Supplementary Table 7. List of 441 proteins with peptides exclusively or predominantly found in the membrane samples by MS/MS.

Locus name	Accession no.	Gene name	Protein description	Total no. peptides	No. peptides (membrane)	No. peptides (soluble)	% membrane / total	*TMHMM*
rrnAC3155	Q5UXZ2_HALMA	*atpC1*	H+ ATP synthase sununit C (EC 3.6.3.14)	1811	1811	0	100.00	2
rrnAC2228	Q5V092_HALMA	*dppD*	Dipeptide ABC transporter ATP-binding	943	943	0	100.00	0
rrnB0319	Q5UW70_HALMA	*phnD1*	ABC tranporter phosphate-binding protein	323	323	0	100.00	0
rrnAC2656	Q5UZ68_HALMA	*yufN*	ABC transporter	252	252	0	100.00	0
rrnAC2605	Q5UZA8_HALMA	*hdrD*	Heterodisulfide reductase	241	241	0	100.00	4
rrnAC1154	Q5V2Z7_HALMA	*coxA3*	Cytochrome c oxidase polypeptide I (EC 1.9.3.1)	150	150	0	100.00	13
rrnAC1611	RL3_HALMAReview	*rpl3p*	50S ribosomal protein L3P (Hmal3) (Hl1)	148	148	0	100.00	0
pNG7145	Q5V6J8_HALMA	*nosL*	NosL protein	141	141	0	100.00	0
rrnAC0923	Q5V3K5_HALMA	*rbsB-2*	Sugar ABC transporter substrate binding protein	136	136	0	100.00	1
rrnAC0732	Q5V427_HALMA	*petB1*	Cytochrome b6	132	132	0	100.00	5
rrnAC0759	Q5V402_HALMA	*cat*	Cationic amino acid transporter	127	127	0	100.00	12
rrnAC1570	Q5V1W4_HALMA	*trp-7*	ABC transporter ATP-binding protein	123	123	0	100.00	4
rrnAC1153	Q5V2Z8_HALMA	*coxB2*	Cytochrome c oxidase subunit II (EC 1.9.3.1)	114	114	0	100.00	1
rrnAC1589	SECY_HALMAReview	*secY*	Preprotein translocase subunit SecY (Protein transport protein SEC61subunit alpha homolog)	113	113	0	100.00	9
rrnAC1455	Q5V271_HALMA	*nuoL2*	NADH dehydrogenase I L subunit	107	107	0	100.00	16
rrnAC3215	Q5UXT5_HALMA	*secD*	Protein-export membrane protein SecD	106	106	0	100.00	6
rrnAC3297	Q5UXL3_HALMA	*oppC*	Oligopeptide ABC transporter permease protein	104	104	0	100.00	8
rrnAC0731	Q5V428_HALMA	*rrnAC0731*	Cytochrome b(C-terminal)/b6	101	101	0	100.00	4
rrnAC0371	Q5V4Y8_HALMA	*htr*	MCP domain signal transducer	100	100	0	100.00	2
rrnAC3154	Q5UXZ3_HALMA	*atpI*	V-type ATP synthase subunit I (EC 3.6.3.14)	98	98	0	100.00	7
rrnAC1507	Q5V224_HALMA	*pstA2*	Phosphate ABC transporter permease protein	96	96	0	100.00	14
rrnAC0431	Q5V4T7_HALMA	*tot*	Transmembrane oligosaccharyl transferase	90	90	0	100.00	13
rrnAC1812	Q5V1A2_HALMA	*pnm*	N-methyltransferase-like	88	88	0	100.00	0
rrnAC3161	Q5UXY6_HALMA	*bop*	Bacteriorhodopsin	87	87	0	100.00	7
rrnAC2229	Q5V091_HALMA	*dppB1*	Dipeptide ABC transporter permease	85	85	0	100.00	6
rrnAC3295	Q5UXL5_HALMA	*ykfD*	Oligopeptide ABC transporter ATP-binding	85	85	0	100.00	0
rrnAC3467	Q5UX61_HALMA	*pspA1*	Transcription regulator	85	85	0	100.00	0
rrnAC0358	Q5V4Z8_HALMA	*imp-1*	Immunogenic protein	79	79	0	100.00	0
rrnB0207	Q5UWG3_HALMA	*rrnB0207*	Putative extracellular ligand binding protein	78	78	0	100.00	0
rrnAC3053	Q5UY81_HALMA	*rrnAC3053*	ABC transporter ATP-binding protein	74	74	0	100.00	0
rrnAC0381	Q5V4X9_HALMA	*glnH1*	Glutamine ABC transporter permease protein	74	74	0	100.00	0
rrnAC0906	Q5V3M0_HALMA	*ibp*	Iron-binding protein	74	74	0	100.00	0
rrnAC3296	Q5UXL4_HALMA	*oppD2*	Oligopeptide ABC transporter ATPase component	71	71	0	100.00	0
pNG7110	Q5V6N0_HALMA	*pNG7110*	Putative permease	70	70	0	100.00	4

rrnAC2590	Q5UZC2_HALMA	*cstA*	Carbon starvation protein CstA	66	66	0	100.00	13
rrnAC1152	Q5V2Z9_HALMA	*hcp5*	Halocyanin-like	65	65	0	100.00	2
rrnAC1347	Q5V2H4_HALMA	*rrnAC1347*	Putative mechanosensitive ion channel	62	62	0	100.00	3
rrnAC3267	Q5UXP0_HALMA	*rrnAC3267*	Molybdate transport protein	58	58	0	100.00	0
pNG7149	Q5V6J5_HALMA	*drrA-2*	ABC transporter ATP-binding protein	57	57	0	100.00	0
rrnAC0502	Q5V4M8_HALMA	*ycdH*	Adhesion protein	57	57	0	100.00	0
rrnAC1372	Q5V2F1_HALMA	*ccpA*	Cytochrome c551 peroxidase	57	57	0	100.00	2
rrnAC0229	Q5V5B4_HALMA	*nhaC1*	Na+/H+ antiporter	56	56	0	100.00	11
rrnAC1278	Q5V2N6_HALMA	*coxA1*	Cytochrome c oxidase polypeptide I (EC 1.9.3.1)	55	55	0	100.00	13
rrnAC1458	Q5V269_HALMA	*ndhG3*	NADH dehydrogenase/oxidoreductase	55	55	0	100.00	13
rrnAC2147	Q5V0G2_HALMA	*pstA1*	Phosphate ABC transporter permease protein	53	53	0	100.00	24
rrnAC1432	Q5V293_HALMA	*dpm5*	Dolichyl-phosphate-mannose-protein mannosyltransferase (EC 2.4.1.-)(EC 2.4.1.109)	52	52	0	100.00	10
rrnAC0630	Q5V4B4_HALMA	*sppA*	Putative signal peptide peptidase SppA (EC 3.4.21.-)	52	52	0	100.00	1
pNG7150	Q5V6J4_HALMA	*nosD1*	Copper-binding protein	51	51	0	100.00	1
rrnAC1448	Q5V278_HALMA	*nuoB*	NADH dehydrogenase I B subunit	51	51	0	100.00	0
rrnAC0043	Q5V5S7_HALMA	*coxB1*	Cytochrome c oxidase polypeptide II (EC 1.9.3.1)	49	49	0	100.00	3
