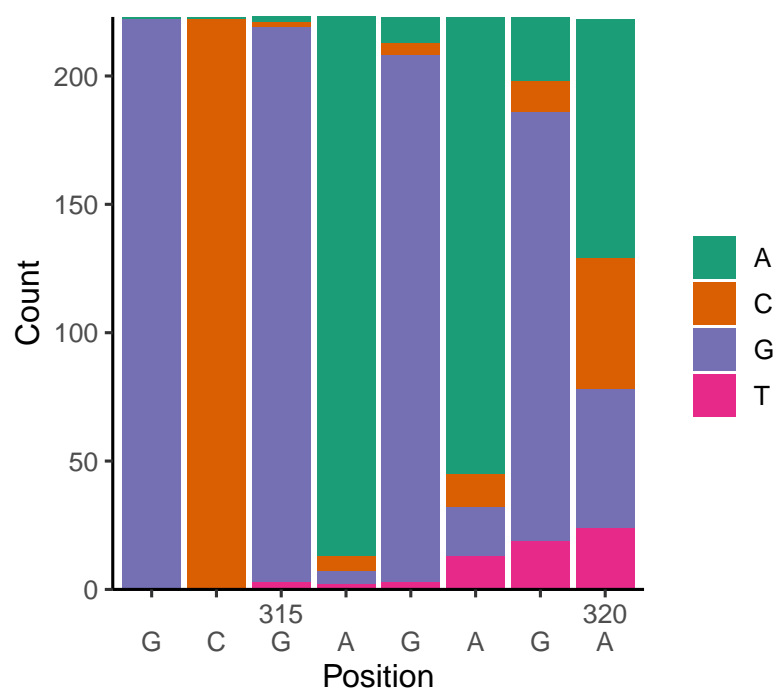
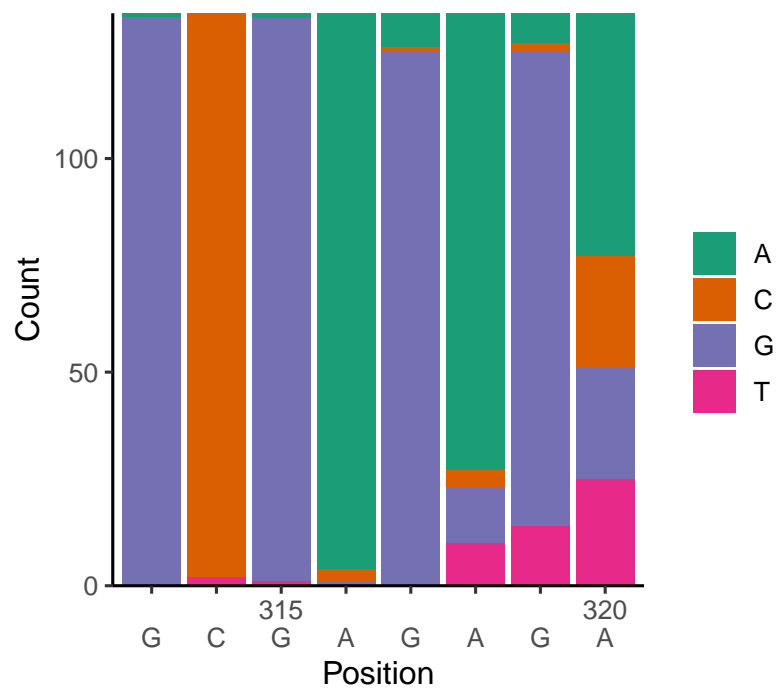


