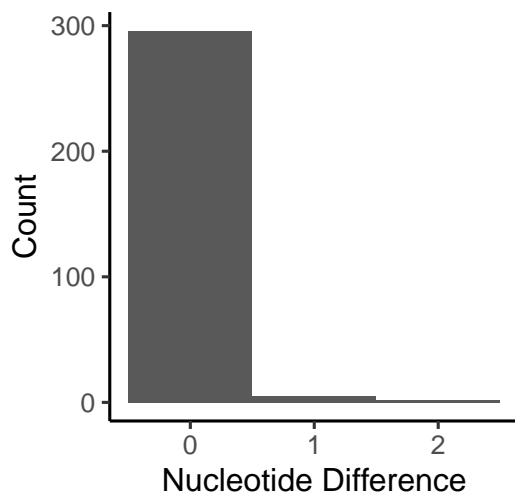


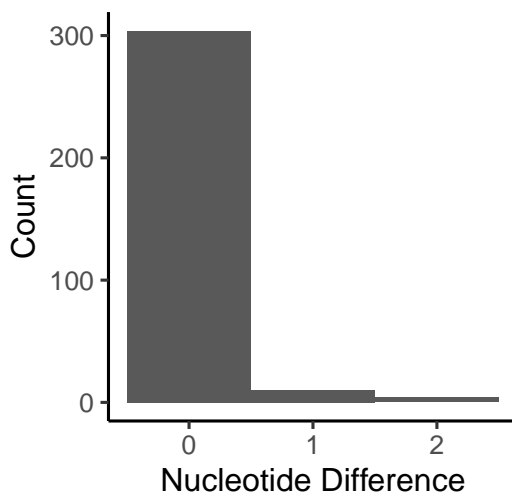
IGHV1-2*04

303 sequences assigned
296 (97.7%) exact matches, in which:
295 unique CDR3
6 unique J



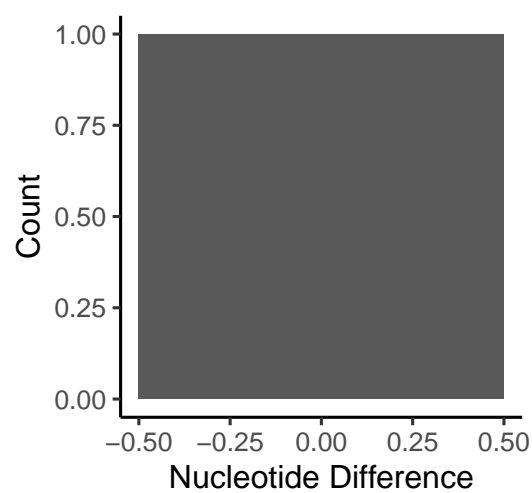
IGHV1-8*01

318 sequences assigned
304 (95.6%) exact matches, in which:
304 unique CDR3
6 unique J



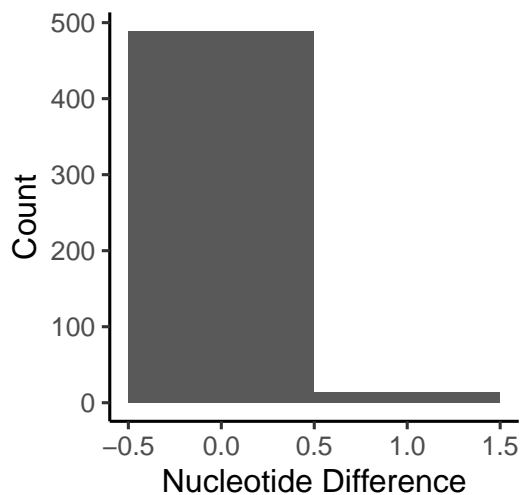
IGHV1-38-4*01

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



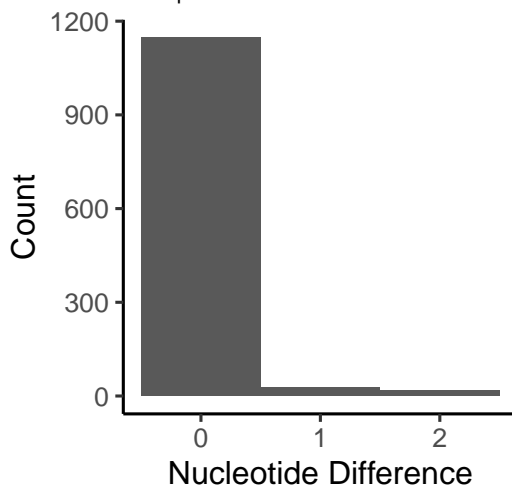
IGHV1-2*06

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



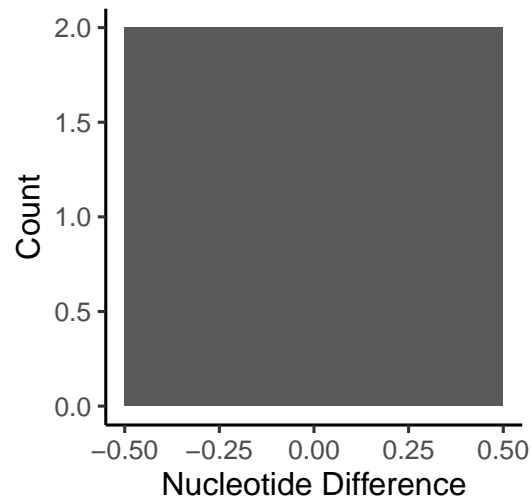
IGHV1-18*01

1191 sequences assigned
1147 (96.3%) exact matches, in which:
1146 unique CDR3
6 unique J



