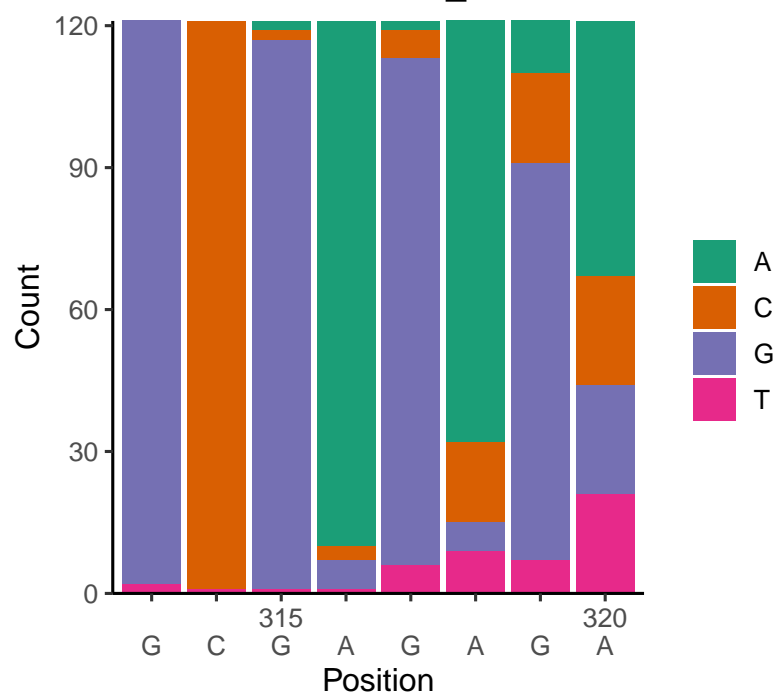
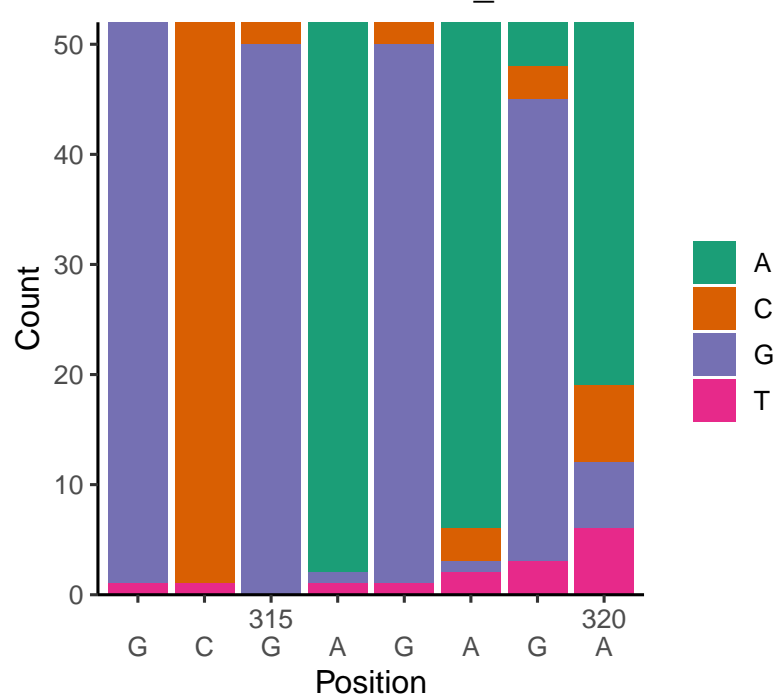


