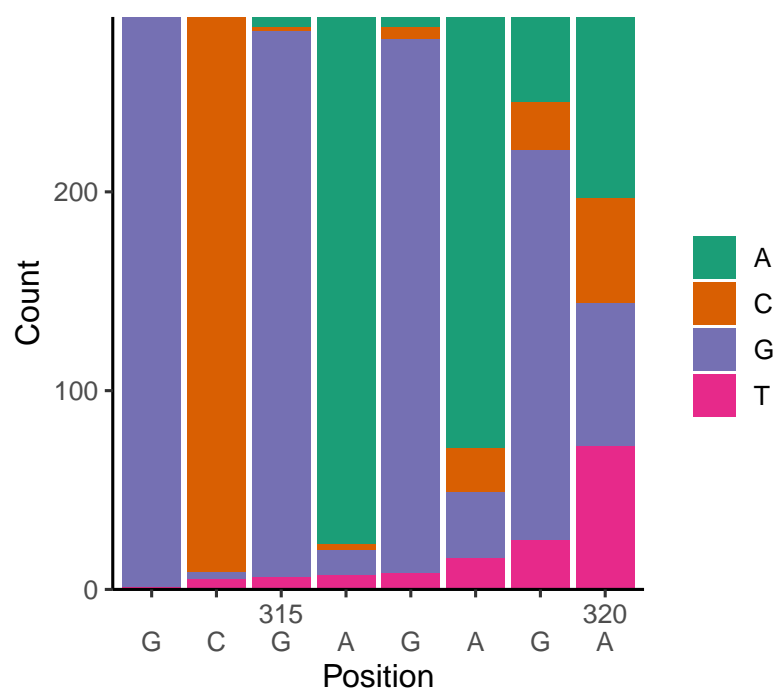
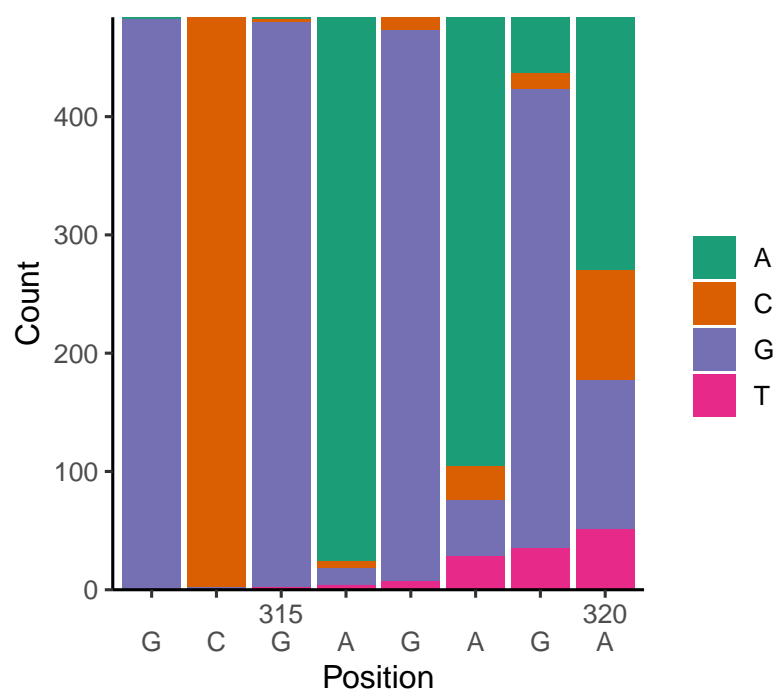


