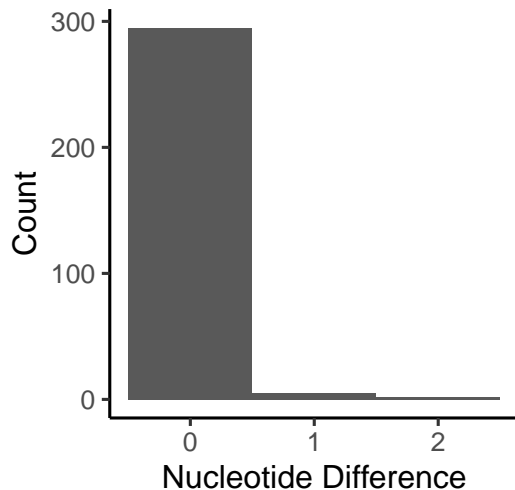


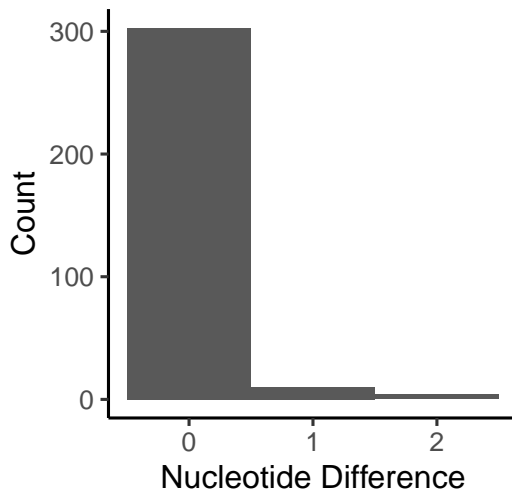
IGHV1-2*04

302 sequences assigned
295 (97.7%) exact matches, in which:
294 unique CDR3
6 unique J



IGHV1-8*01

317 sequences assigned
303 (95.6%) exact matches, in which:
303 unique CDR3
6 unique J



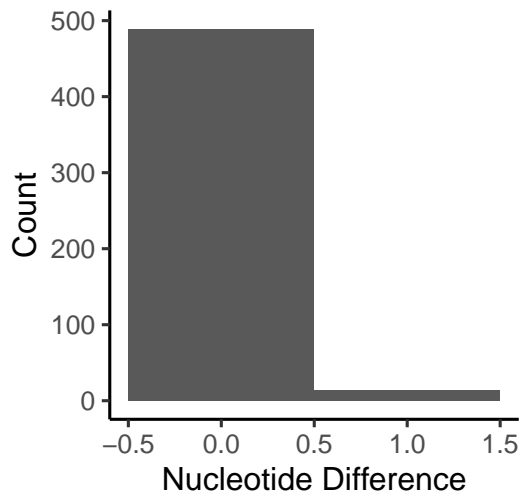
IGHV1-38-4*01

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



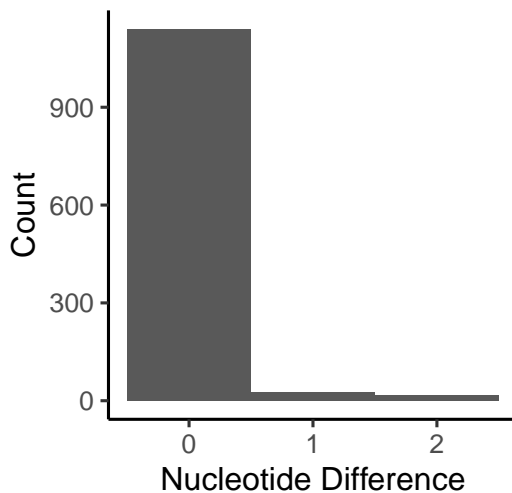
IGHV1-2*06

503 sequences assigned
489 (97.2%) exact matches, in which:
489 unique CDR3
6 unique J



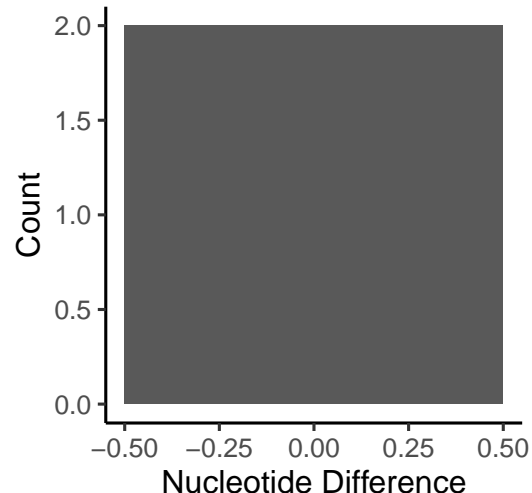
IGHV1-18*01

1184 sequences assigned
1140 (96.3%) exact matches, in which:
1139 unique CDR3
6 unique J



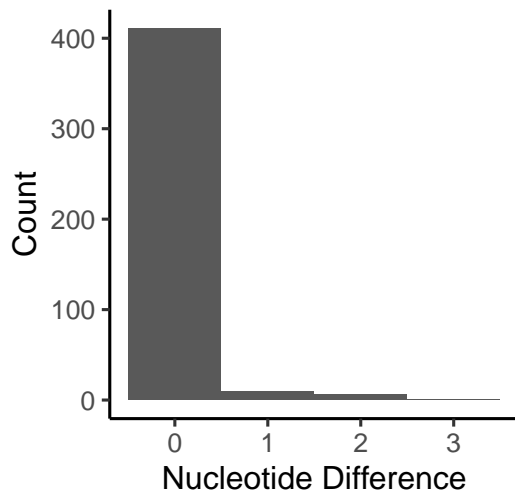
IGHV1-45*02

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



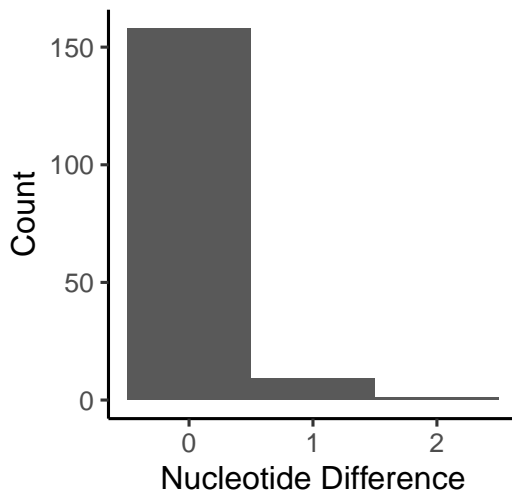
IGHV1-3*01_05

427 sequences assigned
411 (96.3%) exact matches, in which:
411 unique CDR3
6 unique J



