

		1	25	50
hmm191281	Irgb5.1	-----MGQTSSSTPPPKEDPDLTSSFGTNLQNFMKMT-----		KILS 36
hmm128592	Irgb5.2	-----MGQTSSSTPPPKEDPDLTSSFGTNLQNFMKMT-----		KILS 36
hmm189613	Irgb9	-----MGQTSSSTLPPKDDPDIASFSGTNLQNFMKMT-----		KILS 36
hmm190725	Irgb2	-----MGQTSSSTSPPKEDPPLT-----	FQVKT	KVLS 27
hmm129148	Irgb7Pseudo	-----	TFQMKT	KILS 10
hmm192949	Irgb6	-----MAWASSFDAFFKFNFKRES-----		KIIS 22
hmm129148		QHPLLYQKQPQTSSGR - SFSVTLWLMGNFDAFFKFNFKRES-----		KIIS 43
hmm191559		QHPPLHTATCQPSSSRPSRLTAQLLVFSFENFKNFKKES-----		KILS 44
hmm128592		QHPPLHTATCQPSSSRPSPLMAQLLVFSFENFKNFKKES-----		KILS 44
hmm190169	Irgb8	QHPPLHTATCQPSSSRPSPLMAQLLVISFENFKNFKKES-----		KILS 44
hmm191003	Irgb1	QHPPLNTATCQTSTGRTSQITAAQLLEFNFKNFKNFKKES-----		KILS 44
<u>hmm175574</u>	<u>Irgb10</u>	-----MGQ - -SSSKPDAKAHMASSLTFEKFKNFKMES-----		KIIS 34
hmm229405	Irga6	-----MGQLFS -SPKSDENDDLPSSTGYFKFKNTGR-----		KIIS 35
hmm150036	Irga1	-----MGQLFS -LKN -KCQFLVSSVAEYFKFKKIV-----		IIL 34
hmm228849	Irga2	-----MGQLFS -SRRS -EDQLSSSFI EYLKECEKGI-----		NIIP 34
hmm151148	Irga7	-----MDQLLSDTSKNEEDLVSSFNAYFKNIKTE-----		KIIS 36
hmm150592	Irga4	-----MGQLLSDTSKTEDNDLVSSFNAYFKNIKTE-----		KIIS 35
hmm150314	Irga3	-----MGQLFSHI PKDEDKGNLESSTFEYFRNYKQET-----		KIIS 36
hmm151704	Irga8	-----MGQLFSNMPKDEDKGILESSTFEYFRNYKQET-----		KIIS 36
hmm150870	Irga5	-----MGQLFSGTSKSE - -ALCSSFTEYQFKFVKN-----		KIIS 33
hmm191837	Irgd	-----MDQFISAF LKGASENSFQQLAKEFLPOYSALIS - -	KAGGMLS	40
hmm186086	Irgc	-----	MATSR LPAVPEIT - -	ILMA 18
hmm175852	Irgm2	-----MPT - -SRVAPLLDNMEEAVESPEVKFEYFSDAVFI PKDGNL	TLS	42
<u>hmm264951</u>	<u>Igtp/Irgm3</u>	MDLVTKLPQNIWKTFTLFINMANYLKR LISPWSKSMTAGESLYSSQNSSS		50
hmm189057	Irgm1	---MKPSHSSCEAAPLLPNMAETHYAPLSSAFPVTS - -	YQTGSRL	42

		51	75	100
hmm191281	Irgb5.1	QELIAFIESSLEDGNLQETVSAISSALGGIEKAPLNIAVMG <b>ETGAGKSS</b> L		86
hmm128592	Irgb5.2	QELIAFIESSLEDGNLQETVSAISSALGGIEKAPLNIAVMG <b>ETGAGKSS</b> L		86
hmm189613	Irgb9	QELIAFIESSLEDGNLQETVSAISSALGGIEKAPLNIAVMG <b>ETGAGKSS</b> L		86
hmm190725	Irgb2	QELIASIESSLEDGNLQETVSAISSALGGIEKAPLNIAVMG <b>ETGAGKSS</b> L		77
hmm129148	Irgb7Pseudo	QELITFIELYLEDDGNL - ETVSAISSALGDIEKVPLNIAVMG <b>ETGAGKSS</b> L		59
hmm192949	Irgb6	EYDITLIMTYIEENKLOKAVSVIEKVLRDIESAPLHIAV <b>TGETGAGKSTF</b>		72
hmm129148		EYDITLIMTYIEENKLOKAVSVIEKVLRDIESAPLHIAV <b>TGETGAGKSTF</b>		93
hmm191559		EETITLIESHLEDKNLQALSEISHALSNIDKAPLNIAV <b>TGETGTGKSSF</b>		94
