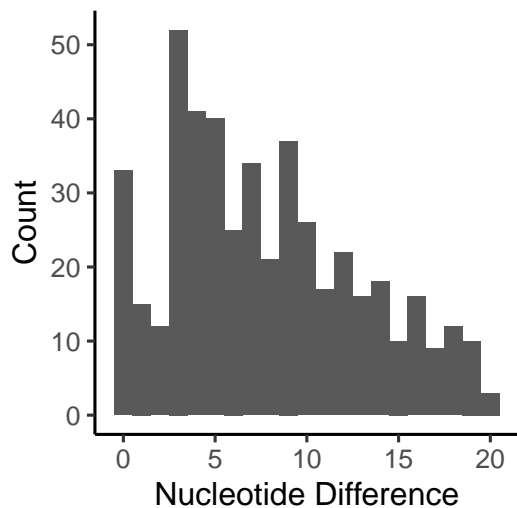


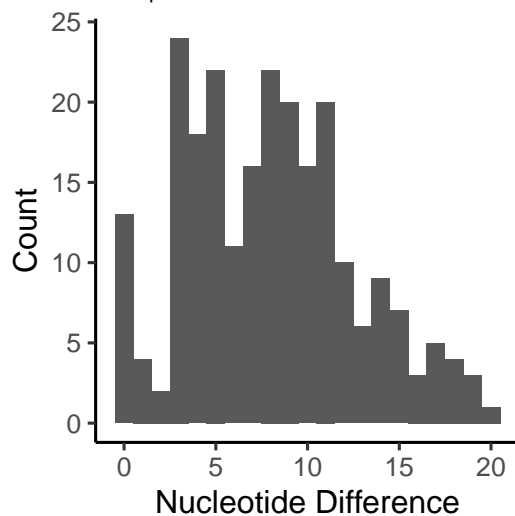
### IGHV1-2\*02

495 sequences assigned  
33 (6.7%) exact matches, in which:  
29 unique CDR3  
5 unique J



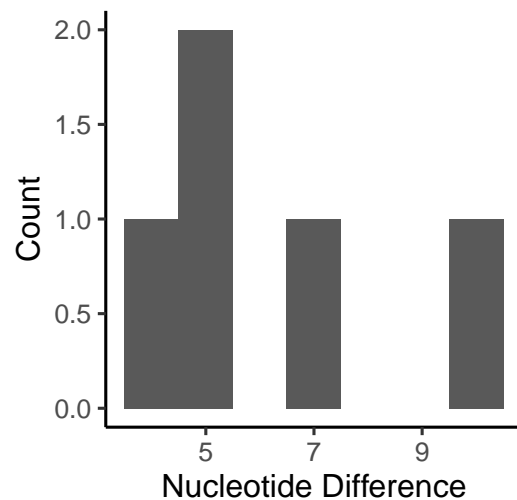
### IGHV1-18\*01

241 sequences assigned  
13 (5.4%) exact matches, in which:  
13 unique CDR3  
4 unique J



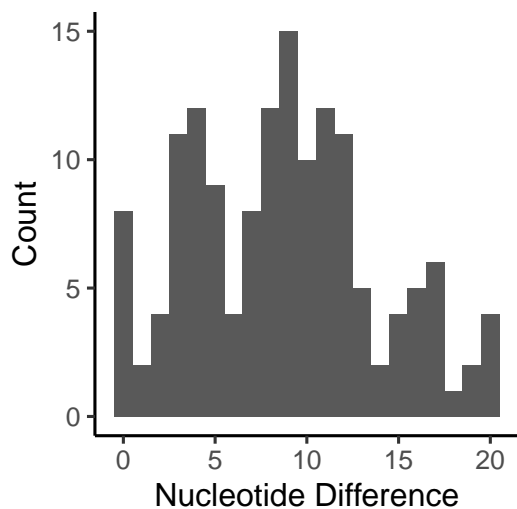
### IGHV1-45\*02

5 sequences assigned  
No exact matches.



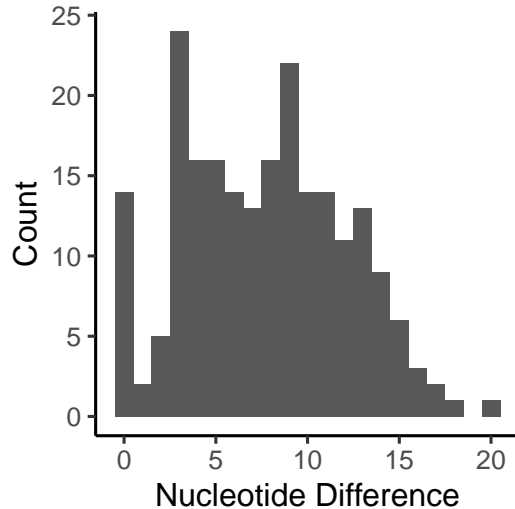
### IGHV1-3\*01\_05

147 sequences assigned  
8 (5.4%) exact matches, in which:  
8 unique CDR3  
4 unique J



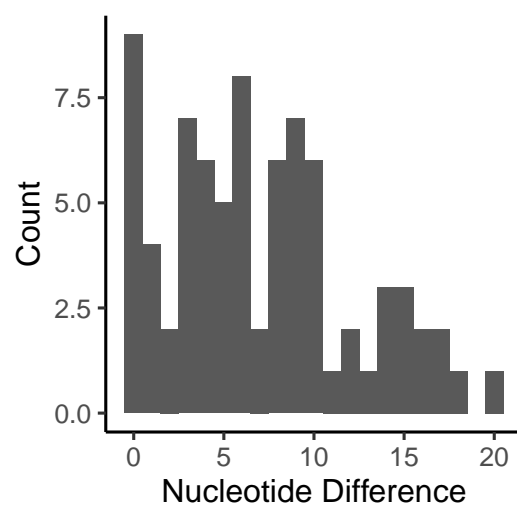
### IGHV1-18\*04

223 sequences assigned  
14 (6.3%) exact matches, in which:  
13 unique CDR3  
4 unique J



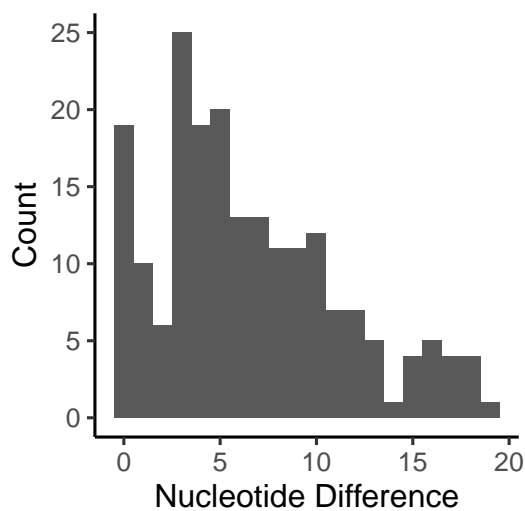
### IGHV1-46\*01

81 sequences assigned  
9 (11.1%) exact matches, in which:  
9 unique CDR3  
2 unique J