pNG7017	Q5V6W1_HALMA	*pNG7017*	4Fe-S protein	48	48	0	100.00	0
rrnAC2969	PYRD_HALMAReview	*pyrD*	Dihydroorotate dehydrogenase (EC 1.3.3.1) (Dihydroorotate oxidase) (DHOdehase) (DHODase) (DHOD)	47	47	0	100.00	0
rrnAC1450	Q5V276_HALMA	*ndhG4*	NADH dehydrogenase/oxidoreductase	47	47	0	100.00	9
rrnAC3424	Q5UX99_HALMA	*rrnAC3424*	Rieske [2Fe-2S] domain protein	44	44	0	100.00	0
rrnAC2811	Q5UYT6_HALMA	*mthK*	Potassium channel related protein	42	42	0	100.00	4
rrnAC3052	Q5UY82_HALMA	*nosY2*	ABC-type transport system involved in multi-copper enzyme maturationpermease component	41	41	0	100.00	6
rrnAC0677	Q5V473_HALMA	*yusZ4*	Short-chain dehydrogenase/oxidoreductase	40	40	0	100.00	0
rrnAC0252	Q5V593_HALMA	*abcS-2*	ABC transporter permease protein	39	39	0	100.00	4
rrnAC3344	Q5UXG9_HALMA	*htlB*	HTR-like protein	39	39	0	100.00	4
rrnAC1456	Q5V270_HALMA	*ndhD*	NADH dehydrogenase subunit 4	39	39	0	100.00	14
rrnAC3298	Q5UXL2_HALMA	*dppB*	Dipeptide ABC transporter permease	38	38	0	100.00	6
rrnAC2146	PSTB2_HALMAReview	*pstB2*	Phosphate import ATP-binding protein PstB 2 (EC 3.6.3.27) (Phosphate-transporting ATPase 2) (ABC phosphate transporter 2)	37	37	0	100.00	0
rrnAC3530	Q5UX06_HALMA	*nuoL1*	NADH dehydrogenase I L subunit	36	36	0	100.00	12
rrnAC0991	Q5V3E3_HALMA	*htlD*	Sensor protein (EC 2.7.13.3)	36	36	0	100.00	5
pNG6056	Q5V6Y2_HALMA	*copA2*	Copper-transporting ATPase CopA	35	35	0	100.00	8
rrnAC3531	Q5UX05_HALMA	*ndhG2*	NADH dehydrogenase/oxidoreductase	34	34	0	100.00	13
rrnAC1509	Q5V222_HALMA	*phoX*	Phosphate ABC transporter phosphate-binding	34	34	0	100.00	0
rrnAC1750	Q5V1F3_HALMA	*argT*	Amino acid ABC transporter amino acid-binding	33	33	0	100.00	0

rrnAC2230	Q5V090_HALMA	*oppC1*	Oligopeptide transport system permease protein	33	33	0	100.00	6
rrnAC2245	Q5V077_HALMA	*rrnAC2245*	M50 family metallopeptidase	32	32	0	100.00	3
rrnAC1028	Q5V3A9_HALMA	*lolC*	Putative permease	32	32	0	100.00	8
rrnAC1656	Q5V1N3_HALMA	*rrnAC1656*	Nitrite/nitrate reduction protein	31	31	0	100.00	6
rrnAC3197	Q5UXV2_HALMA	*malE2*	Trehalose/maltose binding protein	31	31	0	100.00	0
pNG5003	Q5V7G2_HALMA	*yvrO-1*	ABC transporter ATP-binding protein	29	29	0	100.00	0
rrnAC2580	Q5UZD0_HALMA	*imp*	Immunogenic protein	28	28	0	100.00	0
rrnAC2782	Q5UYW3_HALMA	*rbn*	Ribonuclease BN	28	28	0	100.00	8
rrnAC0147	Q5V5I5_HALMA	*tppA*	Thiamine-binding periplasmic protein-like	28	28	0	100.00	0
rrnAC2065	RL15E_HALMAReview	*rpl15e*	50S ribosomal protein L15e (50S ribosomal protein	27	27	0	100.00	0
rrnAC1145	Q5V305_HALMA	*blp*	Bacterio-opsin linked product	27	27	0	100.00	0
rrnAC2030	Q5V0R5_HALMA	*xop1*	Bacteriorhodopsin	27	27	0	100.00	7
rrnAC1149	Q5V302_HALMA	*ctpB*	Cation transporting ATPase	27	27	0	100.00	7
rrnAC0524	Q5V4K8_HALMA	*rrnAC0524*	Putative sec-independent transolcation prot	27	27	0	100.00	1
rrnAC2721	Q5UZ15_HALMA	*cat*	Cation efflux protein	26	26	0	100.00	5
rrnAC0419	Q5V4U8_HALMA	*gtl*	Glycosyl transferase-like	26	26	0	100.00	2
rrnAC3537	Q5UWZ9_HALMA	*mnhE*	Na/H antiporter subunit	26	26	0	100.00	2
pNG7088	Q5V6P9_HALMA	*qad*	Quinohemoprotein alcohol dehydrogenase (EC	26	26	0	100.00	0
rrnAC1017	Q5V3C0_HALMA	*lpg2*	LPS glycosyltransferase	25	25	0	100.00	0
rrnB0321	Q5UW68_HALMA	*phnE*	Phosphonates ABC tranporter permease protein	25	25	0	100.00	5
rrnAC1430	Q5V295_HALMA	*fbr2*	Cytochrome-like protein	24	24	0	100.00	0
rrnAC2906	Q5UYK5_HALMA	*htpX1*	Probable protease htpX-like (EC 3.4.24.-)	24	24	0	100.00	4
rrnAC2047	Q5V0P9_HALMA	*sppA*	Protease IV-like (EC 3.4.21.-)	24	24	0	100.00	1
rrnAC0436	Q5V4T2_HALMA	*traB*	Putative plasmid transfer protein	24	24	0	100.00	6
rrnAC1856	Q5V162_HALMA	*rrnAC1856*	Putative RNA binding protein	24	24	0	100.00	1
rrnAC0733	Q5V426_HALMA	*rrnAC0733*	Rieske [2Fe-2S] domain protein	24	24	0	100.00	0
rrnB0315	Q5UW74_HALMA	*msmX-3*	Sugar ABC transporter ATP-binding protein	24	24	0	100.00	0
rrnAC3132	Q5UY13_HALMA	*livK-2*	Branched-chain amino acid ABC transporter amino acid-bindingprotein	23	23	0	100.00	0
rrnAC2776	Q5UYW8_HALMA	*matE2*	Multi antimicrobial extrusion drug/sodium	23	23	0	100.00	10
rrnAC1451	Q5V275_HALMA	*nolD*	NADH dehydrogenase/oxidoreductase-like protein	23	23	0	100.00	0
rrnB0156	Q5UWK8_HALMA	*rrnB0156*	Sensor protein (EC 2.7.13.3)	23	23	0	100.00	2
rrnB0314	Q5UW75_HALMA	*ugpE*	Sn-glycerol-3-phosphate transport system permease	23	23	0	100.00	6
rrnAC1925	Q5V106_HALMA	*mhpC*	2-hydroxy-6-ketonona-24-dienedioic acid hydrolase (EC 3.7.1.-)	22	22	0	100.00	0
