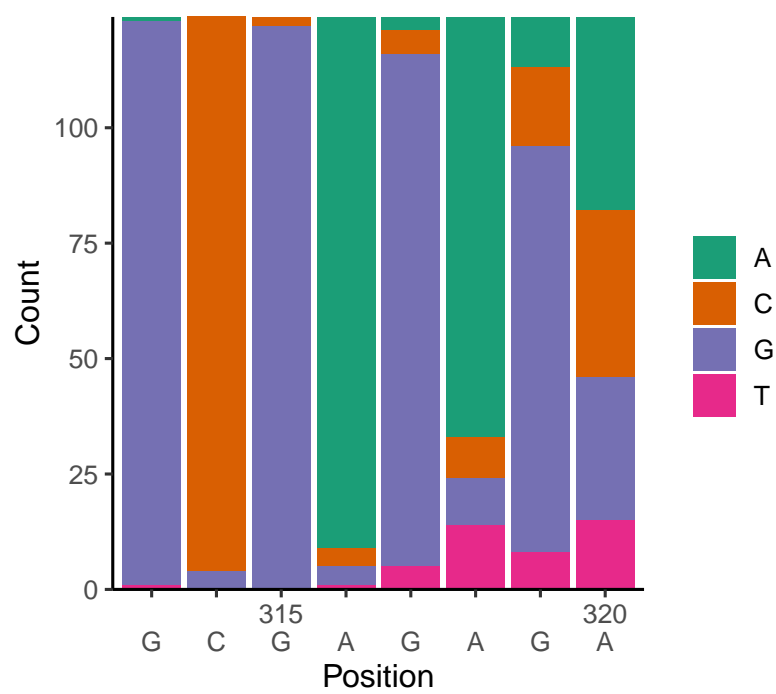
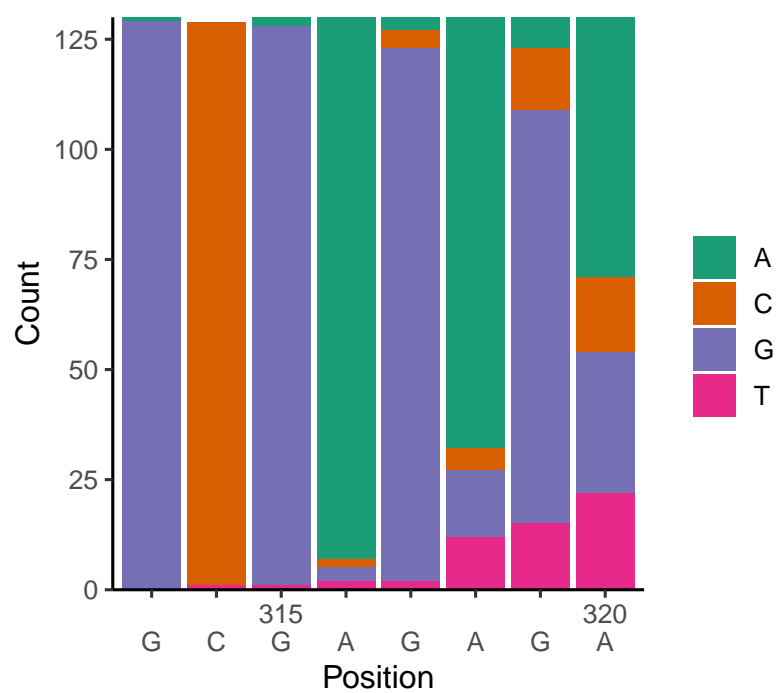


