

		10	20	30	40	50	60
AtFRO1	Sequence	MGVG-----	-----EMN	KEVIDKIKF	MIILMTI	VIIMST	
AtFRO2	Sequence	MEIEK-----	-----SNNG	GSNPSAGEEF	KDMIKGTF	MIIMST	MLIMST
AtFRO3	Sequence	MAARGRLVVA	RGNRSFSSII	RKYSLKRETN	KKVIKNIL	TMILMTV	VIIMST
AtFRO4	Sequence				GNMRSLVT	VILSTI	LVIMSTNL
AtFRO5	Sequence				GNMRSLVM	VILSTI	FVIMSTNR
AtFRO6	Sequence	---MDDYETP	LLSKD-----	---SSSSSVI	TSSLKWILV	VSMIVTV	VFLMIMYPEQ
AtFRO7	Sequence	---MDDHETP	LLSKDLSSSS	SSSSSSSVV	VSSLKWILV	VSMIVTV	VFLMIMYPGS
AtFRO8	Sequence			-----MA	KVLTLLRL	NLLLI	SLIKTI
PtFRO1	Sequence	MGSGP-----	-----SGAA	KLVAAMTF	SMIVYM	MIISKNT	
PtFRO2	Sequence				NMIWAGIRL	LMIVL	MYARKT
PtFRO3	Sequence	MGSGP-----	-----SGAS	KIVSAITL	LMIVYM	MIISVTNT	
PtFRO4	Sequence				SSMT-FRL	IFLIVL	VVILKL
PtFRO5	Sequence				GSMT-FRL	IFLIML	MIIVILKV
		70	80	90	100	110	120
AtFRO1	Sequence	YKEILTSMR	AKGKIY	RPGVVYM	PMILLF	IYLLKST	TVNQFNSGVE
AtFRO2	Sequence	YRTKLHLR	IFGT	ATGTFMYM	PMMVVC	IYLLFKNRK	SPHHIDRET-
AtFRO3	Sequence	YKKILKSMR	AKGKIY	KPGVVYM	PMILLIS	SIYLLKQ	RVNQFNSRMD
AtFRO4	Sequence	FKSKITKLS	KYN-T	PGNVLLT	VPMMVVS	IYLLIQKT	TGQP-----
AtFRO5	Sequence	FQNIITKLA	KYK-T	PGMVLLT	VPMMVVS	IYLLTQKQ	SQTQSLYKC-
AtFRO6	Sequence	LGDQFLT---	-FVSSKIFL	TGGMFIFS	GPILVSVIA	SLYLLISGED	VFTKKKIS-
AtFRO7	Sequence	LGDQILTNW-	RAISSNIFL	TGSMFIFS	GPILVSVIA	SLYLLISGEE	TVFTKKKIT-
AtFRO8	Sequence	WIQSR--QA	EDTARHIF	YYGLFAVFS	PPIALSIV	LIYLLSLPQH	HHPTRGGRG-
PtFRO1	Sequence	FYLHWDLV	KIT-SYLL	EGTTIYA	PILITI	SLYLLLEKY	DHDHST-R--
PtFRO2	Sequence	FKEILNIR	KKNSY	TGGFVFS	PILVVV	IYLLFRRS	KDRKLESNG-
PtFRO3	Sequence	FYLNFDVE	KIT-SYLL	EGSTIYA	PILITI	SLYLLLEKY	DHDINTSR--
PtFRO4	Sequence	YKITITKLN	SKN-SYYS	GGGNLLS	PMMIA	IYLLAKQQ	RSSYSKSVV-
PtFRO5	Sequence	YKNAITKLN	GKIN-SYIE	GGGNLFS	PPVMIAF	LIYLLLQNL	RKPNSR----
		130	140	150	160	170	180
AtFRO1	Sequence	-KKRAKFGAL	RIMN	GIVVIVEM	TFMILW	SIANMYRT	VNVTSESAAT
AtFRO2	Sequence	--KGVWSKL	RIMK	GIVSVIEIT	IAFVILW	CFITLRNS	ATITPKSAAA
AtFRO3	Sequence	KKKIDKFGAL	KIMKAG	GIVVIVEM	IMFMILW	SIANFYHT	VTITPQSLPT
