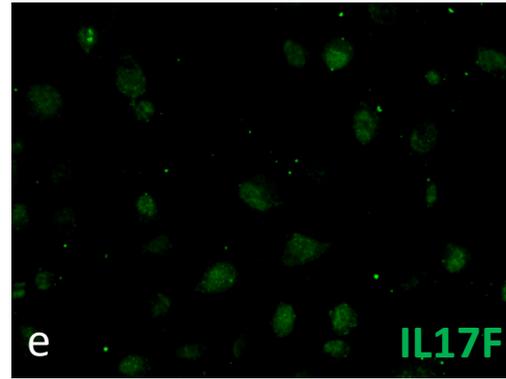
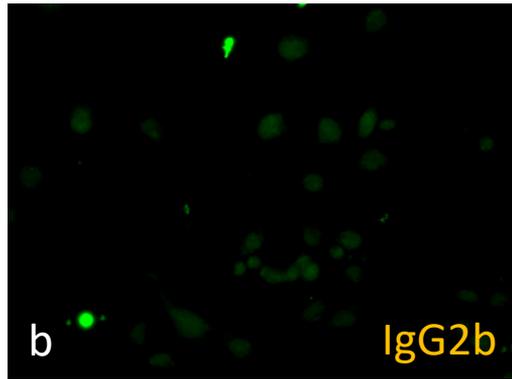
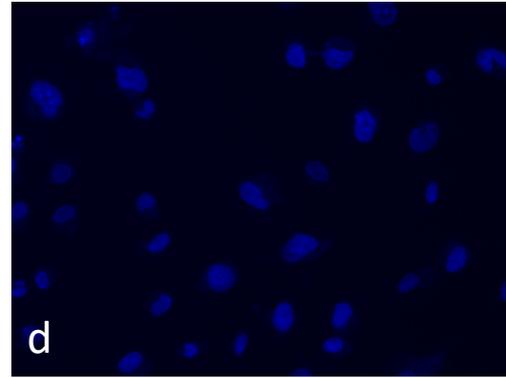
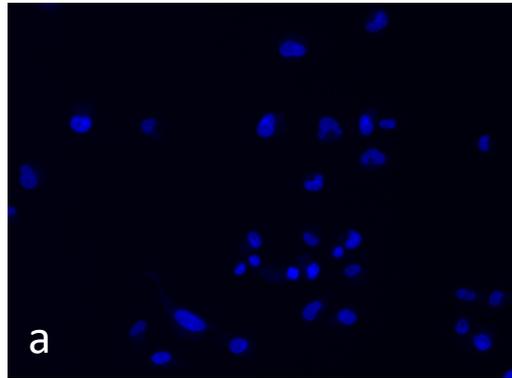


Controls

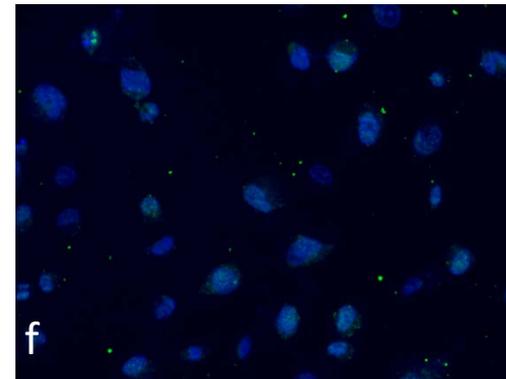
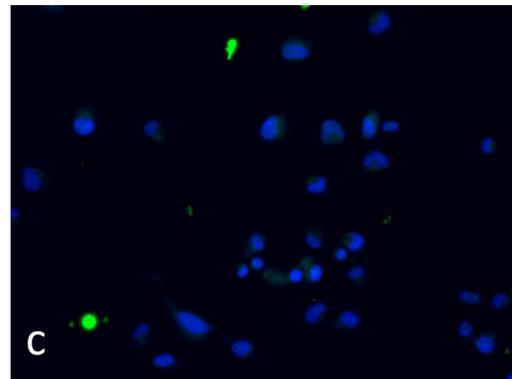
Isotype control

