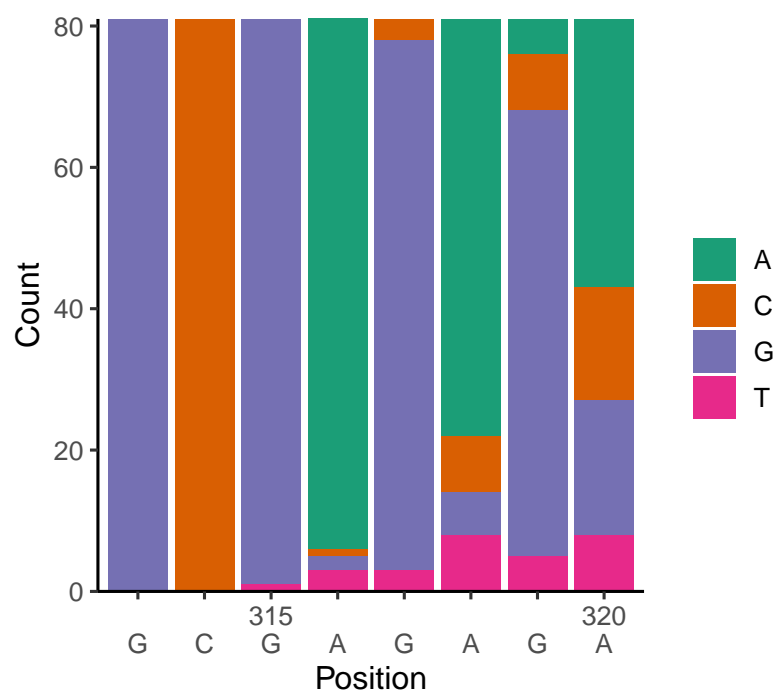
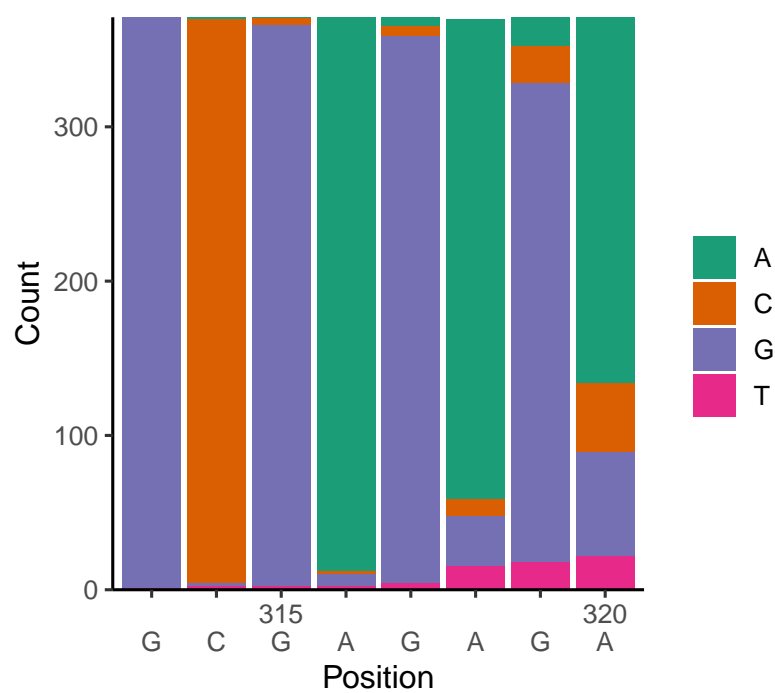


