..466636	Tc00.1047053506287.120	361 hypothetical protein
TcChr29-S:559919..559962	Tc00.1047053509543.30	795 hypothetical protein
TcChr29-S:682702..682745	Tc00.1047053503899.70	134 hypothetical protein
TcChr29-S:691978..692021	Tc00.1047053503899.100	110 hypothetical protein
TcChr29-S:747239..747282	Tc00.1047053508209.94	98 hypothetical protein

TcChr33-P:786646..786689	Tc00.1047053508115.10	1644 hypothetical protein
TcChr24-S:251565..251608	Tc00.1047053399033.10	118 hypothetical protein
TcChr24-S:321537..321580	Tc00.1047053511681.10	19 hypothetical protein
TcChr41-S:624221..624264	Tc00.1047053504039.210	2970 hypothetical protein
TcChr29-P:345507..345550	Tc00.1047053511259.30	2265 hypothetical protein
TcChr40-S:1080721..1080764	Tc00.1047053503457.10	903 hypothetical protein
TcChr38-S:1197565..1232890	Tc00.1047053511175.20	879 hypothetical protein
TcChr38-S:1277531..1277621	Tc00.1047053511181.40	1278, 1368 hypothetical protein
TcChr38-S:1300909..1301243	Tc00.1047053511181.130	141, -193 hypothetical protein
TcChr38-S:1301711..1304807	Tc00.1047053511181.130	609 hypothetical protein
TcChr38-S:1304807..1304993	Tc00.1047053511181.140	928, 1114 hypothetical protein
TcChr15-S:26561..26604	Tc00.1047053509231.30	186 hypothetical protein
TcChr15-S:41415..41458	Tc00.1047053511867.70	90 hypothetical protein
TcChr15-S:152702..152745	Tc00.1047053511877.10	50, 350 hypothetical protein
TcChr22-S:566058..566101	Tc00.1047053510517.110	879 hypothetical protein
TcChr28-S:194750..194793	Tc00.1047053508387.150	72 hypothetical protein
TcChr28-S:649644..649687	Tc00.1047053507867.100	1061, 2106 hypothetical protein
TcChr30-S:324010..324053	Tc00.1047053506931.60	130 hypothetical protein
TcChr30-S:361544..361587	Tc00.1047053506929.54	672 hypothetical protein
TcChr40-P:866510..866553	Tc00.1047053508891.50	46 hypothetical protein
TcChr40-P:986626..986669	Tc00.1047053503939.70	465, 508 hypothetical protein
TcChr17-S:195174..195217	Tc00.1047053511303.20	454 hypothetical protein
TcChr34-S:773502..773545	Tc00.1047053506637.80	571 hypothetical protein
TcChr39-P:405015..405058	Tc00.1047053506629.170	254 hypothetical protein
TcChr39-P:1209324..1209367	Tc00.1047053508461.142	1568, 1614 hypothetical protein
TcChr25-S:141136..141179	Tc00.1047053511215.100	111 hypothetical protein
TcChr3-S:178510..178553	Tc00.1047053507143.90	4195 hypothetical protein
TcChr7-P:186937..186980	Tc00.1047053503913.40	6 hypothetical protein
TcChr36-S:607884..607927	Tc00.1047053510325.20	1156 hypothetical protein
TcChr36-S:840327..840370	Tc00.1047053510311.120	341 hypothetical protein
TcChr30-P:768516..768559	Tc00.1047053511669.20	462 hypothetical protein
TcChr37-P:764157..764200	Tc00.1047053509105.50	1223 hypothetical protein
TcChr31-S:462828..462871	Tc00.1047053509433.10	2645 hypothetical protein
TcChr7-S:187016..187059	Tc00.1047053508277.280	6 hypothetical protein
TcChr13-P:49051..49094	Tc00.1047053511807.125	1551 hypothetical protein
TcChr18-P:97176..97219	Tc00.1047053508851.90	212 hypothetical protein, conserved
TcChr18-P:99968..100011	Tc00.1047053508851.110	384, 443 hypothetical protein, conserved
TcChr18-P:144037..144080	Tc00.1047053511231.40	188 hypothetical protein, conserved
TcChr18-P:159832..159875	Tc00.1047053511233.59	1597, 1814, 2368 hypothetical protein, conserved
TcChr18-P:163555..163598	Tc00.1047053511233.70	16 hypothetical protein, conserved
TcChr41-P:167789..167832	Tc00.1047053509027.40	53 hypothetical protein, conserved
TcChr41-P:218043..218086	Tc00.1047053509029.60	290 hypothetical protein, conserved
TcChr41-P:226734..226777	Tc00.1047053509029.90	155 hypothetical protein, conserved
TcChr41-P:471920..471963	Tc00.1047053510219.10	30 hypothetical protein, conserved
TcChr41-P:510858..510901	Tc00.1047053503995.10	765 hypothetical protein, conserved
TcChr41-P:961466..961509	Tc00.1047053508873.420	193 hypothetical protein, conserved
TcChr41-P:2217468..2217511	Tc00.1047053510359.290	673 hypothetical protein, conserved
TcChr41-P:2275479..2275522	Tc00.1047053510359.10	474 hypothetical protein, conserved
TcChr41-P:2318234..2318277	Tc00.1047053510355.200	18 hypothetical protein, conserved
TcChr33-S:93740..93783	Tc00.1047053511585.90	430 hypothetical protein, conserved
TcChr33-S:200822..200865	Tc00.1047053511577.30	401 hypothetical protein, conserved

TcChr33-S:589608..589651	Tc00.1047053508347.40	661 hypothetical protein, conserved
TcChr33-S:652003..652046	Tc00.1047053504423.10	1125 hypothetical protein, conserved
TcChr33-S:652439..652482	Tc00.1047053504423.10	1561 hypothetical protein, conserved
TcChr33-S:667430..667473	Tc00.1047053506467.20	273 hypothetical protein, conserved
TcChr33-S:833491..833534	Tc00.1047053509979.140	82 hypothetical protein, conserved
TcChr33-S:953955..953998	Tc00.1047053510347.20	586 hypothetical protein, conserved
TcChr29-S:445089..445132	Tc00.1047053507747.260	427 hypothetical protein, conserved
TcChr29-S:447640..447683	Tc00.1047053506287.9	2437, 2488 hypothetical protein, conserved
TcChr29-S:453145..453188	Tc00.1047053506287.20	515 hypothetical protein, conserved
TcChr29-S:455466..455509	Tc00.1047053506287.30	168 hypothetical protein, conserved
TcChr29-S:475251..475294	Tc00.1047053506287.170	208 hypothetical protein, conserved
TcChr29-S:489735..489778	Tc00.1047053506289.40	1274 hypothetical protein, conserved
TcChr29-S:492577..492620	Tc00.1047053506289.50	525 hypothetical protein, conserved
TcChr29-S:562329..562372	Tc00.1047053509543.40	164 hypothetical protein, conserved
TcChr29-S:572888..572931	Tc00.1047053506135.30	322 hypothetical protein, conserved
TcChr29-S:577912..577955	Tc00.1047053506135.50	287 hypothetical protein, conserved
TcChr29-S:585679..585722	Tc00.1047053506135.90	258 hypothetical protein, conserved
TcChr29-S:588007..588050	Tc00.1047053506135.100	234 hypothetical protein, conserved
TcChr29-S:676072..676115	Tc00.1047053503899.40	406 hypothetical protein, conserved
TcChr29-S:685538..685581	Tc00.1047053503899.80	18, 157 hypothetical protein, conserved
TcChr29-S:701365..701408	Tc00.1047053508213.49	114 hypothetical protein, conserved
TcChr29-S:710560..710603	Tc00.1047053508211.70	9, 529 hypothetical protein, conserved
TcChr29-S:719194..719237	Tc00.1047053508211.50	107, 561 hypothetical protein, conserved
TcChr29-S:723129..723172	Tc00.1047053508211.40	461 hypothetical protein, conserved
TcChr29-S:734122..734165	Tc00.1047053508209.150	204 hypothetical protein, conserved
TcChr29-S:735148..735191	Tc00.1047053508209.144	40 hypothetical protein, conserved
TcChr29-S:742857..742900	Tc00.1047053508209.130	321 hypothetical protein, conserved
TcChr29-S:749504..749547	Tc00.1047053508209.80	77 hypothetical protein, conserved
TcChr29-S:753854..753897	Tc00.1047053508209.50	98 hypothetical protein, conserved
TcChr29-S:761057..761100	Tc00.1047053508209.20	-13 hypothetical protein, conserved
TcChr29-S:766630..766673	Tc00.1047053503579.10	64 hypothetical protein, conserved
TcChr29-S:811435..811478	Tc00.1047053508207.220	134 hypothetical protein, conserved
TcChr29-S:828577..828620	Tc00.1047053508207.140	200 hypothetical protein, conserved
TcChr29-S:831791..831834	Tc00.1047053508207.120	40 hypothetical protein, conserved
TcChr29-S:843373..843416	Tc00.1047053508207.60	59, 352 hypothetical protein, conserved
TcChr33-P:875201..875244	Tc00.1047053508613.50	644 hypothetical protein, conserved
TcChr24-S:166761..166804	Tc00.1047053506953.20	2255 hypothetical protein, conserved
TcChr24-S:277155..277198	Tc00.1047053509127.70	437 hypothetical protein, conserved
TcChr24-S:339898..339941	Tc00.1047053408437.10	973 hypothetical protein, conserved
TcChr24-S:340885..340928	Tc00.1047053408437.20	571 hypothetical protein, conserved
TcChr24-S:360752..360795	Tc00.1047053511685.60	97, 724, 931 hypothetical protein, conserved
TcChr24-S:377502..377545	Tc00.1047053509139.20	165 hypothetical protein, conserved
TcChr24-S:382423..382466	Tc00.1047053485889.10	608 hypothetical protein, conserved
TcChr24-S:401185..401228	Tc00.1047053511689.19	165 hypothetical protein, conserved
TcChr24-S:432105..432148	Tc00.1047053509145.10	160 hypothetical protein, conserved
TcChr24-S:435720..435763	Tc00.1047053450061.10	298 hypothetical protein, conserved
TcChr20-P:91598..91641	Tc00.1047053510967.20	10 hypothetical protein, conserved
TcChr20-P:388837..388880	Tc00.1047053511837.110	143 hypothetical protein, conserved
TcChr16-P:423737..423780	Tc00.1047053506807.20	2544 hypothetical protein, conserved
TcChr21-P:128223..128266	Tc00.1047053509109.30	69 hypothetical protein, conserved
TcChr21-P:480404..480447	Tc00.1047053507063.40	2661 hypothetical protein, conserved

