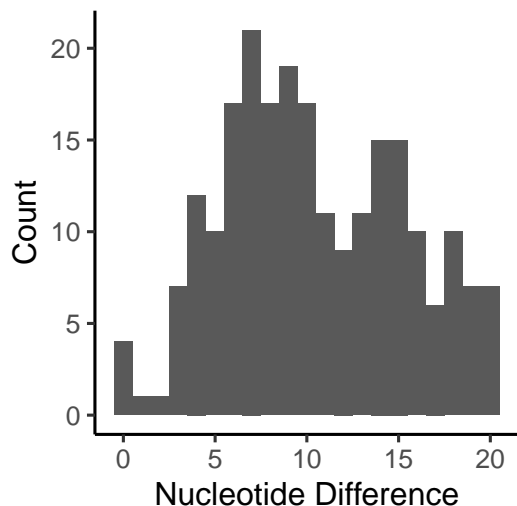


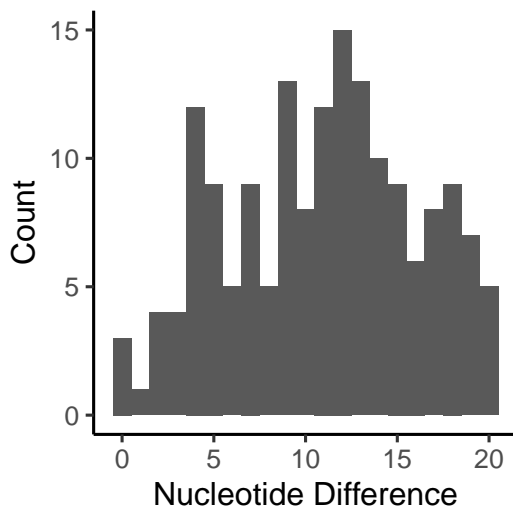
### IGHV1-2\*02

267 sequences assigned  
4 (1.5%) exact matches, in which:  
2 unique CDR3  
2 unique J



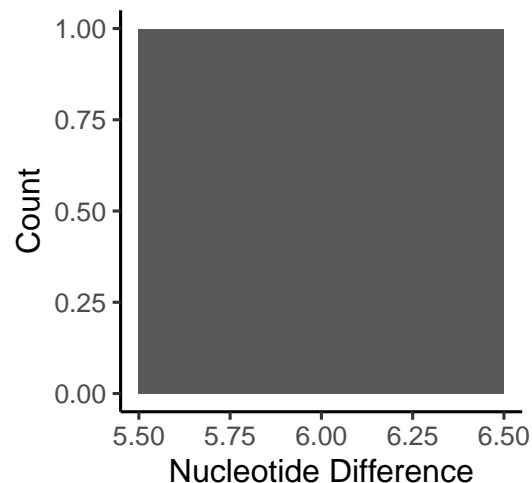
### IGHV1-18\*01

217 sequences assigned  
3 (1.4%) exact matches, in which:  
3 unique CDR3  
2 unique J



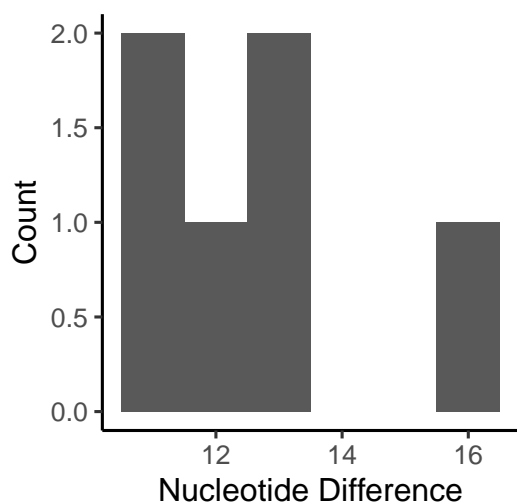
### IGHV1-45\*02

1 sequences assigned  
No exact matches.



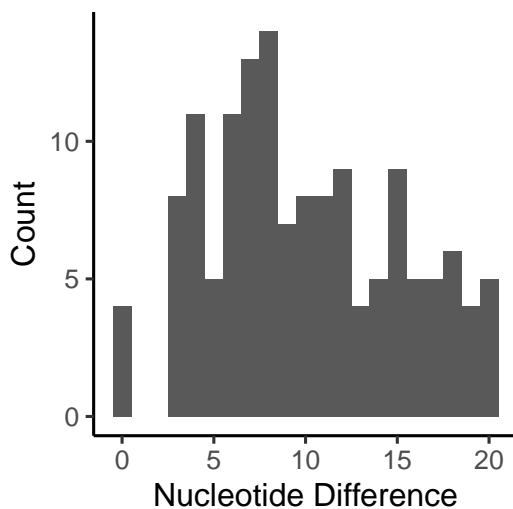
### IGHV1-3\*04

9 sequences assigned  
No exact matches.



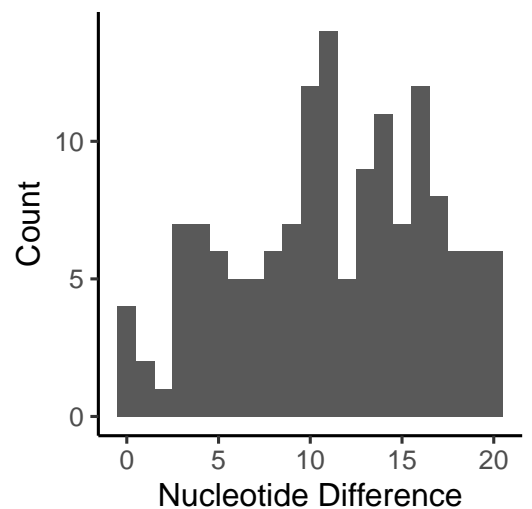
### IGHV1-18\*04

156 sequences assigned  
4 (2.6%) exact matches, in which:  
4 unique CDR3  
2 unique J



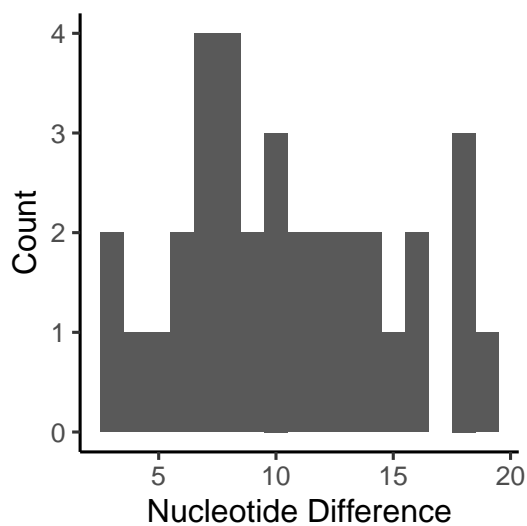
### IGHV1-46\*01

185 sequences assigned  
4 (2.2%) exact matches, in which:  
4 unique CDR3  
3 unique J



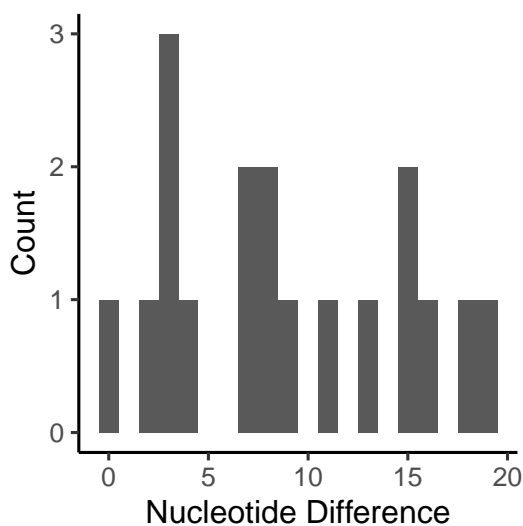
### IGHV1-3\*01\_05

38 sequences assigned  
No exact matches.



