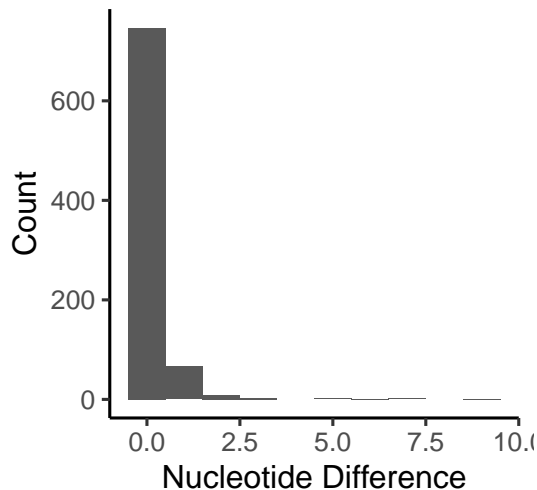


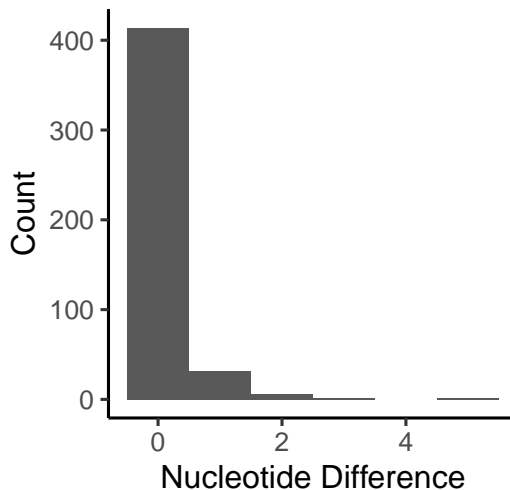
IGHV1-2*02

831 sequences assigned
747 (89.9%) exact matches, in which:
717 unique CDR3
6 unique J



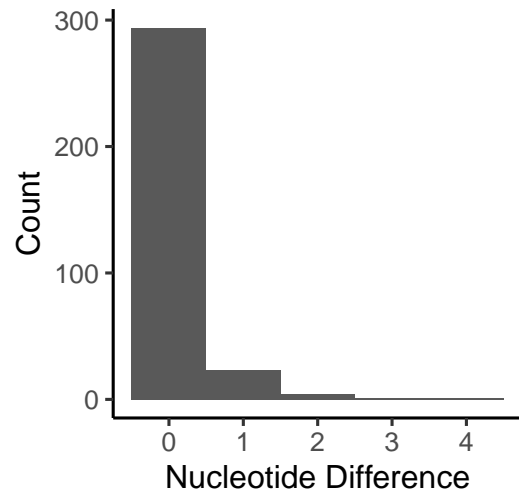
IGHV1-8*01

456 sequences assigned
414 (90.8%) exact matches, in which:
406 unique CDR3
6 unique J



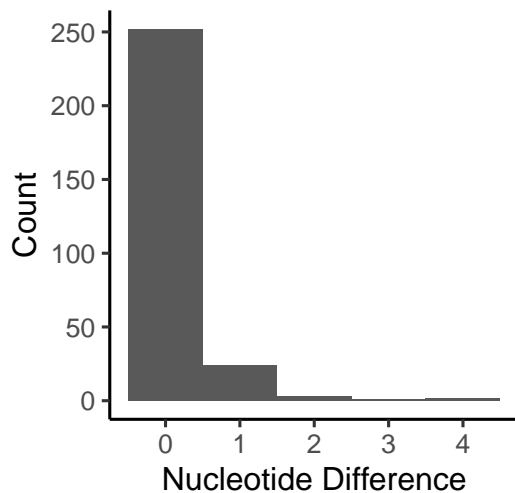
IGHV1-24*01

323 sequences assigned
294 (91%) exact matches, in which:
286 unique CDR3
6 unique J



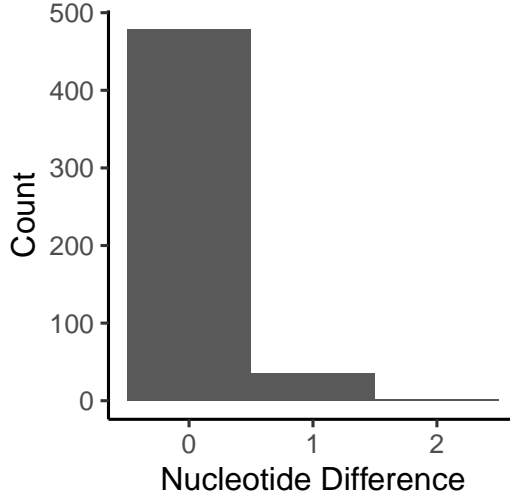
IGHV1-2*04

282 sequences assigned
252 (89.4%) exact matches, in which:
244 unique CDR3
6 unique J



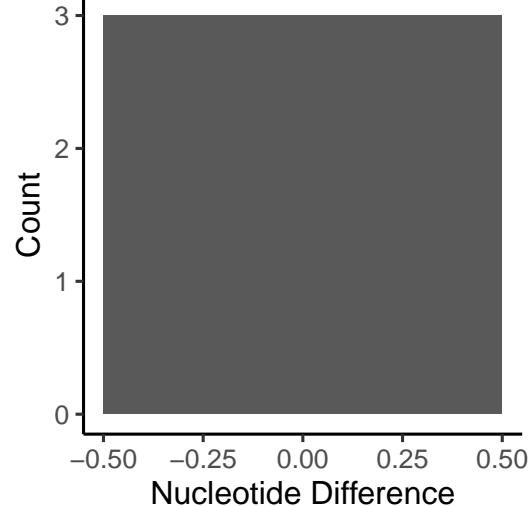
IGHV1-18*01

516 sequences assigned
479 (92.8%) exact matches, in which:
472 unique CDR3
6 unique J



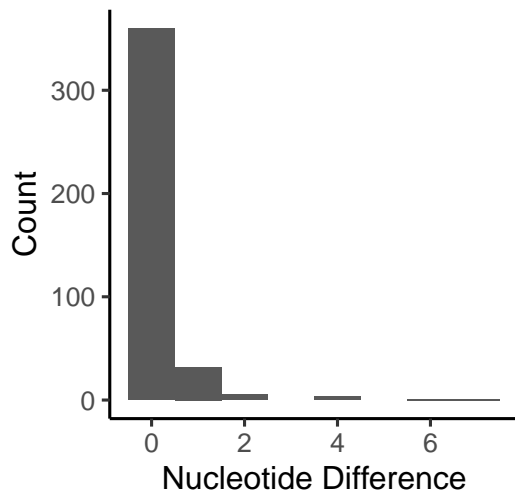
IGHV1-45*02

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



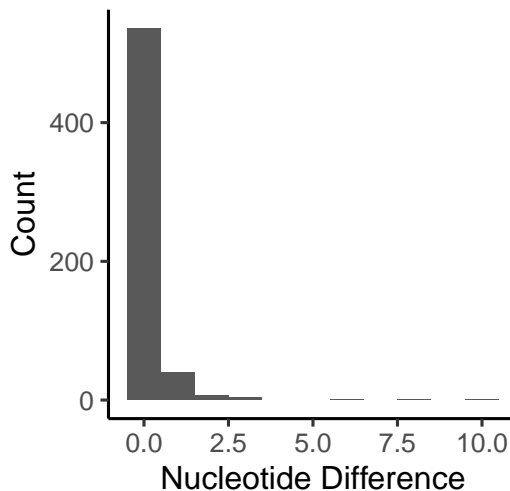
IGHV1-3*01

403 sequences assigned
360 (89.3%) exact matches, in which:
348 unique CDR3
6 unique J



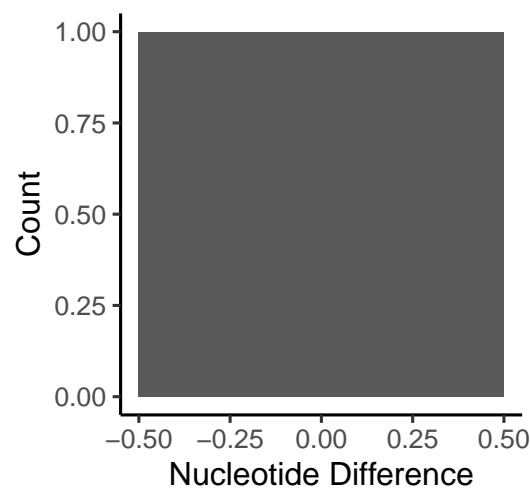
IGHV1-18*04

588 sequences assigned
536 (91.2%) exact matches, in which:
523 unique CDR3
6 unique J



