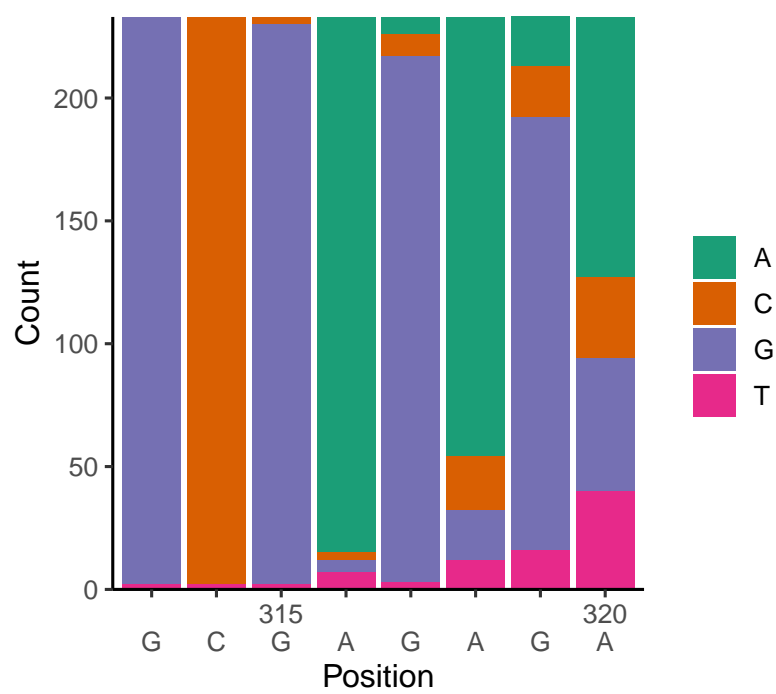
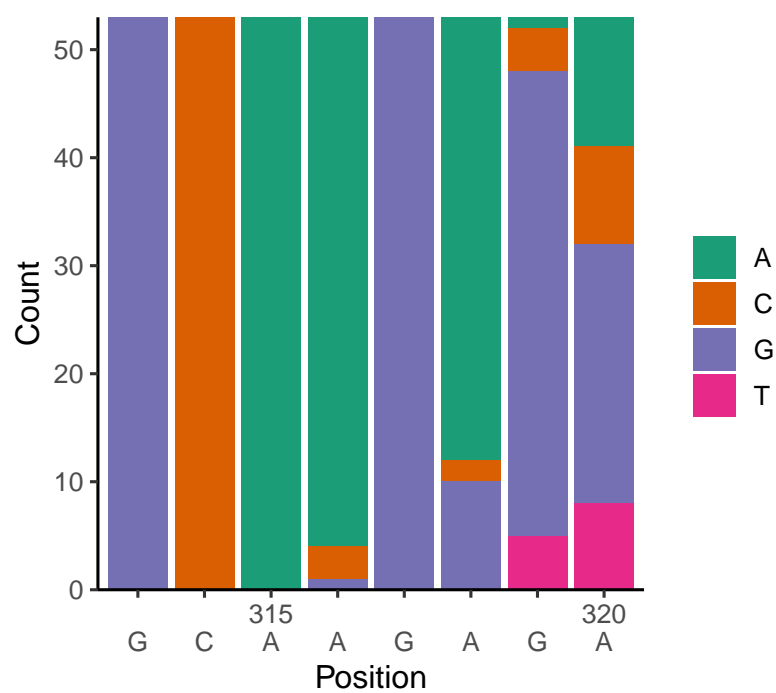


