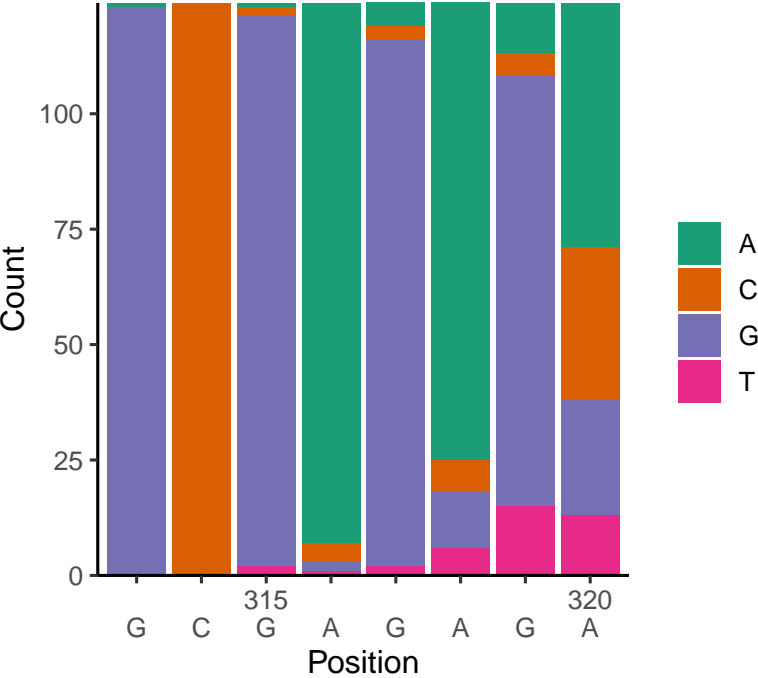


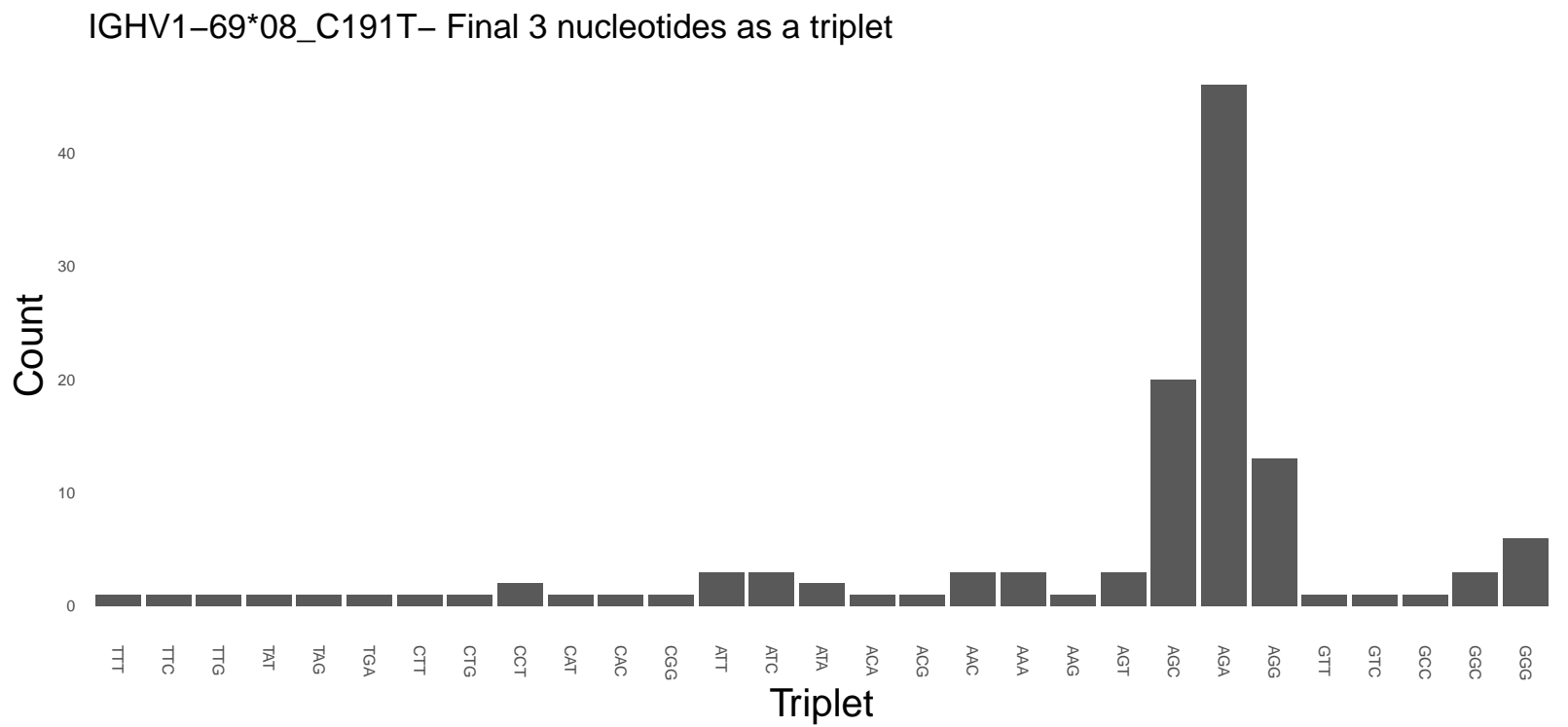
Gene IGHV1-69\*08\_C191T



Gene IGHV1-69\*08\_C191T

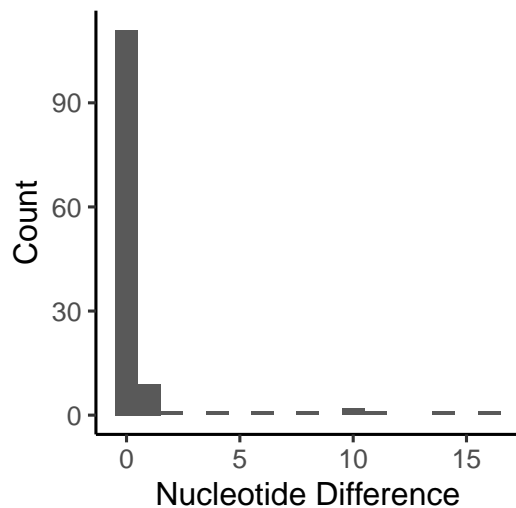


IGHV1-69\*08\_C191T- Final 3 nucleotides as a triplet



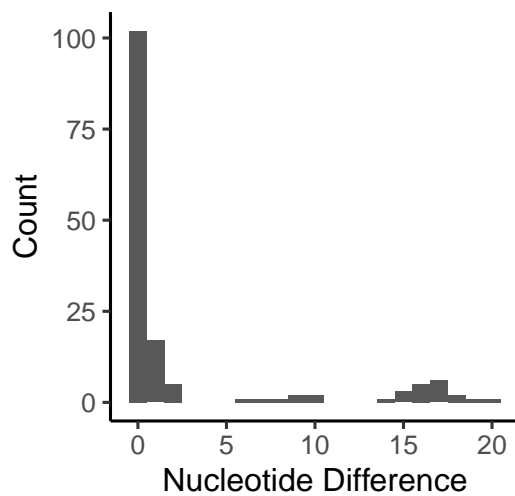
### IGHV1-2\*04

134 sequences assigned  
111 (82.8%) exact matches, in which:  
110 unique CDR3  
6 unique J



