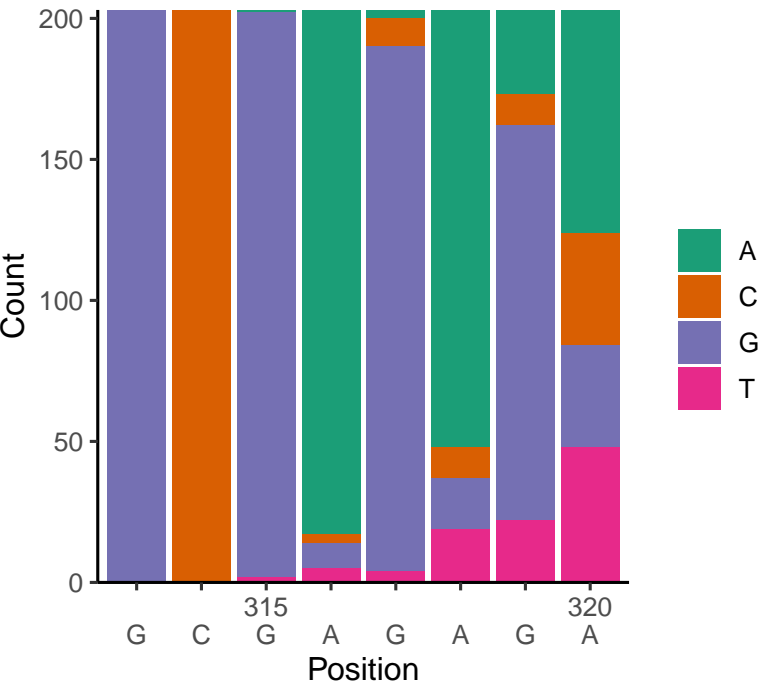
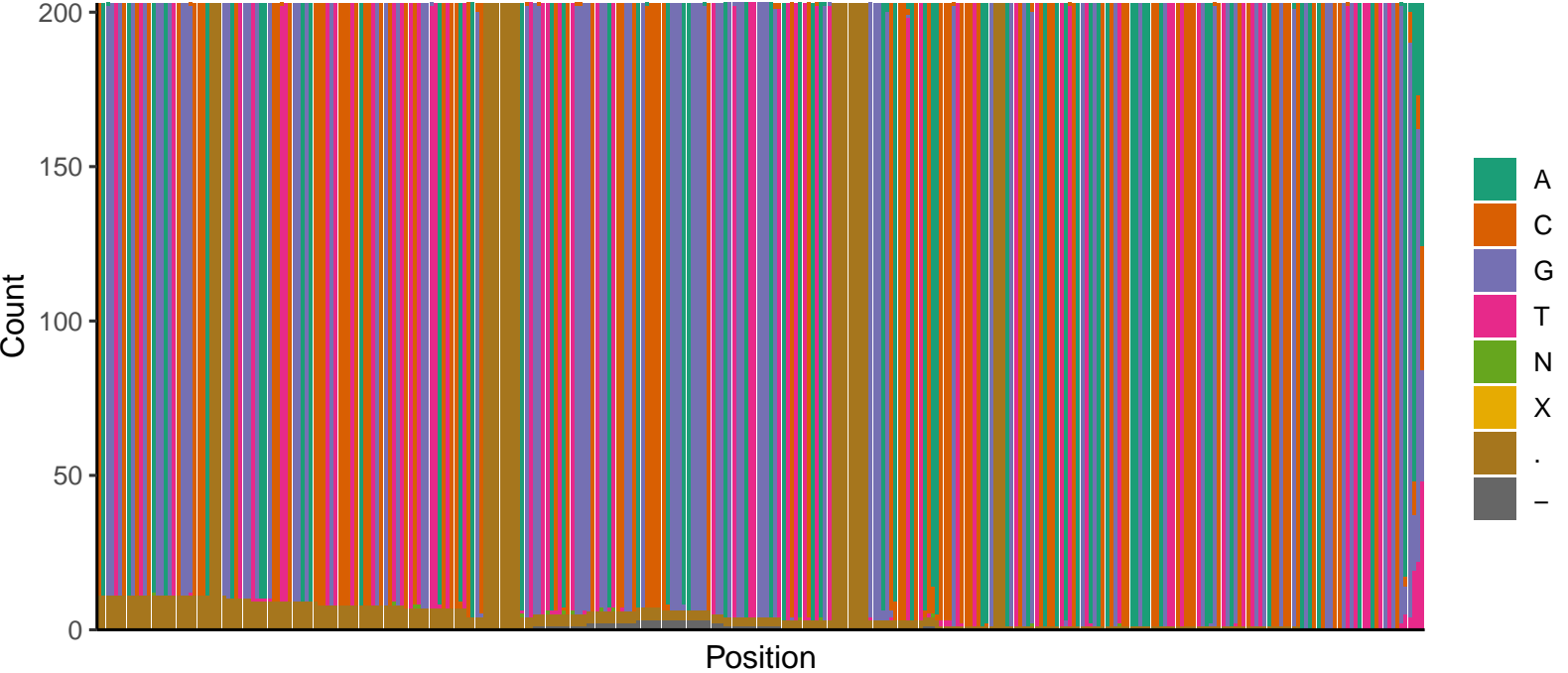


