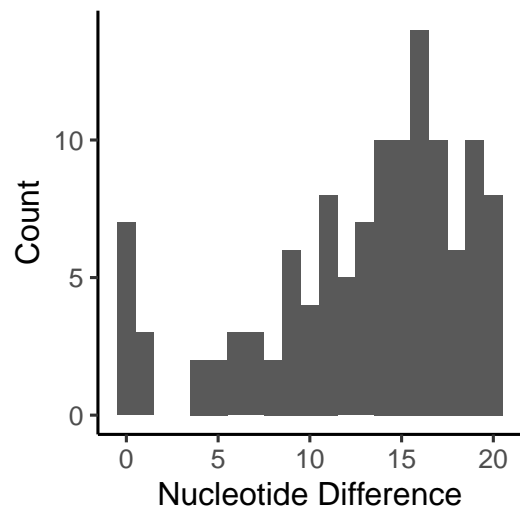


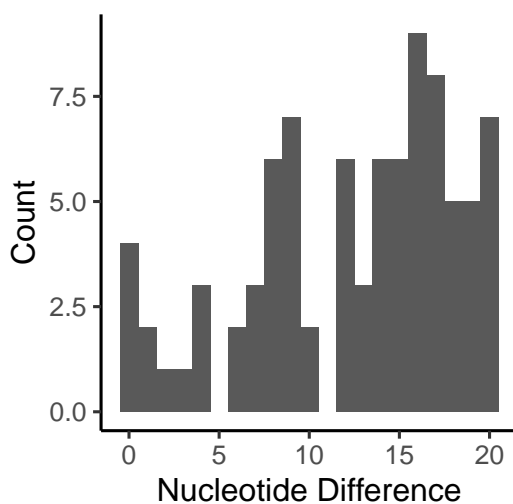
### IGHV1-2\*02

333 sequences assigned  
7 (2.1%) exact matches, in which:  
7 unique CDR3  
4 unique J



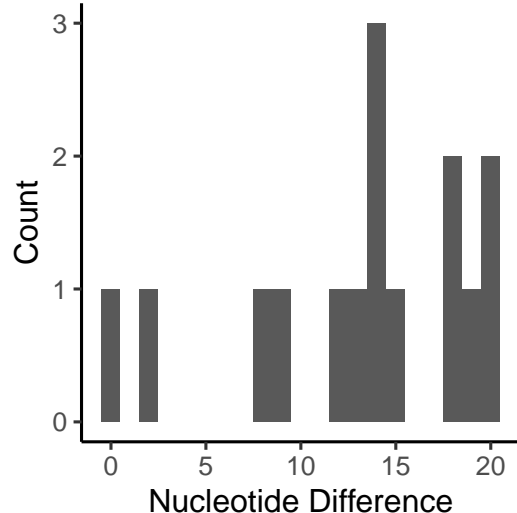
### IGHV1-18\*01

210 sequences assigned  
4 (1.9%) exact matches, in which:  
4 unique CDR3  
3 unique J



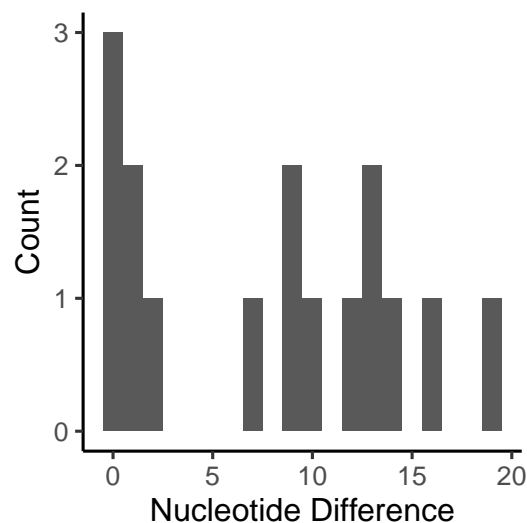
### IGHV1-46\*03

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



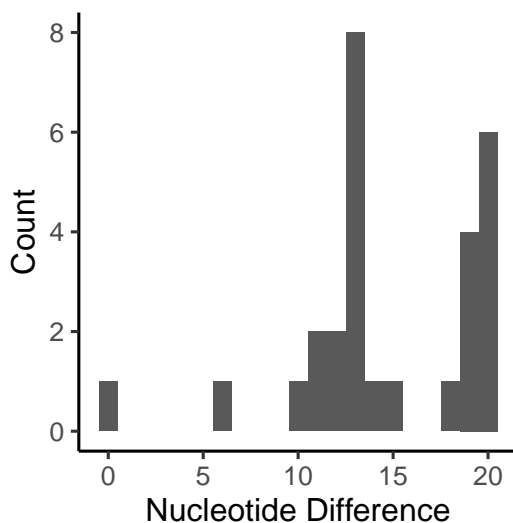
### IGHV1-8\*01

32 sequences assigned  
3 (9.4%) exact matches, in which:  
3 unique CDR3  
2 unique J



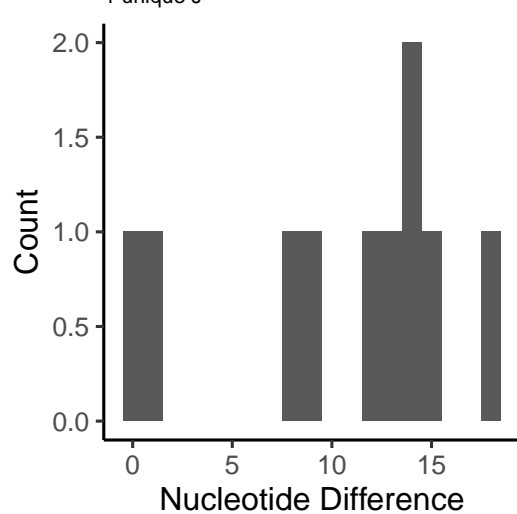
### IGHV1-24\*01

42 sequences assigned  
1 (2.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



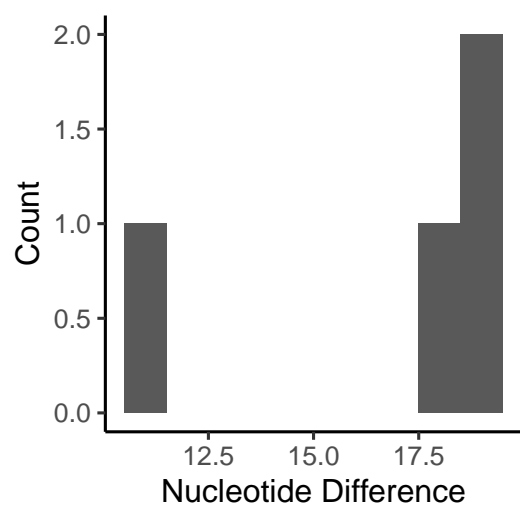
### IGHV1-58\*01

12 sequences assigned  
1 (8.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



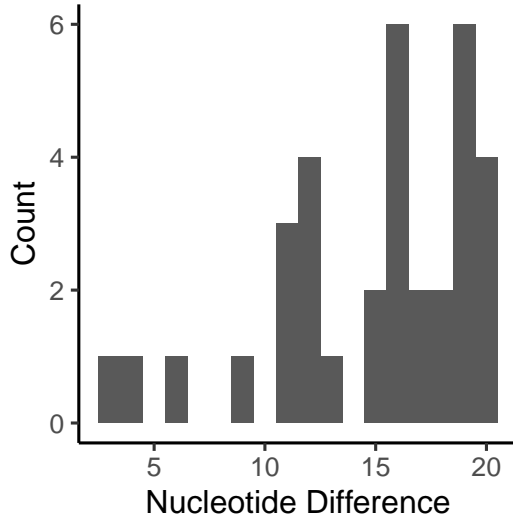
### IGHV1-8\*02

5 sequences assigned  
No exact matches.