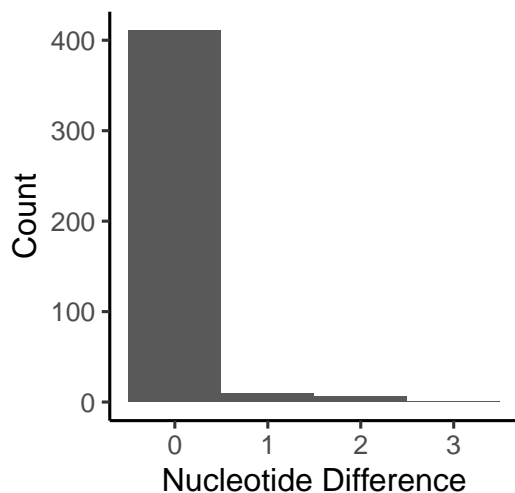
IGHV1-45*02

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



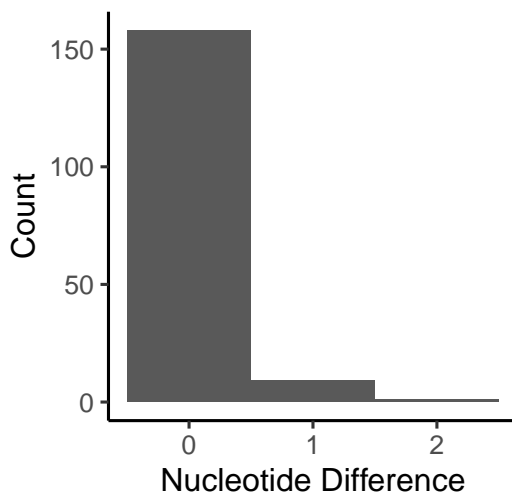
IGHV1-3*01_05

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



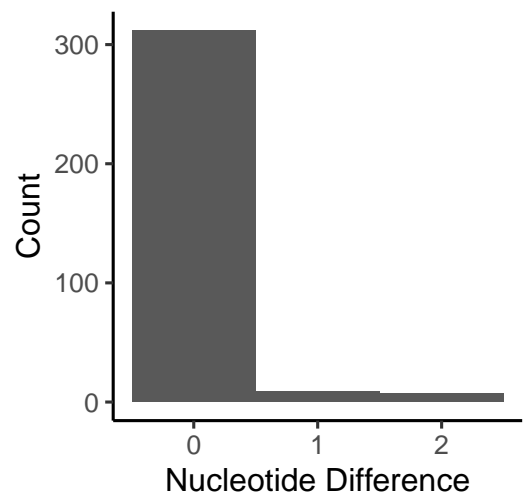
IGHV1-24*01

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



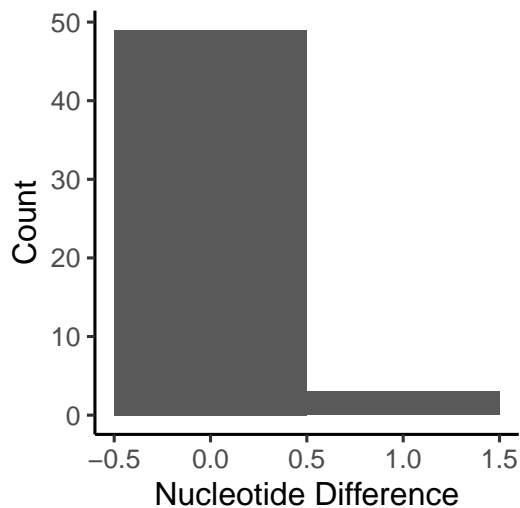
IGHV1-46*03

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



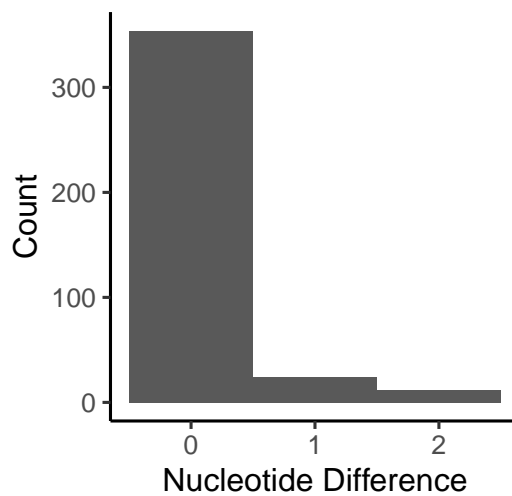
IGHV1-58*02

52 sequences assigned
49 (94.2%) exact matches, in which:
49 unique CDR3
6 unique J



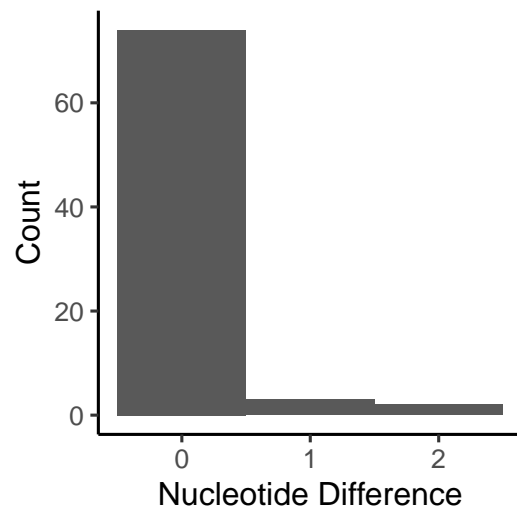
IGHV2-5*02

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



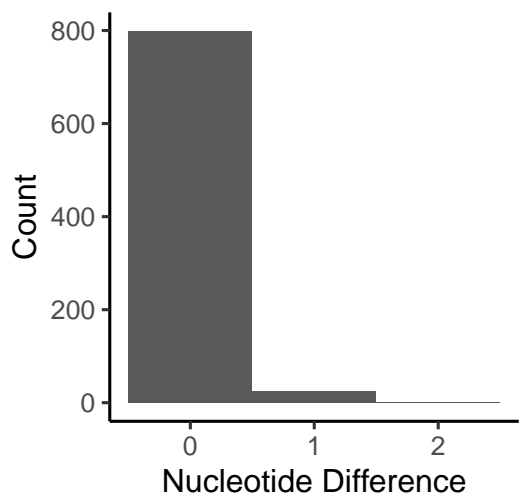
IGHV2-70*11_15

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



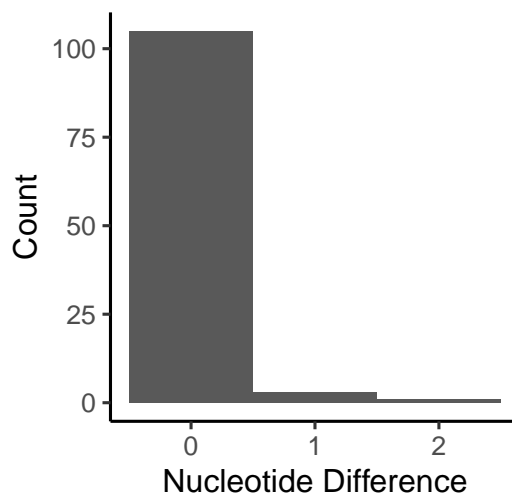
IGHV1-69*01_12_13

825 sequences assigned
799 (96.8%) exact matches, in which:
797 unique CDR3
6 unique J



