

Additional file 5: Candidate transcription factors			Annotation
Probe	Foldchange	FAIR Gene model	
PpAfr1.26464.1.A1,a	135.7996034	POPR.000523640	AT3G22830
PpAfr1.118187.1.A1,a	48.85299699	POPR.000611680	AT5G03720
PpAfr1.27562302.1.A1,a	27.562302	POPR.001806080	AT3G24500
PpAfr1.92099.1.A1,a	26.4223002	POPR.000807360	AT3G40340
PpAfr1.47307.1.A1,a	21.257575	POPR.000707830	AT3G54710
PpAfr1.200249.1.S1,a	18.26485899	POPR.001019100	AT3G40340
PpAfr1.59348.1.S1,a	14.1563475	POPR.000306670	AT1G72450
PpAfr1.69785.2.A1,a	11.76774384	POPR.001060600	AT3G37060
PpAfr1.205263.1.S1,a	11.07717828	POPR.000509770	AT1G56170
PpAfr1.121395.1.A1,a	11.03716547	POPR.000711530	AT3G57150
PpAfr1.89026.1.A1,a	10.84851691	POPR.000626500	AT5G11340
PpAfr1.23267.1.A1,a	10.6528486	POPR.000125330	AT1G05710
PpAfr1.1156.1.S1,a	10.57315499	POPR.000216450	AT5G26600
PpAfr1.210750.1.S1,a	9.742548575	POPR.001213430	AT5G62020
PpAfr1.11878.2.S1,a	8.95604247	POPR.000513430	AT3G47830
PpAfr1.6756.1.S1,a	7.45540709	POPR.000702010	AT3G46410
PpAfr1.145393.1.A1,a	7.24296274	POPR.001016130	AT1G48040
PpAfr1.95473.1.A1,a	6.762513169	POPR.000208150	AT1G01720
PpAfr1.202952.1.S1,a	6.74796163	POPR.000365100	AT1G79840
PpAfr1.1329.2.A1,a	6.71201179	POPR.000623390	AT5G20900
PpAfr1.5686.2.S1,a	6.674484024	POPR.001110670	AT1G78600
PpAfr1.203182.1.S1,a	6.640832573	POPR.000311420	AT4G12240
PpAfr1.212769.1.S1,a	6.429052047	POPR.001505800	AT4G20970
PpAfr1.20919.1.S1,a	6.258434359	POPR.000409920	AT1G67100
PpAfr1.19340.1.A1,a	6.05604247	POPR.000513430	AT3G47830
PpAfr1.30938.1.S1,a	6.160836147	POPR.000711030	AT4G36900
PpAfr1.7035.1.S1,a	5.71918765	POPR.001801280	AT5G11340
PpAfr1.121710.1.S1,a	5.65332002	POPR.001510940	AT5G63470
PpAfr1.16157.1.S1,a	5.53928511	POPR.000610240	AT5G01380
PpAfr1.22043.1.S1,a	4.63189625	POPR.000913400	AT5G16820
PpAfr1.18907.1.A1,a	5.3065567	POPR.001714700	AT4G37180
PpAfr1.21822.1.S1,a	5.18118717	POPR.000414790	AT3G19290
PpAfr1.5673.1.S1,a	5.02168562	POPR.000138100	AT3G30500
PpAfr1.161413.1.S1,a	4.994582772	POPR.000386120	AT1G79840
PpAfr1.204675.1.S1,a	4.83189625	POPR.000913400	AT5G16820
PpAfr1.21459.1.S1,a	4.742175014	POPR.000251570	AT4G22140
PpAfr1.20454.1.S1,a	4.612148167	POPR.000913460	AT3G17870
PpAfr1.101182.1.A1,a	4.609892564	POPR.001803670	AT4G31420
PpAfr1.66318.2.S1,a	4.588345359	POPR.000527930	AT1G67100
PpAfr1.203774.1.S1,a	4.44617945	POPR.000409820	AT1G67110
PpAfr1.153194.1.A1,a	4.417033979	POPR.000806310	AT3G55730
PpAfr1.51120.1.S1,a	4.400912579	POPR.000800200	AT2G20280
PpAfr1.145393.2.A1,a	4.381122108	POPR.000810010	AT1G48040
PpAfr1.61901.1.S1,a	4.363794913	POPR.000146140	AT1G19180
PpAfr1.22351.1.S1,a	4.307149538	POPR.001405380	AT5G16820
PpAfr1.8326.2.S1,a	4.184239417	POPR.000813290	AT5G12840