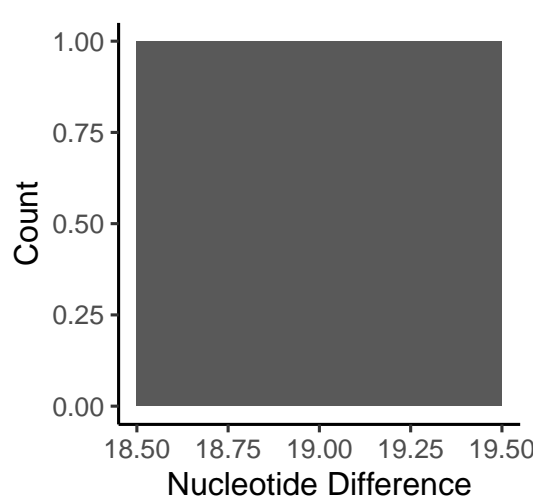
### IGHV1-46\*01

91 sequences assigned  
No exact matches.



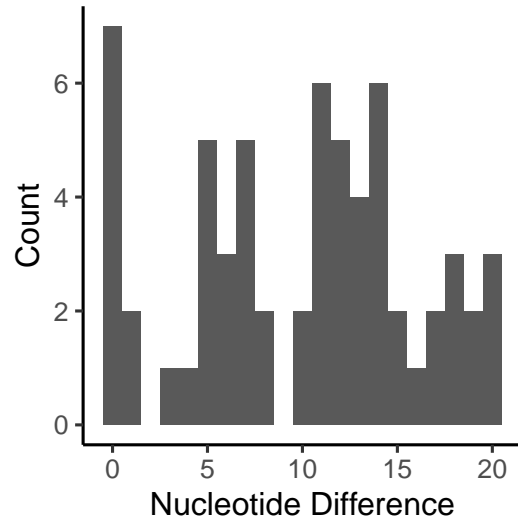
### IGHV1-58\*03

1 sequences assigned  
No exact matches.



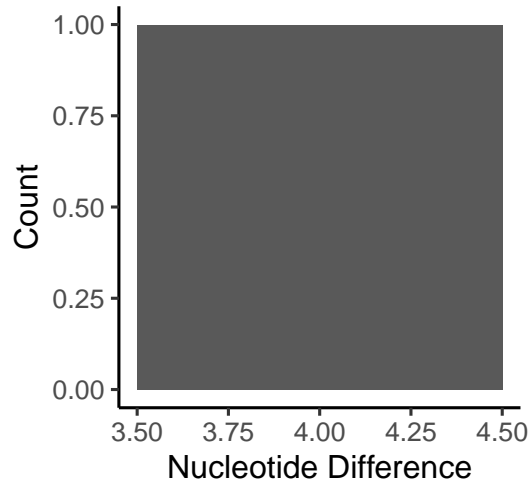
### IGHV2-5\*01

188 sequences assigned  
7 (3.7%) exact matches, in which:  
7 unique CDR3  
2 unique J



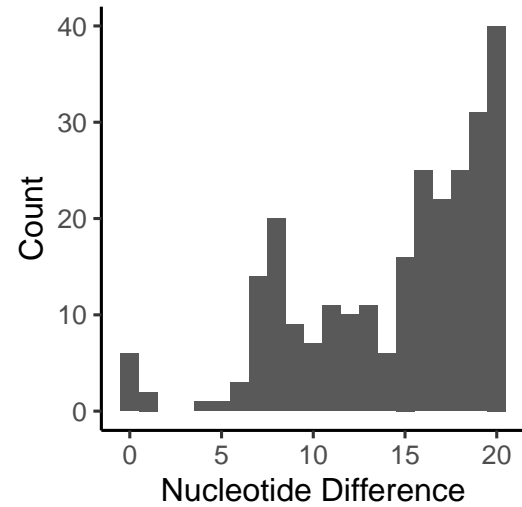
### IGHV2-70\*13

10 sequences assigned  
No exact matches.



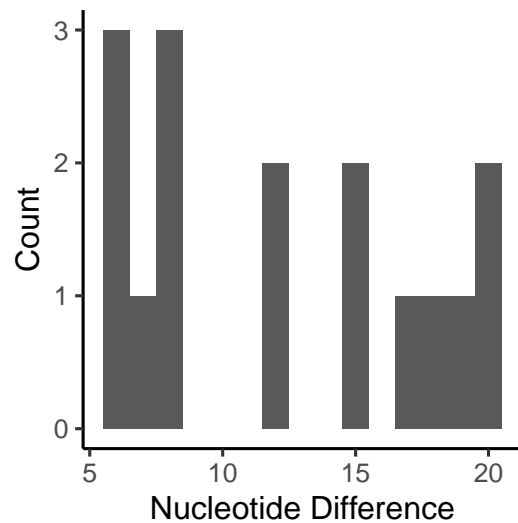
### IGHV3-9\*01

536 sequences assigned  
6 (1.1%) exact matches, in which:  
6 unique CDR3  
4 unique J



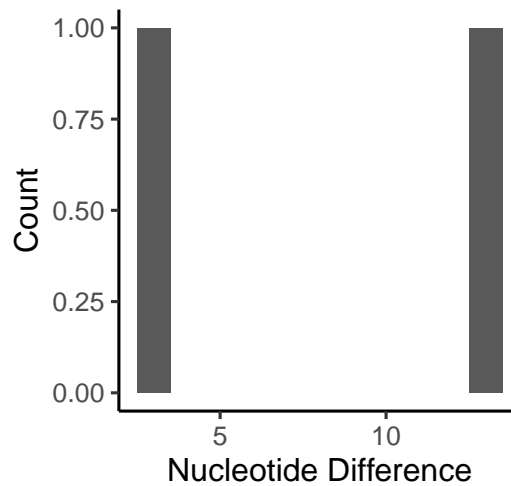
### IGHV2-26\*01

41 sequences assigned  
No exact matches.



