Supplemental Table 1A: Cytokine values (pg/ml) in cervicovaginal cells co-cultured with live *L. crispatus* (LC) or *G. vaginalis* (GV)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ectocervical Cells | | | | Endocervical Cells | | | | Vaginal Cells | | | |
|  | NTC | LC | NTC | GV | NTC | LC | NTC | GV | NTC | LC | NTC | GV |
| EGF | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Eotaxin | 3.1 | 1.6 | 4.6 | 8.5 | 5.1 | 4.2 | 6.5 | 14.4 | ND | ND | ND | 6.1 |
| FGF-2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| FLT-3L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Fractaline | ND | ND | ND | 37.4 | ND | 6.4 | 2.8 | 43.7 | ND | ND | ND | 17.3 |
| G-CSF | ND | ND | 29.34 | 80.72 | ND | ND | ND | 664.9 | ND | ND | ND | 95.7 |
| GM-CSF | 19.7 | 20.3 | 71.7 | 494.1 | 11.5 | 18.4 | 24.7 | 330.5 | 14.6 | 20.4 | 15.6 | 353.8 |
| GRO | 298.5 | 224.7 | 774.2 | 1555 | 358.7 | 312.3 | 1126 | 15197 | 87.4 | 53.5 | 135.6 | 1645 |
| IFNa2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IFNgamma | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-12p40 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-12p70 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-13 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-15 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-17 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-1Ra | 15.6 | 16.8 | 122.7 | 598.0 | 10.9 | 12.0 | 30.5 | 227.3 | 49.3 | 45.3 | 98.4 | 650.8 |
| IL-1a | 24.7 | 26.7 | 333.7 | 807.6 | 42.1 | 43.1 | 232.8 | 895.4 | 40.2 | 34.2 | 93.7 | 423.9 |
| IL-1b | 0.30 | 0.50 | 3.0 | 14.1 | 0.87 | 0.88 | 1.8 | 20.2 | 0.19 | 0.50 | 0.84 | 8.9 |
| IL-2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-3 | 0.57 | 0.64 | 0.50 | 0.56 | ND | ND | ND | ND | ND | 0.48 | 0.30 | 0.44 |
| IL-4 | 3.2 | 1.9 | 11.8 | 24.6 | 5.6 | 5.5 | 23.9 | 79.9 | 3.4 | ND | 0.13 | 26.9 |
| IL-5 | 0.47 | 0.51 | 0.45 | 0.47 | ND | ND | ND | ND | ND | 0.02 | ND | 0.03 |
| IL-6 | 45.7 | 68.5 | 94.9 | 227.1 | 12.1 | 17.4 | 38.3 | 260.1 | 0.35 | 0.20 | 0.79 | 23.0 |
| IL-7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-8 | 196.7 | 169.5 | 422.0 | 876.2 | 138.5 | 155.2 | 401.9 | 2408 | 37.5 | 35.4 | 71.0 | 875.7 |
| IL-9 | 0.20 | 0.19 | 0.06 | 0.13 | ND | ND | ND | ND | ND | ND | ND | ND |
| IP-10 | 17.7 | 14.4 | 53.5 | 75.2 | 18.9 | 24.0 | 462.9 | 1527 | 9.3 | 6.9 | 45.2 | 121.0 |
| MCP-1 | 1.1 | 1.2 | 1.3 | 1.5 | 1.2 | 0.71 | ND | 1.7 | ND | 0.22 | 0.22 | 1.3 |
| MCP-3 | 3.6 | 4.4 | 3.0 | 4.6 | 4.1 | 3.9 | ND | 2.8 | 2.8 | 2.1 | ND | ND |
| MIP-1a | 1.4 | 1.2 | 1.6 | 2.6 | 0.40 | 0.66 | 0.74 | 2.8 | ND | 1.2 | 0.87 | 4.2 |
| MDC | 4.9 | 3.8 | ND | 3.7 | 3.4 | 4.0 | 2.5 | 5.2 | 2.2 | 4.3 | 2.8 | 2.5 |
| MIP-1b | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PDGF-AA | 7.4 | 6.7 | 7.6 | 5.4 | 29.5 | 29.2 | 23.1 | 15.8 | 32.2 | 24.4 | 26.3 | 15.7 |
| PDGF-AB/BB | ND | ND | ND | 7.2 | ND | ND | 1.2 | 14.4 | ND | ND | 1.2 | 11.2 |
| RANTES | ND | ND | 2.7 | 3.4 | 3.1 | 3.0 | 21.7 | 23.5 | ND | ND | 1.1 | 3.3 |
| TGFa | 48.9 | 47.9 | 86.6 | 110.6 | 40.7 | 40.9 | 41.7 | 68.5 | 65.6 | 59.0 | 72.0 | 133.5 |
| TNFa | 0.59 | 0.71 | 1.4 | 26.6 | 0.39 | ND | ND | 1.1 | ND | ND | ND | 16.1 |
| TNFb | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| VEGF | 41.3 | 40.3 | 55.9 | 41.8 | 45.5 | 45.7 | 48.1 | 73.6 | 33.5 | 23.1 | 29.0 | 45.3 |
| sCD40L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| TGF-B1 | 9.5 | 8.5 | 23.1 | 25.2 | 16.0 | 20.1 | 42.1 | 40.0 | 27.5 | 21.8 | 28.9 | 31.5 |
| TGF-B2 | 21.7 | 15.9 | 19.1 | 24.4 | 14.1 | 13.3 | 21.5 | 20.4 | 16.7 | 13.7 | 16.1 | 19.3 |
| TGF-B3 | ND | ND | ND | ND | 4.1 | 2.9 | 3.6 | 3.2 | 3.2 | 0.74 | 0.54 | 0.79 |