Gene IGHV1-69*08_C191T



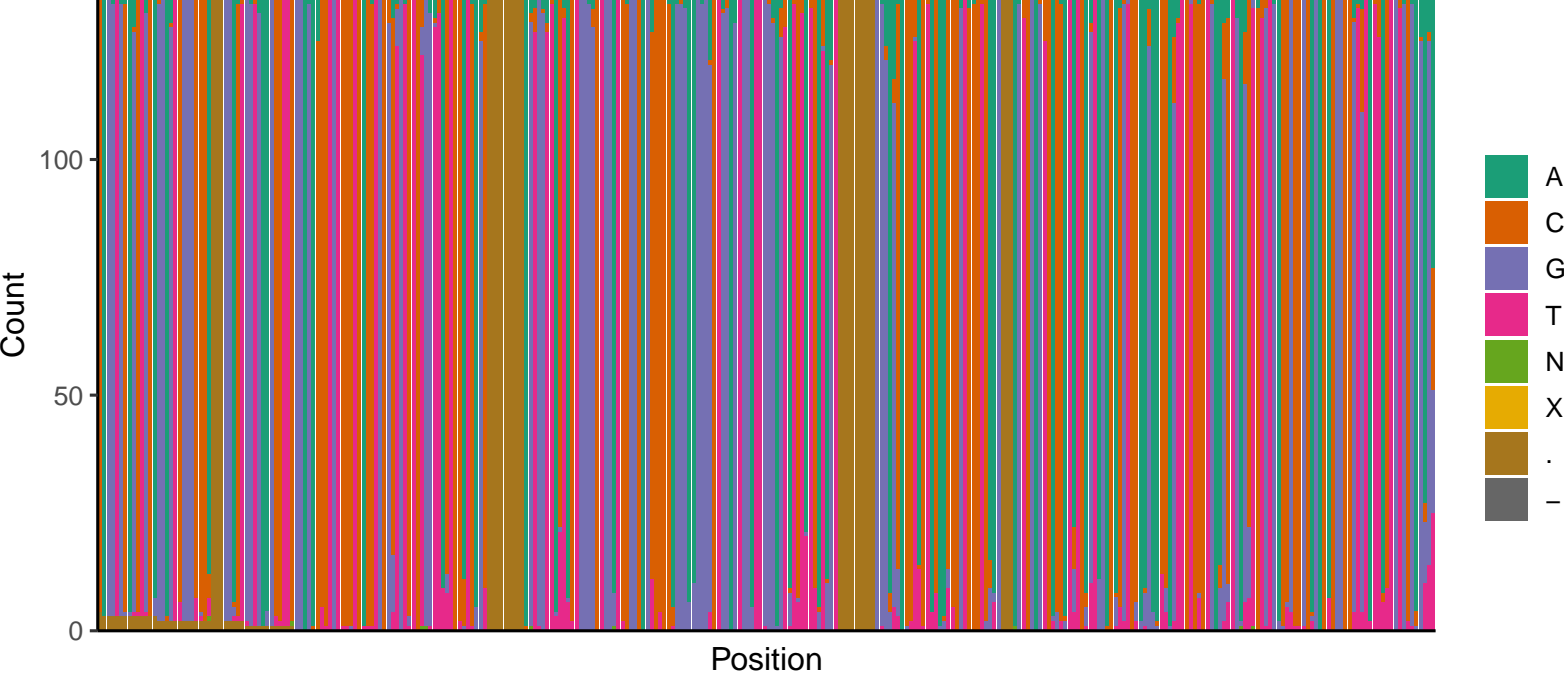
Gene IGHV4-38-2*02_A70G



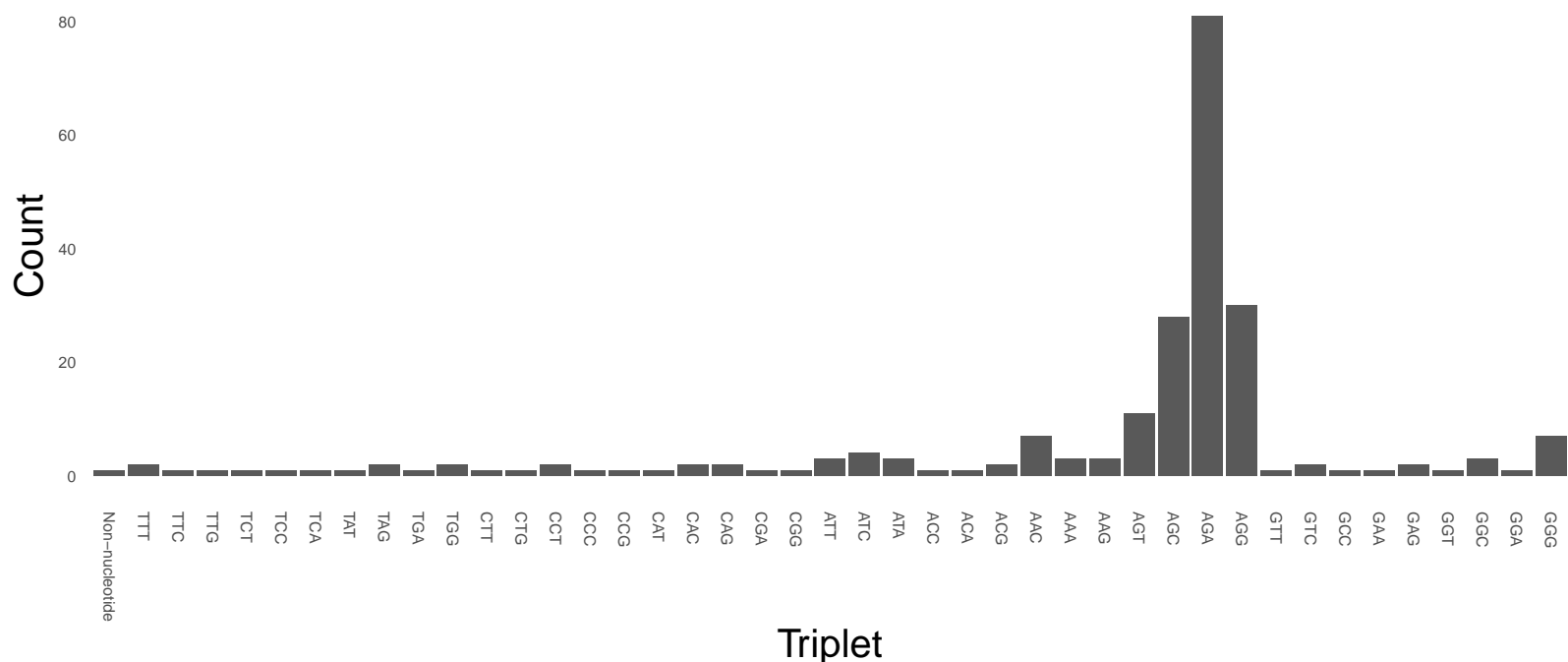
Gene IGHV1-69*08_C191T



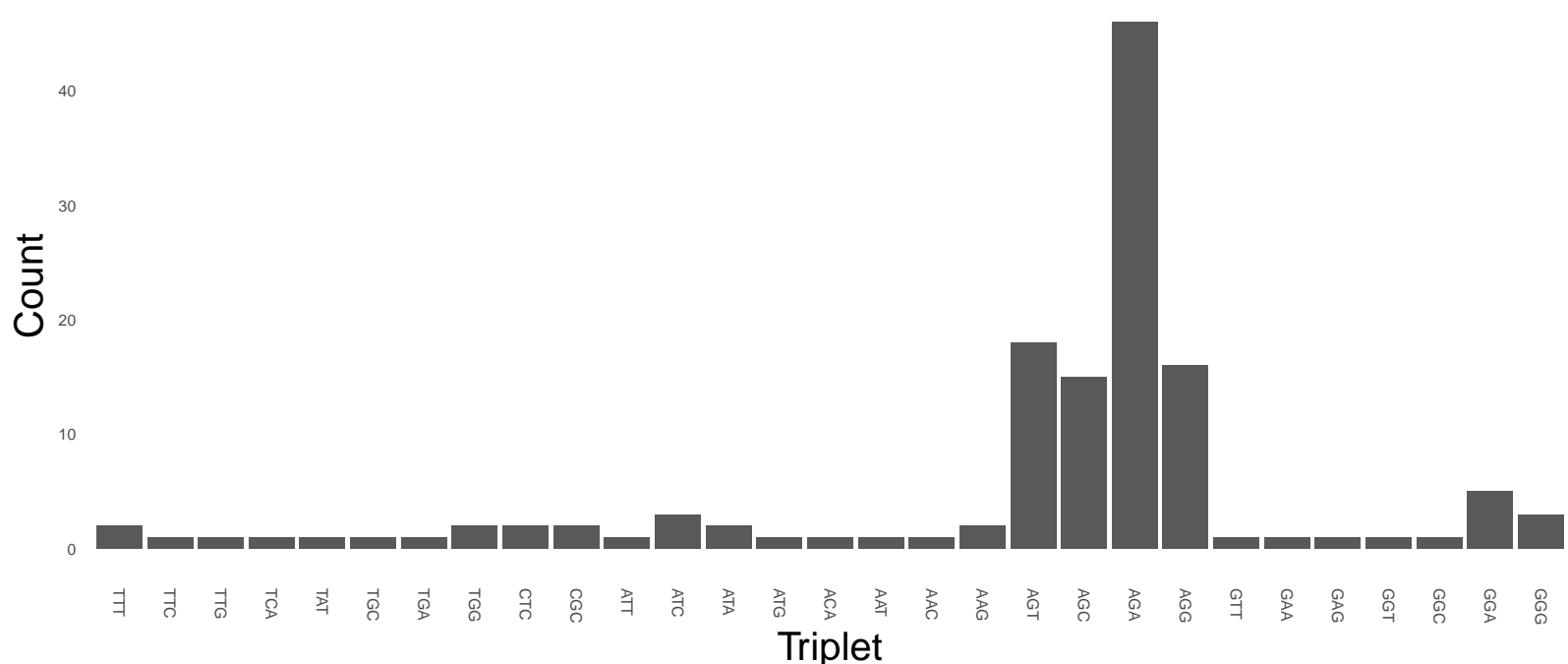
Gene IGHV4-38-2*02_A70G



IGHV1-69*08_C191T- Final 3 nucleotides as a triplet

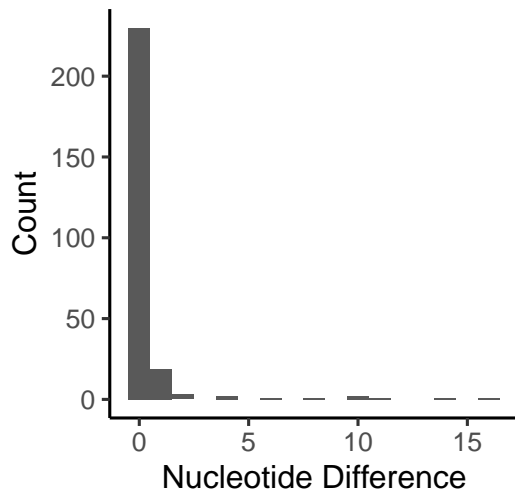


IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet



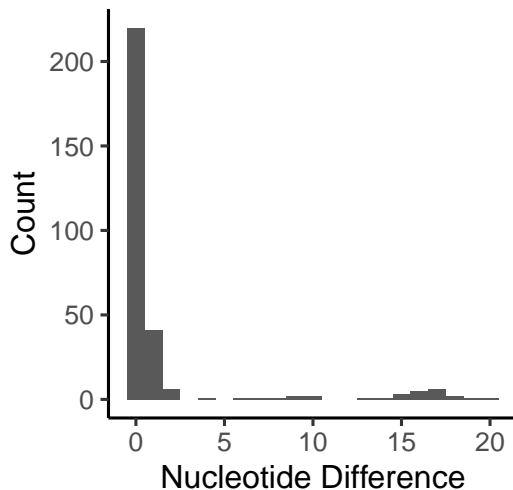
IGHV1-2*04

266 sequences assigned
230 (86.5%) exact matches, in which:
229 unique CDR3
6 unique J



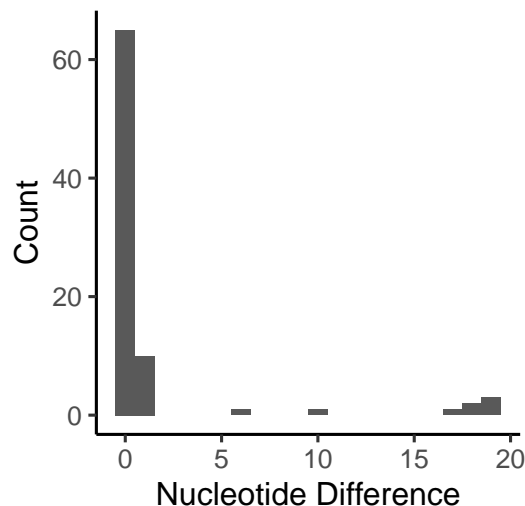
IGHV1-18*01

324 sequences assigned
220 (67.9%) exact matches, in which:
219 unique CDR3
6 unique J



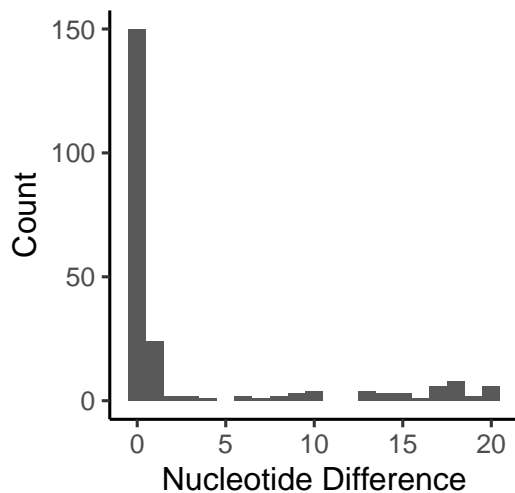
IGHV1-46*01

87 sequences assigned
65 (74.7%) exact matches, in which:
65 unique CDR3
5 unique J



