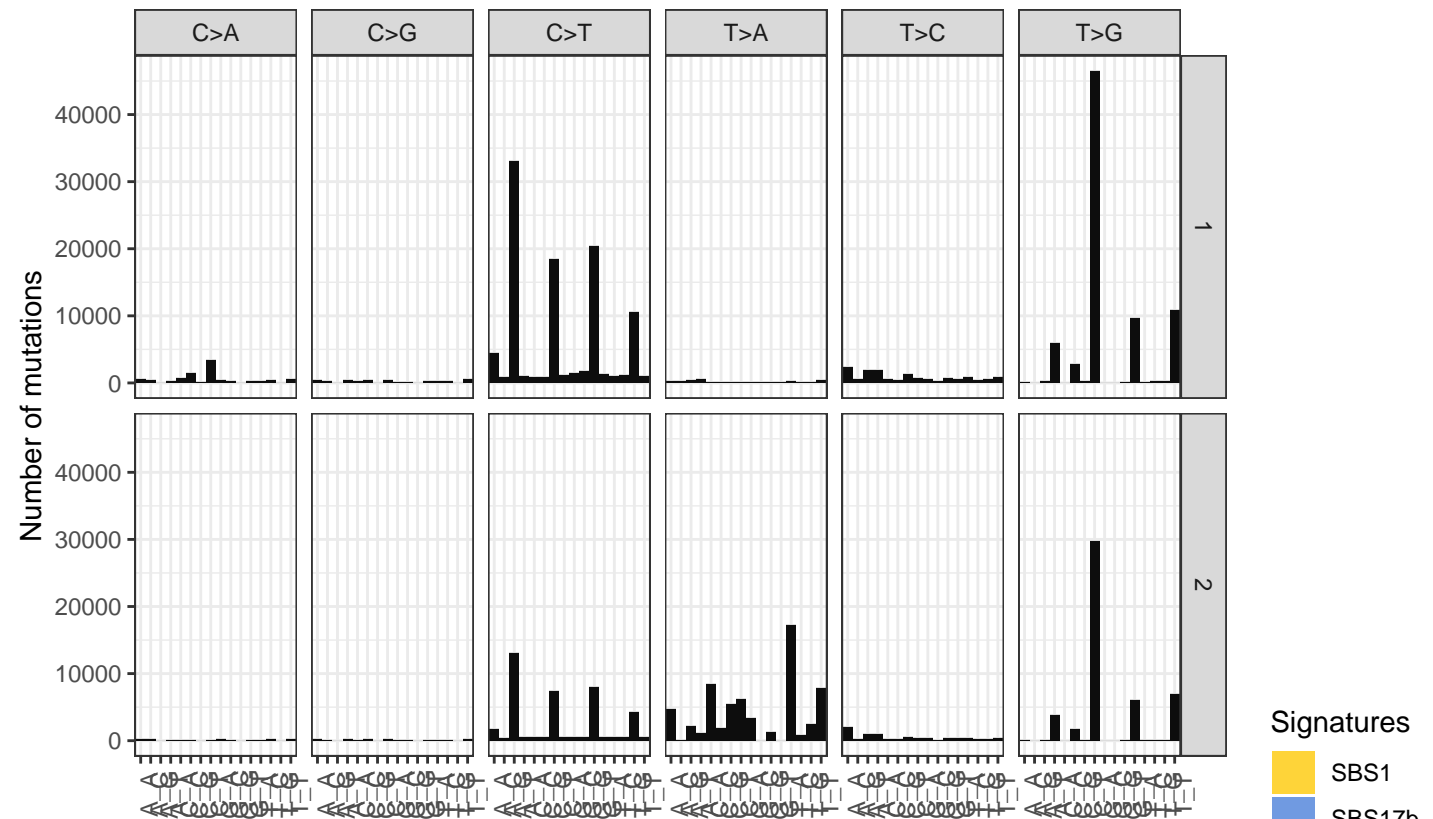
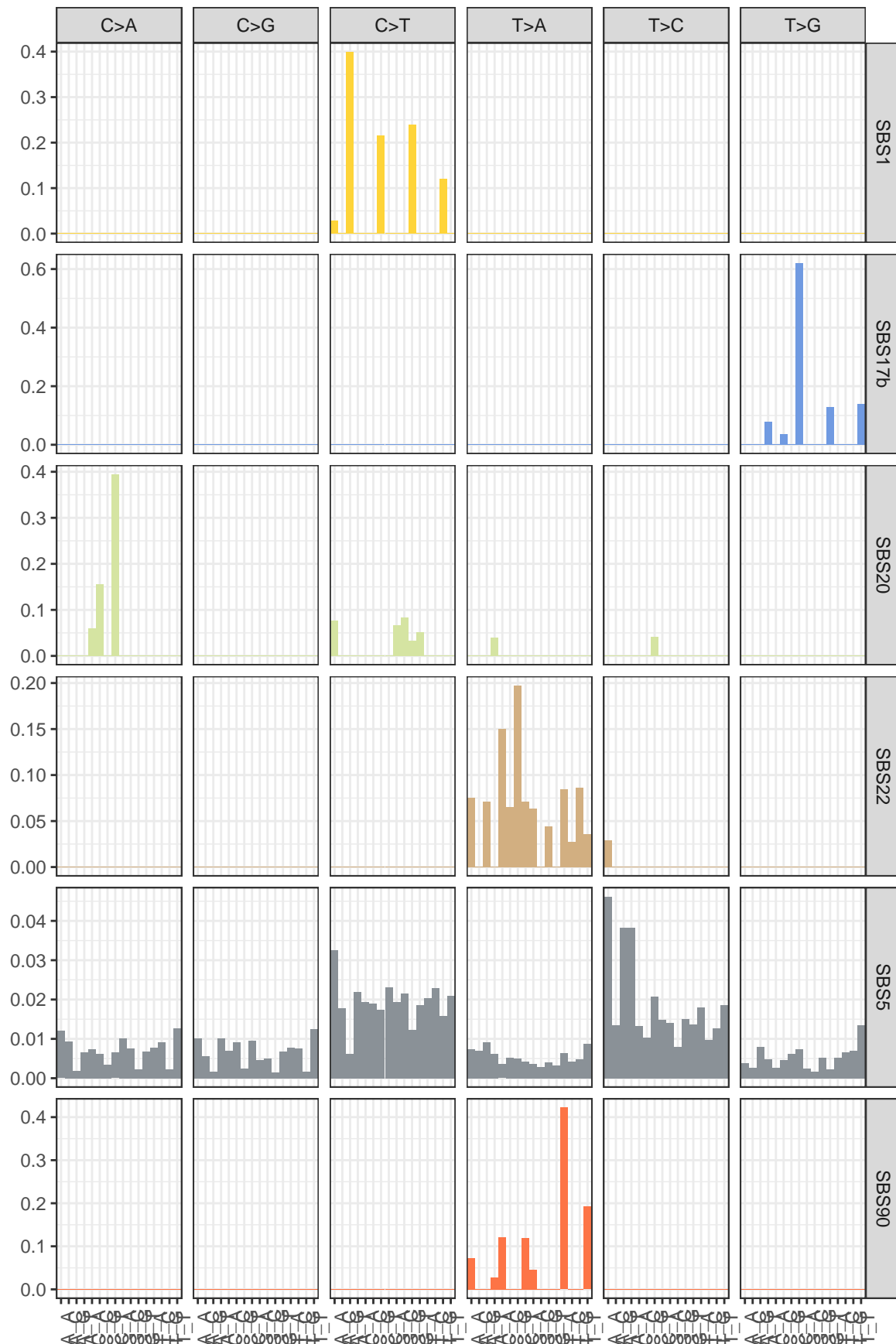