hmm128592		EETITLIESHLEDKNLQALSEISHALSNIDKAPLNIAV <b>TGETGTGKSSF</b>		94
hmm190169	Irgb8	EETITLIESHLEDKNLQALSEISHALSNIDKAPLNIAV <b>TGETGTGKSSF</b>		94
hmm191003	Irgb1	EETITLIESHLENKLNKALKEALTVISHALRNIDKAPLNIAV <b>TGETGTGKSSF</b>		94
<u>hmm175574</u>	<u>Irgb10</u>	KETIDSIQSCIQEGDIQKVISIINAALTDIEKAPLNIAV <b>TGETGAGKSTF</b>		84
hmm229405	Irga6	QEILNLIELMRMKNIGLQTNLSAISDALKEIDSSVLNVA <b>VGTGSGKSSF</b>		85
hmm150036	Irga1	QEVTTSLIELDMKKENFQANSAICDALKEIDSSVLNVA <b>VGTGSGKSSF</b>		84
hmm228849	Irga2	HEIITSIEINMKKGNIQEVNSTVRDMLREIDNTPLNVA <b>LGTGSGKSSF</b>		84
hmm151148	Irga7	QETIDLIELHLNKNIGHANSILREALKNIDNAPINIAV <b>TGESGVGKSSF</b>		86
hmm150592	Irga4	QETIDLILKLYLNKNIGHANSILSDALRNIDNAPINIAV <b>TGESGAGKSSL</b>		85
hmm150314	Irga3	EETTRSIELCLKRGDFQRANSVSDALKNIDNTPINIAV <b>TGESGAGKSSL</b>		86
hmm151704	Irga8	EETTRSIELCLKKGDIQRANSVSDALKNIDNAPINIAV <b>TGESGAGKSSL</b>		86
hmm150870	Irga5	QIESTLIELYLTLGDVQANNAIYALR - LARTPONVALI <b>GESGRGKYSF</b>		82
hmm191837	Irgd	PETLTLGHKALQEGNLQKVIQIQKASAEANAILEVA <b>VIQSGSTGKSSF</b>		90
hmm186086	Irgc	KEELEALRTAFESGDIPOAASRLRELLANSETTRLEV <b>GVGTGESGAGKSSL</b>		68
hmm175852	Irgm2	PVVIKRIETAVKGEVVKVVISVKEI IQNSRNKIKIAV <b>TGDSGNMGSSF</b>		92
<u>hmm264951</u>	<u>Igtp/Irgm3</u>	GEVIEDIGKAVTEGNLQKVIQVKEIQKSRVYRKIAV <b>TGDSGNMGSSF</b>		100
hmm189057	Irgm1	PEVSRSTERALREGKLELVYGIKETVATLSQIPVSI <b>FVTGDSGNMGSSF</b>		92

**GXXXXGM/KS**

		101	125	150
hmm191281	Irgb5.1	INALQGVGDDEEGAAASTGVVH <b>TTERT</b> PTY - TKFPSVTLWDL <b>PGIGST</b>		135
hmm128592	Irgb5.2	INALQGVGDDEEGAAASTGVVH <b>TTERT</b> PTY - TKFPSVTLWDL <b>PGIGST</b>		135
hmm189613	Irgb9	INALQGVGDDEEGAAASTGVVH <b>TTERT</b> PTY - TKFPSVTLWDL <b>PGIGST</b>		135
hmm190725	Irgb2	INALQGVGDDEEGAAASTGVVH <b>TTERT</b> PTY - TKFPSVTLWDL <b>PSIGST</b>		126
hmm129148	Irgb7Pseudo	INALQGTGADEGGVTPAVGVV <b>TTIEK</b> SYYP - TKFPSAILWDL <b>PAIGST</b>		108
hmm192949	Irgb6	INTLRGVGHEEKGAAP - TGA <b>IETT</b> MKRT <b>TPYPH</b> - PKLPNVTI <b>WDLPGIGT</b>		120
hmm129148		INTLRGVGHEEKGAAP - TGA <b>IETT</b> MKRT <b>TPYPH</b> - PKLPNVTI <b>WDLPGIGT</b>		141
hmm191559		INTLRGVRDEEEGAAP - TGV <b>VETT</b> MKRT <b>TPYPH</b> - PKLPNVTI <b>WDLPGIGST</b>		142
hmm128592		INTLRGVRDEEEGAAP - TGV <b>VETT</b> MKRT <b>TPYPH</b> - PKLPNVTI <b>WDLPGIGST</b>		142
hmm190169	Irgb8	INTLRGVRDEEEGAAP - TGV <b>VETT</b> MKRT <b>TPYPH</b> - PKLPNVTI <b>WDLPGIGST</b>		142