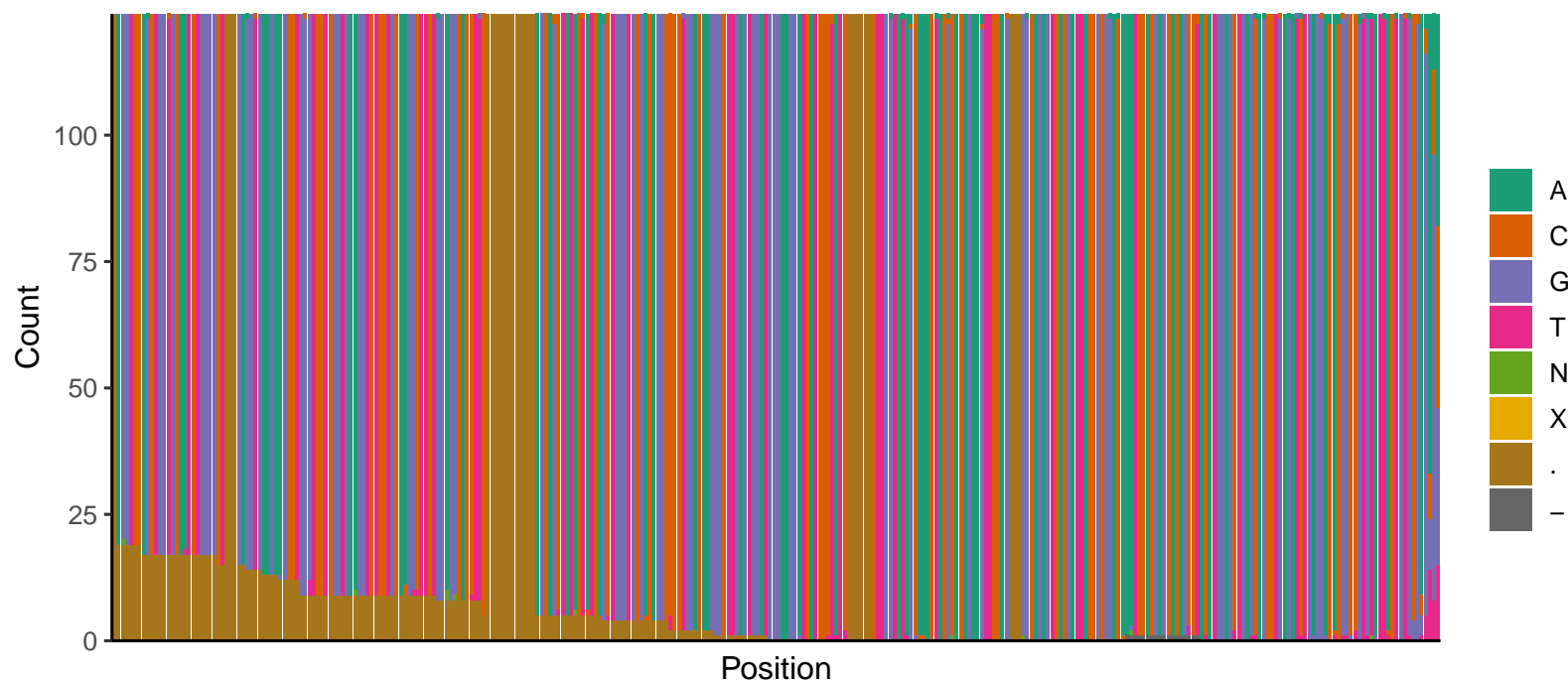
Gene IGHV1-69*08_C191T



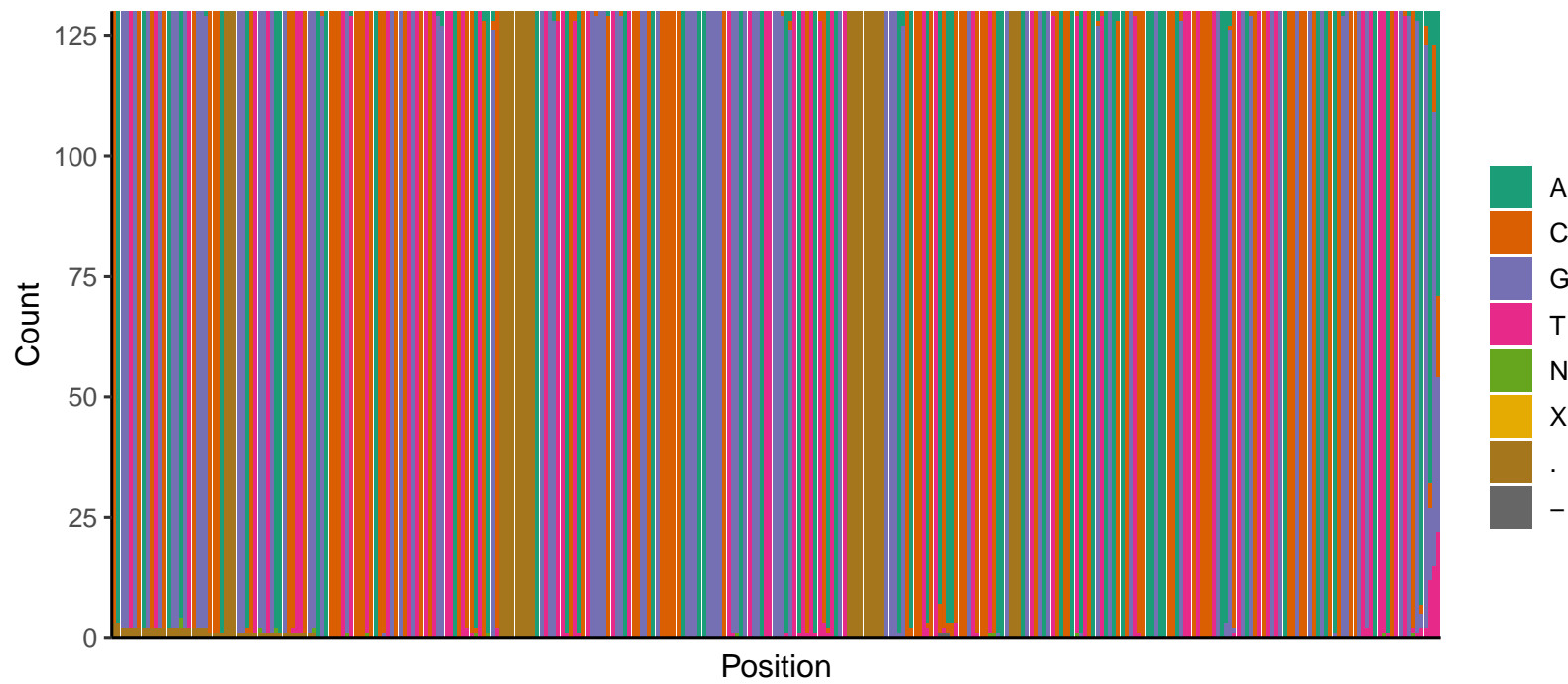
Gene IGHV4-38-2*02_A70G



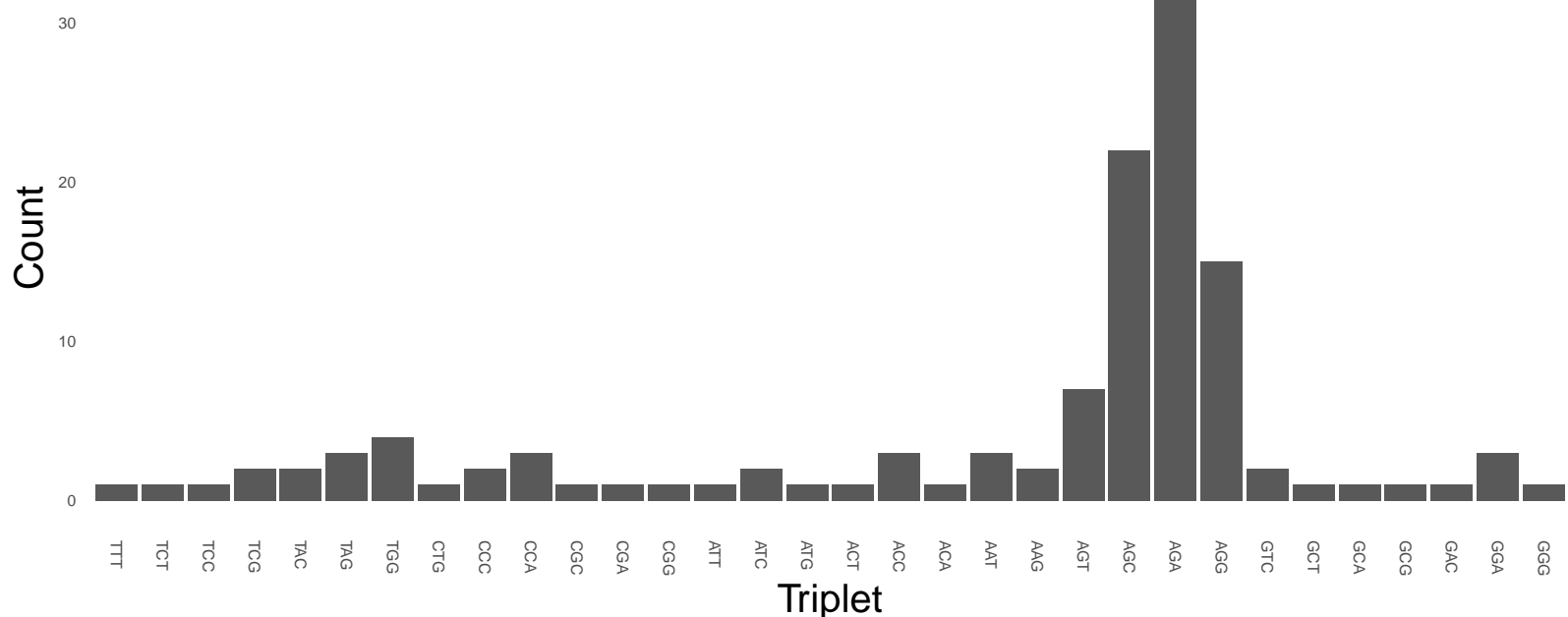
Gene IGHV1-69*08_C191T



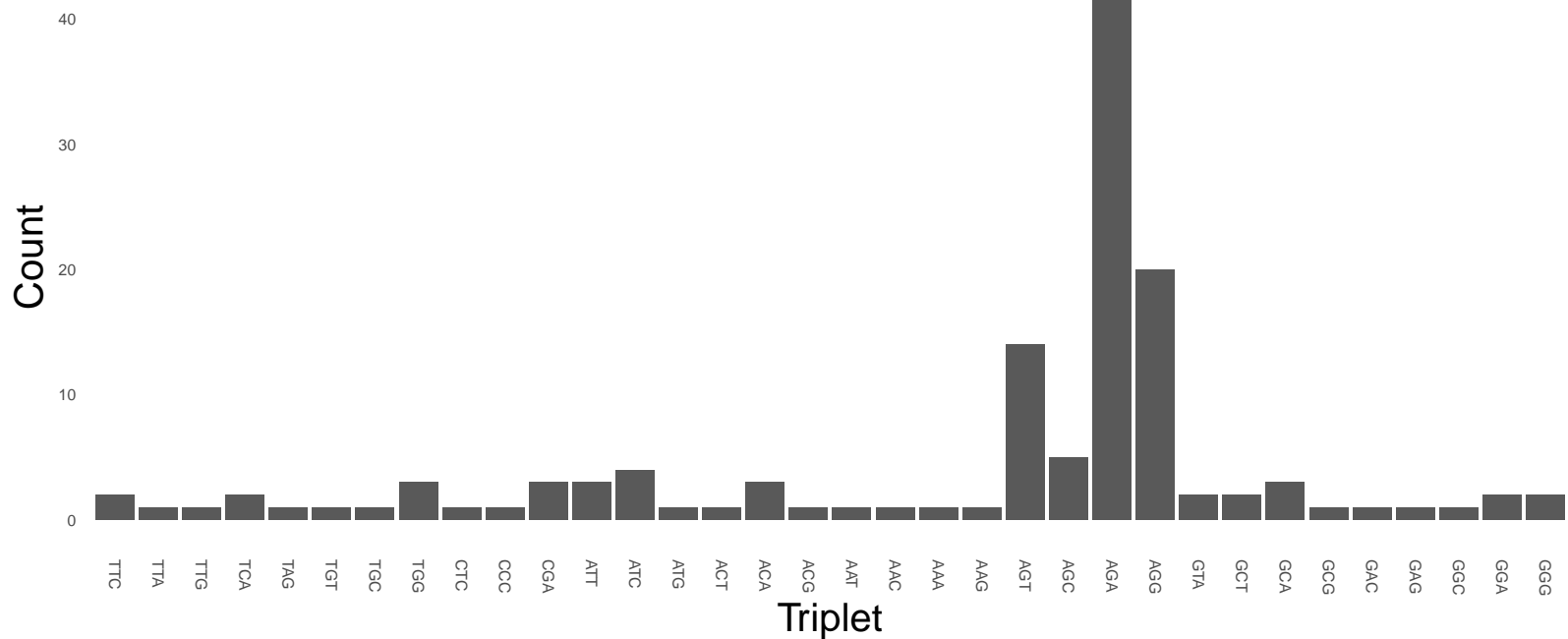
Gene IGHV4-38-2*02_A70G



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

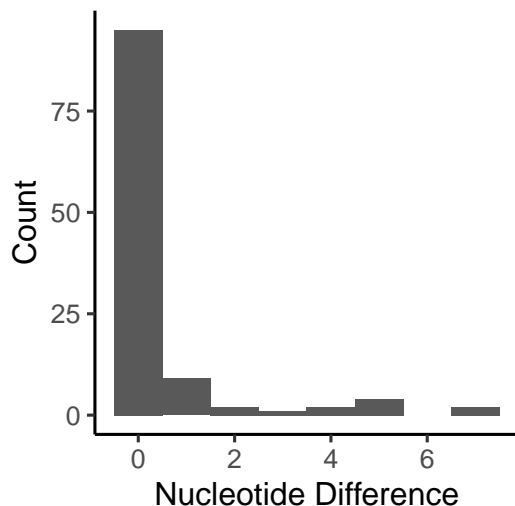


IGHV4–38–2*02_A70G– Final 3 nucleotides as a triplet



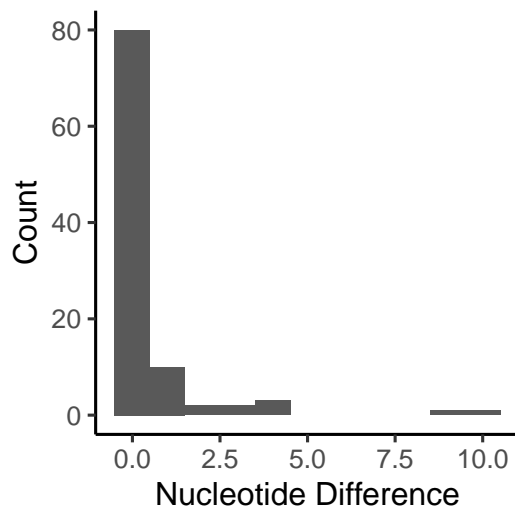
IGHV1-2*02

115 sequences assigned
95 (82.6%) exact matches, in which:
94 unique CDR3
5 unique J



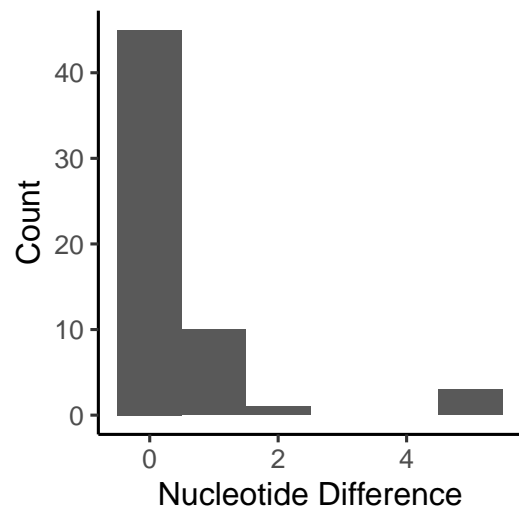
IGHV1-8*01

99 sequences assigned
80 (80.8%) exact matches, in which:
78 unique CDR3
5 unique J



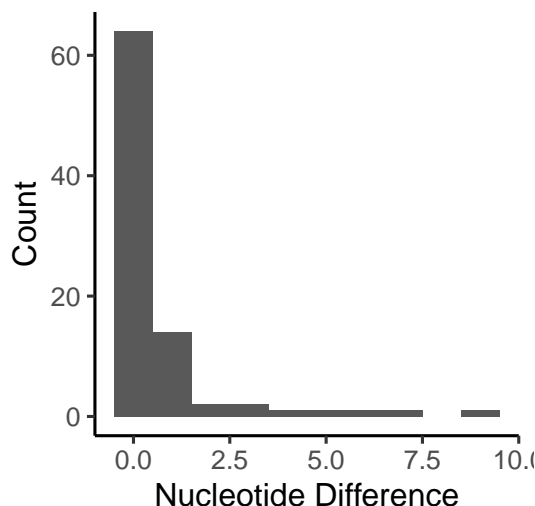
IGHV1-24*01

59 sequences assigned
45 (76.3%) exact matches, in which:
45 unique CDR3
6 unique J



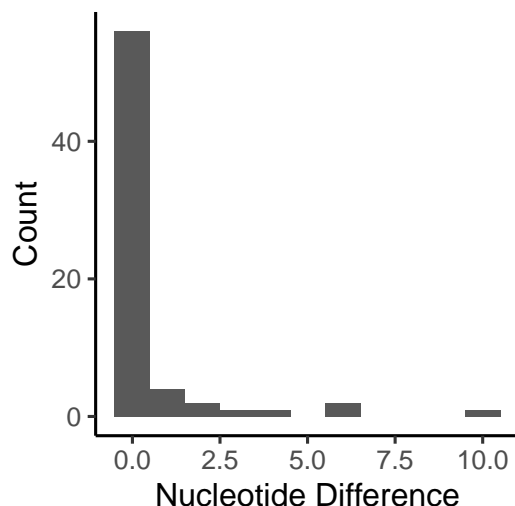
IGHV1-2*06

87 sequences assigned
64 (73.6%) exact matches, in which:
64 unique CDR3
5 unique J