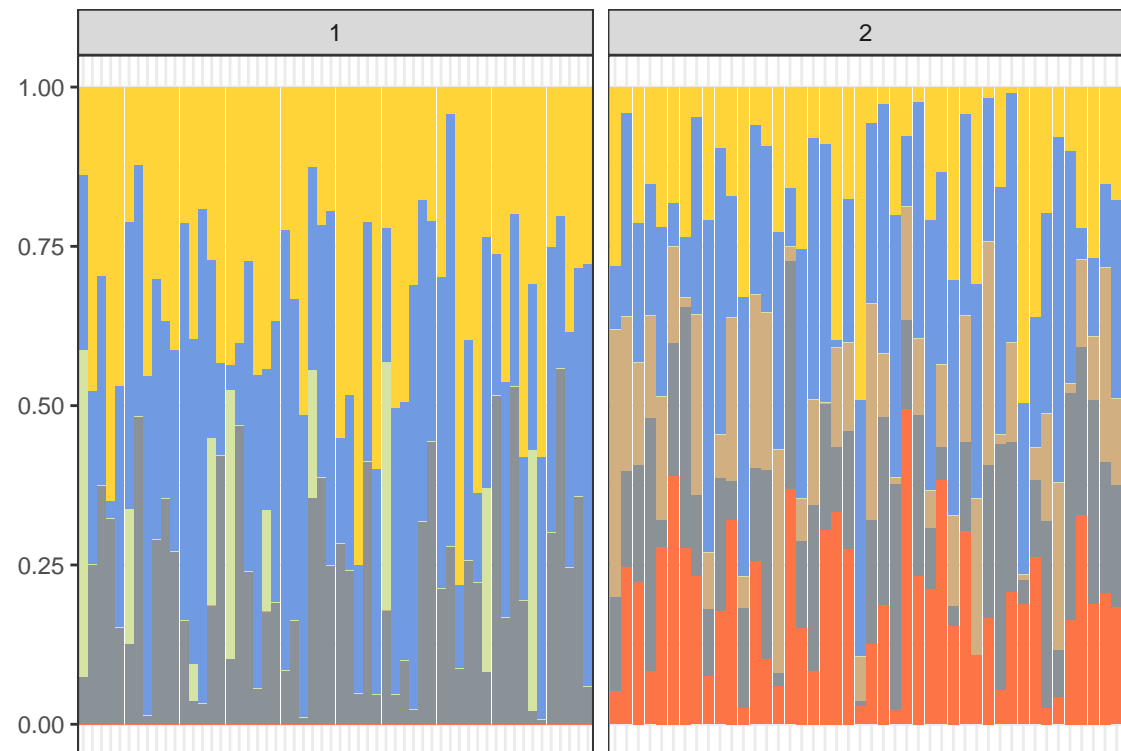