hmm191003	Irgb1	INALRGISSEEKDAAP - TGV <b>IETT</b> MKRT <b>TPYPH</b> - PKLPNVTI <b>WDLPGIGST</b>		142
<u>hmm175574</u>	<u>Irgb10</u>	INALRGIGHEE - SESAESGAV <b>TTDR</b> KKYTH - PKFPNVTI <b>WDLPGVGT</b>		132
hmm229405	Irga6	INTLRGIGNEEEGAAP - TGV <b>VETT</b> MERHPYKH - PNI <b>PNVF</b> WDL <b>PGIGST</b>		133
hmm150036	Irga1	INTLRGIGHEEEGAAP - TGV <b>V</b> EATMERHPYKH - PN <b>MNVF</b> WDL <b>PGIGST</b>		132
hmm228849	Irga2	INTLRGIGHEEEGAAP - TGV <b>T</b> DKKERHPYEH - PK <b>MNVF</b> WDL <b>PGTGSE</b>		132
hmm151148	Irga7	INALIGTGPEEEGAAP - VGV <b>IETT</b> MKRN <b>FYKH</b> - PK <b>IETL</b> TWDL <b>PGIGTQ</b>		134
hmm150592	Irga4	INALIGIGPEEEGAAP - VGV <b>IETT</b> MKRT <b>SYKH</b> - PK <b>IETL</b> TWDL <b>PGIGTQ</b>		133
hmm150314	Irga3	INALREVKAEEESAAE - VGV <b>TETT</b> MKV <b>SYKH</b> - PK <b>VKNL</b> TWDL <b>PGIGTM</b>		134
hmm151704	Irga8	INALREIKAEESAAE - VGV <b>TETT</b> MKV <b>SYKH</b> - PK <b>VKNL</b> TWDL <b>PGIGTQ</b>		134
hmm150870	Irga5	INXLQGVGHEEENAVT - VGV <b>VETT</b> MNRT <b>TPYRN</b> - PNI <b>PNVI</b> WDL <b>PGIGST</b>		130
hmm191837	Irgd	INALRGLGHEADESAD - VGT <b>VETT</b> MCKT <b>TPYQH</b> - PK <b>YPKVI</b> F <b>WDLPGTGTP</b>		138
hmm186086	Irgc	INALRGLGAEDEGAAL - TGV <b>VETT</b> MQ <b>PSYPH</b> - PQ <b>FPDVT</b> WDL <b>PLGAGSP</b>		116
hmm175852	Irgm2	INALRLIGHEEKDAP - TGV <b>VETT</b> QK <b>PTCYFS</b> - SH <b>FPV</b> ELWDL <b>PGLGAT</b>		140
<u>hmm264951</u>	<u>Igtp/Irgm3</u>	INALRFIGHEEEDAP - TGV <b>VRTT</b> K <b>KPAC</b> YSSDS <b>SHFP</b> V <b>ELWDL</b> P <b>GLGAT</b>		149

hmm189057	Irgm1	INALRVIGHDEDAAP-TGVVVRTKTRTEYSS-SHFPNVVLLDPLGLGAT	140
		<b>DXGX</b>	
		151   175   200	
hmm191281	Irgb5.1	AFQPHDYLLKKIEFEEDYDFIIIVSSGRFKHNDDELAKAIVQMNRSFYFVRT	185
hmm128592	Irgb5.2	AFQPHDYLLKKIEFEEDYDFIIIVSSGRFKHNDDELAKAIVQMNRSFYFVRT	185
hmm189613	Irgb9	AFQPHDYLLKKIEFEEDYDFIIIVSSGRFKHNDDELAKAIVQMNRSFYFVRT	185
hmm190725	Irgb2	AFQPHDYLLKKIEFEEDYDFIIIVSARIKQSDIELAKAIVQMNRGLYFVRT	176
hmm129148	Irgb7Pseudo	HFQPHDYLLKKIKFEEDYDFIIIVSAGRIKHSDELAKAIVQMNRGLYFNRT	157
hmm192949	Irgb6	NFTPQNYLTEMKFGEYDFIIISATRFKENDAQQLAKAIAQGMNMFYFVRT	170
hmm129148	Irgb6	NFTPQNYLTEMKFGEYDFIIISATRFKENDAQQLAKAIAQGMNMFYFVRT	191
hmm191559	Irgb6	TFPPQNYLTEMKFGEYDFIIISATCFKEIDAHLAKTIEKMNTKFFYFVRT	192
hmm128592	Irgb6	TFPPQNYLTEMKFGEYDFIIISATRFKEIDAHLAKTIEKMNTKFFYFVRT	192
hmm190169	Irgb8	NFQPQNYLTEMKFGEYDFIIISATRFKEIDAHLAKTAKMNTKFFYFVRT	192