IGHV1-18*01

67 sequences assigned
56 (83.6%) exact matches, in which:
56 unique CDR3
4 unique J



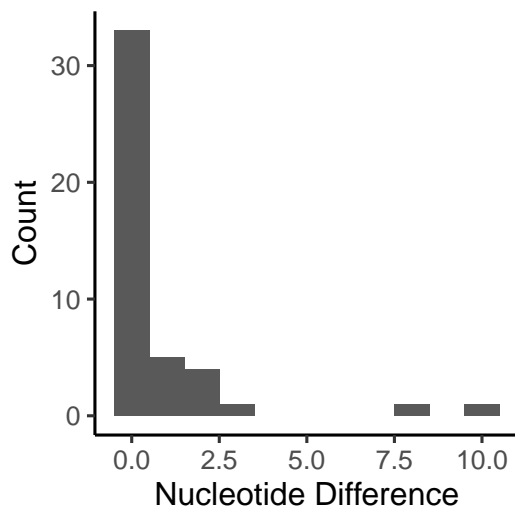
IGHV1-45*02

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



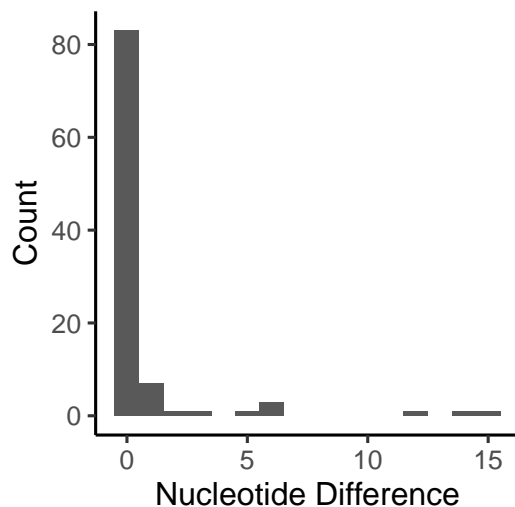
IGHV1-3*01

45 sequences assigned
33 (73.3%) exact matches, in which:
33 unique CDR3
4 unique J



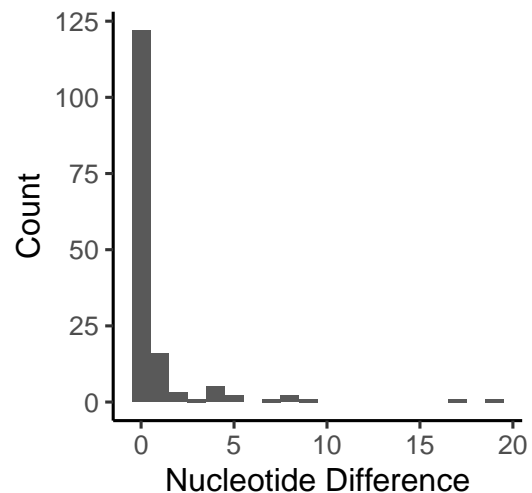
IGHV1-18*04

99 sequences assigned
83 (83.8%) exact matches, in which:
83 unique CDR3
6 unique J



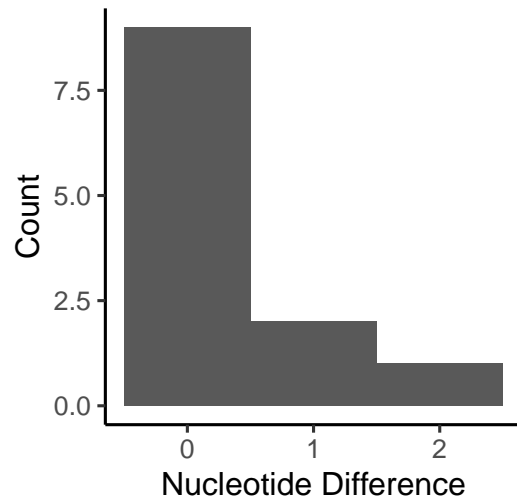
IGHV1-46*01

156 sequences assigned
122 (78.2%) exact matches, in which:
122 unique CDR3
6 unique J



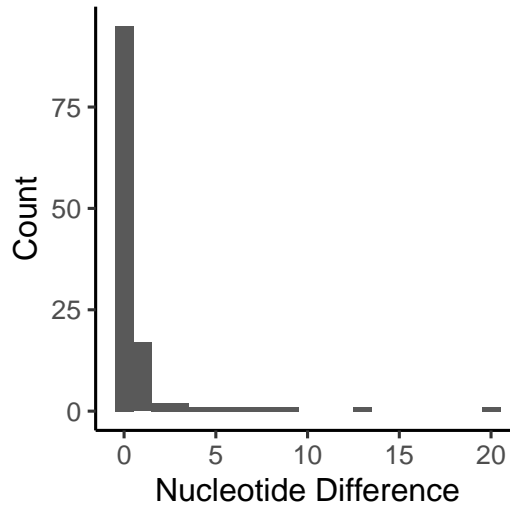
IGHV1-58*01

12 sequences assigned
9 (75%) exact matches, in which:
9 unique CDR3
3 unique J



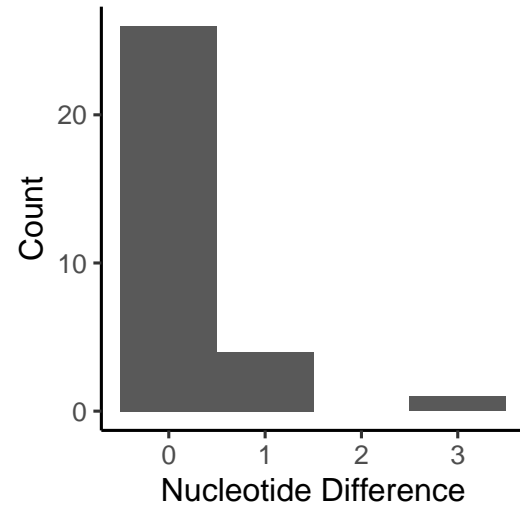
IGHV1-69*08_C191T

124 sequences assigned
95 (76.6%) exact matches, in which:
94 unique CDR3
6 unique J



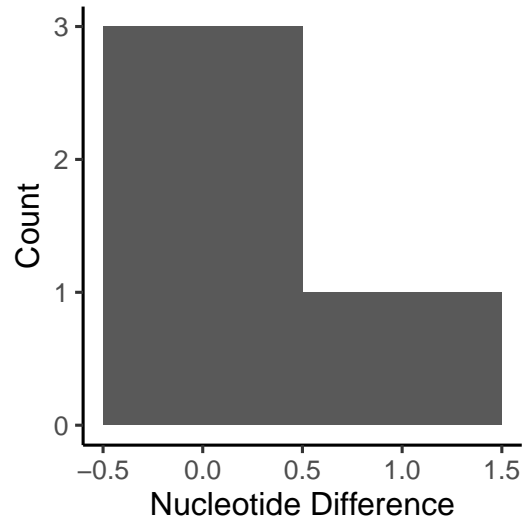
IGHV2-26*01

31 sequences assigned
26 (83.9%) exact matches, in which:
26 unique CDR3
5 unique J



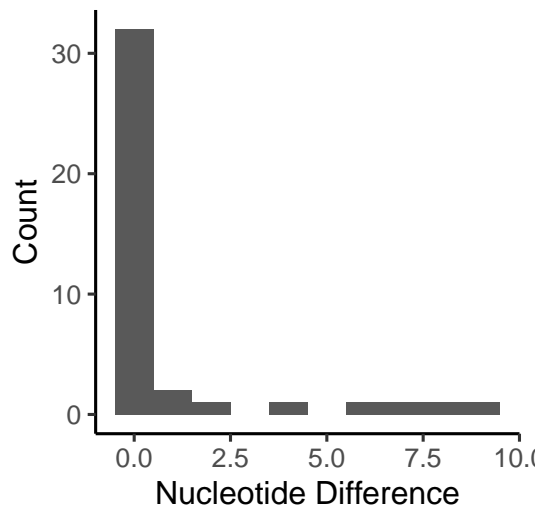
IGHV1-58*02

4 sequences assigned
3 (75%) exact matches, in which:
3 unique CDR3
2 unique J



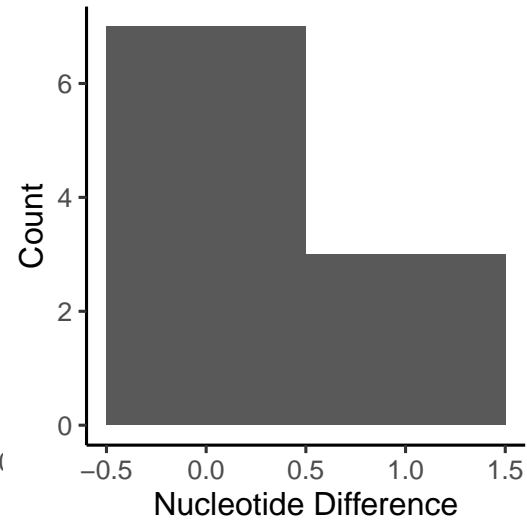
IGHV2-5*01

40 sequences assigned
32 (80%) exact matches, in which:
32 unique CDR3
4 unique J



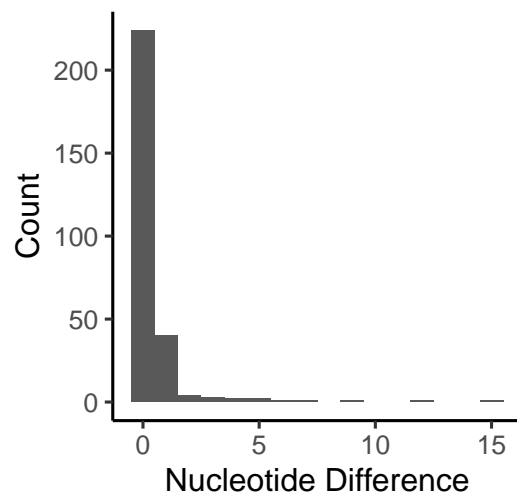
IGHV2-70*01

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



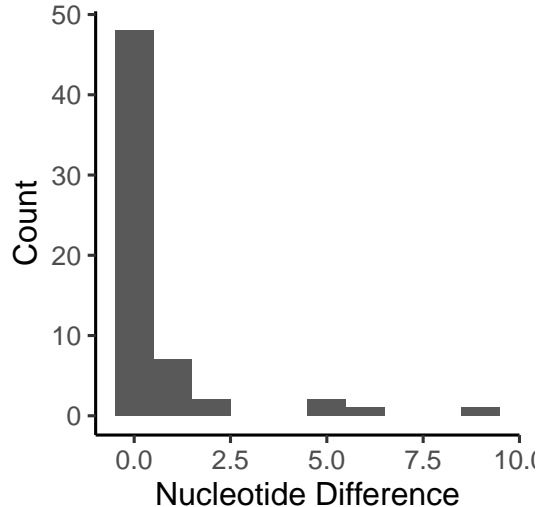
IGHV1-69*01

280 sequences assigned
224 (80%) exact matches, in which:
221 unique CDR3
6 unique J



