

Figure S1 – UPGMA tree for ASB1 orthologs

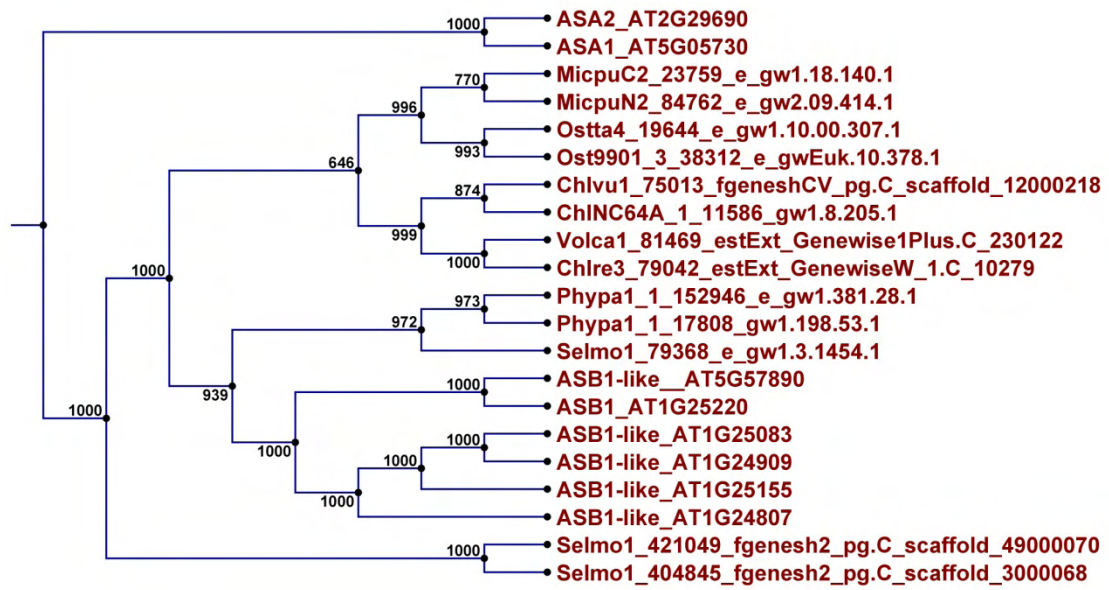


Figure S2 – UPGMA tree for ASA1-ASA2 orthologs

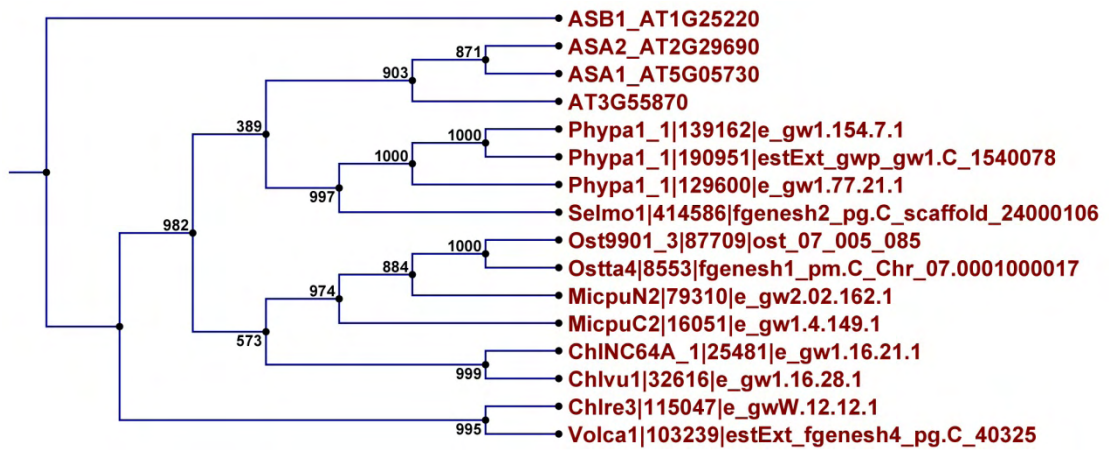


Figure S3 – UPGMA tree for PAT1 orthologs

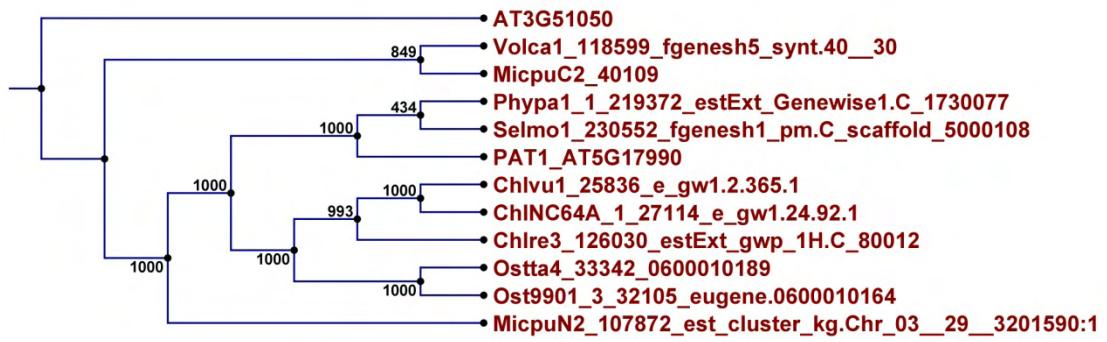


Figure S4 – UPGMA tree for PAI1,2,3 orthologs

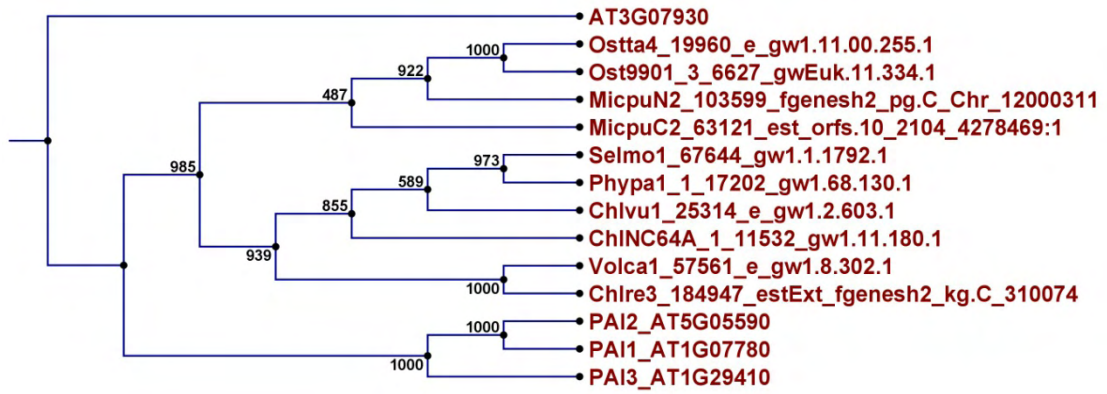


Figure S5 – UPGMA tree for IGPS orthologs

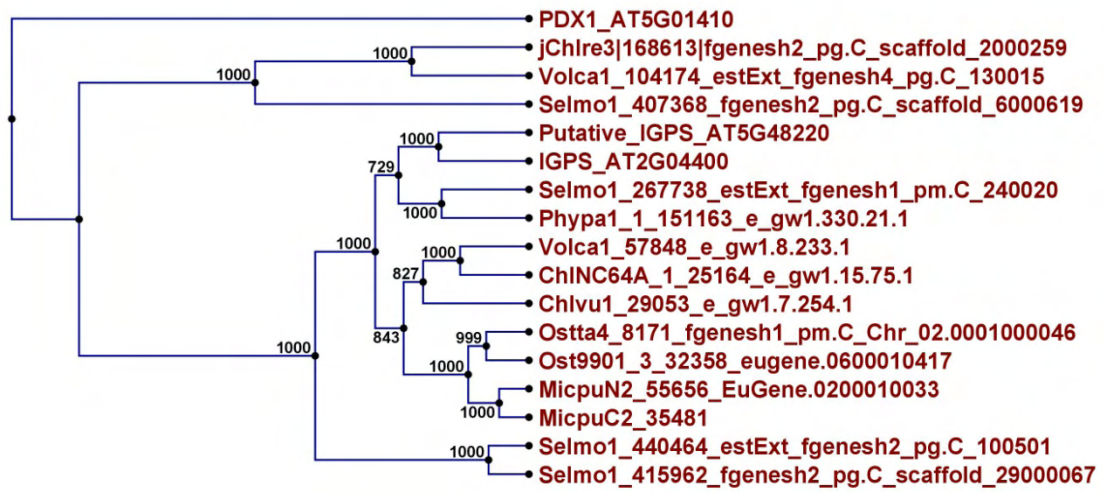


Figure S6 – UPGMA tree for TSA1 orthologs

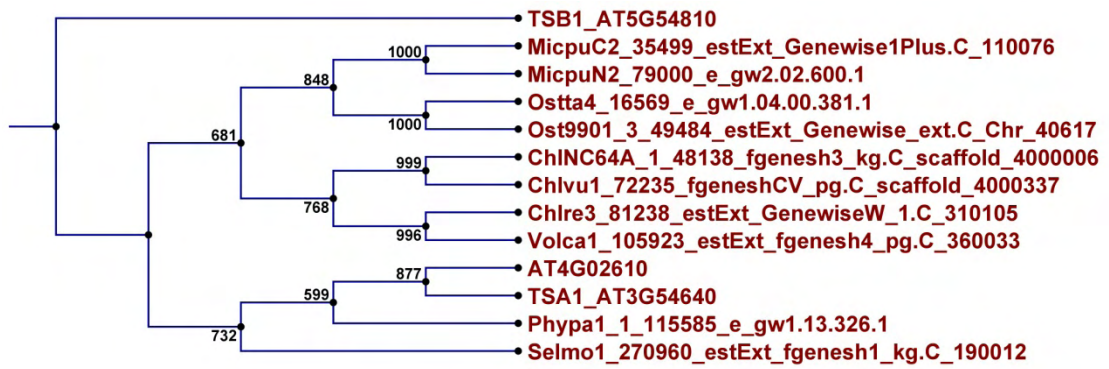


Figure S7 – UPGMA tree for TSB1-TSB2 orthologs

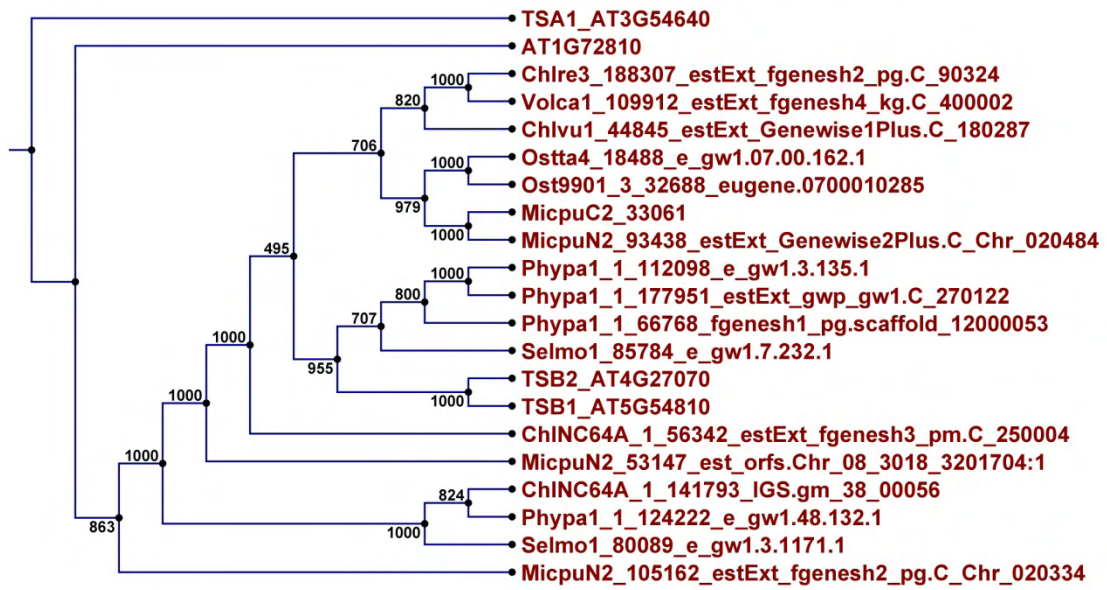


Figure S8 – UPGMA tree for TAA1-TAR1-TAR2-TAR3-TAR4 orthologs

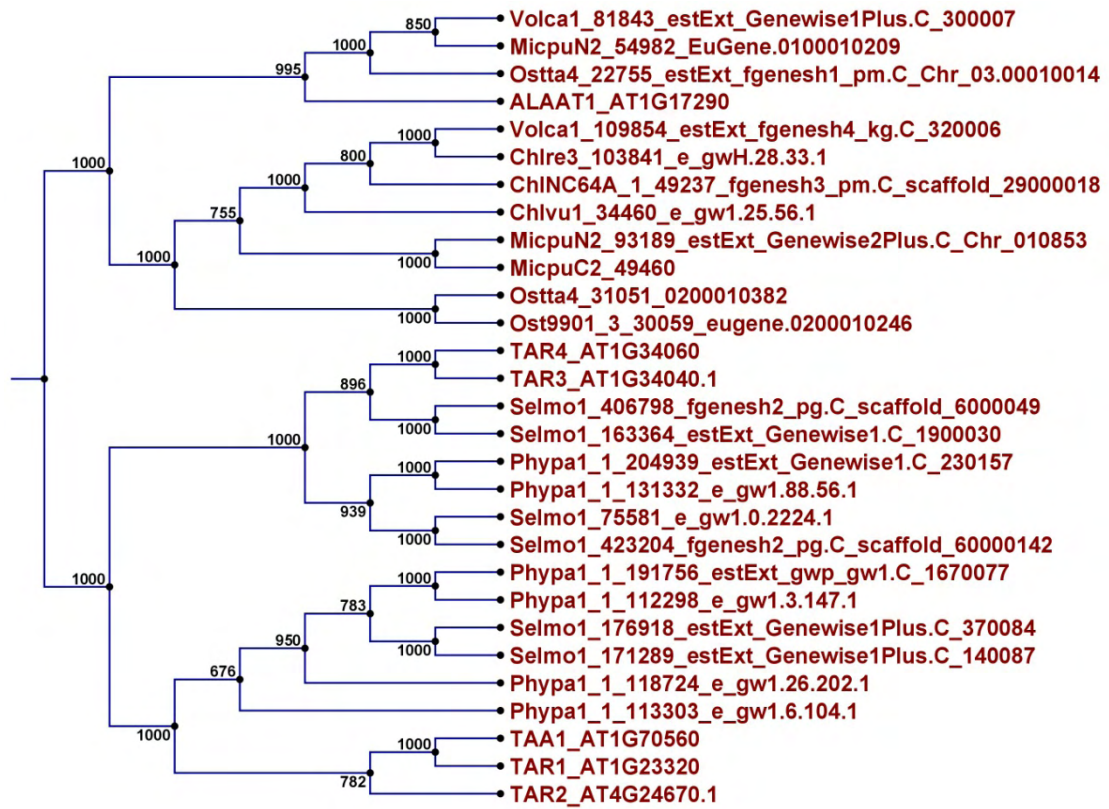


Figure S9 – UPGMA tree for SUR1 orthologs

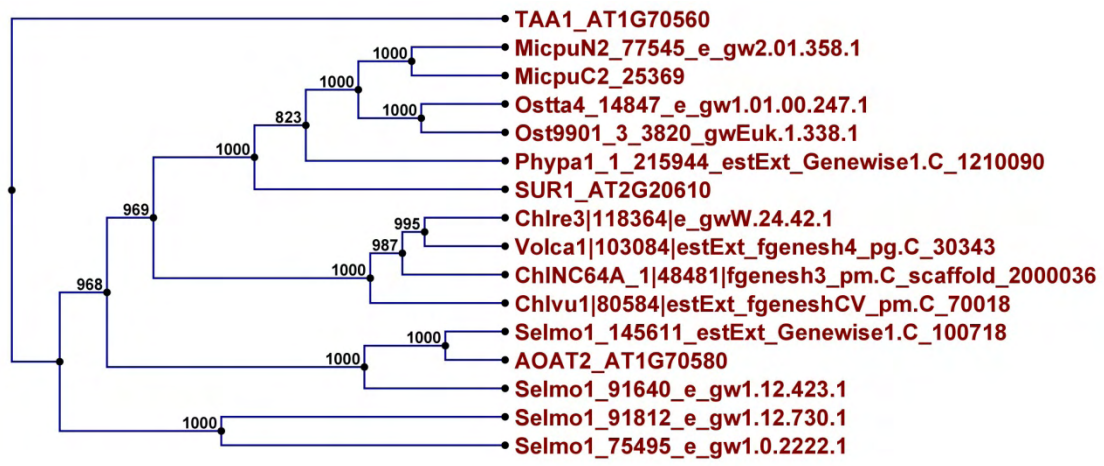


Figure S10 – UPGMA tree for UGT74B1 and UGT84B1

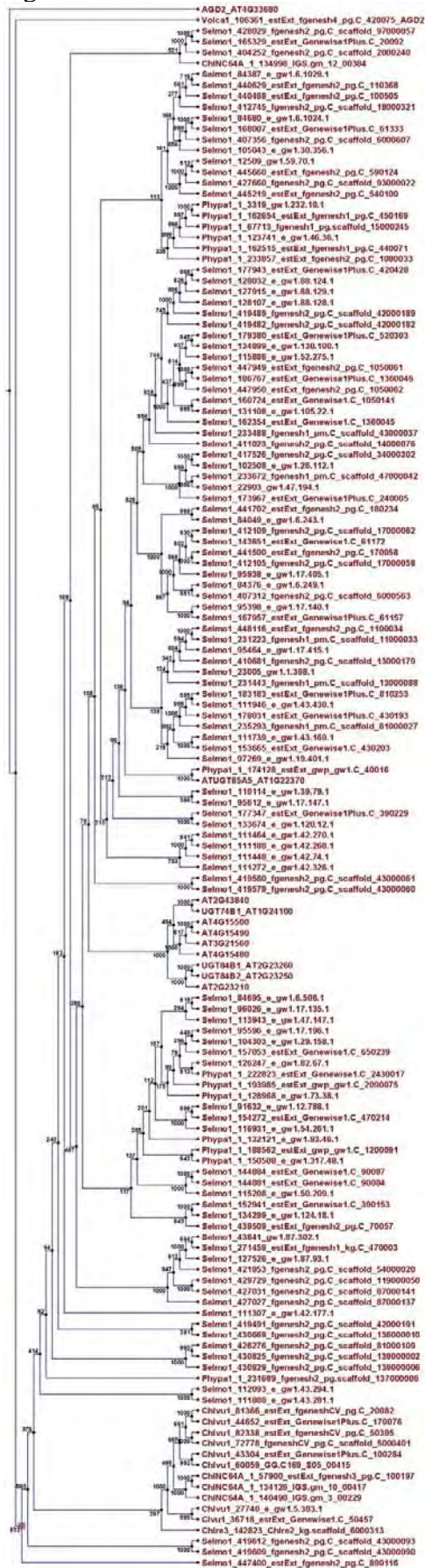


Figure S11 – UPGMA tree for ST5A orthologs

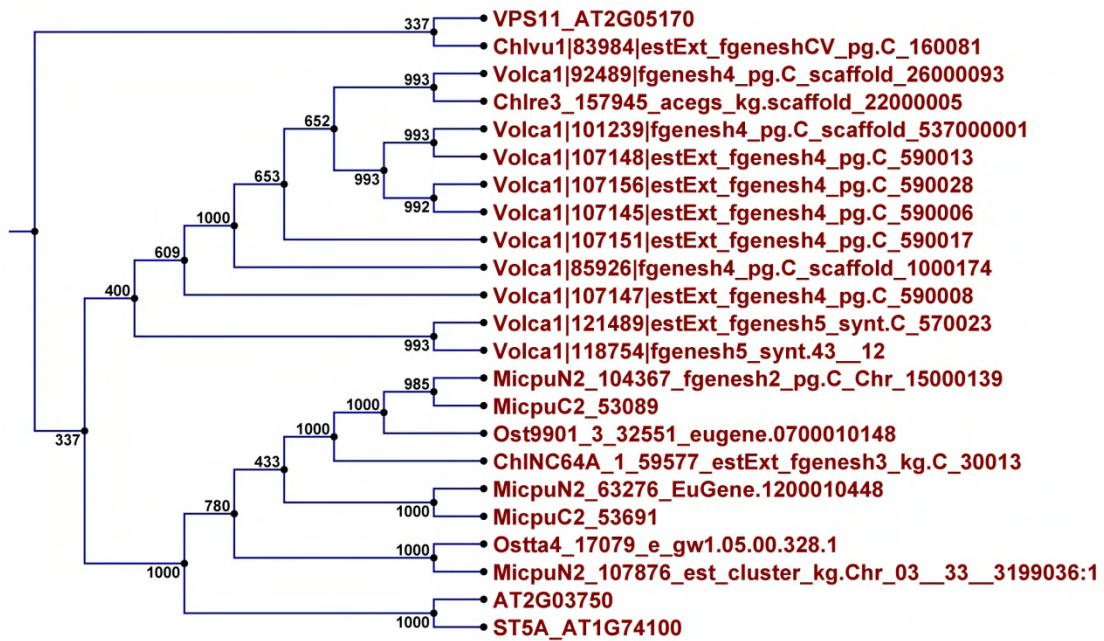


Figure S12 – UPGMA tree for TGG1-TGG2 orthologs

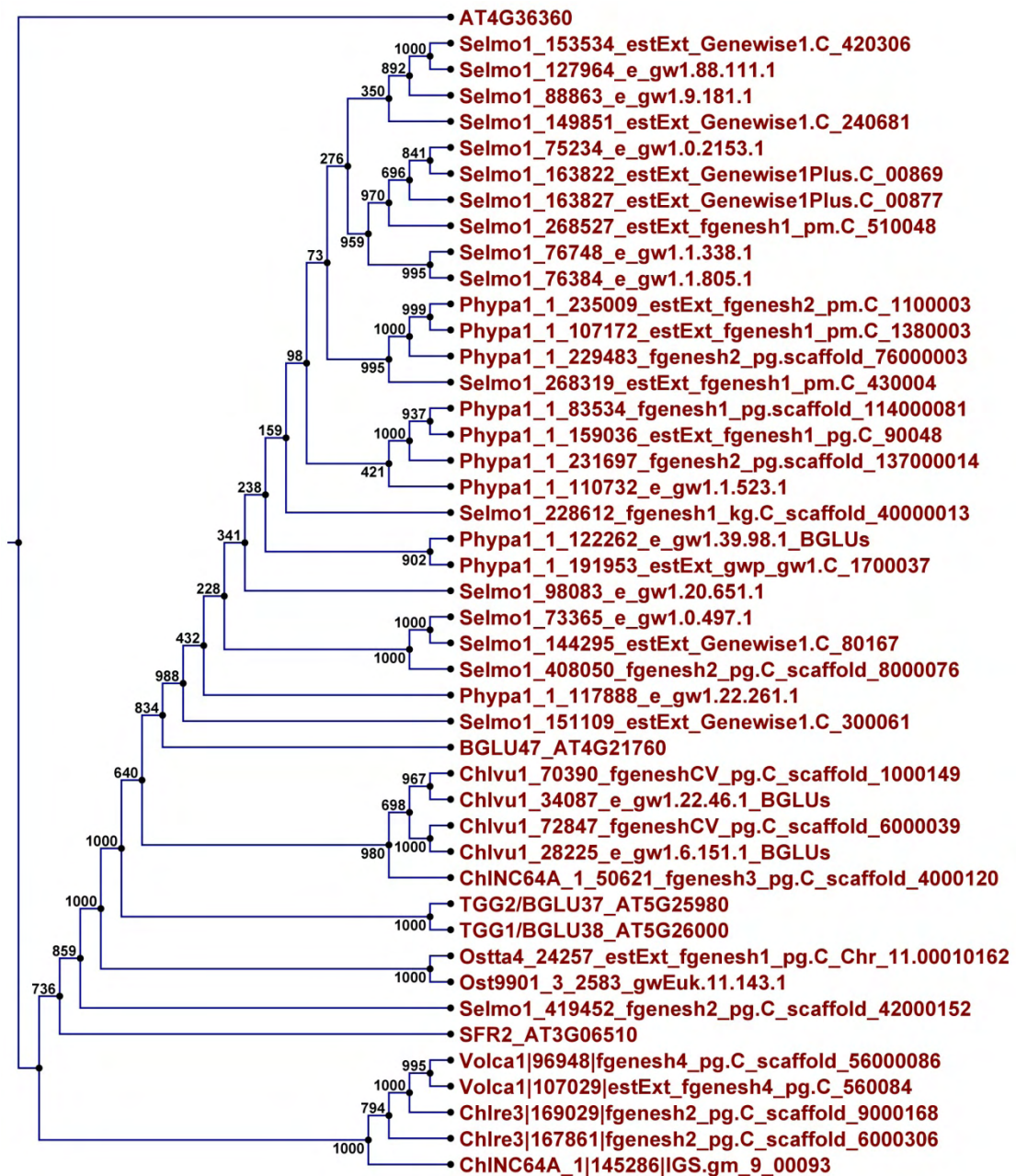


Figure S13 – UPGMA tree for ESP orthologs

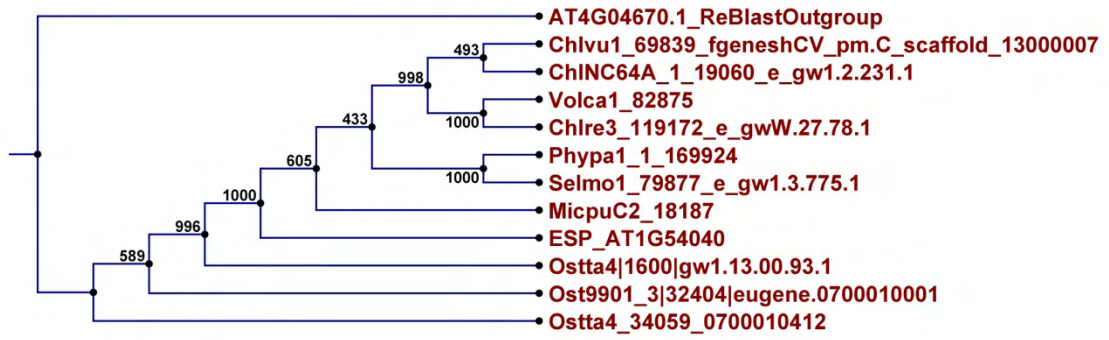


Figure S14 – UPGMA tree for ESM1 orthologs

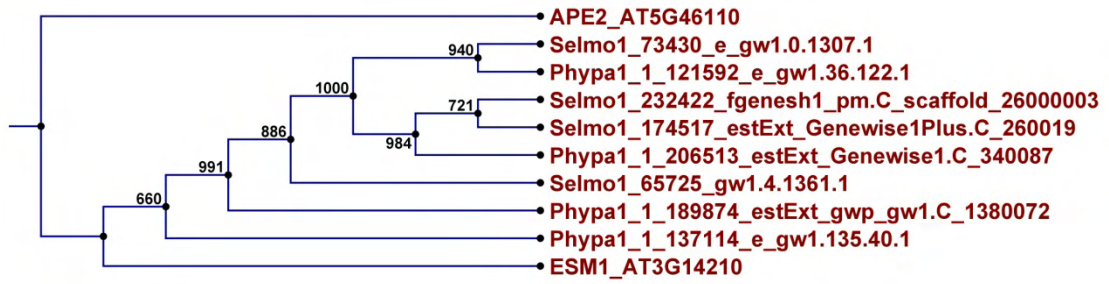


Figure S15 – UPGMA tree for YUCCA orthologs

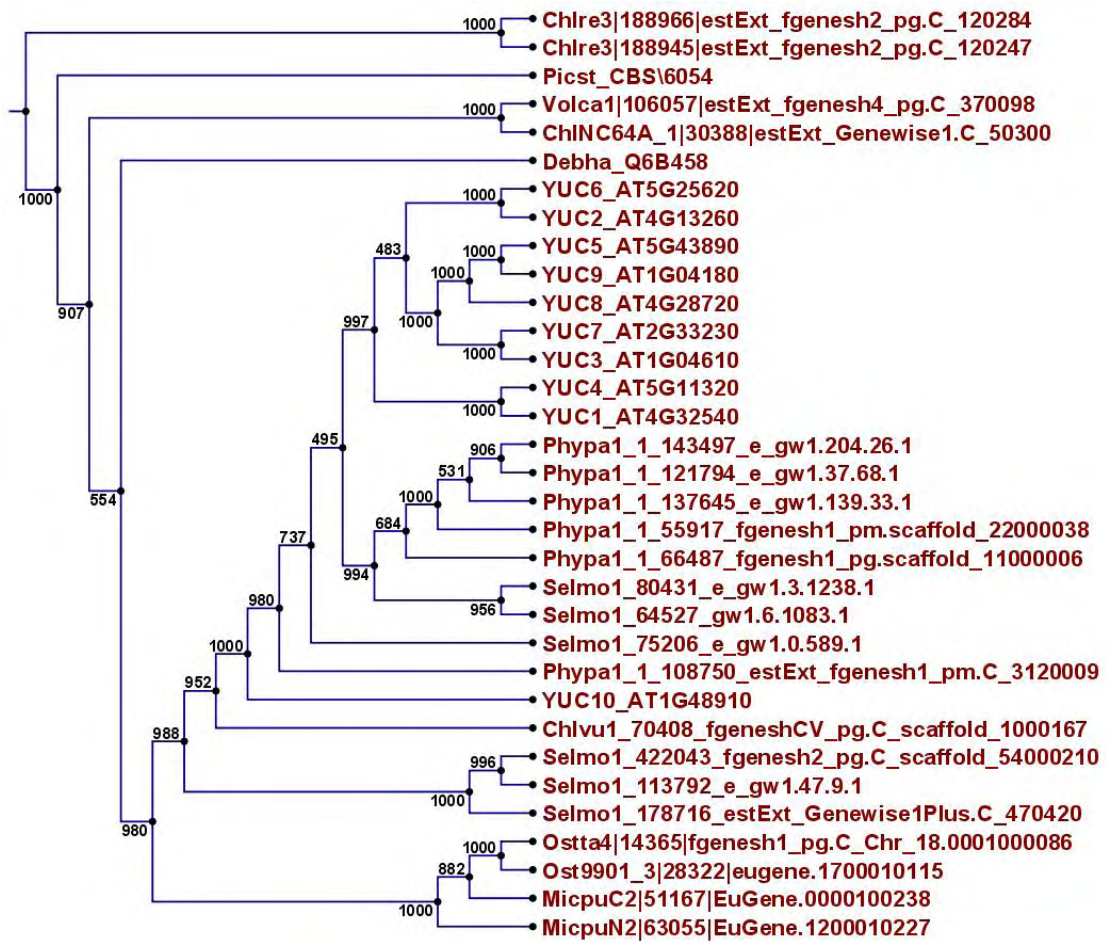


Figure S16 – UPGMA tree for AMI1 orthologs

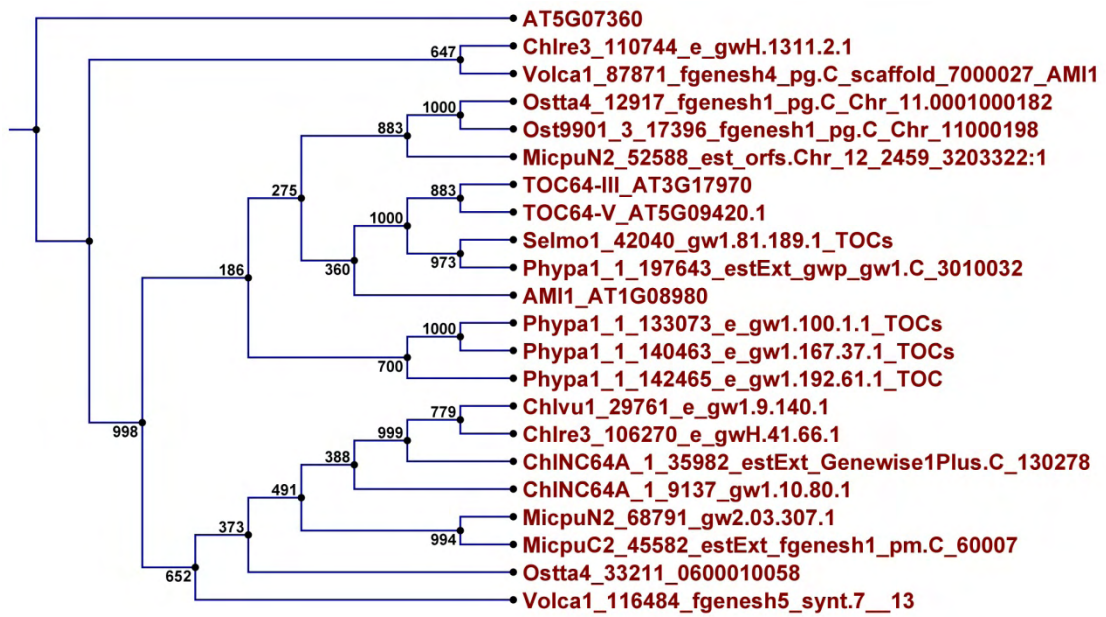


Figure S17 – UPGMA tree for NITRILASES orthologs

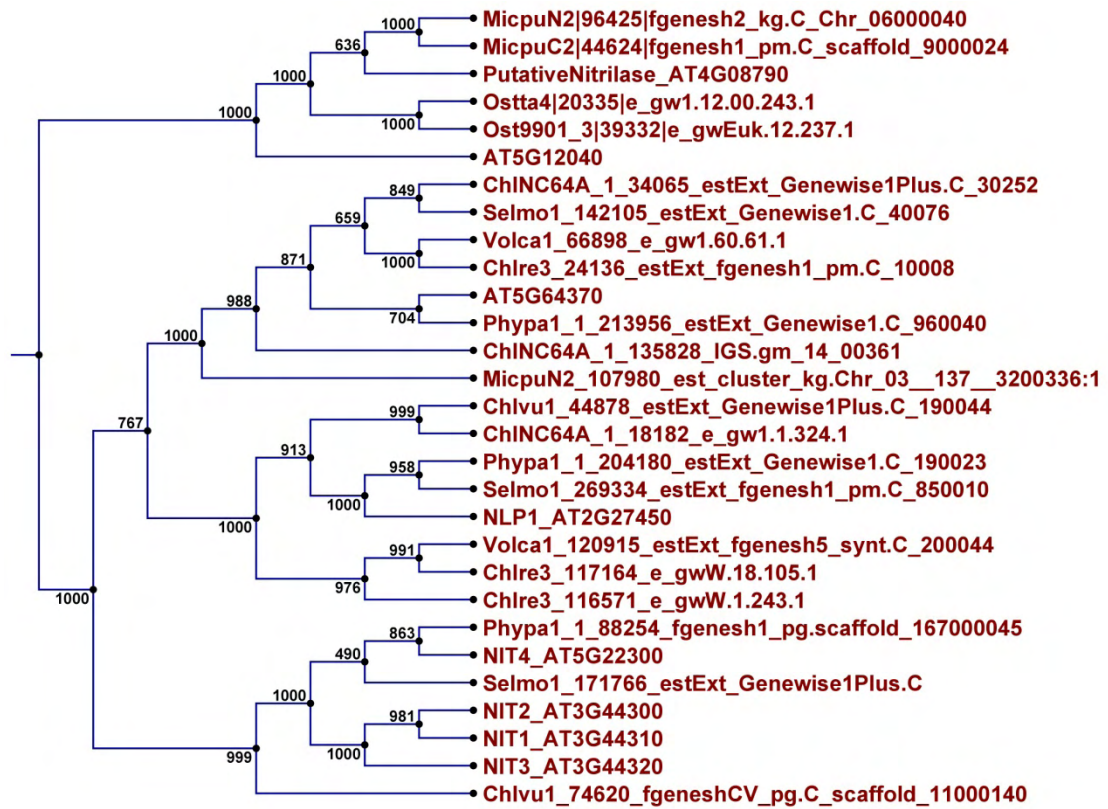


Figure S18 – UPGMA tree for ILL1-6-ILR1-IAR3 orthologs

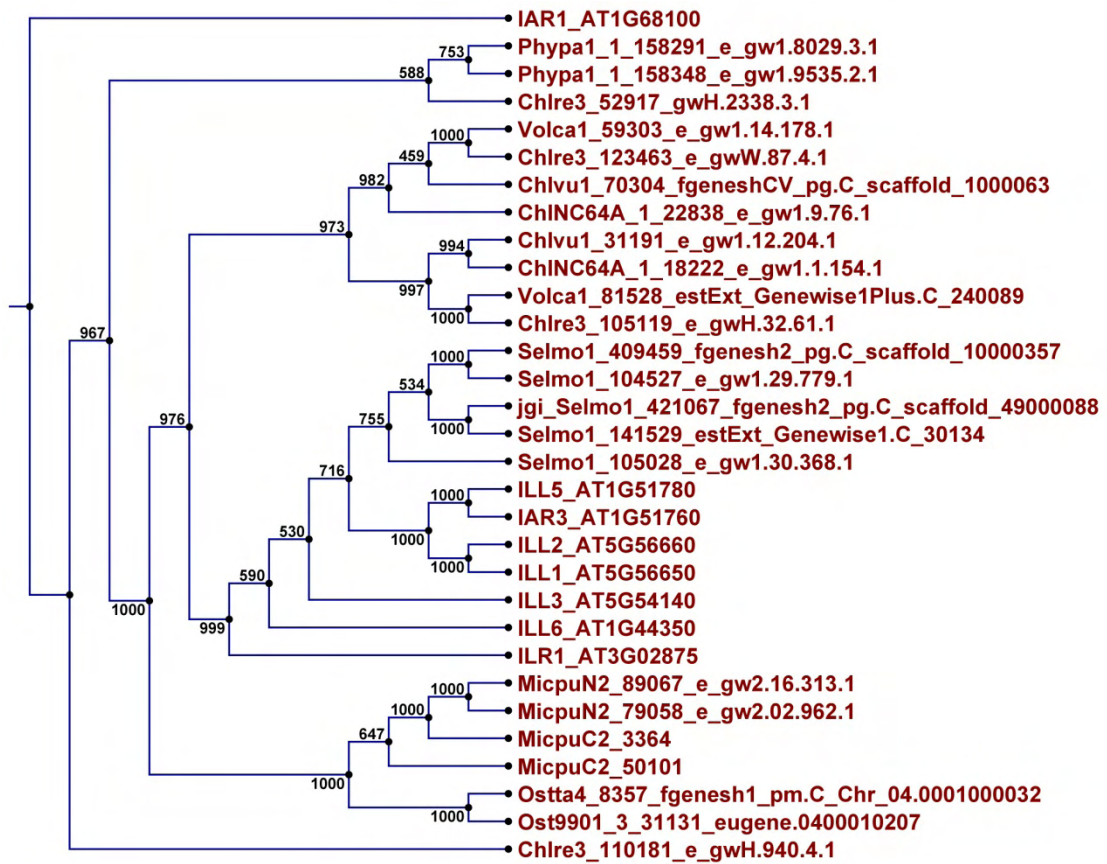


Figure S19 – UPGMA tree for GH3s

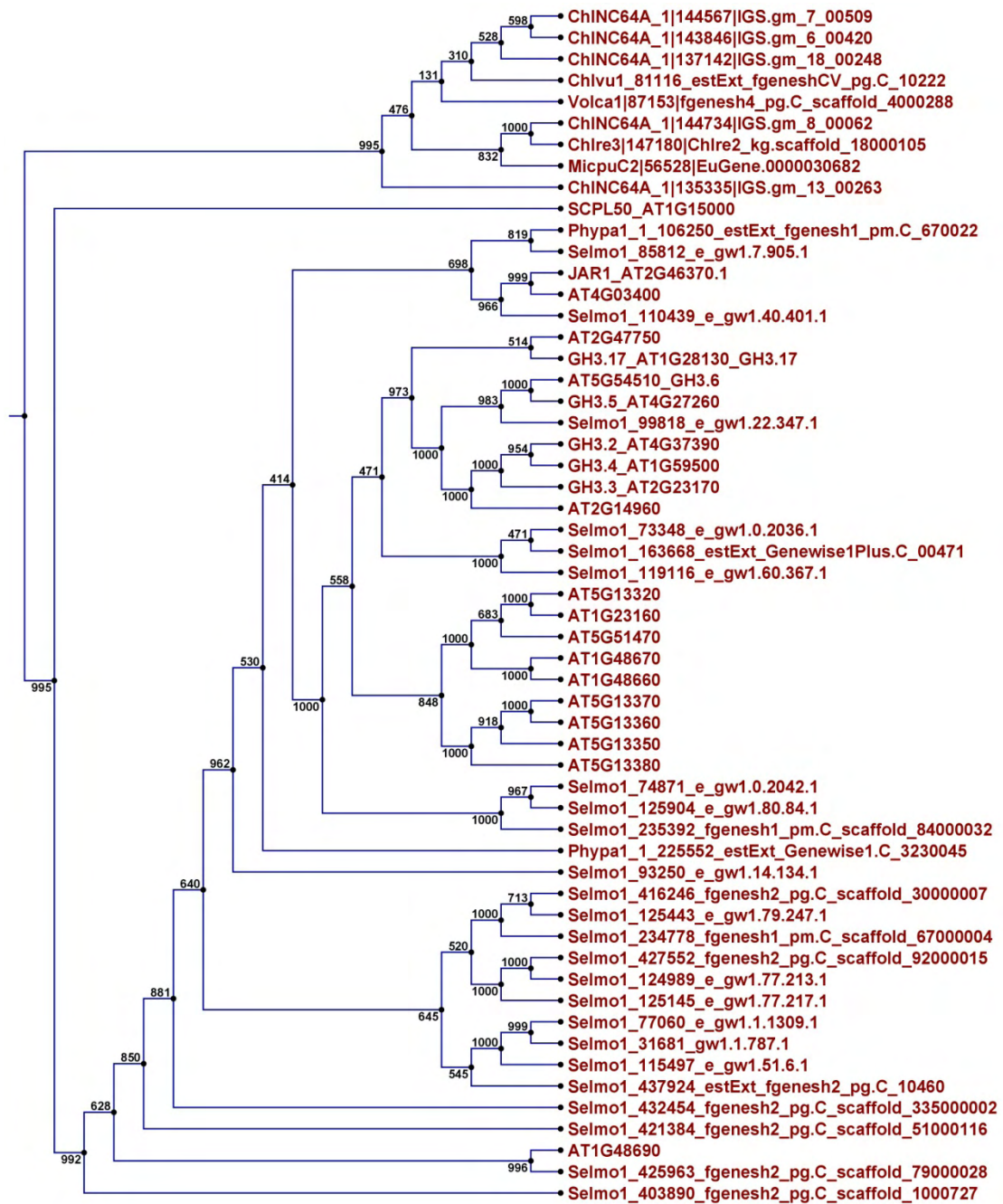


Figure S20 – UPGMA tree for IAR4 orthologs

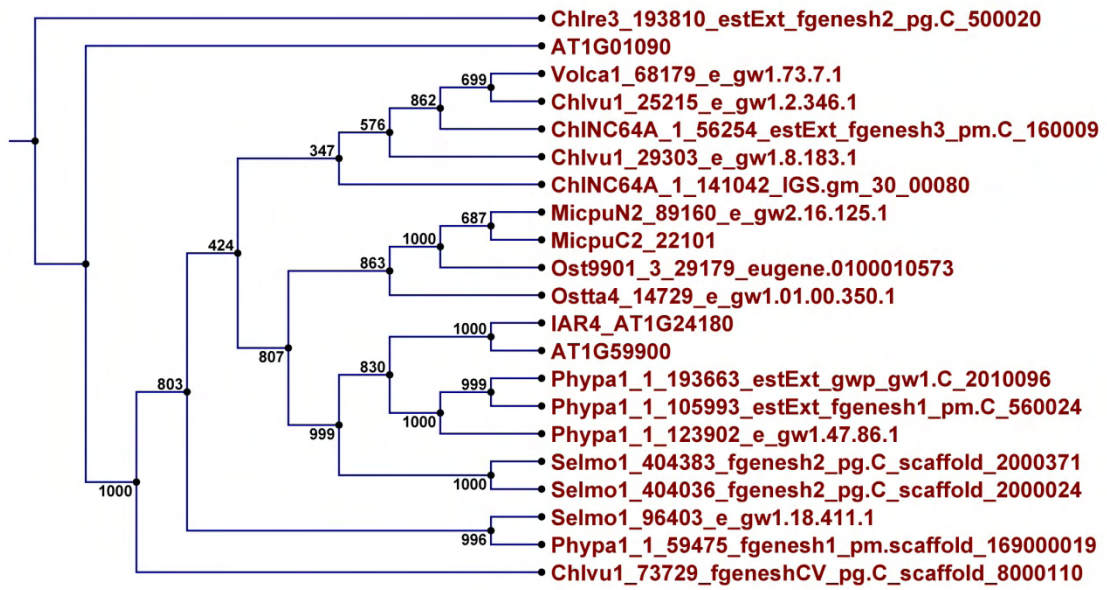


Figure S21 – UPGMA tree for IAMT1 orthologs

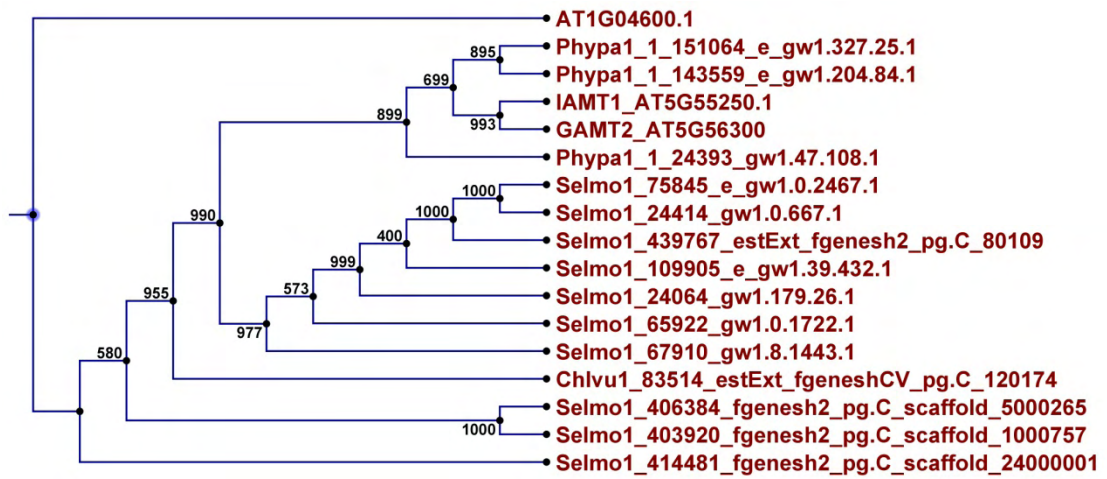
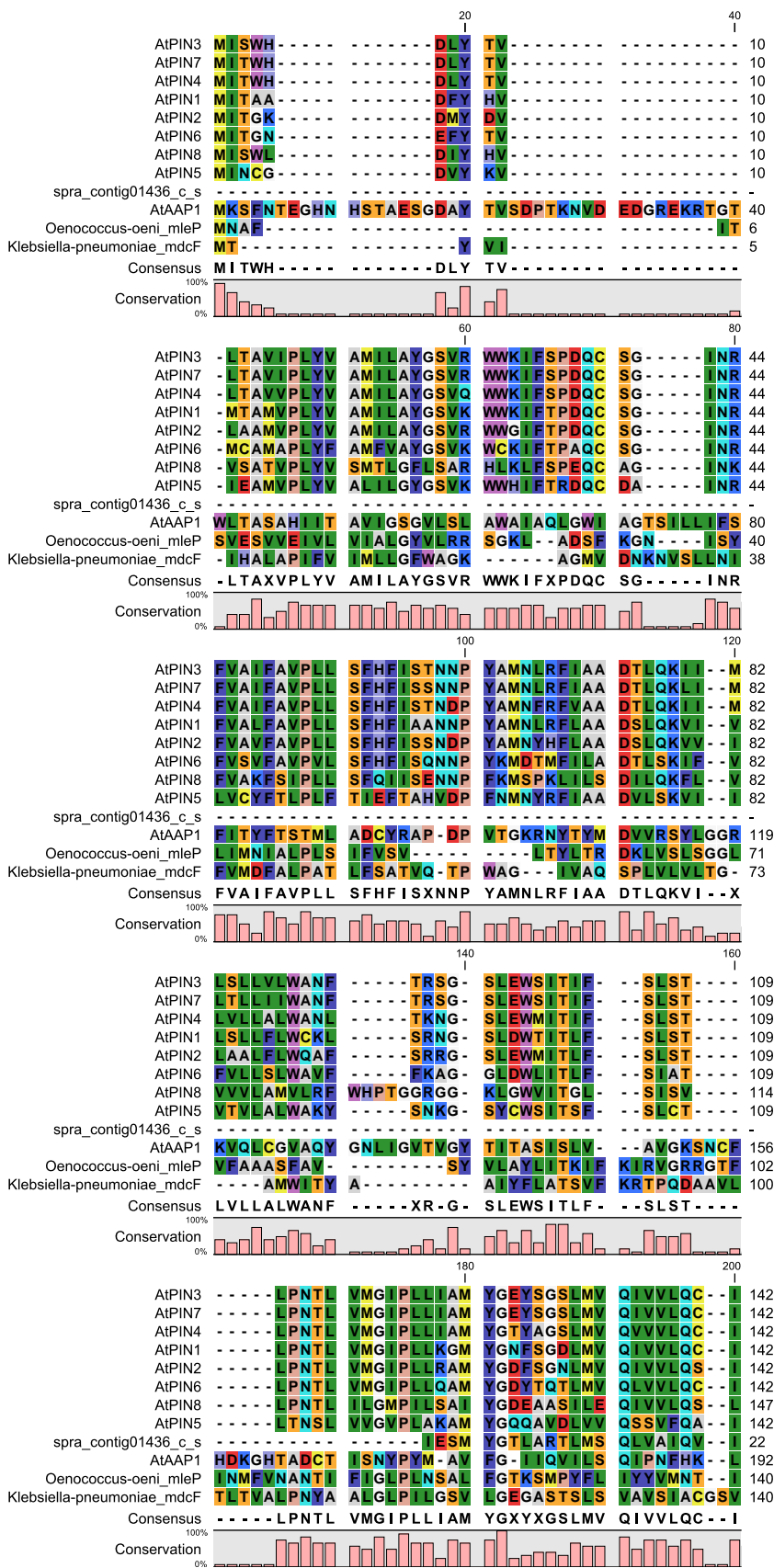
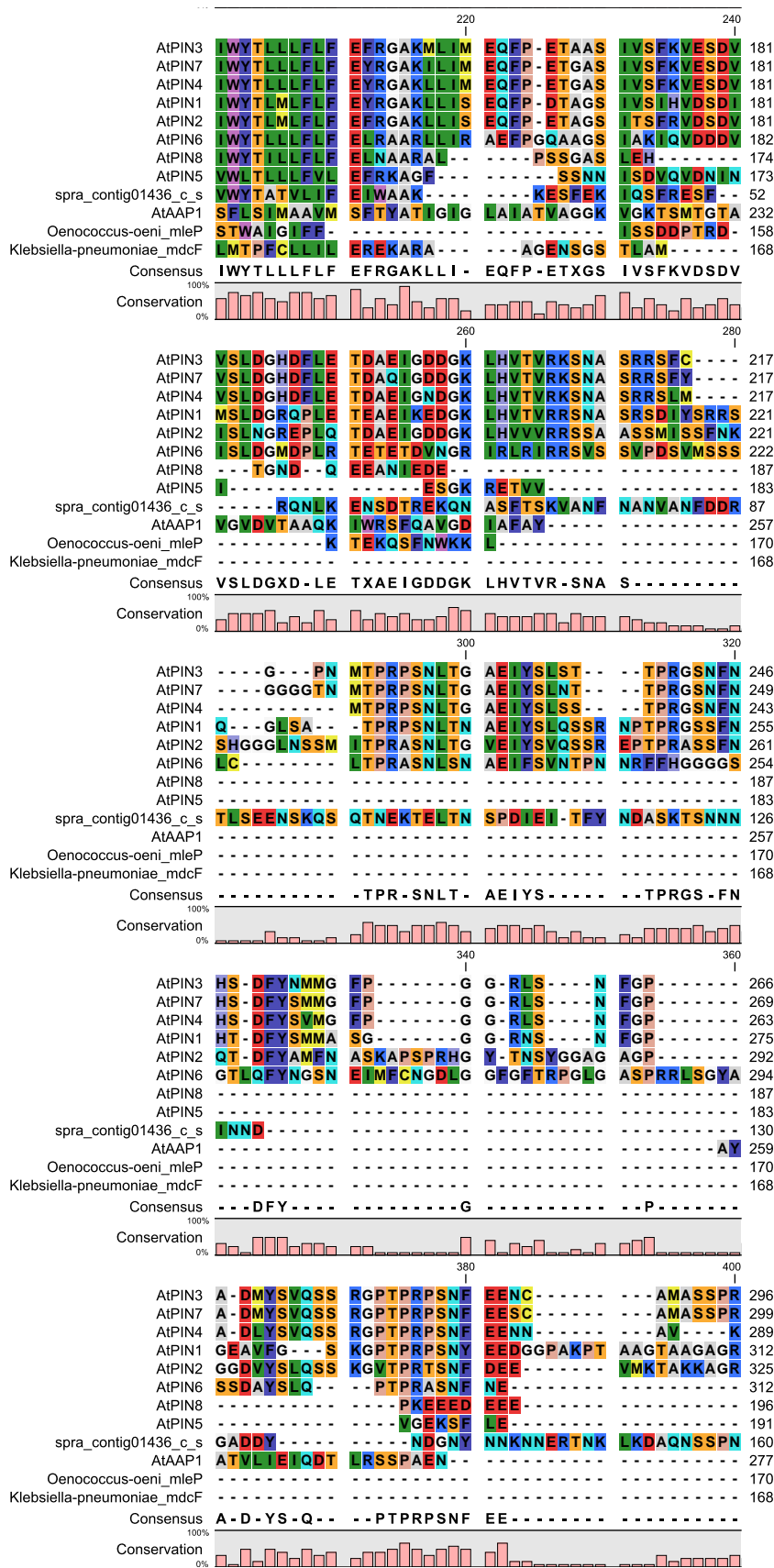
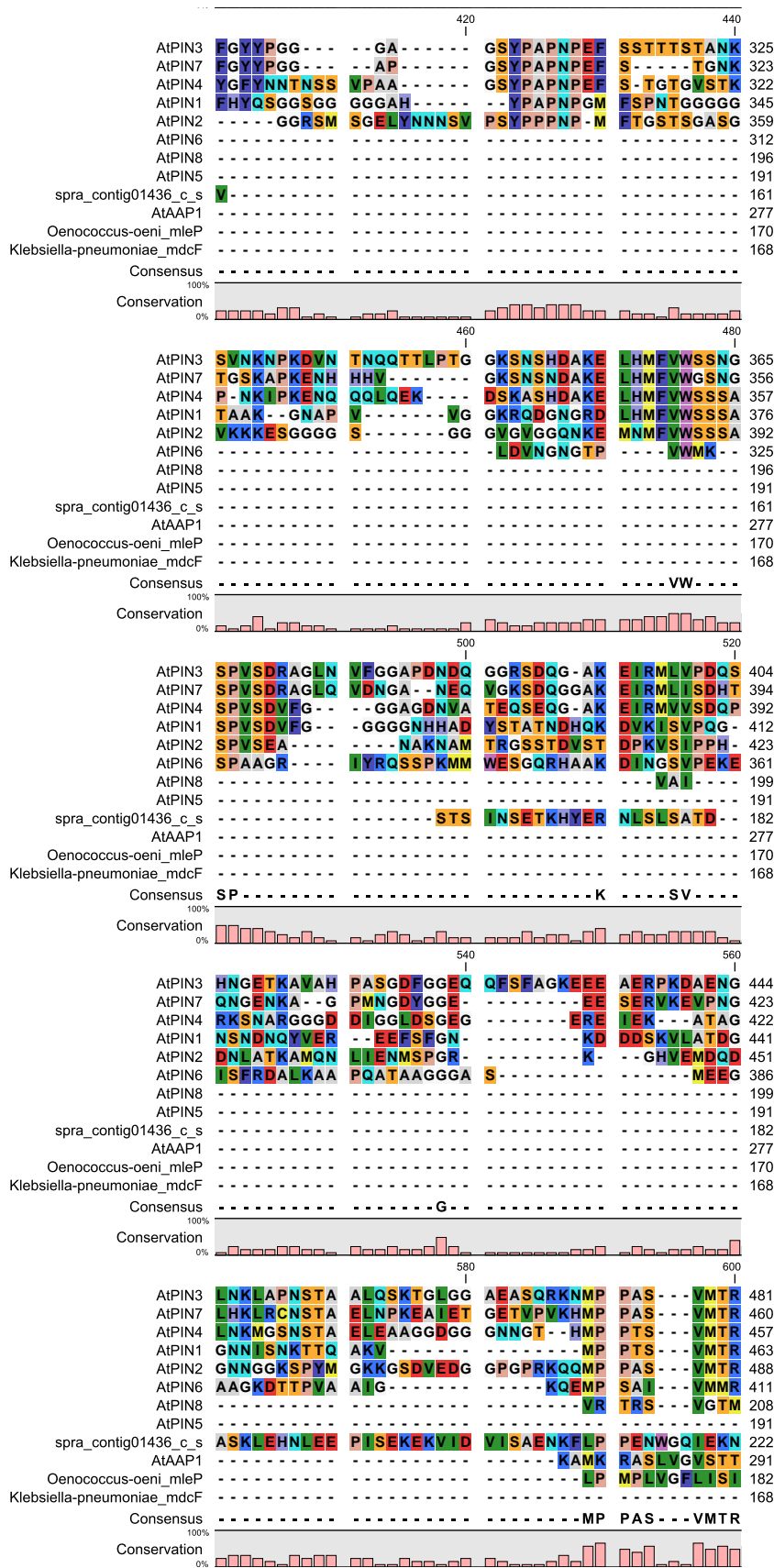


Figure S22 – Alignment of AtPIN proteins and putative orthologs







620 640

AtPIN3 L - - - - I L I M V W R K L I R N - P N T Y S S L I G L I - - - W A - - - - 507
 AtPIN7 L - - - - I L I M V W R K L I R N - P N T Y S S L I G L I - - - W A - - - - 486
 AtPIN4 L - - - - I L I M V W R K L I R N - P N T Y S S L I G L I - - - W A - - - - 483
 AtPIN1 L - - - - I L I M V W R K L I R N - P N S Y S S L F G I T - - - W S - - - - 489
 AtPIN2 L - - - - I L I M V W R K L I R N - P N T Y S S L F G I A - - - W S - - - - 514
 AtPIN6 L - - - - I L T V V G R K L S R N - P N T Y S S L G L V L - - - W S - - - - 437
 AtPIN8 K - - - - I L L K A W R K L I I N - P N T Y A T L I G I I - - - W A - - - - 234
 AtPIN5 - - - - - V M S L V W L K L A T N - P N C Y S C I L G I A - - - W A - - - - 216
 spr_a_contig01436_c_s L E K E F Q V G T I L F R K L V A N - P S L H S S L Y G V I - - - Y S - - - - 253
 AtAAP1 T F F Y I L C G C I G Y A A F G N N A P G D F L T D F G F F E P E W L I D F A N 331
 Oenococcus-oeni_mleP V V L L L A I P I P G W - - - - - V S T T F S M V G G I V T P M - - - - - 209
 Klebsiella-pneumoniae_mdCF - - - - - P V L M W R S V - - - K K P I V W G P L G W - - - - - 189

