Supplement Table 1: Compilation of data for 1240 cluster-based selected putative MHC binders (Subset I)

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
LGGIIFNIL	9	Kb	476	1.1	89255471	serine transporter	
LGGIIFNILYL	11	Kb	594	1.1			
GGIIFNILYL	10	Kb	648	1.1			
GIIFNILYL	9	Db	562	1.1			
IIFNILYL	8	Kb	309	1.1			
IIFNILYLFAI	11	Kb	388	1.1			
FNILYLFAI	9	Db	590	1.1			
FNILYLFAIL	10	Kb	391	1.1			
NILYLFAIL	9	Kb	292	1.1			
ILYLFAIL	8	Kb	11	1.1			
ILYLFAILP	9	Kb	326	1.1			
ILYLFAILPI	10	Kb	145	1.1			
ILYLFAILPIL	11	Kb	38	1.1			
LYLFAILPI	9	Kd	299	1.1			
LYLFAILPIL	10	Kb	449	1.1			
LYLFAILPILL	11	Kb	442	1.1			
YLFAILPIL	9	Kb	909	1.1			
YLFAILPILL	10	Kb	911	1.1			
FAILPILL	8	Db	135	1.1			
ITIILIFYYAL	11	Kb	38	1.4	89255508	hypothetical membrane protein	
TIILIFYYAL	10	Kb	63	1.4			
TIILIFYYALI	11	Kb	725	1.4			
IILIFYYA	8	Kb	641	1.4			
IILIFYYAL	9	Kb	13	1.4			
IILIFYYALI	10	Kb	129	1.4			
ILIFYYAL	8	Kb	45	1.4			
ILIFYYALI	9	Kb	296	1.4			
ILIFYYALINI	11	Kb	686	1.4			
LIFYYALI	8	Kb	80	1.4			
LIFYYALINI	10	Kb	422	1.4			
LIFYYALINIL	11	Kb	67	1.4			
IFYYALINI	9	Kb	445	1.4			
IFYYALINIL	10	Kb	46	1.4			
IFYYALINILL	11	Kb	107	1.4			
FYYALINI	8	Kd	110	1.4			
FYYALINIL	9	Kd	72	1.4			
FYYALINILL	10	Kd	253	1.4			
YYALINIL	8	Kd	266	1.4			
YALINILL	8	Db	41	1.4			
SKIFSYHYI	9	Db	391	1.0	89255524	B-type cytochrome	
KIFSYHYI	8	Kb	144	1.0			
FSYHYIFA	8	Kb	239	1.0			
FSYHYIFASV	10	Kb	125	1.0			
FSYHYIFASVL	11	Kb	45	1.0			
SYHYIFASV	9	Kd	90	1.0			
SYHYIFASVL	10	Kd	42	1.0			
SYHYIFASVLL	11	Kd	370	1.0			
YHYIFASV	8	Kb	11	1.0			
YHYIFASVL	9	Kb	244	1.0			
YHYIFASVLL	10	Kb	319	1.0			
HYIFASVL	8	Kd	36	1.0			
HYIFASVLL	9	Kd	347	1.0			
HYIFASVLLVL	11	Kd	208	1.0			
ASVLLVLVVL	10	Kb	383	1.0			
SVLLVLVVL	9	Kb	269	1.0			
INSYIINYKLL	11	Kb	328	1.0	89255563	hypothetical protein	
NSYIINYKL	9	Kb	667	1.0			
NSYIINYKLL	10	Kb	162	1.0			
SYIINYKL	8	Kd	297	1.0			
SYIINYKLL	9	Kb	258	1.0			
SYIINYKLLNI	11	Kd	421	1.0			L
YIINYKLL	8	Kb	41	1.0			
INYKLLNI	8	Kb	70	1.0			
INYKLLNINL	10	Kb	41	1.0			
INYKLLNINLI	11	Kb	94	1.0			
YKLLNINL	8	Db	669	1.0			L
YKLLNINLI	9	Db	187	1.0			M
LNINLINTQL	10	Kb	386	1.0			
INLINTQL	8	Kb	903	1.0			
NKYLGVPIFLL	11	Kb	912	1.1	89255570	ferrous iron transport protein	
KYLGVPIFL	9	Kd	24	1.1			
KYLGVPIFLL	10	Kd	139	1.1			
KYLGVPIFLLM	11	Kd	506	1.1			
LGVPIFLLMM	10	Kb	741	1.1			
GVPIFLLMM	9	Kb	877	1.1			
GVPIFLLMMYL	11	Kb	528	1.1			
VPIFLLMMYL	10	Kb	355	1.1			
VPIFLLMMYLM	11	Kb	775	1.1			
PIFLLMMYL	9	Kb	451	1.1			
PIFLLMMYLM	10	Kb	795	1.1			
IFLLMMYLM	9	Kb	627	1.1			L
IFLLMMYLMFL	11	Kb	542	1.1			
FLLMMYLM	8	Db	327	1.1			
FLLMMYLMFL	10	Db	152	1.1			
LLMMYLMFL	9	Kb	578	1.1			
LMMYLMFLFSI	11	Kb	260	1.1			
MMYLMFLFSI	10	Kb	54	1.1			
MYLMFLFSI	9	Kd	89	1.1			
MYLMFLFSITL	11	Kb	88	1.1			
YLMFLFSITL	10	Kb	519	1.1			
LMFLFSITL	9	Kb	20	1.1			
ISSSYQNV	8	Kb	26	1.0	89255591	phosphate transport protein	
ISSSYQNVSYM	11	Kb	161	1.0			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
SSSYQNVSY	9	Dd	785	1.0			
SSSYQNVSYM	10	Kb	287	1.0			
SSYQNVSYM	9	Db	6	1.0			L
SSYQNVSYMTV	11	Db	30	1.0			
SYQNVSYM	8	Kd	116	1.0			
SYQNVSYMTV	10	Kd	175	1.0			
SYQNVSYMTVV	11	Kd	62	1.0			
QNVSYMTV	8	Kb	582	1.0			
VSYMTVVNKV	10	Kb	170	1.0			
VSYMTVVNKVL	11	Kb	47	1.0			
SYMTVVNKV	9	Kd	34	1.0			
SYMTVVNKVL	10	Kd	20	1.0			
SYMTVVNKVLI	11	Kd	11	1.0			
MTVVNKVLI	9	Db	202	1.0			
MTVVNKVLIPM	11	Db	180	1.0			
TVVNKVLIPM	10	Kb	338	1.0			
SSFMYLHF	8	Kb	29	1.0	89255714	hypothetical protein	
SSFMYLHFNYI	11	Kb	45	1.0			
SFMYLHFNYI	10	Kd	928	1.0			
FMYLHFNYI	9	Db	17	1.0			
FMYLHFNYIL	10	Kb	53	1.0			
FMYLHFNYILI	11	Db	15	1.0			
MYLHFNYI	8	Kd	207	1.0			
YLHFNYIL	8	Db	233	1.0			
YLHFNYILI	9	Db	15	1.0			
YLHFNYILII	10	Db	167	1.0			
LHFNYILI	8	Kb	552	1.0			
LHFNYILIIAL	11	Kb	97	1.0			
FNYILIIAL	9	Kb	54	1.0			
NYILIIAL	8	Kd	298	1.0			
IALTFCAI	8	Kb	397	1.0			
IALTFCAISTI	11	Kb	460	1.0			
LTFCAISTI	9	Kb	548	1.0			
TFCAISTI	8	Kd	201	1.0			
RVLNLLFYL	9	Kb	552	1.0	89255715	aromatic amino acid transporter of the HAAAP family	M
RVLNLLFYLL	10	Kb	626	1.0			
RVLNLLFYLLL	11	Kb	444	1.0			
LNLLFYLL	8	Kb	24	1.0			
LNLLFYLLL	9	Kb	58	1.0			
LNLLFYLLLL	10	Kb	108	1.0			
LLFYLLLLYSL	11	Kb	82	1.0			
LFYLLLLYSL	10	Kb	70	1.0			
LFYLLLLYSLL	11	Kb	111	1.0			
FYLLLLYSL	9	Kd	15	1.0			
FYLLLLYSLL	10	Kd	21	1.0			
YLLLLYSLL	9	Kb	444	1.0			
LLLLYSLL	8	Kb	304	1.0			
LLYSLLTAYI	10	Kb	416	1.0			
LYSLLTAYI	9	Kd	498	1.0			
YSLLTAYI	8	Db	19	1.0			
YSLLTAYIF	9	Db	728	1.0			L
YSLLTAYIFM	10	Db	6	1.0			H
SLLTAYIFM	9	Db	49	1.0			
LTAYIFMGGQL	11	Kb	729	1.0			L
TAYIFMGGQL	10	Kb	31	1.0			
AYIFMGGQL	9	Kd	14	1.0			
MALIFSFV	8	Kb	326	1.0	89255729	hypothetical membrane protein	
