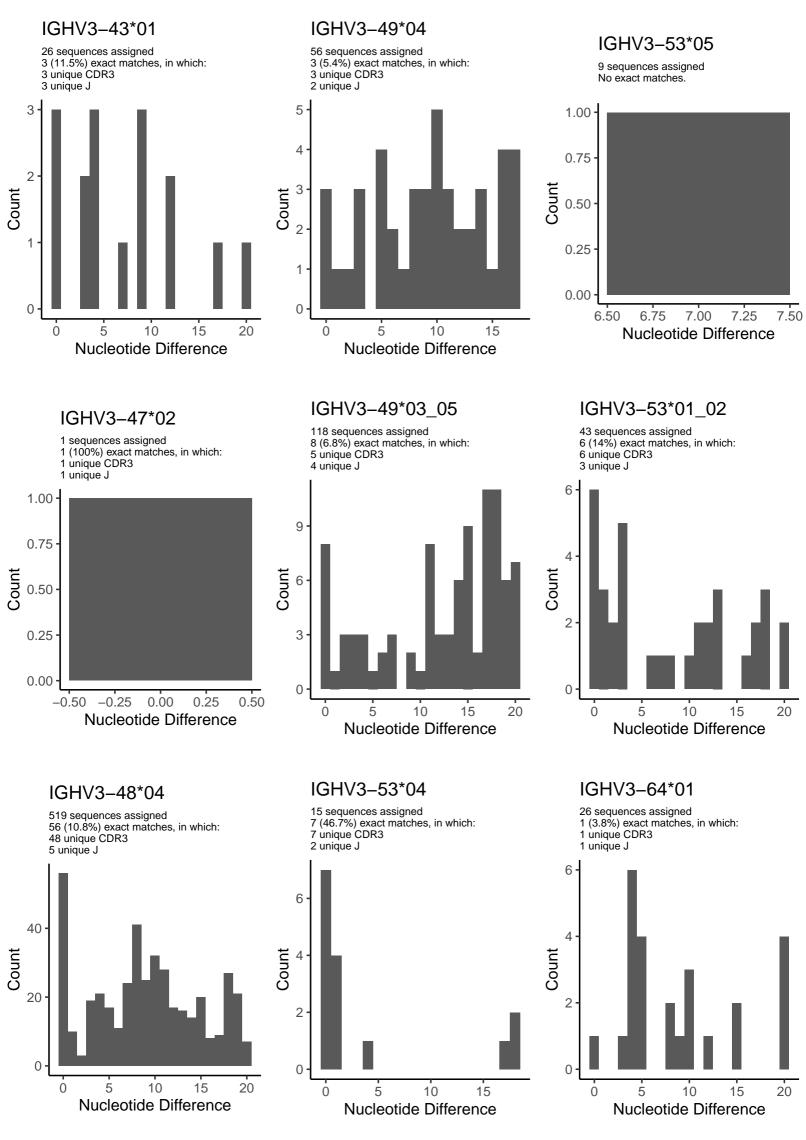


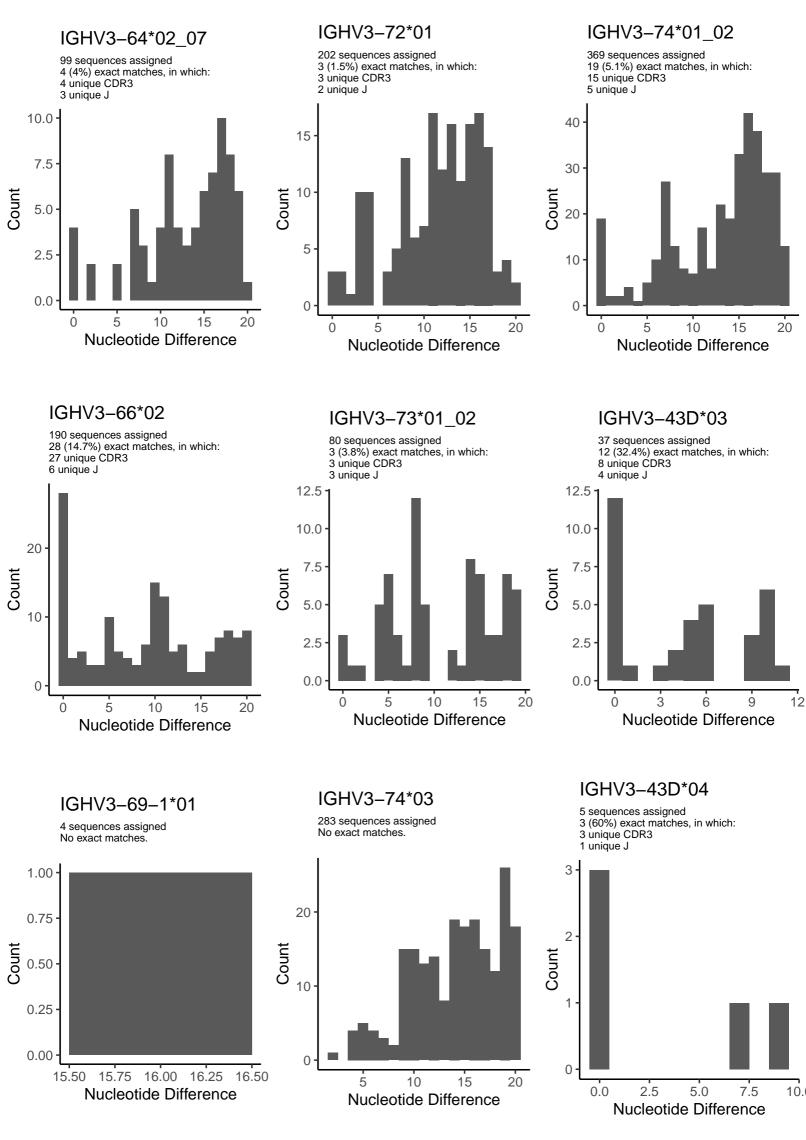
#### IGHV3-7\*03 IGHV3-11\*04 IGHV3-21\*03 359 sequences assigned 20 (5.6%) exact matches, in which: 135 sequences assigned 21 (15.6%) exact matches, in which: 411 sequences assigned 69 (16.8%) exact matches, in which: 16 unique CDR3 19 unique CDR3 62 unique CDR3 3 unique J 4 unique J 6 unique J 20 20 60 15 15 Count Count 40 10 10 20 5 5 0 0 0 10 15 20 15 0 5 0 5 10 0 10 15 Nucleotide Difference **Nucleotide Difference** Nucleotide Difference IGHV3-9\*01 IGHV3-15\*01\_02 IGHV3-23\*01\_04 461 sequences assigned 61 (13.2%) exact matches, in which: 293 sequences assigned 13 (4.4%) exact matches, in which: 12 unique CDR3 1327 sequences assigned 107 (8.1%) exact matches, in which: 53 unique CDR3 95 unique CDR3 6 unique J 7 unique J 4 unique J 60 30 90 40 20 Count Count Count 60 20 10 30 0 0 0 0 10 0 10 15 20 10 15 20 5 15 20 5 0 5 Nucleotide Difference **Nucleotide Difference** Nucleotide Difference IGHV3-11\*01 IGHV3-20\*03\_04 IGHV3-33\*01 172 sequences assigned 293 sequences assigned 176 sequences assigned 30 (17.4%) exact matches, in which: 21 (11.9%) exact matches, in which: 30 (10.2%) exact matches, in which: 27 unique CDR3 28 unique CDR3 20 unique CDR3 5 unique J 6 unique J 3 unique J 30 30 20 15 20 Count Count 10 10 10 5 0 0 0 0 10 15 20 0 5 10 15 20 0 5 10 15 20

