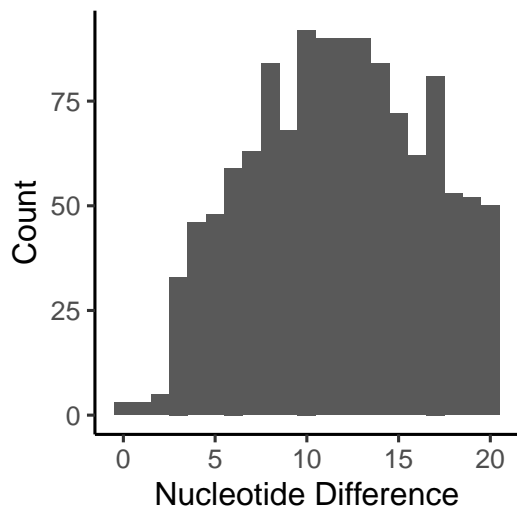


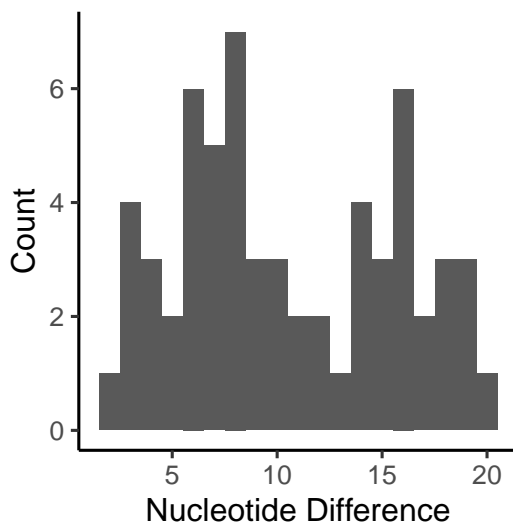
### IGHV1-2\*02

1535 sequences assigned  
3 (0.2%) exact matches, in which:  
3 unique CDR3  
3 unique J



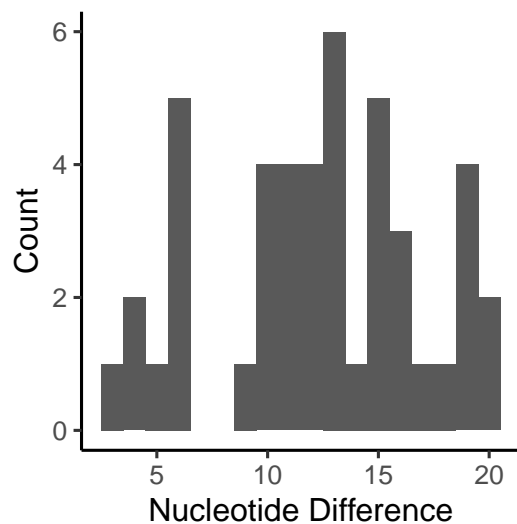
### IGHV1-24\*01

100 sequences assigned  
No exact matches.



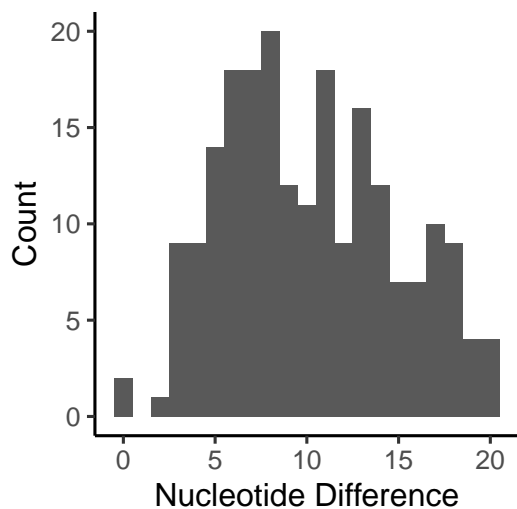
### IGHV1-46\*03

57 sequences assigned  
No exact matches.



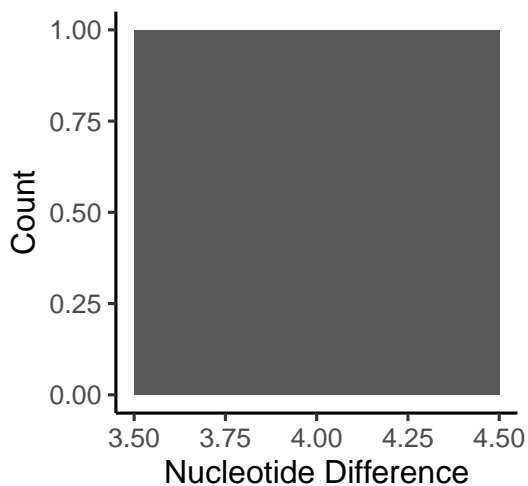
### IGHV1-8\*01

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



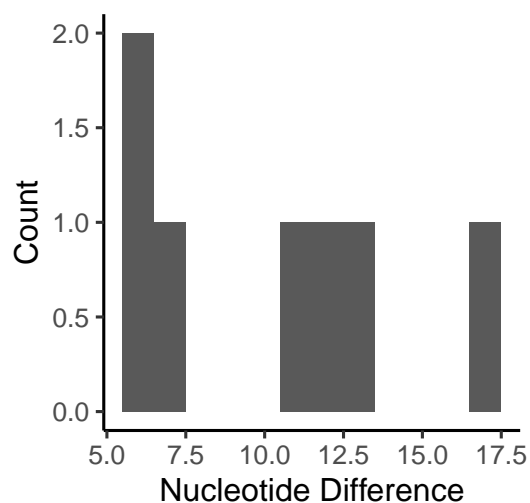
### IGHV1-45\*02

1 sequences assigned  
No exact matches.



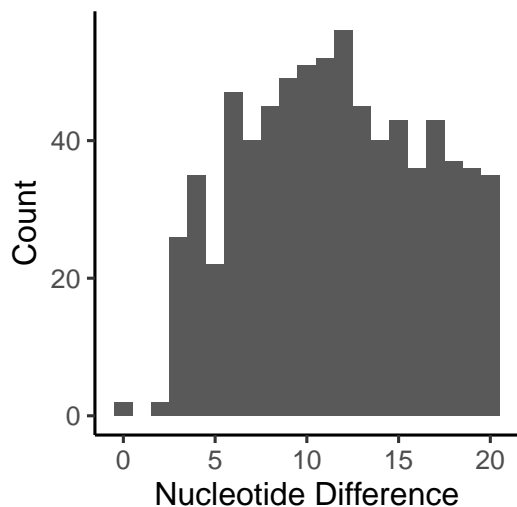
### IGHV1-58\*02

9 sequences assigned  
No exact matches.



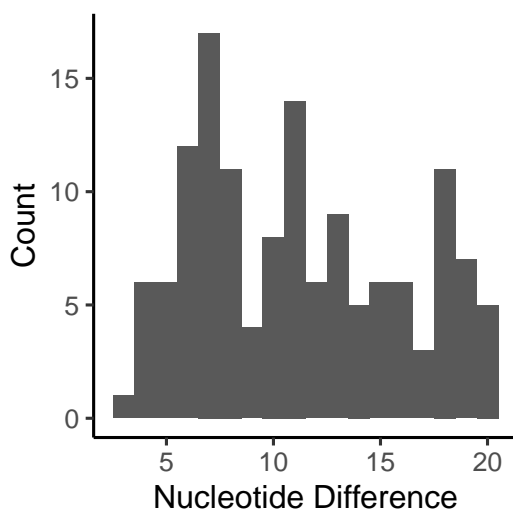
### IGHV1-18\*01

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



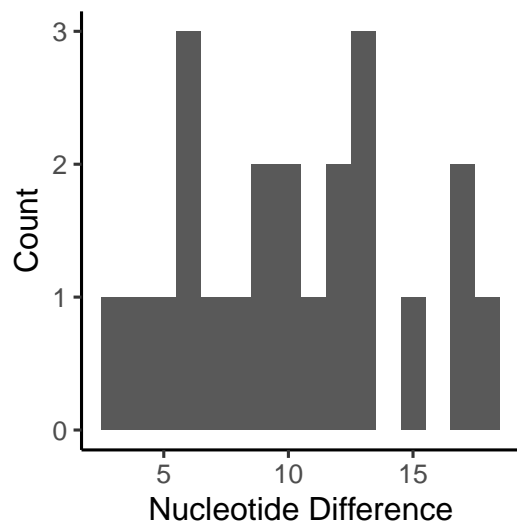
### IGHV1-46\*01

161 sequences assigned  
No exact matches.



