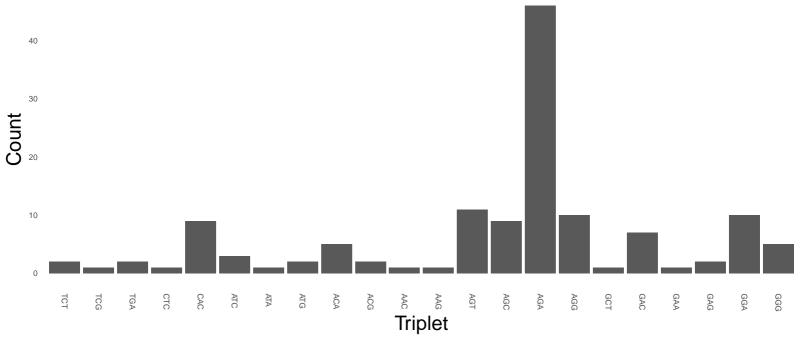
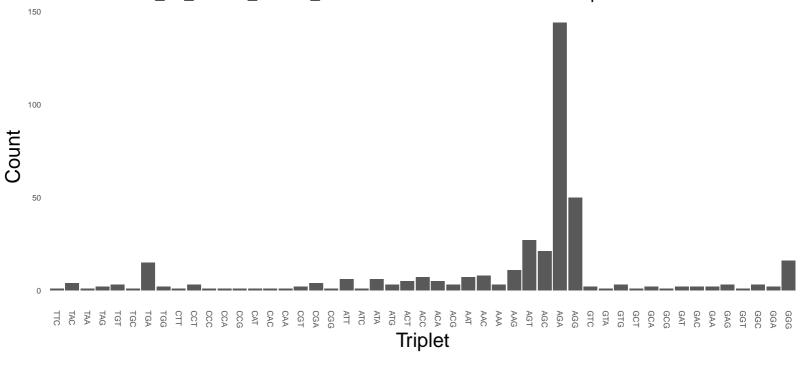


