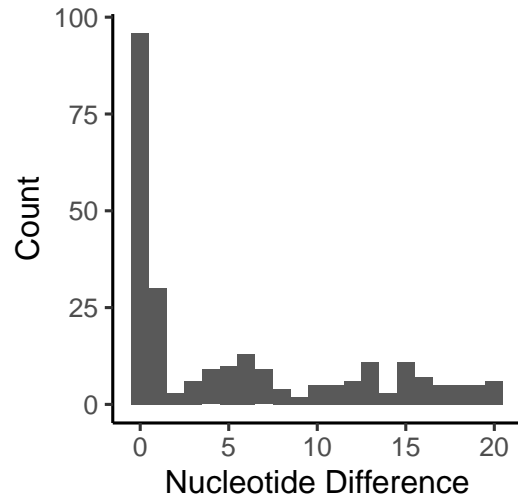


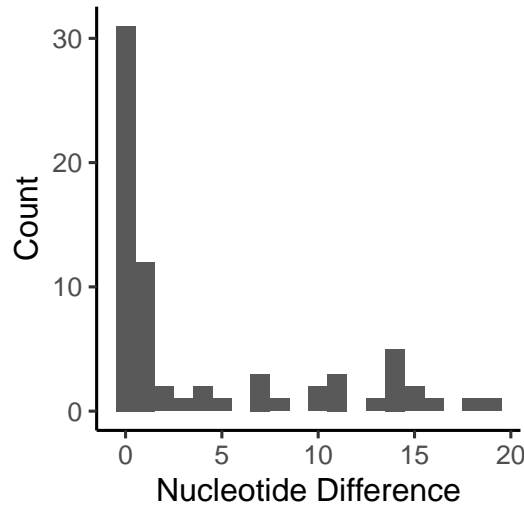
### IGHV1-2\*02

335 sequences assigned  
96 (28.7%) exact matches, in which:  
95 unique CDR3  
6 unique J



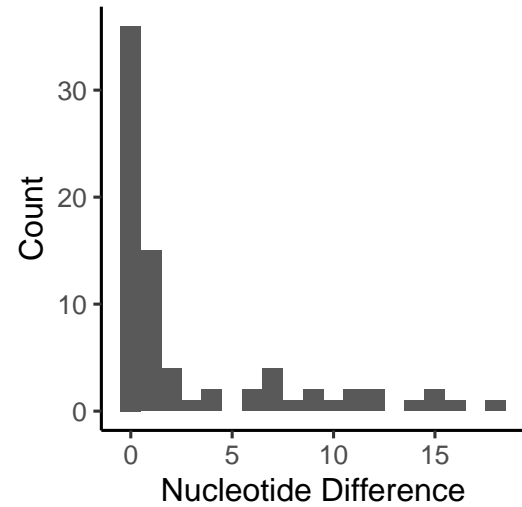
### IGHV1-18\*01

93 sequences assigned  
31 (33.3%) exact matches, in which:  
31 unique CDR3  
4 unique J



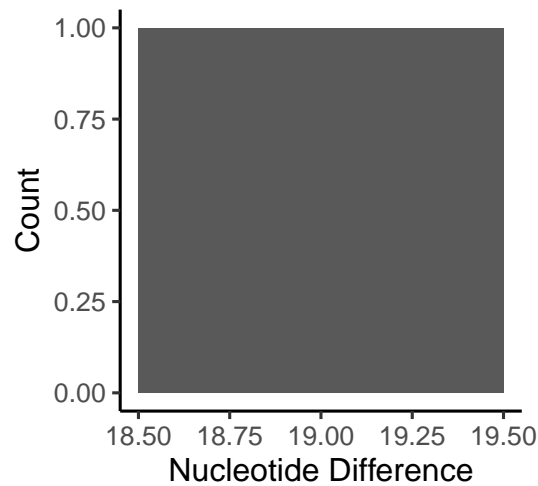
### IGHV1-46\*03

107 sequences assigned  
36 (33.6%) exact matches, in which:  
36 unique CDR3  
6 unique J



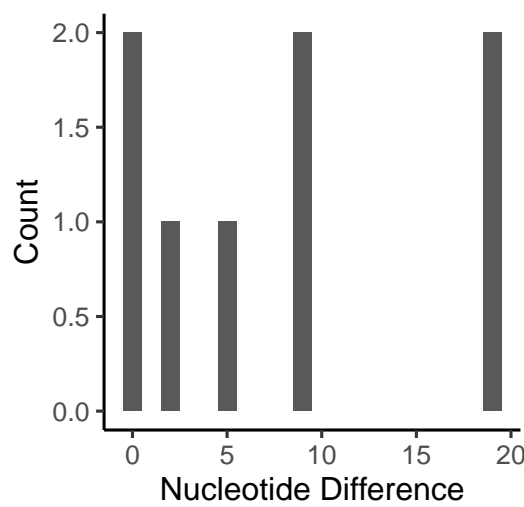
### IGHV1-3\*01

1 sequences assigned  
No exact matches.



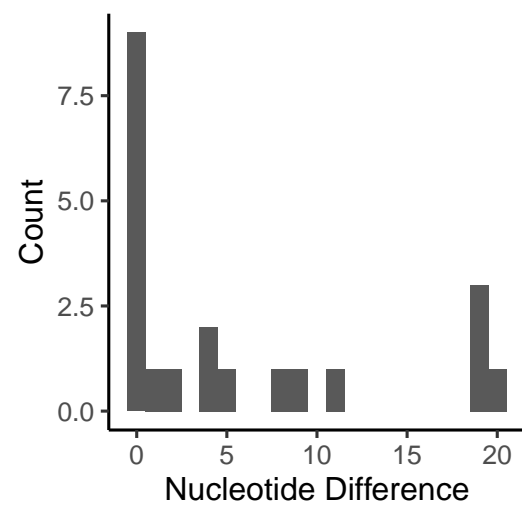
### IGHV1-24\*01

8 sequences assigned  
2 (25%) exact matches, in which:  
2 unique CDR3  
1 unique J



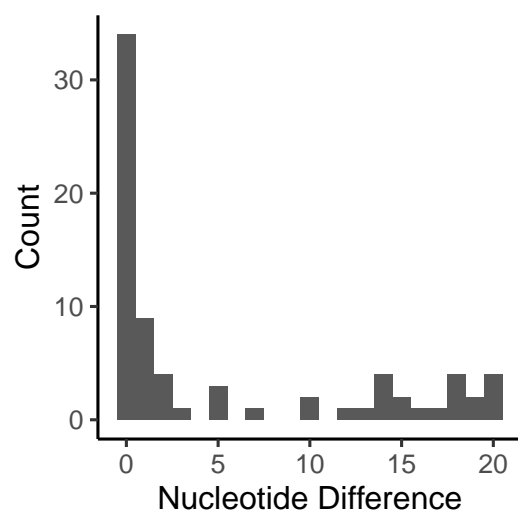
### IGHV1-58\*02

21 sequences assigned  
9 (42.9%) exact matches, in which:  
9 unique CDR3  
4 unique J



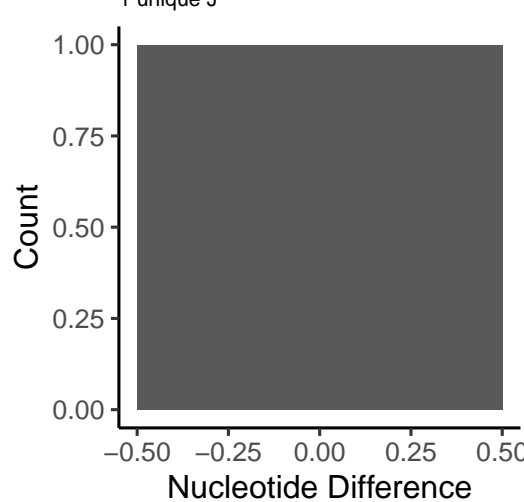
### IGHV1-8\*01

106 sequences assigned  
34 (32.1%) exact matches, in which:  
33 unique CDR3  
5 unique J



