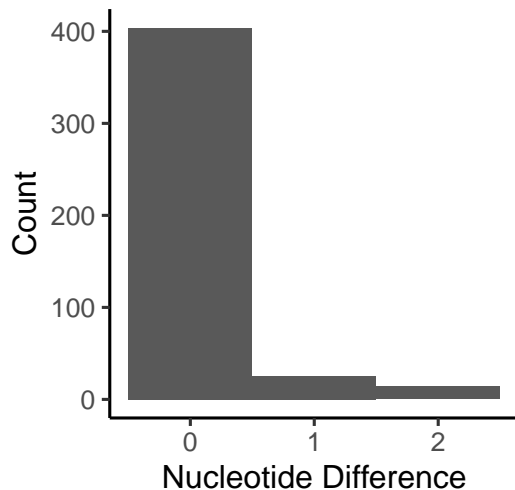


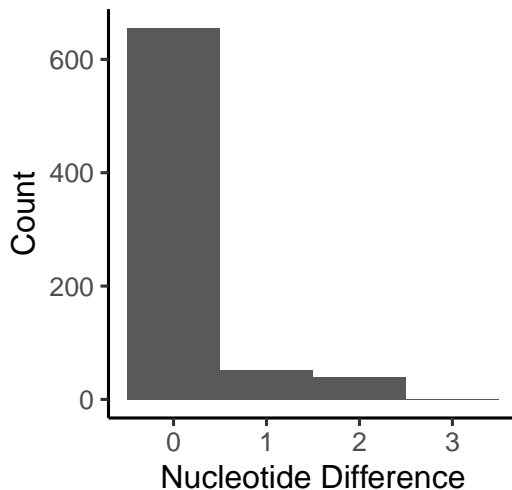
IGHV1-2*02

443 sequences assigned
404 (91.2%) exact matches, in which:
403 unique CDR3
7 unique J



IGHV1-8*01

749 sequences assigned
656 (87.6%) exact matches, in which:
655 unique CDR3
7 unique J



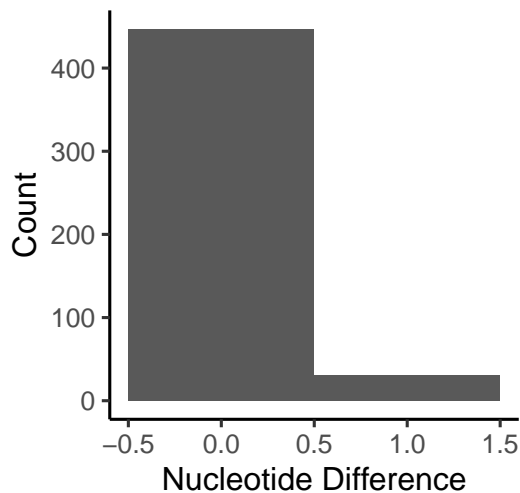
IGHV1-45*02

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



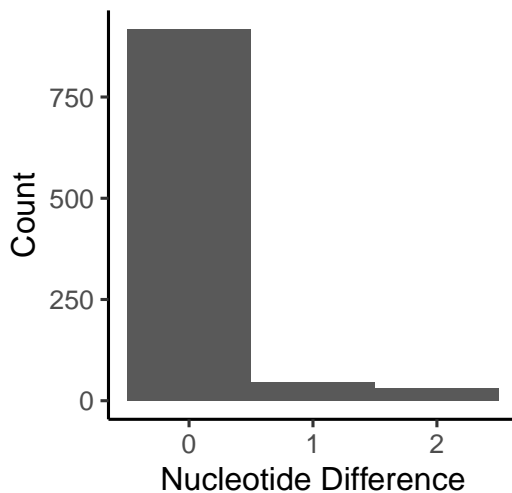
IGHV1-2*06

478 sequences assigned
447 (93.5%) exact matches, in which:
444 unique CDR3
7 unique J



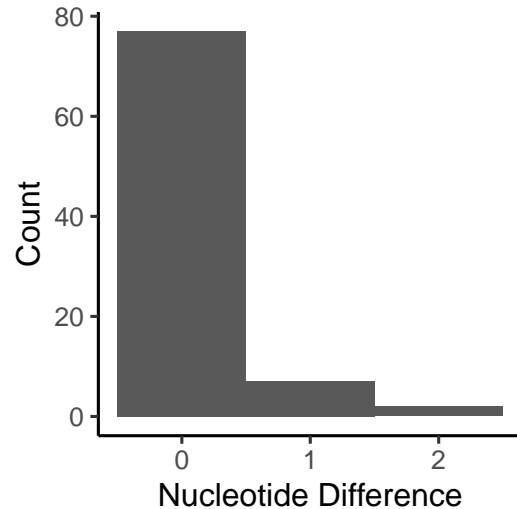
IGHV1-18*01

994 sequences assigned
918 (92.4%) exact matches, in which:
915 unique CDR3
7 unique J



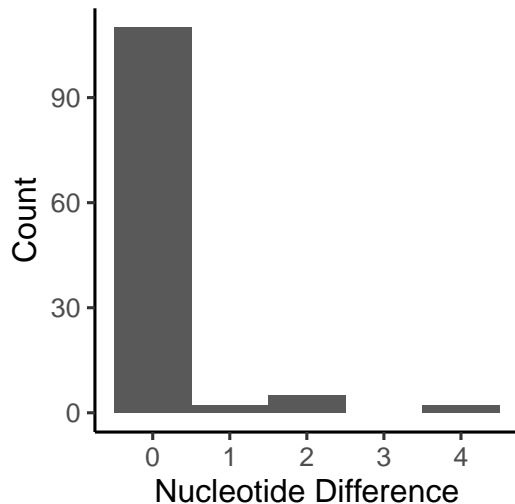
IGHV1-46*01

86 sequences assigned
77 (89.5%) exact matches, in which:
77 unique CDR3
6 unique J



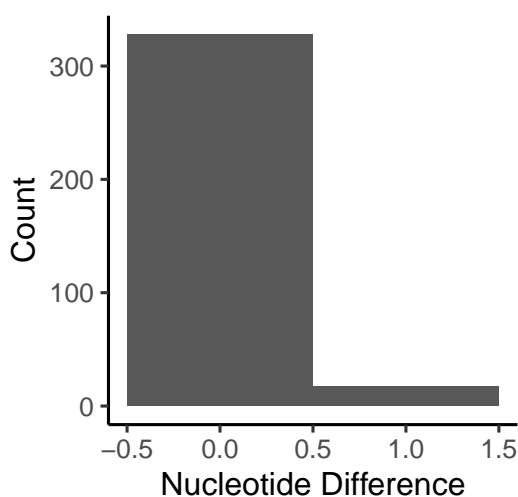
IGHV1-3*01_05

119 sequences assigned
110 (92.4%) exact matches, in which:
110 unique CDR3
6 unique J



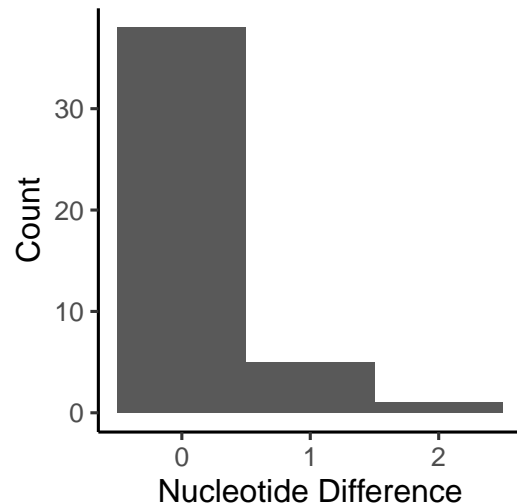
IGHV1-24*01

345 sequences assigned
328 (95.1%) exact matches, in which:
327 unique CDR3
7 unique J



