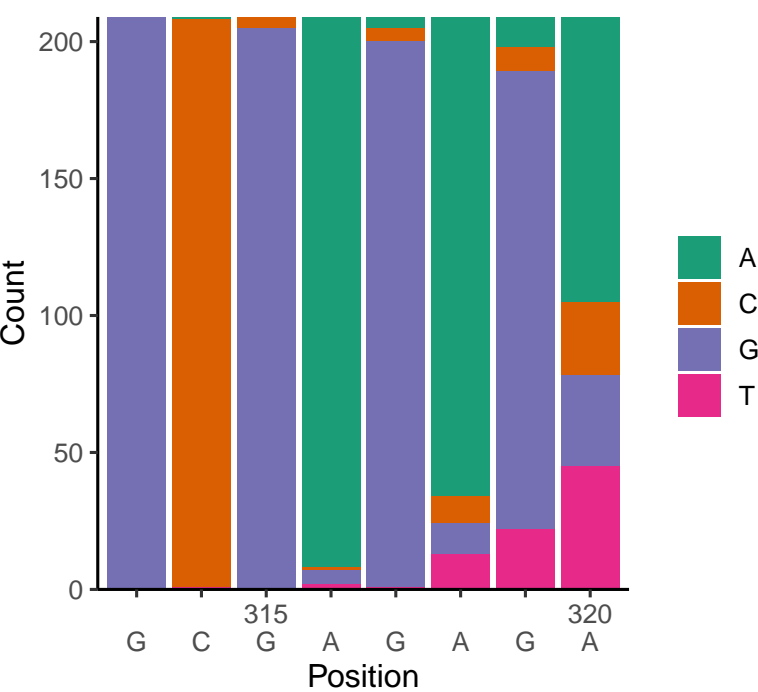
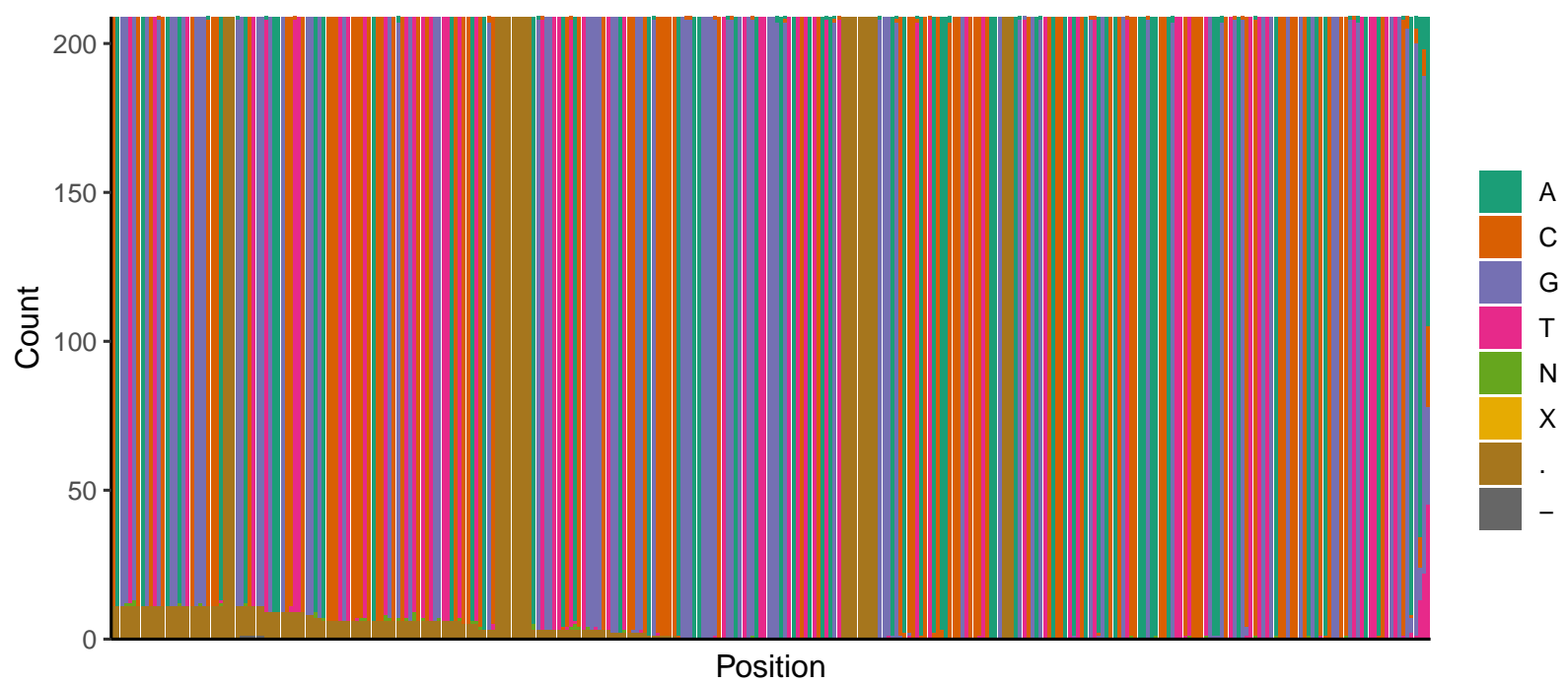