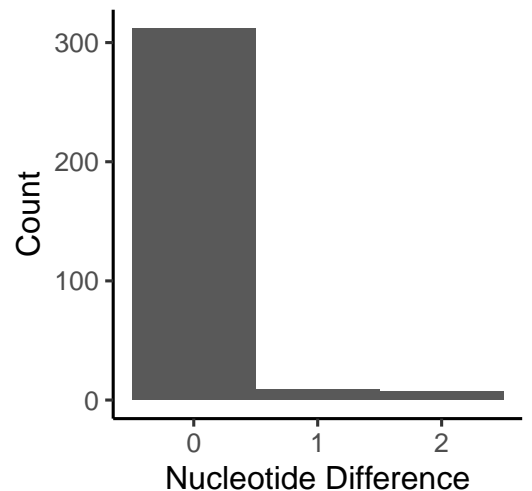
IGHV1-24*01

168 sequences assigned
158 (94%) exact matches, in which:
158 unique CDR3
5 unique J



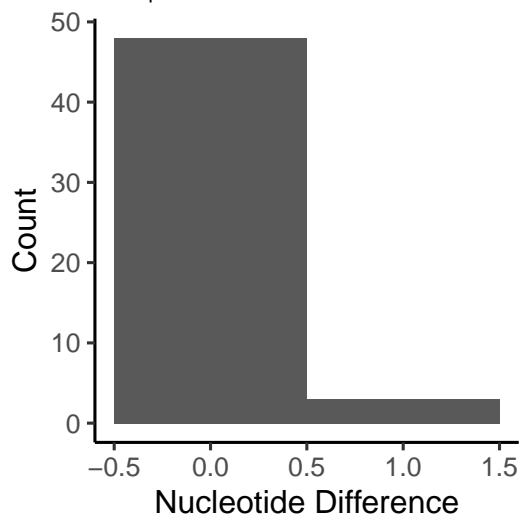
IGHV1-46*03

328 sequences assigned
312 (95.1%) exact matches, in which:
312 unique CDR3
6 unique J



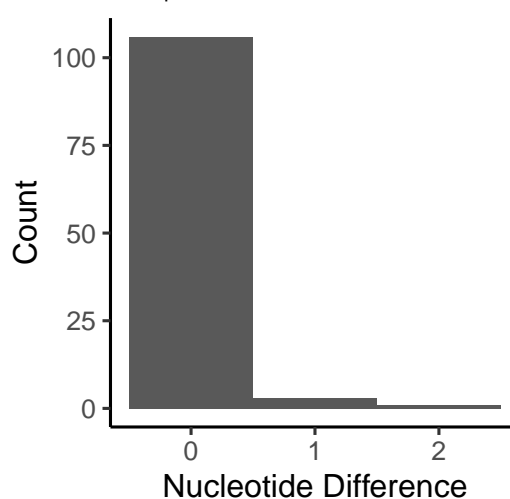
IGHV1–58*02

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



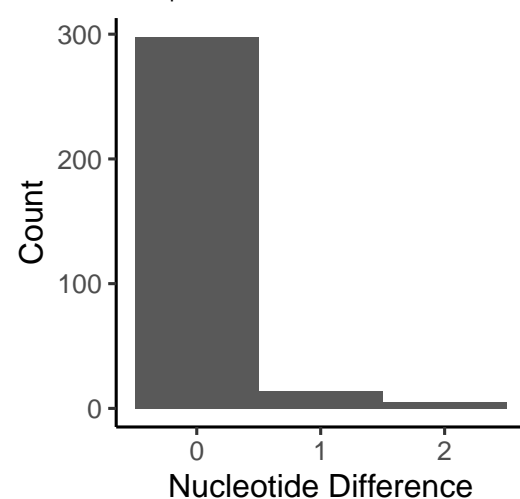
IGHV2–26*01

110 sequences assigned
106 (96.4%) exact matches, in which:
106 unique CDR3
5 unique J



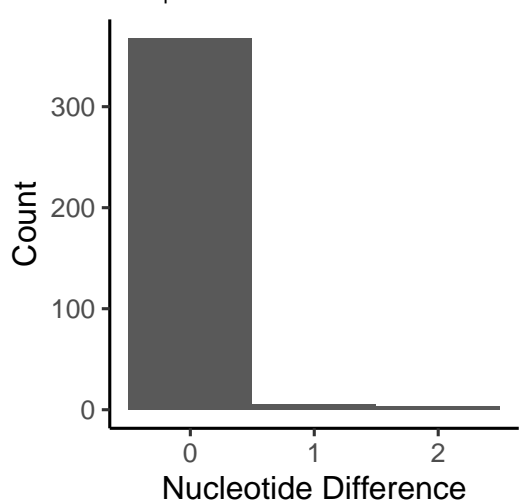
IGHV3–7*01

317 sequences assigned
298 (94%) exact matches, in which:
291 unique CDR3
6 unique J



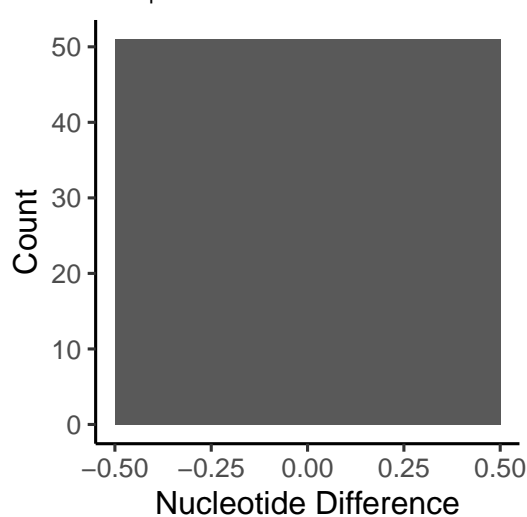
IGHV1–69*04_09

376 sequences assigned
368 (97.9%) exact matches, in which:
368 unique CDR3
6 unique J



