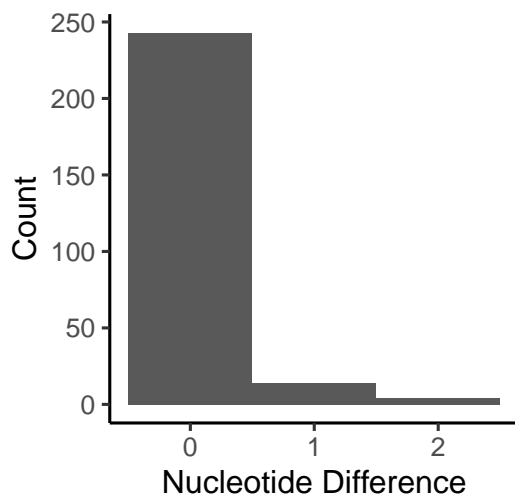


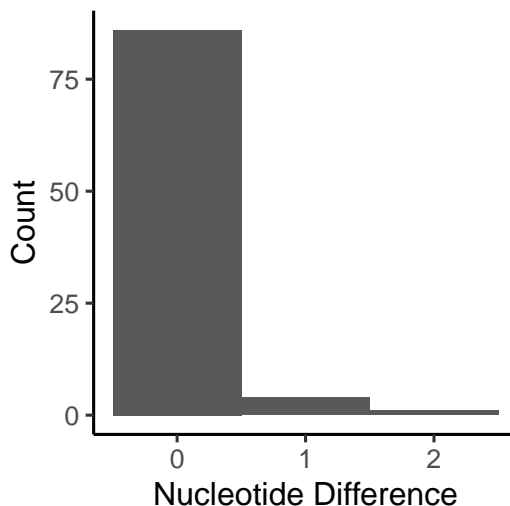
IGHV1-2*02

261 sequences assigned
243 (93.1%) exact matches, in which:
241 unique CDR3
7 unique J



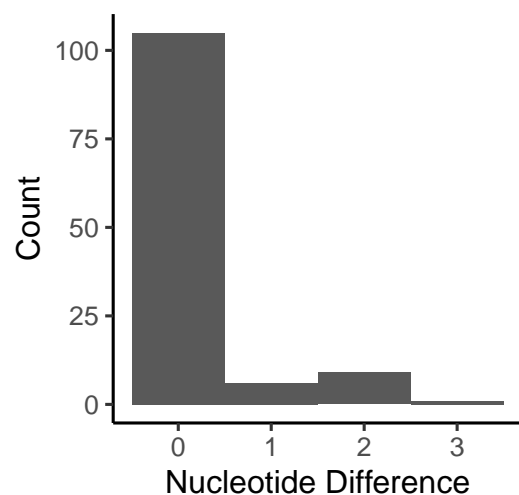
IGHV1-8*03

91 sequences assigned
86 (94.5%) exact matches, in which:
86 unique CDR3
5 unique J



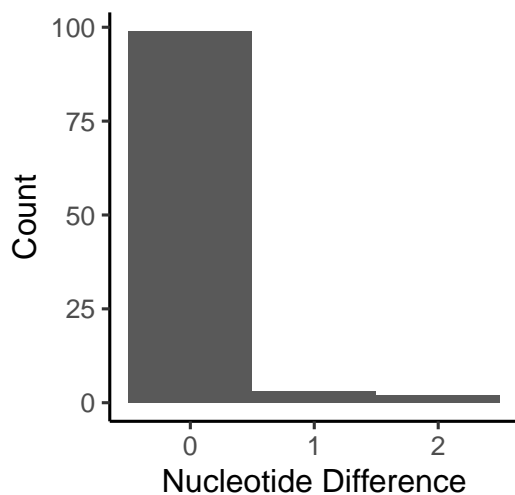
IGHV1-46*01

121 sequences assigned
105 (86.8%) exact matches, in which:
105 unique CDR3
7 unique J



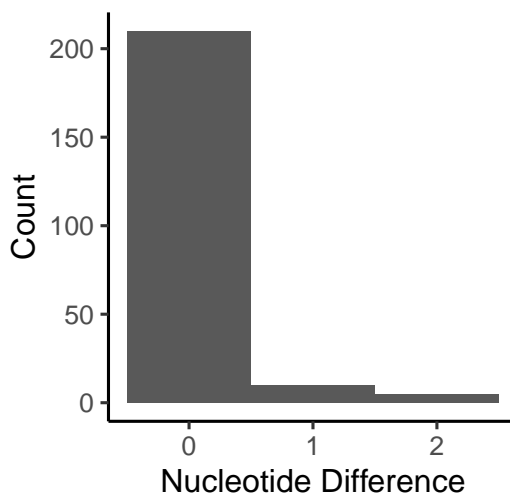
IGHV1-2*04

104 sequences assigned
99 (95.2%) exact matches, in which:
99 unique CDR3
6 unique J



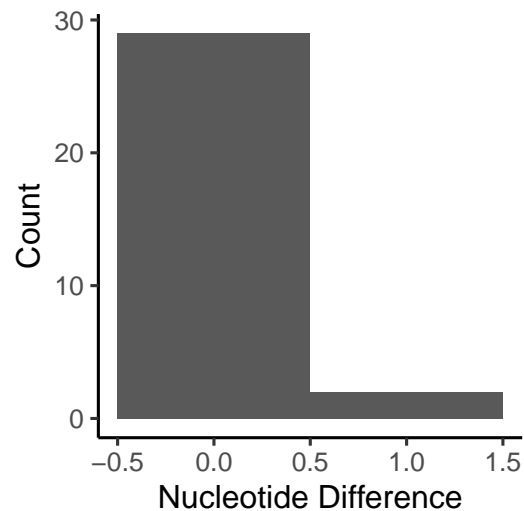
IGHV1-18*01

225 sequences assigned
210 (93.3%) exact matches, in which:
210 unique CDR3
6 unique J



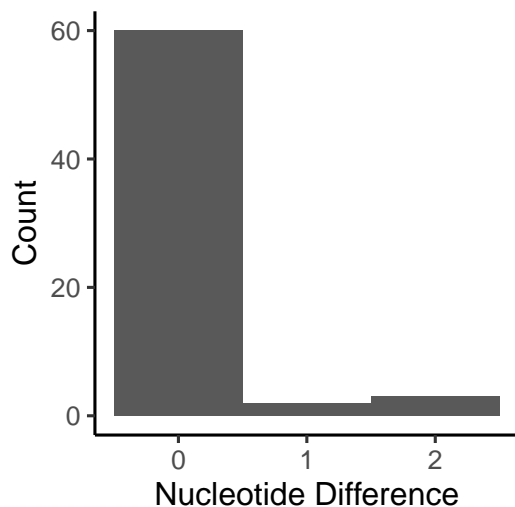
IGHV1-58*01_03

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



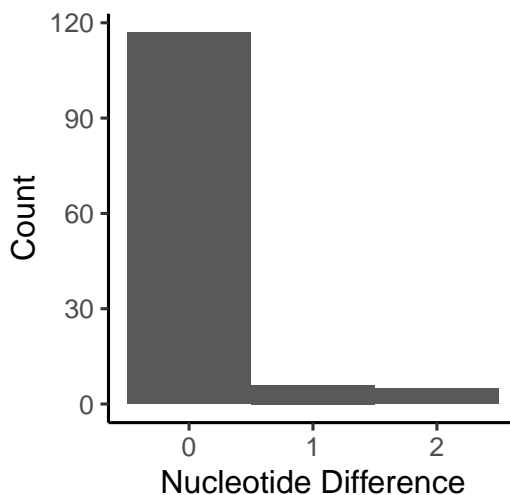
IGHV1-3*01_05

65 sequences assigned
60 (92.3%) exact matches, in which:
60 unique CDR3
5 unique J



