

TM1

AtFRO2	-----MEIEKSNNGGNSPAGESFEKMDIKGVTKFLMMVIFLCITIMLWIMMPTLT	76
AdFRO2.1	-----MGDQKIVKRSPSQVKYDMILYARLVVVLVLLGWIFWIMMPTSTFRQTLWPLHLRAKTTTSTYFGSQGTTL	72
AdFRO7	MEKETVDNTPLLSPTKEKTPSSSSSS-SSSFLVSATKWVLYLCIIFIIGWAGFIFLMPPEESVNLMS--KWINLTGNPLGTAGSIFM	87
AdFRO8	-----MASSTLLAIVKLLMLILICAGWVALWILKPTQIWRKWK--VAEESANNTIFGGYGLNFA	57
AhFRO2.1	-----MGDKKIVKRSPSQVKYDMILYARLVVVLVLLGWIFWIMMPTSTFRQTLWPLHLRAKTTTSTYFGSQGTTL	72
AhFRO2.2	--MNTNRRRSEQVTNQEMDEEVLKSPSQEKYGRAQFARLVVVLVFLAVFVWVWVAPDITYKQIWLPLQKAKINS-SYFGKQCATLL	87
AhFRO2.3	-----MGDQKILKRSPSQVKYDMILYARLVVVLVLLGWIFWIMMPTSTFRQTLWPLHLRAKTTTSTYFGSQGTTL	72
AhFRO2.5	--MNTNRRRSEQVTNQEMDEEVLKSPSQEKYGRAQFARLVVVLVFLAVFVWVWVAPDITYKQIWLPLQKAKINS-SYFGKQCATLL	87
AhFRO7.1	MEKETVDSTPLLSPTKEKTPSSSSS-SSSFLVSATKWVLYLCIIFIIGWAGFIFLMPPEESVNLMS--KWINLTGNPLGTAGSIFM	84
AhFRO7.2	MEKETVDNTPLLSPTKEKTPSSSSSSSSSS-FLVSATKSVLYLCIIFIIGWAGFIFLEPEESVNLMS--KWINLTGRNPLGTAGSIFM	87
AhFRO8.1	-----MASSTLLAIVKLLMLILICAGWVALWILKPTQIWRKWK--VAEESANNTIFGGYGLNFA	57
AhFRO8.2	-----MASSTLLAIVKLLMLILICAGWVALWILKPTQIWRKWK--VAEESANNTIFGGYGLNFA	57
AiFRO2	--MNTNRRRSEQVTNQEMDEEVLKSPSQEKYGRAQFARLVVVLVFLAVFVWVWVAPDITYKQIWLPLQKAKINS-SYFGKQCATLL	87
AiFRO7	MEKETVDNTPLLSPIKEKTPSSSSSSSSSS-FLVSATKSVLYLCIIFIIGWAGFIFLEPEESVNLMS--KWINLTGRNPLGTAGSIFM	88
AiFRO8	-----MASSTLLAIVKLLMLILICAGWVALWILKPTQIWRKWK--VAEESANNTIFGGYGLNFA	57

	TM2		TM3	
AtFRO2	MYMFPMVAVCLGCVYIHFKNRKSPHHIR----	ETKGGVWSKLKRPILVKGLGIVSVTEITFLAMFVALLLCFITYLRNSFATITP	161	
AdFRO2.1	IYIFPVLFITASLGCITYIHVKKANDSNM	RCDNKNDAGKGKVTWKRPFIVKGGLGIVSGTEVAMLLMFIGLLVWSFATYLHNFFALITR	162	
AdFRO7	LFAPILITAFLAIAAYILS-----	GEHIPEKKSTKYPSPFRWTFPVIKGGFGVVSATELIGIVLFSAYVIFAIYN---YTMRALAS	168	
AdFRO8	VYIFPIIIVGIIIGLLFLDK-----	AA---QSRSSRTSSISSSPVVSFGLILSSIEILVILLFILFLAWTYARISNDFKKLLP	138	
AhFRO2.1	IYIFPVLFITASLGCITYIHVKKANDSNM	RCDNKNDAGKGKVTWKRPFIVKGGLGIVSGTEVAMLLMFIGLLVWSFATYLHNFFALITQ	162	