24 h culture control

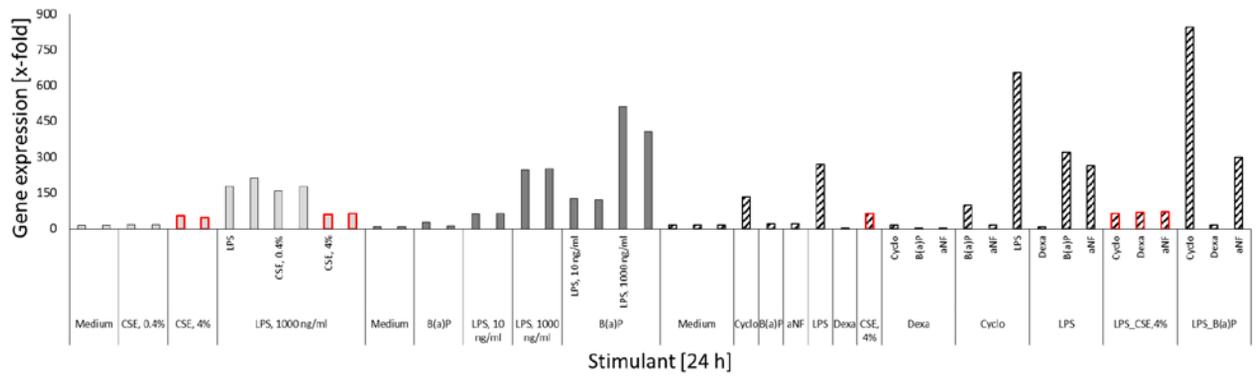
Hoechst 33342



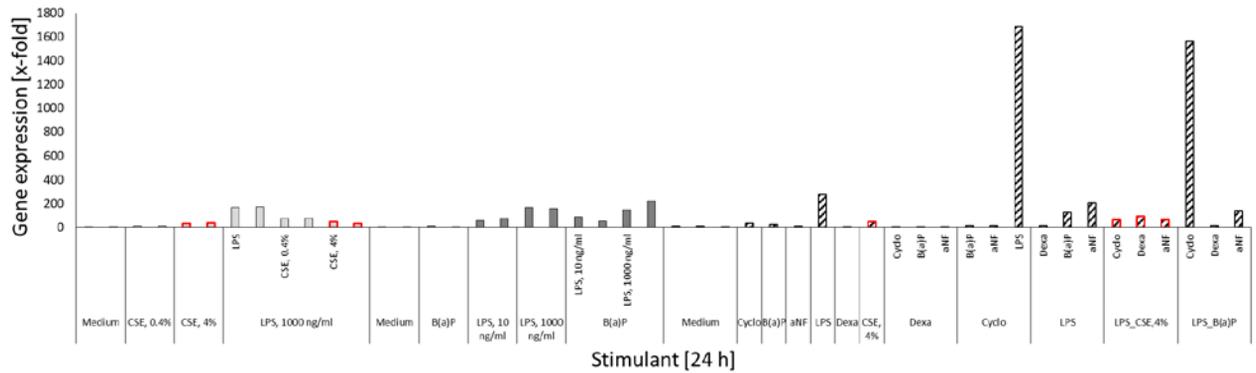
Overlay



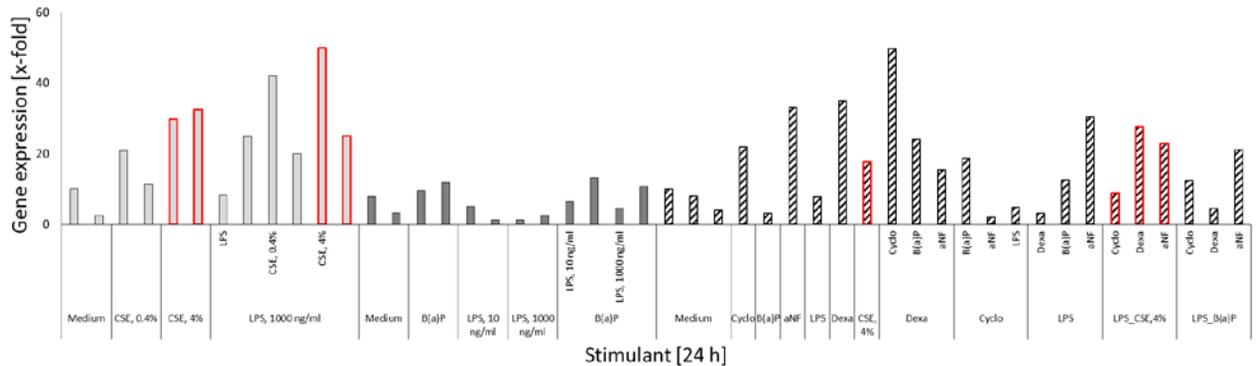
IL1B



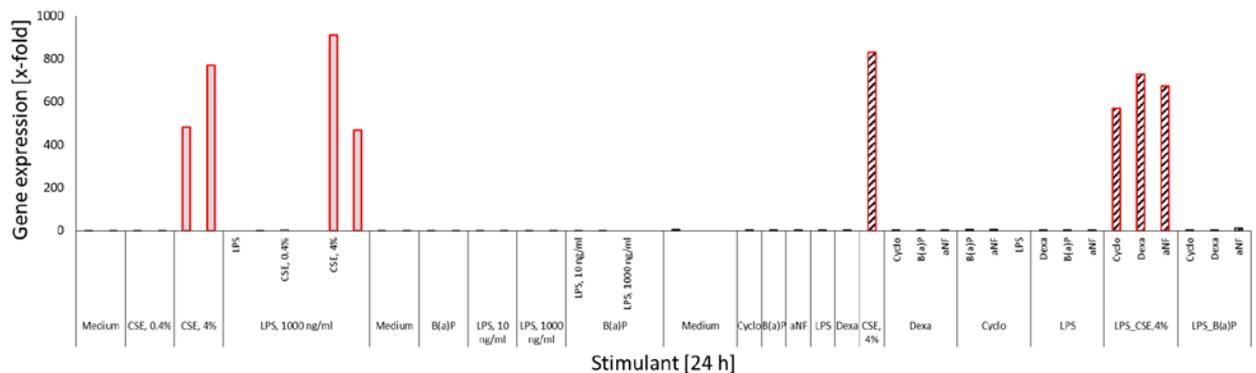
TNFA



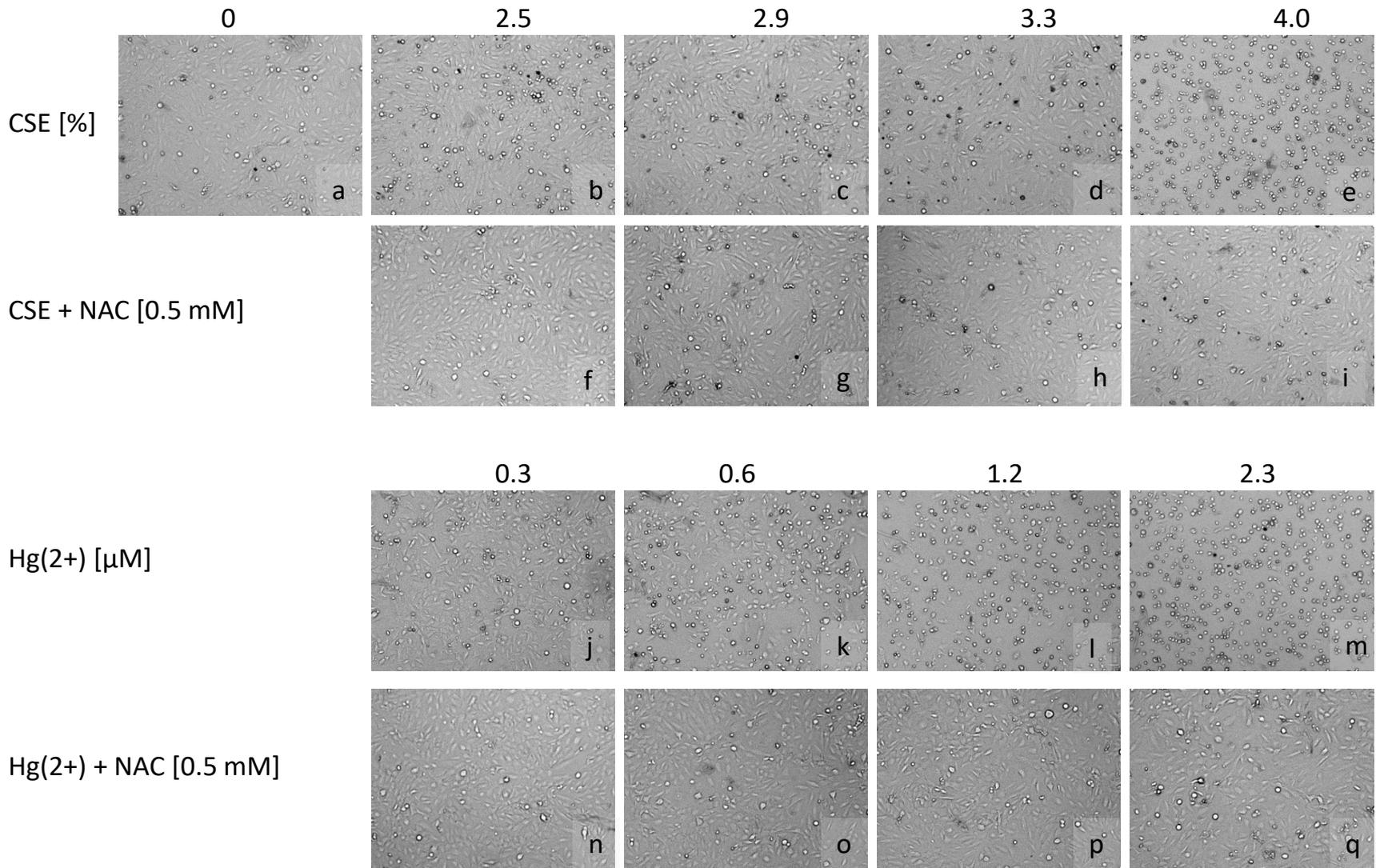
IL17A



IL17F



Stimulants of 3 independent exposure experiments (□, ■, ▨):
 Cyclo, cycloheximide (*translation inhibitor*)
 Dexa, dexamethasone (*immunosuppressive glucocorticoid*)
 aNF, alpha-naphthoflavone (*AhR-antagonist*)
 B(a)P, benz(a)pyrene (*AhR-agonist*)
 LPS, lipopolysaccharide (*TLR4-agonist*)
 CSE, aqueous cigarette smoking extract



