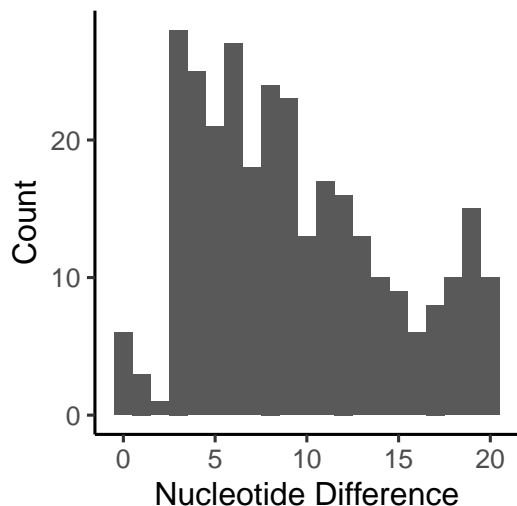


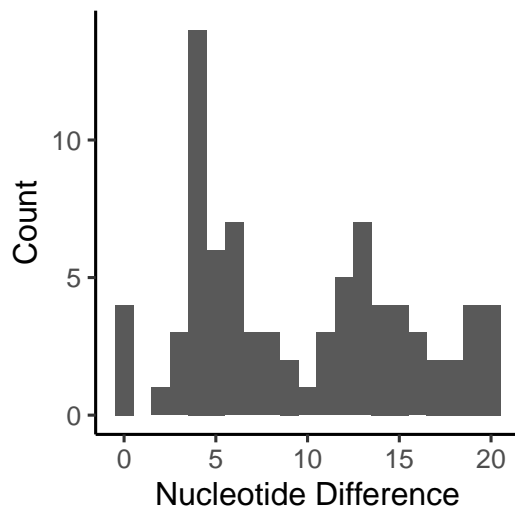
### IGHV1-2\*02

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



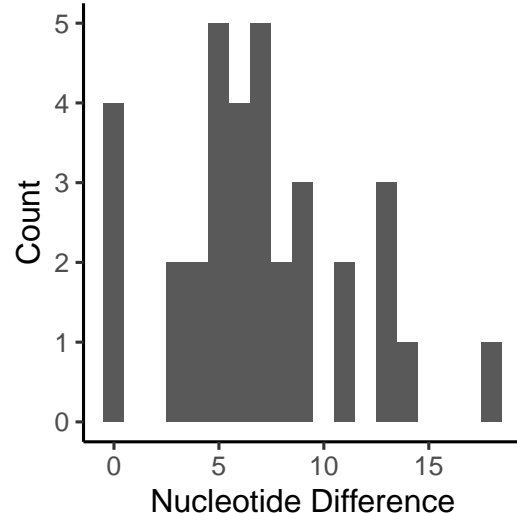
### IGHV1-3\*01\_05

86 sequences assigned  
4 (4.7%) exact matches, in which:  
4 unique CDR3  
3 unique J



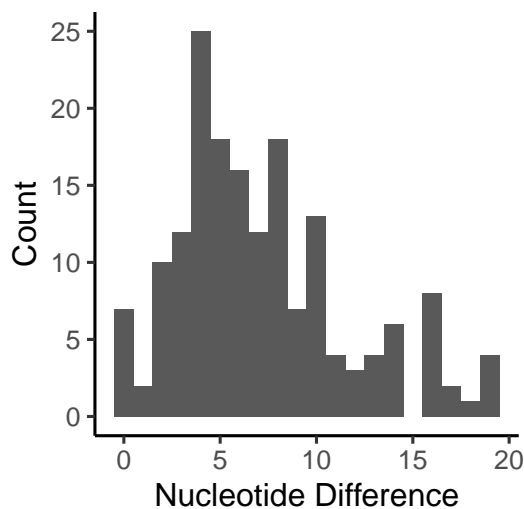
### IGHV1-24\*01

37 sequences assigned  
4 (10.8%) exact matches, in which:  
4 unique CDR3  
2 unique J



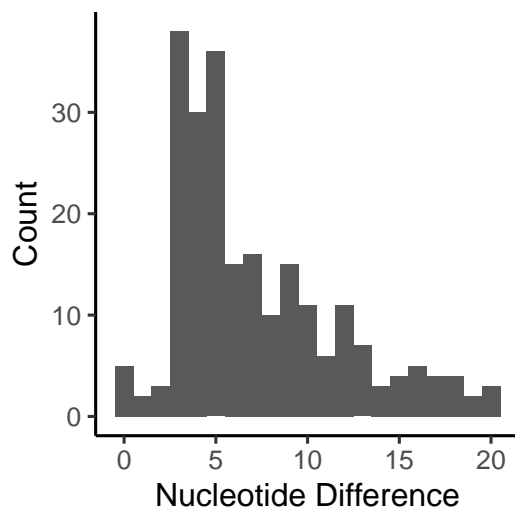
### IGHV1-2\*06

179 sequences assigned  
7 (3.9%) exact matches, in which:  
6 unique CDR3  
4 unique J



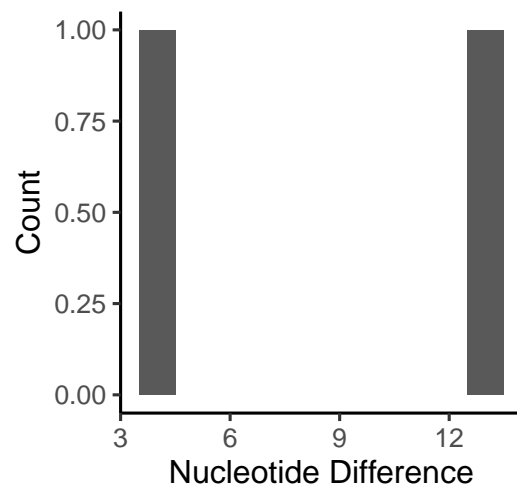
### IGHV1-8\*01

238 sequences assigned  
5 (2.1%) exact matches, in which:  
5 unique CDR3  
4 unique J



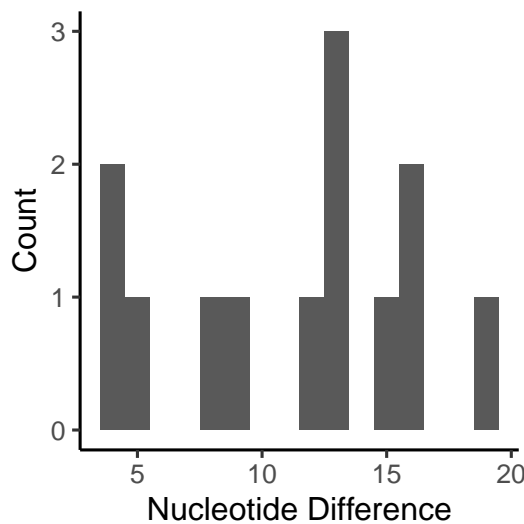
### IGHV1-45\*02

2 sequences assigned  
No exact matches.



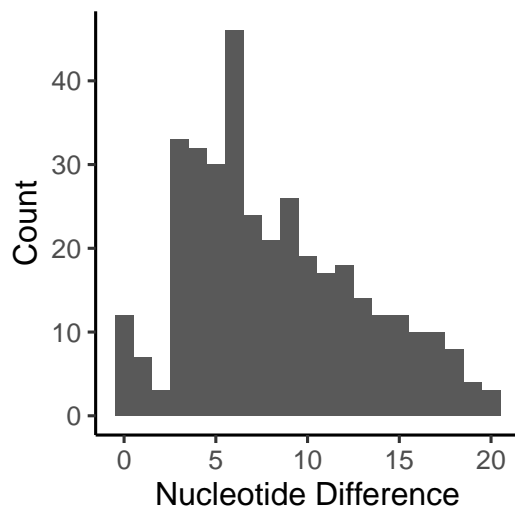
### IGHV1-3\*04

14 sequences assigned  
No exact matches.



