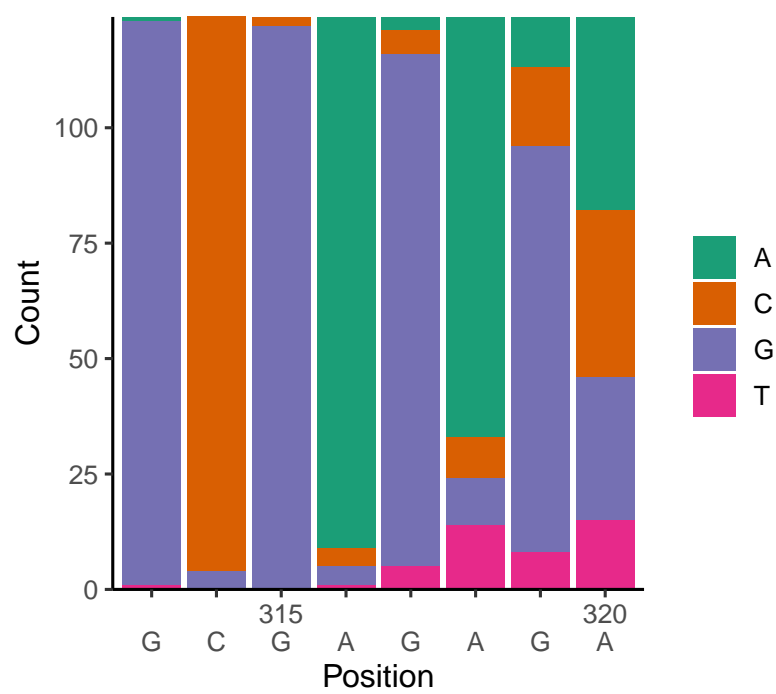
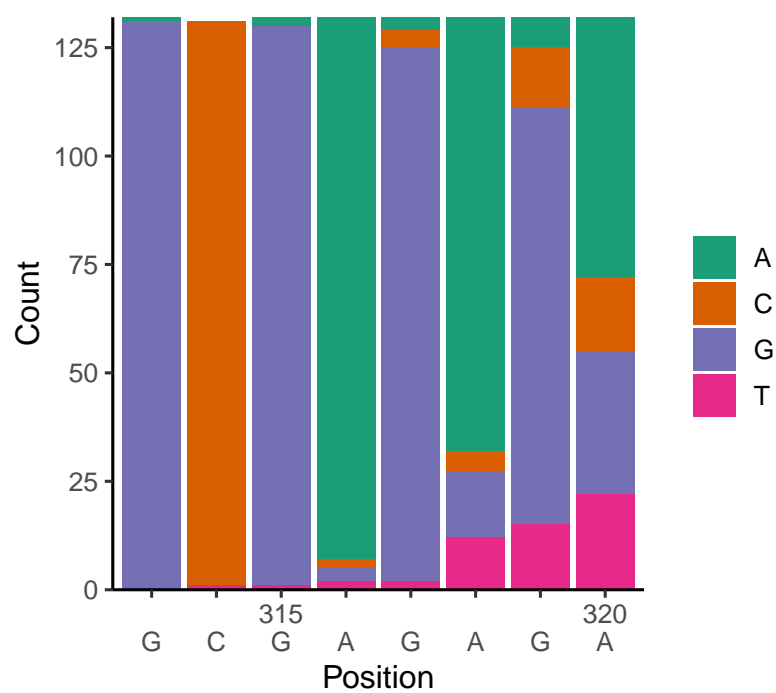


