### Table S1 Primer sequence used for quantitative real-time PCR validation

| Gene    | Sequence                        | Product size (bp) | GeneBank      |
|---------|---------------------------------|-------------------|---------------|
| BCL3-F  | GCCCAAGGGCATCTCAGG              | 180               | NM_001109422 |
| BCL3-R  | TAGTAAAGAGCCTCCGGCCT            | 127               | NM_031530     |
| CCL2-F  | TGATCCCAATGAGTGCGCTG            |                   |               |
| CCL2-R  | TGGGACCCATCTCCTTATGGGG          |                   |               |
| CXCL10-F| TCTGTCCGCATGTTGAGAT             | 110               | NM_139089     |
| CXCL10-R| CTTGGGCTCAGGCTCCATTAAT          |                   |               |
| ICAM1-F | TTTCAGCTCCATCTCGACC             | 144               | NM_012967     |
| ICAM1-R | GGGAAGTACCCTCTGGAAGGTG          |                   |               |
| MMP3-F  | CCACTATGGACCTCCCAACA            | 127               | NM_031530     |
| MMP3-R  | GAACAAGACTTCTCCCGCA             |                   |               |
| SOCS3-F | TTTGAGGTTCAGGAGCAGCC            | 100               | NM_053565     |
| SOCS3-R | GTACCACGGGAGTCTTCTCG            |                   |               |
| TNFRSF1A-F| CCAAGTGCCACAAGAAGGAACC         | 117               | NM_013091     |
| TNFRSF1A-R| ACTGTCAGGTGCTTCTCCTG           |                   |               |
| LOC102557376-F | AGGACGATTTGGCTCCAGGAC | 107               | XR_340380     |
| LOC102557376-R | CCCAGACCTCCCGTATCAGC |                   |               |
| H19-F   | CACATCCCCACCAACCGTAAT           | 167               | NR_027324     |
| H19-R   | TCCCTCTGGAGTGCTGACATACC         |                   |               |
| LOC102554891-F | AAGTGCTTCAGCTCTTGCCA | 190               | XR_590606     |
| LOC102554891-R | AGGCCACCTTCTGCTGAC |                   |               |
| GAPDH-F | GCGAGATCCCGCTAACATCA            | 178               | NM_017008     |
| GAPDH-R | CTCGTGTTGATACCAGCATCA           |                   |               |
| ACTB-F  | AGATGACCCGCTTCTGAC             | 169               | NM_031144     |
| ACTB-R  | GCATGAGGGAGCGCTAAT              |                   |               |
| Eef2-F  | GGTCATTGTTGAGCCTAC             | 169               | NM_017245     |
| Eef2-R  | TCAGCTACAACTGTGGCTGG            |                   |               |

### Table S2 List of differentially expressed genes in retina of NaIO3-treated rats versus normal rats

| gene    | gene_type | log2(Fold_change) | p-value   | q-value   |
|---------|-----------|-------------------|-----------|-----------|
| Slc25a30| protein_coding | 1.722631424   | 4.84E-56 | 8.76E-52  |
| P3h3    | protein_coding | 1.408816372   | 6.74E-51 | 6.10E-47  |
| Gnb3    | protein_coding | 1.872990234   | 4.48E-50 | 2.70E-46  |
| Camk1d  | protein_coding | 1.21518498    | 1.78E-47 | 8.04E-44  |
| Cebp    | protein_coding | 1.943479116   | 4.09E-40 | 1.48E-36  |
| LOC102547784 | IncRNA | 3.02926491   | 7.30E-38 | 2.20E-34  |
| Gene       | Gene Type      | Fold Change | Log2 Fold Change | p-Value |
|------------|----------------|-------------|------------------|---------|
| Dnai2      | protein_coding | 1.82806297  | 1.23E-34         | 2.80E-31|
| Pdpn       | protein_coding | 1.461680809 | 1.84E-33         | 3.71E-30|
| Tmod1      | protein_coding | 1.612070656 | 2.26E-32         | 3.72E-29|
| S1pr3      | protein_coding | 1.373061751 | 4.11E-31         | 5.73E-28|
| Alox5ap    | protein_coding | 1.554704938 | 3.77E-30         | 4.55E-27|
| Nudt6      | protein_coding | 1.453630216 | 4.71E-29         | 5.33E-26|
| Gadd45g    | protein_coding | 1.112171152 | 8.66E-29         | 9.23E-26|
| Ccnd1      | protein_coding | 1.30452496  | 2.93E-28         | 2.95E-25|
| Crym       | protein_coding | 1.174231262 | 5.78E-28         | 5.51E-25|
| Nr2e3      | protein_coding | -1.016980329 | 3.89E-27       | 3.52E-24|
| LOC102553583 | lncRNA       | 2.618926017 | 5.43E-27         | 4.68E-24|
| Timp1      | protein_coding | 2.292343739 | 5.83E-27         | 4.80E-24|
| Zbtr16     | protein_coding | -1.27298418 | 6.83E-26         | 5.38E-23|
| Srpk3      | protein_coding | 1.249208323 | 1.59E-25         | 1.20E-22|
| Tnfrsf1a   | protein_coding | 1.298769552 | 2.78E-25         | 2.01E-22|
| Pter       | protein_coding | 1.12307354  | 1.17E-24         | 7.84E-22|
| Herpud1    | protein_coding | -1.068465933 | 1.25E-24       | 8.10E-22|
| Pdlim4     | protein_coding | 1.49686994  | 2.90E-24         | 1.75E-21|
| Mthfd2     | protein_coding | -1.120835065 | 3.20E-23       | 1.76E-20|
| Osmr       | protein_coding | 1.130516208 | 3.20E-23         | 1.76E-20|
| LOC102554891 | lncRNA       | -1.788661093 | 1.87E-22       | 9.66E-20|