rrnAC2710	Q5UZ25_HALMA	*gbp3*	GTP-binding proteinlike	22	22	0	100.00	0
rrnAC3170	Q5UXX7_HALMA	*rrnAC3170*	M50 metallopeptidase	22	22	0	100.00	7
rrnAC2349	Q5UZY4_HALMA	*malE1*	Maltose ABC transporter maltose-binding protein	22	22	0	100.00	0

rrnAC1505	PSTB1_HALMAReview	*pstB1*	Phosphate import ATP-binding protein pstB 1 (EC 3.6.3.27) (Phosphate-transporting ATPase 1) (ABC phosphate transporter 1)	22	22	0	100.00	0
rrnAC2334	Q5UZZ6_HALMA	*glcD2*	Putative oxidoreductase	22	22	0	100.00	0
rrnAC2357	RL10_HALMAReview	*rpl10e*	50S ribosomal protein L10e	21	21	0	100.00	0
pNG6079	Q5V738_HALMA	*czcD*	Cation efflux system protein	21	21	0	100.00	6
rrnAC0700	SECE_HALMAReview	*secE*	Preprotein translocase subunit secE (Protein transport protein SEC61gamma subunit homolog)	21	21	0	100.00	1
rrnAC1350	Q5V2H1_HALMA	*qtr-4*	Putative sugar transferase	21	21	0	100.00	0
rrnAC2179	Q5V0D2_HALMA	*fer2*	2Fe-2S iron-sulfur cluster binding domain	20	20	0	100.00	0
pNG7253	Q5V698_HALMA	*rbsC-1*	Sugar ABC transporter permease protein	20	20	0	100.00	8
rrnAC0251	Q5V594_HALMA	*yvrO-2*	ABC transporter ATP-binding protein	19	19	0	100.00	0
rrnAC0566	Q5V4H2_HALMA	*livK-1*	Branched chain amino acid ABC transporter branched chain amino acid-binding protein	19	19	0	100.00	0
rrnB0175	Q5UWJ2_HALMA	*imd2*	Inosine monophosphate dehydrogenase (EC	19	19	0	100.00	3
rrnAC2073	Q5V0M6_HALMA	*trp2*	ABC transporter ATP-binding protein	18	18	0	100.00	0
rrnAC1655	Q5V1N4_HALMA	*nosF-2*	ABC transporter ATP-binding protein	18	18	0	100.00	0
rrnAC3129	Q5UY15_HALMA	*livM-6*	Branched-chain amino acid ABC transporter permease protein	18	18	0	100.00	9
rrnAC0380	Q5V4Y0_HALMA	*glnP*	Glutamine-binding periplasmic protein of glutamine ABCtransporter	18	18	0	100.00	4
rrnAC0370	Q5V4Y9_HALMA	*lbp*	Leucine-binding protein	18	18	0	100.00	0
pNG7169	Q5V6H7_HALMA	*nhaC4*	Na+/H+ antiporter	18	18	0	100.00	9
rrnAC3529	Q5UX07_HALMA	*rrnAC3529*	NADH-ubiquinone/plastoquinone	18	18	0	100.00	16
rrnAC3214	Q5UXT6_HALMA	*secF*	Protein-export membrane protein SecF	18	18	0	100.00	6
pNG5001	Q5V7G3_HALMA	*abcP-1*	ABC transporter permease protein	17	17	0	100.00	4
rrnAC1370	Q5V2F3_HALMA	*ccmF*	Cytochrome c-type biogenesis protein CcmF	17	17	0	100.00	15
rrnAC2111	SECG_HALMAReview	*secG*	Preprotein translocase secG subunit (Protein transport protein SEC61subunit beta homolog)	17	17	0	100.00	1
rrnB0083	Q5UWR4_HALMA	*ski-1*	Putative 2-component system sensor kinase	17	17	0	100.00	4
rrnAC0430	Q5V4T8_HALMA	*exoM*	Succinoglycan biosynthesis protein	17	17	0	100.00	1
rrnAC1760	Q5V1E4_HALMA	*rrnAC1760*	Transporter possibly hexose	17	17	0	100.00	11
rrnAC0359	Q5V4Z7_HALMA	*rrnAC0359*	4-hydroxybenzoate 3-monooxygenase (EC	16	16	0	100.00	0
rrnAC1745	Q5V1F6_HALMA	*yckA-2*	Amino acid ABC transporter permease protein	16	16	0	100.00	5
rrnAC1892	Q5V133_HALMA	*rrnAC1892*	DSBA-like thioredoxin domain	16	16	0	100.00	0
rrnAC0180	Q5V5F8_HALMA	*nhaC5*	Na+/H+ antiporter	16	16	0	100.00	13
rrnAC1114	Q5V331_HALMA	*htlD*	Sensor protein (EC 2.7.13.3)	16	16	0	100.00	6
rrnAC2712	Q5UZ23_HALMA	*sec11a*	Signal sequence peptidase	16	16	0	100.00	1
rrnAC0010	Q5V5V7_HALMA	*nac*	Sodium-and chloride-dependent transporter	16	16	0	100.00	11

rrnAC0827	Q5V3U2_HALMA	*livG-4*	Branched-chain amino acid ABC transporter ATP-binding protein	15	15	0	100.00	0
rrnAC0825	Q5V3U3_HALMA	*livM*	High-affinity branched-chain amino acid transport protein	15	15	0	100.00	8
rrnAC1019	Q5V3B8_HALMA	*dpm1*	Dolichyl-phosphate beta-D-mannosyltransferase	14	14	0	100.00	2
rrnAC3304	Q5UXK7_HALMA	*yfhM*	Epoxide hydrolase-related protein	14	14	0	100.00	0
rrnAC0429	Q5V4T9_HALMA	*lpg3*	LPS glycosyltransferase	14	14	0	100.00	0
rrnB0322	Q5UW67_HALMA	*phnD2*	Phosphonates ABC transporter permease protein	14	14	0	100.00	5
rrnAC2723	Q5UZ13_HALMA	*rrnAC2723*	Putative bacterial regulatory protein arsR family	14	14	0	100.00	2
rrnAC1818	Q5V196_HALMA	*rrnAC1818*	Putative hydrolase	14	14	0	100.00	0
pNG6023	Q5V6Z0_HALMA	*pNG6023*	Putative metal ion permease	14	14	0	100.00	8
pNG6081	Q5V741_HALMA	*zntA1*	Zinc-transporting ATPase	14	14	0	100.00	6
rrnAC0706	Q5V451_HALMA	*nce1*	Na+/Ca2+-exchanging protein	13	13	0	100.00	12
rrnAC2069	Q5V0N0_HALMA	*crtB*	Phytoene synthase (EC 2.5.1.32) (EC 2.5.1.21)	13	13	0	100.00	0
pNG7161	Q5V6I3_HALMA	*mntH*	Putative Mn transporter	13	13	0	100.00	11
rrnAC0187	Q5V5F2_HALMA	*rrnAC0187*	Putative transporter	13	13	0	100.00	6
rrnAC3112	RL39_HALMAReview	*rpl39e*	50S ribosomal protein L39e (Hl39e) (Hl46e)	12	12	0	100.00	0