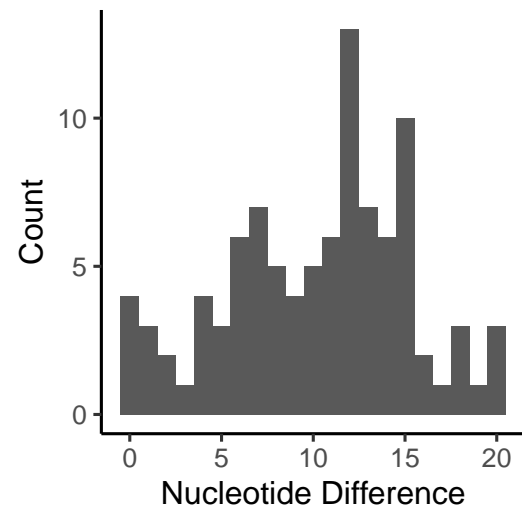
### IGHV2-70\*20

5 sequences assigned  
No exact matches.



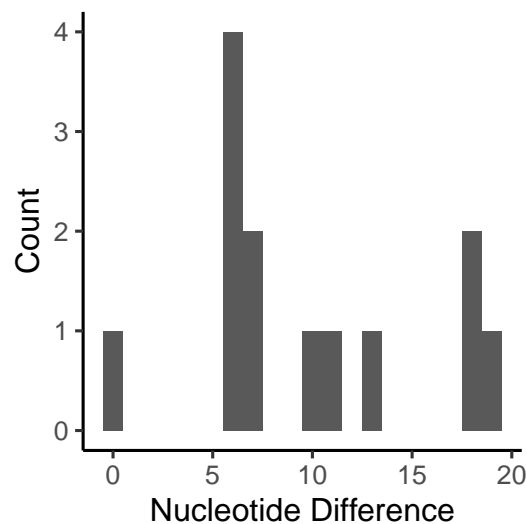
### IGHV3-11\*01

241 sequences assigned  
4 (1.7%) exact matches, in which:  
4 unique CDR3  
2 unique J



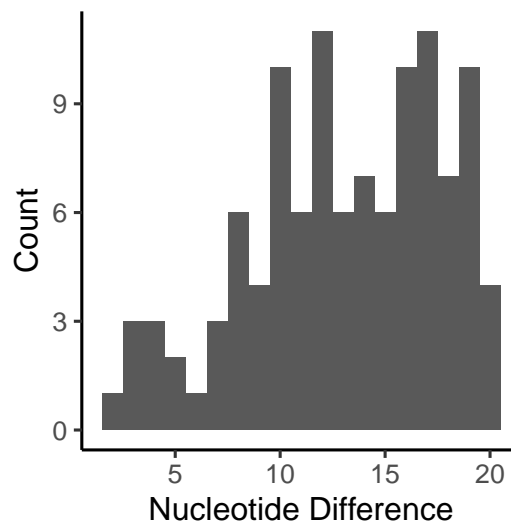
### IGHV2-70\*01

22 sequences assigned  
1 (4.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



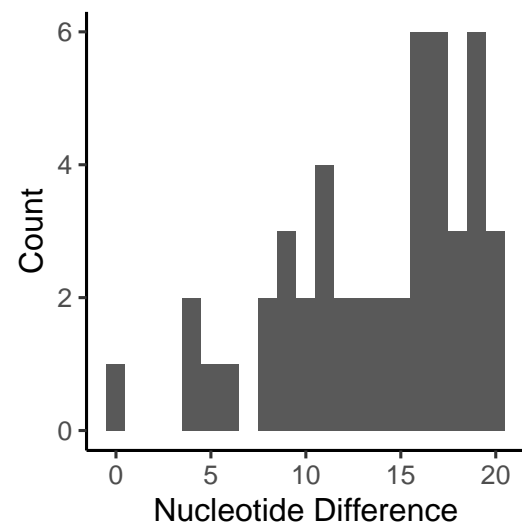
### IGHV3-7\*01

172 sequences assigned  
No exact matches.



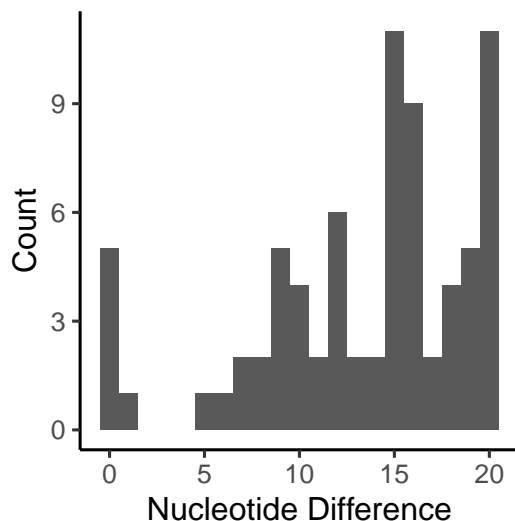
### IGHV3-13\*01

60 sequences assigned  
1 (1.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



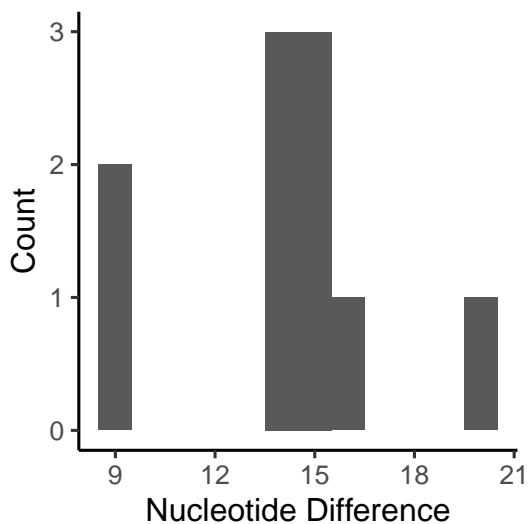
### IGHV3-15\*01

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



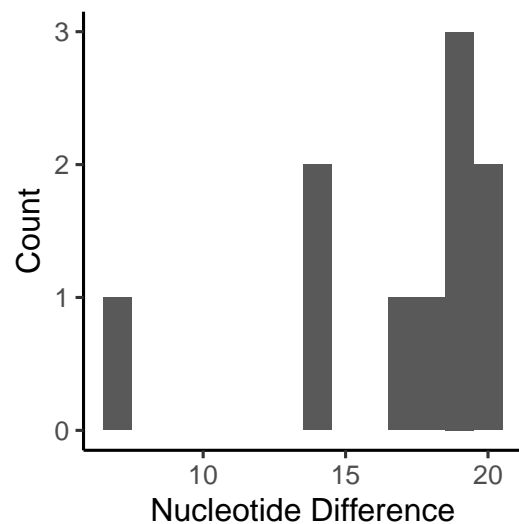
### IGHV3-21\*02

23 sequences assigned  
No exact matches.



