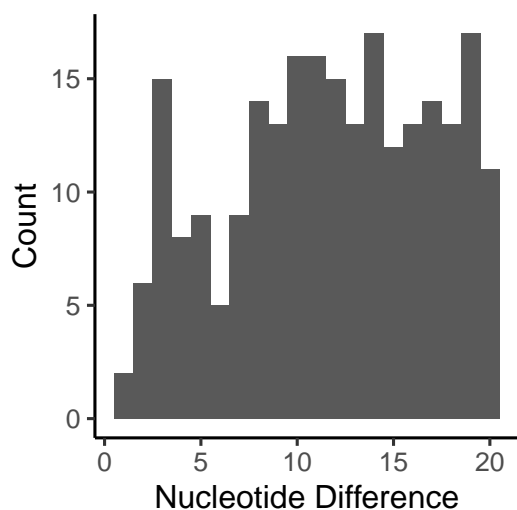


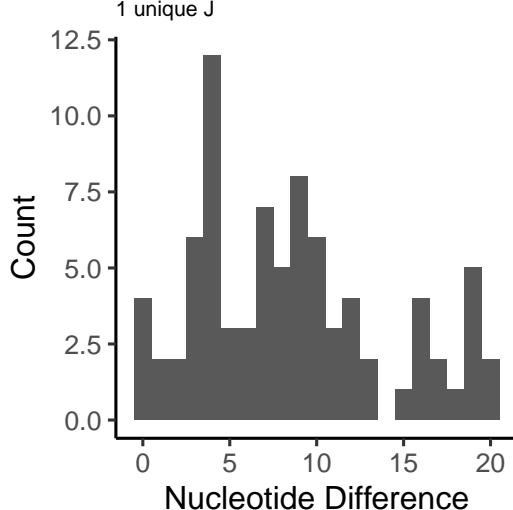
### IGHV1-2\*02

310 sequences assigned  
No exact matches.



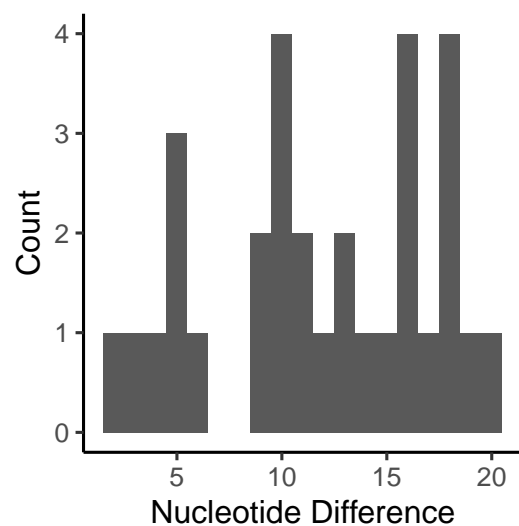
### IGHV1-8\*01

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



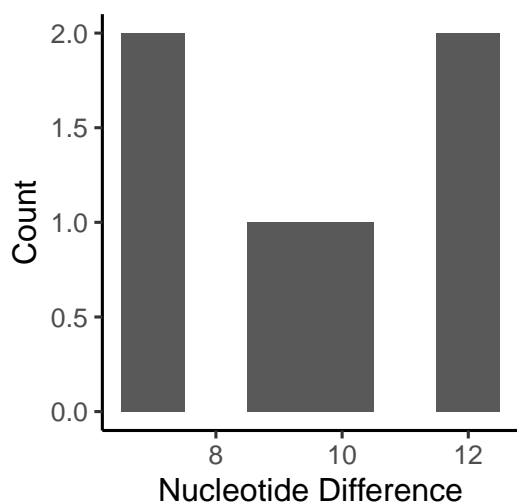
### IGHV1-24\*01

48 sequences assigned  
No exact matches.



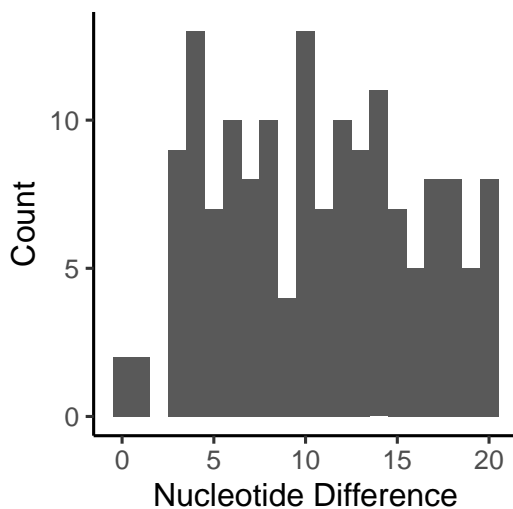
### IGHV1-3\*04

8 sequences assigned  
No exact matches.



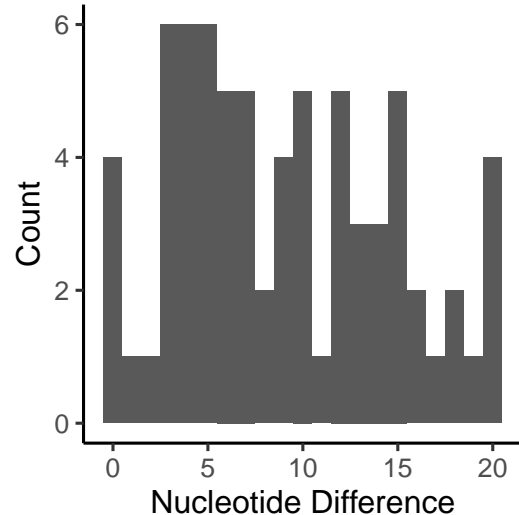
### IGHV1-18\*01

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



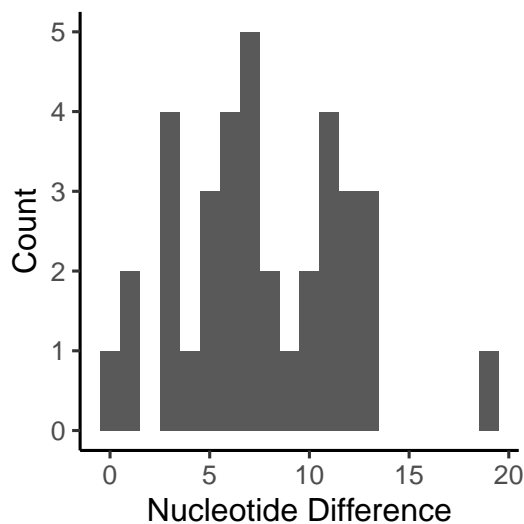
### IGHV1-46\*01

97 sequences assigned  
4 (4.1%) exact matches, in which:  
4 unique CDR3  
3 unique J



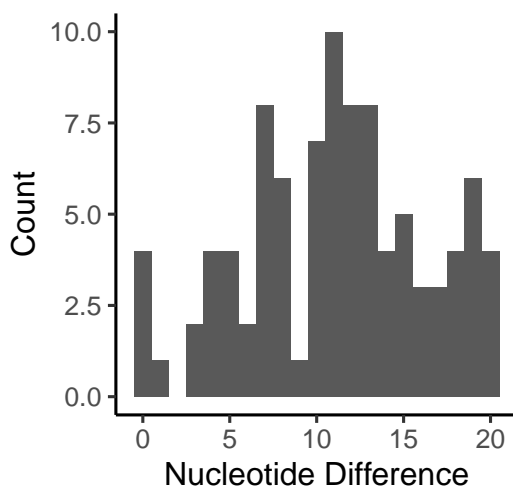
### IGHV1-3\*01\_05

52 sequences assigned  
1 (1.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



