

<i>Hs_Ube2G2</i>		α1		β1		β2		β3
		Q	Q	Q	Q	Q	Q	Q
		TT		TT		TT		TT
<i>Hs_Ube2G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPMNENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Rn_Ube2G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPMNENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Rn_G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPMNENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Md_G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPMNENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Gg_G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPMNENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Xl_G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPINENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Xt_G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPINENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Dr_G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPVNENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Tn_G2</i>	1	MAGTALKRLMAYKQLTLN	PPEG	IVAGPPNENFFEWELIMGP	EDT	CFEFGV	VFP	AILS
<i>Nv_G2</i>	1	MAGFALRLMAYKQLTLN	PPEG	IVAGPVNENFFEWELITGP	EGT	CFEFGV	VFP	AKLV
<i>Dm_G2</i>	1	MAGSALRLMAYKQLTLD	PPEG	IVAGPISDNFFEWELIAGP	EGT	CFEFGV	VFP	ARLV
<i>Dp_G2</i>	1	MAGSALRLMAYKQLTLD	PPEG	IVAGPVSNDFFEWELIAGP	EGT	CFEFGV	VFP	ARLV
<i>Aa_G2</i>	1	MAGSALRLMAYKQLTLN	PPEG	IVAGPVSNDFFEWELITGP	EGT	CFEFGV	VFP	AKLV
<i>Tc_G2</i>	1	MAGSALRLMAYKQLTLN	PPEG	IVAGPINENFFEWELITGP	EGT	CFEFGV	VFP	AKLI
<i>Ce_Ubc14</i>	1	MAGYALKRLMTEYKELTRR	PPEG	IVAAPIDDNFFEWELITGP	EET	CFANV	VFP	ARIT
<i>Cb_G2</i>	1	MAGYALKRLMTEYKELTRR	PPEG	IVAAPIDDNFFEWELITGP	EET	CFANV	VFP	ARIT
<i>Cp_G2</i>	1	MAGSALRLMAYKQLTLN	PIDS	IVAGPISDNFFEWELITGP	EET	CFEFGV	VFP	AKLV
<i>Am_G2</i>	1	MAGSALRLMAYKQLTLN	PPEG	IVAGPINENFFEWELITGP	EGT	CFEFGV	VFP	AKLI
<i>Sp_Ubc3</i>	1	KAMALRLMKEYKELTEN	PGD	IVAGPSNEDDFFTWDCLIQGP	DGT	FFEGV	LYP	ATLK
<i>Sc_Ubc7</i>	1	MSKTAQRLLKELQELIKD	SPPG	IVAGPKSNNFIWDCLIQGP	PDT	PYADV	VFN	AKLE
<i>Cg_G2</i>	1	MSKTAQRLLKELQELIKD	SPPG	IVAGPKSNNFIWDCLIQGP	PDT	PYADV	VFN	AKLE
<i>Vp_G2</i>	1	MSKTAQRLLKELQELIKD	SPPG	IVAGPANENLFLWDCLIQGP	PDT	PYEHV	VFN	AQRL
<i>Asg_G2</i>	1	MSKTAQRLLKELQELIKD	SPDG	IVAGPVSNDLFLWDCLEGP	ADSP	YEHV	VFN	ARLQ
<i>Pg_G2</i>	1	MPRTTAQRLLKELQELIKD	SPPG	IVAGPVSNDLFLWDCLEGP	ADSP	YEHV	VFN	ARLQ
<i>Dh_G2</i>	1	MAPRSTQAQRLLKELQELIKD	PPPG	IVAGPISDDLFLWDCLEGP	PDT	PYENV	VFP	ASLT
<i>Ps_G2</i>	1	MAPRSTQAQRLLKELQELIKD	APPG	IVAGPVSDDLFLWDCLEGP	PDT	PYENV	VFP	ASLT
<i>Ca_G2</i>	1	MPPRSTQAQRLLKELQELIKD	PPPG	IVAGPVSNDLFLWDCLEGP	SPT	PYENV	VFP	AVLT
<i>Le_G2</i>	1	MPPRSTQAQRLLKELQELIKD	PPPG	IVAGPVSNDLFLWDCLEGP	SPT	PYENV	VFP	AVLT
<i>Hs_Ube2G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Mm_Ube2G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Rn_Ube2G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Md_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Gg_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Xl_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Xt_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Dr_1_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Dr_2_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDDDIYQWVVIIGP	QDT	MFEGV	VFN	AHLT
<i>Tn_1_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDDDIYQWVVIIGP	QDT	MFEGV	VFN	AHLT
