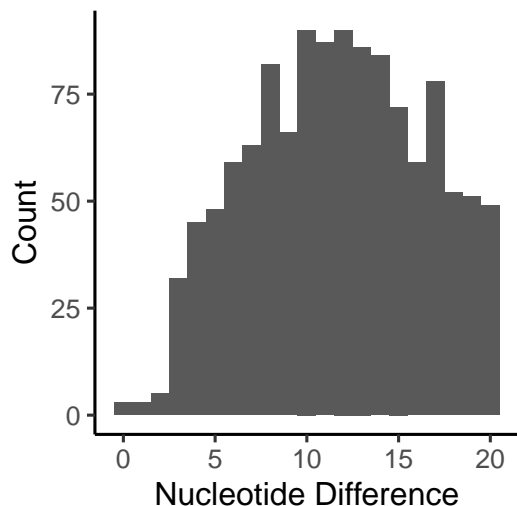


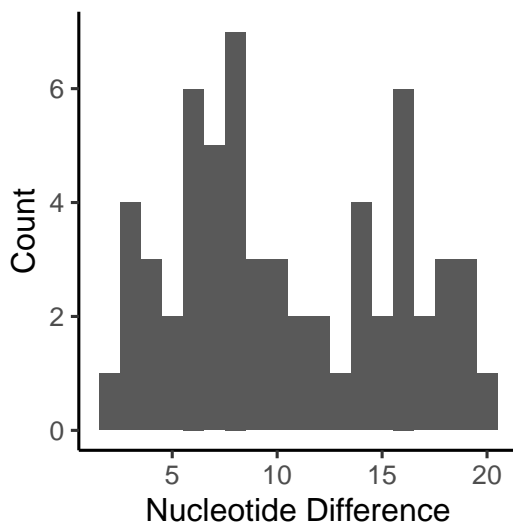
### IGHV1-2\*02

1509 sequences assigned  
3 (0.2%) exact matches, in which:  
3 unique CDR3  
3 unique J



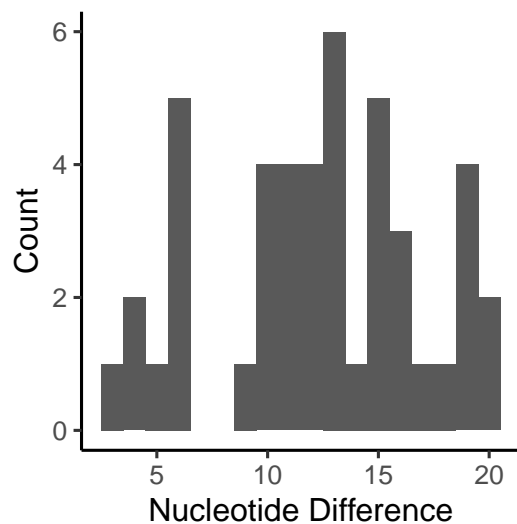
### IGHV1-24\*01

99 sequences assigned  
No exact matches.



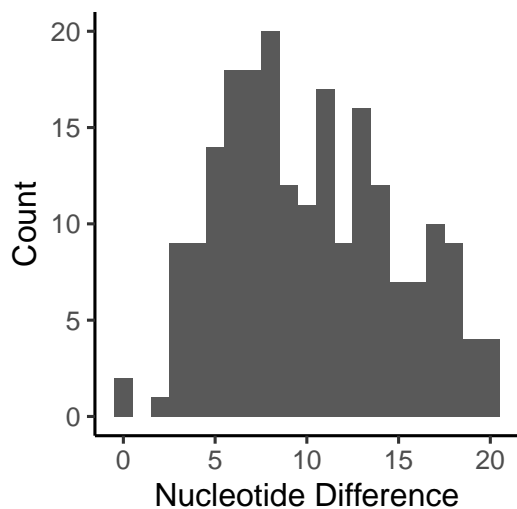
### IGHV1-46\*03

55 sequences assigned  
No exact matches.



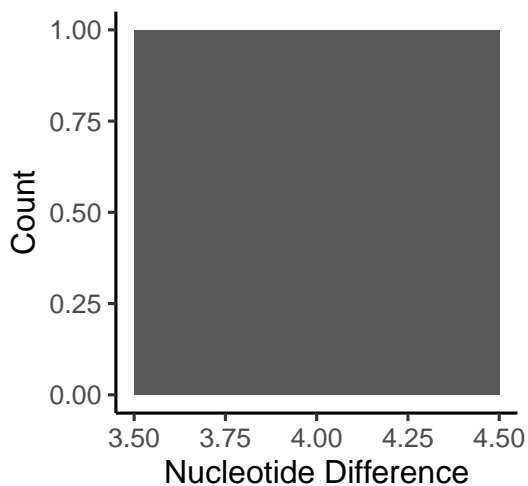
### IGHV1-8\*01

267 sequences assigned  
2 (0.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



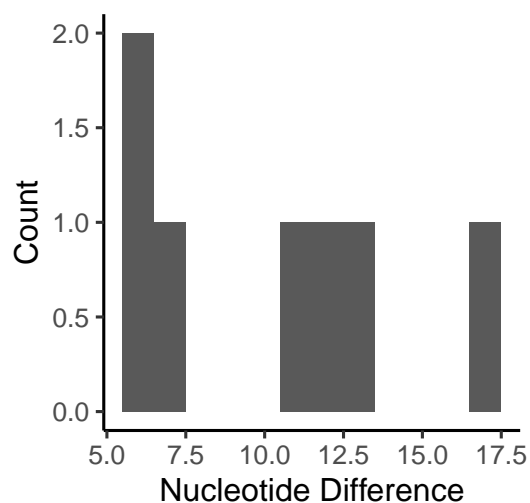
### IGHV1-45\*02

1 sequences assigned  
No exact matches.



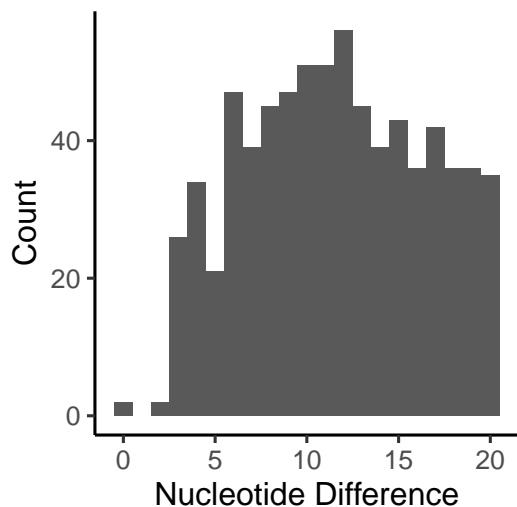
### IGHV1-58\*02

9 sequences assigned  
No exact matches.



