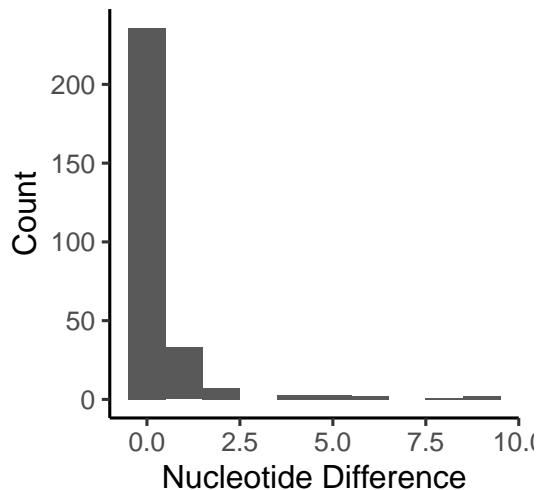


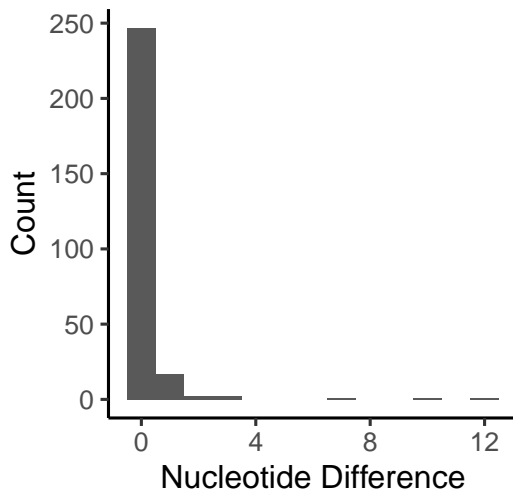
IGHV1-2*04

288 sequences assigned
236 (81.9%) exact matches, in which:
226 unique CDR3
7 unique J



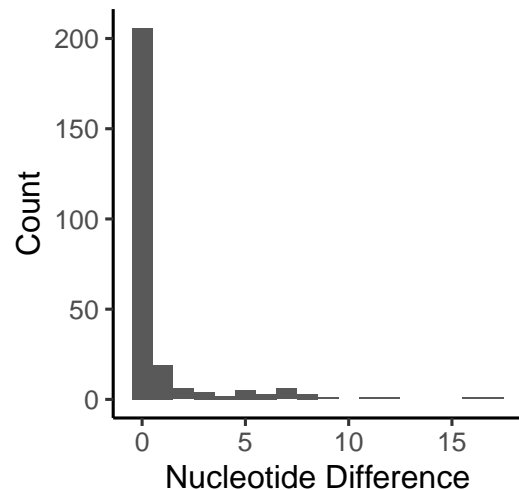
IGHV1-24*01

272 sequences assigned
247 (90.8%) exact matches, in which:
240 unique CDR3
7 unique J



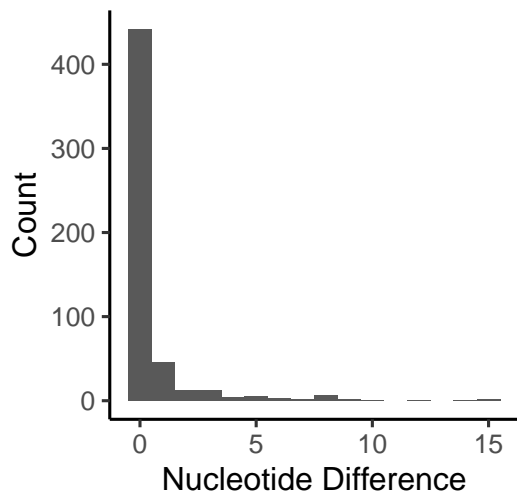
IGHV1-46*04

260 sequences assigned
206 (79.2%) exact matches, in which:
196 unique CDR3
6 unique J



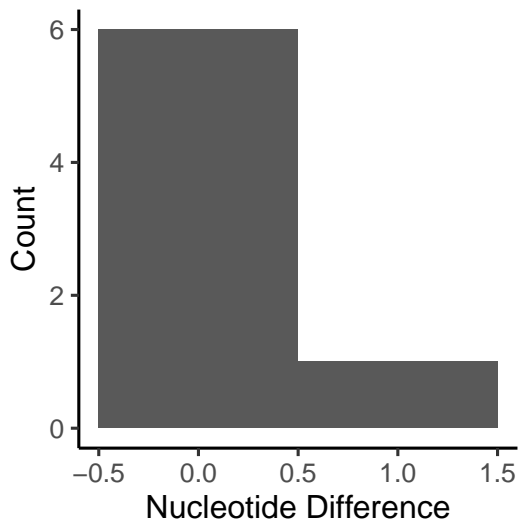
IGHV1-3*01

540 sequences assigned
442 (81.9%) exact matches, in which:
423 unique CDR3
7 unique J



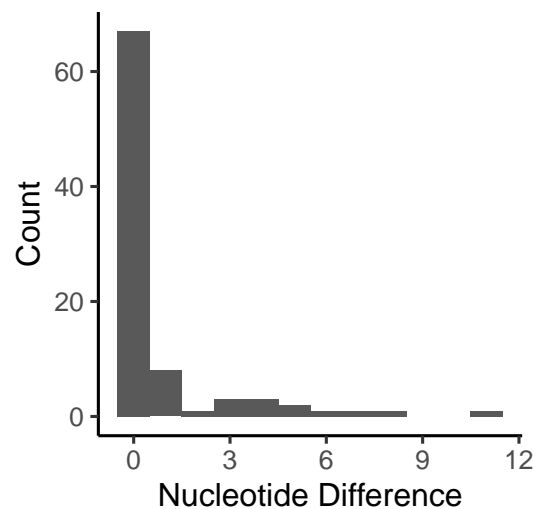
IGHV1-45*02

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



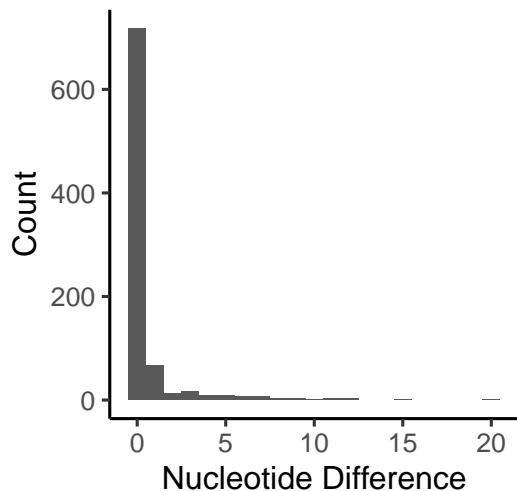
IGHV1-58*01

88 sequences assigned
67 (76.1%) exact matches, in which:
65 unique CDR3
6 unique J



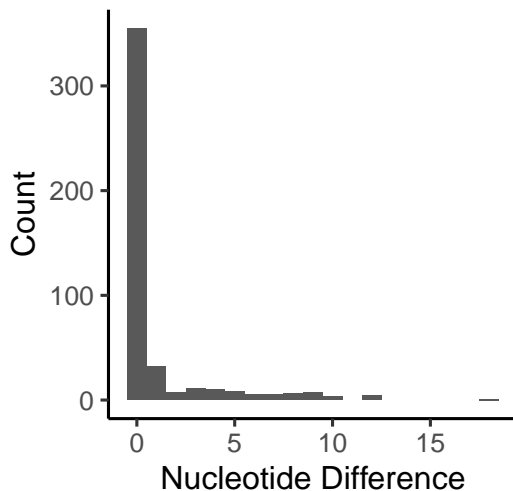
IGHV1-18*01

861 sequences assigned
718 (83.4%) exact matches, in which:
692 unique CDR3
7 unique J



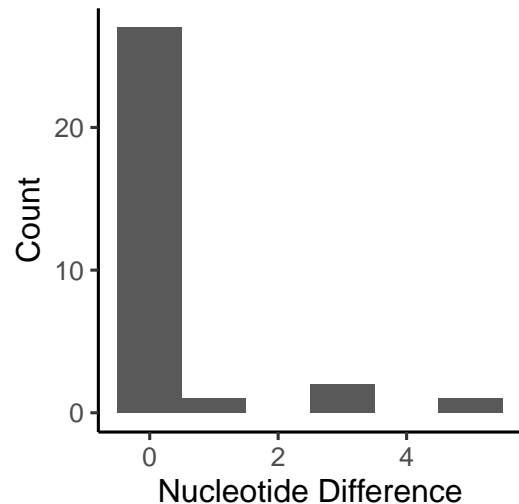
IGHV1-46*01

456 sequences assigned
355 (77.9%) exact matches, in which:
338 unique CDR3
6 unique J



