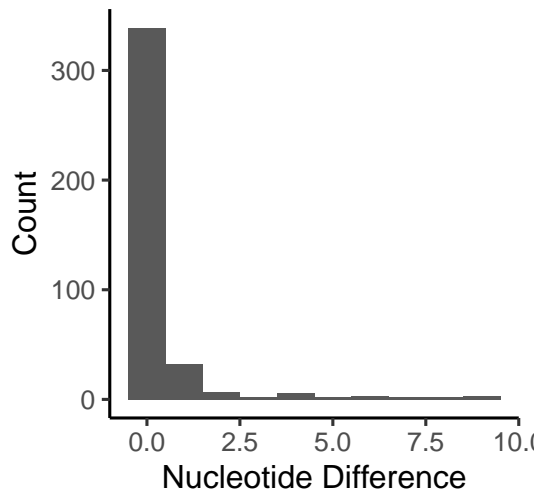


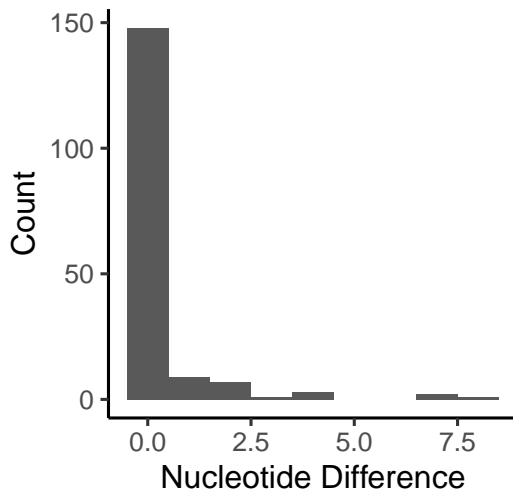
IGHV1-2*02

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



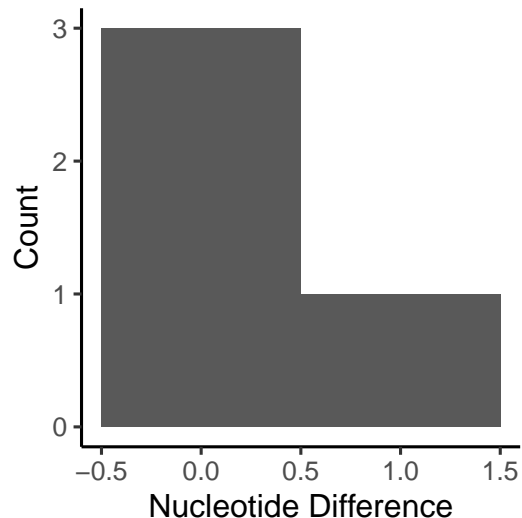
IGHV1-8*01

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



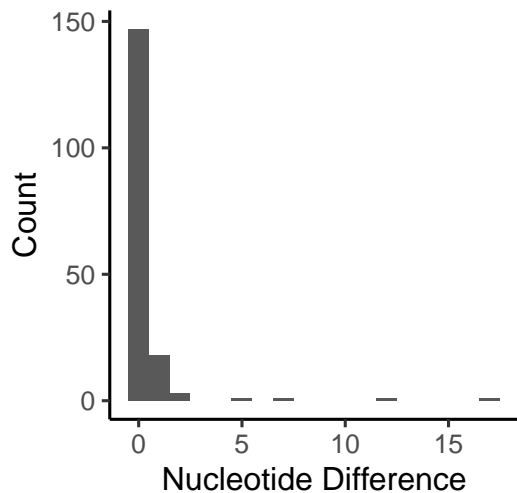
IGHV1-45*02

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



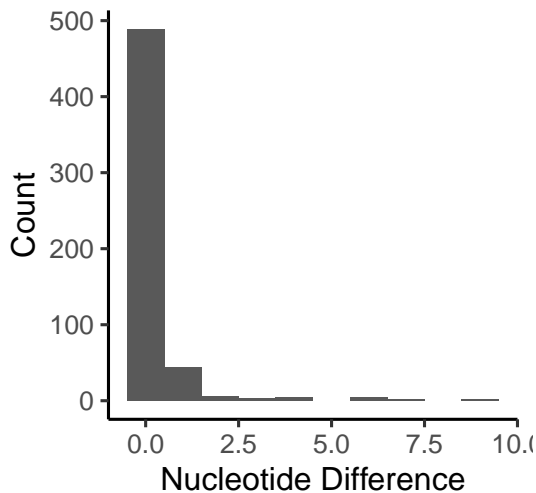
IGHV1-2*04

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



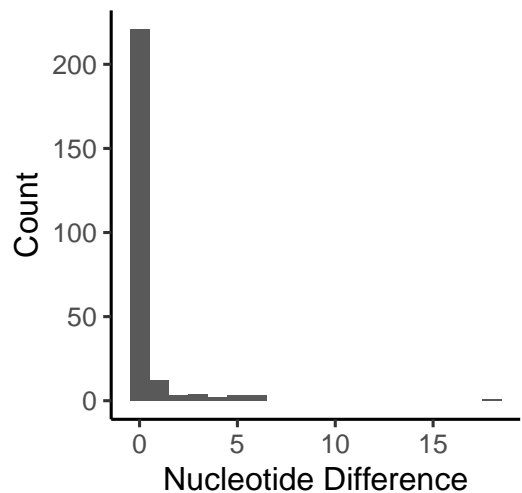
IGHV1-18*01

555 sequences assigned
489 (88.1%) exact matches, in which:
470 unique CDR3
6 unique J



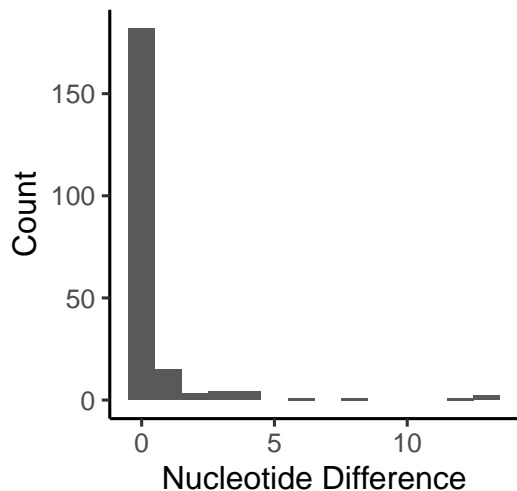
IGHV1-46*01

250 sequences assigned
221 (88.4%) exact matches, in which:
215 unique CDR3
6 unique J



