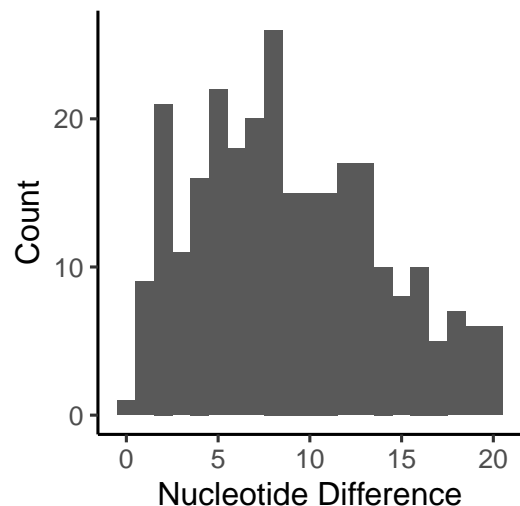


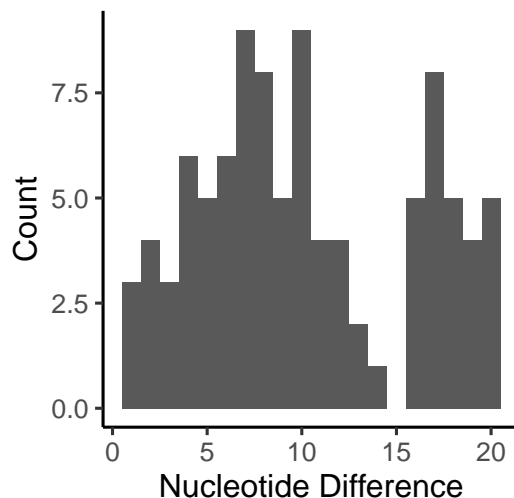
### IGHV1-2\*06

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



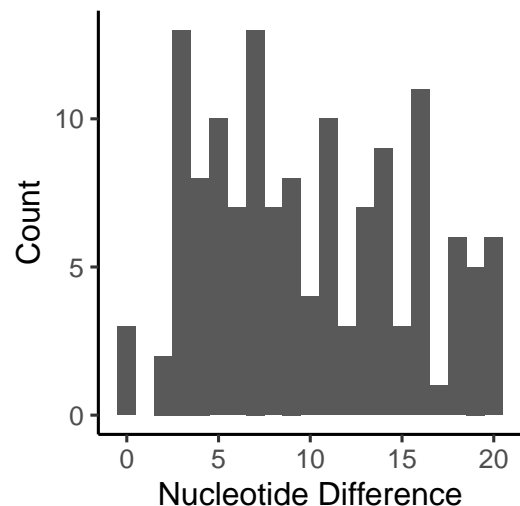
### IGHV1-8\*01

120 sequences assigned  
No exact matches.



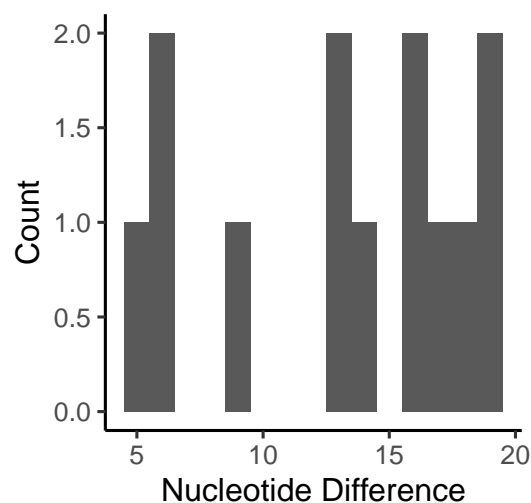
### IGHV1-46\*01

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



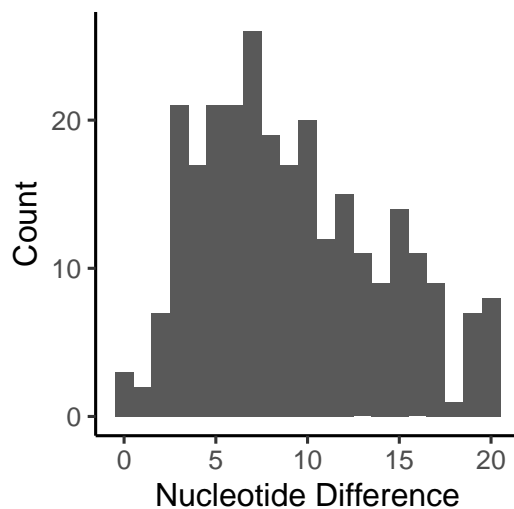
### IGHV1-3\*04

22 sequences assigned  
No exact matches.



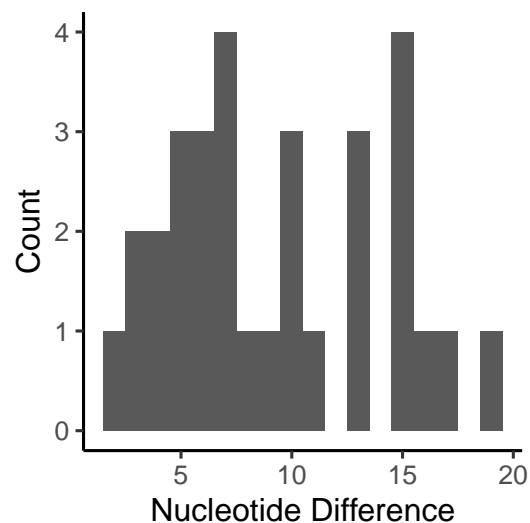
### IGHV1-18\*01

330 sequences assigned  
3 (0.9%) exact matches, in which:  
3 unique CDR3  
2 unique J



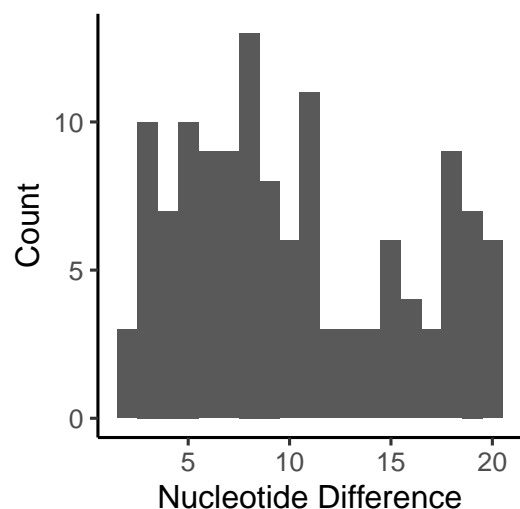
### IGHV1-58\*01\_03

35 sequences assigned  
No exact matches.



