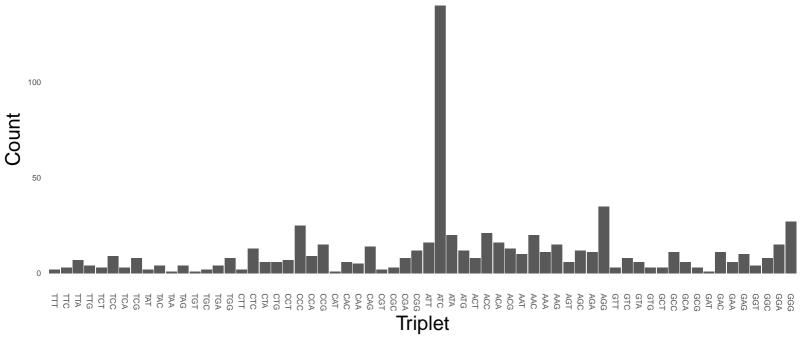
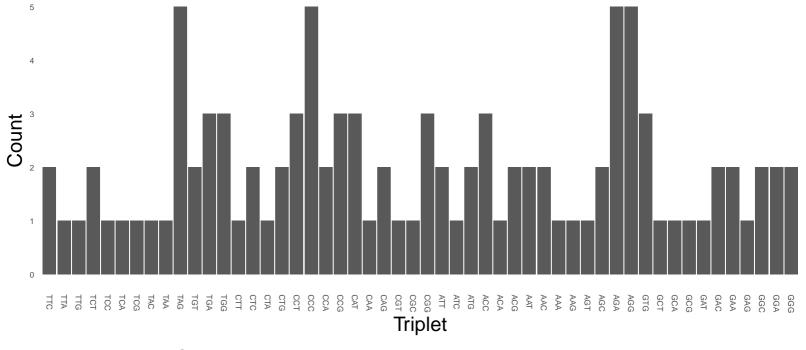


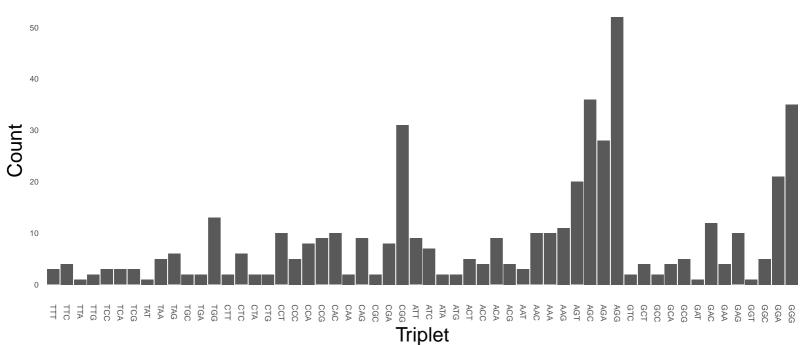
TRBV23-1\*ap01\_T304C- Final 3 nucleotides as a triplet