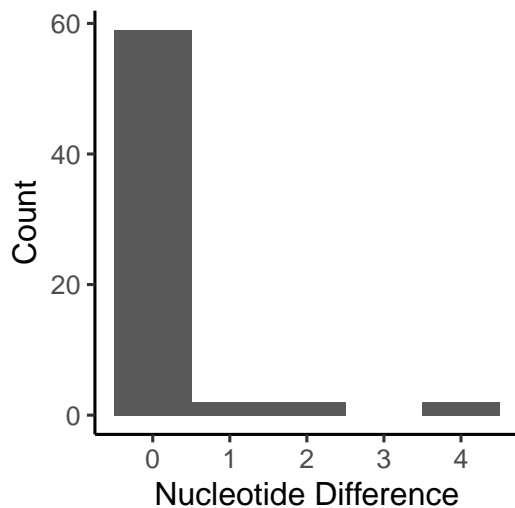
IGHV1-58*02

31 sequences assigned
27 (87.1%) exact matches, in which:
27 unique CDR3
4 unique J



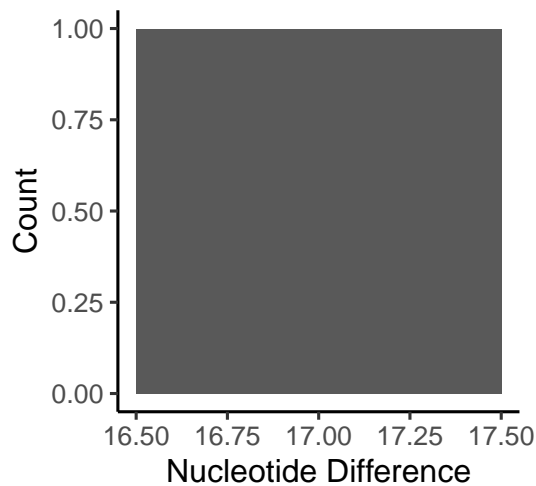
IGHV1-69-2*01

65 sequences assigned
59 (90.8%) exact matches, in which:
55 unique CDR3
4 unique J



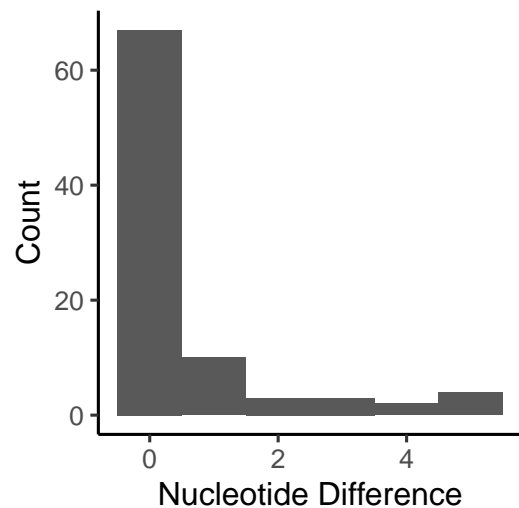
IGHV1-NL1*01

1 sequences assigned
No exact matches.



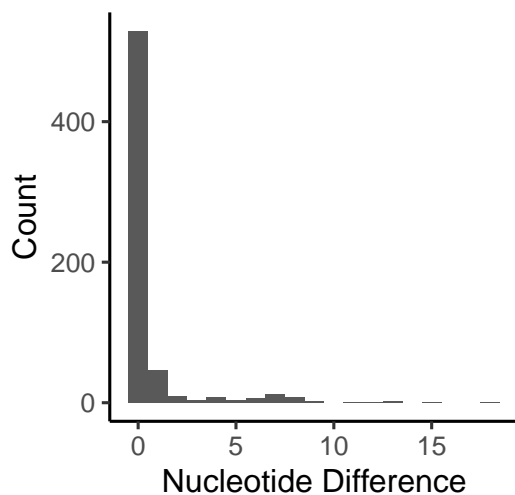
IGHV2-70*01

89 sequences assigned
67 (75.3%) exact matches, in which:
66 unique CDR3
5 unique J



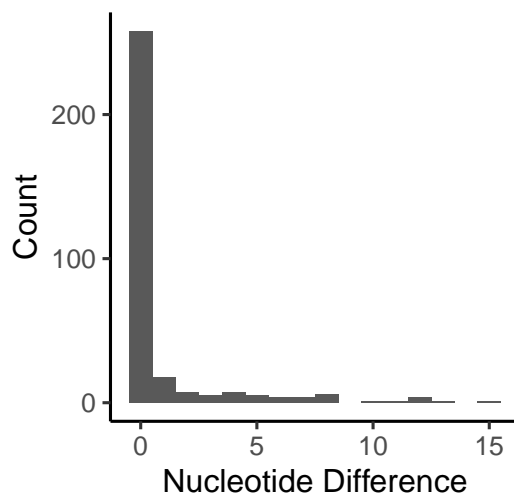
IGHV1-69*04

646 sequences assigned
529 (81.9%) exact matches, in which:
509 unique CDR3
7 unique J



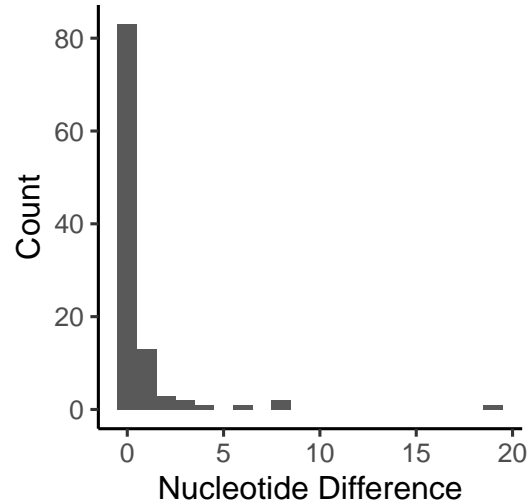
IGHV2-5*02

329 sequences assigned
258 (78.4%) exact matches, in which:
252 unique CDR3
7 unique J



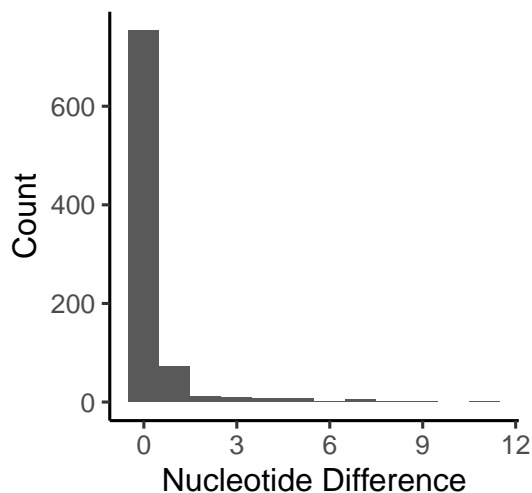
IGHV2-70*15

106 sequences assigned
83 (78.3%) exact matches, in which:
82 unique CDR3
4 unique J



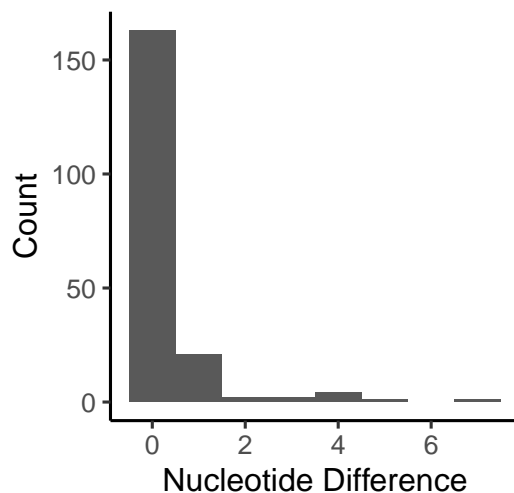
IGHV1-69*06

874 sequences assigned
754 (86.3%) exact matches, in which:
718 unique CDR3
7 unique J



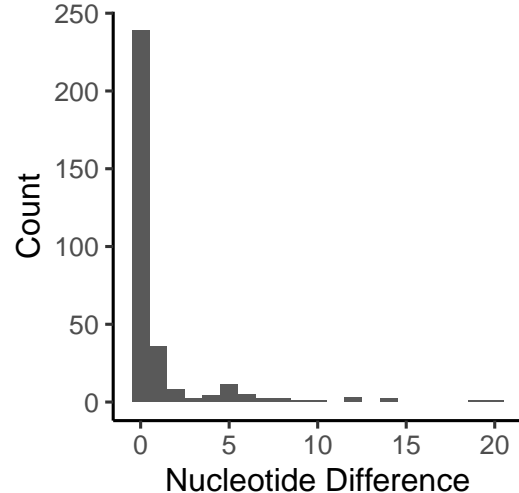
IGHV2-26*01

194 sequences assigned
163 (84%) exact matches, in which:
161 unique CDR3
6 unique J