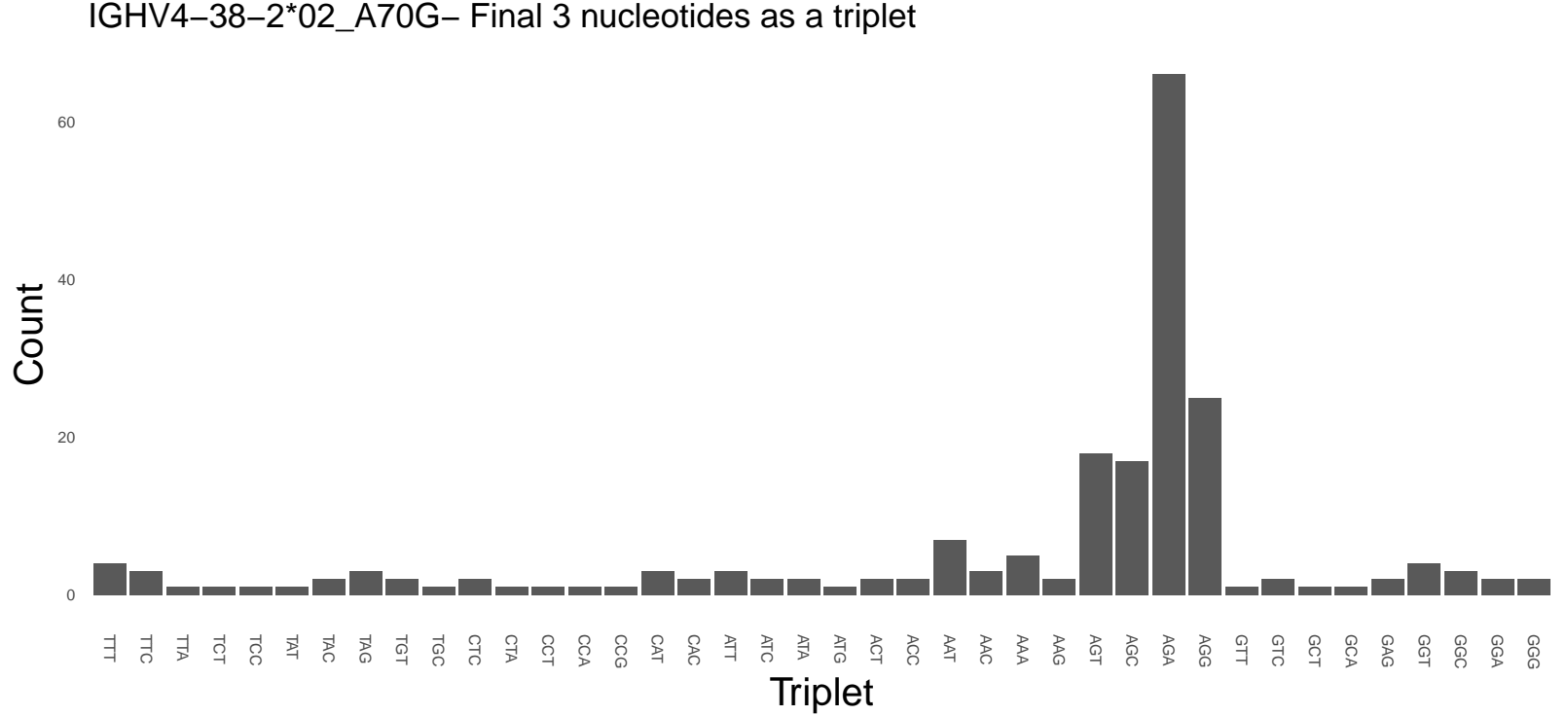
Gene IGHV4-38-2\*02\_A70G



Gene IGHV4-38-2\*02\_A70G

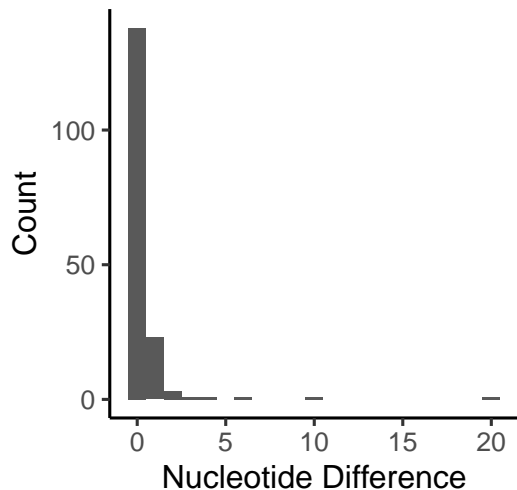


IGHV4-38-2\*02\_A70G- Final 3 nucleotides as a triplet



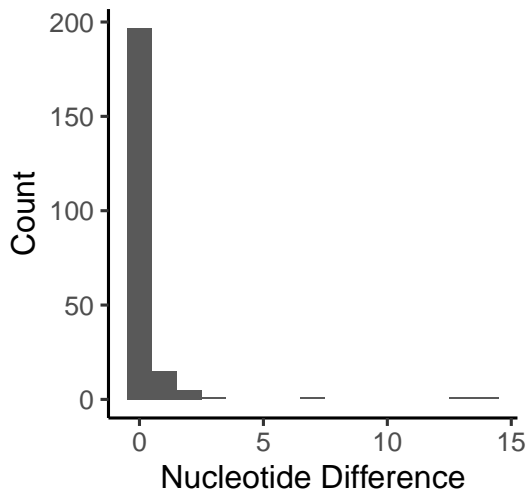
### IGHV1-2\*02

170 sequences assigned  
138 (81.2%) exact matches, in which:  
137 unique CDR3  
6 unique J



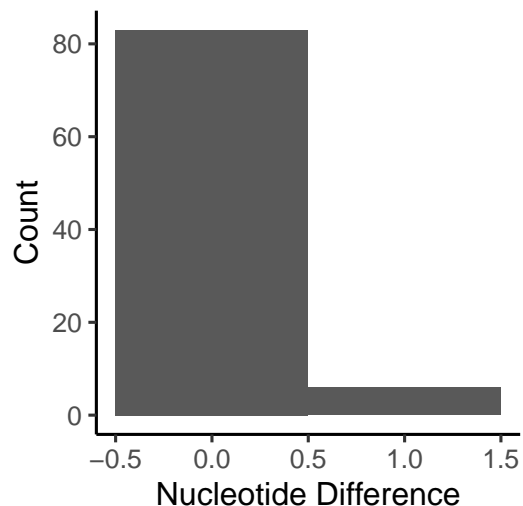
### IGHV1-8\*01

221 sequences assigned  
197 (89.1%) exact matches, in which:  
196 unique CDR3  
6 unique J



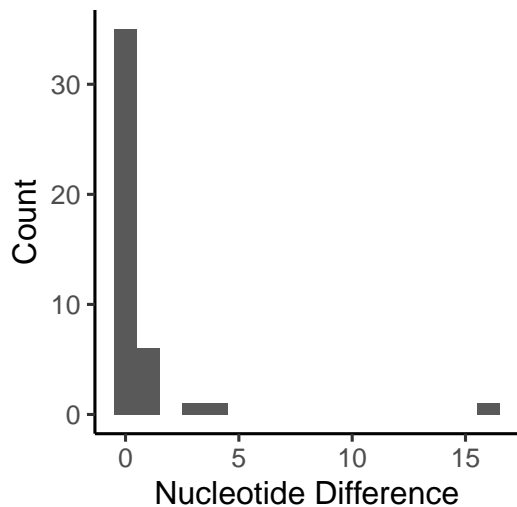
### IGHV1-24\*01

89 sequences assigned  
83 (93.3%) exact matches, in which:  
83 unique CDR3  
5 unique J



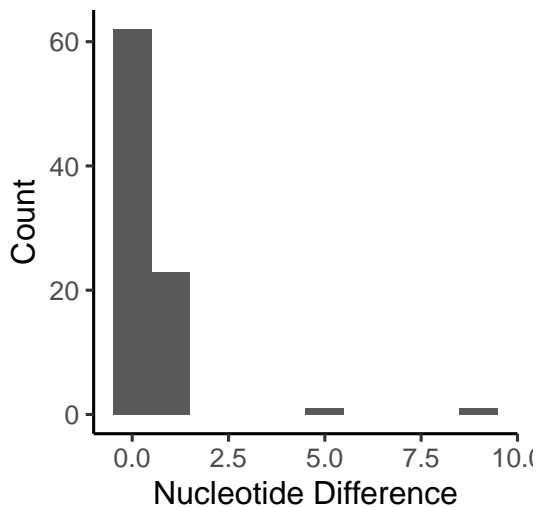
### IGHV1-2\*04

45 sequences assigned  
35 (77.8%) exact matches, in which:  
34 unique CDR3  
5 unique J



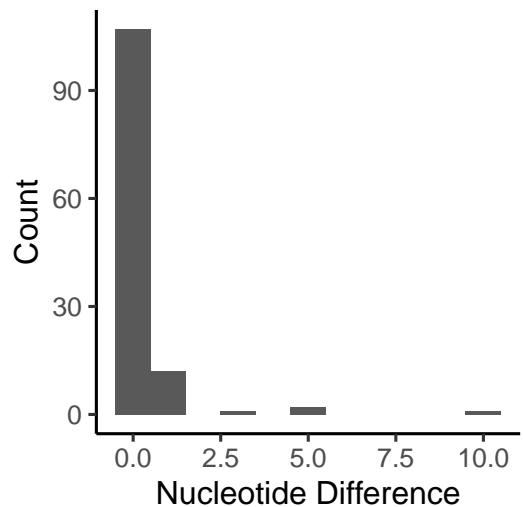
### IGHV1-18\*01

87 sequences assigned  
62 (71.3%) exact matches, in which:  
62 unique CDR3  
5 unique J



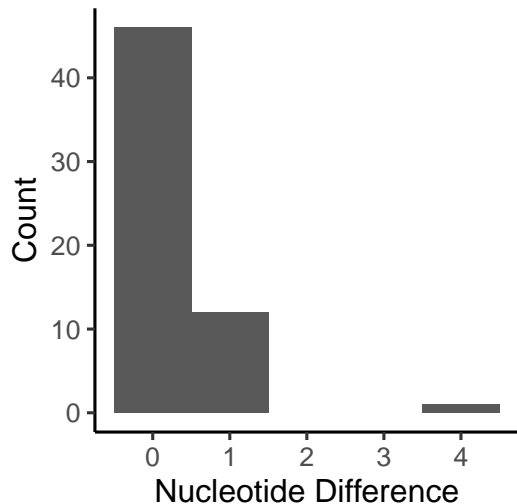
### IGHV1-46\*01

123 sequences assigned  
107 (87%) exact matches, in which:  
107 unique CDR3  
6 unique J



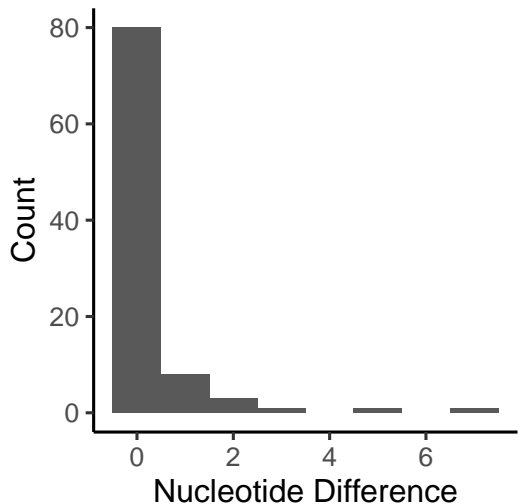
### IGHV1-3\*01

59 sequences assigned  
46 (78%) exact matches, in which:  
46 unique CDR3  
5 unique J



