**Supplementary Table 2. X-Shift cluster frequency in the CD45+Lin- dataset.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CLUSTERS | ANNOTATION | No-ICU | ICU | HCs | p (ICUvs HCs )a | p (No-ICU vs HCs)a | p(ICU vsNo-ICU)a |
| 1. A

D | pDCs | 0.57 (0.19-0.84)0.49 (0.14-1.49) | 0.22 (0.07-0.56)0.33 (0.09-0.61) | 1.4 (0.9-1.6) | **<0.0001****<0.0001** | **0.0002****0.04** | 0.280.69 |
| 1. A

D | Immature/Unclassified | 1.9 (1.7-6.3)0.98 (0.54-2.3) | 1.8 (1-5.6)1.1 (0.5-2.1) | 0.2 (0.04-0.5) | **0.0003****0.01** | **0.0004****0.03** | 0.28 |
| 1. A

D | mDCs CD1c+ | 0.13 (0.07-0.4)0.05 (0.01-0.13) | 0.05 (0.02-0.12)0.04 (0.02-0.13) | 0.13 (0.05-0.36) | **0.05****0.05** | 0.980.12 | 0.720.82 |
| 1. A

D | Immature/Unclassified | 16 (6.5-34.7)2 (0.1-19) | 0.03 (0.008-0.33)0.07 (0.01-0.65) | 16.6 (2.4-45-8) | **<0.0001****<0.0001** | 0.860.14 | 0.70.18 |
| 1. A

D | Mono Classical | 11.3 (3.7-25.6)11.1 (7.2-27.5) | 8 (3.4-10)9 (7-14) | 8.5 (6.5-18.2) | 0.50.88 | 0.820.50 | >0.990.43 |
| 1. A

D | Basophils | 0.4 (0.01-0.93)0.06 (0.2-0.8) | 0.002 (0-0.02)0.003 (0-0.02) | 0.3 (0.001-1.39) | 0.07**0.03** | 0.880.25 | 0.750.92 |
| 1. A

D | mDCs CD141+ | 0.04 (0.02-0.05)0.05 (0.04-0.07) | 0.02 (0.01-0.06)0.03 (0.02-0.05) | 0.11 (0.09-0.17) | **0.001****0.0005** | **<0.0001****0.005** | 0.280.18 |
| 1. A

D | Mono Non-Classical SLAN+ | 0.08 (0.04-1.6)0.06 (0.02-0.8) | 0.09 (0.04-0.2)0.21 (0.02-0.49) | 4.5 (3.1-6.3) | **<0.0001****<0.0001** | **0.002****0.005** | 0.480.87 |
| 1. A

D | Mono Non-Classical | 18.8 (9.4-32.6)16.8 (11.2-38.6) | 10.7 (4.2-19)12.3 (4.4-18.6) | 18.9 (11.6-24.2) | 0.170.13 | >0.99>0.99 | >0.990.24 |
| 1. A

D | Immature/Undefined | 2.5 (1.8-3.3)3.7 (2.6-25.6) | 8.2 (5.2-13.7)4.9 (3.2-11.5) | 2.5 (1.8-3.3) | **0.001****0.02** | 0.710.11 | >0.990.89 |
| 1. A

D | Eosinophils | 0.18 (0.07-0.54)0.26 (0.05-1.76) | 0.22 (0.002-1.79)0.07 (0.02-0.59) | 3.3 (1.7-5.7) | **0.0008****<0.0001** | **<0.0001****0.013** | **0.009**0.36 |
| 1. A

D | Immature/Undefined | 0.34 (0.08-1.17)0.5 (0.3-9.6 | 0.33 (0.06-1.48)0.5 (0.14-1.6) | 0.76 (0.51-0.98) | 0.330.60 | 0.340.44 | 0.60.82 |
| 1. A

D | Mono Non-Classical | 2.4 (0.63-3.6)2.1 (0.9-8.6) | 3.3 (0.6-14)4.2 (1.8-12.4) | 3.38 (2.5-6.6) | 0.890.55 | 0.130.66 | 0.60.45 |
| 1. A

D | Mono Classical | 0.87 (0.08-1.85)0.15 (0.03-6.3) | 1.7 (0.09-6.7)1.12 (0.001-15) | 0.84 (0.05-1.85) | 0.260.86 | 0.980.64 | >0.99>0.99 |
| 1. A

D | CD163+++ M2like | 6.11 (0.8-14)1.19 (0.11-4.25) | 5.9 (0.9-21)3.5 (0.3-8.2) | 1.19 (0.11-4.25) | **0.04****0.04** | 0.100.58 | 0.350.41 |
| 1. A

D | PD-L1+ M2like | 9.9 (4.5-19)20.6 (10.39) | 34 (23-56)33 (25-69) | 22 (11.5-27.8) | **0.04****0.007** | 0.110.9 | 0.480.08 |
| Values expressed as medians (interquartile range). Comparisons made using Mann-Whitney U test. Significant differences in bold. ICU= Intensive care unit; HCs= Healthy Controls; A= Admission; D= Discharge.  a Comparisons performed using Mann-Whitney U test. |