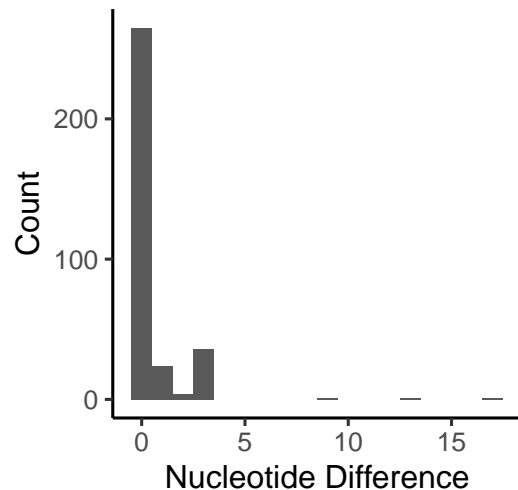


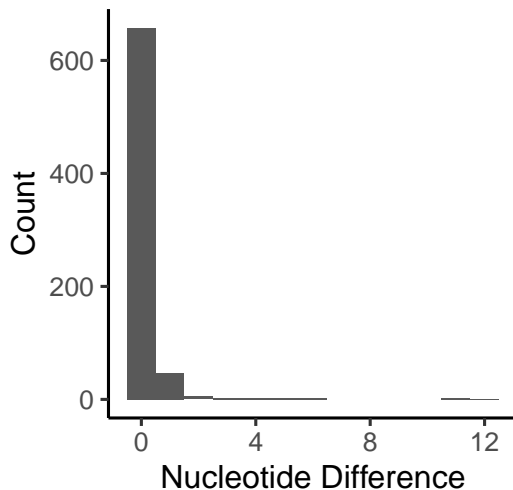
IGHV1-2*04

332 sequences assigned
265 (79.8%) exact matches, in which:
255 unique CDR3
7 unique J



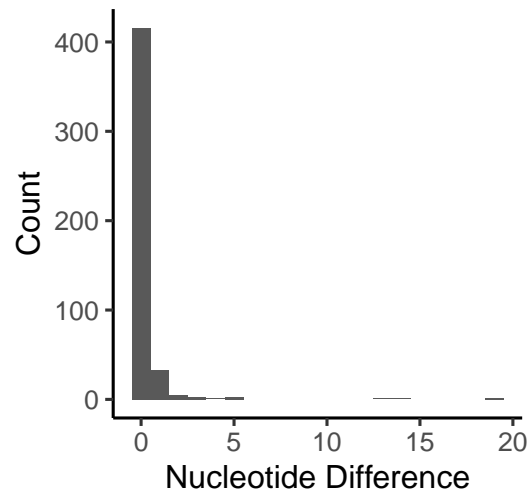
IGHV1-18*04

725 sequences assigned
658 (90.8%) exact matches, in which:
644 unique CDR3
6 unique J



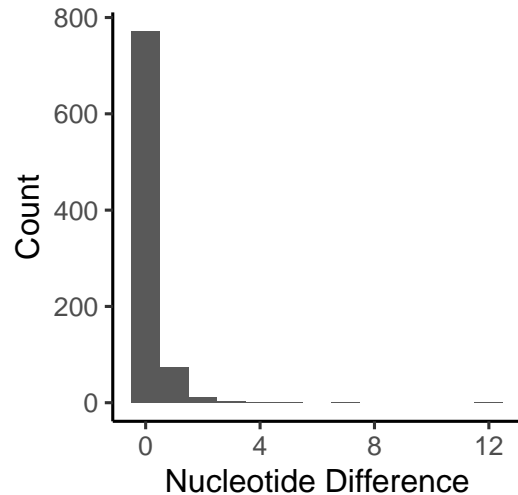
IGHV1-46*01

465 sequences assigned
416 (89.5%) exact matches, in which:
392 unique CDR3
7 unique J



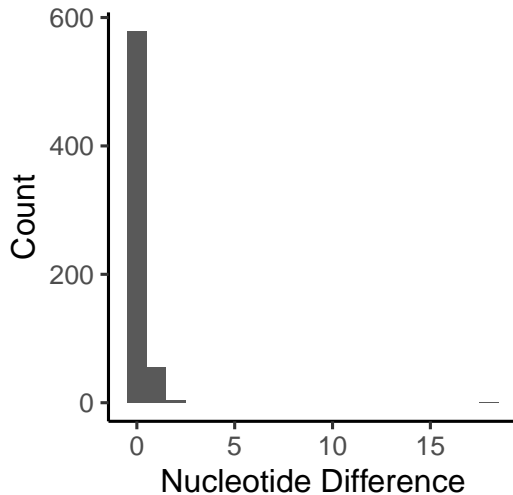
IGHV1-3*01

868 sequences assigned
772 (88.9%) exact matches, in which:
745 unique CDR3
7 unique J



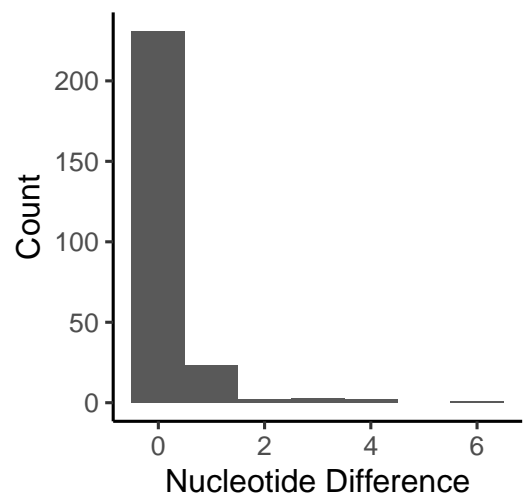
IGHV1-24*01

639 sequences assigned
579 (90.6%) exact matches, in which:
556 unique CDR3
7 unique J



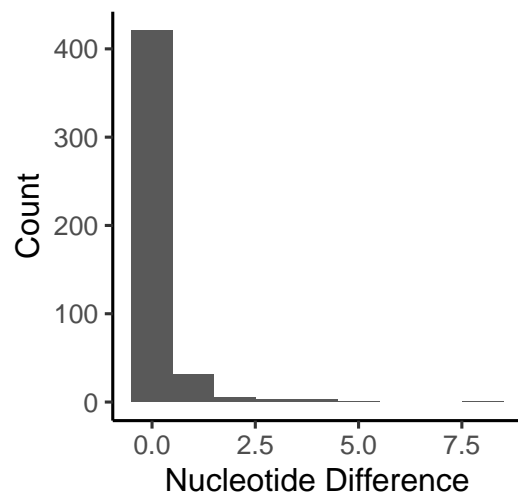
IGHV1-46*03

262 sequences assigned
231 (88.2%) exact matches, in which:
225 unique CDR3
6 unique J



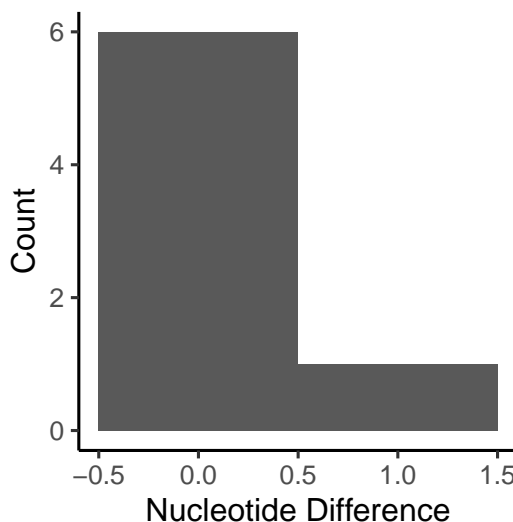
IGHV1-18*01

465 sequences assigned
421 (90.5%) exact matches, in which:
415 unique CDR3
7 unique J