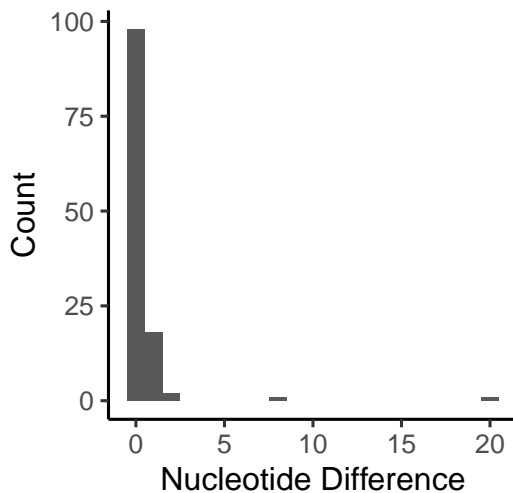
IGHV1-3*01

310 sequences assigned
150 (48.4%) exact matches, in which:
149 unique CDR3
6 unique J



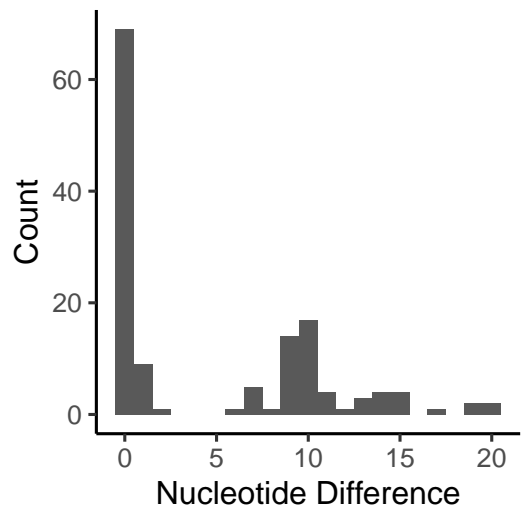
IGHV1-24*01

123 sequences assigned
98 (79.7%) exact matches, in which:
97 unique CDR3
6 unique J



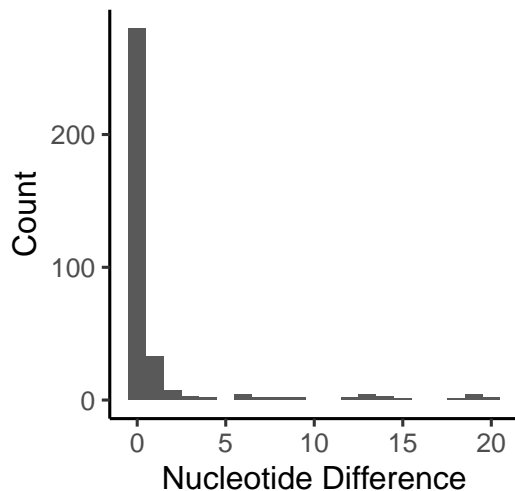
IGHV1-46*03

180 sequences assigned
69 (38.3%) exact matches, in which:
69 unique CDR3
5 unique J



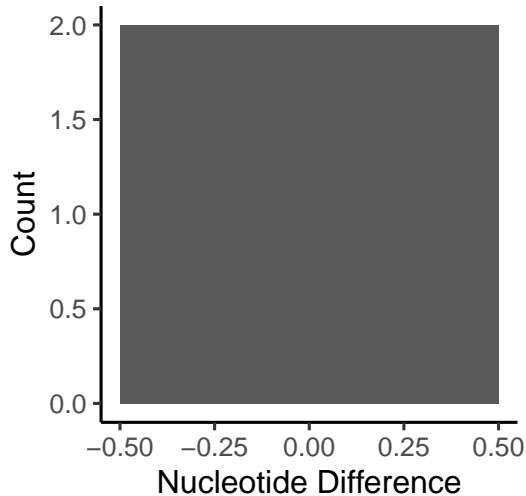
IGHV1-8*01

362 sequences assigned
280 (77.3%) exact matches, in which:
278 unique CDR3
6 unique J



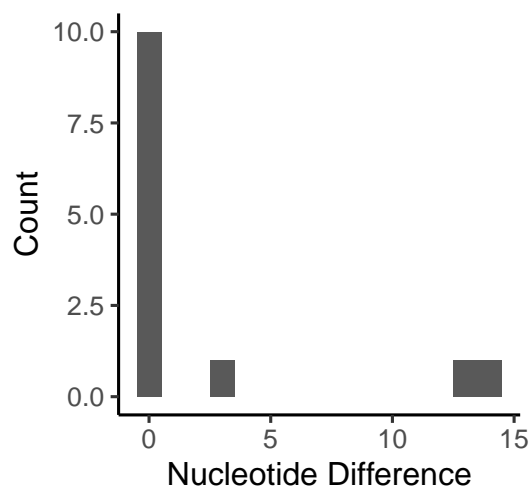
IGHV1-45*02

23 sequences assigned
2 (8.7%) exact matches, in which:
2 unique CDR3
2 unique J



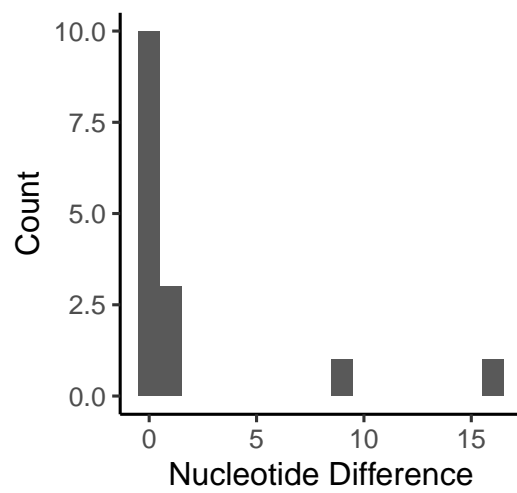
IGHV1-58*01

13 sequences assigned
10 (76.9%) exact matches, in which:
10 unique CDR3
4 unique J



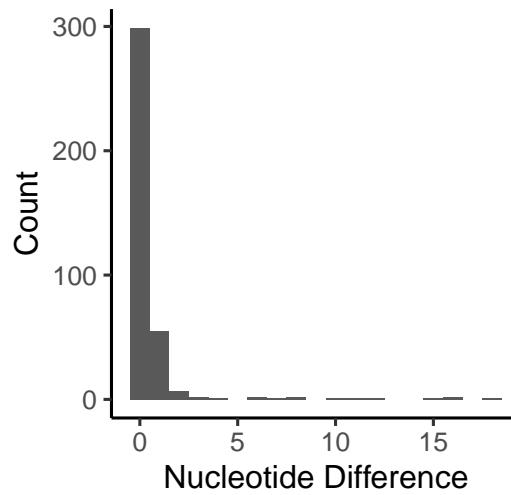
IGHV1-58*02

17 sequences assigned
10 (58.8%) exact matches, in which:
10 unique CDR3
3 unique J



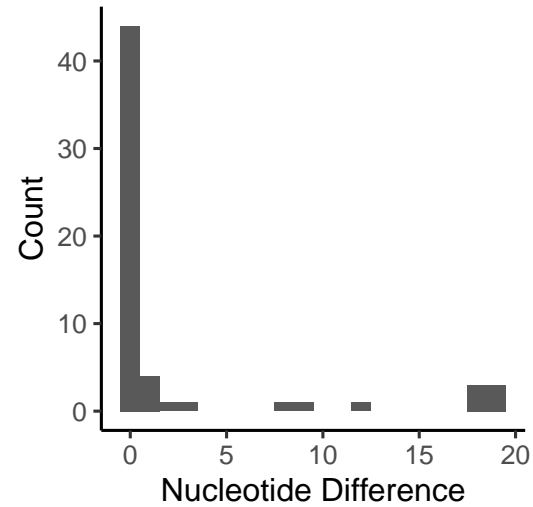
IGHV1-69*06

394 sequences assigned
299 (75.9%) exact matches, in which:
298 unique CDR3
6 unique J



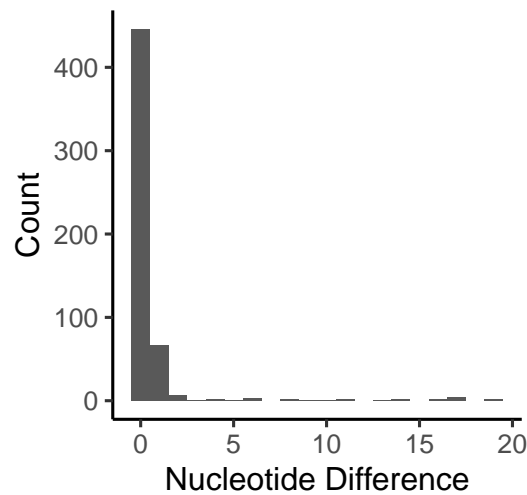
IGHV2-26*01

61 sequences assigned
44 (72.1%) exact matches, in which:
44 unique CDR3
5 unique J