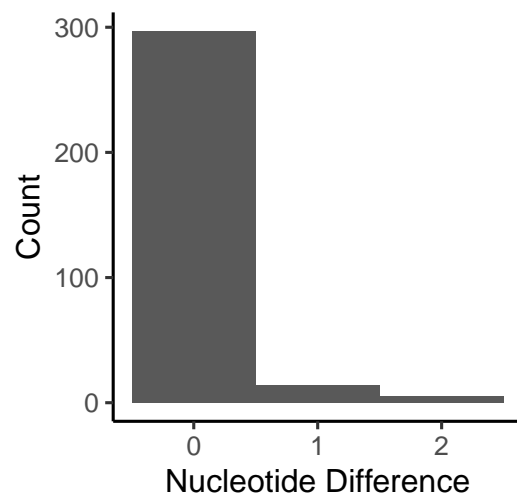
IGHV2-26*01

109 sequences assigned
105 (96.3%) exact matches, in which:
105 unique CDR3
5 unique J



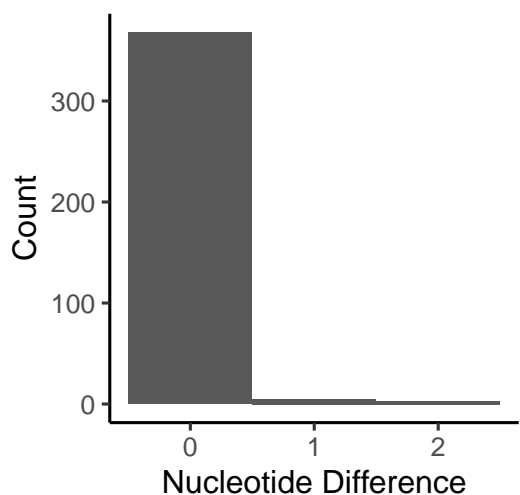
IGHV3-7*01

316 sequences assigned
297 (94%) exact matches, in which:
290 unique CDR3
6 unique J



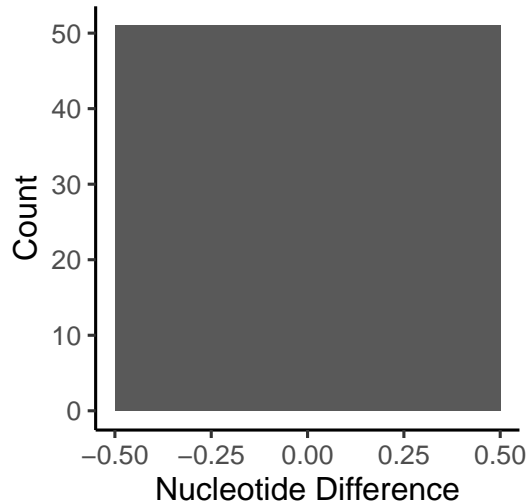
IGHV1-69*04_09

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



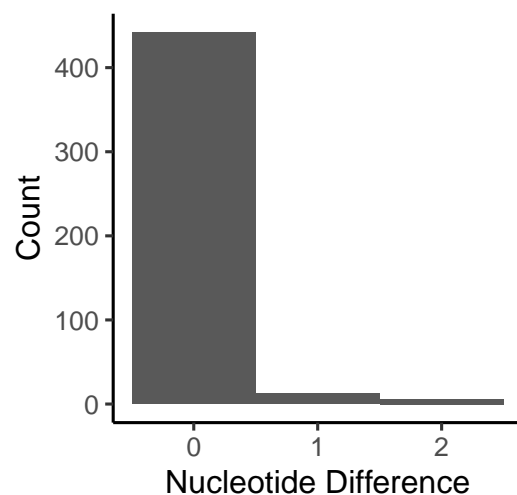
IGHV2-70*01

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



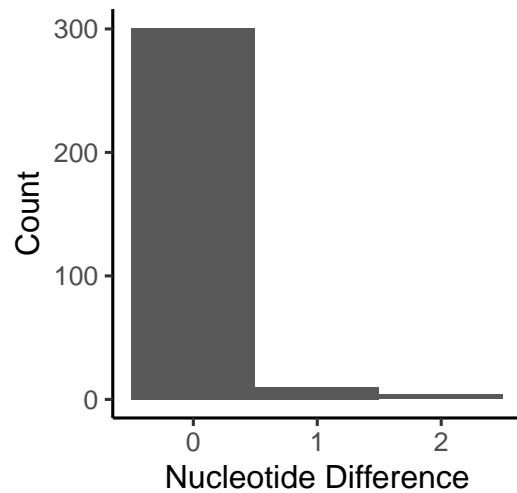
IGHV3-7*03

460 sequences assigned
442 (96.1%) exact matches, in which:
434 unique CDR3
6 unique J



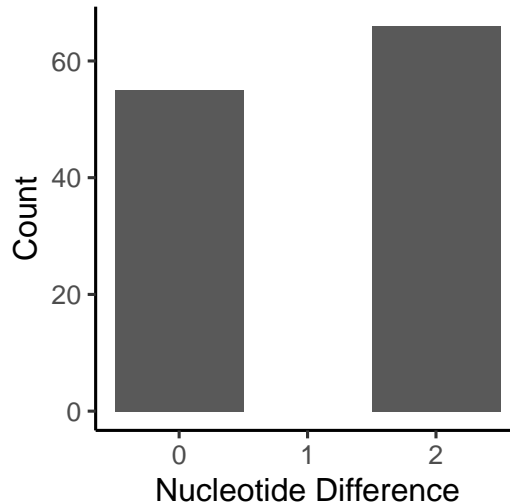
IGHV3-9*01

315 sequences assigned
301 (95.6%) exact matches, in which:
301 unique CDR3
6 unique J



