

## *Supplementary Material*

### 1 Supplementary Table

<b>log2FoldChange under heat-shock treatment in <i>Themisto gaudichaudii</i></b>	
<b>log2FoldChange</b>	<b>Annotation</b>
-11,06	Major basic nuclear protein 2
-10,46	Actin
-10,43	Glutathione S-transferase B
-10,33	Soma ferritin
-10,32	V-type proton ATPase subunit B
-10,11	Peptidyl-prolyl cis-trans isomerase
-9,78	Eukaryotic translation initiation factor 3 subunit H
-9,62	Malate dehydrogenase, mitochondrial
-9,36	Rhodopsin
-9,17	Hemocyte protein-glutamine gamma-glutamyltransferase
-8,88	Zinc metalloproteinase nas-1
-8,86	Profilin
-8,76	6-phosphogluconate dehydrogenase, decarboxylating
-8,62	Hemocyanin
-8,61	Kynurenine--oxoglutarate transaminase 1
-8,56	Hemocyanin
-8,3	Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic
-8,29	Hemocyanin B chain
-8,26	UPF0545 protein C22orf39 homolog
-8,23	CRISP/Allergen/PR-1
-8,12	Mitochondrial ribonuclease P catalytic subunit
-8	Hemocyanin A chain
-7,83	Glycogen debranching enzyme
-7,82	Vigilin
-7,81	Puromycin-sensitive aminopeptidase
-7,8	Sodium/potassium-transporting ATPase subunit beta
-7,77	Hemocyanin B chain
-7,69	SUMO-activating enzyme subunit 2
-7,52	Long-chain-fatty-acid--CoA ligase ACSBG2
-7,48	Vigilin
-7,45	Succinate dehydrogenase [ubiquinone] cytochrome b small subunit, mitochondrial
-7,43	Hemocyte protein-glutamine gamma-glutamyltransferase

-7,39	Compound eye opsin BCRH2
-7,39	Tubulin alpha-1 chain
-7,36	Mitochondrial 10-formyltetrahydrofolate dehydrogenase
-7,32	Phosphomannomutase
-7,29	Glutathione S-transferase omega-1
-7,29	THO complex subunit 1
-7,23	Protein SON
-7,13	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit STT3B
-7,1	ATP-dependent Clp protease ATP-binding subunit ClpX
-7,01	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5
-6,95	DNA-directed RNA polymerase, mitochondrial
-6,94	Fibrillin-1
-6,93	Glycogen debranching enzyme
-6,86	FAD synthase
-6,85	Facilitated trehalose transporter Tret1
-6,79	Homeotic protein female sterile
-6,78	BolA-like protein 3
-6,71	Adenylosuccinate lyase
-6,7	Actin-related protein 1
-6,64	Ribonuclease Z, mitochondrial
-6,62	Caspase-3
-6,61	Short-chain specific acyl-CoA dehydrogenase, mitochondrial
-6,61	Dihydrolipoyl dehydrogenase, mitochondrial
-6,5	ATP synthase subunit O, mitochondrial
-6,49	Bystin
-6,48	Puromycin-sensitive aminopeptidase
-6,42	Eukaryotic translation initiation factor 3 subunit H
-6,42	Thioredoxin-related transmembrane protein 1
-6,35	Zinc metalloproteinase nas-31
-6,34	Elongation factor 1-alpha
-6,33	Beta-1,4-N-acetylgalactosaminyltransferase bre-4
-6,3	ATP-dependent RNA helicase SUV3 homolog, mitochondrial
-6,2	Histone acetyltransferase Tip60
-6,18	RNA polymerase-associated protein CTR9 homolog
-6,18	Adenylosuccinate lyase
-6,16	Integrin alpha-5
-6,14	Acetyl-CoA acetyltransferase, mitochondrial
-6,07	2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial
-6,04	Advillin