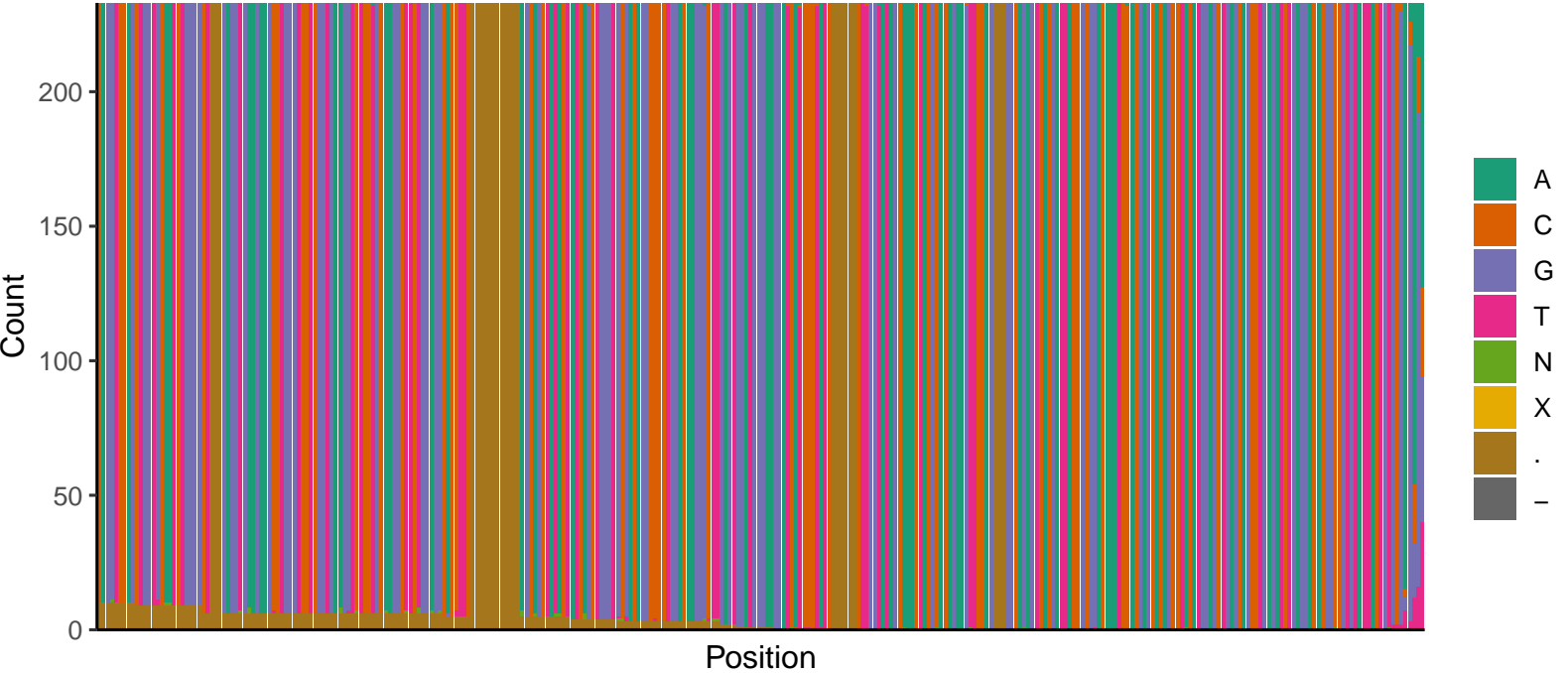
Gene IGHV1-69*08_C191T



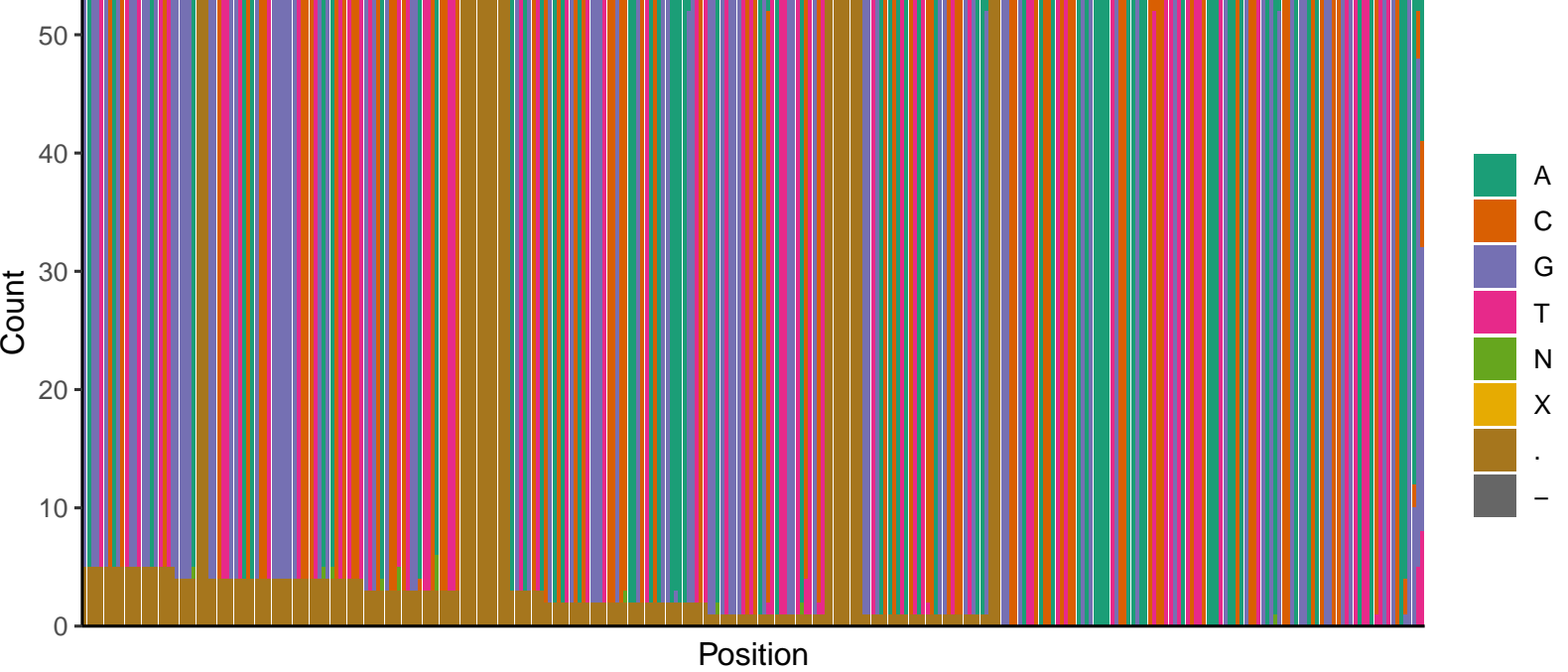
Gene IGHV3-13*01_G290A_T300C



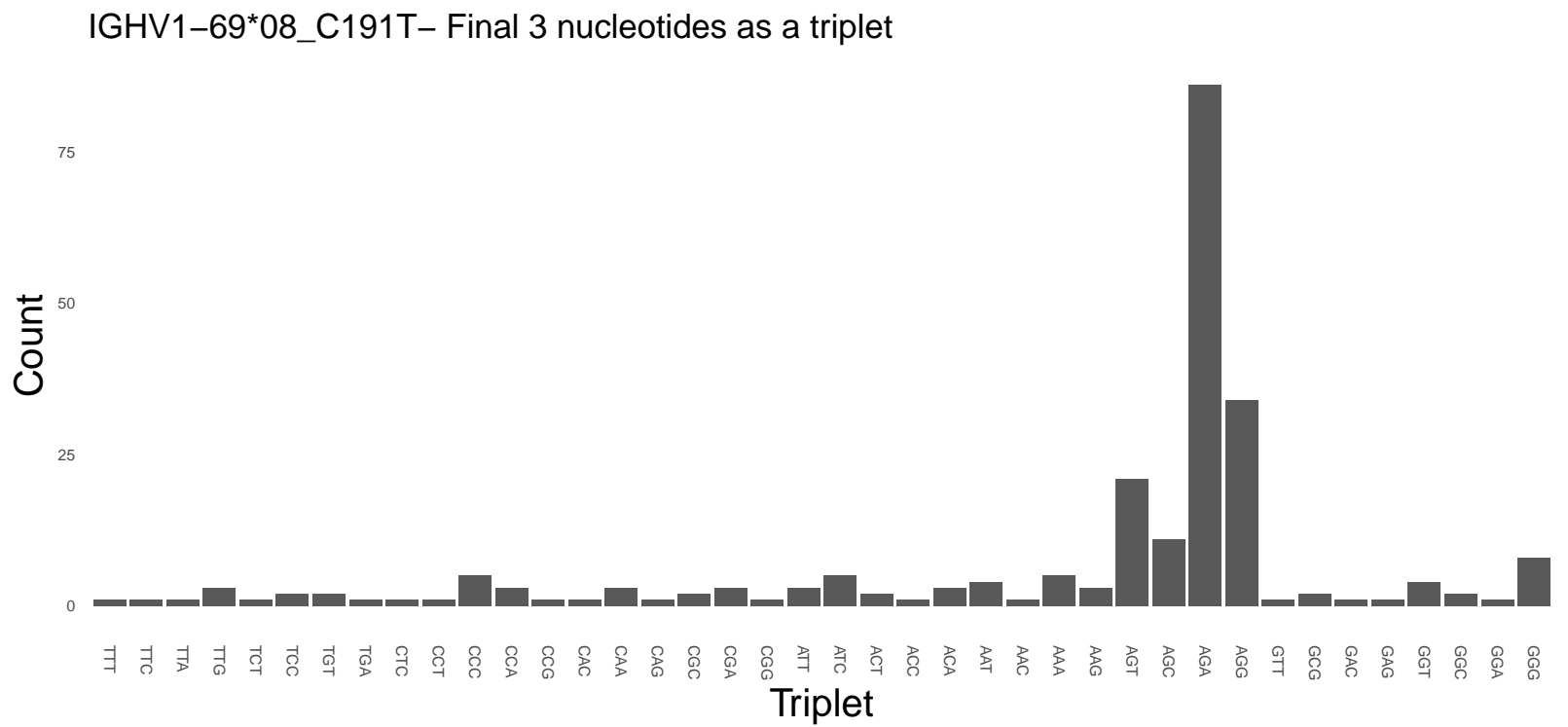
Gene IGHV1-69*08_C191T



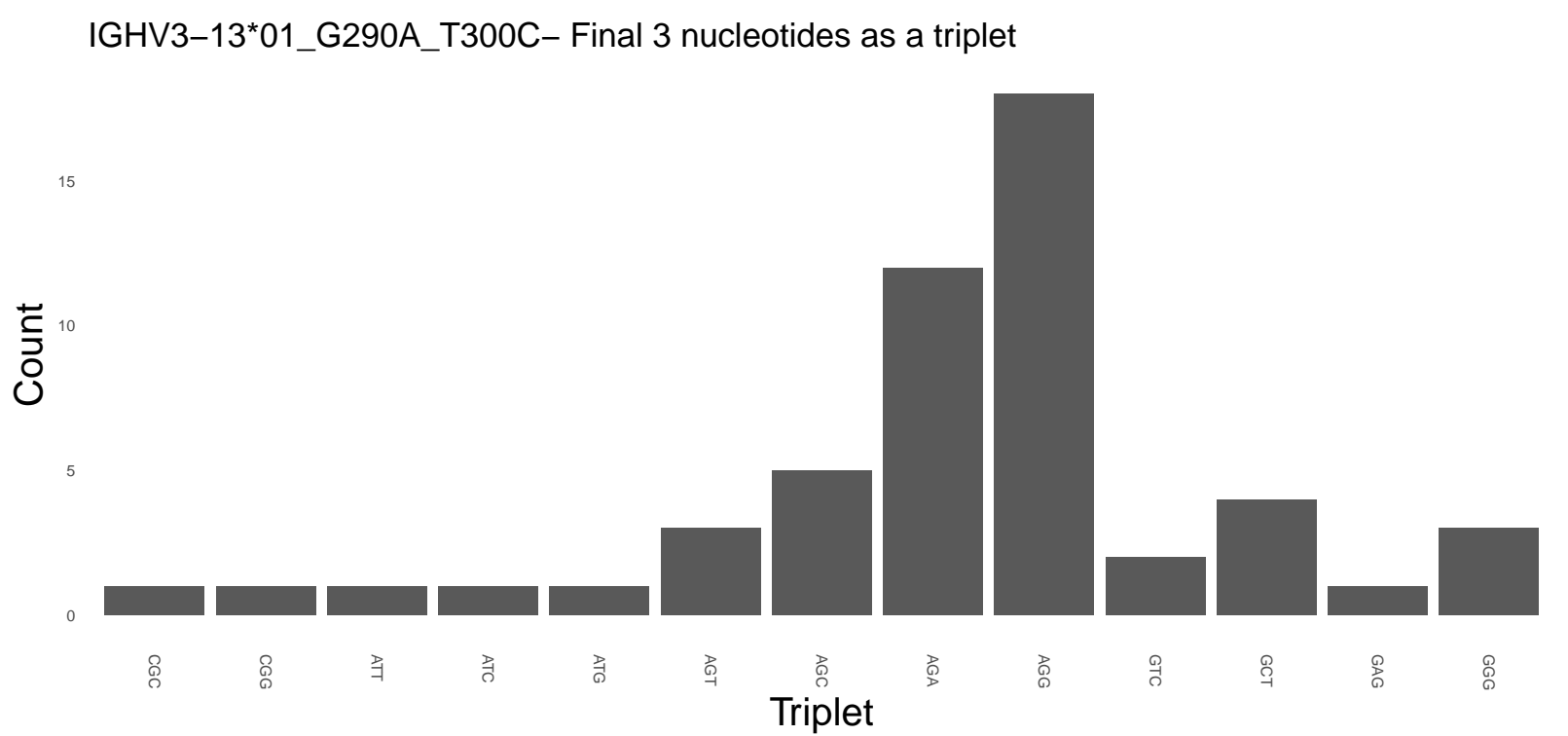
Gene IGHV3-13*01_G290A_T300C



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

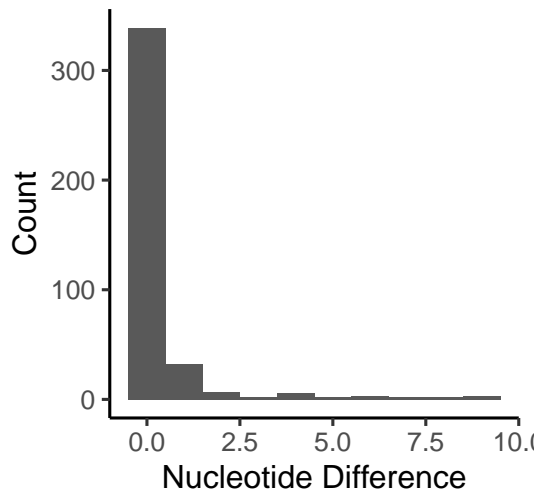


IGHV3-13*01_G290A_T300C- Final 3 nucleotides as a triplet



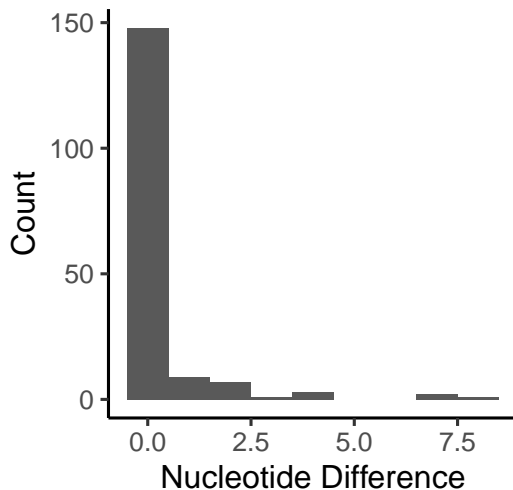
IGHV1-2*02

398 sequences assigned
339 (85.2%) exact matches, in which:
329 unique CDR3
6 unique J



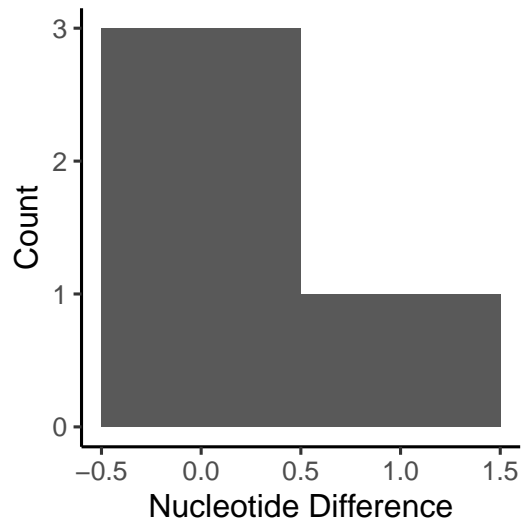
IGHV1-8*01

171 sequences assigned
148 (86.5%) exact matches, in which:
143 unique CDR3
6 unique J



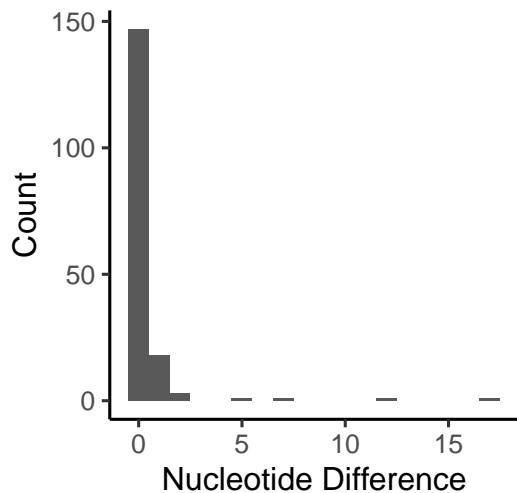
IGHV1-45*02

4 sequences assigned
3 (75%) exact matches, in which:
3 unique CDR3
2 unique J



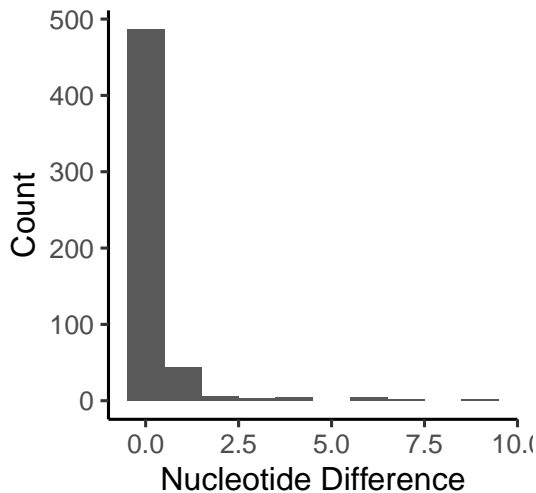
IGHV1-2*04

172 sequences assigned
147 (85.5%) exact matches, in which:
138 unique CDR3
6 unique J



