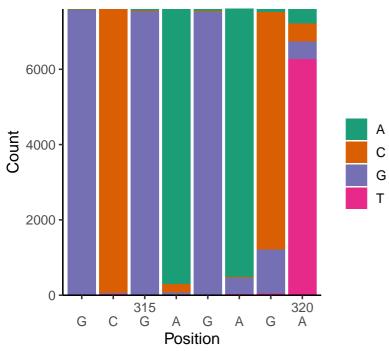
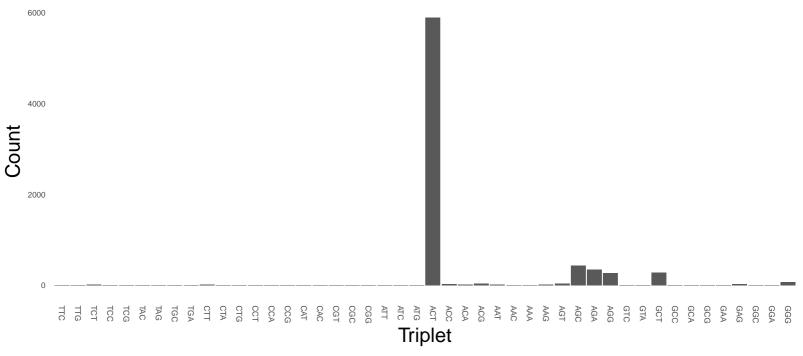
Gene IGHV1-18*01_G107A_G119A_T167A_C173G_G210A_G254A