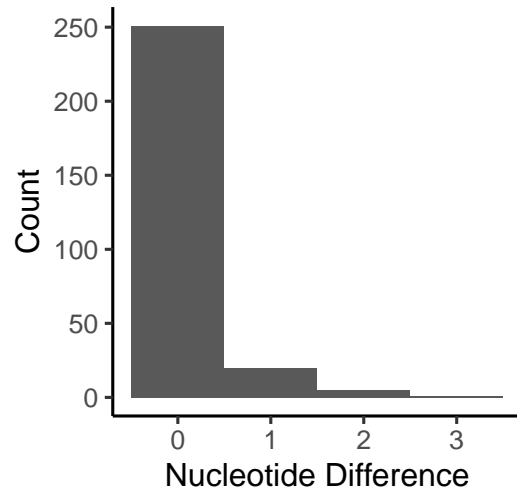
IGHV1-45*03

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



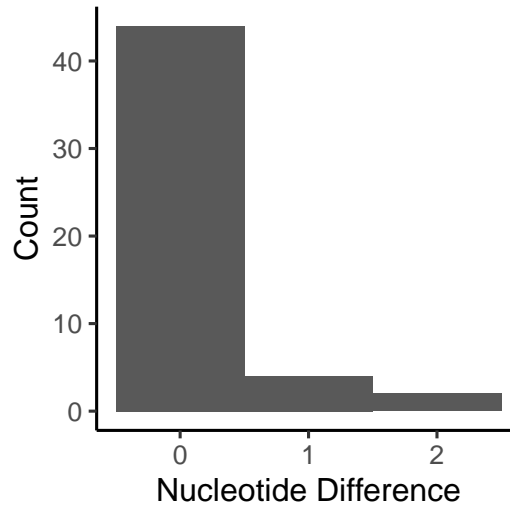
IGHV1-46*01

277 sequences assigned
251 (90.6%) exact matches, in which:
243 unique CDR3
6 unique J



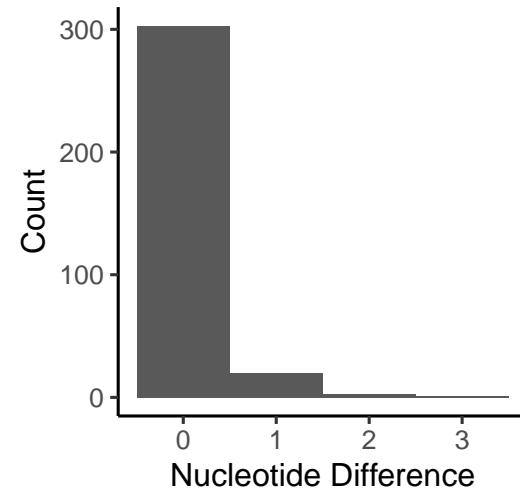
IGHV1-58*02

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



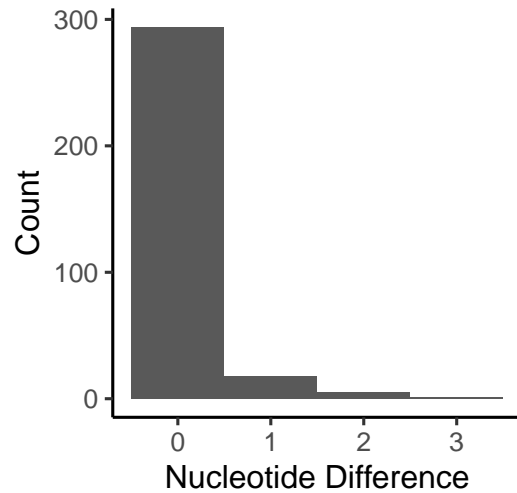
IGHV2-5*01

327 sequences assigned
303 (92.7%) exact matches, in which:
297 unique CDR3
6 unique J



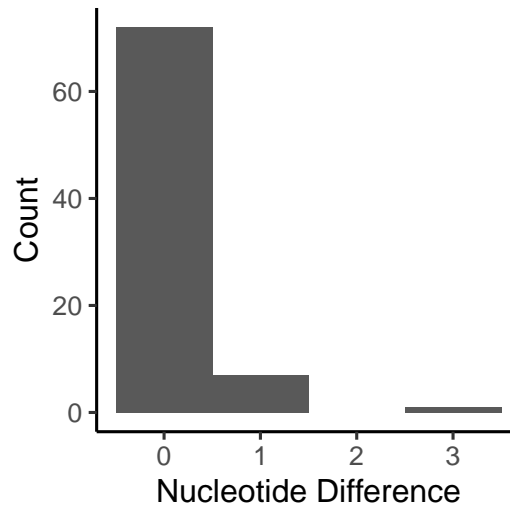
IGHV1-46*03

318 sequences assigned
294 (92.5%) exact matches, in which:
285 unique CDR3
6 unique J



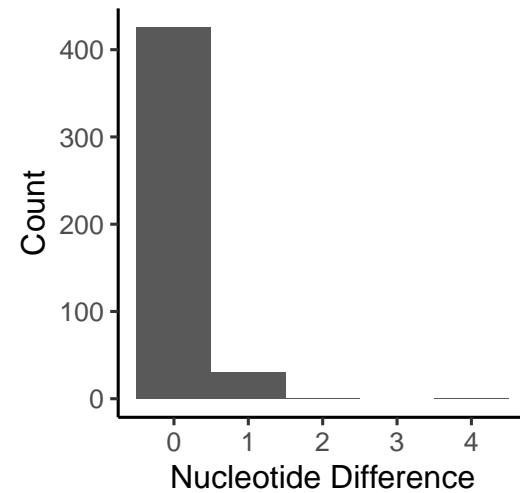
IGHV1-69-2*01

80 sequences assigned
72 (90%) exact matches, in which:
71 unique CDR3
6 unique J



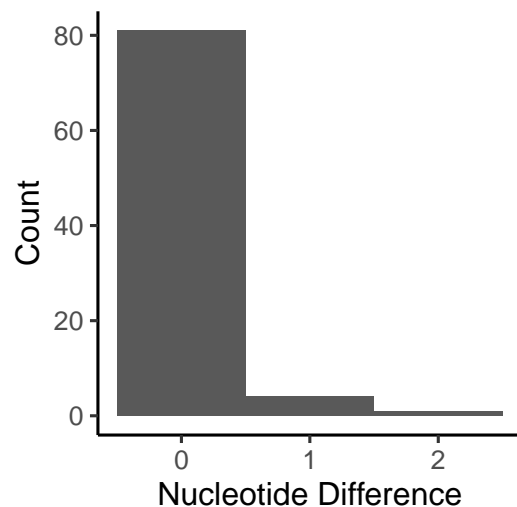
IGHV2-5*02

458 sequences assigned
426 (93%) exact matches, in which:
420 unique CDR3
6 unique J



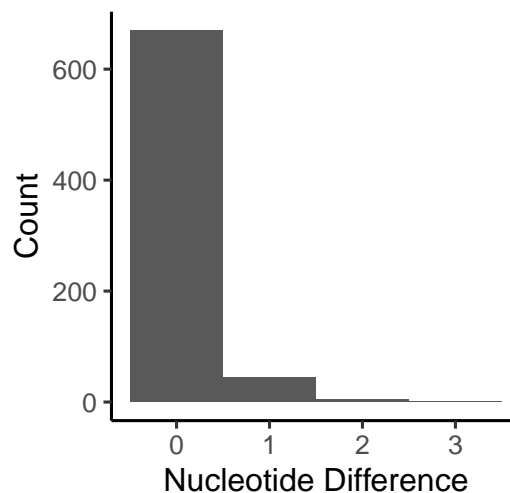
IGHV1-58*01

86 sequences assigned
81 (94.2%) exact matches, in which:
81 unique CDR3
5 unique J