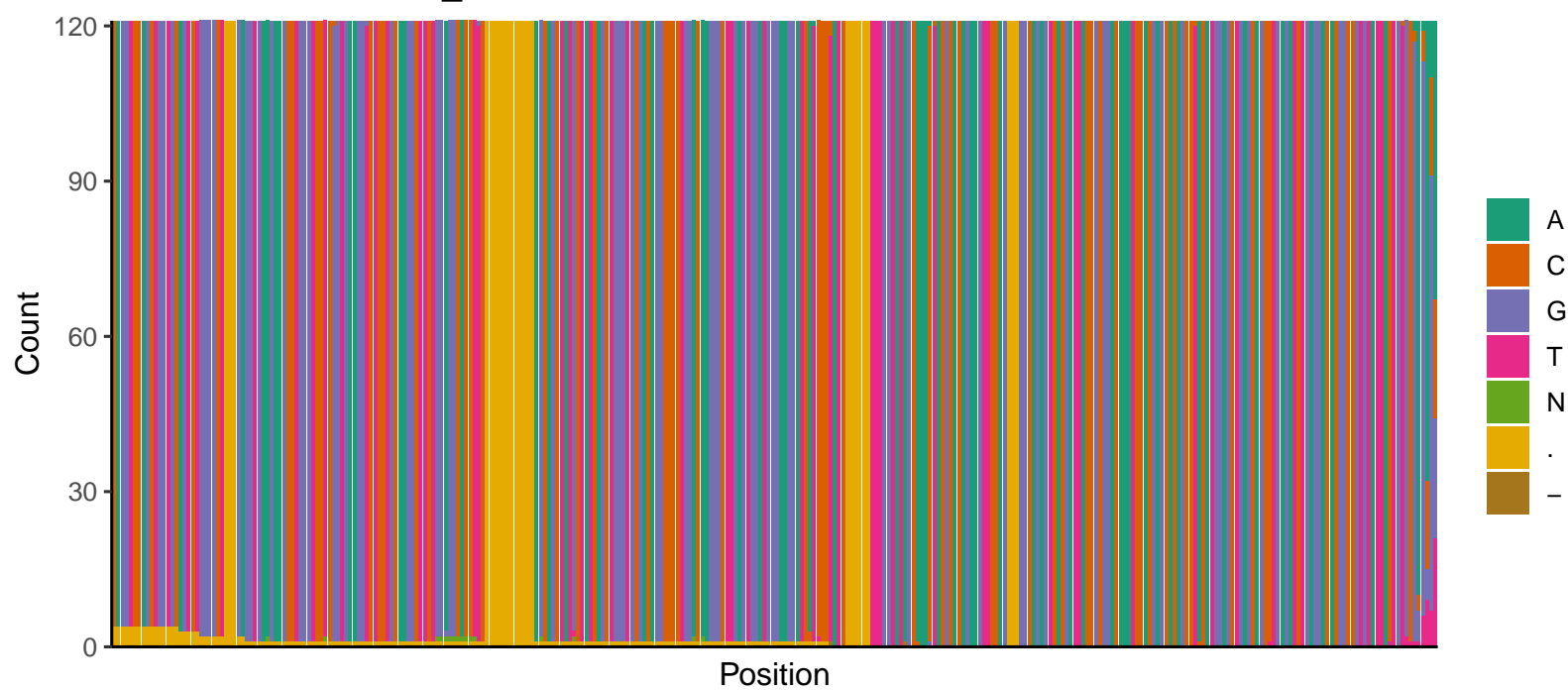
Gene IGHV1-69*04_C184T



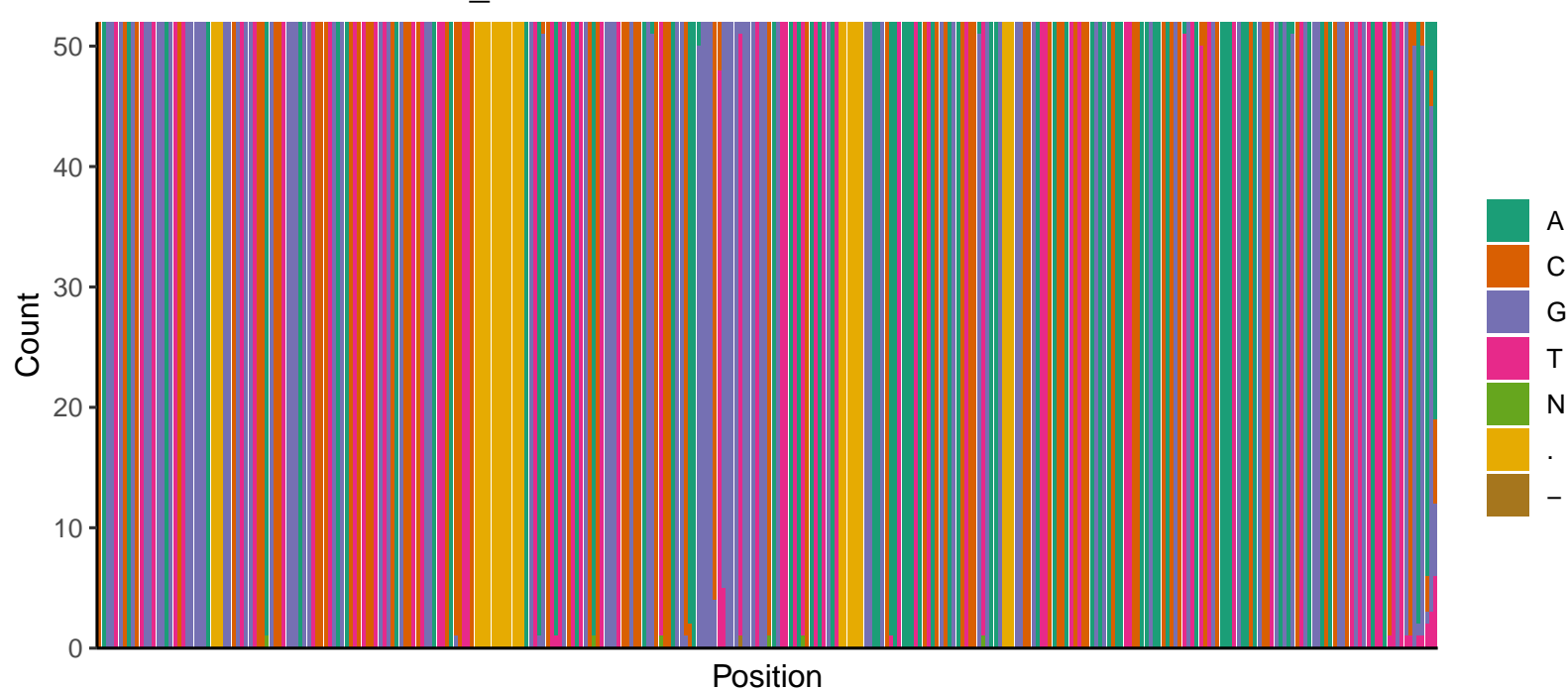
Gene IGHV3-30-3*01_A152G



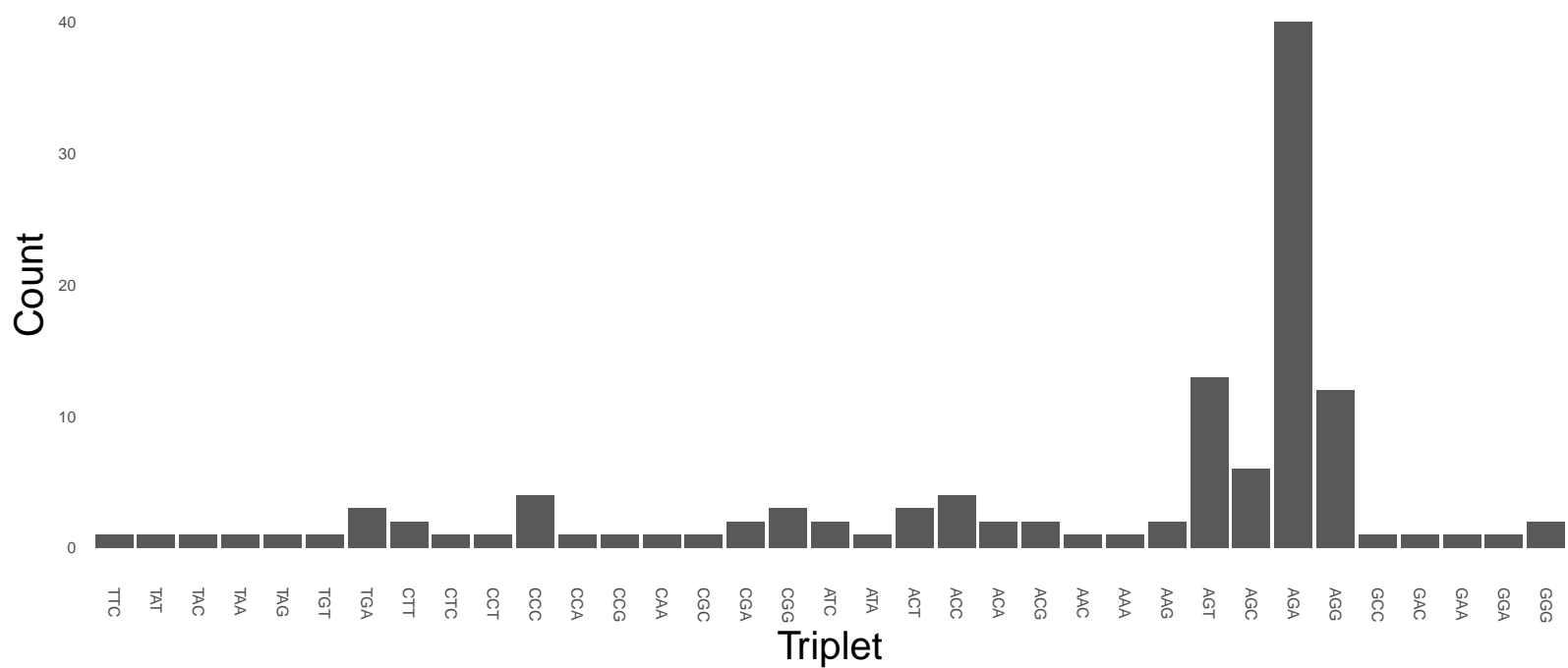
Gene IGHV1-69*04_C184T



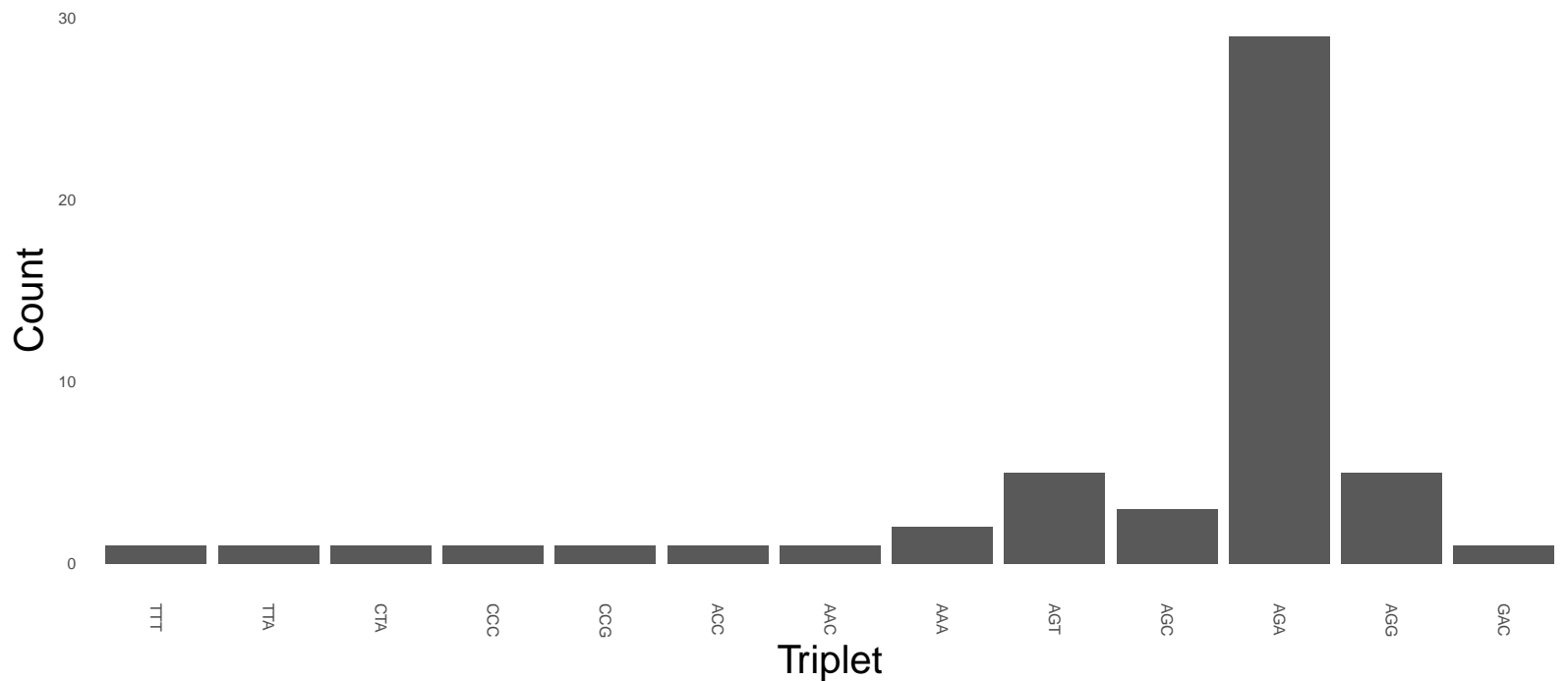
Gene IGHV3-30-3*01_A152G