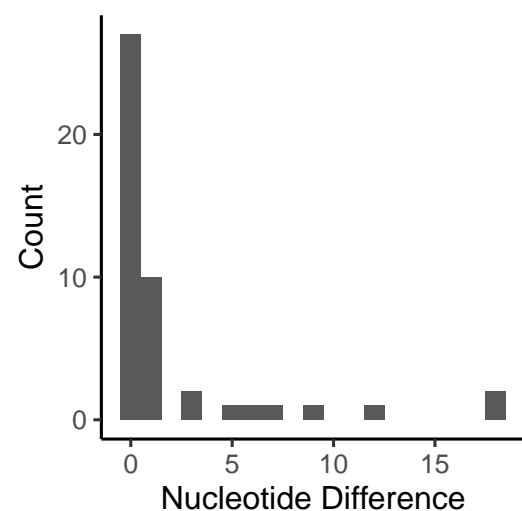
### IGHV1-45\*02

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



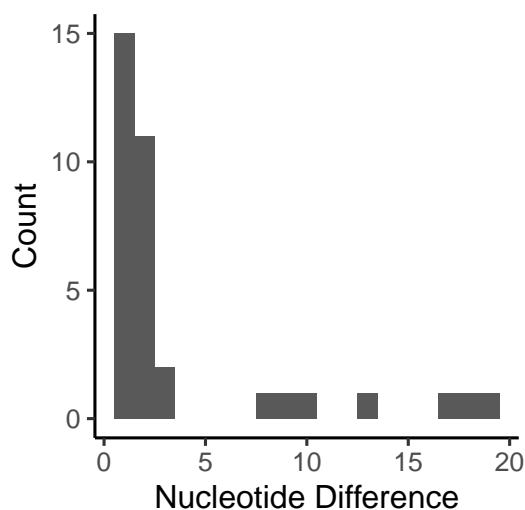
### IGHV1-69\*02

48 sequences assigned  
27 (56.2%) exact matches, in which:  
26 unique CDR3  
3 unique J



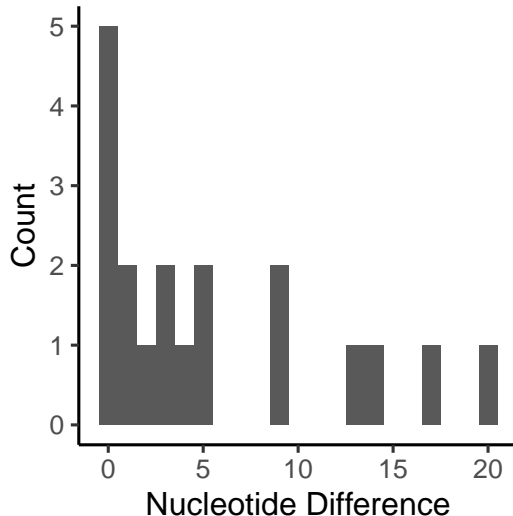
### IGHV1-69\*08

40 sequences assigned  
No exact matches.



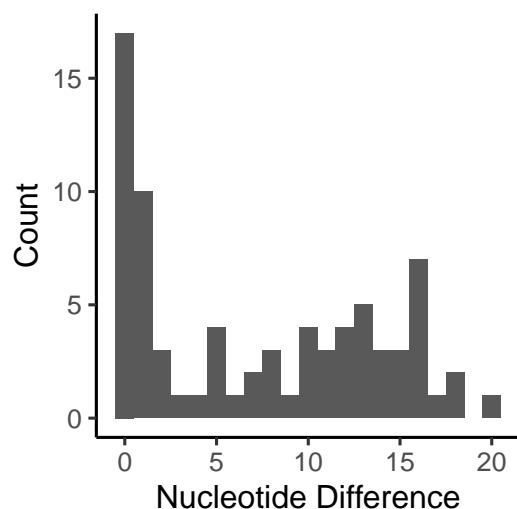
### IGHV2-26\*01

20 sequences assigned  
5 (25%) exact matches, in which:  
5 unique CDR3  
4 unique J



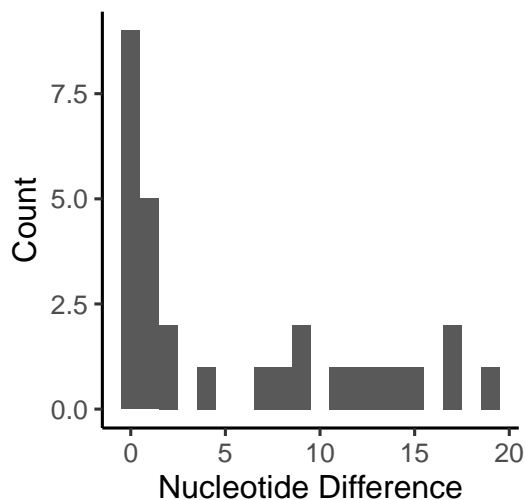
### IGHV3-7\*04

90 sequences assigned  
17 (18.9%) exact matches, in which:  
17 unique CDR3  
4 unique J



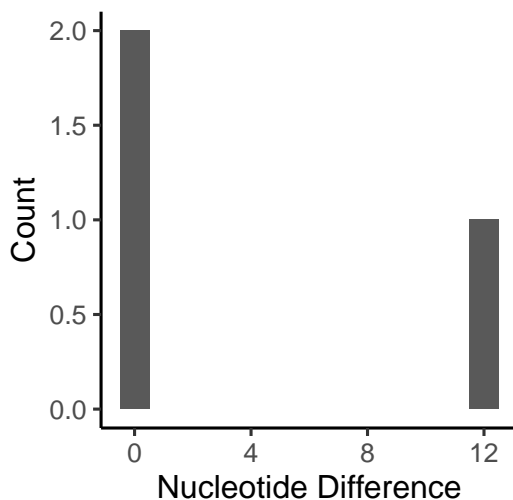
### IGHV2-5\*01

35 sequences assigned  
9 (25.7%) exact matches, in which:  
9 unique CDR3  
4 unique J



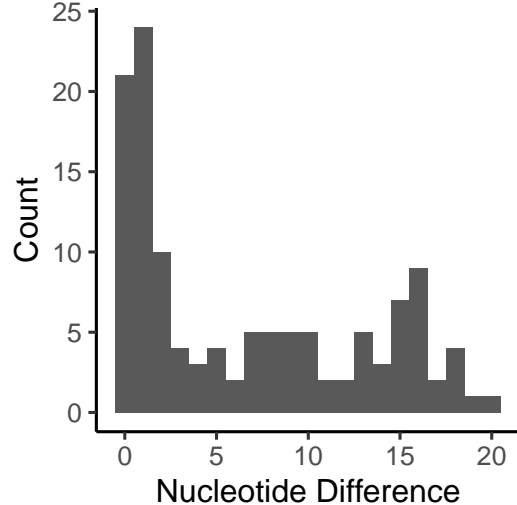
### IGHV2-70\*01

4 sequences assigned  
2 (50%) exact matches, in which:  
2 unique CDR3  
1 unique J



