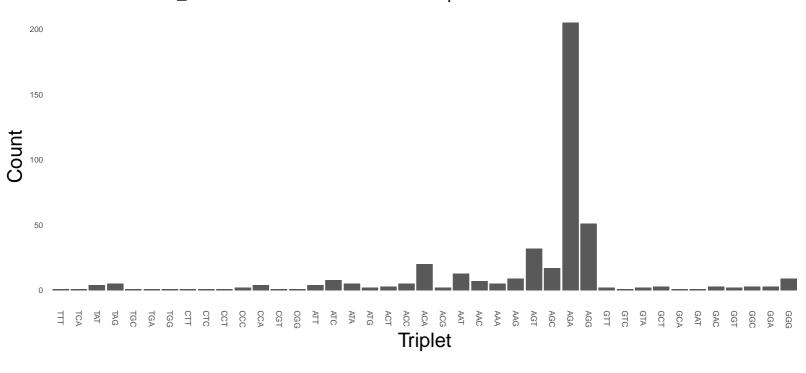
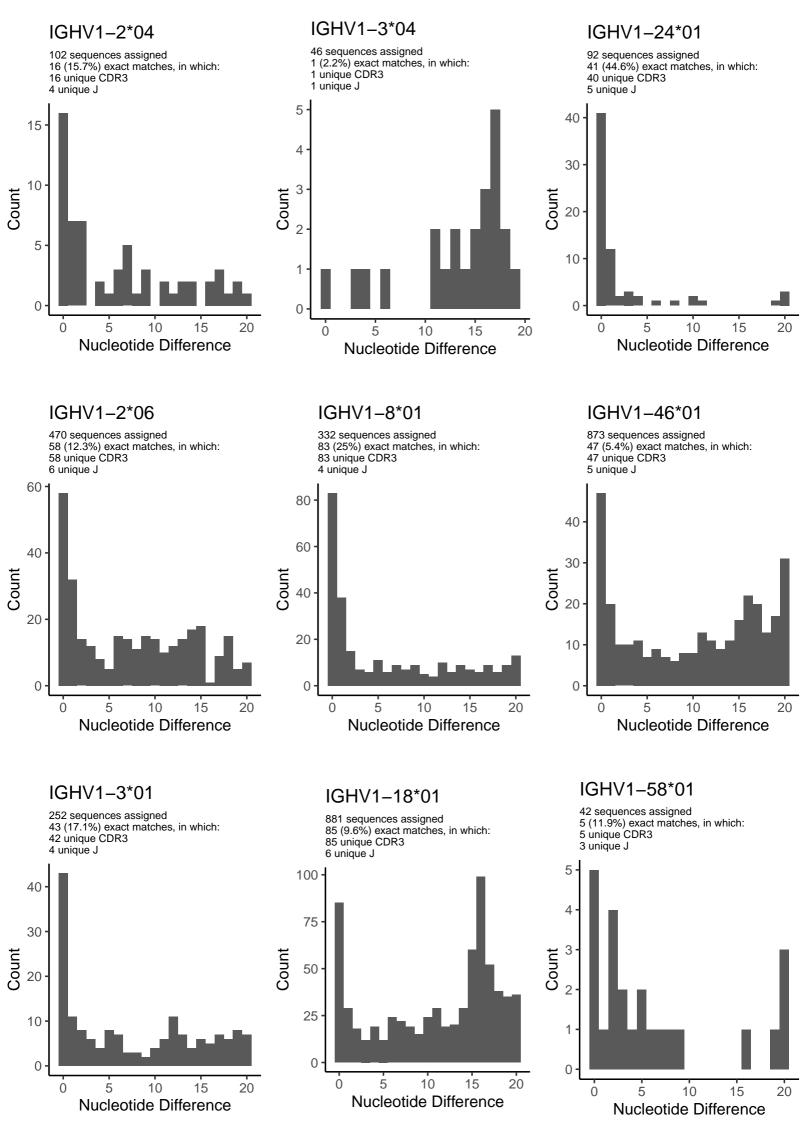