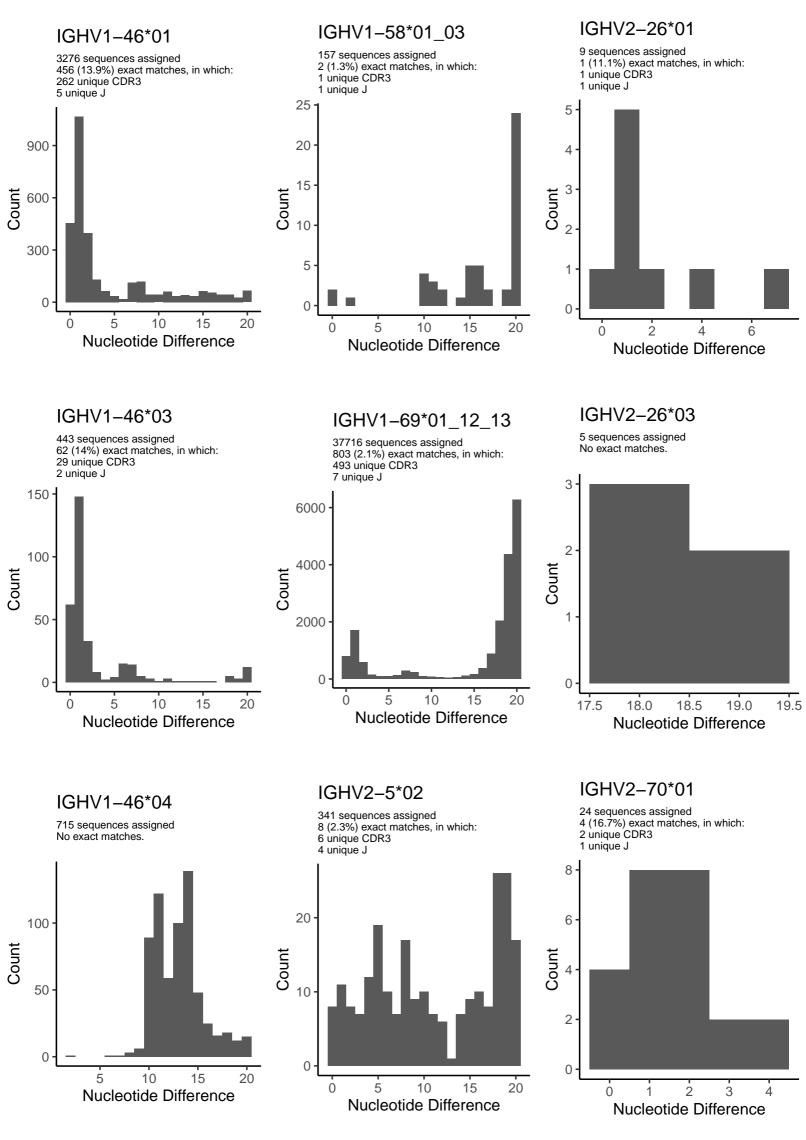


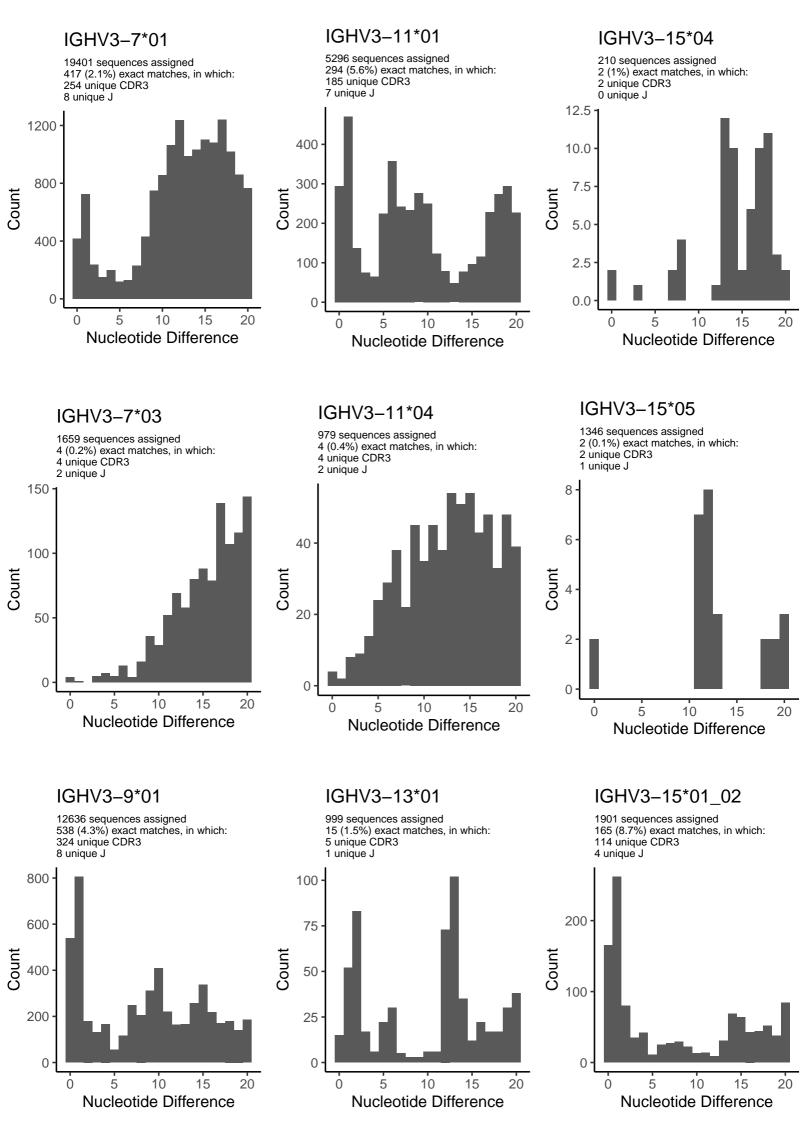