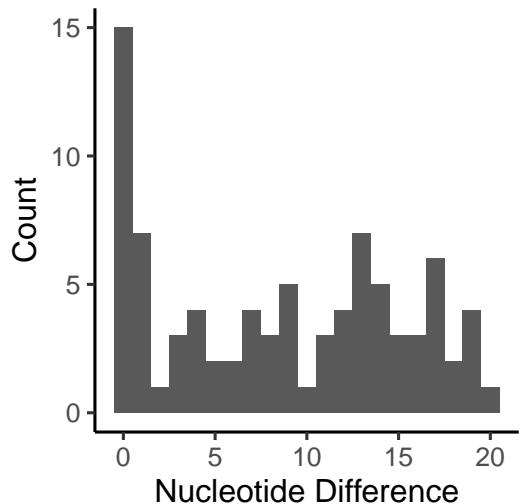
### IGHV3-9\*01

144 sequences assigned  
21 (14.6%) exact matches, in which:  
21 unique CDR3  
5 unique J



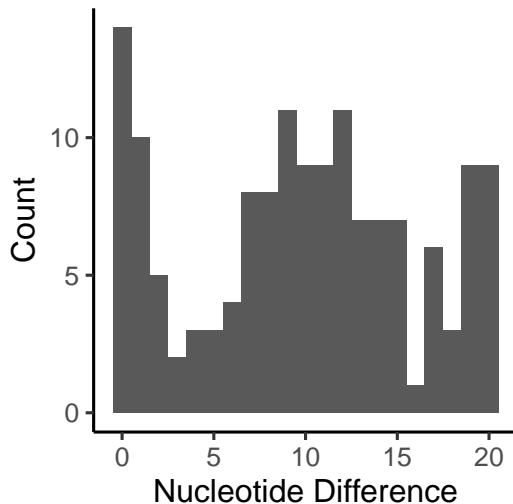
### IGHV2-5\*02

103 sequences assigned  
15 (14.6%) exact matches, in which:  
14 unique CDR3  
4 unique J



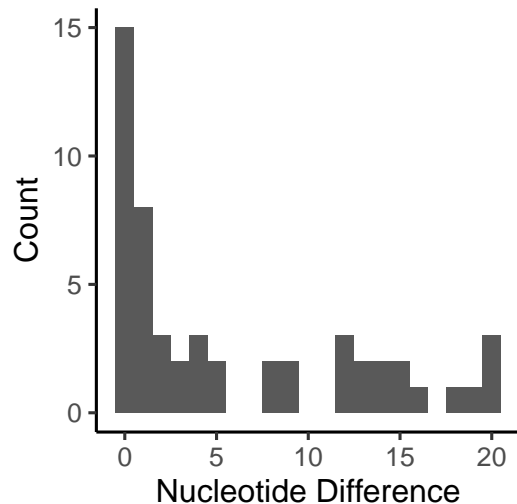
### IGHV3-7\*01

194 sequences assigned  
14 (7.2%) exact matches, in which:  
14 unique CDR3  
4 unique J



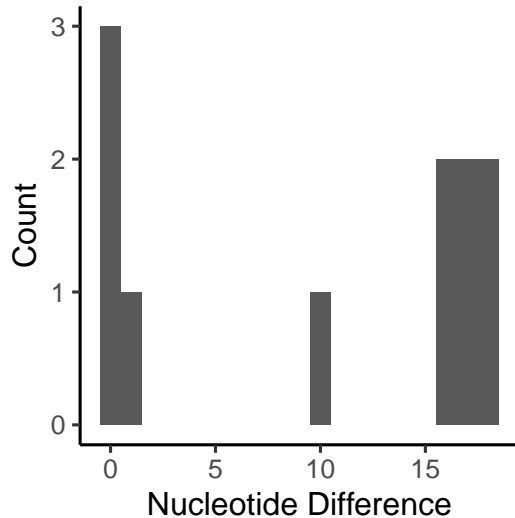
### IGHV3-11\*01

64 sequences assigned  
15 (23.4%) exact matches, in which:  
15 unique CDR3  
4 unique J



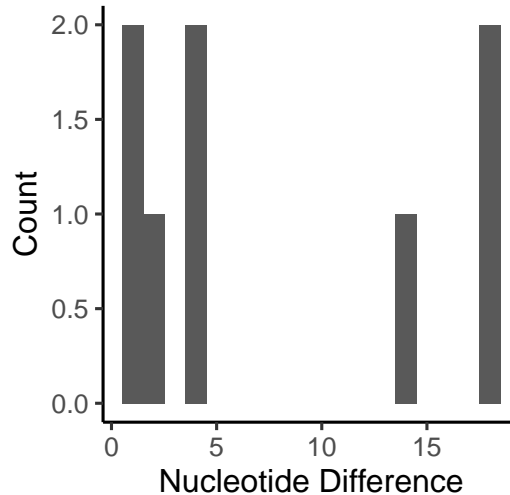
### IGHV3-13\*01

21 sequences assigned  
3 (14.3%) exact matches, in which:  
3 unique CDR3  
2 unique J



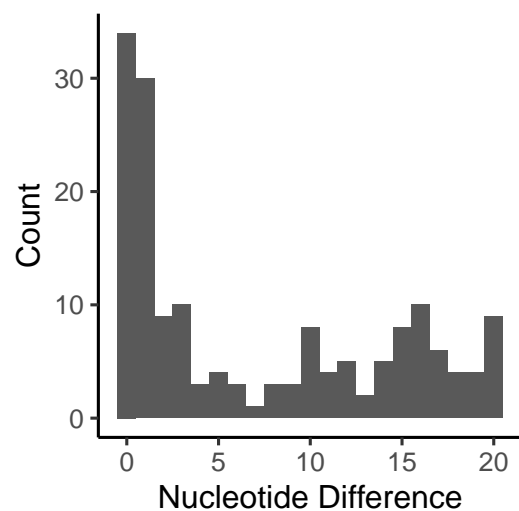
### IGHV3-20\*01

10 sequences assigned  
No exact matches.



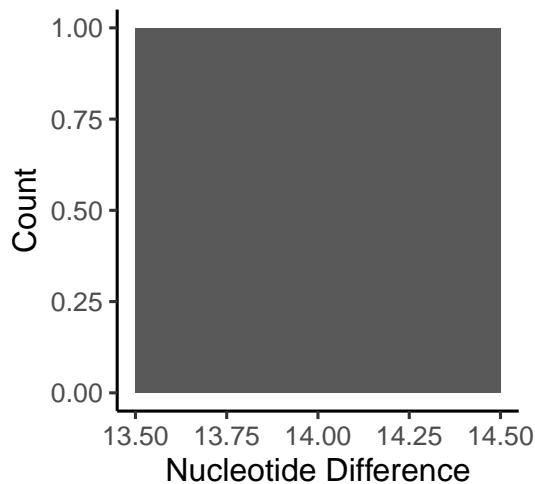
### IGHV3-33\*01

245 sequences assigned  
34 (13.9%) exact matches, in which:  
33 unique CDR3  
5 unique J



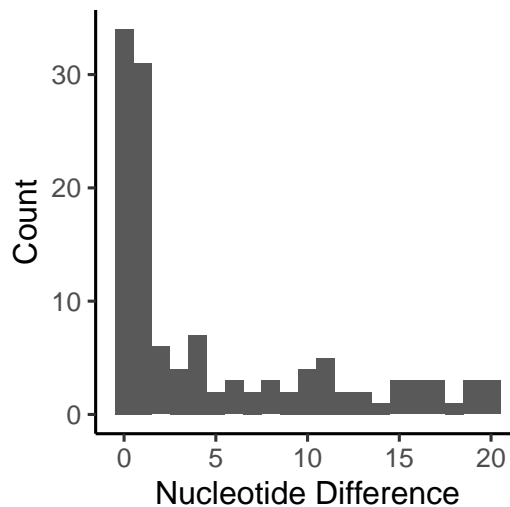
### IGHV3-13\*05

1 sequences assigned  
No exact matches.