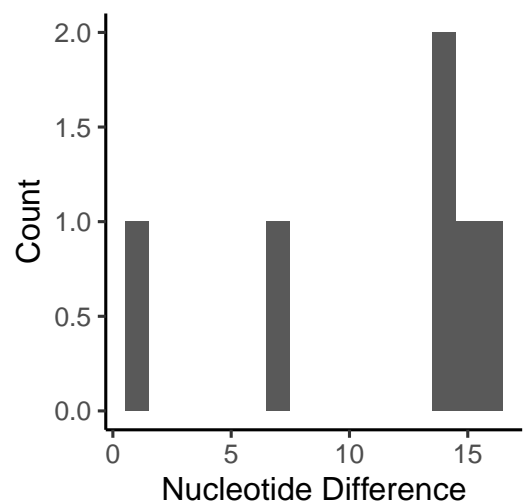
### IGHV1-24\*01

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



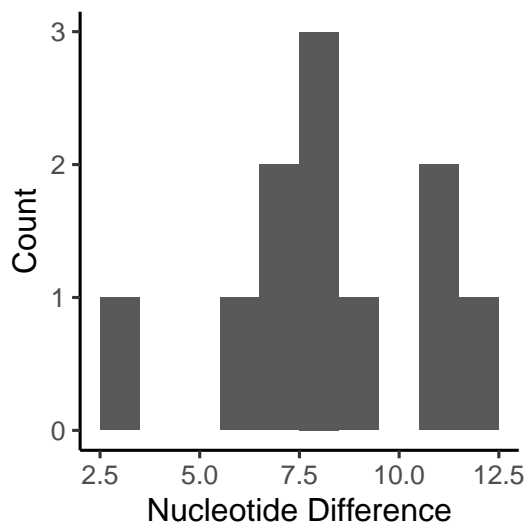
### IGHV1-58\*02

6 sequences assigned  
No exact matches.



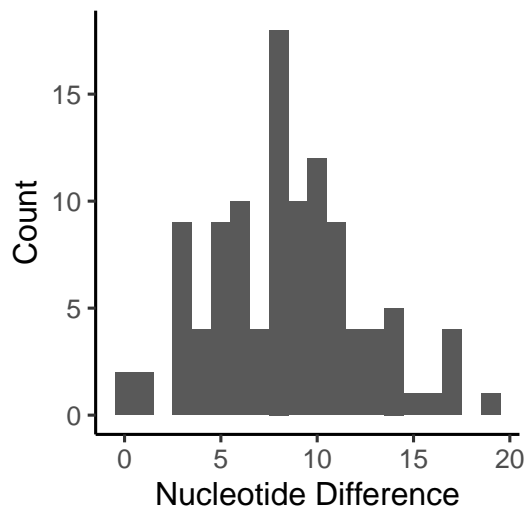
### IGHV1-58\*01\_03

12 sequences assigned  
No exact matches.



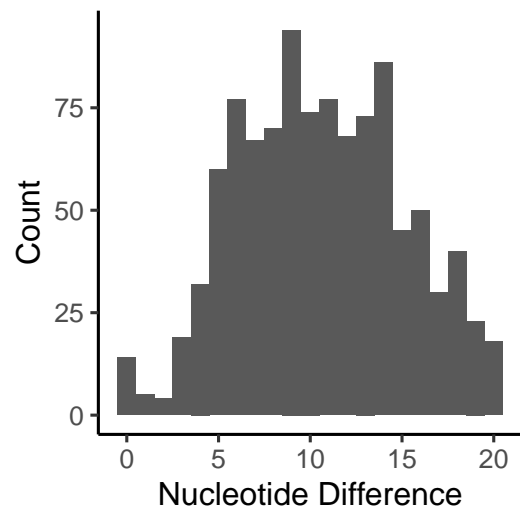
### IGHV2-5\*02

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



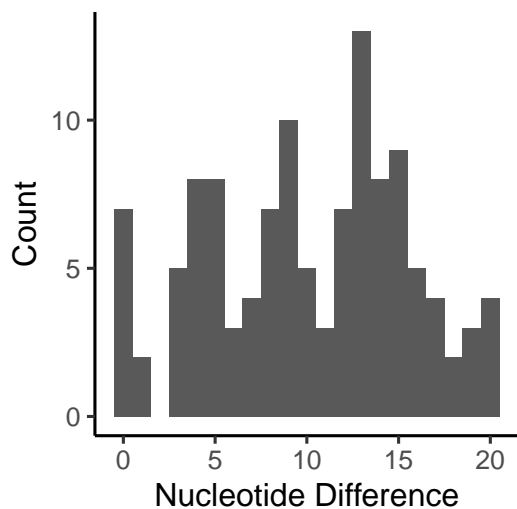
### IGHV3-7\*03

1108 sequences assigned  
14 (1.3%) exact matches, in which:  
12 unique CDR3  
3 unique J



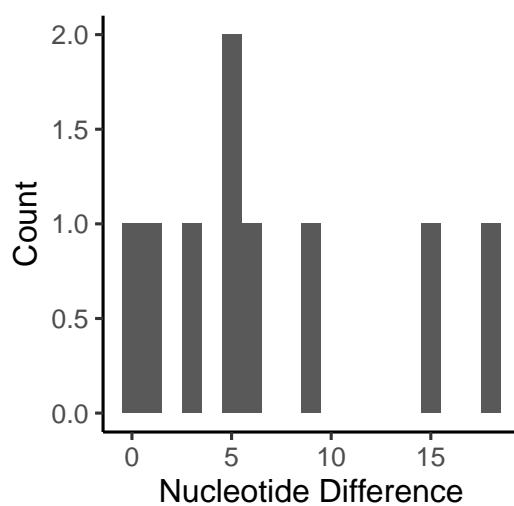
### IGHV1-69\*01\_12\_13

144 sequences assigned  
7 (4.9%) exact matches, in which:  
7 unique CDR3  
3 unique J



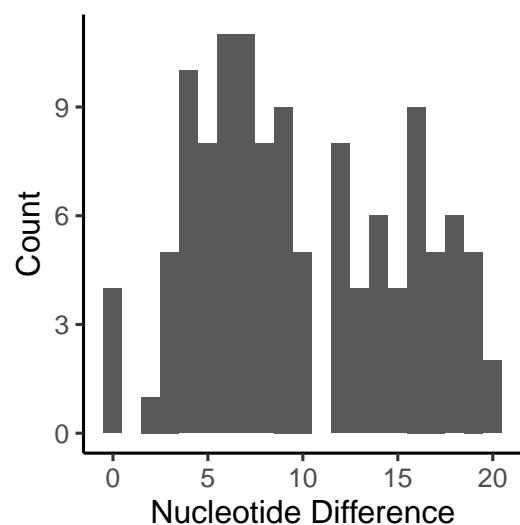
### IGHV2-26\*01

10 sequences assigned  
1 (10%) exact matches, in which:  
1 unique CDR3  
1 unique J