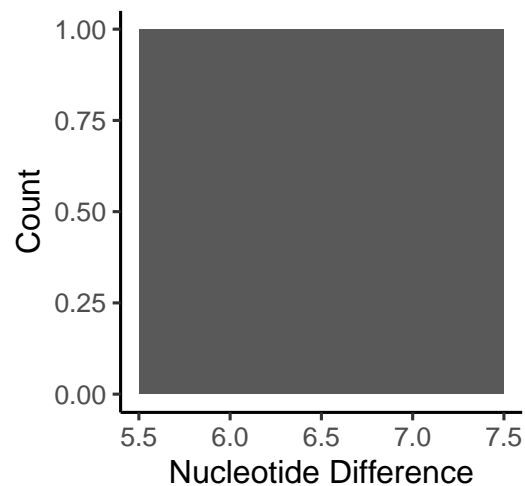
### IGHV1-18\*04

117 sequences assigned  
4 (3.4%) exact matches, in which:  
4 unique CDR3  
2 unique J



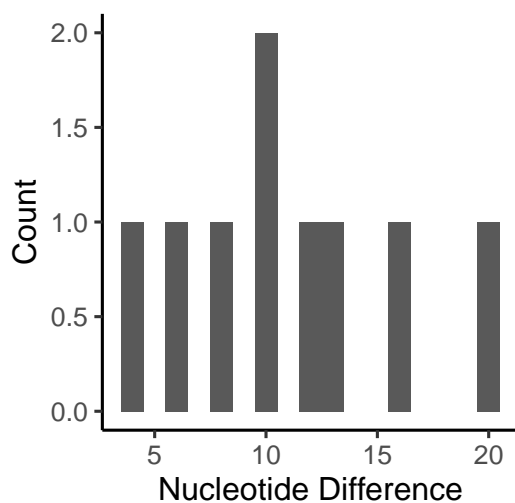
### IGHV1-58\*02

5 sequences assigned  
No exact matches.



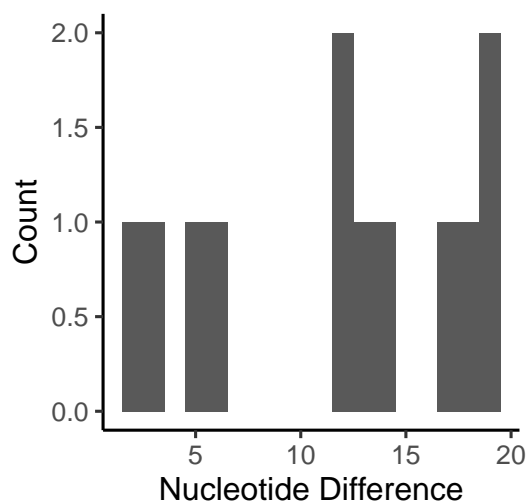
### IGHV1-58\*01\_03

13 sequences assigned  
No exact matches.



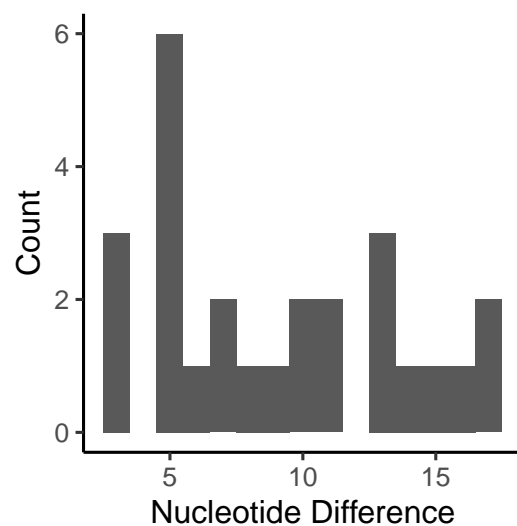
### IGHV2-26\*01

16 sequences assigned  
No exact matches.



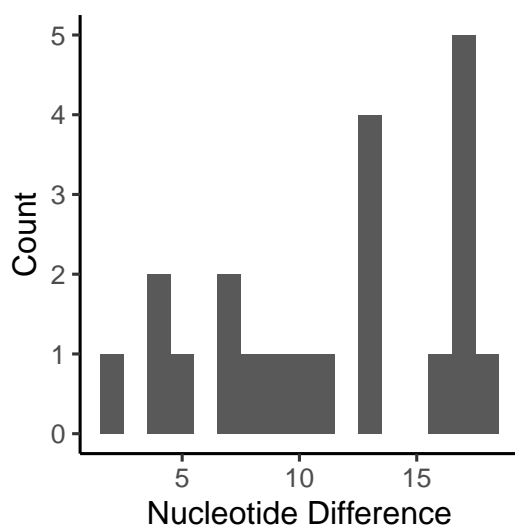
### IGHV2-70\*11\_15

27 sequences assigned  
No exact matches.



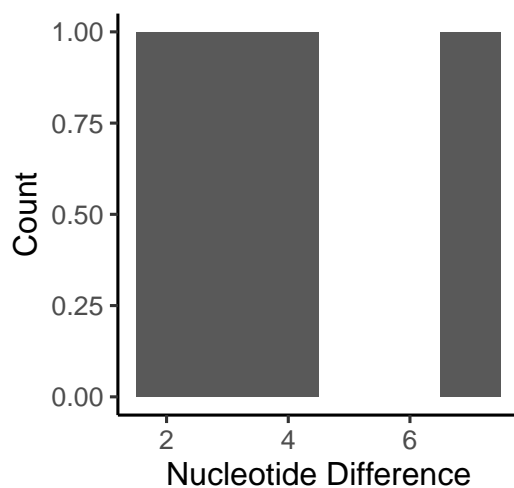
### IGHV1-69\*04\_09

29 sequences assigned  
No exact matches.



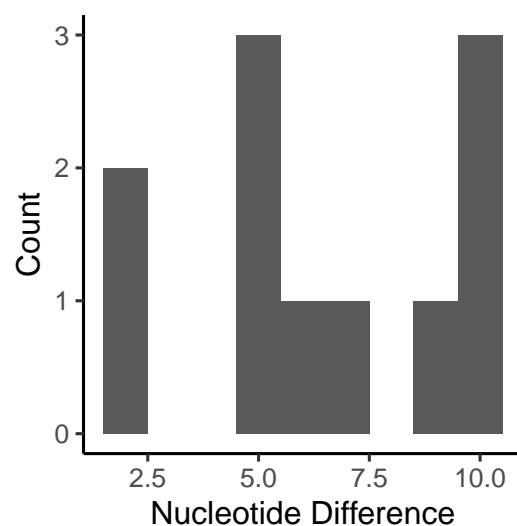
### IGHV2-26\*02

4 sequences assigned  
No exact matches.



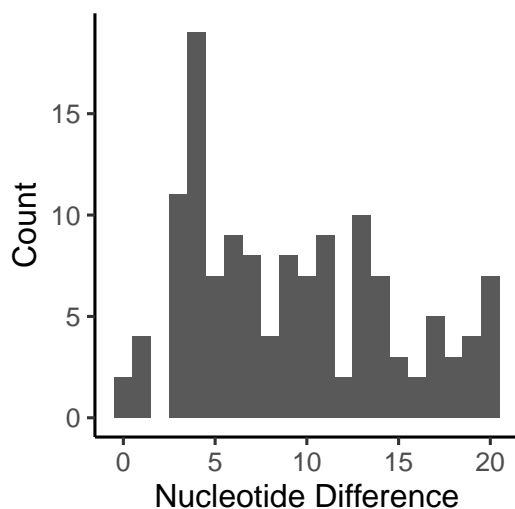
### IGHV2-70\*16\_17

11 sequences assigned  
No exact matches.



