# Summary of significant differences by karyotype and model

# Significant effects of T21 after adjustment for age, sex, and sample source (Model 1)

## **Model specification** log2(Concentration) ~ T21 + Age + Female sex + (1|Source)

## **Samples analyzed** T21 + D21

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panel | Analyte | **log2FC** | **SE** | **P** | **CI.low** | **CI.high** | **FDR** | **Rank** |
| Cytokine2 | TSLP | 1.6684 | 0.1734 | 4.1E-20 | 1.3286 | 2.0082 | 2.2E-18 | 1 |
| Proinflammatory | IL-10 | 0.9934 | 0.1064 | 1.7E-16 | 0.7848 | 1.2020 | 4.5E-15 | 2 |
| Cytokine2 | IL-17D | 1.2338 | 0.1643 | 3.1E-13 | 0.9117 | 1.5559 | 5.6E-12 | 3 |
| Angiogenesis | PlGF | 0.5314 | 0.0752 | 5.9E-12 | 0.3841 | 0.6788 | 7.9E-11 | 4 |
| Proinflammatory | TNF-alpha | 0.3811 | 0.0536 | 9.1E-12 | 0.2761 | 0.4861 | 9.8E-11 | 5 |
| Cytokine2 | IL-17C | 1.4321 | 0.2104 | 3.1E-11 | 1.0196 | 1.8445 | 2.8E-10 | 6 |
| Proinflammatory | IL-6 | 0.8627 | 0.1294 | 1.9E-10 | 0.6090 | 1.1163 | 1.4E-09 | 7 |
| VascularInjury | CRP | 1.7323 | 0.2356 | 2.0E-10 | 1.2705 | 2.1940 | 1.4E-09 | 8 |
| Cytokine 1 | VEGF-A | 0.5162 | 0.0838 | 2.4E-09 | 0.3519 | 0.6804 | 1.5E-08 | 9 |
| Cytokine 1 | IL-16 | 0.3779 | 0.0623 | 2.7E-09 | 0.2558 | 0.5000 | 1.5E-08 | 10 |
| Cytokine 1 | TNF-beta | -0.6159 | 0.1069 | 2.9E-08 | -0.8254 | -0.4065 | 1.4E-07 | 11 |
| Proinflammatory | IL-8 | 0.5596 | 0.1020 | 6.8E-08 | 0.3596 | 0.7596 | 3.1E-07 | 12 |
| Cytokine2 | IL-9 | 1.1916 | 0.2191 | 8.8E-08 | 0.7621 | 1.6211 | 3.6E-07 | 13 |
| Chemokine | IP-10 | 0.8635 | 0.1647 | 2.5E-07 | 0.5407 | 1.1862 | 9.5E-07 | 14 |
| TH17 | IL-22 | 1.1607 | 0.2279 | 7.8E-07 | 0.7140 | 1.6074 | 2.6E-06 | 15 |
| VascularInjury | SAA | 1.1158 | 0.2221 | 7.6E-07 | 0.6804 | 1.5511 | 2.6E-06 | 16 |
| Chemokine | MIP-1alpha | 0.4008 | 0.0841 | 2.5E-06 | 0.2360 | 0.5657 | 8.0E-06 | 17 |
| Cytokine2 | IL-3 | 0.5422 | 0.1374 | 9.2E-05 | 0.2728 | 0.8115 | 2.8E-04 | 18 |
| Angiogenesis | FGF (basic) | 0.6458 | 0.1661 | 1.2E-04 | 0.3201 | 0.9714 | 3.3E-04 | 19 |
| Cytokine2 | IL-1RA | 0.4381 | 0.1170 | 2.0E-04 | 0.2089 | 0.6674 | 5.3E-04 | 20 |
| TH17 | MIP-3alpha | 0.4552 | 0.1135 | 2.0E-04 | 0.2328 | 0.6776 | 5.3E-04 | 21 |
| Proinflammatory | IL-1beta | -0.4512 | 0.1276 | 4.7E-04 | -0.7013 | -0.2011 | 1.2E-03 | 22 |
| UPLEX | IL-29 | -0.4876 | 0.1547 | 1.7E-03 | -0.7908 | -0.1843 | 4.1E-03 | 23 |
| Cytokine 1 | IL-15 | 0.1307 | 0.0426 | 2.3E-03 | 0.0473 | 0.2142 | 5.1E-03 | 24 |
| Cytokine 1 | IL-5 | -0.4723 | 0.1594 | 3.2E-03 | -0.7847 | -0.1599 | 6.9E-03 | 25 |
| Chemokine | MCP-4 | 0.2737 | 0.1063 | 1.0E-02 | 0.0654 | 0.4820 | 2.1E-02 | 26 |
| Angiogenesis | VEGF-D | -0.1477 | 0.0590 | 1.3E-02 | -0.2633 | -0.0320 | 2.5E-02 | 27 |
| Chemokine | Eotaxin | 0.2788 | 0.1191 | 2.0E-02 | 0.0455 | 0.5122 | 3.8E-02 | 28 |
| Chemokine | MCP-1 | 0.3540 | 0.1588 | 2.6E-02 | 0.0428 | 0.6651 | 4.9E-02 | 29 |