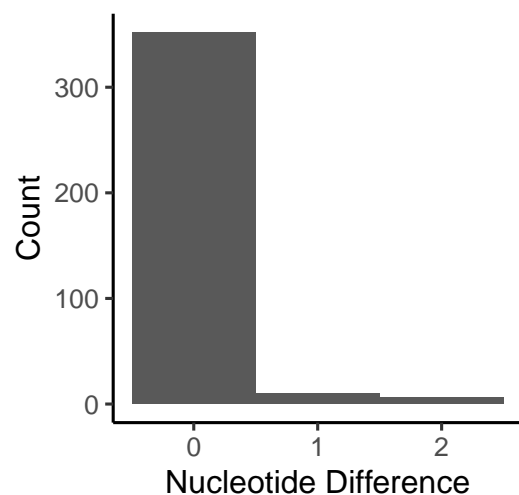
IGHV1-24*01

128 sequences assigned
117 (91.4%) exact matches, in which:
117 unique CDR3
5 unique J



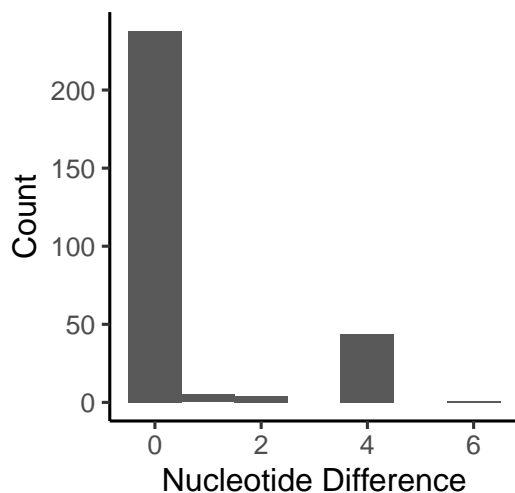
IGHV1-69*01_12_13

368 sequences assigned
352 (95.7%) exact matches, in which:
352 unique CDR3
6 unique J



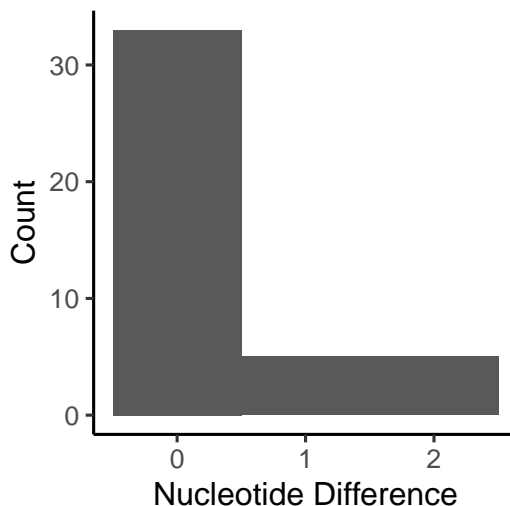
IGHV1-69*06_14

292 sequences assigned
238 (81.5%) exact matches, in which:
238 unique CDR3
6 unique J



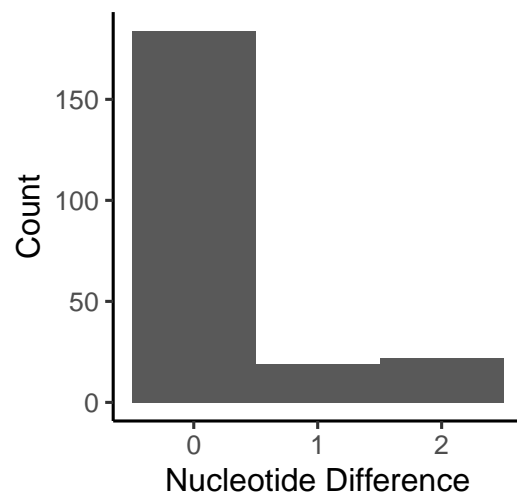
IGHV2-5*02

43 sequences assigned
33 (76.7%) exact matches, in which:
33 unique CDR3
4 unique J



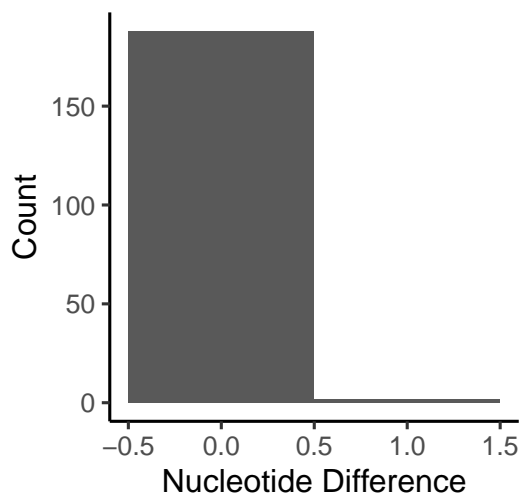
IGHV3-7*01

225 sequences assigned
184 (81.8%) exact matches, in which:
181 unique CDR3
6 unique J



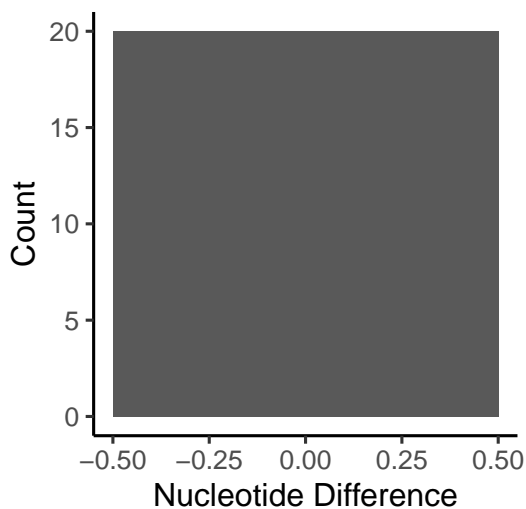
IGHV1-69*15_18

190 sequences assigned
188 (98.9%) exact matches, in which:
188 unique CDR3
7 unique J



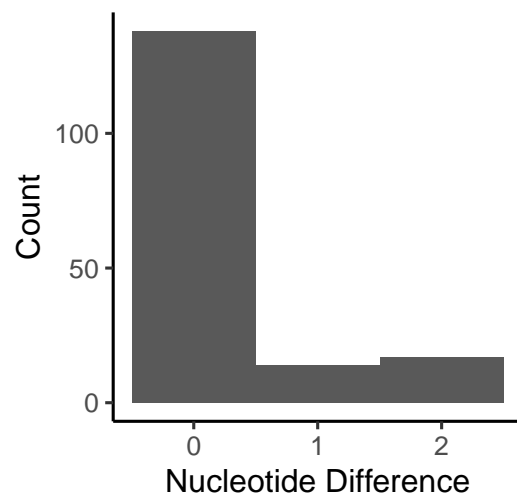
IGHV2-26*01

20 sequences assigned
20 (100%) exact matches, in which:
20 unique CDR3
5 unique J



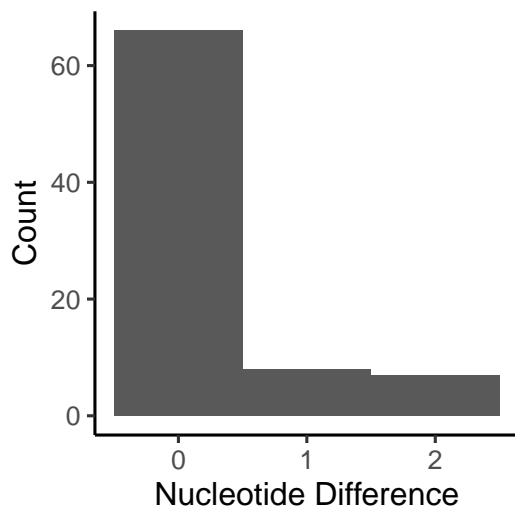
IGHV3-7*03

169 sequences assigned
138 (81.7%) exact matches, in which:
132 unique CDR3
5 unique J