| Sec16b     | protein_coding | 1.297675897 | 2.54E-22         | 1.24E-19|
| Npas4      | protein_coding | 1.743709824 | 4.82E-22         | 2.30E-19|
| Gbp2       | protein_coding | 1.259019689 | 3.28E-24         | 1.92E-21|
| Slc14a1    | protein_coding | 1.130076172 | 1.91E-19         | 6.89E-17|
| Mt2A       | protein_coding | 1.670420235 | 7.31E-19         | 2.55E-16|
| Scl1a4     | protein_coding | -1.10696961 | 7.64E-20         | 2.95E-17|
| Clu        | protein_coding | 1.118155629 | 2.89E-18         | 9.36E-16|
| Nr4a1      | protein_coding | 1.205610818 | 4.12E-18         | 1.29E-15|
| Hmox1      | protein_coding | 1.879623658 | 3.07E-17         | 8.70E-15|
| Icam1      | protein_coding | 1.994662846 | 3.25E-17         | 8.93E-15|
| Mt1        | protein_coding | 1.05008362  | 6.10E-17         | 1.60E-14|
| Bmf        | protein_coding | -1.057953245 | 6.80E-17       | 1.71E-14|
| Mx1        | protein_coding | 2.391442727 | 2.83E-16         | 6.83E-14|
| LOC102553617 | lncRNA       | 1.120835065 | 3.43E-16         | 8.18E-14|
| Chst3      | protein_coding | 1.326156378 | 3.09E-15         | 6.43E-13|
| Gpr137c    | protein_coding | 1.064321163 | 3.47E-15         | 7.14E-13|
| Ifitm3     | protein_coding | 1.279885059 | 5.87E-15         | 1.18E-12|
| Gene Symbol | Gene Type   | Start | End   | Log2FoldChange | P-Value  |
|------------|-------------|-------|-------|----------------|----------|
| LOC102551361 | lncRNA      | 1.13  | 1.47  | 1.34           | 10E-12   |
| LOC102553561 | lncRNA      | 2.94  | 7.83  | 4.19           | 10E-12   |
| Shisa5      | protein_coding | 1.03  | 1.34  | 10E-12         | 2.43E-12 |
| Tp53i3      | protein_coding | 1.40  | 2.67  | 10E-12         | 2.43E-12 |
| Fos         | protein_coding | 1.13  | 3.41  | 10E-12         | 1.94E-14 |
| Tspo        | protein_coding | 2.01  | 3.96  | 10E-12         | 2.27E-14 |
| Spta1       | protein_coding | 1.98  | 4.19  | 10E-12         | 2.43E-14 |
| Samd4a      | protein_coding | 1.02  | 5.14  | 10E-12         | 3.03E-14 |
| Stab1       | protein_coding | 1.73  | 1.73  | 10E-12         | 1.12E-13 |
| Kncg4       | protein_coding | 3.00  | 1.88  | 10E-12         | 1.23E-13 |
| Eno4        | protein_coding | 1.02  | 2.22  | 10E-12         | 1.48E-13 |
| Cxc110      | protein_coding | 2.90  | 2.75  | 10E-12         | 1.87E-13 |
| Nek10       | protein_coding | 1.40  | 2.93  | 10E-12         | 2.01E-13 |
| Axl         | protein_coding | 1.34  | 4.93  | 10E-12         | 3.43E-13 |
| Lyz2        | protein_coding | 1.36  | 5.39  | 10E-12         | 3.81E-13 |
| Lgals3      | protein_coding | 2.07  | 6.45  | 10E-12         | 4.63E-13 |
| Tal2        | protein_coding | 1.60  | 1.38  | 10E-12         | 1.05E-12 |
| Jak3        | protein_coding | 1.87  | 2.15  | 10E-12         | 1.70E-12 |
| Socs3       | protein_coding | 3.62  | 2.36  | 10E-12         | 1.89E-12 |
| Col3a1      | protein_coding | 1.94  | 5.05  | 10E-12         | 4.20E-12 |
| Lrrc74a     | protein_coding | 3.57  | 5.86  | 10E-12         | 5.01E-12 |
| A2m         | protein_coding | 1.09  | 6.93  | 10E-12         | 6.16E-12 |
| LOC100911428 | protein_coding | -1.24 | 8.78  | 10E-12         | 7.87E-12 |
| LOC100911545 | protein_coding | 1.14  | 8.99  | 10E-12         | 8.18E-12 |
| Baiap2l1    | protein_coding | 1.38  | 1.81  | 10E-09         | 1.75E-11 |
| Irf8        | protein_coding | 1.31  | 2.68  | 10E-09         | 2.63E-11 |
| Dnai1       | protein_coding | 1.64  | 3.04  | 10E-09         | 3.01E-11 |
| RGD1564347  | protein_coding | 2.62  | 3.69  | 10E-09         | 3.71E-11 |
| Scn7a       | protein_coding | 1.19  | 7.03  | 10E-09         | 7.30E-11 |
| Ifih1       | protein_coding | 1.09  | 9.79  | 10E-09         | 1.05E-10 |
| Egr1        | protein_coding | 2.40  | 1.40  | 10E-08         | 1.52E-10 |
| LOC690120    | lncRNA      | 1.81  | 1.55  | 10E-08         | 1.70E-10 |
| Pld4        | protein_coding | 1.23  | 1.69  | 10E-08         | 1.87E-10 |
| LOC103693133 | lncRNA      | 3.56  | 1.73  | 10E-08         | 1.92E-10 |
| Tnfrs9      | protein_coding | 2.82  | 1.77  | 10E-08         | 1.99E-10 |
| Abca1       | protein_coding | 1.72  | 2.06  | 10E-08         | 2.34E-10 |
| LOC102557376 | lncRNA      | 1.54  | 2.44  | 10E-08         | 2.85E-10 |
| Kremen1     | protein_coding | 1.62  | 2.53  | 10E-08         | 2.96E-10 |
| Tubb6       | protein_coding | 1.31  | 2.54  | 10E-08         | 2.99E-10 |
| Kif14       | protein_coding | 1.51  | 2.96  | 10E-08         | 3.51E-10 |
| H19         | lncRNA      | 2.63  | 3.16  | 10E-08         | 3.82E-10 |
| LOC108349468 | lncRNA      | 1.20  | 3.28  | 10E-08         | 3.98E-10 |