<i>Tn_2_G1</i>	1	MTLQASALLRQLAELNKN	PVEG	FSAGLIDDDIYQWVVIIGP	QDT	MFEGV	VFN	AHLT
<i>Nv_G1</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Dm_CG40045</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Dm_CG9602</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Dp_G1</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Aa_G1</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Tc_G1</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Ce_Ubc7</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Cb_G1</i>	1	MSLQASALLRQLAELNKN	PVEG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Sp_Ubc15</i>	1	MPSSASEQLLRKQLKEIQKN	PVPG	FSAGLIDNDLYRWEVLIIGP	PDT	LYEGV	VFK	AHLT
<i>Os_1_#</i>	1	MATAASQASLLRQLKDLAKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMT
<i>Os_2_#</i>	1	MAATISQASLLRQLKDLAKH	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Zm_1_#</i>	1	MATTTQASLLRQLKDLAKH	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Zm_2_#</i>	1	MASSASQASLLRQLKDLAKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMT
<i>Ta_Ubc7_#</i>	1	MATAPARRASSRSESRT	PSMG	FQLGFVDSNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Vv_1_#</i>	1	MASSTQASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Vv_2_#</i>	1	MASASTQASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Ah_#</i>	1	MASASTQASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>At_Ubc7_#</i>	1	MASASTQASLLRQLKDLCKH	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMT
<i>At_Ubc13_#</i>	1	MNSAQASLLRQLKDLCKH	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>At_Ubc14_#</i>	1	MANNQASLLRQLKDLCKH	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>St_#</i>	1	MASASTQASLLRQLKDLCKH	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Pt_#</i>	1	MASASTQASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Pp_1_#</i>	1	MAENQASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Pp_2_#</i>	1	MAENQASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Psi_1_#</i>	1	MGDFQAILLLRQLKDLCKN	PLDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMT
<i>Psi_2_#</i>	1	MGENQASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Cr_#</i>	1	MTDALAASLLRQLKDLCKN	PVDG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMT
<i>Ol_#</i>	1	MSDQAVLLRQLKDLCKN	PIEG	FSAGLVDSDNFVFWVVIIGP	PDT	LYDGV	VFN	AIMS
<i>Hs_Ube2R1</i>	1	MARPLVSSQKALLLELKLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	ARLK
<i>Mm_Ube2R1</i>	1	MARPLVSSQKALLLELKLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	ARLK
<i>Rn_R1</i>	1	MARPLVSSQKALLLELKLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	ARLK
<i>Md_R1</i>	1	MARPLVSSQKALLLELKLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	ARLK
<i>Gg_R1</i>	1	MARSLVSSQKALLLELKLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	ARLK
<i>Xl_R1</i>	1	MARPMAPVSSQKALLLELKLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	ARLK
<i>Xt_R1</i>	1	MARPVAPVSSQKALLLELKLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	ARLK