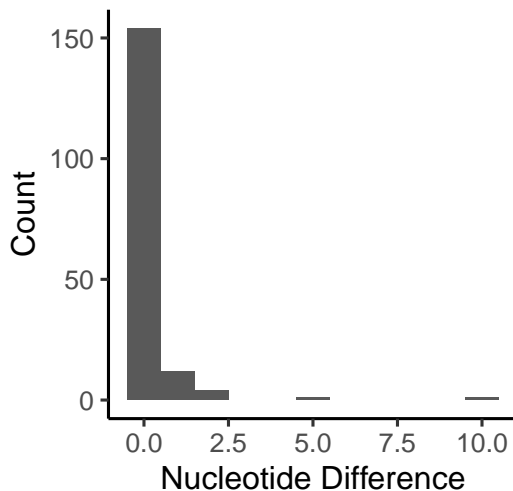
IGHV1-3*01

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



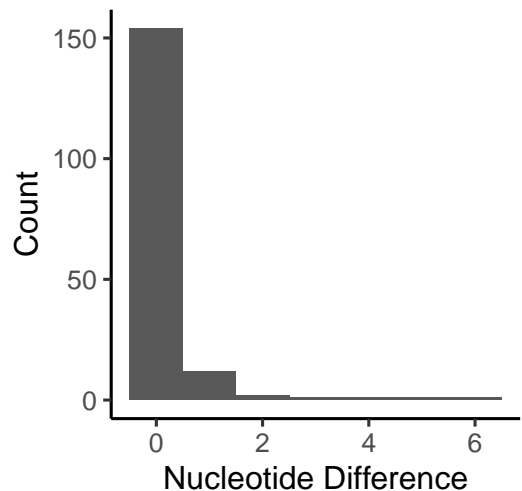
IGHV1-24*01

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



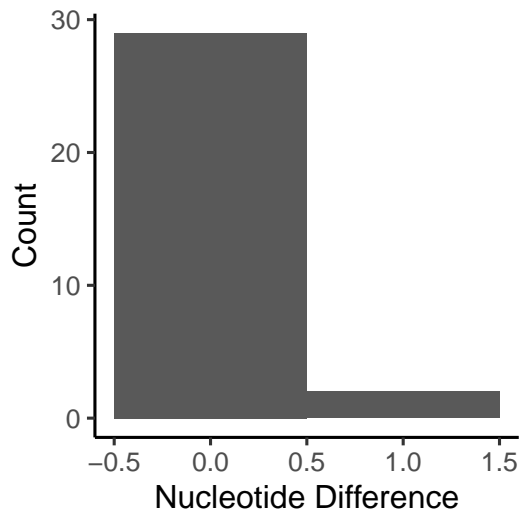
IGHV1-46*03

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



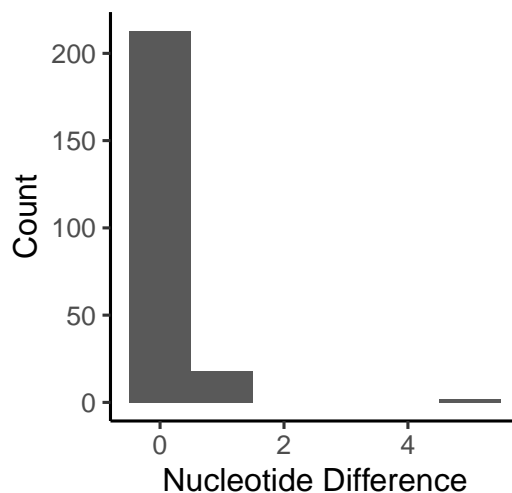
IGHV1-58*01

31 sequences assigned
29 (93.5%) exact matches, in which:
28 unique CDR3
3 unique J



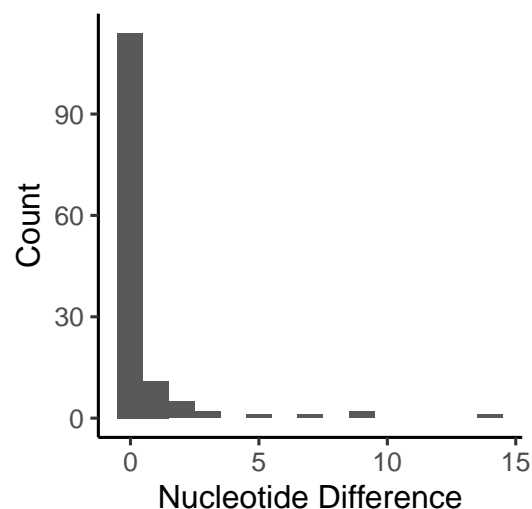
IGHV1-69*02

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



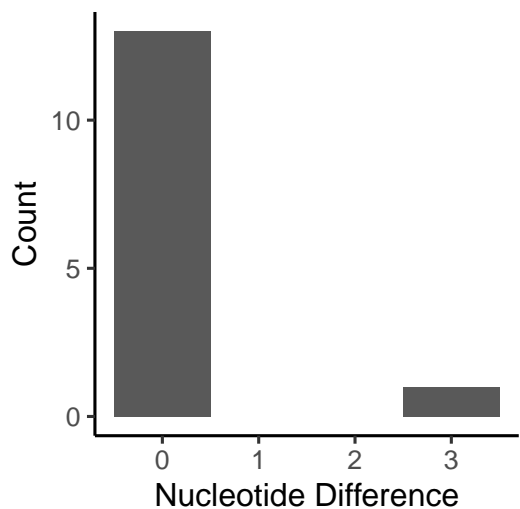
IGHV2-26*01

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



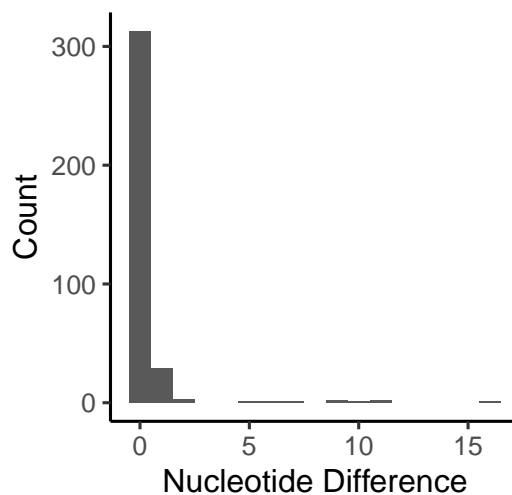
IGHV1-58*02

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



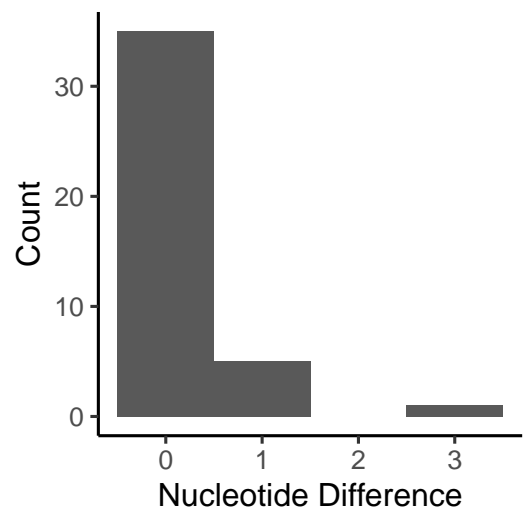
IGHV1-69*06

354 sequences assigned
313 (88.4%) exact matches, in which:
304 unique CDR3
6 unique J



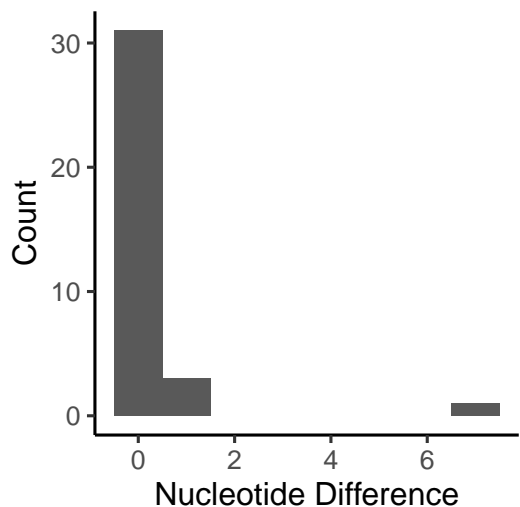
IGHV2-70*01

41 sequences assigned
35 (85.4%) exact matches, in which:
35 unique CDR3
4 unique J



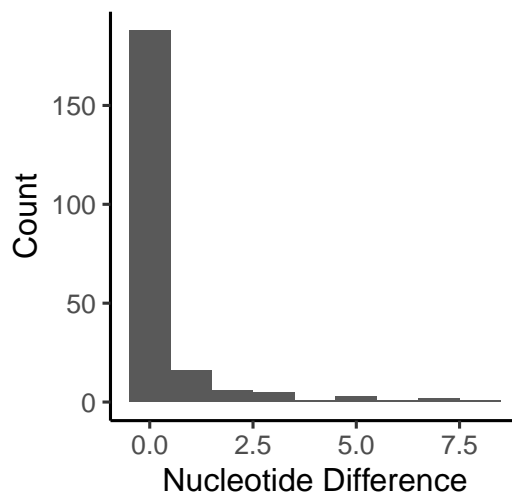
IGHV1-69-2*01

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



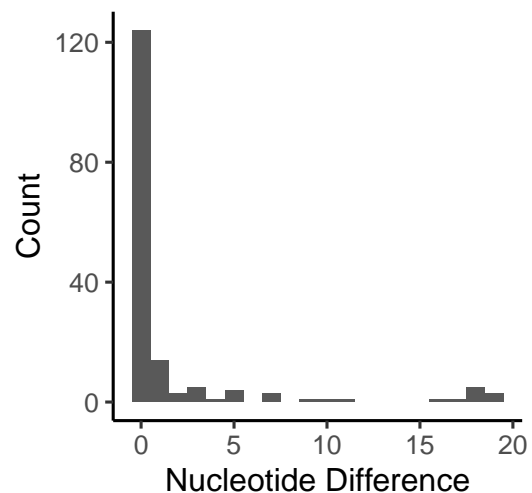
IGHV2-5*02

223 sequences assigned
188 (84.3%) exact matches, in which:
181 unique CDR3
6 unique J