Gene IGHV1-69*08_C191T



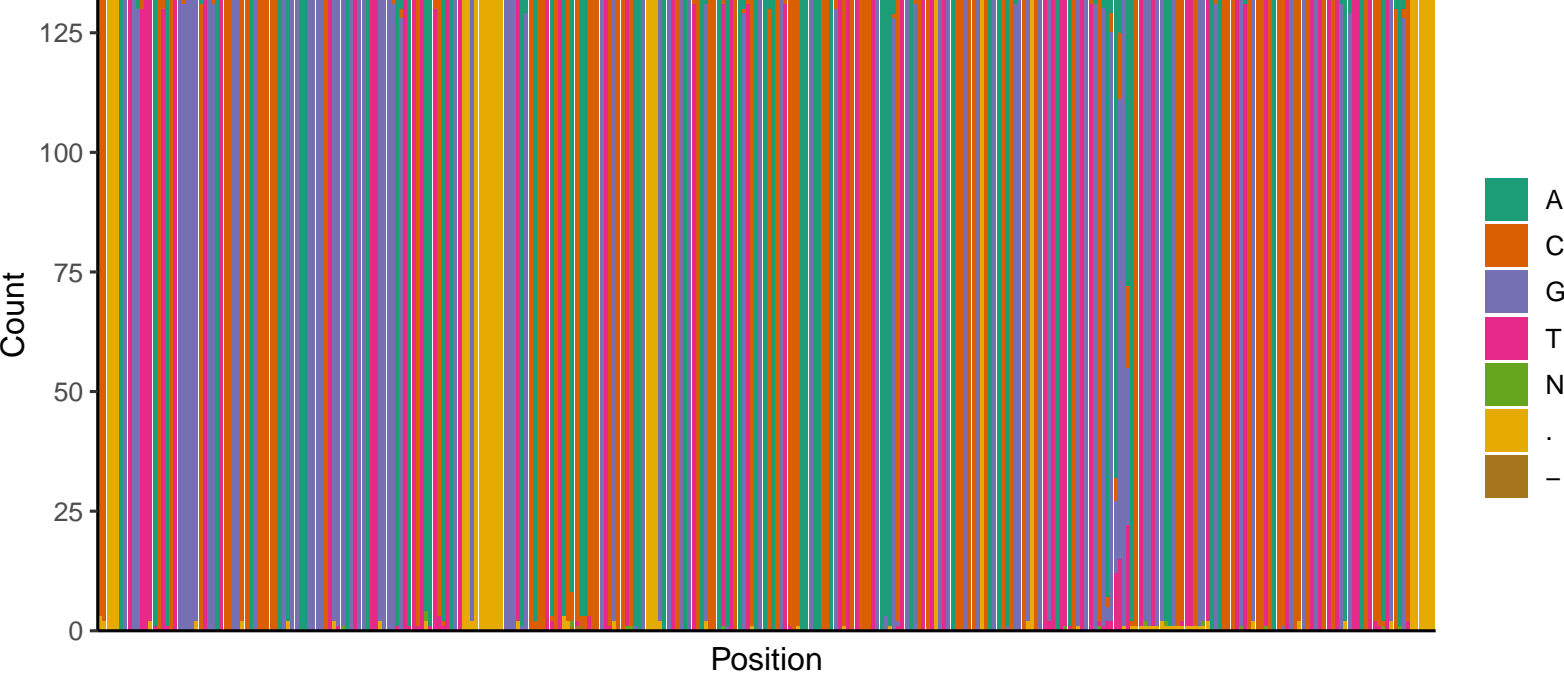
Gene IGHV4-38-2*02_A70G



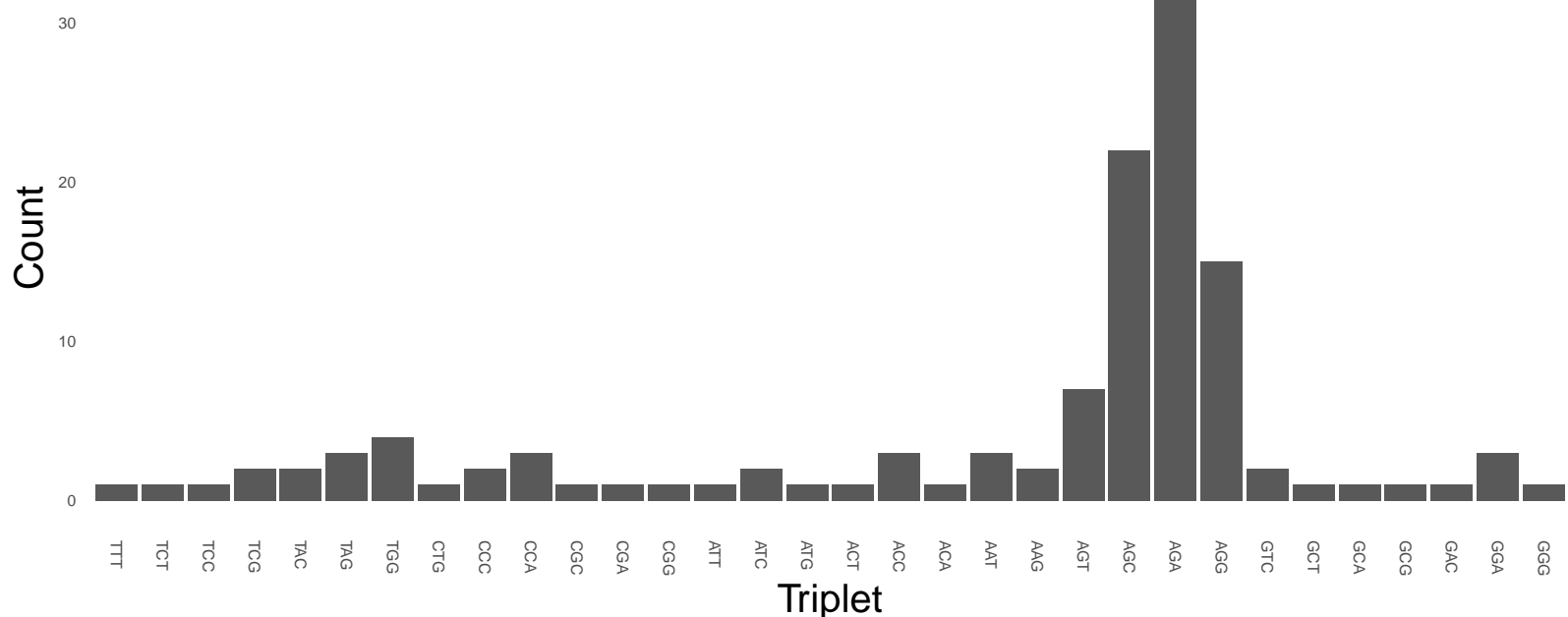
Gene IGHV1-69*08_C191T



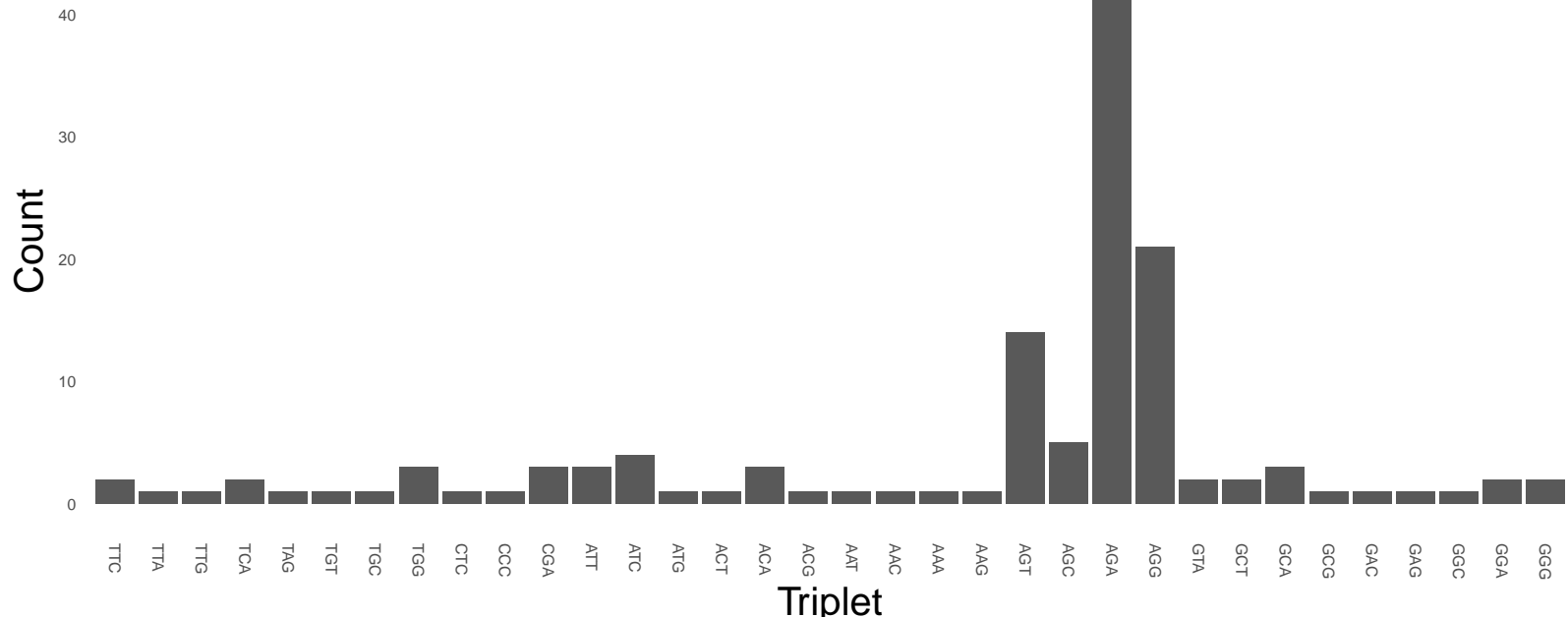
Gene IGHV4-38-2*02_A70G



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

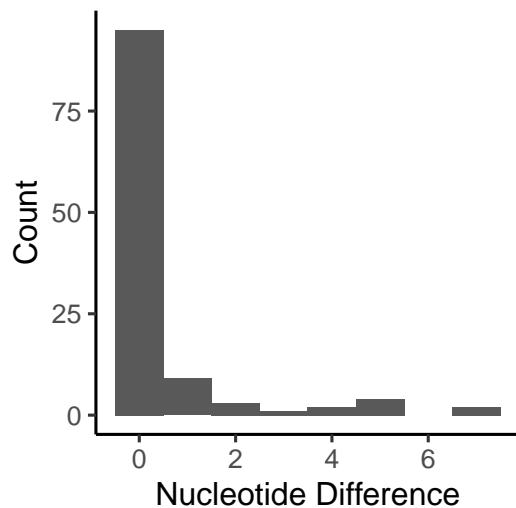


IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet



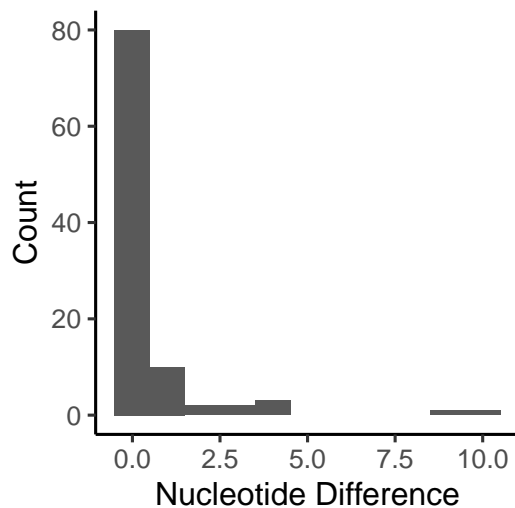
IGHV1-2*02

116 sequences assigned
95 (81.9%) exact matches, in which:
94 unique CDR3
5 unique J