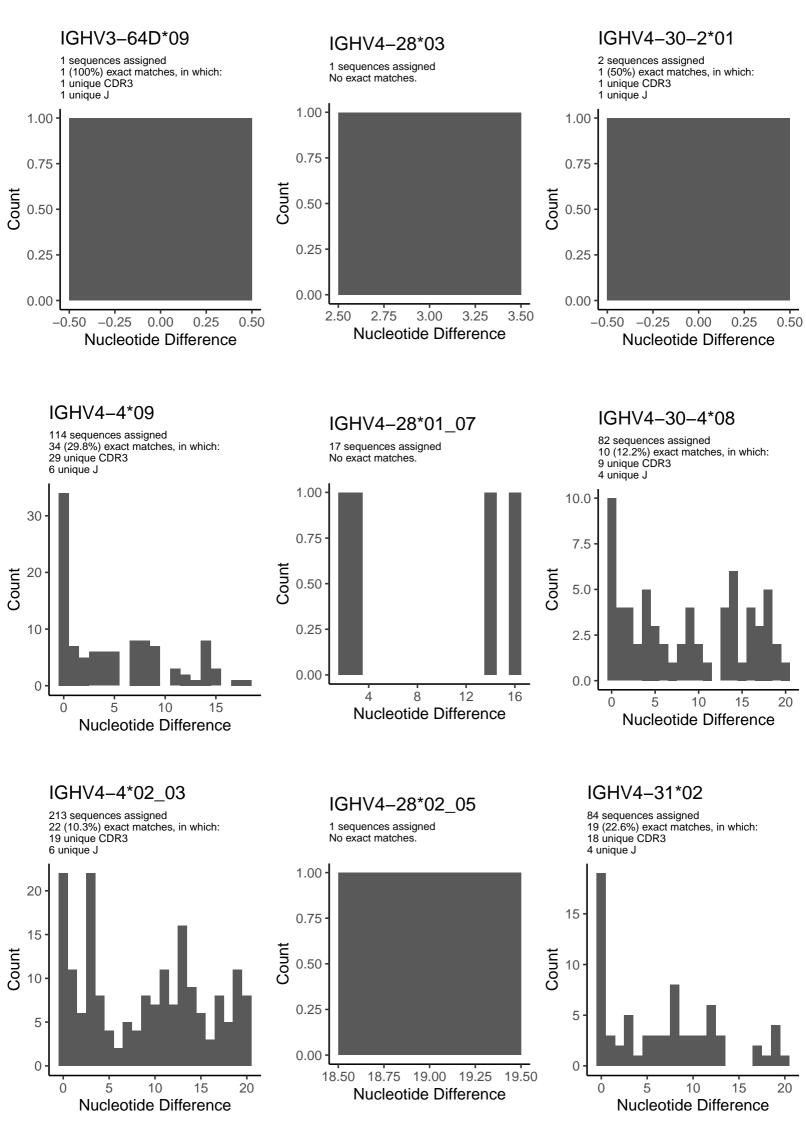
**Nucleotide Difference** 

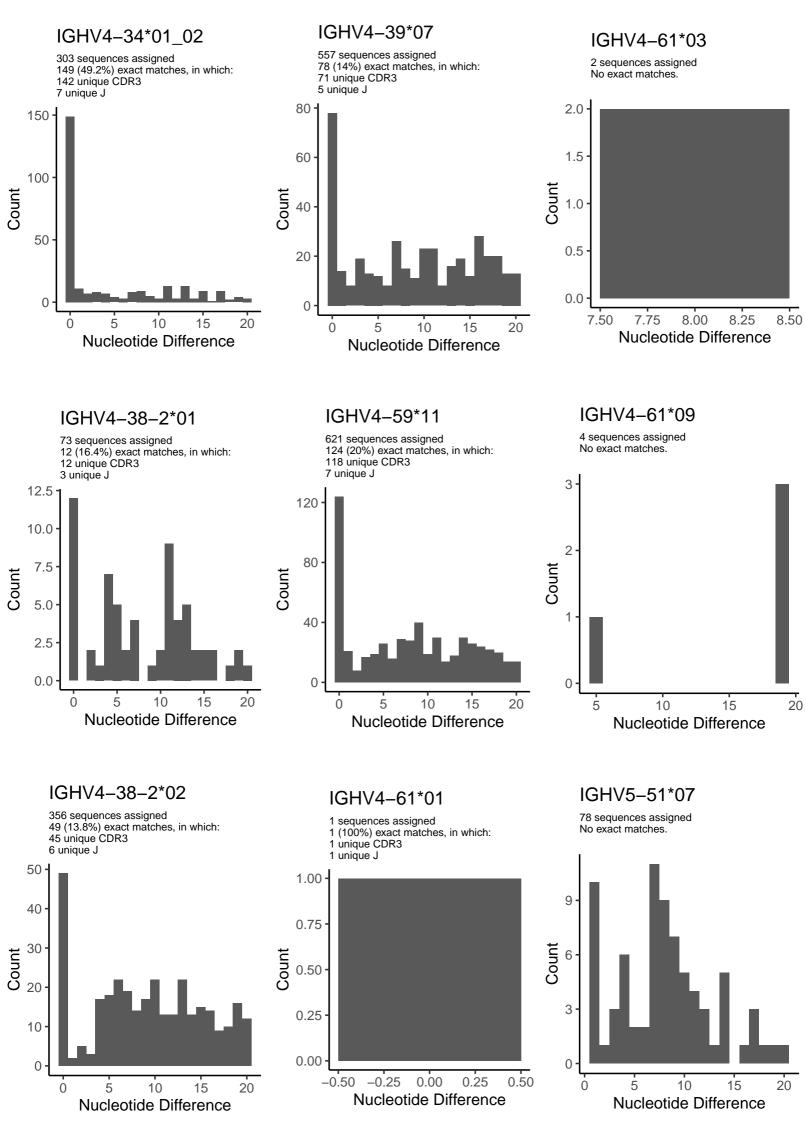
Nucleotide Difference

**Nucleotide Difference** 



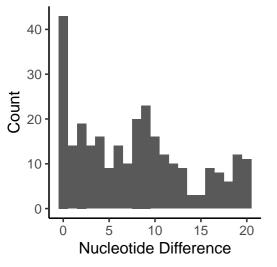






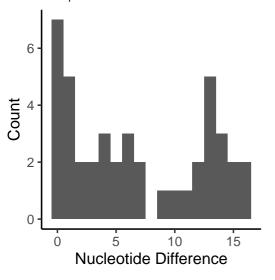
## IGHV5-51\*01\_03

332 sequences assigned 43 (13%) exact matches, in which: 42 unique CDR3 6 unique J



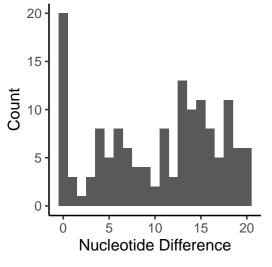
### IGHV6-1\*01\_02

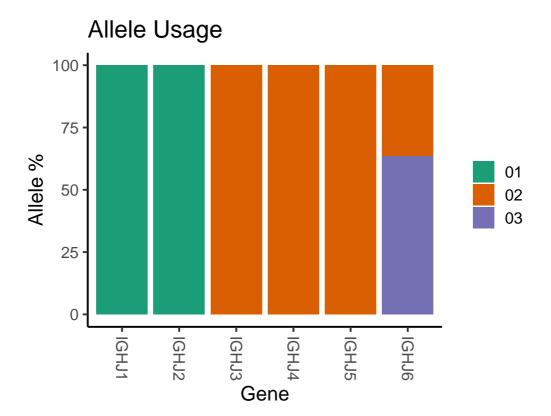
45 sequences assigned 7 (15.6%) exact matches, in which: 7 unique CDR3 4 unique J



