

022303233.1	GIMAP4	chromosome 9	.....MAS.....	GEERNIILLGKLCMGKSQSGNG	25
022303234.1	GIMAP4	chromosome 9	.....MAS.....	GEERNIILLGKLCMGKSQSGNG	25
022310523.1	GIMAP4	chromosome 9	.....MAY.....	NEERNIILLGKLGAGKSHSGNG	25
022332185.1	GIMAP4	chromosome 4	ISCQEMAHAKPGNLTKADTSGAQT...IFSEK.....	IEERRIILLGKLGAGKSHCGNG	60
022332187.1	GIMAP4	chromosome 4	.....MAHAKPGNLTKADTSGAQT...IFSEK.....	IEERRIILLGKLGAGKSHCGNG	47
022332188.1	GIMAP4	chromosome 4	.....MAHAKPGNLTKADTSGAQT...IFSEK.....	IEERRIILLGKLGAGKSHCGNG	47
022332605.1	GIMAP4	chromosome 4	.....MAHAKPGNLTKADTSGAQT...IFSEK.....	IEERRIILLGKLGAGKSHCGNG	47
022332606.1	GIMAP4	chromosome 4	.....MAHAKPGNLTKADTSGAQT...IFSEK.....	IEERRIILLGKLGAGKSHCGNG	47
022332607.1	GIMAP4	chromosome 4	.....MAHAKPGNLTKADTSGAQT...IFSEK.....	IEERRIILLGKLGAGKSHCGNG	47
022332190.1	GIMAP4	chromosome 4	.....MNRAQTAVTQAEGATSAGEN.....	VEERRIILLGKLGAGKSHSGNG	42
022332191.1	GIMAP4	chromosome 4	.....MNRAQTAVTQAEGATSAGEN.....	VEERRIILLGKLGAGKSHSGNG	42
022332600.1	GIMAP4	chromosome 4	MSIQEVSHSQRSAMNRAQTAVTQAEGATSAGEN.....	VEERRIILLGKLGAGKSQSGNG	55
022332601.1	GIMAP4	chromosome 4	MSIQEVSHSQRSAMNRAQTAVTQAEGATSAGEN.....	VEERRIILLGKLGAGKSQSGNG	55
022332602.1	GIMAP4	chromosome 4	MSIQEVSHSQRSAMNRAQTAVTQAEGATSAGEN.....	VEERRIILLGKLGAGKSQSGNG	55
022287294.1	GIMAP4	chromosome 6	.....MAASSELDF.....	NNEVRILLIGKTGTGKSTTGNT	31
022287295.1	GIMAP4	chromosome 6	.....MAASSELDF.....	NNEVRILLIGKTGTGKSTTGNT	31
022292452.1	GIMAP4	chromosome 7	VLITFPNVMSKMHCHDNKGRDKDGYCTKNSI.....	DSSNNERRILLIGKTGVGKSTTGNT	69
022292453.1	GIMAP4	chromosome 7	VLITFPNVMSKMHCHDNKGRDKDGYCTKNSK.....	DSSNNERRILLIGKTGVGKSTTGNT	69
022291927.1	GIMAP4	chromosome 7	VLIASPNVMSKRDYHDDN.....	DFNNNERRILLIGKTGVGKSTTGNT	56
022295273.1	GIMAP4	chromosome 7	VLIVFPLISSPMDCQDGNDEKEEGYCSTKSI.....	AINSNERRILLIGKTGVGKSTTGNT	73
022295274.1	GIMAP4	chromosome 7	VLIVFPLISSPMDCQDGNDEKEEGYCSTKSI.....	AINSNERRILLIGKTGVGKSTTGNT	73
022295275.1	GIMAP4	chromosome 7	VLIVFPVISSPMDCQDGNDEEEEGYCSTKSI.....	AINNDEVRIILLIGKTGVGKSTTGNT	73
022295276.1	GIMAP4	chromosome 7	VLIVFPVISSPMDCQDGNDEEEEGYCSTKSI.....	AINNDEVRIILLIGKTGVGKSTTGNT	73
022295277.1	GIMAP4	chromosome 7	VLIVFPVISSPMDCQDGNDEEEEGYCSTKSI.....	AINNDEVRIILLIGKTGVGKSTTGNT	73
022295278.1	GIMAP4	chromosome 7	VLIVFPVISSPMDCQDGNDEEEEGYCSTKSI.....	AINNDEVRIILLIGKTGVGKSTTGNT	73
022295279.1	GIMAP4	chromosome 7	VLIVFPVISSPMDCQDGNDEEEEGYCSTKSI.....	AINNDEVRIILLIGKTGVGKSTTGNT	73
022295280.1	GIMAP4	chromosome 7	VLIVFPLISSPMDCQDGNDEKEEGYCSTKSI.....	AINNDEVRIILLIGKTGVGKSTTGNT	73
022295286.1	GIMAP4	chromosome 7	VLIVFPLISSPMDCQYGNDEEKEEYCSTNPI.....	AINNDEVRIILLIGKTGVGKSTTGNT	66
022295287.1	GIMAP4	chromosome 7	VLIVFPLISSPMDCQYGNDEEKEEYCSTNPI.....	AINNDEVRIILLIGKTGVGKSTTGNT	66
022295281.1	GIMAP4	chromosome 7	LLFAFALHNVTSCQCHSEKDKNEDGYCTKN.....	VNNNEVRILLIGKTGVGKSTTGNT	63
022295282.1	GIMAP4	chromosome 7	LVFAFALHNVTSCQCHSEKDKNEDGYCTKN.....	VDNNEVRILLIGKTGVGKSTTGNT	63
022294703.1	GIMAP4	chromosome 7	LFIAFPNTASKRVCYNVKD.....	MDHNERHLLIIGKTGTGKSSAGNA	53
022294704.1	GIMAP4	chromosome 7	LFIAFPNTASKRVCYNVKD.....	MDHNERHLLIIGKTGTGKSSAGNA	53
022294705.1	GIMAP4	chromosome 7	LFIAFPNTASKRVCYNVKD.....	MDHNERHLLIIGKTGTGKSSAGNA	53
022294708.1	GIMAP4	chromosome 7	LFIAFPNTASKRVCYNVKD.....	MDHNERHLLIIGKTGTGKSSAGNA	53
022295072.1	LOW QUALITY GIMAP4	chromosome 7	.....ISD.....	SDSNERRILLIGKTEAGKSCGTGNT	27
022287296.1	GIMAP7	chromosome 6	.....MAASSELDY.....	DNKVQIVLIGKTQVGKSTIGNT	31
022301435.1	GIMAP7	chromosome 8	TYLNHHLNTSCVVCGFALSSNDTLLDDQINSNRDPFKEESNFSLDHQASG..DDDFMKDEVRIVLVGKTGFGKSATGNS	91	
022301436.1	GIMAP7	chromosome 8	TYLNHHLNTSCVVCGFALSSNDTLLDDQINSNRDPFKEESNFSLDHQASGGKNDDFMKDEVRIVLVGKTGFGKSATGNS	93	
022302475.1	GIMAP7	chromosome 8	TYLNKPDNTSCNICGFARSSNDEVSDDKLETETTVMKKD.....YYREPSPEPNDDCLKNELRIILVVGKTGSGKSATGNS	97	
022302477.1	GIMAP7	chromosome 8	.....DDCLKNELRIILVVGKTGSGKSATGNS	48	
022299725.1	GIMAP4	chromosome 8	TYLNDPIVTSNLCGHDKTKETNKAGGMSSTGTG.....GTDGSGKDVEVRIVLVGRTGAGKSATGNT	125	
022304158.1	GIMAP7	chromosome 9	.....KELKKISPEKSSYSTASQF.....YDBEIRIVLLGKTGCGKSATGNS	140	