| Gene      | Gene Type    | Ensembl ID | Old-Log2 | New-Log2 |
|-----------|--------------|------------|----------|----------|
| Tmem176a  | protein_coding | 1.070793411 | 4.18E-10 | 3.40E-08 |
| Bcl3      | protein_coding | 3.808730923 | 4.36E-10 | 3.48E-08 |
| Adamts4   | protein_coding | 2.185737112 | 4.55E-10 | 3.62E-08 |
| Prtg      | protein_coding | 1.182854745 | 4.82E-10 | 3.81E-08 |
| LOC100911299 | lncRNA       | 1.090657119 | 5.20E-10 | 4.10E-08 |
| Fgr       | protein_coding | 2.973294546 | 5.34E-10 | 4.18E-08 |
| Csfl      | protein_coding | 1.147305049 | 5.34E-10 | 4.18E-08 |
| Btg4      | protein_coding | -1.032916482 | 5.34E-10 | 4.18E-08 |
| LOC108352166 | lncRNA      | 1.952238499 | 1.04E-09 | 8.44E-08 |
| Rhbdf1    | protein_coding | 1.091720709 | 1.15E-09 | 8.44E-08 |
| LOC108350735 | lncRNA      | 1.074388435 | 1.21E-09 | 8.79E-08 |
| LOC108351850 | lncRNA      | 2.980663023 | 1.63E-09 | 1.14E-07 |
| Ccr5      | protein_coding | -1.367110084 | 1.67E-09 | 1.17E-07 |
| LOC102551019 | lncRNA      | 1.291956225 | 1.96E-09 | 1.35E-07 |
| Clcf1     | protein_coding | 1.662626667 | 2.08E-09 | 1.41E-07 |
| LOC102553824 | lncRNA      | 1.52395282 | 2.60E-09 | 1.73E-07 |
| Top2a     | protein_coding | 3.100952006 | 2.88E-09 | 1.90E-07 |
| Fam179a   | protein_coding | 1.276672067 | 3.00E-09 | 1.97E-07 |
| Gpr3711   | protein_coding | 1.232676423 | 6.42E-09 | 3.94E-07 |
| Myof      | protein_coding | 1.555521345 | 7.27E-09 | 4.39E-07 |
| Gfap      | protein_coding | 1.80712421 | 8.43E-09 | 5.03E-07 |
| Scara3    | protein_coding | 1.281249516 | 8.65E-09 | 5.14E-07 |
| Gpr84     | protein_coding | 1.664617605 | 9.18E-09 | 5.42E-07 |
| Matn2     | protein_coding | 1.550970377 | 9.79E-09 | 5.72E-07 |
| S100a3    | protein_coding | 1.154178552 | 1.00E-08 | 5.79E-07 |
| Lrrc3b    | protein_coding | -1.046285683 | 1.15E-08 | 6.48E-07 |
| Edn2      | protein_coding | 2.619308047 | 1.44E-08 | 7.92E-07 |
| Trim21    | protein_coding | 1.075152335 | 1.52E-08 | 8.32E-07 |
| Tyrobp    | protein_coding | 1.423985091 | 2.64E-08 | 1.39E-06 |
| P2ry12    | protein_coding | 1.247127589 | 5.08E-08 | 2.55E-06 |
| Clqc      | protein_coding | 1.14455546 | 5.17E-08 | 2.59E-06 |
| Itga4     | protein_coding | 1.214553088 | 5.51E-08 | 2.74E-06 |
| Fancb     | protein_coding | 1.596622341 | 5.67E-08 | 2.81E-06 |
| Dock8     | protein_coding | 1.059687188 | 6.29E-08 | 3.10E-06 |
| LOC100912338 | protein_coding | -1.356402193 | 6.82E-08 | 3.31E-06 |
| Igfbp2    | protein_coding | 1.033498115 | 8.24E-08 | 3.92E-06 |
| LOC102548661 | lncRNA      | 1.875442872 | 1.01E-07 | 4.69E-06 |
| LOC108350348 | lncRNA      | 3.850488258 | 1.01E-07 | 4.69E-06 |
| Inmt      | protein_coding | 2.074264062 | 1.03E-07 | 4.76E-06 |
| Nlrc5     | protein_coding | 1.488280345 | 1.28E-07 | 5.72E-06 |
| LOC108352150 | lncRNA      | 1.112446758 | 1.47E-07 | 6.49E-06 |
| Gene          | Type            | Log2 Fold Change | P Value  | Adjusted P Value |
|--------------|-----------------|-----------------|----------|------------------|
| Lrg1         | protein_coding  | 1.638481391     | 1.57E-07 | 6.89E-06         |
| Ngp          | protein_coding  | 1.181819404     | 1.58E-07 | 6.93E-06         |
| Cdsn         | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| ENSRNOG0000  | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Rac2         | protein_coding  | 1.181819404     | 1.58E-07 | 6.93E-06         |
| Ccl2         | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| Hbb-b1       | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| Cx3cr1       | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| Litalf       | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| Uhrf1        | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| Rsad2        | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| Fermt3       | protein_coding  | 1.474015935     | 1.77E-07 | 7.60E-06         |
| LOC102555825 | lncRNA          | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Mmp19        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| LOC307495    | lncRNA          | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Oasl2        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| LOC108350976 | lncRNA          | 1.368481391     | 1.57E-07 | 6.89E-06         |
| ENSRNOG0000  | lncRNA          | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Lif          | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Cyth4        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Itgb2        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| LOC103693267 | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Tlr2         | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| LOC108352347 | lncRNA          | 1.368481391     | 1.57E-07 | 6.89E-06         |