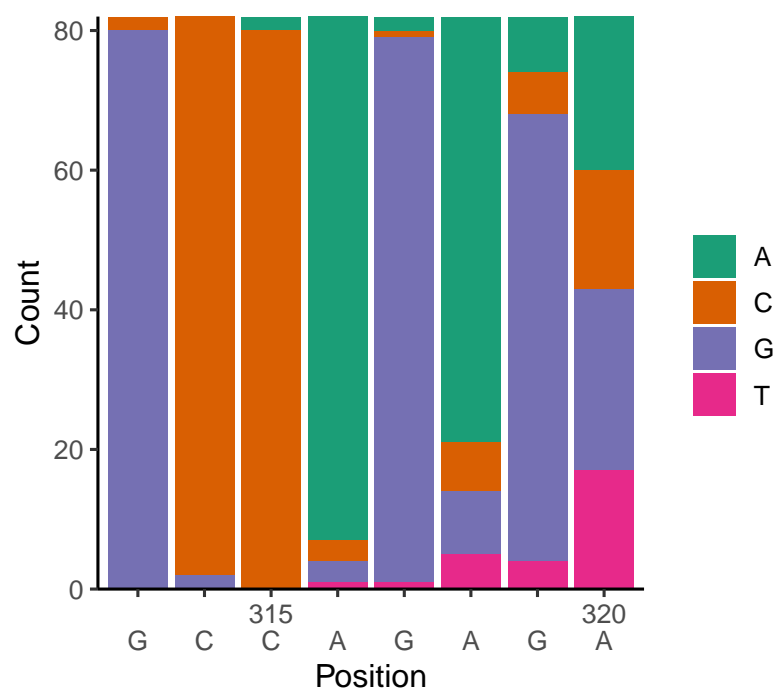
Gene IGHV1-69*08_C191T



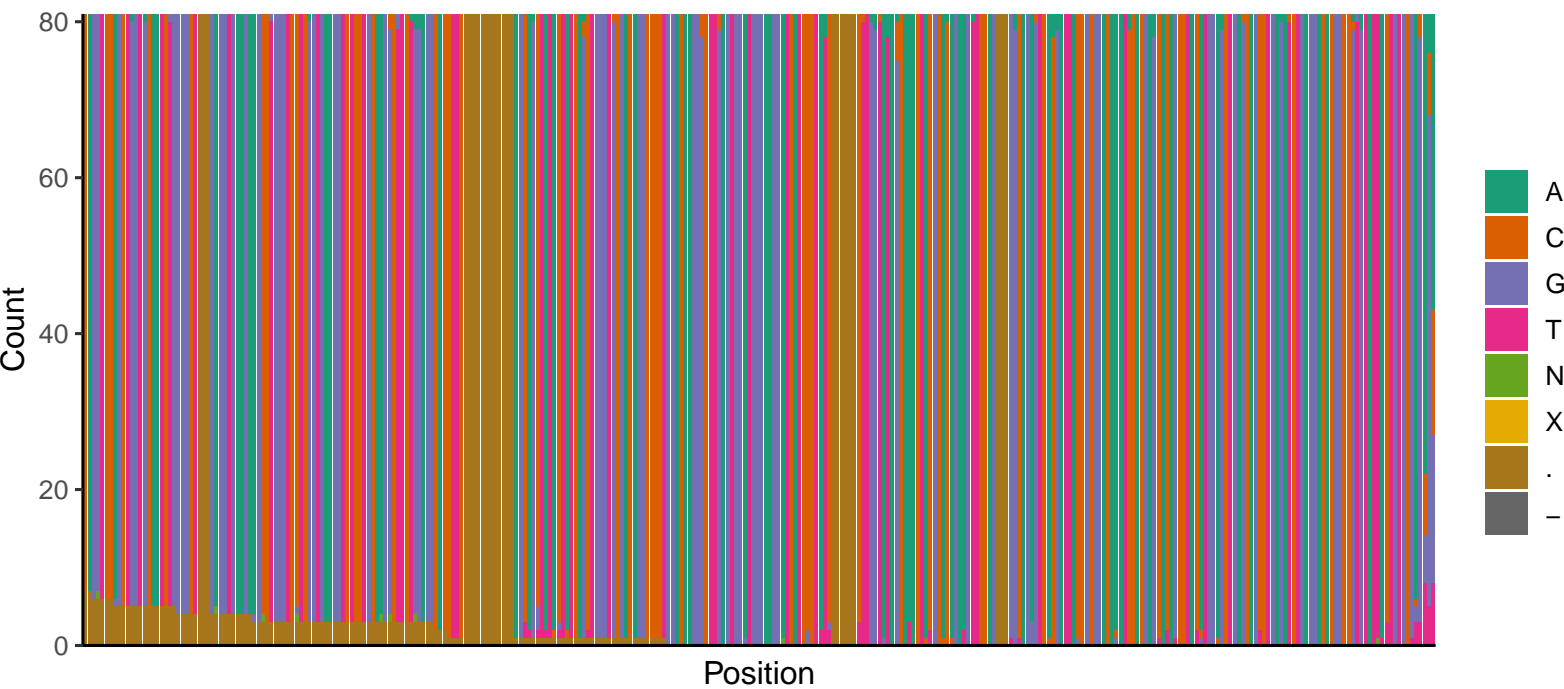
Gene IGHV3-30*19_T189C



Gene IGHV4-30-4*01_A70G_A107G



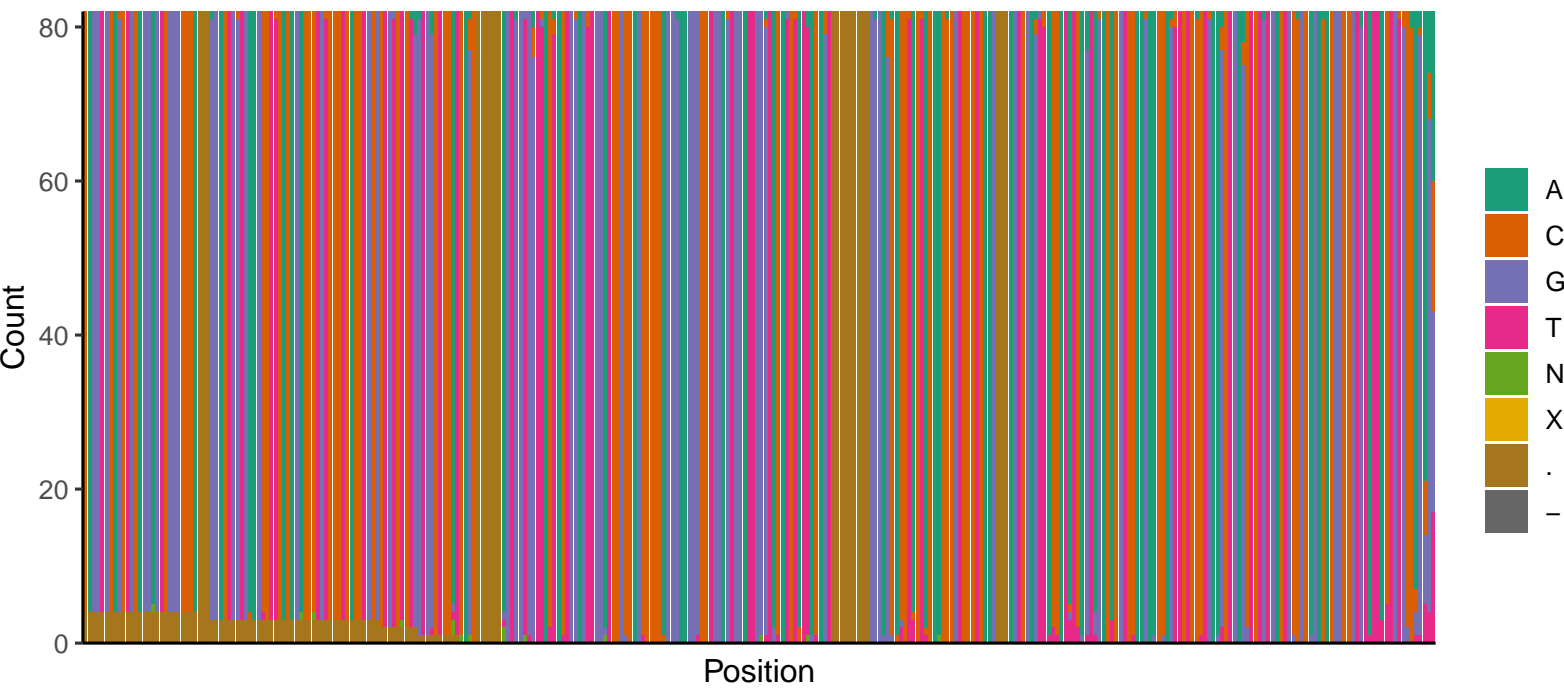
Gene IGHV1-69*08_C191T



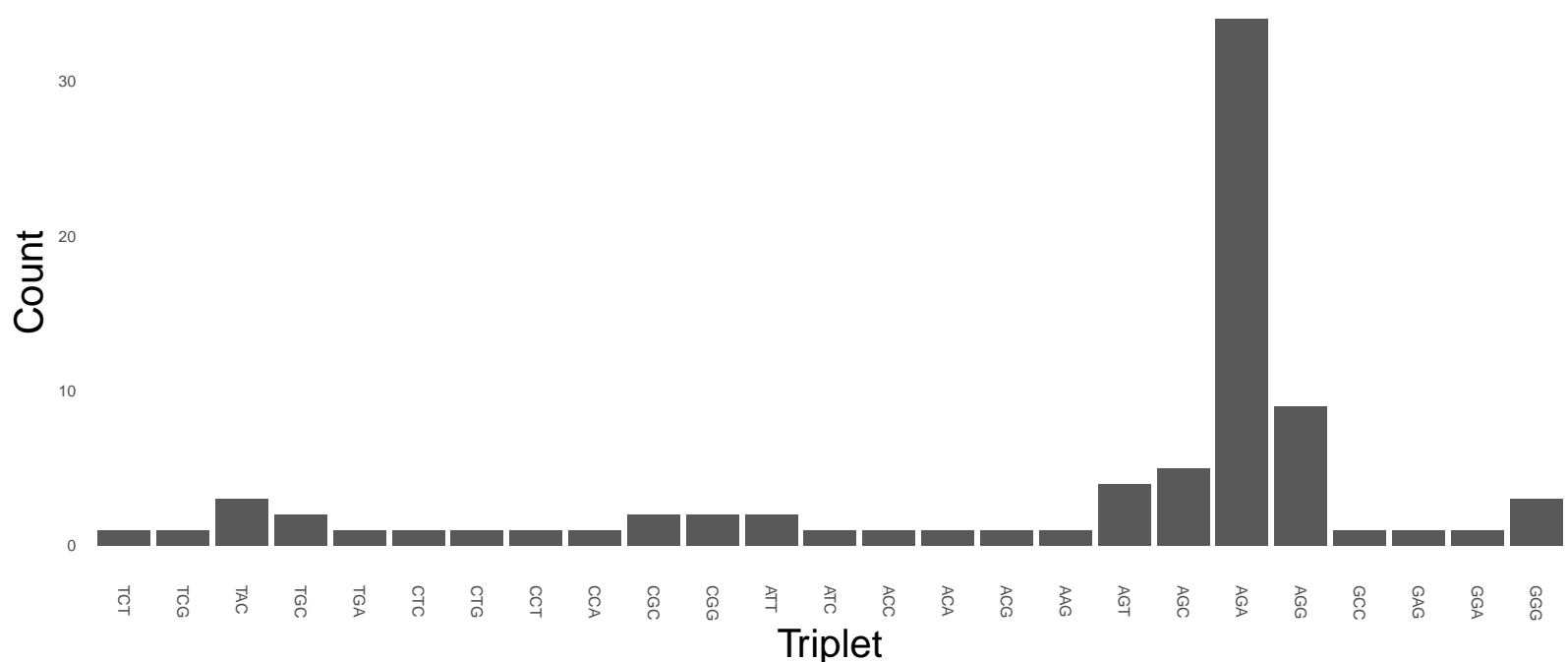
Gene IGHV3-30*19_T189C



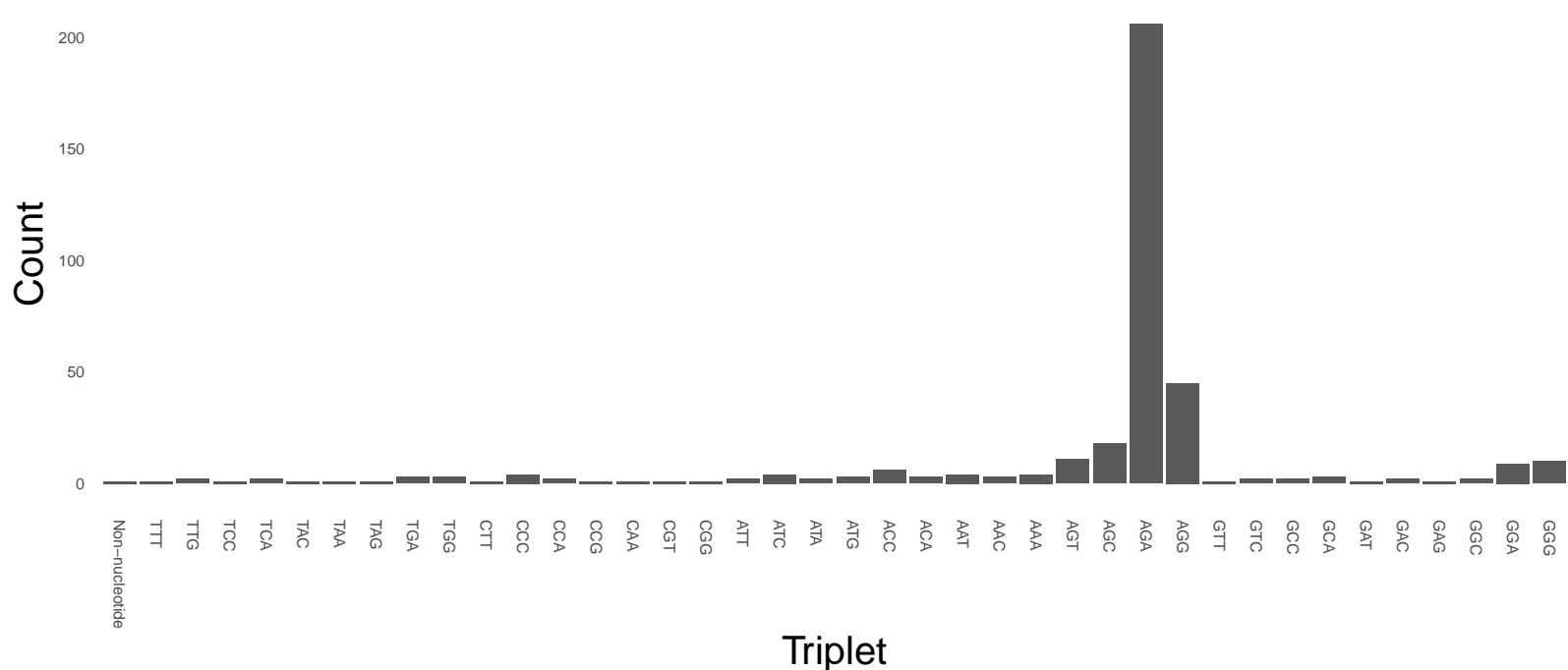
Gene IGHV4-30-4*01_A70G_A107G



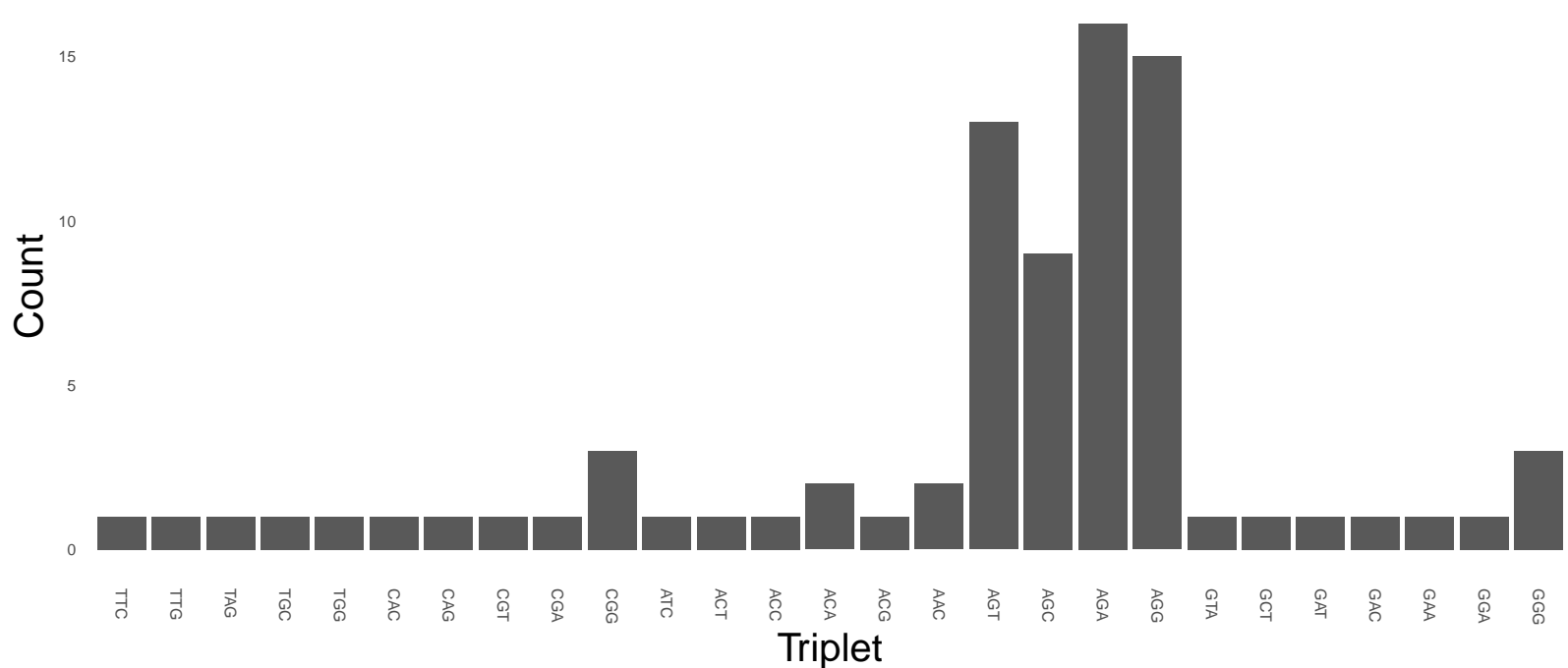
IGHV1-69*08_C191T- Final 3 nucleotides as a triplet



