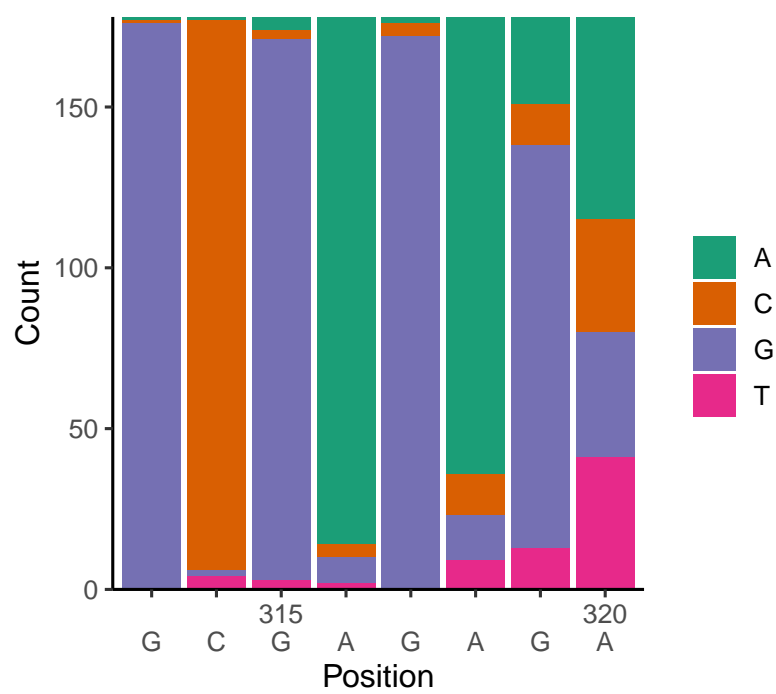
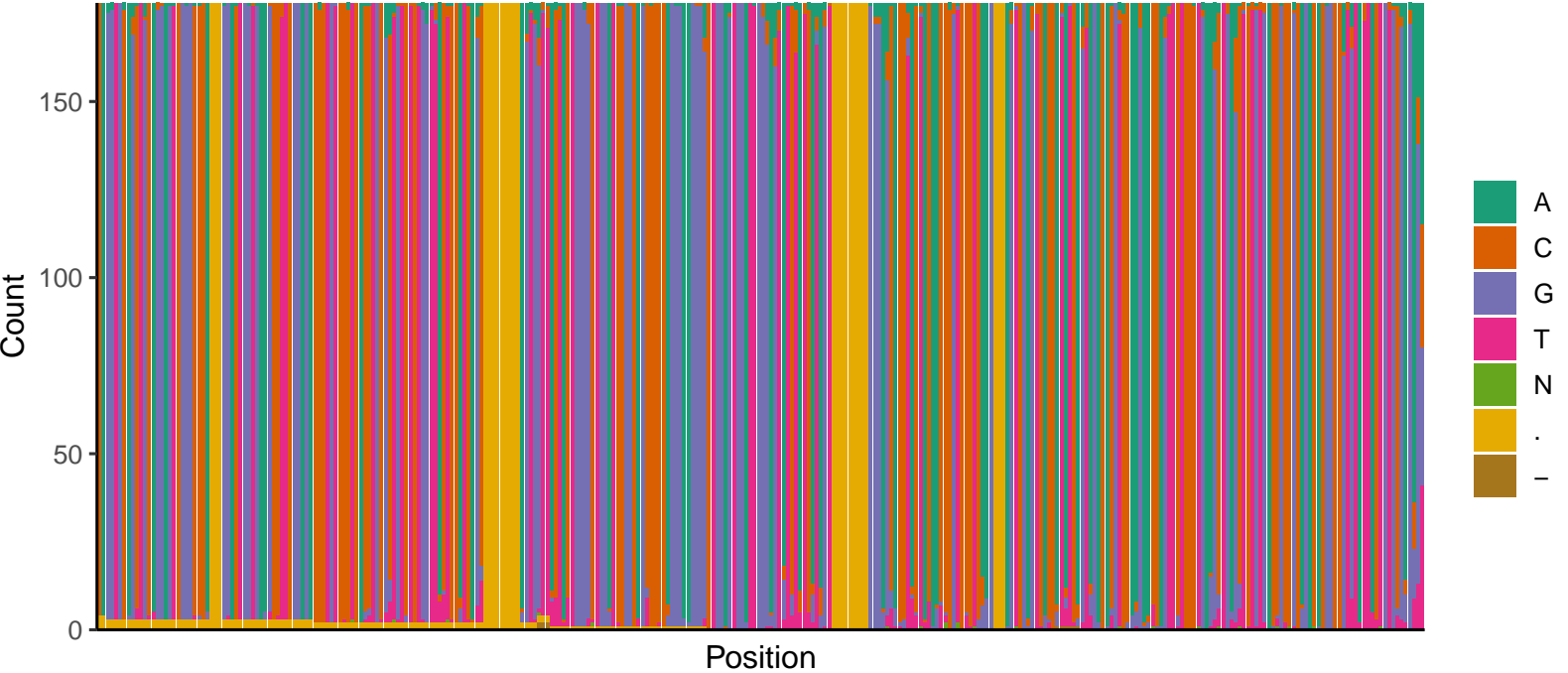