rrnAC3127	Q5UY17_HALMA	*livF-7*	Branched-chain amino acid ABC transporter ATP-binding protein	12	12	0	100.00	0
pNG6046	Q5V7E1_HALMA	*copA3*	Copper-transporting ATPase (EC 3.6.3.4)	12	12	0	100.00	8
rrnAC2882	Q5UYM4_HALMA	*maoC1*	MaoC family protein	12	12	0	100.00	0
rrnAC2148	Q5V0G1_HALMA	*pstC2*	Phosphate ABC transporter permease protein	12	12	0	100.00	8
rrnAC3128	Q5UY16_HALMA	*livG-9*	Branched-chain amino acid ABC transporter ATP-binding protein	11	11	0	100.00	0
rrnAC0357	Q5V4Z9_HALMA	*dcuC*	C4-dicarboxylate anaerobic carrier	11	11	0	100.00	15
pNG1026	Q5V881_HALMA	*flaA2*	Flagellin A protein	11	11	0	100.00	1
rrnAC1029	Q5V3A8_HALMA	*rrnAC1029*	ABC transporter ATP-binding protein	10	10	0	100.00	0
rrnAC0665	Q5V483_HALMA	*abcP-2*	ABC transporter permease protein	10	10	0	100.00	4
rrnAC2465	Q5UZN1_HALMA	*livG-6*	Branched-chain amino acid ABC transporter ATP-binding protein	10	10	0	100.00	0
rrnAC1747	Q5V1F5_HALMA	*glnQ1*	Glutamine ABC transporter ATP-binding protein	10	10	0	100.00	0
rrnAC0320	Q5V532_HALMA	*ubiA*	Prenyltransferase	10	10	0	100.00	7
pNG7023	Q5V6V6_HALMA	*rbsB-1*	Putative ABC transporter substrate-binding protein	10	10	0	100.00	0
rrnAC0296	Q5V551_HALMA	*htrA1*	Serine protease HtrA	10	10	0	100.00	0
rrnB0312	Q5UW76_HALMA	*ugpA*	ABC transporter permease protein	9	9	0	100.00	6
rrnAC0647	Q5V4A0_HALMA	*abcS-1*	ABC transporter substrate-binding protein	9	9	0	100.00	0
rrnAC1378	Q5V2E5_HALMA	*pan1a*	Membrane protein Pan1	9	9	0	100.00	0
rrnAC3265	Q5UXP2_HALMA	*pstB3*	Phosphate ABC transporter ATP-binding protein	9	9	0	100.00	0
rrnB0103	Q5UWP8_HALMA	*rbsB-3*	Putative ABC transporter substrate binding protein	9	9	0	100.00	0

pNG7346	Q5V612_HALMA	*potD1*	Spermidine/putrescine transporter substrate binding protein	9	9	0	100.00	0
rrnAC2759	Q5UYY1_HALMA	*nso*	Transporter sodium/sulfate symporter family	9	9	0	100.00	12
rrnAC0377	Q5V4Y2_HALMA	*yckA-1*	Amino acid ABC transporter permease protein	8	8	0	100.00	6
rrnAC3266	Q5UXP1_HALMA	*modB*	Molybdenum ABC transporter permease protein	8	8	0	100.00	4
rrnAC2886	Q5UYM0_HALMA	*phaC*	Poly(3-hydroxyalkanoate) synthase	8	8	0	100.00	0
rrnAC0920	Q5V3K8_HALMA	*msmX-2*	Sugar ABC transporter ATP-binding protein	8	8	0	100.00	0
rrnB0270	Q5UWB2_HALMA	*zntA2*	Zinc-transporting ATPase	8	8	0	100.00	5
rrnAC1368	Q5V2F5_HALMA	*trp-6*	ABC transporter ATP-binding protein	7	7	0	100.00	0
rrnAC2468	Q5UZM9_HALMA	*livH-6*	Branched chain amino acid transporter permease	7	7	0	100.00	8
rrnAC2280	Q5V048_HALMA	*cbiQ1*	Cobalt transport protein	7	7	0	100.00	5
rrnAC2178	Q5V0D3_HALMA	*rfbB3*	DTDP-glucose-46-dehydratase (EC 4.2.1.46)	7	7	0	100.00	0
rrnB0204	Q5UWG6_HALMA	*livM-7*	High-affinity branched-chain amino acid transport protein	7	7	0	100.00	8
rrnAC2034	Q5V0R2_HALMA	*htlA*	HTR-like protein	7	7	0	100.00	8
pNG7084	Q5V6Q3_HALMA	*htr8*	MCP domain signal transducer	7	7	0	100.00	5
rrnAC2039	Q5V0Q7_HALMA	*oppA*	Oligopeptide ABC transporter solute-binding protein	7	7	0	100.00	0
pNG7284	Q5V671_HALMA	*glcD3*	Putative oxidoreductase	7	7	0	100.00	0
rrnAC2412	Q5UZS8_HALMA	*rrnAC2412*	Putative peptidase	7	7	0	100.00	4
pNG7288	Q5V667_HALMA	*pNG7288*	Putative phosphoesterase	7	7	0	100.00	2
rrnAC0944	Q5V3I6_HALMA	*rrnAC0944*	Putative sugar transporter	7	7	0	100.00	10
rrnAC2084	Q5V0L6_HALMA	*nosF-3*	ABC transporter ATP-binding protein	6	6	0	100.00	0
rrnAC0555	Q5V4I1_HALMA	*gpdB*	Glycerol-3-phosphate dehydrogenase chain B	6	6	0	100.00	0
pNG7375	Q5V5Y7_HALMA	*betL2*	Glycine betaine transporter	6	6	0	100.00	12
pNG6143	Q5V782_HALMA	*mrr*	Mrr restriction system protein-like	6	6	0	100.00	1
rrnAC2023	Q5V0S1_HALMA	*nuoC*	NADH dehydrogenase I chain C D	6	6	0	100.00	0
pNG7291	Q5V665_HALMA	*htpX2*	Probable protease HtpX-like (EC 3.4.24.-)	6	6	0	100.00	4
rrnAC1624	Q5V1R3_HALMA	*soxA3*	Probable sulfite oxidase	6	6	0	100.00	5
rrnAC1397	Q5V2C6_HALMA	*rrnAC1397*	Putative DNA binding	6	6	0	100.00	1
pNG7252	Q5V699_HALMA	*rbsA*	Ribose ABC transporter ATP-binding	6	6	0	100.00	0
rrnAC2858	Q5UYP5_HALMA	*tatC2*	Sec-independent protein translocase TatC	6	6	0	100.00	10
rrnAC2527	Q5UZH3_HALMA	*ylnA*	Anion permease	5	5	0	100.00	10
rrnAC2466	Q5UZN0_HALMA	*livM-5*	Branched-chain amino acid ABC transporter permease protein	5	5	0	100.00	8
rrnAC1910	Q5V119_HALMA	*fbr1*	Cytochrome-like protein Fbr	5	5	0	100.00	0
rrnAC1873	Q5V148_HALMA	*dpg*	Dolichol-P-glucose synthetase	5	5	0	100.00	7
rrnAC0939	Q5V3J0_HALMA	*dpm6*	Dolichyl-phosphate-mannose-protein mannosyltransferase	5	5	0	100.00	10
rrnAC1749	Q5V1F4_HALMA	*glnH2*	Glutamine ABC transporter permease protein	5	5	0	100.00	3
