Supplementary Material

Single-Cell Analysis Reveals That CD47 mRNA Expression Correlates with Immune Cell Activation, Antiviral Isgs, and Cytotoxicity

Lamin B. Cham^{a,b,d} Miriam Rosas-Umbert^{a,b} Lin Lin^c Martin Tolstrup^{a,b} Ole S. Søgaard^{a,b,d}

^aDepartment of Infectious Diseases, Aarhus University Hospital, Aarhus 8200, Denmark, ^bDepartment of Clinical Medicine, Aarhus University, Aarhus 8200, Denmark ^cDepartment of Biomedicine, Aarhus University, Aarhus 8000, Denmark Supplementary Figure 1. (A) Dot plot representation of average and percentage expression of *CD47* and *SIRPa* in healthy individuals compared to PWH. (B) tSNE plot illustration of antigen presenting cells (APCs) subsets (n= 81,271 APCs) from COVID-19 patients. (C) Violin plot representation of *CD47* expression levels among APCs subsets. (D) Volcanos plot of differentially expressed genes (DEGs) between $CD47^{\text{low}}$ and $CD47^{\text{high}}$ monocytes and (E) bar plot representation of gene ontology between $CD47^{\text{low}}$ and $CD47^{\text{high}}$ monocytes.

Supplementary Figure 2. (A) UMAP display of immune cells from eight samples from PWH. (B) tSNE plot illustration of pDC subsets (n= 61,085 pDCs) from PWH. (C) Violin plot representation of *CD47*, *MX1*, *ISG15* and *GNLY* expression levels among pDCs subsets. (D) Bar plot representation of CD47 expression levels and percentage of $CD47^{\text{how}}$, $CD47^{\text{inter.}}$, and $CD47^{\text{high}}$ pDCs.

Supplementary Figure 3. (A) tSNE plot illustration of CD4+ T cells subsets (n= 7,942 CD4+ T cells) from PWH. (B) Ridge plot of *CD47, GZMA, ISG15* and *CD3D* expression among CD4+ T cells subsets.

Supplementary Figure 1



Monocytes: CD47 high vs CD47 low cells avg_log2FC

CD47

E

4 ·







Monocytes: CD47 high vs CD47 low cells



p.adjust 0.15 0.10 0.05

regulation of adaptive immune responsepositive regulation of lymphocyte activation

positive regulation of cytokine production



Supplementary Figure 2



20

tSNE_1



Supplementary Figure 3



G15

