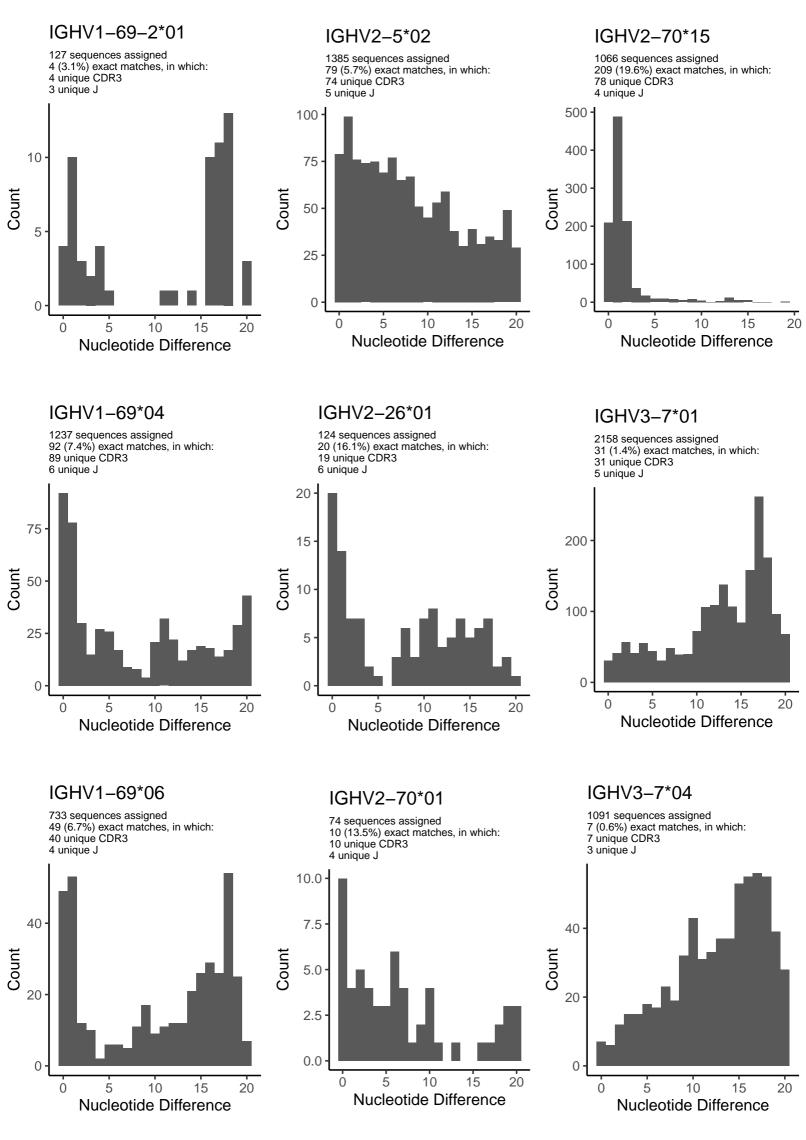
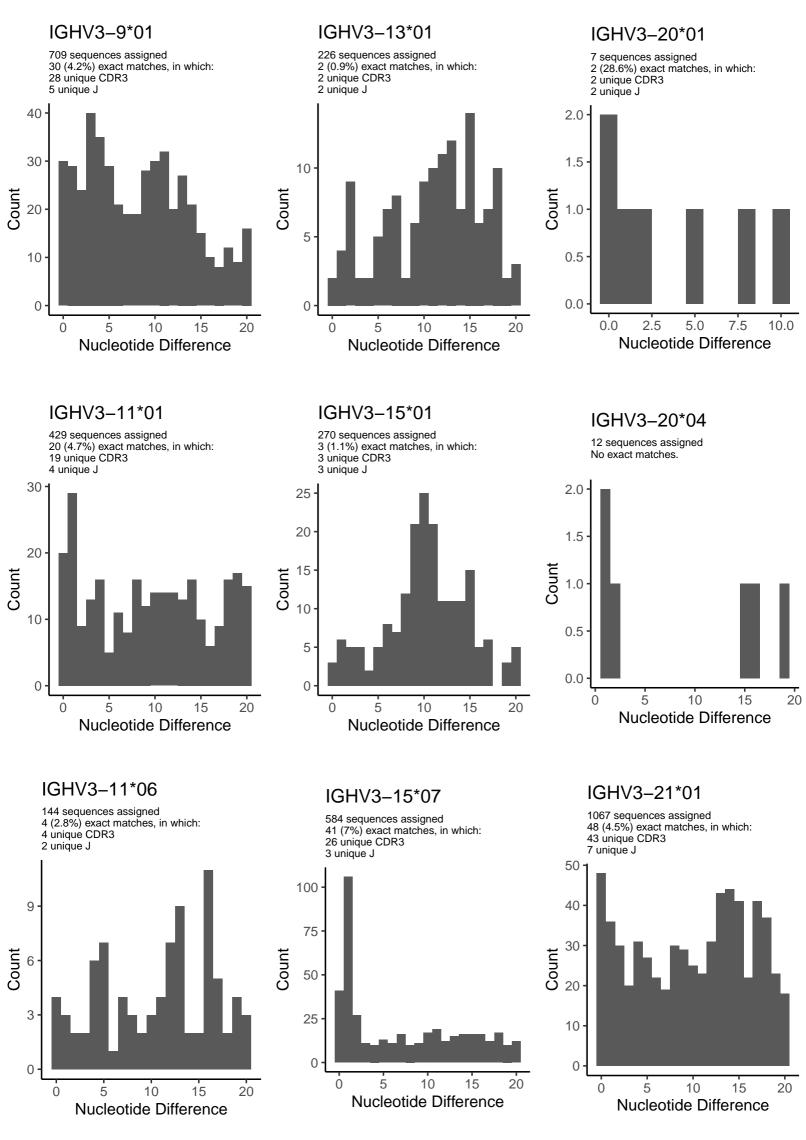
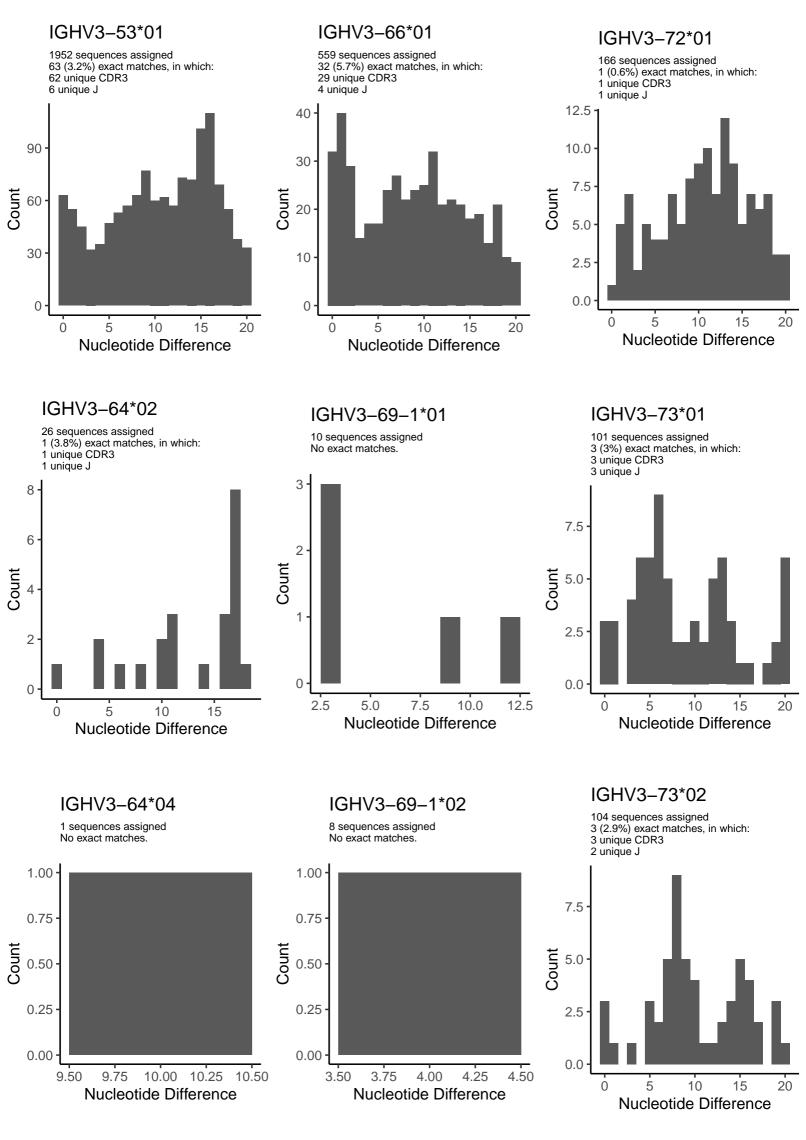
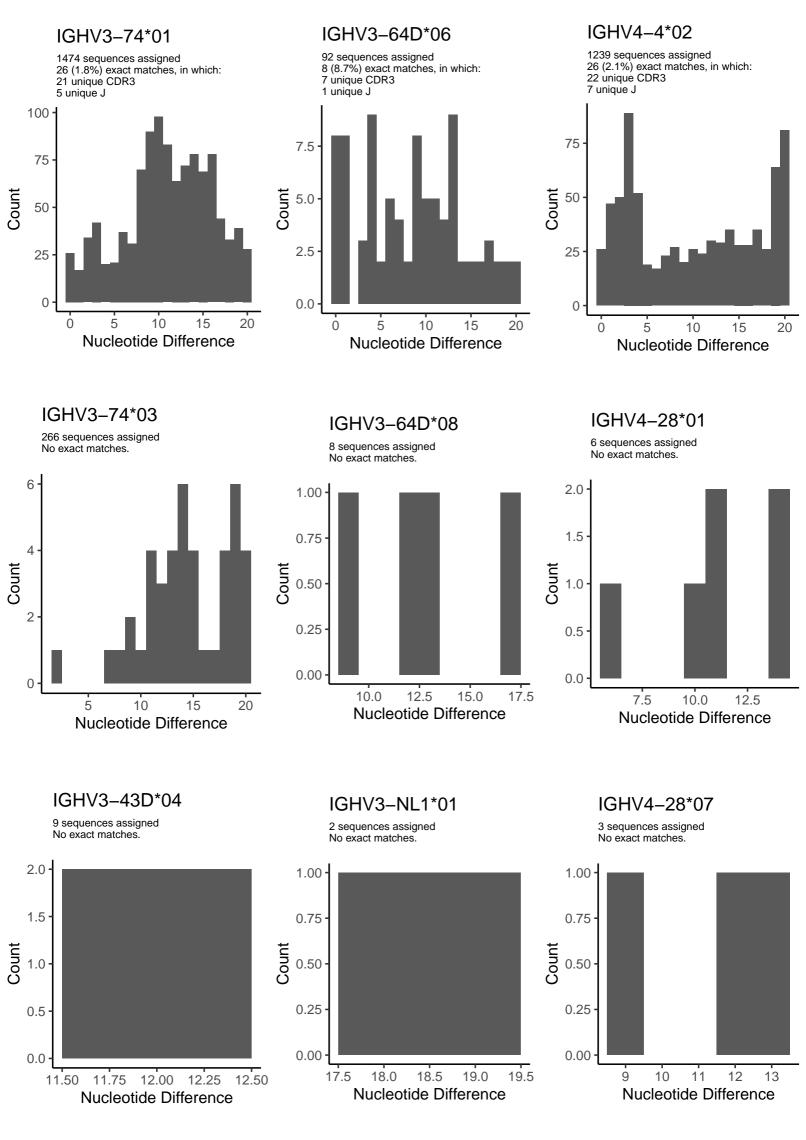
IGHV1-2*04 IGHV1-8*01 IGHV1-46*01 510 sequences assigned 36 (7.1%) exact matches, in which: 28 unique CDR3 945 sequences assigned 53 (5.6%) exact matches, in which: 1479 sequences assigned 88 (5.9%) exact matches, in which: 50 unique CDR3 83 unique CDR3 5 unique J 6 unique J 6 unique J 40 75 40 30 Count Count 50 20 20 25 10 0 0 0 10 15 20 0 5 10 15 20 5 10 15 0 5 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV1-3*01 IGHV1-18*01 IGHV1-58*01 1334 sequences assigned 110 (8.2%) exact matches, in which: 5107 sequences assigned 223 (4.4%) exact matches, in which: 90 sequences assigned 5 (5.6%) exact matches, in which: 101 unique CDR3 197 unique CDR3 5 uniqué CDR3 6 unique J 7 unique J 3 unique J 10.0 200 90 7.5 150 Count Count 5.0 100 30 2.5 50 0.0 0 0 20 5 10 15 5 10 15 20 0 0 10 15 20 0 5 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference IGHV1-3*04 IGHV1-24*01 IGHV1-68*02 371 sequences assigned 966 sequences assigned 1 sequences assigned 1 (0.3%) exact matches, in which: 67 (6.9%) exact matches, in which: unique CDR3 No exact matches. 61 unique CDR3 1 unique J 7 unique J 1.00 250 30 200 0.75 150 Count 0.50 100 10 0.25 50 0.00 0 0 4.75 5.00 5.25 5.50 4.50 5 10 15 20 0 0 10 15 20 **Nucleotide Difference Nucleotide Difference** Nucleotide Difference