TcChr21-P:487821..487864	Tc00.1047053507063.80	1049 hypothetical protein, conserved
TcChr23-S:406889..406932	Tc00.1047053506979.40	246 hypothetical protein, conserved
TcChr40-S:97361..97404	Tc00.1047053511353.60	280 hypothetical protein, conserved
TcChr40-S:586487..586530	Tc00.1047053506527.10	161 hypothetical protein, conserved
TcChr40-S:675331..675374	Tc00.1047053507993.200	162 hypothetical protein, conserved
TcChr40-S:705380..705423	Tc00.1047053507993.70	423 hypothetical protein, conserved
TcChr40-S:1035078..1035121	Tc00.1047053507831.30	3469 hypothetical protein, conserved
TcChr40-S:1823983..1824026	Tc00.1047053506543.100	1544 hypothetical protein, conserved
TcChr38-S:52800..52843	Tc00.1047053511469.50	187 hypothetical protein, conserved
TcChr38-S:53942..53985	Tc00.1047053511469.40	399 hypothetical protein, conserved
TcChr38-S:56714..56757	Tc00.1047053511469.20	219 hypothetical protein, conserved
TcChr38-S:58506..58549	Tc00.1047053511467.70	231 hypothetical protein, conserved
TcChr38-S:59812..59855	Tc00.1047053511467.60	107 hypothetical protein, conserved
TcChr38-S:61009..61052	Tc00.1047053511467.50	237 hypothetical protein, conserved
TcChr38-S:68958..69001	Tc00.1047053511467.30	944, 1866 hypothetical protein, conserved
TcChr38-S:79141..79184	Tc00.1047053511467.16	133, 609 hypothetical protein, conserved
TcChr38-S:80631..80674	Tc00.1047053511467.13	623 hypothetical protein, conserved
TcChr38-S:84081..84124	Tc00.1047053511467.4	484 hypothetical protein, conserved
TcChr38-S:85104..85147	Tc00.1047053503453.4	636 hypothetical protein, conserved
TcChr38-S:103441..103484	Tc00.1047053503453.90	249, 445 hypothetical protein, conserved
TcChr38-S:110330..110373	Tc00.1047053510997.20	130, 315 hypothetical protein, conserved
TcChr38-S:122365..122408	Tc00.1047053510999.10	822, 890, 1418, 1822 hypothetical protein, conserved
TcChr38-S:124735..124778	Tc00.1047053510999.19	563 hypothetical protein, conserved
TcChr38-S:131937..131980	Tc00.1047053511001.30	201 hypothetical protein, conserved
TcChr38-S:137488..137531	Tc00.1047053511001.50	1026, 1101 hypothetical protein, conserved
TcChr38-S:148646..148689	Tc00.1047053511001.80	2 hypothetical protein, conserved
TcChr38-S:156247..156290	Tc00.1047053511001.90	781 hypothetical protein, conserved
TcChr38-S:159137..159180	Tc00.1047053511001.110	141 hypothetical protein, conserved
TcChr38-S:171395..171438	Tc00.1047053511001.150	495 hypothetical protein, conserved
TcChr38-S:188053..188096	Tc00.1047053511001.170	741 hypothetical protein, conserved
TcChr38-S:190663..190706	Tc00.1047053511001.180	284, 406 hypothetical protein, conserved
TcChr38-S:195328..195371	Tc00.1047053511001.210	112 hypothetical protein, conserved
TcChr38-S:204641..204684	Tc00.1047053503841.20	761 hypothetical protein, conserved
TcChr38-S:209407..209450	Tc00.1047053503841.50	99, 358, 559 hypothetical protein, conserved
TcChr38-S:221983..222026	Tc00.1047053508535.20	130, 512 hypothetical protein, conserved
TcChr38-S:224359..224402	Tc00.1047053508535.30	231 hypothetical protein, conserved
TcChr38-S:224468..224511	Tc00.1047053508535.30	340 hypothetical protein, conserved
TcChr38-S:236078..236121	Tc00.1047053508539.20	159 hypothetical protein, conserved
TcChr38-S:240910..240953	Tc00.1047053508539.40	716, 1439 hypothetical protein, conserved
TcChr38-S:324452..324495	Tc00.1047053508541.160	60, 307, 531 hypothetical protein, conserved
TcChr38-S:326024..326067	Tc00.1047053508541.170	315, 481 hypothetical protein, conserved
TcChr38-S:329429..329472	Tc00.1047053508541.190	120, 163 hypothetical protein, conserved
TcChr38-S:329476..329540	Tc00.1047053508541.190	167, 658, 801, 1437, 1664, 1710, 4021 hypothetical protein, conserved
TcChr38-S:335355..335467	Tc00.1047053508541.200	1766, 1878 hypothetical protein, conserved
TcChr38-S:335740..343724	Tc00.1047053508541.210	50 hypothetical protein, conserved
TcChr38-S:345712..346434	Tc00.1047053504929.5	171, 893, 1018, 1440, 1946, 4103, 4135 hypothetical protein, conserved
TcChr38-S:359621..359751	Tc00.1047053503599.40	868, 998, 1162 hypothetical protein, conserved
TcChr38-S:361833..364250	Tc00.1047053503599.70	-48 hypothetical protein, conserved
TcChr38-S:370274..370810	Tc00.1047053503467.20	2674 hypothetical protein, conserved
TcChr38-S:1232890..1232996	Tc00.1047053511179.130	199, 305, 1258 hypothetical protein, conserved
TcChr38-S:1270808..1272266	Tc00.1047053511181.10	158, 1616 hypothetical protein, conserved

TcChr38-S:1272693..1274234	Tc00.1047053511181.20	-108 hypothetical protein, conserved
TcChr38-S:1274234..1274898	Tc00.1047053511181.30	503, 1167 hypothetical protein, conserved
TcChr38-S:1281949..1282082	Tc00.1047053511181.60	202, 335, 479, 1314 hypothetical protein, conserved
TcChr38-S:1299480..1300620	Tc00.1047053511181.110	1082, 1153, -58 hypothetical protein, conserved
TcChr38-S:1307427..1308589	Tc00.1047053511181.150	2130, 3292 hypothetical protein, conserved
TcChr38-S:1315381..1316839	Tc00.1047053508805.20	1851 hypothetical protein, conserved
TcChr15-S:13244..13287	Tc00.1047053506713.24	298 hypothetical protein, conserved
TcChr15-S:13864..13907	Tc00.1047053506713.20	210 hypothetical protein, conserved
TcChr15-S:15600..15643	Tc00.1047053506713.10	200 hypothetical protein, conserved
TcChr15-S:23105..23148	Tc00.1047053509231.23	700 hypothetical protein, conserved
TcChr15-S:24384..24427	Tc00.1047053509231.26	90, 329 hypothetical protein, conserved
TcChr15-S:28617..28660	Tc00.1047053509231.39	58, 1068, 1360 hypothetical protein, conserved
TcChr15-S:29140..29183	Tc00.1047053509231.50	856 hypothetical protein, conserved
TcChr15-S:32587..32630	Tc00.1047053511867.10	50, 389, 632, 807, 869, 1619 hypothetical protein, conserved
TcChr15-S:33982..34025	Tc00.1047053511867.20	286 hypothetical protein, conserved
TcChr15-S:39899..39942	Tc00.1047053511867.60	243 hypothetical protein, conserved
TcChr15-S:44643..44686	Tc00.1047053511867.90	312 hypothetical protein, conserved
TcChr15-S:48570..48613	Tc00.1047053511867.120	197, 1365 hypothetical protein, conserved
TcChr15-S:51415..51458	Tc00.1047053511867.130	143 hypothetical protein, conserved
TcChr15-S:59088..59131	Tc00.1047053511867.160	211 hypothetical protein, conserved
TcChr15-S:61463..61506	Tc00.1047053511867.180	55, 235 hypothetical protein, conserved
TcChr15-S:68294..68337	Tc00.1047053511867.200	373 hypothetical protein, conserved
TcChr15-S:76788..76831	Tc00.1047053511871.10	190 hypothetical protein, conserved
TcChr15-S:81513..81556	Tc00.1047053511871.30	1135 hypothetical protein, conserved
TcChr15-S:92537..92580	Tc00.1047053511871.90	628, 696, 845 hypothetical protein, conserved
TcChr15-S:97769..97812	Tc00.1047053511871.110	563 hypothetical protein, conserved
TcChr15-S:271132..271175	Tc00.1047053509233.60	295, 421 hypothetical protein, conserved
TcChr15-S:278813..278856	Tc00.1047053509233.120	413, 552 hypothetical protein, conserved
TcChr15-S:293120..293163	Tc00.1047053509233.160	538, 677 hypothetical protein, conserved
TcChr15-S:293567..293610	Tc00.1047053509233.160	91 hypothetical protein, conserved
TcChr15-S:295088..295131	Tc00.1047053509233.170	448 hypothetical protein, conserved
TcChr15-S:301915..301958	Tc00.1047053509233.200	30, 231, 510 hypothetical protein, conserved
TcChr15-S:306686..306729	Tc00.1047053509233.220	116 hypothetical protein, conserved
TcChr15-S:315534..315577	Tc00.1047053509233.239	272, 400 hypothetical protein, conserved
TcChr15-S:320056..320099	Tc00.1047053509451.50	131, 224 hypothetical protein, conserved
TcChr15-S:329971..330014	Tc00.1047053503813.10	240, 331, 1052, 1185, 1544 hypothetical protein, conserved
TcChr15-S:331634..331677	Tc00.1047053503813.20	509 hypothetical protein, conserved
TcChr15-S:335436..335479	Tc00.1047053503813.30	427, 923 hypothetical protein, conserved
TcChr15-S:351312..351355	Tc00.1047053509453.79	240 hypothetical protein, conserved
TcChr15-S:366384..366427	Tc00.1047053509455.20	547, 672 hypothetical protein, conserved
TcChr15-S:369900..369943	Tc00.1047053509455.30	115 hypothetical protein, conserved
TcChr15-S:372596..372639	Tc00.1047053509455.50	82, 281 hypothetical protein, conserved
TcChr15-S:373775..373818	Tc00.1047053509455.60	147, 338 hypothetical protein, conserved
TcChr15-S:380431..380474	Tc00.1047053509455.90	546, 1076 hypothetical protein, conserved
TcChr15-S:384402..384445	Tc00.1047053509455.110	303 hypothetical protein, conserved
TcChr15-S:385935..385978	Tc00.1047053509455.114	1124, 1318 hypothetical protein, conserved
TcChr15-S:389802..389845	Tc00.1047053509455.130	155 hypothetical protein, conserved
TcChr13-S:192571..192614	Tc00.1047053506859.80	1211 hypothetical protein, conserved
TcChr13-S:220928..220971	Tc00.1047053506859.204	1819 hypothetical protein, conserved
TcChr13-S:234469..234512	Tc00.1047053506859.240	1414, 1790 hypothetical protein, conserved
TcChr13-S:300397..300440	Tc00.1047053510531.40	439 hypothetical protein, conserved

TcChr22-S:261838..261881	Tc00.1047053504425.70	110 hypothetical protein, conserved
TcChr22-S:525163..525206	Tc00.1047053510515.70	507 hypothetical protein, conserved
TcChr22-S:596783..596826	Tc00.1047053509769.100	119 hypothetical protein, conserved
TcChr22-S:600083..600126	Tc00.1047053509769.80	470 hypothetical protein, conserved
TcChr22-S:606091..606134	Tc00.1047053509769.60	82 hypothetical protein, conserved
TcChr34-P:167844..167887	Tc00.1047053507053.140	272 hypothetical protein, conserved
TcChr34-P:171941..171984	Tc00.1047053507053.110	322 hypothetical protein, conserved
TcChr34-P:338792..338835	Tc00.1047053508693.40	202 hypothetical protein, conserved
TcChr34-P:486553..486596	Tc00.1047053503923.30	320 hypothetical protein, conserved
TcChr34-P:546106..546149	Tc00.1047053506559.550	392 hypothetical protein, conserved
TcChr34-P:586349..586392	Tc00.1047053506559.440	195 hypothetical protein, conserved
TcChr28-S:64379..64422	Tc00.1047053510609.90	210 hypothetical protein, conserved
TcChr28-S:67139..67182	Tc00.1047053510609.100	377 hypothetical protein, conserved
TcChr28-S:75021..75064	Tc00.1047053510609.120	157 hypothetical protein, conserved
TcChr28-S:99691..99734	Tc00.1047053510611.70	445 hypothetical protein, conserved
TcChr28-S:101659..101702	Tc00.1047053508383.10	62 hypothetical protein, conserved
TcChr28-S:117262..117305	Tc00.1047053508385.20	66, 792 hypothetical protein, conserved
TcChr28-S:134032..134075	Tc00.1047053510613.10	103 hypothetical protein, conserved
TcChr28-S:145795..145838	Tc00.1047053510615.4	62 hypothetical protein, conserved
TcChr28-S:148843..148886	Tc00.1047053510615.10	546 hypothetical protein, conserved
TcChr28-S:161202..161245	Tc00.1047053508387.30	1128 hypothetical protein, conserved
TcChr28-S:175489..175532	Tc00.1047053508387.80	-10 hypothetical protein, conserved
TcChr28-S:203825..203868	Tc00.1047053508389.10	783 hypothetical protein, conserved
TcChr28-S:657589..657632	Tc00.1047053509885.40	323 hypothetical protein, conserved
TcChr28-S:664122..664165	Tc00.1047053509885.64	538 hypothetical protein, conserved
TcChr5-S:11477..11520	Tc00.1047053510249.30	871 hypothetical protein, conserved
TcChr5-S:171656..171699	Tc00.1047053508955.20	798 hypothetical protein, conserved
TcChr5-S:174440..174483	Tc00.1047053506495.6	54 hypothetical protein, conserved
TcChr30-S:187113..187156	Tc00.1047053506165.4	840 hypothetical protein, conserved
TcChr30-S:249695..249738	Tc00.1047053504041.10	279 hypothetical protein, conserved
TcChr30-S:285074..285117	Tc00.1047053504073.20	568 hypothetical protein, conserved
TcChr30-S:312706..312749	Tc00.1047053503753.10	285 hypothetical protein, conserved
TcChr30-S:350826..350869	Tc00.1047053511201.49	16 hypothetical protein, conserved
TcChr30-S:465592..465635	Tc00.1047053507077.50	92 hypothetical protein, conserved
TcChr30-S:489155..489198	Tc00.1047053511801.30	0 hypothetical protein, conserved
TcChr30-S:709355..709398	Tc00.1047053506937.20	112 hypothetical protein, conserved
TcChr30-S:723632..723675	Tc00.1047053508831.10	312 hypothetical protein, conserved
TcChr40-P:93363..93406	Tc00.1047053511301.44	642 hypothetical protein, conserved
TcChr40-P:230351..230394	Tc00.1047053511295.20	1009 hypothetical protein, conserved
TcChr40-P:272585..272628	Tc00.1047053504161.30	321 hypothetical protein, conserved
TcChr40-P:385473..385516	Tc00.1047053511291.50	974 hypothetical protein, conserved
TcChr40-P:587839..587882	Tc00.1047053511283.170	157 hypothetical protein, conserved
TcChr40-P:652940..652983	Tc00.1047053511281.10	316 hypothetical protein, conserved
TcChr40-P:707778..707821	Tc00.1047053511277.510	411 hypothetical protein, conserved
TcChr40-P:711944..711987	Tc00.1047053511277.490	2398 hypothetical protein, conserved
TcChr40-P:747144..747187	Tc00.1047053511277.310	105 hypothetical protein, conserved
TcChr40-P:992375..1010201	Tc00.1047053503939.50	562 hypothetical protein, conserved
TcChr40-P:1010201..1037935	Tc00.1047053511267.24	229 hypothetical protein, conserved
TcChr40-P:1037935..1730916	Tc00.1047053511263.30	647 hypothetical protein, conserved
TcChr40-P:1730916..1809494	Tc00.1047053425855.9	1456 hypothetical protein, conserved
TcChr40-P:1809494..1854270	Tc00.1047053504045.100	691 hypothetical protein, conserved