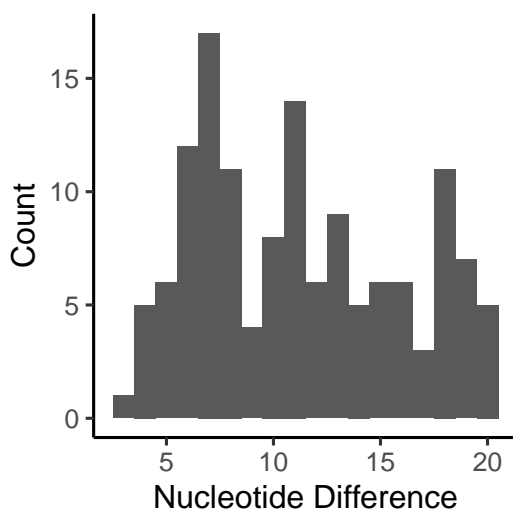
### IGHV1-18\*01

987 sequences assigned  
2 (0.2%) exact matches, in which:  
2 unique CDR3  
1 unique J



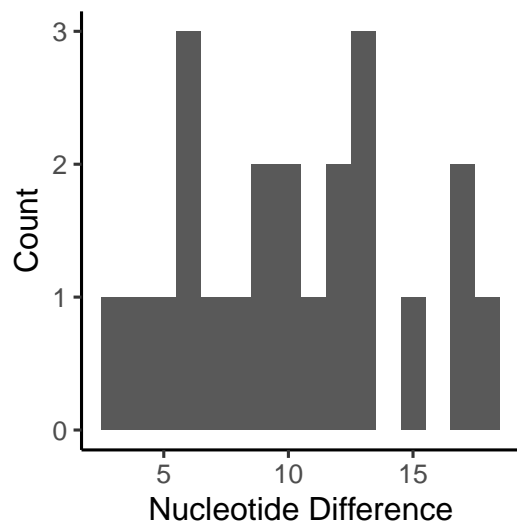
### IGHV1-46\*01

160 sequences assigned  
No exact matches.



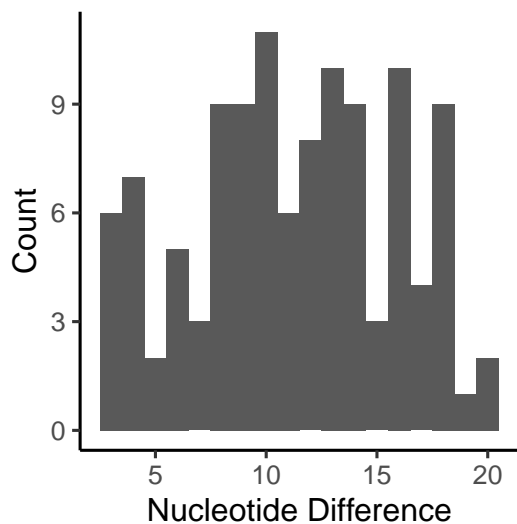
### IGHV1-58\*01\_03

30 sequences assigned  
No exact matches.



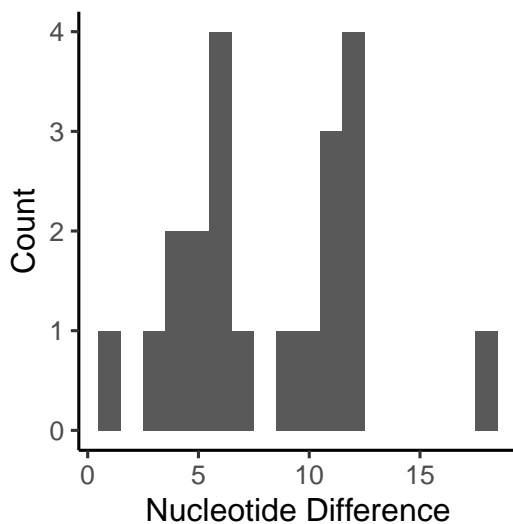
### IGHV1-69\*06\_14

188 sequences assigned  
No exact matches.



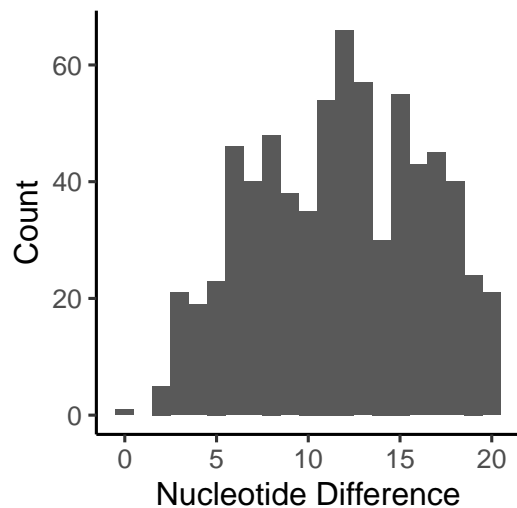
### IGHV2-26\*01

27 sequences assigned  
No exact matches.



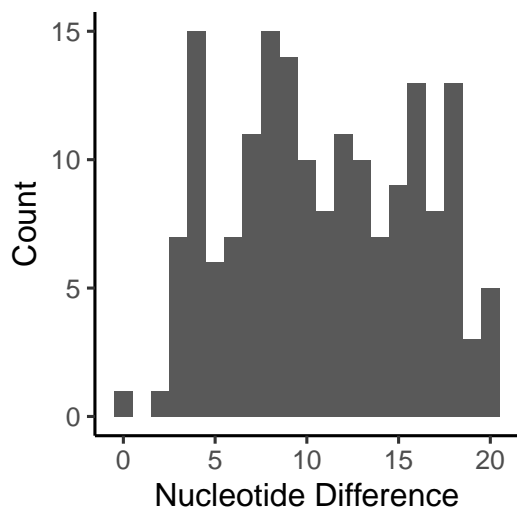
### IGHV3-7\*04

921 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



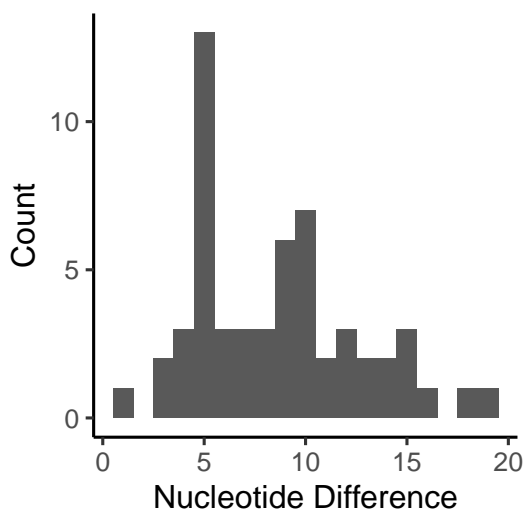
### IGHV2-5\*01

200 sequences assigned  
1 (0.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



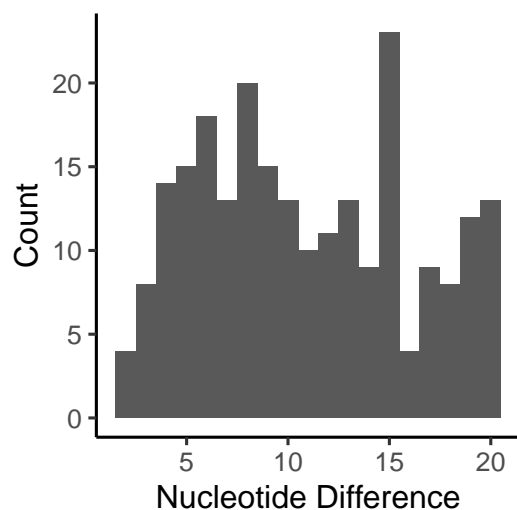
### IGHV2-70\*01

73 sequences assigned  
No exact matches.



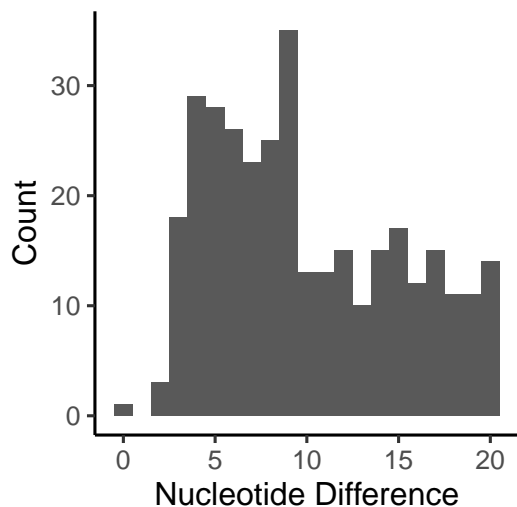
### IGHV3-9\*01

299 sequences assigned  
No exact matches.