| LOC100134871 | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Fcerg1g      | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| LOC108349047 | lncRNA          | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Trib3        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| A3galt2      | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| LOC102553486 | lncRNA          | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Abcb4        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Ndufa4l2     | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Des          | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Trem2        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Pf4          | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Evi2a        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Lgi2         | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Spi1         | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Gpr34        | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Pik3cg       | protein_coding  | 1.368481391     | 1.57E-07 | 6.89E-06         |
| Gene       | Type             | Log2 Fold Change | Adj P Value | Bonferroni P Value |
|------------|------------------|------------------|-------------|-------------------|
| Pstpip2    | protein_coding   | -1.287830412     | 2.66E-06    | 7.86E-05          |
| Mest       | protein_coding   | 1.391273735      | 2.68E-06    | 7.89E-05          |
| ENSRNOG0000062189.1 | antisense RNA | 1.318345175     | 3.02E-06    | 8.76E-05          |
| Meig1      | protein_coding   | 2.341900267      | 3.15E-06    | 9.05E-05          |
| Tmem255b   | protein_coding   | 1.096022668      | 3.68E-06    | 0.00010409        |
| Cd180      | protein_coding   | 1.491390041      | 3.86E-06    | 0.00010778        |
| Kif24      | protein_coding   | 1.514613271      | 4.31E-06    | 0.00011810        |
| Plpp2      | protein_coding   | -1.037588586     | 4.41E-06    | 0.000120635       |
| Atf3       | protein_coding   | -1.23902803      | 4.52E-06    | 0.000123092       |
| Cilp       | protein_coding   | 1.330603787      | 4.63E-06    | 0.000125766       |
| Lcn2       | protein_coding   | 1.759292449      | 4.67E-06    | 0.000126644       |
| F2rl1      | protein_coding   | 2.133223954      | 4.92E-06    | 0.000132072       |
| Nos1ap     | protein_coding   | 1.058110581      | 4.99E-06    | 0.00013364        |
| Tap1       | protein_coding   | 1.336074464      | 5.45E-06    | 0.000145234       |
| Myc        | protein_coding   | 1.568647473      | 6.94E-06    | 0.0001807         |
| Usp18      | protein_coding   | 1.610707305      | 7.11E-06    | 0.000184647       |
| LOC102549521 | lncRNA          | 1.207130805     | 7.72E-06    | 0.000197248       |
| C4b        | protein_coding   | 1.244342228      | 8.08E-06    | 0.000204171       |
| Pipox      | protein_coding   | 1.108063962      | 8.08E-06    | 0.000204171       |
| Pycard     | protein_coding   | 1.701258847      | 8.22E-06    | 0.000206599       |
| Itgal      | protein_coding   | 1.468706749      | 8.32E-06    | 0.00020755        |
| Slc16a14   | protein_coding   | 1.025763867      | 8.73E-06    | 0.000216659       |
| Btc        | protein_coding   | 1.384153945      | 9.20E-06    | 0.000226382       |
| Nhej1      | protein_coding   | 1.21105646       | 1.04E-05    | 0.000252149       |
| Gene      | Type           | Log2 Fold Change | p-value  |
|-----------|----------------|------------------|----------|
| LOC108349040 | lncRNA        | 1.210298256      | 6        |
| Lyve1     | protein_coding | 2.24095684       | 1.17E-05 | 0.000277408 |
| Cd33      | protein_coding | 1.302657916      | 1.28E-05 | 0.000301023  |
| Tmem100   | protein_coding | 1.632948025      | 1.30E-05 | 0.000304667  |
| Fgf2      | protein_coding | 2.05443477       | 1.33E-05 | 0.000311124  |
| Hspb1     | protein_coding | 1.022747792      | 1.37E-05 | 0.00031679    |
| Itgam     | protein_coding | 1.005943905      | 1.37E-05 | 0.00031679    |
| Fkbp11    | protein_coding | 1.188073276      | 1.38E-05 | 0.000317852   |
| Calca     | protein_coding | 3.121570446      | 1.47E-05 | 0.000334489   |
| Mrc1      | protein_coding | 2.339001014      | 1.48E-05 | 0.000335915   |
| Fank1     | protein_coding | 1.083500231      | 1.49E-05 | 0.000335948   |
| Irf5      | protein_coding | 1.299396203      | 1.49E-05 | 0.000336947   |
| ENSRNOG00000055422.1 | lncRNA | 1.083268174 | 1.73E-05 | 0.000383146 |
| Gsta1     | protein_coding | 1.314427408      | 1.74E-05 | 0.000385127   |