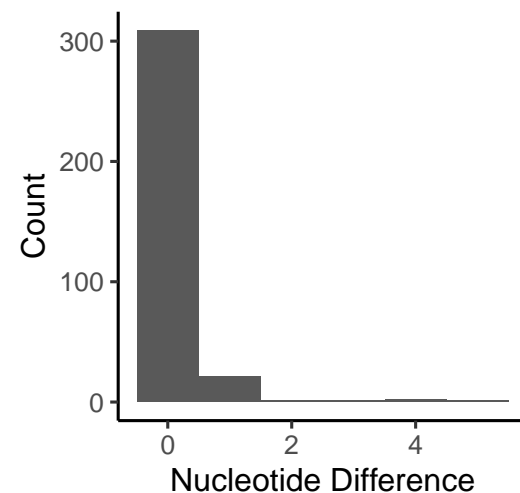
IGHV1-69*04

720 sequences assigned
670 (93.1%) exact matches, in which:
659 unique CDR3
6 unique J



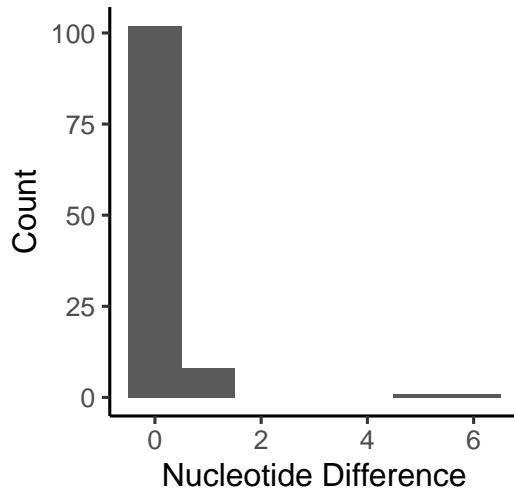
IGHV2-26*01

335 sequences assigned
309 (92.2%) exact matches, in which:
306 unique CDR3
6 unique J



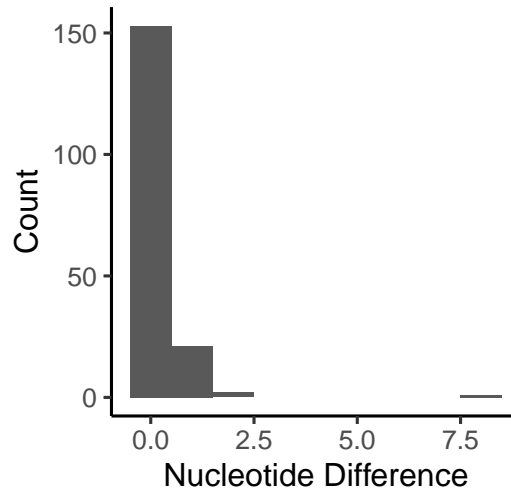
IGHV2-70*01

112 sequences assigned
102 (91.1%) exact matches, in which:
102 unique CDR3
6 unique J



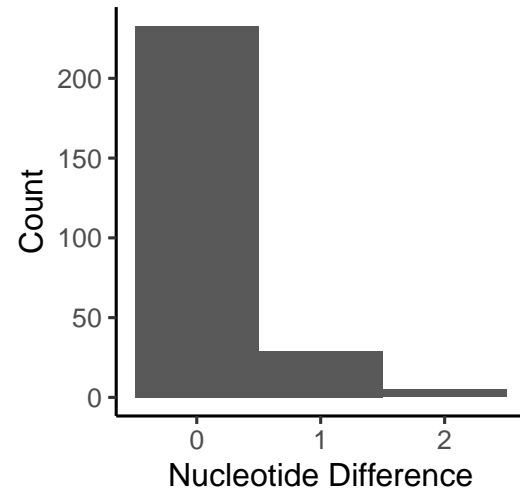
IGHV3-7*05

177 sequences assigned
153 (86.4%) exact matches, in which:
147 unique CDR3
6 unique J



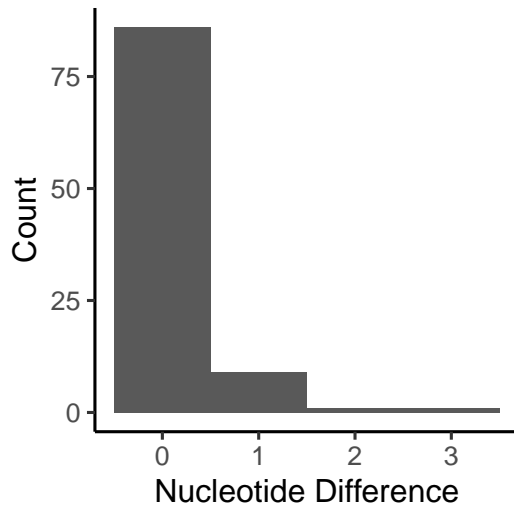
IGHV3-11*06

267 sequences assigned
233 (87.3%) exact matches, in which:
226 unique CDR3
6 unique J



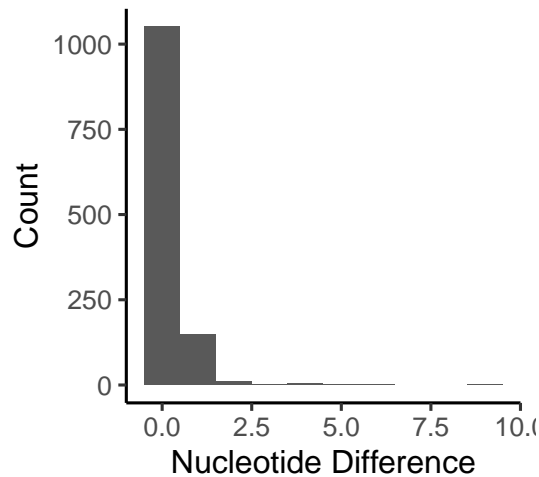
IGHV2-70*15

97 sequences assigned
86 (88.7%) exact matches, in which:
86 unique CDR3
6 unique J



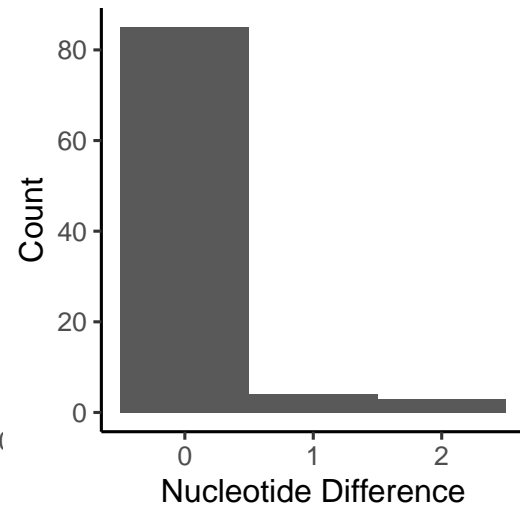
IGHV3-9*01

1219 sequences assigned
1051 (86.2%) exact matches, in which:
1010 unique CDR3
6 unique J



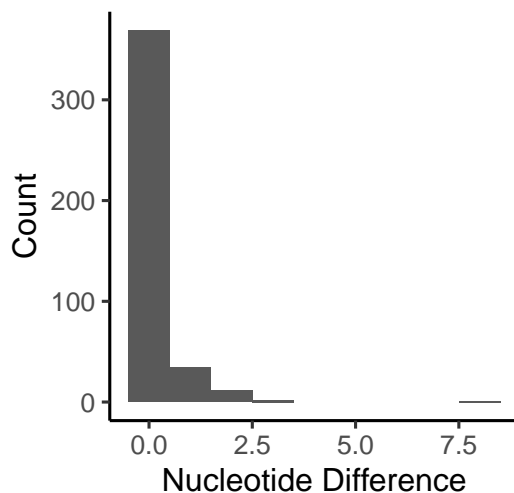
IGHV3-13*01

92 sequences assigned
85 (92.4%) exact matches, in which:
83 unique CDR3
6 unique J