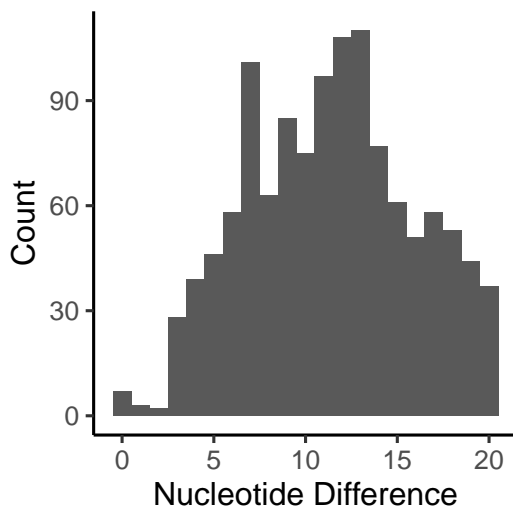
### IGHV2-5\*02

395 sequences assigned  
1 (0.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



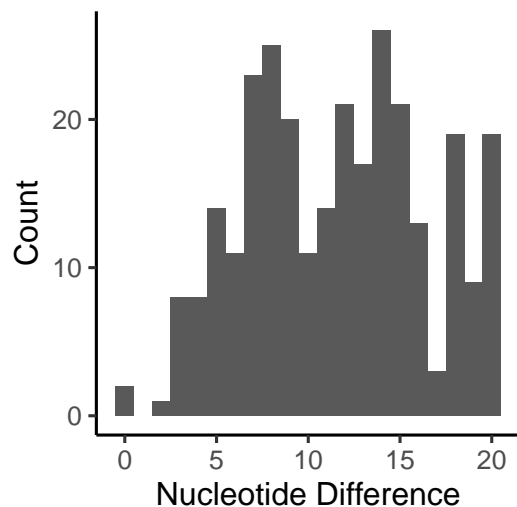
### IGHV3-7\*01

1433 sequences assigned  
7 (0.5%) exact matches, in which:  
4 unique CDR3  
3 unique J



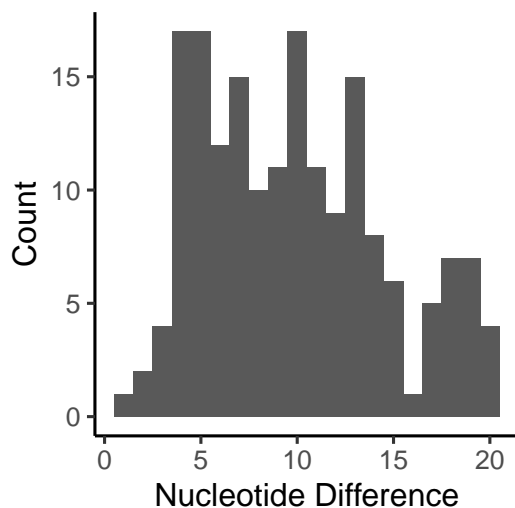
### IGHV3-11\*01

416 sequences assigned  
2 (0.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



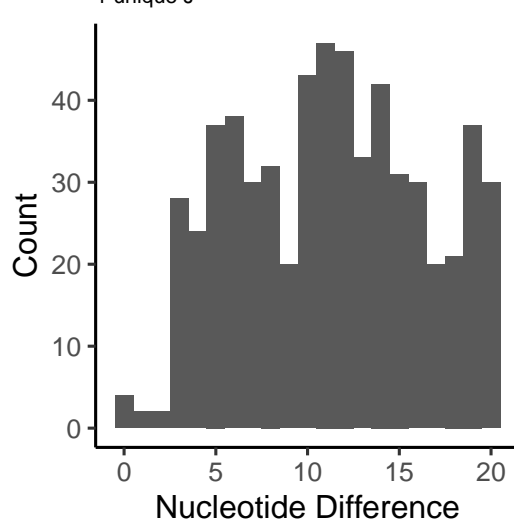
### IGHV3-11\*06

283 sequences assigned  
No exact matches.



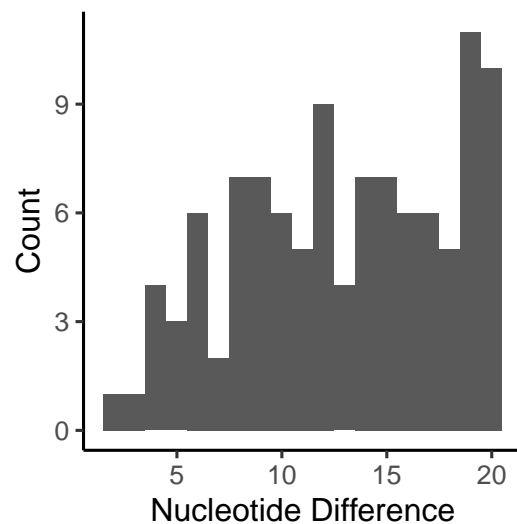
### IGHV3-15\*01\_02

1001 sequences assigned  
4 (0.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



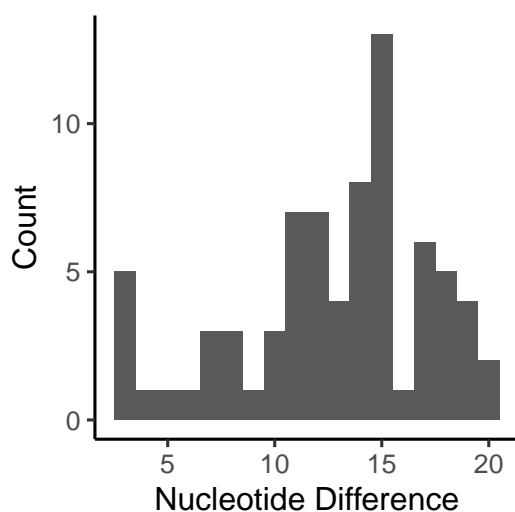
### IGHV3-21\*06

195 sequences assigned  
No exact matches.



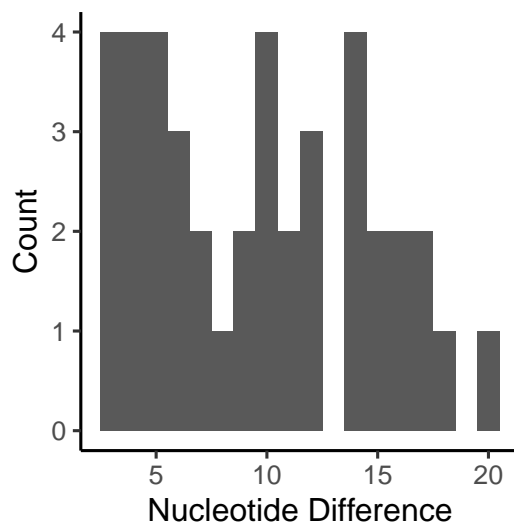
### IGHV3-13\*01

103 sequences assigned  
No exact matches.



