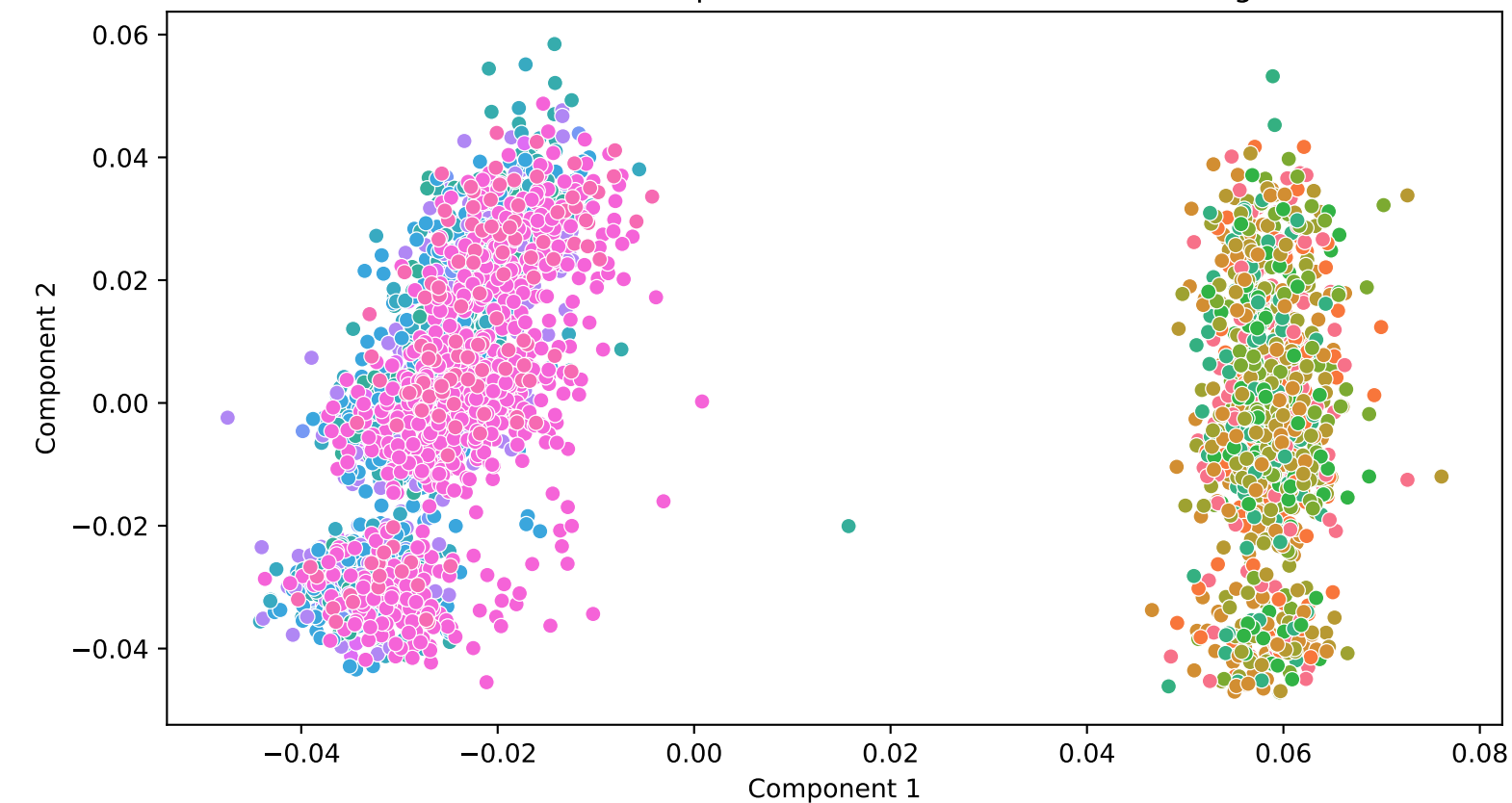
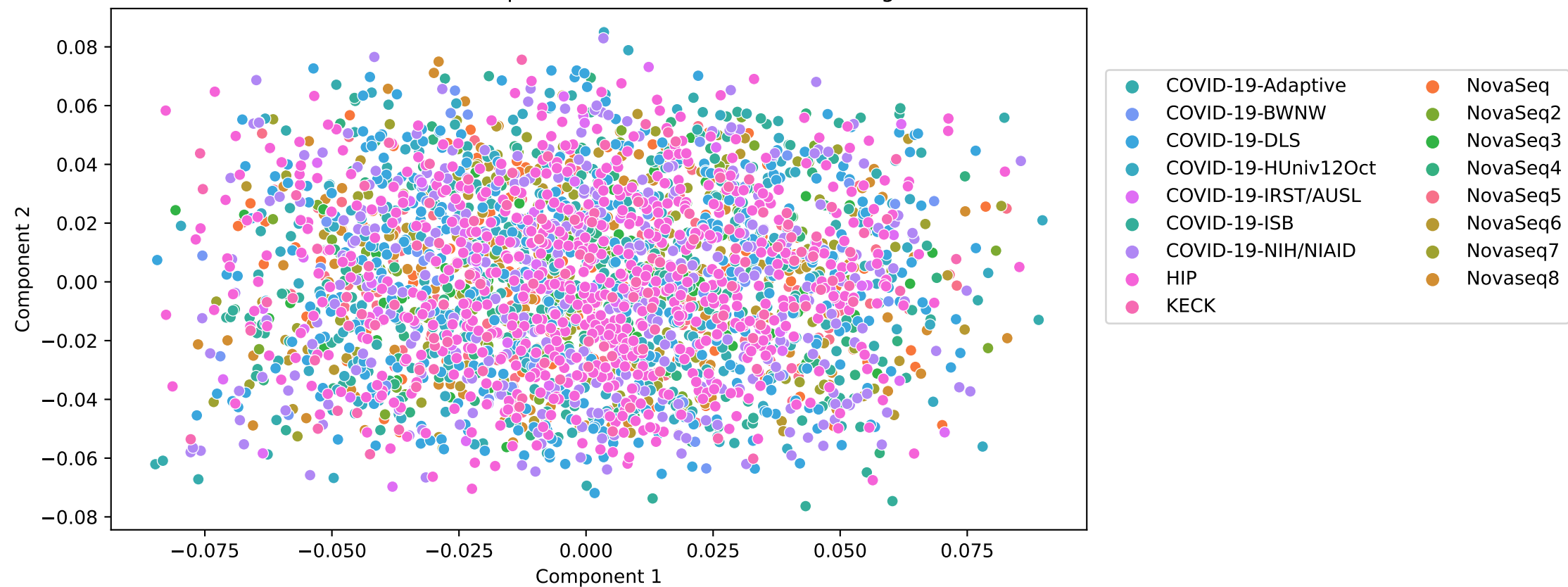
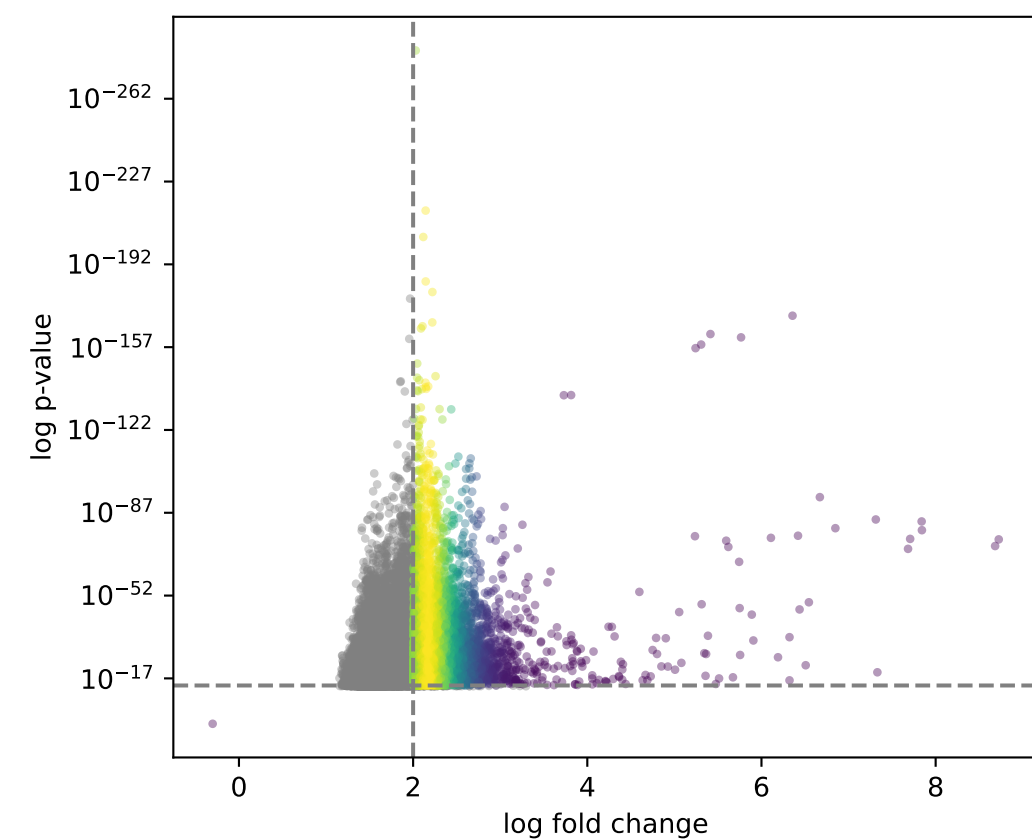
