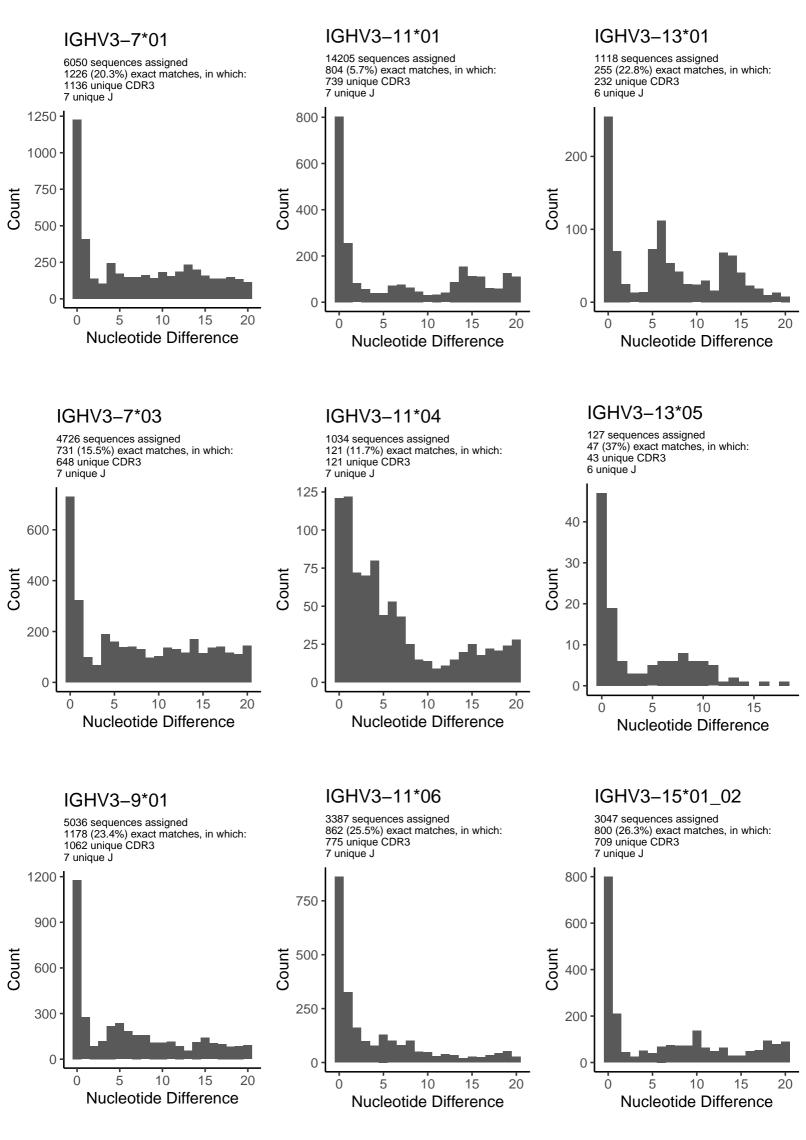
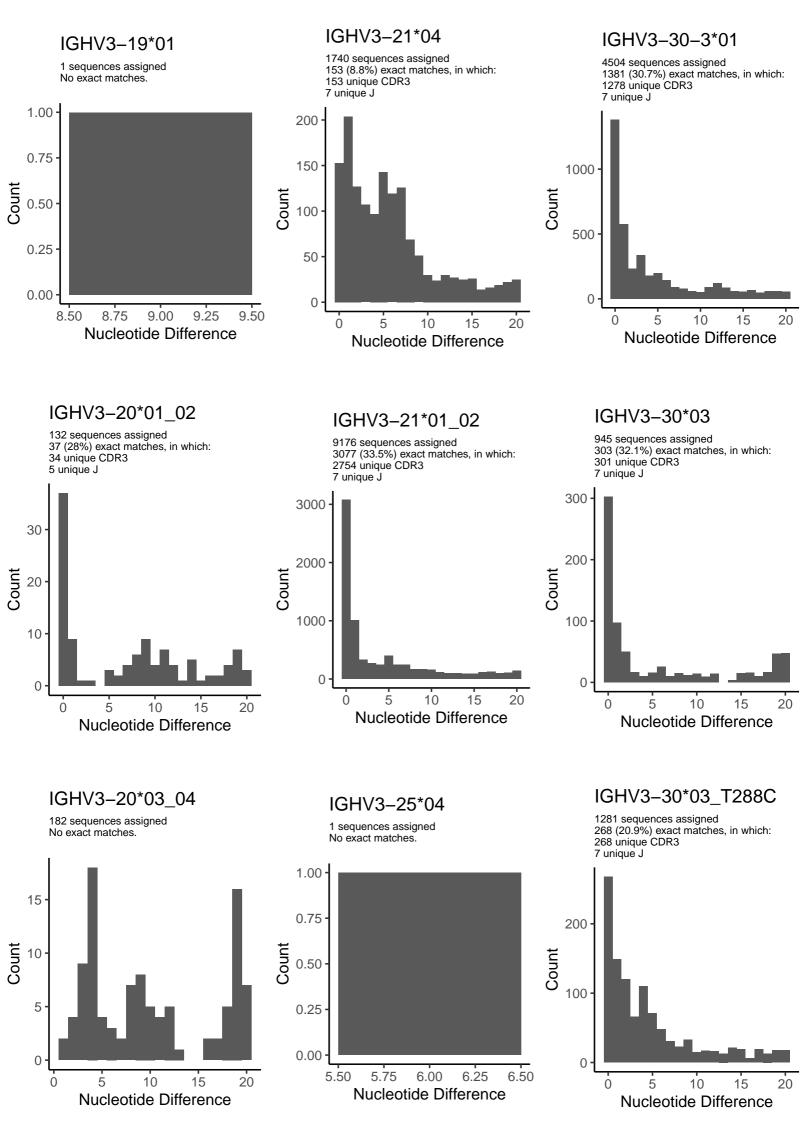
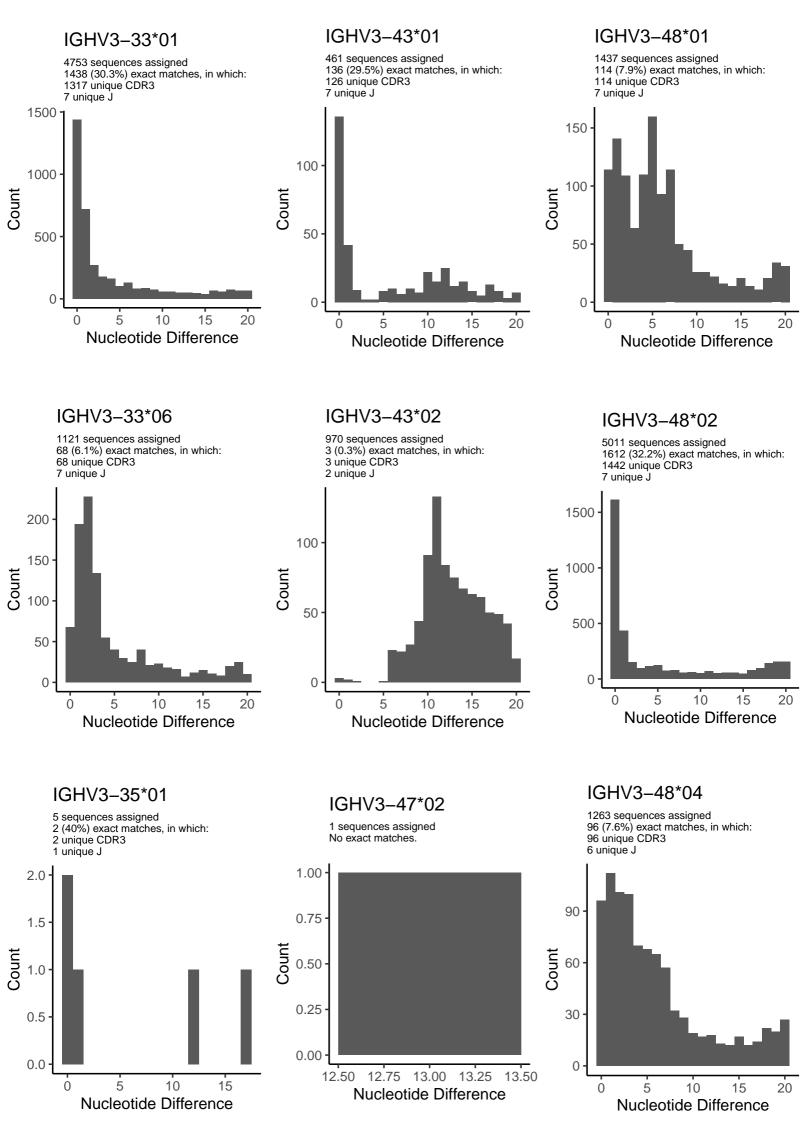
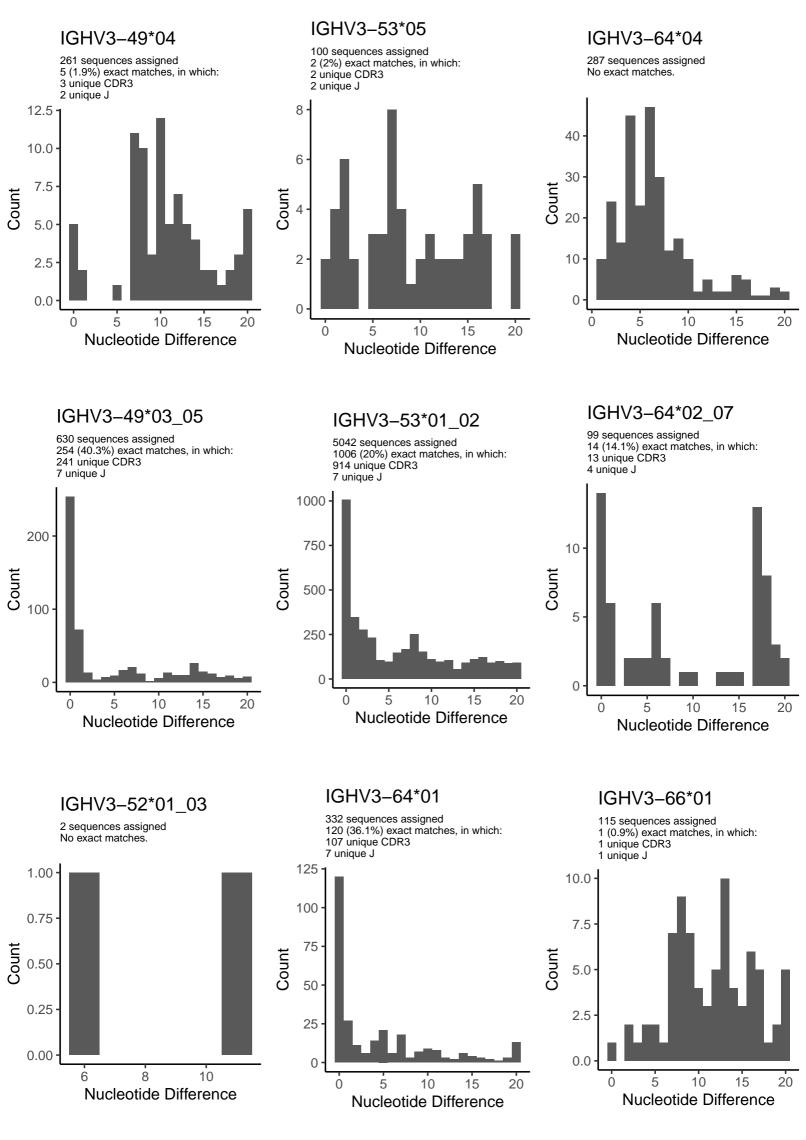


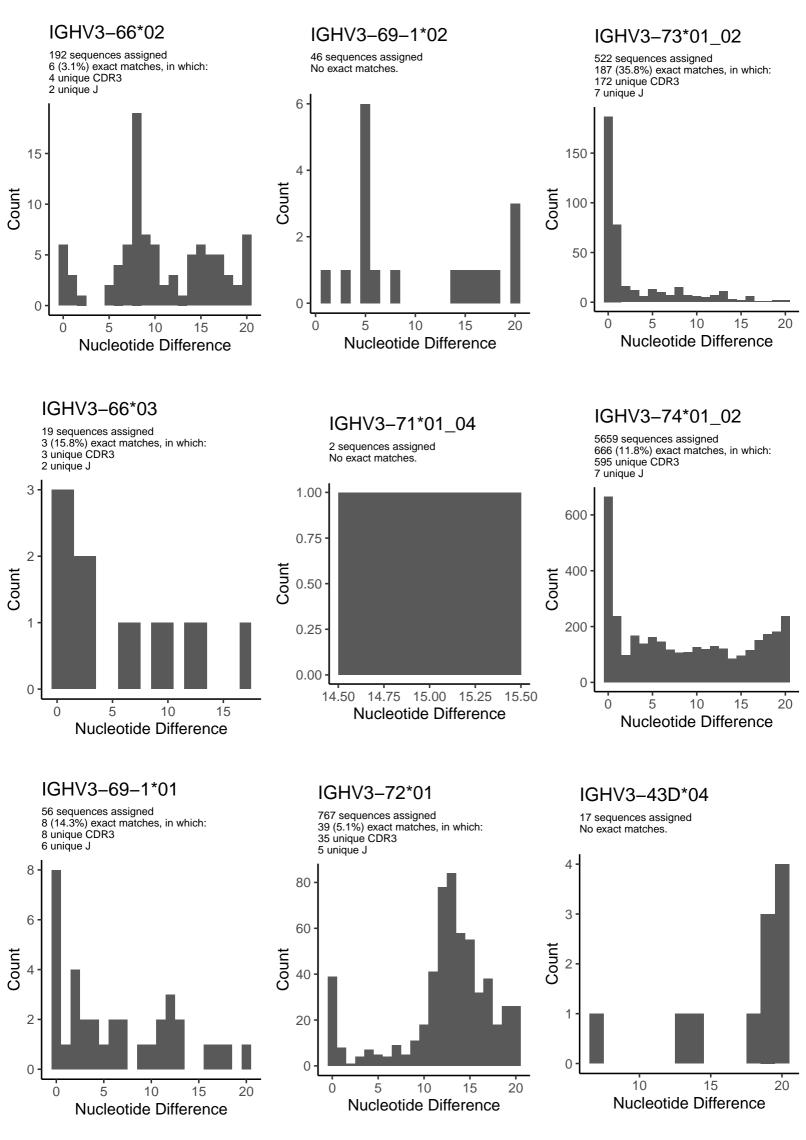
IGHV1-58*02 IGHV2-5*02 IGHV1-69*06_14 212 sequences assigned 936 sequences assigned 130 (13.9%) exact matches, in which: 6970 sequences assigned 2361 (33.9%) exact matches, in which: 83 (39.2%) exact matches, in which: 82 unique CDR3 124 unique