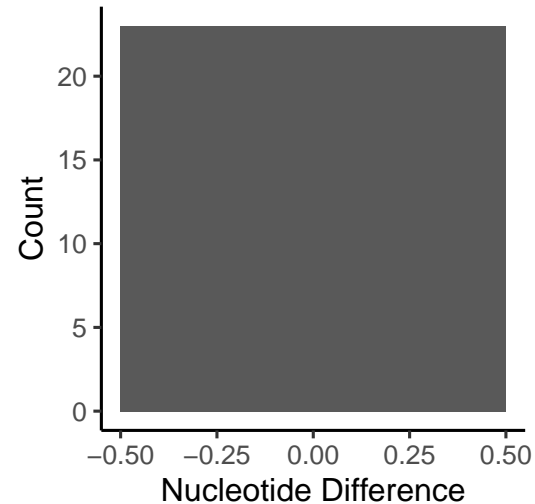
IGHV3-13*01

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



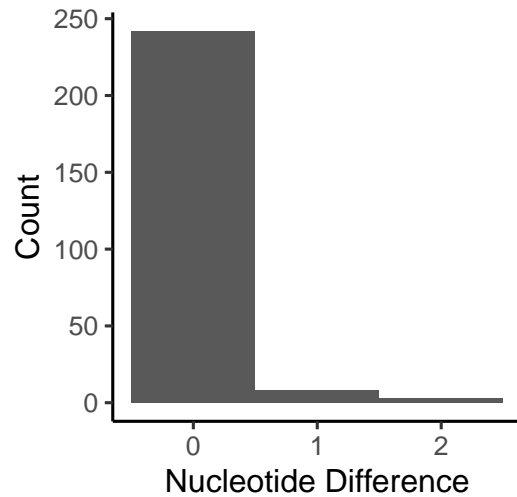
IGHV3-20*01_02

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



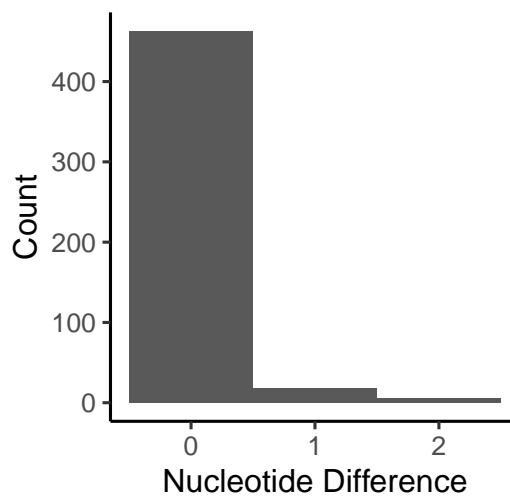
IGHV3-11*01

253 sequences assigned
242 (95.7%) exact matches, in which:
241 unique CDR3
6 unique J



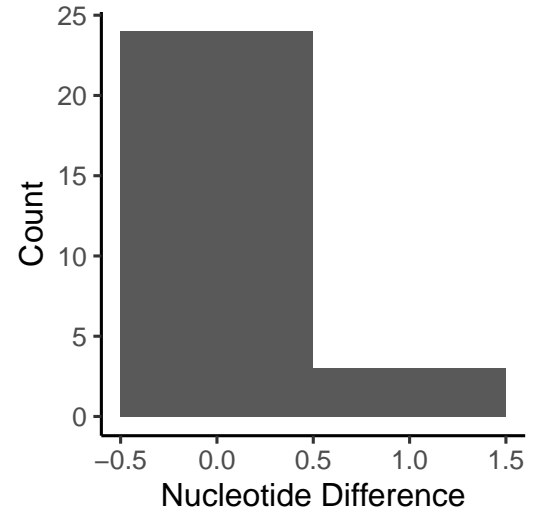
IGHV3-15*07

487 sequences assigned
463 (95.1%) exact matches, in which:
455 unique CDR3
6 unique J



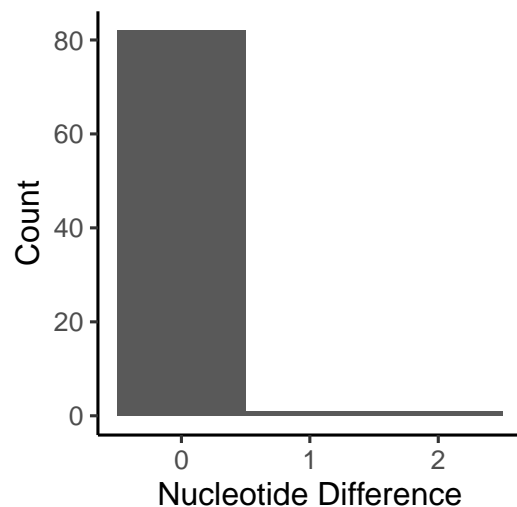
IGHV3-20*03_04

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



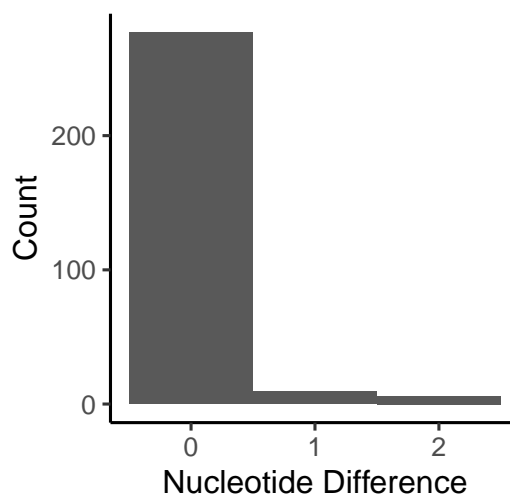
IGHV3-11*06

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



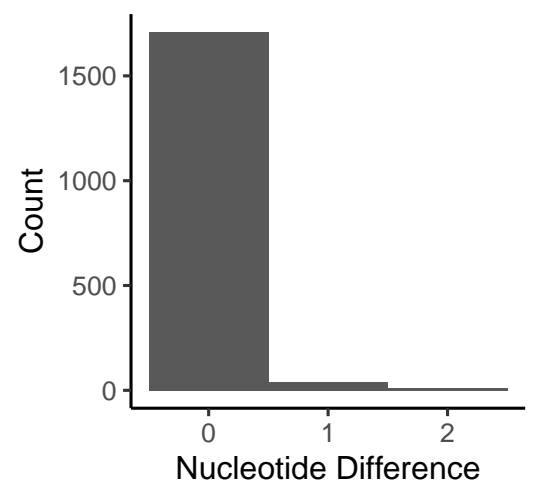
IGHV3-15*01_02

292 sequences assigned
277 (94.9%) exact matches, in which:
272 unique CDR3
6 unique J



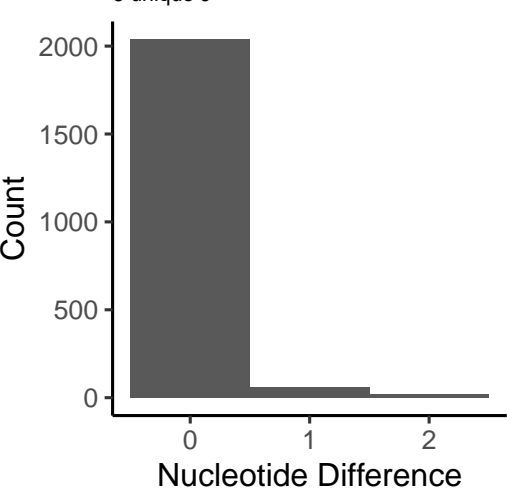
IGHV3-21*01_02

1761 sequences assigned
1709 (97%) exact matches, in which:
1688 unique CDR3
6 unique J