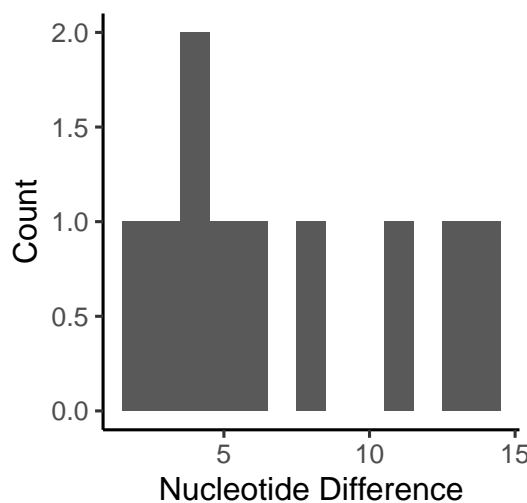
### IGHV2-5\*01

143 sequences assigned  
2 (1.4%) exact matches, in which:  
2 unique CDR3  
2 unique J



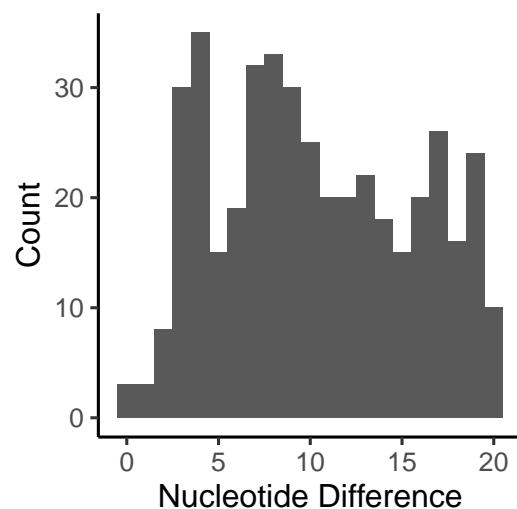
### IGHV2-70\*01

13 sequences assigned  
No exact matches.



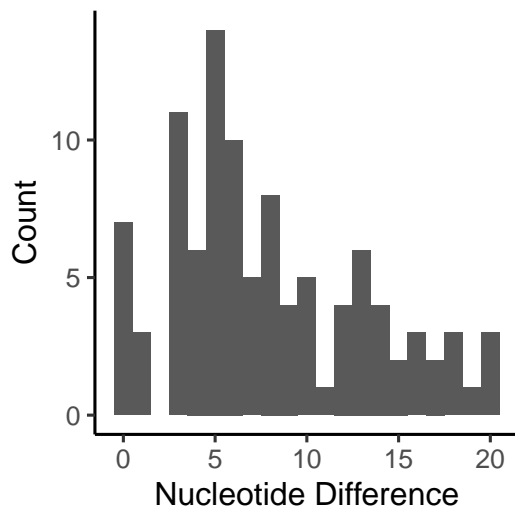
### IGHV3-7\*01

493 sequences assigned  
3 (0.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



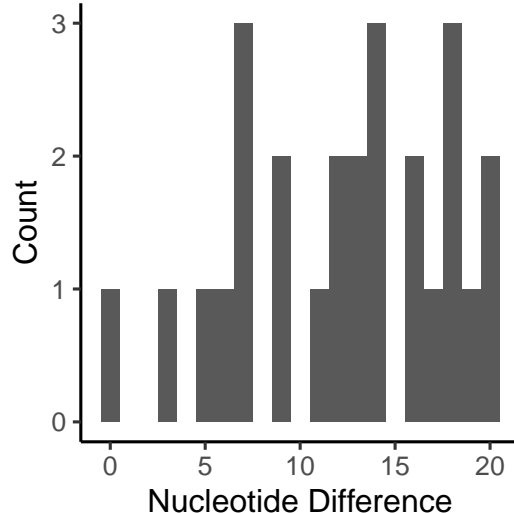
### IGHV3-9\*01

113 sequences assigned  
7 (6.2%) exact matches, in which:  
4 unique CDR3  
4 unique J



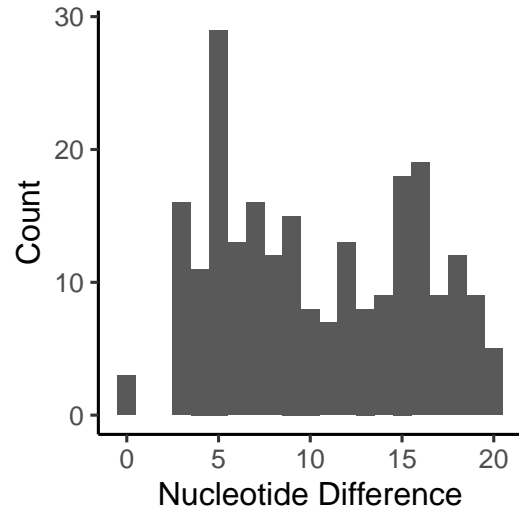
### IGHV3-13\*01

30 sequences assigned  
1 (3.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



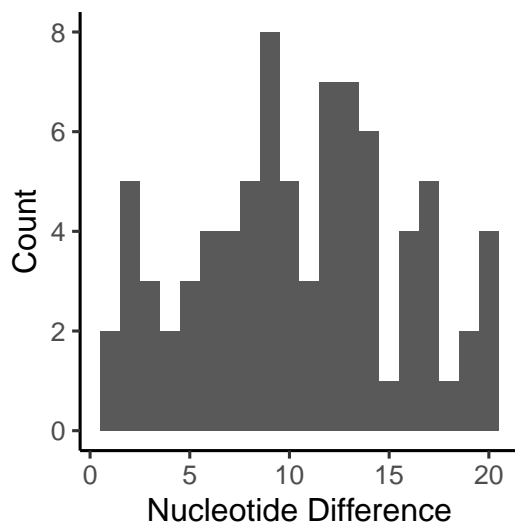
### IGHV3-21\*01\_02

270 sequences assigned  
3 (1.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



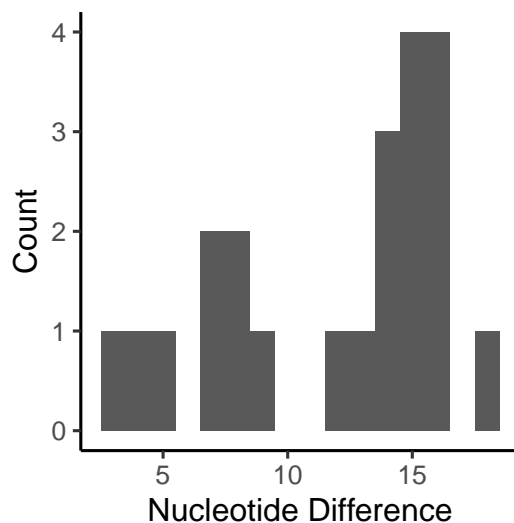
### IGHV3-11\*01

97 sequences assigned  
No exact matches.



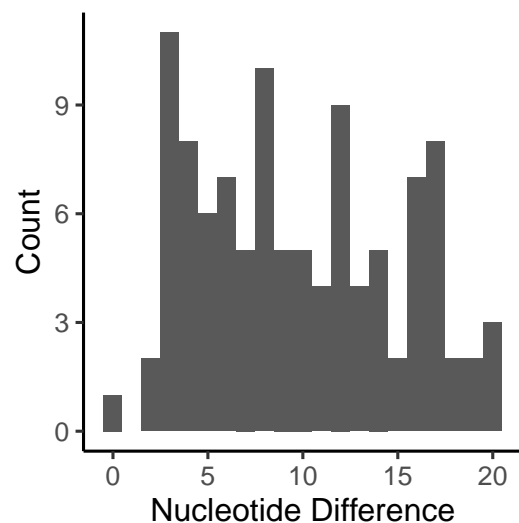
### IGHV3-13\*04

27 sequences assigned  
No exact matches.