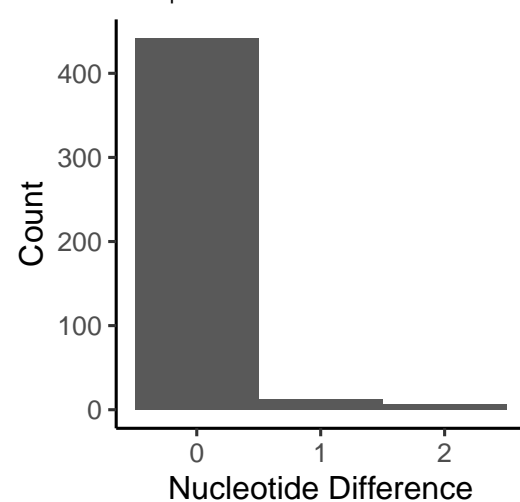
IGHV2–70*01

51 sequences assigned
51 (100%) exact matches, in which:
51 unique CDR3
4 unique J



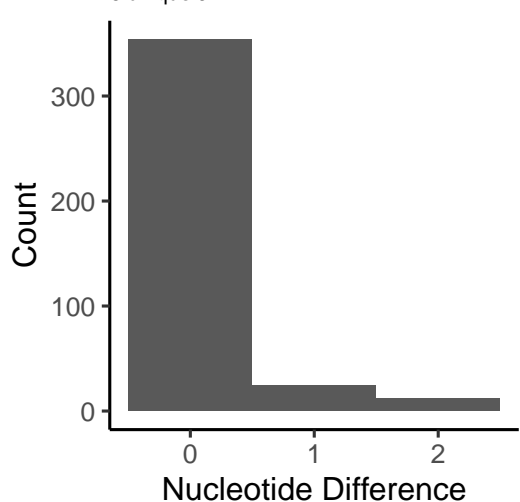
IGHV3–7*03

461 sequences assigned
442 (95.9%) exact matches, in which:
434 unique CDR3
6 unique J



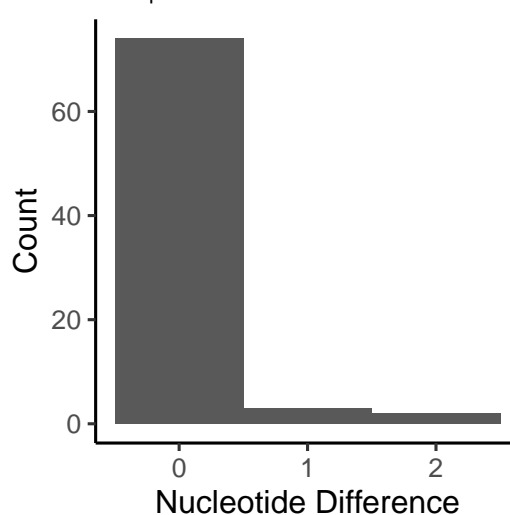
IGHV2–5*02

390 sequences assigned
354 (90.8%) exact matches, in which:
353 unique CDR3
6 unique J



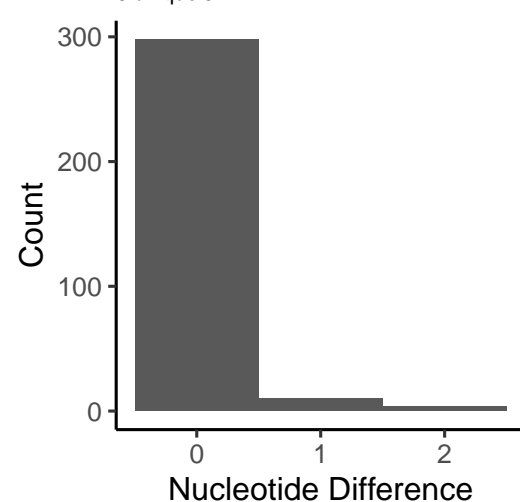
IGHV2–70*11_15

79 sequences assigned
74 (93.7%) exact matches, in which:
73 unique CDR3
5 unique J



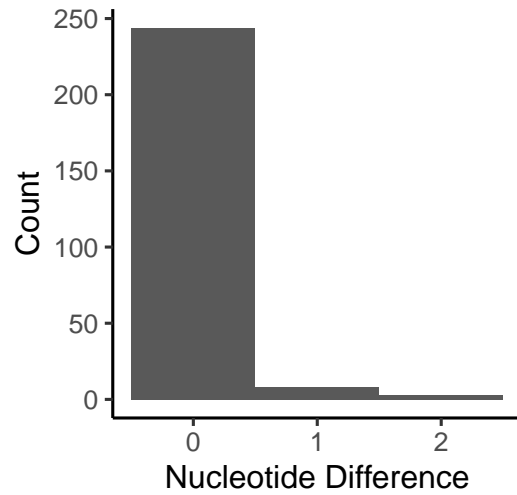
IGHV3–9*01

312 sequences assigned
298 (95.5%) exact matches, in which:
298 unique CDR3
6 unique J



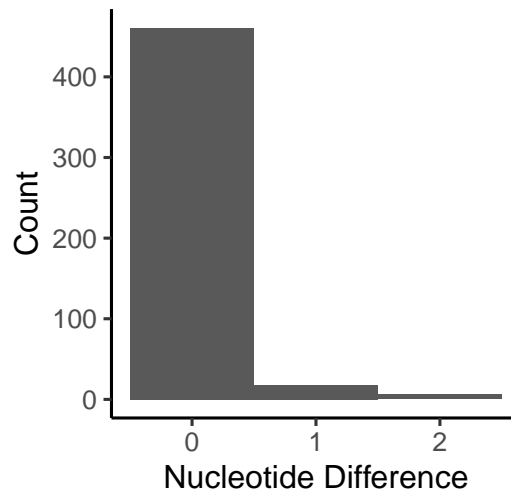
IGHV3-11*01

255 sequences assigned
244 (95.7%) exact matches, in which:
243 unique CDR3
6 unique J



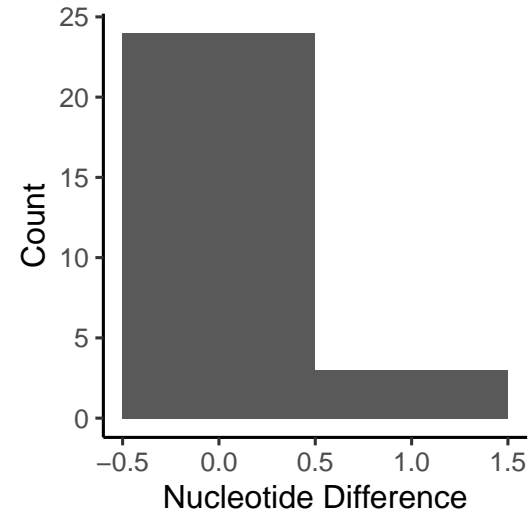
IGHV3-15*07

485 sequences assigned
461 (95.1%) exact matches, in which:
453 unique CDR3
6 unique J