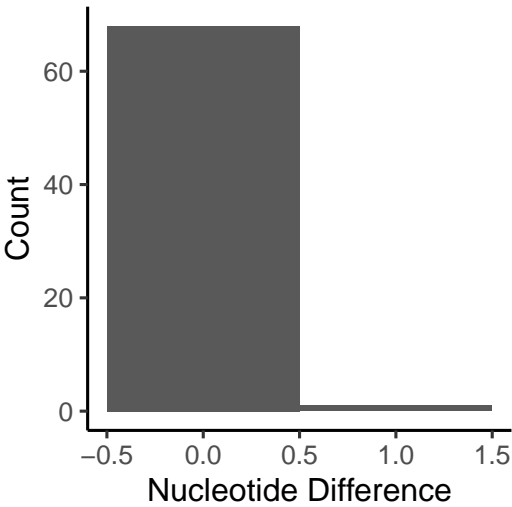
IGHV3-23*01_04

2117 sequences assigned
2038 (96.3%) exact matches, in which:
1995 unique CDR3
6 unique J



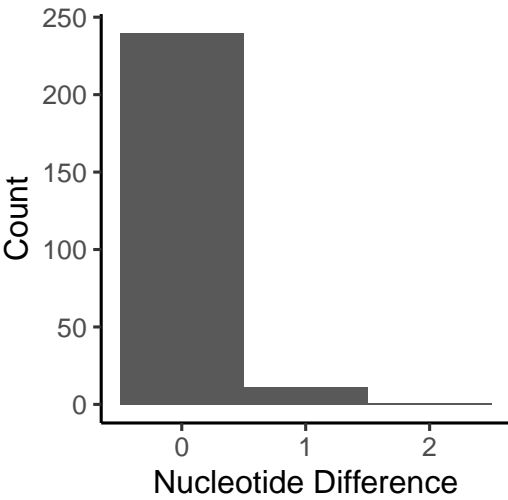
IGHV3-43*01

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



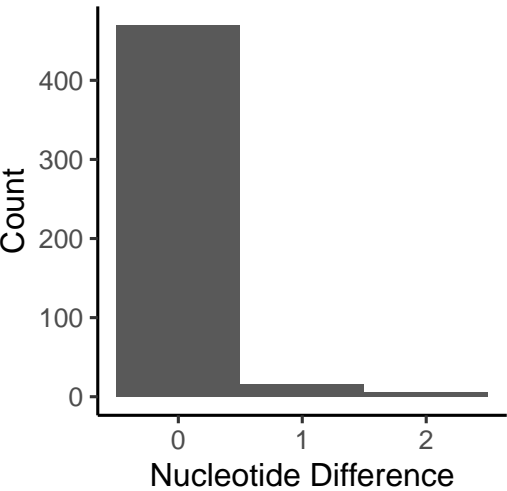
IGHV3-49*03_05

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



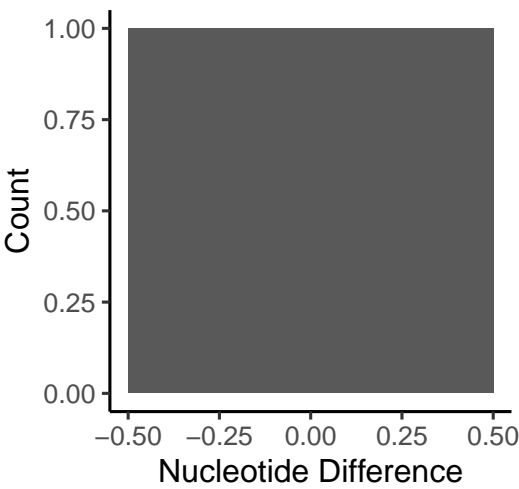
IGHV3-33*01

492 sequences assigned
470 (95.5%) exact matches, in which:
461 unique CDR3
6 unique J



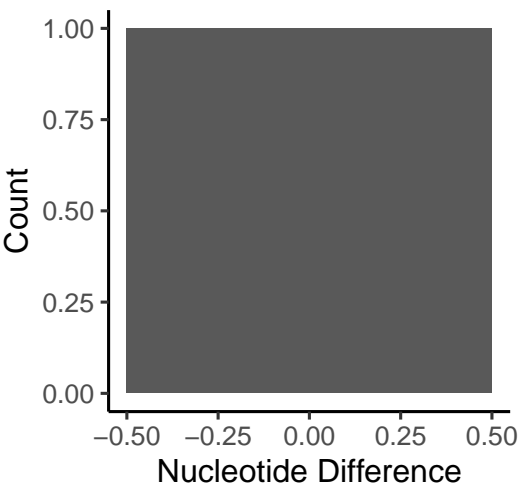
IGHV3-47*02

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



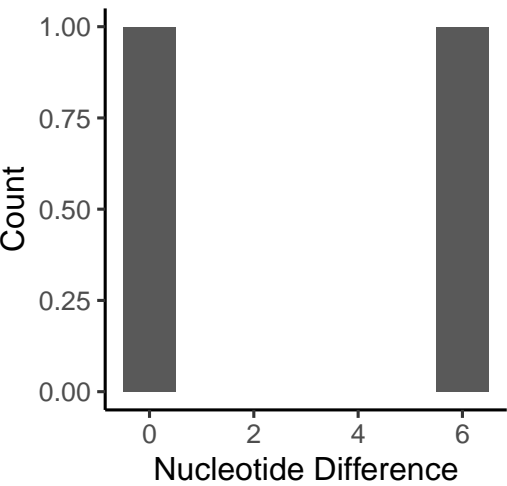
IGHV3-52*02

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



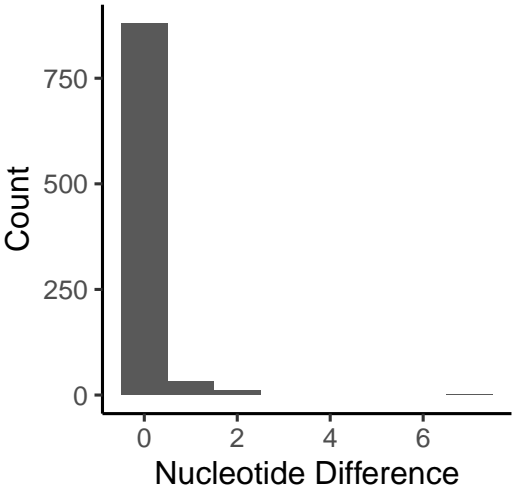
IGHV3-38-3*01

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



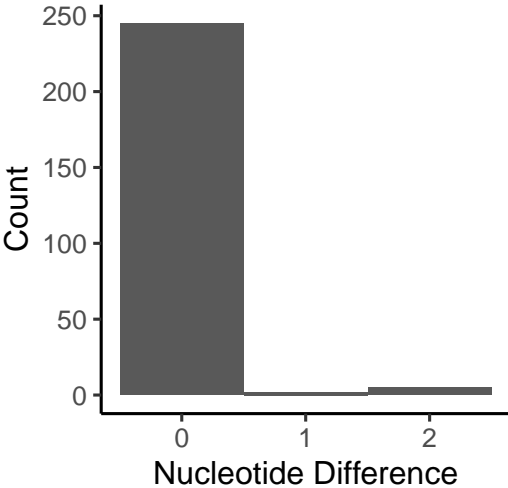
IGHV3-48*01

922 sequences assigned
880 (95.4%) exact matches, in which:
865 unique CDR3
6 unique J