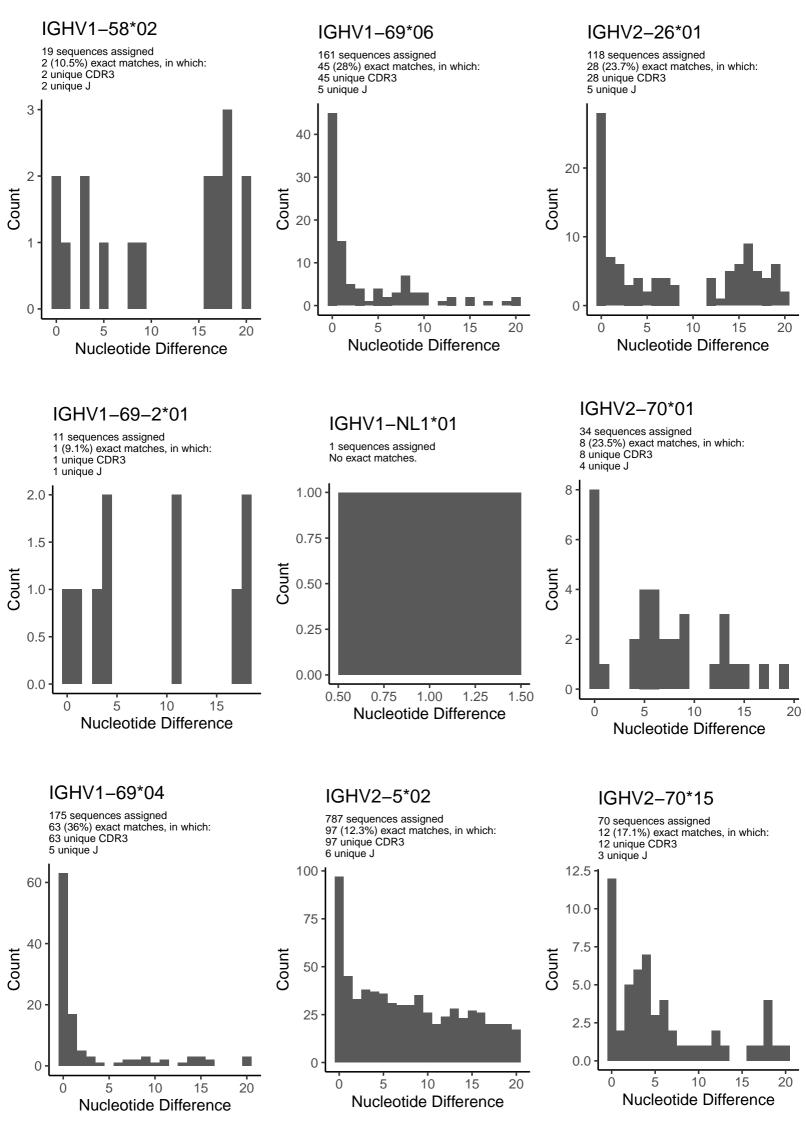




IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet

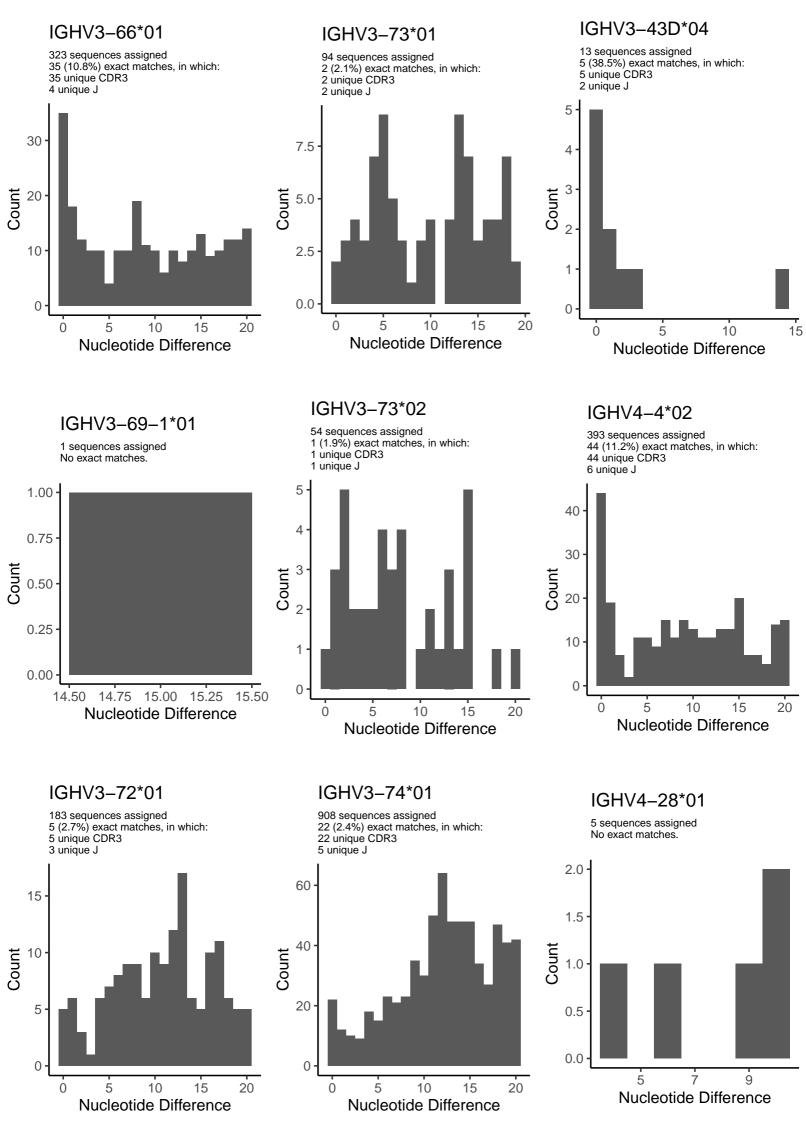






IGHV3-7*01 IGHV3-13*01 IGHV3-20*04 182 sequences assigned 14 (7.7%) exact matches, in which: 1058 sequences assigned 50 (4.7%) exact matches, in which: 19 sequences assigned No exact matches. 50 unique CDR3 14 unique CDR3 5 unique J 5 unique J 2.0 60 1.5 10 40 Count Count 1.0 5 20 0.5 0.0 0 0 10 15 0 10 15 20 0 5 10 15 20 5 Nucleotide Difference **Nucleotide Difference Nucleotide Difference** IGHV3-15*01 IGHV3-9*01 IGHV3-21*01 830 sequences assigned 51 (6.1%) exact matches, in which: 751 sequences assigned 128 (17%) exact matches, in which: 943 sequences assigned 129 (13.7%) exact matches, in which: 51 unique CDR3 128 unique CDR3 127 unique CDR3 5 unique J 6 unique J 6 unique J 50 40 100 100 Count 30 Count Count 50 20 50 10 0 0 0 10 15 20 10 15 20 0 5 0 5 10 15 20 0 5 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference IGHV3-20*01 IGHV3-11*01 IGHV3-30-3*01 35 sequences assigned 549 sequences assigned 458 sequences assigned 3 (8.6%) exact matches, in which: 39 (7.1%) exact matches, in which: 59 (12.9%) exact matches, in which: 3 unique CDR3 38 unique CDR3 59 unique CDR3 3 unique J 5 unique J 5 unique J 60 40 40 Count 2 Count Count 20 20 10 1 0 0 0 0 5 10 15 20 0 10 15 20 0 5 10 15 Nucleotide Difference Nucleotide Difference Nucleotide Difference