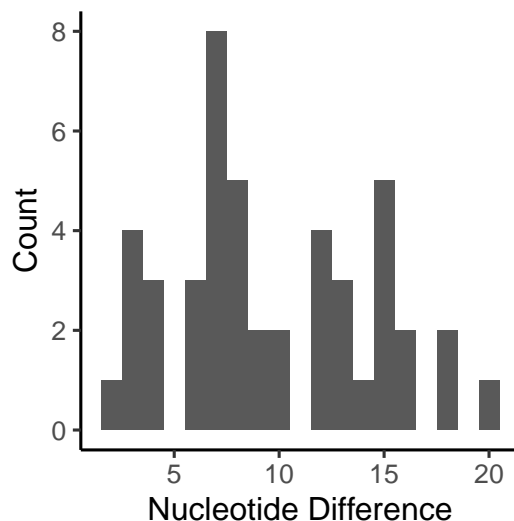
### IGHV1-3\*01\_05

154 sequences assigned  
No exact matches.



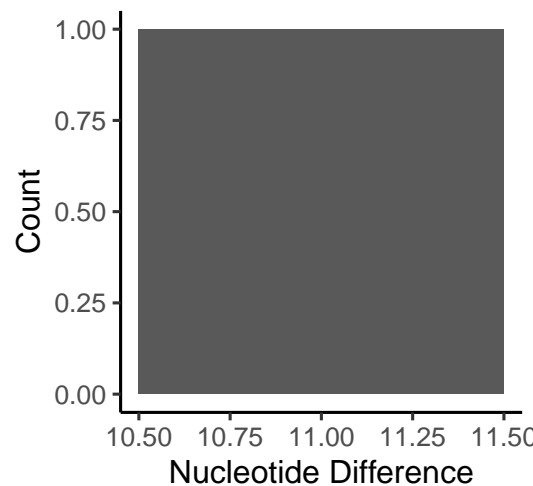
### IGHV1-24\*01

53 sequences assigned  
No exact matches.



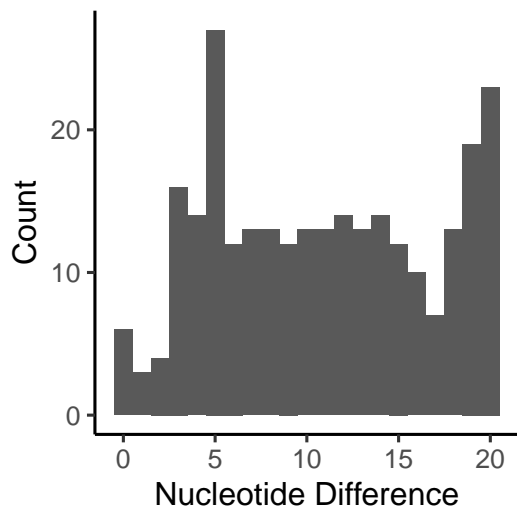
### IGHV1-68\*01

1 sequences assigned  
No exact matches.



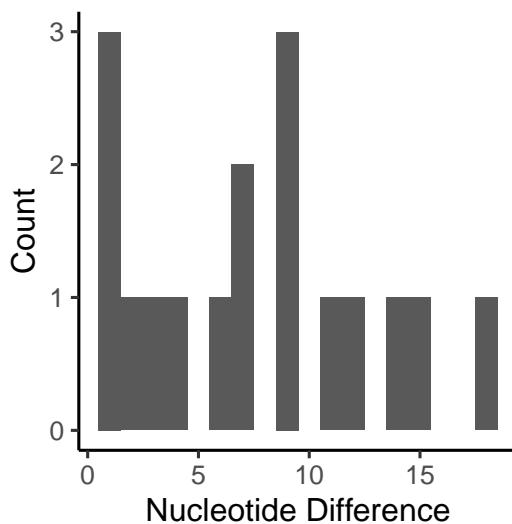
### IGHV1-69\*01\_12\_13

336 sequences assigned  
6 (1.8%) exact matches, in which:  
6 unique CDR3  
2 unique J



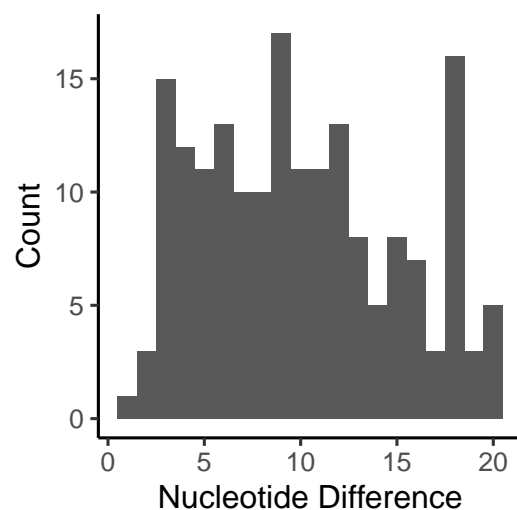
### IGHV2-70\*01

17 sequences assigned  
No exact matches.



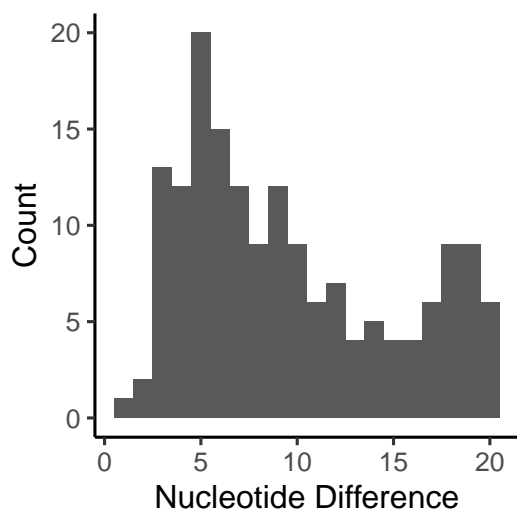
### IGHV3-7\*03

211 sequences assigned  
No exact matches.



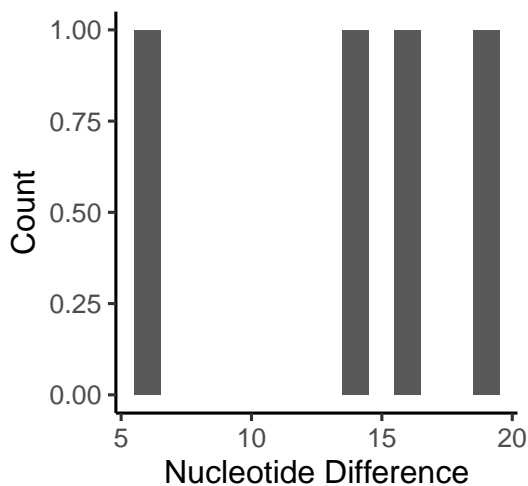
### IGHV2-5\*02

231 sequences assigned  
No exact matches.