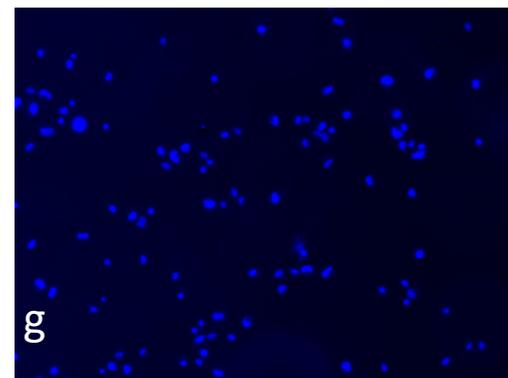
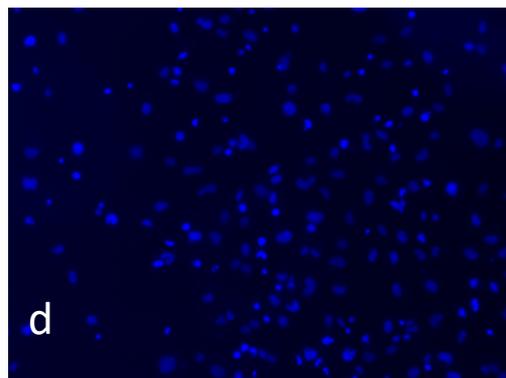
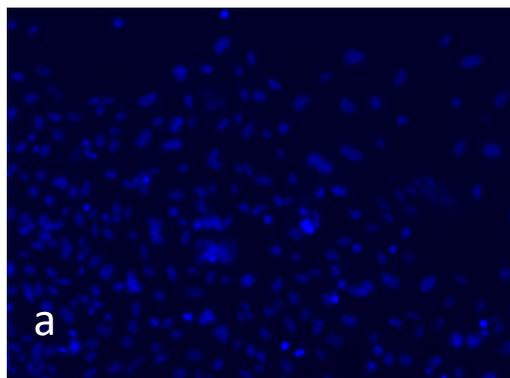
Supplementary Figure S3

24 h Control

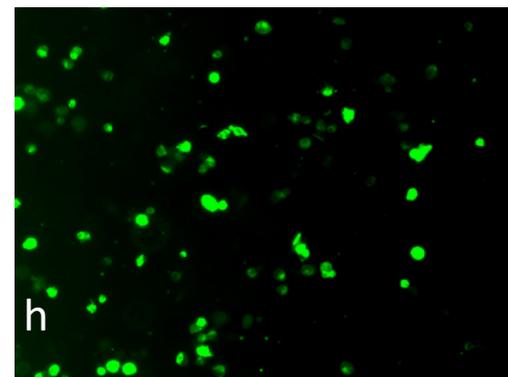
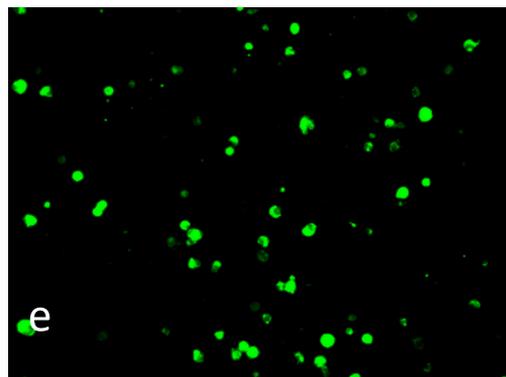
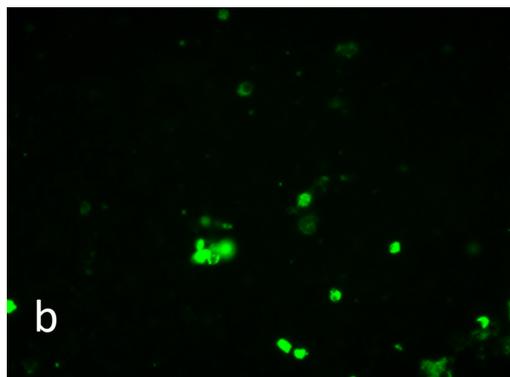
Brefeldin A

CSE (4%)

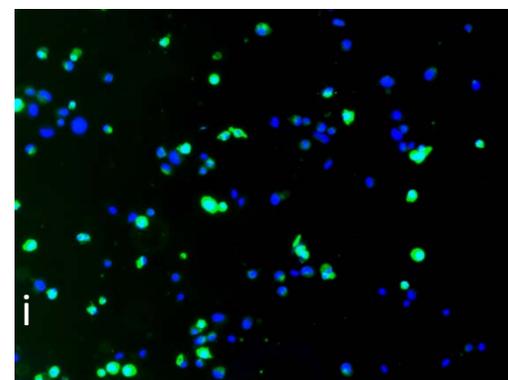
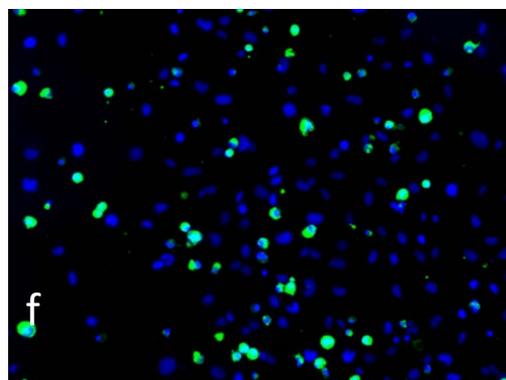
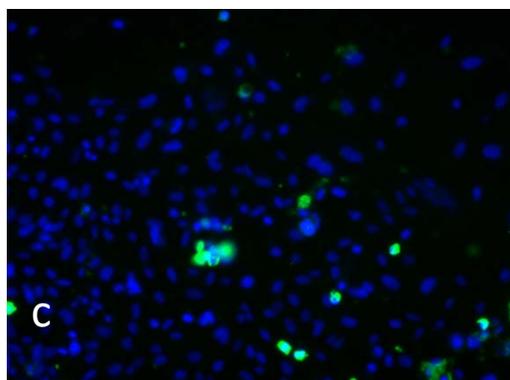
Hoechst 33342