SIMUL: Rare sigs SBS20 frequency 0.17 – Common sigs SBS22

## Signatures

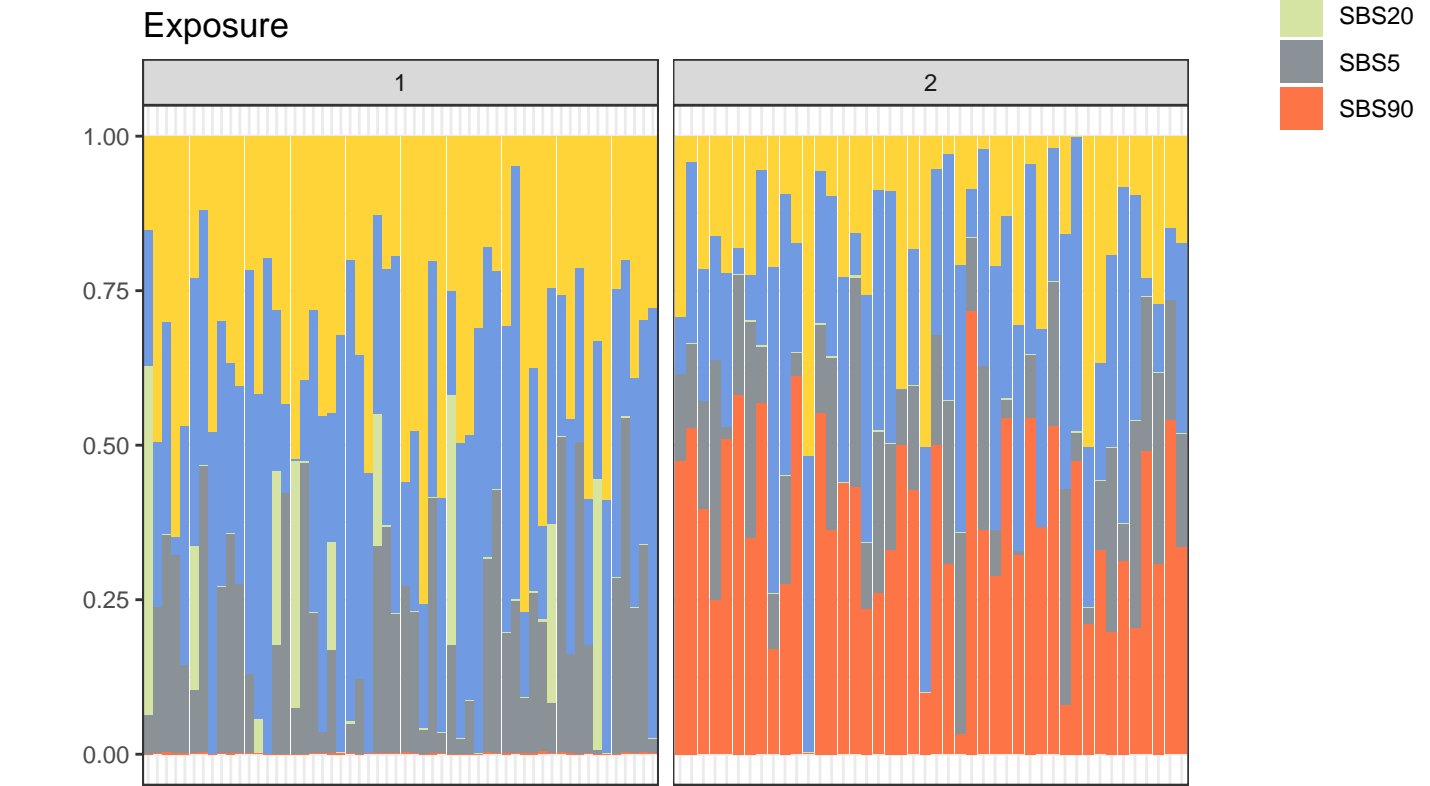