TcChr40-P:1854270..1882082	Tc00.1047053507081.130	602 hypothetical protein, conserved
TcChr40-P:1882082..1934387	Tc00.1047053508479.350	689 hypothetical protein, conserved
TcChr17-S:191914..191957	Tc00.1047053511303.9	1605 hypothetical protein, conserved
TcChr17-S:226681..226724	Tc00.1047053511303.120	271 hypothetical protein, conserved
TcChr17-S:265005..265048	Tc00.1047053511307.6	11 hypothetical protein, conserved
TcChr17-S:594990..595033	Tc00.1047053506513.90	42 hypothetical protein, conserved
TcChr17-S:612374..612417	Tc00.1047053506513.7	2028 hypothetical protein, conserved
TcChr34-S:94825..94868	Tc00.1047053507873.50	195 hypothetical protein, conserved
TcChr34-S:397949..397992	Tc00.1047053504057.21	1235 hypothetical protein, conserved
TcChr34-S:407218..407261	Tc00.1047053504057.40	84, 1467, 2624 hypothetical protein, conserved
TcChr34-S:486583..486626	Tc00.1047053508583.10	339 hypothetical protein, conserved
TcChr34-S:493408..493451	Tc00.1047053510877.190	80, 2177 hypothetical protein, conserved
TcChr34-S:496982..497025	Tc00.1047053510877.170	659 hypothetical protein, conserved
TcChr34-S:509034..509077	Tc00.1047053510877.110	142 hypothetical protein, conserved
TcChr34-S:638118..638161	Tc00.1047053510227.10	1133 hypothetical protein, conserved
TcChr34-S:752628..752671	Tc00.1047053506635.130	502, 556 hypothetical protein, conserved
TcChr34-S:827621..827664	Tc00.1047053456139.10	1054 hypothetical protein, conserved
TcChr34-S:850120..850163	Tc00.1047053506265.60	387 hypothetical protein, conserved
TcChr34-S:853277..853320	Tc00.1047053506265.70	752 hypothetical protein, conserved
TcChr34-S:855829..855872	Tc00.1047053506265.90	185 hypothetical protein, conserved
TcChr34-S:957169..957212	Tc00.1047053507485.100	1089 hypothetical protein, conserved
TcChr34-S:966494..966537	Tc00.1047053507485.50	1155 hypothetical protein, conserved
TcChr39-P:18754..18797	Tc00.1047053504109.120	118 hypothetical protein, conserved
TcChr39-P:460807..460850	Tc00.1047053472833.10	102 hypothetical protein, conserved
TcChr39-P:769934..769977	Tc00.1047053506303.90	225 hypothetical protein, conserved
TcChr39-P:791281..791324	Tc00.1047053506305.10	1112 hypothetical protein, conserved
TcChr39-P:798372..798415	Tc00.1047053506305.29	403 hypothetical protein, conserved
TcChr39-P:907489..907532	Tc00.1047053506883.120	100 hypothetical protein, conserved
TcChr39-P:962319..962362	Tc00.1047053510729.210	2876 hypothetical protein, conserved
TcChr39-P:994160..994203	Tc00.1047053510729.60	897 hypothetical protein, conserved
TcChr39-P:1103622..1103665	Tc00.1047053507007.20	85 hypothetical protein, conserved
TcChr39-P:1123015..1123058	Tc00.1047053507007.77	730, 2799 hypothetical protein, conserved
TcChr39-P:1136729..1136772	Tc00.1047053510733.30	274 hypothetical protein, conserved
TcChr39-P:1230551..1230594	Tc00.1047053508461.234	120 hypothetical protein, conserved
TcChr39-P:1381285..1381328	Tc00.1047053507003.60	200 hypothetical protein, conserved
TcChr39-P:1694613..1694656	Tc00.1047053506999.100	369 hypothetical protein, conserved
TcChr19-P:156820..156863	Tc00.1047053509609.10	218 hypothetical protein, conserved
TcChr19-P:183453..183496	Tc00.1047053507649.20	493 hypothetical protein, conserved
TcChr19-P:247425..247468	Tc00.1047053509607.20	795, 948, 2048, 2223, 7353 hypothetical protein, conserved
TcChr19-P:256823..256866	Tc00.1047053503733.80	817, 1347 hypothetical protein, conserved
TcChr19-P:309814..309857	Tc00.1047053503727.20	342 hypothetical protein, conserved
TcChr19-P:367255..367298	Tc00.1047053510835.10	13, 2378 hypothetical protein, conserved
TcChr19-P:460717..460760	Tc00.1047053508547.190	723 hypothetical protein, conserved
TcChr19-P:513102..513145	Tc00.1047053503565.29	1542 hypothetical protein, conserved
TcChr25-S:117595..117638	Tc00.1047053511215.14	253 hypothetical protein, conserved
TcChr25-S:139662..139705	Tc00.1047053511215.90	678 hypothetical protein, conserved
TcChr25-S:152809..152852	Tc00.1047053434931.20	1424 hypothetical protein, conserved
TcChr25-S:158251..158294	Tc00.1047053508839.40	384 hypothetical protein, conserved
TcChr25-S:185596..185639	Tc00.1047053506949.20	475 hypothetical protein, conserved
TcChr25-S:208452..208495	Tc00.1047053511217.50	209 hypothetical protein, conserved
TcChr25-S:215716..215759	Tc00.1047053511217.80	285 hypothetical protein, conserved

TcChr25-S:221738..221781	Tc00.1047053511217.90	605 hypothetical protein, conserved
TcChr25-S:225820..225863	Tc00.1047053511217.100	82 hypothetical protein, conserved
TcChr25-S:245526..245569	Tc00.1047053511217.170	680 hypothetical protein, conserved
TcChr25-S:268444..268487	Tc00.1047053507275.20	754 hypothetical protein, conserved
TcChr25-S:314924..314967	Tc00.1047053506749.10	1991 hypothetical protein, conserved
TcChr25-S:333476..333519	Tc00.1047053507083.40	413 hypothetical protein, conserved
TcChr25-S:341245..341288	Tc00.1047053507083.90	352 hypothetical protein, conserved
TcChr25-S:359348..359391	Tc00.1047053507083.109	131 hypothetical protein, conserved
TcChr25-S:363341..363384	Tc00.1047053503477.10	604 hypothetical protein, conserved
TcChr25-S:472512..472555	Tc00.1047053507091.20	316 hypothetical protein, conserved
TcChr25-S:480148..480191	Tc00.1047053506745.10	504 hypothetical protein, conserved
TcChr25-S:652967..653010	Tc00.1047053506743.60	78, 343 hypothetical protein, conserved
TcChr3-S:56964..57007	Tc00.1047053506739.140	301 hypothetical protein, conserved
TcChr22-P:513627..513670	Tc00.1047053509857.60	3780 hypothetical protein, conserved
TcChr32-S:123651..123694	Tc00.1047053505807.140	51 hypothetical protein, conserved
TcChr32-S:200425..200468	Tc00.1047053504935.20	51 hypothetical protein, conserved
TcChr32-S:306284..306327	Tc00.1047053509965.429	1030 hypothetical protein, conserved
TcChr32-S:332087..332130	Tc00.1047053509965.319	109 hypothetical protein, conserved
TcChr32-S:351937..351980	Tc00.1047053509965.200	64 hypothetical protein, conserved
TcChr32-S:427973..428016	Tc00.1047053511753.90	237 hypothetical protein, conserved
TcChr32-S:454287..454330	Tc00.1047053511751.220	340 hypothetical protein, conserved
TcChr32-S:472748..472791	Tc00.1047053511751.160	408 hypothetical protein, conserved
TcChr32-S:627981..628024	Tc00.1047053506941.50	605 hypothetical protein, conserved
TcChr32-S:746212..746255	Tc00.1047053511737.6	29 hypothetical protein, conserved
TcChr32-S:808568..808611	Tc00.1047053509167.200	340 hypothetical protein, conserved
TcChr32-S:827083..827126	Tc00.1047053509167.140	419, 967 hypothetical protein, conserved
TcChr32-S:854368..854411	Tc00.1047053511731.89	1733 hypothetical protein, conserved
TcChr32-S:902705..902748	Tc00.1047053506945.50	355 hypothetical protein, conserved
TcChr32-S:932431..932474	Tc00.1047053506945.250	311 hypothetical protein, conserved
TcChr9-P:342577..342620	Tc00.1047053506475.105	776 hypothetical protein, conserved
TcChr11-P:142702..142745	Tc00.1047053508857.130	384 hypothetical protein, conserved
TcChr11-P:183921..183964	Tc00.1047053511239.60	230 hypothetical protein, conserved
TcChr11-P:451670..451713	Tc00.1047053509937.160	557 hypothetical protein, conserved
TcChr7-P:143953..143996	Tc00.1047053503543.20	32 hypothetical protein, conserved
TcChr7-P:175248..175291	Tc00.1047053509945.20	49 hypothetical protein, conserved
TcChr7-P:200041..200084	Tc00.1047053506445.20	1124 hypothetical protein, conserved
TcChr35-S:107288..107331	Tc00.1047053398751.10	729 hypothetical protein, conserved
TcChr35-S:218232..218275	Tc00.1047053507089.170	285 hypothetical protein, conserved
TcChr35-S:248541..248584	Tc00.1047053511531.30	1374 hypothetical protein, conserved
TcChr35-S:407923..407966	Tc00.1047053511543.10	306 hypothetical protein, conserved
TcChr35-S:515932..515975	Tc00.1047053511545.130	437 hypothetical protein, conserved
TcChr35-S:522427..522470	Tc00.1047053511545.170	336 hypothetical protein, conserved
TcChr35-S:524585..524628	Tc00.1047053511545.180	120 hypothetical protein, conserved
TcChr35-S:542344..542387	Tc00.1047053507041.40	105 hypothetical protein, conserved
TcChr35-S:617075..617118	Tc00.1047053507129.5	780 hypothetical protein, conserved
TcChr35-S:732967..733010	Tc00.1047053509157.90	672 hypothetical protein, conserved
TcChr35-S:778175..778218	Tc00.1047053511715.40	134 hypothetical protein, conserved
TcChr19-S:243794..243837	Tc00.1047053508569.10	7492 hypothetical protein, conserved
TcChr37-S:85623..85666	Tc00.1047053507611.270	386 hypothetical protein, conserved
TcChr37-S:428923..428966	Tc00.1047053503525.4	694 hypothetical protein, conserved
TcChr37-S:463935..463978	Tc00.1047053504137.160	644 hypothetical protein, conserved