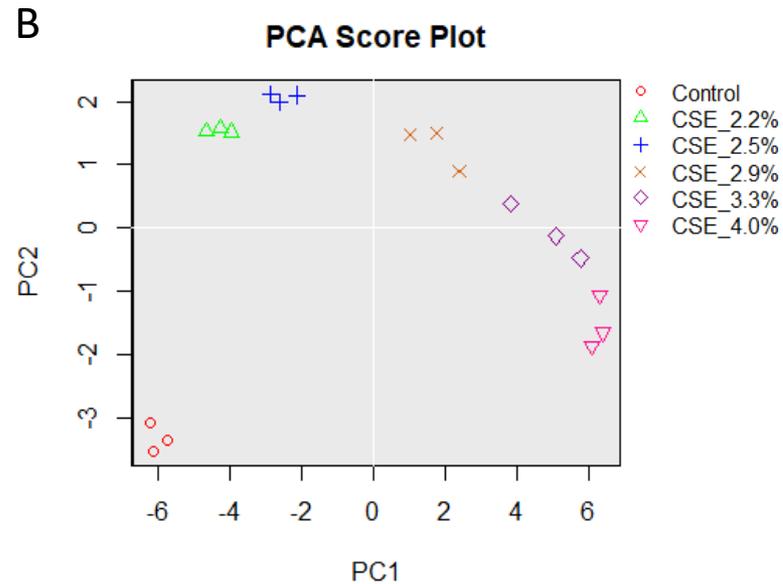
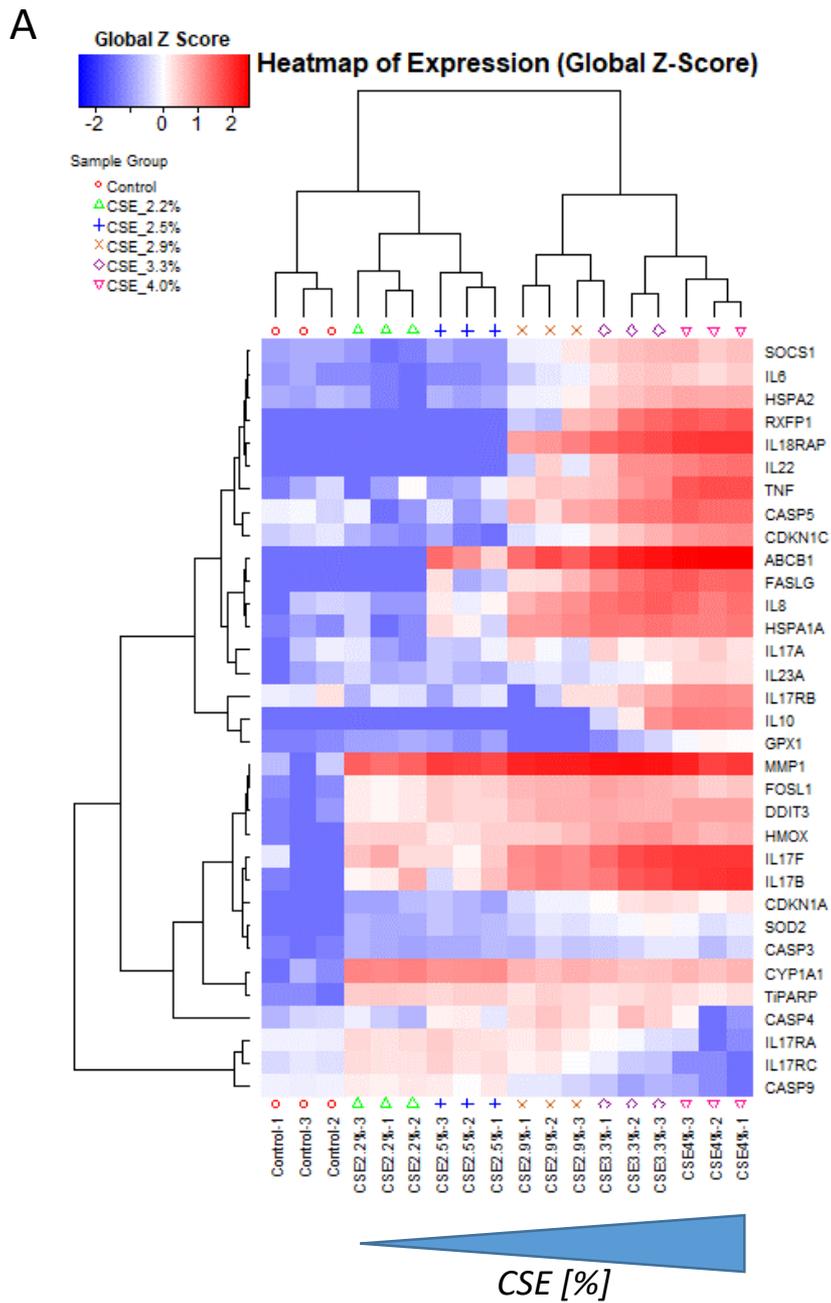


AnnexinV

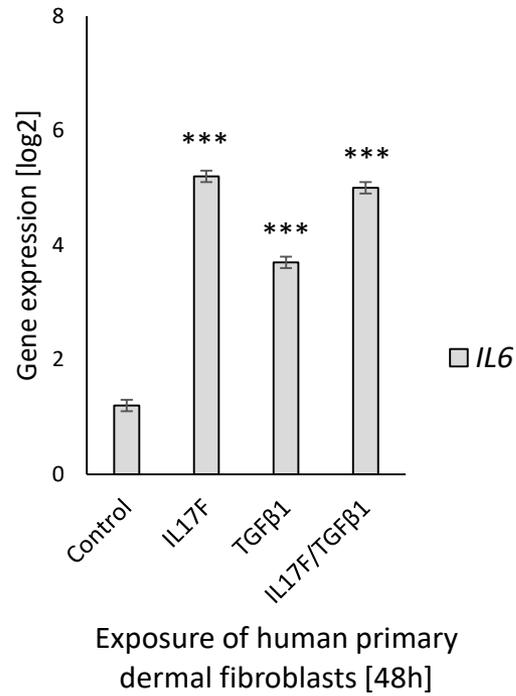


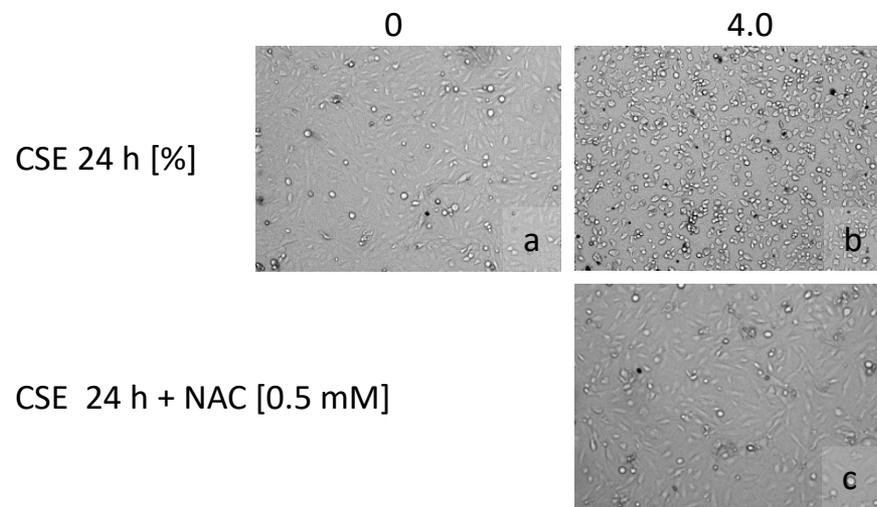
Overlay





Supplementary Figure S5





Supplementary Table S1: Primer sequences and universal probe library probes (UPL)
used for qPCR