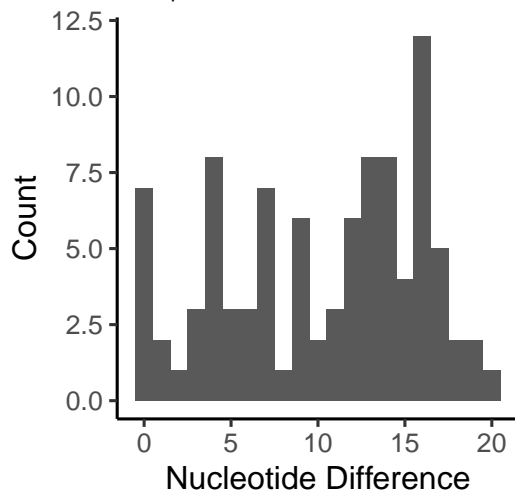
### IGHV3-30-3\*01

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



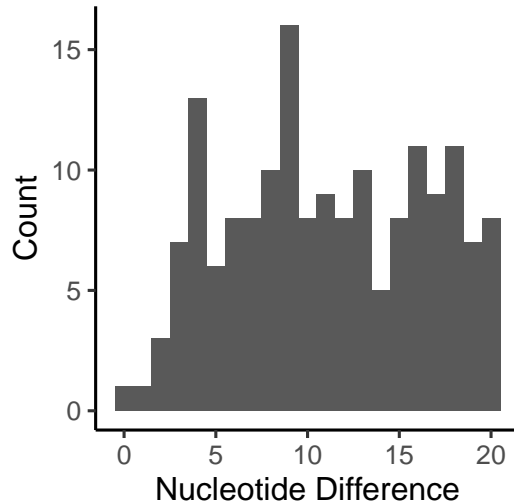
### IGHV3-11\*03\_05

113 sequences assigned  
7 (6.2%) exact matches, in which:  
4 unique CDR3  
2 unique J



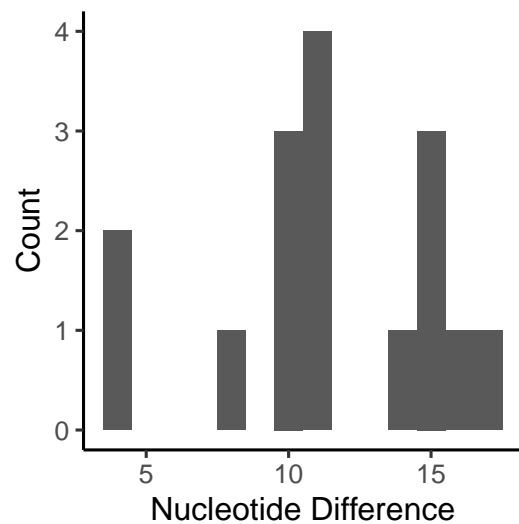
### IGHV3-15\*01\_02

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



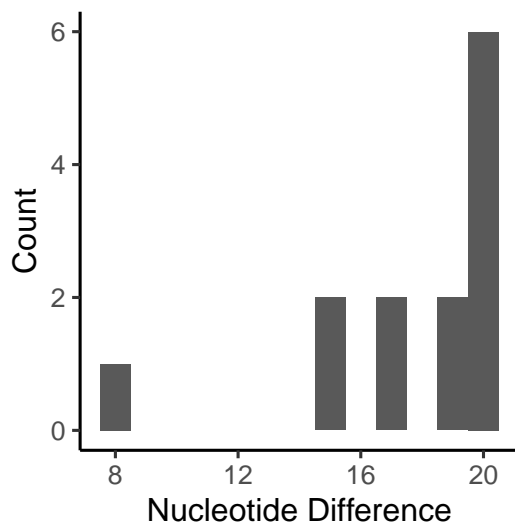
### IGHV3-30\*03

19 sequences assigned  
No exact matches.



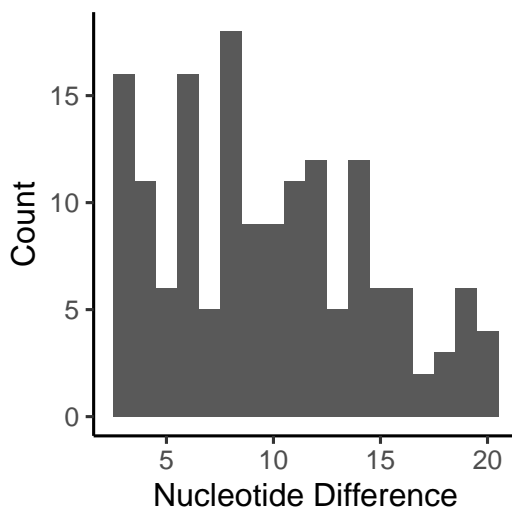
### IGHV3-30\*04

20 sequences assigned  
No exact matches.



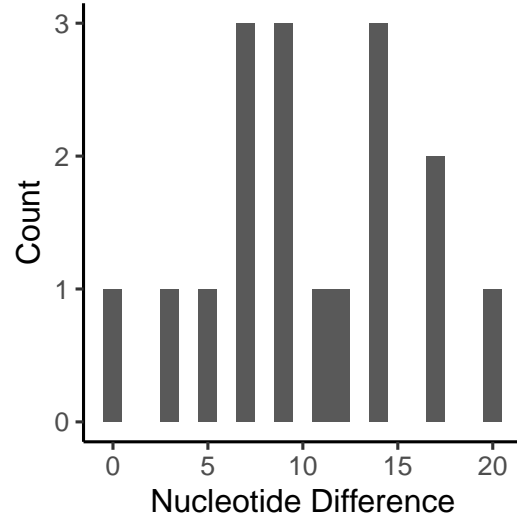
### IGHV3-48\*02

189 sequences assigned  
No exact matches.



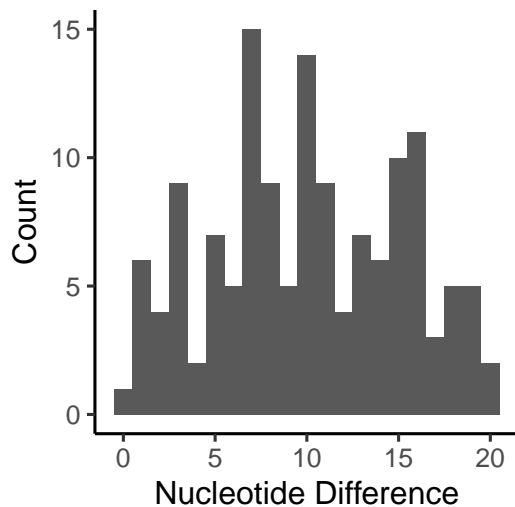
### IGHV3-49\*03\_05

23 sequences assigned  
1 (4.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



