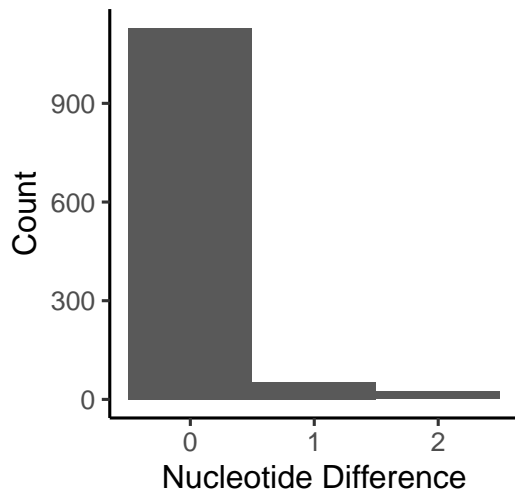


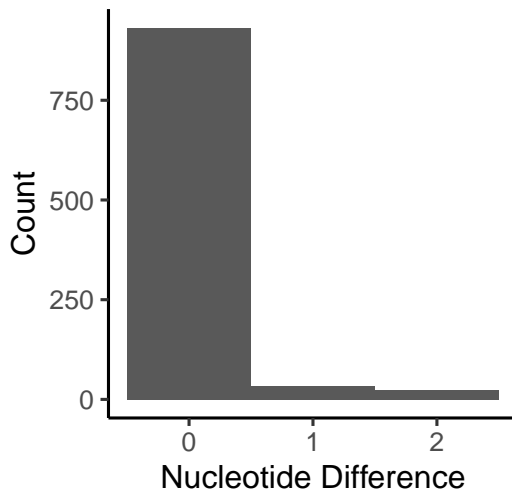
IGHV1-2*02

1208 sequences assigned
1130 (93.5%) exact matches, in which:
1103 unique CDR3
7 unique J



IGHV1-18*01

990 sequences assigned
932 (94.1%) exact matches, in which:
913 unique CDR3
7 unique J



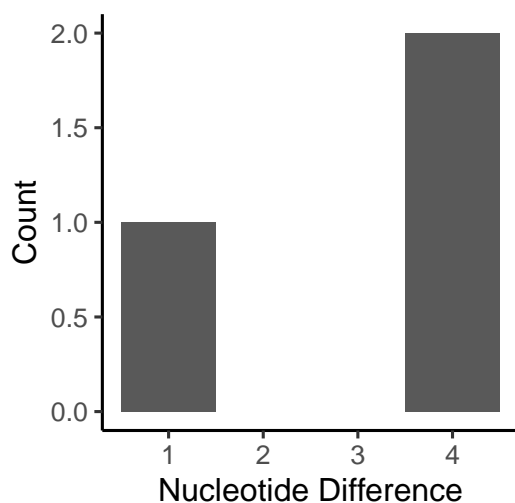
IGHV1-45*03

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



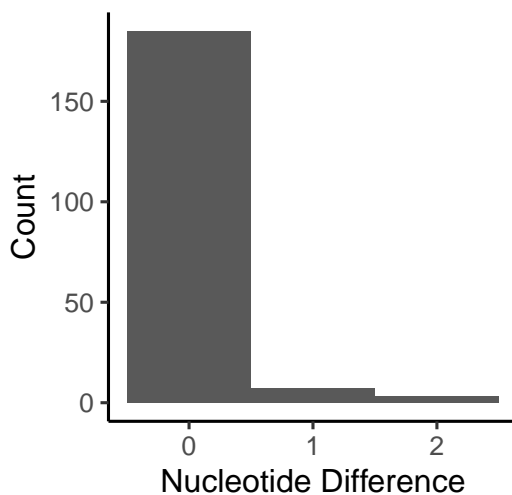
IGHV1-3*02

3 sequences assigned
No exact matches.



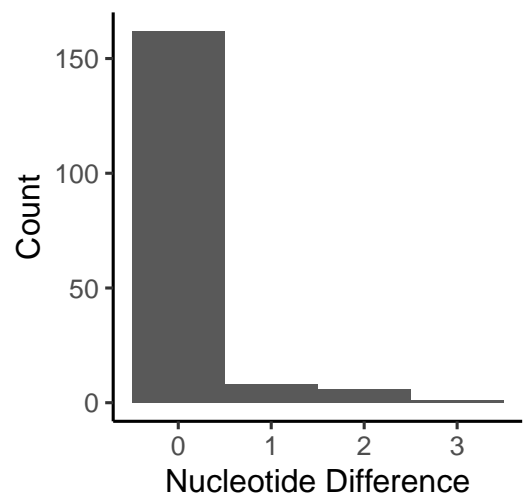
IGHV1-24*01

195 sequences assigned
185 (94.9%) exact matches, in which:
183 unique CDR3
7 unique J



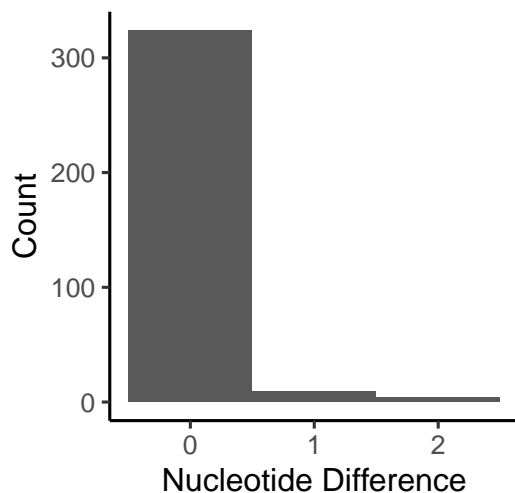
IGHV1-46*01

177 sequences assigned
162 (91.5%) exact matches, in which:
157 unique CDR3
6 unique J



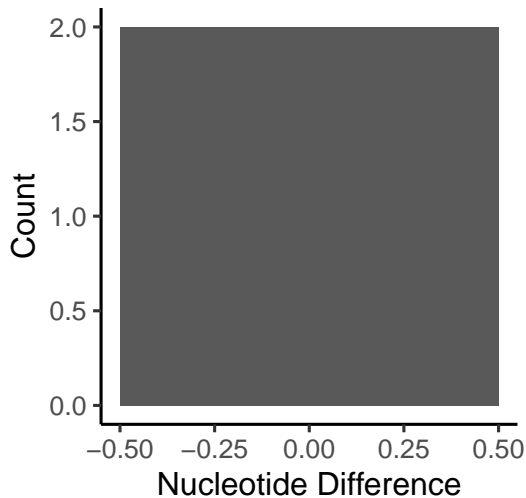
IGHV1-8*01

337 sequences assigned
324 (96.1%) exact matches, in which:
320 unique CDR3
6 unique J



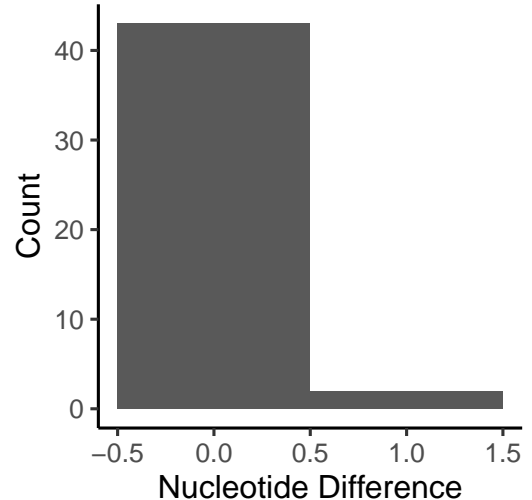
IGHV1-45*02

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
2 unique J



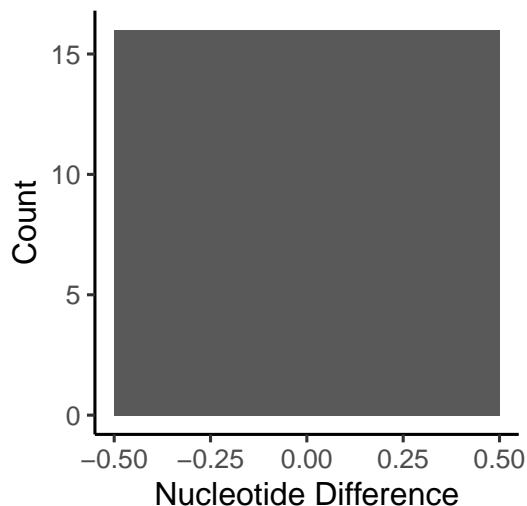
IGHV1-46*03

45 sequences assigned
43 (95.6%) exact matches, in which:
42 unique CDR3
6 unique J