| Gene | Primer_forward | Primer_reverse | UPL | Remarks |
|----------------|---------------------------|--------------------------|-----|-----------------------------|
| <i>ABCB1</i> | ccggtgggcaagtcarttcatt | ccggtcgggtgggatagttga | 66 | |
| <i>ACTA2</i> | gctgttttcccattcattgt | agggtgggatgctctcag | w/o | fibrosis |
| <i>CASP3</i> | ctggttttcggtgggtgt | ccactgagtttcagtggtctcc | 34 | |
| <i>CASP4</i> | ttcctggcaattgaaaatgg | tgcaagctgtactaatgaaggtg | 23 | |
| <i>CASP5</i> | cctcttctcctggcaattgaa | tgctctttgatgttgacagagg | 27 | |
| <i>CASP9</i> | cccaagctcttttcatcca | ttactgccaggggactcgt | 32 | |
| <i>CDKN1A</i> | ccgaggcactcagaggag | agctgctcgctgtccact | 70 | |
| <i>CDKN1C</i> | ctccttcccccttctctcg | tccatcgtggatgtgctg | 55 | |
| <i>COL1A1</i> | gtcgcactgggtgatgctg | gggtgtgtccacctcgag | w/o | fibrosis |
| <i>CYP1A1</i> | tccaagagtcacccttcc | aagcatgatcagtgaggatct | 66 | |
| <i>DDIT3</i> | aaggcactgagcgtatcatgt | tgaagatacactcctcttgaacac | 87 | |
| <i>FASLG</i> | tggggatgttcagctcttc | gtgtgatctggctgtaga | 17 | |
| <i>FN1</i> | ccagccacagctattcctg | acaaccacggatgagctg | w/o | isoform: ED-A FN1; fibrosis |
| <i>FOSL1</i> | aaccggagggaaggaactgac | ctgcagccagatttctca | 4 | |
| <i>GAPD</i> | gctctctgctcctcctgttc | acgaccaaatccgttgactc | 60 | reference gene |
| <i>GAPD</i> | gagtcaaccgatttgctgt | ttgattttggaggatctcgc | w/o | reference gene |
| <i>GPX1</i> | caaccagttgggcatcag | gtcacctcgcactctcgc | 77 | |
| <i>GUSB</i> | cgccctgctctatctgtattc | tcccacagggagtggtgtag | 57 | reference gene |
| <i>HMOX</i> | cagtcaggcagagggtgatag | cctgcaactcctcaagagac | 15 | |
| <i>HSPA1A</i> | ggagtcctacgccttcaaca | ccagcaccttcttctgtcg | 88 | |
| <i>HSPA2</i> | cgaggttacctcgacattga | tgtttccctaccgggtgctc | 70 | |
| <i>IL10</i> | gatgcctcagcagagtgaa | gcaaccaggtaaccttaaa | 67 | |
| <i>IL17A</i> | ccccaagcagttagactatgg | ttgaaggatgaggggtcctg | 23 | |
| <i>IL17B</i> | gtggatgtccaacaagaggag | ctggggtcgtggttgatg | 45 | |
| <i>IL17C</i> | ccctcagctacgaccaggt | cttctgtggatagcggctct | 16 | |
| <i>IL17D</i> | gccctgggctcactagaat | acgacgggtgggcatgtag | 27 | |
| <i>IL17E</i> | catgtaccaggctcagtgacaga | tctgctcctcctcctcag | 27 | |
| <i>IL17F</i> | ggcatcatcaatgaaaacca | tgggtcccaagtgacag | 10 | |
| <i>IL17RA</i> | gtcatcctgctcatcgtctg | tggtgtcatcactgtattttcact | 85 | |
| <i>IL17RB</i> | tgtcgtcgtgctgctaa | actctggagatggcccaggt | 21 | |
| <i>IL17RC</i> | cgaagctggaacagcatcc | cagatgcacggtgtcacat | 3 | |
| <i>IL18RAP</i> | cagatattctggatcctgctcag | tgctttgcagctaatagttaaagg | 47 | |
| <i>IL22</i> | caacaggctaagcacatgtca | actgtgcctcagcttttgc | 6 | |
| <i>IL23A</i> | cagcttcatgctcctcctact | gactgaggcttggaaatctgc | 14 | |
| <i>IL6</i> | gatgagtacaaaagctcctgatcca | ctgcagccactggttctgt | 40 | |
| <i>IL6</i> | ccccagtagccccaggagaagat | gctgagatgccgtcagggatgta | w/o | |
| <i>IL8</i> | agacagcagagcacacaagc | aggaaggctccaagagag | 72 | |
| <i>MMP1</i> | acgaattgcccagagagat | gtccttggggatccctgta | 26 | |
| <i>MUC5AC</i> | agcaccagtgcccaagctct | actcctggcagtcctatgc | 43 | |
| <i>PALLD</i> | ttgaagggtccagttcaaca | tcaggctggcagagatatga | w/o | fibrosis |
| <i>PGK1</i> | ctgtgggggtatttgaatgg | ctccaggagctccaactg | w/o | reference gene |
| <i>PPIA</i> | ttcatctgcactgccaagac | tcgagttgtccacagtcagc | w/o | reference gene |
| <i>RORC</i> | cagcgtccaacatcttct | ccacatctcccacatggact | 69 | |
| <i>RXFP1</i> | tggagtatgcttccctctca | tgccggccaaattaatacca | 59 | |
| <i>SOCS1</i> | cccctggtgtgtgtagcag | gtaggagggtcgcagttcagg | 36 | |
| <i>SOCS3</i> | gactcagattcgggaccag | aactgtctgtgggtgacat | 70 | |
| <i>SOD2</i> | ctggacaaacctcagcccta | tgatggcttccagcaactc | 77 | |
| <i>TIPARP</i> | ggaaattctctgtagggacca | gttggcttctcaatcaatcg | 58 | |
| <i>TNF</i> | cagccttctcctctctgat | gccagaggctgattagaga | 29 | |

Supplementary Table S2. Change in gene expression (mean, x-fold) compared to control after 24 h of exposure.
highlighted are values with p<0.0013 (Bonferroni correction)