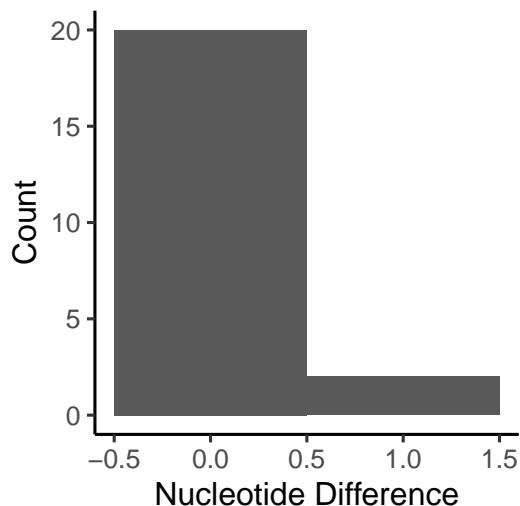
IGHV1-46*03

44 sequences assigned
38 (86.4%) exact matches, in which:
38 unique CDR3
5 unique J



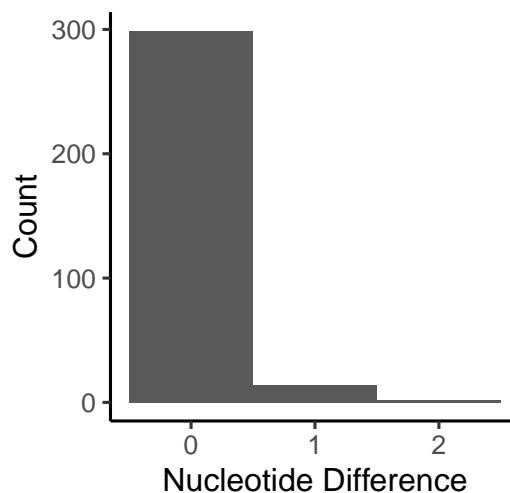
IGHV1-58*02

22 sequences assigned
20 (90.9%) exact matches, in which:
20 unique CDR3
6 unique J



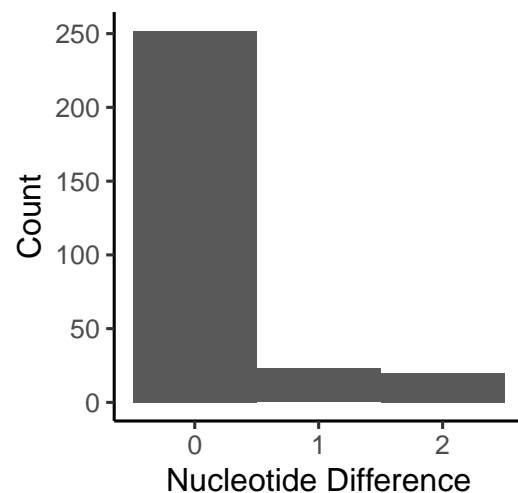
IGHV1-69*01_12_13

315 sequences assigned
299 (94.9%) exact matches, in which:
299 unique CDR3
7 unique J



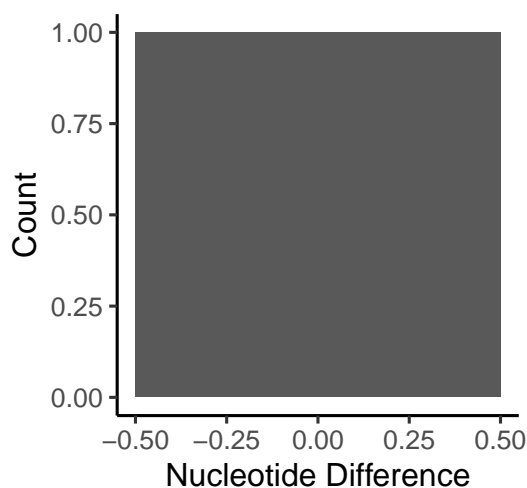
IGHV2-5*02

295 sequences assigned
252 (85.4%) exact matches, in which:
252 unique CDR3
6 unique J



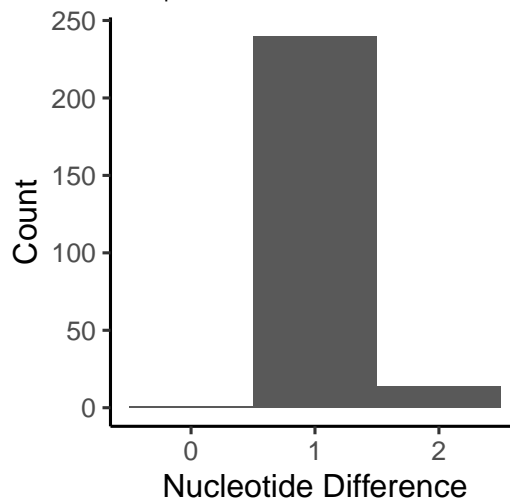
IGHV1-69-2*01

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



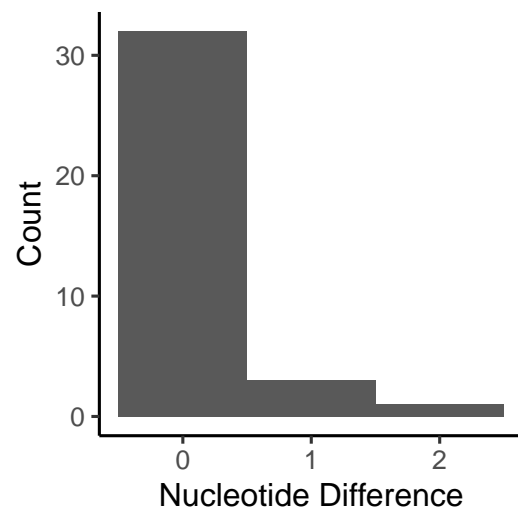
IGHV1-69*04_09

255 sequences assigned
1 (0.4%) exact matches, in which:
1 unique CDR3
1 unique J



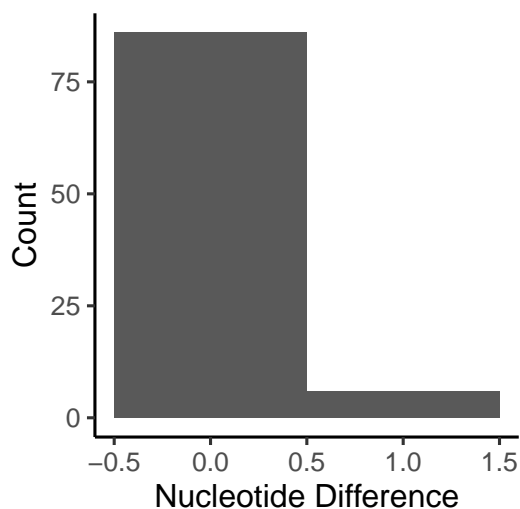
IGHV2-26*01

36 sequences assigned
32 (88.9%) exact matches, in which:
32 unique CDR3
6 unique J