022304950.1	GIMAP7	chromosome 9	.....YEIYKR.....KLTLRIIVLLGKTGSGKSATGNS	86	
022299405.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	166	
022299409.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	164	
022299416.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	153	
022299418.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	152	
022299408.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	164	
022299407.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	165	
022299410.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	163	
022299411.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	155	
022299412.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	155	
022299413.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	155	
022299414.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	155	
022299415.1	GIMAP7	chromosome 8	DFEKISTTQRKEACPSSHFEKTENRFSFDKYT.....YKBEIRLVLLGKTGSGKSATGNT	154	
022291053.1	GIMAP4	chromosome 7	NNEIIDGRMEISSPKDVMGREKQEMWDFSEVCP.....AEREVRVLVLLGKTGSGKSASGNS	129	
022297635.1	GIMAP4	chromosome 8	.....SSKRRPREEIQN.....MBEIRLVLLGKTGSGKSATGNT	38	
022335699.1	GIMAP4	chromosome 5	.....SSKSVSLEKSK.....KBEIRLVLLGKTGSGKSATGNT	37	
022310198.1	GIMAP4	chromosome 9	SSHFVPGREAKSQSMESEKTSADDSCSMPDSRS.....IPQEVRIIVLIGKTGCGKSTTGNS	135	
022296314.1	GIMAP4	chromosome 8	.....MIP.....IDBEIRIVLLGKTGSGKSATGNT	26	



022303233.1	GIMAP4	chromosome 9	ILG.LEGHFKTKKGWSSSTKVCEYGYAKRNCCTYRVFDTPGINSFEE.....MKE.IDVDAEETIRCLFCTS	89
022303234.1	GIMAP4	chromosome 9	ILG.LEGHFKTKKGWSSSTKVCEYGYAKRNCCTYRVFDTPGINSFEE.....MKE.IDVDAEETIRCLFCTS	89
022310523.1	GIMAP4	chromosome 9	ILG.IKDHFEESRKGWSSSTTKCKYGCADRMNRKYRVFDTPGINSIND.....MNETIDVDTEIRCLFCTS	90
022332185.1	GIMAP4	chromosome 4	ILG.KQFFESRRCWSSVTRQCKYGSATRNKFLYRIYDTPGVNSPEE.....LATSVDVETDIRRCLYCTS	124
022332187.1	GIMAP4	chromosome 4	ILG.KQFFESRRCWSSVTRQCKYGSATRNKFLYRIYDTPGVNSPEE.....LATSVDVETDIRRCLYCTS	111
022332188.1	GIMAP4	chromosome 4	ILG.KQFFESRRCWSSVTRQCKYGSATRNKFLYRIYDTPGVNSPEE.....LATSVDVETDIRRCLYCTS	111
022332605.1	GIMAP4	chromosome 4	ILG.KQFFESRRCWSSVTRQCKYGSATRNKFLYRIYDTPGINSPEE.....LATIVDVETDIRRCLYCTS	111
022332606.1	GIMAP4	chromosome 4	ILG.KQFFESRRCWSSVTRQCKYGSATRNKFLYRIYDTPGINSPEE.....LATIVDVETDIRRCLYCTS	111
022332607.1	GIMAP4	chromosome 4	ILG.KQFFESRRCWSSVTRQCKYGSATRNKFLYRIYDTPGINSPEE.....LATIVDVETDIRRCLYCTS	111
022332190.1	GIMAP4	chromosome 4	IMGKKDYFKSKQCWSSVTRQCEYGVSIIRNCYKYRVFDTPGVNSPKR.....LEKEVDVDTEIRRCLFCTS	107
022332191.1	GIMAP4	chromosome 4	IMGKKDYFKSKQCWSSVTRQCEYGVSIIRNCYKYRVFDTPGVNSPKR.....LEKEVDVDTEIRRCLFCTS	107
022332600.1	GIMAP4	chromosome 4	ILGEKDYFKSKQCWSSVTRECEYGVSIIRNCYKYRVFDTPGVNSPKR.....LEKEVDVDTEIRRCLFCTS	120
022332601.1	GIMAP4	chromosome 4	ILGEKDYFKSKQCWSSVTRECEYGVSIIRNCYKYRVFDTPGVNSPKR.....LEKEVDVDTEIRRCLFCTS	120
022332602.1	GIMAP4	chromosome 4	ILGEKDYFKSKQCWSSVTRECEYGVSIIRNCYKYRVFDTPGVNSPKR.....LEKEVDVDTEIRRCLFCTS	120
022287294.1	GIMAP4	chromosome 6	ILG.RKAFATMLSATPVTSTKTEYQMERRFGKKLVVVDTPGLCDP.....SQSDTKIITEISKWYTLMS	93
022287295.1	GIMAP4	chromosome 6	ILG.RKAFATMLSATPVTSTKTEYQMERRFGKKLVVVDTPGLCDP.....SQSDTKIITEISKWYTLMS	93
022292452.1	GIMAP4	chromosome 7	ILG.FDAFHTKTSATSVTTQTQFSETERFGRRLLVVVDTPCLFDT.....TKTKEELKLEISRWYALVS	131
022292453.1	GIMAP4	chromosome 7	ILG.FDAFDSKTSATSVTTQTQFSETERFGRRLLVVVDTPCLFDT.....TKTKEELKLEISRWYSILS	131
022291927.1	GIMAP4	chromosome 7	ILG.FPAFKTDTSATSVTTQTQYNEADRFCKRLVVVDTPCYLDT.....NMTKEIEMEISRWYSLVS	118
022295273.1	GIMAP4	chromosome 7	ILG.FRAFGTKVSASSVTTQTQYNETERFGKRLVVVDTPCLFDT.....NRTEQDILVEMSKWYSLVS	135
022295274.1	GIMAP4	chromosome 7	ILG.FRAFGTKVSASSVTTQTQYNETERFGKRLVVVDTPCLFDT.....NRTEQDILVEMSKWYSLVS	135
022295275.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTTQTQYNETDRFGKRLVVVDTPCLFDT.....NRTEQEILVEMSKWYSLVS	135
022295276.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTTQTQYNETDRFGKRLVVVDTPCLFDT.....NRTEQEILVEMSKWYSLVS	135
022295277.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTTQTQYNETDRFGKRLVVVDTPCLFDT.....NRTEQEILVEMSKWYSLVS	135