TcChr37-S:938877..938920	Tc00.1047053507677.140	1622 hypothetical protein, conserved
TcChr37-S:938957..939000	Tc00.1047053507677.140	1702 hypothetical protein, conserved
TcChr37-S:1272104..1272147	Tc00.1047053503747.40	884 hypothetical protein, conserved
TcChr37-S:1272321..1272364	Tc00.1047053503747.40	1101 hypothetical protein, conserved
TcChr26-P:246046..246089	Tc00.1047053511907.290	305 hypothetical protein, conserved
TcChr26-P:287066..287109	Tc00.1047053509243.20	3651 hypothetical protein, conserved
TcChr26-P:600931..600974	Tc00.1047053503693.20	688 hypothetical protein, conserved
TcChr21-S:261672..261715	Tc00.1047053404843.10	318 hypothetical protein, conserved
TcChr36-S:119067..119110	Tc00.1047053508075.60	239 hypothetical protein, conserved
TcChr36-S:414481..414524	Tc00.1047053509669.90	545 hypothetical protein, conserved
TcChr36-S:618719..618762	Tc00.1047053508183.20	174 hypothetical protein, conserved
TcChr36-S:709150..709193	Tc00.1047053506695.20	44 hypothetical protein, conserved
TcChr36-S:713537..713580	Tc00.1047053510315.40	289 hypothetical protein, conserved
TcChr36-S:871457..871500	Tc00.1047053510311.10	544 hypothetical protein, conserved
TcChr36-S:881529..881572	Tc00.1047053510309.60	65 hypothetical protein, conserved
TcChr36-S:1023083..1023126	Tc00.1047053503697.130	472 hypothetical protein, conserved
TcChr36-S:1106468..1106511	Tc00.1047053506407.60	1266 hypothetical protein, conserved
TcChr30-P:34763..34806	Tc00.1047053508577.60	1021 hypothetical protein, conserved
TcChr31-P:535472..535515	Tc00.1047053511389.70	901 hypothetical protein, conserved
TcChr31-P:582326..582369	Tc00.1047053508965.70	5384 hypothetical protein, conserved
TcChr2-P:62635..62678	Tc00.1047053506123.70	770 hypothetical protein, conserved
TcChr37-P:385058..385101	Tc00.1047053509793.50	973 hypothetical protein, conserved
TcChr25-P:82479..82522	Tc00.1047053511383.80	250 hypothetical protein, conserved
TcChr25-P:247057..247100	Tc00.1047053506573.40	-4 hypothetical protein, conserved
TcChr31-S:177739..177782	Tc00.1047053510595.58	220 hypothetical protein, conserved
TcChr31-S:562247..562290	Tc00.1047053407477.69	35921 hypothetical protein, conserved
TcChr31-S:563545..563588	Tc00.1047053407477.69	37219 hypothetical protein, conserved
TcChr31-S:751175..751218	Tc00.1047053509895.60	196 hypothetical protein, conserved
TcChr7-S:199727..199770	Tc00.1047053508277.340	1350 hypothetical protein, conserved
TcChr13-P:123031..123074	Tc00.1047053511809.90	437 hypothetical protein, conserved
TcChr17-P:191860..191903	Tc00.1047053509179.60	1302 hypothetical protein, conserved
TcChr6-P:26408..26451	Tc00.1047053508593.100	386 hypothetical protein, conserved
TcChr14-P:266551..266594	Tc00.1047053509229.20	1174 hypothetical protein, conserved
TcChr14-P:371987..372030	Tc00.1047053509681.10	3834 hypothetical protein, conserved
TcChr9-S:257094..257137	Tc00.1047053511427.10	605 hypothetical protein, conserved
TcChr39-S:1002002..1002045	Tc00.1047053506885.354	378 hypothetical protein, conserved
TcChr35-P:208111..208154	Tc00.1047053506725.40	422 hypothetical protein, conserved
TcChr35-P:218560..218603	Tc00.1047053506725.20	313 hypothetical protein, conserved
TcChr35-P:515775..515818	Tc00.1047053506819.40	450 hypothetical protein, conserved
TcChr41-P:2255474..2255517	Tc00.1047053510359.120	434 hypothetical protein, conserved (pseudogene)
TcChr29-S:792072..792115	Tc00.1047053503901.9	22 hypothetical protein, conserved (pseudogene)
TcChr24-S:18064..18107	Tc00.1047053509921.51	417 hypothetical protein, conserved (pseudogene)
TcChr24-S:396535..396578	Tc00.1047053504225.20	470 hypothetical protein, conserved (pseudogene)
TcChr38-S:1066477..1085794	Tc00.1047053511171.25	582 hypothetical protein, conserved (pseudogene)
TcChr15-S:86242..86285	Tc00.1047053511871.60	377, 523 hypothetical protein, conserved (pseudogene)
TcChr15-S:127614..127657	Tc00.1047053511873.41	2504 hypothetical protein, conserved (pseudogene)
TcChr34-P:849841..849884	Tc00.1047053506435.70	388 hypothetical protein, conserved (pseudogene)
TcChr40-P:2007559..2024183	Tc00.1047053508479.20	2528 hypothetical protein, conserved (pseudogene)
TcChr39-P:1361871..1361914	Tc00.1047053510665.60	132 hypothetical protein, conserved (pseudogene)
TcChr35-S:798049..798092	Tc00.1047053503989.30	397 hypothetical protein, conserved (pseudogene)
TcChr24-S:384711..384754	Tc00.1047053441401.10	369 imidazolonepropionase, putative

TcChr32-S:370095..370138	Tc00.1047053509965.110	52 importin alpha, putative
TcChr36-S:651110..651153	Tc00.1047053506699.40	54 katanin-like protein, putative,serine peptidase, Clan SJ, family S16, putative
TcChr30-P:818395..818438	Tc00.1047053511665.130	130 kinase, putative
TcChr17-S:269082..269125	Tc00.1047053511307.10	354 kinesin, putative
TcChr25-S:137746..137789	Tc00.1047053511215.70	1592 kinesin, putative
TcChr35-S:151057..151100	Tc00.1047053511529.80	983 kinetoplast DNA-associated protein, putative
TcChr37-S:382264..382307	Tc00.1047053508719.40	437 kinetoplast DNA-associated protein, putative
TcChr41-S:224157..224200	Tc00.1047053508777.40	136 leucine-rich repeat protein, putative
TcChr32-S:125083..125126	Tc00.1047053505807.150	56 leucine-rich repeat protein, putative
TcChr32-P:125072..125115	Tc00.1047053507017.20	55 leucine-rich repeat protein, putative
TcChr34-S:429310..429353	Tc00.1047053504057.120	580 lipophosphoglycan biosynthetic protein 2, putative
TcChr19-P:479637..479680	Tc00.1047053508971.30	287 lysyl-tRNA synthetase, putative
TcChr24-S:258897..258940	Tc00.1047053509125.10	1921 mannosyltransferase-like protein, putative
TcChr4-S:140286..140329	Tc00.1047053510105.250	16 membrane-bound acid phosphatase 2, putative
TcChr28-S:157861..157904	Tc00.1047053508387.20	361 methylthioadenosine phosphorylase, putative
TcChr12-P:144619..144662	Tc00.1047053506229.10	1076 mitogen-activated protein kinase, putative
TcChr29-S:805485..805528	Tc00.1047053508207.250	766 mitotic cyclin, putative
TcChr35-S:568766..568809	Tc00.1047053510939.25	887 mucin TcMUCI, putative
TcChr37-S:201743..201786	Tc00.1047053504167.20	268 mucin TcMUCI, putative
TcChr38-S:406611..409527	Tc00.1047053510209.18	-101 mucin TcMUCII (pseudogene), putative
TcChr38-S:439457..442930	Tc00.1047053510207.35	-97 mucin TcMUCII (pseudogene), putative
TcChr38-S:471592..471613	Tc00.1047053510205.15	147 mucin TcMUCII (pseudogene), putative
TcChr38-S:471613..477893	Tc00.1047053508121.155	301 mucin TcMUCII (pseudogene), putative
TcChr38-S:485720..489267	Tc00.1047053508121.101	312 mucin TcMUCII (pseudogene), putative
TcChr18-P:251003..251046	Tc00.1047053510239.60	265 mucin TcMUCII, putative
TcChr18-P:399729..399772	Tc00.1047053506139.4	264 mucin TcMUCII, putative
TcChr38-S:265176..265219	Tc00.1047053508539.155	169 mucin TcMUCII, putative
TcChr38-S:385038..385082	Tc00.1047053510213.80	240, 284 mucin TcMUCII, putative
TcChr38-S:414421..415725	Tc00.1047053508125.130	1028 mucin TcMUCII, putative
TcChr38-S:425328..425349	Tc00.1047053508125.100	2053 mucin TcMUCII, putative
TcChr38-S:483532..485720	Tc00.1047053508121.120	959 mucin TcMUCII, putative
TcChr28-S:224354..224397	Tc00.1047053508389.114	220 mucin TcMUCII, putative
TcChr28-S:422540..422583	Tc00.1047053506971.70	217 mucin TcMUCII, putative
TcChr24-P:583368..583411	Tc00.1047053506917.60	215 mucin TcMUCII, putative
TcChr37-P:192441..192484	Tc00.1047053508235.20	81 mucin TcMUCIII, putative
TcChr18-P:228347..228390	Tc00.1047053510237.120	305 mucin-associated surface protein (MASP), putative
TcChr18-P:317210..317253	Tc00.1047053508247.130	307 mucin-associated surface protein (MASP), putative
TcChr41-P:805196..805239	Tc00.1047053503973.50	90 mucin-associated surface protein (MASP), putative
TcChr41-P:871818..871861	Tc00.1047053508873.30	355 mucin-associated surface protein (MASP), putative
TcChr41-P:987545..987588	Tc00.1047053508873.510	82 mucin-associated surface protein (MASP), putative
TcChr41-P:1002645..1002688	Tc00.1047053508873.580	354 mucin-associated surface protein (MASP), putative
TcChr41-P:1029129..1029172	Tc00.1047053511255.50	3766 mucin-associated surface protein (MASP), putative
TcChr41-P:1754301..1754344	Tc00.1047053504081.40	309 mucin-associated surface protein (MASP), putative
TcChr41-P:1782280..1782323	Tc00.1047053508221.960	350 mucin-associated surface protein (MASP), putative
TcChr41-P:1809275..1809318	Tc00.1047053508221.820	77 mucin-associated surface protein (MASP), putative
TcChr41-P:1869915..1869958	Tc00.1047053508221.580	307 mucin-associated surface protein (MASP), putative
TcChr41-P:1911317..1911360	Tc00.1047053508221.420	378 mucin-associated surface protein (MASP), putative
TcChr41-P:1958317..1958360	Tc00.1047053508221.210	348 mucin-associated surface protein (MASP), putative
TcChr41-P:1982447..1982490	Tc00.1047053508221.104	4503 mucin-associated surface protein (MASP), putative
TcChr41-P:2003884..2003927	Tc00.1047053510361.260	361 mucin-associated surface protein (MASP), putative
TcChr41-P:2132794..2132837	Tc00.1047053510359.690	335 mucin-associated surface protein (MASP), putative