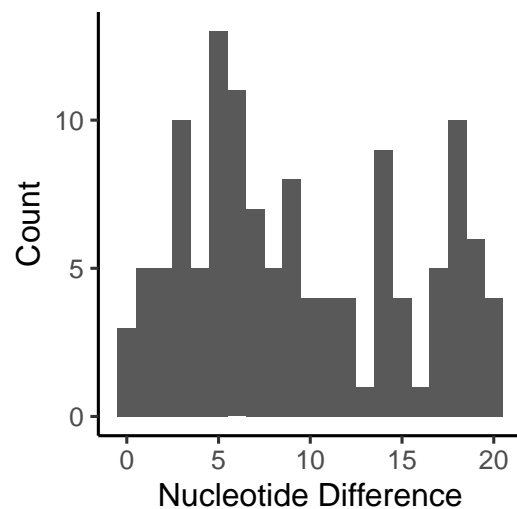
### IGHV2-70\*13

5 sequences assigned  
No exact matches.



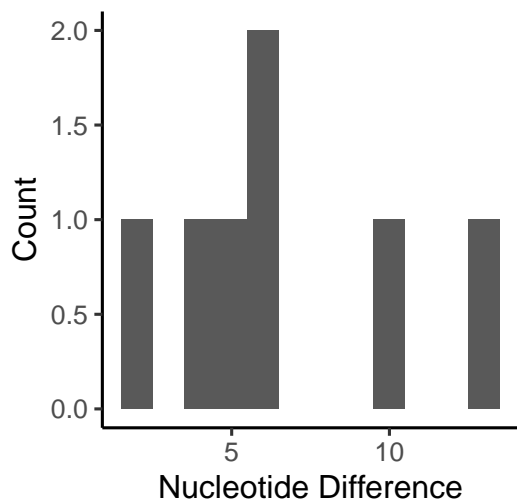
### IGHV3-9\*01

134 sequences assigned  
3 (2.2%) exact matches, in which:  
3 unique CDR3  
2 unique J



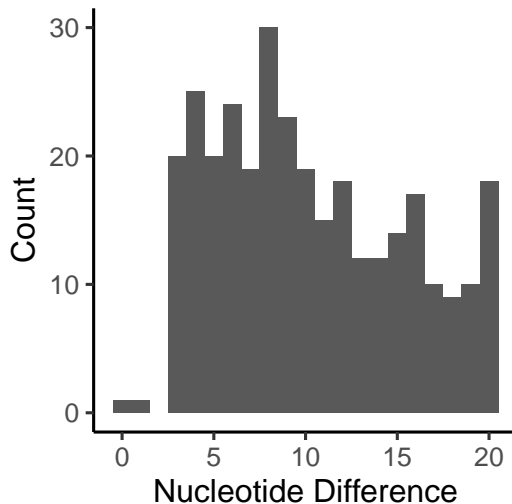
### IGHV2-26\*01

10 sequences assigned  
No exact matches.



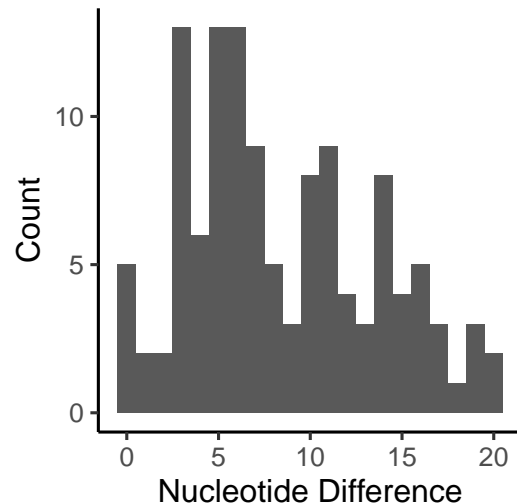
### IGHV3-7\*01

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



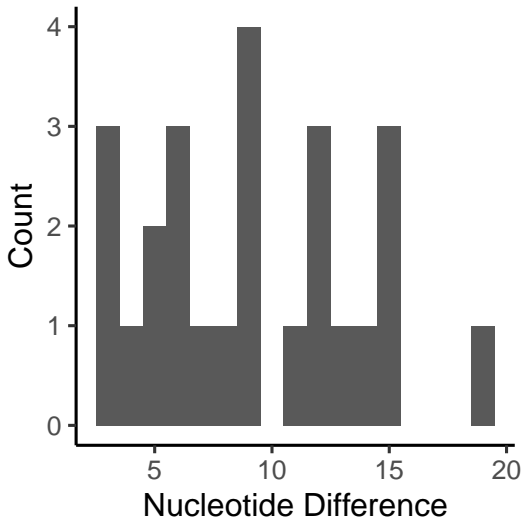
### IGHV3-11\*01

146 sequences assigned  
5 (3.4%) exact matches, in which:  
4 unique CDR3  
3 unique J



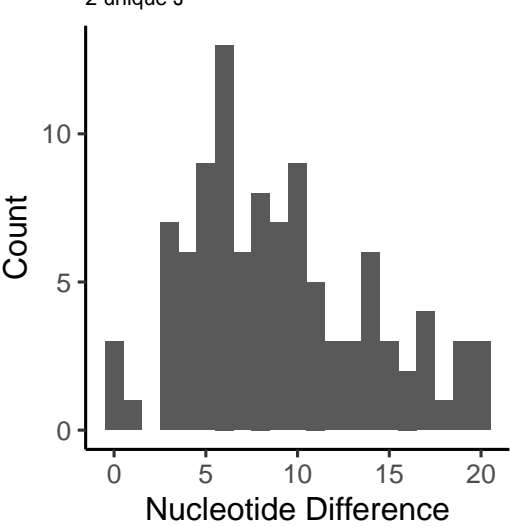
IGHV3-11\*06

27 sequences assigned  
No exact matches.



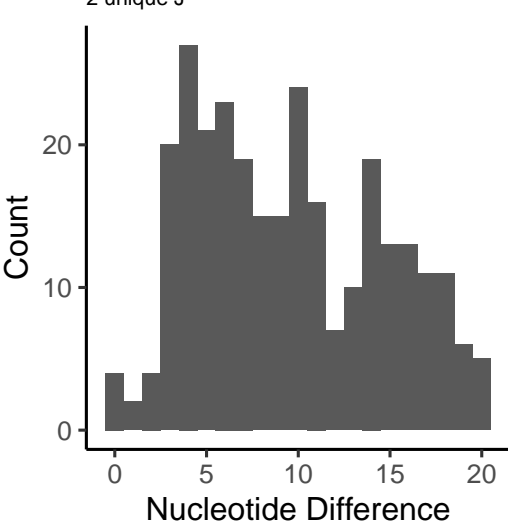
IGHV3-15\*01\_02

114 sequences assigned  
3 (2.6%) exact matches, in which:  
2 unique CDR3  
2 unique J