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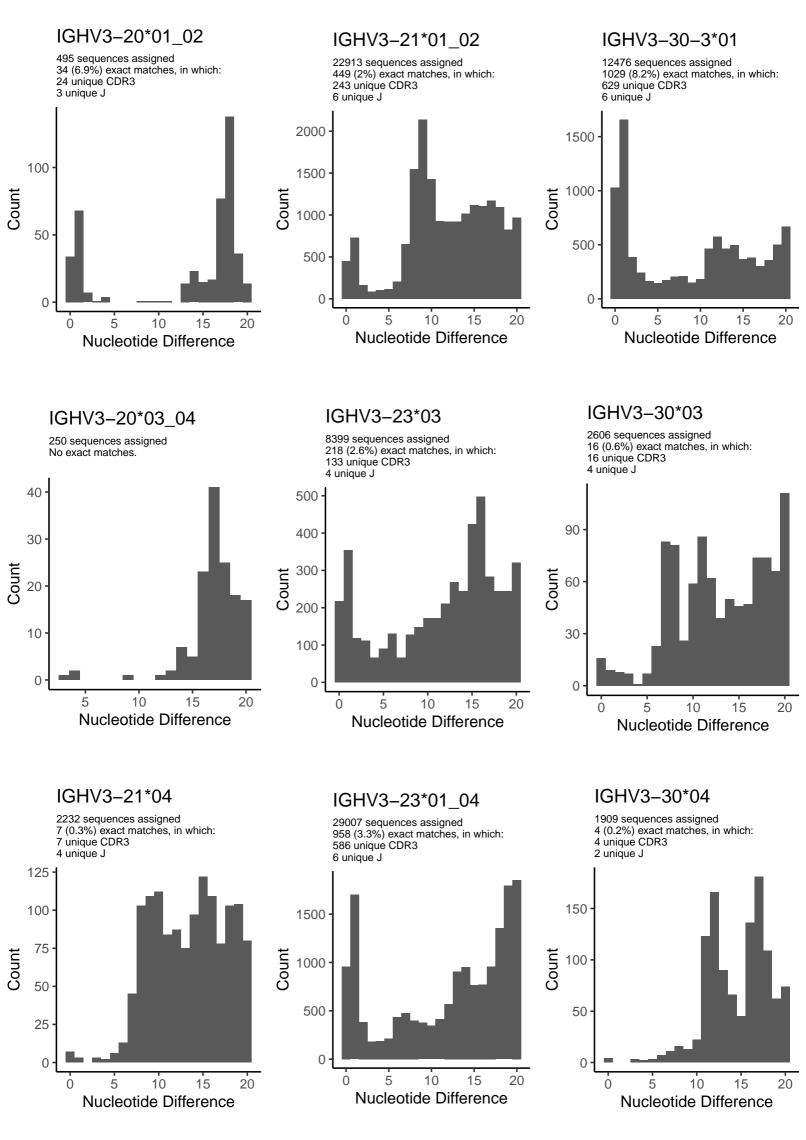
Position

