SUPPLEMENTAL MATERIAL

Yamamoto et al., http://www.jem.org/cgi/content/full/jem.20141904/DC1

**Table S1. Microarray gene profiling of lipase-related genes in the skin of *PLA2G10+/+*(Ct) *versus* *PLA2G10tg/+* (X-Tg) mice, related to Fig. 1 A.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Gene | Accession No. | Experiment 1 | | | Experiment 2 | | |
| Ct | X-Tg | X-Tg/Ct | Ct | X-Tg | X-Tg/Ct |
| *Pla2g1b* | NM\_011107 | < 50 | 80 | - | < 50 | < 50 | - |
| *Pla2g2a* | NM\_001082531 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pla2g2c* | NM\_008868 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pla2g2d* | NM\_011109 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pla2g2e* | NM\_012044 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pla2g2f* | NM\_012045 | 280 | 653 | 2.33 | 340 | 666 | 1.96 |
| *Pla2g3* | NM\_172791 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pla2g5* | NM\_011110 | 50 | 52 | 1.06 | < 50 | 70 | - |
| *Pla2g10* | NM\_011987 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pla2g12a* | NM\_183423 | 331 | 340 | 1.03 | 291 | 291 | 1.00 |
| *Pla2g12b* | NM\_023530 | 30 | < 50 | - | < 50 | < 50 | - |
| *Pla2g4a* | NM\_008869 | 190 | 188 | 0.99 | 172 | 199 | 1.16 |
| *Pla2g4b* | BC098210 | 295 | 259 | 0.88 | 271 | 257 | 0.95 |
| *Pla2g4c* | AK145339 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pla2g4e* | NM\_177845 | 70 | 133 | 1.89 | 52 | 146 | 2.81 |
| *Pla2g4f* | NM\_001024145 | 159 | 185 | 1.16 | 112 | 221 | 1.97 |
| *Pla2g6* | NM\_016915 | 153 | 126 | 0.83 | 120 | 136 | 1.13 |
| *Pla2g7* | NM\_013737 | 109 | 112 | 1.01 | 77 | 110 | 1.43 |
| *Pnpla2* | NM\_025802 | 723 | 925 | 1.28 | 825 | 940 | 1.14 |
| *Pnpla3* | NM\_054088 | 247 | 329 | 1.33 | 212 | 358 | 1.69 |
| *Pnpla5* | NM\_029427 | 112 | 562 | 5.04 | 91 | 569 | 6.25 |
| *Pnpla6* | NM\_015801 | 315 | 215 | 0.69 | 289 | 271 | 0.94 |
| *Pnpla7* | NM\_146251 | 164 | 191 | 1.17 | 150 | 185 | 1.23 |
| *Pnpla8* | NM\_026164 | 891 | 1410 | 1.58 | 915 | 1281 | 1.40 |
| *Pafah2* | NM\_133880 | 645 | 910 | 1.41 | 574 | 782 | 1.36 |
| *Prdx6* | NM\_007453 | 1416 | 1457 | 1.03 | 1401 | 1652 | 1.18 |
| *Pla2g15* | NM\_133792 | 216 | 140 | 0.65 | 132 | 167 | 1.27 |
| *Pla2g16* | NM\_139269 | 558 | 509 | 0.91 | 448 | 489 | 1.09 |
| *Lypla1* | NM\_008866 | 294 | 345 | 1.17 | 257 | 301 | 1.17 |
| *Lypla2* | NM\_011942 | 5779 | 3678 | 0.64 | 5102 | 3820 | 0.75 |
| *Abhd1* | NM\_021304 | 87 | 73 | 0.84 | < 50 | 98 | - |
| *Abhd2* | NM\_018811 | 78 | < 50 | - | 54 | 57 | 1.06 |
| *Abhd3* | NM\_134130 | < 50 | 105 | - | < 50 | 96 | - |
| *Abhd4* | NM\_134076 | 2098 | 2113 | 1.01 | 1530 | 1661 | 1.09 |
| *Abhd5* | NM\_026179 | 87 | 134 | 1.53 | 96 | 144 | 1.50 |
| *Abhd6* | NM\_025341 | 64 | 57 | 0.89 | < 50 | 72 | - |
| *Abhd7* | NM\_001001804 | < 50 | < 50 | - | < 50 | 148 | - |
| *Abhd8* | NM\_022419 | 129 | 104 | 0.81 | 105 | 115 | 1.10 |
| *Abhd9* | NM\_001033163 | 129 | 270 | 2.09 | 190 | 324 | 1.71 |
| *Abhd10* | NM\_172511 | 118 | 80 | 0.68 | 105 | 96 | 0.91 |
| *Abhd11* | NM\_145215 | 432 | 422 | 0.98 | 525 | 504 | 0.96 |
| *Abhd12* | NM\_024465 | 147 | 141 | 0.96 | 131 | 173 | 1.32 |
| *Abhd13* | NM\_001081119 | 97 | 85 | 0.87 | 79 | 89 | 1.13 |
| *Abhd14b* | NM\_029631 | 132 | 143 | 1.08 | 122 | 165 | 1.35 |
| *Abhd15* | NM\_026185 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Abhd16a* | NM\_178592 | 117 | 102 | 0.87 | 108 | 135 | 1.25 |
| *Abhd16b* | NM\_183181 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plb1* | NM\_001081407 | 62 | < 50 | - | < 50 | 51 | - |
| *Plbd1* | NM\_025806 | 726 | 1123 | 1.54 | 823 | 1316 | 1.60 |
| *Plbd2* | NM\_023625 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pdia3* | M73329 | 2130 | 1885 | 0.89 | 1881 | 2031 | 1.08 |
| *Plcb1* | NM\_019677 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcb2* | NM\_177568 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcb3* | NM\_008874 | 217 | 198 | 0.91 | 199 | 208 | 1.05 |