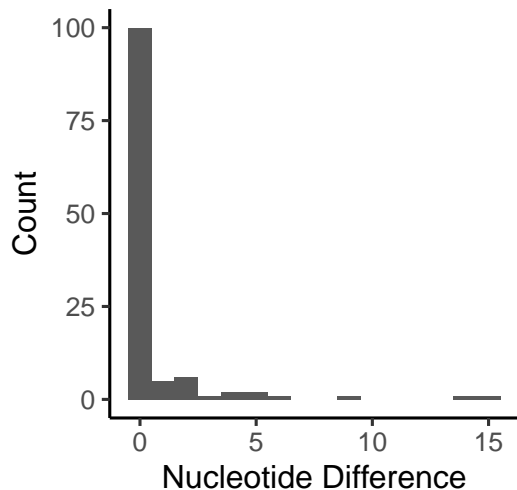
IGHV3-7*03

318 sequences assigned
239 (75.2%) exact matches, in which:
233 unique CDR3
6 unique J



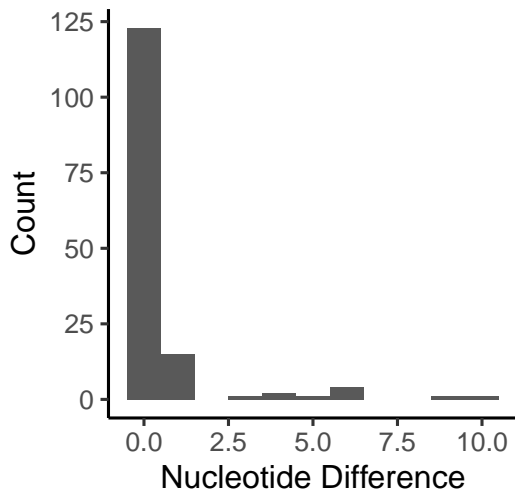
IGHV3-7*04

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



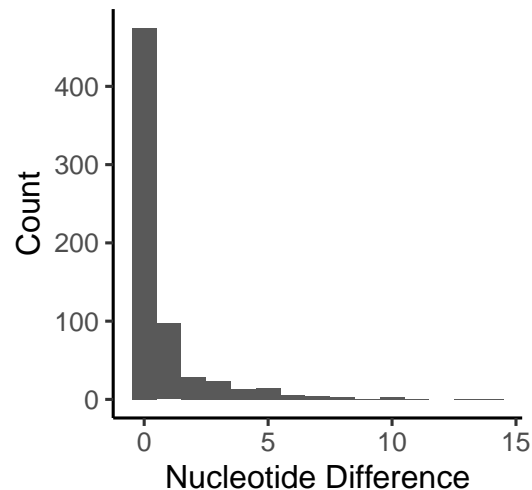
IGHV3-13*04

149 sequences assigned
123 (82.6%) exact matches, in which:
116 unique CDR3
7 unique J



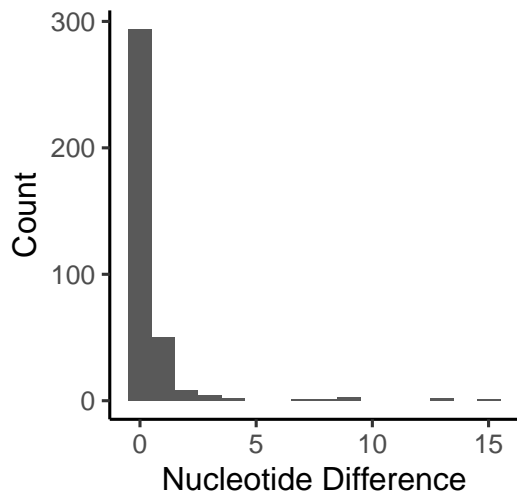
IGHV3-15*07

673 sequences assigned
475 (70.6%) exact matches, in which:
442 unique CDR3
6 unique J



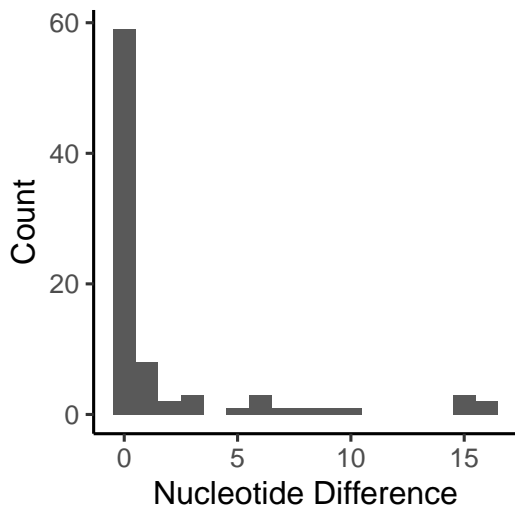
IGHV3-11*05

367 sequences assigned
294 (80.1%) exact matches, in which:
276 unique CDR3
6 unique J



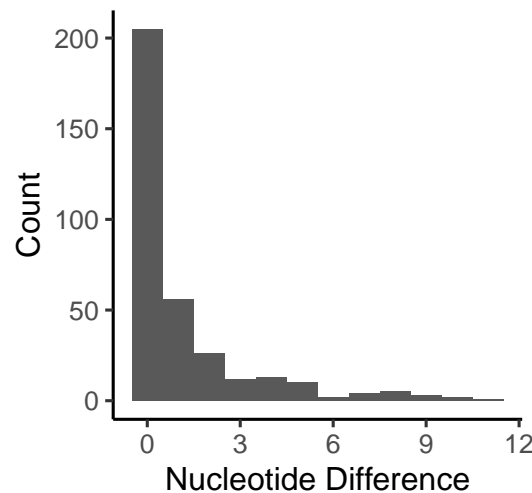
IGHV3-13*01_G290A_T301

85 sequences assigned
59 (69.4%) exact matches, in which:
55 unique CDR3
5 unique J



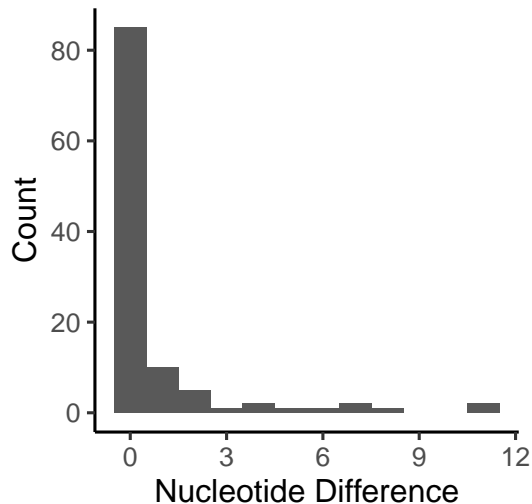
IGHV3-20*04

339 sequences assigned
205 (60.5%) exact matches, in which:
186 unique CDR3
7 unique J



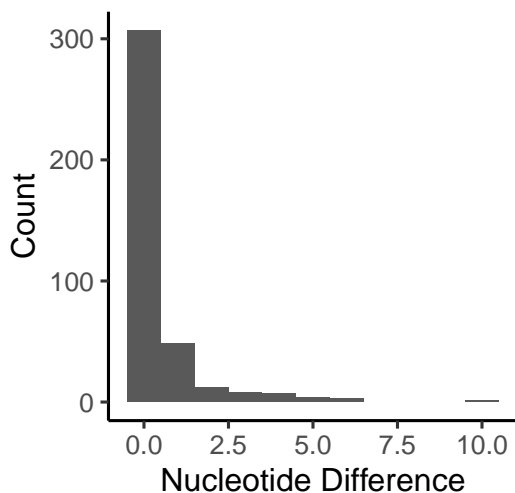
IGHV3-11*06

110 sequences assigned
85 (77.3%) exact matches, in which:
77 unique CDR3
6 unique J



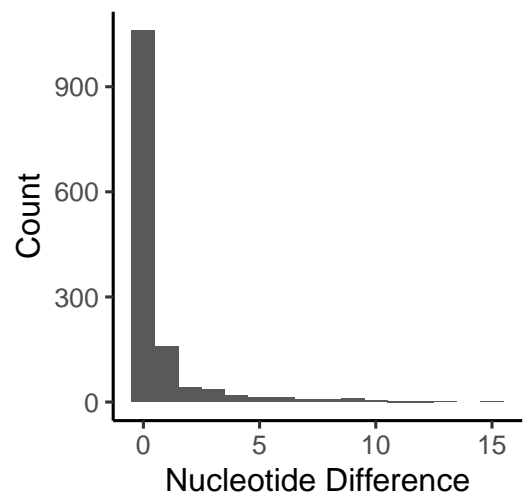
IGHV3-15*01

390 sequences assigned
307 (78.7%) exact matches, in which:
294 unique CDR3
6 unique J