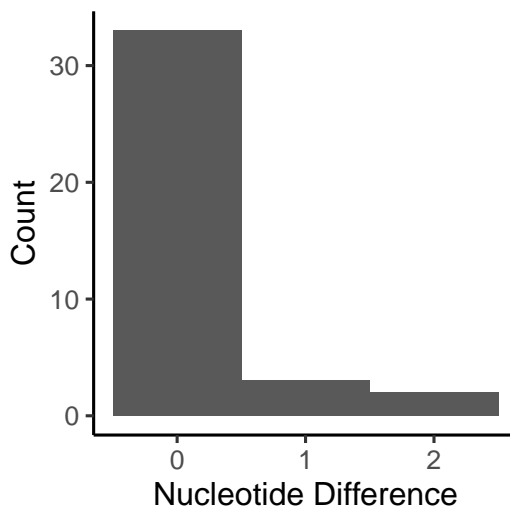
IGHV2-5*01

81 sequences assigned
66 (81.5%) exact matches, in which:
66 unique CDR3
6 unique J



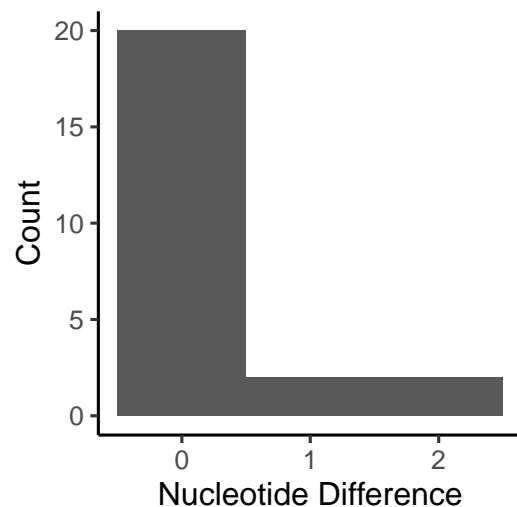
IGHV2-70*01

38 sequences assigned
33 (86.8%) exact matches, in which:
32 unique CDR3
4 unique J



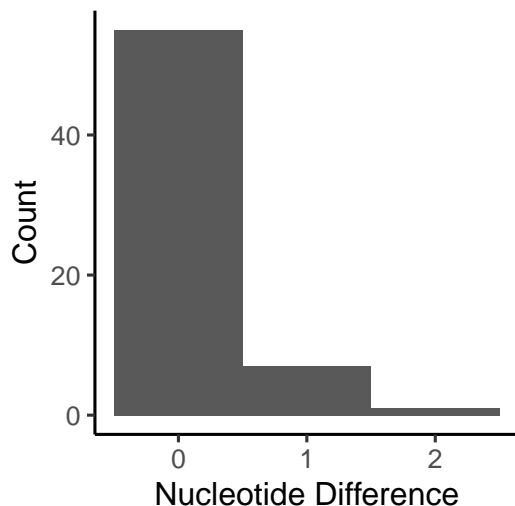
IGHV3-9*03

24 sequences assigned
20 (83.3%) exact matches, in which:
19 unique CDR3
4 unique J



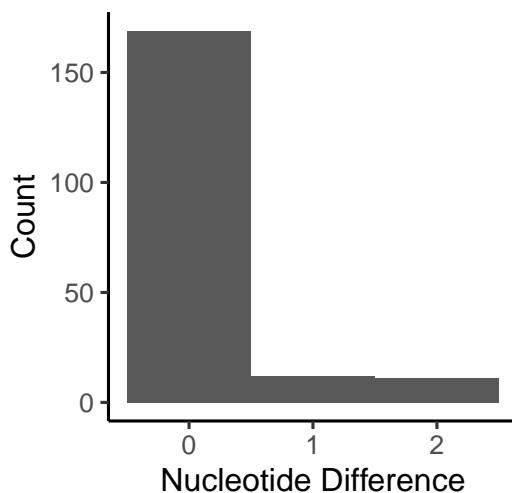
IGHV3-11*04

63 sequences assigned
55 (87.3%) exact matches, in which:
54 unique CDR3
6 unique J



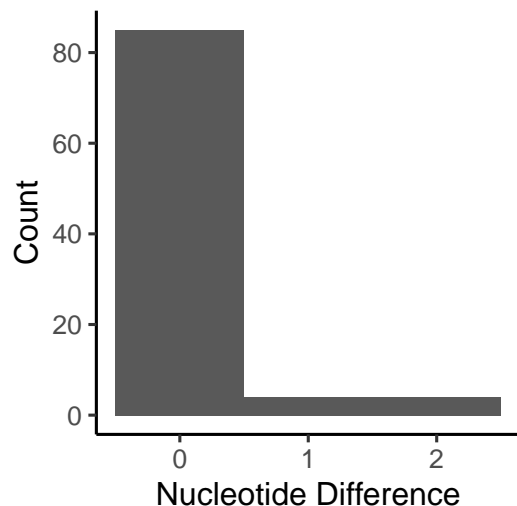
IGHV3-21*01_02

192 sequences assigned
169 (88%) exact matches, in which:
162 unique CDR3
7 unique J



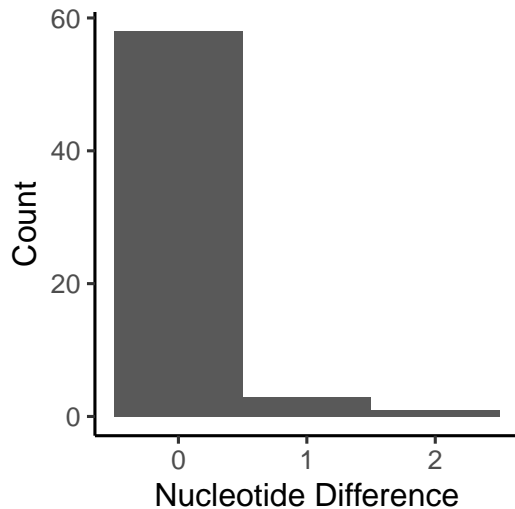
IGHV3-33*01

93 sequences assigned
85 (91.4%) exact matches, in which:
85 unique CDR3
5 unique J



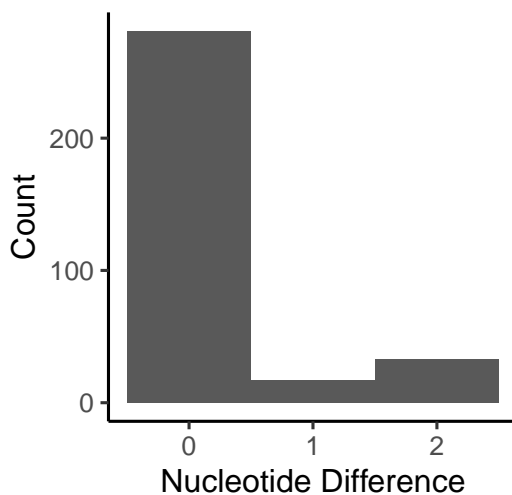
IGHV3-15*01_02

62 sequences assigned
58 (93.5%) exact matches, in which:
57 unique CDR3
6 unique J



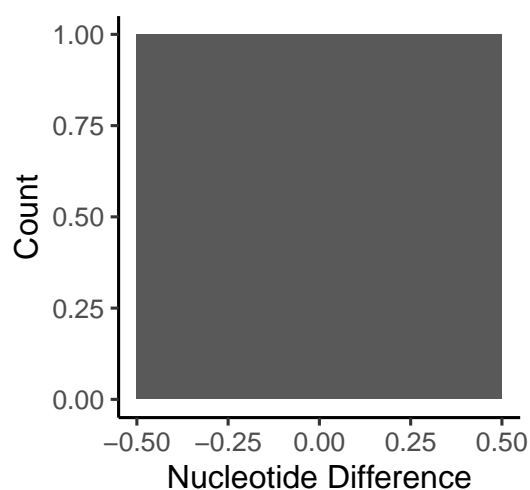
IGHV3-23*01_04

331 sequences assigned
281 (84.9%) exact matches, in which:
273 unique CDR3
7 unique J