IGHV1-69*04_C184T- Final 3 nucleotides as a triplet

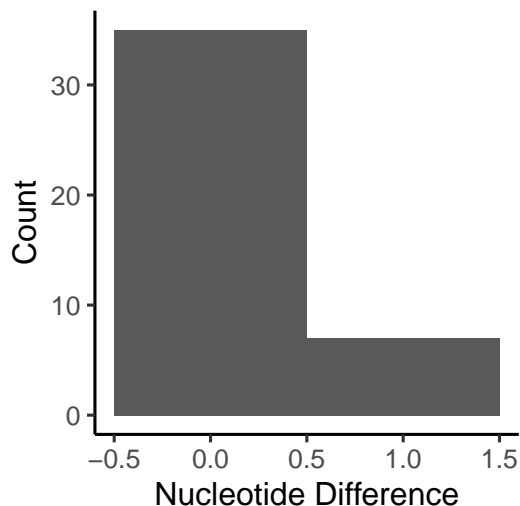


IGHV3-30-3*01_A152G- Final 3 nucleotides as a triplet



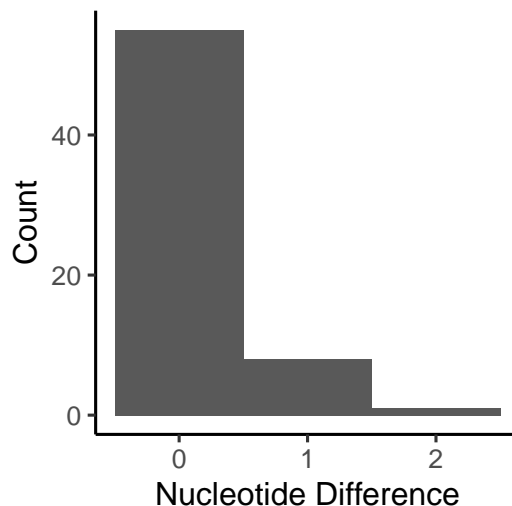
IGHV1-2*04

42 sequences assigned
35 (83.3%) exact matches, in which:
35 unique CDR3
4 unique J



