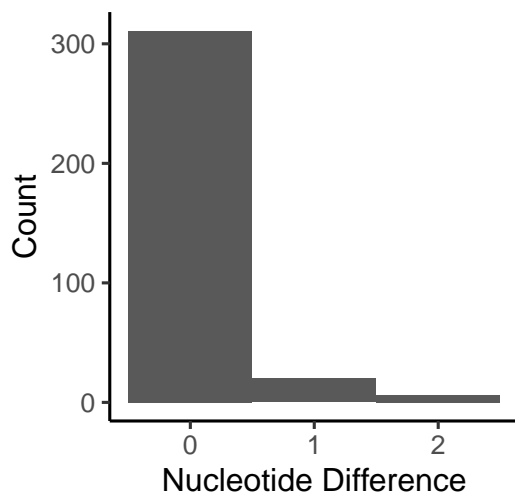


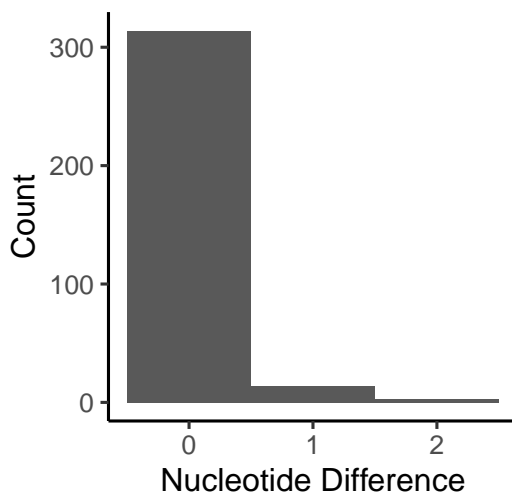
IGHV1–2*02

337 sequences assigned
311 (92.3%) exact matches, in which:
308 unique CDR3
6 unique J



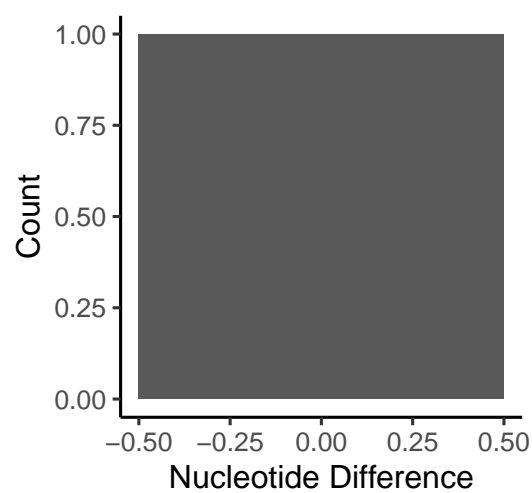
IGHV1–18*01

331 sequences assigned
314 (94.9%) exact matches, in which:
313 unique CDR3
6 unique J



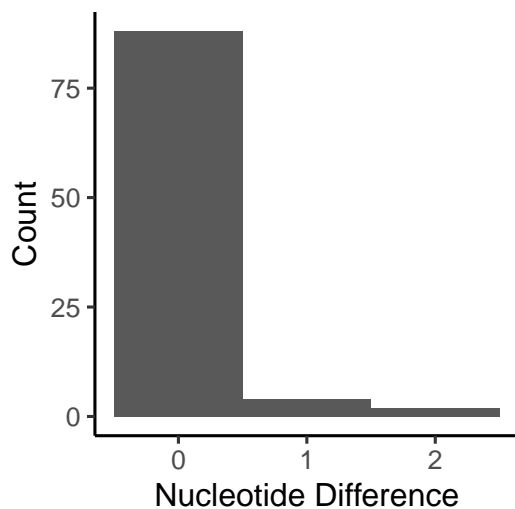
IGHV1–45*02

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



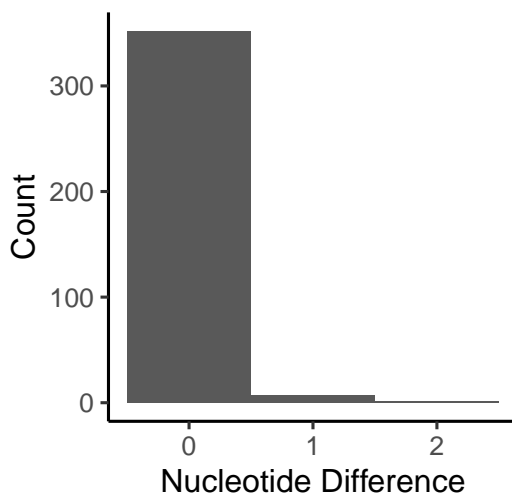
IGHV1–2*04

94 sequences assigned
88 (93.6%) exact matches, in which:
88 unique CDR3
5 unique J



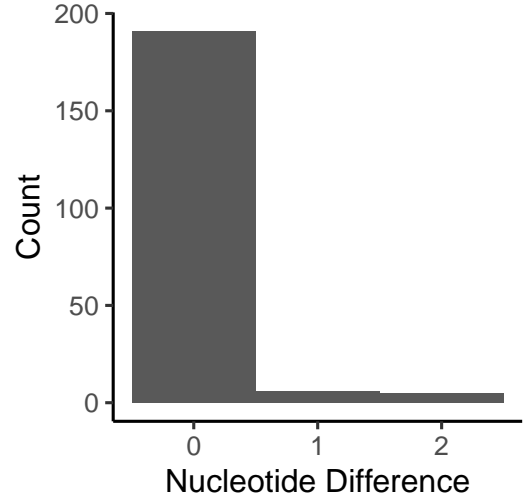
IGHV1–18*04

360 sequences assigned
352 (97.8%) exact matches, in which:
351 unique CDR3
6 unique J



