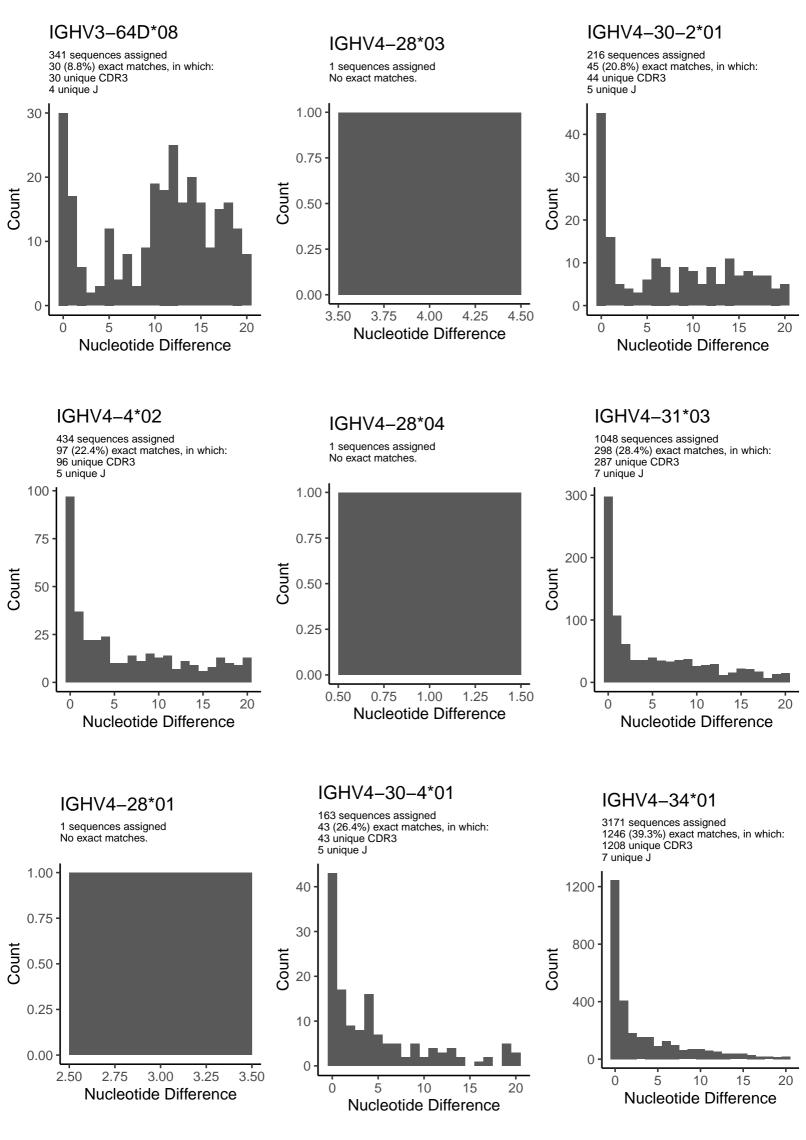
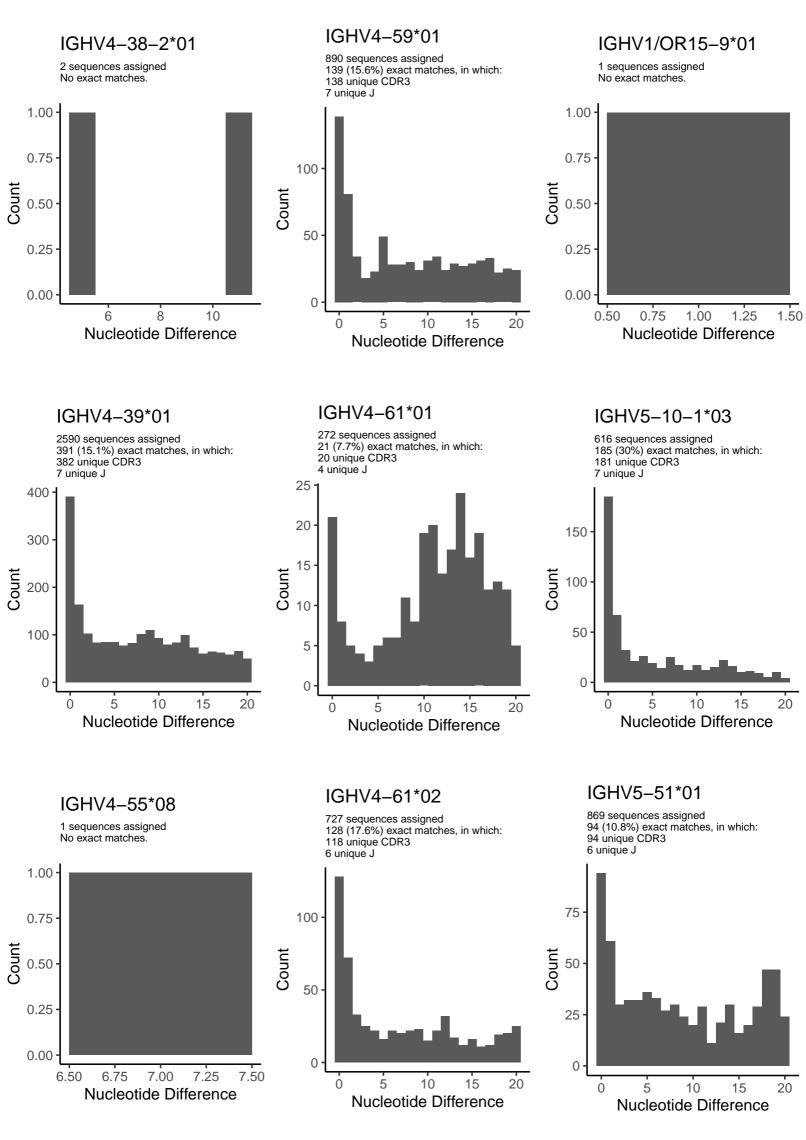