PpAfr1.92404.1.S1,a	4.169413538	POPR.000157300	AT3G14880
PpAfr1.5425.1.S1,a	4.033016033	POPR.000906250	AT1G79800
PpAfr1.951.1.A1,a	4.02814838	POPR.000104790	AT3G27010
PpAfr1.152409.1.S1,a	0.248232164	POPR.000153470	AT5G16600
PpAfr1.203.3.A1,a	0.247609994	POPR.000404880	AT3G44730
PpAfr1.21077.1.S1,a	0.246872181	POPR.001405010	AT3G56400
PpAfr1.3143.2.S1,a	0.244888732	POPR.000610950	AT3G58110
PpAfr1.153990.1.S1,a	0.242821886	POPR.000404830	AT3G58110
PpAfr1.12071.1.A1,a	0.241980287	POPR.000404830	AT3G58110
PpAfr1.5715.1.S1,a	0.240345945	POPR.001314960	AT3G38470
PpAfr1.152186.1.S1,a	0.238811513	POPR.000133260	AT5G13180
PpAfr1.141636.1.S1,a	0.237795654	POPR.000904230	AT3G44350
PpAfr1.54256.2.A1,a	0.237564265	POPR.000904230	AT3G44350
PpAfr1.202730.1.S1,a	0.236730374	POPR.000252520	AT5G43990
PpAfr1.43031.A1,a	0.236361416	POPR.001016760	AT1G69310
PpAfr1.4800.1.S1,a	0.234226592	POPR.001363870	AT3G04730
PpAfr1.139530.2.S1,a	0.233653141	POPR.000200980	AT4G35550
PpAfr1.4542.2.S1,a	0.231429538	POPR.000106180	AT1G76710
PpAfr1.20290.1.S1,a	0.231405958	POPR.000521720	AT1G76710
PpAfr1.208975.1.S1,a	0.228257619	POPR.001013980	AT5G12140
PpAfr1.203510.1.S1,a	0.227718544	POPR.000322290	AT5G12140
PpAfr1.3665.1.S1,a	0.227079383	POPR.001603980	AT3G22170
PpAfr1.160182.1.S1,a	0.225200093	POPR.000104790	AT3G27010
PpAfr1.201437.1.S1,a	0.224465553	POPR.000146070	AT2G17410
PpAfr1.5973.1.S1,a	0.222564767	POPR.000404720	AT5G4210
PpAfr1.7050.1.S1,a	0.222125759	POPR.000124840	AT1G07540
PpAfr1.4624.1.S1,a	0.221877089	POPR.000823260	AT3G16770
PpAfr1.5108.1.S1,a	0.221842856	POPR.000106180	AT1G76710
PpAfr1.31202.1.S1,a	0.220775578	POPR.0018182200	AT5G25220
PpAfr1.39778.1.A1,a	0.220002372	POPR.000816110	AT4G14550
PpAfr1.19179.2.A1,a	0.218590915	POPR.000714790	AT3G49800
PpAfr1.1627.1.S1,a	0.218514652	POPR.000256360	AT4G3010
PpAfr1.18884.1.S1,a	0.217446834	POPR.000106180	AT1G76710
PpAfr1.107323.1.S1,a	0.214232376	POPR.001404080	AT1G69310
PpAfr1.205522.1.S1,a	0.213574615	POPR.000515990	AT4G36020
PpAfr1.200993.1.S1,a	0.211348358	POPR.000135980	AT5G14370
PpAfr1.4550.1.S1,a	0.210899943	POPR.001410260	AT1G01660
PpAfr1.88833.1.A1,a	0.209812844	POPR.000106180	AT1G76710
PpAfr1.1550.1.S1,a	0.20963291	POPR.001008880	AT3G23050
PpAfr1.127.1.S1,a	0.202413645	POPR.001363860	AT5G43700
PpAfr1.7696.1.S1,a	0.202100194	POPR.001008880	AT5G43700
PpAfr1.18334.1.A1,a	0.202033546	POPR.001010380	AT1G52130
PpAfr1.3816.1.A1,a	0.201940297	POPR.000913760	AT5G14540
PpAfr1.37663.1.S1,a	0.201578173	POPR.001946090	AT3G04070
PpAfr1.20746.1.S1,a	0.198273671	POPR.001413780	AT5G45710
PpAfr1.26834.1.S1,a	0.196810776	POPR.000204620	AT4G02590
PpAfr1.11515.1.S1,a	0.195187112	POPR.001010340	AT1G69780
PpAfr1.116348.1.S1,a	0.194299757	POPR.001512710	AT3G25650