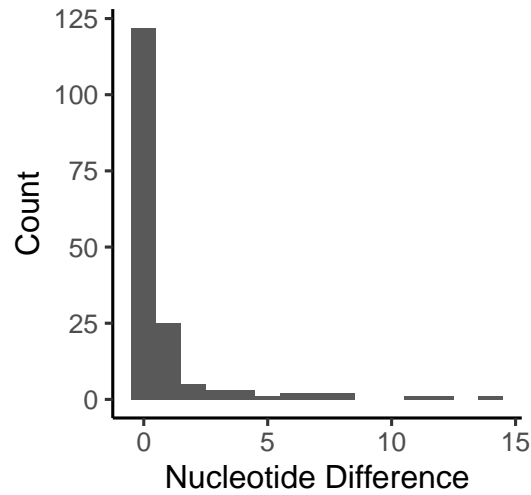
IGHV3-7*01

168 sequences assigned
124 (73.8%) exact matches, in which:
120 unique CDR3
5 unique J



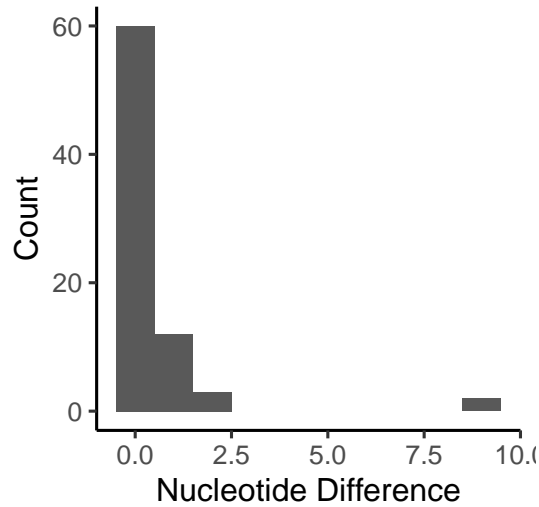
IGHV3-7*03

169 sequences assigned
122 (72.2%) exact matches, in which:
119 unique CDR3
6 unique J



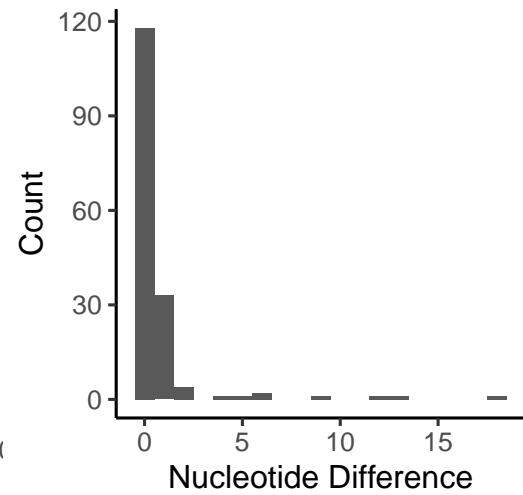
IGHV3-11*06

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



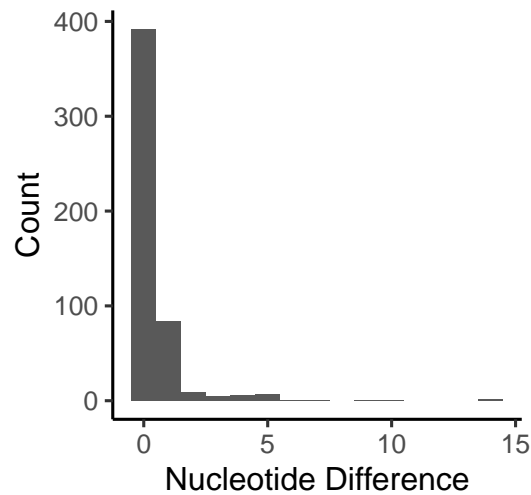
IGHV3-15*01

163 sequences assigned
118 (72.4%) exact matches, in which:
115 unique CDR3
6 unique J



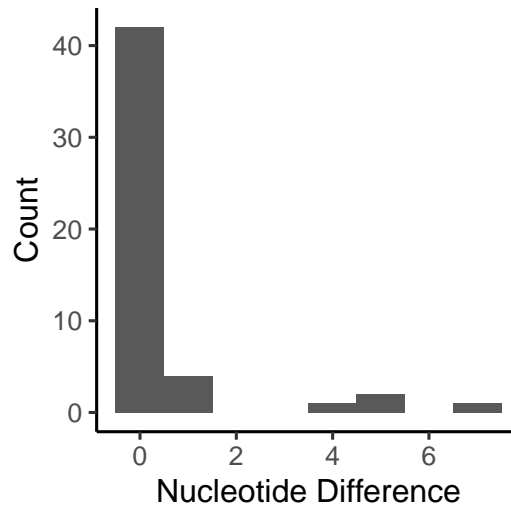
IGHV3-9*01

509 sequences assigned
392 (77%) exact matches, in which:
372 unique CDR3
6 unique J



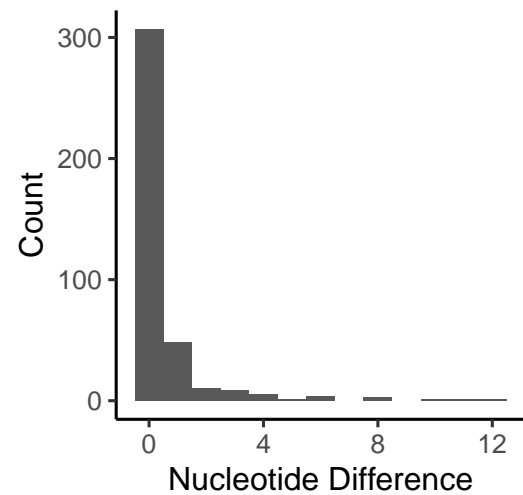
IGHV3-13*01

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



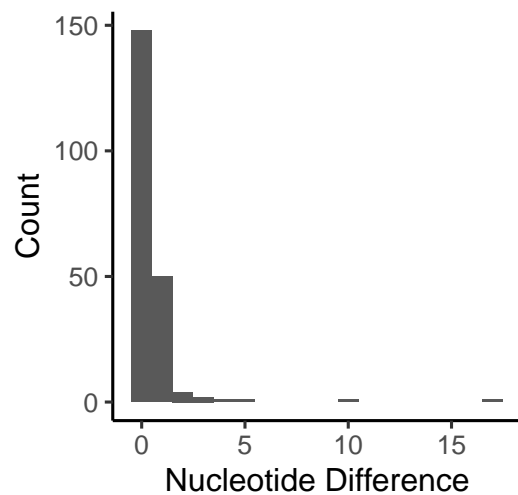
IGHV3-15*07

390 sequences assigned
307 (78.7%) exact matches, in which:
289 unique CDR3
6 unique J



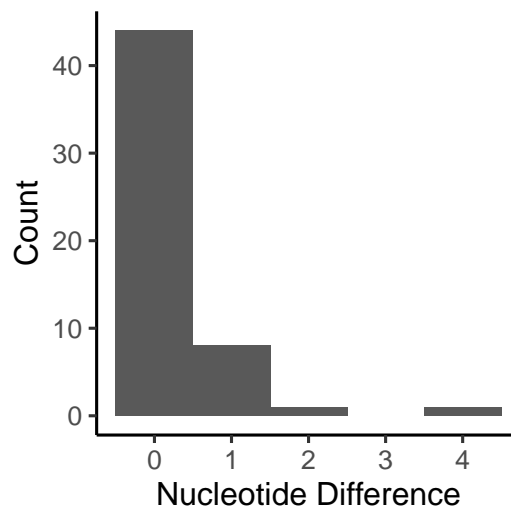
IGHV3-11*01

208 sequences assigned
148 (71.2%) exact matches, in which:
142 unique CDR3
5 unique J