Supplemental Table 1B: Cytokine values (pg/ml) in cervicovaginal cells exposed to *L. crispatus* (LC) or *G. vaginalis* (GV) bacteria-free supernatant versus NYC media alone

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ectocervical Cells | | | Endocervical Cells | | | Vaginal Cells | | |
|  | NYC | LC | GV | NYC | LC | GV | NYC | LC | GV |
| EGF | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Eotaxin | 8.6 | 6.2 | 10.2 | 13.1 | 9.1 | 15.0 | 3.6 | ND | 7.0 |
| FGF-2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| FLT-3L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Fractaline | 7.9 | 10.9 | 4.5 | 20.1 | 10.7 | 14.9 | 9.2 | ND | 3.4 |
| G-CSF | ND | ND | 43.3 | ND | ND | 47.3 | 60.0 | ND | 25.3 |
| GM-CSF | 66.9 | 84.8 | 153.6 | 71.2 | 33.1 | 138.6 | 47.4 | 106.8 | 76.1 |
| GRO | 1304 | 729.2 | 1494 | 4036 | 2079 | 8265 | 1788 | 715.7 | 1730 |
| IFNa2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IFNgamma | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-10 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-12p40 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-12p70 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-13 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-15 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-17 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-1Ra | 13.8 | 9.2 | 203.8 | 12.4 | 7.3 | 37.5 | 44.3 | 29.7 | 119.9 |
| IL-1a | 30.5 | 31.7 | 328.9 | 65.2 | 46.3 | 202.0 | 46.7 | 48.8 | 95.4 |
| IL-1b | 5.8 | 4.0 | 8.6 | 6.2 | 4.2 | 7.5 | 4.1 | 2.7 | 6.5 |
| IL-2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-3 | 0.40 | 0.40 | 0.41 | ND | ND | ND | 0.26 | 0.30 | 0.32 |
| IL-4 | 17.0 | 8.3 | 17.5 | 41.2 | 30.2 | 64.3 | 25.7 | 8.7 | 23.0 |
| IL-5 | 0.49 | 0.47 | 0.54 | ND | ND | ND | 0.10 | 0.04 | 0.06 |
| IL-6 | 979.3 | 501.1 | 624.3 | 574.9 | 251.3 | 699.5 | 272.1 | 61.6 | 403.9 |
| IL-7 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IL-8 | 1354 | 809.4 | 2075 | 2677 | 1045 | 4145 | 1092 | 545.2 | 2877 |
| IL-9 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| IP-10 | 45.2 | 4701 | 94.3 | 63.9 | 53.4 | 135.2 | 46.28 | 40.10 | 67.41 |
| MCP-1 | 1.9 | 1.8 | 1.7 | 1.5 | 0.94 | 1.4 | 1.3 | 1.2 | 1.5 |
| MCP-3 | 4.5 | 4.9 | 4.4 | 2.8 | 5.8 | 1.9 | 1.8 | ND | 4.1 |
| MIP-1a | 1.4 | 1.2 | 3.6 | 1.8 | 1.2 | 2.2 | 4.7 | 4.0 | 5.6 |
| MDC | 1.9 | 1.9 | ND | 5.3 | 5.2 | 4.3 | 3.1 | 4.5 | 5.5 |
| MIP-1b | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PDGF-AA | 5.2 | 3.5 | 6.4 | 18.4 | 15.5 | 22.6 | 18.5 | 16.7 | 17.6 |
| PDGF-AB/BB | 5.4 | 6.2 | 13.6 | 10.8 | 8.7 | 27.9 | 10.0 | 11.5 | 21.1 |
| RANTES | ND | ND | 4.9 | 7.5 | 2.8 | 16.4 | ND | 0.17 | 2.7 |
| TGFa | 99.0 | 61.5 | 163.3 | 132.0 | 77.2 | 151.1 | 228.1 | 141.2 | 266.3 |
| TNFa | 1.0 | 1.8 | 4.1 | 0.23 | ND | 0.18 | 1.0 | 0.44 | 3.3 |
| TNFb | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| VEGF | 81.6 | 81.0 | 82.2 | 84.2 | 180.3 | 102.5 | 67.3 | 223.0 | 85.3 |
| sCD40L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| TGF-B1 | 60.1 | 65.7 | 75.5 | 81.3 | 34.0 | 94.1 | 82.0 | 85.6 | 75.0 |
| TGF-B2 | 59.7 | 62.3 | 46.0 | 48.7 | 45.7 | 45.9 | 41.7 | 37.9 | 40.8 |
| TGF-B3 | ND | ND | ND | 4.1 | 3.8 | 3.6 | 1.3 | 0.77 | 1.2 |

