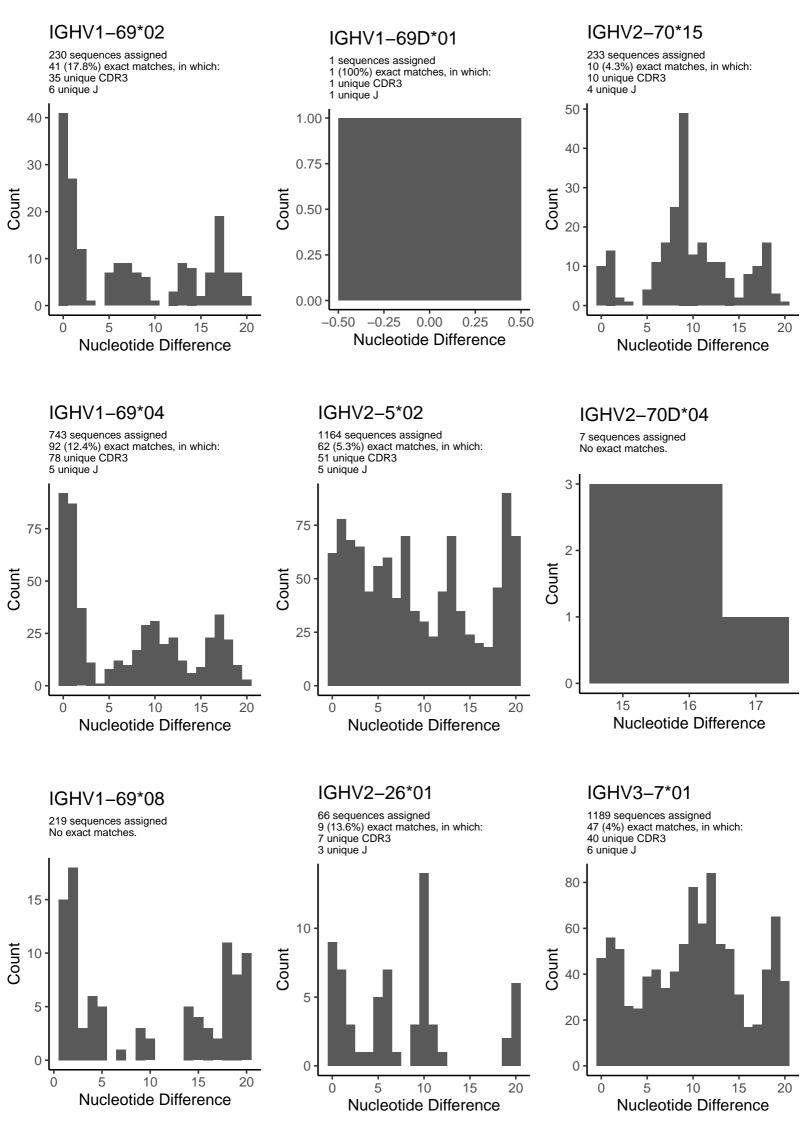
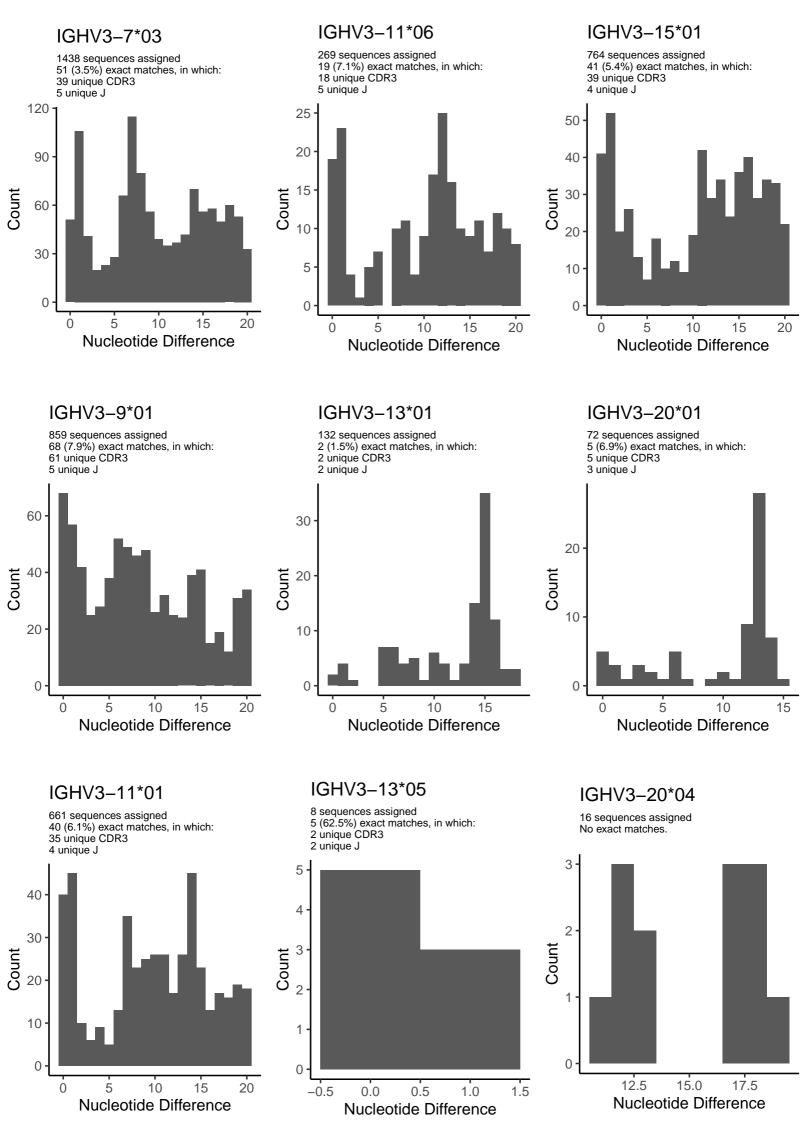
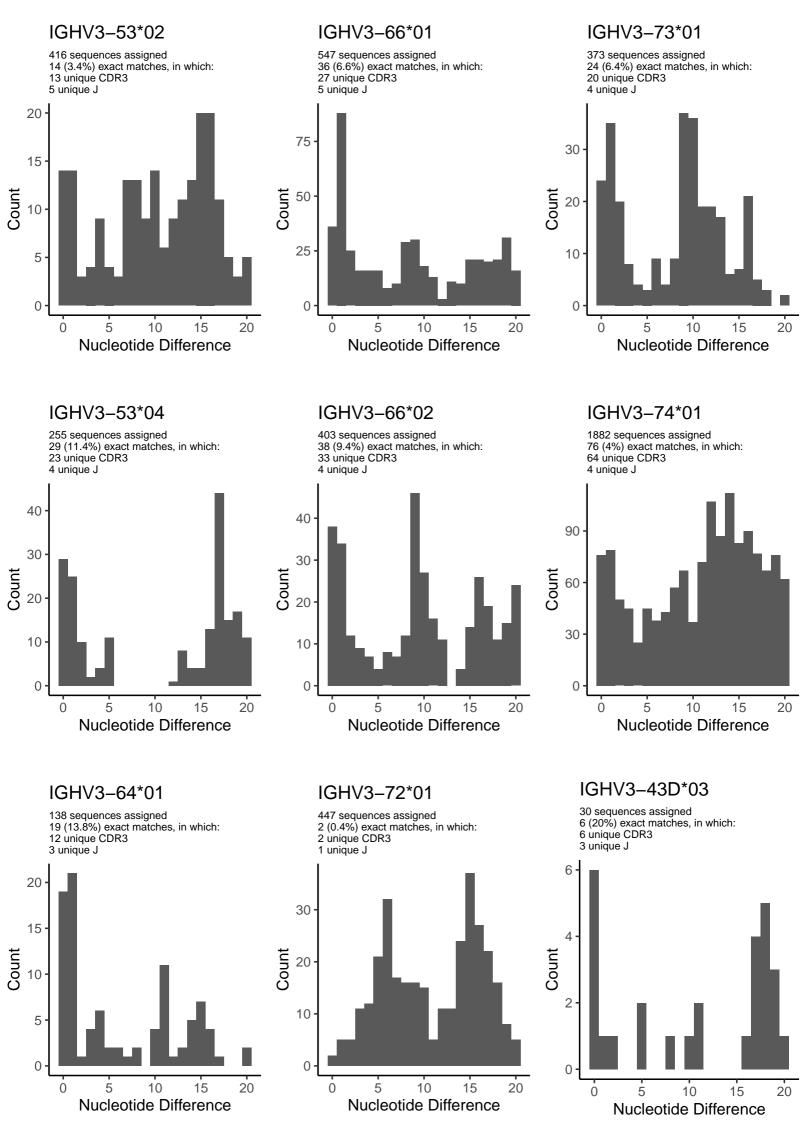
IGHV1-46*01 IGHV1-2*02 IGHV1-18*01 293 sequences assigned 32 (10.9%) exact matches, in which: 1747 sequences assigned 1432 sequences assigned 140 (8%) exact matches, in which: 101 (7.1%) exact matches, in which: 23 unique CDR3 110 unique CDR3 80 unique CDR3 5 unique J 6 unique J 5 unique J 30 150 100 Count Count 20 100 50 50 10 0 0 0 5 10 15 20 0 5 10 15 20 0 15 0 10 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV1-3*01 IGHV1-46*03 IGHV1-18*04 370 sequences assigned 674 sequences assigned 1184 sequences assigned 63 (9.3%) exact matches, in which: 40 (10.8%) exact matches, in which: 132 (11.1%) exact matches, in which: 50 unique CDR3 28 unique CDR3 100 unique CDR3 6 unique J 5 unique J 6 unique J 40 60 30 100 Count Count 20 50 20 10 0 0 0 10 20 0 5 15 10 15 10 15 20 0 5 20 0 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV1-24*01 IGHV1-58*02 IGHV1-8*01 362 sequences assigned 103 sequences assigned 749 sequences assigned 16 (15.5%) exact matches, in which: 45 (12.4%) exact matches, in which: 106 (14.2%) exact matches, in which: 38 unique CDR3 8 unique CDR3 78 unique CDR3 6 unique J 2 unique J 6 unique J 25 60 100 20 75 40 15 Count 50 10 20 25 5 0 0 0 10 15 20 0 0 5 10 15 20 0 3 6 9 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference