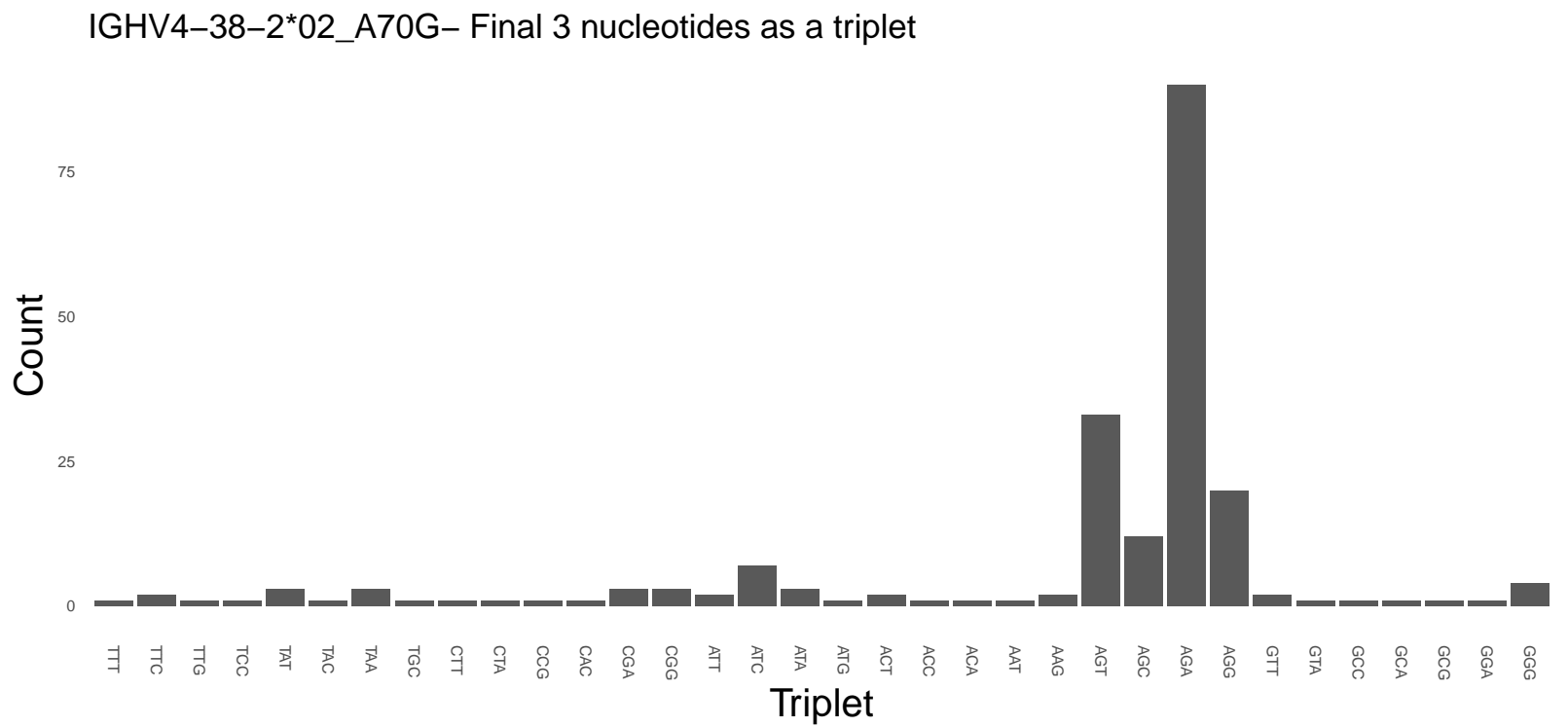
Gene IGHV4-38-2\*02\_A70G



Gene IGHV4-38-2\*02\_A70G

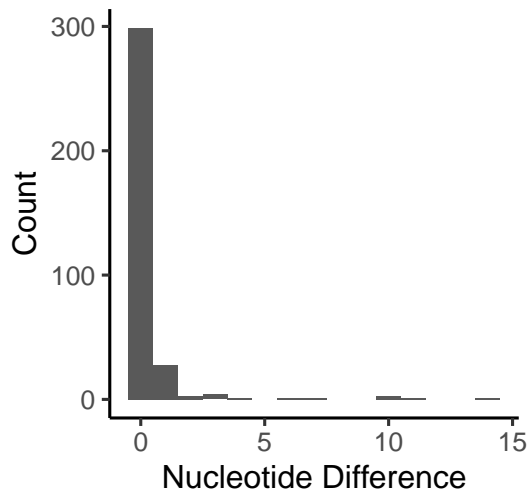


IGHV4-38-2\*02\_A70G- Final 3 nucleotides as a triplet



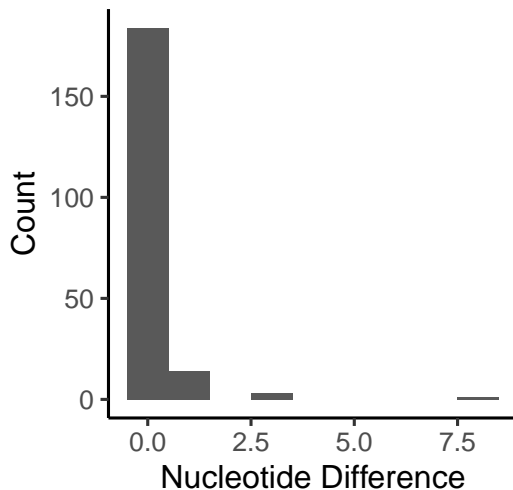
### IGHV1-2\*02

343 sequences assigned  
299 (87.2%) exact matches, in which:  
295 unique CDR3  
6 unique J



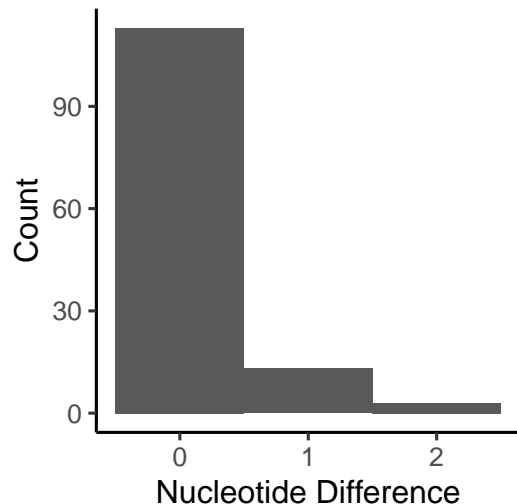
### IGHV1-8\*01

203 sequences assigned  
184 (90.6%) exact matches, in which:  
176 unique CDR3  
5 unique J



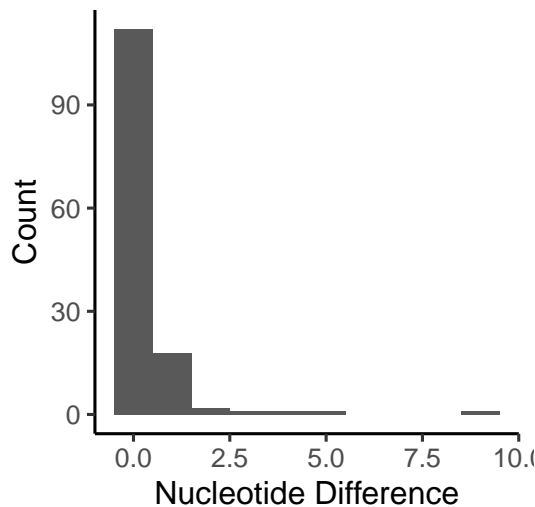
### IGHV1-24\*01

129 sequences assigned  
113 (87.6%) exact matches, in which:  
111 unique CDR3  
5 unique J



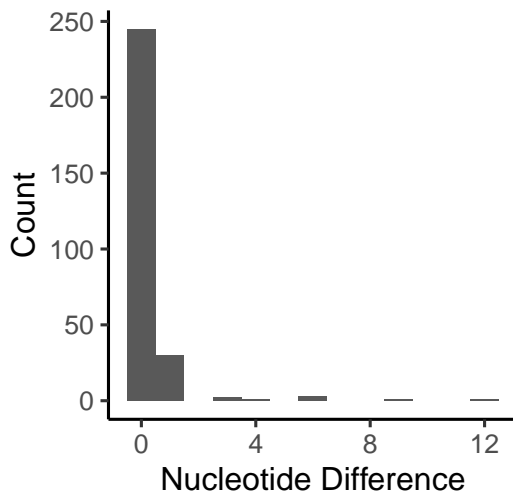
### IGHV1-2\*04

136 sequences assigned  
112 (82.4%) exact matches, in which:  
112 unique CDR3  
6 unique J



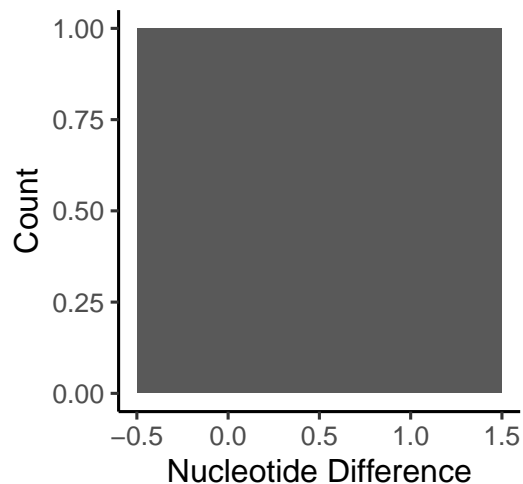
### IGHV1-18\*01

283 sequences assigned  
245 (86.6%) exact matches, in which:  
244 unique CDR3  
6 unique J



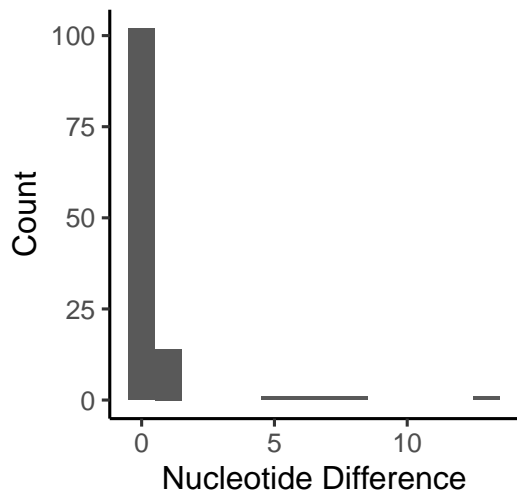
### IGHV1-45\*02

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



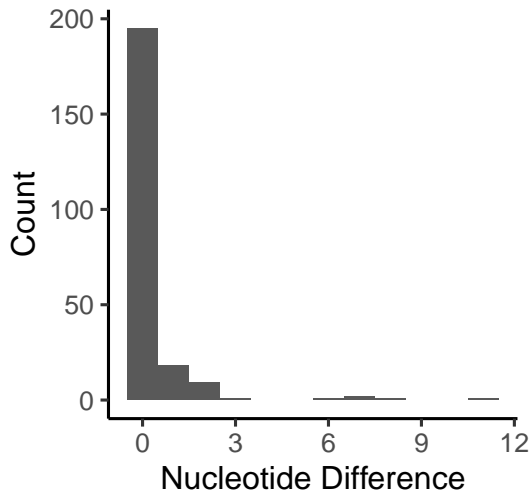
### IGHV1-3\*01

123 sequences assigned  
102 (82.9%) exact matches, in which:  
100 unique CDR3  
6 unique J



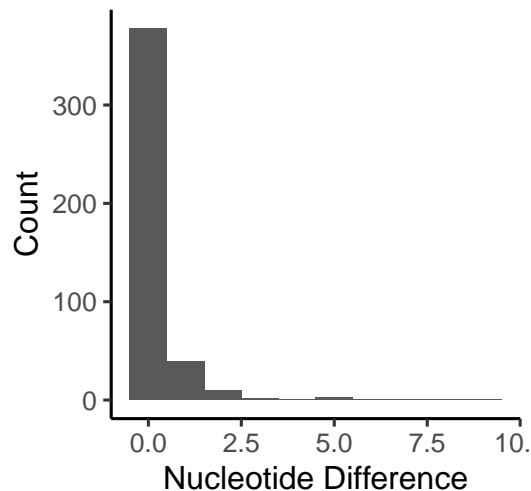
### IGHV1-18\*04

228 sequences assigned  
195 (85.5%) exact matches, in which:  
194 unique CDR3  
6 unique J