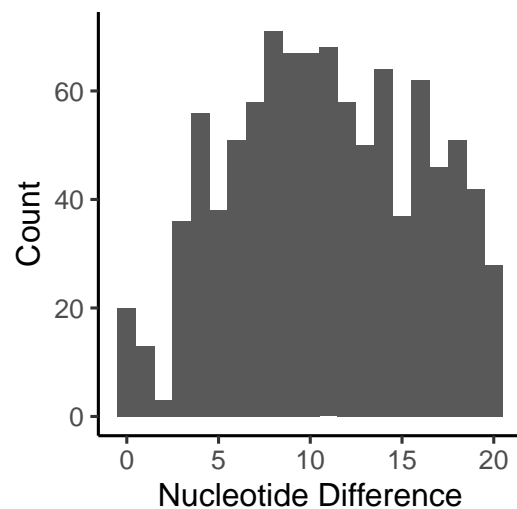
### IGHV3-20\*01\_02

54 sequences assigned  
No exact matches.



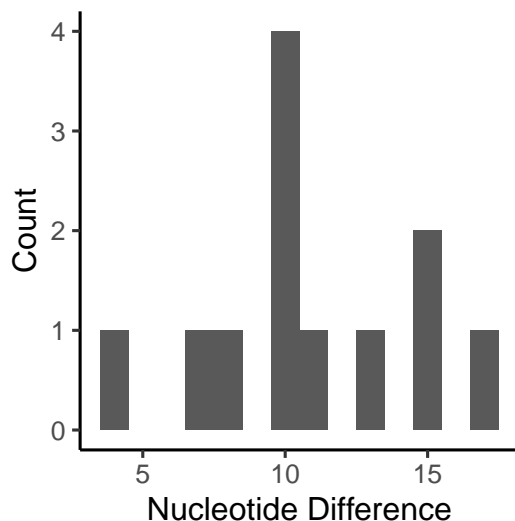
### IGHV3-21\*01\_02

1186 sequences assigned  
20 (1.7%) exact matches, in which:  
9 unique CDR3  
4 unique J



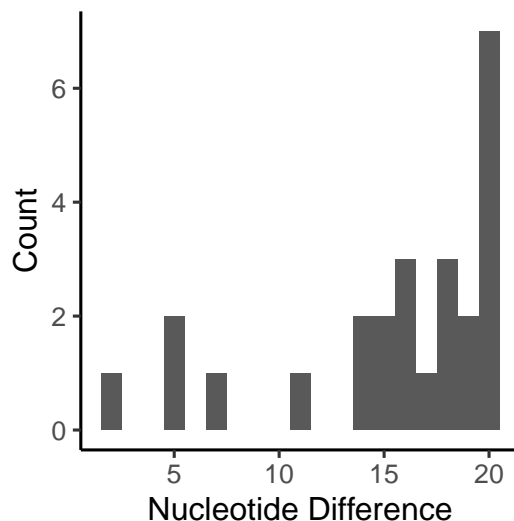
### IGHV3-13\*05

21 sequences assigned  
No exact matches.



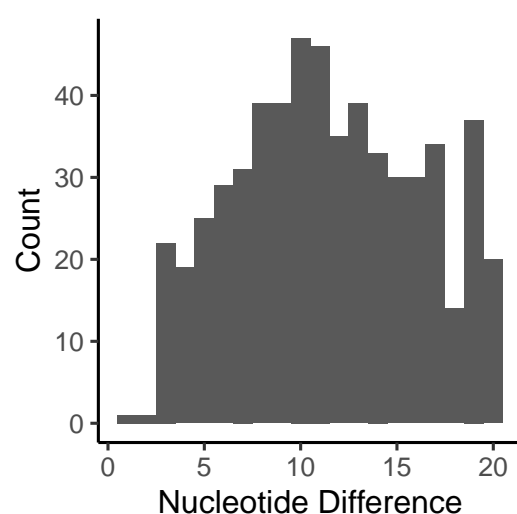
### IGHV3-20\*03\_04

112 sequences assigned  
No exact matches.



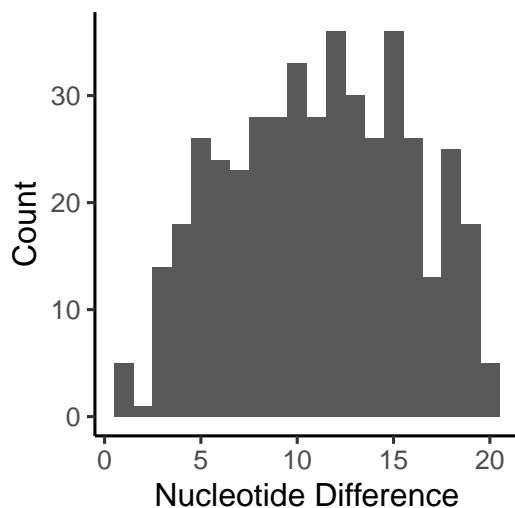
### IGHV3-30-3\*01

774 sequences assigned  
No exact matches.



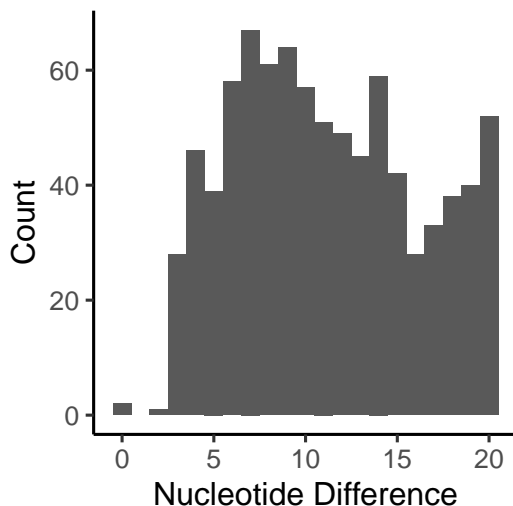
### IGHV3-33\*01

597 sequences assigned  
No exact matches.



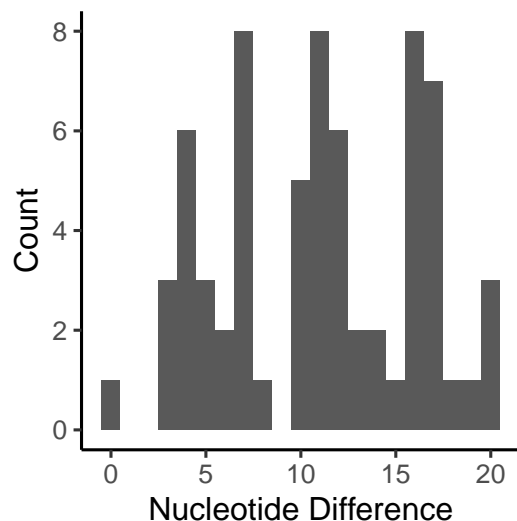
### IGHV3-48\*03

1070 sequences assigned  
2 (0.2%) exact matches, in which:  
2 unique CDR3  
1 unique J



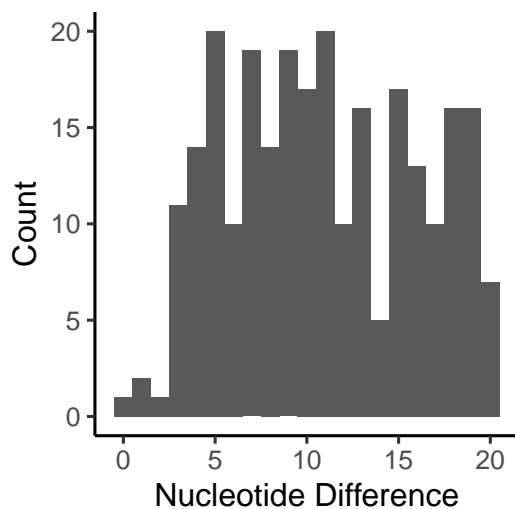
### IGHV3-53\*04

133 sequences assigned  
1 (0.8%) exact matches, in which:  
1 unique CDR3  
1 unique J