| Cell type | | BEAS | | | | | | | | | | THP-1 | | | | | | | | | | PBMC | |
|----------------|--|---|---------|--------------|---------|---------------|---------|---------------|---------|----------------|---------|--------------|---------|---------------|---------|--------------|---------|--------------|---------|---------------|---------|------|--|
| Exposure | | Aqueous cigarette smoke extract (CSE) [%] | | | | | | | | | | | | | | | | | | | | | |
| | | 2.2 | | 2.5 | | 2.9 | | 3.3 | | 4.0 | | 2.2 | | 2.9 | | 4.0 | | 5.0 | | 4.0 | | | |
| Gene | Function | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | | |
| <i>RXFP1</i> | adhesion, relaxin receptor | 1.0 | 0.9616 | 1.0 | 0.6854 | 1.2 | 0.8748 | 18.1 | 0.0494 | 83.1 | 0.0012 | -3.8 | 0.0345 | -21.7 | 0.0030 | -2.3 | 0.0082 | -1.9 | 0.0082 | n.d. | | | |
| <i>CASP3</i> | apoptosis | 1.3 | 0.0020 | 1.4 | 0.0026 | 1.7 | 0.0021 | 2.0 | <0.001 | 1.9 | 0.0072 | 1.4 | 0.0387 | 1.6 | 0.0081 | 1.8 | 0.0237 | 1.1 | 0.4855 | 1.8 | 0.0138 | | |
| <i>CASP4</i> | apoptosis | 1.0 | 0.8182 | 1.9 | 0.0389 | 3.5 | 0.0017 | 3.4 | 0.0152 | -1.2 | 0.7507 | 1.6 | 0.3637 | 3.6 | 0.0032 | -1.5 | 0.0809 | -1.7 | 0.0179 | -3.8 | 0.0011 | | |
| <i>CASP5</i> | apoptosis | -1.7 | 0.2078 | -1.5 | 0.1899 | 4.0 | 0.0124 | 22.1 | 0.0063 | 49.3 | <0.001 | 2.4 | 0.0191 | 17.1 | 0.0043 | 41.0 | 0.0012 | 5.5 | 0.0220 | -1.7 | 0.0108 | | |
| <i>CASP9</i> | apoptosis | 1.5 | <0.001 | 1.5 | 0.0140 | -1.2 | 0.0401 | -1.8 | 0.0010 | -2.4 | <0.001 | 1.4 | 0.0442 | 3.0 | 0.0082 | -1.8 | 0.0201 | -1.3 | 0.1159 | 1.3 | 0.0223 | | |
| <i>FASLG</i> | apoptosis | 1.1 | 0.8468 | 12.6 | 0.0035 | 36.3 | <0.001 | 372.4 | <0.001 | 807.1 | <0.001 | 1.0 | 0.8091 | 1.0 | 0.7071 | 4.6 | <0.001 | 154.0 | <0.001 | -4.8 | 0.0010 | | |
| <i>FOSL1</i> | apoptosis | 3.9 | <0.001 | 6.4 | <0.001 | 11.6 | <0.001 | 14.5 | <0.001 | 8.0 | <0.001 | 2.4 | 0.0290 | 10.6 | 0.0053 | 5.1 | 0.0141 | 3.4 | 0.0018 | 4.0 | <0.001 | | |
| <i>TIPARP</i> | cellular stress, DNA damage | 6.7 | <0.001 | 6.2 | <0.001 | 5.4 | <0.001 | 5.3 | <0.001 | 4.5 | <0.001 | 2.6 | 0.0045 | 8.2 | <0.001 | 5.9 | <0.001 | 4.6 | <0.001 | 1.9 | 0.0158 | | |
| <i>HSPA1A</i> | cellular stress | 1.1 | 0.8068 | 3.0 | 0.0229 | 25.3 | <0.001 | 58.2 | <0.001 | 47.8 | <0.001 | 2.0 | 0.0016 | 17.2 | <0.001 | 144.4 | <0.001 | 38.6 | 0.0030 | 17.4 | <0.001 | | |
| <i>HSPA2</i> | cellular stress | -1.3 | 0.1095 | -1.0 | 0.8171 | 2.2 | 0.0049 | 6.4 | <0.001 | 11.6 | <0.001 | 1.4 | 0.0042 | 3.2 | 0.0038 | 16.4 | <0.001 | 13.5 | <0.001 | 15.5 | <0.001 | | |
| <i>ABCB1</i> | drug metabolism | 1.0 | 0.3739 | 7.7 | 0.0674 | 61.6 | <0.001 | 1212.8 | <0.001 | 13809.1 | <0.001 | -1.4 | 0.4226 | 7.1 | 0.0226 | 64.6 | 0.0059 | 63.7 | 0.0061 | -2.5 | 0.0056 | | |
| <i>CYP1A1</i> | drug metabolism, AhR-related | 37.7 | <0.001 | 25.4 | <0.001 | 10.1 | <0.001 | 8.2 | <0.001 | 9.3 | <0.001 | 9.6 | 0.0071 | 44.7 | 0.0025 | 1.7 | 0.3108 | 1.6 | 0.2420 | -151.2 | <0.001 | | |
| <i>IL17A</i> | IL17 family | -1.1 | 0.8896 | 1.3 | 0.4676 | 2.1 | 0.1510 | 3.0 | 0.0261 | 3.5 | 0.0141 | 1.5 | 0.2189 | 6.4 | 0.0622 | 10.2 | 0.0411 | 9.8 | 0.0081 | -1.4 | 0.6898 | | |
| <i>IL17B</i> | IL17 family | 6.0 | 0.0440 | 4.4 | 0.0861 | 39.2 | <0.001 | 171.4 | 0.0054 | 1043.1 | <0.001 | 1.8 | 0.1487 | 1.1 | 0.8091 | 7.9 | <0.001 | 4.4 | 0.0181 | 4.2 | <0.001 | | |
| <i>IL17C</i> | IL17 family | 1.4 | 0.2349 | 1.2 | 0.6855 | 2.3 | 0.1215 | 2.7 | 0.0043 | -1.1 | 0.8524 | 2.3 | 0.1856 | -1.2 | 0.8793 | 2.3 | 0.7950 | 1.7 | 0.5188 | -5.2 | 0.0011 | | |
| <i>IL17D</i> | IL17 family | -1.1 | 0.7222 | -1.1 | 0.8848 | 1.2 | 0.3880 | 1.3 | 0.2243 | 1.1 | 0.7007 | -1.1 | 0.6610 | -2.7 | 0.3362 | 1.2 | 0.9775 | -1.1 | 0.9046 | 1.1 | 0.2050 | | |
| <i>IL17E</i> | IL17 family | 1.1 | 0.9646 | -1.2 | 0.7165 | 1.1 | 0.4878 | 1.0 | 0.8253 | 0.9 | 0.6754 | -1.2 | 0.8371 | 1.0 | 0.6400 | 1.1 | 0.5378 | 1.1 | 0.4502 | 1.3 | 0.1959 | | |
| <i>IL17F</i> | IL17 family | 8.1 | 0.0251 | 6.4 | 0.3416 | 42.2 | <0.001 | 272.8 | <0.001 | 769.4 | <0.001 | 5.4 | 0.7329 | 6.1 | 0.4226 | 288.2 | <0.001 | 301.3 | <0.001 | 198.5 | <0.001 | | |