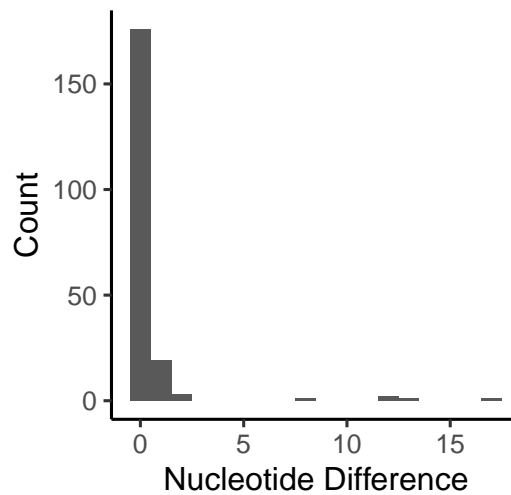
IGHV1-69*01

564 sequences assigned
446 (79.1%) exact matches, in which:
444 unique CDR3
6 unique J



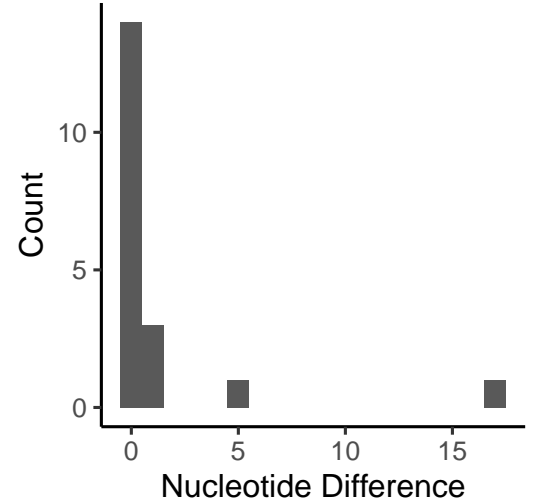
IGHV1-69*08_C191T

223 sequences assigned
176 (78.9%) exact matches, in which:
176 unique CDR3
6 unique J



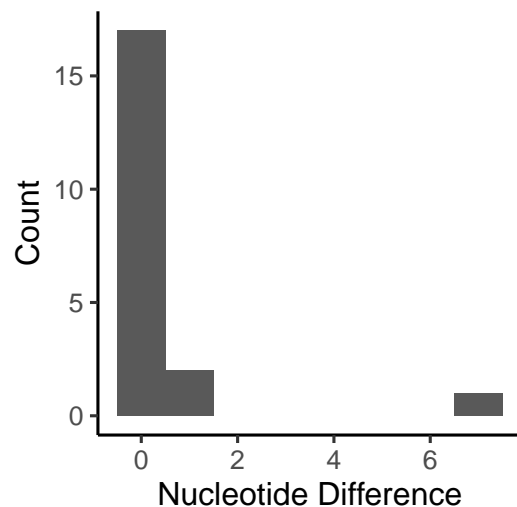
IGHV2-70*01

20 sequences assigned
14 (70%) exact matches, in which:
14 unique CDR3
3 unique J



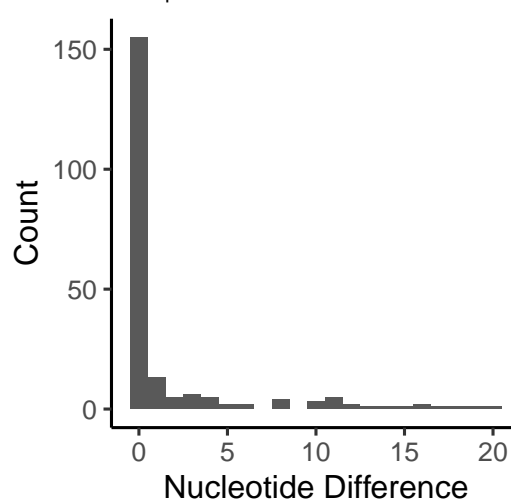
IGHV1-69-2*01

23 sequences assigned
17 (73.9%) exact matches, in which:
17 unique CDR3
3 unique J



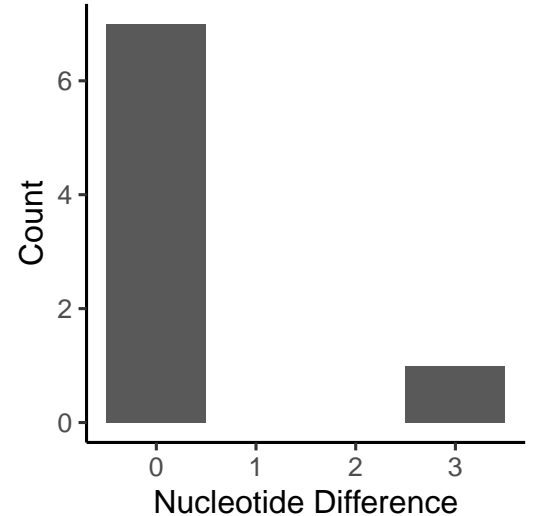
IGHV2-5*02

233 sequences assigned
155 (66.5%) exact matches, in which:
155 unique CDR3
6 unique J



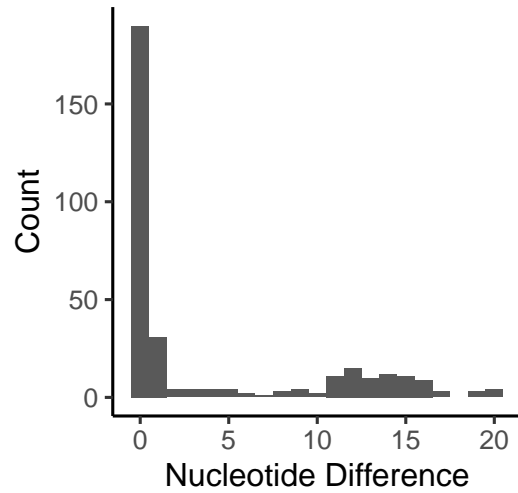
IGHV2-70*04

14 sequences assigned
7 (50%) exact matches, in which:
7 unique CDR3
3 unique J



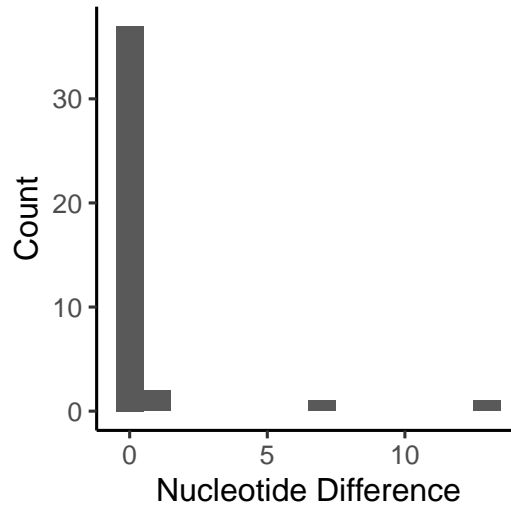
IGHV3-7*01

341 sequences assigned
190 (55.7%) exact matches, in which:
190 unique CDR3
6 unique J



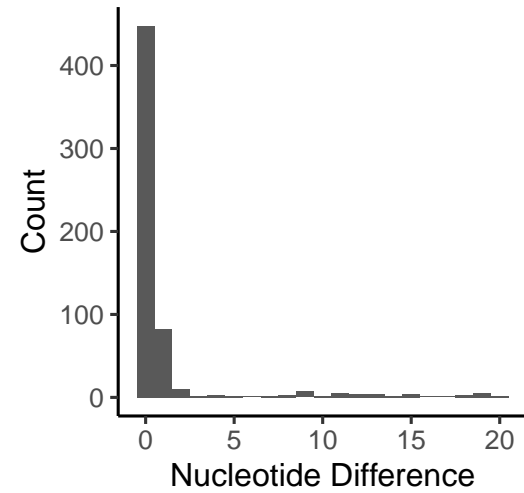
IGHV3-13*01

48 sequences assigned
37 (77.1%) exact matches, in which:
37 unique CDR3
5 unique J



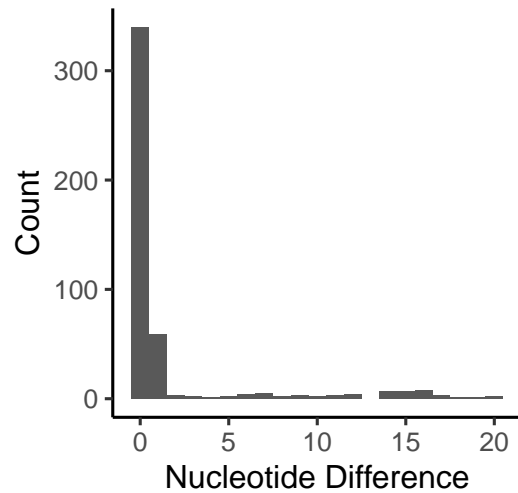
IGHV3-21*01

614 sequences assigned
448 (73%) exact matches, in which:
445 unique CDR3
6 unique J