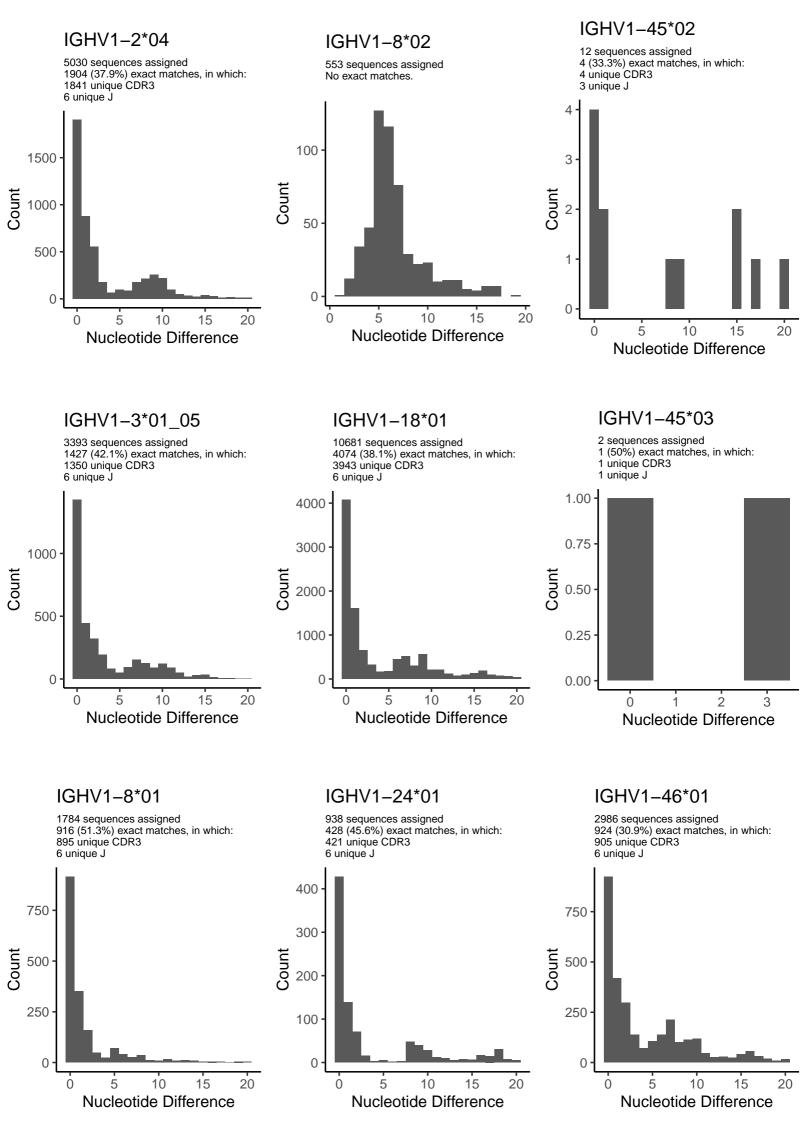
Position

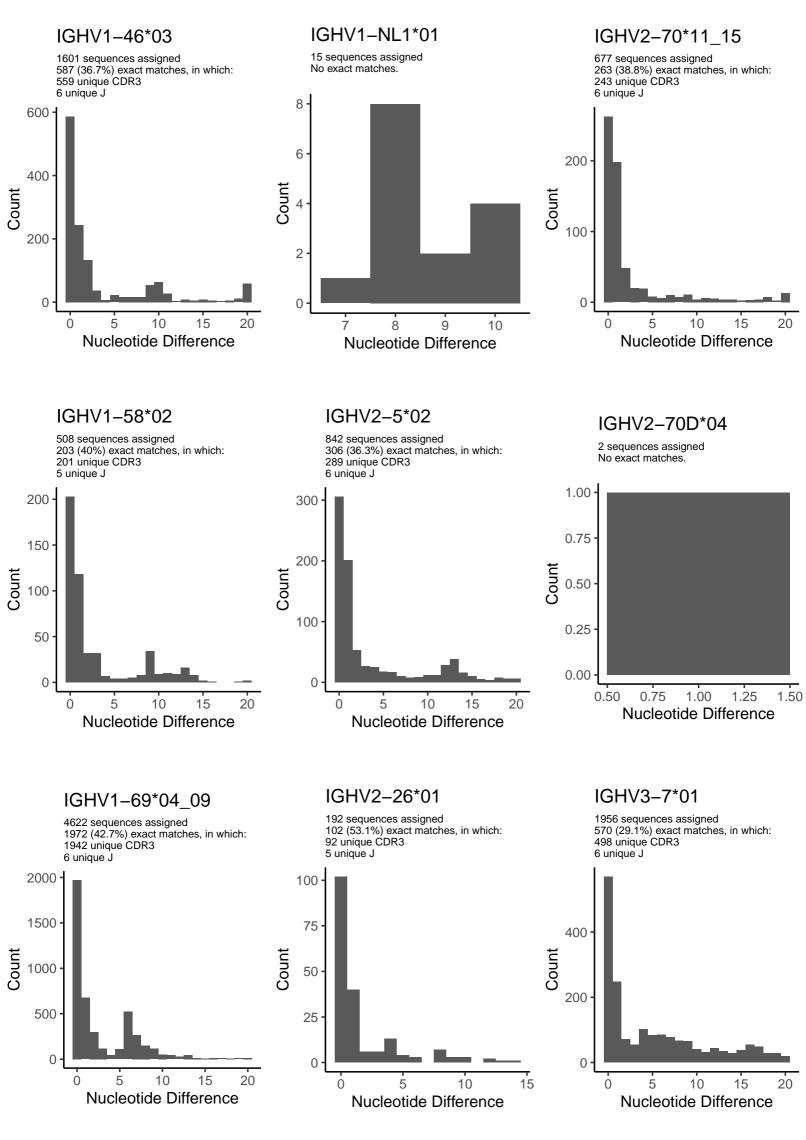
IGHV4/OR15-8\*01\_C193A- Final 3 nucleotides as a triplet