| Plekhg6   | protein_coding | 1.54792182       | 1.77E-05 | 0.000390133   |
| Insl3     | protein_coding | 3.318759287      | 1.86E-05 | 0.000405973   |
| RGD1563692 | protein_coding | 1.184300111      | 1.98E-05 | 0.000427656   |
| Cd68      | protein_coding | 2.055498965      | 2.20E-05 | 0.000466921   |
| LOC100362216 | protein_coding | 1.556263705   | 2.28E-05 | 0.000479305   |
| Thbs3     | protein_coding | 1.210650443      | 2.58E-05 | 0.000532621   |
| Uba7      | protein_coding | 1.049853624      | 2.78E-05 | 0.000565103   |
| Cd1d1     | protein_coding | 1.1264309        | 2.88E-05 | 0.000583641   |
| Gene Symbol | Gene Type     | log2FoldChange | p-value   | q-value   |
|-------------|---------------|----------------|-----------|-----------|
| LOC108349552| lncRNA        | 1.710603599    | 3.00E-05  | 0.000603441|
| Mmp3        | protein_coding| 3.450343361    | 3.07E-05  | 0.000616757|
| LOC108348812| protein_coding| -2.679554669   | 3.19E-05  | 0.000638389|
| Spata17     | protein_coding| 1.776886919    | 3.21E-05  | 0.000640404|
| LOC102554575| lncRNA        | 2.559321088    | 3.35E-05  | 0.000661075|
| Rn7sl1      | SRP_RNA       | -2.357929311   | 3.40E-05  | 0.000670293|
| Mpeg1       | protein_coding| 1.288488334    | 3.58E-05  | 0.000698988|
| Lrrk1       | protein_coding| 1.016522825    | 4.28E-05  | 0.000811474|
| LOC108349091| lncRNA        | -1.29303375    | 4.53E-05  | 0.000852905|
| LOC103692655| pseudogene    | -1.50948778    | 4.79E-05  | 0.000892364|
| Dio2        | protein_coding| -1.133964027   | 4.97E-05  | 0.000921821|
| Tpcn2       | protein_coding| 1.075625231    | 4.98E-05  | 0.000922911|
| Galnt6      | protein_coding| 1.81437843     | 5.18E-05  | 0.000953024|
| RGD1565566  | pseudogene    | -1.279493637   | 5.47E-05  | 0.000996435|
| Fcgr2b      | protein_coding| 1.666819492    | 5.51E-05  | 0.001003978|
| P2ry13      | protein_coding| 1.502971397    | 5.60E-05  | 0.001017748|
| Gal3st1     | protein_coding| 1.658054624    | 5.91E-05  | 0.001062017|
| Card11      | protein_coding| 2.230524066    | 6.09E-05  | 0.001085426|
| C3ar1       | protein_coding| 1.330928131    | 6.35E-05  | 0.001125021|
| Edn3        | protein_coding| 2.421563155    | 6.42E-05  | 0.00113316|
| Hmgb3       | protein_coding| 1.224293658    | 6.76E-05  | 0.001185145|
| Agrp        | protein_coding| 1.106292961    | 7.42E-05  | 0.001271154|
| Gene       | Type            | Expression   | p-value  | Adjusted p-value |
|------------|-----------------|--------------|----------|------------------|
| Cnn1       | protein_coding  | 2.936258573  | 8.61E-05 | 0.0013230         |
| LOC108352156 | lncRNA        | 1.412231726  | 8.08E-05 | 0.0013597         |
| C4a        | protein_coding  | 1.152234981  | 8.43E-05 | 0.0014105         |
| Car3       | protein_coding  | 1.724026322  | 8.45E-05 | 0.0014076         |
| Osgin1     | protein_coding  | 1.254259135  | 8.47E-05 | 0.0014096         |
| P2ry6      | protein_coding  | 1.221488277  | 8.76E-05 | 0.0014502         |
| LOC100910973 | lncRNA        | 1.063087844  | 8.93E-05 | 0.0014768         |
| Fam228b    | protein_coding  | 1.067173136  | 9.29E-05 | 0.0015235         |
| LOC102548578 | lncRNA        | 1.979411631  | 9.82E-05 | 0.0015991         |
| Cmtm7      | protein_coding  | 1.052579697  | 0.000107 | 742               |
| Ifitm2     | protein_coding  | 1.077601112  | 0.000109 | 749               |
| Dock2      | protein_coding  | 1.039986553  | 0.000112 | 2                 |
| Hcls1      | protein_coding  | 1.154712018  | 0.000116 | 547               |
| LOC685273  | misc_RNA       | 1.323057744  | 0.000123 | 601               |
| Flnc       | protein_coding  | 1.01506149   | 0.000124 | 276               |
| Spint1     | protein_coding  | 1.141311528  | 0.000125 | 581               |
| Gbp5       | protein_coding  | 1.254852103  | 0.000130 | 299               |
| Mki67      | protein_coding  | 1.221101015  | 0.000137 | 048               |
| Ptgs1      | protein_coding  | 1.261353091  | 0.000141 | 866               |
| C1qb       | protein_coding  | 1.447258428  | 0.000165 | 246               |
| Map7d3     | protein_coding  | 1.125277849  | 0.000175 | 773               |
| P2rx7      | protein_coding  | 1.823930122  | 0.000182 | 746               |
| gene             | feature    | 1.257609483 | 0.000183343 | 0.002648973 |
|------------------|------------|-------------|-------------|-------------|
| Arhgap45        | protein_coding | 1.020086464 | 0.000190419 | 0.002743346 |
| Clec4a3         | protein_coding | 2.128917294 | 0.000196325 | 0.002800806 |
| LOC108352530    | lncRNA     | 1.463168925 | 0.000200563 | 0.002845569 |