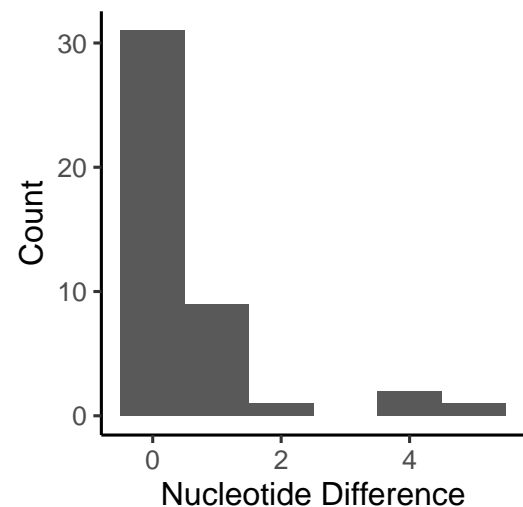
IGHV3-13*01_G290A_T30

54 sequences assigned
44 (81.5%) exact matches, in which:
39 unique CDR3
5 unique J



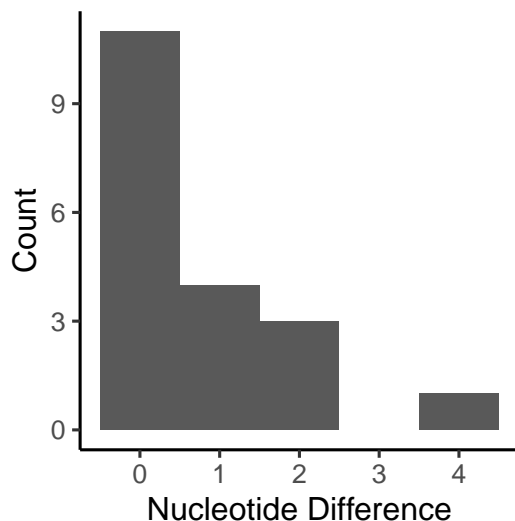
IGHV3-20*01

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



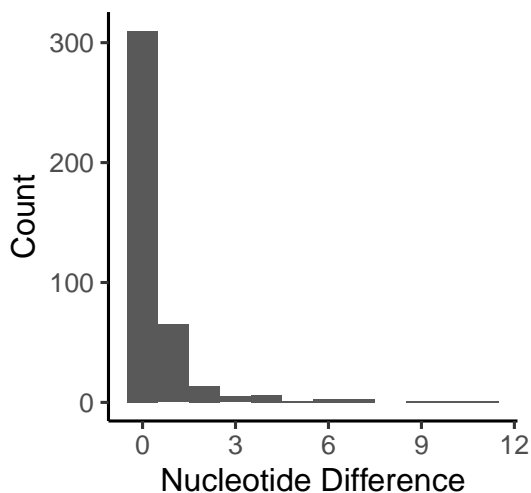
IGHV3–20*04

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



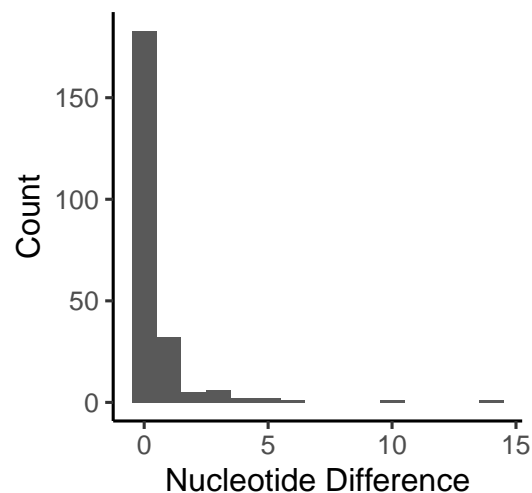
IGHV3–33*01

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



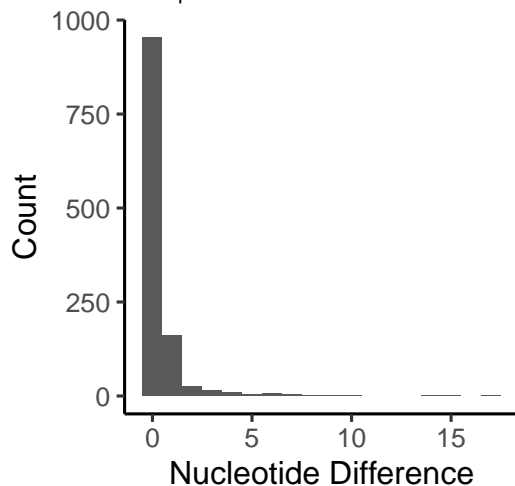
IGHV3–48*02

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



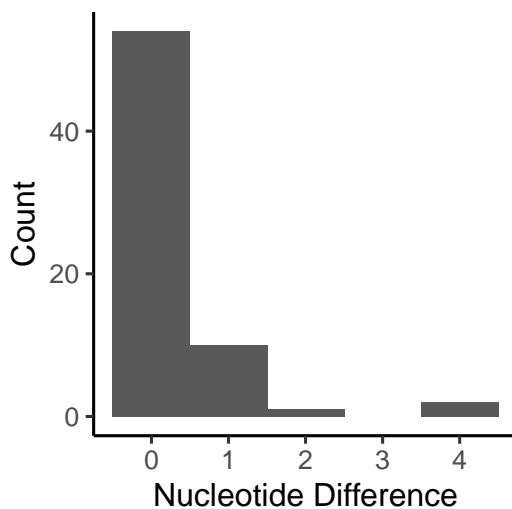
IGHV3–21*01

1186 sequences assigned
953 (80.4%) exact matches, in which:
902 unique CDR3
6 unique J



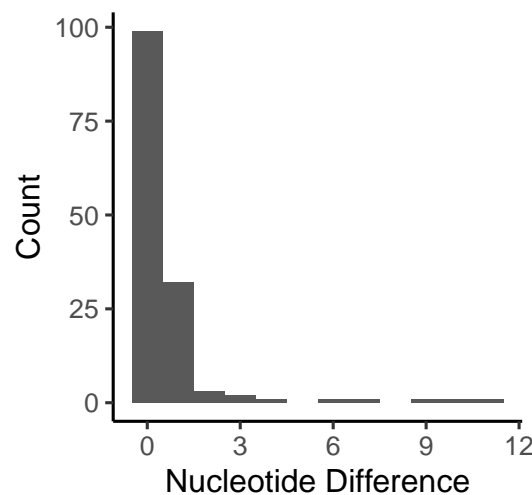
IGHV3–43*01

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



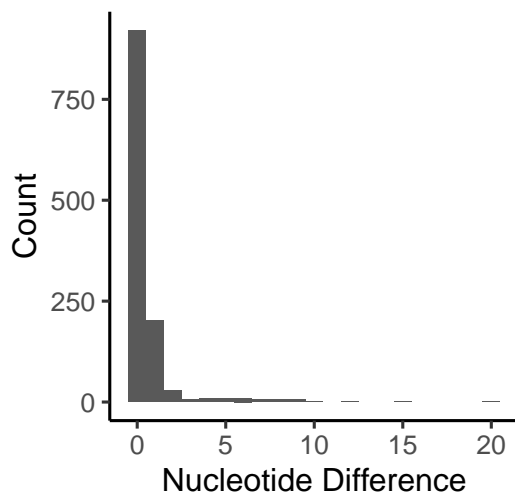
IGHV3–49*03

142 sequences assigned
99 (69.7%) exact matches, in which:
93 unique CDR3
6 unique J