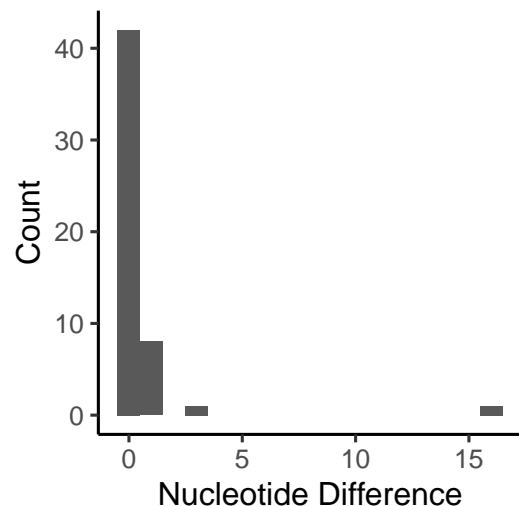
IGHV1-8*01

64 sequences assigned
55 (85.9%) exact matches, in which:
55 unique CDR3
5 unique J



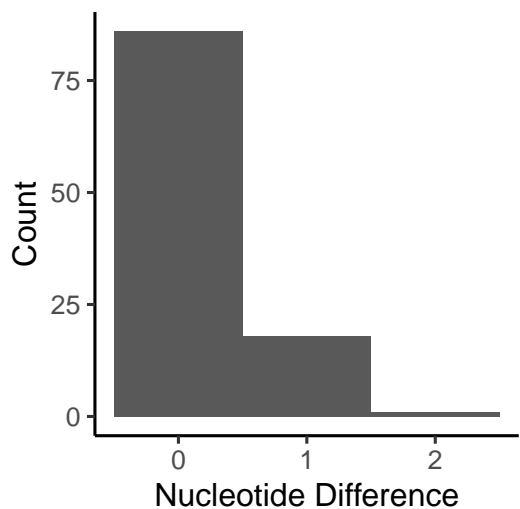
IGHV1-46*01

54 sequences assigned
42 (77.8%) exact matches, in which:
42 unique CDR3
4 unique J



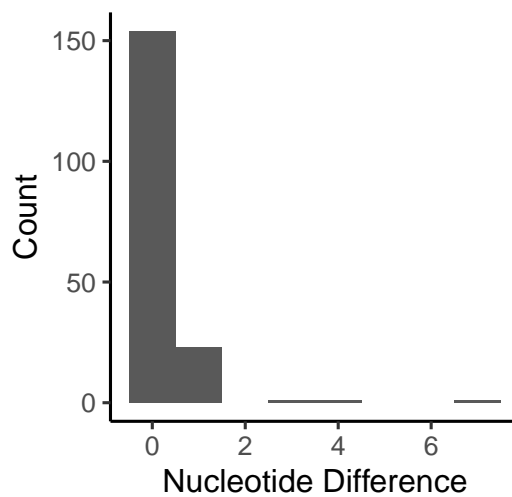
IGHV1-2*06

106 sequences assigned
86 (81.1%) exact matches, in which:
86 unique CDR3
5 unique J



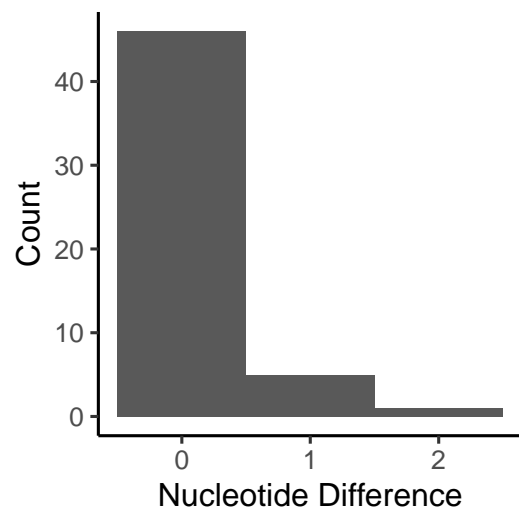
IGHV1-18*01

180 sequences assigned
154 (85.6%) exact matches, in which:
154 unique CDR3
4 unique J



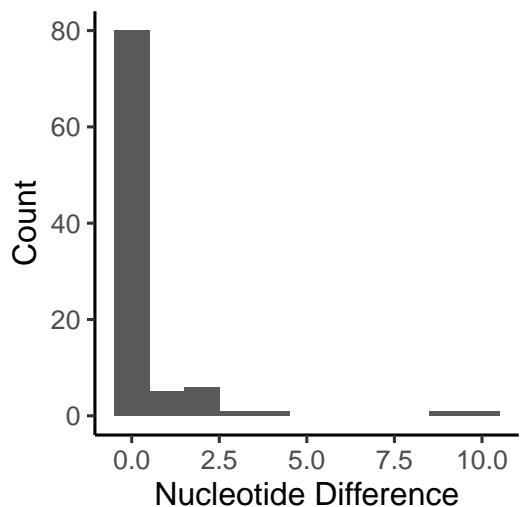
IGHV1-46*03

52 sequences assigned
46 (88.5%) exact matches, in which:
46 unique CDR3
6 unique J



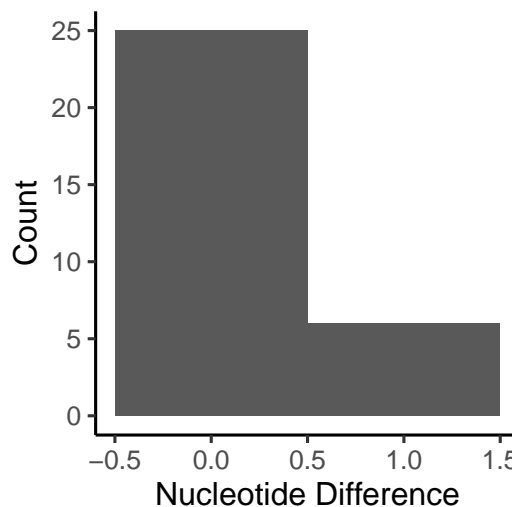
IGHV1-3*01

96 sequences assigned
80 (83.3%) exact matches, in which:
80 unique CDR3
5 unique J



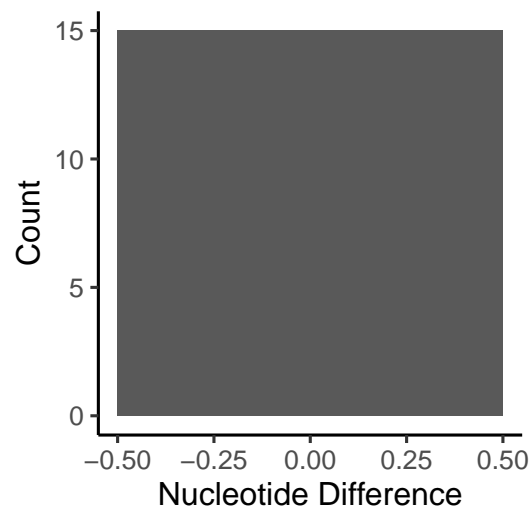
IGHV1-24*01

31 sequences assigned
25 (80.6%) exact matches, in which:
25 unique CDR3
5 unique J