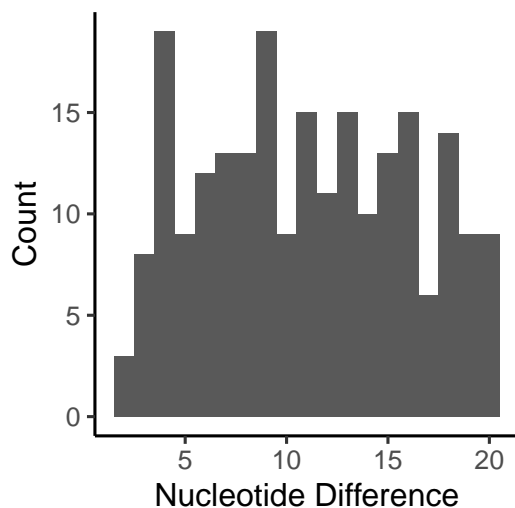
### IGHV1-58\*01\_03

30 sequences assigned  
No exact matches.



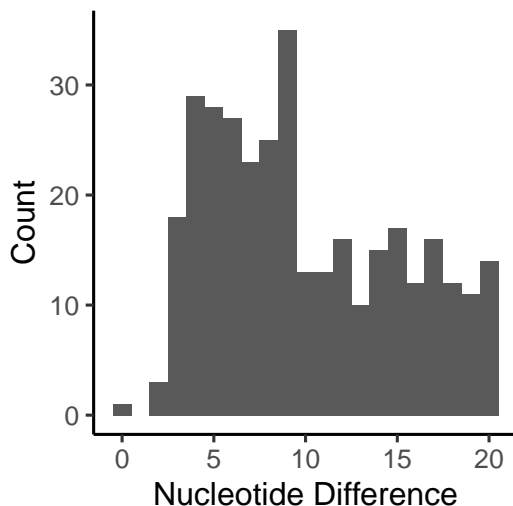
### IGHV1-69\*01\_12\_13

378 sequences assigned  
No exact matches.



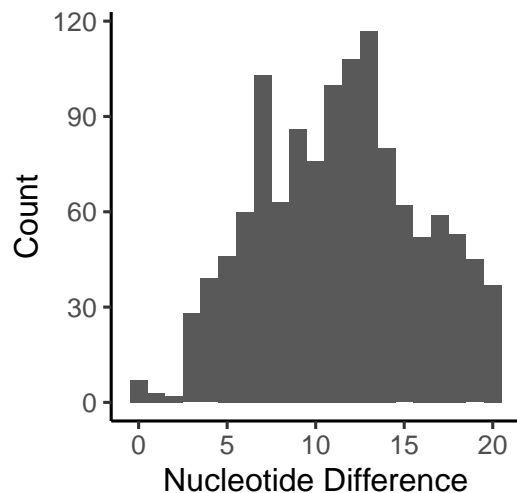
### IGHV2-5\*02

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



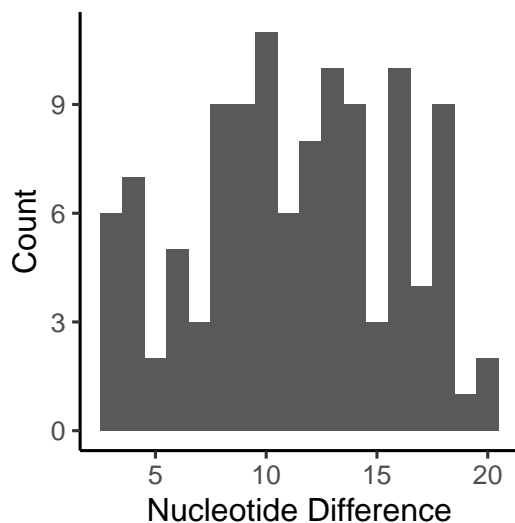
### IGHV3-7\*01

1459 sequences assigned  
7 (0.5%) exact matches, in which:  
4 unique CDR3  
3 unique J



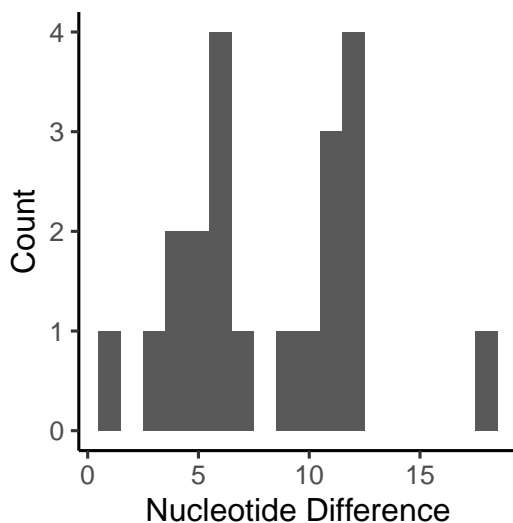
### IGHV1-69\*06\_14

189 sequences assigned  
No exact matches.



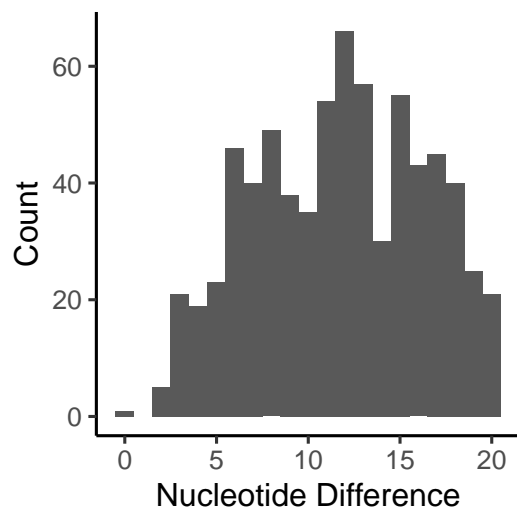
### IGHV2-26\*01

27 sequences assigned  
No exact matches.



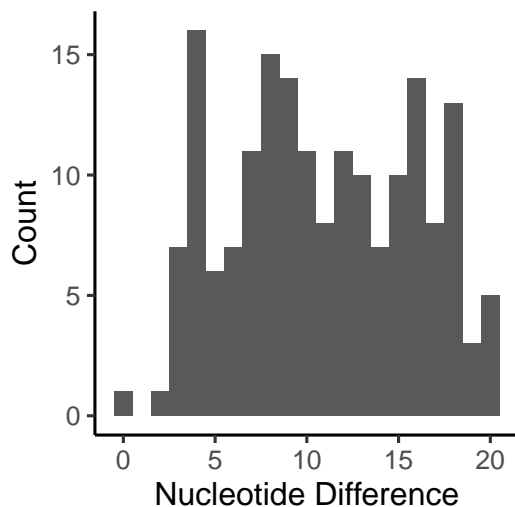
### IGHV3-7\*04

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



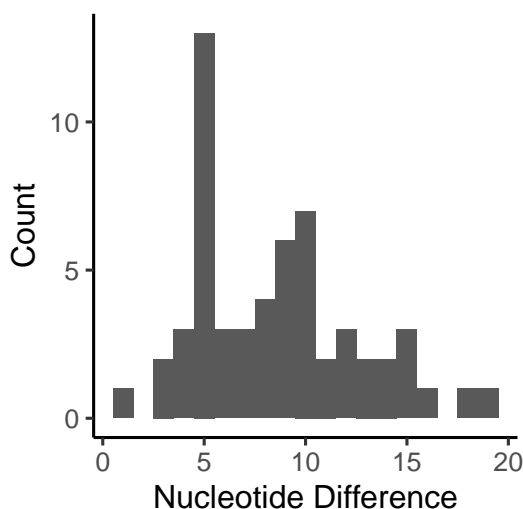
### IGHV2-5\*01

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



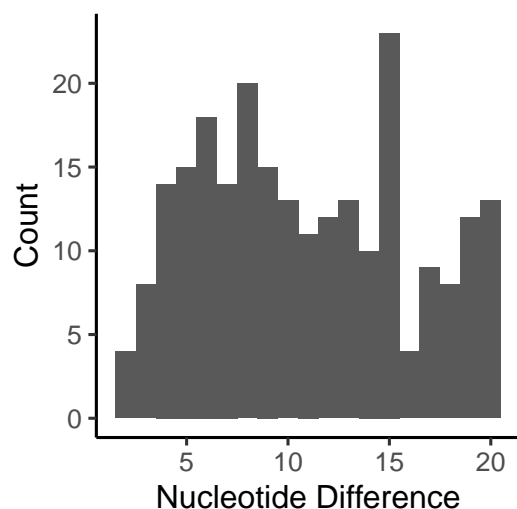
### IGHV2-70\*01

74 sequences assigned  
No exact matches.