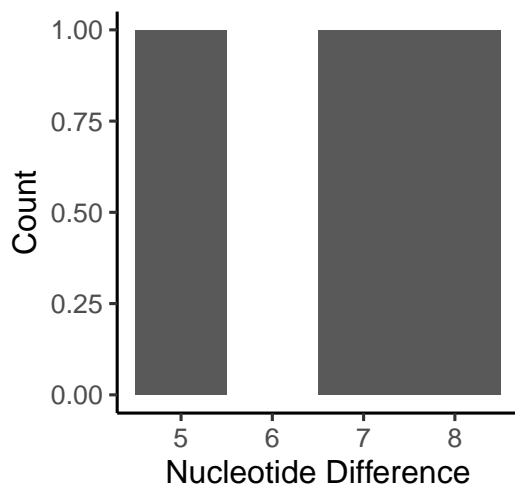
### IGHV3-30\*03

34 sequences assigned  
No exact matches.



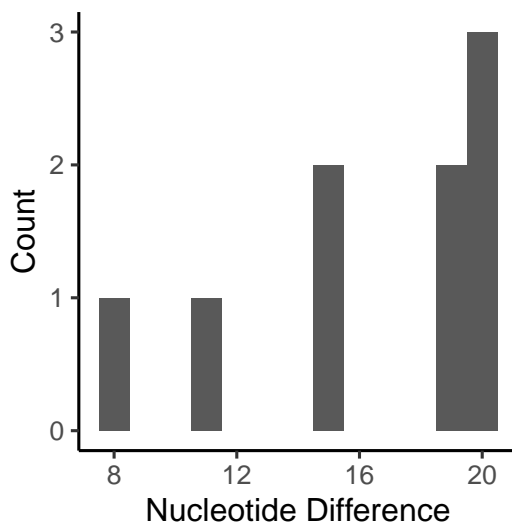
### IGHV3-20\*01

3 sequences assigned  
No exact matches.



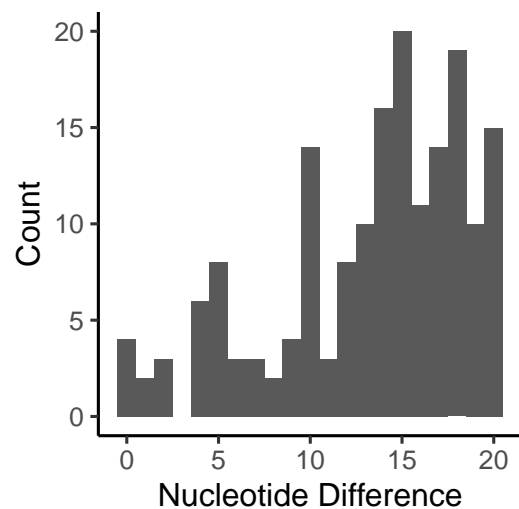
### IGHV3-21\*06

67 sequences assigned  
No exact matches.



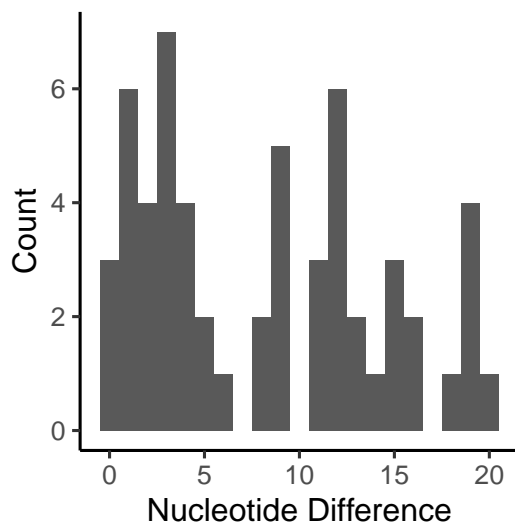
### IGHV3-33\*01

365 sequences assigned  
4 (1.1%) exact matches, in which:  
4 unique CDR3  
2 unique J



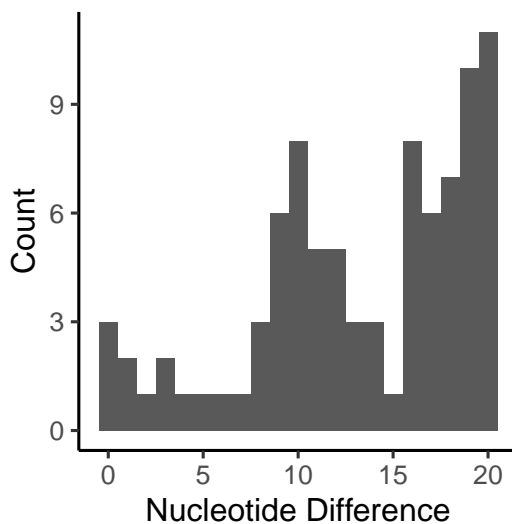
### IGHV3-21\*01

90 sequences assigned  
3 (3.3%) exact matches, in which:  
3 unique CDR3  
1 unique J