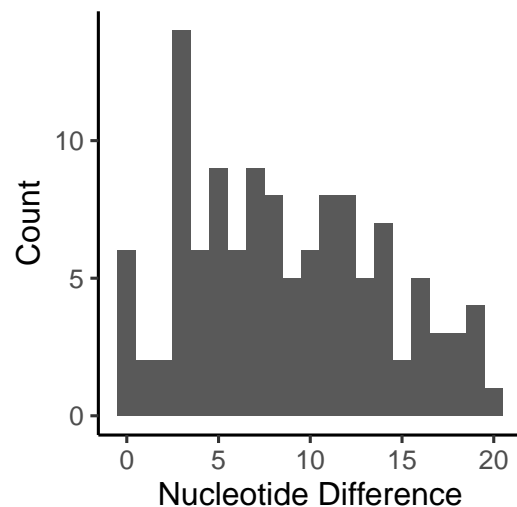
### IGHV1-18\*01

390 sequences assigned  
12 (3.1%) exact matches, in which:  
11 unique CDR3  
4 unique J



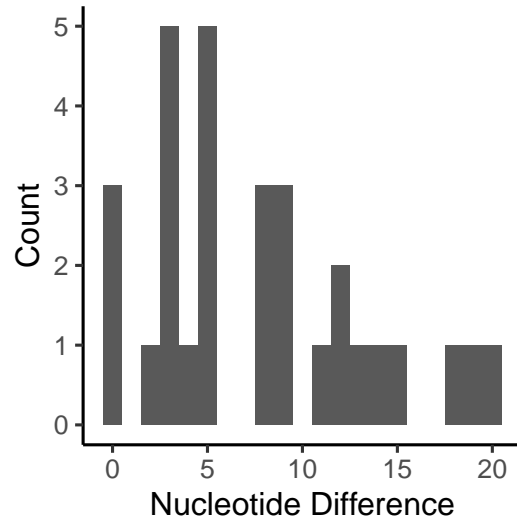
### IGHV1-46\*01

141 sequences assigned  
6 (4.3%) exact matches, in which:  
6 unique CDR3  
2 unique J



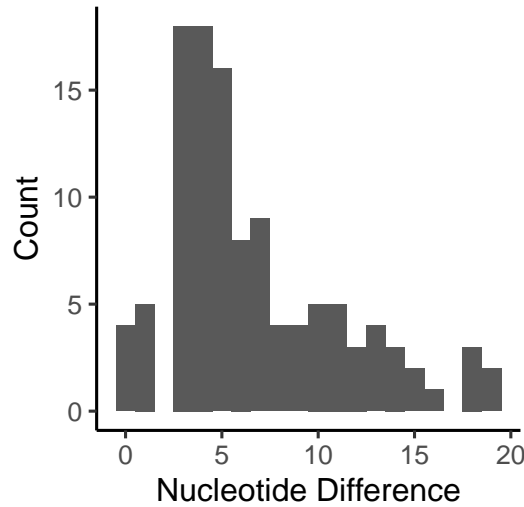
### IGHV1-58\*01\_03

35 sequences assigned  
3 (8.6%) exact matches, in which:  
3 unique CDR3  
2 unique J



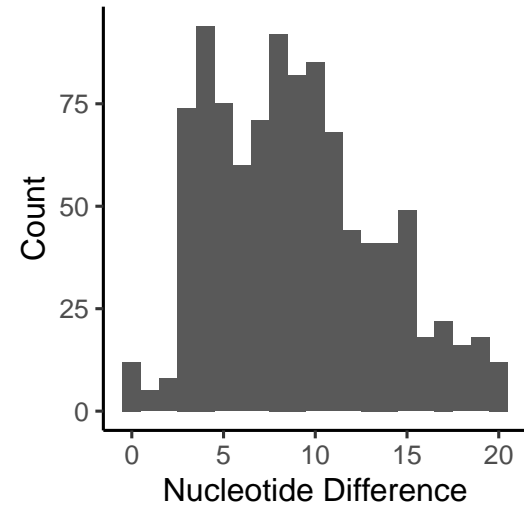
### IGHV2-5\*02

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



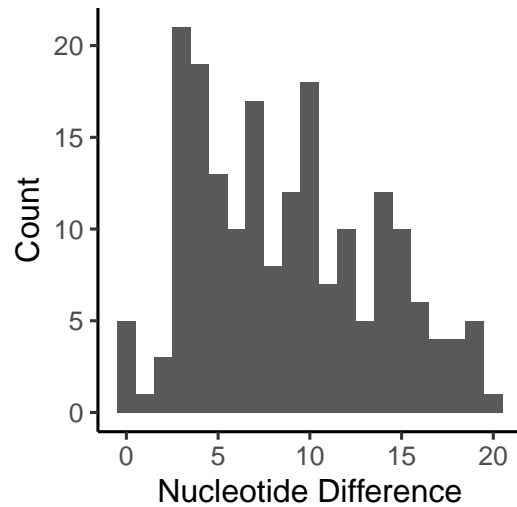
### IGHV3-7\*01

1033 sequences assigned  
12 (1.2%) exact matches, in which:  
7 unique CDR3  
2 unique J



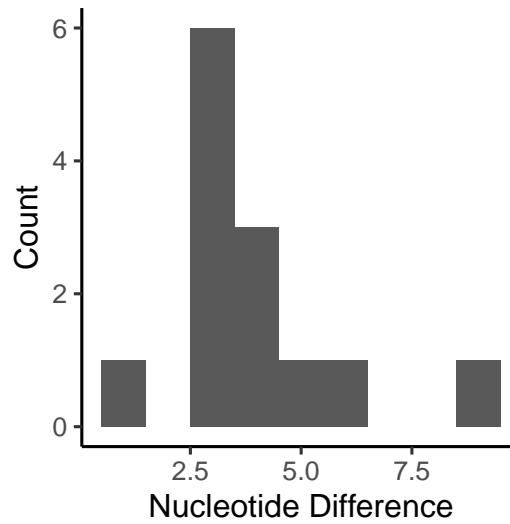
### IGHV1-69\*01\_12\_13

214 sequences assigned  
5 (2.3%) exact matches, in which:  
5 unique CDR3  
3 unique J



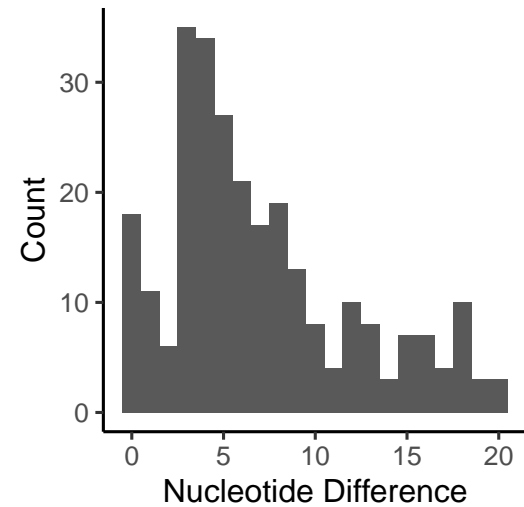
### IGHV2-26\*01

13 sequences assigned  
No exact matches.