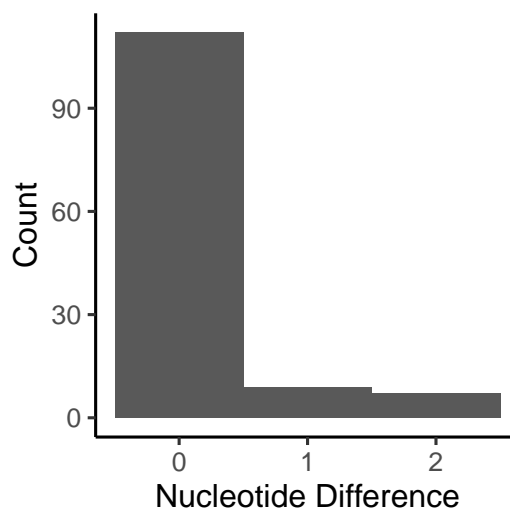
IGHV1-69*02

92 sequences assigned
86 (93.5%) exact matches, in which:
86 unique CDR3
6 unique J



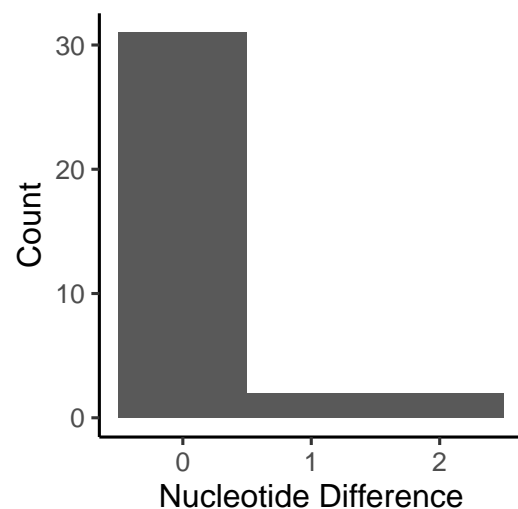
IGHV2-5*01

128 sequences assigned
112 (87.5%) exact matches, in which:
111 unique CDR3
6 unique J



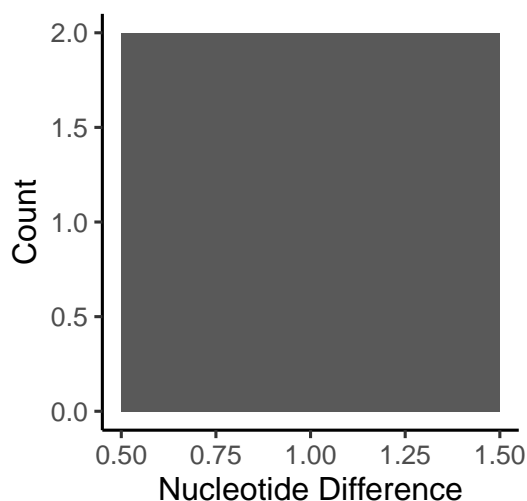
IGHV2-70*01

35 sequences assigned
31 (88.6%) exact matches, in which:
31 unique CDR3
4 unique J



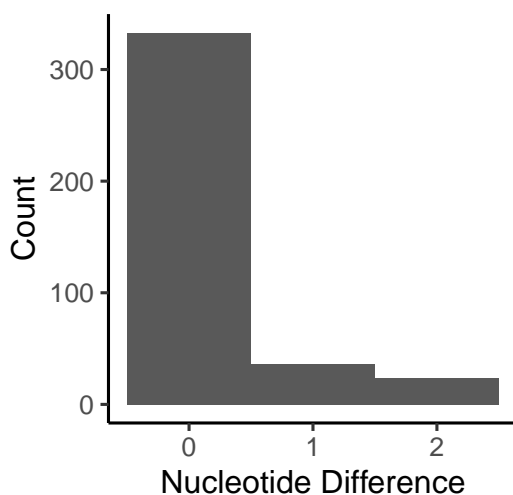
IGHV2-70D*04

2 sequences assigned
No exact matches.



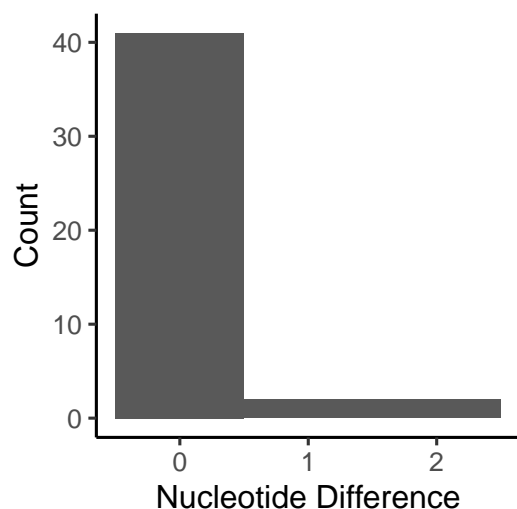
IGHV3-11*01

393 sequences assigned
333 (84.7%) exact matches, in which:
328 unique CDR3
7 unique J



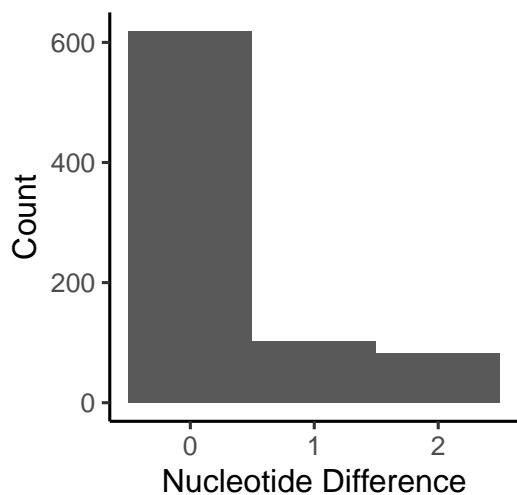
IGHV3-20*01_02

45 sequences assigned
41 (91.1%) exact matches, in which:
40 unique CDR3
6 unique J



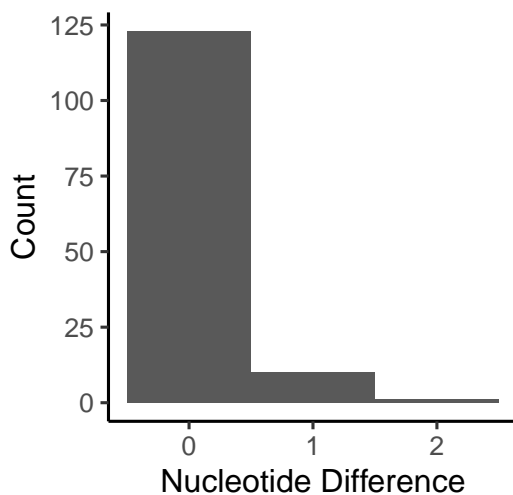
IGHV3-7*01

803 sequences assigned
619 (77.1%) exact matches, in which:
577 unique CDR3
7 unique J



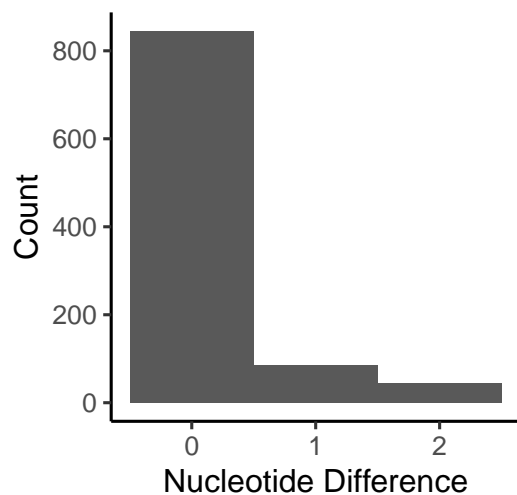
IGHV3-13*01

134 sequences assigned
123 (91.8%) exact matches, in which:
123 unique CDR3
6 unique J