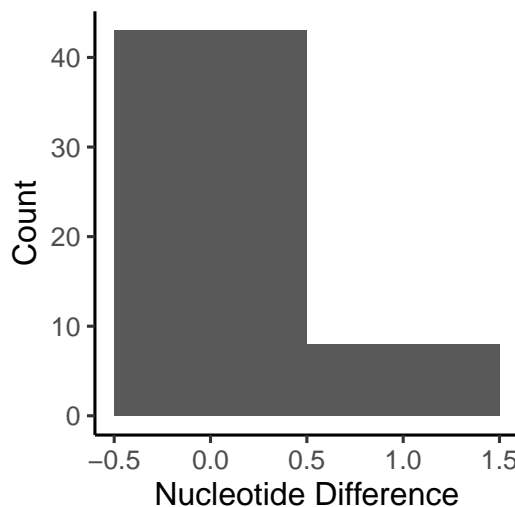
IGHV3-38-3*01

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



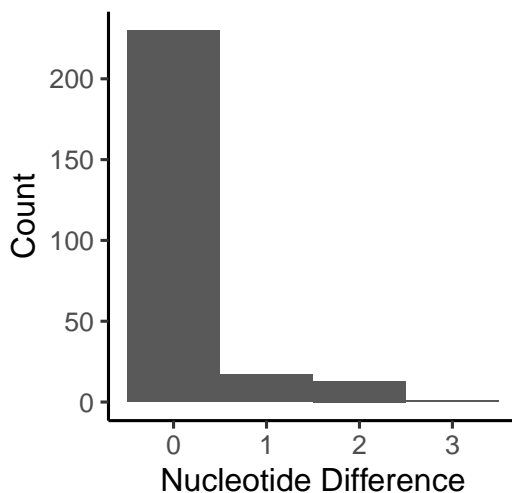
IGHV3-20*03_04

51 sequences assigned
43 (84.3%) exact matches, in which:
42 unique CDR3
5 unique J



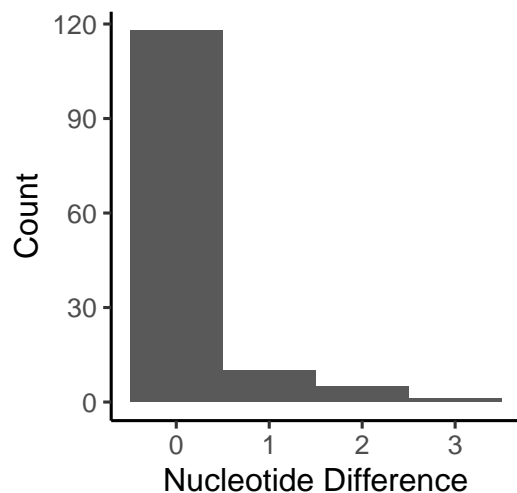
IGHV3-30-3*01

261 sequences assigned
230 (88.1%) exact matches, in which:
229 unique CDR3
7 unique J



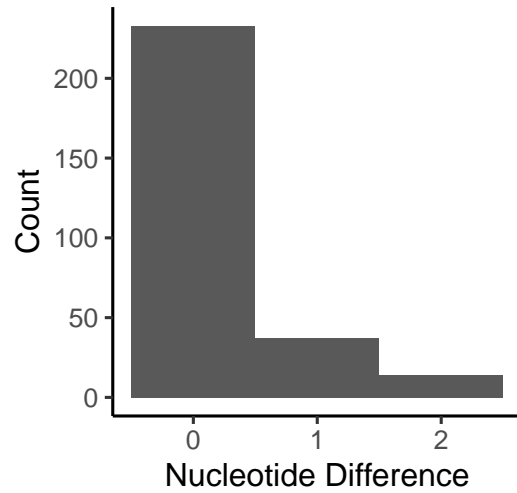
IGHV3-43*02

134 sequences assigned
118 (88.1%) exact matches, in which:
115 unique CDR3
6 unique J



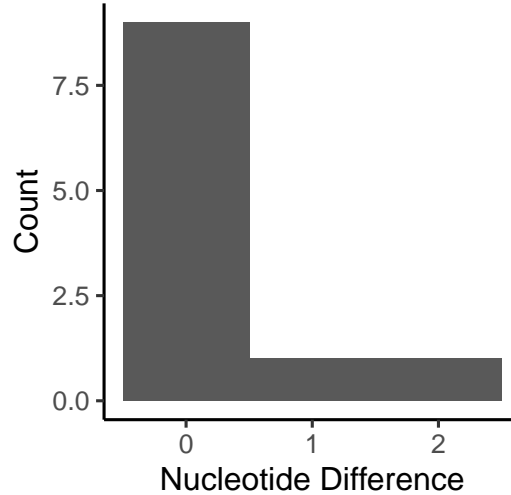
IGHV3-48*03

284 sequences assigned
233 (82%) exact matches, in which:
226 unique CDR3
6 unique J



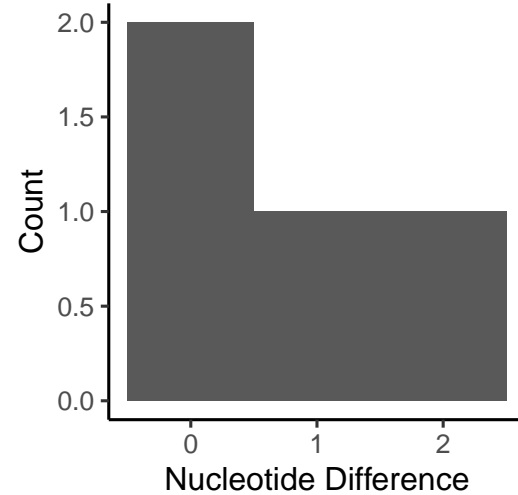
IGHV3-49*03_05

11 sequences assigned
9 (81.8%) exact matches, in which:
9 unique CDR3
4 unique J



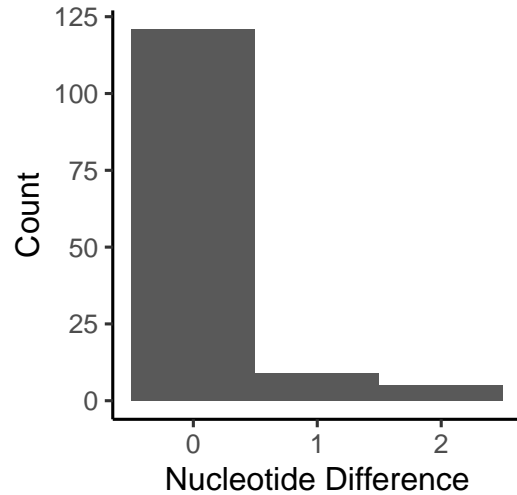
IGHV3-64*02_07

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



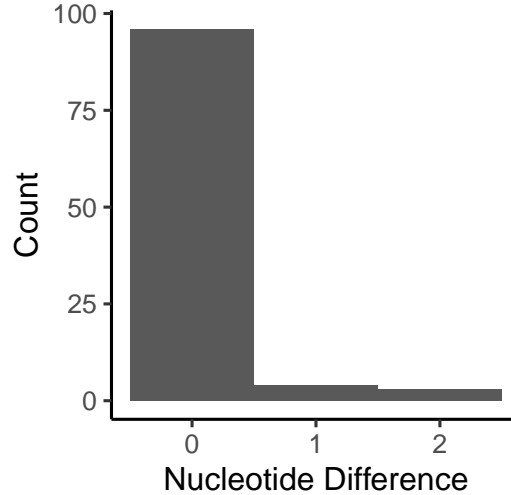
IGHV3-48*04

135 sequences assigned
121 (89.6%) exact matches, in which:
118 unique CDR3
6 unique J



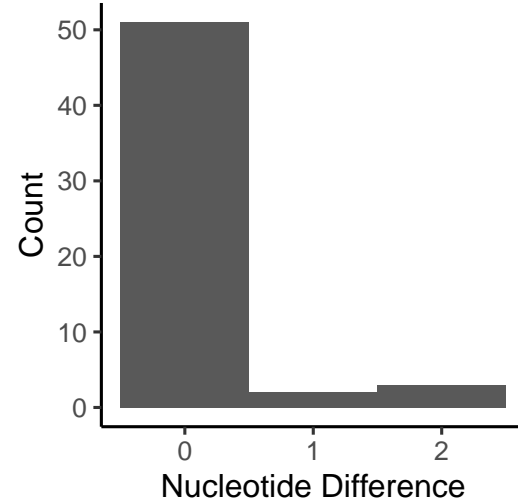
IGHV3-53*04

103 sequences assigned
96 (93.2%) exact matches, in which:
96 unique CDR3
6 unique J



