

**Table S4 Screening of candidate transcription factor genes involved in the trichome development (P vs IS)**

<b>GeneID</b>	<b>Length</b>	<b>logFC</b>	<b>Pvalue</b>	<b>FDR</b>	<b>regulated</b>	<b>TF_family</b>	<b>genename</b>
<b>Homeodomain transcription factor genes</b>							
RchiOBHm_Ch7g0199751	2011	1.6164	0.0000	0.0000	up	HB	KNAT7
RchiOBHm_Ch5g0002121	2150	-1.1024	0.0000	0.0000	down	HB	STM
<b>HD-Zip</b>							
RchiOBHm_Ch5g0003831	2298	1.0890	0.0007	0.0116	up	HD-ZIP	PDF2
RchiOBHm_Ch4g0440141	2346	2.3942	0.0000	0.0000	up	HD-ZIP	ATHB-13
RchiOBHm_Ch2g0168851	2775	3.2812	0.0000	0.0000	up	HD-ZIP	HAT7
RchiOBHm_Ch7g0177521	3599	1.9874	0.0016	0.0210	up	HD-ZIP	HDG11
RchiOBHm_Ch4g0441321	1043	-1.0747	0.0007	0.0111	down	HD-ZIP	HOX3
<b>MYB</b>							
RchiOBHm_Ch3g0491061	1147	2.2106	0.0001	0.0020	up	MYB	ODO1
RchiOBHm_Ch7g0196711	1062	1.0151	0.0000	0.0003	up	MYB	MYB61
RchiOBHm_Ch2g0168581	1918	1.3059	0.0000	0.0000	up	MYB	MYB306
RchiOBHm_Ch7g0202031	1433	1.1005	0.0000	0.0001	up	MYB	ODO1
RchiOBHm_Ch4g0441081	1488	1.0004	0.0011	0.0161	up	MYB	MYB4
RchiOBHm_Ch2g0116041	723	3.2453	0.0002	0.0032	up	MYB	MYB90
RchiOBHm_Ch4g0439571	1870	4.1187	0.0005	0.0082	up	MYB	MYB105
RchiOBHm_Ch4g0424331	1501	2.3965	0.0001	0.0024	up	MYB	MYB12
RchiOBHm_Ch2g0167441	1789	1.4424	0.0000	0.0000	up	MYB	MYB74
RchiOBHm_Ch6g0311731	1095	5.1370	0.0009	0.0138	up	MYB	C1
RchiOBHm_Ch2g0172331	1179	2.3116	0.0000	0.0000	up	MYB	MYB305
RchiOBHm_Ch3g0458721	1890	2.4436	0.0000	0.0001	up	MYB	MYB61
RchiOBHm_Ch7g0192781	1518	1.4550	0.0000	0.0003	up	MYB	MYB86

RchiOBHm_Chr3g0463761	1988	1.1522	0.0000	0.0000	up	MYB	DIVARICATA
RchiOBHm_Chr6g0310351	1129	1.3463	0.0033	0.0380	up	MYB	RAX3
RchiOBHm_Chr7g0241861	2114	1.4112	0.0017	0.0225	up	MYB	P
RchiOBHm_Chr3g0480031	1439	-1.2989	0.0004	0.0067	up	MYB	PHL5
RchiOBHm_Chr2g0159921	936	1.5232	0.0010	0.0000	down	MYB	CPC
RchiOBHm_Chr2g0119181	2324	-1.0340	0.0033	0.0386	down	MYB	GT-2
RchiOBHm_Chr6g0301221	495	-2.5995	0.0000	0.0000	down	MYB	RL6
RchiOBHm_Chr2g0113131	1050	-2.3389	0.0011	0.0159	down	MYB	MYB102
RchiOBHm_Chr3g0497321	1391	-1.5221	0.0000	0.0007	down	MYB	MYR2
<b>WRKY</b>							
RchiOBHm_Chr5g0040801	1770	1.4493	0.0037	0.0422	up	WRKY	WRKY6
RchiOBHm_Chr5g0083891	807	2.7721	0.0000	0.0001	up	WRKY	WRKY57
RchiOBHm_Chr2g0175911	1038	-2.8028	0.0000	0.0003	down	WRKY	WRKY75
RchiOBHm_Chr5g0018041	2069	-2.1279	0.0000	0.0003	down	WRKY	WRKY14
RchiOBHm_Chr3g0487201	1214	-1.8653	0.0004	0.0065	down	WRKY	WRKY23
RchiOBHm_Chr1g0348121	1128	-1.5127	0.0000	0.0002	down	WRKY	WRKY12
RchiOBHm_Chr3g0450591	1596	-1.4143	0.0000	0.0005	down	WRKY	WRKY74
RchiOBHm_Chr7g0180741	1929	-1.8692	0.0000	0.0002	down	WRKY	WRKY61
RchiOBHm_Chr7g0189781	501	-4.9633	0.0000	0.0000	down	WRKY	WRKY75
RchiOBHm_Chr2g0151681	1967	-2.5899	0.0000	0.0000	down	WRKY	WRKY28
<b>bHLH</b>							
RchiOBHm_Chr7g0185551	1157	1.5809	0.0008	0.0123	up	bHLH	BEE3
RchiOBHm_Chr4g0412071	2350	2.1400	0.0000	0.0001	up	bHLH	BHLH62
RchiOBHm_Chr4g0440111	914	3.5605	0.0000	0.0000	up	bHLH	PRE6
RchiOBHm_Chr2g0109621	1597	1.0569	0.0015	0.0201	up	bHLH	BHLH25
RchiOBHm_Chr5g0004791	969	1.7235	0.0002	0.0037	up	bHLH	DYT1