AhFRO2.2	LFVPILFIAVLGSIYIHAKKYNFYKMERKNGKKEG--VF	GKRPLVVRGGLGIVSGTELALLFMFIVLLVWSFSNYLNNSFAKISQ	175	
AhFRO2.3	IYIFPVLFITASLGCITYIHVKKANDSNM	RCDNRNDKGGKETWKRPFIVKGGLGIVSGTEVAMLLMFIGLLVWSFASYLHNFFALITQ	162	
AhFRO2.5	LFVPILFIAVLGSIYIHAKKYNFYKIERKNGKKEG--VF	GKRPLVVRGGLGIVSGTELALLFMFIVLLVWSFSNYLNNSFAKISQ	175	
AhFRO7.1	LFAPILITAFLAIAAYILS-----	GEHIPEKKSTKYPSPFRWTFPVIKGGFGVVSATELIGIVLFSAYVIFAIYN---YTMRALAS	165	
AhFRO7.2	LYAPILITAFLAIAAYILS-----	GEHIPEKKSTKYPSPFRWTFPVIKGGFGVVSATELIGIVLFSAYVIFAIYN---YTMRALAS	168	
AhFRO8.1	VYIFPIIIVGIIIGLLFLDK-----	AA---QSRSSRTSSISSSPVVSFGLILSSIEILVILLFILFLAWTYARISNDFKKLLP	138	
AhFRO8.2	VYIFPIIIVGIIIGLLFLDK-----	AA---QSRSSRTSSISSSPVVSFGLILSSIEILVILLFILFLAWTYARISNDFKKLLP	138	
AiFRO2	LFVPILFIAVLGSIYIHAKKYNFYKIERKNGKKEG--VF	GKRPLVVRGGLGIVSGTELALLFMFIVLLVWSFSNYLNNSFAKISQ	175	
AiFRO7	LYAPILITAFLAIAAYILS-----	GEHIPEKKSTKYPSPFRWTFPVIKGGFGVVSATELIGIVLFSAYVIFAIYN---YTMRALAS	169	
AiFRO8	VYIFPIIIVGIIIGLLFLDK-----	AA---QSRSSRTSSISSSPVVSFGLILSSIEILVILLFILFLAWTYARISNDFKKLLP	138	

	TM4	Ferric reduct	TM5	
AtFRO2	KSAAAHDESILQAKLESALRLGL	IGNICLAFLFIPVARSSLLPAMGLTSESSIKYHIWLGHMVMALFTVHGLCYIYWASMH-EISOM	250	
AdFRO2.1	KSAAQFGVKWELKLEDAGLILGL	IGNICLAFLFIPVSRASPVLPLGLTSESCIKYHIWLGHVLTFFTAHGSIYIIFWAATN-QISOM	251	
AdFRO7	--PSHHHLDRRIFMLEIILGRFGG	GLMCMALFLFPVSR-SVLLRYIDIPPEHATRYHVWLGHLTMAFLTTHGLLYCVAWAMDGRIVEEL	256	
AdFRO8	--DKSLKLNWLQKYLRIATRFGL	LAEEACLALLLPILRLALFRILGIQEASVRYHTWLGTAMIFFAAIHGASTCFVWGVSHHIQKEI	226	
AhFRO2.1	KSAAQFGVKWELKLEDAGLILGL	IGNICLAFLFIPVSRASPVLPLGLTSESCIKYHIWLGHVLTFFTAHGSIYIIFWAATN-QISOM	251	
AhFRO2.2	KSAAEDGEKVWQKLDKLSALMLGK	VGNICLAMLFPVTRSSLLPLVGLKSESCIKYHIWLNMLMTIFTAHGLCYIYWAVTN-QLSKM	264	
AhFRO2.3	KSAAQFGVKWELKLEDAGLILGL	IGNICLAFLFIPVSRASPVLPLGLTSESCIKYHIWLGHVLTFFTAHGVSXYIIFWAATN-QISOM	251	
AhFRO2.5	KSAAEDGEKVWQKLDKLSALMLGK	VGNICLAMLFPVTRSSLLPLVGLKSESCIKYHIWLNMLMTIFTAHGLCYIYWAVTN-QLSKM	264	