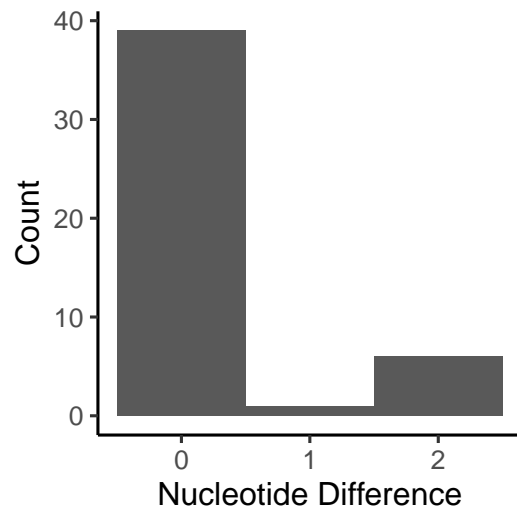
IGHV3-66*02

56 sequences assigned
51 (91.1%) exact matches, in which:
47 unique CDR3
5 unique J



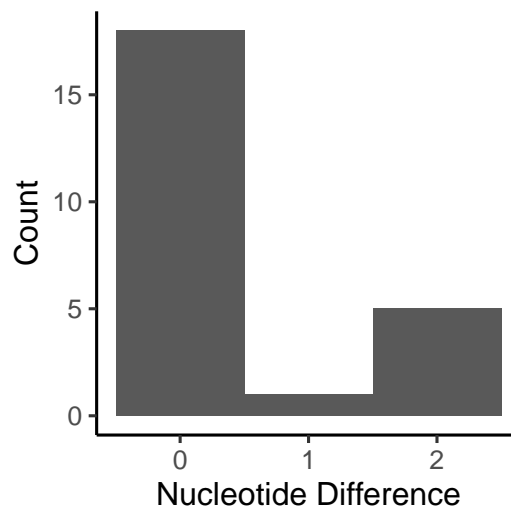
IGHV3-49*04

46 sequences assigned
39 (84.8%) exact matches, in which:
39 unique CDR3
6 unique J



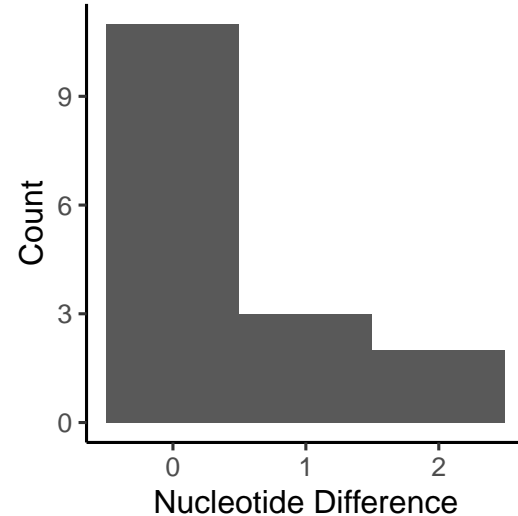
IGHV3-64*01

24 sequences assigned
18 (75%) exact matches, in which:
17 unique CDR3
4 unique J



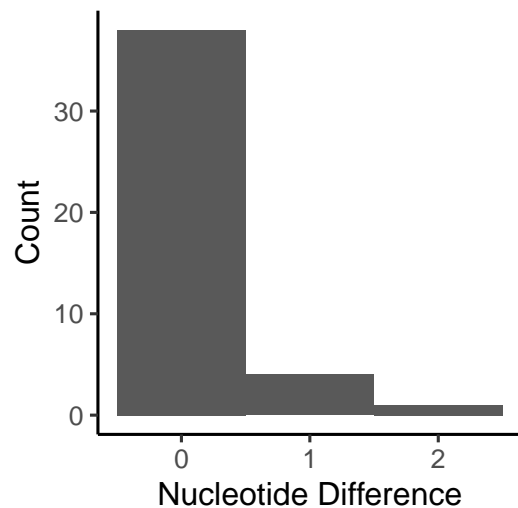
IGHV3-72*01

16 sequences assigned
11 (68.8%) exact matches, in which:
11 unique CDR3
3 unique J



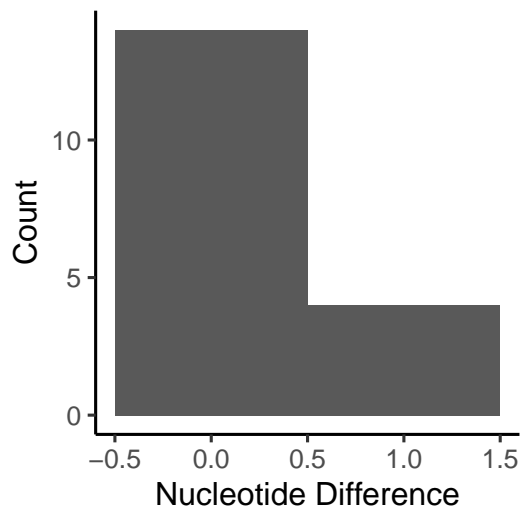
IGHV3-73*01_02

43 sequences assigned
38 (88.4%) exact matches, in which:
38 unique CDR3
5 unique J



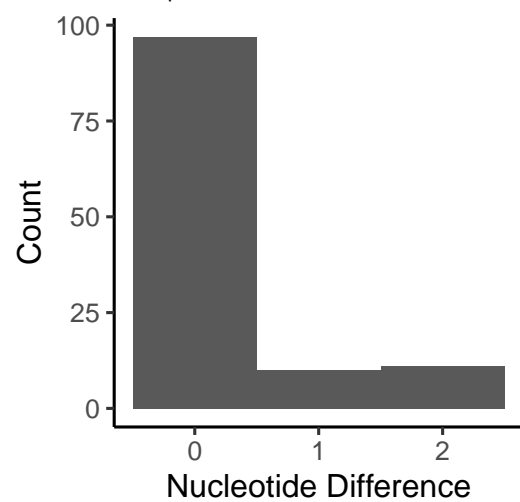
IGHV3-43D*04

18 sequences assigned
14 (77.8%) exact matches, in which:
14 unique CDR3
3 unique J



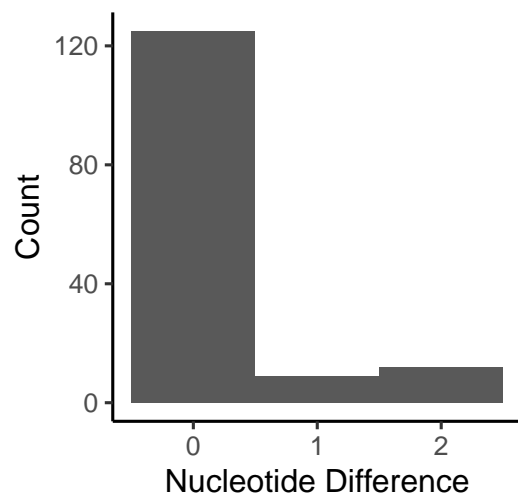
IGHV4-30-4*01

118 sequences assigned
97 (82.2%) exact matches, in which:
96 unique CDR3
6 unique J



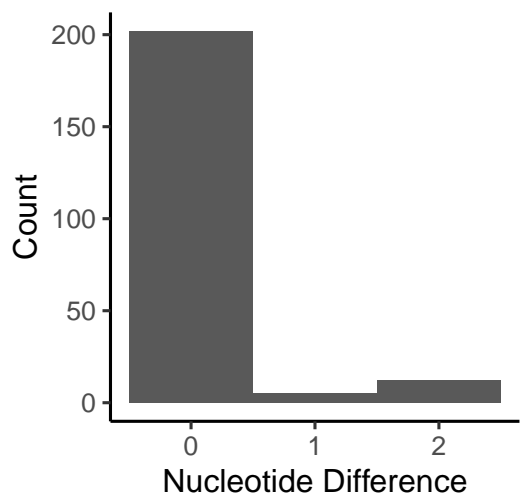
IGHV3-74*01_02

146 sequences assigned
125 (85.6%) exact matches, in which:
118 unique CDR3
7 unique J