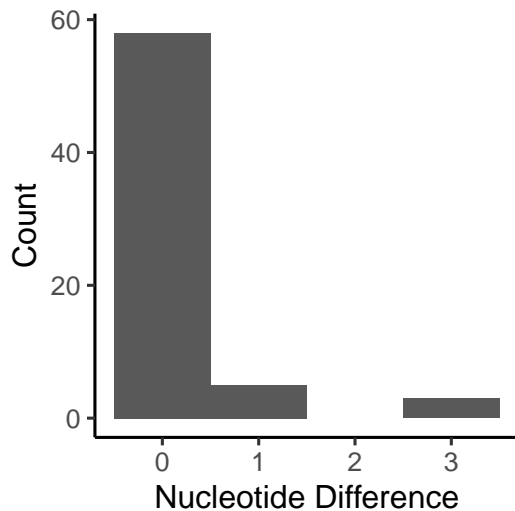
### IGHV1-46\*01

438 sequences assigned  
378 (86.3%) exact matches, in which:  
372 unique CDR3  
6 unique J



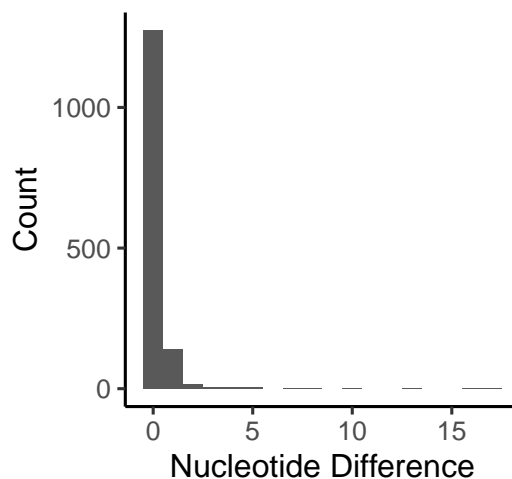
### IGHV1-58\*01

66 sequences assigned  
58 (87.9%) exact matches, in which:  
56 unique CDR3  
5 unique J



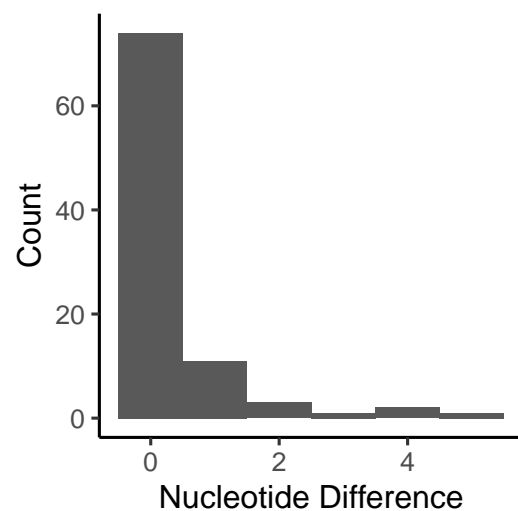
### IGHV1-69\*01

1455 sequences assigned  
1274 (87.6%) exact matches, in which:  
1240 unique CDR3  
6 unique J



### IGHV2-26\*01

92 sequences assigned  
74 (80.4%) exact matches, in which:  
74 unique CDR3  
5 unique J



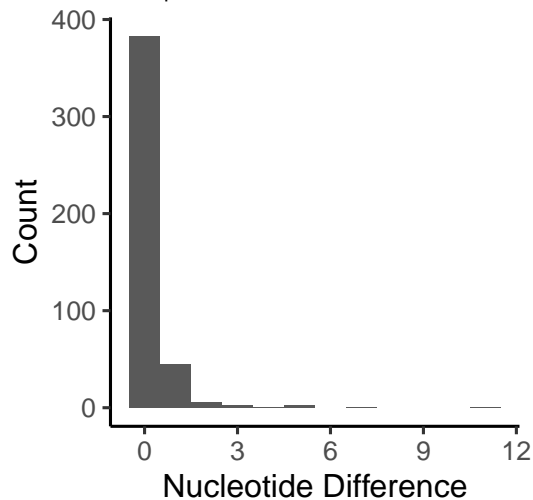
### IGHV1-68\*02

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



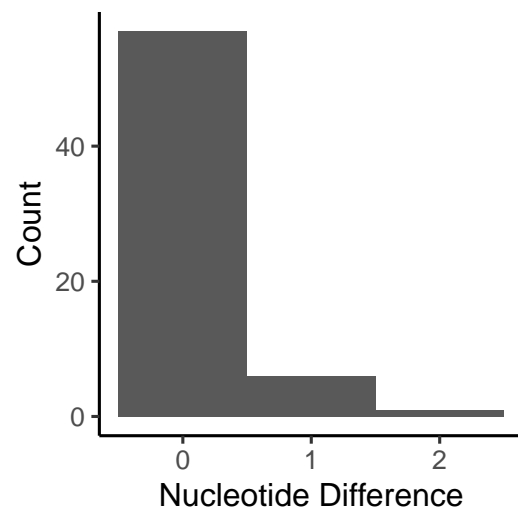
### IGHV1-69\*06

444 sequences assigned  
383 (86.3%) exact matches, in which:  
371 unique CDR3  
6 unique J



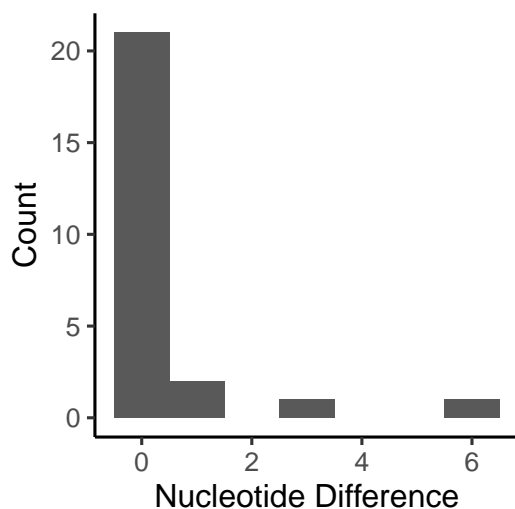
### IGHV2-70\*01

64 sequences assigned  
57 (89.1%) exact matches, in which:  
56 unique CDR3  
6 unique J



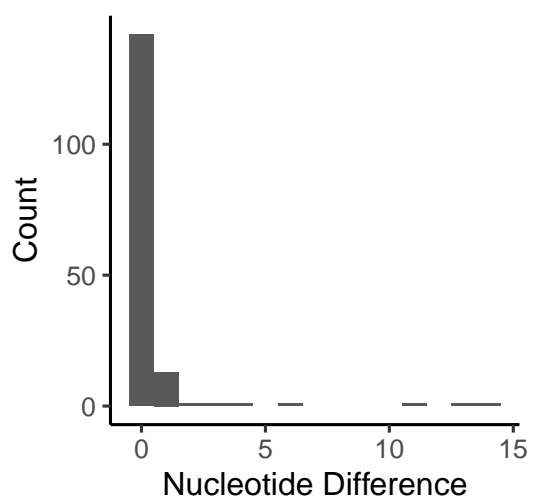
### IGHV1-69-2\*01

25 sequences assigned  
21 (84%) exact matches, in which:  
21 unique CDR3  
5 unique J



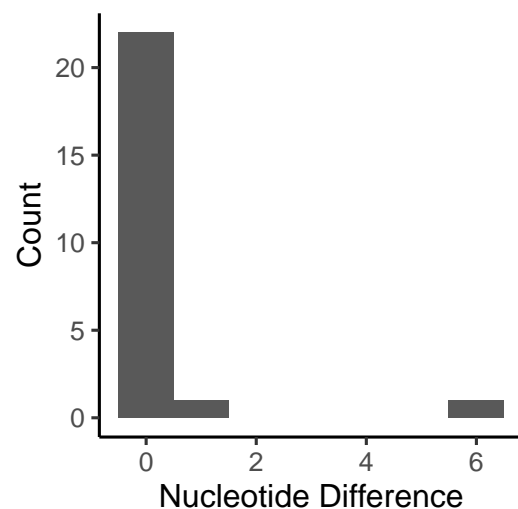
### IGHV2-5\*02

162 sequences assigned  
142 (87.7%) exact matches, in which:  
139 unique CDR3  
6 unique J



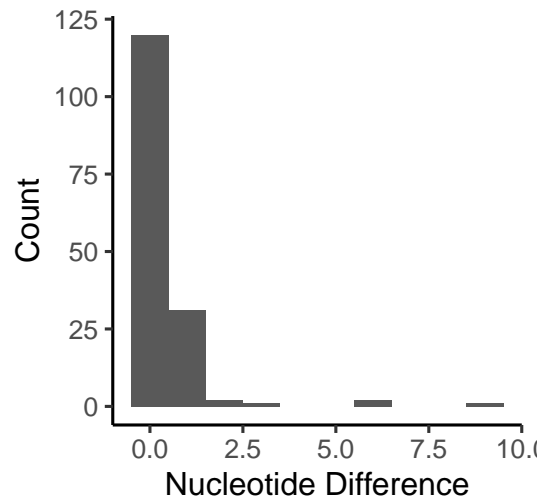
### IGHV2-70\*04

24 sequences assigned  
22 (91.7%) exact matches, in which:  
22 unique CDR3  
5 unique J