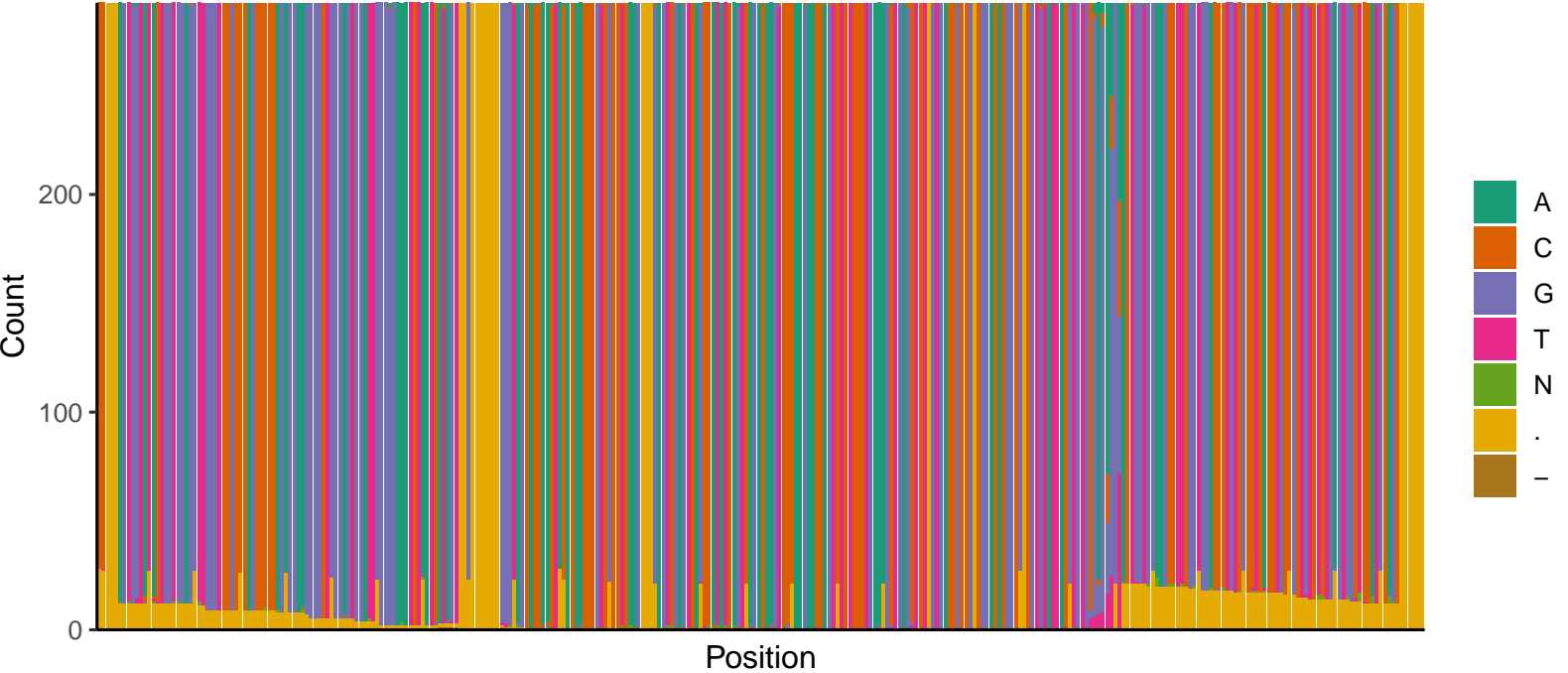
Gene IGHV4-4*02_A106G



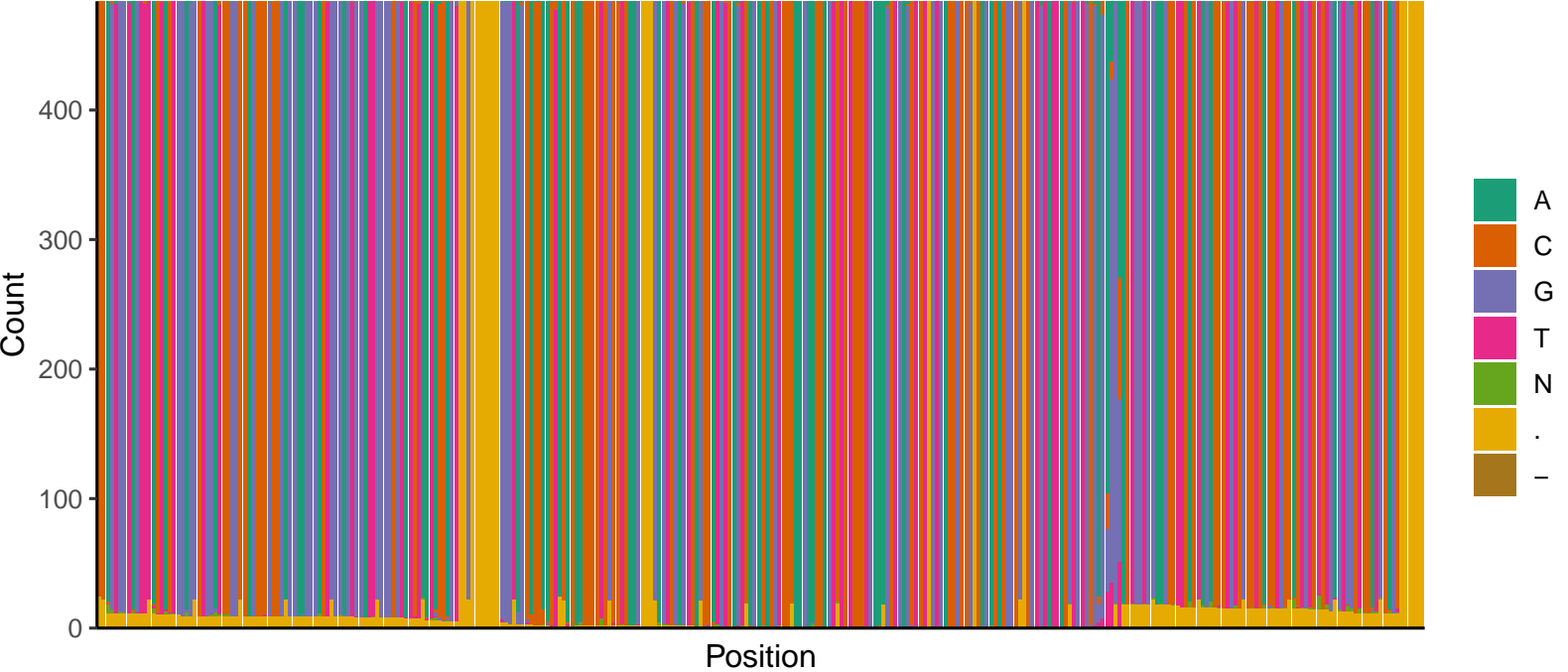
Gene IGHV4-61*02_A234G



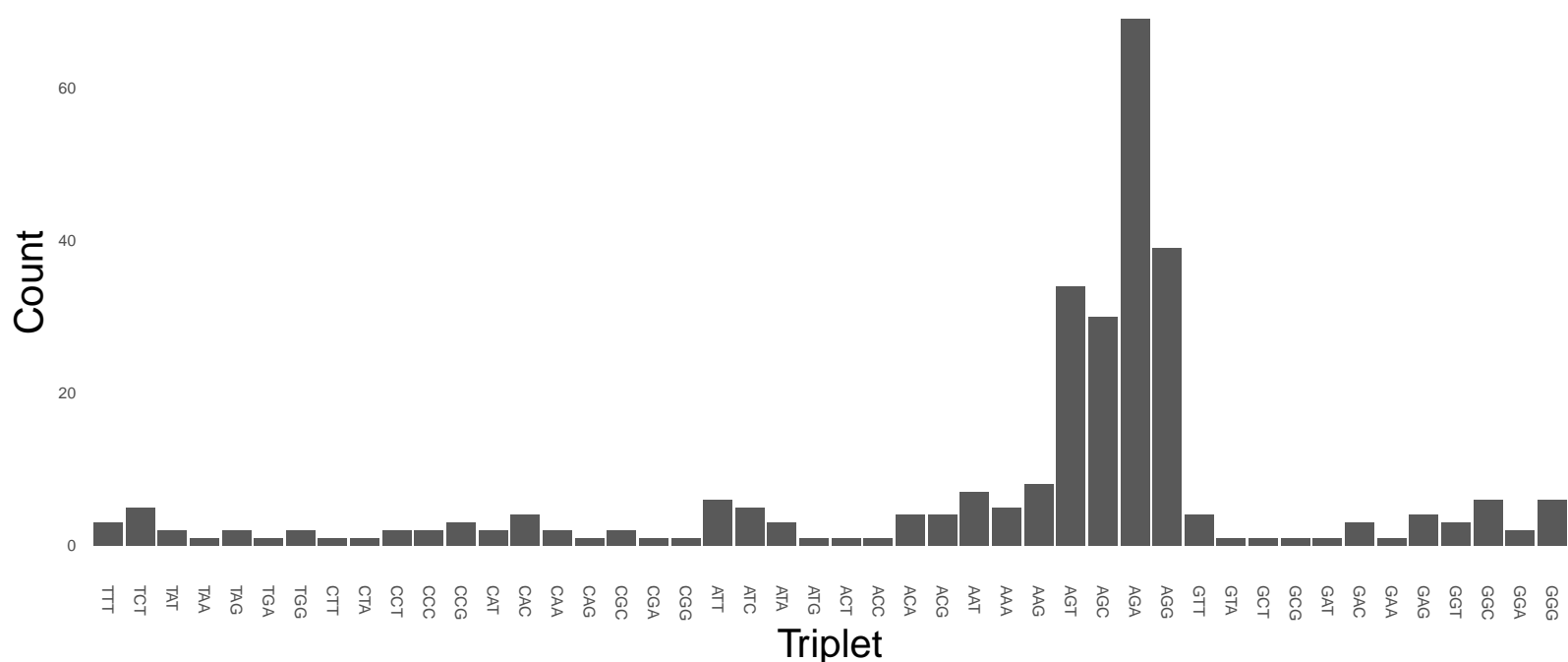
Gene IGHV4-4*02_A106G



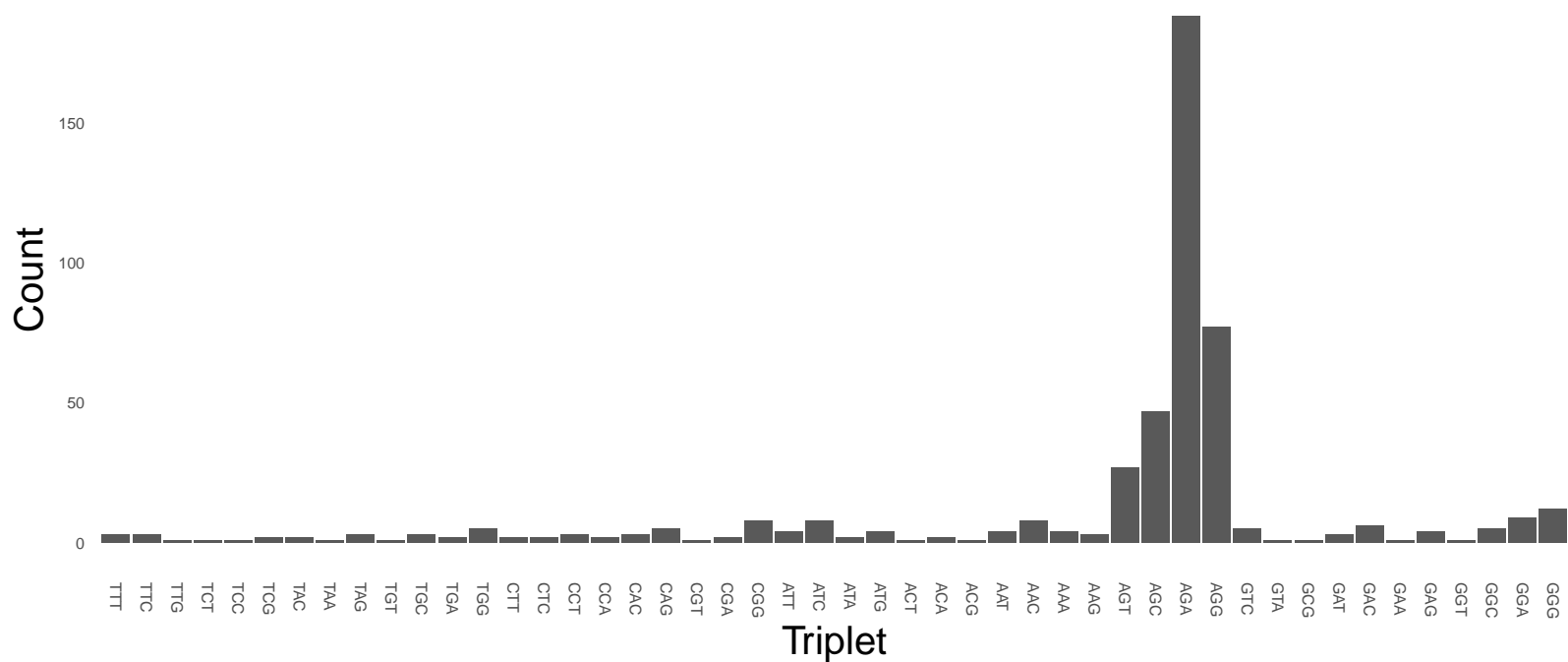
Gene IGHV4-61*02_A234G



IGHV4-4*02_A106G- Final 3 nucleotides as a triplet

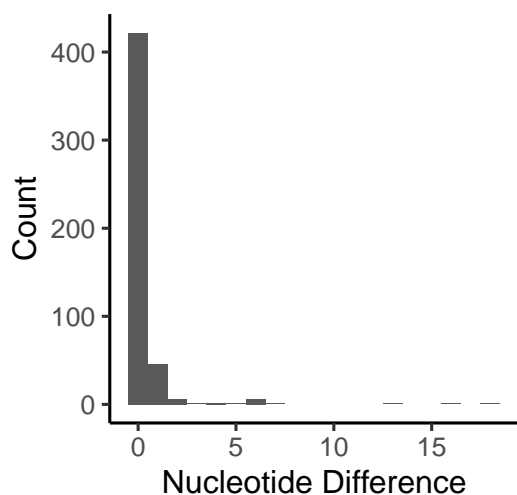


IGHV4-61*02_A234G- Final 3 nucleotides as a triplet



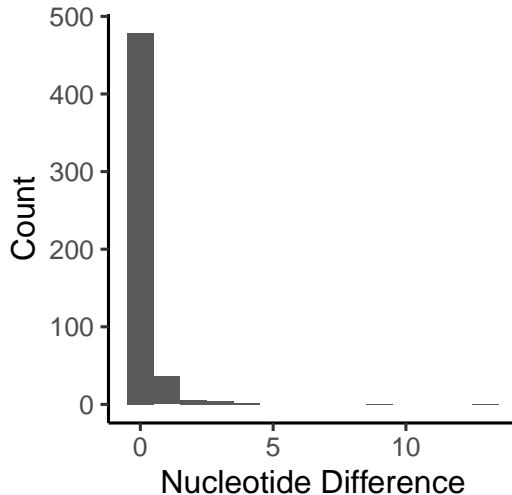
IGHV1-2*02

491 sequences assigned
422 (85.9%) exact matches, in which:
402 unique CDR3
6 unique J



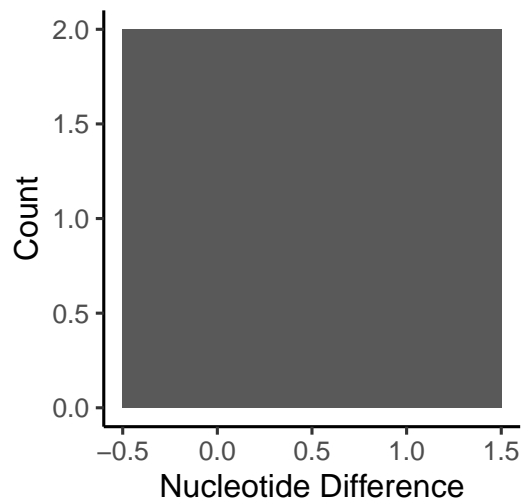
IGHV1-8*01

529 sequences assigned
479 (90.5%) exact matches, in which:
456 unique CDR3
6 unique J



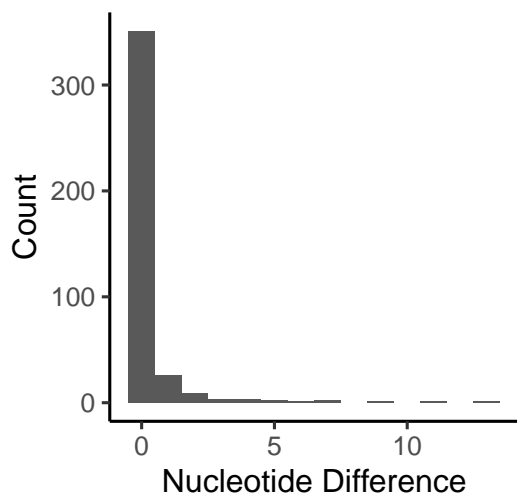
IGHV1-45*02

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



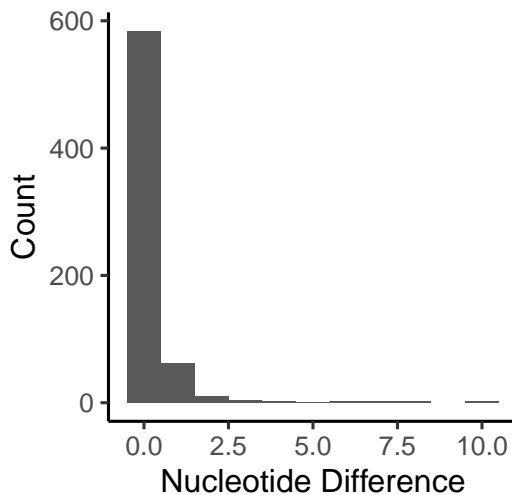