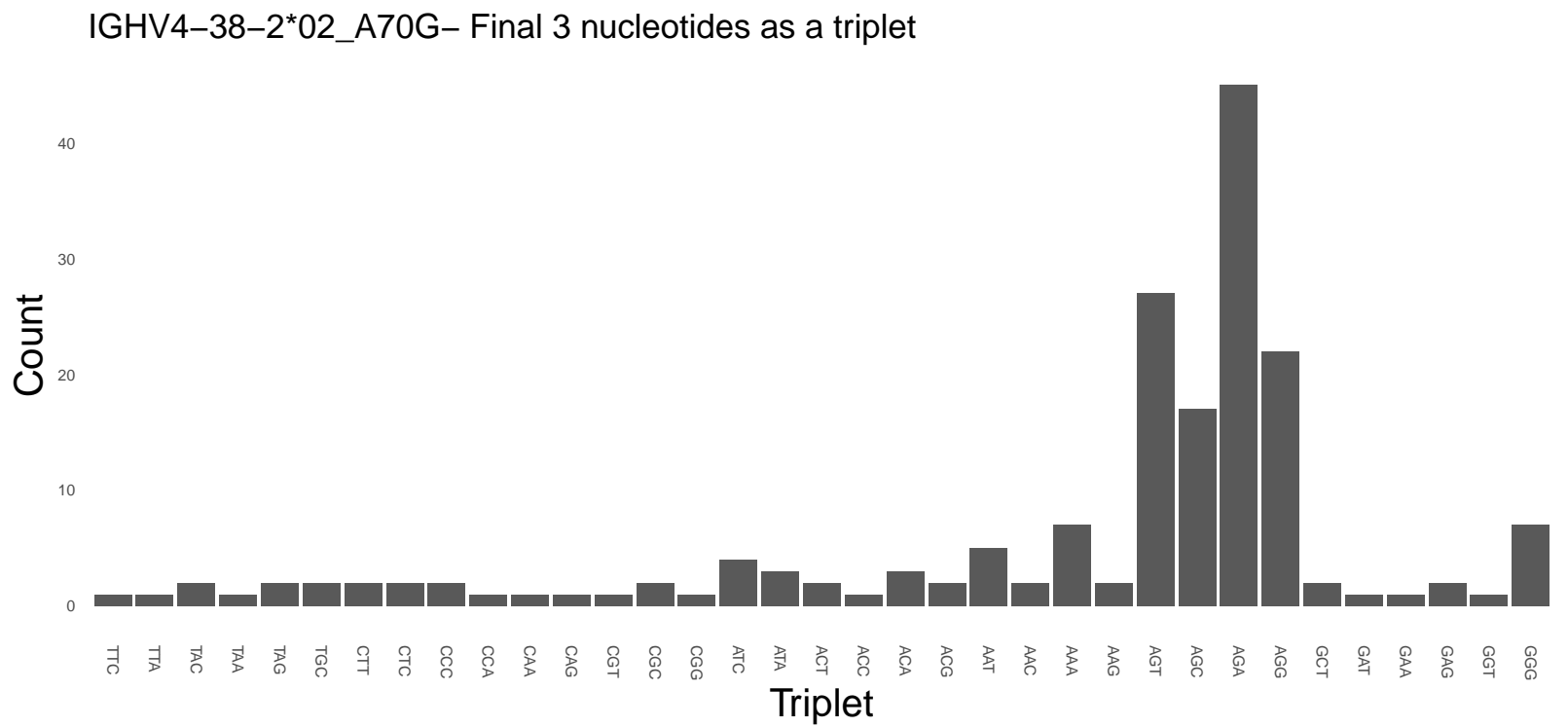
# Gene IGHV4-38-2\*02\_A70G



Gene IGHV4-38-2\*02\_A70G

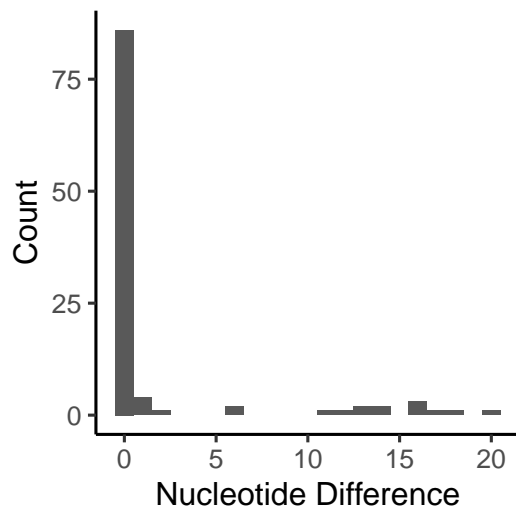


IGHV4-38-2\*02\_A70G- Final 3 nucleotides as a triplet



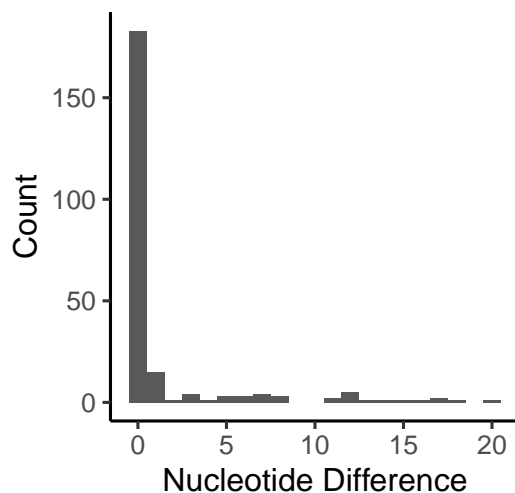
### IGHV1-2\*04

109 sequences assigned  
86 (78.9%) exact matches, in which:  
85 unique CDR3  
6 unique J



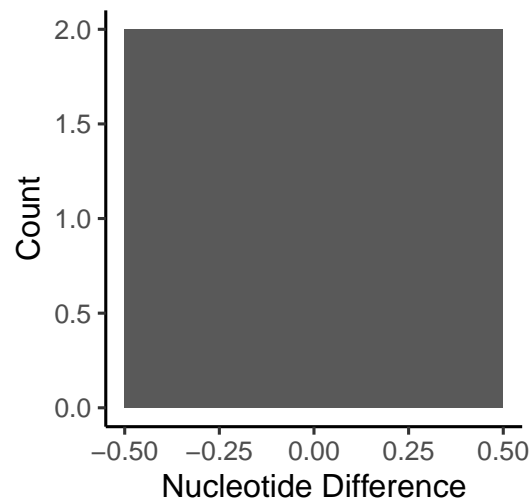
### IGHV1-8\*01

242 sequences assigned  
183 (75.6%) exact matches, in which:  
182 unique CDR3  
5 unique J



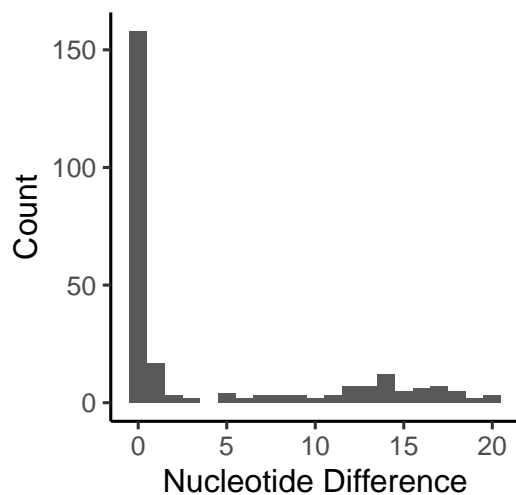
### IGHV1-45\*02

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



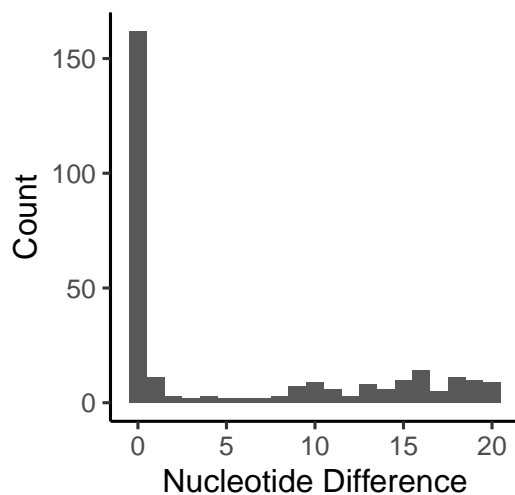
### IGHV1-2\*06

294 sequences assigned  
158 (53.7%) exact matches, in which:  
157 unique CDR3  
6 unique J



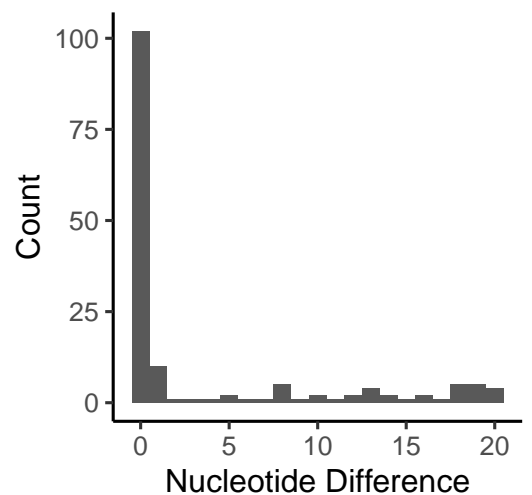
### IGHV1-18\*01

344 sequences assigned  
162 (47.1%) exact matches, in which:  
162 unique CDR3  
6 unique J