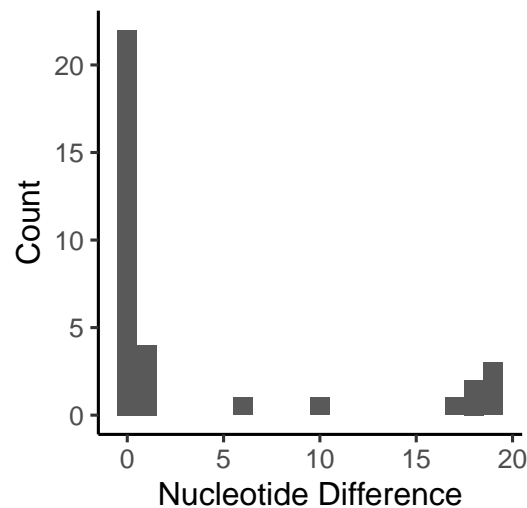
### IGHV1-18\*01

178 sequences assigned  
102 (57.3%) exact matches, in which:  
101 unique CDR3  
6 unique J



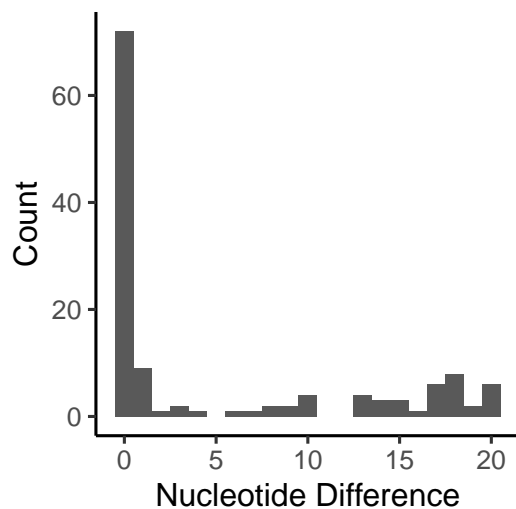
### IGHV1-46\*01

38 sequences assigned  
22 (57.9%) exact matches, in which:  
22 unique CDR3  
4 unique J



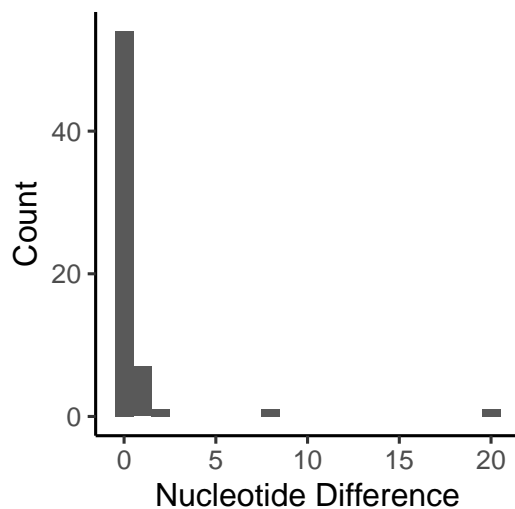
### IGHV1-3\*01

214 sequences assigned  
72 (33.6%) exact matches, in which:  
72 unique CDR3  
5 unique J



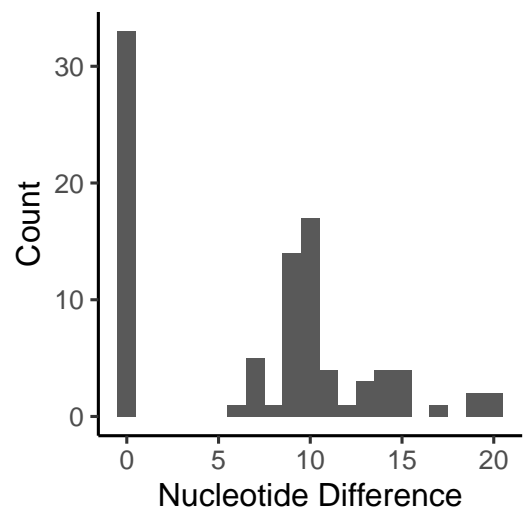
### IGHV1-24\*01

67 sequences assigned  
54 (80.6%) exact matches, in which:  
54 unique CDR3  
5 unique J



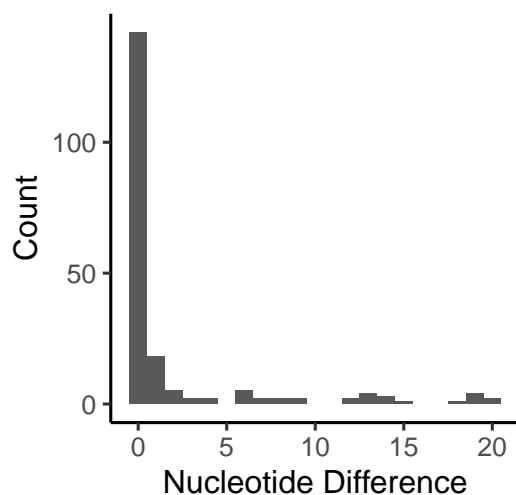
### IGHV1-46\*03

134 sequences assigned  
33 (24.6%) exact matches, in which:  
33 unique CDR3  
5 unique J



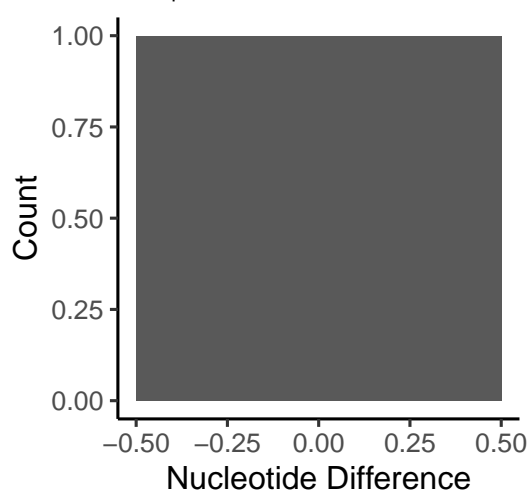
### IGHV1-8\*01

207 sequences assigned  
142 (68.6%) exact matches, in which:  
142 unique CDR3  
6 unique J



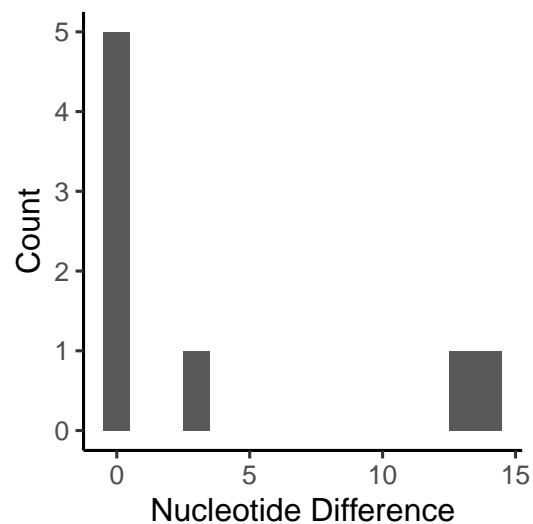
### IGHV1-45\*02

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



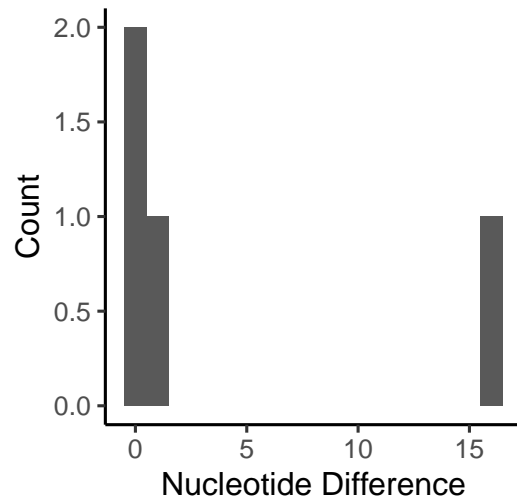
### IGHV1-58\*01

8 sequences assigned  
5 (62.5%) exact matches, in which:  
5 unique CDR3  
4 unique J