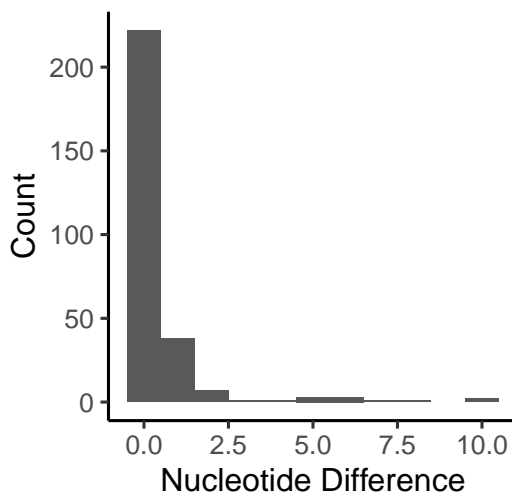
IGHV3–30–3*01

1213 sequences assigned
921 (75.9%) exact matches, in which:
874 unique CDR3
6 unique J



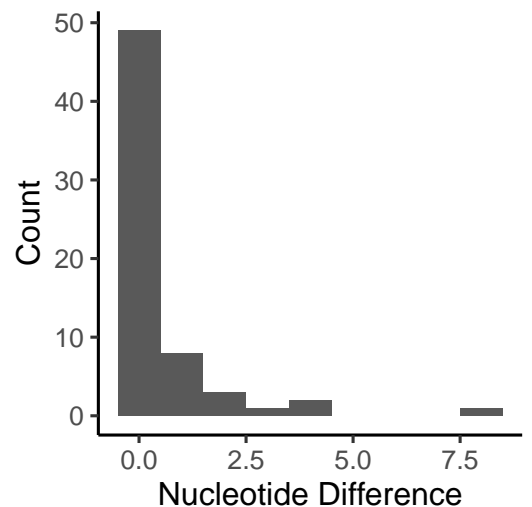
IGHV3–48*01

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



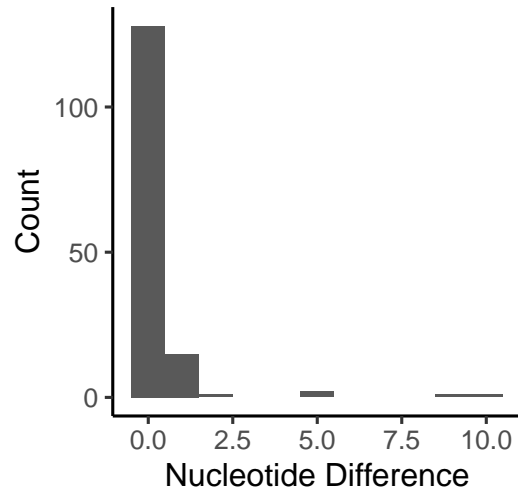
IGHV3–49*05

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



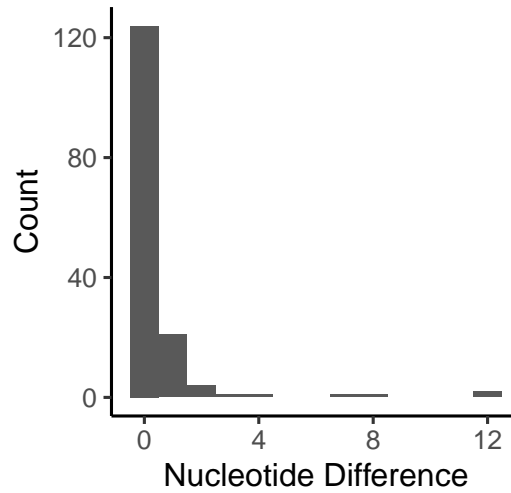
IGHV3-53*01

148 sequences assigned
128 (86.5%) exact matches, in which:
121 unique CDR3
6 unique J



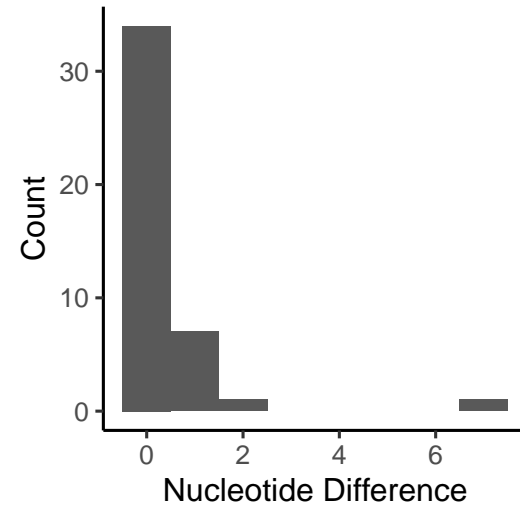
IGHV3-66*02

155 sequences assigned
124 (80%) exact matches, in which:
112 unique CDR3
6 unique J



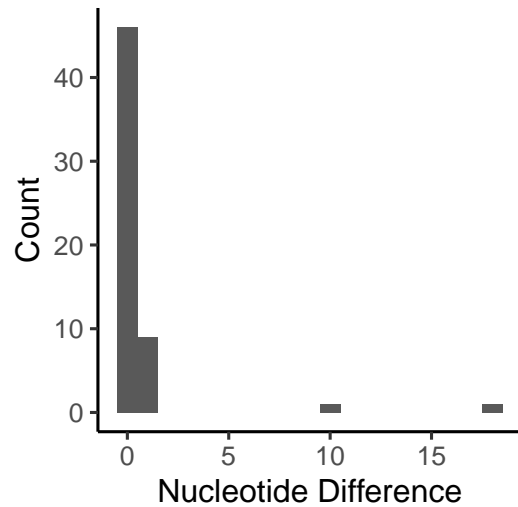
IGHV3-73*02

43 sequences assigned
34 (79.1%) exact matches, in which:
32 unique CDR3
4 unique J



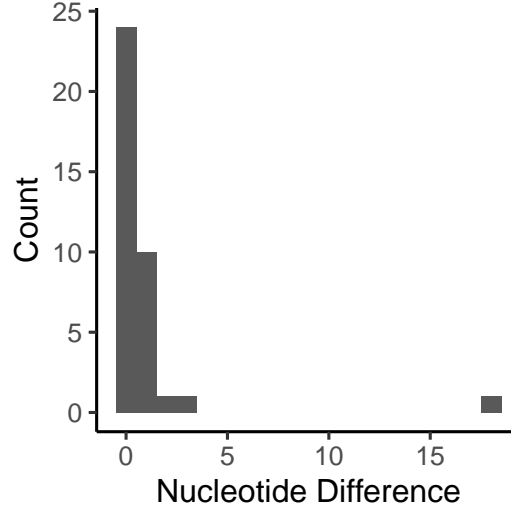
IGHV3-53*02

57 sequences assigned
46 (80.7%) exact matches, in which:
45 unique CDR3
5 unique J



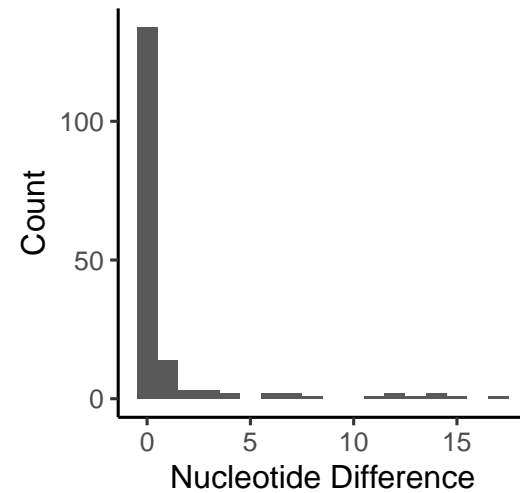
IGHV3-72*01

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



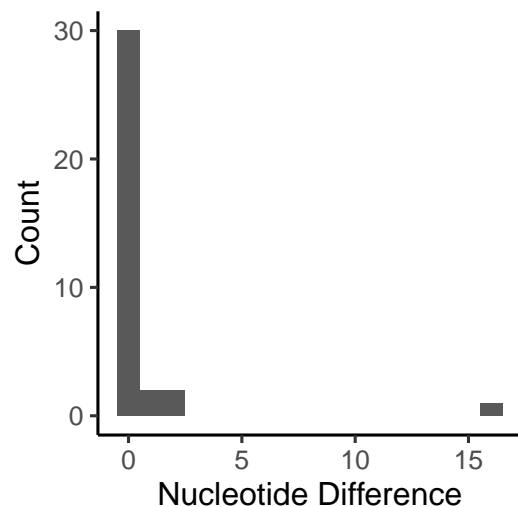
IGHV3-74*01

169 sequences assigned
134 (79.3%) exact matches, in which:
131 unique CDR3
6 unique J