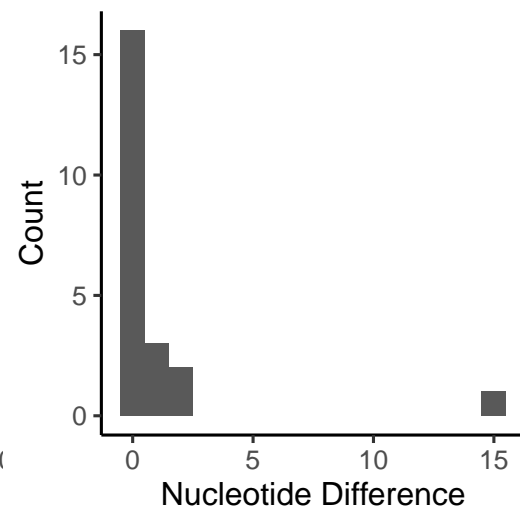
IGHV2-5*02

61 sequences assigned
48 (78.7%) exact matches, in which:
48 unique CDR3
6 unique J



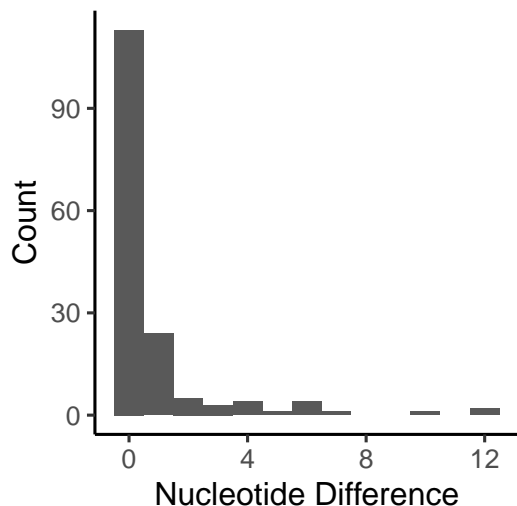
IGHV2-70*15

22 sequences assigned
16 (72.7%) exact matches, in which:
16 unique CDR3
4 unique J



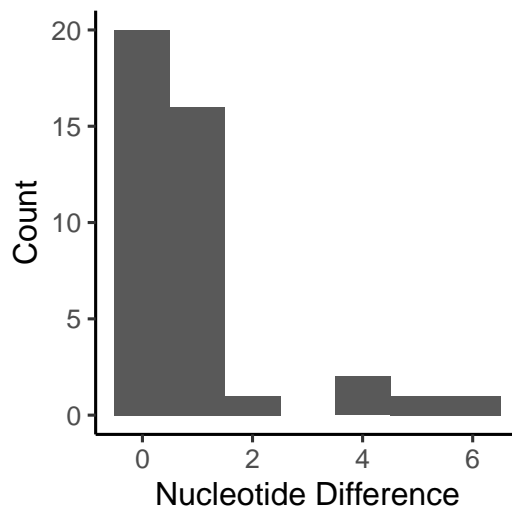
IGHV3-7*01

160 sequences assigned
113 (70.6%) exact matches, in which:
112 unique CDR3
6 unique J



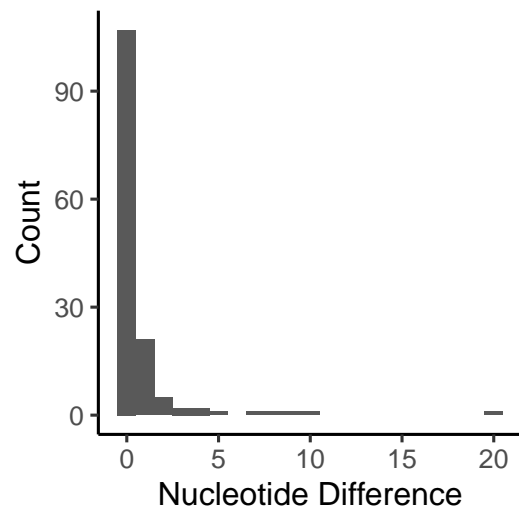
IGHV3-11*06

41 sequences assigned
20 (48.8%) exact matches, in which:
19 unique CDR3
4 unique J



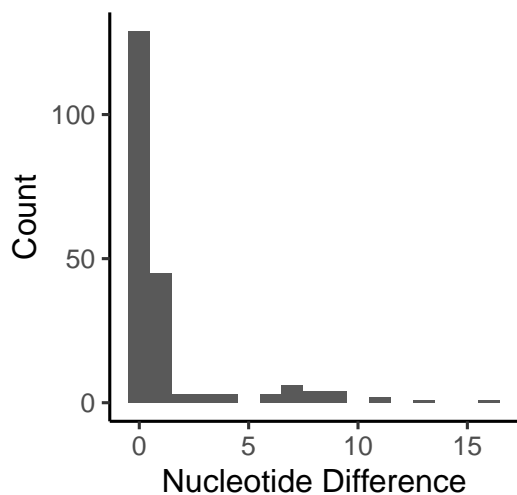
IGHV3-15*01

143 sequences assigned
107 (74.8%) exact matches, in which:
105 unique CDR3
6 unique J



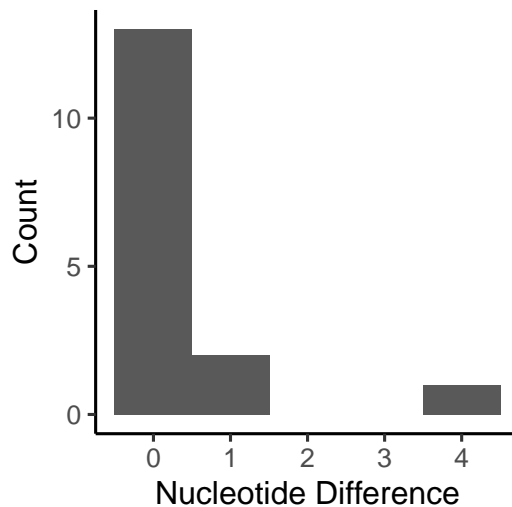
IGHV3-9*01

204 sequences assigned
129 (63.2%) exact matches, in which:
127 unique CDR3
6 unique J



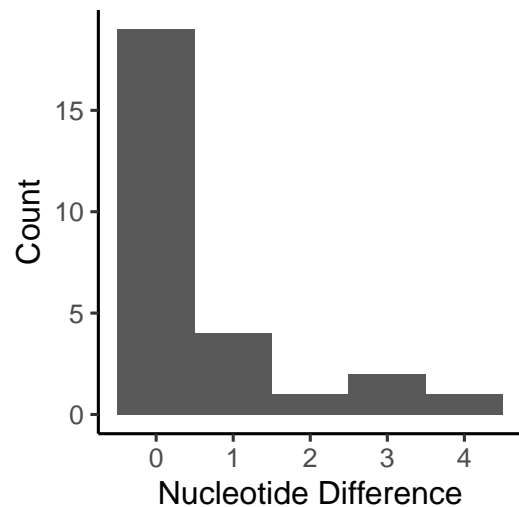
IGHV3-13*01

16 sequences assigned
13 (81.2%) exact matches, in which:
13 unique CDR3
4 unique J



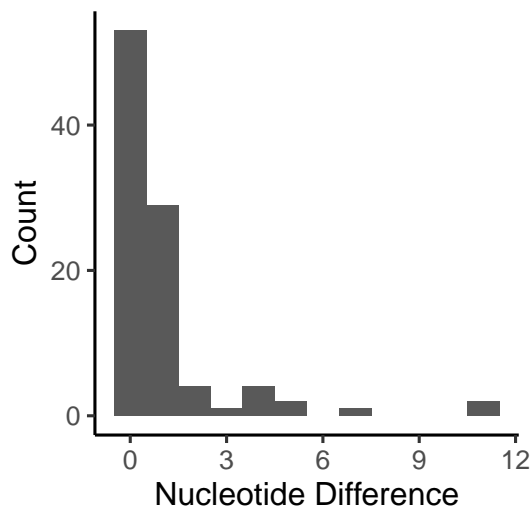
IGHV3-20*01

27 sequences assigned
19 (70.4%) exact matches, in which:
18 unique CDR3
5 unique J



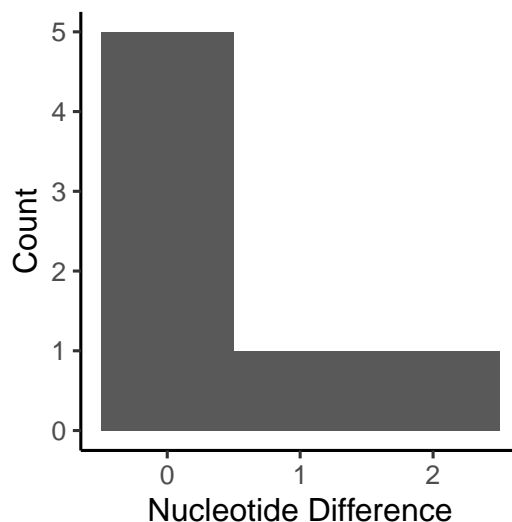
IGHV3-11*01

96 sequences assigned
53 (55.2%) exact matches, in which:
52 unique CDR3
6 unique J