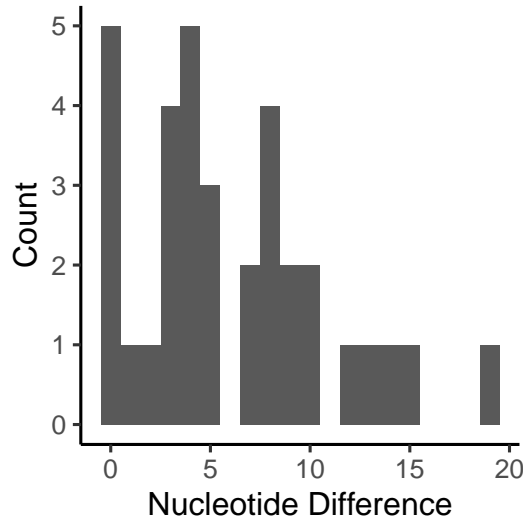
### IGHV1-8\*01

201 sequences assigned  
19 (9.5%) exact matches, in which:  
19 unique CDR3  
4 unique J



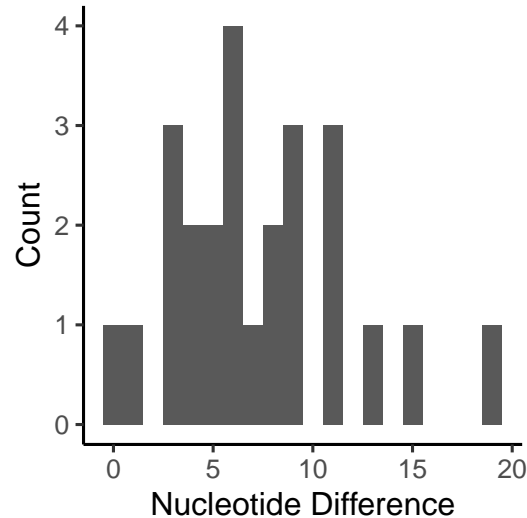
### IGHV1-24\*01

34 sequences assigned  
5 (14.7%) exact matches, in which:  
5 unique CDR3  
2 unique J



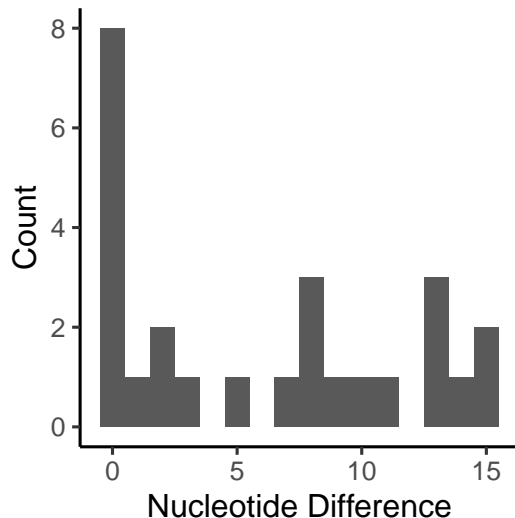
### IGHV1-46\*03

26 sequences assigned  
1 (3.8%) exact matches, in which:  
1 unique CDR3  
1 unique J



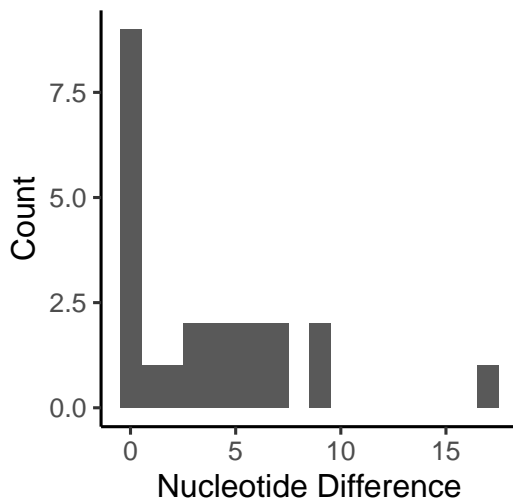
### IGHV1-58\*01\_03

26 sequences assigned  
8 (30.8%) exact matches, in which:  
7 unique CDR3  
3 unique J



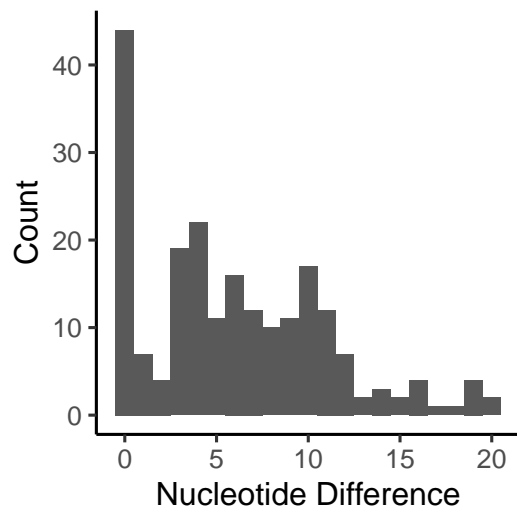
### IGHV2-26\*01

24 sequences assigned  
9 (37.5%) exact matches, in which:  
9 unique CDR3  
4 unique J



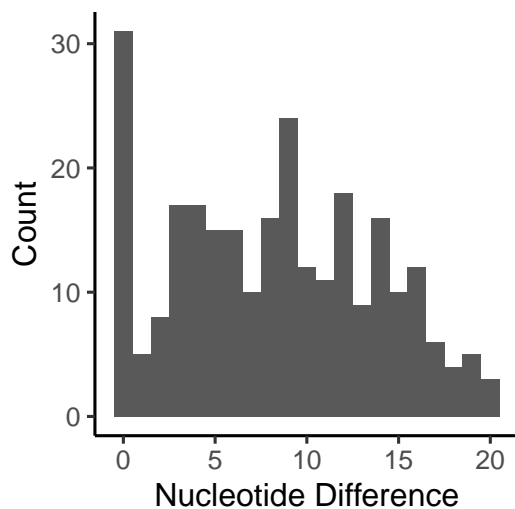
### IGHV3-9\*01

219 sequences assigned  
44 (20.1%) exact matches, in which:  
30 unique CDR3  
4 unique J



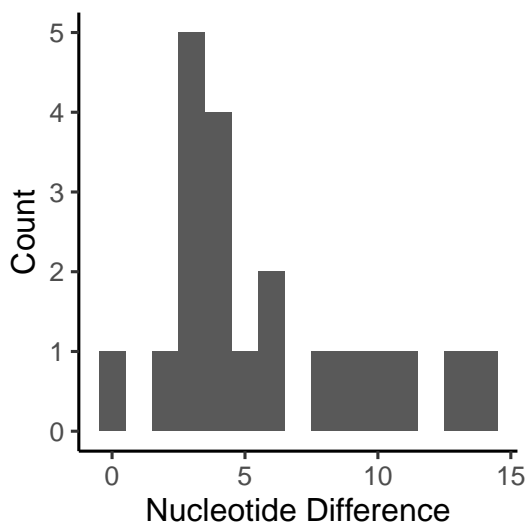
### IGHV1-69\*01\_12\_13

272 sequences assigned  
31 (11.4%) exact matches, in which:  
31 unique CDR3  
6 unique J