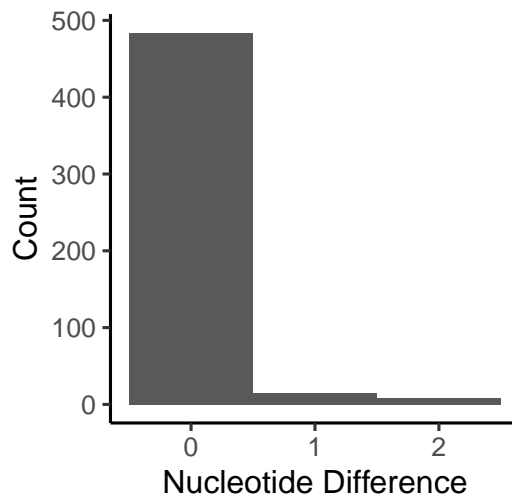
IGHV1-58*02

16 sequences assigned
16 (100%) exact matches, in which:
15 unique CDR3
3 unique J



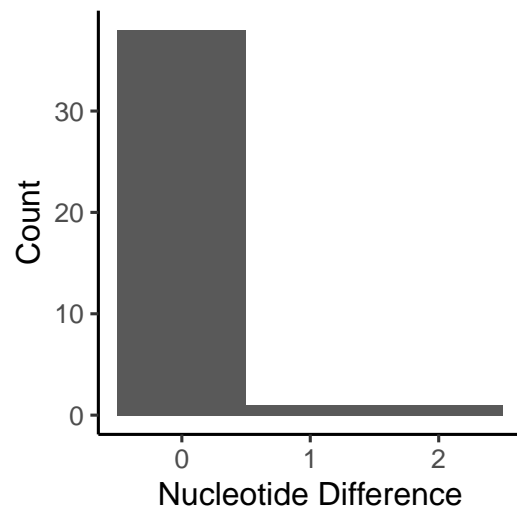
IGHV1-69*06_14

507 sequences assigned
484 (95.5%) exact matches, in which:
479 unique CDR3
7 unique J



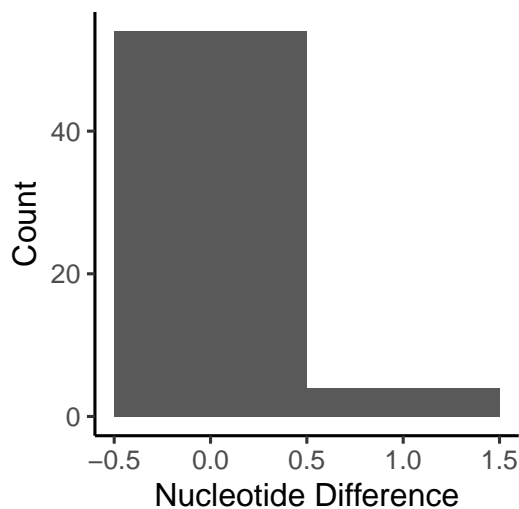
IGHV2-26*01

40 sequences assigned
38 (95%) exact matches, in which:
37 unique CDR3
6 unique J



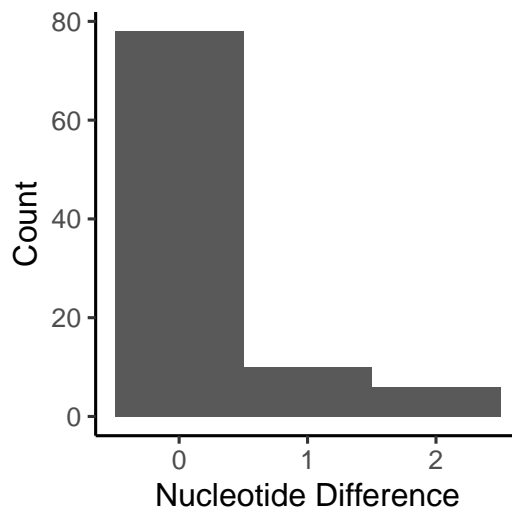
IGHV1-58*01_03

58 sequences assigned
54 (93.1%) exact matches, in which:
52 unique CDR3
5 unique J



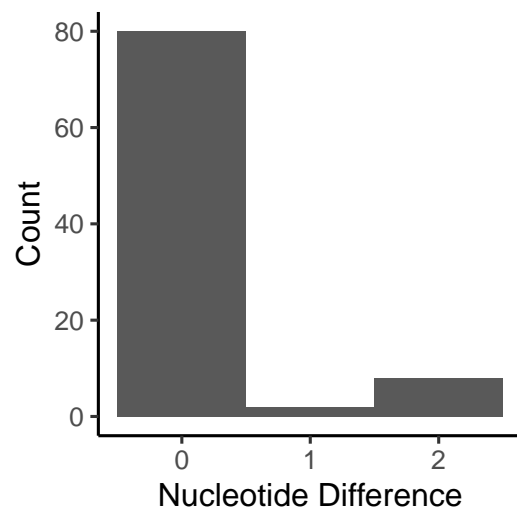
IGHV2-5*01

94 sequences assigned
78 (83%) exact matches, in which:
75 unique CDR3
6 unique J



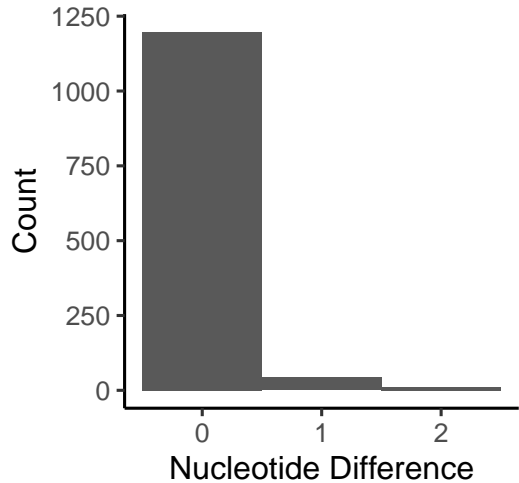
IGHV2-70*01

90 sequences assigned
80 (88.9%) exact matches, in which:
80 unique CDR3
6 unique J



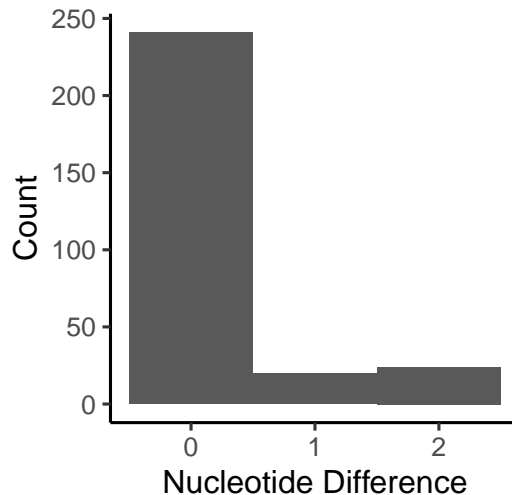
IGHV1-69*01_12_13

1251 sequences assigned
1197 (95.7%) exact matches, in which:
1180 unique CDR3
7 unique J



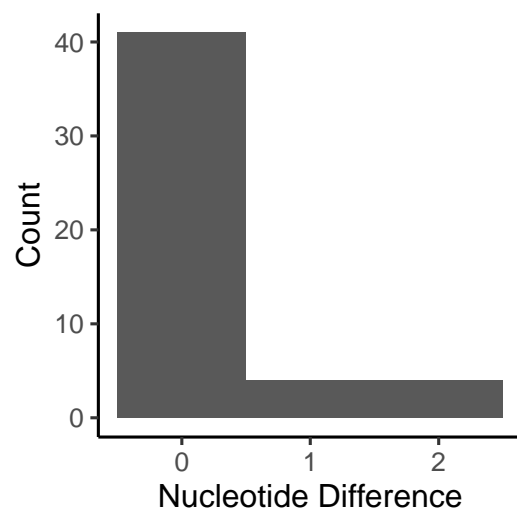
IGHV2-5*02

285 sequences assigned
241 (84.6%) exact matches, in which:
234 unique CDR3
6 unique J