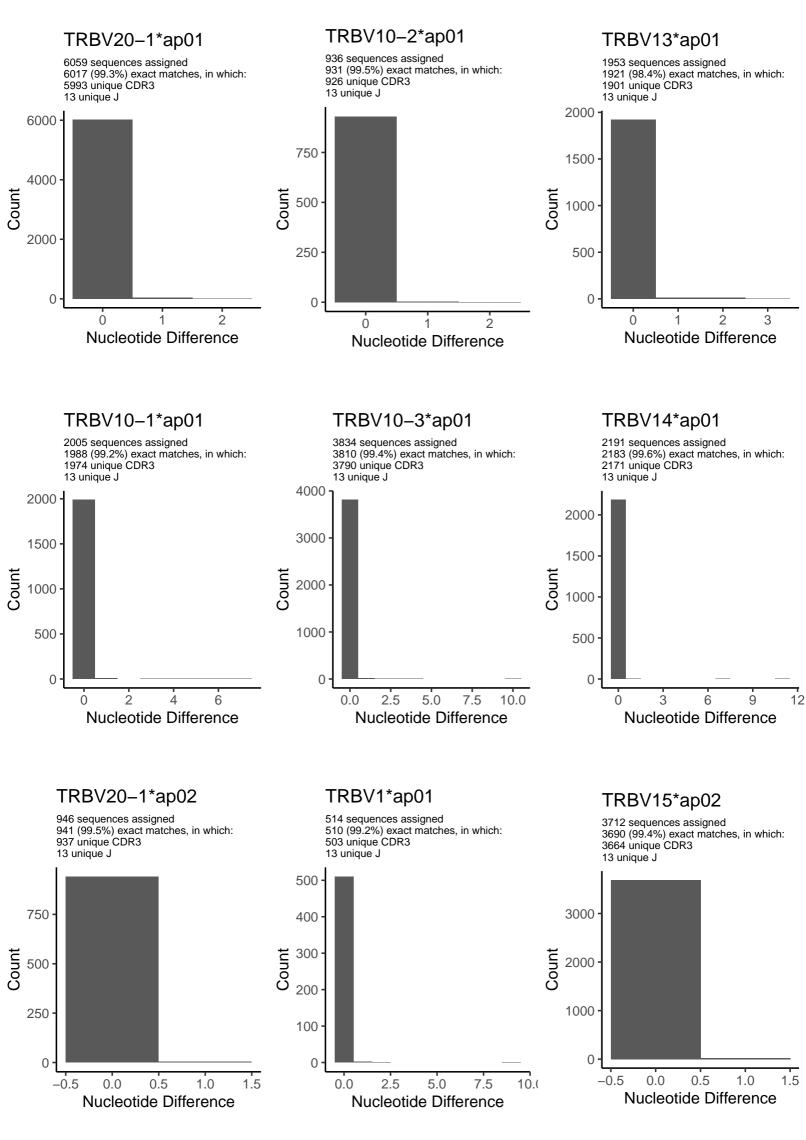


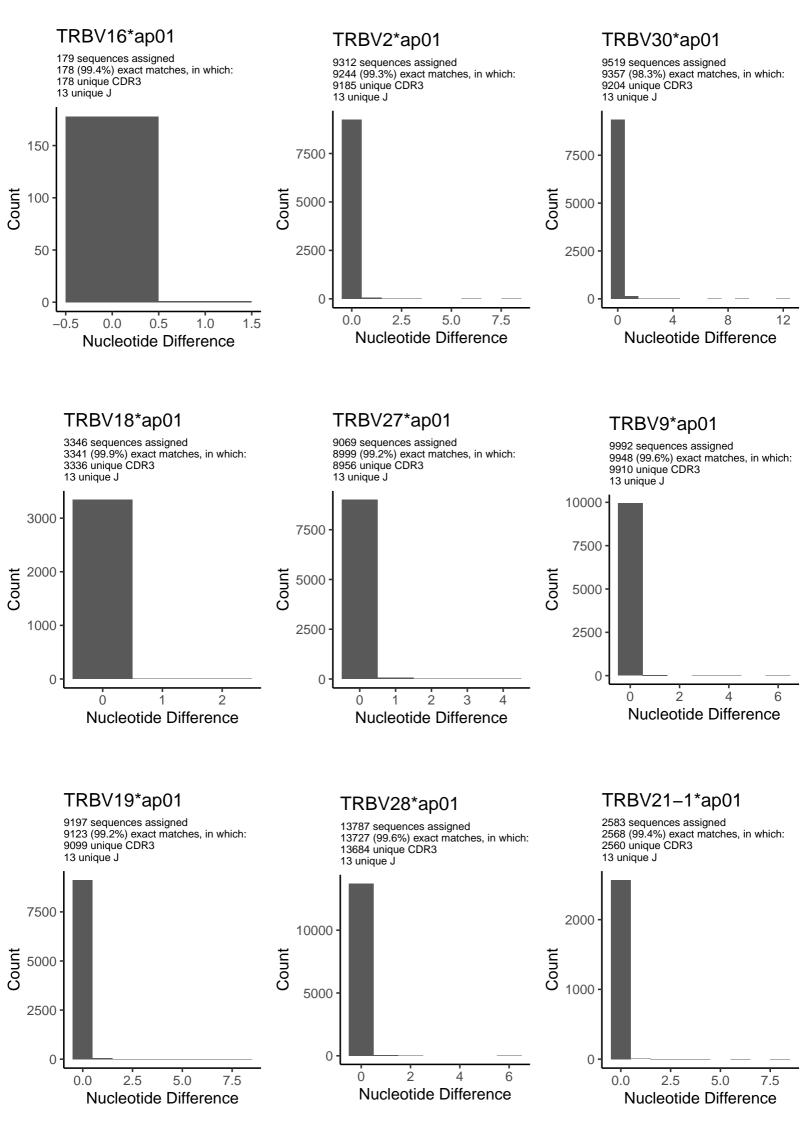
TRBV7-1\*ap01\_T296C- Final 3 nucleotides as a triplet