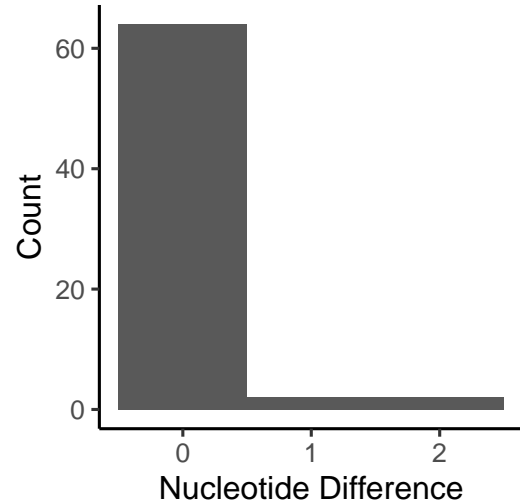
IGHV4-4*07

219 sequences assigned
202 (92.2%) exact matches, in which:
195 unique CDR3
7 unique J



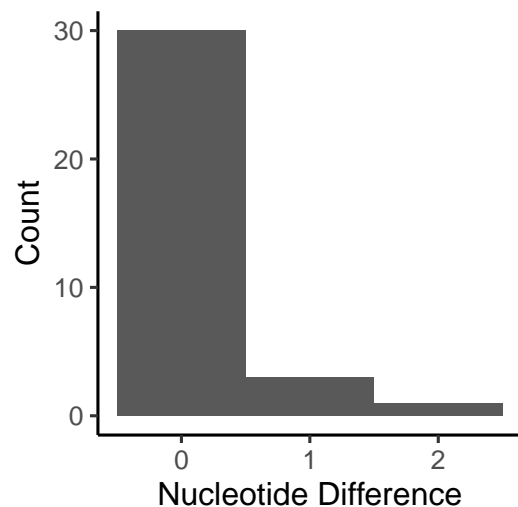
IGHV4-30-2*01

68 sequences assigned
64 (94.1%) exact matches, in which:
62 unique CDR3
5 unique J



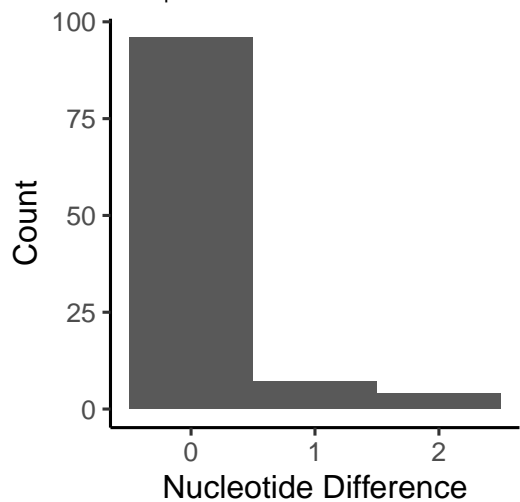
IGHV3-43D*03

34 sequences assigned
30 (88.2%) exact matches, in which:
30 unique CDR3
5 unique J



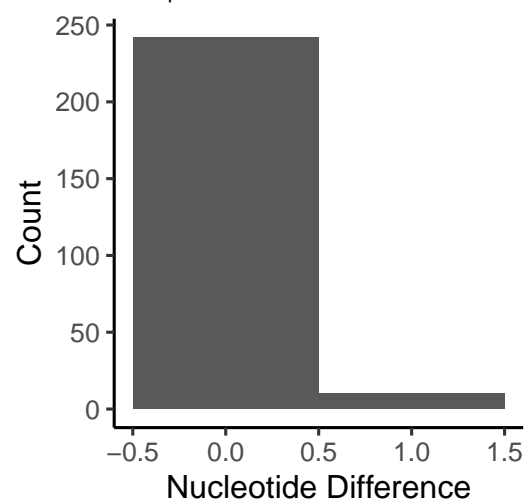
IGHV4-4*02_03

107 sequences assigned
96 (89.7%) exact matches, in which:
95 unique CDR3
5 unique J



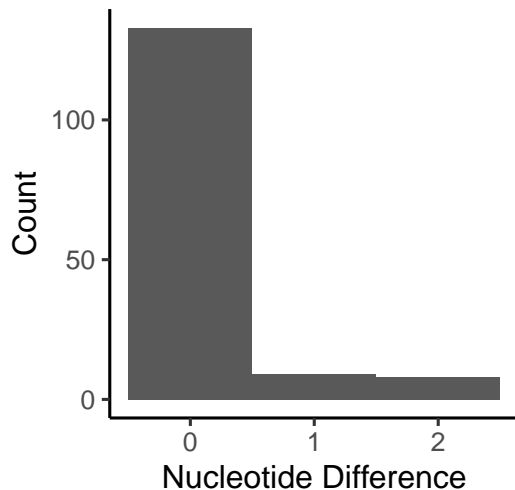
IGHV4-30-4*08

252 sequences assigned
242 (96%) exact matches, in which:
240 unique CDR3
6 unique J



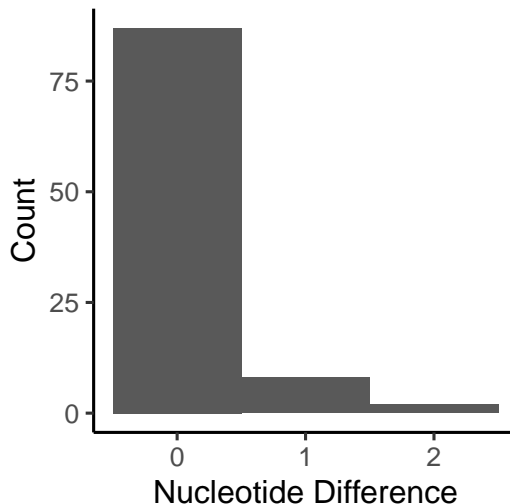
IGHV4–31*02

150 sequences assigned
133 (88.7%) exact matches, in which:
131 unique CDR3
6 unique J



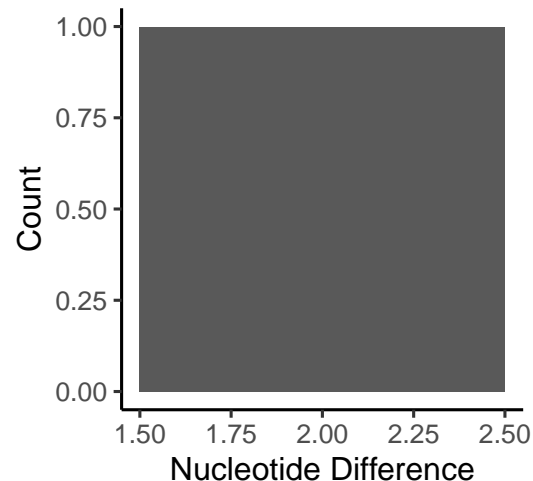
IGHV4–38–2*02

97 sequences assigned
87 (89.7%) exact matches, in which:
84 unique CDR3
5 unique J



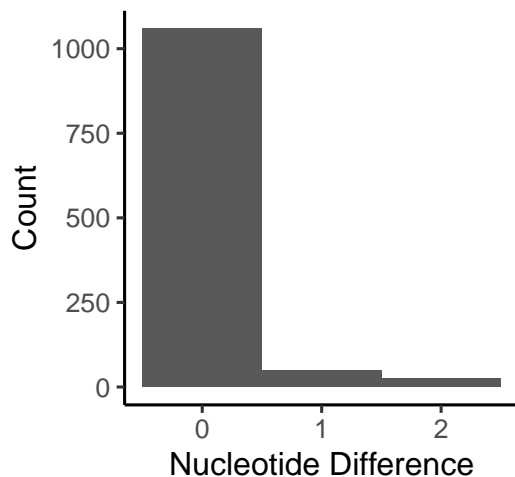
IGHV4–59*02

1 sequences assigned
No exact matches.