RchiOBHm_Chr4g0445091	1759	1.8956	0.0000	0.0000	up	bHLH	BPE
RchiOBHm_Chr2g0168811	1053	3.2322	0.0000	0.0000	up	bHLH	PRE1
RchiOBHm_Chr1g0337011	1701	1.1158	0.0001	0.0021	up	bHLH	BHLH10
RchiOBHm_Chr7g0199961	1138	-3.6623	0.0000	0.0000	down	bHLH	BHLH120
RchiOBHm_Chr1g0360811	1975	-1.2960	0.0000	0.0003	down	bHLH	MYC2
RchiOBHm_Chr3g0451111	1835	-1.0013	0.0019	0.0251	down	bHLH	UNE12
RchiOBHm_Chr5g0008601	755	-1.3576	0.0021	0.0269	down	bHLH	BHLH162
RchiOBHm_Chr2g0109941	1759	-1.9468	0.0000	0.0000	down	bHLH	BHLH93
RchiOBHm_Chr6g0308251	1531	-1.3507	0.0001	0.0023	down	bHLH	SPT
RchiOBHm_Chr3g0480621	2041	-1.3119	0.0003	0.0056	down	bHLH	BHLH130
RchiOBHm_Chr2g0109611	1056	-1.7093	0.0001	0.0018	down	bHLH	BHLH25
RchiOBHm_Chr2g0160481	1298	-2.5102	0.0000	0.0001	down	bHLH	BHLH117
<b>Zinc finger</b>							
RchiOBHm_Chr2g0092381	1432	-1.0939	0.0001	0.0020	down	C3H	At2g19810
RchiOBHm_Chr6g0293211	2071	-4.0149	0.0000	0.0000	down	C2H2	JKD
RchiOBHm_Chr5g0044241	963	-1.5099	0.0000	0.0000	down	C2H2	WIP3
RchiOBHm_Chr1g0315831	1401	-1.9641	0.0000	0.0000	down	C2H2	WIP2
<b>MADS-box</b>							
RchiOBHm_Chr1g0351671	1069	2.1373	0.0000	0.0000	up	MADS	MADS6
RchiOBHm_Chr7g0183521	1365	2.9116	0.0000	0.0000	up	MADS	CMB1
RchiOBHm_Chr2g0100071	1138	4.6647	0.0000	0.0000	up	MADS	DEFA
RchiOBHm_Chr4g0429931	891	5.3965	0.0000	0.0000	up	MADS	FBP2
RchiOBHm_Chr7g0199781	1436	-5.4877	0.0000	0.0000	down	MADS	AGL14
RchiOBHm_Chr1g0376251	1652	-1.6448	0.0000	0.0000	down	MADS	AGL42
RchiOBHm_Chr7g0189871	397	-1.5072	0.0009	0.0139	down	MADS	MADS15
RchiOBHm_Chr2g0111271	1628	-1.3618	0.0000	0.0000	down	MADS	SVP