IGHV1-2*06

400 sequences assigned
351 (87.8%) exact matches, in which:
337 unique CDR3
6 unique J



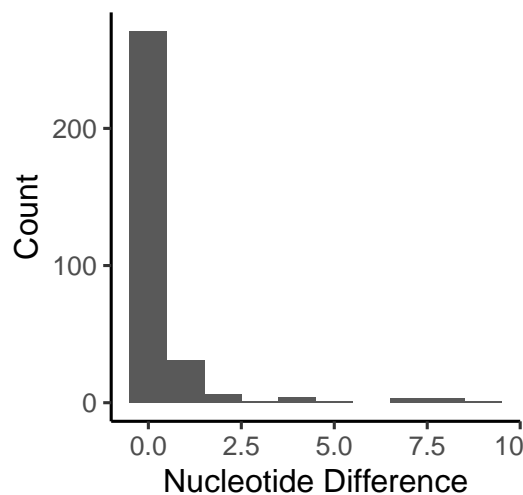
IGHV1-18*01

673 sequences assigned
584 (86.8%) exact matches, in which:
567 unique CDR3
6 unique J



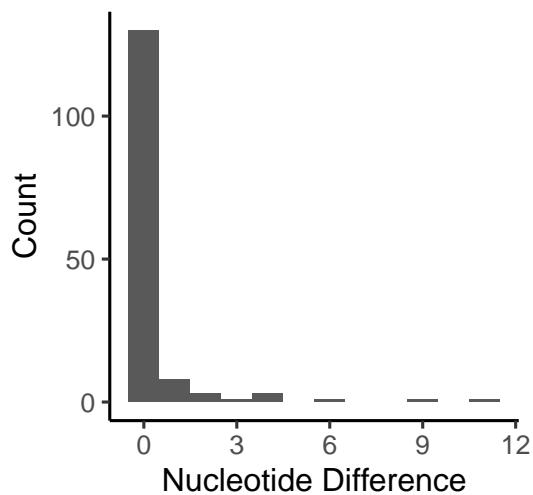
IGHV1-46*03

321 sequences assigned
271 (84.4%) exact matches, in which:
259 unique CDR3
6 unique J



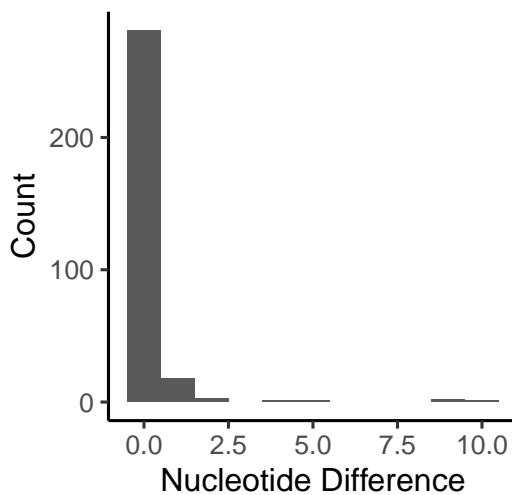
IGHV1-3*01

148 sequences assigned
130 (87.8%) exact matches, in which:
127 unique CDR3
6 unique J



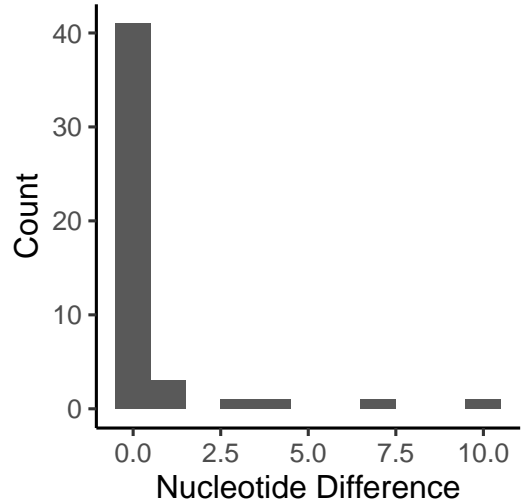
IGHV1-24*01

307 sequences assigned
281 (91.5%) exact matches, in which:
270 unique CDR3
6 unique J



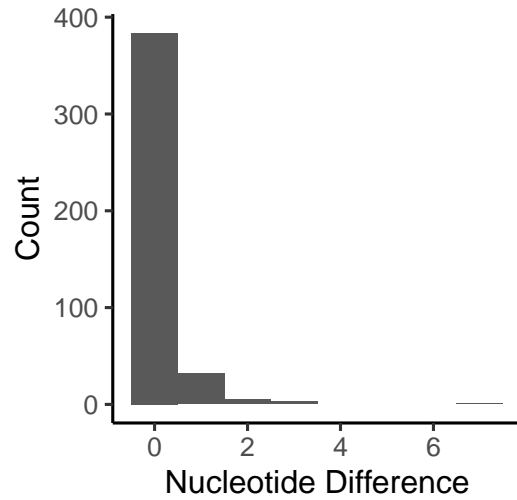
IGHV1-58*02

48 sequences assigned
41 (85.4%) exact matches, in which:
39 unique CDR3
5 unique J