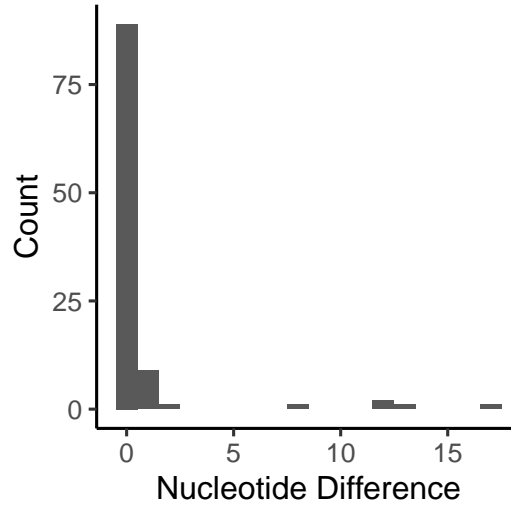
### IGHV1-58\*02

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



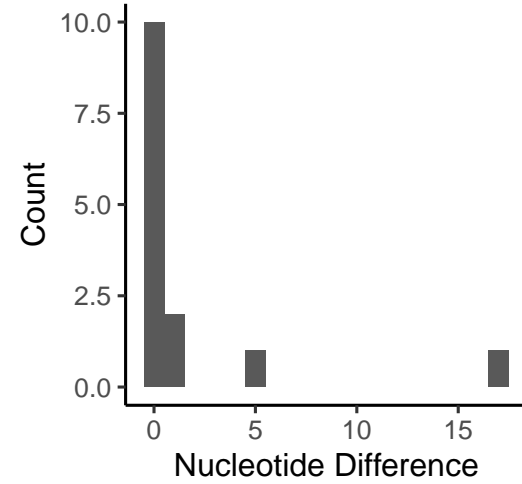
### IGHV1-69\*08\_C191T

124 sequences assigned  
89 (71.8%) exact matches, in which:  
89 unique CDR3  
6 unique J



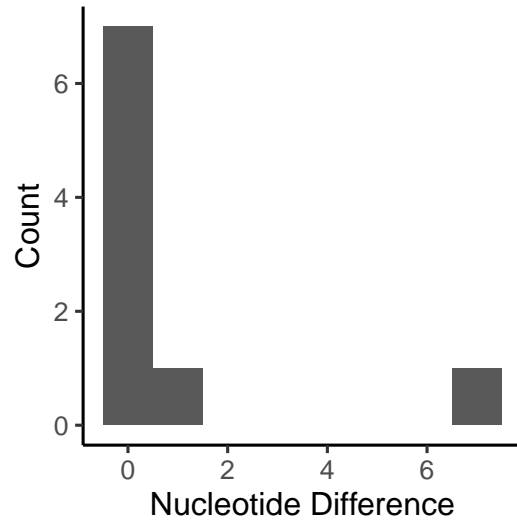
### IGHV2-70\*01

15 sequences assigned  
10 (66.7%) exact matches, in which:  
10 unique CDR3  
3 unique J



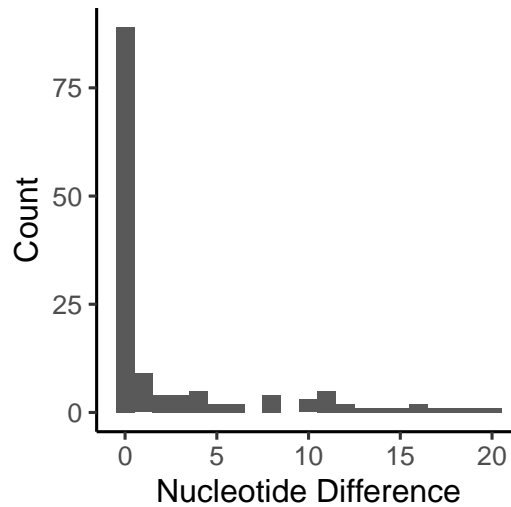
### IGHV1-69-2\*01

12 sequences assigned  
7 (58.3%) exact matches, in which:  
7 unique CDR3  
2 unique J



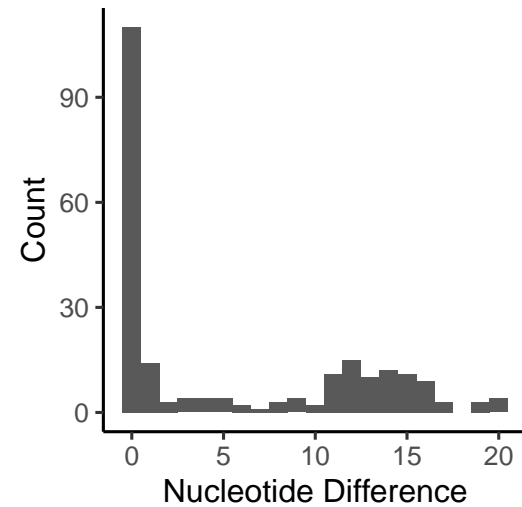
### IGHV2-5\*02

160 sequences assigned  
89 (55.6%) exact matches, in which:  
89 unique CDR3  
6 unique J



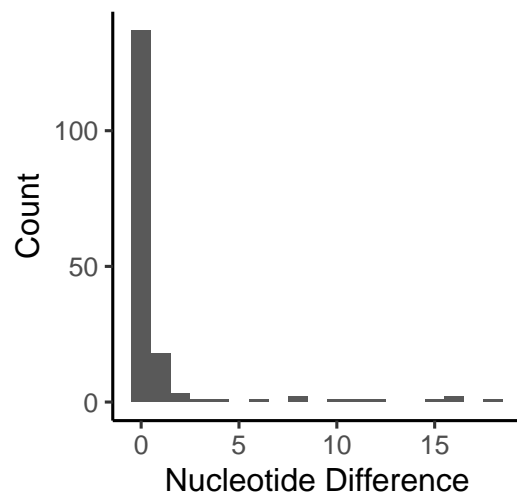
### IGHV3-7\*01

243 sequences assigned  
110 (45.3%) exact matches, in which:  
110 unique CDR3  
6 unique J



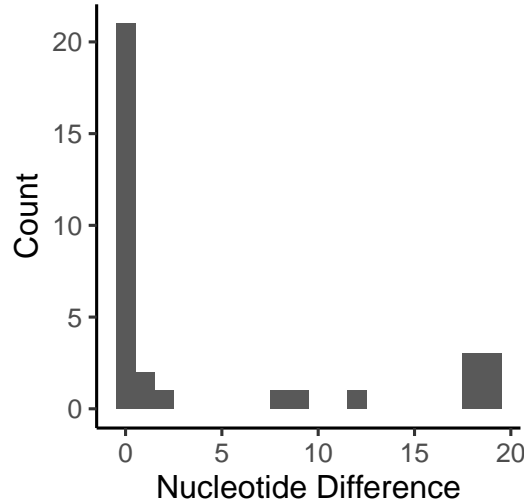
### IGHV1-69\*06

188 sequences assigned  
137 (72.9%) exact matches, in which:  
137 unique CDR3  
6 unique J