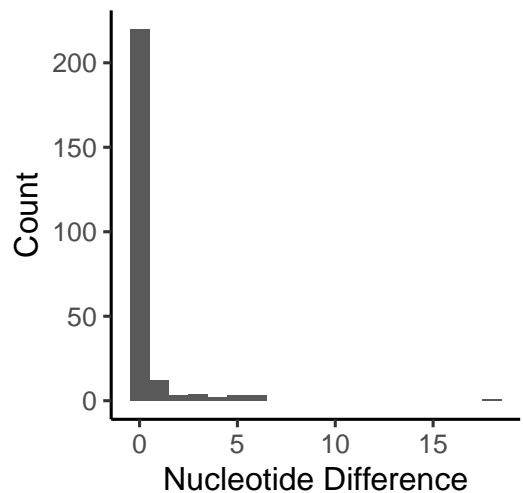
IGHV1-18*01

553 sequences assigned
487 (88.1%) exact matches, in which:
469 unique CDR3
6 unique J



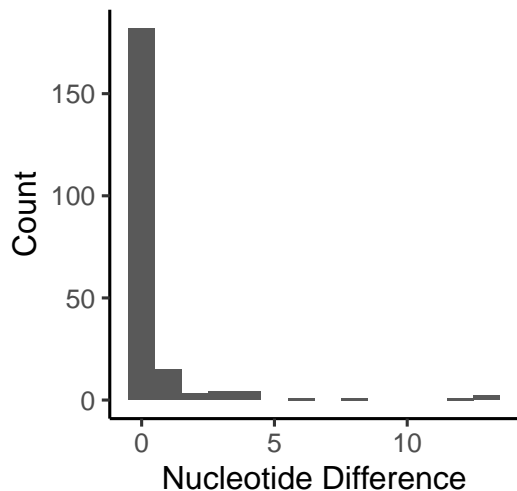
IGHV1-46*01

249 sequences assigned
220 (88.4%) exact matches, in which:
215 unique CDR3
6 unique J



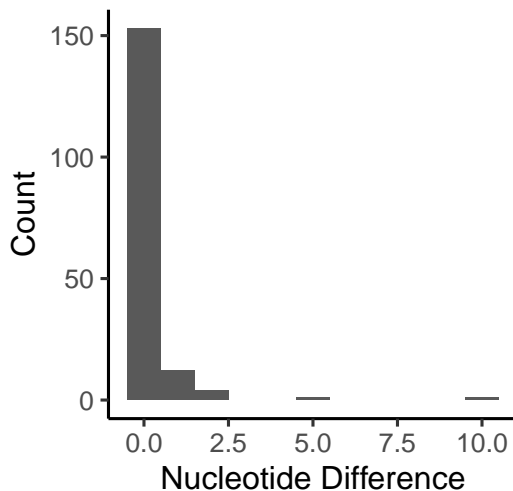
IGHV1-3*01

213 sequences assigned
182 (85.4%) exact matches, in which:
176 unique CDR3
6 unique J



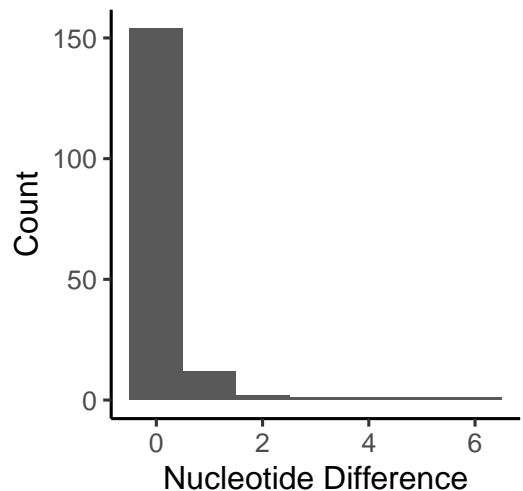
IGHV1-24*01

171 sequences assigned
153 (89.5%) exact matches, in which:
148 unique CDR3
6 unique J



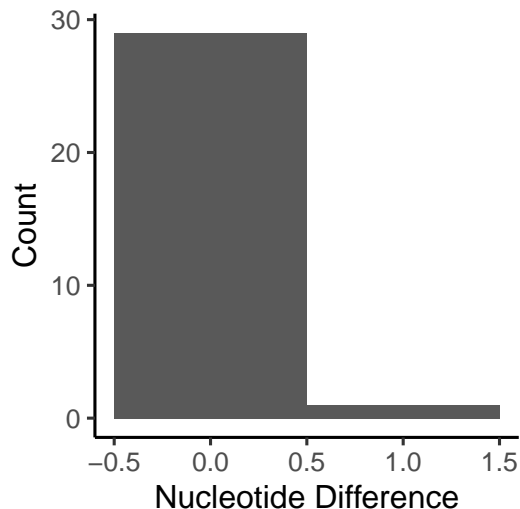
IGHV1-46*03

172 sequences assigned
154 (89.5%) exact matches, in which:
151 unique CDR3
6 unique J



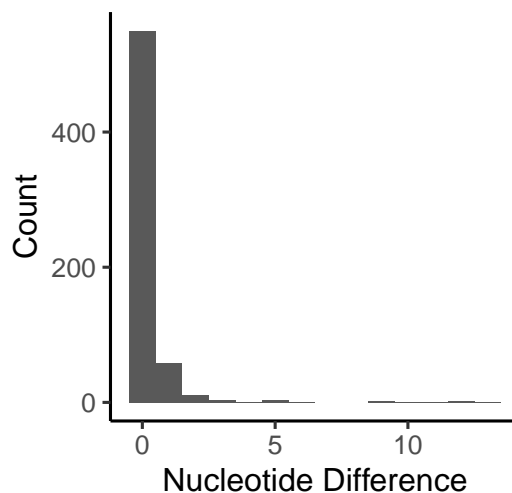
IGHV1-58*01

30 sequences assigned
29 (96.7%) exact matches, in which:
28 unique CDR3
3 unique J



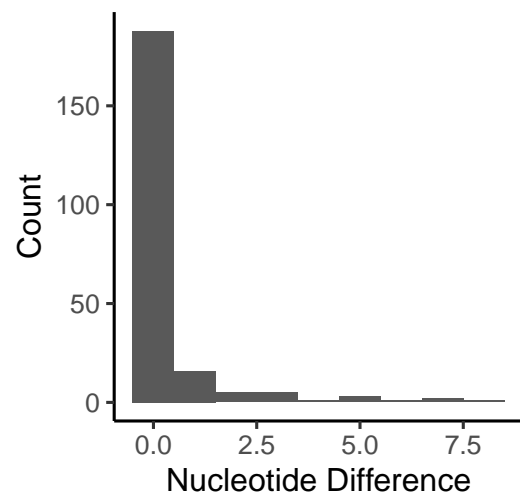
IGHV1-69*01

634 sequences assigned
550 (86.8%) exact matches, in which:
528 unique CDR3
6 unique J



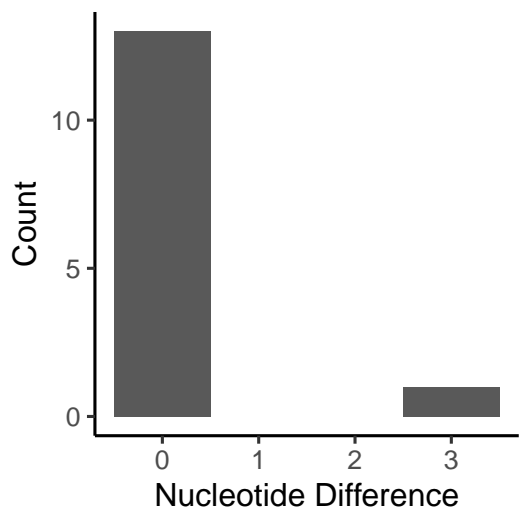
IGHV2-5*02

222 sequences assigned
188 (84.7%) exact matches, in which:
181 unique CDR3
6 unique J



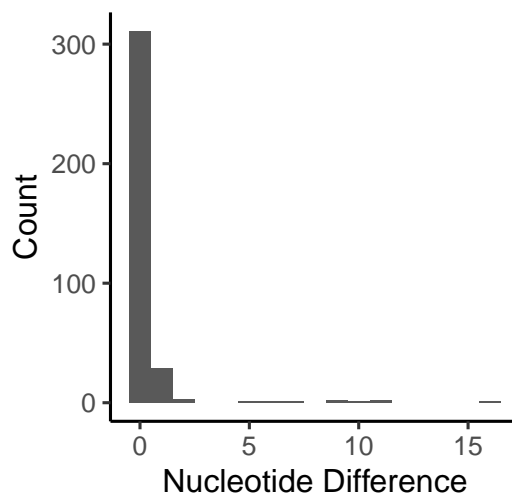
IGHV1-58*02

14 sequences assigned
13 (92.9%) exact matches, in which:
13 unique CDR3
4 unique J



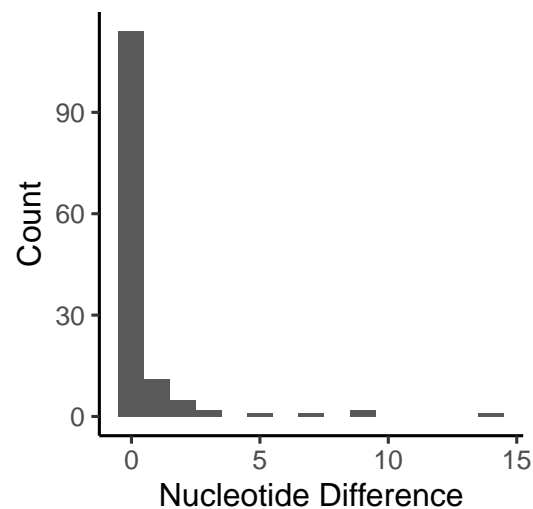
IGHV1-69*06

352 sequences assigned
311 (88.4%) exact matches, in which:
303 unique CDR3
6 unique J



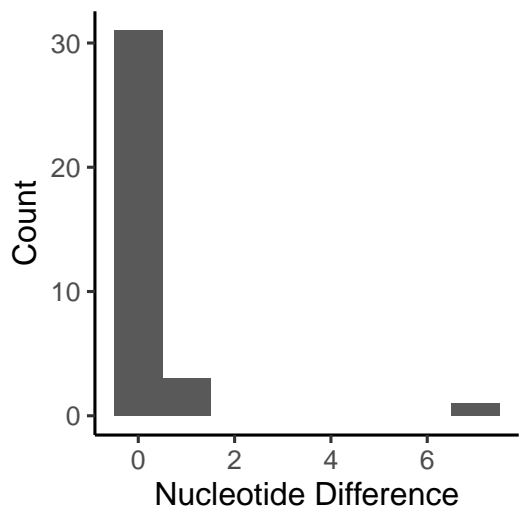
IGHV2-26*01

137 sequences assigned
114 (83.2%) exact matches, in which:
114 unique CDR3
5 unique J