-5,97	Ammonium transporter Rh type B
-5,94	Polyubiquitin
-5,92	Glycogen debranching enzyme
-5,92	Surfeit locus protein 1
-5,89	Fibrillin-1
-5,87	2-(3-amino-3-carboxypropyl)histidine synthase subunit 2
-5,84	Opioid-binding protein/cell adhesion molecule
-5,77	Phosphatidylinositol N-acetylglucosaminyltransferase subunit P
-5,76	DnaJ homolog subfamily C member 11
-5,76	V-type proton ATPase subunit B
-5,67	Probable ATP-dependent RNA helicase DDX10
-5,65	Probable pre-mRNA-splicing factor ATP-dependent RNA helicase mog-4
-5,61	Apolipoprotein D
-5,59	PiggyBac transposable element-derived protein 4
-5,58	Latent-transforming growth factor beta-binding protein 2
-5,52	Serine/threonine-protein kinase PRP4 homolog
-5,43	Malate dehydrogenase, mitochondrial
-5,42	MAP kinase-interacting serine/threonine-protein kinase 2
-5,42	Required for meiotic nuclear division protein 1 homolog
-5,34	Tubulin alpha chain
-5,31	CRISP/Allergen/PR-1
-5,31	Low choriolytic enzyme
-5,29	DNA-directed RNA polymerase III subunit RPC1
-5,25	Deoxyribodipyrimidine photo-lyase
-5,21	Muscle-specific protein 20
-5,21	Sterile alpha motif domain-containing protein 3
-5,18	26S proteasome regulatory subunit 7
-5,15	Zinc metalloproteinase nas-13
-5,08	Peroxiredoxin-6
-5,03	DNA polymerase subunit gamma-1
-4,99	Elongation factor 1-alpha
-4,73	Elongation factor 1-alpha 1
-4,73	Protein HIRA homolog
-4,64	Uncharacterized protein YcbX
-4,59	Zinc metalloproteinase nas-8
-4,58	Probable RNA-directed DNA polymerase from transposon X-element
-4,35	NADH-ubiquinone oxidoreductase chain 4
-4,26	60S ribosomal protein L10
-4,26	GILT-like protein 1
-4,16	Zinc metalloproteinase nas-6

-4,14	DnaJ homolog subfamily C member 25 homolog
-4,07	Zinc finger protein 64
-3,97	Arginine kinase
-3,8	Protein P
-3,74	Myosin heavy chain, muscle
-3,63	Tubulin beta chain
-3,55	Zinc metalloproteinase nas-4
-3,51	Poly(U)-specific endoribonuclease
-3,5	Peptidyl-prolyl cis-trans isomerase A1
-3,48	Deoxycytidylate deaminase
-3,46	Digestive cysteine proteinase 3
-3,44	Translocon-associated protein subunit alpha
-3,24	Dehydrogenase/reductase SDR family member 11
-3,22	CRISP/Allergen/PR-1
-3,22	Beta-1,3-glucan-binding protein
-3,16	Tubulin beta-2 chain
-3,16	Beta-1,3-glucan-binding protein
-3,03	10 kDa heat shock protein, mitochondrial
-3,02	Zinc metalloproteinase nas-6
-2,91	LINE-1 retrotransposable element ORF2 protein
-2,78	Apolipoprotein D
-2,72	Actin, alpha skeletal muscle
-2,72	Hemocyanin
-2,7	SET and MYND domain-containing protein
-2,67	Inverted formin-2
-2,54	Heat shock protein 60A
-2,51	Mitochondrial import inner membrane translocase subunit Tim21
-2,47	Carbohydrate sulfotransferase 13
-2,45	Chromatin modification-related protein MEAF6
-2,44	Prolyl 3-hydroxylase 1
-2,39	Facilitated trehalose transporter Tret1
-2,39	Histone H2A
-2,39	La-related protein 6
-2,37	Putative acyl-CoA-binding protein
-2,33	Protein yippee-like 5
-2,32	Farnesol dehydrogenase
-2,28	Tetratricopeptide repeat protein 5
-2,25	Integrin alpha-PS3
-2,24	T-complex protein 1 subunit eta