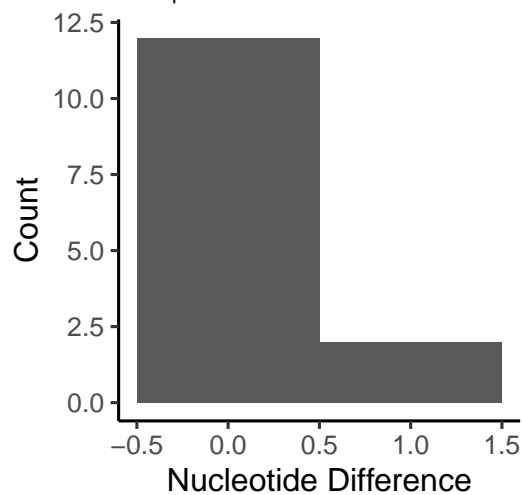
### IGHV1-18\*04

94 sequences assigned  
80 (85.1%) exact matches, in which:  
80 unique CDR3  
5 unique J



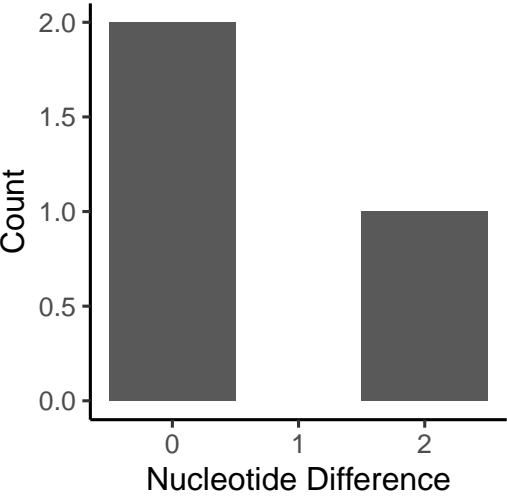
### IGHV1-58\*01

14 sequences assigned  
12 (85.7%) exact matches, in which:  
12 unique CDR3  
5 unique J



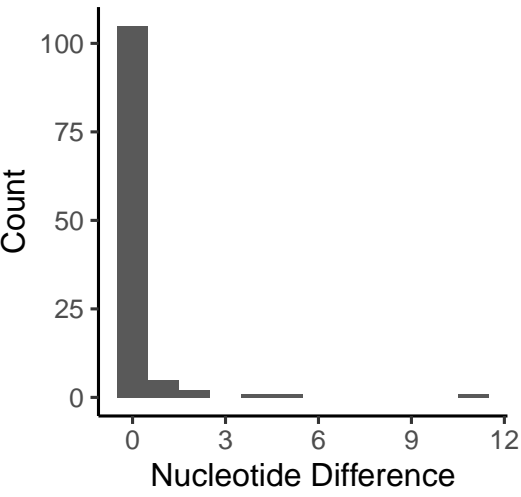
IGHV1-58\*02

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



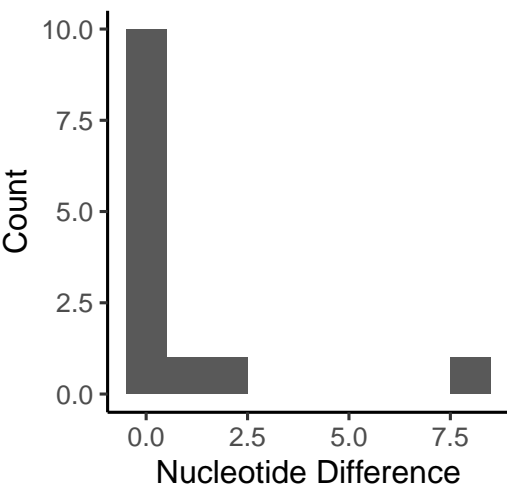
IGHV2-5\*02

115 sequences assigned  
105 (91.3%) exact matches, in which:  
104 unique CDR3  
5 unique J



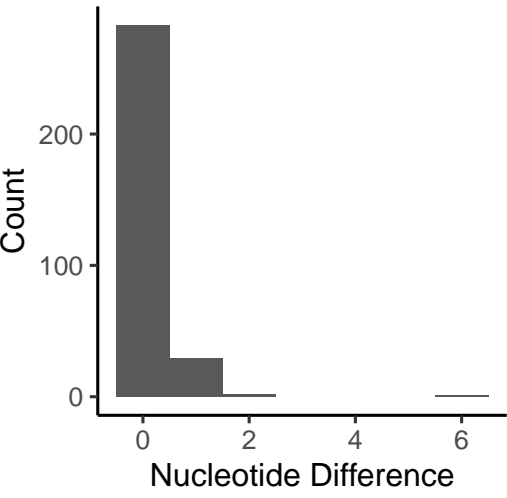
IGHV2-70\*15

13 sequences assigned  
10 (76.9%) exact matches, in which:  
9 unique CDR3  
3 unique J



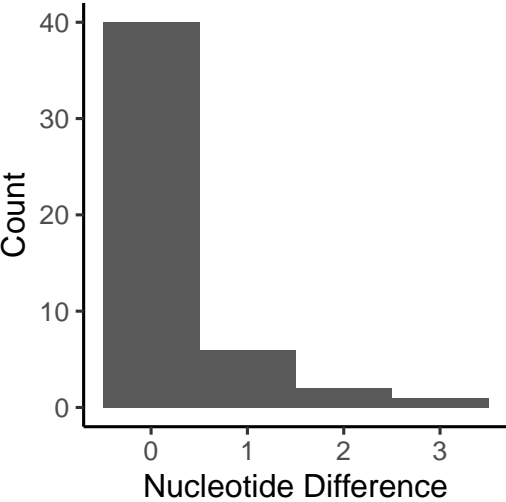
IGHV1-69\*01

317 sequences assigned  
283 (89.3%) exact matches, in which:  
277 unique CDR3  
6 unique J



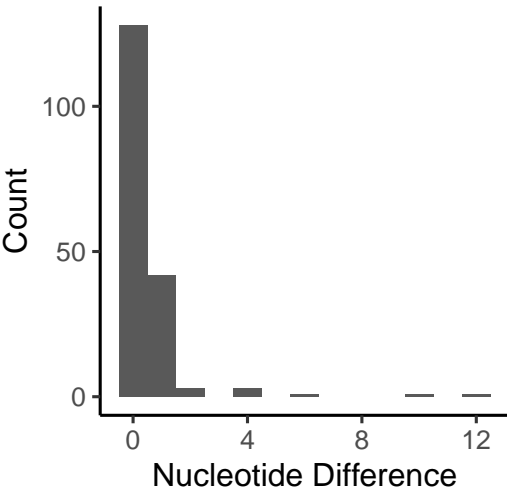
IGHV2-26\*01

49 sequences assigned  
40 (81.6%) exact matches, in which:  
40 unique CDR3  
5 unique J



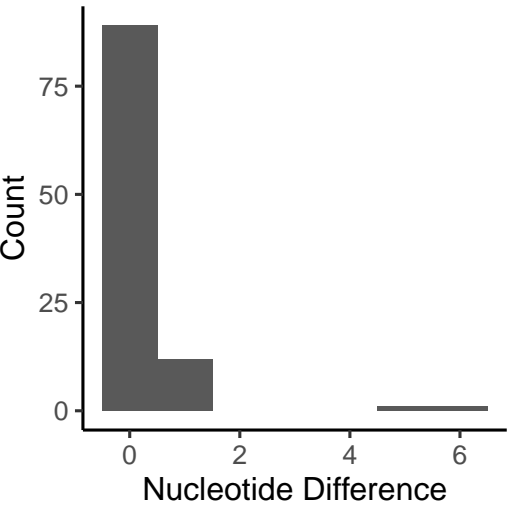
IGHV3-7\*01

179 sequences assigned  
128 (71.5%) exact matches, in which:  
126 unique CDR3  
6 unique J



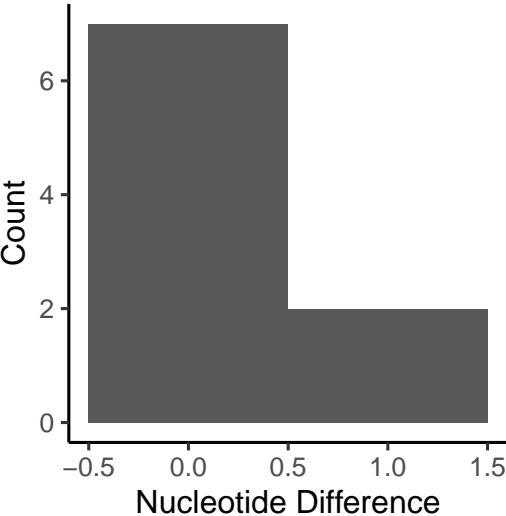
IGHV1-69\*02

103 sequences assigned  
89 (86.4%) exact matches, in which:  
89 unique CDR3  
6 unique J



