

Table S6 Differentially expressed transcripts in GT synthesis pathway after hemin treatment (*P*-value <0.05)

Treatment	Unigene ID	Blast results from Swissprot or Nr	Length	log2FoldChange	pval
hemin VS control	TRINITY_DN 26964_c0_g1	gi 166204095 gb ABY84848.1 3-hydroxy-3-methylglutaryl-c oenzyme A reductase [Ganoderma lucidum]	293	-1.537	0.016274007
	TRINITY_DN 47135_c0_g3	gi 170779365 gb ACB37020.1 farnesyl-diphosphate synthase [Ganoderma lucidum]	422	1.187	0.00397882
	TRINITY_DN 39760_c0_g1	sp P53800 FDFT_NICBE squalene synthase	463	1.566	0.006362946
	TRINITY_DN 42604_c0_g1	gi 290767253 gb ADD60469.1 lanosterol synthase [Ganoderma lucidum]	597	2.540	0.010212049

Table S7 Differentially expressed transcripts in GT synthesis pathway after ZnPPIX treatment (*P*-value <0.05)

Treatment	Unigene ID	Blast results from Swissprot or Nr	Length	log2FoldChange	pval
ZnPPIX VS control	TRINITY_DN26964_c0_g1	gi 166204095 gb ABY84848.1 3-hydroxy-3-methylglutaryl-coenzyme A reductase [Ganoderma lucidum]	293	-1.739	0.017249578
	TRINITY_DN30189_c0_g1	gi 597974381 ref XP_007361698.1 phosphomevalonate kinase	360	-1.323	0.003897091
	TRINITY_DN39760_c0_g1	sp P53800 FDFT_NICBE squalene synthase	463	-1.667	0.008739181
	TRINITY_DN42604_c0_g1	gi 290767253 gb ADD60469.1 lanosterol synthase [Ganoderma lucidum]	597	-1.822	0.021531665

Table S8 GO annotation of ROS signaling-related transcripts after hemin treatment
(*P*-value <0.05)

	Unigene ID	Blast results from Swissprot or Nr	Length	log2Fold Change	pval
UP	TRINITY_DN49234_c1_g3	gi 636605441 ref XP_008033855.1 peroxidase	2056	1.496	0.009448382
	TRINITY_DN49270_c0_g3	sp P34227 peroxiredoxin PRX1, mitochondrial	1370	1.362	1.31E-05
	TRINITY_DN1588_c0_g1	sp P46412 glutathione peroxidase 3	422	1.245	0.024866916
	TRINITY_DN41313_c0_g1	gi 597983255 ref XP_007363982.1 pyridoxamine 5'-phosphate oxidase	256	2.067	0.003135846
	TRINITY_DN50685_c10_g1	sp P80028 thioredoxin H-type	1417	1.619	6.33E-08
	TRINITY_DN49607_c6_g1	gi 597968885 ref XP_007360288.1 NADPH oxidase isoform 1	812	1.299	0.035691944
	TRINITY_DN50338_c5_g2	gi 636603659 ref XP_008032964.1 catalase	8488	1.316	5.40E-05
DOWN	TRINITY_DN44892_c0_g1	gi 597989913 ref XP_007365693.1 redoxin	421	-1.684	1.97E-06
	TRINITY_DN47681_c0_g1	gi 598003113 ref XP_007369134.1 glutathione S-transferase	2824	-1.088	8.15E-06
	TRINITY_DN42930_c0_g1	sp Q92429 superoxide dismutase [Mn]	427	-1.387	2.31E-05

Table S9 GO annotation of ROS signaling-related transcripts after ZnPPiX treatment (*P*-value <0.05)