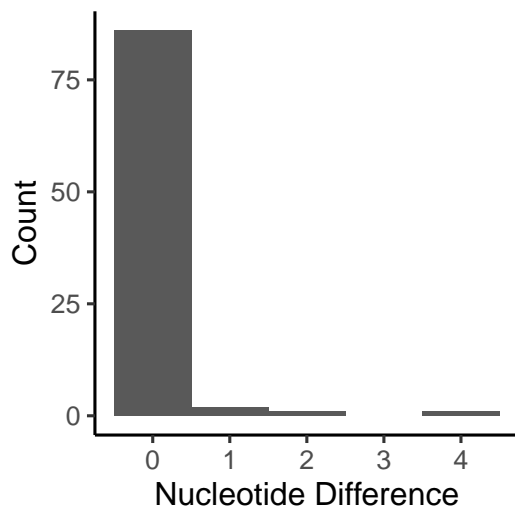
IGHV1–46*01

202 sequences assigned
191 (94.6%) exact matches, in which:
190 unique CDR3
6 unique J



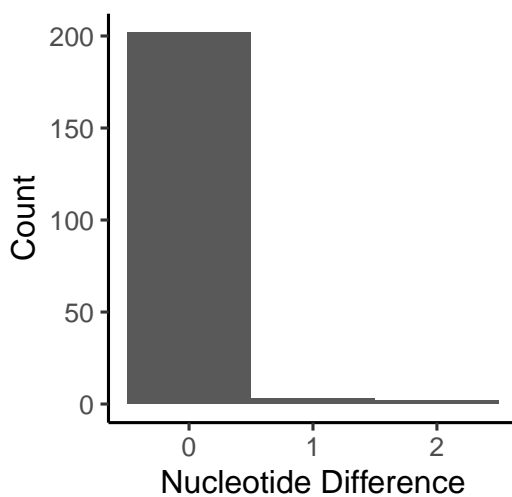
IGHV1–3*01_05

90 sequences assigned
86 (95.6%) exact matches, in which:
86 unique CDR3
6 unique J



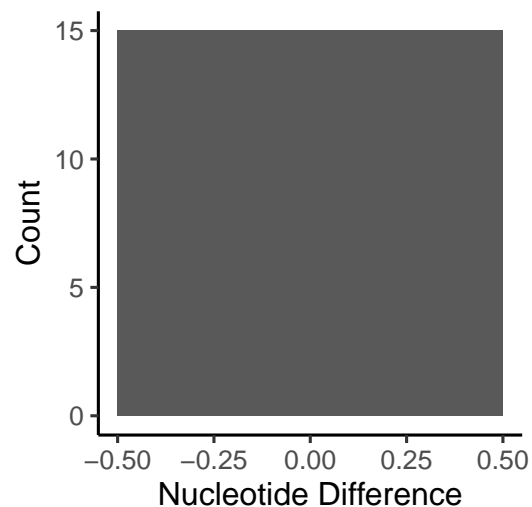
IGHV1–24*01

207 sequences assigned
202 (97.6%) exact matches, in which:
202 unique CDR3
6 unique J



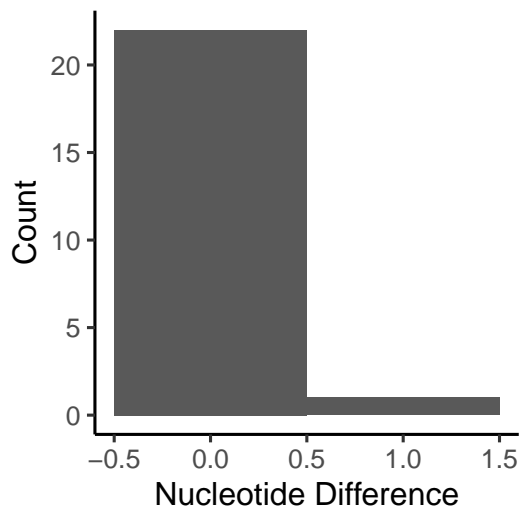
IGHV1–58*02

15 sequences assigned
15 (100%) exact matches, in which:
15 unique CDR3
5 unique J



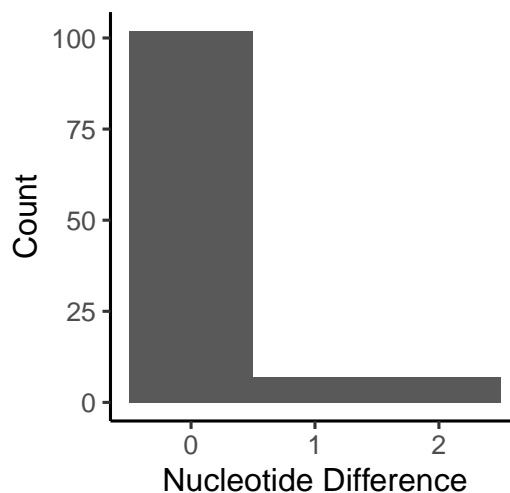
IGHV1–58*01_03

23 sequences assigned
22 (95.7%) exact matches, in which:
22 unique CDR3
5 unique J



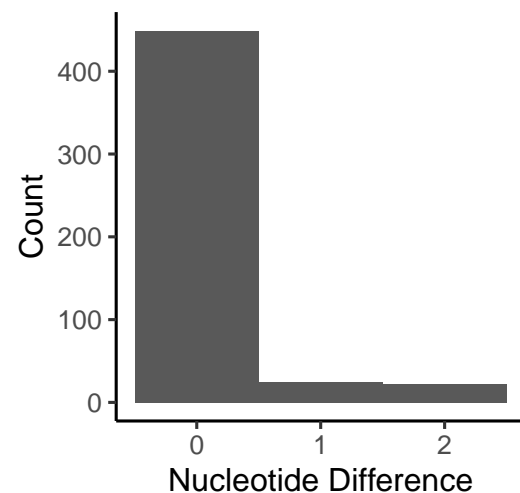
IGHV2–5*02

116 sequences assigned
102 (87.9%) exact matches, in which:
101 unique CDR3
6 unique J



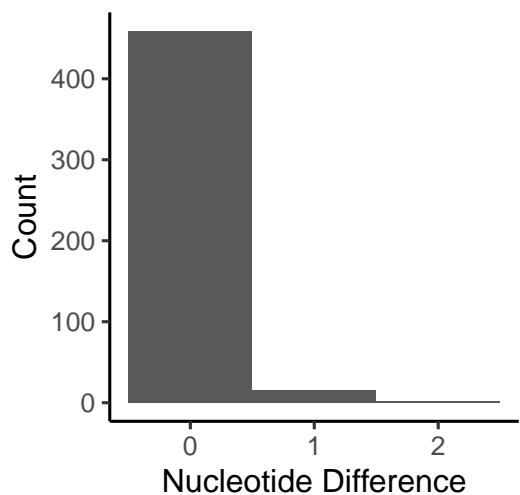
IGHV3–7*03

496 sequences assigned
449 (90.5%) exact matches, in which:
436 unique CDR3
6 unique J