IGHV3-53*02 IGHV3-73*02 IGHV3-69-1*02 135 sequences assigned 25 (18.5%) exact matches, in which: 180 sequences assigned 9 (5%) exact matches, in which: 14 sequences assigned No exact matches. 23 unique CDR3 6 unique CDR3 5 unique J 3 unique J 2.0 25 20 1.5 10 15 Count Count 1.0 10 5 0.5 5 0.0 0 0 15 0 10 0 10 0 15 20 15 10 Nucleotide Difference **Nucleotide Difference** Nucleotide Difference IGHV3-64*01 IGHV3-72*01 IGHV3-74*01 43 sequences assigned 8 (18.6%) exact matches, in which: 8 unique CDR3 354 sequences assigned 12 (3.4%) exact matches, in which: 884 sequences assigned 79 (8.9%) exact matches, in which: 12 unique CDR3 79 unique CDR3 4 unique J 5 unique J 6 unique J 8 80 25 20 6 60 15 Count Count Count 40 10 20 2 5 0 0 0 10 15 20 10 15 20 0 5 0 5 10 15 20 0 5 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV3-66*02 IGHV3-73*01 IGHV3-64D*06 338 sequences assigned 128 sequences assigned 172 sequences assigned 7 (5.5%) exact matches, in which: 43 (25%) exact matches, in which: 66 (19.5%) exact matches, in which: 61 unique CDR3 7 unique CDR3 41 unique CDR3 5 unique J 4 unique J 4 unique J 40 60 10 30 Count 20 5 20 10 0 0 0 0 10 15 20 0 10 15 20 0 10 15 20 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference





IGHV5-51*03 IGHV3/OR16-9*01 262 sequences assigned 55 (21%) exact matches, in which: 55 unique CDR3 1 sequences assigned No exact matches. 6 unique J 1.00 -0.75 40 Count 0.50 Count 20 0.25 0.00 0 8.50 8.75 9.00 9.25 9.50 0 10 15 20 5 **Nucleotide Difference** Nucleotide Difference IGHV6-1*01 IGHV7-4-1*01 638 sequences assigned 79 (12.4%) exact matches, in which: 78 unique CDR3 2 sequences assigned 2 (100%) exact matches, in which: 2 unique CDR3 5 unique J 1 unique J 80 2.0 -60 1.5 Count 1.0 0.5 20 0 0.0 -0.250.00 0.25 0.50 -0.500 5 10 15 20 **Nucleotide Difference** Nucleotide Difference IGHV3/OR16-6*02 IGHV7-4-1*02 1 sequences assigned 3 sequences assigned 1 (100%) exact matches, in which: No exact matches. 1 unique CDR3 1 unique J 2.0 1.00 1.5 0.75 Count 1.0 0.5 0.25 0.0 0.00

0.50

Nucleotide Difference

0.25

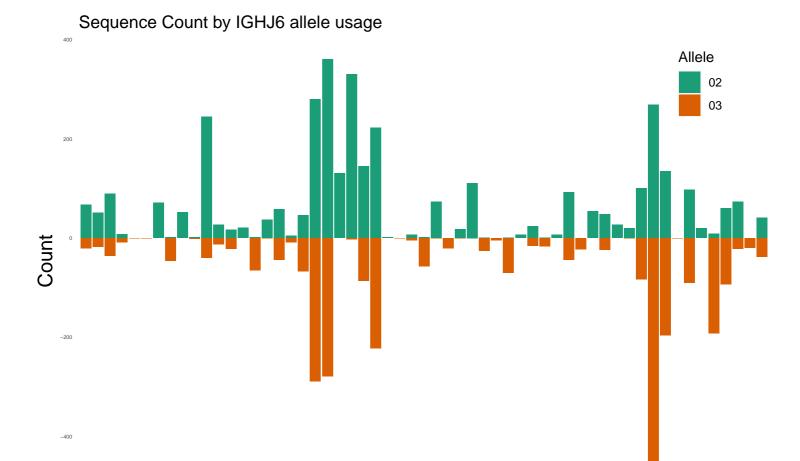
-0.25

-0.50

0.00

Nucleotide Difference





| GHV6-1*01 | GHV3-51*02 | GHV3-51*03 | GHV3-51*04 | GHV3-51*07 | GHV3-51*07 | GHV3-51*07 | GHV3-51*07 | GHV3-30*07 | GHV3-70*07 | GHV3