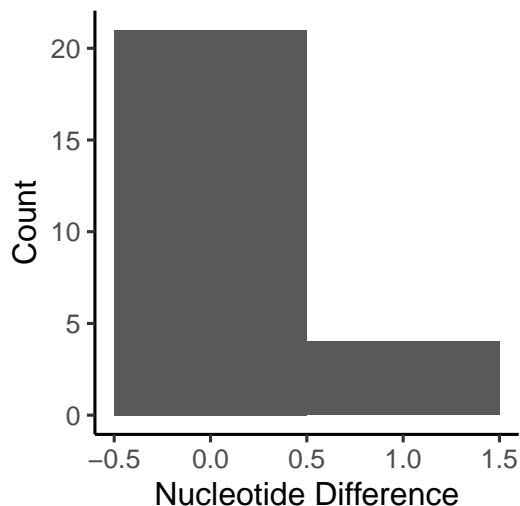
IGHV1-58*02

15 sequences assigned
15 (100%) exact matches, in which:
15 unique CDR3
3 unique J



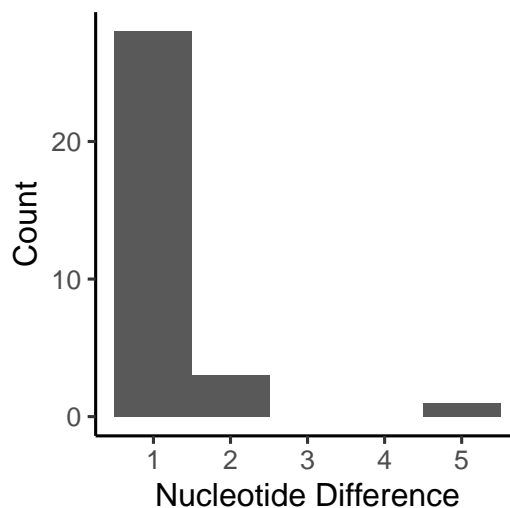
IGHV1-69-2*01

25 sequences assigned
21 (84%) exact matches, in which:
21 unique CDR3
4 unique J



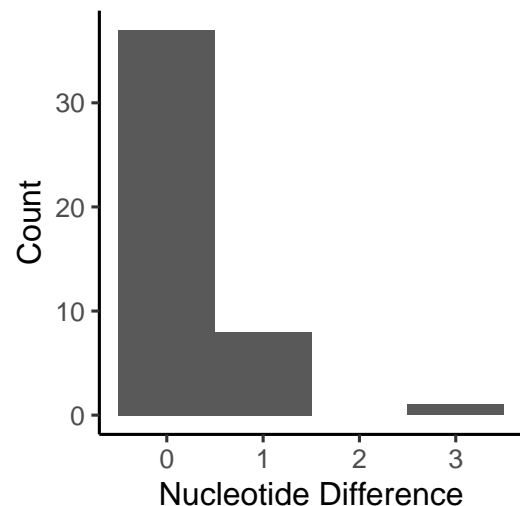
IGHV1-69*08

32 sequences assigned
No exact matches.



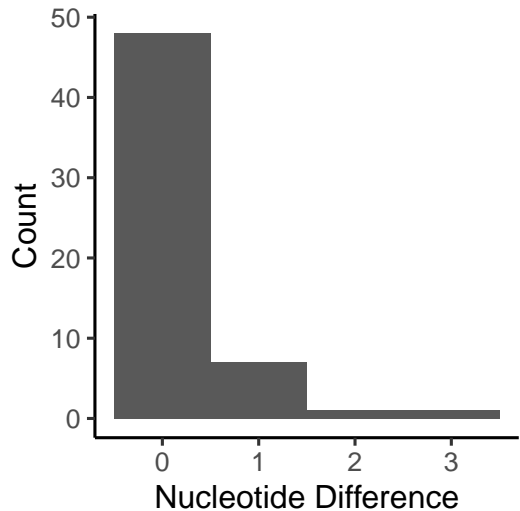
IGHV2-26*01

46 sequences assigned
37 (80.4%) exact matches, in which:
37 unique CDR3
5 unique J



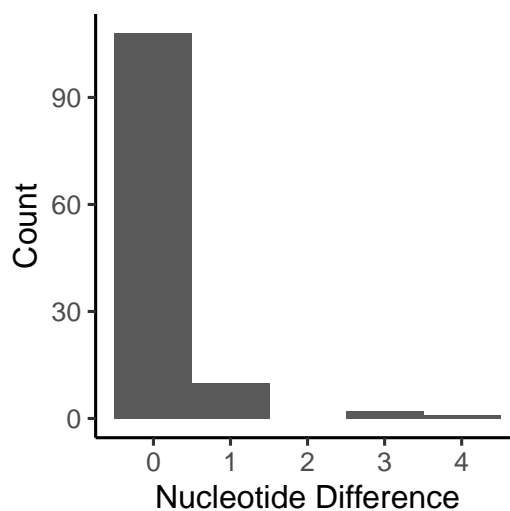
IGHV1-69*02

57 sequences assigned
48 (84.2%) exact matches, in which:
47 unique CDR3
5 unique J



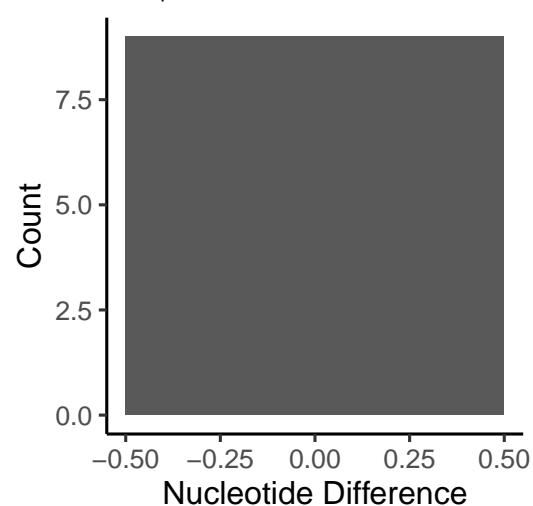
IGHV1-69*04_C184T

121 sequences assigned
108 (89.3%) exact matches, in which:
108 unique CDR3
4 unique J