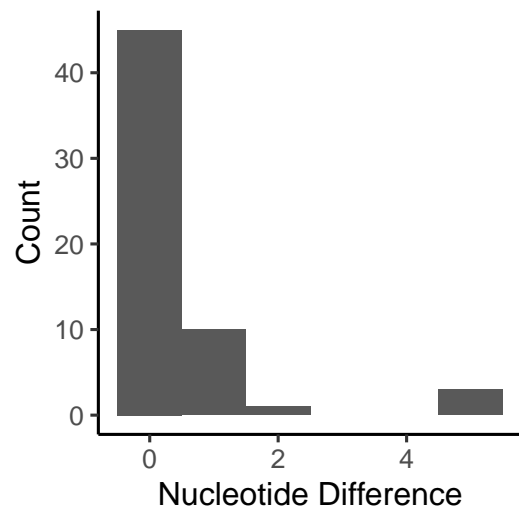
IGHV1-8*01

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



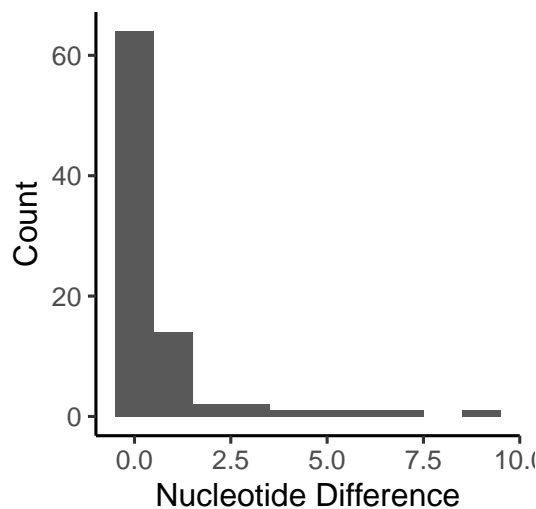
IGHV1-24*01

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



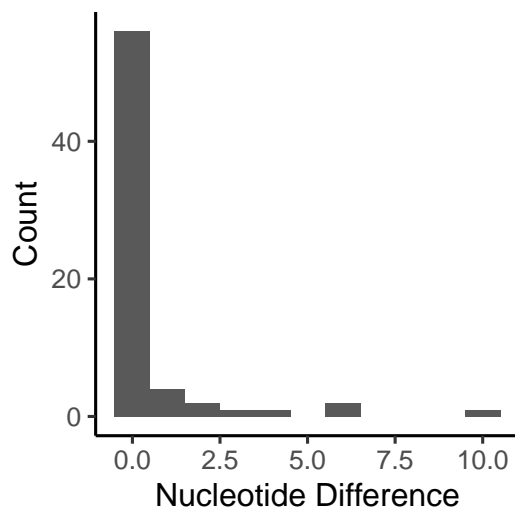
IGHV1-2*06

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



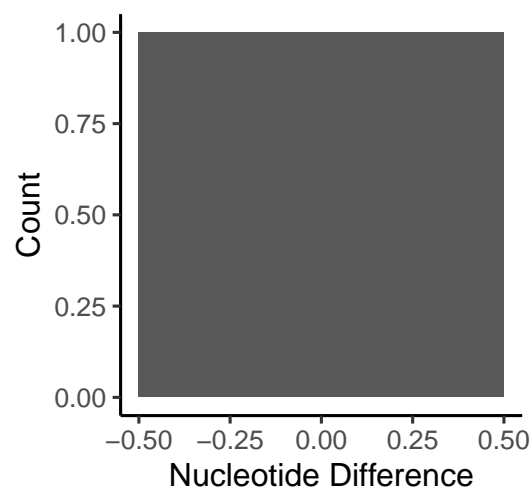
IGHV1-18*01

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



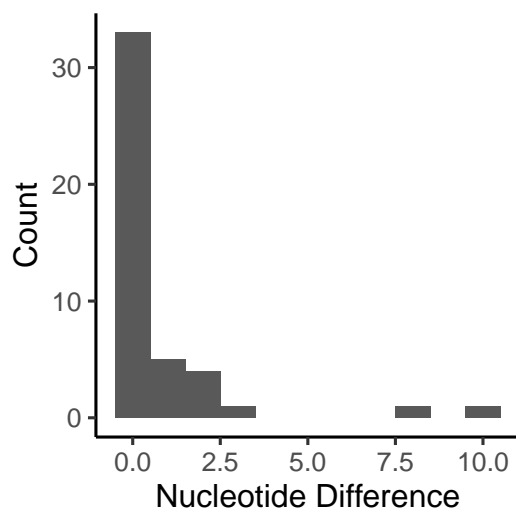
IGHV1-45*02

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



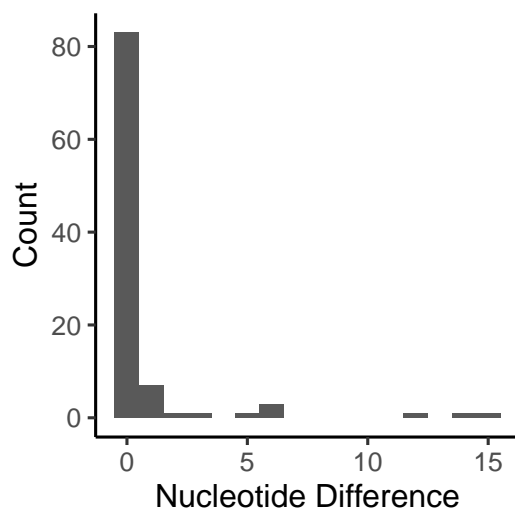
IGHV1-3*01

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



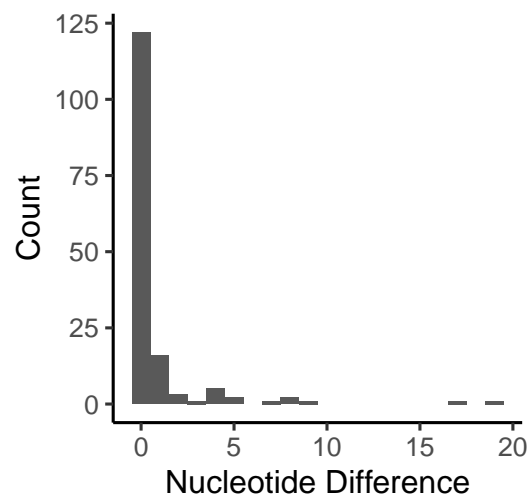
IGHV1-18*04

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



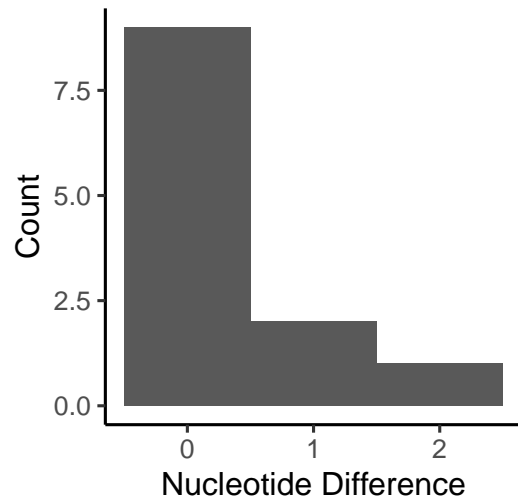
IGHV1-46*01

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



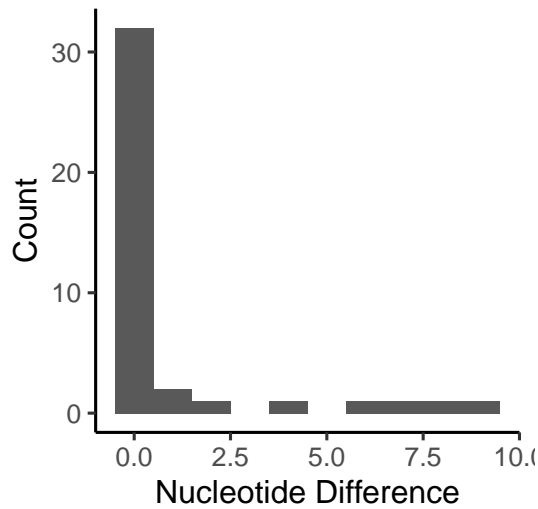
IGHV1-58*01

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



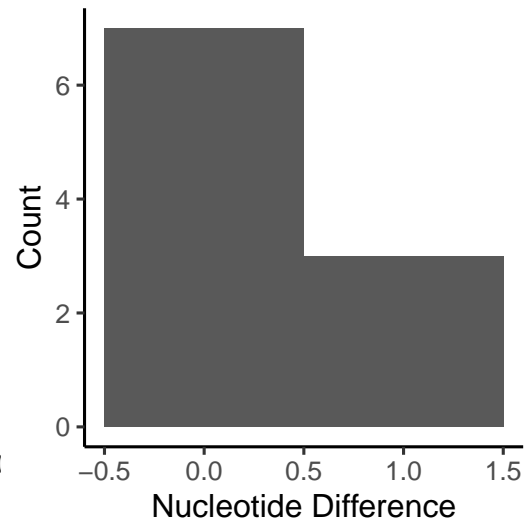
IGHV2-5*01

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



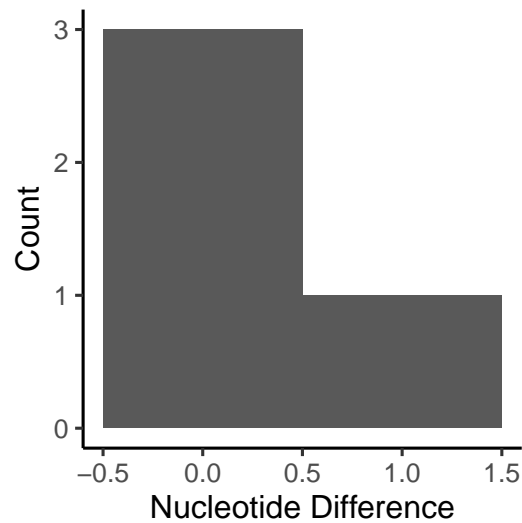
IGHV2-70*01

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



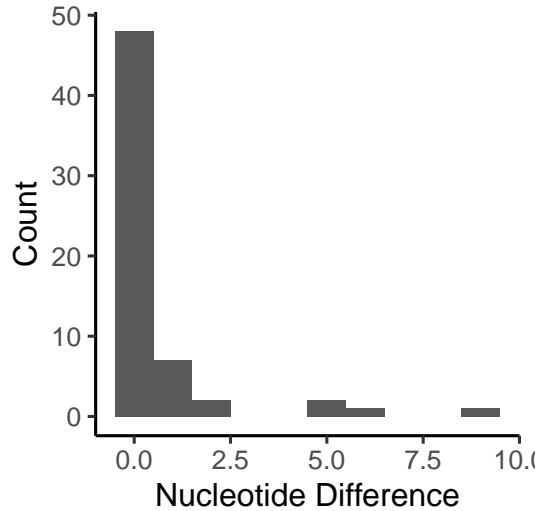
IGHV1-58*02

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