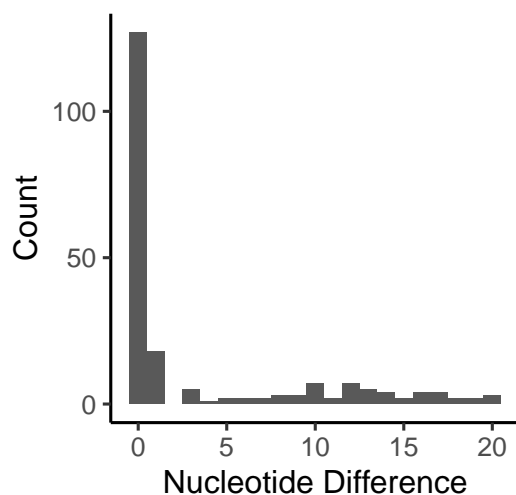
### IGHV1-46\*01

179 sequences assigned  
102 (57%) exact matches, in which:  
102 unique CDR3  
6 unique J



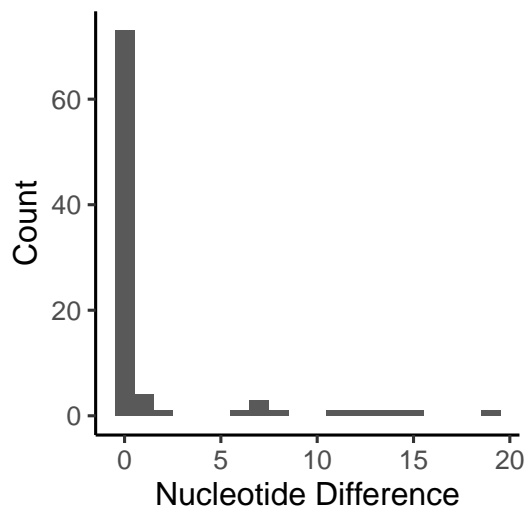
### IGHV1-3\*01

226 sequences assigned  
127 (56.2%) exact matches, in which:  
127 unique CDR3  
6 unique J



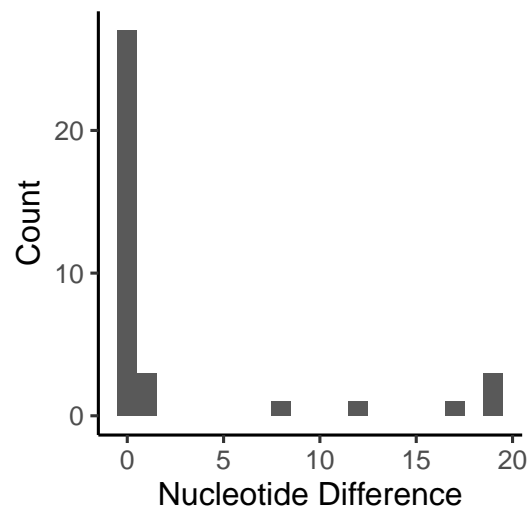
### IGHV1-24\*01

95 sequences assigned  
73 (76.8%) exact matches, in which:  
73 unique CDR3  
5 unique J



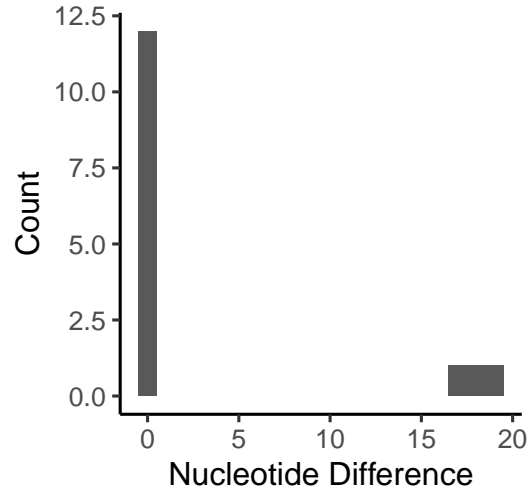
### IGHV1-58\*01

36 sequences assigned  
27 (75%) exact matches, in which:  
27 unique CDR3  
4 unique J



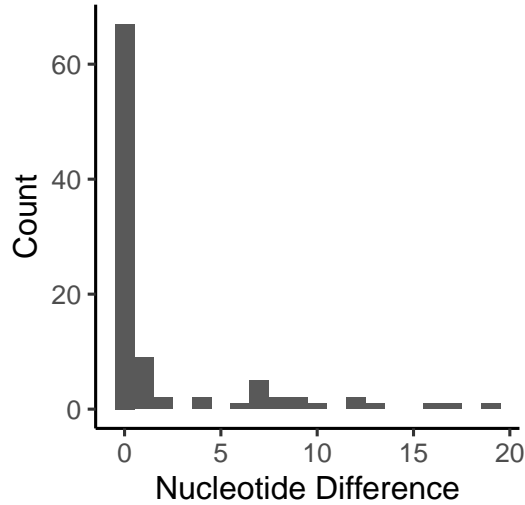
### IGHV1-69-2\*01

15 sequences assigned  
12 (80%) exact matches, in which:  
12 unique CDR3  
3 unique J



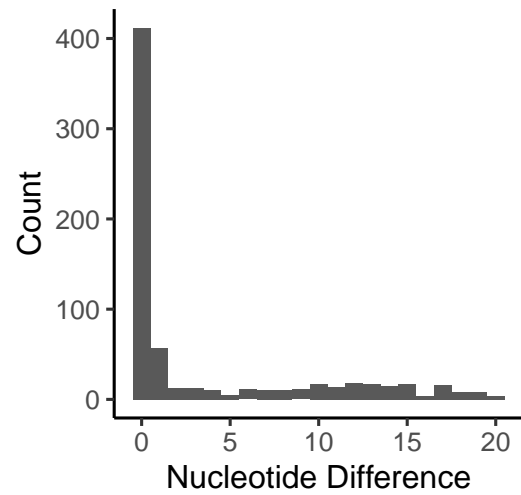
### IGHV2-26\*01

100 sequences assigned  
67 (67%) exact matches, in which:  
67 unique CDR3  
6 unique J



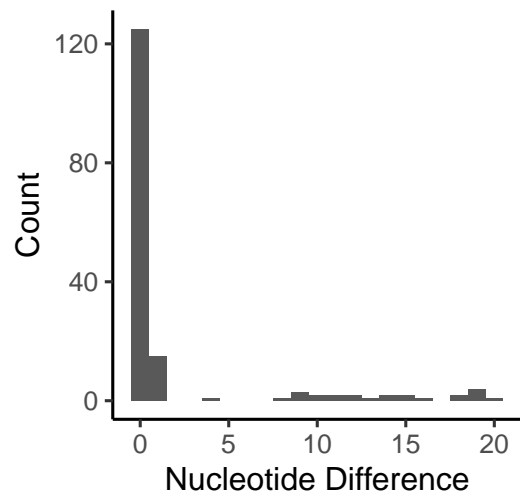
### IGHV3-9\*01

733 sequences assigned  
412 (56.2%) exact matches, in which:  
410 unique CDR3  
6 unique J



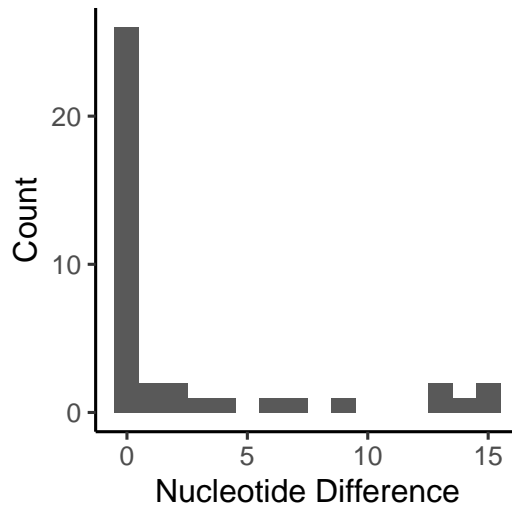
### IGHV1-69\*06

201 sequences assigned  
125 (62.2%) exact matches, in which:  
124 unique CDR3  
5 unique J