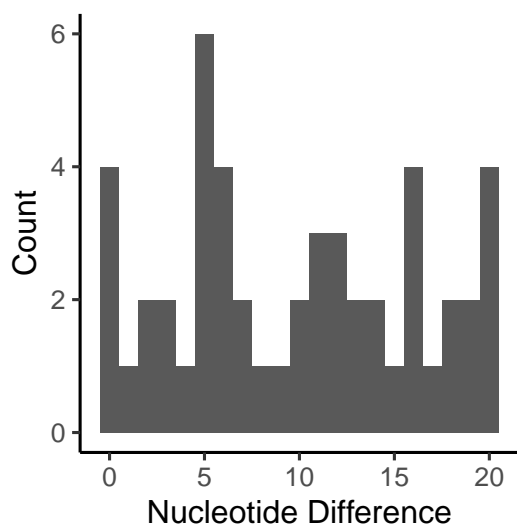
### IGHV3-11\*06

136 sequences assigned  
4 (2.9%) exact matches, in which:  
3 unique CDR3  
2 unique J



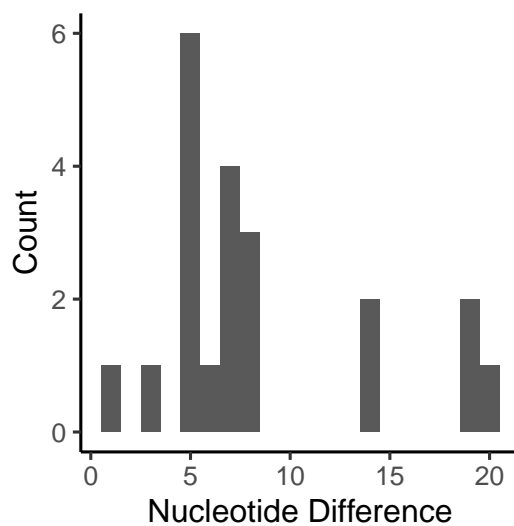
### IGHV1-69\*06\_14

68 sequences assigned  
4 (5.9%) exact matches, in which:  
4 unique CDR3  
3 unique J



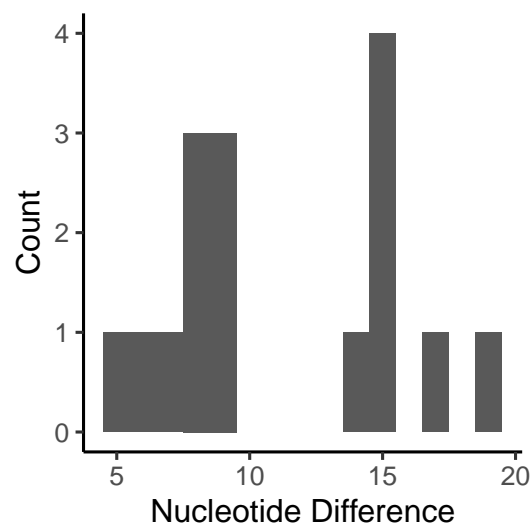
### IGHV2-70\*01

22 sequences assigned  
No exact matches.



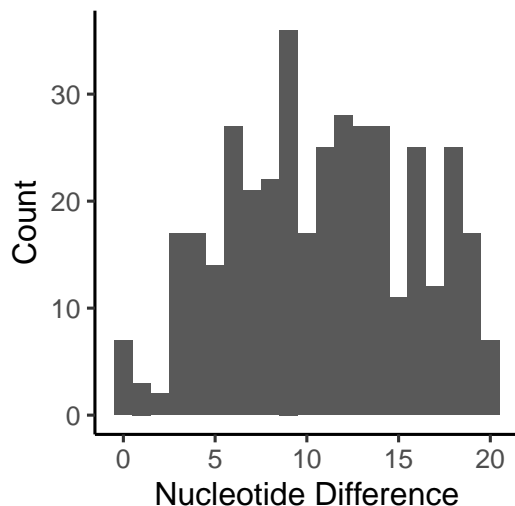
### IGHV3-13\*05

31 sequences assigned  
No exact matches.



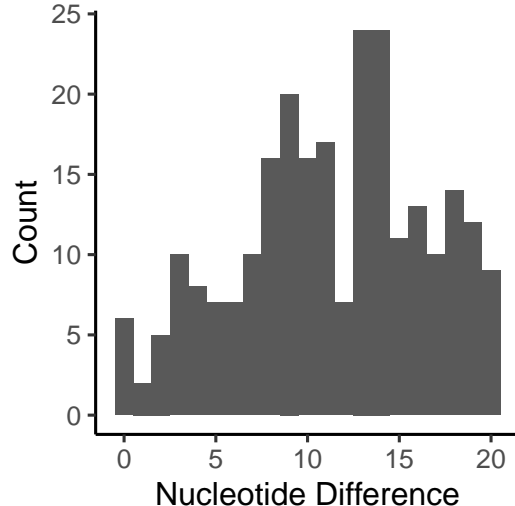
### IGHV3-15\*01\_02

429 sequences assigned  
7 (1.6%) exact matches, in which:  
6 unique CDR3  
3 unique J



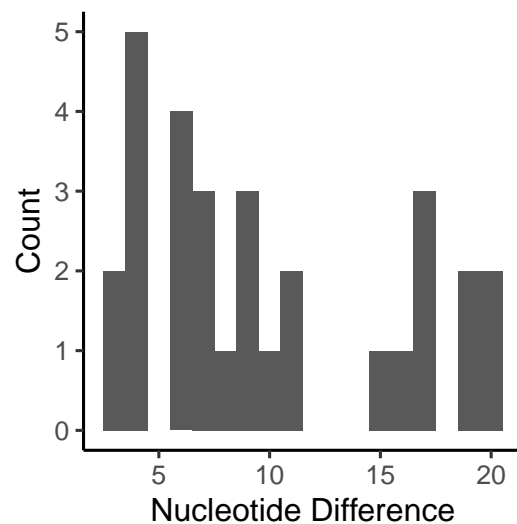
### IGHV3-30\*01

268 sequences assigned  
6 (2.2%) exact matches, in which:  
3 unique CDR3  
2 unique J



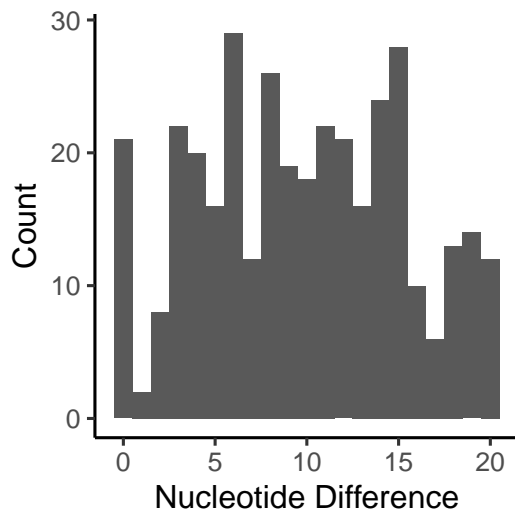
### IGHV3-43\*01

33 sequences assigned  
No exact matches.