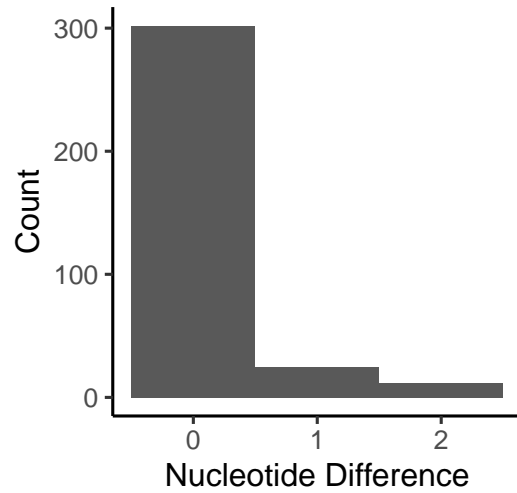
IGHV2-70*04

49 sequences assigned
41 (83.7%) exact matches, in which:
41 unique CDR3
5 unique J



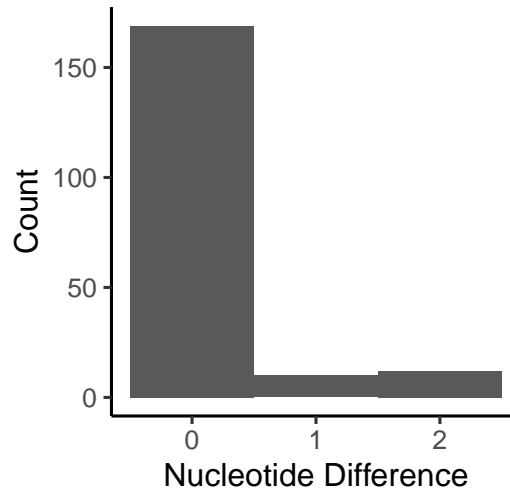
IGHV3-7*01

339 sequences assigned
302 (89.1%) exact matches, in which:
281 unique CDR3
6 unique J



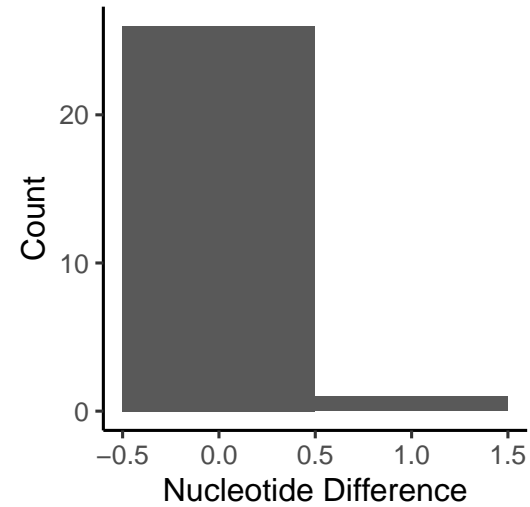
IGHV3-11*01

191 sequences assigned
169 (88.5%) exact matches, in which:
164 unique CDR3
6 unique J



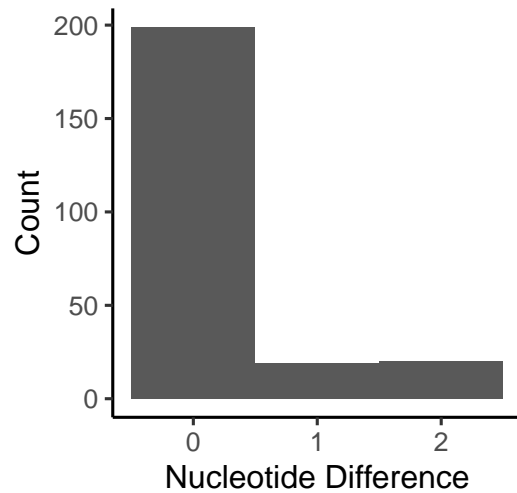
IGHV3-13*05

27 sequences assigned
26 (96.3%) exact matches, in which:
25 unique CDR3
4 unique J



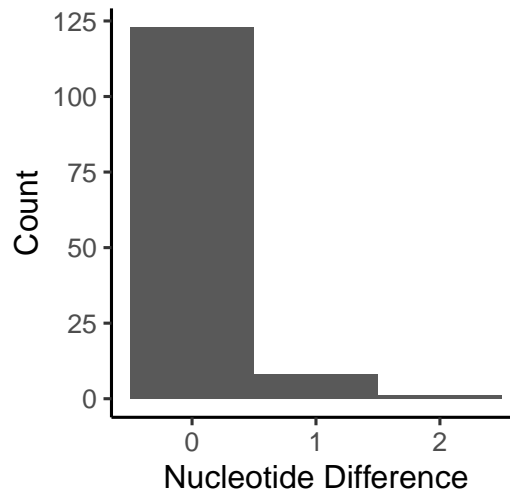
IGHV3-7*04

238 sequences assigned
199 (83.6%) exact matches, in which:
182 unique CDR3
6 unique J



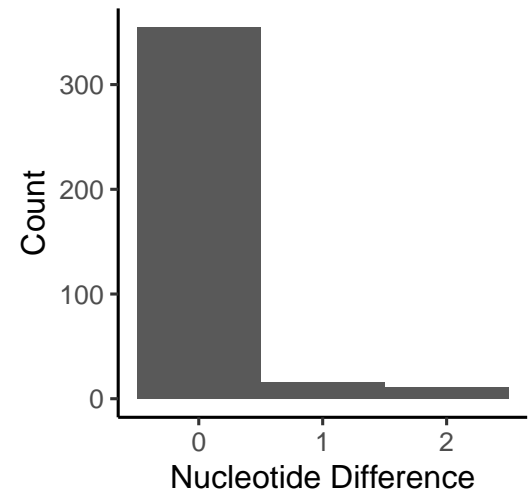
IGHV3-11*06

132 sequences assigned
123 (93.2%) exact matches, in which:
114 unique CDR3
6 unique J



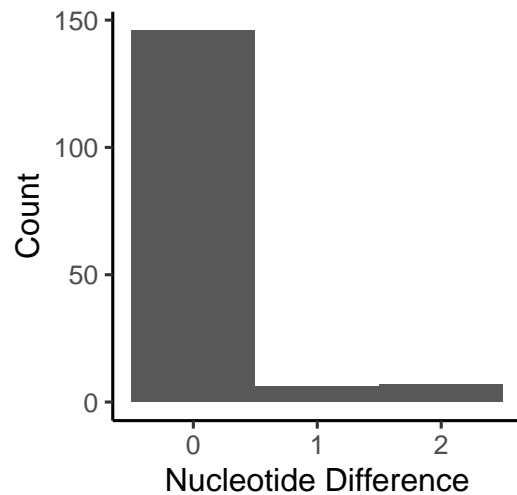
IGHV3-15*01_02

382 sequences assigned
355 (92.9%) exact matches, in which:
334 unique CDR3
7 unique J



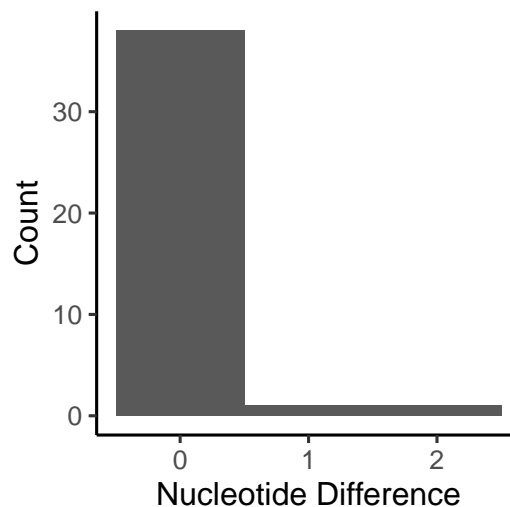
IGHV3-9*01

159 sequences assigned
146 (91.8%) exact matches, in which:
143 unique CDR3
6 unique J