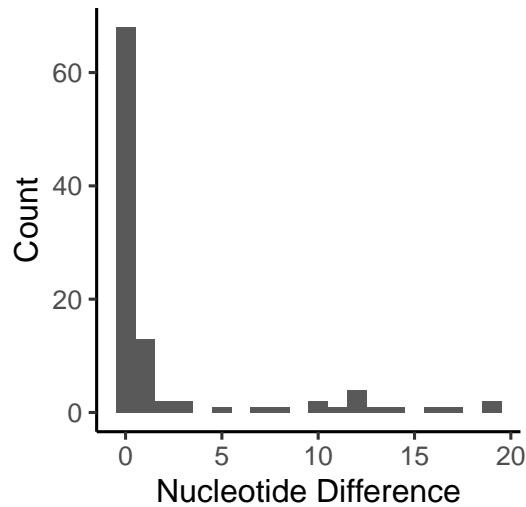
IGHV3-9*01

487 sequences assigned
340 (69.8%) exact matches, in which:
339 unique CDR3
6 unique J



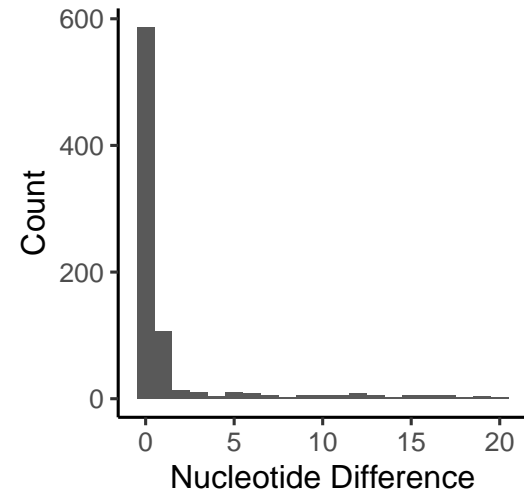
IGHV3-15*01

107 sequences assigned
68 (63.6%) exact matches, in which:
68 unique CDR3
5 unique J



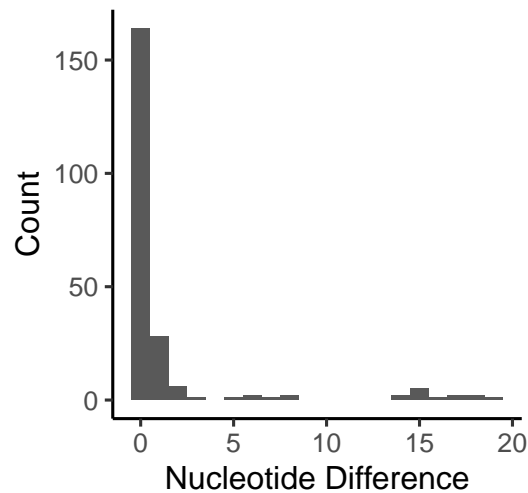
IGHV3-23*01

854 sequences assigned
587 (68.7%) exact matches, in which:
581 unique CDR3
6 unique J



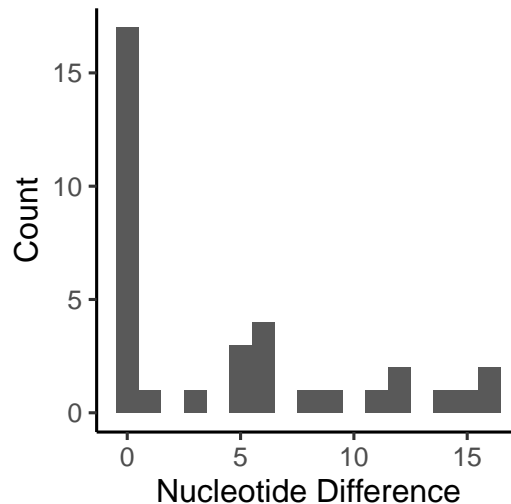
IGHV3-11*01

232 sequences assigned
164 (70.7%) exact matches, in which:
164 unique CDR3
5 unique J



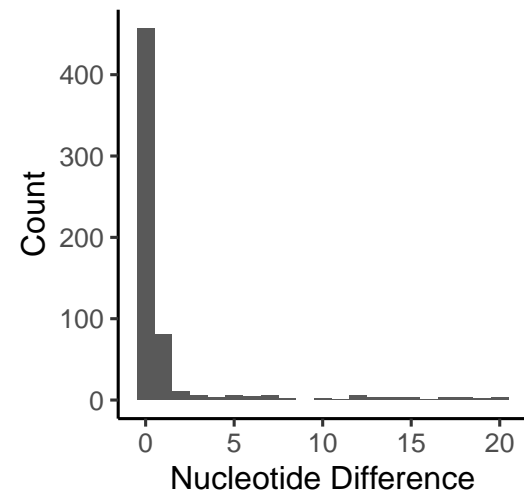
IGHV3-20*01

36 sequences assigned
17 (47.2%) exact matches, in which:
17 unique CDR3
4 unique J



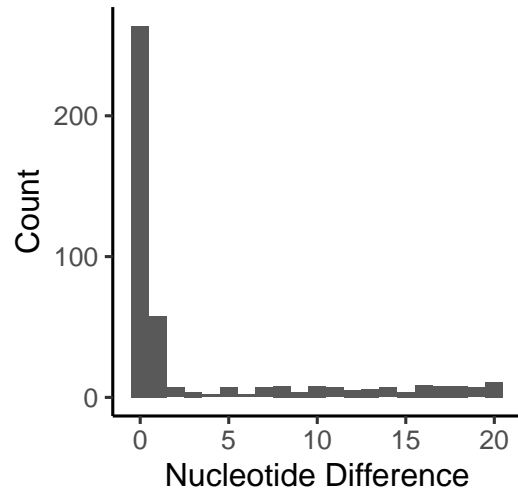
IGHV3-30-3*01

632 sequences assigned
457 (72.3%) exact matches, in which:
454 unique CDR3
6 unique J



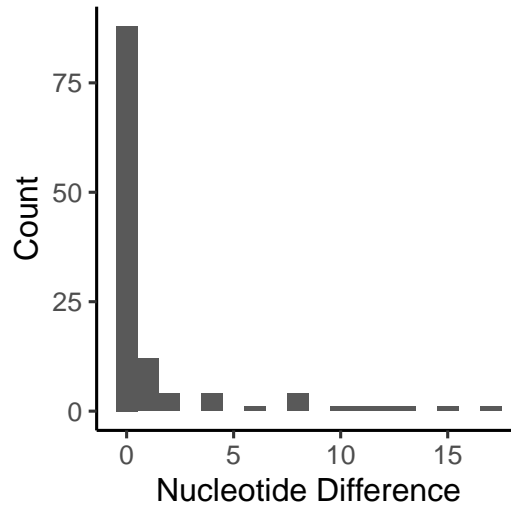
IGHV3–30*18

500 sequences assigned
264 (52.8%) exact matches, in which:
262 unique CDR3
6 unique J



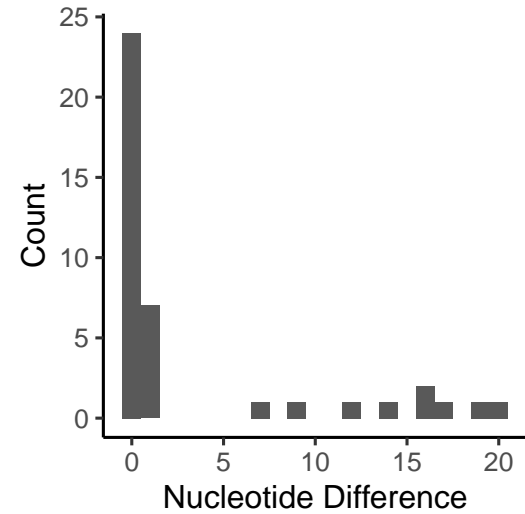
IGHV3–48*01

128 sequences assigned
88 (68.8%) exact matches, in which:
87 unique CDR3
5 unique J



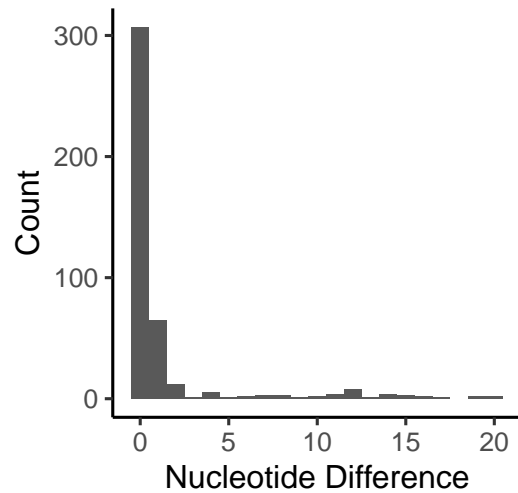
IGHV3–49*04

51 sequences assigned
24 (47.1%) exact matches, in which:
24 unique CDR3
5 unique J