022295278.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTTQTQYNETDRFGKRLVVVDTPCLFDT.....NRTEQEILVEMSKWYSLVS	135
022295279.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTTQTQYNETDRFGKRLVVVDTPCLFDT.....NRTEQEILVEMSKWYSLVS	135
022295280.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTTQTQYNETDRFGKRLVVVDTPCLFDT.....NRTEQEILVEMSKWYSLVS	135
022295286.1	GIMAP4	chromosome 7	ILG.FHAFDTKVSASSVTTKTQYNETERFGKRLVVVDTPCLFDT.....NRTEQEILVEISKWYSLVS	128
022295287.1	GIMAP4	chromosome 7	ILG.FHAFDTKVSASSVTTKTQYNETERFGKRLVVVDTPCLFDT.....NRTEQEILVEISKWYSLVS	128
022295281.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTTKTQCNETERFGKRLVVVDTPCLFDT.....IRTEQETLVEISKWYSLVS	125
022295282.1	GIMAP4	chromosome 7	ILG.FRAFDTKVSASSVTAQTQYNETDRFGKRLVVVDTPCLFDT.....IRTEQETLVEISKWYSLVS	125
022294703.1	GIMAP4	chromosome 7	ILG.FPAFNTDLSAQSVTKFSQISKTERFGKKLVVVDTPCGYSDG.....NMTDTEILBEISRWHLFAS	115
022294704.1	GIMAP4	chromosome 7	ILG.FPAFNTDLSAQSVTKFSQISKTERFGKKLVVVDTPCGYSDG.....NMTDTEILBEISRWHLFAS	115
022294705.1	GIMAP4	chromosome 7	ILG.FPAFNTDLSAQSVTKFSQISKTERFGKKLVVVDTPCGYSDG.....NMTDTEILBEISRWHLFAS	115
022294708.1	GIMAP4	chromosome 7	ILG.FPAFNTDLSAQSVTKFSQISKTERFGKKLVVVDTPCGYSDG.....NMTDTEILBEISRWHLFAS	115
022295072.1	LOW QUALITY GIMAP4	chromosome 7	LLD.FKAFASGISAKSVTERTQFNEAKRFGKKLVVVDTPCYLDT.....NRSEKEILTEIFRWYSLVS	89
022287296.1	GIMAP7	chromosome 6	ILG.FHAFDTKLSAASVTSKTECKENDRFGKQLVVVDTPCGFFHT.....ELTEEELRNEYCKWSEHIS	93
022301435.1	GIMAP7	chromosome 8	ILG.KAAFTSDVSNSSITTKHCKMGTA SRFGQDLLVVDTPCLFDTVILSPL.....GMSNDEITTEILKCVGISA	159
022301436.1	GIMAP7	chromosome 8	ILG.KAAFTSDVSNSSITTKHCKMGTA SRFGQDLLVVDTPCLFDT.....GMSNDEITTEILKCVGISA	155
022302475.1	GIMAP7	chromosome 8	ILG.KAAFTSEVSNCSITTKHCKRGTA SRFGHDLVVDTPCLFDT.....GMSNDDITTEILKCVGISA	159
022302477.1	GIMAP7	chromosome 8	ILG.KAAFTSEVSNCSITTKHCKRGTA SRFGHDLVVDTPCLFDT.....GMSNDDITTEILKCVGISA	110
022299725.1	GIMAP4	chromosome 8	ILG.KKVFHSEVSNSSITTKNCKRGSSDRFGHRVLVVDTPCLFDT.....GMTNDAITTEILKCVGLSA	187
022304158.1	GIMAP7	chromosome 9	IFG.KRRFISHSSASSVTRTCCFKTEFRFNKKIIVDTPCGFDTK.....QSNKIIQDEISKCIITLSS	202
022304950.1	GIMAP7	chromosome 9	ILG.SAQFKSSASGHPLTSTCSFQSADRFGEIVVVDTPCLFDTK.....KTTKKVLNEISKICGLSS	148
022299405.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	228
022299409.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	226
022299416.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	215
022299418.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	214
022299408.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	226
022299407.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	227
022299410.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	225
022299411.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	217
022299412.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	217
022299413.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	217
022299414.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	217
022299415.1	GIMAP7	chromosome 8	ILG.KYNFESTFSGSSVTRVCSKKFSIRFGYKLLVVDTPCIFDIT.....QSNEDIQBEIKKCVLLTS	216
022291053.1	GIMAP4	chromosome 7	ILG.LQAFKSNLSGISITRTCSQKFANRFNRKIIVVDTPCIFDTE.....ETNEKIQQEIHKCIGITS	191
022297635.1	GIMAP4	chromosome 8	ILG.IKKFKSELSGKSETKMCQWSAIRFNKKVLVVDTPGVFDT.....QTNEFTQBEISKICIGISS	100
022335699.1	GIMAP4	chromosome 5	ILG.FTKFSSKLSAISSETSVCSLSIVCRFNKKIIIVDTPCICDIDK.....KKTNDVIQDEISKICIMTS	101
022310198.1	GIMAP4	chromosome 9	ILK.TINFETSVLAGSCTQICTLREGVIFDKKVVLDTPGIFDTK.....ESNDEIQQEIILRCIQLSS	197
022296314.1	GIMAP4	chromosome 8	ILG.LKBENSRISGSSITTKCSNSAVRFNRKIIIVDTPCIFDIT.....QTNEFVOMETIKCIGITS	88

022303233.1	GIMAP4	chromosome 9	PGFHITIVLVVSADERVTTKDDVKMVEKLDLDFLG	.HKGFGYMLAVT...KMEDDGYEMLDDMIK.....	KNKAI	153
022303234.1	GIMAP4	chromosome 9	PGFHITIVLVVSADERVTTKDDVKMVEKLDLDFLG	.HKGFGYMLAVT...KMEDDGYEMLDDMIK.....	KNKAI	153
022310523.1	GIMAP4	chromosome 9	PGFHAIVLVMSADERVTTPDDVKMVEETLDYVLG	.KKGFGYMLAVT...KDDDDYKTLDDMIK.....	DAEAI	154
022332185.1	GIMAP4	chromosome 4	PGFHAIVLVLSAAERITKEDMAMLLKKLDGLLG	.ESAYKYMILMIT...KLEDD.ETVLHEMMT.....	EAPQI	187