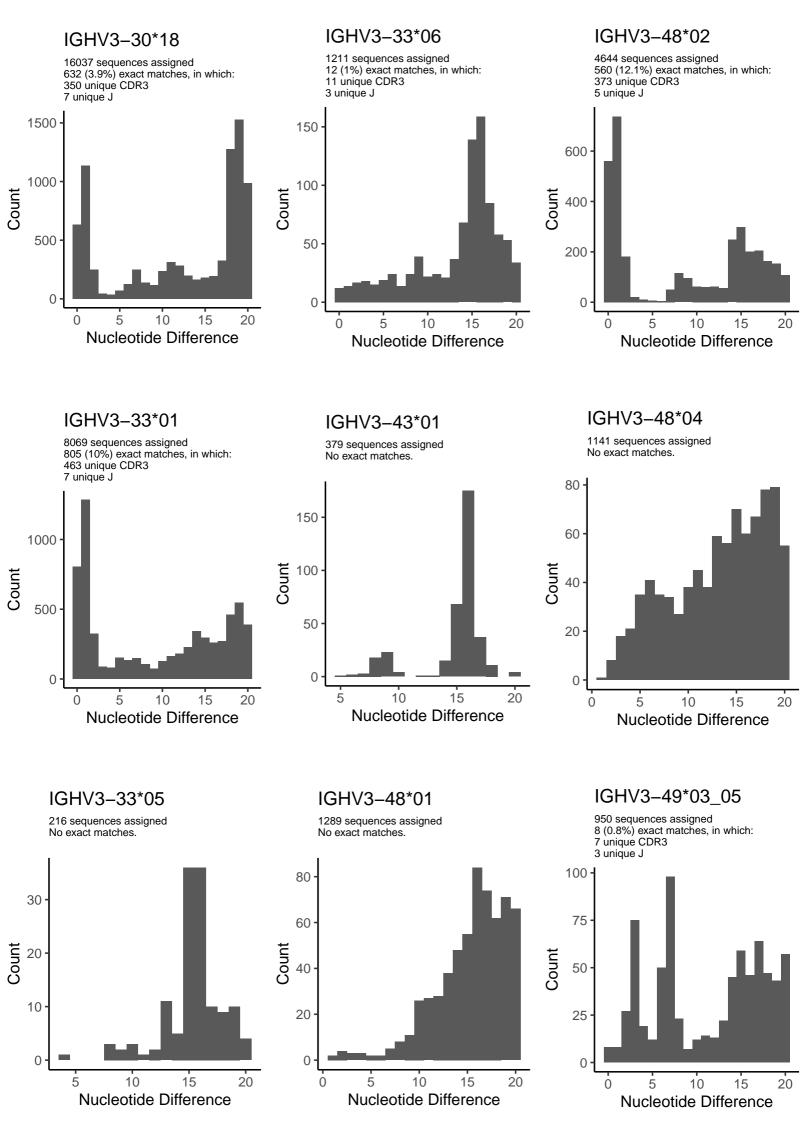


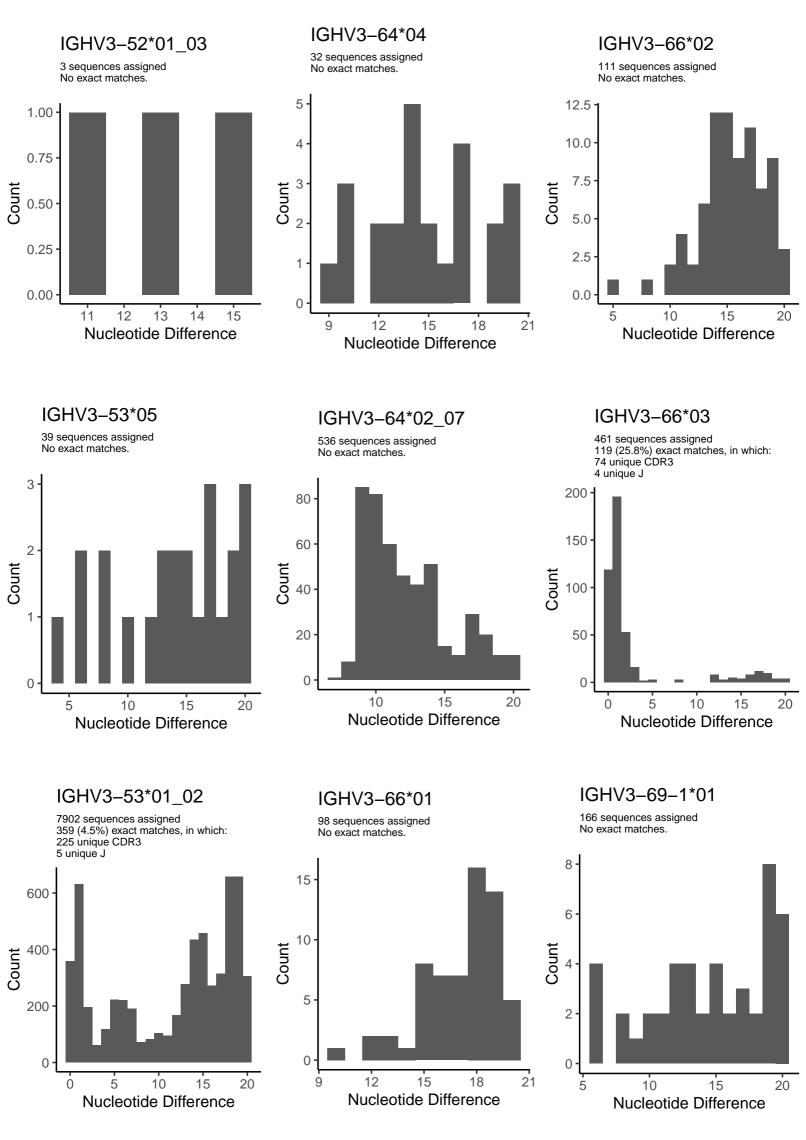
IGHV1-3*01_05 IGHV1-18*01_G107A_G IGHV1-2*05 2568 sequences assigned 7601 sequences assigned 749 sequences assigned 169 (2.2%) exact matches, in which: 92 unique CDR3 108 (14.4%) exact matches, in which: 113 (4.4%) exact matches, in which: 56 unique CDR3 71 unique CDR3 1 unique J 5 unique J 6 unique J 250 -250 -200 200 750 150 150 Count 500 100 100 250 50 50 0 0 0 20 10 15 20 5 10 15 20 10 15 0 5 0 0 5 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV1-2*06 IGHV1-24*01 IGHV1-8*01 366 sequences assigned 440 sequences assigned 105 (23.9%) exact matches, in which: 5534 sequences assigned 666 (12%) exact matches, in which: 3 (0.8%) exact matches, in which: 3 unique CDR3 62 unique CDR3 387 unique CDR3 2 unique J 4 unique J 6 unique J 200 40 150 1000 Count Count Count 100 20 500 50 0 0 10 15 20 0 5 10 0 15 20 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV1-3*04 IGHV1-18*01 IGHV1-45*02 718 sequences assigned 17051 sequences assigned 1473 (8.6%) exact matches, in which: 274 sequences assigned 1 (0.1%) exact matches, in which: No exact matches. 1 unique CDR3 857 unique CDR3 1 unique J 7 unique J 2.0 90 3000 1.5 Count 2000 1.0 1000 0.5 30 0.0 0 0 10 20.00 20.25 20.50 19.50 19.75 0 10 15 20 Nucleotide Difference **Nucleotide Difference Nucleotide Difference**