<i>Hs_Ube2R2</i>	1	MAQQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Mm_Ube2R2</i>	1	MAQQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Rn_R2</i>	1	MAQQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Md_R2</i>	1	MAQQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Gg_R2</i>	1	MAQQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Xl_R2</i>	1	MAHQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Xt_R2</i>	1	MAHQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Dr_R2</i>	1	MAHQQMTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Tn_R2</i>	1	MAHQQTSSQKALLLELKLQEE	PVEG	FRITLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Nv_R2</i>	1	MAQPTSSALRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Dm_CG7656</i>	1	AAAPTPTTSSAVRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Aa_R</i>	1	MSSQPSSAVRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Tc_R</i>	1	MATTKATSSALRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Ce_Ubc3</i>	1	MDSKASTSSGALRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Cb_R</i>	1	MDSRSTSSGALRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Cp_R</i>	1	MSSQPSSAVRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Am_R</i>	1	MMAQTSSALRALALEYKSLQEE	PVEG	FRVTLVDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK
<i>Sc_Ubc3</i>	1	MSSRKSTASLLLRQYRELTPDKKAI	PSHIELEDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Cg_R</i>	1	MNSLKNSTASLLLRQYRELTPDKKAI	PSHIELEDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Vp_R</i>	1	MNSRNKSTASLLLRQYRELTPDKKAI	PSHIELEDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Asg_R</i>	1	MNSRNKSTASLLLRQYRELTPDKKAI	PSHIELEDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Pg_R</i>	1	MSKSAAILLQRFKDLTPDKKGI	PSHIELDDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Dh_R</i>	1	MSKSAAILLQRFKDLTPDKKGI	PSHIELDDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Ps_R</i>	1	MSKSAAILLQRFKDLTPDKKAI	PSHIELDDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Ca_R</i>	1	MSKSAAILLQRFKDLTPDKKGI	PSHIELDDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	
<i>Le_R</i>	1	MSKSAAILLQRFKDLTPDKKAI	PSHIELDDSDNFVFWVVIIGP	PNT	YEGV	YFK	AHIK	

Hs_Ube2G2 beta TT TT TT TT TT TT TT alpha2

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Hs_Ube2G2 60 FFLDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Mm_Ube2G2 60 FFLDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Rn_G2 60 FFLDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Md_G2 60 FFLDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Gg_G2 60 FFLDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Xl_G2 60 FFLDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Xt_G2 60 FFLDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Dr_G2 60 FPSDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Tn_G2 60 FPSDYPLSPPKMRFTCEMFHPNIYDPGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Nv_G2 60 FPTDYPLSPPKMRFTCEMFHPNIYSDGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Dm_G2 60 FPTDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPMGYELSAERWSPVQSV EKILLSVVSM LAE
Dp_G2 60 FPTDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPLGYELSAERWSPVQSV EKILLSVVSM LAE
Aa_G2 60 FPTDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPLGYELSAERWSPVQSV EKILLSVVSM LAE
Tc_G2 60 FPTDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Ce_Ubc14 60 FPQDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPTGYELSAERWSPVQSV EKILLSVVSM LAE