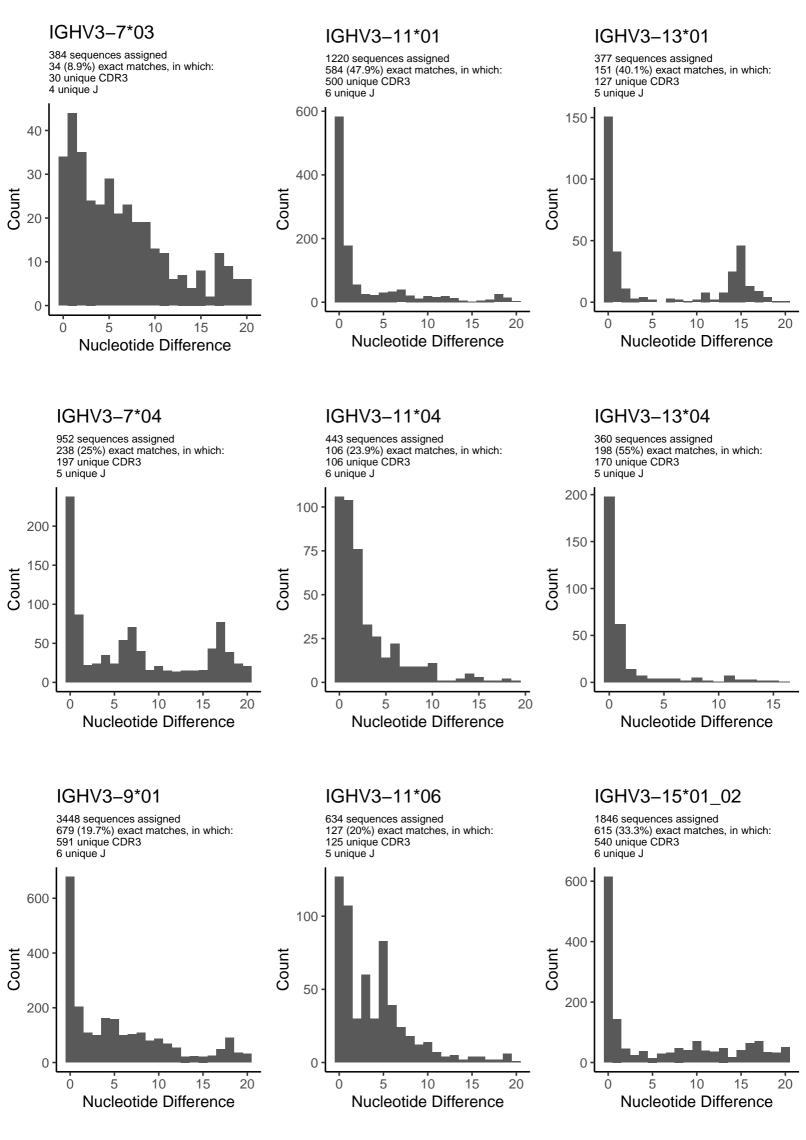


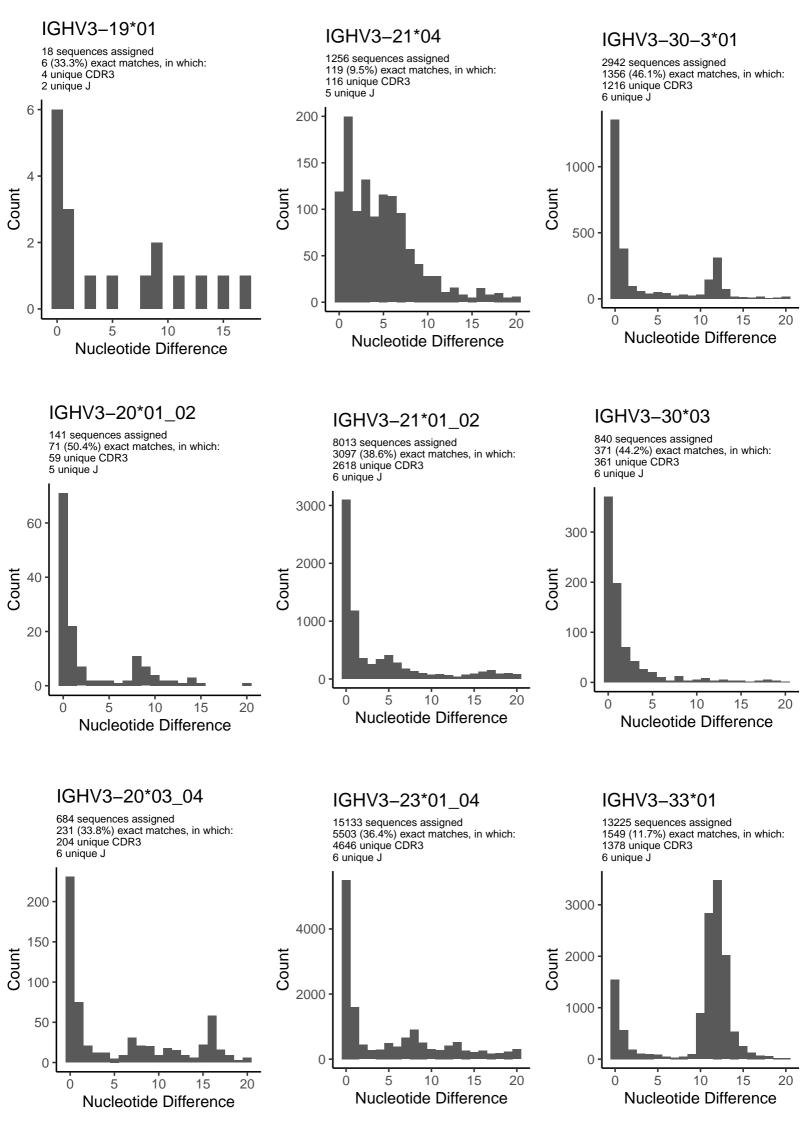
IGHV3-53\*01\_02\_A225G\_T267G\_G303A- Final 3 nucleotides as a triplet

