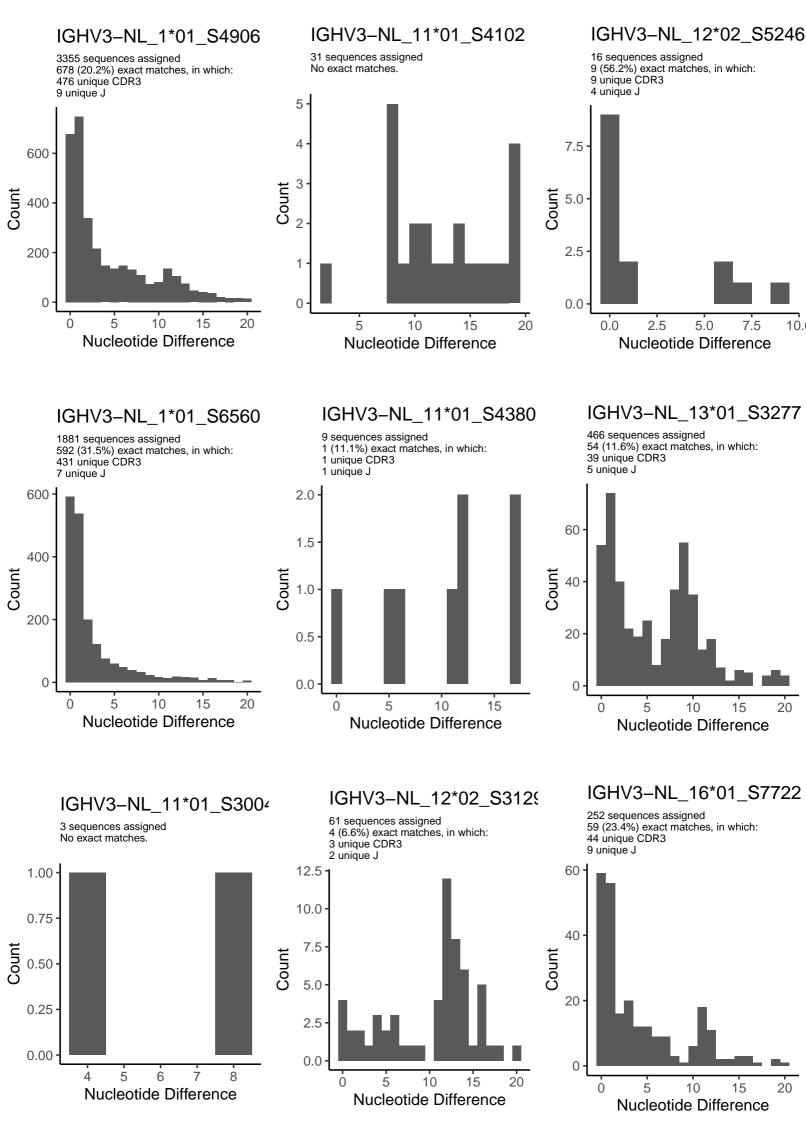
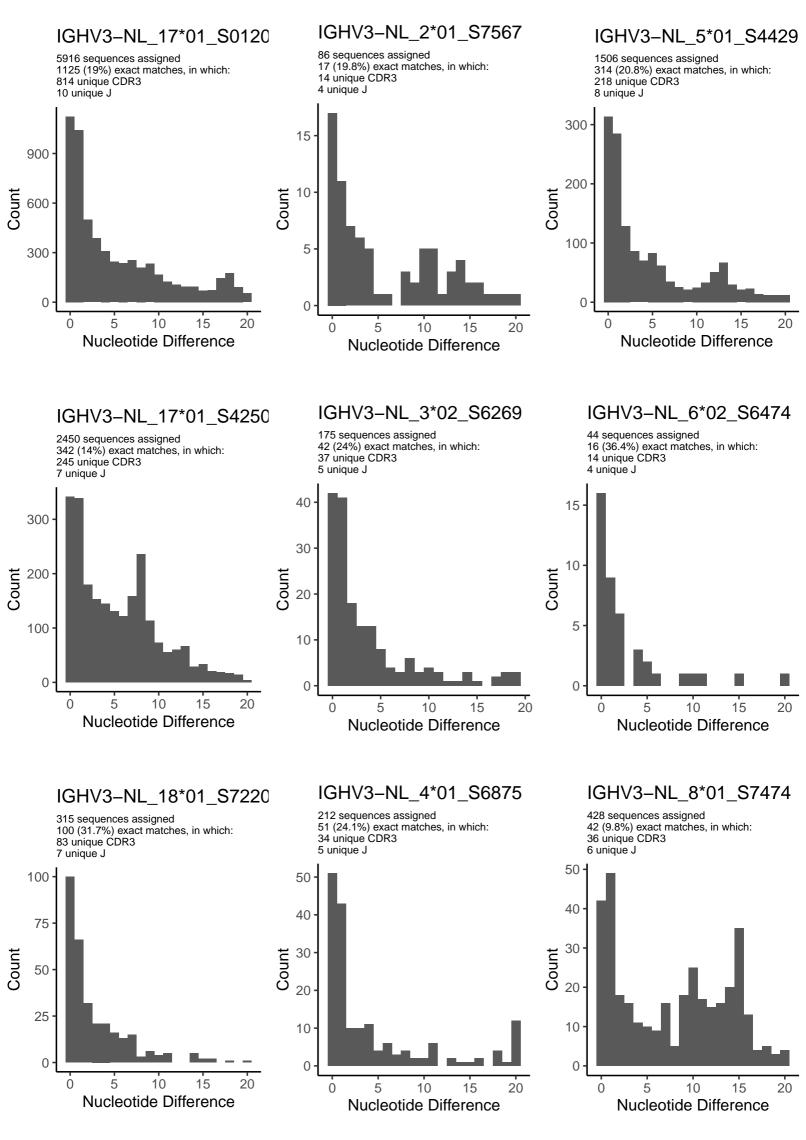
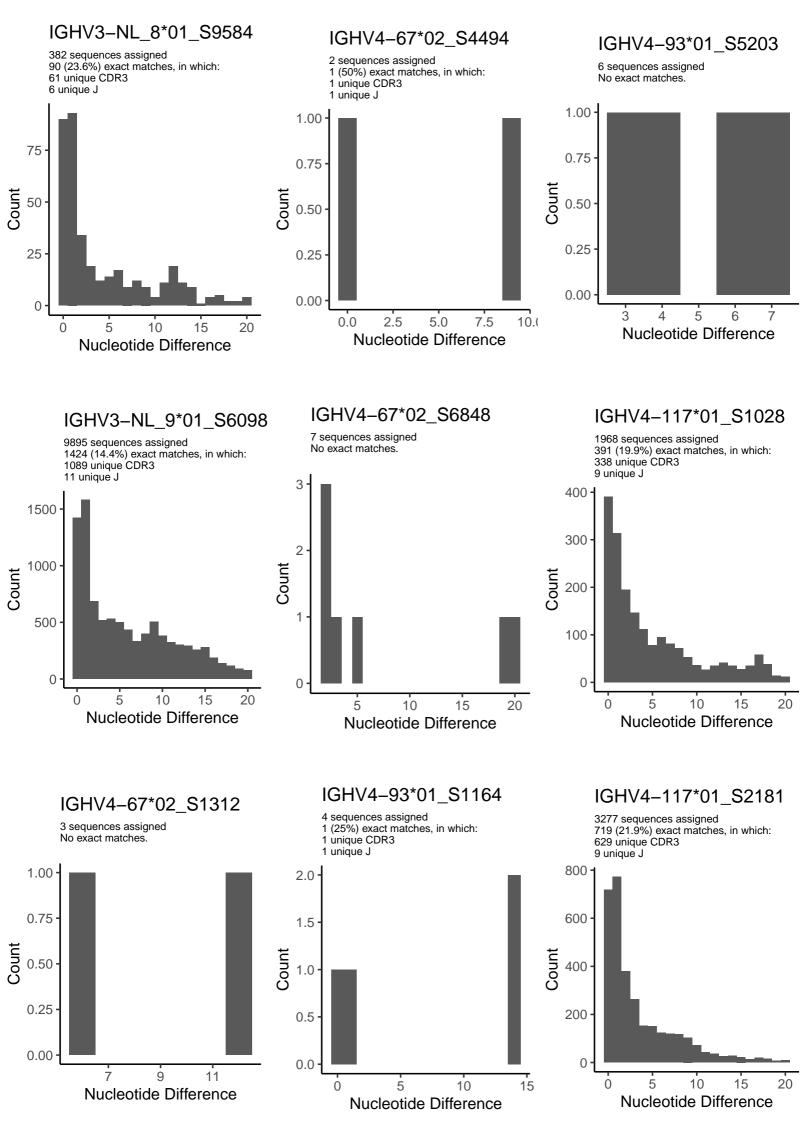
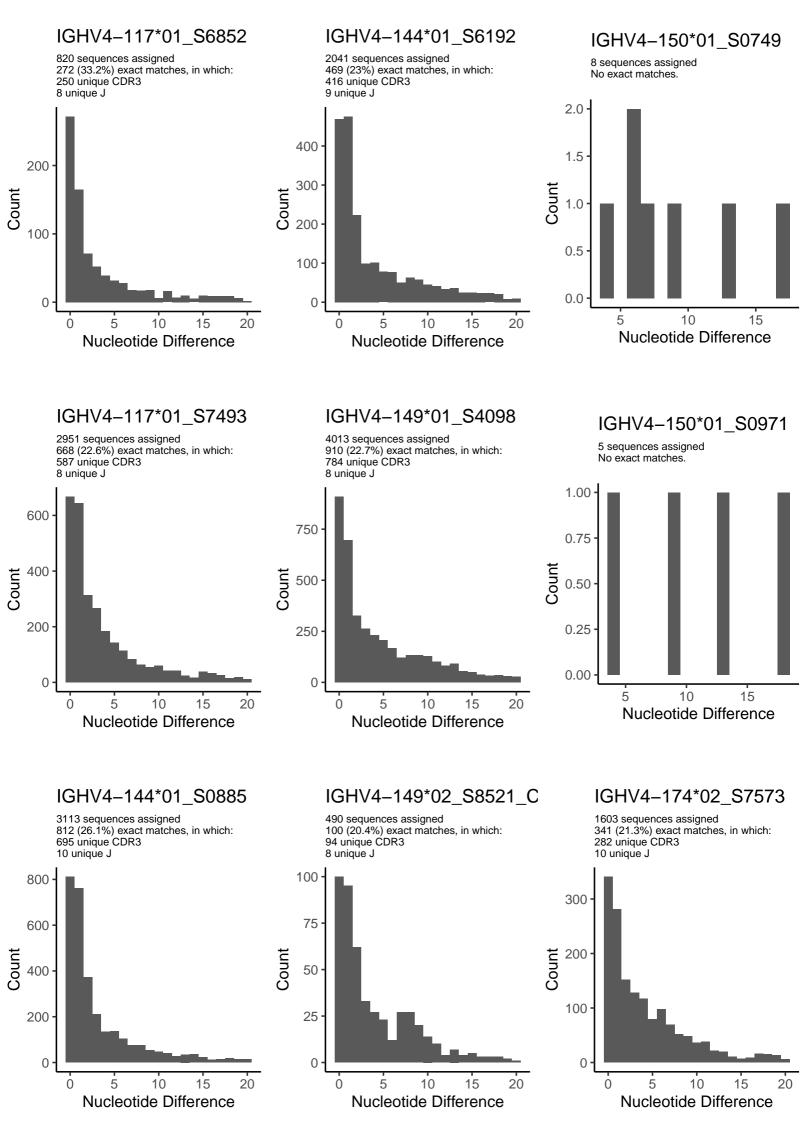


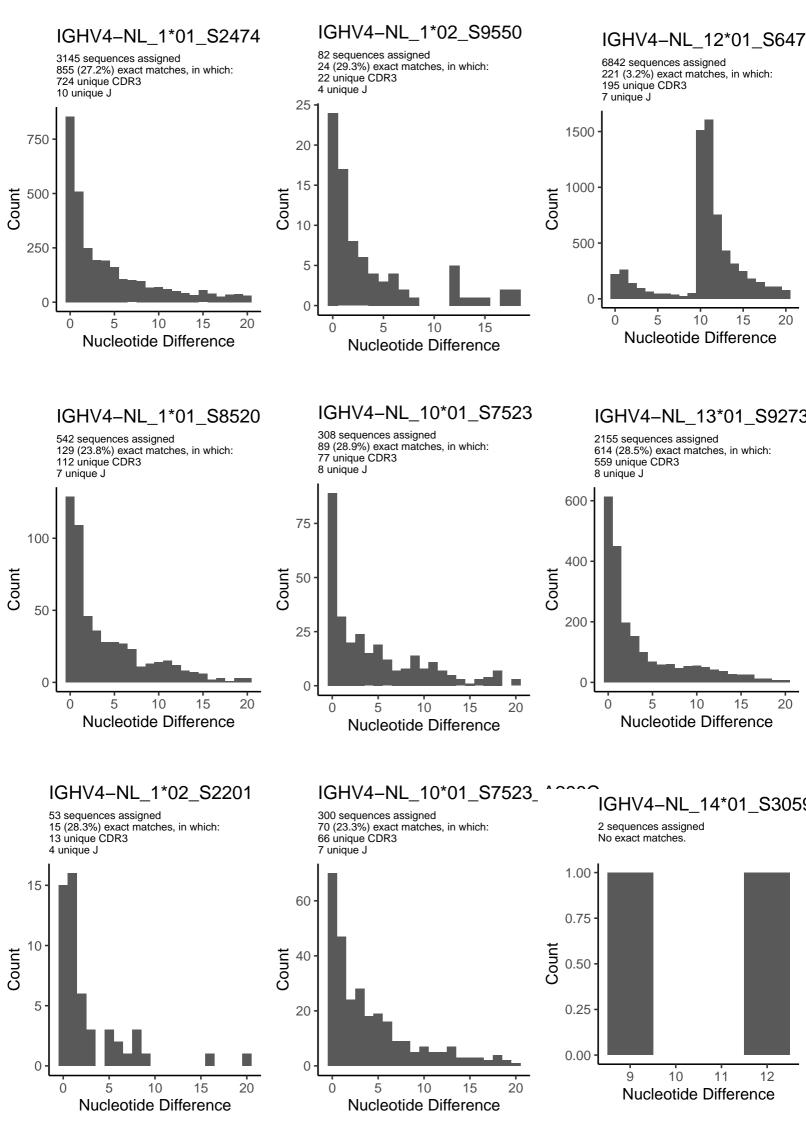
IGHV3-141*02_S7574 IGHV3-172*01_S1597 IGHV3-187*01_S1387 544 sequences assigned 