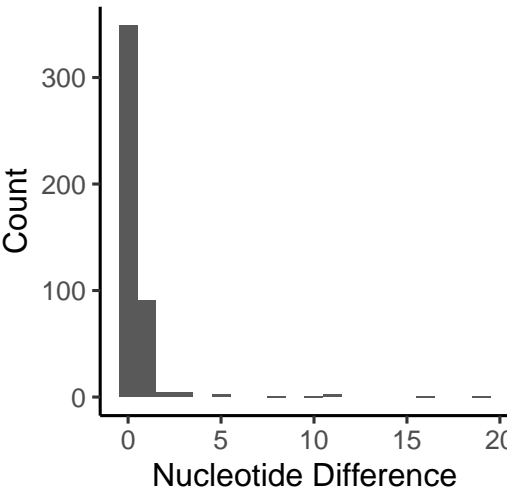
IGHV2-70\*01

9 sequences assigned  
7 (77.8%) exact matches, in which:  
7 unique CDR3  
3 unique J



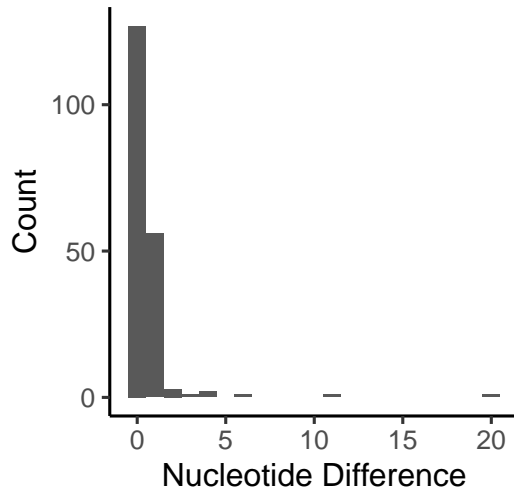
IGHV3-9\*01

456 sequences assigned  
349 (76.5%) exact matches, in which:  
345 unique CDR3  
6 unique J



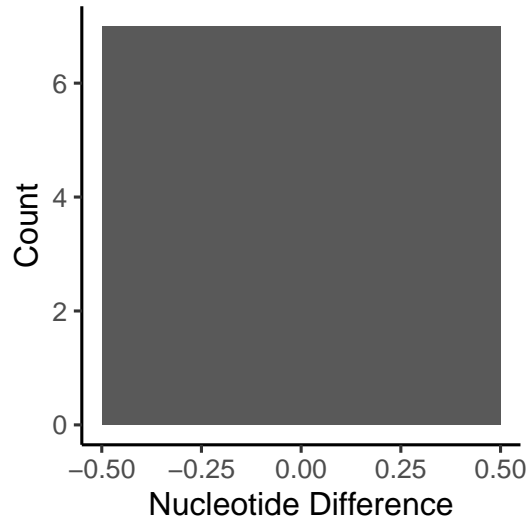
### IGHV3-11\*01

192 sequences assigned  
127 (66.1%) exact matches, in which:  
122 unique CDR3  
6 unique J



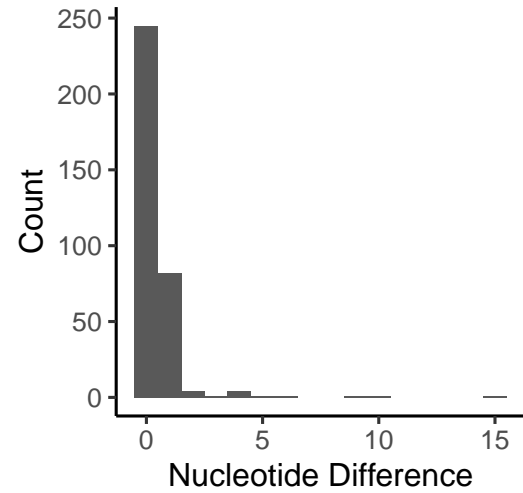
### IGHV3-20\*01

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



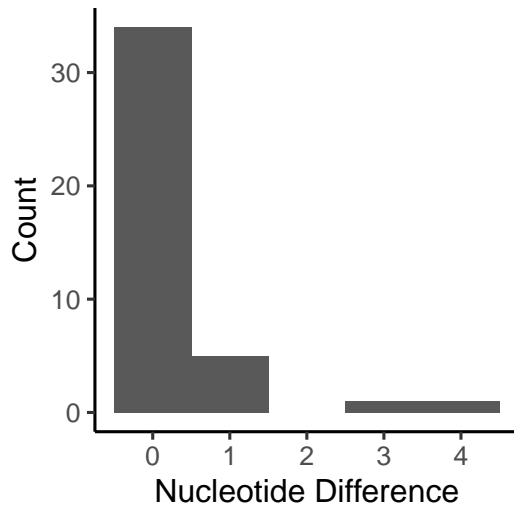
### IGHV3-23\*04

343 sequences assigned  
245 (71.4%) exact matches, in which:  
243 unique CDR3  
6 unique J



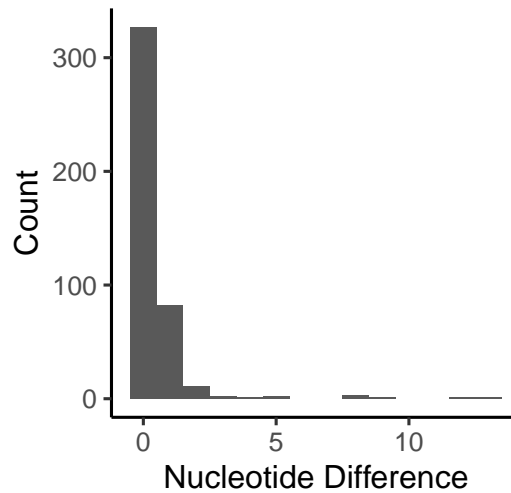
### IGHV3-13\*01

41 sequences assigned  
34 (82.9%) exact matches, in which:  
33 unique CDR3  
5 unique J



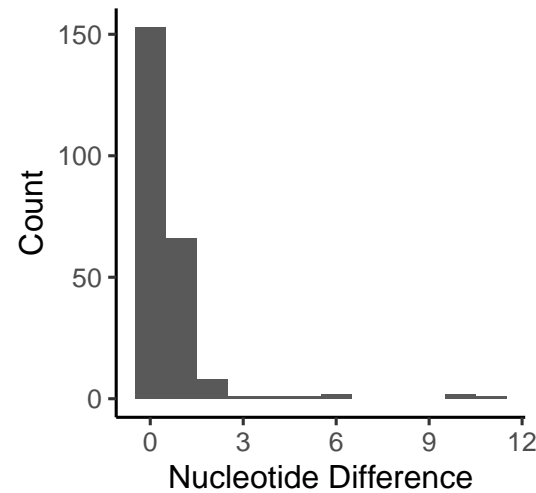
### IGHV3-21\*01

432 sequences assigned  
327 (75.7%) exact matches, in which:  
322 unique CDR3  
6 unique J



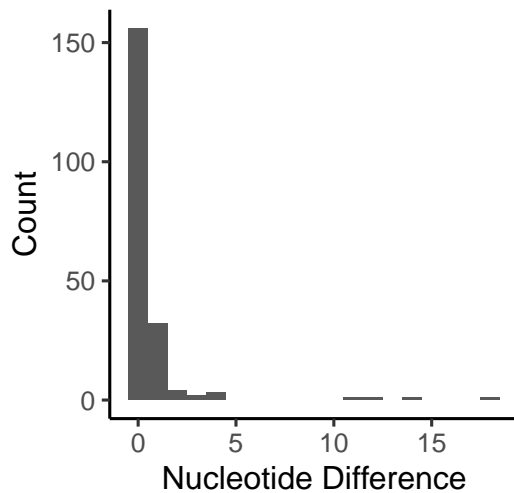
### IGHV3-30-3\*01

235 sequences assigned  
153 (65.1%) exact matches, in which:  
152 unique CDR3  
6 unique J