Consensus L - - - - I L I M V W R K L I R N - P N T Y S S L I G L I - - - W A - - - -

Conservation 100% 0%

660 680

AtPIN3 - - - - L V A F R W H V A M P - - K I I Q Q S I S - - - - I L S D A 531
 AtPIN7 - - - - L V A F R W D V A M P - - K I I Q Q S I S - - - - I L S D A 510
 AtPIN4 - - - - L V A Y R W H V A M P - - K I I Q Q S I S - - - - I L S D A 507
 AtPIN1 - - - - L I S F K W N I E M P - - A L I A K S I S - - - - I L S D A 513
 AtPIN2 - - - - L V S F K W N I K M P - - T I M S G S I S - - - - I L S D A 538
 AtPIN6 - - - - L I S F K W N I P M P - - N I V D F S I K - - - - I L S D A 461
 AtPIN8 - - - - T L H F R L G W N L P - - E M I D K S I H - - - - L L S D G 258
 AtPIN5 - - - - F I S N R W H L E L P - - G I L E G S I L - - - - I M S K A 240
 spr_a_contig01436_c_s - - - - L I A F G F D F K M P - - L L L K N N L D - - - - I I A N T 277
 AtAAP1 A C I A V H L I G A Y Q V F A Q P I F Q F Y E K K C N R N Y P D N K F I T S E Y 371
 Oenococcus-oeni_mleP - - - - - S - - - - - S L I Y I G I - - - - - I L A D A 221
 Klebsiella-pneumoniae_mdCF - - - - - V L S A I G I K M P D L L L A S - - - - - I K P 209

Consensus - - - - L X X F R W X I A M P - - K I I Q X S I S - - - - I L S D A

Conservation 100% 0%

700 720

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 AtPIN4 G L G - - - M A M F S L G L F - M A L Q P K I I A C G N S V A T F A M A V R F I 543
 AtPIN1 G L G - - - M A M F S L G L F - M A L N P R I I A C G N R R A A F A A A M R F V 549
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 AtPIN6 G L G - - - M A M F S L G L F - M A L Q P K M P C G A K K A T M G M L I R F I 497
 AtPIN8 G L G - - - M A M F S L G L F - M A S Q S S T I A C G T K M A I I T M L K F V 294
 AtPIN5 G T G - - - T A M F N M G I F - M A L Q E K L I V C G T S L T V M G M V L K F I 276
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 Oenococcus-oeni_mleP G L K S I H F D R D S I - - - - - - - - - - - I A L I G R F I 241
 Klebsiella-pneumoniae_mdCF G L A A T A A A L F L T G V I L S A R K L Q L - - - - N A L I A T S T I V K L L 245

Consensus G L G - - - M A M F S L G L F - M A L Q P K X I A C G N S V A T F A M A V R F I

Conservation 100% 0%

740 760

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 AtPIN4 T G P A V M A V A G I A I G L H G D L L R T A - - I V Q A A L P Q - G I V P F V 580
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 AtPIN2 T G P A V I A A T S I A I G L R G D L L H I A - - I V Q A A L P Q - G I V P F V 611
 AtPIN6 S G P L F M A G A S L L V G L R G S R L H A A - - I V Q A A L P Q - G I V P F V 534
 AtPIN8 L G P A L M I A S A Y C I R L K S T L F K V A - - I I Q A A L P Q - G V V P F V 331
 AtPIN5 A G P A A M A I G S I V L G L H G D V L R V A - - I I Q A A L P Q - S I T S F I 313
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 Klebsiella-pneumoniae_mdCF V Q P F I A W G L V M L L G L H G S I A I T A L M A A A A G F F G V - - - V 282

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Conservation 100% 0%

780 800

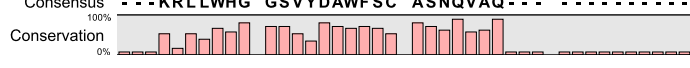
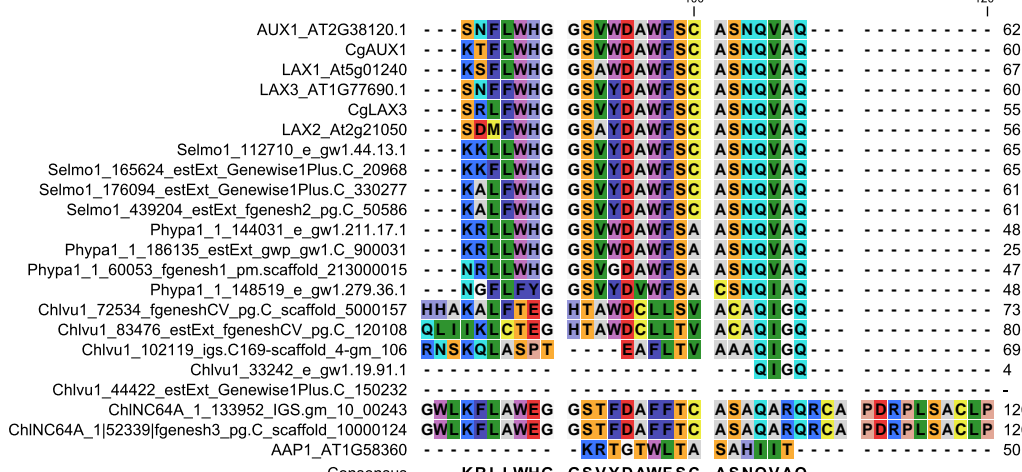
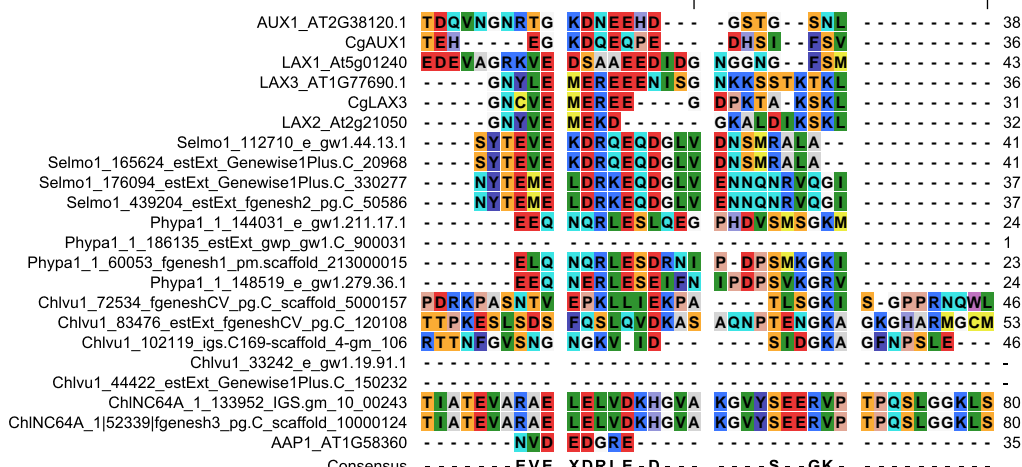
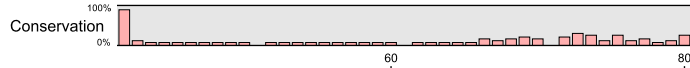
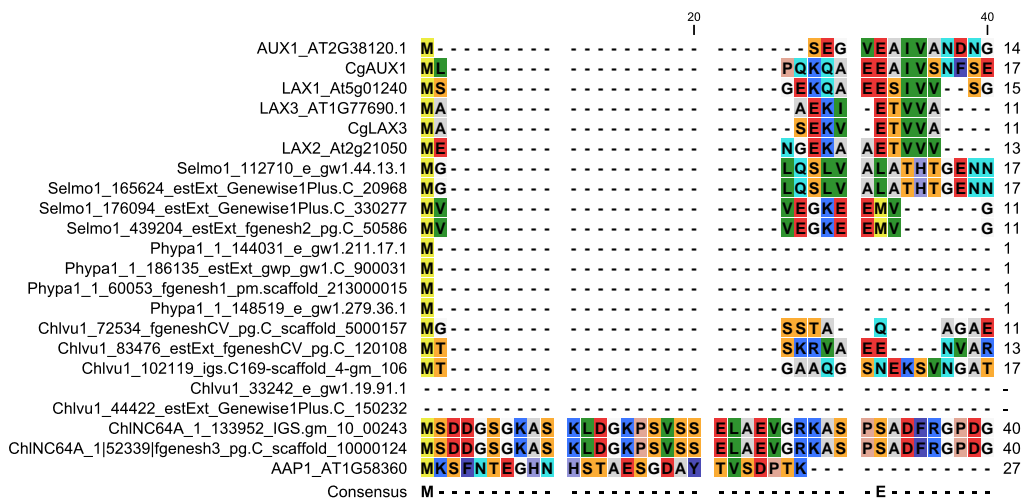
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 AtPIN8 F A K E Y N - - - L H P E I I S T G V I F G M L I A L P T T L A Y Y F L L D - L 367
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 Oenococcus-oeni_mleP V G Q N H G D V E Y A T N V V T T S T V L - F V I V V P I L M Q F V - - - - - 314
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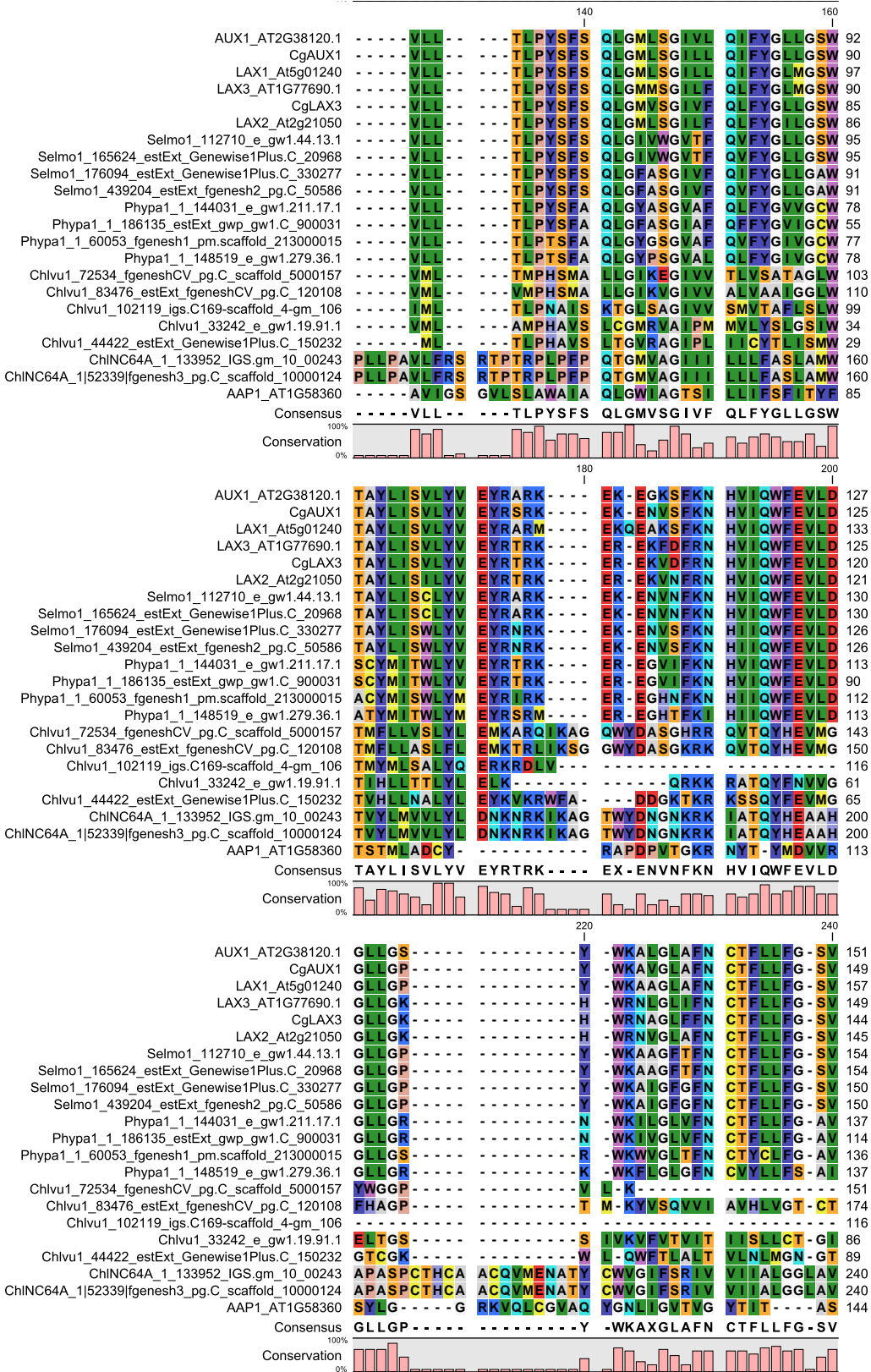
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Conservation 100% 0%

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AtPIN7	--		619
AtPIN4	--		616
AtPIN1	--		622
AtPIN2	--		647
AtPIN6	--		570
AtPIN8	--		367
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Oenococcus-oeni_mleP	--		314
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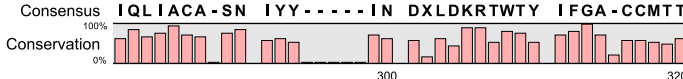
Figure S23 – alignment of AUX1-LAXs and putative orthologs





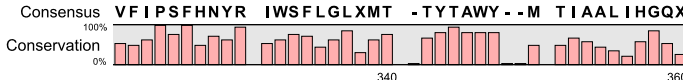
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 ChlVu1_83476_estExt_fgenesCV_pg.C_120108 S F V P T F R H F R I I N I V A L I G T - C Y T E W F - - L V A V S A Q K G I T 244
 ChlVu1_102119_igs.C169-scaffold_4-gm_106 A F V P T F R H F R V L N V I A L F G T - S F T A L F - - I L V E A G K K G L Q 183
 ChlVu1_33242_e_gw1.19.91.1 S L V P N F R H F R L L N V I S L V G T - A Y T A V Y - - L I A T A A S T G L P 157
 ChlVu1_44422_estExt_Genewise1Plus.C_150232 T L P T F R D F R L L N V I A I A G T - G F T A V Y - - I W I E C H Y H G F T 159
 ChINC64A_1_133952_IGS.gm_10_00243 S L I P S F R N F R I F S F I A L V A T - T F T A W Y - - M V A M G I I G Y N D 310
 ChINC64A_1_152339_fgenes3_pg.C_scaffold_10000124 S L I P S F R N F R I F S F I A L V A T - T F T A W Y - - M V A M G I I G Y N D 310
 AAP1_AT1G58360 S Q I P N F H K L S F L S I M A A V M S F T Y A T I G L G M A I A T V A G G K V 223



340 360

AUX1_AT2G38120.1 EG - - V - - - KH - - - - SGPTKL VLYFTGATNI LYTFGGHAVT 252
 CgAUX1 EN - - V - - - QH - - - - TAPSKL VLYFTGATNI LYTFGGHAVT 250
 LAX1_At5g01240 EG - - V - - - TH - - - - SGPTKL VLYFTGATNI LYTFGGHAVT 258
 LAX3_AT1G77690.1 ED - - V - - - KH - - - - SGPTTM VLYFTGATNI LYTFGGHAVT 250
 CgLAX3 EG - - V - - - KH - - - - SGPTTM VLYFTGATNI LYTFGGHAVT 245
 LAX2_At2g21050 EG - - V - - - KH - - - - SGPSKL VLYFTGATNI LYTFGGHAVT 246
 Selmo1_112710_e_gw1.44.13.1 PG - - V - - - KH - - - - SAPNNL VQYFTGATNI LYTFGGHAVT 255
 Selmo1_165624_estExt_Genewise1Plus.C_20968 PG - - V - - - KH - - - - SAPNNL VQYFTGATNI LYTFGGHAVT 255
 Selmo1_176094_estExt_Genewise1Plus.C_330277 DN - - V - - - KH - - - - TGASKL VLYFTGATNI LYTFGGHAVT 251
 Selmo1_439204_estExt_fgenes2_pg.C_50586 DN - - V - - - KH - - - - TGASKL VLYFTGATNI LYTFGGHAVT 251
 Phypa1_1_144031_e_gw1.211.17.1 AN - - V - - - VH - - - - TAPTTK VLYFTGATNI LYTFGGHAVT 238
 Phypa1_1_186135_estExt_gwp_gw1.C_900031 AN - - V - - - VH - - - - SAPTTK VLYFTGATNI LYTFGGHAVT 215
 Phypa1_1_60053_fgenes1_pm.scaffold_213000015 SG - - V - - - TH - - - - NGPVSR VLYFTGATNI LYTFGGHAVT 237
 Phypa1_1_148519_e_gw1.279.36.1 PG - - A - - - TH - - - - DGPNSL VLYFTGATNI LYTFGGHAVT 238
 ChlVu1_72534_fgenesCV_pg.C_scaffold_5000157 ----- PHKNA QDFFVGA AVL GE F - - GHPIA 212
 ChlVu1_83476_estExt_fgenesCV_pg.C_120108 PG - - A - - - ID - - - - RSYRNA QDFF IGA AVL GQ F - - GHST A 273
 ChlVu1_102119_igs.C169-scaffold_4-gm_106 PG - - A - - - AL - - - - TKPVSA QAFF LGTSVQ MQAMGAHGT A 214
 ChlVu1_33242_e_gw1.19.91.1 QAS V A - - - LT - - - - AGPLKA QNVFLGANVF MSGFGGHSMS 190
 ChlVu1_44422_estExt_Genewise1Plus.C_150232 PG - - A - - - AN - - - - LAPYNI QSFFTGANVF LWAYGGHGS 190
 ChINC64A_1_133952_IGS.gm_10_00243 EG L Q S V A W T D - - - - QTPPSL D G F F A G A S N I I F T F G G H A M L 346
 ChINC64A_1_152339_fgenes3_pg.C_scaffold_10000124 EG L Q S V A W T D - - - - QTPPSL D G F F A G A S N I I F T F G G H A M L 346
 AAP1_AT1G58360 G K T S M T G T A V G V D V T A A Q K I W R S F Q A M G D I A F A A Y A T V L 263



	380	400	
AUX1_AT2G38120.1	VEIMHAMWK	PQKFKYIYLM	ATLYVFTLTI PSAAA--VYW 289
CgAUX1	VEIMHAMWK	PQKFKYIYLM	ATLYVFTLTI PSAAS--VYW 287
LAX1_At5g01240	VEIMHAMWK	PRKFKSIYLM	ATLYVFTLTI PSASA--VYW 295
LAX3_AT1G77690.1	VEIMHAMWK	PQKFKAIYLI	ATLYVLTITL PSASA--VYW 287
CgLAX3	VEIMHAMWK	PQKFKMIYLI	ATLYVLTITL PSASA--VYW 282
LAX2_At2g21050	VEIMHAMWK	PQKFKSIYLF	ATLYVLTITL PSASA--VYW 283
Selmo1_112710_e_gw1.44.13.1	VEIMHAMWK	PSKFKSYLFL	STLYVLTITL PSATA--VYW 292
Selmo1_165624_estExt_Genewise1Plus.C_20968	VEIMHAMWK	PSKFKSYLFL	STLYVLTITL PSATA--VYW 292
Selmo1_176094_estExt_Genewise1Plus.C_330277	VEIMHAMWK	PQKFKWVYLV	ATLYVFTLTI PSATA--VYW 288
Selmo1_439204_estExt_fgenesh2_pg.C_50586	VEIMHAMWK	PQKFKWVYLV	ATLYVFTLTI PSATA--VYW 288
Phypa1_1_144031_e_gw1.211.17.1	VEIMHAMWK	PVKFKYVYVL	ATLYVFTLTI PSAVA--VYW 275
Phypa1_1_186135_estExt_gwp_gw1.C_900031	VEIMHAMWK	PVRKFKVYVF	ATLYVFTLTI PSAVA--VYW 252
Phypa1_1_60053_fgenesh1_pm.scaffold_213000015	VEIMHAMWK	PSKFKYVFL	ATLYVFTLTI PSAVA--VYW 274
Phypa1_1_148519_e_gw1.279.36.1	VEIMHAMWK	PVKFKYVYLF	ATLYVFTLTI PSAVA--VYW 275
ChlVu1_72534_fgeneshCV_pg.C_scaffold_5000157	LEMA-----	-----	----- 216
ChlVu1_83476_estExt_fgeneshCV_pg.C_120108	LEMAADAMRN	AHFHQAAYTA	GWLVLTLL PHSIA--ANL 310
ChlVu1_102119_igs.C169-scaffold_4-gm_106	LEMHADAMQD	SSRYVAAYFG	GWVLTLLTM PHSIA--MNL 251
ChlVu1_33242_e_gw1.19.91.1	FEVLDALFN	PGCYDTVYYP	SYLFTWVYTI PHSLL--AQL 227
ChlVu1_44422_estExt_Genewise1Plus.C_150232	FEVLDAMWA	PSKYDLYYPL	SYLFTFTIAA PHSML--VQL 227
ChlNC64A_1_133952_IGS.gm_10_00243	LEVMDSMFR	PFKFKVYFVW	SYNYVYTLVM PMSVF--LYW 383
ChlNC64A_1_152339_fgenesh3_pg.C_scaffold_10000124	LEVMDSMFR	PFKFKVYFVW	SYNYVYTLVM PMSVF--LYW 383
AAP1_AT1G58360	VEIQDTRLSS	PAENKAMKRA	SLVGVSTTTF FYILCGCGY 303
Consensus	VEIMHAMWK	PQKFKYVYLF	ATLYVFTLTI PSAVA--VYW



	420	440	
AUX1_AT2G38120.1	A--FGDALLD	HSNAFSLMPK	NAWRDAAVIL MLIHQFITFG 327
CgAUX1	A--FGDELLN	HSNAFSLLPK	NGFRDAAVIL MLIHQFITFG 325
LAX1_At5g01240	A--FGDQLLN	HSNAFSLLPK	TRFRDAAVIL MLIHQFITFG 333
LAX3_AT1G77690.1	A--FGDKLLT	HSNALSLLPK	TGFRDAAVIL MLIHQFITFG 325
CgLAX3	A--FGDMLLT	HSNALSLLPK	SGFRDAAVYL MLIHQFITFG 320
LAX2_At2g21050	A--FGDLLLN	HSNAFALLPK	NLYRDAVYVL MLIHQFITFG 321
Selmo1_112710_e_gw1.44.13.1	A--FGDELLH	NGNALSLLPK	NVFRDAVYVL MLIHQFITFG 330
Selmo1_165624_estExt_Genewise1Plus.C_20968	A--FGDELLH	NGNALSLLPK	NVFRDAVYVL MLIHQFITFG 330
Selmo1_176094_estExt_Genewise1Plus.C_330277	A--FGDNLLT	KSNALSLLPK	NAFRDIA--- ----FITFG 319
Selmo1_439204_estExt_fgenesh2_pg.C_50586	A--FGDNLLT	KSNALSLLPK	NAFRDIA--- ----FITFG 318
Phypa1_1_144031_e_gw1.211.17.1	A--FGDDLK	HSNALSLLPK	TMARDVAVYL MLIHQFITVG 313
Phypa1_1_186135_estExt_gwp_gw1.C_900031	A--FGDDLK	HSNALSLLPK	TMARDVAVYL MLIHQFITVG 290
Phypa1_1_60053_fgenesh1_pm.scaffold_213000015	A--FGDTLLT	HANALSLLPK	SAARDVAVYL MLIHQFITVG 312
Phypa1_1_148519_e_gw1.279.36.1	A--FGDSLVL	NANALSLLPK	SAARDVAVYL MLIHQFITVG 313
ChlVu1_72534_fgeneshCV_pg.C_scaffold_5000157	-----	-DNLYSVLPY	SLWKVLSVWL MNHQLVAFS 245
ChlVu1_83476_estExt_fgeneshCV_pg.C_120108	A--WPDEVYI	QDNIFNVIPI	SPGKYSVWL MNHQQVAFG 348
ChlVu1_102119_igs.C169-scaffold_4-gm_106	A--WPKLITIT	NDNVYGVLPK	SNAMRSLVWL MLIHQFVAFA 289
ChlVu1_33242_e_gw1.19.91.1	A--FPADNAK	YSNLYGAVPN	NAARNASIVL MLIHQAVAYA 265
ChlVu1_44422_estExt_Genewise1Plus.C_150232	A--FPTENLA	QDNVYGVLPK	NGWLVASVIL MLIHQIVAYA 265
ChlNC64A_1_133952_IGS.gm_10_00243	GQVWPAAQAEQ	YGNVYGVMPK	SVARDFSVYL MVIHQVIVFG 423
ChlNC64A_1_152339_fgenesh3_pg.C_scaffold_10000124	GQVWPAAQAEQ	YGNVYGVMPK	SVARDFSVYL MVIHQVIVFG 423
AAP1_AT1G58360	AAFGNAPGD	FLTDFGFPEP	FWLIDFANAC AVHLIGAYQ 343
Consensus	A--FGDELLT	HSNALSLLPK	NAXRDXAVVL MLIHQFITFG

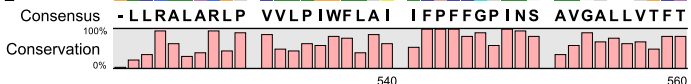


	460	480	
AUX1_AT2G38120.1	FACTPLFYVW	EKVI GMH-DT	KSI----- 349
CgAUX1	FACTPLFYVW	EKVI GMH-DT	RSI----- 347
LAX1_At5g01240	FACTPLFYVW	EKAIGMH-HT	KSI----- 355
LAX3_AT1G77690.1	FASTPLFYVW	EKLIGMH-ET	KSM----- 347
CgLAX3	FACTPLFYVW	EKFRIH-DT	KSV----- 342
LAX2_At2g21050	FACTPLFYVW	EKLIGMH-EC	RSM----- 343
Selmo1_112710_e_gw1.44.13.1	FACTPLFYVW	EKIIGMH-RS	PRF----- 352
Selmo1_165624_estExt_Genewise1Plus.C_20968	FACTPLFYVW	EKIIGMH-RS	PRF----- 352
Selmo1_176094_estExt_Genewise1Plus.C_330277	FACTPLFYVW	EKILGTH-KT	ANL----- 341
Selmo1_439204_estExt_fgenesh2_pg.C_50586	FACTPLFYVW	EKILGTH-KT	ANL----- 340
Phypa1_1_144031_e_gw1.211.17.1	FAVTPLYFVW	EKVI GTH-NT	KSL----- 335
Phypa1_1_186135_estExt_gwp_gw1.C_900031	FAVTPLYFVW	EKMIGTH-NT	KSL----- 312
Phypa1_1_60053_fgenesh1_pm.scaffold_213000015	FAVTPLYIMW	EKMLGWH-RS	RAW----- 335
Phypa1_1_148519_e_gw1.279.36.1	FAVTPLYFVW	EKILGTH-NT	KSL----- 335
ChlVu1_72534_fgeneshCV_pg.C_scaffold_5000157	LYVPLLFMW	EKLLRVH--S	KPW----- 266
ChlVu1_83476_estExt_fgeneshCV_pg.C_120108	LYSVPLFMW	EKLIRVH--S	KPW----- 369
ChlVu1_102119_igs.C169-scaffold_4-gm_106	LYVTPLLYMI	EKV-----	----- 302
ChlVu1_33242_e_gw1.19.91.1	LYVTPVFFMW	EKLVGTH--D	KPL----- 286
ChlVu1_44422_estExt_Genewise1Plus.C_150232	LYVTPVFFMW	EKLIGTH--E	KPN----- 286
ChlNC64A_1_133952_IGS.gm_10_00243	LFAFPIYMY	EKLKVVH--T	GAY----- 444
ChlNC64A_1_152339_fgenesh3_pg.C_scaffold_10000124	LFAFPIYMY	EKLKVVH--T	GAY----- 444
AAP1_AT1G58360	VFAQPIYQVY	EKKCNRYPD	NKGI TSEYSV NVPFLGKFN 383
Consensus	FACTPLFYVW	EKLIGVH--T	KSL-----



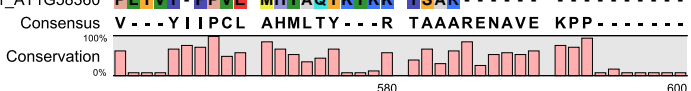
500 520

AUX1_AT2G38120.1 - **CLRALARLP** **VVIPWF LAI** **IFPFFGPI NS** **AVGALLVSFT** 388
 CgAUX1 - **CLRALARLP** **VVIPWF LAI** **IFPFFGPI NS** **AVGALLVSFT** 386
 LAX1_At5g01240 - **CLRALVRLP** **VVVPWF LAI** **IFPFFGPI NS** **AVGALLVTFT** 394
 LAX3_AT1G77690.1 - **FKRAMARLP** **VVVPWF LAI** **IFPFFGPI NS** **AVGSLVSTFT** 386
 CgLAX3 - **FKRALARLP** **VVIPWF LAI** **IFPFFGPI NS** **TVGSLLVSFT** 381
 LAX2_At2g21050 - **CKRAAARLP** **VVIPWF LAI** **IFPFFGPI NS** **TVGSLLVSFT** 382
 Selmo1_112710_e_gw1.44.13.1 - **LLRAAARLP** **VVIPWFMAV** **IFPFFGPI NS** **AVGSLVSTFT** 391
 Selmo1_165624_estExt_Genewise1Plus.C_20968 - **LLRAAARLP** **VVIPWFMAV** **IFPFFGPI NS** **AVGSLVSTFT** 391
 Selmo1_176094_estExt_Genewise1Plus.C_330277 - **PVRALARVP** **VVLPWF LAI** **IFPFFGPI NS** **AVGALLVTFT** 380
 Selmo1_439204_estExt_fgenesh2_pg.C_50586 - **PVRALARVP** **VVLPWF LAI** **IFPFFGPI NS** **AVGALLVTFT** 379
 Phypa1_1_144031_e_gw1.211.17.1 - **PLRAVCRMP** **VILPVWFFAI** **AFPPFFGPI NS** **TVGA LLVTFT** 374
 Phypa1_1_186135_estExt_gwp_gw1.C_900031 - **LLRAVSRMP** **VILPVWFFAI** **AFPPFFGPI NS** **TVGA LLVTFT** 351
 Phypa1_1_60053_fgenesh1_pm.scaffold_213000015 - **VVRLCRAP** **VMVPWF FFAI** **AFPPFFGPI NS** **MGALLVTFT** 374
 Phypa1_1_148519_e_gw1.279.36.1 - **LLRATCRVP** **VILPVWFFAI** **AFPPFFGPI NS** **VGCLLVSTFT** 374
 Chlvu1_72534_fgeneshCV_pg.C_scaffold_5000157 - **YIRLPLRLP** **VSLALYLIGV** **AFPPFYGTINS** **LYKALAEPLT** 305
 Chlvu1_83476_estExt_fgeneshCV_pg.C_120108 - **YIRLPLRLP** **ISGLLYVISI** **AFPPFYGTINS** **LYSSLSEPLT** 408
 Chlvu1_102119_igs.C169-scaffold_4-gm_106 - **PL** **VIFFLVG** **AFPPFYGTINS** **MGALISVPTT** 331
 Chlvu1_33242_e_gw1.19.91.1 - **WIRLPSRLP** **VALLVWFFAL** **IFPFFDTINA** **VQGA VGYSTT** 325
 Chlvu1_44422_estExt_Genewise1Plus.C_150232 - **WIRLPSRLP** **VALLVWFFAI** **AFPPFYGTINS** **ILGALTGSMV** 325
 ChINC64A_1_133952_IGS.gm_10_00243 - **WKRACRVP** **VGLLWLI AL** **AFPPFFGVIND** **LGAF TTTTFF** 483
 ChINC64A_1_152339|fgenesh3_pg.C_scaffold_10000124 - **WKRACRVP** **VGLLWLI AL** **AFPPFFGVIND** **LGAF TTTTFF** 483
 AAP1_AT1G58360 - **SLFRLVWRTA** **VYVITTVVAM** **IFPFFFNAL LG** **LGAA - ASFW** 421



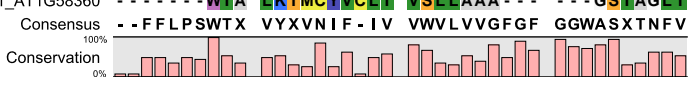
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AUX1_AT2G38120.1 V - - - **YIIPSL** **AHMLTY** - - - **R** **SASARQNAAE** **KPP** - - - - - 415
 CgAUX1 V - - - **YIIPSL** **AHMLTY** - - - **R** **KASARQNAAE** **KPP** - - - - - 413
 LAX1_At5g01240 V - - - **YIIPAL** **AHMLTY** - - - **R** **TASARRNAAE** **KPP** - - - - - 421
 LAX3_AT1G77690.1 V - - - **YIIPAL** **AHMLTF** - - - **A** **PAPSRENAVE** **RPP** - - - - - 413
 CgLAX3 V - - - **YIIPAL** **AHMLTF** - - - **A** **SASARENAVE** **RPP** - - - - - 408
 LAX2_At2g21050 V - - - **YIIPAL** **AHIFTF** - - - **R** **SSAARENAVE** **QPP** - - - - - 409
 Selmo1_112710_e_gw1.44.13.1 V - - - **YIIPCL** **AHMLTF** - - - **R** **TAFARENAVE** **KPP** - - - - - 418
 Selmo1_165624_estExt_Genewise1Plus.C_20968 V - - - **YIIPCL** **AHMLTF** - - - **R** **TAFARENAVE** **KPP** - - - - - 418
 Selmo1_176094_estExt_Genewise1Plus.C_330277 V - - - **YIIPSL** **AHMLTY** - - - **R** **TAFARANSVE** **KPP** - - - - - 407
 Selmo1_439204_estExt_fgenesh2_pg.C_50586 V - - - **YIIPSL** **AHMLTY** - - - **R** **TAFARANSVE** **KPP** - - - - - 406
 Phypa1_1_144031_e_gw1.211.17.1 V - - - **YIIPC** **AHMVYV** - - - **R** **GATARQNAVE** **KPP** - - - - - 401
 Phypa1_1_186135_estExt_gwp_gw1.C_900031 V - - - **YIIPC** **AHMVYV** - - - **R** **AATARQNAVE** **KPP** - - - - - 378
 Phypa1_1_60053_fgenesh1_pm.scaffold_213000015 V - - - **YIIPC** **AHMAFY** - - - **R** **SAASRQSSVE** **KPP** - - - - - 401
 Phypa1_1_148519_e_gw1.279.36.1 V - - - **YIIPC** **AHIVYF** - - - **S** **NSSLRAPSV E** **KPP** - - - - - 401
 Chlvu1_72534_fgeneshCV_pg.C_scaffold_5000157 A - - - **FVFP** **CAVY** **SWVY** - - - **R** **TSPARN** **GAVL** **K** - **PWK** - - - - - 333
 Chlvu1_83476_estExt_fgeneshCV_pg.C_120108 A - - - **FVFP** **CAVY** **IWVY** - - - **H** **TRAARE** **QAAM** **K** - **PFK** - - - - - 436
 Chlvu1_102119_igs.C169-scaffold_4-gm_106 S - - - **FVLP** **PAV** **AFN** **WVY** - - - **R** **TEARR** **SSAL** **P** - **PYS** - - - - - 359
 Chlvu1_33242_e_gw1.19.91.1 A - - - **FVFP** **TA** **AYL** **WVY** - - - **K** **SAKARN** - **NAP** **KVP** - **R** - - - - - 352
 Chlvu1_44422_estExt_Genewise1Plus.C_150232 S - - - **FILP** **CA** **AYN** **LYY** - - - **M** **TSKQR** **LAAP** **KQPP** - - - - - 354
 ChINC64A_1_133952_IGS.gm_10_00243 **ARCTFI** **IPCL** **AYN** **IHYQLKK** **NAAQNR** **EST** **KPPSRRGGGM** 523
 ChINC64A_1_152339|fgenesh3_pg.C_scaffold_10000124 **ARCTFI** **IPCL** **AYN** **IHYQLKK** **NAAQNR** **EST** **KPPSRRGGGM** 523
 AAP1_AT1G58360 **PLTVY** - **FPVE** **MHIAQTKIKK** **YSAR** - - - - - 444



580 600

AUX1_AT2G38120.1 - - **FFMPSWTA** **MYVLNAE** - **VV** **VWVLIVGFGF** **GGWASVTN FV** 452
 CgAUX1 - - **FFLPSWTA** **MFVINA E** - **VV** **VWVLIVGFGF** **GGWASMTN FV** 450
 LAX1_At5g01240 - - **FFIPSWAG** **VYVINA E** - **IV** **VWVLIVGFGF** **GGWASMTN FV** 458
 LAX3_AT1G77690.1 - - **RVVGGW** **MGTYCINTF** - **VV** **VWVFWVGF** **GGWASMVNFV** 450
 CgLAX3 - - **SFLGGW** **TGSYSVNSF** - **VV** **VWVLIVGFGF** **GGWASMLNFV** 445
 LAX2_At2g21050 - - **RFLGRW** **TGAFTINA E** - **IV** **VWVFI VGF** **GGWASMLNFV** 446
 Selmo1_112710_e_gw1.44.13.1 - - **FIMP** **SWAA** **VYVFNF** - **VV** **VWVFWVGF** **GGWASTVNFV** 455
 Selmo1_165624_estExt_Genewise1Plus.C_20968 - - **FIMP** **SWAA** **VYVFNF** - **VV** **VWVFWVGF** **GGWASTVNFV** 455
 Selmo1_176094_estExt_Genewise1Plus.C_330277 - - **FFLPSW** **TLYLVNFE** - **IV** **VWIAVIGWGF** **GGWASVTN FV** 444
 Selmo1_439204_estExt_fgenesh2_pg.C_50586 - - **FFLPSW** **TLYLVNFE** - **IV** **VWIAVIGWGF** **GGWASVTN FV** 443
 Phypa1_1_144031_e_gw1.211.17.1 - - **FFLPSW** **TLYLVNFE** - **IV** **VWIAVIGWGF** **GGWASVTN FV** 438
 Phypa1_1_186135_estExt_gwp_gw1.C_900031 - - **FFMPSW** **GVYLVNIF** - **IV** **VWIVIGWGF** **GGWASVTN FV** 415
 Phypa1_1_60053_fgenesh1_pm.scaffold_213000015 - - **RFLPSW** **TLYLVNFE** - **IV** **VWIAVIGWGF** **GGWASVTN FV** 438
 Phypa1_1_148519_e_gw1.279.36.1 - - **FFLPTW** **TAYVYVNF** - **IV** **VWIVAVGWF** **GGWASVSVF** 438
 Chlvu1_72534_fgeneshCV_pg.C_scaffold_5000157 - **FLR** **KANWLL** **IWALN** **S** - **II** **IWL** **FGQFGF** **GWYFSS** **LKLH** 371
 Chlvu1_83476_estExt_fgeneshCV_pg.C_120108 - **CLR** **VWNWSP** **VFALN** **VG** - **II** **LWTV** **VAQFG** **GTYS** **IRRM** 474
 Chlvu1_102119_igs.C169-scaffold_4-gm_106 - **PFN** **KFGWKV** **AFALN** **YF** - **IM** **VVYAA** **FTVGF** **G** **FFS** **IQR** **IV** 396
 Chlvu1_33242_e_gw1.19.91.1 - **F** **IG** - - **GW** **TAML** **LNTY** - **ML** **LWFT** **IFG** **GTWAA** **IKNLV** 388
 Chlvu1_44422_estExt_Genewise1Plus.C_150232 - **WTG** - - **GW** **PLV** **VNS** - **FV** **IYF** **FGFC** **GGWAS** **KT** **LV** 390
 ChINC64A_1_133952_IGS.gm_10_00243 **GMGGPT** **GW** **TG** **WLLPR** **PWV** **II** **VFTAI** **FG** **GGYAS** **IKVRL** 563
 ChINC64A_1_152339|fgenesh3_pg.C_scaffold_10000124 **GMGGPT** **GW** **TG** **WLLPR** **PWV** **II** **VFTAI** **FG** **GGYAS** **IKVRL** 563
 AAP1_AT1G58360 - - - - - **W** **IA** **LK** **TM** **CY** **V** **CL** **IS** **L** **AA** - - - **GS** **IAG** **L** 471



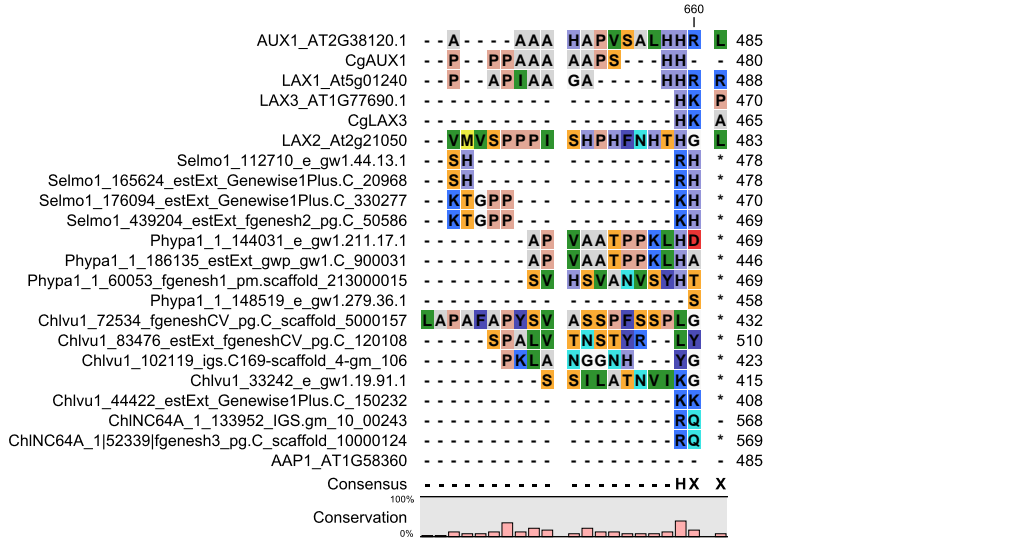
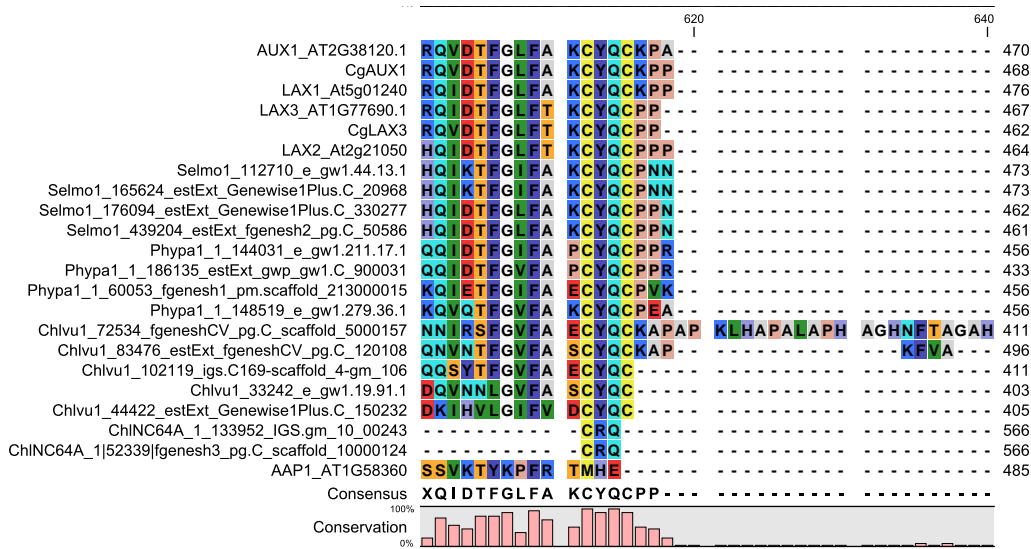


Figure S24 – UPGMA tree for PGP orthologs

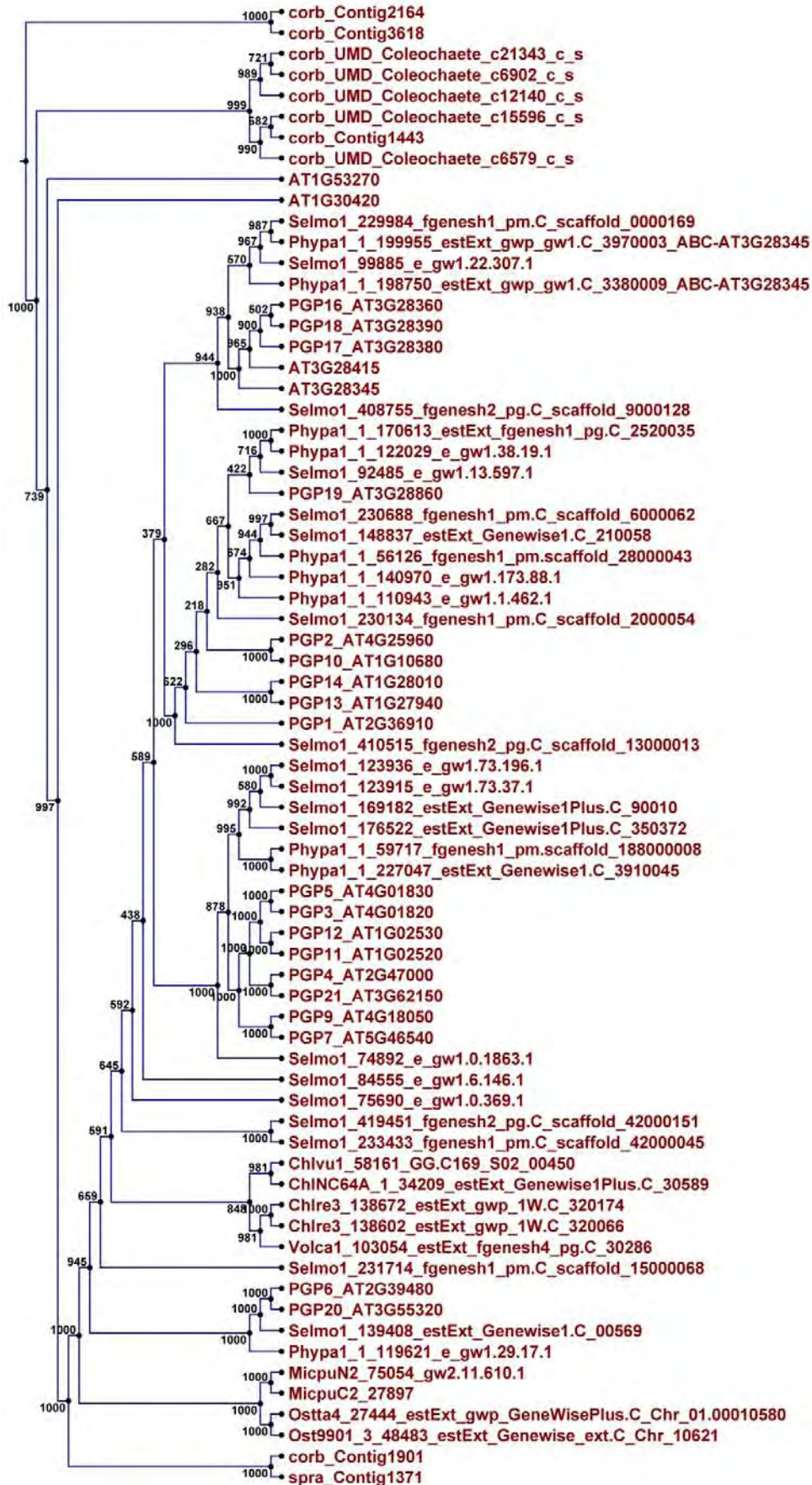


Figure S25 – UPGMA tree for TPL-TPR1,2,3,4 orthologs

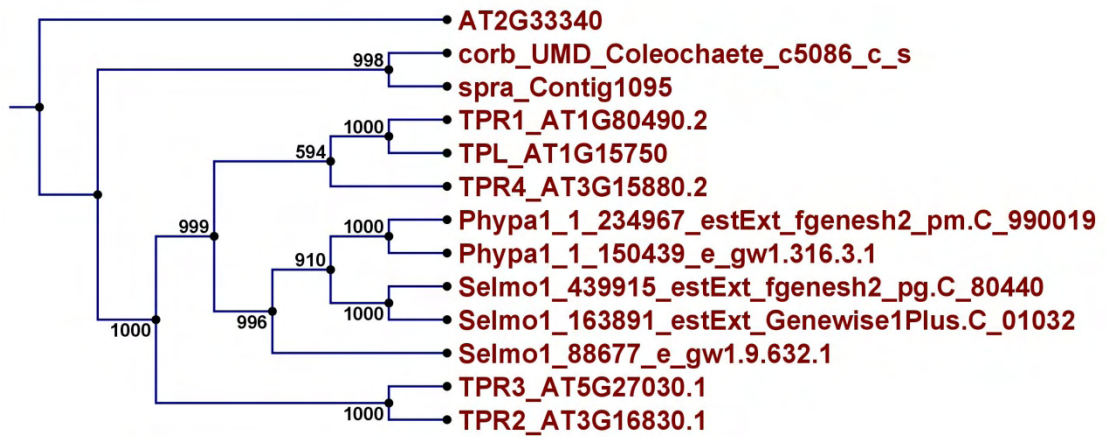


Figure S26 – UPGMA tree for IBR5 orthologs

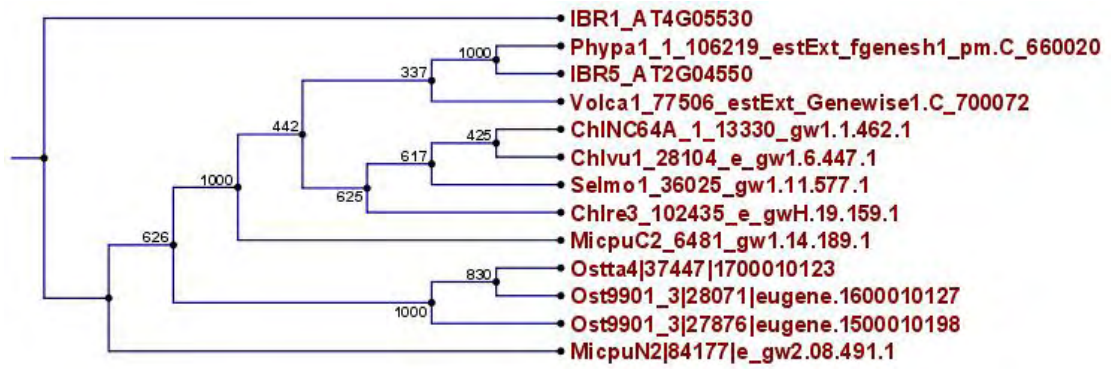


Figure S27 – UPGMA tree for ABP1 orthologs

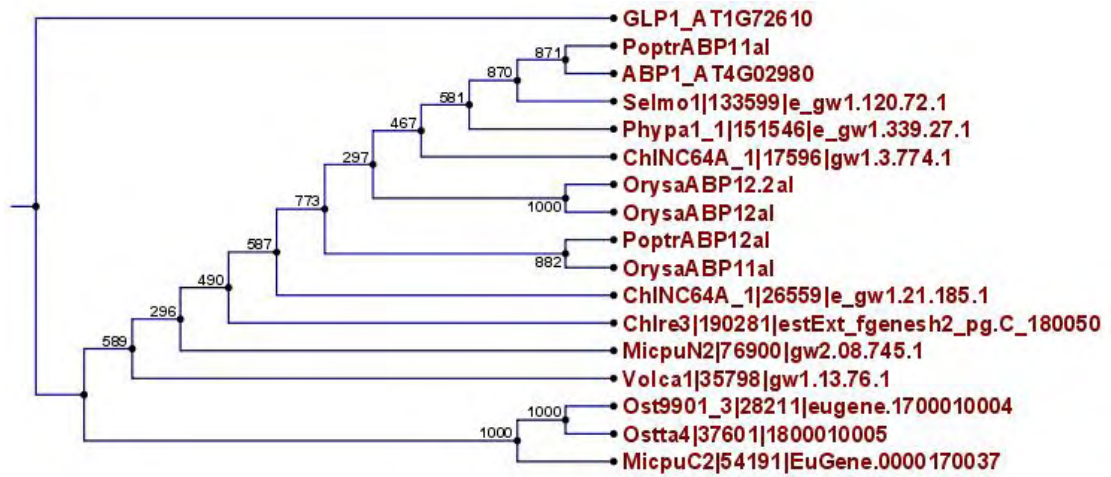
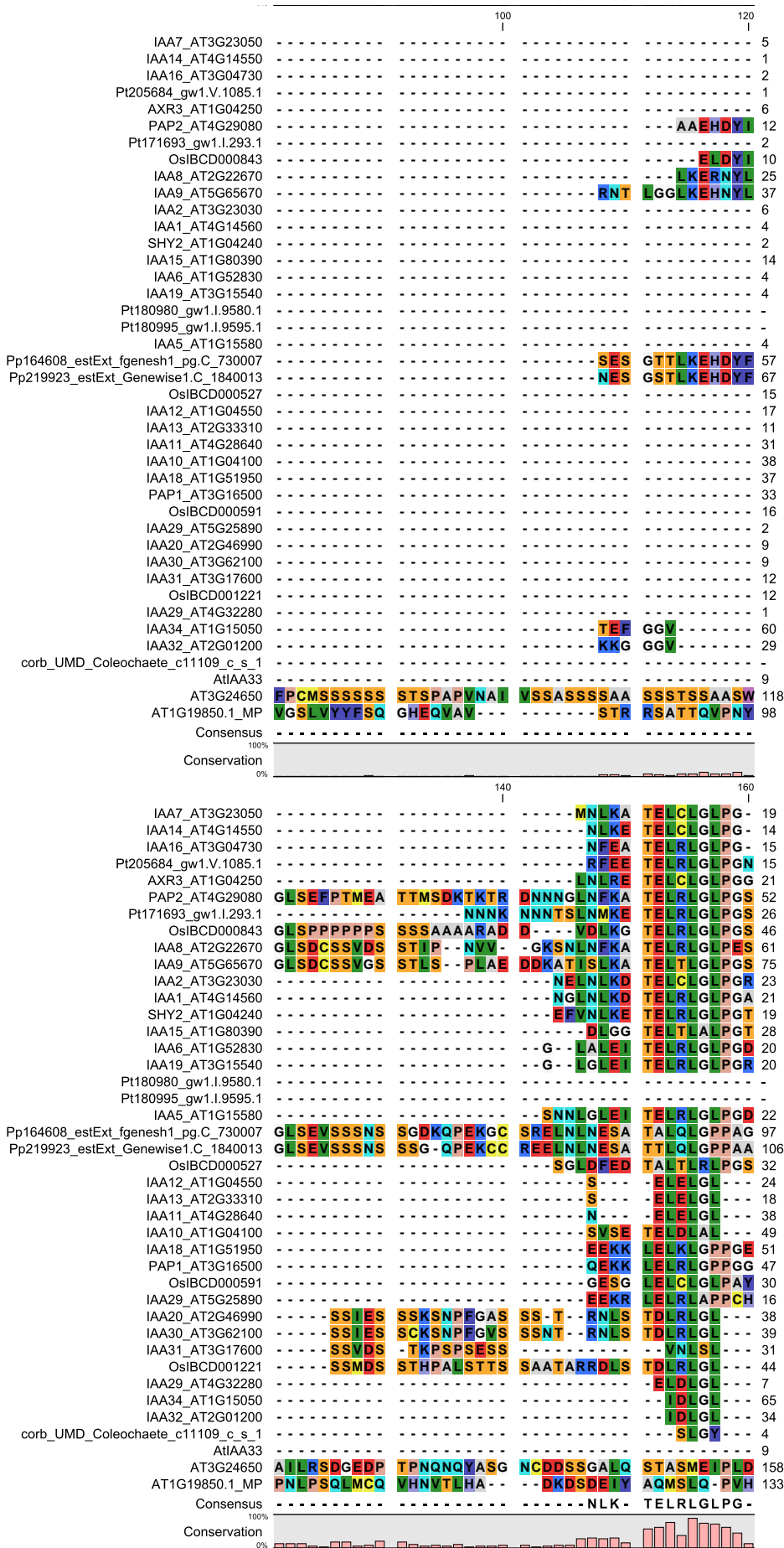
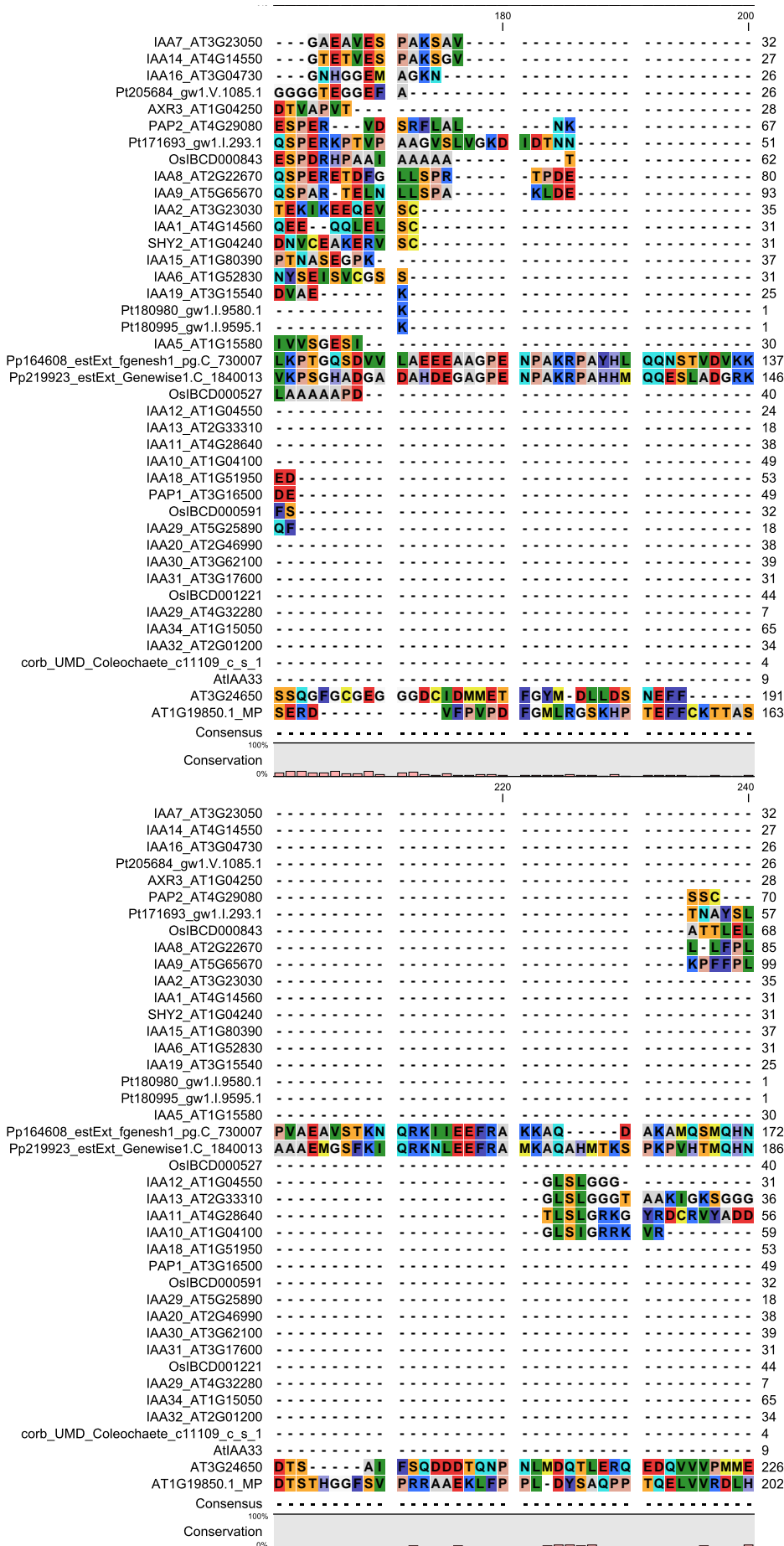
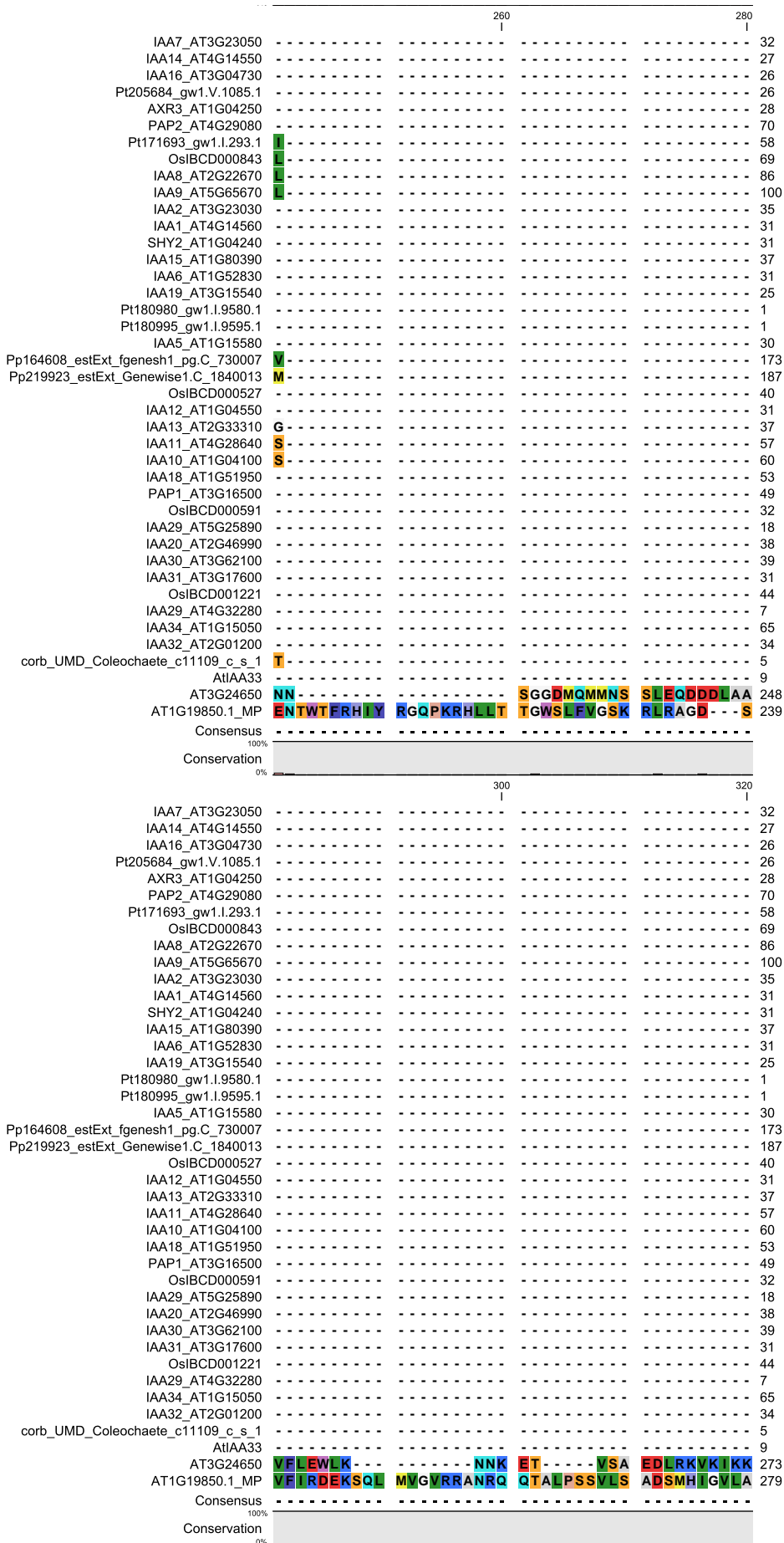