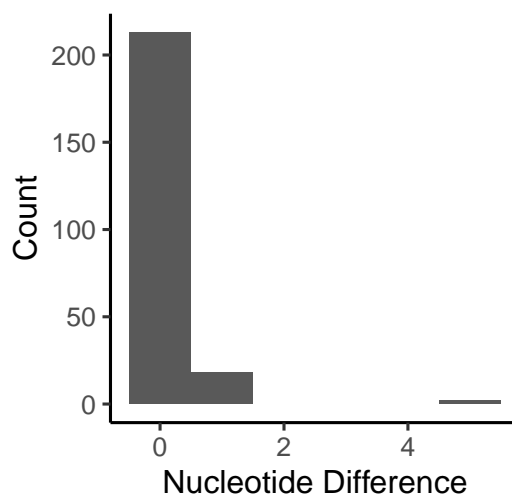
IGHV1-69-2*01

35 sequences assigned
31 (88.6%) exact matches, in which:
30 unique CDR3
5 unique J



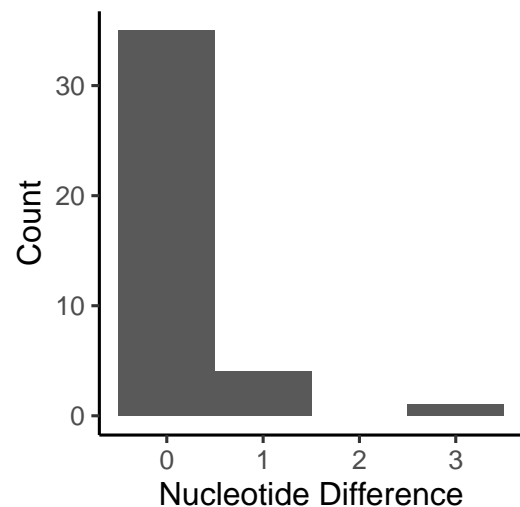
IGHV1-69*08_C191T

233 sequences assigned
213 (91.4%) exact matches, in which:
206 unique CDR3
6 unique J



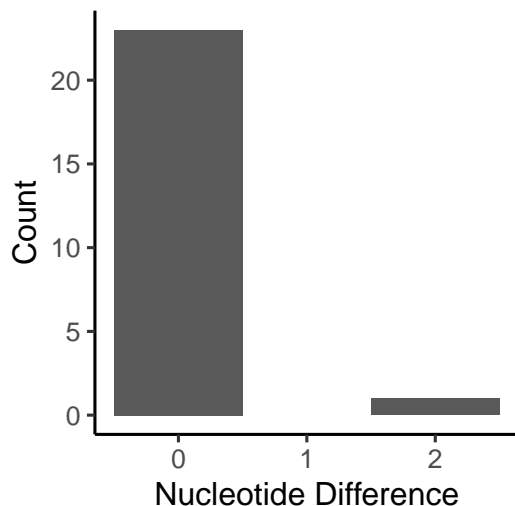
IGHV2-70*01

40 sequences assigned
35 (87.5%) exact matches, in which:
35 unique CDR3
4 unique J



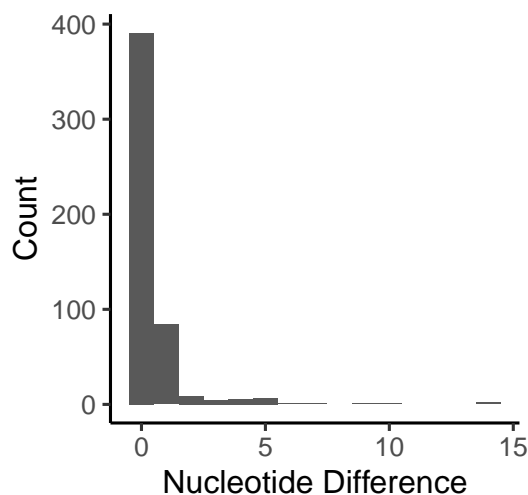
IGHV2-70*04

24 sequences assigned
23 (95.8%) exact matches, in which:
22 unique CDR3
3 unique J



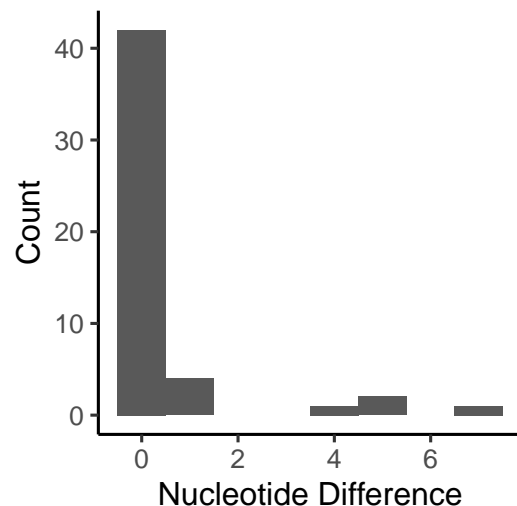
IGHV3-9*01

508 sequences assigned
391 (77%) exact matches, in which:
371 unique CDR3
6 unique J



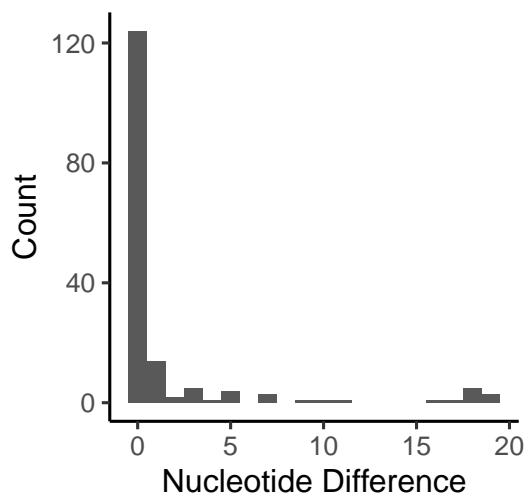
IGHV3-13*01

50 sequences assigned
42 (84%) exact matches, in which:
37 unique CDR3
5 unique J



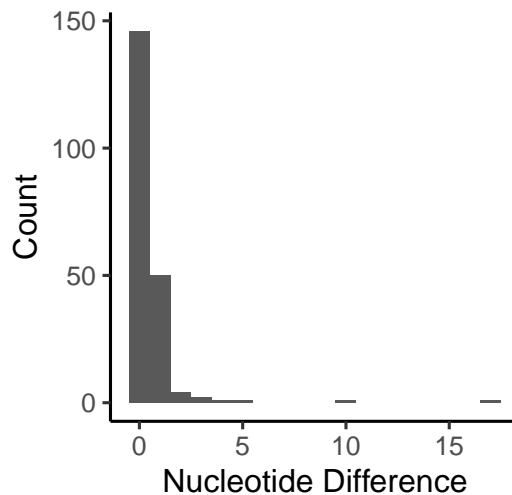
IGHV3-7*01

167 sequences assigned
124 (74.3%) exact matches, in which:
120 unique CDR3
5 unique J



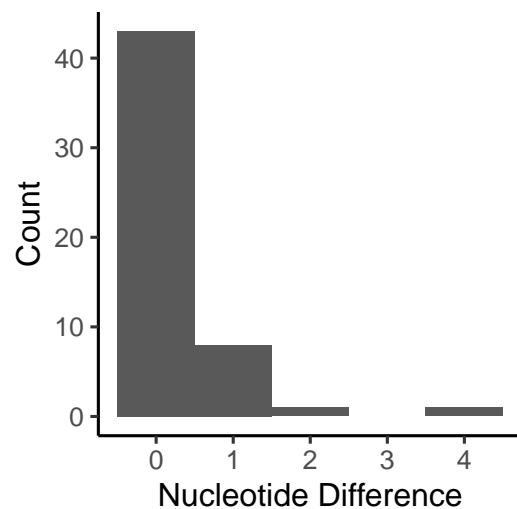
IGHV3-11*01

206 sequences assigned
146 (70.9%) exact matches, in which:
140 unique CDR3
5 unique J



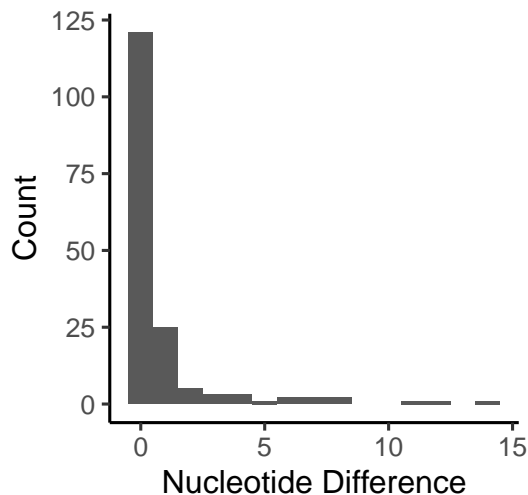
IGHV3-13*01_G290A_T300A

53 sequences assigned
43 (81.1%) exact matches, in which:
38 unique CDR3
5 unique J



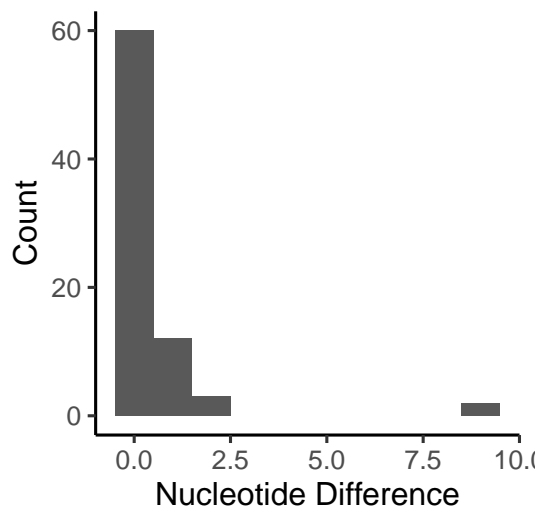
IGHV3-7*03

168 sequences assigned
121 (72%) exact matches, in which:
118 unique CDR3
6 unique J



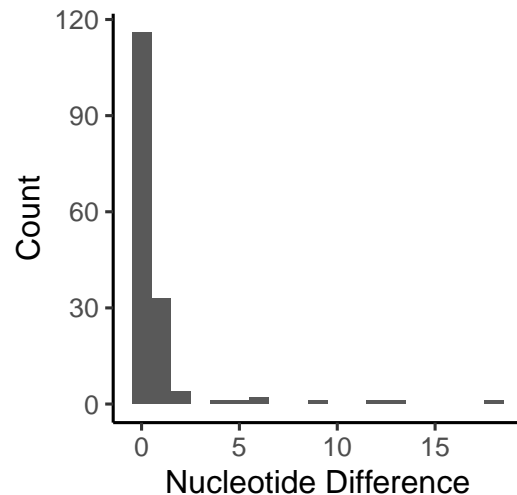
IGHV3-11*06

77 sequences assigned
60 (77.9%) exact matches, in which:
55 unique CDR3
5 unique J



