Supplementary Table S2. Transcripts from the oviducal gland transcriptome of *O. maya* selected for heatmap and cluster analysis.

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| --- | --- | --- | --- |
| **Transcript ID** | **UniProt ID** | **E-value** | **Protein name** |
| **Heatmap 1. Top DEGs among physiological stages** |
| TRINITY\_DN7086\_c0\_g1\_i1 | ABR\_XENLA | 7.52E-18 | Active breakpoint cluster region-related protein |
| TRINITY\_DN7173\_c0\_g1\_i1 | ACH2\_CAEEL | 1.01E-10 | Acetylcholine receptor subunit beta-type unc-29  |
| TRINITY\_DN43413\_c0\_g1\_i1 | ALG8\_HUMAN | 0 | Probable dolichyl pyrophosphate Glc1Man9GlcNAc2 alpha-1,3-glucosyltransferase  |
| TRINITY\_DN12628\_c1\_g1\_i2 | ANXA7\_BOVIN | 1.11E-96 | Annexin A7  |
| TRINITY\_DN10217\_c0\_g1\_i1 | AQP\_DROME | 6.53E-38 | Aquaporin |
| TRINITY\_DN14532\_c0\_g1\_i1 | AQP4\_BOVIN | 6.10E-40 | Aquaporin-4  |
| TRINITY\_DN13830\_c0\_g1\_i5 | B3GN5\_PIG | 2.26E-26 | Lactosylceramide 1,3-N-acetyl-beta-D-glucosaminyltransferase  |
| TRINITY\_DN13397\_c0\_g2\_i3 | BRE4\_CAEBR | 1.41E-74 | Beta-1,4-N-acetylgalactosaminyltransferase bre-4  |
| TRINITY\_DN9802\_c0\_g1\_i1 | CBR1\_PONAB | 5.90E-98 | Carbonyl reductase [NADPH] 1  |
| TRINITY\_DN15112\_c0\_g1\_i1 | CIB1\_HUMAN | 1.84E-39 | Calcium and integrin-binding protein 1  |
| TRINITY\_DN15112\_c0\_g1\_i2 | CIB1\_SHEEP | 3.56E-15 | Calcium and integrin-binding protein 1  |
| TRINITY\_DN37588\_c0\_g1\_i1 | D19L1\_HUMAN | 0 | Probable C-mannosyltransferase DPY19L1  |
| TRINITY\_DN9811\_c0\_g1\_i4 | DLGP1\_DANRE | 2.65E-18 | Disks large-associated protein 1  |
| TRINITY\_DN32774\_c0\_g1\_i1 | DUOX2\_RAT | 4.29E-141 | Dual oxidase 2  |
| TRINITY\_DN16072\_c0\_g1\_i2 | EDEM2\_HUMAN | 0 | ER degradation-enhancing alpha-mannosidase-like protein 2 |
| TRINITY\_DN16442\_c0\_g2\_i1 | FUCTA\_DROME | 3.67E-134 | Glycoprotein 3-alpha-L-fucosyltransferase A  |
| TRINITY\_DN11335\_c0\_g1\_i1 | GALT9\_CAEEL | 4.23E-121 | Probable N-acetylgalactosaminyltransferase 9  |
| TRINITY\_DN3280\_c0\_g1\_i1 | GCNT1\_MOUSE | 1.40E-31 | Beta-1,3-galactosyl-O-glycosyl-glycoprotein beta-1,6-N-acetylglucosaminyltransferase  |
| TRINITY\_DN10779\_c0\_g1\_i1 | GOGA2\_RAT | 1.53E-103 | Golgin subfamily A member 2  |
| TRINITY\_DN770\_c0\_g1\_i1 | IF4G3\_MOUSE | 8.71E-16 | Eukaryotic translation initiation factor 4 gamma 3  |
| TRINITY\_DN11014\_c0\_g2\_i1 | KFA\_DANRE | 2.48E-12 | Kynurenine formamidase  |
| TRINITY\_DN11014\_c0\_g1\_i1 | KFA\_SALSA | 5.44E-63 | Kynurenine formamidase  |
| TRINITY\_DN15097\_c0\_g1\_i1 | LEG3\_RABIT | 1.49E-06 | Galectin-3  |
| TRINITY\_DN16242\_c0\_g1\_i8 | LRP2\_HUMAN | 6.50E-17 | Low-density lipoprotein receptor-related protein 2  |