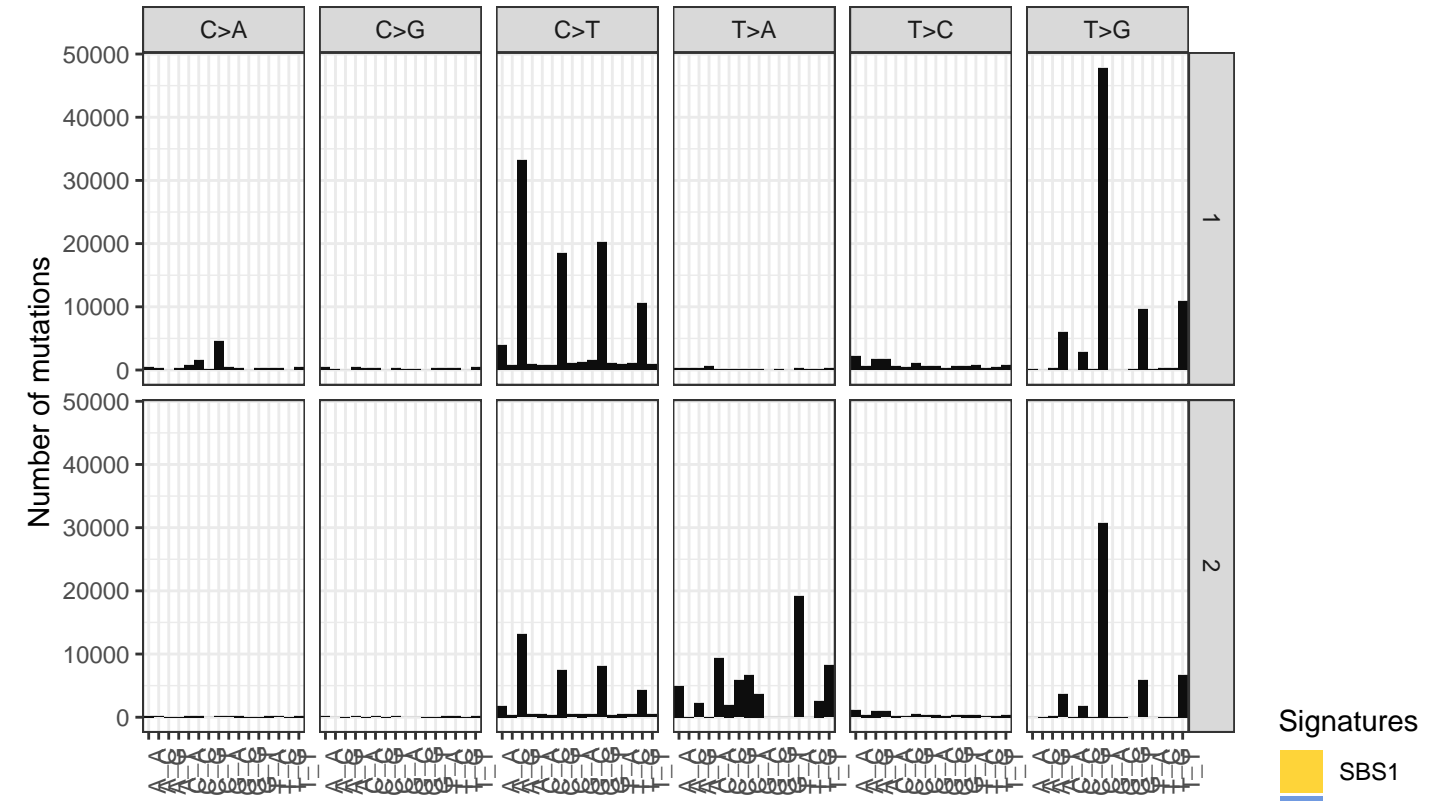
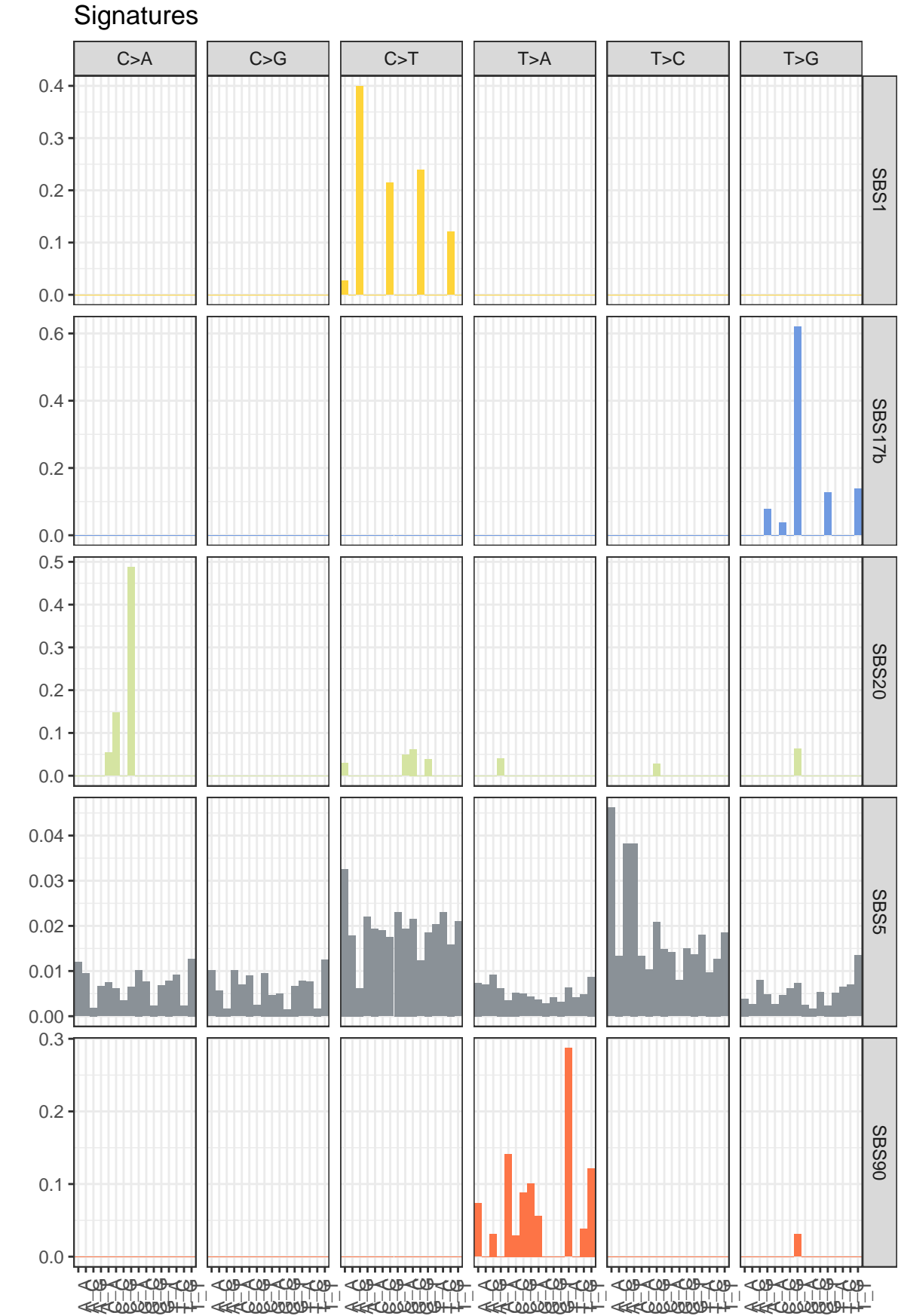