MALIFSFVIM	10	Kb	142	1.0			
MALIFSFVIMV	11	Kb	943	1.0			
ALIFSFVIM	9	Kb	771	1.0			
LIFSFVIM	8	Kb	140	1.0			M
LIFSFVIMV	9	Kb	525	1.0			
LIFSFVIMVM	10	Kb	135	1.0			
LIFSFVIMVML	11	Kb	102	1.0			
FSFVIMVM	8	Db	984	1.0			
FSFVIMVML	9	Kb	328	1.0			
SFVIMVMLTGL	11	Kd	135	1.0			
VIMVMLTGL	9	Kb	464	1.0			L
VIMVMLTGLL	10	Kb	803	1.0			
IMVMLTGL	8	Kb	550	1.0			
IMVMLTGLL	9	Kb	314	1.0			
IMVMLTGLLYI	11	Db	151	1.0			
VMLTGLLYI	9	Db	21	1.0			
TGLLYIFKI	9	Kb	510	1.0			
TGLLYIFKIGL	11	Kb	41	1.0			
GLLYIFKIGL	10	Kb	988	1.0			M
LLYIFKIGL	9	Kb	45	1.0			
LLYIFKIGLL	10	Kb	110	1.0			
LYIFKIGL	8	Kd	269	1.0			
LYIFKIGLL	9	Kd	632	1.0			
YIFKIGLL	8	Kb	703	1.0			
LTLVAFICVL	10	Kb	305	1.2	89255776	4-hydroxybenzoate octaprenyltransferase	
TLVAFICVL	9	Kb	383	1.2			
VAFICVLFL	9	Kb	296	1.0			
VAFICVLFLNL	11	Kb	126	1.0			
ICVLFLNL	8	Kb	101	1.0			
ICVLFLNLYTI	11	Db	553	1.0			
CVLFLNLYTI	10	Db	466	1.0			
CVLFLNLYTIL	11	Kb	114	1.0			
VLFLNLYTI	9	Db	31	1.0			
VLFLNLYTIL	10	Kb	122	1.0			L
VLFLNLYTILL	11	Kb	106	1.0			
LFLNLYTIL	9	Kd	368	1.0			
LFLNLYTILL	10	Kb	366	1.0			
LYTILLSFV	9	Kd	250	1.0			
LYTILLSFVAL	11	Kd	135	1.0			
YTILLSFVAL	10	Kb	406	1.0			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
TILLSFVAL	9	Kb	59	1.0			
TILLSFVALFL	11	Kb	584	1.0			
ILLSFVAL	8	Kb	118	1.0			
ILLSFVALFL	10	Kb	517	1.0			
LSFVALFL	8	Kb	545	1.0			
LSFVALFLAI	10	Kb	645	1.0			
LSFVALFLAIL	11	Kb	149	1.0			
FVALFLAIL	9	Kb	567	1.0			
VALFLAIL	8	Kb	494	1.0			
VALFLAILYP	10	Kb	684	1.0			
NKVFRYILL	9	Kb	453	1.0			
KVFRYILL	8	Kb	22	1.0			
FRYILLFNFL	10	Kb	182	1.0			
RYILLFNFL	9	Kd	17	1.0			
RYILLFNFLSL	11	Kd	48	1.0			
YILLFNFL	8	Kb	197	1.0			
YILLFNFLSL	10	Kb	228	1.0			
YILLFNFLSLL	11	Kb	445	1.0			
ILLFNFLSL	9	Kb	47	1.0			
ILLFNFLSLL	10	Kb	111	1.0			
ILLFNFLSLLL	11	Kb	284	1.0			
LLFNFLSL	8	Kb	329	1.0			
LLFNFLSLL	9	Kb	140	1.0			
LLFNFLSLLL	10	Kb	302	1.0			
LLFNFLSLLLL	11	Kb	280	1.0			
LSLLLLII	8	Db	993	1.2			
LSLLLLIIL	9	Kb	79	1.2			
LSLLLLIILGI	11	Kb	812	1.1			
PTMKKYYYNTL	11	Kb	102	1.1	89255853	major facilitator superfamily (MFS) transport protein	
TMKKYYYNTL	10	Kb	36	1.1			
MKKYYYNTL	9	Kb	45	1.1			
KKYYYNTL	8	Kb	218	1.1			
KKYYYNTLIIL	11	Kb	163	1.1			
KYYYNTLI	8	Kd	90	1.1			
KYYYNTLII	9	Db	301	1.1			
KYYYNTLIIL	10	Kb	208	1.1			
KYYYNTLIILL	11	Kb	156	1.1			
YYYNTLII	8	Kd	696	1.1			
YYYNTLIIL	9	Kb	319	1.1			
YYYNTLIILL	10	Kb	243	1.1			
YYYNTLIILLL	11	Kb	454	1.1			
YYNTLIIL	8	Kd	86	1.1			
YYNTLIILL	9	Kd	214	1.1			
YYNTLIILLL	10	Kd	479	1.1			
LIILLLFFL	9	Kb	806	1.1			
LIILLLFFLAL	11	Kb	180	1.1			
IILLLFFLAL	10	Kb	41	1.1			
IILLLFFLALL	11	Kb	65	1.1			
ILLLFFLAL	9	Kb	42	1.1			
ILLLFFLALL	10	Kb	66	1.1			
LLLFFLALL	9	Kb	116	1.1			
FFLALLNYV	9	Kd	189	1.1			
GGFVIGFYSIL	11	Kb	877	1.0			
FVIGFYSI	8	Kb	243	1.0			
FVIGFYSIL	9	Kb	307	1.0			
FVIGFYSILL	10	Kb	431	1.0			
VIGFYSIL	8	Kb	755	1.0			
VIGFYSILL	9	Kb	598	1.0			
IGFYSILL	8	Kb	599	1.0			L
IGFYSILLTRI	11	Kb	191	1.0			
GFYSILLTRI	10	Kd	659	1.0			
FYSILLTRI	9	Kd	14	1.0			
FYSILLTRIL	10	Kd	726	1.0			M
FYSILLTRILL	11	Kd	284	1.0			
YSILLTRI	8	Db	402	1.0			
YSILLTRIL	9	Kb	816	1.0			
YSILLTRILL	10	Db	229	1.0			
SILLTRILL	9	Kb	215	1.0			
SILLTRILLGL	11	Kb	364	1.0			
ILLTRILLGL	10	Kb	948	1.0			
LAFLFFFFL	10	Kb	27	1.1	89255996	Membrane protein/O-antigen protein	L
AFLFFFFL	9	Kb	214	1.1			
AFLFFFFFLSM	11	Kb	81	1.1			
FLFFFFFLSM	10	Kb	69	1.1			
FLFFFFFLSMI	11	Kb	595	1.1			
LFFFFFLSM	9	Kb	44	1.1			
LFFFFFLSMI	10	Kb	461	1.1			
FFFFFLSMI	9	Kd	712	1.1			
FFFFFLSMIYL	11	Kb	253	1.1			
FFFFLSMIYL	10	Kb	659	1.1			
FFFLSMIYL	9	Db	272	1.1			
FFLSMIYL	8	Kd	249	1.1			
FFLSMIYLI	9	Kd	814	1.1			
LSMIYLIIVQI	11	Kb	562	1.1			
SMIYLIIVQI	10	Kb	330	1.1			
SMIYLIIVQII	11	Kb	812	1.1			
MIYLIIVQI	9	Kb	360	1.1			
MIYLIIVQII	10	Kb	881	1.1			
MIYLIIVQIIL	11	Kb	109	1.1			
IYLIIVQI	8	Kd	279	1.1			
IYLIIVQIIL	10	Kb	689	1.1			
IYLIIVQIILL	11	Kb	372	1.1			L
LIIVQIILL	9	Kb	910	1.1			
VQIILLDAASL	11	Kb	94	1.1			
QIILLDAASL	10	Kb	924	1.1			
IILLDAASL	9	Kb	118	1.1			
IGYIKYLYYYG	11	Kb	398	1.0			M

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
GYIKYLYYYGI	11	Kd	547	1.1			
IKYLYYYGI	9	Kb	48	1.1			
IKYLYYYGII	10	Kb	97	1.1			
KYLYYYGI	8	Kd	430	1.1			
KYLYYYGII	9	Kd	303	1.1			
YLYYYGIIFSM	11	Kb	124	1.1			
LYYYGIIFSM	10	Kb	45	1.1			
YYYGIIFSM	9	Kb	522	1.1			
YGIIFSMFFYI	11	Db	383	1.1			
IIFSMFFYI	9	Kb	189	1.1			
IIFSMFFYIL	10	Kb	50	1.1			
IIFSMFFYILI	11	Kb	135	1.1			
IFSMFFYIL	9	Kb	821	1.0			M
FSMFFYIL	8	Kb	30	1.1			
FSMFFYILI	9	Db	91	1.1			
FSMFFYILII	10	Db	163	1.1			
SMFFYILI	8	Kb	301	1.1			
SMFFYILII	9	Kb	269	1.1			
SMFFYILIIFL	11	Kb	33	1.1			
MFFYILIIFL	10	Kb	410	1.1			
FFYILIIFL	9	Kb	505	1.1			