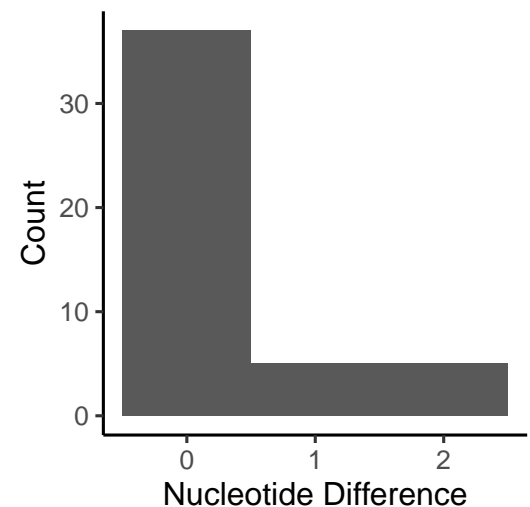
IGHV3-13*01

40 sequences assigned
38 (95%) exact matches, in which:
38 unique CDR3
5 unique J



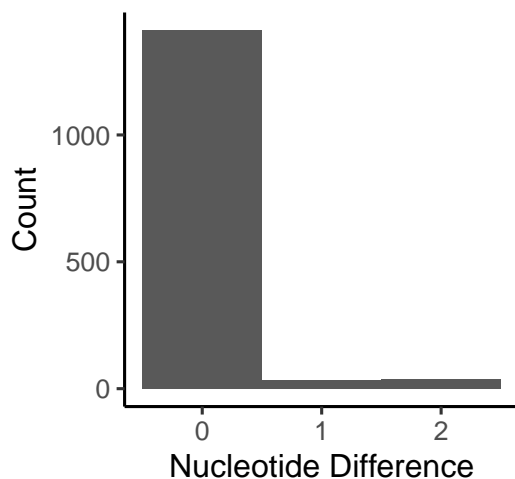
IGHV3-20*01_02

47 sequences assigned
37 (78.7%) exact matches, in which:
36 unique CDR3
6 unique J



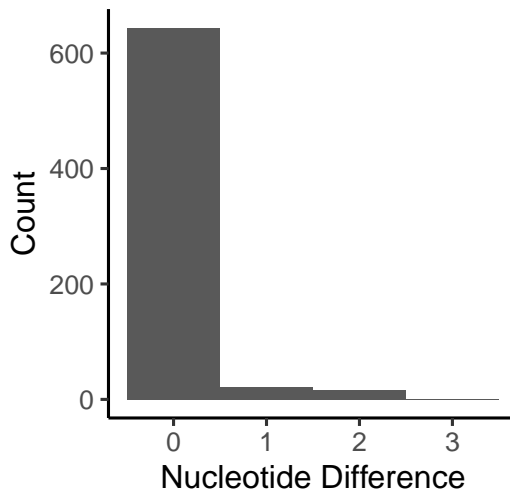
IGHV3-21*01_02

1483 sequences assigned
1412 (95.2%) exact matches, in which:
1284 unique CDR3
7 unique J



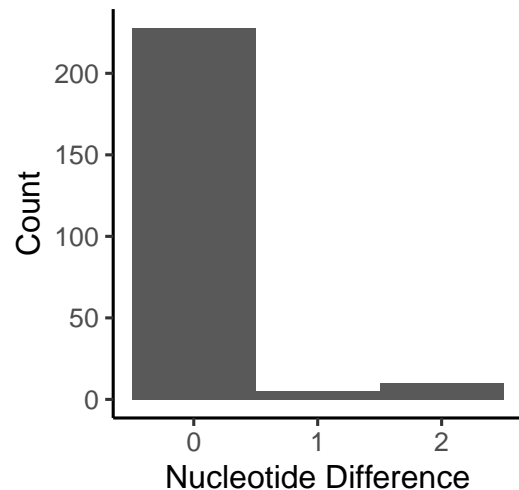
IGHV3-30*04

682 sequences assigned
644 (94.4%) exact matches, in which:
616 unique CDR3
7 unique J



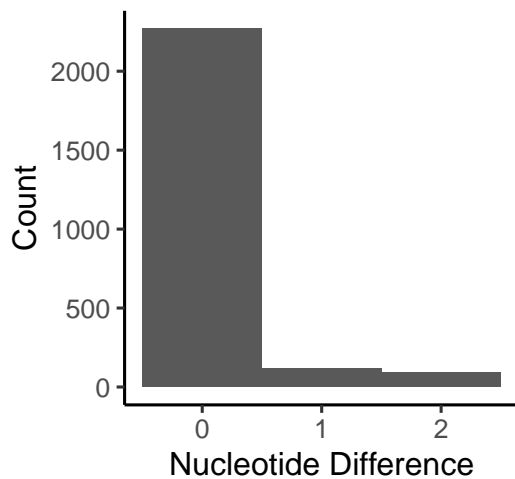
IGHV3-43*02

243 sequences assigned
228 (93.8%) exact matches, in which:
209 unique CDR3
6 unique J



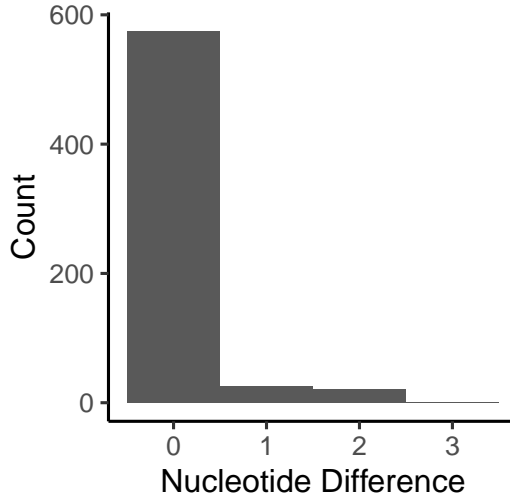
IGHV3-23*01_04

2477 sequences assigned
2269 (91.6%) exact matches, in which:
2074 unique CDR3
7 unique J



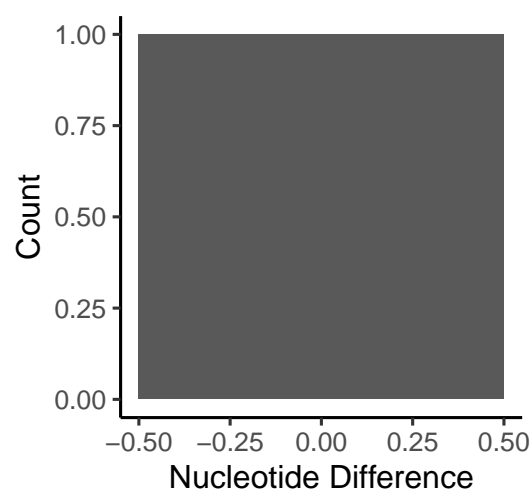
IGHV3-30*18

623 sequences assigned
575 (92.3%) exact matches, in which:
552 unique CDR3
7 unique J



