

SUPPLEMENTARY INFORMATION

Combined Heat and Drought Stress Induce Grapevine Defense Responses

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Table S1. Primer sequences for Real-time PCR.

#	Gene name	F	R	Link
1	Ubiquitin binding enzyme (UBC)	GAGGGTCGTCAGGATTTGGA	GCCCTGCACTTACCATCTTTAAG	https://doi.org/10.1371/journal.pone.0072998
2	Elongation factor α 1	GAACTGGGTGCTTGATAGGC	ACCAAAATATCCGGAGTAAAAGA	https://doi.org/10.1371/journal.pone.0072998
3	Pathogenesis related protein 1 (PR1)	ATGGGGTTAGCCCTAGCTCA	CGCCAATCCTCTGGTTAGCA	https://doi.org/10.3389/fgene.2022.1033288
4	β -1,3-glucanase (PR2)	TGCTGTTTACTCGGCACTTG	CTGGGGATTTCTGTTCTCA	https://doi.org/10.1016/j.plaphy.2019.09.024
5	Chitinase (PR3)	TATCCATGTGTCTCCGGTCA	TGAATCCAATGCTGTTTCCA	https://doi.org/10.1111/j.1365-3059.2012.02628.x
6	Pathogenesis related protein 5 (PR5)	TTCACCCCCAGCTATGCAG	GCATCGAAGTTGCAGTTGGT	https://doi.org/10.1016/j.plaphy.2019.09.024
7	Pathogenesis related protein 10 (PR10)	CGTTAAGGGCGGCAAAGAG	GCATCAGGGTGTGCCAAGA	https://doi.org/10.1007/s11240-017-1260-1
8	Nonexpressor of PR genes 1 (NPR1)	GACCACAACCGAGCTTCTTGATCT	ATAATCTTGGGCTCTTTCCGCATT	https://doi.org/10.1016/j.plaphy.2019.09.024
9	Plant defensin 1 (PDF1)	TGGCTTCTTCTTCTTCCTCCT	ACAGTTGTGGTCTCCCATGC	https://doi.org/10.1016/j.plaphy.2019.09.024
10	Allene oxide synthase (AOS)	CGGCGGAGAATAAACAGTGC	GACTTGAAAAGCACAGCGGAT	https://doi.org/10.1016/j.plaphy.2019.09.024
11	Stilbene synthase (STS)	ATCGAAGATCACCCACCTTG	CTTAGCGGTTCTGAAG GACAG	https://doi.org/10.1186/s12864-016-3304-z
12	Chalcone synthase (CHS)	GTTCTGGTCGTCTGCTCTG	CCAGTCGCTGATGCCTATC	https://doi.org/10.1016/j.plaphy.2016.04.042
13	2-oxophytodienoate reductase 3 (OPR3)	AGGCGTGGAAGAAGGTTGTG	GCTGGTTGATGATATGGGTG	https://doi.org/10.3389/fpls.2018.00970
14	Lipoxygenase (LOX)	GCAAATCAAAGGGACAACGCTGTATG	TGCTTCCACTGCGGCTTCC	https://doi.org/10.1371/journal.pone.0186952
15	Phenylalanine ammonia-lyase (PAL)	TGAACAATGGCGAAAGTGAGAA	TCTCTTGCGCTCTCAACCTCTT	https://doi.org/10.1007/s10658-015-0725-5

Table S2. MDA content and SOD activity in grape leaves.

		MDA, nmol/ g FW				SOD activity, u/g of protein			
		Bianca	St err	Riesling	St err	Bianca	St err	Riesling	St err
0 hpi	C	27,42	2,32	55,72	0,25	3,68	0,27	5,15	0,39
	DS	89,88	1,87	76,94	1,77	4,85	0,51	5,21	0,21
	TS	62,88	0,73	58,81	1,61	3,58	0,05	6,10	0,60
	CS	65,76	2,79	52,96	2,46	4,69	0,20	4,76	0,17
24 hpi	C+PV	39,74	1,05	88,35	7,13	2,99	0,18	2,26	0,03
	C+AA	28,37	1,68	41,48	0,99	3,08	0,06	3,30	0,19
	DS+PV	43,01	1,11	56,56	7,38	2,90	0,17	3,06	0,17
	DS+AA	29,03	0,97	64,46	1,84	2,74	0,01	2,35	0,22
	TS+PV	46,14	5,12	49,01	5,98	2,62	0,46	1,96	0,04
	TS+AA	58,65	2,44	54,83	1,31	2,84	0,08	2,52	0,23
	CS+PV	46,68	3,16	66,27	6,48	2,98	0,18	2,92	0,17
48 hpi	CS+AA	48,54	2,39	67,51	2,37	2,88	0,07	3,10	0,42
	C+PV	68,26	1,27	42,25	2,47	2,39	0,11	3,89	0,13
	C+AA	61,78	1,97	49,65	2,05	3,61	0,08	4,47	0,28
	DS+PV	30,86	0,43	52,25	4,38	4,09	0,12	6,00	0,23
	DS+AA	29,28	2,27	67,42	4,68	5,29	0,50	4,74	0,46
	TS+PV	112,09	11,60	51,40	3,50	1,77	0,32	3,48	0,45
	TS+AA	83,04	8,37	68,90	0,96	3,45	0,69	5,02	0,10
	CS+PV	32,71	0,95	101,29	8,07	2,41	0,09	2,83	0,59
	CS+AA	147,22	11,03	72,10	4,64	4,82	0,44	4,85	0,35