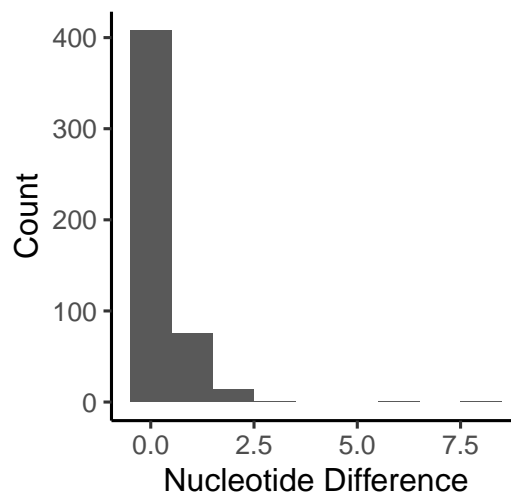
IGHV3-7*01

417 sequences assigned
369 (88.5%) exact matches, in which:
353 unique CDR3
6 unique J



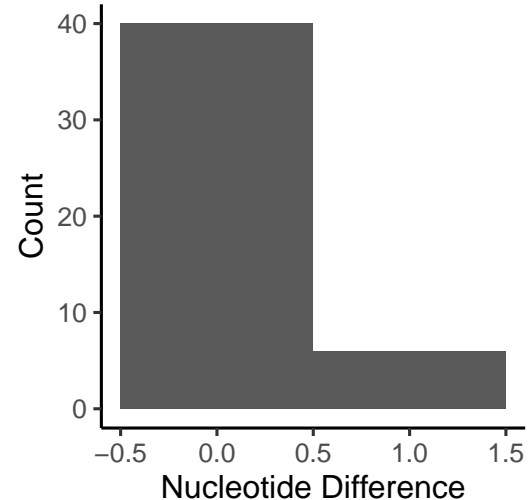
IGHV3-11*01

500 sequences assigned
408 (81.6%) exact matches, in which:
394 unique CDR3
6 unique J



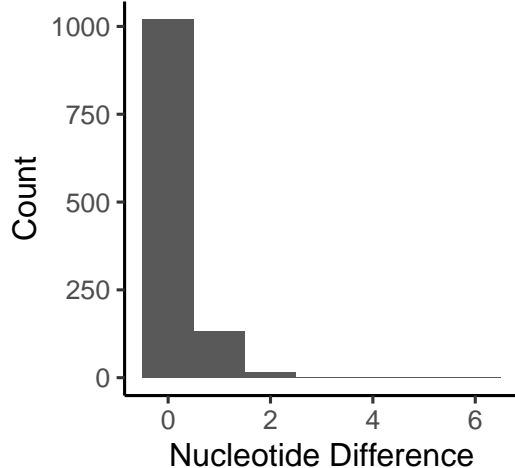
IGHV3-13*05

46 sequences assigned
40 (87%) exact matches, in which:
38 unique CDR3
5 unique J



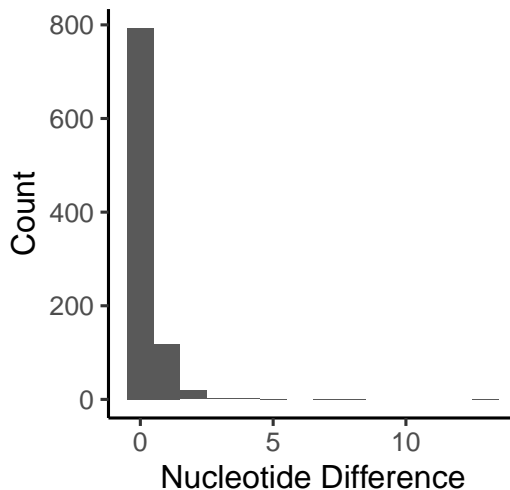
IGHV3-15*01

1176 sequences assigned
1020 (86.7%) exact matches, in which:
989 unique CDR3
6 unique J



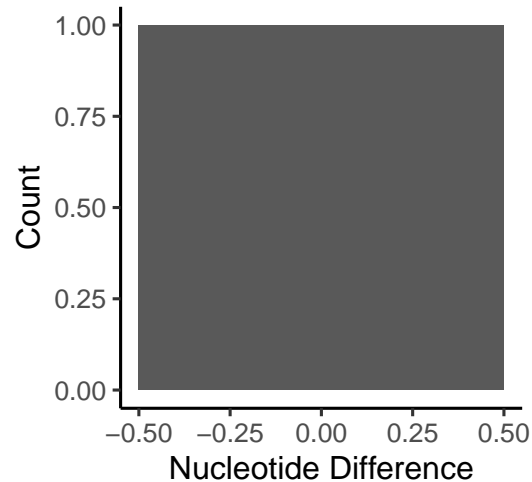
IGHV3-30-3*01

940 sequences assigned
794 (84.5%) exact matches, in which:
758 unique CDR3
6 unique J



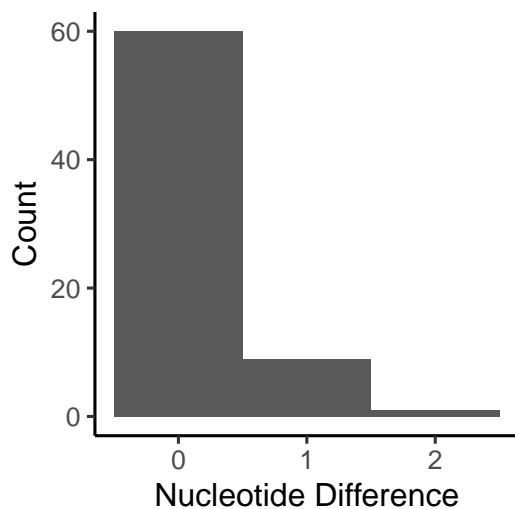
IGHV3-47*02

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



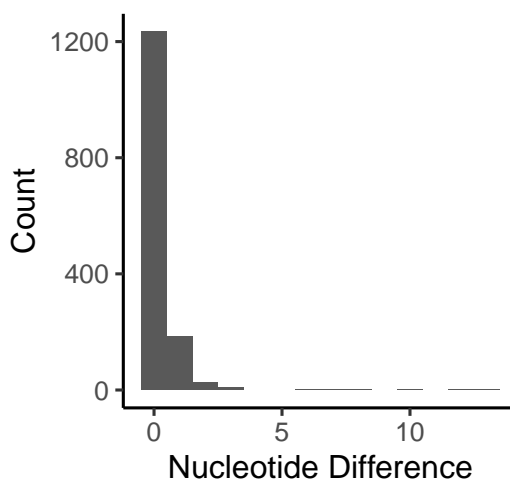
IGHV3-20*01

70 sequences assigned
60 (85.7%) exact matches, in which:
59 unique CDR3
5 unique J



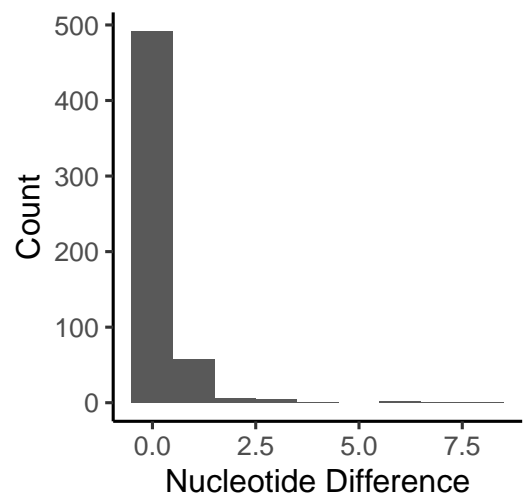
IGHV3-33*01

1465 sequences assigned
1234 (84.2%) exact matches, in which:
1180 unique CDR3
6 unique J



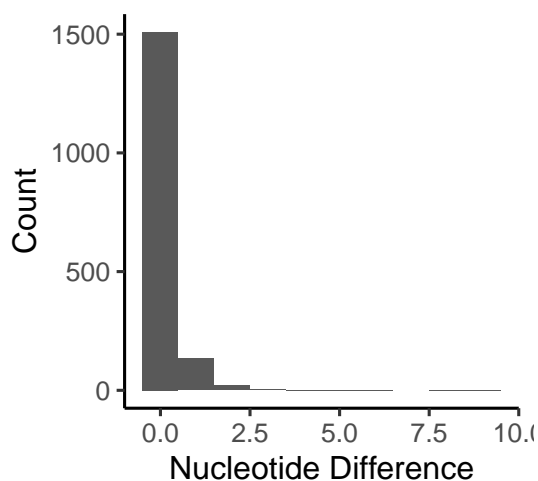
IGHV3-48*02

565 sequences assigned
492 (87.1%) exact matches, in which:
484 unique CDR3
6 unique J