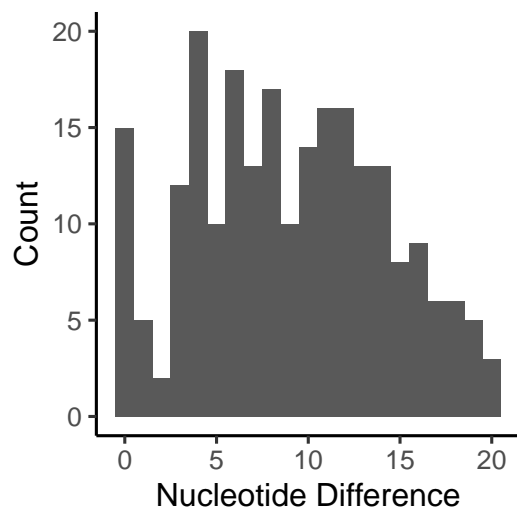
### IGHV2-70\*01

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



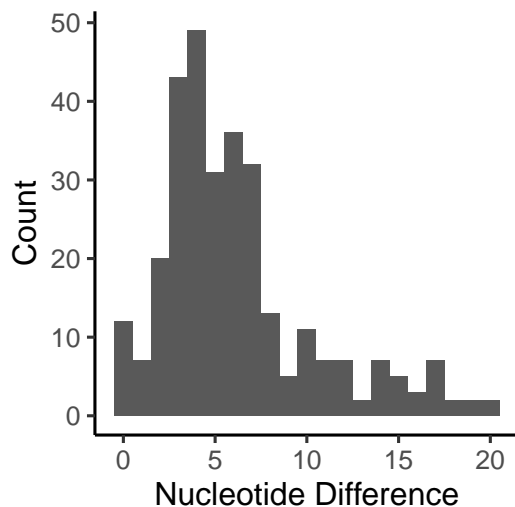
### IGHV3-11\*01

243 sequences assigned  
15 (6.2%) exact matches, in which:  
11 unique CDR3  
4 unique J



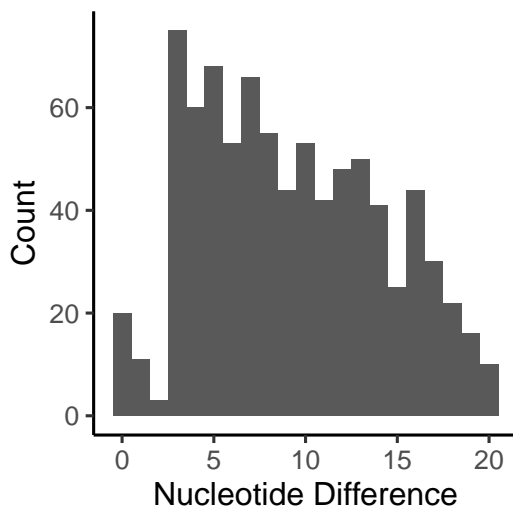
### IGHV2-5\*01

309 sequences assigned  
12 (3.9%) exact matches, in which:  
10 unique CDR3  
4 unique J



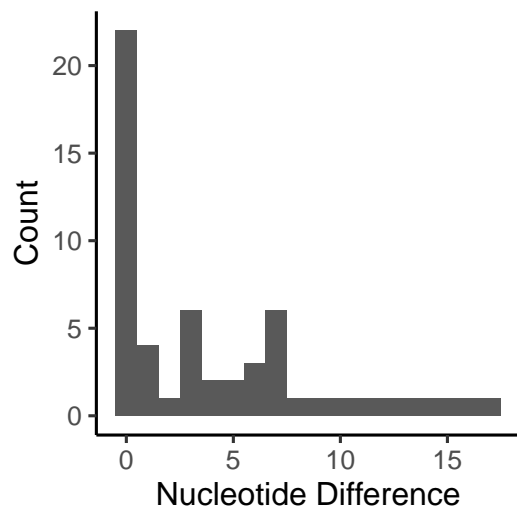
### IGHV3-7\*01

868 sequences assigned  
20 (2.3%) exact matches, in which:  
18 unique CDR3  
4 unique J



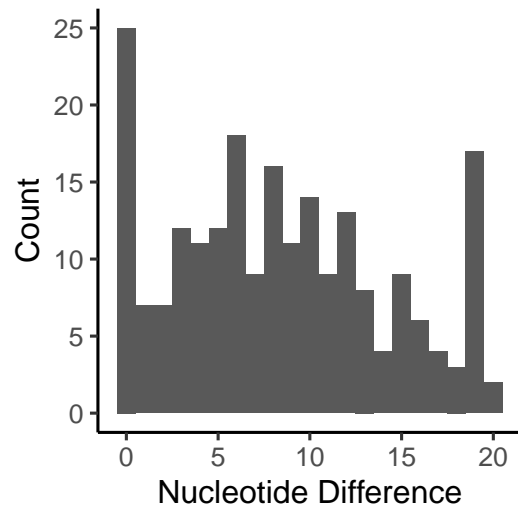
### IGHV3-13\*01

57 sequences assigned  
22 (38.6%) exact matches, in which:  
11 unique CDR3  
2 unique J



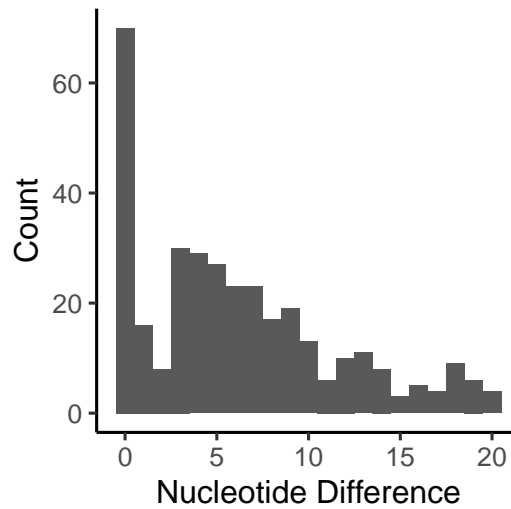
### IGHV3-15\*01\_02

225 sequences assigned  
25 (11.1%) exact matches, in which:  
15 unique CDR3  
3 unique J