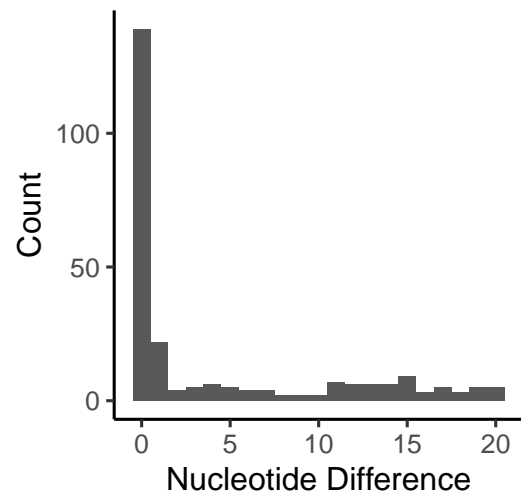
### IGHV2-70\*01

43 sequences assigned  
26 (60.5%) exact matches, in which:  
26 unique CDR3  
5 unique J



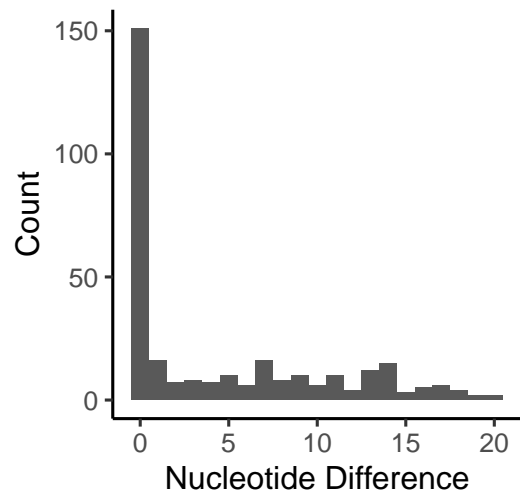
### IGHV3-11\*01

275 sequences assigned  
139 (50.5%) exact matches, in which:  
138 unique CDR3  
6 unique J



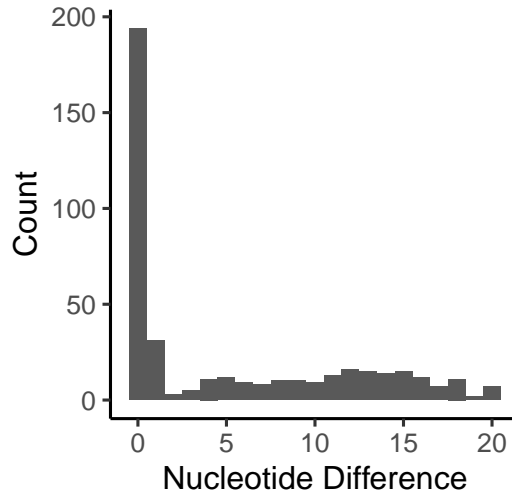
### IGHV2-5\*02

343 sequences assigned  
151 (44%) exact matches, in which:  
150 unique CDR3  
5 unique J



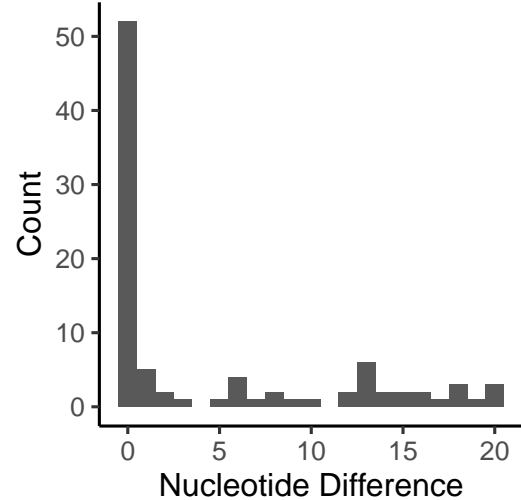
### IGHV3-7\*01

447 sequences assigned  
194 (43.4%) exact matches, in which:  
192 unique CDR3  
6 unique J



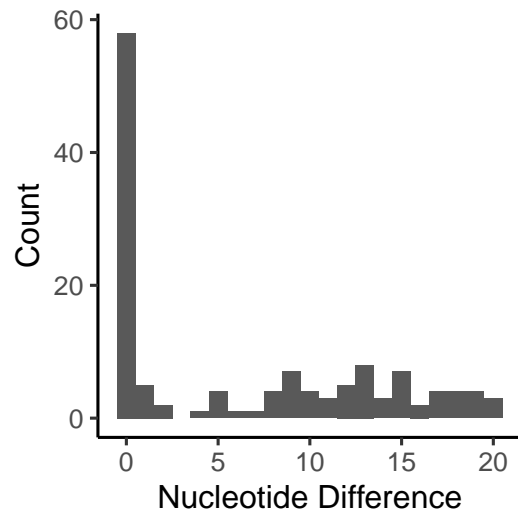
### IGHV3-13\*01

99 sequences assigned  
52 (52.5%) exact matches, in which:  
52 unique CDR3  
5 unique J



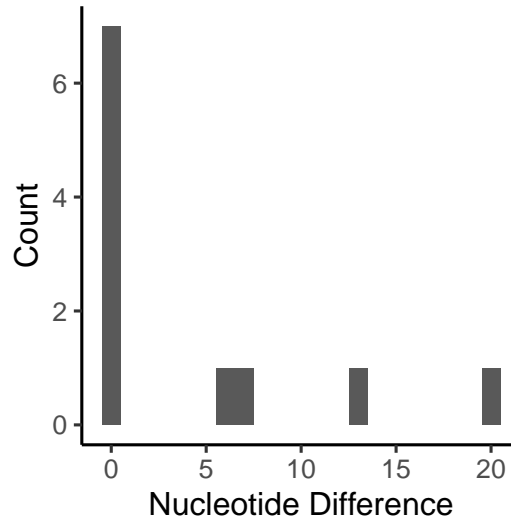
### IGHV3-15\*01

147 sequences assigned  
58 (39.5%) exact matches, in which:  
58 unique CDR3  
5 unique J



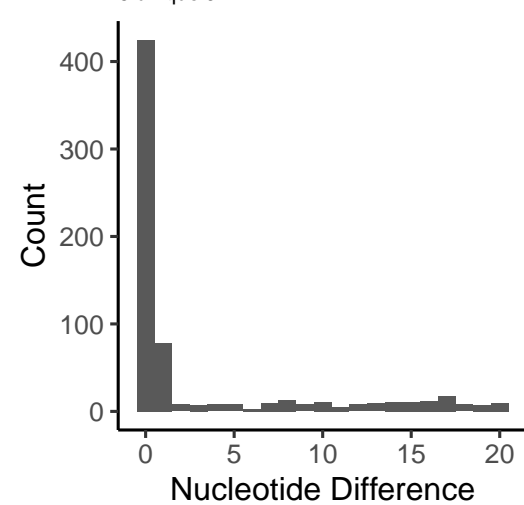
### IGHV3-20\*04

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



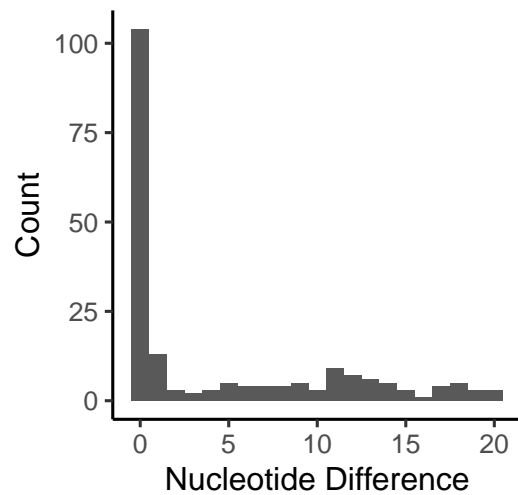
### IGHV3-33\*01

729 sequences assigned  
425 (58.3%) exact matches, in which:  
422 unique CDR3  
6 unique J