022332187.1	GIMAP4	chromosome 4	PGFHAIVLVLSAAERITKEDMAMLLKKLDGLLG	.ESAYKYMILMIT...KLEDD.ETVLHEMMT.....	EAPQI	174
022332188.1	GIMAP4	chromosome 4	PGFHAIVLVLSAAERITKEDMAMLLKKLDGLLG	.ESAYKYMILMIT...KLEDD.ETVLHEMMT.....	EAPQI	174
022332605.1	GIMAP4	chromosome 4	PGFHAIVLVLSAAERITKEDMAMLLKKLDGLLG	.ESAYKYMILMIT...KLEDD.ETVLHEMMT.....	EAPQI	174
022332606.1	GIMAP4	chromosome 4	PGFHAIVLVLSAAERITKEDMAMLLKKLDGLLG	.ESAYKYMILMIT...KLEDD.ETVLHEMMT.....	EAPQI	174
022332607.1	GIMAP4	chromosome 4	PGFHAIVLVLSAAERITKEDMAMLLKKLDGLLG	.ESAYKYMILMIT...KLEDD.ETVLHEMMT.....	EAPQI	174
022332190.1	GIMAP4	chromosome 4	PGFHALVLVLSAAERLSQEDIDMLDKLNKLLG	.BKAYKYMILVVT...KLEND.ERILTDMIA.....	SAPEV	170
022332191.1	GIMAP4	chromosome 4	PGFHALVLVLSAAERLSQEDIDMLDKLNKLLG	.BKAYKYMILVVT...KLEND.ERILTDMIA.....	SAPEV	170
022332600.1	GIMAP4	chromosome 4	PGFHALVLVLSAAERLSKEDIEMLDKLDKLLG	.BKAYKYMILVVT...KLEND.ESILTDMIA.....	SSPEV	183
022332601.1	GIMAP4	chromosome 4	PGFHALVLVLSAAERLSKEDIEMLDKLDKLLG	.BKAYKYMILVVT...KLEND.ESILTDMIA.....	SSPEV	183
022332602.1	GIMAP4	chromosome 4	PGFHALVLVLSAAERLSKEDIEMLDKLDKLLG	.BKAYKYMILVVT...KLEND.ESILTDMIA.....	SSPEV	183
022287294.1	GIMAP4	chromosome 6	PGIHAAILLVVK.AGRFTDEDQHTVDLFMKVFG	.DDLKKYLVVVFADKEQLECNMTVTSYIRTMN.....	KSSNL	161
022287295.1	GIMAP4	chromosome 6	PGIHAAILLVVK.AGRFTDEDQHTVDLFMKVFG	.DDLKKYLVVVFADKEQLECNMTVTSYIRTMN.....	KSSNL	161
022292452.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMAVFG	.BELKKYLVVVFADKEQLECNMTVTSYIRTMN.....	KSTKF	199
022292453.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMAVFG	.BELKKYLVVVFADKEQLECNMTVTSYIRTMN.....	KSTIF	199
022291927.1	GIMAP4	chromosome 7	PGIHAAILLVVR.VGRFTEEBEQKTVDYFMTVFG	.BEVKNYLVVVFADKEQLECNMTVTSYIRTMN.....	KSSNL	184
022295273.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295274.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295275.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295276.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295277.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295278.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295279.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295280.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	203
022295286.1	GIMAP4	chromosome 7	PGVHAAILLVVQ.VGRFTEEBEQKTVDFFMNVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	196
022295287.1	GIMAP4	chromosome 7	PGVHAAILLVVQ.VGRFTEEBEQKTVDFFMNVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	196
022295281.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	193
022295282.1	GIMAP4	chromosome 7	PGIHAAILLVVQ.VGRFTEEBEQKTVDFFMKVFG	.EDLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	193
022294703.1	GIMAP4	chromosome 7	PGVHAAILFMVE.IGRFTKEDEKNMDFMKVFG	.BQLKNHLIVVVFTHKDRLEDENITVDEFVQTMN.....	ASTNL	183
022294704.1	GIMAP4	chromosome 7	PGVHAAILFMVE.IGRFTKEDEKNMDFMKVFG	.BQLKNHLIVVVFTHKDRLEDENITVDEFVQTMN.....	ASTNL	183
022294705.1	GIMAP4	chromosome 7	PGVHAAILFMVE.IGRFTKEDEKNMDFMKVFG	.BQLKNHLIVVVFTHKDRLEDENITVDEFVQTMN.....	ASTNL	183
022294708.1	GIMAP4	chromosome 7	PGVHAAILFMVE.IGRFTKEDEKNMDFMKVFG	.BQLKNHLIVVVFTHKDRLEDENITVDEFVQTMN.....	ASTNL	183
022295072.1	LOW QUALITY GIMAP4	chromosome 7	PGIHAAILVVE.IGRFTEDDQKTVDGFMKVFG	.EDLKNYLVVVFTHKDRLEDENITVDEFVQTMN.....	NSSNL	157
022287296.1	GIMAP7	chromosome 6	PGIQAIVLVIQ.AERFTEEBEQKTVDGFMKVFG	.DNLKDYLVVVFTHKDRLEDENITVDEFVQTMN.....	KSSNL	161
022301435.1	GIMAP7	chromosome 8	PGPHAAILLIIG.IGRFTKEBKDTVELLQRAFG	.PDMLSYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SS..L	225
022301436.1	GIMAP7	chromosome 8	PGPHAAILLIIG.IGRFTKEBKDTVELLQRAFG	.PDMLSYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SS..L	221
022302475.1	GIMAP7	chromosome 8	PGPHAAILLVIG.IGRFTKEBKDTVELLQRAFG	.PDMLSYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SS..L	225
022302477.1	GIMAP7	chromosome 8	PGPHAAILLVIG.IGRFTKEBKDTVELLQRAFG	.PDMLSYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SS..L	176
022299725.1	GIMAP4	chromosome 8	PGPHAAILLVIG.IGRFTKEBKDTVELLQRAFG	.PDMLSYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SS..L	253