| *Plcb4* | NM\_013829 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcd1* | NM\_019676 | 1853 | 1764 | 0.95 | 1844 | 1952 | 1.06 |
| *Plcd3* | NM\_152813 | 225 | 189 | 0.84 | 191 | 190 | 1.00 |
| *Plcd4* | NM\_148937 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plce1* | NM\_019588 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcg1* | NM\_021280 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcg2* | NM\_172285 | 483 | 799 | 1.65 | 461 | 874 | 1.90 |
| *Plch1* | NM\_183191 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plch2* | NM\_175556 | 1246 | 1064 | 0.85 | 1240 | 1112 | 0.90 |
| *Plcl1* | AK140530 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcl2* | NM\_013880 | 163 | 202 | 1.25 | 184 | 174 | 0.95 |
| *Plcxd1* | NM\_207279 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcxd2* | XM\_893473 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcxd3* | NM\_177355 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Plcz1* | NM\_054066 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pld1* | NM\_008875 | 85 | 102 | 1.21 | 97 | 118 | 1.22 |
| *Pld2* | NM\_008876 | 131 | 192 | 1.46 | 143 | 223 | 1.56 |
| *Pld3* | NM\_011116 | 627 | 651 | 1.04 | 585 | 689 | 1.18 |
| *Pld4* | NM\_178911 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pld5* | AK082725 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Pld6* | NM\_183139 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Gpld1* | NM\_008156 | 105 | 182 | 1.73 | 115 | 180 | 1.57 |
| *Acat1* | NM\_144784 | 837 | 670 | 0.80 | 787 | 713 | 0.91 |
| *Acat2* | NM\_009338 | 79 | 98 | 1.24 | 60 | 100 | 1.67 |
| *Acat3* | NM\_153151 | 108 | 153 | 1.41 | 120 | 180 | 1.50 |
| *Lpl* | NM\_008509 | 1795 | 2020 | 1.13 | 2787 | 2371 | 0.85 |
| *Lipa* | NM\_021460 | 64 | 53 | 0.81 | 75 | 79 | 1.05 |
| *Lipc* | NM\_008280 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Lipe* | NM\_010719 | 168 | 190 | 1.14 | 170 | 232 | 1.37 |
| *Lipf* | NM\_026334 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Lipg* | NM\_010720 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Liph* | NM\_153404 | 66 | 90 | 1.36 | 56 | 83 | 1.48 |
| *Lipk* | NM\_172837 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Lipl3* | BC031933 | 433 | 597 | 1.38 | 434 | 740 | 1.71 |
| *Lipn* | NM\_027340 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Mgll* | NM\_011844 | 3794 | 15751 | 4.15 | 4569 | 14320 | 3.13 |
| *Enpp1* | NM\_008813 | 218 | 172 | 0.79 | 194 | 192 | 0.99 |
| *Enpp2* | NM\_015744 | 1159 | 1012 | 0.87 | 1143 | 892 | 0.78 |
| *Enpp3* | BC006944 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Enpp4* | NM\_199016 | 121 | 105 | 0.86 | 135 | 96 | 0.71 |
| *Enpp5* | NM\_032003 | 87 | 59 | 0.67 | 68 | 79 | 1.16 |
| *Enpp6* | NM\_177304 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Enpp7* | NM\_001030291 | < 50 | < 50 | - | < 50 | < 50 | - |
| *Daglb* | NM\_144915 | 355 | 262 | 0.74 | 341 | 296 | 0.87 |

Total RNAs were isolated from skins of *PLA2G10tg/+* and *PLA2G10+/+* mice at P25. Equal amounts of total RNA (pooled from 4 mice for each genotype) were subjected to two-color gene expression microarray analysis. Data were processed using GenePix Software. A representative result of two independent and reproducible experiments is shown. Processed fluorescent intensity values and their ratios (X-Tg/Ct) are shown.

**Table S2. Microarray gene profiling of various genes in the skin of *Pla2g2f+/+*(Ct) versus *Pla2g2ftg/+* (IIF-Tg) mice, related to Fig. 2 E.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Genes | Accession No. | Experiment 1 | | | | Experiment 2 | | |
|  |  | Ct | | IIF-Tg | IIF-Tg/Ct | Ct | IIF-Tg | IIF-Tg/Ct |
| Differentiated keratinocytes | | | | | |  |  |  |
| *Lce1a2* | NM\_028625 | 8454 | | 11568 | 1.37 | 6317 | 10236 | 1.62 |
| *Lce3c* | NM\_033175 | 91 | | 517 | 5.66 | 99 | 265 | 2.67 |
| *Lce3f* | NM\_001018079 | 71 | | 599 | 8.44 | 94 | 803 | 8.56 |