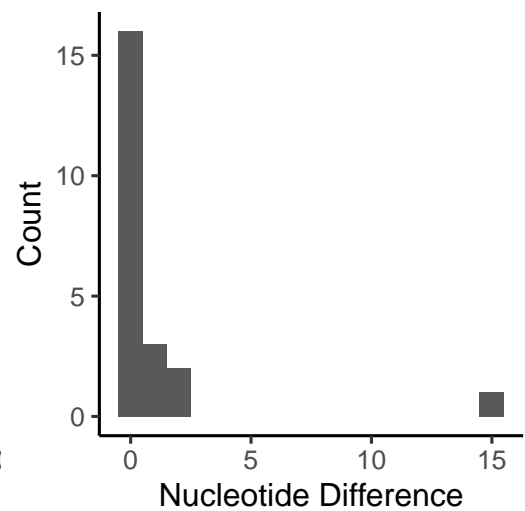
IGHV2-5*02

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



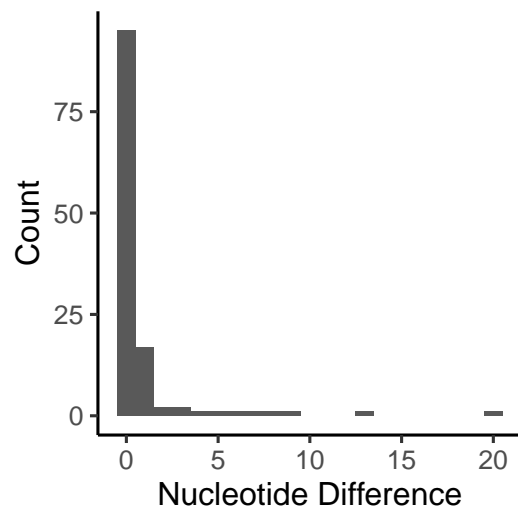
IGHV2-70*15

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



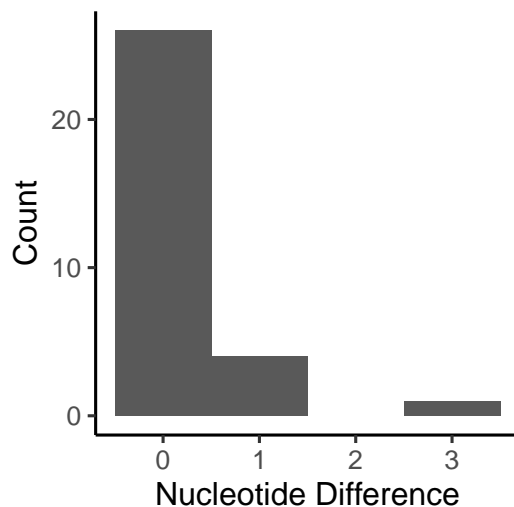
IGHV1-69*08_C191T

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



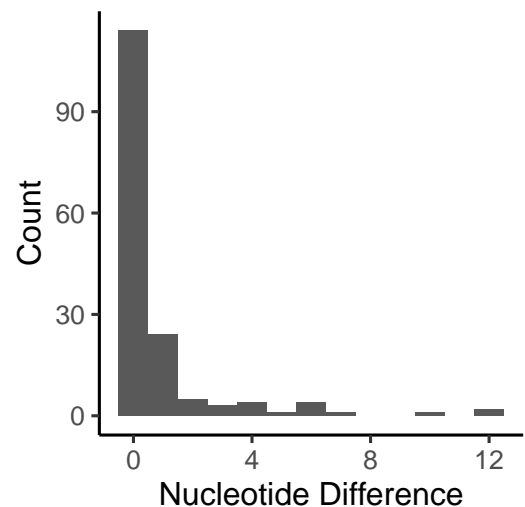
IGHV2-26*01

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



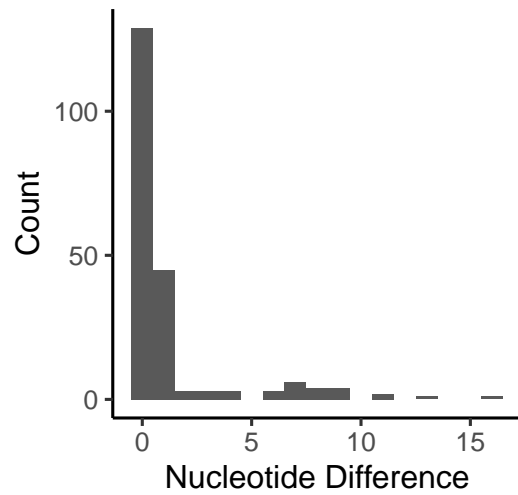
IGHV3-7*01

161 sequences assigned
114 (70.8%) exact matches, in which:
113 unique CDR3
6 unique J



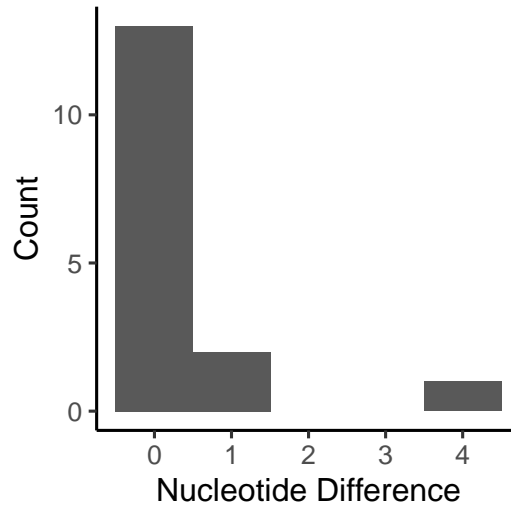
IGHV3-9*01

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



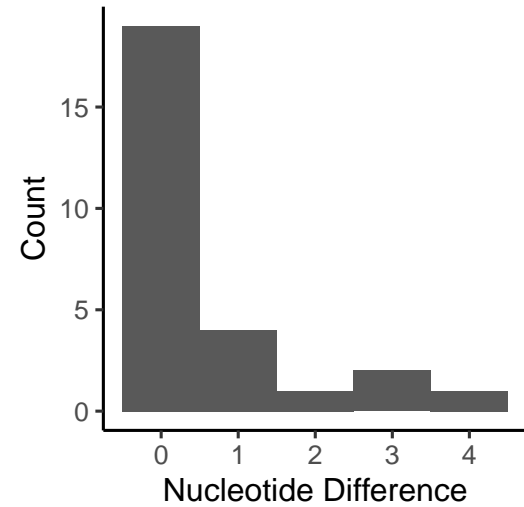
IGHV3-13*01

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



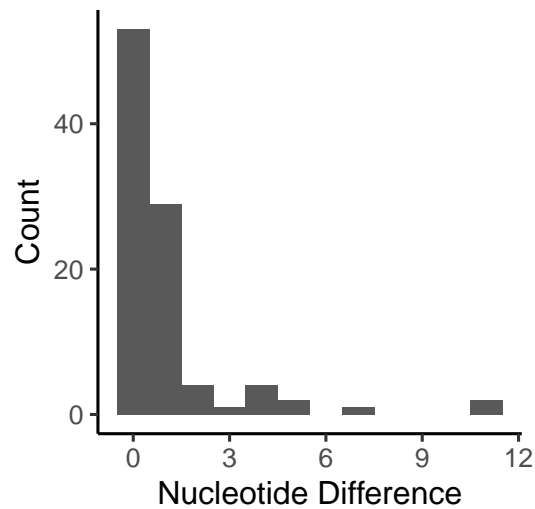
IGHV3-20*01

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



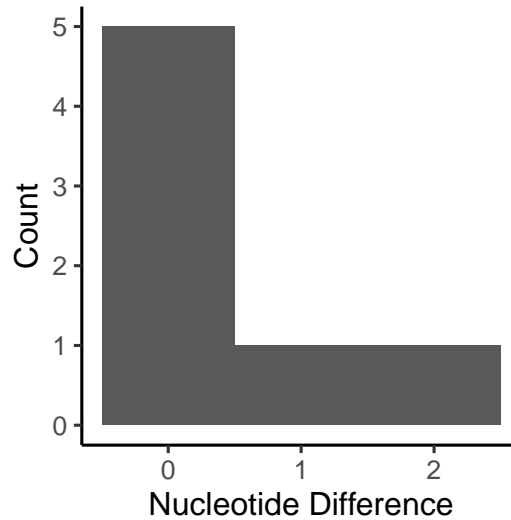
IGHV3-11*01

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



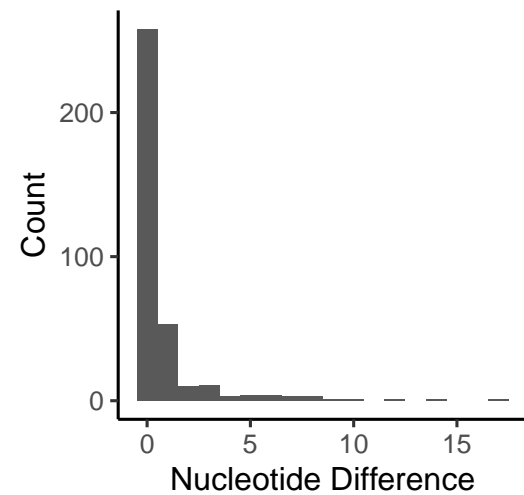
IGHV3-13*05

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



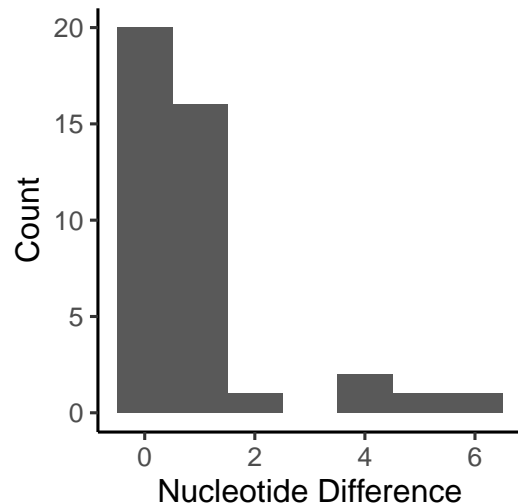
IGHV3-21*01

354 sequences assigned
258 (72.9%) exact matches, in which:
258 unique CDR3
6 unique J