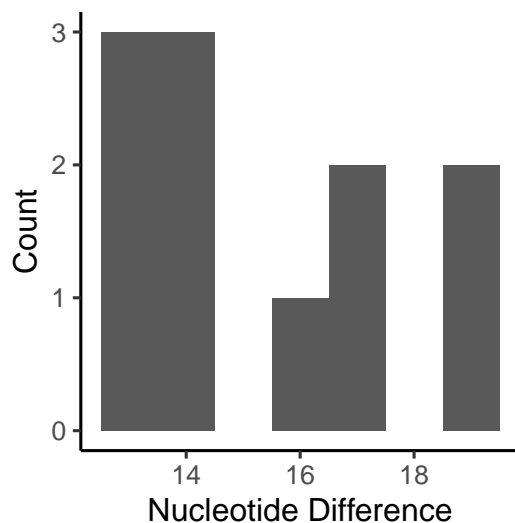
### IGHV3-21\*01\_02

428 sequences assigned  
21 (4.9%) exact matches, in which:  
16 unique CDR3  
4 unique J



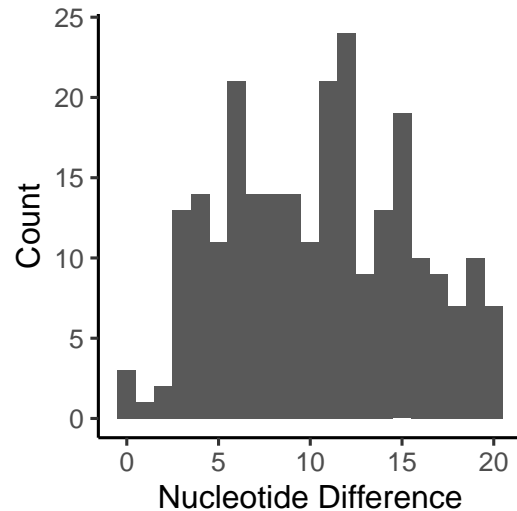
### IGHV3-30-3\*03

11 sequences assigned  
No exact matches.



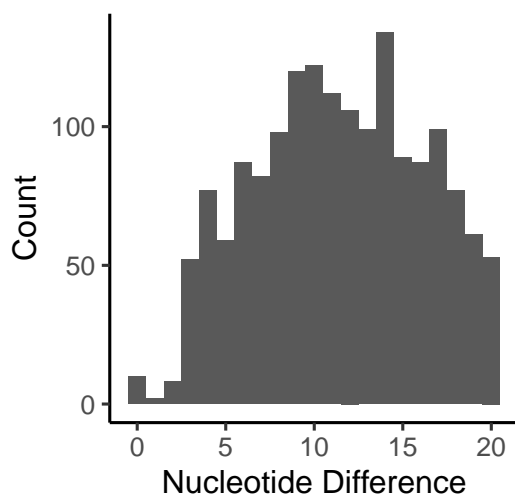
### IGHV3-48\*01

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



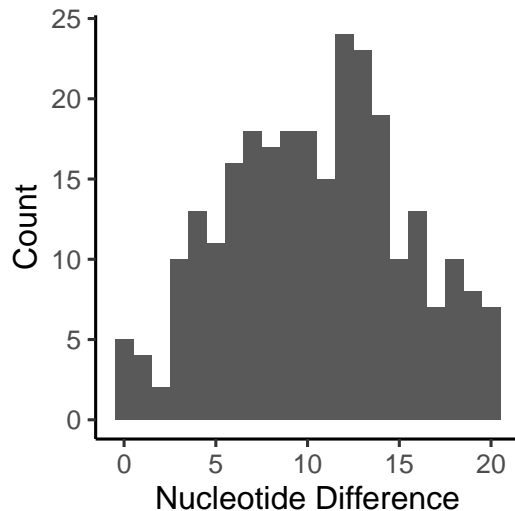
### IGHV3-23\*01\_04

1926 sequences assigned  
10 (0.5%) exact matches, in which:  
10 unique CDR3  
3 unique J



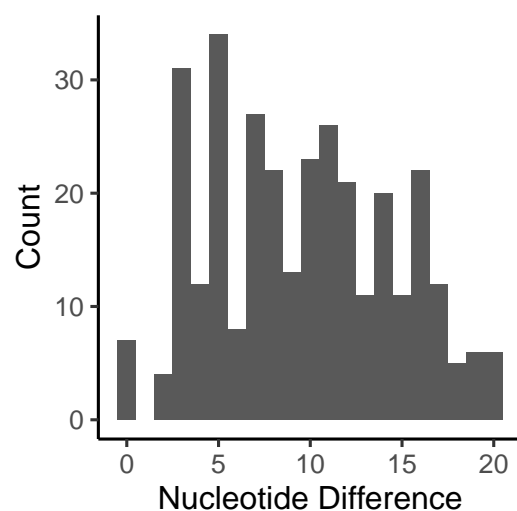
### IGHV3-33\*01

299 sequences assigned  
5 (1.7%) exact matches, in which:  
5 unique CDR3  
4 unique J



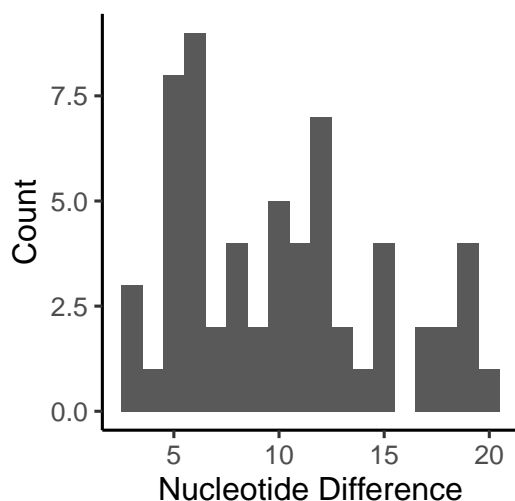
### IGHV3-48\*03

362 sequences assigned  
7 (1.9%) exact matches, in which:  
6 unique CDR3  
4 unique J



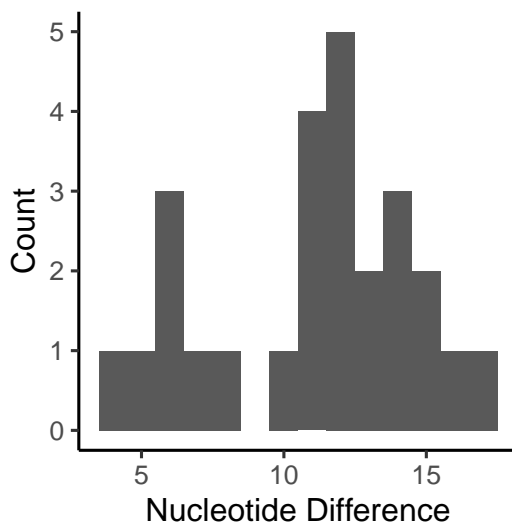
### IGHV3-49\*04

67 sequences assigned  
No exact matches.



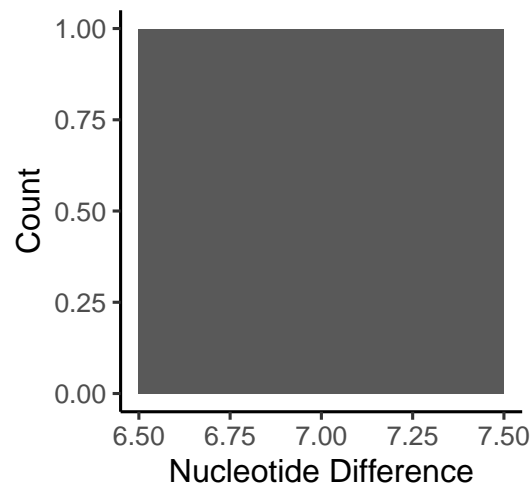
### IGHV3-64\*01

26 sequences assigned  
No exact matches.