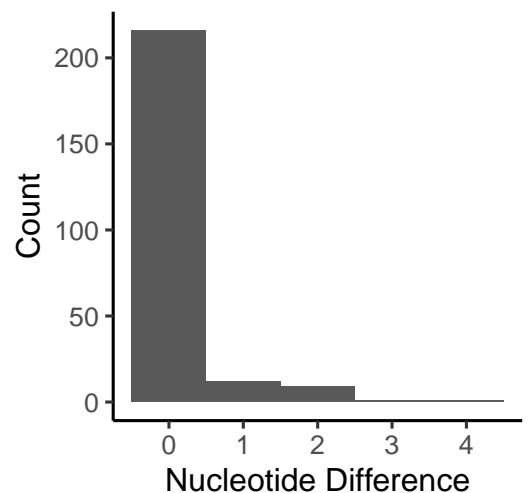
IGHV1-45*02

7 sequences assigned
6 (85.7%) exact matches, in which:
6 unique CDR3
2 unique J



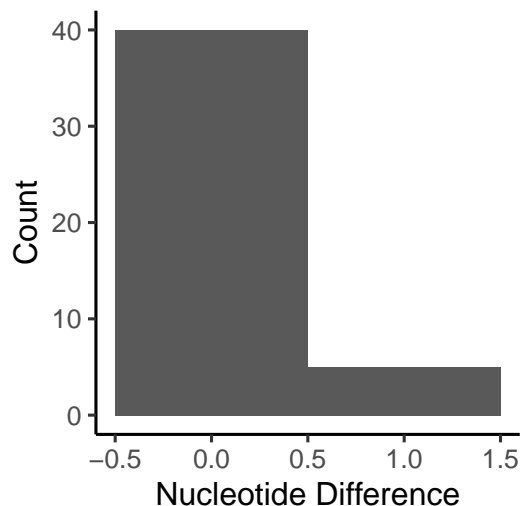
IGHV1-58*01

239 sequences assigned
216 (90.4%) exact matches, in which:
209 unique CDR3
7 unique J



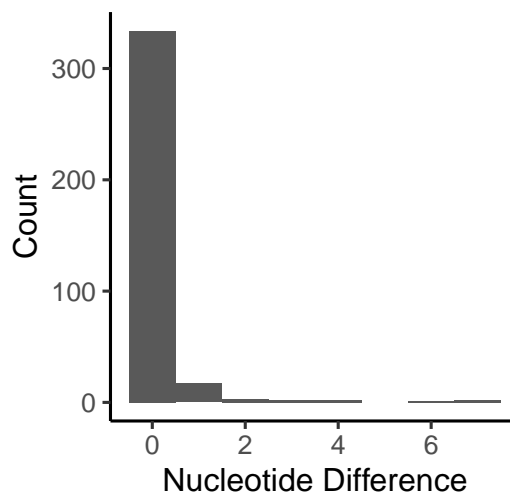
IGHV1-69-2*01

45 sequences assigned
40 (88.9%) exact matches, in which:
39 unique CDR3
6 unique J



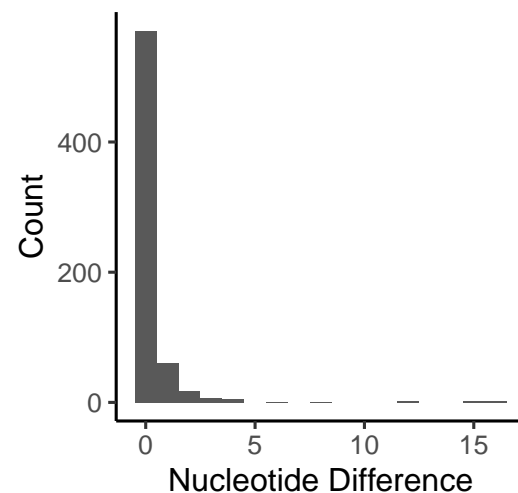
IGHV2-5*02

361 sequences assigned
334 (92.5%) exact matches, in which:
323 unique CDR3
6 unique J



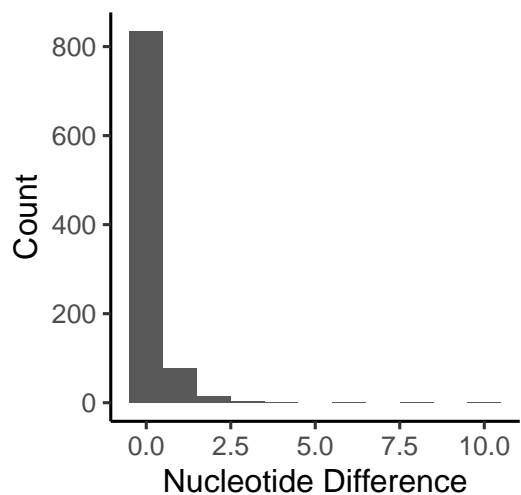
IGHV3-7*03

673 sequences assigned
571 (84.8%) exact matches, in which:
536 unique CDR3
7 unique J



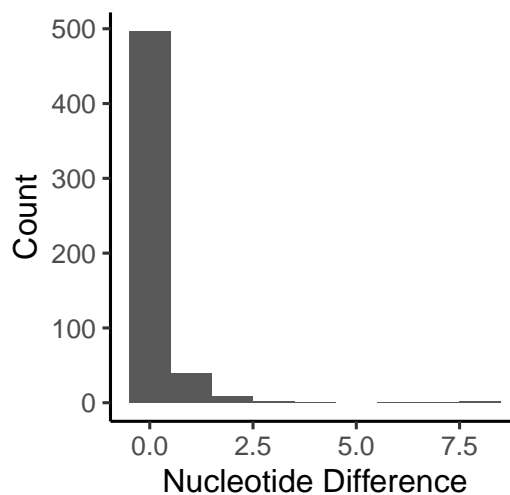
IGHV1-69*06

938 sequences assigned
835 (89%) exact matches, in which:
802 unique CDR3
7 unique J



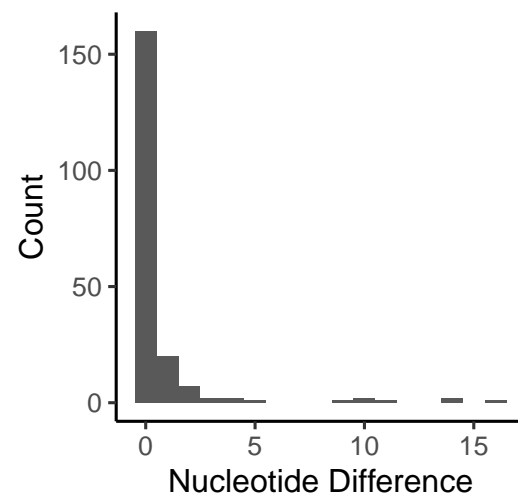
IGHV2-26*01

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



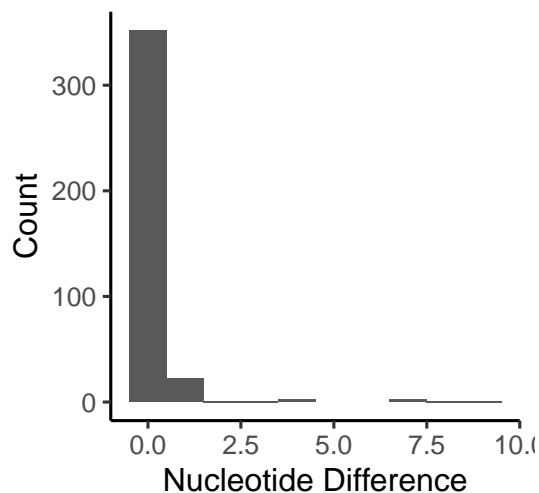
IGHV3-7*05

200 sequences assigned
160 (80%) exact matches, in which:
157 unique CDR3
6 unique J