Cb_G2 60 FPQDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPTGYESSAERWSPVQSV EKILLSVVSM LAE
Cp_G2 60 FPTDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPLGYELSAERWSPVQSV EKILLSVVSM LAE
Am_G2 60 FPTDYPLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Sp_Ubc3 61 FPSDYLSPPKMRFTCEMFHPNIYADGRVCISILHAPGD DPMGYESSAERWSPVQSV EKILLSVVSM LAE
Sc_Ubc7 60 FPKDYPLSPPKMLTFTPSILHPNIYPNGEVCISILHSPGD DPNMYELABERWSPVQSV EKILLSVVSM LAE
Cg_G2 60 FPKDYPLSPPKMLTFTPSILHPNIYPNGEVCISILHSPGD DPNMYELABERWSPVQSV EKILLSVVSM LAE
Vp_G2 60 FPRDYPLSPPKMLTFTPAILHPNIYPNGEVCISILHSPGD DPNMYELABERWSPVQSV EKILLSVVSM LAE
Asg_G2 60 FPRDYPLSPPKMLTFTPSILHPNIYPNGEVCISILHAPGD DPNMYEASERWSPVQSV EKILLSVVSM LAE
Pg_G2 61 FPKDYPLSPPKMLKFDPPILHPNIYADGTVCISILHSPGD DPNHYERPERWSPVQSV EKILLSVVSM LAE
Dh_G2 62 FPKDYPLSPPKMLKFDPPILHPNIYADGTVCISILHSPGD DPNQYERPERWSPVQSV EKILLSVVSM LAE
Ps_G2 62 FPKDYPLSPPKMLKFDPPILHPNIYADGTVCISILHSPGD DPNQYERPERWSPVQSV EKILLSVVSM LAE
Ca_G2 62 FPKDYPLSPPKMLKFDPPILHPNIYADGTVCISILHSPGD DPNQYERPERWSPVQSV EKILLSVVSM LAE
Le_G2 62 FPKDYPLSPPKMLKFDPPILHPNIYADGTVCISILHSPGD DPNQYERPERWSPVQSV EKILLSVVSM LAE
Hs_Ube2G1 61 FPKDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Mm_Ube2G1 61 FPKDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Rn_Ube2G1 61 FPKDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Md_G1 61 FPKDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Gg_G1 61 FPKDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Xl_G1 61 FPRDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Xt_G1 61 FPRDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Dr_1_G1 61 FPKDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Dr_2_G1 60 FPHDYPLRPPKMKFFITEIWHPNVAKNGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Tn_1_G1 60 FPSDYPLRPPKMKFFISQMWHPNVAKNGEVCISILHEP GEDKXGYERPERWLPPIHVETIMI SVISMLAD
Tn_2_G1 62 FPKDYPLRPPKMKFFITDWHPNVKNKGDVVCISILHEP GEDKXGYEKPBERWLPPIHVETIMI SVISMLAD
Nv_G1 61 FPKDYPLRPPKMKFFITEIWHPNVKNKGDVVCISILHEP GEDKXGYEKASERWLPVHVETILI SVISMLAD
Dm_CG40045 61 FPKDYPLRPPKMKFFVTEIWHPNVKNKGDVVCISILHEP GEDKXGYEKASERWLPVHVETILI SVISMLAD
Dm_CG9602 61 FPKDYPLRPPKMKFFVTEIWHPNVKNKGDVVCISILHEP GEDKXGYEKASERWLPVHVETILI SVISMLAD
Dp_G1 61 FPKDYPLRPPKMKFFVTDIWHPNVKNKGDVVCISILHEP GEDKXGYEKASERWLPVHVETILI SVISMLAD
Aa_G1 61 FPKDYPLRPPKMKFFVTEIWHPNVKNKGDVVCISILHEP GEDKXGYEKASERWLPVHVETILI SVISMLAD
Tc_G1 61 FPKDYPLRPPKMKFFVTEIWHPNVKNKGDVVCISILHEP GEDKXGYEKASERWLPVHVETILI SVISMLAD
Ce_Ubc7 59 FPRDYPLRPPKMKFFISEIWHPNVKNKGDVVCISILHEP GEDKXGYERPERWLPVHVETILI SVISMLAD
Cb_G1 59 FPRDYPLRPPKMKFFISEIWHPNVKNKGDVVCISILHEP GEDKXGYERPERWLPVHVETILI SVISMLAD
Sp_Ubc15 61 FPKDYPLRPPKMKFFTTEIWHPNVKNKGDVVCISILHEP GEDKXGYEADAGERWLPVHVETILI SVISMLAD
Os_1_# 63 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPNGYELASERWTPVHVETIVL SVISMLSS
Os_2_# 63 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPNGYELASERWTPVHVETIVL SVISMLSS
Zm_1_# 63 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPNGYELASERWTPVHVETIVL SVISMLSS
Zm_2_# 63 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPNGYELASERWTPVHVETIVL SVISMLSS
Ta_Ubc7_# 62 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPNGYELASERWTPVHVETIVL SVISMLSS
Vv_1_# 62 FPNYPPNPPSVRFTSDMWHPNVPYDPGRVCISILHPGD DPNGYELASERWTPVHVETIVL SVISMLSS
Vv_2_# 64 FPNYPPNPPSVRFTSEVWHPNVPYDPGRVCISILHPGD DPNGYELASERWMPHVETIVL SVISMLSS