| <i>IL17RA</i> | IL17 receptor family | 2.0 | <0.001 | 2.1 | 0.0060 | 1.7 | 0.0117 | 1.0 | 0.7836 | -2.1 | 0.0334 | 1.5 | 0.1109 | -1.2 | 0.1947 | -1.8 | 0.0363 | -1.1 | 0.3037 | -3.5 | <0.001 | | |
| <i>IL17RB</i> | IL17 receptor family | -1.5 | 0.1861 | -1.6 | 0.1837 | -1.5 | 0.5033 | 2.8 | 0.0519 | 10.7 | <0.001 | 2.2 | 0.1829 | 7.7 | 0.0261 | 43.7 | 0.0076 | 8.2 | 0.0261 | -2.2 | 0.0069 | | |
| <i>IL17RC</i> | IL17 receptor family | 2.3 | <0.001 | 2.5 | 0.0011 | 1.7 | 0.0052 | -1.1 | 0.4969 | -2.1 | <0.001 | 3.1 | <0.001 | 2.9 | 0.0399 | -1.4 | 0.5778 | 1.0 | 0.8845 | 3.3 | 0.0015 | | |
| <i>IL23A</i> | IL17-related | 1.3 | 0.2480 | 1.2 | 0.2652 | 1.7 | 0.0230 | 2.2 | 0.0098 | 4.4 | <0.001 | 1.2 | 0.0423 | -1.1 | 0.2979 | 1.4 | 0.2021 | 1.9 | 0.0503 | 1.2 | 0.2451 | | |
| <i>RORC</i> | IL17-related | -3.1 | <0.001 | -9.8 | 0.0290 | -46.2 | 0.0013 | -16.9 | <0.001 | -22.0 | 0.0135 | -1.4 | 0.6345 | -1.0 | 0.8648 | -1.2 | 0.3748 | -1.4 | 0.5748 | 1.1 | 0.9073 | | |
| <i>IL10</i> | inflammation | 1.0 | 0.8838 | 1.0 | 0.2283 | 1.0 | 0.1819 | 6.9 | 0.1589 | 85.5 | <0.001 | -1.8 | 0.0042 | -2.7 | 0.0078 | -3.9 | 0.0011 | -10.4 | <0.001 | -6.8 | <0.001 | | |
| <i>IL18RAP</i> | inflammation | 1.1 | 0.8446 | -1.2 | 0.7546 | 15.7 | <0.001 | 159.0 | <0.001 | 674.8 | <0.001 | -1.2 | 0.3915 | -1.3 | 0.4615 | -1.2 | 0.8053 | -2.5 | 0.8233 | 1.3 | 0.2627 | | |
| <i>IL22</i> | inflammation | 3.7 | 0.0037 | 4.2 | 0.1220 | 2.4 | 0.1931 | 16.1 | 0.0190 | 52.1 | <0.001 | 1.1 | 0.3314 | 1.0 | 0.8091 | 5.4 | 0.0098 | 61.0 | <0.001 | 22.7 | <0.001 | | |
| <i>IL6</i> | inflammation | -1.2 | 0.1164 | -1.0 | 0.4350 | 1.9 | 0.0132 | 5.8 | <0.001 | 5.4 | <0.001 | 1.0 | 0.3911 | 2.7 | 0.0555 | 2.9 | 0.0286 | 1.0 | 0.8092 | -4.2 | <0.001 | | |
| <i>IL8</i> | inflammation | -1.1 | 0.7886 | 2.3 | 0.0343 | 13.0 | 0.0018 | 77.4 | <0.001 | 53.4 | <0.001 | 5.6 | <0.001 | 33.6 | <0.001 | 6.1 | 0.0220 | 5.1 | 0.0018 | -1.5 | <0.001 | | |
| <i>TNF</i> | inflammation | 1.1 | 0.7759 | 1.2 | 0.6354 | 5.0 | 0.0028 | 14.7 | 0.0059 | 217.8 | <0.001 | 4.0 | 0.0043 | 4.6 | 0.0019 | 2.7 | 0.0368 | 3.4 | 0.0196 | 1.6 | 0.0058 | | |
| <i>DDIT3</i> | marker of ER stress | 3.8 | <0.001 | 5.8 | <0.001 | 11.2 | <0.001 | 12.9 | <0.001 | 16.9 | <0.001 | 3.7 | <0.001 | 7.6 | <0.001 | 4.7 | <0.001 | 5.4 | <0.001 | 5.9 | <0.001 | | |
| <i>MUC5AC</i> | mucosa protection, IL17-related | 1.4 | 0.1527 | -3.7 | 0.1697 | -6.0 | 0.0142 | 2.9 | 0.2775 | 15.9 | <0.001 | n.d. | | n.d. | | n.d. | | n.d. | | n.d. | | | |
| <i>CDKN1C</i> | negative regulator of cell proliferation | -1.7 | 0.0082 | -1.8 | 0.0083 | 1.3 | 0.0897 | 3.9 | 0.0053 | 14.3 | <0.001 | 8.2 | 0.0025 | 22.1 | <0.001 | 54.5 | <0.001 | 51.4 | <0.001 | 7.4 | <0.001 | | |
| <i>SOD2</i> | oxidative stress | 1.4 | <0.001 | 1.6 | <0.001 | 2.1 | <0.001 | 3.0 | <0.001 | 2.6 | <0.001 | 1.7 | 0.0454 | 2.8 | 0.0031 | 5.0 | <0.001 | 3.1 | 0.0030 | -2.3 | <0.001 | | |
| <i>HMOX</i> | oxidative stress, NRF2-related | 6.8 | <0.001 | 5.5 | <0.001 | 8.0 | <0.001 | 21.6 | <0.001 | 13.8 | <0.001 | 157.2 | <0.001 | 1855.4 | <0.001 | 424.2 | <0.001 | 32.7 | 0.0021 | 1.2 | 0.0533 | | |
| <i>GPX1</i> | peroxidase | 1.2 | 0.0036 | 1.1 | 0.0520 | -1.1 | 0.0118 | 1.4 | 0.1027 | 3.1 | <0.001 | 1.1 | 0.3314 | -2.0 | 0.0212 | 1.6 | 0.0216 | 2.2 | 0.0111 | -2.6 | <0.001 | | |
| <i>CDKN1A</i> | senescence | 1.4 | 0.0051 | 1.5 | 0.0116 | 2.6 | <0.001 | 4.6 | <0.001 | 4.5 | <0.001 | 3.1 | 0.0036 | 5.8 | <0.001 | 4.9 | <0.001 | 2.5 | <0.001 | 2.4 | <0.001 | | |
| <i>SOCS1</i> | suppressor of cytokine signaling | -1.2 | 0.0369 | -1.1 | 0.1766 | 2.3 | 0.0074 | 6.9 | <0.001 | 7.1 | <0.001 | 7.4 | 0.0011 | 25.2 | <0.001 | 35.0 | <0.001 | 27.2 | <0.001 | -1.4 | 0.0130 | | |
| <i>SOCS3</i> | SOCS, IL-17-related | 1.2 | 0.3953 | 1.0 | 0.9446 | -1.9 | 0.2742 | 1.7 | 0.0969 | 1.9 | 0.0259 | 4.2 | 0.0074 | 2.3 | 0.6923 | 10.5 | 0.0261 | 3.9 | 0.0837 | 4.2 | <0.001 | | |
| <i>MMP1</i> | tissue remodeling, collagenase | 89.8 | <0.001 | 503.8 | <0.001 | 3727.9 | <0.001 | 9200.5 | <0.001 | 1077.4 | <0.001 | 9.5 | 0.0903 | 10.9 | 0.0532 | 12.2 | 0.0013 | 4.7 | <0.001 | -21.1 | <0.001 | | |