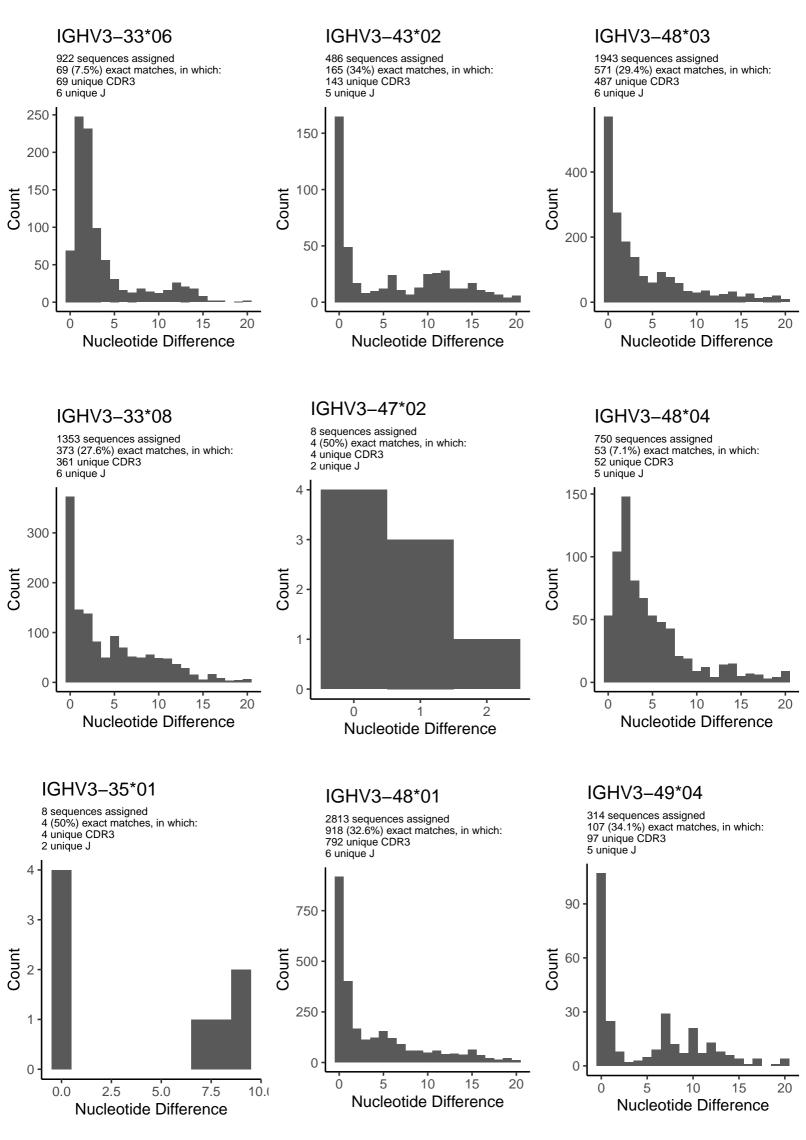


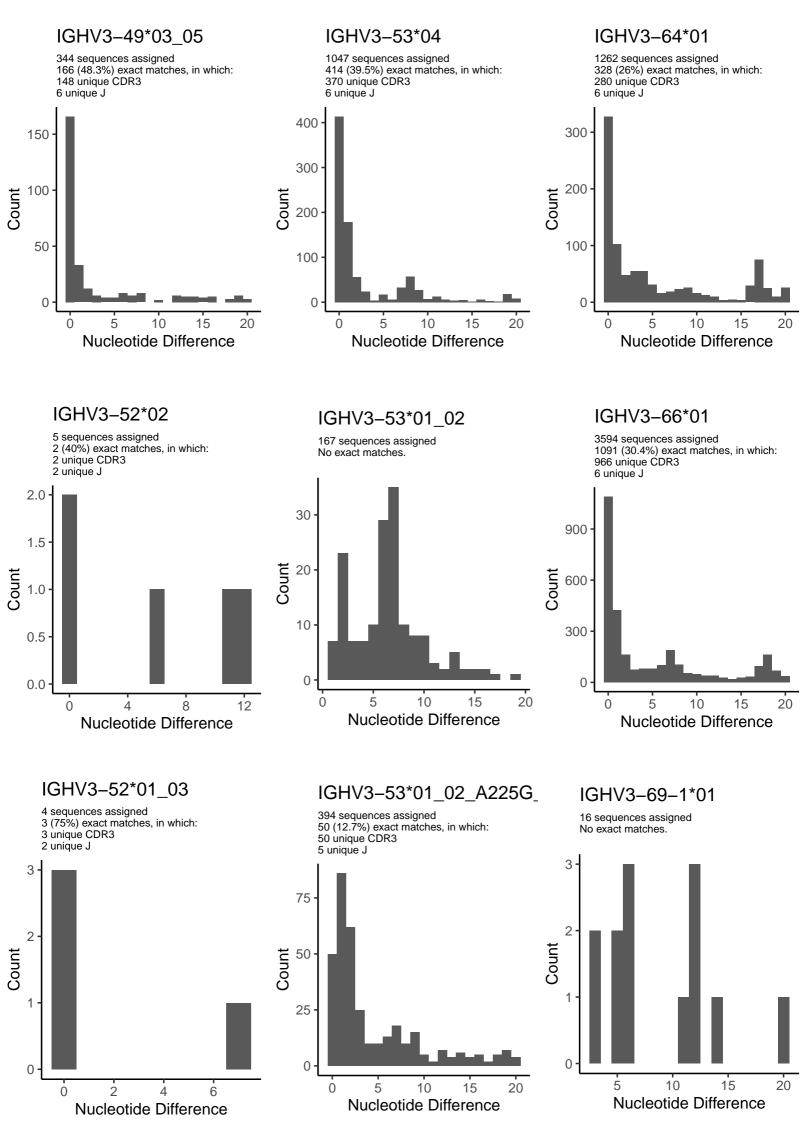