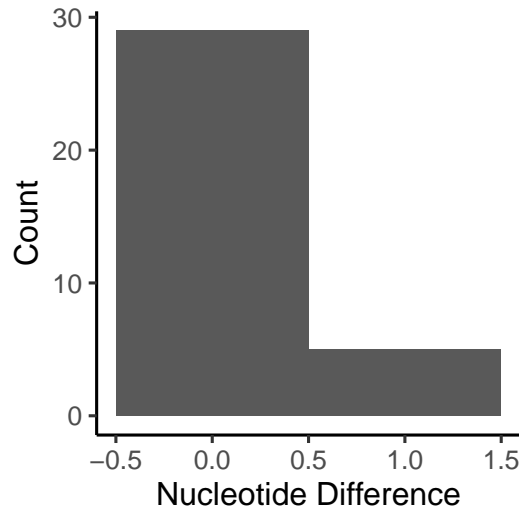
IGHV3-64*01

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



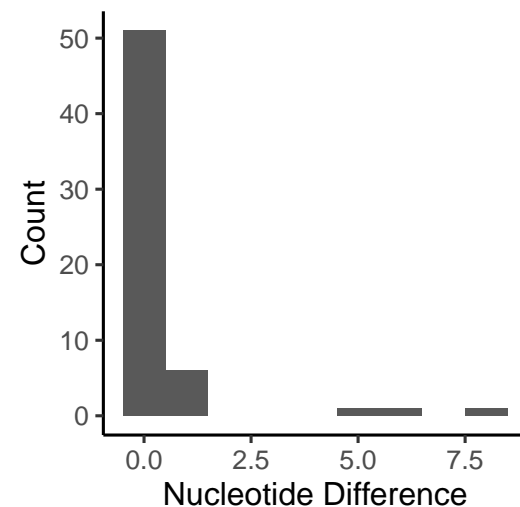
IGHV3-73*01

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



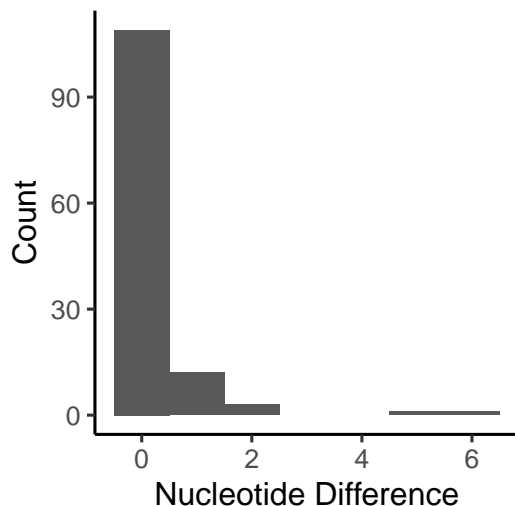
IGHV3-43D*03

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



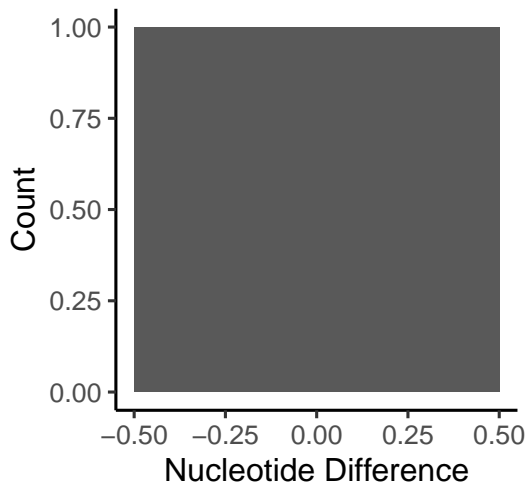
IGHV3-64D*06

126 sequences assigned
109 (86.5%) exact matches, in which:
99 unique CDR3
6 unique J



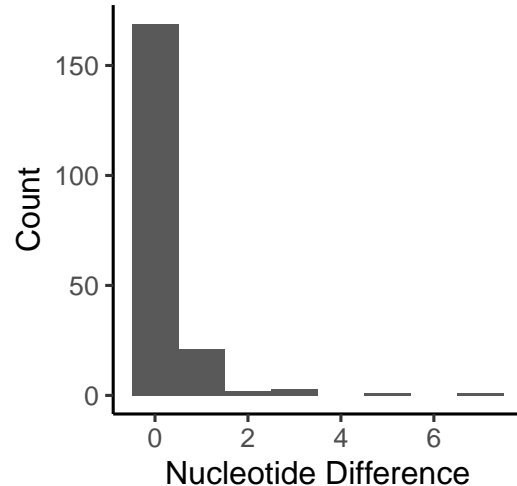
IGHV4-28*01

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



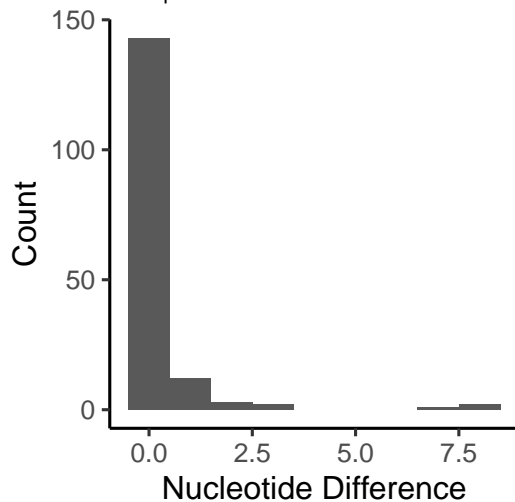
IGHV4-31*03

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



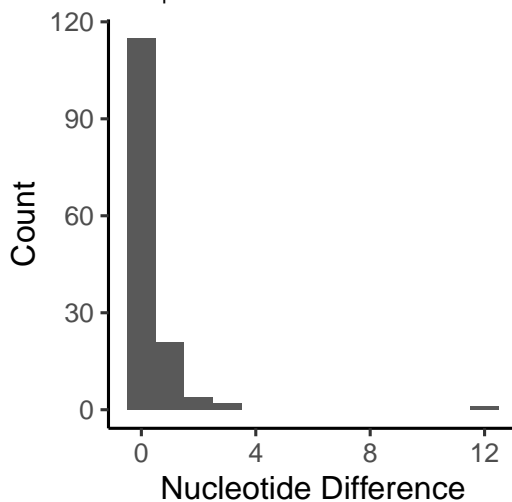
IGHV4-4*02

163 sequences assigned
143 (87.7%) exact matches, in which:
140 unique CDR3
6 unique J



