|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Non-infected** | | **Acute (ART-)** | | **Chronic (ART-)** | | **Chronic (ART+)** | | **Elite controllers** | |
| **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** |
| **Naïve (CD45RA+CD28+)**  **median (IQR)** | 23.65a,b,c,d,k  (17.38-28.40) | 8.13k  (6.41-13.7) | 10.03a,l  (6.25-19.65) | 6.56l  (3.77-10.38) | 11.80b,m  (9.13-21.35) | 7.95g,m  (2.66-15.48) | 13.40c  (9.55-19.78) | 13.50  (3.89-27.95) | 14.85d  (7.24-24.03) | 13.35g  (7.12-19.08) |
| **CM (CD45RA-CD28+)**  **median (IQR)** | 22.50b,d  (594-36.43) | 23.55  (16.75-36.30) | 18.55l  (13.75-27.60) | 19.35l  (17.20-31.63) | 13.95b,h  (11.38-16.98) | 17.15h  (10.03-21.68) | 28.85h,j  (15-48-55) | 33h,j  (20.73-52.85) | 17.55d,j,o  (8.32-21.10) | 18.40j,o  (10.83-31.50) |
| **EM (CD45RA-CD28-)**  **median (IQR)** | 11.15a,b,d,k  (5.38-16.28) | 22.45a,k  (13.43-27.43) | 33.65a,f,g,l  (22-42.63) | 35.45a,f,g,l  (27.10-47.38) | 29.95b,h,i  (24.93-36.18) | 32.60  (18.95-45.43) | 14.05f,h  (9.37-16.55) | 18.60f  (8.64-33.75) | 19.30d,g,i  (7.93-32.03) | 18.80g  (9.31-30.90) |
| **TD (CD45RA+CD28-)**  **median (IQR)** | 40.50c  (26-52.35) | 40.70  (25.05-53.73) | 34.80g  (23.33-44.78) | 30.45g  (21.25-41.13) | 39.70  (33.90-44.60) | 38.05  (29.25-48.38) | 26.40j  (13.80-52.35) | 19.60c,j  (11.33-44.45) | 42.10g,j  (38.85-58.35) | 40g,j  (31.33-56.63) |
| **CD38+HLA-DR+**  **median (IQR)** | 3.32a,b,c,d,k  (1.44-4.98) | 19.35a,b,k  (13.80-26.23) | 26.15a,f ,g,l  (18.20-34.40) | 39.45a,f,g,l  (23.95-58.48) | 32.20b,h,I,m  (26.25-38.65) | 38.95b,h,I,m  (30.53-50.13) | 10.17c,f,h,n  (7.97-15.85) | 18.55f ,h,n  (15.93-30.68) | 11.75d,g,I,o  (4.68-21.58) | 24.90g,I,o  (18.25-34.70) |
| **CD57+CD28-**  **median (IQR)** | 15.45a,b,d  (6.72-26.75) | 13.40a,b,d  (8.32-29.65) | 40.20a,f,l  (23.75-47.58) | 34.45a,f,l  (19.43-40.73) | 34.25b  (25.28-48.88) | 27.85b,h  (22.65-46.60) | 23.15f,n  (10.40-31.05) | 18.40f,h,j,n  (12.11-25.40) | 32.85d  (20.85-45.30) | 31.55d,j  (23.18-43.48) |
| **PD-1+**  **median (IQR)** | 7.97a,b,c,d,k  (5.44-19.68) | 28.50a,b,k  (23.23-31.60) | 30.40a,f,g,l  (20.55-44.23) | 40.70a,f,g,l  (34.08-52.30) | 34.35b,h,m  (27.15-47.53) | 44b,h,I,m  (35.18-44.05) | 19.65c,f,h,n  (14.53-24.10) | 21.30f,h,n  (17.88-39.85) | 16.90d,g,o  (11.32-34.88) | 31.45g,I,o  (17-40.33) |
| **CTLA-4+**  **median (IQR)** | 1.19a,c,k  (0.82-1.56) | 4.19c,k  (4.88-9.73) | 1.86a,l  (1.27-2.66) | 6.92f,l  (3.96-12.73) | 1.82m  (1.15-2.98) | 5.62h,m  (4.36-6.49) | 1.97c,n  (1.32-5.04) | 14.65c,f,h,n  (7.55-52.25) | 1.61o  (0.77-5.96) | 6.83o  (3.94-20.15) |