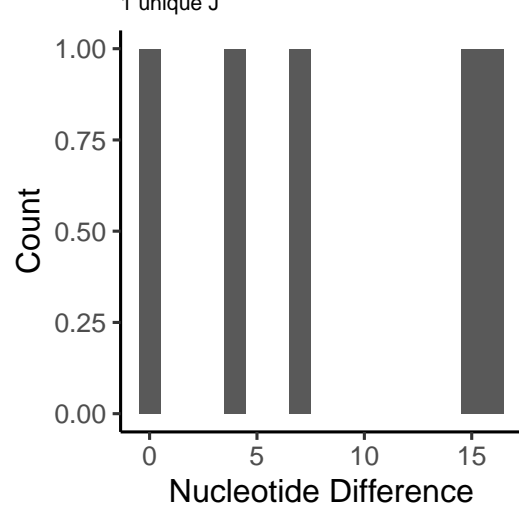
### IGHV3-30-3\*01

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



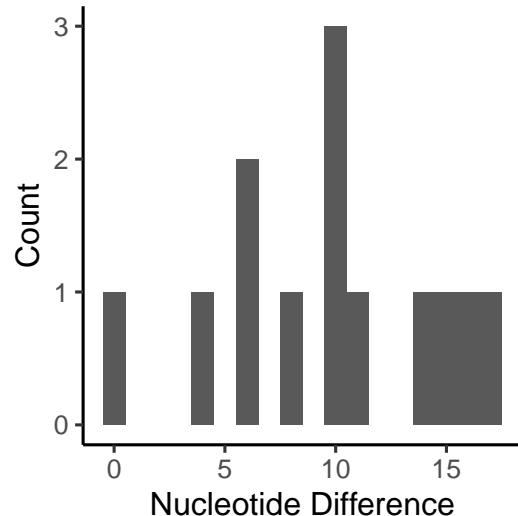
### IGHV3-43\*01

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



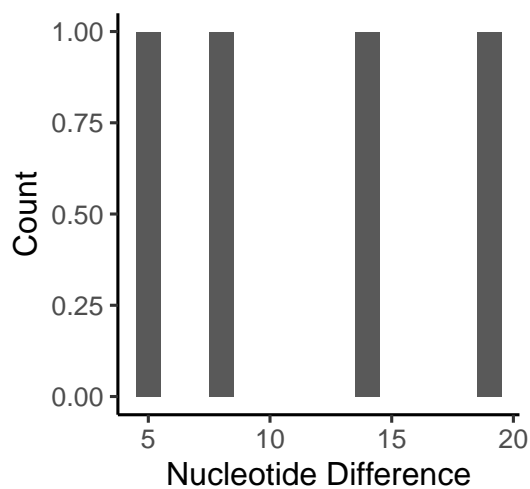
### IGHV3-48\*01

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



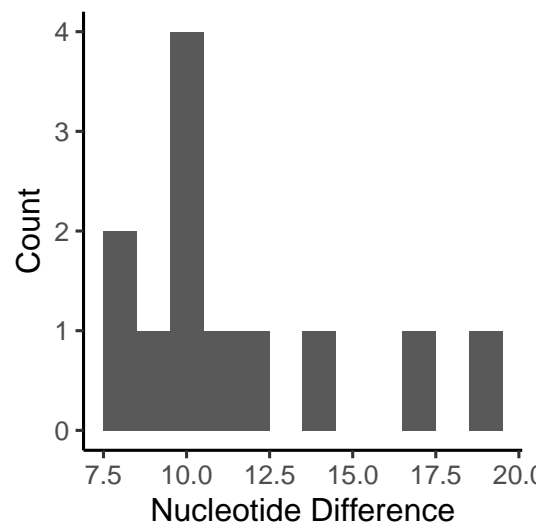
### IGHV3-49\*05

18 sequences assigned  
No exact matches.



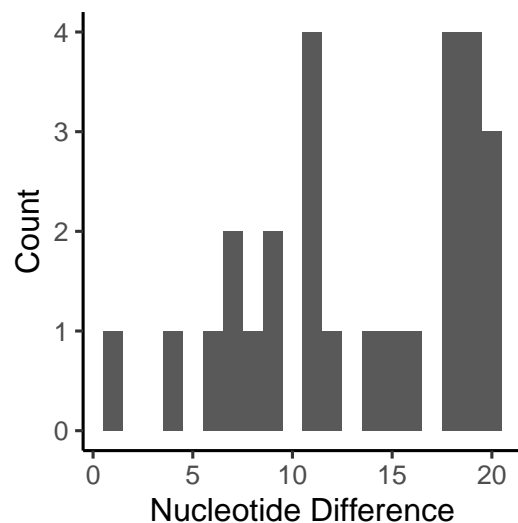
### IGHV3-72\*01

23 sequences assigned  
No exact matches.



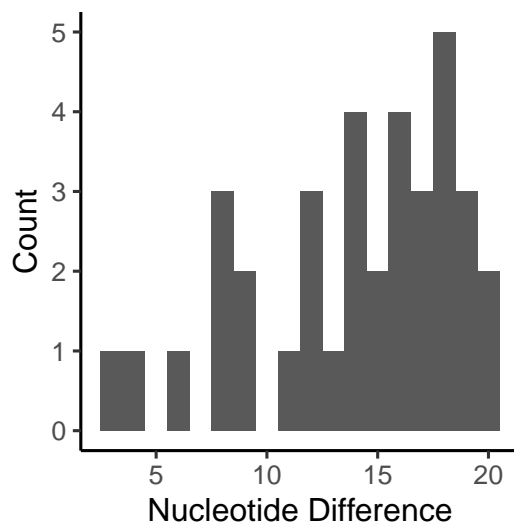
### IGHV3-48\*02

40 sequences assigned  
No exact matches.



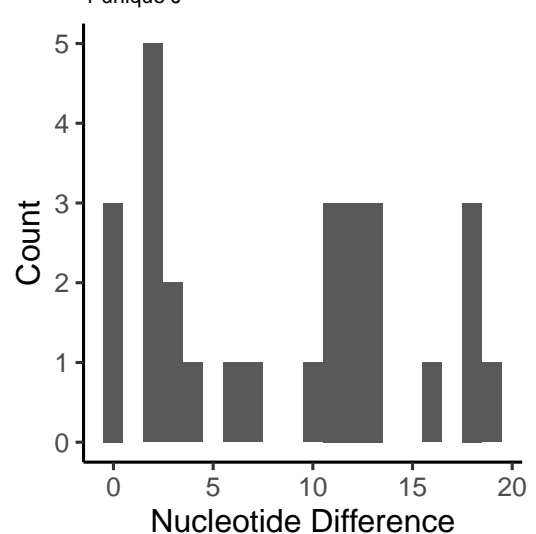
### IGHV3-53\*01

75 sequences assigned  
No exact matches.



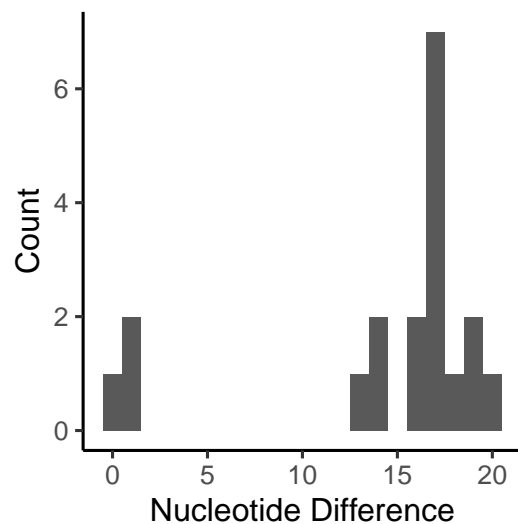
### IGHV3-73\*02

106 sequences assigned  
3 (2.8%) exact matches, in which:  
2 unique CDR3  
1 unique J



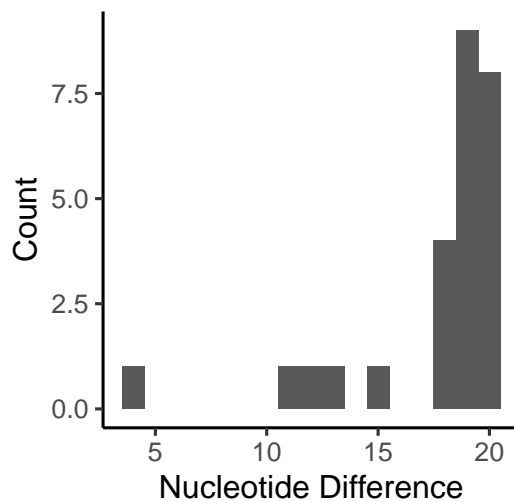
### IGHV3-49\*03

22 sequences assigned  
1 (4.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