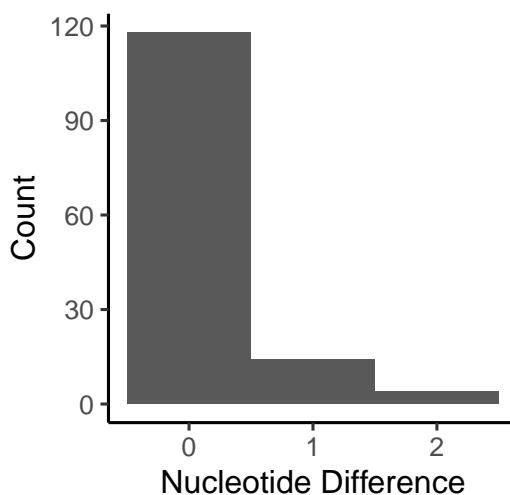
IGHV3-21*01

1672 sequences assigned
1509 (90.3%) exact matches, in which:
1448 unique CDR3
6 unique J



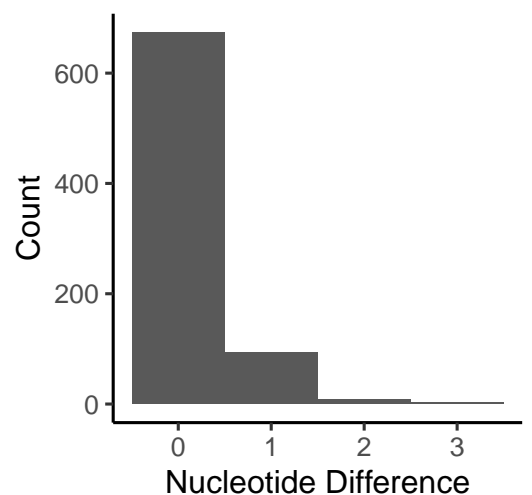
IGHV3-43*01

136 sequences assigned
118 (86.8%) exact matches, in which:
112 unique CDR3
6 unique J



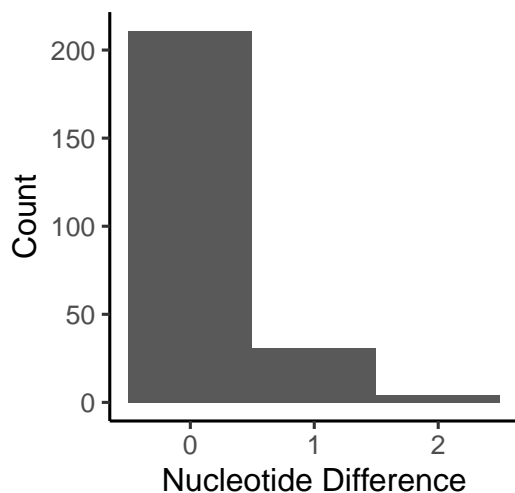
IGHV3-48*03

781 sequences assigned
674 (86.3%) exact matches, in which:
646 unique CDR3
6 unique J



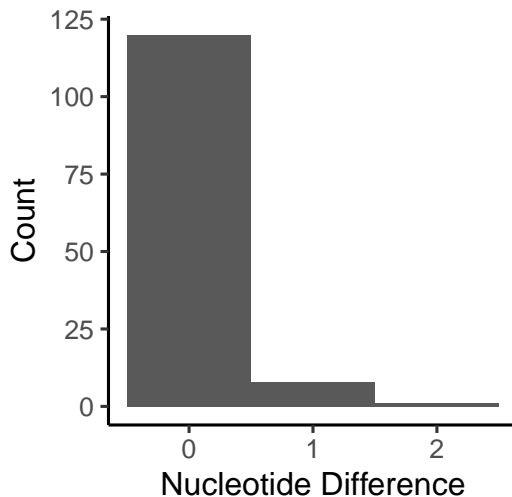
IGHV3-49*04

246 sequences assigned
211 (85.8%) exact matches, in which:
207 unique CDR3
6 unique J



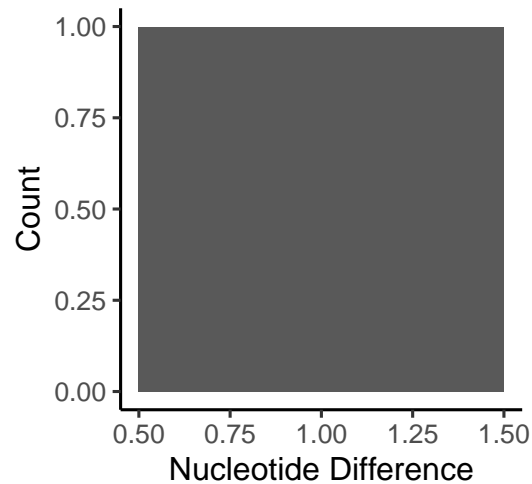
IGHV3-53*04

129 sequences assigned
120 (93%) exact matches, in which:
114 unique CDR3
6 unique J



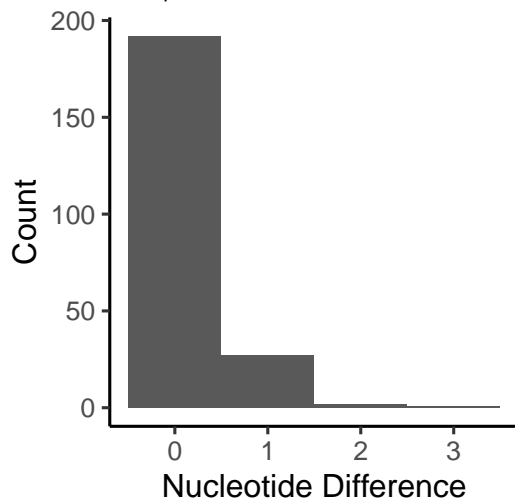
IGHV3-69-1*01

1 sequences assigned
No exact matches.



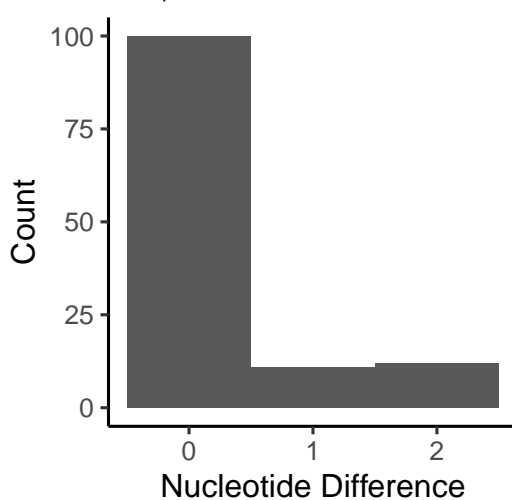
IGHV3-49*05

222 sequences assigned
192 (86.5%) exact matches, in which:
187 unique CDR3
6 unique J



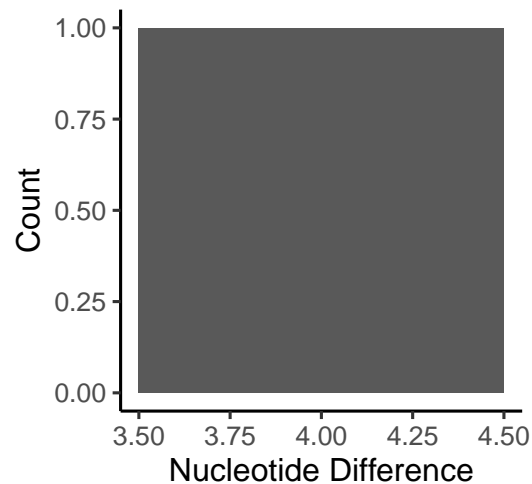
IGHV3-64*01

123 sequences assigned
100 (81.3%) exact matches, in which:
99 unique CDR3
6 unique J



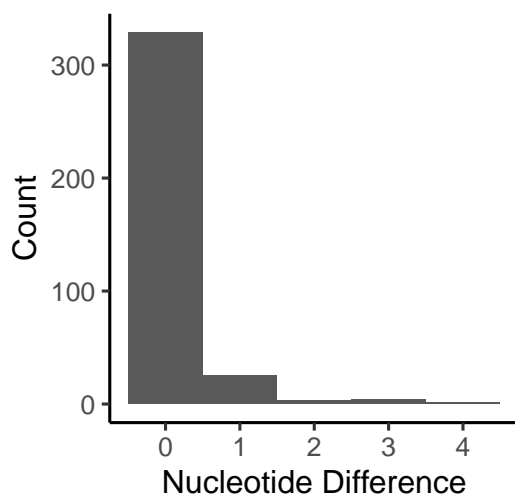
IGHV3-69-1*02

1 sequences assigned
No exact matches.