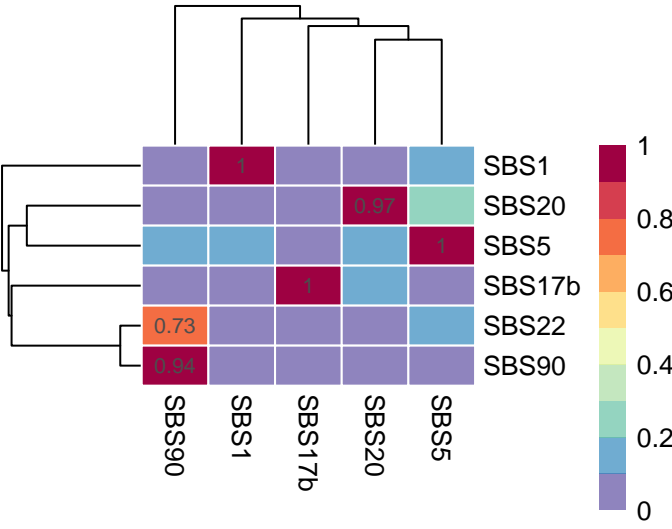
## Exposure



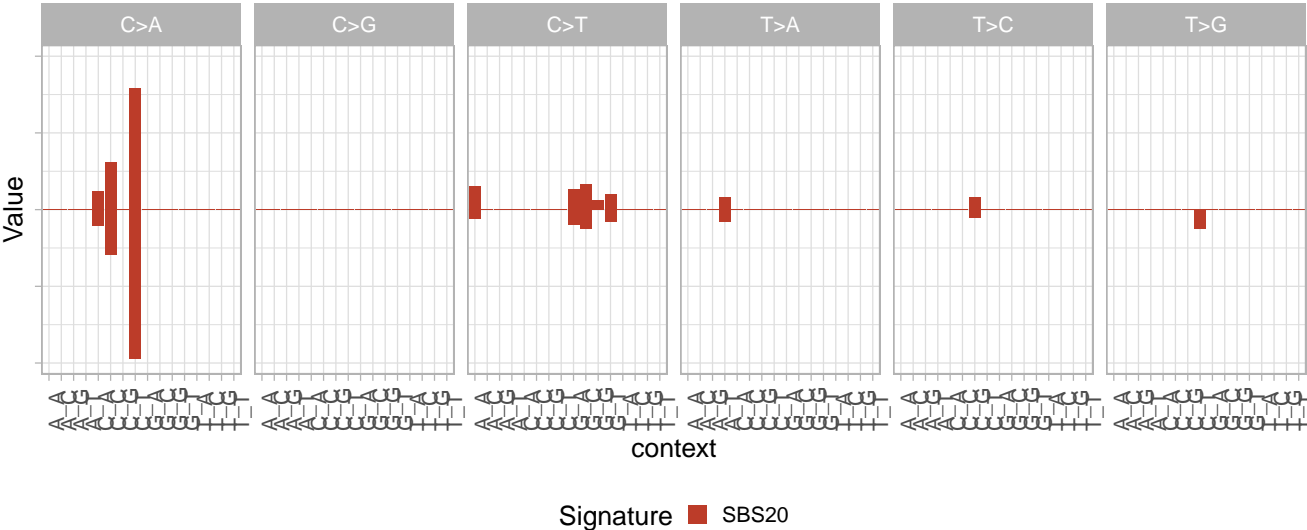
FIT: Rare sigs SBS20 frequency 0.17 – Common sigs SBS22