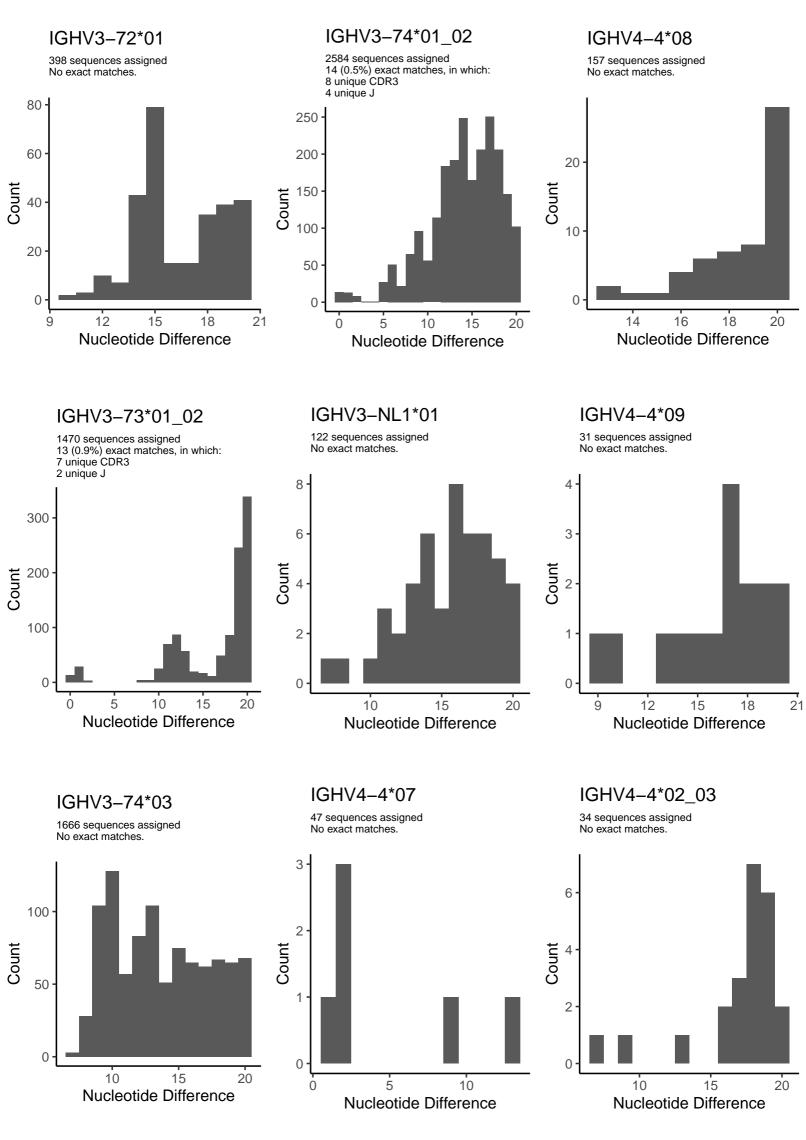


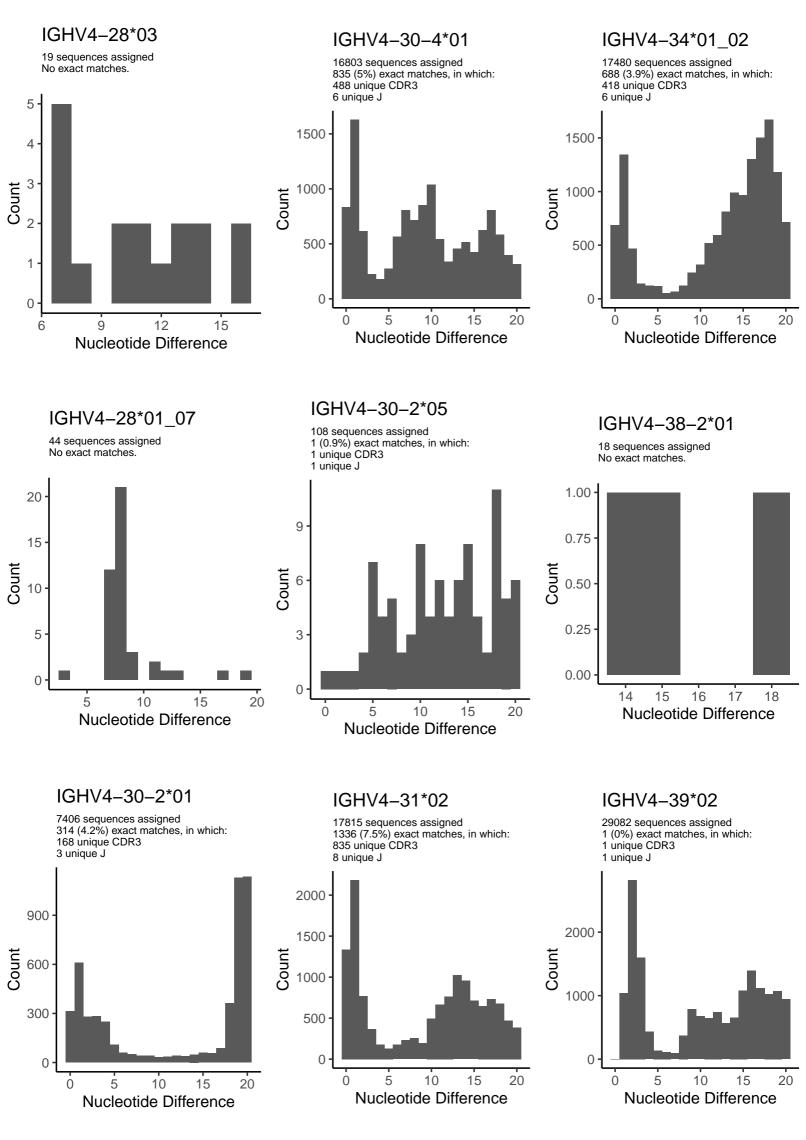


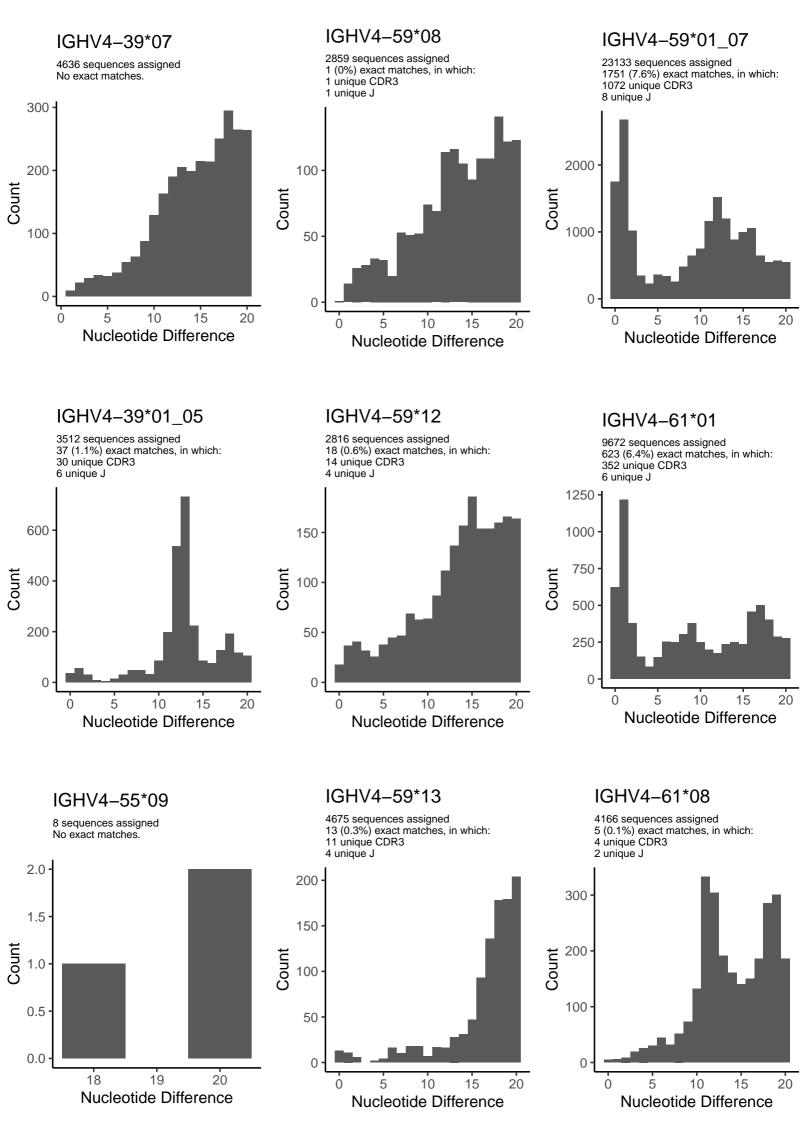












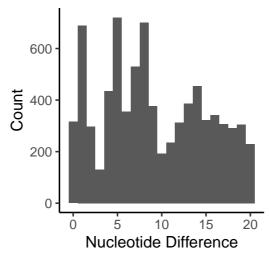
IGHV1/OR15-2*02_03

12 sequences assigned No exact matches.

2.0-1.5-1.0-0.5-0.0-18 19 20

IGHV6-1*01_02

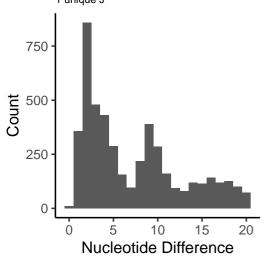
10754 sequences assigned 316 (2.9%) exact matches, in which: 167 unique CDR3 5 unique J



IGHV5-51*07

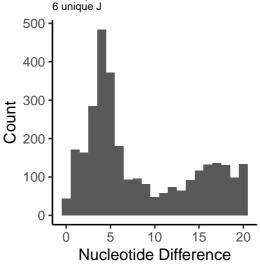