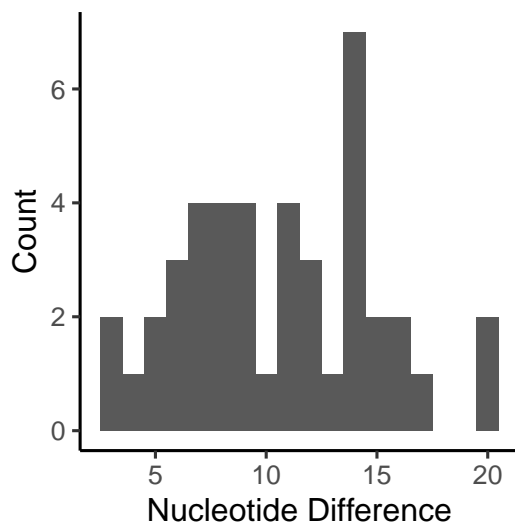
### IGHV3-69-1\*02

1 sequences assigned  
No exact matches.



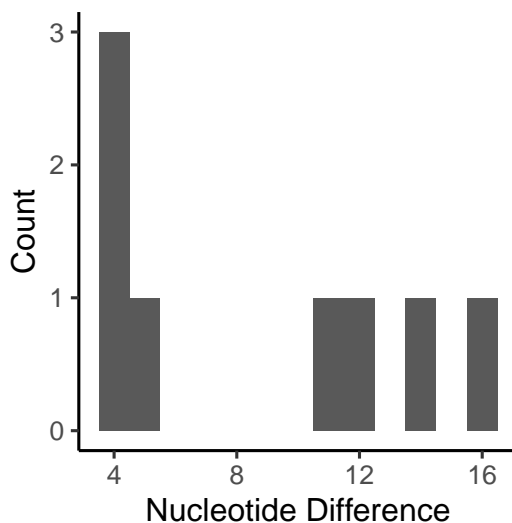
### IGHV3-49\*03\_05

45 sequences assigned  
No exact matches.



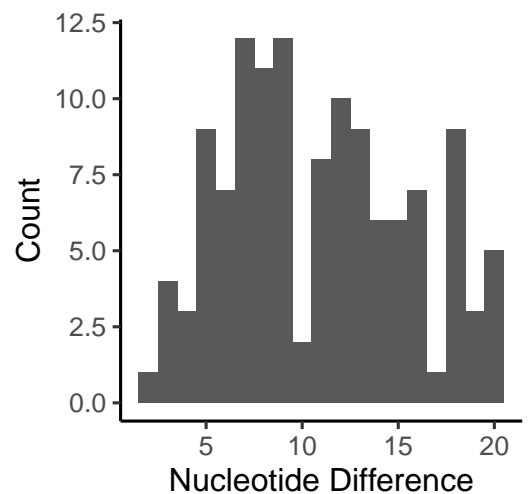
### IGHV3-64\*02\_07

8 sequences assigned  
No exact matches.



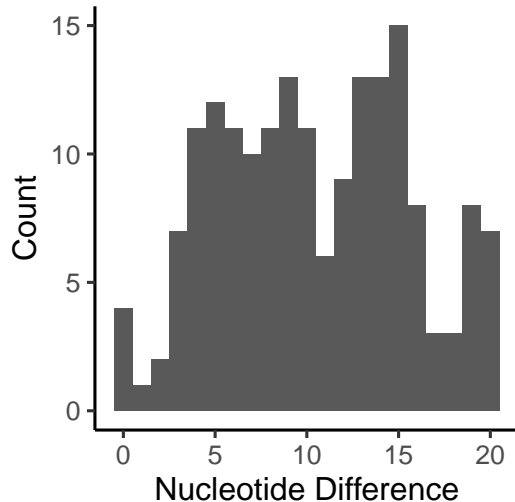
### IGHV3-72\*01

141 sequences assigned  
No exact matches.



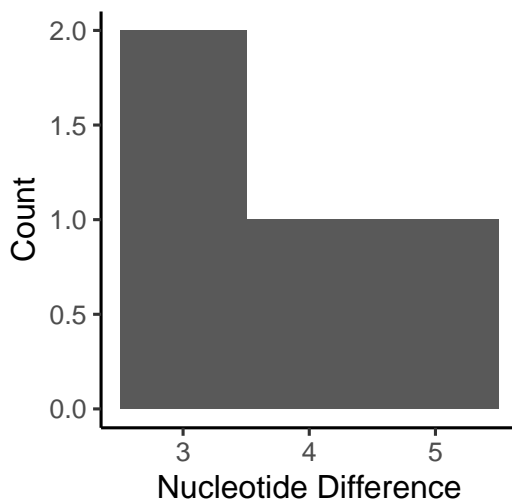
### IGHV3-53\*01\_02

227 sequences assigned  
4 (1.8%) exact matches, in which:  
4 unique CDR3  
2 unique J



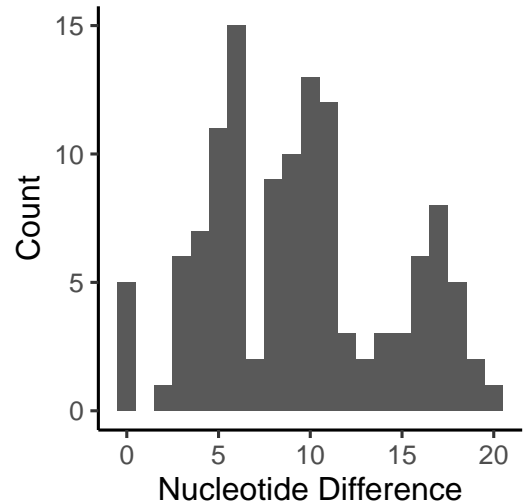
### IGHV3-69-1\*01

4 sequences assigned  
No exact matches.



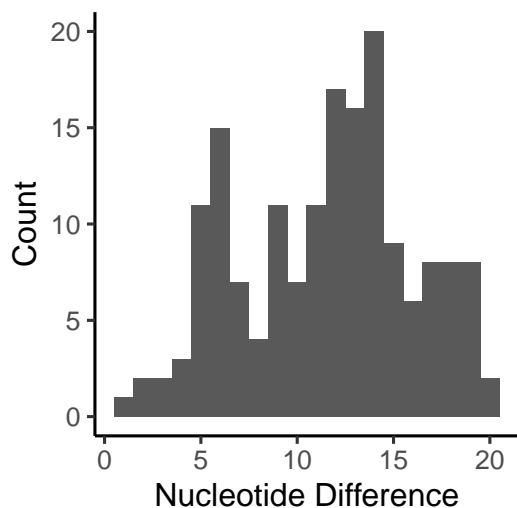
### IGHV3-73\*01\_02

134 sequences assigned  
5 (3.7%) exact matches, in which:  
5 unique CDR3  
2 unique J



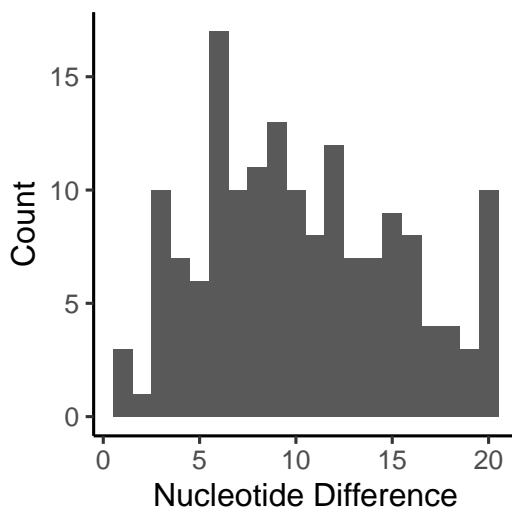
### IGHV3-74\*03

193 sequences assigned  
No exact matches.