AhFRO7.1	--PSHHHLDRRIFMLEIILGRFGG	GLMCMALFLFPVSR-SVLLRYIDIPPEHATRYHVWLGHLTMAFLTTHGLLYCVAWAMDGRIVEEL	253	
AhFRO7.2	--PSHHHLDRRIFMLEIILGRFGG	GLMCMALFLFPVSR-SVLLRYIDIPPEHATRYHVWLGHLTMAFLTTHGLLYCVAWAMDGRIVEEL	256	
AhFRO8.1	--DKSLKLNWLQKYLRIATRFGL	LAEEACLALLLPILRLALFRILGIQEASVRYHTWLGTAMIFFAAIHGASTCFVWGVSHHIQKEI	226	
AhFRO8.2	--DKSLKLNWLQKYLRIATRFGL	LAEEACLALLLPILRLALFRILGIQEASVRYHTWLGTAMIFFAAIHGASTCFVWGVSHHIQKEI	226	
AiFRO2	KSAAEDGEKVWQKLDKLSALMLGK	VGNICLAMLFPVTRSSLLPLVGLKSESCIKYHIWLNMLMTIFTAHGLCYIYWAVTN-QLSKM	264	
AiFRO7	--PSHHHLDRRIFMLEIILGRFGG	GLMCMALFLFPVSR-SVLLRYIDIPPEHATRYHVWLGHLTMAFLTTHGLLYCVAWAMDGRIVEEL	257	
AiFRO8	--DKSLKLNWLQKYLRIATRFGL	LAEEACLALLLPILRLALFRILGIQEASVRYHTWLGTAMIFFAAIHGASTCFVWGVSHHIQKEI	226	

	TM6	TM7	
AtFRO2	IMWDTKGVSNLAGEIALAAGLVMA	TYPKIRRRFEVFFYTHLYITFVLVFIHVGISFSFIALPGFYIFLVDRLRFLQSRNVRLI	340
AdFRO2.1	VKWEKIGISNVAGEISL	CGLILWATIPGIRRRFELFFYAHYLYIFFMFIHFIHVGISYASIMLPGFYIFMVDRLRFLQSRTHIHLV	341
AdFRO7	IQWKDIGVANLPGVIAL	AGLFMWISLPGVRTWNFELFFYTHQLYITFVVLALHVGDFVFTMAAGGIFLILDRFLRFLQSRRTVKV	346
AdFRO8	WKQSTGRIYLAGAITL	TGLVIYISLPGIIRRMKFEIFYTHHLYITFVLVFIHVGISYACIMLPGFYIFLVDRLRFLQSRQARLV	316
AhFRO2.1	VKWEKIGISNVAGEISL	CGLILWATIPGIRRRFELFFYAHYLYIFFMFIHFIHVGISYASIMLPGFYIFMVDRLRFLQSRTHIHLV	341
AhFRO2.2	LEWKKTGISNVAGEISL	IGLLMWITFPIIRRKAFELFFYTHHLYITFVLVFIHVGISYACIMLPGFYIFLVDRLRFLQSRQARLV	354
AhFRO2.3	VKWEKIGISNVAGEISL	CGLILWATIPGIRRKFEFFYAHYLYIFFMFIHFIHVGISYASIMLPGFYIFMVDRLRFLQSRTHVHLV	341
AhFRO2.5	LEWKKTGISNVAGEISL	IGLLMWITFPIIRRKAFELFFYTHHLYITFVLVFIHVGISYACIMLPGFYIFLVDRLRFLQSRQARLV	354
AhFRO7.1	IQWKDIGVANLPGVIAL	AGLFMWISLPGVRTWNFELFFYTHQLYITFVVLALHVGDFVFTMAAGGIFLILDRFLRFLQSRRTVKV	343
AhFRO7.2	IQWKDIGVANLPGVIAL	AGLFMWISLPGVRTWNFELFFYTHQLYITFVVLALHVGDFVFTMAAGGIFLILDRFLRFLQSRRTVKV	346
AhFRO8.1	WKQSTGRIYLAGAITL	TGLVIYISLPGIIRRMKFEIFYTHHLYITFVLVFIHVGISYACIMLPGFYIFLVDRLRFLQSRQARLV	316
AhFRO8.2	WKQSTGRIYLAGAITL	TGLVIYISLPGIIRRMKFEIFYTHHLYITFVLVFIHVGISYACIMLPGFYIFLVDRLRFLQSRQARLV	316