5812 sequences assigned 10 (0.2%) exact matches, in which: 6 unique CDR3 1 unique J

Nucleotide Difference



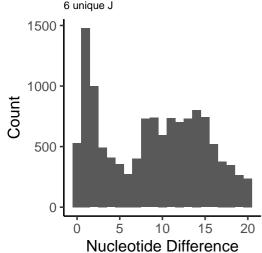
IGHV7-4-1*02

6097 sequences assigned 43 (0.7%) exact matches, in which: 32 unique CDR3

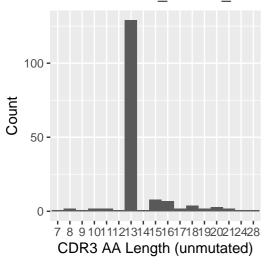


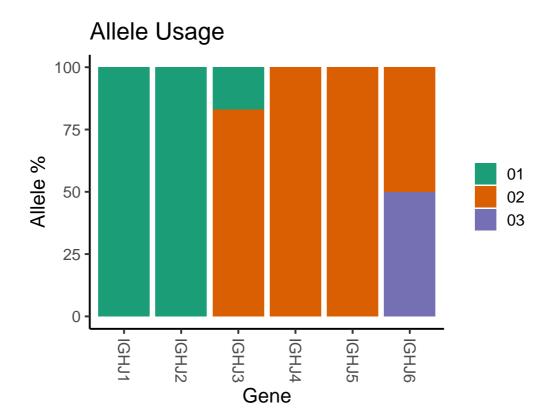
IGHV5-51*01_03

14001 sequences assigned 529 (3.8%) exact matches, in which: 325 unique CDR3



IGHV1-18*01_G107A_G119A_T167A_C173G_G210A_G254A





Sequence Count by IGHJ6 allele usage