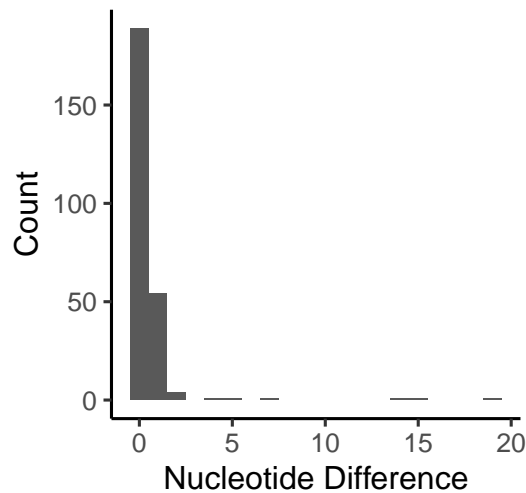
### IGHV3-15\*01

201 sequences assigned  
156 (77.6%) exact matches, in which:  
154 unique CDR3  
6 unique J



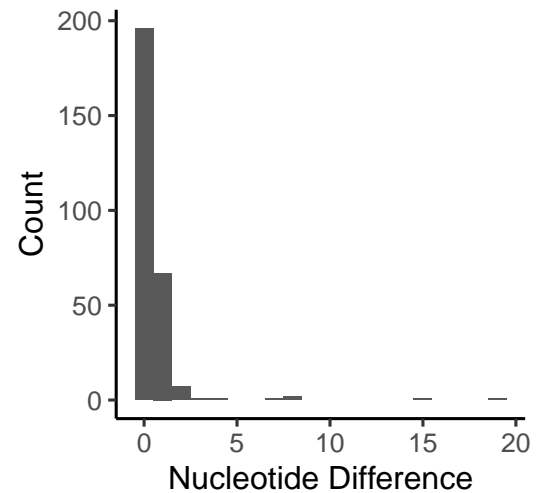
### IGHV3-23\*01

255 sequences assigned  
189 (74.1%) exact matches, in which:  
189 unique CDR3  
6 unique J



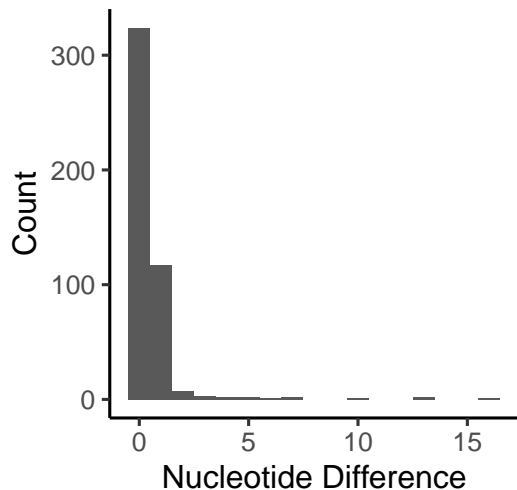
### IGHV3-30\*04

277 sequences assigned  
196 (70.8%) exact matches, in which:  
193 unique CDR3  
6 unique J



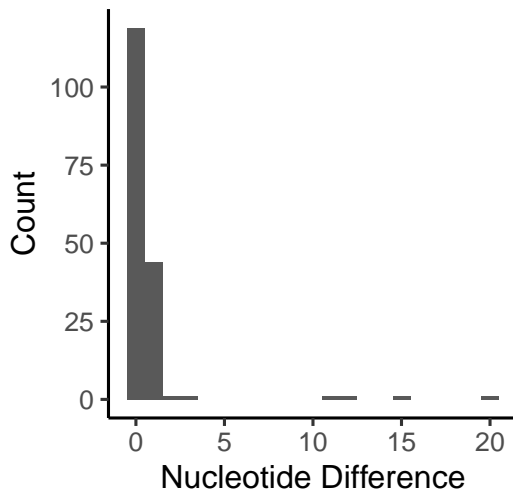
### IGHV3–30\*18

462 sequences assigned  
324 (70.1%) exact matches, in which:  
321 unique CDR3  
6 unique J



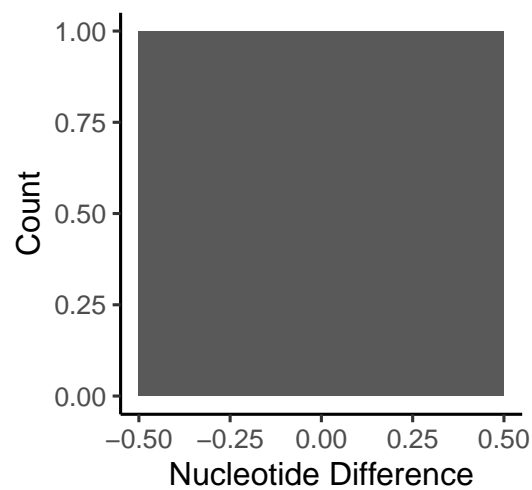
### IGHV3–48\*03

169 sequences assigned  
119 (70.4%) exact matches, in which:  
119 unique CDR3  
6 unique J



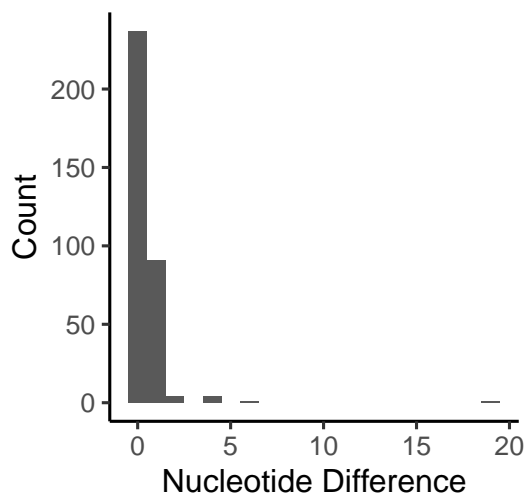
### IGHV3–52\*01

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



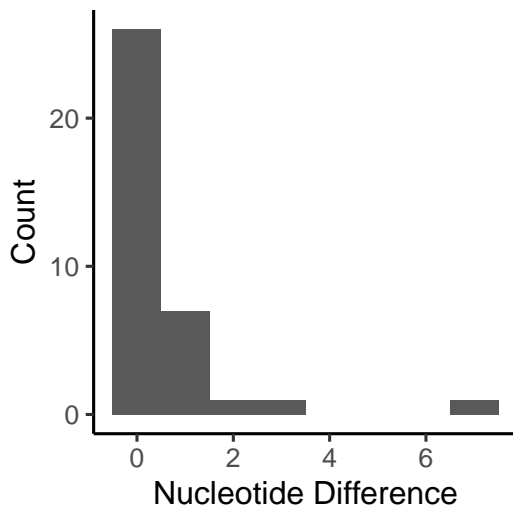
### IGHV3–33\*01

338 sequences assigned  
237 (70.1%) exact matches, in which:  
230 unique CDR3  
6 unique J



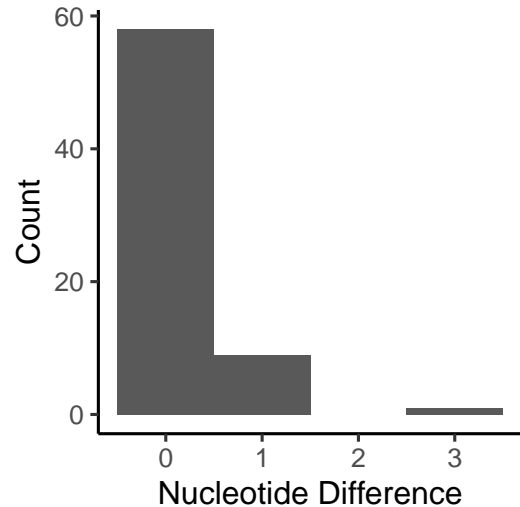
### IGHV3–49\*04

36 sequences assigned  
26 (72.2%) exact matches, in which:  
26 unique CDR3  
4 unique J



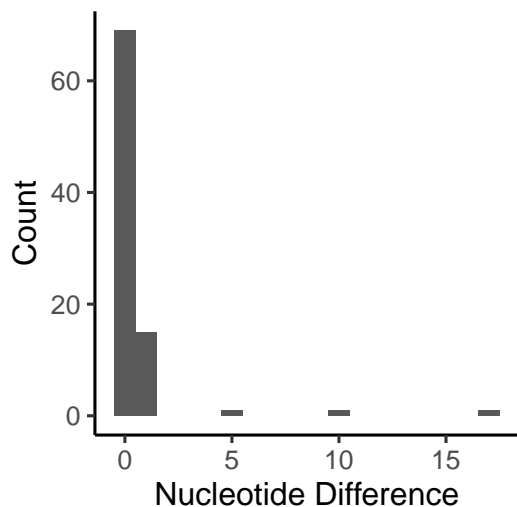
### IGHV3–53\*01

68 sequences assigned  
58 (85.3%) exact matches, in which:  
58 unique CDR3  
5 unique J