FYILIIFL	8	Kd	58	1.1			
YILIIFLYFEM	11	Kb	957	1.1			
ILIIFLYFEM	10	Kb	297	1.0			L
LIIFLYFEM	9	Kb	198	1.1			
IIFLYFEM	8	Kb	78	1.0			M
LYFEMRKCFI	10	Kd	21	1.1			
LFICYVSTNI	10	Kd	822	1.0	89256001	O-antigen flippase	
ICYVSTNIM	9	Kb	176	1.0			H
CYVSTNIM	8	Kd	146	1.0			M
YVSTNIMYYFV	11	Db	339	1.0			
STNIMYYFV	9	Db	988	1.0			
TNIMYYFV	8	Kb	44	1.0			
NIMYYFVYQTI	11	Kb	830	1.0			
IMYYFVYQT	9	Kb	702	1.0			
IMYYFVYQTI	10	Kb	15	1.0			
IMYYFVYQTII	11	Kb	48	1.0			
MYYFVYQT	8	Kb	812	1.0			
MYYFVYQTI	9	Kb	177	1.0			
MYYFVYQTII	10	Kd	132	1.0			
YYFVYQTI	8	Kd	82	1.0			
YYFVYQTII	9	Kd	23	1.0			
YYFVYQTIIAI	11	Kd	85	1.0			
FVYQTIIAI	9	Kb	135	1.0			
FVYQTIIAIL	10	Kb	65	1.0			
VYQTIIAI	8	Kd	98	1.0			
VYQTIIAIL	9	Kd	409	1.0			
VYQTIIAILYL	11	Kd	555	1.0			
IAILYLVCI	9	Db	153	1.1			
IAILYLVCIAI	11	Db	260	1.0			
ILYLVCIAI	9	Kb	790	1.1			
LYLVCIAI	8	Kd	99	1.1			
AIIFLKEKVSL	11	Kb	193	1.0	89256054	conservered hypothetical membrane protein	
IIFLKEKVSL	10	Kb	67	1.0			
IFLKEKVSL	9	Kb	518	1.0			
VSLKYYFV	8	Kb	7	1.0			
VSLKYYFVL	9	Kb	19	1.0			
VSLKYYFVLL	10	Kb	14	1.0			L
VSLKYYFVLLL	11	Kb	28	1.0			
SLKYYFVLL	9	Kb	306	1.0			
SLKYYFVLLL	10	Kb	762	1.0			
LKYYFVLL	8	Kb	239	1.0			M
LKYYFVLLL	9	Kb	29	1.0			
KYYFVLLL	8	Kb	757	1.0			
KYYFVLLLAFL	11	Kd	167	1.0			
YYFVLLLAFL	10	Kd	165	1.0			
FVLLLAFL	8	Db	379	1.0			
FVLLLAFLGL	10	Kb	663	1.0			
FVLLLAFLGLL	11	Kb	719	1.0			
VLLLAFLGL	9	Kb	502	1.0			
VLLLAFLGLL	10	Kb	518	1.0			
VLLLAFLGLLL	11	Kb	966	1.0			
LLLAFLGL	8	Kb	865	1.0			
LLLAFLGLL	9	Kb	590	1.0			
LLLAFLGLLLL	11	Kb	844	1.0			
LAFLGLLLL	9	Kb	187	1.1			
LAFLGLLLLM	10	Kb	214	1.0			
LLLLMSQAGL	10	Kb	515	1.1			
LLLMSQAGL	9	Kb	727	1.1			
ITAFIFTSV	9	Kb	836	1.2	89256057	hypothetical protein	
ITAFIFTSVL	10	Kb	156	1.2			
TAFIFTSV	8	Kb	96	1.2			
TAFIFTSVL	9	Kb	27	1.2			
TSVLGYYYYV	10	Db	98	1.2			
TSVLGYYYYVM	11	Db	28	1.2			
SVLGYYYYV	9	Kb	736	1.2			
SVLGYYYYVM	10	Kb	97	1.2			
SVLGYYYYVMI	11	Kb	280	1.2			
VLGYYYYVM	9	Kb	305	1.2			
VLGYYYYVMI	10	Kb	916	1.2			
VLGYYYYVMIL	11	Kb	496	1.2			
LGYYYYVM	8	Kb	24	1.2			
LGYYYYVMI	9	Kb	14	1.2			
LGYYYYVMIL	10	Kb	9	1.2			
LGYYYYVMILA	11	Kb	307	1.2			
GYYYYVMI	8	Kb	838	1.2			
GYYYYVMIL	9	Kb	177	1.2			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
YYYYVMIL	8	Kb	709	1.2			
YYYYVMILAV	10	Kd	967	1.2			
YYYVMILAV	9	Kd	701	1.2			
YYYVMILAVAI	11	Kd	98	1.2			
YYVMILAV	8	Kd	258	1.2			
YYVMILAVAI	10	Kd	25	1.2			
VAISVFITASI	11	Kb	259	1.0			
ISVFITASI	9	Kb	195	1.0			
SVFITASI	8	Kb	715	1.0			
QSALHFTLYL	10	Kb	668	1.0	89256070	polyamine transporter, subunit H, ABC transporter, membrane protein	L
SALHFTLYL	9	Kb	57	1.0			
LHFTLYLSNYI	11	Kb	907	1.0			
FTLYLSNYI	9	Kb	463	1.0			
FTLYLSNYIEL	11	Kb	103	1.0			
TLYLSNYIEL	10	Kb	139	1.0			
TLYLSNYIELI	11	Kb	956	1.0			
LYLSNYIEL	9	Db	25	1.0			
LYLSNYIELI	10	Kd	249	1.0			
SNYIELIHYNL	11	Kb	124	1.0			
NYIELIHYNL	10	Kd	941	1.0			
NYIELIHYNLI	11	Kd	783	1.0			
IELIHYNL	8	Kb	580	1.0			
IELIHYNLI	9	Kb	456	1.0			
IELIHYNLIFI	11	Db	849	1.0			
LIHYNLIFI	9	Db	57	1.0			
LIHYNLIFISL	11	Kb	80	1.0			M
IHYNLIFI	8	Kb	493	1.0			L
IHYNLIFISL	10	Kb	21	1.0			L
IHYNLIFISLL	11	Kb	47	1.0			
HYNLIFISL	9	Kd	34	1.1			
HYNLIFISLL	10	Kd	75	1.0			
YNLIFISL	8	Kb	40	1.1			
YNLIFISLL	9	Kb	247	1.1			
TITSMTNNRSL	11	Kb	837	1.0	89256087	hypothetical protein	
ITSMTNNRSL	10	Kb	825	1.0			
ITSMTNNRSLL	11	Kb	951	1.0			
TSMTNNRSL	9	Db	298	1.0			
TSMTNNRSLL	10	Db	184	1.0			
SMTNNRSLL	9	Kb	577	1.0			
RSLLKYFFV	9	Db	115	1.0			
RSLLKYFFVL	10	Db	84	1.0			
RSLLKYFFVLL	11	Kb	79	1.0			L
SLLKYFFVL	9	Kb	218	1.0			L
SLLKYFFVLL	10	Kb	96	1.0			
LLKYFFVLL	9	Kb	248	1.0			
LKYFFVLL	8	Kb	165	1.0			
LKYFFVLLI	9	Kb	318	1.0			
LKYFFVLLIL	10	Kb	93	1.0			
KYFFVLLI	8	Kd	478	1.0			
KYFFVLLIL	9	Kd	553	1.0			
KYFFVLLILFI	11	Kd	303	1.0			
FVLLILFI	8	Db	235	1.0			
ALIYMFFYFSI	11	Kb	339	1.0	89256094	hypothetical membrane protein	
LIYMFFYF	8	Kb	265	1.0			
LIYMFFYFSI	10	Kb	30	1.0			
LIYMFFYFSII	11	Kb	122	1.0			
IYMFFYFSI	9	Kb	86	1.0			
IYMFFYFSII	10	Kb	321	1.0			
YMFFYFSI	8	Kb	768	1.0			
YMFFYFSII	9	Kb	282	1.0			
FYFSIISYYI	10	Kd	23	1.0			
FSIISYYI	8	Db	10	1.0			
ISYYIYNY	8	Kb	549	1.0			
ISYYIYNYS	9	Kb	232	1.0			
ISYYIYNYSS	10	Kb	676	1.0			
ISYYIYNYSSK	11	Kb	656	1.0			
SYYIYNYS	8	Kb	766	1.0			
SYYIYNYSSKI	11	Kb	697	1.0			
YYIYNYSSKI	10	Kd	67	1.0			
YIYNYSSK	8	Kb	559	1.0			
IYNYSSKI	8	Kd	475	1.0			
NGLEFFYAYI	10	Kb	367	1.0	89256124	hypothetical membrane protein	
LEFFYAYI	8	Kb	420	1.0			
LEFFYAYIAFL	11	Kb	216	1.0			L
EFFYAYIAFL	10	Kb	724	1.0			
FFYAYIAF	8	Kb	675	1.0			
FFYAYIAFL	9	Kb	277	1.0			
FFYAYIAFLIL	11	Kb	563	1.0			
FYAYIAFL	8	Kd	391	1.0			
FYAYIAFLI	9	Kd	855	1.0			L