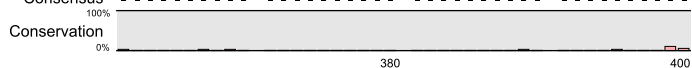
Figure S28 – alignment of AUX/IAAs and putative orthologs



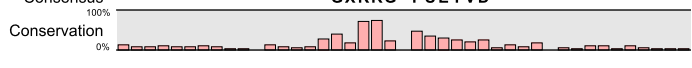


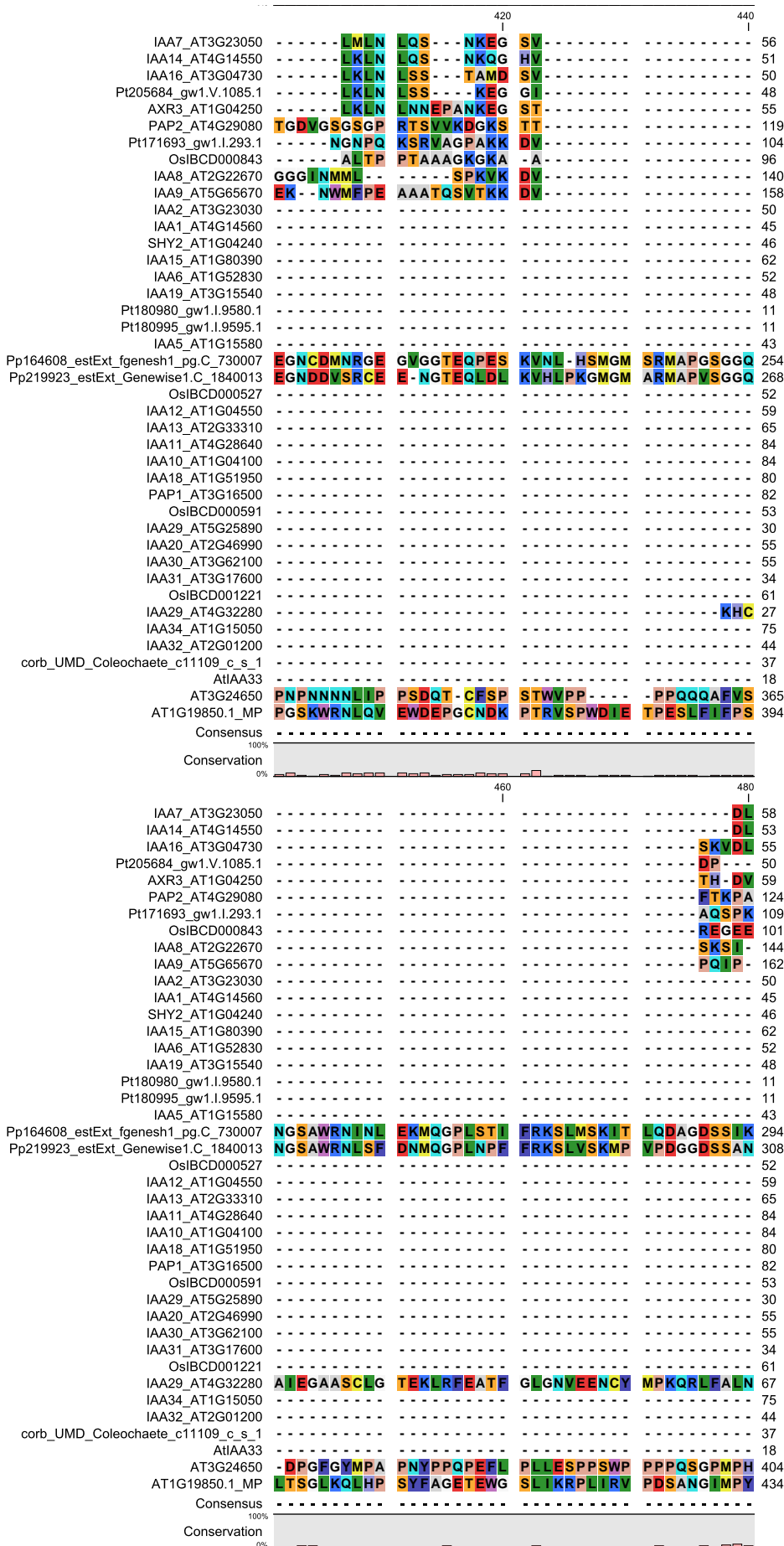


	340	360		
IAA7_AT3G23050	32	
IAA14_AT4G14550	27	
IAA16_AT3G04730	26	
Pt205684_gw1.V.1085.1	26	
AXR3_AT1G04250	28	
PAP2_AT4G29080	PV 72	
Pt171693_gw1.I.293.1	PV 60	
OsiBCD000843	PA 71	
IAA8_AT2G22670	PS 88	
IAA9_AT5G65670	PS 102	
IAA2_AT3G23030	35	
IAA1_AT4G14560	31	
SHY2_AT1G04240	31	
IAA15_AT1G80390	37	
IAA6_AT1G52830	31	
IAA19_AT3G15540	25	
Pt180980_gw1.I.9580.1	1	
Pt180995_gw1.I.9595.1	1	
IAA5_AT1G15580	30	
Pp164608_estExt_fgenesh1_pg.C_730007	RA 175	
Pp219923_estExt_Genewise1.C_1840013	HA 189	
OsiBCD000527	40	
IAA12_AT1G04550	AW 33	
IAA13_AT2G33310	AW 39	
IAA11_AT4G28640	SS 59	
IAA10_AT1G04100	SI 62	
IAA18_AT1G51950	53	
PAP1_AT3G16500	49	
OsiBCD000591	32	
IAA29_AT5G25890	18	
IAA20_AT2G46990	38	
IAA30_AT3G62100	39	
IAA31_AT3G17600	31	
OsiBCD001221	44	
IAA29_AT4G32280	7	
IAA34_AT1G15050	65	
IAA32_AT2G01200	34	
corb_UMD_Coleochaete_c11109_c_s_1	TX 7	
AtIAA33	9	
AT3G24650	AT IESAARR-	.....	IG GGKEAM - KQ 292
AT1G19850.1_MP	AAAHA T ANRT	PFLIF YN PR A	CPAEF VP LA	KYRKA IC GSQ 319
Consensus	

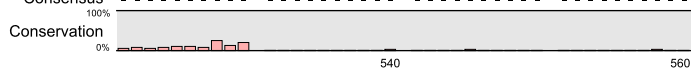


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IAA14_AT4G14550	38			
IAA16_AT3G04730	37			
Pt205684_gw1.V.1085.1	36			
AXR3_AT1G04250	39			
PAP2_AT4G29080	.....	.....	97	
Pt171693_gw1.I.293.1	K.....	.....	87		
OsiBCD000843	K.....	.....	81		
IAA8_AT2G22670	KDNGS ATT GH	KNVVS GN KRG	FADT W DF FS G	VKGS VR P 125		
IAA9_AT5G65670	KDE - ICSSSQ	KNNAS GN KRG	FSDT MD Q FA E	AKSS V Y T 138		
IAA2_AT3G23030	.....	.....	50	
IAA1_AT4G14560	.....	.....	45	
SHY2_AT1G04240	.....	.....	46	
IAA15_AT1G80390	.....	.....	62	
IAA6_AT1G52830	.....	.....	52	
IAA19_AT3G15540	.....	.....	48	
Pt180980_gw1.I.9580.1	.....	.....	11	
Pt180995_gw1.I.9595.1	.....	.....	11	
IAA5_AT1G15580	.....	.....	43	
Pp164608_estExt_fgenesh1_pg.C_730007	SYPGA Q S V F P	GAKNN GV KRG	FSEAV GT N F N	ASSG AG G AV R 215		
Pp219923_estExt_Genewise1.C_1840013	SFSGA Q M A F G	GAKNN GV KRV	FSEAV GG N H I	AASG V G V G VR 229		
OsiBCD000527	.....	.....	52	
IAA12_AT1G04550	KERGR LL TAK	DFPSV GS KRS	A ESS SH	59		
IAA13_AT2G33310	GERGR LL TAK	DFPSV GS KRA	A D S ASH.....	65		
IAA11_AT4G28640	SSSSS LS R A	SVIA -G I K R T	A D M A A T.....	84		
IAA10_AT1G04100	SSSSS SL TRE	S	G T KRS	A D S P A A.....	84	
IAA18_AT1G51950	DDESM	RHM K KEP	KDKS IL S AG	KYFS	80
PAP1_AT3G16500	EDHSA IK KKN	TEIRN IK KET	EDKS F H C ENG	N - FS	82	
OsiBCD000591	SSSSS	KP	SE G S T A P A F	ALRS	53
IAA29_AT5G25890	TSNNN	NG	SKQK	30
IAA20_AT2G46990	SFG T S S G T Y	F NG G Y G Y	55	
IAA30_AT3G62100	SFG SS S G - Q Y	Y NG G D NH	55	
IAA31_AT3G17600	SLT	34	
OsiBCD001221	SL ST S SS S SL	L Q A A A A.....	61	
IAA29_AT4G32280	S	L SP H K S KL G	F N F DL N	24
IAA34_AT1G15050	SLRT	I Q H E I Y.....	75
IAA32_AT2G01200	SLRT	I Q H E T Y.....	44
corb_UMD_Coleochaete_c11109_c_s_1	S R X N H QL F GD	V H G SS S PK P G	N S S T S SS S V S G	37	
AtIAA33	DS Q RR	F H Q	18	
AT3G24650	L L K L I EW V	Q T N HL Q RR T	T T T T T N L S Y Q	Q S F Q D DP F Q N	331	
AT1G19850.1_MP	L V G M R F G M M F	E T E D S G K R R Y	M G T I V G I S -	D L D P L R W 354	
Consensus	

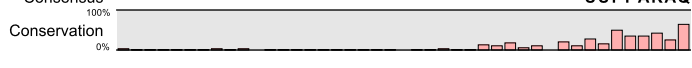




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IAA7_AT3G23050	KNVSAVPEK		68
IAA14_AT4G14550	NTNGAPKEK		62
IAA16_AT3G04730	ENM - - - KEK		61
Pt205684_gw1.V.1085.1	NHEKTQREK		59
AXR3_AT1G04250	VTFDS - KEK		67
PAP2_AT4G29080	VPVKEKKS -		132
Pt171693_gw1.I.293.1	PVQEKNSQV		118
OsiBCD000843	VGAEEDKKV		111
IAA8_AT2G22670	QERSH -		150
IAA9_AT5G65670	KQSST -		168
IAA2_AT3G23030	E -		51
IAA1_AT4G14560	E -		46
SHY2_AT1G04240	EIE		49
IAA15_AT1G80390			62
IAA6_AT1G52830	NSVSSV		59
IAA19_AT3G15540	SGVSSG		55
Pt180980_gw1.I.9580.1	SGEANST		18
Pt180995_gw1.I.9595.1	SGEANST		18
IAA5_AT1G15580			43
Pp164608_estExt_fgenesh1_pg.C_730007	CSSDVIINRNK		304
Pp219923_estExt_Genewise1.C_1840013	ASNDGANRKG		318
OsiBCD000527	AAADADNSS		61
IAA12_AT1G04550			59
IAA13_AT2G33310			65
IAA11_AT4G28640			84
IAA10_AT1G04100			84
IAA18_AT1G51950	SSTK		84
PAP1_AT3G16500	PSNK		86
OsiBCD000591	NGTN		57
IAA29_AT5G25890	SSTK		34
IAA20_AT2G46990			55
IAA30_AT3G62100			55
IAA31_AT3G17600			34
OsiBCD001221			61
IAA29_AT4G32280	GQPNEEDEDP		77
IAA34_AT1G15050			75
IAA32_AT2G01200			44
corb_UMD_Coleochaete_c11109_c_s_1	SAS		40
AtIAA33			18
AT3G24650	QQFPMPTTSQ	YN QEGDPT	GEN 425
AT1G19850.1_MP	ASFPMSASEQ	LMKMMMRPHN NQNVPSFMSE MQQNIIVMNG	474
Consensus			

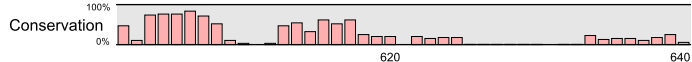


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IAA14_AT4G14550	TELK -	DPSKPPAKAQ	76	
IAA16_AT3G04730	VV - -	- - - KPPAKAQ	70	
Pt205684_gw1.V.1085.1	NLLAT	DPAKPPAKAQ	74	
AXR3_AT1G04250	SACPK	DPAKPPAK - Q	81	
PAP2_AT4G29080		SATAPASKAQ	142	
Pt171693_gw1.I.293.1	AAANE	NSSAPAAKTQ	133	
OsiBCD000843	AA -	- PPQPAAKAQ	122	
IAA8_AT2G22670	- AKG	GNNAPAKAQ	163	
IAA9_AT5G65670	- TNN	SSSPPAAKAQ	181	
IAA2_AT3G23030		- ESTPPTKTQ	60	
IAA1_AT4G14560		- SAPPAAKTQ	55	
SHY2_AT1G04240		SSSRK	TETSPPRKQ	64
IAA15_AT1G80390		- SSMVTNDQ	70	
IAA6_AT1G52830	ED - -	- ESIPVVKSQ	70	
IAA19_AT3G15540	GDAEK	VNDSPPAAKSQ	70	
Pt180980_gw1.I.9580.1	TDGRK	TQTT - - - SQ	29	
Pt180995_gw1.I.9595.1	TDGRK	TQTT - - - SQ	29	
IAA5_AT1G15580		LKCEPAKKSQ	53	
Pp164608_estExt_fgenesh1_pg.C_730007	AIAPA	SNEQPLAQNQ	319	
Pp219923_estExt_Genewise1.C_1840013	MVSP -	SVQPPPAQNG	332	
OsiBCD000527	PLAAA	ADAPPAPKAR	76	
IAA12_AT1G04550		QGASPPRSSQ	69	
IAA13_AT2G33310		AGSSPPRSSQ	75	
IAA11_AT4G28640		SG - - - - - Q	87	
IAA10_AT1G04100		ASNA - - - TRQ	91	
IAA18_AT1G51950	TTS -	- - - HKRTAPG	94	
PAP1_AT3G16500	TTSVP	HISQKRTAPG	101	
OsiBCD000591	ASK -	- - - PRAAAAA	67	
IAA29_AT5G25890	ETSF -	- LSNRVEVA	47	
IAA20_AT2G46990	SVAAF	AVEDA EYVAA	70	
IAA30_AT3G62100	EY - D	GVGAAEEMM	68	
IAA31_AT3G17600		- FPSTSPQRE	43	
OsiBCD001221	AAADD	SIPSTPRNSQ	76	
IAA29_AT4G32280	LESSS	LVYDDEEENS	92	
IAA34_AT1G15050			75	
IAA32_AT2G01200		- LPPARM	51	
corb_UMD_Coleochaete_c11109_c_s_1	MSATP	SMSATPRRS	55	
AtIAA33		- DNSTIQQP	26	
AT3G24650	GYNMNPYQYP	YV - - - PAGQM RDQRLRLRCS	SATKEARKKR 462	
AT1G19850.1_MP	GLLGDMMQQP	LMMNQKSEMV QPQNKLTVNP	SASNTSGEQE 514	
Consensus		- - - SPPAKAQ		



580 600

IAA7_AT3G23050	V - VGWPPV - -	RNYRKNMMT	QQK	- - - - -	- TSSGAE -	107
IAA14_AT4G14550	V - VGWP - - -	RNYRKNVMA	NQK	- - - - -	- SGAE -	100
IAA16_AT3G04730	V - VGWPPV - -	RSF - KNVMS	GQKP	- - - - -	- TGDAT -	96
Pt205684_gw1.V.1085.1	V - VGWPP - -	RSFRKNMLA	VQK	- - - - -	- SSTDQ -	98
AXR3_AT1G04250	V - VGWPPV - -	RSYRKNMV	SCQK	- - - - -	- SSGGPE -	108
PAP2_AT4G29080	V - VGWPPV - -	RSFRKNSMA	SSSQ	- - - - -	- KPGNNS -	169
Pt171693_gw1.I.293.1	V - VGWPPV - -	RSFRKNTMA	SSLA	- - - - -	- K - NND -	158
OsiBCD000843	V - VGWPPV - -	RSYRKNNTMA	TNQI	- - - - -	- K - SNKED -	148
IAA8_AT2G22670	V - VGWPPV - -	RSYRKNNTMA	SSTS	- - - - -	- K - NTDE -	188
IAA9_AT5G65670	V - VGWPPV - -	RSYRKNNTLA	T - TC	- - - - -	- K - NSDE -	205
IAA2_AT3G23030	V - VGWPPV - -	RSSRKNN - N	S - V	- - - - -	- S - - - -	78
IAA1_AT4G14560	V - VGWPPV - -	RSNRKNN - N	NKNV	- - - - -	- S - - - -	75
SHY2_AT1G04240	V - VGWPPV - -	RSYRKNNIQ	KKNE	- - - - -	- SEHEGQG -	91
IAA15_AT1G80390	L - VGWPPVAT	AKTVRRK - -	- - - - -	- - - - -	- - - - -	86
IAA6_AT1G52830	A - VGWPPVC -	SYRKKNN -	EEAS	- - - - -	- KA - - - -	91
IAA19_AT3G15540	V - VGWPPVC -	SYKKNSC -	KEAS	- - - - -	- TT - - - -	91
Pt180980_gw1.I.9580.1	V - VGWPPVC -	SYRKKNSF	NEKD	- - - - -	- SH - - - -	51
Pt180995_gw1.I.9595.1	V - VGWPPVC -	SYRKKNSF	NEKD	- - - - -	- SH - - - -	51
IAA5_AT1G15580	V - VGWPPVC -	SYRKNLS	ERTK	- - - - -	- SS - - - -	75
Pp164608_estExt_fgenesh1_pg.C_730007	T - GWPPV - -	KNFNKNMTP	APPP	- - - - -	- SAPATAC -	345
Pp219923_estExt_Genewise1.C_1840013	T - GWPPV - -	KNFNKNMTP	APPA	- - - - -	- STPARAC -	359
OsiBCD000527	V - VGWP - - -	VSFRKNALA	AK -	- - - - -	- - - - -	93
IAA12_AT1G04550	V - VGWPPV - -	GLHR - NSLV	NNQA	- - - - -	- MKAARAE -	95
IAA13_AT2G33310	V - VGWP - - -	GSHRMNSLV	NNQA	- - - - -	- TKSAREE -	101
IAA11_AT4G28640	V - VGWPPV - -	RTYRMSMV	N - QA	- - - - -	- KASATE -	112
IAA10_AT1G04100	VAVGWPPV - -	RTYRNSLV	N - QA	- - - - -	- KSLATEG -	118
IAA18_AT1G51950	PVVGWPPV - -	RSFRKNLAS	GSSS	- - - - -	- KLGNDSTT -	123
PAP1_AT3G16500	PVVGWPPV - -	RSFRKNLAS	TSSS	- - - - -	- KLGNESSH -	130
OsiBCD000591	PVVGWPPV - -	RSFRRASS	SSSS	- - - - -	- SKQAPPPP -	96
IAA29_AT5G25890	PVVGWPPV - -	RSSRRNLTA	QLKE	- - - - -	- EMK - - - -	71
IAA20_AT2G46990	VEEE - - - - -	- - - - -	- - - - -	- - - - -	- EENEEN -	80
IAA30_AT3G62100	MEEE - - - - -	- - - - -	- - - - -	- - - - -	- EQNEEN -	78
IAA31_AT3G17600	ARQDWPPVKS	RLRDTLK - -	- - - G	- - - - -	- RRLRRG -	69
OsiBCD001221	VHAD - PPIKP	FLRSALQKAS	AAGG	- - - - -	- GGARRR -	105
IAA29_AT4G32280	EVVGWPPVKT	C - MIKYGSYH	HRHI	- - - - -	- RNHHHC -	123
IAA34_AT1G15050	- - - - -	- - - - -	- - - - -	- - - - -	- HSSG - - - -	79
IAA32_AT2G01200	GLDGYGELID	WSQPSYNSIT	QLKS	- - - - -	- EDTGHR -	83
corb_UMD_Coleochaete_c11109_c_s_1	STVCVPHV - -	- - - - -	- - - - -	- - - - -	- - - - -	63
AtIAA33	RDTTTFIPK	PASKNHNSN	SSSG	- - - - -	- AAGRSFQ -	58
AT3G24650	MARQRRLSH	HHRHNNNNNN	NNNN	- - - - -	- QQNQ - - - -	490
AT1G19850.1_MP	NLSQS - MSA	PAKPENSTLS	GCSSGRVQH	LEQSMEQAS	- - - - -	552
Consensus	V - VGWPPV - -	- RSYRKNMMA	N - K - - - -	- - - - -	- - - - -	- - - - -

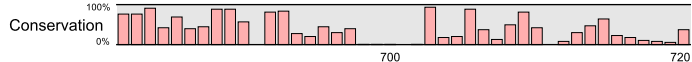


IAA7_AT3G23050	- - - - -	ASSEKAG	NFGGAAGA -	- - -	GLVKVS	129		
IAA14_AT4G14550	- - - - -	AMSS - -	- GGGTVA -	- - -	FVKVS	115		
IAA16_AT3G04730	- - - - -	GNDKTSG	SSGATSSASA	CATVA	YVKVS	123		
Pt205684_gw1.V.1085.1	- - - - -	STDKVP -	- GGNAT -	- - -	FVKVS	114		
AXR3_AT1G04250	- - - - -	A - - - -	- - - - -	- - -	AFVKVS	115		
PAP2_AT4G29080	- - - - -	TEEA EAK	S - - - -	GP	EQPCLYVKVS	189		
Pt171693_gw1.I.293.1	- - - - -	VD - - -	K S - - -	G -	YGYLYVKVS	172		
OsiBCD000843	- - - - -	VD - - -	AK Q - - -	G -	QGFLYV - VS	162		
IAA8_AT2G22670	- - - - -	VD - - -	GK P - - -	G -	GLFLVKVS	203		
IAA9_AT5G65670	- - - - -	VD - - -	GR P - - -	G -	SGALFVKVS	220		
IAA2_AT3G23030	- - - - -	- - - - -	- - - - -	- - -	YVVS	82		
IAA1_AT4G14560	- - - - -	- - - - -	- - - - -	- - -	YVKV -	79		
SHY2_AT1G04240	- - - - -	I - - - -	- - - - -	- - -	YVKVS	97		
IAA15_AT1G80390	- - - - -	- - - - -	- - - - -	- - -	YVKVA	91		
IAA6_AT1G52830	- - - - -	- - - - -	- - - - -	- - -	IYVKVS	98		
IAA19_AT3G15540	- - - - -	- - - - -	- - - - -	- - -	KVGLYVKVS	101		
Pt180980_gw1.I.9580.1	- - - - -	- - - - -	- - - - -	- - -	ETSKLYVKVS	61		
Pt180995_gw1.I.9595.1	- - - - -	- - - - -	- - - - -	- - -	ETSKLYVKVS	61		
IAA5_AT1G15580	- - - - -	- - - - -	- - - - -	- - -	YVKVS	80		
Pp164608_estExt_fgenesh1_pg.C_730007	- - - - -	RSVPMPR	RGASSSSSGN	- - -	LVKIY	367		
Pp219923_estExt_Genewise1.C_1840013	- - - - -	PSVQ - R	KGASTSSSGN	- - -	LVKIY	379		
OsiBCD000527	- - - - -	- - - - -	- - - - -	- - -	FVKVA	98		
IAA12_AT1G04550	- - - - -	EGDG	EKKVYKDEI	KDYSMKVNP	VQG	GFVKVN	129	
IAA13_AT2G33310	- - - - -	EEAG	KKKV - KDDEP	KDVTKKVNG	VQ - V	GFVKVN	133	
IAA11_AT4G28640	- - - - -	DPNL	EISQAVNKNR	SDSTKMRNSM	- - -	FVKVT	141	
IAA10_AT1G04100	G LSSG	LQKET	TKSVVAAKN	DDACFJKSSR	TSM -	VKVT	156	
IAA18_AT1G51950	SNGVTL	KNQK	C - - - -	DAAAKTTEPK	RQGM	FVKIN	154	
PAP1_AT3G16500	GGQIN - - -	K S - - -	- - - - -	DDGEKQVETK	KEG -	MVKIN	156	
OsiBCD000591	SSS - - - -	PQN G - - -	- - - - -	DKASKDGGAE	K -	GMVKIN	121	
IAA29_AT5G25890	- - - - -	- - - - -	- - - - -	- - -	KKESDEE	KE -	YVKIN	85
IAA20_AT2G46990	YGSF - - - -	- - - - -	- - - - -	- - -	- - - - -	- - -	YVKVN	89
IAA30_AT3G62100	SVSF - - - -	- - - - -	- - - - -	- - -	- - - - -	- - -	YVKVN	87
IAA31_AT3G17600	DTSL - - - -	- - - - -	- - - - -	- - -	- - - - -	- - -	FVKVY	78
OsiBCD001221	- RTL - - - -	- - - - -	- - - - -	- - -	- - - - -	- - -	FVKVY	113
IAA29_AT4G32280	HHRGRRITAM	NNNISNPTTA	TMGSSSSSS	SSRSSMYKVV	- - -	- - -	- - -	163
IAA34_AT1G15050	Q - YCSNEG YR	R - K - - -	- - - - -	- - -	- - -	- - -	- - -	97
IAA32_AT2G01200	QGYVNNEGES	RGK - - - -	- - - - -	- - -	- - -	- - -	- - -	103
corb_UMD_Coleochaete_c11109_c_s_1	- - - - -	- - - - -	- - - - -	- - -	- - -	- - -	- - -	67
AtIAA33	FGLNVEDDLV	SSVYPP - -	- - - - -	- - -	- - -	- - -	- - -	78
AT3G24650	TQIGETCAA	APQL - NPVA	TTATGGTWMY	WPNVPAVPPQ	- - -	- - -	- - -	528
AT1G19850.1_MP	VTTSTV CNEK	VNQLLQKPGA	SSPVQADQCL	DITHIQPQ	- - -	- - -	- - -	592
Consensus	- - - - -	- - - - -	- - - - -	- - -	- - -	- - -	- - -	YVKVS



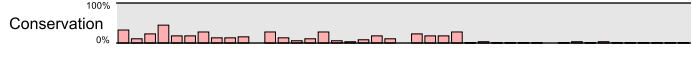
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 IAA14_AT4G14550 MDGAPYLRLKV DLKMYTS - - - YKDLSDAIA -KMFSS - - - F 147
 IAA16_AT3G04730 MDGAPYLRLKI DLKLYKT - - - YQDLSNAIA -KMFSS - - - F 155
 Pt205684_gw1.V.1085.1 MDGAPYLRLKI DLKMYKT - - - YHFLSDAIA -KMFSS - - - F 146
 AXR3_AT1G04250 MDGAPYLRLKI DLRLMYKS - - - YDELSNAIA -NMFSS - - - F 147
 PAP2_AT4G29080 MEGAPYLRLKI DLKTYKS - - - YLELSSALE -KMFSS - - - F 221
 Pt171693_gw1.I.293.1 MDGAPYLRLKI DLKTYGN - - - YLELSSALE -KMFSS - - - F 204
 OsIBCD000843 MDGAPYLRLKV DLKTYKN - - - YKDMSLGE -KMFSS - - - F 194
 IAA8_AT2G22670 MDGAPYLRLKV DLRTYTS - - - YQLLSSALE -KMFSS - - - F 235
 IAA9_AT5G65670 MDGAPYLRLKV DLRSYTN - - - YGE-SSALE -KMFSS - - - F 251
 IAA2_AT3G23030 MDGAPYLRLKI DLKTYKN - - - YPELLKALE -NMFSS - - - V 113
 IAA1_AT4G14560 SDGAPYLRLKI DLKMYKN - - - YPELLKALE -NMFSS - - - F 110
 SHY2_AT1G04240 MDGAPYLRLKI DLSCYKG - - - YSELLKALE -NMFSS - - - F 128
 IAA15_AT1G80390 LDGAAYLRLKV DLGMYDC - - - YQLLFTALE -NMFSS - - - I 123
 IAA6_AT1G52830 MDGAPYLRLKI DLGSSNS - - - YINLVTLE -NMFSS - - - L 130
 IAA19_AT3G15540 MDGAPYLRLKM DLGSSQG - - - YDDLAFALD -KLFSS - - - R 133
 Pt180980_gw1.I.9580.1 MDGAPYLRLKV DLGMHKE - - - Y-SLVVALE -KLFSS - - - F 92
 Pt180995_gw1.I.9595.1 MDGAPYLRLKV DLGMHKE - - - Y-SLVVALE -KLFSS - - - F 92
 IAA5_AT1G15580 -DGAAYLRLKI DLEMYKC - - - YQDLASALQ -LFLSS - - - Y 111
 Pp164608_estExt_fgenesh1_pg_C_730007 MDGVPFGRKVI DLKTNNS - - - YEKLYTLE -DMFSS - - - Y 399
 Pp219923_estExt_Genewise1.C_1840013 MDGVPFGRKVI DLKTNDS - - - YDKLSM-LE -DMFSS - - - Y 410
 OsIBCD000527 VDGAPYLRLKV DLEAYSG - - - YDQLLRLAQ DKFFSS - - - F 131
 IAA12_AT1G04550 MDGVPFGRKVI DMRAHSS - - - YENLAQLE EMFSS - - - F 159
 IAA13_AT2G33310 MDGVPFGRKVI DLNAHSS - - - YENLAQLE DFFSS - - - R 163
 IAA11_AT4G28640 MDGVPFGRKVI DLNAHCK - - - YELSNLE EMFLK - - - PK 173
 IAA10_AT1G04100 MDGVPFGRKVI DLNALDS - - - YAALEKTLD LMFQIPSPV 191
 IAA18_AT1G51950 MYGVPFGRKVI DLSAHNS - - - YEQLSFTVD KLFGRGLAAQ 189
 PAP1_AT3G16500 MDGVPFGRKVI DLNAYNS - - - YEQLSFTVD KLFGRGLAAQ 191
 OsIBCD000591 MDGVPFGRKVI DLTAYGG - - - YAQLSAARD KLFGRGLAAQ 157
 IAA29_AT5G25890 MEGVPFGRKVI NLSAYNN - - - YQLLSHAVD QLFSS - - - SK 116
 IAA20_AT2G46990 MEGVPFGRKVI DLMSLNG - - - YRDLIRTLD LMFQIPSPV 124
 IAA30_AT3G62100 MEGVPFGRKVI DLLSLNG - - - YHDLITLTD -YMFNASILW 122
 IAA31_AT3G17600 MEVPFGRKVI DLVFSFG - - - YESLLENLS -HMFDTSLIC 112
 OsIBCD001221 MEGVPFGRKVI DLLLLDG - - - YDSLKLCLE -HMFKTPITY 148
 IAA29_AT4G32280 MDGVPFGRKVI DLKLFNS - - - YESLNTSL - - - - - ITMF 192
 IAA34_AT1G15050 MDGLVYGRKVI CVDLHGS - - - YSTLAHQLE DMFSS - - - 126
 IAA32_AT2G01200 LDGLVYGRKVI CLVDQGA - - - YATLALQLN DMFSS - - - 132
 corb_UMD_Coleochaete_c11109_c_s_1 VDGHPGCVYV TIHPSSD - - - YLRFYTSIR EALTGCALRT 103
 AtIAA33 LEGRSICQRIL SLDKHS - - - YQSLASALR QMFVDGADST 114
 AT3G24650 LPPV - - - -M ETQLPT - - - - - MDRAGS - - - - - ASAMP 550
 AT1G19850.1_MP SDPILNGFSFL ETDELTSQVS SFSQSLAGSYK QPFILSSQDS 632
 Consensus MDGAPYLRLKV DLKXYKS - - - YEDLSSALE -KMFSS - - - F

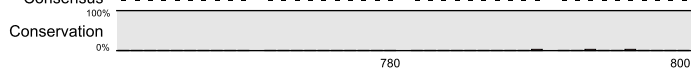


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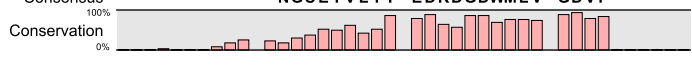
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 IAA14_AT4G14550 T-MGSGAQ- GM-ID--F-N ESKV----- 165
 IAA16_AT3G04730 T-IGNV-PQ- GM-KD--FMN ESKL----- 173
 Pt205684_gw1.V.1085.1 T-IGNCGSH- GM-KD--FL- ESKL----- 164
 AXR3_AT1G04250 T-MGKHGGE- GM-ID--MN ERKL----- 166
 PAP2_AT4G29080 T-IGQEGSHG GCGRD--GLN E-SL----- 241
 Pt171693_gw1.I.293.1 T-IGQCGSHG LAARD--GLT E-SC----- 224
 OsIBCD000843 S-TGKGAEN - - - QKD - G - - - - - 207
 IAA8_AT2G22670 T-LGQC-LHG AQQRE - RMS EIKL----- 255
 IAA9_AT5G65670 T-LGQCGSNG AAGKD - MLS ETKL----- 272
 IAA2_AT3G23030 M-IGEYCERE G - - - - - - - - - - - 123
 IAA1_AT4G14560 T-VGEYSERE G - - - - - - - - - - - 120
 SHY2_AT1G04240 S-VGEYFERD G - - - - - - - - - - - 138
 IAA15_AT1G80390 - - - - - - - - - - - ITICRV----- 129
 IAA6_AT1G52830 -GIGVA-KEG - - - - - - - - - - - 138
 IAA19_AT3G15540 -GIGVALKDG - - - - - - - - - - - 142
 Pt180980_gw1.I.9580.1 -GIGVALKDT - - - - - - - - - - - 101
 Pt180995_gw1.I.9595.1 -GIGVALKDT - - - - - - - - - - - 101
 IAA5_AT1G15580 INFDDTLKES - - - - - - - - - - - 121
 Pp164608_estExt_fgenesh1_pg_C_730007 IV-HGCGGRS SSCGDSHSLA SSRK----- 422
 Pp219923_estExt_Genewise1.C_1840013 ISGQYCGGRS SSSGESHWVA SSRK----- 434
 OsIBCD000527 TILPLDGRKVA GKFAAD - - - - - ERKL----- 151
 IAA12_AT1G04550 - - - - - GT - - - - - - - - - - - 161
 IAA13_AT2G33310 TNPGTVGLTS QFTKPLRL - D - - - - - 183
 IAA11_AT4G28640 LGSRTLETDG HMETPVKILP - D - - - - - 194
 IAA10_AT1G04100 TRSNTQGYKT IKETCTSKL - D - - - - - 212
 IAA18_AT1G51950 RDFPSSLEDE KPIITG - - - - - 205
 PAP1_AT3G16500 RDISDQGQEE KPIITG - - - - - 207
 OsIBCD000591 -SAADGEADA AA-AGE - - - - - 171
 IAA29_AT5G25890 KDSWD - - - - - - - - - - - 122
 IAA20_AT2G46990 AEEED - - - - - - - - - - - 129
 IAA30_AT3G62100 AEEED - - - - - - - - - - - 127
 IAA31_AT3G17600 GNRDRKH - - - - - - - - - - - 119
 OsIBCD001221 ADVMECHQQ - - - - - - - - - - - 157
 IAA29_AT4G32280 TEYEDCDRE - - - - - - - - - - - 201
 IAA34_AT1G15050 - - - - - GMQS VSGL----- 134
 IAA32_AT2G01200 - - - - - GMQT VSGL----- 140
 corb_UMD_Coleochaete_c11109_c_s_1 PEKIPQHPPD SPQNVIP - - - - - 120
 AtIAA33 DDLDSNAIP G - - - - - - - - - - - 125
 AT3G24650 RQQVVPDRRQ G - - - - WKPE KN-LRF - - - - - 574
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 Consensus T-IGDCG - - - - - - - - - - -



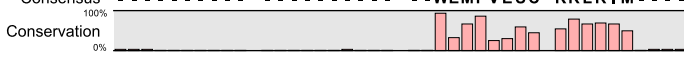
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IAA14_AT4G14550	-----	-----	165
IAA16_AT3G04730	-----	-----	173
Pt205684_gw1.V.1085.1	-----	-----	164
AXR3_AT1G04250	-----	-----	166
PAP2_AT4G29080	-----	-----	241
Pt171693_gw1.I.293.1	-----	-----	224
OsIBCD000843	-----	-----	207
IAA8_AT2G22670	-----	-----	255
IAA9_AT5G65670	-----	-----	272
IAA2_AT3G23030	-----	-----	123
IAA1_AT4G14560	-----	-----	120
SHY2_AT1G04240	-----	-----	138
IAA15_AT1G80390	-----	-----	129
IAA6_AT1G52830	-----	-----	138
IAA19_AT3G15540	-----	-----	142
Pt180980_gw1.I.9580.1	-----	-----	101
Pt180995_gw1.I.9595.1	-----	-----	101
IAA5_AT1G15580	-----	-----	121
Pp164608_estExt_fgenesh1_pg.C_730007	-----	-----	422
Pp219923_estExt_Genewise1.C_1840013	-----	-----	434
OsIBCD000527	-----	-----	151
IAA12_AT1G04550	-----	-----	161
IAA13_AT2G33310	-----	-----	183
IAA11_AT4G28640	-----	-----	194
IAA10_AT1G04100	-----	-----	212
IAA18_AT1G51950	-----	-----	205
PAP1_AT3G16500	-----	-----	207
OsIBCD000591	-----	-----	171
IAA29_AT5G25890	-----	-----	122
IAA20_AT2G46990	-----	-----	129
IAA30_AT3G62100	-----	-----	127
IAA31_AT3G17600	-----	-----	119
OsIBCD001221	-----	-----	157
IAA29_AT4G32280	-----	-----	201
IAA34_AT1G15050	-----	-----	134
IAA32_AT2G01200	-----	-----	140
corb_UMD_Coleochaete_c11109_c_s_1	-----	-----	120
AtIAA33	-----	-----	125
AT3G24650	-----	-----	583
AT1G19850.1_MP	QNI CMS NSTT SNI LD PPL SN T V L D D F C A I K D T D F Q N H P S G		712
Consensus	-----	-----	-----



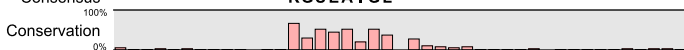
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IAA7_AT3G23050	-----	-----	206
IAA14_AT4G14550	-----	-----	192
IAA16_AT3G04730	-----	-----	200
Pt205684_gw1.V.1085.1	-----	-----	191
AXR3_AT1G04250	-----	-----	193
PAP2_AT4G29080	-----	-----	268
Pt171693_gw1.I.293.1	-----	-----	250
OsIBCD000843	-----	-----	227
IAA8_AT2G22670	-----	-----	282
IAA9_AT5G65670	-----	-----	299
IAA2_AT3G23030	-----	-----	147
IAA1_AT4G14560	-----	-----	144
SHY2_AT1G04240	-----	-----	161
IAA15_AT1G80390	-----	-----	156
IAA6_AT1G52830	-----	-----	160
IAA19_AT3G15540	-----	-----	164
Pt180980_gw1.I.9580.1	-----	-----	124
Pt180995_gw1.I.9595.1	-----	-----	124
IAA5_AT1G15580	-----	-----	141
Pp164608_estExt_fgenesh1_pg.C_730007	-----	-----	449
Pp219923_estExt_Genewise1.C_1840013	-----	-----	461
OsIBCD000527	-----	-----	177
IAA12_AT1G04550	-----	-----	161
IAA13_AT2G33310	-----	-----	206
IAA11_AT4G28640	-----	-----	217
IAA10_AT1G04100	-----	-----	235
IAA18_AT1G51950	-----	-----	230
PAP1_AT3G16500	-----	-----	232
OsIBCD000591	-----	-----	196
IAA29_AT5G25890	-----	-----	144
IAA20_AT2G46990	-----	-----	154
IAA30_AT3G62100	-----	-----	152
IAA31_AT3G17600	-----	-----	138
OsIBCD001221	-----	-----	180
IAA29_AT4G32280	-----	-----	223
IAA34_AT1G15050	-----	-----	160
IAA32_AT2G01200	-----	-----	166
corb_UMD_Coleochaete_c11109_c_s_1	-----	-----	140
AtIAA33	-----	-----	144
AT3G24650	-----	-----	614
AT1G19850.1_MP	CL V G N N T F A Q D V Q S Q I T S A S F A D S Q A F S R Q D F P D N S G G T		752
Consensus	-----	-----	-----



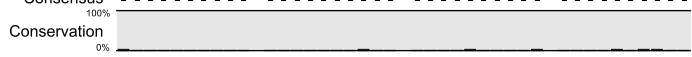
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IAA16_AT3G04730	---	---	WEMFVESC KRLRIM --- 214	
Pt205684_gw1.V.1085.1	---	---	WDMFVESC KRLRIM --- 205	
AXR3_AT1G04250	---	---	WPMFVDTG KRLRIM --- 207	
PAP2_AT4G29080	---	---	WEMFVESC KRLRIM --- 282	
Pt171693_gw1.I.293.1	---	---	WDMFTDSC RRLRIM --- 264	
OsiBCD000843	---	---	WEMFTDSC RRLRI --- 240	
IAA8_AT2G22670	---	---	WEIFTEC QKLRIM --- 296	
IAA9_AT5G65670	---	---	WEMFTDVC KRLRIM --- 313	
IAA2_AT3G23030	---	---	WDMFSSSC KRLRIK --- 161	
IAA1_AT4G14560	---	---	WDMFSSSC QKLRIM --- 158	
SHY2_AT1G04240	---	---	WEMFVCTC KRLRIM --- 175	
IAA15_AT1G80390	---	---	WMMFVESC KRLRIM --- 169	
IAA6_AT1G52830	---	---	WQMFVESC KRLRIV --- 174	
IAA19_AT3G15540	---	---	WGMFVESC KRLRIM --- 178	
Pt180980_gw1.I.9580.1	---	---	WEMFVESC KRLRIM --- 138	
Pt180995_gw1.I.9595.1	---	---	WEMFVESC KRLRIM --- 138	
IAA5_AT1G15580	---	---	WEMFVESC KRLRIM --- 155	
Pp164608_estExt_fgenesh1_pg.C_730007	---	---	WDMFVESC KRLRIM --- 463	
Pp219923_estExt_Genewise1.C_1840013	---	---	WELFVNAV KRLRIM --- 475	
OsiBCD000527	---	---	WK --- 179	
IAA12_AT1G04550	---	---	---	161
IAA13_AT2G33310	---	---	WRMFINSV KRLRVM --- 220	
IAA11_AT4G28640	---	---	WGMFVGSV RRLRIM --- 231	
IAA10_AT1G04100	---	---	WQMFVLSV TRLRIM --- 248	
IAA18_AT1G51950	---	---	WQMFVSSV KR-RVLI --- 243	
PAP1_AT3G16500	---	---	WQMFVSSV RL-RVLI --- 245	
OsiBCD000591	---	---	WQMFVATA KRLRVL --- 210	
IAA29_AT5G25890	---	---	WEMFVSTV KRHLVL --- 158	
IAA20_AT2G46990	---	---	WEMFVLSV RRLKIS --- 167	
IAA30_AT3G62100	---	---	WEMFVLSV RRLKIS --- 165	
IAA31_AT3G17600	---	---	WDMFLETV RRLKIT --- 152	
OsiBCD001221	---	---	---	186
IAA29_AT4G32280	---	---	WKIFAESV HRSIL --- 237	
IAA34_AT1G15050	---	---	WNEFLESV ERLRIT --- 174	
IAA32_AT2G01200	---	---	WKEFVESV DRMRIA --- 180	
corb_UMD_Coleochaete_c11109_c_s_1	---	---	WRLFFQRV KRLRVVITQEP --- 158	
AtIAA33	---	---	WKDFVVA KRLRILPVKG --- 162	
AT3G24650	GTSRV	WNNRY	REWP --- NNK SRMYL-LENT --- 640	
AT1G19850.1_MP	GTSSTNVDFD	DCSLRQNSKG	SSWQKIA TPR VRTYTKVQKT --- 792	
Consensus	---	---	WEMFVESC KRLRIM ---	



	860	880		
IAA7_AT3G23050	---	---	KGSEAVGL A --- 229	
IAA14_AT4G14550	---	---	KGSEAVGL A --- 215	
IAA16_AT3G04730	---	---	KGSEAVGL A --- 223	
Pt205684_gw1.V.1085.1	---	---	KGTEATGL A --- 214	
AXR3_AT1G04250	---	---	KGSDAIGL A --- 216	
PAP2_AT4G29080	---	---	KSSAIGL A --- 291	
Pt171693_gw1.I.293.1	---	---	KGSEAVGL A --- 273	
OsiBCD000843	---	---	KGSDAIGL GCSQL --- 253	
IAA8_AT2G22670	---	---	KGSDSIGL A --- 305	
IAA9_AT5G65670	---	---	KGCDALGA AA --- 323	
IAA2_AT3G23030	---	---	GS-DAPA DSSI* --- 173	
IAA1_AT4G14560	---	---	KG-EAP -TAL* --- 167	
SHY2_AT1G04240	---	---	KGSEAKGL GCGV* --- 188	
IAA15_AT1G80390	---	---	KTGDALGL *CG --- 178	
IAA6_AT1G52830	---	---	KRSDATGF GLQ --- 185	
IAA19_AT3G15540	---	---	KRSDATGF GLQPR --- 191	
Pt180980_gw1.I.9580.1	---	---	KRSEAKGF GLQPR --- 151	
Pt180995_gw1.I.9595.1	---	---	KRSEAKGF GLQPR --- 151	
IAA5_AT1G15580	---	---	KRS-CNG* --- 162	
Pp164608_estExt_fgenesh1_pg.C_730007	---	---	KGSEQVNL APKNP --- 476	
Pp219923_estExt_Genewise1.C_1840013	---	---	KGSEQ-NL APKNA --- 487	
OsiBCD000527	---	---	---	179
IAA12_AT1G04550	---	---	G YCF --- 166	
IAA13_AT2G33310	---	---	KTSEANGL AARNQ --- 233	
IAA11_AT4G28640	---	---	KTSEATG --- 238	
IAA10_AT1G04100	---	---	KTSAGAGV G --- 257	
IAA18_AT1G51950	---	---	KTSEIS-SALTY --- 254	
PAP1_AT3G16500	---	---	KSSAIS-SALTF --- 256	
OsiBCD000591	---	---	KSSDLPPP SLMRA --- 223	
IAA29_AT5G25890	---	---	KTH -AF --- 163	
IAA20_AT2G46990	---	---	RANYHY* --- 174	
IAA30_AT3G62100	---	---	RA-WHY* --- 171	
IAA31_AT3G17600	---	---	RPE-RY* --- 158	
OsiBCD001221	---	---	QDC-KDG --- 192	
IAA29_AT4G32280	---	---	RDRCAV --- 243	
IAA34_AT1G15050	---	---	RRNDAL --- 180	
IAA32_AT2G01200	---	---	RRNDAL --- 186	
corb_UMD_Coleochaete_c11109_c_s_1	---	---	GEEGSTSPRH GREATERKLI SRGSRFLQHE DALDHNLYDM --- 198	
AtIAA33	---	---	NTRQV -KRNE --- 171	
AT3G24650	GDFVKTNGLQ	EGDFIVYSD	VKCGKYLIRG VKVR-QPSGQ --- 679	
AT1G19850.1_MP	GSSVGRSIDTS	EKDYEEKLSA	IEC-MFGLLEG LLTHPQSSGW --- 831	
Consensus	---	---	KGSEAVGL ---	



	900	920	
IAA7_AT3G23050	-----	-----	229
IAA14_AT4G14550	-----	-----	215
IAA16_AT3G04730	-----	-----	223
Pt205684_gw1.V.1085.1	-----	-----	214
AXR3_AT1G04250	-----	-----	216
PAP2_AT4G29080	-----	-----	291
Pt171693_gw1.I.293.1	-----	-----	273
OsiBCD000843	-----	-----	253
IAA8_AT2G22670	-----	-----	305
IAA9_AT5G65670	-----	-----	323
IAA2_AT3G23030	-----	-----	173
IAA1_AT4G14560	-----	-----	167
SHY2_AT1G04240	-----	-----	188
IAA15_AT1G80390	-----	-----	178
IAA6_AT1G52830	-----	-----	185
IAA19_AT3G15540	-----	-----	191
Pt180980_gw1.I.9580.1	-----	-----	151
Pt180995_gw1.I.9595.1	-----	-----	151
IAA5_AT1G15580	-----	-----	162
Pp164608_estExt_fgenesh1_pg.C_730007	-----	-----	476
Pp219923_estExt_Genewise1.C_1840013	-----	-----	487
OsiBCD000527	-----	-----	179
IAA12_AT1G04550	-----	-----	166
IAA13_AT2G33310	-----	-----	233
IAA11_AT4G28640	-----	-----	238
IAA10_AT1G04100	-----	-----	257
IAA18_AT1G51950	-----	-----	254
PAP1_AT3G16500	-----	-----	256
OsiBCD000591	-----	-----	223
IAA29_AT5G25890	-----	-----	163
IAA20_AT2G46990	-----	-----	174
IAA30_AT3G62100	-----	-----	171
IAA31_AT3G17600	-----	-----	158
OsiBCD001221	-----	-----	192
IAA29_AT4G32280	-----	-----	243
IAA34_AT1G15050	-----	-----	180
IAA32_AT2G01200	-----	-----	186
corb_UMD_Coleochaete_c11109_c_s_1	-----	-----	224
AtIAA33	-----	-----	171
AT3G24650	-----	-----	695
AT1G19850.1_MP	-----	-----	871
Consensus	-----	-----	




	940	
IAA7_AT3G23050	-----	241
IAA14_AT4G14550	-----	227
IAA16_AT3G04730	-----	235
Pt205684_gw1.V.1085.1	-----	225
AXR3_AT1G04250	-----	228
PAP2_AT4G29080	-----	303
Pt171693_gw1.I.293.1	-----	284
OsiBCD000843	-----	263
IAA8_AT2G22670	-----	319
IAA9_AT5G65670	-----	335
IAA2_AT3G23030	-----	173
IAA1_AT4G14560	-----	167
SHY2_AT1G04240	-----	188
IAA15_AT1G80390	-----	178
IAA6_AT1G52830	-----	188
IAA19_AT3G15540	-----	196
Pt180980_gw1.I.9580.1	-----	156
Pt180995_gw1.I.9595.1	-----	156
IAA5_AT1G15580	-----	162
Pp164608_estExt_fgenesh1_pg.C_730007	-----	486
Pp219923_estExt_Genewise1.C_1840013	-----	498
OsiBCD000527	-----	179
IAA12_AT1G04550	-----	172
IAA13_AT2G33310	-----	244
IAA11_AT4G28640	-----	244
IAA10_AT1G04100	-----	259
IAA18_AT1G51950	-----	265
PAP1_AT3G16500	-----	267
OsiBCD000591	-----	234
IAA29_AT5G25890	-----	174
IAA20_AT2G46990	-----	174
IAA30_AT3G62100	-----	171
IAA31_AT3G17600	-----	158
OsiBCD001221	-----	192
IAA29_AT4G32280	-----	249
IAA34_AT1G15050	-----	184
IAA32_AT2G01200	-----	190
corb_UMD_Coleochaete_c11109_c_s_1	-----	249
AtIAA33	-----	171
AT3G24650	-----	720
AT1G19850.1_MP	-----	892
Consensus	-----	



Figure S29 - alignment of ARFs and putative orthologs

Phypha1_1_168019_estExt_fgenesh1_pg.C_1630077	M K W T P V S N - -	- - - - -	- - - - -	8
Phypha_218828	M - - - - -	- - - - -	- - - - -	1
Phypha1_1_127416_e_gw1.65.212.1	L A - - - - -	- - - - -	- - - - -	2
Phypha1_1_50215_gw1.6.284.1	- - - - -	- - - - -	- - - - -	-
Phypha_167026	M T T D V V K K K K K K T R G R K G G R E R R E R E R R G	- - - - -	- - - - -	30
Phypha1_1_136986_e_gw1.133.91.1	- - - - -	- - - - -	- - - - -	-
Phypha_188433	M P - - - - -	- - - - -	- - - - -	2
Phypha_165321	M V - - - - -	- - - - -	- - - - -	2
ARF8_AT5G37020	M K L S T S G L G Q Q G - - - - -	- - - - -	- - - - -	12
Pt198791_gw1.IV.3880.1	E K - - - - -	- - - - -	- - - - -	2
ARF6_AT1G30330	M R L S S A G F N P Q P - - - - -	- - - - -	- - - - -	12
Pt205407_gw1.V.808.1	- - - - -	- - - - -	- - - - -	-
Selmo1_117217_e_gw1.55.235.1	M L A E L G V Y Q S S K P Q C F T - - - - -	- - - - -	- - - - -	17
Selmo1_422125	M - - - - -	- - - - -	- - - - -	1
Selmo1_424114_fgenesh2_pg.C_scaffold_65000063	M N T E M E G - - - - -	- - - - -	- - - - -	7
Selmo1_446535	M N T E M E G - - - - -	- - - - -	- - - - -	7
Selmo1_181406_estExt_Genewise1Plus.C_650169	M N C L L - A - - - - -	- - - - -	- - - - -	6
ARF19_AT1G19220	M K A - - - - -	- - - - -	- - - - -	3
ARF7_AT5G20730	M K A - - - - -	- - - - -	- - - - -	3
ZmGRMZM2G014864_P01	M - - - - -	- - - - -	- - - - -	1
ARF5_AT1G19850	M M A S L S C V E D K M K T S C L V N G G G T T T T S Q	- - - - -	- - - - -	30
Selmo1_437944_estExt_fgenesh2_pg.C_10526	M L S S S Q T Y G Q L G T M M H R P T P Q R - - - - -	- - - - -	- - - - -	22
all_Phypha_77324	M - - - - -	- - - - -	- - - - -	1
all_Phypha_159688	M - - - - -	- - - - -	- - - - -	1
all_Phypha_225990	M - - - - -	- - - - -	- - - - -	1
all_Phypha_171197	M - - - - -	- - - - -	- - - - -	1
Pt179921_gw1.I.8521.1	- - - - -	- - - - -	- - - - -	-
Pt245007gw1.XIV.1750.1	- - - - -	- - - - -	- - - - -	-
ARF9_AT4G23980	M - - - - -	- - - - -	- - - - -	1
ARF11_AT2G46530	M - - - - -	- - - - -	- - - - -	1
ARF18_AT3G61830	M - - - - -	- - - - -	- - - - -	1
ARF1_AT1G59750	M - - - - -	- - - - -	- - - - -	1
ZmGRMZM2G017187_P02	M - - - - -	- - - - -	- - - - -	1
ARF2_AT5G62000	M - - - - -	- - - - -	- - - - -	1
ZmGRMZM2G006042_P01	M - - - - -	- - - - -	- - - - -	1
Pt179307_gw1.I.7907.1	- - - - -	- - - - -	- - - - -	-
ARF21_AT1G34410	M E S - - - - -	- - - - -	- - - - -	3
ARF20_AT1G35240	M E T - - - - -	- - - - -	- - - - -	3
ARF22_AT1G34390	M E S - - - - -	- - - - -	- - - - -	3
ARF12_AT1G34310	M E S - - - - -	- - - - -	- - - - -	3
ARF15_AT1G35520	M E T - - - - -	- - - - -	- - - - -	3
ARF14_AT1G35540	M E S - - - - -	- - - - -	- - - - -	3
ARF13_AT1G34170	M E - - - - -	- - - - -	- - - - -	2
ARF4_AT5G60450	M E F D L N - - - - -	- - - - -	- - - - -	6
ARF3_AT2G33860	M G G L I D L N V M E T E E D E T Q T Q T P S S A S G S V S	- - - - -	- - - - -	30
Pt243681_gw1.XIV.424.1	- - - - -	- - - - -	- - - - -	-
Selmo1_2_61688	- - - - -	- - - - -	- - - - -	K 1
Selmo1_2_51695	- - - - -	- - - - -	- - - - -	G G E E 4
Phypha_108888	M - - - - -	- - - - -	- A S G V - - - G E S V	9
ARF10_AT2G28350	M - - - - -	- - - - -	- E Q - - - - E	4
ARF16_AT4G30080	M - - - - -	- - - - -	- L N V M N P M K G G T E	13
Phypha_61245	M - - - - -	- - - - -	- Q G A R H D R F N G - P	12
ZmGRMZM2G005284_P01	M S P E A C E L T A P R M P A S Q A G A G A G A E P E T K	- - - - -	- - - - -	30
ARF17_AT1G77850	M S P P S A T A G D I - - - - -	- - - - -	- - - - -	13
Phypha_170581	M - - - - -	- - - - -	- - - - -	1
all_Phypha_171888	M - - - - -	- - - - -	- - - - -	1
Selmo1_2_405821	M - - - - -	- - - - -	- - - - -	1
Selmo1_2_431298	M - - - - -	- - - - -	- - - - -	1
Selmo1_2_431277	M - - - - -	- - - - -	- - - - -	1
corb_UMD_Coleochaete_c9703_c_s_1	M - - - - -	- - - - -	- - - - -	1
spra_Contig219_1	- - - - -	- - - - -	- - - - -	-
IAA12_AT1G04550	M R G V S E L E V G K S N L P A E S E E L G L E S - - - - -	- - - - -	- - - - -	27
Consensus	M - - - - -	- - - - -	- - - - -	-