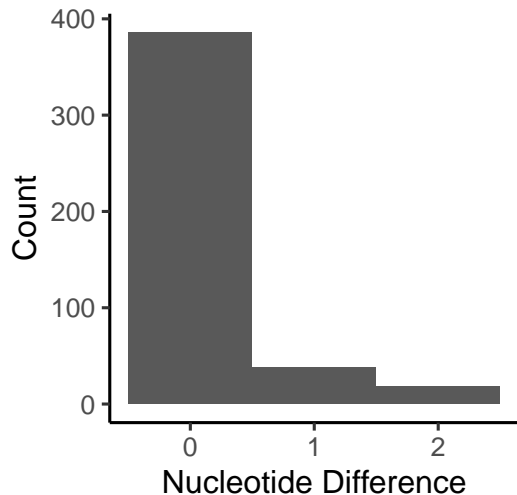
IGHV3-21*01_02

975 sequences assigned
845 (86.7%) exact matches, in which:
814 unique CDR3
7 unique J



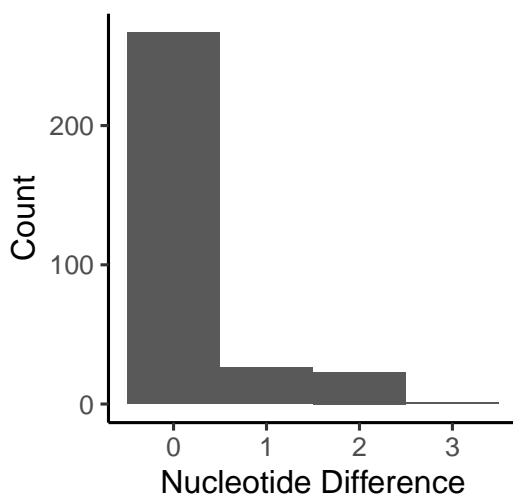
IGHV3-9*01

442 sequences assigned
386 (87.3%) exact matches, in which:
377 unique CDR3
7 unique J



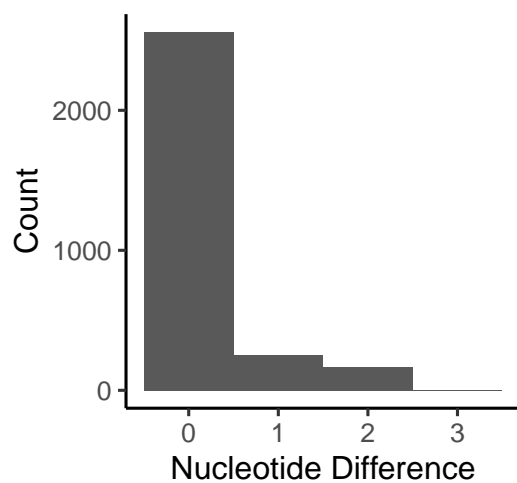
IGHV3-15*01_02

317 sequences assigned
267 (84.2%) exact matches, in which:
257 unique CDR3
7 unique J



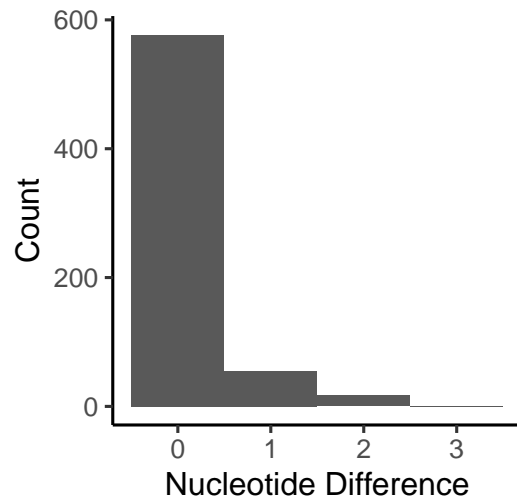
IGHV3-23*01_04

2980 sequences assigned
2559 (85.9%) exact matches, in which:
2444 unique CDR3
7 unique J



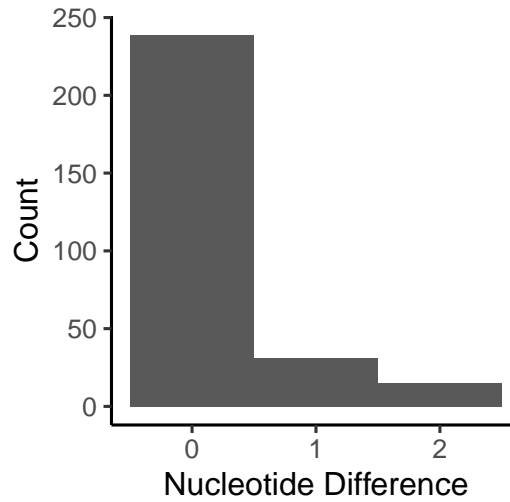
IGHV3-30-3*01

650 sequences assigned
577 (88.8%) exact matches, in which:
567 unique CDR3
7 unique J



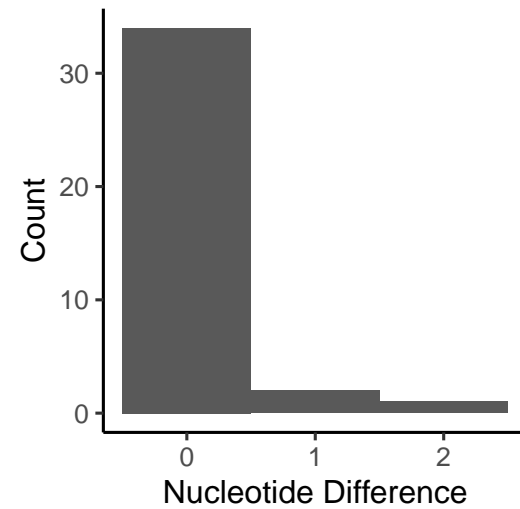
IGHV3-48*01

285 sequences assigned
239 (83.9%) exact matches, in which:
227 unique CDR3
6 unique J



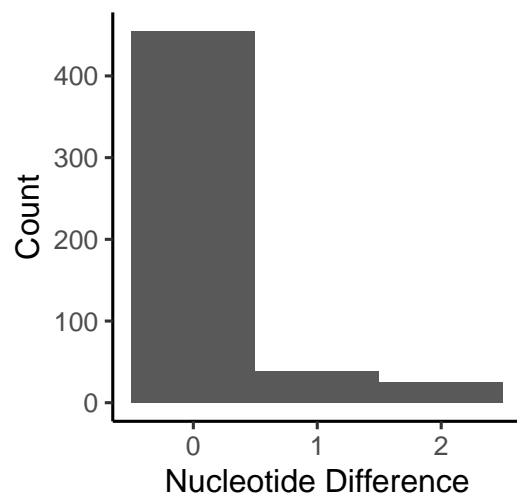
IGHV3-49*03_05

37 sequences assigned
34 (91.9%) exact matches, in which:
34 unique CDR3
5 unique J



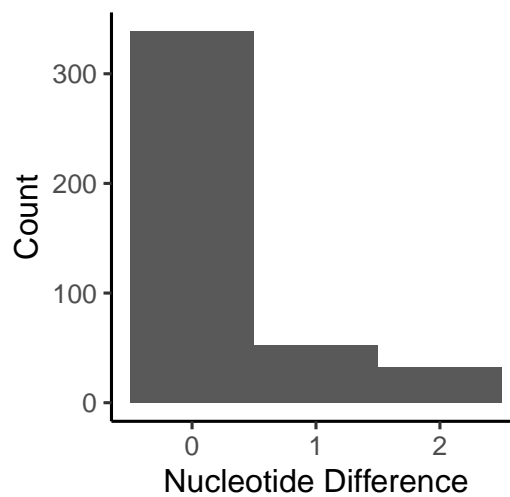
IGHV3-33*01

518 sequences assigned
455 (87.8%) exact matches, in which:
449 unique CDR3
7 unique J