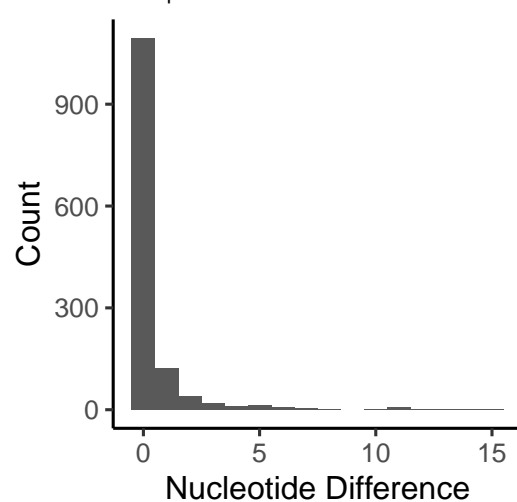
IGHV4-30-4*01

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



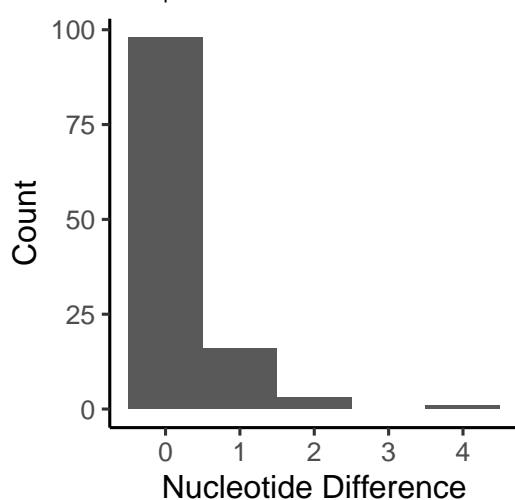
IGHV4-34*01

1326 sequences assigned
1095 (82.6%) exact matches, in which:
1045 unique CDR3
6 unique J



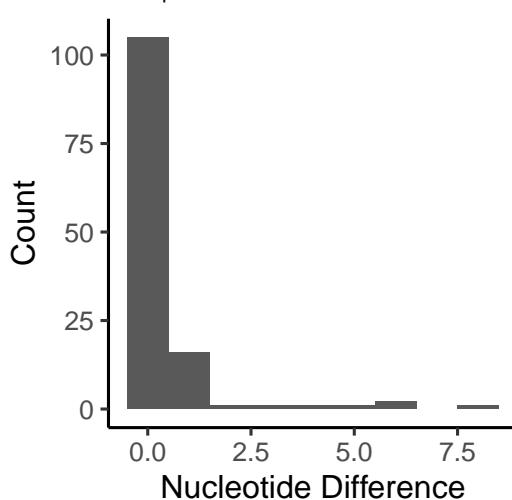
IGHV4-4*07

118 sequences assigned
98 (83.1%) exact matches, in which:
96 unique CDR3
6 unique J



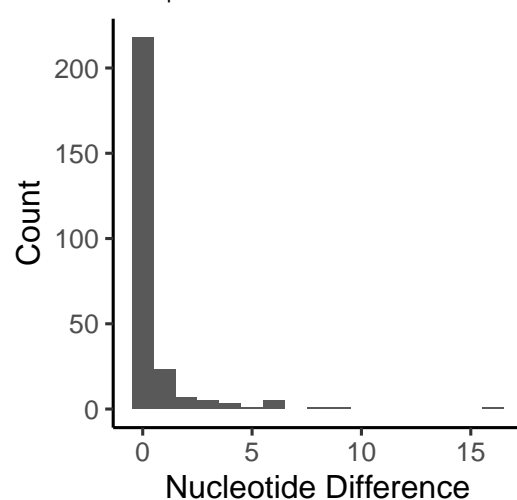
IGHV4-30-2*01

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



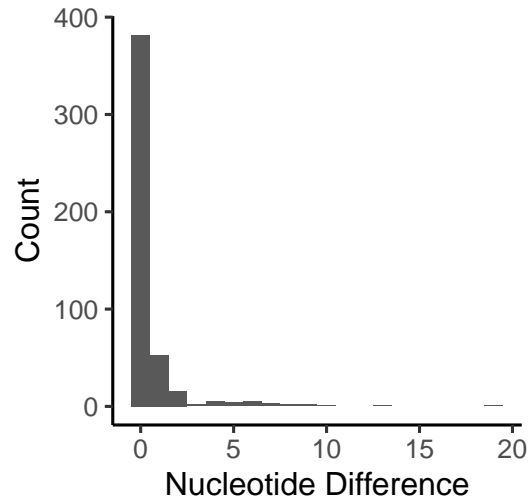
IGHV4-38-2*02

268 sequences assigned
218 (81.3%) exact matches, in which:
211 unique CDR3
6 unique J



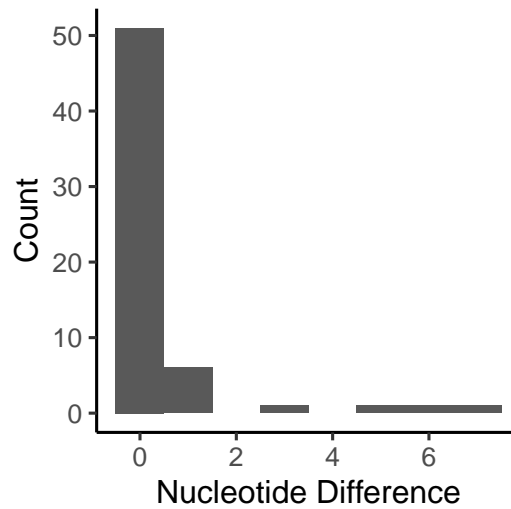
IGHV4-39*01

477 sequences assigned
382 (80.1%) exact matches, in which:
370 unique CDR3
6 unique J



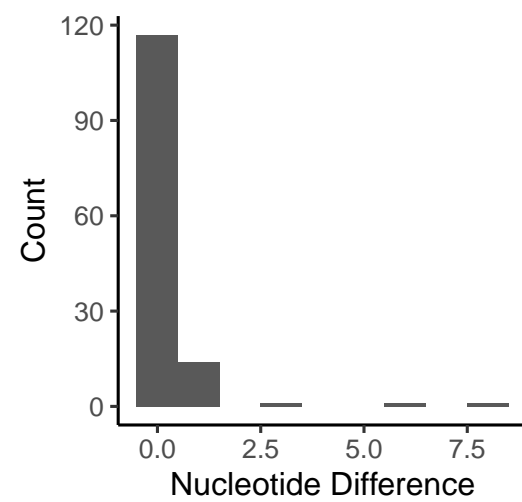
IGHV4-61*01

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



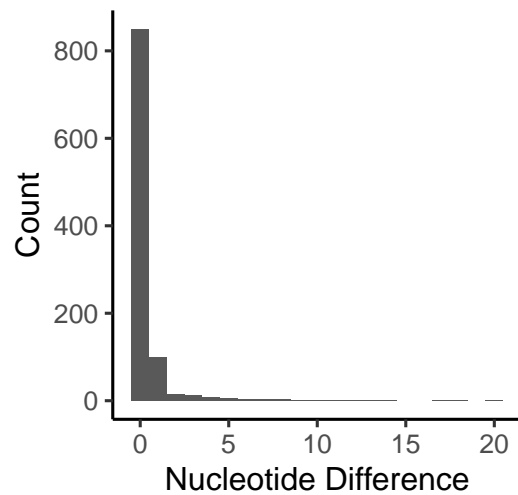
IGHV5-10-1*03

134 sequences assigned
117 (87.3%) exact matches, in which:
105 unique CDR3
5 unique J



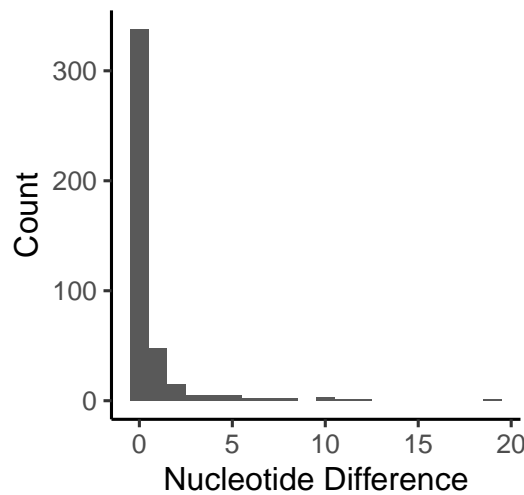
IGHV4-39*07

1019 sequences assigned
850 (83.4%) exact matches, in which:
810 unique CDR3
6 unique J