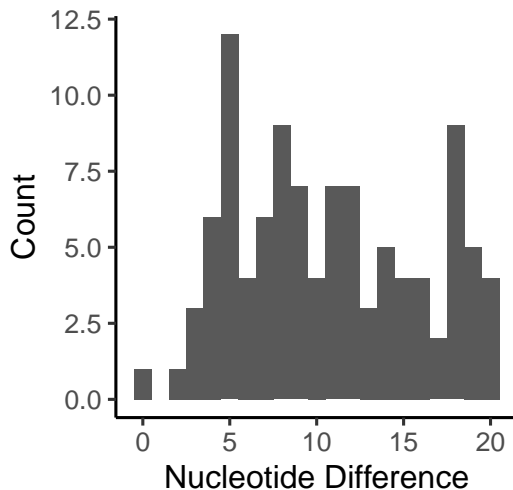
### IGHV3-43\*02

419 sequences assigned  
1 (0.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



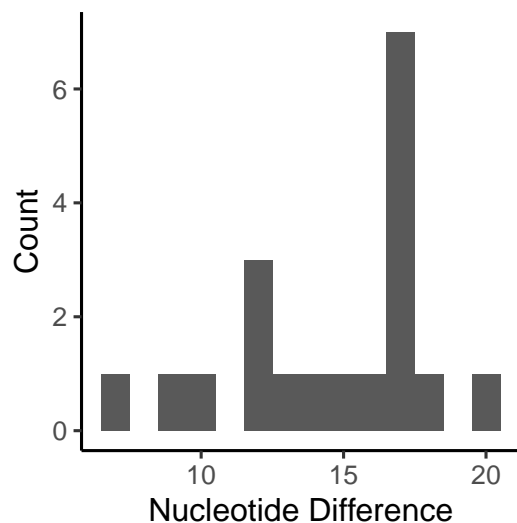
### IGHV3-49\*04

146 sequences assigned  
1 (0.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



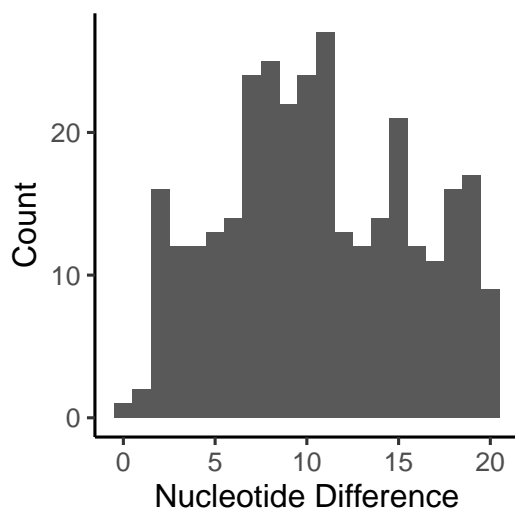
### IGHV3-53\*05

33 sequences assigned  
No exact matches.



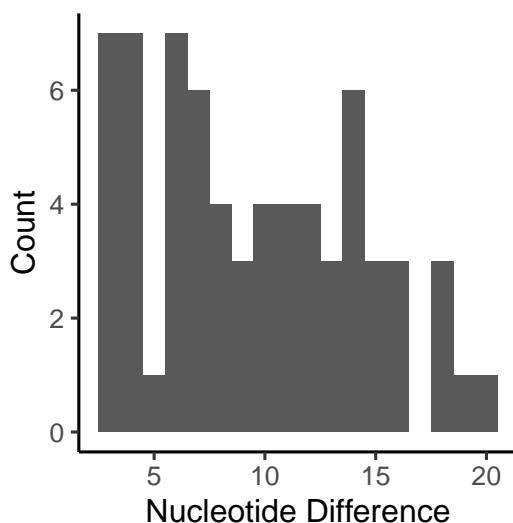
### IGHV3-48\*01

391 sequences assigned  
1 (0.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



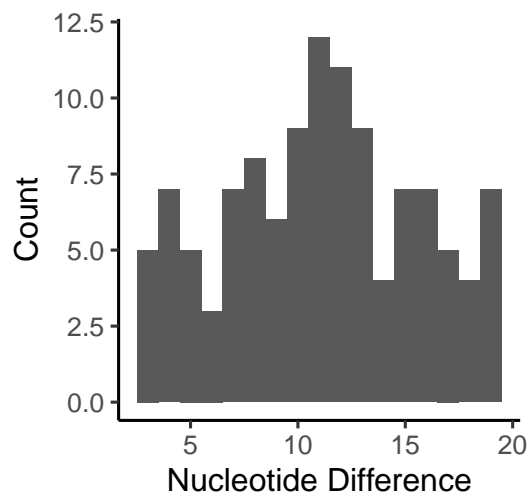
### IGHV3-49\*03\_05

85 sequences assigned  
No exact matches.



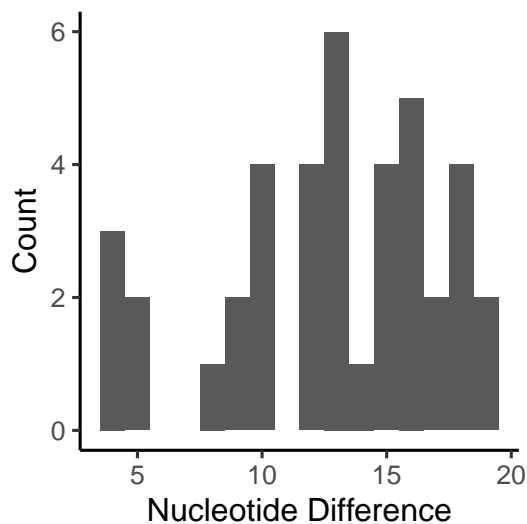
### IGHV3-53\*01\_02

135 sequences assigned  
No exact matches.



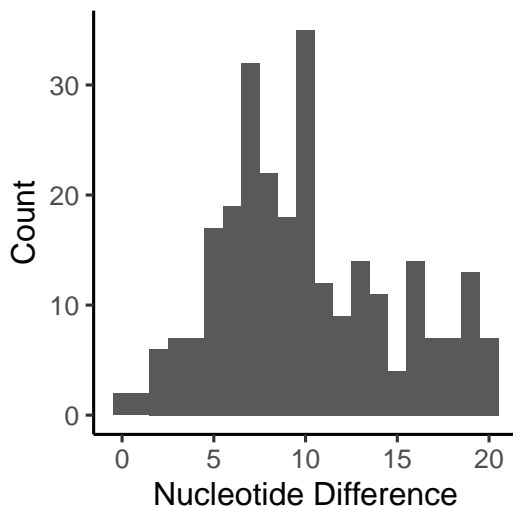
### IGHV3-64\*02\_07

44 sequences assigned  
No exact matches.