AtFRO4	Sequence	-REWLKLRIM	GVIMMN	GIVVATEIT	SLLFVIAW	SIYNLYLSY	-HVHLHNDN
AtFRO5	Sequence	-REWKVKGRM	GVMMMN	GIVVATEIT	SLLFLVW	ASNLVLSY	-HVHLHNDN
AtFRO6	Sequence	--KFPRFRLW	TFIVDIF	GVVSAAEFLG	IMVFSVFFLW	SIYATLRNL	DLLERFHVLP
AtFRO7	Sequence	--KFPRFRLW	TFIVDIF	GVVSAAEFLG	IMVFSVFFLW	AIYATLRNL	NVLDYFHVLP
AtFRO8	Sequence	-----AAITV	SIATINSFI	GVVSCFEILA	LLFLFIAW	NFYARVSND	KKLMPVKTMN
PtFRO1	Sequence	--FISRIILL	KRVITK	GVSWEIT	IAFVIVW	SMYSTHNM	A-FAALEAAQ
PtFRO2	Sequence	--KKNRLVTL	KKIMK	GVSGEIA	IFVIVW	FSVLLNG	ATITPQSAAK
PtFRO3	Sequence	--LFSRMILS	KLAITK	GVVWEIT	IAFVIVW	SIYSIMHDM	A-FAAVEAAQ
PtFRO4	Sequence	-TSNRLS-FL	RIMAM	GTVIAMEA	VAFIIVW	SIIGNLYVS	GHLHIHKQGE
PtFRO5	Sequence	-----	RIMAVAM	GTVIAMEA	VAFIIVW	SIIGNLYVS	GHLHMHKQGE
		190	200	210	220	230	240
AtFRO1	Sequence	DGNN-LRGR	DLIAVRIGI	VIVCGL	YPARSSGL	AAITSSSS	KYHWGGL
AtFRO2	Sequence	HDES-LRGR	ESAAVIGL	VIVCGL	LPARSSGL	PAMITSSSS	KYHWGGM
AtFRO3	Sequence	DGDN-LRGR	DSIAVRIGL	VIVCGL	YPARSSGL	AAITSSSS	TYHWGNL
AtFRO4	Sequence	AK---LRGR	FRAFGRIGY	VIVCWGL	PTRAITI	PITSSSS	KYHWGV
AtFRO5	Sequence	ANDMCRGR	FRAFGRIGY	VHYCWGL	PTRAITI	PITSSSS	KYHWGV
AtFRO6	Sequence	KNRS---ILL	EVTGRGM	ILLCMVLL	LPISRSIL	RIDIPFEHA	TRYHVWGI
AtFRO7	Sequence	NNRS---IFL	ELTGFRGM	ILLCMVLL	LPISRSIL	RIDIPFEHA	TRYHVWGI
AtFRO8	Sequence	LN---LRGL	YYRVATFGL	LAACSLLL	PLRLLMF	RLNIEFAAS	VYHVWFGTG
PtFRO1	Sequence	EKFQ-AEVR	RSAAVIGL	AVTCGL	PTRSSI	QFRTSSAS	KYHWGNI
PtFRO2	Sequence	KGLK-EVR	ASASVIGL	VIVCGL	LPARSSGL	PIFIPFEHA	KYHWGT
PtFRO3	Sequence	EKFQ-VVR	ETAGVIGL	VIVTCGL	PARSSV	QYRTSSAS	KYHWGI
PtFRO4	Sequence	K----VRGR	FRSVSRGY	VIVCWGL	PTRSSI	PITSSSS	KYHWGGL
PtFRO5	Sequence	K----VRGR	FRSVSRGY	VIVCWGL	PTRSSI	PITSSSS	KYHWGGL

		250	260	270	280	290	300								
AtFRO1	Sequence	VIIITSH	CFITWISK	QLVSK	EWD	RIA	SN	GE	AS	AS	MW	TTY	K	R	R
AtFRO2	Sequence	VIALTVH	CIITWASMH	-EISQ	IMWD	TKG	SN	GE	AS	AS	VW	ATTY	K	R	R
AtFRO3	Sequence	VITLTSH	CIITWIST	-QVSQ	EWD	RIGI	H	GE	AS	AS	LW	ATTFA	R	R	R