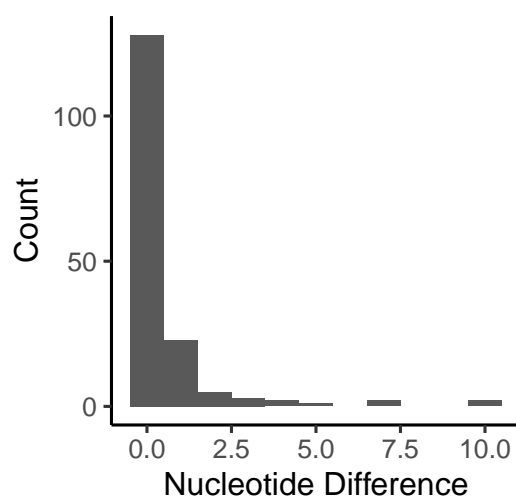
### IGHV3-7\*01

157 sequences assigned  
120 (76.4%) exact matches, in which:  
118 unique CDR3  
5 unique J



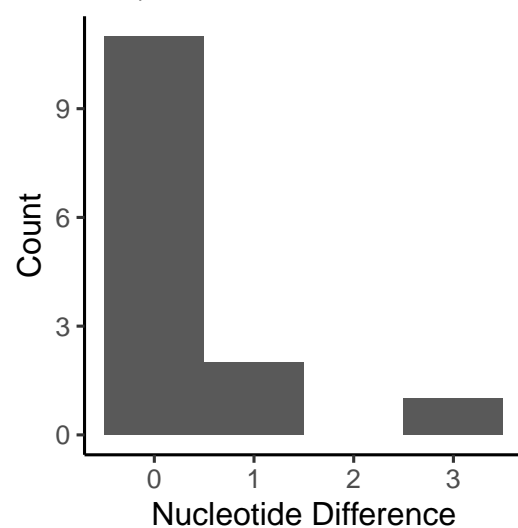
### IGHV3-11\*01

166 sequences assigned  
128 (77.1%) exact matches, in which:  
122 unique CDR3  
5 unique J



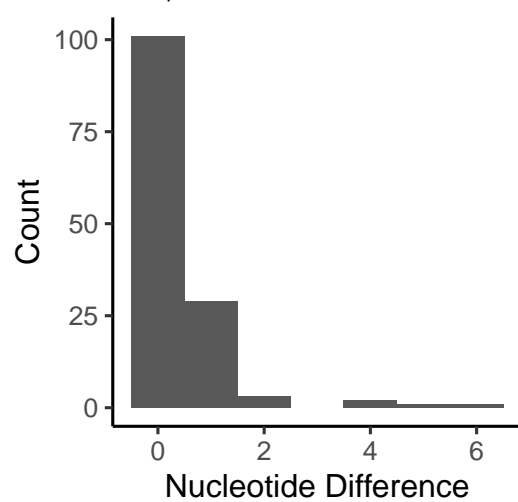
### IGHV3-13\*05

14 sequences assigned  
11 (78.6%) exact matches, in which:  
11 unique CDR3  
3 unique J



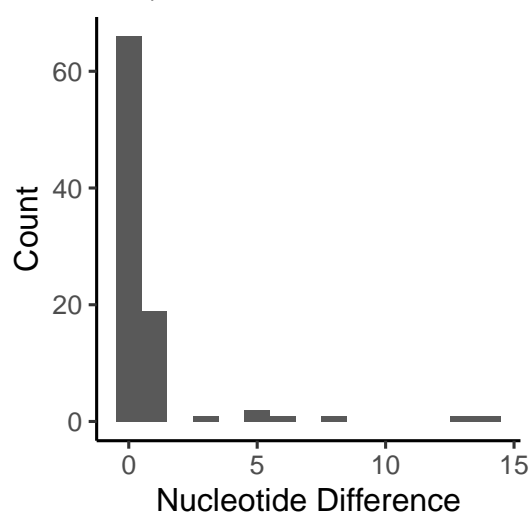
### IGHV3-7\*03

137 sequences assigned  
101 (73.7%) exact matches, in which:  
99 unique CDR3  
6 unique J



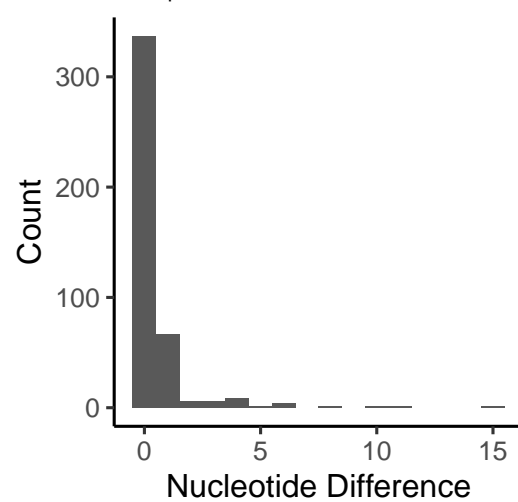
### IGHV3-11\*06

92 sequences assigned  
66 (71.7%) exact matches, in which:  
65 unique CDR3  
6 unique J



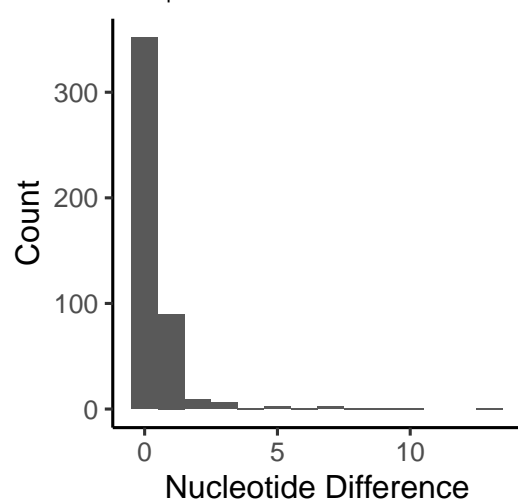
### IGHV3-15\*01

435 sequences assigned  
337 (77.5%) exact matches, in which:  
328 unique CDR3  
6 unique J



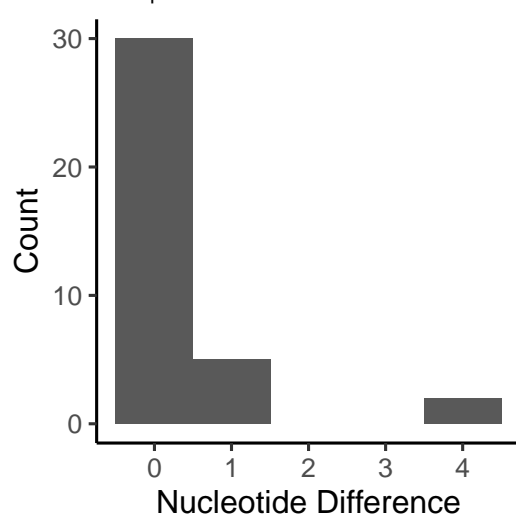
### IGHV3-9\*01

467 sequences assigned  
352 (75.4%) exact matches, in which:  
340 unique CDR3  
6 unique J



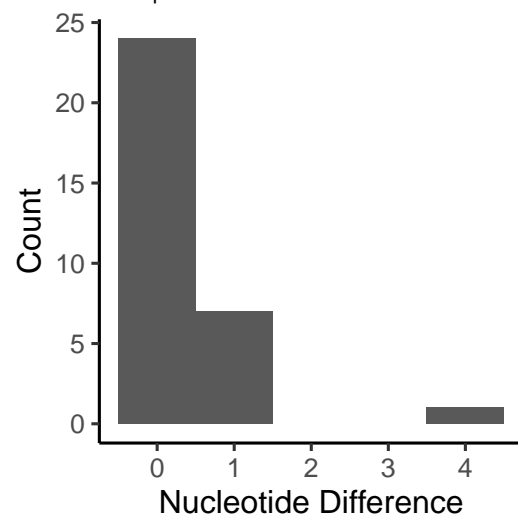
### IGHV3-13\*01

37 sequences assigned  
30 (81.1%) exact matches, in which:  
29 unique CDR3  
5 unique J