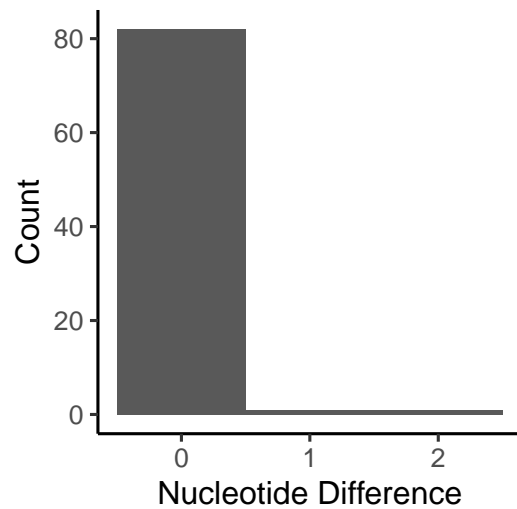
IGHV3-20*03_04

27 sequences assigned
24 (88.9%) exact matches, in which:
24 unique CDR3
4 unique J



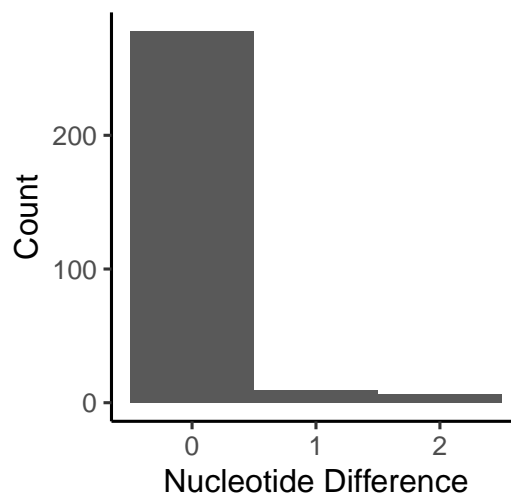
IGHV3-11*06

84 sequences assigned
82 (97.6%) exact matches, in which:
82 unique CDR3
5 unique J



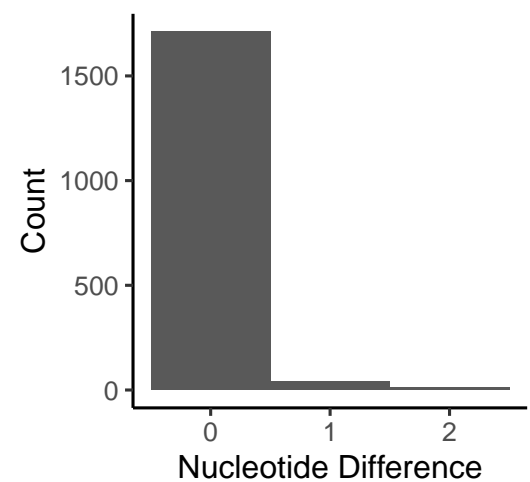
IGHV3-15*01_02

293 sequences assigned
278 (94.9%) exact matches, in which:
273 unique CDR3
6 unique J



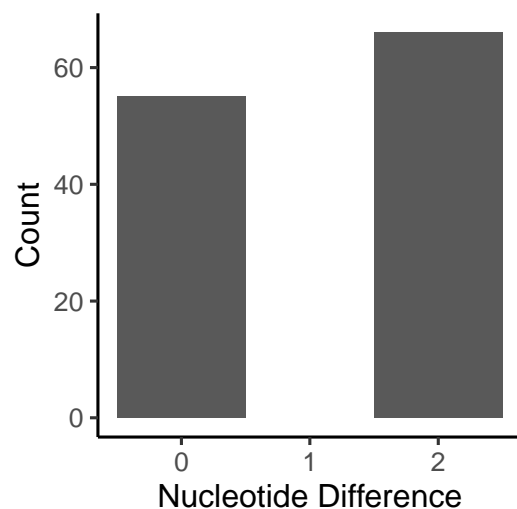
IGHV3-21*01_02

1763 sequences assigned
1711 (97.1%) exact matches, in which:
1690 unique CDR3
6 unique J



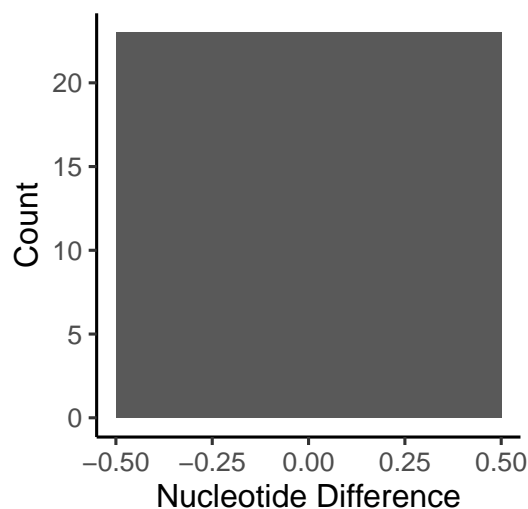
IGHV3-13*01

121 sequences assigned
55 (45.5%) exact matches, in which:
55 unique CDR3
5 unique J



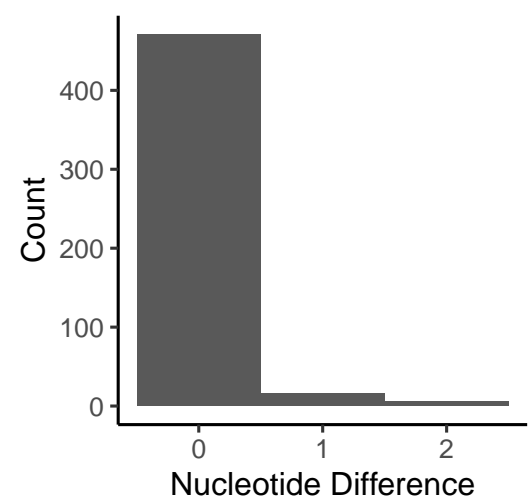
IGHV3-20*01_02

23 sequences assigned
23 (100%) exact matches, in which:
22 unique CDR3
5 unique J



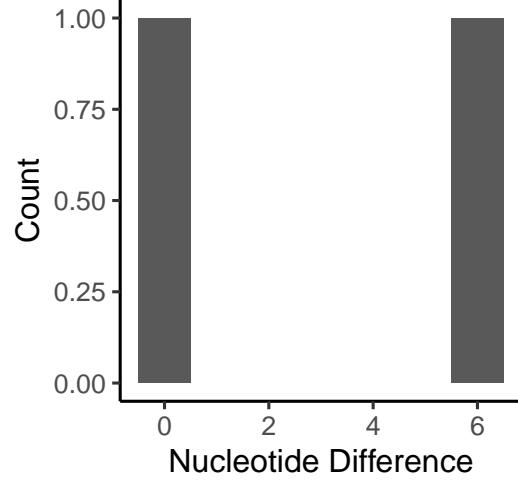
IGHV3-33*01

493 sequences assigned
471 (95.5%) exact matches, in which:
462 unique CDR3
6 unique J