AtFRO4	Sequence	SNFC	LVHTV	VFL	WAMIV	-KLMETFAWN	PYY	PI	GT	MI	I	IAIW	ITL	SF	R
AtFRO5	Sequence	SNFC	LVHTV	VFL	WAMV	-KLMETFAWN	AIY	PI	GT	MI	I	IAIW	ITL	SF	R
AtFRO6	Sequence	TIAF	SLH	CVVG	WIIQG	QLLELIFS	WN	AIGIAI	PGV	IS	Y	SLW	TLHTV	R	K
AtFRO7	Sequence	TITF	SLH	CVVG	WTIQG	QLLELLFEW	K	AGIAV	PGV	IS	Y	SLW	TLHTV	R	K
AtFRO8	Sequence	LIFFSLV	H	STLFI	WTITH	HIEEEIWK	WQ	RGRVYV	GL	IS	T	SLW	ITL	Q	R
PtFRO1	Sequence	TIVITAH	S	IT	WSHT	-QISQ	KWD	KFV	AV	GE	AS	AS	VW	ATLGR	R
PtFRO2	Sequence	VLVF	TAH	G	ITLWAVK	-QISA	EWA	RDD	SV	GE	LS	LS	VW	ATTY	G
PtFRO3	Sequence	TIAITAH	F	VT	WSLTH	-QILQI	KWD	KFM	SV	GE	AS	AS	VW	ATFGR	R
PtFRO4	Sequence	SIL	AAHTV	GFV	WAMT	-QMAA	EWG	KW	SV	GE	AS	AS	LA	IAW	TSYR
PtFRO5	Sequence	SIL	AAHTV	GFI	WAMT	-QMAL	EWS	KY	SV	GE	AS	AS	LA	IAW	TSYR

		310	320	330	340	350	360								
AtFRO1	Sequence	LFEVFYSHY	LY	ML	F	FH	GISHALI	P	FYIFLV	DF	R	QS	NN	K	AAV
AtFRO2	Sequence	FFEVFYHY	LY	ML	F	LH	GISFSFI	A	FYIFLV	DF	R	QS	NN	K	LAAI
AtFRO3	Sequence	FFEVFYHY	LY	ML	F	FH	GISYALI	SF	FYIFMV	DF	R	QS	NN	K	AAV
AtFRO4	Sequence	KFEIFLYTH	LYGLYI	Y	I	H	GDSW	M	I	NI	FFI	DFYR	QST	KRS	AAI
AtFRO5	Sequence	KFEIFLYTH	LYGLYI	YA	I	H	GDSW	M	I	NI	FFI	DFYR	QST	KRS	AAI
AtFRO6	Sequence	YFELFYHQ	LY	I	LA	LH	GDM	SI	VAGI	IFIL	DF	R	QS	RT	DVI
AtFRO7	Sequence	YFELFYHQ	LY	I	LA	LH	GDM	SI	VAGI	IFIL	DF	R	QS	RT	DVI
AtFRO8	Sequence	NFEVFYTH	LY	I	LAFL	FH	AGDRH	YW	V	M	FGL	DKI	TRVQS	SESCIL	ANL
PtFRO1	Sequence	LFELFYSHH	LY	I	VI	Y	FH	GFAES	L	I	FY	FLI	DFYR	QS	QKRS
PtFRO2	Sequence	MFELFYHY	LY	L	M	FI	FH	GISFAL	M	FY	FLV	DF	R	QS	QR
PtFRO3	Sequence	IFELFYSHH	LY	I	VI	Y	FH	GFAES	L	I	FY	FLI	DFYR	QS	QKRS
PtFRO4	Sequence	MFEVFYHQ	LY	LYI	Y	LH	GAAY	M	V	I	IFVI	DFYMR	QS	RRAR	D
PtFRO5	Sequence	MFEVFYHQ	LY	LYV	Y	LH	GAAY	M	I	I	IFIV	DFYR	QS	RRAR	D

		370	380	390	400	410	420									
AtFRO1	Sequence	SD	VELN	K	N	M	MYS	STM	FV	I	SK	QWHPF	I	S	K	EPE
AtFRO2	Sequence	SD	MELT	K	N	S	K	VYS	SM	FV	I	SK	QWHPF	I	S	K
AtFRO3	Sequence	SE	VELN	K	N	M	MYS	SL	FV	I	SK	QWHPF	I	S	K	EPE
AtFRO4	Sequence	SDNL	ELT	K	T	G	HYT	SL	LFLH	IS	SK	QWHPF	I	S	N	EKD