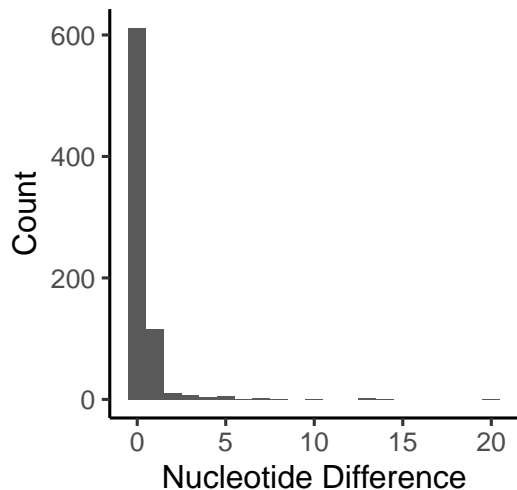
### IGHV3-20\*01

32 sequences assigned  
24 (75%) exact matches, in which:  
23 unique CDR3  
5 unique J



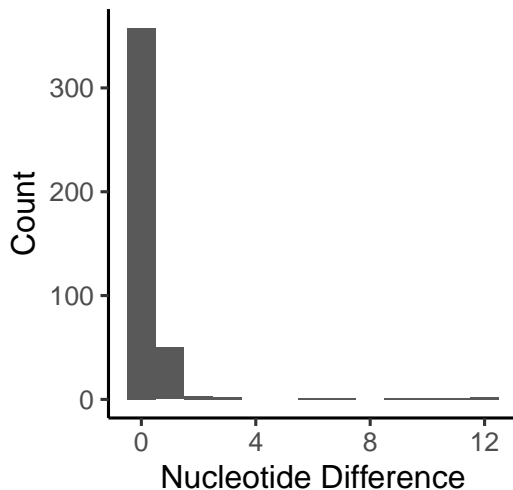
### IGHV3-21\*01

764 sequences assigned  
612 (80.1%) exact matches, in which:  
588 unique CDR3  
6 unique J



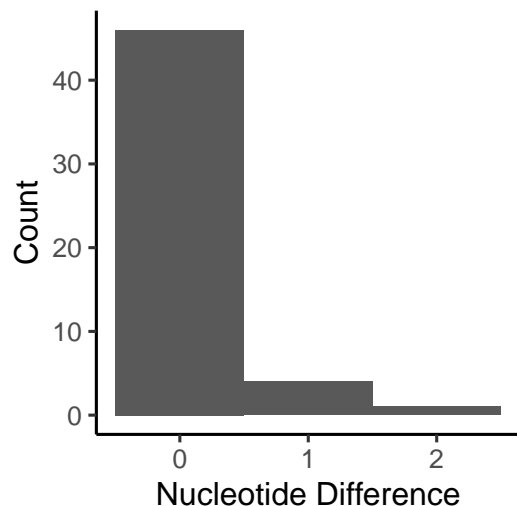
### IGHV3-30\*01

421 sequences assigned  
358 (85%) exact matches, in which:  
344 unique CDR3  
6 unique J



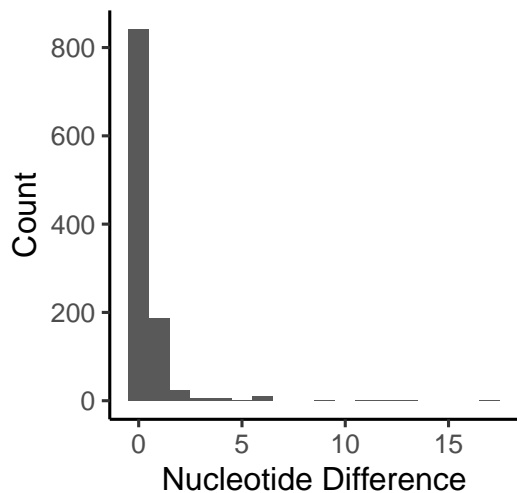
### IGHV3-43\*01

51 sequences assigned  
46 (90.2%) exact matches, in which:  
43 unique CDR3  
5 unique J



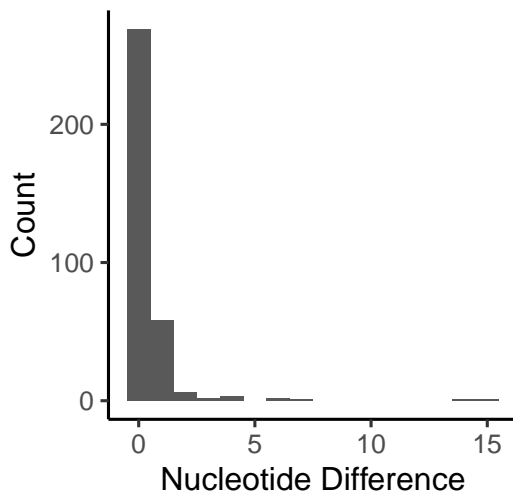
### IGHV3-23\*01

1080 sequences assigned  
842 (78%) exact matches, in which:  
827 unique CDR3  
6 unique J



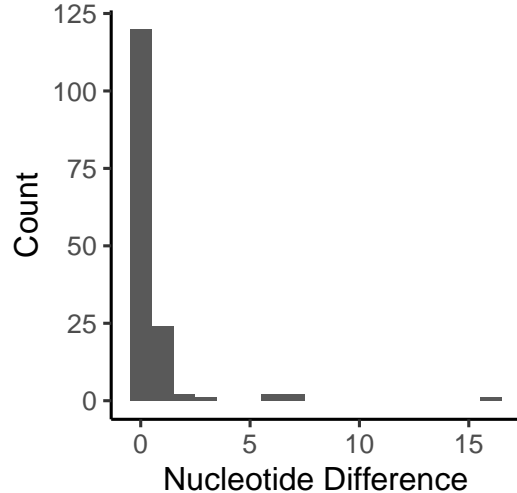
### IGHV3-30\*18

344 sequences assigned  
269 (78.2%) exact matches, in which:  
263 unique CDR3  
6 unique J



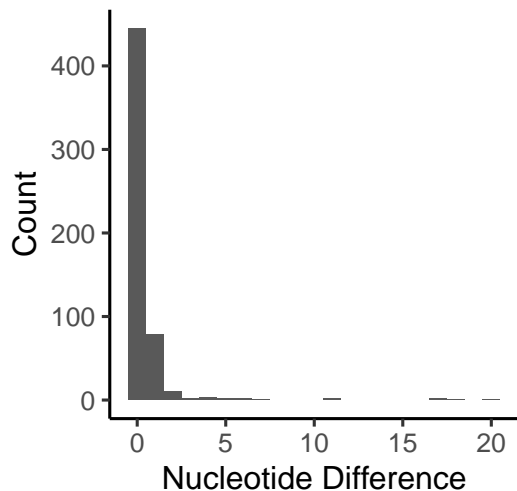
### IGHV3-48\*02

152 sequences assigned  
120 (78.9%) exact matches, in which:  
118 unique CDR3  
5 unique J



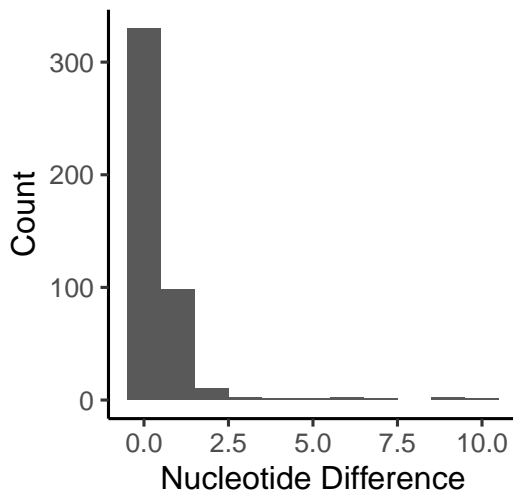
### IGHV3-23\*04

549 sequences assigned  
445 (81.1%) exact matches, in which:  
429 unique CDR3  
6 unique J



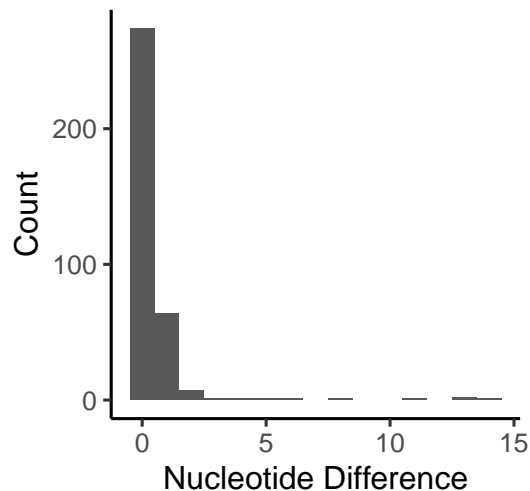
### IGHV3-33\*01

448 sequences assigned  
330 (73.7%) exact matches, in which:  
310 unique CDR3  
6 unique J