Ah_# 60 FPNYPPNPPSVRFTSEIWHPNVPYDPGRVCISILHPGD DPNGYELASERWNPVHVETIVL SVISMLSS
At_Ubc7_# 60 FPNYPPNPPSVRFTSDMWHPNVPYDPGRVCISILHPGD DPSGYELASERWTPVHVETIVL SVISMLSS
At_Ubc13_# 60 FPNYPPNPPSVRFTSDMWHPNVPYDPGRVCISILHPGD DPSGYELASERWTPVHVETIVL SVISMLSS
At_Ubc14_# 61 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPHGYELASERWTPVHVETIVL SVISMLSS
St_# 60 FPNYPPNPPSVRFTTEIWHPNVYSDGKVCISILHPGD DPNGYEYASERWSPVHVETIVL SVISMLSS
Pt_# 61 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPNGYELATERWSPVHVETIVL SVISMLSS
Pp_1_# 61 FPDYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHAPGD DPNGYELASERWSPVHVETIVL SVIAMLSN
Pp_2_# 61 FPNYPPNPPSVRFTSDMWHPNVPYDPGRVCISILHAPGD DPNGYELASERWSPVHVETIVL SVISMLSS
Psi_1_# 61 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHPGD DPNGYELASERWTPVHVETIVL SVISMLSS
Psi_2_# 61 FPNYPPNPPSVRFTSEMWHPNVPYDPGRVCISILHAPGD DPNGYELASERWSPVHVETIVL SVISMLSS
Cr_# 61 FPKDYPPNPPSIRFTSEMWHPNVPYDPGRVCISILHSPGD DPSGYETAASERWSPVHVETIVL SVISMLSS
Ol_# 60 FPKDYPPNPPSIRFTSEMWHPNVPYDPGRVCISILHSPGD DPNGYETAASERWSPVHVETIVL SVISMLSS
Hs_Ube2R1 64 FPDYPPYSPPAFRFLTKMWHPNIYETGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Mm_Ube2R1 64 FPDYPPYSPPAFRFLTKMWHPNIYETGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Rn_R1 64 FPDYPPYSPPAFRFLTKMWHPNIYETGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Md_R1 64 FPDYPPYSPPAFRFLTKMWHPNIYETGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Gg_R1 64 FPDYPPYSPPAFRFLTKMWHPNIYETGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Xl_R1 66 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Xt_R1 66 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Hs_Ube2R2 64 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Mm_Ube2R2 64 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Rn_R2 64 LPDYRCPVPGAFRCFVWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Md_R2 64 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Gg_R2 63 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Xl_R2 64 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Xt_R2 64 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Dr_R2 64 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Tn_R2 64 FPDYPPYSPPAFRFLTKMWHPNIYENGDVVCISILHPVD DPQSGELPSEERWNPQNVRTILL SVISLLNE
Nv_R2 63 FPDYPPYSPSIRFMTKVWHPNIYENGDVVCISILHPVD DPQSGELPCERWNPQNVRTILL SVISLLNE
Dm_CG7656 67 FPHDYPPYSPSIRFMTKVWHPNIYENGDVVCISILHPVD DPQSGELPCERWNPQNVRTILL SVISLLNE
Aa_R 64 FPDYPPYSPSIRFMTKVWHPNIYENGDVVCISILHPVD DPQSGELPCERWNPQNVRTILL SVISLLNE
Tc_R 65 FPDYPPYSPSIRFMTKVWHPNIYENGDVVCISILHPVD DPQSGELPCERWNPQNVRTILL SVISLLNE
Ce_Ubc3 65 FPNYPPYSPSIRFMTKVWHPNIYENGDVVCISILHSPIDDPQSGELACERWNPQNVRTILL SVISLLNE
Cb_R 65 FPNYPPYSPSIRFMTKVWHPNIYENGDVVCISILHAPVD DPQSGELACERWNPQNVRTILL SVISLLNE
Cp_R 64 FPDYPPYSPSIRFMTKVWHPNIYENGDVVCISILHPVD DPQSGELPCERWNPQNVRTILL SVISLLNE
Am_R 63 FPDYPPYSPSIRFMTKVWHPNIYENGDVVCISILHPVD DPQSGELPCERWNPQNVRTILL SVISLLNE
Sc_Ubc3 66 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPDATSWSPVQTVESVLI SVSLLLED
Cg_R 66 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPDATSWSPVQTVESVLI SVSLLLED
Vp_R 66 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPDATSWSPVQTVESVLI SVSLLLED
Asg_R 66 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPDATSWSPVQTVESVLI SVSLLLED