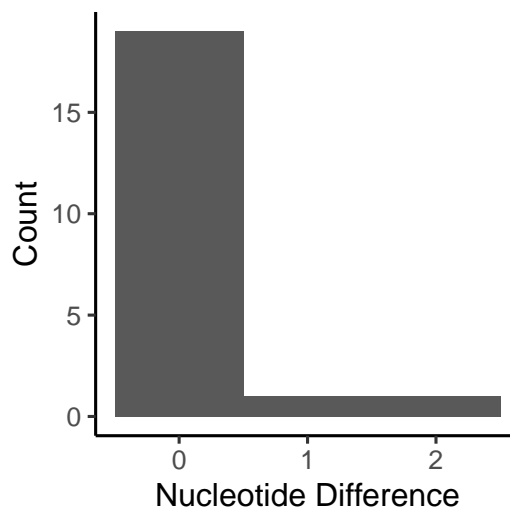
IGHV1–69*01_12_13

476 sequences assigned
459 (96.4%) exact matches, in which:
459 unique CDR3
6 unique J



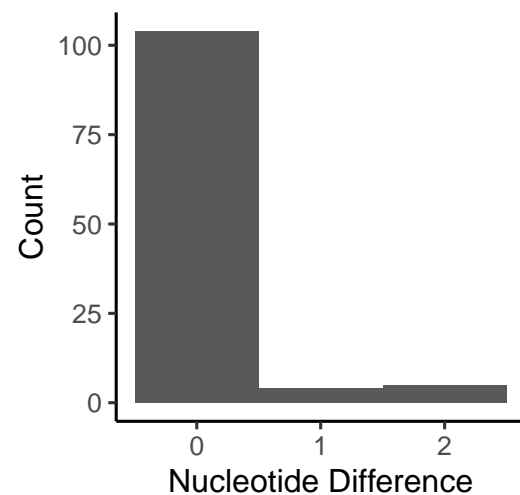
IGHV2–26*01

21 sequences assigned
19 (90.5%) exact matches, in which:
19 unique CDR3
5 unique J



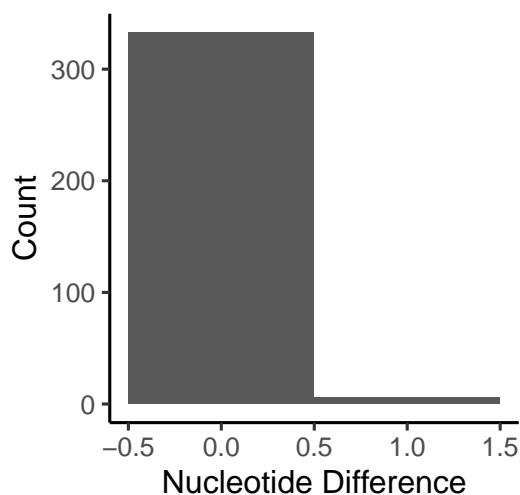
IGHV3–11*06

113 sequences assigned
104 (92%) exact matches, in which:
99 unique CDR3
5 unique J



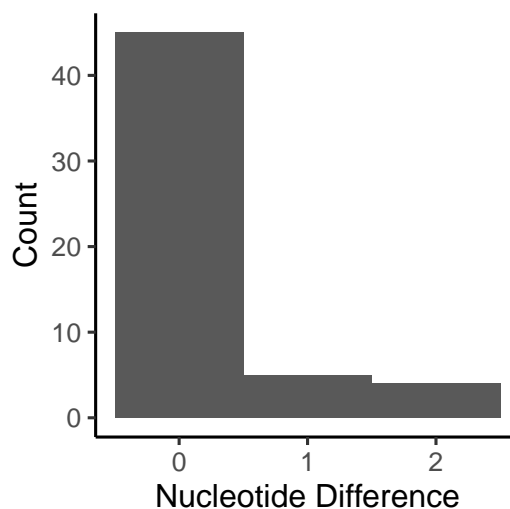
IGHV1–69*06_14

339 sequences assigned
333 (98.2%) exact matches, in which:
333 unique CDR3
6 unique J



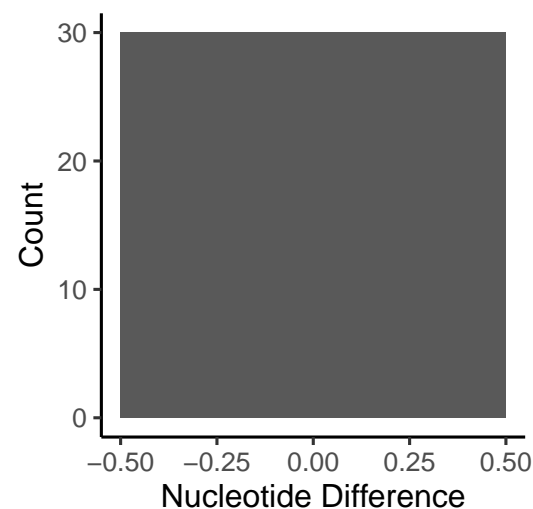
IGHV2–70*01

54 sequences assigned
45 (83.3%) exact matches, in which:
44 unique CDR3
4 unique J



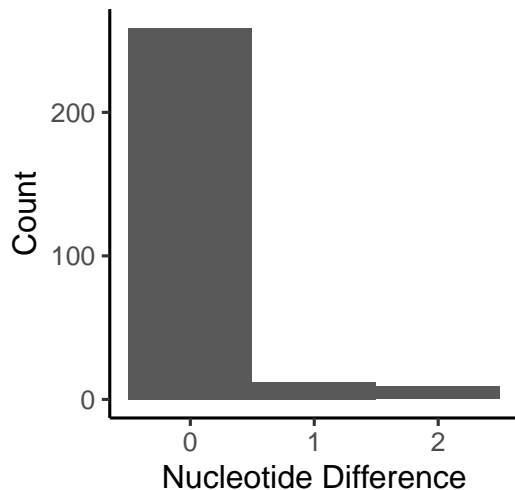
IGHV3–13*05

30 sequences assigned
30 (100%) exact matches, in which:
28 unique CDR3
5 unique J