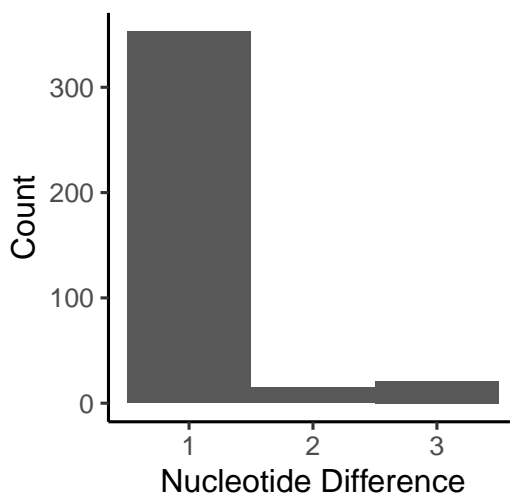
IGHV4–34*01_02

1134 sequences assigned
1059 (93.4%) exact matches, in which:
1019 unique CDR3
7 unique J



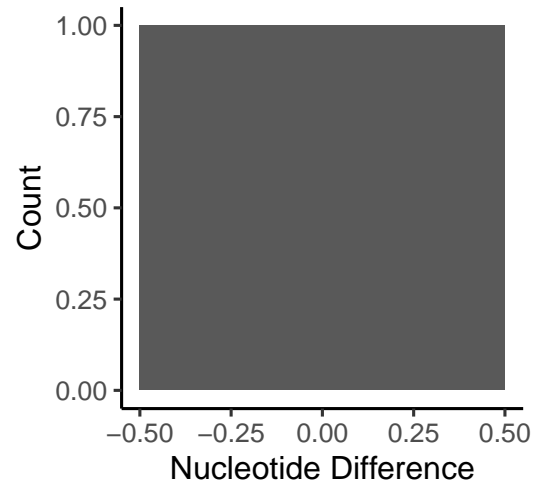
IGHV4–39*02

389 sequences assigned
No exact matches.



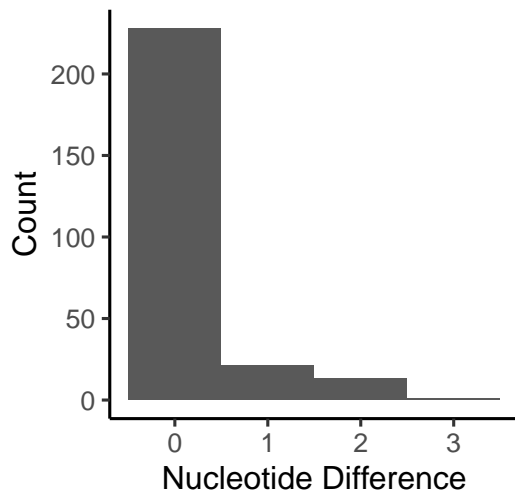
IGHV4–59*11

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



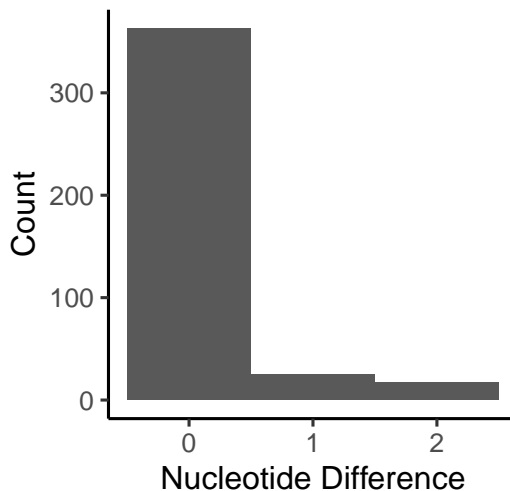
IGHV4–38–2*01

263 sequences assigned
228 (86.7%) exact matches, in which:
228 unique CDR3
6 unique J



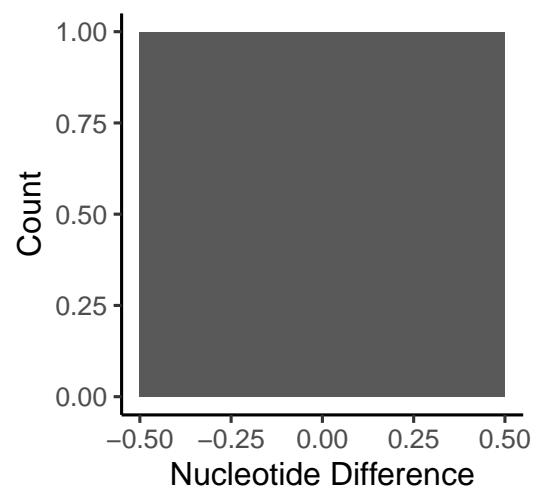
IGHV4–39*07

405 sequences assigned
363 (89.6%) exact matches, in which:
352 unique CDR3
6 unique J



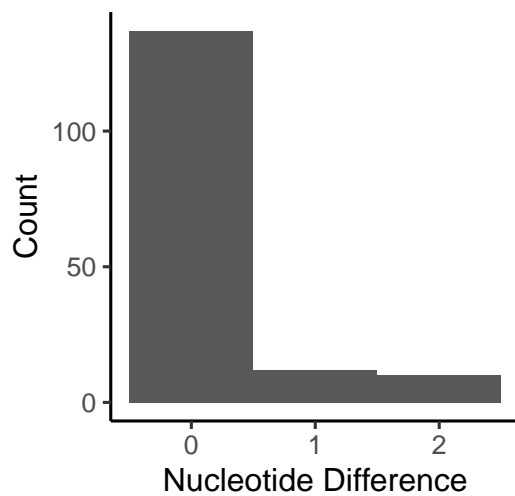
IGHV4–59*13

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



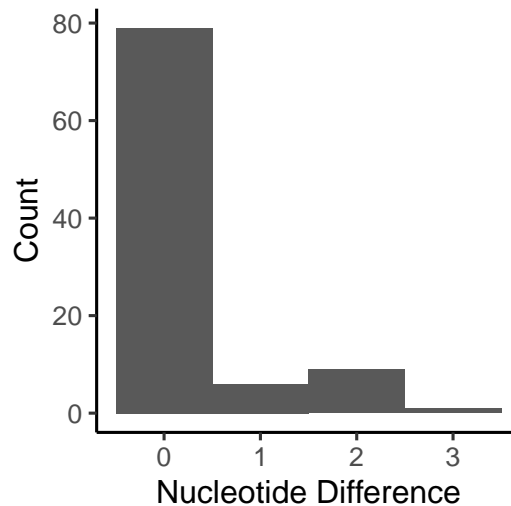
IGHV4-61*01

159 sequences assigned
137 (86.2%) exact matches, in which:
137 unique CDR3
5 unique J



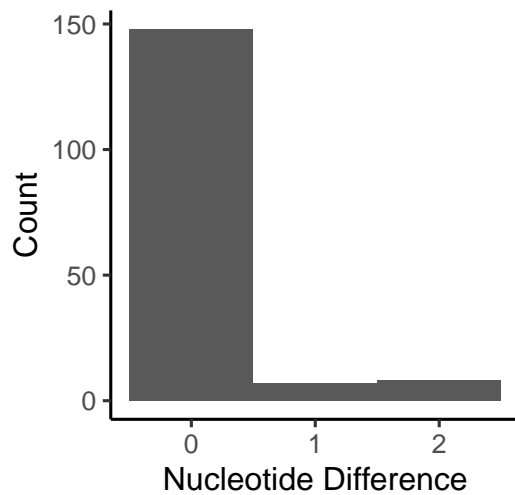
IGHV6-1*01_02

95 sequences assigned
79 (83.2%) exact matches, in which:
79 unique CDR3
7 unique J