	40	60		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	8	
Phypa_218828	1	
Phypa1_1_127416_e_gw1.65.212.1	2	
Phypa1_1_50215_gw1.6.284.1	-	
Phypa_167026	ERWILELHVR	VSKGFDISMA	SASYSGRFDL	60
Phypa1_1_136986_e_gw1.133.91.1	-	
Phypa_188433	2	
Phypa_165321	2	
ARF8_AT5G37020	12	
Pt198791_gw1.IV.3880.1	2	
ARF6_AT1G30330	12	
Pt205407_gw1.V.808.1	-	
Selmo1_117217_e_gw1.55.235.1	17	
Selmo1_422125	1	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	7	
Selmo1_446535	7	
Selmo1_181406_estExt_Genewise1Plus.C_650169	6	
ARF19_AT1G19220	3	
ARF7_AT5G20730	3	
ZmGRMZM2G014864_P01	1	
ARF5_AT1G19850	STLLEEMKLL	KDQSGTR	47	
Selmo1_437944_estExt_fgenes2_pg.C_10526	22	
all_Phypa_77324	1	
all_Phypa_159688	1	
all_Phypa_225990	1	
all_Phypa_171197	1	
Pt179921_gw1.I.8521.1	-	
Pt245007gw1.XIV.1750.1	-	
ARF9_AT4G23980	1	
ARF11_AT2G46530	1	
ARF18_AT3G61830	1	
ARF1_AT1G59750	1	
ZmGRMZM2G017187_P02	1	
ARF2_AT5G62000	1	
ZmGRMZM2G006042_P01	1	
Pt179307_gw1.I.7907.1	-	
ARF21_AT1G34410	3	
ARF20_AT1G35240	3	
ARF22_AT1G34390	3	
ARF12_AT1G34310	3	
ARF15_AT1G35520	3	
ARF14_AT1G35540	3	
ARF13_AT1G34170	2	
ARF4_AT5G60450	6	
ARF3_AT2G33860	PTSSSSASVS	VVSSNSAGGG	50	
Pt243681_gw1.XIV.424.1	-	
Selmo1_2_61688	KG	.....	3
Selmo1_2_51695	KH	.....	6
Phypa_108888	DR	.....	11
ARF10_AT2G28350	KS	.....	6
ARF16_AT4G30080	KG	.....	15
Phypa_61245	PS	.....	14
ZmGRMZM2G005284_P01	GS	.....	32
ARF17_AT1G77850	RE	.....	15
Phypa_170581	1	
all_Phypa_171888	1	
Selmo1_2_405821	1	
Selmo1_2_431298	1	
Selmo1_2_431277	1	
corb_UMD_Coleochaete_c9703_c_s_1	1	
spra_Contig219_1	-	
IAA12_AT1G04550	27	
Consensus		
Conservation				

	80	
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----D N F Y V K E G W T V I	20
Phypa_218828	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	2
Phypa1_1_50215_gw1.6.284.1	-----	-
Phypa_167026	R D L W L G R V R V Y E G A D L E E S D R I V A T K L Q L L	90
Phypa1_1_136986_e_gw1.133.91.1	-----	-
Phypa_188433	-----	2
Phypa_165321	-----	2
ARF8_AT5G37020	-----	12
Pt198791_gw1.IV.3880.1	-----	2
ARF6_AT1G30330	-----	12
Pt205407_gw1.V.808.1	-----	-
Selmo1_117217_e_gw1.55.235.1	-----	17
Selmo1_422125	-----	1
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	7
Selmo1_446535	-----	7
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	6
ARF19_AT1G19220	-----	3
ARF7_AT5G20730	-----	3
ZmGRMZM2G014864_P01	-----	1
ARF5_AT1G19850	-----	47
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	22
all_Phypa_77324	-----	1
all_Phypa_159688	-----	1
all_Phypa_225990	-----	1
all_Phypa_171197	-----	1
Pt179921_gw1.I.8521.1	-----	-
Pt245007gw1.XIV.1750.1	-----	-
ARF9_AT4G23980	-----	1
ARF11_AT2G46530	-----	1
ARF18_AT3G61830	-----	1
ARF1_AT1G59750	-----	1
ZmGRMZM2G017187_P02	-----	1
ARF2_AT5G62000	-----	1
ZmGRMZM2G006042_P01	-----	1
Pt179307_gw1.I.7907.1	-----	-
ARF21_AT1G34410	-----	3
ARF20_AT1G35240	-----	3
ARF22_AT1G34390	-----	3
ARF12_AT1G34310	-----	3
ARF15_AT1G35520	-----	3
ARF14_AT1G35540	-----	3
ARF13_AT1G34170	-----	2
ARF4_AT5G60450	-----	6
ARF3_AT2G33860	-----	50
Pt243681_gw1.XIV.424.1	-----	-
Selmo1_2_61688	-----	3
Selmo1_2_51695	-----	6
Phypa_108888	-----	11
ARF10_AT2G28350	-----	6
ARF16_AT4G30080	-----	15
Phypa_61245	-----	14
ZmGRMZM2G005284_P01	-----	32
ARF17_AT1G77850	-----	15
Phypa_170581	-----	1
all_Phypa_171888	-----	1
Selmo1_2_405821	-----	1
Selmo1_2_431298	-----	1
Selmo1_2_431277	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	1
spra_Contig219_1	-----	-
IAA12_AT1G04550	-----	27
Consensus	-----	
Conservation	-----	

	100	120	
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	RGQSFVVFIP	FSSLAQQESP	GSAWTVWLKL
Phypa_218828
Phypa1_1_127416_e_gw1.65.212.1
Phypa1_1_50215_gw1.6.284.1
Phypa_167026	PAMSIAWPVT	LGRKRDGALN	EALVDMVLVS
Phypa1_1_136986_e_gw1.133.91.1
Phypa_188433	SIFDVPSFC
Phypa_165321	S
ARF8_AT5G37020
Pt198791_gw1.IV.3880.1
ARF6_AT1G30330
Pt205407_gw1.V.808.1
Selmo1_117217_e_gw1.55.235.1
Selmo1_422125
Selmo1_424114_fgenes2_pg.C_scaffold_65000063
Selmo1_446535
Selmo1_181406_estExt_Genewise1Plus.C_650169
ARF19_AT1G19220
ARF7_AT5G20730
ZmGRMZM2G014864_P01
ARF5_AT1G19850
Selmo1_437944_estExt_fgenes2_pg.C_10526
all_Phypa_77324
all_Phypa_159688
all_Phypa_225990
all_Phypa_171197
Pt179921_gw1.I.8521.1
Pt245007gw1.XIV.1750.1
ARF9_AT4G23980
ARF11_AT2G46530
ARF18_AT3G61830
ARF1_AT1G59750
ZmGRMZM2G017187_P02
ARF2_AT5G62000
ZmGRMZM2G006042_P01
Pt179307_gw1.I.7907.1
ARF21_AT1G34410
ARF20_AT1G35240
ARF22_AT1G34390
ARF12_AT1G34310
ARF15_AT1G35520
ARF14_AT1G35540
ARF13_AT1G34170
ARF4_AT5G60450
ARF3_AT2G33860
Pt243681_gw1.XIV.424.1
Selmo1_2_61688
Selmo1_2_51695
Phypa_108888
ARF10_AT2G28350
ARF16_AT4G30080
Phypa_61245
ZmGRMZM2G005284_P01
ARF17_AT1G77850
Phypa_170581
all_Phypa_171888
Selmo1_2_405821
Selmo1_2_431298
Selmo1_2_431277
corb_UMD_Coleochaete_c9703_c_s_1
spra_Contig219_1
IAA12_AT1G04550
Consensus
Conservation	100%	.....	0%

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	I S N M E M E V L L	E V S A L R L Q V E	R R S	73
Phypa_218828				1
Phypa1_1_127416_e_gw1.65.212.1			V E R R S	7
Phypa1_1_50215_gw1.6.284.1			R R S	3
Phypa_167026	K R R R Q N P A T R	I F S Y A C V P G E	R R S	143
Phypa1_1_136986_e_gw1.133.91.1			G E R R S	5
Phypa_188433	L L K L S R R K C A	K I K S L I H P V G	E K R	34
Phypa_165321	H A S M R G S G	Y G P P A M D Q	G E R R	23
ARF8_AT5G37020			H E G E K - C	18
Pt198791_gw1.IV.3880.1			K - C	4
ARF6_AT1G30330			H E G E K R V	19
Pt205407_gw1.V.808.1			D K K C	4
Selmo1_117217_e_gw1.55.235.1			P G V K R G	23
Selmo1_422125			E G V K R G	7
Selmo1_424114_fgenes2_pg.C_scaffold_6500063			G D K K A	12
Selmo1_446535			G D K K A	12
Selmo1_181406_estExt_Genewise1Plus.C_650169			G E K K A	11
ARF19_AT1G19220	P S - N	G F L P S S N E G E	K K P	19
ARF7_AT5G20730	P S S N	G V S P N P V E G E	R R N	20
ZmGRMZM2G014864_P01				1
ARF5_AT1G19850			K P V	50
Selmo1_437944_estExt_fgenes2_pg.C_10526		P Q P N H G N	T N A	32
all_Phypa_77324			E D D L Q P T L V T N	12
all_Phypa_159688				1
all_Phypa_225990			D E	3
all_Phypa_171197			D E	3
Pt179921_gw1.I.8521.1				-
Pt245007gw1.XIV.1750.1				-
ARF9_AT4G23980				1
ARF11_AT2G46530				1
ARF18_AT3G61830				1
ARF1_AT1G59750				1
ZmGRMZM2G017187_P02				1
ARF2_AT5G62000				1
ZmGRMZM2G006042_P01				1
Pt179307_gw1.I.7907.1				-
ARF21_AT1G34410				3
ARF20_AT1G35240				3
ARF22_AT1G34390				3
ARF12_AT1G34310				3
ARF15_AT1G35520				3
ARF14_AT1G35540				3
ARF13_AT1G34170				2
ARF4_AT5G60450				6
ARF3_AT2G33860				50
Pt243681_gw1.XIV.424.1				-
Selmo1_2_61688				3
Selmo1_2_51695				6
Phypa_108888				11
ARF10_AT2G28350				6
ARF16_AT4G30080				15
Phypa_61245				14
ZmGRMZM2G005284_P01				32
ARF17_AT1G77850				15
Phypa_170581				1
all_Phypa_171888				1
Selmo1_2_405821				1
Selmo1_2_431298				1
Selmo1_2_431277				1
corb_UMD_Coleochaete_c9703_c_s_1				1
spra_Contig219_1				-
IAA12_AT1G04550				27




	160	180		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	73	
Phypa_218828	-----	-----	1	
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	7	
Phypa1_1_50215_gw1.6.284.1	-----	-----	3	
Phypa_167026	-----	-----	143	
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	5	
Phypa_188433	-----	-----	34	
Phypa_165321	-----	-----	23	
ARF8_AT5G37020	-----	-----	18	
Pt198791_gw1.IV.3880.1	-----	-----	4	
ARF6_AT1G30330	-----	-----	19	
Pt205407_gw1.V.808.1	-----	-----	4	
Selmo1_117217_e_gw1.55.235.1	-----	-----	23	
Selmo1_422125	-----	-----	7	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	12	
Selmo1_446535	-----	-----	12	
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	11	
ARF19_AT1G19220	-----	-----	19	
ARF7_AT5G20730	-----	-----	20	
ZmGRMZM2G014864_P01	-----	-----	1	
ARF5_AT1G19850	-----	-----	50	
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	32	
all_Phypa_77324	HGVALNVLRP	PDNHQWSCSG	LLDPAIRQAS	42
all_Phypa_159688	-----	-----	-----	1
all_Phypa_225990	-----	-----	-----	3
all_Phypa_171197	-----	-----	-----	3
Pt179921_gw1.I.8521.1	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypa_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypa_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypa_170581	-----	-----	-----	1
all_Phypa_171888	-----	-----	-----	1
Selmo1_2_405821	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27
Consensus	-----	-----	-----	
Conservation	-----	-----	-----	

Phypa1_1_168019_estExt_fgenesh1_pg.C_1630077	-----	-----	-----	73								
Phypa_218828	-----	-----	-----	1								
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	7								
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	3								
Phypa_167026	-----	-----	-----	143								
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	5								
Phypa_188433	-----	-----	-----	34								
Phypa_165321	-----	-----	-----	23								
ARF8_AT5G37020	-----	-----	-----	18								
Pt198791_gw1.IV.3880.1	-----	-----	-----	4								
ARF6_AT1G30330	-----	-----	-----	19								
Pt205407_gw1.V.808.1	-----	-----	-----	4								
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23								
Selmo1_422125	-----	-----	-----	7								
Selmo1_424114_fgenesh2_pg.C_scaffold_65000063	-----	-----	-----	12								
Selmo1_446535	-----	-----	-----	12								
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11								
ARF19_AT1G19220	-----	-----	-----	19								
ARF7_AT5G20730	-----	-----	-----	20								
ZmGRMZM2G014864_P01	-----	-----	-----	1								
ARF5_AT1G19850	-----	-----	-----	50								
Selmo1_437944_estExt_fgenesh2_pg.C_10526	-----	-----	-----	32								
all_Phypa_77324	RGR	LFWL	DL	GV	CCVQ	EC	L	VCG	VYV	GV	G	72
all_Phypa_159688	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
all_Phypa_225990	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
all_Phypa_171197	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Pt179921_gw1.I.8521.1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	6
Phypa_108888	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	15
Phypa_61245	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	15
Phypa_170581	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
all_Phypa_171888	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Selmo1_2_405821	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	27
Consensus	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Conservation												


	220	240		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	73	
Phypa_218828	1	
Phypa1_1_127416_e_gw1.65.212.1	7	
Phypa1_1_50215_gw1.6.284.1	3	
Phypa_167026	143	
Phypa1_1_136986_e_gw1.133.91.1	5	
Phypa_188433	34	
Phypa_165321	23	
ARF8_AT5G37020	18	
Pt198791_gw1.IV.3880.1	4	
ARF6_AT1G30330	19	
Pt205407_gw1.V.808.1	4	
Selmo1_117217_e_gw1.55.235.1	23	
Selmo1_422125	7	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	12	
Selmo1_446535	12	
Selmo1_181406_estExt_Genewise1Plus.C_650169	11	
ARF19_AT1G19220	19	
ARF7_AT5G20730	20	
ZmGRMZM2G014864_P01	1	
ARF5_AT1G19850	50	
Selmo1_437944_estExt_fgenes2_pg.C_10526	32	
all_Phypa_77324	SARGCSDMN	FKLVKEEAY	ID-IEIQVKS	101
all_Phypa_159688	N	FKLVKEEAYG	KD-IEIQVTS	21
all_Phypa_225990	3
all_Phypa_171197	REIRENG	SKTLKMGRCG	LPGRRSRHHK	30
Pt179921_gw1.I.8521.1	-
Pt245007gw1.XIV.1750.1	-
ARF9_AT4G23980	1
ARF11_AT2G46530	1
ARF18_AT3G61830	1
ARF1_AT1G59750	1
ZmGRMZM2G017187_P02	1
ARF2_AT5G62000	1
ZmGRMZM2G006042_P01	1
Pt179307_gw1.I.7907.1	-
ARF21_AT1G34410	3
ARF20_AT1G35240	3
ARF22_AT1G34390	3
ARF12_AT1G34310	3
ARF15_AT1G35520	3
ARF14_AT1G35540	3
ARF13_AT1G34170	2
ARF4_AT5G60450	6
ARF3_AT2G33860	50
Pt243681_gw1.XIV.424.1	-
Selmo1_2_61688	3
Selmo1_2_51695	6
Phypa_108888	11
ARF10_AT2G28350	6
ARF16_AT4G30080	15
Phypa_61245	14
ZmGRMZM2G005284_P01	32
ARF17_AT1G77850	15
Phypa_170581	1
all_Phypa_171888	1
Selmo1_2_405821	1
Selmo1_2_431298	1
Selmo1_2_431277	1
corb_UMD_Coleochaete_c9703_c_s_1	1
spra_Contig219_1	-
IAA12_AT1G04550	27
Consensus	
Conservation	

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	73
Phypa_218828	-----	-----	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	7
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	3
Phypa_167026	-----	-----	-----	143
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	5
Phypa_188433	-----	-----	-----	34
Phypa_165321	-----	-----	-----	23
ARF8_AT5G37020	-----	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	-----	4
ARF6_AT1G30330	-----	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23
Selmo1_422125	-----	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	12
Selmo1_446535	-----	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11
ARF19_AT1G19220	-----	-----	-----	19
ARF7_AT5G20730	-----	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	-----	1
ARF5_AT1G19850	-----	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	32
all_Phypa_77324	QVGS C DGRGM	KWAM L QRRIT	V N DAARDV A E	131
all_Phypa_159688	Q- S LRGC	K- L	-E A C P S F V E	36
all_Phypa_225990	-----	-----	-----	3
all_Phypa_171197	E A ATTT T TRG	T M AS F S P P Y A	S P SSSS S A S A	60
Pt179921_gw1.I.8521.1	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypa_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypa_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypa_170581	-----	-----	-----	1
all_Phypa_171888	-----	-----	-----	1
Selmo1_2_405821	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27



	280	300		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	73	
Phypa_218828	1	
Phypa1_1_127416_e_gw1.65.212.1	7	
Phypa1_1_50215_gw1.6.284.1	3	
Phypa_167026	143	
Phypa1_1_136986_e_gw1.133.91.1	5	
Phypa_188433	34	
Phypa_165321	23	
ARF8_AT5G37020	18	
Pt198791_gw1.IV.3880.1	4	
ARF6_AT1G30330	19	
Pt205407_gw1.V.808.1	4	
Selmo1_117217_e_gw1.55.235.1	23	
Selmo1_422125	7	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	12	
Selmo1_446535	12	
Selmo1_181406_estExt_Genewise1Plus.C_650169	11	
ARF19_AT1G19220	19	
ARF7_AT5G20730	20	
ZmGRMZM2G014864_P01	1	
ARF5_AT1G19850	50	
Selmo1_437944_estExt_fgenes2_pg.C_10526	32	
all_Phypa_77324	GV-CWWFLEP	KIAASLVI	VHVVH	154
all_Phypa_159688	FISRWFLLK	Q--RLVL	FFAREW	57
all_Phypa_225990	3
all_Phypa_171197	SLISGYFRAS	ALRRRLAVWQ	SRLFYLSLPR	90
Pt179921_gw1.I.8521.1	-
Pt245007gw1.XIV.1750.1	-
ARF9_AT4G23980	1
ARF11_AT2G46530	1
ARF18_AT3G61830	1
ARF1_AT1G59750	1
ZmGRMZM2G017187_P02	1
ARF2_AT5G62000	1
ZmGRMZM2G006042_P01	1
Pt179307_gw1.I.7907.1	-
ARF21_AT1G34410	3
ARF20_AT1G35240	3
ARF22_AT1G34390	3
ARF12_AT1G34310	3
ARF15_AT1G35520	3
ARF14_AT1G35540	3
ARF13_AT1G34170	2
ARF4_AT5G60450	6
ARF3_AT2G33860	50
Pt243681_gw1.XIV.424.1	-
Selmo1_2_61688	3
Selmo1_2_51695	6
Phypa_108888	11
ARF10_AT2G28350	6
ARF16_AT4G30080	15
Phypa_61245	14
ZmGRMZM2G005284_P01	32
ARF17_AT1G77850	15
Phypa_170581	1
all_Phypa_171888	1
Selmo1_2_405821	1
Selmo1_2_431298	1
Selmo1_2_431277	1
corb_UMD_Coleochaete_c9703_c_s_1	1
spra_Contig219_1	-
IAA12_AT1G04550	27
Consensus	
Conservation				

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	73
Phypa_218828	-----	-----	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	7
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	3
Phypa_167026	-----	-----	-----	143
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	5
Phypa_188433	-----	-----	-----	34
Phypa_165321	-----	-----	-----	23
ARF8_AT5G37020	-----	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	-----	4
ARF6_AT1G30330	-----	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23
Selmo1_422125	-----	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	12
Selmo1_446535	-----	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11
ARF19_AT1G19220	-----	-----	-----	19
ARF7_AT5G20730	-----	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	-----	1
ARF5_AT1G19850	-----	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	32
all_Phypa_77324	QSNISEHFLW	WMYGGPLSVA	TDWNESVME	184
all_Phypa_159688	GRGCSEE	GDVVV	VVVE	73
all_Phypa_225990	-----	-----	-----	3
all_Phypa_171197	FSTFSDRRSI	SHPGSPLSLF	LTRALCVSLN	120
Pt179921_gw1.I.8521.1	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypa_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypa_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypa_170581	-----	-----	-----	1
all_Phypa_171888	-----	-----	-----	1
Selmo1_2_405821	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27
Consensus	-----	-----	-----	-
Conservation	-----	-----	-----	-

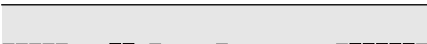
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Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	73	
Phypa_218828	1	
Phypa1_1_127416_e_gw1.65.212.1	7	
Phypa1_1_50215_gw1.6.284.1	3	
Phypa_167026	143	
Phypa1_1_136986_e_gw1.133.91.1	5	
Phypa_188433	34	
Phypa_165321	23	
ARF8_AT5G37020	18	
Pt198791_gw1.IV.3880.1	4	
ARF6_AT1G30330	19	
Pt205407_gw1.V.808.1	4	
Selmo1_117217_e_gw1.55.235.1	23	
Selmo1_422125	7	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	12	
Selmo1_446535	12	
Selmo1_181406_estExt_Genewise1Plus.C_650169	11	
ARF19_AT1G19220	19	
ARF7_AT5G20730	20	
ZmGRMZM2G014864_P01	1	
ARF5_AT1G19850	50	
Selmo1_437944_estExt_fgenes2_pg.C_10526	32	
all_Phypa_77324	KVVIVSTGGS	SVVGCVEAVS	GLDRSEPLVR	214
all_Phypa_159688	KEWCVSTAGG	SVVGVVESA	-	92
all_Phypa_225990	3
all_Phypa_171197	W-ICLSLASS	GPTGDDNHAP	.....	139
Pt179921_gw1.I.8521.1	-
Pt245007gw1.XIV.1750.1	-
ARF9_AT4G23980	1
ARF11_AT2G46530	1
ARF18_AT3G61830	1
ARF1_AT1G59750	1
ZmGRMZM2G017187_P02	1
ARF2_AT5G62000	1
ZmGRMZM2G006042_P01	1
Pt179307_gw1.I.7907.1	-
ARF21_AT1G34410	3
ARF20_AT1G35240	3
ARF22_AT1G34390	3
ARF12_AT1G34310	3
ARF15_AT1G35520	3
ARF14_AT1G35540	3
ARF13_AT1G34170	2
ARF4_AT5G60450	6
ARF3_AT2G33860	50
Pt243681_gw1.XIV.424.1	-
Selmo1_2_61688	3
Selmo1_2_51695	6
Phypa_108888	11
ARF10_AT2G28350	6
ARF16_AT4G30080	15
Phypa_61245	14
ZmGRMZM2G005284_P01	32
ARF17_AT1G77850	15
Phypa_170581	1
all_Phypa_171888	WVVVAEYGCSS	VLRRFPVLE	.....	22
Selmo1_2_405821	1
Selmo1_2_431298	1
Selmo1_2_431277	1
corb_UMD_Coleochaete_c9703_c_s_1	1
spra_Contig219_1	-
IAA12_AT1G04550	27
Consensus	
Conservation				

Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	73
Phypha_218828	-----	-----	-----	1
Phypha1_1_127416_e_gw1.65.212.1	-----	-----	-----	7
Phypha1_1_50215_gw1.6.284.1	-----	-----	-----	3
Phypha_167026	-----	-----	-----	143
Phypha1_1_136986_e_gw1.133.91.1	-----	-----	-----	5
Phypha_188433	-----	-----	-----	34
Phypha_165321	-----	-----	-----	23
ARF8_AT5G37020	-----	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	-----	4
ARF6_AT1G30330	-----	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23
Selmo1_422125	-----	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	12
Selmo1_446535	-----	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11
ARF19_AT1G19220	-----	-----	-----	19
ARF7_AT5G20730	-----	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	-----	1
ARF5_AT1G19850	-----	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	32
all_Phypha_77324	RICKRIMFCQ	WEPIRIFTAL	IGSSSLYTMR	244
all_Phypha_159688	-----	-----	-----	109
all_Phypha_225990	-----	-----	-----	3
all_Phypha_171197	-----	-----	-----	155
Pt179921_gw1.I.8521.1	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypha_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypha_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypha_170581	-----	-----	-----	17
all_Phypha_171888	RSDDQEFASV	LSVGVQLELG	ILGDLAVLPE	52
Selmo1_2_405821	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27
Consensus	-----	-----	-----	-
Conservation				-

	400	420		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	73	
Phypa_218828	1	
Phypa1_1_127416_e_gw1.65.212.1	7	
Phypa1_1_50215_gw1.6.284.1	3	
Phypa_167026	143	
Phypa1_1_136986_e_gw1.133.91.1	5	
Phypa_188433	34	
Phypa_165321	23	
ARF8_AT5G37020	18	
Pt198791_gw1.IV.3880.1	4	
ARF6_AT1G30330	19	
Pt205407_gw1.V.808.1	4	
Selmo1_117217_e_gw1.55.235.1	23	
Selmo1_422125	7	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	12	
Selmo1_446535	12	
Selmo1_181406_estExt_Genewise1Plus.C_650169	11	
ARF19_AT1G19220	19	
ARF7_AT5G20730	20	
ZmGRMZM2G014864_P01	1	
ARF5_AT1G19850	50	
Selmo1_437944_estExt_fgenes2_pg.C_10526	32	
all_Phypa_77324	EIMDIEFLMV	CFADRIR	261	
all_Phypa_159688	VLSVRANLQV	YRPHRIG	126	
all_Phypa_225990	3	
all_Phypa_171197	PVLAAPWLLI	ELVHRLGYTH	ITTTWGGCTV	185
Pt179921_gw1.I.8521.1	-	
Pt245007gw1.XIV.1750.1	-	
ARF9_AT4G23980	1	
ARF11_AT2G46530	1	
ARF18_AT3G61830	1	
ARF1_AT1G59750	1	
ZmGRMZM2G017187_P02	1	
ARF2_AT5G62000	1	
ZmGRMZM2G006042_P01	1	
Pt179307_gw1.I.7907.1	-	
ARF21_AT1G34410	3	
ARF20_AT1G35240	3	
ARF22_AT1G34390	3	
ARF12_AT1G34310	3	
ARF15_AT1G35520	3	
ARF14_AT1G35540	3	
ARF13_AT1G34170	2	
ARF4_AT5G60450	6	
ARF3_AT2G33860	50	
Pt243681_gw1.XIV.424.1	-	
Selmo1_2_61688	3	
Selmo1_2_51695	6	
Phypa_108888	11	
ARF10_AT2G28350	6	
ARF16_AT4G30080	15	
Phypa_61245	14	
ZmGRMZM2G005284_P01	32	
ARF17_AT1G77850	15	
Phypa_170581	LIFDVVALLT	ITESASSLLV	EVV	40
all_Phypa_171888	SQFKTVCSLS	LRGSRSLAV	QEVRSSEFR	82
Selmo1_2_405821	1	
Selmo1_2_431298	1	
Selmo1_2_431277	1	
corb_UMD_Coleochaete_c9703_c_s_1	1	
spra_Contig219_1	-	
IAA12_AT1G04550	27	
Consensus		
Conservation		

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	73
Phypa_218828	-----	-----	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	7
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	3
Phypa_167026	-----	-----	-----	143
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	5
Phypa_188433	-----	-----	-----	34
Phypa_165321	-----	-----	-----	23
ARF8_AT5G37020	-----	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	-----	4
ARF6_AT1G30330	-----	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23
Selmo1_422125	-----	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	12
Selmo1_446535	-----	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11
ARF19_AT1G19220	-----	-----	-----	19
ARF7_AT5G20730	-----	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	-----	1
ARF5_AT1G19850	-----	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	32
all_Phypa_77324	-----	-----	-----	261
all_Phypa_159688	-----	-----	-----	126
all_Phypa_225990	-----	-----	-----	3
all_Phypa_171197	P G T P G S G Q T Q	M T E T A P P V A P	P S R R G G G K N R	215
Pt179921_gw1.I.8521.1	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypa_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypa_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypa_170581	-----	-----	-----	40
all_Phypa_171888	P G I Y H V L R V A	F K R G H G Y Q Y	G R R S N F F T A T	112
Selmo1_2_405821	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27
Consensus	-----	-----	-----	
Conservation				

	460	480		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	73	
Phypa_218828	-----	-----	1	
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	7	
Phypa1_1_50215_gw1.6.284.1	-----	-----	3	
Phypa_167026	-----	-----	143	
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	5	
Phypa_188433	-----	-----	34	
Phypa_165321	-----	-----	23	
ARF8_AT5G37020	-----	-----	18	
Pt198791_gw1.IV.3880.1	-----	-----	4	
ARF6_AT1G30330	-----	-----	19	
Pt205407_gw1.V.808.1	-----	-----	4	
Selmo1_117217_e_gw1.55.235.1	-----	-----	23	
Selmo1_422125	-----	-----	7	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	12	
Selmo1_446535	-----	-----	12	
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	11	
ARF19_AT1G19220	-----	-----	19	
ARF7_AT5G20730	-----	-----	20	
ZmGRMZM2G014864_P01	-----	-----	1	
ARF5_AT1G19850	-----	-----	50	
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	32	
all_Phypa_77324	-----	ELPGSALKQE	271	
all_Phypa_159688	-----	ELSESALRQE	136	
all_Phypa_225990	-----	-----	3	
all_Phypa_171197	MGSKGPGMGG	VGDGDNVAG	SAAGRHASRQ	245
Pt179921_gw1.I.8521.1	-----	-----	-	
Pt245007gw1.XIV.1750.1	-----	-----	-	
ARF9_AT4G23980	-----	-----	1	
ARF11_AT2G46530	-----	-----	1	
ARF18_AT3G61830	-----	-----	1	
ARF1_AT1G59750	-----	-----	1	
ZmGRMZM2G017187_P02	-----	-----	1	
ARF2_AT5G62000	-----	-----	1	
ZmGRMZM2G006042_P01	-----	-----	1	
Pt179307_gw1.I.7907.1	-----	-----	-	
ARF21_AT1G34410	-----	-----	3	
ARF20_AT1G35240	-----	-----	3	
ARF22_AT1G34390	-----	-----	3	
ARF12_AT1G34310	-----	-----	3	
ARF15_AT1G35520	-----	-----	3	
ARF14_AT1G35540	-----	-----	3	
ARF13_AT1G34170	-----	-----	2	
ARF4_AT5G60450	-----	-----	6	
ARF3_AT2G33860	-----	-----	50	
Pt243681_gw1.XIV.424.1	-----	-----	-	
Selmo1_2_61688	-----	-----	3	
Selmo1_2_51695	-----	-----	6	
Phypa_108888	-----	-----	11	
ARF10_AT2G28350	-----	-----	6	
ARF16_AT4G30080	-----	-----	15	
Phypa_61245	-----	-----	14	
ZmGRMZM2G005284_P01	-----	-----	32	
ARF17_AT1G77850	-----	-----	15	
Phypa_170581	-----	-----	50	
all_Phypa_171888	LTGRKKTSY	KYGQWRTKSC	CYSESSTKTE	142
Selmo1_2_405821	-----	-----	1	
Selmo1_2_431298	-----	-----	1	
Selmo1_2_431277	-----	-----	1	
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	1	
spra_Contig219_1	-----	-----	-	
IAA12_AT1G04550	-----	-----	27	
Consensus	-----	-----	-----	
Conservation	-----	-----	-----	

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	73
Phypa_218828	-----	-----	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	7
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	3
Phypa_167026	-----	-----	-----	143
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	5
Phypa_188433	-----	-----	-----	34
Phypa_165321	-----	-----	-----	23
ARF8_AT5G37020	-----	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	-----	4
ARF6_AT1G30330	-----	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23
Selmo1_422125	-----	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	12
Selmo1_446535	-----	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11
ARF19_AT1G19220	-----	-----	-----	19
ARF7_AT5G20730	-----	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	-----	1
ARF5_AT1G19850	-----	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	32
all_Phypa_77324	MHYGGMHGG	-----	MRSFDE	287
all_Phypa_159688	RMQY - - YGG	-----	MRGFDE	149
all_Phypa_225990	-----	-----	-----	3
all_Phypa_171197	RHQWGNQGG	GGPLSRKARF	RGAQMRDADR	275
Pt179921_gw1.I.8521.1	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypa_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypa_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypa_170581	RDDPRAPP	HANENGLAS	QSQRRE GHP	79
all_Phypa_171888	SRVDYTV EPA	HTTW G - - -	GKRRRE GF	168
Selmo1_2_405821	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27
Consensus	-----	-----	-----	-
Conservation				

	520	540	
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	73
Phypa_218828	-----	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	7
Phypa1_1_50215_gw1.6.284.1	-----	-----	3
Phypa_167026	-----	-----	143
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	5
Phypa_188433	-----	-----	34
Phypa_165321	-----	-----	23
ARF8_AT5G37020	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	4
ARF6_AT1G30330	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	23
Selmo1_422125	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	12
Selmo1_446535	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	11
ARF19_AT1G19220	-----	-----	19
ARF7_AT5G20730	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	1
ARF5_AT1G19850	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	32
all_Phypa_77324	-----	-----	287
all_Phypa_159688	-----	-----	149
all_Phypa_225990	-----	-----	3
all_Phypa_171197	I P F V G L L R E L S S E M A R K E G K K D I V W I T L Q	-----	305
Pt179921_gw1.I.8521.1	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-
ARF9_AT4G23980	-----	-----	1
ARF11_AT2G46530	-----	-----	1
ARF18_AT3G61830	-----	-----	1
ARF1_AT1G59750	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	1
ARF2_AT5G62000	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-
ARF21_AT1G34410	-----	-----	3
ARF20_AT1G35240	-----	-----	3
ARF22_AT1G34390	-----	-----	3
ARF12_AT1G34310	-----	-----	3
ARF15_AT1G35520	-----	-----	3
ARF14_AT1G35540	-----	-----	3
ARF13_AT1G34170	-----	-----	2
ARF4_AT5G60450	-----	-----	6
ARF3_AT2G33860	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-
Selmo1_2_61688	-----	-----	3
Selmo1_2_51695	-----	-----	6
Phypa_108888	-----	-----	11
ARF10_AT2G28350	-----	-----	6
ARF16_AT4G30080	-----	-----	15
Phypa_61245	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	32
ARF17_AT1G77850	-----	-----	15
Phypa_170581	D E D L K E V K E T R Q W Y G S Q R A D D D V T E G F Q N N	-----	109
all_Phypa_171888	D E D V K G V K S S R Q V Y G L Q N A V D D S N E G F Q N N	-----	198
Selmo1_2_405821	-----	-----	1
Selmo1_2_431298	-----	-----	1
Selmo1_2_431277	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	1
spra_Contig219_1	-----	-----	-
IAA12_AT1G04550	-----	-----	27
Consensus	-----	-----	-----
Conservation	-----	-----	-----

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	73
Phypa_218828	-----	-----	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	7
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	3
Phypa_167026	-----	-----	-----	143
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	5
Phypa_188433	-----	-----	-----	34
Phypa_165321	-----	-----	-----	23
ARF8_AT5G37020	-----	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	-----	4
ARF6_AT1G30330	-----	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23
Selmo1_422125	-----	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	12
Selmo1_446535	-----	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11
ARF19_AT1G19220	-----	-----	-----	19
ARF7_AT5G20730	-----	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	-----	1
ARF5_AT1G19850	-----	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	32
all_Phypa_77324	-----	-----	-----	287
all_Phypa_159688	-----	-----	-----	149
all_Phypa_225990	-----	-----	-----	3
all_Phypa_171197	-----	-----	-----	335
Pt179921_gw1.I.8521.1	-----	-----	-----	-
Pt245007gw1.XIV.1750.1	-----	-----	-----	-
ARF9_AT4G23980	-----	-----	-----	1
ARF11_AT2G46530	-----	-----	-----	1
ARF18_AT3G61830	-----	-----	-----	1
ARF1_AT1G59750	-----	-----	-----	1
ZmGRMZM2G017187_P02	-----	-----	-----	1
ARF2_AT5G62000	-----	-----	-----	1
ZmGRMZM2G006042_P01	-----	-----	-----	1
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	3
ARF20_AT1G35240	-----	-----	-----	3
ARF22_AT1G34390	-----	-----	-----	3
ARF12_AT1G34310	-----	-----	-----	3
ARF15_AT1G35520	-----	-----	-----	3
ARF14_AT1G35540	-----	-----	-----	3
ARF13_AT1G34170	-----	-----	-----	2
ARF4_AT5G60450	-----	-----	-----	6
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypa_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypa_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypa_170581	-----	-----	-----	139
all_Phypa_171888	-----	-----	-----	224
Selmo1_2_405821	-----	-----	-----	1
Selmo1_2_431298	-----	-----	-----	1
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27
Consensus	-----	-----	-----	-
Conservation	-----	-----	-----	-

	580	600				
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	73			
Phypa_218828	1			
Phypa1_1_127416_e_gw1.65.212.1	7			
Phypa1_1_50215_gw1.6.284.1	3			
Phypa_167026	143			
Phypa1_1_136986_e_gw1.133.91.1	5			
Phypa_188433	34			
Phypa_165321	23			
ARF8_AT5G37020	18			
Pt198791_gw1.IV.3880.1	4			
ARF6_AT1G30330	19			
Pt205407_gw1.V.808.1	4			
Selmo1_117217_e_gw1.55.235.1	23			
Selmo1_422125	7			
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	12			
Selmo1_446535	12			
Selmo1_181406_estExt_Genewise1Plus.C_650169	11			
ARF19_AT1G19220	19			
ARF7_AT5G20730	20			
ZmGRMZM2G014864_P01	1			
ARF5_AT1G19850	50			
Selmo1_437944_estExt_fgenes2_pg.C_10526	32			
all_Phypa_77324	287			
all_Phypa_159688	149			
all_Phypa_225990	3			
all_Phypa_171197	VQFLWRWGCE	AFRLIASFTC	PERGRARVEY	365		
Pt179921_gw1.I.8521.1	DD	.....	2		
Pt245007gw1.XIV.1750.1	DD	.....	2		
ARF9_AT4G23980	AN	RGGEY	.....	8	
ARF11_AT2G46530	AN	VEAD	FRTS	GSND	DE	17
ARF18_AT3G61830	AS	VEGDDDFGSS	SSRSYQDQ	.....	21
ARF1_AT1G59750	AA	S	NHSSG	KPGGLSD	17
ZmGRMZM2G017187_P02	AA	AMDAPNPGAA	AGPGMPSD	.....	21
ARF2_AT5G62000	AS	SEVSMKGNRG	GDNFSSSGFS	.....	23
ZmGRMZM2G006042_P01	A	AAAAAAGG	ADAGCGGG	.....	19
Pt179307_gw1.I.7907.1	
ARF21_AT1G34410	3	
ARF20_AT1G35240	3	
ARF22_AT1G34390	3	
ARF12_AT1G34310	3	
ARF15_AT1G35520	3	
ARF14_AT1G35540	3	
ARF13_AT1G34170	2	
ARF4_AT5G60450	T	EIAEVEEEEN	DDVGVGVGGG	.....	27
ARF3_AT2G33860	50	
Pt243681_gw1.XIV.424.1	
Selmo1_2_61688	3	
Selmo1_2_51695	6	
Phypa_108888	11	
ARF10_AT2G28350	6	
ARF16_AT4G30080	15	
Phypa_61245	14	
ZmGRMZM2G005284_P01	32	
ARF17_AT1G77850	15	
Phypa_170581	VMSPVVPHEN	MQQRVEAAAA	LQDLRGNVAF	.....	169
all_Phypa_171888	AMAPVVVTHEN	MQQRVEAAAA	LQDLRGNITF	.....	254
Selmo1_2_405821	1	
Selmo1_2_431298	1	
Selmo1_2_431277	1	
corb_UMD_Coleochaete_c9703_c_s_1	1	
spra_Contig219_1	
IAA12_AT1G04550	27	
Consensus	
Conservation					

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	73
Phypa_218828	-----	-----	-----	1
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	7
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	3
Phypa_167026	-----	-----	-----	143
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	5
Phypa_188433	-----	-----	-----	34
Phypa_165321	-----	-----	-----	23
ARF8_AT5G37020	-----	-----	-----	18
Pt198791_gw1.IV.3880.1	-----	-----	-----	4
ARF6_AT1G30330	-----	-----	-----	19
Pt205407_gw1.V.808.1	-----	-----	-----	4
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	23
Selmo1_422125	-----	-----	-----	7
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	-----	-----	12
Selmo1_446535	-----	-----	-----	12
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	11
ARF19_AT1G19220	-----	-----	-----	19
ARF7_AT5G20730	-----	-----	-----	20
ZmGRMZM2G014864_P01	-----	-----	-----	1
ARF5_AT1G19850	-----	-----	-----	50
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	32
all_Phypa_77324	-----	-----	-----	GAT 290
all_Phypa_159688	-----	-----	-----	GST 152
all_Phypa_225990	-----	-----	-----	3
all_Phypa_171197	-----	-----	-----	395
Pt179921_gw1.I.8521.1	-----	-----	-----	2
Pt245007gw1.XIV.1750.1	-----	-----	-----	2
ARF9_AT4G23980	-----	-----	-----	8
ARF11_AT2G46530	-----	-----	-----	17
ARF18_AT3G61830	-----	-----	-----	21
ARF1_AT1G59750	-----	-----	-----	17
ZmGRMZM2G017187_P02	-----	-----	-----	21
ARF2_AT5G62000	-----	-----	-----	53
ZmGRMZM2G006042_P01	-----	-----	-----	26
Pt179307_gw1.I.7907.1	-----	-----	-----	-
ARF21_AT1G34410	-----	-----	-----	19
ARF20_AT1G35240	-----	-----	-----	19
ARF22_AT1G34390	-----	-----	-----	19
ARF12_AT1G34310	-----	-----	-----	19
ARF15_AT1G35520	-----	-----	-----	19
ARF14_AT1G35540	-----	-----	-----	19
ARF13_AT1G34170	-----	-----	-----	17
ARF4_AT5G60450	-----	-----	-----	57
ARF3_AT2G33860	-----	-----	-----	50
Pt243681_gw1.XIV.424.1	-----	-----	-----	-
Selmo1_2_61688	-----	-----	-----	3
Selmo1_2_51695	-----	-----	-----	6
Phypa_108888	-----	-----	-----	11
ARF10_AT2G28350	-----	-----	-----	6
ARF16_AT4G30080	-----	-----	-----	15
Phypa_61245	-----	-----	-----	14
ZmGRMZM2G005284_P01	-----	-----	-----	32
ARF17_AT1G77850	-----	-----	-----	15
Phypa_170581	-----	-----	-----	199
all_Phypa_171888	-----	-----	-----	284
Selmo1_2_405821	-----	-----	-----	4
Selmo1_2_431298	-----	-----	-----	4
Selmo1_2_431277	-----	-----	-----	1
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	1
spra_Contig219_1	-----	-----	-----	-
IAA12_AT1G04550	-----	-----	-----	27
Consensus	-----	-----	-----	-
Conservation	-----	-----	-----	-

640 660

Phypha1_1_168019_estExt_fgenes1_pg.C_1630077 --- PTSELW HACAGPLV -- SLPPVGSRVV 97
 Phypha_218828 --- --- --- --- --- 1
 Phypha1_1_127416_e_gw1.65.212.1 --- LNSELW HACAGPLV -- SLPPVGSRVV 31
 Phypha1_1_50215_gw1.6.284.1 --- LNSELW HACAGSLV -- SLPPVGSRVV 27
 Phypha_167026 --- LNSELW HACAGPLV -- SLPPVGSRVV 167
 Phypha1_1_136986_e_gw1.133.91.1 --- LNSELW HACAGPLV -- SLPPVGSRVV 29
 Phypha_188433 --- LNSELW HACAGPLV -- SLPPVGSQVV 58
 Phypha_165321 --- LNSELW HACAGPLV -- SLPPVGSQVV 47
 ARF8_AT5G37020 --- LNSELW HACAGPLV -- SLPSVGSRVV 42
 Pt198791_gw1.IV.3880.1 --- LNSELW HACAGPLV -- SLPTAGSRVV 28
 ARF6_AT1G30330 --- LNSELW HACAGPLV -- SLPPVGSRVV 43
 Pt205407_gw1.V.808.1 --- LNSELW HACAGPLV -- SLPHVGSRVV 28
 Selmo1_117217_e_gw1.55.235.1 --- PNPELW HACAGPLV -- SLPSVGTTRVV 47
 Selmo1_422125 --- PNPELW HACAGPLV -- SLPSVGTTRVV 31
 Selmo1_424114_fgenes2_pg.C_scaffold_6500063 --- INQALW LECAGPLI -- TLPAVGSQVV 36
 Selmo1_446535 --- INQALW LECAGPLI -- TLPAVGSQVV 36
 Selmo1_181406_estExt_Genewise1Plus.C_650169 --- MNTALW LECAGPLV -- TLPTVGSQVV 35
 ARF19_AT1G19220 --- INSQVW HACAGPLV -- SLPPVGSQVV 43
 ARF7_AT5G20730 --- LNSELW HACAGPLI -- SLPPVAGSLVV 44
 ZmGRMZM2G014864_P01 --- --- --- --- --- 1
 ARF5_AT1G19850 --- LNSELW HACAGPLV -- CLPQVGSQVV 74
 Selmo1_437944_estExt_fgenes2_pg.C_10526 --- LDSEVW HACAGPLV -- CLPRVGDTRVV 56
 all_Phypha_77324 KMDELNCELW HACAGPLT -- QLPPVDSLVM 318
 all_Phypha_159688 KMDELDCELW HACAGPLT -- QLPPVDSHYM 180
 all_Phypha_225990 --- LDYELW HACAGPLT -- SVPPVDSLVM 27
 all_Phypha_171197 KTDLDYELW HACAGPLT -- SLPPVDSLVI 423
 Pt179921_gw1.I.8521.1 --- LYTELW KACAGPLV -- DVPKRGERVV 26
 Pt245007gw1.XIV.1750.1 --- LYSELW KACAGPLV -- DVPKAGERVV 26
 ARF9_AT4G23980 --- LYDELW KLCAGPLV -- DVPQAQERVV 32
 ARF11_AT2G46530 --- LYTELW KACAGPLV -- EVPRVGERVV 41
 ARF18_AT3G61830 --- LYTELW KVCAGPLV -- EVPRAGERVV 45
 ARF1_AT1G59750 --- ALCRELW HACAGPLV -- TLPRGERVV 42
 ZmGRMZM2G017187_P02 --- ALYQELW HACAGPLV -- TVPRQGERVV 46
 ARF2_AT5G62000 PEAAALYRELW HACAGPLV -- TVPRQDRVV 81
 ZmGRMZM2G006042_P01 --- ALFVELW KACAGPLS -- SVPLVGEKVV 51
 Pt179307_gw1.I.7907.1 EDALYKELW HACAGPLV -- TVPRQGERVV 27
 ARF21_AT1G34410 SKSYMIEQLW KLCAGPLC -- DIPKIGENVV 47
 ARF20_AT1G35240 SKSYMIEQLW KLCAGPLC -- DIPKIGENVV 47
 ARF22_AT1G34390 SKSYMIEQLW KLCAGPLC -- DIPKIGENVV 47
 ARF12_AT1G34310 SKSYVIEQLW KLCAGPLC -- DIPKIGENVV 47
 ARF15_AT1G35520 SKSYMIEQLW KLCAGPLC -- DIPKIGENVV 47
 ARF14_AT1G35540 SKSYMIEQLW KLCAGPLC -- DIPKIGENVV 47
 ARF13_AT1G34170 TKTYMYEKLV NLCAGPLC -- VLPKPGKVV 45
 ARF4_AT5G60450 SASSIYSELW HACAGPLT -- CLPKK-NVYV 84
 ARF3_AT2G33860 --- VCLELW HACAGPLI -- SLPKRGSQVV 74
 Pt243681_gw1.XIV.424.1 --- LYTELW YACAGPLV -- YVPRVGDKVV 24
 Selmo1_2_61688 LDSQLW HACAGGMV -- QLPPVGAQVVI 27
 Selmo1_2_51695 LDQQLW QACAGSMV -- QLPTVGSKVI 30
 Phypha_108888 LDAQLW HACAGGMV -- QLPQVGAQVVI 35
 ARF10_AT2G28350 LDPQLW HACAGSMV -- QIPSLNSTVV 30
 ARF16_AT4G30080 LDPQLW HACAGGMV -- RMPPMNSKVV 39
 Phypha_61245 MDERY - - - - -SNYK - RAREHPSENQ 33
 ZmGRMZM2G005284_P01 --- VHPQLW YACAGPTC -- TVPPVGTAVV 56
 ARF17_AT1G77850 --- VDPITW RACAGASV -- QIPVLSHSRVV 39
 Phypha_170581 DVCSLGDNSY QP-HSPLS -- LPPPPYIRTV 225
 all_Phypha_171888 DTSSLGDPNC QPPQSPLP -- VPPPPYIRTV 311
 Selmo1_2_405821 SFRGLEFLSR SRLA - - - - -NSAMGRAAK 27
 Selmo1_2_431298 IMRGTSRQAG DRASLQLQ -- LSPVKGSRAP 32
 Selmo1_2_431277 --- FW N - - - - -LQ - - - - -NLF 11
 corb_UMD_Coleochaete_c9703_c_s_1 --- --- --- --- --- --- 1
 spra_Contig219_1 --- YRHLM PSAAGRSG -- GAGGGGS - - - 20
 IAA12_AT1G04550 --- LGGGAW KERGRILTAK DFPVGSK - - - 51



Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	YFPQGHTEQV	-AAS-	110	
Phypha_218828	----	----	1	
Phypha1_1_127416_e_gw1.65.212.1	YFPQGHTEQV	VAAS-	45	
Phypha1_1_50215_gw1.6.284.1	YFPQGHTEQV	-AAS-	40	
Phypha_167026	YFPQGHTEQV	-AAS-	180	
Phypha1_1_136986_e_gw1.133.91.1	YFPQGHTEQV	-AAS-	42	
Phypha_188433	YFPQGHSEQV	-AVS-	71	
Phypha_165321	YFPQGHSEQV	-AVS-	60	
ARF8_AT5G37020	YFPQGHSEQV	-AAT-	55	
Pt198791_gw1.IV.3880.1	YFPQGHSEQV	-AAT-	41	
ARF6_AT1G30330	YFPQGHSEQV	-AAS-	56	
Pt205407_gw1.V.808.1	YFPQGHSEQV	-AAS-	41	
Selmo1_117217_e_gw1.55.235.1	YFPQGHSEQV	-AAS-	60	
Selmo1_422125	YFPQGHSEQV	-AAS-	44	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	YFPQGHSEQV	IAST-	50	
Selmo1_446535	YFPQGHSEQV	IAST-	50	
Selmo1_181406_estExt_Genewise1Plus.C_650169	YFPQGHSEQV	VAST-	49	
ARF19_AT1G19220	YFPQGHSEQV	AASM-	57	
ARF7_AT5G20730	YFPQGHSEQV	AASM-	58	
ZmGRMZM2G014864_P01	----	----	1	
ARF5_AT1G19850	YFSQGH-EQV	AVST-	87	
Selmo1_437944_estExt_fgenes2_pg.C_10526	YFPQGHTEQV	AAST-	70	
all_Phypha_77324	YWPQGHTEQG	LASSGILDT	SFVGGGIRN	348
all_Phypha_159688	YWPQGHTEQV	VACTP-	195	
all_Phypha_225990	YWPQGHTEQV	-C-	38	
all_Phypha_171197	YWPQGHTEQV	IACTP-	438	
Pt179921_gw1.I.8521.1	YFPQGHMEQL	EAS-	39	
Pt245007gw1.XIV.1750.1	YFPQGHMEQL	EAS-	39	
ARF9_AT4G23980	YFPQGHMEQL	EAS-	45	
ARF11_AT2G46530	YFPQGHMEQL	VAS-	54	
ARF18_AT3G61830	YFPQGHMEQL	VAS-	58	
ARF1_AT1G59750	YFPEGHMEQL	EAS-	55	
ZmGRMZM2G017187_P02	YFPQGHMEQL	EAS-	59	
ARF2_AT5G62000	-FPQGHTEQV	EAS-	93	
ZmGRMZM2G006042_P01	YFPQGHTEQV	EAS-	64	
Pt179307_gw1.I.7907.1	YFPQGHTEQV	EAS-	40	
ARF21_AT1G34410	YFPQGNTELV	QAST-	61	
ARF20_AT1G35240	YFPQGNTELV	DAST-	61	
ARF22_AT1G34390	YFPQGNTELV	EAST-	61	
ARF12_AT1G34310	YFPQGNTELV	ETST-	61	
ARF15_AT1G35520	YFPQGNTELV	EAST-	61	
ARF14_AT1G35540	YFPQGNTELV	EAST-	61	
ARF13_AT1G34170	YFPQGNTELV	ENST-	59	
ARF4_AT5G60450	YFPQGHLEQD	AMVSY-	99	
ARF3_AT2G33860	YFPQGHLEQAP	DFSAALY-	91	
Pt243681_gw1.XIV.424.1	YFPQGHLEQV	AAFL-	38	
Selmo1_2_61688	YFPQGHGEQA	AAIPDFPRS-	46	
Selmo1_2_51695	YFPQGHGEQA	ASSPDFPRA	GP	52
Phypha_108888	YFPQGHGEQA	ATPDFSASM	GP	57
ARF10_AT2G28350	YFAQGHTEHA	HAPPDFHAPR	VP	52
ARF16_AT4G30080	YFPQGHAEHA	YDCVDFGNLP	LP	61
Phypha_61245	YAEQQTSPA	GS-	45	
ZmGRMZM2G005284_P01	YFPQGHAEHA	GAAADANLHA	PP	78
ARF17_AT1G77850	YFPQGHVEHC	-CP LLSTLP	SS	59
Phypha_170581	--PPLHSEAD	VHNGSPTSSS	SGP	246
all_Phypha_171888	--PPLHSEAD	VHNGSPTSSS	SGP	332
Selmo1_2_405821	VLRLQAGR-	----	36	
Selmo1_2_431298	FCMFSTSD-	----	41	
Selmo1_2_431277	YFSKVH-	----	17	
corb_UMD_Coleochaete_c9703_c_s_1	---GHADD-	----	6	
spra_Contig219_1	--PSDRKRSS	PSSS-	32	
IAA12_AT1G04550	----	----	51	