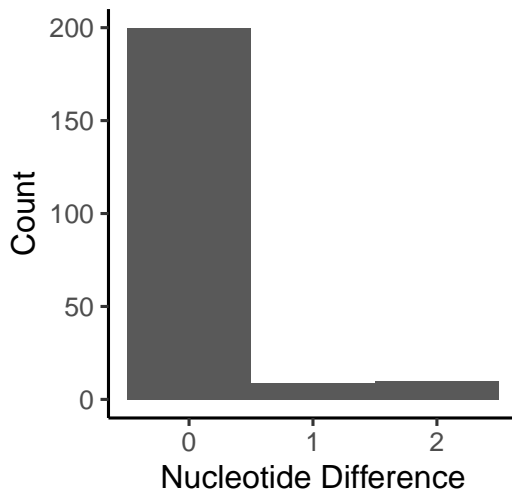
IGHV3–15*01_02

280 sequences assigned
259 (92.5%) exact matches, in which:
251 unique CDR3
6 unique J



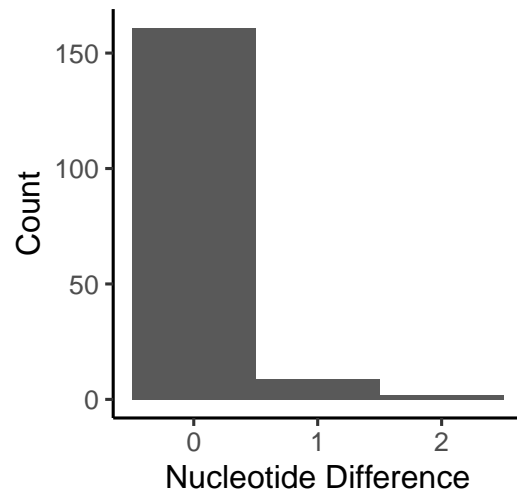
IGHV3–30*01

219 sequences assigned
200 (91.3%) exact matches, in which:
197 unique CDR3
6 unique J



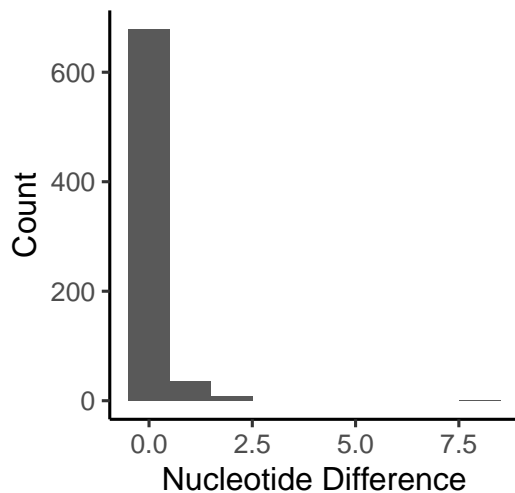
IGHV3–48*01

172 sequences assigned
161 (93.6%) exact matches, in which:
158 unique CDR3
6 unique J



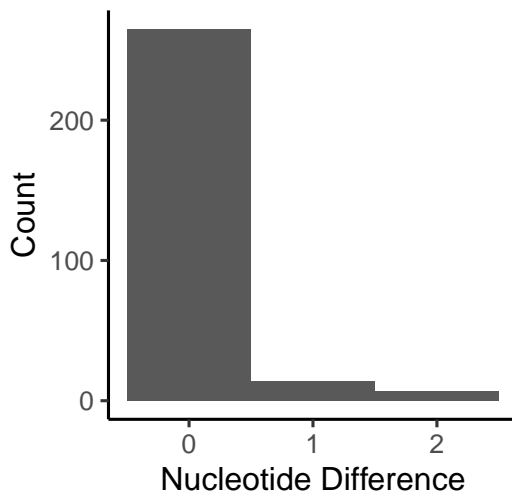
IGHV3–21*01_02

724 sequences assigned
679 (93.8%) exact matches, in which:
665 unique CDR3
6 unique J



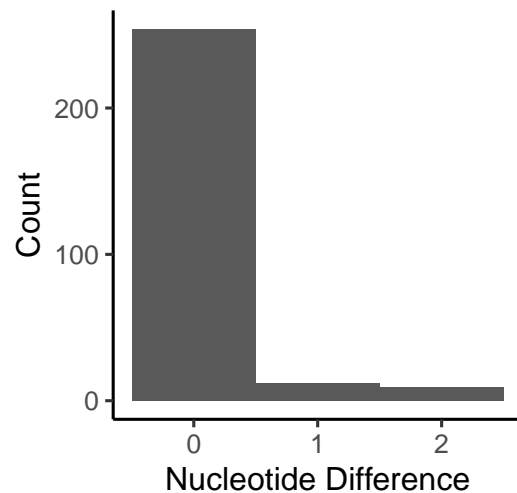
IGHV3–33*01

286 sequences assigned
265 (92.7%) exact matches, in which:
263 unique CDR3
6 unique J



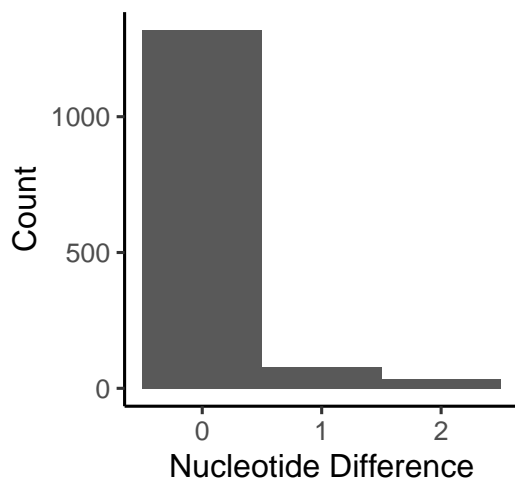
IGHV3–48*03

275 sequences assigned
254 (92.4%) exact matches, in which:
251 unique CDR3
6 unique J