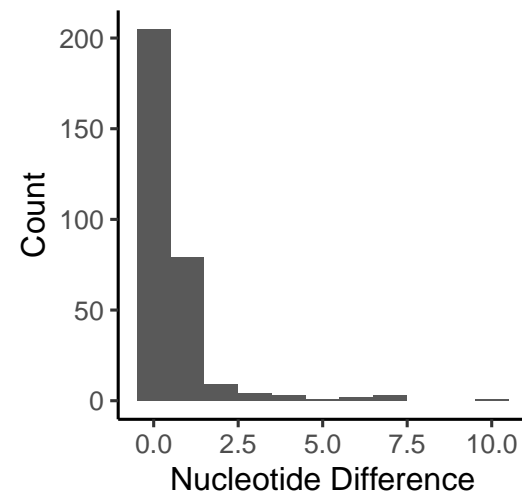
IGHV4-61*02

428 sequences assigned
338 (79%) exact matches, in which:
328 unique CDR3
6 unique J



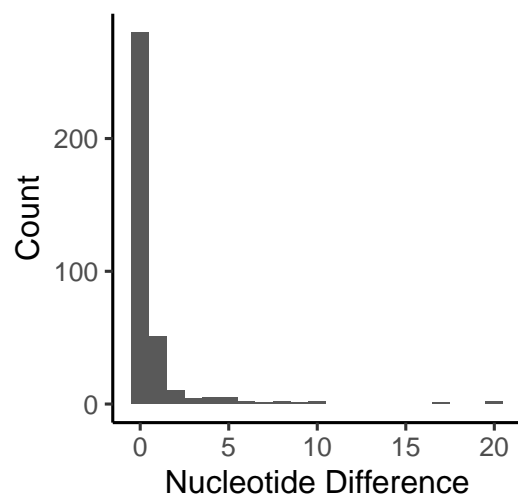
IGHV5-51*01

307 sequences assigned
205 (66.8%) exact matches, in which:
200 unique CDR3
6 unique J



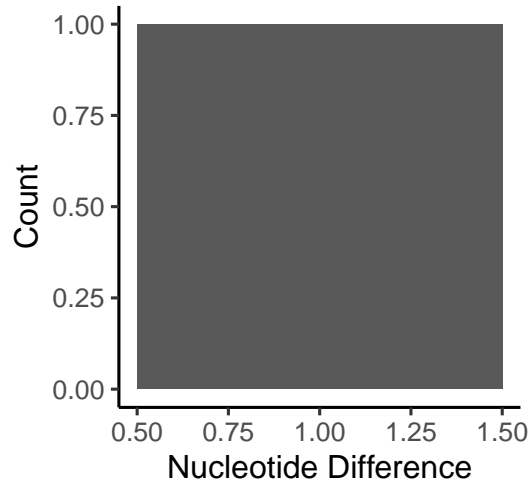
IGHV4-59*01

366 sequences assigned
280 (76.5%) exact matches, in which:
277 unique CDR3
6 unique J



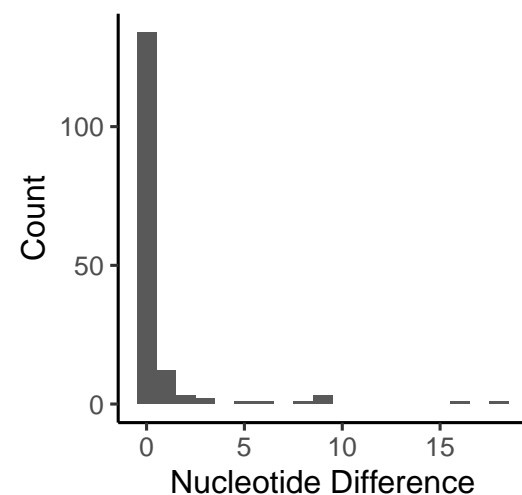
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



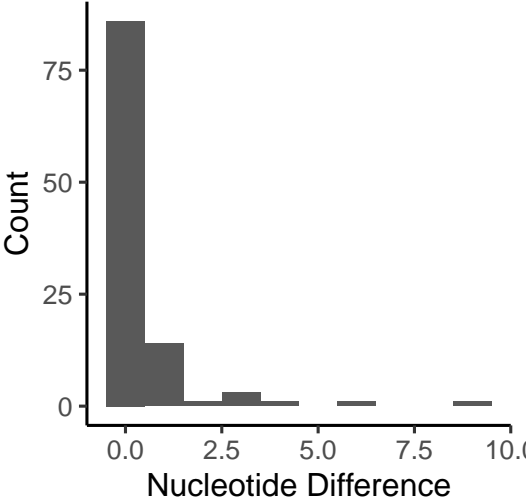
IGHV5-51*03

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



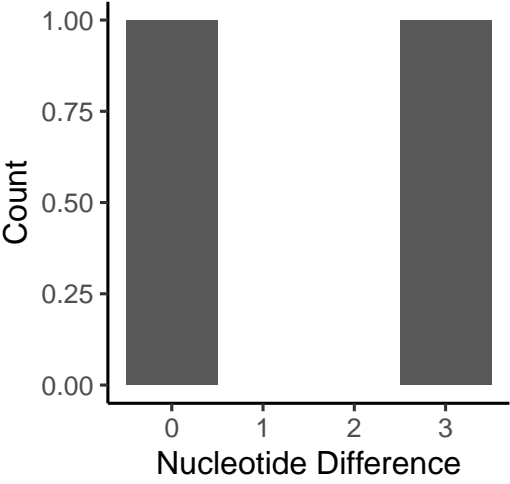
IGHV6-1*01

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



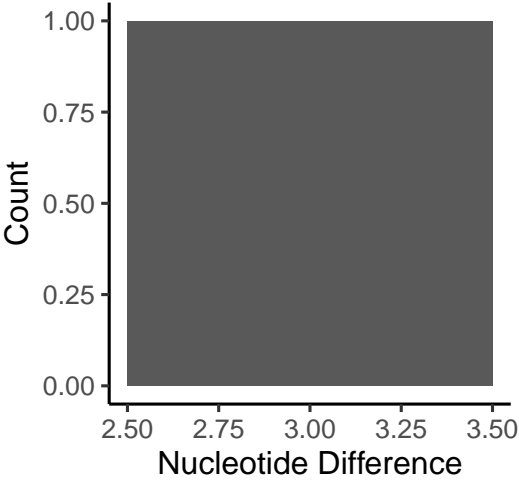
IGHV7-4-1*01

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



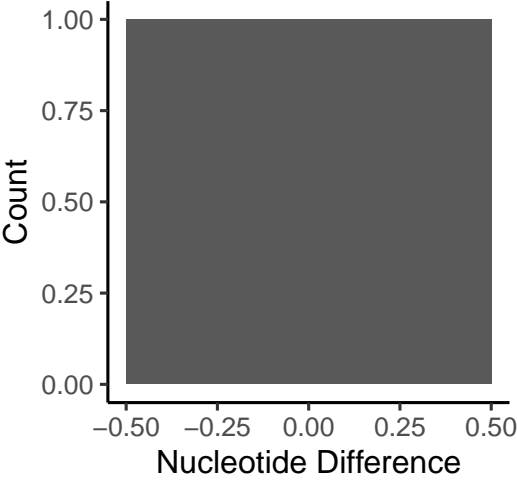
IGHV3/OR16-9*01

1 sequences assigned
No exact matches.



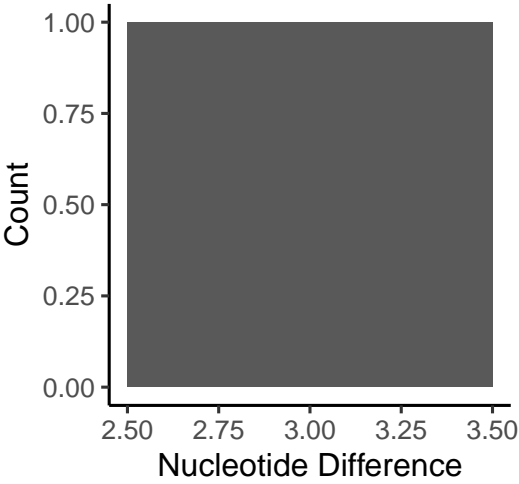
IGHV7-81*01

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



IGHV3/OR16-12*01

2 sequences assigned
No exact matches.





Warning – no inferred sequences found.