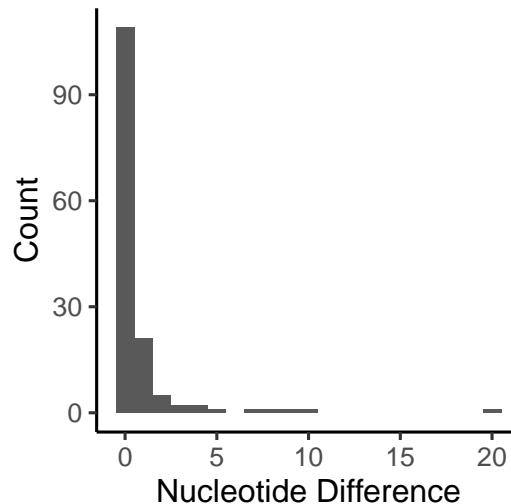
IGHV3-11*06

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



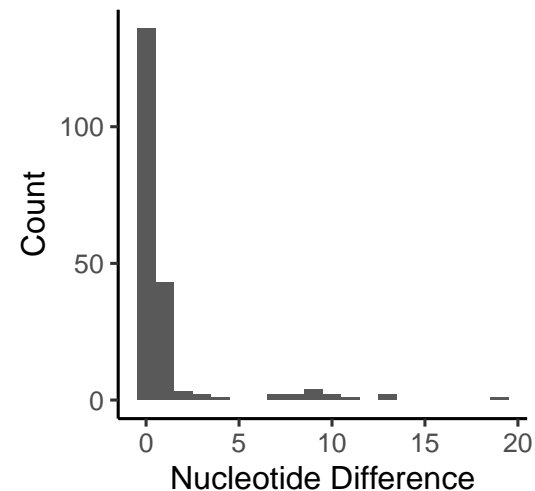
IGHV3-15*01

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



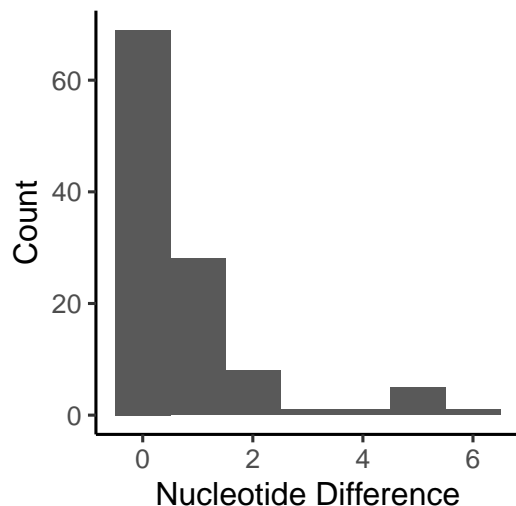
IGHV3-30-3*01

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



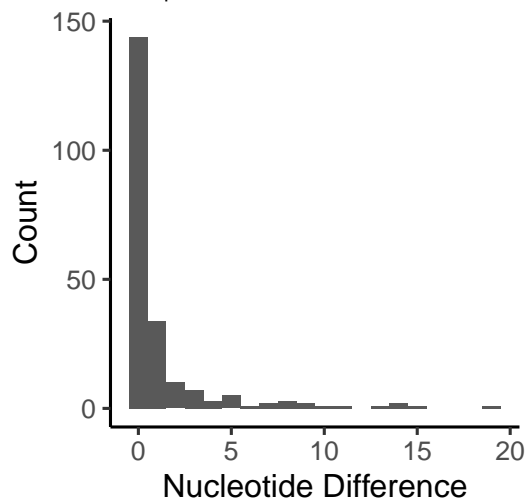
IGHV3-33*01

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



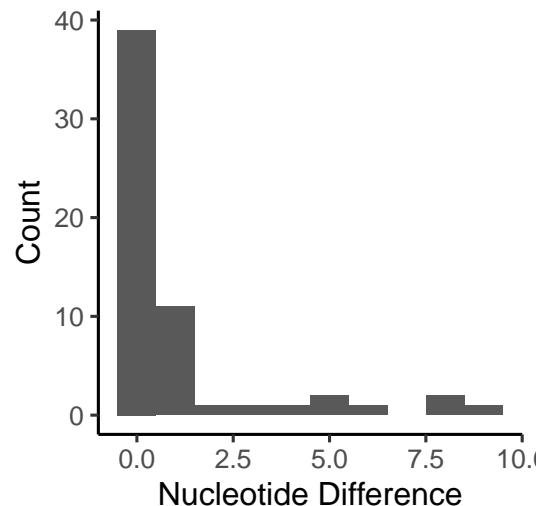
IGHV3-48*03

219 sequences assigned
144 (65.8%) exact matches, in which:
139 unique CDR3
5 unique J



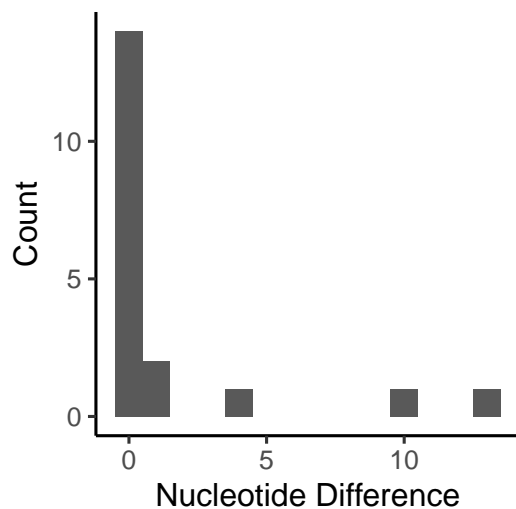
IGHV3-53*01

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



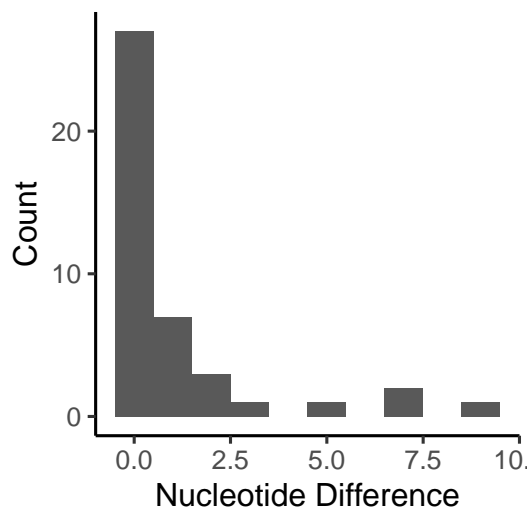
IGHV3-43*01

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



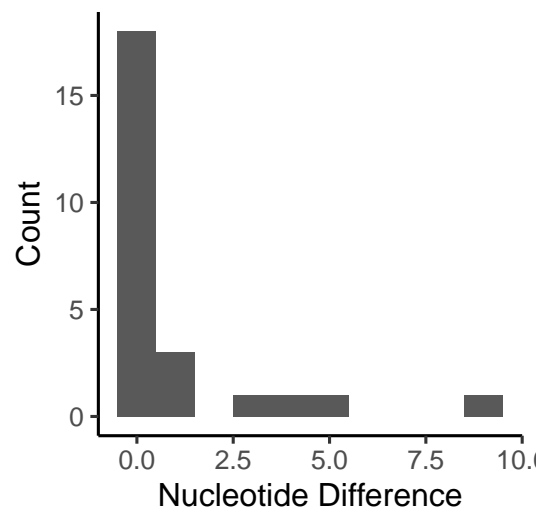
IGHV3-49*04

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



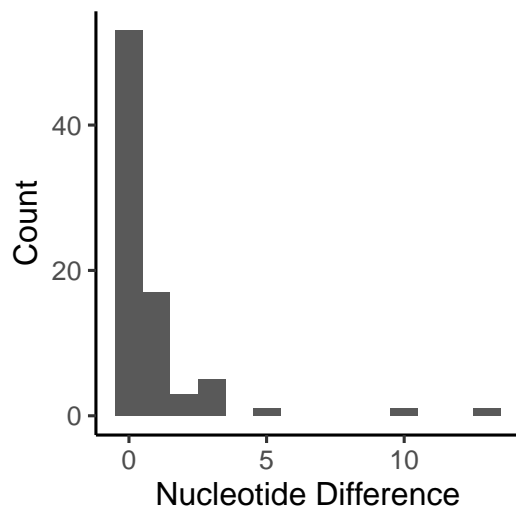
IGHV3-53*02

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



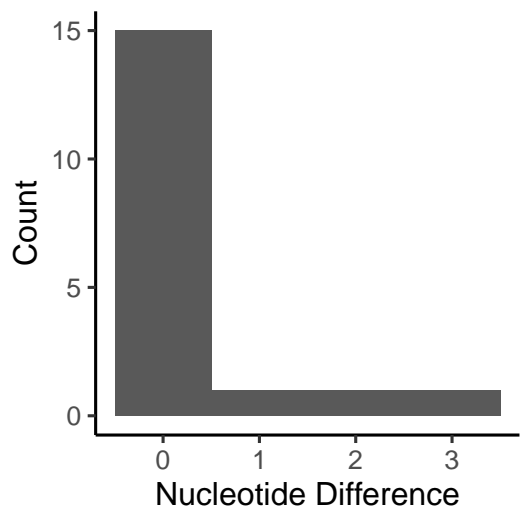
IGHV3-48*02

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



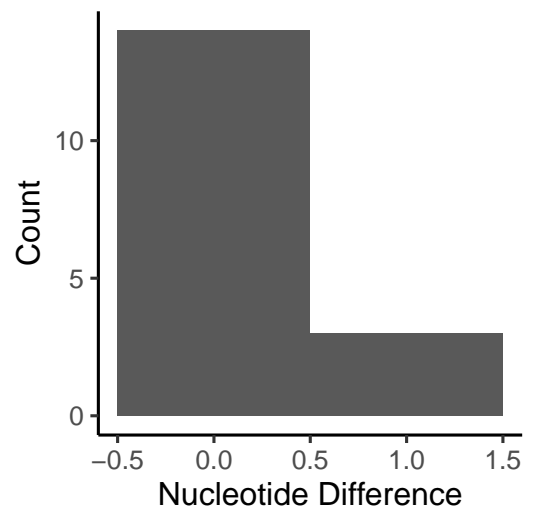
IGHV3-49*05

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



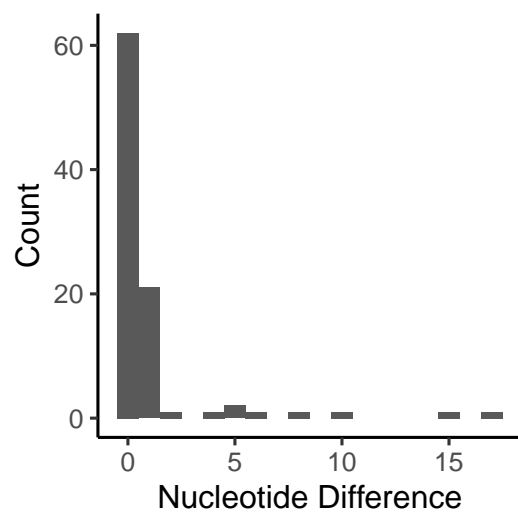
IGHV3-64*01

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



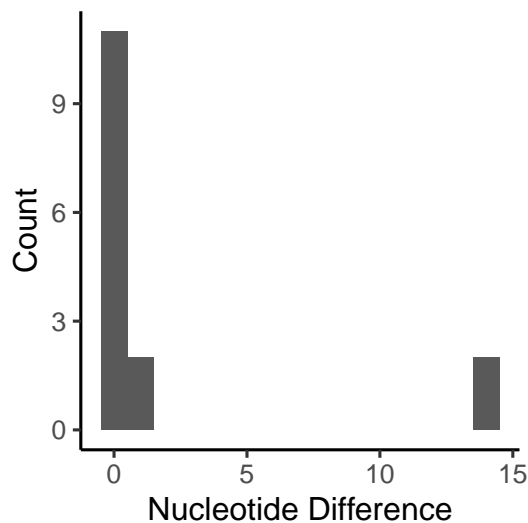
IGHV3-66*01

92 sequences assigned
62 (67.4%) exact matches, in which:
62 unique CDR3
5 unique J



