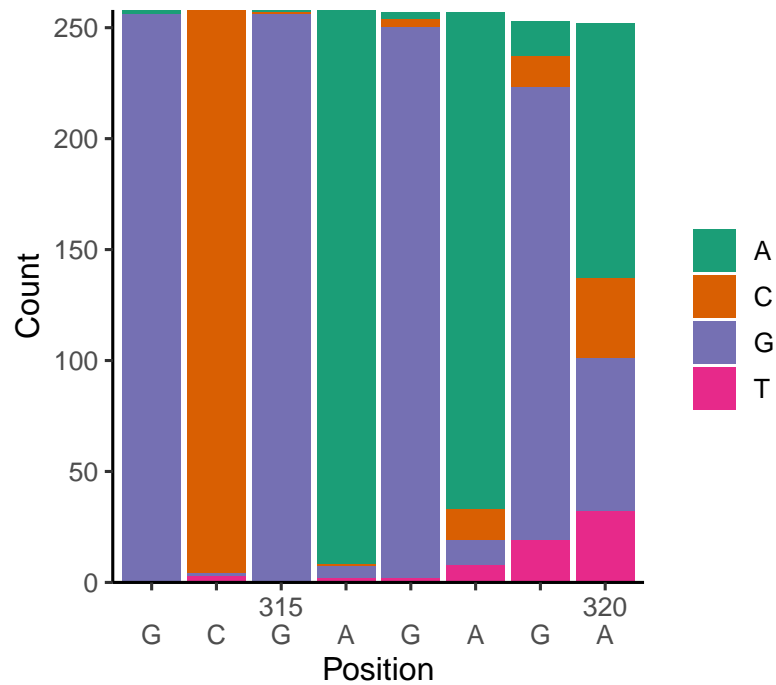
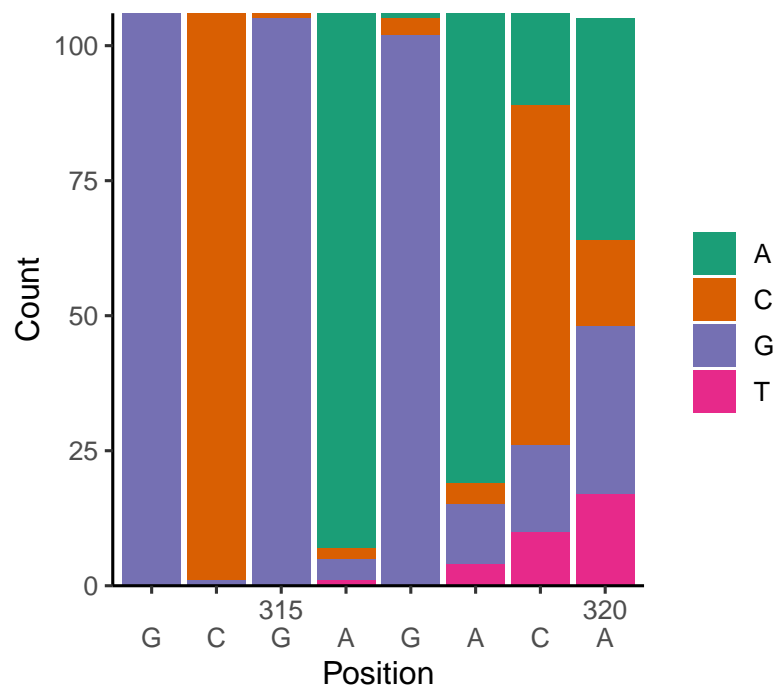