IGHV3-30*19_T189C- Final 3 nucleotides as a triplet

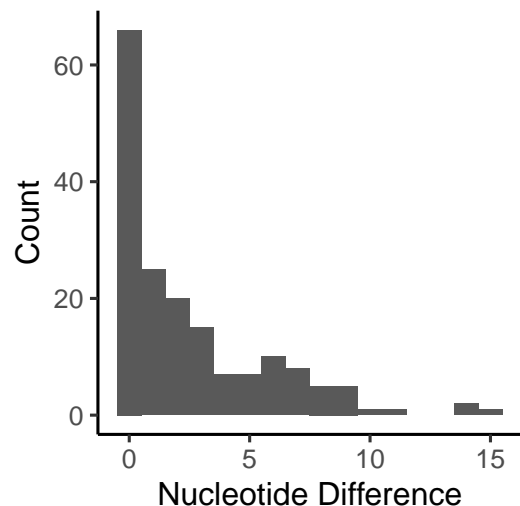


IGHV4-30-4*01_A70G_A107G- Final 3 nucleotides as a triplet



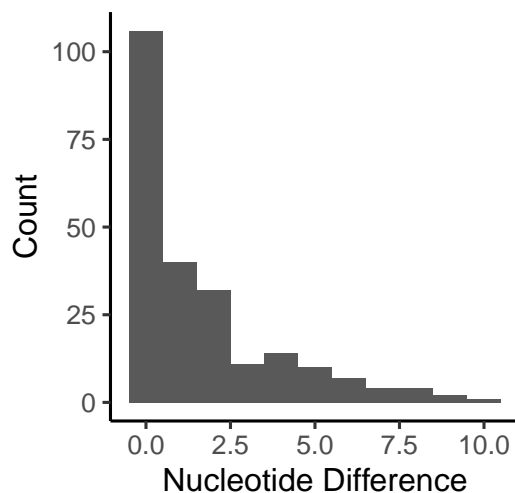
IGHV1-2*02

173 sequences assigned
66 (38.2%) exact matches, in which:
66 unique CDR3
4 unique J



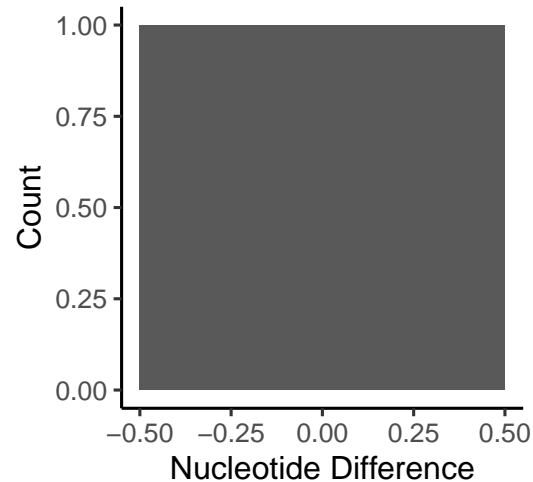
IGHV1-8*01

231 sequences assigned
106 (45.9%) exact matches, in which:
102 unique CDR3
7 unique J



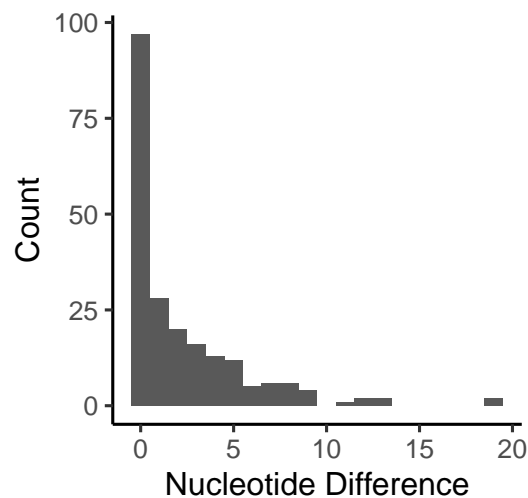
IGHV1-45*02

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



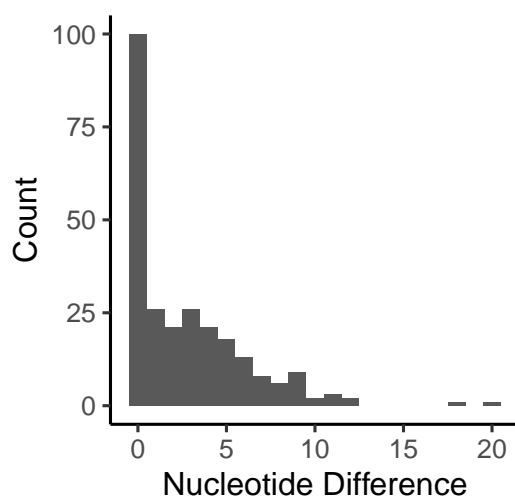
IGHV1-2*06

214 sequences assigned
97 (45.3%) exact matches, in which:
92 unique CDR3
6 unique J



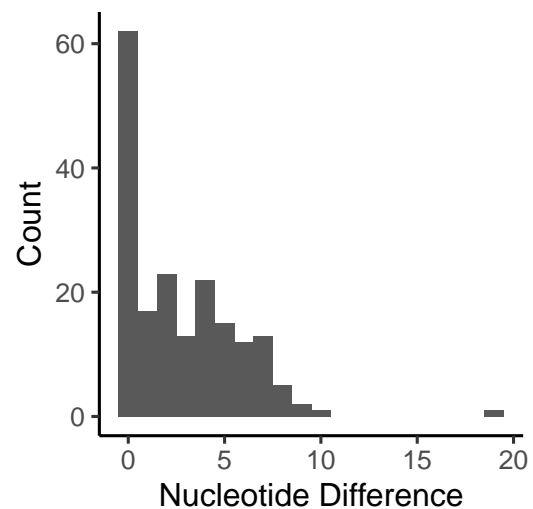
IGHV1-18*01

257 sequences assigned
100 (38.9%) exact matches, in which:
98 unique CDR3
7 unique J



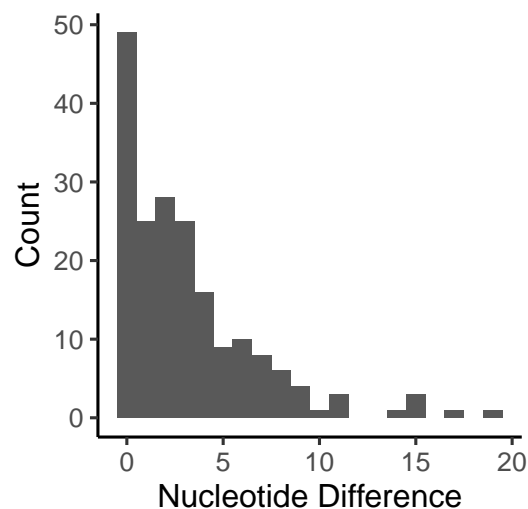
IGHV1-46*01

188 sequences assigned
62 (33%) exact matches, in which:
59 unique CDR3
5 unique J



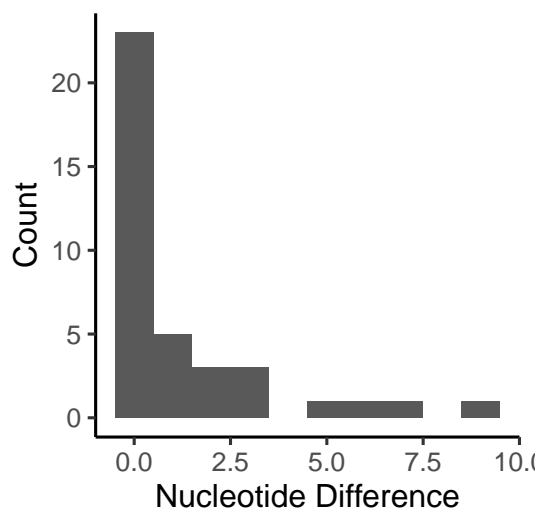
IGHV1-3*01

190 sequences assigned
49 (25.8%) exact matches, in which:
48 unique CDR3
5 unique J



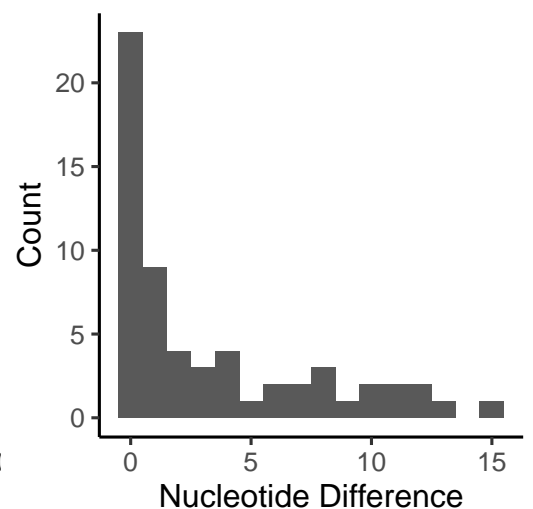
IGHV1-24*01

38 sequences assigned
23 (60.5%) exact matches, in which:
22 unique CDR3
5 unique J



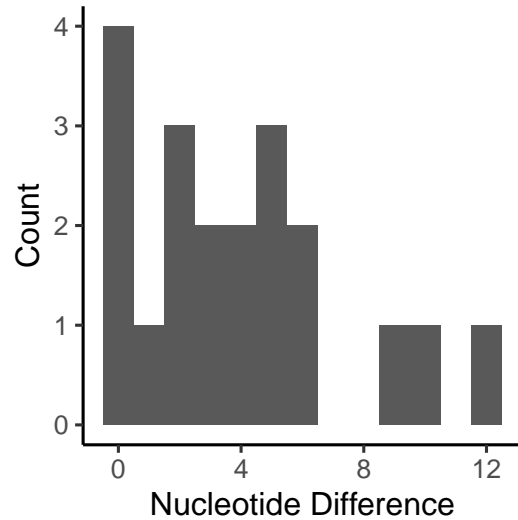
IGHV1-46*03

60 sequences assigned
23 (38.3%) exact matches, in which:
22 unique CDR3
5 unique J



