**Table S2. Expression level of genes identified in the transcriptomes, involved in sesquiterpenoid biosynthesis, degradation, signaling, regulation, as well as the ecdysteroid and left/right asymmetry pathways.** Control: GAL4-*ptc*, b: GAL4-*ptc*>*bantam*, J: GAL4-*ptc*>*JHAMT*, value denotes FPKM of gene, FC (Log2) represents fold change in log2 scale; Significant up- or down- regulation of gene expression when comparing to the controls were assigned for those with >2 fold of changes in gene expression.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene** | **Flybase ID** | **sample1** | **sample2** | **value\_1** | **value\_2** | **FC (Log2)** | **Up-/ down-regulation (> 2 fold changes)** | **Pathway** |
| *ACAT* | FBgn0035203 | Control | b | 13.6571 | 18.1214 | 0.4080 |  | JH biosynthesis  |
| *ACAT* | FBgn0035203 | Control | J | 13.6571 | 12.8663 | -0.0861 |  | pathway |
| *HMGS* | FBgn0010611 | Control | b | 22.3954 | 27.0186 | 0.2708 |  |  |
| *HMGS* | FBgn0010611 | Control | J | 22.3954 | 26.4494 | 0.2400 |  |  |
| *HMGR* | FBgn0263782 | Control | b | 7.39542 | 7.27128 | -0.0244 |  |  |
| *HMGR* | FBgn0263782 | Control | J | 7.39542 | 8.36136 | 0.1771 |  |  |
| *MevPK* | FBgn0032811 | Control | b | 5.50908 | 6.04436 | 0.1338 |  |  |
| *MevPK* | FBgn0032811 | Control | J | 5.50908 | 5.45184 | -0.0151 |  |  |
| *MevPPD* | FBgn0030683 | Control | b | 5.83006 | 4.85076 | -0.2653 |  |  |
| *MevPPD* | FBgn0030683 | Control | J | 5.83006 | 4.99596 | -0.2227 |  |  |
| *IPPI* | FBgn0038876 | Control | b | 17.6141 | 27.5696 | 0.6463 |  |  |
| *IPPI* | FBgn0038876 | Control | J | 17.6141 | 15.3342 | -0.2000 |  |  |
| *Fpps* | FBgn0025373 | Control | b | 47.733 | 32.6948 | -0.5459 |  |  |
| *Fpps* | FBgn0025373 | Control | J | 47.733 | 43.8002 | -0.1240 |  |  |
| *FPPase* | FBgn0030347 | Control | b | 2.77664 | 4.33971 | 0.6443 |  |  |
| *FPPase* | FBgn0030347 | Control | J | 2.77664 | 5.07377 | 0.8697 |  |  |
| *ALDH* | FBgn0010548 | Control | b | 77.892 | 78.6373 | 0.0137 |  |  |
| *ALDH* | FBgn0010548 | Control | J | 77.892 | 63.7751 | -0.2885 |  |  |
| *JHE* | FBgn0010052 | Control | b | 3.84957 | 2.20091 | -0.8066 |  | JH degradation  |
| *JHE* | FBgn0010052 | Control | J | 3.84957 | 3.21483 | -0.2600 |  | pathway |
| *JHEDUP* | FBgn0034076 | Control | b | 0.0225433 | 1.28581 | 5.8338 | Up |  |
| *JHEDUP* | FBgn0034076 | Control | J | 0.0225433 | 0.21539 | 3.2562 | Up |  |
| *JHEH1* | FBgn0010053 | Control | b | 25.2872 | 20.7792 | -0.2833 |  |  |
| *JHEH1* | FBgn0010053 | Control | J | 25.2872 | 19.5759 | -0.3693 |  |  |
| *JHEH2* | FBgn0034405 | Control | b | 68.3991 | 60.221 | -0.1837 |  |  |
| *JHEH2* | FBgn0034405 | Control | J | 68.3991 | 64.6843 | -0.0806 |  |  |
| *JHEH3* | FBgn0034406 | Control | b | 23.7762 | 22.4228 | -0.0846 |  |  |
| *JHEH3* | FBgn0034406 | Control | J | 23.7762 | 23.14 | -0.0391 |  |  |
| *JHDK* | FBgn0020907 | Control | b | 6.69867 | 1.97986 | -1.7585 | Down |  |
| *JHDK* | FBgn0020907 | Control | J | 6.69867 | 3.87463 | -0.7898 |  |  |
| *JHBP* | FBgn0038307 | Control | b | 26.0579 | 23.4551 | -0.1518 |  |  |
| *JHBP* | FBgn0038307 | Control | J | 26.0579 | 22.8685 | -0.1884 |  |  |
| *Kr-h1* | FBgn0266450 | Control | b | 15.3941 | 14.9093 | -0.0462 |  | JH signaling  |
| *Kr-h1* | FBgn0266450 | Control | J | 15.3941 | 19.3818 | 0.3323 |  | pathway |
| *FKBP39* | FBgn0013269 | Control | b | 55.336 | 52.8938 | -0.0651 |  |  |
| *FKBP39* | FBgn0013269 | Control | J | 55.336 | 58.5334 | 0.0810 |  |  |
| *Chd64* | FBgn0035499 | Control | b | 455.802 | 370.691 | -0.2982 |  |  |
| *Chd64* | FBgn0035499 | Control | J | 455.802 | 425.532 | -0.0991 |  |  |
| *Met* | FBgn0002723 | Control | b | 2.93304 | 3.90996 | 0.4148 |  |  |