PpAfr1.204146.1.S1,a	0.191373322	POPR.000412290	AT3G28730
PpAfr1.14587.1.A1,a	0.184999945	POPR.000610820	AT3G34040
PpAfr1.37625.1.A1,a	0.184848363	POPR.001401690	AT4G00050
PpAfr1.207326.1.S1,a	0.182548538	POPR.000712170	AT2G23760
PpAfr1.103616.1.S1,a	0.181687558	POPR.001311510	AT3G25650
PpAfr1.151377.1.S1,a	0.178375848	POPR.000519550	AT3G21175
PpAfr1.54126.1.S1,a	0.177072124	POPR.000316490	AT5G13180
PpAfr1.620.1.S1,a	0.174463906	POPR.000106870	AT3G12280
PpAfr1.151555.1.A1,a	0.173474641	POPR.001306390	AT1G08810
PpAfr1.45488.2.S1,a	0.171804897	POPR.000514540	AT3G15730
PpAfr1.221984.1.S1,a	0.171608262	POPR.000512130	AT1G75390
PpAfr1.224535.1.S1,a	0.170795552	POPR.000702010	AT2G44150
PpAfr1.2409.1.S1,a	0.170680743	POPR.001307550	AT5G16680
PpAfr1.201879.1.S1,a	0.167970707	POPR.000208740	AT4G36020
PpAfr1.5545.3.S1,a	0.166762764	POPR.000210880	AT5G25670
PpAfr1.7696.4.S1,a	0.16543568	POPR.000916100	AT5G43700
PpAfr1.1108.1.A1,a	0.164155113	POPR.001506480	AT1G25440
PpAfr1.201891.1.S1,a	0.160360633	POPR.000200950	AT1G77850
PpAfr1.3096.2.S1,a	0.159942593	POPR.001804720	AT4G21910
PpAfr1.151729.1.A1,a	0.159145661	POPR.001410750	AT1G01720
PpAfr1.21945.1.A1,a	0.158630735	POPR.000202300	AT1G05230
PpAfr1.16432.1.S1,a	0.158262385	POPR.000317260	AT3G24010
PpAfr1.2430.1.A1,a	0.155806803	POPR.001023370	AT3G20770
PpAfr1.29932.1.S1,a	0.153474641	POPR.001622230	AT5G6100
PpAfr1.5224.1.A1,a	0.149249997	POPR.000627950	AT4G1880
PpAfr1.205854.1.S1,a	0.146764921	POPR.000526800	AT1G76110
PpAfr1.200785.1.S1,a	0.146712538	POPR.000124850	AT1G07530
PpAfr1.32240.1.S1,a	0.145946045	POPR.000317340	AT3G24050
PpAfr1.128.1.S1,a	0.145797744	POPR.000523980	AT4G14550
PpAfr1.99810.1.S1,a	0.143659613	POPR.000615330	AT5G24930
PpAfr1.7785.1.A1,a	0.143565907	POPR.000628330	AT3G24930
PpAfr1.1032.1.S1,a	0.143529131	POPR.000410800	AT3G02380
PpAfr1.15802.1.S1,a	0.143445805	POPR.000713700	AT5G66320
PpAfr1.10843.2.A1,a	0.14275541	POPR.001613490	AT1G68520
PpAfr1.3325.1.S1,a	0.141087958	POPR.000514540	AT3G15730
PpAfr1.158042.2.A1,a	0.135666814	POPR.001508060	AT5G33660
PpAfr1.200918.1.S1,a	0.130301702	POPR.000128850	AT1G07050
PpAfr1.2179.1.S1,a	0.130573166	POPR.000716780	AT1G01720
PpAfr1.121626.1.A1,a	0.130695935	POPR.001016750	AT1G69600
PpAfr1.53113.1.S1,a	0.130256136	POPR.000106180	AT1G76710
PpAfr1.10586.1.S1,a	0.119310227	POPR.000318060	AT1G80840
PpAfr1.570.1.S1,a	0.112654737	POPR.001212760	AT2G40140
PpAfr1.159337.1.A1,a	0.1117477	POPR.001511550	AT5G09155
PpAfr1.201804.1.S1,a	0.10841452	POPR.000208020	AT1G76880
PpAfr1.50094.1.A1,a	0.10478994	POPR.000407840	AT1G73100
PpAfr1.1500.1.A1,a	0.10420295	POPR.000913640	AT4G38620
PpAfr1.24588.2.A1,a	0.102296715	POPR.000703840	AT5G09330
PpAfr1.25830.1.A1,a	0.100946702	POPR.000903850	AT1G7530