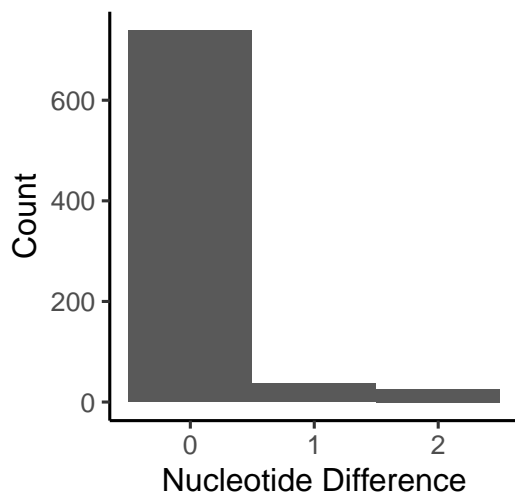
IGHV3-47*02

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



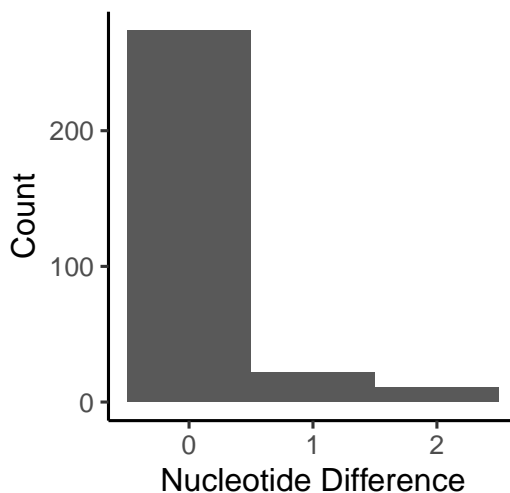
IGHV3-30-3*01

801 sequences assigned
739 (92.3%) exact matches, in which:
707 unique CDR3
7 unique J



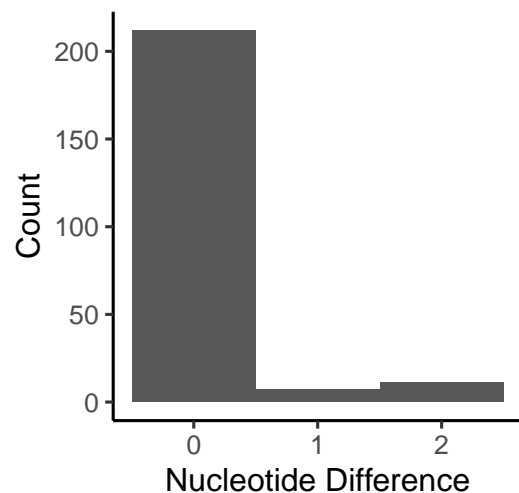
IGHV3-33*01

307 sequences assigned
274 (89.3%) exact matches, in which:
266 unique CDR3
7 unique J



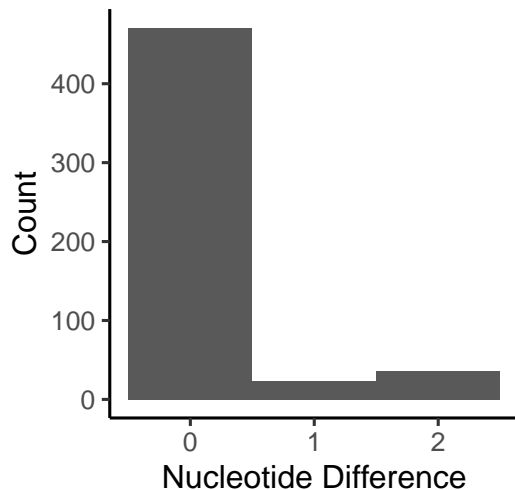
IGHV3-48*01

230 sequences assigned
212 (92.2%) exact matches, in which:
188 unique CDR3
6 unique J



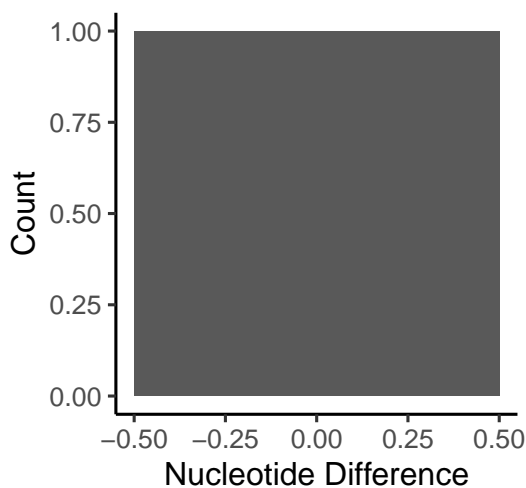
IGHV3-48*03

530 sequences assigned
471 (88.9%) exact matches, in which:
446 unique CDR3
6 unique J



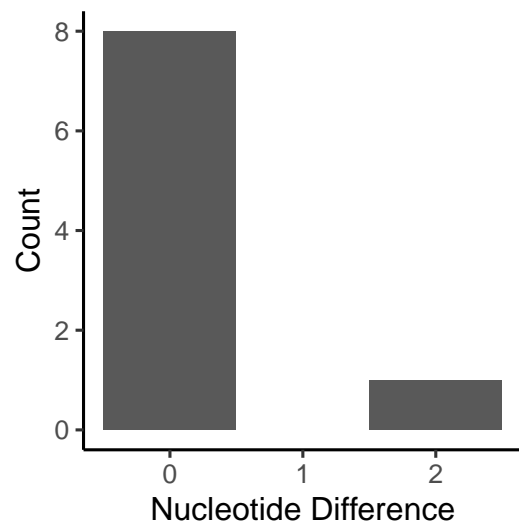
IGHV3-52*01_03

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



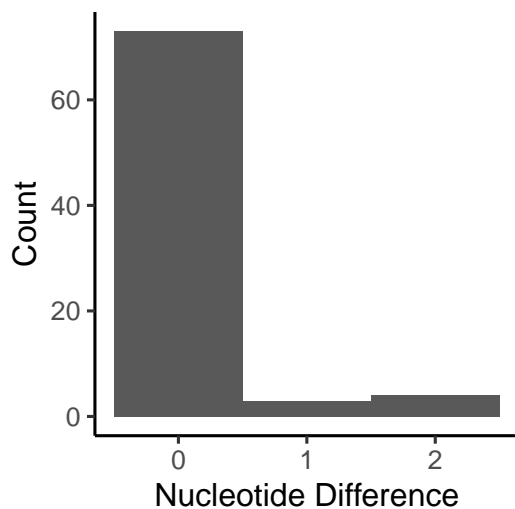
IGHV3-64*02_07

9 sequences assigned
8 (88.9%) exact matches, in which:
8 unique CDR3
3 unique J



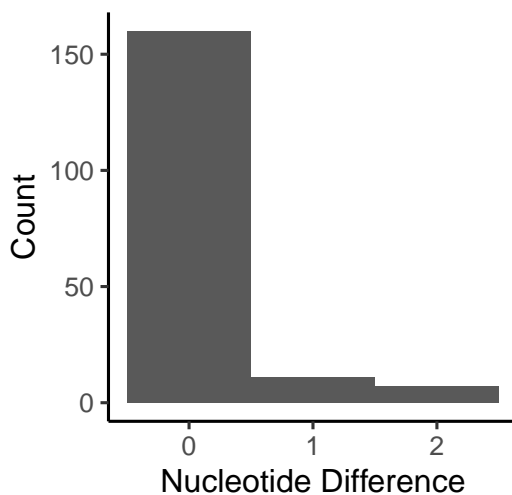
IGHV3-49*04

80 sequences assigned
73 (91.2%) exact matches, in which:
71 unique CDR3
5 unique J



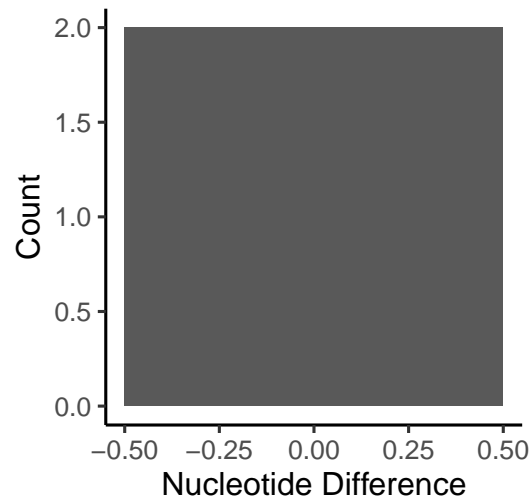
IGHV3-53*04

178 sequences assigned
160 (89.9%) exact matches, in which:
149 unique CDR3
7 unique J