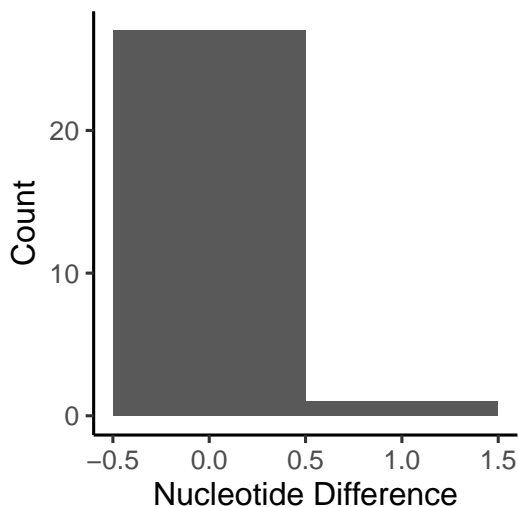
IGHV3–23*01_04

1431 sequences assigned
1319 (92.2%) exact matches, in which:
1298 unique CDR3
6 unique J



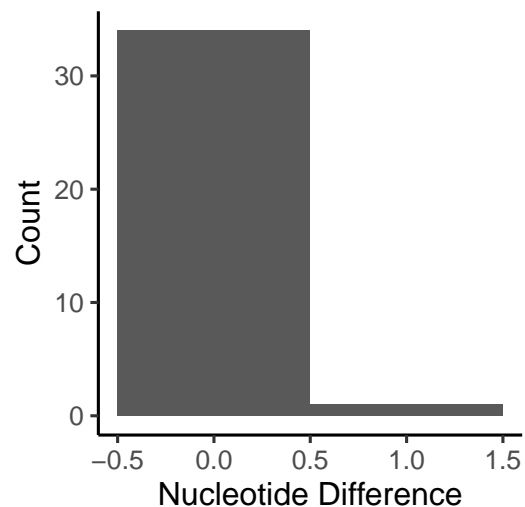
IGHV3–43*01

28 sequences assigned
27 (96.4%) exact matches, in which:
26 unique CDR3
4 unique J



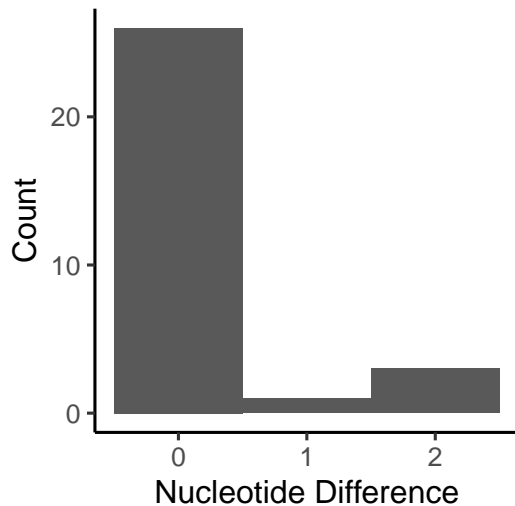
IGHV3–49*04

35 sequences assigned
34 (97.1%) exact matches, in which:
34 unique CDR3
6 unique J



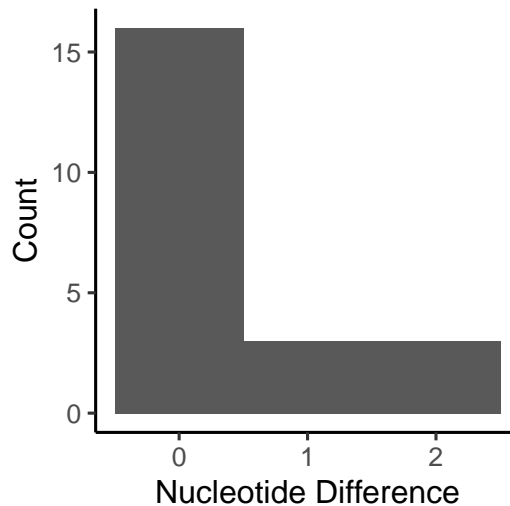
IGHV3-49*03_05

30 sequences assigned
26 (86.7%) exact matches, in which:
26 unique CDR3
4 unique J



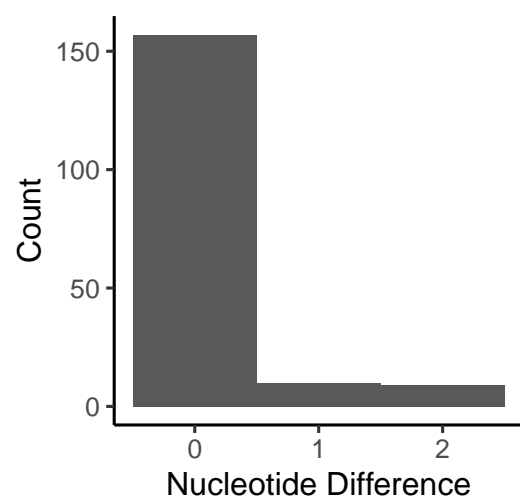
IGHV3-64*01

22 sequences assigned
16 (72.7%) exact matches, in which:
15 unique CDR3
3 unique J



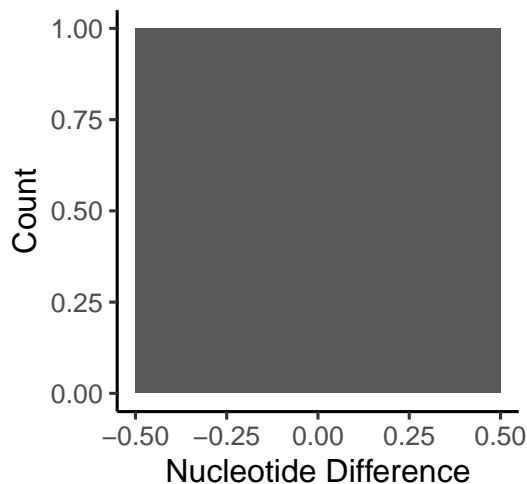
IGHV3-74*01_02

176 sequences assigned
157 (89.2%) exact matches, in which:
146 unique CDR3
6 unique J