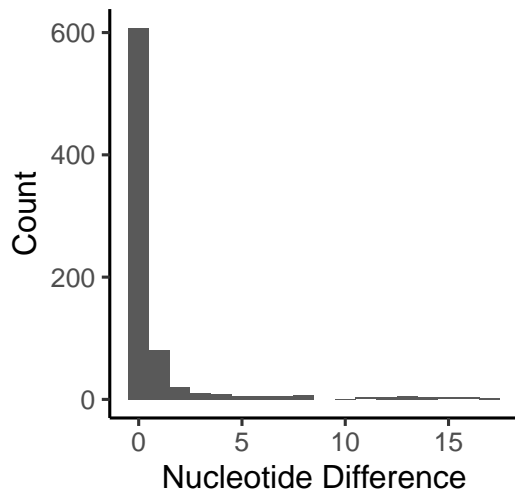
IGHV3-21*01

1378 sequences assigned
1061 (77%) exact matches, in which:
992 unique CDR3
7 unique J



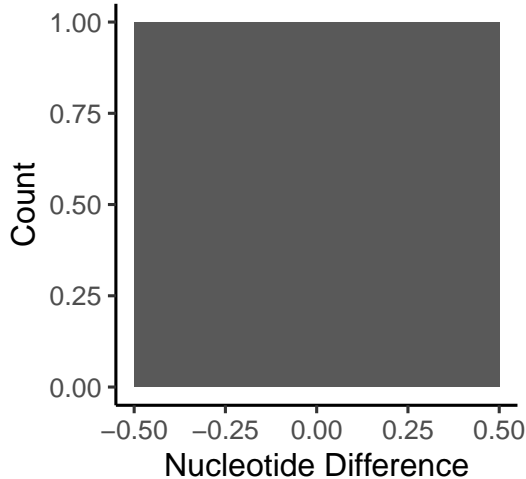
IGHV3–23*04

780 sequences assigned
608 (77.9%) exact matches, in which:
570 unique CDR3
6 unique J



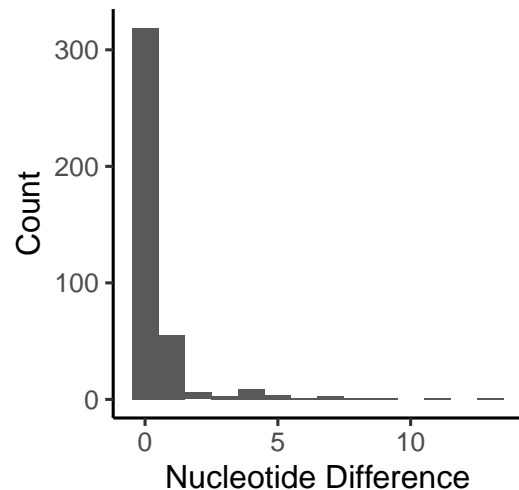
IGHV3–35*01

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



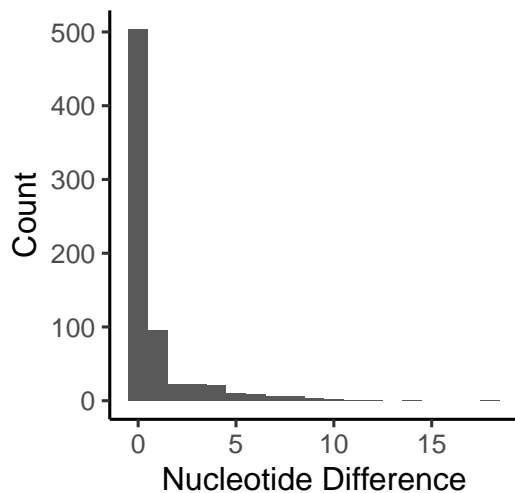
IGHV3–48*01

404 sequences assigned
319 (79%) exact matches, in which:
297 unique CDR3
6 unique J



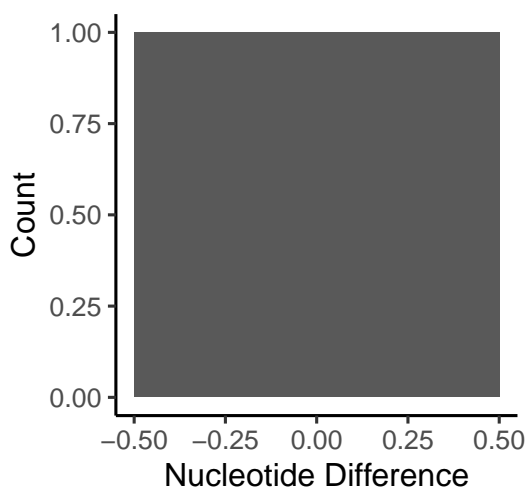
IGHV3–33*01

706 sequences assigned
504 (71.4%) exact matches, in which:
469 unique CDR3
6 unique J



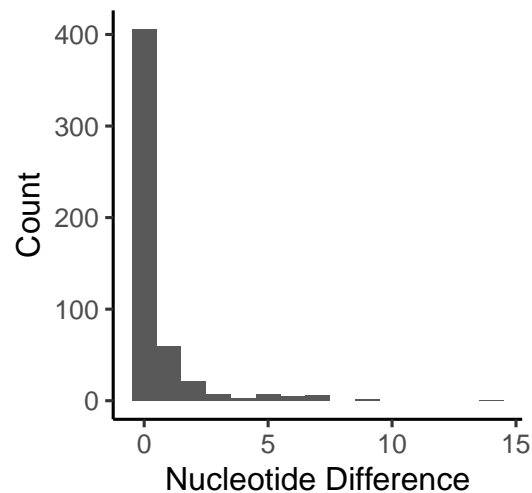
IGHV3–41*02

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



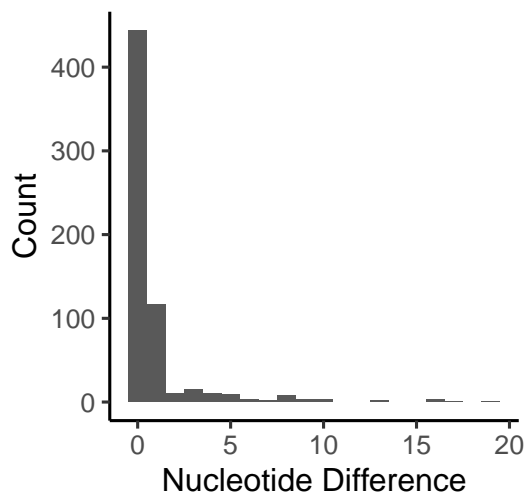
IGHV3–48*02

521 sequences assigned
406 (77.9%) exact matches, in which:
381 unique CDR3
6 unique J



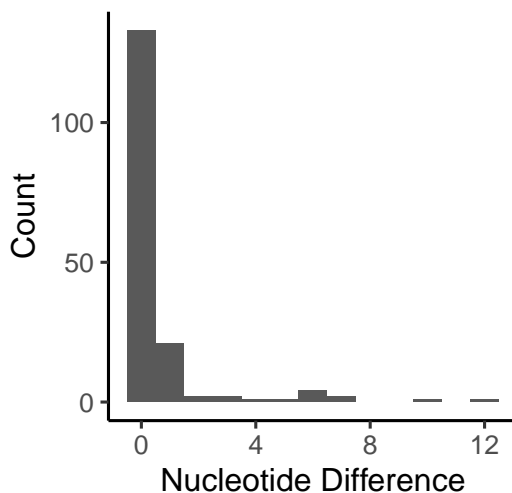
IGHV3–33*08

643 sequences assigned
444 (69.1%) exact matches, in which:
424 unique CDR3
6 unique J



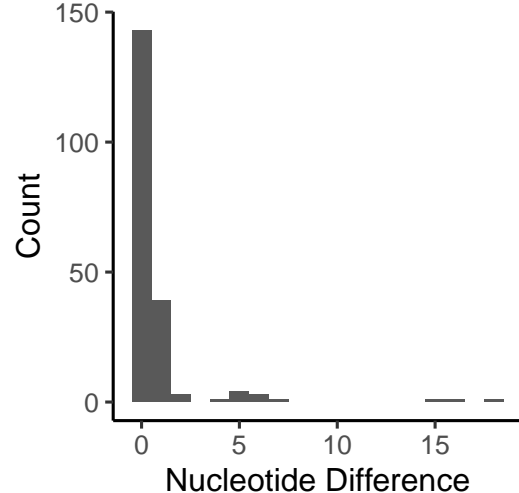
IGHV3–43*01

168 sequences assigned
133 (79.2%) exact matches, in which:
124 unique CDR3
7 unique J