Missing sigs SBS22 – Added sigs

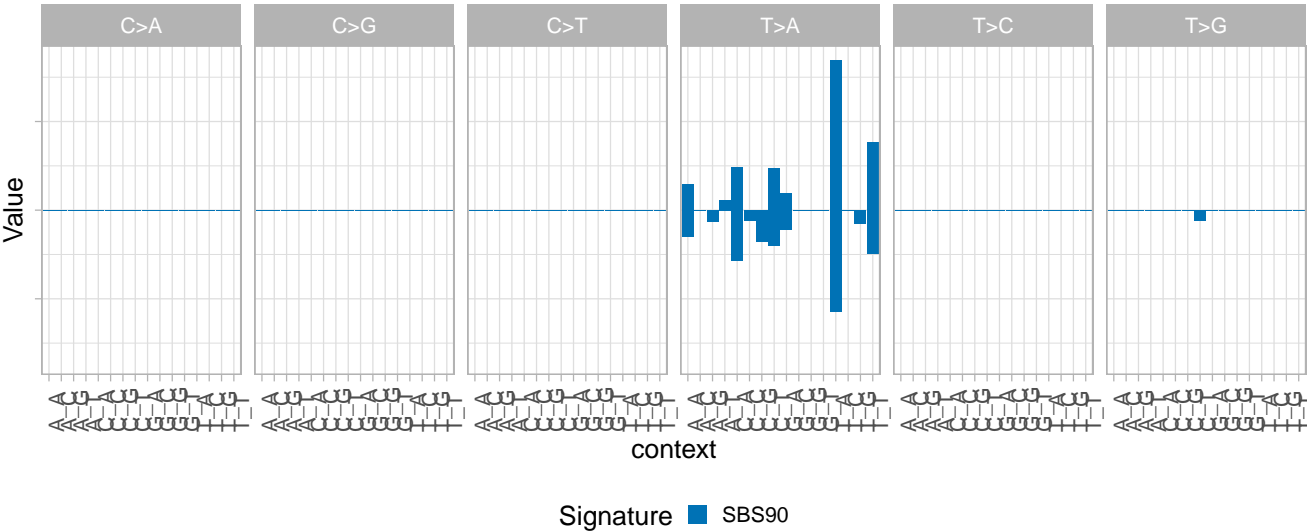




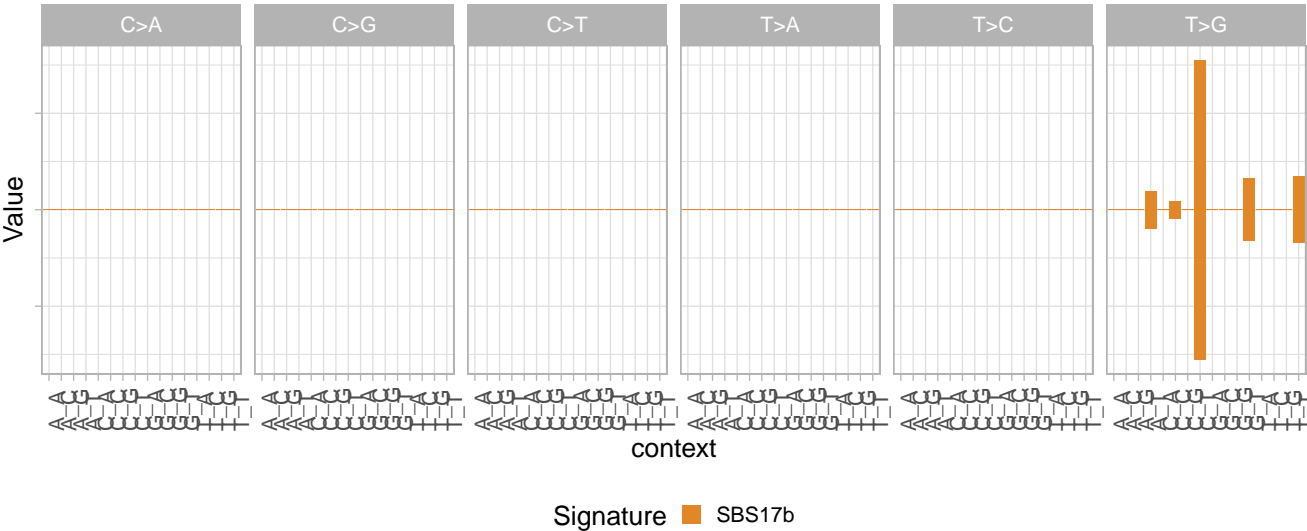
SBS20 vs SBS20 cosine similarity  $\theta = 0.974962$