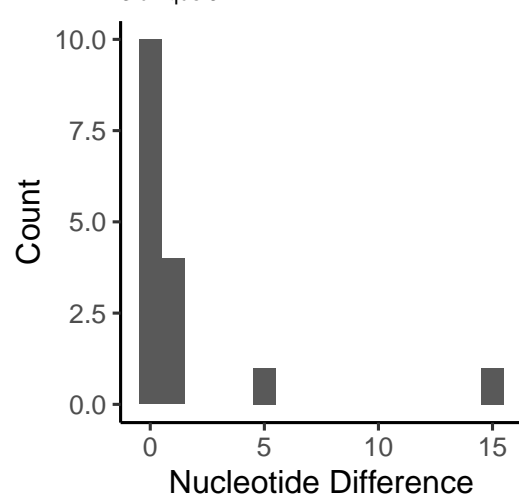
### IGHV3-21\*01

143 sequences assigned  
34 (23.8%) exact matches, in which:  
34 unique CDR3  
6 unique J



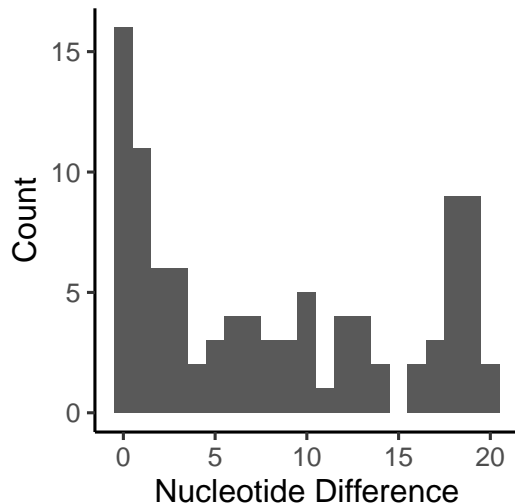
### IGHV3-43\*01

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



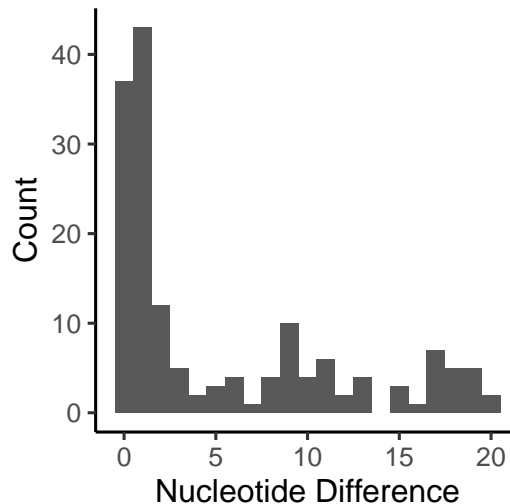
### IGHV3-15\*01

133 sequences assigned  
16 (12%) exact matches, in which:  
16 unique CDR3  
4 unique J



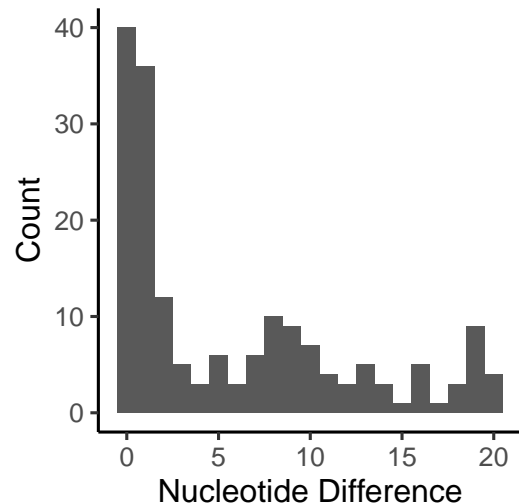
### IGHV3-30-3\*01

188 sequences assigned  
37 (19.7%) exact matches, in which:  
37 unique CDR3  
5 unique J



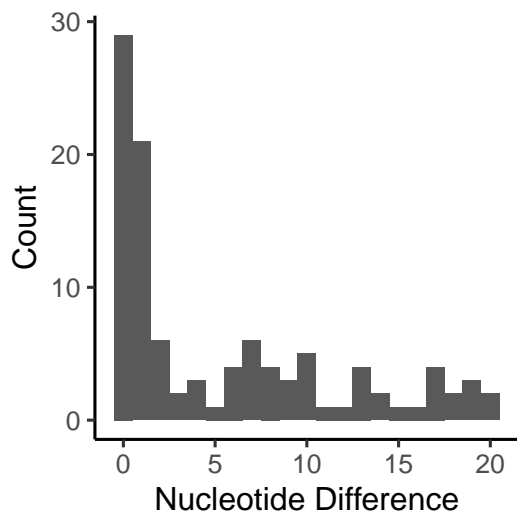
### IGHV3-48\*01

218 sequences assigned  
40 (18.3%) exact matches, in which:  
40 unique CDR3  
6 unique J



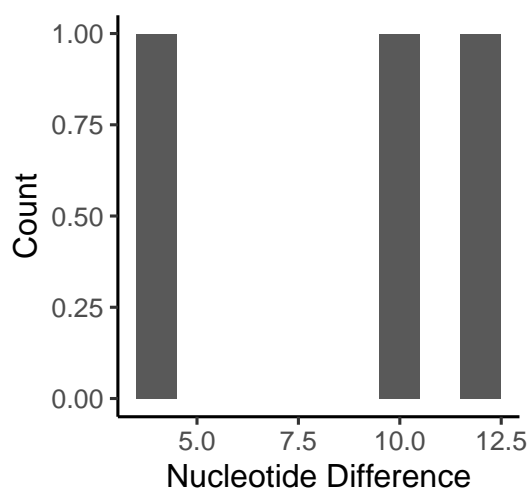
### IGHV3-49\*03

153 sequences assigned  
29 (19%) exact matches, in which:  
26 unique CDR3  
6 unique J



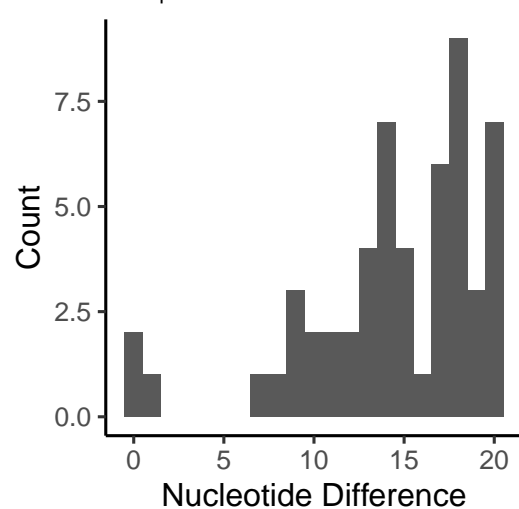
### IGHV3-64\*02

3 sequences assigned  
No exact matches.