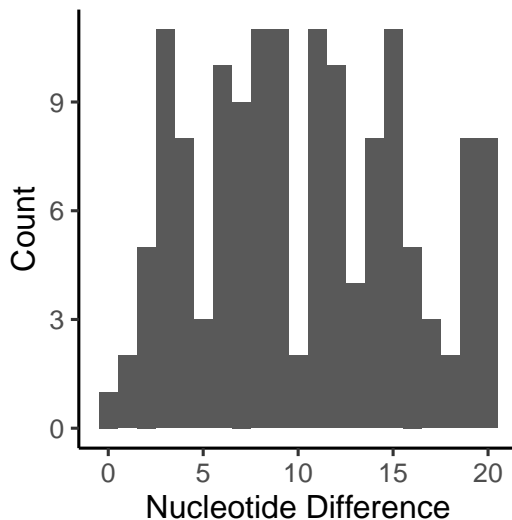
### IGHV3-33\*01

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



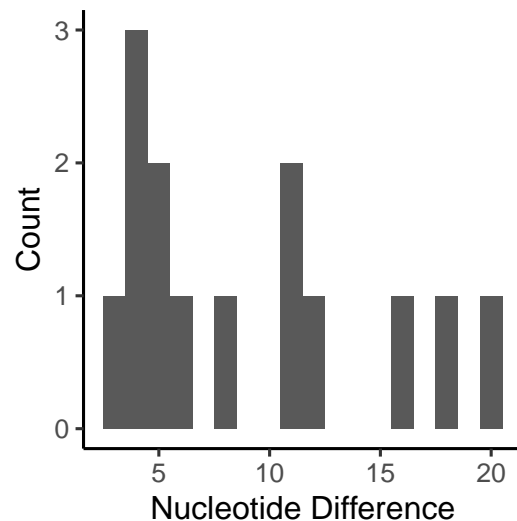
### IGHV3-48\*03

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



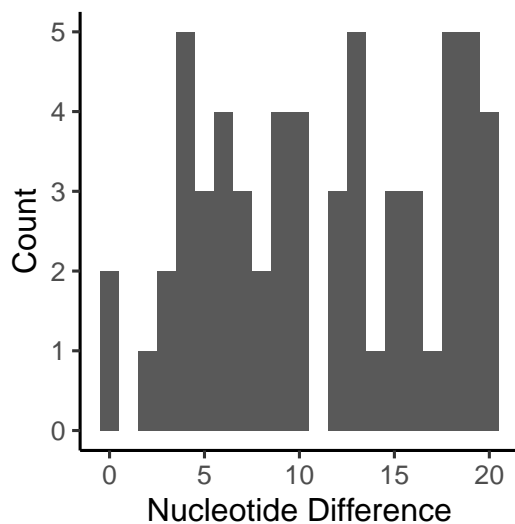
### IGHV3-53\*04

19 sequences assigned  
No exact matches.



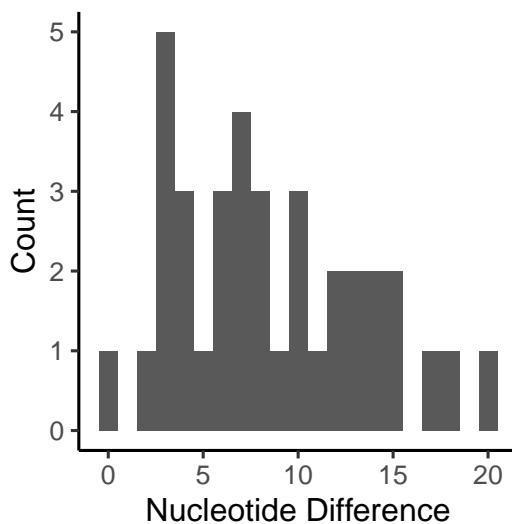
### IGHV3-43\*02

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



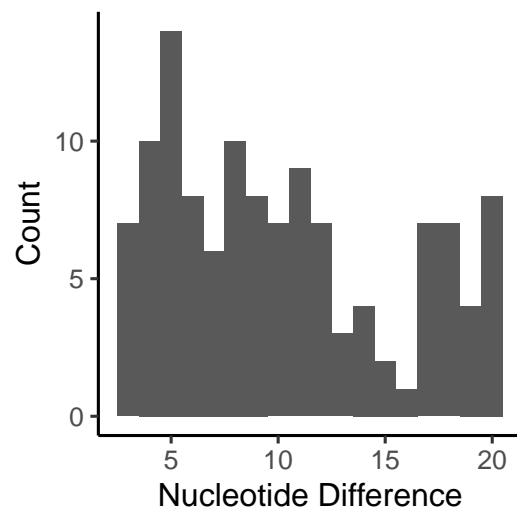
### IGHV3-49\*04

52 sequences assigned  
1 (1.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



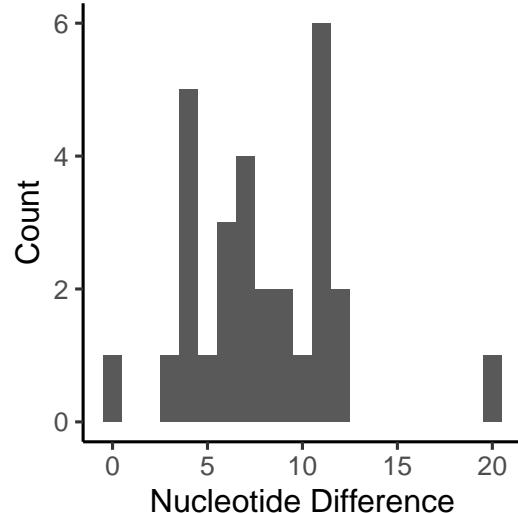
### IGHV3-53\*01\_02

145 sequences assigned  
No exact matches.



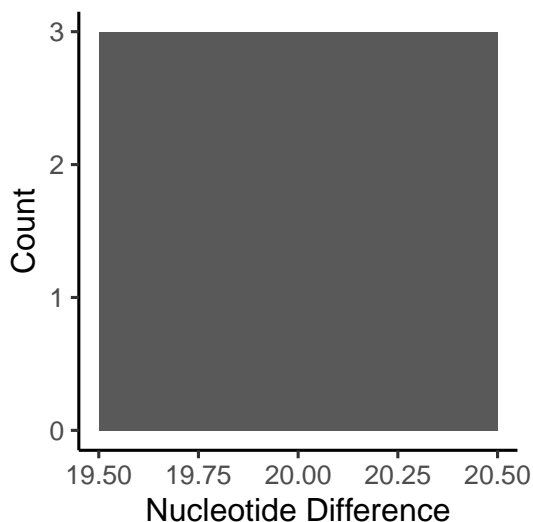
### IGHV3-64\*01

29 sequences assigned  
1 (3.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



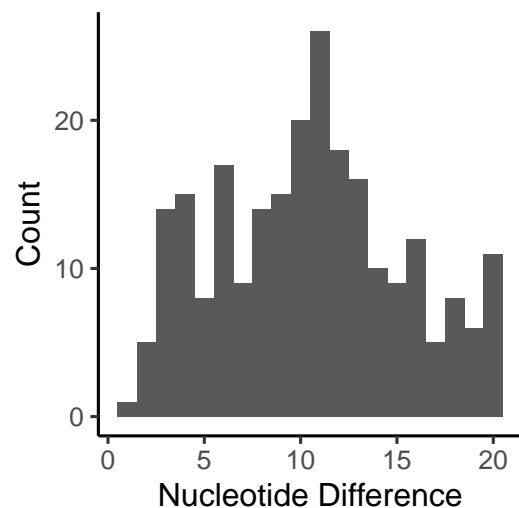
### IGHV3-69-1\*01

10 sequences assigned  
No exact matches.



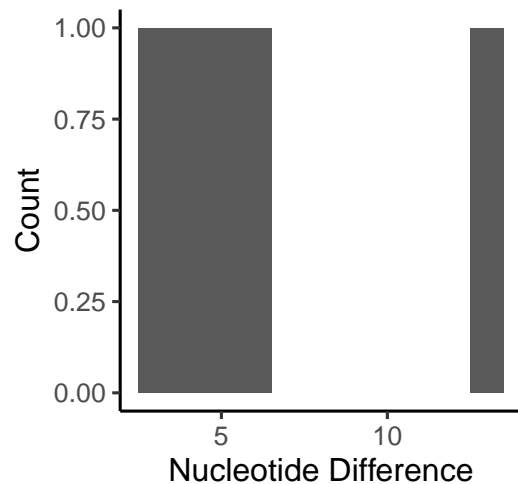
### IGHV3-74\*01\_02

293 sequences assigned  
No exact matches.



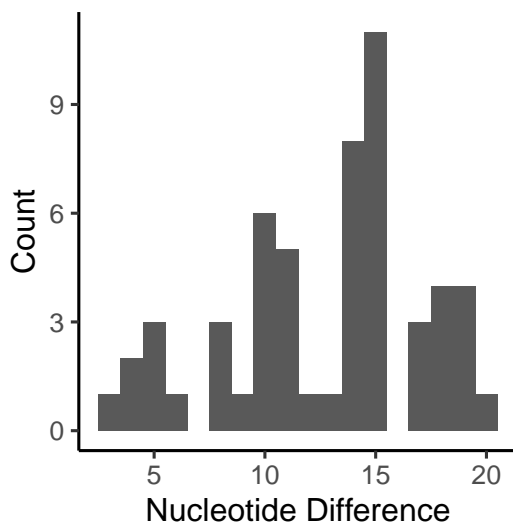
### IGHV3-64\*02\_07

9 sequences assigned  
No exact matches.