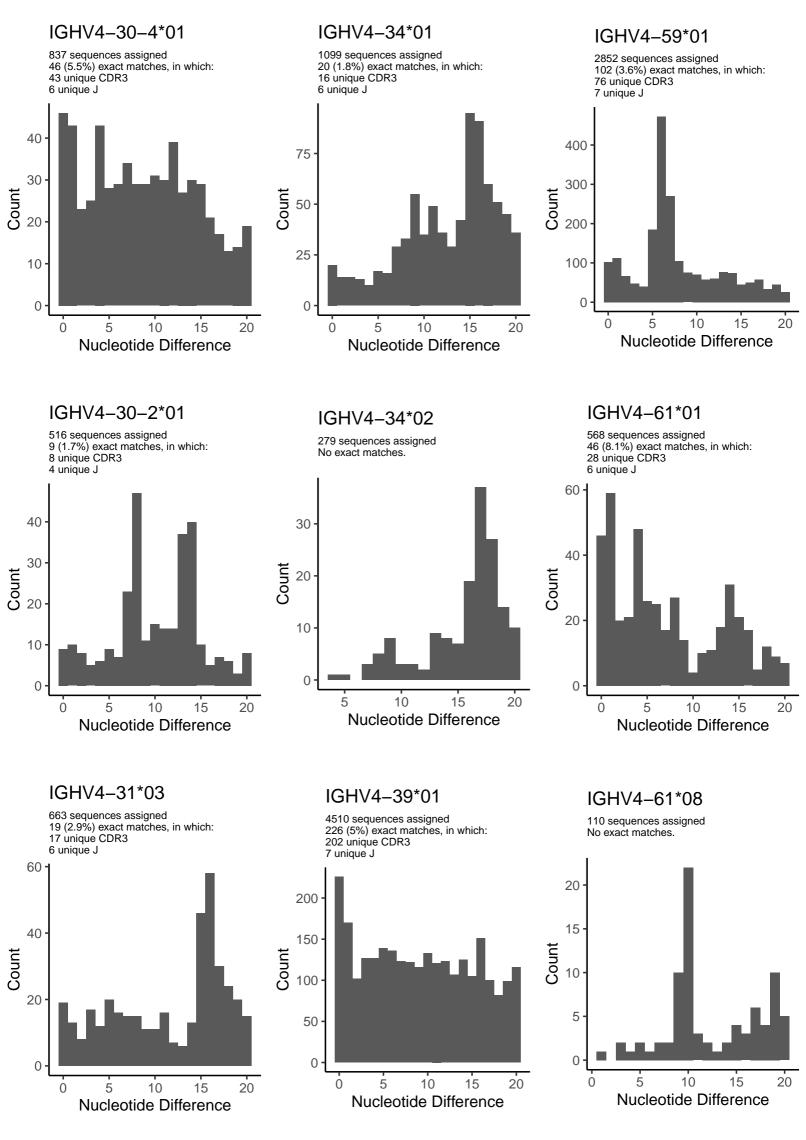




IGHV3-48*02 IGHV3-21*02 IGHV3-33*01 646 sequences assigned 17 (2.6%) exact matches, in which: 217 sequences assigned 2533 sequences assigned 229 (9%) exact matches, in which: 159 unique CDR3 No exact matches. 14 unique CDR3 4 unique J 6 unique J 6 40 300 30 4 Count Count 200 Count 20 2 100 10 0 0 0 5 10 15 20 12 16 20 0 8 5 10 15 20 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV3-49*03 IGHV3-43*01 IGHV3-30-3*01 323 sequences assigned 14 (4.3%) exact matches, in which: 1883 sequences assigned 133 (7.1%) exact matches, in which: 94 sequences assigned 2 (2.1%) exact matches, in which: 2 uniqué CDR3 12 unique CDR3 116 unique CDR3 2 unique J 3 unique J 7 unique J 25 150 20 7.5 100 Count Count Count 5.0 10 50 2.5 5 0 0.0 0 10 15 20 0 5 20 10 15 0 5 10 15 20 0 5 **Nucleotide Difference Nucleotide Difference** Nucleotide Difference IGHV3-49*05 IGHV3-48*01 IGHV3-30*04 84 sequences