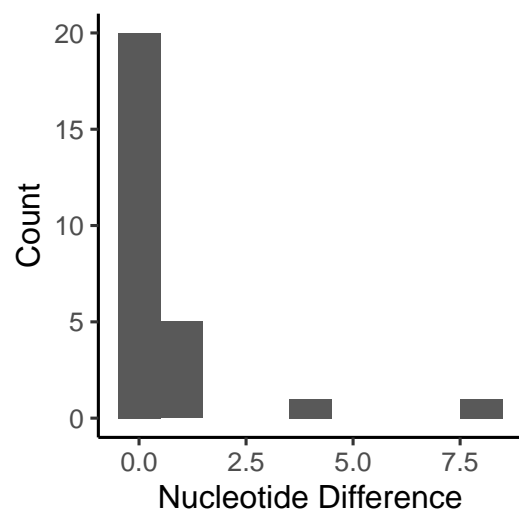
IGHV3-73*01

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



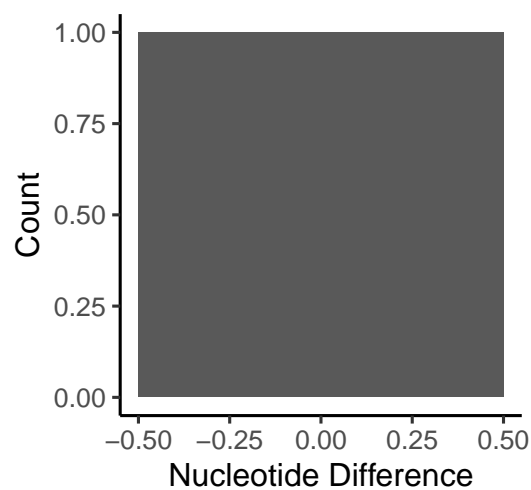
IGHV3-43D*03

27 sequences assigned
20 (74.1%) exact matches, in which:
20 unique CDR3
3 unique J



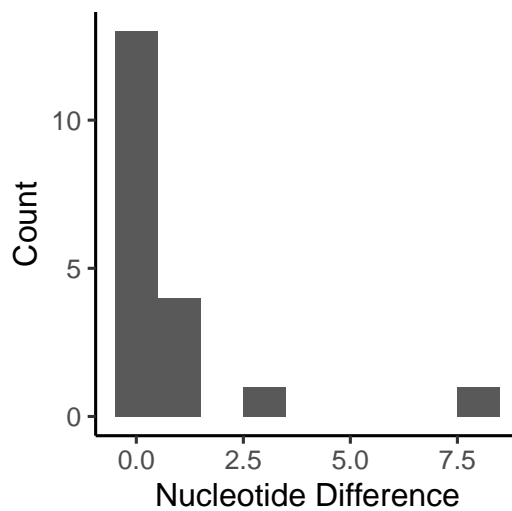
IGHV3-69-1*02

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



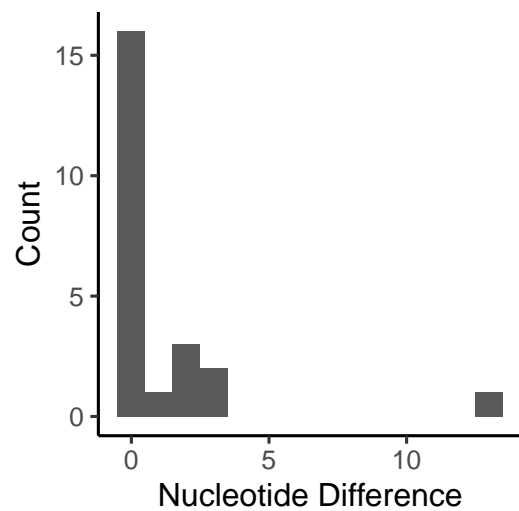
IGHV3-73*02

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



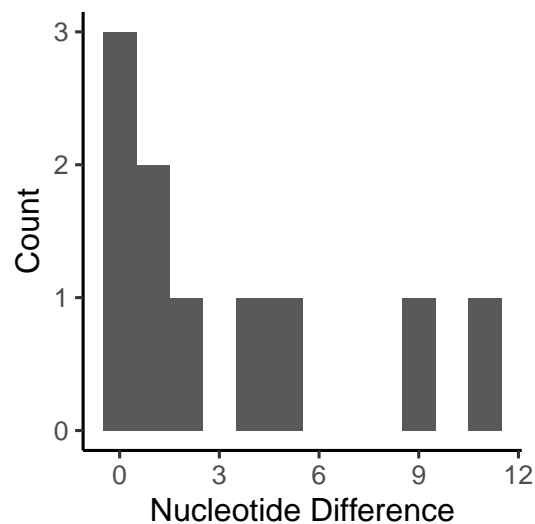
IGHV3-43D*04

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



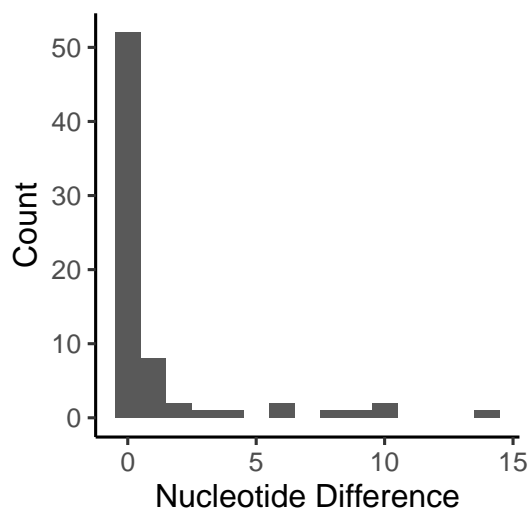
IGHV3-72*01

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



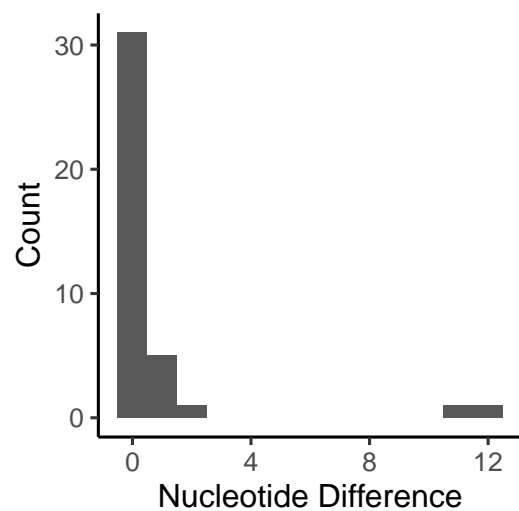
IGHV3-74*01

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



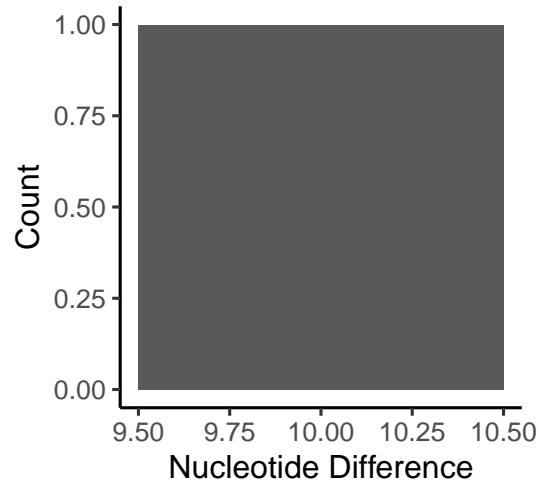
IGHV3-64D*06

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



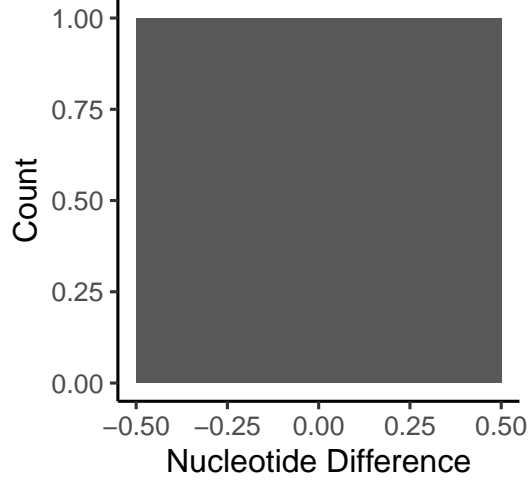
IGHV3–NL1*01

1 sequences assigned
No exact matches.