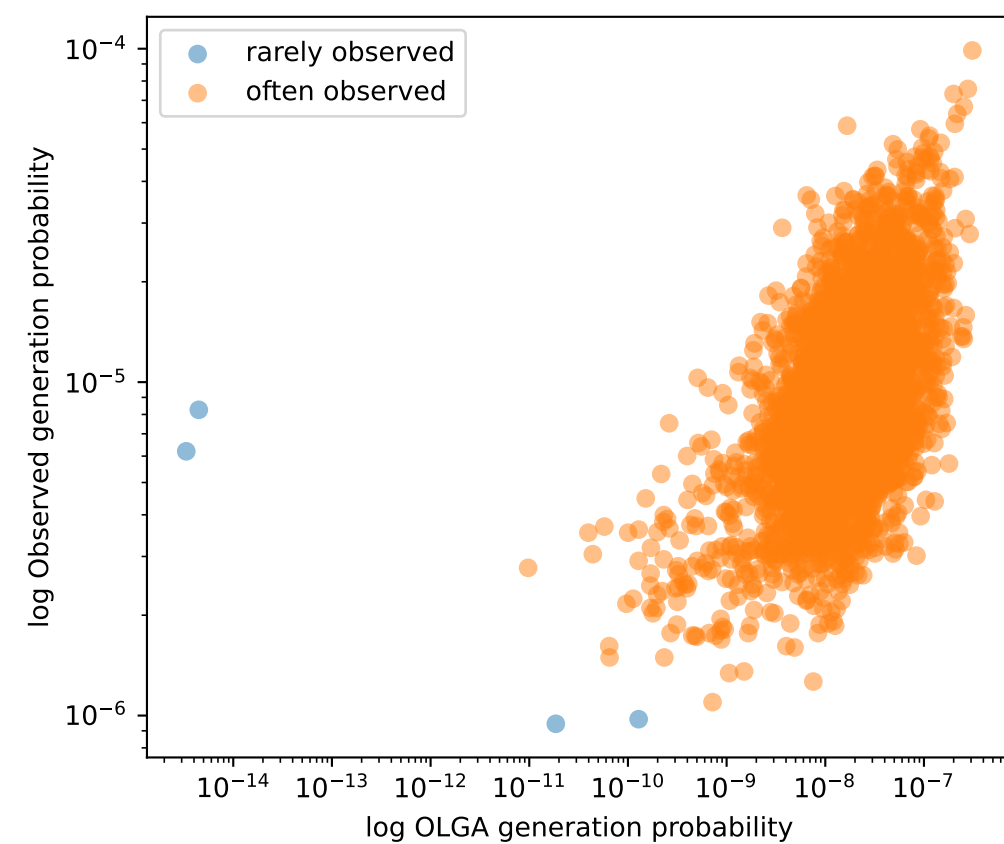
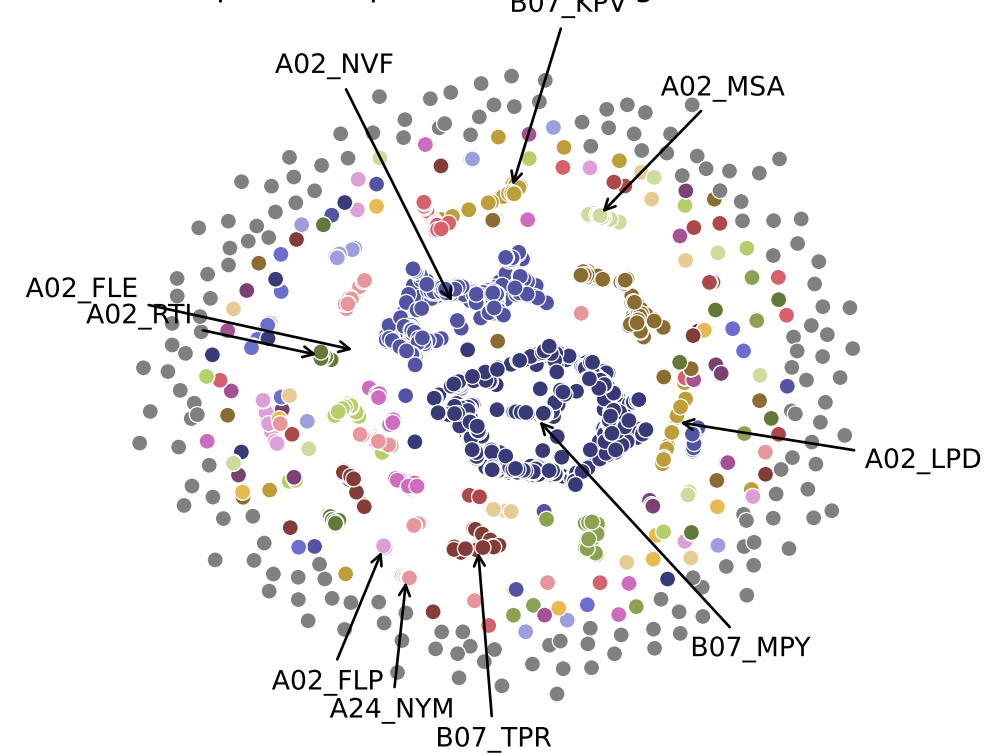