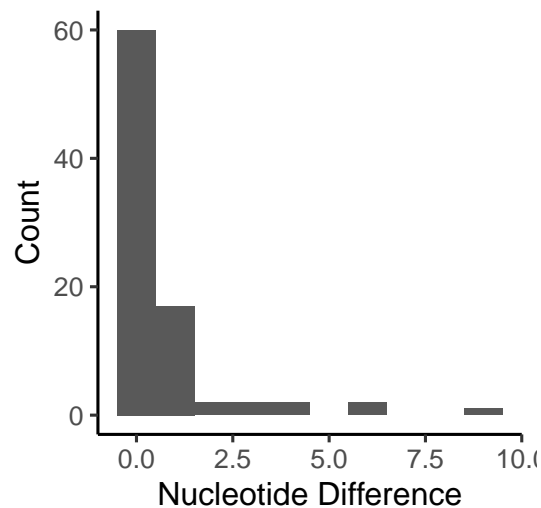
### IGHV3-48\*03

354 sequences assigned  
274 (77.4%) exact matches, in which:  
264 unique CDR3  
6 unique J



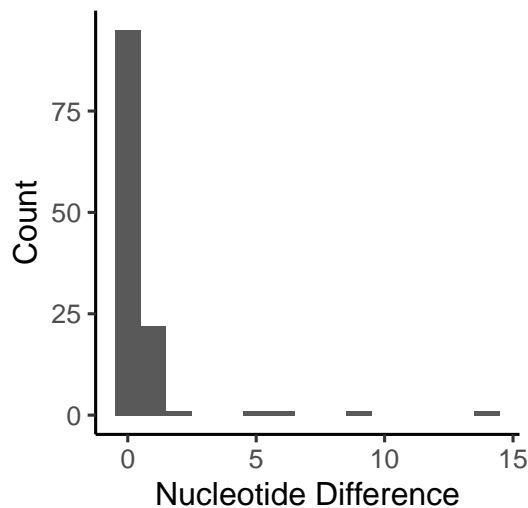
### IGHV3-49\*03

86 sequences assigned  
60 (69.8%) exact matches, in which:  
60 unique CDR3  
5 unique J



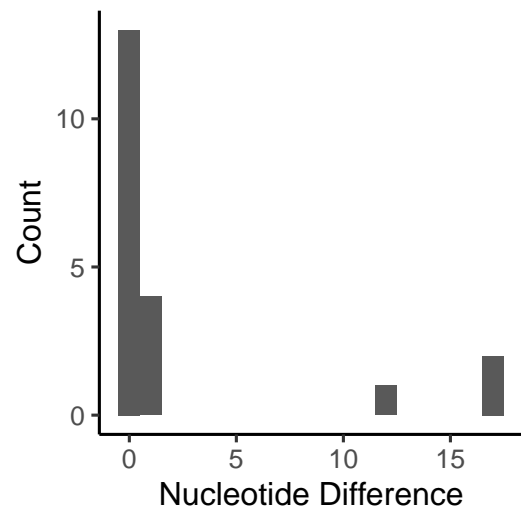
### IGHV3-53\*02

122 sequences assigned  
95 (77.9%) exact matches, in which:  
90 unique CDR3  
5 unique J



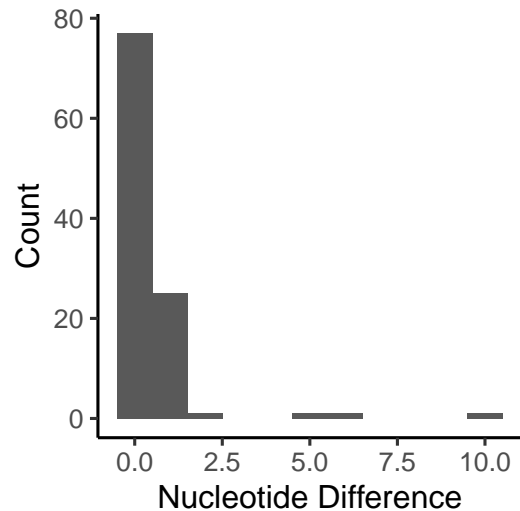
### IGHV3-72\*01

20 sequences assigned  
13 (65%) exact matches, in which:  
12 unique CDR3  
4 unique J



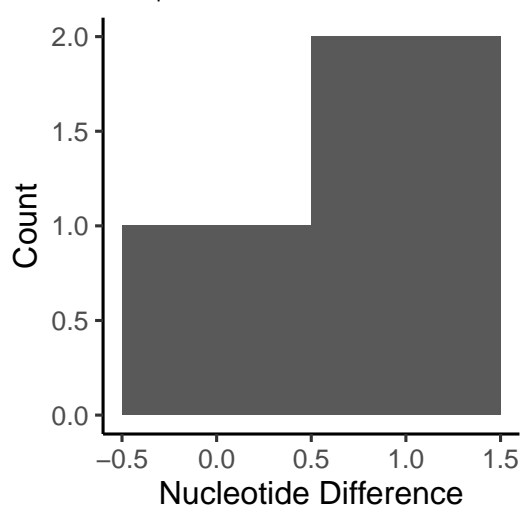
### IGHV3-49\*04

106 sequences assigned  
77 (72.6%) exact matches, in which:  
75 unique CDR3  
5 unique J



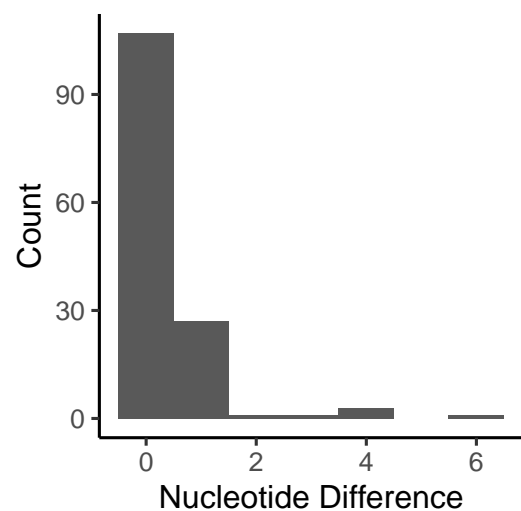
### IGHV3-64\*02

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



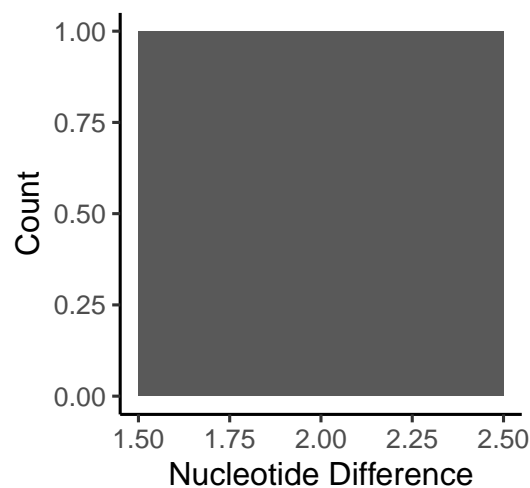
### IGHV3-73\*02

140 sequences assigned  
107 (76.4%) exact matches, in which:  
104 unique CDR3  
5 unique J



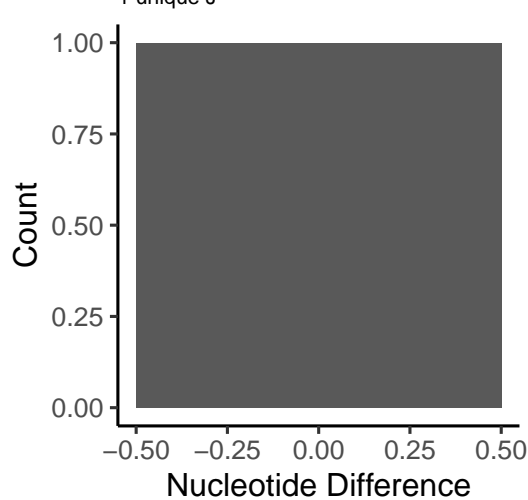
### IGHV3-52\*01

1 sequences assigned  
No exact matches.