AtFRO5	Sequence	SDNL	ELT	A	K	T	S	G	HYT	SL	LFLH	IS	SK	QWHPF	I	S
AtFRO6	Sequence	G	LELV	K	P	N	MRYNA	LS	FIFLQ	RE	LSW	QWHPFS	VSS	PLDGNH	HVA	L
AtFRO7	Sequence	G	LELV	K	P	N	MRYNA	LS	FIFLQ	KE	LSW	QWHPFS	VSS	PLDGNH	HVA	L
AtFRO8	Sequence	FS	KAI	ELVL	P	K	D	M	N	YA	SS	FIFL	I	L	VSRFQWHPFS	I
PtFRO1	Sequence	E	VELN	K	S	S	G	SYA	SL	AFI	IS	SK	QWHPF	V	SN	NMDSD
PtFRO2	Sequence	SD	VELN	K	N	R	SYN	SL	LFI	IS	SG	QWHPF	V	SN	N	EPE
PtFRO3	Sequence	SE	VELN	K	S	S	G	SYA	SL	AFI	IS	SK	QWHPF	V	SN	NMDSD
PtFRO4	Sequence	GS	VELT	K	S	G	YYN	SL	LFL	IS	SK	QWHPF	V	SN	C	KMDQD
PtFRO5	Sequence	GS	ELT	K	S	G	YYN	SL	LFI	IS	SK	QWHPF	V	SN	C	N

		430	440	450	460	470	480									
AtFRO1	Sequence	KW	T	K	DM	S	-----	SDQ	N	I	A	S	EGPYG	S	STD	RNE
AtFRO2	Sequence	KW	T	HQR	S	-----	-----	DQ	D	I	A	S	EGPYG	A	SAD	RNE
AtFRO3	Sequence	KW	S	HHM	A	-----	-----	NQ	DH	I	A	S	EGPYG	A	STDY	RND
AtFRO4	Sequence	SWTQ	K	TH	S	-----	-----	DS	E	S	T	EGPYG	I	NSF	DVS	NN
AtFRO5	Sequence	SWTQ	K	TH	S	-----	-----	DS	E	S	T	EGPYG	I	NSF	DVS	NN
AtFRO6	Sequence	GWTAK	R	DQ	N	LYEA	ENQD	QLIS	PQSYPK	ITTC	E	GPYG	HES	PHY	AYE	NL
AtFRO7	Sequence	GWTAK	R	DQ	N	LYEA	ENQD	QLIS	PESYPK	ITTC	E	GPYG	HES	PHY	AYE	NL
AtFRO8	Sequence	DWTNSV	N	KI	E	E	AANC	-----	ENK	NN	I	I	R	E	GPYG	A
PtFRO1	Sequence	SW	H	K	QI	S	P	-----	SPTN	N	E	A	I	E	GPYG	P
PtFRO2	Sequence	SW	T	R	HQM	S	P	-----	SS	D	E	S	E	GPYG	A	STH
PtFRO3	Sequence	SW	H	K	QI	S	P	-----	SPTN	N	E	A	I	E	GPYG	P
PtFRO4	Sequence	NW	Q	K	CQE	I	S	-----	VD	N	E	S	E	GPYG	I	SSH
PtFRO5	Sequence	SW	Q	K	RQI	S	P	-----	VD	N	E	S	E	GPYG	I	SSH

		490	500	510	520	530	540
AtFRO1	Sequence	TPFSSVVD	FYMSTHKC	NIKMTIIE	KNSSDSSL	DIITSGLT	TDMASFVDIQ
AtFRO2	Sequence	TPFSSVVD	ATQKETC	NIKITIIE	KNSSSEISL	DVILSGLE	TELSIDINIK
AtFRO3	Sequence	TPFSSVVD	LYVSTNAY	NTKITIIE	KNSSDSSL	NIILNS---	TEISFIDIQ
AtFRO4	Sequence	TPFSSVRE	SQQNKST	KLVDLQSS	KHYHDAFL	DIFLDMSA	SDILRNIR
AtFRO5	Sequence	VIPFSSVRE	FQQRNST	KLNVLSG	KNYHDAFL	DIFSDISV	SDILKNIR
AtFRO6	Sequence	TPFFALLSD	ILHRKRDGKA	CLSKVVVW	AIKNSDELSL	LSAIDIPSIC	PFFKKNEE