# Significant effects of T21 after adjustment for age, sex, T21 by age, and sample source (Model 2)

## **Model specification** log2(Concentration) ~ T21 + Age + Female sex + T21\*Age + (1|Source)

## **Samples analyzed** T21 + D21

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panel | Analyte | **log2FC** | **SE** | **P** | **CI.low** | **CI.high** | **FDR** | **Rank** |
| Cytokine2 | TSLP | 1.8444 | 0.3404 | 9.7E-08 | 1.1772 | 2.5115 | 5.2E-06 | 1 |
| UPLEX | IL-29 | -1.5413 | 0.2983 | 3.6E-07 | -2.1260 | -0.9566 | 9.6E-06 | 2 |
| Proinflammatory | IL-8 | 0.9446 | 0.1994 | 2.9E-06 | 0.5539 | 1.3354 | 5.2E-05 | 3 |
| Cytokine2 | IL-17C | 1.8415 | 0.4134 | 1.1E-05 | 1.0313 | 2.6516 | 1.4E-04 | 4 |
| Cytokine2 | IL-9 | 1.7891 | 0.4293 | 3.7E-05 | 0.9477 | 2.6305 | 4.0E-04 | 5 |
| Cytokine2 | IL-17D | 1.3059 | 0.3226 | 6.1E-05 | 0.6736 | 1.9381 | 4.7E-04 | 6 |
| Proinflammatory | IL-10 | 0.8861 | 0.2182 | 5.8E-05 | 0.4584 | 1.3139 | 4.7E-04 | 7 |
| Cytokine 1 | VEGF-A | 0.6479 | 0.1684 | 1.4E-04 | 0.3178 | 0.9780 | 9.2E-04 | 8 |
| Angiogenesis | PlGF | 0.5474 | 0.1482 | 2.5E-04 | 0.2569 | 0.8378 | 1.5E-03 | 9 |
| Cytokine 1 | TNF-beta | -0.7753 | 0.2167 | 3.8E-04 | -1.2000 | -0.3507 | 2.1E-03 | 10 |
| Angiogenesis | FGF (basic) | 1.1332 | 0.3259 | 5.5E-04 | 0.4945 | 1.7720 | 2.7E-03 | 11 |
| Cytokine 1 | IL-16 | 0.4245 | 0.1227 | 5.9E-04 | 0.1840 | 0.6650 | 2.7E-03 | 12 |
| Proinflammatory | TNF-alpha | 0.3664 | 0.1077 | 7.3E-04 | 0.1552 | 0.5776 | 3.0E-03 | 13 |
| TH17 | IL-27 | -0.5951 | 0.1964 | 2.6E-03 | -0.9802 | -0.2101 | 1.0E-02 | 14 |
| Cytokine2 | IL-3 | 0.7375 | 0.2697 | 6.5E-03 | 0.2089 | 1.2660 | 2.3E-02 | 15 |

