

“Supplementary Material to “Identification of bZIP transcription factors and their responses to brown spot in pear”

Table S5 - Detail information and expression of genes involved in BS formation.

GeneID	Pathway Name	Level 1	Level 2	CK_1	CK_2	CK_3	BS_1	BS_2	BS_3	GA ₃ _1	GA ₃ _2	GA ₃ _3	Description	Abbreviation
				FPK M	FPK M		FPKM	FPK M	FPK M	FPK M	FPK M	FPK M		
103931970	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	53.14	57.64	71.39	96.21	94.22	96.37	95.75	90.95	89.46	bZIP transcription factor 53-like	PbbZIP53
103957504	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	4.24	5.18	5.34	4.94	12.75	9.47	4.41	5.92	4.81	basic leucine zipper 9-like	PbbZIP9
103961780	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	76.59	76.53	76.24	94.71	89.46	95.04	72.16	74.78	90.61	bZIP transcription factor 60	PbbZIP60

GeneID	Pathway Name	Level 1	Level 2	CK_1 FPK M	CK_2 FPK M	CK_3 FPKM	BS_1 FPK M	BS_2 FPK M	BS_3 FPK M	GA ₃ _1 FPK M	GA ₃ _2 FPK M	GA ₃ _3 FPK M	Description	Abbreviation
10392854	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	568.91	608.32	568.91	303.02	561.8	190.29	614.45	783.93	589.39	bZIP transcription factor 44	PbbZIP44
10393382	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	0.08	0.45	0.96	0.37	0.66	3.24	1.64	2.24	1.5	bZIP transcription factor 2-like	PbbZIP2
10393603	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	6.75	8.88	9.81	13.15	11.94	14.19	11.9	11.37	12.28	bZIP transcription factor 16-like	PbbZIP16
10393780	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	9.21	11.66	13.05	60.5	25.7	43.56	14.02	13.89	13.51	bZIP transcription factor 11-like	PbbZIP11
10394549	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	40.59	38.43	39.53	52.73	43.24	45.06	38.68	39.5	42.94	bZIP transcription factor 17-like	PbbZIP17

GeneID	Pathway Name	Level 1	Level 2	CK_1 FPK M	CK_2 FPK M	CK_3 FPKM	BS_1 FPK M	BS_2 FPK M	BS_3 FPK M	GA _{3_} 1 FPK M	GA _{3_} 2 FPK M	GA _{3_} 3 FPK M	Description	Abbreviation
103928345	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	0.29	0.17	0.23	2.75	0.45	2.13	0.11	0.36	0.17	gibberellin receptor GID1C-like	GID1C
103959978	ko01110//Biosynthesis of secondary metabolites;ko00943//Isoflavonoid biosynthesis;ko04075//Plant hormone signal transduction	Metabolism;Environmental Information Processing	Biosynthesis of other secondary metabolites; Signal transduction; Global and overview maps	143.36	63.51	109.01	459.79	93.61	244.51	79.55	51.27	110.71	probable carboxylesterase 15	CES15
103962043	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	74.44	120.78	93.31	20.58	63.6	34.17	154.68	118.17	140.04	probable carboxylesterase 18	CES18
103931198	ko04075//Plant hormone	Environmental Information Processing	Signal transduction	1.93	2.81	3.63	8.4	4.51	5.28	2.09	2.59	4.45	scarecrow-like protein 21	SCL21