hmm191003	Irgb1	NFPQNYLTEMKFGEYDFIIISATRFKEIDAHLAKTAKMNIKFFYFVRT	192
hmm175574	Irgb10	NFKPEEYLLKMKFQEQYDFFLIISSARFQNEAQLAEAIKMKKKFFYFVRT	182
hmm229405	Irga6	NFPNPTYLEKMKFYEYDFIIISATRFKKNDDIAKAIKSMKKEFFYFVRT	183
hmm150036	Irga1	KFPKPTYLEKMKFYEYDFIIISATCFKKNDDIDLAKAISMMKKEFFYFVRT	182
hmm228849	Irga2	DFQPKTYLEKMKFYEYDFIIISATRFKKNDDIDLAKAIGIMKKEFFYFVRT	182
hmm151148	Irga7	KFPKPTYLEEVKFKFYEYDFIIIVSSTRFTKHELDLAKAIGIMKKNYFVRT	184
hmm150592	Irga4	KFPKPTYLEEVKFKFYEYDFIIISATRFKHELDLAKAIGIMKKNYFVRT	183
hmm150314	Irga3	KFQPKDYLEKVFVKFYDFIIIVSSSRFTKLELDLAKATRIMKKNYFVRT	184
hmm151704	Irga8	KFPKPTYLETEVFKFYDFIIIVSSTRFTNHEIELAKAIRMKKNYFVRT	184
hmm150870	Irga5	NFPKHYLLKMKQIYSYDLIIIVASEQFSLNHVKLAITMQRMRKFFYVVT	180
hmm191837	Irgd	NFHADAYLDQVGFANDYDFIIISSSRFSLNDALLAQKIKDAGKFFYFVRT	188
hmm186086	Irgc	GCSADKYLKQVDFGRYDFLLVSPRRCGAVESRLASEIRLQGGKFFYFVRT	166
hmm175852	Irgm2	AQSVESYLEEMQISTFDLIIIVASEQFSLNHVKLAITMQRMRKFFYVVT	190
hmm264951	Iqtp/Irgm3	AQSVESYLEEMQISTFDLIIIVASEQFSLNHVKLAITMQRMRKFFYVVT	199
hmm189057	Irgm1	AQTVEDYVEEMKFSTCDLFIIVASEQFSLNHVKLSKI IQSMGRKFFYVVT	190

hmm191281	Irgb5.1	HTDLDLMVVKRSNPRFRNRENTLKQIRHTISSMLKEVTHQEPVFLVSNF	235
hmm128592	Irgb5.2	HTDLDLMVVKRSNPRFRNRENTLKQIRHTISSMLKEVTHQEPVFLVSNF	235
hmm189613	Irgb9	HTDLDLMVVKLSDRPKFNKNILEQIRNSINILKEVTHQEPVFLVSNF	235
hmm190725	Irgb2	KTDSDLNEKKNPMPFRNRENTLKSIRICLSSNLKERFQEPVFLVSNF	226
hmm129148	Irgb7Pseudo	KTDIDLKNEKLYNPMFRNRENTLKSQICISSNLKECFHQEPVFLVSNF	207
hmm192949	Irgb6	KIDSDDLNEQKPKPKSFNKEEVLKNIKDYCSNHLQESLDSEPPVFLVSNV	220
hmm129148	Irgb6	KIDSDDLNEQKPKPKSFNKEEVLKNIKDYCSNHLQESLDSEPPVFLVSNV	241
hmm191559	Irgb6	KIDQDVSNQSRKPRSFNRDSVLKRIIDDCSGHLQKALSSQPPVFLVSNF	242
hmm128592	Irgb6	KIDQDVSNQSRKPRSFNRDSVLKRIIDDCSGHLQKALSSQPPVFLVSNF	242
hmm190169	Irgb8	KIDQDVSNQSRKPKPSFNDRDSVLKRIIDDCSGHLQKALSSQPPVFLVSNF	242
hmm191003	Irgb1	KIDQDISNEQSRKPKPSFNDRDSVLKRIIDDCSGHLQKALSSQPPVFLVSNF	242
hmm175574	Irgb10	KIDSLWNEKAKKPPSYNREKILEVIRSDCVKNLQNAANASTRVFLVSSF	232
hmm229405	Irga6	KVDSDI TNEADGKQPQTFDKEKVLQDIRLNCVNTFRENGIAEPIIFLLSNK	233
hmm150036	Irga1	KVDTDLRNEEDFKPQTFDKEKVLQDIRLNCVNTFRENGIAEPIIFLLSNK	232
hmm228849	Irga2	QVDSDLRNEEDFKPQTFDKEKVLQDIRLNCVNTFRENGIAEPIIFLLSNK	232
hmm151148	Irga7	KVDIDLENERKSKPRFTDREKTLKQIQSYAMNTFSDNNMAEPIIFLMVSNY	234
hmm150592	Irga4	KVDIDVENERKSKPRFTEREKALKQIQSYSVKIFNDNNMAEPIIFLLSNK	233
hmm150314	Irga3	KVDIDLNEKSKPRFNRENTLNQVIRNSYLDTFRESKIDEPQVFLISNH	234