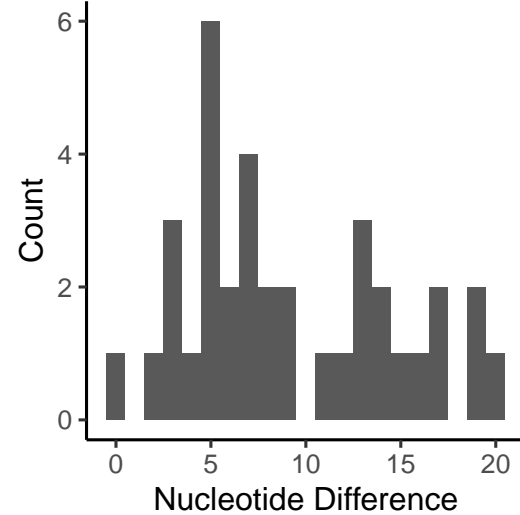
### IGHV3-21\*01\_02

348 sequences assigned  
70 (20.1%) exact matches, in which:  
42 unique CDR3  
4 unique J



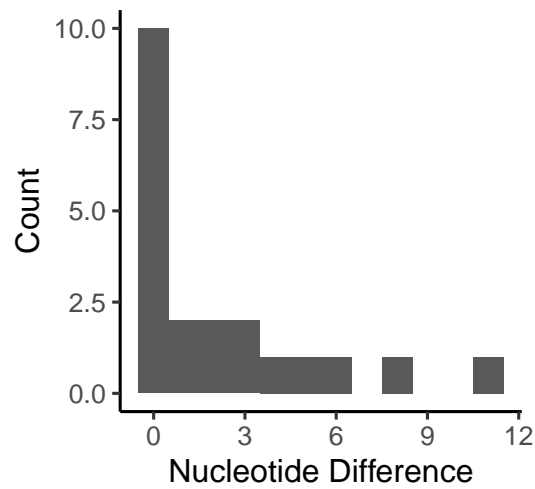
### IGHV3-30\*03

40 sequences assigned  
1 (2.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



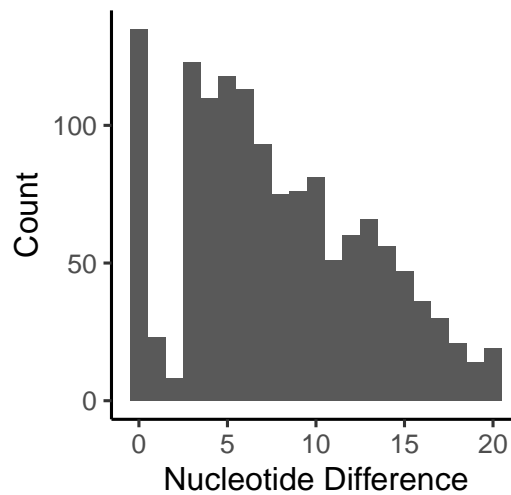
### IGHV3-20\*01\_02

23 sequences assigned  
10 (43.5%) exact matches, in which:  
6 unique CDR3  
3 unique J



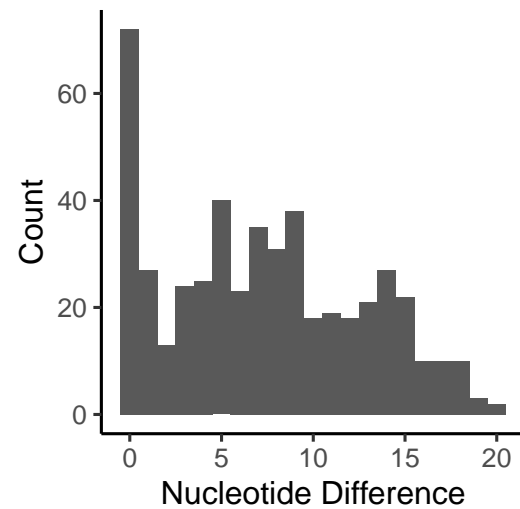
### IGHV3-23\*01\_04

1410 sequences assigned  
135 (9.6%) exact matches, in which:  
76 unique CDR3  
5 unique J



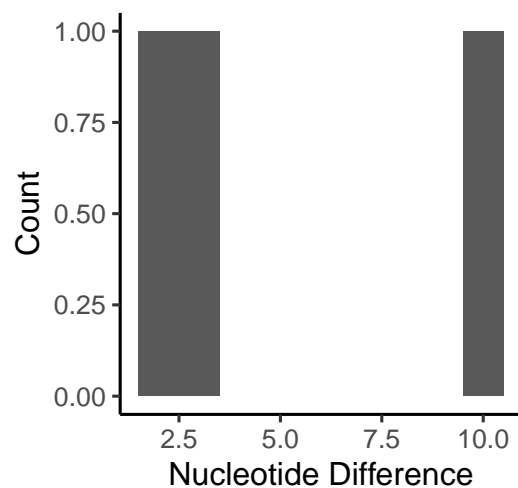
### IGHV3-30\*18

497 sequences assigned  
72 (14.5%) exact matches, in which:  
38 unique CDR3  
5 unique J



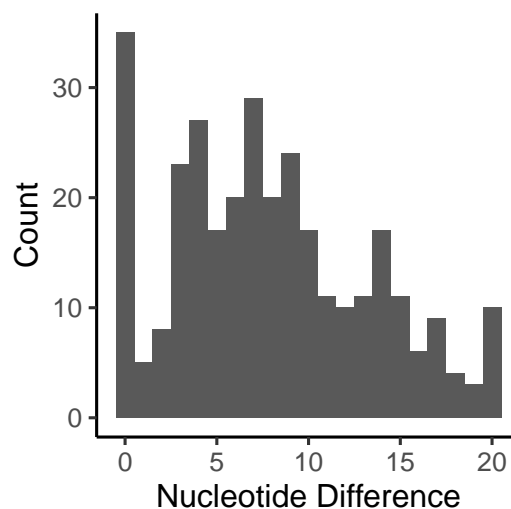
### IGHV3-20\*03\_04

3 sequences assigned  
No exact matches.



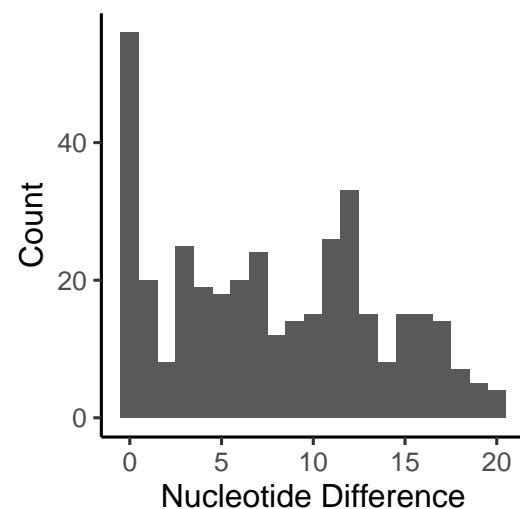
### IGHV3-30-3\*01

338 sequences assigned  
35 (10.4%) exact matches, in which:  
23 unique CDR3  
4 unique J