-2,24	Actin-1
-2,23	Presenilins-associated rhomboid-like protein, mitochondrial
-2,21	S-methyl-5'-thioadenosine phosphorylase
-2,13	General transcription factor IIF subunit 1
-2,09	Small nuclear ribonucleoprotein G
-2,07	FK506-binding protein 2B
-2,05	Golgi-associated plant pathogenesis-related protein 1
-2,03	Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase
-2,02	THO complex subunit 4-A
-2,02	Tubulin alpha chain
-2,02	Myelin P2 protein
2,01	Sterol regulatory element-binding protein 1
2,02	Glutathione peroxidase
2,02	Neuronal acetylcholine receptor subunit alpha-7
2,04	RNA polymerase-associated protein CTR9 homolog
2,04	SET domain-containing protein SmydA-8, isoform A
2,06	Tryptase
2,06	Myosin heavy chain, muscle
2,07	Histone-lysine N-methyltransferase SMYD3
2,08	Zinc finger protein 142
2,08	UBX domain-containing protein 7
2,09	Triosephosphate isomerase
2,1	Cytochrome c-type heme lyase
2,11	Alpha-ketoglutarate-dependent dioxygenase alkB homolog 3
2,15	Glutathione S-transferase Mu 1
2,16	Zinc finger autosomal protein
2,19	Organic cation transporter protein
2,2	Ubiquitin
2,24	Cationic amino acid transporter 4
2,25	Tubulin beta-2 chain
2,33	Probable caffeoyl-CoA O-methyltransferase 2
2,33	Caspase-1
2,33	Probable cysteine desulfurase
2,33	UDP-glucuronosyltransferase 2A3
2,35	E3 ubiquitin-protein ligase NRDP1
2,36	Carboxypeptidase B
2,39	Actin-1
2,39	Glutamate-gated chloride channel
2,4	Phospholipid phosphatase 6
2,47	Actin-1

2,47	Aldo-keto reductase family 1 member B10
2,48	Actin
2,49	Peritrophin-1
2,5	Phosphoribosyl pyrophosphate synthase-associated protein 2
2,61	Solute carrier family 22 member 6-B
2,65	Zinc metalloproteinase nas-6
2,67	Protein patched
2,69	Thyrotropin-releasing hormone-degrading ectoenzyme
2,7	Mitochondrial ribonuclease P catalytic subunit
2,7	Calpain-A
2,71	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial
2,72	Protein SpAN
2,73	CRISP/Allergen/PR-1
2,73	Clotting factor B
2,75	Digestive cysteine proteinase 3
2,76	Lysosomal protective protein
2,78	Methyl farnesoate epoxidase
2,8	UPF0545 protein C22orf39 homolog
2,8	Uridine phosphorylase 1
2,81	Uncharacterized oxidoreductase C8E4.04
2,83	CRISP/Allergen/PR-1
2,88	Golgi SNAP receptor complex member 1
2,92	Glutathione hydrolase 1 proenzyme
2,93	Opioid-binding protein/cell adhesion molecule
2,95	Low-density lipoprotein receptor-related protein 4
2,95	Cytochrome c oxidase subunit 1
2,97	Plexin-B
2,98	Glutamine synthetase
3,01	tRNA (uracil(54)-C(5))-methyltransferase homolog
3,03	Venom allergen 3 homolog
3,03	Homeobox protein PKNOX1
3,08	Muscle-specific protein 20
3,18	Actin, alpha skeletal muscle
3,2	Brain protein I3
3,24	Zinc finger protein 510
3,28	RNA/RNP complex-1-interacting phosphatase
3,34	Zinc metalloproteinase nas-13
3,34	Peroxidase
3,37	Phenoloxidase 2