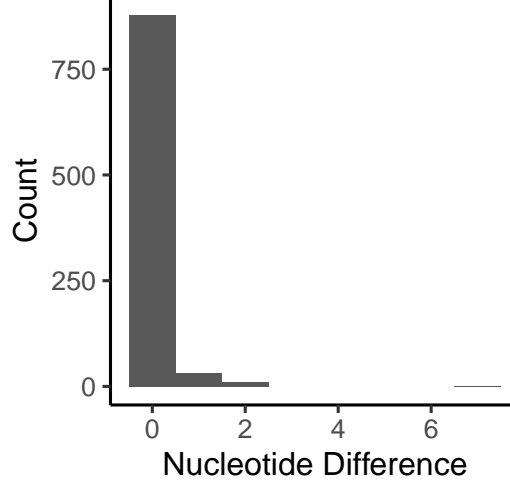
IGHV3-38-3*01

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



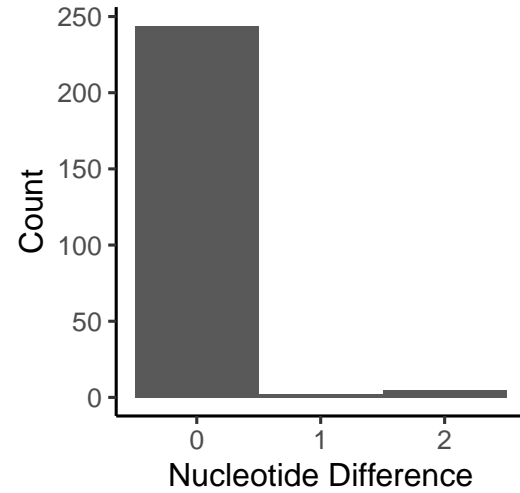
IGHV3-48*01

921 sequences assigned
879 (95.4%) exact matches, in which:
863 unique CDR3
6 unique J



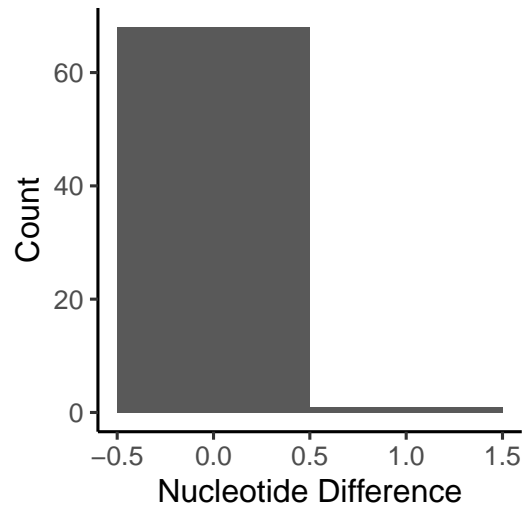
IGHV3-53*01_02

251 sequences assigned
244 (97.2%) exact matches, in which:
239 unique CDR3
6 unique J



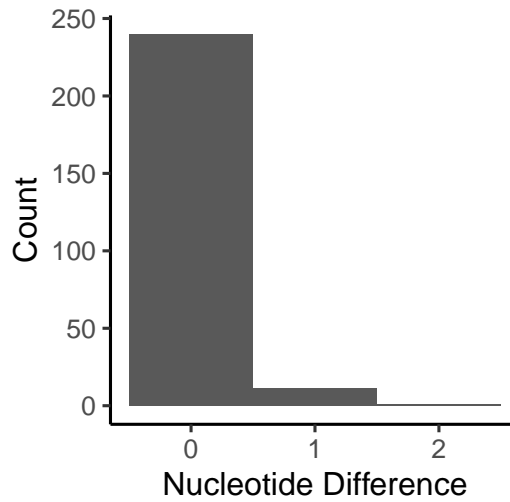
IGHV3-43*01

69 sequences assigned
68 (98.6%) exact matches, in which:
67 unique CDR3
6 unique J



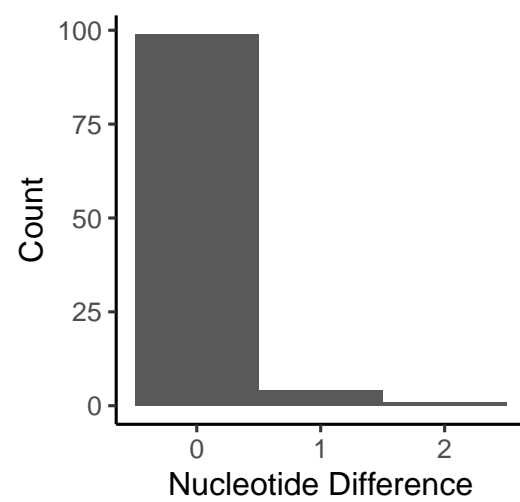
IGHV3-49*03_05

252 sequences assigned
240 (95.2%) exact matches, in which:
239 unique CDR3
6 unique J