# Significant effects of T21 after adjustment for age, sex, T21 by sex, and sample source (Model 3)

## **Model specification** log2(Concentration) ~ T21 + Age + Female sex + T21\*(Female sex) + (1|Source)

## **Samples analyzed** T21 + D21

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panel | Analyte | **log2FC** | **SE** | **P** | **CI.low** | **CI.high** | **FDR** | **Rank** |
| Proinflammatory | IL-10 | 1.1010 | 0.1640 | 9.1E-11 | 0.7797 | 1.4224 | 4.9E-09 | 1 |
| Cytokine2 | TSLP | 1.4318 | 0.2610 | 6.8E-08 | 0.9202 | 1.9435 | 1.8E-06 | 2 |
| Cytokine2 | IL-17C | 1.5958 | 0.3174 | 7.1E-07 | 0.9737 | 2.2180 | 1.3E-05 | 3 |
| Proinflammatory | IL-8 | 0.7435 | 0.1535 | 1.7E-06 | 0.4427 | 1.0443 | 2.3E-05 | 4 |
| Cytokine 1 | VEGF-A | 0.6071 | 0.1277 | 2.8E-06 | 0.3567 | 0.8574 | 3.0E-05 | 5 |
| Proinflammatory | TNF-alpha | 0.3672 | 0.0817 | 9.1E-06 | 0.2071 | 0.5274 | 8.2E-05 | 6 |
| VascularInjury | CRP | 1.6524 | 0.3662 | 1.1E-05 | 0.9347 | 2.3701 | 8.5E-05 | 7 |
| Proinflammatory | IL-6 | 0.8699 | 0.1979 | 1.4E-05 | 0.4821 | 1.2578 | 9.7E-05 | 8 |
| Cytokine2 | IL-17D | 1.0566 | 0.2475 | 2.4E-05 | 0.5714 | 1.5417 | 1.4E-04 | 9 |
| Cytokine 1 | TNF-beta | -0.6099 | 0.1637 | 2.3E-04 | -0.9307 | -0.2891 | 1.2E-03 | 10 |
| Cytokine2 | IL-9 | 1.2113 | 0.3305 | 2.8E-04 | 0.5635 | 1.8591 | 1.4E-03 | 11 |
| TH17 | MIP-3alpha | 0.6097 | 0.1766 | 7.5E-04 | 0.2635 | 0.9560 | 3.4E-03 | 12 |
| UPLEX | IL-29 | -0.7230 | 0.2328 | 2.0E-03 | -1.1793 | -0.2667 | 8.4E-03 | 13 |
| Angiogenesis | PlGF | 0.3426 | 0.1130 | 2.6E-03 | 0.1212 | 0.5640 | 9.9E-03 | 14 |
| VascularInjury | SAA | 0.9760 | 0.3367 | 3.9E-03 | 0.3161 | 1.6358 | 1.4E-02 | 15 |
| TH17 | IL-22 | 1.0049 | 0.3491 | 4.2E-03 | 0.3207 | 1.6892 | 1.4E-02 | 16 |
| Angiogenesis | Tie-2 | -0.1944 | 0.0736 | 8.5E-03 | -0.3386 | -0.0501 | 2.6E-02 | 17 |
| Chemokine | IP-10 | 0.6611 | 0.2490 | 8.2E-03 | 0.1732 | 1.1491 | 2.6E-02 | 18 |
| Angiogenesis | FGF (basic) | 0.6456 | 0.2508 | 1.0E-02 | 0.1541 | 1.1371 | 2.9E-02 | 19 |
| Chemokine | MIP-1alpha | 0.3198 | 0.1268 | 1.2E-02 | 0.0713 | 0.5683 | 3.2E-02 | 20 |
| Cytokine 1 | IL-16 | 0.2303 | 0.0936 | 1.4E-02 | 0.0467 | 0.4138 | 3.7E-02 | 21 |