3,4	Digestive cysteine proteinase 2
3,45	Beta-1,3-galactosyltransferase brn
3,5	Solute carrier family 22 member 21
3,61	6-phosphogluconate dehydrogenase, decarboxylating
3,71	Salivary glue protein Sgs-4
3,83	Astacin
3,85	RE1-silencing transcription factor
3,89	Putative pterin-4-alpha-carbinolamine dehydratase
3,89	Cytochrome P450 2L1
3,91	Myosin heavy chain, muscle
3,91	Probable RNA-directed DNA polymerase from transposon X-element
3,96	Eukaryotic elongation factor 2 kinase
3,98	Low-density lipoprotein receptor-related protein 2
4,1	Acid phosphatase type 7
4,11	Hemocyanin
4,16	Vesicle transport protein GOT1B
4,19	Zinc metalloproteinase nas-8
4,25	UBX domain-containing protein 4
4,29	Cytochrome P450 2L1
4,34	Zinc finger protein 513
4,36	Elongation factor 1-alpha
4,44	CRISP/Allergen/PR-1
4,45	Ferritin
4,48	Retrovirus-related Pol polyprotein from type-2 retrotransposable element R2DM
4,48	Retrovirus-related Pol polyprotein from transposon 17.6
4,5	Protein obstructor-E
4,52	60S ribosomal protein L15
4,67	Tetratricopeptide repeat protein 8
4,73	Digestive cysteine proteinase 1
4,74	Chitooligosaccharidolytic beta-N-acetylglucosaminidase
4,84	Cytochrome P450 2L1
4,86	Cuticle protein AM/CP1114
4,87	Beta-1,3-glucan-binding protein
5	Retrovirus-related Pol polyprotein from transposon 17.6
5,02	Alpha/beta hydrolase domain-containing protein 17B
5,03	Cytochrome c-type heme lyase
5,09	Sodium/hydrogen exchanger 9B2
5,25	Translation factor GUF1 homolog, mitochondrial
5,43	Phosrestin-2
5,48	Alpha/beta hydrolase domain-containing protein 17C

5,5	Zinc finger and BTB domain-containing protein 7C
5,62	Cuticle protein AM1199
5,67	Chimeric ERCC6-PGBD3 protein
5,8	6-phosphogluconate dehydrogenase, decarboxylating
5,92	Phosphoenolpyruvate carboxykinase [GTP]
5,97	6-phosphogluconate dehydrogenase, decarboxylating
5,99	Cytochrome P450 2L1
6,06	Chitotriosidase-1
6,07	Inositol oxygenase
6,07	Zinc metalloproteinase nas-13
6,13	Digestive cysteine proteinase 3
6,18	Muscle LIM protein Mlp84B
6,39	CRISP/Allergen/PR-1
6,5	Compound eye opsin BCRH1
6,54	Hyaluronidase-3
6,55	Cytochrome c oxidase subunit 2
6,56	Steroid 17-alpha-hydroxylase/17,20 lyase
6,58	60S ribosomal protein L23a
6,67	Variable charge X-linked protein 3B
6,69	Long-chain specific acyl-CoA dehydrogenase, mitochondrial
6,72	Ubiquitin carboxyl-terminal hydrolase 7
6,75	Myosin heavy chain, muscle
6,83	Ubiquitin carboxyl-terminal hydrolase 7
7,17	Succinate dehydrogenase cytochrome b560 subunit, mitochondrial
7,29	Serum amyloid A-3 protein
7,31	ATP synthase subunit a
7,36	Cytochrome c oxidase subunit 2
7,96	Short-chain specific acyl-CoA dehydrogenase, mitochondrial
8,22	Glycine cleavage system H protein
8,25	Muscle-specific protein 20
8,72	Vigilin
9,49	Antho-RFamide neuropeptides type 1
9,66	Glutamine synthetase
11,41	Rhodopsin
21,12	ATP synthase subunit a
23,51	Serum amyloid A-1 protein