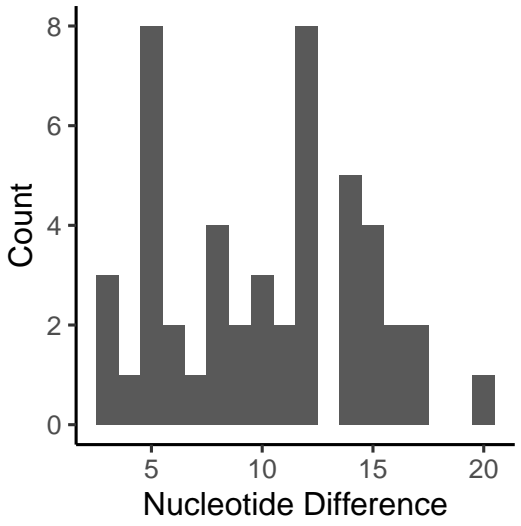
IGHV3-21\*01\_02

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



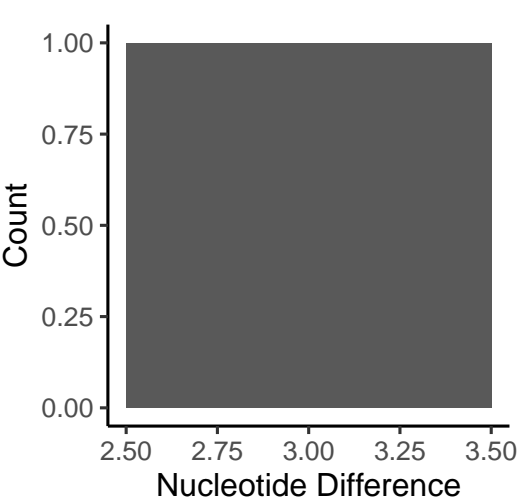
IGHV3-13\*01

54 sequences assigned  
No exact matches.



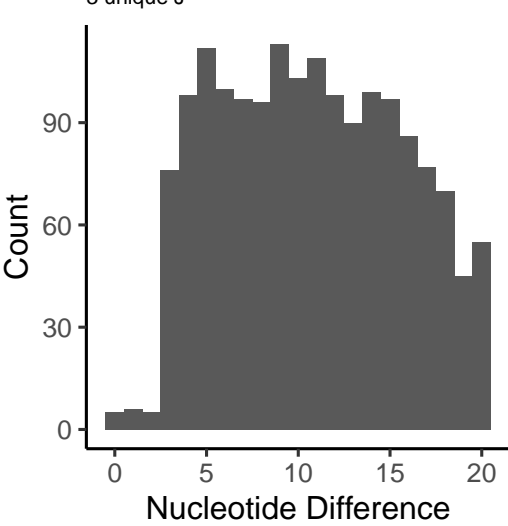
IGHV3-20\*01\_02

1 sequences assigned  
No exact matches.



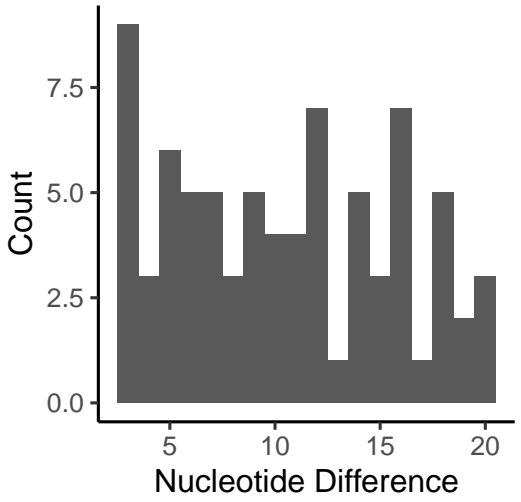
IGHV3-23\*01\_04

1906 sequences assigned  
5 (0.3%) exact matches, in which:  
5 unique CDR3  
3 unique J



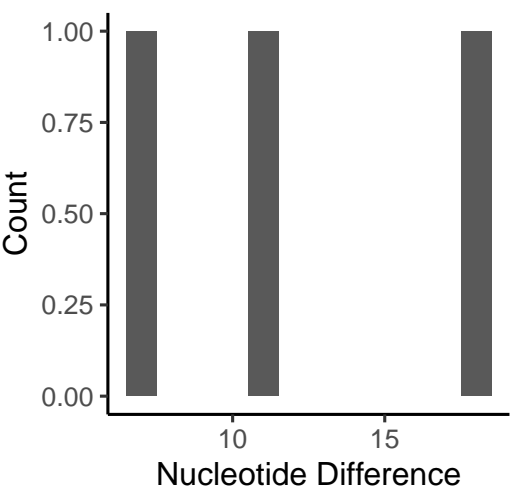
IGHV3-15\*07

96 sequences assigned  
No exact matches.



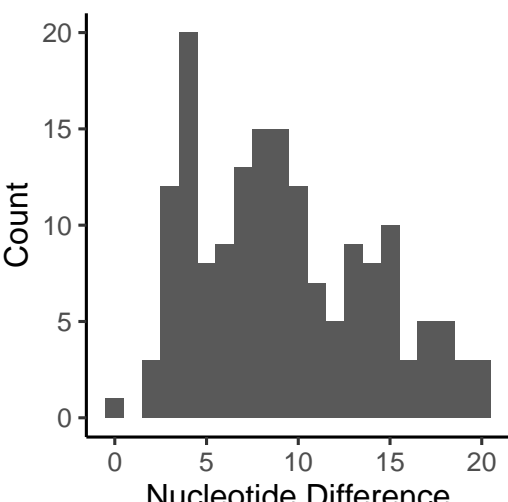
IGHV3-20\*03\_04

3 sequences assigned  
No exact matches.



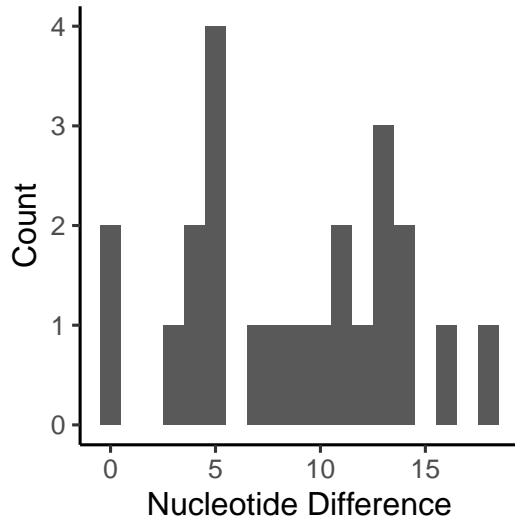
IGHV3-33\*01

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



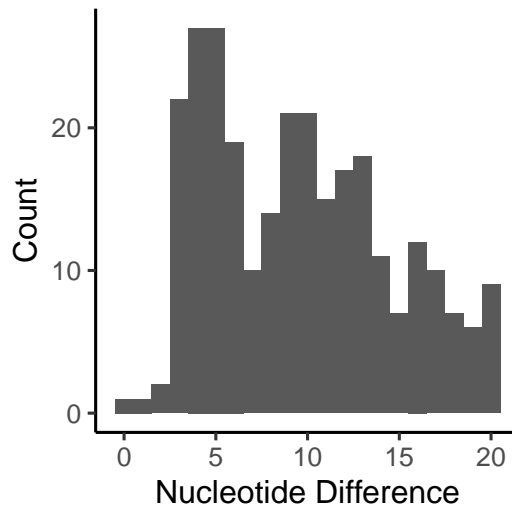
### IGHV3-43\*01

27 sequences assigned  
2 (7.4%) exact matches, in which:  
2 unique CDR3  
1 unique J