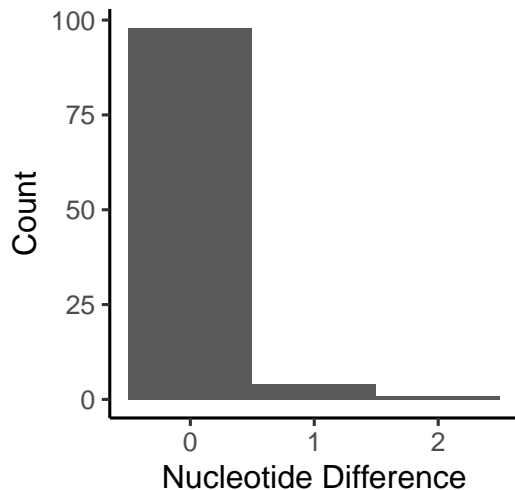
IGHV3-53*01_02

252 sequences assigned
245 (97.2%) exact matches, in which:
240 unique CDR3
6 unique J



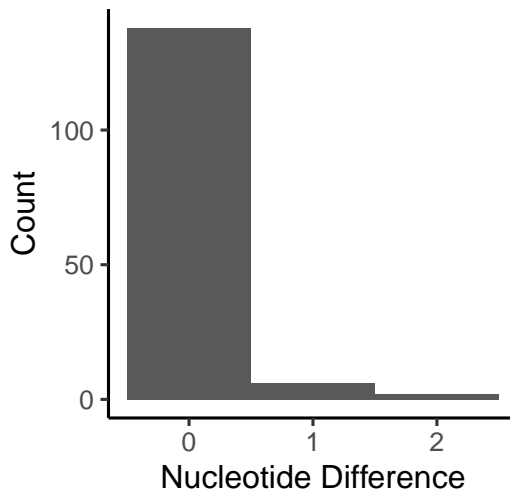
IGHV3-64*01

103 sequences assigned
98 (95.1%) exact matches, in which:
96 unique CDR3
5 unique J



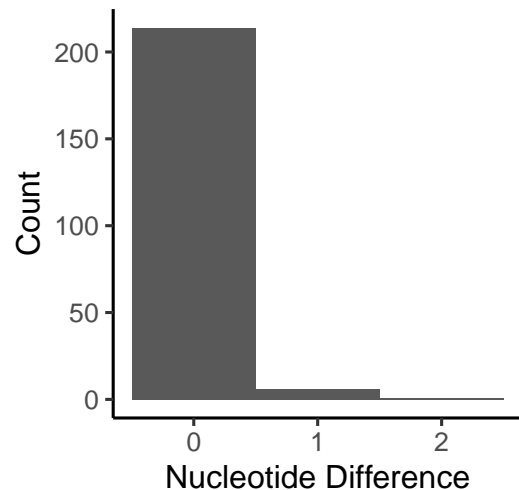
IGHV3-73*01_02

146 sequences assigned
138 (94.5%) exact matches, in which:
138 unique CDR3
6 unique J



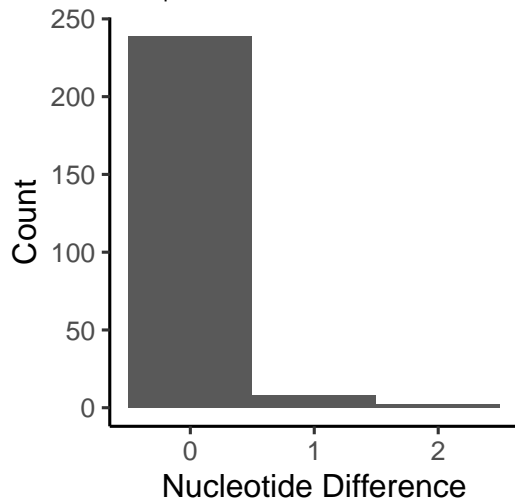
IGHV3-64D*06

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



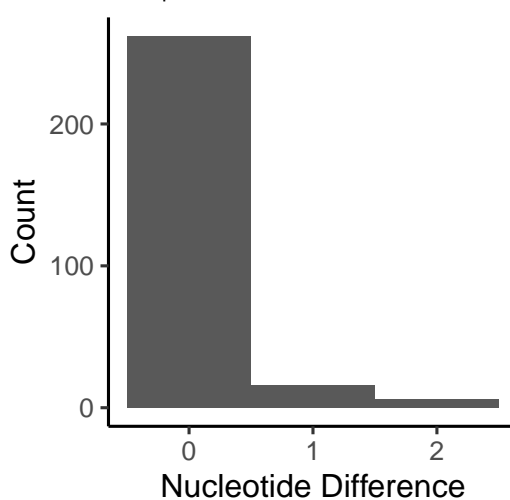
IGHV3-66*01

249 sequences assigned
239 (96%) exact matches, in which:
236 unique CDR3
6 unique J



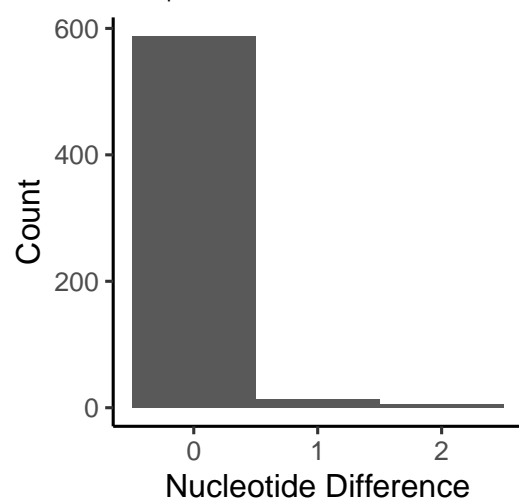
IGHV3-74*01_02

284 sequences assigned
262 (92.3%) exact matches, in which:
257 unique CDR3
6 unique J



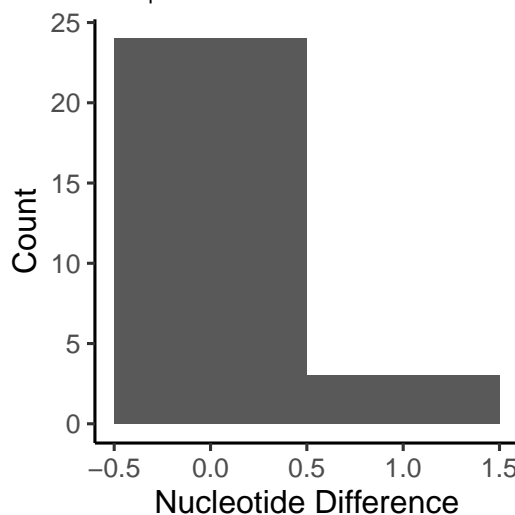
IGHV4-4*02_03

608 sequences assigned
588 (96.7%) exact matches, in which:
583 unique CDR3
6 unique J