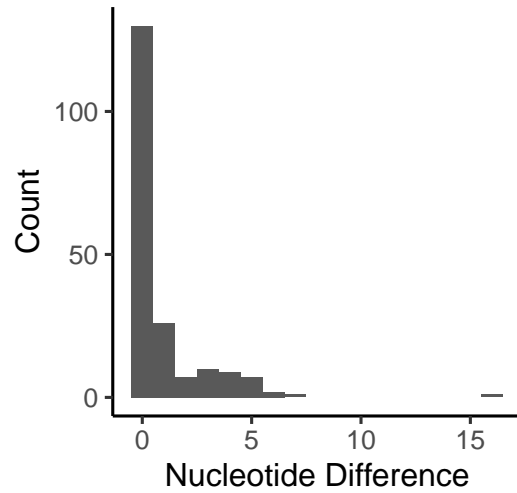
IGHV3–49*03

197 sequences assigned
143 (72.6%) exact matches, in which:
134 unique CDR3
6 unique J



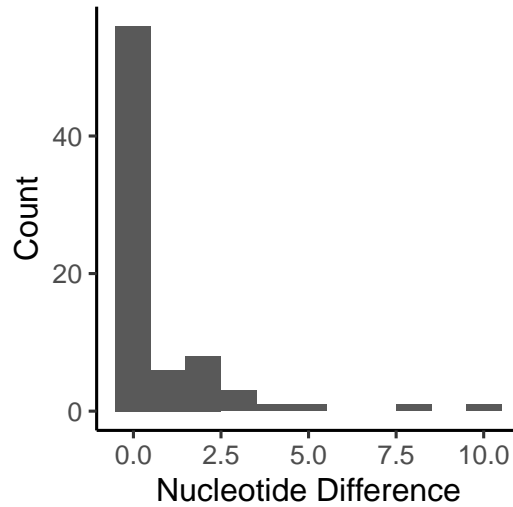
IGHV3-49*05

193 sequences assigned
130 (67.4%) exact matches, in which:
124 unique CDR3
5 unique J



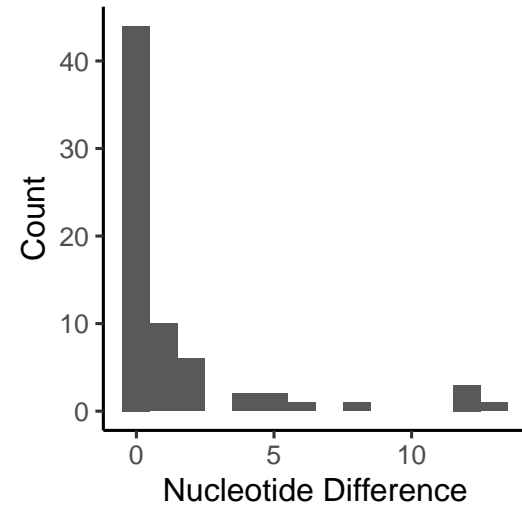
IGHV3-64*01

78 sequences assigned
56 (71.8%) exact matches, in which:
53 unique CDR3
5 unique J



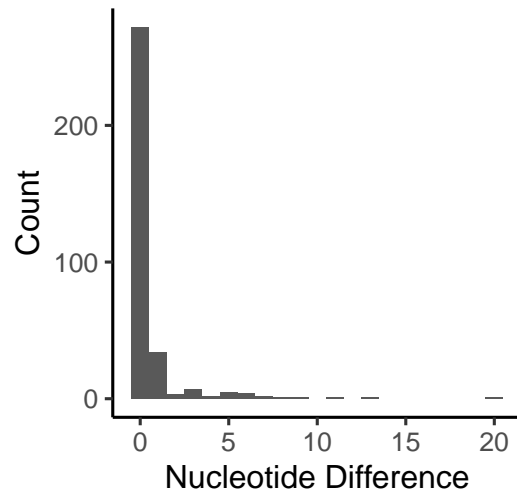
IGHV3-73*01

70 sequences assigned
44 (62.9%) exact matches, in which:
41 unique CDR3
5 unique J



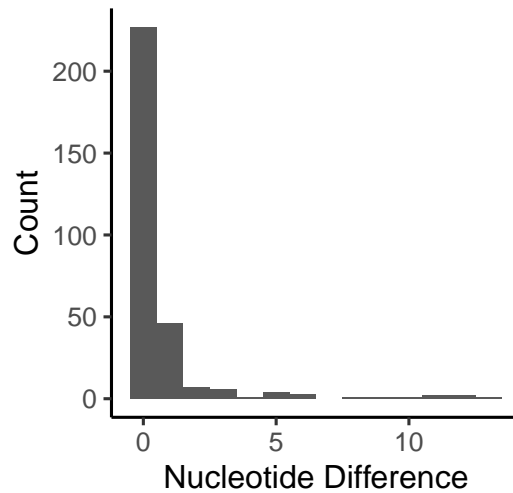
IGHV3-53*01

334 sequences assigned
272 (81.4%) exact matches, in which:
261 unique CDR3
6 unique J



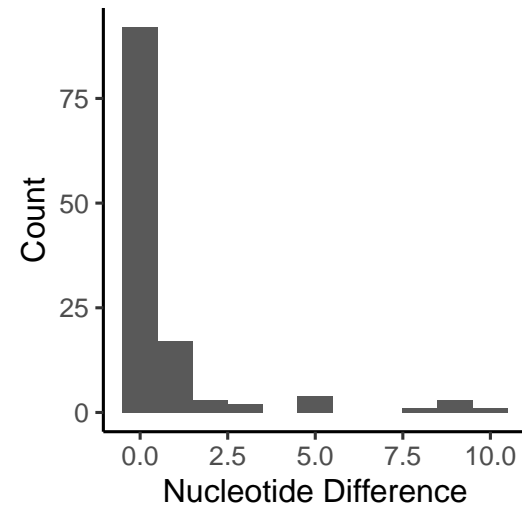
IGHV3-66*01

305 sequences assigned
227 (74.4%) exact matches, in which:
213 unique CDR3
6 unique J



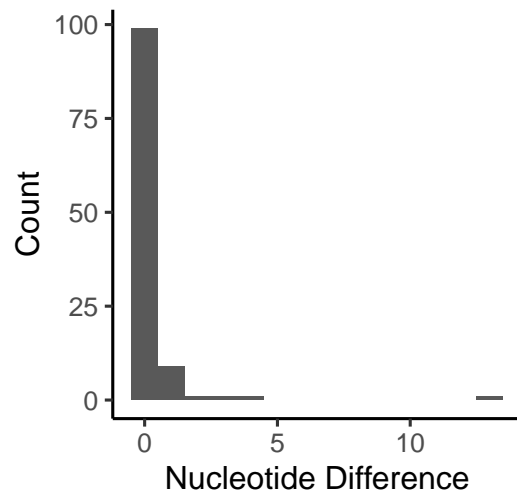
IGHV3-73*02

123 sequences assigned
92 (74.8%) exact matches, in which:
89 unique CDR3
5 unique J



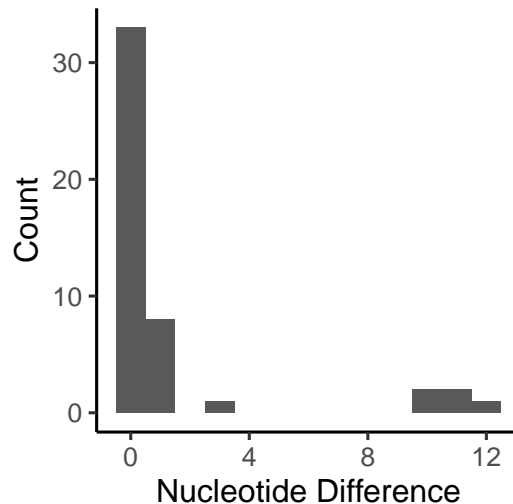
IGHV3-53*02

113 sequences assigned
99 (87.6%) exact matches, in which:
96 unique CDR3
6 unique J