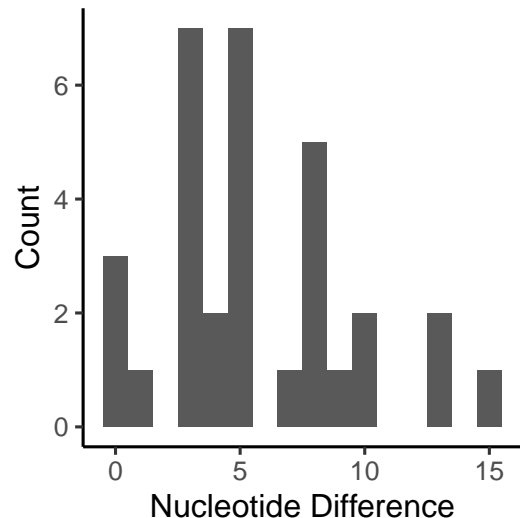
### IGHV3-33\*01

383 sequences assigned  
56 (14.6%) exact matches, in which:  
32 unique CDR3  
5 unique J



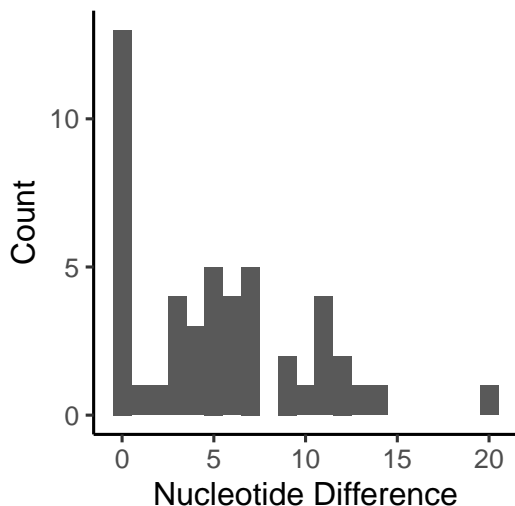
### IGHV3-43\*01

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



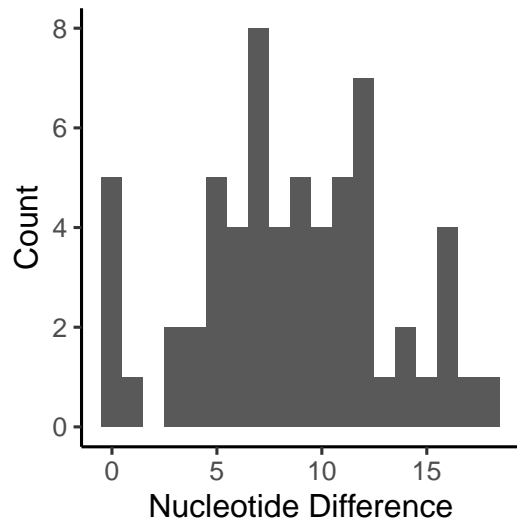
### IGHV3-49\*03\_05

48 sequences assigned  
13 (27.1%) exact matches, in which:  
7 unique CDR3  
2 unique J



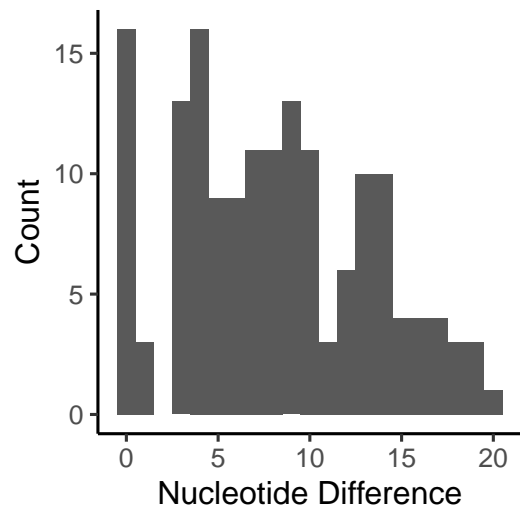
### IGHV3-72\*01

62 sequences assigned  
5 (8.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



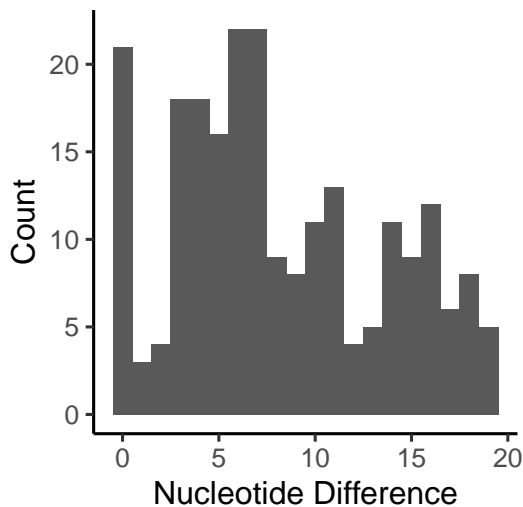
### IGHV3-48\*01

177 sequences assigned  
16 (9%) exact matches, in which:  
11 unique CDR3  
2 unique J



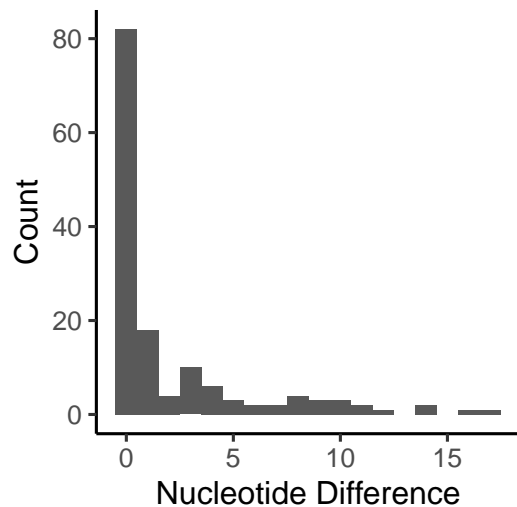
### IGHV3-53\*01\_02

230 sequences assigned  
21 (9.1%) exact matches, in which:  
16 unique CDR3  
5 unique J



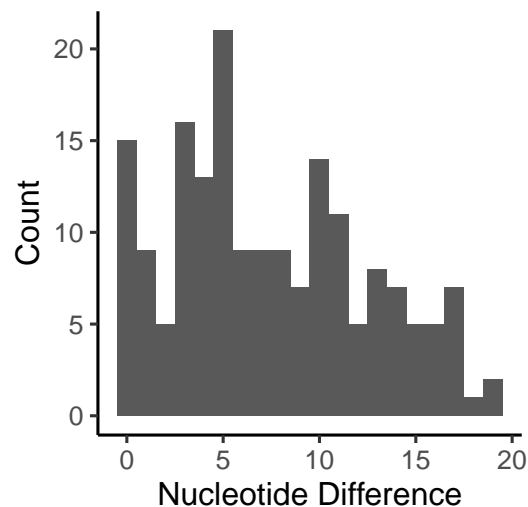
### IGHV3-73\*01\_02

144 sequences assigned  
82 (56.9%) exact matches, in which:  
49 unique CDR3  
4 unique J