PpAfr.89274.1.A1_at	0.096341684	POPTR_0018602170	AT4G27910	SET domain protein 16 (SDG16); FUNCTIONS IN: zinc ion binding; EXPRESSED IN: 24 plant structures; EXPRESSED DURING: 12 growth stages; CONTAINS InterPro DOMAIN/s: SET domain (InterPro:IPR001214), Zinc finger,
Pp.5332.1.S1_at	0.095354807	POPTR_0014601760	AT1G27750	Related to Cys2/His2-type zinc-finger proteins found in higher plants. Compensated for a subset of calcineurin deficiency in yeast. Salt tolerance produced by ZAT10 appeared to be partially dependent on ENA1/PMR2, a P-type ATPase
PpAfr.4817.1.S1_at	0.095046763	POPTR_0019611870	AT1G68810	basic helix-loop-helix (bHLH) DNA-binding superfamily protein; FUNCTIONS IN: DNA binding, sequence-specific DNA binding transcription factor activity; INVOLVED IN: regulation of transcription; LOCATED IN: nucleus; EXP
PpAfr.211077.1.S1_a	0.093996729	POPTR_0013605670	AT3G04030	Homeodomain-like superfamily protein; FUNCTIONS IN: sequence-specific DNA binding transcription factor activity; INVOLVED IN: regulation of transcription; EXPRESSED IN: 9 plant structures; EXPRESSED DURING: 4 anthe
PpAfr.68429.1.S1_a	0.093084881	POPTR_0004605920	AT1G29280	member of WRKY Transcription Factor; Group II-e
PpAfr.938.1.A1_at	0.089021161	POPTR_0013603800	AT5G28770	bZIP protein BZO2H3 mRNA, partial cds
PpAfr.289.1.S1_at	0.086983345	POPTR_0017614410	AT3G02380	homologous to the flowering-time gene CONSTANS (CO) encoding zinc-finger proteins
PpAfr.87591.1.S1_at	0.085756363	POPTR_0010615280	AT5G49450	Encodes a transcription activator is a positive regulator of plant tolerance to salt, osmotic and drought stresses.
PpAfr.124024.1.S1_s	0.082583159	POPTR_0012609990	AT3G48550	BEST Arabidopsis thaliana protein match is: C2H2-like zinc finger protein (TAIR:AT2G01940.3); Has 78 Blast hits to 78 proteins in 11 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 78; Viruses - 0; Other Eukaryotes
PpAfr.2179.2.S1_at	0.076670273	POPTR_0005607060	AT1G01720	Belongs to a large family of putative transcriptional activators with NAC domain. Transcript level increases in response to wounding and abscisic acid. ATAF1 attenuates ABA signaling and synthesis. Mutants are hypersensitive to ABA.
PpAfr.14623.1.A1_at	0.074254247	POPTR_0007600880	AT1G05690	BTB and TAZ domain protein. Acts redundantly with BT1 and BT2 during female gametophyte development. Acts with BT2 during male gametophyte development.
PpAfr.147490.1.A1_a	0.073557234	POPTR_0012613870	AT5G51990	encodes a member of the DREB subfamily A-1 of ERF/AP2 transcription factor family (CBF4). The protein contains one AP2 domain. There are six members in this subfamily, including CBF1, CBF2, and CBF3. This gene is involved i