IGHV3-64*01

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



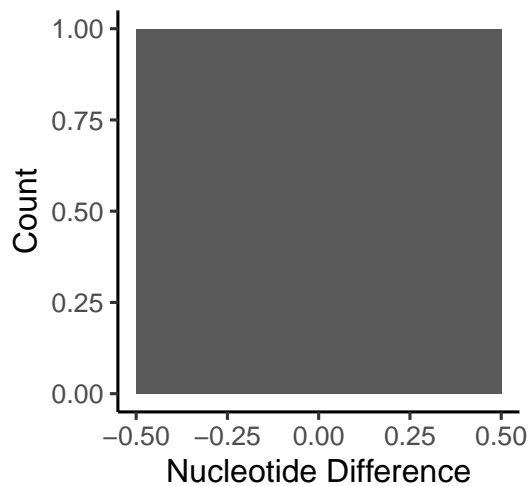
IGHV3-47*02

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



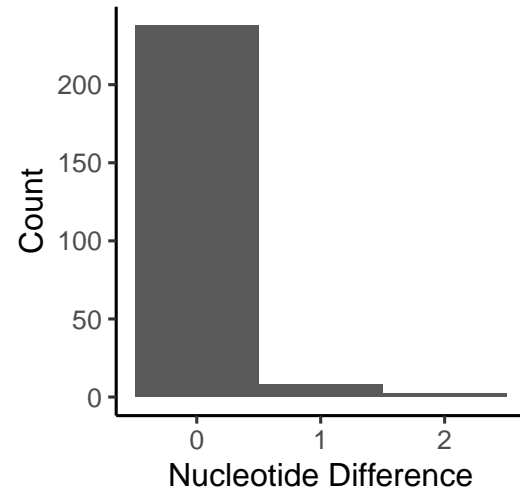
IGHV3-52*02

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



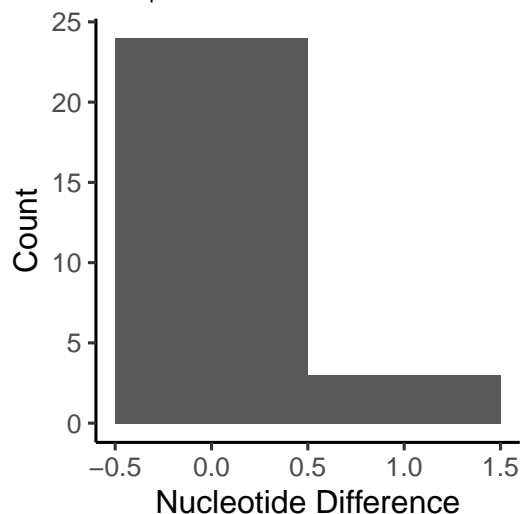
IGHV3-66*01

248 sequences assigned
238 (96%) exact matches, in which:
236 unique CDR3
6 unique J



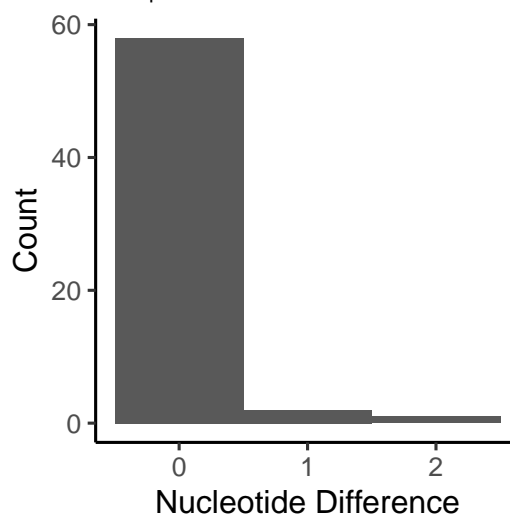
IGHV3-72*01

27 sequences assigned
24 (88.9%) exact matches, in which:
24 unique CDR3
3 unique J



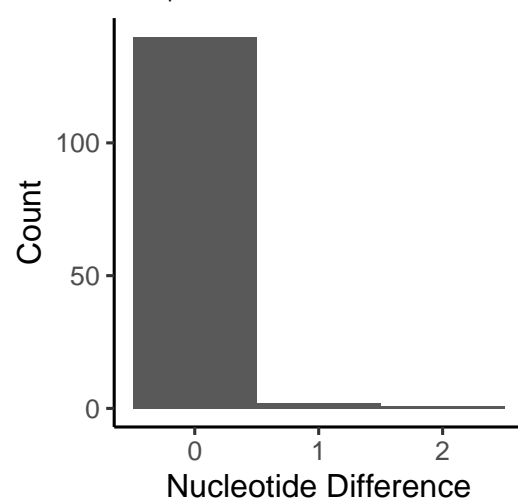
IGHV3-43D*03

61 sequences assigned
58 (95.1%) exact matches, in which:
57 unique CDR3
4 unique J



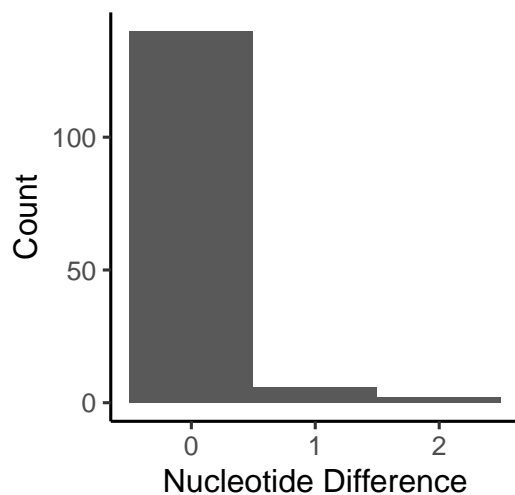
IGHV4-30-2*01

143 sequences assigned
140 (97.9%) exact matches, in which:
139 unique CDR3
6 unique J



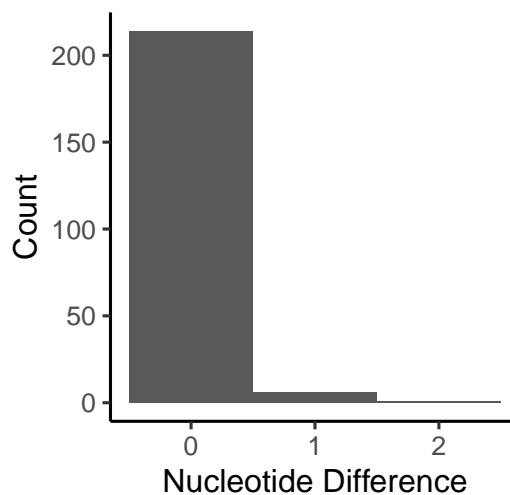
IGHV3-73*01_02

148 sequences assigned
140 (94.6%) exact matches, in which:
139 unique CDR3
6 unique J



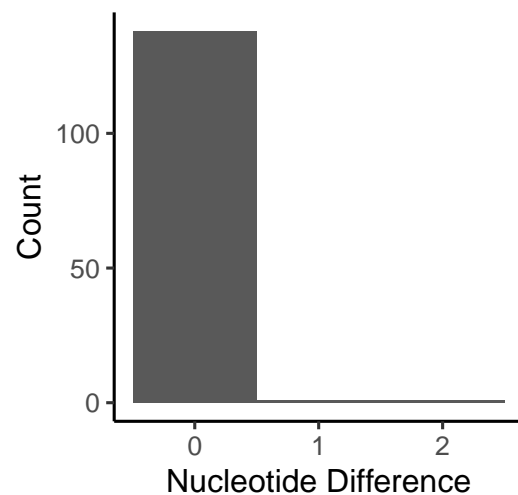
IGHV3-64D*06

221 sequences assigned
214 (96.8%) exact matches, in which:
212 unique CDR3
5 unique J