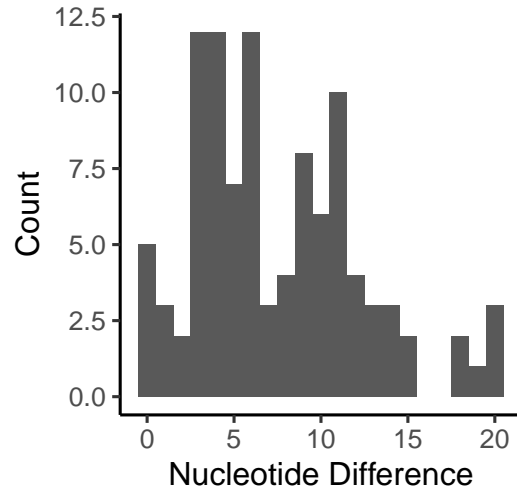
### IGHV3-9\*01

270 sequences assigned  
18 (6.7%) exact matches, in which:  
12 unique CDR3  
4 unique J



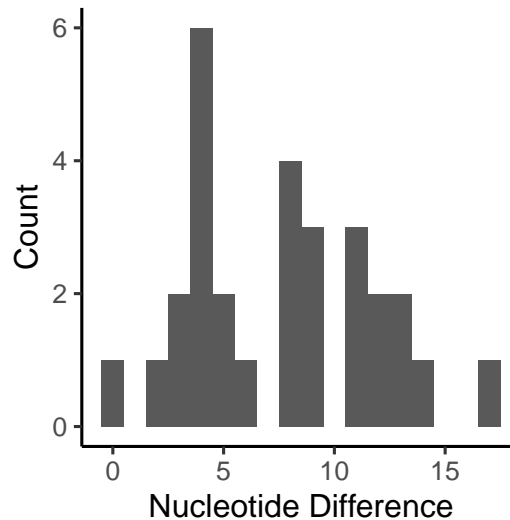
### IGHV2-5\*01

107 sequences assigned  
5 (4.7%) exact matches, in which:  
5 unique CDR3  
3 unique J



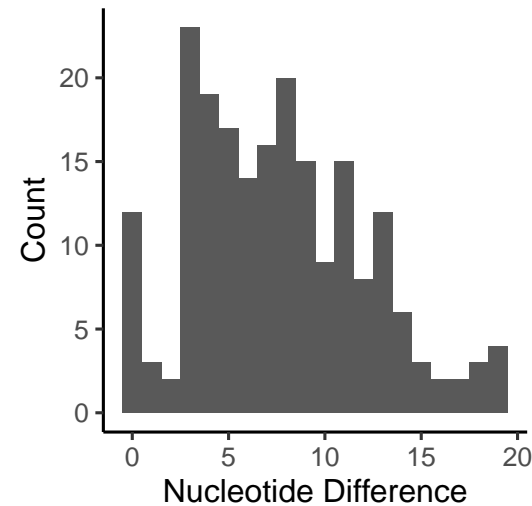
### IGHV2-70\*01

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



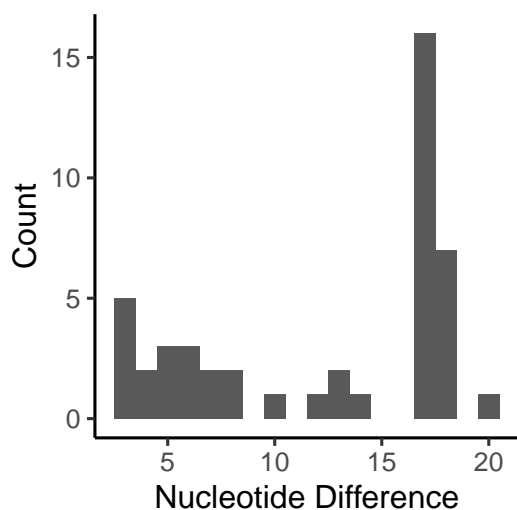
### IGHV3-11\*01

219 sequences assigned  
12 (5.5%) exact matches, in which:  
6 unique CDR3  
3 unique J



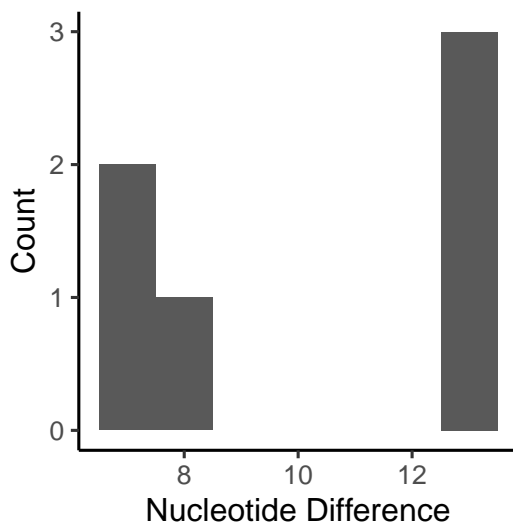
### IGHV3-13\*01

49 sequences assigned  
No exact matches.



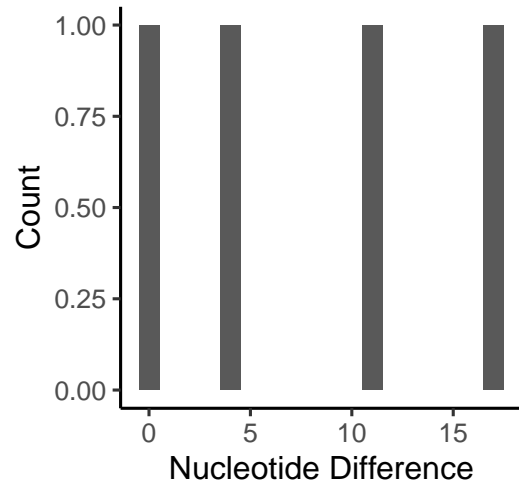
### IGHV3-20\*03\_04

6 sequences assigned  
No exact matches.



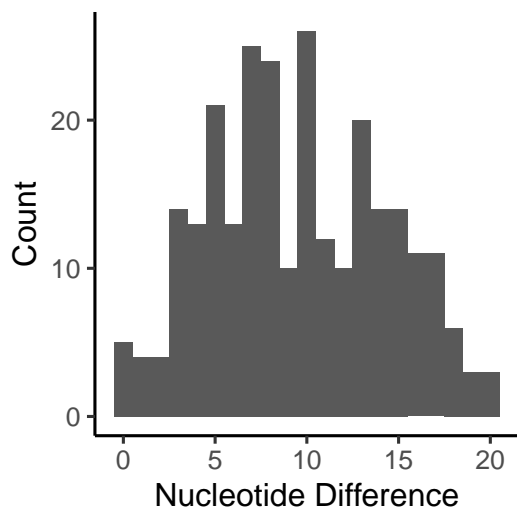
### IGHV3-30\*02

4 sequences assigned  
1 (25%) exact matches, in which:  
1 unique CDR3  
1 unique J



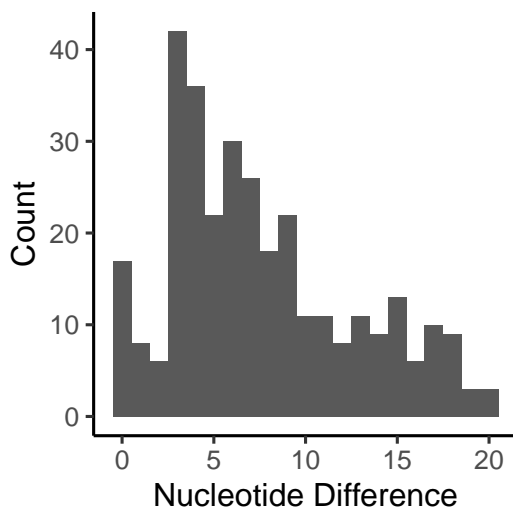
### IGHV3-15\*01\_02

293 sequences assigned  
5 (1.7%) exact matches, in which:  
3 unique CDR3  
2 unique J