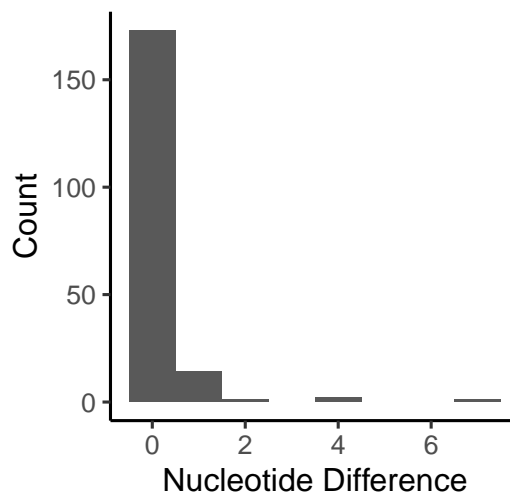
IGHV2-5*01

382 sequences assigned
352 (92.1%) exact matches, in which:
340 unique CDR3
6 unique J



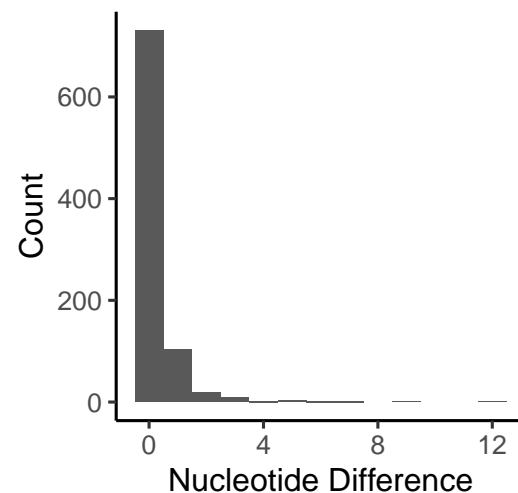
IGHV2-70*01

191 sequences assigned
173 (90.6%) exact matches, in which:
170 unique CDR3
6 unique J



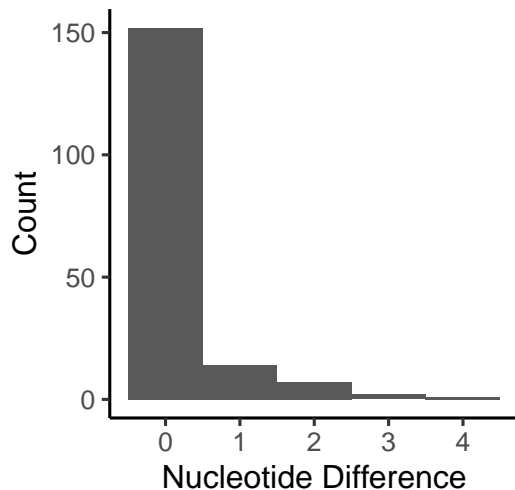
IGHV3-11*06

872 sequences assigned
731 (83.8%) exact matches, in which:
695 unique CDR3
7 unique J



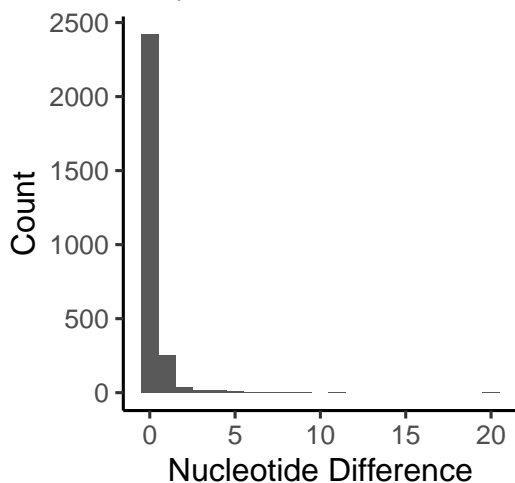
IGHV3-13*05

176 sequences assigned
152 (86.4%) exact matches, in which:
142 unique CDR3
6 unique J



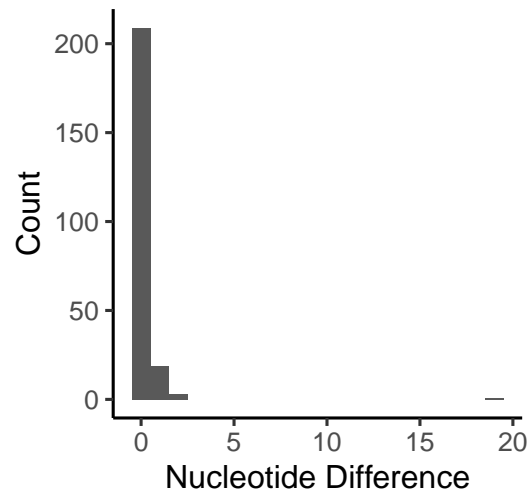
IGHV3-21*01

2764 sequences assigned
2420 (87.6%) exact matches, in which:
2280 unique CDR3
7 unique J



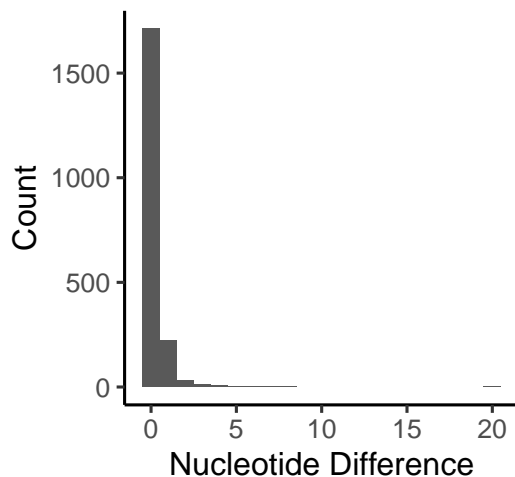
IGHV3-43*01

232 sequences assigned
209 (90.1%) exact matches, in which:
195 unique CDR3
7 unique J



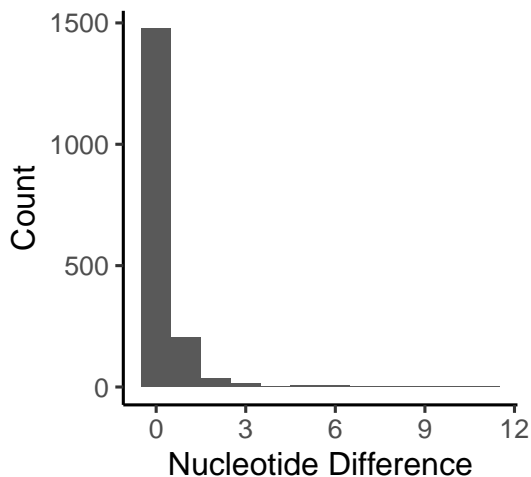
IGHV3-15*01

1992 sequences assigned
1712 (85.9%) exact matches, in which:
1633 unique CDR3
7 unique J



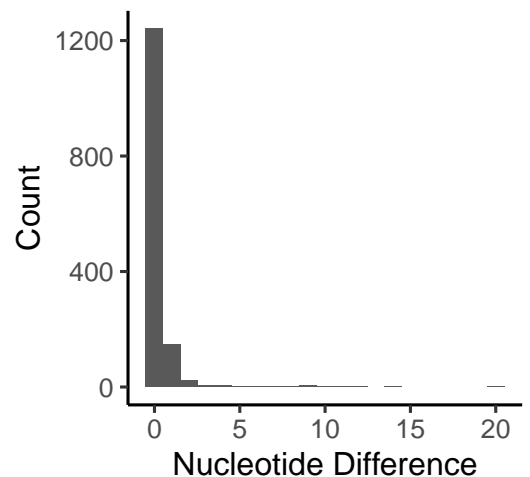
IGHV3-33*01

1750 sequences assigned
1476 (84.3%) exact matches, in which:
1413 unique CDR3
7 unique J