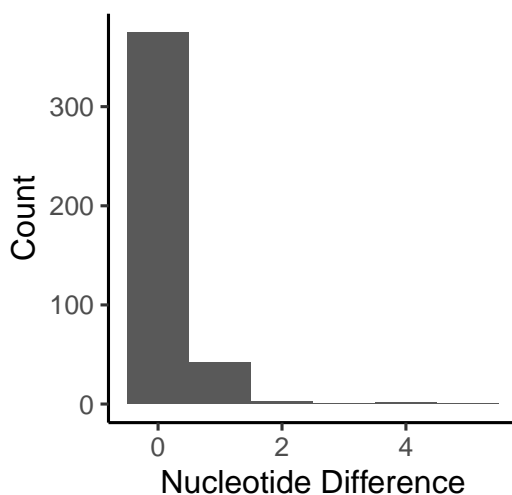
IGHV3-53*01

362 sequences assigned
329 (90.9%) exact matches, in which:
317 unique CDR3
6 unique J



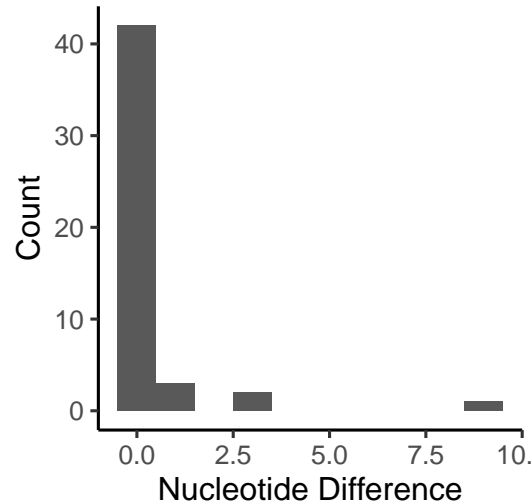
IGHV3-66*01

424 sequences assigned
375 (88.4%) exact matches, in which:
354 unique CDR3
6 unique J



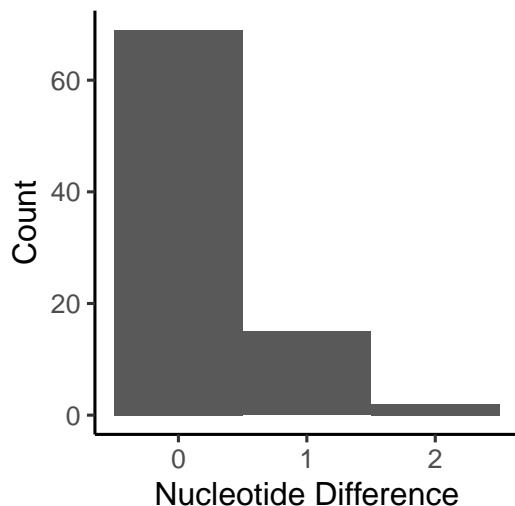
IGHV3-72*01

48 sequences assigned
42 (87.5%) exact matches, in which:
41 unique CDR3
6 unique J



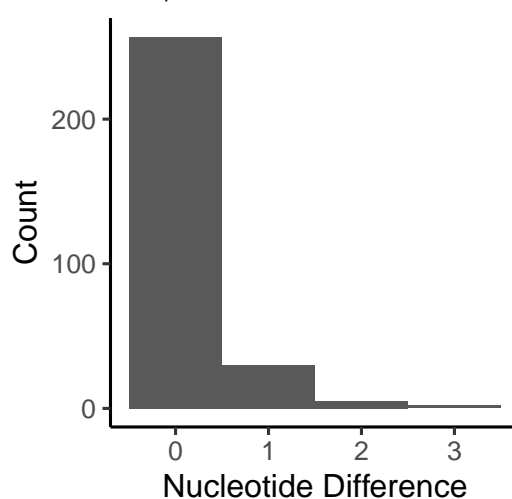
IGHV3-73*01

86 sequences assigned
69 (80.2%) exact matches, in which:
67 unique CDR3
6 unique J



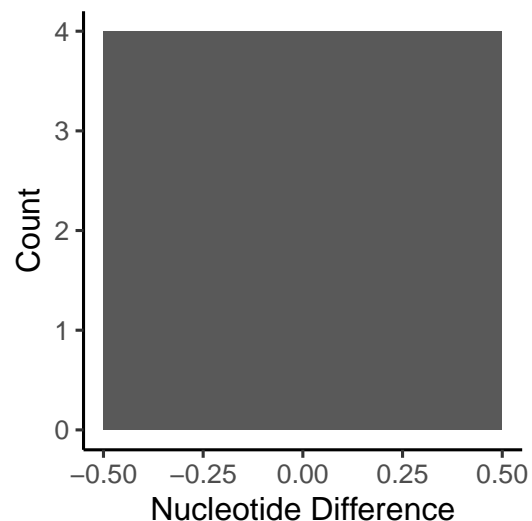
IGHV3-64D*06

294 sequences assigned
257 (87.4%) exact matches, in which:
245 unique CDR3
6 unique J



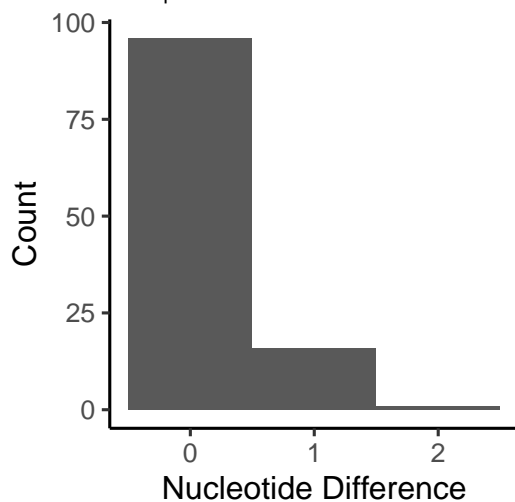
IGHV4-28*01

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



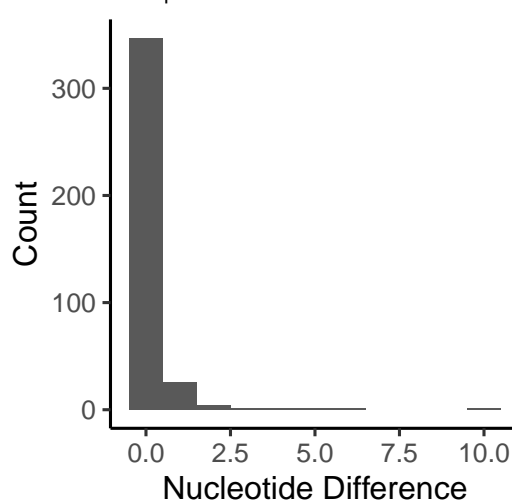
IGHV3-73*02

113 sequences assigned
96 (85%) exact matches, in which:
94 unique CDR3
6 unique J



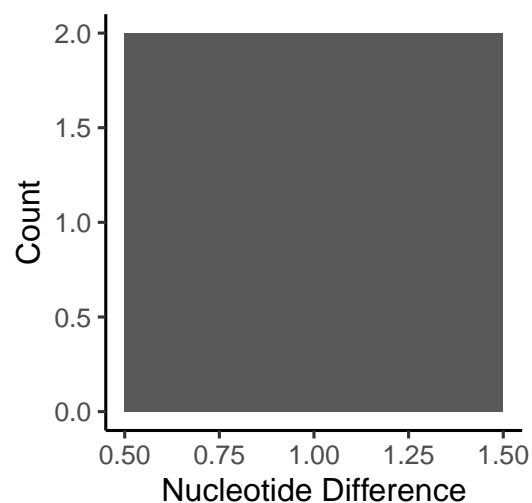
IGHV4-4*02

382 sequences assigned
347 (90.8%) exact matches, in which:
339 unique CDR3
6 unique J