AtFRO7	Sequence	TPFFALLSD	ILHRKRDGKD	CLGKVVVW	AIKNSDELSL	LSAIDIPSIC	HFFKKNEE
AtFRO8	Sequence	TPFLALLKE	ASKNRLKSP	KRVQLVFAVR	-----TFQDL	NMLIASII	FNPIYNNEK
PtFRO1	Sequence	TPFSSVRE	IFKSTTSS	NTRIHIIE	KKYVDITL	DLLVSGTT	LDLRLHQ
PtFRO2	Sequence	IAPFSSVRE	FATTYKC	NTEVLSG	KNSSSEITL	DLLISGSP	SDILKQK
PtFRO3	Sequence	VIPFSSVRE	IFKNTTGS	NTAIHIIE	KKYANTL	ELLVSGTT	LDLRLQK
PtFRO4	Sequence	TPFSSVRE	IMFETKPNY	QVRLVSG	KNSSADAIL	DLLINDTP	ANILQVQK
PtFRO5	Sequence	TPFSSVRE	IVEITKQNC	QVRLVSG	KNSSADAIL	DLLVNGTP	SNIPQMQK
		550	560	570	580	590	600
AtFRO1	Sequence	KFVITTEK	TSVKESHNR	NIKRHRKA	NV---SDQ	SPIGNQSW	CAALLSSS
AtFRO2	Sequence	EFVITDND	---AGDEAKA	GKIKLWKA	SL---SDQS	SSI GNQSW	WATLAS
AtFRO3	Sequence	KFVITRE---	---KVSICNM	NIKRLSKA	YV---SDQ	SPIGNQSW	WATLAS
AtFRO4	Sequence	EYITTEDK	K---PETDDH	RLLQKWKKA	QP---LDS	SPVGNQNF	WVVILSS
AtFRO5	Sequence	EYITTEDK	K---PETDDH	KLLQKWKKA	QP---LDS	SPVGNQNF	WVVILSS
AtFRO6	Sequence	HIIVTQSE	P---RLEDG	MVHKVVHPSV	KLPRTNGCSM	SVLVGTGDN	SLYLIIIT
AtFRO7	Sequence	HIIVTQSE	P---CLEDG	MVHKVVHPSV	KTPWTNGCSM	SVLVGTGDN	SLYLIIIT
AtFRO8	Sequence	LKVFTTQKK	PSNGTTLQE	FLAQSQVQSI	HLGTDEYSR	FPIRGESFR	WATLVLITV
PtFRO1	Sequence	EYITTETE	S---KTESQ	NSIRILRKA	NP---SDRV	SAVGNQSW	WATLAS
PtFRO2	Sequence	EFVITTEKG	---PTDSS	KTPRAIWN	HA---TDA	SAI GNQSW	WATLAS
PtFRO3	Sequence	EYITTETE	P---KIVNQ	SSIRILRKA	NP---SDAV	SAVGNQSW	WVSILSS
PtFRO4	Sequence	EYITTEEE	Q---P-IADNQ	KLLQTIWKA	NQ---LDS	CAGGNQNF	WATLAS
PtFRO5	Sequence	EYITTEGE	L---P-TEDNL	KLLQTIWKS	NQ---LDS	NASGNQNF	WATLVSS
		610	620	630	640	650	660
AtFRO1	Sequence	MIFIVIAI	IRHIHDDQ	IS-EKTWA	KSIIYLVSI	ITVVTSTIA	MNNKKY--
AtFRO2	Sequence	LIFMIIII	IRHIHDDQ	INKISLTS	KTIIYILVIS	VSIMATCHA	MNNKKYK
AtFRO3	Sequence	MIFIIIIAI	SRHIHDDQ	SS-KEITSA	TSIIYLLAIS	ISVATSTVA	MNNKSY--
AtFRO4	Sequence	VMFILLIV	IRHIHDDQ	NGSINFS	RGWDIFLGS	ACFSSSVV	FRRKQNK
AtFRO5	Sequence	VMFILLIV	IRHIHDDQ	NGSINFT	RVWVIFLGC	VCFFSSII	FRRKENK
AtFRO6	Sequence	IGFIISM	DIFIKRYN	----ITTWW	KGILFVGCMV	ASVLFGGLV	VFWHRWEHK