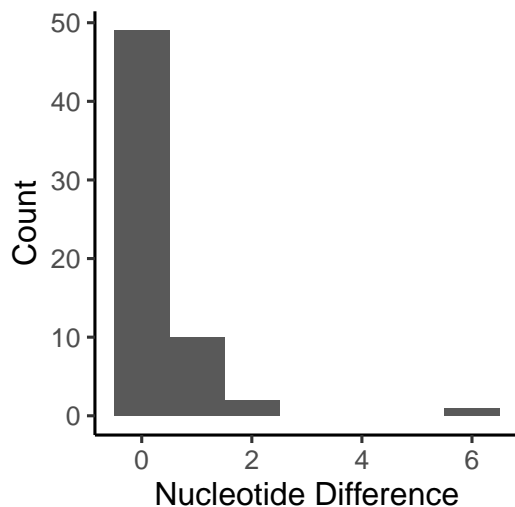
IGHV3-48*02

1462 sequences assigned
1241 (84.9%) exact matches, in which:
1169 unique CDR3
7 unique J



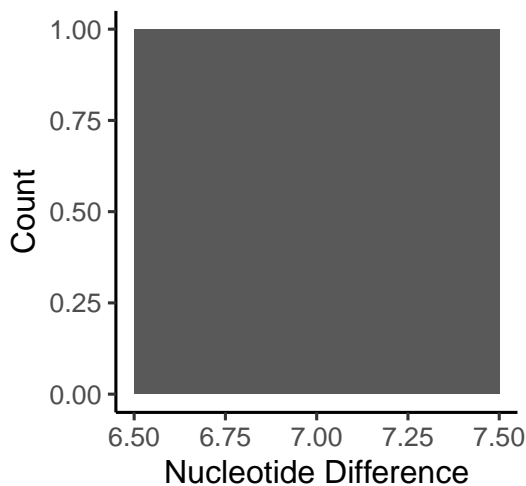
IGHV3-20*01

62 sequences assigned
49 (79%) exact matches, in which:
47 unique CDR3
6 unique J



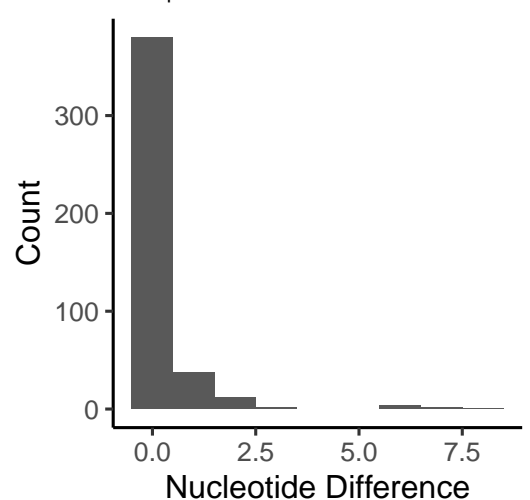
IGHV3-41*02

1 sequences assigned
No exact matches.



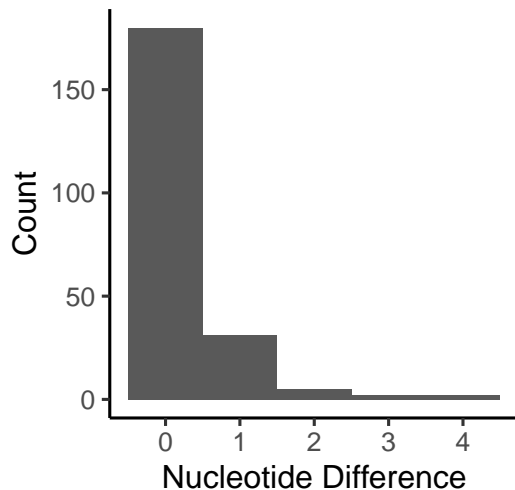
IGHV3-49*04

441 sequences assigned
380 (86.2%) exact matches, in which:
356 unique CDR3
6 unique J



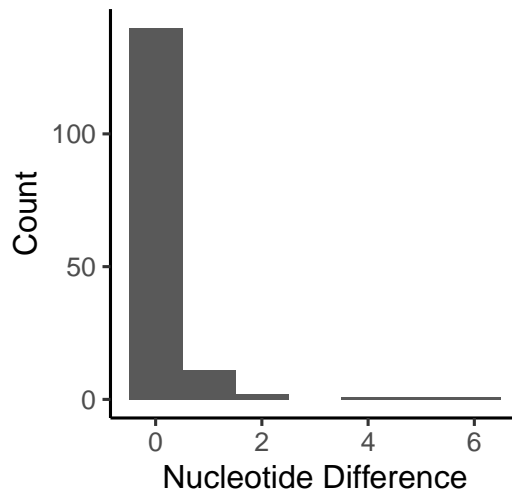
IGHV3-49*05

220 sequences assigned
180 (81.8%) exact matches, in which:
178 unique CDR3
6 unique J



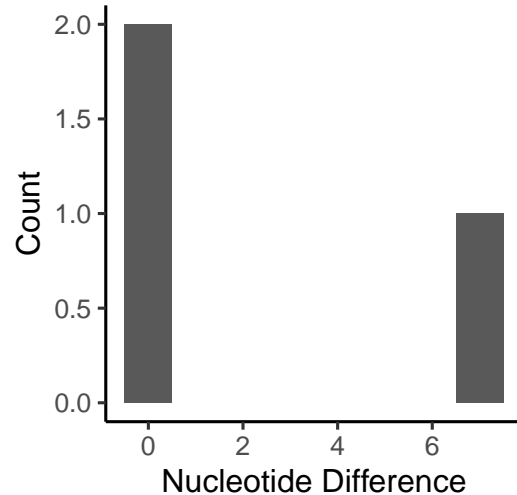
IGHV3-53*02

156 sequences assigned
140 (89.7%) exact matches, in which:
137 unique CDR3
7 unique J