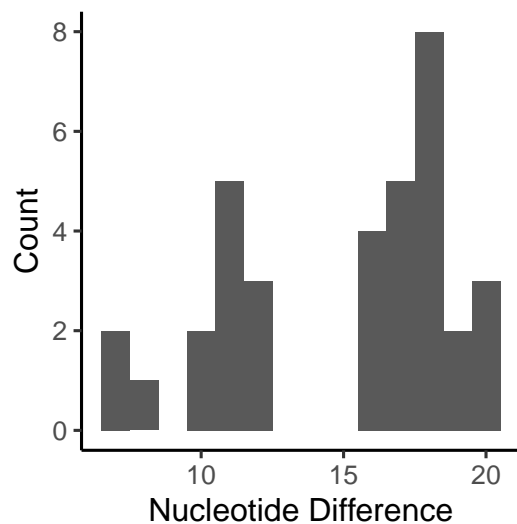
### IGHV3-64D\*06

190 sequences assigned  
No exact matches.



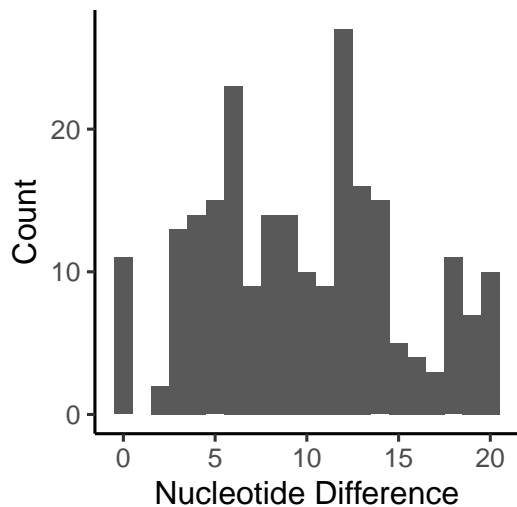
### IGHV4-28\*01\_07

35 sequences assigned  
No exact matches.



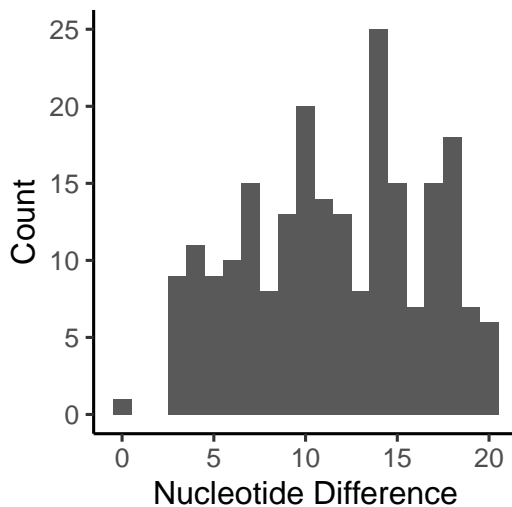
### IGHV3-74\*01\_02

246 sequences assigned  
11 (4.5%) exact matches, in which:  
10 unique CDR3  
3 unique J



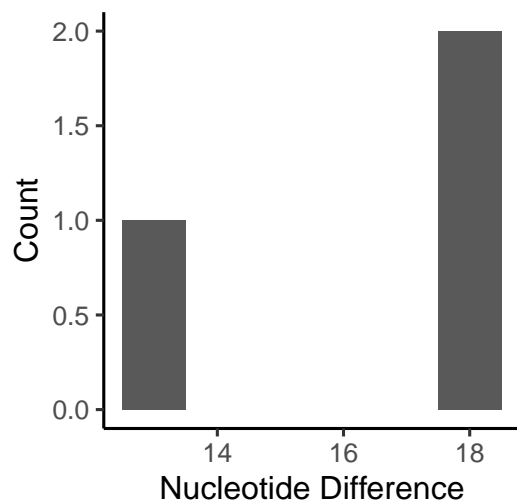
### IGHV4-4\*07

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



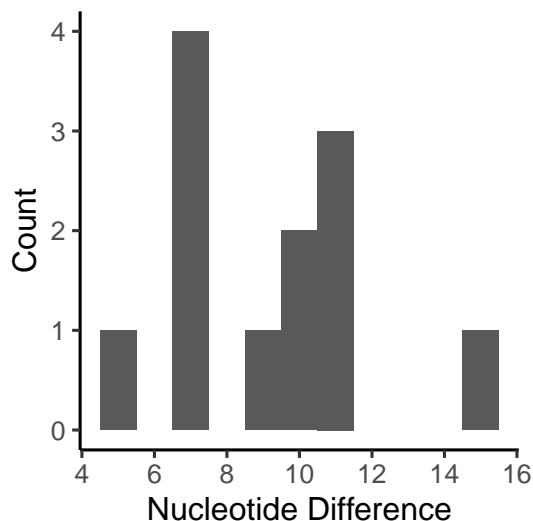
### IGHV4-28\*02\_05

3 sequences assigned  
No exact matches.



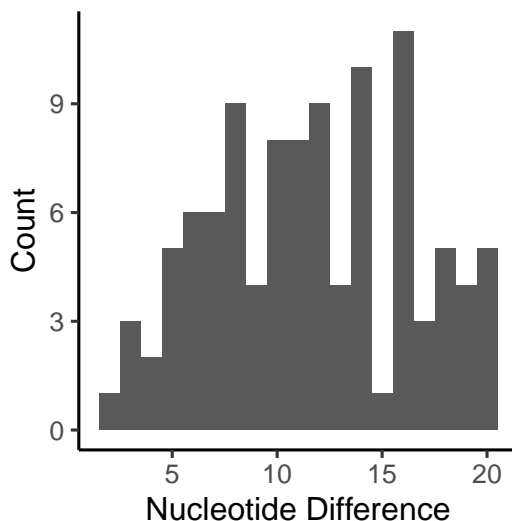
### IGHV3-43D\*04

14 sequences assigned  
No exact matches.



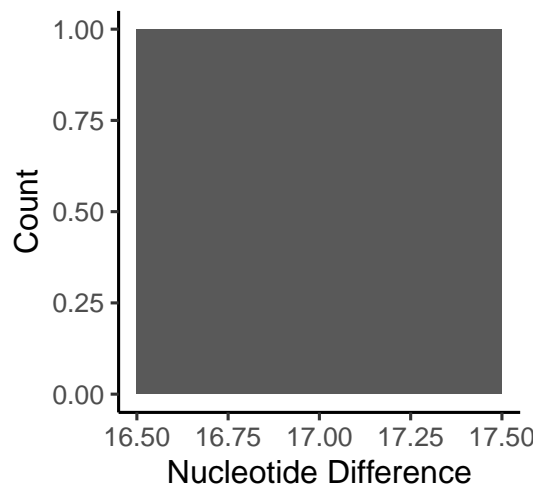
### IGHV4-4\*02\_03

177 sequences assigned  
No exact matches.



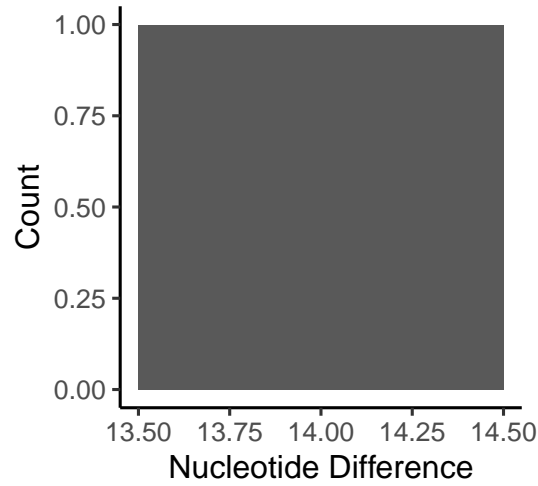
### IGHV4-30-2\*01

1 sequences assigned  
No exact matches.