TcChr41-P:2186937..2186980	Tc00.1047053510359.460	310 mucin-associated surface protein (MASP), putative
TcChr18-S:395454..395497	Tc00.1047053506965.20	331 mucin-associated surface protein (MASP), putative
TcChr18-S:408508..408551	Tc00.1047053506965.100	316 mucin-associated surface protein (MASP), putative
TcChr18-S:498260..498303	Tc00.1047053511609.30	314 mucin-associated surface protein (MASP), putative
TcChr18-S:510872..510915	Tc00.1047053511611.20	314 mucin-associated surface protein (MASP), putative
TcChr18-S:603842..603885	Tc00.1047053507237.100	319 mucin-associated surface protein (MASP), putative
TcChr18-S:612720..612763	Tc00.1047053507237.170	311 mucin-associated surface protein (MASP), putative
TcChr41-S:432166..432209	Tc00.1047053511553.200	84 mucin-associated surface protein (MASP), putative
TcChr41-S:633910..633953	Tc00.1047053504039.180	353 mucin-associated surface protein (MASP), putative
TcChr41-S:741110..741153	Tc00.1047053506599.150	363 mucin-associated surface protein (MASP), putative
TcChr41-S:1221781..1221824	Tc00.1047053507957.320	357 mucin-associated surface protein (MASP), putative
TcChr41-S:1903920..1903963	Tc00.1047053506763.30	346 mucin-associated surface protein (MASP), putative
TcChr41-S:1999211..1999254	Tc00.1047053510371.10	353 mucin-associated surface protein (MASP), putative
TcChr38-P:1155848..1155891	Tc00.1047053510483.230	81 mucin-associated surface protein (MASP), putative
TcChr40-S:1589213..1589256	Tc00.1047053508165.110	236 mucin-associated surface protein (MASP), putative
TcChr38-S:247939..247982	Tc00.1047053508539.60	430 mucin-associated surface protein (MASP), putative
TcChr38-S:266048..266091	Tc00.1047053508539.160	-193 mucin-associated surface protein (MASP), putative
TcChr38-S:272767..272810	Tc00.1047053510833.20	-196 mucin-associated surface protein (MASP), putative
TcChr38-S:301075..301118	Tc00.1047053508541.20	-196 mucin-associated surface protein (MASP), putative
TcChr38-S:394739..401400	Tc00.1047053510213.70	8225 mucin-associated surface protein (MASP), putative
TcChr38-S:401400..406611	Tc00.1047053510209.27	1420 mucin-associated surface protein (MASP), putative
TcChr38-S:409527..414421	Tc00.1047053508125.140	600 mucin-associated surface protein (MASP), putative
TcChr38-S:426189..439457	Tc00.1047053510207.40	1528 mucin-associated surface protein (MASP), putative
TcChr38-S:1107367..1108376	Tc00.1047053511173.100	826, 1835 mucin-associated surface protein (MASP), putative
TcChr38-S:1128094..1158444	Tc00.1047053511173.180	422 mucin-associated surface protein (MASP), putative
TcChr38-S:1166341..1173998	Tc00.1047053511173.360	848 mucin-associated surface protein (MASP), putative
TcChr38-S:1173998..1178292	Tc00.1047053511173.400	596 mucin-associated surface protein (MASP), putative
TcChr38-S:1178292..1189229	Tc00.1047053511173.430	184 mucin-associated surface protein (MASP), putative
TcChr38-S:1189229..1190869	Tc00.1047053511173.460	3288 mucin-associated surface protein (MASP), putative
TcChr15-S:145732..145775	Tc00.1047053511875.80	349, 1169 mucin-associated surface protein (MASP), putative
TcChr15-S:406196..406239	Tc00.1047053507553.41	1147 mucin-associated surface protein (MASP), putative
TcChr28-S:206547..206590	Tc00.1047053508389.50	5293 mucin-associated surface protein (MASP), putative
TcChr28-S:258884..258927	Tc00.1047053510621.20	354 mucin-associated surface protein (MASP), putative
TcChr28-S:283614..283657	Tc00.1047053511785.10	347 mucin-associated surface protein (MASP), putative
TcChr28-S:310564..310607	Tc00.1047053511791.10	363 mucin-associated surface protein (MASP), putative
TcChr28-S:314733..314776	Tc00.1047053511793.30	352 mucin-associated surface protein (MASP), putative
TcChr28-P:229668..229711	Tc00.1047053510391.20	343 mucin-associated surface protein (MASP), putative
TcChr16-S:68002..68045	Tc00.1047053506269.40	143 mucin-associated surface protein (MASP), putative
TcChr18-P:299253..299296	Tc00.1047053508247.50	303 mucin-associated surface protein (MASP, pseudogene), putative
TcChr41-P:668159..668202	Tc00.1047053507937.20	367 mucin-associated surface protein (MASP, pseudogene), putative
TcChr41-P:889264..889307	Tc00.1047053508873.103	349 mucin-associated surface protein (MASP, pseudogene), putative
TcChr41-P:1131344..1131387	Tc00.1047053511255.580	77 mucin-associated surface protein (MASP, pseudogene), putative
TcChr41-P:2011185..2011228	Tc00.1047053510361.209	363 mucin-associated surface protein (MASP, pseudogene), putative
TcChr41-P:2136831..2136874	Tc00.1047053510359.680	310 mucin-associated surface protein (MASP, pseudogene), putative
TcChr29-S:62416..62459	Tc00.1047053509699.140	385 mucin-associated surface protein (MASP, pseudogene), putative
TcChr41-S:1176085..1176128	Tc00.1047053510021.109	3719 mucin-associated surface protein (MASP, pseudogene), putative
TcChr38-S:447248..448367	Tc00.1047053510207.21	846, 1965 mucin-associated surface protein (MASP, pseudogene), putative
TcChr38-S:482604..483532	Tc00.1047053508121.130	1115, 2043 mucin-associated surface protein (MASP, pseudogene), putative
TcChr38-S:489267..491003	Tc00.1047053508121.90	1401 mucin-associated surface protein (MASP, pseudogene), putative
TcChr38-S:1112205..1128094	Tc00.1047053511173.120	1029 mucin-associated surface protein (MASP, pseudogene), putative
TcChr28-S:462472..462515	Tc00.1047053506973.90	357 mucin-associated surface protein (MASP, pseudogene), putative

TcChr29-S:506987..507030	Tc00.1047053506289.94	529 mucin-like glycoprotein, putative
TcChr37-S:616562..616605	Tc00.1047053504103.30	399 myosin heavy chain, putative
TcChr38-S:213368..213411	Tc00.1047053503841.80	107, 238, 606 NADH-dependent fumarate reductase, putative
TcChr38-S:220360..220403	Tc00.1047053508535.10	266 NADH-dependent fumarate reductase, putative
TcChr38-S:370810..370961	Tc00.1047053503467.9	165, 316 NADH-dependent fumarate reductase, putative
TcChr38-S:376104..376214	Tc00.1047053510215.10	109, 219, 437 NADH-dependent fumarate reductase, putative
TcChr38-S:383288..385038	Tc00.1047053510213.110	5693 NADH-dependent fumarate reductase, putative
TcChr39-P:977130..977173	Tc00.1047053510729.140	1455 NIMA-related kinase, putative
TcChr7-P:276778..276821	Tc00.1047053509353.40	454 NLI-interacting factor, putative
TcChr7-S:276768..276811	Tc00.1047053430605.20	455 NLI-interacting factor, putative
TcChr38-S:364250..364625	Tc00.1047053427355.10	319, 694 oligosaccharyl transferase subunit, putative
TcChr38-S:367077..367222	Tc00.1047053503467.30	2037, 2182 oligosaccharyl transferase subunit, putative
TcChr22-S:310166..310209	Tc00.1047053504427.150	901 oxidoreductase-like protein, putative
TcChr29-S:731800..731843	Tc00.1047053508211.10	891 oxysterol-binding protein, putative
TcChr2-P:80416..80459	Tc00.1047053509541.4	892 paraflagellar rod component par4, putative
TcChr19-P:153362..153405	Tc00.1047053509611.20	96 peptidyl-prolyl cis-trans isomerase/rotamase, putative,PPIase, putative
TcChr34-S:326867..326910	Tc00.1047053505989.74	1793 peroxisome biogenesis factor 1, putative
TcChr38-S:146151..146194	Tc00.1047053511001.70	298 phosphatidylinositol-4-phosphate 5-kinase-like, putative
TcChr18-P:116101..116144	Tc00.1047053508851.189	23 phosphoenolpyruvate mutase, putative
TcChr39-P:1204223..1204266	Tc00.1047053508461.140	3046, 3719, 3904 poly(A)-binding protein, putative,polyadenylate-binding protein, putative
TcChr29-S:471789..471832	Tc00.1047053506287.140	85 prefoldin, putative
TcChr38-S:49299..49342	Tc00.1047053511469.70	189 prohibitin, putative
TcChr24-S:690968..691011	Tc00.1047053506411.30	309 proline oxidase, putative
TcChr38-S:202226..202269	Tc00.1047053503841.10	877 proteasome activator protein pa26, putative
TcChr15-S:38766..38809	Tc00.1047053511867.50	253 proteasome alpha 7 subunit, putative
TcChr29-S:737791..737834	Tc00.1047053508209.140	433, 1087 protein disulfide isomerase, putative
TcChr35-S:1115717..1115760	Tc00.1047053510911.45	129 protein kinase (pseudogene), putative
TcChr10-P:509497..509540	Tc00.1047053507503.11	183 protein kinase (pseudogene), putative
TcChr40-P:703436..703479	Tc00.1047053511277.520	2657 protein kinase (pseudogene), putative,glycogen synthase kinase, frameshift
TcChr11-S:30861..30904	Tc00.1047053510307.191	131 protein kinase (pseudogene), putative,protein kinase, putative, frameshift
TcChr19-P:289416..289459	Tc00.1047053509605.30	895, 2266 Protein kinase domain, putative
TcChr41-P:177245..177288	Tc00.1047053509027.60	2499 protein kinase, putative
TcChr41-P:181458..181501	Tc00.1047053509027.70	2292 protein kinase, putative
TcChr33-S:957353..957396	Tc00.1047053510347.5	477 protein kinase, putative
TcChr29-S:649604..649647	Tc00.1047053477079.10	936, 1922, 2154, 3178, 3872 protein kinase, putative
TcChr29-S:850936..850979	Tc00.1047053508207.20	131 protein kinase, putative
TcChr23-P:616026..616069	Tc00.1047053506537.130	131 protein kinase, putative
TcChr38-S:19493..19536	Tc00.1047053511471.60	138 protein kinase, putative
TcChr38-S:140809..140852	Tc00.1047053511001.60	587, 837, 1219, 1513, 2140 protein kinase, putative
TcChr15-S:20868..20911	Tc00.1047053509231.20	317 protein kinase, putative
TcChr13-S:509857..509900	Tc00.1047053508325.130	131 protein kinase, putative
TcChr13-S:554415..554458	Tc00.1047053508325.320	134 protein kinase, putative
TcChr19-P:231925..231968	Tc00.1047053509607.50	1297 protein kinase, putative
TcChr25-S:273403..273446	Tc00.1047053507275.10	269, 410, 981 protein kinase, putative
TcChr3-S:17395..17438	Tc00.1047053511055.50	135 protein kinase, putative
TcChr22-P:43092..43135	Tc00.1047053509725.50	134 protein kinase, putative
TcChr22-P:50671..50714	Tc00.1047053509723.10	132 protein kinase, putative
TcChr10-S:484892..484935	Tc00.1047053504229.30	137 protein kinase, putative
TcChr11-P:445637..445680	Tc00.1047053509937.130	3544 protein kinase, putative
TcChr11-P:464236..464279	Tc00.1047053509937.220	1058 protein kinase, putative
TcChr7-P:341983..342026	Tc00.1047053510045.30	1707 protein kinase, putative

TcChr19-S:318277..318320	Tc00.1047053506401.110	279 protein kinase, putative
TcChr37-S:10111..10154	Tc00.1047053507611.40	143 protein kinase, putative
TcChr36-S:1164391..1164434	Tc00.1047053507881.60	134 protein kinase, putative
TcChr37-P:50365..50408	Tc00.1047053503423.20	132 protein kinase, putative
TcChr25-P:772148..772191	Tc00.1047053509259.130	346 protein kinase, putative
TcChr17-P:11446..11489	Tc00.1047053511773.50	126 protein kinase, putative
TcChr32-P:42969..43012	Tc00.1047053503607.10	126 protein kinase, putative
TcChr5-S:17599..17642	Tc00.1047053510247.20	38 protein kinase, putative,casein kinase I, putative
TcChr34-S:657347..657390	Tc00.1047053510231.10	263 protein kinase, putative
TcChr1-P:49535..49578	Tc00.1047053505037.60	137 protein kinase, putative
TcChr40-P:599059..599102	Tc00.1047053511283.130	454, 798 protein kinase, putative,serine/threonine protein kinase, putative
TcChr27-S:330199..330242	Tc00.1047053506775.190	489 protein kinase, putative,serine/threonine protein kinase, putative
TcChr15-S:82425..82468	Tc00.1047053511871.34	506 protein transport protein sec61 gamma subunit, putative
TcChr29-S:785308..785351	Tc00.1047053503579.110	163 pseudouridylate synthase I, putative
TcChr5-S:18907..18950	Tc00.1047053510247.10	233 R27-2 protein, putative
TcChr35-S:1111443..1111486	Tc00.1047053510911.30	212 ras-related rab-4, putative
TcChr25-S:621256..621299	Tc00.1047053506743.180	594 recombination initiation protein NBS1, putative
TcChr29-S:709098..709141	Tc00.1047053508213.9	521 regulator of chromosome condensation, putative
TcChr18-P:119423..119466	Tc00.1047053508851.210	412 replication factor C, subunit 4, putative
TcChr32-P:710572..710615	Tc00.1047053511517.37	36 reticulon domain protein, putative
TcChr18-P:75143..75186	Tc00.1047053511227.20	1244 retrotransposon hot spot protein (RHS, pseudogene), putative
TcChr40-P:2024183..2024183	Tc00.1047053508527.20	3216 retrotransposon hot spot protein (RHS, pseudogene), putative
TcChr39-P:1431555..1431598	Tc00.1047053510661.174	81 riboflavin kinase, putative
TcChr30-S:279168..279211	Tc00.1047053506933.20	753 ribonucleoside-diphosphate reductase large chain, putative
TcChr30-S:283187..283230	Tc00.1047053504073.30	746 ribonucleoside-diphosphate reductase large chain, putative
TcChr15-S:300818..300861	Tc00.1047053509233.190	364 ribosomal protein S25, putative
TcChr7-P:161052..161095	Tc00.1047053509943.30	820 ribosomal protein S6, putative,NPH2/RS6-like protein, putative
TcChr29-S:790582..790625	Tc00.1047053503579.150	319 RNA editing 3' terminal uridylyl transferase 2, putative
TcChr10-S:392995..393038	Tc00.1047053511139.40	1455, 1644 RNA helicase, putative
TcChr10-P:392956..392999	Tc00.1047053508319.40	1357 RNA helicase, putative
TcChr40-P:147472..147515	Tc00.1047053508901.20	7573 RNA-binding protein 4, putative
TcChr41-P:99132..99175	Tc00.1047053511481.70	389, 1268 RNA-binding protein 5, putative
TcChr40-S:413990..414033	Tc00.1047053506211.60	56 RNA-binding protein, putative
TcChr22-S:405199..405242	Tc00.1047053510507.50	5714 RNA-binding protein, putative
TcChr40-P:413098..413141	Tc00.1047053508895.60	55 RNA-binding protein, putative
TcChr40-P:775888..775931	Tc00.1047053511277.200	4011 RNA-binding protein, putative
TcChr34-S:98823..98866	Tc00.1047053507873.30	87 RNA-binding protein, putative
TcChr32-S:356560..356603	Tc00.1047053509965.180	420 RNA-binding protein, putative
TcChr38-S:105648..105691	Tc00.1047053503453.100	125, 273, 709, 824, 1341 serine palmitoyltransferase, putative
TcChr38-P:1392866..1392909	Tc00.1047053508001.106	106 serine/threonine protein kinase (pseudogene), putative
TcChr37-S:1082431..1082474	Tc00.1047053509599.157	948 serine/threonine protein kinase, putative
TcChr13-S:447102..447145	Tc00.1047053506863.80	60, 454, 780 serine/threonine protein phosphatase, putative
TcChr33-S:688944..688987	Tc00.1047053506465.50	1904 serine/threonine protein phosphatase-like protein, putative
TcChr15-S:341915..341958	Tc00.1047053509453.50	482 serine/threonine-protein phosphatase 2A, catalytic subunit, putative
TcChr34-S:479873..479916	Tc00.1047053510879.10	1586 serine/threonine-protein phosphatase 2A, catalytic subunit, putative
TcChr34-S:991663..991706	Tc00.1047053438059.10	1023, 1327 serine/threonine-protein phosphatase PP1 alpha
TcChr18-P:313995..314038	Tc00.1047053508247.110	270 serine-alanine-and proline-rich protein, putative
TcChr41-P:318296..318339	Tc00.1047053511487.150	4575 serine-alanine-and proline-rich protein, putative
TcChr12-P:365071..365114	Tc00.1047053506151.30	1591 small GTP-binding protein Rab11, putative,Rab11 GTPase, putative
TcChr29-S:504710..504753	Tc00.1047053506289.80	1177 small GTP-binding protein, putative
TcChr29-S:814477..814520	Tc00.1047053508207.200	205 small GTP-binding protein, putative