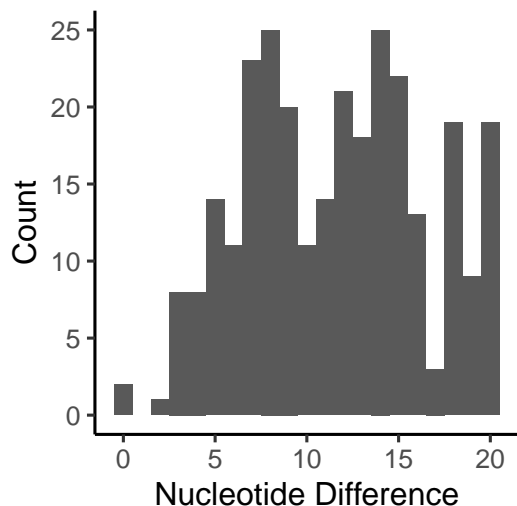
### IGHV3-9\*01

303 sequences assigned  
No exact matches.



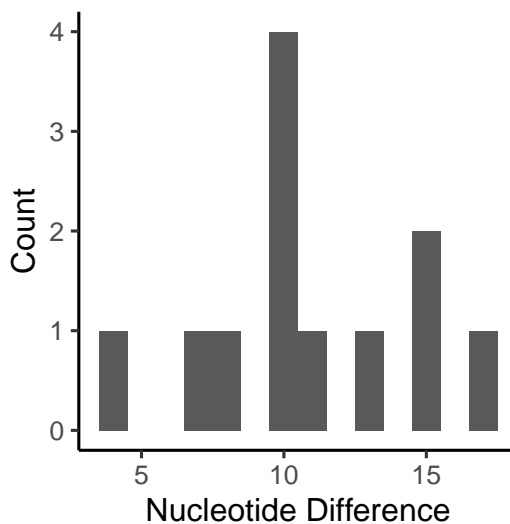
### IGHV3-11\*01

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



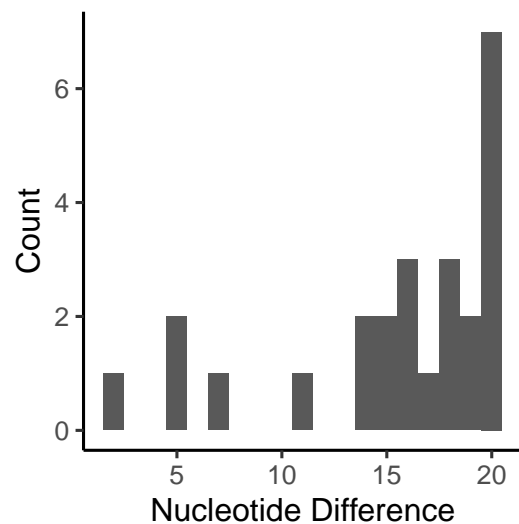
### IGHV3-13\*05

21 sequences assigned  
No exact matches.



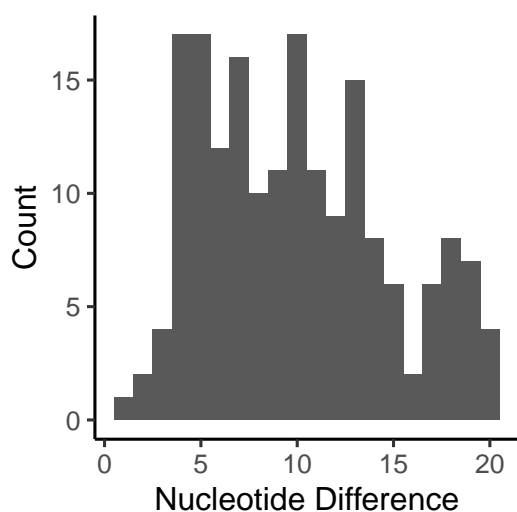
### IGHV3-20\*03\_04

112 sequences assigned  
No exact matches.



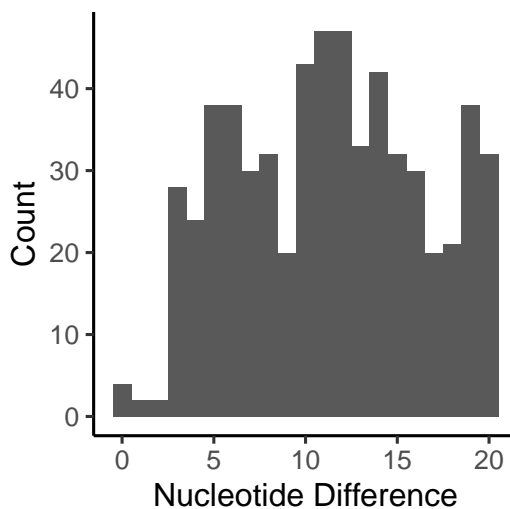
### IGHV3-11\*06

288 sequences assigned  
No exact matches.



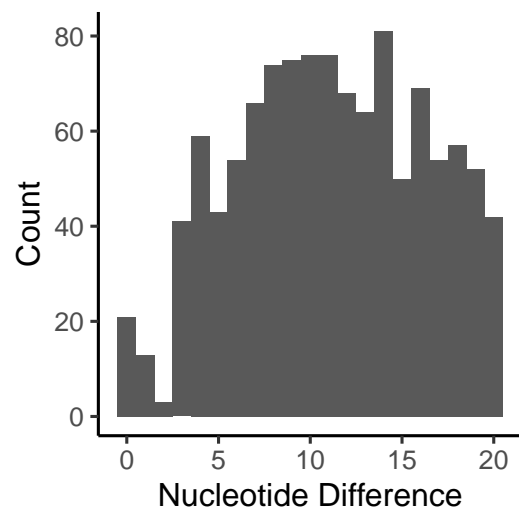
### IGHV3-15\*01\_02

1012 sequences assigned  
4 (0.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



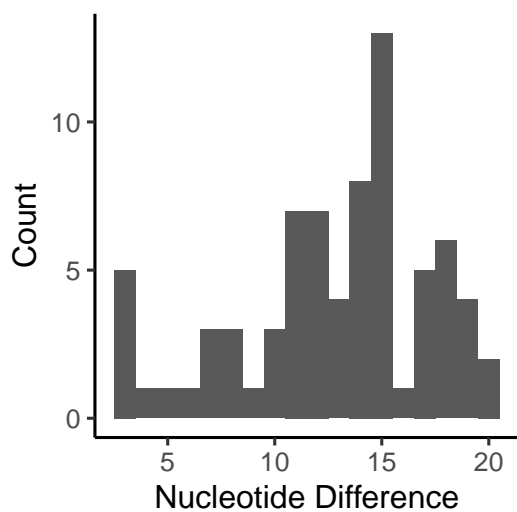
### IGHV3-21\*01\_02

1472 sequences assigned  
21 (1.4%) exact matches, in which:  
9 unique CDR3  
4 unique J



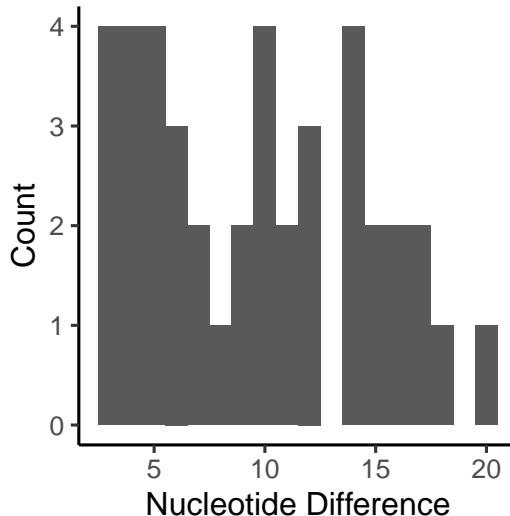
### IGHV3-13\*01

103 sequences assigned  
No exact matches.