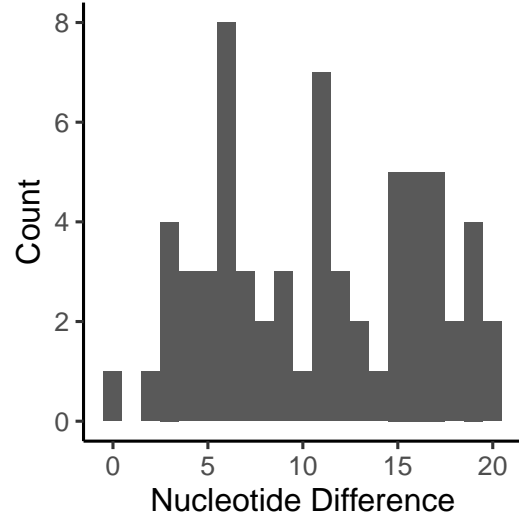
### IGHV3-72\*01

61 sequences assigned  
No exact matches.



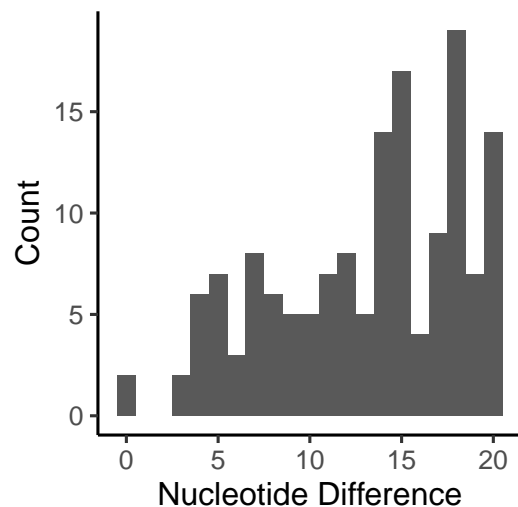
### IGHV3-64D\*09

85 sequences assigned  
1 (1.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



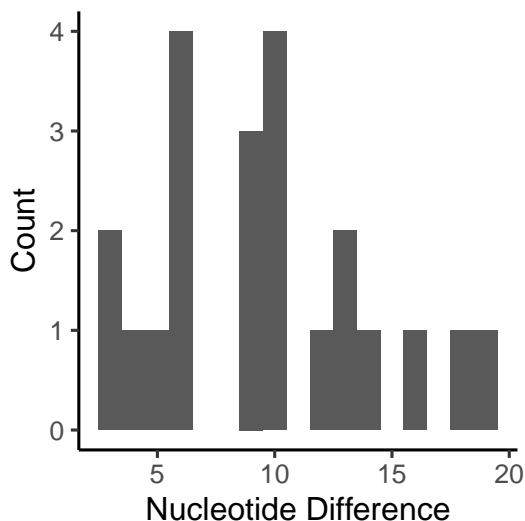
### IGHV3-66\*01

180 sequences assigned  
2 (1.1%) exact matches, in which:  
2 unique CDR3  
1 unique J



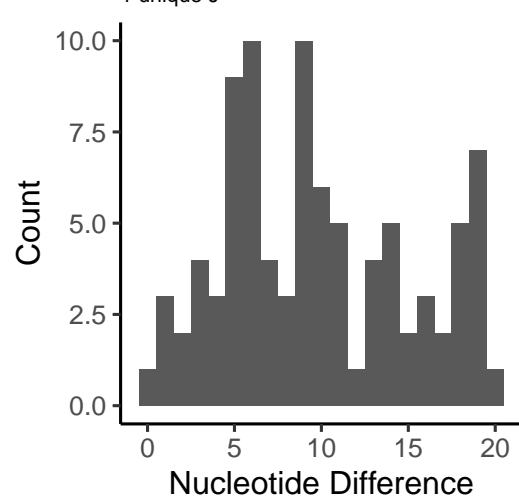
### IGHV3-73\*01\_02

28 sequences assigned  
No exact matches.



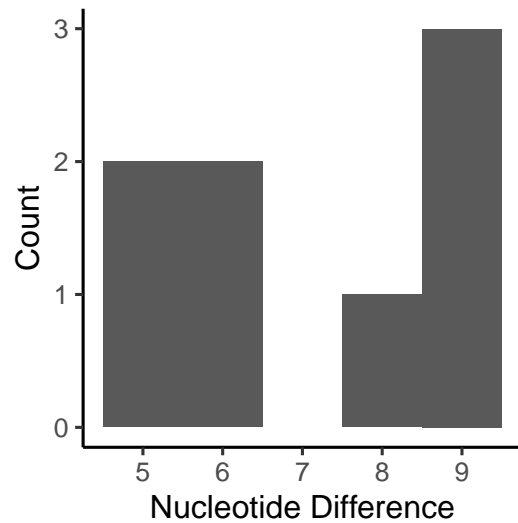
### IGHV4-4\*07

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



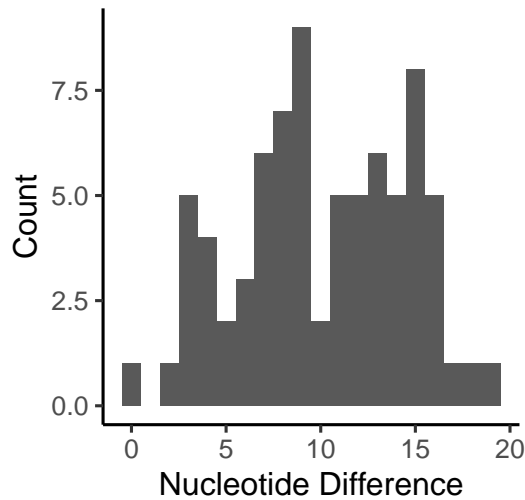
### IGHV4-28\*01\_07

8 sequences assigned  
No exact matches.



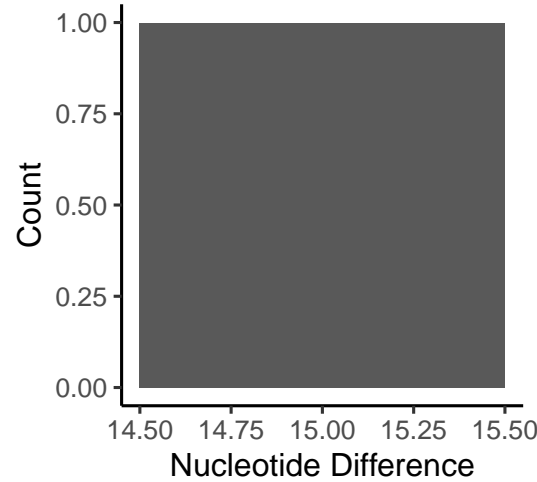
### IGHV4-31\*03\_04

108 sequences assigned  
1 (0.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



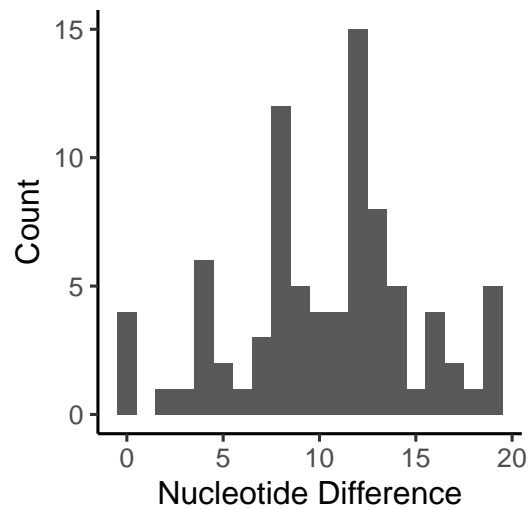
### IGHV4-55\*02\_04\_08

2 sequences assigned  
No exact matches.