| *S100a8* | NM\_013650 | 69 | | 4666 | 67.72 | 99 | 5253 | 52.82 |
| *S100a9* | NM\_009114 | 386 | | 42505 | 110.13 | 301 | 41886 | 139.15 |
| *Sprr2a* | NM\_011468 | 278 | | 1979 | 7.12 | 100 | 1092 | 10.91 |
| *Sprr2d* | NM\_011470 | 139 | | 5948 | 42.79 | 80 | 4998 | 62.73 |
| *Sprr2h* | NM\_011474 | 82 | | 641 | 7.85 | 88 | 551 | 6.24 |
| *Sprr4* | NM\_173070 | 192 | | 71 | 2.71 | 87 | 178 | 2.04 |
| *Lor* | NM\_008508 | 184109 | | 228838 | 1.24 | 139053 | 204921 | 1.47 |
| *Ivl* | NM\_008412 | 283 | | 523 | 1.85 | 236 | 313 | 1.32 |
| *Flg* | XR\_004824 | 2813 | | 10322 | 3.67 | 2631 | 10864 | 4.13 |
| *Krt1* | NM\_008473 | 1594 | | 7832 | 4.91 | 1519 | 7107 | 4.68 |
| *Krt10* | NM\_010660 | 9078 | | 19451 | 2.14 | 7257 | 11134 | 1.53 |
|  |  |  | |  |  |  |  |  |
| Stratum spinosum and basale | |  | |  |  |  |  |  |
| *Krt5* | NM\_027011 | 99630 | | 157856 | 1.58 | 84000 | 123285 | 1.47 |
| *Krt14* | NM\_016958 | 38899 | | 82819 | 2.13 | 18418 | 40722 | 2.21 |
| *Col4a1* | NM\_009931 | 4333 | | 4841 | 0.90 | 3141 | 2977 | 0.95 |
| *Lama3* | XM\_140451 | 84 | | 93 | 1.12 | 90 | 104 | 1.16 |
| *Lama5* | NM\_001081171 | 4655 | | 3349 | 0.72 | 5026 | 3245 | 0.65 |
|  |  |  | |  |  |  |  |  |
| Lipid droplet | |  | |  |  |  |  |  |
| *Plin1* | NM\_175640 | 1315 | | 3770 | 2.87 | 922 | 2235 | 2.42 |
| *Plin2* | NM\_007408 | 6430 | | 20586 | 3.20 | 5948 | 19498 | 3.28 |
| *Plin3* | NM\_025836 | 5854 | | 6398 | 1.09 | 5055 | 6010 | 1.19 |
| *Plin4* | NM\_020568 | 9664 | | 23541 | 2.44 | 9334 | 18927 | 2.03 |
|  |  |  | |  |  |  |  |  |
| Kallikreins |  |  | |  |  |  |  |  |
| *Klk6* | NM\_011177 | 230 | | 1095 | 4.77 | 162 | 721 | 4.46 |
| *Klk7* | NM\_011872 | 5478 | | 8687 | 1.59 | 4960 | 7517 | 1.52 |
| *Klk8* | NM\_008940 | 875 | | 1782 | 2.04 | 501 | 1030 | 2.06 |
|  |  |  | |  |  |  |  |  |
| Cytokines | |  | |  |  |  |  |  |
| *Tnf* | NM\_013693 | 77 | | 88 | 1.14 | 98 | 99 | 1.01 |
| *Il1b* | NM\_008361 | 84 | | 102 | 1.22 | 87 | 119 | 1.36 |
| *Il6* | NM\_031168 | 82 | | 99 | 1.21 | 100 | 93 | 0.92 |
| *Ccl2* | NM\_011333 | 105 | | 334 | 3.18 | 86 | 354 | 4.12 |
| *Il1f5* | NM\_019451 | 1461 | | 4877 | 3.34 | 1305 | 3908 | 2.99 |
| *Il1f6* | NM\_019450 | 87 | | 376 | 4.34 | 81 | 227 | 2.82 |
| *Il1f8* | NM\_027163 | 239 | | 501 | 2.09 | 210 | 682 | 3.26 |
| *Il18* | NM\_008360 | 604 | | 1153 | 1.91 | 357 | 780 | 2.19 |
| *Il12a* | NM\_008351 | 70 | | 76 | 1.09 | 83 | 93 | 1.12 |
| *Il12b* | NM\_008352 | 90 | | 117 | 1.29 | 101 | 102 | 1.02 |
| *Il17a* | NM\_010552 | 76 | | 87 | 1.14 | 89 | 101 | 1.14 |
| *Il22* | NM\_016971 | 87 | | 93 | 1.07 | 83 | 103 | 1.23 |
| *Il23a* | NM\_031252 | 89 | | 85 | 0.96 | 105 | 110 | 1.05 |
| *Il33* | NM\_133775 | 600 | | 651 | 1.09 | 396 | 637 | 1.61 |
|  |  |  | |  |  |  |  |  |
| Lipogenesis and lipid transport | | | |  |  |  |  |  |
| *Fasn* | NM\_007988 | 29170 | | 67734 | 2.32 | 25037 | 56223 | 2.25 |
| *Scd1* | NM\_009127 | 7488 | | 30044 | 4.01 | 5510 | 24640 | 4.47 |
| *Elovl3* | NM\_007703 | 2518 | | 9338 | 3.71 | 1065 | 4661 | 4.38 |
| *Elovl4* | NM\_148941 | 2140 | | 12639 | 5.91 | 2327 | 11500 | 4.94 |
| *Elovl5* | NM\_134255 | 4651 | | 11859 | 2.55 | 2940 | 10769 | 3.66 |
| *Elovl6* | NM\_130450 | 4829 | | 21056 | 4.36 | 2928 | 11780 | 4.02 |
| *Fabp4* | NM\_024406 | 94728 | | 266070 | 2.81 | 75394 | 231178 | 3.07 |
| *Abca12* | AK076440 | 72 | | 78 | 1.09 | 85 | 103 | 1.21 |
|  |  |  | |  |  |  |  |  |
| Stem cells |  |  | |  |  |  |  |  |
| *Lhx1* | NM\_008498 | 79 | | 73 | 0.92 | 84 | 95 | 1.14 |
| *Tcf3* | NM\_009332 | 2401 | | 2449 | 1.02 | 1676 | 1742 | 1.04 |
| *Tcf4* | NM\_013685 | 2469 | | 2443 | 0.99 | 1674 | 1812 | 1.08 |
| *Mki67* | X82786 | 17943 | | 12464 | 0.69 | 16875 | 11638 | 0.69 |
|  |  |  | |  |  |  |  |  |
| Hair follicle differentiation | | | | | |  |  |  |
| *Shh* | NM\_009170 | 943 | | 321 | 0.34 | 570 | 202 | 0.35 |
| *Bmp4* | NM\_007554 | 605 | | 358 | 0.59 | 519 | 224 | 0.43 |