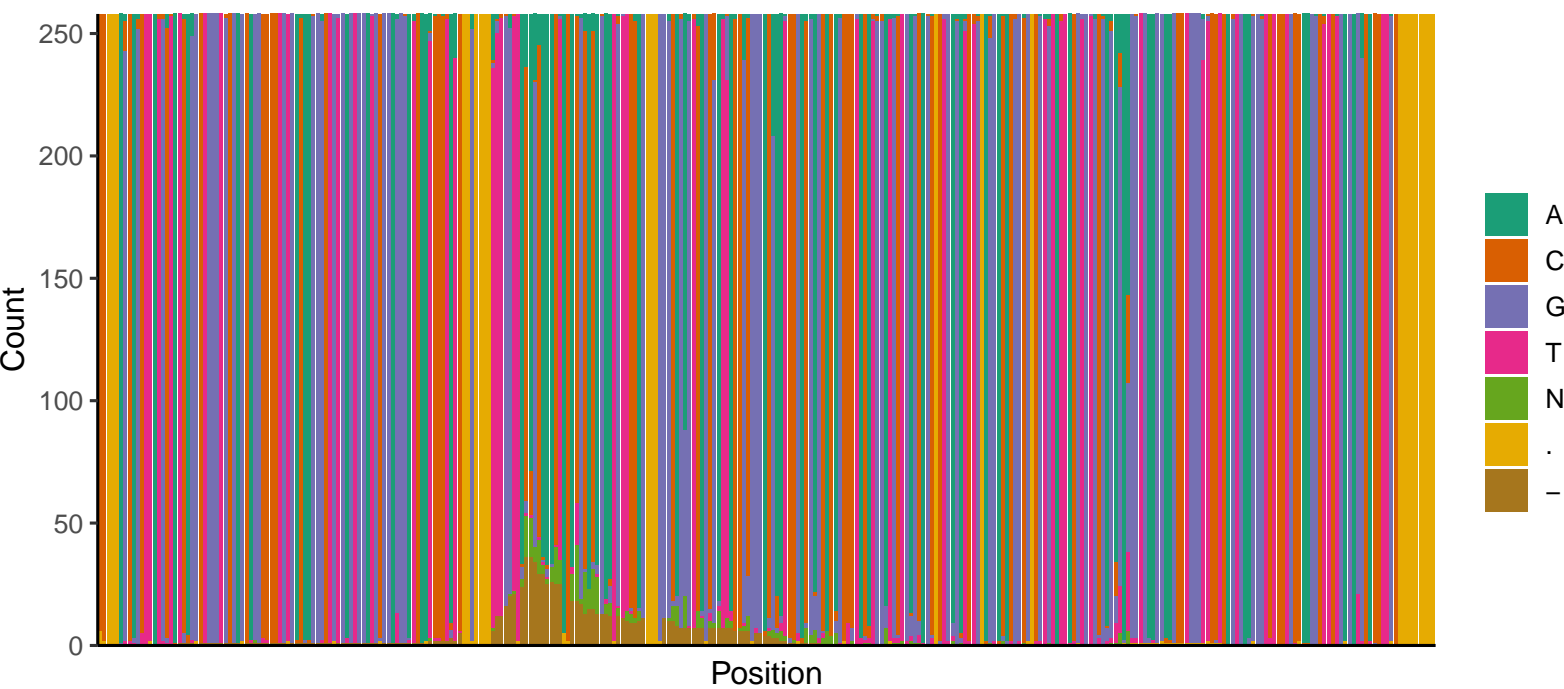
Gene IGHV1-69*01_G54A



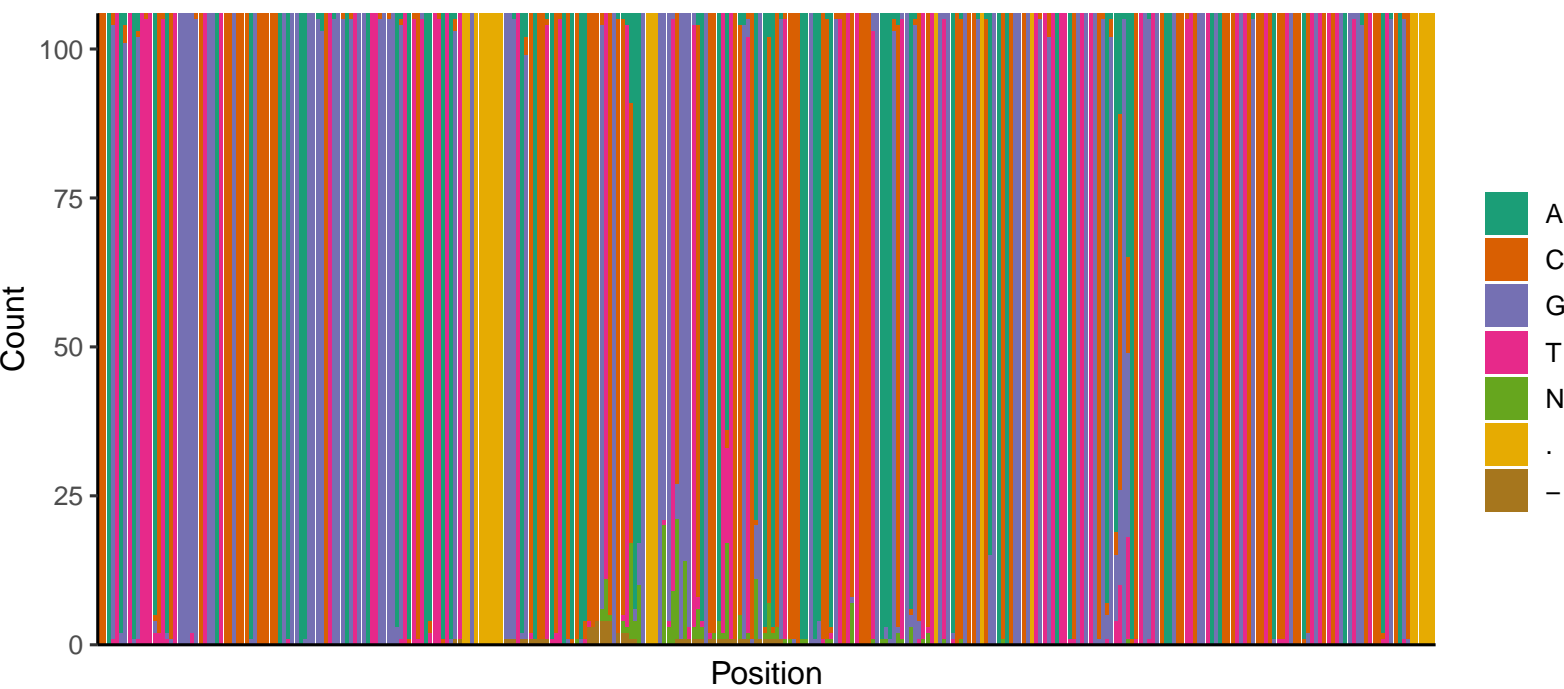
Gene IGHV4-39*01_A220G_A225G



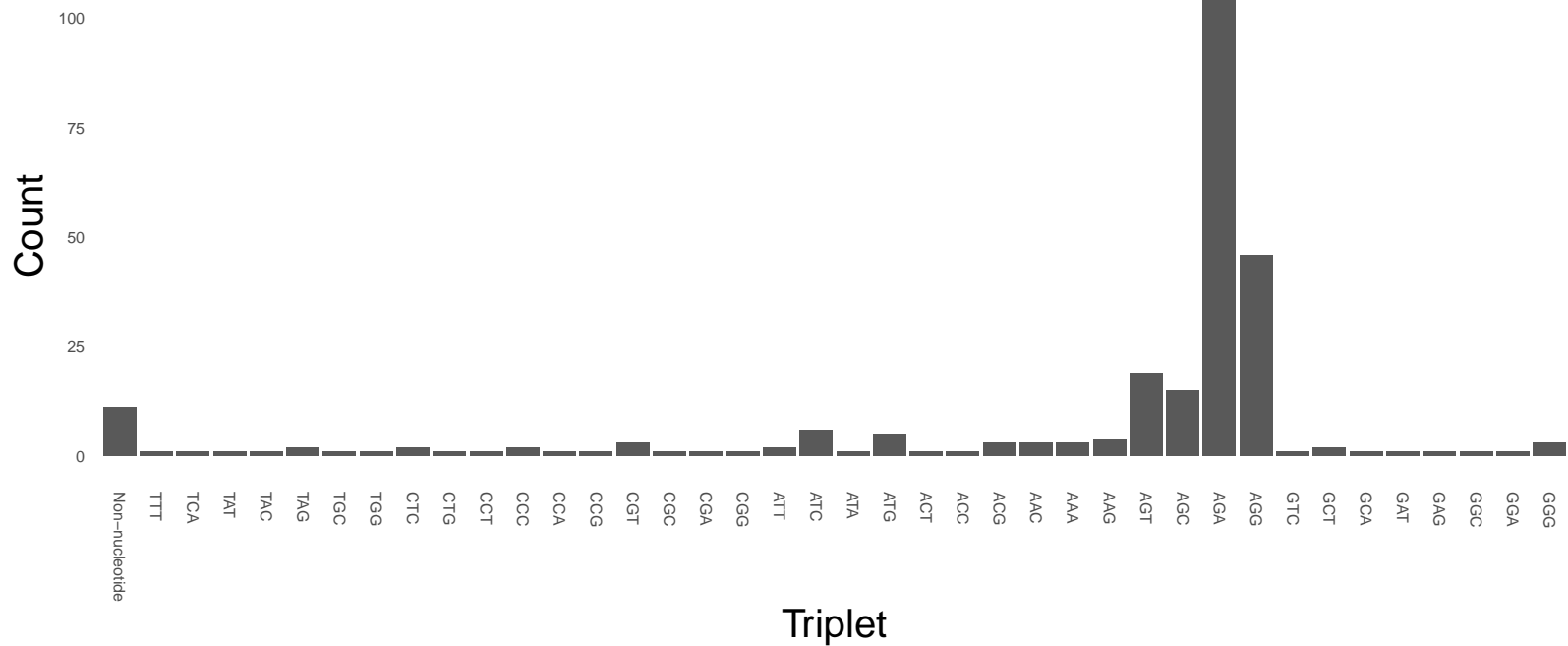
Gene IGHV1-69*01_G54A



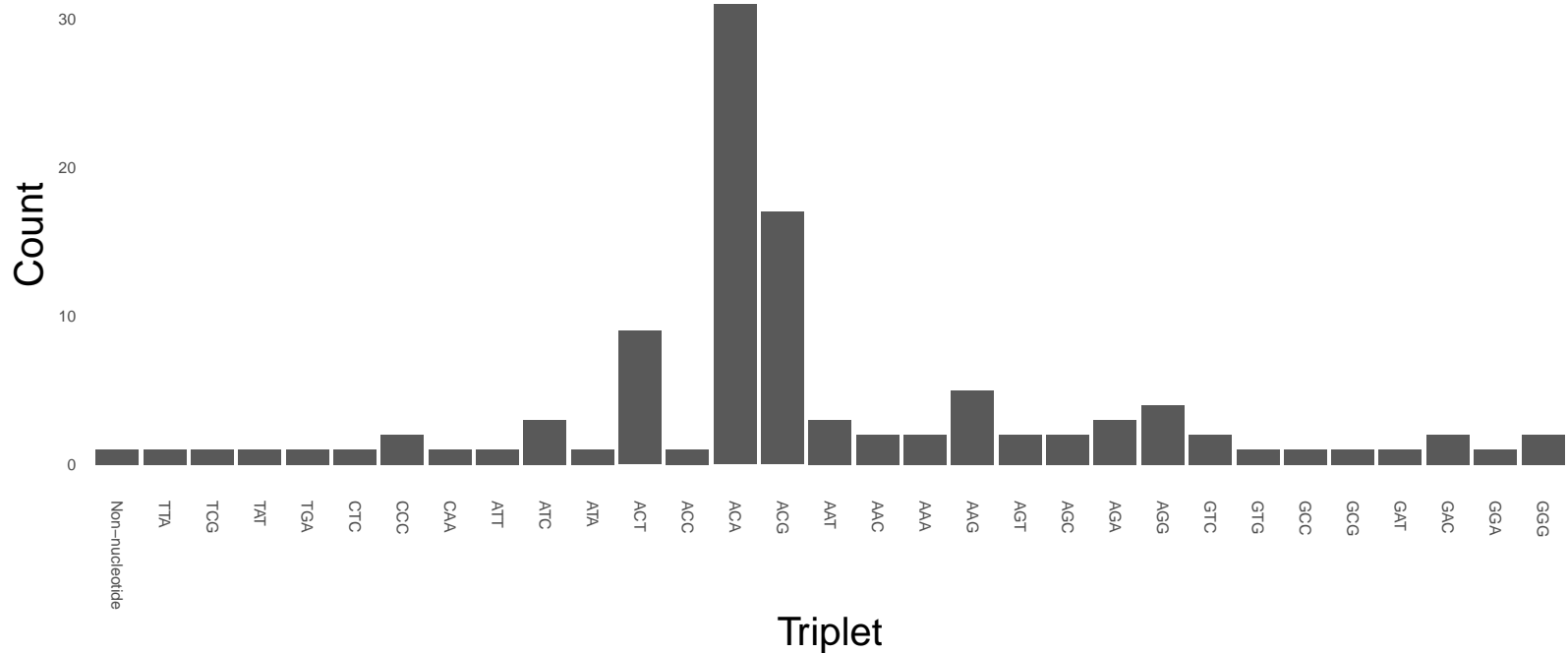
Gene IGHV4-39*01_A220G_A225G



IGHV1-69*01_G54A- Final 3 nucleotides as a triplet

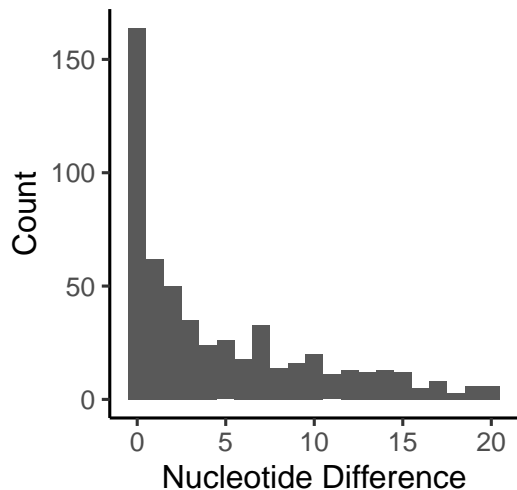


IGHV4-39*01_A220G_A225G- Final 3 nucleotides as a triplet



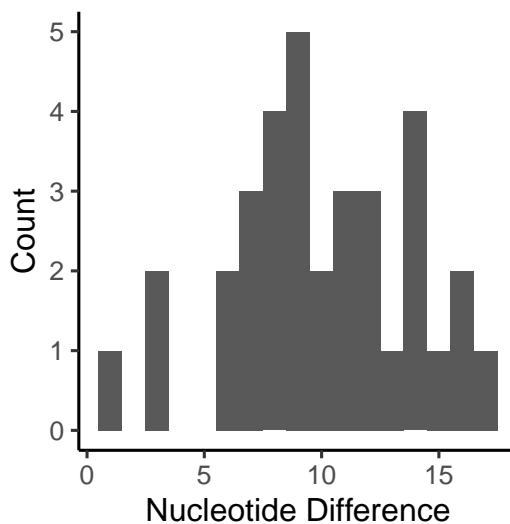
IGHV1-2*02

572 sequences assigned
164 (28.7%) exact matches, in which:
156 unique CDR3
6 unique J



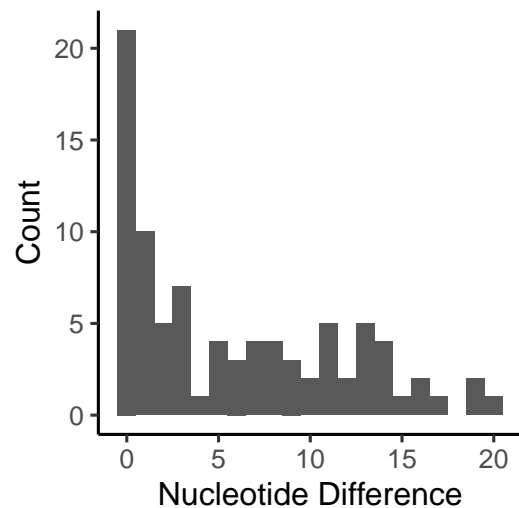
IGHV1-8*02

36 sequences assigned
No exact matches.



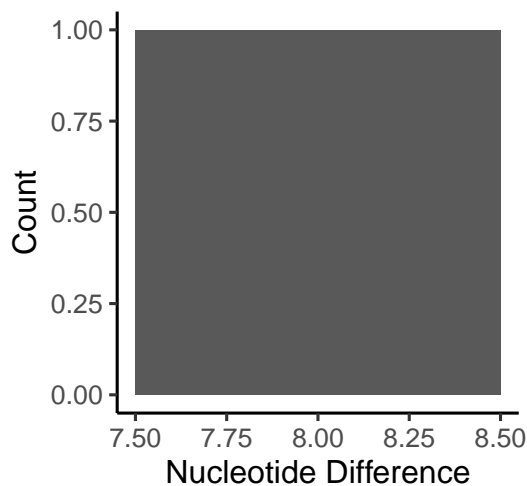
IGHV1-46*01

101 sequences assigned
21 (20.8%) exact matches, in which:
21 unique CDR3
4 unique J



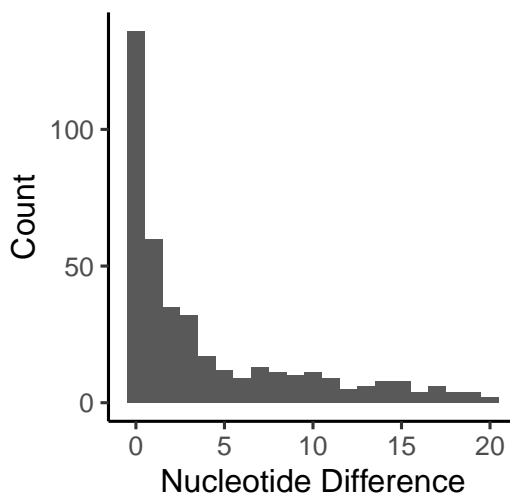
IGHV1-3*01

1 sequences assigned
No exact matches.