236 sequences assigned 5421 sequences assigned 1029 (19%) exact matches, in which: 56 (23.7%) exact matches, in which: 113 (20.8%) exact matches, in which: 96 unique CDR3 43 unique CDR3 756 unique CDR3 7 unique J 9 unique J 10 unique J 1000 60 90 750 40 Count Count 60 500 20 30 250 0 0 0 10 15 10 0 15 0 10 15 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference IGHV3-143*01_S1591 IGHV3-177*01_S2755 IGHV3-187*01_S6641 204 sequences assigned 26 (12.7%) exact matches, in which: 749 sequences assigned 3496 sequences assigned 678 (19.4%) exact matches, in which: 94 (12.6%) exact matches, in which: 17 unique CDR3 67 unique CDR3 493 unique CDR3 5 unique J 6 unique J 10 unique J 30 600 75 20 400 Count Count 50 10 200 25 0 0 0 10 15 20 0 5 10 15 20 10 15 20 0 0 5 Nucleotide Difference Nucleotide Difference Nucleotide Difference IGHV3-177*01_S8409 IGHV3-NL_1*01_S0448 IGHV3-152*01_S7388 593 sequences assigned 1461 sequences assigned 4 sequences assigned 146 (24.6%) exact matches, in which: 206 (14.1%) exact matches, in which: No exact matches 112 unique CDR3 148 unique CDR3 7 unique J 9 unique J 2.0 150 200 1.5 150 100 Count 