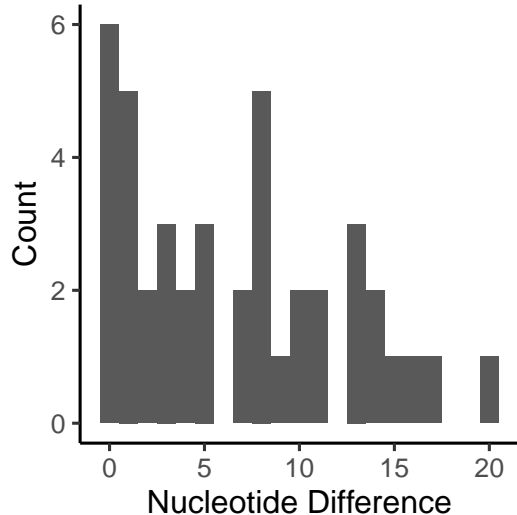
### IGHV3-72\*01

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



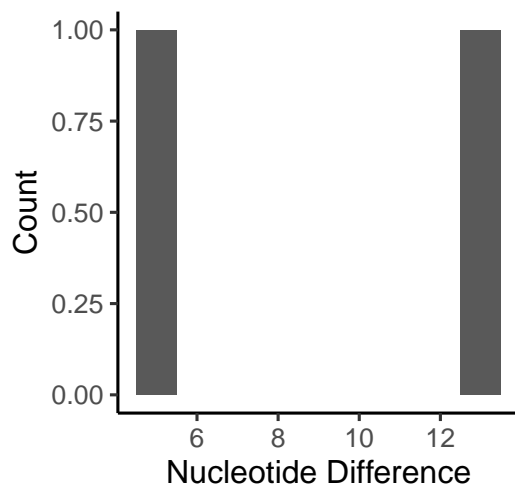
### IGHV3-53\*02

53 sequences assigned  
6 (11.3%) exact matches, in which:  
6 unique CDR3  
4 unique J



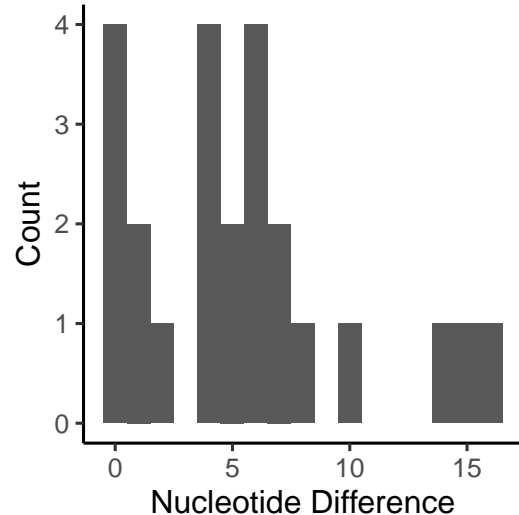
### IGHV3-64\*07

3 sequences assigned  
No exact matches.



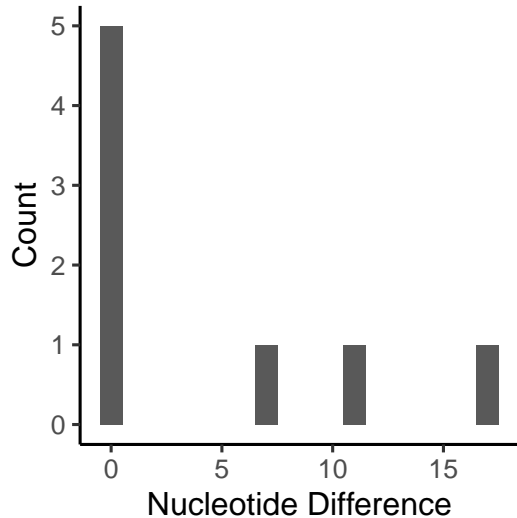
### IGHV3-73\*01

35 sequences assigned  
4 (11.4%) exact matches, in which:  
4 unique CDR3  
3 unique J



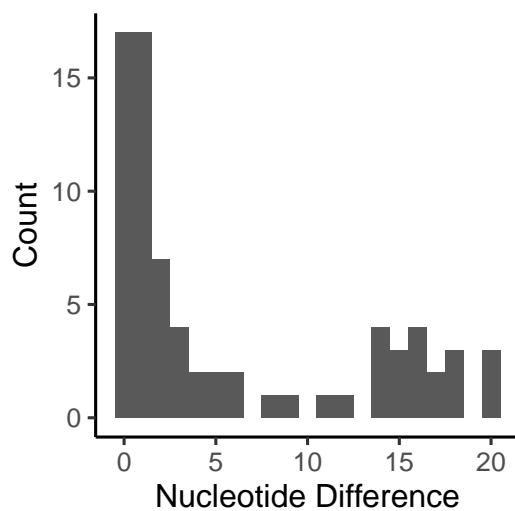
### IGHV3-64\*01

9 sequences assigned  
5 (55.6%) exact matches, in which:  
5 unique CDR3  
3 unique J



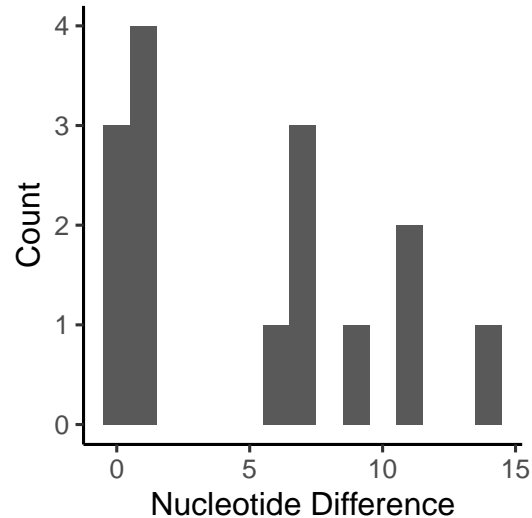
### IGHV3-66\*02\_G51T

100 sequences assigned  
17 (17%) exact matches, in which:  
16 unique CDR3  
5 unique J



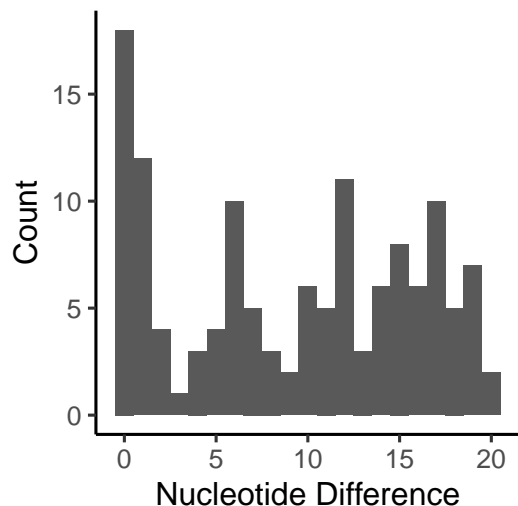
### IGHV3-73\*02

16 sequences assigned  
3 (18.8%) exact matches, in which:  
3 unique CDR3  
2 unique J



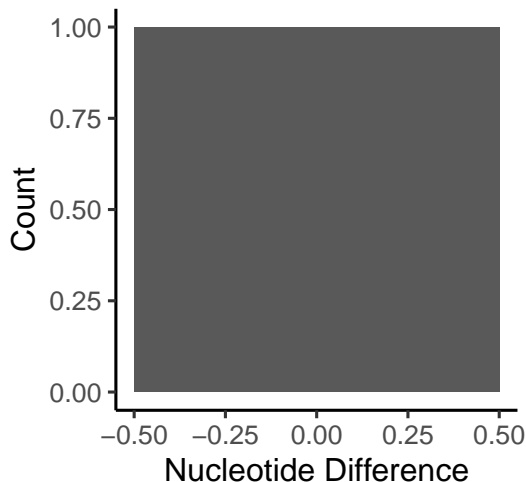
### IGHV3-74\*01

177 sequences assigned  
18 (10.2%) exact matches, in which:  
18 unique CDR3  
4 unique J