	Unigene ID	Blast results from Swissprot or Nr	Length	log2Fold Change	pval
UP	TRINITY_DN50685_c10_g1	sp P80028 thioredoxin H-type	1417	1.476	9.76E-07
	TRINITY_DN47681_c0_g1	gi 598005343 ref XP_007369734.1 glutathione-S-transferase	2824	1.764	1.94E-11
	TRINITY_DN49607_c6_g1	gi 597968885 ref XP_007360288.1 NADPH oxidase isoform 1	812	1.493	0.016214852
DOWN	TRINITY_DN50566_c6_g1	sp B0BK72 peroxidase 2	9446	-4.515	1.15E-58
	TRINITY_DN42930_c0_g1	sp Q92429 superoxide dismutase [Mn]	427	-1.749	7.16E-08
	TRINITY_DN50338_c5_g2	gi 636603659 ref XP_008032964.1 catalase	8488	-1.668	4.09E-06
	TRINITY_DN49452_c0_g5	gi 598009401 ref XP_007370772.1 chloroperoxidase-like protein	1574	-1.781	5.34E-08

Table S10 GO annotation of Ca²⁺ signaling-related transcripts after hemin treatment (*P*-value <0.05)

	Unigene ID	Blast results from Swissprot or Nr	Length	log2FoldChange	pval
UP	TRINITY_DN47316_c0_g1	gi 597987661 ref XP_007365106.1 calcium activated cation channel	2909	1.203	3.49E-06
	TRINITY_DN50681_c6_g2	gi 914265897 gb KNZ80644.1 calcium-binding mitochondrial carrier protein Aralar1	4519	1.941	0.000165858
	TRINITY_DN47724_c2_g2	gi 597990021 ref XP_007365722.1 calcium-dependent phosphotriesterase	2943	1.35	0.021697507
	TRINITY_DN49057_c0_g1	sp O14234 calcium-channel protein <i>cchl</i>	6758	2.404	0.04049529
	TRINITY_DN49415_c0_g1	gi 597986997 ref XP_007364939.1 phospholipase/carboxylesterase	1057	1.334	1.09E-06
	TRINITY_DN49973_c6_g2	sp Q8KRU5 phospholipase D	3134	1.710	1.88E-11
DOWN	TRINITY_DN50606_c2_g2	sp P62147 calmodulin-1	532	-3.866	1.41E-07
	TRINITY_DN44979_c0_g2	gi 636611069 ref XP_008036669.1 calcium/proton exchanger	988	-2.480	5.74E-06
	TRINITY_DN49819_c1_g1	sp Q9Y899 calcium/calmodulin-dependent protein kinase cmkB	5205	-1.670	0.000467424
	TRINITY_DN46273_c0_g1	gi 414527128 gb AFX00736.1 calcium transporting ATPase	1049	-1.841	0.001025519
	TRINITY_DN46579_c0_g1	sp O70150 calcium/calmodulin-dependent protein kinase type 1B	2526	-1.978	5.03E-09

Table S11 GO annotation of Ca²⁺ signaling-related transcripts after ZnPPiX treatment (*P*-value <0.05)

	Unigene ID	Blast results from Swissprot or Nr	Length	log2FoldChange	pval
UP	TRINITY_DN46579_c0_g1	sp O70150 calcium/calmodulin-dependent protein kinase type 1B	2526	2.952	7.73E-25
	TRINITY_DN47724_c2_g2	gi 597990021 ref XP_007365722.1 calcium-dependent phosphotriesterase	2943	1.360	2.27E-06
	TRINITY_DN49415_c0_g1	gi 597986997 ref XP_007364939.1 phospholipase/carboxylesterase	1057	1.3623	5.19E-07
DOWN	TRINITY_DN50606_c2_g2	gi 576984475 gb EUC57218.1 calmodulin	532	-2.531	0.000109213
	TRINITY_DN40394_c0_g1	gi 636611069 ref XP_008036669.1 calcium/proton exchanger	408	-1.973	7.08E-09
	TRINITY_DN49208_c3_g2	gi 598003033 ref XP_007369110.1 calcium ATPase transmembrane domain M-containing protein	2454	-1.352	2.53E-07
	TRINITY_DN49467_c1_g2	sp O59768 vacuolar calcium ion transporter	2628	-1.805	6.25E-05
	TRINITY_DN46273_c0_g1	gi 414527128 gb AFX00736.1 calcium transporting ATPase	1049	-2.338	0.000135588
	TRINITY_DN49057_c0_g1	sp O14234 CCH1_SCHPO calcium-channel protein <i>cchl</i>	6758	-1.756	0.003243687
	TRINITY_DN38963_c0_g1	sp P36126 phospholipase D1	354	-4.437	0.035906822