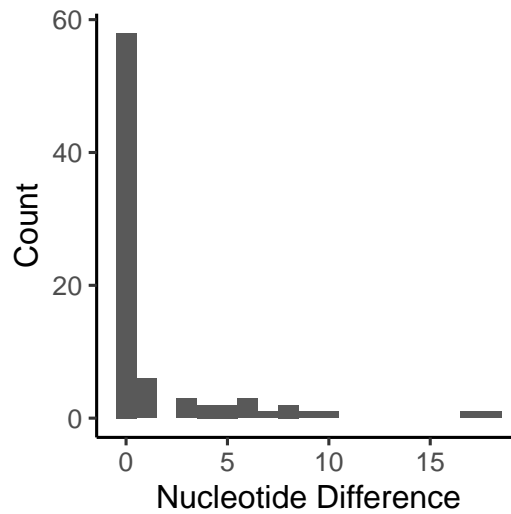
IGHV1-58*02

20 sequences assigned
4 (20%) exact matches, in which:
4 unique CDR3
3 unique J



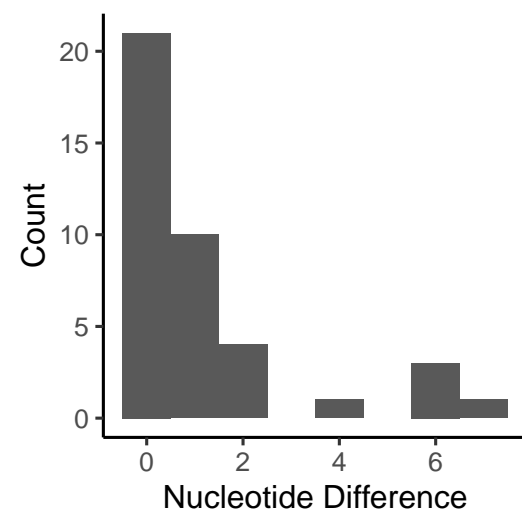
IGHV1-69*08_C191T

81 sequences assigned
58 (71.6%) exact matches, in which:
58 unique CDR3
6 unique J



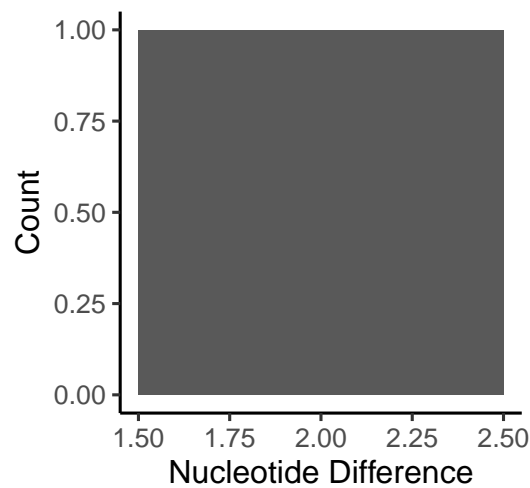
IGHV2-26*01

40 sequences assigned
21 (52.5%) exact matches, in which:
20 unique CDR3
5 unique J



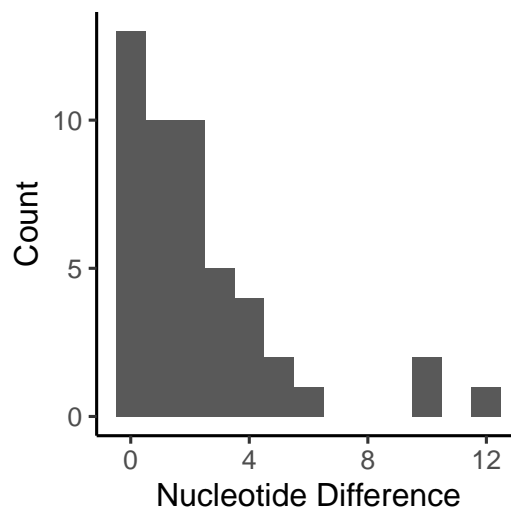
IGHV1-68*02

1 sequences assigned
No exact matches.



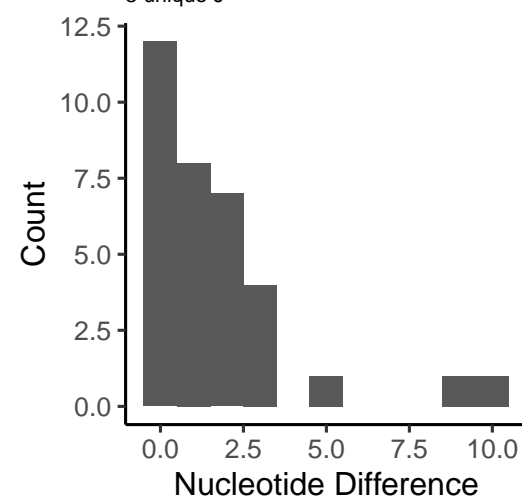
IGHV2-5*01

48 sequences assigned
13 (27.1%) exact matches, in which:
13 unique CDR3
5 unique J



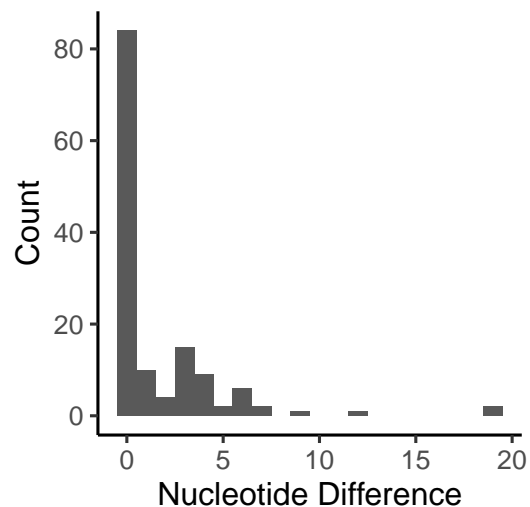
IGHV2-70*15

34 sequences assigned
12 (35.3%) exact matches, in which:
12 unique CDR3
3 unique J



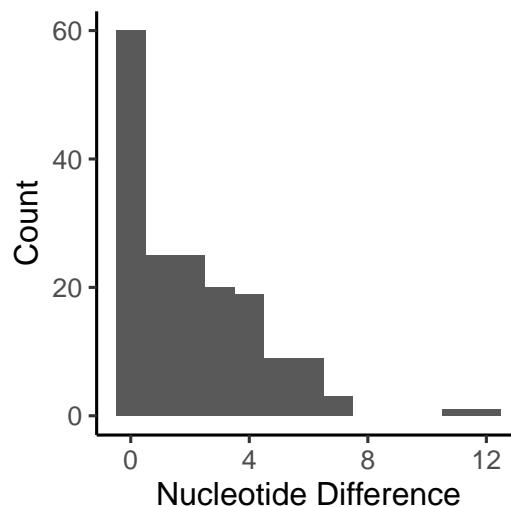
IGHV1-69*10

138 sequences assigned
84 (60.9%) exact matches, in which:
84 unique CDR3
6 unique J



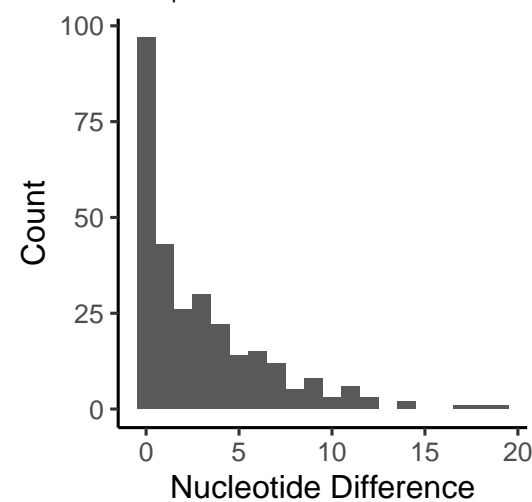
IGHV2-5*02

172 sequences assigned
60 (34.9%) exact matches, in which:
59 unique CDR3
6 unique J



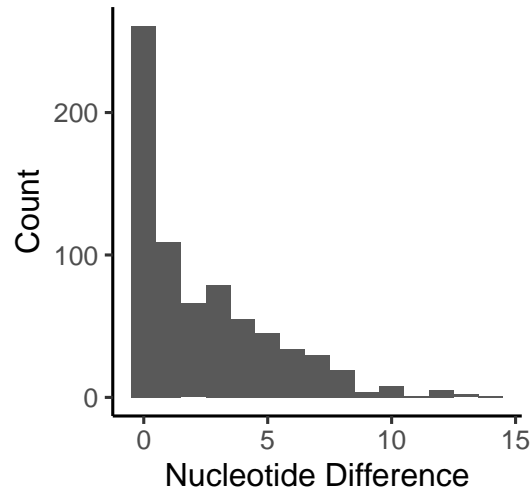
IGHV3-7*01

290 sequences assigned
97 (33.4%) exact matches, in which:
96 unique CDR3
7 unique J



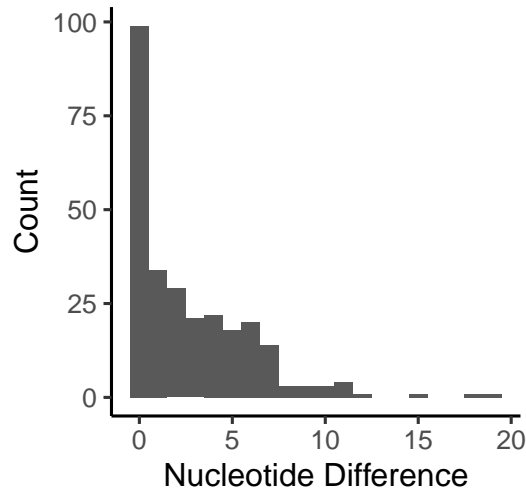
IGHV3-9*01

719 sequences assigned
261 (36.3%) exact matches, in which:
248 unique CDR3
7 unique J



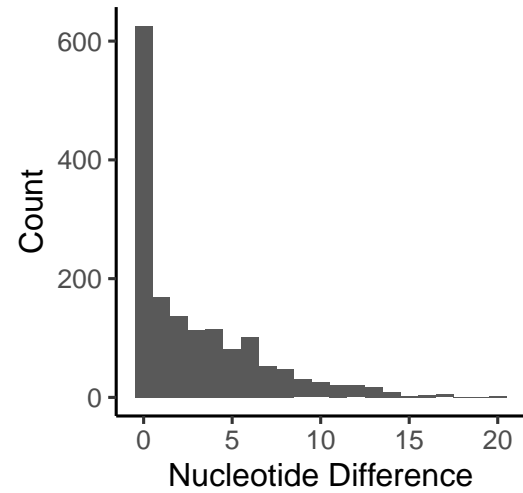
IGHV3-15*01

275 sequences assigned
99 (36%) exact matches, in which:
96 unique CDR3
7 unique J