YAYIAFLI	8	Db	779	1.0			
YAYIAFLIL	9	Kb	180	1.0			
YAYIAFLILL	10	Kb	61	1.0			
AYIAFLIL	8	Kd	847	1.0			L
AYIAFLILL	9	Kb	244	1.0			
IAFLILLCYP	10	Kb	346	1.0			
IAFLILLCYPM	11	Kb	48	1.0			
AFLILLCYPM	10	Kb	885	1.0			M
FLILLCYPM	9	Db	148	1.0			H
LCYPMNIAAL	10	Kb	78	1.0			L
CYPMNIAAL	9	Kb	64	1.0			
CYPMNIAALYF	11	Dd	757	1.0			
IKFMLLVIYI	10	Kb	308	1.0	89256142	hypothetical membrane protein	
IKFMLLVIYII	11	Kb	821	1.0			
FMLLVIYI	8	Db	21	1.0			
FMLLVIYII	9	Db	73	1.0			
FMLLVIYIII	10	Db	37	1.0			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
FMLLVIYIIIL	11	Db	75	1.0			
MLLVIYIIIL	10	Kb	949	1.0			
LLVIYIIIL	9	Kb	755	1.0			
LVIYIIILQYL	11	Kb	107	1.0			
VIYIIILQYL	10	Kb	39	1.0			
VIYIIILQYLL	11	Kb	69	1.0			
IYIIILQYL	9	Kd	105	1.0			
IYIIILQYLL	10	Kd	575	1.0			
IIILQYLL	8	Kb	402	1.0			
IIILQYLLSP	10	Kb	878	1.0			
IIILQYLLSPI	11	Kb	405	1.0			L
IILQYLLSP	9	Kb	291	1.0			
IILQYLLSPI	10	Kb	135	1.0			
IILQYLLSPIV	11	Kb	801	1.0			
LQYLLSPI	8	Kb	716	1.0			
LQYLLSPIV	9	Kb	599	1.0			
QYLLSPIV	8	Kd	823	1.0			
LSPIVHTSI	9	Kb	712	1.0			
NSISTVLYFI	10	Db	156	1.0	89256223	Sodium-dicarboxylate symporter family protein	
NSISTVLYFIL	11	Db	717	1.0			
ISTVLYFIL	9	Kb	561	1.0			L
STVLYFIL	8	Kb	164	1.0			
TVLYFILTCYI	11	Kb	172	1.0			
VLYFILTCYI	10	Kb	309	1.0			
LYFILTCYI	9	Kd	76	1.0			
LYFILTCYIAL	11	Kb	89	1.0			L
YFILTCYI	8	Kd	327	1.0			
FILTCYIAL	9	Kb	440	1.0			
ILTCYIAL	8	Kb	249	1.0			L
TCYIALIIVL	10	Kb	111	1.0			
TCYIALIIVLI	11	Kb	783	1.0			
CYIALIIV	8	Kd	759	1.0			
CYIALIIVL	9	Kd	260	1.0			
CYIALIIVLI	10	Kd	182	1.0			
IALIIVLIM	9	Kb	416	1.0			
LIIVLIMHITL	11	Kb	422	1.0			
IIVLIMHITL	10	Kb	220	1.0			
IIVLIMHITLL	11	Kb	451	1.0			
IVLIMHITL	9	Kb	40	1.0			
IVLIMHITLL	10	Kb	80	1.0			
VLIMHITLL	9	Kb	357	1.0			
VLIMHITLLVL	11	Kb	764	1.0			
IMHITLLVL	9	Db	136	1.0			
ISMTVYYL	8	Kb	32	1.0	89256227	hypothetical protein	L
ISMTVYYLVL	10	Db	162	1.0			L
SMTVYYLV	8	Kb	342	1.0			
SMTVYYLVL	9	Db	359	1.0			
MTVYYLVL	8	Kb	372	1.0			
MTVYYLVLNM	10	Kb	312	1.0			
TVYYLVLNM	9	Kb	44	1.0			
TVYYLVLNMHI	11	Kb	337	1.0			
VYYLVLNM	8	Kb	74	1.0			
VYYLVLNMHI	10	Kd	200	1.0			
YYLVLNMHI	9	Kd	29	1.0			
YLVLNMHI	8	Db	181	1.0			
LNMHIKNFIMM	11	Kb	568	1.0			L
NMHIKNFIMM	10	Db	460	1.0			
MHIKNFIMM	9	Kb	448	1.0			
ISFYGVLL	8	Kb	391	1.0	89256270	hypothetical membrane protein	L
ISFYGVLLI	9	Kb	371	1.0			
FYGVLLIFFI	10	Kd	295	1.0			L
YGVLLIFFI	9	Db	345	1.0			
VLLIFFIFAFI	11	Kb	824	1.0			
LLIFFIFAFIL	11	Kb	385	1.0			
LIFFIFAFI	9	Kb	603	1.0			
LIFFIFAFIL	10	Kb	155	1.0			
IFFIFAFI	8	Kb	532	1.0			
IFFIFAFIL	9	Kb	284	1.0			
FIFAFILF	8	Kb	633	1.0			
FIFAFILFYL	10	Kb	192	1.0			
FIFAFILFYLL	11	Kb	219	1.0			
FAFILFYL	8	Db	209	1.0			
FAFILFYLL	9	Kb	93	1.0			
FAFILFYLLV	10	Kb	775	1.0			
AFILFYLL	8	Kb	459	1.0			
AFILFYLLVNL	11	Kb	339	1.0			
FILFYLLV	8	Kb	620	1.0			
FILFYLLVNL	10	Kb	259	1.0			
ILFYLLVNL	9	Kb	63	1.0			L
LFYLLVNL	8	Kb	189	1.0			
FYLLVNLNV	9	Kd	307	1.0			
FYLLVNLNVF	10	Kd	819	1.0			
YLLVNLNVF	9	Db	376	1.0			
LLVNLNVFSSL	11	Kb	721	1.0			M
LVNLNVFSSL	10	Kb	675	1.0			L
VNLNVFSSL	9	Kb	57	1.0			
VNLNVFSSLNL	11	Kb	424	1.0			
NVFSSLNLVIL	11	Kb	591	1.0			
FSSLNLVI	8	Db	120	1.0			
FSSLNLVIL	9	Db	16	1.0			
FSSLNLVILPL	11	Db	96	1.0			L
SSLNLVIL	8	Kb	349	1.0			
SSLNLVILPL	10	Kb	57	1.0			
FALLIIFI	8	Db	25	1.0	89256312	Proton-dependent oligopeptide transport (POT) family protein	
FALLIIFITV	10	Db	246	1.0			
FALLIIFITVL	11	Db	55	1.0			
ALLIIFITVL	10	Kb	370	1.0			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
ALLIIFITVLL	11	Kb	470	1.0			
LLIIFITVL	9	Kb	321	1.0			
LLIIFITVLL	10	Kb	399	1.0			
LLIIFITVLLL	11	Kb	826	1.0			
LIIFITVLL	9	Kb	305	1.0			
LIIFITVLLL	10	Kb	698	1.0			
IIFITVLL	8	Kb	166	1.0			
IIFITVLLL	9	Kb	241	1.0			
IFITVLLL	8	Kb	680	1.0			
ITVLLLFI	8	Db	912	1.0			
ITVLLLFIAL	10	Kb	65	1.0			
TVLLLFIAL	9	Kb	24	1.0			
VLLLFIAL	8	Kb	199	1.0			
LLLFIALQYPL	11	Kb	411	1.0			
LLFIALQYPL	10	Kb	238	1.0			
LFIALQYPL	9	Kd	592	1.0			M
LSMIAMTLL	9	Kb	440	1.0	89256315	hypothetical membrane protein	
LSMIAMTLLTM	11	Kb	336	1.0			H
SMIAMTLL	8	Db	487	1.0			
SMIAMTLLTM	10	Db	60	1.0			
IAMTLLTM	8	Db	93	1.0			H
IAMTLLTMFL	10	Db	189	1.0			
MTLLTMFL	8	Kb	794	1.0			
MTLLTMFLQYI	11	Kb	836	1.0			
LTMFLQYIGI	10	Kb	745	1.0			
TMFLQYIGI	9	Kb	75	1.0			L
TMFLQYIGIFL	11	Kb	65	1.0			
LQYIGIFLAI	10	Kb	457	1.0			
LQYIGIFLAIL	11	Kb	56	1.0			
QYIGIFLAI	9	Kd	18	1.0			
QYIGIFLAIL	10	Kd	59	1.0			
QYIGIFLAILL	11	Kd	116	1.0			
IGIFLAIL	8	Kb	142	1.0			
IGIFLAILL	9	Kb	76	1.0			
VGISIIAAI	9	Kb	461	1.1	89256352	hypothetical protein	
ISIIAAIFSYL	11	Kb	76	1.1			L
SIIAAIFSYL	10	Kb	283	1.1			L
IIAAIFSYL	9	Kb	329	1.1			
IAAIFSYL	8	Kb	224	1.1			
IAAIFSYLAAL	11	Kb	63	1.1			