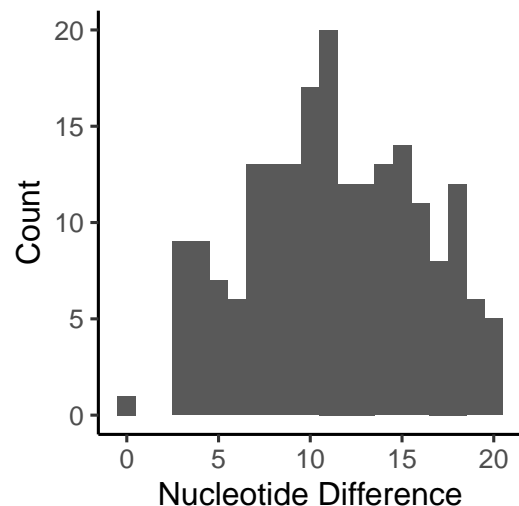
### IGHV3-72\*01

315 sequences assigned  
2 (0.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



### IGHV3-64D\*06

249 sequences assigned  
1 (0.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



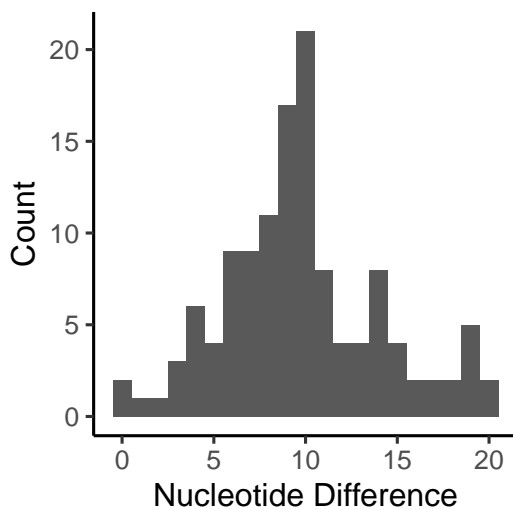
### IGHV3-66\*04

1 sequences assigned  
No exact matches.



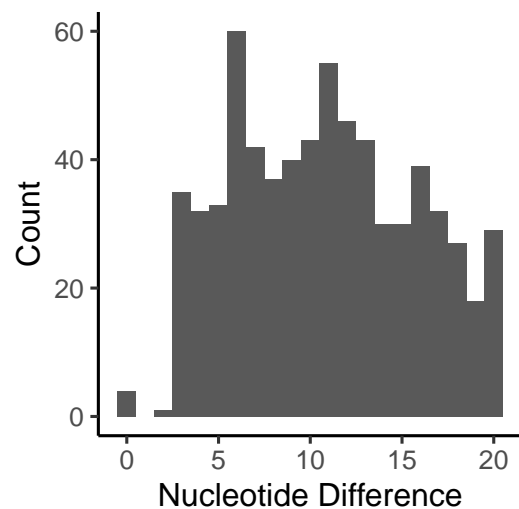
### IGHV3-73\*01\_02

154 sequences assigned  
2 (1.3%) exact matches, in which:  
1 unique CDR3  
0 unique J



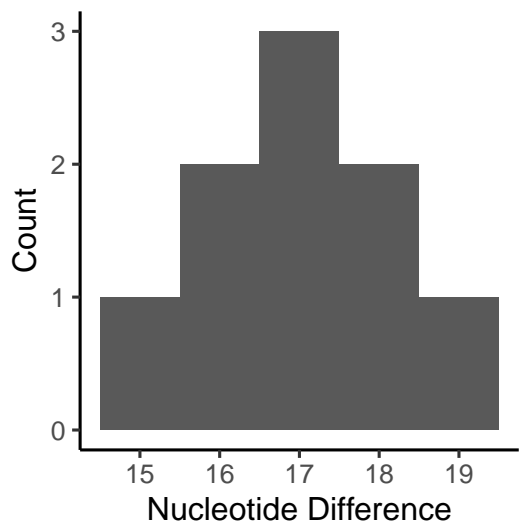
### IGHV4-4\*07

827 sequences assigned  
4 (0.5%) exact matches, in which:  
3 unique CDR3  
2 unique J



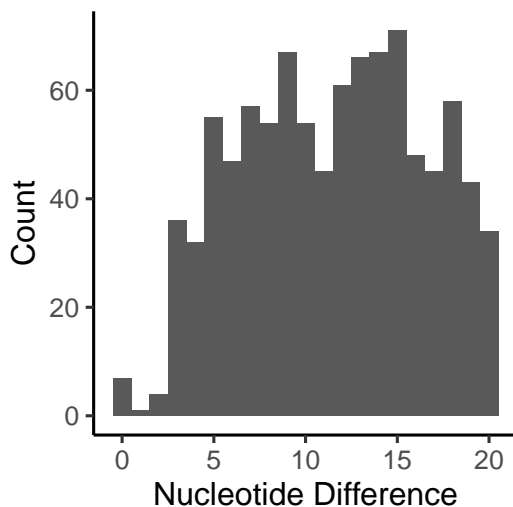
### IGHV3-69-1\*01

18 sequences assigned  
No exact matches.



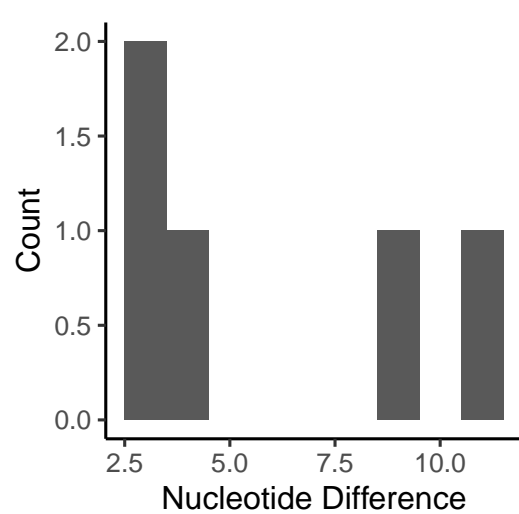
### IGHV3-74\*01\_02

1257 sequences assigned  
7 (0.6%) exact matches, in which:  
4 unique CDR3  
2 unique J



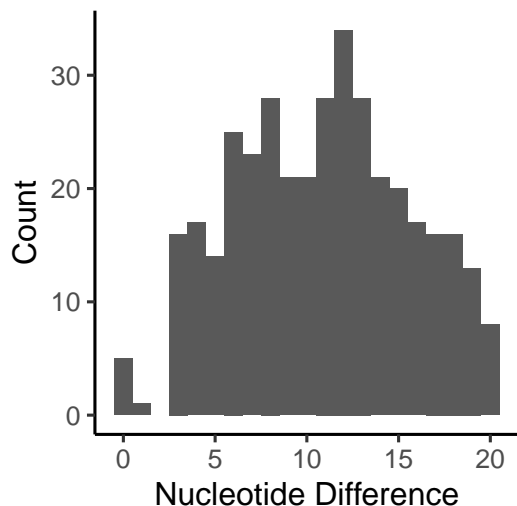
### IGHV4-28\*01\_07

6 sequences assigned  
No exact matches.



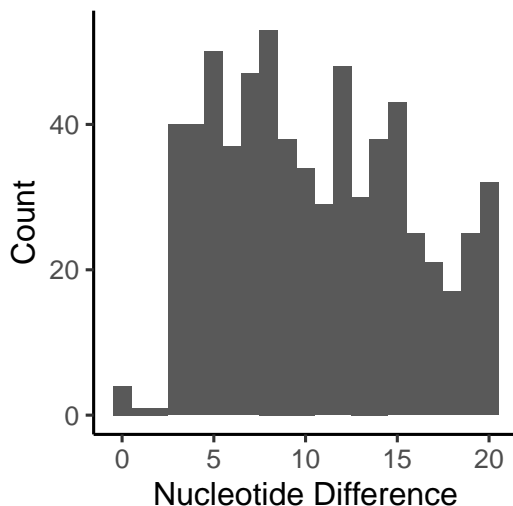
### IGHV4-30-4\*01

533 sequences assigned  
5 (0.9%) exact matches, in which:  
2 unique CDR3  
2 unique J