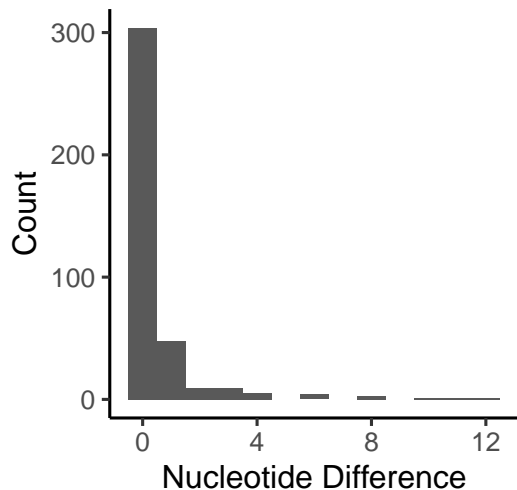
IGHV3-15*01

161 sequences assigned
116 (72%) exact matches, in which:
113 unique CDR3
6 unique J



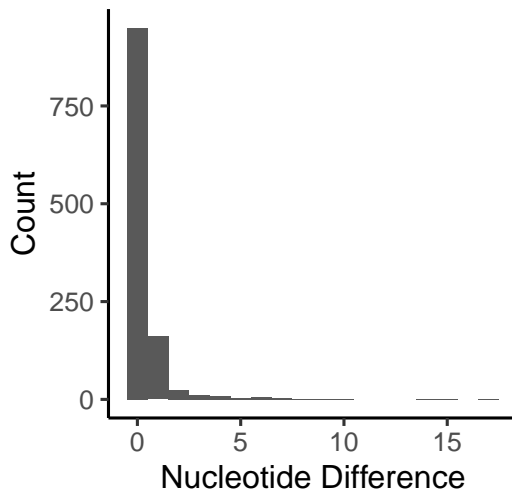
IGHV3-15*07

385 sequences assigned
304 (79%) exact matches, in which:
286 unique CDR3
6 unique J



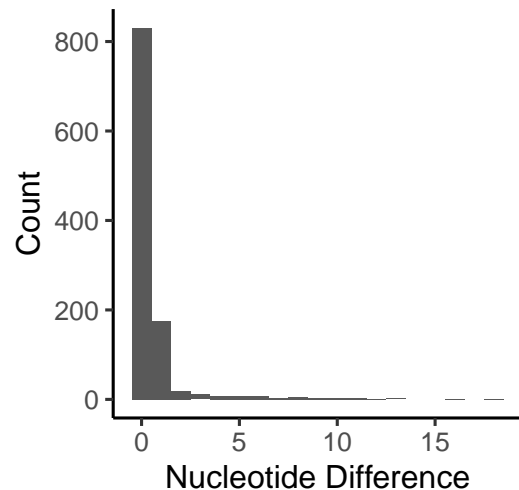
IGHV3-21*01

1179 sequences assigned
950 (80.6%) exact matches, in which:
900 unique CDR3
6 unique J



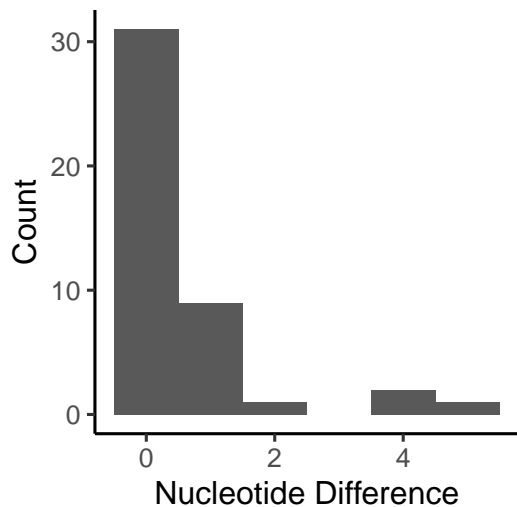
IGHV3-30*18

1085 sequences assigned
831 (76.6%) exact matches, in which:
778 unique CDR3
6 unique J



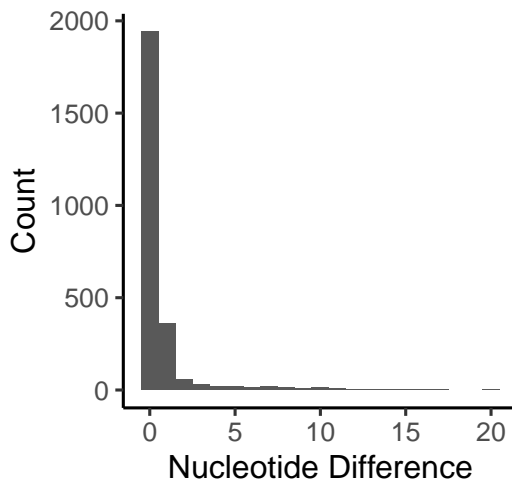
IGHV3-20*01

44 sequences assigned
31 (70.5%) exact matches, in which:
29 unique CDR3
5 unique J



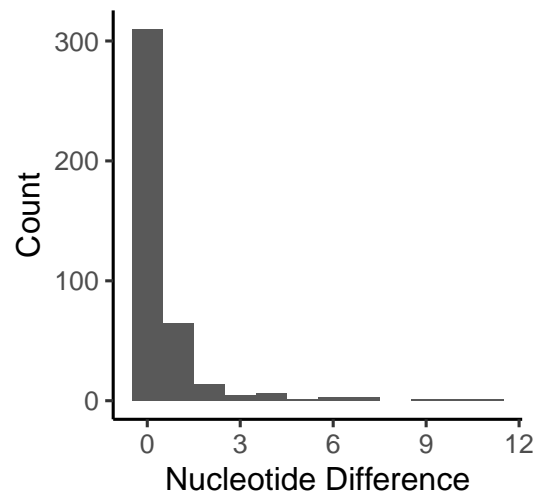
IGHV3-23*01

2513 sequences assigned
1941 (77.2%) exact matches, in which:
1830 unique CDR3
6 unique J



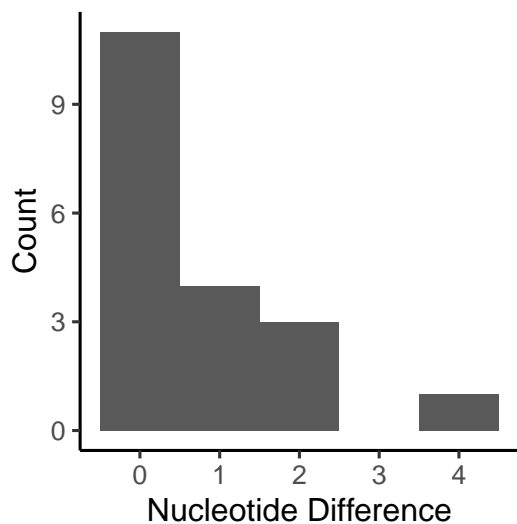
IGHV3-33*01

410 sequences assigned
310 (75.6%) exact matches, in which:
288 unique CDR3
6 unique J



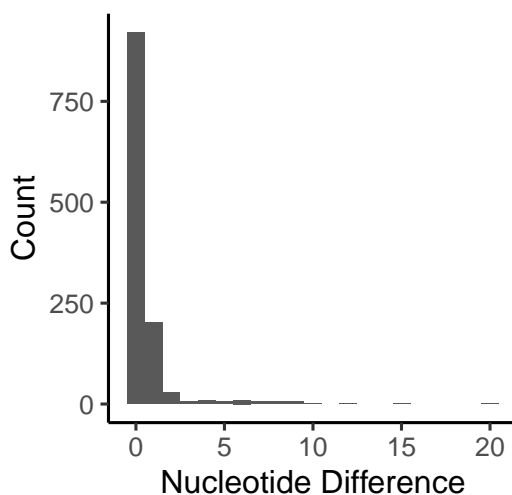
IGHV3-20*04

19 sequences assigned
11 (57.9%) exact matches, in which:
10 unique CDR3
4 unique J



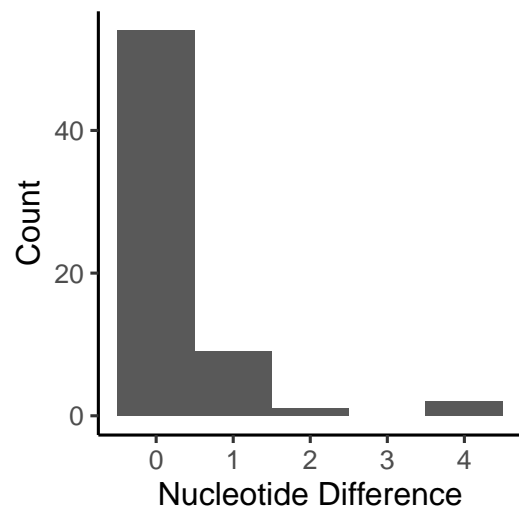
IGHV3-30-3*01

1210 sequences assigned
921 (76.1%) exact matches, in which:
874 unique CDR3
6 unique J



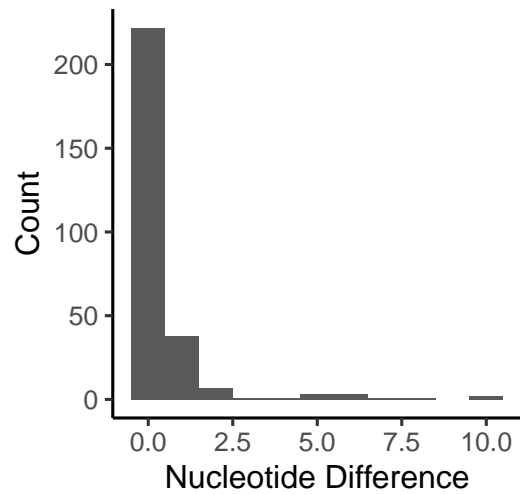
IGHV3-43*01

66 sequences assigned
54 (81.8%) exact matches, in which:
53 unique CDR3
6 unique J



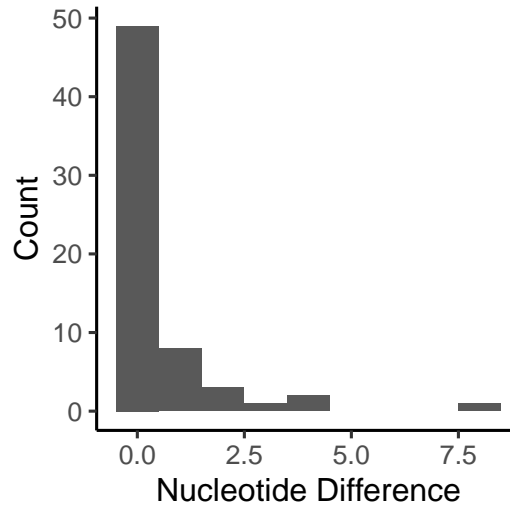
IGHV3-48*01

279 sequences assigned
222 (79.6%) exact matches, in which:
204 unique CDR3
6 unique J



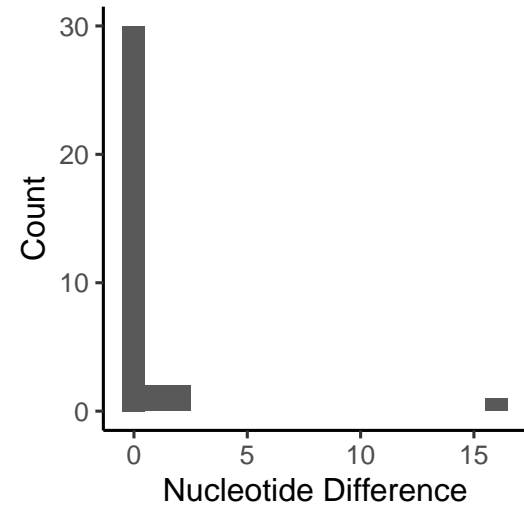
IGHV3-49*05

64 sequences assigned
49 (76.6%) exact matches, in which:
47 unique CDR3
5 unique J