rrnAC1769	Q5V1D8_HALMA	*putP-2*	Sodium-solute symporter putative	5	5	0	100.00	13

pNG7363	Q5V5Z7_HALMA	*metF*	5,10-methylenetetrahydrofolate reductase (EC	4	4	0	100.00	0
rrnAC0048	Q5V5S2_HALMA	*rrnAC0048*	ABC transporter ATP-binding protein	4	4	0	100.00	0
rrnAC3312	Q5UXK0_HALMA	*cyp1*	Cytochrome P450 (EC 1.14.14.1) (EC 1.6.2.4)	4	4	0	100.00	0
pNG6070	Q5V731_HALMA	*trx*	DSBA-like thioredoxin	4	4	0	100.00	0
rrnAC0179	Q5V5F9_HALMA	*rfbU*	LPS biosynthesis protein	4	4	0	100.00	0
pNG7340	Q5V618_HALMA	*pNG7340*	Putative extracellular solute binding protein	4	4	0	100.00	0
rrnAC3549	Q5UWY9_HALMA	*rrnAC3549*	Putative HD family metal dependent	4	4	0	100.00	0
rrnAC2836	Q5UYR4_HALMA	*dld*	Sugar and other transporter	4	4	0	100.00	12
rrnAC3427	Q5UX97_HALMA	*doxD2*	Terminal quinol oxidase subunit	4	4	0	100.00	0
rrnAC2314	Q5V015_HALMA	*trp3*	ABC transport protein	3	3	0	100.00	5
rrnB0225	Q5UWE9_HALMA	*livG-10*	Branched-chain amino acid ABC transporter ATP-binding protein	3	3	0	100.00	0
rrnAC0554	Q5V4I2_HALMA	*gpdA*	Glycerol-3-phosphate dehydrogenase (EC 1.1.99.5)	3	3	0	100.00	0
rrnAC1967	Q5V0W8_HALMA	*glcD1*	Glycolate oxidase subunit GlcD	3	3	0	100.00	0
rrnAC1015	Q5V3C2_HALMA	*gtr-7*	Glycosyltransferase (EC 2.4.1.-)	3	3	0	100.00	0
rrnAC1296	Q5V2M0_HALMA	*corA*	Magnesium Mg(2+)/cobalt Co(2+) transport protein	3	3	0	100.00	2
rrnAC0321	Q5V531_HALMA	*crtI2*	Phytoene dehydrogenase (EC 1.3.99.-)	3	3	0	100.00	0
rrnB0041	Q5UWV1_HALMA	*xseA2*	Probable exodeoxyribonuclease VII large subunit (EC 3.1.11.6)	3	3	0	100.00	1
rrnAC0789	Q5V3X6_HALMA	*rrnAC0789*	Sensor protein (EC 2.7.13.3)	3	3	0	100.00	6
rrnAC3226	Q5UXS5_HALMA	*ssf*	Sodium/solute symporter	3	3	0	100.00	12
rrnAC0755	Q5V406_HALMA	*trkH3*	TRK potassium uptake system protein	3	3	0	100.00	10
rrnAC0532	Q5V4K1_HALMA	*pgsA*	CDP-diacylglycerol-glycerol-3-phosphate 3-phosphatidyltransferase(EC 2.7.8.5)	2	2	0	100.00	3
rrnAC2850	Q5UYQ2_HALMA	*pcbD-1*	Hydrolase alpha/beta hydrolase fold family	2	2	0	100.00	0
rrnAC2139	Q5V0H0_HALMA	*imd3*	Inosine monophosphate dehydrogenase (EC	2	2	0	100.00	3
rrnAC0409	Q5V4V8_HALMA	*lemA*	LemA protein	2	2	0	100.00	1
pNG6094	Q5V755_HALMA	*xseA1*	Probable exodeoxyribonuclease VII large subunit (EC 3.1.11.6)	2	2	0	100.00	1
rrnAC2244	Q5V078_HALMA	*rrnAC2244*	Putative ZIP domain zinc transporter	2	2	0	100.00	7
pNG7073	Q5V6R2_HALMA	*qgd*	Quinoprotein glucose dehydrogenase (EC 1.1.5.2)	2	2	0	100.00	0
rrnAC3482	Q5UX47_HALMA	*ark-6*	Sensor protein (EC 2.7.13.3)	2	2	0	100.00	6
rrnAC2868	Q5UYN5_HALMA	*potD2*	Spermidine/putrescine ABC transporter spermidine/putrescine bindingprotein	2	2	0	100.00	1
rrnAC0029	Q5V5U0_HALMA	*rrnAC0029*	Sugar ABC transporter permease protein	2	2	0	100.00	6
rrnAC1860	Q5V159_HALMA	*rrnAC1860*	Sugar transporter	2	2	0	100.00	10
rrnAC2359	Q5UZX5_HALMA	*usp16*	Universal stress protein	2	2	0	100.00	0
pNG5138	Q5V7F4_HALMA	*csg1*	Cell surface glycoprotein	4176	4021	155	96.29	2
rrnAC3099	Q5UY42_HALMA	*edp*	Proteinase IV-like	1854	1852	2	99.89	1
rrnAC2149	Q5V0G0_HALMA	*yqgG*	Phosphate ABC transporter binding	805	802	3	99.63	0

rrnAC3299	Q5UXL1_HALMA	*dppA*	Dipeptide ABC transporter dipeptide-binding	792	791	1	99.87	0
rrnAC0510	Q5V4M1_HALMA	*hcp9*	Halocyanin-like	754	752	2	99.73	0
rrnAC1097	Q5V345_HALMA	*sdhA1*	Succinate dehydrogenase flavoprotein subunit (EC 1.3.99.1)	301	292	9	97.01	0
rrnB0311	Q5UW77_HALMA	*ugpB*	Glycerol-3-phosphate-binding protein	283	280	3	98.94	0
rrnAC1914	Q5V116_HALMA	*lon*	ATP-dependent protease LA (EC 3.4.21.53)	279	278	1	99.64	1
rrnAC1449	Q5V277_HALMA	*ndHG5*	NADH dehydrogenase/oxidoreductase	194	189	5	97.42	0
rrnAC1093	Q5V347_HALMA	*sdhB*	Succinate dehydrogenase iron-sulfur protein subunit(EC 1.3.99.1)	155	153	2	98.71	0
rrnAC2227	Q5V093_HALMA	*dppF*	Dipeptide ABC transporter ATP-binding	133	129	4	96.99	0
rrnAC2667	Q5UZ58_HALMA	*thrC3*	Threonine synthase	113	106	7	93.81	0
rrnAC1527	Q5V205_HALMA	*cdc48d*	Cell division control protein 48	102	95	7	93.14	0
pNG7059	Q5V6S5_HALMA	*prrC*	Regulatory protein PrrC	68	67	1	98.53	0
rrnAC0064	RL18E_HALMAReview	*rpl18e*	50S ribosomal protein L18e (Hl29) (L19)	67	63	4	94.03	0
rrnAC0065	RL13_HALMAReview	*rpl13p*	50S ribosomal protein L13P (Hmal13)	57	56	1	98.25	0
rrnAC1602	RL14_HALMAReview	*rpl14p*	50S ribosomal protein L14P (Hmal14) (Hl27)	50	48	2	96.00	0
rrnB0320	PHNC2_HALMAReview	*phnC2*	Phosphonates import ATP-binding protein phnC 2 (EC 3.6.3.28)	43	42	1	97.67	0
rrnAC1608	RL2_HALMAReview	*rpl2p*	50S ribosomal protein L2P (Hmal2) (Hl4)	41	38	3	92.68	0