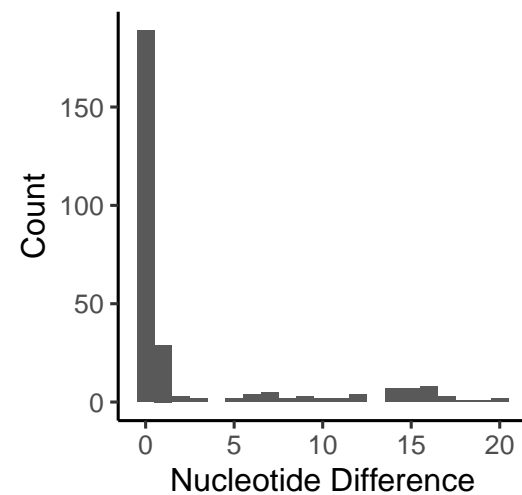
### IGHV2-26\*01

35 sequences assigned  
21 (60%) exact matches, in which:  
21 unique CDR3  
5 unique J



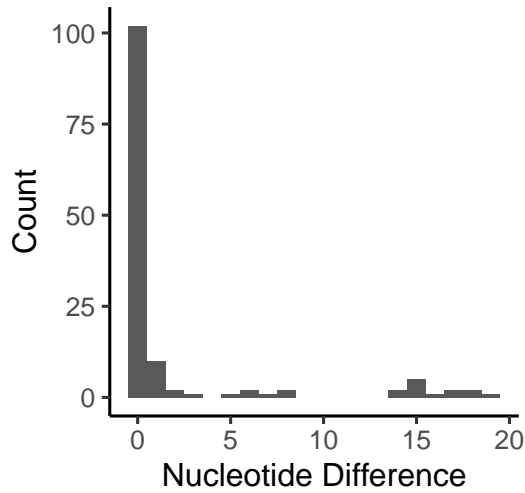
### IGHV3-9\*01

304 sequences assigned  
189 (62.2%) exact matches, in which:  
188 unique CDR3  
6 unique J



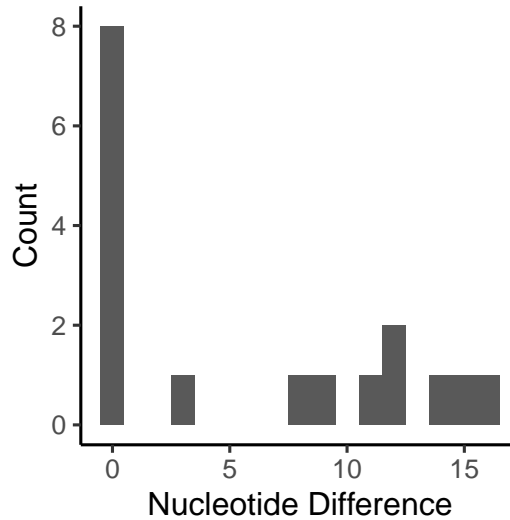
### IGHV3-11\*01

148 sequences assigned  
102 (68.9%) exact matches, in which:  
102 unique CDR3  
5 unique J



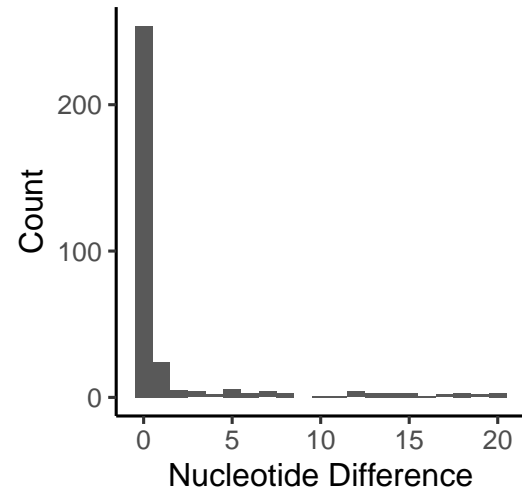
### IGHV3-20\*01

17 sequences assigned  
8 (47.1%) exact matches, in which:  
8 unique CDR3  
3 unique J



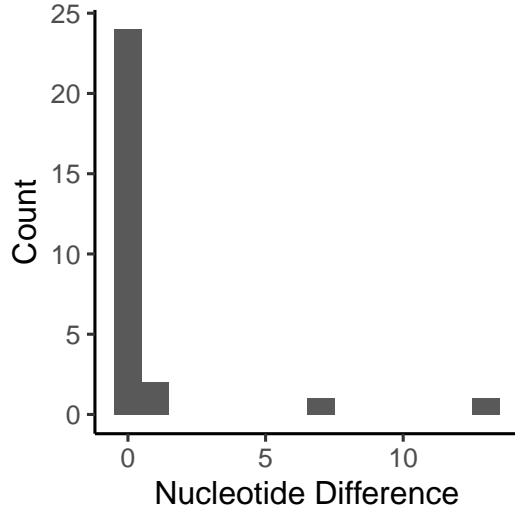
### IGHV3-30-3\*01

360 sequences assigned  
254 (70.6%) exact matches, in which:  
252 unique CDR3  
5 unique J



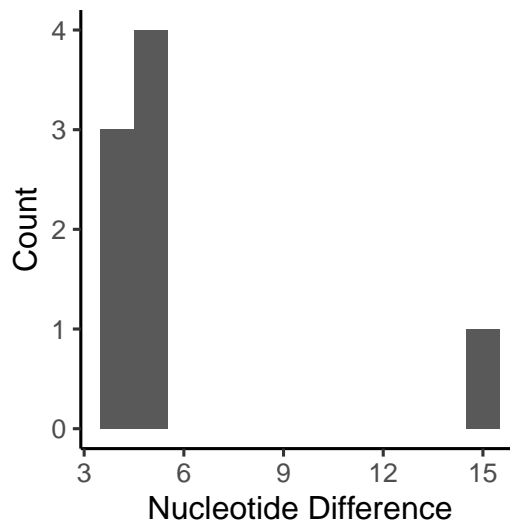
### IGHV3-13\*01

35 sequences assigned  
24 (68.6%) exact matches, in which:  
24 unique CDR3  
3 unique J



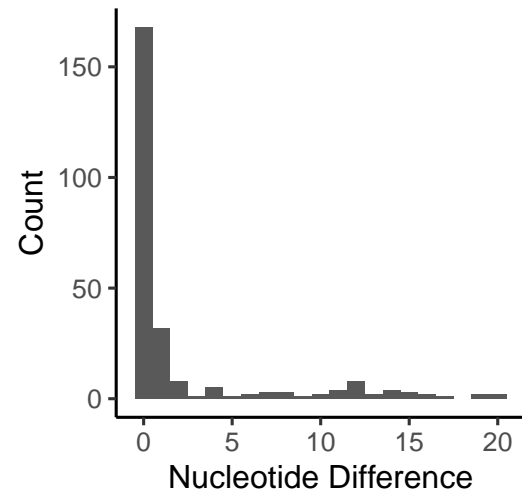
### IGHV3-20\*04

9 sequences assigned  
No exact matches.