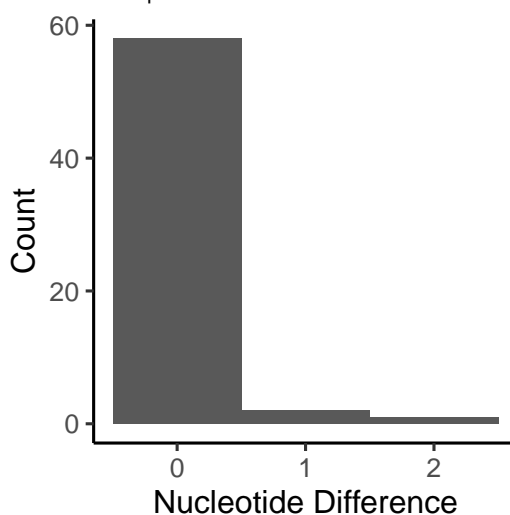
IGHV3-72*01

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



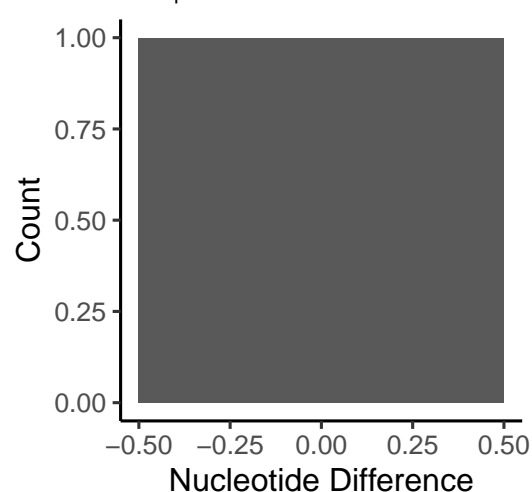
IGHV3-43D*03

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



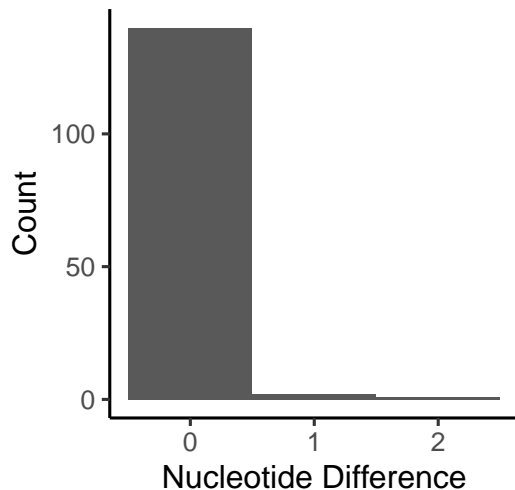
IGHV4-28*03

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



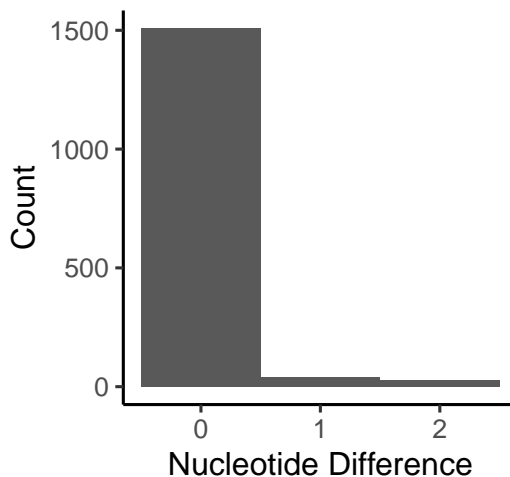
IGHV4-30-2*01

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



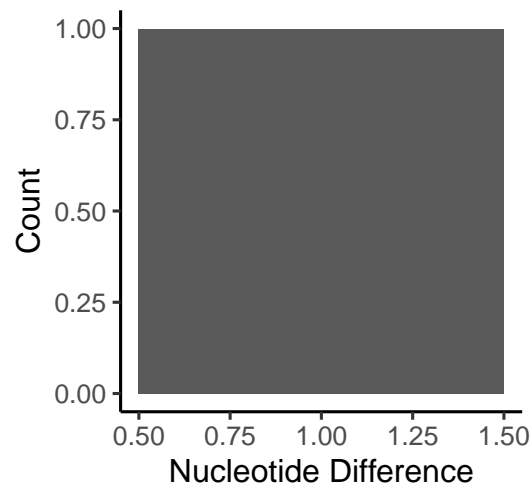
IGHV4-34*01_02

1575 sequences assigned
1508 (95.7%) exact matches, in which:
1485 unique CDR3
6 unique J



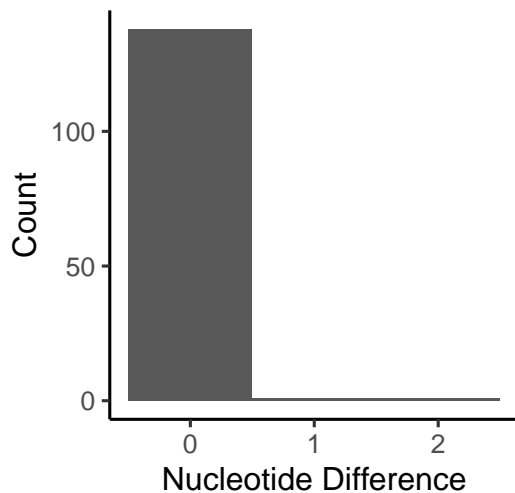
IGHV4-39*07

1 sequences assigned
No exact matches.