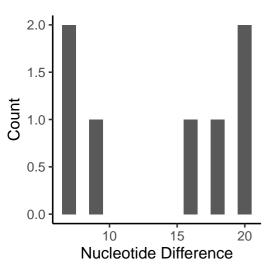
IGHV3-33*01 IGHV3-53*02 IGHV3-47*02 399 sequences assigned 109 sequences assigned 33 (8.3%) exact matches, in which: 33 unique CDR3 1 sequences assigned 9 (8.3%) exact matches, in which: No exact matches. 9 ùniqué CDR3 5 unique J 3 unique J 1.00 -10.0 30 0.75 7.5 Count Count 0.50 5.0 10 0.25 2.5 0.00 0.0 0 2.50 2.75 3.00 3.25 3.50 20 5 10 15 0 0 10 15 20 **Nucleotide Difference Nucleotide Difference** Nucleotide Difference IGHV3-53*04 IGHV3-48*03 IGHV3-35*01 58 sequences assigned 802 sequences assigned 11 (19%) exact matches, in which: 1 sequences assigned 88 (11%) exact matches, in which: 11 unique CDR3 No exact matches. 87 unique CDR3 4 unique J 5 unique J 1.00 -75 9 0.75 Count 50 0.50 Count 6 0.25 25 3 0.00 0 0 1.25 1.50 0.50 0.75 1.00 10 15 20 0 5 10 15 20 0 5 **Nucleotide Difference** Nucleotide Difference **Nucleotide Difference** IGHV3-64*01 IGHV3-43*02 IGHV3-49*04 51 sequences assigned 171 sequences assigned 395 sequences assigned 7 (13.7%) exact matches, in which: 7 unique CDR3 20 (11.7%) exact matches, in which: 33 (8.4%) exact matches, in which: 20 unique CDR3 33 unique CDR3 4 unique J 4 unique J 4 unique J 20 30 6 15 20 Count Count Count 10 10 2 5 0 0 0 0 10 15 20 0 5 10 15 20 0 10 15 20 Nucleotide Difference **Nucleotide Difference Nucleotide Difference**



IGHV4-30-4*01 IGHV4-59*01 IGHV4-34*01 123 sequences assigned 26 (21.1%) exact matches, in which: 513 sequences assigned 575 sequences assigned 46 (9%) exact matches, in which: 196 (34.1%) exact matches, in which: 46 unique CDR3 25 unique CDR3 196 unique CDR3 5 unique J 5 unique J 6 unique J 200 -40 20 150 30 Count 100 20 10 50 10 0 0 0 5 10 15 20 0 0 10 10 15 15 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV4-30-2*01 IGHV4-38-2*02 A70G IGHV4-59*08 36 sequences assigned 7 (19.4%) exact matches, in which: 7 unique CDR3 443 sequences assigned 32 (7.2%) exact matches, in which: 32 unique CDR3 270 sequences assigned 24 (8.9%) exact matches, in which: 24 unique CDR3 3 unique J 6 unique J 5 unique J 25 30 6 20 15 Count Count Count 10 10 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 IGHV4-61*01 IGHV4-31*03 IGHV4-39*01 70 sequences assigned 2 (2.9%) exact matches, in which: 2 unique CDR3 149 sequences assigned 812 sequences assigned 24 (16.1%) exact matches, in which: 90 (11.1%) exact matches, in which: 24 unique CDR3 90 unique CDR3 1 unique J 5 unique J 6 unique J 25 20 75 3 Count 50 10 2 25 5 0 0 0 0 10 15 20 0 5 10 15 20 20 0 5 10 15 Nucleotide Difference Nucleotide Difference Nucleotide Difference

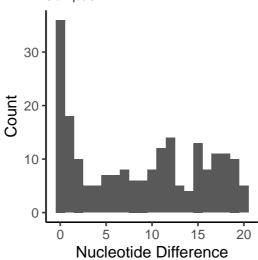
IGHV4-61*08

23 sequences assigned No exact matches.



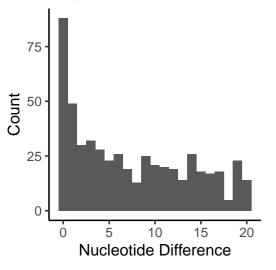
IGHV7-4-1*02

272 sequences assigned 36 (13.2%) exact matches, in which: 36 unique CDR3 6 unique J



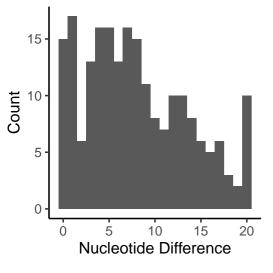
IGHV5-51*01

648 sequences assigned 88 (13.6%) exact matches, in which: 87 unique CDR3 5 unique J



IGHV6-1*01

256 sequences assigned 15 (5.9%) exact matches, in which: 15 unique CDR3 5 unique J





Warning – no inferred sequences found.

Warning – no inferred sequences found.