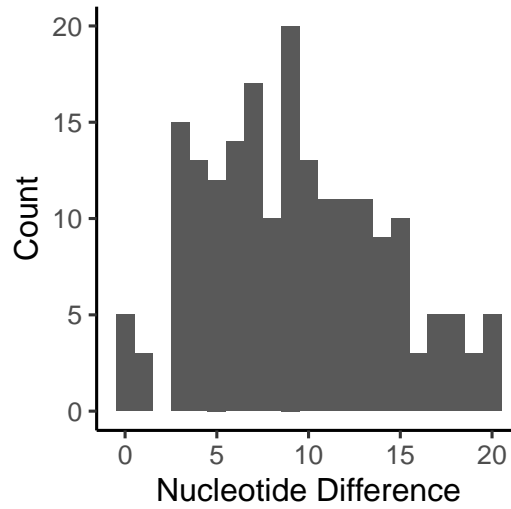
### IGHV4-30-4\*08

1 sequences assigned  
No exact matches.



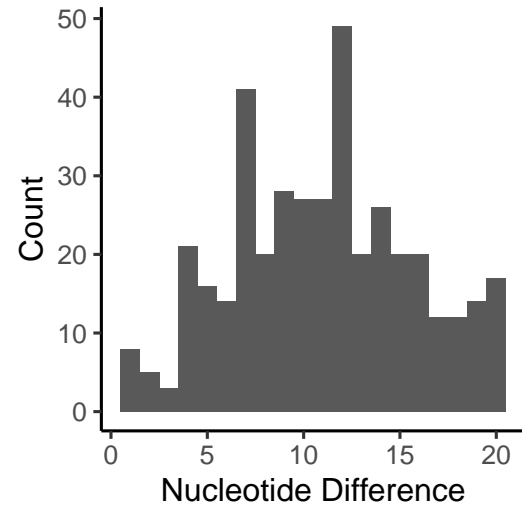
### IGHV4-34\*01\_02

229 sequences assigned  
5 (2.2%) exact matches, in which:  
4 unique CDR3  
3 unique J



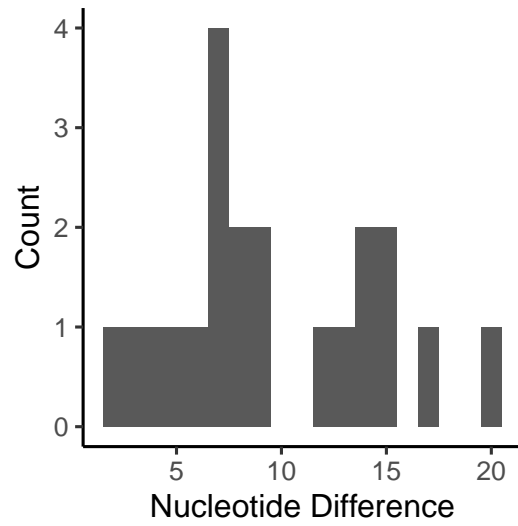
### IGHV4-39\*02

461 sequences assigned  
No exact matches.



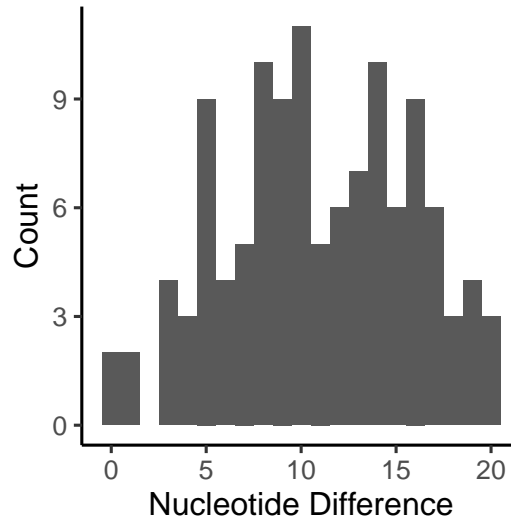
### IGHV4-31\*01

23 sequences assigned  
No exact matches.



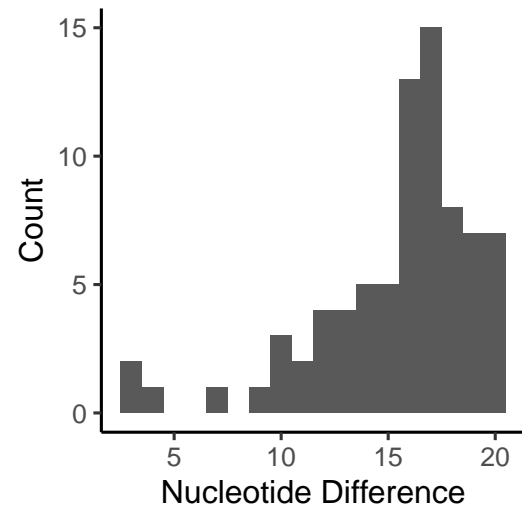
### IGHV4-38-2\*01

126 sequences assigned  
2 (1.6%) exact matches, in which:  
2 unique CDR3  
2 unique J



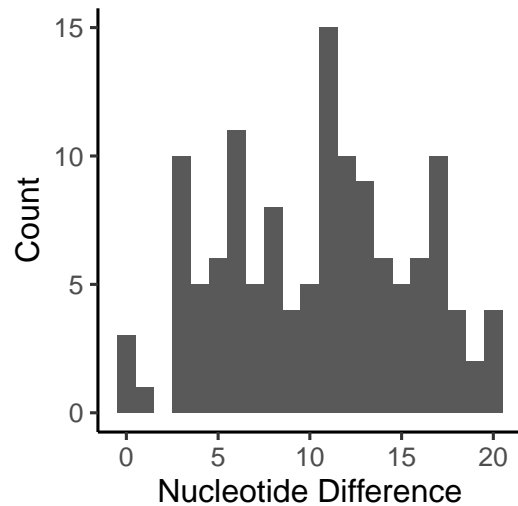
### IGHV4-59\*02

109 sequences assigned  
No exact matches.



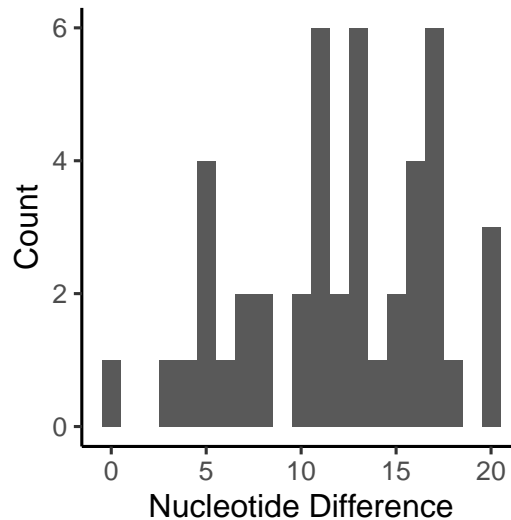
### IGHV4-31\*02

183 sequences assigned  
3 (1.6%) exact matches, in which:  
2 unique CDR3  
1 unique J