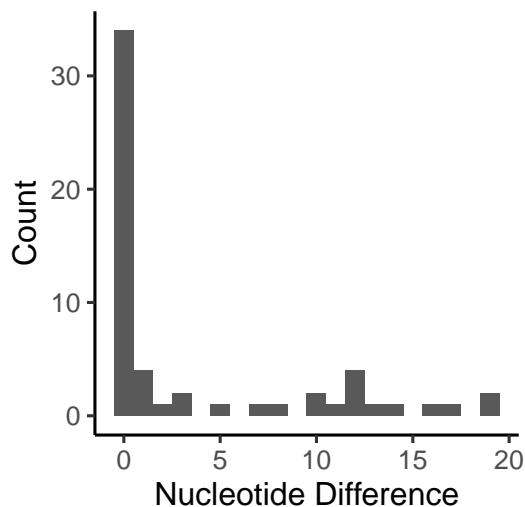
### IGHV3-33\*01

283 sequences assigned  
168 (59.4%) exact matches, in which:  
166 unique CDR3  
6 unique J



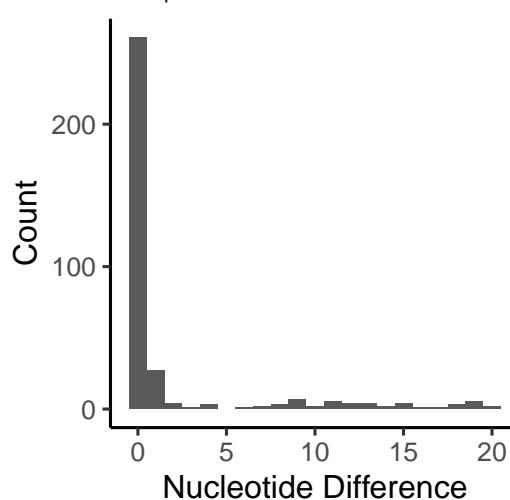
### IGHV3-15\*01

63 sequences assigned  
34 (54%) exact matches, in which:  
34 unique CDR3  
4 unique J



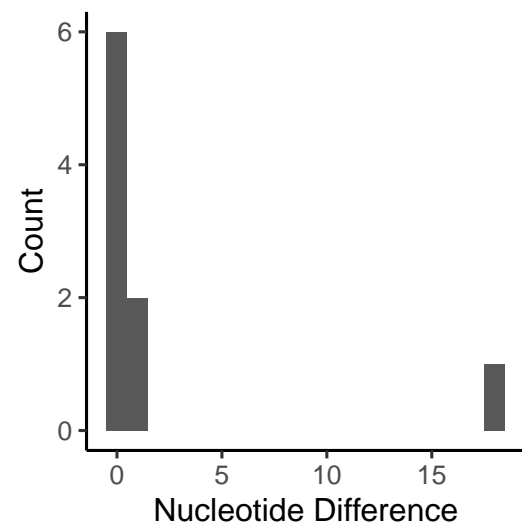
### IGHV3-21\*01

363 sequences assigned  
261 (71.9%) exact matches, in which:  
259 unique CDR3  
6 unique J



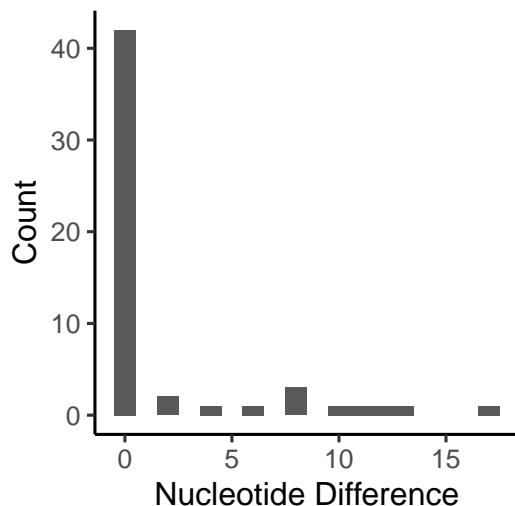
### IGHV3-43\*01

9 sequences assigned  
6 (66.7%) exact matches, in which:  
6 unique CDR3  
2 unique J



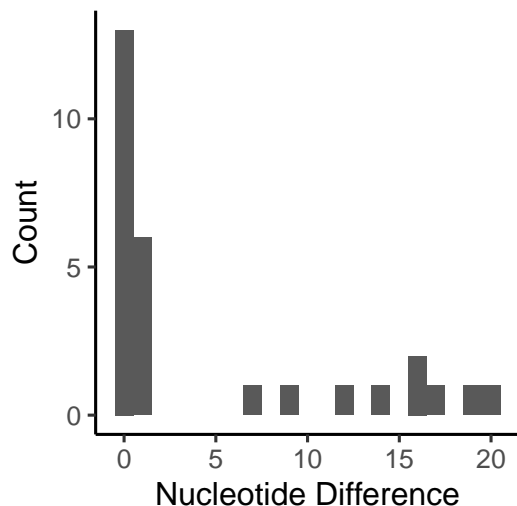
### IGHV3-48\*01

63 sequences assigned  
42 (66.7%) exact matches, in which:  
42 unique CDR3  
5 unique J



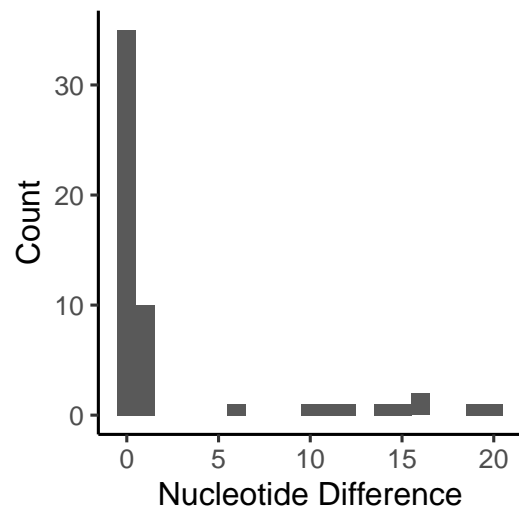
### IGHV3-49\*04

38 sequences assigned  
13 (34.2%) exact matches, in which:  
13 unique CDR3  
5 unique J



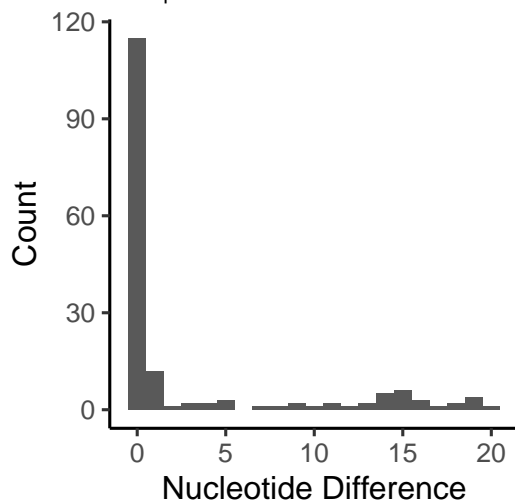
### IGHV3-66\*02

58 sequences assigned  
35 (60.3%) exact matches, in which:  
35 unique CDR3  
5 unique J



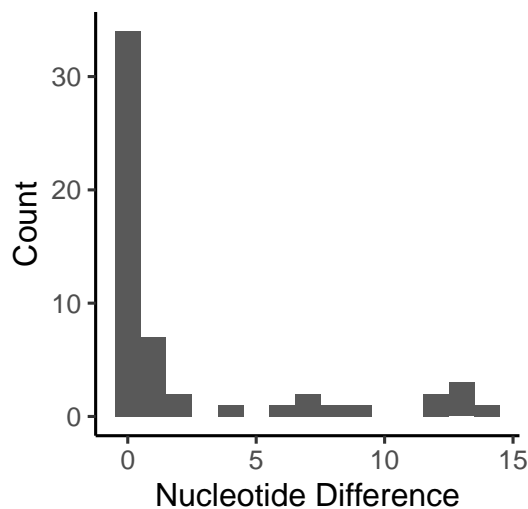
### IGHV3-48\*03

174 sequences assigned  
115 (66.1%) exact matches, in which:  
113 unique CDR3  
6 unique J