GeneID	Pathway Name	Level 1	Level 2	CK_1 FPK M	CK_2 FPK M	CK_3 FPKM	BS_1 FPK M	BS_2 FPK M	BS_3 FPK M	GA ₃ 1 FPK M	GA ₃ 2 FPK M	GA ₃ 3 FPK M	Description	Abbreviation
10393501	signal transduction ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	2.07	0.78	1.37	4.26	3.5	4.48	1.8	2.05	1.9	scarecrow-like protein 22	SCL22
10394152	signal transduction ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	1.93	3.48	2.36	10.09	4.71	10.75	6.23	6.85	5.75	scarecrow-like protein 4	SCL4
10395428	signal transduction ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	1.61	2.5	1.87	3.98	4.15	5.82	1.76	2.02	1.61	scarecrow-like protein 14	SCL14
10396021	signal transduction ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	0.15	0.2	0.26	0.09	0.48	1.29	0.34	0.36	0.2	protein SCARECROW 2-like	SCL2
10396318	signal transduction ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	0	0.1	0.04	0.55	0.06	0.27	0.11	0.39	0.03	scarecrow-like protein 15	SCL15

GeneID	Pathway Name	Level 1	Level 2	CK_1 FPK M	CK_2 FPK M	CK_3 FPKM	BS_1 FPK M	BS_2 FPK M	BS_3 FPK M	GA ₃ _1 FPK M	GA ₃ _2 FPK M	GA ₃ _3 FPK M	Description	Abbreviation
103964673	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	6.64	5.8	6.77	13.08	10.45	15.52	7.35	6.87	8.38	scarecrow-like protein 33	SCL33
103964676	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	2.09	0.99	1.42	10.92	9.49	18.32	1.82	1.97	1.84	scarecrow-like protein 30	SCL30
103964678	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	30.52	19.6	25.63	65.77	52.21	70.38	26.87	23.76	29.35	scarecrow-like protein 11	SCL11
103927146	ko04075//Plant hormone signal transduction;ko04712//Circadian rhythm - plant	Environmental Information Processing;Organismal Systems	Signal transduction;Environmental adaptation	8.72	3.9	7.11	2.75	3.68	1.1	5.33	3.56	4.19	transcription factor bHLH137-like	bHLH137
103929400	ko04712//Circadian rhythm -	Organismal Systems;Environmental	Environmental adaptation;S	8.14	3.92	3.83	23.12	6.74	16.76	3.09	4.92	2.55	transcription factor bHLH68-	bHLH68

GeneID	Pathway Name	Level 1	Level 2	CK_1	CK_2	CK_3	BS_1	BS_2	BS_3	GA _{3_}	GA _{3_}	GA _{3_}	Description	Abbreviation
				FPK M	FPK M	FPKM	FPK M	FPK M	FPK M	1 FPK M	2 FPK M	3 FPK M		
103932057	plant;ko04075 //Plant hormone signal transduction ko04712//Circadian rhythm	Information Processing	ignal transduction										like isoform X1	
	plant;ko04075 //Plant hormone signal transduction ko04712//Circadian rhythm	Organismal Systems;Environmental Information Processing	Signal transduction ;Environmental adaptation	13.13	6.18	8.19	29.12	16.82	34.43	9.9	8.14	11.29	transcription factor bHLH128	bHLH128
	plant;ko04075 //Plant hormone signal transduction	Environmental Information Processing;Organismal Systems	Environmental adaptation;Signal transduction	2.06	2.26	1.65	0.63	1.68	0.34	2.11	2.08	1.52	transcription factor bHLH113- like	bHLH113

GeneID	Pathway Name	Level 1	Level 2	CK_1 FPK M	CK_2 FPK M	CK_3 FPKM	BS_1 FPK M	BS_2 FPK M	BS_3 FPK M	GA ₃ _1 FPK M	GA ₃ _2 FPK M	GA ₃ _3 FPK M	Description	Abbreviation
10393915	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	3.09	1.1	1.96	10.44	10.02	12.3	2.61	2.12	4.06	transcription factor bHLH48-like	bHLH48
10394909	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	0.08	0.31	0.04	0.31	0.47	2.09	0.4	0.55	0.24	transcription factor bHLH66-like	bHLH66
10396138	ko03010//Ribosome;ko04075//Plant hormone signal transduction	Environmental Information Processing;Genetic Information Processing	Translation; Signal transduction	0.73	2.04	1.44	6.34	8.44	11.64	2.79	1.98	2.23	transcription factor bHLH62	bHLH62
10396272	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	4.7	3.86	3.97	12.37	6.13	7.97	4.23	3.15	5.29	transcription factor bHLH145	bHLH145
10396699	ko04712//Circadian rhythm - plant;ko04075	Organismal Systems;Environmental	Signal transduction;Environmental	3.26	1.43	1.41	0.65	1.46	0	1.85	1.61	1.24	transcription factor bHLH49-	bHLH49