100 50 0.5 50 0.0 0 0 12 5 10 15 20 10 15 20 0 Nucleotide Difference **Nucleotide Difference** Nucleotide Difference

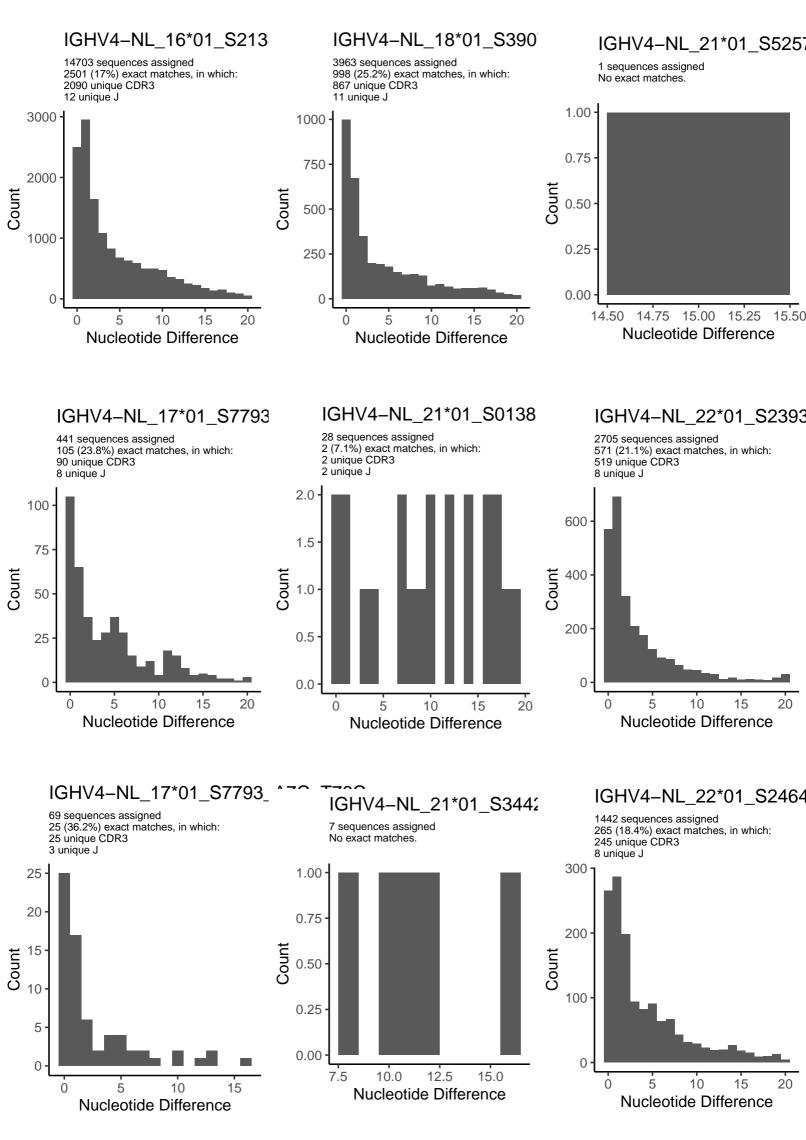


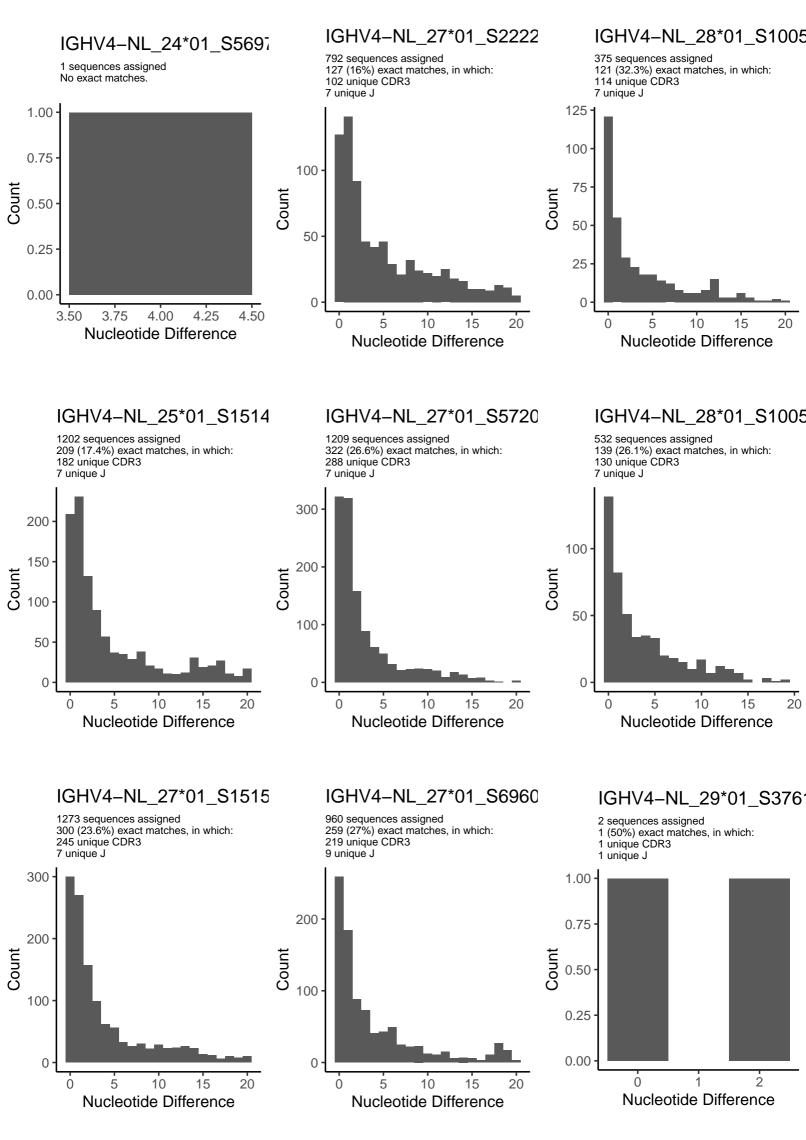


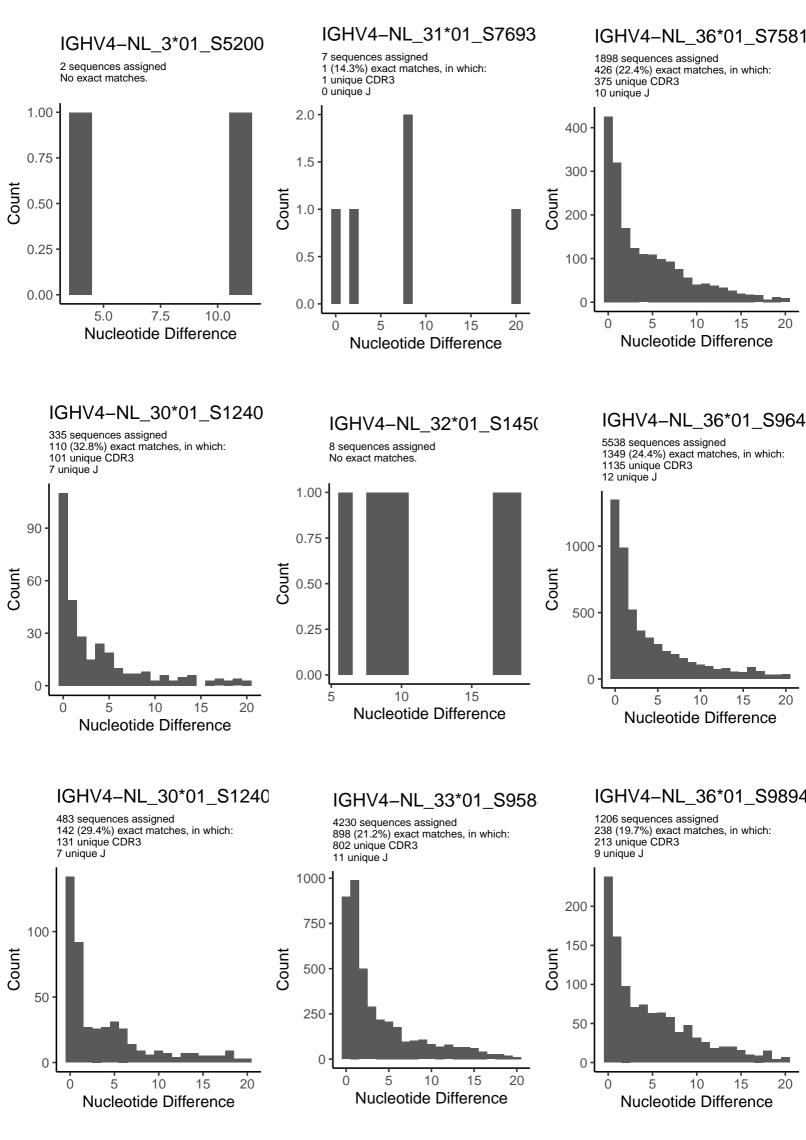


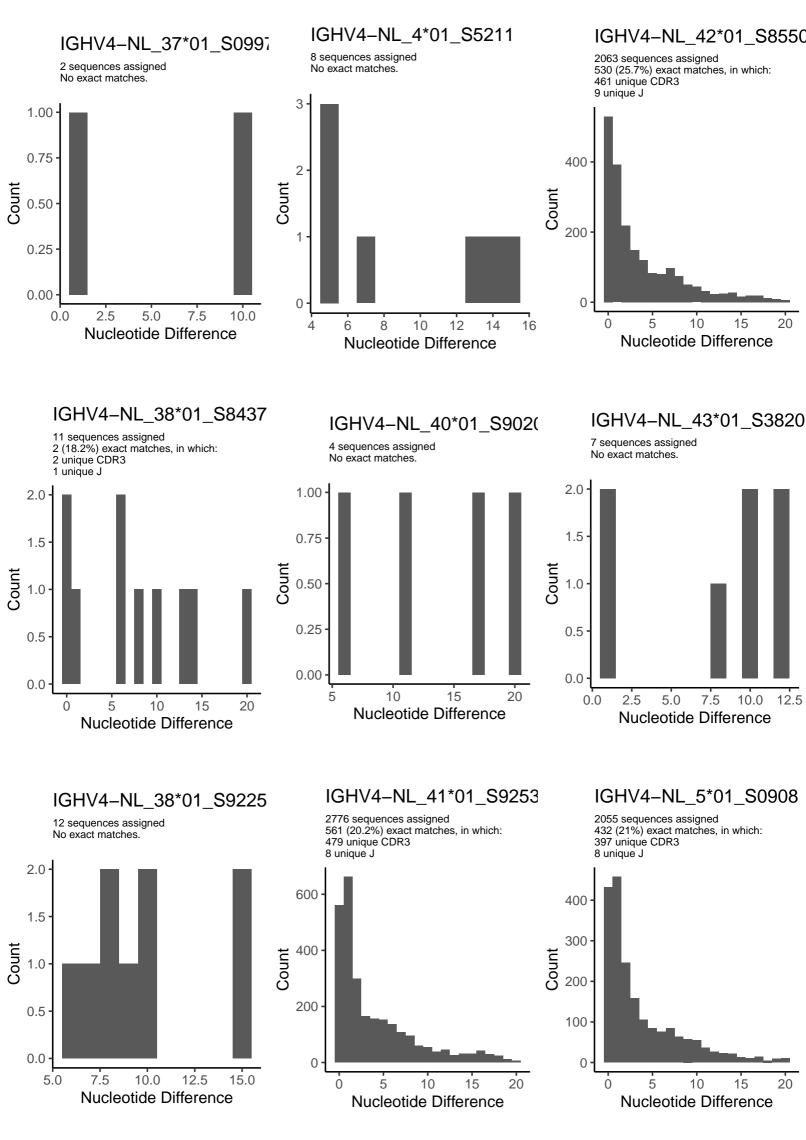


