**Supplementary table S1.**

**Genes assigned in the saddle brown module**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Rank** | **gene\_id** | **gene symbol** | **Rank** | **gene\_id** | **gene symbol** |
| 1 | 10149 | PLN | 33 | 4060 | LUM |
| 2 | 10319 | MOXD1 | 34 | 4239 | ANTXR1 |
| 3 | 10351 | FBLN1 | 35 | 4313 | PTN |
| 4 | 10418 | CPE | 36 | 5118 | GFRA1 |
| 5 | 10516 | CAPN6 | 37 | 51339 | KCNJ8 |
| 6 | 125 | CPA3 | 38 | 5176 | COMP |
| 7 | 1264 | ADGRG2 | 39 | 5350 | CH25H |
| 8 | 1296 | CP | 40 | 5549 | COL8A2 |
| 9 | 1300 | SLIT3 | 41 | 55799 | GGT5 |
| 10 | 1311 | SVEP1 | 42 | 56944 | CXCL12 |
| 11 | 1356 | LPAR1 | 43 | 57125 | COL10A1 |
| 12 | 1359 | FMOD | 44 | 57188 | ALDH1A3 |
| 13 | 1363 | LAMC3 | 45 | 5764 | SERPINF1 |
| 14 | 150 | SPARCL1 | 46 | 6356 | HDC |
| 15 | 1902 | FMO3 | 47 | 6387 | FBLN5 |
| 16 | 2006 | THBS2 | 48 | 6424 | CACNA2D3 |
| 17 | 2192 | DACT1 | 49 | 653 | HOXA11 |
| 18 | 220 | ADRA2A | 50 | 6586 | PRELP |
| 19 | 2328 | BMP5 | 51 | 7025 | PLVAP |
| 20 | 2331 | ADAMTSL3 | 52 | 7058 | PLXDC1 |
| 21 | 2350 | ELN | 53 | 730 | AOC3 |
| 22 | 2532 | OLFML3 | 54 | 7373 | PCOLCE |
| 23 | 2564 | MFAP4 | 55 | 79987 | ACKR1 |
| 24 | 26002 | GSTM5 | 56 | 827 | CCL11 |
| 25 | 2674 | TRIL | 57 | 83483 | SPON1 |
| 26 | 2687 | FOLR2 | 58 | 8404 | NR2F1 |
| 27 | 2903 | ISLR | 59 | 84168 | C7 |
| 28 | 2949 | GABRE | 60 | 8490 | MMP2 |
| 29 | 3067 | CNN1 | 61 | 8639 | GRIN2A |
| 30 | 3207 | COL14A1 | 62 | 8857 | FCGBP |
| 31 | 3671 | SFRP4 | 63 | 9023 | RGS5 |
| 32 | 3764 | ABCA8 | 64 | 9865 | ADH1B |