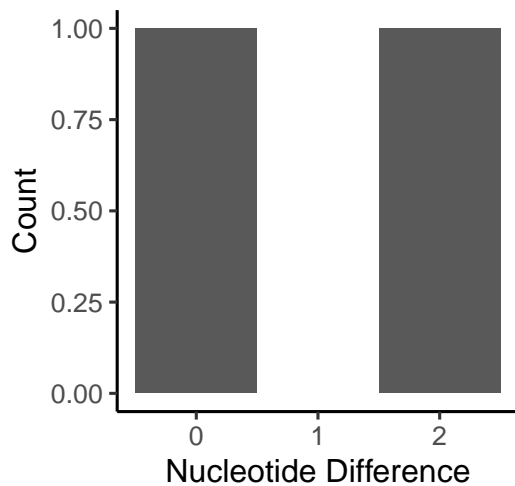
IGHV3-69-1*01

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
2 unique J



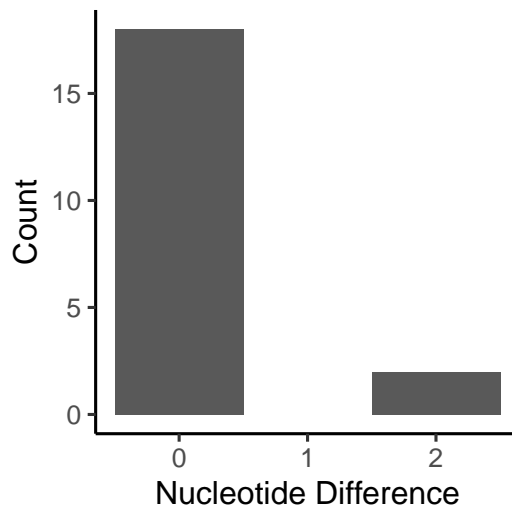
IGHV3-52*01

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



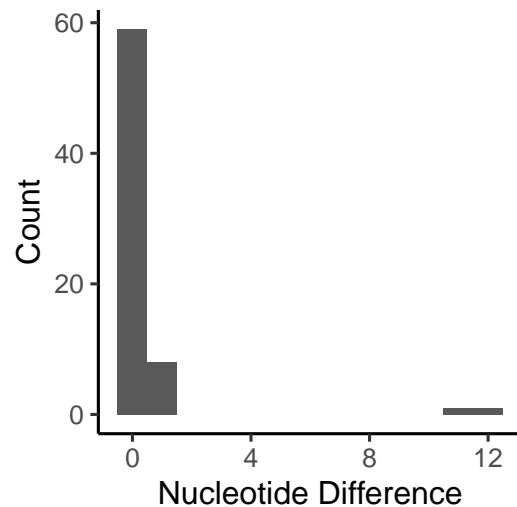
IGHV3-64*02

21 sequences assigned
18 (85.7%) exact matches, in which:
17 unique CDR3
6 unique J



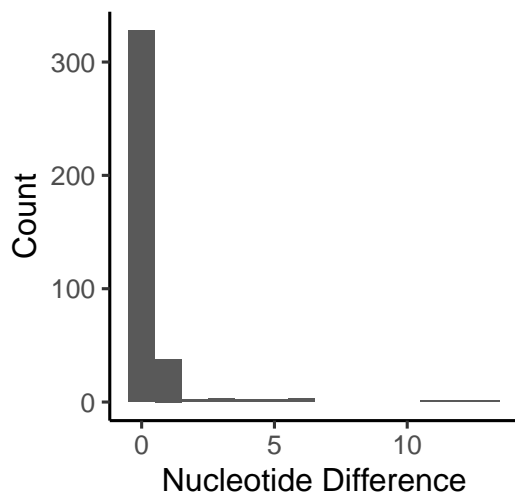
IGHV3-72*01

69 sequences assigned
59 (85.5%) exact matches, in which:
55 unique CDR3
7 unique J



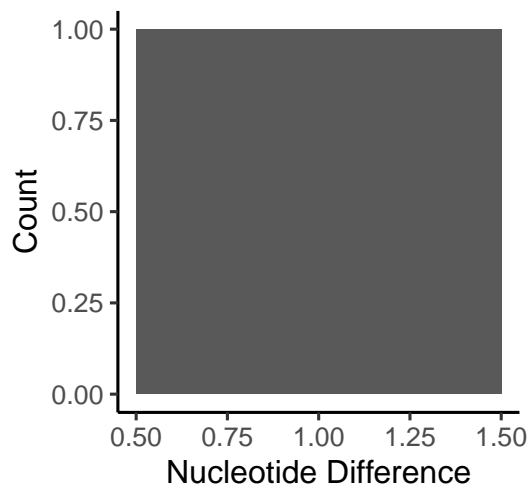
IGHV3-53*01

382 sequences assigned
328 (85.9%) exact matches, in which:
313 unique CDR3
6 unique J



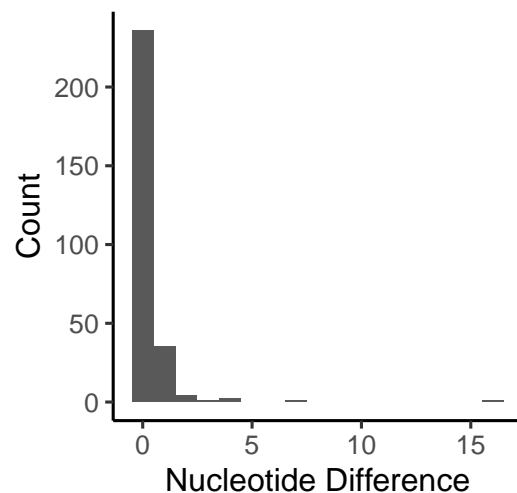
IGHV3-66*04

1 sequences assigned
No exact matches.



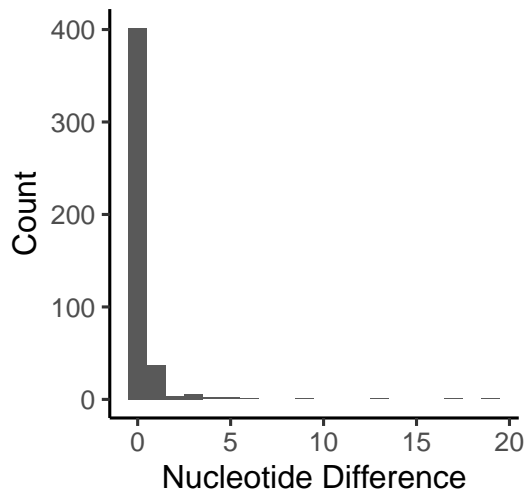
IGHV3-73*02

280 sequences assigned
236 (84.3%) exact matches, in which:
220 unique CDR3
7 unique J



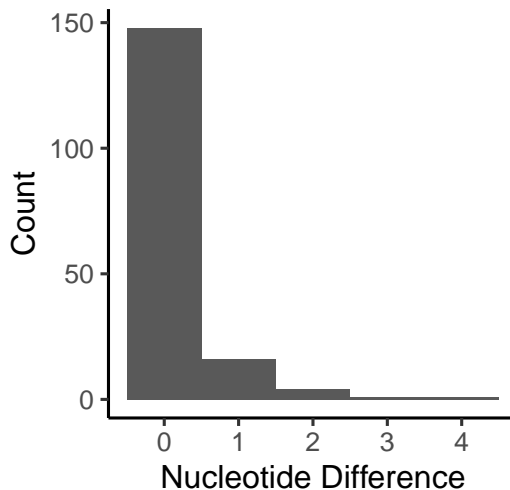
IGHV3-74*01

461 sequences assigned
402 (87.2%) exact matches, in which:
377 unique CDR3
7 unique J



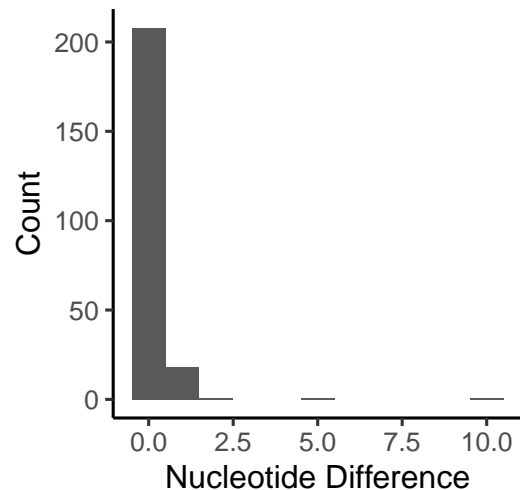
IGHV3-64D*08

170 sequences assigned
148 (87.1%) exact matches, in which:
144 unique CDR3
7 unique J



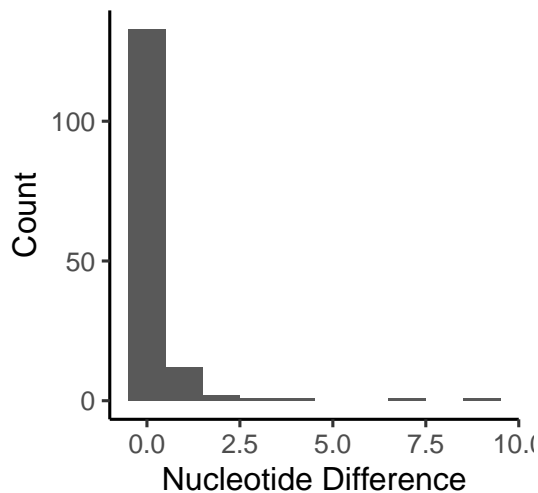
IGHV4-30-2*01

229 sequences assigned
208 (90.8%) exact matches, in which:
206 unique CDR3
6 unique J