assigned 716 sequences assigned 150 sequences assigned 7 (8.3%) exact matches, in which: 7 unique CDR3 41 (5.7%) exact matches, in which: No exact matches. 34 unique CDR3 3 unique J 4 unique J 6 6 40 Count Count Count 4 20 2 2 0 0 0 5 10 15 20 0 5 10 15 20 5 20 0 10 15 Nucleotide Difference **Nucleotide Difference** Nucleotide Difference

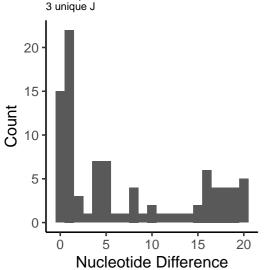






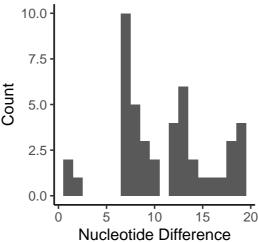
IGHV5-10-1*03

141 sequences assigned 15 (10.6%) exact matches, in which: 10 unique CDR3



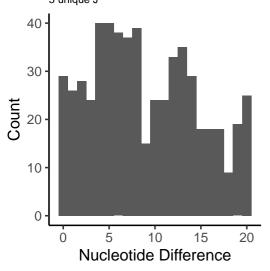
IGHV7-4-1*01

79 sequences assigned No exact matches.



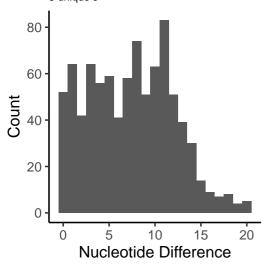
IGHV5-51*01

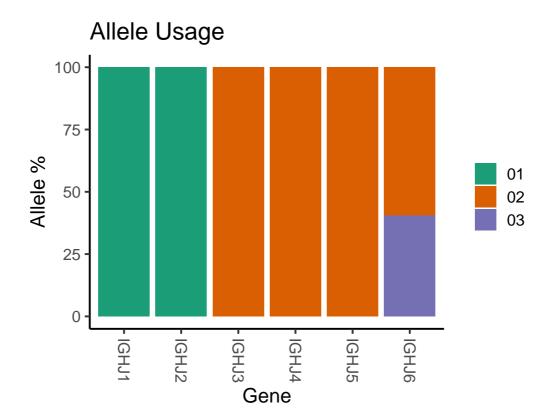
973 sequences assigned 29 (3%) exact matches, in which: 27 unique CDR3 5 unique J



IGHV6-1*01

950 sequences assigned 52 (5.5%) exact matches, in which: 48 unique CDR3 5 unique J





Sequence Count by IGHJ6 allele usage