022304158.1	GIMAP7	chromosome 9	PGPHAFILVLSISNRFTBEEQQTIEQFVNQFG	.NDVYKYFIVLFTRKDELDRENQSLDEYIKS.....	SPVEL	269
022304950.1	GIMAP7	chromosome 9	PGPHAFILVLSISNRFTBEEQQTIEQFVNQFG	.NDVYKYFIVLFTRKDELDRENQSLDEYIKS.....	SPVEL	215
022299405.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	295
022299409.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	293
022299416.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	282
022299418.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	281
022299408.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	293
022299407.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	294
022299410.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	292
022299411.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	284
022299412.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	284
022299413.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	284
022299414.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	284
022299415.1	GIMAP7	chromosome 8	PGPHAFILIRLRLARFTDEEBERSVQHFDNFG	.QNAYKYFIVLFTRKDELDRENQSLDEYIKS.....	TPIEL	283
022291053.1	GIMAP4	chromosome 7	PGPHAFIMVISIANRFTBEEQRTVDHFRHFG	.ENIYKYFIVLFTRKDELDRENQSLDEYIKS.....	SPPNL	258
022297635.1	GIMAP4	chromosome 8	PGPHAFIIVINIANRFTBEDMRTVKHFEKYFG	.BEFYRYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SPNDL	167
022335699.1	GIMAP4	chromosome 5	PGPHAFILVISITSRFTDEDKDTVKHFEKYFG	.BELYRYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SPAEL	168
022310198.1	GIMAP4	chromosome 9	PGPHAFIFVLNIATRFTTEERKSQIHFYKFG	.EDIYRYLVVVFTRKDDLDRGSKSVNQILTNAP.....	SDENL	264
022296314.1	GIMAP4	chromosome 8	PGPHAFILVISIAAREFTBEEESTVNHEVRYFG	.EKIYKYFIVLFTRKDELDRENQSLDEYIKS.....	SPPSL	156

022303233.1	GIMAP4	chromosome 9	NLDLTKCQSRVRVILGNKADGTPEKCIQRFDEEL	EKL	VQKNR...	MI	CEEYFRHKY	YEK	ASK.....	ILEKDKEDYMKK	223		
022303234.1	GIMAP4	chromosome 9	NLDLTKCQSRVRVILGNKADGTPEKCIQRFDEEL	EKL	VQKNR...	MI	CEEYFRHKY	YEK	ASK.....	ILEKDKEDYMKK	223		
022310523.1	GIMAP4	chromosome 9	KKLDIKCQSRVRVILGDNKREIPEICIKRFDEEL	EKL	VQKNR...	L	NCEEYFRHKY	YEK	ASK.....	ILEKDKEDYLKK	224		
022332185.1	GIMAP4	chromosome 4	VELNVKCRSRRVIFGNDATKIPDACVQKFDKML	TN	LKENA...	NQ	CSEYFRHKY	YDE	ATK.....	ILEKDKSDYLKE	257		
022332187.1	GIMAP4	chromosome 4	VELNVKCRSRRVIFGNDATKIPDACVQKFDKML	TN	LKENA...	NQ	CSEYFRHKY	YDE	ATK.....	ILEKDKSDYLKE	244		
022332188.1	GIMAP4	chromosome 4	VELNVKCRSRRVIFGNDATKIPDACVQKFDKML	TN	LKENA...	NQ	CSEYFRHKY	YDE	ATK.....	ILEKDKSDYLKE	244		
022332605.1	GIMAP4	chromosome 4	VELNVKCRSRRVIFGNDATKIPDACVQKFDKML	TN	LKENA...	NQ	CSEYFRHKY	YDE	ATK.....	ILEKDKSDYLKE	244		
022332606.1	GIMAP4	chromosome 4	VELNVKCRSRRVIFGNDATKIPDACVQKFDKML	TN	LKENA...	NQ	CSEYFRHKY	YDE	ATK.....	ILEKDKSDYLKE	244		
022332607.1	GIMAP4	chromosome 4	VELNVKCRSRRVIFGNDATKIPDACVQKFDKML	TN	LKENA...	NQ	CSEYFRHKY	YDE	ATK.....	ILEKDKSDYLKE	244		
022332190.1	GIMAP4	chromosome 4	SALNVKCEERRVIFGDDKKNIPECLEKFDEVL	SEL	IKENT...	KRH	STFRHKY	YDK	ATC.....	ILELDKKDYMKK	240		
022332191.1	GIMAP4	chromosome 4	SALNVKCEERRVIFGDDKKNIPECLEKFDEVL	SEL	IKENT...	KRH	STFRHKY	YDK	ATC.....	ILELDKKDYMKK	240		
022332600.1	GIMAP4	chromosome 4	SALNVKCEERRVIFGDDKKNIPECLEKFDEVL	SEL	IKENT...	KRH	STFRHKY	YDK	ATC.....	ILELDKKDYMKK	253		
022332601.1	GIMAP4	chromosome 4	SALNVKCEERRVIFGDDKKNIPECLEKFDEVL	SEL	IKENT...	KRH	STFRHKY	YDK	ATC.....	ILELDKKDYMKK	253		
022332602.1	GIMAP4	chromosome 4	SALNVKCEERRVIFGDDKKNIPECLEKFDEVL	SEL	IKENT...	KRH	STFRHKY	YDK	ATC.....	ILELDKKDYMKK	253		
022287294.1	GIMAP4	chromosome 6	YKLTIEEINRRYVAVGVR....	DENEKEILEIL	SMIDAIGG...	PH	GDKYYSNEYFKEI	TEK	.....	CMEEMEKK....	222	
022287295.1	GIMAP4	chromosome 6	YKLTIEEINRRYVAVGVR....	DENEKEILEIL	SMIDAIGG...	PH	GDKYYSNEYFKEI	TEK	.....	CMEEMEKK....	222	
022292452.1	GIMAP4	chromosome 7	RKLIDTNN.RYIAMGYQG..	NVQDRDDEV	KQILSMVEEISG...	RD	CNNYYSNKVFQNV	VEK	.....	LLEEDDRRQSEE	266	
022292453.1	GIMAP4	chromosome 7	RKLVDNTN.GYIAMGYQG..	NFKDRDDEV	KQILSMVEEISG...	KD	CNNYYSNKIFQNV	VEK	.....	LLQEEDRKQREK	266	