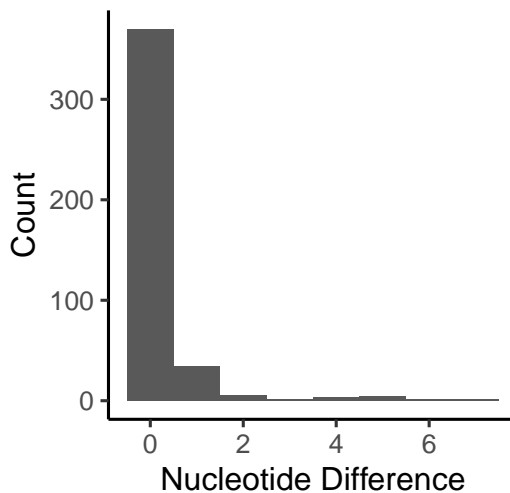
IGHV3-43D*03

151 sequences assigned
133 (88.1%) exact matches, in which:
130 unique CDR3
6 unique J



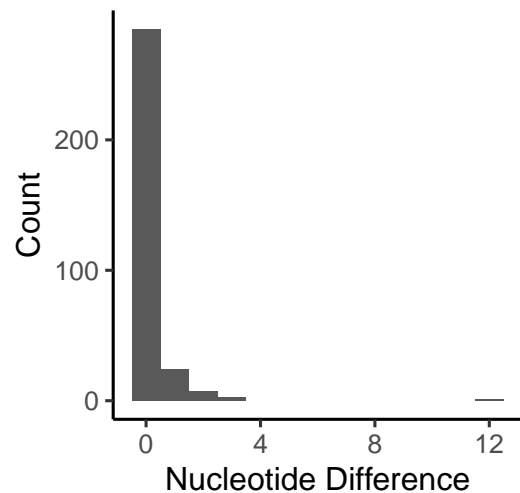
IGHV4-4*02

420 sequences assigned
370 (88.1%) exact matches, in which:
365 unique CDR3
6 unique J



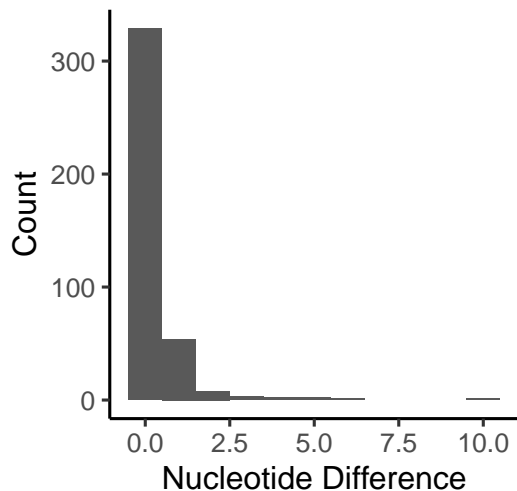
IGHV4-30-4*07

320 sequences assigned
285 (89.1%) exact matches, in which:
277 unique CDR3
6 unique J



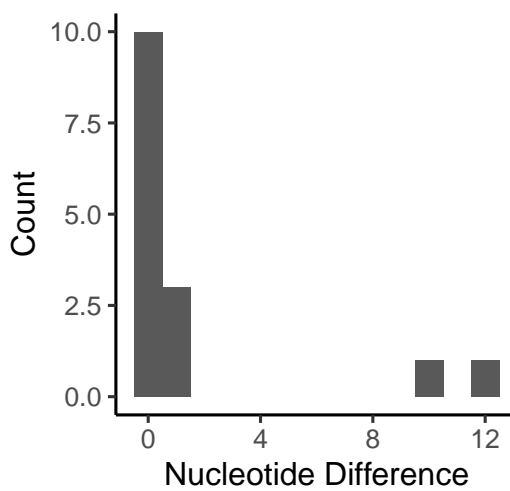
IGHV3-64D*06

400 sequences assigned
329 (82.2%) exact matches, in which:
316 unique CDR3
6 unique J



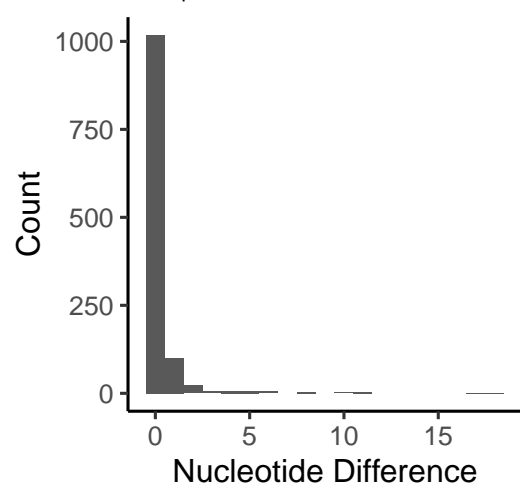
IGHV4-28*01

15 sequences assigned
10 (66.7%) exact matches, in which:
10 unique CDR3
4 unique J



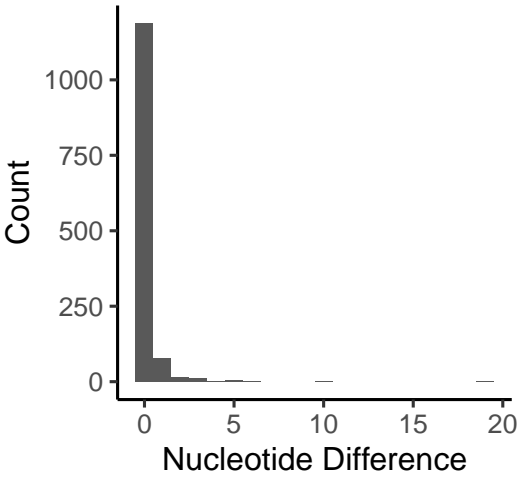
IGHV4-31*03

1172 sequences assigned
1018 (86.9%) exact matches, in which:
983 unique CDR3
6 unique J



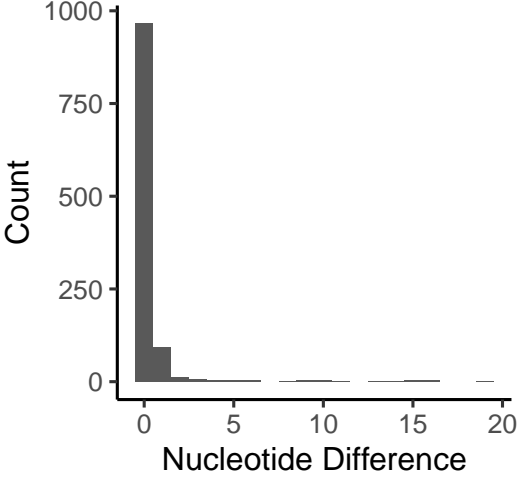
IGHV4-34*01

1302 sequences assigned
1187 (91.2%) exact matches, in which:
1128 unique CDR3
7 unique J



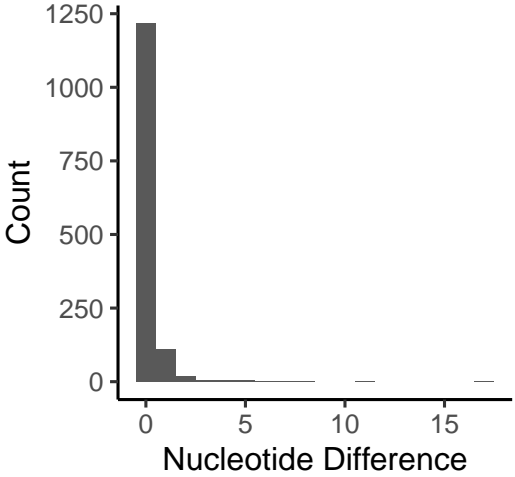
IGHV4-59*01

1109 sequences assigned
966 (87.1%) exact matches, in which:
946 unique CDR3
7 unique J