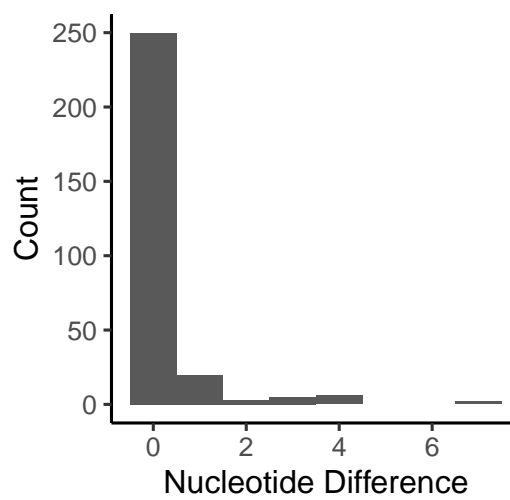
IGHV1–69*04

425 sequences assigned
384 (90.4%) exact matches, in which:
363 unique CDR3
6 unique J



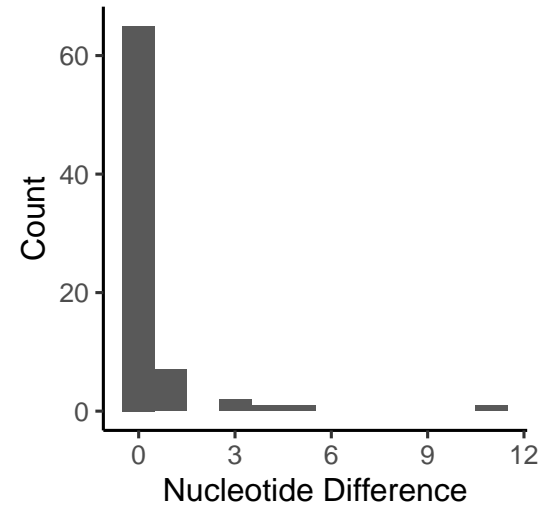
IGHV2–5*02

286 sequences assigned
250 (87.4%) exact matches, in which:
245 unique CDR3
6 unique J



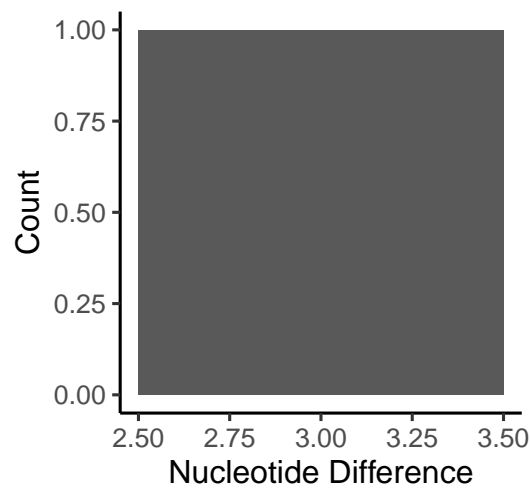
IGHV2–70*15

77 sequences assigned
65 (84.4%) exact matches, in which:
65 unique CDR3
5 unique J



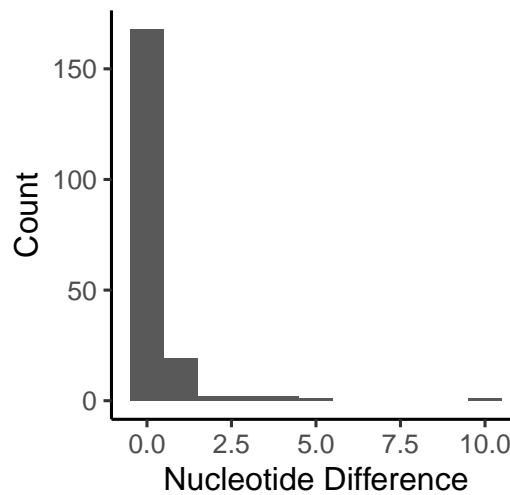
IGHV1–NL1*01

1 sequences assigned
No exact matches.



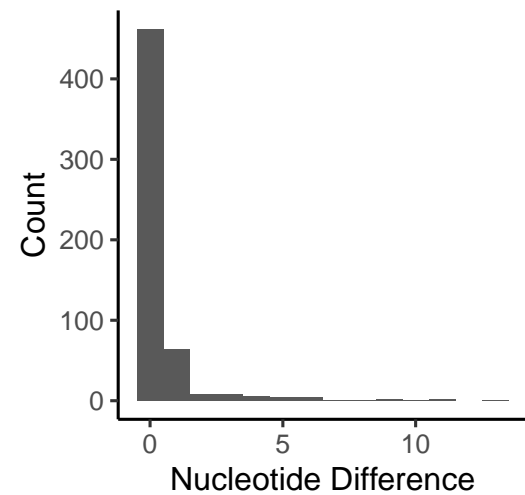
IGHV2–26*01

195 sequences assigned
168 (86.2%) exact matches, in which:
163 unique CDR3
6 unique J



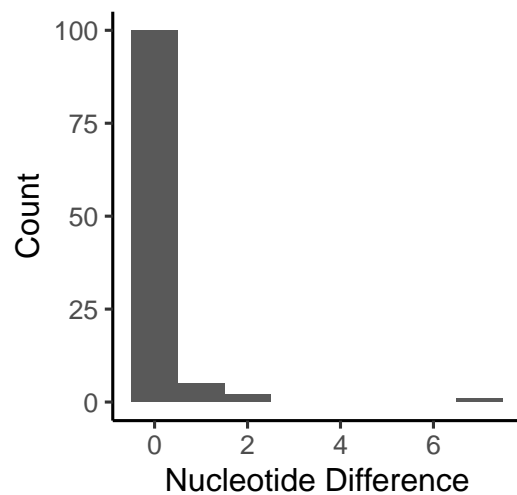
IGHV3–7*01

565 sequences assigned
462 (81.8%) exact matches, in which:
425 unique CDR3
5 unique J



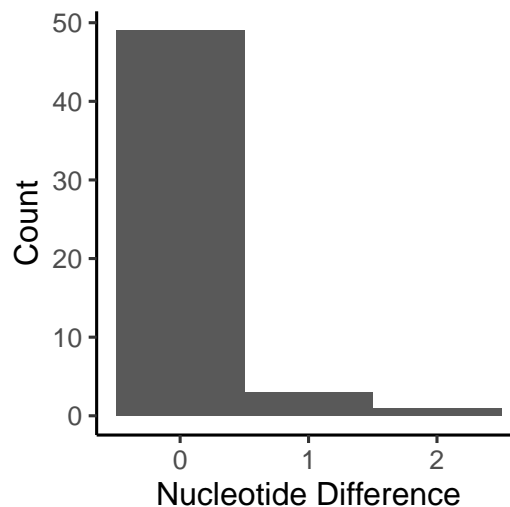
IGHV2–5*01

108 sequences assigned
100 (92.6%) exact matches, in which:
98 unique CDR3
5 unique J



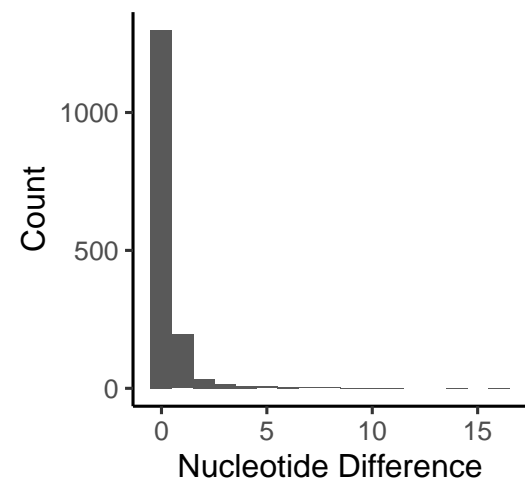
IGHV2–70*01

53 sequences assigned
49 (92.5%) exact matches, in which:
49 unique CDR3
5 unique J