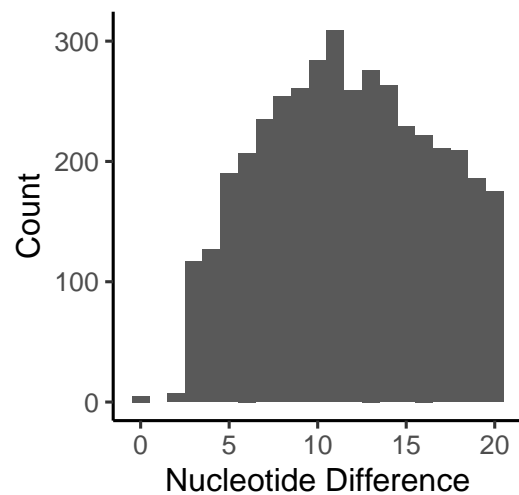
### IGHV3-20\*01\_02

54 sequences assigned  
No exact matches.



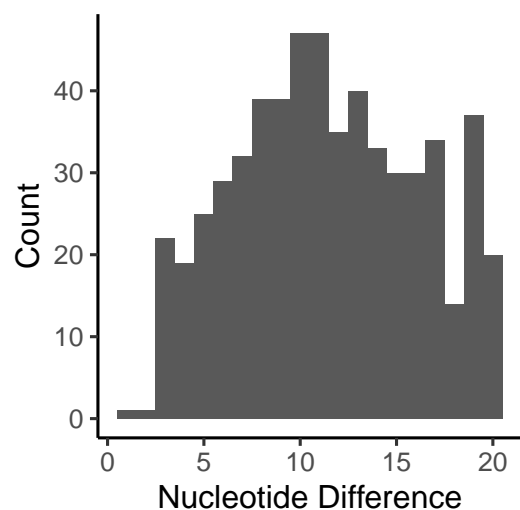
### IGHV3-23\*01\_04

5498 sequences assigned  
5 (0.1%) exact matches, in which:  
3 unique CDR3  
2 unique J



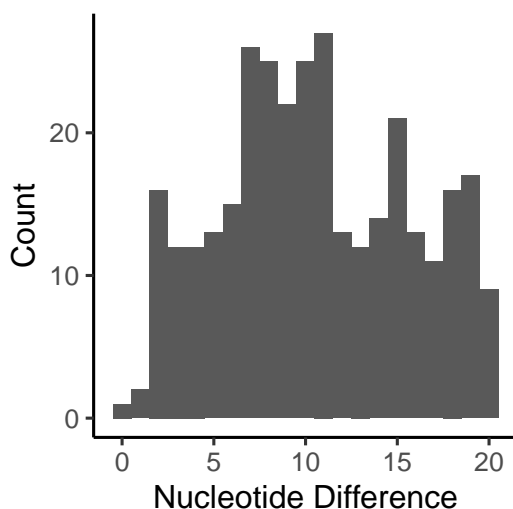
### IGHV3-30-3\*01

778 sequences assigned  
No exact matches.



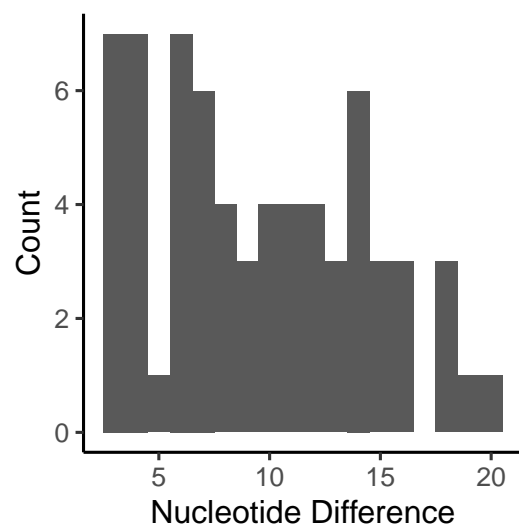
### IGHV3-48\*01

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



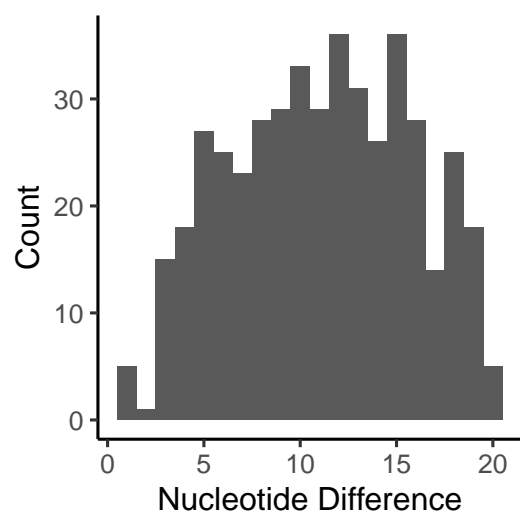
### IGHV3-49\*03\_05

85 sequences assigned  
No exact matches.



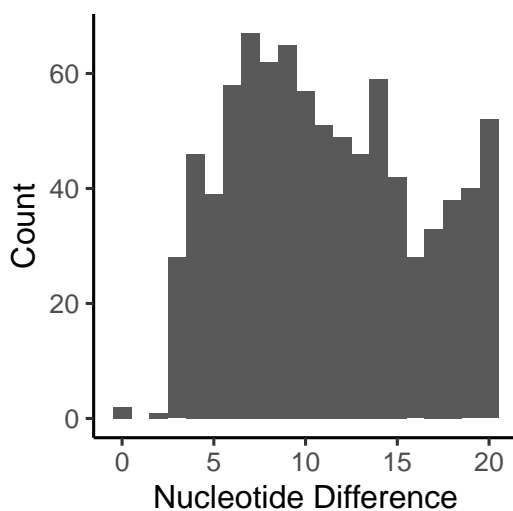
### IGHV3-33\*01

612 sequences assigned  
No exact matches.



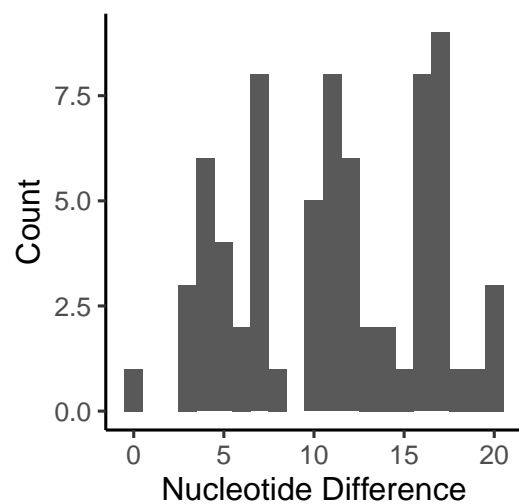
### IGHV3-48\*03

1074 sequences assigned  
2 (0.2%) exact matches, in which:  
2 unique CDR3  
1 unique J