	700					720	
Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	TQRE	AETHI	PN	YPSLPS	RLVCLLDNVT	137	
Phypha_218828	-----	-----	-----	-----	-----	1	
Phypha1_1_127416_e_gw1.65.212.1	TQKE	ADAH	PN	YPNLPS	RLVCLLDNVT	72	
Phypha1_1_50215_gw1.6.284.1	TQKE	ADVP	PN	YPSLPS	RLFCLDNVS	67	
Phypha_167026	TQKD	ADAH	PN	YPSLPS	KIICLLDNVT	207	
Phypha1_1_136986_e_gw1.133.91.1	TQKD	ADAH	PN	YPSLPS	KIICLLDNVT	69	
Phypha_188433	TQKE	ADHI	PN	YPNLRP	HLICTLENT	98	
Phypha_165321	TQKE	ADTH	PN	YPNLRP	HLVCTLDNIT	87	
ARF8_AT5G37020	TNKE	VDGH	PN	YPSLPP	QLICQLHNT	81	
Pt198791_gw1.IV.3880.1	TNKE	VDAH	PN	YPSLPP	QLICQLHNT	68	
ARF6_AT1G30330	TNKE	VDAH	PN	YPSLHP	QLICQLH-VT	82	
Pt205407_gw1.V.808.1	TNKE	VDAH	PN	YPSLPP	QLICQLHNT	68	
Selmo1_117217_e_gw1.55.235.1	TQKE	ADAD	PS	YPNLPP	HLVCLLHNT	87	
Selmo1_422125	TQKE	ADAD	PS	YPNLPP	HLVCLLHNT	71	
Selmo1_424114_fgenes2_pg.C_scaffold.65000063	HKE	ADFEV	PS	YPNLPP	QLFCLLHNT	76	
Selmo1_446535	HKE	ADFEV	PS	YPNLPP	QLFCLLHNT	76	
Selmo1_181406_estExt_Genewise1Plus.C_650169	TQKDG	VEAE	PN	YPSLPA	HLICLLHNT	77	
ARF19_AT1G19220	QKQTD	---	PN	YPNLPS	KLICLLH-ST	81	
ARF7_AT5G20730	QKQTD	---	PS	YPNLPS	KLICMLH-VT	82	
ZmGRMZM2G014864_P01	-----	-----	-----	-----	-----	1	
ARF5_AT1G19850	RRS	ATTQV	PN	YPNLPS	QLMCQVHNT	113	
Selmo1_437944_estExt_fgenes2_pg.C_10526	NQS	ADMQM	PH	Y-NLPS	QIYCRLLNLT	95	
all_Phypha_77324	TNGAADV	YQ	ASKQFS	NLPA	HLLCRISKIE	378	
all_Phypha_159688	DSAGAADV	YQ	ASKQFS	NLPA	HLLCKISKIE	225	
all_Phypha_225990	---	AADVRE	ASSHFK	LPS	HLLCKIGLE	63	
all_Phypha_171197	DSAGAADV	RE	ASSHFK	LPS	HLLCRIGLE	467	
Pt179921_gw1.I.8521.1	TNQ	ELNQRV	PLF	---NLPS	KILCRVHTQ	65	
Pt245007gw1.XIV.1750.1	TNQ	ELNQQL	PRF	---NLPP	KILCRVYNIQ	65	
ARF9_AT4G23980	TQQVD	LNTMK	PLF	---VLPP	KILCNVMNVS	72	
ARF11_AT2G46530	TNQG	VVDQE	PVF	---NLPP	KILCRVLSV	80	
ARF18_AT3G61830	TNQG	INSEE	PVF	---DLPP	KILCRLDVT	84	
ARF1_AT1G59750	MH	QGLEQQM	PSE	---NLPS	KILCKVINIR	81	
ZmGRMZM2G017187_P02	AHHQQ	LQYL	PMF	---DLPP	KILC-VVNV	85	
ARF2_AT5G62000	TNQAA	EQQ-M	PLY	---DLPS	KLLCRVINVD	119	
ZmGRMZM2G006042_P01	TNHL	AHQGT	PLY	---NLP	KIPCKLMNME	90	
Pt179307_gw1.I.7907.1	TNQV	ADDQQM	PAY	---NLPP	KILCRVYNIQ	67	
ARF21_AT1G34410	---	REELNELQ	PIC	---DLPS	KLQCVIA-IH	85	
ARF20_AT1G35240	---	REELNELQ	PIC	---DLPS	KLQCVIA-IH	85	
ARF22_AT1G34390	---	REELNELK	PIC	---DLPS	KLQCVIA-IH	85	
ARF12_AT1G34310	---	REELNELQ	PIC	---DLPS	KLQCVIA-IH	85	
ARF15_AT1G35520	---	REELNELQ	PIC	---DLPS	KLQCVIA-IH	85	
ARF14_AT1G35540	---	REELNELQ	PIC	---DFPS	KLQCVIA-IQ	85	
ARF13_AT1G34170	---	RDELHHR	PIF	---DLPS	KLRCRVA--	81	
ARF4_AT5G60450	---	SSPLEI	PKF	---DLNP	QIVCRVYNIQ	122	
ARF3_AT2G33860	---	-----	---	GLPP	HVFCRILDVK	105	
Pt243681_gw1.XIV.424.1	---	NEDSKTAM	PIY	---DLPY	KILCKVVHVQ	63	
Selmo1_2_61688	---	-----	---	GG	TILCRVISVD	58	
Selmo1_2_51695	---	-----	---	AG	TVPCRVLSVK	64	
Phypha_108888	---	-----	---	SG	TIPCRVSVN	69	
ARF10_AT2G28350	---	-----	---	P	LILCRVSVK	63	
ARF16_AT4G30080	---	-----	---	P	MVLCRVLAIK	72	
Phypha_61245	---	-----	---	---	ARVY--	49	
ZmGRMZM2G005284_P01	---	-----	---	---	FVCRVAGVR	87	
ARF17_AT1G77850	---	-----	---	TS	PVPCILTSIQ	71	
Phypha_170581	---	-----	---	YPNLP	-----N	252	
all_Phypha_171888	---	-----	---	YPNLP	-----N	338	
Selmo1_2_405821	---	-----	---	---	-----	36	
Selmo1_2_431298	---	-----	---	---	-----	41	
Selmo1_2_431277	---	-----	---	---	-----	17	
corb_UMD_Coleochaete_c9703_c_s_1	---	-----	---	---	-----	6	
spra_Contig219_1	---	---	---	---	LAS	IVESSITNLR	45
IAA12_AT1G04550	---	---	---	---	---	51	



Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	LH	SDRYSMS	LIDVVIQAD	ETDEVYAQMT	167
Phypa_218828	-	-	-	-	2
Phypa1_1_127416_e_gw1.65.212.1	LH	-	ADL	ETDEVYAQMT	87
Phypa1_1_50215_gw1.6.284.1	LH	-	ADH	ETDEVYAQMT	82
Phypa_167026	LH	-	ADP	ETDEVYAQMT	222
Phypa1_1_136986_e_gw1.133.91.1	LH	-	ADP	ETDEVYAQMT	84
Phypa_188433	LH	-	ADL	ETDDVYAQMV	113
Phypa_165321	LH	-	ADL	ETDEVYAQMV	102
ARF8_AT5G37020	MH	-	ADV	ETDEVYAQMT	96
Pt198791_gw1.IV.3880.1	MH	-	ADV	ETDEVYA-MT	82
ARF6_AT1G30330	MH	-	ADV	ETDEVYAQMT	97
Pt205407_gw1.V.808.1	MH	-	ADV	ETDEVYA-MT	82
Selmo1_117217_e_gw1.55.235.1	LH	-	ADT	ETDEVYAQMT	102
Selmo1_422125	LH	-	ADT	ETDEVYAQMT	86
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	LH	-	ADQ	ENDEVFAQMT	91
Selmo1_446535	LH	-	ADQ	ENDEVFAQMT	91
Selmo1_181406_estExt_Genewise1Plus.C_650169	LH	-	ADP	DTDEVYAQMT	92
ARF19_AT1G19220	LH	-	ADT	ETDEVYAQMT	96
ARF7_AT5G20730	LN	-	ADP	ETDEVYAQMT	97
ZmGRMZM2G014864_P01	-	-	-	-	2
ARF5_AT1G19850	LH	-	ADK	DSDEIYAQMS	128
Selmo1_437944_estExt_fgenes2_pg.C_10526	L	-	GADR	ETDEVFAQMT	110
all_Phypa_77324	LQ	-	ADP	QTDEVFAQMD	393
all_Phypa_159688	LQ	-	ADP	HTDEVFAQMD	240
all_Phypa_225990	LQ	-	ADP	HTDEVFAQMD	78
all_Phypa_171197	LQ	-	ADP	NTDEVFAQMD	482
Pt179921_gw1.I.8521.1	LL	-	AEQ	DTDEVYAQIT	80
Pt245007gw1.XIV.1750.1	LL	-	AEQ	DTDEVYAQIT	80
ARF9_AT4G23980	LQ	-	AEK	DTD-VYAQIT	86
ARF11_AT2G46530	LK	-	AEH	ETDEVYAQIT	95
ARF18_AT3G61830	LK	-	AEH	ETDEVYAQIT	99
ARF1_AT1G59750	-R	-	AEP	ETDEVYAQIT	95
ZmGRMZM2G017187_P02	LR	-	AEA	DSDEVYAQIM	100
ARF2_AT5G62000	LK	-	AEA	DTDEVYAQIT	134
ZmGRMZM2G006042_P01	LK	-	AEP	DTDEVYAQIT	105
Pt179307_gw1.I.7907.1	LK	-	AEL	DTDEVFAQIL	82
ARF21_AT1G34410	LK	-	VEN	NSDEIYAIEIT	100
ARF20_AT1G35240	LK	-	VEN	NSDEIYAIEIT	100
ARF22_AT1G34390	LK	-	VEN	NSDEIYAIEIT	100
ARF12_AT1G34310	LK	-	VEN	NSDEIYAIEIT	100
ARF15_AT1G35520	LK	-	VEN	NSDEIYAKIT	100
ARF14_AT1G35540	LK	-	VEN	NSDEIYAIEIT	100
ARF13_AT1G34170	-	-	DRKVDK	NTDEVYAQIS	98
ARF4_AT5G60450	L	-	ANK	DTDEVYTQIT	137
ARF3_AT2G33860	LH	-	AET	TTDEVYAQVS	120
Pt243681_gw1.XIV.424.1	LK	-	AEA	KTDEVFAHIT	78
Selmo1_2_61688	F	-	LADA	ETDEVYAKMK	73
Selmo1_2_51695	F	-	LADK	ETDEVFASLR	79
Phypa_108888	F	-	LADT	ETDEVFARMR	84
ARF10_AT2G28350	F	-	LADA	ETDEVFAKIT	78
ARF16_AT4G30080	Y	-	MADA	ESD-VFAKLR	86
Phypa_61245	-	-	SDP	LCGDSHHQF	62
ZmGRMZM2G005284_P01	F	-	MAE	DTDEIFVKIR	102
ARF17_AT1G77850	L	-	LADP	VTDE-FAHLI	85
Phypa_170581	L	TAPPRSSQQ	CSAPIQLLPE	ESDSSYSLLM	282
all_Phypa_171888	MS	GPPRTSQQ	CNAPIQLPEL	ESDSSYSLLM	368
Selmo1_2_405821	-	-	RHADL	FSSDLLVS	50
Selmo1_2_431298	-	-	GVGSTT	LDSIFFVSKF	57
Selmo1_2_431277	-	-	-	-	17
corb_UMD_Coleochaete_c9703_c_s_1	-	-	-	-	6
spra_Contig219_1	TE	GCVRHPVS	SVQLSSSSDA	IAD	68
IAA12_AT1G04550	-	-	-	-	51



Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	DIGIR-SRQP	TDYFCKTLTA	SDTSTHGGFS	212
Phypa_218828	DIGIR-SRQP	TDYFCKTLTA	SDTSTHGGFS	47
Phypa1_1_127416_e_gw1.65.212.1	DIGMR-SRQP	TEYFCKTLTA	SDTSTHGGFS	132
Phypa1_1_50215_gw1.6.284.1	DSVIP-NKQP	SEYFCKTLTA	SDTSTHGGFS	126
Phypa_167026	DEVV-NKQP	TEYFCKTLTA	SDTSTHGGFS	266
Phypa1_1_136986_e_gw1.133.91.1	DEVV-NKQP	TEYFCKTLTA	SDTSTHGGFS	128
Phypa_188433	DVVYQ-NKQP	TEYFCKTLTA	SDTSTHGGFS	157
Phypa_165321	DAVVQ-NKQP	TEYFCKTLTA	SDTSTHGGFS	146
ARF8_AT5G37020	ELGIP-SKQP	SNYFCKTLTA	SDTSTHGGFS	141
Pt198791_gw1.IV.3880.1	ELGMP-SKQP	TNYFCKTLTA	SDTSTHGGFS	127
ARF6_AT1G30330	ELGVP-SRQP	TNYFCKTLTA	SDTSTHGGFS	142
Pt205407_gw1.V.808.1	ELGTA-SKQP	TNYFCKTLTA	SDTSTHGGFS	128
Selmo1_117217_e_gw1.55.235.1	DIGRQ-NRQP	SEYFCKTLTA	SDTSTHGGFS	146
Selmo1_422125	DIGRQ-NRQP	SEYFCKTLTA	SDTSTHGGFS	130
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	DFGIQ-TKQT	IVSFCKTLTA	SDTSTHGGFS	137
Selmo1_446535	DFGIQ-TKQT	IVSFCKTLTA	SDTSTHGGFS	137
Selmo1_181406_estExt_Genewise1Plus.C_650169	DIGIQ-PKQQ	TLSEFCKTLTA	SDTSTHGGFS	135
ARF19_AT1G19220	DMGLKLNKQP	TEFFCKTLTA	SDTSTHGGFS	141
ARF7_AT5G20730	DMGLKLNKQP	NEFFCKTLTA	SDTSTHGGFS	142
ZmGRMZM2G014864_P01	EALKQPRPQ	TEFFCKTLTA	SDTSTHGGFS	47
ARF5_AT1G19850	FGMLRGSKHP	TEFFCKT-TA	SDTSTHGGFS	172
Selmo1_437944_estExt_fgenes2_pg.C_10526	DELSPCKRRK	LSMFCKNLT	SDTSTHGGFS	155
all_Phypa_77324	DAPSPIQQSN	VRSFCKTLTA	SDTSTHGGFS	437
all_Phypa_159688	DAPPPTMQKN	VRSFCKTLTA	SDTSTHGGFS	284
all_Phypa_225990	DATHVAKQNN	VKMFCKTLTA	SDTSTHGGFS	122
all_Phypa_171197	EAPSAIKQSS	VKMFCKTLTA	SDTSTHGGFS	526
Pt179921_gw1.I.8521.1	SSSSSEPPRP	VHSFCKVLT	SDTSTHGGFS	123
Pt245007gw1.XIV.1750.1	PCPPEPAKQT	VHSFCKVLT	SDTSTHGGFS	123
ARF9_AT4G23980	PSPPELQRPK	VHSFCKVLT	SDTSTHGGFS	131
ARF11_AT2G46530	PPLVEPAKPT	VDSFVKILT	SDTSTHGGFS	139
ARF18_AT3G61830	PPLVGPTKQE	FHSFVKILT	SDTSTHGGFS	143
ARF1_AT1G59750	APVQEPKCT	VHSFCKTLTA	SDTSTHGGFS	139
ZmGRMZM2G017187_P02	AEPQEREKCT	AHSFCKTLTA	SDTSTHGGFS	144
ARF2_AT5G62000	PPPPRFQV--	SFCKTLTA	SDTSTHGGFS	178
ZmGRMZM2G006042_P01	VPATSEGLR	IHSFCKTLTA	SDTSTHGG-S	161
Pt179307_gw1.I.7907.1	--PPPPARPR	VHSFCKMLTA	SDTSTHGGFS	126
ARF21_AT1G34410	-----RPL	VNSFTKVLTA	SDTSAVGGFS	141
ARF20_AT1G35240	-----RPL	VNSFTKVLTA	SDTSAVGGFF	141
ARF22_AT1G34390	-----RPL	VNSFTKVLTA	SDTS--GGFF	139
ARF12_AT1G34310	-----RPL	VNSFTKVLTA	SDTSAHGGFF	141
ARF15_AT1G35520	-----RPL	VNSFTKVLTA	SDISANGVFS	146
ARF14_AT1G35540	-----RPL	VNSFTKVLTA	SDTSAHGGFS	141
ARF13_AT1G34170	---MDTRRPI	VYFFSKILT	SDVLSGGLLI	139
ARF4_AT5G60450	RNGSSSVKRTI	PHMFCKTLTA	SDTSTHGGFS	191
ARF3_AT2G33860	DYEVLRKSN	PHMFCK-LTA	SDTSTHGGFS	173
Pt243681_gw1.XIV.424.1	ESLLHRKTR	VLSFTKCLTP	SDTSTQGGFS	123
Selmo1_2_61688	LVSSPTVVEK	PASFAKTLTQ	SDANNGGGFS	123
Selmo1_2_51695	AALSPSP-EK	PASFAKTLTQ	SDANNGGGFS	122
Phypa_108888	APSSPPP-EK	PASFAKTLTQ	SDANNGGGFS	128
ARF10_AT2G28350	SDGNNGKKEK	PASFAKTLTQ	SDANNGGGFS	130
ARF16_AT4G30080	SNGFESNSEK	TPSFAKTLTQ	SDANNGGGFS	135
Phypa_61245	-----SE---	LSS	GQAHNGG---	74
ZmGRMZM2G005284_P01	EAGQRQPTRP	VISSAKTLTK	SDSYSGGSL	153
ARF17_AT1G77850	FDGDVDDNKK	VITFAKILTP	SDANNGGGFS	134
Phypa_170581	NLLAQSKAKS	VQNGPLQTQQ	SLQSSLSGMS	317
all_Phypa_171888	NLLPHSKAKN	VQNGLLQTQQ	SLQSSPSGMS	403
Selmo1_2_405821	-----T	GSVRYMGTI-	60	
Selmo1_2_431298	-----ENPT	FPDFVHTFNV	GPTRVTRL-	81
Selmo1_2_431277	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----RNFDA	AGAAVLLGG-	19
spra_Contig219_1	-----	-----SLSP	HPLPPHAGAS	82
IAA12_AT1G04550	-----	-----RS	AESSHQGAS	63



	820		840	
Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	VPRRAAEKVF	PPLDYSQTTP	AQELKARDLH	242
Phypha_218828	VPRRAAEKVF	PPLDYSQTTP	AQELKARDLH	77
Phypha1_1_127416_e_gw1.65.212.1	VPRRAAEKVF	PPLDYTQTTP	AQELKARDLH	162
Phypha1_1_50215_gw1.6.284.1	VPRRAAEKVF	PPLDFTKSP	AQELVARDLH	156
Phypha_167026	VPRRAAEKVF	PPLDFTRVPP	AQELVARDLH	296
Phypha1_1_136986_e_gw1.133.91.1	VPRRAAEKVF	PPLDFTRVPP	AQELVARDLH	158
Phypha_188433	VPRRAAEKVF	PTLDYTTQQPP	AQELVARDLH	187
Phypha_165321	VPRRAAEKVF	PTLDYNTQQPP	AQELVARDLH	176
ARF8_AT5G37020	VPRRAAEKVF	PPLDYTLQP -	AQELVARDLH	170
Pt198791_gw1.IV.3880.1	VPRRAAEKVF	PPLDFTQQPP	AQELVARDLH	157
ARF6_AT1G30330	VPRRAAEKVF	PPLDYSQQP -	AQELMARDLH	171
Pt205407_gw1.V.808.1	VPRRAAEKVF	PTLDYSQTTP	AQELVARDLH	158
Selmo1_117217_e_gw1.55.235.1	VPRRAAEKVF	PPLDFSQQPP	AQELVARDLH	176
Selmo1_422125	VPRRAAEKVF	PPLDFSQQPP	AQELVARDLH	160
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	VPRRAAEKVF	PPLDFTKTPP	AQELVARDLH	167
Selmo1_446535	VPRRAAEKVF	PPLDFTKTPP	AQELVARDLH	167
Selmo1_181406_estExt_Genewise1Plus.C_650169	VPRRAAEKVF	PPLDFTKQP	AQELVAKDLH	165
ARF19_AT1G19220	VPRRAAEKIF	PPLDFSMQP -	AQELVAKDLH	170
ARF7_AT5G20730	VPRRAAEKIF	PALDFSMQP -	CQELVAKDLH	171
ZmGRMZM2G014864_P01	VPRRAAEKIF	PPLDFSMQPP	AQELVARDLH	77
ARF5_AT1G19850	VPRRAAEKLF	PPLDYSAQPP	TQELVARDLH	202
Selmo1_437944_estExt_fgenes2_pg.C_10526	VPRRAAEKCL	PPLDYQSSPP	AQELVAKDLH	185
all_Phypha_77324	VPRRAAEKCL	PPLDHNMP	CQELVAKDLH	467
all_Phypha_159688	VPRRAAEKCL	PPLDHSMNPP	CQELVAKDLH	314
all_Phypha_225990	VPRRAAEKCL	PSLDYTNPP	CQELVAKDLH	152
all_Phypha_171197	VPRRAAEKCL	PPLDYNMNP	CQELVAKDLH	556
Pt179921_gw1.I.8521.1	VLRKHATECL	PPLDMTQPT	TQELVAKDLH	153
Pt245007gw1.XIV.1750.1	VLRKHATECL	PPLDMSQATP	TQELVARDLH	153
ARF9_AT4G23980	VLRKHATECL	PPLDMTQPT	TQELVARDLH	160
ARF11_AT2G46530	VLRKHATECL	PSLDMTQPT	T-ELVARDLH	168
ARF18_AT3G61830	VLRKHATECL	PSLDMTQ-T	TQELVTRDLH	172
ARF1_AT1G59750	VLRRHADDC	PPLDMSQPP	-WELVATDLH	168
ZmGRMZM2G017187_P02	VLRRAHEEC	PQLDMSNPP	-QELVAKDLH	173
ARF2_AT5G62000	VLRRAHEEC	PPLDMSRQP	TQELVAKDLH	208
ZmGRMZM2G006042_P01	VLRRAHEEC	PPLDMSQHPP	NQELVAKDLH	191
Pt179307_gw1.I.7907.1	VLRRAHEEC	PPLDMSLQPP	AQELVAKDLH	156
ARF21_AT1G34410	VPKKHAIECL	PPLDMSQPLA	-QELVARDLH	170
ARF20_AT1G35240	VPKKHAIECL	PPLDMSQPL	-AQELVARDLH	166
ARF22_AT1G34390	VPKKHAIECL	PPLDMSQPL	-TELVARDLH	168
ARF12_AT1G34310	VPKKHAIECL	PSLDMSQPLA	-QELVARDLH	170
ARF15_AT1G35520	VPKKHAIECL	PPLDMSQPL	AQELVARDLH	175
ARF14_AT1G35540	VPKKHAIECL	PPLDMSQPL	-QELVARDLH	170
ARF13_AT1G34170	VPKQYAECL	PPLDMSQ-PI	STNLVAKDLH	168
ARF4_AT5G60450	VPRRAAEDCF	APLDYKQRP	SQELVAKDLH	221
ARF3_AT2G33860	VPRRAAEDCF	PPLDYSQRP	SQELVARDLH	203
Pt243681_gw1.XIV.424.1	VPKRHAEECL	PPLDKSQPP	AQELVAKDLH	153
Selmo1_2_61688	VPRYCAETIF	PRLDYSIDPP	VQTVLAKDVH	153
Selmo1_2_51695	VPRYCAETIF	PRLDYSVDPP	VQTVLAKDVH	152
Phypha_108888	VPRYCAETIF	PPLDYSSDPP	VQTVLAKDVH	158
ARF10_AT2G28350	VPRYCAETIF	PRLDYSAEPP	VQTVLAKDVH	160
ARF16_AT4G30080	VPRYCAETIF	PRLDYNAEPP	VQTVLAKDVH	164
Phypha_61245	-----	-----QQQ	QQQQSSQMS	87
ZmGRMZM2G005284_P01	VRRTCAE-IF	PKLDKSIKRP	QQLVSARDVH	182
ARF17_AT1G77850	VPRFCADSVF	PLLNFDIDPP	VQKLYV-DIH	163
Phypha_170581	TQQLRGHS--	PQSGMAQQVD	GVSGLHSTGH	345
all_Phypha_171888	AQQLRGHS--	PQSRMAQQAD	RSSTMHPTGH	431
Selmo1_2_405821	--TGIGDID-	PA-----RWP	GSK-----	75
Selmo1_2_431298	--KGSNKS-	PASSQTLRWD	AQQ-----	102
Selmo1_2_431277	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	PGLLISPVGG	A-----	30
spra_Contig219_1	FPKYAW----	-PIPLSS--A	CQTYTAS--	102
IAA12_AT1G04550	VPRSSQVVGW	PPIG-----	-----LH	79
Consensus	VPRRAAEKCF	PPLDYSQQPP	AQELVARDLH	



Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	DQ EW HFRH I Y	RG -----	254
Phypa_218828	DQ EW HFRH I Y	RG -----	89
Phypa1_1_127416_e_gw1.65.212.1	DQ EW HFRH I Y	RG -----	174
Phypa1_1_50215_gw1.6.284.1	DQ D WHFRH I Y	RG -----	168
Phypa_167026	DQ EW HFRH I Y	RG E TTTFLVH NYAYV IPPRG	326
Phypa1_1_136986_e_gw1.133.91.1	DQ EW HFRH I Y	RG -----	170
Phypa_188433	DQ D WHFRH I Y	RG -----	199
Phypa_165321	DQ D WHFRH I Y	RG -----	188
ARF8_AT5G37020	DV EW KFRH I F	RG -----	182
Pt198791_gw1.IV.3880.1	DVE - KFRH I F	RG -----	168
ARF6_AT1G30330	DN EW KFRH I F	RG -----	183
Pt205407_gw1.V.808.1	DN - WKFRH I F	RG -----	169
Selmo1_117217_e_gw1.55.235.1	DT EW RFRH I Y	RG -----	188
Selmo1_422125	DT EW RFRH I Y	RG -----	172
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	NN EW HFRH I Y	RG -----	179
Selmo1_446535	NN EW HFRH I Y	RG -----	179
Selmo1_181406_estExt_Genewise1Plus.C_650169	NQ Q WTFRH I Y	RG -----	177
ARF19_AT1G19220	DT T WTFRH I Y	RG -----	182
ARF7_AT5G20730	DN T WTFRH I Y	RG -----	183
ZmGRMZM2G014864_P01	DN W - TFRH I Y	RG -----	88
ARF5_AT1G19850	EN T WTFRH I Y	RG -----	214
Selmo1_437944_estExt_fgenes2_pg.C_10526	GV EW KFRH I Y	RG -----	197
all_Phypa_77324	GK D WSFRH I Y	RG -----	479
all_Phypa_159688	GK EW NFRH I Y	RG -----	326
all_Phypa_225990	GH EW KFRH I Y	RG -----	164
all_Phypa_171197	GQ EW KFRH I Y	RG -----	568
Pt179921_gw1.I.8521.1	GY EW RFK - IF	RG -----	164
Pt245007gw1.XIV.1750.1	GY EW RFK - IF	RG -----	164
ARF9_AT4G23980	GY Q WKF K HIF	RG -----	172
ARF11_AT2G46530	GY EW RFKH I F	RG -----	180
ARF18_AT3G61830	GF EW RFKH I F	RG -----	184
ARF1_AT1G59750	NS EW HFRH I F	RG -----	180
ZmGRMZM2G017187_P02	GT EW HFRH I F	RG -----	185
ARF2_AT5G62000	AN EW RFRH I F	RG -----	220
ZmGRMZM2G006042_P01	GV EW RFRH I F	RG -----	203
Pt179307_gw1.I.7907.1	GN EW- FRH I F	RG -----	167
ARF21_AT1G34410	DN Q WRFRH N Y	RG T-----	183
ARF20_AT1G35240	GN Q WRFRH S Y	RG T-----	179
ARF22_AT1G34390	GN Q WRFNH N Y	RG T-----	181
ARF12_AT1G34310	GN Q WRFNH N Y	RG T-----	183
ARF15_AT1G35520	GN Q WSFRH S Y	RG T-----	188
ARF14_AT1G35540	GN Q WRFRH I Y	RG T-----	183
ARF13_AT1G34170	GQ EW SFKH V F	RG T-----	181
ARF4_AT5G60450	GV EW KFRH I Y	RG -----	233
ARF3_AT2G33860	GV EW RFRH I Y	RG -----	215
Pt243681_gw1.XIV.424.1	GS EW RFR - IY	RG -----	164
Selmo1_2_61688	GE L WKFRH I Y	RG T-----	166
Selmo1_2_51695	GE V WKFRH I Y	RG T-----	165
Phypa_108888	GD V WKFRH I Y	RG T-----	171
ARF10_AT2G28350	- E T WKFRH I Y	RG T-----	172
ARF16_AT4G30080	GD V WKFRH I Y	RG T-----	177
Phypa_61245	GS G LTMG L MP	GGS -----	100
ZmGRMZM2G005284_P01	GV EW TFRH V Y	RG T-----	195
ARF17_AT1G77850	GA V WDFRH I Y	RG T-----	176
Phypa_170581	DL E VE I SR Q Q	AGQAV P NS G L	QAS G S H GV S T
all_Phypa_171888	GL E GE M PR Q P	ADL A V L N P G	QAP G S L D V S T
Selmo1_2_405821	--- W R F ---	-----	78
Selmo1_2_431298	--- R F C A S S R P A E---	-----	112
Selmo1_2_431277	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	RGR -----	33
spra_Contig219_1	-----	-----	102
IAA12_AT1G04550	-----	-----	79

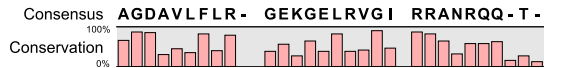


	880	900		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	254	
Phypa_218828	89	
Phypa1_1_127416_e_gw1.65.212.1	174	
Phypa1_1_50215_gw1.6.284.1	168	
Phypa_167026	I F H R Y N F A I K	E W R G K C F L L V	L A T V N Q S H P F	356
Phypa1_1_136986_e_gw1.133.91.1	170	
Phypa_188433	199	
Phypa_165321	188	
ARF8_AT5G37020	182	
Pt198791_gw1.IV.3880.1	168	
ARF6_AT1G30330	183	
Pt205407_gw1.V.808.1	169	
Selmo1_117217_e_gw1.55.235.1	188	
Selmo1_422125	172	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	179	
Selmo1_446535	179	
Selmo1_181406_estExt_Genewise1Plus.C_650169	177	
ARF19_AT1G19220	182	
ARF7_AT5G20730	183	
ZmGRMZM2G014864_P01	88	
ARF5_AT1G19850	214	
Selmo1_437944_estExt_fgenes2_pg.C_10526	197	
all_Phypa_77324	479	
all_Phypa_159688	326	
all_Phypa_225990	164	
all_Phypa_171197	568	
Pt179921_gw1.I.8521.1	164	
Pt245007gw1.XIV.1750.1	164	
ARF9_AT4G23980	172	
ARF11_AT2G46530	180	
ARF18_AT3G61830	184	
ARF1_AT1G59750	180	
ZmGRMZM2G017187_P02	185	
ARF2_AT5G62000	220	
ZmGRMZM2G006042_P01	203	
Pt179307_gw1.I.7907.1	167	
ARF21_AT1G34410	183	
ARF20_AT1G35240	179	
ARF22_AT1G34390	181	
ARF12_AT1G34310	183	
ARF15_AT1G35520	188	
ARF14_AT1G35540	183	
ARF13_AT1G34170	181	
ARF4_AT5G60450	233	
ARF3_AT2G33860	215	
Pt243681_gw1.XIV.424.1	164	
Selmo1_2_61688	166	
Selmo1_2_51695	165	
Phypa_108888	171	
ARF10_AT2G28350	172	
ARF16_AT4G30080	177	
Phypa_61245	100	
ZmGRMZM2G005284_P01	195	
ARF17_AT1G77850	176	
Phypa_170581	C T Q G S L Q N G N	V H H Q N G H G	393	
all_Phypa_171888	S N Q G S L Q N G N	L H N Q N G H G	479	
Selmo1_2_405821	78	
Selmo1_2_431298	112	
Selmo1_2_431277	17	
corb_UMD_Coleochaete_c9703_c_s_1	33	
spra_Contig219_1	102	
IAA12_AT1G04550	79	
Consensus		
Conservation		

Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	275
Phypha_218828	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	110
Phypha1_1_127416_e_gw1.65.212.1	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	195
Phypha1_1_50215_gw1.6.284.1	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	189
Phypha_167026	SSRLCDR	QPR	RHLLTTG	-W	SVFVSAKRLQ	384
Phypha1_1_136986_e_gw1.133.91.1	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	191
Phypha_188433	-----	QPR	RHLLTTG	-W	SIFISAARLQ	220
Phypha_165321	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	209
ARF8_AT5G37020	-----	QPK	RHLLTTG	-W	SVFVSAKRLV	203
Pt198791_gw1.IV.3880.1	-----	QPK	RHLLTTG	-W	SVFVSAKRLV	189
ARF6_AT1G30330	-----	QPK	RHLLTTG	-W	SVFVSAKRLV	204
Pt205407_gw1.V.808.1	-----	QPK	RHLLTTG	-W	SVFVSAKRLV	190
Selmo1_117217_e_gw1.55.235.1	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	209
Selmo1_422125	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	193
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	200
Selmo1_446535	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	200
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	QPR	RHLLTTG	-W	SVFVSAKRLQ	198
ARF19_AT1G19220	-----	QPK	RHLLTTG	-W	SVFVSTKRLV	203
ARF7_AT5G20730	-----	QPK	RHLLTTG	-W	SVFVSTKRLV	204
ZmGRMZM2G014864_P01	-----	QPK	RHLLTTG	-W	SLFVSGKRLV	109
ARF5_AT1G19850	-----	QPK	RHLLTTG	-W	SLFVSGKRLV	235
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	QPR	RHLLTTG	-W	SVFVSOQKLV	218
all_Phypha_77324	-----	HPR	RHLLTTG	-W	SVFVSOQKLV	500
all_Phypha_159688	-----	HPR	RHLLTTG	-W	SVFVSOQKLV	347
all_Phypha_225990	-----	HPR	RHLLTTG	-W	SAFVSAKRLV	185
all_Phypha_171197	-----	VPR	RHLLTTG	-W	STFVSAKRLV	589
Pt179921_gw1.I.8521.1	-----	QPR	RHLLTTG	-W	STFVTSKRLV	185
Pt245007gw1.XIV.1750.1	-----	QPR	RHLLTTG	-W	STFVTSKRLV	185
ARF9_AT4G23980	-----	QPR	RHLLTTG	-W	STFVTSKRLV	193
ARF11_AT2G46530	-----	QPR	RHLLTTG	-W	STFVTSKRLV	201
ARF18_AT3G61830	-----	QPR	RHLLTTG	-W	STFVSSKRLV	205
ARF1_AT1G59750	-----	QPR	RHLLTTG	-W	SVFVSSKRLV	201
ZmGRMZM2G017187_P02	-----	QPK	RHLLTTG	-W	SVFVSSKRLV	206
ARF2_AT5G62000	-----	QPR	RHLLQSG	-W	SVFVSSKRLV	240
ZmGRMZM2G006042_P01	-----	QPR	RHLLQSG	-W	SVFVSAKRLV	224
Pt179307_gw1.I.7907.1	-----	QPR	RHLLQSG	-W	SLFVSAKRLV	188
ARF21_AT1G34410	-----	PQ	RHS TTG	-W	NEFTSKKLV	203
ARF20_AT1G35240	-----	PQ	RHS TTG	-W	NEFTSKKLV	199
ARF22_AT1G34390	-----	PQ	RHLLTTG	-W	NAFTSKKLV	201
ARF12_AT1G34310	-----	PQ	RHLLTTG	-W	NAFTSKKLV	203
ARF15_AT1G35520	-----	PQ	RHLLTTG	-W	NEFTSKKLV	208
ARF14_AT1G35540	-----	AQ	RHLLTTG	-W	NAFTSKKLV	203
ARF13_AT1G34170	-----	PQ	RHMF TSGGGW	-W	SVFATTKRLV	203
ARF4_AT5G60450	-----	QPR	RHLLT - -	-GW	SLFVSOQKLV	253
ARF3_AT2G33860	-----	QPR	RHLLTTG	-W	SAFVNKKLV	236
Pt243681_gw1.XIV.424.1	-----	QPK	RHLLTTG	-W	STFVSSKRLV	185
Selmo1_2_61688	-----	PR	RHLLTTG	-W	STFVNQKLV	186
Selmo1_2_51695	-----	PR	RHLLTTG	-W	STFVNQKLV	185
Phypha_108888	-----	PR	RHLLTTG	-W	STFVNQKLV	191
ARF10_AT2G28350	-----	PR	RHLLTTG	-W	STFVNQKLV	192
ARF16_AT4G30080	-----	PR	RHLLTTG	-W	SNFVNQKLV	197
Phypha_61245	-----	PT	RD - -	-DG - G	SNSKSKLKSS	117
ZmGRMZM2G005284_P01	-----	PE	RNLLTTG	-W	SDFVNSKLV	215
ARF17_AT1G77850	-----	PR	RHLLTTG	-W	SKFVNSKLV	196
Phypha_170581	-----	---	SPGLRQ	---	SGMQNGVAFQ	409
all_Phypha_171888	-----	---	SPGLPQ	---	NGMLNSVAFH	495
Selmo1_2_405821	-----	---	PKCSW	---	F - - - - -	84
Selmo1_2_431298	-----	EST	RTSSRPIC	-W	FPPVVS - - - -	130
Selmo1_2_431277	-----	---	---	---	---	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	---	---	---	---	33
spra_Contig219_1	-----	---	FSPGGTR	---	SMSPTNTR - - -	117
IAA12_AT1G04550	-----	---	RNSLVN	---	NQAMKAARAE	95



	940	960	
Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	AGDAVLFIR	DDKQQLQLG	RRQNRQQ - TV 303
Phypha_218828	AGDAVLFIR	DDKQQLQLG	RRQNRQQ - TV 138
Phypha1_1_127416_e_gw1.65.212.1	AGDAVLFIR	DDKQQLQLG	RRQNRQQ - TV 223
Phypha1_1_50215_gw1.6.284.1	AGDSVLFIR	DDKDHLLGI	RRANRQQ - SV 217
Phypha_167026	AGDSVLFIR	DDKGNLLGI	RRANRQQ - TV 412
Phypha1_1_136986_e_gw1.133.91.1	AGDSVLFIR	DDKGNLLGI	RRANRQQ - TV 219
Phypha_188433	AGDAVLFIR	DDKQQLLGI	RRANRQQ - TI 248
Phypha_165321	AGDAVLFIR	DDKQQLLGI	RRANRQQ - TM 237
ARF8_AT5G37020	AGDSVIFIR	NEKNQLFLG	RHATRPP - TI 231
Pt198791_gw1.IV.3880.1	AGDSVLFIW	NEKNQLLGI	RRATRPP - TV 217
ARF6_AT1G30330	AGDSVLFIW	NDKNQLLGI	RRANRPP - TV 232
Pt205407_gw1.V.808.1	AGDSVLFIW	NEKNQLLGI	RRANRPP - TF 218
Selmo1_117217_e_gw1.55.235.1	TGDAVLFIR	DEKQQLLGI	RRANRQQ - AS 237
Selmo1_422125	TGDAVLFIR	DEKQQLLGI	RRANRQQ - AS 221
Selmo1_424114_fgenes2_pg.C_scaffold.65000063	AGDTVLFIR	DEQGQHMLGI	RRANRQQ - TN 228
Selmo1_446535	AGDTVLFIR	DEQGQHMLGI	RRANRQQ - TN 228
Selmo1_181406_estExt_Genewise1Plus.C_650169	AGDTVLFIR	DENHLLLGI	RRANRQQ - AN 226
ARF19_AT1G19220	AGDSVLFVR	DEKSQLMLGI	RRANRQT - PT 231
ARF7_AT5G20730	AGDSVLFIR	DGKAQLLGI	RRANRQQ - PA 232
ZmGRMZM2G014864_P01	AGDSVLFVR	DEKQQLLGI	RRANRQP - T 137
ARF5_AT1G19850	AGDSV - FIR	DEKSQLMVG	RRANRQQ - TA 262
Selmo1_437944_estExt_fgenes2_pg.C_10526	AGDAVLFIR	GDNGELRIG	RRARVQQNSV 247
all_Phypha_77324	AGDTVIFLR	GENGQLRVG	RRASKQPPA 529
all_Phypha_159688	AGDTVIFLR	GENGQLRVG	RRASKQLPQT 376
all_Phypha_225990	AGDTVIFLR	GENGQLRVG	RRASKQPPA 214
all_Phypha_171197	AGDTVIFLR	GENGQLRVG	RRASKQPPA 618
Pt179921_gw1.I.8521.1	AGDSFVFLR	GENGELRVG	RRVACQQ - SS 213
Pt245007gw1.XIV.1750.1	AGDSFVFLRX	GDNGELRVG	RRVARQQ - CS 214
ARF9_AT4G23980	AGDTFVFLR	GENGELRVG	RRANLQQ - SS 221
ARF11_AT2G46530	AGDAFVFLR	GETGDLRVG	RRLAKQQ - ST 229
ARF18_AT3G61830	AGDAFVFLR	GENGDLRVG	RRLARHQ - ST 233
ARF1_AT1G59750	AGDAFIFLR	GENEELRVG	RRHMRQQ - TN 229
ZmGRMZM2G017187_P02	SGDAFIFMR	GENGELRVG	RRLMRQQ - NS 234
ARF2_AT5G62000	AGDAFIFLR	GENGELRVG	RRAMRQQ - GN 268
ZmGRMZM2G006042_P01	AGDAFIFLR	GENGELR - GV	RRALRHQ - TT 251
Pt179307_gw1.I.7907.1	AGDAFIFLR	GETEELRVG	RRALSQP - SN 216
ARF21_AT1G34410	KGDVIVFVR	GETGELRVG	RRARHQGN - 231
ARF20_AT1G35240	KGDVIVFVR	GETGELRVG	RRARHQGN - 227
ARF22_AT1G34390	AGDVIVFVR	GETGELRVG	RRAGHQGN - 229
ARF12_AT1G34310	AGDVIVFVR	GETGELRVG	RRARHQGN - 231
ARF15_AT1G35520	KGDVIVFVR	GETGELRVG	RRARHQGN - 236
ARF14_AT1G35540	EGDVIVFVR	GETGELRVG	RRAGHQGN - 231
ARF13_AT1G34170	MGDIFVLLR	GENGELRFG	RRAKHQGH - 231
ARF4_AT5G60450	SGDAVLFIR	DEGGELRLGI	RRARPR - NG 281
ARF3_AT2G33860	SGDA - LFLR	GDDGKRLGI	RRASQIEGTA 264
Pt243681_gw1.XIV.424.1	AGDSFIFLR	GESGELRVG	RRAMKLE - NN 213
Selmo1_2_61688	AGDAIVFLR	SASGELCVG	RRSMRGPNG 215
Selmo1_2_51695	AGDAIVFLR	SNSGELCVG	RRSMRGGSG 214
Phypha_108888	AGDAIVFLR	SASGELCVG	RRSMRGAMGD 220
ARF10_AT2G28350	AGDSIVFLR	SESGDLCVG	RRAKRGG LGS 221
ARF16_AT4G30080	AGDSIVFMR	AENGDLCVG	RRAKRGG IGN 226
Phypha_61245	PAPITFLLE	GQSLD - - - - -	- - - - - 131
ZmGRMZM2G005284_P01	IGDSVVFMR	EEDGTIHIG	RRARARRNA 244
ARF17_AT1G77850	AGDSVVFMR	KSADFMFIV	RRTPSSSDG 225
Phypha_170581	HNGHAL - - - -	SANGLHIGV	QNTSQQPGG 434
all_Phypha_171888	HGGRSL - - - -	PACGLQNGT	RNGNQQPGG 520
Selmo1_2_405821	- - - - -	SFW - - - - I	AKPQK - - - - 93
Selmo1_2_431298	- - - - -	DWELLE	AISRLEDGLA 149
Selmo1_2_431277	- - - - -	- - - - -	- - - - - 17
corb_UMD_Coleochaete_c9703_c_s_1	- - - - -	- - - - - G	RAA - - - - - 38
spra_Contig219_1	SEESLMLALS	CQSEERTDGS	GQSRRDATSD 147
IAA12_AT1G04550	EGD - - - - -	- - - - - GEKKV -	- - - - - 103



Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	MP	-----	-----	-----	305
Phypa_218828	MP	-----	-----	-----	140
Phypa1_1_127416_e_gw1.65.212.1	MP	-----	-----	-----	225
Phypa1_1_50215_gw1.6.284.1	MP	-----	-----	-----	219
Phypa_167026	MP	-----	-----	-----	414
Phypa1_1_136986_e_gw1.133.91.1	MP	-----	-----	-----	221
Phypa_188433	MP	-----	-----	-----	250
Phypa_165321	MP	-----	-----	-----	239
ARF8_AT5G37020	VP	-----	-----	-----	233
Pt198791_gw1.IV.3880.1	MP	-----	-----	-----	219
ARF6_AT1G30330	MP	-----	-----	-----	234
Pt205407_gw1.V.808.1	MP	-----	-----	-----	220
Selmo1_117217_e_gw1.55.235.1	MP	-----	-----	-----	239
Selmo1_422125	MP	-----	-----	-----	223
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	LP	-----	-----	-----	230
Selmo1_446535	LP	-----	-----	-----	230
Selmo1_181406_estExt_Genewise1Plus.C_650169	VP	-----	-----	-----	228
ARF19_AT1G19220	LS	-----	-----	-----	233
ARF7_AT5G20730	LS	-----	-----	-----	234
ZmGRMZM2G014864_P01	IS	-----	-----	-----	139
ARF5_AT1G19850	LP	-----	-----	-----	264
Selmo1_437944_estExt_fgenes2_pg.C_10526	TS	-----	-----	-----	249
all_Phypa_77324	R	-----	-----	-----	530
all_Phypa_159688	R	-----	-----	-----	377
all_Phypa_225990	R	-----	-----	-----	215
all_Phypa_171197	H	-----	-----	-----	619
Pt179921_gw1.I.8521.1	MP	-----	-----	-----	215
Pt245007gw1.XIV.1750.1	LP	-----	-----	-----	216
ARF9_AT4G23980	MP	-----	-----	-----	223
ARF11_AT2G46530	MP	-----	-----	-----	231
ARF18_AT3G61830	MP	-----	-----	-----	235
ARF1_AT1G59750	LP	-----	-----	-----	231
ZmGRMZM2G017187_P02	MP	-----	-----	-----	236
ARF2_AT5G62000	VP	-----	-----	-----	270
ZmGRMZM2G006042_P01	LP	-----	-----	-----	253
Pt179307_gw1.I.7907.1	VP	-----	-----	-----	218
ARF21_AT1G34410	LP	-----	-----	-----	233
ARF20_AT1G35240	LP	-----	-----	-----	229
ARF22_AT1G34390	LP	-----	-----	-----	231
ARF12_AT1G34310	LP	-----	-----	-----	233
ARF15_AT1G35520	LP	-----	-----	-----	238
ARF14_AT1G35540	LP	-----	-----	-----	233
ARF13_AT1G34170	LP	-----	-----	-----	233
ARF4_AT5G60450	LP	-----	-----	-----	283
ARF3_AT2G33860	AL	-----	-----	-----	266
Pt243681_gw1.XIV.424.1	LS	-----	-----	-----	215
Selmo1_2_61688	DS - G I SWHSS	-----	-----	PGQSGYSE	232
Selmo1_2_51695	NADALLWHSAS	SSRSSRWEL	RPPMDTGLSD	-----	244
Phypa_108888	NGHG	-----	-----	GSSN	228
ARF10_AT2G28350	N - - AGSDNP	Y - - PGFSGFL	RDETTTTSK	-----	246
ARF16_AT4G30080	GPEYSAGWNP	IGSGYSSLL	REDESNSLRR	-----	256
Phypa_61245	-----	-----	-----	-----	131
ZmGRMZM2G005284_P01	YGRQL	-----	-----	-----	249
ARF17_AT1G77850	GSSYYGGDEY	NGYSSSVAK	EDD	-----	248
Phypa_170581	-----	HLLPNQL	PQLGGASLPP	-----	451
all_Phypa_171888	-----	QVFSSRGD	PARAGATILH	-----	538
Selmo1_2_405821	-----	-----	-----	-----	93
Selmo1_2_431298	L	-----	-----	-----	150
Selmo1_2_431277	-----	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	-----	38
spra_Contig219_1	-----	-----	-----	-----	147
IAA12_AT1G04550	-----	-----	-----	-----	103
Consensus	MP	-----	-----	-----	-----

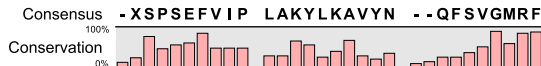


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Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	SSV LSS 311
Phypa_218828	-----	-----	SSV LSS 146
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	SSV LSS 231
Phypa1_1_50215_gw1.6.284.1	-----	-----	SSV LSS 225
Phypa_167026	-----	-----	SSV LSS 420
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	SSV LSS 227
Phypa_188433	-----	-----	SSV LSS 256
Phypa_165321	-----	-----	SSV LSS 245
ARF8_AT5G37020	-----	-----	SSV LSS 239
Pt198791_gw1.IV.3880.1	-----	-----	SSV LSS 225
ARF6_AT1G30330	-----	-----	SSV LSS 240
Pt205407_gw1.V.808.1	-----	-----	SSV LSS 226
Selmo1_117217_e_gw1.55.235.1	-----	-----	LSLST 245
Selmo1_422125	-----	-----	LSLST 229
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	-----	TSLSS 236
Selmo1_446535	-----	-----	TSLSS 236
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	SSLSS 234
ARF19_AT1G19220	-----	-----	SSV ISS 239
ARF7_AT5G20730	-----	-----	SSV ISS 240
ZmGRMZM2G014864_P01	-----	-----	SSV LSS 145
ARF5_AT1G19850	-----	-----	SSV LSA 270
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	SSLSS 255
all_Phypa_77324	-----	-----	STHFSS 536
all_Phypa_159688	-----	-----	STHFSS 383
all_Phypa_225990	-----	-----	STNFSS 221
all_Phypa_171197	-----	-----	STYFSS 625
Pt179921_gw1.I.8521.1	-----	-----	SSV ISS 221
Pt245007gw1.XIV.1750.1	-----	-----	SSV ISS 222
ARF9_AT4G23980	-----	-----	SSV ISS 229
ARF11_AT2G46530	-----	-----	ASV ISS 237
ARF18_AT3G61830	-----	-----	TSV ISQ 241
ARF1_AT1G59750	-----	-----	SSV ISS 237
ZmGRMZM2G017187_P02	-----	-----	SSV IS - 241
ARF2_AT5G62000	-----	-----	SSV ISS 276
ZmGRMZM2G006042_P01	-----	-----	SSV ISS 259
Pt179307_gw1.I.7907.1	-----	-----	SSV MSS 224
ARF21_AT1G34410	-----	-----	SSV ISI 239
ARF20_AT1G35240	-----	-----	SSV ISI 235
ARF22_AT1G34390	-----	-----	SSV ISI 237
ARF12_AT1G34310	-----	-----	SSV ISI 239
ARF15_AT1G35520	-----	-----	SS - VSI 243
ARF14_AT1G35540	-----	-----	SSV ISI 239
ARF13_AT1G34170	-----	-----	SSV ISA 239
ARF4_AT5G60450	-----	-----	DSL I EK 289
ARF3_AT2G33860	-----	-----	SAQYN - 271
Pt243681_gw1.XIV.424.1	-----	-----	ANVITA 221
Selmo1_2_61688	LSGNGS -	GTS	GASFARN - RA 251
Selmo1_2_51695	GTLMGNGSS	RSAGGGGNG	GGSETRN - RA 273
Phypa_108888	G - VSRGSG	GAST	TSSFARN - RA 249
ARF10_AT2G28350	MMMMKRN -	NDGNAAA	TG 264
ARF16_AT4G30080	S -	NCSADR	KG 266
Phypa_61245		PSS	NSKAAQE - QC 143
ZmGRMZM2G005284_P01		VRGNA	SGTGAAA - DG 263
ARF17_AT1G77850		GSP	KKTFRRSNG 261
Phypa_170581	Q - GRHSMPSS	LHHQQGVNSA	QNGMPNGSHN 480
all_Phypa_171888	QKGGLSMPSS	AHLQQGVQSV	QNAMSNVGHN 568
Selmo1_2_405821			-RGATLSS 100
Selmo1_2_431298			NGASQSV 157
Selmo1_2_431277			17
corb_UMD_Coleochaete_c9703_c_s_1			38
spra_Contig219_1			RVSEKVN 155
IAA12_AT1G04550			103
Consensus			SSV LSS
Conservation			

Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	DSMHIGVLA A	ANHAAA TSSR	FTIFY - - NPR	339
Phypha_218828	DSMHIGVLA A	ANHAAA TSSR	FTIFY - - NPR	174
Phypha1_1_127416_e_gw1.65.212.1	DSMHIGVLA A	ANHAAA TSSR	FTIFY - - NPR	259
Phypha1_1_50215_gw1.6.284.1	DSMHFGVLA A	ASHAAA TSSR	FKIFY - - NPR	253
Phypha_167026	DSMHFGVLA A	ASHAAA TSSR	FKIFY - - NPR	448
Phypha1_1_136986_e_gw1.133.91.1	DSMHFGVLA A	ASHAAA TSSR	FKIFY - - NPR	255
Phypha_188433	DSMHIGVLA A	ASHAAQTSSR	FTIFY - - NPR	284
Phypha_165321	DSMHIGVLA A	ASHAAQTSSR	FTIFY - - NPR	273
ARF8_AT5G37020	D-MHIGVLA A	AAHASA TNSC	FTVFF - - HPR	266
Pt198791_gw1.IV.3880.1	DSMHIGVLA A	AAHA - ATNSC	FTVFF - - NPR	252
ARF6_AT1G30330	-SMHLGLLA A	AAHAAA TNSR	FTIFY - - NPR	267
Pt205407_gw1.V.808.1	DSMHIGVLA A	AAHA - ATNSR	FTIFY - - NPR	253
Selmo1_117217_e_gw1.55.235.1	DSMYIGVLA A	AAHANSTSSR	FTIFY - - NPR	273
Selmo1_422125	DSMYIGVLA A	AAHANSTSSR	FTIFY - - NPR	257
Selmo1_424114_fgenes2_pg.C_scaffold.65000063	DSMLIGVLA A	AAHAASTNSR	FTIFY - - NPR	264
Selmo1_446535	DSMLIGVLA A	AAHAASTNSR	FTIFY - - NPR	264
Selmo1_181406_estExt_Genewise1Plus.C_650169	DSMLIGVLA A	AAHAASTNSR	FTIFY - - NPR	262
ARF19_AT1G19220	D-MHIGVLA A	AAHANANSSP	FTIFF - - NPR	266
ARF7_AT5G20730	S-MHIGVLA A	AAHANANSSP	FTIFY - - NPR	267
ZmGRMZM2G014864_P01	DSMHIGVLA A	AAHA - ANNSP	FTIFY - - NPR	172
ARF5_AT1G19850	DSMHIGVLA A	AAHATA NRTP	FLIFY - - NPR	298
Selmo1_437944_estExt_fgenes2_pg.C_10526	HSMHLGVL AA	AAHAA STKTM	FTIFY - - NPR	283
all_Phypha_77324	ANLHLGVL AA	ASHAA TERLR	FVVIY - - NPR	564
all_Phypha_159688	ANLHLGVL AA	ASHAA TERLR	FVVIY - - NPR	411
all_Phypha_225990	TNLHLGVL AA	ASHAS REGMR	FVVIY - - NPR	249
all_Phypha_171197	TNLHLGVL AA	ASHAS REGMR	FVVIY - - NPR	653
Pt179921_gw1.I.8521.1	QSMHLGVL AT	ASHAA STLT -	FVVIY - - KPR	248
Pt245007gw1.XIV.1750.1	QSMHLGVL AT	ASHAA LTHL -	FVVIY - - KPR	249
ARF9_AT4G23980	HSMHLGVL AT	A - HAT QTKTM	FVVIY - - KPR	256
ARF11_AT2G46530	-QSMGLGVL AT	ASHAA TTTT -	FVVIY - - KPR	264
ARF18_AT3G61830	-SMHLGVL AT	ASHAA RTTT -	FVVIY - - KPR	268
ARF1_AT1G59750	HSM - IGV LAT	AAHAA TTGT -	FVVIY - - KPR	264
ZmGRMZM2G017187_P02	HSMHLGVL AT	ASHAA STGT -	FVVIY - - KPR	269
ARF2_AT5G62000	HSMHLGVL AT	AWHAA STGTM	FTVVIY - - KPR	304
ZmGRMZM2G006042_P01	HSMHLGVL AT	AWHAA NTGSM	FTVVIY - - KPR	287
Pt179307_gw1.I.7907.1	HSMHLGVL AT	VWHAAS - GSM	FTVVIY - - KPR	251
ARF21_AT1G34410	D - MRHG VIAS	AKHAF DNQCI	FIVVIY - - KP -	265
ARF20_AT1G35240	DCMRH - V IAS	AKHAF DNQCI	FIVVIY - - KPS	263
ARF22_AT1G34390	ESM - HG VIAS	AKHAF DNQCM	FIVVIY - - KP -	262
ARF12_AT1G34310	D - MRHG VVAS	AKHAF DNQCM	FTVVIY - - KP -	265
ARF15_AT1G35520	DCMRHG VVAS	AKHAF DNQCM	FIVVIY - - KP -	270
ARF14_AT1G35540	E - MRHG VIAS	AKHAF DNQCM	FIVVIY - - KP -	265
ARF13_AT1G34170	NMQH - G VIAS	VVNAF KTCKM	FNVVIY - - KP -	265
ARF4_AT5G60450	NSCS - N IAS	VANA STKSM	FHVVIY - - SPR	316
ARF3_AT2G33860	QNMNHN NSE	VAAH STHSV	FSISY - - NPK	299
Pt243681_gw1.XIV.424.1	HSMQLGL ISS	ASHAA STGS -	FTIFF - - HP -	247
Selmo1_2_61688	RVTSKSVLE A	A - S LAAAGQA	FEVVIY - - YPR	278
Selmo1_2_51695	KVTAKSVLD A	A - T LAASGKA	FEVVIY - - YPR	300
Phypha_108888	RVTAKSVLD A	A - A LAVAGKP	FEVVIY - - YPR	276
ARF10_AT2G28350	RVRVEAVAE A	V - A RAACGQA	FEVVIY - - YPR	291
ARF16_AT4G30080	KVTAESVLE A	A - T LAISGRP	FEVVIY - - YPR	293
Phypha_61245	VASASSV EG	S - S LFEGLR	VSPTS - - YSS	170
ZmGRMZM2G005284_P01	VLRAEDV AA	AVT AAAGNP	FEVVIH - - YPR	291
ARF17_AT1G77850	KLTAEA VTDA	I - N RASQGLP	FEVVI - - YPA	288
Phypha_170581	GMVHQQA VHS	APNG LPNASY	SGMMH - - QQG	508
all_Phypha_171888	GM - - - - -	- - - - -	- - - MH - - QQG	575
Selmo1_2_405821	SW - - - GAPGN	AND - - - SDRE	CTL - - - - -	117
Selmo1_2_431298	PGF PSGLPSP	RNEG LPSHRK	VDMHQ - - QQL	185
Selmo1_2_431277	- - - - -	- - - - -	- - - - -	17
corb_UMD_Coleochaete_c9703_c_s_1	- - - - -	- - - - -	- - - - -	38
spra_Contig219_1	SSQSMM LFR	VIES NPNTGV	FKRLHVA YPR	185
IAA12_AT1G04550	- - - - -	- - VKNDE	KDVS MKVNP	119