| Ptprc           | protein_coding | 1.231872478 | 0.000218143 | 0.003053362 |
| Ifi47           | protein_coding | 1.360195931 | 0.000229527 | 0.003187984 |
| Lca5l           | protein_coding | 1.152952382 | 0.000230861 | 0.003200266 |
| Tnni3           | protein_coding | 1.582289493 | 0.000242857 | 0.003340987 |
| Mybphl          | protein_coding | 1.577190602 | 0.000251348 | 0.003434328 |
| RGD1565283      | protein_coding | 1.707699444 | 0.000262593 | 0.003555804 |
| Tph1            | protein_coding | 1.03522214  | 0.000264136 | 0.003571905 |
| LOC102557393    | pseudogene | 1.472626639 | 0.000266509 | 0.003598073 |
| LOC102552122    | lncRNA     | 1.264011397 | 0.000272496 | 0.003648673 |
| RGD1561551      | protein_coding | 2.419812112 | 0.000303261 | 0.003969999 |
| Fat2            | protein_coding | 3.080493263 | 0.000309595 | 0.004038329 |
| Oas1a           | protein_coding | 1.129738769 | 0.000309935 | 0.004039854 |
| LOC108349159    | lncRNA     | 1.095670346 | 0.0003195   | 0.004140698 |
| Lgals3bp        | protein_coding | 1.061411717 | 0.00033852  | 0.004323324 |
| Ifitm1          | protein_coding | 1.482955825 | 0.000362108 | 0.004581475 |
| Fam46c          | protein_coding | 1.647034781 | 0.000364855 | 0.004613012 |
| LOC685067       | protein_coding | 1.290905693 | 0.00038317  | 0.004817682 |
| Fgd2            | protein_coding | 1.014916876 | 0.000391265 | 0.00488892  |
| gene       | type            | fold_change | p-value  | adj.p-value |
|------------|-----------------|-------------|----------|-------------|
| Mx2        | protein_coding  | 1.214074703 | 0.000398 | 523         |
| LOC102554916 | lncRNA          | 1.156104929 | 0.000417 | 809         |
| Slc38a5    | protein_coding  | 1.191224165 | 0.000447 | 131         |
| LOC102549422 | lncRNA          | 2.214497907 | 0.000461 | 848         |
| Wnt7b      | protein_coding  | 1.670108814 | 0.000501 | 205         |
| Psmb8      | protein_coding  | 1.027845744 | 0.000528 | 671         |
| Gpha2      | protein_coding  | 1.319758452 | 0.000529 | 631         |
| Cmklr1     | protein_coding  | 1.446401285 | 0.000550 | 983         |
| Lad1       | protein_coding  | 1.181744401 | 0.000561 | 333         |
| Emp3       | protein_coding  | 1.110755763 | 0.000561 | 333         |
| Steap4     | protein_coding  | 1.669164574 | 0.000588 | 189         |
| Arhgap9    | protein_coding  | 1.431601878 | 0.000626 | 448         |
| Cd53       | protein_coding  | 1.03294126  | 0.000665 | 817         |
| ENSRNOG00000056421.1 | lncRNA   | -1.002958056 | 0.000683 | 663         |
| Cd27       | protein_coding  | 1.565274983 | 0.000694 | 296         |
| Tifab      | protein_coding  | 1.120907598 | 0.000699 | 61          |
| Mcm5       | protein_coding  | 1.016251595 | 0.000701 | 405         |
| Mlf1       | protein_coding  | 1.3618353   | 0.000718 | 485         |
| Hlx        | protein_coding  | 1.880772456 | 0.000729 | 926         |
| Plcb2      | protein_coding  | 1.727894322 | 0.000748 | 257         |
| C1s        | protein_coding  | 1.182742362 | 0.000751 | 371         |
| Islr       | protein_coding  | 2.014007059 | 0.000758 | 821         |
| Gene       | Type             | log2 Fold Change | P-value 1 | FDR 1 | log2 Fold Change | P-value 2 | FDR 2 |
|------------|------------------|-----------------|-----------|-------|-----------------|-----------|-------|
| Cfd        | protein_coding   | 2.194500883     | 0.000767  | 0.016 | 0.0083065       | 0.0083592 | 0.015 |
| Cdca3      | protein_coding   | 1.719765593     | 0.000772  | 0.016 | 0.0083065       | 0.0086977 | 0.067 |
| LOC103694306 | protein_coding  | 3.759315799     | 0.000861  | 0.015 | 0.0083065       | 0.0090623 | 0.065 |
| ENSRN0G0000057318.1 | lncRNA | 1.44972601     | 0.000872  | 0.013 | 0.0091678       | 0.0091829 | 0.05  |
| Rasal3     | protein_coding   | 1.346032806     | 0.000874  | 0.013 | 0.0091678       | 0.0091829 | 0.05  |
| Epst1      | protein_coding   | 1.209560159     | 0.001081  | 0.013 | 0.0109157       | 0.0109484 | 0.05  |
| LOC108352442 | lncRNA         | 1.24889525      | 0.001087  | 0.013 | 0.0109157       | 0.0109484 | 0.05  |
| Itpripl2   | protein_coding   | 1.130733477     | 0.001194  | 0.013 | 0.0118353       | 0.0120012 | 0.02  |
| RGD1562963 | protein_coding   | 1.147322195     | 0.001215  | 0.013 | 0.0119981       | 0.0120352 | 0.017 |
| LOC102549596 | lncRNA         | 1.11193354      | 0.001216  | 0.013 | 0.0120012       | 0.0120352 | 0.017 |
| Il20rb     | protein_coding   | 2.664477023     | 0.001223  | 0.013 | 0.0120561       | 0.012056 | 0.91  |
| Csf3r      | protein_coding   | 1.130259063     | 0.001223  | 0.013 | 0.0120561       | 0.0120561 | 0.91  |