TcChr37-S:892027..892070	Tc00.1047053507709.90	116 sterol C-24 reductase, putative
TcChr40-P:1934387..1936535	Tc00.1047053508479.340	631 succinyl-CoA synthetase alpha subunit, putative
TcChr29-S:543331..543374	Tc00.1047053506289.250	448 surface protease GP63 (pseudogene), putative
TcChr24-S:73576..73619	Tc00.1047053503665.40	644 surface protease GP63 (pseudogene), putative
TcChr18-P:353548..353591	Tc00.1047053473703.10	3051 surface protease GP63, putative
TcChr29-S:518387..518430	Tc00.1047053506289.140	134 surface protease GP63, putative
TcChr29-S:526737..526780	Tc00.1047053506289.170	134 surface protease GP63, putative
TcChr29-S:534963..535006	Tc00.1047053506289.210	87 surface protease GP63, putative
TcChr34-S:324577..324620	Tc00.1047053505989.70	319 surface protease GP63, putative, metalloproteinase, putative
TcChr35-P:894807..894850	Tc00.1047053511723.10	317 surface protease GP63, putative, metalloproteinase, putative
TcChr5-S:170792..170835	Tc00.1047053508955.10	-56 syntaxin, putative
TcChr38-S:1288147..1296745	Tc00.1047053511181.80	1785 threonyl-tRNA synthetase, putative
TcChr25-S:365615..365658	Tc00.1047053503477.20	956 transaldolase, putative
TcChr22-S:401826..401869	Tc00.1047053510507.40	787 transmembrane amino acid transporter, putative
TcChr28-S:665903..665946	Tc00.1047053509885.70	315, 679, 1827 transporter, putative
TcChr18-P:285238..285281	Tc00.1047053508245.45	348 trans-sialidase (pseudogene), putative
TcChr18-P:403176..403219	Tc00.1047053506139.2	361 trans-sialidase (pseudogene), putative
TcChr18-P:408211..408254	Tc00.1047053504155.280	104 trans-sialidase (pseudogene), putative
TcChr18-P:471047..471090	Tc00.1047053509545.55	348 trans-sialidase (pseudogene), putative
TcChr18-P:476189..476232	Tc00.1047053509545.40	130 trans-sialidase (pseudogene), putative
TcChr41-P:858717..858760	Tc00.1047053503973.340	75 trans-sialidase (pseudogene), putative
TcChr41-P:1014313..1014356	Tc00.1047053508877.10	80 trans-sialidase (pseudogene), putative
TcChr41-P:1042702..1042745	Tc00.1047053511255.110	91 trans-sialidase (pseudogene), putative
TcChr41-P:1051588..1051631	Tc00.1047053511255.160	138 trans-sialidase (pseudogene), putative
TcChr41-P:1074723..1074766	Tc00.1047053511255.270	84 trans-sialidase (pseudogene), putative
TcChr41-P:1633152..1633195	Tc00.1047053510363.60	76 trans-sialidase (pseudogene), putative
TcChr41-P:1882119..1882162	Tc00.1047053508221.530	71 trans-sialidase (pseudogene), putative
TcChr41-P:2021998..2022041	Tc00.1047053510361.180	77 trans-sialidase (pseudogene), putative
TcChr41-P:2065166..2065209	Tc00.1047053508219.170	78 trans-sialidase (pseudogene), putative
TcChr41-P:2113766..2113809	Tc00.1047053506751.90	70 trans-sialidase (pseudogene), putative
TcChr33-S:36327..36370	Tc00.1047053511585.310	74 trans-sialidase (pseudogene), putative
TcChr33-S:452600..452643	Tc00.1047053510557.10	83 trans-sialidase (pseudogene), putative
TcChr29-S:15609..15652	Tc00.1047053506285.30	162, 228 trans-sialidase (pseudogene), putative
TcChr29-S:83877..83920	Tc00.1047053509699.220	90 trans-sialidase (pseudogene), putative
TcChr29-S:416419..416462	Tc00.1047053507747.130	81 trans-sialidase (pseudogene), putative
TcChr33-P:780601..780644	Tc00.1047053506615.10	126 trans-sialidase (pseudogene), putative
TcChr33-P:799447..799490	Tc00.1047053508113.20	70 trans-sialidase (pseudogene), putative
TcChr20-S:473333..473376	Tc00.1047053508147.70	558 trans-sialidase (pseudogene), putative
TcChr20-S:510924..510967	Tc00.1047053508149.60	75 trans-sialidase (pseudogene), putative
TcChr20-S:536647..536690	Tc00.1047053506667.50	80 trans-sialidase (pseudogene), putative
TcChr24-S:9790..9833	Tc00.1047053509921.20	1330 trans-sialidase (pseudogene), putative
TcChr24-S:28588..28631	Tc00.1047053503985.10	335 trans-sialidase (pseudogene), putative
TcChr24-S:78445..78488	Tc00.1047053503665.10	2320 trans-sialidase (pseudogene), putative
TcChr24-S:722321..722364	Tc00.1047053503957.25	407 trans-sialidase (pseudogene), putative
TcChr16-P:83890..83933	Tc00.1047053509753.20	87 trans-sialidase (pseudogene), putative
TcChr41-S:2146791..2146834	Tc00.1047053506759.90	82 trans-sialidase (pseudogene), putative
TcChr29-P:141943..141986	Tc00.1047053508983.20	80 trans-sialidase (pseudogene), putative
TcChr29-P:197236..197279	Tc00.1047053506279.250	85 trans-sialidase (pseudogene), putative
TcChr29-P:322101..322144	Tc00.1047053511259.170	81 trans-sialidase (pseudogene), putative
TcChr29-P:396185..396228	Tc00.1047053506993.160	83 trans-sialidase (pseudogene), putative
TcChr38-P:294222..294265	Tc00.1047053506955.170	76 trans-sialidase (pseudogene), putative

TcChr23-S:588657..588700	Tc00.1047053509735.140	150 trans-sialidase (pseudogene), putative
TcChr40-S:1149443..1149486	Tc00.1047053510269.60	92 trans-sialidase (pseudogene), putative
TcChr40-S:1171251..1171294	Tc00.1047053510271.30	92 trans-sialidase (pseudogene), putative
TcChr40-S:1198048..1198091	Tc00.1047053510275.110	176 trans-sialidase (pseudogene), putative
TcChr40-S:1609135..1609178	Tc00.1047053508165.200	84 trans-sialidase (pseudogene), putative
TcChr38-S:22308..22351	Tc00.1047053511471.20	4007 trans-sialidase (pseudogene), putative
TcChr38-S:259098..259141	Tc00.1047053508539.130	109 trans-sialidase (pseudogene), putative
TcChr38-S:316865..316908	Tc00.1047053508541.120	110 trans-sialidase (pseudogene), putative
TcChr38-S:491003..499041	Tc00.1047053508121.30	655 trans-sialidase (pseudogene), putative
TcChr15-S:107195..107238	Tc00.1047053511871.150	121, 930 trans-sialidase (pseudogene), putative
TcChr15-S:124104..124147	Tc00.1047053511873.30	680 trans-sialidase (pseudogene), putative
TcChr15-S:150319..150362	Tc00.1047053511875.110	644 trans-sialidase (pseudogene), putative
TcChr2-S:124310..124353	Tc00.1047053506717.130	82 trans-sialidase (pseudogene), putative
TcChr28-S:622094..622137	Tc00.1047053456627.10	732 trans-sialidase (pseudogene), putative
TcChr5-S:196977..197020	Tc00.1047053511371.5	151 trans-sialidase (pseudogene), putative
TcChr24-P:571752..571795	Tc00.1047053509525.20	102 trans-sialidase (pseudogene), putative
TcChr40-P:7152..7195	Tc00.1047053506331.50	880 trans-sialidase (pseudogene), putative
TcChr40-P:7921..7964	Tc00.1047053506331.50	111 trans-sialidase (pseudogene), putative
TcChr34-S:23377..23420	Tc00.1047053507875.130	222 trans-sialidase (pseudogene), putative
TcChr25-S:697086..697129	Tc00.1047053508559.80	73 trans-sialidase (pseudogene), putative
TcChr9-P:406289..406332	Tc00.1047053508999.120	83 trans-sialidase (pseudogene), putative
TcChr28-P:473304..473347	Tc00.1047053510627.30	80 trans-sialidase (pseudogene), putative
TcChr12-P:525656..525699	Tc00.1047053503861.30	381 trans-sialidase (pseudogene), putative
TcChr15-P:253962..254005	Tc00.1047053509437.125	152 trans-sialidase (pseudogene), putative
TcChr15-P:298303..298346	Tc00.1047053503769.20	202 trans-sialidase (pseudogene), putative
TcChr36-S:3590..3633	Tc00.1047053506343.41	445 trans-sialidase (pseudogene), putative
TcChr31-P:72957..73000	Tc00.1047053509915.50	994 trans-sialidase (pseudogene), putative
TcChr12-S:241177..241220	Tc00.1047053505943.95	147 trans-sialidase (pseudogene), putative
TcChr39-S:946608..946651	Tc00.1047053506885.140	799 trans-sialidase (pseudogene), putative
TcChr18-P:67323..67366	Tc00.1047053511223.20	440, 1226 trans-sialidase, putative
TcChr18-P:188031..188074	Tc00.1047053511233.140	90, 162 trans-sialidase, putative
TcChr18-P:256166..256209	Tc00.1047053510239.80	104 trans-sialidase, putative
TcChr18-P:309469..309512	Tc00.1047053508247.90	85 trans-sialidase, putative
TcChr18-P:371463..371506	Tc00.1047053506139.120	105 trans-sialidase, putative
TcChr41-P:301907..301950	Tc00.1047053511487.90	81 trans-sialidase, putative
TcChr41-P:566717..566760	Tc00.1047053506389.10	71 trans-sialidase, putative
TcChr41-P:602658..602701	Tc00.1047053506459.230	71 trans-sialidase, putative
TcChr41-P:622447..622490	Tc00.1047053506459.180	70 trans-sialidase, putative
TcChr41-P:677146..677189	Tc00.1047053507937.3	74 trans-sialidase, putative
TcChr41-P:735464..735507	Tc00.1047053508871.10	73 trans-sialidase, putative
TcChr41-P:763702..763745	Tc00.1047053508871.110	70 trans-sialidase, putative
TcChr41-P:773041..773084	Tc00.1047053508871.170	124 trans-sialidase, putative
TcChr41-P:932298..932341	Tc00.1047053508873.330	86 trans-sialidase, putative
TcChr41-P:948180..948223	Tc00.1047053508873.390	79 trans-sialidase, putative
TcChr41-P:1060191..1060234	Tc00.1047053511255.190	76 trans-sialidase, putative
TcChr41-P:1093821..1093864	Tc00.1047053511255.350	82 trans-sialidase, putative
TcChr41-P:1596762..1596805	Tc00.1047053510363.250	76 trans-sialidase, putative
TcChr41-P:1648458..1648501	Tc00.1047053504081.540	81 trans-sialidase, putative
TcChr41-P:1745867..1745910	Tc00.1047053504081.80	81 trans-sialidase, putative
TcChr41-P:1768702..1768745	Tc00.1047053508221.1050	80 trans-sialidase, putative
TcChr41-P:1797816..1797859	Tc00.1047053508221.870	80 trans-sialidase, putative