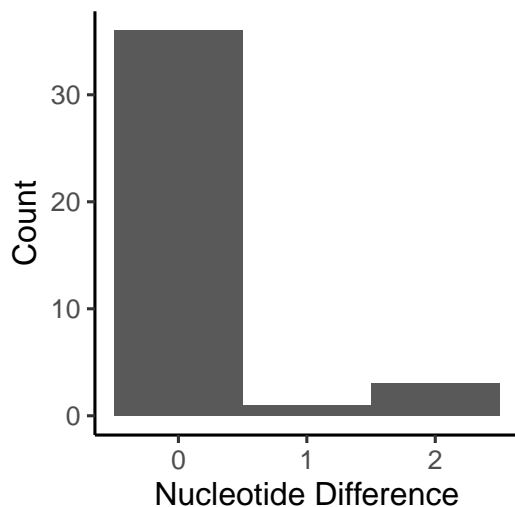
IGHV3-66*03

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
1 unique J



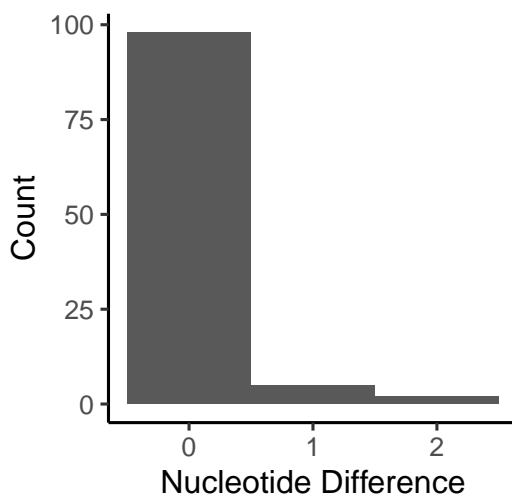
IGHV3-49*03_05

40 sequences assigned
36 (90%) exact matches, in which:
34 unique CDR3
5 unique J



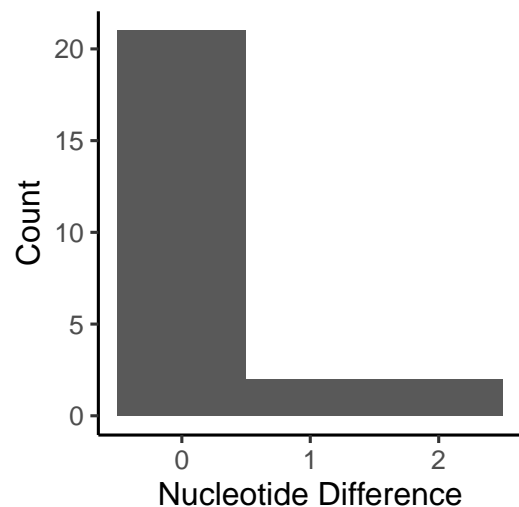
IGHV3-53*01_02

105 sequences assigned
98 (93.3%) exact matches, in which:
88 unique CDR3
5 unique J



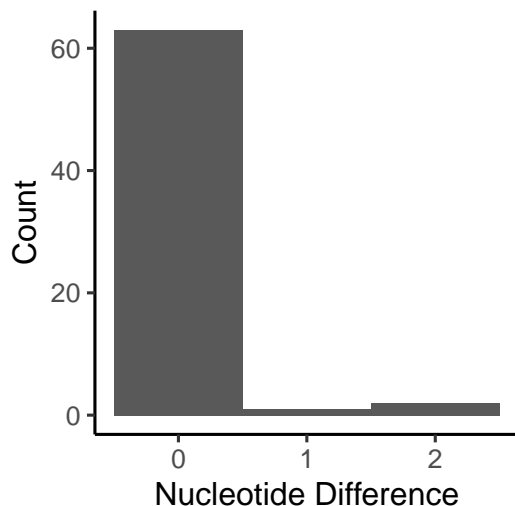
IGHV3-72*01

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



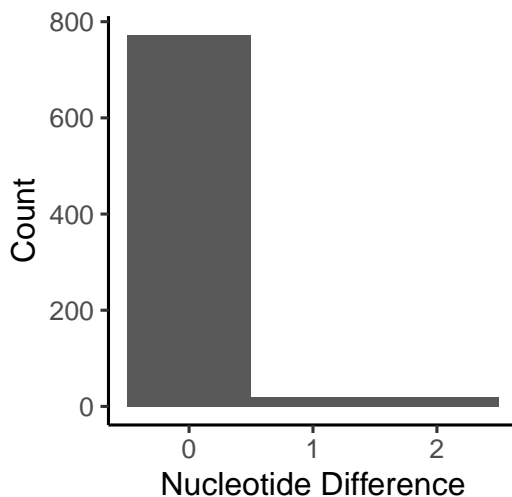
IGHV3-73*01_02

66 sequences assigned
63 (95.5%) exact matches, in which:
62 unique CDR3
6 unique J



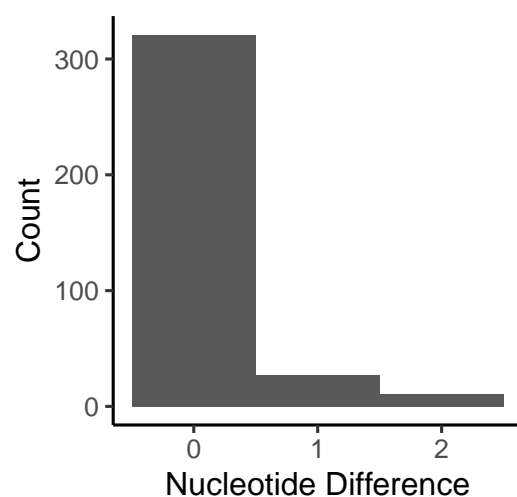
IGHV4-4*07

812 sequences assigned
773 (95.2%) exact matches, in which:
711 unique CDR3
7 unique J



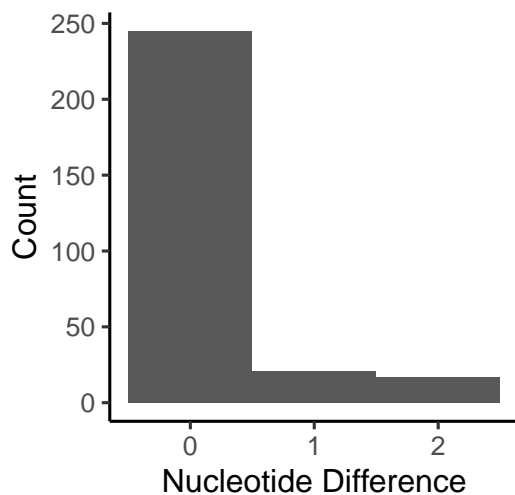
IGHV4-30-4*01

359 sequences assigned
321 (89.4%) exact matches, in which:
307 unique CDR3
7 unique J