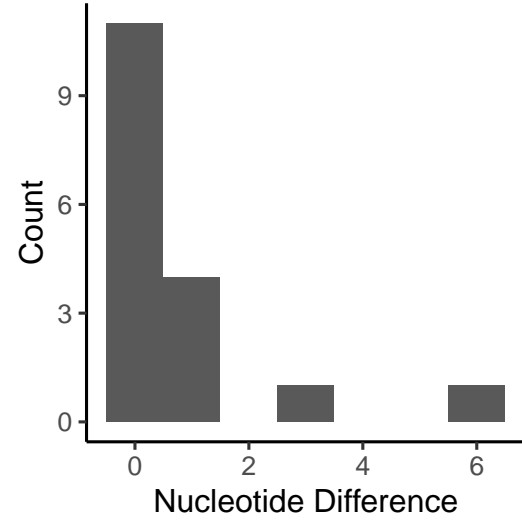
IGHV4–28*03

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



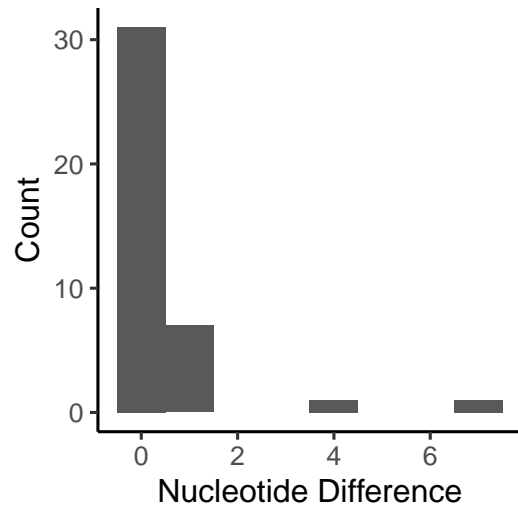
IGHV4–30–2*01

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



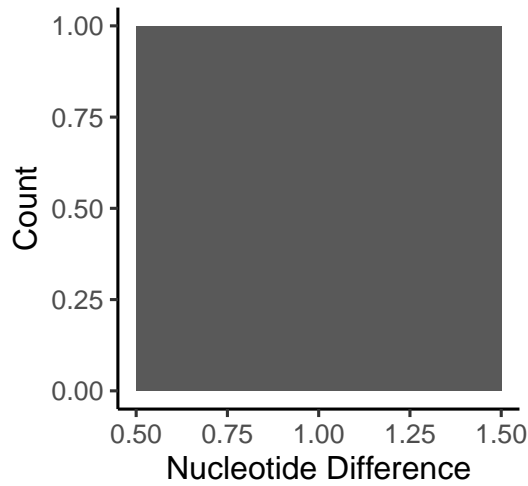
IGHV4–4*02

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



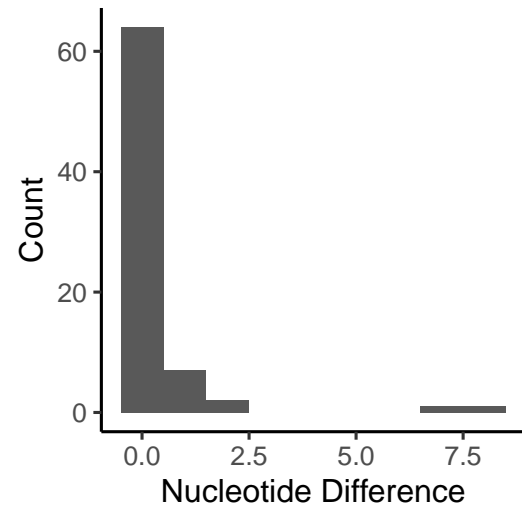
IGHV4–28*04

1 sequences assigned
No exact matches.



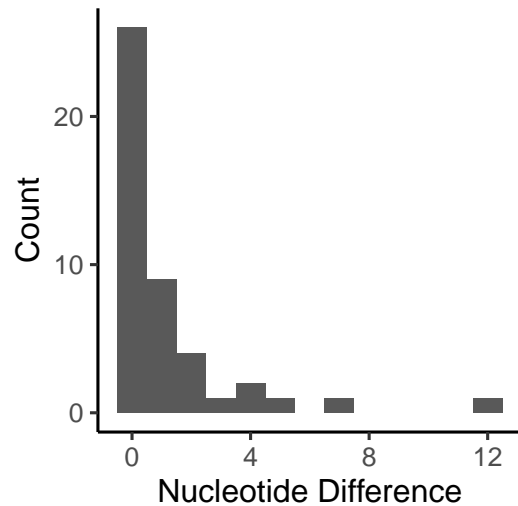
IGHV4–31*03

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



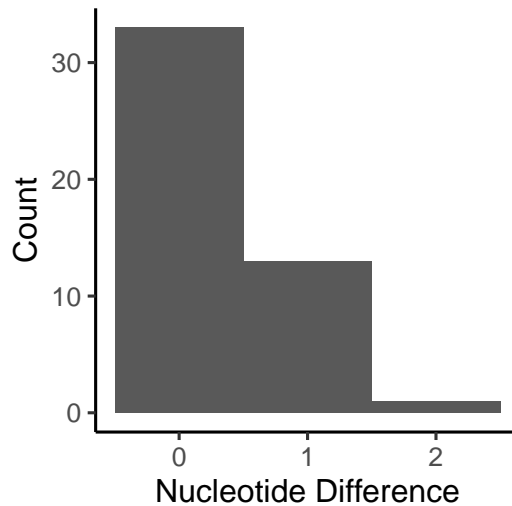
IGHV4–4*07

45 sequences assigned
26 (57.8%) exact matches, in which:
25 unique CDR3
5 unique J



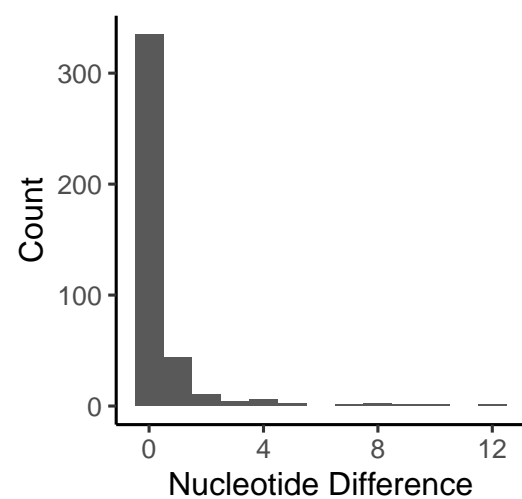
IGHV4–30–4*01

47 sequences assigned
33 (70.2%) exact matches, in which:
33 unique CDR3
5 unique J



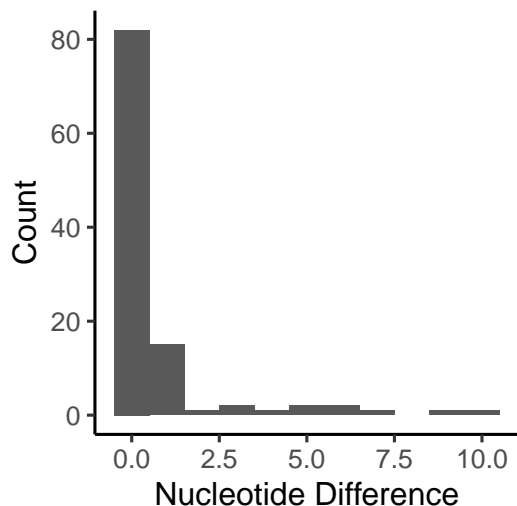
IGHV4–34*01

408 sequences assigned
335 (82.1%) exact matches, in which:
331 unique CDR3
6 unique J



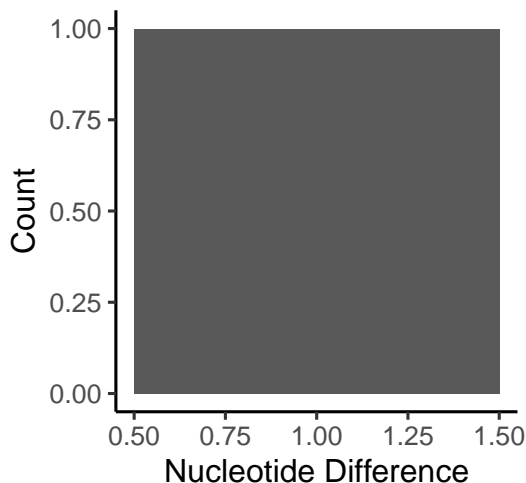
IGHV4-38-2*02

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



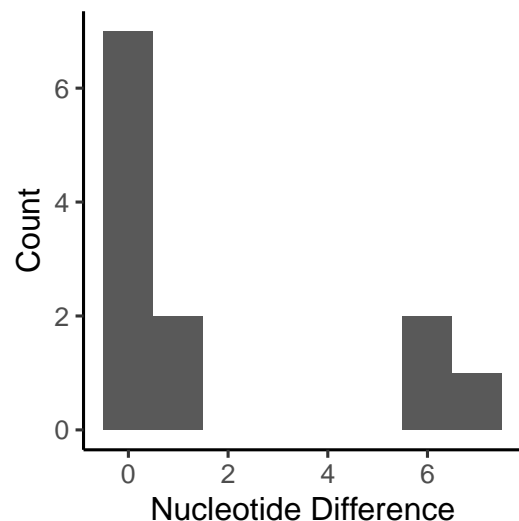
IGHV4-55*09

1 sequences assigned
No exact matches.