| *Gata3* | NM\_008091 | 13565 | | 8530 | 0.63 | 12044 | 7847 | 0.65 |
| *Msx2* | NM\_013601 | 2765 | | 623 | 0.23 | 3450 | 939 | 0.27 |
| *Lef1* | NM\_010703 | 2646 | | 953 | 0.36 | 1443 | 503 | 0.35 |
| *Foxn1* | NM\_008238 | 325 | | 125 | 0.38 | 197 | 118 | 0.60 |
| *Hoxc13* | NM\_010464 | 482 | | 102 | 0.21 | 243 | 111 | 0.46 |
|  |  |  | |  |  |  |  |  |
| Hair keratins | | | |  |  |  |  |  |
| *Krt6a* | NM\_008476 | | 1538 | 2505 | 1.63 | 998 | 1285 | 1.29 |
| *Krt6b* | NM\_010669 | | 572 | 678 | 1.18 | 360 | 276 | 0.77 |
| *Krt17* | NM\_010663 | | 71279 | 64599 | 1.10 | 41281 | 41510 | 1.01 |
| *Krt19* | NM\_008471 | | 218 | 106 | 0.49 | 196 | 107 | 0.54 |
| *Krt75* | NM\_133357 | | 21391 | 6433 | 0.30 | 16488 | 4637 | 0.28 |
| *Krt31* | NM\_010659 | | 3768 | 276 | 0.07 | 2205 | 194 | 0.09 |
| *Krt33a* | NM\_027983 | | 20653 | 648 | 0.03 | 20753 | 778 | 0.04 |
| *Krt33b* | XM\_981536 | | 12745 | 482 | 0.04 | 9436 | 291 | 0.03 |
| *Krt34* | NM\_027563 | | 5434 | 159 | 0.03 | 3754 | 240 | 0.06 |
| *Krt36* | NM\_008472 | | 784 | 148 | 0.19 | 687 | 134 | 0.20 |
| *Krt83* | NM\_001003668 | | 4304 | 333 | 0.08 | 4863 | 383 | 0.08 |
| *Krt35* | NM\_016880 | | 37695 | 7789 | 0.21 | 35834 | 6680 | 0.19 |
| *Krt82* | NM\_053249 | | 672 | 94 | 0.14 | 707 | 107 | 0.15 |
| *Krt85* | NM\_016879 | | 5231 | 1293 | 0.25 | 8210 | 1714 | 0.21 |
| *Krt71* | NM\_019956 | | 72813 | 16792 | 0.23 | 89556 | 18328 | 0.20 |
| *Krt8* | NM\_031170 | | 352 | 109 | 0.31 | 328 | 114 | 0.35 |
|  |  | |  |  |  |  |  |  |
| Keratin-associated proteins | | |  |  |  |  |  |  |
| *Krtap3-1* | XM\_894811 | | 3370 | 207 | 0.06 | 3161 | 181 | 0.06 |
| *Krtap3-2* | NM\_025720 | | 814 | 66 | 0.08 | 579 | 83 | 0.14 |
| *Krtap3-3* | NM\_025524 | | 912 | 92 | 0.10 | 643 | 109 | 0.17 |
| *Krtap4-7* | NM\_029613 | | 589 | 94 | 0.16 | 508 | 100 | 0.20 |
| *Krtap5-1* | NM\_015808 | | 5713 | 666 | 0.12 | 4079 | 417 | 0.10 |
| *Krtap5-2* | NM\_027844 | | 307 | 94 | 0.31 | 243 | 95 | 0.39 |
| *Krtap5-4* | NM\_015809 | | 7158 | 1330 | 0.19 | 4239 | 575 | 0.14 |
| *Krtap6-1* | NM\_010672 | | 5308 | 234 | 0.04 | 3928 | 211 | 0.05 |
| *Krtap6-2* | NM\_010673 | | 227 | 79 | 0.35 | 226 | 102 | 0.45 |
| *Krtap6-3* | D89901 | | 8297 | 771 | 0.09 | 6975 | 744 | 0.11 |
| *Krtap8-1* | AK133727 | | 3348 | 247 | 0.07 | 2548 | 214 | 0.08 |
| *Krtap9-1* | NM\_015741 | | 1355 | 353 | 0.26 | 676 | 259 | 0.38 |
| *Krtap14* | NM\_013707 | | 1425 | 84 | 0.06 | 1112 | 93 | 0.08 |
| *Krtap16-1* | NM\_130870 | | 832 | 84 | 0.10 | 435 | 96 | 0.22 |
| *Krtap16-4* | NM\_130873 | | 775 | 109 | 0.14 | 530 | 113 | 0.21 |
| *Krtap16-5* | NM\_130857 | | 1292 | 115 | 0.09 | 748 | 112 | 0.15 |
| *Krtap16-7* | NM\_130875 | | 2187 | 90 | 0.04 | 1565 | 117 | 0.07 |
| *Krtap16-8* | NM\_130856 | | 1957 | 107 | 0.05 | 1636 | 99 | 0.06 |
| *Krtap16-9* | NM\_130876 | | 8554 | 3229 | 0.38 | 5598 | 1688 | 0.30 |
| *Krtap16-10* | NM\_183296 | | 6156 | 354 | 0.06 | 5710 | 366 | 0.06 |
|  |  | |  |  |  |  |  |  |
| Phospholipases | | |  |  |  |  |  |  |
| *Pla2g1b* | NM\_011107 | | 85 | 75 | 0.88 | 97 | 93 | 0.96 |
| *Pla2g2d* | NM\_011109 | | 81 | 98 | 1.21 | 95 | 90 | 0.95 |
| *Pla2g2e* | NM\_012044 | | 92 | 90 | 0.99 | 94 | 85 | 0.90 |
| *Pla2g2f* | NM\_012045 | | 602 | 762 | 1.27 | 471 | 683 | 1.45 |
| *Pla2g3* | NM\_172791 | | 80 | 81 | 1.02 | 105 | 95 | 0.90 |
| *Pla2g5* | NM\_011110 | | 79 | 93 | 1.18 | 119 | 94 | 0.79 |
| *Pla2g10* | NM\_011987 | | 74 | 93 | 1.27 | 111 | 94 | 0.85 |
| *Pla2g12a* | NM\_183423 | | 1121 | 1606 | 1.43 | 698 | 970 | 1.39 |
| *Pla2g12b* | NM\_023530 | | 74 | 88 | 1.18 | 88 | 109 | 1.23 |
| *Pla2g4a* | NM\_008869 | | 399 | 379 | 0.95 | 286 | 225 | 0.79 |
| *Pla2g4b* | BC016255 | | 482 | 377 | 0.78 | 253 | 183 | 0.72 |
| *Pla2g4c* | NM\_001004762 | | 81 | 103 | 1.27 | 97 | 92 | 0.95 |
| *Pla2g4e* | NM\_177845 | | 101 | 176 | 1.74 | 111 | 145 | 1.31 |
| *Pla2g4f* | NM\_001024145 | | 175 | 296 | 1.69 | 124 | 134 | 1.08 |