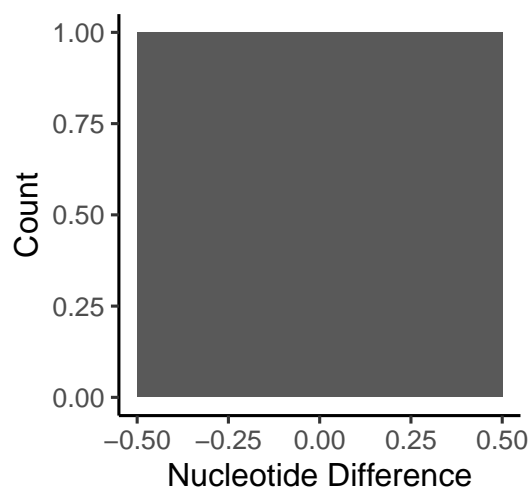
IGHV4-61*02

163 sequences assigned
148 (90.8%) exact matches, in which:
145 unique CDR3
6 unique J



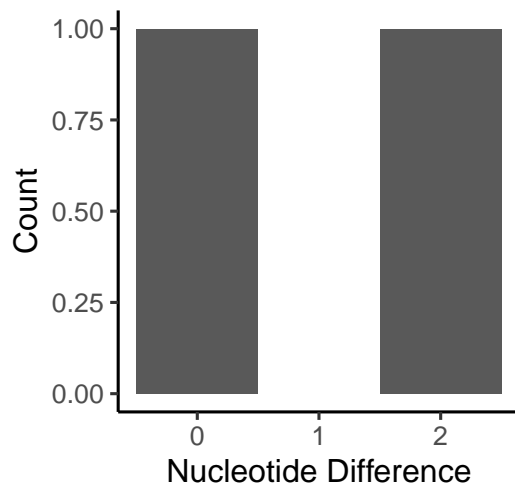
IGHV7-4-1*01

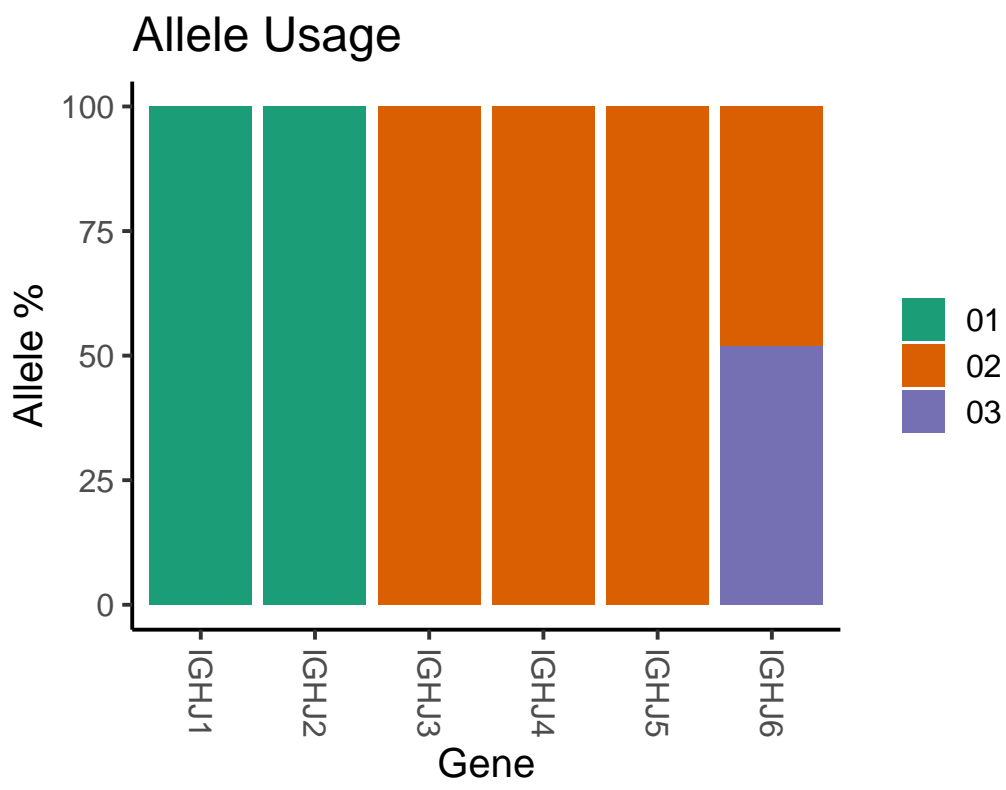
1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



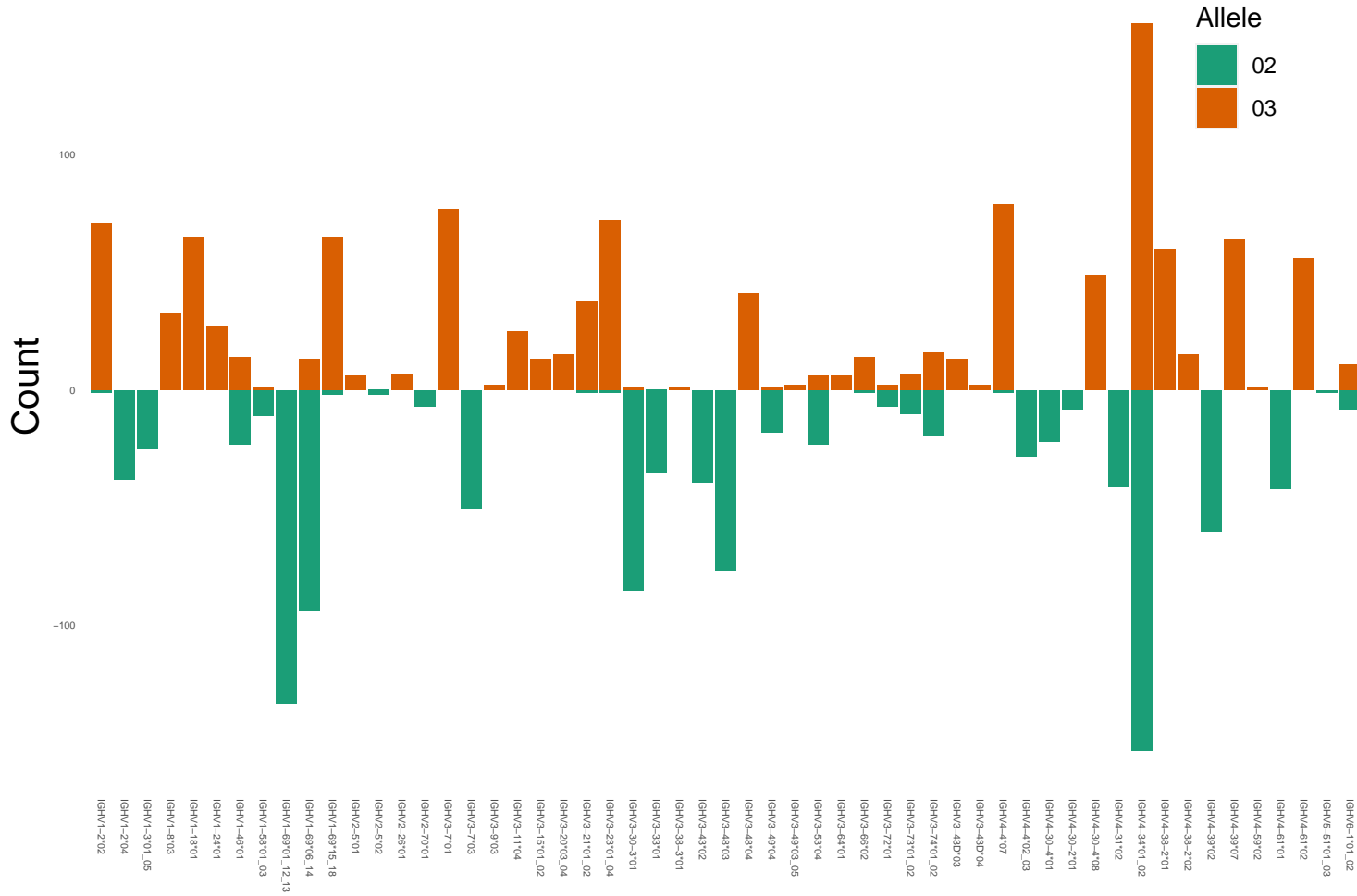
IGHV5-51*01_03

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





Sequence Count by IGHJ6 allele usage



[illegible]