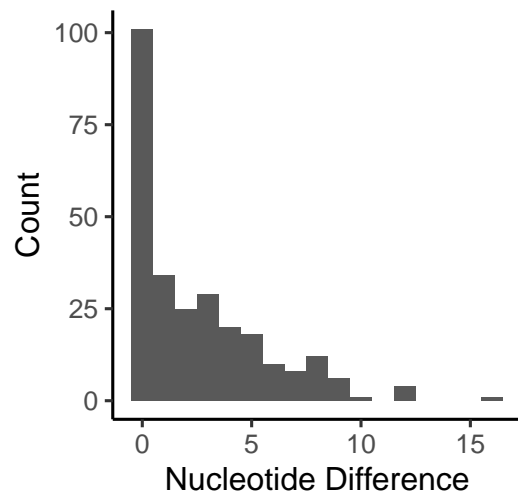
IGHV3-23*01

1591 sequences assigned
626 (39.3%) exact matches, in which:
613 unique CDR3
7 unique J



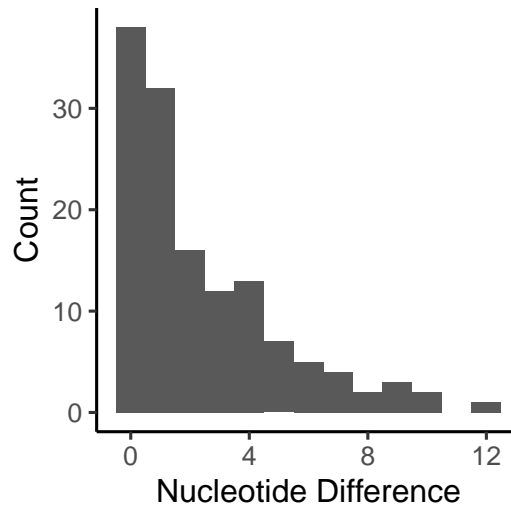
IGHV3-11*01

269 sequences assigned
101 (37.5%) exact matches, in which:
99 unique CDR3
7 unique J



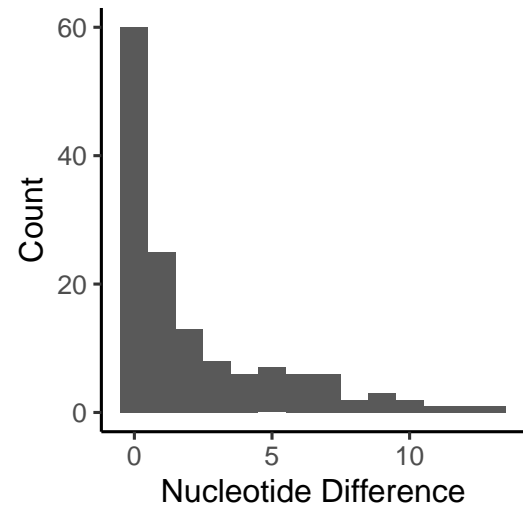
IGHV3-20*01

135 sequences assigned
38 (28.1%) exact matches, in which:
33 unique CDR3
6 unique J



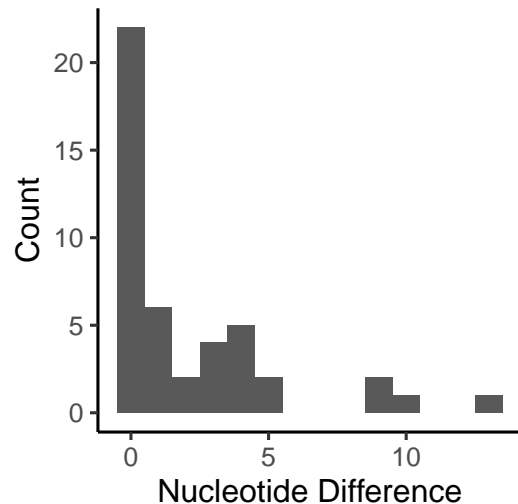
IGHV3-30-3*01

141 sequences assigned
60 (42.6%) exact matches, in which:
59 unique CDR3
5 unique J



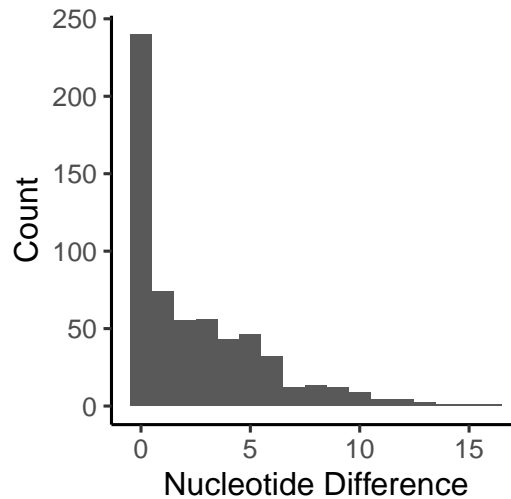
IGHV3-13*01

45 sequences assigned
22 (48.9%) exact matches, in which:
22 unique CDR3
5 unique J



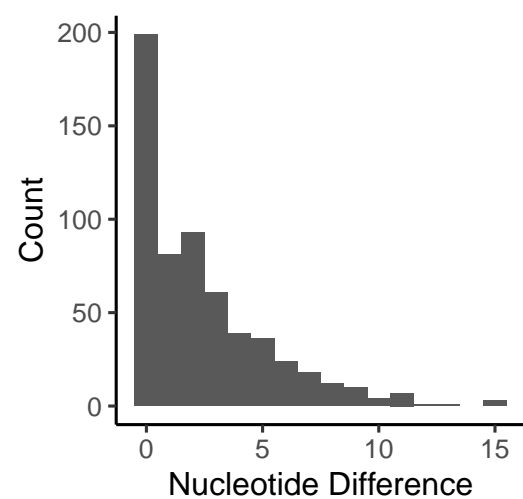
IGHV3-21*01

606 sequences assigned
240 (39.6%) exact matches, in which:
236 unique CDR3
7 unique J



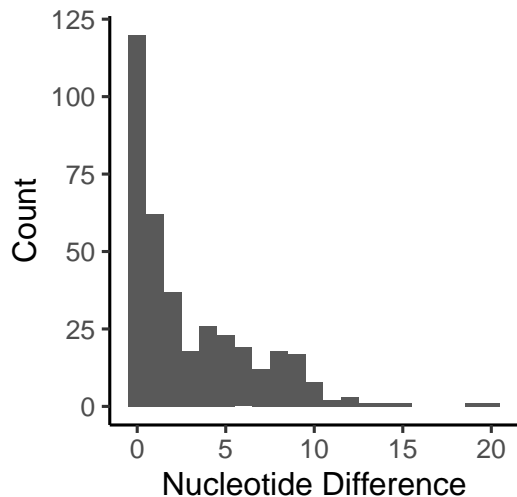
IGHV3-30*18

590 sequences assigned
199 (33.7%) exact matches, in which:
187 unique CDR3
7 unique J



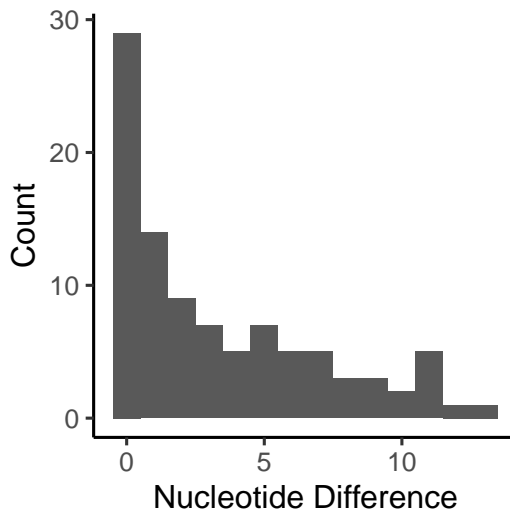
IGHV3-30*19_T189C

371 sequences assigned
120 (32.3%) exact matches, in which:
117 unique CDR3
5 unique J



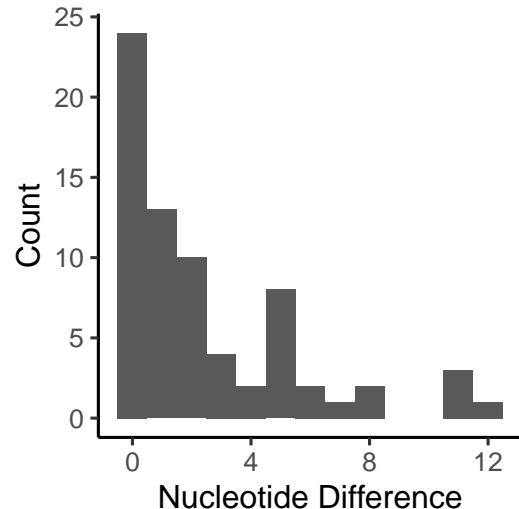
IGHV3-48*01

97 sequences assigned
29 (29.9%) exact matches, in which:
29 unique CDR3
6 unique J



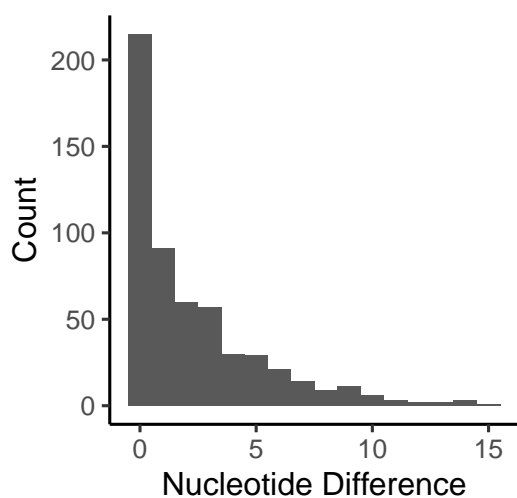
IGHV3-49*04

71 sequences assigned
24 (33.8%) exact matches, in which:
24 unique CDR3
4 unique J



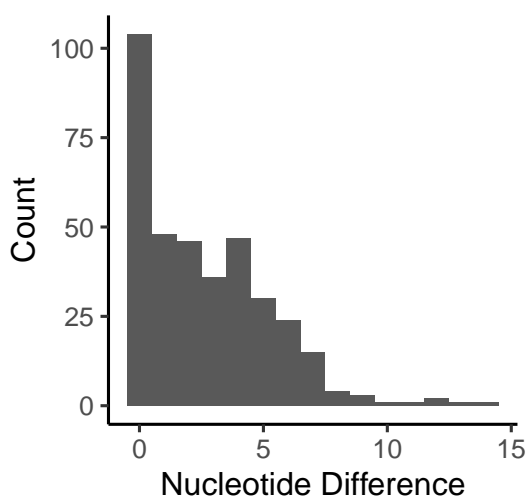
IGHV3-33*01

555 sequences assigned
215 (38.7%) exact matches, in which:
202 unique CDR3
7 unique J