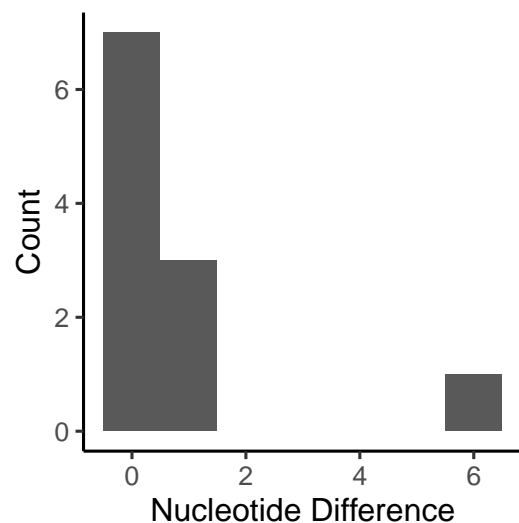
IGHV1-18*01

425 sequences assigned
136 (32%) exact matches, in which:
125 unique CDR3
5 unique J



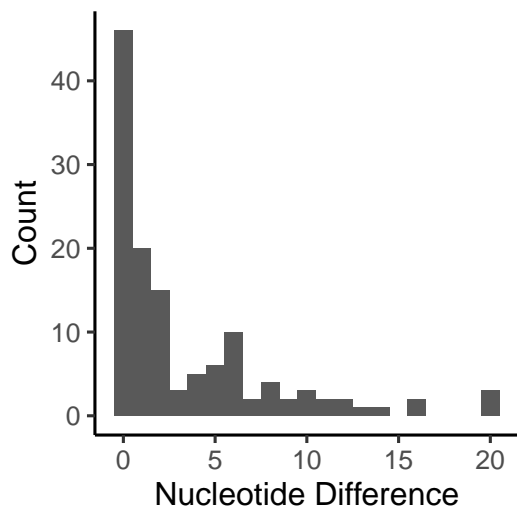
IGHV1-58*01

13 sequences assigned
7 (53.8%) exact matches, in which:
6 unique CDR3
3 unique J



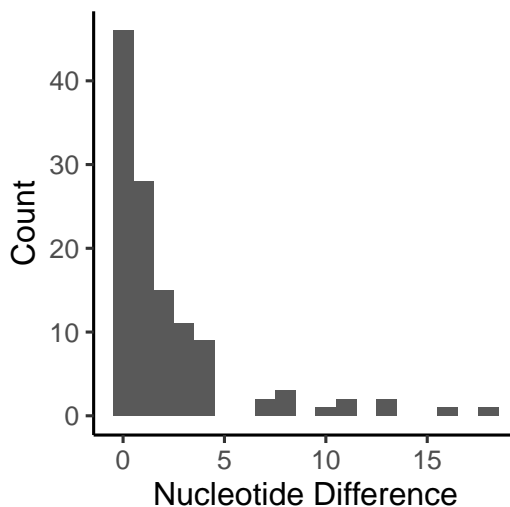
IGHV1-8*01

129 sequences assigned
46 (35.7%) exact matches, in which:
41 unique CDR3
6 unique J



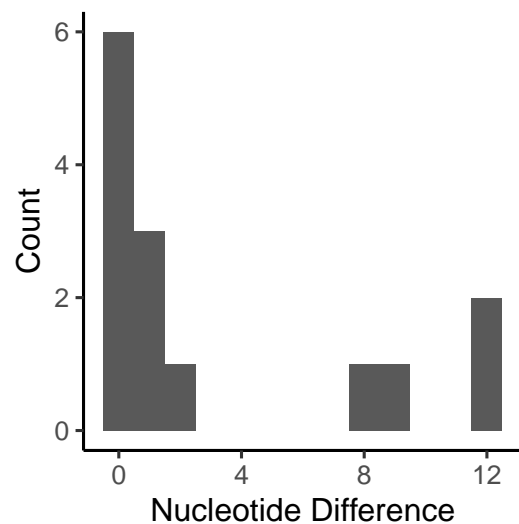
IGHV1-24*01

121 sequences assigned
46 (38%) exact matches, in which:
45 unique CDR3
5 unique J



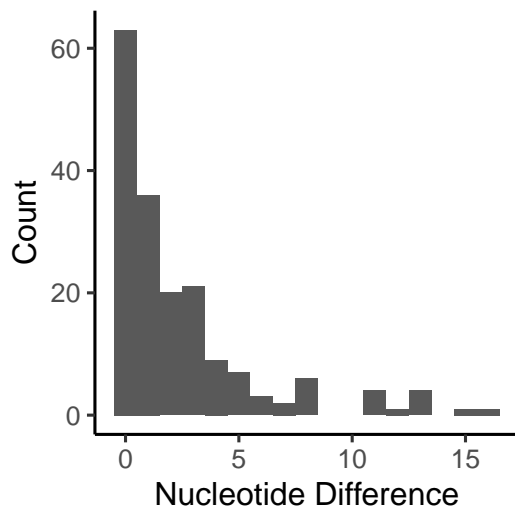
IGHV1-58*02

14 sequences assigned
6 (42.9%) exact matches, in which:
6 unique CDR3
3 unique J



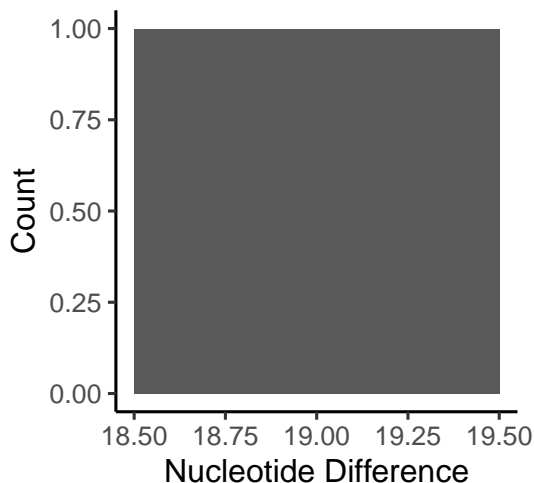
IGHV1-69*04

184 sequences assigned
63 (34.2%) exact matches, in which:
62 unique CDR3
5 unique J



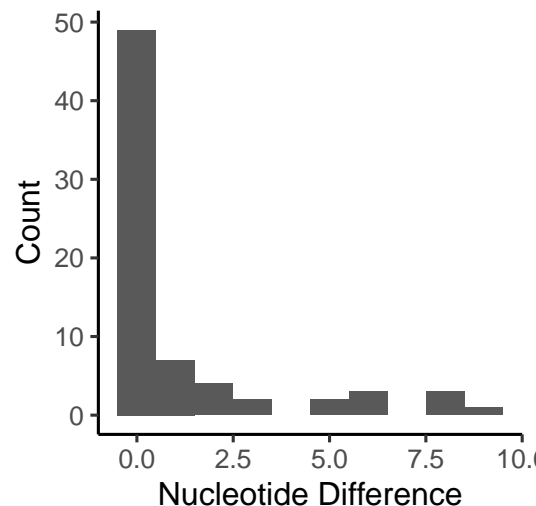
IGHV1-NL1*01

1 sequences assigned
No exact matches.



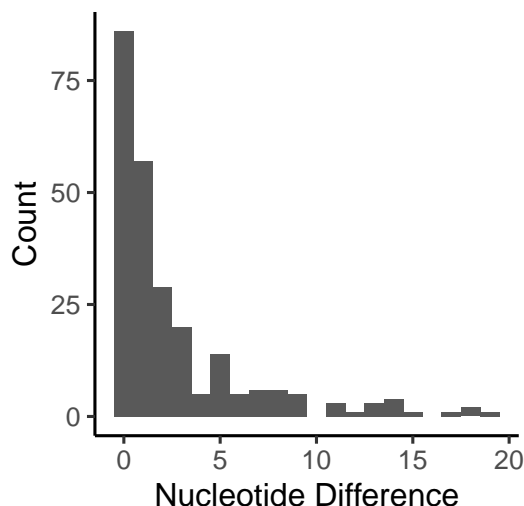
IGHV2-26*01

71 sequences assigned
49 (69%) exact matches, in which:
47 unique CDR3
5 unique J



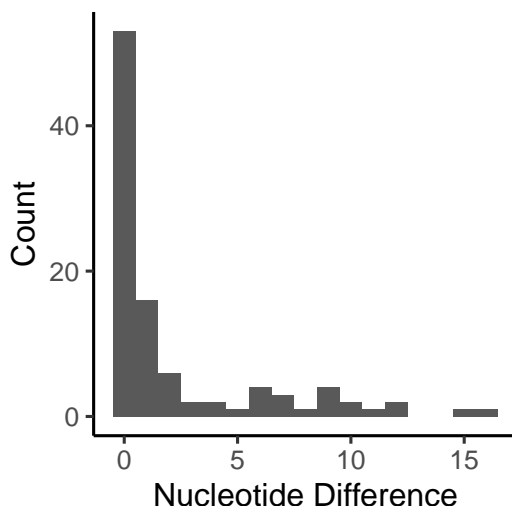
IGHV1-69*01_G54A

258 sequences assigned
86 (33.3%) exact matches, in which:
83 unique CDR3
5 unique J



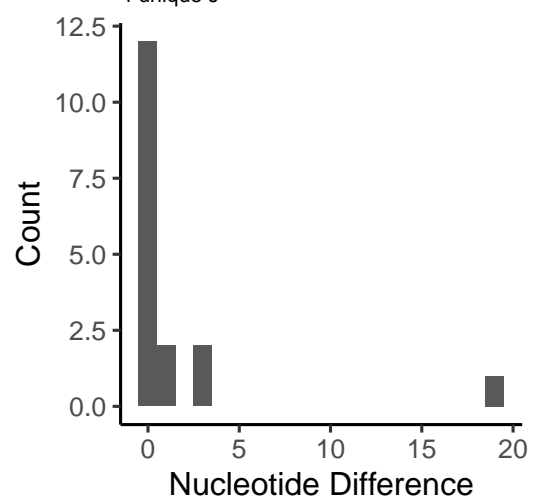
IGHV2-5*01

103 sequences assigned
53 (51.5%) exact matches, in which:
52 unique CDR3
5 unique J



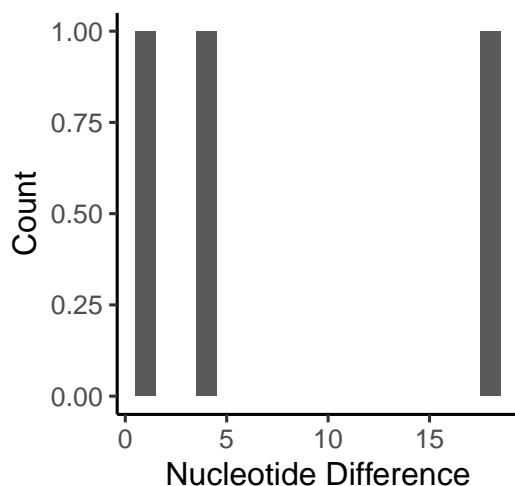
IGHV2-70*01

17 sequences assigned
12 (70.6%) exact matches, in which:
12 unique CDR3
4 unique J



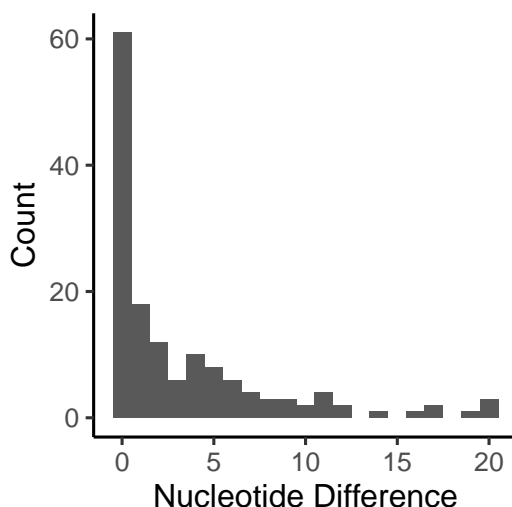
IGHV1-69D*01

3 sequences assigned
No exact matches.