022291927.1	GIMAP4	chromosome 7	RKLVDANN.RYAMGYTG..	NVKDRDDEV	KQILSMVEEISG...	KD	CNNYYSNKIFQVE	VEK	.....	ILKEERBRKTEE	251	
022295273.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KMEERTMEV	KQILSMTEEIAG...	ED	GKNYYSNEVFRRV	QVE	.....	DLEETBRKRRIK	271	
022295274.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KMEERTMEV	KQILSMTEEIAG...	ED	GKNYYSNEVFRRV	QVE	.....	DLEETBRKRRIK	271	
022295275.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KIEERTMEV	KQILSMIEEIA...	KD	GKNYYSNEVFQRV	QVK	.....	VMEENERK....	267	
022295276.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KIEERTMEV	KQILSMIEEIA...	KD	GKNYYSNEVFQRV	QVK	.....	VMEENERK....	267	
022295277.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KIEERTMEV	KQILSMIEEIA...	KD	GKNYYSNEVFQRV	QVK	.....	VMEENERK....	267	
022295278.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KIEERTMEV	KQILSMIEEIA...	KD	GKNYYSNEVFQRV	QVK	.....	VMEENERK....	267	
022295279.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KIEERTMEV	KQILSMIEEIA...	KD	GKNYYSNEVFQRV	QVK	.....	VMEENERK....	267	
022295280.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KIEERTMEV	KQILSMIEEIA...	KD	GKNYYSNEVFQRV	QVK	.....	VMEENERK....	267	
022295286.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KMEERTMEV	KQILSIEEIEG...	KD	GKNYYSNEVFQRV	QVE	.....	VMEENERK....	260	
022295287.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KMEERTMEV	KQILSIEEIEG...	KD	GKNYYSNEVFQRV	QVE	.....	VMEENERK....	260	
022295281.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	SMEKRTWEV	KEILSMIEEIA...	KD	WKNYYSNEIFERV	QVK	.....	VMEENERKRKKE	261	
022295282.1	GIMAP4	chromosome 7	RRLIDASKGRYTAIGYKG..	KIEERTMEV	KQILSMIEEIA...	KD	GKNYYSNEIFRVQ	QGG	.....	VMEENERKRKKE	261	
022294703.1	GIMAP4	chromosome 7	RNLIDLCKNRYTAIGDGW..	EGEDRTL	EVNKILSMVEDIAG...	KD	GKNYYSSEYFQYV	KS	.....	VIEENBGKCEVE	251	
022294704.1	GIMAP4	chromosome 7	RNLIDLCKNRYTAIGDGW..	EGEDRTL	EVNKILSMVEDIAG...	KD	GKNYYSSEYFQYV	KS	.....	VIEENBGKCEVE	251	
022294705.1	GIMAP4	chromosome 7	RNLIDLCKNRYTAIGDGW..	EGEDRTL	EVNKILSMVEDIAG...	KD	GKNYYSSEYFQYV	KS	.....	VIEENBGKCEVE	251	
022294708.1	GIMAP4	chromosome 7	RNLIDLCKNRYTAIGDGW..	EGEDRTL	EVNKILSMVEDIAG...	KD	GKNYYSSEYFQYV	KS	.....	VIEENBGKCEVE	251	
022295072.1	LOW QUALITY GIMAP4	chromosome 7	RKLINGCKNRYTAIGCKG..	NKEDRTL	DDKQKILSMVEDIAG...	KD	GKNYYSNEDFQ	.....	.....	SBRKRKEE	217
022287296.1	GIMAP7	chromosome 6	QKLICKSNKRYIALGNTA..	S....	EEEVQNL	LG	MIEEIKE..	VNG	GKYYSNELFKRA	QVE.....	VNSNSIGSR...	222	
022301435.1	GIMAP7	chromosome 8	QDFIASCGNRFFAINNAEE..	NIDTVDK	QVQD	LLRL	LITEMVH...	KN	GKKYSSSIFEQT	ET.....	VIKERERELRPN	294	
022301436.1	GIMAP7	chromosome 8	QDFIASCGNRFFAINNAEE..	NIDTVDK	QVQD	LLRL	LITEMVH...	KN	GKKYSSSIFEQT	ET.....	VIKERERELRPN	290	
022302475.1	GIMAP7	chromosome 8	QDVIASCGNRFFAINNAEE..	NIDNVDK	QVQD	LLRL	LITEMVH...	BN	GKNYSSSIFDQT	ET.....	VIRERERELRQK	294	
022302477.1	GIMAP7	chromosome 8	QDVIASCGNRFFAINNAEE..	NIDNVDK	QVQD	LLRL	LITEMVH...	BN	GKNYSSSIFDQT	ET.....	VIRERERELRQK	245	
022299725.1	GIMAP4	chromosome 8	QNIVNECDDRYFAIDNTGD..	ESENSEQ	QVQEL	LEMI	QAMTR...	RN	GDDYTSPIFDE	TEL.....	VIRQREELKKQ	322	
022304158.1	GIMAP7	chromosome 9	INFTEKCGKRAVAFDNTL..	KDEASER	QVKEL	DLIS	QNVA...	KN	GGRWYTDQMFKE	ABE.....	DIKKMEKK.MK	336	
022304950.1	GIMAP7	chromosome 9	VKFIEKCGARVAFDNTL..	NGKASDD	QVQD	LELICK	NIQ...	NN	GDECYRDP	IFMKA	AEK.....	CIQEMENEK.MS	282
022299405.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	360
022299409.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	358
022299416.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	347
022299418.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	346
022299408.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	358
022299407.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	359
022299410.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	357
022299411.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	349
022299412.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	349
022299413.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	349