| LOC108349566 | lncRNA         | 1.069911462     | 0.001223  | 0.013 | 0.0120561       | 0.0120561 | 0.91  |
| LOC108351280 | lncRNA         | 1.004955191     | 0.001257  | 0.013 | 0.0124307       | 0.0125355 | 0.04  |
| LOC103690140 | pseudogene     | -1.12606122     | 0.001279  | 0.013 | 0.0125355       | 0.0125355 | 0.04  |
| Slfn13     | protein_coding   | 1.253853157     | 0.001309  | 0.013 | 0.0128062       | 0.0128062 | 0.54  |
| LOC102550137 | lncRNA         | 1.154321934     | 0.001328  | 0.013 | 0.0129247       | 0.0129247 | 0.14  |
| Slc6a12    | protein_coding   | 2.041960267     | 0.001331  | 0.013 | 0.0129360       | 0.0131936 | 0.083 |
| Arhgap30   | protein_coding   | 1.219439217     | 0.001361  | 0.013 | 0.0132871       | 0.0132871 | 0.089 |
| Tchh       | protein_coding   | 1.131110122     | 0.001375  | 0.013 | 0.0132919       | 0.0132919 | 0.02  |
| Sstr4      | protein_coding   | 1.703909595     | 0.001376  | 0.013 | 0.0133438       | 0.0133438 | 0.02  |
| LOC103694456 | lncRNA         | -1.760681301    | 0.001384  | 0.013 | 0.0133438       | 0.0133438 | 0.02  |
| Gene      | Type               | Log2FoldChange | p-value  | FDR       |
|-----------|--------------------|----------------|----------|-----------|
| Cybb      | protein_coding     | 1.17002656     | 0.001389 | 0.0133836 |
| Fcgr1a    | protein_coding     | 1.39135895     | 0.001407 | 0.0135236 |
| LOC100911627 | lncRNA          | -1.385714923   | 0.001411 | 0.0135436 |
| LOC108352474 | protein_coding | 2.366986337   | 0.001411 | 0.0135436 |
| LOC108349682 | protein_coding | 1.428966138   | 0.001454 | 0.0138523 |
| Vom2r44   | protein_coding     | 1.322645904    | 0.001455 | 0.0138523 |
| RGD1561206 | pseudogene        | -1.7431867     | 0.001466 | 0.0139239 |
| LOC102555043 | lncRNA         | 1.020935717    | 0.001479 | 0.0140096 |
| LOC680456  | pseudogene        | 1.156311831    | 0.001485 | 0.0140385 |
| LOC102555808 | lncRNA         | 1.47657172     | 0.001515 | 0.0142607 |
| LOC103690092 | protein_coding | -1.4030555     | 0.001528 | 0.0143429 |
| Mpz       | protein_coding     | 3.156319504    | 0.001530 | 0.0143509 |
| LOC108350692 | lncRNA         | -1.101749077   | 0.001568 | 0.0146429 |
| ENSRNOG00000057927.1 | lncRNA   | 1.453401648   | 0.001569 | 0.0146437 |
| LOC108349977 | lncRNA         | 1.640612679    | 0.001582 | 0.0147033 |
| Gna15     | protein_coding     | 1.32747053     | 0.001606 | 0.0148507 |
| Lat2      | protein_coding     | 1.054172847    | 0.001608 | 0.0148511 |
| LOC102556393 | lncRNA         | 1.105374755    | 0.001735 | 0.0157894 |
| LOC100363557 | pseudogene   | 2.13404051     | 0.001902 | 0.0170134 |
| Car13     | protein_coding     | 1.724061567    | 0.001915 | 0.0170957 |
| ENSRNOG00000051551.1 | lncRNA   | 1.030367066    | 0.001916 | 0.0170957 |
| Paqr6     | protein_coding     | 1.015290809    | 0.001915 | 0.0170957 |
| Gene     | Type          | Log2 Fold Change | P.Value | Adj.P.Value |
|----------|---------------|-----------------|---------|-------------|
| Lama2    | protein_coding| 1.00184067      | 0.001930| 0.0171926   |
| Cd300lf  | protein_coding| 1.26321343      | 0.001944| 0.0172842   |
| C5ar1    | protein_coding| 2.115967426     | 0.001979| 0.0175239   |
| Erich6b  | protein_coding| 2.470559273     | 0.002033| 0.0178896   |
| LOC108348893 | IncRNA    | -1.336796083    | 0.002032| 0.0178896   |
| Hist1h2bf| protein_coding| -2.050994894    | 0.002125| 0.0185283   |
| LOC103690937 | protein_coding | -1.431850126    | 0.002189| 0.0189389   |
| LOC100125598 | pseudogene | 1.864002546     | 0.002210| 0.0190728   |
| Rpl32-ps3 | pseudogene    | 1.360092221     | 0.002260| 0.0193842   |
| LOC102546723 | IncRNA     | 1.740657543     | 0.002260| 0.0193842   |
| LOC102552040 | IncRNA     | 1.181304676     | 0.002259| 0.0193842   |
| LOC102547205 | IncRNA     | 1.20712071      | 0.002313| 0.0197456   |
| Aspg     | protein_coding| 2.148502137     | 0.002331| 0.0198588   |
| Knl1     | protein_coding| 1.882254329     | 0.002363| 0.0200794   |
| Col6a6   | protein_coding| 1.620870529     | 0.002389| 0.0202431   |
| Fas      | protein_coding| 1.03829314      | 0.002398| 0.0202980   |
| Col1a1   | protein_coding| 2.725907879     | 0.002418| 0.0204575   |
| LOC108353035 | IncRNA   | -1.151962116    | 0.002423| 0.0204924   |
| Srpx     | protein_coding| 1.266698072     | 0.002484| 0.0209198   |
| LOC102548015 | IncRNA   | 1.149875533     | 0.002612| 0.0217524   |
| LOC102552420 | IncRNA   | 1.190958663     | 0.002678| 0.0221582   |
| Csf2rb   | protein_coding| 1.476738614     | 0.002719| 0.0224566   |
| Symbol       | Class       | Gene   | Fold Change | p-value  | q-value |