hmm151704	Irga8	KVDFDYNEEKSKPRFNRENTLNQIRNSYLDTFRESKIDEPQVFLISNH	234
hmm150870	Irga5	KEDIDIEN--KQCKDSFGRTEFLQHIS-HHVNVFKKSNLYVPLLILLISNR	227
hmm191837	Irgd	KVDSDLVNEQKAKPIFMPKKEKVLQDIRDYCVNTLIKTGTVEPTFLISNL	238
hmm186086	Irgc	KVDEDLAAATRSQRPSGFSEAAVLEQDIRDHCTERLRVAGVNDPRIFLVSNL	216
hmm175852	Irgm2	KLDRDLSTSTFPEPQ-----LLQSIQRNIRDSLQKEKVKHEPMLFVLSVF	234
hmm264951	Iqtp/Irgm3	KLDRDLSTSTFPEPQ-----LLQSIQRNIRENLQQAQVRDPLFLISCF	243
hmm189057	Irgm1	KLDRDLSTSVLSEVR-----LLQNIQENIRENLQKEKVKYPPVFLVSSL	234

hmm191281	Irgb5.1	DVSDFDFFPKLESTLLSQLPAYKHHMFMLTLPITVDSTIDRKRDLMLKQKVV	285
hmm128592	Irgb5.2	DVSDFDFFPKLESTLLSQLPAYKHHMFMLTLPITVDSTIDRKRDLMLKQKVV	285
hmm189613	Irgb9	DVSDFDFFPNLESTLLSQLPAYKHHMFMLTLPITVDSTIDRKRDLMLKQKIW	285
hmm190725	Irgb2	DVSDFDFFPKLESTLLSQLPAYKHQIFMSTLQVVINAIIVDRKRDLMLKQKIW	276
hmm129148	Irgb7Pseudo	DVSDFDFFPKLESTLLSQLPAYKHQIFMSTLQVVINAIIVDKRDLMLKQKIV	257
hmm192949	Irgb6	DISKYDFPKLETLLQDLPAHKRHVFSLSLQSLTEATINYKRDSLQKQVF	270
hmm129148	Irgb6	DISKYDFPKLETLLQDLPAHKRHVFSLSLQSLTEATINYKRDSLQKQVF	291
hmm191559	Irgb6	DVSDFDFFPKLETLLRELPAHKRHLFMMSLHSVTETAIARKRDFLRQKIW	292
hmm128592	Irgb6	DVSDFDFFPKLETLLRELPSHKRHLFMMSLHSVTETAIARKRDFLRQKIW	292
hmm190169	Irgb8	DVSDFDFFPKLENTLLRELPAHKRHLFMMSLHSVTETAIARKRDFLRQKIW	292
hmm191003	Irgb1	DVSDFDFFPKLETLLRELPAHKRHLFMMSLHSVTETTARKRDFLRQKIW	292
hmm175574	Irgb10	EVAQDFPFSLESTLLEELPAHKRHIFVQCLPTITEPAIDRRRDVLKQTIW	282
hmm229405	Irga6	NVCHYDFPVLMDKLIIDLPYKRRHFMVSLPNIITDSVIEKQRQFLKQRIW	283
hmm150036	Irga1	NVCHYDFPVLMDKLIIDLPVFKRQNFMSLNPNIITDSVIEKRRNFRLRKTIW	282
hmm228849	Irga2	NVCHYDFPVLMDKLIIDLPVFKRQNFMSLNPNIITDSVIEKRRNFRLRKTIW	282
hmm151148	Irga7	DLSKYDFPVLMDTLIKDLHAEKRRHFMVSLPGITEAADRKHATQQPIW	284
hmm150592	Irga4	DLSYDFPVLMDTLIKDLHAEKRRHFMVSLPNFTDQAITDRKHATQQPIW	283
hmm150314	Irga3	DLSYDFPVLMDTLKDLPAEKRQNFLLSLPNIITEAIIQKKYNSTKQIWIW	284
hmm151704	Irga8	DLSYDFPVLMDTLKDLPAEKRQNFLLSLPNIITEAIIQKKYNSTKQIWIW	284
hmm150870	Irga5	NVSDYDFPILKTRLLKRNKMSITHRTIMFSFPTITEAATERKHNSIQQPIW	277
hmm191837	Irgd	DLGAFDFPKLEETLLKELPGHKRHMFAALLPNIIDSAIELKHHFLREKIW	288

hmm186086	Irgc	SPTRYDFPMLVTTWEHDLPAHRRHAGLLSLPDISLEALQKKKMDLQEQVL	266
hmm175852	Irgm2	KPSEHDFPKLRETLQKDLPLVIRKYHGLVETLYQVCEKTVNERVSIKKS-I	283
<u>hmm264951</u>	<u>Iqtp/Irgm3</u>	SPSFHDFPELRNLTQKDI FVIRYRDLPEIISQVCDKCI SNKAFSLKEDQM	293
hmm189057	Irgm1	DPLLDFPKLRDRTLHKDLSNIRCCPEPLKTYLGYEKIVGDKVAVWQQR-I	283