AiFRO2	LEWKKTGISNVAGEISL	IGLLMWITFPIIRRKAFELFFYTHHLYITFVLVFIHVGISYACIMLPGFYIFLVDRLRFLQSRQARLV	354
AiFRO7	IQWKDIGVANLPGVIAL	AGLFMWISLPGVRTWNFELFFYTHQLYITFVVLALHVGDFVFTMAAGGIFLILDRFLRFLQSRRTVKV	347
AiFRO8	WKQSTGRIYLAGAITL	TGLVIYISLPGIIRRMKFEIFYTHHLYITFVLVFIHVGISYACIMLPGFYIFLVDRLRFLQSRQARLV	316

	TM8	FAD binding 8	
AtFRO2	AARILPSDTMELTFKNSKLVYSP	TSIMFVNIPSTSKLQWHPFTITSSSKLEPEKLSIVIKKEGKWTSLHQRLLSSSD-----QIDRLAV	425
AdFRO2.1	SARVLPCDTIELNFSKTHE	SYTPTSVMFINIPSTSKLQWHPFTITSSSKWEPEKLSVVIKSEGTWSKKLYQMLSTP-----TIDHIDV	425
AdFRO7	SSRCLPCGTVELVLSKPPNRYNAL	SFIIFQIRELSWLQWHPFSVSSSPLDGKNHPLAVLIKVLGKWTENLRDRITDADEPKDLSVKTITA	436
AdFRO8	SARTFPSKAVEIILPKDPWLYK	YMATSVIFMKIPALSHLQWHSFSITSSSRAENQTMVVIKSEGWTSNSLYDLIQAEIEKGADKRKGIPV	406
AhFRO2.1	SARVLPCDTIELNFSKTHE	SYTPTSVMFINIPSTSKLQWHPFTITSSSKLEPEKLSVVIKSEGTWSKKLYQMLSTP-----TIDHIDV	425
AhFRO2.2	SARVLPCDTIELNFSKTHE	SYTPTSVMFINIPSTSKLQWHPFTITSSSKLEPEKLSVVIKSEGTWSKKLYQMLSTP-----TIDHIDV	439
AhFRO2.3	SARVLPCDTIELNFSKTHE	SYTPTSVMFINIPSTSKLQWHPFTITSSSKLEPEKLSVVIKSEGTWSKKLYQMLSTP-----TIDHIDV	425
AhFRO2.5	SARVLPCDTIELNFSKTHE	SYTPTSVMFINIPSTSKLQWHPFTITSSSKLEPEKLSVVIKSEGTWSKKLYQMLSTP-----TIDHIDV	439
AhFRO7.1	SSRCLPCGTVELVLSKPPNRYNAL	SFIIFQIRELSWLQWHPFSVSSSPLDGKNHPLAVLIKVLGKWTENLRDRITDADEPKDLSVKTITA	433
AhFRO7.2	SSRCLPCGTVELVLSKPPNRYNAL	SFIIFQIRELSWLQWHPFSVSSSPLDGKNHPLAVLIKVLGKWTENLRDRITDADEPKDLSVKTITA	436
AhFRO8.1	SARTFPSKAVEIILPKDPWLYK	YMATSVIFMKIPALSHLQWHSFSITSSSRAENQTMVVIKSEGWTSNSLYDLIQAEIEKGADKRKGIPV	406
AhFRO8.2	SARTFPSKAVEIILPKDPWLYK	YMATSVIFMKIPALSHLQWHSFSITSSSRAENQTMVVIKSEGWTSNSLYDLIQAEIEKGADKRKGIPV	406
AiFRO2	SARVLPCDTIELNFSKTHE	SYTPTSVMFINIPSTSKLQWHPFTITSSSKLEPEKLSVVIKSEGTWSKKLYQMLSTP-----TIDHIDV	439
AiFRO7	SSRCLPCGTVELVLSKPPNRYNAL	SFIIFQIRELSWLQWHPFSVSSSPLDGKNHPLAVLIKVLGKWTENLRDRITDADEPKDLSVKTITA	437
AiFRO8	SARTFPSKAVEIILPKDPWLYK	YMATSVIFMKIPALSHLQWHSFSITSSSRAENQTMVVIKSEGWTSNSLYDLIQAEIEKGADKRKGIPV	406