GeneID	Pathway Name	Level 1	Level 2	CK_1	CK_2	CK_3	BS_1	BS_2	BS_3	GA ₃ _1	GA ₃ _2	GA ₃ _3	Description	Abbreviation
				FPK	FPK	FPKM	FPK	FPK	FPK	FPK	FPK	FPK		
	//Plant hormone signal transduction	Information Processing	ntal adaptation	M	M		M	M	M	M	M	M	like isoform X2	

GeneID	Pathway Name	Level 1	Level 2	CK_1 FPKM	CK_2 FPKM	CK_3 FPKM M	BS_1 FPKM M	BS_2 FPKM M	BS_3 FPKM M	GA ₃ _1 FPKM M	GA ₃ _2 FPKM	GA ₃ _3 FPKM M	Description	Abbreviation	
bZIP family TFs	10393197	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	53.14	57.64	71.39	96.21	94.22	96.37	95.75	90.95	89.46	bZIP transcription factor 53-like	PbbZIP53
	10395750	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	4.24	5.18	5.34	4.94	12.75	9.47	4.41	5.92	4.81	basic leucine zipper 9-like	PbbZIP9
	10396178	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	76.59	76.53	76.24	94.71	89.46	95.04	72.16	74.78	90.61	bZIP transcription factor 60	PbbZIP60
	10392854	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	568.91	608.32	568.91	303.02	561.8	190.29	614.45	783.93	589.39	bZIP transcription factor 44	PbbZIP44
	10393382	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	0.08	0.45	0.96	0.37	0.66	3.24	1.64	2.24	1.5	bZIP transcription factor 2-like	PbbZIP2
	10393603	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	6.75	8.88	9.81	13.15	11.94	14.19	11.9	11.37	12.28	bZIP transcription factor 16-like	PbbZIP16
	10393780	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	9.21	11.66	13.05	60.5	25.7	43.56	14.02	13.89	13.51	bZIP transcription factor 11-like	PbbZIP11

Gibberellin signal	10394549	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	40.59	38.43	39.53	52.73	43.24	45.06	38.68	39.5	42.94	bZIP transcription factor 17-like	PbbZIP17
	10392834	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	0.29	0.17	0.23	2.75	0.45	2.13	0.11	0.36	0.17	gibberellin receptor GID1C-like	GID1C
	10395997	ko01110//Biosynthesis of secondary metabolites;ko00943//Isoflavonoid biosynthesis;ko04075//Plant hormone signal transduction	Metabolism;Environmental Information Processing	Biosynthesis of other secondary metabolites; Signal transduction; Global and overview maps	143.36	63.51	109.01	459.79	93.61	244.51	79.55	51.27	110.71	probable carboxylesterase 15	CES15
	10396204	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	74.44	120.78	93.31	20.58	63.6	34.17	154.68	118.17	140.04	probable carboxylesterase 18	CES18
	10393119	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	1.93	2.81	3.63	8.4	4.51	5.28	2.09	2.59	4.45	scarecrow-like protein 21	SCL21