		301	325	350	
hmm191281	Irgb5.1	KESTMPRAWATIPSLGLTQK-DMEMLQOTLNDYRS	SFGLDEASLENI	AED	334
hmm128592	Irgb5.2	KESTMPRAWATIPSLGLTQK-DMEMLQOTLNDYRS	SFGLDEASLENI	AED	334
hmm189613	Irgb9	KESIMPRAWATIPSRGLTQK-DMEMLQOTLNDYRS	SFGLDEASLENI	AED	334
hmm190725	Irgb2	KESIMPRAWATIPSRGLTQK-DMEMLQOTLNDYRS	SFGLNEASLENI	AED	325
hmm129148	Irgb7Pseudo	KESTTPRAWATIPSLGLTQK-DMEMLQOTLNDYRS	SFGLDEASLENI	AED	306
hmm192949	Irgb6	LEAMKAGALATIPLGGMISD-ILENLDETFNLYRSY	FGLDDASLENI	AQD	319
hmm129148		LEAMKAGALATIPLGGMISD-ILENLDETFNLYRSY	FGLDDASLENI	AQD	340
hmm191559		LEALKAGVWATIPPLGGLVRN-KMQKLEETLTLYRSY	FGLDEASLENI	AKD	341
hmm128592		LEALKAGLWATIPPLGGLVRN-KMQKLEETLTLYRSY	FGLDEASLENI	AKD	341
hmm190169	Irgb8	LEALKAGVWTTIPPLGGLVRD-KMQKLEETLTLYRSY	FGLDEASLENI	AKD	341
hmm191003	Irgb1	LEALKAGLWATIPPLGGLVRD-KMQKLEETLTLYRSY	FGLDEASLENI	AKD	341
<u>hmm175574</u>	<u>Irgb10</u>	LEALKAGASATIPMMSFND-DIEEFKILSHYRAC	FGLDDESLEN	MAKE	331
hmm229405	Irga6	LEGFAADLVNIPSLTFLDSDLETLLKKSMMKFYRTV	FGVDDETS	LQRLARD	333
hmm150036	Irga1	LQGFAGVLLX-IPSLTFLDSDSHRTLKXSMKFYPI	VFGVDES	PLS-LARA	330
hmm228849	Irga2	LEGFADGLLS-----FFLESDELTEKSMKFYRTV	FGVDDAS	LQRLARA	326
hmm151148	Irga7	LEAFNVGLLANFPVVTGILGDNDVTKLEKSLNYYRK	IFGVDDSE	LELVAKD	334
hmm150592	Irga4	LEAFKIGVVAIFPVGLNLRNKMKKIKNTLNYQKIF	FGVDDSE	LELVAKD	333
hmm150314	Irga3	LQATKDGLLATVPVVGILKDLDKERLKRRLDYRDL	FGVDDSE	LMFMAKD	334
hmm151704	Irga8	LQAMKDGLLATVPVVGILKDLDKERLKRSLDYRDL	FGIDDES	LMFMAKD	334
hmm150870	Irga5	LEAFKIGVLMITPEVVGILKDSVDKRLKMSLNYYR	VLFRIDDA	TEVFMAKD	327
hmm191837	Irgd	LEALKSAAVSFIPFMTFFKGFDPPEQEQLKDYRSY	FGLDDQS	IKEIAEK	338
hmm186086	Irgc	KTALVSGVIQALPVPGLAAAYDDALLRSLRGYHRS	FGLDDDSL	AKLAEQ	316
hmm175852	Irgm2	DEDNLHTEFLG-----ISDPGNAIBIRKAFQKTF	GLDDISLH	LVALE	324
<u>hmm264951</u>	<u>Iqtp/Irgm3</u>	LMKDLEAAVSS-----EDDTANLERGLQTYQKIF	FGVDDGSL	QQVARS	335
hmm189057	Irgm1	ANESLKNLSL-----VRDDNMGECLKVYRLIF	FGVDDSE	VQQVAQS	324

		351	375	400	
hmm191281	Irgb5.1	LNV-TLEELKANI KSPHLLSDEPDTSL-----	TEKLLKYIGNP	---	371
hmm128592	Irgb5.2	LNV-TLEELKANI KSPHLLSDEPDTSL-----	TEKLLKYIGNP	---	371
hmm189613	Irgb9	LNV-TLEELKANI KSPHLLSDEPDTSL-----	TEKLLKYIGNP	---	371
hmm190725	Irgb2	LNV-TLEELKANI KSPHLSDEPDTSL-----	TEKLLKYIGNP	---	362
hmm129148	Irgb7Pseudo	LNV-TLEELKANI KSPHLLSDEPDTSL-----	TEKLLKYIGNP	---	343
hmm192949	Irgb6	LNM-SVDDFKVHLRFPHLFAHNDES	-----	EDLKFYIKHISV	359
hmm129148		LNM-SVDDFKVHLRFPHLFAHNDES	-----	EDLKFYIKHISV	380