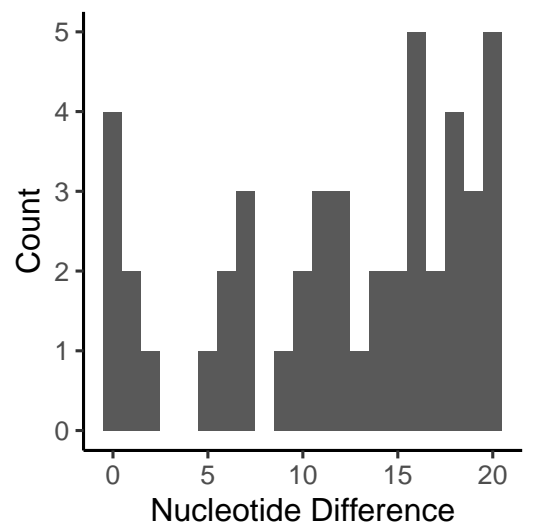
### IGHV3-53\*02

74 sequences assigned  
No exact matches.



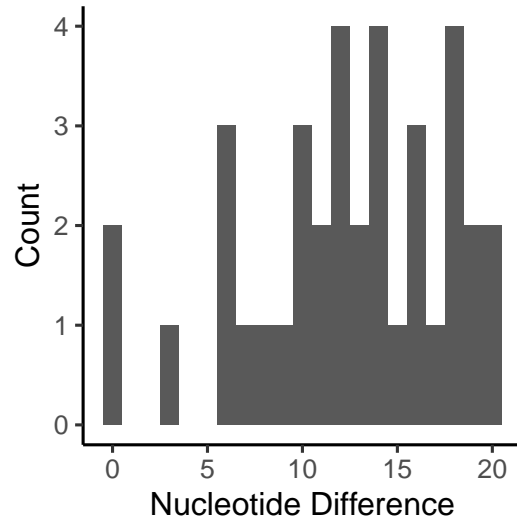
### IGHV3-74\*01

79 sequences assigned  
4 (5.1%) exact matches, in which:  
3 unique CDR3  
3 unique J



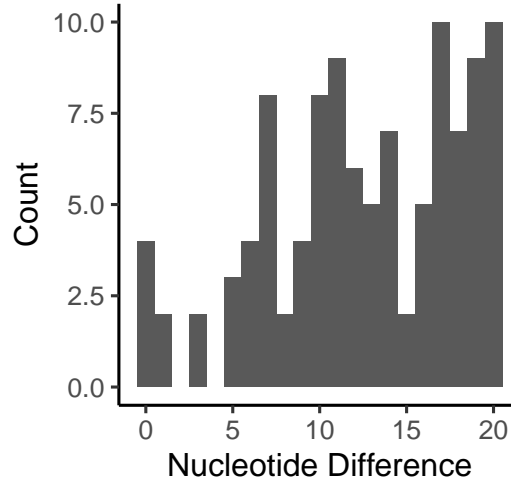
### IGHV4-4\*07

96 sequences assigned  
2 (2.1%) exact matches, in which:  
2 unique CDR3  
1 unique J



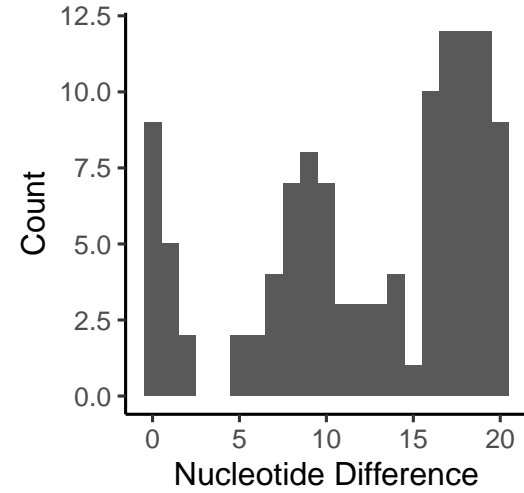
### IGHV4-31\*03

231 sequences assigned  
4 (1.7%) exact matches, in which:  
3 unique CDR3  
2 unique J



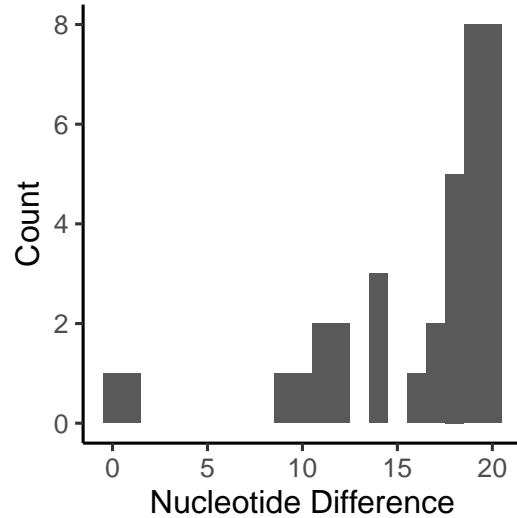
### IGHV4-39\*01

439 sequences assigned  
9 (2.1%) exact matches, in which:  
7 unique CDR3  
3 unique J



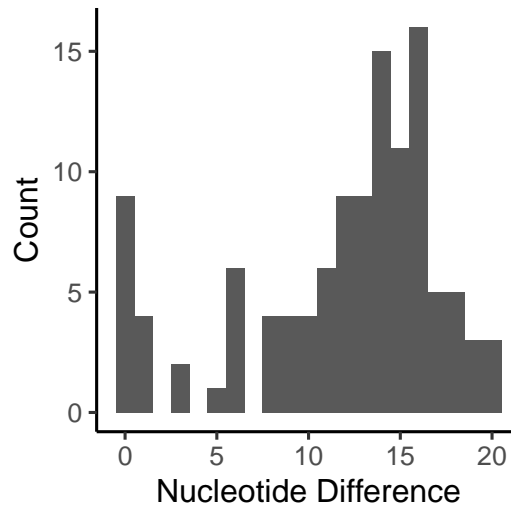
### IGHV4-30-4\*01

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



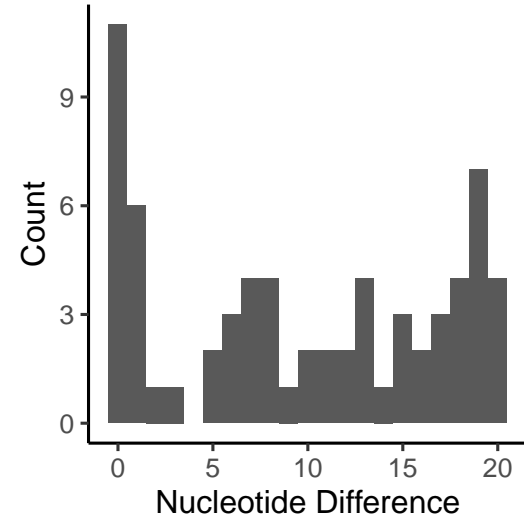
### IGHV4-34\*01

226 sequences assigned  
9 (4%) exact matches, in which:  
9 unique CDR3  
3 unique J