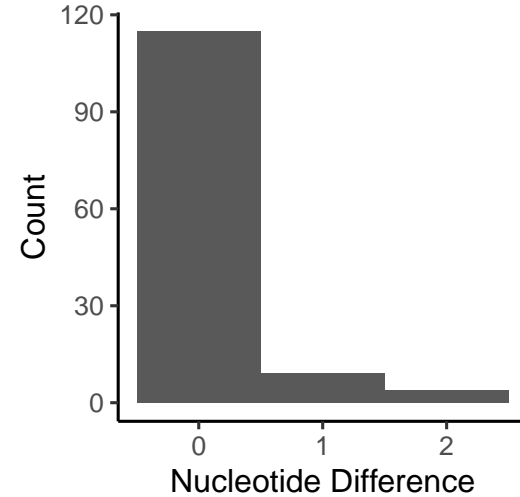
IGHV3-48*03

423 sequences assigned
339 (80.1%) exact matches, in which:
319 unique CDR3
6 unique J



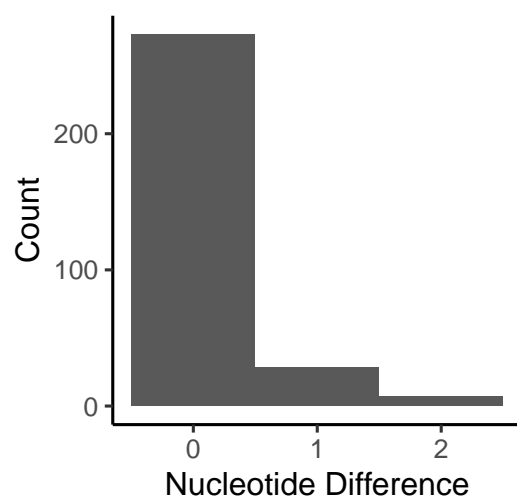
IGHV3-53*04

128 sequences assigned
115 (89.8%) exact matches, in which:
111 unique CDR3
5 unique J



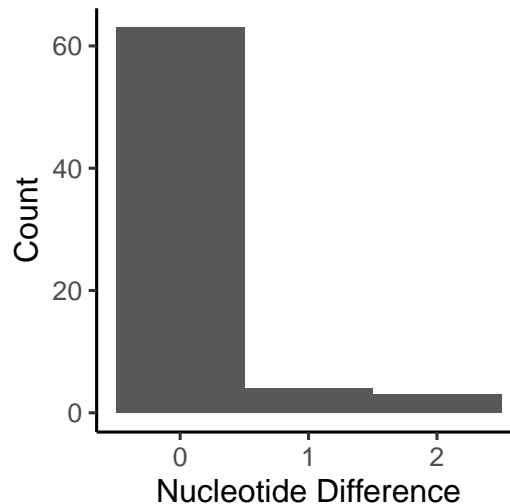
IGHV3-43*02

308 sequences assigned
273 (88.6%) exact matches, in which:
263 unique CDR3
7 unique J



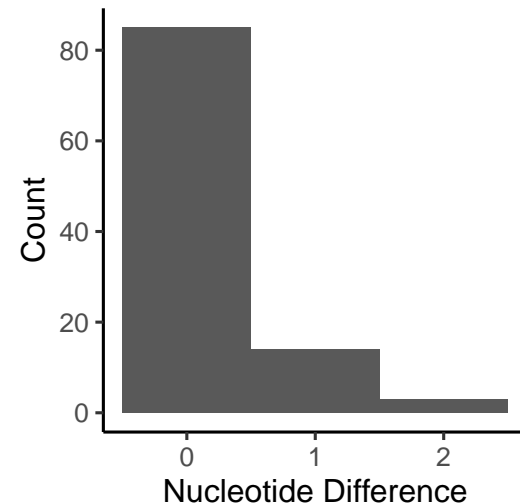
IGHV3-49*04

70 sequences assigned
63 (90%) exact matches, in which:
61 unique CDR3
5 unique J



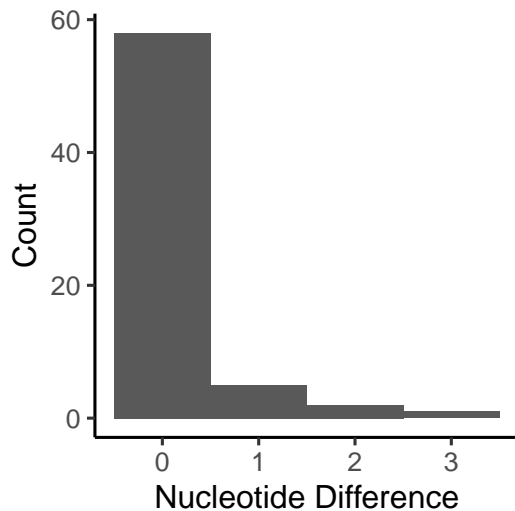
IGHV3-53*01_02

102 sequences assigned
85 (83.3%) exact matches, in which:
83 unique CDR3
6 unique J



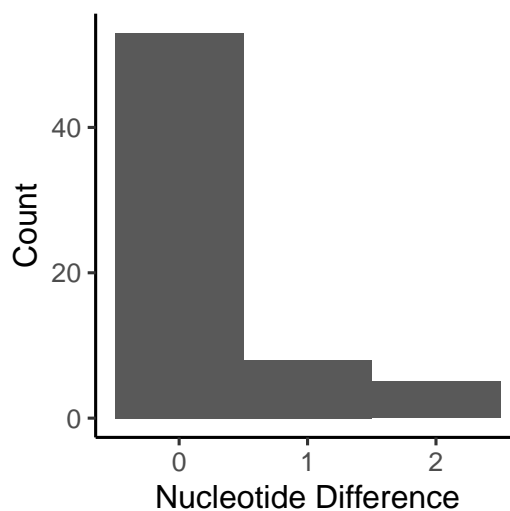
IGHV3-64*01

66 sequences assigned
58 (87.9%) exact matches, in which:
56 unique CDR3
5 unique J



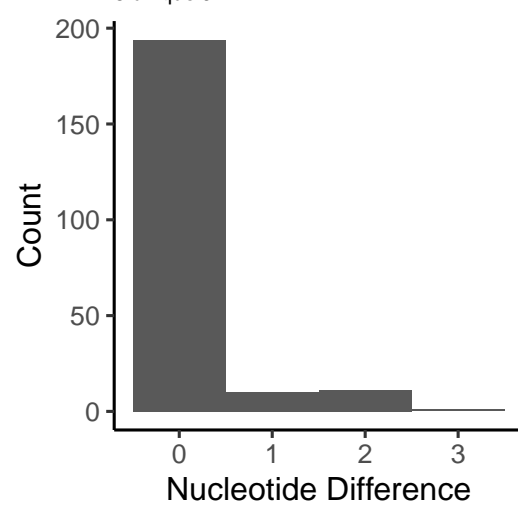
IGHV3-73*01_02

66 sequences assigned
53 (80.3%) exact matches, in which:
51 unique CDR3
6 unique J