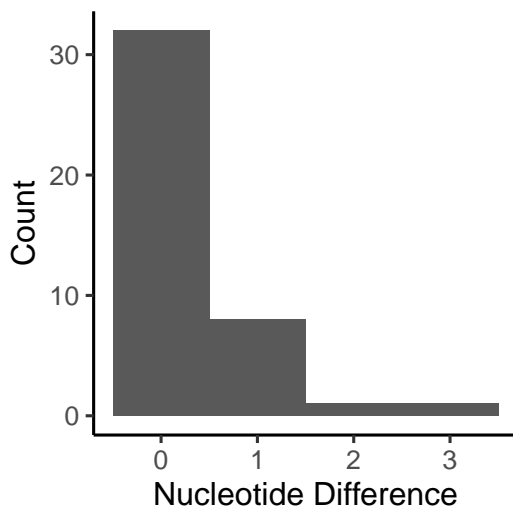
### IGHV3–48\*02

87 sequences assigned  
69 (79.3%) exact matches, in which:  
68 unique CDR3  
4 unique J



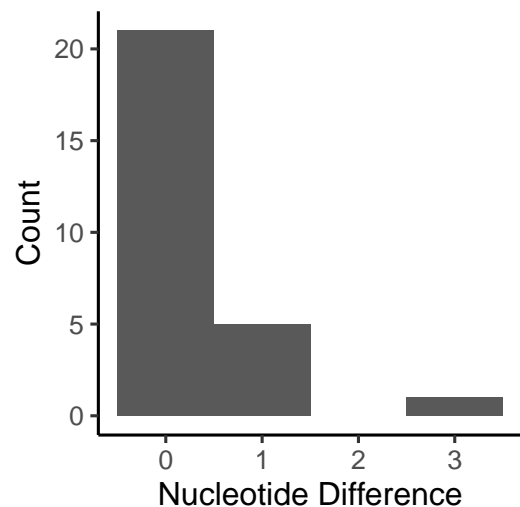
### IGHV3–49\*05

42 sequences assigned  
32 (76.2%) exact matches, in which:  
28 unique CDR3  
4 unique J



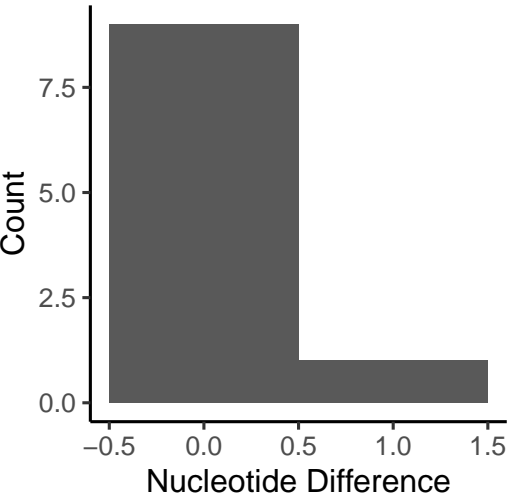
### IGHV3–53\*02

27 sequences assigned  
21 (77.8%) exact matches, in which:  
21 unique CDR3  
5 unique J



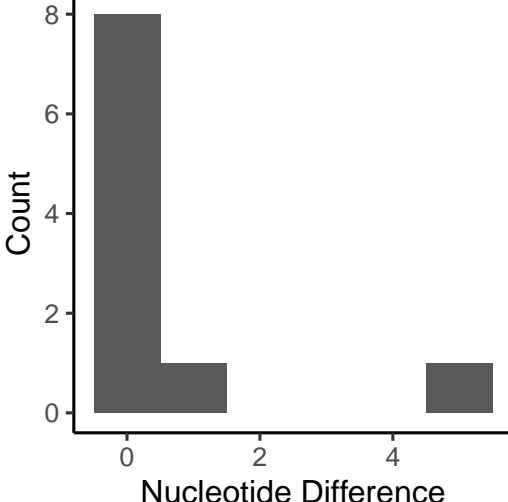
### IGHV3-64\*01

10 sequences assigned  
9 (90%) exact matches, in which:  
8 unique CDR3  
4 unique J



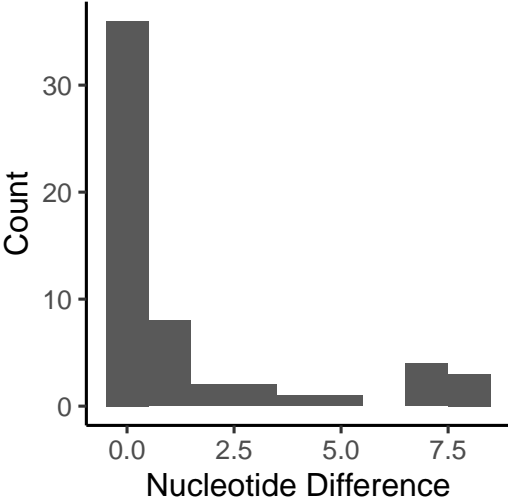
### IGHV3-72\*01

10 sequences assigned  
8 (80%) exact matches, in which:  
8 unique CDR3  
3 unique J



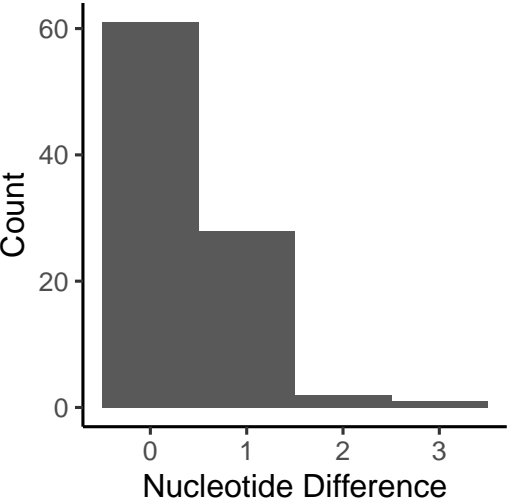
### IGHV3-74\*01

57 sequences assigned  
36 (63.2%) exact matches, in which:  
36 unique CDR3  
5 unique J



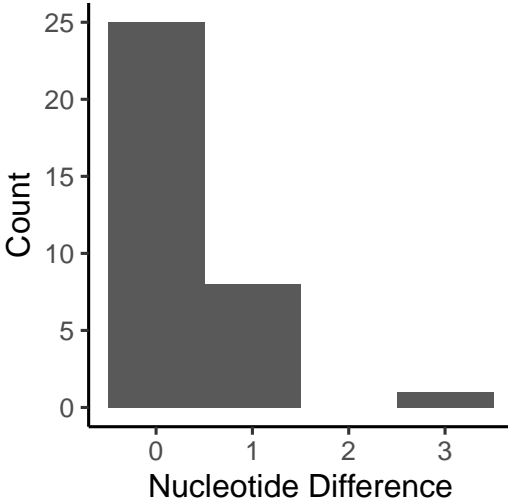
### IGHV3-66\*01

92 sequences assigned  
61 (66.3%) exact matches, in which:  
61 unique CDR3  
5 unique J



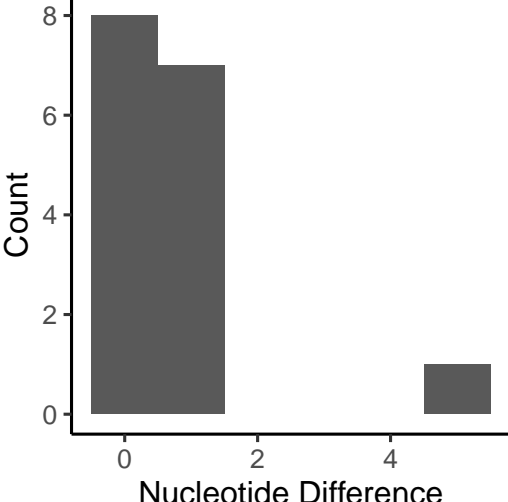
### IGHV3-73\*01

34 sequences assigned  
25 (73.5%) exact matches, in which:  
25 unique CDR3  
4 unique J