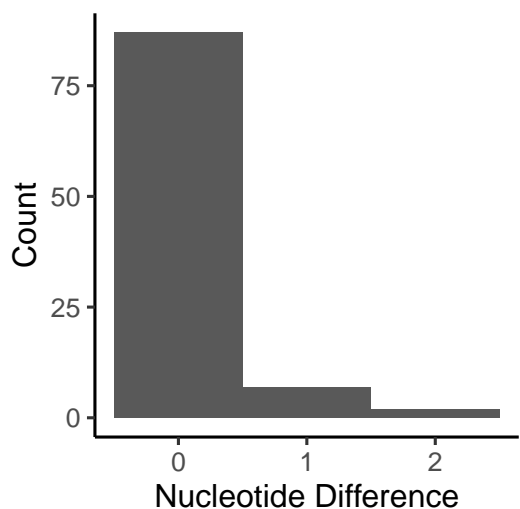
IGHV2-70*15

9 sequences assigned
9 (100%) exact matches, in which:
9 unique CDR3
3 unique J



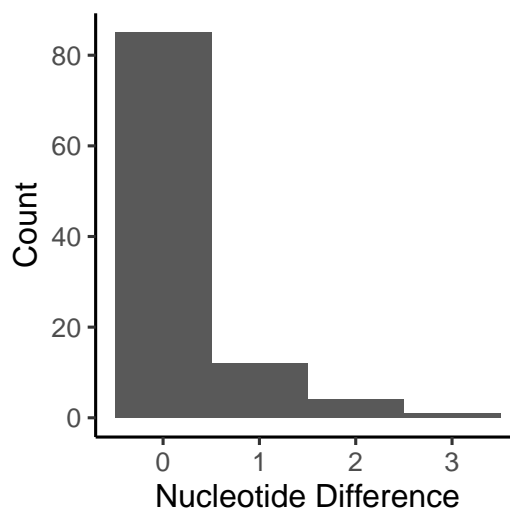
IGHV1-69*04

96 sequences assigned
87 (90.6%) exact matches, in which:
87 unique CDR3
6 unique J



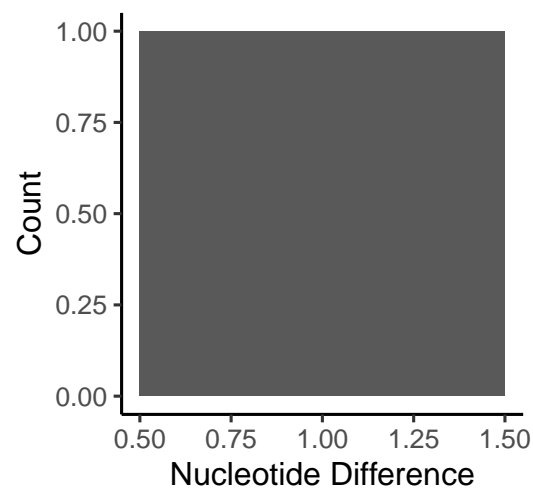
IGHV2-5*02

102 sequences assigned
85 (83.3%) exact matches, in which:
85 unique CDR3
6 unique J



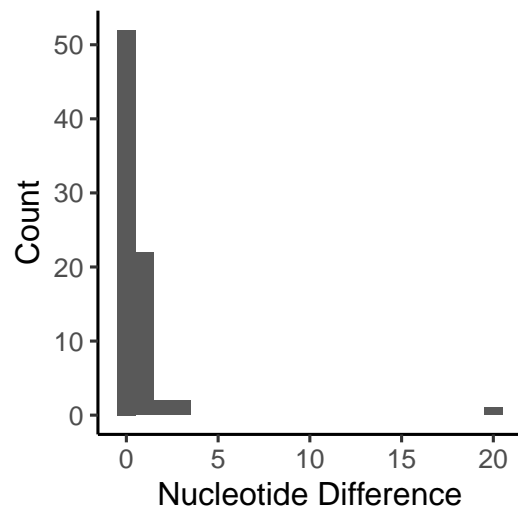
IGHV2-70D*04

1 sequences assigned
No exact matches.



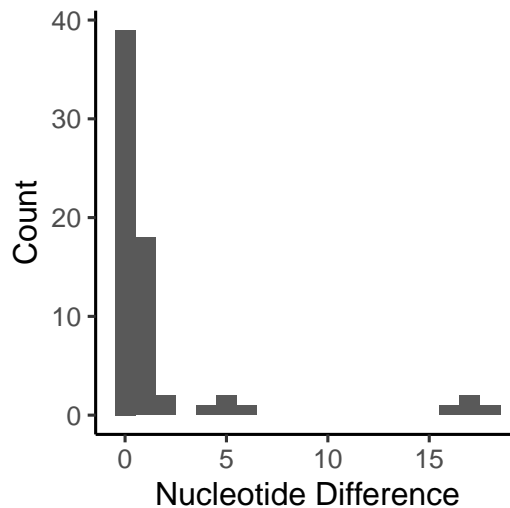
IGHV3-7*01

80 sequences assigned
52 (65%) exact matches, in which:
52 unique CDR3
6 unique J



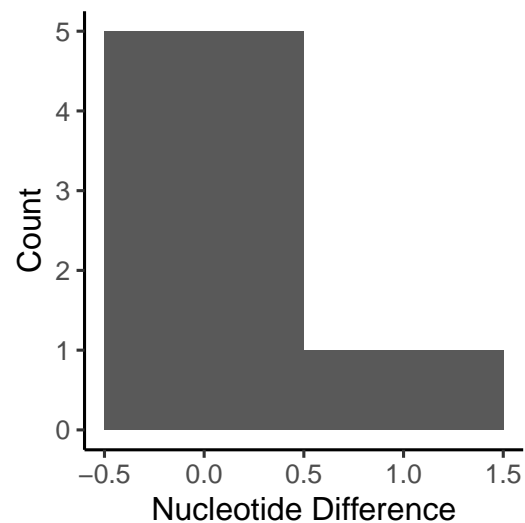
IGHV3-11*01

67 sequences assigned
39 (58.2%) exact matches, in which:
39 unique CDR3
5 unique J