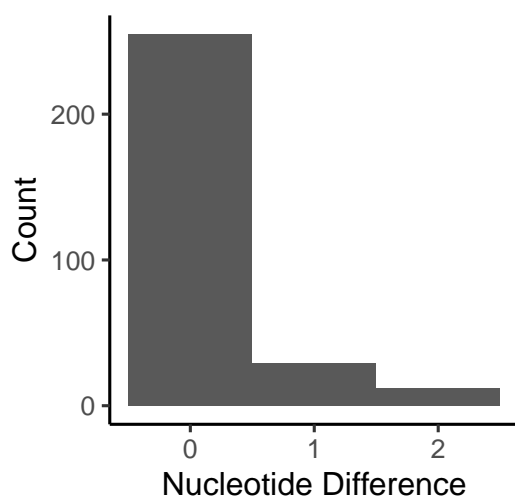
IGHV4-4*02_03

216 sequences assigned
194 (89.8%) exact matches, in which:
190 unique CDR3
5 unique J



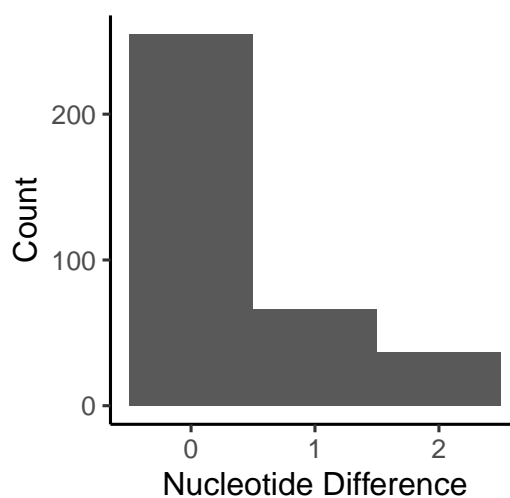
IGHV3-66*02

296 sequences assigned
255 (86.1%) exact matches, in which:
248 unique CDR3
6 unique J



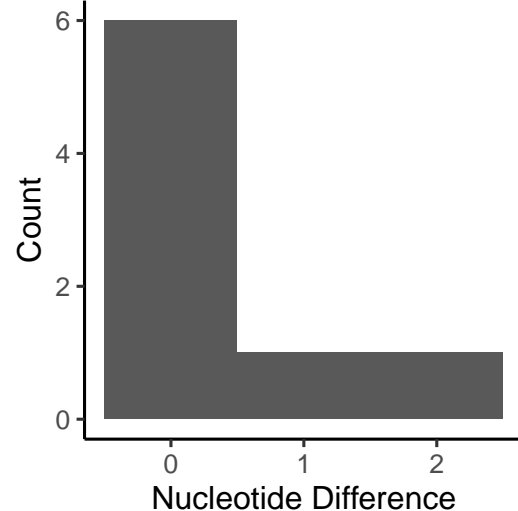
IGHV3-74*01_02

358 sequences assigned
255 (71.2%) exact matches, in which:
241 unique CDR3
7 unique J



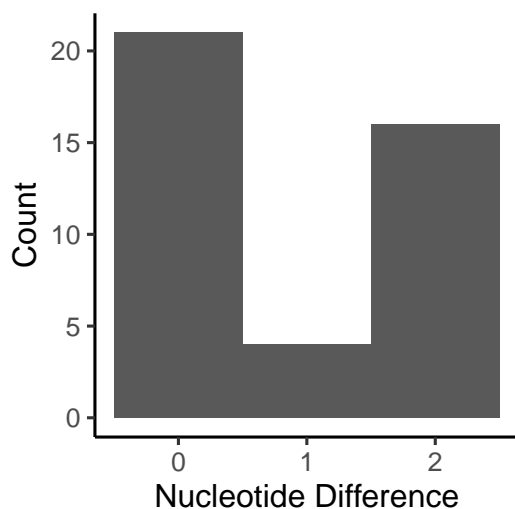
IGHV4-28*01_07

8 sequences assigned
6 (75%) exact matches, in which:
6 unique CDR3
3 unique J



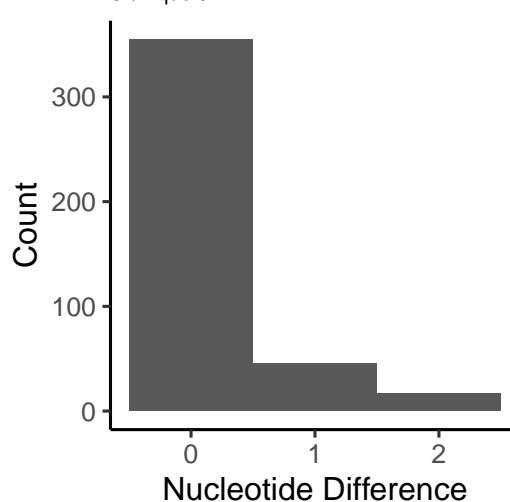
IGHV3-72*01

41 sequences assigned
21 (51.2%) exact matches, in which:
19 unique CDR3
5 unique J



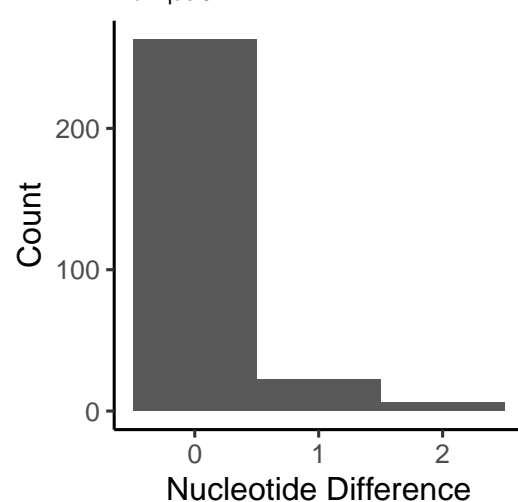
IGHV4-4*07

417 sequences assigned
355 (85.1%) exact matches, in which:
344 unique CDR3
6 unique J



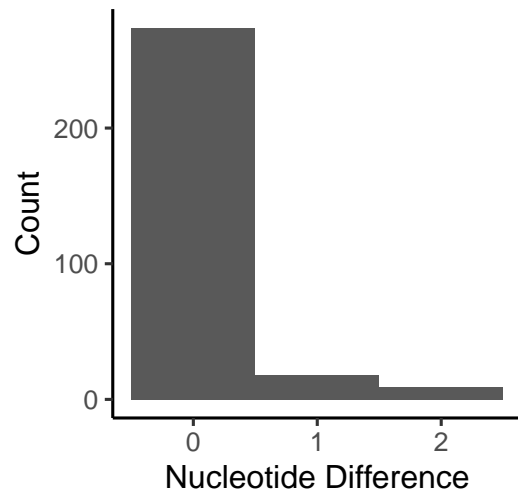
IGHV4-30-2*01

291 sequences assigned
263 (90.4%) exact matches, in which:
261 unique CDR3
7 unique J



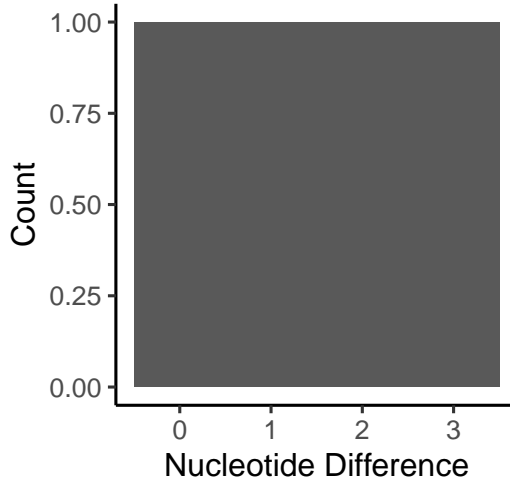
IGHV4-30-4*01

301 sequences assigned
274 (91%) exact matches, in which:
266 unique CDR3
7 unique J