TcChr41-P:1818228..1818271	Tc00.1047053508221.790	82 trans-sialidase, putative
TcChr41-P:1828610..1828653	Tc00.1047053508221.750	76 trans-sialidase, putative
TcChr41-P:1851721..1851764	Tc00.1047053508221.650	81 trans-sialidase, putative
TcChr41-P:1865890..1865933	Tc00.1047053508221.590	81 trans-sialidase, putative
TcChr41-P:1916555..1916598	Tc00.1047053508221.400	79 trans-sialidase, putative
TcChr41-P:1963428..1963471	Tc00.1047053508221.180	80 trans-sialidase, putative
TcChr41-P:2099340..2099383	Tc00.1047053508219.20	80 trans-sialidase, putative
TcChr41-P:2168938..2168981	Tc00.1047053510359.530	82 trans-sialidase, putative
TcChr33-S:246927..246970	Tc00.1047053507699.230	84 trans-sialidase, putative
TcChr33-S:528269..528312	Tc00.1047053508343.10	541 trans-sialidase, putative
TcChr29-S:47956..47999	Tc00.1047053509699.40	84, 175 trans-sialidase, putative
TcChr33-P:758490..758533	Tc00.1047053506615.150	71 trans-sialidase, putative
TcChr33-P:810721..810764	Tc00.1047053510033.30	70 trans-sialidase, putative
TcChr20-S:546452..546495	Tc00.1047053506667.90	82 trans-sialidase, putative
TcChr20-S:561287..561330	Tc00.1047053506667.160	82 trans-sialidase, putative
TcChr20-S:578172..578215	Tc00.1047053508099.50	83 trans-sialidase, putative
TcChr20-S:594103..594146	Tc00.1047053508103.30	83 trans-sialidase, putative
TcChr20-S:617518..617561	Tc00.1047053506609.30	79 trans-sialidase, putative
TcChr20-S:652290..652333	Tc00.1047053508109.60	80 trans-sialidase, putative
TcChr24-S:197457..197500	Tc00.1047053506951.90	227 trans-sialidase, putative
TcChr24-S:231915..231958	Tc00.1047053511677.20	101 trans-sialidase, putative
TcChr24-S:238683..238726	Tc00.1047053468217.30	101 trans-sialidase, putative
TcChr24-S:647504..647547	Tc00.1047053506409.170	86 trans-sialidase, putative
TcChr24-S:707255..707298	Tc00.1047053505363.10	128 trans-sialidase, putative
TcChr24-S:765592..765635	Tc00.1047053505365.60	83 trans-sialidase, putative
TcChr20-P:475091..475134	Tc00.1047053509217.40	79 trans-sialidase, putative
TcChr20-P:519087..519130	Tc00.1047053511839.40	83 trans-sialidase, putative
TcChr16-P:10801..10844	Tc00.1047053509755.50	87 trans-sialidase, putative
TcChr18-S:226798..226841	Tc00.1047053511597.10	90 trans-sialidase, putative
TcChr18-S:355964..356007	Tc00.1047053511603.450	73 trans-sialidase, putative
TcChr18-S:563230..563273	Tc00.1047053509097.20	71 trans-sialidase, putative
TcChr41-S:22528..22571	Tc00.1047053511123.11	333 trans-sialidase, putative
TcChr41-S:990745..990788	Tc00.1047053506597.40	70 trans-sialidase, putative
TcChr41-S:1126638..1126681	Tc00.1047053510025.50	83 trans-sialidase, putative
TcChr41-S:1161198..1161241	Tc00.1047053510021.180	69 trans-sialidase, putative
TcChr41-S:1337342..1337385	Tc00.1047053507953.10	93 trans-sialidase, putative
TcChr41-S:1755371..1755414	Tc00.1047053510377.330	82 trans-sialidase, putative
TcChr21-P:24987..25030	Tc00.1047053416041.14	1119 trans-sialidase, putative
TcChr21-P:202780..202823	Tc00.1047053511643.110	80 trans-sialidase, putative
TcChr4-S:157813..157856	Tc00.1047053510107.15	745 trans-sialidase, putative
TcChr4-S:172672..172715	Tc00.1047053508047.60	85 trans-sialidase, putative
TcChr23-P:169309..169352	Tc00.1047053460111.10	333 trans-sialidase, putative
TcChr23-P:201304..201347	Tc00.1047053509665.30	397 trans-sialidase, putative
TcChr29-P:79679..79722	Tc00.1047053508979.50	86 trans-sialidase, putative
TcChr29-P:153523..153566	Tc00.1047053506279.10	83 trans-sialidase, putative
TcChr29-P:164649..164692	Tc00.1047053506279.60	86 trans-sialidase, putative
TcChr29-P:177623..177666	Tc00.1047053506279.140	88 trans-sialidase, putative
TcChr29-P:246661..246704	Tc00.1047053507633.80	81 trans-sialidase, putative
TcChr29-P:305300..305343	Tc00.1047053508887.5	84 trans-sialidase, putative
TcChr29-P:365444..365487	Tc00.1047053508883.48	230 trans-sialidase, putative
TcChr38-P:272233..272276	Tc00.1047053506955.270	80 trans-sialidase, putative

TcChr38-P:280926..280969	Tc00.1047053506955.240	73 trans-sialidase, putative
TcChr38-P:985411..985454	Tc00.1047053510713.90	92 trans-sialidase, putative
TcChr23-S:184757..184800	Tc00.1047053503601.10	83 trans-sialidase, putative
TcChr40-S:1481956..1481999	Tc00.1047053510279.110	130 trans-sialidase, putative
TcChr40-S:1567270..1567313	Tc00.1047053418405.30	84 trans-sialidase, putative
TcChr38-S:1085794..1086264	Tc00.1047053511173.10	6407, 6877 trans-sialidase, putative
TcChr38-S:1158444..1158485	Tc00.1047053511173.280	6138, 6179 trans-sialidase, putative
TcChr38-S:1190869..1190909	Tc00.1047053511173.470	931, 971, 1007, 1103 trans-sialidase, putative
TcChr14-S:245348..245391	Tc00.1047053506737.90	84 trans-sialidase, putative
TcChr15-S:119555..119598	Tc00.1047053511873.10	119 trans-sialidase, putative
TcChr15-S:133779..133822	Tc00.1047053511875.20	108 trans-sialidase, putative
TcChr22-S:248908..248951	Tc00.1047053504425.10	97 trans-sialidase, putative
TcChr28-S:428605..428648	Tc00.1047053506973.10	204 trans-sialidase, putative
TcChr28-S:602571..602614	Tc00.1047053507861.24	167 trans-sialidase, putative
TcChr24-P:457331..457374	Tc00.1047053509527.120	83 trans-sialidase, putative
TcChr24-P:626893..626936	Tc00.1047053508365.190	84 trans-sialidase, putative
TcChr25-S:381157..381200	Tc00.1047053511401.120	82 trans-sialidase, putative
TcChr25-S:399638..399681	Tc00.1047053511401.30	89 trans-sialidase, putative
TcChr25-S:410685..410728	Tc00.1047053508977.120	106 trans-sialidase, putative
TcChr25-S:417991..418034	Tc00.1047053508977.80	106 trans-sialidase, putative
TcChr22-P:227083..227126	Tc00.1047053508677.40	1245 trans-sialidase, putative
TcChr35-S:750488..750531	Tc00.1047053509157.170	589 trans-sialidase, putative
TcChr12-P:472655..472698	Tc00.1047053506053.50	211, 1119 trans-sialidase, putative
TcChr12-P:481748..481791	Tc00.1047053504183.20	1035 trans-sialidase, putative
TcChr12-P:522282..522325	Tc00.1047053503861.40	937 trans-sialidase, putative
TcChr15-P:553610..553653	Tc00.1047053510197.180	130 trans-sialidase, putative
TcChr15-P:560519..560562	Tc00.1047053510197.130	131 trans-sialidase, putative
TcChr30-P:773857..773900	Tc00.1047053511669.10	983 trans-sialidase, putative
TcChr30-P:807143..807186	Tc00.1047053511667.30	852 trans-sialidase, putative
TcChr25-P:64189..64232	Tc00.1047053508963.30	865 trans-sialidase, putative
TcChr21-P:234459..234502	Tc00.1047053507059.20	82 trans-sialidase, putative,c71 surface protein, putative
TcChr29-S:389613..389656	Tc00.1047053509701.10	286068 trifunctional enzyme alpha subunit, mitochondrial precursor-like protein, putative
TcChr4-S:124087..124130	Tc00.1047053510105.187	369 tRNA-Gly:anticodon GCC
TcChr39-P:974567..974610	Tc00.1047053510729.150	438 tubulin tyrosine ligase, putative
TcChr38-S:226715..226758	Tc00.1047053508535.50	281 tyrosine aminotransferase
TcChr38-S:1261692..1261722	Tc00.1047053511179.160	23923, 23953, 23976, 24924, 24975, 31088, 31143 ubiquitin-conjugating enzyme e2, putative
TcChr19-P:461437..461480	Tc00.1047053508547.201	162 ubiquitin-protein ligase, putative
TcChr19-P:475197..475240	Tc00.1047053508971.50	1265, 1624 ubiquitin-protein ligase-like, putative
TcChr28-S:83005..83048	Tc00.1047053510611.20	643 UDP-glucuronic acid/UDP-N-acetylgalactosamine transporter, putative
TcChr38-S:191657..191700	Tc00.1047053511001.190	20 vacuolar ATP synthase subunit d, putative

Supplementary Table S3

Genes containing the UBP1m and 43-nt elements

GeneID	UBP1m location in 3'UTR	43-nt location in 3'UTR	Distance between elements < 300 nt
Tc00.1047053508805.20	70	1851	
Tc00.1047053510325.20	253	1156	
Tc00.1047053507649.20	276	493	Yes
Tc00.1047053510309.60	164	65	Yes
Tc00.1047053508387.170	271	372	Yes
Tc00.1047053504073.10	13	1830	
Tc00.1047053511001.90	137	781	
Tc00.1047053503579.150	224	319	Yes
Tc00.1047053510729.210	35	2876	
Tc00.1047053506543.100	257	1544	
Tc00.1047053508541.210	305	50	Yes
Tc00.1047053425855.9	227	1456	
Tc00.1047053508547.190	242	723	
Tc00.1047053511685.60	183	97	Yes
Tc00.1047053511263.30	59	647	
Tc00.1047053509027.70	265	2292	
Tc00.1047053510105.187	190	369	Yes
Tc00.1047053511531.30	237	1374	
Tc00.1047053503453.100	40	125	Yes
Tc00.1047053510105.250	203	16	Yes
Tc00.1047053508541.200	195	1766	
Tc00.1047053507041.40	326	105	Yes
Tc00.1047053506289.50	80	525	
Tc00.1047053506135.30	106	322	Yes
Tc00.1047053398751.10	126	729	
Tc00.1047053509455.20	301	547	Yes
Tc00.1047053510231.10	167	263	Yes
Tc00.1047053506559.550	313	392	Yes
Tc00.1047053503477.10	291	604	
Tc00.1047053503579.110	83	163	Yes
Tc00.1047053509233.180	110	407	Yes
Tc00.1047053506885.354	249	378	Yes
Tc00.1047053510611.20	245	643	
Tc00.1047053404843.10	29	318	Yes
Tc00.1047053511467.50	177	237	Yes
Tc00.1047053509233.170	307	448	Yes
Tc00.1047053509433.10	227	2645	
Tc00.1047053506859.80	16	1211	
Tc00.1047053408437.20	264	571	
Tc00.1047053509701.10	38	286068	
Tc00.1047053510611.70	302	445	Yes
Tc00.1047053509233.120	12	413	
Tc00.1047053507811.100	32	162	Yes
Tc00.1047053511181.100	72	4967	
Tc00.1047053507143.90	119	4195	