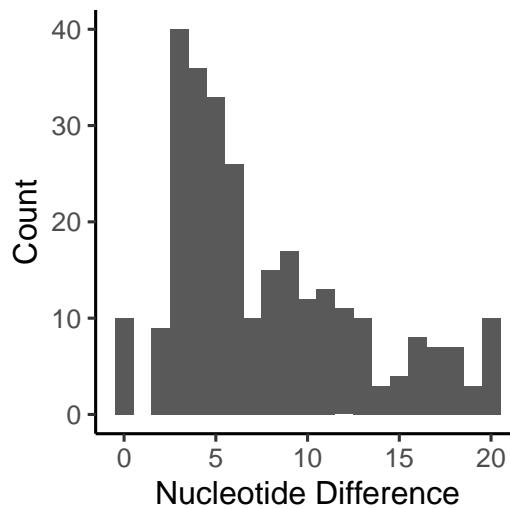
### IGHV4-30-4\*01

108 sequences assigned  
4 (3.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



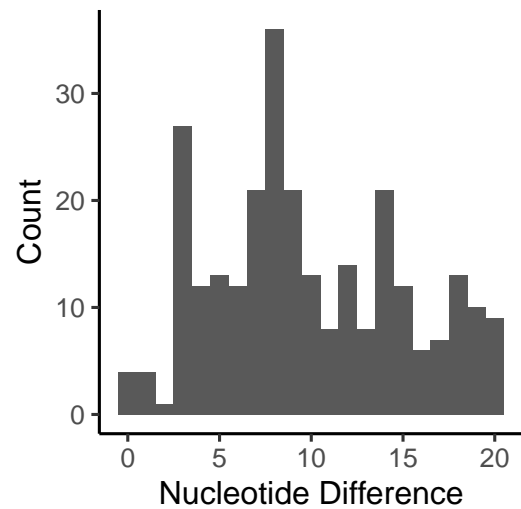
### IGHV4-34\*01\_02

330 sequences assigned  
10 (3%) exact matches, in which:  
6 unique CDR3  
4 unique J



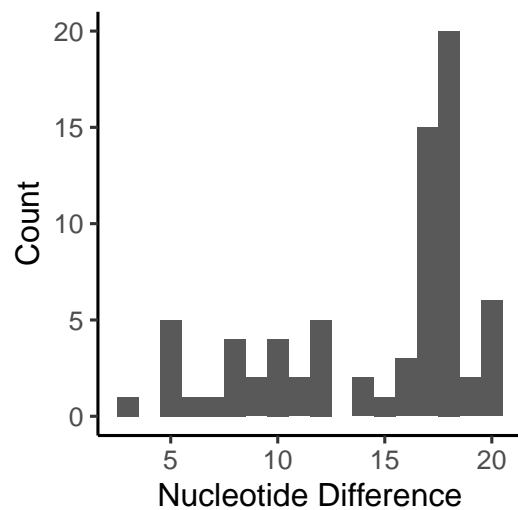
### IGHV4-59\*08

318 sequences assigned  
4 (1.3%) exact matches, in which:  
4 unique CDR3  
3 unique J



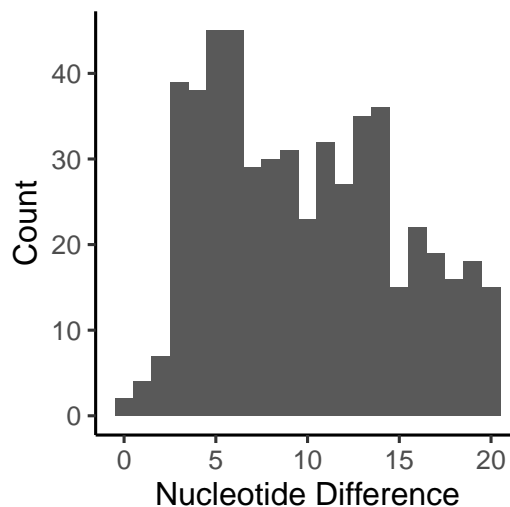
### IGHV4-30-2\*01

87 sequences assigned  
No exact matches.



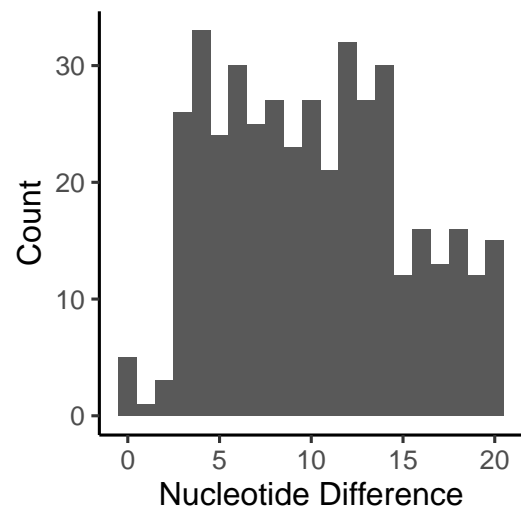
### IGHV4-39\*01\_05

651 sequences assigned  
2 (0.3%) exact matches, in which:  
2 unique CDR3  
2 unique J



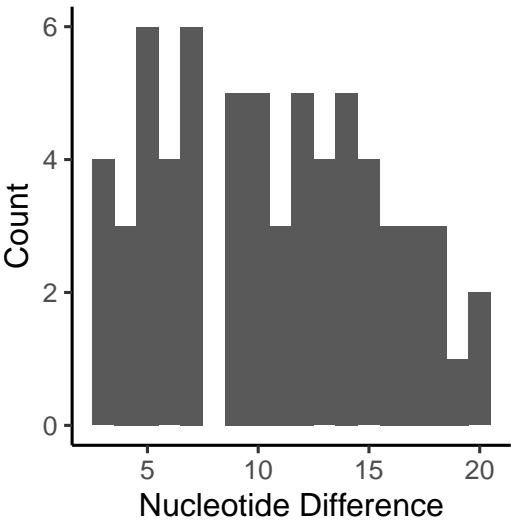
### IGHV4-59\*01\_07

504 sequences assigned  
5 (1%) exact matches, in which:  
3 unique CDR3  
3 unique J



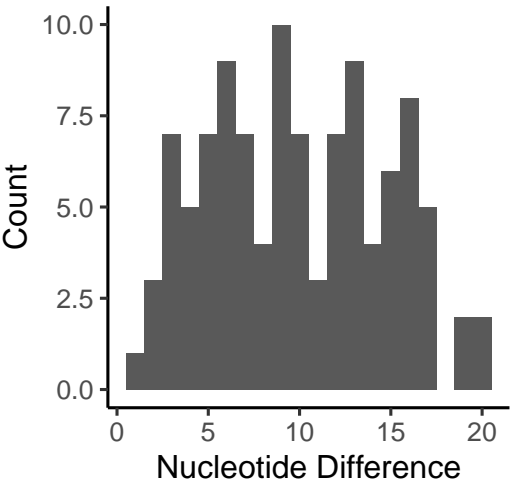
IGHV4-61\*01

89 sequences assigned  
No exact matches.



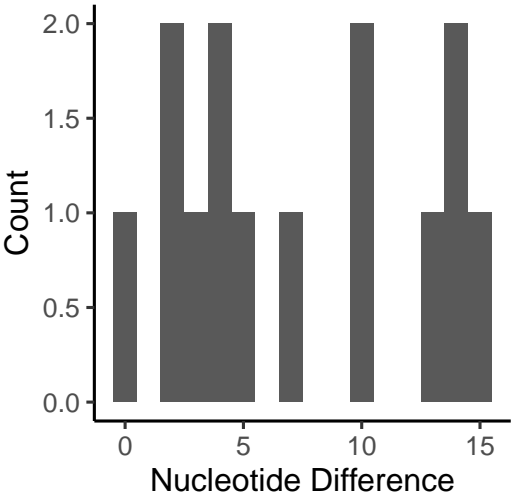
IGHV6-1\*01\_02

119 sequences assigned  
No exact matches.