SBS90 vs SBS90 cosine similarity  $\theta = 0.9399885$

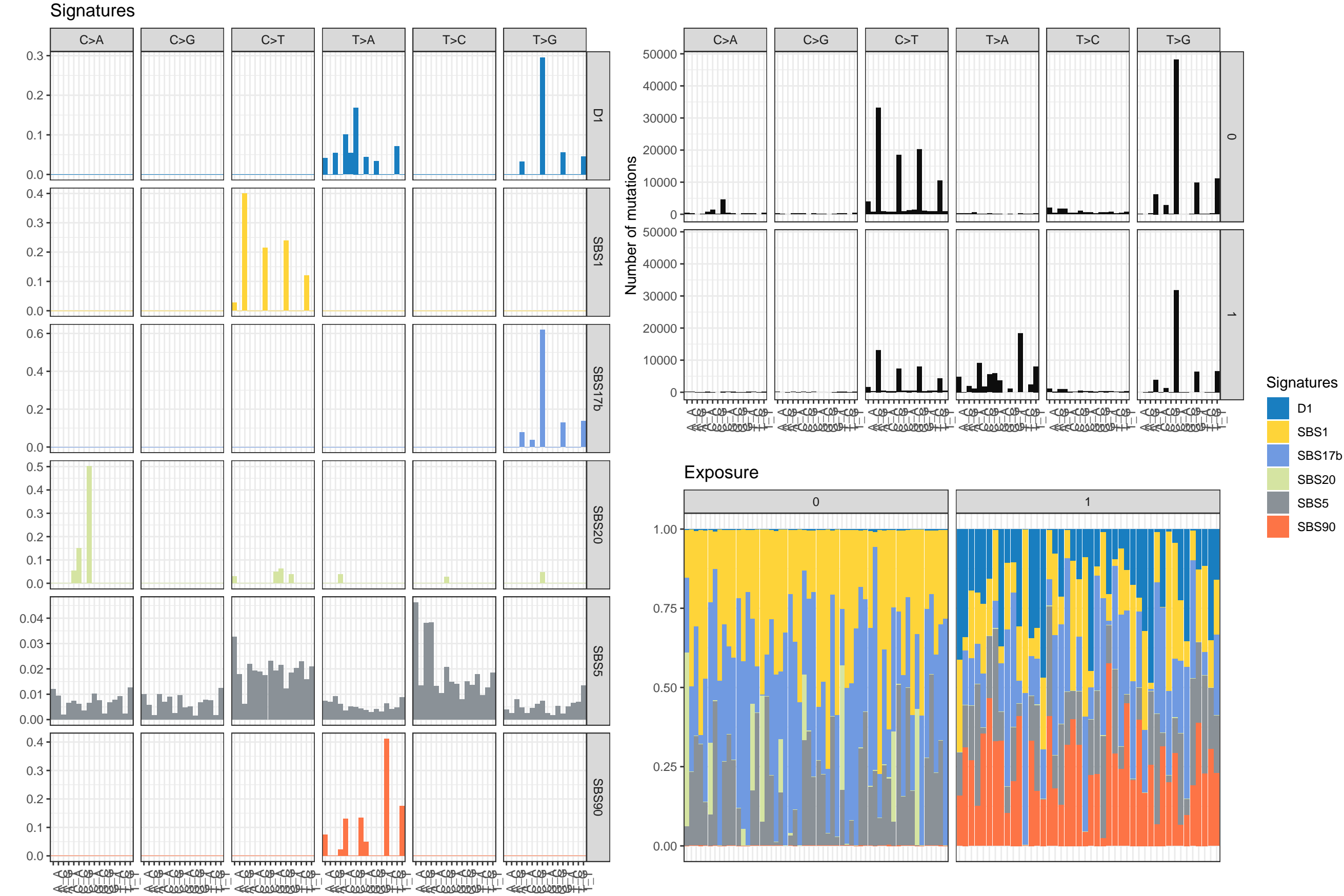


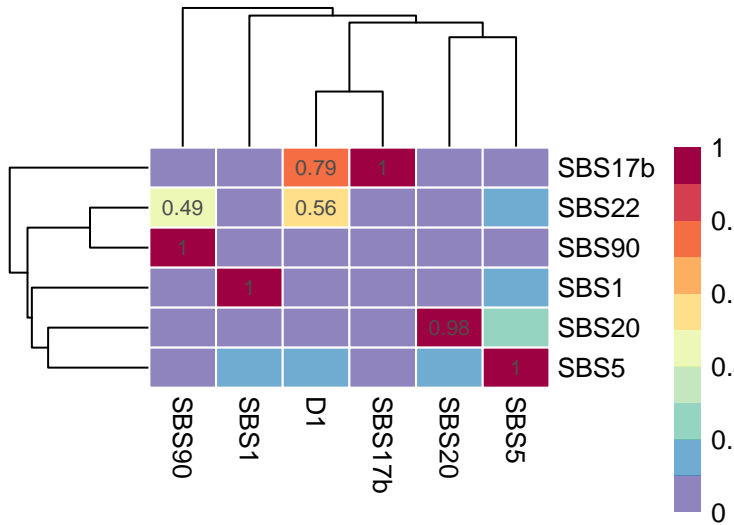
SBS17b vs SBS17b cosine similarity  $\theta = 0.999997$