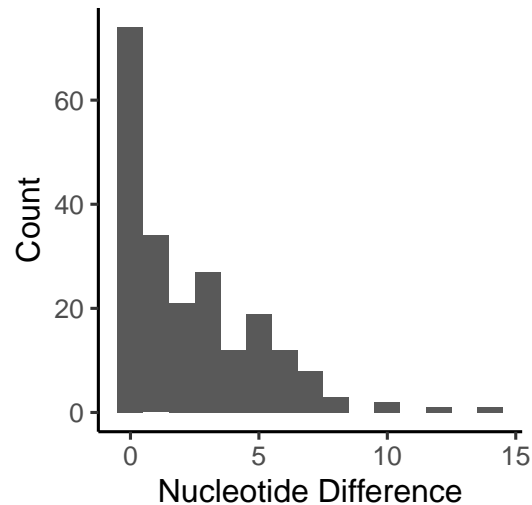
IGHV3-48*03

364 sequences assigned
104 (28.6%) exact matches, in which:
99 unique CDR3
5 unique J



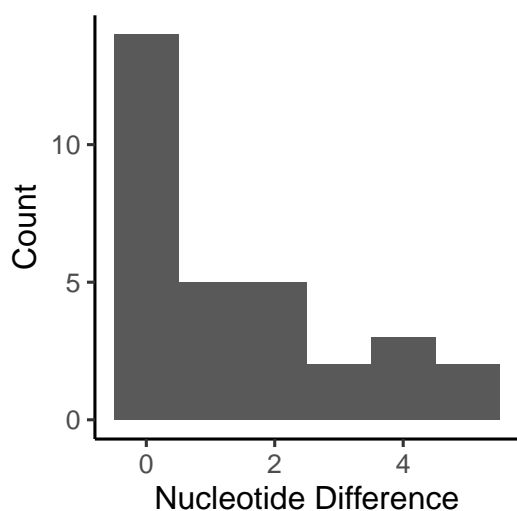
IGHV3-53*01

214 sequences assigned
74 (34.6%) exact matches, in which:
71 unique CDR3
7 unique J



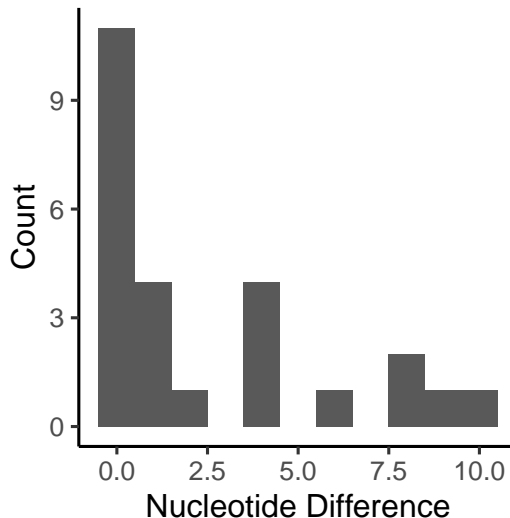
IGHV3-43*01

31 sequences assigned
14 (45.2%) exact matches, in which:
13 unique CDR3
4 unique J



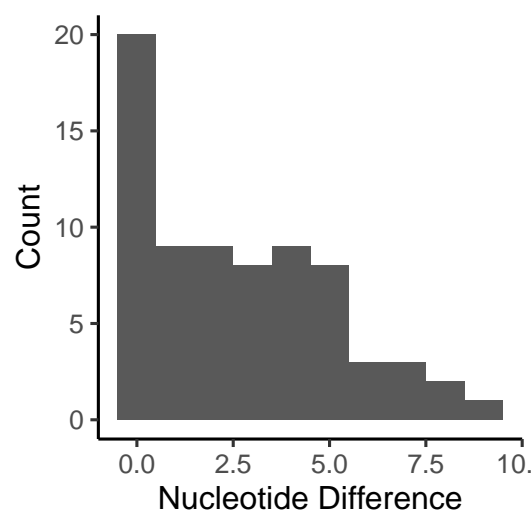
IGHV3-49*03

25 sequences assigned
11 (44%) exact matches, in which:
11 unique CDR3
2 unique J



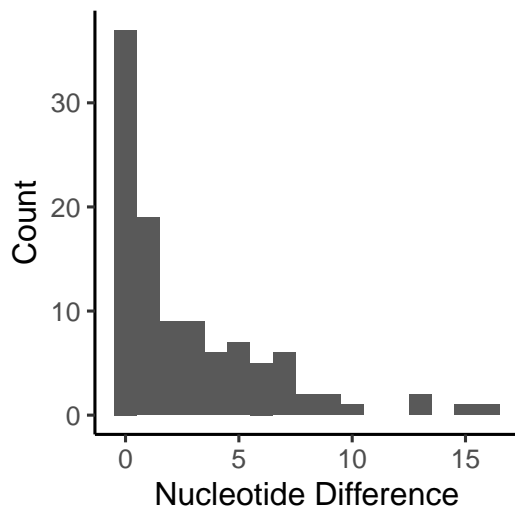
IGHV3-64*01

72 sequences assigned
20 (27.8%) exact matches, in which:
20 unique CDR3
7 unique J



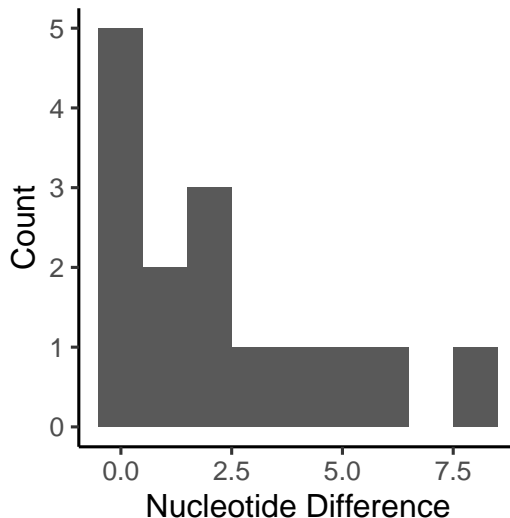
IGHV3-66*01

107 sequences assigned
37 (34.6%) exact matches, in which:
35 unique CDR3
5 unique J



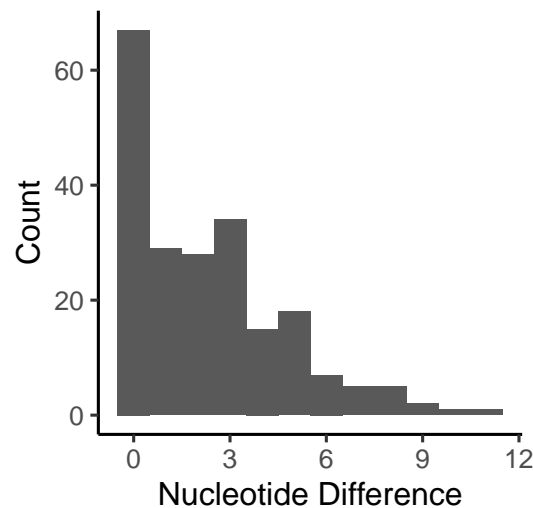
IGHV3-72*01

16 sequences assigned
5 (31.2%) exact matches, in which:
4 unique CDR3
2 unique J



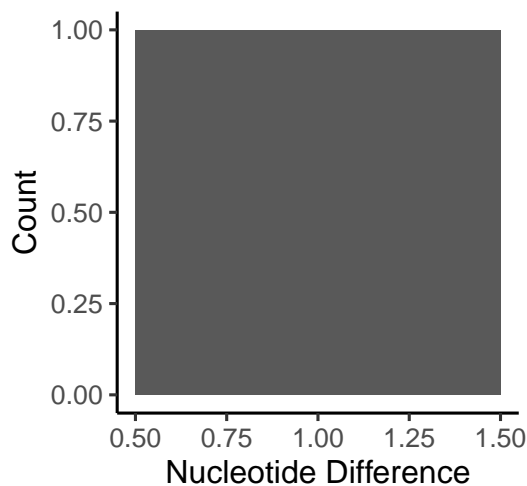
IGHV4-4*02

213 sequences assigned
67 (31.5%) exact matches, in which:
67 unique CDR3
5 unique J



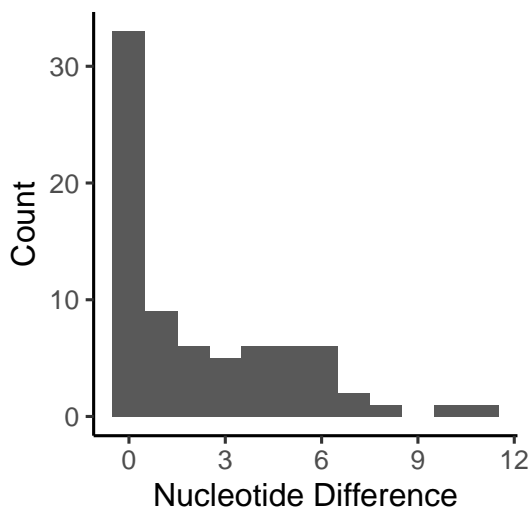
IGHV3-71*02

1 sequences assigned
No exact matches.