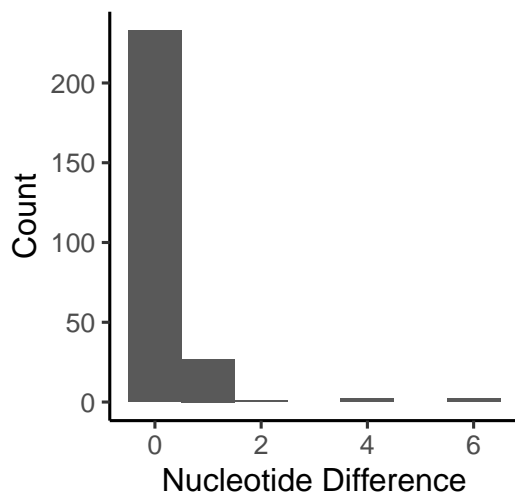
IGHV4-28*04

2 sequences assigned
No exact matches.



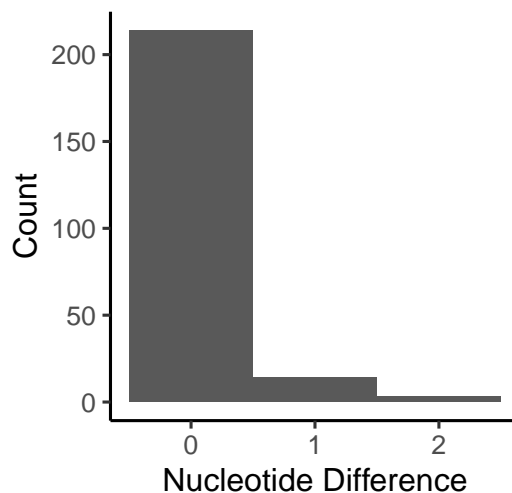
IGHV3-74*01

265 sequences assigned
233 (87.9%) exact matches, in which:
229 unique CDR3
6 unique J



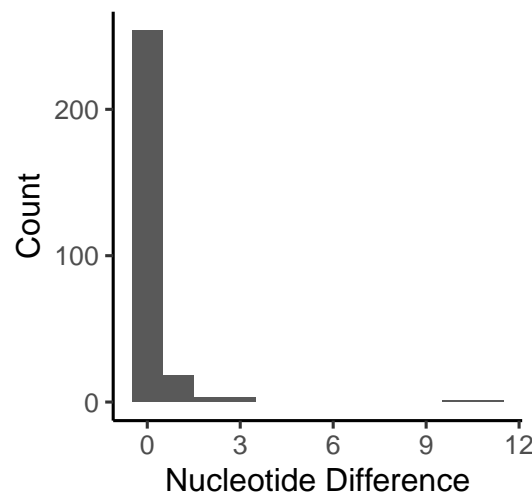
IGHV4-4*07

231 sequences assigned
214 (92.6%) exact matches, in which:
211 unique CDR3
5 unique J



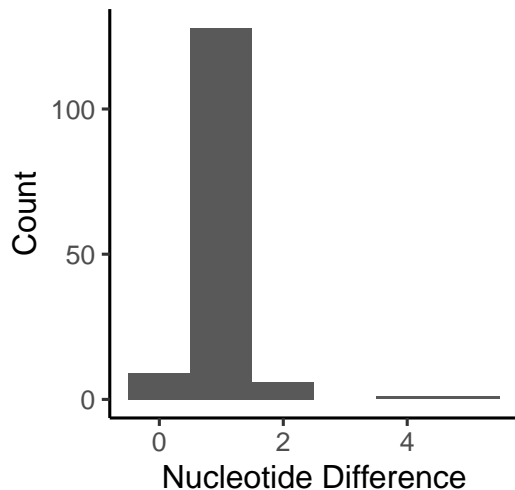
IGHV4-30-4*01

280 sequences assigned
254 (90.7%) exact matches, in which:
251 unique CDR3
6 unique J



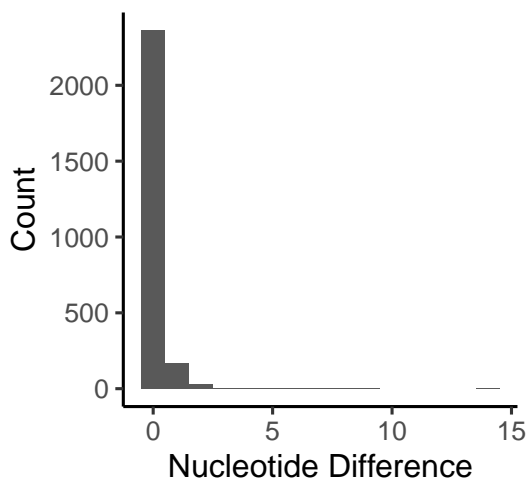
IGHV4-30-2*01

145 sequences assigned
9 (6.2%) exact matches, in which:
9 unique CDR3
3 unique J



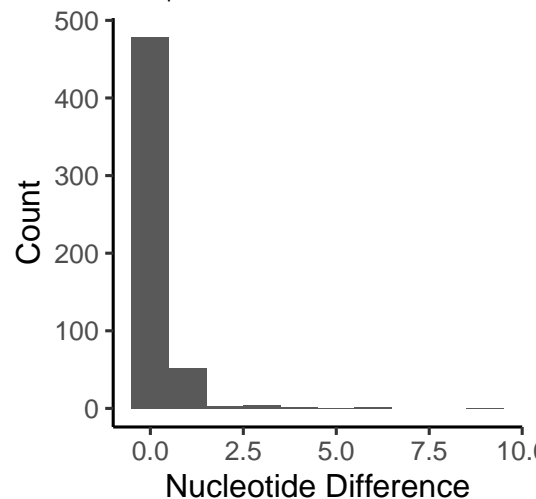
IGHV4-39*01

2580 sequences assigned
2362 (91.6%) exact matches, in which:
2296 unique CDR3
6 unique J



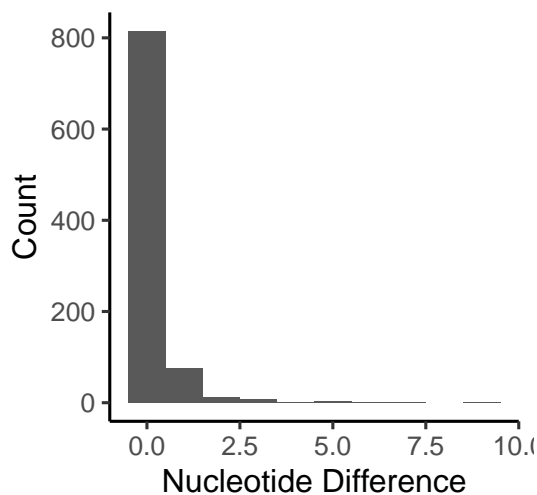
IGHV4-59*08

544 sequences assigned
479 (88.1%) exact matches, in which:
474 unique CDR3
6 unique J



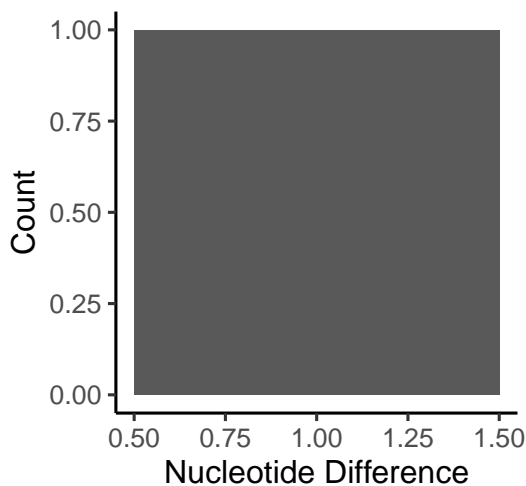
IGHV4-31*03

917 sequences assigned
815 (88.9%) exact matches, in which:
794 unique CDR3
6 unique J



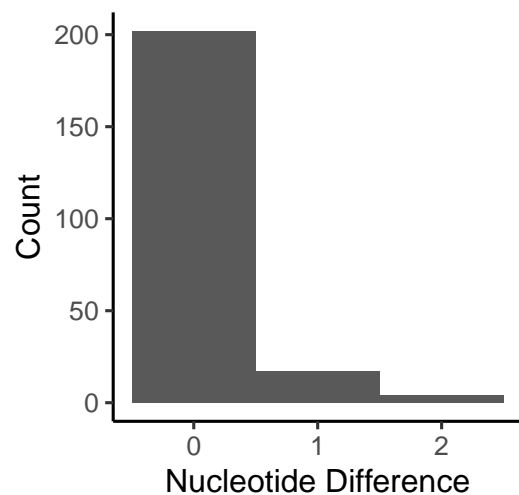
IGHV4-55*08

1 sequences assigned
No exact matches.