Pp.3894.1.S1_s_at	0.070824409	POPTR_0001624250	AT2G37430	C2H2 and C2HC zinc fingers superfamily protein; FUNCTIONS IN: sequence-specific DNA binding transcription factor activity, zinc ion binding, nucleic acid binding; INVOLVED IN: response to chitin, regulation of transcription; LC
PpAfr.217349.1.S1_x	0.070788661	POPTR_0004600890	AT1G62300	Encodes a transcription factor WRKY6. Regulates Phosphate1 (Pho1) expression in response to low phosphate (Pi) stress.
PpAfr.68429.2.S1_at	0.068507647	POPTR_0011606990	AT1G29280	member of WRKY Transcription Factor; Group II-e
PpAfr.81893.1.A1_at	0.063256074	POPTR_0005624460	AT3G23240	encodes a member of the ERF (ethylene response factor) subfamily B-3 of ERF/AP2 transcription factor family (ERF1). The protein contains one AP2 domain. There are 18 members in this subfamily including ATERF-1, ATERF-2, AN
PpAfr.159345.1.A1_a	0.059324639	POPTR_0006623480	AT1G19210	encodes a member of the DREB subfamily A-5 of ERF/AP2 transcription factor family. The protein contains one AP2 domain. There are 15 members in this subfamily including RAP2.1, RAP2.9 and RAP2.10.
PpAfr.37783.1.A1_s	0.057876365	POPTR_0016614490	AT3G56400	member of WRKY Transcription Factor; Group III. Function as activator of SA-dependent defense genes and a repressor of JA-regulated genes. WRKY70-controlled suppression of JA-signaling is partly executed by NPR1.
PpAfr.135358.1.S1_s	0.049511417	POPTR_0001611780	AT5G51190	encodes a member of the ERF (ethylene response factor) subfamily B-3 of ERF/AP2 transcription factor family. The protein contains one AP2 domain. There are 18 members in this subfamily including ATERF-1, ATERF-2, AND ATE1
PpAfr.203341.1.S1_s	0.032036091	POPTR_0003615030	AT4G17500	Encodes a member of the ERF (ethylene response factor) subfamily B-3 of ERF/AP2 transcription factor family (ATERF-1). The protein contains one AP2 domain. There are 18 members in this subfamily including ATERF-1, ATERF-2
PpAfr.42822.1.A1_at	0.029558039	POPTR_0001611800	AT5G07580	encodes a member of the ERF (ethylene response factor) subfamily B-3 of ERF/AP2 transcription factor family. The protein contains one AP2 domain. There are 18 members in this subfamily including ATERF-1, ATERF-2, AND ATE1
PpAfr.572.3.S1_a_at	0.015210678	POPTR_0010613930	AT1G25560	Encodes a member of the RAV transcription factor family that contains AP2 and B3 binding domains. Involved in the regulation of flowering under long days. Loss of function results in early flowering. Overexpression causes late flowe