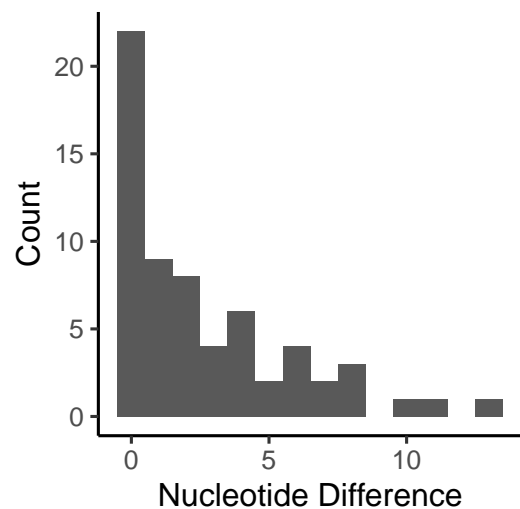
IGHV3-73*01

76 sequences assigned
33 (43.4%) exact matches, in which:
32 unique CDR3
5 unique J



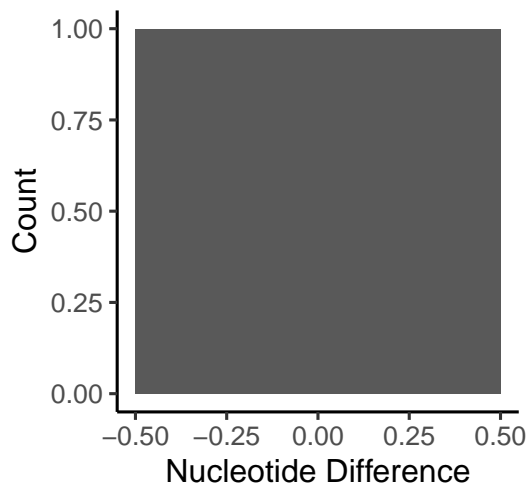
IGHV4-4*07

63 sequences assigned
22 (34.9%) exact matches, in which:
20 unique CDR3
4 unique J



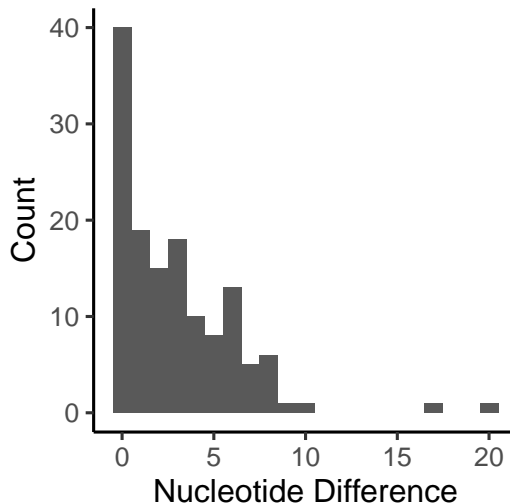
IGHV3-71*03

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



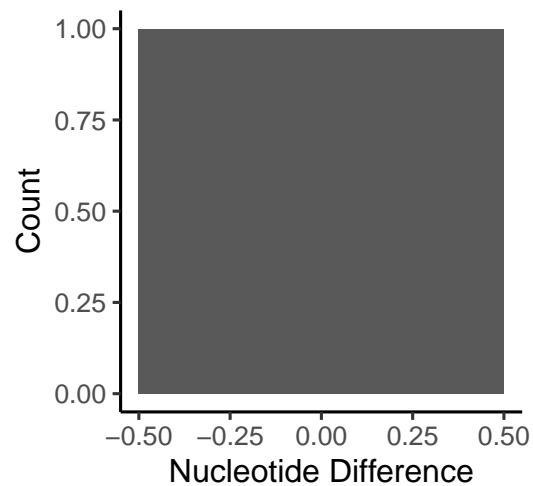
IGHV3-74*01

139 sequences assigned
40 (28.8%) exact matches, in which:
40 unique CDR3
6 unique J



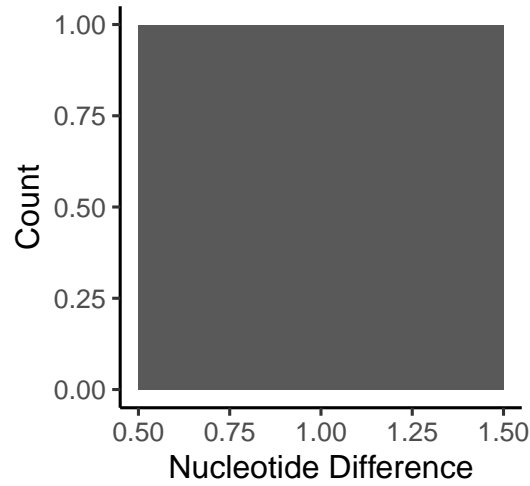
IGHV4-28*01

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



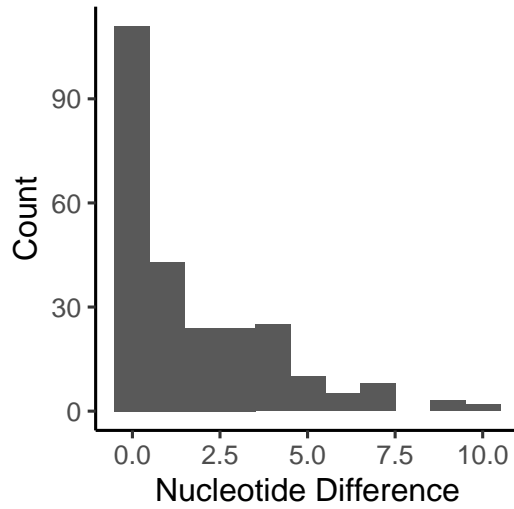
IGHV4-28*03

1 sequences assigned
No exact matches.



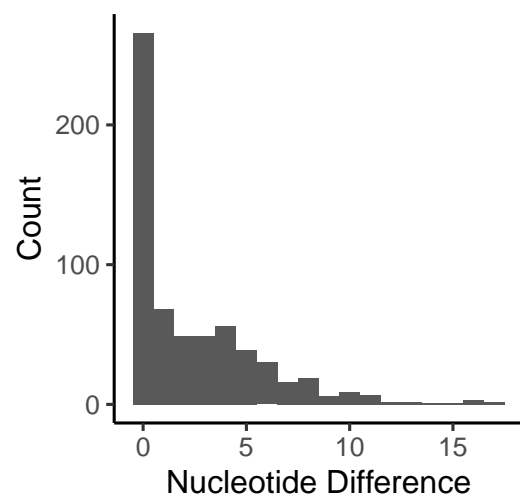
IGHV4-31*03

256 sequences assigned
111 (43.4%) exact matches, in which:
110 unique CDR3
7 unique J



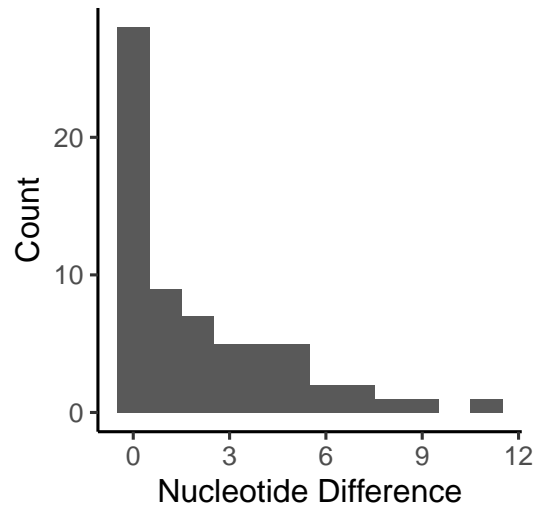
IGHV4-39*01

628 sequences assigned
266 (42.4%) exact matches, in which:
256 unique CDR3
7 unique J



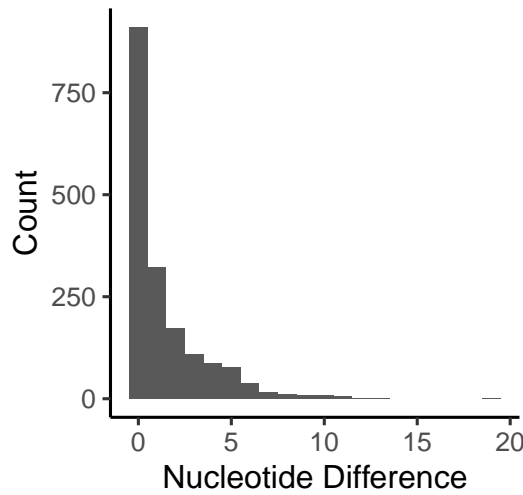
IGHV4-30-2*01

66 sequences assigned
28 (42.4%) exact matches, in which:
27 unique CDR3
5 unique J



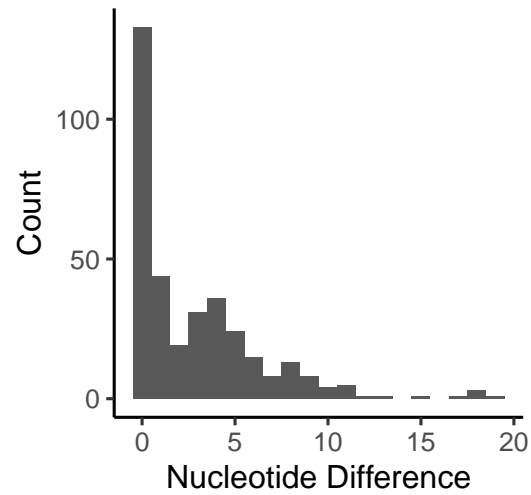
IGHV4-34*01

1779 sequences assigned
911 (51.2%) exact matches, in which:
843 unique CDR3
7 unique J



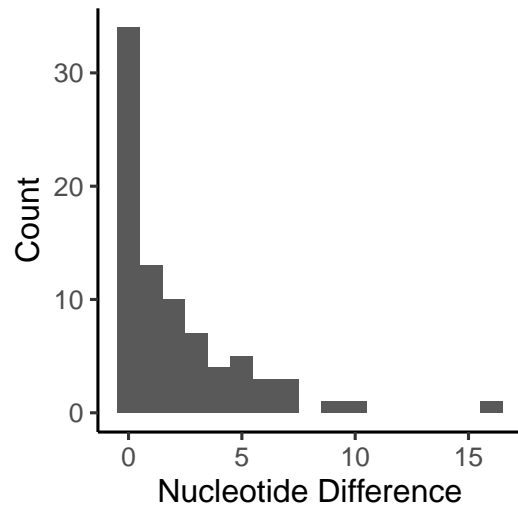
IGHV4-59*01

348 sequences assigned
133 (38.2%) exact matches, in which:
132 unique CDR3
7 unique J



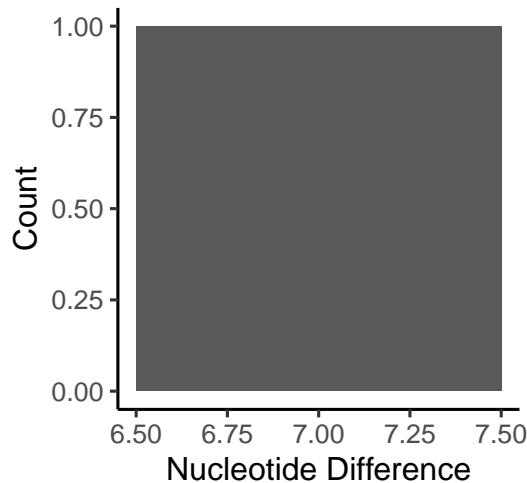
IGHV4-30-4*01_A70G_A107C

82 sequences assigned
34 (41.5%) exact matches, in which:
34 unique CDR3
5 unique J



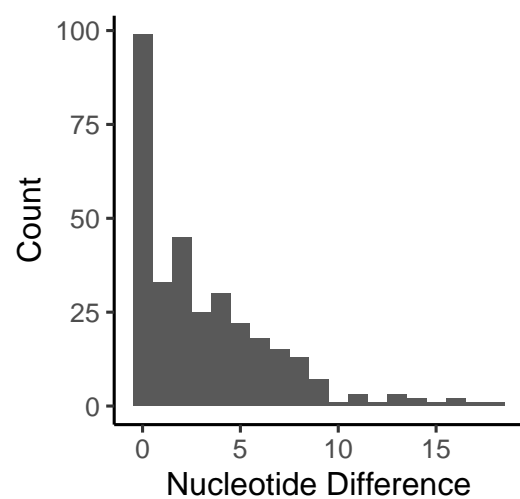
IGHV4-38-2*02

1 sequences assigned
No exact matches.