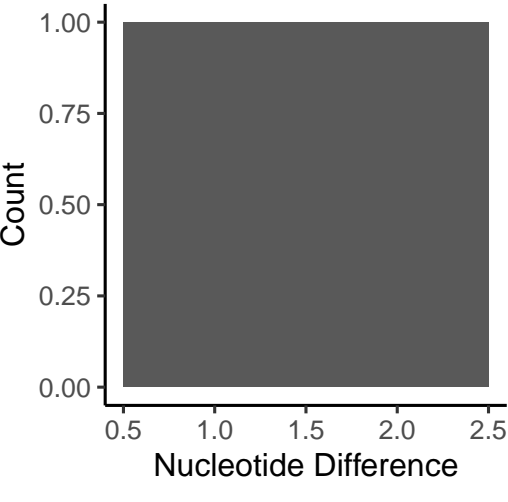
### IGHV3-43D\*04

16 sequences assigned  
8 (50%) exact matches, in which:  
8 unique CDR3  
4 unique J



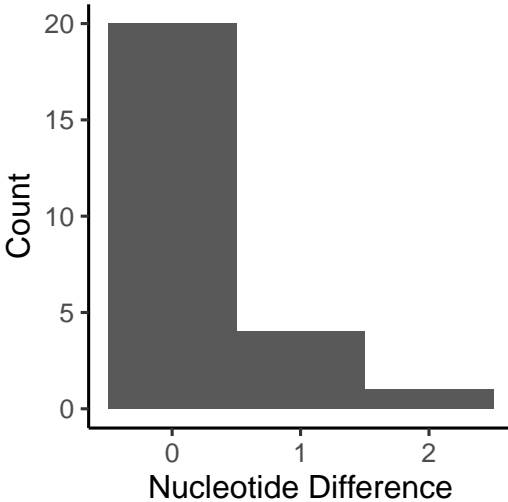
### IGHV3-69-1\*02

2 sequences assigned  
No exact matches.



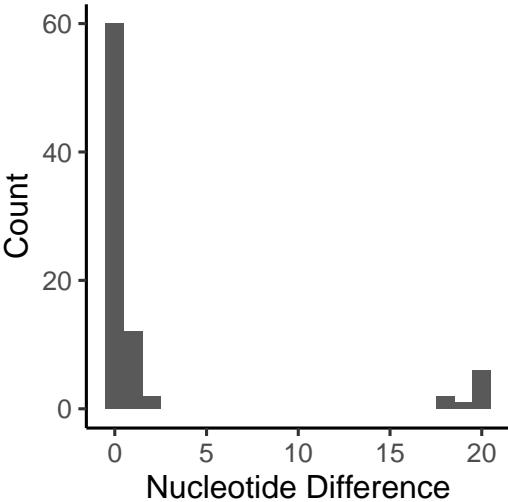
### IGHV3-73\*02

25 sequences assigned  
20 (80%) exact matches, in which:  
20 unique CDR3  
5 unique J



### IGHV4-4\*02

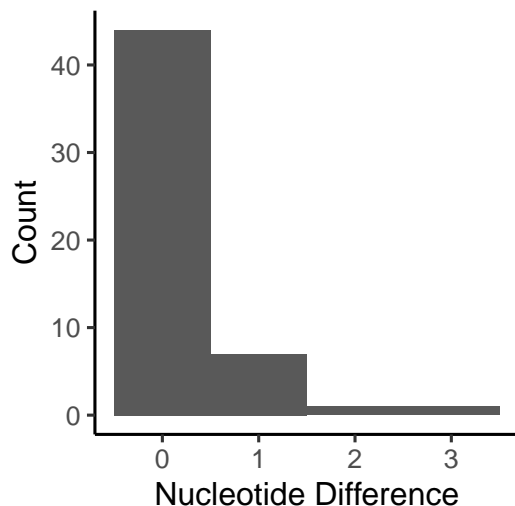
83 sequences assigned  
60 (72.3%) exact matches, in which:  
58 unique CDR3  
5 unique J





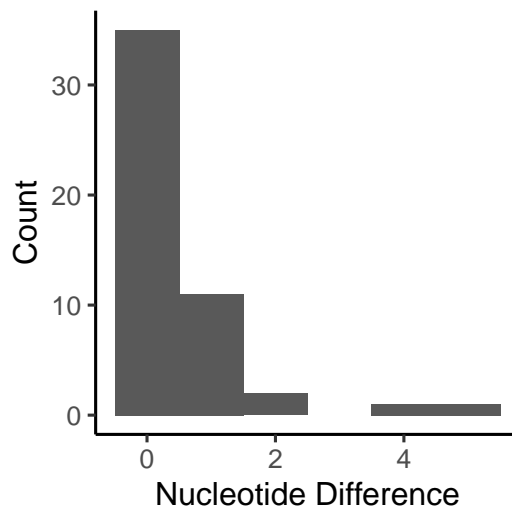
### IGHV4-4\*07

53 sequences assigned  
44 (83%) exact matches, in which:  
44 unique CDR3  
6 unique J



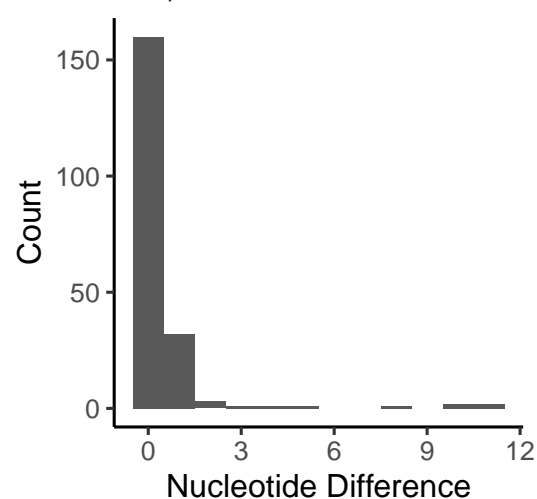
### IGHV4-30-2\*01

50 sequences assigned  
35 (70%) exact matches, in which:  
35 unique CDR3  
5 unique J



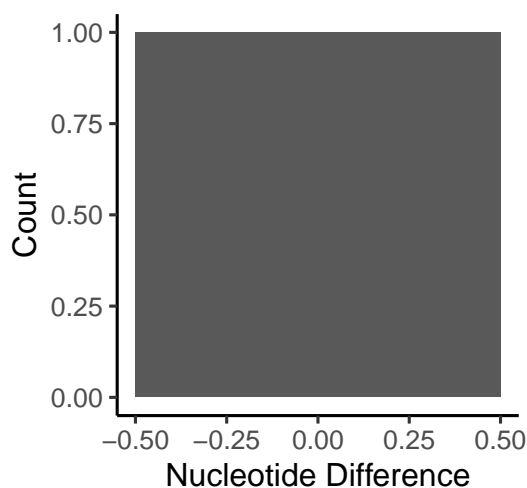
### IGHV4-38-2\*02\_A70G

203 sequences assigned  
160 (78.8%) exact matches, in which:  
160 unique CDR3  
6 unique J



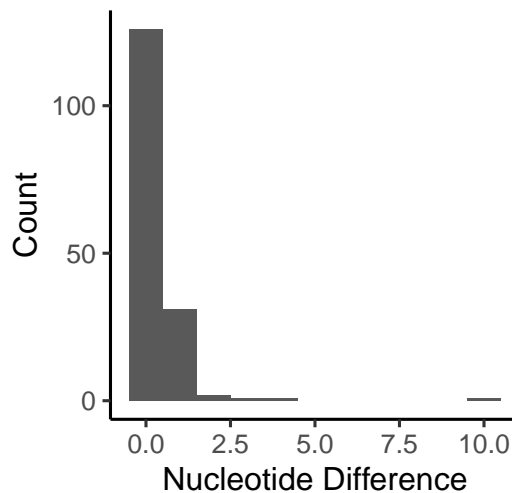
### IGHV4-28\*01

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



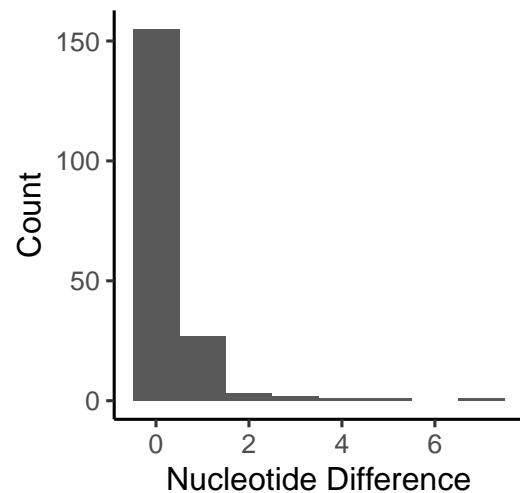
### IGHV4-31\*03

162 sequences assigned  
126 (77.8%) exact matches, in which:  
126 unique CDR3  
5 unique J