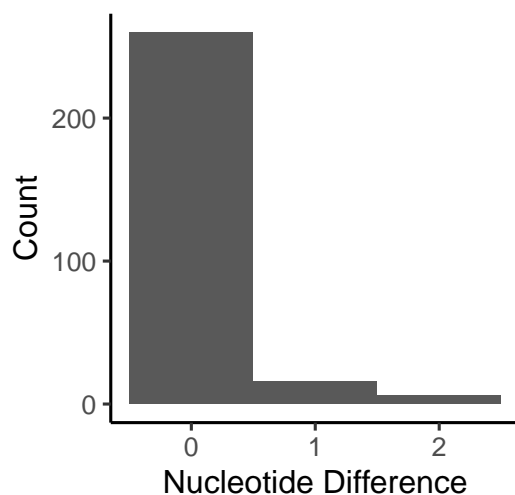
IGHV4-30-4*07

140 sequences assigned
138 (98.6%) exact matches, in which:
137 unique CDR3
6 unique J



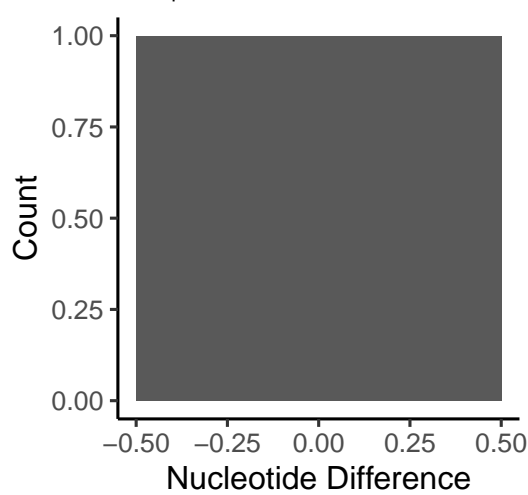
IGHV3-74*01_02

282 sequences assigned
260 (92.2%) exact matches, in which:
255 unique CDR3
6 unique J



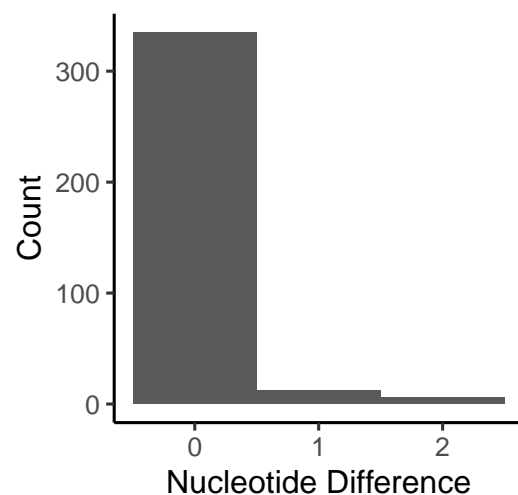
IGHV4-28*03

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



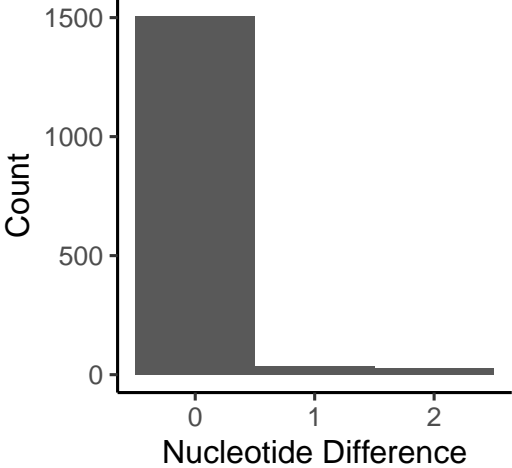
IGHV4-31*03_04

353 sequences assigned
335 (94.9%) exact matches, in which:
334 unique CDR3
6 unique J



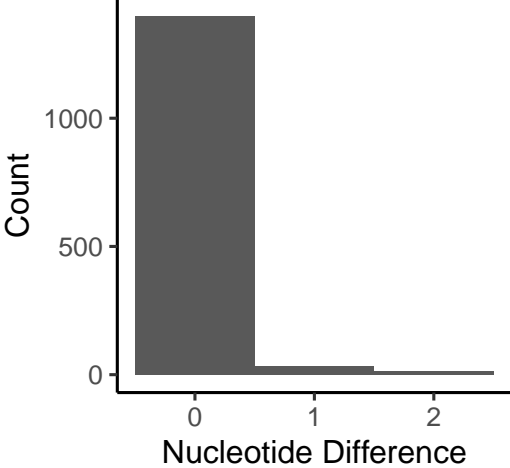
IGHV4-34*01_02

1571 sequences assigned
1505 (95.8%) exact matches, in which:
1482 unique CDR3
6 unique J



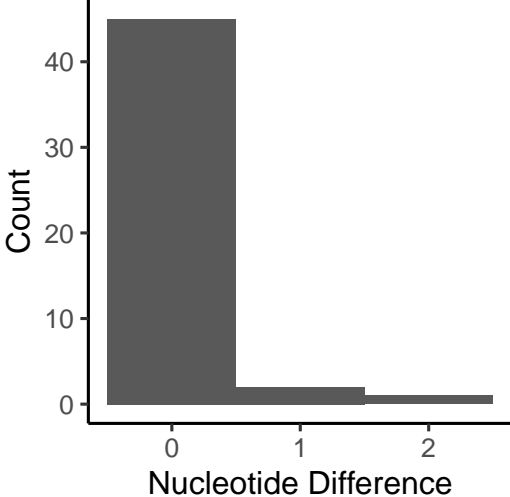
IGHV4-59*08

1443 sequences assigned
1397 (96.8%) exact matches, in which:
1384 unique CDR3
6 unique J



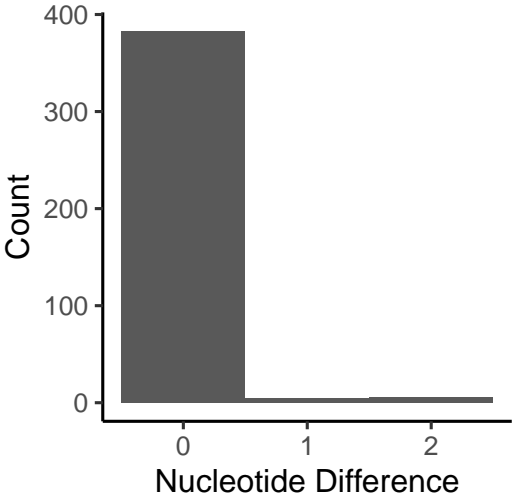
IGHV5-10-1*01_03

48 sequences assigned
45 (93.8%) exact matches, in which:
45 unique CDR3
5 unique J