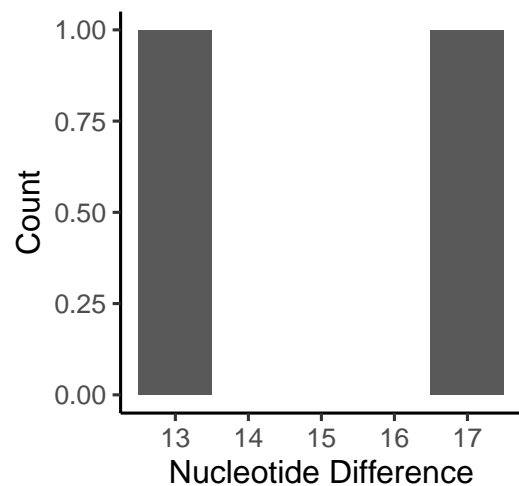
### IGHV3-21\*01\_02

337 sequences assigned  
17 (5%) exact matches, in which:  
11 unique CDR3  
4 unique J



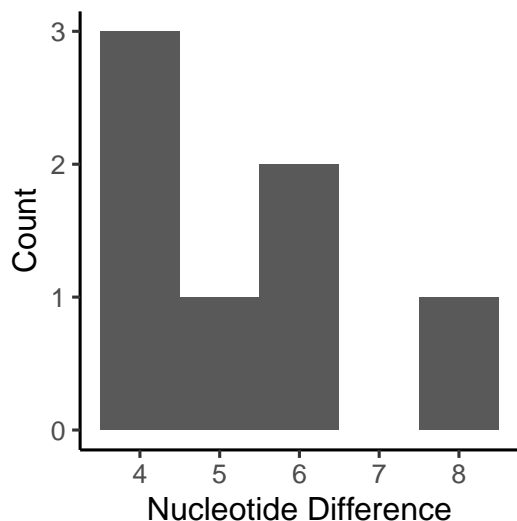
### IGHV3-30\*04

2 sequences assigned  
No exact matches.



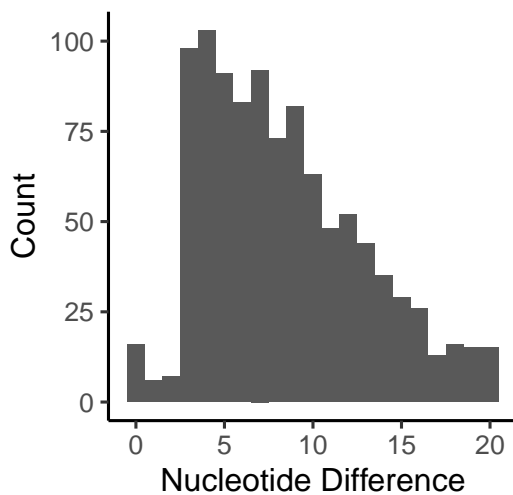
### IGHV3-20\*01\_02

7 sequences assigned  
No exact matches.



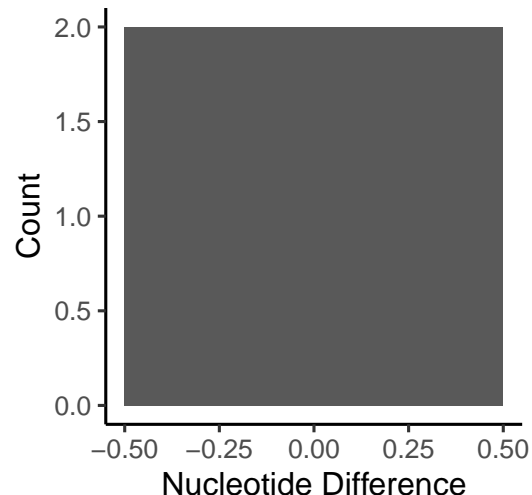
### IGHV3-23\*01\_04

1100 sequences assigned  
16 (1.5%) exact matches, in which:  
10 unique CDR3  
4 unique J



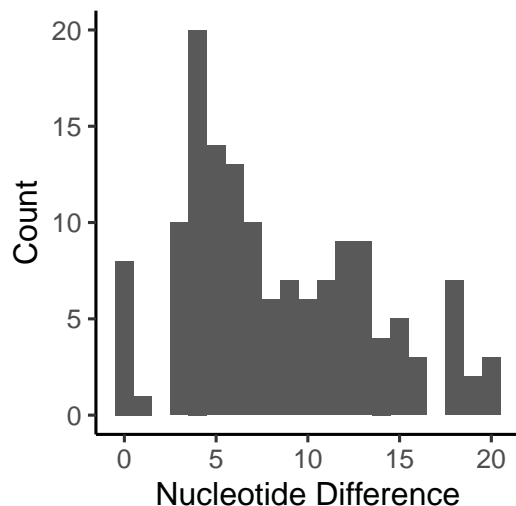
### IGHV3-30\*18

2 sequences assigned  
2 (100%) exact matches, in which:  
2 unique CDR3  
1 unique J



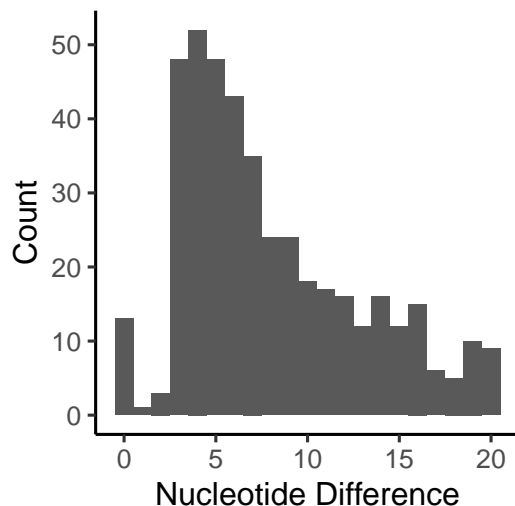
### IGHV3-33\*01

168 sequences assigned  
8 (4.8%) exact matches, in which:  
7 unique CDR3  
2 unique J



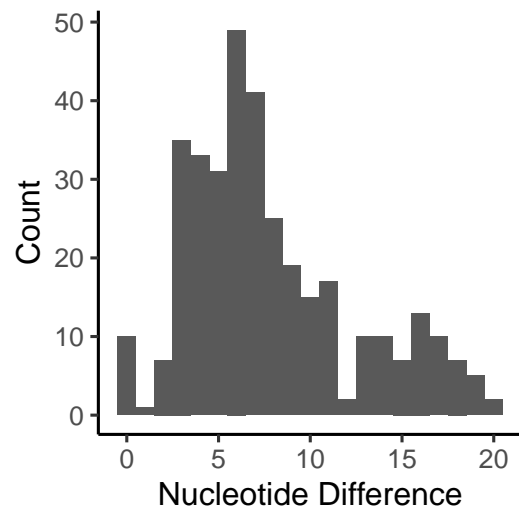
### IGHV3-48\*02

444 sequences assigned  
13 (2.9%) exact matches, in which:  
7 unique CDR3  
3 unique J



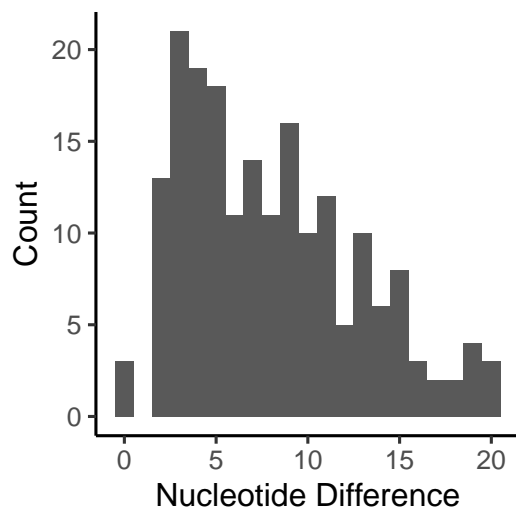
### IGHV3-53\*01\_02

363 sequences assigned  
10 (2.8%) exact matches, in which:  
6 unique CDR3  
3 unique J