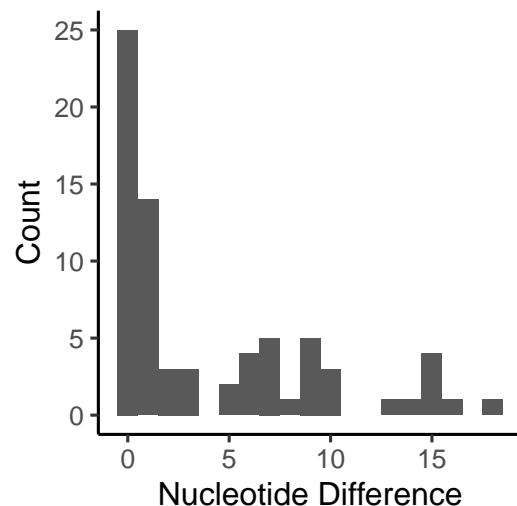
### IGHV4-28\*01

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



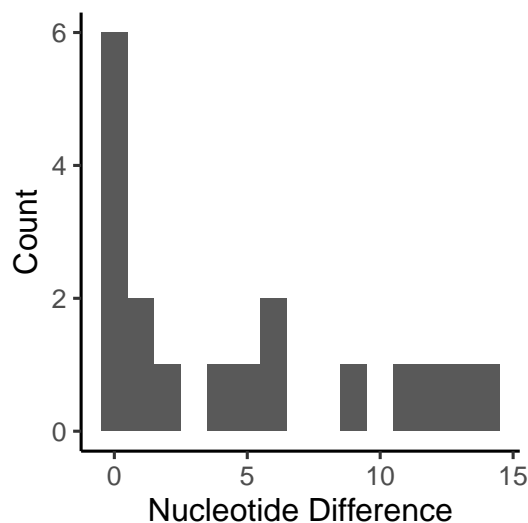
### IGHV4-31\*03

116 sequences assigned  
25 (21.6%) exact matches, in which:  
24 unique CDR3  
5 unique J



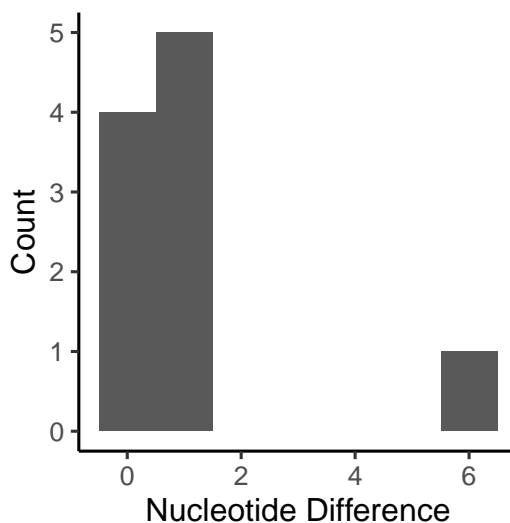
### IGHV3-43D\*04

18 sequences assigned  
6 (33.3%) exact matches, in which:  
6 unique CDR3  
2 unique J



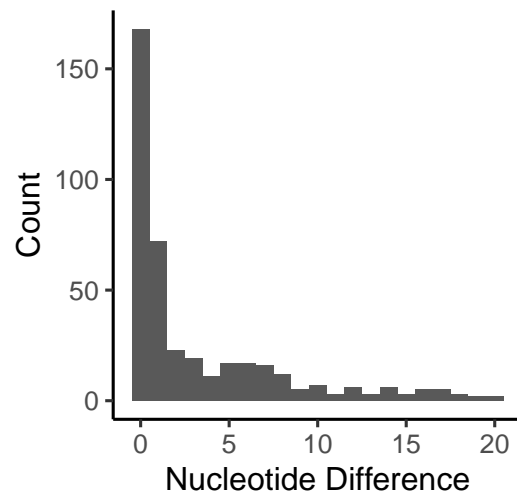
### IGHV4-30-2\*01

14 sequences assigned  
4 (28.6%) exact matches, in which:  
4 unique CDR3  
3 unique J



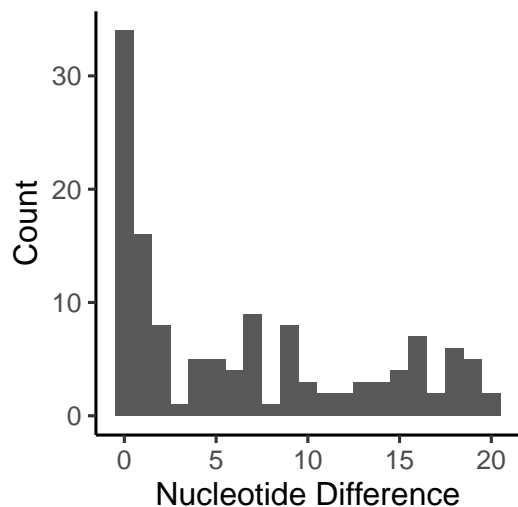
### IGHV4-34\*01

472 sequences assigned  
168 (35.6%) exact matches, in which:  
167 unique CDR3  
7 unique J



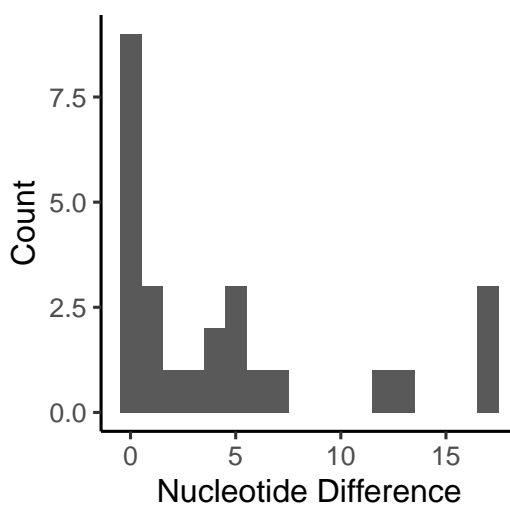
### IGHV4-4\*07

154 sequences assigned  
34 (22.1%) exact matches, in which:  
34 unique CDR3  
6 unique J



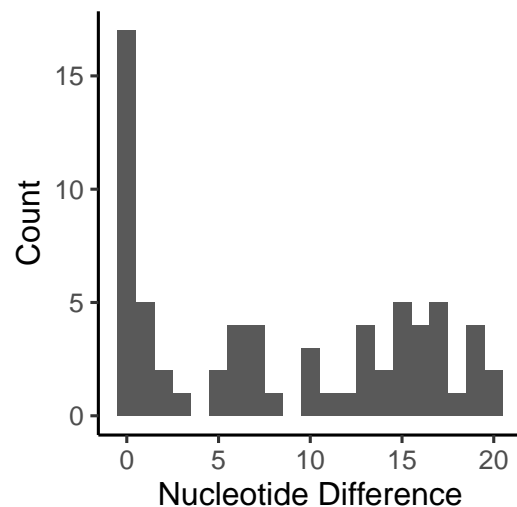
### IGHV4-30-4\*01

41 sequences assigned  
9 (22%) exact matches, in which:  
9 unique CDR3  
4 unique J



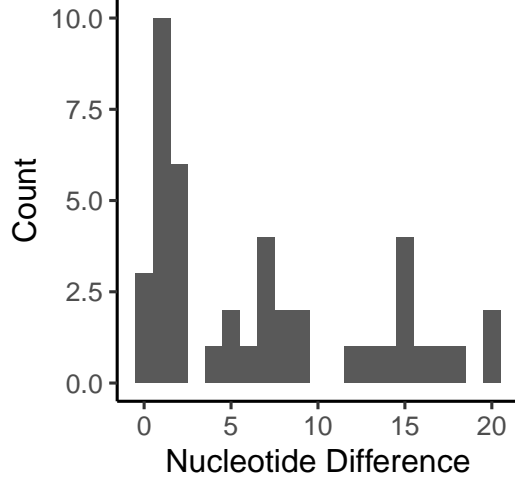
### IGHV4-38-2\*01

75 sequences assigned  
17 (22.7%) exact matches, in which:  
16 unique CDR3  
4 unique J