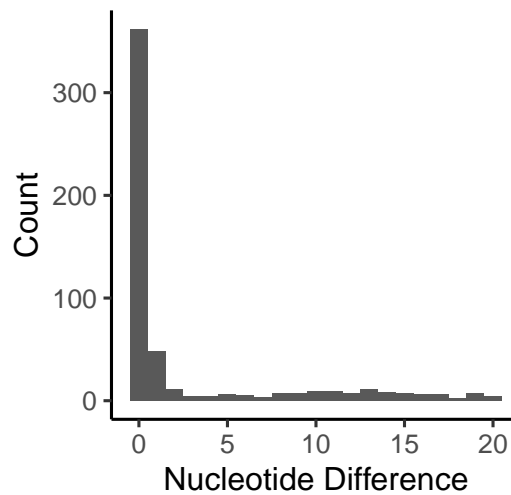
### IGHV3-15\*07

218 sequences assigned  
104 (47.7%) exact matches, in which:  
103 unique CDR3  
6 unique J



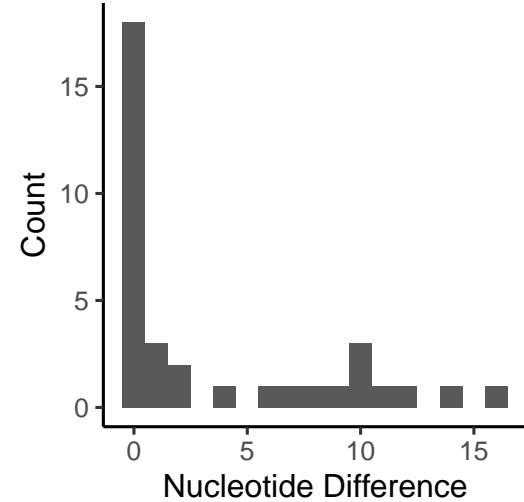
### IGHV3-21\*01

559 sequences assigned  
362 (64.8%) exact matches, in which:  
359 unique CDR3  
6 unique J



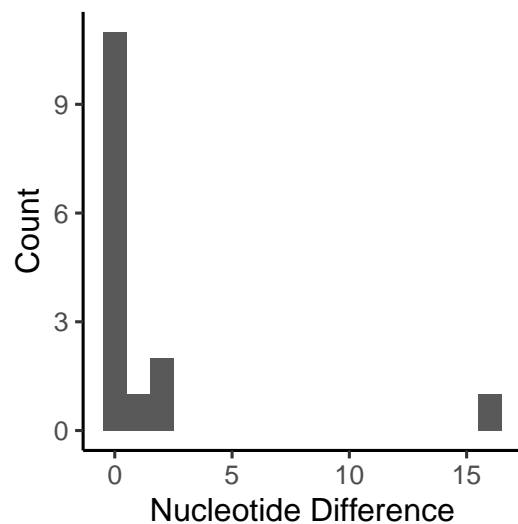
### IGHV3-43\*01

36 sequences assigned  
18 (50%) exact matches, in which:  
18 unique CDR3  
3 unique J



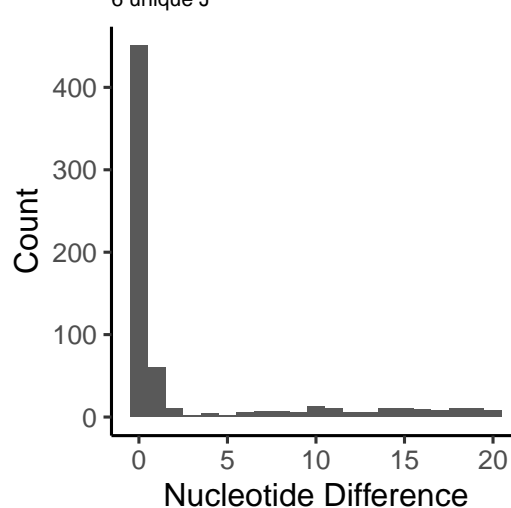
### IGHV3-20\*01

16 sequences assigned  
11 (68.8%) exact matches, in which:  
11 unique CDR3  
3 unique J



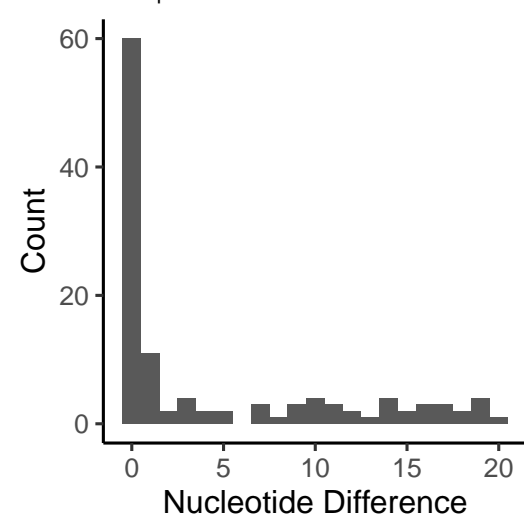
### IGHV3-30-3\*01

716 sequences assigned  
451 (63%) exact matches, in which:  
447 unique CDR3  
6 unique J



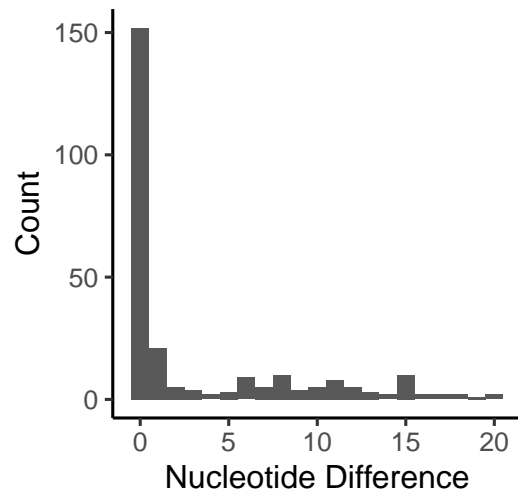
### IGHV3-48\*02

123 sequences assigned  
60 (48.8%) exact matches, in which:  
59 unique CDR3  
4 unique J



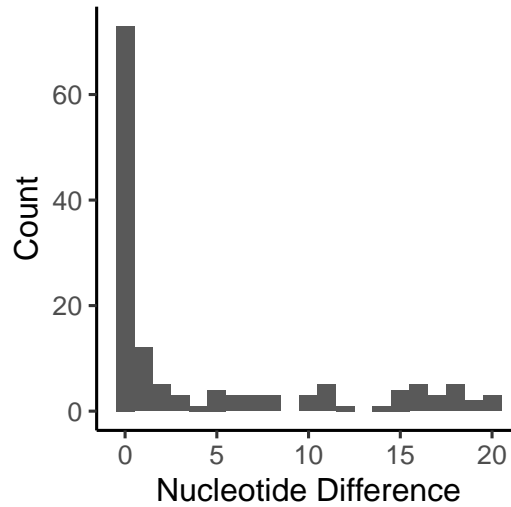
### IGHV3-48\*03

277 sequences assigned  
152 (54.9%) exact matches, in which:  
152 unique CDR3  
6 unique J