| TRINITY\_DN29933\_c0\_g1\_i1 | MGT4B\_DANRE | 7.02E-38 | Alpha-1,3-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase B  |
| TRINITY\_DN11848\_c0\_g1\_i1 | NEC1\_HUMAN | 0 | Neuroendocrine convertase 1  |
| TRINITY\_DN16362\_c4\_g6\_i1 | PERC\_AEDAE | 3.43E-09 | Chorion peroxidase  |
| TRINITY\_DN11201\_c0\_g1\_i1 | PMGT1\_HUMAN | 1.56E-53 | Protein O-linked-mannose beta-1,2-N-acetylglucosaminyltransferase 1  |
| TRINITY\_DN16150\_c1\_g1\_i4 | PRDX4\_MOUSE | 1.49E-125 | Peroxiredoxin-4  |
| TRINITY\_DN15812\_c1\_g1\_i12 | PTBP1\_HUMAN | 0 | Polypyrimidine tract-binding protein 1  |
| TRINITY\_DN6386\_c0\_g1\_i1 | RDH11\_MOUSE | 2.91E-38 | Retinol dehydrogenase 11  |
| TRINITY\_DN8252\_c0\_g1\_i1 | RDH14\_HUMAN | 2.09E-33 | Retinol dehydrogenase 14  |
| TRINITY\_DN11094\_c0\_g1\_i1 | RDHE2\_HUMAN | 1.30E-95 | Epidermal retinol dehydrogenase 2  |
| TRINITY\_DN9492\_c0\_g1\_i2 | RISC\_MOUSE | 4.15E-124 | Retinoid-inducible serine carboxypeptidase  |
| TRINITY\_DN22438\_c0\_g1\_i1 | S5A1\_RAT | 1.91E-84 | 3-oxo-5-alpha-steroid 4-dehydrogenase 1  |
| TRINITY\_DN14910\_c0\_g1\_i2 | SAT2\_BOVIN | 7.52E-11 | Diamine acetyltransferase 2  |
| TRINITY\_DN22073\_c0\_g1\_i1 | SPEE\_HUMAN | 1.82E-108 | Spermidine synthase  |
| TRINITY\_DN16117\_c0\_g2\_i2 | SPTCB\_DROME | 0 | Spectrin beta chain |
| TRINITY\_DN10762\_c0\_g1\_i1 | STT3A\_BOVIN | 0 | Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit STT3A  |
| TRINITY\_DN7997\_c0\_g1\_i1 | TMM59\_MOUSE | 3.77E-41 | Transmembrane protein 59  |
| TRINITY\_DN141\_c0\_g1\_i1 | TSN18\_MOUSE | 1.44E-16 | Tetraspanin-18  |
| TRINITY\_DN4270\_c0\_g1\_i1 | VWC2\_MOUSE | 3.14E-09 | Brorin  |
| TRINITY\_DN16479\_c1\_g1\_i4 | ZAN\_MOUSE | 5.36E-13 | Zonadhesin |
| TRINITY\_DN7121\_c0\_g1\_i2 | ZAN\_PIG | 1.67E-41 | Zonadhesin |
| **Heatmap 2. Top DEGs between Control and Thermal treatment** |
| TRINITY\_DN7086\_c0\_g1\_i1 | ABR\_XENLA | 7.52E-18 | Active breakpoint cluster region-related protein |
| TRINITY\_DN16071\_c0\_g1\_i1 | ACNT2\_MOUSE | 4.90E-74 | Acyl-coenzyme A amino acid N-acyltransferase 2  |
| TRINITY\_DN16455\_c1\_g1\_i8 | AGRG6\_DANRE | 7.16E-48 | Adhesion G-protein coupled receptor G6  |
| TRINITY\_DN16455\_c1\_g1\_i11 | AGRG6\_DANRE | 2.28E-55 | Adhesion G-protein coupled receptor G6  |
| TRINITY\_DN16455\_c1\_g1\_i12 | AGRG6\_DANRE | 1.87E-55 | Adhesion G-protein coupled receptor G6  |
| TRINITY\_DN14202\_c0\_g1\_i1 | CAR9\_ARATH | 5.82E-09 | Protein C2-DOMAIN ABA-RELATED 9 |
| TRINITY\_DN44689\_c0\_g1\_i1 | CPROH\_CONVC | 1.10E-24 | Neuropeptide prohormone-4 |
| TRINITY\_DN9811\_c0\_g1\_i4 | DLGP1\_DANRE | 2.65E-18 | Disks large-associated protein 1  |