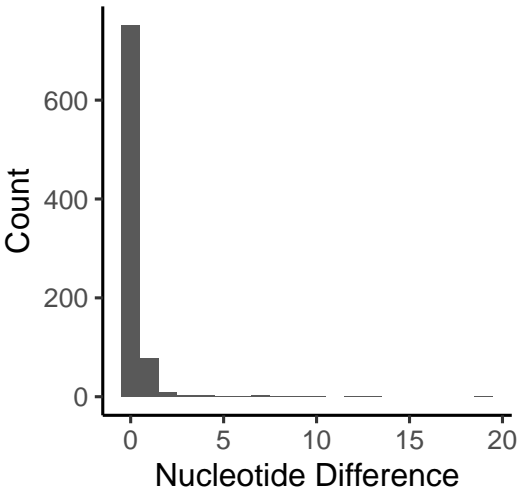
IGHV5-10-1*03

1371 sequences assigned
1217 (88.8%) exact matches, in which:
1177 unique CDR3
7 unique J



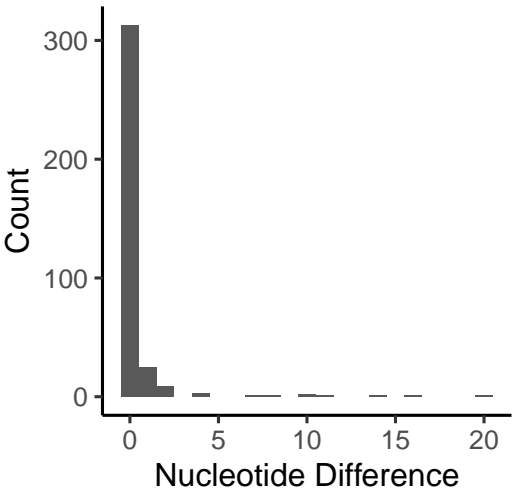
IGHV4-38-2*02

861 sequences assigned
752 (87.3%) exact matches, in which:
702 unique CDR3
7 unique J



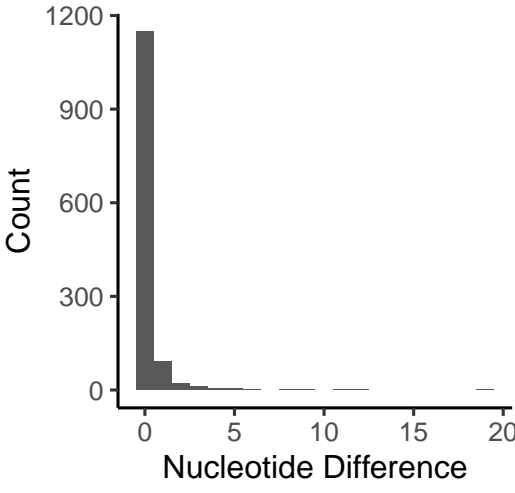
IGHV4-61*01

366 sequences assigned
313 (85.5%) exact matches, in which:
305 unique CDR3
7 unique J



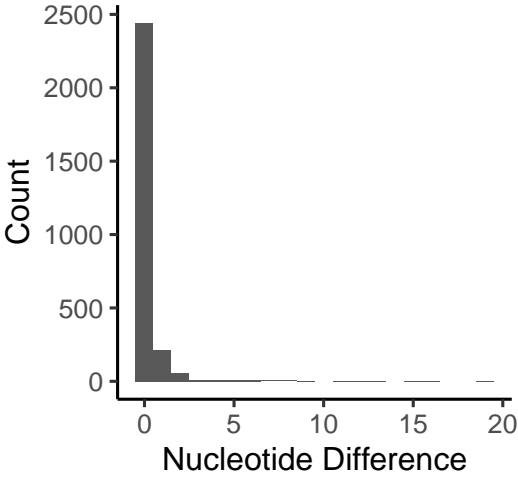
IGHV5-51*01

1289 sequences assigned
1148 (89.1%) exact matches, in which:
1103 unique CDR3
7 unique J



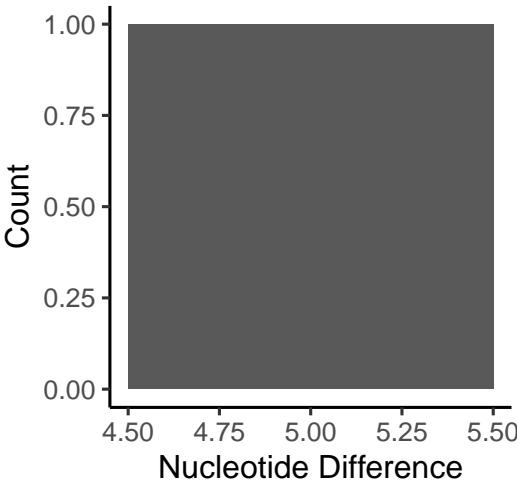
IGHV4-39*01

2770 sequences assigned
2441 (88.1%) exact matches, in which:
2303 unique CDR3
7 unique J



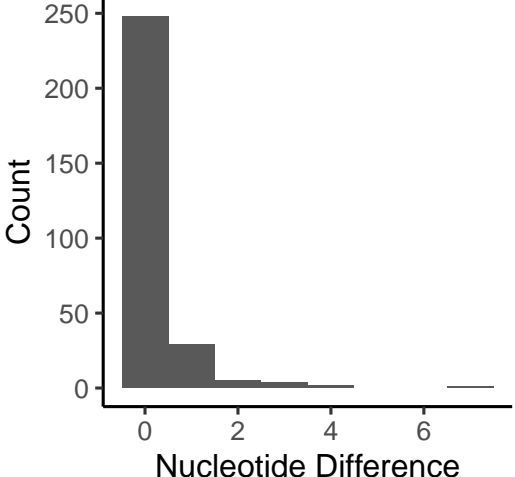
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



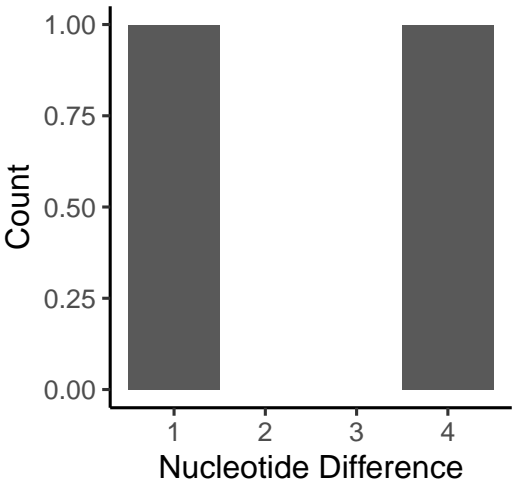
IGHV6-1*01

289 sequences assigned
248 (85.8%) exact matches, in which:
240 unique CDR3
6 unique J



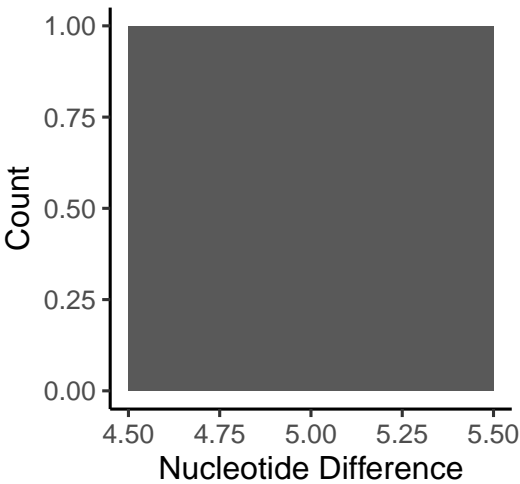
IGHV3/OR16-12*01

2 sequences assigned
No exact matches.