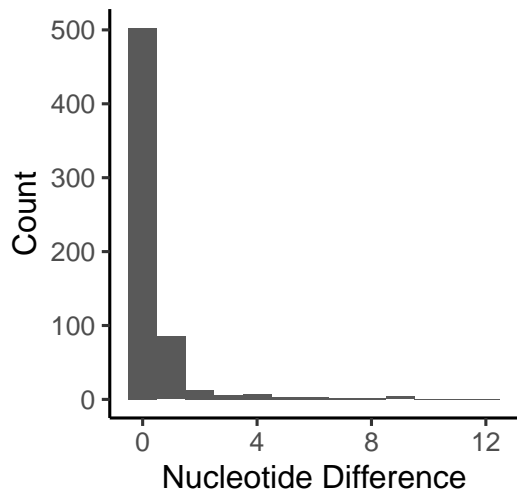
IGHV3–9*01

1578 sequences assigned
1299 (82.3%) exact matches, in which:
1194 unique CDR3
6 unique J



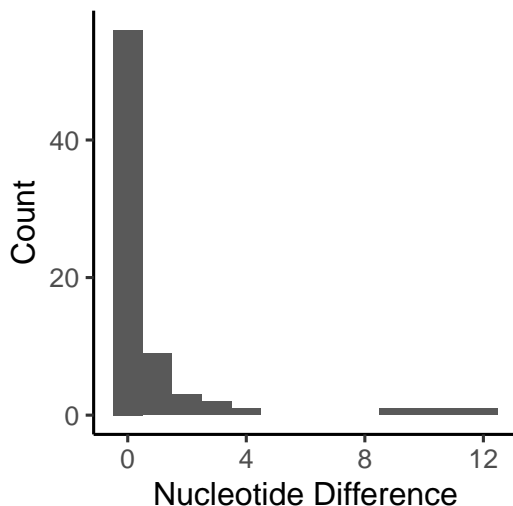
IGHV3-11*01

631 sequences assigned
503 (79.7%) exact matches, in which:
475 unique CDR3
6 unique J



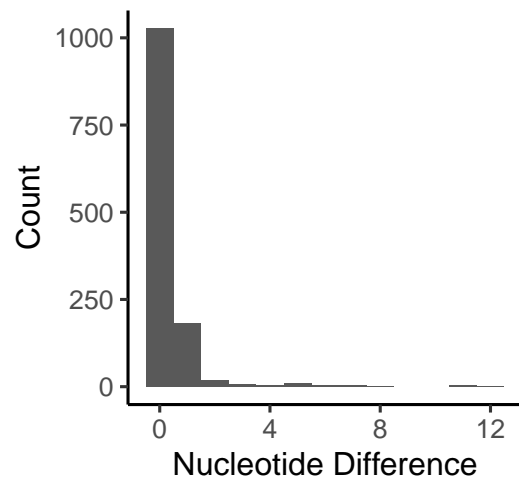
IGHV3-20*01

89 sequences assigned
56 (62.9%) exact matches, in which:
51 unique CDR3
5 unique J



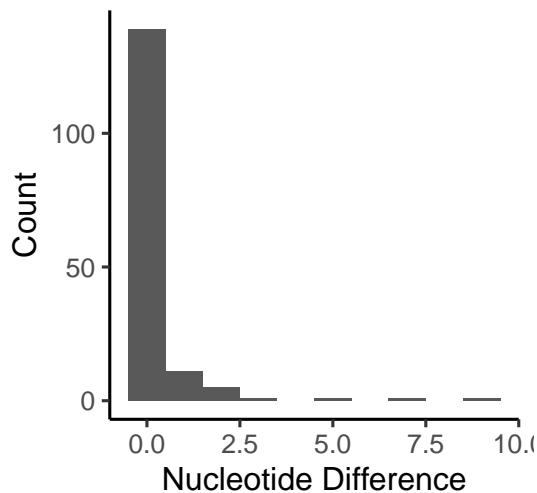
IGHV3-30-3*01

1262 sequences assigned
1027 (81.4%) exact matches, in which:
949 unique CDR3
6 unique J



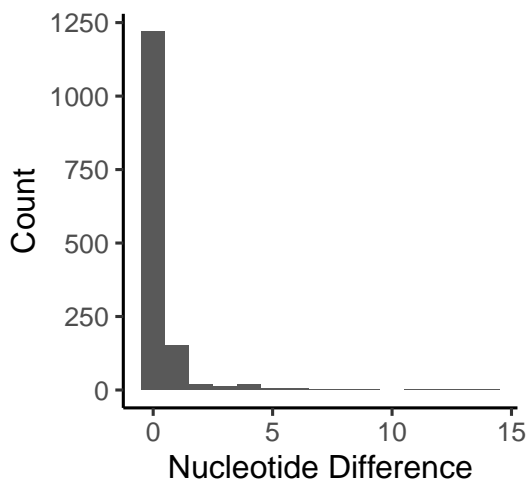
IGHV3-13*01

160 sequences assigned
139 (86.9%) exact matches, in which:
127 unique CDR3
5 unique J



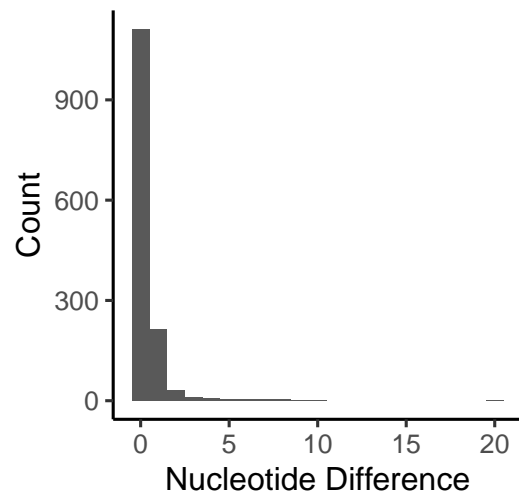
IGHV3-21*01

1436 sequences assigned
1219 (84.9%) exact matches, in which:
1135 unique CDR3
6 unique J



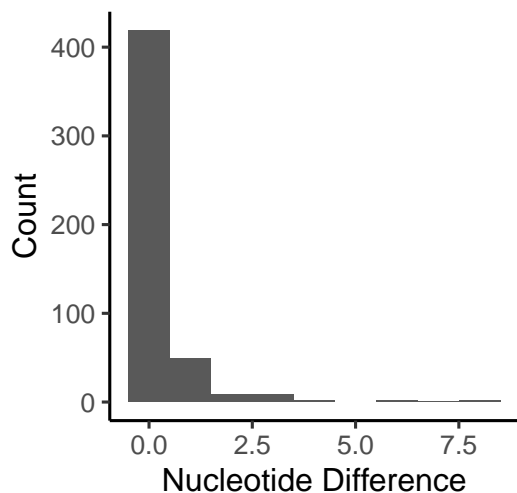
IGHV3-33*01

1393 sequences assigned
1112 (79.8%) exact matches, in which:
1015 unique CDR3
6 unique J



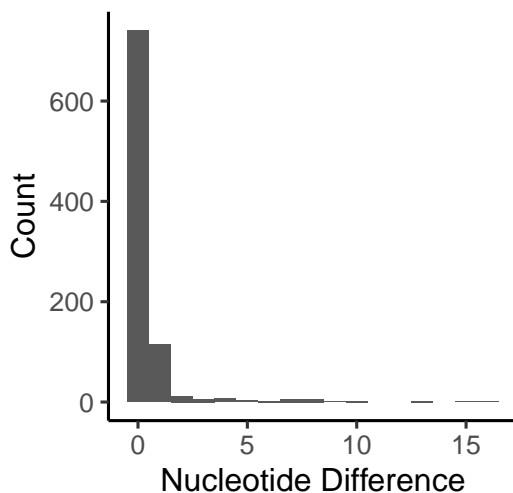
IGHV3-15*01

494 sequences assigned
419 (84.8%) exact matches, in which:
393 unique CDR3
5 unique J



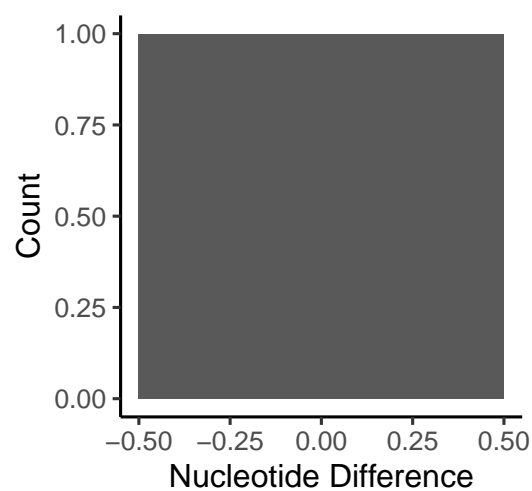
IGHV3-23*04

906 sequences assigned
741 (81.8%) exact matches, in which:
683 unique CDR3
6 unique J