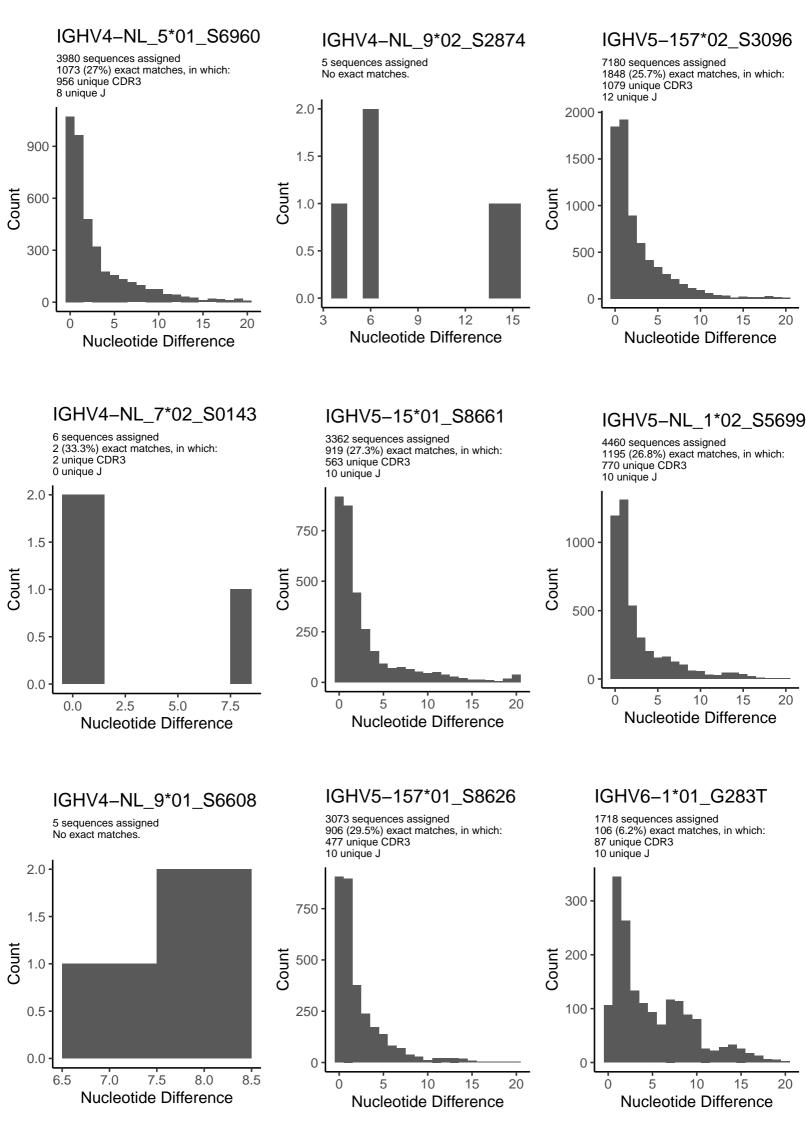






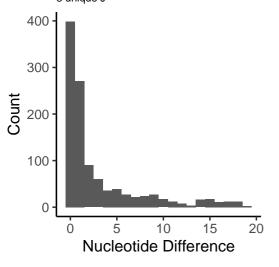






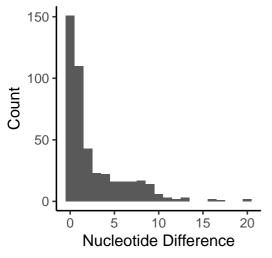
IGHV7-86*01_S8063

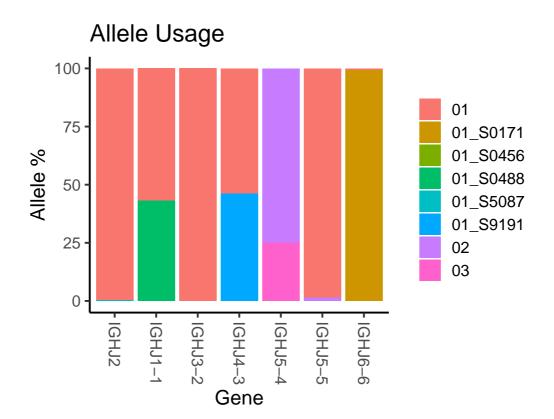
1150 sequences assigned 399 (34.7%) exact matches, in which: 262 unique CDR3 8 unique J