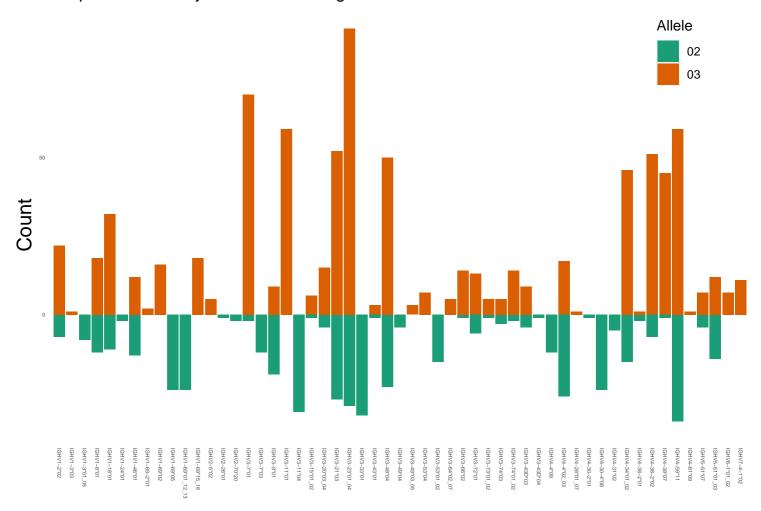
#### IGHV7-4-1\*02

173 sequences assigned 20 (11.6%) exact matches, in which: 20 unique CDR3 4 unique J





# Sequence Count by IGHJ6 allele usage



Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	_	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	_	no	inferred	sequences	found.
				sequences	
Warning	_	no	inferred	sequences	found.
				sequences	
				sequences	
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	-	no	inferred	sequences	found.
Warning	_	no	inferred	sequences	found.