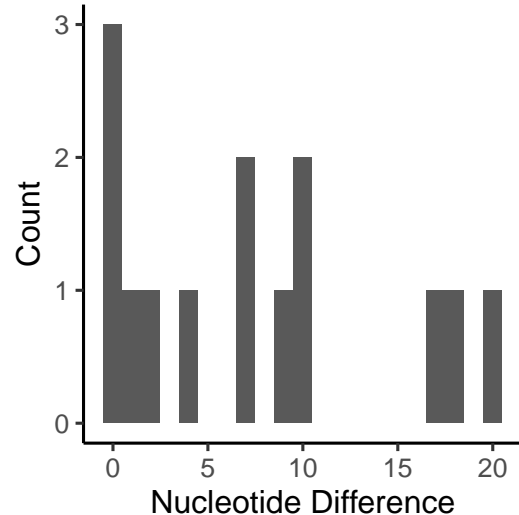
### IGHV3-53\*02

56 sequences assigned  
34 (60.7%) exact matches, in which:  
34 unique CDR3  
4 unique J



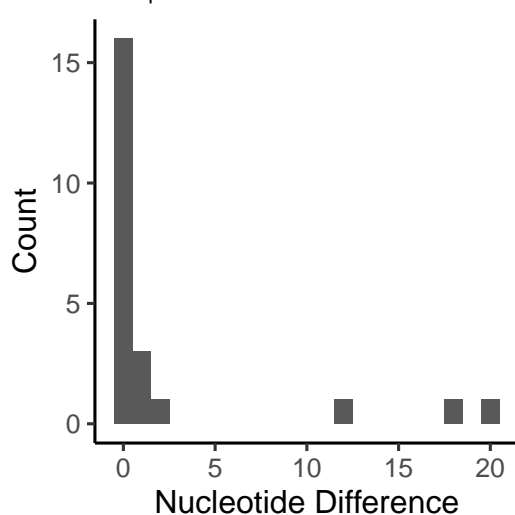
### IGHV3-72\*01

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



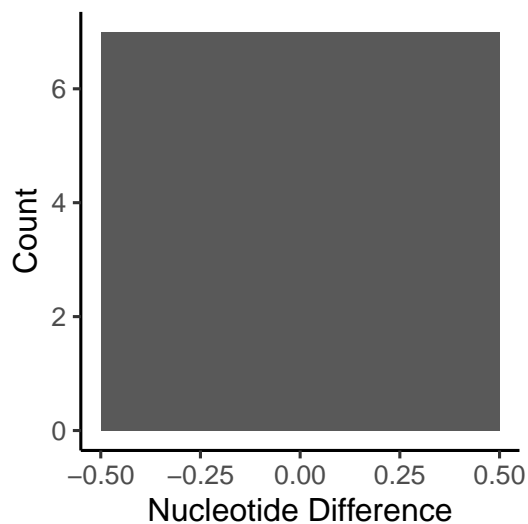
### IGHV3-49\*03

24 sequences assigned  
16 (66.7%) exact matches, in which:  
16 unique CDR3  
3 unique J



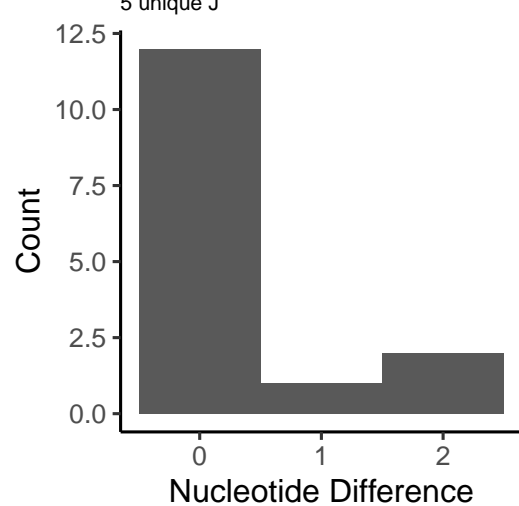
### IGHV3-64\*01

7 sequences assigned  
7 (100%) exact matches, in which:  
7 unique CDR3  
2 unique J



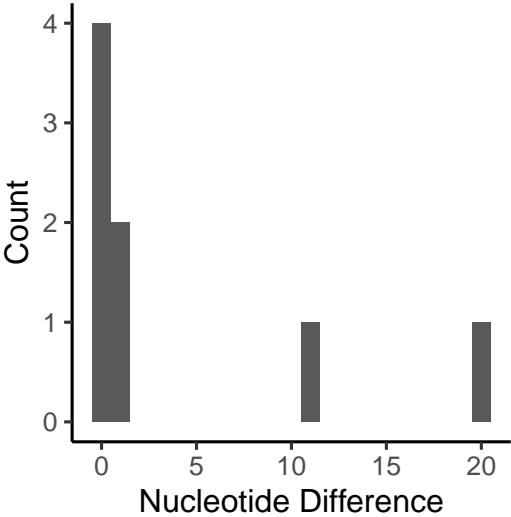
### IGHV3-73\*01

16 sequences assigned  
12 (75%) exact matches, in which:  
12 unique CDR3  
5 unique J



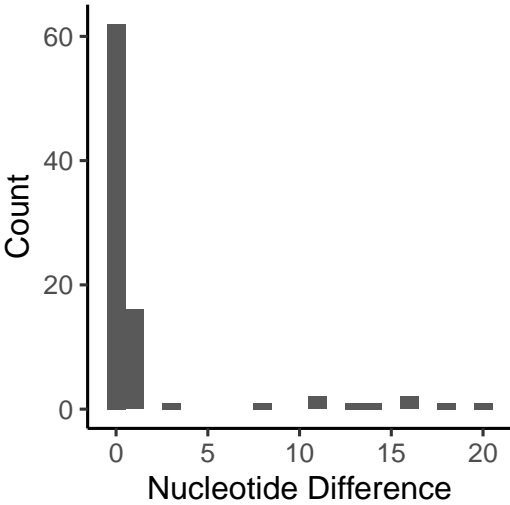
IGHV3-73\*02

11 sequences assigned  
4 (36.4%) exact matches, in which:  
4 unique CDR3  
4 unique J



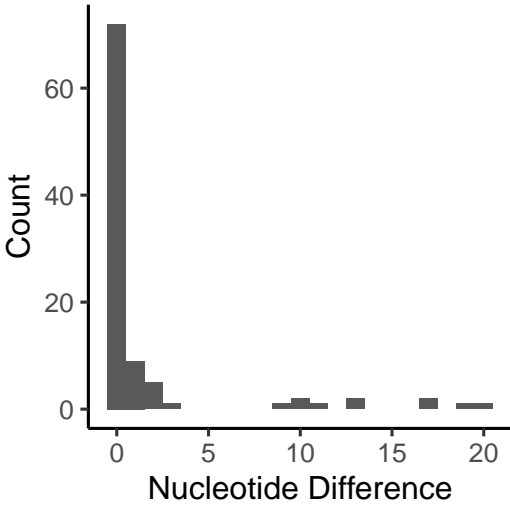
IGHV4-4\*02

94 sequences assigned  
62 (66%) exact matches, in which:  
62 unique CDR3  
5 unique J