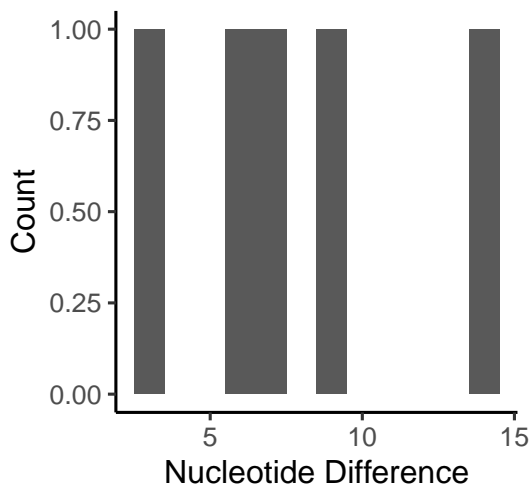
### IGHV3-48\*02

190 sequences assigned  
15 (7.9%) exact matches, in which:  
10 unique CDR3  
4 unique J



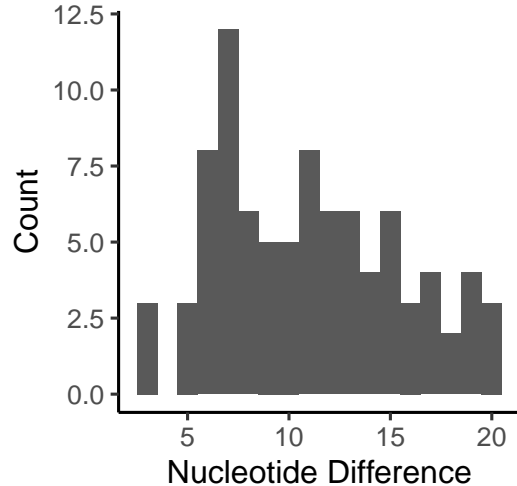
### IGHV3-64\*02\_07

5 sequences assigned  
No exact matches.



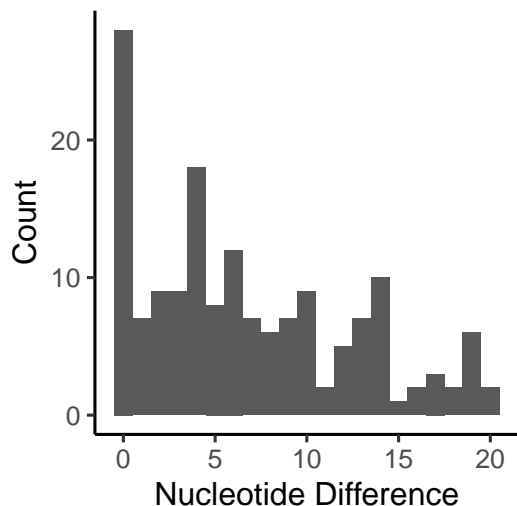
### IGHV3-74\*03

96 sequences assigned  
No exact matches.



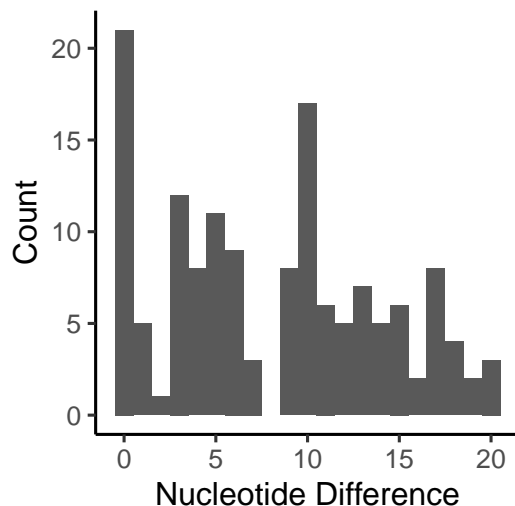
### IGHV3-74\*01\_02

161 sequences assigned  
28 (17.4%) exact matches, in which:  
15 unique CDR3  
4 unique J



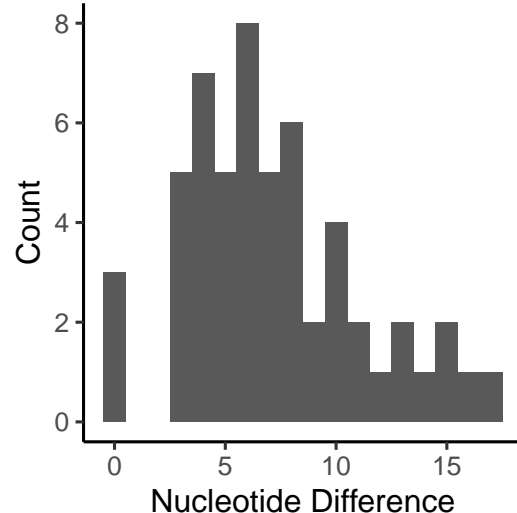
### IGHV4-4\*02\_03

156 sequences assigned  
21 (13.5%) exact matches, in which:  
12 unique CDR3  
3 unique J



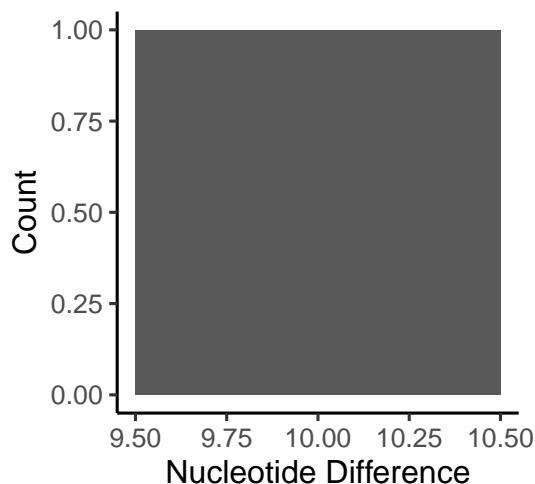
### IGHV4-30-2\*01

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



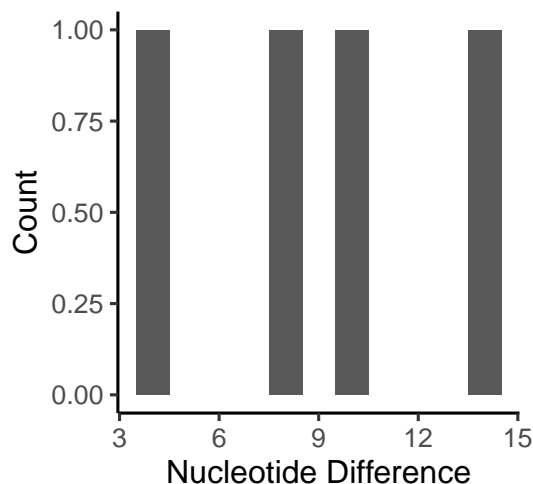
### IGHV3-NL1\*01

1 sequences assigned  
No exact matches.