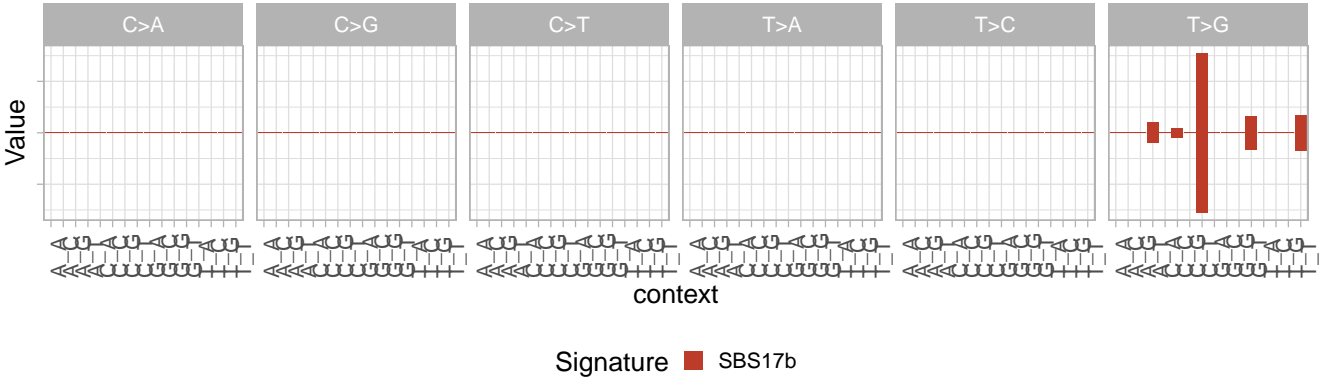
HIER FIT: Rare sigs SBS20 frequency 0.17 – Common sigs SBS22

Missing sigs SBS22 – Added sigs D1

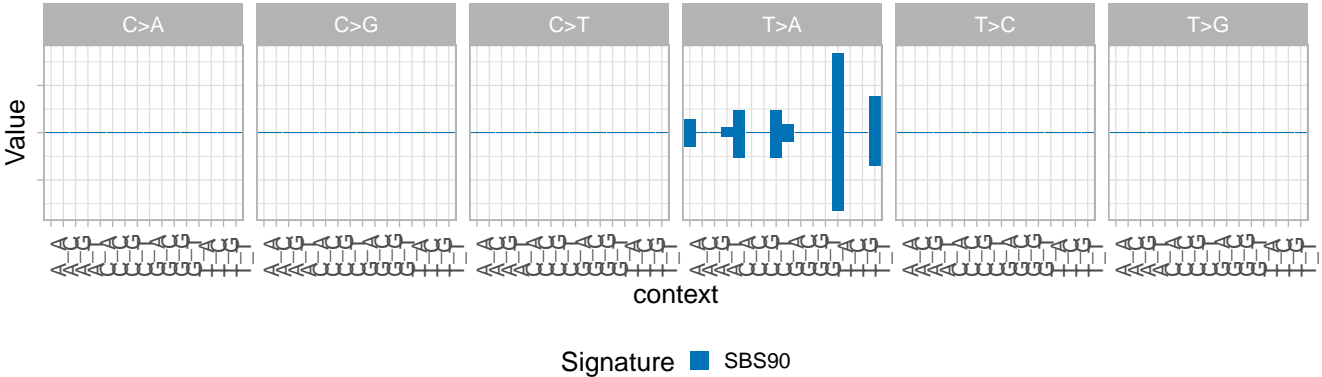




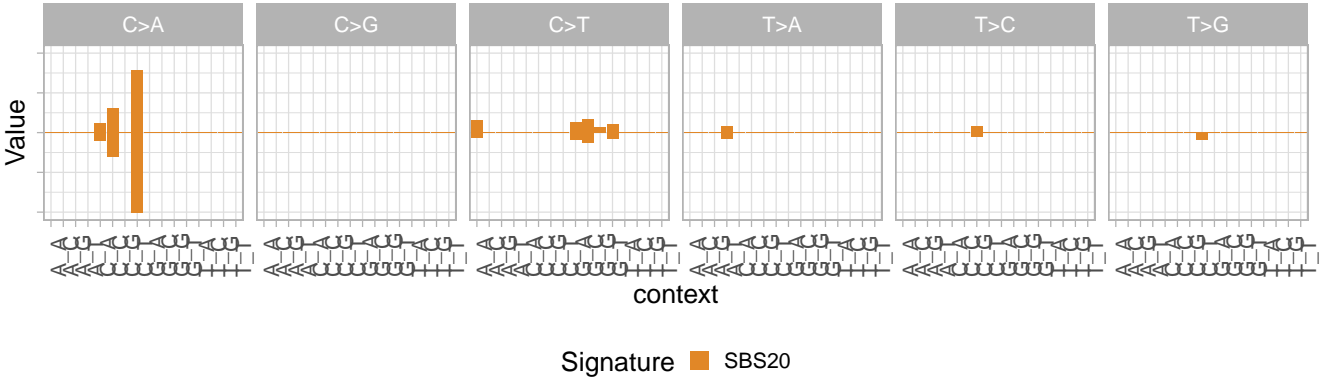
SBS17b vs SBS17b cosine similarity  $\theta = 0.9999975$



SBS90 vs SBS90 cosine similarity  $\theta = 0.9985722$



SBS20 vs SBS20 cosine similarity  $\theta = 0.977646$



D1 vs SBS17b cosine similarity  $\theta = 0.7922083$