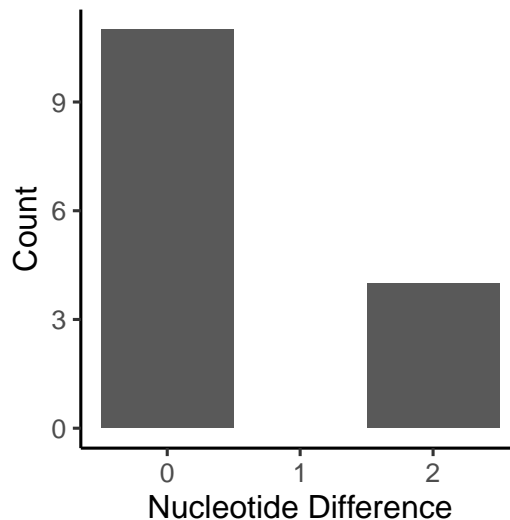
IGHV3-52*01_03

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



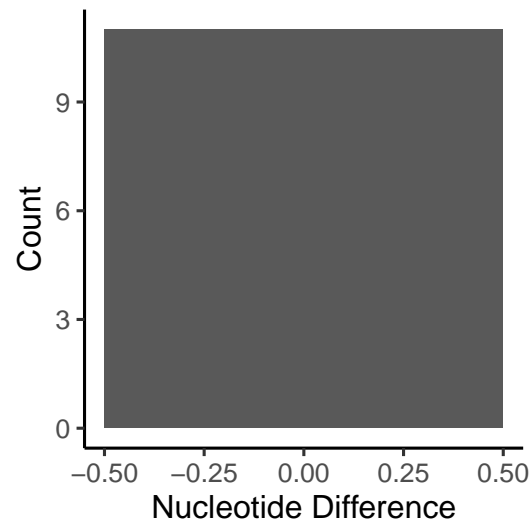
IGHV3-72*01

15 sequences assigned
11 (73.3%) exact matches, in which:
11 unique CDR3
3 unique J



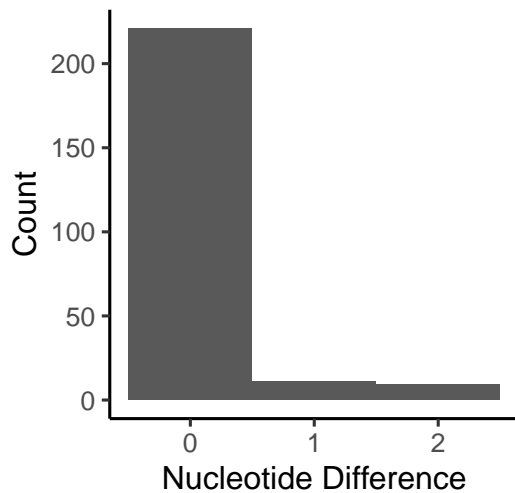
IGHV3-43D*04

11 sequences assigned
11 (100%) exact matches, in which:
11 unique CDR3
3 unique J



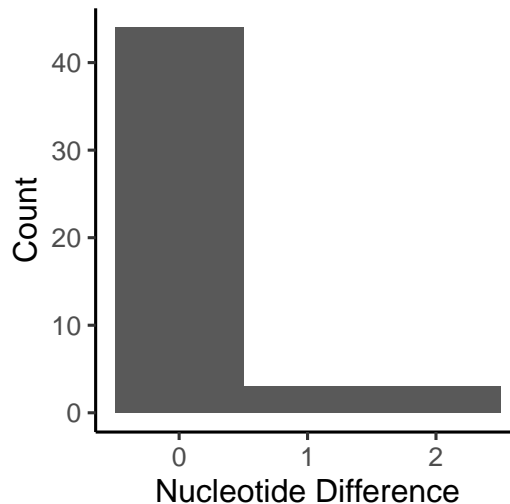
IGHV3-53*01_02

241 sequences assigned
221 (91.7%) exact matches, in which:
213 unique CDR3
6 unique J



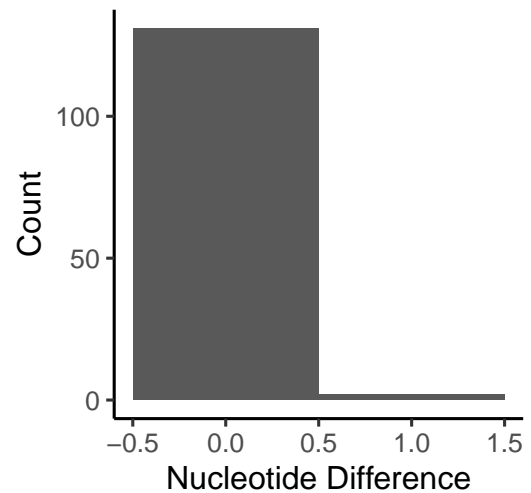
IGHV3-73*01_02

50 sequences assigned
44 (88%) exact matches, in which:
40 unique CDR3
4 unique J



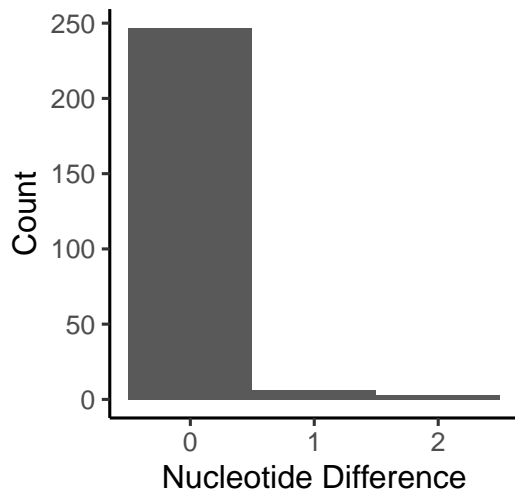
IGHV3-64D*06

133 sequences assigned
131 (98.5%) exact matches, in which:
130 unique CDR3
6 unique J