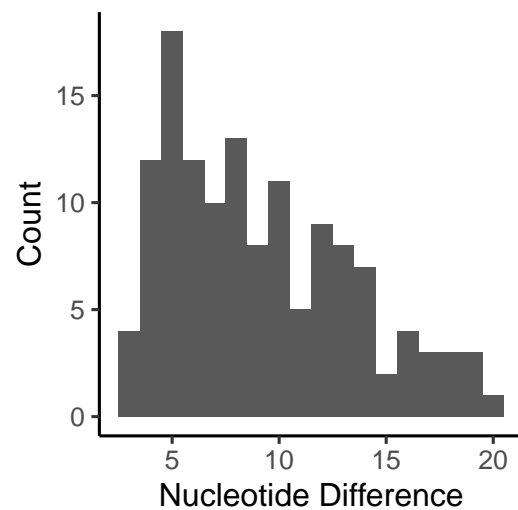
### IGHV3-53\*01\_02

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



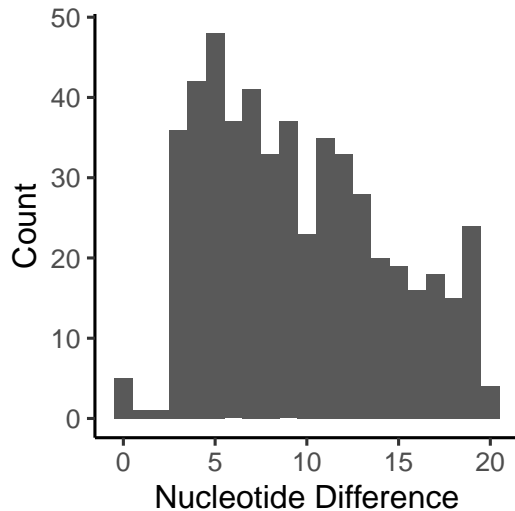
### IGHV3-72\*01

150 sequences assigned  
No exact matches.



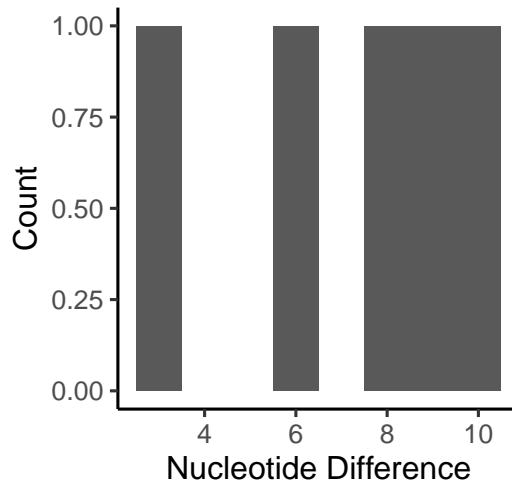
### IGHV3-48\*02

593 sequences assigned  
5 (0.8%) exact matches, in which:  
5 unique CDR3  
1 unique J



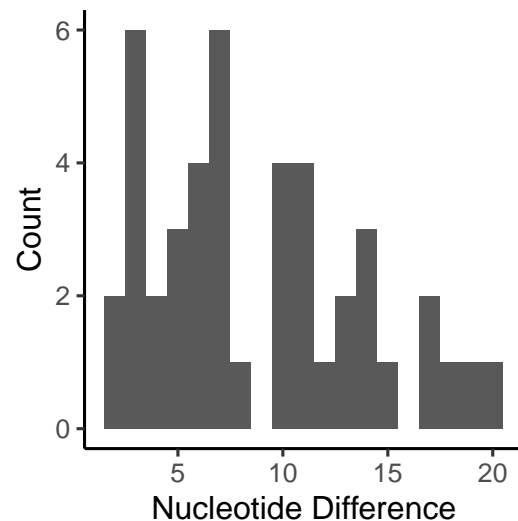
### IGHV3-64\*02\_07

5 sequences assigned  
No exact matches.



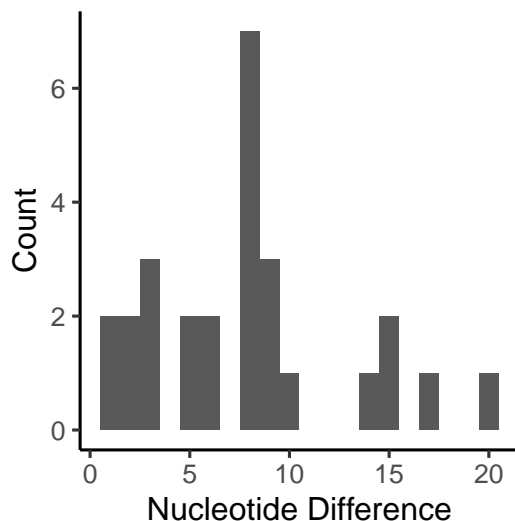
### IGHV3-73\*01\_02

50 sequences assigned  
No exact matches.



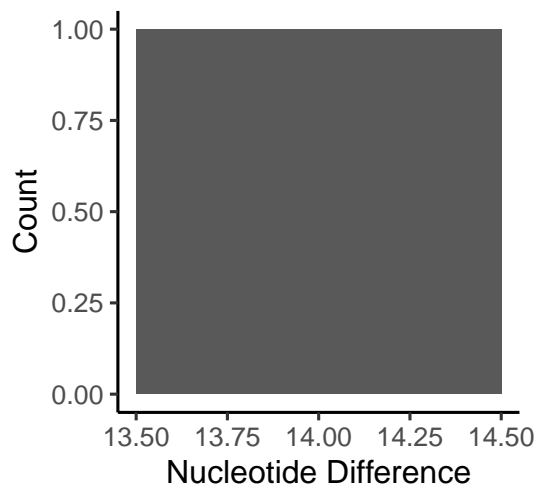
### IGHV3-49\*03\_05

36 sequences assigned  
No exact matches.