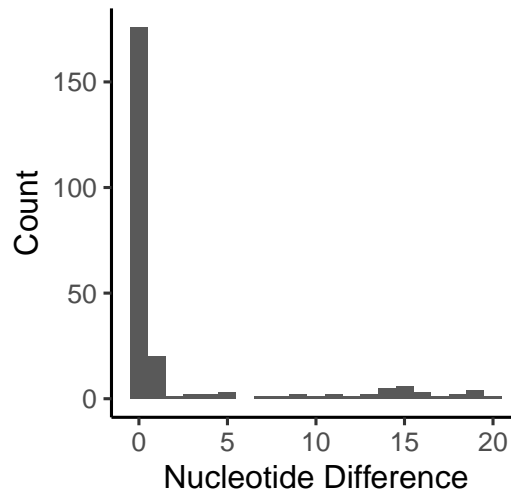
IGHV3–33*01

458 sequences assigned
307 (67%) exact matches, in which:
304 unique CDR3
6 unique J



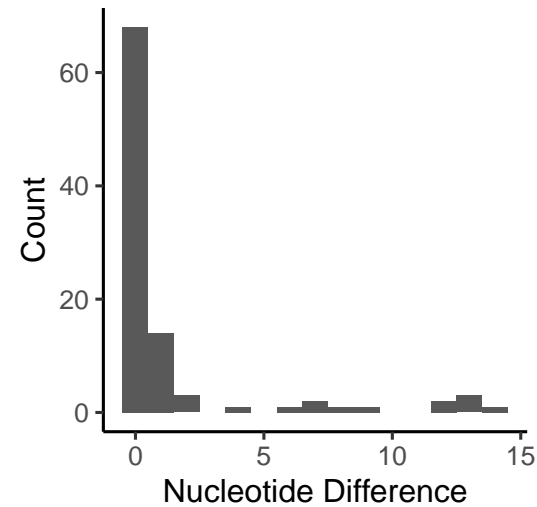
IGHV3–48*03

243 sequences assigned
176 (72.4%) exact matches, in which:
173 unique CDR3
6 unique J



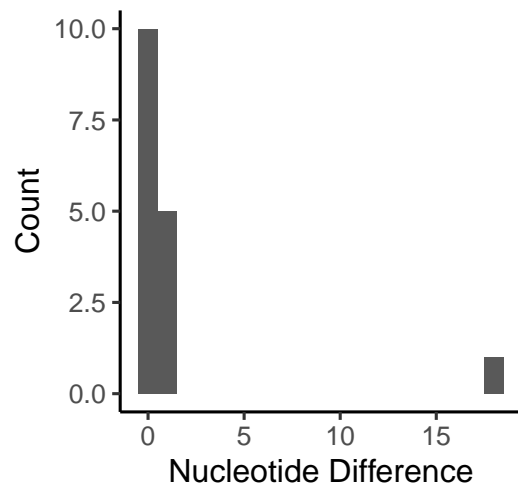
IGHV3–53*02

98 sequences assigned
68 (69.4%) exact matches, in which:
68 unique CDR3
4 unique J



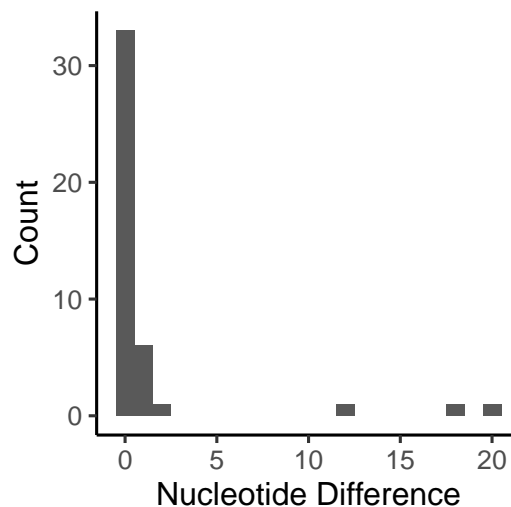
IGHV3–43*01

16 sequences assigned
10 (62.5%) exact matches, in which:
10 unique CDR3
2 unique J



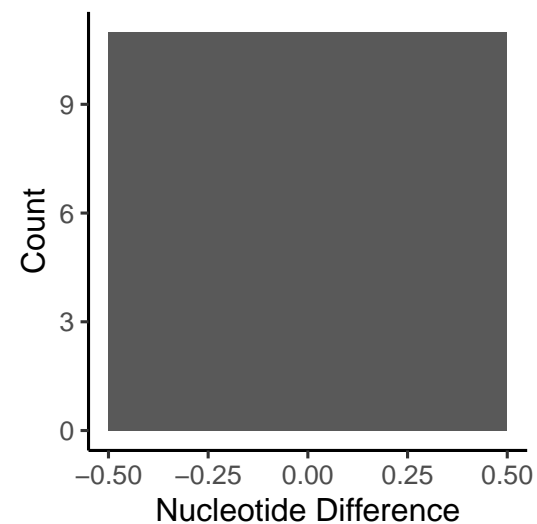
IGHV3–49*03

44 sequences assigned
33 (75%) exact matches, in which:
32 unique CDR3
4 unique J



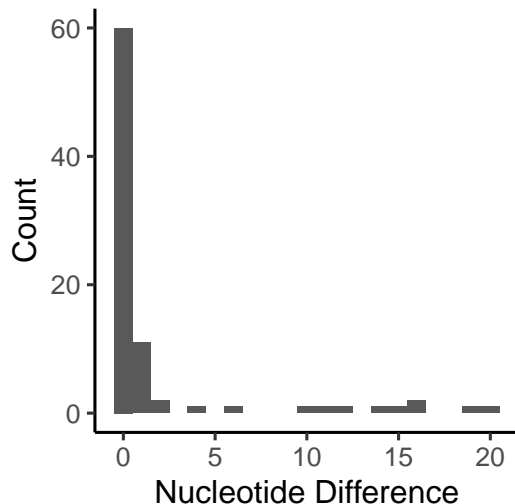
IGHV3–64*01

11 sequences assigned
11 (100%) exact matches, in which:
11 unique CDR3
3 unique J



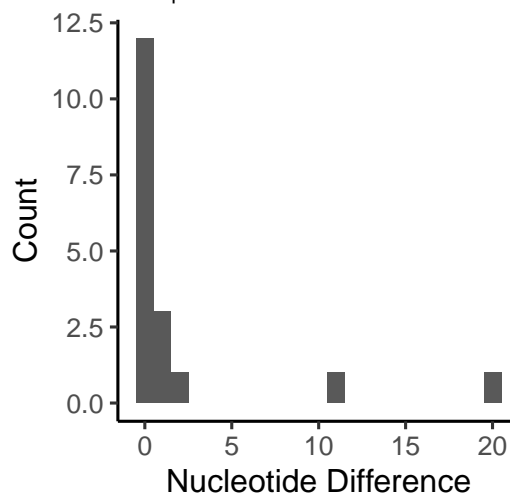
IGHV3-66*02

87 sequences assigned
60 (69%) exact matches, in which:
60 unique CDR3
5 unique J



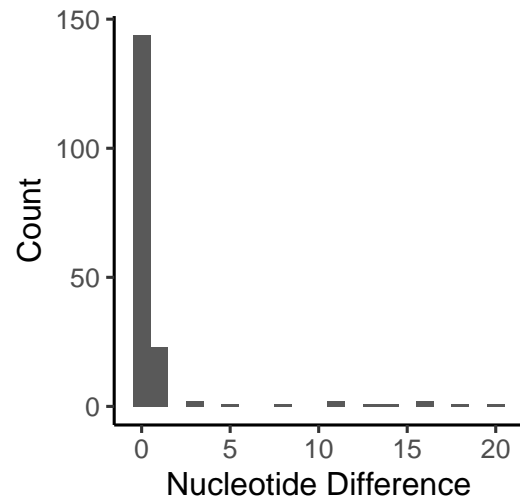
IGHV3-73*02

18 sequences assigned
12 (66.7%) exact matches, in which:
12 unique CDR3
4 unique J



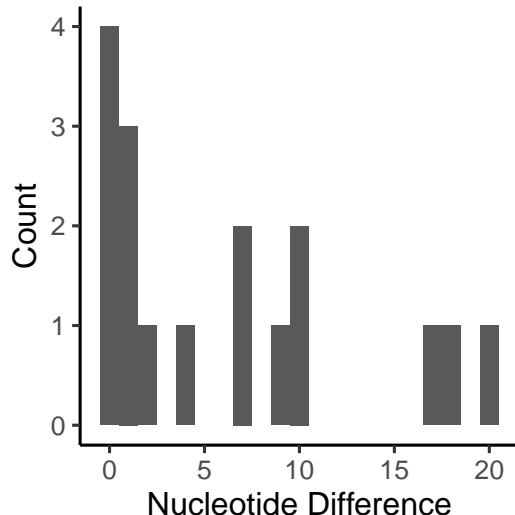
IGHV4-4*02

186 sequences assigned
144 (77.4%) exact matches, in which:
144 unique CDR3
6 unique J