	1,060	1,080	
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-QSPSEFVIP	VAKYQKALCN	-LQVSVGMRP 367
Phypa_218828	-QSPSEFVIP	VAKYQKALCN	-LQVSVGMRP 202
Phypa1_1_127416_e_gw1.65.212.1	-QSPSEFVIP	VAKYQKALCS	-LQVSVGMRP 287
Phypa1_1_50215_gw1.6.284.1	-QSPSEFVIP	VAKYQKALYN	-TQFTVGMRP 281
Phypa_167026	-QSPSEFVIP	LTKYHKALYN	-TQFTVGMRP 476
Phypa1_1_136986_e_gw1.133.91.1	-QSPSEFVIP	LTKYHKALYN	-TQFTVGMRP 283
Phypa_188433	-QSPSEFVIP	SAKYQKAVYS	-TQFTVGMRP 312
Phypa_165321	-QSPSEFVIP	SAKYQKAVYS	-TQFTVGMRP 301
ARF8_AT5G37020	-ASQSEFVQ	LSKYTKAVFH	-TRVSVGMRP 294
Pt198791_gw1.IV.3880.1	-ASPSEFVIP	LSKYVKAVFH	-TRVSVGMRP 280
ARF6_AT1G30330	-ASPSEFVIP	LAKYVKAVYH	-TRVSVGMRP 295
Pt205407_gw1.V.808.1	-ASPSEFVIP	VKYLKAVYH	-TRVSVGMRP 281
Selmo1_117217_e_gw1.55.235.1	-ASPSEFVIP	LSKYNNAVYN	NMQVSPGMRP 302
Selmo1_422125	-ASPSEFVIP	LSKYNNAVYN	NMQVSPGMRP 286
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-ASPSEFVIP	LAKYQKALHP	P-QLTVGMRP 292
Selmo1_446535	-ASPSEFVIP	LAKYQKALHP	P-QLTVGMRP 292
Selmo1_181406_estExt_Genewise1Plus.C_650169	-ASFSEFVVP	FCRFKATYH	P-RVTVGMRP 290
ARF19_AT1G19220	-ASPSEFVVP	LAKYNNKALYA	--QVSLGMRP 293
ARF7_AT5G20730	WAAPAEFVVP	LAKYTKAMYA	--QVSLGMRP 295
ZmGRMZM2G014864_P01	-ASPTFEFVVP	FAKYQKALYG	-NQISLGMRF 200
ARF5_AT1G19850	-ACPAEFVVP	LAKYRKAICG	--SQLVGMRF 325
Selmo1_437944_estExt_fgenes2_pg.C_10526	-ASPAEFVVP	YHKYVKAFTH	--NLSVGMRF 310
all_Phypa_77324	-TSPSEFVIP	YHKYLRSEDN	--NLTVGSRF 591
all_Phypa_159688	-TSPSEFVIP	YHKYLKTKEN	--NLTVGSRF 438
all_Phypa_225990	-TSPSEFVIP	YNKFLKAMDN	--KLANGSRF 276
all_Phypa_171197	-TSPSEFVIP	YHKFLKAMDY	--NLANGSRF 680
Pt179921_gw1.I.8521.1	TS--QFLLS	LNKYLEAVSN	--KFLVGMRF 273
Pt245007gw1.XIV.1750.1	TN--QYLLG	LNKYLEAVKN	--GFSVGMRF 274
ARF9_AT4G23980	TS--QFLLS	LNKYLEAMSN	--KFSVGMRF 281
ARF11_AT2G46530	TS--QFLLS	VNKYMMAMKN	--GFSVGMRF 289
ARF18_AT3G61830	TS--QFLLG	VNKYMEALKH	--GFSVGMRF 293
ARF1_AT1G59750	-TSRSEFVVS	VNRYLEAKTQ	--KLSVGMRF 291
ZmGRMZM2G017187_P02	-TSRSDFVVS	VNKYLEAKKQ	--KLSVGMRF 296
ARF2_AT5G62000	-TSPSEFVVP	FDQYMES-KN	--NYSVGMRF 330
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Pt179307_gw1.I.7907.1	-TSPAEFLLP	LDKYRESVKI	--NYAVGMRF 278
ARF21_AT1G34410	RS-SQFVVS	YDKFLDAVNN	--KFNVGSRF 291
ARF20_AT1G35240	RS-SQFVVS	YDKFLDAMNN	--KFLVGSRF 289
ARF22_AT1G34390	RS-SQFVVS	YDKFLDAVNN	--KFNVGSRF 289
ARF12_AT1G34310	RS-SKFVVS	YDKFLDAVNN	--KFNVGSRF 291
ARF15_AT1G35520	RS-SQFVVS	YDKFLDAVNN	--KFNVGSRF 296
ARF14_AT1G35540	RS-SQFVVS	YDKFLDVVNN	--KFNVGSRF 291
ARF13_AT1G34170	--SSSQFVVS	YDKFLDAMNN	--NYVGSRF 291
ARF4_AT5G60450	ATH--AFVLP	YEKYLTSIRS	P--VCLGTRF 342
ARF3_AT2G33860	-ASWSNFP	APKFLKVVQY	PF--LGMRF 325
Pt243681_gw1.XIV.424.1	WTSPAEFLLP	FDQYMKSAE	-LEYSVGMRF 275
Selmo1_2_61688	A-STAEFCVR	ASVVKASLEH	--SWYVGMRF 305
Selmo1_2_51695	A-STAEFCVR	AQTVRAALSH	--GWVAGMRP 327
Phypa_108888	A-STAEFCVK	AGLVKQALDH	--TWVAGMRP 303
ARF10_AT2G28350	A-STPEFCVK	AADVRSAMRT	--RWCSGMRP 318
ARF16_AT4G30080	A-STSEFCVK	ALDARAAMRT	--PWCSGMRP 320
Phypa_61245	SDNTLEHKDR	MRRRENADLNG	--A--SG-- 193
ZmGRMZM2G005284_P01	ATAPA-FCVVR	VATVIEALQV	--SWCPGLRF 318
ARF17_AT1G77850	A-GWSEFVVR	AEDVSSMSM	--YWTPGTRV 315
Phypa_170581	GHRIQDGMHL	STGHVSSMGP	QNPQNSAVI 538
all_Phypa_171888	GLRMQDGLV	PAGHMSSVGP	QKRGHSGAII 605
Selmo1_2_405821	-----	-----	---FG---F 120
Selmo1_2_431298	RLCIQQF---	-----REKKI	PPQFGRSSF 207
Selmo1_2_431277	-----	-----	----- 17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	----- 38
spra_Contig219_1	TDSWQDTAMS	PASLVSP---	---FSPSPFP 209
IAA12_AT1G04550	VQ-----	-----	-----GLGF 125
Consensus	-XSPSEFVIP	LAKYLKAVYN	--QFSVGMRF



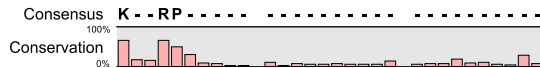
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Phypha_218828	RMVFETEES	-VRRYMGTT	GMGD	--DPI	229
Phypha1_1_127416_e_gw1.65.212.1	RMVFETEES	-VRRYMGTT	GMGD	--DPI	314
Phypha1_1_50215_gw1.6.284.1	RMAFETEES	-VRKYMGTT	IGDL	--DPA	308
Phypha_167026	RMVFETEES	-VRRYVGTIT	GLGD	--DPI	503
Phypha1_1_136986_e_gw1.133.91.1	RMVFETEES	-VRRYVGTIT	GLGD	--DPI	310
Phypha_188433	RMMFETEEST	-VRRYMGTVT	GIGDL	--DPV	339
Phypha_165321	RMVFETEEST	-VRRYMGTVT	GIGDL	--DPV	328
ARF8_AT5G37020	RMLFETEES	-VRRYMGTT	GISD	--DS	320
Pt198791_gw1.IV.3880.1	RMLFETEES	-VRRYMGTT	GISD	--DPV	307
ARF6_AT1G30330	RMLFETEES	-VRRYMGTT	GICDL	--DT	321
Pt205407_gw1.V.808.1	RMLFETEES	-VRRYMGTT	GISD	--DPV	308
Selmo1_117217_e_gw1.55.235.1	RMQFETEESG	-IRRHTGTTV	GSGD	--DPV	329
Selmo1_422125	RMQFETEESG	-IRRHTGTTV	GSGD	--DPV	313
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	RMEMETEDSS	-TRRYMGTT	GIGDL	--DPV	319
Selmo1_446535	RMEMETEDSS	-TRRYMGTT	GIGDL	--DPV	319
Selmo1_181406_estExt_Genewise1Plus.C_650169	RMELETEDSS	-TRRYMGTT	GIGDL	--DSV	317
ARF19_AT1G19220	RMMFETEDCG	-VRRYMGTVT	GISD	--DP	319
ARF7_AT5G20730	RMLFETEESG	-VRRYMGTVT	GISD	--DV	321
ZmGRMZM2G014864_P01	RMMFETEESG	-TRRYMGTT	GISD	--DPV	227
ARF5_AT1G19850	GMMFETEDSG	-KRRYMGTTV	GISD	--DPL	352
Selmo1_437944_estExt_fgenes2_pg.C_10526	KMRFETEES	-ERRYMGTT	GVGD	--DSD	337
all_Phypha_77324	KMKFETEEST	-ERRYSGTIV	EISDV	--DPL	618
all_Phypha_159688	KMKFESDEST	-ERRYSGTIV	EVSDA	--DPL	465
all_Phypha_225990	RMKFESSEES	-ERRFAGTT	EVSDA	--DPV	303
all_Phypha_171197	RMKFESSEES	-GRRYAGTT	EVNDA	--DPL	707
Pt179921_gw1.I.8521.1	KMRFEGEDSP	-DRRFSGTIV	GVEDF	--SP	299
Pt245007gw1.XIV.1750.1	KMRFEGEDTP	-ERRFTGTTV	GVGD	--SP	300
ARF9_AT4G23980	KMRFEGEDSP	-ERRYSGTIV	GVKDC	--SP	307
ARF11_AT2G46530	RMRFEGEESP	-ERFTGTTV	GSGD	--SS	315
ARF18_AT3G61830	RMRFEGEESP	-ERFTGTTV	GSGD	--SS	319
ARF1_AT1G59750	KMRFEGEEAP	-EKRFSGTIV	GVQE	-NKSS	318
ZmGRMZM2G017187_P02	KMRFEGDDAP	-ERRFSGTIV	GIGSAMSKS	--	325
ARF2_AT5G62000	KMRFEGEEAP	-EQRFTGTTV	GIEE	--SDPT	357
ZmGRMZM2G006042_P01	RMRFEGEAA	-EQRFTGTTV	GICV	--SDPS	340
Pt179307_gw1.I.7907.1	KMKFEAEEAP	-EQRFSGTIV	GVEE	--ADPK	305
ARF21_AT1G34410	TMRFEGDDFS	-ERRYFGTIV	GVSD	--SP	317
ARF20_AT1G35240	TMRFEGDDFS	-ERRYFGTIV	GVND	--SP	315
ARF22_AT1G34390	TMRFEGDDFS	-ERRYFGTIV	GVSD	--SP	315
ARF12_AT1G34310	TMRLEGDDFS	-ERRCFGTIV	GVSD	--SP	317
ARF15_AT1G35520	TMRFEGDDFS	-ERRYFGTIV	GVSN	--P	321
ARF14_AT1G35540	TMRFEGDDFS	-ERRSFGTIV	GVSD	--SP	317
ARF13_AT1G34170	RMQFEGKDFS	-EKRYDGTIV	GVND	--SP	317
ARF4_AT5G60450	RMRFEMDDSP	-ERRCAGVTV	GVCD	--DPY	369
ARF3_AT2G33860	KARVESEDAS	-ERRSPGLS	GISD	--DPI	352
Pt243681_gw1.XIV.424.1	IMQFEGEECT	-EQR	-----	-----	288
Selmo1_2_61688	KMAFETEDSS	RISWFMGTIS	A-VQ	-PADPI	333
Selmo1_2_51695	KMAFETEDSS	RISWFMGTIS	A-VQ	-AADPI	355
Phypha_108888	KMAFETEDSS	RISWFMGTIA	A-VK	-PADPI	331
ARF10_AT2G28350	KM-FETEDSS	RISWFMGTVS	A-VQ	-VADPI	345
ARF16_AT4G30080	MA-FETEDSS	RISWFMGTVS	A-VN	-VSDPI	347
Phypha_61245	---GTGD---	-----GAMS	R-YR	-QNE	207
ZmGRMZM2G005284_P01	KM-FAAKDLS	RISWFMGTVA	G-VG	-PADPA	345
ARF17_AT1G77850	KMAME-EDSS	RITWFQGTIVS	STYQ	-ETGP	342
Phypha_170581	HQSVQGCSG	MQQQQMVP	SLHRDIQ	---	565
all_Phypha_171888	HQPVQGFSSS	MQQQQTGF	PLLRMQVMQ	---	635
Selmo1_2_405821	WIKAKTAAAS	TAKDDV	---	---	136
Selmo1_2_431298	SNQQHEVAQS	TCRQQTKLHM	FPRSNRLPEL	---	237
Selmo1_2_431277	-----	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	-----	38
spra_Contig219_1	QNCYTPSNSY	ELNGMEKN	TL	-----	231
IAA12_AT1G04550	-----	-----	-----	-----	125



	1,120	1,140	
Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	RWPNSHWRSL	KVG----	WD ES-TAGERQR 418
Phypha_218828	RWPNSHWRSL	KVG----	WD ES-TAGERQR 253
Phypha1_1_127416_e_gw1.65.212.1	RWPNSHWRSL	KVG----	WD ES-TAGERQR 338
Phypha1_1_50215_gw1.6.284.1	RWPKSDWRSL	KVG----	WD ES-IGDRQH 332
Phypha_167026	RWPKSHWRSL	KVG----	WD ES-TAGERQH 527
Phypha1_1_136986_e_gw1.133.91.1	RWPKSHWRSL	KVG----	WD ES-TAGERQH 334
Phypha_188433	RWPNSHWRSL	KVG----	WD ES-TAGERQR 363
Phypha_165321	RWPNSHWRSL	KVG----	WD ES-TAGERQR 352
ARF8_AT5G37020	RWPNSHWRSL	KVG----	WD ES-TAGERQP 344
Pt198791_gw1.IV.3880.1	RWPNSHWRSL	KVG----	D ES-TAGERQP 330
ARF6_AT1G30330	RWANSHWRSL	KVG----	WD ES-TAGERQP 345
Pt205407_gw1.V.808.1	RWPNSHWRSL	KV-----	WD ES-TAGERQP 331
Selmo1_117217_e_gw1.55.235.1	RWPNSHWRSL	KVE-----	WD EP-AAGEKQQ 353
Selmo1_422125	RWPNSHWRSL	KVE-----	WD EP-AAGEKQQ 337
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	RWPNSHWRSL	KVG----	WD ES-TAGQKQR 343
Selmo1_446535	RWPNSHWRSL	KVG----	WD ES-TAGQKQR 343
Selmo1_181406_estExt_Genewise1Plus.C_650169	RWPNSLWRTL	KVG----	WD ES-TAGQKQR 341
ARF19_AT1G19220	VWKSQWRNL	QVG----	WD ES-TAGDRPS 343
ARF7_AT5G20730	RWKNSQWRNL	QVG----	WD ES-AAGDRPS 345
ZmGRMZM2G014864_P01	RWKNSQWRNL	QVG----	D ES-AAGERRN 250
ARF5_AT1G19850	RWPGSKWRNL	QVE-----	WD EP-GCNDKPT 376
Selmo1_437944_estExt_fgenes2_pg.C_10526	RWNLSKWRCL	QVG----	WD EQ-TANERQE 361
all_Phypha_77324	KWPNSSAWRSM	KVE-----	WD E--SASERHE 641
all_Phypha_159688	KWPNSSAWRSM	KVE-----	WD E--SASERHE 488
all_Phypha_225990	RWPNSLWRSM	KVE-----	WD EVISASERHE 328
all_Phypha_171197	RWPNSLWRSM	KVE-----	WD EVISASDRHE 732
Pt179921_gw1.I.8521.1	HWNDKSWRSL	KVQ----	WD EPAPL--PPD 322
Pt245007gw1.XIV.1750.1	EWSGSLWRSL	KIQ-----	WD EPATL--RPE 323
ARF9_AT4G23980	HWKDSKWRCL	EVH-----	D EPASL--SRPN 330
ARF11_AT2G46530	QWP-ASWRSL	QIQ-----	WD EPSSL--QRPN 338
ARF18_AT3G61830	QPA-SKWRSL	QVQ----	WD EPTTV--QRPD 342
ARF1_AT1G59750	VW-DEWRSL	KVQ----	WD EPSSV--FRPE 341
ZmGRMZM2G017187_P02	LWADSDWRSL	KVQ----	WD EPSSL--LRPD 349
ARF2_AT5G62000	RWPKSKWRSL	KVR-----	WD ETSSL--PRPD 381
ZmGRMZM2G006042_P01	GWADSKWRSL	KVR-----	WD EASSV--PRPE 364
Pt179307_gw1.I.7907.1	KWPRSKWRCL	KVR-----	WD -TSPV--HRPD 328
ARF21_AT1G34410	HWKSE-WRSL	EVQ----	WD EFASF--SRPN 340
ARF20_AT1G35240	HWKCS-WRSL	EVQ----	WD EFASF--SRPN 338
ARF22_AT1G34390	HWKCS-WRNL	EVQ----	WD EFASF--SRPN 338
ARF12_AT1G34310	HWKSE-WRSL	EVQ----	WD EFTSF--PGPK 340
ARF15_AT1G35520	HWKCSDWRSL	EVQ----	WD EFASF--LRPN 345
ARF14_AT1G35540	HWKSE-WRSL	EVQ----	WD EFASF--PRPN 340
ARF13_AT1G34170	HWK-SEWRSL	KVQ----	WD ELSPF--LRPN 340
ARF4_AT5G60450	RWPNSKWRCL	LVR-----	WD ESF-VSDHQE 393
ARF3_AT2G33860	RWPGSKWRCL	LVR-----	WD DIVANG-HQQ 376
Pt243681_gw1.XIV.424.1			288
Selmo1_2_61688	RWPSSPWRLL	QVS-----	WD EPDLL-QGVN 357
Selmo1_2_51695	LWPSSPWRVL	QVA-----	WD EPDLL-QGVS 379
Phypha_108888	LWPNSPWR--	-VT-----	WD EPDLL-QGVS 352
ARF10_AT2G28350	RWPNSPWRLL	QVA-----	WD EPDLL-QNVK 369
ARF16_AT4G30080	RWPNSPWRLL	QVA-----	WD EPDLL-QNVK 371
Phypha_61245	--GGPWPEL	SJG-----	TE VGSLL----- 223
ZmGRMZM2G005284_P01	RWPLSPWRFL	QVT-----	WD EPELV-RNMN 369
ARF17_AT1G77850	-WRGSPWKQL	QIT-----	WD EPELV-QNVK 365
Phypha_170581	QTPNNWYPSI	R-----	DSSTMSETQP 586
all_Phypha_171888	QMPNSWYPSI	R-----	DTTITSETQP 656
Selmo1_2_405821	-----HK-		138
Selmo1_2_431298	GSPSFGQHRQ	RRR-----	PQ GSRVGSFRLQ 262
Selmo1_2_431277			17
corb_UMD_Coleochaete_c9703_c_s_1			38
spra_Contig219_1	-----DWNAL	KKGEGNHNWE	EKERERKEKE 256
IAA12_AT1G04550			125

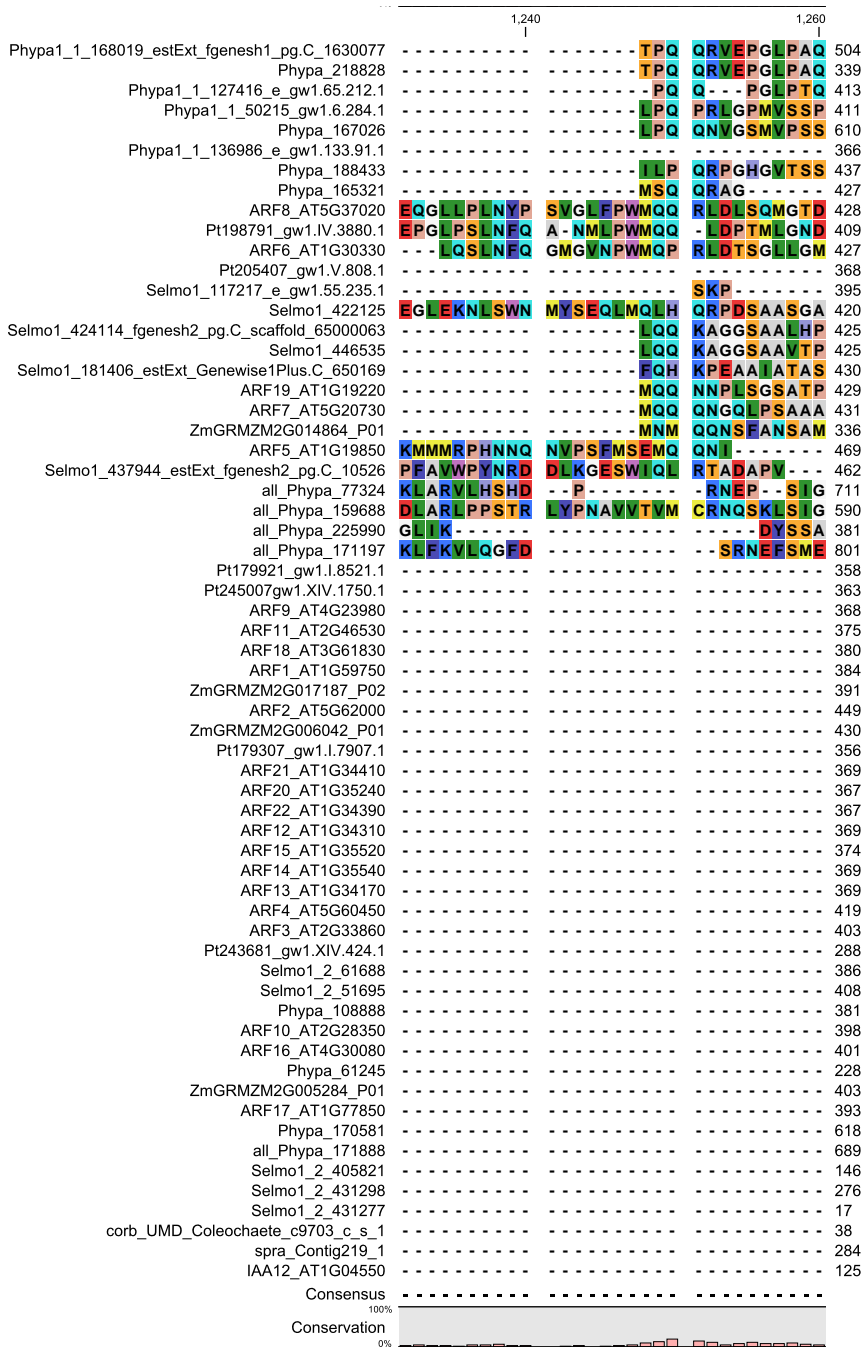


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Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	K--RPWGGRV	---DEE-MD	SMLKKASFW	466
Phypha_218828	K--RPWGGRV	---DEE-MD	SMLKKASFW	301
Phypha1_1_127416_e_gw1.65.212.1	K--RPRGGR-	---D	STSKKSSFW	381
Phypha1_1_50215_gw1.6.284.1	K--RPQ---	EDA-LE	MLMKKSHMWP	376
Phypha_167026	K--RPRGMFG	---EDD-LE	MLMKKSHMWP	575
Phypha1_1_136986_e_gw1.133.91.1	K--RPRGMP-	---	---	366
Phypha_188433	K--RARGIHG	---EDEDLE	TLMKKSPMWP	412
Phypha_165321	K--RARGIHG	---EDEDLE	ALMKKSQLWP	401
ARF8_AT5G37020	K--RP----	---	---WH	373
Pt198791_gw1.IV.3880.1	K--RP----	---	---WH	359
ARF6_AT1G30330	K--RP----	---	---WP	374
Pt205407_gw1.V.808.1	K--RP----	---	---WP	360
Selmo1_117217_e_gw1.55.235.1	K--RP----	---	---WS	383
Selmo1_422125	K--RP----	---	---WS	367
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	K--RPR----	---GTEEE	LQMKAPSIWA	387
Selmo1_446535	K--RPR----	---GTEEE	LQMKAPSIWA	387
Selmo1_181406_estExt_Genewise1Plus.C_650169	K--RTRLDGM	LSFCAGELDE	LDAIRSQVWA	393
ARF19_AT1G19220	K--YPR--QP	GMPDDELDM	NAFKRAMPWM	393
ARF7_AT5G20730	R--FSG--QP	GMPDDELDM	SALKRAMPWL	395
ZmGRMZM2G014864_P01	K--RPR--Q-	-LDESSEME	NLLKRAMPWL	298
ARF5_AT1G19850	L--HP----	SYFAGETEWG	SLIKRPLIRV	424
Selmo1_437944_estExt_fgenes2_pg.C_10526	KKFRPNTPAN	EFPTGKNNSD	---	405
all_Phypha_77324	KRRPPTFVTD	SATLGPSQSV	LD-----	688
all_Phypha_159688	KRRPPTFVTD	SS--PQEF	ISLHLSRRHS	540
all_Phypha_225990	KRRPLTLVKE	SP-LGT---	---YFVT---	372
all_Phypha_171197	KRRSPTLVKD	PL-LGTSQSV	LDSYQSN---	783
Pt179921_gw1.I.8521.1	KNKRPR---	PPFELP---	---	358
Pt245007gw1.XIV.1750.1	KSKRPRSD	PTSEIT---	---	363
ARF9_AT4G23980	KNKRPRQMS-	EVSALDV---	---	368
ARF11_AT2G46530	KSKRSR---	PISEITG---	---	375
ARF18_AT3G61830	KCKRSR---	PIEPSVK---	---	380
ARF1_AT1G59750	RNKRPRP---	PGLPS---	---	377
ZmGRMZM2G017187_P02	RAKRPRP---	PASPC---	---	383
ARF2_AT5G62000	RPKRPRSNIA	PSSPDSSMLT	REGTTKANMD	432
ZmGRMZM2G006042_P01	RFKRSRSSVN	-ASPSDSTVN	REVASKVMVE	414
Pt179307_gw1.I.7907.1	QSKRHRS---	---	---	356
ARF21_AT1G34410	KRLRE---	---	---	369
ARF20_AT1G35240	KRLRE---	---	---	367
ARF22_AT1G34390	KRLRE---	---	---	367
ARF12_AT1G34310	KRLRE---	---	---	369
ARF15_AT1G35520	KRLRE---	---	---	374
ARF14_AT1G35540	KRSRE---	---	---	369
ARF13_AT1G34170	HWLQ---	---	---	369
ARF4_AT5G60450	RPKRP---	---	---	419
ARF3_AT2G33860	PRSR---	---	---	403
Pt243681_gw1.XIV.424.1	---	---	---	288
Selmo1_2_61688	KKLRP---	---	---	386
Selmo1_2_51695	KKERQ---	---	---	408
Phypha_108888	KKLRA---	---	---	381
ARF10_AT2G28350	KKLRI---	---	---	398
ARF16_AT4G30080	KKMRP---	---	---	401
Phypha_61245	---	---	---	228
ZmGRMZM2G005284_P01	KKRMP---	---	---	403
ARF17_AT1G77850	KRLKY---	---	---	393
Phypha_170581	LSQ---	---	---	618
all_Phypha_171888	LSQ---	---	---	689
Selmo1_2_405821	---	---	---	146
Selmo1_2_431298	---	---	---	276
Selmo1_2_431277	---	---	---	17
corb_UMD_Coleochaete_c9703_c_s_1	---	---	---	38
spra_Contig219_1	---	---	---	284
IAA12_AT1G04550	---	---	---	125



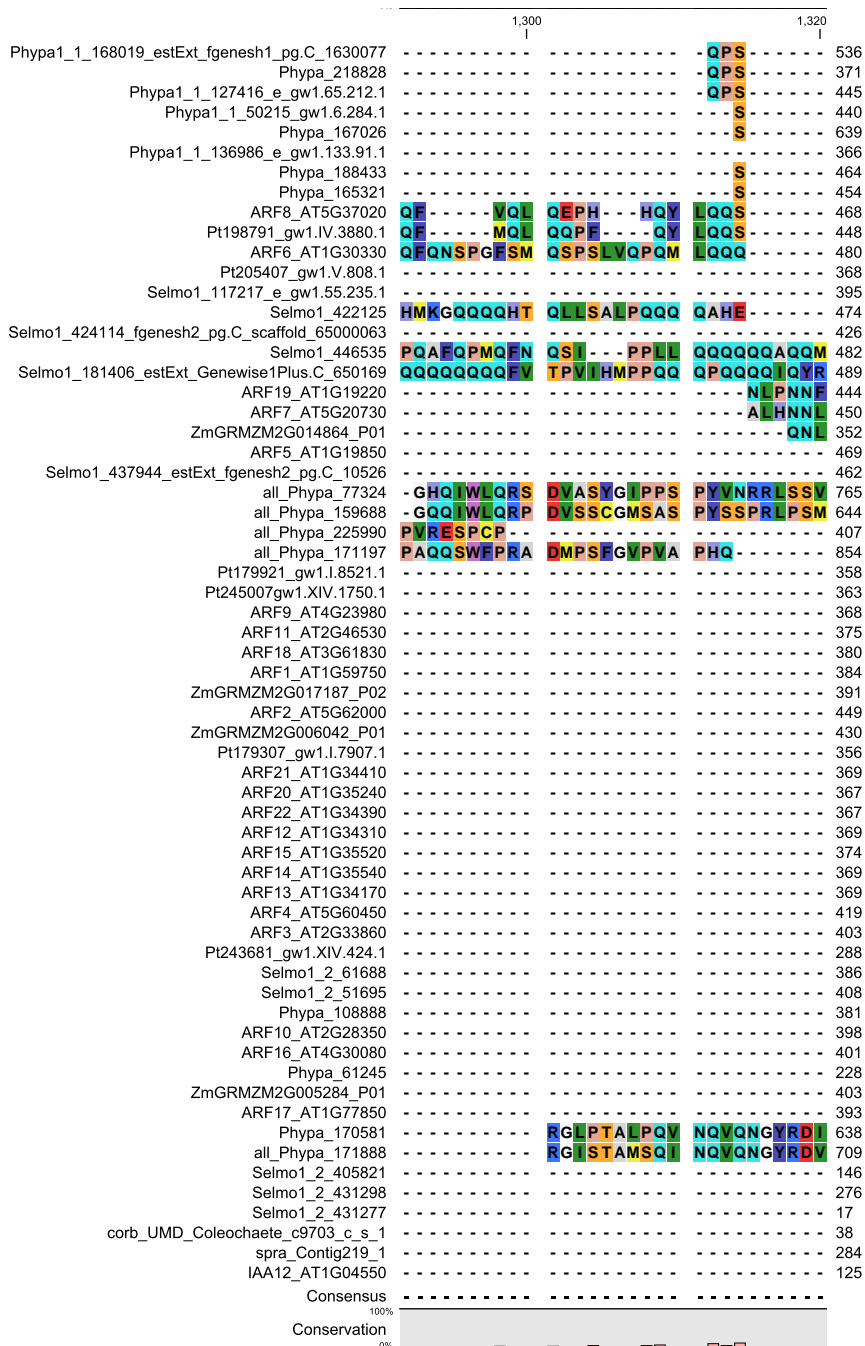
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Phypha_218828	GDSGSHMDAL	GALNLRNFGM	S-SWMR	----	326
Phypha1_1_127416_e_gw1.65.212.1	GDEDTGV--L	GGNFRNLSM	D-SWMR	----	404
Phypha1_1_50215_gw1.6.284.1	HGS---DPS	YSLKVGGLR	DPLWMR	----	398
Phypha_167026	NDS---DPL	GLQKFGGLAM	NTSWMR	----	597
Phypha1_1_136986_e_gw1.133.91.1	-----	-----	-----	-----	366
Phypha_188433	S-----	LGFGT	DSPWVG	----	424
Phypha_165321	NS-----C	DTLGFLSFGM	EQPWMR	----	420
ARF8_AT5G37020	AGTSSLP---	DGRGDLGS	GLTWLRGGGG	398	
Pt198791_gw1.IV.3880.1	PGSPSL---	-D---EASN	GLMWLRGGSG	381	
ARF6_AT1G30330	PGLPSFHGLK	EDDMGMSMSS	PLMWDR	----	400
Pt205407_gw1.V.808.1	SGLPSFHG--	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	QA-----L	GNPIA	-----	-----	392
Selmo1_422125	QA-----L	GNPIAREVE	AVDAGKWIKS	390	
Selmo1_424114_fgenes2_pg.C_scaffold.6500063	RGEEGKFS-M	QNMNFPGLSG	MDHWLQ	----	412
Selmo1_446535	RGEEGKFS-M	QNMNFPGLSG	MDHWLQ	----	412
Selmo1_181406_estExt_Genewise1Plus.C_650169	RAEDGKMD-I	RAINAAGLS	LEHWLR	----	417
ARF19_AT1G19220	GEDF--GMK	AQSSMFPGLS	LVQWMS	----	416
ARF7_AT5G20730	DNSL--EKD	PSSTIFPGLS	LVQWMN	----	418
ZmGRMZM2G014864_P01	GEELCKKDPQ	TQNTIMPGLS	LV-WMN	----	323
ARF5_AT1G19850	PDS-----	-ANGIMPYAS	FPSMASEQLM	446	
Selmo1_437944_estExt_fgenes2_pg.C_10526	SAQAMHMRAL	QGSHALGMPSS	KEEGERGSS	435	
all_Phypha_77324	-----	PFQSN	-----	-----	693
all_Phypha_159688	SI-----	PRRANVFR	TERFLYGSFI	560	
all_Phypha_225990	-----	-----	-----	-----	372
all_Phypha_171197	-----	-----	-----	-----	783
Pt179921_gw1.I.8521.1	-----	-----	-----	-----	358
Pt245007gw1.XIV.1750.1	-----	-----	-----	-----	363
ARF9_AT4G23980	-----	-----	-----	-----	368
ARF11_AT2G46530	-----	-----	-----	-----	375
ARF18_AT3G61830	-----	-----	-----	-----	380
ARF1_AT1G59750	--PATG-PSG	-----	-----	-----	384
ZmGRMZM2G017187_P02	--MVSELPSSG	-----	-----	-----	391
ARF2_AT5G62000	PLPASGLSRV	LQGQEYS	-----	-----	449
ZmGRMZM2G006042_P01	S-QQNNLPRA	LHNQGR	-----	-----	430
Pt179307_gw1.I.7907.1	-----	-----	-----	-----	356
ARF21_AT1G34410	-----	-----	-----	-----	369
ARF20_AT1G35240	-----	-----	-----	-----	367
ARF22_AT1G34390	-----	-----	-----	-----	367
ARF12_AT1G34310	-----	-----	-----	-----	369
ARF15_AT1G35520	-----	-----	-----	-----	374
ARF14_AT1G35540	-----	-----	-----	-----	369
ARF13_AT1G34170	-----	-----	-----	-----	369
ARF4_AT5G60450	-----	-----	-----	-----	419
ARF3_AT2G33860	-----	-----	-----	-----	403
Pt243681_gw1.XIV.424.1	-----	-----	-----	-----	288
Selmo1_2_61688	-----	-----	-----	-----	386
Selmo1_2_51695	-----	-----	-----	-----	408
Phypha_108888	-----	-----	-----	-----	381
ARF10_AT2G28350	-----	-----	-----	-----	398
ARF16_AT4G30080	-----	-----	-----	-----	401
Phypha_61245	-----	-----	-----	-----	228
ZmGRMZM2G005284_P01	-----	-----	-----	-----	403
ARF17_AT1G77850	-----	-----	-----	-----	393
Phypha_170581	-----	-----	-----	-----	618
all_Phypha_171888	-----	-----	-----	-----	689
Selmo1_2_405821	-----	-----	-----	-----	146
Selmo1_2_431298	-----	-----	-----	-----	276
Selmo1_2_431277	-----	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	-----	38
spra_Contig219_1	-----	-----	-----	-----	284
IAA12_AT1G04550	-----	-----	-----	-----	125





Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	QNEYYRAFAA	A - A LQEIRCS	DASKHAMSHA	533
Phypha_218828	QNEYYRAFAA	A - A LQEIRCS	DASKHAMSHA	368
Phypha1_1_127416_e_gw1.65.212.1	QNEYYRAFAA	A - A LQEFRTF	DCSKHPTSR	442
Phypha1_1_50215_gw1.6.284.1	QSGYYRAFAA	A - A LQEIRSV	DPPTQLLPQ	439
Phypha_167026	QNEQYRAFAA	A - A LQEIRTA	DSSKQLLAQ	638
Phypha1_1_136986_e_gw1.133.91.1	-----	-----	-----	366
Phypha_188433	LNENRTLAA	A - ASQEFR	EPSKQVTE	463
Phypha_165321	NEYYRTFAA	ATA LQEFR	DPSKQVTD	453
ARF8_AT5G37020	NNQQYQAMLA	A - G LQNIIGG	DPLRQ	452
Pt198791_gw1.IV.3880.1	HNQRYQAMLA	A - G MQLGSG	DPLRQ	433
ARF6_AT1G30330	QNDVYQAMAA	A - A LQDMRG	DPAKAAASLL	456
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	395
Selmo1_422125	RSDFFRPDBC	SRVQDATHSQ	TPKGLPMQQ	450
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	P	-----	-----	426
Selmo1_446535	PPPYIQPGYY	SSLQEMRT	DATPKQLMQS	455
Selmo1_181406_estExt_Genewise1Plus.C_650169	QPDYR - AMA	AQA LQEFRSV	DSAKQQHQQQ	459
ARF19_AT1G19220	Q - - LPSALS	- SF	-----	438
ARF7_AT5G20730	QPGFFPSMLS	PTA	-----	444
ZmGRMZM2G014864_P01	QSEYLRSLSN	PNM	-----	349
ARF5_AT1G19850	-----	-----	-----	469
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	462
all_Phypha_77324	DDDDGDAESS	RTSSLVVKQE	PPPRN	736
all_Phypha_159688	DDDDGDIESS	RTSSLAVKQE	QPPRT	615
all_Phypha_225990	PWSDFSGLC	-	PSNRTGASF	399
all_Phypha_171197	DEEDEDVVCSS	RNTSWNVKPE	PPPKTVPQAM	831
Pt179921_gw1.I.8521.1	-----	-----	-----	358
Pt245007gw1.XIV.1750.1	-----	-----	-----	363
ARF9_AT4G23980	-----	-----	-----	368
ARF11_AT2G46530	-----	-----	-----	375
ARF18_AT3G61830	-----	-----	-----	380
ARF1_AT1G59750	-----	-----	-----	384
ZmGRMZM2G017187_P02	-----	-----	-----	391
ARF2_AT5G62000	-----	-----	-----	449
ZmGRMZM2G006042_P01	-----	-----	-----	430
Pt179307_gw1.I.7907.1	-----	-----	-----	356
ARF21_AT1G34410	-----	-----	-----	369
ARF20_AT1G35240	-----	-----	-----	367
ARF22_AT1G34390	-----	-----	-----	367
ARF12_AT1G34310	-----	-----	-----	369
ARF15_AT1G35520	-----	-----	-----	374
ARF14_AT1G35540	-----	-----	-----	369
ARF13_AT1G34170	-----	-----	-----	369
ARF4_AT5G60450	-----	-----	-----	419
ARF3_AT2G33860	-----	-----	-----	403
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	-----	-----	-----	386
Selmo1_2_51695	-----	-----	-----	408
Phypha_108888	-----	-----	-----	381
ARF10_AT2G28350	-----	-----	-----	398
ARF16_AT4G30080	-----	-----	-----	401
Phypha_61245	-----	-----	-----	228
ZmGRMZM2G005284_P01	-----	-----	-----	403
ARF17_AT1G77850	-----	-----	-----	393
Phypha_170581	-----	-----	-----	618
all_Phypha_171888	-----	-----	-----	689
Selmo1_2_405821	-----	-----	-----	146
Selmo1_2_431298	-----	-----	-----	276
Selmo1_2_431277	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	38
spra_Contig219_1	-----	-----	-----	284
IAA12_AT1G04550	-----	-----	-----	125





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Phypa_218828	-----	371
Phypa1_1_127416_e_gw1.65.212.1	-----	445
Phypa1_1_50215_gw1.6.284.1	-----	440
Phypa_167026	-----	639
Phypa1_1_136986_e_gw1.133.91.1	-----	366
Phypa_188433	-----	464
Phypa_165321	-----	454
ARF8_AT5G37020	-----	468
Pt198791_gw1.IV.3880.1	-----	448
ARF6_AT1G30330	-----	480
Pt205407_gw1.V.808.1	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	395
Selmo1_422125	-----	474
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	426
Selmo1_446535	MHLPNVPEA ASMHAP - - - YIPAAKTPP	508
Selmo1_181406_estExt_Genewise1Plus.C_650169	SQIPQQ - - QV LQSHPPQQP FQPQQQQQQ	517
ARF19_AT1G19220	A - SNDPSKLL NFGSPN - - LS SANSQFNKPN	471
ARF7_AT5G20730	GGTDDPSKLL SFQTPHGG S SSSLQFNKQN	480
ZmGRMZM2G014864_P01	GWA - DLSRQL NLQN - - - QLLQQN	371
ARF5_AT1G19850	----- VM GNGGLGDMM QQPMMNQKS	491
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	462
all_Phypa_77324	PPFAAPLPEN TTELQLSVNS GSLDQAPSNE	795
all_Phypa_159688	APFA - PLPAD KTDLQLSVKS GSLDQTLSD	673
all_Phypa_225990	----- SINP S	612
all_Phypa_171197	PLISPRVPSE NMNLQLSVNP ASSEQAPGND	884
Pt179921_gw1.I.8521.1	-----	358
Pt245007gw1.XIV.1750.1	-----	363
ARF9_AT4G23980	-----	368
ARF11_AT2G46530	-----	375
ARF18_AT3G61830	-----	380
ARF1_AT1G59750	-----	384
ZmGRMZM2G017187_P02	-----	391
ARF2_AT5G62000	-----	449
ZmGRMZM2G006042_P01	-----	430
Pt179307_gw1.I.7907.1	-----	356
ARF21_AT1G34410	-----	369
ARF20_AT1G35240	-----	367
ARF22_AT1G34390	-----	367
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ARF15_AT1G35520	-----	374
ARF14_AT1G35540	-----	369
ARF13_AT1G34170	-----	369
ARF4_AT5G60450	-----	419
ARF3_AT2G33860	-----	403
Pt243681_gw1.XIV.424.1	-----	288
Selmo1_2_61688	-----	386
Selmo1_2_51695	-----	408
Phypa_108888	-----	381
ARF10_AT2G28350	-----	398
ARF16_AT4G30080	-----	401
Phypa_61245	-----	228
ZmGRMZM2G005284_P01	-----	403
ARF17_AT1G77850	-----	393
Phypa_170581	MLDQDLKQEV CGSPSNMVGK VLPAAHTDLQG	668
all_Phypa_171888	LPDQDLRQQV CGSSSNMMGK VLPVQTDPPG	739
Selmo1_2_405821	-----	146
Selmo1_2_431298	-----	276
Selmo1_2_431277	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	38
spra_Contig219_1	-----	284
IAA12_AT1G04550	-----	125
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Conservation	-----	

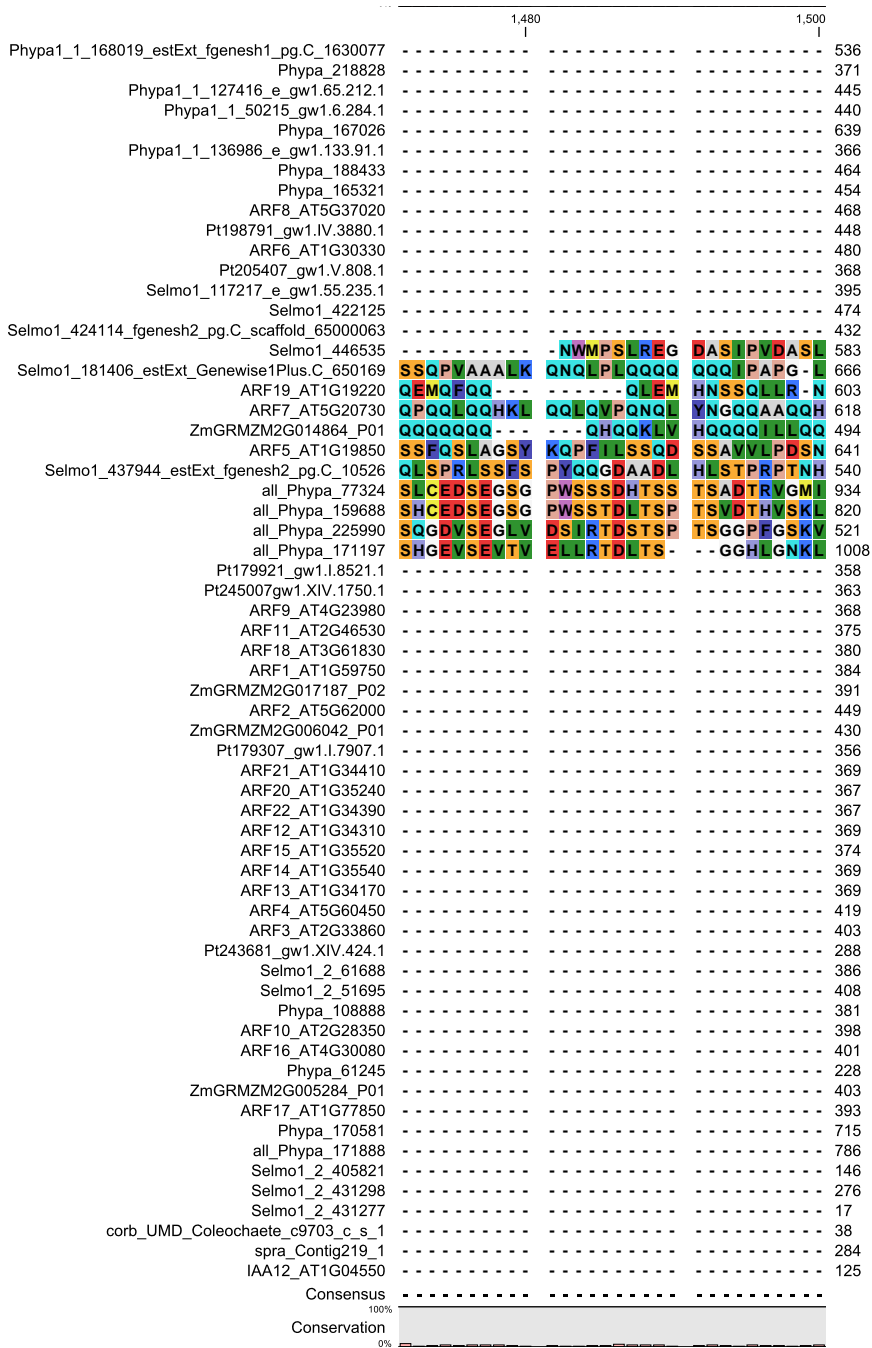
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Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	440
Phypa_167026	-----	-----	-----	639
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	366
Phypa_188433	-----	-----	-----	464
Phypa_165321	-----	-----	-----	454
ARF8_AT5G37020	-----	-----	-----	468
Pt198791_gw1.IV.3880.1	-----	-----	-----	448
ARF6_AT1G30330	-----	-----	-----	480
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	395
Selmo1_422125	-----	-----	-----	474
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	RNA	-----	429
Selmo1_446535	DQEVNRNSNS	YPLLIEDGV	SYTSMIQGSA	538
Selmo1_181406_estExt_Genewise1Plus.C_650169	QQHHQQQQQ	QSSHQQQQQ	HHHHQQHRQ	547
ARF19_AT1G19220	TWNHISQQMA	QPAMVKSQQQ	QQQQ	495
ARF7_AT5G20730	QAP--MSQLP	QPPTLSQQQ	QLQLLHSSL	508
ZmGRMZM2G014864_P01	SIQFSPPKLP	QQMQLANEIS	KASLPINQIV	401
ARF5_AT1G19850	EMVQPQNKLT	VNPSASNTSG	QEQNSQSMS	521
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	462
all_Phypa_77324	DSSVSWASYM	GTG----AY	QFRDPSCNKI	820
all_Phypa_159688	VSSVSCAPVY	GPGNHSTAAH	HEREPSCNKI	703
all_Phypa_225990	-----	-----	-----	412
all_Phypa_171197	HSSASWSDFS	G-----	GC	898
Pt179921_gw1.I.8521.1	-----	-----	-----	358
Pt245007gw1.XIV.1750.1	-----	-----	-----	363
ARF9_AT4G23980	-----	-----	-----	368
ARF11_AT2G46530	-----	-----	-----	375
ARF18_AT3G61830	-----	-----	-----	380
ARF1_AT1G59750	-----	-----	-----	384
ZmGRMZM2G017187_P02	-----	-----	-----	391
ARF2_AT5G62000	-----	-----	-----	449
ZmGRMZM2G006042_P01	-----	-----	-----	430
Pt179307_gw1.I.7907.1	-----	-----	-----	356
ARF21_AT1G34410	-----	-----	-----	369
ARF20_AT1G35240	-----	-----	-----	367
ARF22_AT1G34390	-----	-----	-----	367
ARF12_AT1G34310	-----	-----	-----	369
ARF15_AT1G35520	-----	-----	-----	374
ARF14_AT1G35540	-----	-----	-----	369
ARF13_AT1G34170	-----	-----	-----	369
ARF4_AT5G60450	-----	-----	-----	419
ARF3_AT2G33860	-----	-----	-----	403
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	-----	-----	-----	386
Selmo1_2_51695	-----	-----	-----	408
Phypa_108888	-----	-----	-----	381
ARF10_AT2G28350	-----	-----	-----	398
ARF16_AT4G30080	-----	-----	-----	401
Phypa_61245	-----	-----	-----	228
ZmGRMZM2G005284_P01	-----	-----	-----	403
ARF17_AT1G77850	-----	-----	-----	393
Phypa_170581	RRFLQGNNFS	APSSSGGDIN	LSSTVMNGAF	698
all_Phypa_171888	RKFLQGNNFS	ATSSSGGDMS	SNSTMINGAF	769
Selmo1_2_405821	-----	-----	-----	146
Selmo1_2_431298	-----	-----	-----	276
Selmo1_2_431277	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	38
spra_Contig219_1	-----	-----	-----	284
IAA12_AT1G04550	-----	-----	-----	125
Consensus	-----	-----	-----	
Conservation	-----	-----	-----	

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Phypa1_1_50215_gw1.6.284.1	-----	440
Phypa_167026	-----	639
Phypa1_1_136986_e_gw1.133.91.1	-----	366
Phypa_188433	-----	464
Phypa_165321	-----	454
ARF8_AT5G37020	-----	468
Pt198791_gw1.IV.3880.1	-----	448
ARF6_AT1G30330	-----	480
Pt205407_gw1.V.808.1	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	395
Selmo1_422125	-----	474
Selmo1_424114_fgenes2_pg.C_scaffold.65000063	-----	432
Selmo1_446535	-----	564
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	577
ARF19_AT1G19220	-----	523
ARF7_AT5G20730	-----	537
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ARF5_AT1G19850	-----	551
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	462
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all_Phypa_159688	-----	733
all_Phypa_225990	-----	431
all_Phypa_171197	-----	921
Pt179921_gw1.I.8521.1	-----	358
Pt245007gw1.XIV.1750.1	-----	363
ARF9_AT4G23980	-----	368
ARF11_AT2G46530	-----	375
ARF18_AT3G61830	-----	380
ARF1_AT1G59750	-----	384
ZmGRMZM2G017187_P02	-----	391
ARF2_AT5G62000	-----	449
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Pt179307_gw1.I.7907.1	-----	356
ARF21_AT1G34410	-----	369
ARF20_AT1G35240	-----	367
ARF22_AT1G34390	-----	367
ARF12_AT1G34310	-----	369
ARF15_AT1G35520	-----	374
ARF14_AT1G35540	-----	369
ARF13_AT1G34170	-----	369
ARF4_AT5G60450	-----	419
ARF3_AT2G33860	-----	403
Pt243681_gw1.XIV.424.1	-----	288
Selmo1_2_61688	-----	386
Selmo1_2_51695	-----	408
Phypa_108888	-----	381
ARF10_AT2G28350	-----	398
ARF16_AT4G30080	-----	401
Phypa_61245	-----	228
ZmGRMZM2G005284_P01	-----	403
ARF17_AT1G77850	-----	393
Phypa_170581	-----	715
all_Phypa_171888	-----	786
Selmo1_2_405821	-----	146
Selmo1_2_431298	-----	276
Selmo1_2_431277	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	38
spra_Contig219_1	-----	284
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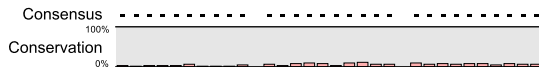
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Phypa1_1_127416_e_gw1.65.212.1	-----	-----	445	
Phypa1_1_50215_gw1.6.284.1	-----	-----	440	
Phypa_167026	-----	-----	639	
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	366	
Phypa_188433	-----	-----	464	
Phypa_165321	-----	-----	454	
ARF8_AT5G37020	-----	-----	468	
Pt198791_gw1.IV.3880.1	-----	-----	448	
ARF6_AT1G30330	-----	-----	480	
Pt205407_gw1.V.808.1	-----	-----	368	
Selmo1_117217_e_gw1.55.235.1	-----	-----	395	
Selmo1_422125	-----	-----	474	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	432	
Selmo1_446535	-----	-----	564	
Selmo1_181406_estExt_Genewise1Plus.C_650169	S Y Q L Q V P A S L	Q Q T V P L A S R	T P G F S E D S G A	607
ARF19_AT1G19220	I Y N N G T I A W A	N Q V S C Q S P N Q	P T G F S Q S Q L Q	553
ARF7_AT5G20730	H S N N - - - - -	N Q S Q S Q Q Q Q Q	L L Q Q Q Q Q Q Q Q	561
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ARF5_AT1G19850	Q W T T S T V C N E	K V N Q L L Q K P G	A S S P V Q A D Q C	581
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	- - M D M F G N I I	A P A G R H M D S S	480
all_Phypa_77324	S L N N D - - P K V	L H A H N L - S F E	L W E T V E Q E Q L	874
all_Phypa_159688	S L N N D - - P K L	T P A Q N L - S F G	S W D K V E Q E K V	760
all_Phypa_225990	S L H S E S A P E M	L P P Q A V P A F E	V R D K A Q L E K V	461
all_Phypa_171197	S L N N E S A S K M	L P P Q V I P P F E	A R D K V E L V K L	951
Pt179921_gw1.I.8521.1	-----	-----	358	
Pt245007gw1.XIV.1750.1	-----	-----	363	
ARF9_AT4G23980	-----	-----	368	
ARF11_AT2G46530	-----	-----	375	
ARF18_AT3G61830	-----	-----	380	
ARF1_AT1G59750	-----	-----	384	
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Pt179307_gw1.I.7907.1	-----	-----	356	
ARF21_AT1G34410	-----	-----	369	
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ARF22_AT1G34390	-----	-----	367	
ARF12_AT1G34310	-----	-----	369	
ARF15_AT1G35520	-----	-----	374	
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ARF4_AT5G60450	-----	-----	419	
ARF3_AT2G33860	-----	-----	403	
Pt243681_gw1.XIV.424.1	-----	-----	288	
Selmo1_2_61688	-----	-----	386	
Selmo1_2_51695	-----	-----	408	
Phypa_108888	-----	-----	381	
ARF10_AT2G28350	-----	-----	398	
ARF16_AT4G30080	-----	-----	401	
Phypa_61245	-----	-----	228	
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ARF17_AT1G77850	-----	-----	393	
Phypa_170581	-----	-----	715	
all_Phypa_171888	-----	-----	786	
Selmo1_2_405821	-----	-----	146	
Selmo1_2_431298	-----	-----	276	
Selmo1_2_431277	-----	-----	17	
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	38	
spra_Contig219_1	-----	-----	284	
IAA12_AT1G04550	-----	-----	125	
Consensus	-----	-----	-----	
Conservation	-----	-----	-----	

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Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	445
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	440
Phypa_167026	-----	-----	-----	639
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	366
Phypa_188433	-----	-----	-----	464
Phypa_165321	-----	-----	-----	454
ARF8_AT5G37020	-----	-----	-----	468
Pt198791_gw1.IV.3880.1	-----	-----	-----	448
ARF6_AT1G30330	-----	-----	-----	480
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	395
Selmo1_422125	-----	-----	-----	474
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	432
Selmo1_446535	-----	-----	-----	564
Selmo1_181406_estExt_Genewise1Plus.C_650169	S F G S M P A N N M	S L Q S L N R S N	P D A L L Q E S Q Y	637
ARF19_AT1G19220	Q Q S M L P T A K M	T H Q N I N S M G N	K G L S Q M T S F A	583
ARF7_AT5G20730	Q Q H Q Q P L Q Q Q	T Q Q Q - - Q L R T	Q P L - Q S H S H P	588
ZmGRMZM2G014864_P01	-----	P A A - -	- - - S Q S L I L P	470
ARF5_AT1G19850	L D I T H Q I Y Q P	Q S D P I N G F S F	L E T D E L T S Q V	611
Selmo1_437944_estExt_fgenes2_pg.C_10526	N V E M H Q L R H	C L Q Q L R D Q K S	C H F D A S N S Q V	510
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all_Phypa_159688	H T S P A L E Q Q C	K L F G F N L V D K	A V L A P V S S A P	790
all_Phypa_225990	D T T P G L V Q P C	K L F G F N L A D K	I V P T A P L P P	491
all_Phypa_171197	R T T P A L V Q P C	K L F G F D L A D K	K V P S S V T L L A P	981
Pt179921_gw1.I.8521.1	-----	-----	-----	358
Pt245007gw1.XIV.1750.1	-----	-----	-----	363
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ARF11_AT2G46530	-----	-----	-----	375
ARF18_AT3G61830	-----	-----	-----	380
ARF1_AT1G59750	-----	-----	-----	384
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ARF2_AT5G62000	-----	-----	-----	449
ZmGRMZM2G006042_P01	-----	-----	-----	430
Pt179307_gw1.I.7907.1	-----	-----	-----	356
ARF21_AT1G34410	-----	-----	-----	369
ARF20_AT1G35240	-----	-----	-----	367
ARF22_AT1G34390	-----	-----	-----	367
ARF12_AT1G34310	-----	-----	-----	369
ARF15_AT1G35520	-----	-----	-----	374
ARF14_AT1G35540	-----	-----	-----	369
ARF13_AT1G34170	-----	-----	-----	369
ARF4_AT5G60450	-----	-----	-----	419
ARF3_AT2G33860	-----	-----	-----	403
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	-----	-----	-----	386
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Phypa_108888	-----	-----	-----	381
ARF10_AT2G28350	-----	-----	-----	398
ARF16_AT4G30080	-----	-----	-----	401
Phypa_61245	-----	-----	-----	228
ZmGRMZM2G005284_P01	-----	-----	-----	403
ARF17_AT1G77850	-----	-----	-----	393
Phypa_170581	-----	-----	-----	715
all_Phypa_171888	-----	-----	-----	786
Selmo1_2_405821	-----	-----	-----	146
Selmo1_2_431298	-----	-----	-----	276
Selmo1_2_431277	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	38
spra_Contig219_1	-----	-----	-----	284
IAA12_AT1G04550	-----	-----	-----	125