RchiOBHm_Chr1g0351691	1217	-1.5511	0.0000	0.0000	down	MADS	SOC1
<b>AP2</b>							
RchiOBHm_Chr6g0259241	1338	2.2250	0.0000	0.0000	up	ABI3VP1	At5g18000
RchiOBHm_Chr1g0373641	1238	1.3733	0.0000	0.0000	up	AP2-EREBP	ERF106
RchiOBHm_Chr2g0088321	737	1.4687	0.0000	0.0000	up	AP2-EREBP	WIN1
RchiOBHm_Chr4g0405371	1199	4.6818	0.0011	0.0158	up	AP2-EREBP	At1g16060
RchiOBHm_Chr4g0433071	1597	5.3159	0.0002	0.0041	up	AP2-EREBP	ESR1
RchiOBHm_Chr3g0474911	2097	1.3382	0.0005	0.0086	up	ABI3VP1	ARF31
RchiOBHm_Chr4g0401801	2260	-1.1182	0.0001	0.0013	down	AP2-EREBP	AIL5
RchiOBHm_Chr7g0231501	848	-2.0237	0.0001	0.0025	down	AP2-EREBP	ERF019
RchiOBHm_Chr1g0364341	1783	-1.7506	0.0000	0.0000	down	AP2-EREBP	RAP2-7
RchiOBHm_Chr4g0423581	1245	-1.4023	0.0000	0.0000	down	AP2-EREBP	RAP2-3
RchiOBHm_Chr2g0152181	1872	-5.4521	0.0007	0.0111	down	ABI3VP1	VRN1
RchiOBHm_Chr1g0318651	1537	-3.7897	0.0000	0.0000	down	ABI3VP1	Os01g0723500
RchiOBHm_Chr3g0472361	1508	-1.2267	0.0001	0.0019	down	AP2-EREBP	DREB1B
RchiOBHm_Chr1g0380021	1818	-1.6417	0.0000	0.0000	down	AP2-EREBP	CRF4
RchiOBHm_Chr7g0231481	761	-2.3661	0.0008	0.0121	down	AP2-EREBP	ERF019
RchiOBHm_Chr1g0373621	1102	-1.2735	0.0007	0.0107	down	AP2-EREBP	ERF2
RchiOBHm_Chr4g0428891	1460	-1.9890	0.0000	0.0000	down	AP2-EREBP	ERF114
RchiOBHm_Chr6g0308371	1765	-1.0072	0.0006	0.0092	down	AP2-EREBP	RAP2-1
RchiOBHm_Chr1g0376651	1216	-2.0958	0.0000	0.0010	down	AP2-EREBP	ERF026
RchiOBHm_Chr6g0274591	1841	-1.8281	0.0010	0.0144	down	AP2-EREBP	ERF110
<b>TCP</b>							
RchiOBHm_Chr5g0031541	2684	1.4679	0.0001	0.0014	up	TCP	TCP4
RchiOBHm_Chr2g0128901	2405	1.1727	0.0035	0.0399	up	TCP	TCP4
RchiOBHm_Chr7g0184611	1125	1.4118	0.0008	0.0118	up	TCP	TB1

RchiOBHm_Chr7g0183231	1804	6.8675	0.0000	0.0000	up	TCP	TCP5
<b>DOF</b>							
RchiOBHm_Chr7g0181561	1810	1.3153	0.0000	0.0005	up	C2C2-Dof	CDF3
RchiOBHm_Chr1g0360381	958	-1.7266	0.0002	0.0041	down	C2C2-Dof	DOF3.7
RchiOBHm_Chr5g0008851	2118	-1.2300	0.0000	0.0000	down	C2C2-Dof	PBF
RchiOBHm_Chr2g0142541	2289	-1.0418	0.0003	0.0064	down	C2C2-Dof	DOF3.1
RchiOBHm_Chr6g0300001	1498	-1.4917	0.0003	0.0050	down	C2C2-Dof	DOF1.6
<b>TIFY</b>							
RchiOBHm_Chr4g0429271	1343	-1.0759	0.0000	0.0000	down	Tify	TIFY9
<b>HSF</b>							
RchiOBHm_Chr2g0093671	2055	1.9836	0.0000	0.0000	up	HSF	HSF30
RchiOBHm_Chr3g0482741	1224	-1.4108	0.0004	0.0065	down	HSF	HSFB3
<b>NAC</b>							
RchiOBHm_Chr7g0187451	1445	1.3158	0.0004	0.0065	up	NAC	NAC043
RchiOBHm_Chr6g0287861	1374	1.0944	0.0013	0.0186	up	NAC	NAC021
RchiOBHm_Chr0c19g0500091	1347	1.6036	0.0000	0.0000	up	NAC	NAC073
RchiOBHm_Chr7g0218501	2684	1.6797	0.0000	0.0001	up	NAC	NAC035
RchiOBHm_Chr5g0007561	1668	-1.3405	0.0000	0.0000	down	NAC	NAC025
RchiOBHm_Chr5g0034821	1263	-1.0414	0.0004	0.0065	down	NAC	NAC056
<b>YABBY</b>							
RchiOBHm_Chr2g0088171	1274	2.2784	0.0004	0.0071	up	C2C2-YABBY	YAB5
<b>SBP</b>							
RchiOBHm_Chr5g0032861	1269	2.1042	0.0004	0.0070	up	SBP	
<b>bZIP</b>							
RchiOBHm_Chr5g0031811	2305	3.1224	0.0000	0.0000	up	bZIP	
RchiOBHm_Chr2g0128811	1982	3.6669	0.0000	0.0000	up	bZIP	

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RchiOBHm_Chr2g0100571	1590	1.7415	0.0000	0.0003	up	bZIP
<b>GRF</b>						
RchiOBHm_Chr3g0450341	1370	-1.3429	0.0016	0.0209	down	GRF
RchiOBHm_Chr1g0384601	1976	-1.4557	0.0002	0.0032	down	GRF
<b>TRIHELIX</b>						
RchiOBHm_Chr2g0119181	2324	-1.0340	0.0033	0.0386	down	TRIHELIX
RchiOBHm_Chr5g0000511	2749	-1.4337	0.0001	0.0018	down	TRIHELIX

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