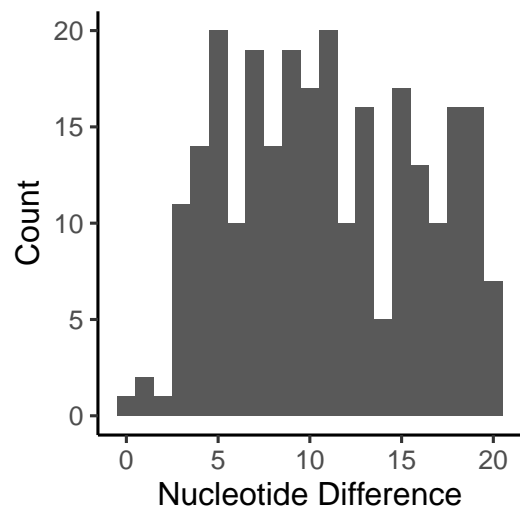
### IGHV3-53\*04

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



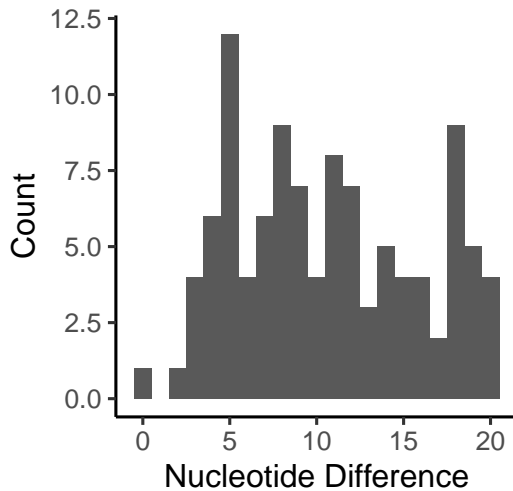
### IGHV3-43\*02

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



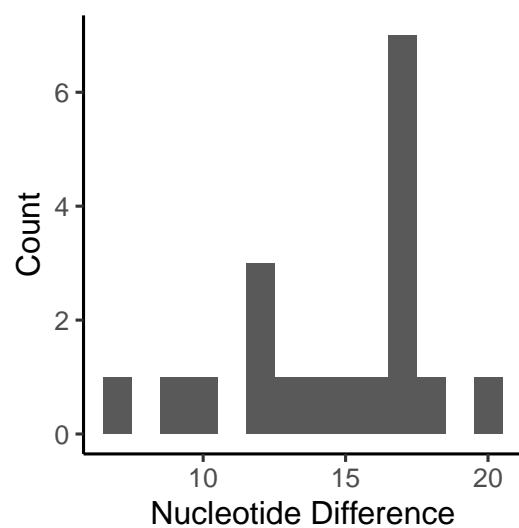
### IGHV3-49\*04

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



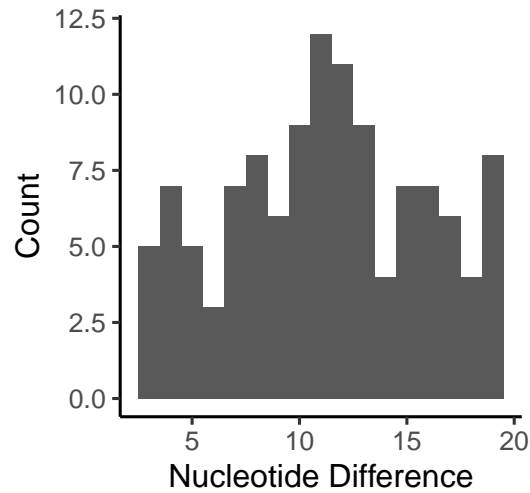
### IGHV3-53\*05

33 sequences assigned  
No exact matches.



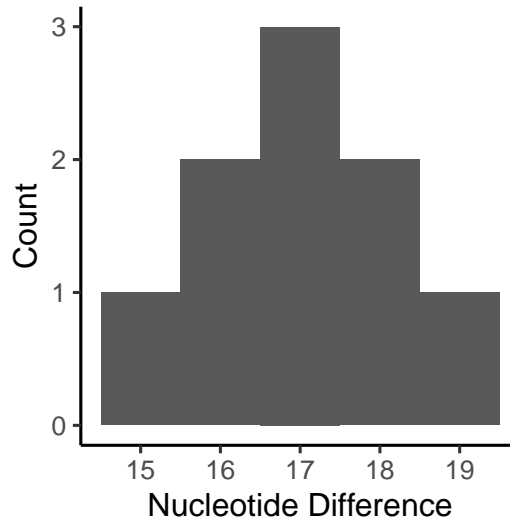
### IGHV3-53\*01\_02

137 sequences assigned  
No exact matches.



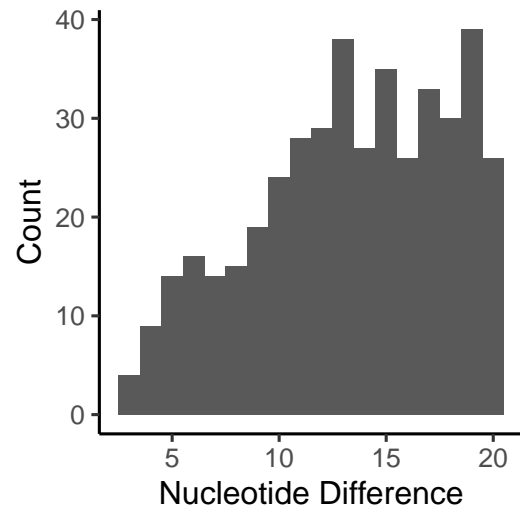
### IGHV3-69-1\*01

18 sequences assigned  
No exact matches.



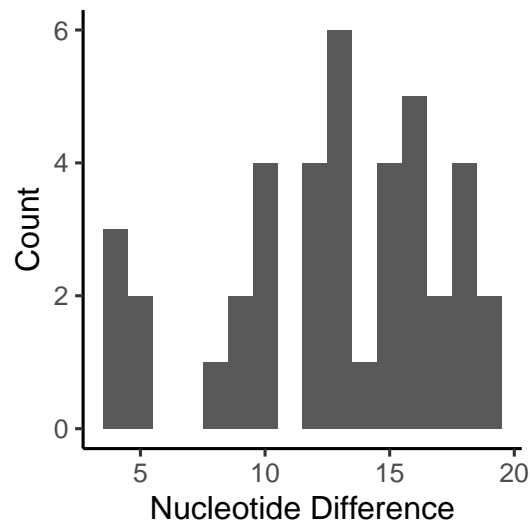
### IGHV3-74\*03

573 sequences assigned  
No exact matches.



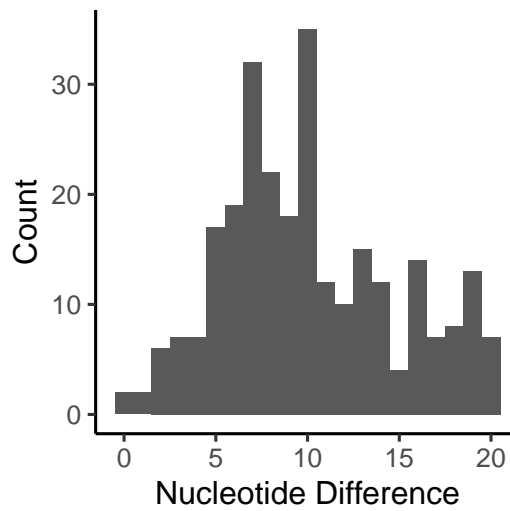
### IGHV3-64\*02\_07

44 sequences assigned  
No exact matches.



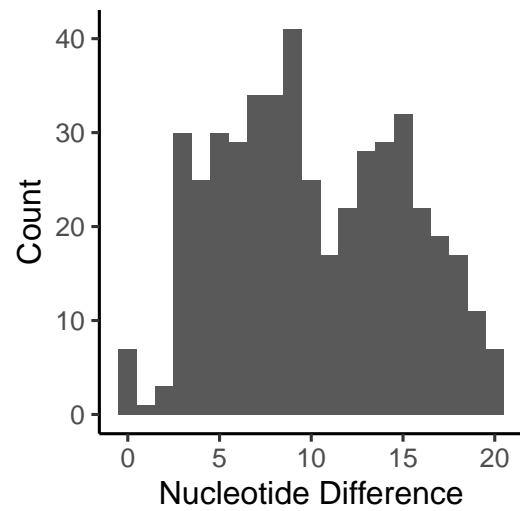
### IGHV3-72\*01

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



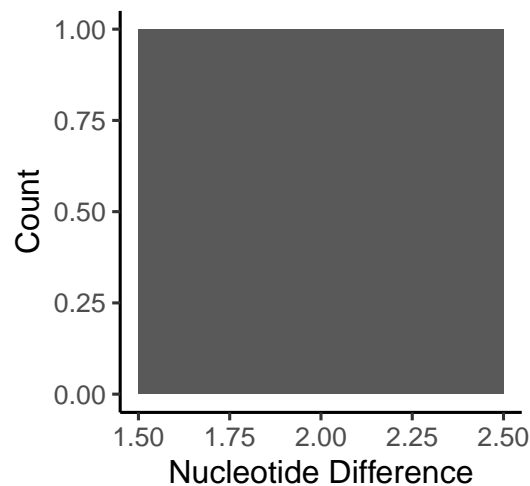
### IGHV3-74\*01\_02

597 sequences assigned  
7 (1.2%) exact matches, in which:  
4 unique CDR3  
2 unique J



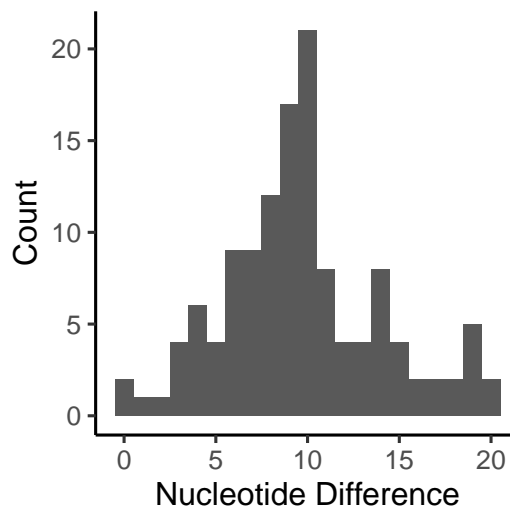
### IGHV3-66\*04

1 sequences assigned  
No exact matches.