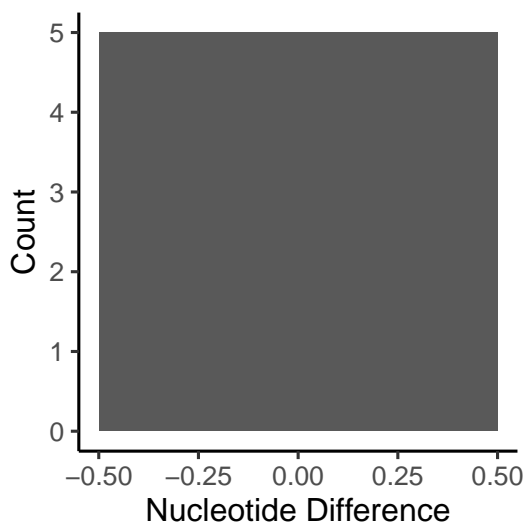
IGHV3-74*01_02

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



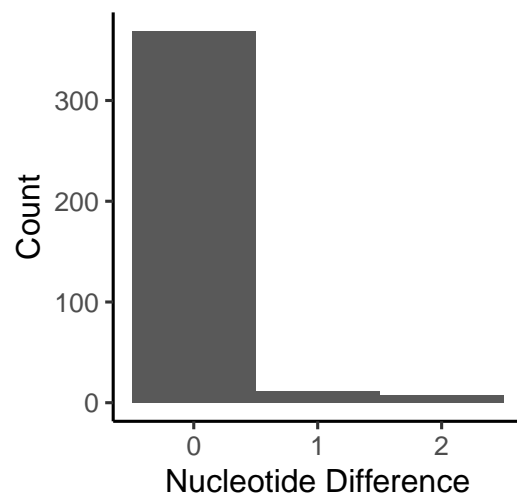
IGHV4-28*01_07

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



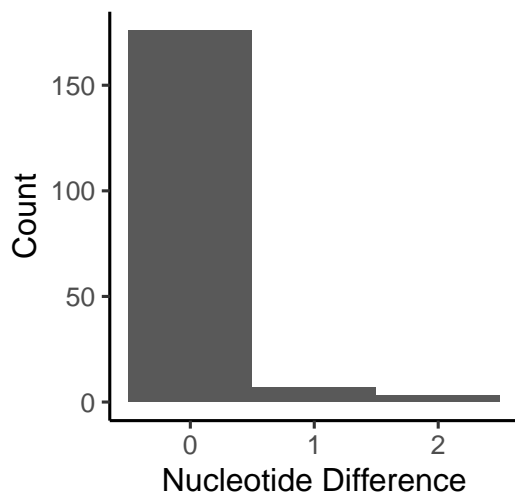
IGHV4-31*02

387 sequences assigned
369 (95.3%) exact matches, in which:
362 unique CDR3
7 unique J



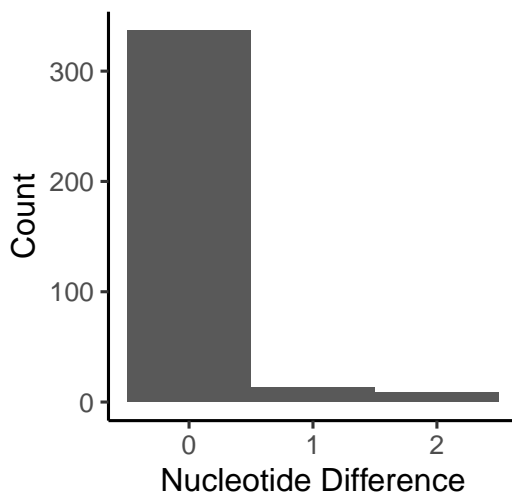
IGHV3-64D*06

186 sequences assigned
176 (94.6%) exact matches, in which:
162 unique CDR3
6 unique J



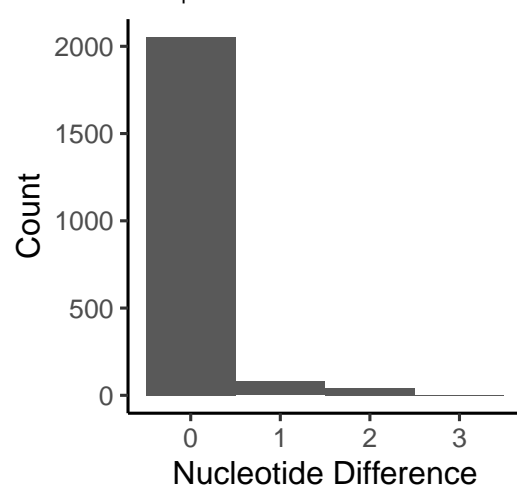
IGHV4-30-2*01

359 sequences assigned
337 (93.9%) exact matches, in which:
315 unique CDR3
7 unique J



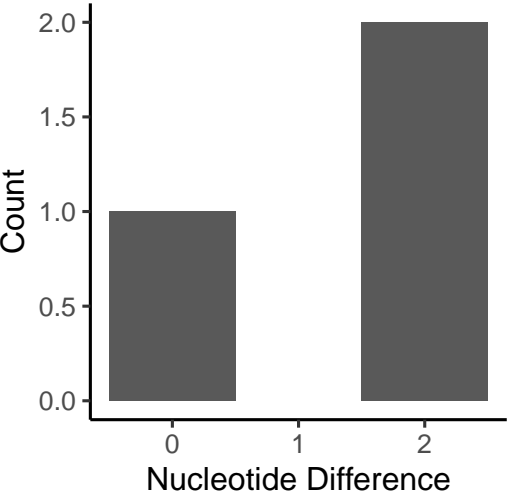
IGHV4-34*01_02

2174 sequences assigned
2053 (94.4%) exact matches, in which:
1865 unique CDR3
7 unique J



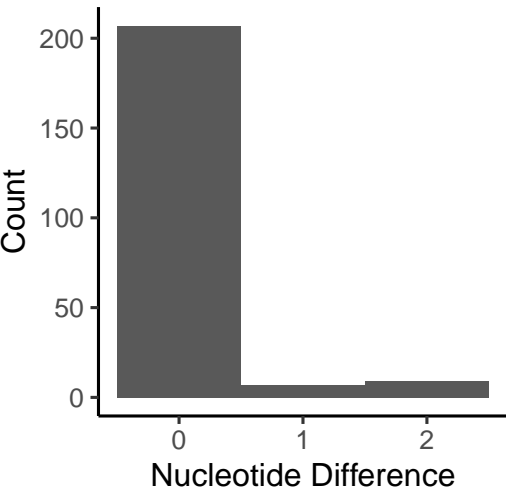
IGHV4-39*02

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



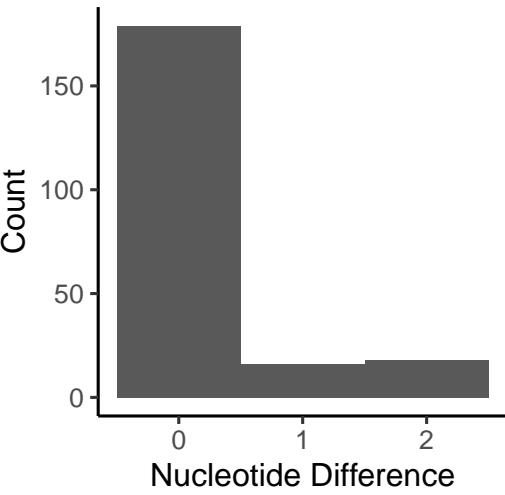
IGHV4-61*01

223 sequences assigned
207 (92.8%) exact matches, in which:
187 unique CDR3
6 unique J



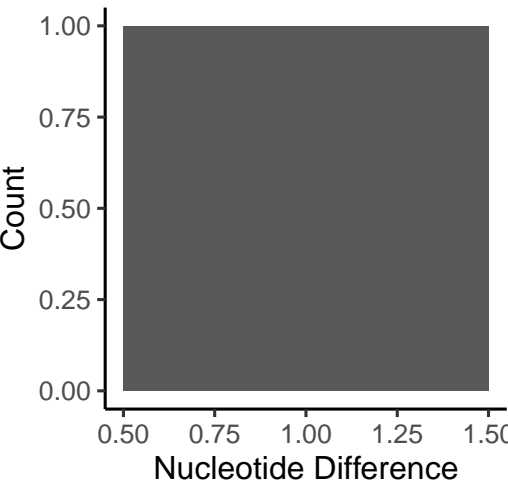
IGHV6-1*01_02

213 sequences assigned
179 (84%) exact matches, in which:
176 unique CDR3
7 unique J



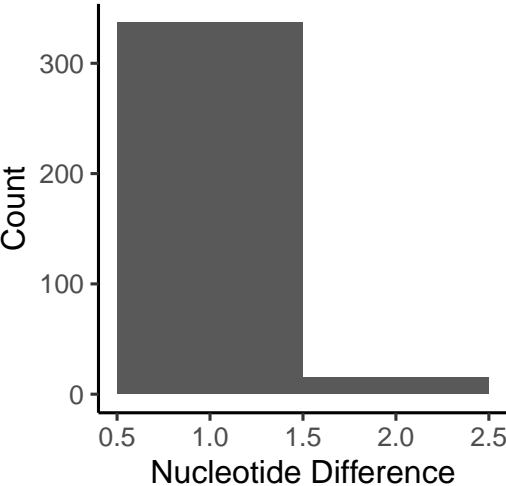
IGHV4-59*02

1 sequences assigned
No exact matches.