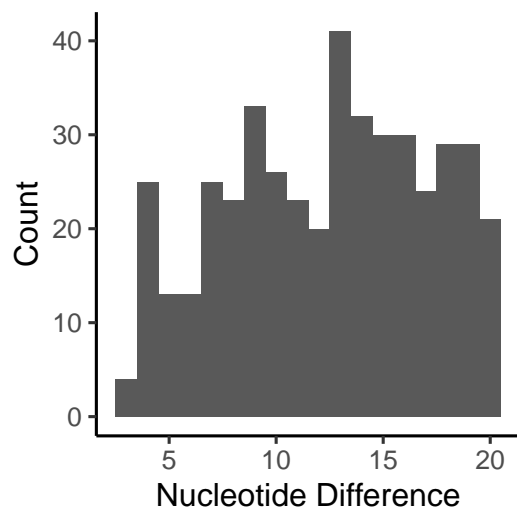
### IGHV4-34\*01\_02

808 sequences assigned  
4 (0.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



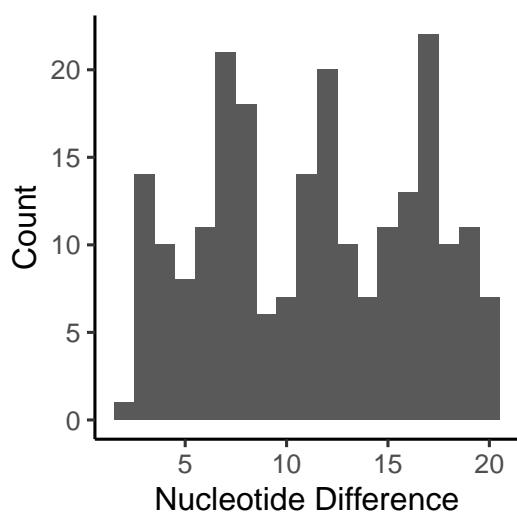
### IGHV4-61\*01

567 sequences assigned  
No exact matches.



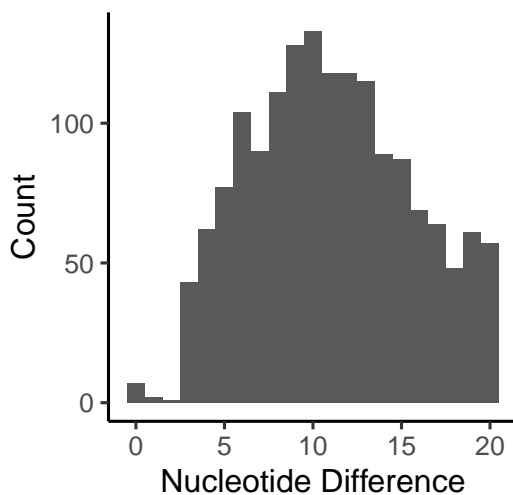
### IGHV4-30-2\*01

394 sequences assigned  
No exact matches.



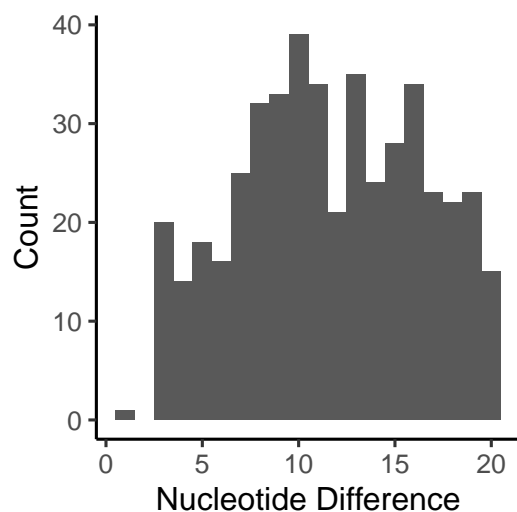
### IGHV4-39\*01\_05

2098 sequences assigned  
7 (0.3%) exact matches, in which:  
5 unique CDR3  
4 unique J



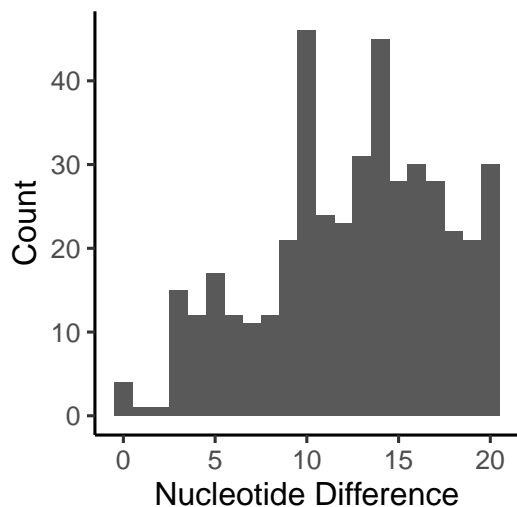
### IGHV4-61\*02

725 sequences assigned  
No exact matches.



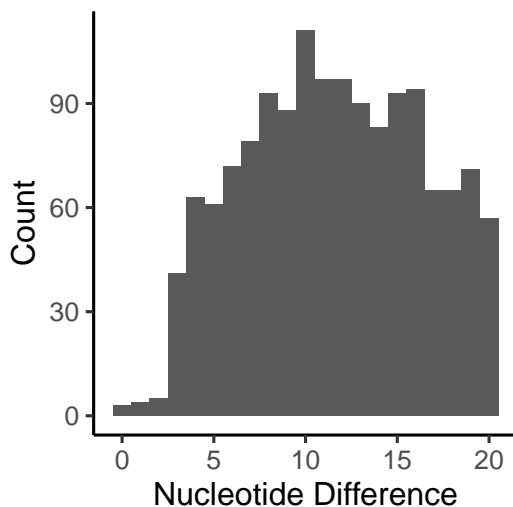
### IGHV4-31\*03\_04

590 sequences assigned  
4 (0.7%) exact matches, in which:  
3 unique CDR3  
1 unique J



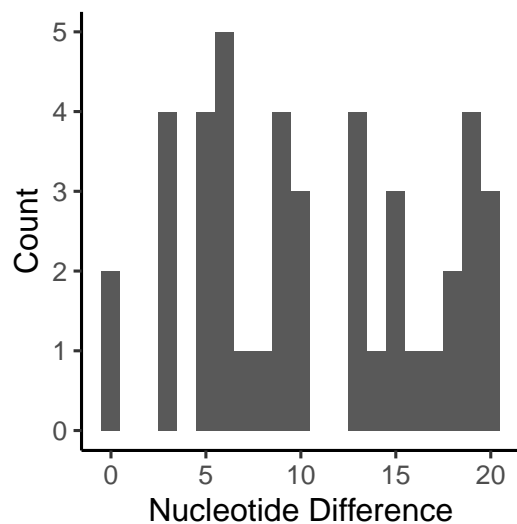
### IGHV4-59\*01\_07

1862 sequences assigned  
3 (0.2%) exact matches, in which:  
2 unique CDR3  
2 unique J



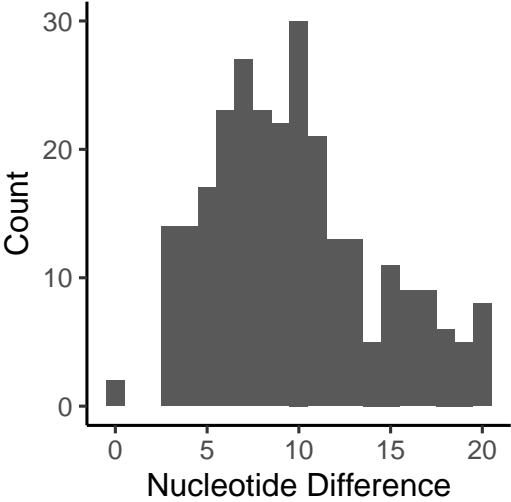
### IGHV5-10-1\*01\_03

81 sequences assigned  
2 (2.5%) exact matches, in which:  
2 unique CDR3  
2 unique J