AAIFSYLAAL	10	Kb	42	1.1			
AAIFSYLAALI	11	Kb	728	1.1			
AIFSYLAAL	9	Kb	34	1.1			
AIFSYLAALI	10	Kb	534	1.1			
FSYLAALI	8	Kb	291	1.1			
FSYLAALIAI	10	Db	73	1.1			
FSYLAALIAII	11	Db	478	1.1			
SYLAALIAI	9	Kd	15	1.1			
SYLAALIAII	10	Kd	49	1.1			
SYLAALIAIII	11	Kd	81	1.1			
LAALIAIIIGL	11	Kb	499	1.1			
AALIAIII	8	Db	778	1.1			
AALIAIIIGL	10	Kb	137	1.1			
ISIFLYLFL	9	Kb	45	1.0	89256377	hypothetical membrane protein	L
ISIFLYLFLV	10	Kb	559	1.0			
ISIFLYLFLVI	11	Kb	337	1.0			
SIFLYLFL	8	Kb	54	1.0			L
SIFLYLFLV	9	Kb	843	1.0			
SIFLYLFLVI	10	Kb	536	1.0			
SIFLYLFLVIV	11	Kb	703	1.0			
IFLYLFLVIVM	11	Kb	241	1.0			
FLYLFLVIVM	10	Kb	133	1.0			
FLYLFLVIVMI	11	Kb	650	1.0			
LYLFLVIVM	9	Kb	354	1.0			
LYLFLVIVMI	10	Kd	383	1.0			
LVIVMIYFTSL	11	Kb	140	1.0			
VIVMIYFTSL	10	Kb	49	1.0			
IVMIYFTSL	9	Kb	17	1.0			
VMIYFTSL	8	Kb	33	1.0			
MIYFTSLSNQI	11	Kb	412	1.0			
IYFTSLSNQI	10	Kd	8	1.0			
IYFTSLSNQIL	11	Kd	41	1.0			
YFTSLSNQI	9	Kd	759	1.0			
TSLSNQIL	8	Db	195	1.0			
TSLSNQILL	9	Db	10	1.0			
LSYYGVFVAFI	11	Kb	156	1.0	89256404	amino acid permease	
SYYGVFVAF	9	Kd	758	1.0			
SYYGVFVAFI	10	Kd	79	1.0			
SYYGVFVAFII	11	Kd	137	1.0			
YGVFVAFIIML	11	Kb	671	1.0			
GVFVAFIIML	10	Kb	478	1.0			
VFVAFIIML	9	Kb	280	1.0			
VFVAFIIMLSL	11	Kb	471	1.0			
VAFIIMLSL	9	Kb	46	1.0			
AFIIMLSLTYL	11	Kd	67	1.0			
FIIMLSLTYL	10	Db	212	1.0			
IIMLSLTYL	9	Db	105	1.0			L
IMLSLTYL	8	Db	126	1.0			
LSLTYLNT	8	Kb	159	1.0			
LSLTYLNTYKL	11	Kb	124	1.0			L
LTYLNTYKL	9	Kb	43	1.0			
TYLNTYKL	8	Kd	512	1.0			
IAISFLYF	8	Kb	712	1.0	89256517	hypothetical protein	
IAISFLYFM	9	Db	60	1.0			
IAISFLYFMP	10	Kb	402	1.0			
IAISFLYFMPI	11	Kb	106	1.0			
ISFLYFMP	8	Kb	713	1.0			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
ISFLYFMPI	9	Kb	23	1.0			
ISFLYFMPII	10	Kb	55	1.0			L
SFLYFMPII	9	Kb	692	1.0			L
SFLYFMPIISL	11	Kb	59	1.0			L
FLYFMPIISL	10	Kb	60	1.0			L
LYFMPIISL	9	Kb	81	1.0			M
LYFMPIISLFL	11	Kb	701	1.0			
YFMPIISL	8	Kd	770	1.0			
FMPIISLFL	9	Db	216	1.0			
ISLFLGWIFL	10	Kb	168	1.0			
SLFLGWIFL	9	Kb	615	1.0			L
PSVQAYYWL	9	Kb	749	1.0	89256552	amino acid antiporter	L
PSVQAYYWLL	10	Kb	728	1.0			L
SVQAYYWL	8	Kb	82	1.1			
SVQAYYWLL	9	Kb	843	1.1			L
VQAYYWLLTAL	11	Kb	89	1.1			
QAYYWLLTAL	10	Kb	24	1.1			
AYYWLLTAL	9	Kd	19	1.1			
YYWLLTAL	8	Kd	13	1.1			
YWLLTALSTQI	11	Kd	488	1.1			
WLLTALSTQI	10	Kd	878	1.1			
LTALSTQIYSL	11	Kb	515	1.1			
TALSTQIYSL	10	Kb	51	1.1			
TALSTQIYSLM	11	Kb	74	1.1			
LSTQIYSLM	9	Kb	168	1.1			
LSTQIYSLMYL	11	Kb	170	1.1			
STQIYSLM	8	Kb	125	1.1			
STQIYSLMYL	10	Kb	716	1.1			
TQIYSLMYL	9	Kb	111	1.1			
TQIYSLMYLM	10	Kb	297	1.1			
TQIYSLMYLMM	11	Kb	133	1.1			
QIYSLMYL	8	Kb	270	1.1			
QIYSLMYLM	9	Kb	530	1.1			H
QIYSLMYLMM	10	Kb	240	1.1			M
IYSLMYLMM	9	Kb	784	1.1			
YSLMYLMM	8	Db	58	1.1			
YSLMYLMMFFA	11	Db	722	1.1			
LMYLMMFFAA	10	Kb	602	1.1			
LMYLMMFFAAL	11	Kb	11	1.1			L
MYLMMFFAAL	10	Kd	35	1.1			
YLMMFFAAL	9	Kb	120	1.1			
YLMMFFAALKL	11	Kb	978	1.1			
LMMFFAAL	8	Kb	108	1.2			
LMMFFAALKL	10	Kb	206	1.2			
MMFFAALKL	9	Kb	321	1.2			
MMFFAALKLKL	11	Kb	318	1.2			
FIITILYFI	9	Db	119	1.0	89256614	virulence factor MviN	
FIITILYFIAL	11	Db	780	1.0			
IITILYFIAL	10	Kb	158	1.0			
ITILYFIAL	9	Kb	13	1.0			
ITILYFIALFL	11	Kb	149	1.0			
TILYFIAL	8	Kb	191	1.0			L
TILYFIALFL	10	Kb	130	1.0			
TILYFIALFLL	11	Kb	72	1.0			
ILYFIALFL	9	Kb	273	1.0			
ILYFIALFLL	10	Kb	142	1.0			
ILYFIALFLLI	11	Kb	759	1.0			
LYFIALFLL	9	Kb	616	1.0			
IALFLLII	8	Db	848	1.0			
IALFLLIITFL	11	Kb	53	1.0			
ALFLLIITFL	10	Kb	307	1.0			
LFLLIITFL	9	Kd	182	1.0			
LIITFLAI	8	Kb	668	1.0			
IALSAYANI	9	Kb	223	1.0	89256710	major facilitator superfamily (MFS) transport protein	
IALSAYANIM	10	Kb	51	1.0			
LSAYANIMY	9	Dd	670	1.0			
LSAYANIMYL	11	Kb	403	1.0			L
SAYANIMYYL	10	Kb	21	1.0			
SAYANIMYYLV	11	Db	107	1.0			
AYANIMYYL	9	Kd	693	1.0			
YANIMYYL	8	Db	56	1.0			
YANIMYYLV	9	Db	633	1.0			
YANIMYYLVL	10	Db	73	1.0			
ANIMYYLV	8	Kb	38	1.0			
ANIMYYLVL	9	Kb	150	1.0			
NIMYYLVLSYL	11	Kb	417	1.0			
IMYYLVLSYL	10	Kb	10	1.0			
MYYLVLSYL	9	Kd	27	1.0			
YYLVLSYL	8	Kd	25	1.0			
LSYLSNHFVEL	11	Kb	35	1.0			
SYLSNHFV	8	Kd	46	1.0			
SYLSNHFVEL	10	Kd	43	1.0			
LIFAYPSF	8	Kb	76	1.0			
LIFAYPSFM	9	Kb	269	1.0			
LIFAYPSFML	10	Kb	269	1.0			
LIFAYPSFMLM	11	Kb	208	1.0			
FAYPSFML	8	Db	931	1.0			
FAYPSFMLM	9	Kb	150	1.0			
FAYPSFMLMNM	11	Kb	139	1.0			
AYPSFMLMNM	10	Kb	514	1.0			
FMLMNMGV	8	Db	335	1.0			
FMLMNMGVV	9	Db	6	1.0			
FMLMNMGVVY	10	Db	680	1.0			
FMLMNMGVVYL	11	Db	6	1.0			L
MGVVYLVL	8	Kb	112	1.0			
MGVVYLVLAM	10	Kb	565	1.0			
VVYLVLAM	8	Kb	255	1.0			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
VVYLVLAMI	9	Kb	244	1.0			
VVYLVLAMII	10	Kb	500	1.0			