hmm191559		FNV-SVNEIKAHLRSLQLLTKNNDMSF	-----	KEKLLKYI EYISCV	381
hmm128592		FNV-SVNEIKAHLRSLQLLTKNNDMSF	-----	KEKLLKYI EYISCV	381
hmm190169	Irgb8	FNV-SVNEIKAHLRSLQLLTKNNDMSF	-----	KEKLLKYI EYISCV	381
hmm191003	Irgb1	FNV-SVNEIKAHLRSLQLLTKNNDMSF	-----	KEKLLKYI EYISCV	381
<u>hmm175574</u>	<u>Irgb10</u>	FNV-SVEEESTIKSPHLLSSEPNESV	-----	ADKLVYIMEKISV	371
hmm229405	Irga6	WEI-EVDQVEAMIKSPA VF KP TDEETI	-----	QERLSRYIQEFCLA	373
hmm150036	Irga1	WKI-EVDLKEAMKKS PAVFKPTDEESI	-----	QERLSRYIQKFCLA	370
hmm228849	Irga2	WEIQDQVVRAMIKSPA VF KP TDEETI	-----	QERLSRYNQEFCLA	367
hmm151148	Irga7	FQV-PVEQVKEIMKSPHLLKTNGKETL	-----	GEKLLKYLEKFPETA	374
hmm150592	Irga4	FQV-PVEQVKTKMTPHLLKKYREETF	-----	RN----DFKLLVST	369
hmm150314	Irga3	AQV-PVELLIKNLKSPLLKCC-KEETL	-----	ELLNCKVEKFASA	373
hmm151704	Irga8	AQV-PVELLKI KLSPYLLEL-EEETL	-----	GGLILNCVEKFASA	373
hmm150870	Irga5	SQV-PINIIYIYSK	-----	-----	340
hmm191837	Irgd	LGA-PLADIKGELKCLDFWSLVKDNSI	-----	IAQATSAAEAFCAV	378
hmm186086	Irgc	VGK-QAGDLRSVIRSPLANEVSPETVLRLYSQSSD	GAMRVARAF	FERGIPV	365
hmm175852	Irgm2	MKN-KHFNT--SMESQ--ETQRQY--	-----	DDWVLARLYRTGRVGSIG	363
<u>hmm264951</u>	<u>Iqtp/Irgm3</u>	TGR-LEMGRS-ALQFQ--DLIKMRR	-----	LELMMGFVAVNKFLRLLESS	376
hmm189057	Irgm1	MGT-VVMEYKDNMKSQNFYTLRREDWK	---	LRLMTCIAVNAFFRLLR--	367

		401	425	450	
hmm191281	Irgb5.1	-----YFSKVFLHQLNYFIDTVASDVKIILSKEEL	FTEQVSSFNSKA		412
hmm128592	Irgb5.2	-----YFSKVFLHQLNYFIDTVASDVKIILSKEEL	FTEQVSSFNSKA		412
hmm189613	Irgb9	-----YFSKVFLHQLNYFIDTVASDVKIILSKEEL	FTEQVSSFNSKA		412
hmm190725	Irgb2	-----YFSKVFLHQLNYFIDTVASDVKIILSKEEL	FTEQVSSFNSKA		403
hmm129148	Irgb7Pseudo	-----YFSKVFLHQLNYFIDTVASDVKIILSKEEL	FTEQVSSFNSKA		376
hmm192949	Irgb6	TGGPVAAVTTYRMAYYLQNLFLDTAANDAIALLNSK	ALFEKKVGPYI	SEP	409
hmm129148		TGGPVAAVTTYRMAYYLQNLFLDTAANDAIALLNSK	ALFEKKVGPYI	SEP	430
hmm191559		TGGPLASGLYFRKTYWQSLFIDTVASDAKSLLNKEE	FLSEKPGSCLSDL		431
hmm128592		TGGPLASGLYFRKTYWQSLFIDTVASDAKSLLNKEE	FLSEKPGSCLSDL		431
hmm190169	Irgb8	TGGPLASGLYFRKTYWQSLFIDTVASDAKSLLNKEE	FLSEKPGSCLSDL		431
hmm191003	Irgb1	TGGPLASGLYFRKTYWQSLFIDTVASDAKSLLNKEE	FLSEKPGSCLSDL		431
<u>hmm175574</u>	<u>Irgb10</u>	TGGFVATGLYFRKSYMQNYFLDTVTEDAKVL	LKKVFLQDSVDSE---		417
hmm229405	Irga6	NGYLLPKNSFLKEIFLYLKYFLDMVTEDAKTLKEI	ICLRN-----		413
hmm150036	Irga1	NGYLLTKNYLREMFYLKFLDMVTE-ARTLLKEICFN	-----		409
hmm228849	Irga2	NGYLLPKN-HCREILYLKLYFLDMVTEDAKTL	LKEICLRNLLPGTGGTCL		416