| TRINITY\_DN15725\_c0\_g1\_i3 | DYH3\_MOUSE | 0 | Dynein axonemal heavy chain 3  |
| TRINITY\_DN12420\_c0\_g1\_i1 | ENO\_DORPE | 0 | Enolase  |
| TRINITY\_DN16472\_c13\_g1\_i2 | FRIS\_LYMST | 3.91E-61 | Soma ferritin  |
| TRINITY\_DN11469\_c0\_g1\_i1 | GIGA6\_CRAGI | 4.38E-15 | Gigasin-6 |
| TRINITY\_DN16262\_c1\_g1\_i3 | GOSR1\_MOUSE | 4.21E-100 | Golgi SNAP receptor complex member 1  |
| TRINITY\_DN16491\_c1\_g1\_i1 | GT2D2\_BOVIN | 4.39E-17 | General transcription factor II-I repeat domain-containing protein 2  |
| TRINITY\_DN15097\_c0\_g1\_i1 | LEG3\_RABIT | 1.49E-06 | Galectin-3  |
| TRINITY\_DN12984\_c0\_g1\_i1 | MMP19\_HUMAN | 1.39E-48 | Matrix metalloproteinase-19  |
| TRINITY\_DN32740\_c0\_g1\_i1 | MYOM1\_APLCA | 5.09E-26 | Myomodulin neuropeptides 1  |
| TRINITY\_DN11848\_c0\_g1\_i1 | NEC1\_HUMAN | 0 | Neuroendocrine convertase 1  |
| TRINITY\_DN2512\_c0\_g1\_i1 | OGFD2\_XENTR | 3.60E-107 | 2-oxoglutarate and iron-dependent oxygenase domain-containing protein 2  |
| TRINITY\_DN3838\_c0\_g1\_i1 | PGAM\_DICDI | 2.58E-100 | Probable phosphoglycerate mutase  |
| TRINITY\_DN16097\_c0\_g1\_i5 | PGSC2\_DROSI | 4.65E-50 | Peptidoglycan-recognition protein SC2  |
| TRINITY\_DN16325\_c5\_g1\_i1 | PLSI\_BOVIN | 0 | Plastin-1 |
| TRINITY\_DN15812\_c1\_g1\_i12 | PTBP1\_HUMAN | 0 | Polypyrimidine tract-binding protein 1  |
| TRINITY\_DN15620\_c0\_g1\_i2 | PYR1\_SQUAC | 0 | CAD protein [Includes: Glutamine-dependent carbamoyl-phosphate synthase  |
| TRINITY\_DN11094\_c0\_g1\_i1 | RDHE2\_HUMAN | 1.30E-95 | Epidermal retinol dehydrogenase 2  |
| TRINITY\_DN15699\_c7\_g1\_i3 | SC6A9\_XENLA | 0 | Sodium- and chloride-dependent glycine transporter 1  |
| TRINITY\_DN14369\_c0\_g1\_i2 | SCRY3\_ENTDO | 9.52E-151 | S-crystallin 3  |
| TRINITY\_DN8587\_c0\_g1\_i2 | SL172\_CAEEL | 5.93E-22 | Uncharacterized transporter slc-17.2 |
| TRINITY\_DN16117\_c0\_g2\_i2 | SPTCB\_DROME | 0 | Spectrin beta chain |
| TRINITY\_DN16292\_c0\_g1\_i5 | SSPO\_CHICK | 0 | SCO-spondin |
| TRINITY\_DN38095\_c0\_g1\_i1 | TMED2\_CRIGR | 1.04E-103 | Transmembrane emp24 domain-containing protein 2  |
| TRINITY\_DN37643\_c0\_g1\_i1 | TRFM\_RABIT | 1.36E-63 | Melanotransferrin  |
| TRINITY\_DN141\_c0\_g1\_i1 | TSN18\_MOUSE | 1.44E-16 | Tetraspanin-18  |
| TRINITY\_DN15667\_c0\_g1\_i1 | VWA3B\_HUMAN | 8.06E-103 | von Willebrand factor A domain-containing protein 3B  |
| TRINITY\_DN4270\_c0\_g1\_i1 | VWC2\_MOUSE | 3.14E-09 | Brorin  |
| TRINITY\_DN16464\_c0\_g1\_i2 | YL154\_YEAST | 9.17E-08 | Uncharacterized protein YLR154C-G |
| **Heatmap 3. Biological regulation genes** |