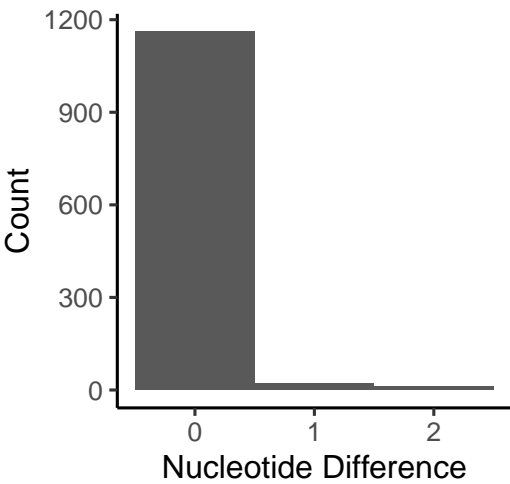
IGHV4-38-2*02

394 sequences assigned
383 (97.2%) exact matches, in which:
379 unique CDR3
6 unique J



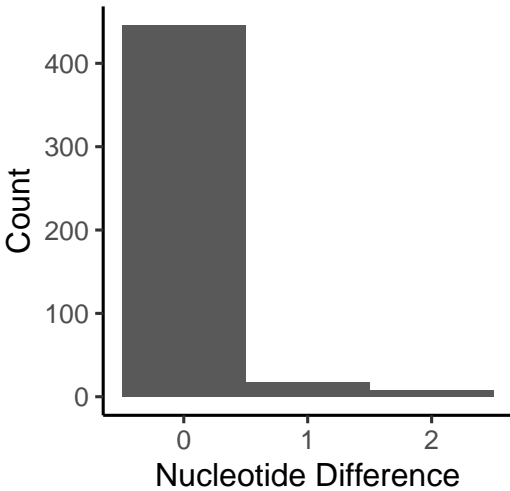
IGHV4-59*01_07

1194 sequences assigned
1161 (97.2%) exact matches, in which:
1142 unique CDR3
6 unique J



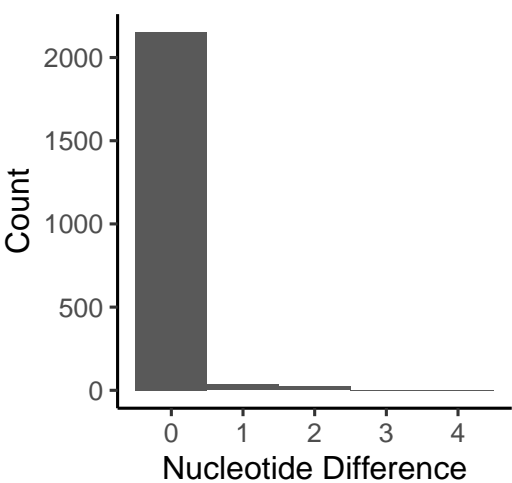
IGHV5-51*01_03

471 sequences assigned
446 (94.7%) exact matches, in which:
446 unique CDR3
6 unique J



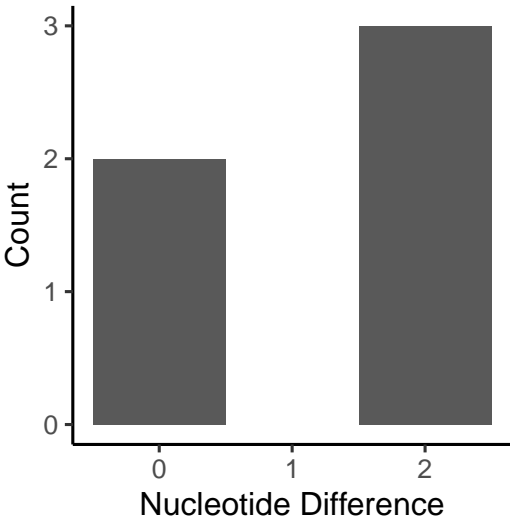
IGHV4-39*01_05

2212 sequences assigned
2153 (97.3%) exact matches, in which:
2121 unique CDR3
6 unique J



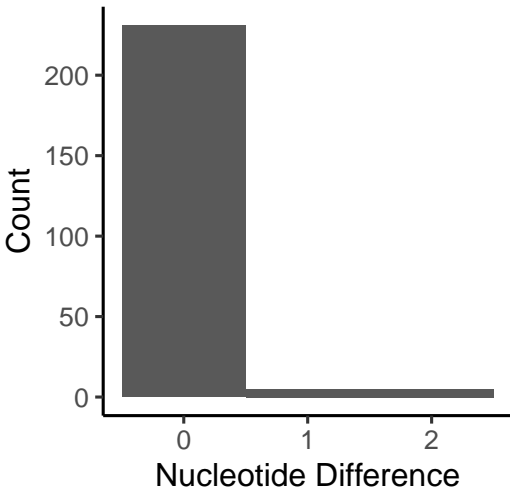
IGHV4-61*02

5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
2 unique J



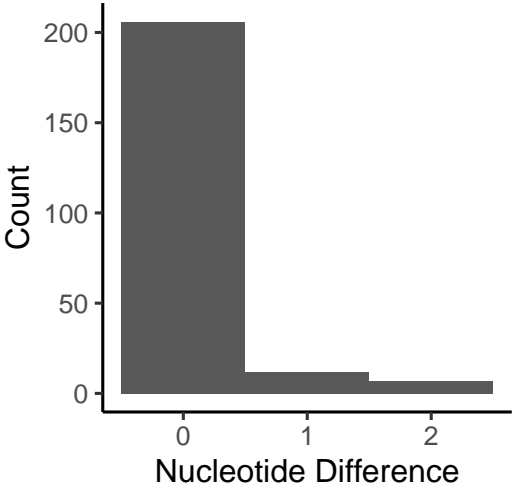
IGHV6-1*01_02

241 sequences assigned
231 (95.9%) exact matches, in which:
230 unique CDR3
6 unique J



IGHV7-4-1*02

225 sequences assigned
206 (91.6%) exact matches, in which:
205 unique CDR3
6 unique J





Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV3–11*06_T300C IGHV4–38–2*02_A70G IGHV4–39*02_C258G IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–39*02_C258G IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–39*02_C258G IGHV5–51*07_A128G are not listed in the genotype and will be ignored.