Tc00.1047053507747.260	227	427	Yes
Tc00.1047053507059.80	43	1125	
Tc00.1047053510999.19	317	563	Yes
Tc00.1047053507275.20	31	754	
Tc00.1047053506287.20	24	515	
Tc00.1047053511467.16	7	133	Yes
Tc00.1047053509455.130	94	155	Yes
Tc00.1047053408437.10	70	973	
Tc00.1047053506807.20	295	2544	
Tc00.1047053511217.100	257	82	Yes
Tc00.1047053503899.110	148	481	
Tc00.1047053508373.10	35	1124	
Tc00.1047053508389.10	83	783	
Tc00.1047053509885.70	48	315	Yes
Tc00.1047053509231.20	235	317	Yes
Tc00.1047053508387.30	169	1128	
Tc00.1047053511871.30	250	1135	
Tc00.1047053506775.190	60	489	
Tc00.1047053509231.10	100	1108	
Tc00.1047053511313.30	125	375	Yes
Tc00.1047053507063.40	309	2661	
Tc00.1047053511181.140	320	928	
Tc00.1047053503841.20	246	761	
Tc00.1047053509125.10	230	1921	
Tc00.1047053511181.150	19	2130	
Tc00.1047053505807.140	286	51	Yes
Tc00.1047053506553.40	273	9	Yes
Tc00.1047053503939.70	172	465	Yes
Tc00.1047053508593.100	164	386	Yes
Tc00.1047053506713.30	95	235	Yes
Tc00.1047053511215.90	278	678	
Tc00.1047053509455.110	187	303	Yes
Tc00.1047053510615.4	218	62	Yes
Tc00.1047053508569.10	247	7492	
Tc00.1047053503939.50	304	562	Yes
Tc00.1047053429257.20	145	612	
Tc00.1047053511481.70	212	389	Yes
Tc00.1047053511181.80	76	1785	
Tc00.1047053506305.29	191	403	Yes
Tc00.1047053509179.60	114	1302	
Tc00.1047053511871.34	152	506	
Tc00.1047053511001.30	251	201	Yes
Tc00.1047053510359.290	31	673	
Tc00.1047053509231.50	309	856	
Tc00.1047053503565.29	118	1542	
Tc00.1047053511179.130	132	199	Yes
Tc00.1047053504045.100	109	691	
Tc00.1047053511001.60	26	587	

Tc00.1047053506135.50	55	287	Yes
Tc00.1047053468217.30	312	101	Yes
Tc00.1047053510613.10	12	103	Yes
Tc00.1047053508385.40	19	480	
Tc00.1047053509243.20	311	3651	
Tc00.1047053504103.30	293	399	Yes
Tc00.1047053506749.10	67	1991	
Tc00.1047053485889.10	98	608	
Tc00.1047053509455.80	206	63	Yes
Tc00.1047053508965.70	144	5384	
Tc00.1047053509229.20	211	1174	
Tc00.1047053503841.10	173	877	
Tc00.1047053506713.24	34	298	Yes
Tc00.1047053509233.200	93	30	Yes
Tc00.1047053510517.110	325	879	
Tc00.1047053511871.60	299	377	Yes
Tc00.1047053511467.4	294	484	Yes
Tc00.1047053510359.120	318	434	Yes
Tc00.1047053510729.60	258	897	
Tc00.1047053509541.4	22	892	
Tc00.1047053506165.4	244	840	
Tc00.1047053508839.40	137	384	Yes
Tc00.1047053511867.70	50	90	Yes
Tc00.1047053509233.60	1	295	Yes
Tc00.1047053507709.90	286	116	Yes
Tc00.1047053510911.30	183	212	Yes
Tc00.1047053510609.120	219	157	Yes
Tc00.1047053506503.150	26	261	Yes
Tc00.1047053511751.220	210	340	Yes
Tc00.1047053511181.30	40	503	
Tc00.1047053507063.80	37	1049	
Tc00.1047053508209.150	323	204	Yes
Tc00.1047053509233.80	8	208	Yes
Tc00.1047053509233.239	263	272	Yes
Tc00.1047053510999.10	188	822	
Tc00.1047053511585.190	154	371	Yes
Tc00.1047053511487.150	201	4575	
Tc00.1047053505989.70	142	319	Yes
Tc00.1047053508383.10	156	62	Yes
Tc00.1047053506937.20	69	112	Yes
Tc00.1047053508209.94	71	98	Yes
Tc00.1047053511001.80	110	2	Yes
Tc00.1047053509233.220	68	116	Yes
Tc00.1047053503579.30	185	498	
Tc00.1047053509609.10	322	218	Yes
Tc00.1047053508211.50	271	107	Yes
Tc00.1047053511001.170	176	741	
Tc00.1047053506745.10	262	504	Yes

Tc00.1047053506287.9	145	2437	
Tc00.1047053508219.20	326	80	Yes
Tc00.1047053503973.340	319	75	Yes
Tc00.1047053510361.180	287	77	Yes
Tc00.1047053511553.200	318	84	Yes
Tc00.1047053506737.90	282	84	Yes
Tc00.1047053508963.30	312	865	
Tc00.1047053508109.60	314	80	Yes
Tc00.1047053510713.90	296	92	Yes
Tc00.1047053509921.20	275	1330	
Tc00.1047053510377.330	289	82	Yes
Tc00.1047053511173.280	317	6138	
Tc00.1047053511401.120	321	82	Yes
Tc00.1047053510271.30	257	92	Yes
Tc00.1047053510269.60	257	92	Yes
Tc00.1047053511669.10	284	983	
Tc00.1047053503861.40	294	937	
Tc00.1047053508221.870	72	80	Yes
Tc00.1047053509455.140	36	318	Yes
Tc00.1047053509543.30	179	795	
Tc00.1047053506303.90	138	225	Yes
Tc00.1047053508207.60	242	59	Yes
Tc00.1047053503453.4	91	636	
Tc00.1047053509455.60	236	147	Yes
Tc00.1047053510879.10	297	1586	
Tc00.1047053510347.20	31	586	
Tc00.1047053511181.40	5	1278	
Tc00.1047053508539.130	302	109	Yes
Tc00.1047053510045.30	27	1707	
Tc00.1047053509605.30	26	895	
Tc00.1047053511303.9	123	1605	
Tc00.1047053511181.10	23	158	Yes
Tc00.1047053511217.170	57	680	
Tc00.1047053509455.114	175	1124	
Tc00.1047053506289.40	212	1274	
Tc00.1047053504073.20	320	568	Yes
Tc00.1047053509895.60	295	196	Yes
Tc00.1047053508207.200	13	205	Yes
Tc00.1047053510219.10	154	30	Yes
Tc00.1047053503813.30	130	427	Yes
Tc00.1047053506739.140	227	301	Yes
Tc00.1047053506635.130	126	502	
Tc00.1047053509937.130	132	3544	
Tc00.1047053511001.70	71	298	Yes
Tc00.1047053508385.20	211	66	Yes
Tc00.1047053511867.90	136	312	Yes
Tc00.1047053506289.80	70	1177	
Tc00.1047053507993.70	115	423	

Tc00.1047053508221.590	77	81	Yes
Tc00.1047053508347.40	305	661	
Tc00.1047053507053.140	196	272	Yes
Tc00.1047053503579.10	123	64	Yes
Tc00.1047053508535.20	238	130	Yes
Tc00.1047053510729.150	291	438	Yes
Tc00.1047053511217.80	214	285	Yes
Tc00.1047053509233.140	55	193	Yes
Tc00.1047053508851.120	59	304	Yes
Tc00.1047053503477.20	115	956	
Tc00.1047053508209.90	79	278	Yes
Tc00.1047053509525.20	174	102	Yes
Tc00.1047053511867.60	131	243	Yes
Tc00.1047053511837.110	228	143	Yes
Tc00.1047053511277.310	155	105	Yes
Tc00.1047053508209.144	235	40	Yes
Tc00.1047053473703.10	203	3051	
Tc00.1047053511001.110	207	141	Yes
Tc00.1047053509875.210	257	31	Yes
Tc00.1047053511867.20	34	286	Yes
Tc00.1047053508213.9	97	521	
Tc00.1047053510355.200	134	18	Yes
Tc00.1047053509231.23	153	700	
Tc00.1047053511751.160	190	408	Yes
Tc00.1047053503453.40	166	215	Yes
Tc00.1047053508865.10	276	1690	
Tc00.1047053508461.140	288	3046	
Tc00.1047053508209.100	2	262	Yes
Tc00.1047053511281.10	227	316	Yes

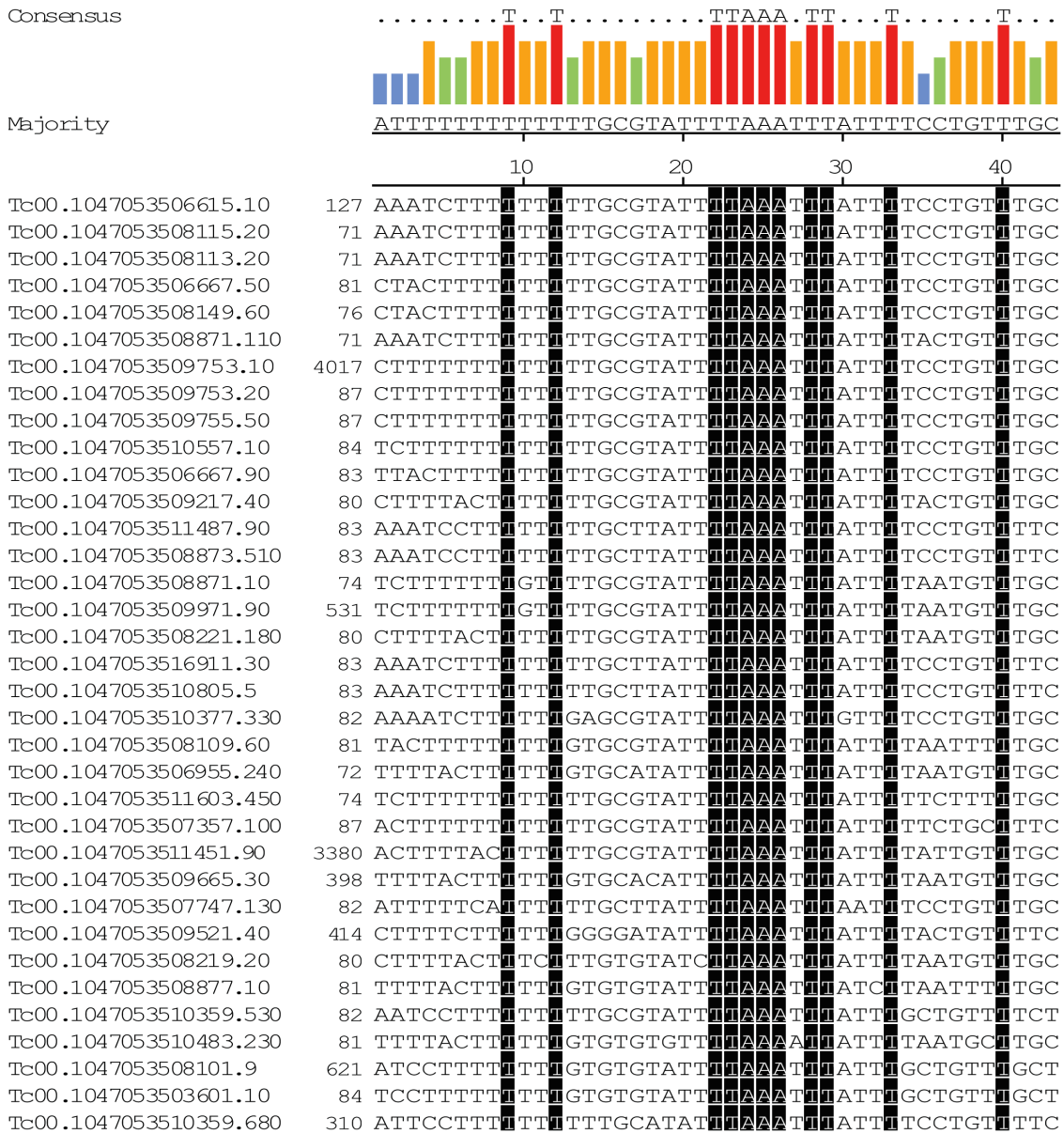


Figure S1. Multiple sequence alignment of 35 short fragments obtained from BLASTN searches likely to be present at the 3'UTR of some large gene family members. Systematic gene names are shown at the left. The numbers in the sequences indicate distances from stop codon.



Figure S2. Physical localization of the U-rich element in the *T. cruzi* genome. The 43-nt U-rich element (shown in red) is widely distributed on all chromosomes through the genome.