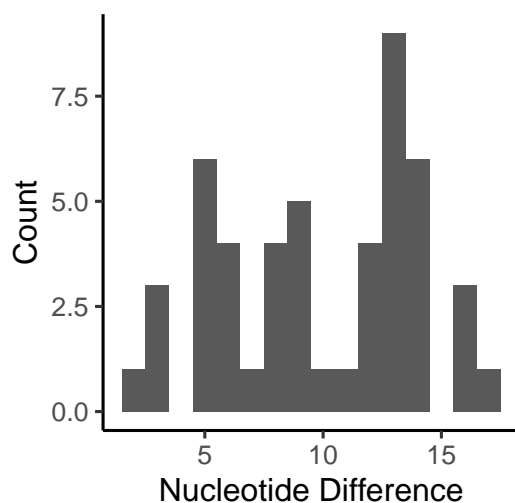
### IGHV3-33\*08

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



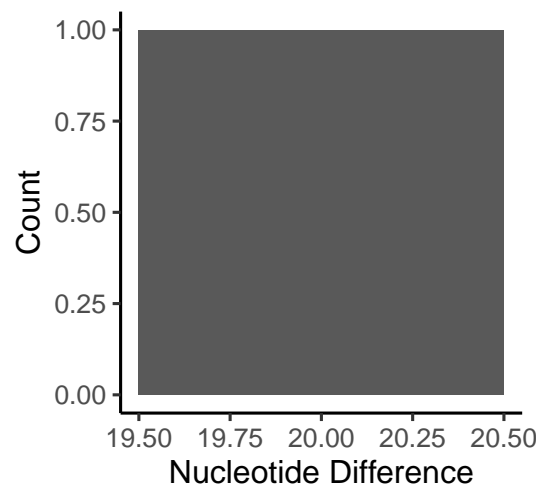
### IGHV3-49\*03\_05

53 sequences assigned  
No exact matches.



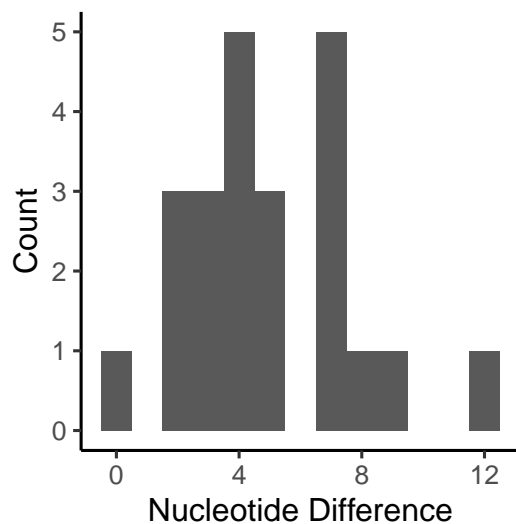
### IGHV3-64\*01

1 sequences assigned  
No exact matches.



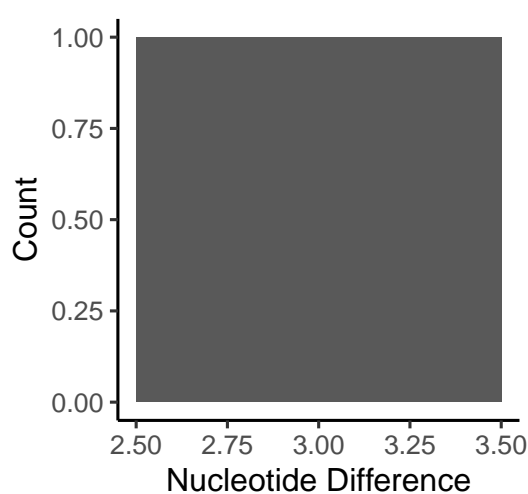
### IGHV3-43\*01

24 sequences assigned  
1 (4.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



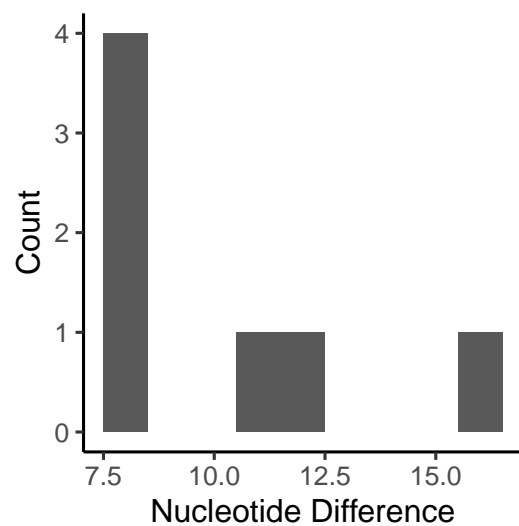
### IGHV3-52\*01\_03

1 sequences assigned  
No exact matches.



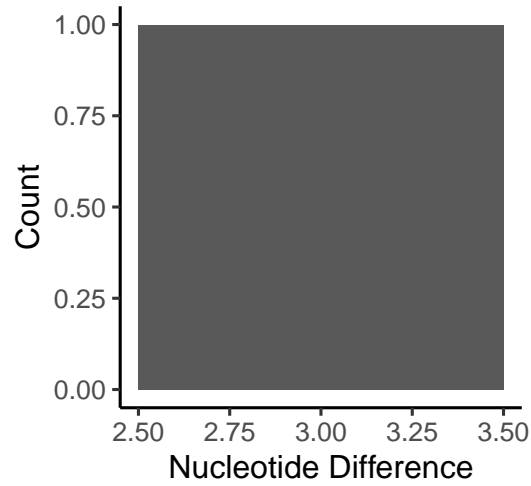
### IGHV3-64\*02\_07

8 sequences assigned  
No exact matches.



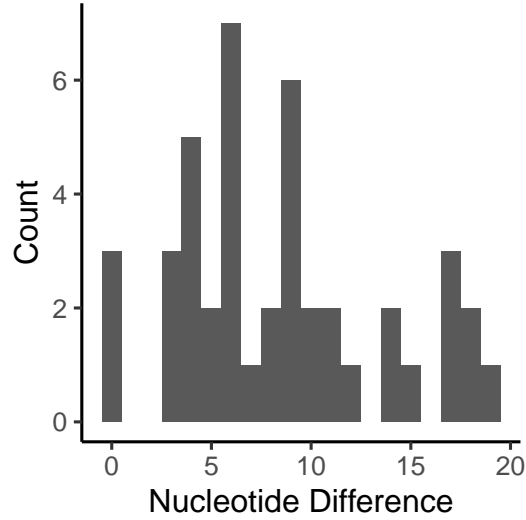
### IGHV3-66\*03

1 sequences assigned  
No exact matches.