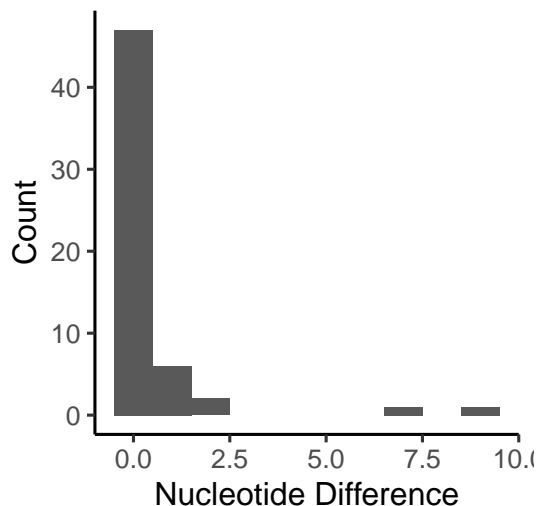
IGHV3-35*01

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



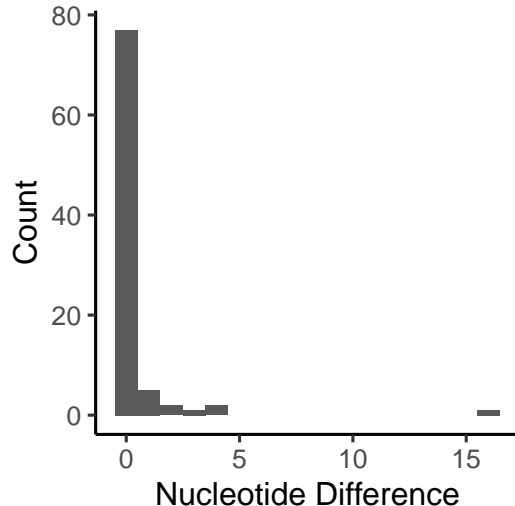
IGHV3-43*01

57 sequences assigned
47 (82.5%) exact matches, in which:
45 unique CDR3
4 unique J



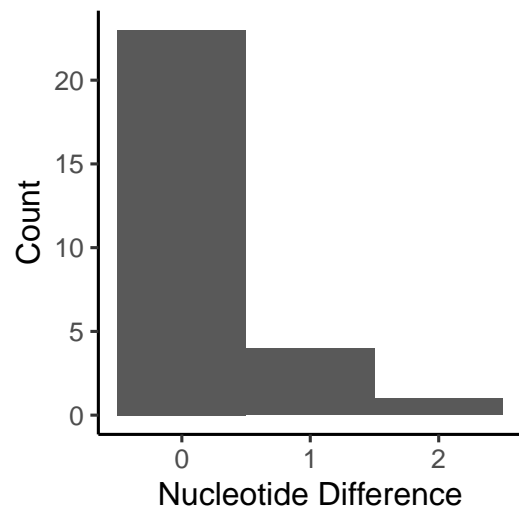
IGHV3-53*02

88 sequences assigned
77 (87.5%) exact matches, in which:
74 unique CDR3
5 unique J



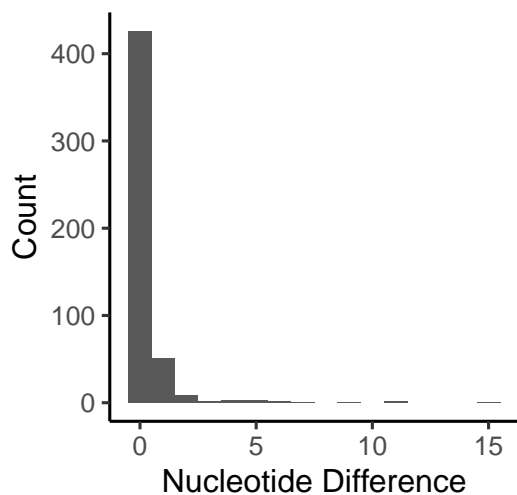
IGHV3-72*01

28 sequences assigned
23 (82.1%) exact matches, in which:
23 unique CDR3
4 unique J



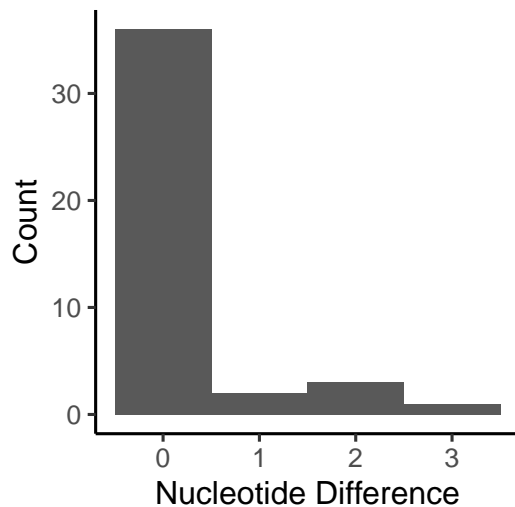
IGHV3-48*01

502 sequences assigned
426 (84.9%) exact matches, in which:
394 unique CDR3
6 unique J



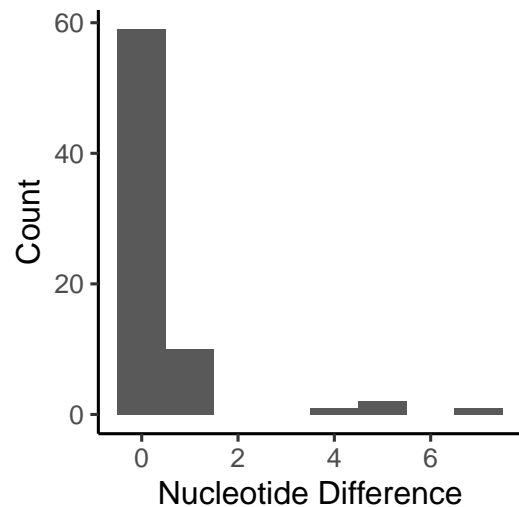
IGHV3-64*01

42 sequences assigned
36 (85.7%) exact matches, in which:
34 unique CDR3
6 unique J



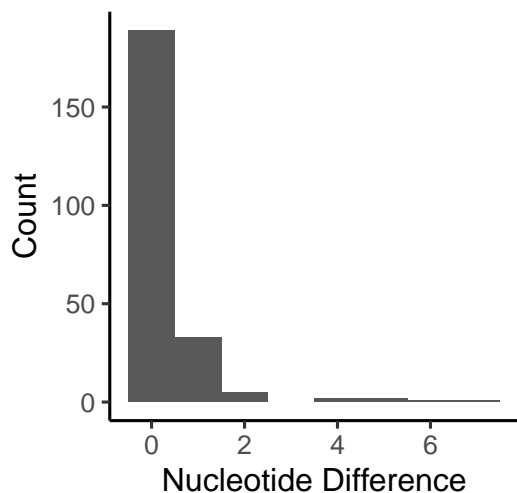
IGHV3-73*01

73 sequences assigned
59 (80.8%) exact matches, in which:
55 unique CDR3
6 unique J



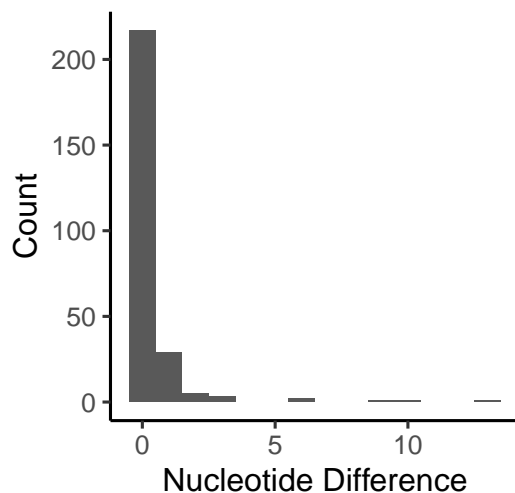
IGHV3-49*03

233 sequences assigned
189 (81.1%) exact matches, in which:
176 unique CDR3
6 unique J



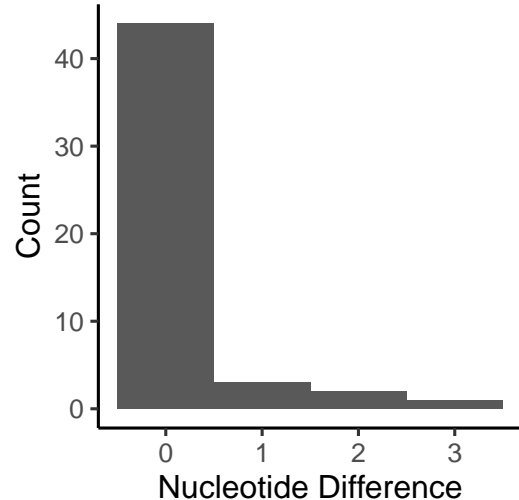
IGHV3-66*01

259 sequences assigned
217 (83.8%) exact matches, in which:
201 unique CDR3
6 unique J