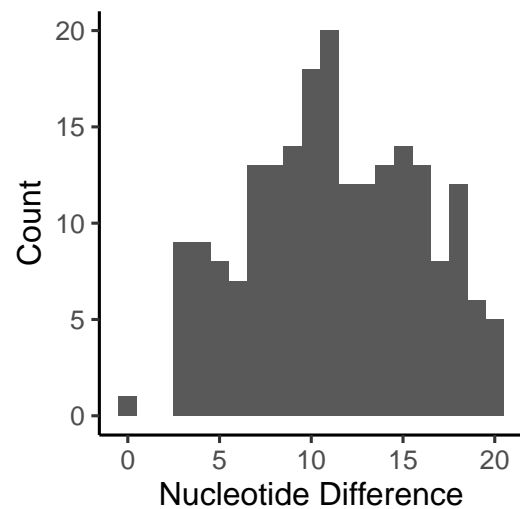
### IGHV3-73\*01\_02

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



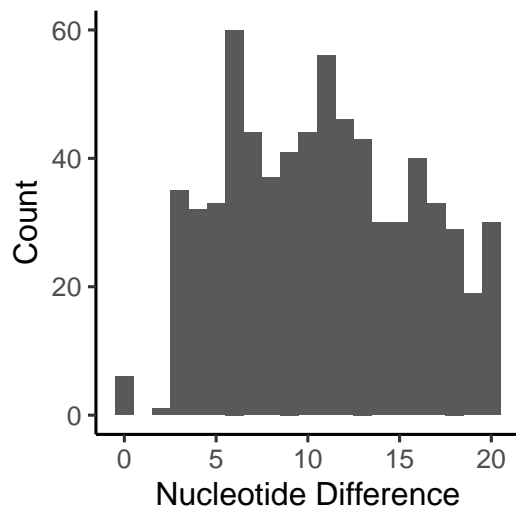
### IGHV3-64D\*06

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



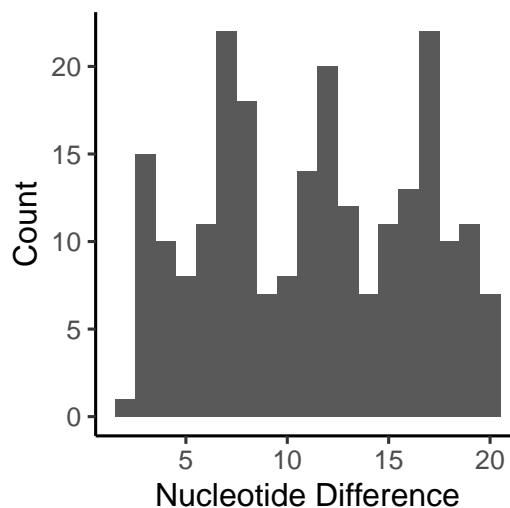
### IGHV4-4\*07

842 sequences assigned  
6 (0.7%) exact matches, in which:  
4 unique CDR3  
2 unique J



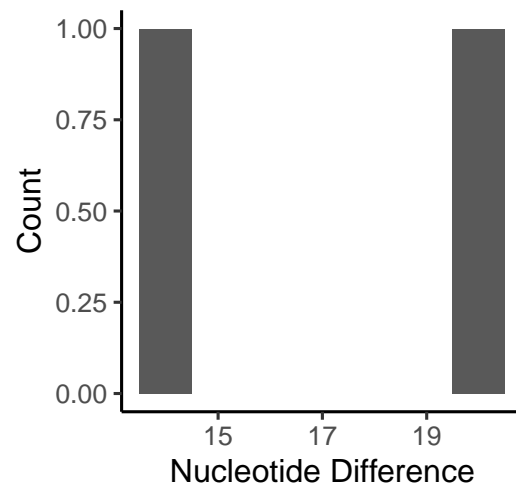
### IGHV4-30-2\*01

401 sequences assigned  
No exact matches.



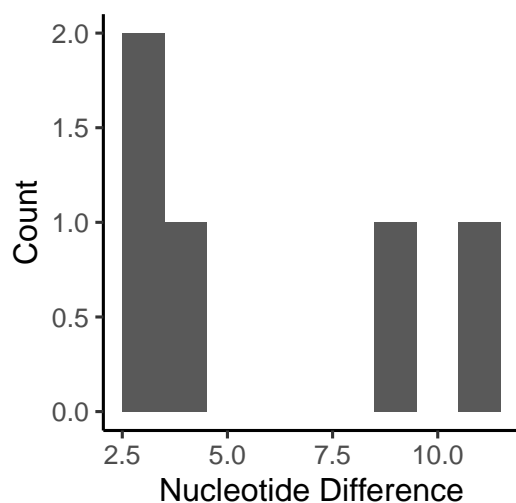
### IGHV4-38-2\*02

14 sequences assigned  
No exact matches.



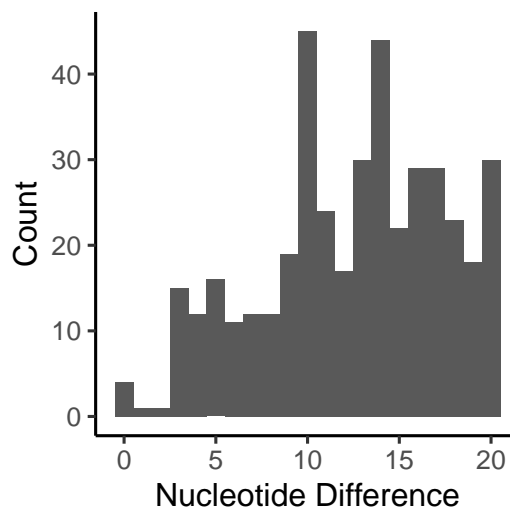
### IGHV4-28\*01\_07

6 sequences assigned  
No exact matches.



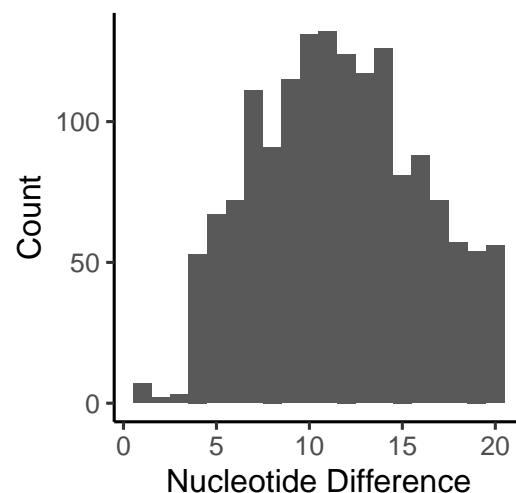
### IGHV4-31\*02

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



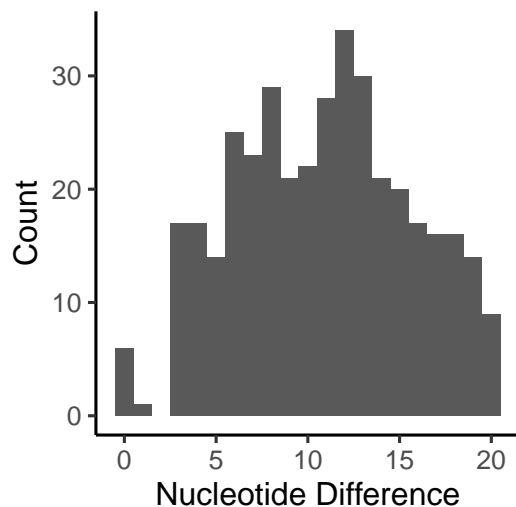
### IGHV4-39\*02

2108 sequences assigned  
No exact matches.