hmm151148	Irga7	TGGLLAVGLYFRKTYLQLHFLDTVTEDAKVL	LRWNTSKN-----		414
hmm150592	Irga4	FGRLLAVGLYFPAIYYLQLHILDTVTEDAKVL	LRWTSKPRNSTYP-----		416
hmm150314	Irga3	NGLLAAGLYFRKTYLQFHFLDTVAEDAKVLL	KAAQTHFAHSF-----		417

hmm151704	Irga8	NGGLLAAGLYFRKTYYLQFHFLDTVAEDAKVLLKEAYSKK-----	413
hmm150870	Irga5	-----YMEKAFYLQLFLDTVAEDAKVLLRETCSRN-----	371
hmm191837	Irgd	KGGPESSAFQALKVYRRTQFLNIIVDDAKHLRLKIETVNVA-----	420
hmm186086	Irgc	FGTLVAGGISFGTVYTMLQGLNEMAEDAQRVRIKALEEDEPQGGEVSL	415
hmm175852	Irgm2	FDYMKCCFTSHHSRCKQQKDI LDETAAKAKEVLLKILRLSIPHP-----	407
<u>hmm264951</u>	<u>Iqtp/Irgm3</u>	WWYGLWNVVTRYFRHRQRHKLVIIEIVAENTKTSLRKALKDSVLPPEIH---	423
hmm189057	Irgm1	----FLPCVCCCLRRLRHKRMLFLVAQDTKNI L EKILRDSIFPPQI----	409

		451	475	500	
hmm191281	Irgb5.1	SLYREESVGKVFVPGPGSTFLFHFIEMFQSDSDELCHVHVLLLLTSGGLS			462
hmm128592	Irgb5.2	SLYREESVGKVFVPGPGSTFLFHFIEMFQSDSDELCHVHVLLLLTSGGLS			462
hmm189613	Irgb9	SPYWEESVGKVFVPGPGSTFLFHFFEMFQSDSDKLCHVHVLLLLTSWGLS			462
hmm190725	Irgb2	SPYREESVGKVFVPSPGSTFLFHFFEMFQSDSDKLCHVHVLLLLTSWGLS			453
hmm129148	Irgb7Pseudo	-----			
hmm192949	Irgb6	PEYWEA-----			415
hmm129148		PEYWEA-----			436
hmm191559		PEYWETGMEL-----			441
hmm128592		PEYWETGMEL-----			441
hmm190169	Irgb8	PEYWETGMEL-----			441
hmm191003	Irgb1	PEYWETGMEL-----			441
<u>hmm175574</u>	<u>Irgb10</u>	-----			
hmm229405	Irga6	-----			
hmm150036	Irga1	-----			
hmm228849	Irga2	-----			
hmm151148	Irga7	-----			
hmm150592	Irga4	-----			
hmm150314	Irga3	-----			
hmm151704	Irga8	-----			
hmm150870	Irga5	-----			
hmm191837	Irgd	-----			
hmm186086	Irgc	AAGDNLVEKRSTGEGTSEEAPLSTRKLG L L L K Y I L D S W K R R D L S E D K - -			463
hmm175852	Irgm2	-----			
<u>hmm264951</u>	<u>Iqtp/Irgm3</u>	-----			
hmm189057	Irgm1	-----			

		501	
hmm191281	Irgb5.1	SETVT	467
hmm128592	Irgb5.2	SETVT	467
hmm189613	Irgb9	GETVT	467
hmm190725	Irgb2	GETVT	458
hmm129148	Irgb7Pseudo	----	
hmm192949	Irgb6	----	
hmm129148		----	
hmm191559		----	
hmm128592		----	
hmm190169	Irgb8	----	
hmm191003	Irgb1	----	
<u>hmm175574</u>	<u>Irgb10</u>	----	
hmm229405	Irga6	----	
hmm150036	Irga1	----	
hmm228849	Irga2	----	
hmm151148	Irga7	----	
hmm150592	Irga4	----	
hmm150314	Irga3	----	
hmm151704	Irga8	----	
hmm150870	Irga5	----	
hmm191837	Irgd	----	
hmm186086	Irgc	----	
hmm175852	Irgm2	----	
<u>hmm264951</u>	<u>Iqtp/Irgm3</u>	----	
hmm189057	Irgm1	----	