IGHV3-43*01 IGHV3-21*01 IGHV3-48*03 102 sequences assigned 3 (2.9%) exact matches, in which: 2 unique CDR3 2 unique J 2373 sequences assigned 203 (8.6%) exact matches, in which: 1703 sequences assigned 111 (6.5%) exact matches, in which: 162 unique CDR3 81 unique CDR3 6 unique J 4 unique J Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV3-43*02 IGHV3-49*03 IGHV3-30-3*01 231 sequences assigned 15 (6.5%) exact matches, in which: 340 sequences assigned 2164 sequences assigned 175 (8.1%) exact matches, in which: 12 (3.5%) exact matches, in which: 14 unique CDR3 12 unique CDR3 148 unique CDR3 3 unique J 3 unique J 6 unique J Count Count Count Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV3-48*01 IGHV3-49*04 IGHV3-33*01 893 sequences assigned 299 sequences assigned 853 sequences assigned 44 (4.9%) exact matches, in which: 18 (6%) exact matches, in which: 77 (9%) exact matches, in which: 33 unique CDR3 17 unique CDR3 53 unique CDR3 4 unique J 5 unique J 4 unique J Count Count **Nucleotide Difference Nucleotide Difference Nucleotide Difference**



IGHV3-64D*06 IGHV4-28*01 IGHV4-31*03 27 sequences assigned 6 (22.2%) exact matches, in which: 579 sequences assigned 30 (5.2%) exact matches, in which: 248 sequences assigned 16 (6.5%) exact matches, in which: 16 unique CDR3 3 unique CDR3 24 unique CDR3 1 unique J 6 unique J 4 unique J 20 40 15 15 30 10 Count Count 20 10 5 5 10 0 0 0 0 10 20 0 10 15 15 0 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference IGHV4-4*02 IGHV4-30-4*01 IGHV4-34*01 387 sequences assigned 995 sequences assigned 77 (7.7%) exact matches, in which: 2014 sequences assigned 161 (8%) exact matches, in which: 17 (4.4%) exact matches, in which: 16 unique CDR3 63 unique CDR3 144 unique CDR3 4 unique J 4 unique J 6 unique J 40 150 75 30 100 Count Count Count 50 20 50 25 10 0 0 0 10 15 20 0 5 5 10 20 10 15 20 0 15 0 5 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV4-4*07 IGHV4-30-2*01 IGHV4-38-2*02 969 sequences assigned 253 sequences assigned 294 sequences assigned 65 (6.7%) exact matches, in which: 23 (9.1%) exact matches, in which: 17 (5.8%) exact matches, in which: 18 unique CDR3 16 unique CDR3 56 unique CDR3 4 unique J 5 unique J 6 unique J 60 20 20 15 40 Count 10 10 20 5 0 0 0 0 5 10 15 20 0 5 10 15 20 0 10 15 20 **Nucleotide Difference Nucleotide Difference** Nucleotide Difference

IGHV4-61*02 IGHV5-51*03 IGHV4-39*01 1471 sequences assigned 96 (6.5%) exact matches, in which: 631 sequences assigned 53 (8.4%) exact matches, in which: 4634 sequences assigned 280 (6%) exact matches, in which: 48 unique CDR3 69 unique CDR3 262 unique CDR3 6 unique J 5 unique J 6 unique J 90 40 200 Count Count Count 60 100 20 30 0 0 0 5 10 15 20 0 5 10 15 10 15 0 0 5 Nucleotide Difference **Nucleotide Difference** Nucleotide Difference IGHV4-59*01 IGHV6-1*01 IGHV5-10-1*03 1252 sequences assigned 106 (8.5%) exact matches, in which: 632 sequences assigned 48 (7.6%) exact matches, in which: 793 sequences assigned 60 (7.6%) exact matches, in which: 87 unique CDR3 43 unique CDR3 46 unique CDR3 6 unique J 5 unique J 6 unique J 50 90 40 60 30 Count Count Count 60 40 20 30 20 10 0 0 0 10 10 15 20 15 20 10 15 0 5 0 5 0 5 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV4-59*08 IGHV5-51*01 1179 sequences assigned 65 (5.5%) exact matches, in which: 1042 sequences assigned 46 (4.4%) exact matches, in which: 35 ùniqué CDR3 57 unique CDR3 5 unique J 5 unique J 100 120 75 80 Count 50

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Nucleotide Difference

15

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40

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Nucleotide Difference

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