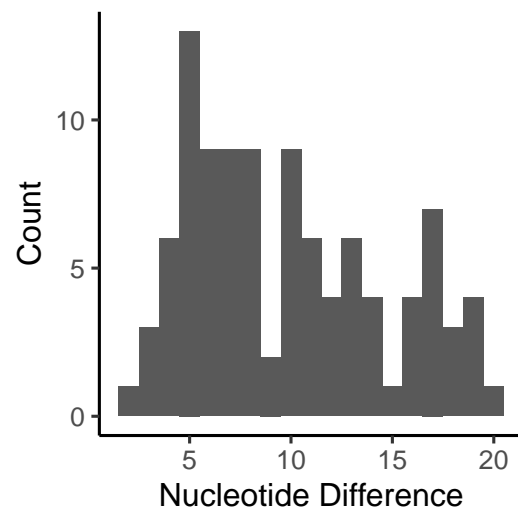
### IGHV3-66\*04

1 sequences assigned  
No exact matches.



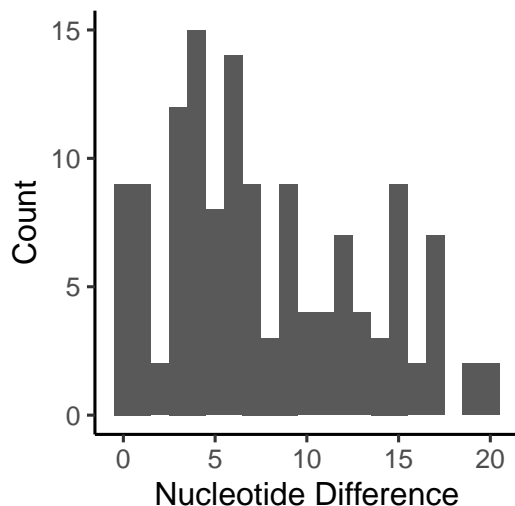
### IGHV3-74\*03

125 sequences assigned  
No exact matches.



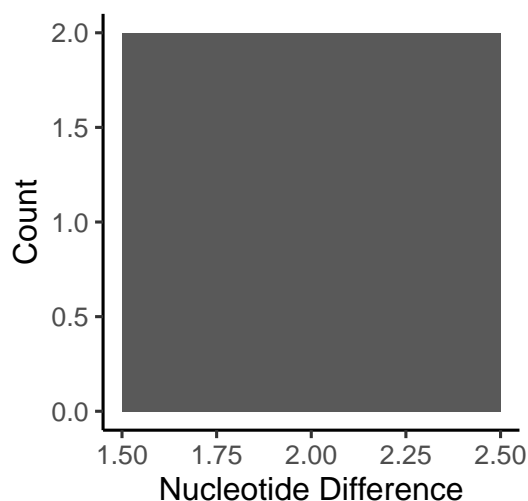
### IGHV3-74\*01\_02

147 sequences assigned  
9 (6.1%) exact matches, in which:  
7 unique CDR3  
2 unique J



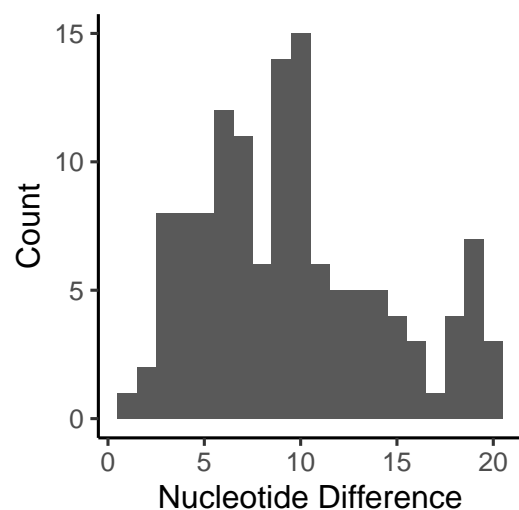
### IGHV4-28\*03

2 sequences assigned  
No exact matches.



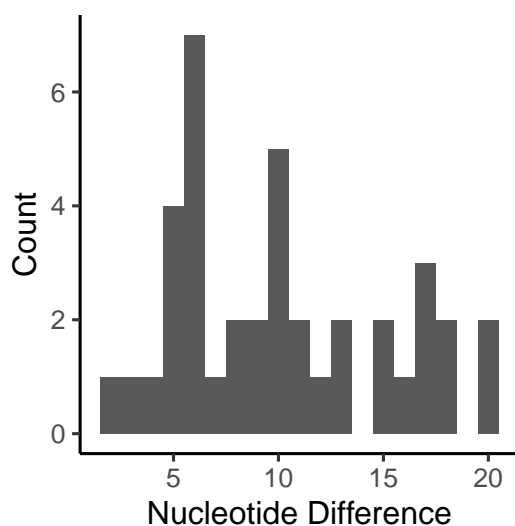
### IGHV4-31\*02

179 sequences assigned  
No exact matches.



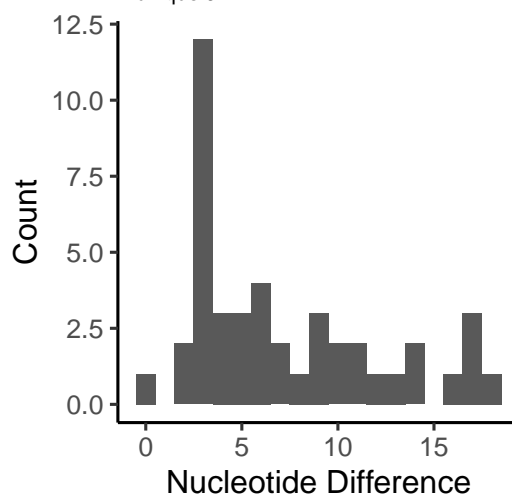
### IGHV3-64D\*06

46 sequences assigned  
No exact matches.