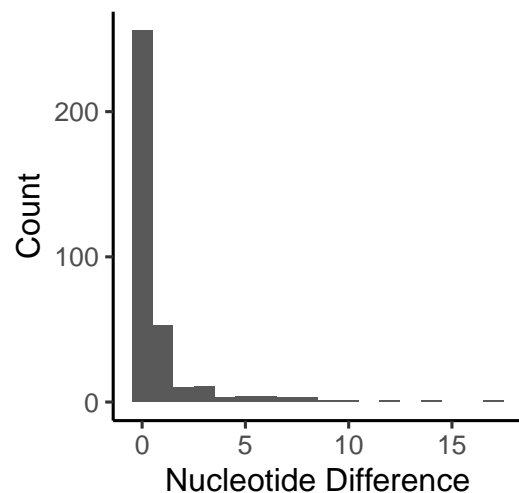
IGHV3-13*05

7 sequences assigned
5 (71.4%) exact matches, in which:
5 unique CDR3
3 unique J



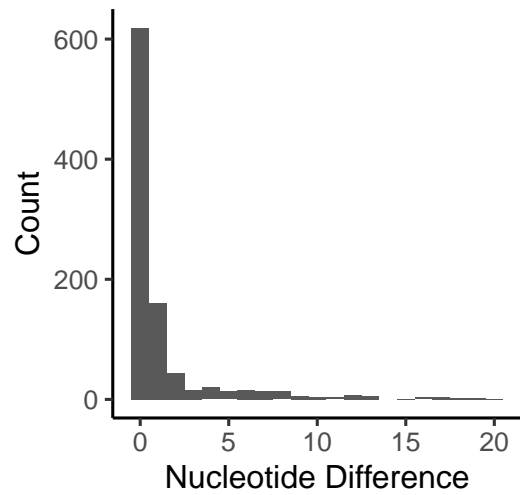
IGHV3-21*01

352 sequences assigned
256 (72.7%) exact matches, in which:
256 unique CDR3
6 unique J



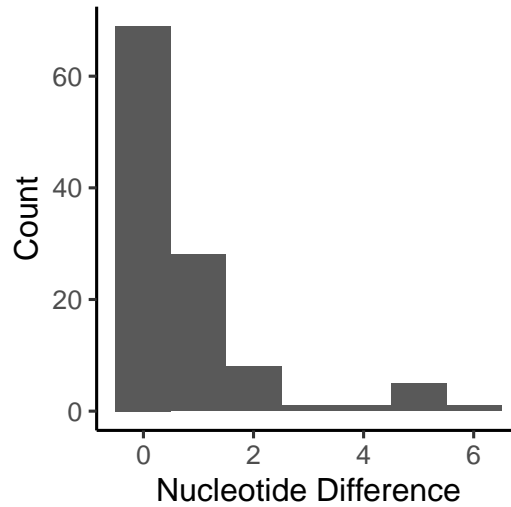
IGHV3-23*01

958 sequences assigned
619 (64.6%) exact matches, in which:
611 unique CDR3
6 unique J



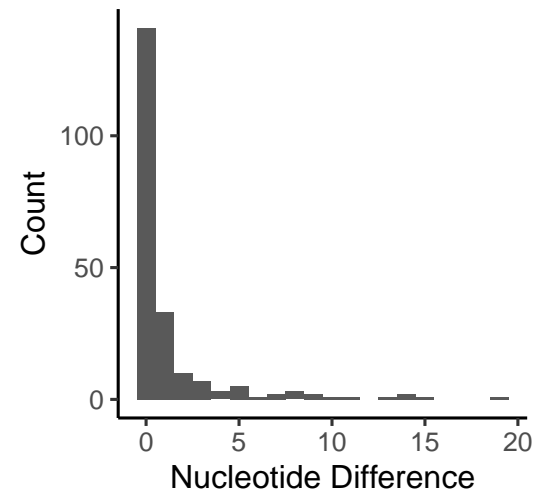
IGHV3-33*01

113 sequences assigned
69 (61.1%) exact matches, in which:
68 unique CDR3
5 unique J



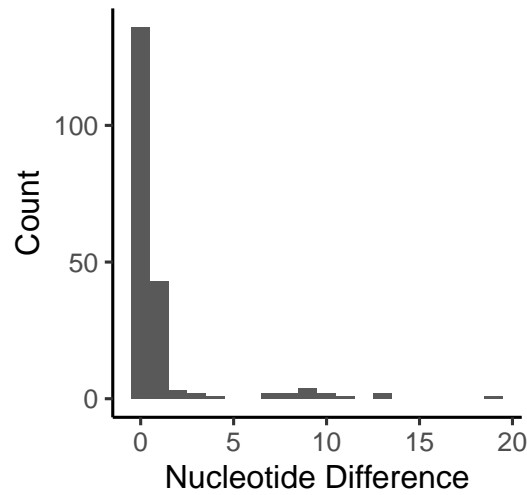
IGHV3-48*03

215 sequences assigned
141 (65.6%) exact matches, in which:
137 unique CDR3
5 unique J



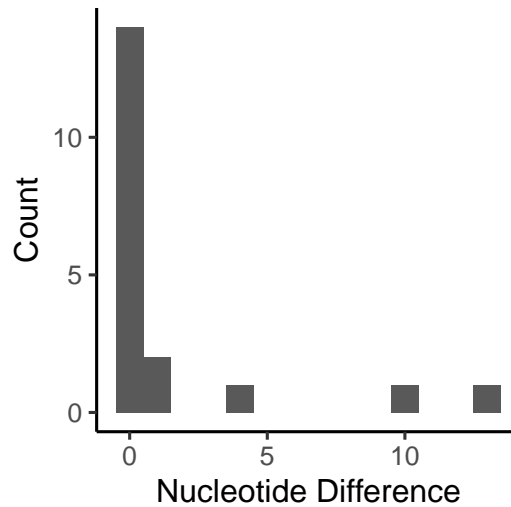
IGHV3-30-3*01

199 sequences assigned
136 (68.3%) exact matches, in which:
133 unique CDR3
6 unique J



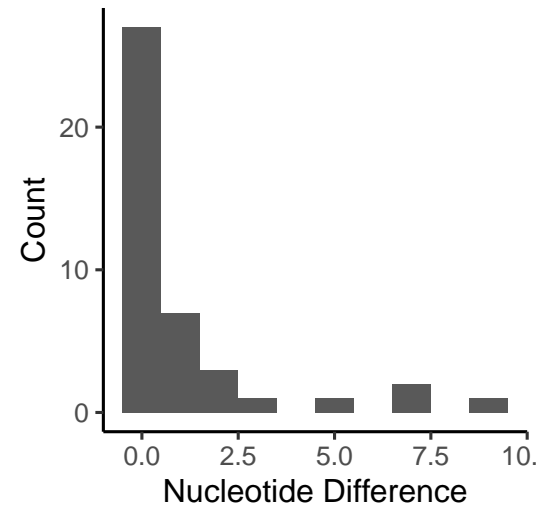
IGHV3-43*01

19 sequences assigned
14 (73.7%) exact matches, in which:
14 unique CDR3
3 unique J



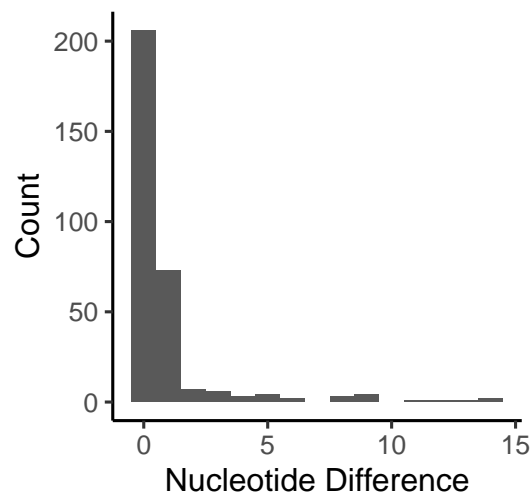
IGHV3-49*04

42 sequences assigned
27 (64.3%) exact matches, in which:
27 unique CDR3
4 unique J



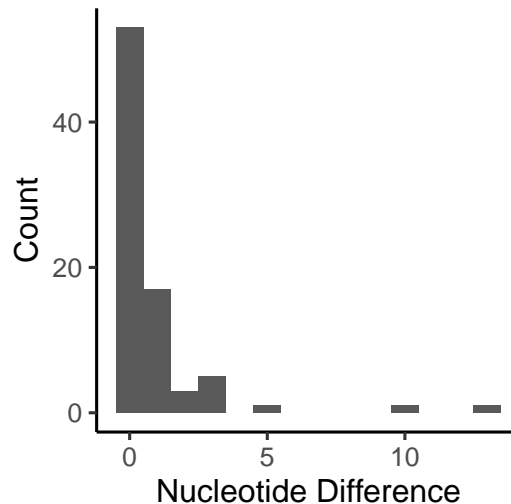
IGHV3-30*18

313 sequences assigned
206 (65.8%) exact matches, in which:
206 unique CDR3
6 unique J



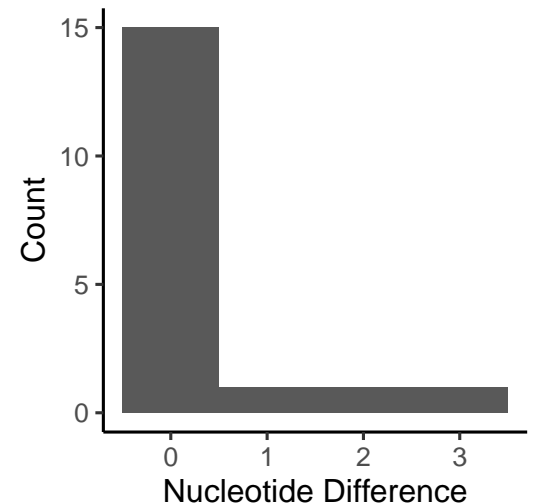
IGHV3-48*02

81 sequences assigned
53 (65.4%) exact matches, in which:
53 unique CDR3
5 unique J



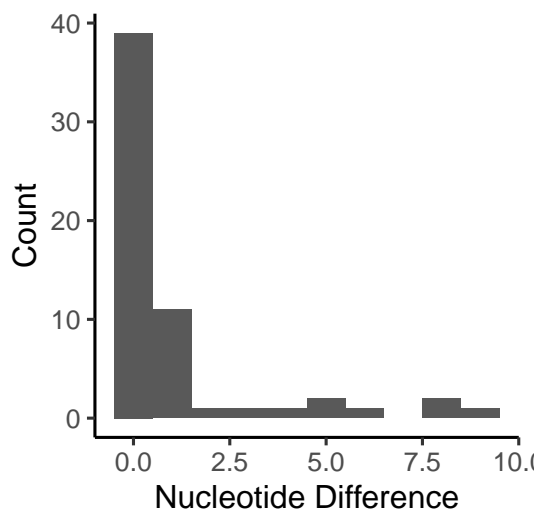
IGHV3-49*05

18 sequences assigned
15 (83.3%) exact matches, in which:
14 unique CDR3
4 unique J