| *Pnpla2* | NM\_025802 | | 4948 | 10916 | 2.21 | 4038 | 9082 | 2.25 |
| *Pnpla3* | NM\_054088 | | 392 | 684 | 1.74 | 354 | 610 | 1.72 |
| *Pnpla5* | NM\_029427 | | 173 | 1856 | 10.72 | 153 | 925 | 6.03 |
| *Pnpla6* | NM\_015801 | | 306 | 330 | 1.08 | 410 | 196 | 0.48 |
| *Pnpla7* | NM\_146251 | | 328 | 571 | 1.74 | 252 | 307 | 1.22 |
| *Pnpla8* | NM\_026164 | | 530 | 798 | 1.51 | 558 | 873 | 1.56 |
| *Pla2g6* | NM\_016915 | | 423 | 440 | 1.04 | 244 | 209 | 0.86 |
| *Pla2g7* | NM\_013737 | | 201 | 221 | 1.10 | 104 | 94 | 0.91 |
| *Pafah2* | NM\_133880 | | 1179 | 1700 | 1.44 | 976 | 1256 | 1.29 |
| *Prdx6* | NM\_007453 | | 4201 | 5523 | 1.31 | 2916 | 3481 | 1.19 |
| *Pla2g15* | NM\_133792 | | 126 | 371 | 2.94 | 233 | 236 | 1.01 |
| *Pla2g16* | NM\_139269 | | 2246 | 4169 | 1.86 | 1777 | 3081 | 1.73 |
|  |  | |  |  |  |  |  |  |
| Lipid mediator synthesis | | |  |  |  |  |  |  |
| *Ptgs1* | NM\_008969 | | 1021 | 1498 | 1.47 | 701 | 1282 | 1.83 |
| *Ptgs2* | NM\_011198 | | 86 | 85 | 0.98 | 91 | 106 | 1.16 |
| *Ptgds* | NM\_008963 | | 1287 | 541 | 0.42 | 979 | 463 | 0.47 |
| *Ptgds2* | NM\_019455 | | 87 | 110 | 1.27 | 101 | 117 | 1.16 |
| *Ptges* | NM\_022415 | | 216 | 334 | 1.55 | 152 | 271 | 1.78 |
| *Ptges2* | NM\_133783 | | 815 | 1004 | 1.23 | 665 | 619 | 0.93 |
| *Ptges3* | NM\_019766 | | 4853 | 3717 | 0.77 | 4035 | 3315 | 0.82 |
| *Ptgis* | NM\_008968 | | 83 | 91 | 1.09 | 98 | 117 | 1.19 |
| *Tbxas1* | NM\_011539 | | 80 | 158 | 1.98 | 90 | 105 | 1.16 |
| *Alox5* | NM\_009662 | | 230 | 346 | 1.50 | 112 | 256 | 2.29 |
| *Alox8* | NM\_009661 | | 448 | 103 | 0.23 | 211 | 94 | 0.45 |
| *Alox12* | NM\_007440 | | 192 | 139 | 0.72 | 109 | 114 | 1.05 |
| *Alox12b* | NM\_009659 | | 126 | 270 | 2.14 | 125 | 163 | 1.30 |
| *Alox12e* | NM\_145684 | | 2033 | 3795 | 1.87 | 1657 | 3335 | 2.01 |
| *Alox15* | NM\_009660 | | 67 | 75 | 1.12 | 89 | 84 | 0.94 |
| *Aloxe3* | NM\_011786 | | 448 | 542 | 1.21 | 317 | 492 | 1.55 |
| *Lta4h* | NM\_008517 | | 356 | 455 | 1.28 | 333 | 273 | 0.82 |

Total RNAs were isolated from skins of *Pla2g2ftg/+* and *Pla2g2f+/+* mice at P25. Equal amounts of total RNA (pooled from 4 mice for each genotype) were subjected to two-color gene expression microarray analysis. Data were processed using Agilent’s Feature Extraction Software. A representative result of two independent and reproducible experiments is shown. Processed fluorescent intensity values and their ratios (IIF-Tg/Ct) are shown.

**Table S3. Microarray gene profiling of *Pla2g2f+/+*(WT) versus *Pla2g2f-/-* (KO) keratinocytes, related to Fig. 4 B.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Genes | Accession No. | WT-control | WT-differentiated | KO-differentiated | WT-differentiated/ WT-control | KO-differentiated / WT-differentiated |
|  |  |  |  |  |  |  |
| Differentiated keratinocytes | | |  |  |  |  |
| *Lce1a2* | NM\_028625 | 1609 | 15020 | 7100 | 9.33 | 0.47 |
| *Lce3b* | NM\_025501 | 808 | 19858 | 4483 | 24.58 | 0.23 |
| *Lce3c* | NM\_033175 | 1208 | 34790 | 8177 | 28.80 | 0.24 |
| *Lce3d* | NM\_001270426 | 1728 | 37326 | 8543 | 21.60 | 0.23 |
| *Sprr1a* | NM\_009264 | 6900 | 114442 | 110448 | 16.59 | 0.97 |
| *Sprr1b* | NM\_009265 | 10425 | 57789 | 39733 | 5.54 | 0.69 |
| *Sprr2d* | NM\_011470 | 1023 | 14342 | 931 | 14.02 | 0.06 |
| *Sprr2g* | NR\_003548 | 2635 | 41860 | 4601 | 15.89 | 0.11 |
| *Sprr2h* | NM\_011474 | 69562 | 238060 | 55614 | 3.42 | 0.23 |
| *S100a9* | NM\_009114 | 3775 | 6052 | 1934 | 1.60 | 0.32 |
| *Lor* | NM\_008508 | 1137 | 18914 | 7438 | 16.64 | 0.28 |
| *Ivl* | NM\_008412 | 245 | 307 | 223 | 1.25 | 0.39 |
| *Flg1* | ENSMUST00000050758 | 179 | 1081 | 1255 | 6.04 | 0.73 |
| *Krt10* | NM\_010660 | 724 | 996 | 789 | 1.38 | 0.92 |
|  |  |  |  |  |  |  |
| Stratum spinosum and basale | | |  |  |  |  |
| *Krt5* | NM\_027011 | 429791 | 453974 | 305524 | 1.06 | 0.67 |
| *Krt14* | NM\_016958 | 275989 | 278616 | 193233 | 1.01 | 0.69 |