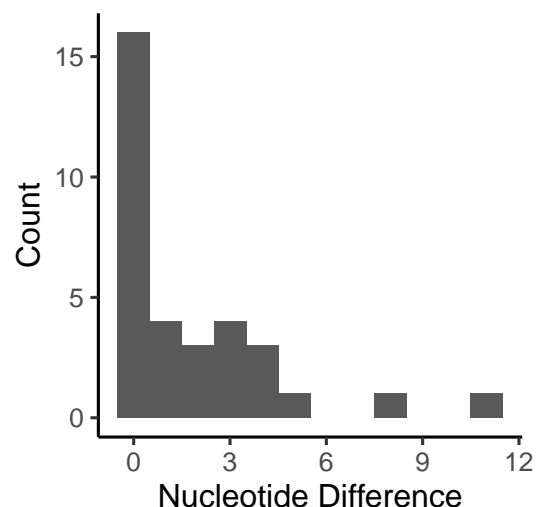
IGHV2-5*02

152 sequences assigned
61 (40.1%) exact matches, in which:
58 unique CDR3
5 unique J



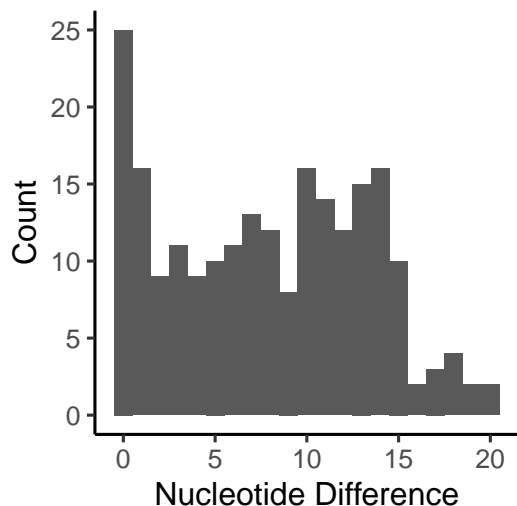
IGHV2-70*15

33 sequences assigned
16 (48.5%) exact matches, in which:
16 unique CDR3
4 unique J



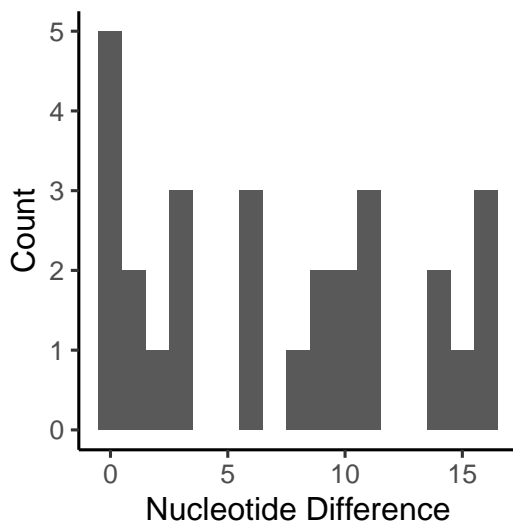
IGHV3-7*01

234 sequences assigned
25 (10.7%) exact matches, in which:
24 unique CDR3
5 unique J



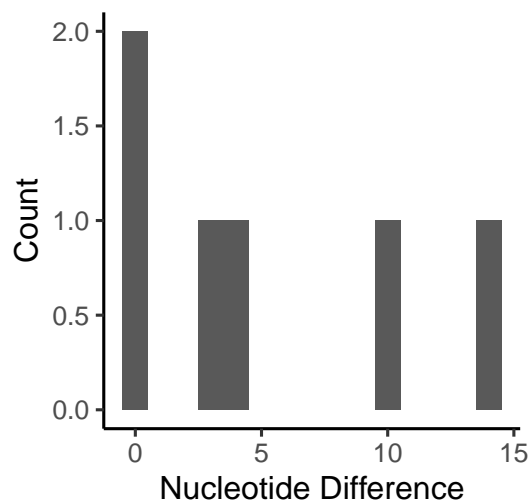
IGHV3-11*01

30 sequences assigned
5 (16.7%) exact matches, in which:
5 unique CDR3
3 unique J



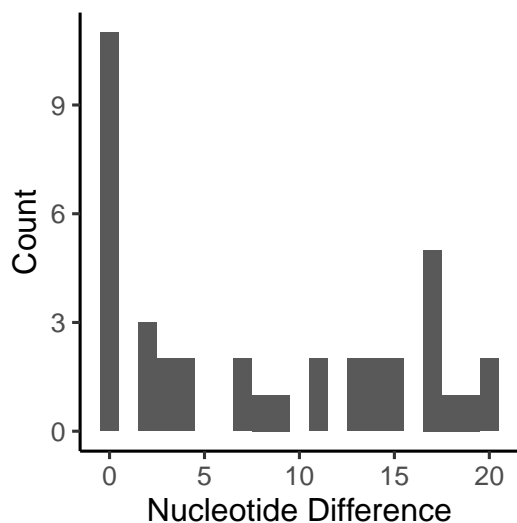
IGHV3-13*01

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
2 unique J



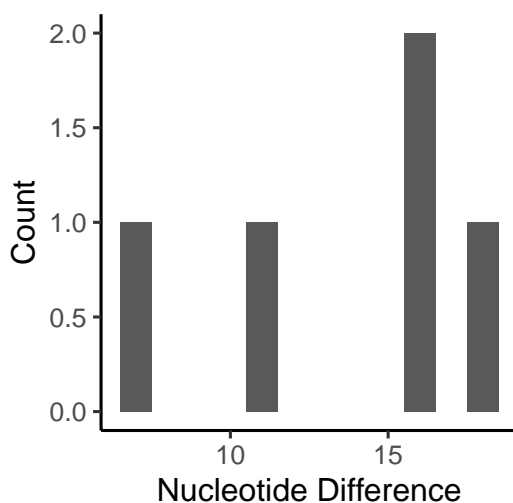
IGHV3-7*05

49 sequences assigned
11 (22.4%) exact matches, in which:
10 unique CDR3
3 unique J



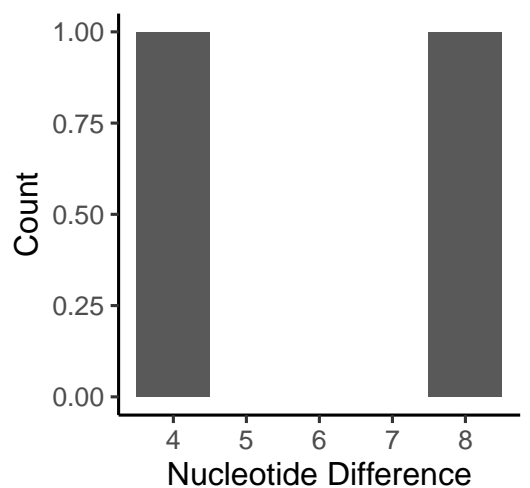
IGHV3-11*04

7 sequences assigned
No exact matches.



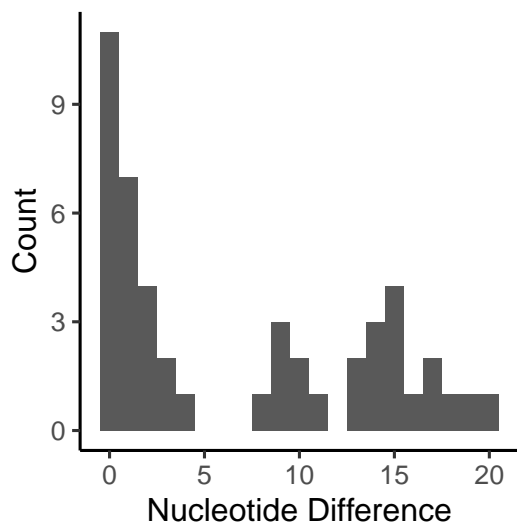
IGHV3-13*05

2 sequences assigned
No exact matches.



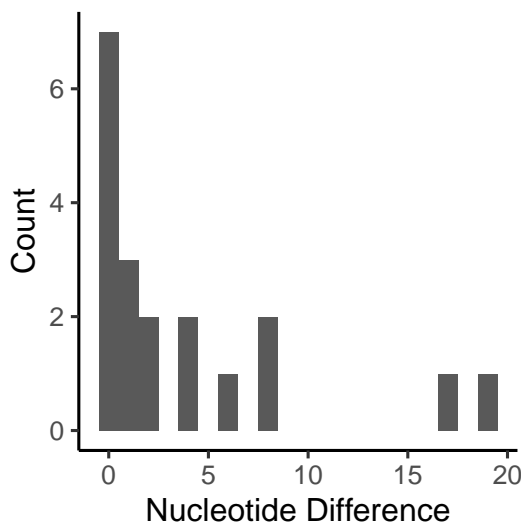
IGHV3-9*01

52 sequences assigned
11 (21.2%) exact matches, in which:
11 unique CDR3
4 unique J



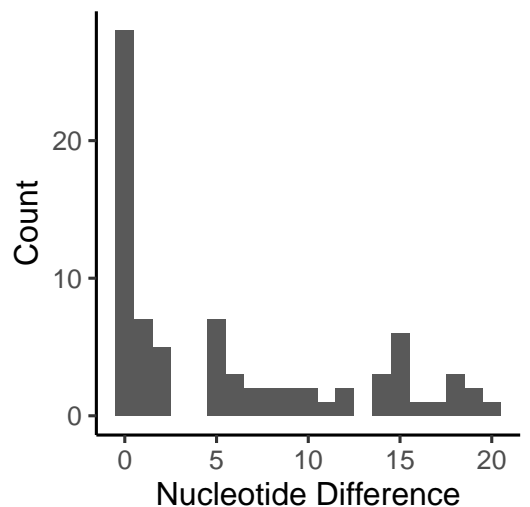
IGHV3-11*06

19 sequences assigned
7 (36.8%) exact matches, in which:
7 unique CDR3
4 unique J



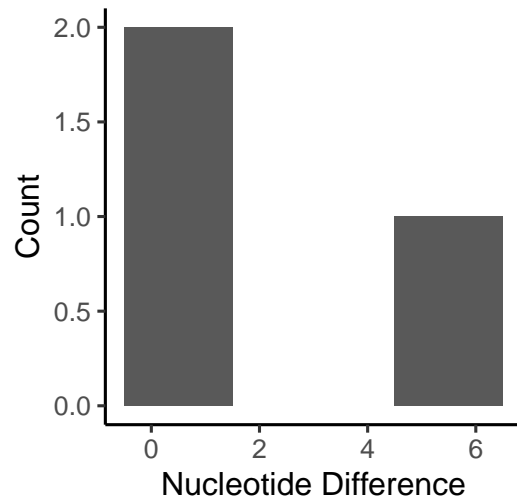
IGHV3-15*01

105 sequences assigned
28 (26.7%) exact matches, in which:
26 unique CDR3
5 unique J



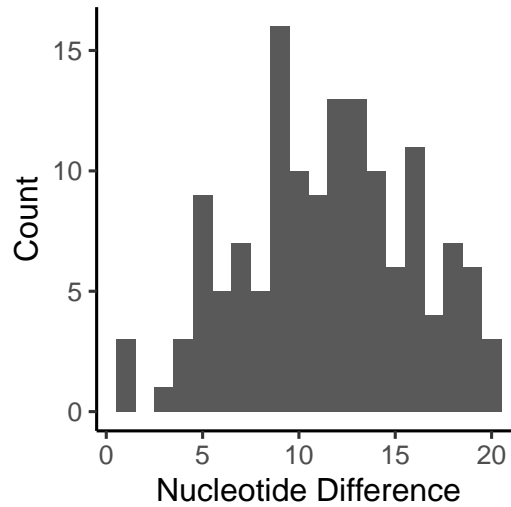
IGHV3-20*01

6 sequences assigned
2 (33.3%) exact matches, in which:
2 unique CDR3
1 unique J



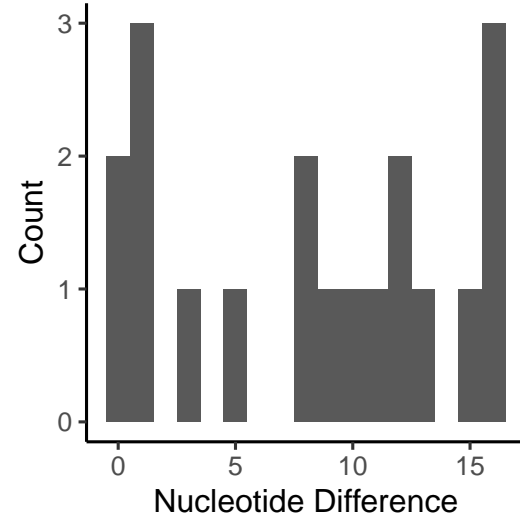
IGHV3-23*04

152 sequences assigned
No exact matches.