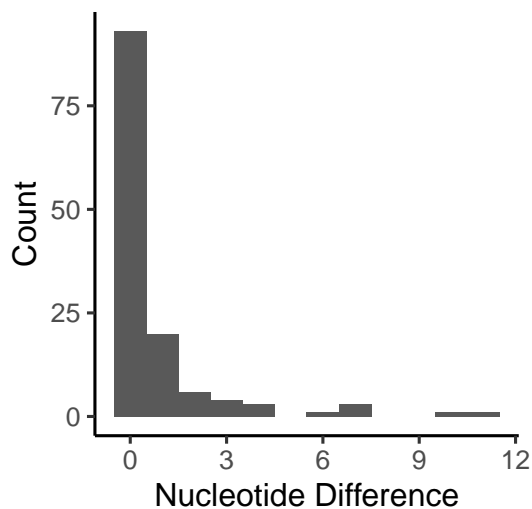
IGHV4-61*01

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



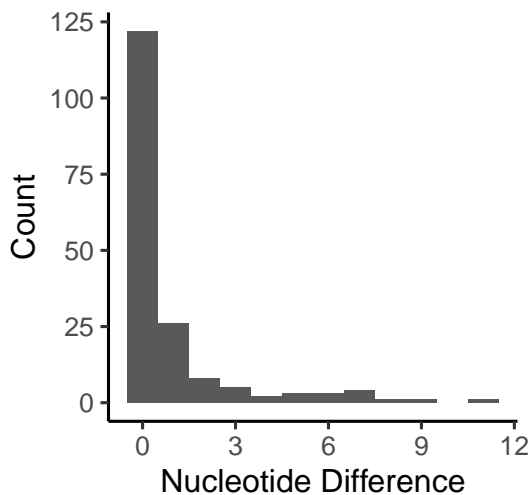
IGHV4-38-2*02_A70G

132 sequences assigned
93 (70.5%) exact matches, in which:
92 unique CDR3
6 unique J



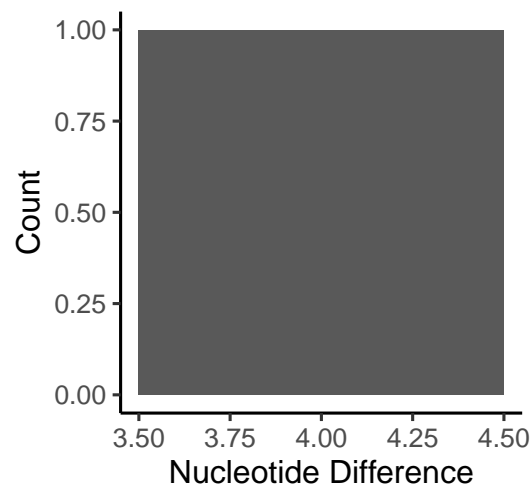
IGHV4-59*01

176 sequences assigned
122 (69.3%) exact matches, in which:
122 unique CDR3
6 unique J



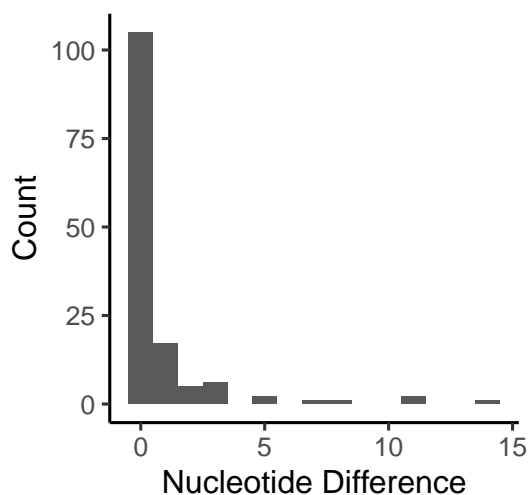
IGHV4/OR15-8*01

1 sequences assigned
No exact matches.



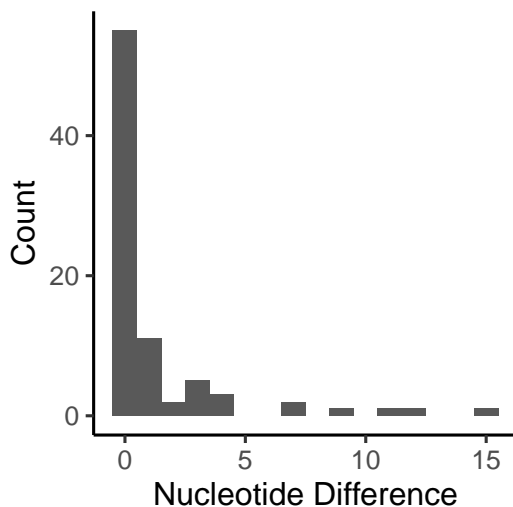
IGHV4-39*01

141 sequences assigned
105 (74.5%) exact matches, in which:
104 unique CDR3
6 unique J



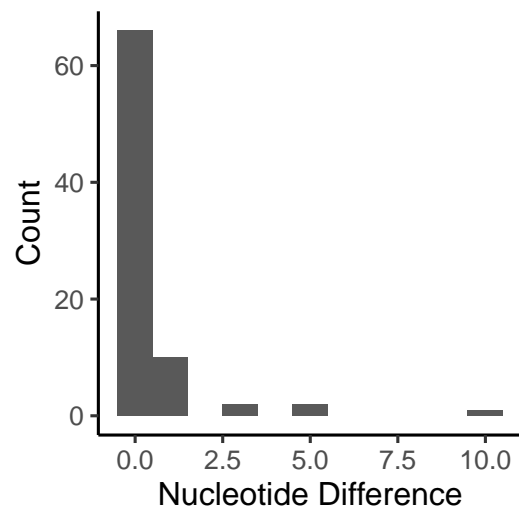
IGHV4-59*08

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



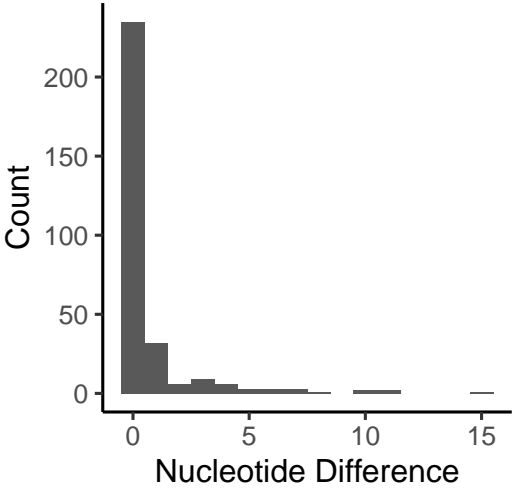
IGHV5-10-1*03

81 sequences assigned
66 (81.5%) exact matches, in which:
66 unique CDR3
5 unique J



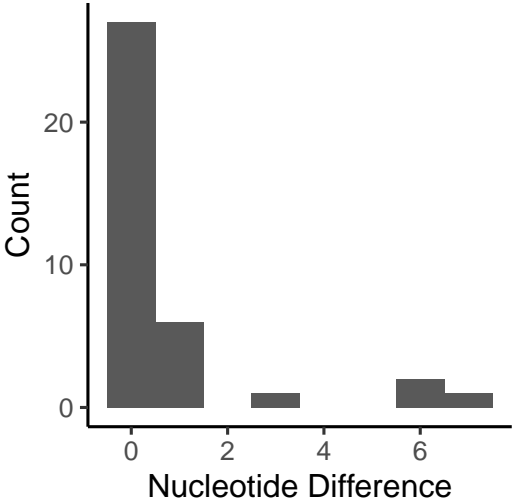
IGHV5-51*01

303 sequences assigned
235 (77.6%) exact matches, in which:
233 unique CDR3
6 unique J



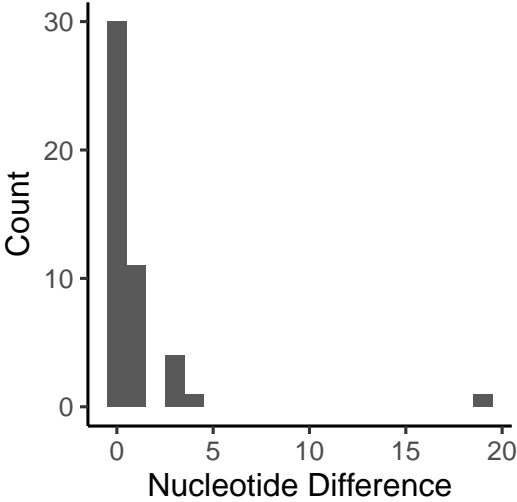
IGHV6-1*01

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

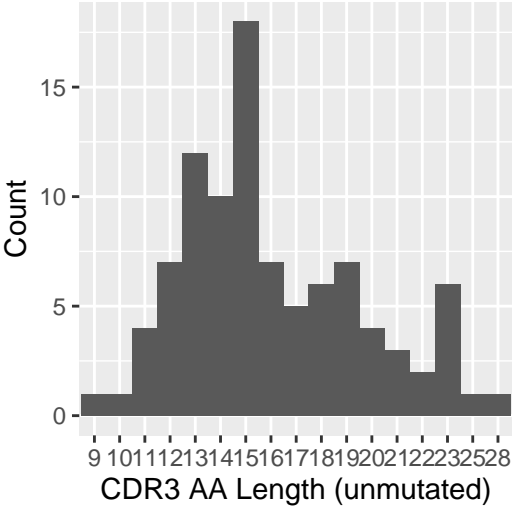


IGHV7-4-1*02

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