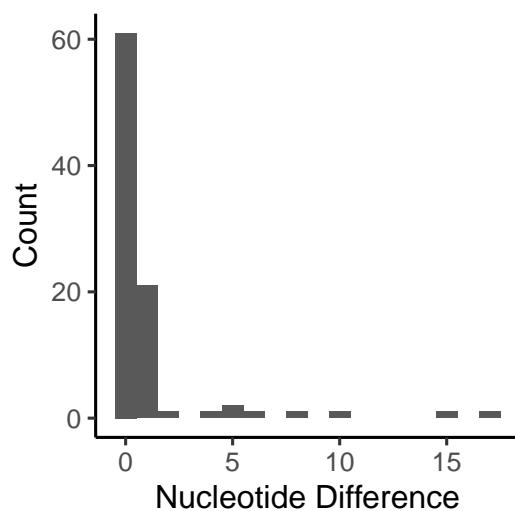
IGHV3-53*01

59 sequences assigned
39 (66.1%) exact matches, in which:
39 unique CDR3
6 unique J



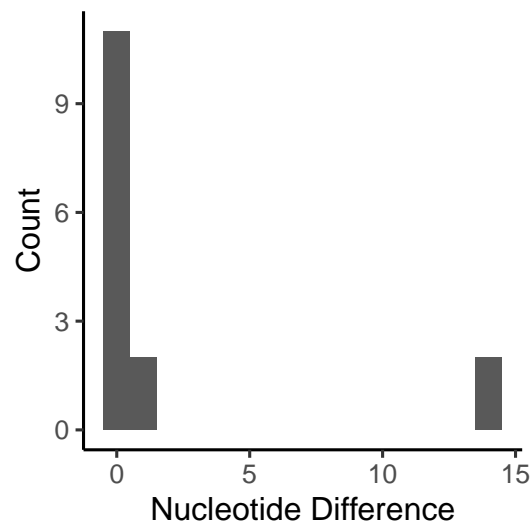
IGHV3-66*01

91 sequences assigned
61 (67%) exact matches, in which:
61 unique CDR3
5 unique J



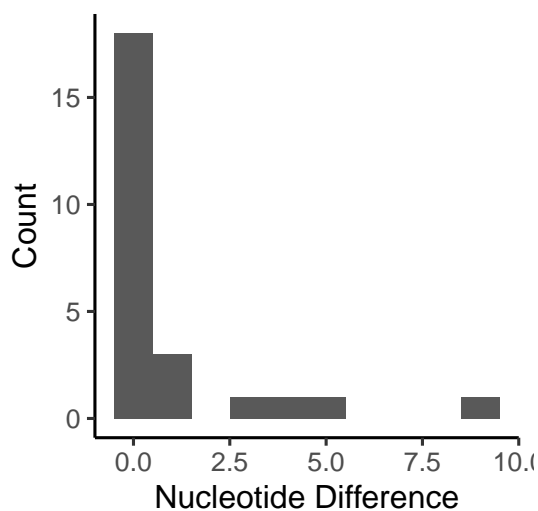
IGHV3-73*01

15 sequences assigned
11 (73.3%) exact matches, in which:
11 unique CDR3
3 unique J



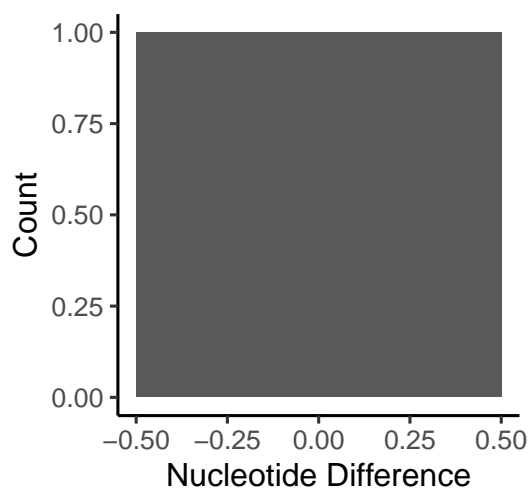
IGHV3-53*02

25 sequences assigned
18 (72%) exact matches, in which:
18 unique CDR3
3 unique J



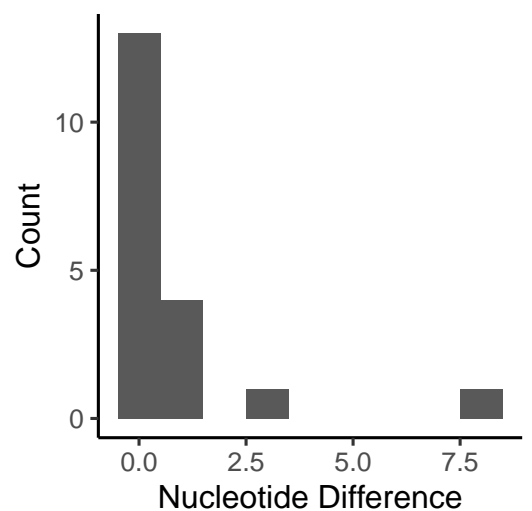
IGHV3-69-1*02

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



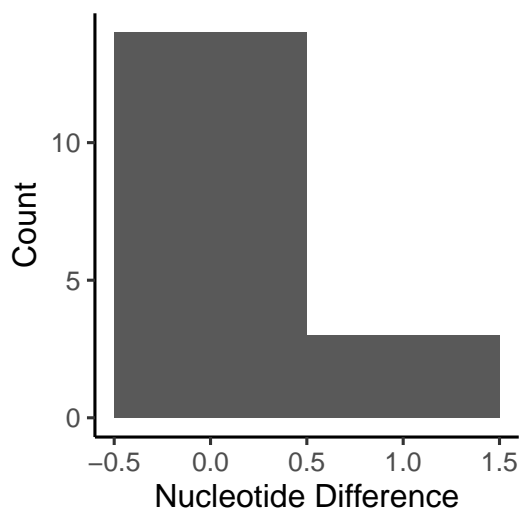
IGHV3-73*02

19 sequences assigned
13 (68.4%) exact matches, in which:
13 unique CDR3
4 unique J



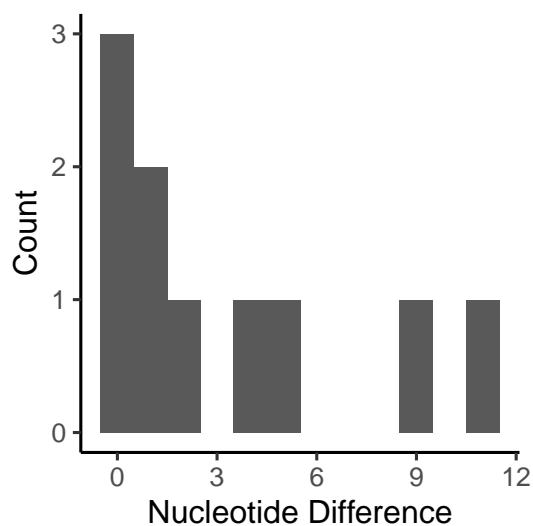
IGHV3-64*01

17 sequences assigned
14 (82.4%) exact matches, in which:
14 unique CDR3
3 unique J



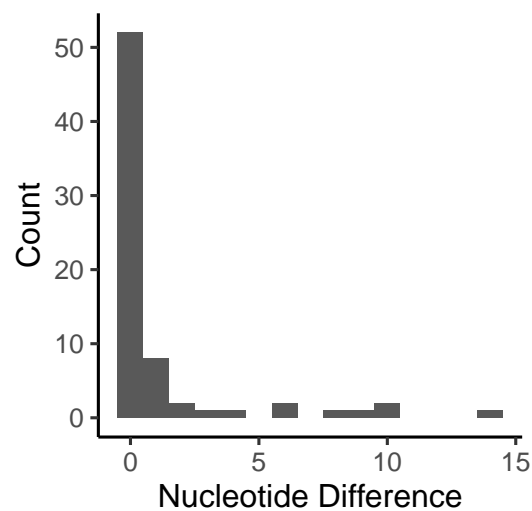
IGHV3-72*01

10 sequences assigned
3 (30%) exact matches, in which:
3 unique CDR3
2 unique J



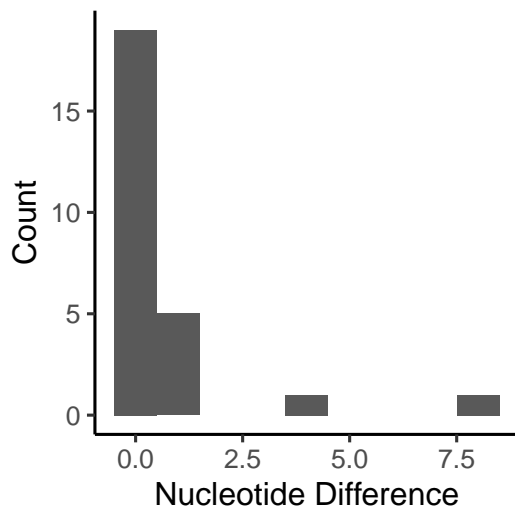
IGHV3-74*01

71 sequences assigned
52 (73.2%) exact matches, in which:
51 unique CDR3
5 unique J



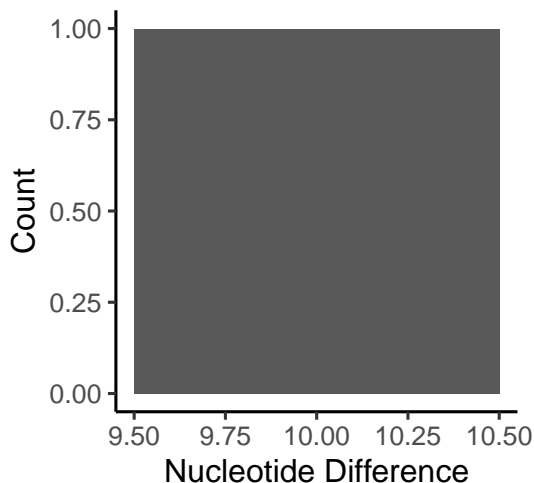
IGHV3-43D*03

26 sequences assigned
19 (73.1%) exact matches, in which:
19 unique CDR3
2 unique J



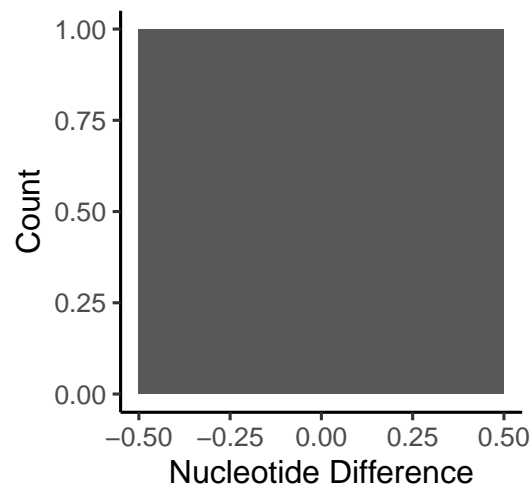
IGHV3-NL1*01

1 sequences assigned
No exact matches.