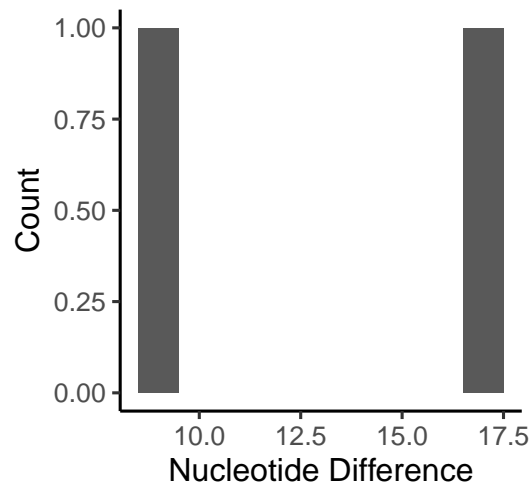
IGHV3-33*05

19 sequences assigned
2 (10.5%) exact matches, in which:
2 unique CDR3
1 unique J



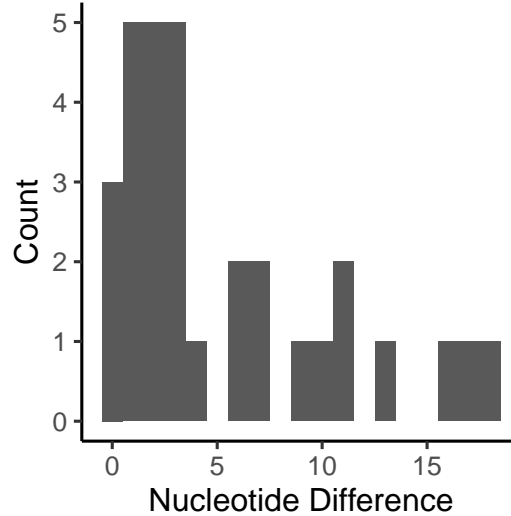
IGHV3-20*04

4 sequences assigned
No exact matches.



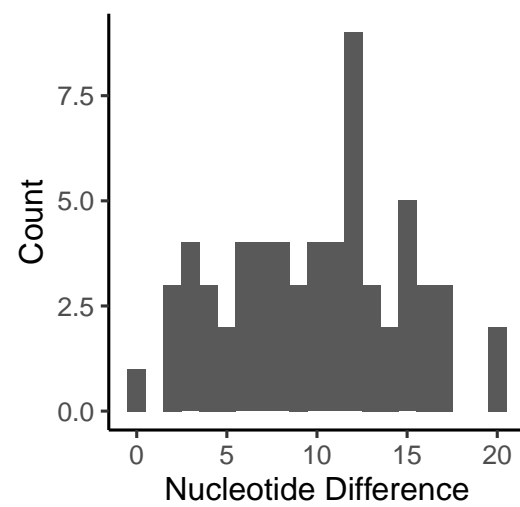
IGHV3-30*03

33 sequences assigned
3 (9.1%) exact matches, in which:
3 unique CDR3
1 unique J



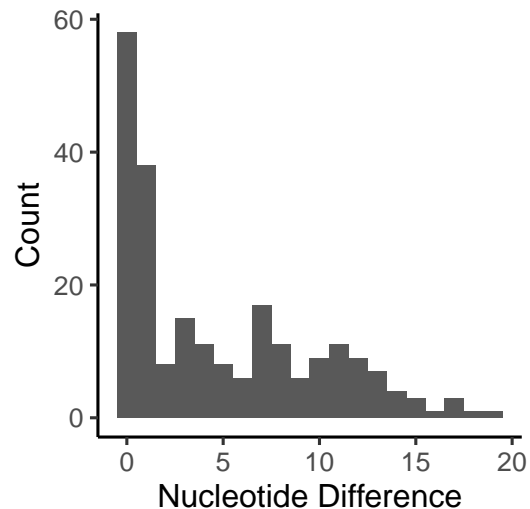
IGHV3-33*08

65 sequences assigned
1 (1.5%) exact matches, in which:
1 unique CDR3
1 unique J



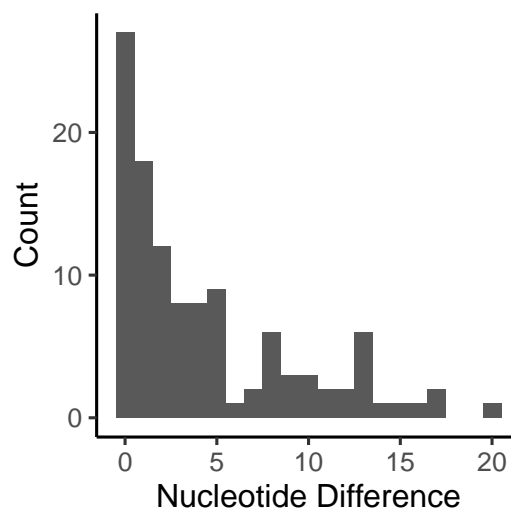
IGHV3-21*01

231 sequences assigned
58 (25.1%) exact matches, in which:
57 unique CDR3
4 unique J



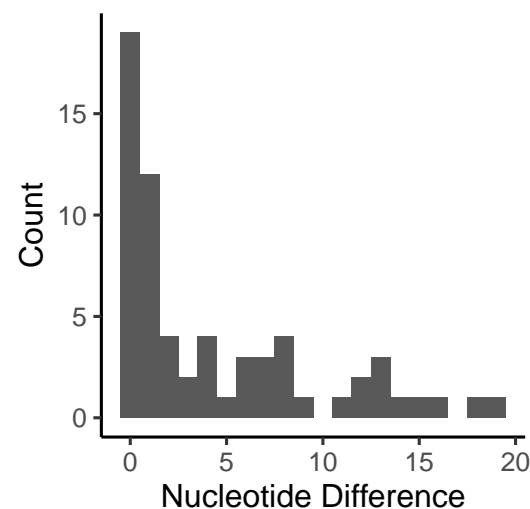
IGHV3-33*01

115 sequences assigned
27 (23.5%) exact matches, in which:
26 unique CDR3
5 unique J



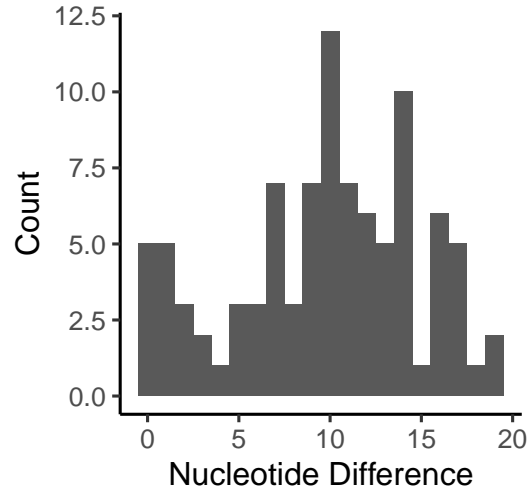
IGHV3-43*02

66 sequences assigned
19 (28.8%) exact matches, in which:
19 unique CDR3
4 unique J



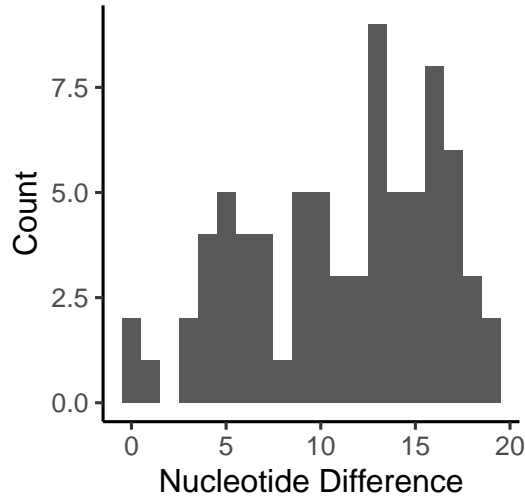
IGHV3-48*01

106 sequences assigned
5 (4.7%) exact matches, in which:
5 unique CDR3
2 unique J



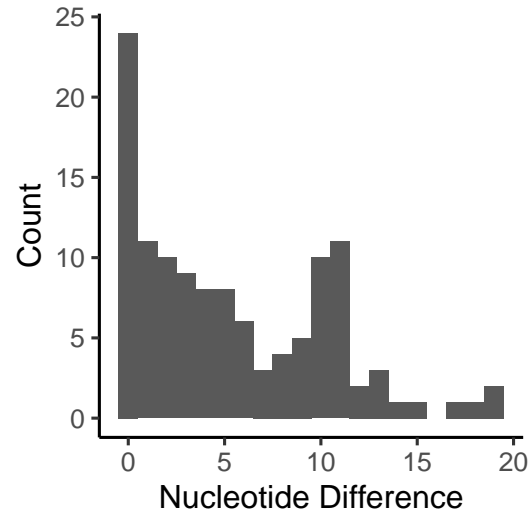
IGHV3-48*04

85 sequences assigned
2 (2.4%) exact matches, in which:
2 unique CDR3
2 unique J



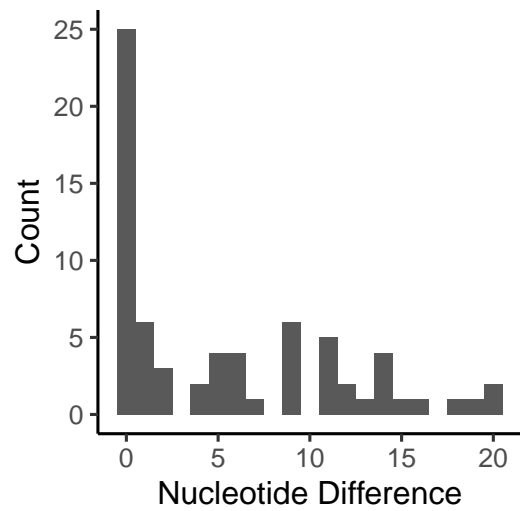
IGHV3-53*01

125 sequences assigned
24 (19.2%) exact matches, in which:
22 unique CDR3
4 unique J



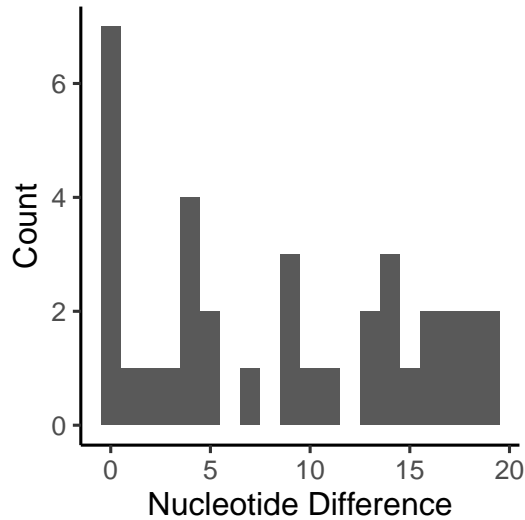
IGHV3-48*02

74 sequences assigned
25 (33.8%) exact matches, in which:
25 unique CDR3
5 unique J



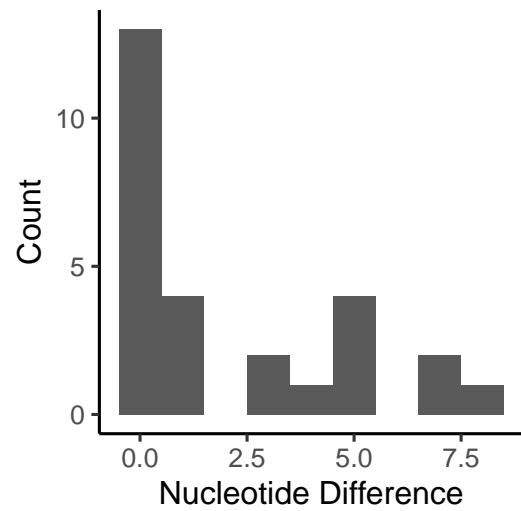
IGHV3-49*04

44 sequences assigned
7 (15.9%) exact matches, in which:
7 unique CDR3
4 unique J