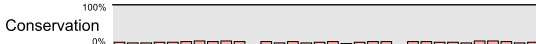


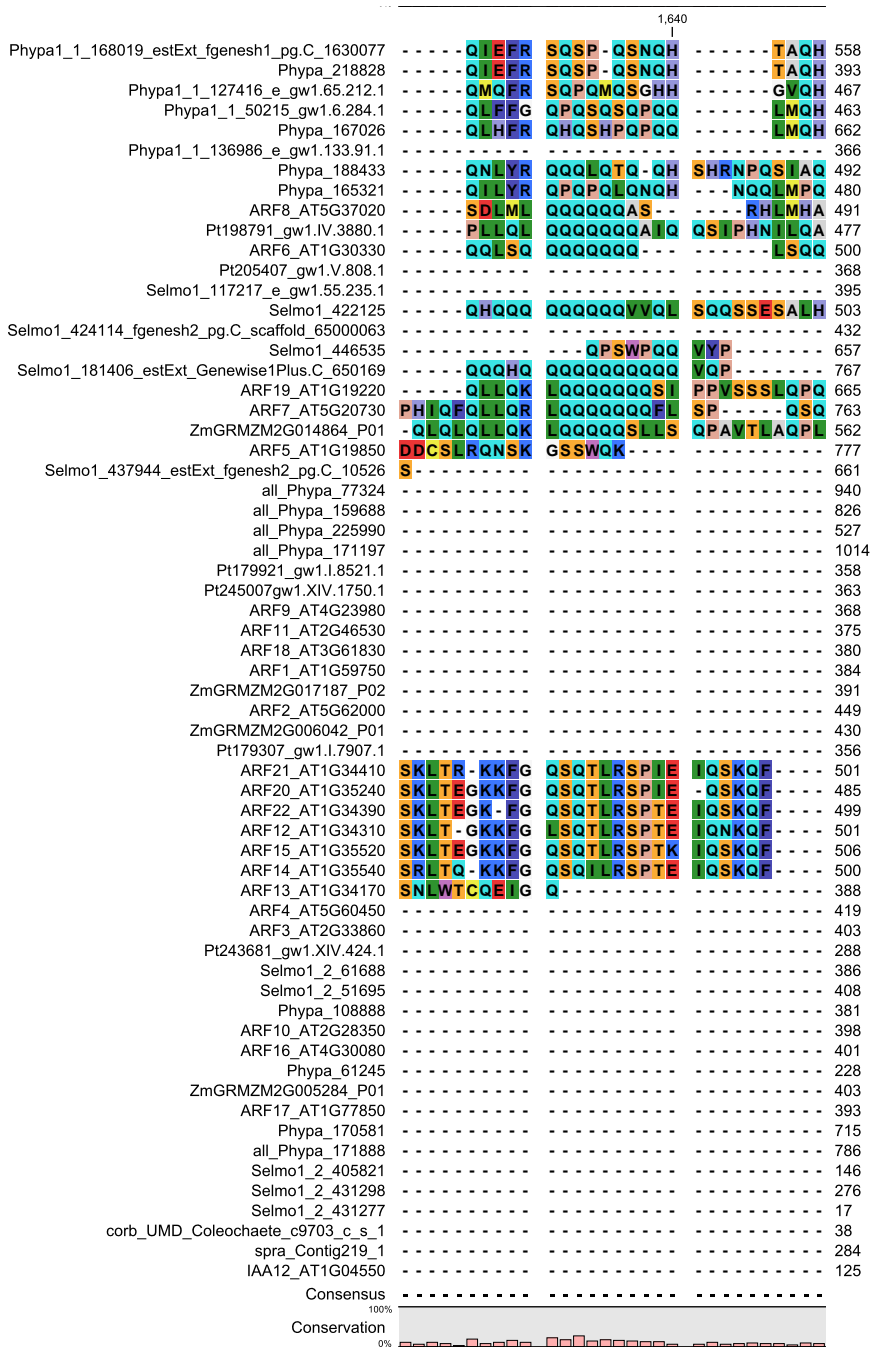
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Phypa1_1_50215_gw1.6.284.1	440
Phypa_167026	639
Phypa1_1_136986_e_gw1.133.91.1	366
Phypa_188433	.....	.....	.....	464
Phypa_165321	.....	.....	.....	454
ARF8_AT5G37020	.....	.....	.....	468
Pt198791_gw1.IV.3880.1	.....	.....	.....	448
ARF6_AT1G30330	.....	.....	.....	480
Pt205407_gw1.V.808.1	.....	.....	.....	368
Selmo1_117217_e_gw1.55.235.1	.....	.....	.....	395
Selmo1_422125	.....	.....	.....	474
Selmo1_424114_fgenes2_pg.C_scaffold.65000063	.....	.....	.....	432
Selmo1_446535	L P P S S S Q Q A	D Q D N D P R S H V	L F G V N I D G Q V	613
Selmo1_181406_estExt_Genewise1Plus.C_650169	L S Q E P Q L S D V	Q S D L R S N S H	L F G V N I D S P L	696
ARF19_AT1G19220	Q Q E Q S S L H S L	Q Q N L	S Q N	620
ARF7_AT5G20730	Q S Q Q A S T H H L	Q P Q L V S G S M A	S S I T P P S S S L	648
ZmGRMZM2G014864_P01	Q Q	Q Q Q		500
ARF5_AT1G19850	S P L F H D V W D T	Q L N G L K F D Q F	S P L M Q Q D L Y A	671
Selmo1_437944_estExt_fgenes2_pg.C_10526	G V V R D S S W L S	P L G P T Q T D A Q	A Y V A A D T T L S	570
all_Phypa_77324	V T G T Y Q			940
all_Phypa_159688	A N G A Y Q			826
all_Phypa_225990	A A E S S Q			527
all_Phypa_171197	T A E S C Q			1014
Pt179921_gw1.I.8521.1				358
Pt245007gw1.XIV.1750.1				363
ARF9_AT4G23980				368
ARF11_AT2G46530				375
ARF18_AT3G61830				380
ARF1_AT1G59750				384
ZmGRMZM2G017187_P02				391
ARF2_AT5G62000				449
ZmGRMZM2G006042_P01				430
Pt179307_gw1.I.7907.1				356
ARF21_AT1G34410		V N E F G S S S	S H L L P P I L T Q	387
ARF20_AT1G35240		V N E F G		372
ARF22_AT1G34390		V N E I G S S S	S H L L P P I L T Q	385
ARF12_AT1G34310		V N E I G S S S	S H L L P P I L T Q	387
ARF15_AT1G35520		V N E F G S S S	S H L L P P I L T Q	392
ARF14_AT1G35540		V N E I G S S S	S H L L P P I L T Q	387
ARF13_AT1G34170				369
ARF4_AT5G60450				419
ARF3_AT2G33860				403
Pt243681_gw1.XIV.424.1				288
Selmo1_2_61688				386
Selmo1_2_51695				408
Phypa_108888				381
ARF10_AT2G28350				398
ARF16_AT4G30080				401
Phypa_61245				228
ZmGRMZM2G005284_P01				403
ARF17_AT1G77850				393
Phypa_170581				715
all_Phypa_171888				786
Selmo1_2_405821				146
Selmo1_2_431298				276
Selmo1_2_431277				17
corb_UMD_Coleochaete_c9703_c_s_1				38
spra_Contig219_1				284
IAA12_AT1G04550				125

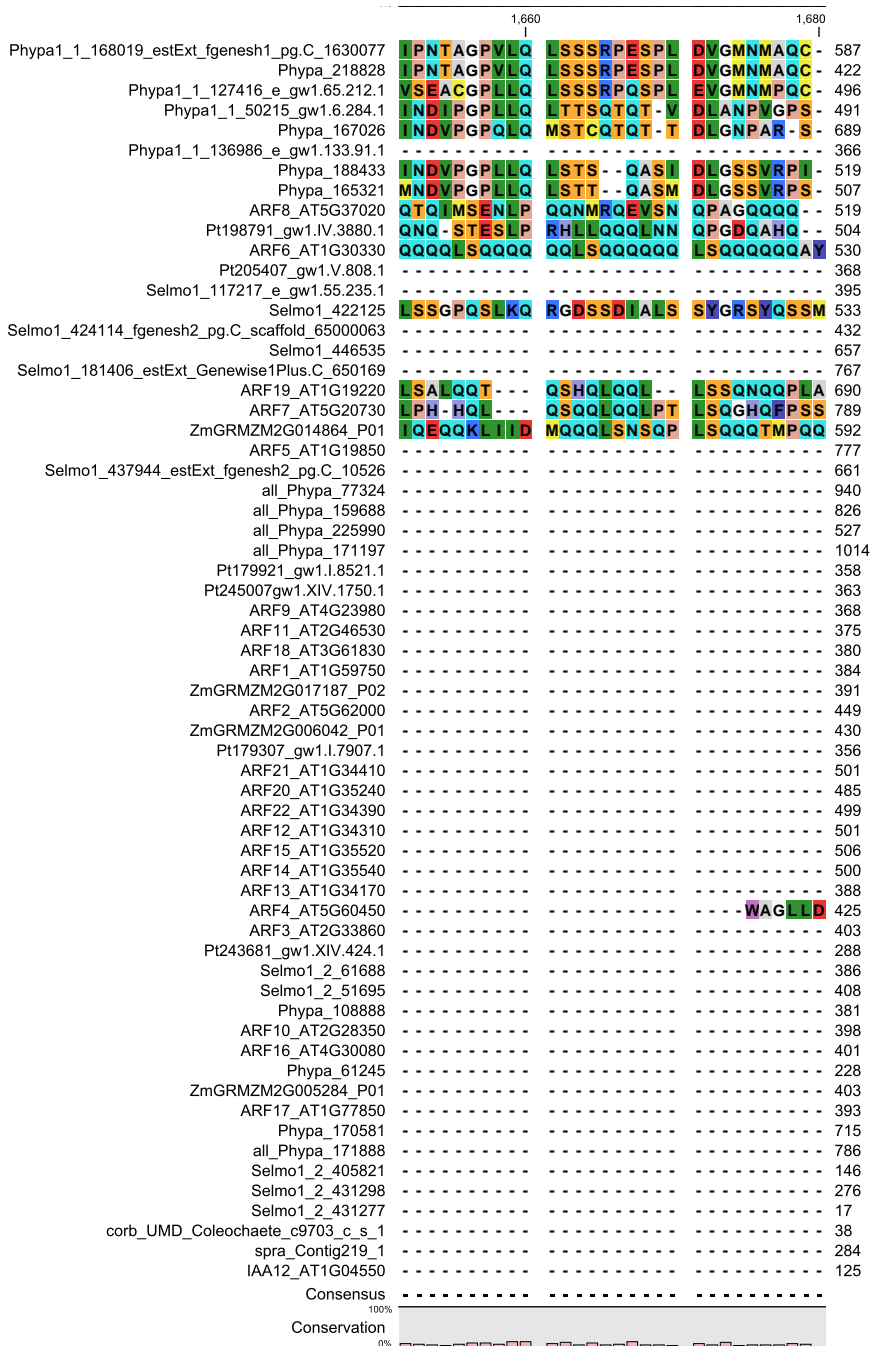


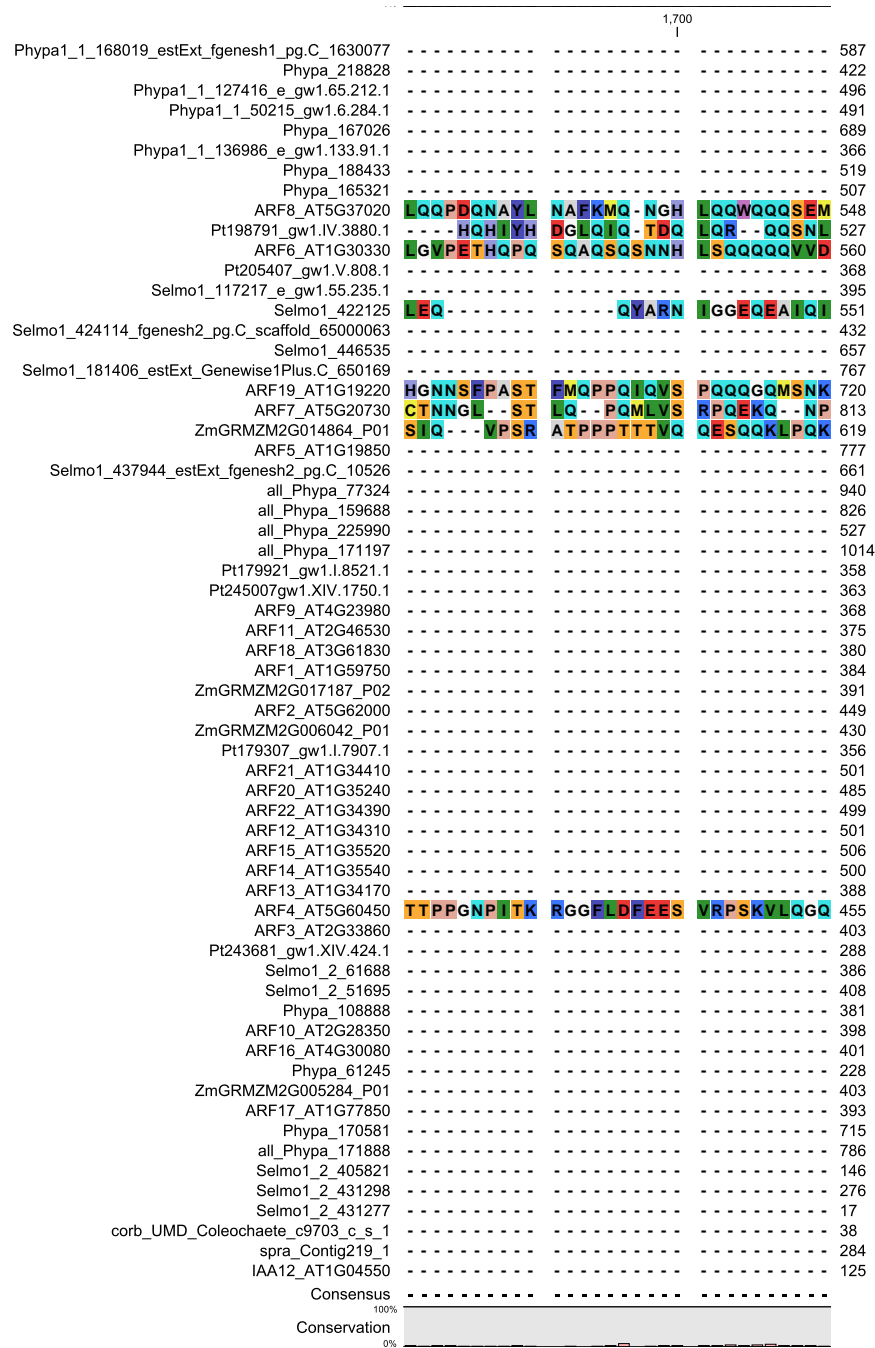
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Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	-----	-----	-----	536
Phypa_218828	-----	-----	-----	371
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	445
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	440
Phypa_167026	-----	-----	-----	639
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	366
Phypa_188433	-----	-----	-----	464
Phypa_165321	-----	-----	-----	454
ARF8_AT5G37020	-----	-----	-----	468
Pt198791_gw1.IV.3880.1	-----	-----	-----	448
ARF6_AT1G30330	-----	-----	-----	480
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	395
Selmo1_422125	-----	-----	-----	474
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	432
Selmo1_446535	PPSYAPPPFS	KPKDFSGAQP	DIALHAAEE	643
Selmo1_181406_estExt_Genewise1Plus.C_650169	MSSAAAAWA	QGFAPADKAK	DVSFSMIGSP	726
ARF19_AT1G19220	PQQLQMQQQS	SKP	-----	633
ARF7_AT5G20730	NQSFQQQQQQ	SKQLQQAHHH	LGASTSQSSV	678
ZmGRMZM2G014864_P01	-QQIQQQQQN	QQQ	-----	513
ARF5_AT1G19850	SQNI CMSNST	TSNILDPPLS	NTVDDFCAL	701
Selmo1_437944_estExt_fgenes2_pg.C_10526	MQFSKSEMTT	ERMHDSNPD	HEPREHSCKI	600
all_Phypa_77324	-----	-----	-----	940
all_Phypa_159688	-----	-----	-----	826
all_Phypa_225990	-----	-----	-----	527
all_Phypa_171197	-----	-----	-----	1014
Pt179921_gw1.I.8521.1	-----	-----	-----	358
Pt245007gw1.XIV.1750.1	-----	-----	-----	363
ARF9_AT4G23980	-----	-----	-----	368
ARF11_AT2G46530	-----	-----	-----	375
ARF18_AT3G61830	-----	-----	-----	380
ARF1_AT1G59750	-----	-----	-----	384
ZmGRMZM2G017187_P02	-----	-----	-----	391
ARF2_AT5G62000	-----	-----	-----	449
ZmGRMZM2G006042_P01	-----	-----	-----	430
Pt179307_gw1.I.7907.1	-----	-----	-----	356
ARF21_AT1G34410	GQETIGQLSVA	SPM-ISLRYR	DTTEAAMNPS	416
ARF20_AT1G35240	-QETIGQLSVA	SPMNTSLRYR	DTTEDAMNP	400
ARF22_AT1G34390	GQETIGQLSVA	SPMNI-LTYR	DTTEDVMNPS	414
ARF12_AT1G34310	GQENEQLSVA	SPM-ISLRYR	DATEDAMNPS	416
ARF15_AT1G35520	GQETIGQLS-A	SPMNTSLRYR	ETTEDAMNPS	421
ARF14_AT1G35540	GQETIGQSSMA	TPM-ISLRYR	DITEDAMTPS	416
ARF13_AT1G34170	-----	-----	-----	369
ARF4_AT5G60450	-----	-----	-----	419
ARF3_AT2G33860	-----	-----	-----	403
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	-----	-----	-----	386
Selmo1_2_51695	-----	-----	-----	408
Phypa_108888	-----	-----	-----	381
ARF10_AT2G28350	-----	-----	-----	398
ARF16_AT4G30080	-----	-----	-----	401
Phypa_61245	-----	-----	-----	228
ZmGRMZM2G005284_P01	-----	-----	-----	403
ARF17_AT1G77850	-----	-----	-----	393
Phypa_170581	-----	-----	-----	715
all_Phypa_171888	-----	-----	-----	786
Selmo1_2_405821	-----	-----	-----	146
Selmo1_2_431298	-----	-----	-----	276
Selmo1_2_431277	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	38
spra_Contig219_1	-----	-----	-----	284
IAA12_AT1G04550	-----	-----	-----	125
Consensus	-----	-----	-----	
Conservation	100%	-----	-----	
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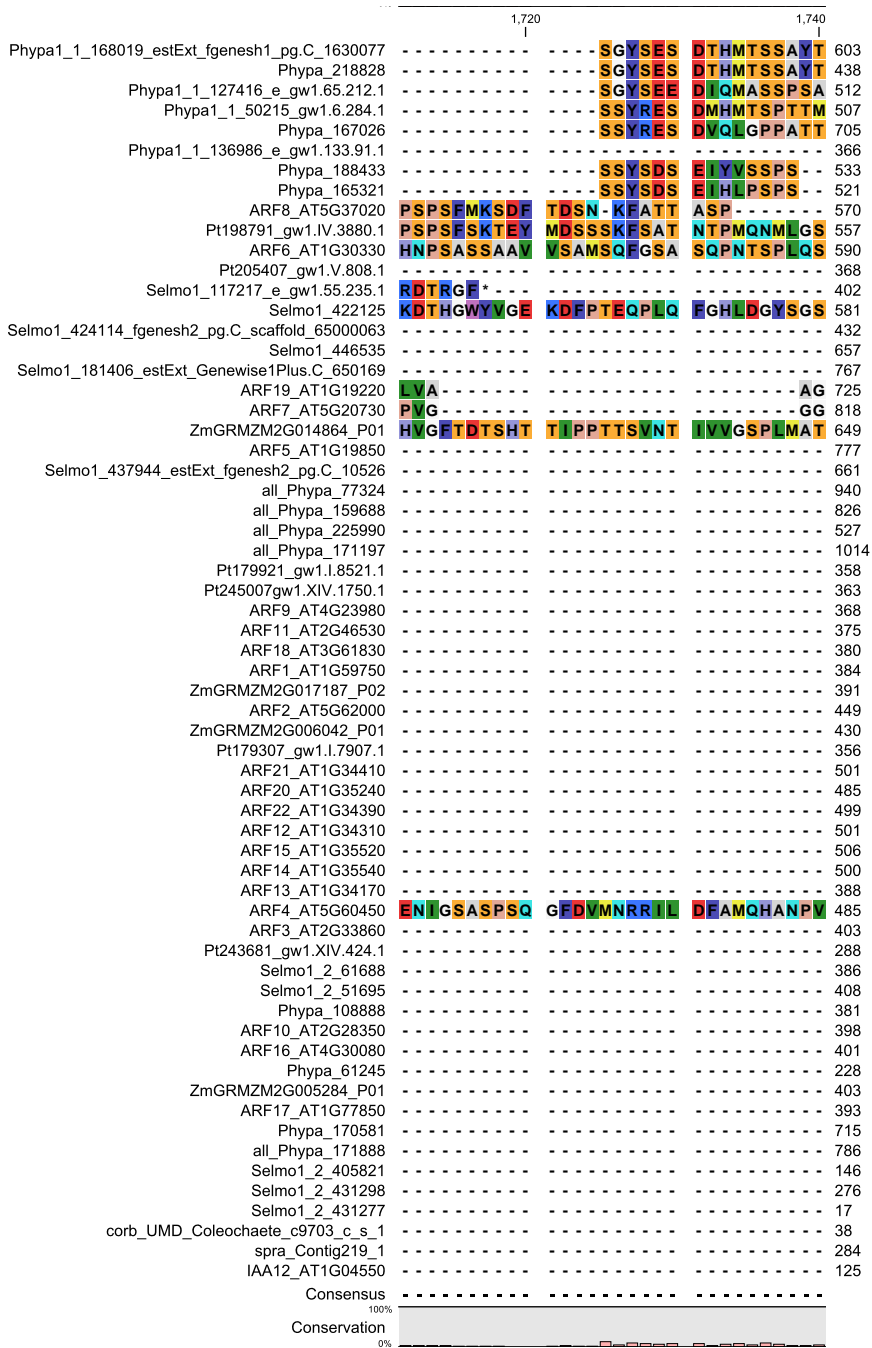
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Phypa1_1_50215_gw1.6.284.1
Phypa_167026
Phypa1_1_136986_e_gw1.133.91.1
Phypa_188433
Phypa_165321
ARF8_AT5G37020
Pt198791_gw1.IV.3880.1
ARF6_AT1G30330
Pt205407_gw1.V.808.1
Selmo1_117217_e_gw1.55.235.1
Selmo1_422125
Selmo1_424114_fgenes2_pg.C_scaffold_6500063
Selmo1_446535
Selmo1_181406_estExt_Genewise1Plus.C_650169
ARF19_AT1G19220
ARF7_AT5G20730
ZmGRMZM2G014864_P01
ARF5_AT1G19850
Selmo1_437944_estExt_fgenes2_pg.C_10526
all_Phypa_77324
all_Phypa_159688
all_Phypa_225990
all_Phypa_171197
Pt179921_gw1.I.8521.1
Pt245007gw1.XIV.1750.1
ARF9_AT4G23980
ARF11_AT2G46530
ARF18_AT3G61830
ARF1_AT1G59750
ZmGRMZM2G017187_P02
ARF2_AT5G62000
ZmGRMZM2G006042_P01
Pt179307_gw1.I.7907.1
ARF21_AT1G34410
ARF20_AT1G35240
ARF22_AT1G34390
ARF12_AT1G34310
ARF15_AT1G35520
ARF14_AT1G35540
ARF13_AT1G34170
ARF4_AT5G60450
ARF3_AT2G33860
Pt243681_gw1.XIV.424.1
Selmo1_2_61688
Selmo1_2_51695
Phypa_108888
ARF10_AT2G28350
ARF16_AT4G30080
Phypa_61245
ZmGRMZM2G005284_P01
ARF17_AT1G77850
Phypa_170581
all_Phypa_171888
Selmo1_2_405821
Selmo1_2_431298
Selmo1_2_431277
corb_UMD_Coleochaete_c9703_c_s_1
spra_Contig219_1
IAA12_AT1G04550
Consensus
Conservation

	1,600	1,620		
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	540	
Phypa_218828	375	
Phypa1_1_127416_e_gw1.65.212.1	448	
Phypa1_1_50215_gw1.6.284.1	444	
Phypa_167026	643	
Phypa1_1_136986_e_gw1.133.91.1	366	
Phypa_188433	468	
Phypa_165321	458	
ARF8_AT5G37020	472	
Pt198791_gw1.IV.3880.1	452	
ARF6_AT1G30330	484	
Pt205407_gw1.V.808.1	368	
Selmo1_117217_e_gw1.55.235.1	395	
Selmo1_422125	478	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	432	
Selmo1_446535	647	
Selmo1_181406_estExt_Genewise1Plus.C_650169	749	
ARF19_AT1G19220	640	
ARF7_AT5G20730	G L Q	L Q A	Q L L	738
ZmGRMZM2G014864_P01	533	
ARF5_AT1G19850	A S F	R Q D	T G T	761
Selmo1_437944_estExt_fgenes2_pg.C_10526	M T R	S A G	R C A	660
all_Phypa_77324	940	
all_Phypa_159688	826	
all_Phypa_225990	527	
all_Phypa_171197	1014	
Pt179921_gw1.I.8521.1	358	
Pt245007gw1.XIV.1750.1	363	
ARF9_AT4G23980	368	
ARF11_AT2G46530	375	
ARF18_AT3G61830	380	
ARF1_AT1G59750	384	
ZmGRMZM2G017187_P02	391	
ARF2_AT5G62000	449	
ZmGRMZM2G006042_P01	430	
Pt179307_gw1.I.7907.1	356	
ARF21_AT1G34410	K A G	T L D	P I K	476
ARF20_AT1G35240	K A T	V S L	D P I	460
ARF22_AT1G34390	K T G	V S L	D P I	474
ARF12_AT1G34310	K T G	V T D	D P I	476
ARF15_AT1G35520	K A G	V S L	D P I	480
ARF14_AT1G35540	N A V	S L A	D P V	475
ARF13_AT1G34170	L N E	377
ARF4_AT5G60450	419
ARF3_AT2G33860	403
Pt243681_gw1.XIV.424.1	288
Selmo1_2_61688	386
Selmo1_2_51695	408
Phypa_108888	381
ARF10_AT2G28350	398
ARF16_AT4G30080	401
Phypa_61245	228
ZmGRMZM2G005284_P01	403
ARF17_AT1G77850	393
Phypa_170581	715
all_Phypa_171888	786
Selmo1_2_405821	146
Selmo1_2_431298	276
Selmo1_2_431277	17
corb_UMD_Coleochaete_c9703_c_s_1	38
spra_Contig219_1	284
IAA12_AT1G04550	125
Consensus	
Conservation				





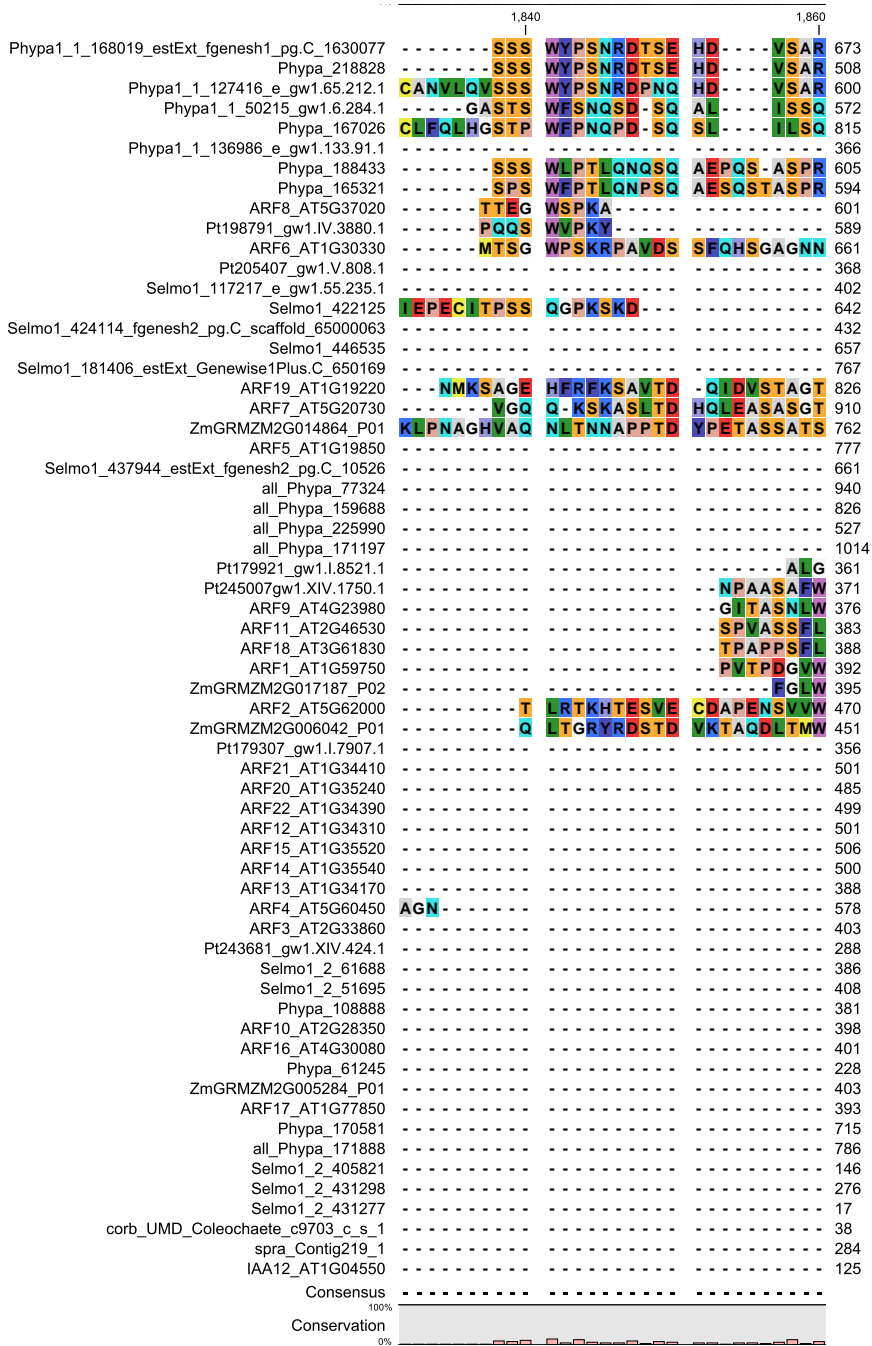




		1,760	
Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	P G S Y P L H S M L	G R T H L G C	--- - - E N G
Phypha_218828	P G S Y P L H S M L	G R T H L G C	--- - - E N G
Phypha1_1_127416_e_gw1.65.212.1	S G S Y P L H S M L	G R T H L G C	--- - - E T G
Phypha1_1_50215_gw1.6.284.1	S N S I A L Q G M M	R R A S T S A T L S	F S E G N
Phypha_167026	S N S F S Y Q E M M	G R A P S S N P L T	S N G G H
Phypha1_1_136986_e_gw1.133.91.1	---	---	---
Phypha_188433	P R P F S T Q A M M	S R I P G N V P Y S	S A D G N
Phypha_165321	S R S F S I Q G M M	G R T L G N V P T N	S G D G N
ARF8_AT5G37020	- A S	---	G D G N
Pt198791_gw1.IV.3880.1	L C S	---	G S V N
ARF6_AT1G30330	M T S L C H Q Q S F	S D T N G G N N P I	S P L H T
Pt205407_gw1.V.808.1	---	---	---
Selmo1_117217_e_gw1.55.235.1	---	---	---
Selmo1_422125	G A V F S I N D I E	Q G V T A G L T F K	D A Q Q Q
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	---	---	---
Selmo1_446535	---	---	---
Selmo1_181406_estExt_Genewise1Plus.C_650169	---	---	---
ARF19_AT1G19220	R S H S G H T D G	E A P S C S T S P	S A N N T G H D N V
ARF7_AT5G20730	V K A Y S G I T D G	G D A P S S S T S P	S T N N C - - Q I
ZmGRMZM2G014864_P01	G A T H S V V T D	E I P S C S T S P	S T A N G N H I - V
ARF5_AT1G19850	---	---	---
Selmo1_437944_estExt_fgenes2_pg.C_10526	---	---	---
all_Phypha_77324	---	---	---
all_Phypha_159688	---	---	---
all_Phypha_225990	---	---	---
all_Phypha_171197	---	---	---
Pt179921_gw1.I.8521.1	---	---	---
Pt245007gw1.XIV.1750.1	---	---	---
ARF9_AT4G23980	---	---	---
ARF11_AT2G46530	---	---	---
ARF18_AT3G61830	---	---	---
ARF1_AT1G59750	---	---	---
ZmGRMZM2G017187_P02	---	---	---
ARF2_AT5G62000	---	---	---
ZmGRMZM2G006042_P01	---	---	---
Pt179307_gw1.I.7907.1	---	---	---
ARF21_AT1G34410	---	---	---
ARF20_AT1G35240	---	---	---
ARF22_AT1G34390	---	---	---
ARF12_AT1G34310	---	---	---
ARF15_AT1G35520	---	---	---
ARF14_AT1G35540	---	---	---
ARF13_AT1G34170	---	---	---
ARF4_AT5G60450	L V S S R V K D R F	G E F V D A T G V N	P A C S G V M D L D
ARF3_AT2G33860	---	---	---
Pt243681_gw1.XIV.424.1	---	---	---
Selmo1_2_61688	---	---	---
Selmo1_2_51695	---	---	---
Phypha_108888	---	---	---
ARF10_AT2G28350	---	---	---
ARF16_AT4G30080	---	---	---
Phypha_61245	---	---	---
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ARF17_AT1G77850	---	---	---
Phypha_170581	---	---	---
all_Phypha_171888	---	---	---
Selmo1_2_405821	---	---	---
Selmo1_2_431298	---	---	---
Selmo1_2_431277	---	---	---
corb_UMD_Coleochaete_c9703_c_s_1	---	---	---
spra_Contig219_1	---	---	---
IAA12_AT1G04550	---	---	---
Consensus	---	---	---
Conservation			

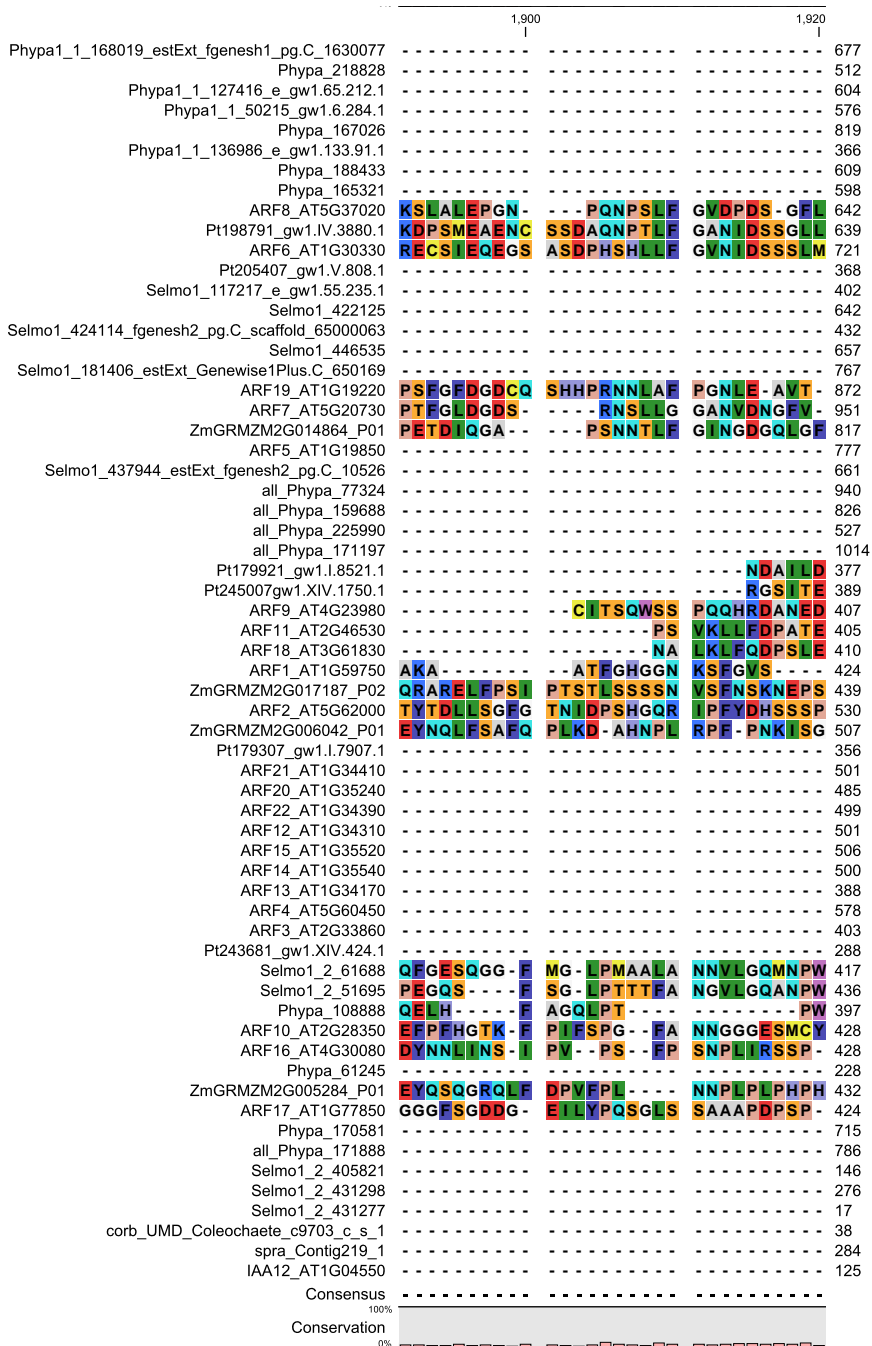
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Phypa_218828	QMTYMMRPTQ	SAQQS	473
Phypa1_1_127416_e_gw1.65.212.1	QVGLMMRPTQ	NAQQS	547
Phypa1_1_50215_gw1.6.284.1	QITSLMRKSH	NGLPYGTVQ	552
Phypa_167026	QLTSMRRTSQ	NGLPYGTVQ	760
Phypa1_1_136986_e_gw1.133.91.1	QFPLMRRTNQ	NGLPYGSVT	366
Phypa_188433	QFPLMRRTNQ	NGLPYGSVT	583
Phypa_165321	QFPLMRRTNQ	TGLSPCGLIA	571
ARF8_AT5G37020	LLNFSITGQ	SVLPEQL	592
Pt198791_gw1.IV.3880.1	LLDFSRAGQ	STTEQL	580
ARF6_AT1G30330	LLSNFSQDES	SQLLHLTRTN	637
Pt205407_gw1.V.808.1			368
Selmo1_117217_e_gw1.55.235.1			402
Selmo1_422125	QEQDTLPLDS	RSHLLFG	623
Selmo1_424114_fgenes2_pg.C_scaffold_6500063			432
Selmo1_446535			657
Selmo1_181406_estExt_Genewise1Plus.C_650169			767
ARF19_AT1G19220	SPTNFLSRNQ	QQGQAASVSA	773
ARF7_AT5G20730	SSSGFLNRSQ	S-GPAILIP	863
ZmGRMZM2G014864_P01	QPW-LGRNQ	LCSMINEKY	704
ARF5_AT1G19850			777
Selmo1_437944_estExt_fgenes2_pg.C_10526			661
all_Phypa_77324			940
all_Phypa_159688			826
all_Phypa_225990			527
all_Phypa_171197			1014
Pt179921_gw1.I.8521.1			358
Pt245007gw1.XIV.1750.1			363
ARF9_AT4G23980			368
ARF11_AT2G46530			375
ARF18_AT3G61830			380
ARF1_AT1G59750			384
ZmGRMZM2G017187_P02			391
ARF2_AT5G62000			449
ZmGRMZM2G006042_P01			430
Pt179307_gw1.I.7907.1			356
ARF21_AT1G34410			501
ARF20_AT1G35240			485
ARF22_AT1G34390			499
ARF12_AT1G34310			501
ARF15_AT1G35520			506
ARF14_AT1G35540			500
ARF13_AT1G34170			388
ARF4_AT5G60450	RFPRLQGQE	LCSLKSFPQE	545
ARF3_AT2G33860		AGESPAAAPN	403
Pt243681_gw1.XIV.424.1			288
Selmo1_2_61688			386
Selmo1_2_51695			408
Phypa_108888			381
ARF10_AT2G28350			398
ARF16_AT4G30080			401
Phypa_61245			228
ZmGRMZM2G005284_P01			403
ARF17_AT1G77850			393
Phypa_170581			715
all_Phypa_171888			786
Selmo1_2_405821			146
Selmo1_2_431298			276
Selmo1_2_431277			17
corb_UMD_Coleochaete_c9703_c_s_1			38
spra_Contig219_1			284
IAA12_AT1G04550			125
Consensus			
Conservation			

Phyph1_1_168019_estExt_fgenes1_pg.C_1630077	-- QPESI I HG GSVREPQF --	654
Phyph1_1_168019_estExt_fgenes1_pg.C_218828	-- QPESI I HG GSVREPQF --	489
Phyph1_1_127416_e_gw1.65.212.1	-- QSGPI I HG GKT-SPYFFF RTIPI SLRIN	574
Phyph1_1_50215_gw1.6.284.1	-----	552
Phyph1_167026	VVHAE LVRGF SVTMI LLSHV FLFLWKYSAE	790
Phyph1_1_136986_e_gw1.133.91.1	-----	366
Phyph1_188433	-----	583
Phyph1_165321	-----	571
ARF8_AT5G37020	-----	592
Pt198791_gw1.IV.3880.1	-----	580
ARF6_AT1G30330	-----	637
Pt205407_gw1.V.808.1	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	402
Selmo1_422125	----- VS	625
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	432
Selmo1_446535	-----	657
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	767
ARF19_AT1G19220	SDSVFERASN PVQELYTKTE SRISQGM	800
ARF7_AT5G20730	-DAALDMSGN LVQDLYSK-D MRLKQEL	888
ZmGRMZM2G014864_P01	SLEAVTATPR SIKEI - PLN SNVKQSVMAS	732
ARF5_AT1G19850	-----	777
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	661
all_Phyph1_77324	-----	940
all_Phyph1_159688	-----	826
all_Phyph1_225990	-----	527
all_Phyph1_171197	-----	1014
Pt179921_gw1.I.8521.1	-----	358
Pt245007gw1.XIV.1750.1	-----	363
ARF9_AT4G23980	-----	368
ARF11_AT2G46530	-----	375
ARF18_AT3G61830	-----	380
ARF1_AT1G59750	-----	384
ZmGRMZM2G017187_P02	-----	391
ARF2_AT5G62000	-----	449
ZmGRMZM2G006042_P01	-----	430
Pt179307_gw1.I.7907.1	-----	356
ARF21_AT1G34410	-----	501
ARF20_AT1G35240	-----	485
ARF22_AT1G34390	-----	499
ARF12_AT1G34310	-----	501
ARF15_AT1G35520	-----	506
ARF14_AT1G35540	-----	500
ARF13_AT1G34170	-----	388
ARF4_AT5G60450	PFAYQANKSS YYPEAHGIRS THVPYQNPYN	575
ARF3_AT2G33860	-----	403
Pt243681_gw1.XIV.424.1	-----	288
Selmo1_2_61688	-----	386
Selmo1_2_51695	-----	408
Phyph1_108888	-----	381
ARF10_AT2G28350	-----	398
ARF16_AT4G30080	-----	401
Phyph1_61245	-----	228
ZmGRMZM2G005284_P01	-----	403
ARF17_AT1G77850	-----	393
Phyph1_170581	-----	715
all_Phyph1_171888	-----	786
Selmo1_2_405821	-----	146
Selmo1_2_431298	-----	276
Selmo1_2_431277	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	38
spra_Contig219_1	-----	284
IAA12_AT1G04550	-----	125
Consensus	-----	
Conservation	-----	



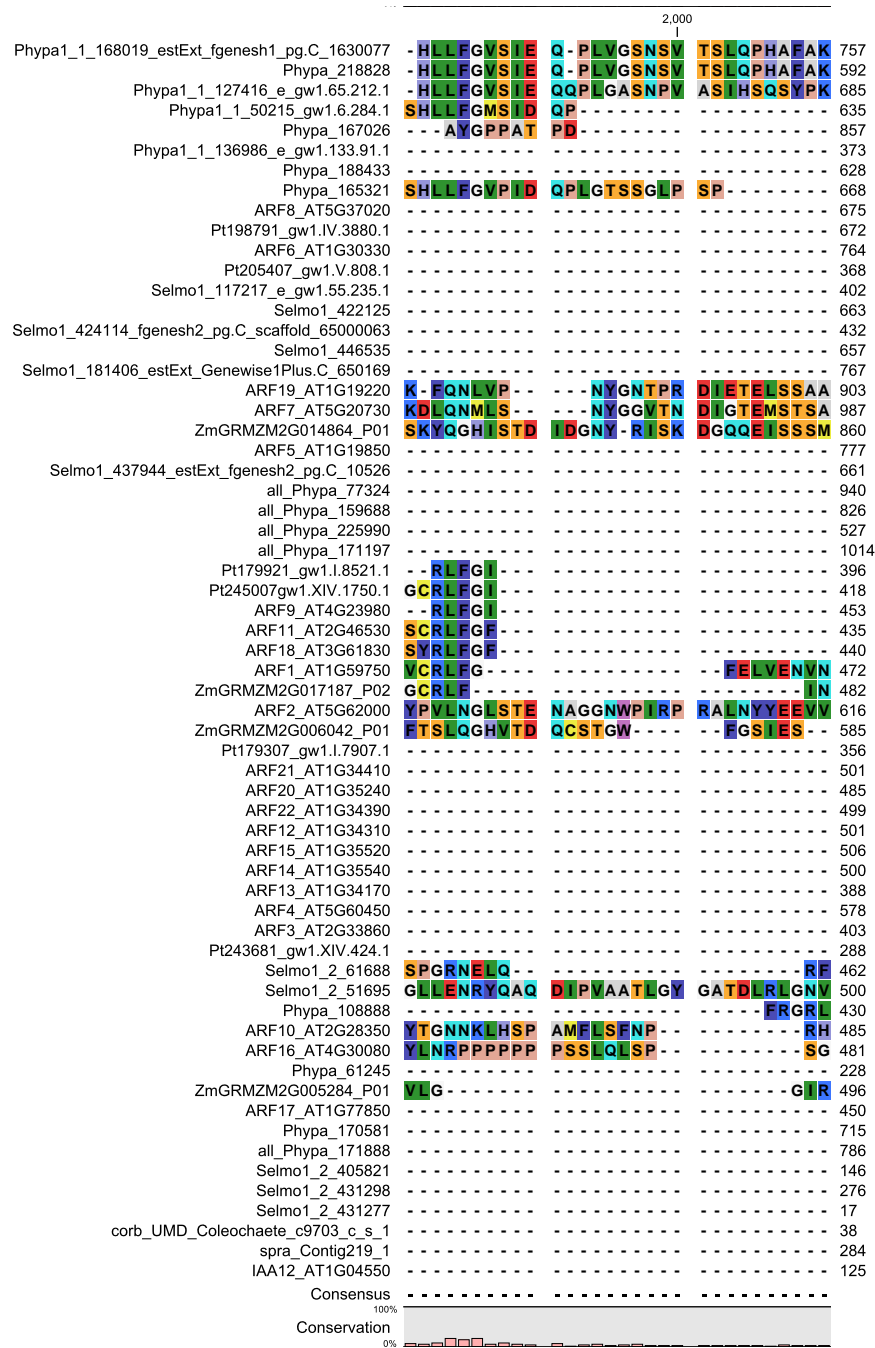
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Phypa_218828	MNQL	-----	-----	-----	-----	512	
Phypa1_1_127416_e_gw1.65.212.1	MNQL	-----	-----	-----	-----	604	
Phypa1_1_50215_gw1.6.284.1	QSRV	-----	-----	-----	-----	576	
Phypa_167026	HTRV	-----	-----	-----	-----	819	
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	-----	-----	366	
Phypa_188433	FHRA	-----	-----	-----	-----	609	
Phypa_165321	LHRV	-----	-----	-----	-----	598	
ARF8_AT5G37020	-----	-----	S-----	NTFSE	PLSLPQAYPG	617	
Pt198791_gw1.IV.3880.1	-----	-----	AHQEVNAFAN	SISLPRTYPE	-----	609	
ARF6_AT1G30330	NTQSVLEQLG	QSHTSNVPPN	AVSLPPFPGG	-----	-----	691	
Pt205407_gw1.V.808.1	-----	-----	-----	-----	-----	368	
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	-----	-----	402	
Selmo1_422125	-----	-----	-----	-----	-----	642	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	-----	-----	432	
Selmo1_446535	-----	-----	-----	-----	-----	657	
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	-----	-----	767	
ARF19_AT1G19220	TYCPDVVGP	-----	-----	V	QQQQT	PL	844
ARF7_AT5G20730	SYGLDG-GE	-----	-----	N	NRQQNE	LA	927
ZmGRMZM2G014864_P01	VWLSQADGL	HHSFPMSNFN	QQQMFKAAA	-----	-----	792	
ARF5_AT1G19850	-----	-----	-----	-----	-----	777	
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	-----	-----	661	
all_Phypa_77324	-----	-----	-----	-----	-----	940	
all_Phypa_159688	-----	-----	-----	-----	-----	826	
all_Phypa_225990	-----	-----	-----	-----	-----	527	
all_Phypa_171197	-----	-----	-----	-----	-----	1014	
Pt179921_gw1.I.8521.1	YSTPLSSKS	-K	-----	-----	-----	371	
Pt245007gw1.XIV.1750.1	YHGPTQSR	VQ	-----	-----	-----	383	
ARF9_AT4G23980	SSVLTQPHEF	AQS	-----	-----	-----	389	
ARF11_AT2G46530	SSFSQSHESN	-----	-----	-----	-----	393	
ARF18_AT3G61830	YSLPQSQDSI	-----	-----	-----	-----	398	
ARF1_AT1G59750	KSPADTPSVP	LFS	-----	-----	PP	407	
ZmGRMZM2G017187_P02	KSPTECTLS	-FS	-----	-----	EP	409	
ARF2_AT5G62000	QSSADDDKVD	VSGSRRYGE	NWMSRARHEP	-----	-----	500	
ZmGRMZM2G006042_P01	SSGTEQQRNN	IAAQTKRCE	GWTQS	-RTP	-----	479	
Pt179307_gw1.I.7907.1	-----	-----	-----	-----	-----	356	
ARF21_AT1G34410	-----	-----	-----	-----	-----	501	
ARF20_AT1G35240	-----	-----	-----	-----	-----	485	
ARF22_AT1G34390	-----	-----	-----	-----	-----	499	
ARF12_AT1G34310	-----	-----	-----	-----	-----	501	
ARF15_AT1G35520	-----	-----	-----	-----	-----	506	
ARF14_AT1G35540	-----	-----	-----	-----	-----	500	
ARF13_AT1G34170	-----	-----	-----	-----	-----	388	
ARF4_AT5G60450	-----	-----	-----	-----	-----	578	
ARF3_AT2G33860	-----	-----	-----	-----	-----	403	
Pt243681_gw1.XIV.424.1	-----	-----	-----	-----	-----	288	
Selmo1_2_61688	-----	-----	-----	-----	LDL	389	
Selmo1_2_51695	-----	-----	-----	-----	TPA	411	
Phypa_108888	-----	-----	-----	-----	VQP	384	
ARF10_AT2G28350	-----	-----	-----	-----	PQP	401	
ARF16_AT4G30080	-----	-----	-----	-----	QHP	404	
Phypa_61245	-----	-----	-----	-----	---	228	
ZmGRMZM2G005284_P01	-----	-----	-----	-----	TYK	406	
ARF17_AT1G77850	-----	-----	-----	-----	PQP	396	
Phypa_170581	-----	-----	-----	-----	-----	715	
all_Phypa_171888	-----	-----	-----	-----	-----	786	
Selmo1_2_405821	-----	-----	-----	-----	-----	146	
Selmo1_2_431298	-----	-----	-----	-----	-----	276	
Selmo1_2_431277	-----	-----	-----	-----	-----	17	
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	-----	-----	38	
spra_Contig219_1	-----	-----	-----	-----	-----	284	
IAA12_AT1G04550	-----	-----	-----	-----	-----	125	

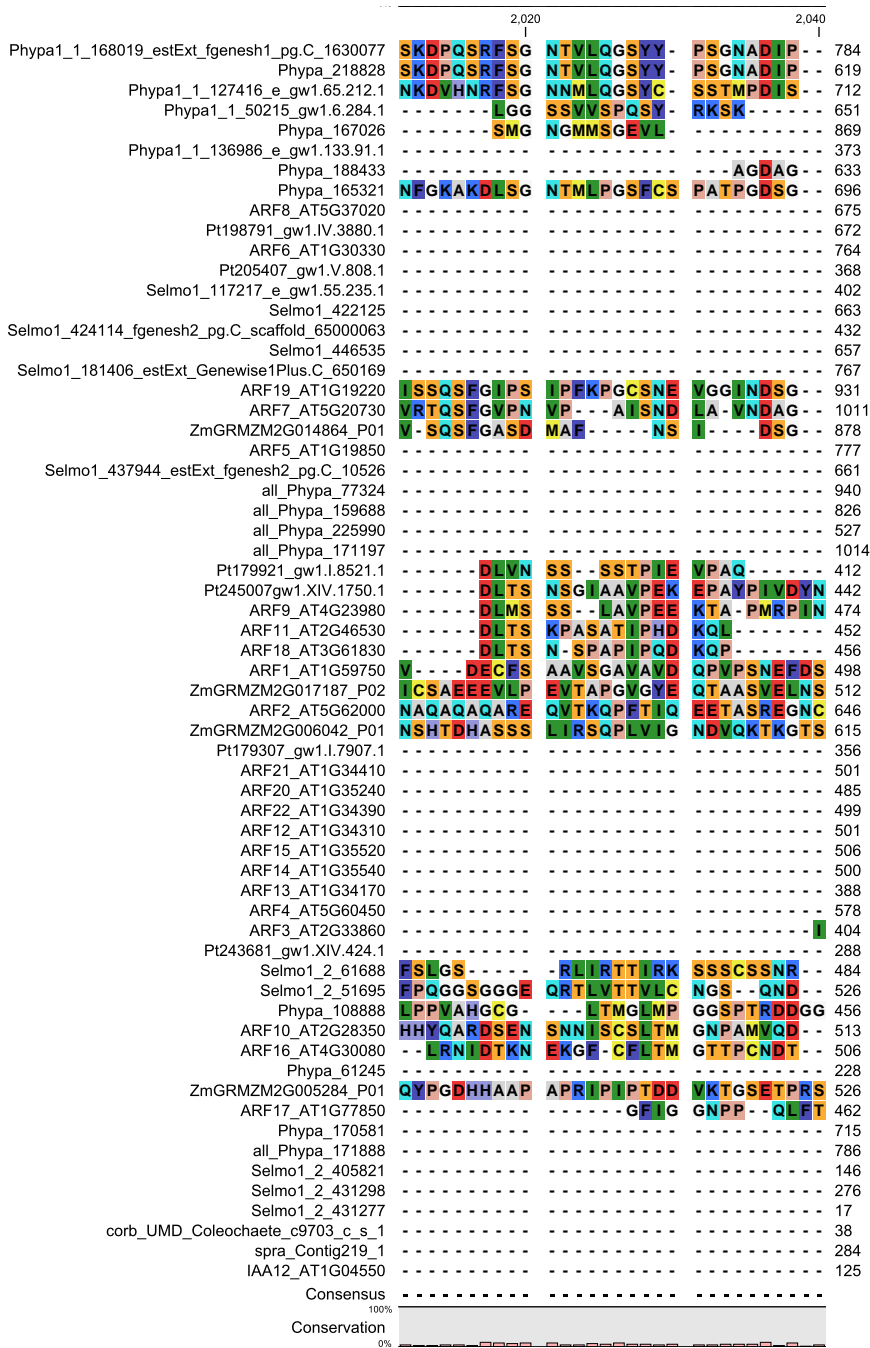




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Phypha_218828	-----DT	SPTSRVSSCF	PFPPQESQVNG	534
Phypha1_1_127416_e_gw1.65.212.1	-----DT	SPTSRVSGSF	SLSQQSENGG	626
Phypha1_1_50215_gw1.6.284.1	-----E	ASSGGVPESY	ALPQNNESL	597
Phypha_167026	-----E	APSGGVPGS	ALPQNNESAL	840
Phypha1_1_136986_e_gw1.133.91.1	-----			366
Phypha_188433	-----EA	SIGGGVPGLY	GPIQHGE	628
Phypha_165321	-----EV	PNGGGVPGSY	GFTQHGEFDV	620
ARF8_AT5G37020	PSTVPRFASS	SGDA-EASPM	SLTDSGFQNS	671
Pt198791_gw1.IV.3880.1	LTIVPRYSTS	SIDA-DVSSM	PLGDSGFQNS	668
ARF6_AT1G30330	PNGMSNLRSL	GIEGGDSTTL	PFTSSNFNND	751
Pt205407_gw1.V.808.1	-----			368
Selmo1_117217_e_gw1.55.235.1	-----			402
Selmo1_422125	-----GQQ	RVLSSSTASD	HLSSDNGT	663
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----			432
Selmo1_446535	-----			657
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----			767
ARF19_AT1G19220	-----SDPL			876
ARF7_AT5G20730	-----PDTLLSR	G		959
ZmGRMZM2G014864_P01	PMGADDFLSN	G		828
ARF5_AT1G19850	-----			777
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----			661
all_Phypha_77324	-----			940
all_Phypha_159688	-----			826
all_Phypha_225990	-----			527
all_Phypha_171197	-----			1014
Pt179921_gw1.I.8521.1	PSDK			381
Pt245007gw1.XIV.1750.1	VQSSE			394
ARF9_AT4G23980	AKKSDWLNNS	YSVSNV		423
ARF11_AT2G46530	RNSNKSVFSS			415
ARF18_AT3G61830	RISGGYSSNN			420
ARF1_AT1G59750	LIGSAFWPTN	A		434
ZmGRMZM2G017187_P02	MITSQFYWSA	R		450
ARF2_AT5G62000	SMPAKRILSD	SEKFDYLAN	Q-WQMTHSG	558
ZmGRMZM2G006042_P01	TRSSTWVTD	AR	YPAQ	533
Pt179307_gw1.I.7907.1	-----			356
ARF21_AT1G34410	-----			501
ARF20_AT1G35240	-----			485
ARF22_AT1G34390	-----			499
ARF12_AT1G34310	-----			501
ARF15_AT1G35520	-----			506
ARF14_AT1G35540	-----			500
ARF13_AT1G34170	-----			388
ARF4_AT5G60450	-----			578
ARF3_AT2G33860	-----			403
Pt243681_gw1.XIV.424.1	-----			288
Selmo1_2_61688	QS-LSEE		V	424
Selmo1_2_51695	HG-LSDD		V	443
Phypha_108888	GGPALLEN		A	406
ARF10_AT2G28350	LSNDN-NN		A	436
ARF16_AT4G30080	LSVLDN		V	436
Phypha_61245	-----			228
ZmGRMZM2G005284_P01	HHPAPTHDWN	CHGFVHCSSF	PFPPDSAPAA	462
ARF17_AT1G77850	-----		SMEFSYSTF	432
Phypha_170581	-----			715
all_Phypha_171888	-----			786
Selmo1_2_405821	-----			146
Selmo1_2_431298	-----			276
Selmo1_2_431277	-----			17
corb_UMD_Coleochaete_c9703_c_s_1	-----			38
spra_Contig219_1	-----			284
IAA12_AT1G04550	-----			125
Consensus	-----			
Conservation	-----			