Pg_R 63 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPDATSWSPVQTVESVLI SVSLLLED
Dh_R 63 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPDATSWSPVQTVESVLI SVSLLLED
Ps_R 63 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPDATSWSPVQTVESVLI SVSLLLED
Ca_R 63 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPESETSWSPVQTVESVLI SVSLLLED
Le_R 63 FPDYPPYSPQFRFTPAYHPNIYRGRVCISILHQSG DPTSDPESETSWSPVQTVESVLI SVSLLLED
```

			α3				α4				
Hs_Ube2G2	TT	00000000	0000000000000000								
Hs_Ube2G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFY	KIAKQI	VQKS	LGL	
Mm_Ube2G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFY	KIAKQI	VQKS	LGL	
Rn_G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFY	KIAKQI	VQKS	LGL	
Md_G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFY	RIAKQT	VQKS	LGL	
Gg_G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFN	KIAKQI	VQKS	LGL	
Xl_G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFN	TIARQT	VQKS	LGL	
Xt_G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFN	KIARQT	VQKS	LGL	
Dr_G2	130	PNDES	GANVDA	SKMWRD	.....	DRE	QFN	RLAKQI	VRKS	LGL	
Tn_G2	130	PNDES	GANVDA	SKMWRD	.....	DRD	QFN	KLAKQI	VRKS	LGL	
Nv_G2	130	PNDES	GANVDA	AKMWRD	.....	DRT	EFN	RIAKQL	VRKT	LGI	
Dm_G2	130	PNDES	GANVDA	AIMWRD	.....	QRD	EFN	AIARRL	VRKT	LGL	
Dp_G2	130	PNDES	GANVDA	AIMWRD	.....	RRE	EFN	SIARRL	VRKT	LGL	
Aa_G2	130	PNDES	GANVDA	AIMWRD	.....	NRE	EFN	KIAKRI	VRKT	LGL	
Tc_G2	130	PNDES	GANVDA	AKMWRD	.....	NRE	EFN	RIABRI	VRRT	LGI	
Ce_Ubc14	130	PNDES	PANVSA	AKMWRD	.....	DRA	QFE	KIADSL	VRKT	LCL	
Cb_G2	130	PNDES	PANVNA	AKMWRD	.....	DRA	QFE	KTADAL	VRKT	LCL	
Cp_G2	130	PNDES	GANVDA	AIMWRD	.....	NRD	EFN	KIAKRI	VRKS	LGL	
Am_G2	130	PNDES	GANVDA	AKMWRD	.....	DRE	EFN	RIAKQL	VRKT	LGI	
Sp_Ubc3	131	PNDES	GANIDA	CKMWRD	.....	DRE	EYC	RVVRL	ARKT	LGL	
Sc_Ubc7	130	PNDES	GANIDA	ACILWRD	.....	NRP	EFE	RQVKLS	ILKS	LGF	
Cg_G2	130	PNDES	GANIDA	ACILWRD	.....	NRA	EFE	KQVKLS	ILKS	LGF	
Vp_G2	130	PNDES	GANIDA	ACILWRD	.....	NRP	EFE	RQVKRS	IVAS	LGL	
Asg_G2	130	PNDES	GANIDA	ACILWRD	.....	NRA	DFE	RQVQES	VRRS	LGL	
Pg_G2	131	PNDES	GANVDA	ACKLWRD	.....	HRQ	EFD	RQVRS	SHVRS	LGL	
Dh_G2	132	PNDES	GANIDA	ACKLWRD	.....	NRV	EYD	RQIRDH	VRKT	LGL	
Ps_G2	132	PNDES	GANIDA	ACKLWRD	.....	NRA	EYN	SQIKKH	VRES	LGL	
Ca_G2	132	PNDES	GANIDA	ACKLWRD	.....	NRA	EYD	RQIRQH	HVKS	LGL	
Le_G2	132	PNDES	GANIDA	ACKLWRD	.....	NRE	LFD	EQVQSH	VRKS	LGL	
Hs_Ube2G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRNG	EFK	RKVAR	VRKS	QET	
Mm_Ube2G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRNG	EFK	RKVAR	VRKS	QET	
Rn_Ube2G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRNG	EFK	RKVAR	VRKS	QET	
Md_G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRNG	EFK	RKVAR	VRKS	QET	
Gg_G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRNG	EFK	RKVAR	VRKS	QET	
Xl_G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRNG	EFK	RKVAR	VRKS	QET	
Xt_G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRNG	EFK	RKVAR	VRKS	QET	
Dr_1_G1	131	PNGDS	PANVDA	AKKEWRD	.....	DRHG	EFK	RKVAR	VRKS	QET	
Dr_2_G1	130	PNGDS	PANVDA	AKKEWRD	.....	DPNG	EFK	RKVAR	VRKS	QEM	
Tn_1_G1	130	PNGDS	PANVDA	AKKEWRD	.....	DPQG	VFK	RKVAR	VRRS	QEE	
Tn_2_G1	132	PNGDS	PANVDA	AKKEWRD	.....	DRDG	EFK	RKVAR	VRKS	QD.	