**A**

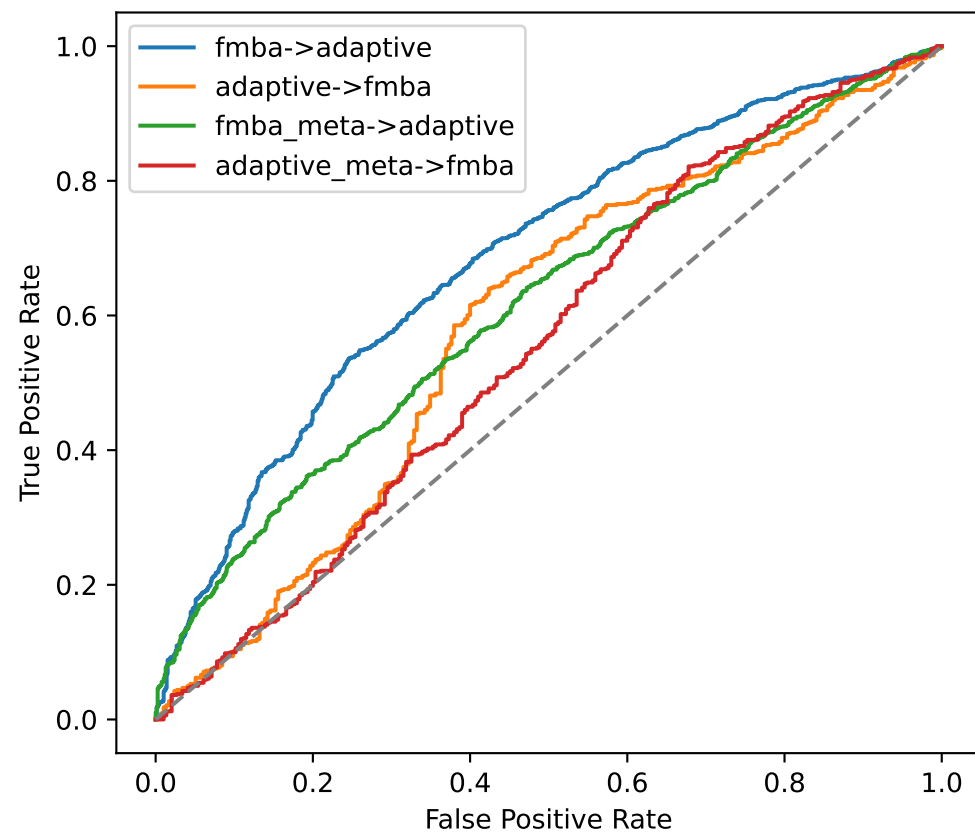
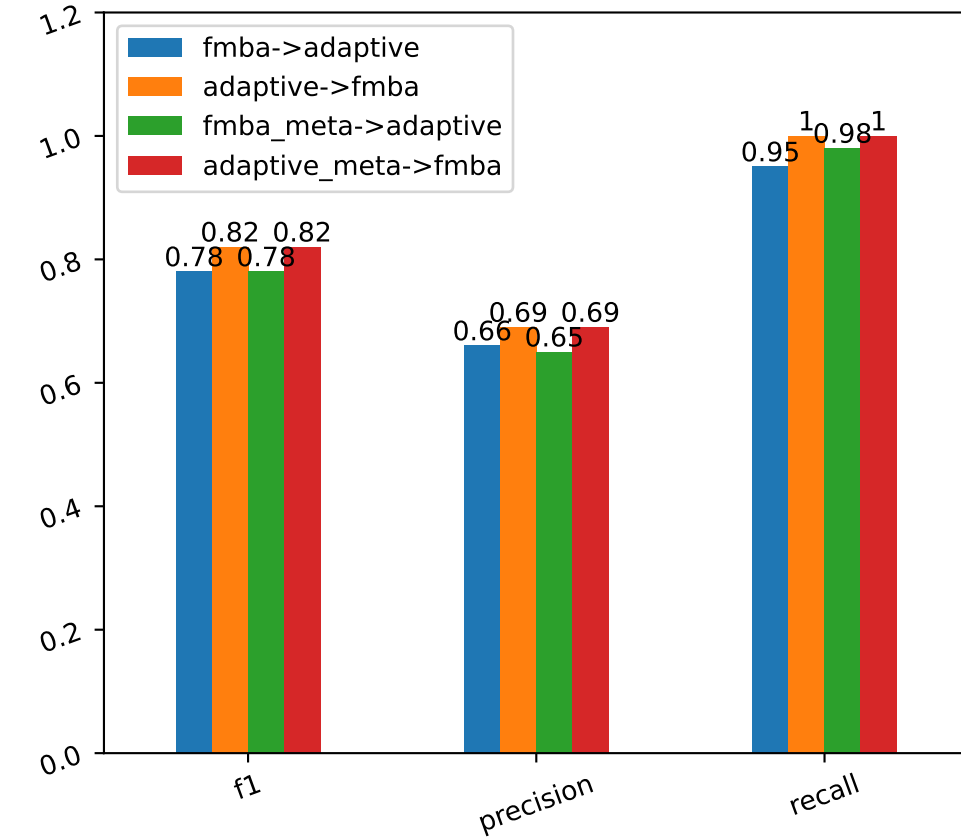
PCA for FMBA/Adaptive data before Batch effect fixing

**B**

PCA for FMBA/Adaptive data after Batch effect fixing

**C****D****E**Adaptive TCR $\beta$  clone clustering, 316 clusters**F**

ROC-curve

**G****H**Adaptive/FMBA TCR $\beta$  clone clustering