rrnAC3089	Q5UY49_HALMA	*pspA2*	Transcription regulator	34	33	1	97.06	0
rrnAC2464	Q5UZN2_HALMA	*livF-6*	Branched-chain amino acid ABC transporter ATP-binding protein	23	22	1	95.65	0
rrnAC3544	Q5UWZ3_HALMA	*htpX4*	Protease heat shock protein HtpX (EC 3.4.24.-)	11	10	1	90.91	4
rrnAC0657	Q5V491_HALMA	*rrnAC0657*	P-hydroxybenzoate hydroxylase (EC 1.14.13.2)	10	9	1	90.00	0
rrnAC3395	Q5UXC7_HALMA	*usp24*	Universal stress protein family	40	34	6	85.00	0
rrnAC1590	RL15_HALMAReview	*rpl15p*	50S ribosomal protein L15P (Hmal15) (Hl9)	38	33	5	86.84	0
rrnAC3151	Q5UXZ5_HALMA	*ubiE1*	Ubiquinone/menaquinone biosynthesis methyltransferase	22	17	5	77.27	0
rrnAC1222	Q5V2T6_HALMA	*moxR4*	Methanol dehydrogenase regulatory protein	16	14	2	87.50	0
rrnAC3225	Q5UXS6_HALMA	*usp22*	Universal stress protein	15	13	2	86.67	0
rrnAC0829	Q5V3U1_HALMA	*livF-4*	Branched-chain amino acid ABC transporter ATP-binding protein	9	8	1	88.89	0
rrnAC0031	Q5V5T8_HALMA	*ugpC3*	Sugar ABC transporter ATP-binding protein (UGPC)	8	6	2	75.00	0
rrnB0325	Q5UW64_HALMA	*ftsZ2*	Cell division protein	6	5	1	83.33	0
rrnAC0656	Q5V492_HALMA	*ferA3*	Ferredoxin	6	5	1	83.33	0
rrnAC1074	Q5V366_HALMA	*fadD3*	Long-chain fatty-acid-CoA ligase	5	4	1	80.00	0
rrnAC0170	Q5V5G6_HALMA	*rrnAC0170*	Hypothetical protein	352	352	0	100.00	0
rrnAC2115	Q5V0I7_HALMA	*rrnAC2115*	Hypothetical protein	160	160	0	100.00	0
rrnAC0158	Q5V5H6_HALMA	*rrnAC0158*	Hypothetical protein	129	129	0	100.00	1
rrnAC0852	Q5V3R9_HALMA	*rrnAC0852*	Hypothetical protein	126	126	0	100.00	1

rrnAC0734	Q5V425_HALMA	*rrnAC0734*	Hypothetical protein	122	122	0	100.00	2
pNG5070	Q5V7M2_HALMA	*pNG5070*	Hypothetical protein	116	116	0	100.00	1
rrnAC2457	Q5UZN9_HALMA	*rrnAC2457*	Hypothetical protein	104	104	0	100.00	6
rrnAC0250	Q5V595_HALMA	*rrnAC0250*	Hypothetical protein	89	89	0	100.00	2
rrnAC2600	Q5UZB4_HALMA	*rrnAC2600*	Hypothetical protein	87	87	0	100.00	2
pNG5004	Q5V7G7_HALMA	*pNG5004*	Hypothetical protein	82	82	0	100.00	1
rrnAC1542	Q5V1Z1_HALMA	*rrnAC1542*	Hypothetical protein	68	68	0	100.00	1
rrnAC2755	Q5UYY6_HALMA	*rrnAC2755*	Hypothetical protein	63	63	0	100.00	6
rrnAC2307	Q5V022_HALMA	*rrnAC2307*	Hypothetical protein	57	57	0	100.00	7
pNG6087	Q5V747_HALMA	*pNG6087*	Hypothetical protein	56	56	0	100.00	0
rrnB0272	Q5UWB0_HALMA	*rrnB0272*	Hypothetical protein	54	54	0	100.00	2
rrnAC0830	Q5V3U0_HALMA	*rrnAC0830*	Hypothetical protein	54	54	0	100.00	0
rrnAC0160	Q5V5H4_HALMA	*rrnAC0160*	Hypothetical protein	54	54	0	100.00	0
rrnAC0840	Q5V3T0_HALMA	*rrnAC0840*	Hypothetical protein	53	53	0	100.00	2
pNG3012	Q5V7Y3_HALMA	*pNG3012*	Hypothetical protein	52	52	0	100.00	0
pNG5011	Q5V7G9_HALMA	*pNG5011*	Hypothetical protein	50	50	0	100.00	10
rrnAC0915	Q5V3L2_HALMA	*rrnAC0915*	Hypothetical protein	48	48	0	100.00	0
rrnAC0899	Q5V3M6_HALMA	*rrnAC0899*	Hypothetical protein	47	47	0	100.00	0
rrnAC1393	Q5V2D0_HALMA	*rrnAC1393*	Hypothetical protein	46	46	0	100.00	1
rrnAC2885	Q5UYM1_HALMA	*rrnAC2885*	Hypothetical protein	42	42	0	100.00	0
rrnAC2528	Q5UZH2_HALMA	*rrnAC2528*	Hypothetical protein	40	40	0	100.00	2
rrnAC3016	Q5UYB1_HALMA	*rrnAC3016*	Hypothetical protein	39	39	0	100.00	1
rrnAC1898	Q5V129_HALMA	*rrnAC1898*	Hypothetical protein	39	39	0	100.00	4
rrnB0013	Q5UWX6_HALMA	*rrnB0013*	Hypothetical protein	38	38	0	100.00	0
rrnAC2469	Q5UZM8_HALMA	*rrnAC2469*	Hypothetical protein	38	38	0	100.00	0
pNG5069	Q5V7M3_HALMA	*pNG5069*	Hypothetical protein	34	34	0	100.00	10
rrnAC3149	Q5UXZ7_HALMA	*rrnAC3149*	Hypothetical protein	34	34	0	100.00	2
rrnAC2612	Q5UZA2_HALMA	*rrnAC2612*	Hypothetical protein	33	33	0	100.00	1
rrnAC0892	Q5V3N2_HALMA	*rrnAC0892*	Hypothetical protein	32	32	0	100.00	0
rrnAC3516	Q5UX18_HALMA	*rrnAC3516*	Hypothetical protein	31	31	0	100.00	0
rrnAC3552	Q5UWY7_HALMA	*rrnAC3552*	Hypothetical protein	31	31	0	100.00	2
rrnAC0079	Q5V5P4_HALMA	*rrnAC0079*	Hypothetical protein	30	30	0	100.00	2
rrnAC0776	Q5V3Y7_HALMA	*rrnAC0776*	Hypothetical protein	30	30	0	100.00	0
rrnAC3356	Q5UXF8_HALMA	*rrnAC3356*	Hypothetical protein	30	30	0	100.00	5
rrnAC3438	Q5UX86_HALMA	*rrnAC3438*	Hypothetical protein	28	28	0	100.00	3
rrnAC3227	Q5UXS4_HALMA	*rrnAC3227*	Hypothetical protein	28	28	0	100.00	2
rrnAC0549	Q5V4I5_HALMA	*rrnAC0549*	Hypothetical protein	28	28	0	100.00	8
rrnAC1702	Q5V1J4_HALMA	*rrnAC1702*	Hypothetical protein	27	27	0	100.00	2
pNG7148	Q5V6J6_HALMA	*pNG7148*	Hypothetical protein	26	26	0	100.00	7
rrnAC3517	Q5UX17_HALMA	*rrnAC3517*	Hypothetical protein	25	25	0	100.00	15

rrnAC1802	Q5V1B1_HALMA	*rrnAC1802*	Hypothetical protein	25	25	0	100.00	3