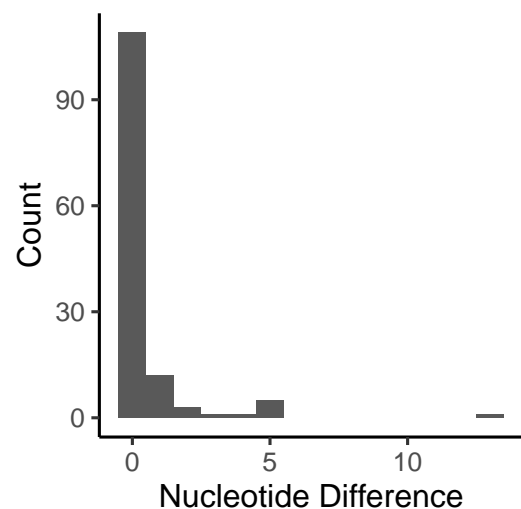
### IGHV3-66\*03

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



### IGHV3-74\*01

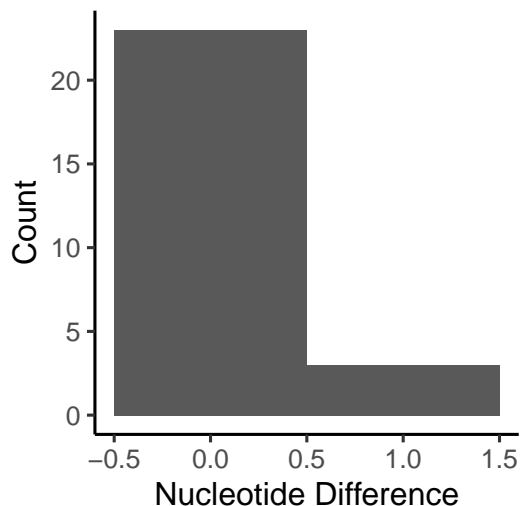
132 sequences assigned  
109 (82.6%) exact matches, in which:  
106 unique CDR3  
5 unique J





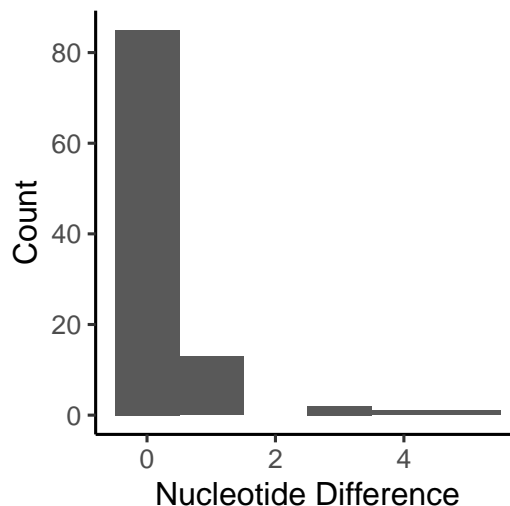
### IGHV3-43D\*04

26 sequences assigned  
23 (88.5%) exact matches, in which:  
23 unique CDR3  
4 unique J



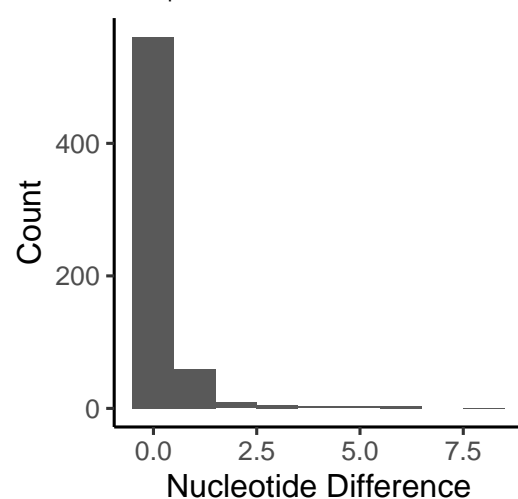
### IGHV4-4\*07

102 sequences assigned  
85 (83.3%) exact matches, in which:  
83 unique CDR3  
6 unique J



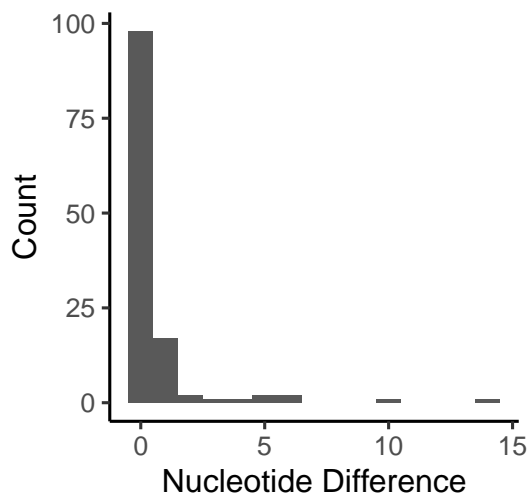
### IGHV4-34\*01

647 sequences assigned  
561 (86.7%) exact matches, in which:  
539 unique CDR3  
6 unique J



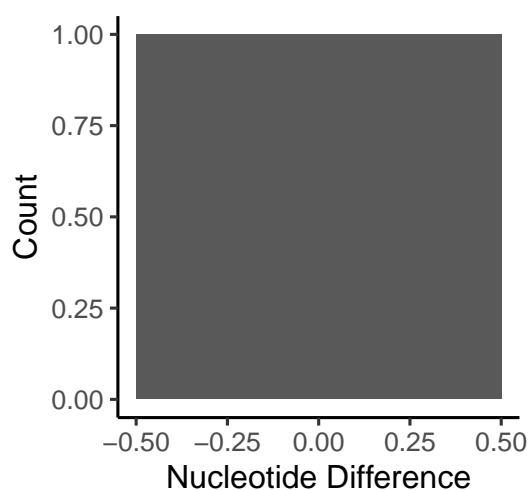
### IGHV3-64D\*06

125 sequences assigned  
98 (78.4%) exact matches, in which:  
94 unique CDR3  
5 unique J



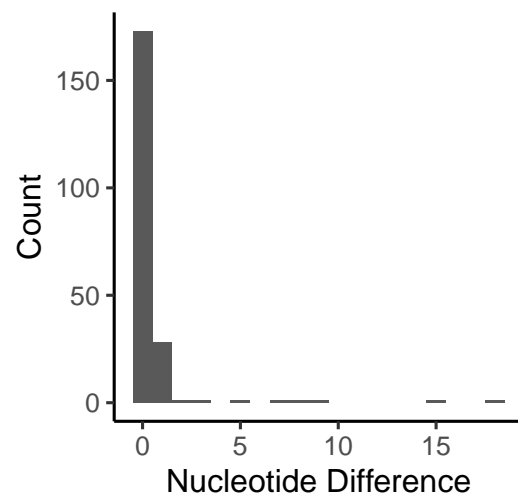
### IGHV4-28\*07

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



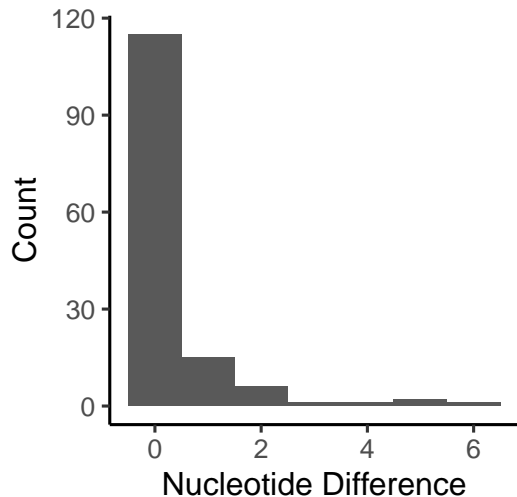
### IGHV4-38-2\*02\_A70G

209 sequences assigned  
173 (82.8%) exact matches, in which:  
172 unique CDR3  
6 unique J



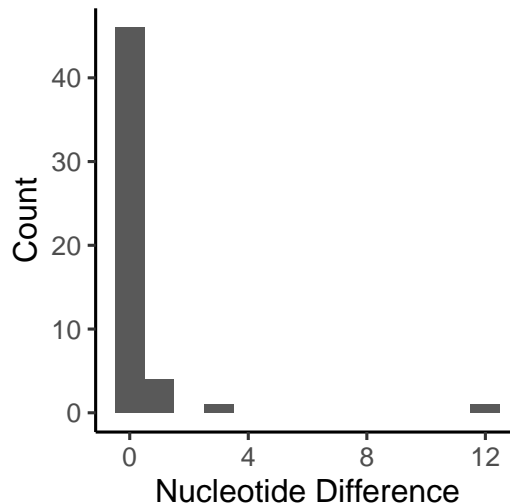
### IGHV4-4\*02

141 sequences assigned  
115 (81.6%) exact matches, in which:  
113 unique CDR3  
6 unique J



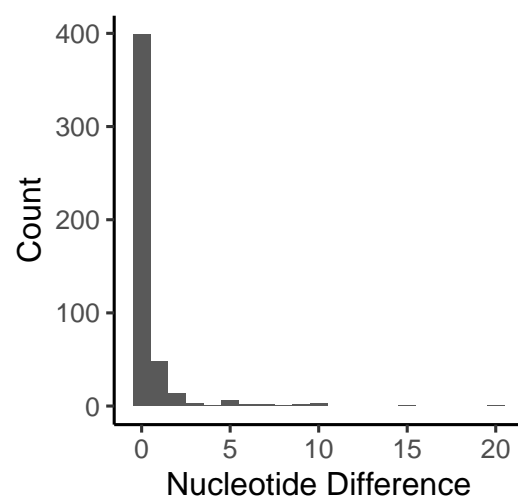
### IGHV4-31\*01

52 sequences assigned  
46 (88.5%) exact matches, in which:  
44 unique CDR3  
5 unique J