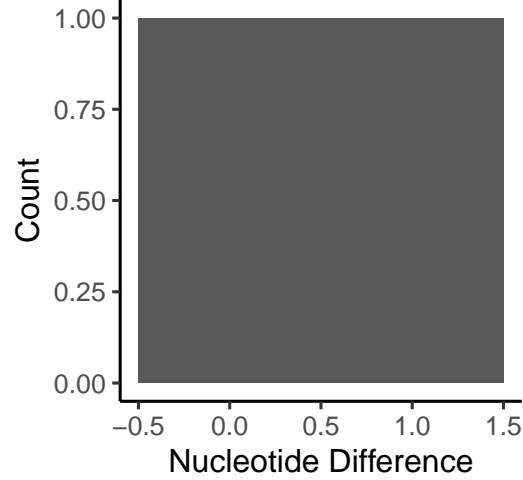
IGHV4-59*08

323 sequences assigned
99 (30.7%) exact matches, in which:
97 unique CDR3
6 unique J



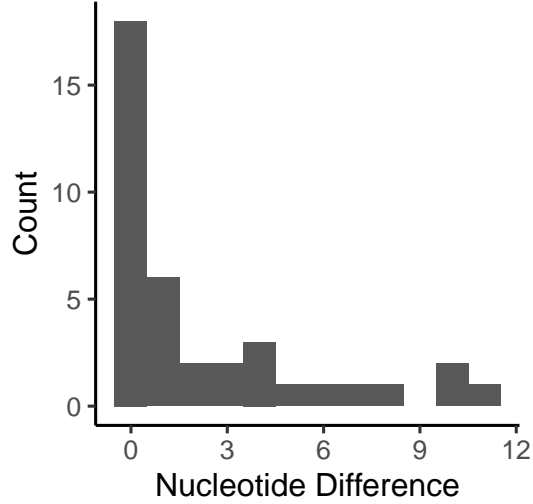
IGHV4-61*07

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



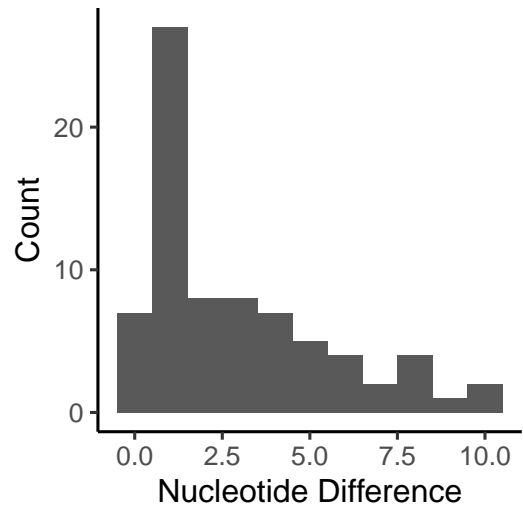
IGHV6-1*01

38 sequences assigned
18 (47.4%) exact matches, in which:
17 unique CDR3
6 unique J



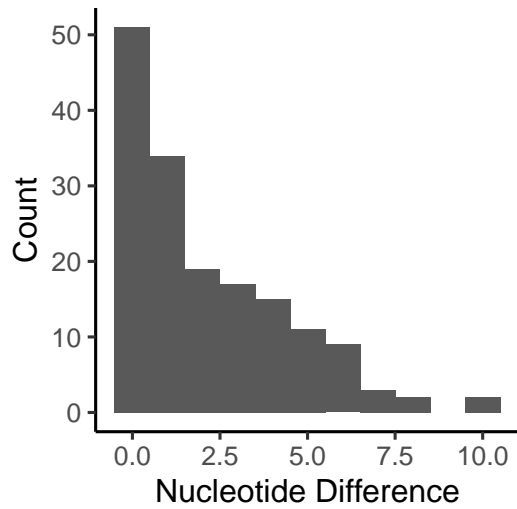
IGHV5-51*01

75 sequences assigned
7 (9.3%) exact matches, in which:
7 unique CDR3
4 unique J



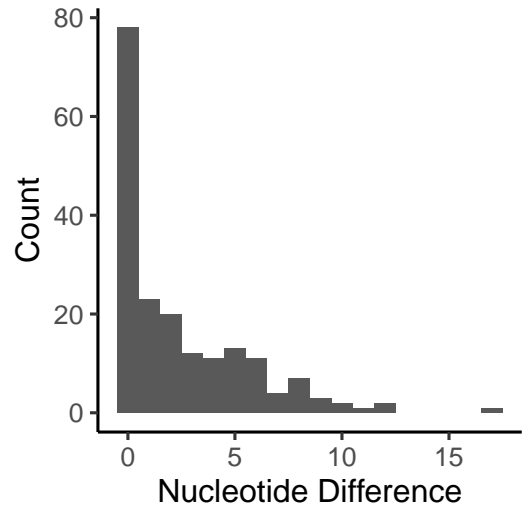
IGHV7-4-1*02

163 sequences assigned
51 (31.3%) exact matches, in which:
50 unique CDR3
6 unique J

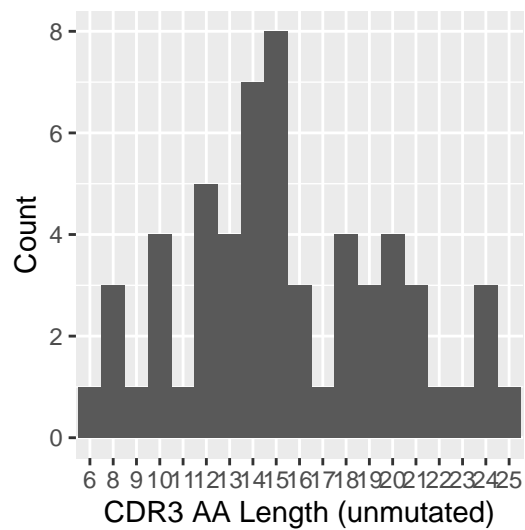


IGHV5-51*03

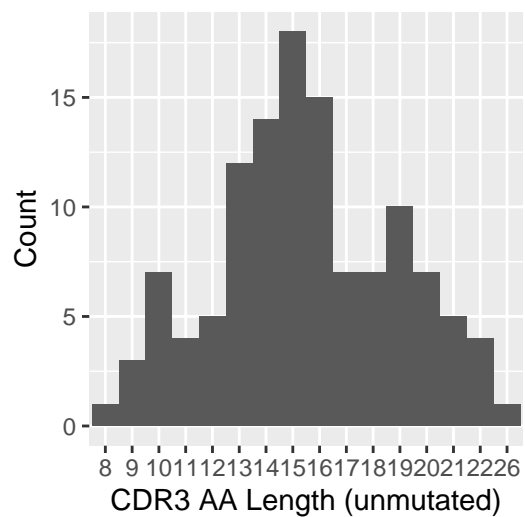
190 sequences assigned
78 (41.1%) exact matches, in which:
77 unique CDR3
6 unique J



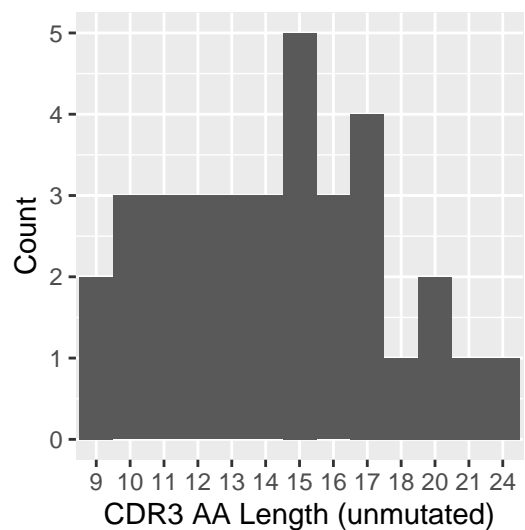
IGHV1-69*08_C191T



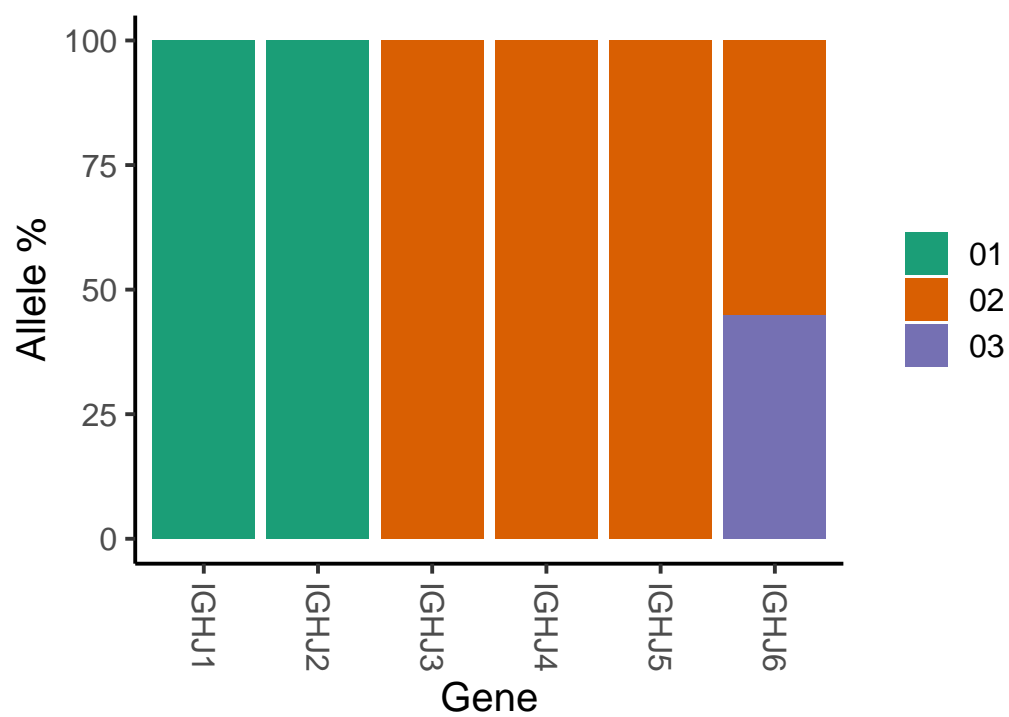
IGHV3-30*19_T189C



IGHV4-30-4*01_A70G_A107G



Allele Usage



Sequence Count byIGHJ6 allele usage