VVYLVLAMIIL	11	Kb	53	1.0			
VYLVLAMI	8	Kd	361	1.0			
YLVLAMIIL	9	Db	618	1.0			
VLAMIILSVPL	11	Kb	613	1.0			
LAMIILSVPL	10	Kb	118	1.0			
LAMIILSVPLM	11	Kb	263	1.0			
AMIILSVPL	9	Kb	97	1.0			
AMIILSVPLM	10	Kb	236	1.0			
MIILSVPL	8	Kb	367	1.0			L
MIILSVPLM	9	Kb	686	1.0			
IILSVPLM	8	Kb	433	1.0			
MEFSVTYFIML	11	Kb	421	1.1	89256727	DoxD-like family protein	
FSVTYFIM	8	Db	26	1.1			
FSVTYFIML	9	Db	47	1.1			
SVTYFIML	8	Kb	782	1.1			
SVTYFIMLFTL	11	Kb	144	1.1			
VTYFIMLFTL	10	Kb	21	1.1			
TYFIMLFTL	9	Kd	61	1.1			
TYFIMLFTLF	10	Kd	977	1.1			
TYFIMLFTLFL	11	Kb	258	1.1			
YFIMLFTL	8	Kd	461	1.1			
FIMLFTLFL	9	Db	643	1.1			
IMLFTLFL	8	Db	133	1.1			
ASLTIAIL	8	Kb	539	1.0	89256785	cysteine/glutathione ABC transporter membrane/ATP-binding component	
TIAILFSFFSL	11	Kb	256	1.0			
IAILFSFF	8	Kb	687	1.0			L
IAILFSFFSL	10	Kb	26	1.0			
AILFSFFSL	9	Kb	73	1.0			
AILFSFFSLSL	11	Kb	96	1.0			L
ILFSFFSL	8	Kb	84	1.0			L
ILFSFFSLSL	10	Kb	39	1.0			L
FSFFSLSL	8	Kb	790	1.0			
FSFFSLSLAL	10	Kb	128	1.0			
FSFFSLSLALL	11	Kb	113	1.0			
SFFSLSLAL	9	Kb	667	1.0			
SFFSLSLALL	10	Kb	619	1.0			L
FSLSLALL	8	Kb	138	1.0			
FSLSLALLTFI	11	Db	56	1.0			
LSLALLTFI	9	Db	393	1.0			
LSLALLTFIAL	11	Kb	41	1.0			
SLALLTFIAL	10	Kb	658	1.0			L
LALLTFIAL	9	Kb	21	1.0			
LALLTFIALL	10	Kb	42	1.0			
LALLTFIALLL	11	Kb	136	1.0			
ALLTFIAL	8	Kb	419	1.0			
ALLTFIALL	9	Kb	304	1.0			
ALLTFIALLL	10	Kb	987	1.0			
IALLIGFVI	10	Db	643	1.0			
IALLIGFVIP	11	Kb	920	1.0			
ALLLIGFVIPL	11	Kb	432	1.0			
LLLIGFVIPL	10	Kb	215	1.2			
LLIGFVIPL	9	Kb	297	1.2			
LSSYILQYIL	10	Kb	812	1.1	89256788	sulfate permease family protein	
LSSYILQYILL	11	Kb	196	1.1			
SSYILQYI	8	Kb	217	1.1			
SSYILQYIL	9	Kb	41	1.1			
SSYILQYILL	10	Kb	16	1.1			
SYILQYIL	8	Kd	200	1.1			
SYILQYILL	9	Kb	131	1.1			
YILQYILL	8	Kb	97	1.1			
LQYILLCVI	9	Kb	388	1.1			
LQYILLCVIM	10	Kb	91	1.1			
QYILLCVI	8	Kd	12	1.1			L
QYILLCVIM	9	Kd	186	1.1			
KSNSFFYIFI	10	Db	888	1.0	89256811	cell division protein	
NSFFYIFI	8	Kb	551	1.0			
NSFFYIFISV	10	Kb	287	1.0			
NSFFYIFISVV	11	Kb	913	1.0			
SFFYIFISV	9	Kb	365	1.0			
SFFYIFISVVL	11	Kb	167	1.0			L
FFYIFISV	8	Kb	196	1.0			
FFYIFISVVL	10	Kb	287	1.0			
FFYIFISVVLL	11	Kb	242	1.0			
FYIFISVV	8	Kd	56	1.0			L
FYIFISVVL	9	Kd	81	1.0			
FYIFISVVLL	10	Kd	175	1.0			
FYIFISVVLLL	11	Kd	329	1.0			
YIFISVVLL	9	Kb	818	1.0			L
IFISVVLL	8	Kb	479	1.0			L
ISVVLLLIAI	10	Db	345	1.0			
ISVVLLLIAIL	11	Kb	334	1.0			
SVVLLLIAI	9	Db	870	1.0			
SVVLLLIAIL	10	Kb	266	1.0			
VVLLLIAIL	9	Kb	84	1.0			
IAILQYNL	8	Kb	245	1.0			
MIFIIPIL	8	Kb	364	1.1	89256851	hypothetical protein	
IIPILFSYSM	10	Kb	61	1.1			
IIPILFSYSMI	11	Kb	610	1.1			
IPILFSYSM	9	Kb	175	1.1			M
ILFSYSMI	8	Kb	133	1.1			
ILFSYSMIIVI	11	Kb	706	1.1			
FSYSMIIV	8	Kb	740	1.1			
FSYSMIIVI	9	Db	63	1.1			
FSYSMIIVITI	11	Db	100	1.1			
SYSMIIVI	8	Kd	536	1.1			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
SYSMIIVITI	10	Kd	542	1.1			
SYSMIIVITIL	11	Kd	111	1.1			
YSMIIVITI	9	Db	109	1.1			
YSMIIVITIL	10	Db	575	1.1			
SMIIVITI	8	Db	510	1.1			
SMIIVITIL	9	Kb	435	1.1			
MIIVITIL	8	Kb	874	1.1			
IVLVYIVYI	9	Kb	381	1.0	89256861	PerM family protein	
IVLVYIVYIL	10	Kb	196	1.0			
LVYIVYIL	8	Kb	199	1.0			
LVYIVYILFL	10	Kb	79	1.0			
LVYIVYILFLI	11	Kb	379	1.0			
VYIVYILF	8	Kb	449	1.0			
YIVYILFLIAL	11	Kb	413	1.0			
IVYILFLIAL	10	Kb	11	1.0			
IVYILFLIALL	11	Kb	20	1.0			
VYILFLIAL	9	Kb	38	1.0			
VYILFLIALL	10	Kb	94	1.0			
YILFLIALL	9	Kb	289	1.0			
YILFLIALLSL	11	Kb	303	1.0			
ILFLIALL	8	Kb	356	1.0			
ILFLIALLSL	10	Kb	194	1.0			
IALLSLIFV	9	Db	19	1.0			
IALLSLIFVL	10	Db	49	1.0			
IALLSLIFVLL	11	Kb	50	1.0			
ALLSLIFVL	9	Kb	962	1.0			
ALLSLIFVLL	10	Kb	484	1.0			
LSLIFVLL	8	Kb	32	1.0			
LSLIFVLLPI	10	Kb	416	1.0			
LSLIFVLLPII	11	Kb	498	1.0			
SSYISVRI	8	Kb	479	1.0	89256892	Phospho-N-acetylmuramoyl-pentapeptide transferase	
SSYISVRII	9	Kb	679	1.0			
SSYISVRIIM	10	Kb	64	1.0			L
SSYISVRIIMI	11	Kb	175	1.0			
SYISVRII	8	Kd	27	1.0			
SYISVRIIM	9	Kd	39	1.0			H
SYISVRIIMI	10	Kd	22	1.0			
ISVRIIMISI	10	Kb	655	1.0			
VRIIMISITSL	11	Kb	201	1.0			
RIIMISITSL	10	Kb	800	1.0			L
IIMISITSL	9	Kb	115	1.0			L
IIMISITSLL	10	Kb	357	1.0			
IMISITSL	8	Kb	472	1.0			
IMISITSLL	9	Kb	181	1.0			
ISITSLLI	8	Db	366	1.0			
ISITSLLITL	10	Db	55	1.0			M
SITSLLITL	9	Kb	563	1.0			M
ITSLLITLAL	10	Kb	602	1.0			
TSLLITLAL	9	Kb	86	1.0			
SSTTGYITI	9	Db	168	1.0	89256896	hypothetical protein	
SSTTGYITIIL	11	Kb	886	1.0			L
TTGYITIIL	9	Kb	748	1.0			L
TGYITIIL	8	Kb	365	1.0			
TGYITIILNL	10	Kb	52	1.0			
TGYITIILNLL	11	Kb	24	1.0			
GYITIILNL	9	Kd	112	1.0			
GYITIILNLL	10	Kd	31	1.0			
ITIILNLL	8	Kb	474	1.0			
TIILNLLYA	9	Db	371	1.0			
TIILNLLYAQL	11	Kb	114	1.0			