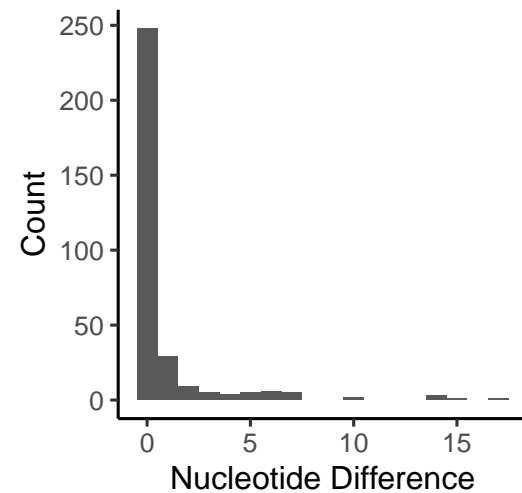
IGHV3-72*01

47 sequences assigned
33 (70.2%) exact matches, in which:
33 unique CDR3
6 unique J



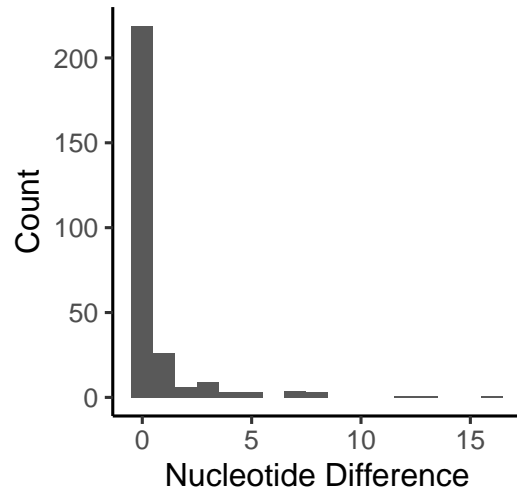
IGHV3-74*01

321 sequences assigned
248 (77.3%) exact matches, in which:
236 unique CDR3
7 unique J



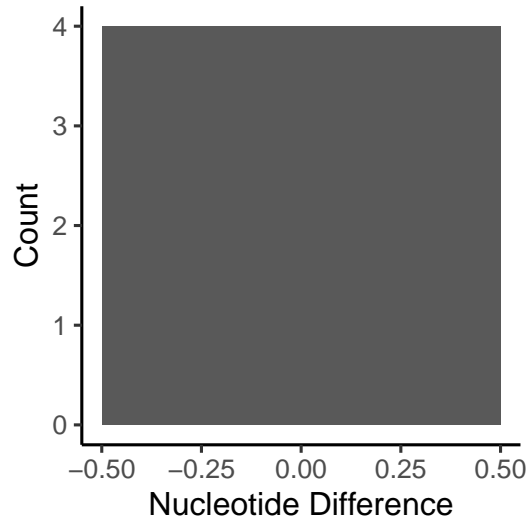
IGHV3–64D*06

276 sequences assigned
219 (79.3%) exact matches, in which:
201 unique CDR3
6 unique J



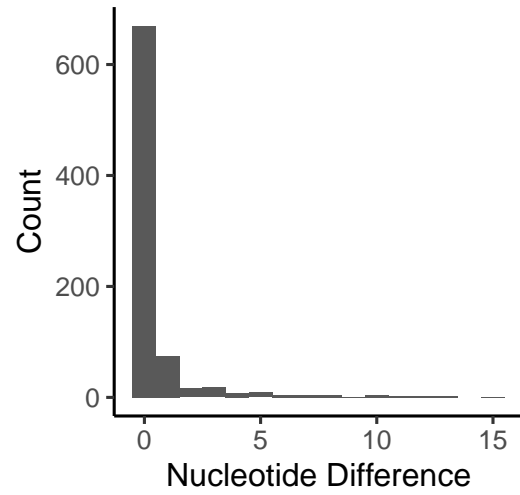
IGHV4–28*01

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



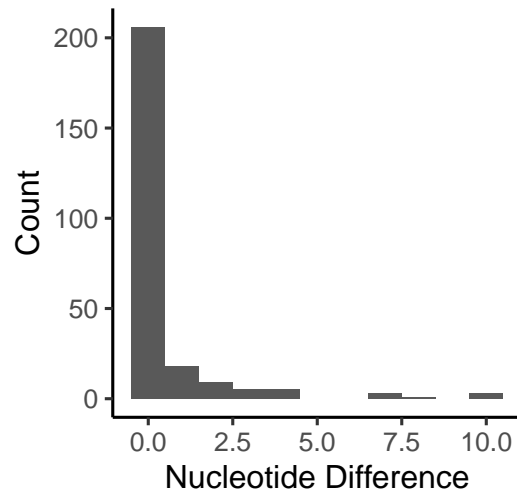
IGHV4–31*03

824 sequences assigned
670 (81.3%) exact matches, in which:
654 unique CDR3
7 unique J



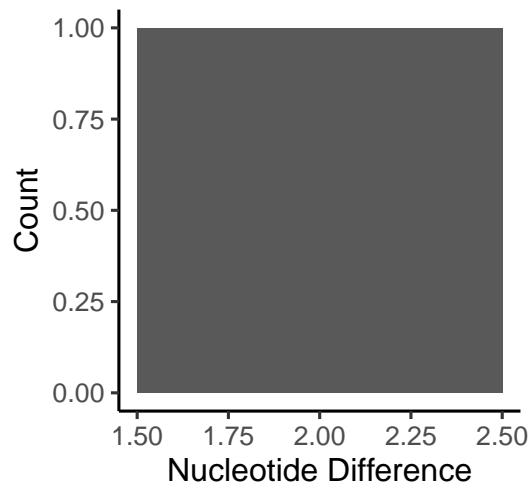
IGHV4–4*02

252 sequences assigned
206 (81.7%) exact matches, in which:
201 unique CDR3
6 unique J



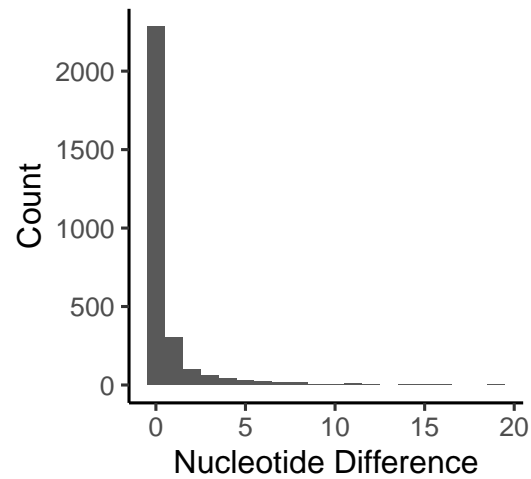
IGHV4–28*04

1 sequences assigned
No exact matches.



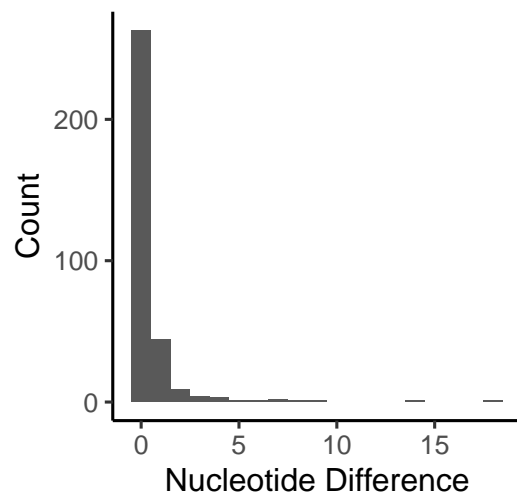
IGHV4–34*01

2897 sequences assigned
2283 (78.8%) exact matches, in which:
2114 unique CDR3
7 unique J



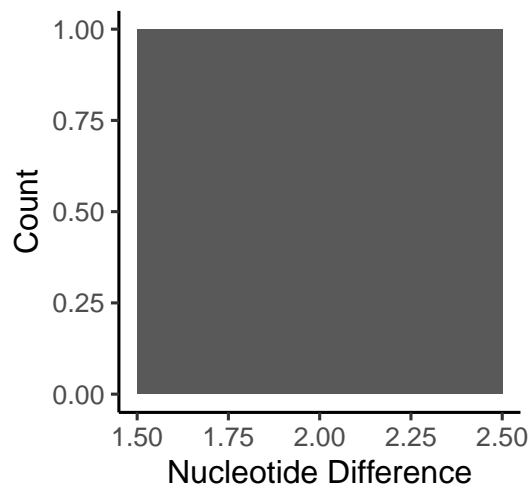
IGHV4–4*07

331 sequences assigned
263 (79.5%) exact matches, in which:
259 unique CDR3
7 unique J



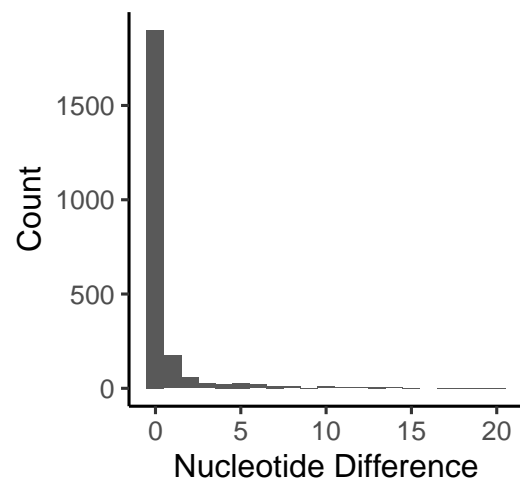
IGHV4–30–2*03

1 sequences assigned
No exact matches.