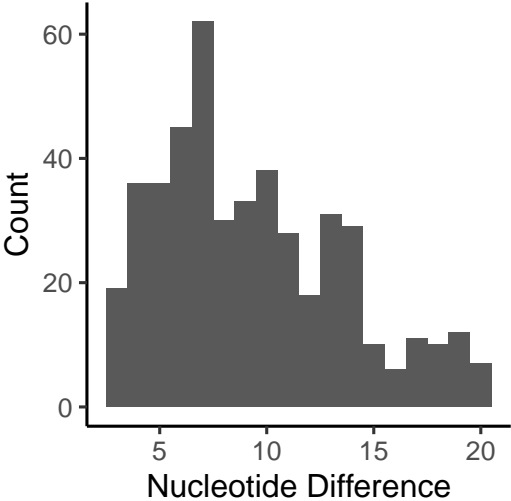
# IGHV5-51\*01\_03

321 sequences assigned  
2 (0.6%) exact matches, in which:  
2 unique CDR3  
1 unique J

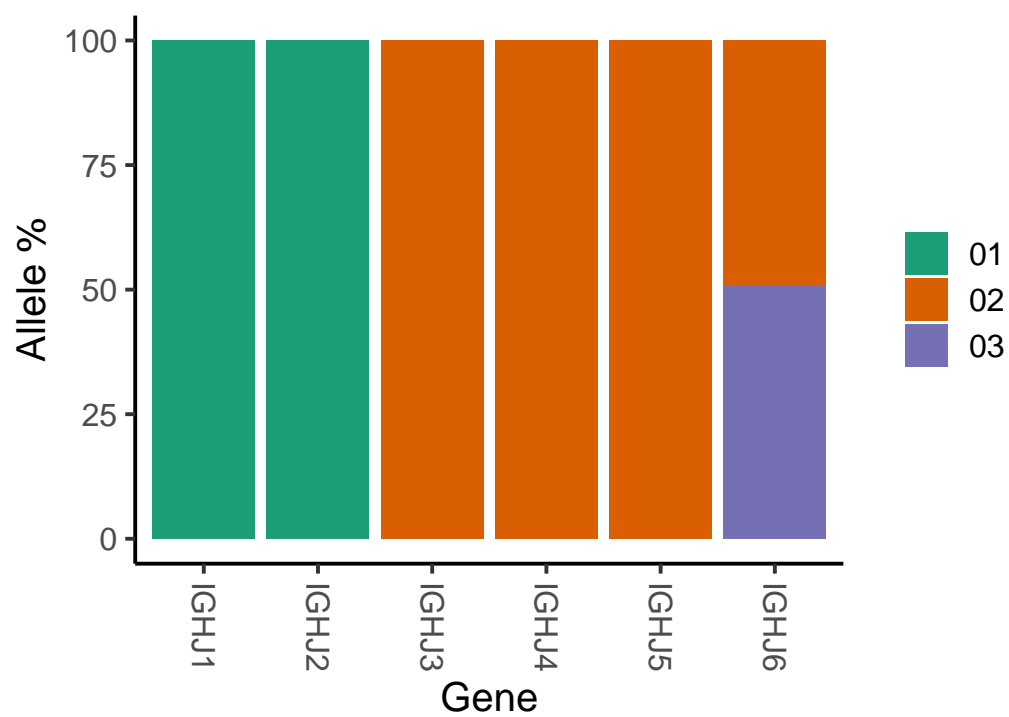


# IGHV6-1\*01\_02

488 sequences assigned  
No exact matches.

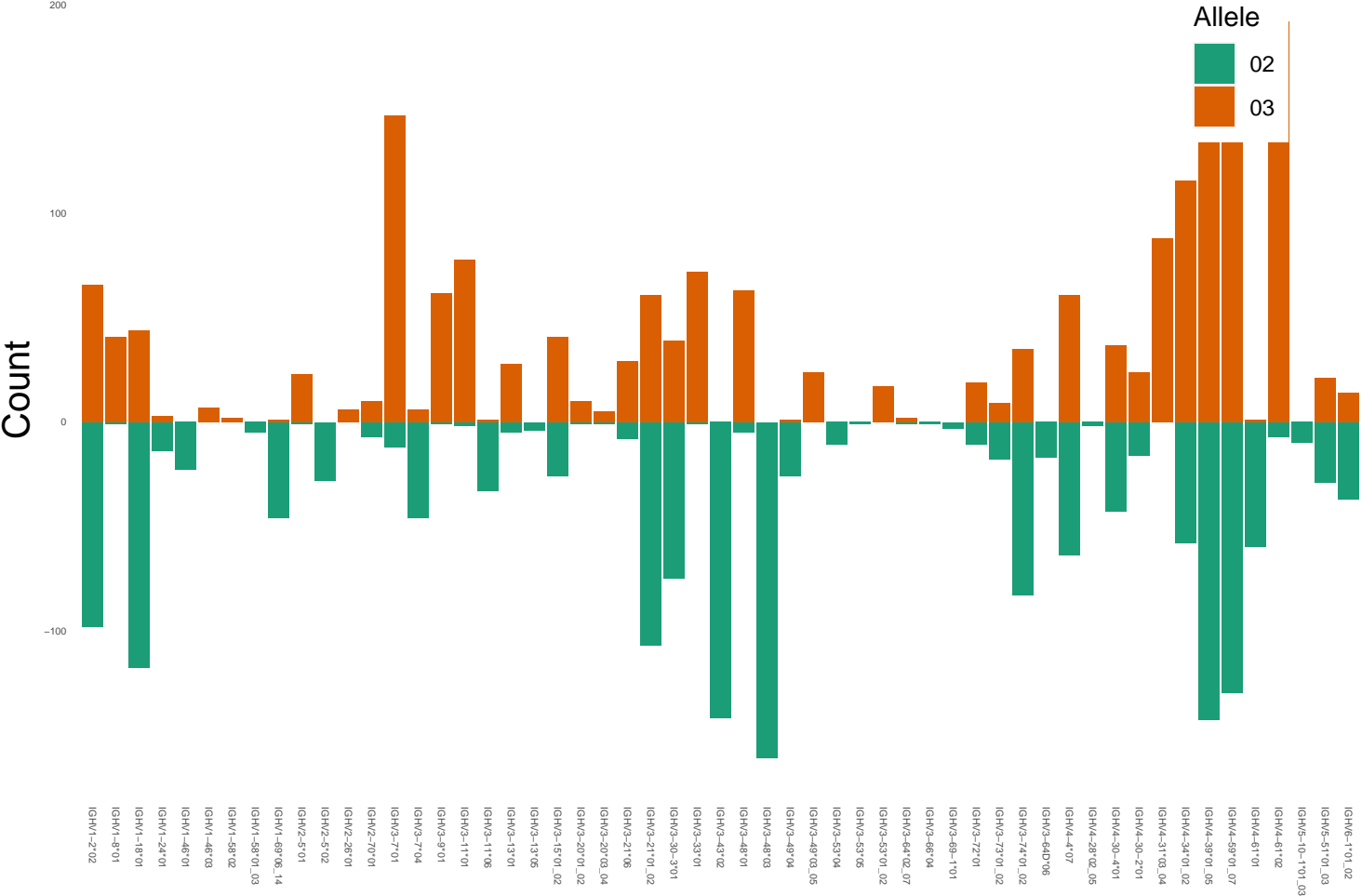


Allele Usage





# Sequence Count by IGHJ6 allele usage



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\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G 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.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*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)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*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)IGHV1-69\*04\_09\_G112AIGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G 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)IGHV4-59\*02\_G88A are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

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

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.