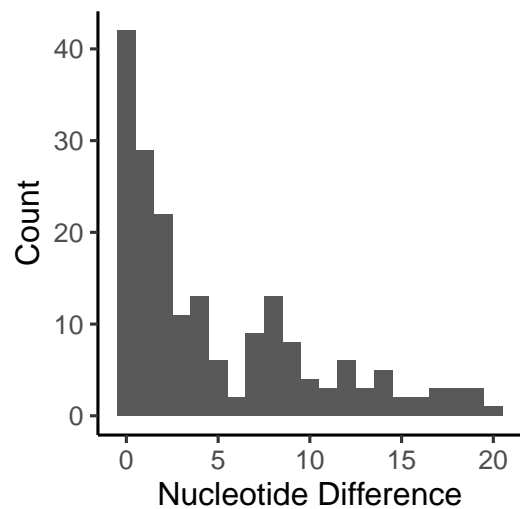
IGHV3-53*04

27 sequences assigned
13 (48.1%) exact matches, in which:
13 unique CDR3
4 unique J



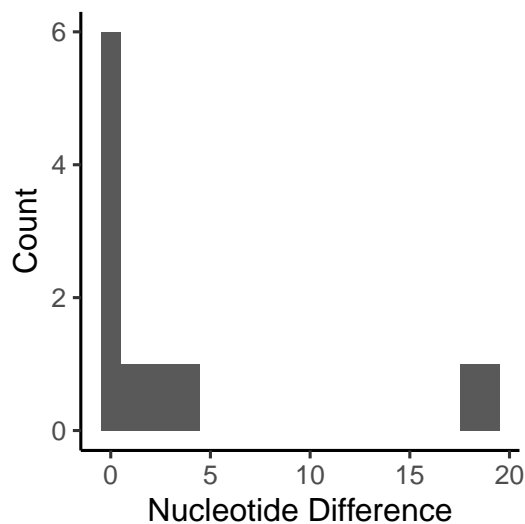
IGHV3-48*03

199 sequences assigned
42 (21.1%) exact matches, in which:
40 unique CDR3
5 unique J



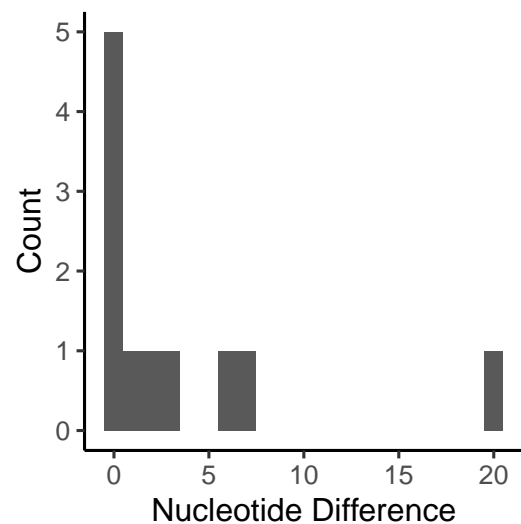
IGHV3-49*05

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



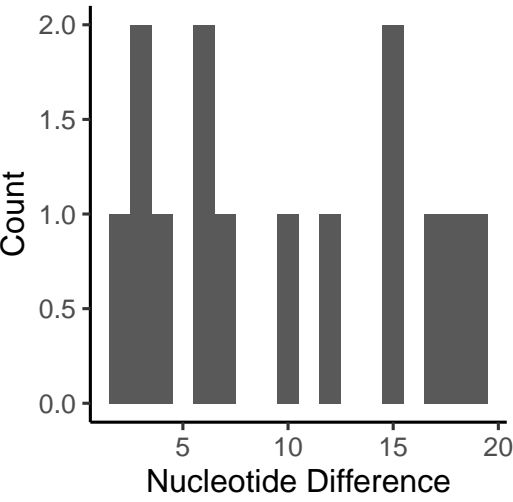
IGHV3-64*01

11 sequences assigned
5 (45.5%) exact matches, in which:
5 unique CDR3
3 unique J



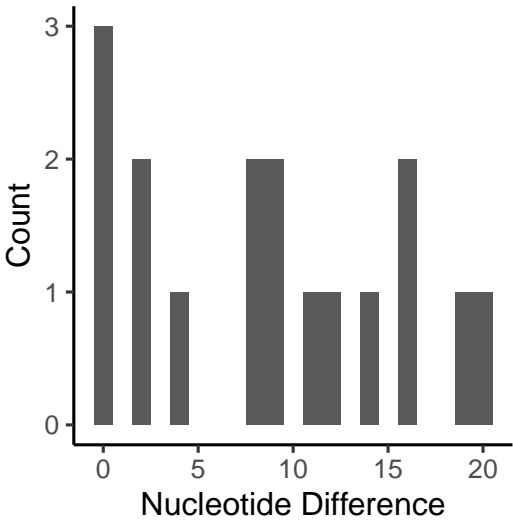
IGHV3-64*04

15 sequences assigned
No exact matches.



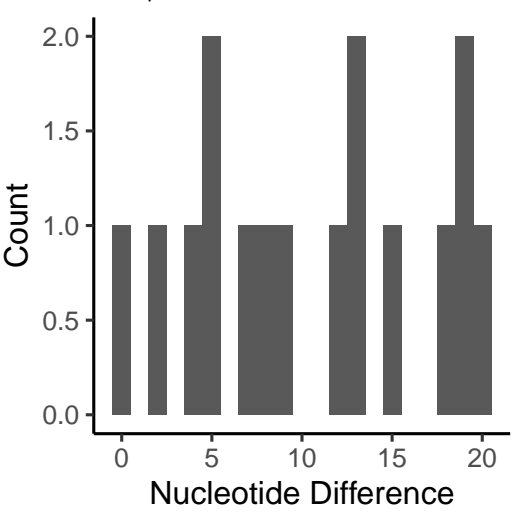
IGHV3-66*02

18 sequences assigned
3 (16.7%) exact matches, in which:
3 unique CDR3
1 unique J



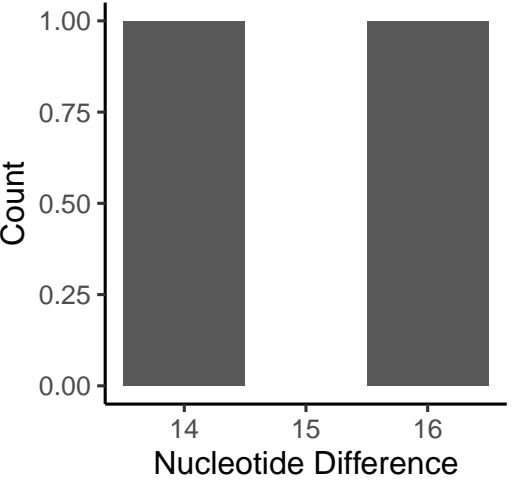
IGHV3-72*01

18 sequences assigned
1 (5.6%) exact matches, in which:
1 unique CDR3
1 unique J



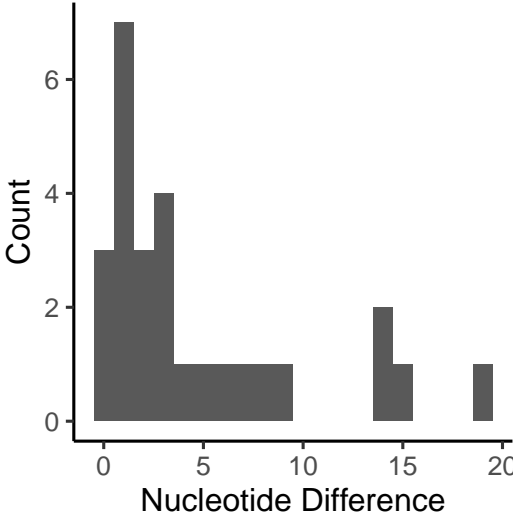
IGHV3-64*07

3 sequences assigned
No exact matches.



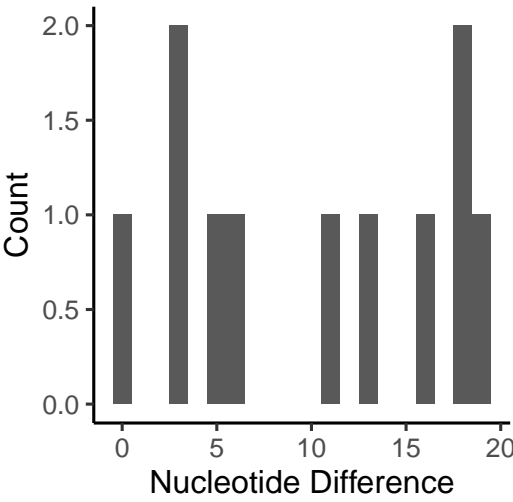
IGHV3-66*03

28 sequences assigned
3 (10.7%) exact matches, in which:
3 unique CDR3
2 unique J



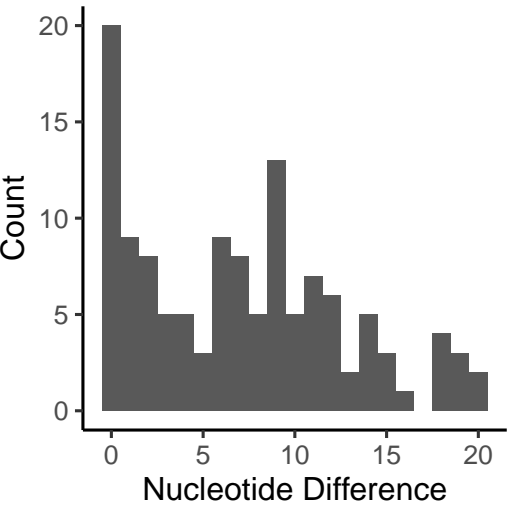
IGHV3-73*01

15 sequences assigned
1 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J



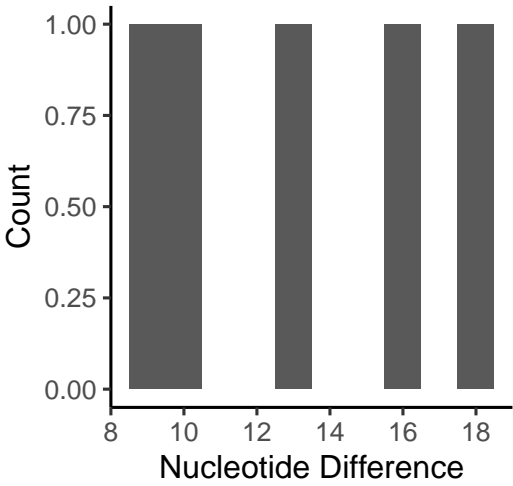
IGHV3-66*01

130 sequences assigned
20 (15.4%) exact matches, in which:
18 unique CDR3
4 unique J



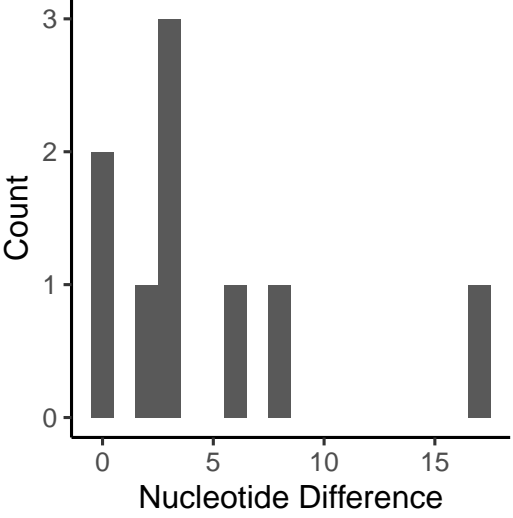
IGHV3-69-1*01

7 sequences assigned
No exact matches.