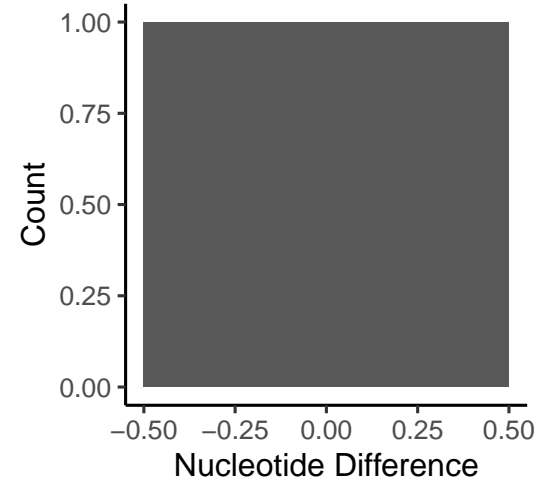
### IGHV3-53\*01

153 sequences assigned  
73 (47.7%) exact matches, in which:  
73 unique CDR3  
5 unique J



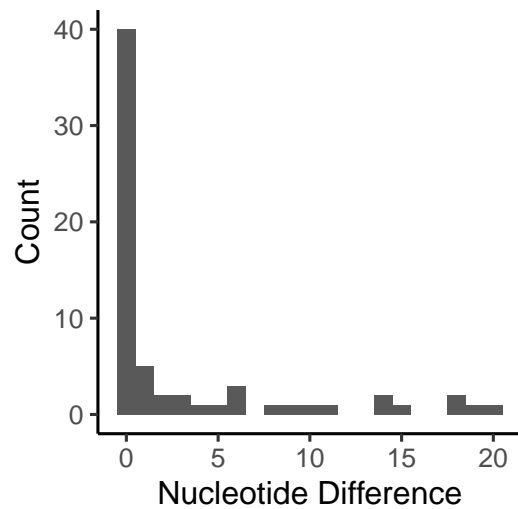
### IGHV3-69-1\*02

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



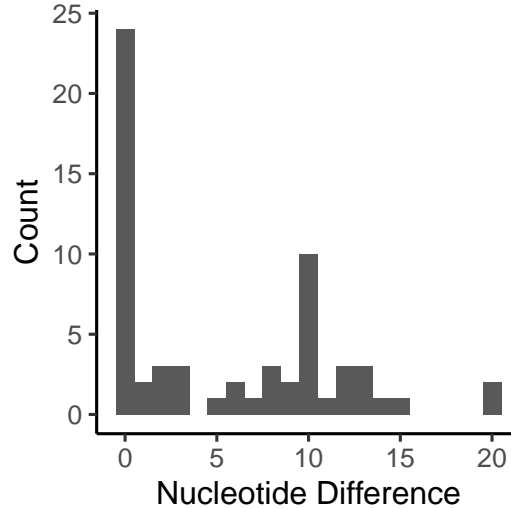
### IGHV3-49\*04

72 sequences assigned  
40 (55.6%) exact matches, in which:  
40 unique CDR3  
5 unique J



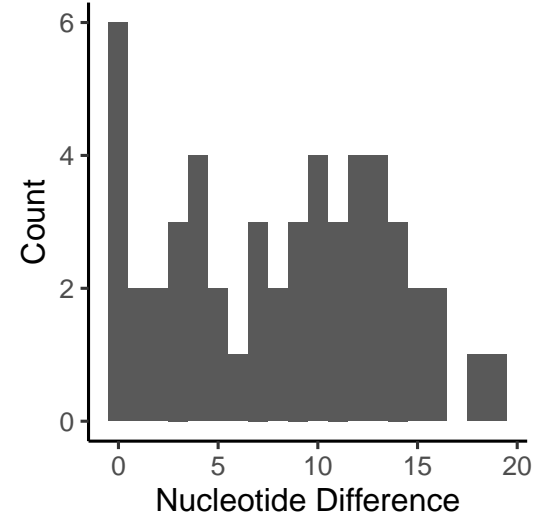
### IGHV3-53\*02

71 sequences assigned  
24 (33.8%) exact matches, in which:  
24 unique CDR3  
5 unique J



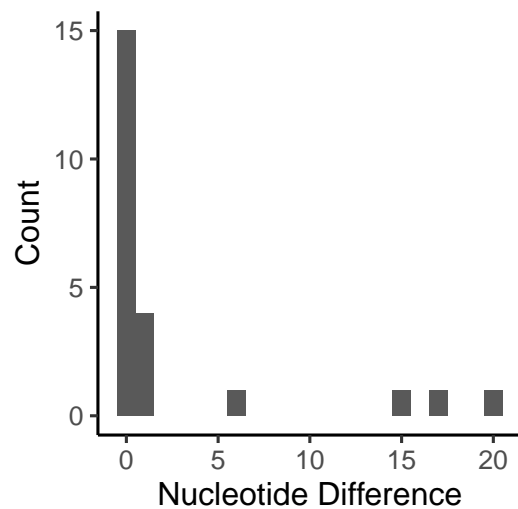
### IGHV3-72\*01

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



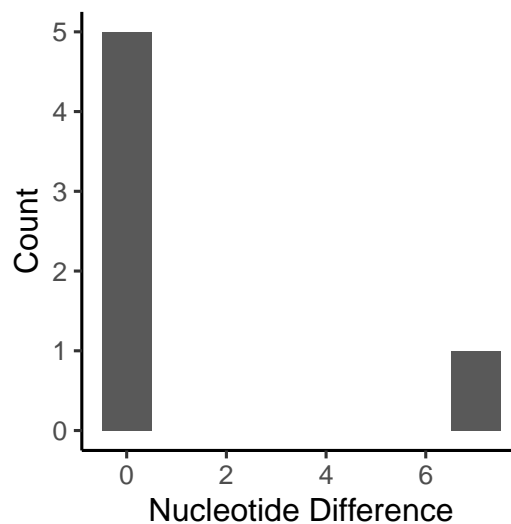
### IGHV3-49\*05

27 sequences assigned  
15 (55.6%) exact matches, in which:  
15 unique CDR3  
3 unique J



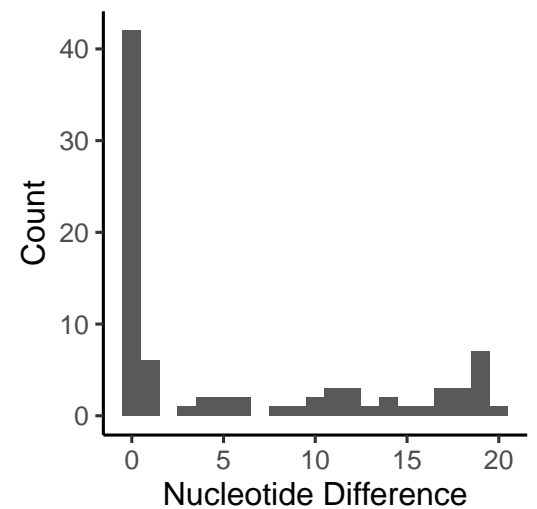
### IGHV3-64\*02

6 sequences assigned  
5 (83.3%) exact matches, in which:  
5 unique CDR3  
3 unique J



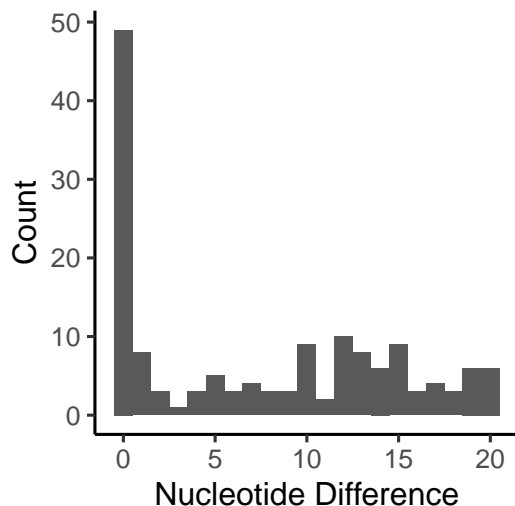
### IGHV3-73\*02

87 sequences assigned  
42 (48.3%) exact matches, in which:  
42 unique CDR3  
5 unique J