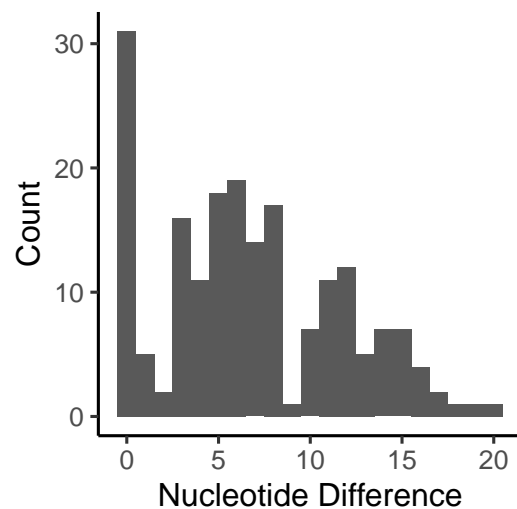
### IGHV4-28\*01\_07

4 sequences assigned  
No exact matches.



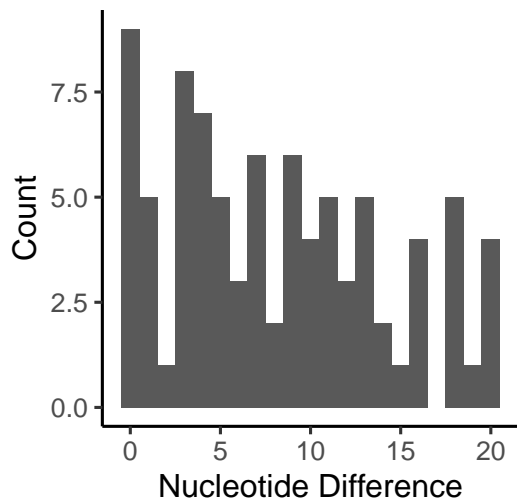
### IGHV4-31\*02

205 sequences assigned  
31 (15.1%) exact matches, in which:  
24 unique CDR3  
5 unique J



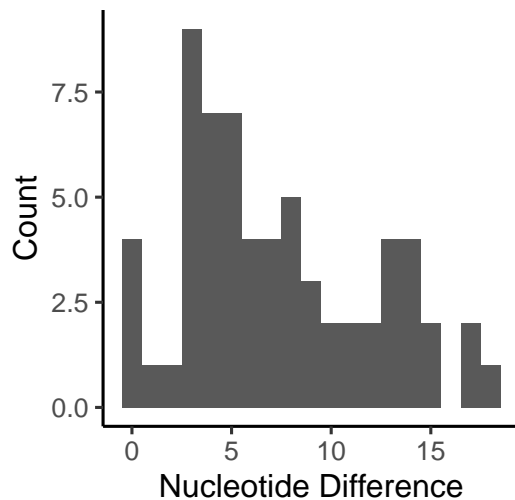
### IGHV4-4\*07

89 sequences assigned  
9 (10.1%) exact matches, in which:  
6 unique CDR3  
3 unique J



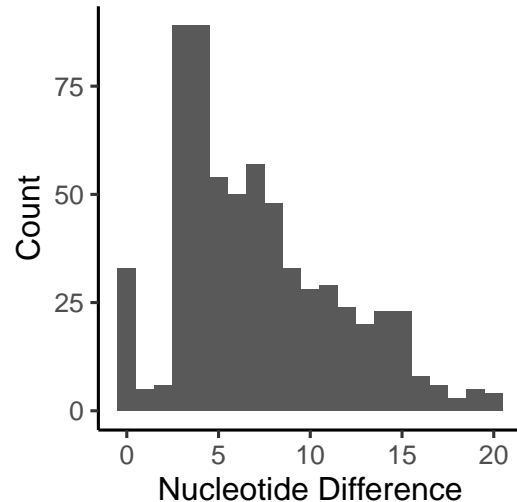
### IGHV4-30-4\*01

66 sequences assigned  
4 (6.1%) exact matches, in which:  
3 unique CDR3  
2 unique J



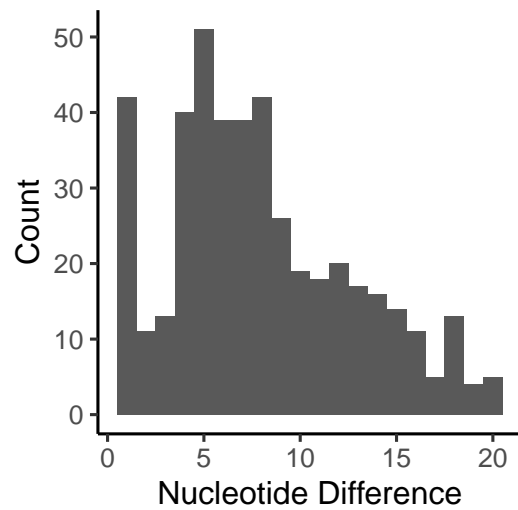
### IGHV4-34\*01\_02

660 sequences assigned  
33 (5%) exact matches, in which:  
31 unique CDR3  
5 unique J



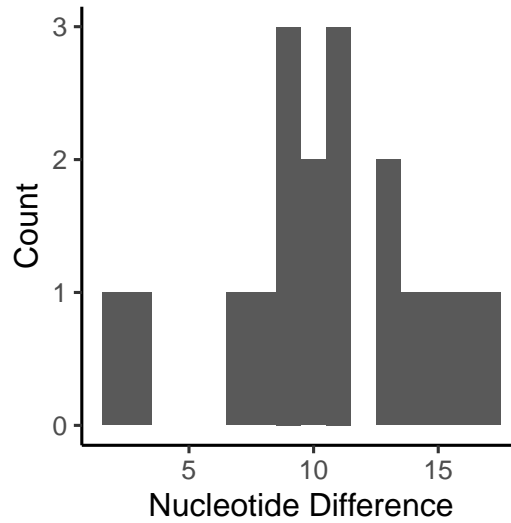
### IGHV4–39\*02

475 sequences assigned  
No exact matches.



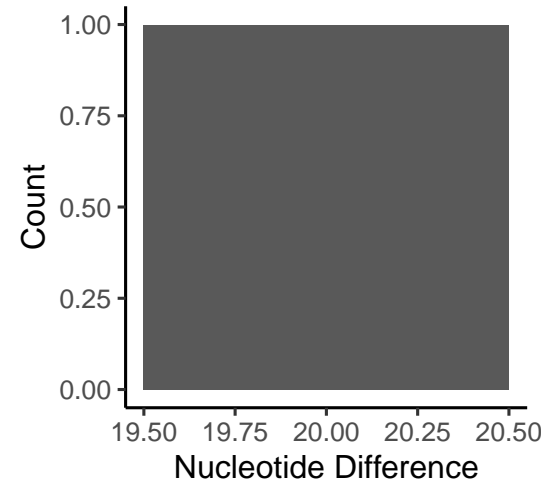
### IGHV4–59\*11

19 sequences assigned  
No exact matches.