AtFRO7	Sequence	IGFIIAM	DIFINKYN	----ITTWW	KGILFVVCMV	ASVLFGGLV	VFWHRWEHK
AtFRO8	Sequence	LTFIGFLIGL	SHFFIPSEHK	HSGVMKLAA	SGAMKTAK	VPSWVPDLII	IVSYVIAISV
PtFRO1	Sequence	IIFIIILL	IRHIHDDQ	NMKIPVPA	SSAFNLFVC	IAITAAIA	FNNRENK
PtFRO2	Sequence	IIFIIILL	IRHIHDDQ	EGGFPLAF	RSFLNLVIC	ICAMTAAIA	VNNQNAR
PtFRO3	Sequence	IIFIIILL	IRHIHDDQ	NMKIPMPA	SSAFGLFVC	VAITAAIA	FNNRENK
PtFRO4	Sequence	IMFIIILL	IRHIHDDQ	EEITHFS	FVWDFLLC	ACFLASIV	FRRKENTI
PtFRO5	Sequence	VMFIIILL	IRHIHDDQ	SGDTTHYS	YVWDFLLC	ACFIASIV	FRRKEHAM
		670	680	690	700	710	720
AtFRO1	Sequence	-YA---KND	YDNLS---	-----	VIIESTQQL	ISSTDIH--	-----
AtFRO2	Sequence	VES---KIV	NDRPSTSS	ITSSWGYNSL	REIETQE	IVRNLIHF	ERNKKLL
AtFRO3	Sequence	-FK---GLY	NDAALS---	-----	LMIESTDIL	PEFINIHY	ERNNKLIV
AtFRO4	Sequence	GDKEFKNIV	SEFQTTSS	IGSWFHGHE	REESVYYS	IVAAISHF	SKNNKKIL
AtFRO5	Sequence	GDKDSKKIV	SEFQTTSS	IGSWFHGHE	REESVYYS	IVAAISHF	SKNNKKIF
AtFRO6	Sequence	TGEVEANGND	KDNLNGEETH	N-----PSAA	ELKGLAIEED	VQNYTIRY	TRAFREFE
AtFRO7	Sequence	TGEVEANGND	KDNLNGEETH	N-----PSAA	ELKGLAIEED	VQNYTIRY	TRAFREFE
AtFRO8	Sequence	GGFAATILQR	RRKHKEAPRM	SKEVVIKPEE	NNFTELKPIP	ITEEHEIHI	ERKKEEMS
PtFRO1	Sequence	-ET---SIR	TTDMSTIAL	---TSLVYE	TEELTHHS	RAATTHL	QRNNKKYS
PtFRO2	Sequence	-DV---KI	NIEGPTIAG	IGSWVYRAD	REESVYHS	FIAINHY	ERDKKIF
PtFRO3	Sequence	-EL---NI	TTDMSTIAP	---ASLLYE	TEELTHHS	RAATTQL	RRNNKKYS
PtFRO4	Sequence	EGK-----	IINLEVP	TTTPSGSWFRNAD	REESLTHRS	IVAAKMF	ARDKRIF
PtFRO5	Sequence	EGK-----	IINLEVP	TTTPSGSWFNAN	REESQTHHS	IVVVKMF	ARDKRIF

		730	740	750	760	770	780
AtFRO1	Sequence	-----	-----	-----	-----	-----	-----
AtFRO2	Sequence	DVE	S	K	E	L	S
AtFRO3	Sequence	GLK	S	K	F	S	N
AtFRO4	Sequence	EAE	D	K	S	L	N
AtFRO5	Sequence	EAE	D	K	S	L	N
AtFRO6	Sequence	SLN	D	T	R	S	D
AtFRO7	Sequence	SLN	D	T	R	S	D
AtFRO8	Sequence	EFEKNLRGWS	S	S	R	N	N
PtFRO1	Sequence	EYKEE	K	T	A	S	S
PtFRO2	Sequence	ECK	S	M	N	L	T
PtFRO3	Sequence	ELKEE	N	T	A	S	S
PtFRO4	Sequence	DCKA	D	K	S	M	N
PtFRO5	Sequence	DCKA	D	K	S	L	N