Supplemental Table 2A: Number of altered cytokines after exposure to live bacteria

|  |  |  |  |
| --- | --- | --- | --- |
| Live Bacteria | Ectocervical | Endocervical | Vaginal |
| L. crispatus |  |  |  |
| Total # altered | 2 | 3 | 4 |
| Analytes ↑ | 1 | 1 | 2 |
| Analytes ↓ | 1 | 2 | 2 |
|  | | | |
| G. vaginalis |  |  |  |
| Total # altered | 16 | 19 | 22 |
| Analytes ↑ | 15 | 18 | 20 |
| Analytes ↓ | 1 | 1 | 2 |

Supplemental Table 2B: Number of altered cytokines after exposure to bacteria-free supernatants

|  |  |  |  |
| --- | --- | --- | --- |
| Bacteria-free Supernatants | Ectocervical | Endocervical | Vaginal |
| L. crispatus |  |  |  |
| Total # altered | 10 | 16 | 11 |
| Analytes ↑ | 2 | 4 | 4 |
| Analytes ↓ | 8 | 12 | 7 |
|  | | | |
| G. vaginalis |  |  |  |
| Total # altered | 18 | 18 | 13 |
| Analytes ↑ | 17 | 18 | 12 |
| Analytes ↓ | 1 | 0 | 1 |

Supplemental Table 3: Number of cytokines altered after blocking TLR2

|  |  |  |  |
| --- | --- | --- | --- |
| Live Bacteria | Ectocervical | Endocervical | Vaginal |
| LC vs LC + anti-TLR2 AB |  |  |  |
| Total # altered | 9 | 0 | 1 |
| Analytes ↑ | 6 | 0 | 1 |
| Analytes ↓ | 3 | 0 | 0 |
|  | | | |
| GV vs GV + anti-TLR2 AB |  |  |  |
| Total # altered | 8 | 11 | 4 |
| Analytes ↑ | 0 | 2 | 2 |
| Analytes ↓ | 8 | 9 | 2 |