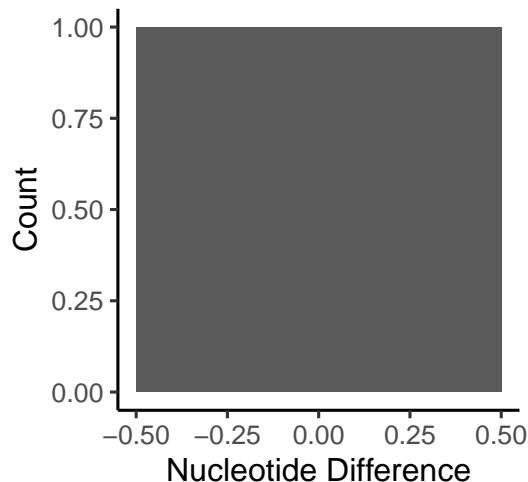
### IGHV3-74\*01

168 sequences assigned  
49 (29.2%) exact matches, in which:  
49 unique CDR3  
4 unique J



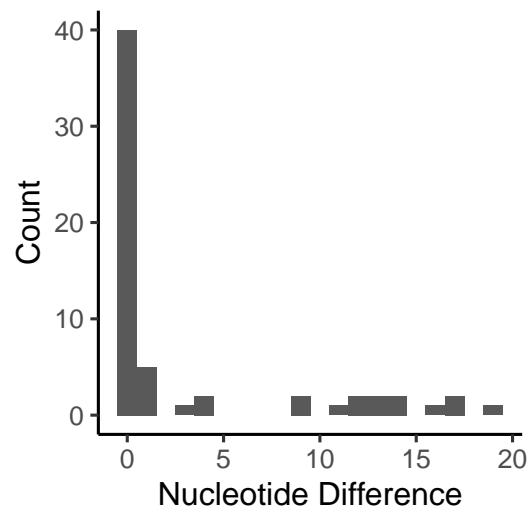
### IGHV4-28\*01

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



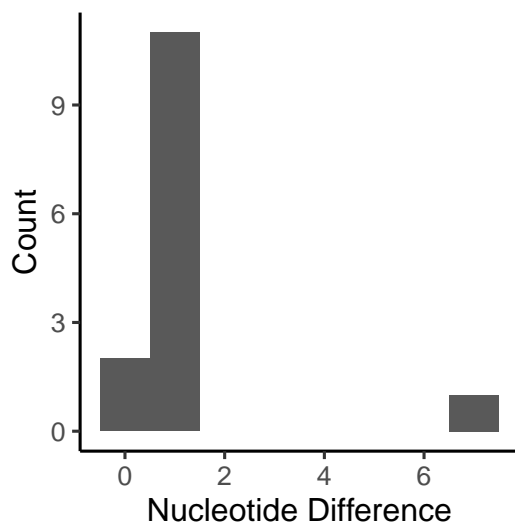
### IGHV4-30-4\*01

70 sequences assigned  
40 (57.1%) exact matches, in which:  
40 unique CDR3  
4 unique J



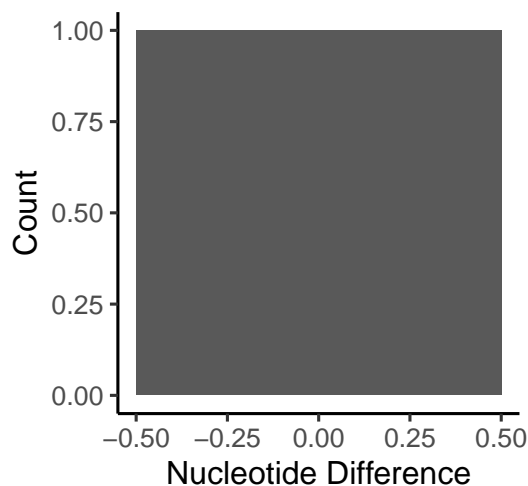
### IGHV3-43D\*04

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



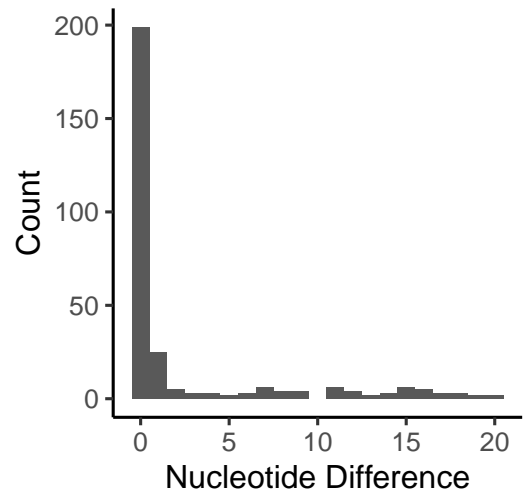
### IGHV4-28\*03

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



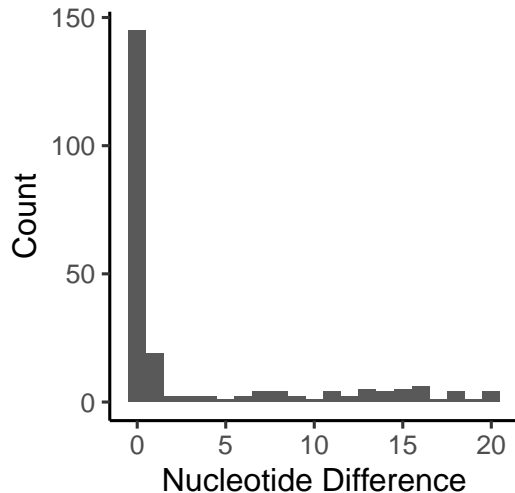
### IGHV4-31\*03

322 sequences assigned  
199 (61.8%) exact matches, in which:  
198 unique CDR3  
6 unique J



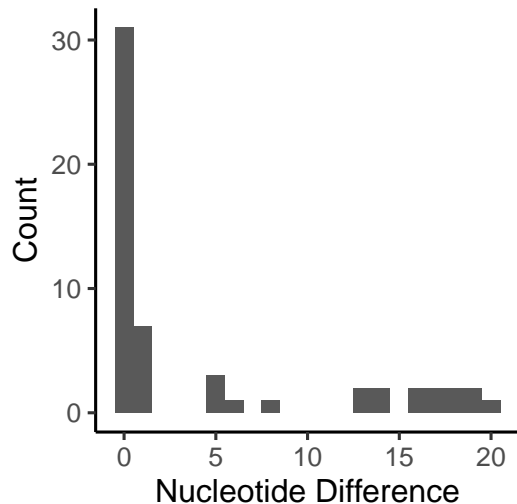
### IGHV4-4\*02

233 sequences assigned  
145 (62.2%) exact matches, in which:  
145 unique CDR3  
6 unique J