Nv_G1	131	PNDES	PANVDA	AKKEWRD	.....	SYT	EFK	RKVAR	VRKS	QEE	
Dm_CG40045	131	PNDES	PANVDA	AKKEWRD	.....	SYT	DFK	RKVAR	VRKS	QEE	
Dm_CG9602	131	PNDES	PANVDA	AKKEYRD	.....	NYA	EFK	RKVTR	VRRS	QEE	
Dp_G1	131	PNDES	PANVDA	AKKEYRD	.....	DPA	EFK	RKVAR	VRRS	QEE	
Aa_G1	131	PNDES	PANVDA	AKKEWRD	.....	AYP	EFK	RKVAR	VRKS	QED	
Tc_G1	131	PNDES	PANVDA	AKKEWRD	.....	MYG	EFK	RKVAR	VRKS	QEE	
Ce_Ubc7	129	PNDES	PANVDA	AKMQRE	.....	NYA	EFK	KKVAQ	VRRS	QEE	
Cb_G1	129	PNDES	PANVDA	AKMQRE	.....	NYA	DFK	KKVAQ	VRRS	QEE	
Sp_Ubc15	131	PNDES	PANIDA	AKKFRD	.....	NPQ	EFK	KRVRL	VRRS	IEM	
Os_1_#	133	PNDES	PANIEA	AKDWRD	.....	KRD	DFK	KKVRR	VRKS	QEM	
Os_2_#	133	PNDES	PANIEA	AKKEWRD	.....	KRD	DFK	KKVRR	VRKS	QEM	
Zm_1_#	133	PNDES	PANIEA	AKKEWRD	.....	QRD	DFK	KKVRR	VRKS	QEM	
Zm_2_#	133	PNDES	PANIEA	AKDWRD	.....	KRD	DFK	KKVRR	VRKS	QEM	
Ta_Ubc7_#	131	PNDES	PANIEA	AKDWRD	.....	KQD	EFK	KKVRR	VRKS	QEM	
Vv_1_#	132	PNDES	PANIEA	AKKEWRD	.....	KRD	EFK	KKVSR	VRKS	QEM	
Vv_2_#	134	PNDES	PANIEA	AKKEWRD	.....	RRD	EFK	KKVSR	VRRS	QEM	
Ah_#	130	PNDES	PANVDA	AKKEWRD	.....	RRD	DFK	KKVSR	VRKS	QEM	
At_Ubc7_#	130	PNDES	PANVDA	AKKEWRD	.....	KRD	EFK	KKVSR	VRKS	QEM	
At_Ubc13_#	130	PNDES	PANVDA	AKKEWRD	.....	KRD	EFK	KKVSR	VRKS	QEM	
At_Ubc14_#	131	PNDES	PANVDA	AKKEWRD	.....	NRA	EFR	KKVSR	VRRS	QEM	
St_#	130	PNDES	PANVDA	AKKEWRD	.....	KRD	EFK	KRVSR	VRRS	QDL	
Pt_#	131	PNDES	PANVDA	AKQWRD	.....	SRE	EFR	KKVSR	VRKS	QEM	
Pp_1_#	131	PNDES	PANVDA	AKKEWRD	.....	QRD	EFO	RKVRR	VRRS	QEF	
Pp_2_#	131	PNDES	PANIDA	AKKEWRD	.....	TKE	EFK	RKVSR	VRRS	QES	
Psi_1_#	131	PNDES	PANIDA	AKKEWRD	.....	HRD	EFR	KKVGR	VRKS	QET	
Psi_2_#	131	PNDES	PANIDA	AKKEWRD	.....	HRD	EFK	KKVSR	VRRS	QES	
Cr_#	131	PNDES	PANVDA	AKMWRD	.....	NRD	EFK	KRVAR	VRKS	QEM	
Ol_#	130	PNDES	PANVDA	AKKEWRD	.....	DYP	AFK	KRVAR	VRRS	QEE	
Hs_Ube2R1	134	PNTFS	PANVDA	SVMYR	KWKESKGD	DR	EYD	DIRKQ	VLGT	KVD	
Mm_Ube2R1	134	PNTFS	PANVDA	SVMYR	KWKESKGD	DR	EYD	DIRKQ	VLGT	KVD	
Rn_R1	134	PNTFS	PANVDA	SVMYR	KWKESKGD	DR	EYD	DIRKQ	VLGT	KVD	