| *Col4a1* | NM\_009931 | 24084 | 23948 | 52033 | 0.99 | 2.17 |
| *Gjb3* | NM\_001160012 | 19501 | 21225 | 19065 | 1.09 | 0.90 |
| *Gjb4* | NM\_008127 | 13745 | 26754 | 19787 | 1.95 | 0.74 |
| *Ifitm3* | NM\_025378 | 16100 | 14996 | 20676 | 0.93 | 1.38 |
| *Lama3* | NM\_010680 | 28534 | 19173 | 14964 | 0.67 | 0.78 |
| *Lama5* | NM\_001081171 | 37970 | 29393 | 16720 | 0.77 | 0.57 |
| *Itfg1* | NM\_028007 | 20831 | 22776 | 20878 | 1.09 | 0.92 |
| *Itfg3* | NM\_207217 | 11379 | 10586 | 16417 | 0.93 | 1.55 |
| *Itga3* | NM\_013565 | 14006 | 5802 | 3928 | 0.41 | 0.68 |
| *Itga6* | NM\_008397 | 121446 | 87585 | 66491 | 0.72 | 0.76 |
|  |  |  |  |  |  |  |
| Cytokines | | |  |  |  |  |
| *Il1a* | NM\_010554 | 300 | 262 | 124 | 0.87 | 0.47 |
| *Tnf* | NM\_013693 | 124 | 147 | 101 | 1.19 | 0.69 |
| *Il6* | NM\_031168 | 58 | 193 | 202 | 3.33 | 1.05 |
| *Il18* | NM\_008360 | 102 | 450 | 1793 | 4.41 | 3.98 |
| *Il1f5* | NM\_001146087 | 119 | 1175 | 676 | 9.87 | 0.58 |
| *Il1f6* | NM\_019450 | 58 | 1447 | < 50 | 24.95 | < 0.03 |
| *Il1f8* | NM\_027163 | < 50 | 102 | 91 | > 2.04 | 0.89 |
| *Il1f9* | NM\_153511 | < 50 | 180 | 56 | > 3.60 | 0.31 |
| *Il23a* | NM\_031252 | < 50 | 76 | 64 | > 1.52 | 0.84 |
| *Il33* | NM\_001164724 | 1854 | 3159 | 699 | 1.70 | 0.22 |
| *Ccl2* | NM\_011333 | 17350 | 27319 | 15214 | 1.57 | 0.56 |
|  |  |  |  |  |  |  |
| Proteases | | |  |  |  |  |
| *Klk5* | NM\_026806 | 192 | 2076 | 6286 | 10.81 | 3.03 |
| *Klk6* | NM\_011177 | 161 | 5799 | 20055 | 36.02 | 3.46 |
| *Klk7* | NM\_011872 | 243 | 7115 | 15678 | 29.28 | 2.20 |
| *Klk8* | NM\_008940 | 3005 | 14169 | 11520 | 4.72 | 0.81 |
| *Spink5* | NM\_001081180 | 6939 | 58773 | 53554 | 8.47 | 0.91 |
| *Cst6* | NM\_028623 | 601 | 16052 | 79552 | 26.71 | 4.96 |
| *Ctsl* | NM\_009984 | 211700 | 229322 | 198294 | 1.08 | 0.86 |
|  |  |  |  |  |  |  |
| Hair keratins | | |  |  |  |  |
| *Krt16* | NM\_008470 | 22383 | 169392 | 140706 | 7.57 | 0.83 |
| *Krt6a* | NM\_008476 | 171368 | 251248 | 154515 | 1.47 | 0.61 |
| *Krt6b* | NM\_010669 | 76963 | 114934 | 63941 | 1.49 | 0.56 |
| *Krt17* | NM\_010663 | 272818 | 287010 | 229543 | 1.05 | 0.80 |
| *Krt85* | NM\_016879 | 28502 | 27761 | 17848 | 0.97 | 0.64 |
| *Krt13* | NM\_010662 | 76379 | 103434 | 64709 | 1.35 | 0.63 |
| *Krt18* | NM\_010664 | 19353 | 28928 | 12425 | 1.49 | 0.43 |
| *Krt8* | NM\_031170 | 1343 | 2353 | 1429 | 1.75 | 0.61 |
| *Krt7* | NM\_033073 | 2838 | 6107 | 3312 | 2.15 | 0.54 |
| *Krt18* | NM\_010664 | 19353 | 28928 | 12425 | 1.49 | 0.43 |
| *Krt23* | NM\_033373 | 284 | 5430 | 4289 | 19.12 | 0.79 |
| *Krt24* | NM\_029393 | 1035 | 1841 | 845 | 1.78 | 0.46 |
| *Krt42* | NM\_212483 | 55050 | 65254 | 39824 | 1.19 | 0.61 |
| *Krt73* | NM\_212485 | 1631 | 1686 | 1045 | 1.03 | 0.62 |
| *Krt80* | NM\_028770 | 593 | 2259 | 1733 | 3.81 | 0.77 |
| *Krt81* | NM\_001166157 | 5119 | 5237 | 3369 | 1.02 | 0.64 |
| *Krt85* | NM\_016879 | 28502 | 27761 | 17848 | 0.97 | 0.64 |
|  |  |  |  |  |  |  |
| Lipogenesis, lipolysis and lipid transport | | | | | |  |
| *Fasn* | NM\_007988 | 722 | 625 | 867 | 0.87 | 1.39 |
| *Elovl4* | NM\_148941 | 2000 | 11969 | 7934 | 5.98 | 0.66 |
| *Elovl5* | NM\_134255 | 10823 | 8777 | 8450 | 0.81 | 0.96 |
| *Elovl6* | NM\_130450 | 2501 | 1906 | 2437 | 0.76 | 1.28 |
| *Elovl7* | NM\_029001 | 11976 | 28011 | 21581 | 2.34 | 0.77 |
| *Fads3* | NM\_021890 | 58289 | 53206 | 55535 | 0.91 | 1.04 |
| *Scd1* | NM\_009127 | 9778 | 7503 | 21905 | 0.77 | 2.92 |
| *Fabp4* | NM\_024406 | 94909 | 63603 | 187946 | 0.67 | 2.95 |
| *Pparg* | NM\_011146 | 4554 | 2764 | 16100 | 0.61 | 5.82 |
| *Mgll* | NM\_001166251 | 6438 | 4629 | 14407 | 0.72 | 3.11 |
| *Lipe* | NM\_010719 | 476 | 429 | 1324 | 0.90 | 3.09 |
| *Abca12* | NM\_175210 | 4395 | 11361 | 7219 | 2.58 | 0.64 |
|  |  |  |  |  |  |  |
| Lipid droplets | | |  |  |  |  |
| *Plin1* | NM\_175640 | 1886 | 1124 | 8392 | 0.60 | 7.47 |
| *Plin2* | NM\_007408 | 150069 | 173330 | 149524 | 1.16 | 0.86 |