IILNLLYAQL	10	Kb	58	1.0			
ILNLLYAQL	9	Kb	642	1.0			M
LNLLYAQL	8	Kb	5	1.0			M
LNLLYAQLFNL	11	Kb	309	1.0			M
LLYAQLFNL	9	Kb	270	1.0			
LYAQLFNL	8	Kd	360	1.0			
LYAQLFNLSSL	11	Kd	10	1.0			M
YAQLFNLSSL	10	Kb	408	1.0			
AQLFNLSSL	9	Kb	35	1.0			
FNLSSLGYI	9	Db	248	1.0			
FNLSSLGYISI	11	Db	447	1.0			
LSSLGYISI	9	Kb	768	1.0			
LSSLGYISIPL	11	Kb	206	1.0			
SSLGYISI	8	Kb	69	1.0			
SSLGYISIPL	10	Kb	52	1.0			
LGYISIPL	8	Kb	201	1.0			
LGYISIPLAFI	11	Kb	381	1.0			
GYISIPLAFI	10	Kd	32	1.0			
GYISIPLAFII	11	Kd	55	1.0			
ISIPLAFI	8	Kb	950	1.0			
ISIPLAFIIL	10	Kb	201	1.0			
ISIPLAFIILL	11	Kb	118	1.0			
SIPLAFIIL	9	Kb	296	1.0			
SIPLAFIILL	10	Kb	159	1.0			
IPLAFIIL	8	Kb	806	1.0			
IPLAFIILLVL	11	Kb	458	1.0			
KNPSRNVP	8	Dd	932	1.0	89256917	amino acid transporter protein, fragment	
KNPSRNVPL	9	Dd	37	1.0			
KNPSRNVPLA	10	Dd	596	1.0			
KNPSRNVPLAI	11	Dd	298	1.0			
NVPLAIILSL	10	Kb	771	1.0			
VPLAIILSL	9	Kb	441	1.0			
VPLAIILSLAL	11	Kb	855	1.0			
LAIILSLAL	9	Kb	324	1.0			
LAIILSLALVL	11	Kb	657	1.0			
AIILSLALVLL	11	Kb	617	1.0			
IILSLALV	8	Kb	414	1.0			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
IILSLALVL	9	Kb	562	1.0			
IILSLALVLL	10	Kb	249	1.0			L
IILSLALVLLL	11	Kb	457	1.0			
LSLALVLL	8	Kb	484	1.0			
LSLALVLLL	9	Kb	290	1.0			
LSLALVLLLYM	11	Kb	216	1.0			
LALVLLLYM	9	Db	58	1.0			
LALVLLLYMGL	11	Kb	141	1.0			
ALVLLLYMGL	10	Kb	726	1.0			
LVLLLYMGL	9	Kb	50	1.0			
VLLLYMGL	8	Kb	77	1.0			
LLYMGLQYAFM	11	Kb	129	1.0			
LYMGLQYAFM	10	Kd	631	1.0			
YMGLQYAFM	9	Db	25	1.0			
MGLQYAFM	8	Kb	27	1.0			
MGLQYAFMQAV	11	Kb	513	1.0			
LQYAFMQA	8	Kb	655	1.0			
LQYAFMQAV	9	Kb	156	1.0			
LQYAFMQAVP	10	Kb	338	1.0			
QYAFMQAV	8	Kd	120	1.0			
LMLTLSIVSL	10	Kb	111	1.0	89256946	major facilitator superfamily (MFS) transport protein	
LTLSIVSLAM	10	Kb	538	1.0			
LTLSIVSLAML	11	Kb	279	1.0			
LSIVSLAM	8	Db	902	1.0			
LSIVSLAML	9	Kb	436	1.0			
LSIVSLAMLL	10	Kb	603	1.0			
SIVSLAML	8	Kb	171	1.0			
VSLAMLLAI	9	Kb	378	1.0			
VSLAMLLAII	10	Kb	478	1.0			
VSLAMLLAIIL	11	Kb	81	1.0			
LAMLLAIIL	9	Kb	247	1.0			
AMLLAIIL	8	Db	304	1.0			
AMLLAIILYV	10	Db	846	1.0			
MLLAIILYVPM	11	Kb	282	1.0			
LLAIILYVPM	10	Kb	795	1.0			
LAIILYVPM	9	Kb	21	1.0			
LAIILYVPMSL	11	Kb	41	1.0			
AIILYVPM	8	Kb	31	1.0			M
AIILYVPMSL	10	Kb	101	1.0			
IILYVPMSL	9	Kb	51	1.0			
IILYVPMSLSM	11	Kb	108	1.0			H
ILYVPMSL	8	Kb	129	1.0			
ILYVPMSLSM	10	Kb	295	1.0			
LYVPMSLSM	9	Kd	79	1.1			
LYVPMSLSMF	10	Kd	338	1.0			
MSLSMFTVL	9	Kb	68	1.1			
LSMFTVLYFL	10	Db	251	1.1			
LSMFTVLYFLL	11	Kb	123	1.1			
SMFTVLYFLL	10	Kb	191	1.0			L
IIGIFLMFL	9	Kb	723	1.0	89256977	potassium uptake protein	
IIGIFLMFLSL	11	Kb	217	1.0			
IGIFLMFL	8	Kb	581	1.0			
IGIFLMFLSL	10	Kb	34	1.0			
GIFLMFLSL	9	Kb	126	1.0			
GIFLMFLSLTM	11	Kb	392	1.0			
IFLMFLSL	8	Kb	398	1.0			L
IFLMFLSLTM	10	Kb	243	1.0			
IFLMFLSLTML	11	Kb	222	1.0			
LMFLSLTM	8	Db	748	1.0			H
LMFLSLTML	9	Kb	115	1.0			
LMFLSLTMLSP	11	Kb	700	1.0			H
MFLSLTML	8	Kd	493	1.0			
MFLSLTMLSPL	11	Kd	201	1.0			
LSLTMLSPL	9	Kb	58	1.0			L
LSLTMLSPLL	10	Kb	130	1.0			
TMLSPLLVDYI	11	Db	178	1.0			
LSPLLVDYI	9	Db	177	1.0			
LPYWLAVAI	9	Kb	295	1.0	89257033	cytochrome oxidase bd-II, subunit II	
LAVAIFILTYI	11	Db	905	1.0			
VAIFILTYI	9	Db	240	1.0			
VAIFILTYISM	11	Kb	21	1.0			M
AIFILTYISM	10	Kb	43	1.0			
AIFILTYISML	11	Kb	149	1.0			
IFILTYISM	9	Kb	65	1.0			M
IFILTYISML	10	Kb	230	1.0			
FILTYISM	8	Kb	44	1.0			
FILTYISML	9	Kb	529	1.0			
FILTYISMLTL	11	Db	753	1.0			
LTYISMLTL	9	Kb	88	1.0			
LTYISMLTLI	10	Kb	532	1.0			
TYISMLTL	8	Kd	9	1.0			
TYISMLTLI	9	Kd	1	1.0			
TYISMLTLIF	10	Kd	609	1.0			
ISMLTLIFPYI	11	Db	70	1.0			
SMLTLIFPYI	10	Db	89	1.0			
SMLTLIFPYII	11	Db	118	1.0			
LTLIFPYI	8	Kb	204	1.0			
LIFPYIIPYQI	11	Kb	708	1.1			
AALALAIIQL	10	Kb	126	1.0	89257093	hypothetical protein	M
AALALAIIQLL	11	Kb	176	1.1			
LALAIIQLL	9	Kb	157	1.1			
LAIIQLLIYL	10	Db	101	1.1			
AIIQLLIYL	9	Kb	82	1.1			
IIQLLIYL	8	Kb	686	1.1			
IQLLIYLTNSA	11	Kb	837	1.1			
LLIYLTNSAL	10	Kb	247	1.1			
LLIYLTNSALL	11	Kb	329	1.1			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
LIYLTNSAL	9	Kb	79	1.1			
LIYLTNSALL	10	Kb	124	1.1			
IYLTNSAL	8	Kd	12	1.3			
IYLTNSALL	9	Kd	327	1.3			
IYLTNSALLFI	11	Db	113	1.1			
TNSALLFITL	10	Kb	868	1.3			
NSALLFITL	9	Kb	268	1.3			
SALLFITL	8	Kb	83	1.3			
SALLFITLRFI	11	Db	122	1.3			
LFITLRFI	8	Kd	443	1.0			
CYHKNTSNNYL	11	Kd	10	1.0			
NNYLIYVYFSV	11	Kb	586	1.0			
LIYVYFSV	8	Kb	14	1.0			M
LIYVYFSVI	9	Kb	325	1.0			
LIYVYFSVIFL	11	Kb	103	1.0			
IYVYFSVI	8	Kd	198	1.0			
IYVYFSVIFL	10	Kb	291	1.0			
YVYFSVIFL	9	Db	107	1.0			M
YVYFSVIFLAI	11	Kb	784	1.0			
VYFSVIFL	8	Kb	265	1.0			
VYFSVIFLAI	10	Kd	290	1.0			
VYFSVIFLAIL	11	Kb	214	1.0			