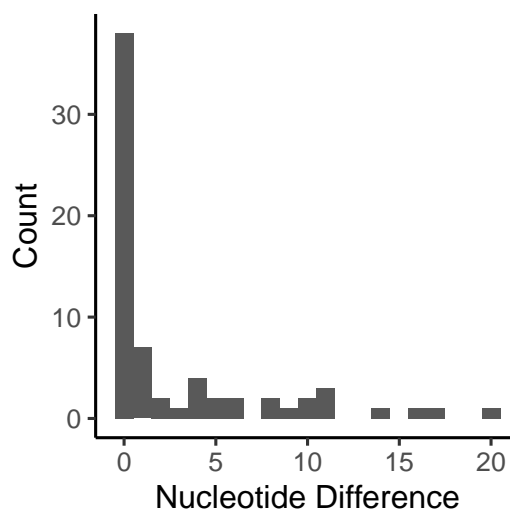
IGHV3-72*01

19 sequences assigned
4 (21.1%) exact matches, in which:
4 unique CDR3
3 unique J



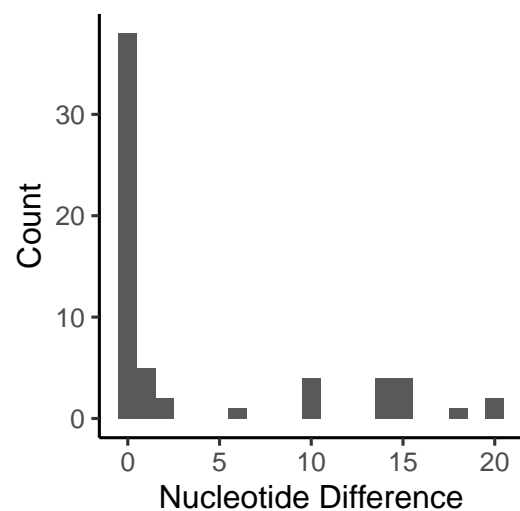
IGHV3-74*01

71 sequences assigned
38 (53.5%) exact matches, in which:
38 unique CDR3
4 unique J



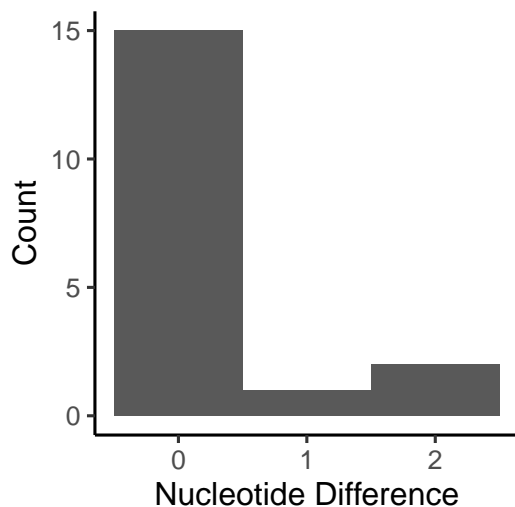
IGHV4-30-4*01

69 sequences assigned
38 (55.1%) exact matches, in which:
38 unique CDR3
6 unique J



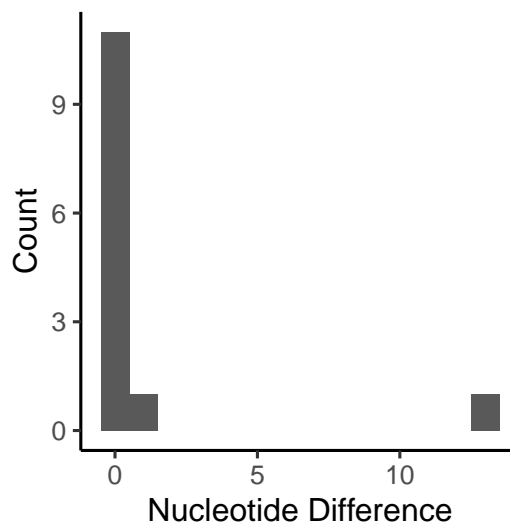
IGHV3-73*01

19 sequences assigned
15 (78.9%) exact matches, in which:
15 unique CDR3
5 unique J



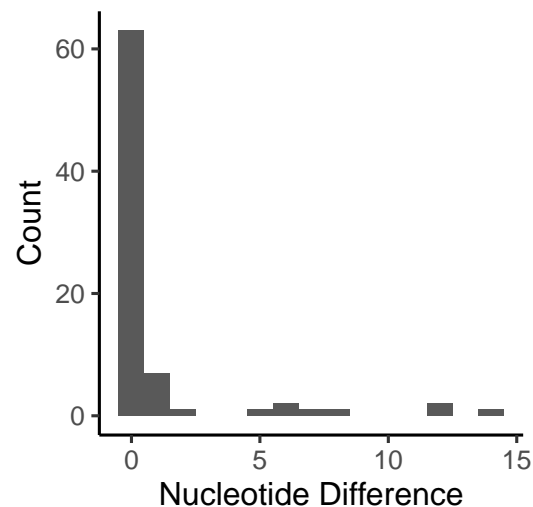
IGHV3-43D*04

13 sequences assigned
11 (84.6%) exact matches, in which:
11 unique CDR3
4 unique J



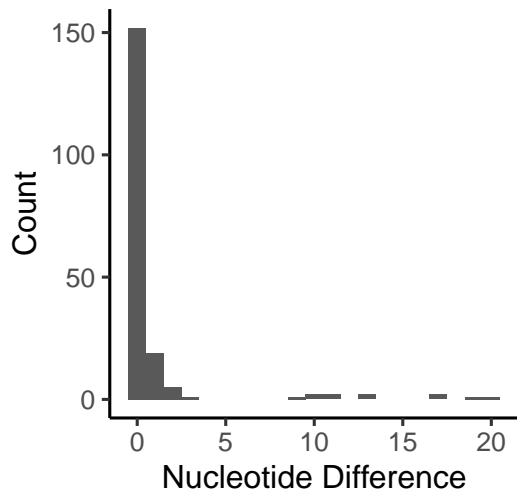
IGHV4-30-2*01

84 sequences assigned
63 (75%) exact matches, in which:
63 unique CDR3
5 unique J



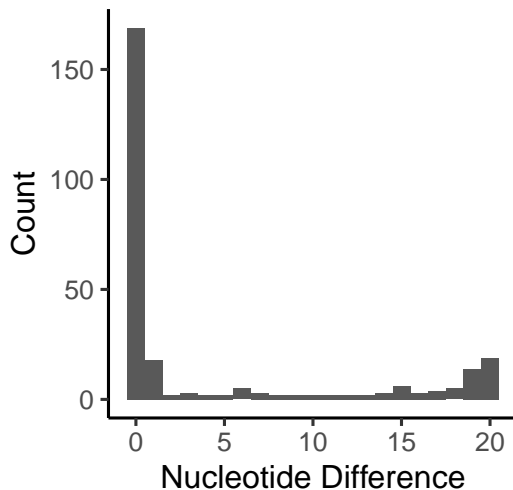
IGHV4–31*03

232 sequences assigned
152 (65.5%) exact matches, in which:
152 unique CDR3
5 unique J



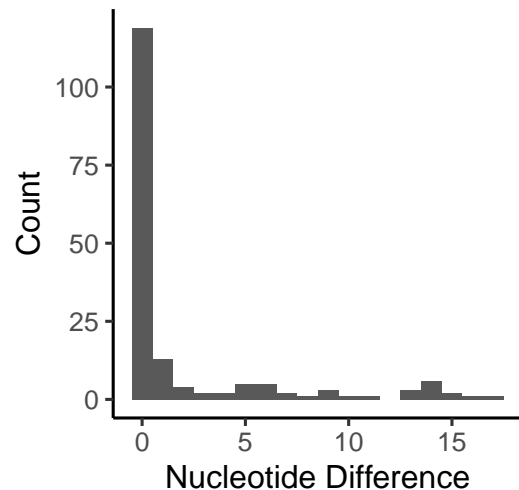
IGHV4–39*01

302 sequences assigned
169 (56%) exact matches, in which:
169 unique CDR3
6 unique J