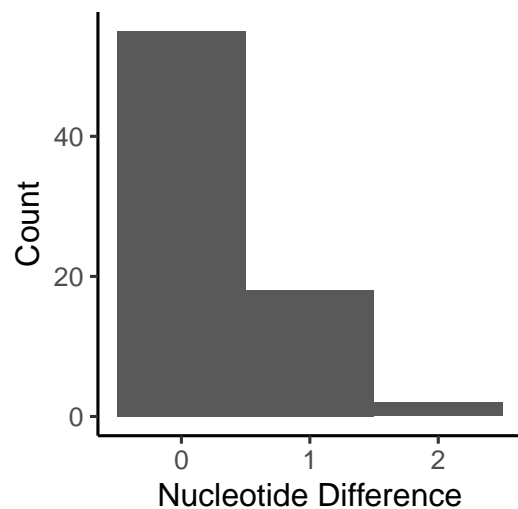
IGHV3-13*05

6 sequences assigned
5 (83.3%) exact matches, in which:
4 unique CDR3
2 unique J



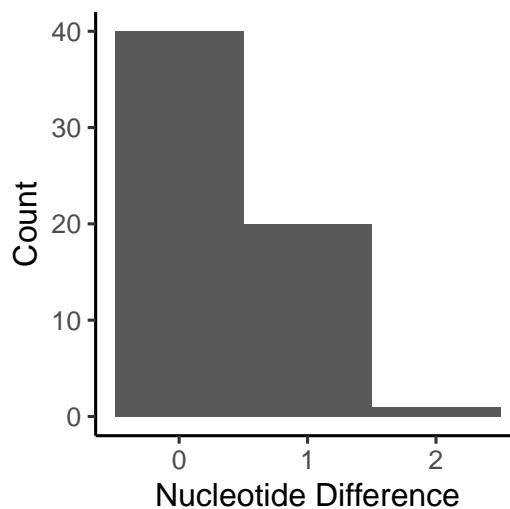
IGHV3-7*03

75 sequences assigned
55 (73.3%) exact matches, in which:
53 unique CDR3
5 unique J



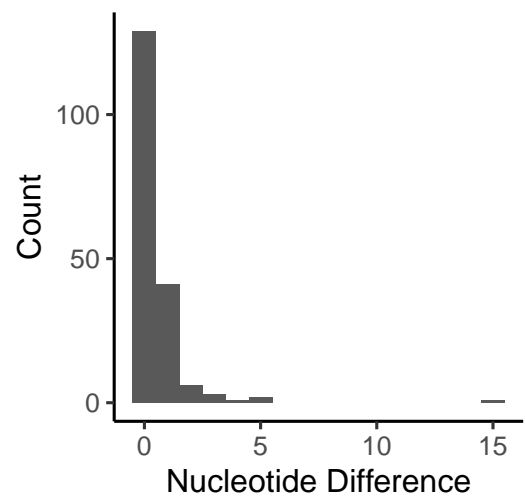
IGHV3-11*06

61 sequences assigned
40 (65.6%) exact matches, in which:
40 unique CDR3
5 unique J



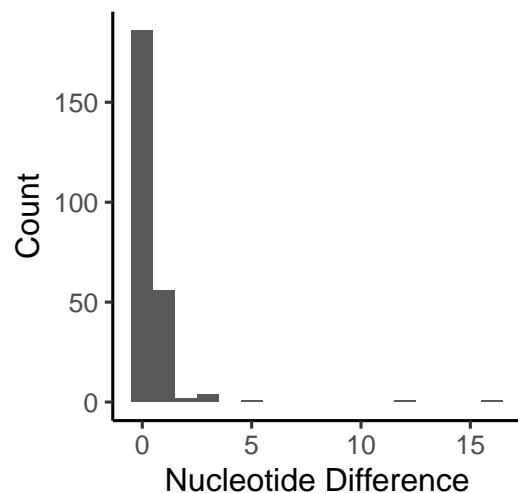
IGHV3-15*01

183 sequences assigned
129 (70.5%) exact matches, in which:
128 unique CDR3
6 unique J



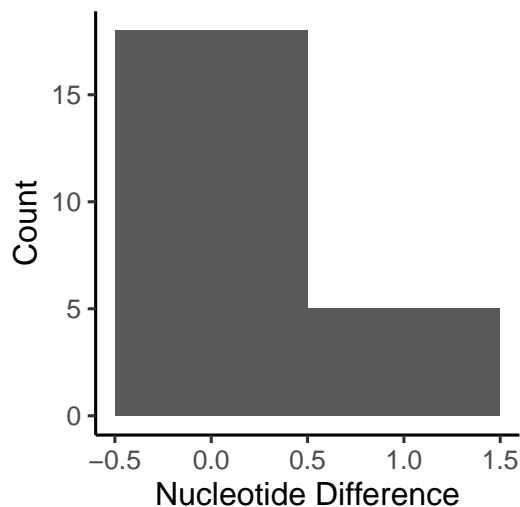
IGHV3-9*01

251 sequences assigned
186 (74.1%) exact matches, in which:
186 unique CDR3
6 unique J



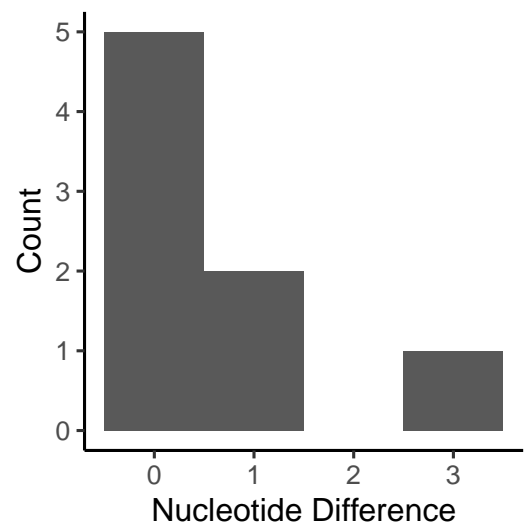
IGHV3-13*01

23 sequences assigned
18 (78.3%) exact matches, in which:
18 unique CDR3
4 unique J



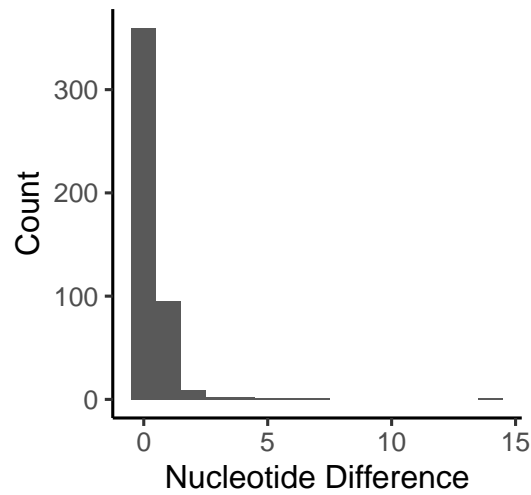
IGHV3-20*01

8 sequences assigned
5 (62.5%) exact matches, in which:
5 unique CDR3
3 unique J



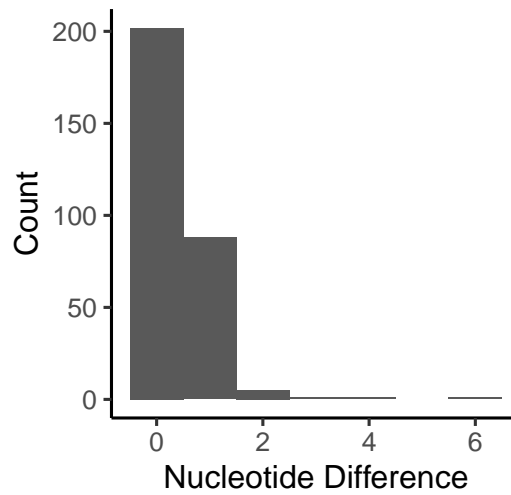
IGHV3-21*01

472 sequences assigned
360 (76.3%) exact matches, in which:
359 unique CDR3
6 unique J