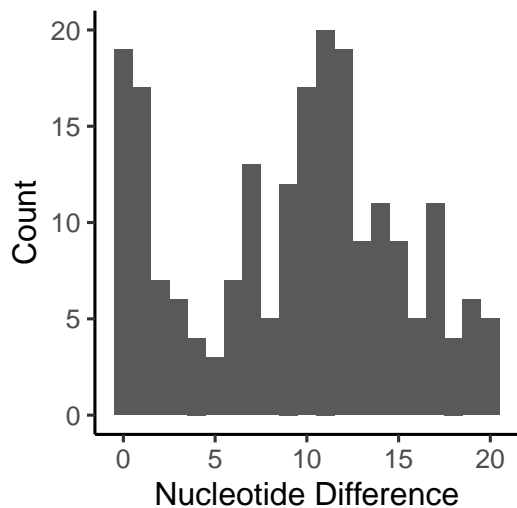
IGHV3-73*02

10 sequences assigned
2 (20%) exact matches, in which:
2 unique CDR3
2 unique J



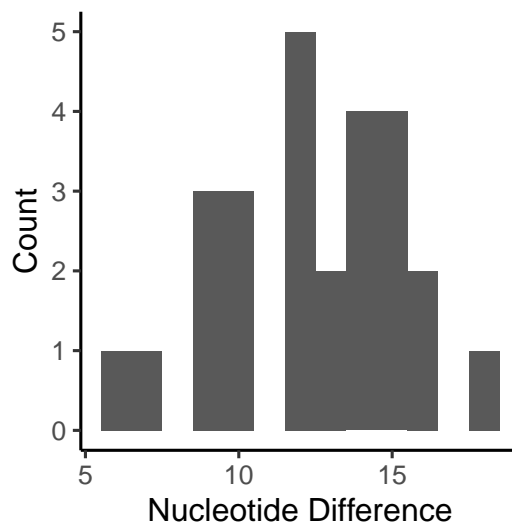
IGHV3-74*01

222 sequences assigned
19 (8.6%) exact matches, in which:
19 unique CDR3
5 unique J



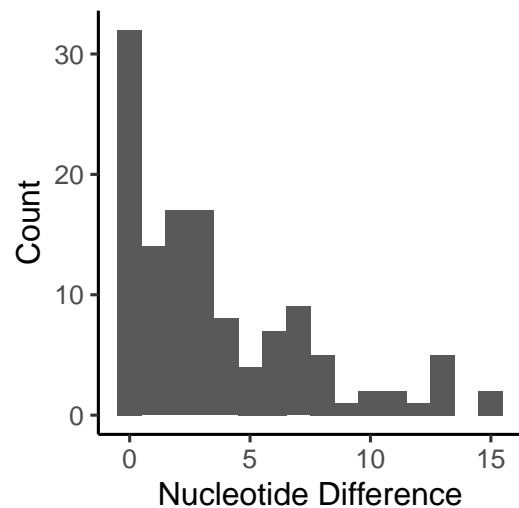
IGHV3-NL1*01

29 sequences assigned
No exact matches.



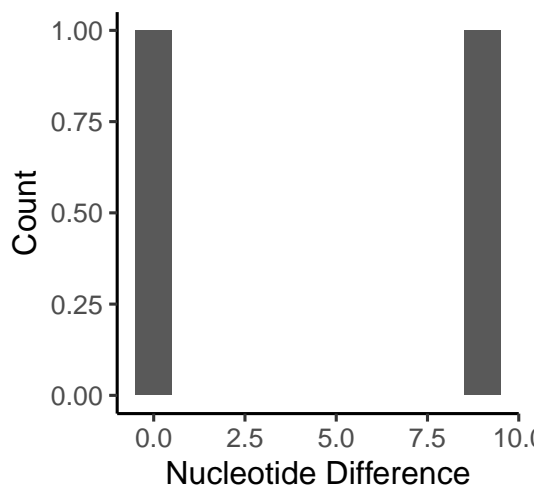
IGHV4-31*03

132 sequences assigned
32 (24.2%) exact matches, in which:
31 unique CDR3
5 unique J



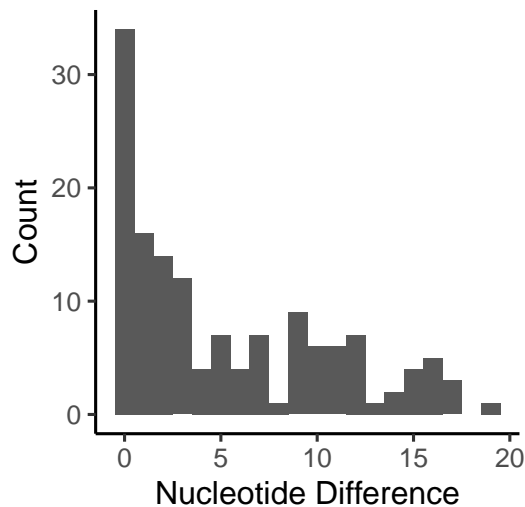
IGHV3-64D*06

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



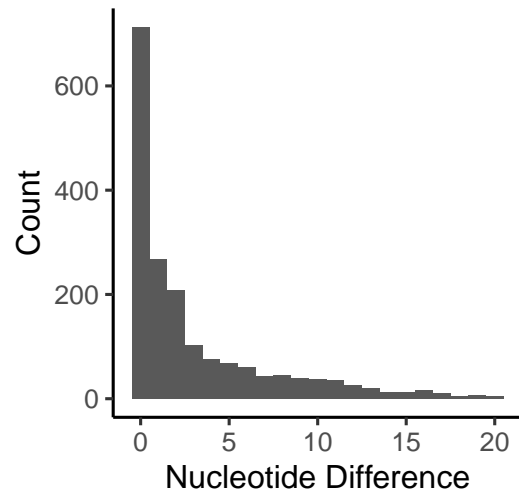
IGHV4-4*07

160 sequences assigned
34 (21.2%) exact matches, in which:
33 unique CDR3
5 unique J



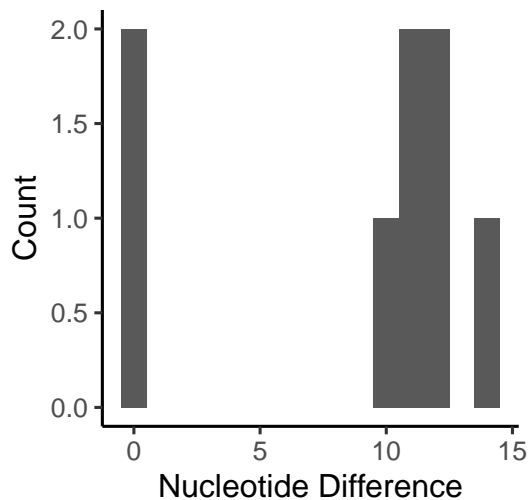
IGHV4-34*01

1869 sequences assigned
713 (38.1%) exact matches, in which:
700 unique CDR3
6 unique J



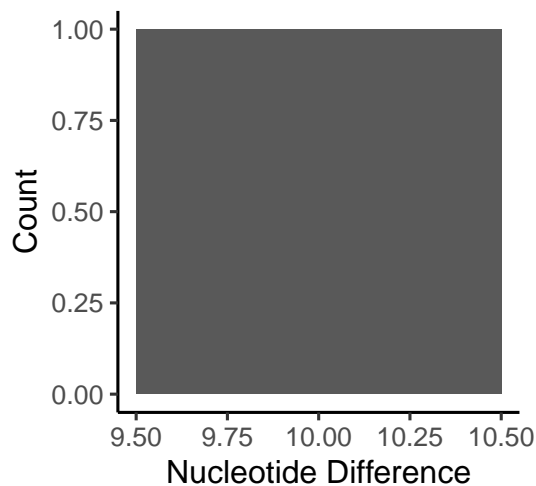
IGHV3-64D*09

10 sequences assigned
2 (20%) exact matches, in which:
2 unique CDR3
1 unique J



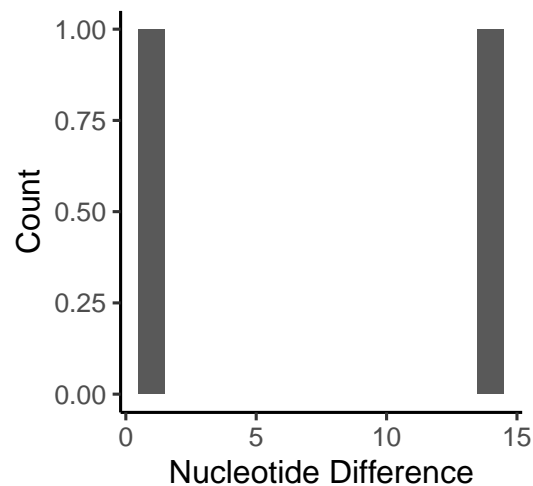
IGHV4-30-4*07

1 sequences assigned
No exact matches.



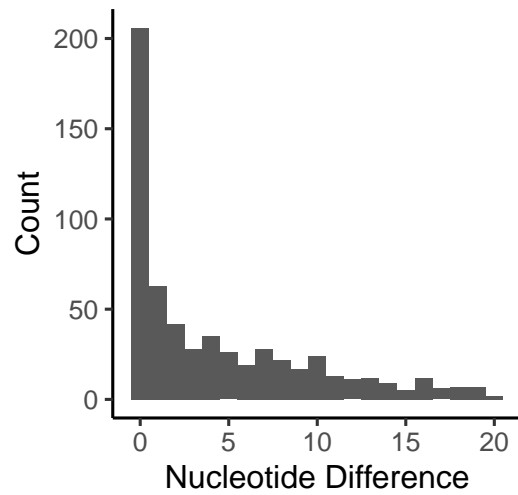
IGHV4-38-2*02

2 sequences assigned
No exact matches.