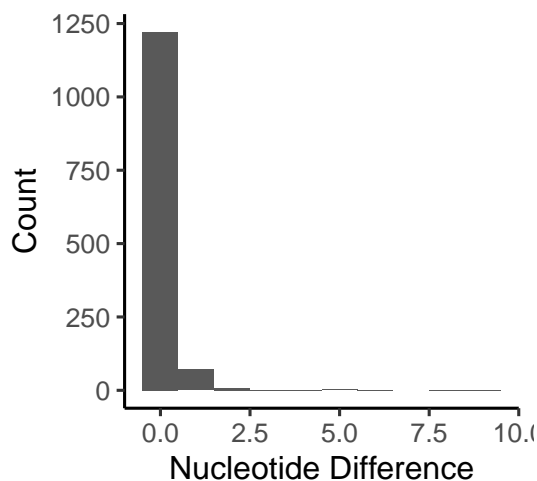
IGHV4-61*01

223 sequences assigned
202 (90.6%) exact matches, in which:
201 unique CDR3
6 unique J



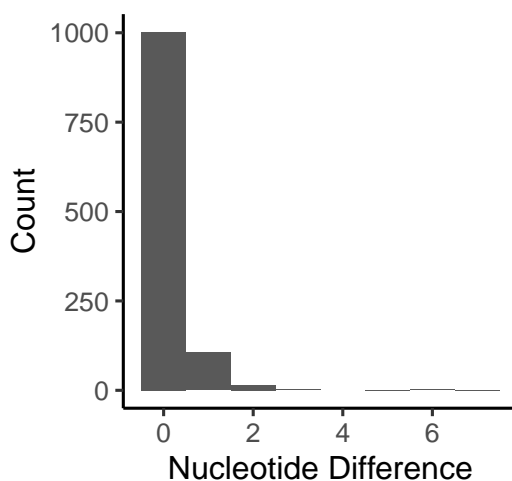
IGHV4-34*01

1310 sequences assigned
1221 (93.2%) exact matches, in which:
1174 unique CDR3
6 unique J



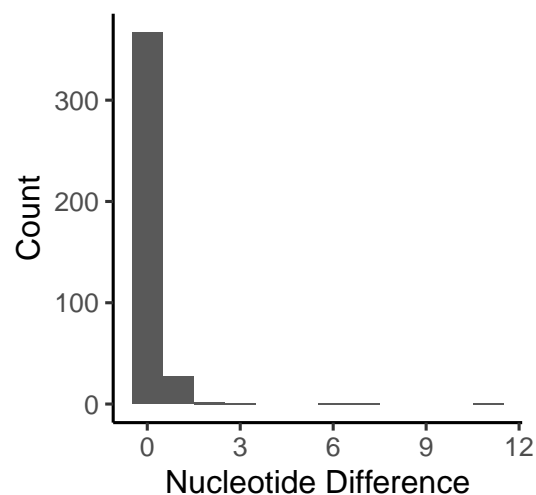
IGHV4-59*01

1128 sequences assigned
1002 (88.8%) exact matches, in which:
985 unique CDR3
6 unique J



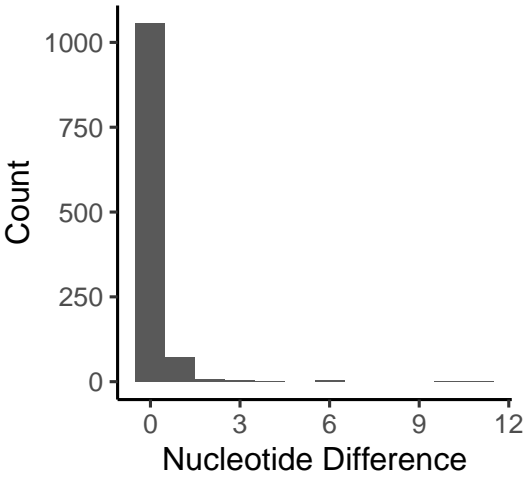
IGHV5-10-1*03

400 sequences assigned
367 (91.8%) exact matches, in which:
354 unique CDR3
6 unique J



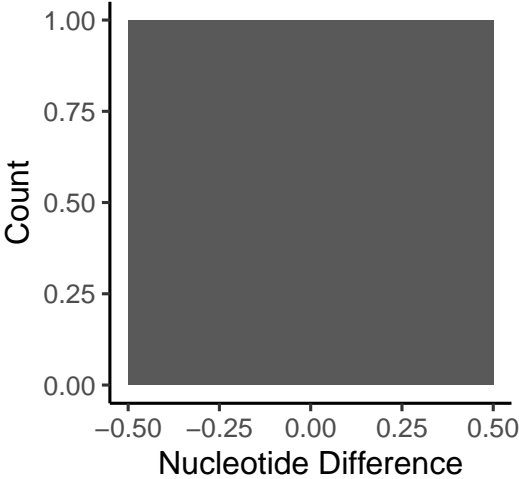
IGHV5-51*01

1148 sequences assigned
1056 (92%) exact matches, in which:
1030 unique CDR3
6 unique J



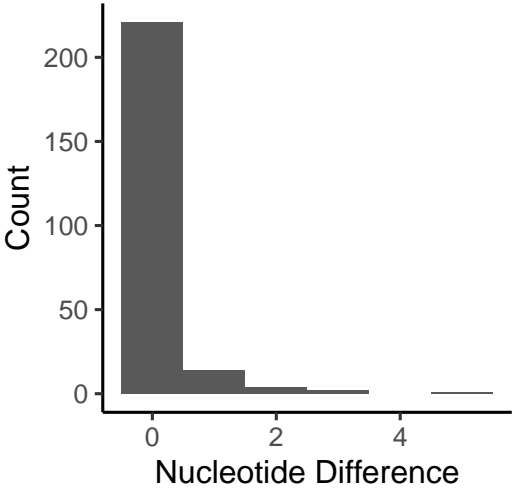
IGHV7-81*01

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



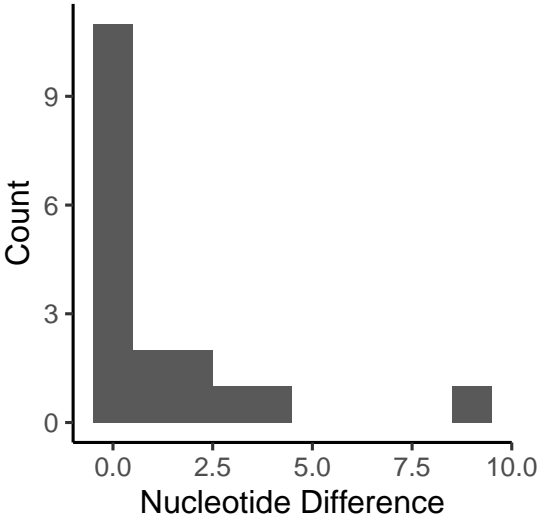
IGHV6-1*01

242 sequences assigned
221 (91.3%) exact matches, in which:
219 unique CDR3
6 unique J



IGHV7-4-1*01

18 sequences assigned
11 (61.1%) exact matches, in which:
11 unique CDR3
4 unique J





Novel sequence(s)IGHV4-30-2*01_G70A are not listed in the genotype and will be ignored.