| **CD39+**  **median (IQR)** | 5.26a,c,d,k  (2.29-7.69) | 24.85k  (14.80-34.88) | 16.28a,e,l  (9.13-23.58) | 23.25l  (17.25-31.03) | 7.84e,h,I,m  (3.73-13.35) | 21.35m  (15.25-29.90) | 17.92c,h,n  (9.99-21.74) | 24.77n  (17.88-30.58) | 14.60d,I,o  (12.05-20.63) | 24.73o  (20.28-27.90) |
| **LAP(TGF-β1)+**  **median (IQR)** | 6.82k  (2.81-19) | 87.50a,b,k  (59.05-94.98) | 5.27f,g,l  (3.47-8.55) | 63.30a,e,f,g,l  (50.35-79.80) | 6.04h,m  (3.31-7.81) | 49.97b,e,h,I,m  (31.18-56.50) | 12.25f,h,n  (9.87-23.48) | 81.40f,h,n  (63.17-95.33) | 11.90g,o  (5.80-19.88) | 81.20g,I,o  (66.05-95.35) |
| **CD39+LAP(TGF-β1)+**  **median (IQR)** | 0.54c,d,k  (0.17-1.29) | 16.90b,k  (11.80-26.75) | 1.075f,l  (0.49-1.52) | 14.86l  (9.16-21.08) | 0.76h,m  (0.24-1.37) | 11.96b,h,I,m  (6.78-13.60) | 2.13c,f,h,n  (1.77-2.56) | 16.93h,n  (14.15-20.92) | 1.97d,o  (0.73-3.60) | 18.80i,o  (13.13-26) |
| **CCR4+**  **median (IQR)** | 20.60a,k  (10.95-33.33) | 68.80a,b,k  (41.70-77.80) | 10.30a,f,g,l  (7.36-22) | 44.60a,l  (21.90-62.63) | 19.05m  (6.96-26.93) | 29.55b,h,I,m  (18.58-44.73) | 23.65f,n  (21.45-33.3) | 62.60h,n  (45.73-69.70) | 19.20g,o  (11.95-30.48) | 53.60i,o  (37.30-70) |
| **CCR5+**  **median (IQR)** | 8.51b,k  (4.61-14.78) | 22.60a,k  (14.05-33.63) | 5.09e,l  (3.24-8.81) | 11.85a,e,l  (10.45-15.18) | 13.80b,e,h,I,m  (10.53-18.28) | 21.70e,m  (17.05-28.88) | 5.30h,n  (3.58-8.20) | 15.70n  (11.42-35.63) | 7.63i,o  (4.16-9.57) | 14.90o  (11.78-31.03) |
| **CCR6+**  **median (IQR)** | 7.28a,c,d,k  (5.25-8.44) | 10.50a,b,c,k,d  (8.02-13.48) | 5.11a,l  (3.99-6.68) | 7.25a,l  (5.49-8.40) | 5.36m  (3.94-7.66) | 7.70b,m  (6.90-9.75) | 4.69c,n  (4.43-5.63) | 6.84c,n  (5.71-7.58) | 5.75d,o  (4.01-7.58) | 7.85d,o  (7.23-9.79) |
| **CXCR3+**  **median (IQR)** | 16.85d,k  (10.90-22.60) | 47.05a,k  (35.95-52.42) | 17.75g,l  (9.90-26.63) | 54.90a,l  (39.33-68.35) | 11.35i,m  (9.99-13.03) | 40.50m  (34.90-53.33) | 14.10j,n  (34.90-53.33) | 52.75n  (43.78-62.18) | 8.02d,g,I,j,o  (5.58-12.30) | 45.25o  (36.93-59.05) |
| **CCR9+**  **median (IQR)** | 0.89a,b,c,d,k  (0.52-1.65) | 6.43k  (3.92-8.65) | 2.67a,l  (1.87-3.75) | 8.18l  (6.60-11.73) | 3.15b,m  (2.42-3.63) | 8.89m  (6.49-11.73) | 3.12c,n  (1.87-3.25) | 6.17n  (4.16-10.01) | 1.90d,o  (1.09-3.38) | 7.31o  (5.82-8.57) |