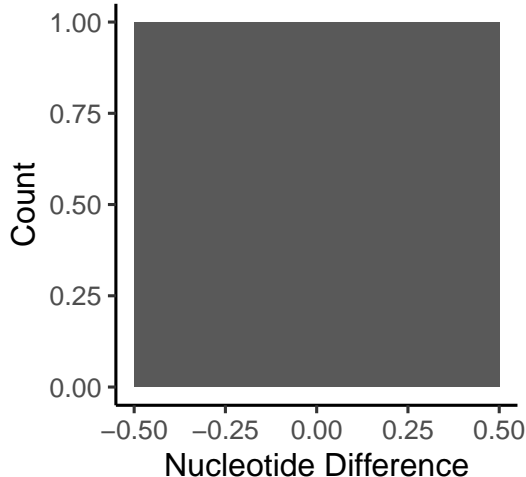
IGHV4-4*07

256 sequences assigned
247 (96.5%) exact matches, in which:
241 unique CDR3
6 unique J



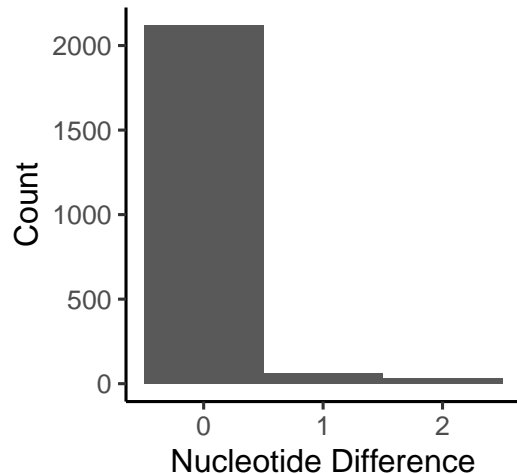
IGHV4-28*02_05

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



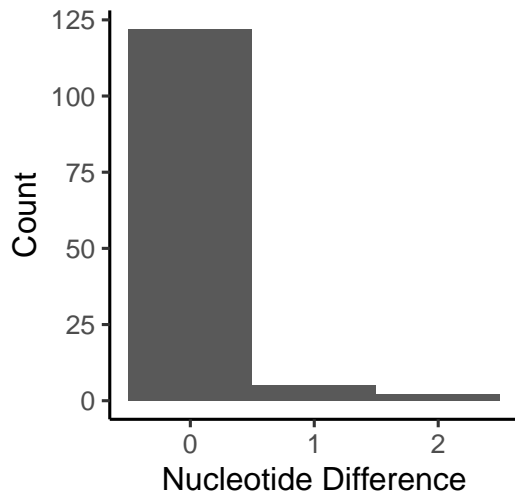
IGHV4-34*01_02

2216 sequences assigned
2119 (95.6%) exact matches, in which:
2094 unique CDR3
6 unique J



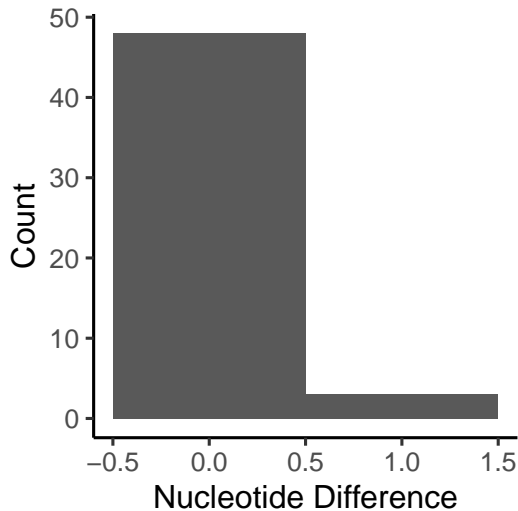
IGHV4-4*02_03

129 sequences assigned
122 (94.6%) exact matches, in which:
120 unique CDR3
6 unique J



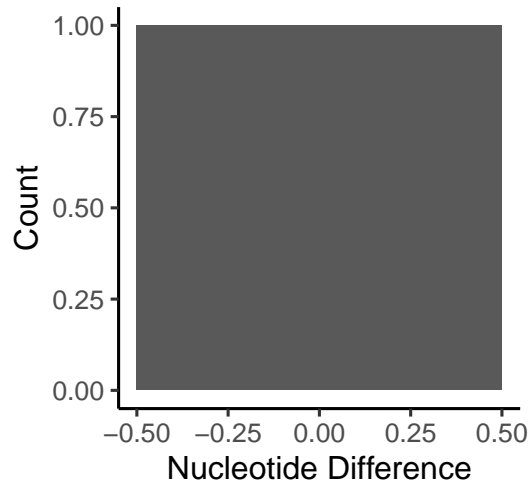
IGHV4-31*01

51 sequences assigned
48 (94.1%) exact matches, in which:
47 unique CDR3
5 unique J



