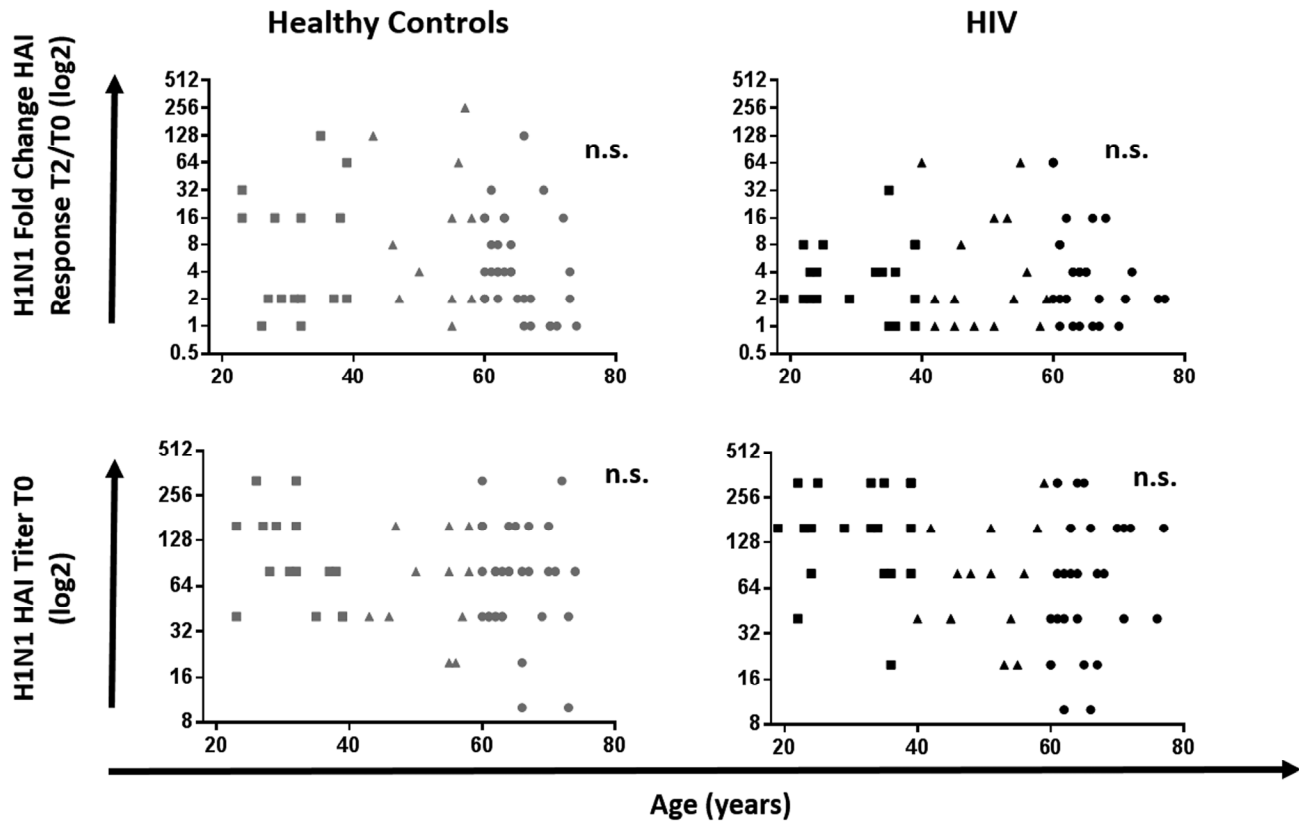
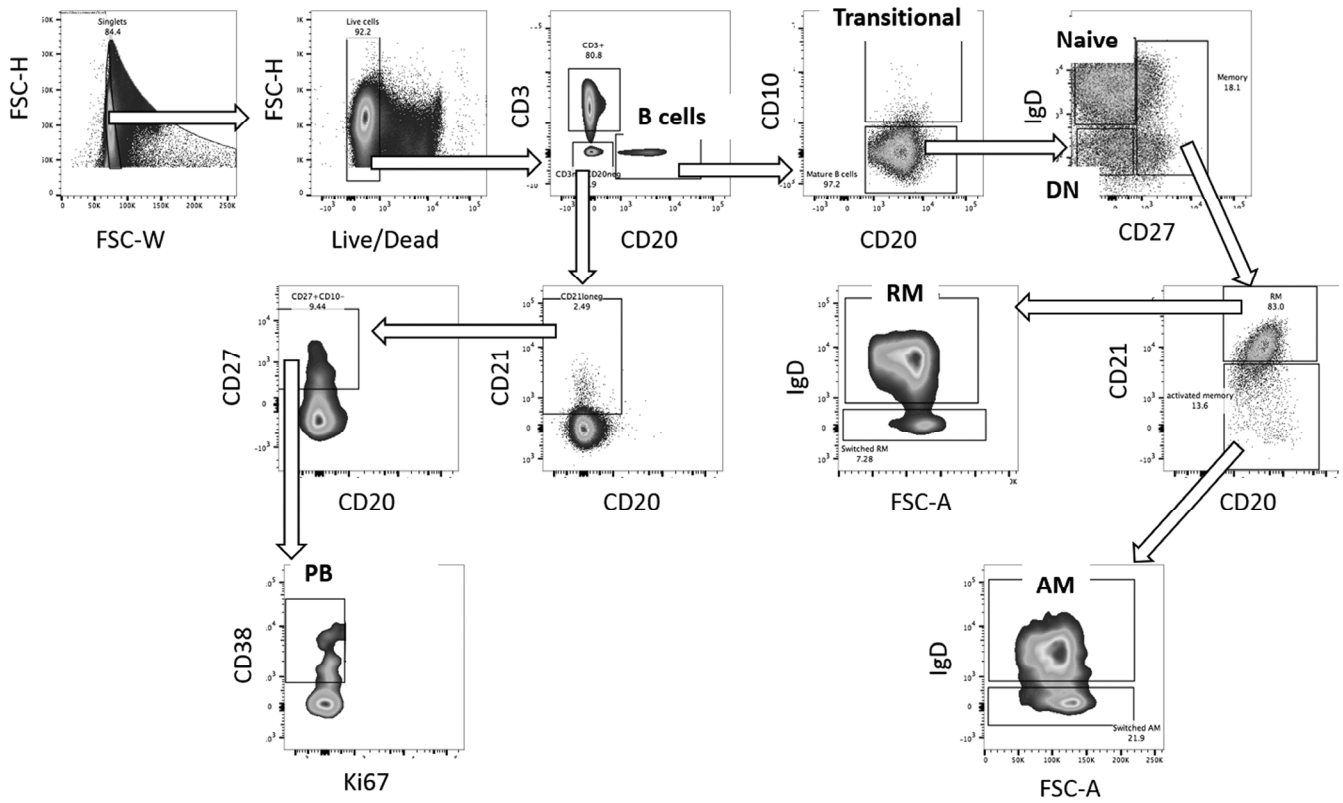


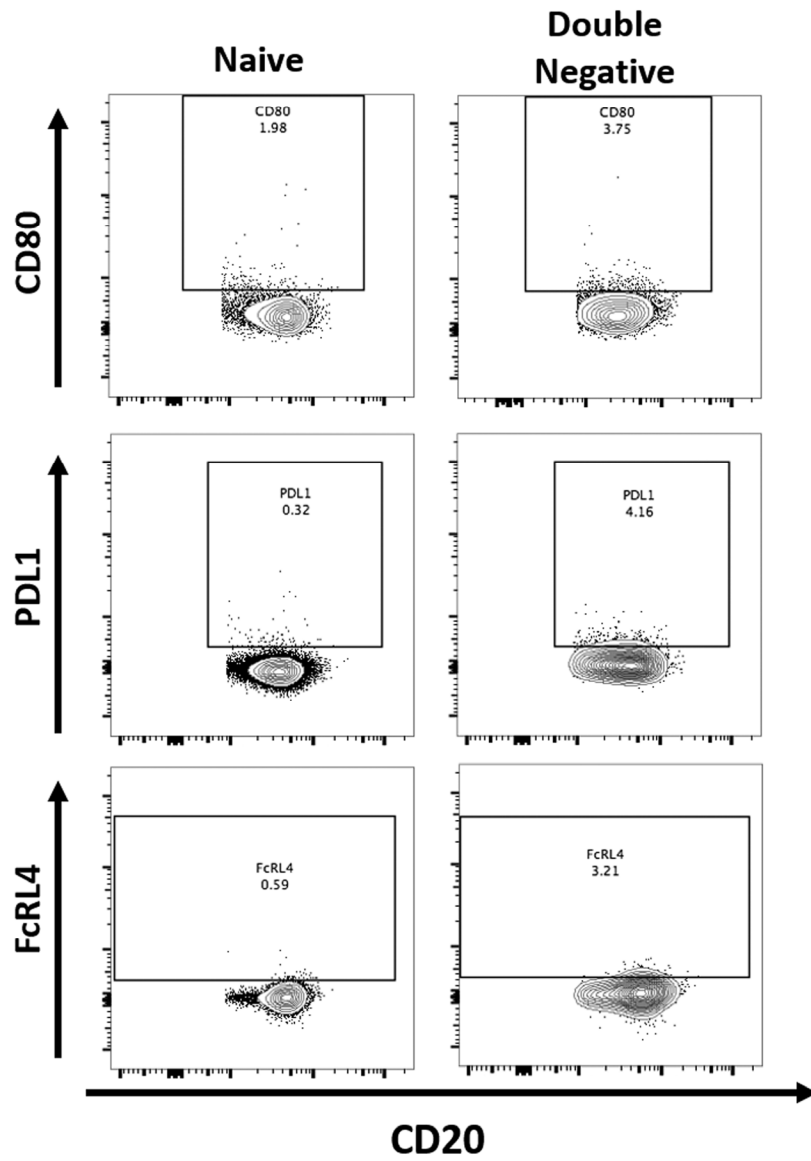
SUPPLEMENTARY MATERIAL



Supplementary Figure 1. Correlation between age and H1N1-specific serological response in HIV and HC. Age was correlated with H1N1 specific fold change T2/T0 (**Top**) and HAI titer at T0 (**Bottom**) in 60 Healthy controls (**Left, Grey**) and 64 HIV infected individuals (**Right, Black**). Spearman correlation was performed. Serological values are expressed as log2 scale. Age groups depicted as squares (young, <40 years), triangles (middle, 40-59 years) and circles (old, ≥60 years).



Supplementary Figure 2. Gating strategy for the identification of the different maturation B cells subsets in live PBMC. B cells identified as CD3-CD20+ were gated for CD3-CD20+CD10+ (Transitional B cells), CD3-CD20+CD10-IgD+CD27- (Naïve B cells), CD3-CD20+CD10-IgD-CD27- (Double Negative B cells, DN). Memory B cells (CD3-CD20+CD10-CD27+) were divided into CD3-CD20+CD10-CD27+CD21-IgD- (Resting memory B cells, RM) and CD3-CD20+CD10-CD27+CD21lowIgD- (Activated Memory B cells, AM). Plasmablasts (PB) were characterized as CD3-CD20lowCD21lowCD27+CD38+Ki67- based on the gating strategy from B cells as shown.



Supplementary Figure 3. Gating strategy for the identification of CD80+, PDL1+ and FcRL4+ in the Naïve and Double Negative B cells.