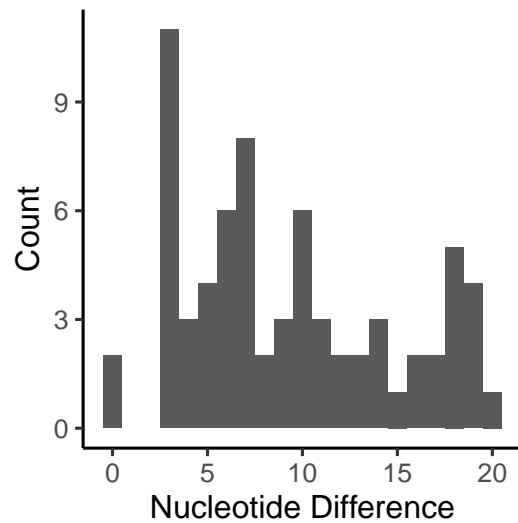
### IGHV4/OR15–8\*02

1 sequences assigned  
No exact matches.



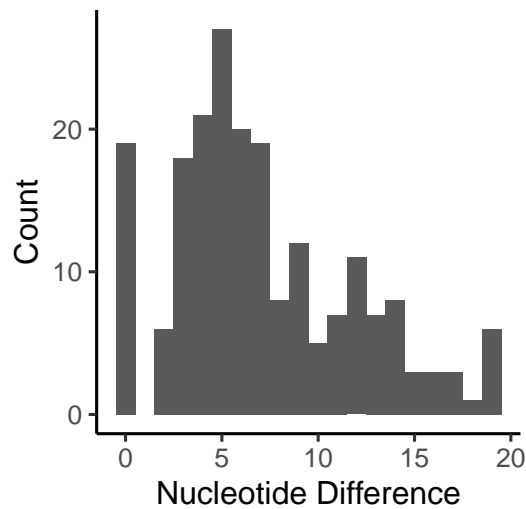
### IGHV4–39\*01\_05

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



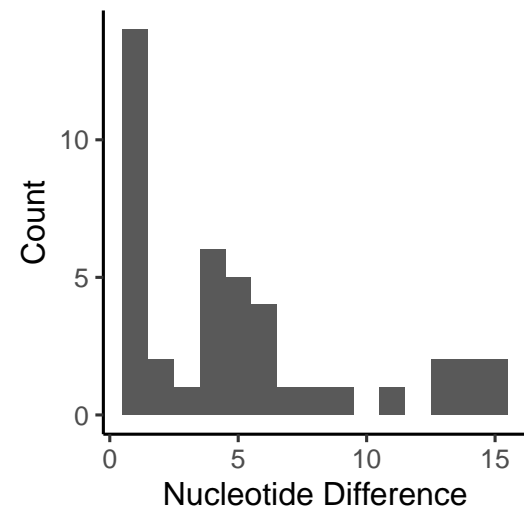
### IGHV4–59\*01\_07

207 sequences assigned  
19 (9.2%) exact matches, in which:  
18 unique CDR3  
4 unique J



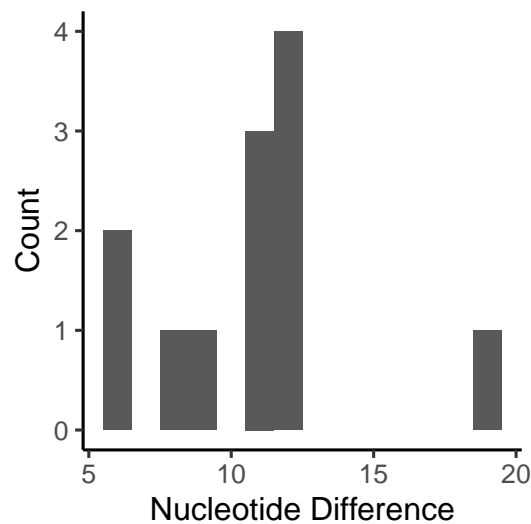
### IGHV5–51\*07

42 sequences assigned  
No exact matches.



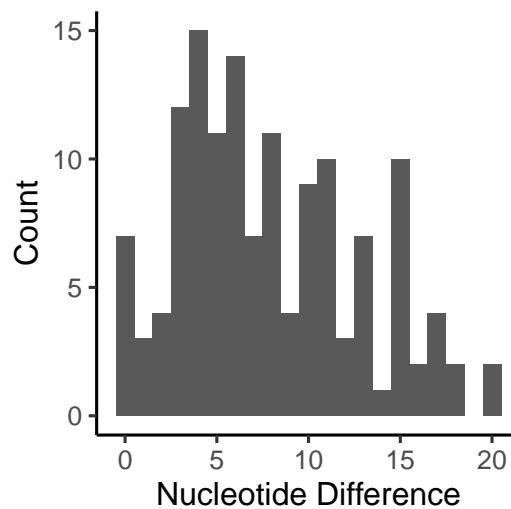
### IGHV4–59\*02

14 sequences assigned  
No exact matches.



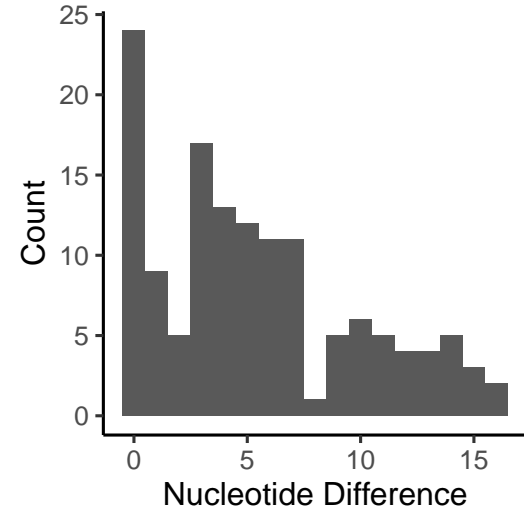
### IGHV4–61\*01

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



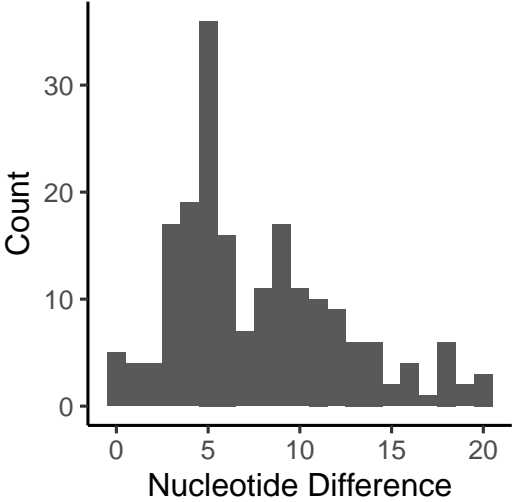
### IGHV5–51\*01\_03

137 sequences assigned  
24 (17.5%) exact matches, in which:  
21 unique CDR3  
4 unique J



# IGHV6-1\*01\_02

200 sequences assigned  
5 (2.5%) exact matches, in which:  
5 unique CDR3  
2 unique J







Warning – no inferred sequences found.