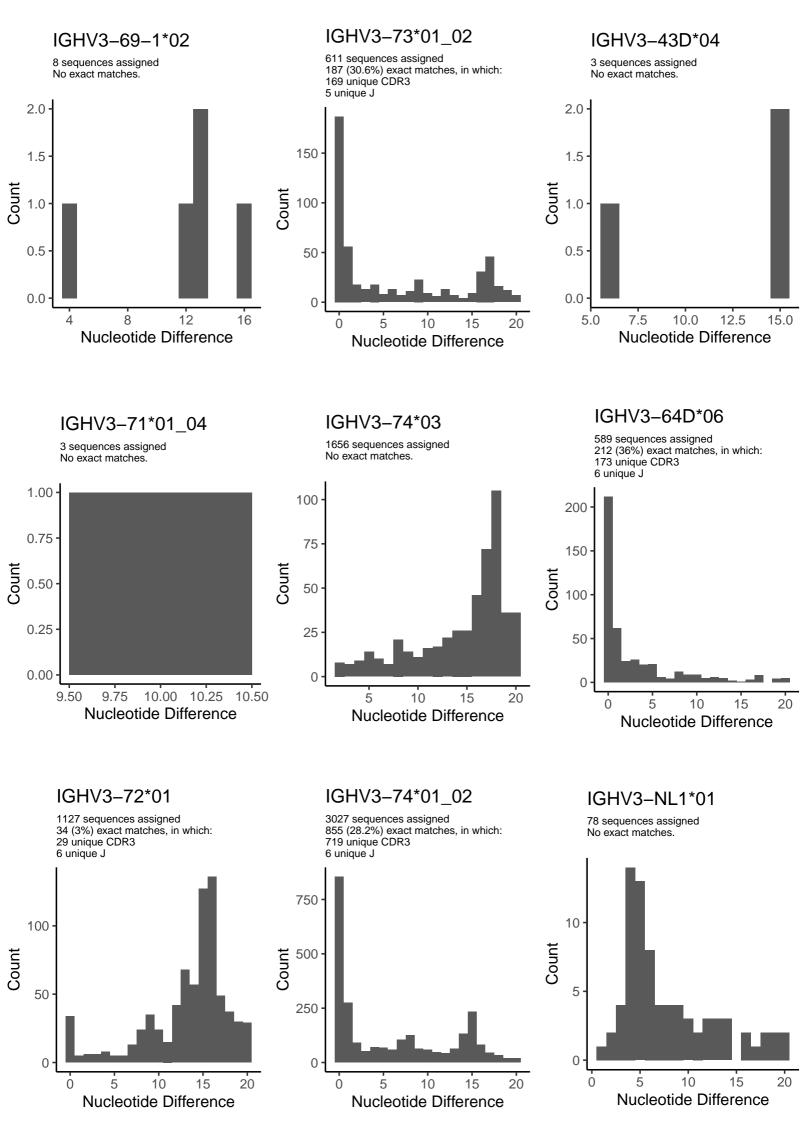


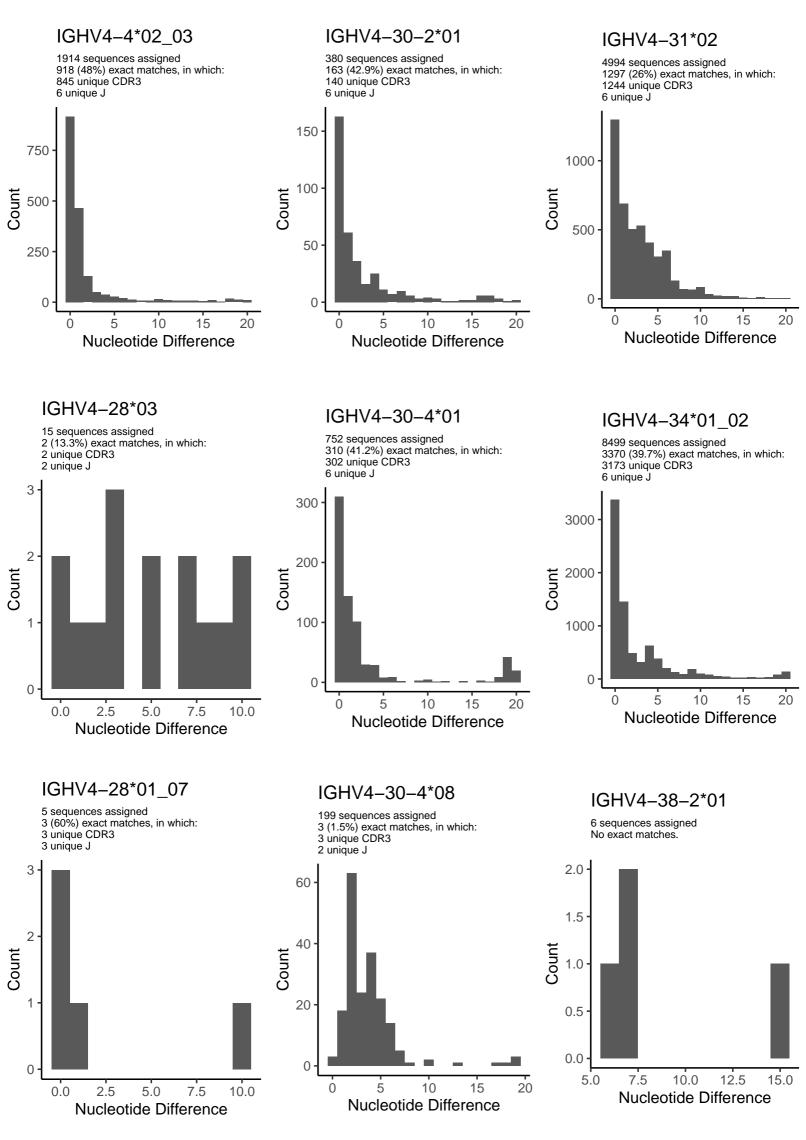


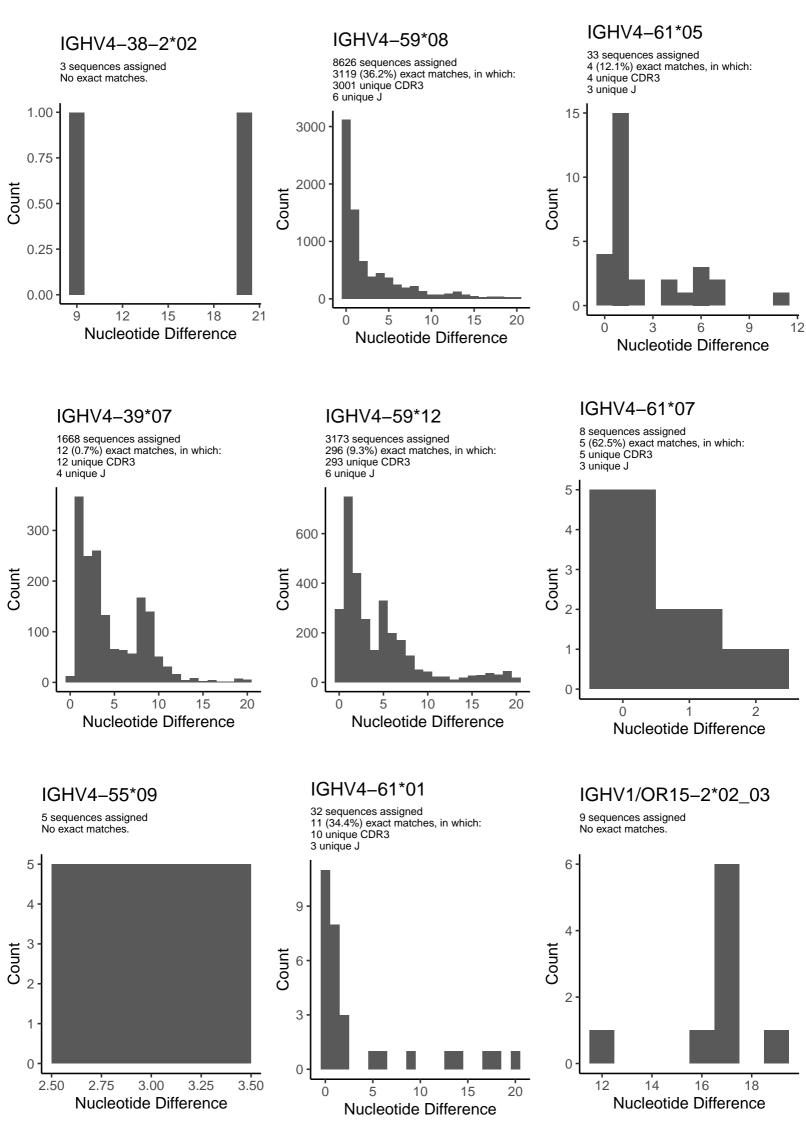