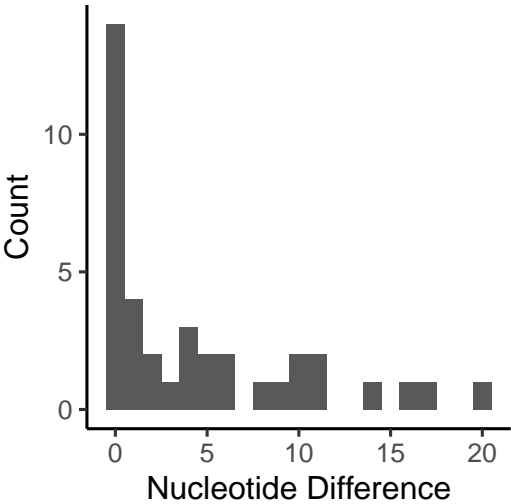
IGHV4-31\*03

141 sequences assigned  
72 (51.1%) exact matches, in which:  
72 unique CDR3  
5 unique J



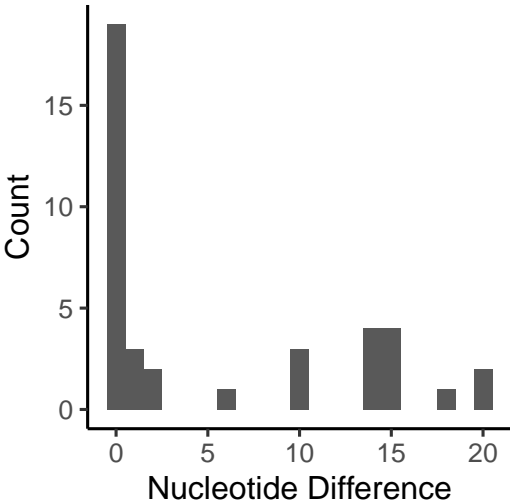
IGHV3-74\*01

41 sequences assigned  
14 (34.1%) exact matches, in which:  
14 unique CDR3  
4 unique J



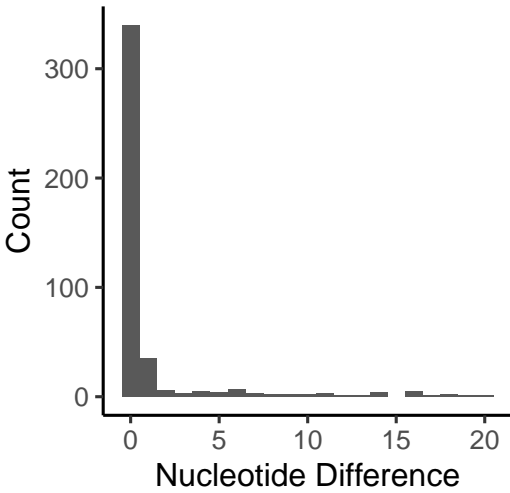
IGHV4-30-4\*01

47 sequences assigned  
19 (40.4%) exact matches, in which:  
19 unique CDR3  
3 unique J



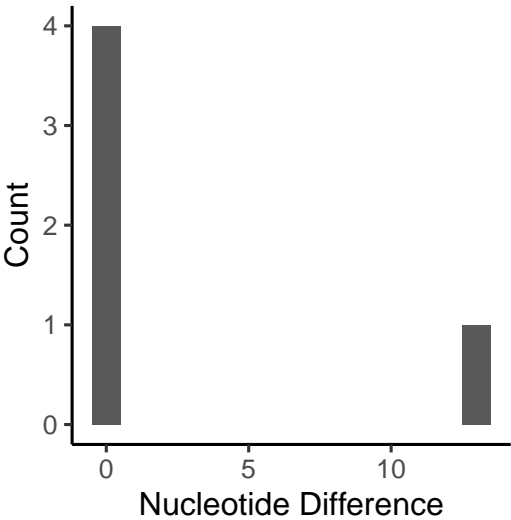
IGHV4-34\*01

453 sequences assigned  
340 (75.1%) exact matches, in which:  
339 unique CDR3  
6 unique J



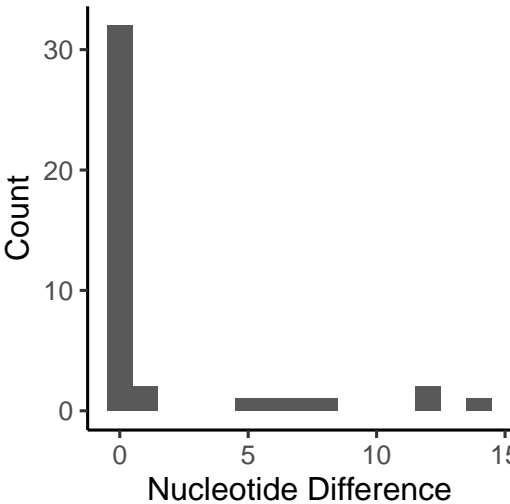
IGHV3-43D\*04

5 sequences assigned  
4 (80%) exact matches, in which:  
4 unique CDR3  
2 unique J



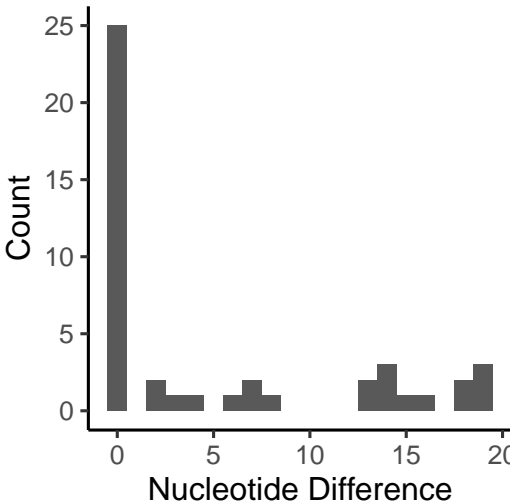
IGHV4-30-2\*01

46 sequences assigned  
32 (69.6%) exact matches, in which:  
32 unique CDR3  
5 unique J



IGHV4-38-2\*01

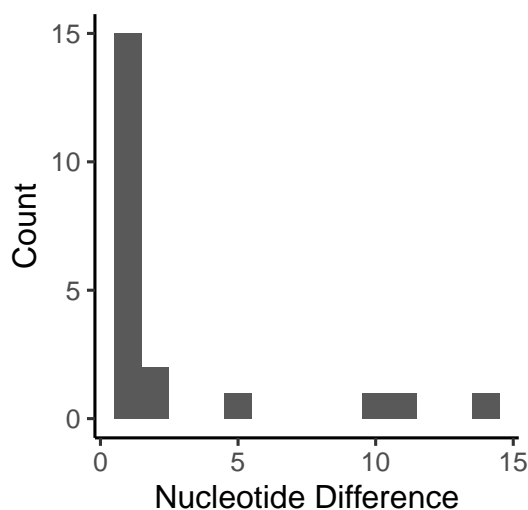
63 sequences assigned  
25 (39.7%) exact matches, in which:  
25 unique CDR3  
4 unique J





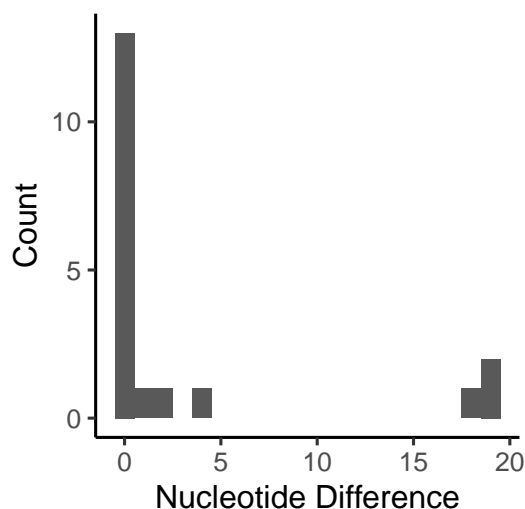
### IGHV4-38-2\*02

27 sequences assigned  
No exact matches.