10393501	4	signal transduction ko04075//Plan t hormone signal transduction	Environmenta l Information Processing	Signal transduction	2.07	0.78	1.37	4.26	3.5	4.48	1.8	2.05	1.9	scarecrow- like protein 22	SCL22
10394152	3	signal transduction ko04075//Plan t hormone signal transduction	Environmenta l Information Processing	Signal transduction	1.93	3.48	2.36	10.09	4.71	10.75	6.23	6.85	5.75	scarecrow- like protein 4	SCL4
10395428	8	signal transduction ko04075//Plan t hormone signal transduction	Environmenta l Information Processing	Signal transduction	1.61	2.5	1.87	3.98	4.15	5.82	1.76	2.02	1.61	scarecrow- like protein 14	SCL14
10396021	4	signal transduction ko04075//Plan t hormone signal transduction	Environmenta l Information Processing	Signal transduction	0.15	0.2	0.26	0.09	0.48	1.29	0.34	0.36	0.2	protein SCARECR OW 2-like	SCL2
10396318	4	signal transduction ko04075//Plan t hormone signal transduction	Environmenta l Information Processing	Signal transduction	0	0.1	0.04	0.55	0.06	0.27	0.11	0.39	0.03	scarecrow- like protein 15	SCL15
10396467	3	signal transduction ko04075//Plan t hormone signal transduction	Environmenta l Information Processing	Signal transduction	6.64	5.8	6.77	13.08	10.45	15.52	7.35	6.87	8.38	scarecrow- like protein 33	SCL33

10396467	6	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	2.09	0.99	1.42	10.92	9.49	18.32	1.82	1.97	1.84	scarecrow-like protein 30	SCL30
10396467	8	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	30.52	19.6	25.63	65.77	52.21	70.38	26.87	23.76	29.35	scarecrow-like protein 11	SCL11
10392714	6	ko04075//Plant hormone signal transduction;ko04712//Circadian rhythm - plant	Environmental Information Processing;Organismal Systems	Signal transduction;Environmental adaptation	8.72	3.9	7.11	2.75	3.68	1.1	5.33	3.56	4.19	transcription factor bHLH137-like	bHLH137
10392940	0	ko04712//Circadian rhythm - plant;ko04075//Plant hormone signal transduction	Organismal Systems;Environmental Information Processing	Environmental adaptation;Signal transduction	8.14	3.92	3.83	23.12	6.74	16.76	3.09	4.92	2.55	transcription factor bHLH68-like isoform X1	bHLH68
10393205	7	ko04712//Circadian rhythm - plant;ko04075//Plant	Organismal Systems;Environmental	Signal transduction;Environmental	13.13	6.18	8.19	29.12	16.82	34.43	9.9	8.14	11.29	transcription factor bHLH128	bHLH128

	hormone signal transduction ko04712//Circadian rhythm - plant;ko04075//Plant hormone signal transduction ko04075//Plant hormone signal transduction ko04075//Plant hormone signal transduction ko03010//Ribosome;ko04075//Plant hormone signal transduction	Information Processing Environmental Information Processing;Organismal Systems Environmental Information Processing Environmental Information Processing Environmental Information Processing;Genetic Information Processing Information Processing	ntal adaptation Environmental tal adaptation;Signal transduction Signal transduction Signal transduction Translation;Signal transduction	2.06	2.26	1.65	0.63	1.68	0.34	2.11	2.08	1.52	transcription factor bHLH113- like	bHLH113
10393690 3				3.09	1.1	1.96	10.44	10.02	12.3	2.61	2.12	4.06	transcription factor bHLH48- like	bHLH48
10393915 7				0.08	0.31	0.04	0.31	0.47	2.09	0.4	0.55	0.24	transcription factor bHLH66- like	bHLH66
10394909 4				0.73	2.04	1.44	6.34	8.44	11.64	2.79	1.98	2.23	transcription factor bHLH62	bHLH62
10396138 5														

10396272	ko04075//Plant hormone signal transduction	Environmental Information Processing	Signal transduction	4.7	3.86	3.97	12.37	6.13	7.97	4.23	3.15	5.29	transcription factor	bHLH145
10396699	ko04712//Circadian rhythm - plant;ko04075//Plant hormone signal transduction	Organismal Systems;Environmental Information Processing	Signal transduction;Environmental adaptation	3.26	1.43	1.41	0.65	1.46	0	1.85	1.61	1.24	transcription factor	bHLH49-like isoform X2