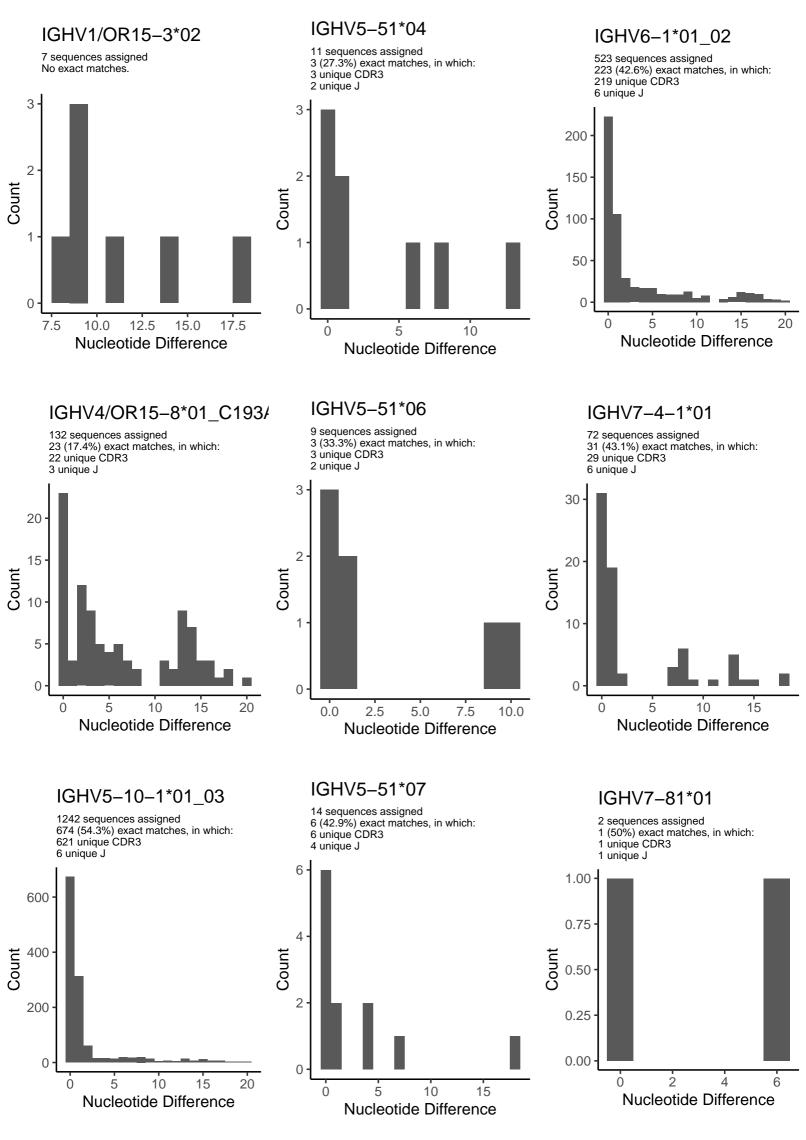






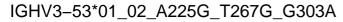


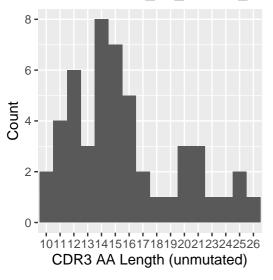




## IGHV4/OR15-8\*01\_C193A 5-4412 13 15 16 17 20 21 22 23 24 27

CDR3 AA Length (unmutated)







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