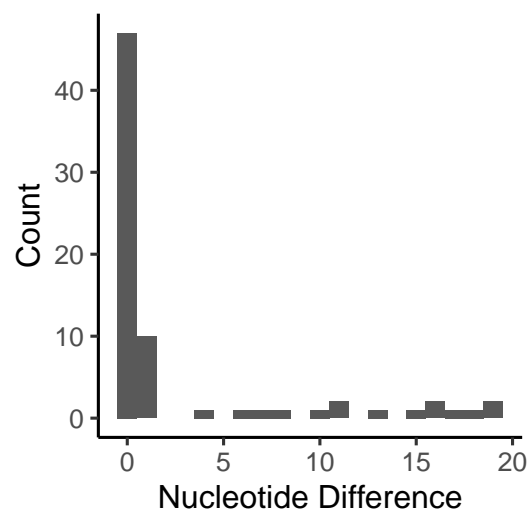
### IGHV4-61\*01

21 sequences assigned  
13 (61.9%) exact matches, in which:  
13 unique CDR3  
5 unique J



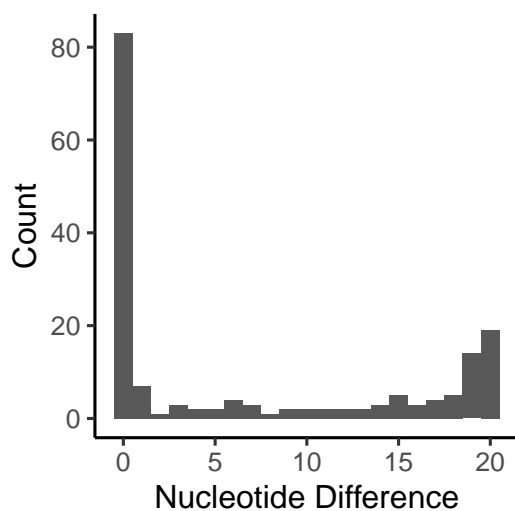
### IGHV5-51\*03

81 sequences assigned  
47 (58%) exact matches, in which:  
46 unique CDR3  
5 unique J



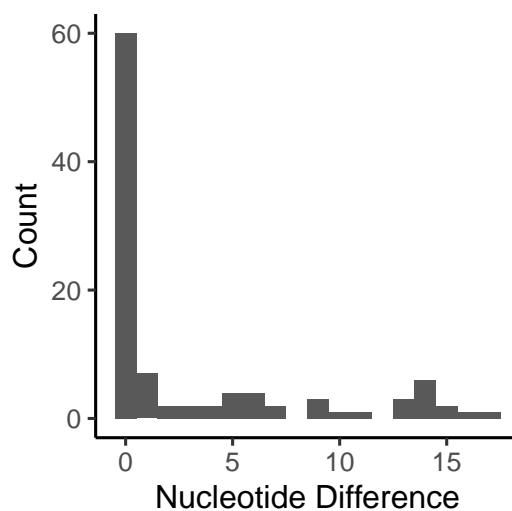
### IGHV4-39\*01

201 sequences assigned  
83 (41.3%) exact matches, in which:  
83 unique CDR3  
5 unique J



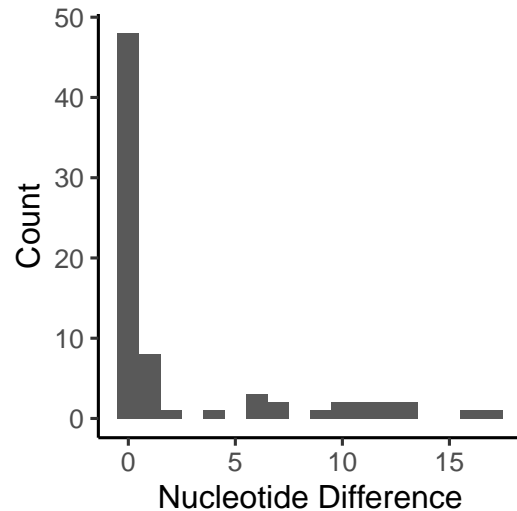
### IGHV4-61\*02

121 sequences assigned  
60 (49.6%) exact matches, in which:  
60 unique CDR3  
5 unique J



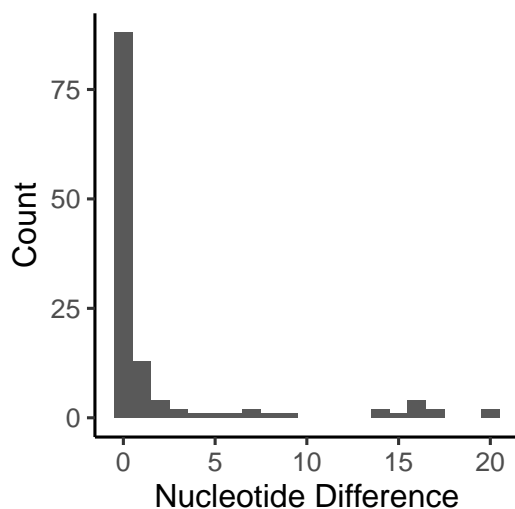
### IGHV6-1\*01

75 sequences assigned  
48 (64%) exact matches, in which:  
48 unique CDR3  
5 unique J



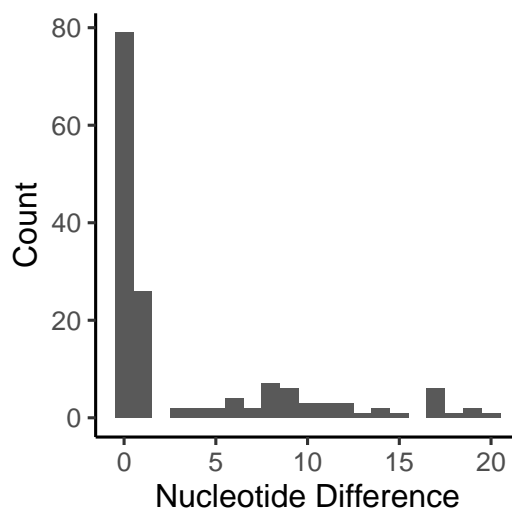
### IGHV4-59\*01

139 sequences assigned  
88 (63.3%) exact matches, in which:  
87 unique CDR3  
6 unique J



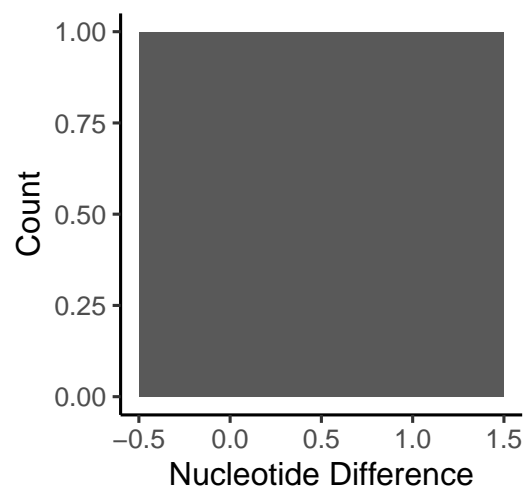
### IGHV5-51\*01

179 sequences assigned  
79 (44.1%) exact matches, in which:  
79 unique CDR3  
6 unique J



### IGHV7-4-1\*01

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





[illegible]