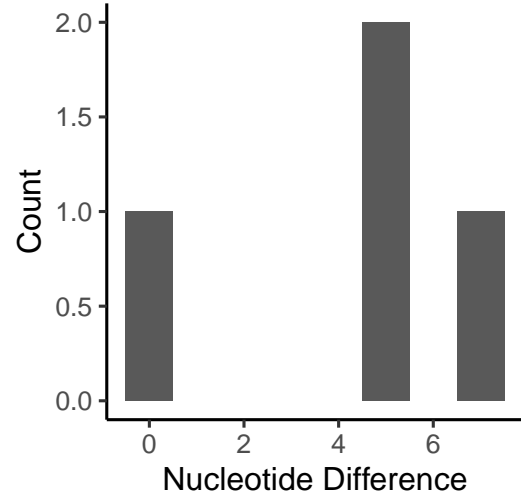
### IGHV3-73\*01\_02

45 sequences assigned  
3 (6.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



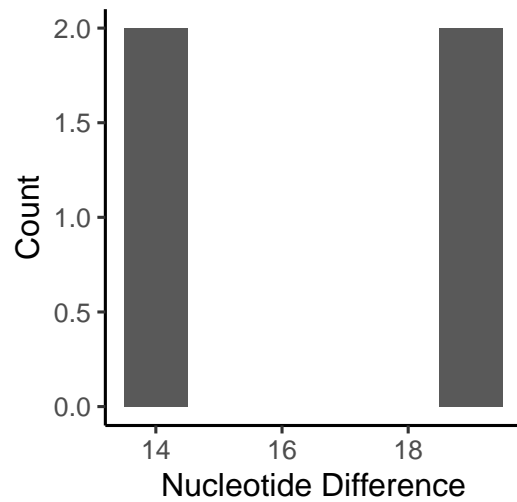
### IGHV3-64D\*06

4 sequences assigned  
1 (25%) exact matches, in which:  
1 unique CDR3  
1 unique J



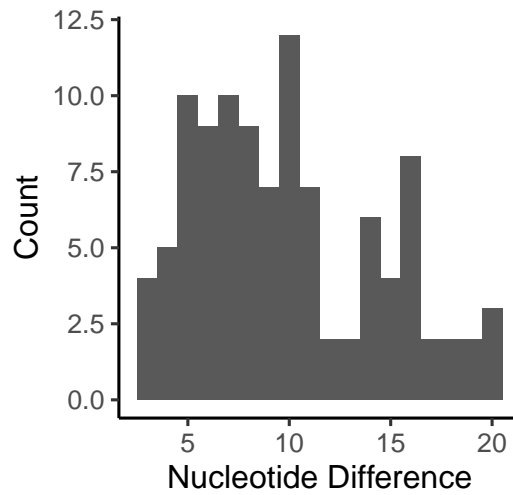
### IGHV3-66\*04

7 sequences assigned  
No exact matches.



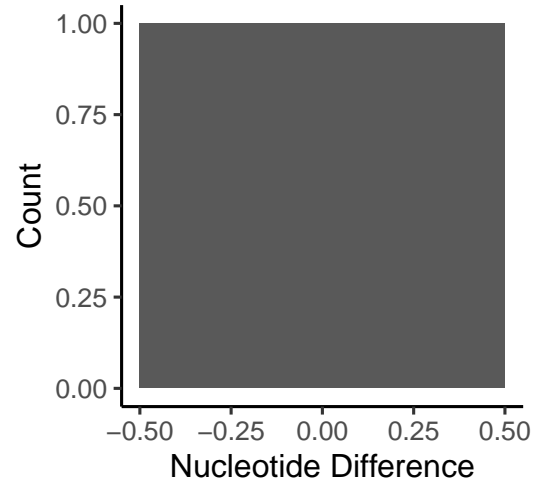
### IGHV3-74\*03

122 sequences assigned  
No exact matches.



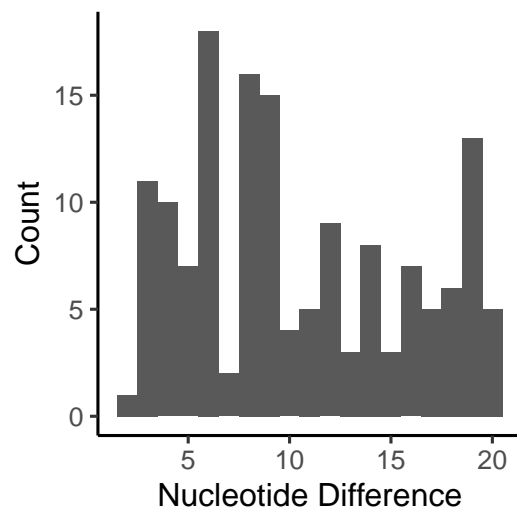
### IGHV3-64D\*08

1 sequences assigned  
1 (100%) exact matches, in which:  
1 unique CDR3  
1 unique J



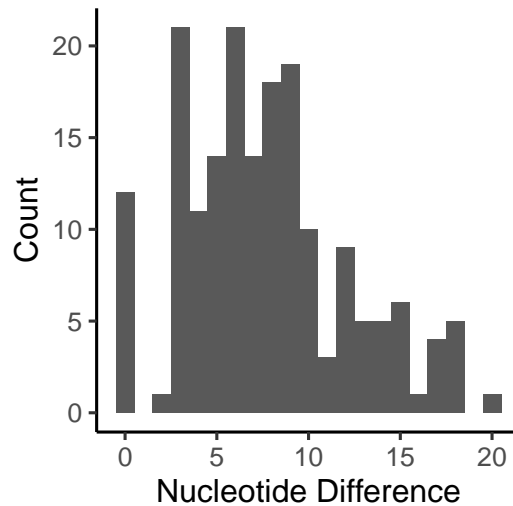
### IGHV3-72\*01

157 sequences assigned  
No exact matches.



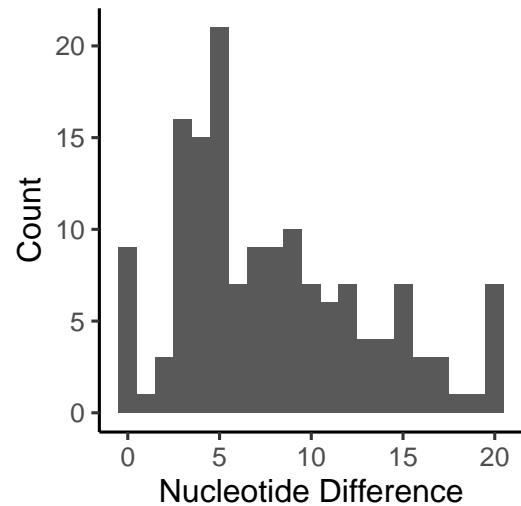
### IGHV3-74\*01\_02

183 sequences assigned  
12 (6.6%) exact matches, in which:  
6 unique CDR3  
3 unique J



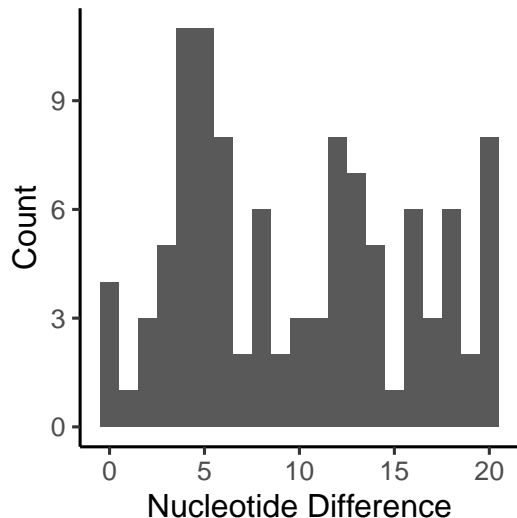
### IGHV4-4\*07

158 sequences assigned  
9 (5.7%) exact matches, in which:  
3 unique CDR3  
2 unique J