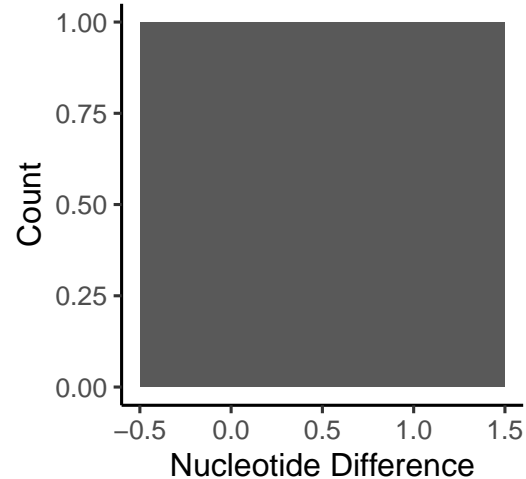
IGHV4-39*02

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



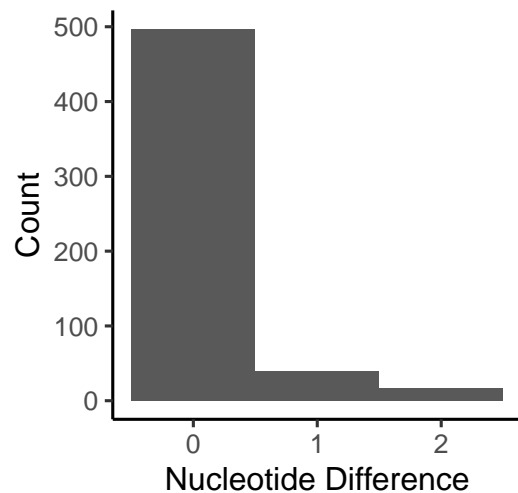
IGHV4-59*11

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



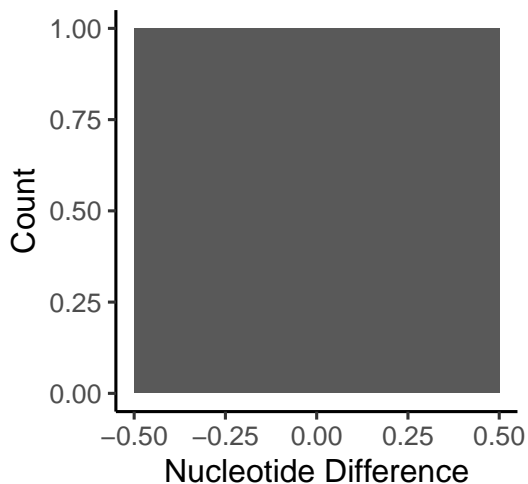
IGHV4-31*02

553 sequences assigned
497 (89.9%) exact matches, in which:
491 unique CDR3
7 unique J



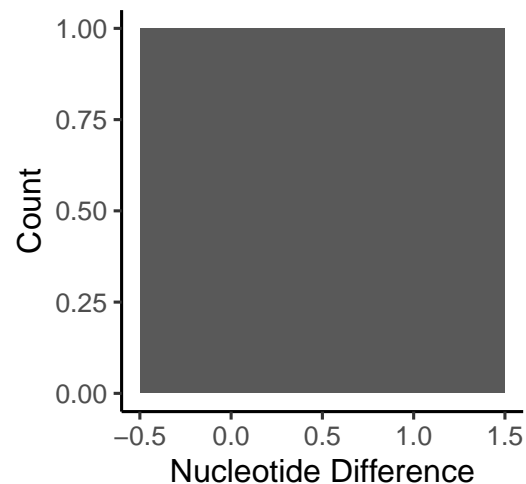
IGHV4-59*02

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



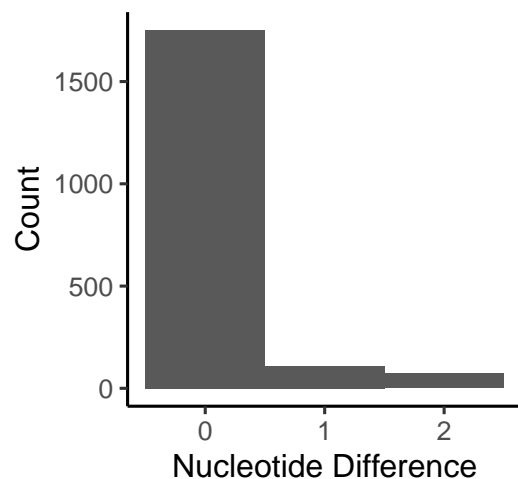
IGHV4-59*12

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



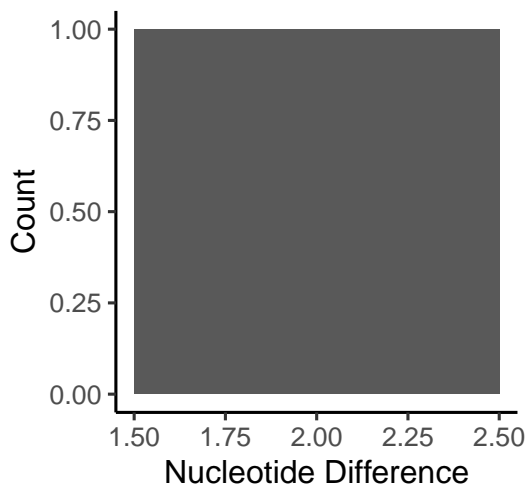
IGHV4-34*01_02

1935 sequences assigned
1752 (90.5%) exact matches, in which:
1729 unique CDR3
7 unique J



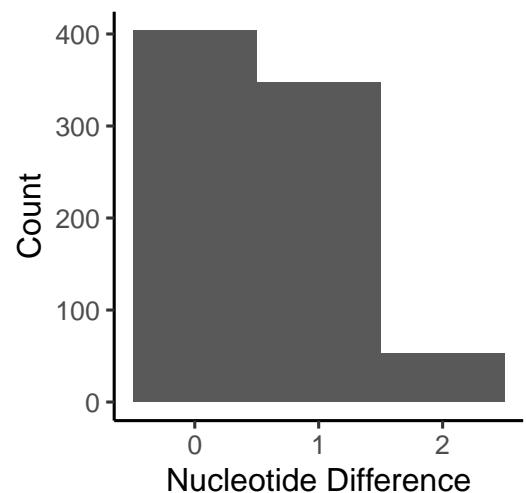
IGHV4-59*04

1 sequences assigned
No exact matches.