022299414.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	349
022299415.1	GIMAP7	chromosome 8	QTVIKKCGGRVIAFDNRC..	TEKEQSK	QVQEL	LNTV	LENVK...	AN	GEBYTNRM	YIB	AEK.....	DMRKREER...	348
022291053.1	GIMAP4	chromosome 7	RLFIKRCGGKVFAIDNTL..	AGNRQDQ	QVGK	LLSE	IFRNLE...	QN	GYYTDEMYQ	BAER	KI	QEIENEMKKRDEEQRIK	333
022297635.1	GIMAP4	chromosome 8	KDLIKKCGDRVFAINNHL..	SGSKQDN	EVNN	LLNL	ISENMV...	KN	MKAYYTND	LYE	KAER.....	EILKEEMKR...	232
022335699.1	GIMAP4	chromosome 5	QSLTKKCEGRVFAINNMI..	KGSKQIN	EVKILL	NLISE	NVA...	NN	FNECYTND	AFKRA	BE.....	EIQKQIQKE...	233
022310198.1	GIMAP4	chromosome 9	KSFTAKCGGGAFAENTL..	EGGKMDE	QVQEL	LN	RSIQNV...	NN	RGECYTND	MYKKA	AEK.....	EINKTESMK...	329
022296314.1	GIMAP4	chromosome 8	QTFVQKCGNRVIAFDNNL..	EGVQDQ	QVQEL	LL	ILENVQ...	BN	GEBYTNRM	YIB	AEK.....	KIOTVEKKVQN	224

022303233.1	GIMAP4	chromosome 9	.....HPDVTSEAALEKVVRELAALGQSPRDEELRALFNPSYC.....	260
022303234.1	GIMAP4	chromosome 9	.....HPDVTSEAALEKVVRELAALGQSPRDEELRALFNPSYC.....	260
022310523.1	GIMAP4	chromosome 9	.....HPDVTSEAAAMETVREIAAVGESDRDEELRALVDRSLC.....	261
022332185.1	GIMAP4	chromosome 4	.....YPDTSESVALEIVRNRATEGLSPRDRELRLSLNDPN.....	292
022332187.1	GIMAP4	chromosome 4	.....YPDTSESVALEIVRNRATEGLSPRDRELRLSLNDPN.....	279
022332188.1	GIMAP4	chromosome 4	.....YPDTSESVALEIVRNRATEGLSPRDRELRLSLNDPN.....	279
022332605.1	GIMAP4	chromosome 4	.....YPDTSESVALEIVRNRATEGLSPRDRELRLSLNDPN.....	279
022332606.1	GIMAP4	chromosome 4	.....YPDTSESVALEIVRNRATEGLSPRDRELRLSLNDPN.....	279
022332607.1	GIMAP4	chromosome 4	.....YPDTSESVALEIVRNRATEGLSPRDRELRLSLNDPN.....	279
022332190.1	GIMAP4	chromosome 4	.....NPGVSHSKAMEIVRNEAAVGRSPRDSELRTIADG.....	274
022332191.1	GIMAP4	chromosome 4	.....NPGVSHSKAMEIVRNEAAVGRSPRDSELRTIADG.....	274
022332600.1	GIMAP4	chromosome 4	.....HPGVSHSEAMEIVRNEAAVGRSPRDSELRTIADG.....	287
022332601.1	GIMAP4	chromosome 4	.....HPGVSHSEAMEIVRNEAAVGRSPRDSELRTIADG.....	287
022332602.1	GIMAP4	chromosome 4	.....HPGVSHSEAMEIVRNEAAVGRSPRDSELRTIADG.....	287
022287294.1	GIMAP4	chromosome 6	.....QMRESRNQIRDYNDVDRDSTRRRRIADE.....	250
022287295.1	GIMAP4	chromosome 6	.....QMRESRNQIRDYNDVDRDSTRRRRIADE.....	250
022292452.1	GIMAP4	chromosome 7	T.....KEKRKRRLYTDEEMNMFVDHARAKTREEEVFN..ENFRL..	303
022292453.1	GIMAP4	chromosome 7	I.....KEEQKGRRYTDEEMNMLYNFPRAKTRKEIF.....	297
022291927.1	GIMAP4	chromosome 7	I.....KKKFKEKRFSDEMIKIVIEARTNIREEVLN..EDFRL..	288
022295273.1	GIMAP4	chromosome 7	I.....EEENREKKYTLSEINALLQSARSES RVHIVN..NNYQ..	307
022295274.1	GIMAP4	chromosome 7	I.....EEENREKKYTLSEINALLQSARSES RVHIVN..NNYQ..	307
022295275.1	GIMAP4	chromosome 7	.....KEKNREKMYTESEVNLLLHSARTQSRVDIVN..NNYN..	302
022295276.1	GIMAP4	chromosome 7	.....KEKNREKMYTESEVNLLLHSARTQSRVDIVN..NNYN..	302
022295277.1	GIMAP4	chromosome 7	.....KEKNREKMYTESEVNLLLHSARTQSRVDIVN..NNYN..	302
022295278.1	GIMAP4	chromosome 7	.....KEKNREKMYTESEVNLLLHSARTQSRVDIVN..NNYN..	302
022295279.1	GIMAP4	chromosome 7	.....KEKNREKMYTESEVNLLLHSARTQSRVDIVN..NNYN..	302
022295280.1	GIMAP4	chromosome 7	.....KEKNREKMYTESEVNLLLHSARTQSRVDIVN..NNYN..	302
022295286.1	GIMAP4	chromosome 7	.....HKKETEEKNREKKI.....	274
022295287.1	GIMAP4	chromosome 7	.....HKKETEEKNREKKI.....	274
022295281.1	GIMAP4	chromosome 7	T.....EVKNREKKYTESSEVNALLQSARS DTRVNIVN..RNTQ..	297
022295282.1	GIMAP4	chromosome 7	V.....EEKKREKMYTESSEVNLLLHSVRTQSRVNIVN..NNYN..	297
022294703.1	GIMAP4	chromosome 7	.....TTKHQREKYTMEDIEDVLDIMKKQTIE.....NDIKN..	283
022294704.1	GIMAP4	chromosome 7	.....TTKHQREKYTMEDIEDVLDIMKKQTIE.....NDIKN..	283
022294705.1	GIMAP4	chromosome 7	.....TTKHQREKYTMEDIEDVLDIMKKQTIE.....NDIKN..	283
022294708.1	GIMAP4	chromosome 7	.....TTKHQREKYTMEDIEDVLDIMKKQTIE.....NDIKN..	283
022295072.1	LOW QUALITY GIMAP4	chromosome 7	.....IMKNQ..SYTKEEETETLLDNIRKQTREEIVKEINQTKS.....	253
022287296.1	GIMAP7	chromosome 6	.....	222
022301435.1	GIMAP7	chromosome 8	.....LKEREDALLEKLKILAFQR...KSMAT.WRS.....	321
022301436.1	GIMAP7	chromosome 8	.....LKEREDALLEKLKILAFQR...KSMAT.WRS.....	317
022302475.1	GIMAP7	chromosome 8	YEEKTNEDVKEMKRIISLEFEDKKSEFKERENALLEKLDRLQLRTQELKSMASNLRS.....	352