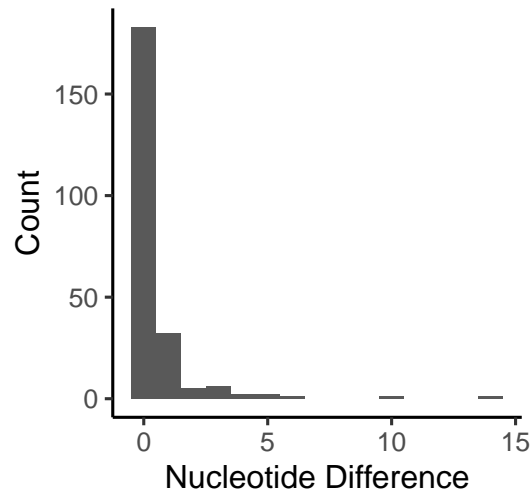
IGHV3-64*01

35 sequences assigned
30 (85.7%) exact matches, in which:
28 unique CDR3
5 unique J



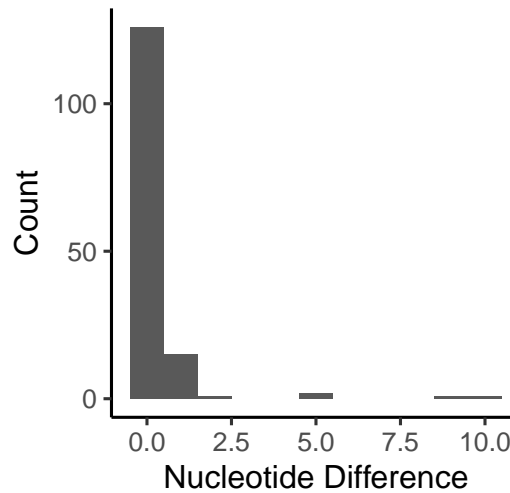
IGHV3-48*02

233 sequences assigned
183 (78.5%) exact matches, in which:
176 unique CDR3
5 unique J



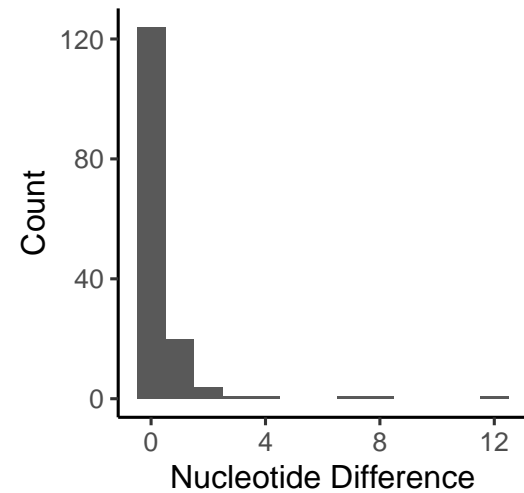
IGHV3-53*01

146 sequences assigned
126 (86.3%) exact matches, in which:
119 unique CDR3
6 unique J



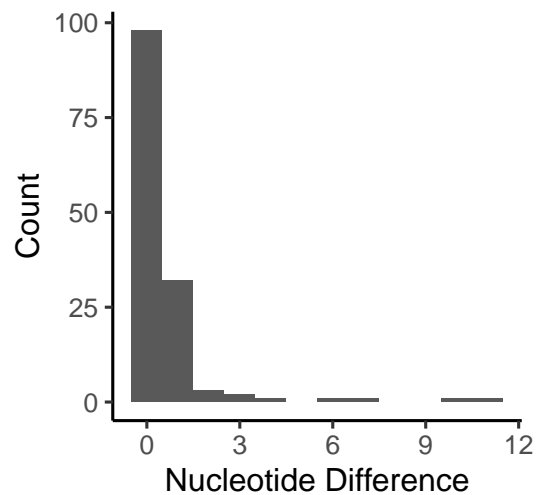
IGHV3-66*02

153 sequences assigned
124 (81%) exact matches, in which:
112 unique CDR3
6 unique J



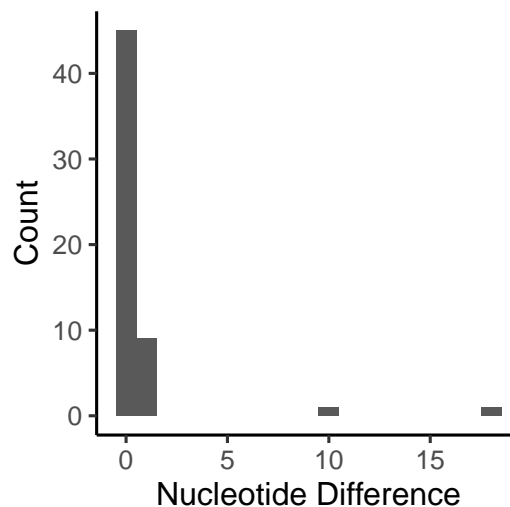
IGHV3-49*03

140 sequences assigned
98 (70%) exact matches, in which:
92 unique CDR3
6 unique J



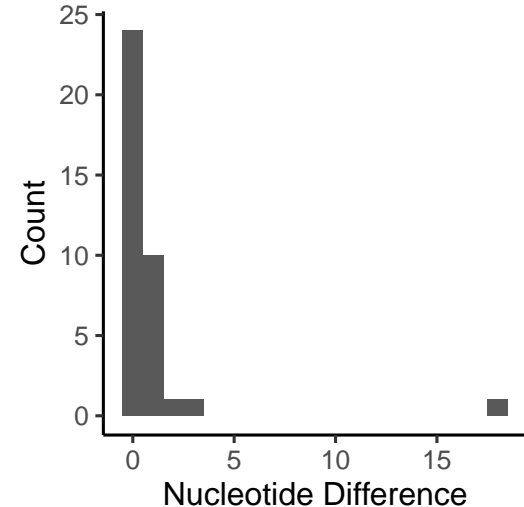
IGHV3-53*02

56 sequences assigned
45 (80.4%) exact matches, in which:
44 unique CDR3
5 unique J



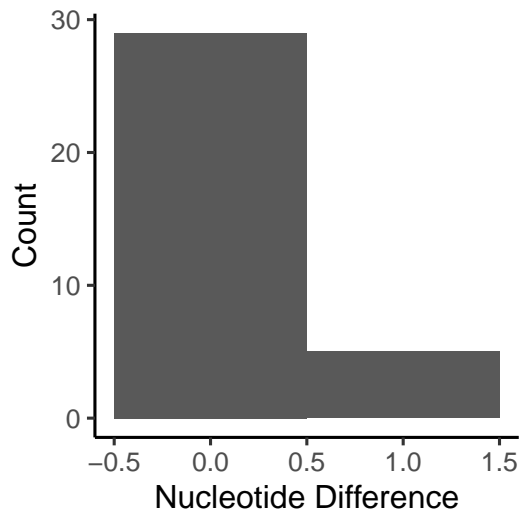
IGHV3-72*01

38 sequences assigned
24 (63.2%) exact matches, in which:
24 unique CDR3
4 unique J



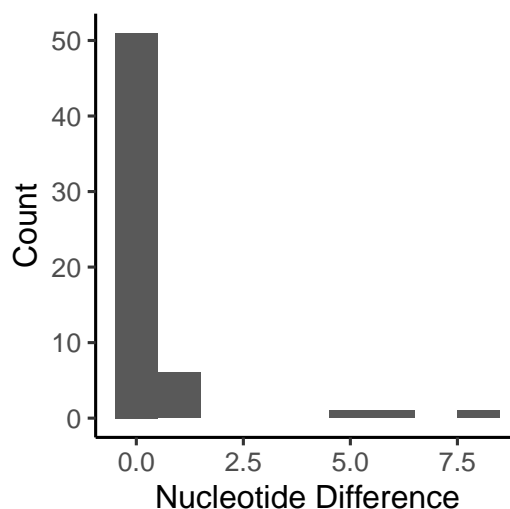
IGHV3-73*01

34 sequences assigned
29 (85.3%) exact matches, in which:
29 unique CDR3
5 unique J



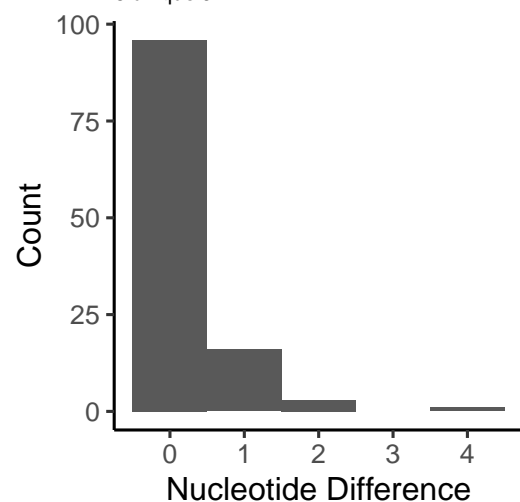
IGHV3-43D*03

60 sequences assigned
51 (85%) exact matches, in which:
50 unique CDR3
4 unique J



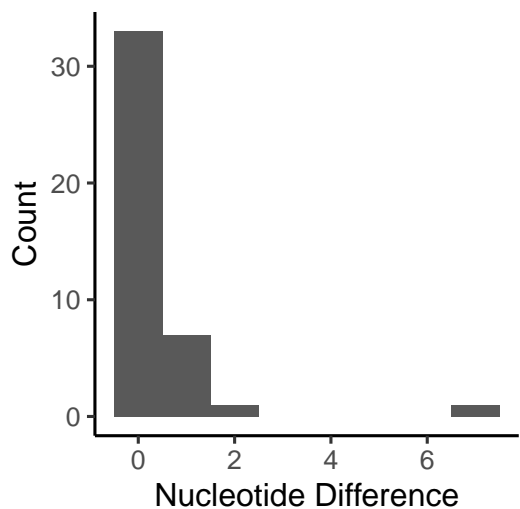
IGHV4-4*07

116 sequences assigned
96 (82.8%) exact matches, in which:
94 unique CDR3
6 unique J



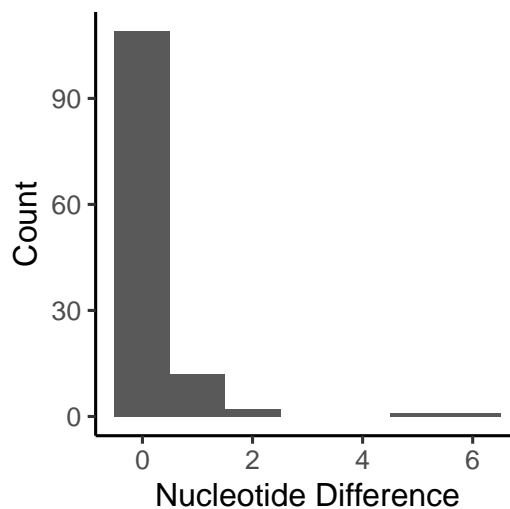
IGHV3-73*02

42 sequences assigned
33 (78.6%) exact matches, in which:
31 unique CDR3
4 unique J