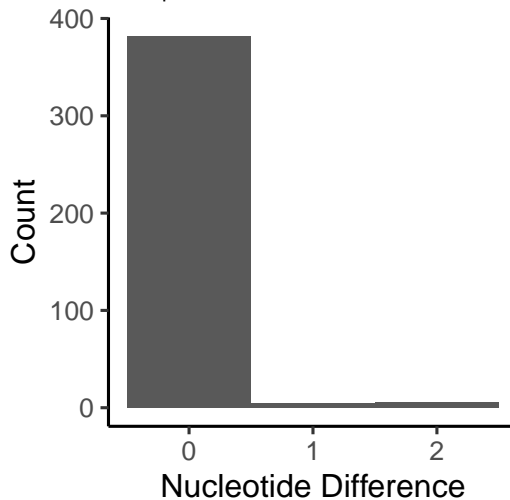
IGHV4-30-4*07

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



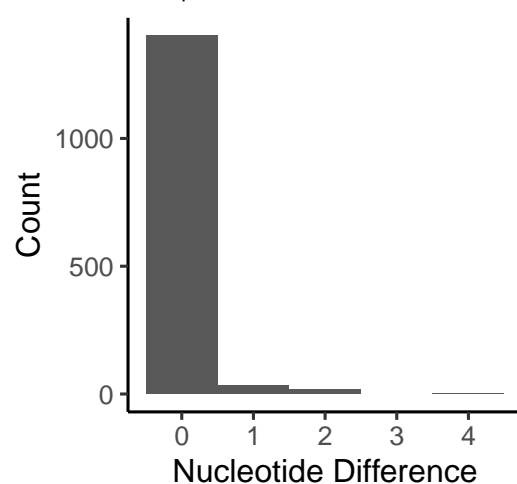
IGHV4-38-2*02

393 sequences assigned
382 (97.2%) exact matches, in which:
378 unique CDR3
6 unique J



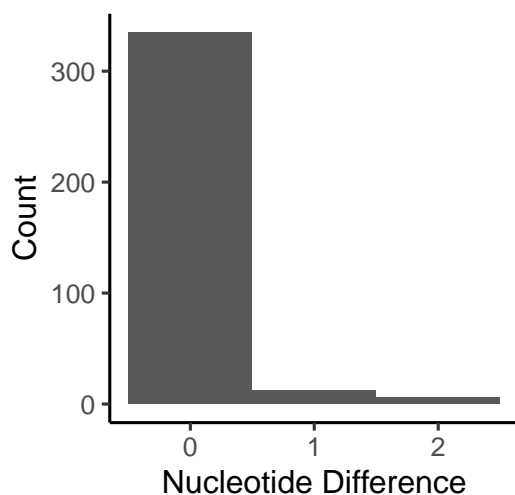
IGHV4-59*08

1452 sequences assigned
1402 (96.6%) exact matches, in which:
1389 unique CDR3
6 unique J



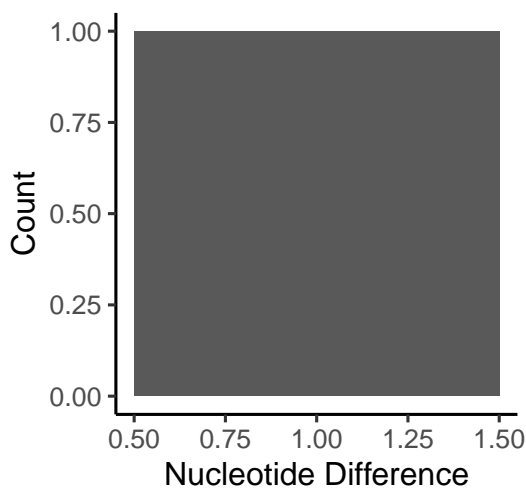
IGHV4-31*02

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



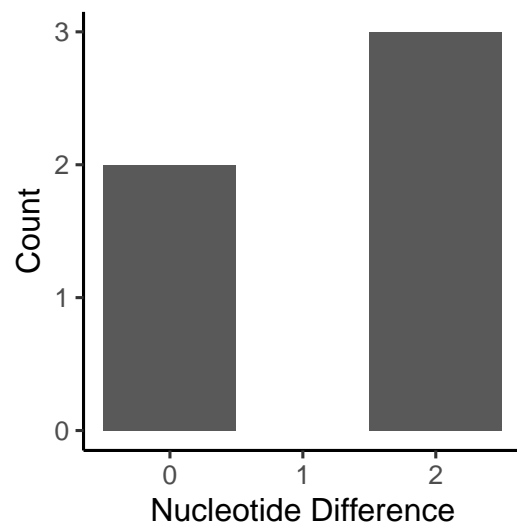
IGHV4-39*02

1 sequences assigned
No exact matches.



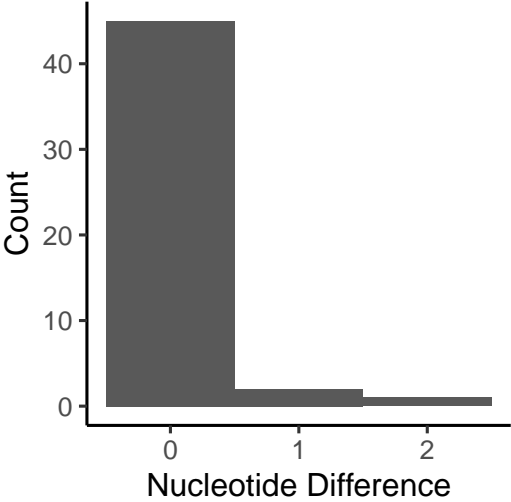
IGHV4-61*02

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



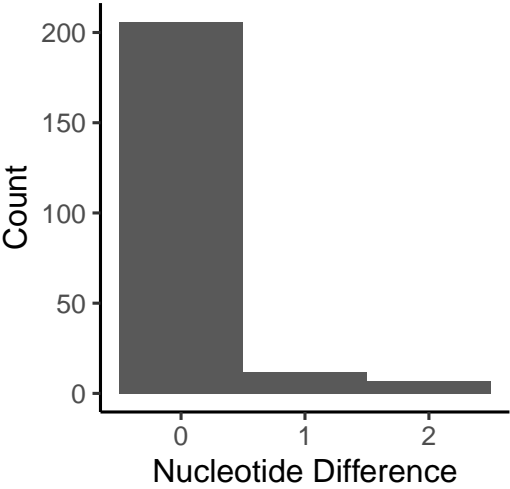
IGHV5-10-1*01_03

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



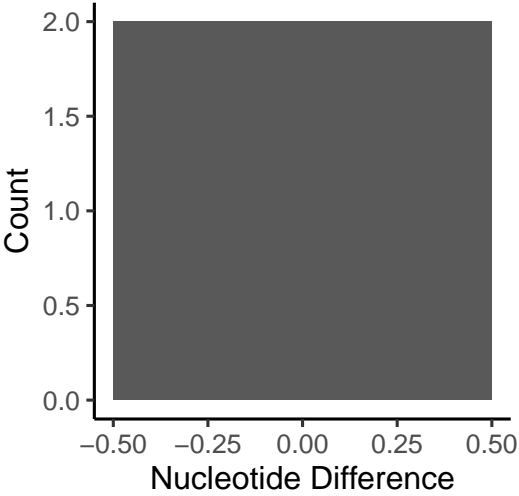
IGHV7-4-1*02

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



IGHV5-51*01_03

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



IGHV6-1*01_02

242 sequences assigned
232 (95.9%) exact matches, in which:
231 unique CDR3
6 unique J