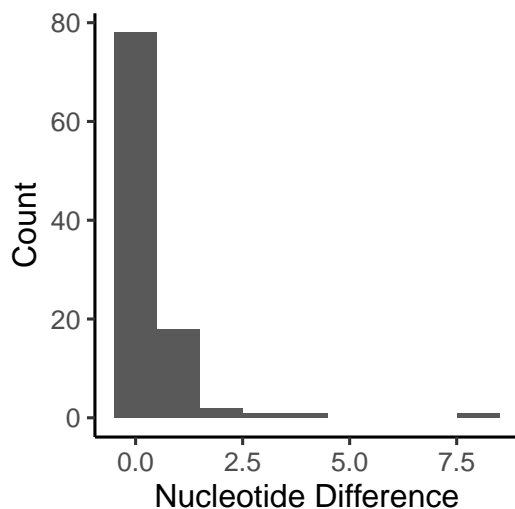
### IGHV4-59\*01

190 sequences assigned  
155 (81.6%) exact matches, in which:  
153 unique CDR3  
6 unique J



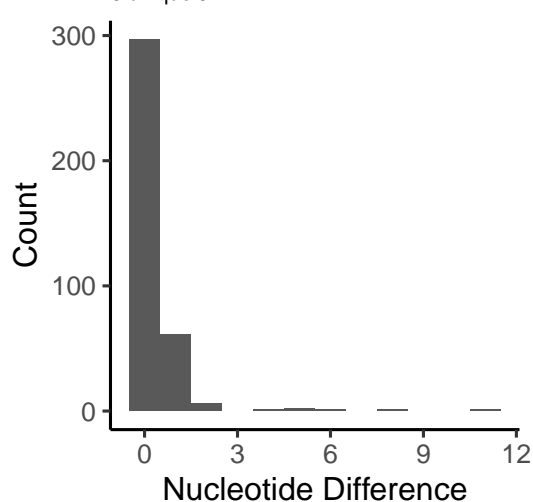
### IGHV4-30-4\*01

101 sequences assigned  
78 (77.2%) exact matches, in which:  
76 unique CDR3  
4 unique J



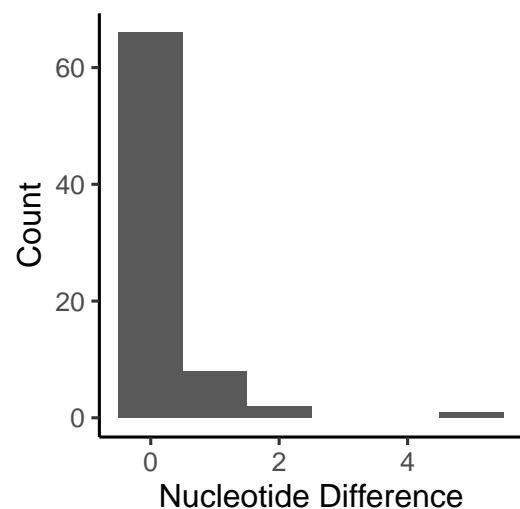
### IGHV4-34\*01

371 sequences assigned  
297 (80.1%) exact matches, in which:  
295 unique CDR3  
6 unique J



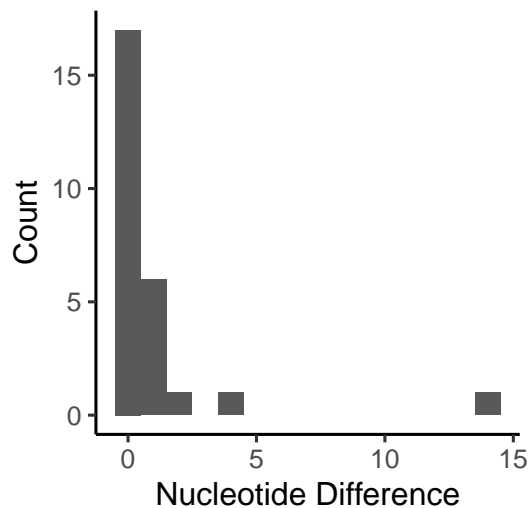
### IGHV4-59\*08

78 sequences assigned  
66 (84.6%) exact matches, in which:  
64 unique CDR3  
6 unique J



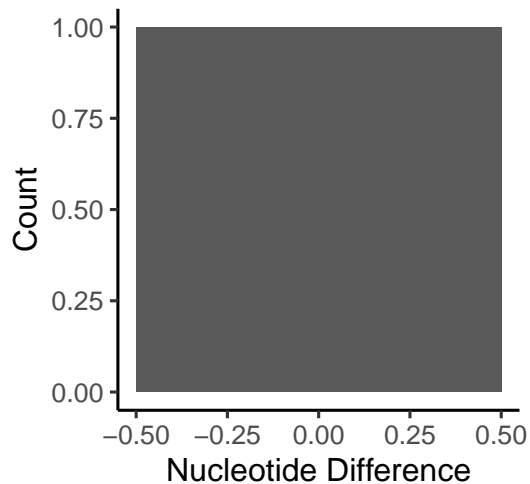
## IGHV4-61\*01

26 sequences assigned  
17 (65.4%) exact matches, in which:  
17 unique CDR3  
4 unique J



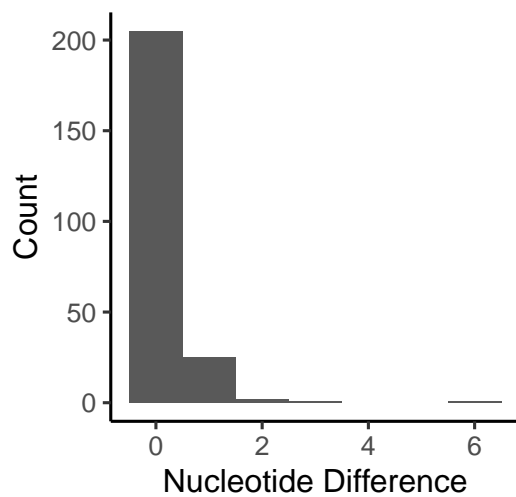
## IGHV3/OR16-12\*01

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



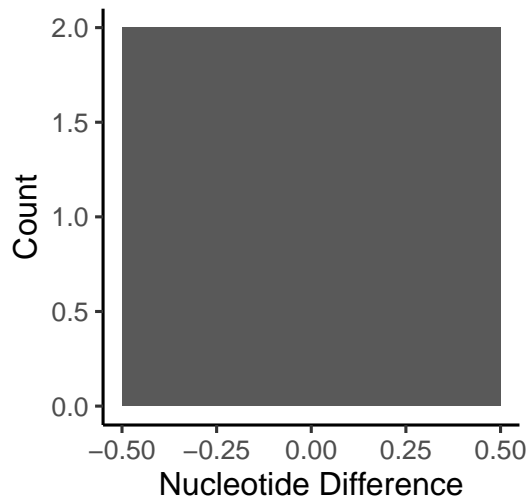
## IGHV5-51\*01

234 sequences assigned  
205 (87.6%) exact matches, in which:  
200 unique CDR3  
6 unique J



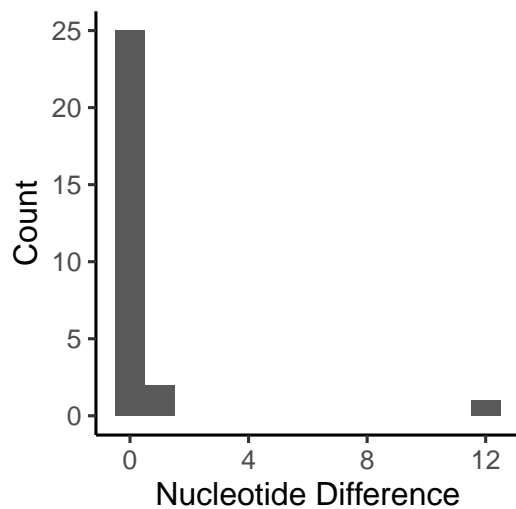
## IGHV7-4-1\*01

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



## IGHV6-1\*01

28 sequences assigned  
25 (89.3%) exact matches, in which:  
24 unique CDR3  
4 unique J



IGHV4-38-2\*02\_A70G