| **Integrin β7+**  **median (IQR)** | 6.14a,b,c,d,k  (4.23-7.34) | 38.60a,k  (33.75-52.25) | 30.70a,l  (21.88-40.38) | 47.99a,e,f,g,l  (42.63-57.18) | 29.40b,m  (22.10-35.53) | 38.71e,m  (30-47.35) | 30.50c,n  (24-32.21) | 39.20f,n  (36.13-42.98) | 26.95d,o  (17.18-42.40) | 35.85g,o  (26.18-46.78) |
| **CCR9+CD39+**  **median (IQR)** | 0.12a,b,c,d,k  (0.05-0.22) | 2.95k  (1.50-6.40) | 0.54a,l  (0.26-0.87) | 3.23l  (2.34-5.95) | 0.48b,m  (0.13-0.90) | 4.34m  (3.60-5.25) | 0.50c,n  (0.24-1.01) | 4n  (3.14-5.81) | 0.18d,o  (0.13-0.98) | 3.01o  (1.97-3.88) |
| **CCR9+LAP(TGF-β1)+**  **median (IQR)** | 0.28a,b,c,k  (0.09-0.54) | 4.29k  (3.26-8.09) | 0.61a,l  (0.31-0.77) | 6.56l  (4.73-8.50) | 0.57b,m  (0.27-1.19) | 6.02m  (3.14-10.83) | 0.93c,n  (0.49-1.14) | 3.55n  (2.52-5.68) | 0.18o  (0.05-0.47) | 5.09o  (2.20-5.76) |
| **Integrin β7+CD39+**  **median (IQR)** | 0.39a,b,c,d,k  (0.08-0.71) | 11.15k  (7.48-18.50) | 4.42a,l  (2.56-7.01) | 14.15l  (8.78-18.95) | 2.27b,h,m  (1.45-4.76) | 9.52m  (5.86-16.65) | 6.04c,h,n  (4.14-7.33) | 10.74n  (9.18-13.15) | 5.12d,o  (1.42-9.94) | 10.25o  (8.48-14.65) |
| **Integrin β7+LAP(TGF-β1)+ median (IQR)** | 0.82a,c,d,k  (0.43-2.13) | 32.90b,k  (26.85-38.93) | 2.48a,f,l  (1.15-4.23) | 31.54e,l  (22.50-39.43) | 2.01h,m  (1.28-2.72) | 23.66b,e,h,m  (15.56-26.30) | 5.02c,f,h,n  (4.04-9.35) | 32.31h,n  (26.26-36.20) | 4.45d,o  (1.21-8.03) | 26.99o  (20.15-36.53) |

**Supplementary Table 2.** Comparison of the expression of analysed sub-population among total CD8 T-cells *versus* FoxP3+ CD8 T-cells in cross-sectional study groups.

Results are shown as median and interquartile range (IQR).

Significant differences (p < 0.05) following Mann–Whitney for the comparison between total CD8 T-cells or FoxP3+ CD8 T-cells within different study groups are mentioned as follow: **a**: Non-infected vs Acute, **b**: Non-infected vs Chronic (ART-), **c**: Non infected vs Chronic (ART+), **d**: Non-infected vs EC, **e**: Acute vs Chronic (ART-), **f**: Acute vs Chronic (ART+), **g**: Acute vs EC, **h**: Chronic (ART-) vs Chronic (ART+), **i**: Chronic (ART-) vs EC, **j**: Chronic (ART+) vs EC.

Significant differences (p < 0.05) following Wilcoxon signed-rank test for the comparation between total CD8 T-cells *versus* FoxP3+ CD8 T-cells among the same study group are mentioned as follow: **k**: Non infected (within total CD8+ vs within FoxP3+ CD8+), **l**: Acute (ART-) (within total CD8+ vs within FoxP3+ CD8+), **m**: Chronic (ART-) (within total CD8+ vs within FoxP3+ CD8+), **n**: Chronic (ART+) (within total CD8+ vs within FoxP3+ CD8+), **o**: EC (within total CD8+ vs within FoxP3+ CD8+)