n.d.; not detectable

| Cell type | | BEAS | | | | | | | | | | | | | |
|-----------|--|--------------|---------|--------|---------|--------|---------|--------|---------|--------------|---------|--------|---------|------------------|---------|
| Exposure | | Mercury [µM] | | | | | | | | Cadmium [µM] | | | | Brefeldin A [µM] | |
| | | 0.29 | | 0.58 | | 1.2 | | 2.3 | | 19 | | 38 | | 17.8 | |
| Gene | Function | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value | x-fold | p-value |
| RXFP1 | adhesion, relaxin receptor | 1.0 | 0.3150 | 1.0 | 0.1128 | 9.9 | <0.001 | 42.4 | 0.0287 | 1.0 | 0.6410 | 118.2 | <0.001 | 1.1 | 0.8856 |
| CASP3 | apoptosis | -1.3 | 0.0076 | -1.3 | 0.0399 | -1.1 | 0.4378 | -1.3 | 0.0190 | -1.5 | <0.001 | -5.8 | <0.001 | 2.5 | 0.0044 |
| CASP4 | apoptosis | -1.0 | 0.9863 | 4.3 | 0.0374 | 1.8 | 0.4033 | 2.1 | 0.3617 | -5.7 | 0.0254 | 1.2 | 0.7278 | -1.1 | 0.9654 |
| CASP5 | apoptosis | 1.1 | 0.8088 | 1.8 | 0.1504 | 8.1 | 0.0093 | 33.5 | <0.001 | 1.3 | 0.5748 | 40.7 | <0.001 | 1.1 | 0.8946 |
| CASP9 | apoptosis | -1.4 | <0.001 | -2.4 | <0.001 | -3.1 | <0.001 | -3.7 | <0.001 | -1.6 | <0.001 | -2.0 | <0.001 | 2.0 | 0.0028 |
| FASLG | apoptosis | 1.0 | 0.3092 | 3.2 | 0.0101 | 8.2 | <0.001 | 50.7 | <0.001 | 1.0 | 0.6521 | 17.1 | <0.001 | -1.1 | 0.9854 |
| FOSL1 | apoptosis | 1.8 | 0.0011 | 4.2 | <0.001 | 7.6 | <0.001 | 5.4 | <0.001 | 3.0 | <0.001 | 15.0 | <0.001 | 3.2 | 0.0598 |
| TIPARP | cellular stress, DNA damage | -1.0 | 0.9820 | 1.4 | 0.0142 | 2.5 | <0.001 | 3.3 | <0.001 | 1.2 | 0.2252 | 3.2 | <0.001 | 2.4 | 0.2065 |
| HSPA1A | cellulare stress | -1.4 | 0.0076 | 19.9 | <0.001 | 44.4 | <0.001 | 101.0 | <0.001 | 4.4 | <0.001 | 134.3 | <0.001 | -2.7 | 0.0506 |
| HSPA2 | cellulare stress | -1.7 | <0.001 | 1.4 | 0.0385 | 3.4 | <0.001 | 10.5 | <0.001 | -1.2 | 0.0370 | 1.6 | <0.001 | -3.5 | 0.0483 |
| ABCB1 | drug metabolism | -1.0 | 0.1778 | 8.5 | <0.001 | 37.2 | <0.001 | 619.9 | <0.001 | 3.1 | 0.0417 | 1791.1 | <0.001 | 1.0 | 0.8654 |
| CYP1A1 | drug metabolism, AhR-related | -1.4 | 0.2777 | -1.3 | 0.3150 | 1.2 | 0.3502 | 1.7 | 0.1747 | 1.2 | 0.6300 | 5.2 | <0.001 | 1.6 | 0.3100 |
| IL17A | IL17 family | 1.1 | 0.3042 | 3.1 | 0.0897 | 1.6 | <0.001 | 6.2 | 0.0039 | -1.6 | 0.0211 | 4.2 | <0.001 | -2.2 | 0.4599 |
| IL17B | IL17 family | -4.1 | 0.2307 | 1.2 | 0.5829 | 6.5 | 0.0087 | 80.8 | <0.001 | 1.3 | 0.5405 | 103.5 | <0.001 | 6.1 | 0.0748 |
| IL17C | IL17 family | -2.5 | 0.1471 | 1.3 | 0.6835 | -2.2 | 0.2333 | -1.1 | 0.8580 | -1.3 | 0.6571 | -1.6 | 1.0000 | -2.5 | 0.3264 |
| IL17D | IL17 family | -2.1 | 0.0030 | -4.3 | <0.001 | -2.5 | 0.0039 | -1.7 | 0.0352 | -1.5 | 0.0957 | -1.2 | 0.3854 | 4.9 | 0.0107 |
| IL17E | IL17 family | -1.3 | 0.3483 | -1.1 | 0.2844 | 1.5 | 0.5317 | 1.1 | 0.6270 | 1.2 | 0.4423 | -1.1 | 0.2979 | 1.1 | 0.8246 |
| IL17F | IL17 family | 2.3 | 0.2817 | 2.4 | 0.1188 | 4.0 | 0.1040 | 38.5 | <0.001 | 1.0 | 1.0000 | 32.0 | <0.001 | 14.9 | 0.0124 |
| IL17RA | IL17 receptor family | 1.1 | 0.3091 | -1.0 | 0.9317 | -1.5 | 0.0245 | -2.3 | <0.001 | -1.3 | 0.0927 | -1.7 | 0.0069 | 2.3 | 0.0078 |
| IL17RB | IL17 receptor family | -2.3 | 0.0071 | -2.5 | 0.0051 | 1.3 | 0.5581 | 6.7 | <0.001 | -1.6 | 0.1211 | -1.3 | 0.3476 | 3.6 | <0.001 |
| IL17RC | IL17 receptor family | 1.2 | 0.0261 | -1.3 | 0.0037 | -1.9 | 0.0011 | -4.9 | <0.001 | -1.2 | 0.0433 | -2.1 | <0.001 | 3.7 | 0.0036 |
| IL23A | IL17-related | -1.1 | 0.5298 | 1.6 | 0.3032 | 1.1 | 0.6200 | 5.0 | <0.001 | 1.2 | 0.1997 | 10.7 | <0.001 | 1.1 | 0.8846 |
| RORC | IL17-related | -3.7 | 0.4175 | -6.7 | 0.6251 | -5.4 | 0.3725 | -15.9 | 0.2740 | -3.3 | 0.0626 | -10.5 | 0.1460 | -1.1 | 0.3858 |
| IL10 | inflammation | 1.0 | 0.9317 | 1.0 | 0.5581 | 2.2 | 0.0328 | 25.6 | <0.001 | 1.0 | 0.2258 | 139.7 | <0.001 | 1.0 | 0.6200 |
| IL18RAP | inflammation | 1.0 | 1.0000 | 1.8 | 0.0047 | 20.1 | <0.001 | 343.9 | <0.001 | 21.0 | <0.001 | 2290.8 | <0.001 | 1.0 | 1.0000 |
| IL22 | inflammation | 1.0 | 0.3715 | -1.9 | 0.3896 | 2.6 | 0.1299 | 3.6 | 0.0202 | 1.0 | 0.8977 | 15.2 | 0.0017 | 1.0 | 1.0000 |
| IL6 | inflammation | -1.3 | 0.3433 | -1.4 | 0.2444 | 1.5 | 0.1935 | 7.9 | <0.001 | 1.7 | 0.1075 | 8.8 | <0.001 | 5.0 | 0.0631 |
| IL8 | inflammation | 2.0 | <0.001 | 6.4 | <0.001 | 14.2 | <0.001 | 53.7 | <0.001 | 4.3 | <0.001 | 133.6 | <0.001 | -1.8 | 0.5608 |
| TNF | inflammation | -1.4 | 0.2795 | -1.1 | 0.7895 | 2.5 | 0.0274 | 13.1 | <0.001 | -1.0 | 0.9472 | 58.5 | <0.001 | -1.7 | 0.4784 |
| DDIT3 | marker of ER stress | 1.1 | 0.2167 | 3.4 | <0.001 | 7.1 | <0.001 | 12.1 | <0.001 | 1.8 | <0.001 | 17.5 | <0.001 | 40.5 | <0.001 |
| MUC5AC | mucosa protection, IL17-related | -6.6 | 0.1016 | -1.5 | 0.3155 | 5.0 | <0.001 | 45.1 | <0.001 | 2.8 | 0.0033 | 260.8 | <0.001 | -5.2 | 0.4668 |
| CDKN1C | negative regulator of cell proliferation | -2.7 | <0.001 | 2.0 | 0.0013 | 8.0 | <0.001 | 20.8 | <0.001 | 2.7 | <0.001 | 189.3 | <0.001 | -1.5 | 0.5387 |
| SOD2 | oxidative stress | -1.3 | 0.0554 | 1.2 | 0.1209 | 2.0 | <0.001 | 3.1 | <0.001 | -1.0 | 0.8987 | -1.4 | 0.0033 | -1.0 | 0.9972 |
| HMOX | oxidative stress, NRF2-related | 6.5 | <0.001 | 29.2 | <0.001 | 44.0 | <0.001 | 56.6 | <0.001 | 29.2 | <0.001 | 244.2 | <0.001 | 3.4 | 0.0019 |
| GPX1 | peroxidase | -3.6 | <0.001 | -7.0 | <0.001 | -7.0 | <0.001 | -4.1 | <0.001 | -3.4 | <0.001 | -1.8 | <0.001 | -1.4 | 0.5633 |
| CDKN1A | senescence | -1.5 | <0.001 | 1.4 | <0.001 | 3.9 | <0.001 | 6.0 | <0.001 | -1.7 | <0.001 | 1.8 | <0.001 | 3.1 | 0.0161 |
| SOCS1 | suppressor of cytokine signaling | -2.8 | <0.001 | -1.1 | 0.7065 | 2.0 | <0.001 | 5.9 | <0.001 | -1.1 | 0.0252 | 10.3 | <0.001 | -3.5 | 0.1888 |
| SOCS3 | SOCS, IL-17-related | -2.0 | 0.0128 | -5.1 | 0.0348 | -2.3 | 0.0067 | -1.5 | 0.2750 | -1.7 | 0.0446 | -1.2 | 0.5075 | -1.5 | 0.7428 |
| MMP1 | tissue remodeling, collagenase | 10.4 | <0.001 | 170.7 | <0.001 | 814.2 | <0.001 | 1834.1 | <0.001 | 53.5 | <0.001 | 494.3 | <0.001 | 6.2 | 0.0288 |

n.d.; not detectable