FSVIFLAI	8	Db	362	1.0			
FSVIFLAIL	9	Kb	194	1.0			
FSVIFLAILL	10	Kb	245	1.0			
SVIFLAIL	8	Kb	499	1.0			
SVIFLAILL	9	Kb	166	1.0			
VIFLAILL	8	Kb	301	1.0			
AILLAQTAKFL	11	Kb	945	1.0			
ILLAQTAKFL	10	Kb	829	1.0			L
SSMQTVFYV	9	Db	60	1.0			
TVFYVTAII	9	Kb	595	1.0			
TVFYVTAIIYM	11	Kb	64	1.0			H
VFYVTAII	8	Kb	503	1.0			
VFYVTAIIYM	10	Kb	265	1.0			H
FYVTAIIYM	9	Db	86	1.0			
FYVTAIIYMFL	11	Kd	23	1.0			
VTAIIYMFL	9	Kb	427	1.0			
TAIIYMFL	8	Kb	187	1.0			
TAIIYMFLVVI	11	Kb	563	1.0			
AIIYMFLVVI	10	Kb	785	1.0			
IIYMFLVV	8	Kb	52	1.0			
IIYMFLVVI	9	Kb	61	1.0			
IIYMFLVVIYI	11	Kb	67	1.0			
IYMFLVVI	8	Kd	498	1.1			
IYMFLVVIYI	10	Kd	673	1.0			
YMFLVVIYI	9	Db	95	1.1			
YMFLVVIYICL	11	Db	200	1.1			
FLVVIYICL	9	Db	609	1.1			
LVVIYICL	8	Kb	395	1.1			
LVVIYICLL	9	Kb	206	1.1			
LVVIYICLLYL	11	Kb	394	1.1			
VVIYICLLYL	10	Kb	302	1.1			
VIYICLLYL	9	Kb	78	1.1			
IYICLLYL	8	Kd	299	1.0			L
IYICLLYLFDL	11	Kd	638	1.0			L
ICLLYLFDL	9	Kb	312	1.1			
FSVVLRQHVYI	11	Db	46	1.0	89257107	toxin secretion ABC transporter ATP-binding protein	
SVVLRQHVYI	10	Db	243	1.0			
VVLRQHVYI	9	Kb	541	1.0			
VVLRQHVYIGL	11	Kb	86	1.0			M
RQHVYIGL	8	Kb	203	1.0			
RQHVYIGLTYI	11	Db	869	1.0			
QHVYIGLTYI	10	Kd	885	1.0			
HVYIGLTYIFI	11	Db	732	1.0			
VYIGLTYI	8	Kd	19	1.0			
VYIGLTYIFI	10	Kd	400	1.0			
YIGLTYIFI	9	Db	108	1.0			
IGLTYIFI	8	Kb	137	1.0			
IGLTYIFINI	10	Kb	471	1.0			
IGLTYIFINIL	11	Kb	56	1.0			
LTYIFINI	8	Kb	10	1.0			
LTYIFINIL	9	Kb	12	1.0			
LTYIFINILL	10	Kb	28	1.0			
LTYIFINILLL	11	Kb	25	1.0			
TYIFINIL	8	Kd	70	1.0			
TYIFINILL	9	Kd	282	1.0			
TYIFINILLL	10	Kd	894	1.0			
YIFINILLL	9	Kb	667	1.0			
SQVSRRYLL	9	Kb	448	1.2	89257127	aromatic amino acid transporter of the HAAAP family	
VSRRYLLF	8	Kb	468	1.2			
RRYLLFFSI	9	Kb	535	1.2			
RRYLLFFSII	10	Kb	864	1.2			
RYLLFFSI	8	Kd	41	1.2			
RYLLFFSII	9	Kd	42	1.2			
RYLLFFSIIYL	11	Kd	162	1.2			
YLLFFSIIYL	10	Kb	389	1.2			
YLLFFSIIYLL	11	Kb	914	1.2			
LLFFSIIYL	9	Kb	128	1.2			
LLFFSIIYLL	10	Kb	293	1.2			
LLFFSIIYLLL	11	Kb	250	1.2			
LFFSIIYLL	9	Kb	798	1.2			
LFFSIIYLLL	10	Kb	654	1.2			
LFFSIIYLLLL	11	Kb	737	1.2			
FSIIYLLL	8	Kb	17	1.2			
FSIIYLLLL	9	Db	182	1.2			
SIIYLLLLYSL	11	Kb	78	1.2			

Sequence	Length	Predicted allele	Affinity (IC_{50}, nM)	Cluster density	Protein gi#	Protein annotation	Responder[a]
IIYLLLLYSL	10	Kb	14	1.2			
IIYLLLLYSLI	11	Kb	140	1.2			
IYLLLLYSL	9	Kb	70	1.2			
IYLLLLYSLI	10	Kd	74	1.2			
FSLYLNYSSI	10	Kb	220	1.0	89257149	hypothetical protein	
SLYLNYSSI	9	Kb	48	1.0			
SLYLNYSSII	10	Kb	378	1.0			
SLYLNYSSIIP	11	Kb	763	1.0			
LYLNYSSI	8	Kd	31	1.0			
LYLNYSSII	9	Kd	320	1.0			
SSIIPTYFL	9	Db	57	1.0			
SSIIPTYFLL	10	Kb	245	1.0			
SSIIPTYFLLL	11	Kb	298	1.0			
SIIPTYFL	8	Kb	688	1.0			
SIIPTYFLL	9	Kb	420	1.0			
SIIPTYFLLL	10	Kb	510	1.0			
IIPTYFLL	8	Kb	42	1.0			
IIPTYFLLL	9	Kb	237	1.0			
TYFLLLFSSEI	11	Kd	38	1.0			
YFLLLFSSEI	10	Kd	228	1.0			
SFLTNYAGFI	10	Db	384	1.0	89257164	Competence-related protein	
ISYWSYFSF	9	Kb	145	1.0			M
ISYWSYFSFF	10	Kb	462	1.0			H
SYWSYFSFF	9	Kd	807	1.0			L
SYWSYFSFFSL	11	Kd	16	1.0			H
WSYFSFFSL	9	Kb	24	1.0			M
WSYFSFFSLV	10	Kb	416	1.0			
WSYFSFFSLVI	11	Db	555	1.0			
SYFSFFSL	8	Kd	13	1.0			
SYFSFFSLV	9	Kd	42	1.0			
SYFSFFSLVI	10	Kd	145	1.0			
SYFSFFSLVII	11	Kd	27	1.0			
FSFFSLVI	8	Db	309	1.0			
FSFFSLVII	9	Db	197	1.4			
FSFFSLVIII	10	Db	256	1.0			
FSFFSLVIIIL	11	Kb	137	1.0			
SFFSLVIIIL	10	Kb	555	1.4			
FSLVIIIL	8	Db	178	1.4			
FSLVIIILGII	11	Db	397	1.4	89257164	Competence-related protein	
RIFVFSYT	8	Kb	228	1.0			
RIFVFSYTFM	10	Kb	704	1.0			
RIFVFSYTFML	11	Kb	559	1.0			
IFVFSYTFM	9	Db	621	1.0			
IFVFSYTFML	10	Kb	630	1.0			
FVFSYTFM	8	Kb	65	1.0			
FVFSYTFML	9	Kb	172	1.0			
FSYTFMLY	8	Kb	68	1.0			
FSYTFMLYAFI	11	Db	35	1.0			
SYTFMLYAFI	10	Kd	87	1.0			
YTFMLYAFI	9	Kb	471	1.0			
FMLYAFIAGTI	11	Db	237	1.0			
MLYAFIAGTI	10	Kb	642	1.0			
LYAFIAGTI	9	Kd	45	1.0			
LYAFIAGTII	10	Kd	63	1.0			
YAFIAGTIIAI	11	Db	971	1.0			
AFIAGTII	8	Kd	795	1.0			
ATASFPQKYL	10	Kb	469	1.0	89257191	hypothetical protein	
ASFPQKYLQI	10	Kb	606	1.0			
ASFPQKYLQII	11	Kb	937	1.0			
QKYLQIIYI	9	Kb	745	1.0			
QKYLQIIYIL	10	Kb	316	1.0			L
QKYLQIIYILM	11	Kb	136	1.0			
KYLQIIYI	8	Kd	30	1.0			
KYLQIIYIL	9	Kd	155	1.0			
KYLQIIYILM	10	Kb	788	1.0			M
LQIIYILM	8	Kb	419	1.0			M
LQIIYILMM	9	Kb	314	1.0			
IIYILMMFI	9	Kb	564	1.0			
IIYILMMFII	10	Kb	532	1.0			
IYILMMFI	8	Kd	34	1.0			
IYILMMFII	9	Kd	72	1.0			
IYILMMFIIAI	11	Kd	57	1.0			
YILMMFII	8	Db	850	1.0			
YILMMFIIAI	10	Kb	718	1.0			
ILMMFIIAI	9	Kb	279	1.0			
ILMMFIIAITM	11	Kb	113	1.0			
LMMFIIAITM	10	Kb	111	1.0			
MMFIIAITM	9	Kb	92	1.0			
MMFIIAITMI	10	Kb	795	1.0			
MFIIAITMI	9	Kd	747	1.0			