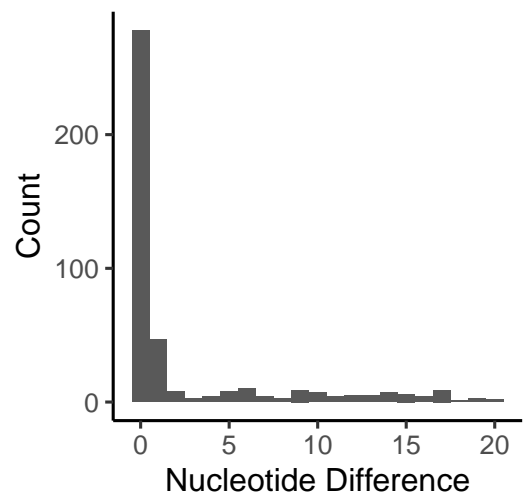
### IGHV4-30-2\*01

60 sequences assigned  
31 (51.7%) exact matches, in which:  
31 unique CDR3  
5 unique J



### IGHV4-34\*01

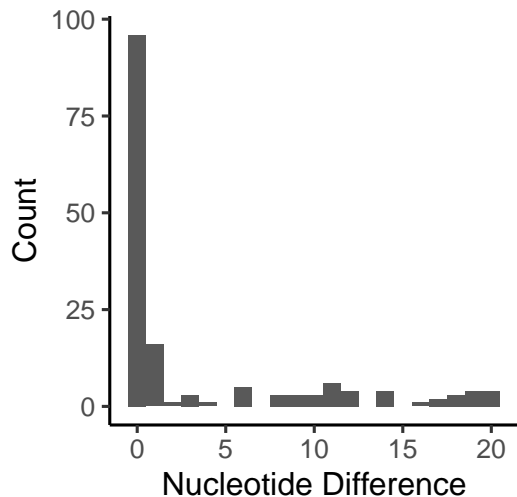
454 sequences assigned  
278 (61.2%) exact matches, in which:  
277 unique CDR3  
6 unique J





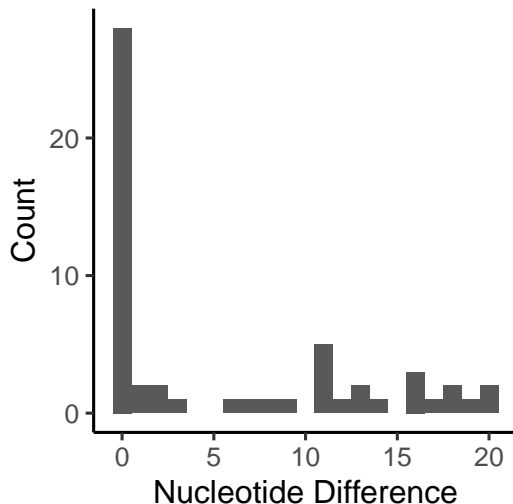
### IGHV4-38-2\*02\_A70G

178 sequences assigned  
96 (53.9%) exact matches, in which:  
96 unique CDR3  
6 unique J



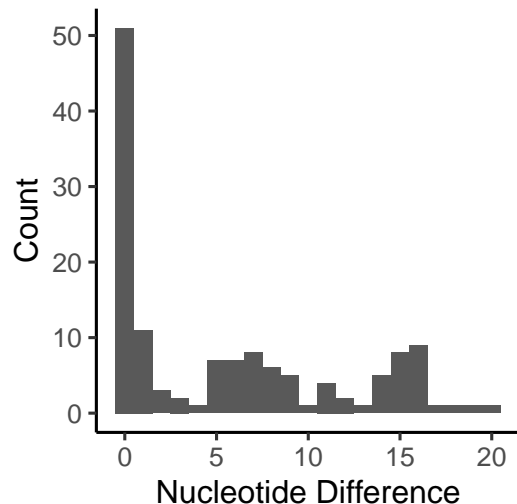
### IGHV4-61\*01

62 sequences assigned  
28 (45.2%) exact matches, in which:  
28 unique CDR3  
5 unique J



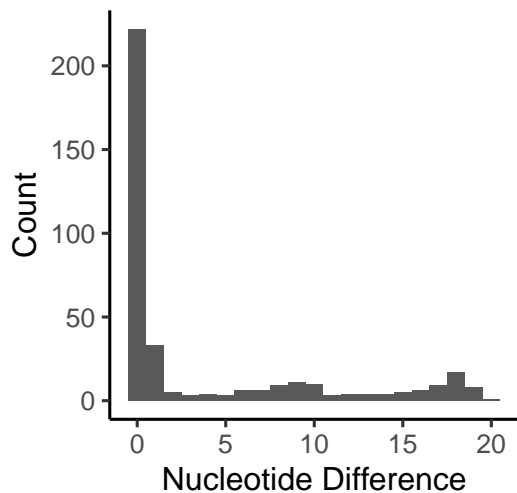
### IGHV7-4-1\*02

141 sequences assigned  
51 (36.2%) exact matches, in which:  
51 unique CDR3  
5 unique J



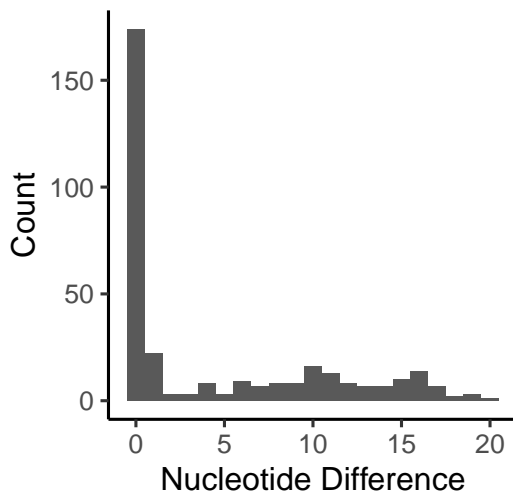
### IGHV4-39\*01

455 sequences assigned  
222 (48.8%) exact matches, in which:  
221 unique CDR3  
6 unique J



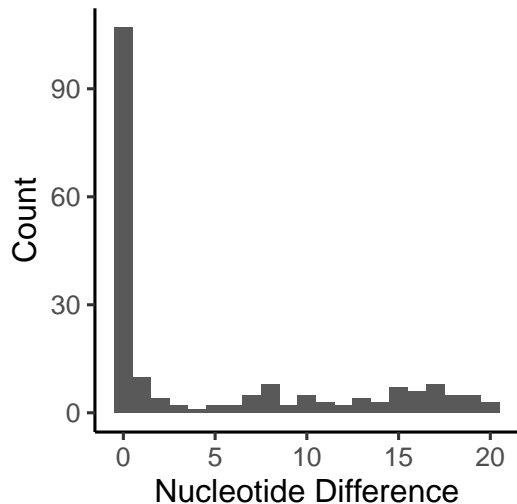
### IGHV5-51\*01

364 sequences assigned  
174 (47.8%) exact matches, in which:  
174 unique CDR3  
6 unique J



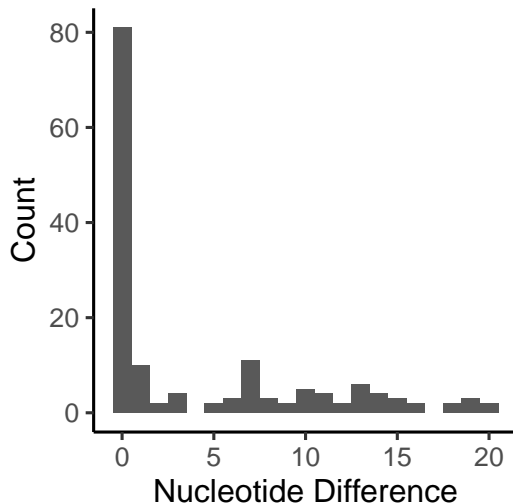
### IGHV4-59\*01

231 sequences assigned  
107 (46.3%) exact matches, in which:  
106 unique CDR3  
6 unique J



### IGHV6-1\*01

155 sequences assigned  
81 (52.3%) exact matches, in which:  
80 unique CDR3  
5 unique J





[illegible]