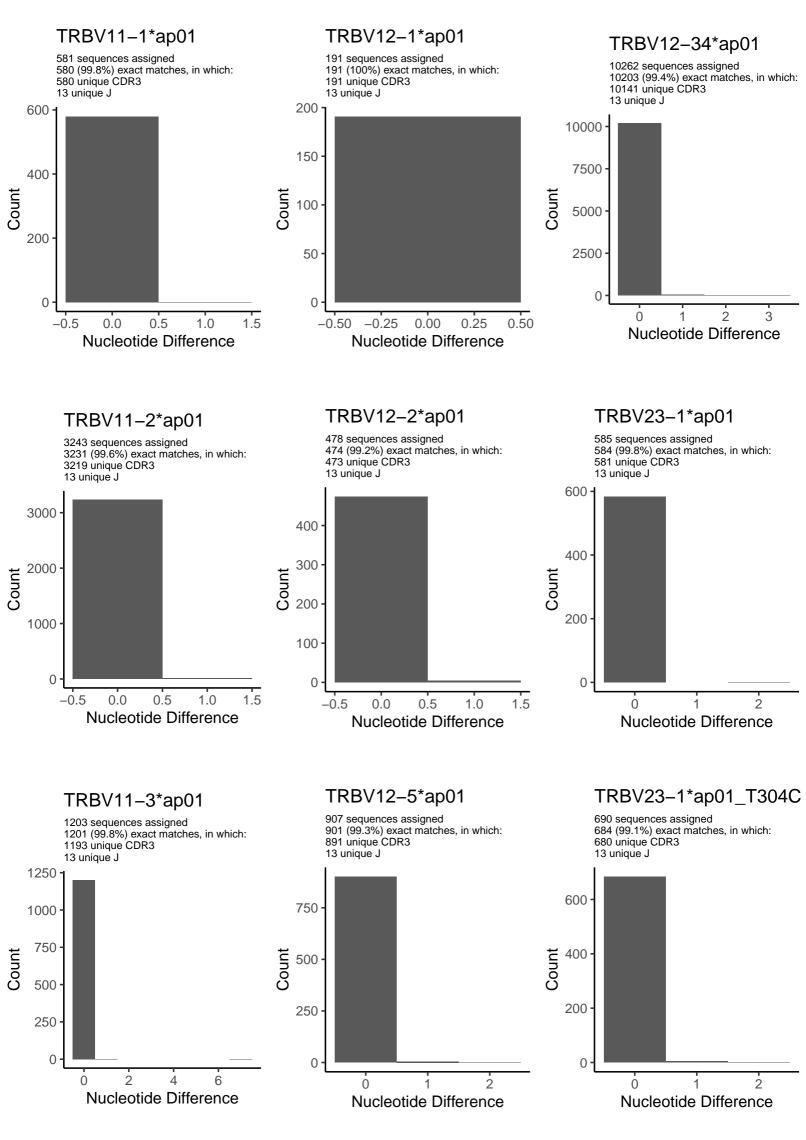


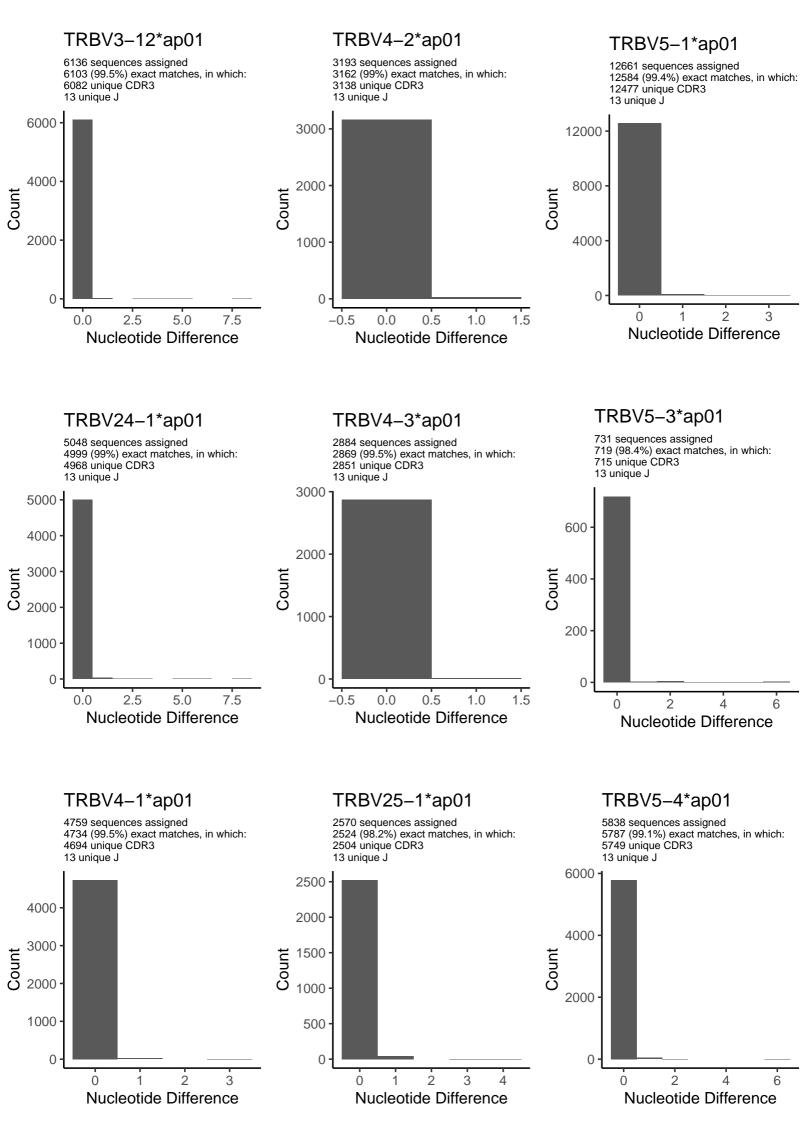
TRBV7-7\*ap01\_C315T- Final 3 nucleotides as a triplet