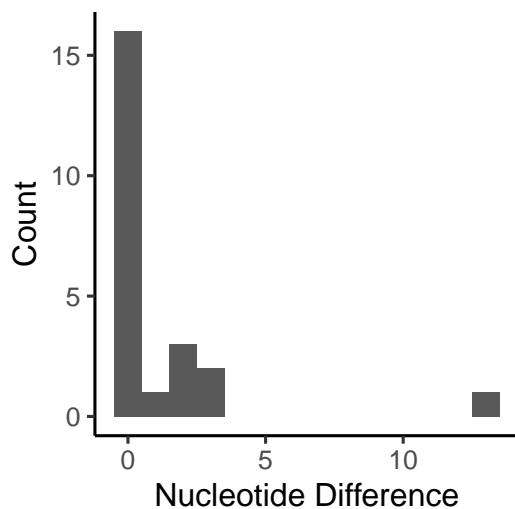
IGHV4-28*03

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



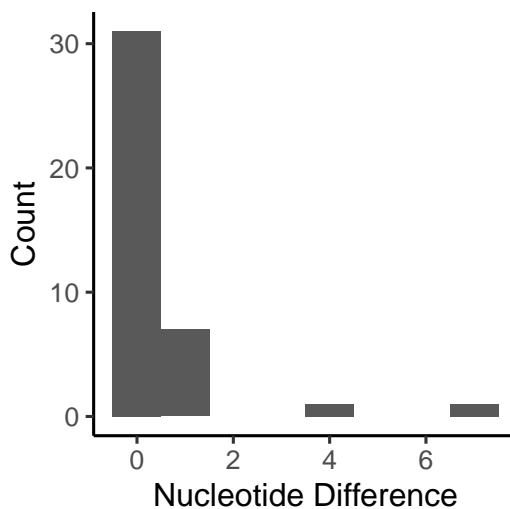
IGHV3-43D*04

23 sequences assigned
16 (69.6%) exact matches, in which:
16 unique CDR3
2 unique J



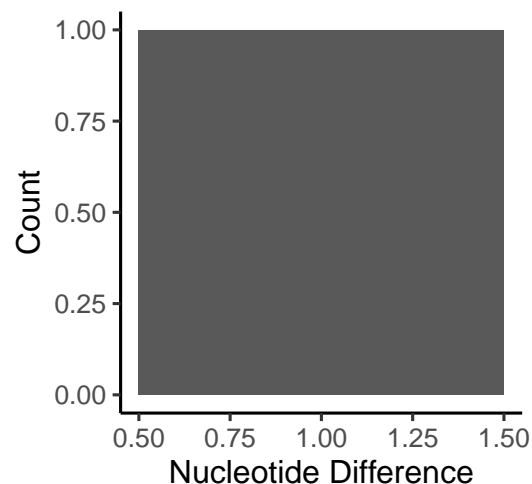
IGHV4-4*02

40 sequences assigned
31 (77.5%) exact matches, in which:
31 unique CDR3
6 unique J



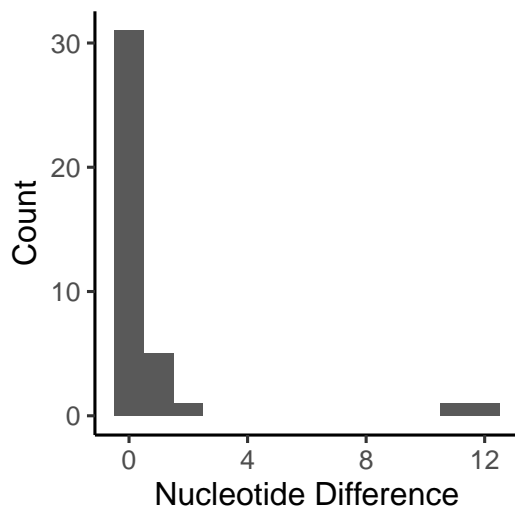
IGHV4-28*04

1 sequences assigned
No exact matches.



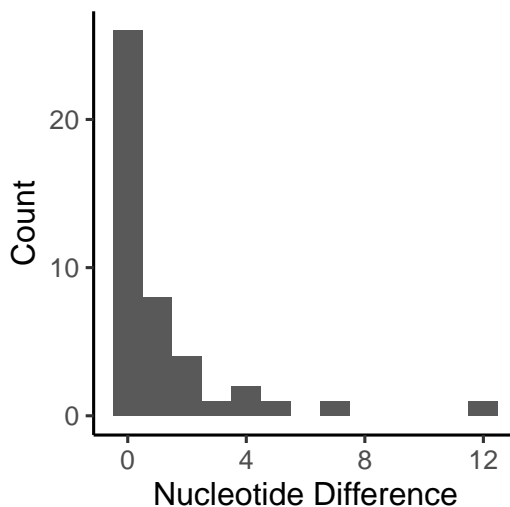
IGHV3-64D*06

39 sequences assigned
31 (79.5%) exact matches, in which:
31 unique CDR3
6 unique J



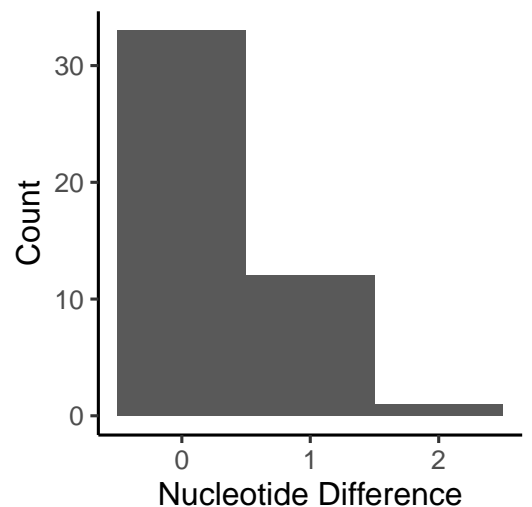
IGHV4-4*07

44 sequences assigned
26 (59.1%) exact matches, in which:
25 unique CDR3
5 unique J



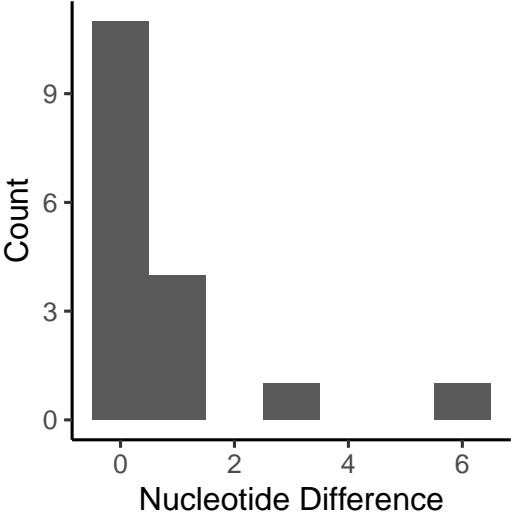
IGHV4-30-4*01

46 sequences assigned
33 (71.7%) exact matches, in which:
33 unique CDR3
5 unique J



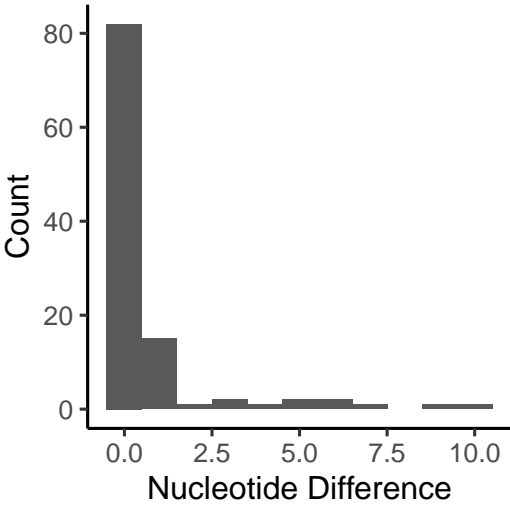
IGHV4-30-2*01

17 sequences assigned
11 (64.7%) exact matches, in which:
11 unique CDR3
4 unique J



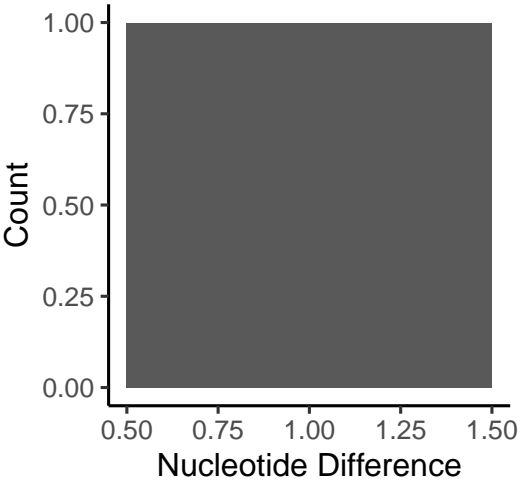
IGHV4-38-2*02

109 sequences assigned
82 (75.2%) exact matches, in which:
82 unique CDR3
6 unique J



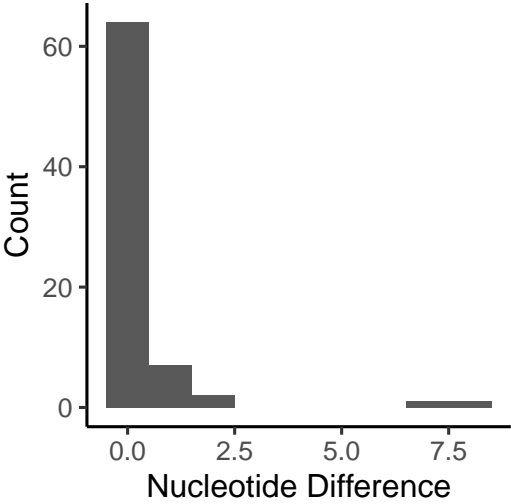
IGHV4-55*09

1 sequences assigned
No exact matches.