| *Plin3* | NM\_025836 | 36675 | 42130 | 25491 | 1.15 | 0.61 |
| *Plin4* | NM\_020568 | 7180 | 4458 | 24979 | 0.62 | 5.60 |
| *Plin5* | NM\_001077348 | 527 | 293 | 2203 | 0.56 | 7.52 |
|  |  |  |  |  |  |  |
| Phospholipases | | |  |  |  |  |
| *Pla1a* | NM\_134102 | 1556 | 3228 | 1782 | 2.07 | 0.55 |
| *Pla2g2d* | NM\_011109 | 81 | 69 | 73 | 0.85 | 1.06 |
| *Pla2g2e* | NM\_012044 | 1401 | 1514 | 3470 | 1.08 | 2.29 |
| *Pla2g3* | NM\_172791 | 86 | 54 | 40 | 0.63 | 0.71 |
| *Pla2g12a* | NM\_183423 | 7463 | 7229 | 5659 | 0.97 | 0.74 |
| *Pla2g4a* | NM\_008869 | 8275 | 7947 | 7823 | 0.96 | 0.78 |
| *Pla2g4b* | NM\_145378 | 7871 | 7060 | 5791 | 0.90 | 0.98 |
| *Pla2g4d* | NM\_001024137 | 79 | 181 | 46 | 2.29 | 0.82 |
| *Pnpla1* | NM\_001034885 | < 50 | 95 | 91 | > 1.90 | 0.96 |
| *Pnpla2* | NM\_001163689 | 19598 | 19797 | 62130 | 1.01 | 3.14 |
| *Pnpla3* | NM\_054088 | 69 | 119 | 170 | 1.72 | 1.43 |
| *Pnpla6* | NM\_001122818 | 3319 | 3081 | 2440 | 0.93 | 0.79 |
| *Pnpla7* | NM\_146251 | 789 | 630 | 1729 | 0.80 | 2.74 |
| *Pnpla8* | NM\_026164 | 121 | 117 | 201 | 0.97 | 1.72 |
| *Pla2g6* | NM\_001199023 | 2532 | 2765 | 2159 | 1.09 | 0.78 |
| *Pla2g7* | NM\_013737 | 1073 | 1173 | 7501 | 1.09 | 6.39 |
| *Pla2g15* | NM\_133792 | 2590 | 2173 | 3284 | 0.84 | 1.51 |
| *Pla2g16* | NM\_139269 | 2619 | 2322 | 2747 | 0.89 | 1.18 |
| *Pafah2* | NM\_133880 | 3513 | 3627 | 3321 | 1.03 | 0.92 |
| *Prdx6* | NM\_007453 | 98011 | 101395 | 59795 | 1.03 | 0.59 |
|  |  |  |  |  |  |  |
| Lipid mediator synthesis | | |  |  |  |  |
| *Ptgs1* | NM\_008969 | 2646 | 1870 | 1491 | 0.71 | 0.80 |
| *Ptgs2* | NM\_011198 | 10050 | 17845 | 10657 | 1.78 | 0.60 |
| *Ptgds* | NM\_008963 | 1455 | 624 | 1496 | 0.43 | 2.40 |
| *Hpgds* | NM\_019455 | 86 | 90 | 505 | 1.05 | 5.61 |
| *Ptges* | NM\_022415 | 35731 | 32753 | 29693 | 0.92 | 0.91 |
| *Ptges2* | NM\_133783 | 10102 | 10085 | 7362 | 1.00 | 0.73 |
| *Ptges3* | NM\_019766 | 76145 | 73178 | 51641 | 0.96 | 0.71 |
| *Ptgis* | NM\_008968 | 1654 | 1095 | 1552 | 0.66 | 1.42 |
| *Alox5* | NM\_009662 | 104 | 80 | 276 | 0.77 | 3.45 |
| *Alox12* | NM\_007440 | 142 | 183 | 280 | 1.29 | 1.53 |
| *Alox12b* | NM\_009659 | 273 | 551 | 275 | 2.02 | 0.50 |
| *Alox12b* | NM\_009659 | 460 | 487 | 334 | 1.06 | 0.69 |
| *Alox12e* | NM\_145684 | 87 | 63 | 76 | 0.72 | 1.21 |
| *Aloxe3* | NM\_011786 | 1700 | 6383 | 1779 | 3.75 | 0.28 |
| *Lta4h* | NM\_008517 | 7887 | 6963 | 8829 | 0.88 | 1.27 |

Total RNAs were isolated from *Pla2g2f+/+*(WT) versus *Pla2g2f-/-* (KO) keratinocytes after culture for 2 days with (differentiated) or without (control) 1 mM CaCl2. Equal amounts of total RNA (pooled from keratinocytes from 6 mice for each genotype) were subjected to single-color gene expression microarray analysis. Data were processed using Agilent’s Feature Extraction Software and normalized using the 75th percentile value for inter-array comparisons. Corrected signal intensities and fold changes on the microarray are indicated.

**Table S4. A list of primers used in quantitative RT-PCR**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Genes |  |  |  | | |
|  | Forward Primers | Reverse Primers | Probe Numbers (Roche) | | |
| *Alox12* | 5'-CAGGGAGAGGGAATCCTGA-3' | 5'-CGATACTTCTGGAAGACATCTAAGG-3' | 51 | |
| *Alox15* | 5'-GGGGATGGAGAAGCTACAGG-3' | 5'-TCCGCTTCAAACAGAGTGC-3' | 42 | |
| *Alox15b* | 5'-CGCCAGAAGGAGCTTGAGT-3' | 5'-GGCCAACCTTCAATGTAAGTCT-3' | 29 | |
| *Ccl2* | 5'-CATCCACGTGTTGGCTCA-3' | 5'-GATCATCTTGCTGGTGAATGAGT-3' | 62 | |
| *Ccr2* | 5'-ACCTGTAAATGCCATGCAAGT-3' | 5'-TGTCTTCCATTTCCTTTGATTTG-3' | 27 | |
| *Cd11b* | 5'-CAATAGCCAGCCTCAGTGC-3' | 5'-GAGCCCAGGGGAGAAGTG-3' | 76 | |
| *Cd68* | 5'-GACCTACATCAGAGCCCGAGT-3' | 5'-CGCCATGAATGTCCACTG-3' | 96 | |
| *Defb3* | 5'-TGTTTGCATTTCTCCTGGTG-3' | 5'-CAAACAACTTACTGGATTGTTGATTTT-3' | 94 | |
| *Flg* | 5'-AGCACGGCTCCGGATACTA-3' | 5'-AACTGCTGCTGCGTTGCT-3' | 49 | |
| *Foxp3* | 5'-TCAGGAGCCCACCAGTACA-3' | 5'-TCTGAAGGCAGAGTCAGGAGA-3' | 78 | |