rrnB0228	Q5UWE7_HALMA	*rrnB0228*	Hypothetical protein	25	25	0	100.00	0
rrnAC0961	Q5V3H0_HALMA	*rrnAC0961*	Hypothetical protein	23	23	0	100.00	2
rrnAC0955	Q5V3H6_HALMA	*rrnAC0955*	Hypothetical protein	23	23	0	100.00	6
rrnAC3185	Q5UXW3_HALMA	*rrnAC3185*	Hypothetical protein	22	22	0	100.00	1
rrnB0304	Q5UW84_HALMA	*rrnB0304*	Hypothetical protein	22	22	0	100.00	4
rrnAC2729	Q5UZ09_HALMA	*rrnAC2729*	Hypothetical protein	22	22	0	100.00	2
rrnAC2492	Q5UZK7_HALMA	*rrnAC2492*	Hypothetical protein	22	22	0	100.00	0
rrnAC1151	Q5V300_HALMA	*rrnAC1151*	Hypothetical protein	22	22	0	100.00	2
rrnAC2154	Q5V0F5_HALMA	*rrnAC2154*	Hypothetical protein	21	21	0	100.00	1
rrnAC0856	Q5V3R5_HALMA	*rrnAC0856*	Hypothetical protein	21	21	0	100.00	0
rrnAC1032	Q5V3A5_HALMA	*rrnAC1032*	Hypothetical protein	21	21	0	100.00	5
rrnAC0117	Q5V5L0_HALMA	*rrnAC0117*	Hypothetical protein	21	21	0	100.00	0
rrnAC1696	Q5V1J9_HALMA	*rrnAC1696*	Hypothetical protein	20	20	0	100.00	7
rrnAC1219	Q5V2T9_HALMA	*rrnAC1219*	Hypothetical protein	20	20	0	100.00	2
pNG7051	Q5V6T2_HALMA	*pNG7051*	Hypothetical protein	20	20	0	100.00	8
rrnAC2884	Q5UYM2_HALMA	*rrnAC2884*	Hypothetical protein	19	19	0	100.00	0
rrnAC0185	Q5V5F3_HALMA	*rrnAC0185*	Hypothetical protein	18	18	0	100.00	1
pNG7172	Q5V6H4_HALMA	*pNG7172*	Hypothetical protein	16	16	0	100.00	0
rrnAC1150	Q5V301_HALMA	*rrnAC1150*	Hypothetical protein	16	16	0	100.00	6
rrnAC2546	Q5UZF8_HALMA	*rrnAC2546*	Hypothetical protein	16	16	0	100.00	7
rrnAC3315	Q5UXJ8_HALMA	*rrnAC3315*	Hypothetical protein	15	15	0	100.00	0
pNG7152	Q5V6J2_HALMA	*pNG7152*	Hypothetical protein	15	15	0	100.00	1
rrnAC1704	Q5V1J2_HALMA	*rrnAC1704*	Hypothetical protein	15	15	0	100.00	2
pNG2015	Q5V844_HALMA	*pNG2015*	Hypothetical protein	15	15	0	100.00	1
rrnAC2125	Q5V0I0_HALMA	*rrnAC2125*	Hypothetical protein	15	15	0	100.00	3
rrnAC2801	Q5UYU6_HALMA	*rrnAC2801*	Hypothetical protein	14	14	0	100.00	4
rrnAC1022	Q5V3B5_HALMA	*rrnAC1022*	Hypothetical protein	14	14	0	100.00	1
rrnAC0228	Q5V5B5_HALMA	*rrnAC0228*	Hypothetical protein	14	14	0	100.00	0
pNG5010	Q5V7H0_HALMA	*pNG5010*	Hypothetical protein	14	14	0	100.00	1
rrnAC0936	Q5V3J3_HALMA	*rrnAC0936*	Hypothetical protein	13	13	0	100.00	3
rrnAC0219	Q5V5C4_HALMA	*rrnAC0219*	Hypothetical protein	13	13	0	100.00	4
rrnAC0285	Q5V561_HALMA	*rrnAC0285*	Hypothetical protein	13	13	0	100.00	3
rrnAC2981	Q5UYE1_HALMA	*rrnAC2981*	Hypothetical protein	13	13	0	100.00	1
rrnAC2444	Q5UZQ0_HALMA	*rrnAC2444*	Hypothetical protein	13	13	0	100.00	5
rrnAC1629	Q5UWS9_HALMA	*rrnB0067*	Hypothetical protein	12	12	0	100.00	3
rrnAC1365	Q5V2F8_HALMA	*rrnAC1365*	Hypothetical protein	12	12	0	100.00	1
pNG6086	Q5V748_HALMA	*pNG6086*	Hypothetical protein	12	12	0	100.00	0
rrnAC2611	Q5UZA3_HALMA	*rrnAC2611*	Hypothetical protein	12	12	0	100.00	2
pNG7058	Q5V6S6_HALMA	*pNG7058*	Hypothetical protein	12	12	0	100.00	0

rrnAC3015	Q5UYB2_HALMA	*rrnAC3015*	Hypothetical protein	11	11	0	100.00	6
pNG7384	Q5V5X8_HALMA	*pNG7384*	Hypothetical protein	11	11	0	100.00	0
rrnAC2913	Q5UYK0_HALMA	*rrnAC2913*	Hypothetical protein	11	11	0	100.00	8
rrnAC2421	Q5UZS0_HALMA	*rrnAC2421*	Hypothetical protein	11	11	0	100.00	0
rrnAC0863	Q5V3Q8_HALMA	*rrnAC0863*	Hypothetical protein	11	11	0	100.00	2
rrnAC1218	Q5V2U0_HALMA	*rrnAC1218*	Hypothetical protein	10	10	0	100.00	2
rrnAC2074	Q5V0M5_HALMA	*rrnAC2074*	Hypothetical protein	10	10	0	100.00	12
pNG7166	Q5V6I0_HALMA	*pNG7166*	Hypothetical protein	10	10	0	100.00	4
rrnAC3202	Q5UXU7_HALMA	*rrnAC3202*	Hypothetical protein	10	10	0	100.00	0
rrnAC0675	Q5V475_HALMA	*rrnAC0675*	Hypothetical protein	10	10	0	100.00	6
rrnAC1031	Q5V3A6_HALMA	*rrnAC1031*	Hypothetical protein	10	10	0	100.00	1
rrnAC3369	Q5UXE7_HALMA	*htlA*	Hypothetical protein htlA	10	10	0	100.00	7
rrnB0271	Q5UWB1_HALMA	*rrnB0271*	Hypothetical protein	9	9	0	100.00	13
rrnAC2578	Q5UZD2_HALMA	*rrnAC2578*	Hypothetical protein	9	9	0	100.00	20
rrnAC0291	Q5V555_HALMA	*rrnAC0291*	Hypothetical protein	9	9	0	100.00	7
rrnAC3254	Q5UXQ2_HALMA	*rrnAC3254*	Hypothetical protein	8	8	0	100.00	0
rrnAC2443	Q5UZQ1_HALMA	*rrnAC2443*	Hypothetical protein	8	8	0	100.00	1
pNG7069	Q5V6R5_HALMA	*pNG7069*	Hypothetical protein	8	8	0	100.00	0
rrnAC1105	Q5V339_HALMA	*rrnAC1105*	Hypothetical protein	7	7	0	100.00	5
rrnAC3543	Q5UWZ4_HALMA	*rrnAC3543*	Hypothetical protein	7	7	0	100.00	0
rrnAC3437	Q5UX87_HALMA	*rrnAC3437*	Hypothetical protein	7	7	0	100.00	2
rrnAC2046	Q5V0Q0_HALMA	*rrnAC2046*	Hypothetical protein	7	7	0	100.00	1
rrnAC3463	Q5UX64_HALMA	*rrnAC3463*	Hypothetical protein	7	7	0	100.00	3