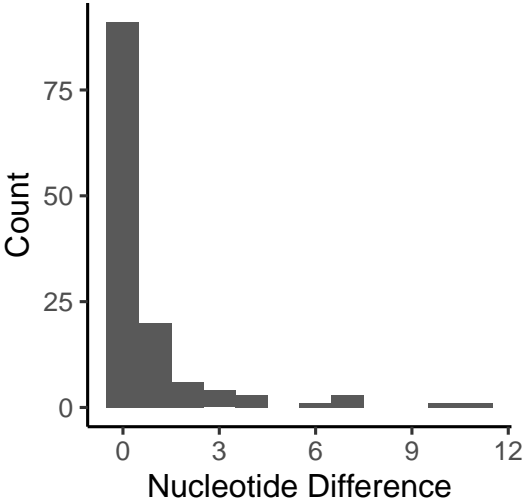
IGHV4-31*03

75 sequences assigned
64 (85.3%) exact matches, in which:
63 unique CDR3
5 unique J



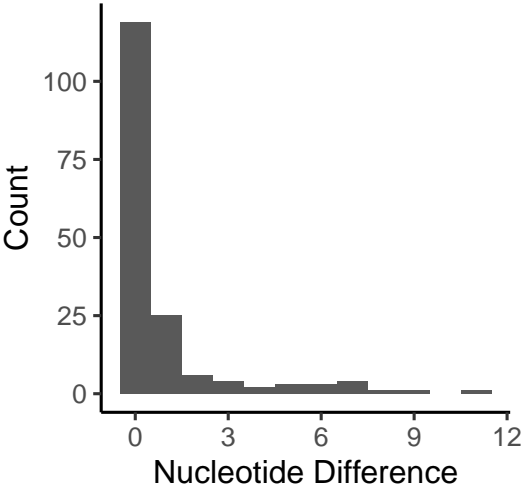
IGHV4-38-2*02_A70G

130 sequences assigned
91 (70%) exact matches, in which:
90 unique CDR3
6 unique J



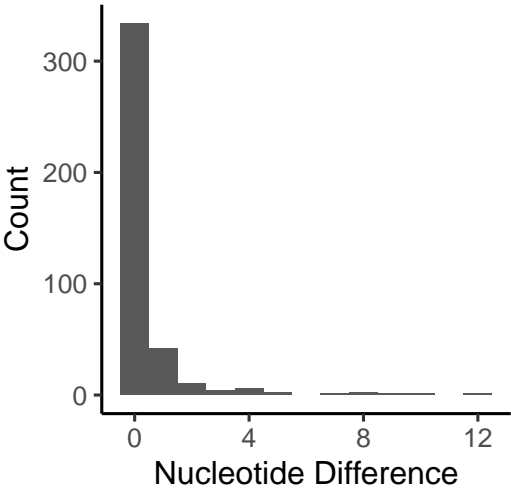
IGHV4-59*01

169 sequences assigned
119 (70.4%) exact matches, in which:
119 unique CDR3
6 unique J



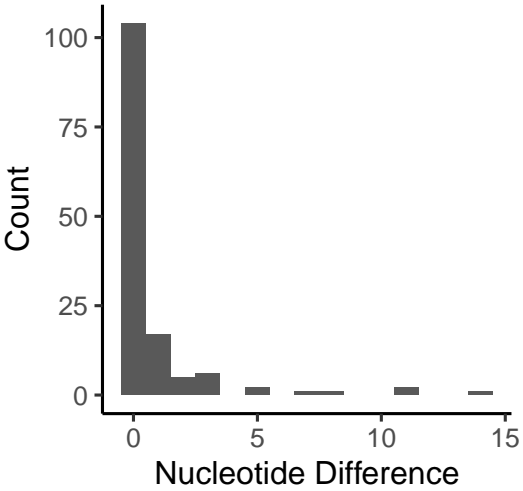
IGHV4-34*01

405 sequences assigned
334 (82.5%) exact matches, in which:
330 unique CDR3
6 unique J



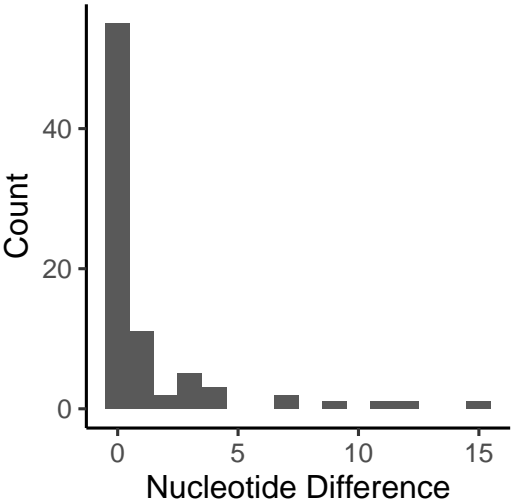
IGHV4-39*01

140 sequences assigned
104 (74.3%) exact matches, in which:
103 unique CDR3
6 unique J



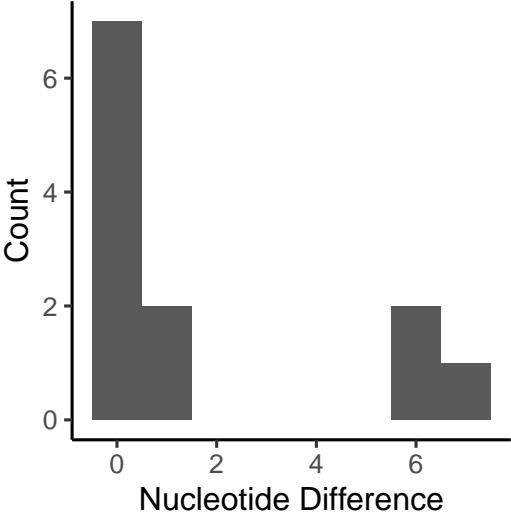
IGHV4-59*08

82 sequences assigned
55 (67.1%) exact matches, in which:
54 unique CDR3
6 unique J



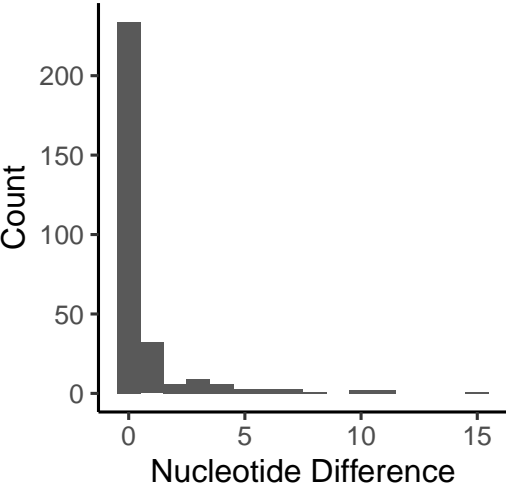
IGHV4-61*01

12 sequences assigned
7 (58.3%) exact matches, in which:
7 unique CDR3
2 unique J



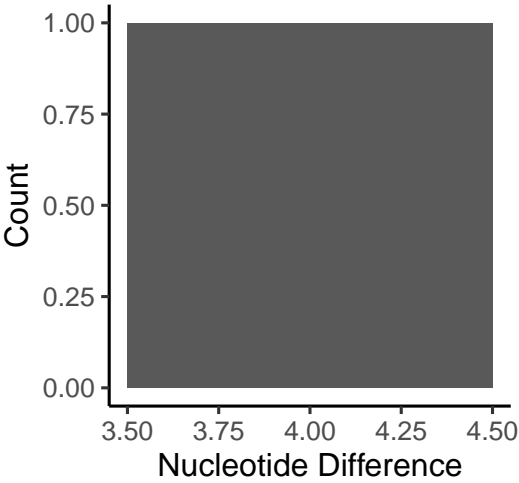
IGHV5-51*01

302 sequences assigned
234 (77.5%) exact matches, in which:
232 unique CDR3
6 unique J



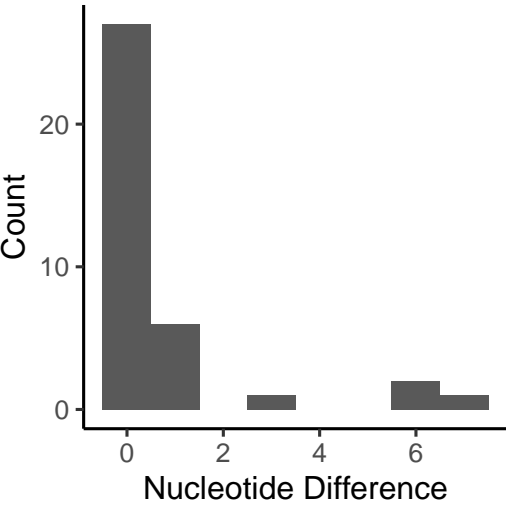
IGHV4/OR15-8*01

1 sequences assigned
No exact matches.



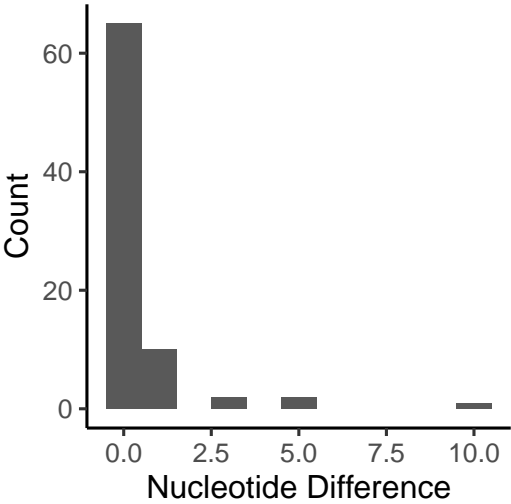
IGHV6-1*01

37 sequences assigned
27 (73%) exact matches, in which:
27 unique CDR3
4 unique J



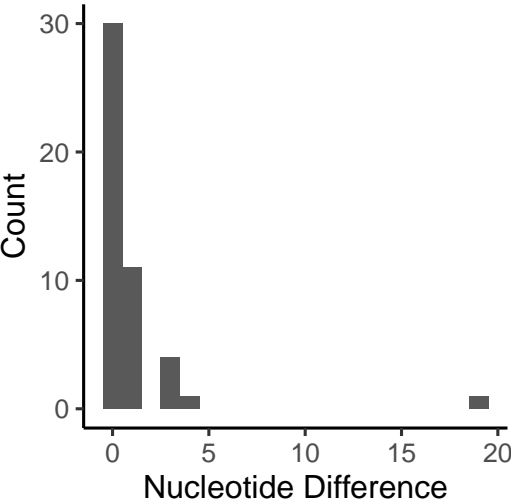
IGHV5-10-1*03

80 sequences assigned
65 (81.2%) exact matches, in which:
65 unique CDR3
5 unique J

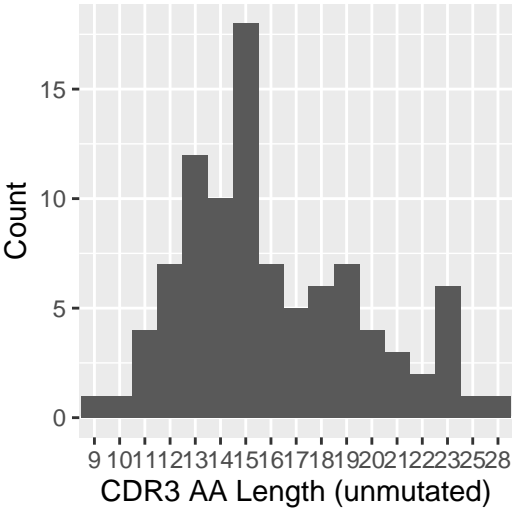


IGHV7-4-1*02

47 sequences assigned
30 (63.8%) exact matches, in which:
30 unique CDR3
6 unique J



IGHV1-69*08_C191T



IGHV4-38-2*02_A70G