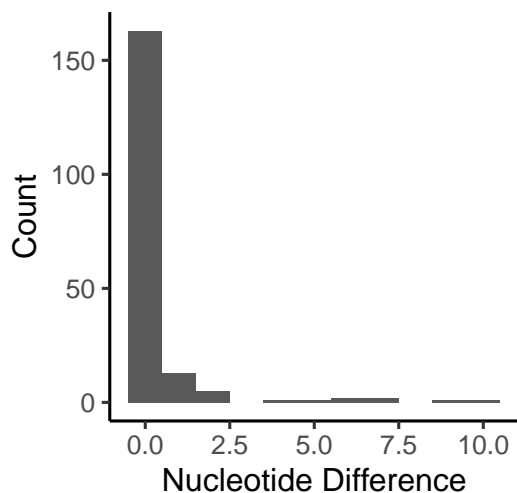
IGHV3-73*02

50 sequences assigned
44 (88%) exact matches, in which:
41 unique CDR3
4 unique J



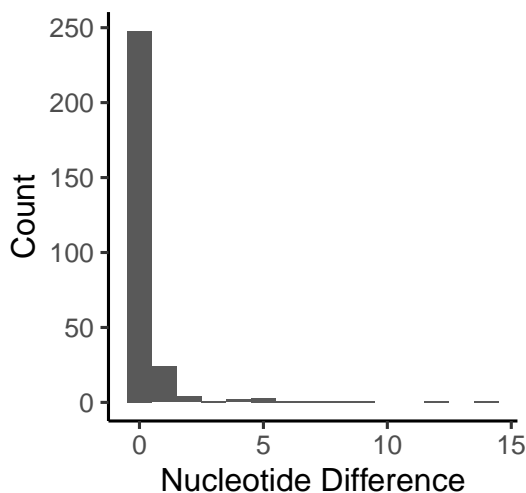
IGHV3-74*01

189 sequences assigned
163 (86.2%) exact matches, in which:
155 unique CDR3
6 unique J



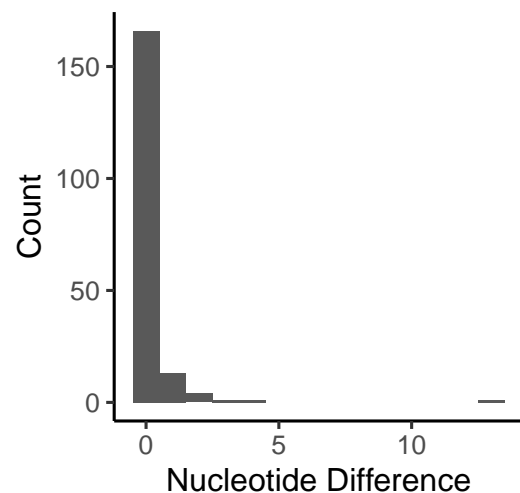
IGHV4-4*02_A106G

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



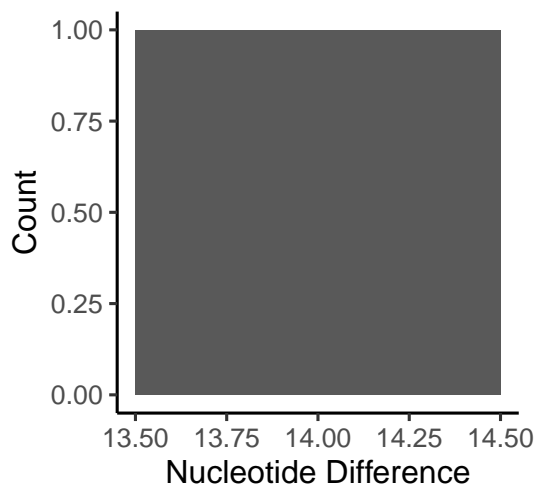
IGHV4-30-2*01

186 sequences assigned
166 (89.2%) exact matches, in which:
159 unique CDR3
6 unique J



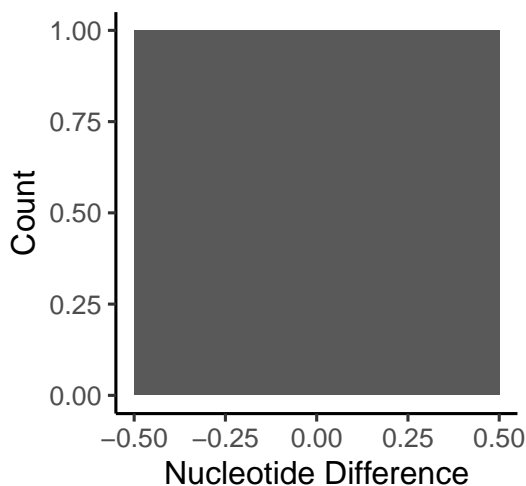
IGHV3-NL1*01

1 sequences assigned
No exact matches.



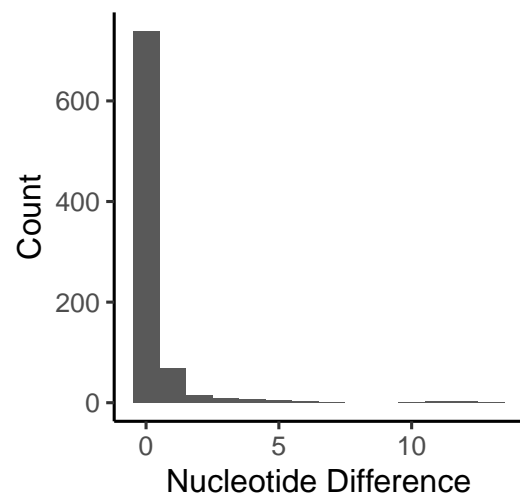
IGHV4-28*01

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



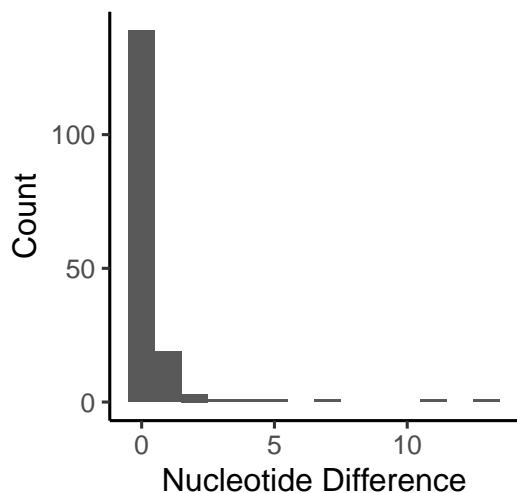
IGHV4-31*03

858 sequences assigned
739 (86.1%) exact matches, in which:
701 unique CDR3
6 unique J



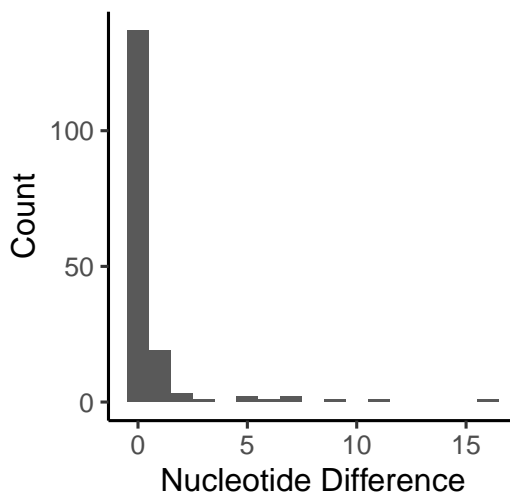
IGHV4-4*07

167 sequences assigned
139 (83.2%) exact matches, in which:
134 unique CDR3
6 unique J



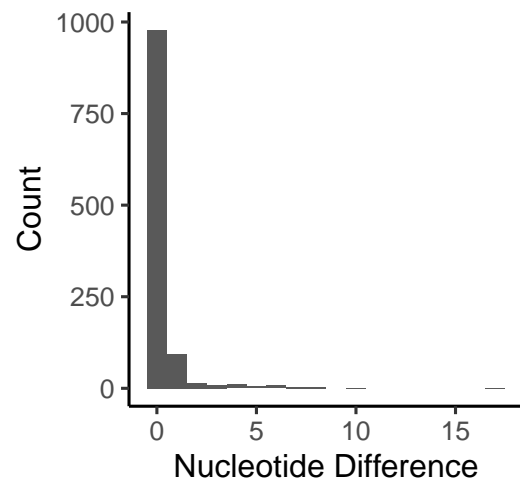
IGHV4-30-4*01

169 sequences assigned
137 (81.1%) exact matches, in which:
129 unique CDR3
5 unique J