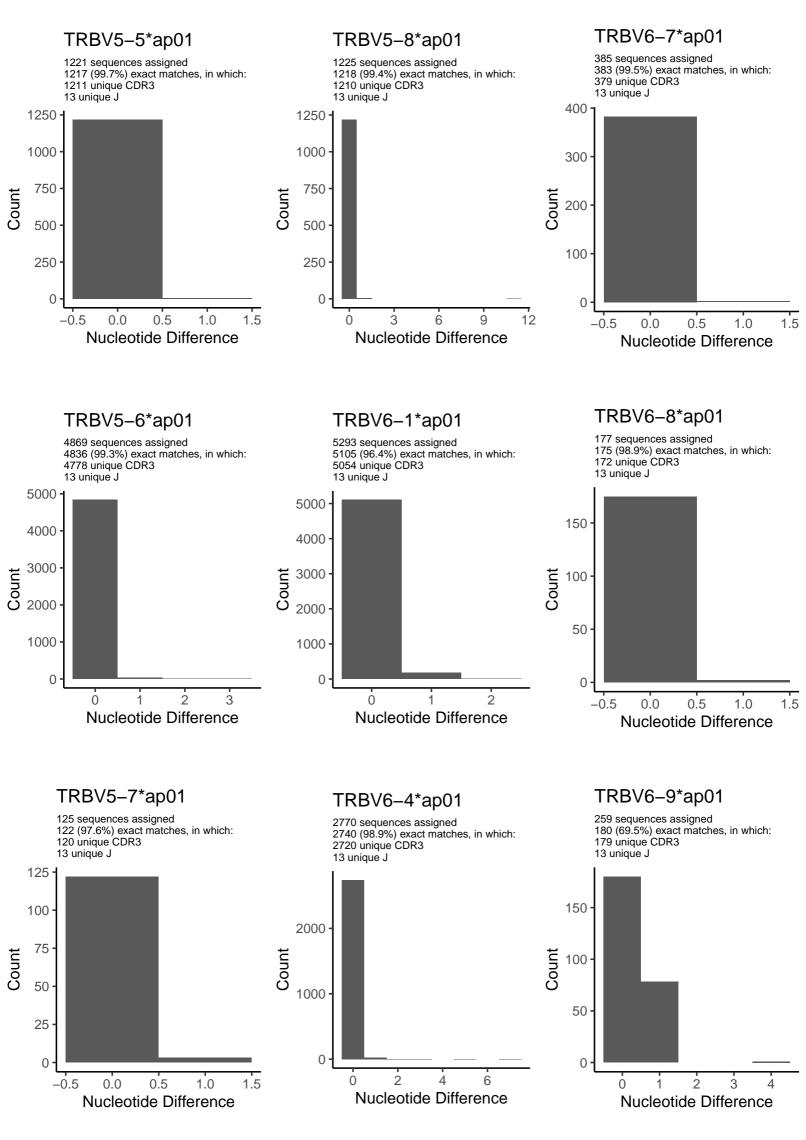


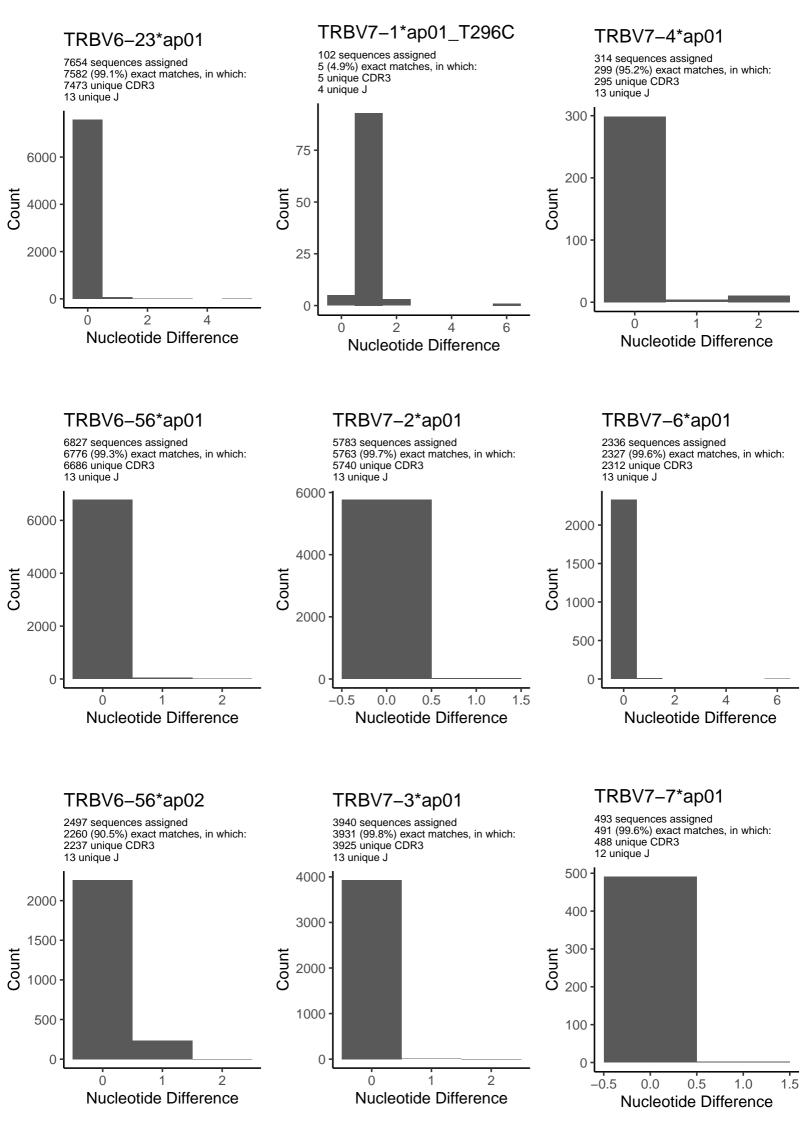




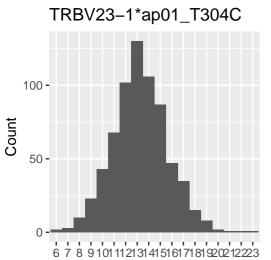




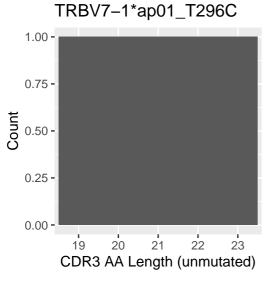


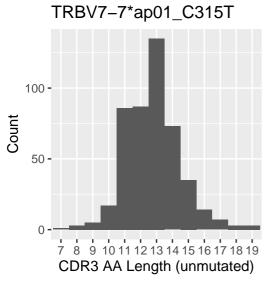


## TRBV7-7\*ap01\_C315T TRBV7-9\*ap01 472 sequences assigned 469 (99.4%) exact matches, in which: 465 unique CDR3 8319 sequences assigned 8275 (99.5%) exact matches, in which: 8231 unique CDR3 13 unique J 13 unique J 8000 400 6000 300 Count 200 4000 2000 100 0 0 -0.50.0 0.5 1.0 1.5 **Nucleotide Difference** Nucleotide Difference TRBV7-8\*ap01 TRBV29-1\*ap01 1852 sequences assigned 1841 (99.4%) exact matches, in which: 5895 sequences assigned 5822 (98.8%) exact matches, in which: 1835 unique CDR3 5724 unique CDR3 13 unique J 13 unique J 6000 1500 4000 Count 1000 2000 500 0 -0.50.0 0.5 1.0 **Nucleotide Difference Nucleotide Difference** TRBV7-8\*ap03 TRBV29-1\*ap02 933 sequences assigned 1121 sequences assigned 1102 (98.3%) exact matches, in which: 1087 unique CDR3 738 (79.1%) exact matches, in which: 731 unique CDR3 13 unique J 13 unique J 900 600 400 600 300 200 0 0 -0.50.0 0.5 1.0 **Nucleotide Difference Nucleotide Difference**



CDR3 AA Length (unmutated)







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