| TRINITY\_DN13742\_c0\_g1\_i1 | 3BHS\_PIG | 2.19E-50 | 3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase  |
| TRINITY\_DN6203\_c0\_g1\_i1 | 5HT1R\_DROME | 1.15E-29 | 5-hydroxytryptamine receptor 1  |
| TRINITY\_DN2308\_c0\_g1\_i1 | 5HTR\_LYMST | 6.55E-34 | 5-hydroxytryptamine receptor  |
| TRINITY\_DN37457\_c0\_g1\_i1 | CP1\_APLCA | 3.36E-15 | Cerebral peptide 1 (APGW-amide)  |
| TRINITY\_DN12488\_c0\_g1\_i1 | CP17A\_CHICK | 2.75E-99 | Steroid 17-alpha-hydroxylase/17,20 lyase  |
| TRINITY\_DN27593\_c0\_g1\_i1 | CR3L2\_DANRE | 6.62E-38 | Cyclic AMP-responsive element-binding protein 3-like protein 2  |
| TRINITY\_DN22347\_c0\_g1\_i1 | CR3L4\_XENTR | 4.40E-24 | Cyclic AMP-responsive element-binding protein 3-like protein 4  |
| TRINITY\_DN15626\_c0\_g1\_i4 | CREM\_CANLF | 6.86E-46 | cAMP-responsive element modulator |
| TRINITY\_DN41804\_c0\_g1\_i1 | CRFR1\_RAT | 8.85E-18 | Corticotropin-releasing factor receptor 1  |
| TRINITY\_DN30186\_c0\_g1\_i1 | CRFR2\_RAT | 3.17E-16 | Corticotropin-releasing factor receptor 2  |
| TRINITY\_DN15757\_c0\_g1\_i2 | CSUP\_DROME | 8.14E-81 | Protein catecholamines up |
| TRINITY\_DN21784\_c0\_g1\_i1 | DH12B\_DANRE | 5.93E-23 | Very-long-chain 3-oxoacyl-CoA reductase-B  |
| TRINITY\_DN27073\_c0\_g1\_i1 | DHB2\_MOUSE | 3.54E-23 | Estradiol 17-beta-dehydrogenase 2  |
| TRINITY\_DN23419\_c0\_g1\_i1 | DHB2\_RAT | 4.27E-25 | Estradiol 17-beta-dehydrogenase 2  |
| TRINITY\_DN15284\_c0\_g1\_i2 | DHB8\_CANLF | 6.85E-85 | Estradiol 17-beta-dehydrogenase 8  |
| TRINITY\_DN12903\_c1\_g1\_i1 | DOPR1\_DROME | 5.00E-104 | Dopamine receptor 1  |
| TRINITY\_DN33758\_c0\_g1\_i1 | DOPR2\_DROME | 8.19E-72 | Dopamine receptor 2  |
| TRINITY\_DN11849\_c0\_g1\_i1 | FANA\_HELAS | 3.36E-140 | FMRFamide-activated amiloride-sensitive sodium channel  |
| TRINITY\_DN27125\_c0\_g1\_i1 | FMRF\_DORPE | 9.43E-63 | FMRFamide-related neuropeptides |
| TRINITY\_DN21361\_c0\_g1\_i1 | GNRHR\_OCTVU | 2.73E-40 | Gonadotropin-releasing hormone receptor  |
| TRINITY\_DN14636\_c0\_g1\_i2 | KAPR\_BLAEM | 5.29E-16 | cAMP-dependent protein kinase regulatory subunit  |
| TRINITY\_DN44001\_c0\_g1\_i1 | KAPR2\_DROME | 4.03E-32 | cAMP-dependent protein kinase type II regulatory subunit |
| TRINITY\_DN29094\_c0\_g1\_i1 | MPRA\_CYNNE | 9.17E-17 | Membrane progestin receptor alpha  |
| TRINITY\_DN32740\_c0\_g1\_i1 | MYOM1\_APLCA | 5.09E-26 | Myomodulin neuropeptides 1 |
| TRINITY\_DN10537\_c0\_g1\_i1 | PIBF1\_HUMAN | 4.32E-37 | Progesterone-induced-blocking factor 1  |
| TRINITY\_DN6408\_c0\_g1\_i1 | ST1E1\_BOVIN | 2.27E-45 | Estrogen sulfotransferase  |
| TRINITY\_DN34294\_c0\_g1\_i1 | ST1E1\_HUMAN | 5.19E-13 | Estrogen sulfotransferase  |

E-values belong to the BlastX searches