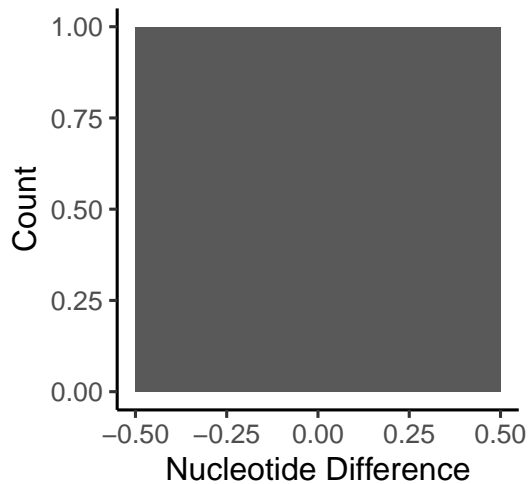
IGHV4-38-2*01

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



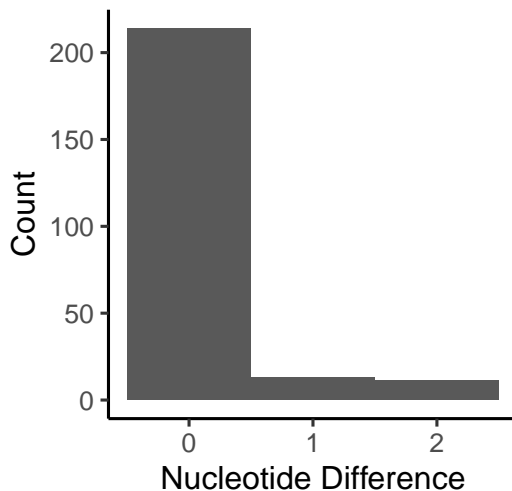
IGHV4-28*01_07

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



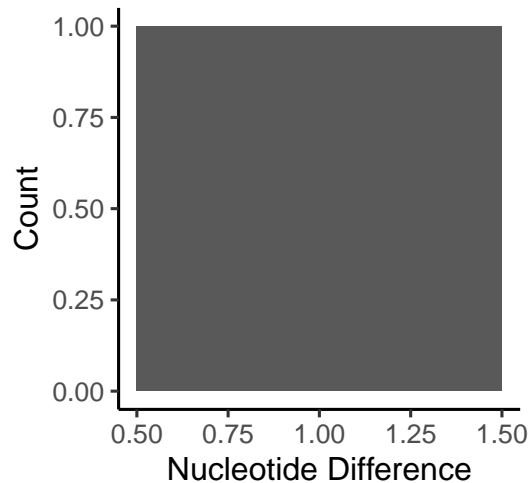
IGHV4-31*02

238 sequences assigned
214 (89.9%) exact matches, in which:
213 unique CDR3
6 unique J



IGHV4-59*12

1 sequences assigned
No exact matches.



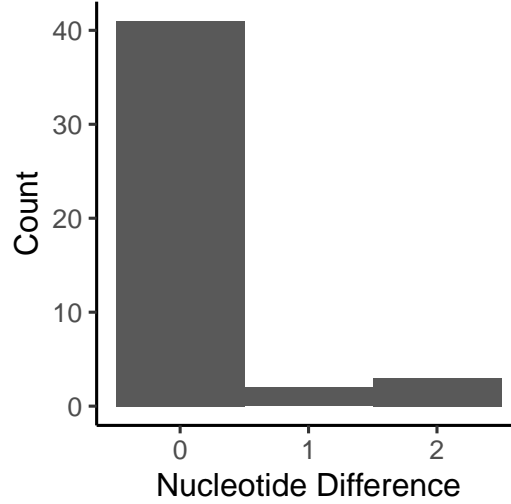
IGHV4-59*13

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



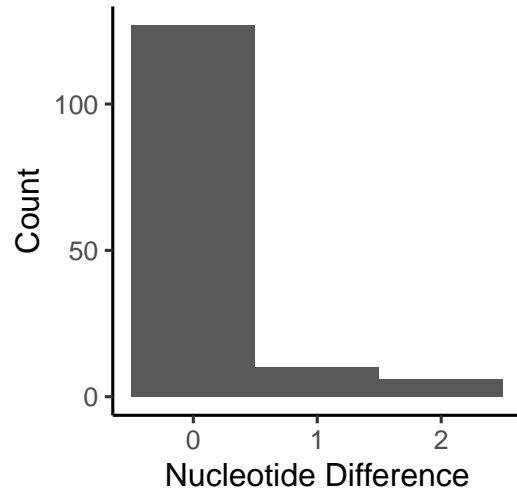
IGHV5-10-1*01_03

46 sequences assigned
41 (89.1%) exact matches, in which:
41 unique CDR3
5 unique J



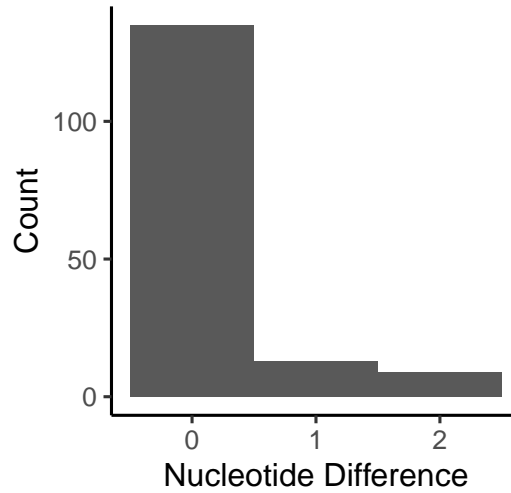
IGHV4-61*01

143 sequences assigned
127 (88.8%) exact matches, in which:
124 unique CDR3
5 unique J



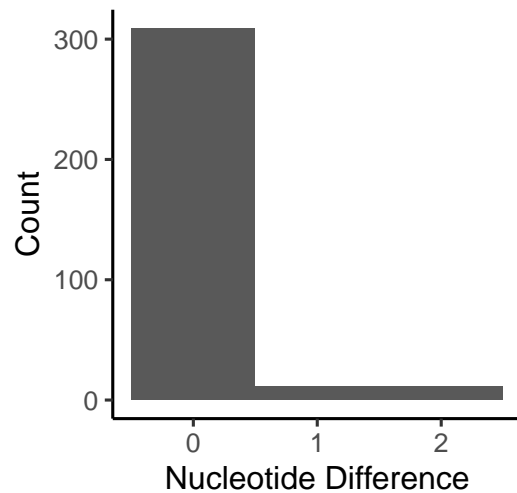
IGHV6-1*01_02

157 sequences assigned
135 (86%) exact matches, in which:
134 unique CDR3
6 unique J



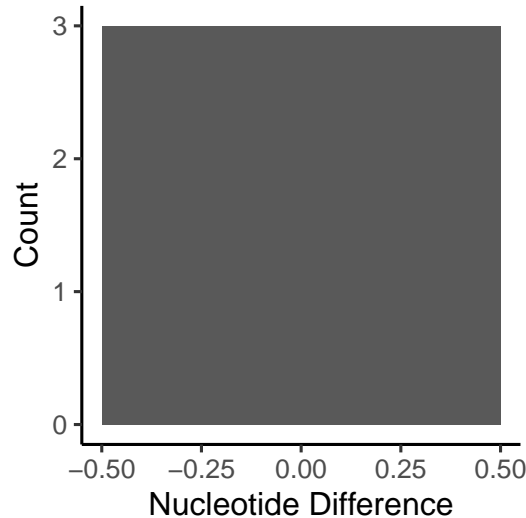
IGHV4-61*02

331 sequences assigned
309 (93.4%) exact matches, in which:
305 unique CDR3
6 unique J



IGHV7-4-1*01

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





[illegible]