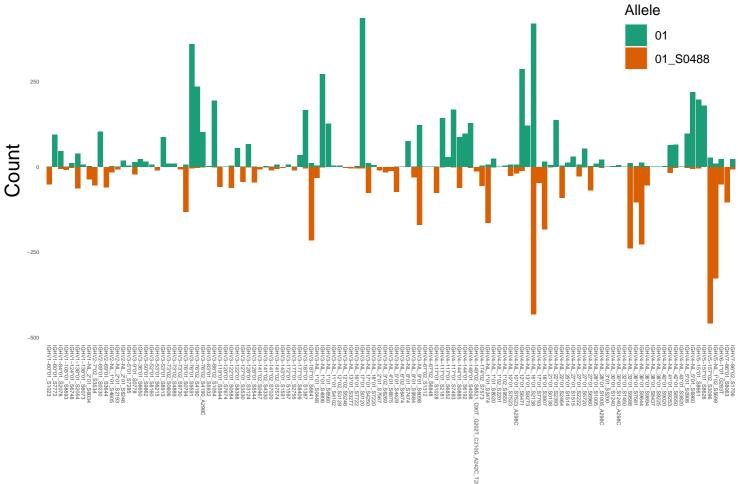
IGHV7-86*02_S1706

695 sequences assigned 151 (21.7%) exact matches, in which: 111 unique CDR3 8 unique J

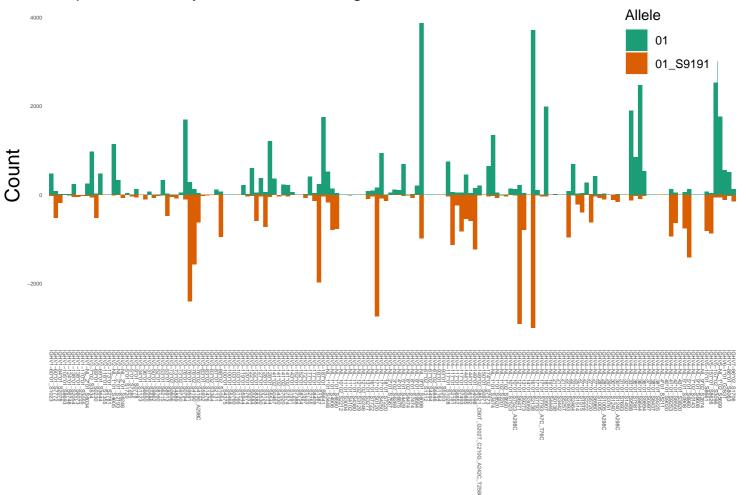








Sequence Count by IGHJ4-3 allele usage



Sequence Count by IGHJ5-4 allele usage