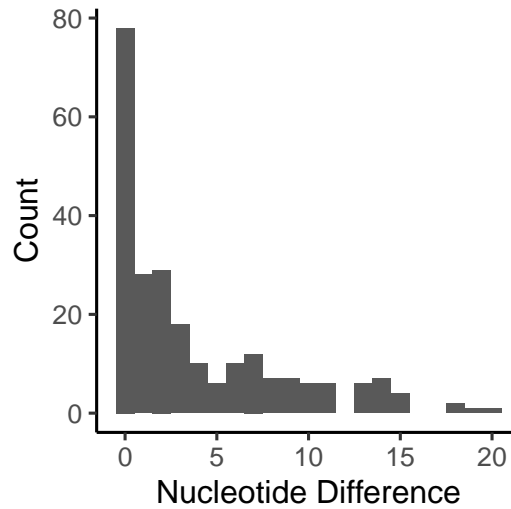
IGHV4-39*01

629 sequences assigned
206 (32.8%) exact matches, in which:
198 unique CDR3
5 unique J



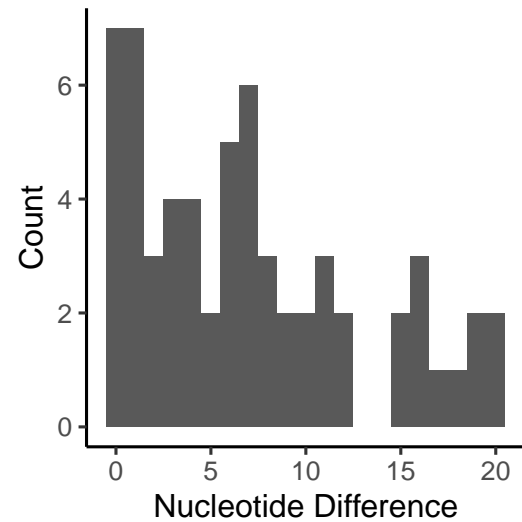
IGHV4-59*01

241 sequences assigned
78 (32.4%) exact matches, in which:
76 unique CDR3
6 unique J



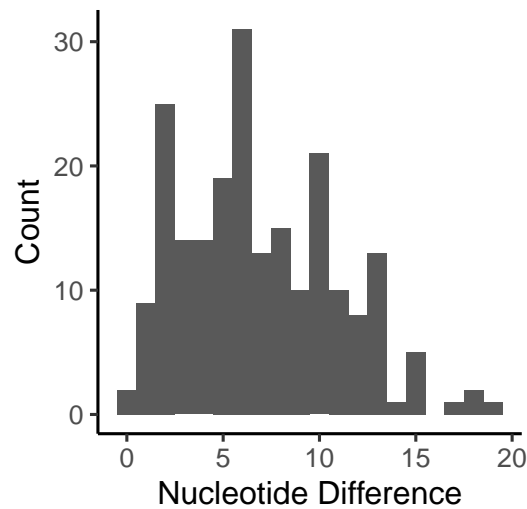
IGHV4-61*01

67 sequences assigned
7 (10.4%) exact matches, in which:
7 unique CDR3
3 unique J



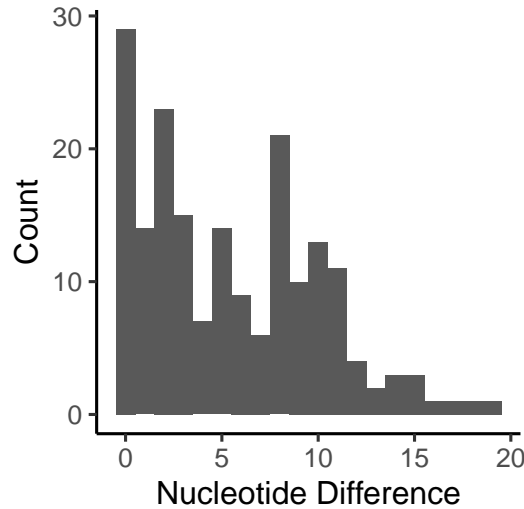
IGHV4-39*07

217 sequences assigned
2 (0.9%) exact matches, in which:
2 unique CDR3
2 unique J



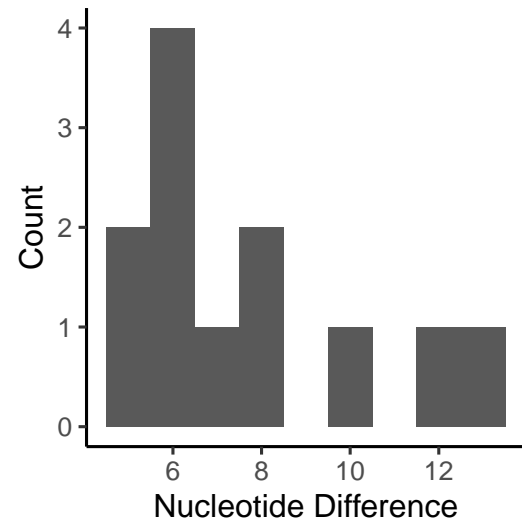
IGHV4-59*08

197 sequences assigned
29 (14.7%) exact matches, in which:
29 unique CDR3
6 unique J



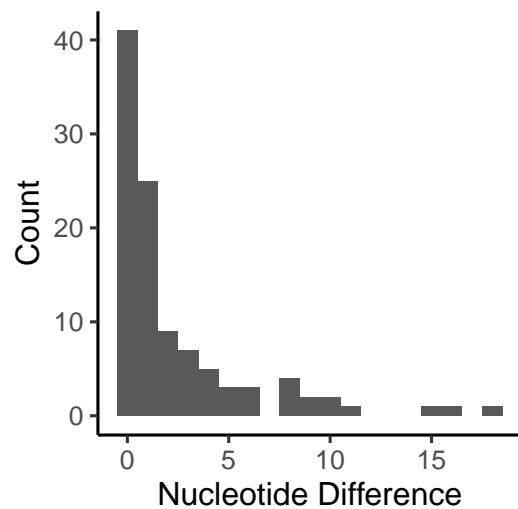
IGHV4-61*08

13 sequences assigned
No exact matches.



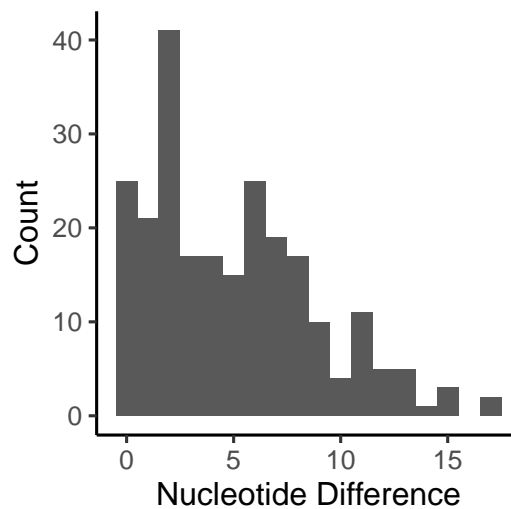
IGHV4-39*01_A220G_A2:

106 sequences assigned
41 (38.7%) exact matches, in which:
41 unique CDR3
5 unique J



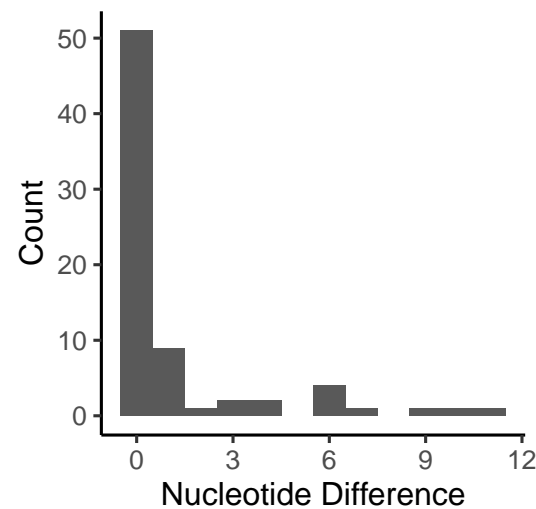
IGHV4-59*12

244 sequences assigned
25 (10.2%) exact matches, in which:
25 unique CDR3
4 unique J



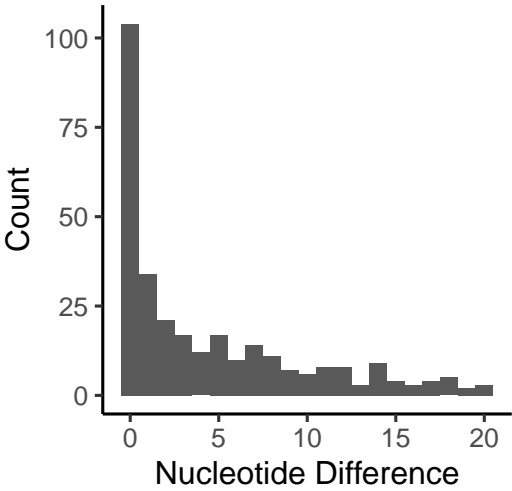
IGHV5-10-1*03

81 sequences assigned
51 (63%) exact matches, in which:
49 unique CDR3
5 unique J



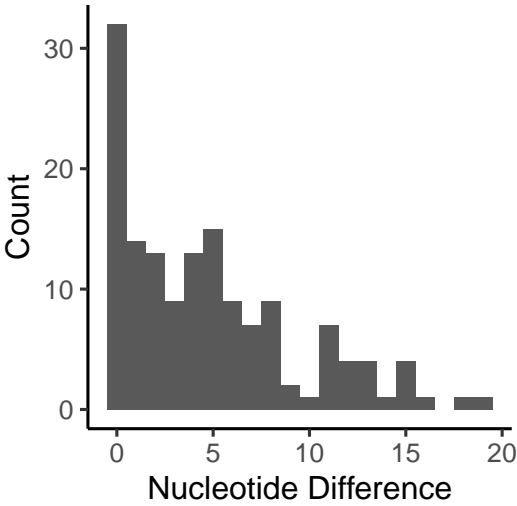
IGHV5-51*01

314 sequences assigned
104 (33.1%) exact matches, in which:
104 unique CDR3
6 unique J



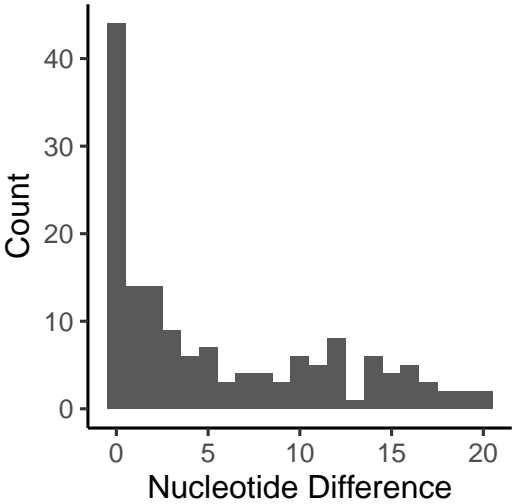
IGHV6-1*01

155 sequences assigned
32 (20.6%) exact matches, in which:
32 unique CDR3
4 unique J

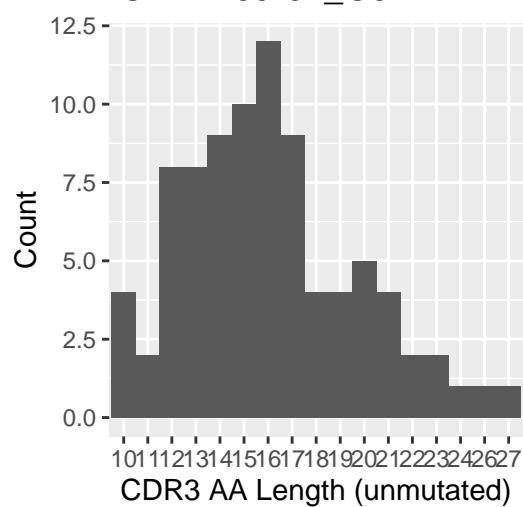


IGHV7-4-1*02

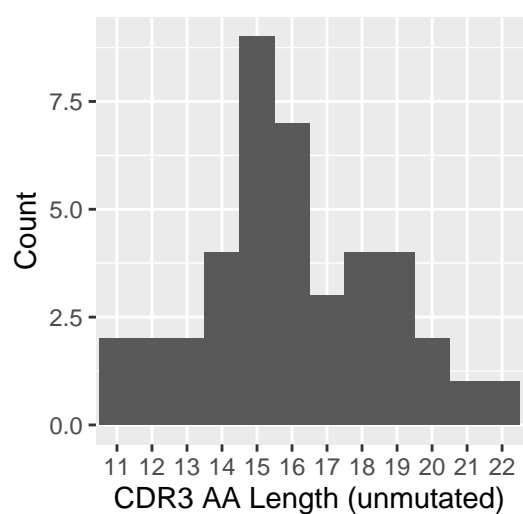
157 sequences assigned
44 (28%) exact matches, in which:
44 unique CDR3
4 unique J



IGHV1-69*01_G54A



IGHV4-39*01_A220G_A225G





Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.