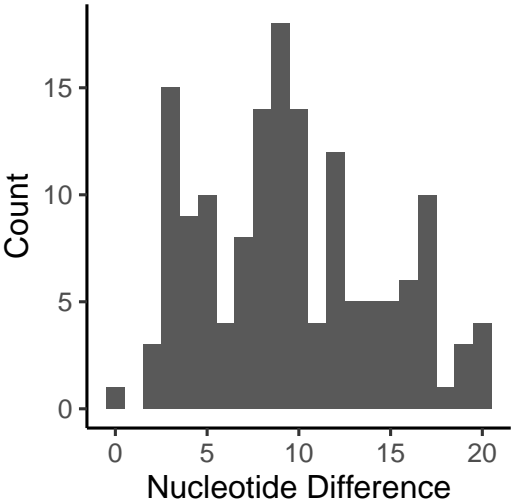
IGHV5-10-1\*01\_03

21 sequences assigned  
1 (4.8%) exact matches, in which:  
1 unique CDR3  
1 unique J

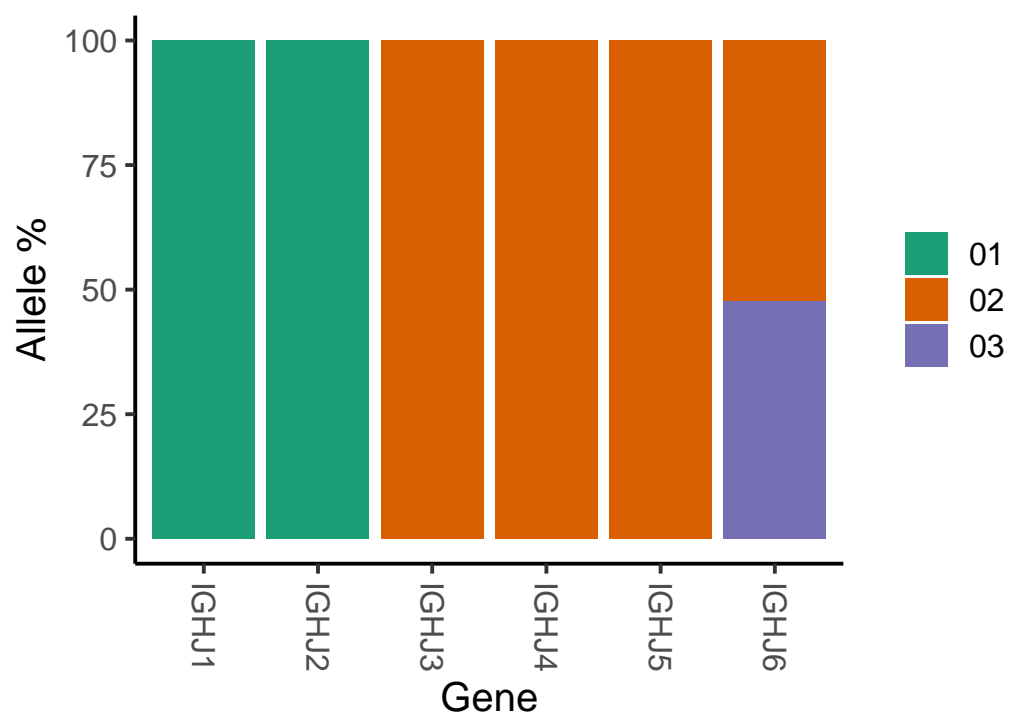


IGHV5-51\*01\_03

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

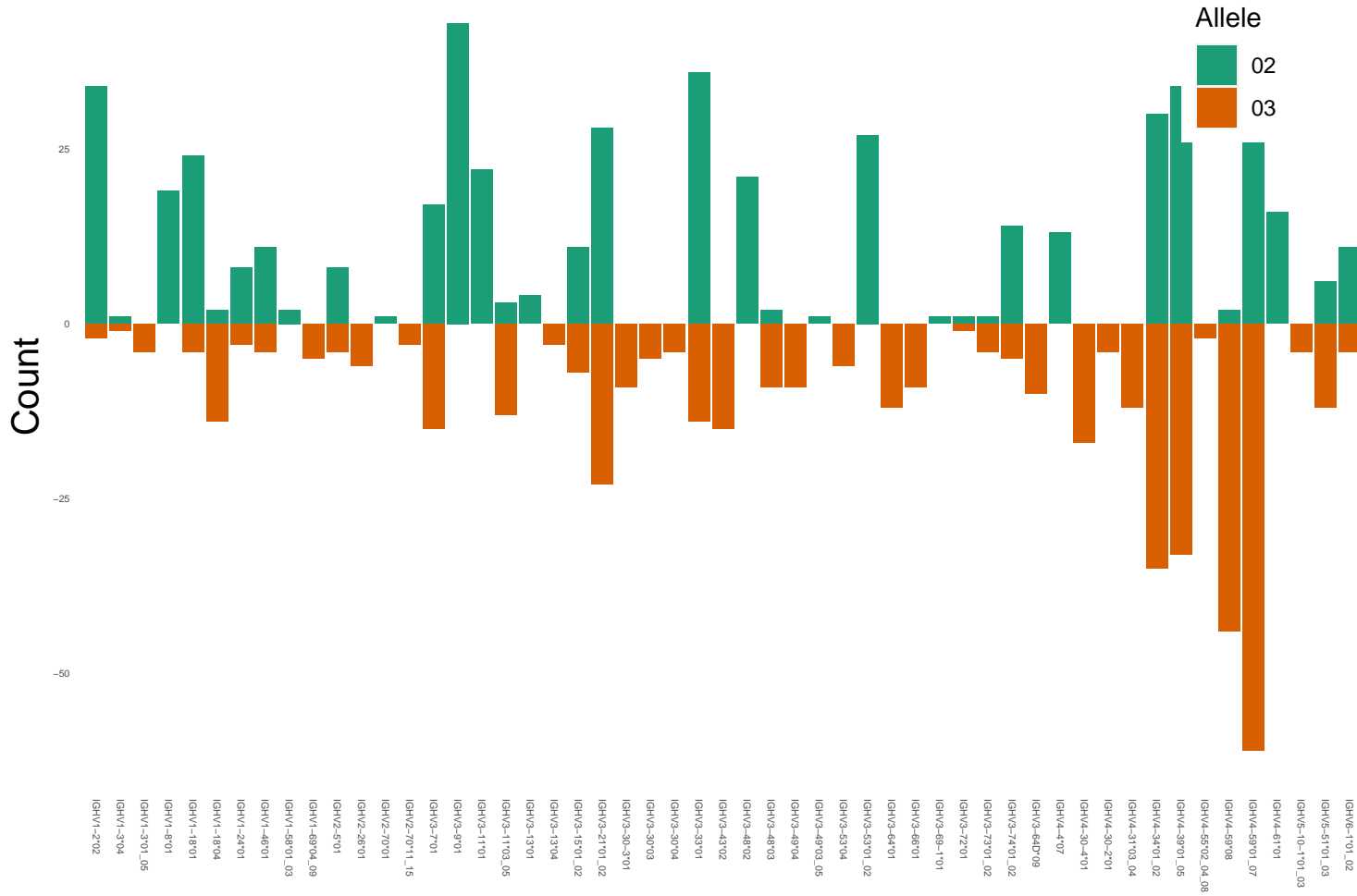


Allele Usage





Sequence Count by IGHJ6 allele usage



Warning - no inferred sequences found.