| *Met* | FBgn0002723 | Control | J | 2.93304 | 3.21739 | 0.1335 |  |  |
| *gce* | FBgn0261703 | Control | b | 3.62408 | 7.32292 | 1.0148 | Up |  |
| *gce* | FBgn0261703 | Control | J | 3.62408 | 4.26038 | 0.2334 |  |  |
| *tai* | FBgn0041092 | Control | b | 15.4898 | 11.376 | -0.4453 |  |  |
| *tai* | FBgn0041092 | Control | J | 15.4898 | 16.8307 | 0.1198 |  |  |
| *AstC* | FBgn0032336 | Control | b | 5.16684 | 4.54476 | -0.18508 |  | JH regulatory  |
| *AstC* | FBgn0032336 | Control | J | 5.16684 | 4.75078 | -0.12112 |  | pathway |
| *AstC-R1* | FBgn0036790 | Control | b | 1.02885 | 0.29368 | -1.80872 | Down |  |
| *AstC-R1* | FBgn0036790 | Control | J | 1.02885 | 0.87163 | -0.23924 |  |  |
| *AstC-R2* | FBgn0036789 | Control | b | 1.05753 | 0.80884 | -0.38678 |  |  |
| *AstC-R2* | FBgn0036789 | Control | J | 1.05753 | 1.52859 | 0.53150 |  |  |
| *nvd* | FBgn0259697 | Control | b | 6.15782 | 2.39865 | -1.3602 | Down | Ecdysteroids  |
| *nvd* | FBgn0259697 | Control | J | 6.15782 | 6.68548 | 0.1186 |  | pathways |
| *CYP307A1* | FBgn0003486 | Control | b | 0.240455 | 0.179002 | -0.4258 |  |  |
| *CYP307A1* | FBgn0003486 | Control | J | 0.240455 | 0.300971 | 0.3239 |  |  |
| *CYP306A1* | FBgn0004959 | Control | b | 18.0286 | 9.75999 | -0.8853 |  |  |
| *CYP306A1* | FBgn0004959 | Control | J | 18.0286 | 18.2934 | 0.0210 |  |  |
| *CYP302A1* | FBgn0000449 | Control | b | 3.87058 | 1.61207 | -1.2636 | Down |  |
| *CYP302A1* | FBgn0000449 | Control | J | 3.87058 | 1.66515 | -1.2169 | Down |  |
| *CYP315A1* | FBgn0003312 | Control | b | 23.9691 | 12.2917 | -0.9635 |  |  |
| *CYP315A1* | FBgn0003312 | Control | J | 23.9691 | 20.1372 | -0.2513 |  |  |
| *CYP314A1* | FBgn0003388 | Control | b | 82.2519 | 39.3381 | -1.0641 | Down |  |
| *CYP314A1* | FBgn0003388 | Control | J | 82.2519 | 51.4899 | -0.6758 |  |  |
| *CYP18A1* | FBgn0010383 | Control | b | 0.524202 | 1.00274 | 0.9358 |  |  |
| *CYP18A1* | FBgn0010383 | Control | J | 0.524202 | 8.11296 | 3.9520 | Up |  |
| *EcR* | FBgn0000546 | Control | b | 38.8714 | 51.9155 | 0.4175 |  |  |
| *EcR* | FBgn0000546 | Control | J | 38.8714 | 33.5036 | -0.2144 |  |  |
| *usp* | FBgn0000667 | Control | b | 54.1934 | 84.338 | 0.6381 |  |  |
| *usp* | FBgn0000667 | Control | J | 54.1934 | 57.3964 | 0.0828 |  |  |
| *Br-c* | FBgn0283451 | Control | b | 240.57876 | 144.915236 | -0.7313 |  |  |
| *Br-c* | FBgn0283451 | Control | J | 240.57876 | 244.60513 | 0.0239 |  |  |
| *Eip75B* | FBgn0000568 | Control | b | 59.9684 | 25.7076 | -1.22201 | Down |  |
| *Eip75B* | FBgn0000568 | Control | J | 59.9684 | 41.5949 | -0.527796 |  |  |
| *Fas2* | FBgn0000635 | Control | b | 24.8735 | 19.2151 | -0.372366 |  | Left-right asymmetry |
| *Fas2* | FBgn0000635 | Control | J | 24.8735 | 29.712 | 0.256439 |  |  |
| *Myo31DF* | FBgn0086347 | Control | b | 15.6142 | 38.0951 | 1.28675 | Up |  |
| *Myo31DF* | FBgn0086347 | Control | J | 15.6142 | 19.1603 | 0.295269 |  |  |
| *Myosin 61F* | FBgn0010246 | Control | b | 53.1764 | 86.7429 | 0.70596 |  |  |
| *Myosin 61F* | FBgn0010246 | Control | J | 53.1764 | 34.1691 | -0.638094 |  |  |
| *Abd-B* | FBgn0000015 | Control | b | 6.73404 | 4.27546 | -0.655391 |  |  |
| *Abd-B* | FBgn0000015 | Control | J | 6.73404 | 8.24125 | 0.291391 |  |  |
| *DE-cat* | FBgn0003391 | Control | b | 17.6128 | 11.8433 | -0.572546 |  |  |
| *DE-cat* | FBgn0003391 | Control | J | 17.6128 | 25.584 | 0.538618 |  |  |
| *α-Cat* | FBgn0010215 | Control | b | 64.4799 | 40.4675 | -0.672086 |  |  |
| *α-Cat* | FBgn0010215 | Control | J | 64.4799 | 66.4136 | 0.0426288 |  |  |
| *β-cat* | FBgn0000117 | Control | b | 175.395 | 168.09 | -0.061375 |  |  |
| *β-cat* | FBgn0000117 | Control | J | 175.395 | 170.084 | -0.0443621 |  |  |