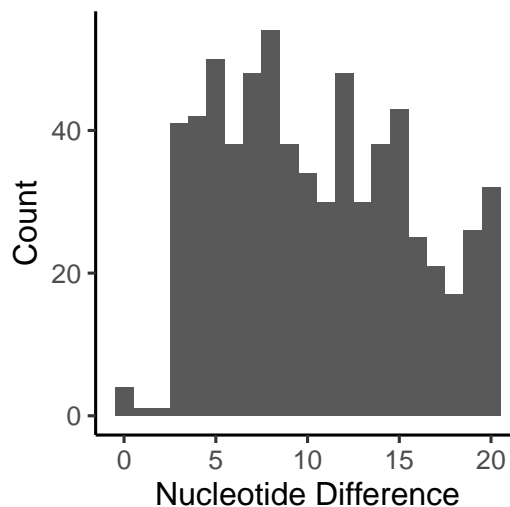
### IGHV4-30-4\*01

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



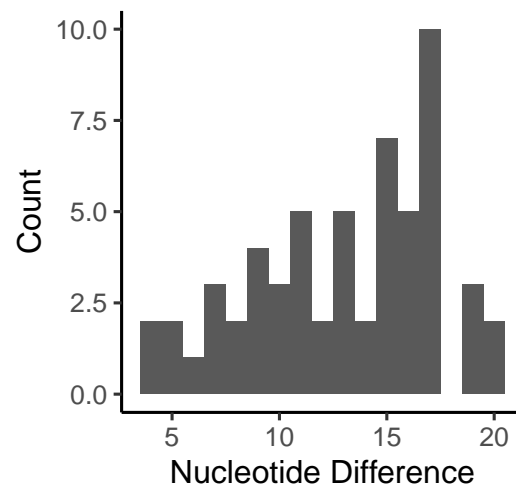
### IGHV4-34\*01\_02

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



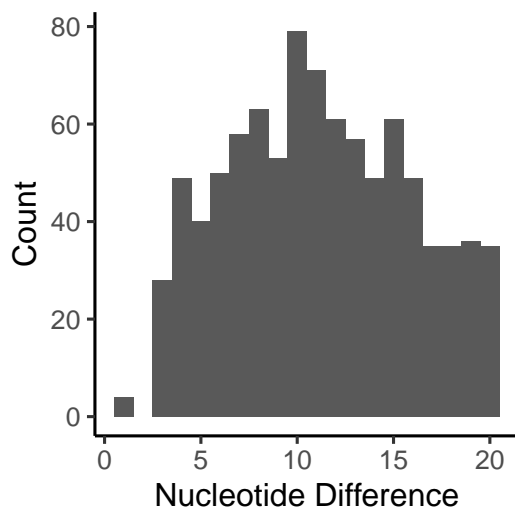
### IGHV4-59\*02

123 sequences assigned  
No exact matches.



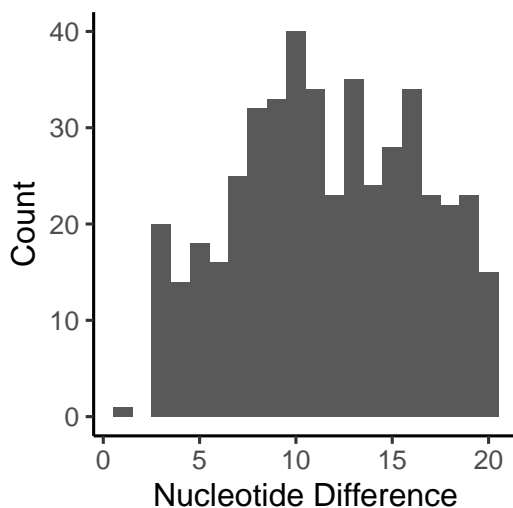
### IGHV4-59\*01\_07

1103 sequences assigned  
No exact matches.



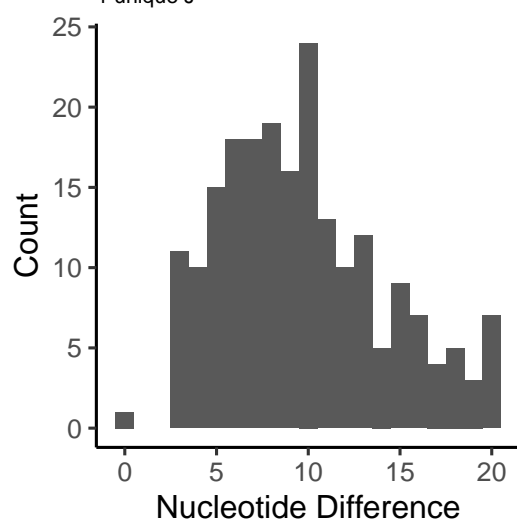
### IGHV4-61\*02

730 sequences assigned  
No exact matches.



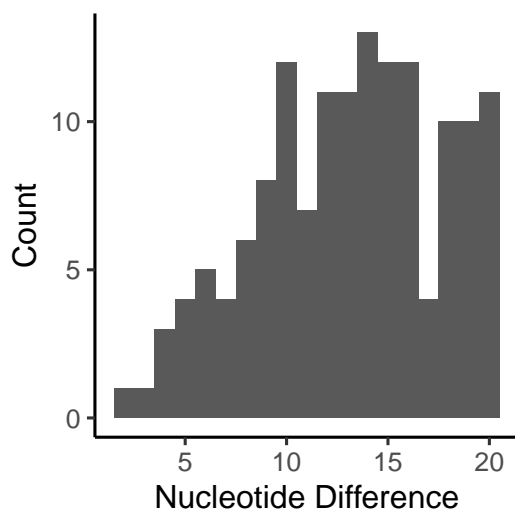
### IGHV5-51\*01\_03

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



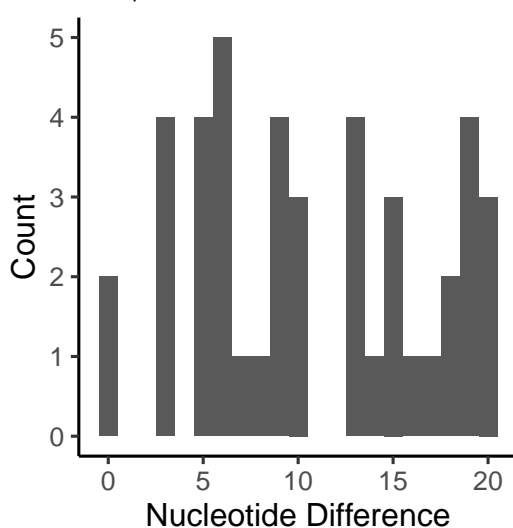
### IGHV4-59\*11

231 sequences assigned  
No exact matches.



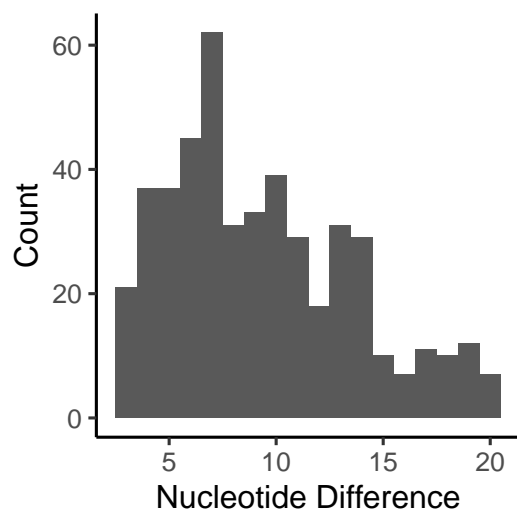
### IGHV5-10-1\*01\_03

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



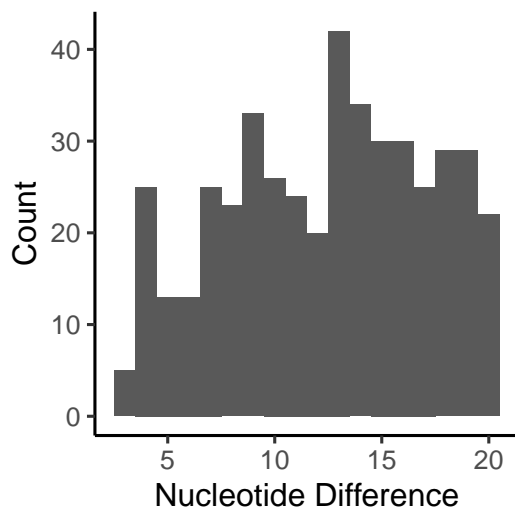
### IGHV6-1\*01\_02

497 sequences assigned  
No exact matches.