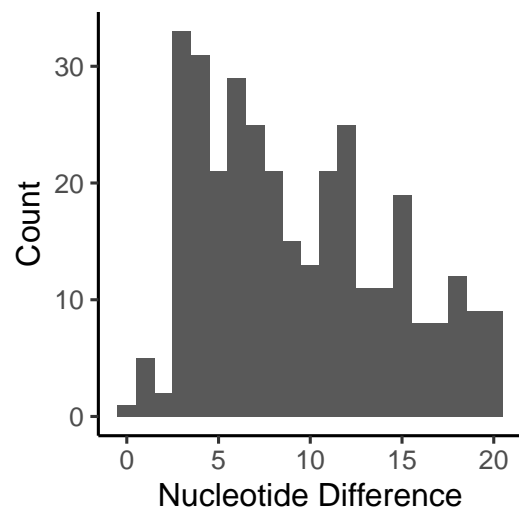
### IGHV4-30-2\*01

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



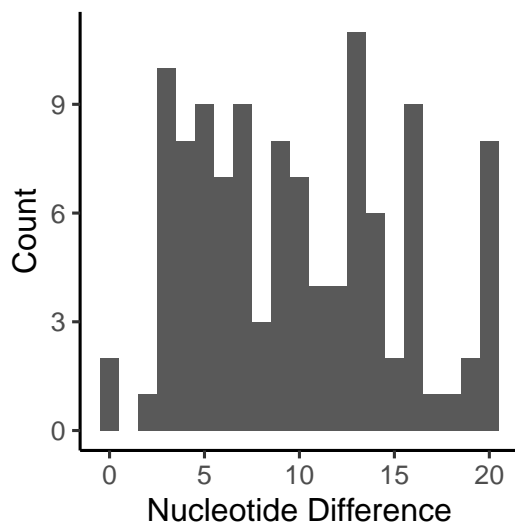
### IGHV4-34\*01\_02

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



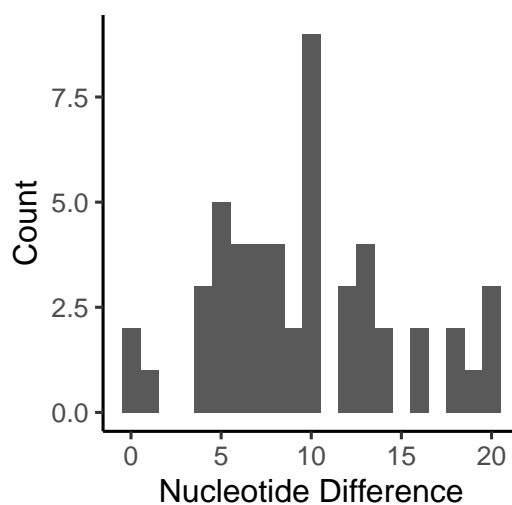
### IGHV4-4\*02\_03

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



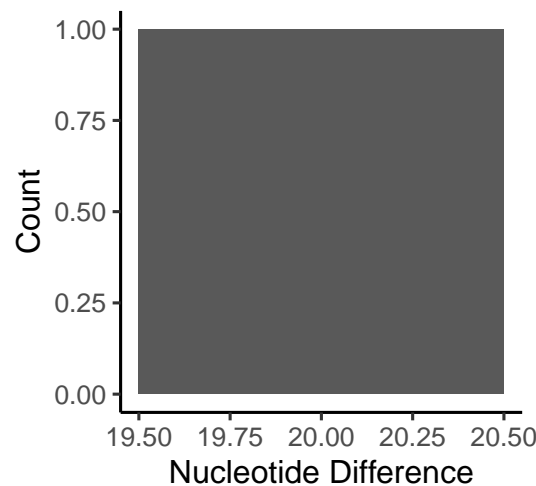
### IGHV4-30-4\*07

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



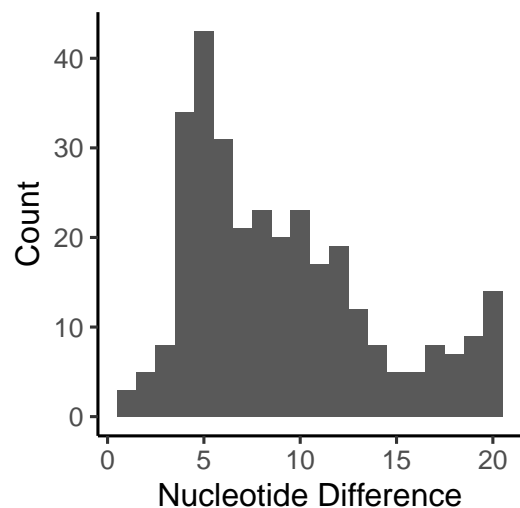
### IGHV4-38-2\*02

2 sequences assigned  
No exact matches.



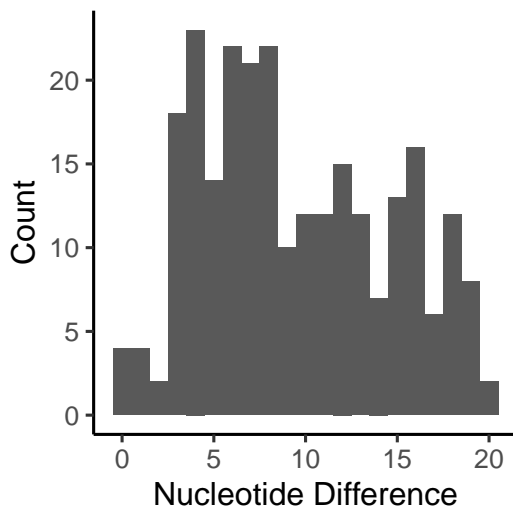
### IGHV4-39\*02

387 sequences assigned  
No exact matches.



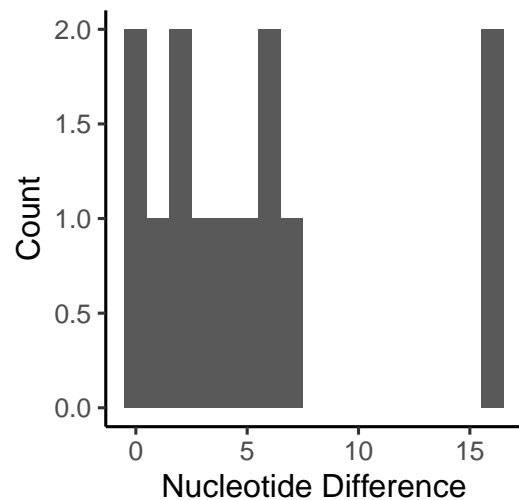
### IGHV4-59\*01\_07

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



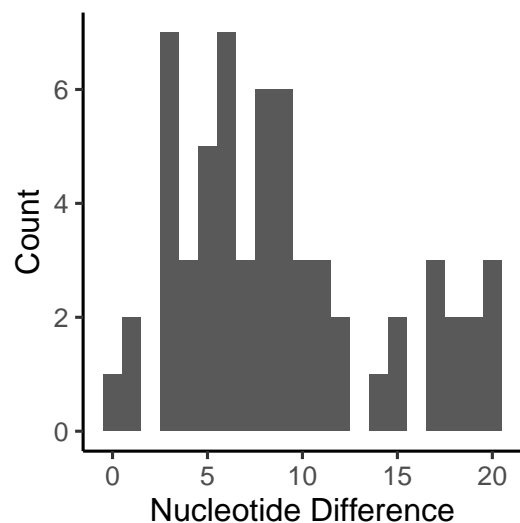
### IGHV5-10-1\*01\_03

15 sequences assigned  
2 (13.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