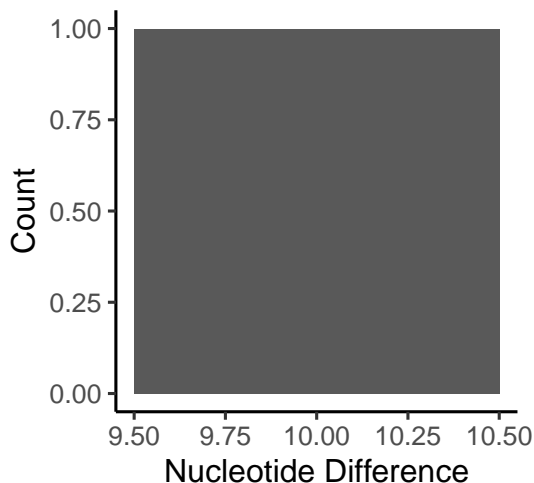
### IGHV4-4\*02\_03

127 sequences assigned  
4 (3.1%) exact matches, in which:  
3 unique CDR3  
2 unique J



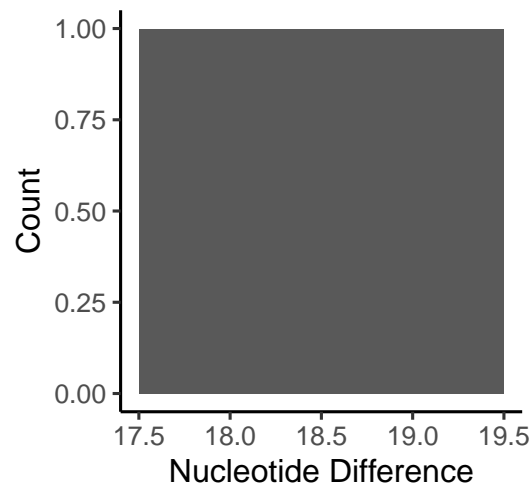
### IGHV4-31\*03\_04

2 sequences assigned  
No exact matches.



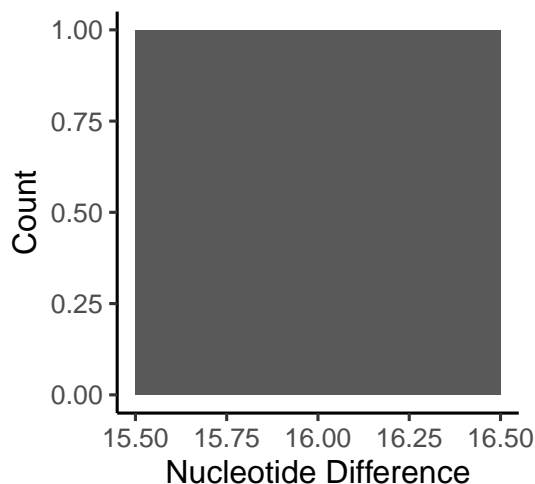
### IGHV4-38-2\*02

2 sequences assigned  
No exact matches.



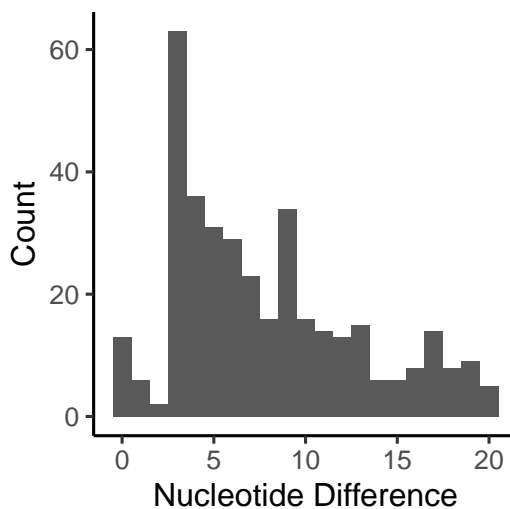
### IGHV4-30-2\*01

1 sequences assigned  
No exact matches.



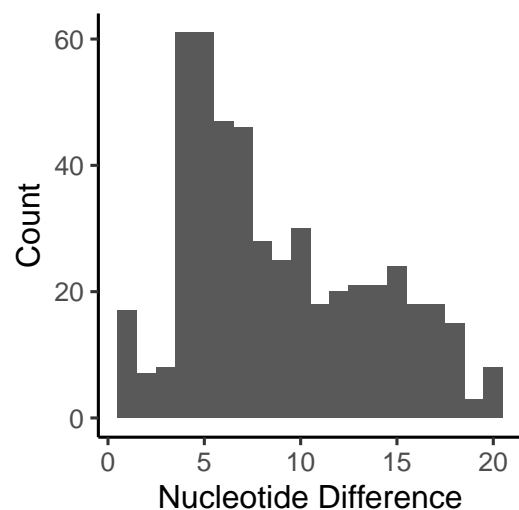
### IGHV4-34\*01\_02

415 sequences assigned  
13 (3.1%) exact matches, in which:  
8 unique CDR3  
2 unique J



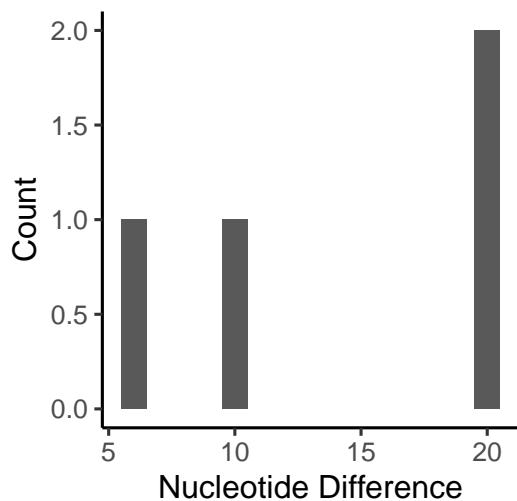
### IGHV4-39\*02

558 sequences assigned  
No exact matches.



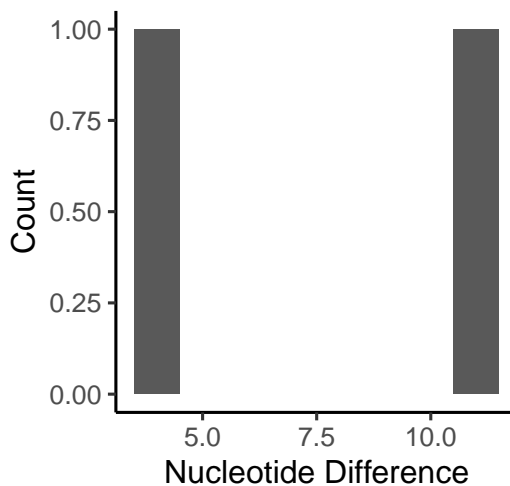
### IGHV4-31\*02

4 sequences assigned  
No exact matches.



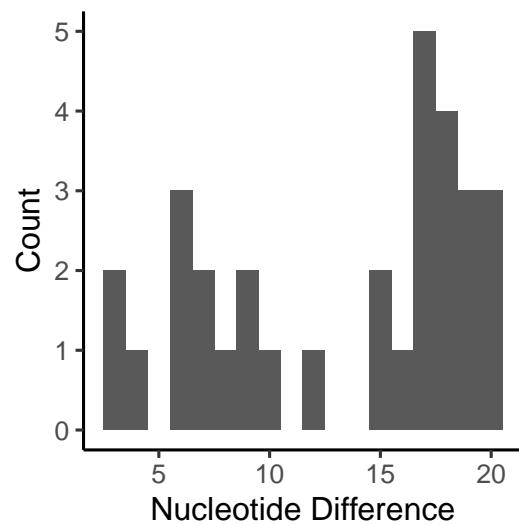
### IGHV4-38-2\*01

2 sequences assigned  
No exact matches.