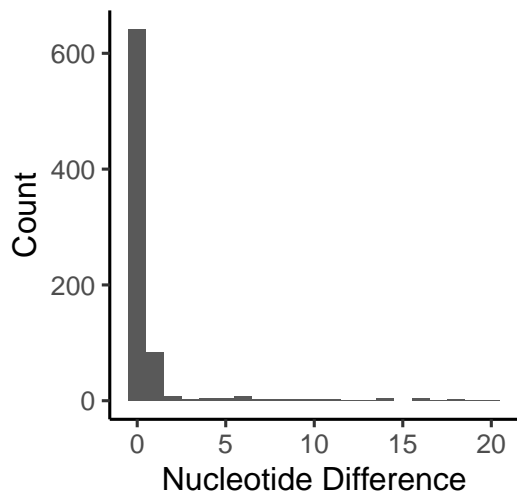
IGHV4–61*02

191 sequences assigned
119 (62.3%) exact matches, in which:
118 unique CDR3
6 unique J



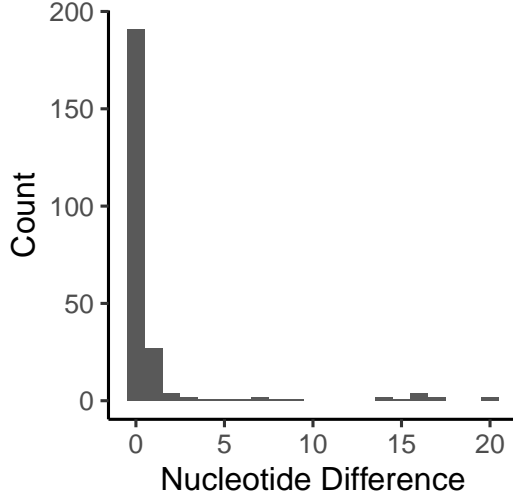
IGHV4–34*01

806 sequences assigned
642 (79.7%) exact matches, in which:
638 unique CDR3
6 unique J



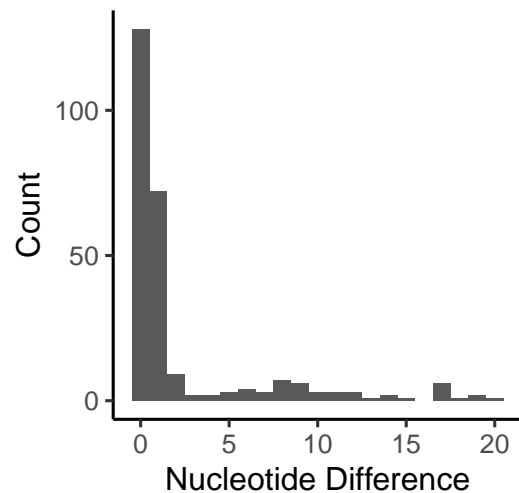
IGHV4–59*01

256 sequences assigned
191 (74.6%) exact matches, in which:
189 unique CDR3
6 unique J



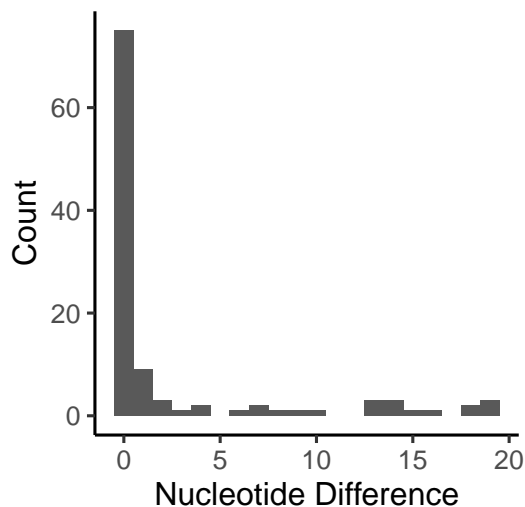
IGHV5–51*01

286 sequences assigned
128 (44.8%) exact matches, in which:
128 unique CDR3
6 unique J



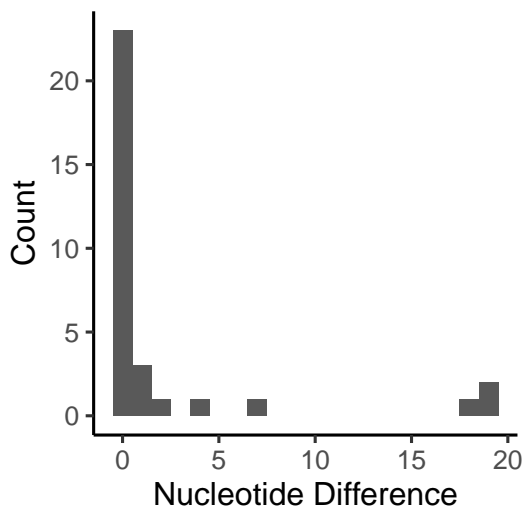
IGHV4–38–2*02_A70G

134 sequences assigned
75 (56%) exact matches, in which:
75 unique CDR3
5 unique J



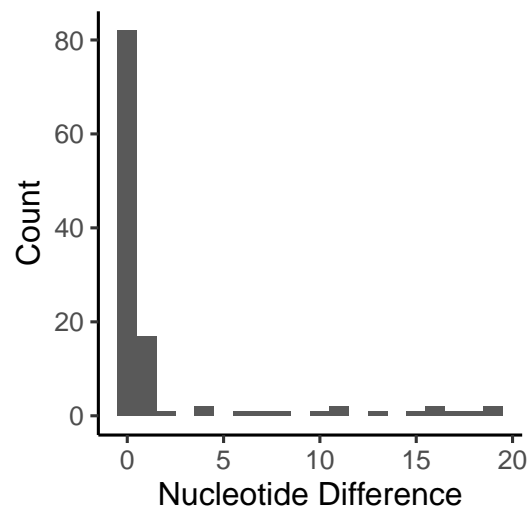
IGHV4–61*01

34 sequences assigned
23 (67.6%) exact matches, in which:
23 unique CDR3
5 unique J



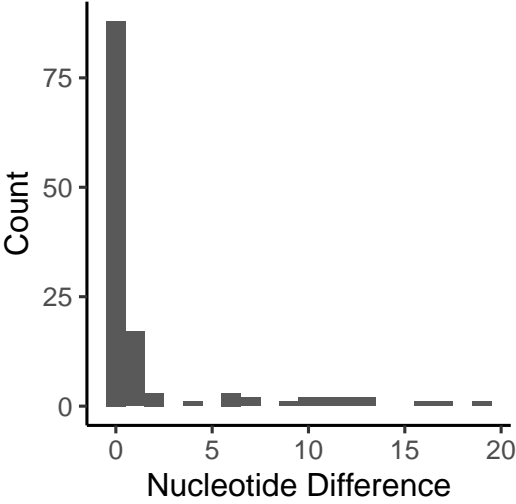
IGHV5–51*03

125 sequences assigned
82 (65.6%) exact matches, in which:
81 unique CDR3
5 unique J



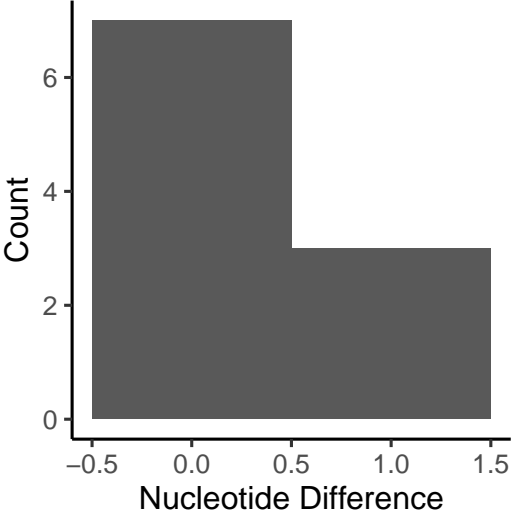
IGHV6-1*01

127 sequences assigned
88 (69.3%) exact matches, in which:
88 unique CDR3
6 unique J

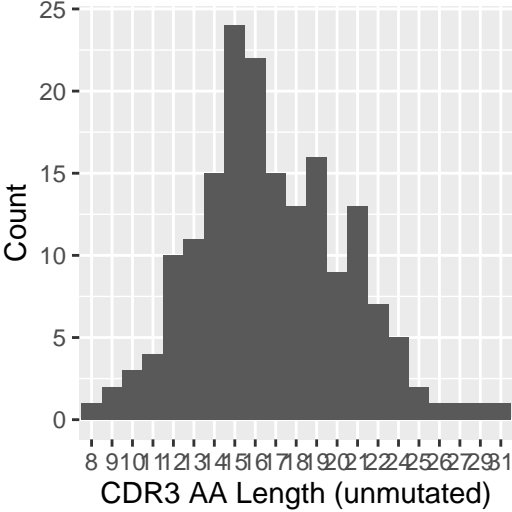


IGHV7-4-1*01

10 sequences assigned
7 (70%) exact matches, in which:
7 unique CDR3
4 unique J



IGHV1-69*08_C191T



IGHV4-38-2*02_A70G