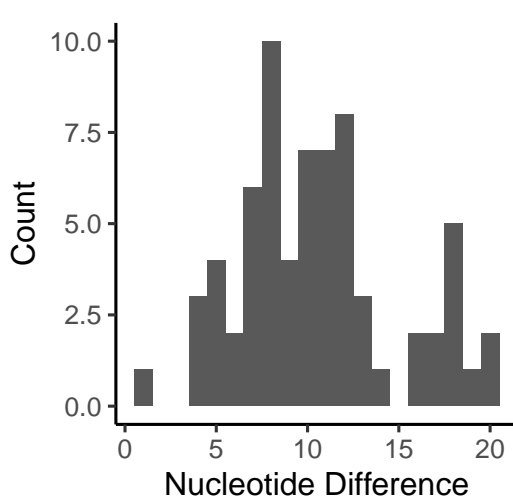
### IGHV4-61\*01

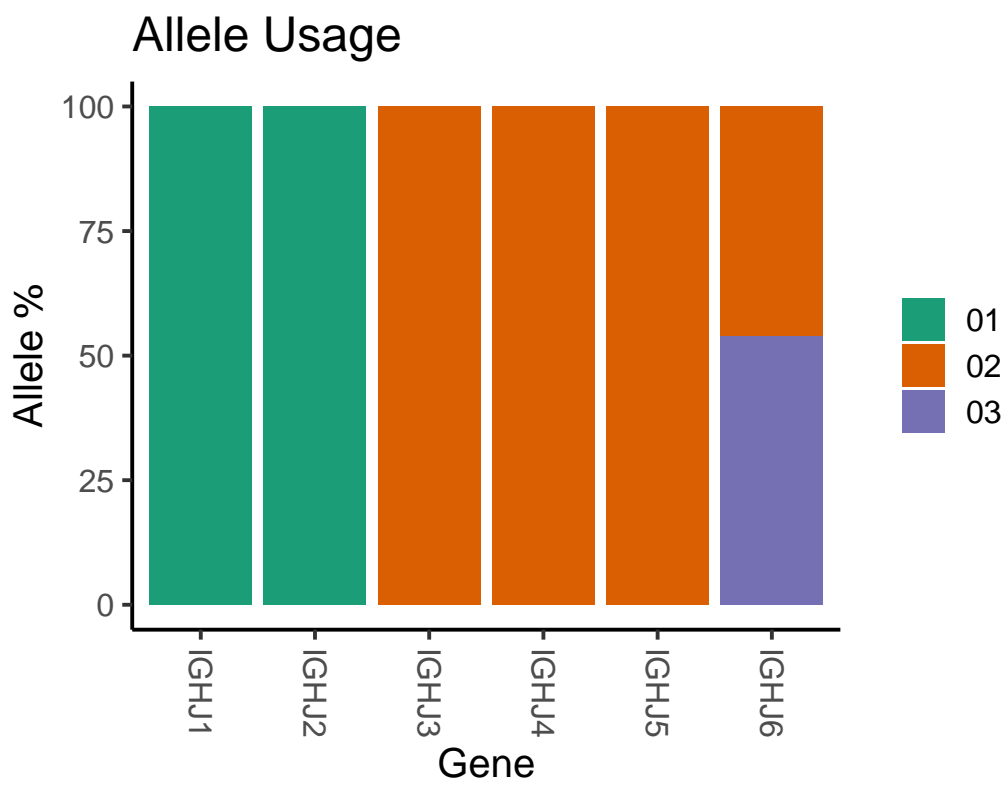
579 sequences assigned  
No exact matches.



### IGHV5-51\*07

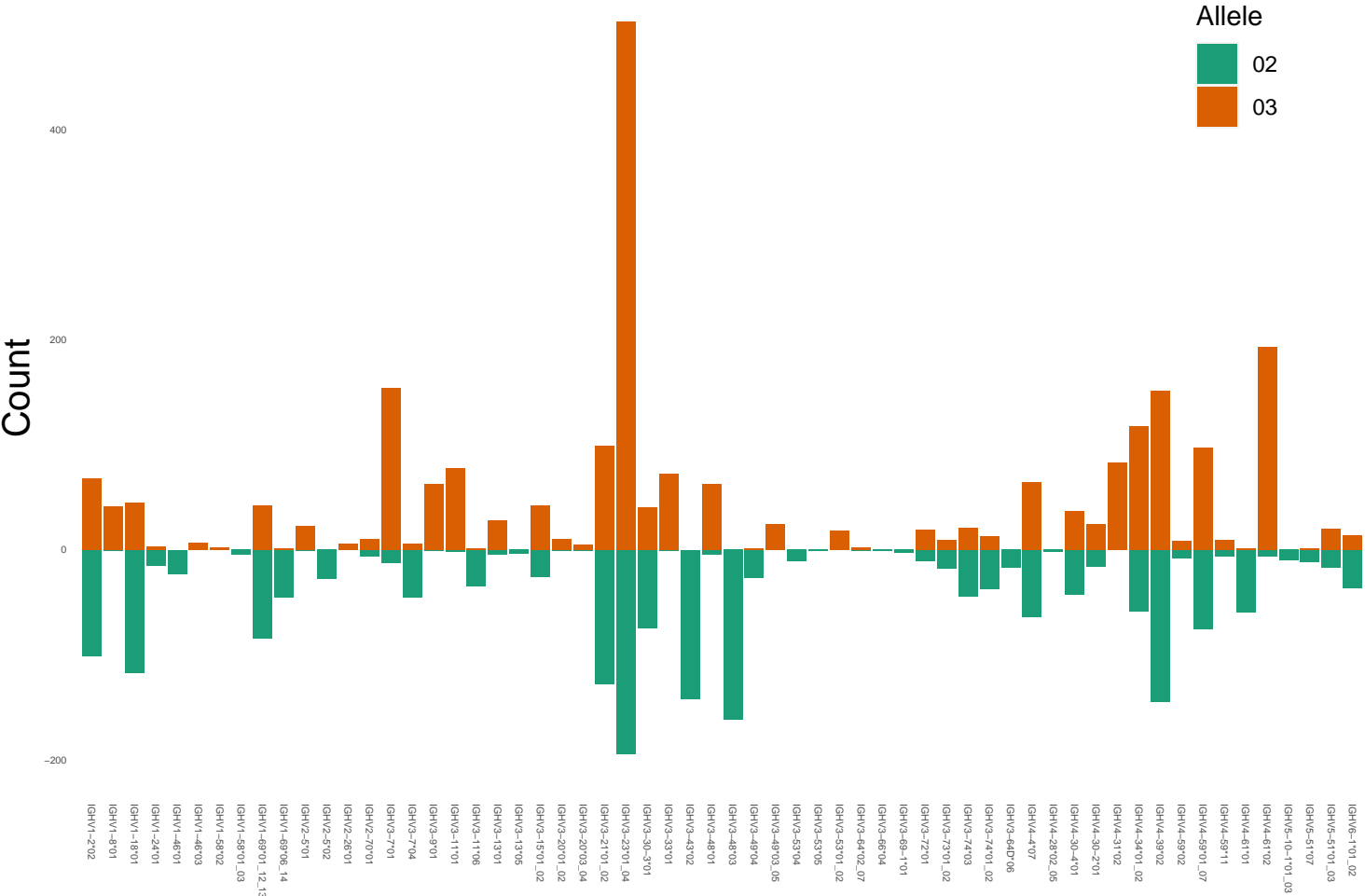
80 sequences assigned  
No exact matches.







Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.