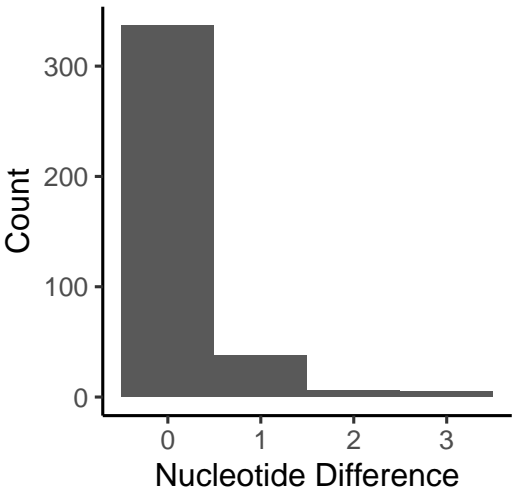
IGHV3/OR16-15*02

1 sequences assigned
No exact matches.

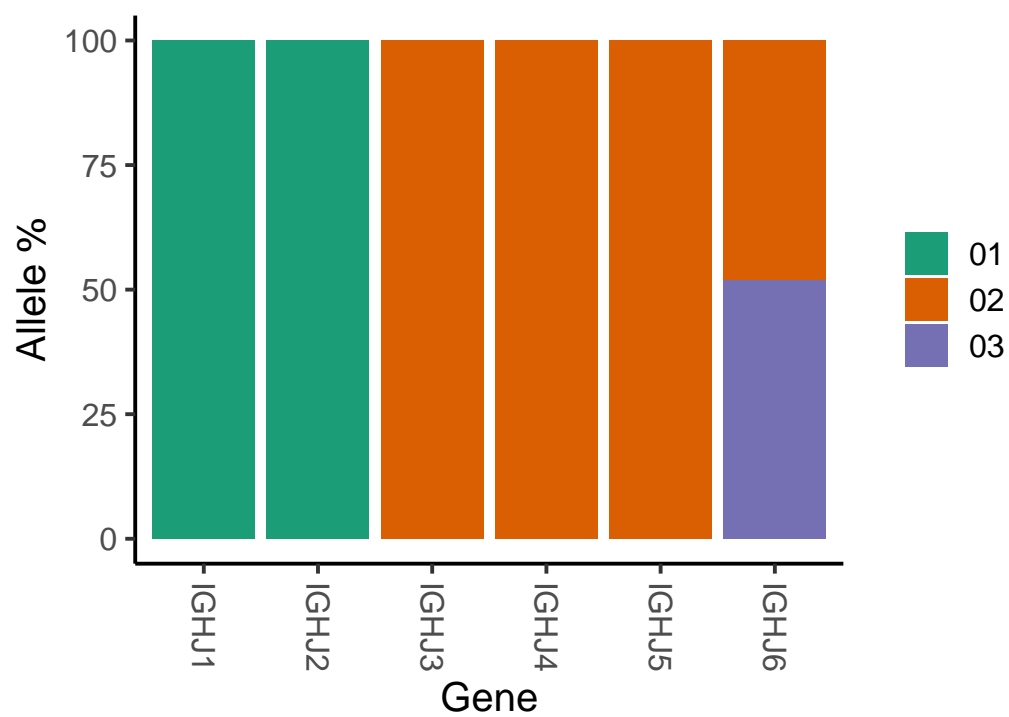


IGHV7-4-1*02

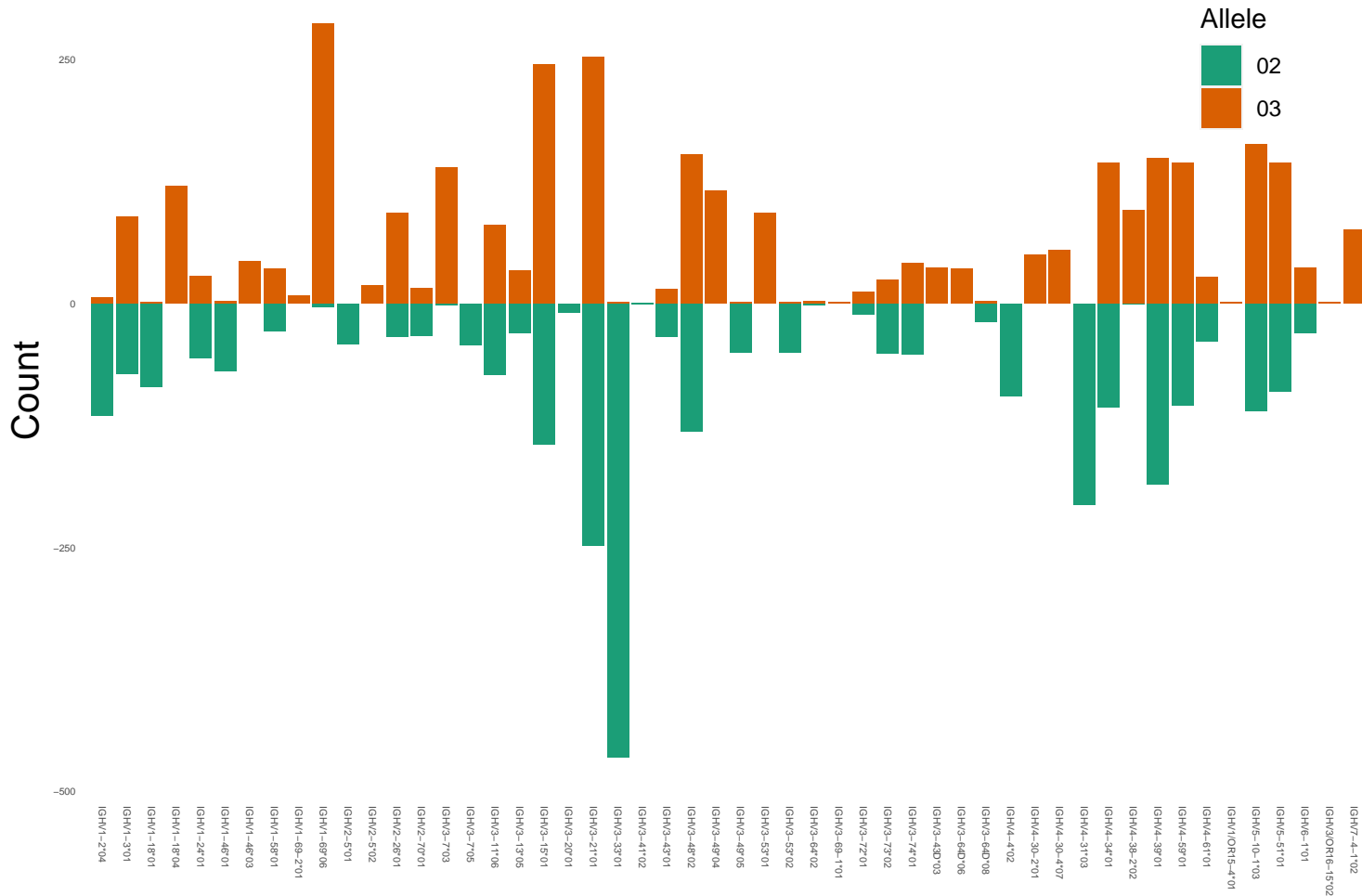
386 sequences assigned
337 (87.3%) exact matches, in which:
328 unique CDR3
6 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.

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