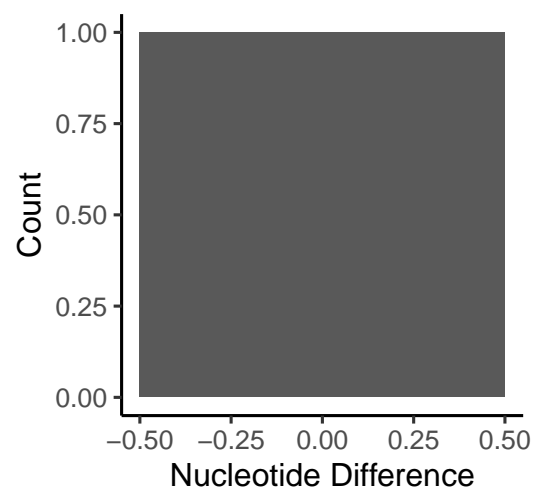
IGHV3-64D*06

125 sequences assigned
109 (87.2%) exact matches, in which:
99 unique CDR3
6 unique J



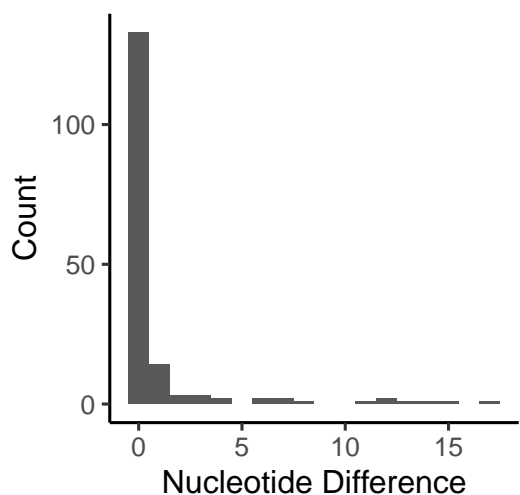
IGHV4-28*01

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



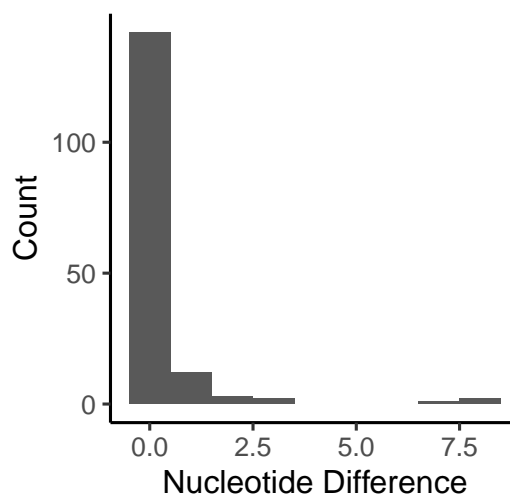
IGHV3-74*01

167 sequences assigned
133 (79.6%) exact matches, in which:
130 unique CDR3
6 unique J



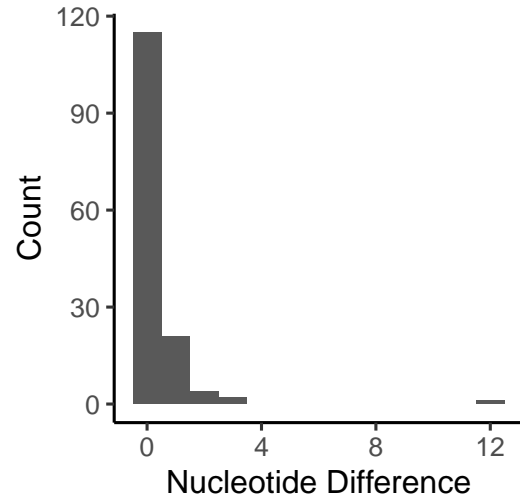
IGHV4-4*02

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



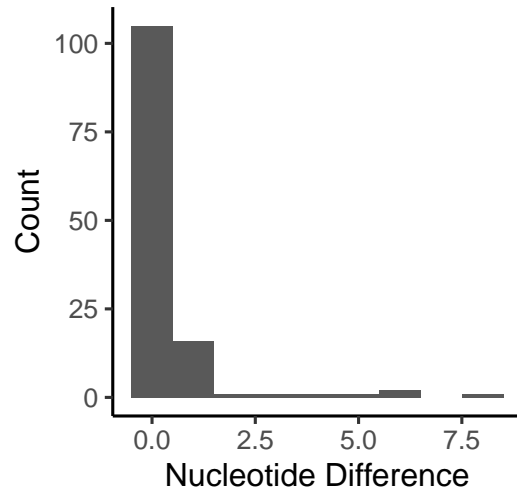
IGHV4-30-4*01

143 sequences assigned
115 (80.4%) exact matches, in which:
109 unique CDR3
6 unique J



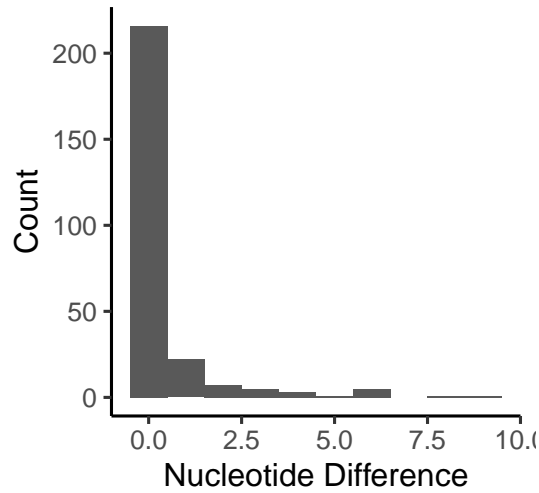
IGHV4-30-2*01

128 sequences assigned
105 (82%) exact matches, in which:
102 unique CDR3
6 unique J



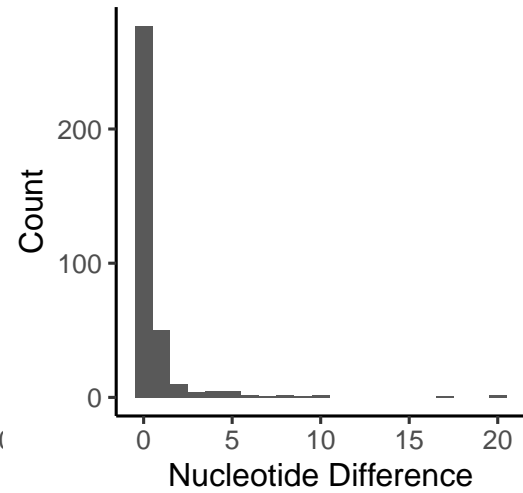
IGHV4-38-2*02

264 sequences assigned
216 (81.8%) exact matches, in which:
209 unique CDR3
6 unique J



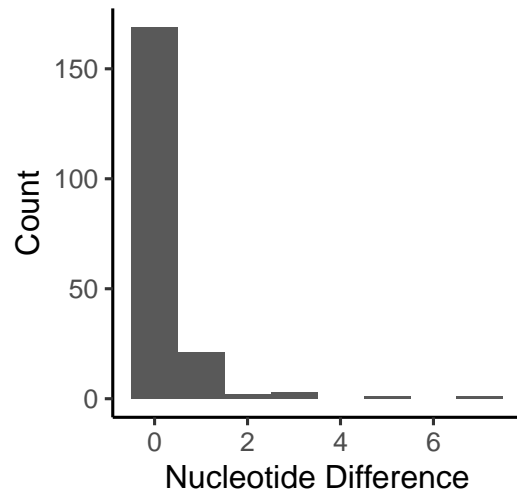
IGHV4-59*01

362 sequences assigned
277 (76.5%) exact matches, in which:
274 unique CDR3
6 unique J



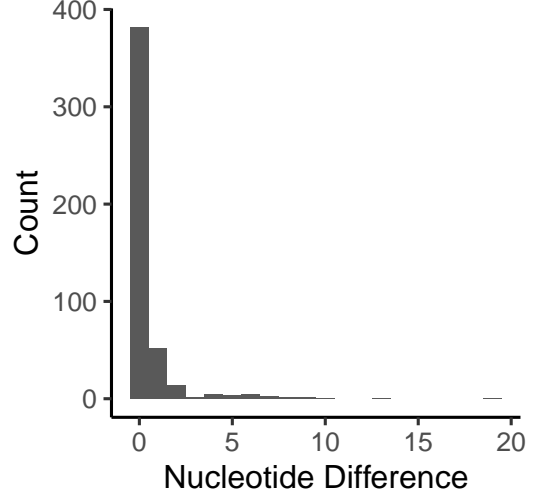
IGHV4-31*03

197 sequences assigned
169 (85.8%) exact matches, in which:
165 unique CDR3
6 unique J



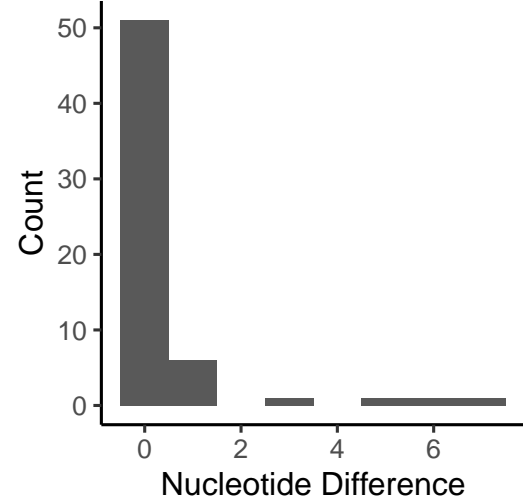
IGHV4-39*01

474 sequences assigned
382 (80.6%) exact matches, in which:
370 unique CDR3
6 unique J



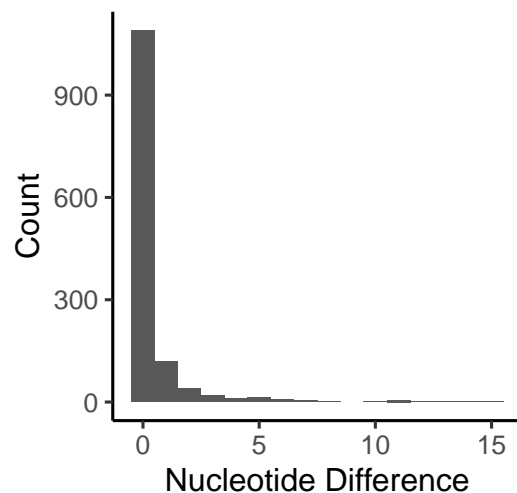
IGHV4-61*01

61 sequences assigned
51 (83.6%) exact matches, in which:
50 unique CDR3
5 unique J