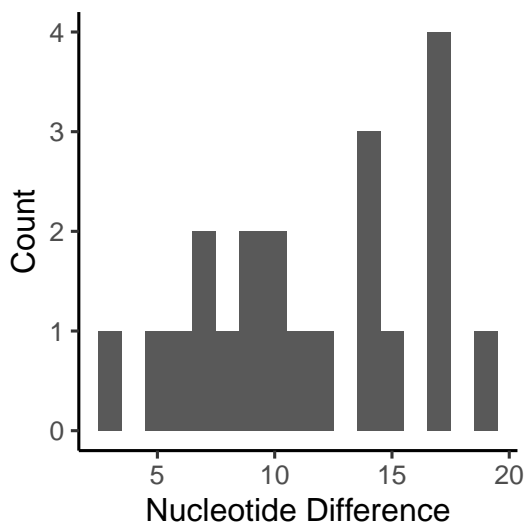
### IGHV4-39\*01\_05

70 sequences assigned  
1 (1.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



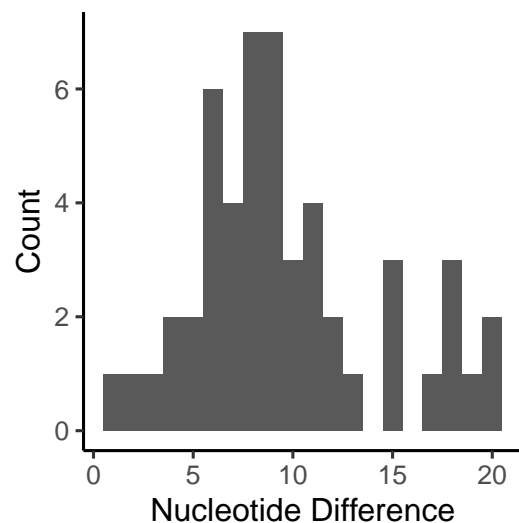
### IGHV4-59\*11

30 sequences assigned  
No exact matches.



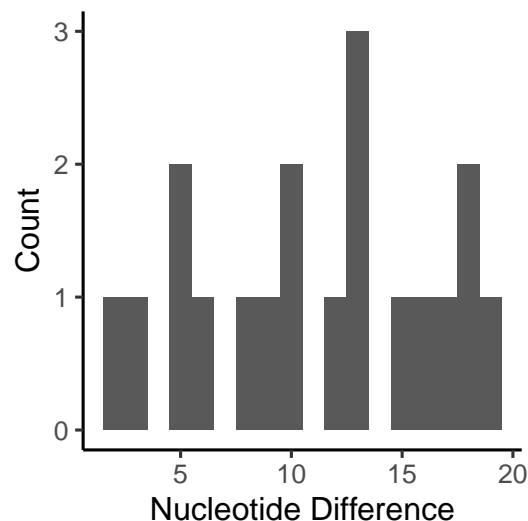
### IGHV5-51\*07

54 sequences assigned  
No exact matches.



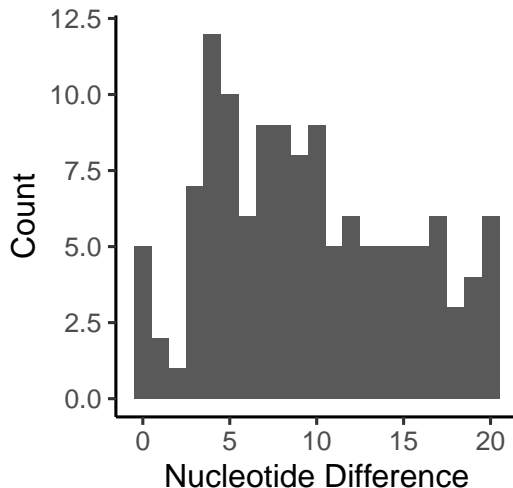
### IGHV4-59\*02

29 sequences assigned  
No exact matches.



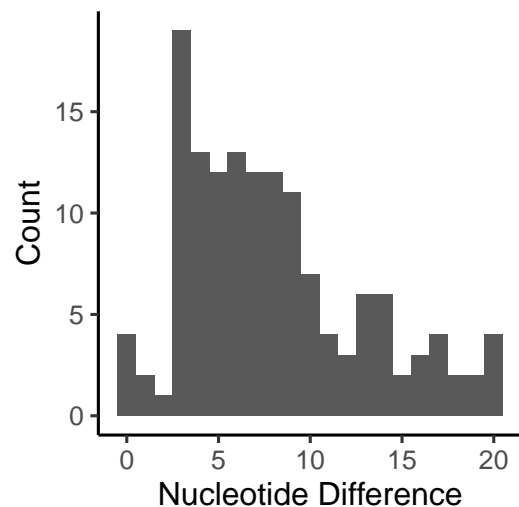
### IGHV4-61\*01

152 sequences assigned  
5 (3.3%) exact matches, in which:  
5 unique CDR3  
3 unique J



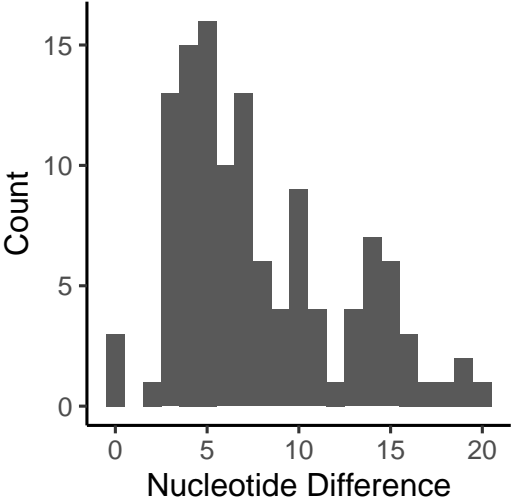
### IGHV5-51\*01\_03

160 sequences assigned  
4 (2.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



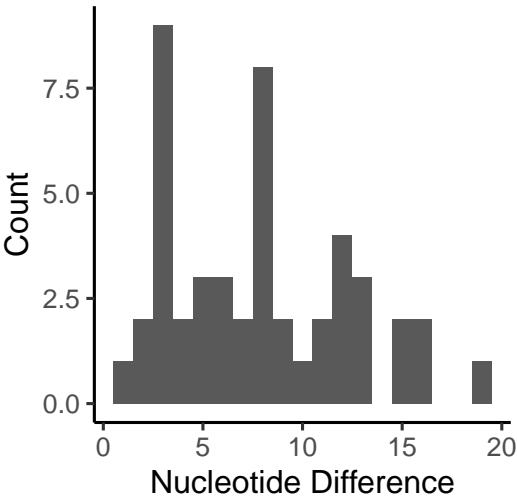
# IGHV6-1\*01\_02

129 sequences assigned  
3 (2.3%) exact matches, in which:  
3 unique CDR3  
1 unique J



# IGHV7-4-1\*02

50 sequences assigned  
No exact matches.







[illegible]