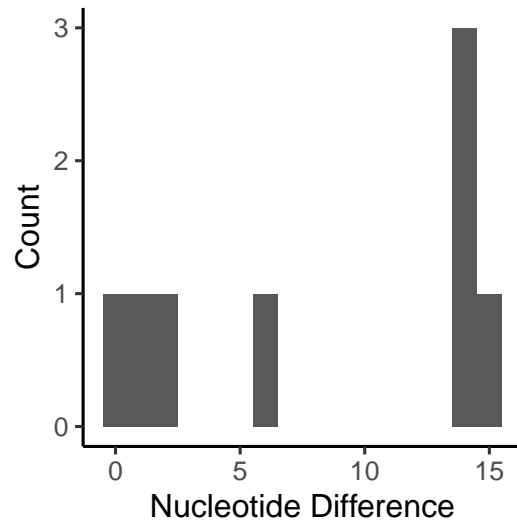
### IGHV4-59\*01

122 sequences assigned  
11 (9%) exact matches, in which:  
11 unique CDR3  
4 unique J



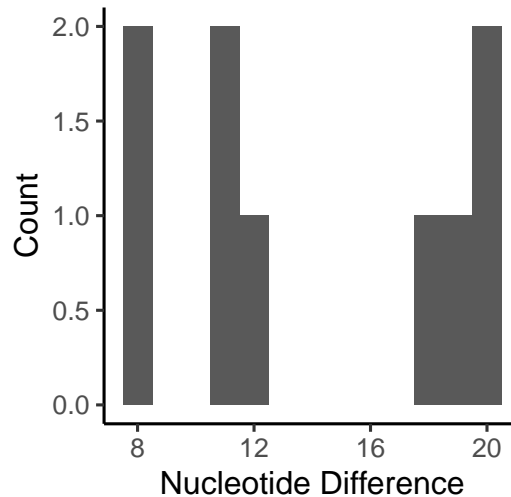
### IGHV4-30-2\*01

44 sequences assigned  
1 (2.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



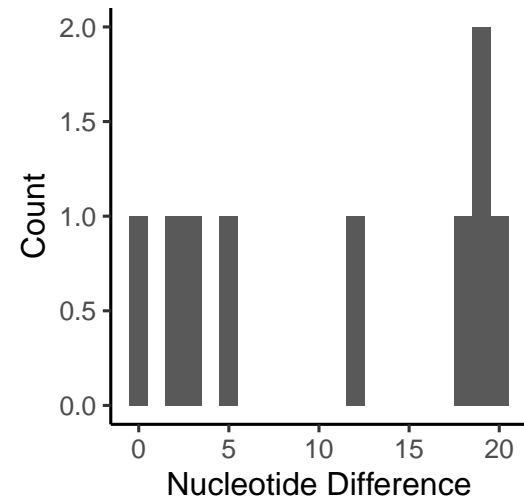
### IGHV4-34\*02

59 sequences assigned  
No exact matches.



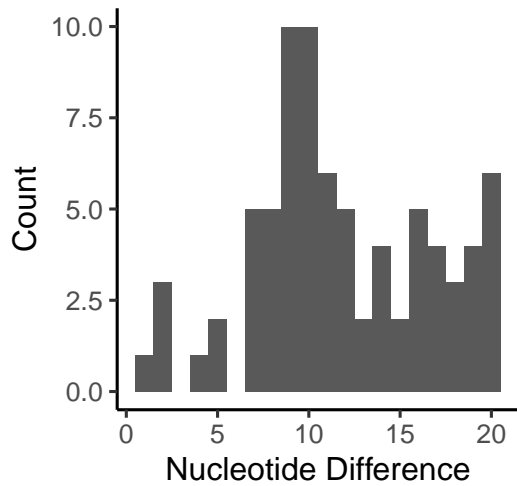
### IGHV4-61\*01

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



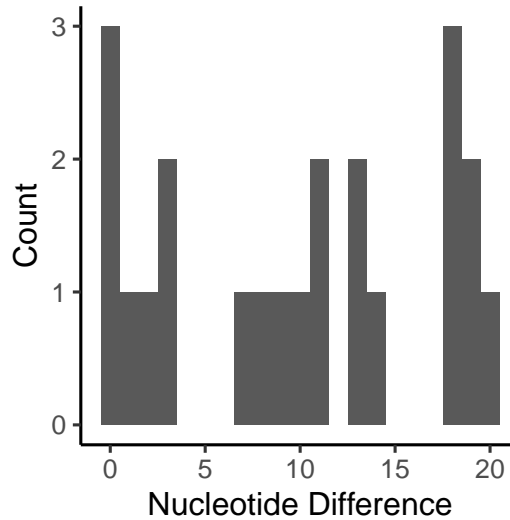
### IGHV4–61\*02

132 sequences assigned  
No exact matches.



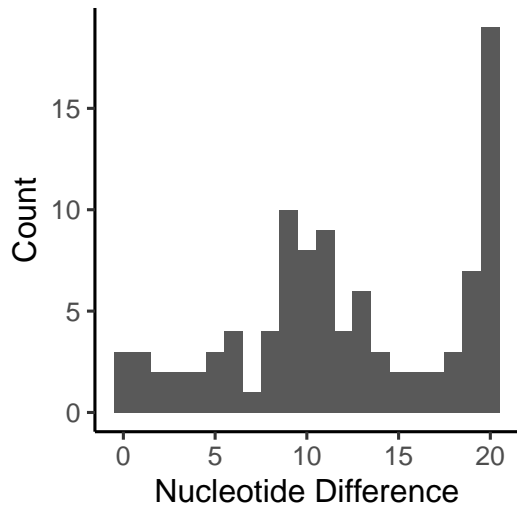
### IGHV6–1\*01

25 sequences assigned  
3 (12%) exact matches, in which:  
3 unique CDR3  
3 unique J



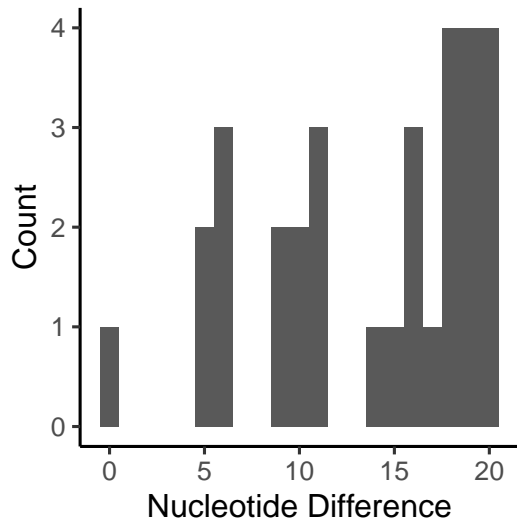
### IGHV5–51\*01

154 sequences assigned  
3 (1.9%) exact matches, in which:  
2 unique CDR3  
2 unique J