CDR3 2315 unique CDR3 7 unique J 7 unique J 7 unique J 80 2000 100 60 1500 Count Count 40 1000 50 20 500 0 0 0 0 10 15 20 5 10 15 20 0 10 0 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference IGHV1-58*01_03 IGHV2-26*01 IGHV1-NL1*01 556 sequences assigned 207 (37.2%) exact matches, in which: 413 sequences assigned 182 (44.1%) exact matches, in which: 2 sequences assigned No exact matches. 176 unique CDR3 201 unique CDR3 7 unique J 6 unique J 1.00 200 150 0.75 150 Count Count 100 0.50 100 0.25 50 50 0.00 0 0 7.5 8.0 8.5 9.0 9.5 15 20 10 15 20 0 5 10 0 5 Nucleotide Difference **Nucleotide Difference** Nucleotide Difference IGHV1-69-2*01 IGHV2-5*01 IGHV2-70*01 66 sequences assigned 1960 sequences assigned 856 sequences assigned 3 (4.5%) exact matches, in which: 3 unique CDR3 294 (15%) exact matches, in which: 276 (32.2%) exact matches, in which: 285 unique CDR3 270 unique CDR3 2 unique J 7 unique J 7 unique J 3 300 200 200 2 Count Count Count 100 100 0 0 5 10 15 20 10 20 0 15 0 5 10 15 20 **Nucleotide Difference** Nucleotide Difference Nucleotide Difference

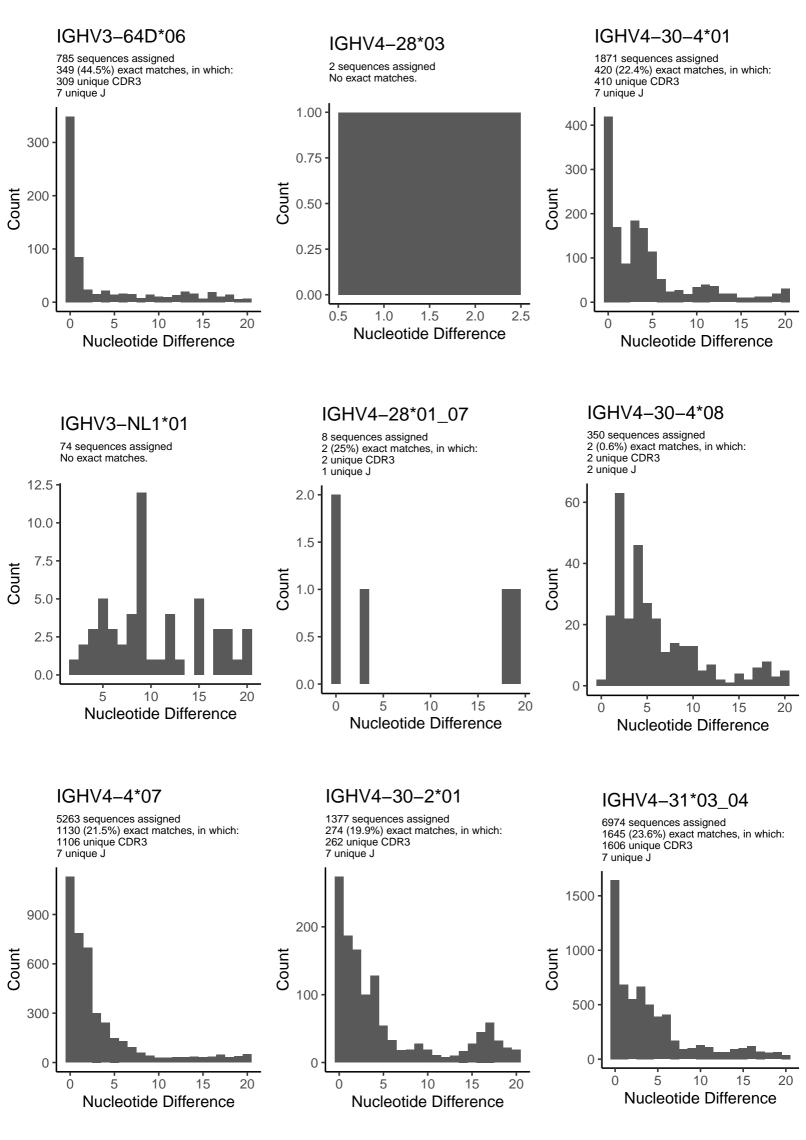


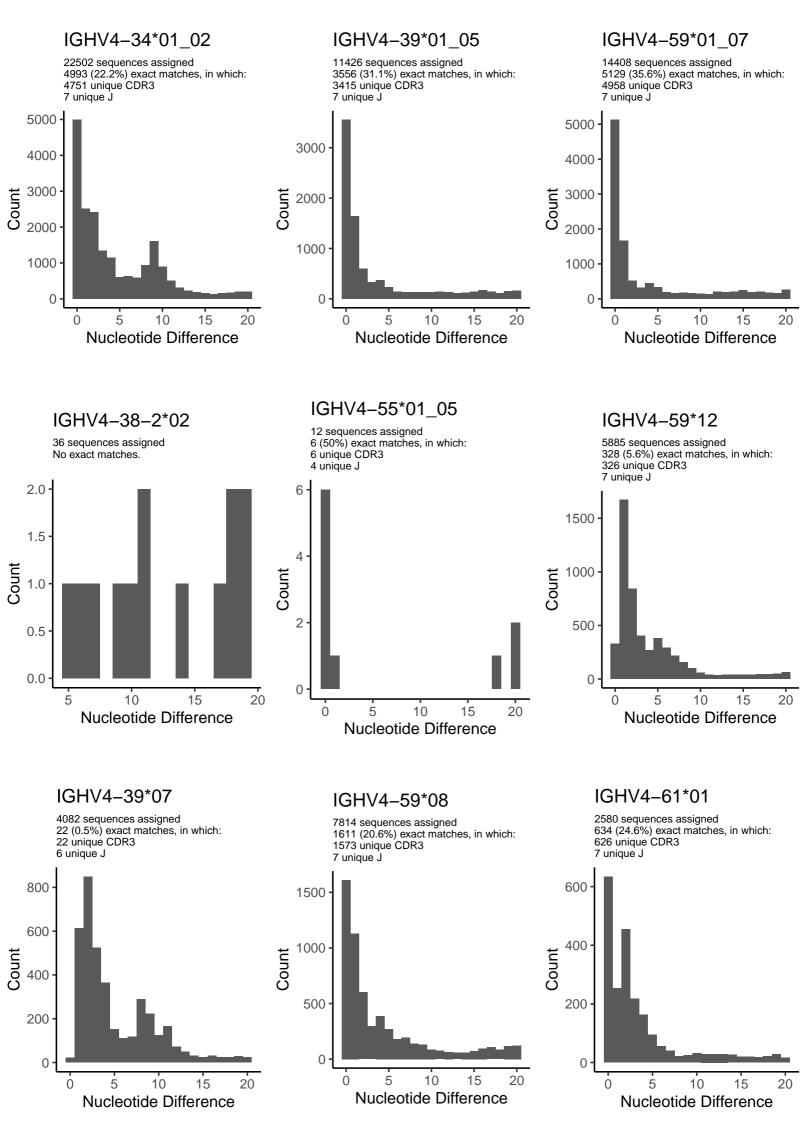


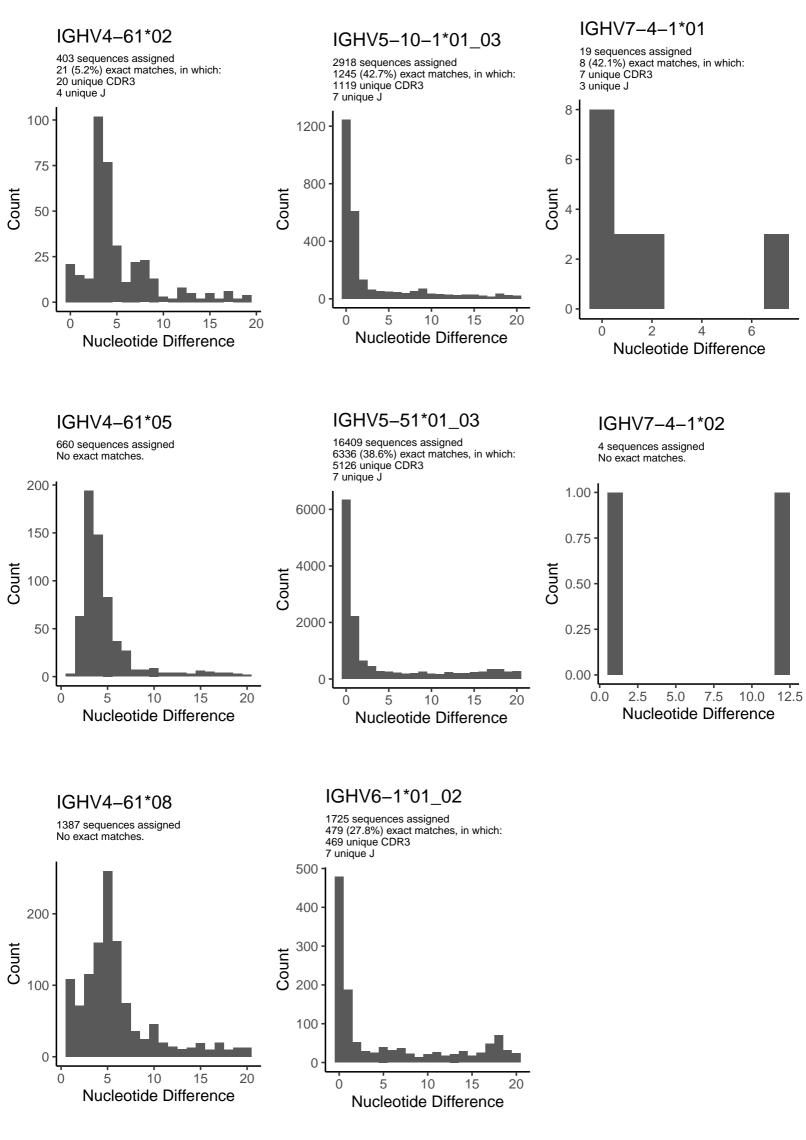


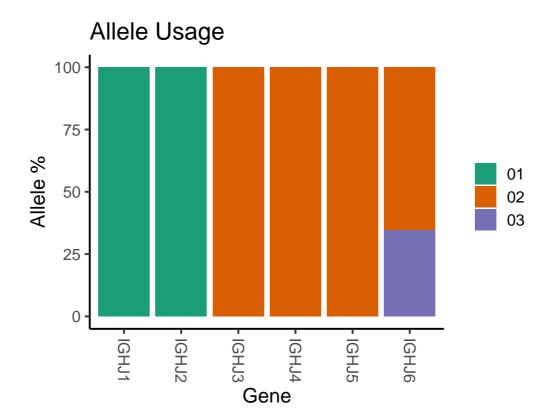




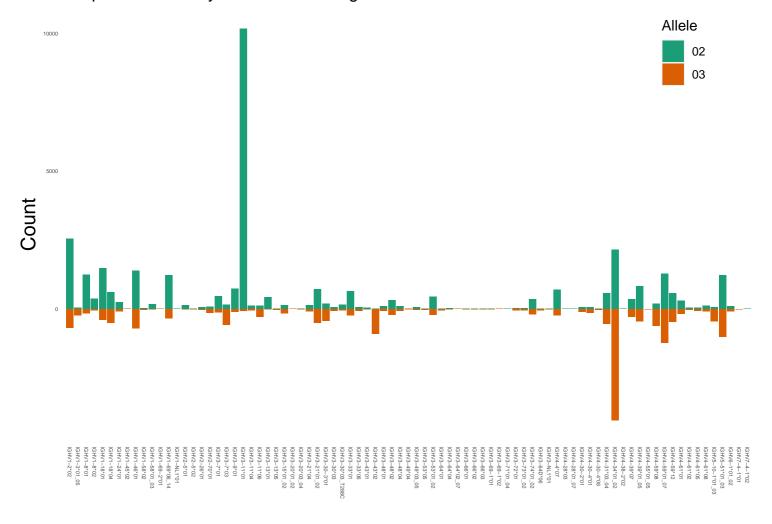








Sequence Count by IGHJ6 allele usage



Novel sequence(s) IGHV3-30*03_T288C IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning: IGHV4-31*02, IGHV4-31*03_04 have identical germline sequences.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV1-69*04_09_G112A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Novel sequence(s) IGHV1-69*08_C191T IGHV3-30*03_T288C IGHV3-30-3*02_G75C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-4*02_03_C300T IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4-59*02_G88A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV1-69*08_C191T IGHV3-11*06_T300C IGHV3-30*03_T288C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Warning - no inferred sequences found.

Novel sequence(s) IGHV3-30*03_T288C IGHV3-30-3*01_T288C IGHV4-59*02_G88A IGHV5-10-1*01_03_T258C IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Novel sequence(s) IGHV3-48*04_A193T_C198T_A200C_C201T_T210A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59*02_G88A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-33*01_C288T IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-33*01_T105C_A173T_T192G_C288T are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-30*04_T288C IGHV3-33*01_G75C IGHV4-30-2*03_T288C IGHV4-59*02_G88A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-11*06_T300C are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.