**Additional file 2: Table S2.** List of sequences commonly found differentially expressed in larvae of *Chymomyza costata* during Night vs. Day under both photoperiodic conditions, Long Day and Short Day (LD and SD).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Night vs Day (LD) | |  | Night vs Day (SD) | |
| Sequence ID | Sequence full description (according to BLAST results) | *D. melanogaster* orthologous transcript |  | Fold change | *P* adj \* |  | Fold change | *P* adj \* |
|  |  |  |  |  |  |  |  |  |
| Seq78517 | CG34227 | CG34227-RA |  | 3.19 | 4.41877E-05 |  | 3.05 | 0.000923732 |
| Seq423 | Vrille | CG14029-RD |  | 2.07 | 5.55622E-05 |  | 1.72 | 0.033561614 |
| Seq60022 | sosie | CG13636-RA |  | 1.98 | 6.69996E-05 |  | 1.80 | 0.044266382 |
| Seq5158 | sosie | CG13636-RA |  | 1.85 | 0.000302545 |  | 2.02 | 0.012356571 |
| Seq83275 | polya-binding protein interacting protein isoform b | CG12358-RA |  | 1.55 | 0.004047332 |  | 1.51 | 0.017058928 |
|  |  |  |  |  |  |  |  |  |
| Seq93228 | esterase b1-like | CG1082-RA |  | 0.66 | 0.020384284 |  | 0.65 | 0.025065369 |
| Seq53939 | cuticle | CG2342-RA |  | 0.63 | 0.049195753 |  | 0.58 | 0.017058928 |
| Seq102268 | acyl- delta desaturase-like | CG8630-RA |  | 0.62 | 0.023079796 |  | 0.62 | 0.029173921 |
| Seq107229 | ---NA--- | NA |  | 0.61 | 0.020769233 |  | 0.62 | 0.041795212 |
| Seq91954 | pupal cuticle protein g1a-like | CG13063-RA |  | 0.58 | 0.025841368 |  | 0.38 | 9.59463E-06 |
| Seq79202 | troponin isoform 3-like | CG9073-RA |  | 0.56 | 0.001070449 |  | 0.61 | 0.017058928 |
| Seq79638 | fibrous sheath cabyr-binding | CG11131-RB |  | 0.56 | 0.002046314 |  | 0.62 | 0.030415355 |
| Seq113304 | larval cuticle protein 8-like | CG6956-RA |  | 0.56 | 0.000884282 |  | 0.61 | 0.017664823 |
| Seq53394 | a-kinase anchor protein 14-like | NA |  | 0.54 | 3.75626E-06 |  | 0.65 | 0.010604606 |
| Seq51747 | larval cuticle protein 5-like | CG15515-RB |  | 0.54 | 0.000620732 |  | 0.60 | 0.017058928 |
| Seq92034 | CG13063 | CG13063-RA |  | 0.54 | 0.000193722 |  | 0.65 | 0.030415355 |
| Seq24459 | ---NA--- | NA |  | 0.53 | 0.003806955 |  | 0.49 | 0.003043169 |
| Seq54609 | fibrous sheath cabyr-binding | CG13033-RA |  | 0.46 | 0.000776035 |  | 0.56 | 0.01276934 |
| Seq4959 | pupal cuticle protein edg-78e-like | CG18349-RA |  | 0.41 | 1.9114E-07 |  | 0.58 | 0.014504997 |
| Seq105165 | ---NA--- | NA |  | 0.25 | 9.9234E-12 |  | 0.48 | 0.004311135 |
| Seq78737 | larval cuticle protein 8-like | CG10534-RA |  | 0.24 | 1.01009E-11 |  | 0.47 | 0.010875784 |
| Seq52196 | ---NA--- | NA |  | 0.23 | 0.000409758 |  | 0.40 | 0.014504997 |
| Seq1794 | larval cuticle protein 8-like | CG6956-RA |  | 0.20 | 0.000325109 |  | 0.35 | 0.003327867 |

\* Fold changes adjusted *P* values (*P* adj) were obtained after conducting the DESeq2 package.