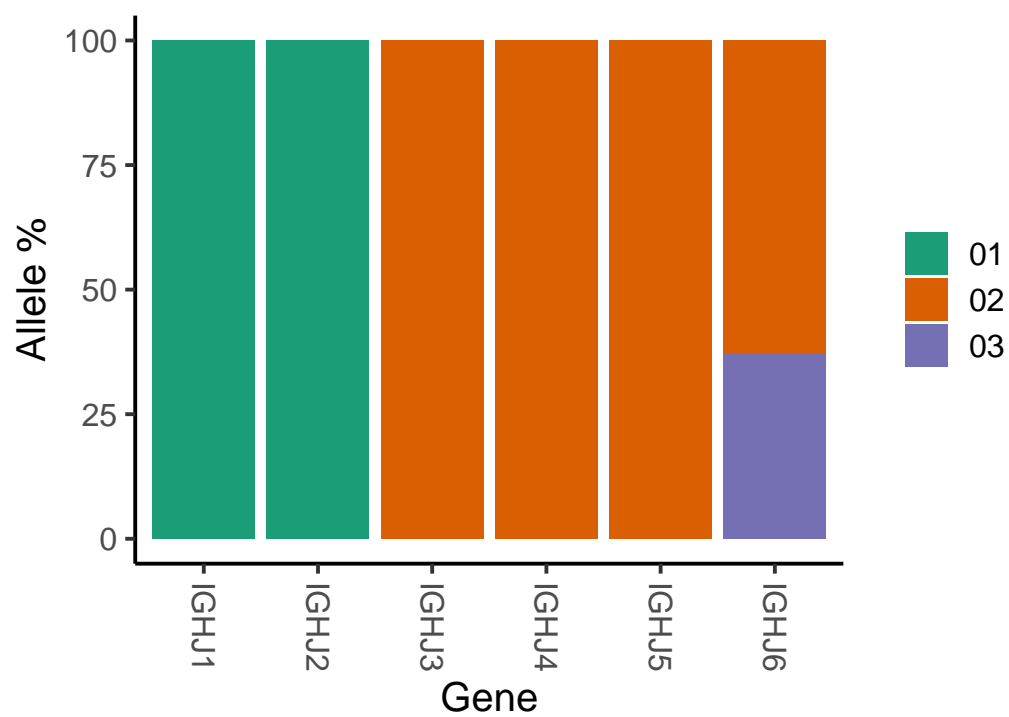


### IGHV5–51\*03

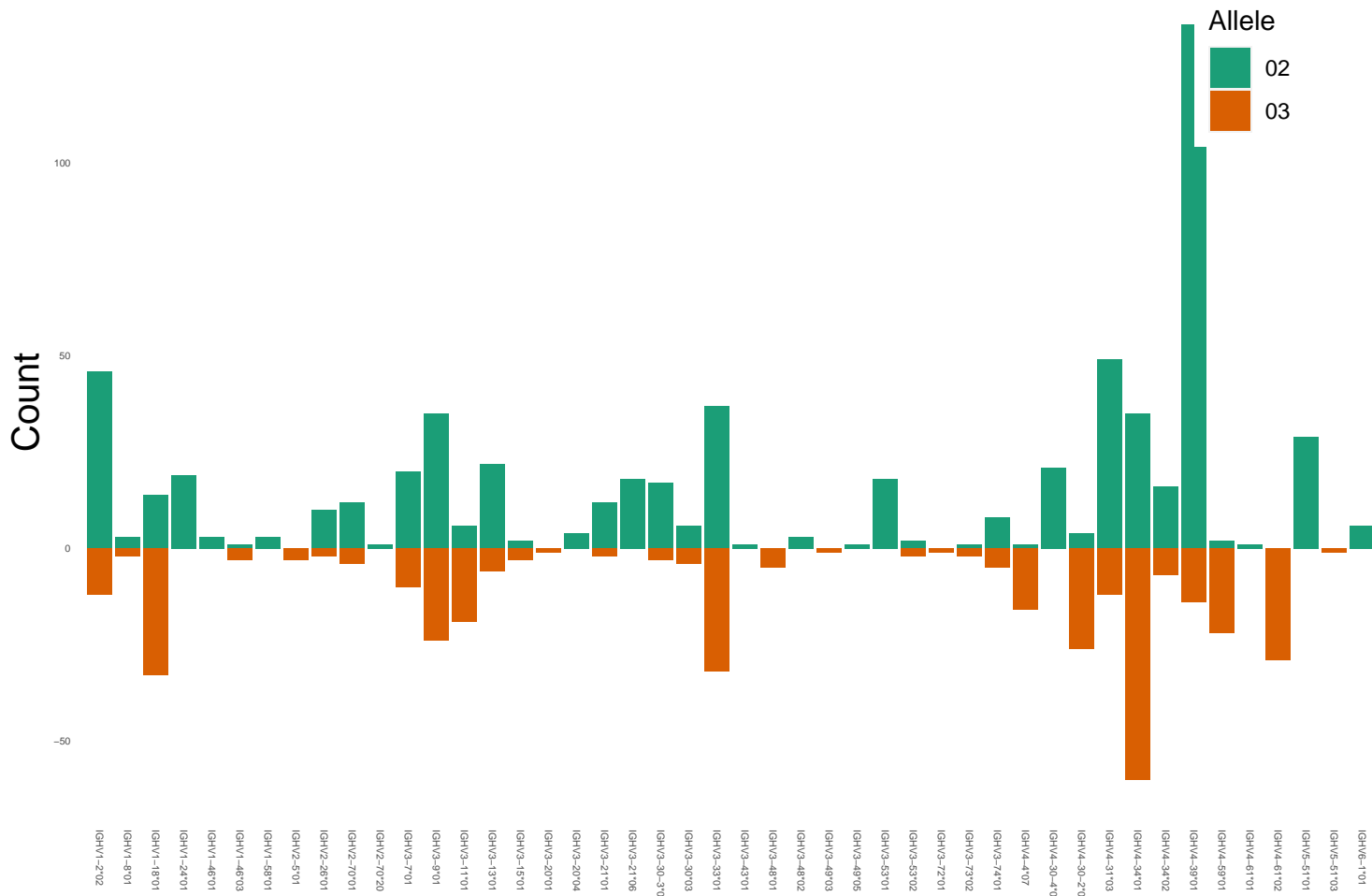
50 sequences assigned  
1 (2%) exact matches, in which:  
1 unique CDR3  
1 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage





Warning – no inferred sequences found.