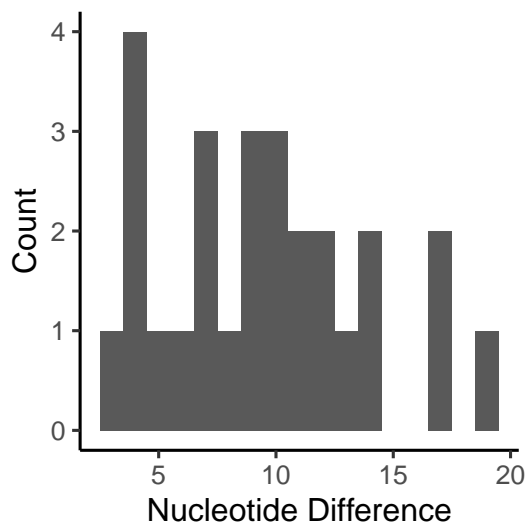
### IGHV4-59\*02

35 sequences assigned  
No exact matches.



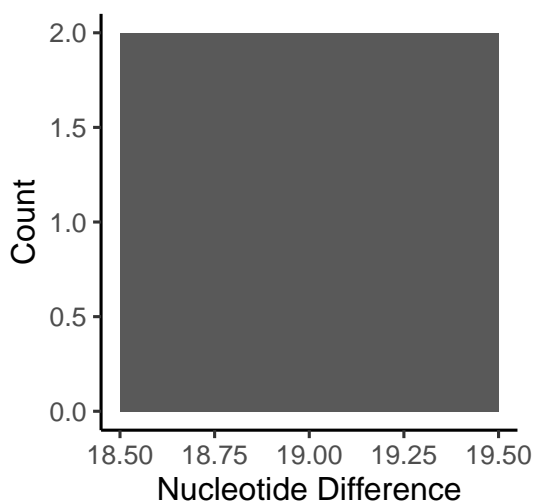
### IGHV4-59\*11

28 sequences assigned  
No exact matches.



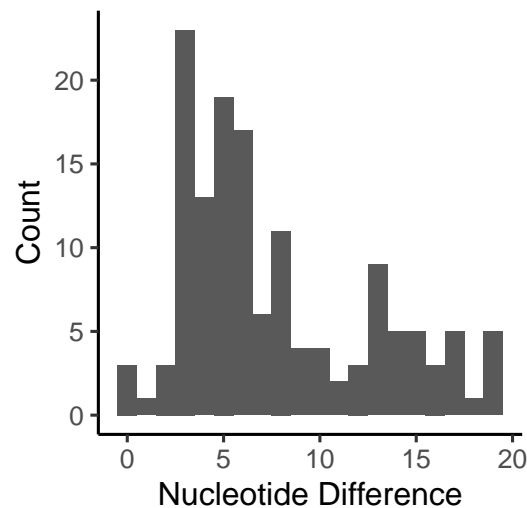
### IGHV4/OR15-8\*02

2 sequences assigned  
No exact matches.



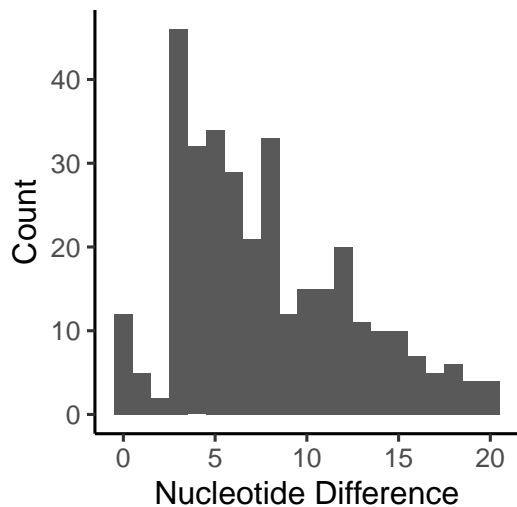
### IGHV6-1\*01\_02

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



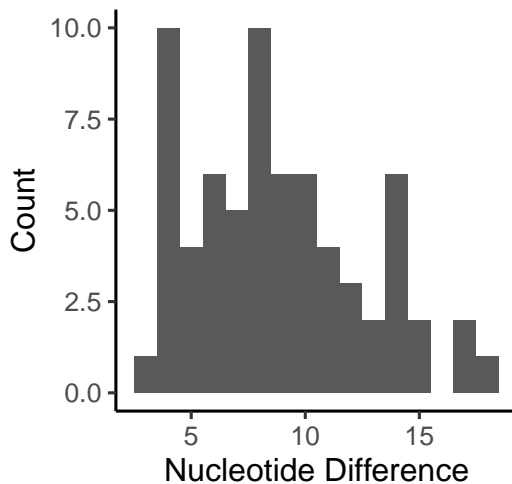
### IGHV4-59\*01\_07

347 sequences assigned  
12 (3.5%) exact matches, in which:  
7 unique CDR3  
5 unique J



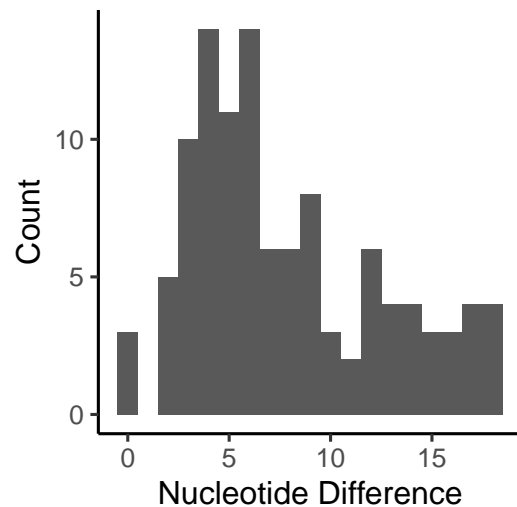
### IGHV5-51\*07

70 sequences assigned  
No exact matches.



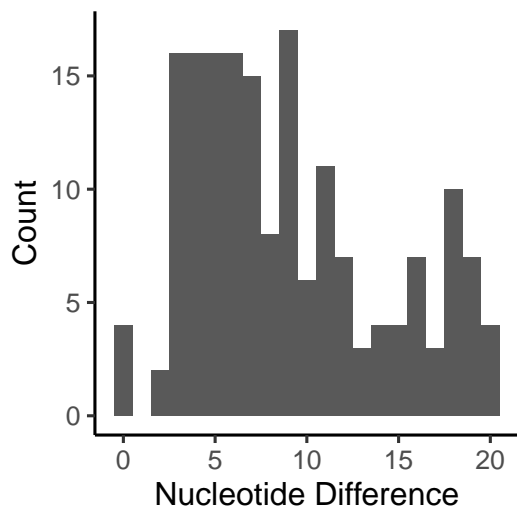
### IGHV7-4-1\*02

112 sequences assigned  
3 (2.7%) exact matches, in which:  
3 unique CDR3  
2 unique J



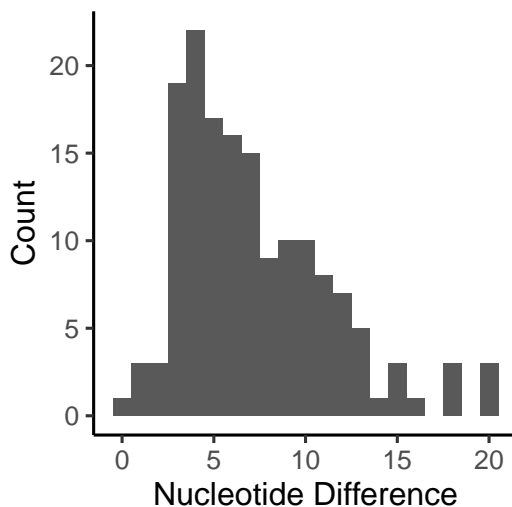
### IGHV4-61\*01

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



### IGHV5-51\*01\_03

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







Warning – no inferred sequences found.