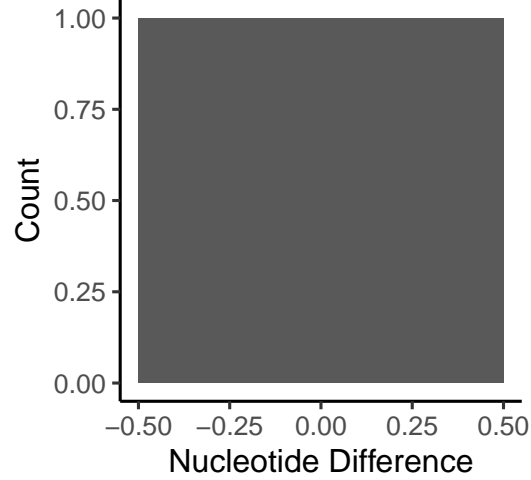
IGHV4–39*01

2295 sequences assigned
1900 (82.8%) exact matches, in which:
1809 unique CDR3
7 unique J



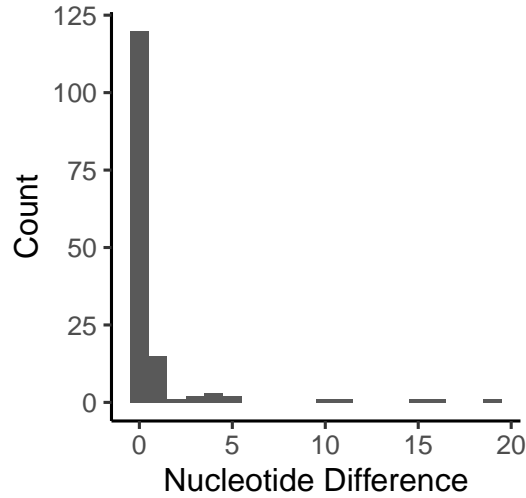
IGHV4–55*01

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



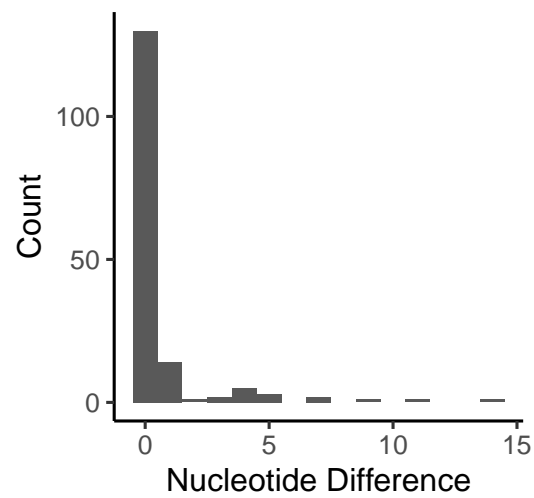
IGHV4–61*01

148 sequences assigned
120 (81.1%) exact matches, in which:
119 unique CDR3
6 unique J



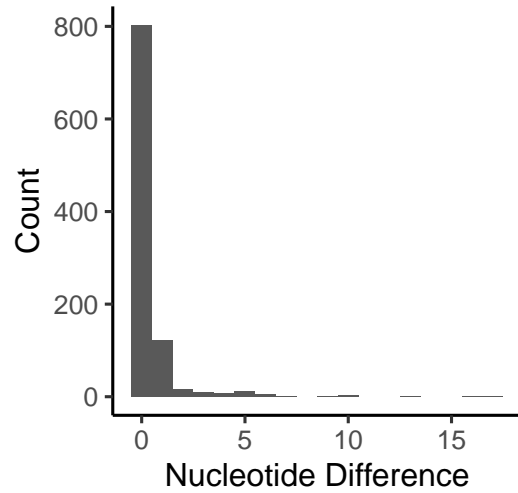
IGHV5–10–1*01

160 sequences assigned
130 (81.2%) exact matches, in which:
129 unique CDR3
6 unique J



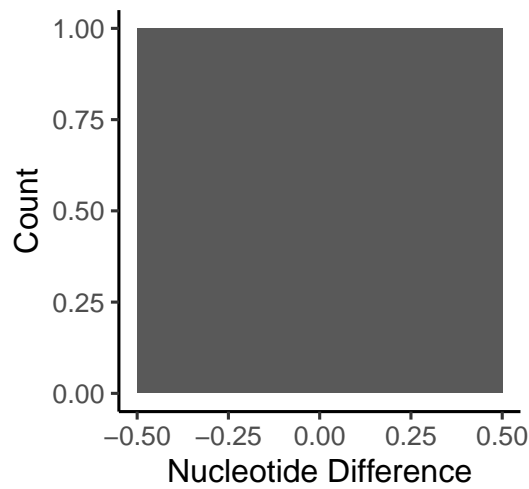
IGHV4–59*01

987 sequences assigned
803 (81.4%) exact matches, in which:
780 unique CDR3
7 unique J



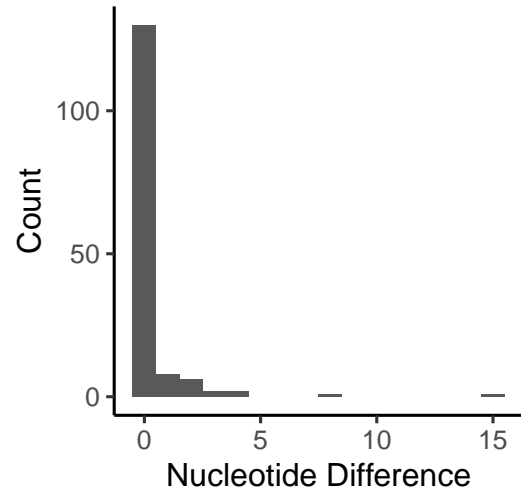
IGHV1/OR15–2*01

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



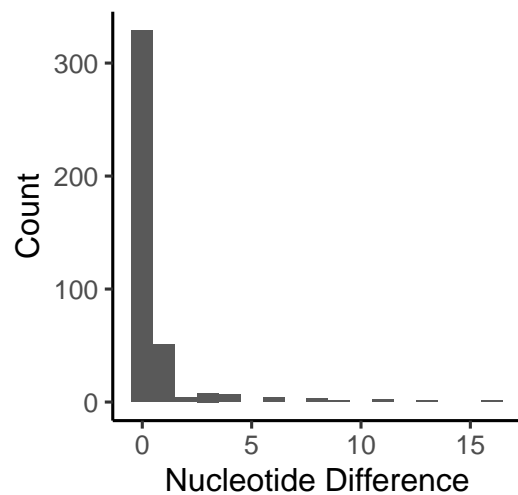
IGHV5–10–1*03

150 sequences assigned
130 (86.7%) exact matches, in which:
127 unique CDR3
7 unique J



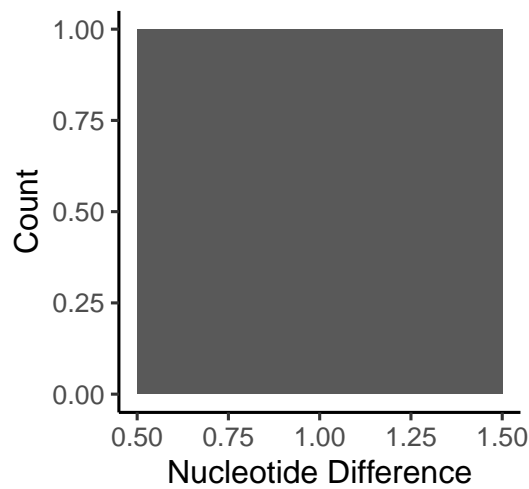
IGHV4–59*08

419 sequences assigned
329 (78.5%) exact matches, in which:
316 unique CDR3
7 unique J



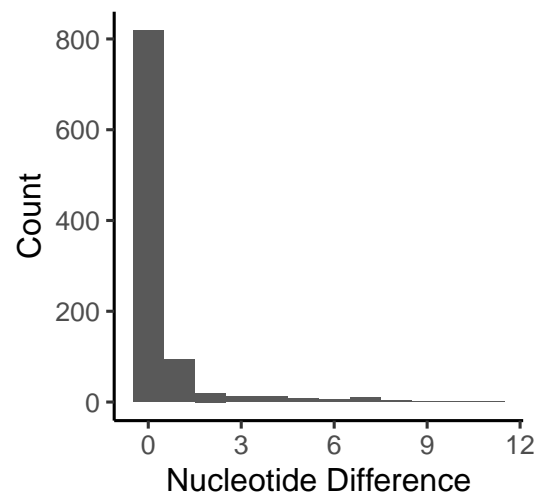
IGHV1/OR15–4*01

1 sequences assigned
No exact matches.