| *Il1b* | 5'-TGTAATGAAAGACGGCACACC-3' | 5'-TCTTCTTTGGGTATTGCTTGG-3' | 78 | |
| *Il1f6* | 5'-CACAAAGGATGGGGAGCA-3' | 5'-TTCCTTTTTGTTGTACATTTCCATT-3' | 60 | |
| *Il1f9* | 5'-GGACACCCTACTTTGCTGCTA-3' | 5'-AACAGGAATGGCTTCATTGG-3' | 77 | |
| *Il6* | 5'-GCTACCAAACTGGATATAATCAGGA-3' | 5'-CCAGGTAGCTATGGTACTCCAGAA-3' | 6 | |
| *Il10* | 5'-CAGAGCCACATGCTCCTAGA-3' | 5'-TGTCCAGCTGGTCCTTTGTT-3' | 41 | |
| *Krt1* | 5'-TTTGCCTCCTTCATCGACA-3' | 5'-GTTTTGGGTCCGGGTTGT-3' | 62 | |
| *KRT1* | 5'-ATCAATCTCGGTTGGATTCG-3' | 5'-TCCGCTTGTTGATTTCATCC-3' | 22 | |
| *Krt14* | 5'-ATCGAGGACCTGAAGAGCAA-3' | 5'-TCGATCTGCAGGAGGACATT-3' | 83 | |
| *Lor* | 5'-CATCTTCCCTGGTGCTTCA-3' | 5'-AGCCGCCACCGCTATAAT-3' | 25 | |
| *LOR* | 5'-CTCACCCTTCCTGGTGCTT-3' | 5'-GAGGTCTTCACGCAGTCCA-3' | 12 | |
| *Pla2g2f* | 5'-GCTCTGGGCTGGAACTATGA-3' | 5'-CCTGGGTTGCAGTTATACCG-3' | 66 | |
| *PLA2G2F* | 5'-CCTGTCCTTCGTGGGCTAC-3' | 5'-TTCCTGGTAGCAGCAGTCG-3' | 23 | |
| *Rn18s* | 5'-TCGAGGCCCTGTAATTGGAA-3' | 5'-CCCTCCAATGGATCCTCGTT-3' | - | |
| *S100a9* | 5'-CACCCTGAGCAAGAAGGAAT-3' | 5'-TGTCATTTATGAGGGCTTCATTT-3' | 31 | |
| *S100A9* | 5'-GTGCGAAAAGATCTGCAAA-3' | 5'-TCAGCTGCTTGTCTGCATTT-3' | 85 | |
| *Tnf* | 5'-TCTTCTCATTCCTGCTTGTGG-3' | 5'-GGTCTGGGCCATAGAACTGA-3' | 49 | |
|  |  | | | | |
|  | Taq man probes (Applied Biosystems) accession No. | | | | |
| *Cd206* | Mm00485170\_m1 | | | | |
| *Cd207* | Mm00523546\_m1 | | | | |
| *HPRT1* | Mm00478249\_m1 | | | | |
| *IL17A* | Hs01003267\_m1 | | | | |
| *IL22* | Hs01574152\_m1 | | | | |
| *Pla2g1b* | Mm00478249\_m1 | | | | |
| *PLA2G1B* | Hs00386701\_m1 | | |
| *PLA2G2A* | Hs00179898\_m1 | | |
| *Pla2g2d* | Mm00478250\_m1 | | |
| *PLA2G2D* | Hs01572940\_m1 | | |
| *Pla2g2f* | Mm00478872\_m1 | | |
| *PLA2G2F* | Hs00224482\_m1 | | |
| *Pla2g5* | Mm00448162\_m1 | | |
| *PLA2G5* | Hs00173472\_m1 | | |
| *Pla2g10* | Mm00449532\_m1 | | |
| *PLA2G10* | Hs00358567\_m1 | | |
| *Sox13* | Mm00488352\_m1 | | |
| *Vegf* | Mm03015193\_m1 | | |
| *Gapdh* | Taq man Rodent GAPDH control reagents (4308313) | | |

**Table S5. A list of representative MRM transitions used in lipid metabolome**

|  |  |  |  |
| --- | --- | --- | --- |
| Molecular species | Parent ion  (m/z) | Product ion  (*m/z*) | Authentic standard sources |
| P-LPE(18:0) | 464.2 | 196.0 | Avanti Polar Lpids |
| LPE(18:0) | 480.3 | 196.0 | Avanti Polar Lpids |
| LPC(18:0) | 568.4 | 508.4 | Avanti Polar Lpids |
| P-PE(18:0/18:1) | 728.6 | 281.3 | Avanti Polar Lpids |
| P-PE(18:0/22:6) | 774.5 | 327.2 | Avanti Polar Lpids |
| PE(18:0/18:2) | 742.5 | 279.2 | Avanti Polar Lpids |
| PE(18:0/20:4) | 766.5 | 303.2 | Avanti Polar Lpids |
| PE(18:0/22:6) | 790.5 | 327.2 | Avanti Polar Lpids |
| PC(18:0/18:2) | 830.6 | 279.2 | Avanti Polar Lpids |
| PC(18:0/20:4) | 854.6 | 303.2 | Avanti Polar Lpids |
| LA | 279.0 | 279.0 | Cayman Chemicals |
| AA | 303.2 | 259.1 | Cayman Chemicals |
| DHA | 327.2 | 283.2 | Cayman Chemicals |
| 9*S*-HODE | 295.1 | 170.9 | Cayman Chemicals |
| PGE2 | 351.2 | 271.2 | Cayman Chemicals |
| PGF2 | 353.2 | 193.2 | Cayman Chemicals |
| LTB4 | 335.2 | 194.9 | Cayman Chemicals |
| PD1 | 359.2 | 152.9 | Cayman Chemicals |
|  |  |  |  |
| *Internal standards* |  |  |  |
| LPC(17:0) | 554.4 | 494.3 | Avanti Polar Lpids |
| *d5*-EPA | 306.1 | 262.0 | Cayman Chemicals |
| *d4*-PGE2 | 355.1 | 275.1 | Cayman Chemicals |

Quantification was performed based on the peak area of the MRM transition and calibration curve obtained with an authentic standard for each compound

**Table S6. A list of antibodies used in flow cytometry**

|  |  |  |  |
| --- | --- | --- | --- |
| Molecule | Clone | Fluorescent labeling | Source |
| CD11b | M1/70 | PE | BioLegend |
| CD11c | N418 | PE | eBioscience |
| F4/80 | BM8 | FITC | BioLegend |
| Gr-1 | RB6-8C5 | APC | BioLegend |
| IL-17A | eBio17B7 | APC | BioLegend |
| IL-22 | IL22JOP | APC | BioLegend |
| MHC-II | M5/114.15.2 | FITC | BioLegend |
| TCR | UC7-13D5 | FITC | BioLegend |