rrnAC1731	Q5V1G8_HALMA	*rrnAC1731*	Hypothetical protein	7	7	0	100.00	6
rrnAC0305	Q5V542_HALMA	*rrnAC0305*	Hypothetical protein	7	7	0	100.00	7
rrnAC3435	Q5UX89_HALMA	*rrnAC3435*	Hypothetical protein	7	7	0	100.00	4
rrnAC1682	Q5V1L1_HALMA	*rrnAC1682*	Hypothetical protein	7	7	0	100.00	2
rrnAC2006	Q5V0T5_HALMA	*rrnAC2006*	Hypothetical protein	6	6	0	100.00	0
rrnAC2121	Q5V0I3_HALMA	*rrnAC2121*	Hypothetical protein	6	6	0	100.00	3
rrnAC0803	Q5V3W2_HALMA	*rrnAC0803*	Hypothetical protein	6	6	0	100.00	0
rrnAC1658	Q5V1N1_HALMA	*rrnAC1658*	Hypothetical protein	6	6	0	100.00	2
rrnAC1026	Q5V3B1_HALMA	*rrnAC1026*	Hypothetical protein	6	6	0	100.00	1
rrnAC2525	Q5UZH5_HALMA	*rrnAC2525*	Hypothetical protein	6	6	0	100.00	3
rrnAC0696	Q5V458_HALMA	*rrnAC0696*	Hypothetical protein	5	5	0	100.00	0
pNG6054	Q5V6Y4_HALMA	*pNG6054*	Hypothetical protein	5	5	0	100.00	1
rrnAC1727	Q5V1H2_HALMA	*rrnAC1727*	Hypothetical protein	5	5	0	100.00	1
rrnAC2016	Q5V0S7_HALMA	*rrnAC2016*	Hypothetical protein	5	5	0	100.00	2
rrnAC3242	Q5UXR2_HALMA	*rrnAC3242*	Hypothetical protein	5	5	0	100.00	11
rrnAC1576	Q5V1V8_HALMA	*rrnAC1576*	Hypothetical protein	5	5	0	100.00	0
pNG7286	Q5V669_HALMA	*pNG7286*	Hypothetical protein	5	5	0	100.00	11

rrnAC3452	Q5UX73_HALMA	*rrnAC3452*	Hypothetical protein	5	5	0	100.00	0
rrnAC1398	Q5V2C5_HALMA	*rrnAC1398*	Hypothetical protein	5	5	0	100.00	11
rrnAC1654	Q5V1N5_HALMA	*rrnAC1654*	Hypothetical protein	5	5	0	100.00	0
rrnAC1046	Q5V392_HALMA	*rrnAC1046*	Hypothetical protein	4	4	0	100.00	0
rrnAC3540	Q5UWZ7_HALMA	*rrnAC3540*	Hypothetical protein	4	4	0	100.00	13
rrnAC1221	Q5V2T7_HALMA	*rrnAC1221*	Hypothetical protein	4	4	0	100.00	3
rrnAC2538	Q5UZG4_HALMA	*rrnAC2538*	Hypothetical protein	4	4	0	100.00	1
rrnAC3070	Q5UY66_HALMA	*rrnAC3070*	Hypothetical protein	4	4	0	100.00	2
rrnAC3056	Q5UY78_HALMA	*rrnAC3056*	Hypothetical protein	4	4	0	100.00	0
rrnAC0347	Q5V508_HALMA	*rrnAC0347*	Hypothetical protein	4	4	0	100.00	0
rrnAC2732	Q5UZ06_HALMA	*rrnAC2732*	Hypothetical protein	4	4	0	100.00	5
rrnAC1361	Q5V2G1_HALMA	*rrnAC1361*	Hypothetical protein	4	4	0	100.00	0
rrnAC0998	Q5V3D8_HALMA	*rrnAC0998*	Hypothetical protein	4	4	0	100.00	0
rrnAC3178	Q5UXW9_HALMA	*rrnAC3178*	Hypothetical protein	4	4	0	100.00	7
rrnAC1733	Q5V1G6_HALMA	*rrnAC1733*	Hypothetical protein	4	4	0	100.00	4
rrnB0280	Q5UWA4_HALMA	*rrnB0280*	Hypothetical protein	3	3	0	100.00	0
rrnAC0042	Q5V5S8_HALMA	*rrnAC0042*	Hypothetical protein	3	3	0	100.00	1
pNG2038	Q5V822_HALMA	*pNG2038*	Hypothetical protein	3	3	0	100.00	0
rrnB0307	Q5UW81_HALMA	*rrnB0307*	Hypothetical protein	3	3	0	100.00	7
rrnAC1586	Q5V1U8_HALMA	*rrnAC1586*	Hypothetical protein	3	3	0	100.00	5
rrnAC1092	Q5V348_HALMA	*rrnAC1092*	Hypothetical protein	3	3	0	100.00	3
rrnAC3528	Q5UX08_HALMA	*rrnAC3528*	Hypothetical protein	3	3	0	100.00	1
rrnAC0631	Q5V4B3_HALMA	*rrnAC0631*	Hypothetical protein	3	3	0	100.00	5
pNG7304	Q5V652_HALMA	*pNG7304*	Hypothetical protein	3	3	0	100.00	0
rrnAC3061	Q5UY74_HALMA	*rrnAC3061*	Hypothetical protein	3	3	0	100.00	2
rrnB0096	Q5UWQ4_HALMA	*rrnB0096*	Hypothetical protein	2	2	0	100.00	0
rrnAC3534	Q5UX02_HALMA	*rrnAC3534*	Hypothetical protein	2	2	0	100.00	5
rrnAC3317	Q5UXJ6_HALMA	*rrnAC3317*	Hypothetical protein	2	2	0	100.00	5
pNG6024	Q5V707_HALMA	*pNG6024*	Hypothetical protein	2	2	0	100.00	2
rrnAC3368	Q5UXE8_HALMA	*rrnAC3368*	Hypothetical protein	2	2	0	100.00	2
rrnAC3260	Q5UXP7_HALMA	*rrnAC3260*	Hypothetical protein	2	2	0	100.00	0
rrnAC1644	Q5V1P4_HALMA	*rrnAC1644*	Hypothetical protein	2	2	0	100.00	4
rrnAC0424	Q5V4U4_HALMA	*rrnAC0424*	Hypothetical protein	2	2	0	100.00	0
pNG7055	Q5V6S9_HALMA	*pNG7055*	Hypothetical protein	2	2	0	100.00	1
pNG6041	Q5V713_HALMA	*pNG6041*	Hypothetical protein	2	2	0	100.00	4
rrnAC1803	Q5V1B0_HALMA	*rrnAC1803*	Hypothetical protein	2633	2608	25	99.05	1
rrnAC3098	Q5UY43_HALMA	*rrnAC3098*	Hypothetical protein	2098	2061	37	98.24	1
rrnAC1443	Q5V283_HALMA	*rrnAC1443*	Hypothetical protein	133	127	6	95.49	0
pNG6088	Q5V746_HALMA	*pNG6088*	Hypothetical protein	64	63	1	98.44	0
rrnAC0220	Q5V5C3_HALMA	*rrnAC0220*	Hypothetical protein	61	59	2	96.72	0

rrnAC0931	Q5V3J7_HALMA	*rrnAC0931*	Hypothetical protein	39	38	1	97.44	0
rrnAC1035	Q5V3A2_HALMA	*rrnAC1035*	Hypothetical protein	19	18	1	94.74	1
rrnAC0159	Q5V5H5_HALMA	*rrnAC0159*	Hypothetical protein	73	62	11	84.93	0
rrnAC0325	Q5V527_HALMA	*rrnAC0325*	Hypothetical protein	46	40	6	86.96	0
rrnAC0801	Q5V3W4_HALMA	*rrnAC0801*	Hypothetical protein	19	15	4	78.95	0
rrnAC3351	Q5UXG3_HALMA	*rrnAC3351*	Hypothetical protein	9	8	1	88.89	0