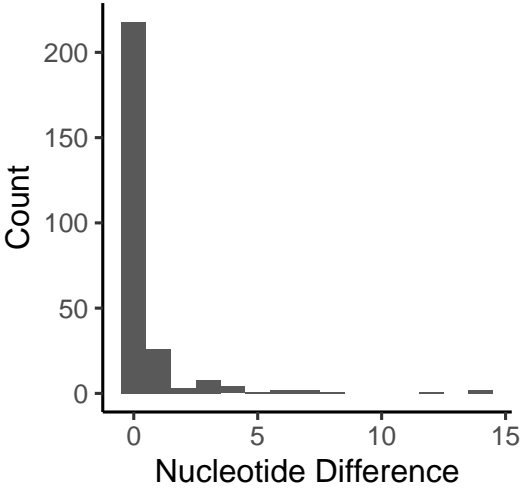
IGHV5–51*01

992 sequences assigned
819 (82.6%) exact matches, in which:
797 unique CDR3
7 unique J



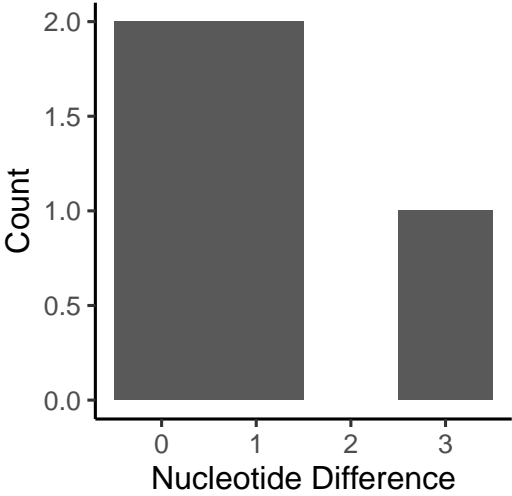
IGHV6-1*01

270 sequences assigned
218 (80.7%) exact matches, in which:
202 unique CDR3
7 unique J

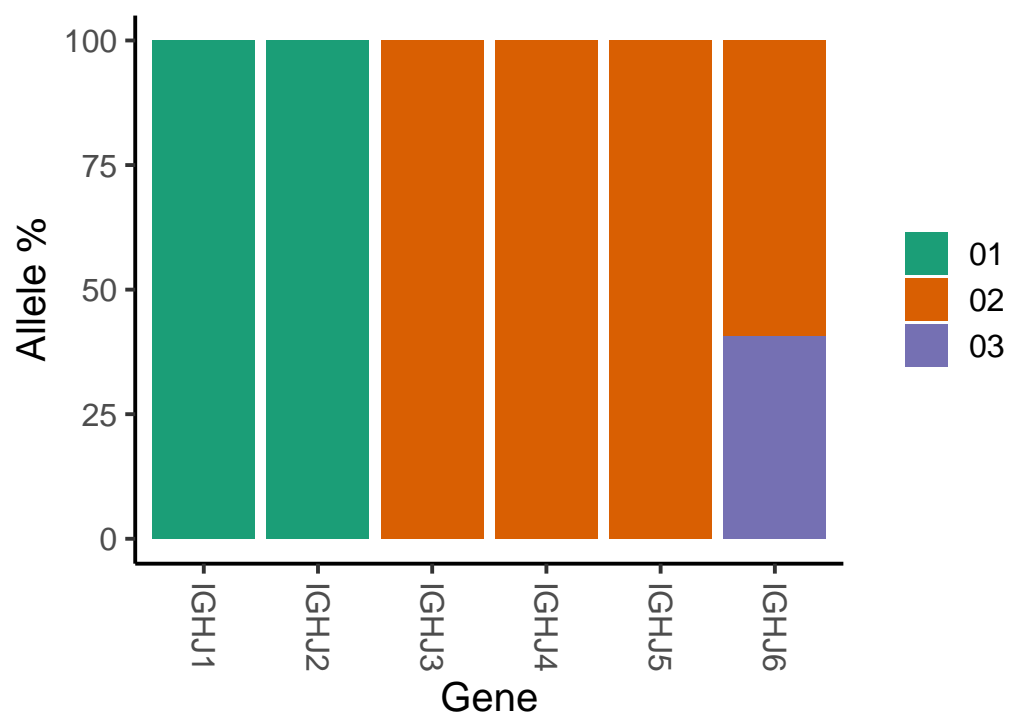


IGHV7-4-1*01

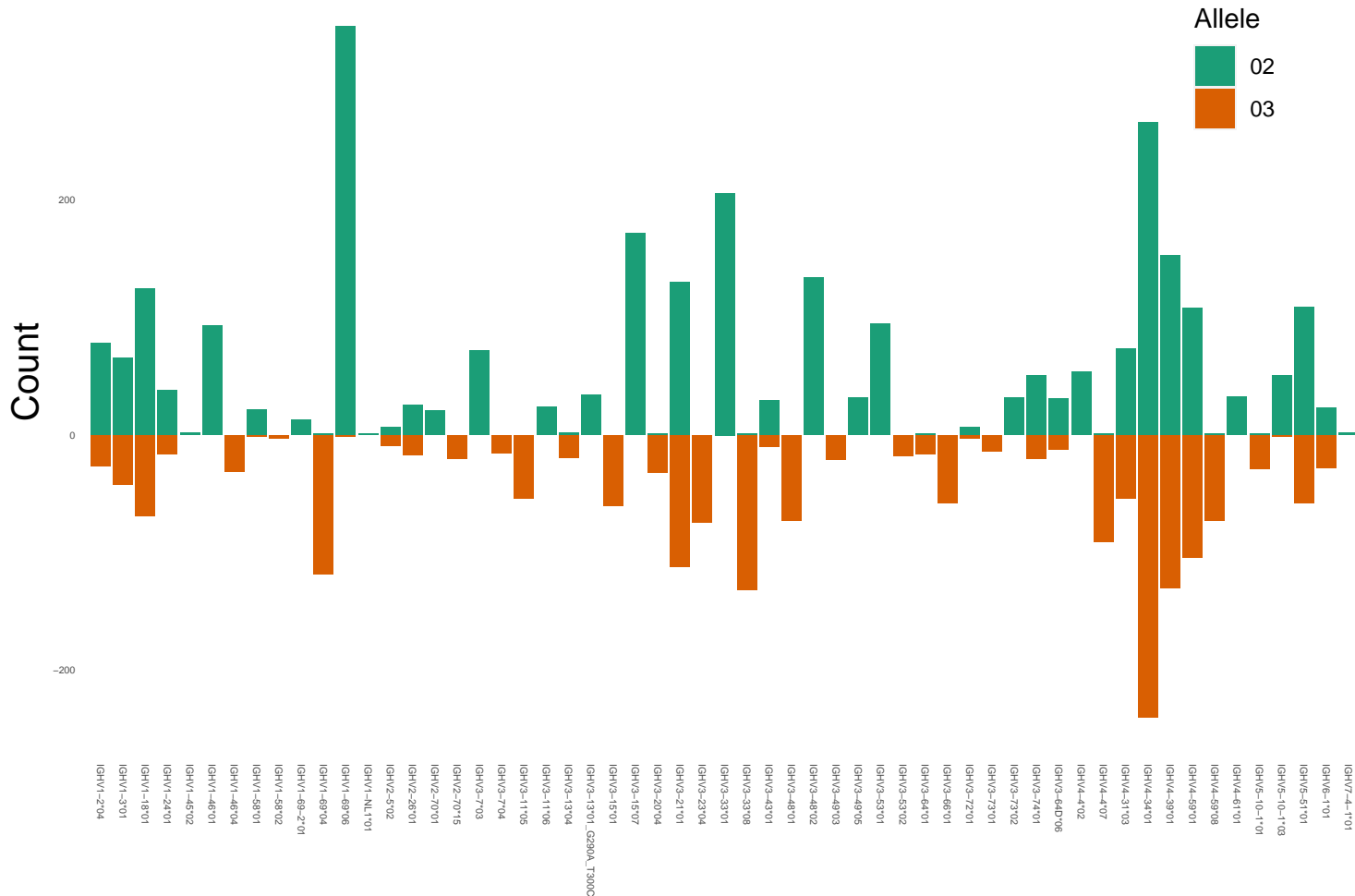
5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
2 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.