022302477.1	GIMAP7	chromosome 8	YEEKTNEDVKEMKRIISLEFEDKKSEFKERENALLEKLDRLQLRTQELKSMASNLRS.....	303
022299725.1	GIMAP4	chromosome 8	YEVESKRRNTRKRRQLSEIYQEKNNLYKQREKDLLEKLEALEKQRFSETDTITRLKQ.....	380
022304158.1	GIMAP7	chromosome 9	E.....TEEKRKEELKAIEEIRIEGKYSRISEIEKTKLMQVQN.....	373
022304950.1	GIMAP7	chromosome 9	E.....MEEVEMRERD..EERKQ.....KIKLAKNAN.....	307
022299405.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	384
022299409.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	382
022299416.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	371
022299418.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	370
022299408.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	382
022299407.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	383
022299410.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	381
022299411.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	373
022299412.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	373
022299413.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	373
022299414.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	373
022299415.1	GIMAP7	chromosome 8	.....LQAAIQQQEKMFKEBYQ.....EELNKMK.....	372
022291053.1	GIMAP4	chromosome 7	E.....MQEIEKRLEKKYKBEKLQ.....QEIDKINS LTFELTEL RKNQAEREYEVKNLMKV.....	384
022297635.1	GIMAP4	chromosome 8	.....KEQIQKELDRKVRLEEE.....KVRRENKG.....	257
022335699.1	GIMAP4	chromosome 5	.....REQIEAAKEKELQKLKE.....EILEKNQQ.....	258
022310198.1	GIMAP4	chromosome 9	.....WQENMKTREREFQIIQE.....KIVEKYQQ.....	354
022296314.1	GIMAP4	chromosome 8	F.....KEKIEFEFKHSEBNDOK VEVQSHLEVINRKNNE.....	261

022303233.1	GIMAP4	chromosome 9	.	260
022303234.1	GIMAP4	chromosome 9	.	260
022310523.1	GIMAP4	chromosome 9	.	261
022332185.1	GIMAP4	chromosome 4	.	292
022332187.1	GIMAP4	chromosome 4	.	279
022332188.1	GIMAP4	chromosome 4	.	279
022332605.1	GIMAP4	chromosome 4	.	279
022332606.1	GIMAP4	chromosome 4	.	279
022332607.1	GIMAP4	chromosome 4	.	279
022332190.1	GIMAP4	chromosome 4	.	274
022332191.1	GIMAP4	chromosome 4	.	274
022332600.1	GIMAP4	chromosome 4	.	287
022332601.1	GIMAP4	chromosome 4	.	287
022332602.1	GIMAP4	chromosome 4	.	287
022287294.1	GIMAP4	chromosome 6	.	250
022287295.1	GIMAP4	chromosome 6	.	250
022292452.1	GIMAP4	chromosome 7	.	303
022292453.1	GIMAP4	chromosome 7	.	297
022291927.1	GIMAP4	chromosome 7	.	288
022295273.1	GIMAP4	chromosome 7	.	307
022295274.1	GIMAP4	chromosome 7	.	307
022295275.1	GIMAP4	chromosome 7	.	302
022295276.1	GIMAP4	chromosome 7	.	302
022295277.1	GIMAP4	chromosome 7	.	302
022295278.1	GIMAP4	chromosome 7	.	302
022295279.1	GIMAP4	chromosome 7	.	302
022295280.1	GIMAP4	chromosome 7	.	302
022295286.1	GIMAP4	chromosome 7	.	274
022295287.1	GIMAP4	chromosome 7	.	274
022295281.1	GIMAP4	chromosome 7	.	297
022295282.1	GIMAP4	chromosome 7	.	297
022294703.1	GIMAP4	chromosome 7	.	283
022294704.1	GIMAP4	chromosome 7	.	283
022294705.1	GIMAP4	chromosome 7	.	283
022294708.1	GIMAP4	chromosome 7	.	283
022295072.1	LOW QUALITY GIMAP4	chromosome 7	.	253
022287296.1	GIMAP7	chromosome 6	.	222
022301435.1	GIMAP7	chromosome 8	.	321
022301436.1	GIMAP7	chromosome 8	.	317
022302475.1	GIMAP7	chromosome 8	.	352
022302477.1	GIMAP7	chromosome 8	.	303
022299725.1	GIMAP4	chromosome 8	.	380
022304158.1	GIMAP7	chromosome 9	.	373
022304950.1	GIMAP7	chromosome 9	.	307
022299405.1	GIMAP7	chromosome 8	.	384
022299409.1	GIMAP7	chromosome 8	.	382
022299416.1	GIMAP7	chromosome 8	.	371
022299418.1	GIMAP7	chromosome 8	.	370
022299408.1	GIMAP7	chromosome 8	.	382
022299407.1	GIMAP7	chromosome 8	.	383
022299410.1	GIMAP7	chromosome 8	.	381
022299411.1	GIMAP7	chromosome 8	.	373
022299412.1	GIMAP7	chromosome 8	.	373
022299413.1	GIMAP7	chromosome 8	.	373
022299414.1	GIMAP7	chromosome 8	.	373
022299415.1	GIMAP7	chromosome 8	.	372
022291053.1	GIMAP4	chromosome 7	V	385
022297635.1	GIMAP4	chromosome 8	.	257
022335699.1	GIMAP4	chromosome 5	.	258
022310198.1	GIMAP4	chromosome 9	.	354
022296314.1	GIMAP4	chromosome 8	.	261

 non conserved
 $\geq 50\%$ conserved