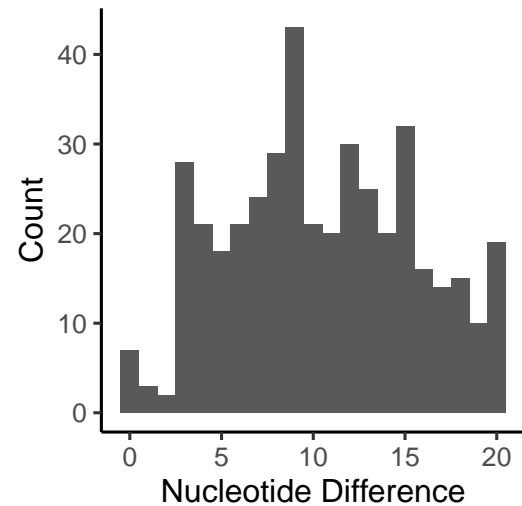
### IGHV4-38-2\*02

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



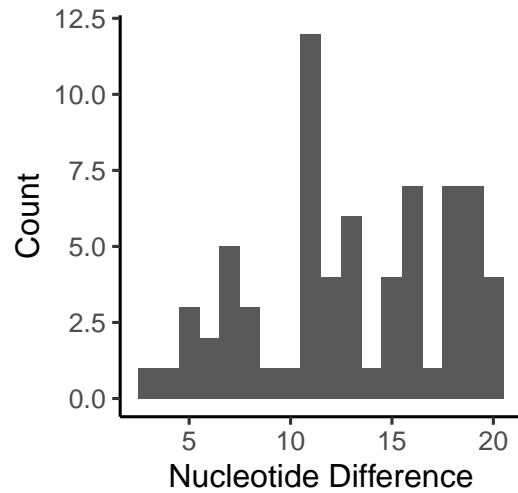
### IGHV4-59\*01\_07

474 sequences assigned  
7 (1.5%) exact matches, in which:  
6 unique CDR3  
2 unique J



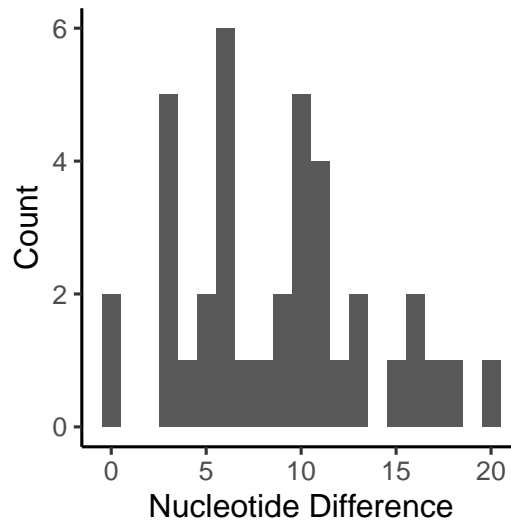
### IGHV4-59\*11

89 sequences assigned  
No exact matches.



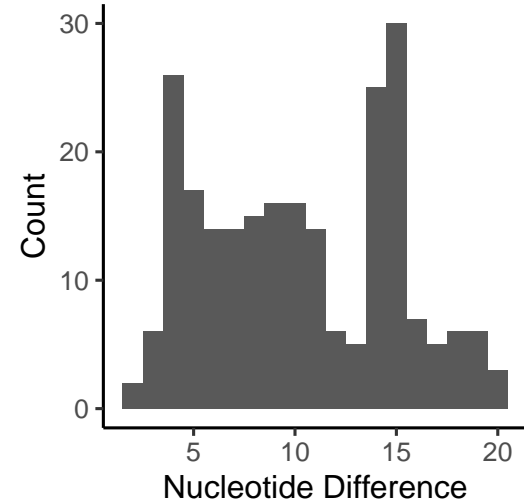
### IGHV5-10-1\*01\_03

41 sequences assigned  
2 (4.9%) exact matches, in which:  
2 unique CDR3  
1 unique J



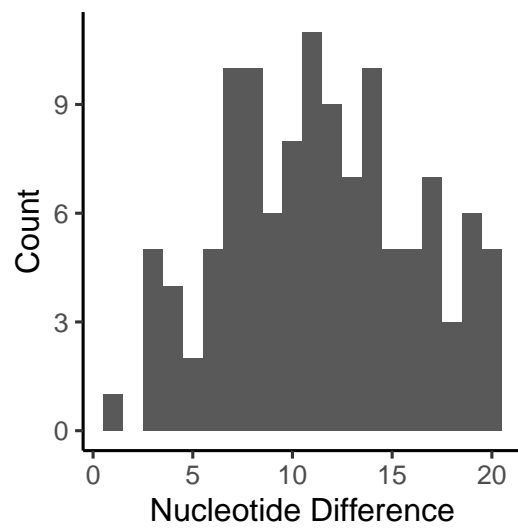
### IGHV6-1\*01\_02

240 sequences assigned  
No exact matches.



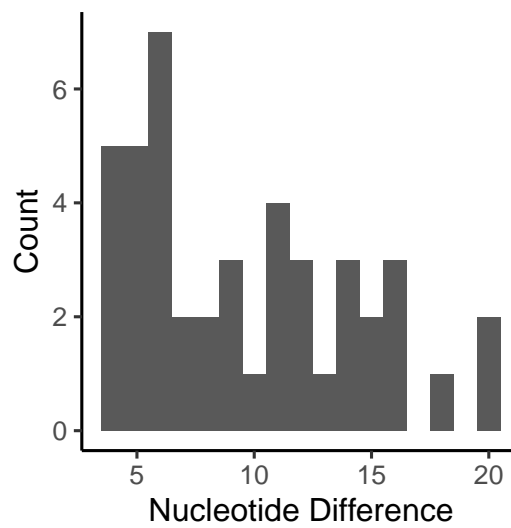
### IGHV4-61\*01

152 sequences assigned  
No exact matches.



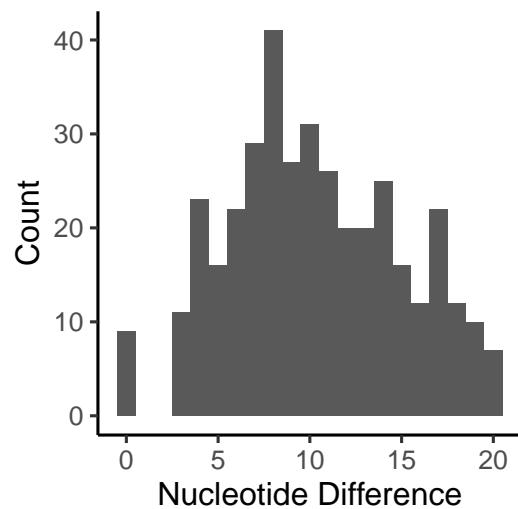
### IGHV5-51\*07

51 sequences assigned  
No exact matches.



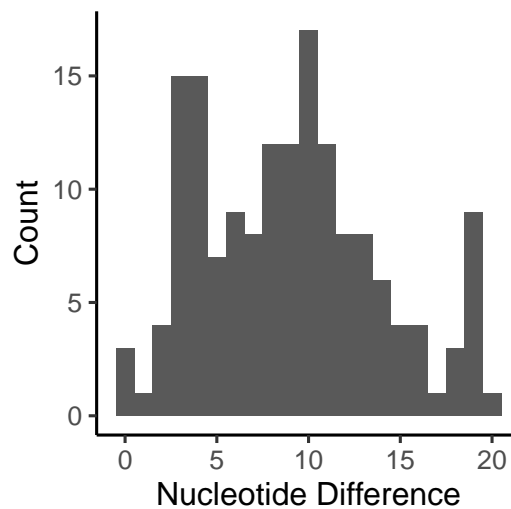
### IGHV4-61\*02

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



### IGHV5-51\*01\_03

170 sequences assigned  
3 (1.8%) exact matches, in which:  
3 unique CDR3  
3 unique J







Warning – no inferred sequences found.