Md_R1	134	PNTFS	PANVDA	SVMYR	KWKESKGD	DR	EYD	DIRKQ	VLGT	KVD	
Gg_R1	134	PNTFS	PANVDA	SVMYR	KWKESKGD	DR	EYD	DIRKQ	VLGT	KVD	
Xl_R1	136	PNTFS	PANVDA	SVMYR	KWKESKGRD	DK	EYD	DIRKQ	VLST	NAD	
Xt_R1	136	PNTFS	PANVDA	SVMYR	KWKESKGRD	DK	EYD	DIRKQ	VVST	KAD	
Hs_Ube2R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VSAT	KAE	
Mm_Ube2R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VSAT	KAE	
Rn_R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VSAT	KAE	
Md_R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VLAT	KAE	
Gg_R2	133	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VLAT	KAE	
Xl_R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VSAT	KAE	
Xt_R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VSAT	KAE	
Dr_R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VVST	KAD	
Tn_R2	134	PNTFS	PANVDA	SVMFR	KWRDSKGD	DK	EYA	EIRKQ	VLST	AEE	
Nv_R	133	PNTYS	PANVDA	SVMYR	RWRDSKGRD	DK	EYE	NIIRKQ	QAQA	KVE	
Dm_CG7656	137	PNTFS	PANVDA	SVMYR	RWRDSQGD	KN	EYP	NIIRKQ	QAQA	NAE	
Aa_R	134	PNTFS	PANVDA	SVMYR	RWRDSQGD	KN	EYP	NIIRKQ	QAQA	KAE	
Tc_R	135	PNTFS	PANVDA	SVMYR	RWRDSKGRD	DK	EYE	NIIRKQ	QAQA	RAE	
Ce_Ubc3	135	PNTSS	PANVDA	SVMYR	KWKED	QDP	EYA	KIVTKQ	VEES	KKV	
Cb_R	135	PNTSS	PANVDA	SVMYR	KWKEE	QDP	EYA	KIVTKQ	VEDS	KKV	
Cp_R	134	PNTFS	PANVDA	SVMYR	RWRDSQGD	KN	EYP	NIIRKQ	QAQA	KAE	
Am_R	133	PNTYS	PANVDA	SVMYR	RWRDSKGD	DK	EYE	NIIRKQ	QAQA	KME	
Sc_Ubc3	135	PNTNS	PANVDA	AVDYRK	.....	NPE	QYK	QRVKME	VERS	SKQD	
Cg_R	135	PNTSS	PANVDA	AVDFRK	.....	NPE	QYK	QRVKME	VERS	SKQD	
Vp_R	135	PNTSS	PANVDA	AVDYRK	.....	NPE	QYK	QRVKME	VERS	SKQD	
Asg_R	135	PNTSS	PANVDA	AVDYRK	.....	NPE	QYK	QRVKLE	VERS	SKQD	
Pg_R	132	PNVLL	PANIDA	SVELRK	.....	NPE	AYK	KRVLQE	VERS	SKQD	
Dh_R	132	PNVSS	PANIDA	SVELRK	.....	NPDA	YK	KKVME	VERS	SKAD	
Ps_R	132	PNVSS	PANIDA	SVVFRK	.....	NPE	AYK	KKVLHE	VERS	SKAD	
Ca_R	132	PNGNS	PANIDA	SVVFRK	.....	NYN	VYK	KKVLQE	VERS	SKKD	
Le_R	132	PNGNS	PANIDA	SVVFRK	.....	NPE	EYK	KKVLKE	VERS	SKKD	