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Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	QSGLTGLPVP	TSSFVYRENG	QEQDSVQSDR	729
Phypa_218828	QSGLTGLPVP	TSSFVYRENG	QEQDSVQSDR	564
Phypa1_1_127416_e_gw1.65.212.1	QSGLTGMPVP	ASSFMFRESG	QEQDSVQSDR	656
Phypa1_1_50215_gw1.6.284.1	HQGL-GHQLP	-GFRSND	QDSDQLQADR	623
Phypa_167026	-QGK-NVLLS	-	-	848
Phypa1_1_136986_e_gw1.133.91.1	--GK-GVQL*	-	-	373
Phypa_188433	-	-	-	628
Phypa_165321	QPSLEHLPT-	-GFRSNG	AESDQLQTR	646
ARF8_AT5G37020	LYS-	-C	-	675
Pt198791_gw1.IV.3880.1	LYG-	-C	-	672
ARF6_AT1G30330	ESGNLAMITP	SSC-	-	764
Pt205407_gw1.V.808.1	-	-	-	368
Selmo1_117217_e_gw1.55.235.1	-	-	-	402
Selmo1_422125	-	-	-	663
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-	-	-	432
Selmo1_446535	-	-	-	657
Selmo1_181406_estExt_Genewise1Plus.C_650169	-	-	-	767
ARF19_AT1G19220	-	-	YSQ	879
ARF7_AT5G20730	-	-	YSQ	962
ZmGRMZM2G014864_P01	-	-	IDA	831
ARF5_AT1G19850	-	-	-	777
Selmo1_437944_estExt_fgenes2_pg.C_10526	-	-	-	661
all_Phypa_77324	-	-	-	940
all_Phypa_159688	-	-	-	826
all_Phypa_225990	-	-	-	527
all_Phypa_171197	-	-	-	1014
Pt179921_gw1.I.8521.1	-	-GRK	SEVPTS	391
Pt245007gw1.XIV.1750.1	-	-SHVWSMQ	KEIDSNLNNN	411
ARF9_AT4G23980	-AKDSTLND	QMVSPVEQKK	PETTANY	448
ARF11_AT2G46530	-	-GLQ	CKITEAPVTS	428
ARF18_AT3G61830	-	-SFK	PETPPPTTNC	433
ARF1_AT1G59750	-DSAAE	SEASAFNNE	TEKKQT-NGN	458
ZmGRMZM2G017187_P02	-HTRAD	SCAASTNTV	TEKKQEPSSG	475
ARF2_AT5G62000	LSKLEHESP	KVPAATDAS	QGRCNVKEYSE	586
ZmGRMZM2G006042_P01	LSFMPHSSGF	RMQQNNLVT	PEAANFTKSA	563
Pt179307_gw1.I.7907.1	-	-	-	356
ARF21_AT1G34410	-	-	-	501
ARF20_AT1G35240	-	-	-	485
ARF22_AT1G34390	-	-	-	499
ARF12_AT1G34310	-	-	-	501
ARF15_AT1G35520	-	-	-	506
ARF14_AT1G35540	-	-	-	500
ARF13_AT1G34170	-	-	-	388
ARF4_AT5G60450	-	-	-	578
ARF3_AT2G33860	-	-	-	403
Pt243681_gw1.XIV.424.1	-	-	-	288
Selmo1_2_61688	PAGMQGARQ-	ERFYGLTIS	DPPHHLRLHR	452
Selmo1_2_51695	PAGMQGARH-	ERLYGLTIS	EC-QPTRLHS	470
Phypa_108888	SAGMQGARH-	DRFNGPPSM	D-	425
ARF10_AT2G28350	PAGTQGARQ-	AQQLFGSPSP	SLLSDNLNLS	465
ARF16_AT4G30080	PVGLQGARHN	AHQYGLSS-	SDLH-HY	461
Phypa_61245	-	-	-	228
ZmGRMZM2G005284_P01	AAGTQGARH-	ANFAQFLFS	HLLSNLRRSL	490
ARF17_AT1G77850	PAGMQGARQY	DFGSFNPT	-	450
Phypa_170581	-	-	-	715
all_Phypa_171888	-	-	-	786
Selmo1_2_405821	-	-	-	146
Selmo1_2_431298	-	-	-	276
Selmo1_2_431277	-	-	-	17
corb_UMD_Coleochaete_c9703_c_s_1	-	-	-	38
spra_Contig219_1	-	-	-	284
IAA12_AT1G04550	-	-	-	125
Consensus	-	-	-	
Conservation				





Phypa1_1_168019_estExt_fgenesh1_pg.C_1630077	-----	-----	-----	784
Phypa_218828	-----	-----	-----	619
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	712
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	651
Phypa_167026	-----	-----	-----	869
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	373
Phypa_188433	-----	-----	-----	633
Phypa_165321	-----	-----	-----	696
ARF8_AT5G37020	-----	-----	-----	675
Pt198791_gw1.IV.3880.1	-----	-----	-----	672
ARF6_AT1G30330	-----	-----	-----	764
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	402
Selmo1_422125	-----	-----	-----	663
Selmo1_424114_fgenesh2_pg.C_scaffold_65000063	-----	-----	-----	432
Selmo1_446535	-----	-----	-----	657
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	767
ARF19_AT1G19220	-----	-----	-----	931
ARF7_AT5G20730	-----	-----	-----	1011
ZmGRMZM2G014864_P01	-----	-----	-----	878
ARF5_AT1G19850	-----	-----	-----	777
Selmo1_437944_estExt_fgenesh2_pg.C_10526	-----	-----	-----	661
all_Phypa_77324	-----	-----	-----	940
all_Phypa_159688	-----	-----	-----	826
all_Phypa_225990	-----	-----	-----	527
all_Phypa_171197	-----	-----	-----	1014
Pt179921_gw1.I.8521.1	-----	-----	-----	412
Pt245007gw1.XIV.1750.1	GTQ -	-----	-----	445
ARF9_AT4G23980	ISK -	-----	-----	477
ARF11_AT2G46530	-----	-----	-----	452
ARF18_AT3G61830	-----	-----	-----	456
ARF1_AT1G59750	GQQS -	-----	-----	502
ZmGRMZM2G017187_P02	DKLS -	-----	-----	516
ARF2_AT5G62000	RLFGIPLTN	NMNGTDSTMS	QRNNNDAAAG	675
ZmGRMZM2G006042_P01	FKLFGIPL -	-----	-----	G 624
Pt179307_gw1.I.7907.1	-----	-----	-----	356
ARF21_AT1G34410	-----	-----	-----	501
ARF20_AT1G35240	-----	-----	-----	485
ARF22_AT1G34390	-----	-----	-----	499
ARF12_AT1G34310	-----	-----	-----	501
ARF15_AT1G35520	-----	-----	-----	506
ARF14_AT1G35540	-----	-----	-----	500
ARF13_AT1G34170	-----	-----	-----	388
ARF4_AT5G60450	QSSGPPSRA	INFGETRKE	DAQNEGGLPN	607
ARF3_AT2G33860	GSSGKPDIP	VSEGRATDF	EESLRFQRLV	434
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	TRVSGNVTNN	TTDMTHKLF	NVTSTSLRLC	514
Selmo1_2_51695	SGMSTESSC	NKQGTFLFG	KKIETAR - - V	554
Phypa_108888	SNSKSKLKSS	PAPITFLFG	QSIDPSSNSK	486
ARF10_AT2G28350	--- KKKSVGS	VKTHQFVLF	QPILTEQQVM	540
ARF16_AT4G30080	--- KSK - - -	-KSH - IVLFG	KLILPEEQLS	527
Phypa_61245	-----	-----	-----	228
ZmGRMZM2G005284_P01	PSHATKKRDG	VKPPGIRLFG	QEILTEEQMK	556
ARF17_AT1G77850	NNFLSPLPDL	GKVSSTEMMFG	SP - PSDNLS	490
Phypa_170581	-----	-----	-----	715
all_Phypa_171888	-----	-----	-----	786
Selmo1_2_405821	-----	-----	-----	146
Selmo1_2_431298	-----	-----	-----	276
Selmo1_2_431277	-----	-----	-----	17
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	38
spra_Contig219_1	-----	-----	-----	284
IAA12_AT1G04550	-----	-----	-----	125
Consensus	-----	-----	-----	
Conservation	-----	-----	-----	

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Phypa1_1_168019_estExt_fgenes1_pg.C_1630077			- TMNGVGLDE 793	
Phypa_218828			- TMNGVGLDE 628	
Phypa1_1_127416_e_gw1.65.212.1			- TMNGVGLDE 721	
Phypa1_1_50215_gw1.6.284.1			- DD 653	
Phypa_167026			- DE 871	
Phypa1_1_136986_e_gw1.133.91.1			- 373	
Phypa_188433			- ILPNEALDE 642	
Phypa_165321			- IMPSERIDD 705	
ARF8_AT5G37020			- MQD 678	
Pt198791_gw1.IV.3880.1			- VQD 675	
ARF6_AT1G30330			- IDE 767	
Pt205407_gw1.V.808.1			- 368	
Selmo1_117217_e_gw1.55.235.1			- 402	
Selmo1_422125			- LEE 666	
Selmo1_424114_fgenes2_pg.C_scaffold_6500063			- 432	
Selmo1_446535			- 657	
Selmo1_181406_estExt_Genewise1Plus.C_650169			- 767	
ARF19_AT1G19220			- IMNGGGL- 938	
ARF7_AT5G20730			- VL - GGGL- 1017	
ZmGRMZM2G014864_P01			- MNGGFVNR 886	
ARF5_AT1G19850			- 777	
Selmo1_437944_estExt_fgenes2_pg.C_10526			- 661	
all_Phypa_77324			- 940	
all_Phypa_159688			- 826	
all_Phypa_225990			- 527	
all_Phypa_171197			- 1014	
Pt179921_gw1.I.8521.1		LMS	- ICSVSKKQKP 425	
Pt245007gw1.XIV.1750.1	G	LVP	- ASSEAEKAQT 459	
ARF9_AT4G23980	P	TMSHSDPKSE	- ISKVSSEKKQ 498	
ARF11_AT2G46530		ISVDSN	- ISDSTTKCQD 468	
ARF18_AT3G61830		MD	- TCGAAKCE 467	
ARF1_AT1G59750	E	PLNINQSDIP	- SGSGD - 518	
ZmGRMZM2G017187_P02		Q	PSDVNNSDA	- AASSE - 532
ARF2_AT5G62000		LTQIASPKVQ	- DLS - DQSKGS	- KSTNDHREQG 704
ZmGRMZM2G006042_P01		SPEKSEPLVS	- PPSVAYGKIQ	- TSPTDNNE - 652
Pt179307_gw1.I.7907.1			- 356	
ARF21_AT1G34410			- 501	
ARF20_AT1G35240			- 485	
ARF22_AT1G34390			- 499	
ARF12_AT1G34310			- 501	
ARF15_AT1G35520			- 506	
ARF14_AT1G35540			- 500	
ARF13_AT1G34170			- 388	
ARF4_AT5G60450		NVTADLPFKI	- DMMGKQKQSE	- LNMNASSGCK 637
ARF3_AT2G33860		QGQEIFPGFI	- NTCSDGG - 451	
Pt243681_gw1.XIV.424.1			- 288	
Selmo1_2_61688		QGES - PDSGV	- TNESGSSKWM	- KEH - - SGADP 541
Selmo1_2_51695		QEQQ - NSAGS	- SSEATVLSWE	- KKDRLEGSSS 583
Phypa_108888		AAQE - QCVAS	- ASSVEGYRQ	- NE - - GGPWP 512
ARF10_AT2G28350		NRKRFLLEEA	- EAEE - -	- EKGVLVAGLTW 564
ARF16_AT4G30080		EKGSTDTANI	- EKTQISSGGS	- NQNGVLAGREF 557
Phypa_61245		- QRLEKEKG	- SNEALQ -	- 242
ZmGRMZM2G005284_P01			- 556	
ARF17_AT1G77850		PNSNTTNLSS	- GN -	- 502
Phypa_170581			- 715	
all_Phypa_171888			- 786	
Selmo1_2_405821			- 146	
Selmo1_2_431298			- 276	
Selmo1_2_431277			- 17	
corb_UMD_Coleochaete_c9703_c_s_1			- 38	
spra_Contig219_1			- 284	
IAA12_AT1G04550			- 125	
Consensus				
Conservation	100%			
	0%			

Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	NGIFMRNASW	SAMAPTS--R	TFTKV-HKLG	820
Phypha_218828	NGIFMRNASW	SAMAPTS--R	TFTKV-HKLG	655
Phypha1_1_127416_e_gw1.65.212.1	NGMCQRGAPW	ATMSPAP-VR	TFTKV-HKLG	749
Phypha1_1_50215_gw1.6.284.1	TGNMMLYVWG	ITFF--I-YR	TCEQV-HKLG	679
Phypha_167026	NGLFQRNTGW	PPAS--S-QR	TFTKV-HKLG	897
Phypha1_1_136986_e_gw1.133.91.1	-----	-----	-----	373
Phypha_188433	NIMLQRNVGW	PAAVATAPPYR	SFTKV-HKLG	671
Phypha_165321	NVMIPRGVW	PTVQPAPPYR	SFTKV-HKLG	734
ARF8_AT5G37020	THELLHGAG	QINSSNQ-TK	NFVKV-YKSG	706
Pt198791_gw1.IV.3880.1	SS-ELLSNAG	QMDPPTP-SG	TFVKV-YKSG	702
ARF6_AT1G30330	SG--FLQSSE	NLGSENPQSN	TFVKV-YKSG	794
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	402
Selmo1_422125	PAYLQRSSSA	QHMLP---R	TFTKV-YKTG	691
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	-----	-----	432
Selmo1_446535	-----	PPVR	TFTKV-HKVG	670
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	SPMR	TFTKVYKTG	781
ARF19_AT1G19220	-----	PNQT--QRMR	TYTKV-QKRG	956
ARF7_AT5G20730	-----	W PAQT--QRMR	TYTKV-QKRG	1035
ZmGRMZM2G014864_P01	T-----SW	PPAPPLKRMR	TFTKV-YKRG	908
ARF5_AT1G19850	-----	ATPRVR	TYTKV-QKTG	793
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	LR TCTKVHLQGA	673
all_Phypha_77324	-----	PL--VAPVR	SGTKV-YYSG	956
all_Phypha_159688	-----	PP--TVPVR	SGTKV-NYYG	842
all_Phypha_225990	-----	VSQAHAAPMR	SGIKV-YQQG	546
all_Phypha_171197	-----	ATQAHVTPMR	SGIKV-YQQG	1033
Pt179921_gw1.I.8521.1	EQLQKSPKEI	QSKQSSSTSR	SRTKVQMQG	455
Pt245007gw1.XIV.1750.1	MDVSMSSKEQ	KQQGSTTSTR	TTKKVQMQG	489
ARF9_AT4G23980	EPAEGSPKEV	QSKQSS-STR	SRTKVQMQG	527
ARF11_AT2G46530	PNSSNSPKEQ	KQT---STR	SRTKVQMQGT	494
ARF18_AT3G61830	PIITPTSMSEQ	KKQ---TSR	SRTKVQMQG	493
ARF1_AT1G59750	-PEKSSLRSP	QES-QSRQIR	SCTKVHMQGS	546
ZmGRMZM2G017187_P02	-----RSP	LES-QSRQVR	SCTKVIMQGM	554
ARF2_AT5G62000	RPFQTNPHP	KDAQTKNSSR	SCTKVHKQGI	734
ZmGRMZM2G006042_P01	-PCSEATQNI	QNKVQSSSTR	SCKKVHKQGS	681
Pt179307_gw1.I.7907.1	-----	-----	-----	356
ARF21_AT1G34410	-----	SSSR	TCTKVQMQG	515
ARF20_AT1G35240	-----	GSTR	TCTKVQMQG	499
ARF22_AT1G34390	-----	SSSR	TCTKVQMQG	513
ARF12_AT1G34310	-----	SSSR	TCTKVQMQG	515
ARF15_AT1G35520	-----	SSSR	TCTKVQMQG	520
ARF14_AT1G35540	-----	SSSR	TCTKVQMQG	514
ARF13_AT1G34170	-----	-----R	SMNSPISVPE	399
ARF4_AT5G60450	LGSLPVEVP	ASKPQSSSKR	LCTKVHKQGS	667
ARF3_AT2G33860	-----	-----A	GARRGRFKGT	462
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	D-DDG----	-----V	IHCKIFFEKE	556
Selmo1_2_51695	D-EES----	-----S	-QCRVFMEESG	597
Phypha_108888	EISIG----	-----T	EHCKVFREED	528
ARF10_AT2G28350	NYS-----	-----LQGLET	GHCKVFMESE	583
ARF16_AT4G30080	SSSEGSPCSK	KVHDASGLET	GHCKVFMEESD	587
Phypha_61245	-----	-----	-HCKVFREED	251
ZmGRMZM2G005284_P01	-----	-----	-----	556
ARF17_AT1G77850	-----	-----	-----D	503
Phypha_170581	-----	-----TR	SYIKV-YKLG	726
all_Phypha_171888	-----	-----TR	SYIKV-YKLG	797
Selmo1_2_405821	-----	-----G	TSSSK-QDVH	156
Selmo1_2_431298	-----	-----R	TCTKV-HKHG	286
Selmo1_2_431277	-----	-----	-----KHN	20
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	GFVKV-HKEG	47
spra_Contig219_1	-----	-----	-----CKVFEENE	292
IAA12_AT1G04550	-----	-----	-----VKVNMDSV	133



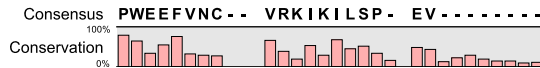
	2,140	2,160	
Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	SVGRSIDVQK	- FQNYSELRY	ELARLFNLEG 849
Phypha_218828	SVGRSIDVQK	- FQNYSELRY	ELARLFNLEG 684
Phypha1_1_127416_e_gw1.65.212.1	SVGRSIDVQK	- FQNYSELRA	ELARLFNLDN 778
Phypha1_1_50215_gw1.6.284.1	SVGRSLDVRN	- FSNYTELRQ	ELARRFQLDC 708
Phypha_167026	SVGRSLDVRN	- FNTYAELRK	ELAKMFHLDC 926
Phypha1_1_136986_e_gw1.133.91.1	-----	-----	----- 373
Phypha_188433	SVGRSLDINK	- FSNYVELRK	ELAHMFHLEC 700
Phypha_165321	SVGRSLDINK	- FSNYAELRK	ELAHMFHLEC 763
ARF8_AT5G37020	SVGRSLDISR	- FSSYELRE -	ELGKMFATIEG 734
Pt198791_gw1.IV.3880.1	SVGRSLDISR	- FSSYHELRL	ELAQMFETIEG 730
ARF6_AT1G30330	SVGRSLDISK	- FSSYHELRS	ELARMFGLIEG 822
Pt205407_gw1.V.808.1	-----	-----	----- 368
Selmo1_117217_e_gw1.55.235.1	-----	-----	----- 402
Selmo1_422125	SVGRSLDLTR	- LNCYDGLRS	ELARMFGLIEG 720
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	-----	----- 432
Selmo1_446535	SVGRSLDLTR	- FKNYHELRLN	ELTRMFGLIE - 698
Selmo1_181406_estExt_Genewise1Plus.C_650169	SVGRSIDVTR	- LKNYEELRR	DIARMFNLEG 810
ARF19_AT1G19220	SVGRI-DVTR	- YSGYDELRRH	DLARMFGLIEG 984
ARF7_AT5G20730	SVGRS-DVNR	- YRGYDELRRH	DLARMFGLIEG 1063
ZmGRMZM2G014864_P01	AVGRSIDLSQ	- FSGYDELKH	ALARMFGLIEG 937
ARF5_AT1G19850	SVGRSIDTS -	- FKDYEELKS	AIETCMFGLIEG 821
Selmo1_437944_estExt_fgenes2_pg.C_10526	AVGRAVDLSK	- FSCYSELLL	ELQQLFGLDN 702
all_Phypha_77324	KVGRIDLKK	- CESYAALRR	MLASLFGLEG 985
all_Phypha_159688	KFGRTVDLKK	- CDSYAALRR	MLATLFGLEG 871
all_Phypha_225990	KVGRIDLKK	- CESYDGLRR	VLANLFLNQG 575
all_Phypha_171197	KVGRIDLKK	- CESYTGRR	VLANLFLNQG 1062
Pt179921_gw1.I.8521.1	AVGRAVDLTM	- LKGYSQLID	ELEQLF - IKG 483
Pt245007gw1.XIV.1750.1	AVGRALDLTV	- LKGYKDLIN	ELEKMFETGG 518
ARF9_AT4G23980	PVGRAVDLNA	- LKGYNELID	DIEKLFDIKG 556
ARF11_AT2G46530	AVGRAVDLTL	- LRSYDELK	ELEKMFETIEG 523
ARF18_AT3G61830	AVGRAVDLTL	- LKSYDELID	ELEEMFETIEG 522
ARF1_AT1G59750	AVGRAIDLTR	- SECY-DLTK	KLEEMFDIKG 574
ZmGRMZM2G017187_P02	AVGRAV-LTK	- LSGYSDLCQ	KLEEMFDIQG 582
ARF2_AT5G62000	AVGRSVDLSK	- FQNYEELVA	ELDRLEFENFG 763
ZmGRMZM2G006042_P01	AVGRSVDLTK	- FACVDELVA	ELDQMFDFDQ 710
Pt179307_gw1.I.7907.1	-----	-----	---NMATSSA 363
ARF21_AT1G34410	TIGRAVDLSV	- LNGYDQLIL	ELEKLFDIKG 544
ARF20_AT1G35240	TIGRAVDLSV	- LNGYDQLIL	ELEKLFDLKG 528
ARF22_AT1G34390	TIGRAVDLSV	- LNGYDQLIL	ELEEFLDLKG 542
ARF12_AT1G34310	TIGRAVDLSV	- LNGYDQLIL	ELEKLFDIKG 544
ARF15_AT1G35520	TIGRAVDLSV	- LNGYDQLIL	ELEKLFDLKG 549
ARF14_AT1G35540	TIGRAVDLSV	- LNGYDQLIL	ELEKLFDLKG 543
ARF13_AT1G34170	FYPNAIEDSK	- FLSGLLLNH	SLLAIPN-EN 427
ARF4_AT5G60450	QVGRAIDLRS	- LNGYDDLIM	ELERLFNMEG 696
ARF3_AT2G33860	EEGDSYGFHK	VLQGGQETVAY	SITDHRQQHG 492
Pt243681_gw1.XIV.424.1	-----	-----	----- 288
Selmo1_2_61688	EVGRTLDSL	- FGNYEELYD	RLASMFMTMD - 584
Selmo1_2_51695	DVKRTLDSL	- FGSYDELYK	QLATVFCVD - 625
Phypha_108888	EVGRTLDLAN	- FKSYYEYVD	RLAGMFSVP - 556
ARF10_AT2G28350	DVGRTLDSL	- IGSYQELYR	KLAEMFHIEE 612
ARF16_AT4G30080	DVGRTLDSL	- LGSYEELSR	KLSDMFGIK - 615
Phypha_61245	EVGRTLDLAN	- FKSYYEYVD	RLAGMFSVP - 279
ZmGRMZM2G005284_P01	-----	- GSHDKATN	NTSGRSGAPE 574
ARF17_AT1G77850	LVGNRGPISK	- KVNISQLFG	KIITVEEHSE 532
Phypha_170581	SITRAVDVNR	- FKDYTELRC	ELARMFNLDG 755
all_Phypha_171888	SITRAVDVNR	- FKDYTELRC	ELARMFNLDG 826
Selmo1_2_405821	QMGRALDLRK	- FRGYRELE	ELQHLFGIDK 185
Selmo1_2_431298	AVGRALDLPK	- FRGYRELE	ELQHLFGIDE 315
Selmo1_2_431277	AVGRALDLSK	- FRGYTQLLE	EPQHLFGIDE 49
corb_UMD_Coleochaete_c9703_c_s_1	SIGRSLDLSK	- FRGYNELRT	EINLFLGLHG 76
spra_Contig219_1	SVGRSVDLAR	- CHSHDELAC	HLASFRMNP 321
IAA12_AT1G04550	GIVGRKVDL-R	AHSSYENLAQ	TLEEMF - - - 158



Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	- L L D D P Q R S G	W Q L V F V D N E N	D T L L V G D D	-- 876
Phypha_218828	- L L D D P Q R S G	W Q L V F V D N E N	D T L L V G D D	-- 711
Phypha1_1_127416_e_gw1.65.212.1	- L L D D P Q R T G	W Q L V F V D N E N	D T L L V G D D	-- 805
Phypha1_1_50215_gw1.6.284.1	- L M E D P S S S G	W Q L V F V D N E D	D T L L V G D D	-- 735
Phypha_167026	- L M E D P P T S G	W Q L V F V D N E N	D T L L V G D D	-- 953
Phypha1_1_136986_e_gw1.133.91.1	-----	-----	-----	373
Phypha_188433	- L M E D S Q Q S S	W K L V F V D N E N	D T L L L G D E	-- 727
Phypha_165321	- L M E D P Q Q S D	W L I V Y V D N E N	D T L L L G D G	-- 790
ARF8_AT5G37020	- L L E D P L R S G	W Q L V F V D K E N	D I L L L G D D	-- 761
Pt198791_gw1.IV.3880.1	- K L E N P H R S G	W Q L V F V D R E N	D V L L L G D D	-- 757
ARF6_AT1G30330	- Q L E D P V R S G	W Q L V F V D R E N	D V L L L G D D	-- 849
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	402
Selmo1_422125	- Q L E D P H R S G	W Q L V F V D N E N	D V L L V G D D	-- 747
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	-----	-----	432
Selmo1_446535	--- L H D H K S G	W Q L V F I D N E N	D M L L L G D D	-- 722
Selmo1_181406_estExt_Genewise1Plus.C_650169	Q L L M D S C R S S	W Q L V F V D Y E G	D V L L V G D D	-- 838
ARF19_AT1G19220	Q - L E D P L T S D	W K L V Y T D H E N	D I L L V G D D	-- 1011
ARF7_AT5G20730	Q - L E D P Q T S D	W K L V Y T D H E N	D I L L V G D D	-- 1090
ZmGRMZM2G014864_P01	Q - L E E R Q R I G	W K L V Y K D H E D	D I L L - G D D	-- 963
ARF5_AT1G19850	- L L T H P Q S S G	W K L V Y V D Y E S	D V L L V G D D	-- 848
Selmo1_437944_estExt_fgenes2_pg.C_10526	A L - - D D P D S G	W Q V V Y T D N E G	D M L L V G D D	-- 728
all_Phypha_77324	Q L - - D D V T K G	W Q L V Y T D H E N	D V L L V G D D	-- 1011
all_Phypha_159688	Q L - - D D V T K G	W Q L V Y T D H E N	D V L L V G D D	-- 897
all_Phypha_225990	Q L - - D D V T K G	W Q L V Y T D H E N	D V L L V G D D	-- 601
all_Phypha_171197	Q L - - D D V T K G	W Q L V Y T D H E N	D V L L V G D D	-- 1088
Pt179921_gw1.I.8521.1	Q L - - H P R D K	W E I V Y T D D E G	D M M L V G D D	-- 508
Pt245007gw1.XIV.1750.1	E L - - S T R E K	W A V V F T D N E G	D M M L V G D D	-- 543
ARF9_AT4G23980	E L - - R S - N Q	W E V F T D D E G	D M M L V G D D	-- 580
ARF11_AT2G46530	E L - - S P K D K	W A I V F T D D E G	D R M L V G D D	-- 548
ARF18_AT3G61830	Q L - - L A R D K	W I V V F T D D E G	D M M L A G D D	-- 547
ARF1_AT1G59750	E L - - L E S T K K	W Q V V Y T D D E D	D M M M V G D D	-- 600
ZmGRMZM2G017187_P02	E L - - G S T L K K	W R V I F T D D E D	D M M L V G D D	-- 608
ARF2_AT5G62000	E L - - M A P K K D	W L V V Y T D E E N	D M M L V G D D	-- 789
ZmGRMZM2G006042_P01	E L - - K S P C R N	W L - Y Y T D N E G	D M M L V G D D	-- 735
Pt179307_gw1.I.7907.1	D S - - S A P T K K	-----	-----	371
ARF21_AT1G34410	Q L - - Q T R N Q	W K I A F T D S D	Y E M L V G D D	-- 568
ARF20_AT1G35240	Q L - - Q T R N Q	W K I A F T D S D G	Y E M L V G D D	-- 553
ARF22_AT1G34390	Q L - - Q T R N Q	W E I A F T D S D D	- D M L V G D D	-- 566
ARF12_AT1G34310	Q L - - Q T R N Q	W E I A F T D S D D	- K M L V G D D	-- 568
ARF15_AT1G35520	Q L - - Q T R N Q	W K I - I T G S D E	D E M L V G D D	-- 573
ARF14_AT1G35540	Q L - - Q A R N Q	W E I A F T N N E E	- K M L V G E D	-- 567
ARF13_AT1G34170	Y N S D Q M I Q P R	K E D I T T E A T T	S C L L F G V D L T	457
ARF4_AT5G60450	L L R - - D P E K G	W R I L Y T D S E N	D M M V V G D	-- 721
ARF3_AT2G33860	L - - - S Q R N I	W - - - - - - - - -	- - - - - C G	501
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	----- K S K L S	GR V V Y R D L E G	S T I Y G G E	-- 607
Selmo1_2_51695	----- M A K L S	GR V V Y K D S E G	S T I H T G G E	-- 648
Phypha_108888	----- A A S F K	NR V V Y Q D G E G	C T L P V G A E	-- 579
ARF10_AT2G28350	----- R S D L L	TH V V Y R D A N G	V I K R I G D E	-- 635
ARF16_AT4G30080	----- K S E M L	S S V L Y R D A S G	A I K Y A G N E	-- 638
Phypha_61245	----- A A S F K	NR V V Y Q D G E G	C T L P V G A E	-- 302
ZmGRMZM2G005284_P01	-----	-----	- - - - - F G L E	578
ARF17_AT1G77850	----- S G P A E	S G L C E E D G S K	E S S D N E T Q	-- 555
Phypha_170581	Q L - - D P T V G	W Q L V F T D N E D	D L L L V G D D	-- 780
all_Phypha_171888	Q L - - D P K V G	W Q L V F T D N E D	D L L L V G D D	-- 851
Selmo1_2_405821	N L - - - N G S E	W Q A V Y V D N E G	D M L L V G D D P W	211
Selmo1_2_431298	N L - - - N V A S	-----	-----	321
Selmo1_2_431277	N L - - - N E S E	W Q A M Y V D N E G	D M L F V G E G V G	75
corb_UMD_Coleochaete_c9703_c_s_1	----- D E V D N	W M Y V F V D N D G	D R L L L G D D	-- 99
spra_Contig219_1	R D V I D	- R L V F H D A N S	E W L A S S	-- 343
IAA12_AT1G04550	-----	-----	-----	158



	2,200	2,220	
Phypha1_1_168019_estExt_fgenes1_pg.C_1630077	PWEEFVNC	VRSLKILSPN	EILQMSQEQI 904
Phypha_218828	PWEEFVNC	VRSLKILSPN	EILQMSQEQI 739
Phypha1_1_127416_e_gw1.65.212.1	PWEEFVNY	VRSLKILSPN	EILQMSRQEQI 833
Phypha1_1_50215_gw1.6.284.1	PWEEFAKF	VKTKILSPS	EVAQ - - - - 757
Phypha_167026	PWEDFLNC	VRSLKILSPS	EVTQISQDQL 981
Phypha1_1_136986_e_gw1.133.91.1	- - - - -	- - - - -	- - - - - 373
Phypha_188433	PWEEFVSC	VRSLKILSPA	EVAQMNQHYL 755
Phypha_165321	PWEEAFVSC	VRSLKILSPV	EVAQMSQEMP 818
ARF8_AT5G37020	PWEEFVNN	VWYIKILSPE	DVHQMGDHEE 789
Pt198791_gw1.IV.3880.1	PWEEFVNN	VWYIKILSPE	DVLKIGEQG- 784
ARF6_AT1G30330	PWEEFVSS	VWCIKILSPQ	EVQQMGKRG 877
Pt205407_gw1.V.808.1	- - - - -	- - - - -	- - - - - 368
Selmo1_117217_e_gw1.55.235.1	- - - - -	- - - - -	- - - - - 402
Selmo1_422125	PWEEFVSC	VRCLKIMSPA	ELSHMNQEQI 775
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	- - - - -	- - - - -	- - - - - 432
Selmo1_446535	PWDEFVGC	VKSLRILSSS	EILQMNQEHM 750
Selmo1_181406_estExt_Genewise1Plus.C_650169	PWEEFVGC	VRFLKILSPS	EVQQNRENEL 866
ARF19_AT1G19220	PWEEFVNC	VQNLIKILSSV	EVQQMSLDGD 1039
ARF7_AT5G20730	PWEEFVNC	VQSILKILSSA	EVQQMSLDGN 1118
ZmGRMZM2G014864_P01	PWEEFVNC	VKCLRILSPQ	EVQQSLDGDG 991
ARF5_AT1G19850	PWEEFVGC	VRCLRILSPT	EVQQMSEEGM 876
Selmo1_437944_estExt_fgenes2_pg.C_10526	PWQEFVNC	VRNIRILSPA	EVEKLTQ - - - 753
all_Phypha_77324	PWEEFCNC	VRSLKILSPQ	DAAGQS - - - 1035
all_Phypha_159688	PWEEFCNC	VRSLKILSPQ	DAAGQN - - - 921
all_Phypha_225990	PWEEFCGC	VRSLKILSPQ	DAAGQT - - - 625
all_Phypha_171197	PWEEFCGC	VRSLKILSPQ	DVAGQS - - - 1112
Pt179921_gw1.I.8521.1	PWPEFCNM	VRRIYICSSQ	DVKRM - - - 531
Pt245007gw1.XIV.1750.1	PWPFECKM	VKKIFLYSSE	-VKKMS - - - 566
ARF9_AT4G23980	PWPFECKM	VKRIFLWSKE	EVKKMT - - - 604
ARF11_AT2G46530	PWNEFCMK	AKKLI-YPSD	EVKKMR - - - 571
ARF18_AT3G61830	PWNEFCMK	AKKIF-YSSD	EVKKMT - - - 570
ARF1_AT1G59750	PWNEFCGM	VRKIFLYTPE	EVKKLS - - - 624
ZmGRMZM2G017187_P02	PWE - - - -	- - - - -	- - - - - 611
ARF2_AT5G62000	PWQEFCCM	VRKIFLYTKE	EVRKMN - - - 812
ZmGRMZM2G006042_P01	PWNEFCDM	VHKIFLYTRE	EVERMN - - - 759
Pt179307_gw1.I.7907.1	- - - - -	- - - - -	- - - - - 371
ARF21_AT1G34410	PWPFECKM	VKKILLYSKE	EVKNLKSS - - 594
ARF20_AT1G35240	PWPFECK - -	VKKILLYSKE	EVKNLKSS - - 578
ARF22_AT1G34390	PWPFCNM - -	VKKILFKRG	- - - - - GQ - - - 586
ARF12_AT1G34310	PWPFCNM - -	VKKIFLQKR -	- - - - - 585
ARF15_AT1G35520	PWPFCNM - -	VKRIYIQR -	- - - - - 590
ARF14_AT1G35540	PWPFCNM - -	VKKIFLYSKE	EVKNLKSR - - 593
ARF13_AT1G34170	KVSKSKDS -	ICPLSCKKS	EISKLNQKAT 485
ARF4_AT5G60450	PWHDFCNV -	VWKHLLYTKE	EVENANDDNK 749
ARF3_AT2G33860	PEQNFSTR -	LLPPSVSSSP	S - - - - - 520
Pt243681_gw1.XIV.424.1	- - - - -	- - - - -	- - - - - 288
Selmo1_2_61688	PYGNFVKS -	VRRLTIL - -	- - - - - 622
Selmo1_2_51695	PYANFVKS -	VRRLTIL - -	- - - - - 663
Phypha_108888	PYGNFVAA -	VRRLTIL - -	- - - - - 594
ARF10_AT2G28350	PF - SDFKA -	TKRLLKMD -	- - - - - 652
ARF16_AT4G30080	PF - EFLKT -	ARRLTIL - -	- - - - - 652
Phypha_61245	PYGNFVAA -	VRRLTIL - -	- - - - - 317
ZmGRMZM2G005284_P01	P - - - - -	- - - - -	- - - - - 579
ARF17_AT1G77850	LSLSHPPS -	VPKHS - - -	- - - - - 568
Phypha_170581	PWDEFVRN -	VRGRLILTPA	EVYFYTNEEK 808
all_Phypha_171888	PWEEFVRN -	VRGRLILTPA	EVYFYTNEEK 879
Selmo1_2_405821	GMEFTFQGV -	LHDGAMHSAA	EIQKLTVRAR 239
Selmo1_2_431298	- - - - RGV - -	LHDGAMHSAA	EIQKLTVRAR 344
Selmo1_2_431277	RFAAFASLHP	RKRLLIATQK	GASETSK - - - 102
corb_UMD_Coleochaete_c9703_c_s_1	PWDNFVVCXA	QHP - - - -	- - - - - 112
spra_Contig219_1	PYEKL - - MET	AKRAMILSS -	- - - - - 360
IAA12_AT1G04550	- - - GTGLYCFQ	MRTL - - -	- - - - - 172
Consensus	PWEEFVNC - -	VRKILKILSP -	EV - - - - -



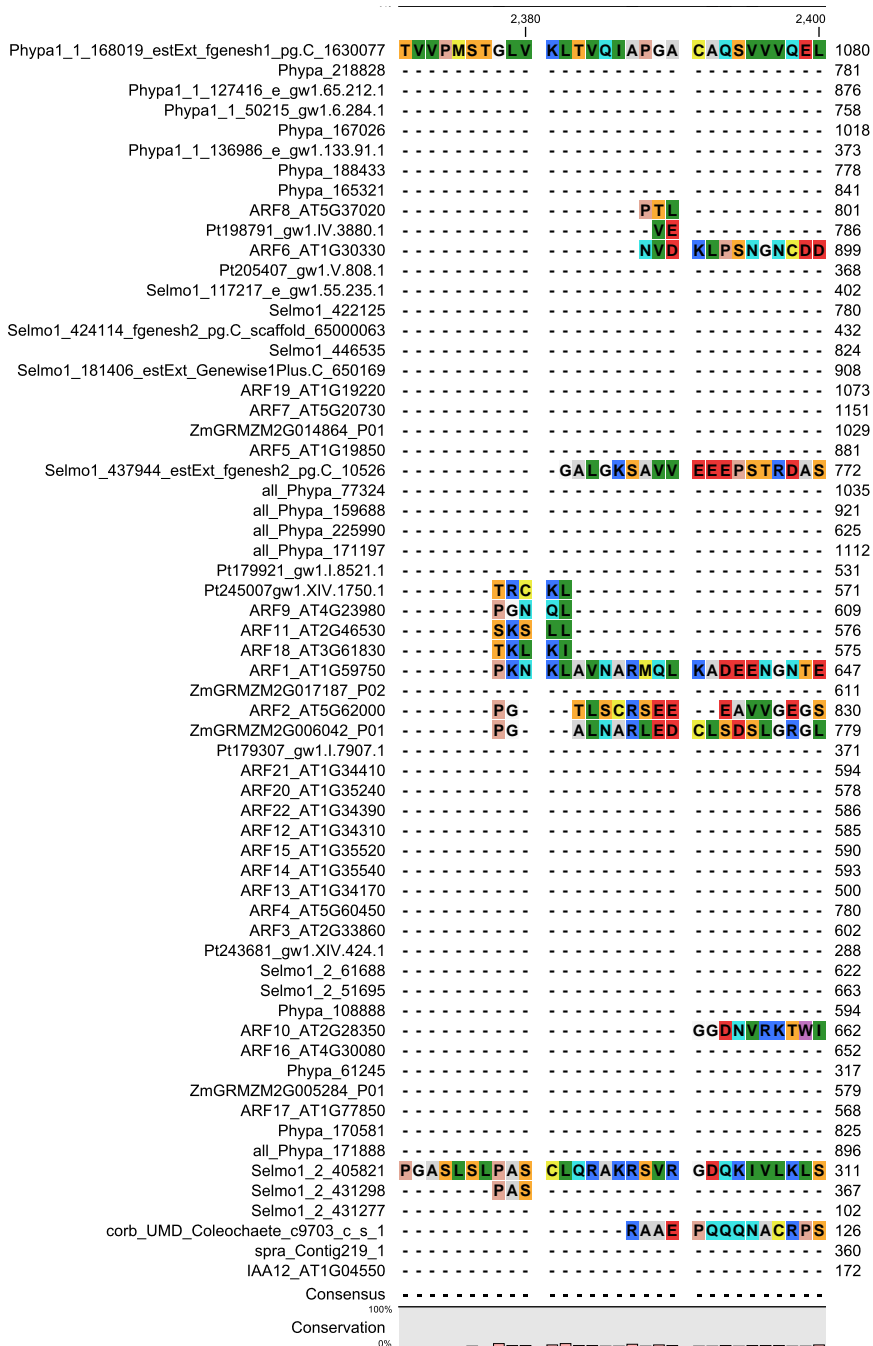
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	E L L N S V P M Q -	- - - Q R P T C S N	S E D A R T Q T S P	930
Phypa_218828	E L L N S V P M Q -	- - - Q R P T C S N	S E D A R T Q T S P	765
Phypa1_1_127416_e_gw1.65.212.1	E L L N T V P M Q -	- - - Q R P T C S N	S E D A R T Q T S P	859
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	757
Phypa_167026	K M L E T V P V Q H	L Q P Q R L I S S D	S G E V Y P Q S S L	1011
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	373
Phypa_188433	A A W - - - - - S	G Q H L R P S N S N	S E D T P S S Q A -	778
Phypa_165321	A A W - - - - - L	G Q Q L R P S N S N	S E D A P N S Q A -	841
ARF8_AT5G37020	G S G G L F P Q N -	-----	-----	798
Pt198791_gw1.IV.3880.1	-----	-----	-----	784
ARF6_AT1G30330	E L L S A P S S N -	-----	-----	886
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	402
Selmo1_422125	N A L Q A - - - -	-----	-----	780
Selmo1_424114_fgenes2_pg.C_scaffold_6500063	-----	-----	-----	432
Selmo1_446535	E W L N S I P L H Q	Q Q K Q A S S S S D	D H R P C G D V P A	780
Selmo1_181406_estExt_Genewise1Plus.C_650169	E S L A A V P - - -	N Q R Q T S S S S D	D - - - - - - - -	884
ARF19_AT1G19220	L A - - - I P T I N	Q A C S E T D S G N	A W K V H Y E D T S	1066
ARF7_AT5G20730	F A - - - V P V T N	Q A C S G G D S G N	A W R G H Y D D N S	1145
ZmGRMZM2G014864_P01	L G N I L P - - - N	Q A C S S S D G G N	A W R A R C D Q N S	1019
ARF5_AT1G19850	K L L N A - - - -	-----	-----	881
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	753
all_Phypa_77324	-----	-----	-----	1035
all_Phypa_159688	-----	-----	-----	921
all_Phypa_225990	-----	-----	-----	625
all_Phypa_171197	-----	-----	-----	1112
Pt179921_gw1.I.8521.1	-----	-----	-----	531
Pt245007gw1.XIV.1750.1	-----	-----	-----	566
ARF9_AT4G23980	-----	-----	-----	604
ARF11_AT2G46530	-----	-----	-----	571
ARF18_AT3G61830	-----	-----	-----	570
ARF1_AT1G59750	-----	-----	-----	624
ZmGRMZM2G017187_P02	-----	-----	-----	611
ARF2_AT5G62000	-----	-----	-----	812
ZmGRMZM2G006042_P01	-----	-----	-----	759
Pt179307_gw1.I.7907.1	-----	-----	-----	371
ARF21_AT1G34410	-----	-----	-----	594
ARF20_AT1G35240	-----	-----	-----	578
ARF22_AT1G34390	-----	-----	-----	586
ARF12_AT1G34310	-----	-----	-----	585
ARF15_AT1G35520	-----	-----	-----	590
ARF14_AT1G35540	-----	-----	-----	593
ARF13_AT1G34170	T S C L K I K S L T	K P N E -	-----	500
ARF4_AT5G60450	S C L E Q A A L M M	E A S K S S S V S Q	P D S S P T I T R V	779
ARF3_AT2G33860	-----	-----	-----	520
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	-----	-----	-----	622
Selmo1_2_51695	-----	-----	-----	663
Phypa_108888	-----	-----	-----	594
ARF10_AT2G28350	-----	-----	-----	652
ARF16_AT4G30080	-----	-----	-----	652
Phypa_61245	-----	-----	-----	317
ZmGRMZM2G005284_P01	-----	-----	-----	579
ARF17_AT1G77850	-----	-----	-----	568
Phypa_170581	C T A A A Y N S T G	G S A P K P M - - -	-----	825
all_Phypa_171888	C T A A A Y N P A G	G S A P K P M - - -	-----	896
Selmo1_2_405821	N S S T E E P S S R	L S D Q Q D S S S	-----	258
Selmo1_2_431298	N S S T E E P S S R	L S D Q Q D S S S	-----	363
Selmo1_2_431277	-----	-----	-----	102
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	112
spra_Contig219_1	-----	-----	-----	360
IAA12_AT1G04550	-----	-----	-----	172



Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	CKATPLSQVL	IAADSVARRS	FGLAANLKRS	990
Phypa_218828	-----	-----	-----	776
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	-----	870
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	758
Phypa_167026	-----	-----	-----	1018
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	373
Phypa_188433	-----	-----	-----	778
Phypa_165321	-----	-----	-----	841
ARF8_AT5G37020	-----	-----	-----	798
Pt198791_gw1.IV.3880.1	-----	-----	-----	784
ARF6_AT1G30330	-----	-----	-----	886
Pt205407_gw1.V.808.1	-----	-----	-----	368
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	402
Selmo1_422125	-----	-----	-----	780
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	432
Selmo1_446535	SSVNSDPSCV	SDG	-----	824
Selmo1_181406_estExt_Genewise1Plus.C_650169	YHHRPDFC	-----	-----	908
ARF19_AT1G19220	-----	-----	-----	1073
ARF7_AT5G20730	-----	-----	-----	1151
ZmGRMZM2G014864_P01	-----	-----	-----	1029
ARF5_AT1G19850	-----	-----	-----	881
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	753
all_Phypa_77324	-----	-----	-----	1035
all_Phypa_159688	-----	-----	-----	921
all_Phypa_225990	-----	-----	-----	625
all_Phypa_171197	-----	-----	-----	1112
Pt179921_gw1.I.8521.1	-----	-----	-----	531
Pt245007gw1.XIV.1750.1	-----	-----	-----	566
ARF9_AT4G23980	-----	-----	-----	604
ARF11_AT2G46530	-----	-----	-----	571
ARF18_AT3G61830	-----	-----	-----	570
ARF1_AT1G59750	-----	-----	-----	624
ZmGRMZM2G017187_P02	-----	-----	-----	611
ARF2_AT5G62000	-----	-----	-----	812
ZmGRMZM2G006042_P01	-----	-----	-----	759
Pt179307_gw1.I.7907.1	-----	-----	-----	371
ARF21_AT1G34410	-----	-----	-----	594
ARF20_AT1G35240	-----	-----	-----	578
ARF22_AT1G34390	-----	-----	-----	586
ARF12_AT1G34310	-----	-----	-----	585
ARF15_AT1G35520	-----	-----	-----	590
ARF14_AT1G35540	-----	-----	-----	593
ARF13_AT1G34170	-----	-----	-----	500
ARF4_AT5G60450	-----	-----	-----	780
ARF3_AT2G33860	DHHGSGRCR	LFGFPLTDET	TAVASTAVPC	565
Pt243681_gw1.XIV.424.1	-----	-----	-----	288
Selmo1_2_61688	-----	-----	-----	622
Selmo1_2_51695	-----	-----	-----	663
Phypa_108888	-----	-----	-----	594
ARF10_AT2G28350	-----	-----	-----	652
ARF16_AT4G30080	-----	-----	-----	652
Phypa_61245	-----	-----	-----	317
ZmGRMZM2G005284_P01	-----	-----	-----	579
ARF17_AT1G77850	-----	-----	-----	568
Phypa_170581	-----	-----	-----	825
all_Phypa_171888	-----	-----	-----	896
Selmo1_2_405821	-----	-----	-----	258
Selmo1_2_431298	-----	-----	-----	363
Selmo1_2_431277	-----	-----	-----	102
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	112
spra_Contig219_1	-----	-----	-----	360
IAA12_AT1G04550	-----	-----	-----	172
Consensus	-----	-----	-----	
Conservation	-----	-----	-----	

	2,320	2,340	
Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	LHESWAMVLS	LKPGVHIGS	PKYYVWESYS
Phypa_218828	-H-	-	-
Phypa1_1_127416_e_gw1.65.212.1	-H-	-	-
Phypa1_1_50215_gw1.6.284.1	-	-	-
Phypa_167026	-	-	-
Phypa1_1_136986_e_gw1.133.91.1	-	-	-
Phypa_188433	-	-	-
Phypa_165321	-	-	-
ARF8_AT5G37020	-	-	-
Pt198791_gw1.IV.3880.1	-	-	-
ARF6_AT1G30330	-	-	-
Pt205407_gw1.V.808.1	-	-	-
Selmo1_117217_e_gw1.55.235.1	-	-	-
Selmo1_422125	-	-	-
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-	-	-
Selmo1_446535	-	-	-
Selmo1_181406_estExt_Genewise1Plus.C_650169	-	-	-
ARF19_AT1G19220	-	-	-
ARF7_AT5G20730	-	-	-
ZmGRMZM2G014864_P01	-	-	-
ARF5_AT1G19850	-	-	-
Selmo1_437944_estExt_fgenes2_pg.C_10526	-	-	-
all_Phypa_77324	-	-	-
all_Phypa_159688	-	-	-
all_Phypa_225990	-	-	-
all_Phypa_171197	-	-	-
Pt179921_gw1.I.8521.1	-	-	-
Pt245007gw1.XIV.1750.1	-	-	-
ARF9_AT4G23980	-	-	-
ARF11_AT2G46530	-	-	-
ARF18_AT3G61830	-	-	-
ARF1_AT1G59750	-	-	-
ZmGRMZM2G017187_P02	-	-	-
ARF2_AT5G62000	-	-	-
ZmGRMZM2G006042_P01	-	-	-
Pt179307_gw1.I.7907.1	-	-	-
ARF21_AT1G34410	-	-	-
ARF20_AT1G35240	-	-	-
ARF22_AT1G34390	-	-	-
ARF12_AT1G34310	-	-	-
ARF15_AT1G35520	-	-	-
ARF14_AT1G35540	-	-	-
ARF13_AT1G34170	-	-	-
ARF4_AT5G60450	-	-	-
ARF3_AT2G33860	VEGNSMKGAS	AVQSNHHHSQ	GRDLYAMRDM
Pt243681_gw1.XIV.424.1	-	-	-
Selmo1_2_61688	-	-	-
Selmo1_2_51695	-	-	-
Phypa_108888	-	-	-
ARF10_AT2G28350	-	-	-
ARF16_AT4G30080	-	-	-
Phypa_61245	-	-	-
ZmGRMZM2G005284_P01	-	-	-
ARF17_AT1G77850	-	-	-
Phypa_170581	-	-	-
all_Phypa_171888	-	-	-
Selmo1_2_405821	-	-	-
Selmo1_2_431298	-	-	-
Selmo1_2_431277	-	-	-
corb_UMD_Coleochaete_c9703_c_s_1	-	-	-
spra_Contig219_1	-	-	-
IAA12_AT1G04550	-	-	-
Consensus	-	-	-
Conservation	100%	0%	

Phypa1_1_168019_estExt_fgenes1_pg.C_1630077	I SELVHRVVD	LHPFWSVAER	L SGTRSSDYE	1050	
Phypa_218828	-----	-----	S GGR	781	
Phypa1_1_127416_e_gw1.65.212.1	-----	-----	S GPG*	876	
Phypa1_1_50215_gw1.6.284.1	-----	-----	-----	758	
Phypa_167026	-----	-----	-----	1018	
Phypa1_1_136986_e_gw1.133.91.1	-----	-----	-----	373	
Phypa_188433	-----	-----	-----	778	
Phypa_165321	-----	-----	-----	841	
ARF8_AT5G37020	-----	-----	-----	798	
Pt198791_gw1.IV.3880.1	-----	-----	-----	784	
ARF6_AT1G30330	-----	-----	-----	886	
Pt205407_gw1.V.808.1	-----	-----	-----	368	
Selmo1_117217_e_gw1.55.235.1	-----	-----	-----	402	
Selmo1_422125	-----	-----	-----	780	
Selmo1_424114_fgenes2_pg.C_scaffold_65000063	-----	-----	-----	432	
Selmo1_446535	-----	-----	-----	824	
Selmo1_181406_estExt_Genewise1Plus.C_650169	-----	-----	-----	908	
ARF19_AT1G19220	-----	-----	-----	1073	
ARF7_AT5G20730	-----	-----	-----	1151	
ZmGRMZM2G014864_P01	-----	-----	-----	1029	
ARF5_AT1G19850	-----	-----	-----	881	
Selmo1_437944_estExt_fgenes2_pg.C_10526	-----	-----	-----	753	
all_Phypa_77324	-----	-----	-----	1035	
all_Phypa_159688	-----	-----	-----	921	
all_Phypa_225990	-----	-----	-----	625	
all_Phypa_171197	-----	-----	-----	1112	
Pt179921_gw1.I.8521.1	-----	-----	-----	531	
Pt245007gw1.XIV.1750.1	-----	-----	-----	566	
ARF9_AT4G23980	-----	-----	-----	604	
ARF11_AT2G46530	-----	-----	-----	571	
ARF18_AT3G61830	-----	-----	-----	570	
ARF1_AT1G59750	-----	-----	-----	624	
ZmGRMZM2G017187_P02	-----	-----	-----	611	
ARF2_AT5G62000	-----	-----	-----	812	
ZmGRMZM2G006042_P01	-----	-----	-----	759	
Pt179307_gw1.I.7907.1	-----	-----	-----	371	
ARF21_AT1G34410	-----	-----	-----	594	
ARF20_AT1G35240	-----	-----	-----	578	
ARF22_AT1G34390	-----	-----	-----	586	
ARF12_AT1G34310	-----	-----	-----	585	
ARF15_AT1G35520	-----	-----	-----	590	
ARF14_AT1G35540	-----	-----	-----	593	
ARF13_AT1G34170	-----	-----	-----	500	
ARF4_AT5G60450	-----	-----	-----	780	
ARF3_AT2G33860	L L D I A L*	-----	-----	602	
Pt243681_gw1.XIV.424.1	-----	-----	-----	288	
Selmo1_2_61688	-----	-----	-----	622	
Selmo1_2_51695	-----	-----	-----	663	
Phypa_108888	-----	-----	-----	594	
ARF10_AT2G28350	-----	-----	-----	652	
ARF16_AT4G30080	-----	-----	-----	652	
Phypa_61245	-----	-----	-----	317	
ZmGRMZM2G005284_P01	-----	-----	-----	579	
ARF17_AT1G77850	-----	-----	-----	568	
Phypa_170581	-----	-----	-----	825	
all_Phypa_171888	-----	-----	-----	896	
Selmo1_2_405821	-----	P RR	P TGC L GV G V A	T LP L C P L L I G A	281
Selmo1_2_431298	-----	P	-----	-----	364
Selmo1_2_431277	-----	-----	-----	-----	102
corb_UMD_Coleochaete_c9703_c_s_1	-----	-----	-----	-----	112
spra_Contig219_1	-----	-----	-----	-----	360
IAA12_AT1G04550	-----	-----	-----	-----	172
Consensus	-----	-----	-----	-----	
Conservation	-----	-----	-----	-----	



Phypha1_1_168019_estExt_fgenes1_pg.C_1630077 **AAPKRHTQYL** **TAGLLFQTQR** **VVV*** 1104
 Phypha_218828 ----- 781
 Phypha1_1_127416_e_gw1.65.212.1 ----- 876
 Phypha1_1_50215_gw1.6.284.1 ----- 758
 Phypha_167026 ----- 1018
 Phypha1_1_136986_e_gw1.133.91.1 ----- 373
 Phypha_188433 ----- **GVG** **VVDH** 785
 Phypha_165321 ----- **GGG** **ALDH** 848
 ARF8_AT5G37020 ----- * 802
 Pt198791_gw1.IV.3880.1 ----- **P** 787
 ARF6_AT1G30330 **FGNRS DPRNL** **GNGLASVGGSS** **FNY*** 923
 Pt205407_gw1.V.808.1 ----- 368
 Selmo1_117217_e_gw1.55.235.1 ----- 402
 Selmo1_422125 ----- **RTNEEF** **TEQDANPGVE** **VEEF** 800
 Selmo1_424114_fgenes2_pg.C_scaffold_65000063 ----- 432
 Selmo1_446535 ----- 824
 Selmo1_181406_estExt_Genewise1Plus.C_650169 ----- 908
 ARF19_AT1G19220 ----- * 1074
 ARF7_AT5G20730 ----- * 1152
 ZmGRMZM2G014864_P01 ----- **FE** 1031
 ARF5_AT1G19850 ----- **GINDLKT** **SVS*** 892
 Selmo1_437944_estExt_fgenes2_pg.C_10526 **KLSDHQDSSS** **PPAISTKGAA** **SDL*** 796
 all_Phypha_77324 **VGKYPMTNC** **DEDDDWQSAV** **QSSG** 1058
 all_Phypha_159688 **VGKLP MNNC** **DEDDDWLSAV** **QSSG** 944
 all_Phypha_225990 **VGRI PASSC** **EEDDEWH** ----- 641
 all_Phypha_171197 **VGKFP TSSC** **ENDLGRQ** ----- 1128
 Pt179921_gw1.I.8521.1 ----- 531
 Pt245007gw1.XIV.1750.1 **PASSFEGEG** **TVVSM** **ES** **EHKS** 591
 ARF9_AT4G23980 **RMLLEVEET** **TLTTTSKTDN** **HSN*** 632
 ARF11_AT2G46530 **GD** **KGTIV** **NLESQRQTV** **HV*** 595
 ARF18_AT3G61830 **SSSLENEEY** **GNESEFNRS** **RG*** 596
 ARF1_AT1G59750 **GRSS** ----- **SMA** **GSR*** 658
 ZmGRMZM2G017187_P02 ----- 611
 ARF2_AT5G62000 **DAKDAKSASN** **PSL** **SSA** **GNS*** 850
 ZmGRMZM2G006042_P01 **ASKEPRSGPS** **TSAVDSENRA** **NSSQ** 803
 Pt179307_gw1.I.7907.1 ----- **G** 372
 ARF21_AT1G34410 ----- **KS** **LSS*** 600
 ARF20_AT1G35240 ----- **KS** **LSS*** 584
 ARF22_AT1G34390 ----- **KL** **EVQ*** 592
 ARF12_AT1G34310 ----- **R*** 587
 ARF15_AT1G35520 ----- **R*** 592
 ARF14_AT1G35540 ----- **KS** **LSS*** 599
 ARF13_AT1G34170 ----- 500
 ARF4_AT5G60450 ----- 780
 ARF3_AT2G33860 ----- 602
 Pt243681_gw1.XIV.424.1 ----- 288
 Selmo1_2_61688 ----- 622
 Selmo1_2_51695 ----- **AD** 665
 Phypha_108888 ----- **P** 595
 ARF10_AT2G28350 **TGIRTGENG** **DASTKTGPLS** **IFA*** 686
 ARF16_AT4G30080 ----- **TEQGSES** **VVV*** 663
 Phypha_61245 ----- **P** 318
 ZmGRMZM2G005284_P01 ----- **GQ** 581
 ARF17_AT1G77850 ----- **NSNAGSS** **SQG*** 579
 Phypha_170581 ----- 825
 all_Phypha_171888 ----- 896
 Selmo1_2_405821 **TFEDTRFAA** **TQKGASDTTN** **NSNK** 335
 Selmo1_2_431298 ----- **SDE** 370
 Selmo1_2_431277 ----- **VQNNGPRN** **SQSEGKLTDV** **DNAV** 124
 corb_UMD_Coleochaete_c9703_c_s_1 **EKQNDGGNS** **LVALRASIAPI** **LDGL** 150
 spra_Contig219_1 ----- **P** **LSHK** 365
 IAA12_AT1G04550 ----- 172



Figure S30 - alignment of IAA33 and putative ortholog