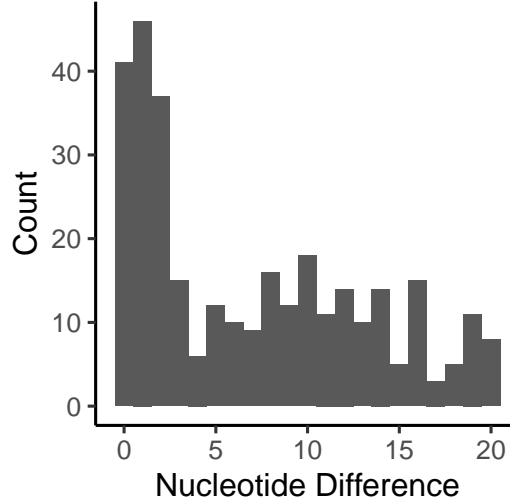
### IGHV4-38-2\*02

67 sequences assigned  
3 (4.5%) exact matches, in which:  
2 unique CDR3  
1 unique J



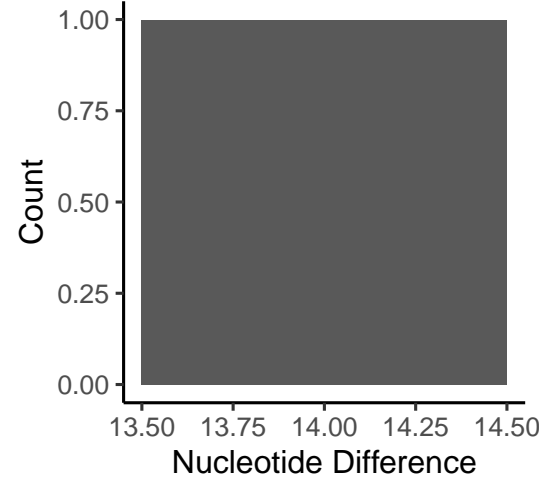
### IGHV4-61\*02

377 sequences assigned  
41 (10.9%) exact matches, in which:  
41 unique CDR3  
5 unique J



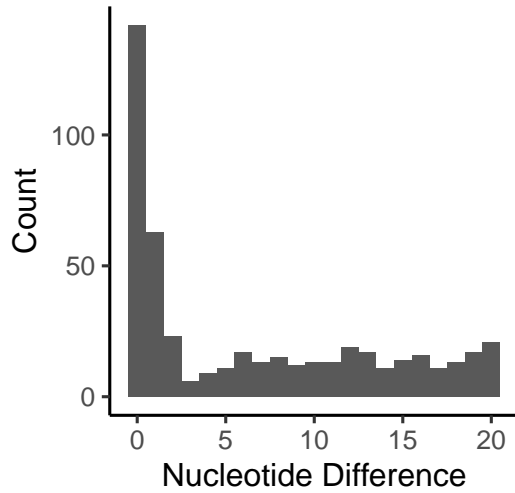
### IGHV5-10-1\*03

1 sequences assigned  
No exact matches.



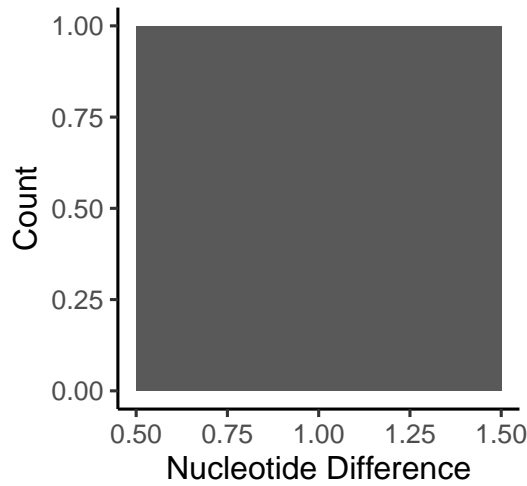
### IGHV4-39\*01

682 sequences assigned  
142 (20.8%) exact matches, in which:  
139 unique CDR3  
6 unique J



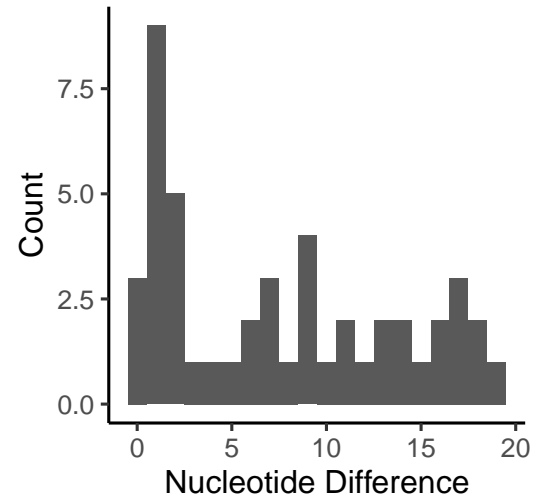
### IGHV1/OR15-2\*01

1 sequences assigned  
No exact matches.



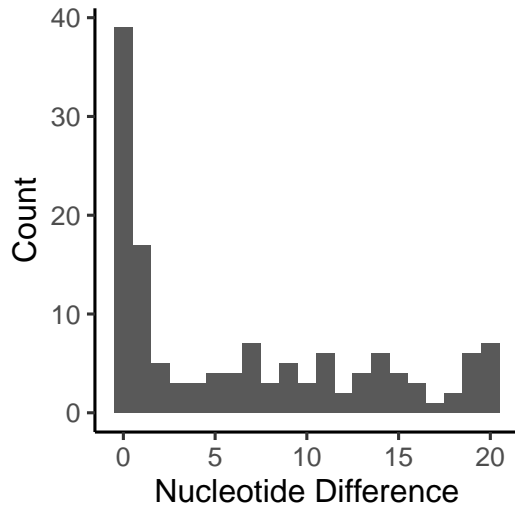
### IGHV5-51\*01

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



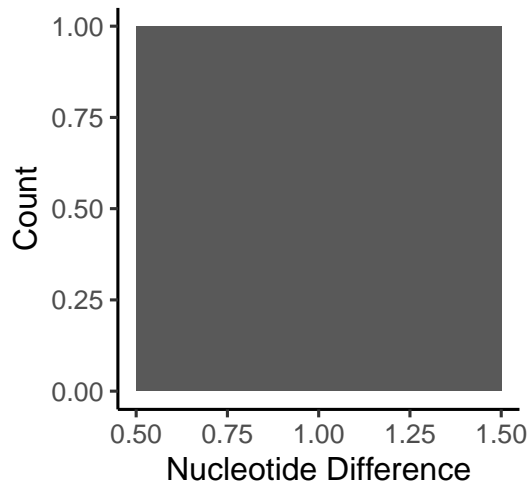
### IGHV4-59\*01

171 sequences assigned  
39 (22.8%) exact matches, in which:  
38 unique CDR3  
6 unique J



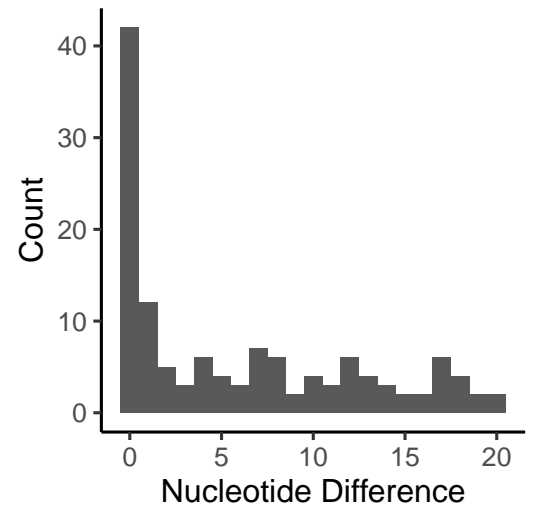
### IGHV1/OR15-4\*01

1 sequences assigned  
No exact matches.