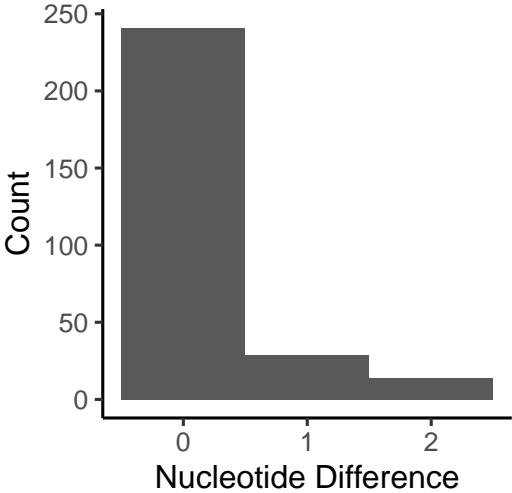
IGHV4-61*02

804 sequences assigned
404 (50.2%) exact matches, in which:
389 unique CDR3
6 unique J



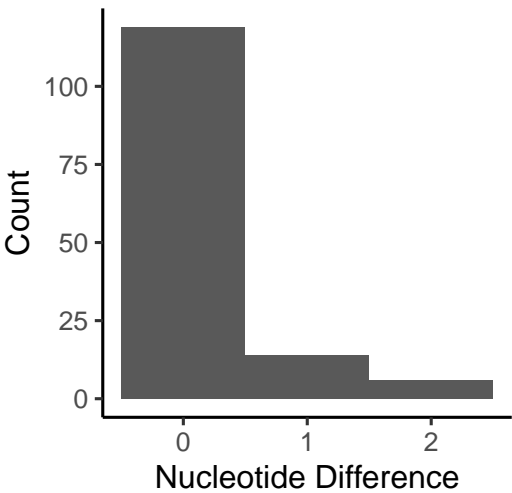
IGHV6-1*01_02

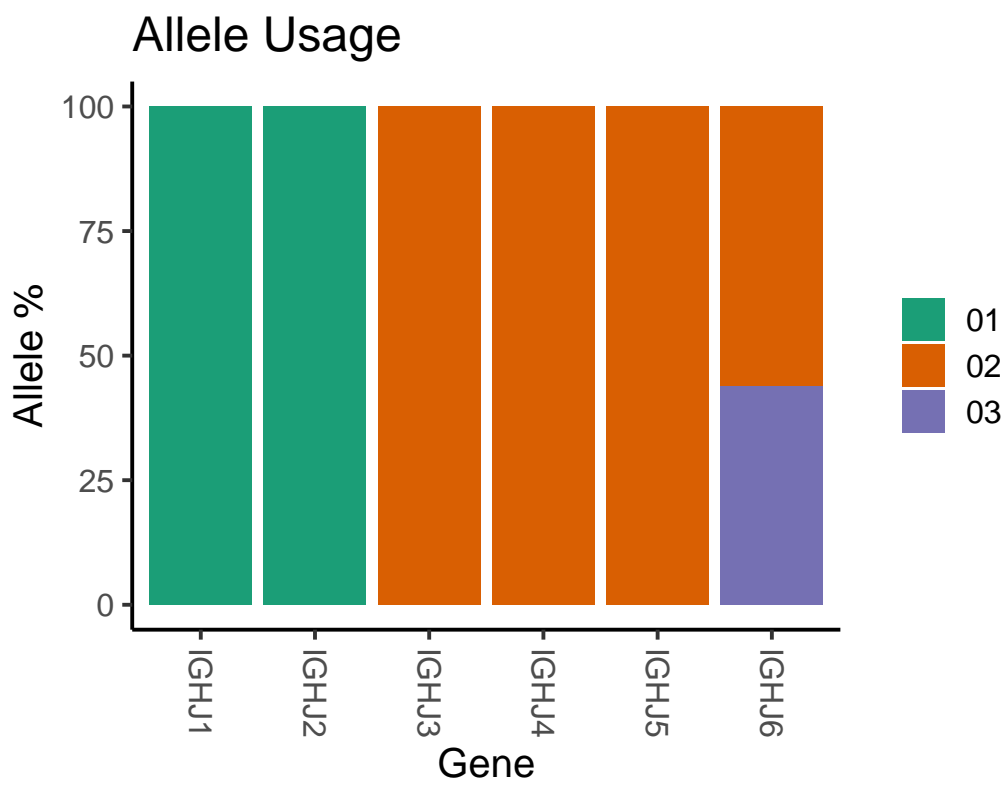
284 sequences assigned
241 (84.9%) exact matches, in which:
238 unique CDR3
6 unique J



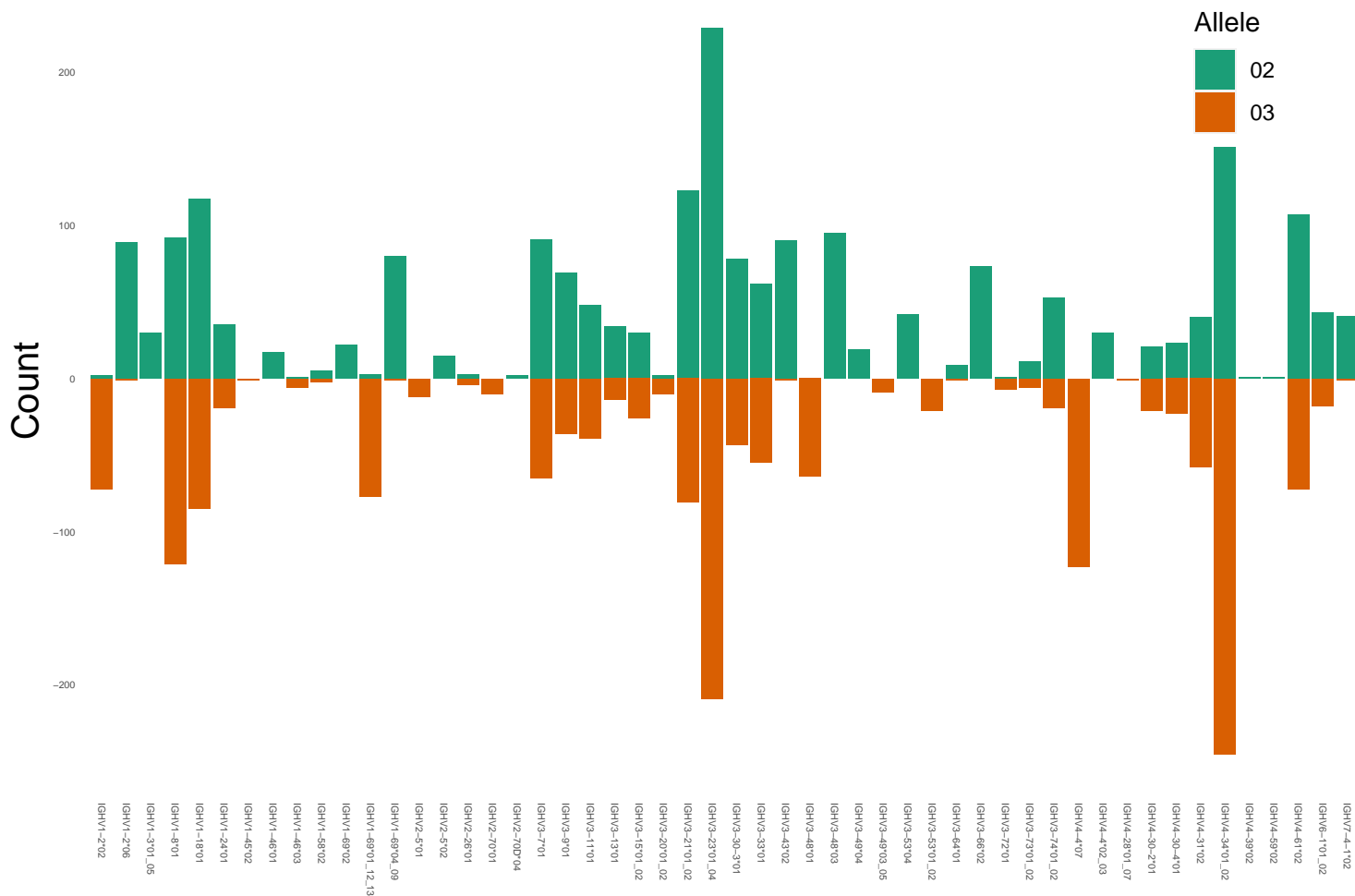
IGHV7-4-1*02

139 sequences assigned
119 (85.6%) exact matches, in which:
119 unique CDR3
7 unique J





Sequence Count by IGHJ6 allele usage



[illegible]