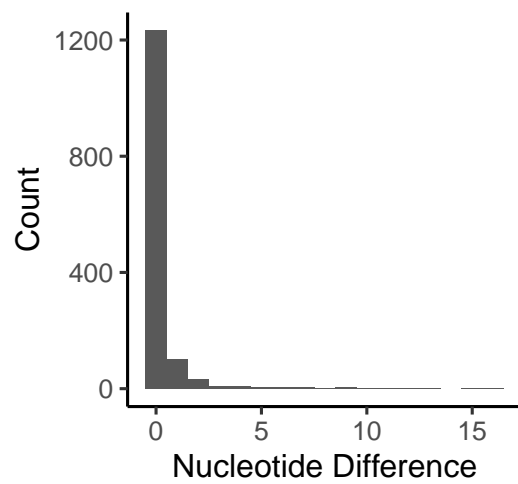
IGHV4-34*01

1127 sequences assigned
978 (86.8%) exact matches, in which:
932 unique CDR3
6 unique J



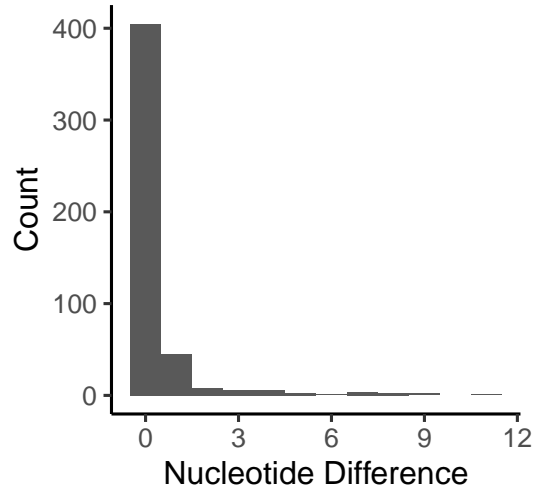
IGHV4-39*01

1420 sequences assigned
1233 (86.8%) exact matches, in which:
1149 unique CDR3
6 unique J



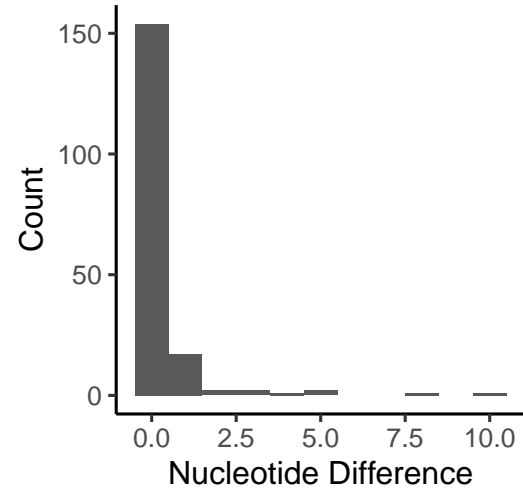
IGHV4-61*02_A234G

484 sequences assigned
405 (83.7%) exact matches, in which:
391 unique CDR3
6 unique J



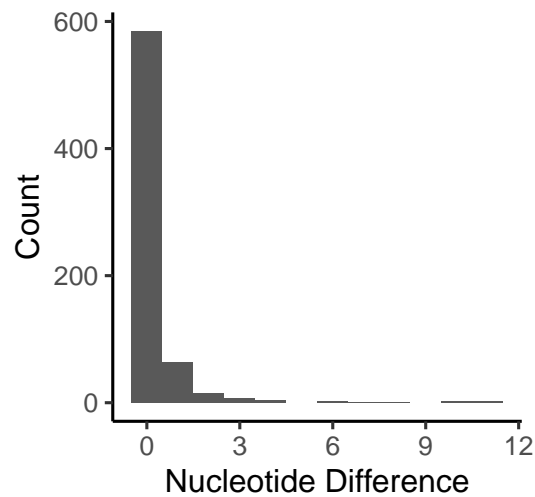
IGHV6-1*01

180 sequences assigned
154 (85.6%) exact matches, in which:
148 unique CDR3
6 unique J



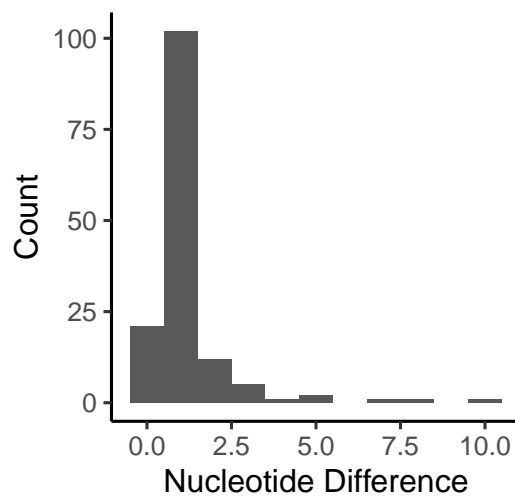
IGHV4-59*01

685 sequences assigned
585 (85.4%) exact matches, in which:
560 unique CDR3
6 unique J



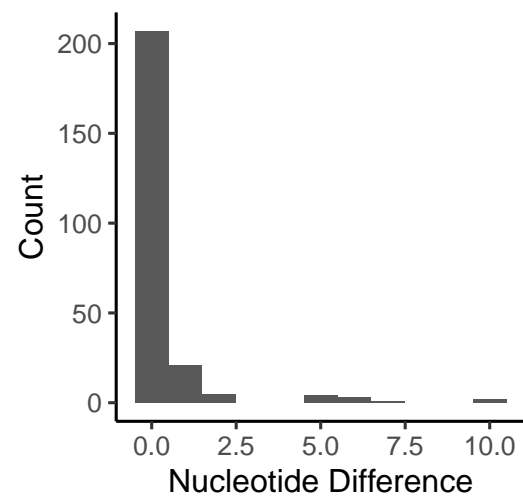
IGHV5-51*01

146 sequences assigned
21 (14.4%) exact matches, in which:
21 unique CDR3
5 unique J



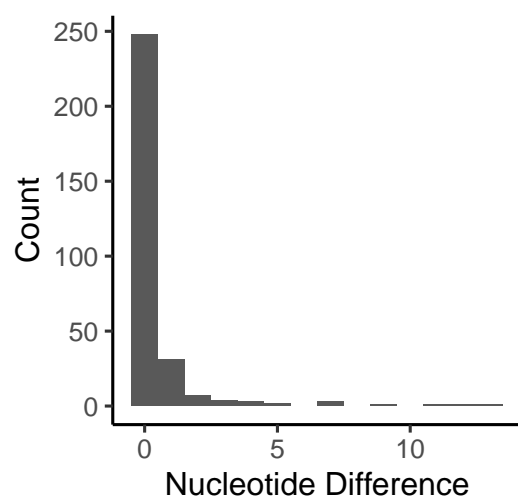
IGHV7-4-1*02

243 sequences assigned
207 (85.2%) exact matches, in which:
198 unique CDR3
6 unique J



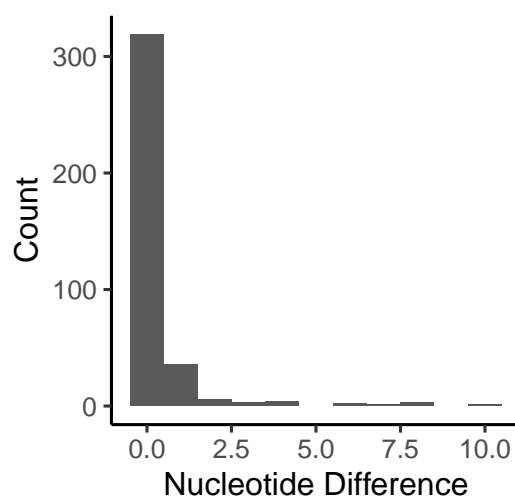
IGHV4-59*08

302 sequences assigned
248 (82.1%) exact matches, in which:
238 unique CDR3
6 unique J

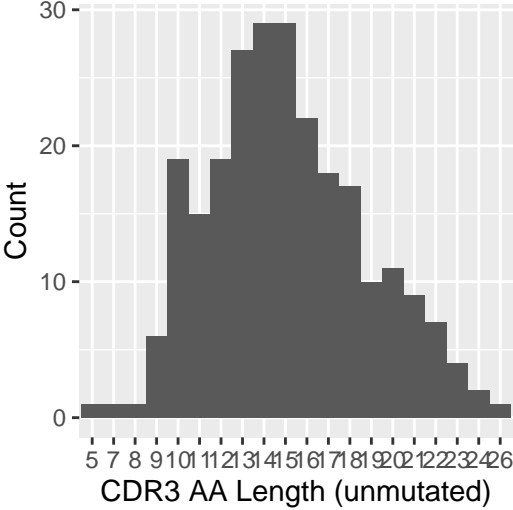


IGHV5-51*03

376 sequences assigned
319 (84.8%) exact matches, in which:
300 unique CDR3
6 unique J



IGHV4-4*02_A106G



IGHV4-61*02_A234G