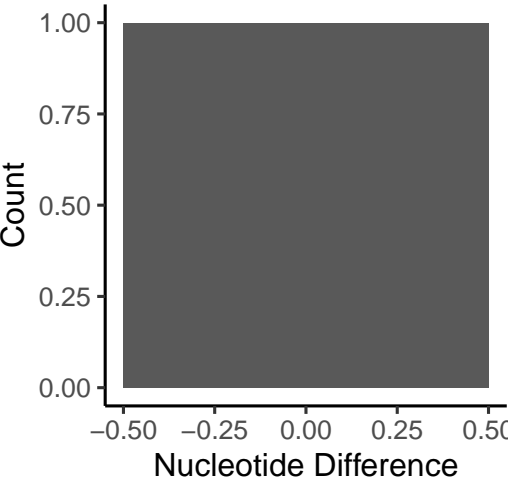
IGHV4-61*02

352 sequences assigned
No exact matches.



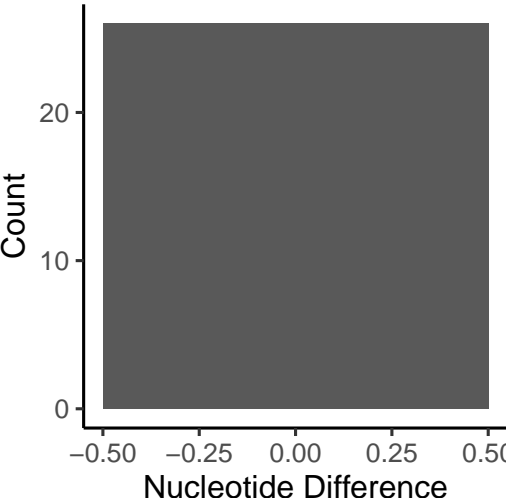
IGHV4-59*13

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

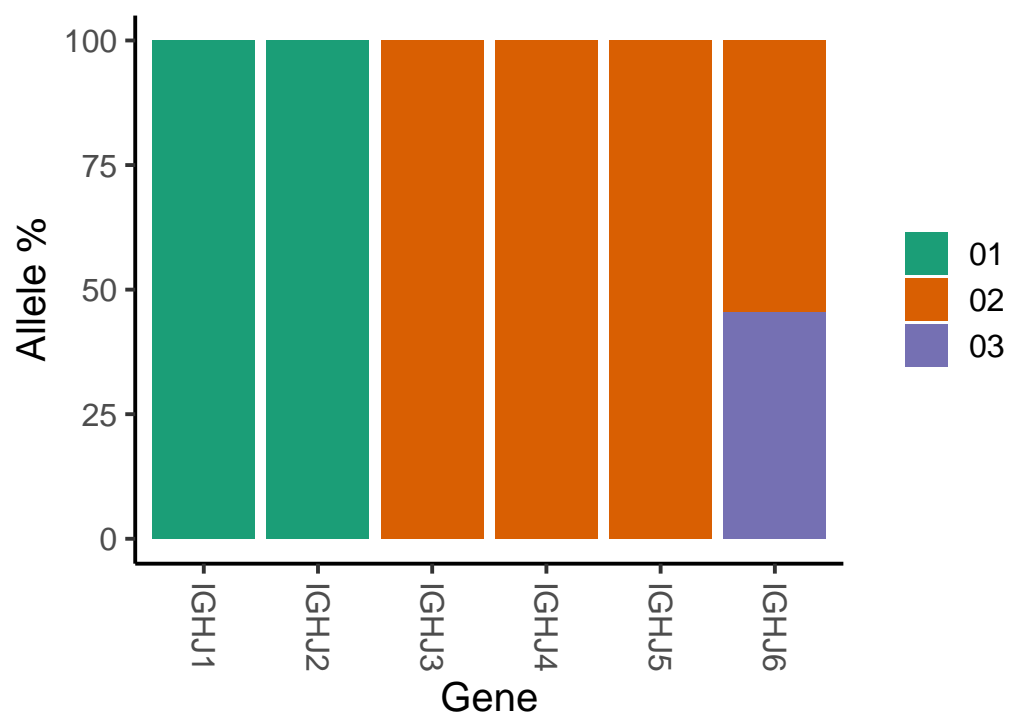


IGHV5-10-1*01_03

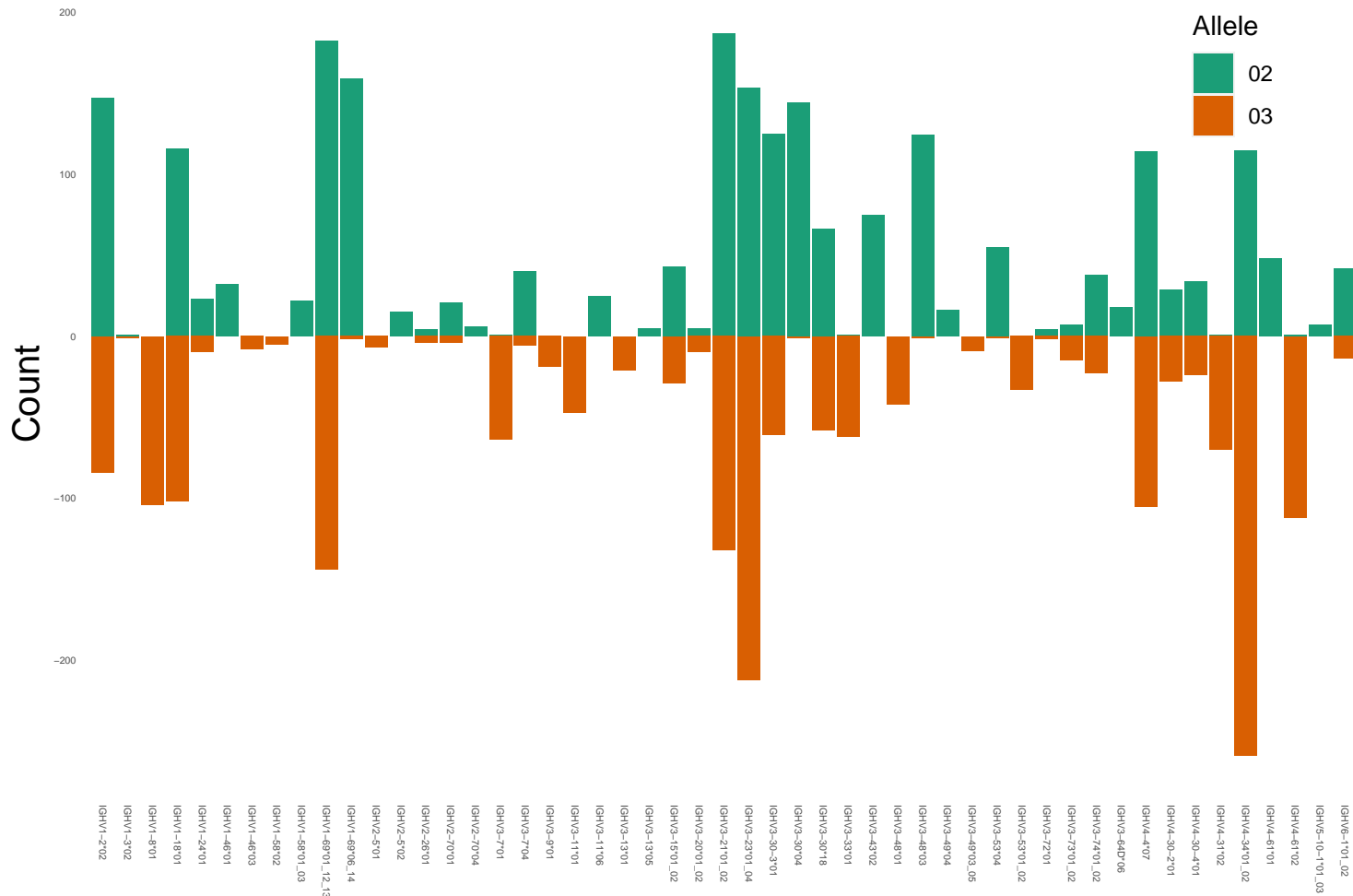
26 sequences assigned
26 (100%) exact matches, in which:
26 unique CDR3
4 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.