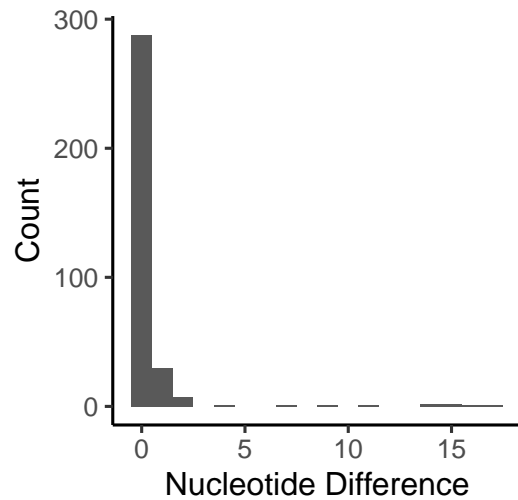
### IGHV4-39\*01

487 sequences assigned  
399 (81.9%) exact matches, in which:  
391 unique CDR3  
6 unique J



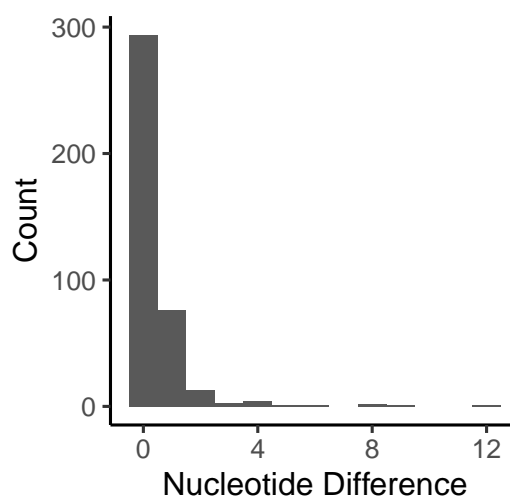
### IGHV4–59\*01

335 sequences assigned  
288 (86%) exact matches, in which:  
285 unique CDR3  
6 unique J



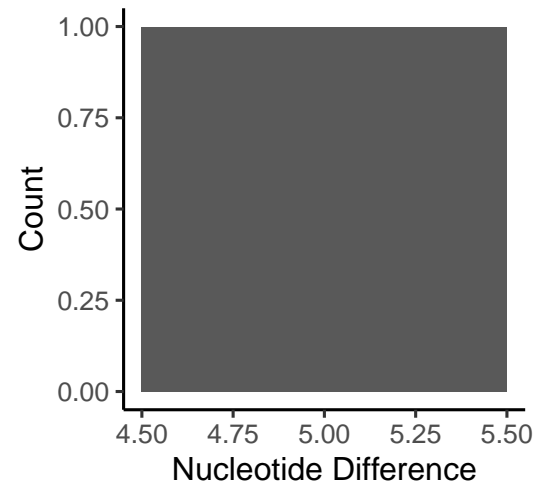
### IGHV5–51\*01

397 sequences assigned  
294 (74.1%) exact matches, in which:  
290 unique CDR3  
6 unique J



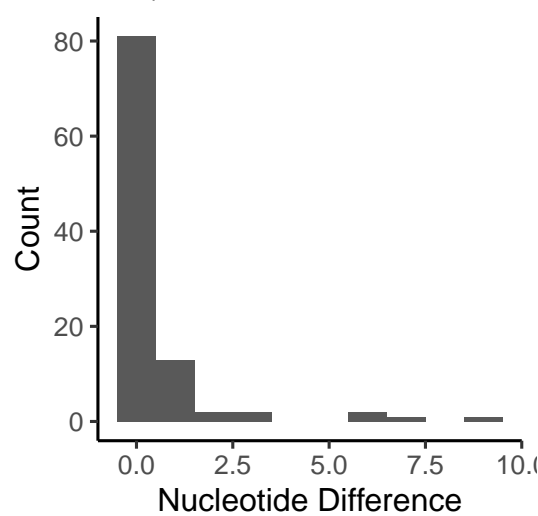
### IGHV3/OR16–15\*02

1 sequences assigned  
No exact matches.



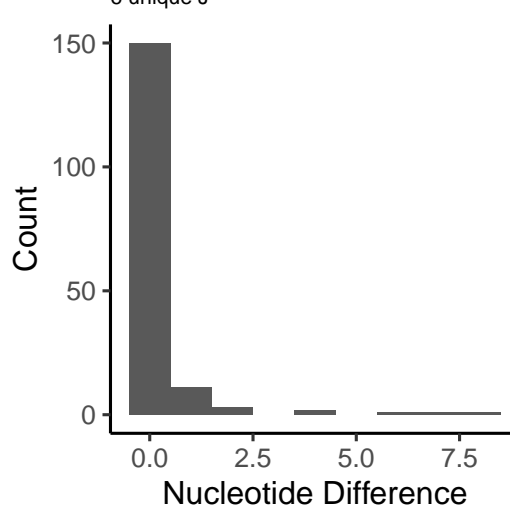
### IGHV4–61\*01

102 sequences assigned  
81 (79.4%) exact matches, in which:  
81 unique CDR3  
6 unique J



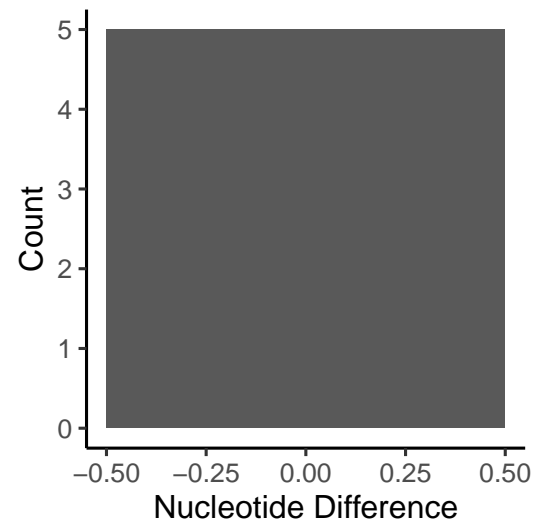
### IGHV5–51\*03

171 sequences assigned  
150 (87.7%) exact matches, in which:  
148 unique CDR3  
6 unique J



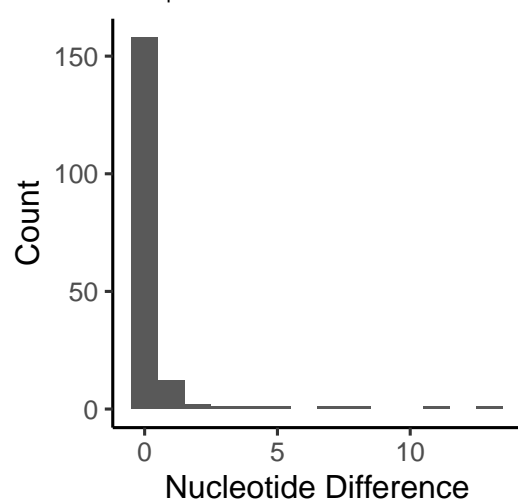
### IGHV7–4–1\*01

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



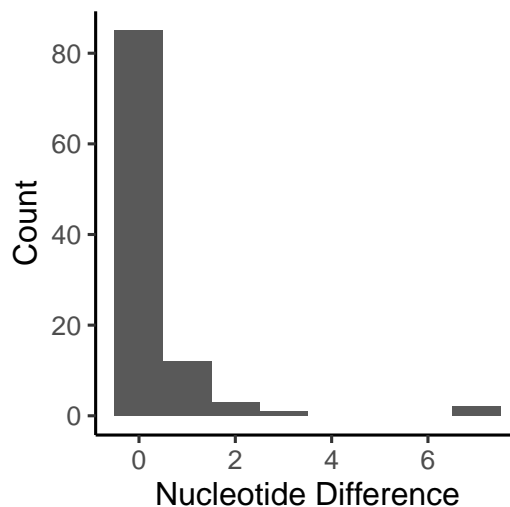
### IGHV5–10–1\*03

179 sequences assigned  
158 (88.3%) exact matches, in which:  
154 unique CDR3  
5 unique J



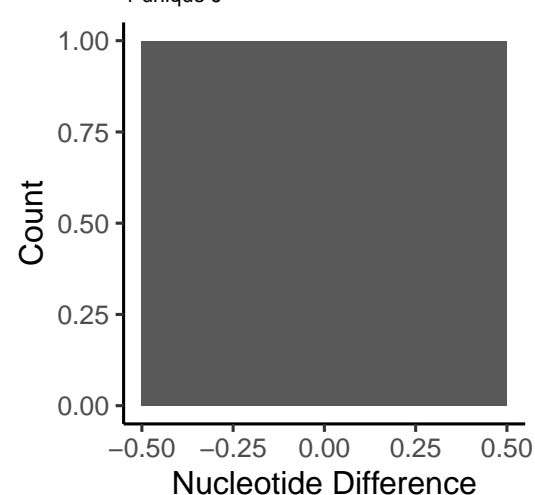
### IGHV6–1\*01

103 sequences assigned  
85 (82.5%) exact matches, in which:  
83 unique CDR3  
5 unique J



### IGHV7–4–1\*02

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



IGHV4-38-2\*02\_A70G