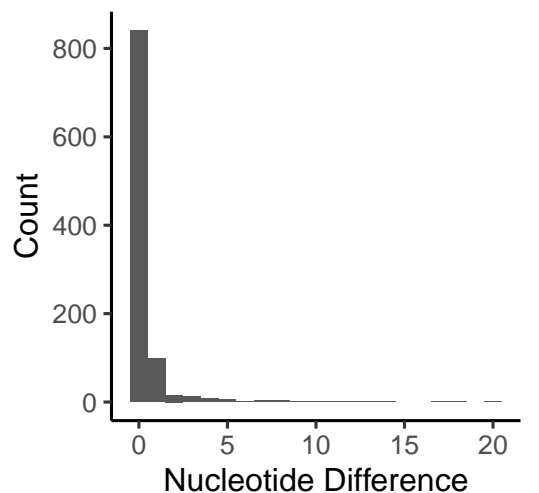
IGHV4-34*01

1317 sequences assigned
1090 (82.8%) exact matches, in which:
1040 unique CDR3
6 unique J



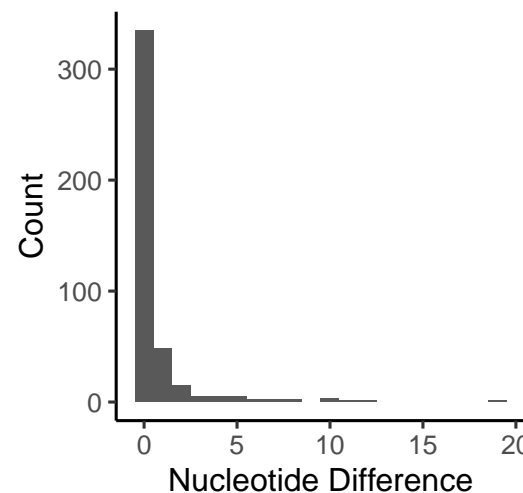
IGHV4-39*07

1009 sequences assigned
841 (83.3%) exact matches, in which:
802 unique CDR3
6 unique J



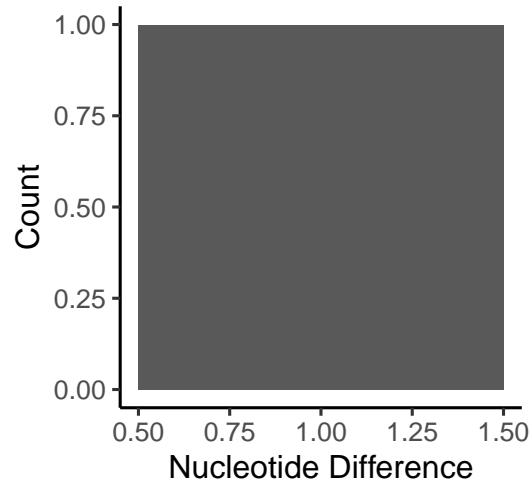
IGHV4-61*02

425 sequences assigned
335 (78.8%) exact matches, in which:
325 unique CDR3
6 unique J



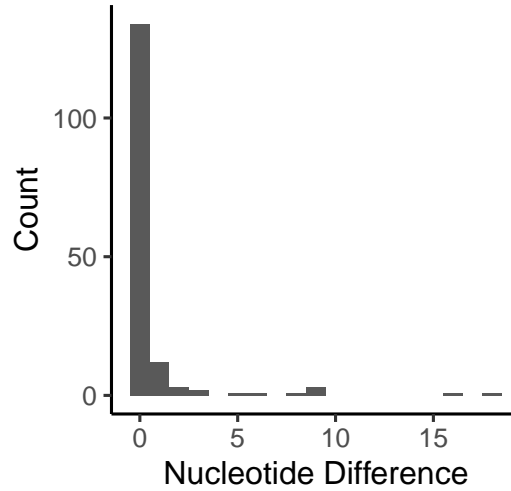
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



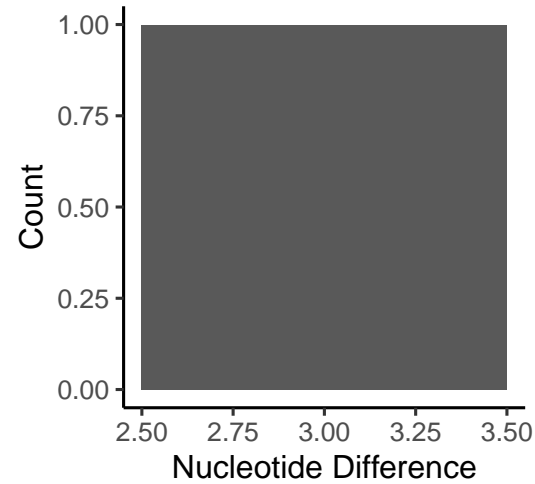
IGHV5-51*03

159 sequences assigned
134 (84.3%) exact matches, in which:
131 unique CDR3
6 unique J



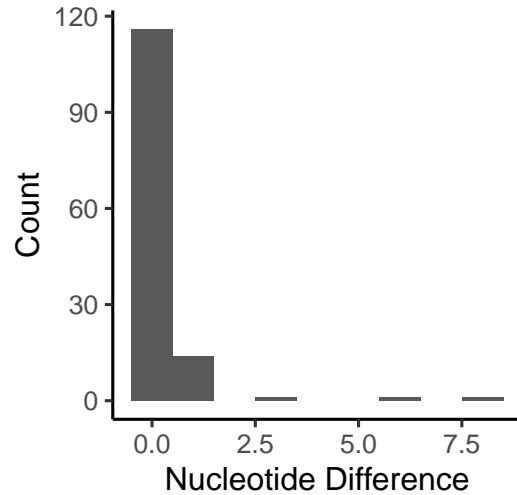
IGHV3/OR16-12*01

1 sequences assigned
No exact matches.



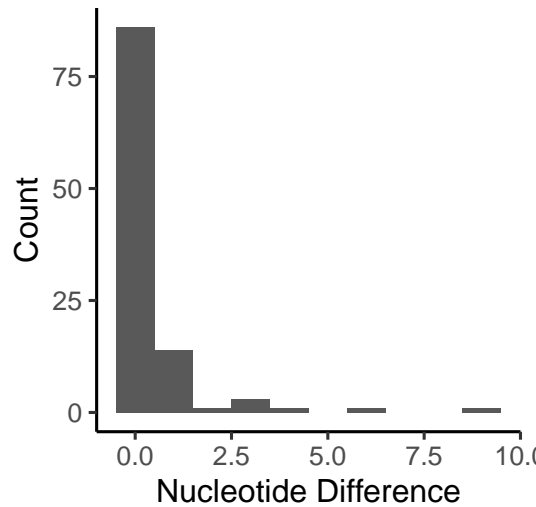
IGHV5-10-1*03

133 sequences assigned
116 (87.2%) exact matches, in which:
104 unique CDR3
5 unique J



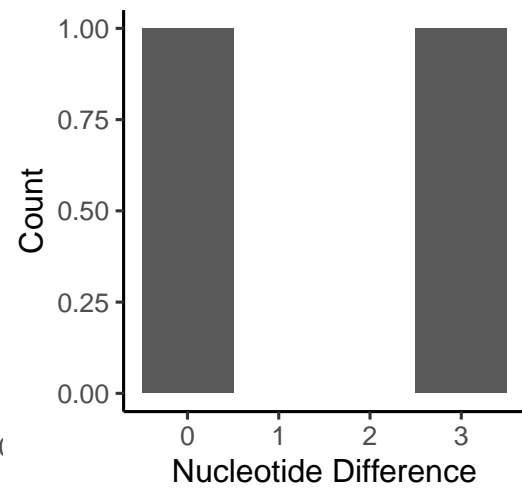
IGHV6-1*01

107 sequences assigned
86 (80.4%) exact matches, in which:
85 unique CDR3
5 unique J



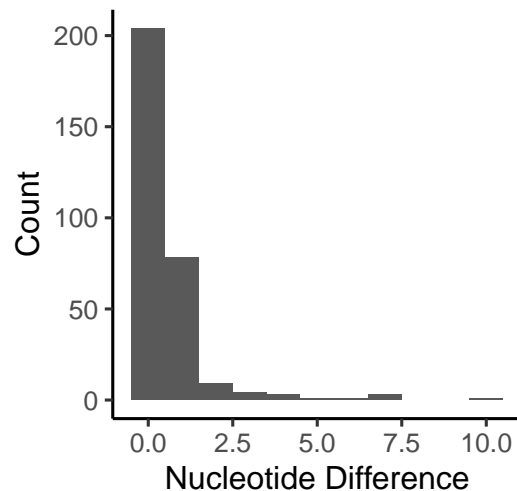
IGHV7-4-1*01

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



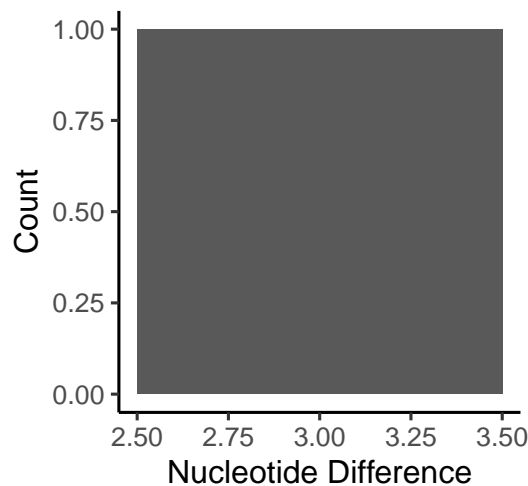
IGHV5-51*01

304 sequences assigned
204 (67.1%) exact matches, in which:
199 unique CDR3
6 unique J



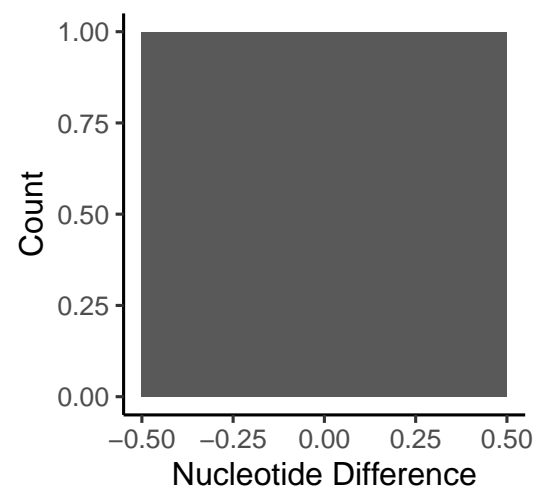
IGHV3/OR16-9*01

1 sequences assigned
No exact matches.

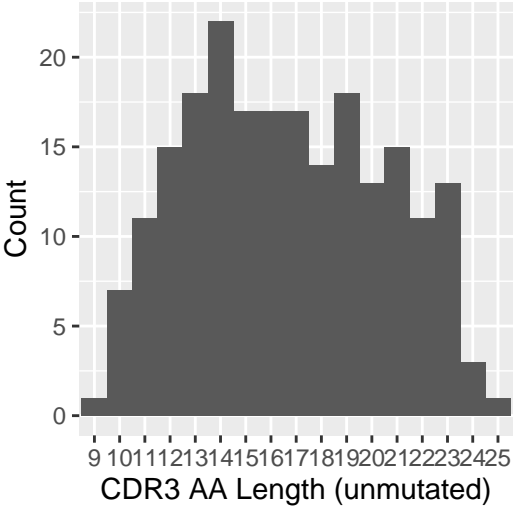


IGHV7-81*01

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



IGHV1-69*08_C191T



IGHV3-13*01_G290A_T300C