|--------------|-------------|--------|-------------|----------|---------|
| LOC103691915 | lncRNA      | -1.144674825 | 0.002952  | 0.0238733 |
| LOC100910885 | protein_coding | 1.390743598 | 0.003182  | 0.0252648 |
| LOC102550553 | lncRNA      | 1.322392734 | 0.003228  | 0.0255429 |
| S100a11      | protein_coding | 1.136673539 | 0.003228  | 0.0255429 |
| Hrasls       | protein_coding | -1.069333696 | 0.003323  | 0.0260635 |
| LOC108351518 | lncRNA      | 1.772839683 | 0.003441  | 0.0267675 |
| LOC108352121 | lncRNA      | 1.115574375 | 0.003528  | 0.0272485 |
| Cysltr2      | protein_coding | -1.434214298 | 0.003637  | 0.0278427 |
| Cyp2d1       | protein_coding | 1.507013278 | 0.003729  | 0.0283400 |
| LOC103694118 | pseudogene  | -1.409097762 | 0.003730  | 0.0283400 |
| Ltc4s        | protein_coding | 1.033297804 | 0.003758  | 0.0285109 |
| Chi3l1       | protein_coding | 1.045025851 | 0.003799  | 0.0286918 |
| Ripk3        | protein_coding | 1.508366995 | 0.003862  | 0.0290253 |
| LOC102550162 | lncRNA      | 1.448473146 | 0.003872  | 0.0290884 |
| Dsc2         | protein_coding | 1.592263335 | 0.003876  | 0.0290977 |
| LOC108351200 | lncRNA      | 1.509519745 | 0.003884  | 0.0291313 |
| RGD1562451   | protein_coding | 1.433505394 | 0.004041  | 0.0299876 |
| LOC103690190 | protein_coding | -1.720116606 | 0.004090  | 0.0302601 |
| Casp4        | protein_coding | 1.427729663 | 0.004273  | 0.0313953 |
| LOC102547836 | lncRNA      | 1.310332022 | 0.004277  | 0.0314151 |
| LOC103692619 | lncRNA      | 1.129512305 | 0.004585  | 0.0332301 |
| Smtnl2       | protein_coding | 1.386169274 | 0.004688  | 0.0337793 |
| Gene          | Description    | Log2 fold change | FDR  | Adj. p-value |
|--------------|----------------|-----------------|------|--------------|
| Tmco4        | protein_coding | 1.30530331      | 0.004768 | 0.0342052    |
| LOC102552996 | protein_coding | 1.447330488     | 0.004790 | 0.0343215    |
| LOC103693257 | protein_coding | 1.017791642     | 0.004796 | 0.0343229    |
| Fgfbp1       | protein_coding | 1.798586695     | 0.004958 | 0.0351324    |
| LOC102551718 | IncRNA         | 1.006761743     | 0.004972 | 0.0351988    |
| Atf7ip2      | protein_coding | 1.259424149     | 0.005099 | 0.0355183    |
| Scnn1a       | protein_coding | 1.008909245     | 0.005099 | 0.0359035    |
| Prss22       | protein_coding | 1.808771797     | 0.005201 | 0.0364711    |
| Gpr183       | protein_coding | 1.248254911     | 0.005398 | 0.0375891    |
| F13a1        | protein_coding | 2.949973732     | 0.005515 | 0.0381848    |
| Slc5a8       | protein_coding | 2.982740901     | 0.005711 | 0.0392299    |
| LOC103695010 | pseudogene     | 1.002154306     | 0.005848 | 0.0398954    |
| Fcgr3a       | protein_coding | 1.18113235      | 0.005894 | 0.0401051    |
| LOC100362684 | protein_coding | 1.558578434     | 0.005944 | 0.0401716    |
| Pik3r5       | protein_coding | 1.252552349     | 0.006057 | 0.0409028    |
| LOC100363531 | protein_coding | 1.380726892     | 0.006068 | 0.0409492    |
| Was          | protein_coding | 1.37694349      | 0.006103 | 0.0410536    |
| Gmnc         | protein_coding | 1.869684979     | 0.006114 | 0.0410586    |
| LOC108351134 | IncRNA         | -1.00472579     | 0.006113 | 0.0410586    |
| LOC102551372 | IncRNA         | 1.207274282     | 0.006284 | 0.0417691    |
| LOC100362351 | pseudogene     | 1.334783811     | 0.006516 | 0.0431359    |
| Vav1         | protein_coding | 1.028964263     | 0.006567 | 0.0434264    |
| Gene         | Coding Type  | Log2FoldChange | p-val  | FDR    |
|--------------|--------------|----------------|--------|--------|
| Pparg        | protein_coding | -1.676867914  | 0.006598 | 0.0435498 |
| LOC103693723 | protein_coding | 1.247729019   | 0.006660 | 0.0438676 |
| Rnf225       | protein_coding | 1.059108729   | 0.006935 | 0.0452362 |
| Faah         | protein_coding | 1.399822108   | 0.007024 | 0.0456156 |
| Fabp7        | protein_coding | 1.266122905   | 0.007226 | 0.0465923 |
| Fam83a       | protein_coding | 1.037778766   | 0.007483 | 0.0478065 |
| Otop3        | protein_coding | -1.086830251  | 0.007488 | 0.0478265 |
| Izumo1       | protein_coding | 1.079170867   | 0.007545 | 0.0480521 |
| Gpnmmb       | protein_coding | 1.707301616   | 0.007563 | 0.0480974 |
| LOC688961    | pseudogene    | -1.080530612  | 0.007596 | 0.0482274 |
| Laptm5       | protein_coding | 1.03225063    | 0.007653 | 0.0484325 |
| Gstt4        | protein_coding | 1.247725966   | 0.007806 | 0.0490750 |
| RGD1565346   | pseudogene    | 1.111591097   | 0.007911 | 0.0494777 |
| ENSRNOG00000055958.1 | lncRNA | 1.692016626 | 0.008022 | 0.0498647 |
| LOC102552566 | lncRNA        | 1.143061694   | 0.008022 | 0.0498647 |