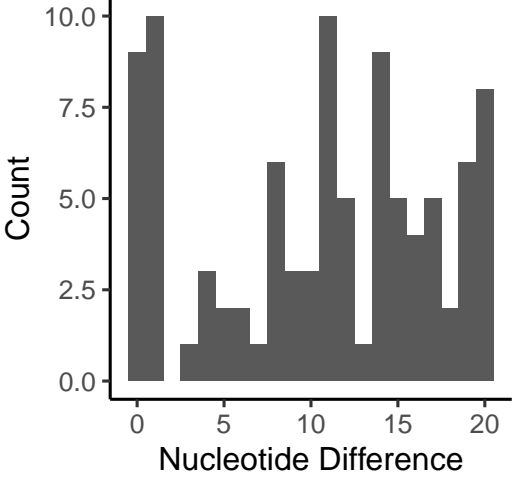
### IGHV5-51\*03

163 sequences assigned  
42 (25.8%) exact matches, in which:  
41 unique CDR3  
7 unique J

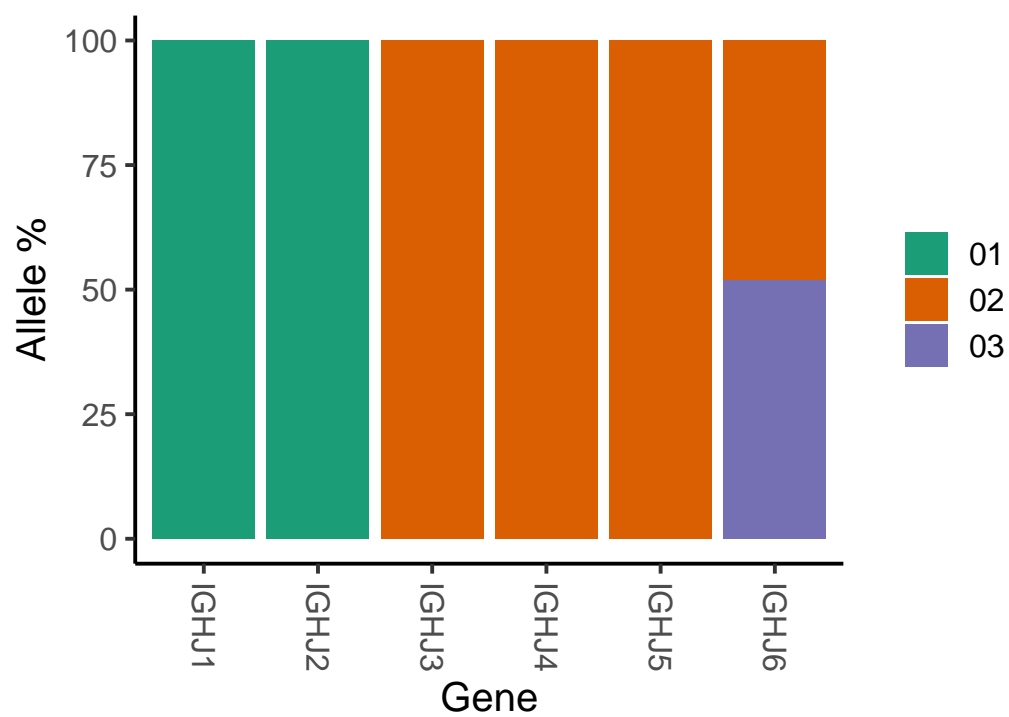


# IGHV6-1\*01

120 sequences assigned  
9 (7.5%) exact matches, in which:  
9 unique CDR3  
5 unique J

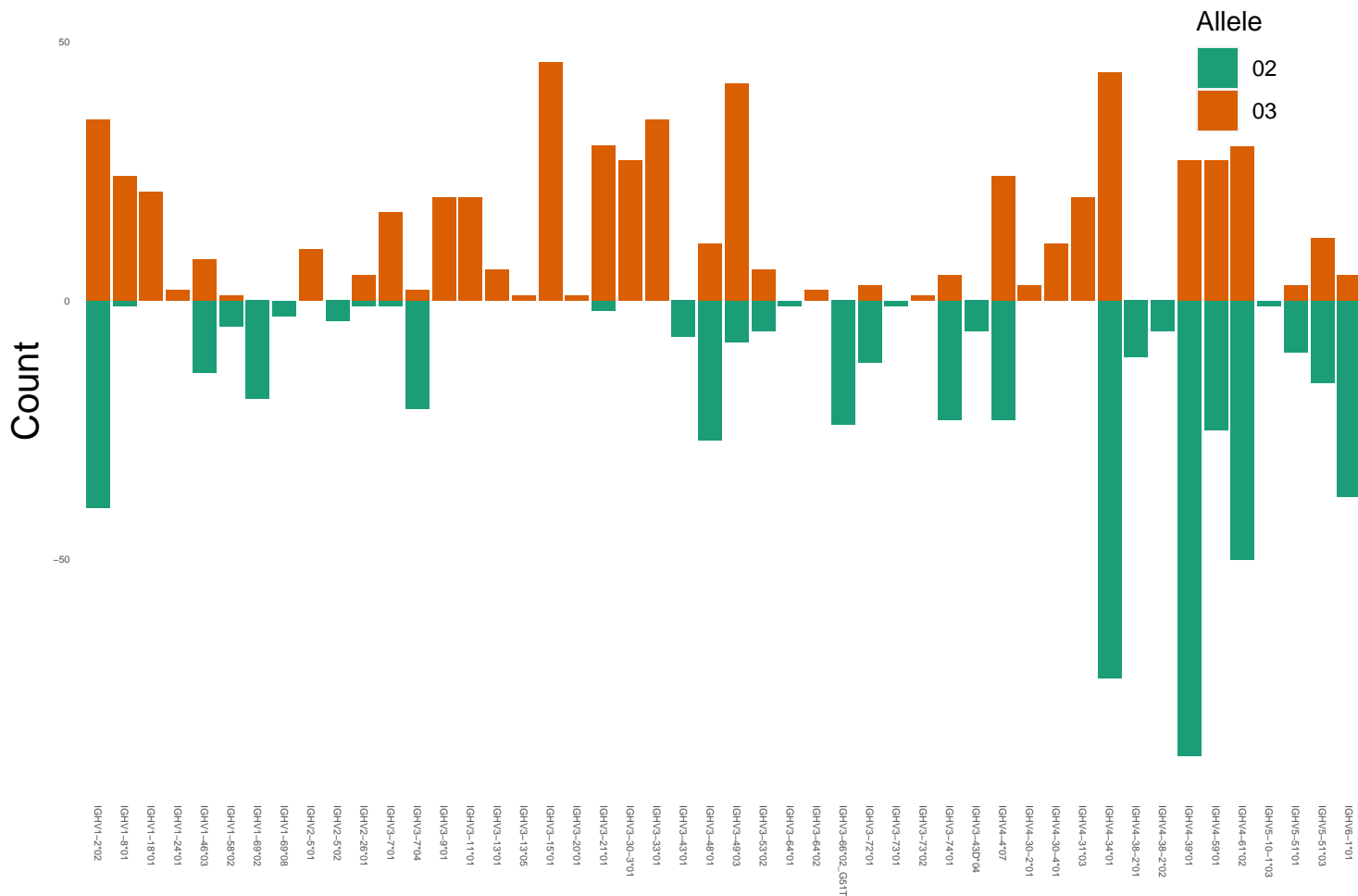


Allele Usage





### Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.