pathogen info
→ drought.

→ drought.
ably by stimulating
DN: male gametophyte, pollen tube; EX3

IED DURING: 13 growth stages; CONTAINS InterPro:IPR001878, HTH transcriptional regul
SSED DURING: 15 growth stages; CONTAINS InterPro:IPR001878, HTH transcriptional regul
c-nucleus; EXPRESSED IN: 21 plant str
or, Myb-type, DNA-binding InterPro:IPR0175

inus and part o
splex; EXPRESSED IN: 23 plant str

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2: 13 growth stages; CONTAINS InterPro DOMAIN(s): T1
blast hits to 1364 proteins in 12
1 protein (TAIR:AT2G2001.1); Ha
OCATED IN: nucleus; CONTAINS InterPro:IPR001878, HTH transcriptional regul
50.1); Has 635 Blast hits to 634 proteins
InterPro:IPR001878, HTH transcriptional regul
SEED DURING: 15 growth stages; CONTAINS InterPro:IPR001878, HTH transcriptional regul
o factor Y, subunit C1 (TAIR:AT3G
oicin (TAIR:AT2G38250.1); Has 1807 Blast h
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ation of transcription, DN
ESSED IN: 22 plant structures; EXPRE

N: cellular_ component unknown; EXPRESSED IN: 2
ING: 15 growth stages; CONTAINS InterPro:IPR001878, HTH transcriptional regul
isulfide bond formation) and
_ component unknown; EXPRESSED IN: 6 g

ures; EXPRESSED DURING: 13 growth stage
splex; EXPRESSED IN: 23 plant str
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rminal portion of JAZ2,
s.
growth stages; CONTAINS InterPro DOMAIN(s): SWIB/MDM
ED DURING: 11 growth stages; CONTAINS InterPro:IPR001878, HTH transcriptional regul
l. Involved in regulation of e

ESSED IN: 22 plant structures; EXPRE

ed and sufficient for interact
→ various abiotic stress

G22380.1); Has 30021 Blast hits to 17322 p
eukaryotic gene expression a

ain called the WUS box.
response. Localized in t
3 plant structures; EXPRESSED DURING: 1

lant structures; EXPRESSED DURING: 13 gro
_ ATERF-7, and leafy petiole

:2 AND RAP2.12. It is localiz
root. Light-regulated expres
s. Functions as a ne
MAIN(s): BSD (InterPro:IPR005607); BEST Arabidopsis
ne response. Protein

_ component unknown; EXPRESSED IN: 19
a protein match is: CCT motif family protein (T/
WESSED IN: 20 plant structure
t manner in a proces

sion.
DN: 21 plant structures; EXPRESSED DURING: 15 growth stages; CONTAINS InterPro:IPR001878, HTH transcriptional regul
_ component unknown; EXPRESSED IN: 16
ATED IN: nucleus; EXPRESSED IN: 23

23 (InterPro:IPR006458); BEST Arabidopsis th
ATED IN: nucleus; EXPRESSED IN: 23
l leaves.
ED DURING: 11 growth stages; CONTAIN

Regulates stem cell maintenance in
dedication, darkness
he gibberellin response a
ED IN: chloroplast; CONTAINS InterPro:IPR001878, HTH transcriptional regul

with stages; CONTAINS InterPro DOMAIN(s): Zinc

N: leaf; CONTAINS InterPro DOMAIN(s): C1
810.1); Has 726 Blast hits to 700 pest
richome growth or branch

3 reduced levels of PRR3
on with WRKY40 or WRKY60 made
lar, nucleus; EXPRESSED IN: 21 plant str
he cytoplasm.

s. Functions as a ne
etylation
lant structures; EXPRESSED DURING: 13
DN: 21 plant structures; EXPRESSED
RF-5

25 species: Archae - 0; Bacteria - 0;
y and abscisic acid.
related proteins to
e and B. cinerea. WRKY18, WRKY40, and
t-inducible zinc finger 1 (TAIR:AT3G
EXPRESSED IN: 23 plant structures; CONTAINS InterPro:IPR001878, HTH transcriptional regul
in-like superfamily protein (TAIR:AT1G76898
of this subfamily of the SET pr
s. MYB4 binds to its o
t-inducible zinc finger 1 (TAIR:AT3G
_ component unknown; EXPRESSED IN: 24
he cytoplasm.

.PHD-type, conserved site (InterPro:IPR019786)
required for Li^+ and Na^+
RESSED IN: 20 plant structures; EXPRE:
sis, 4 leaf senescence stage, petal diff

- 0 (source: NCBI BI

n response to drought stress and
LOCATED IN: intracellular; EXE

ID ATERF-5, EREBP like protein thi

RF-5
AND ATERF-5
RF-5
ring and repression of