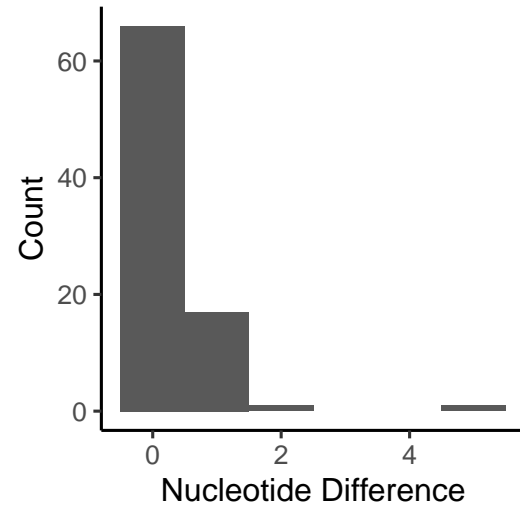
IGHV3-33*01

298 sequences assigned
202 (67.8%) exact matches, in which:
202 unique CDR3
5 unique J



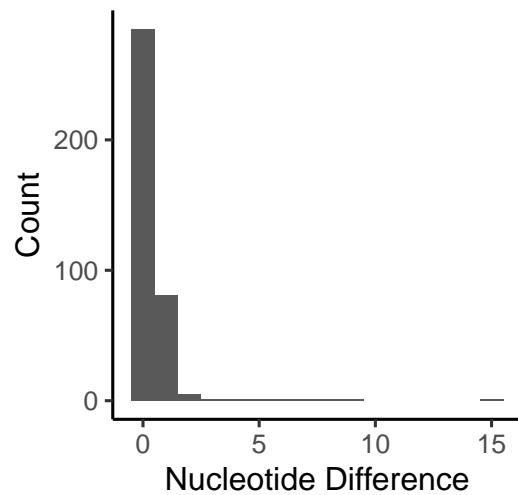
IGHV3-48*01

85 sequences assigned
66 (77.6%) exact matches, in which:
66 unique CDR3
6 unique J



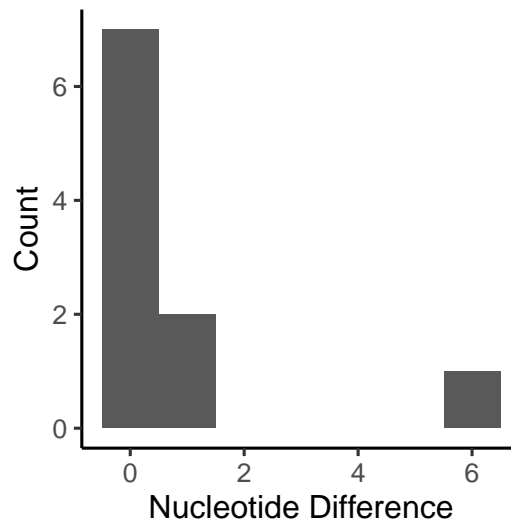
IGHV3-30-3*01

381 sequences assigned
285 (74.8%) exact matches, in which:
284 unique CDR3
6 unique J



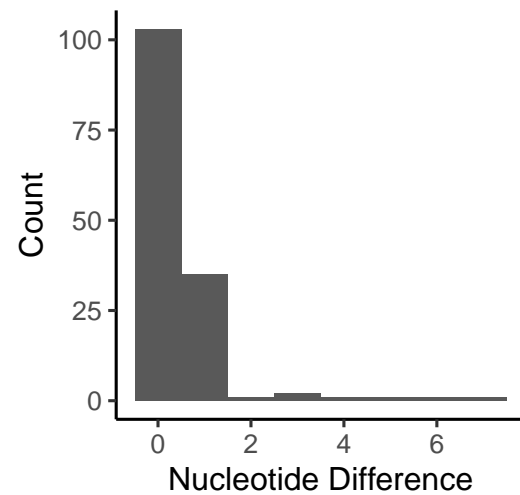
IGHV3-43*01

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



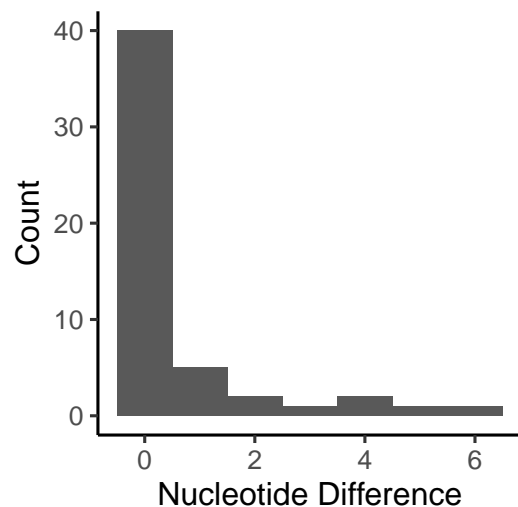
IGHV3-48*03

148 sequences assigned
103 (69.6%) exact matches, in which:
103 unique CDR3
6 unique J



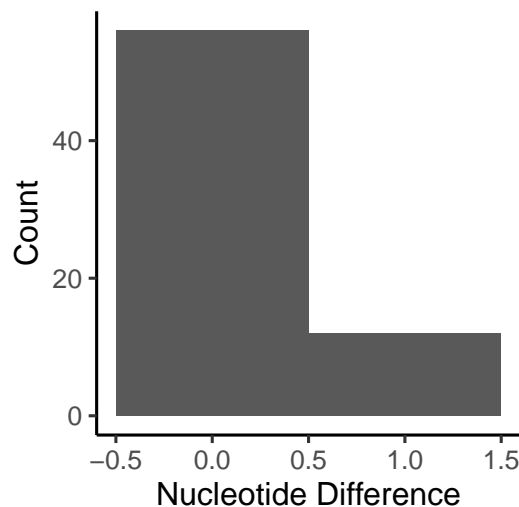
IGHV3-30-3*01_A152G

52 sequences assigned
40 (76.9%) exact matches, in which:
40 unique CDR3
4 unique J



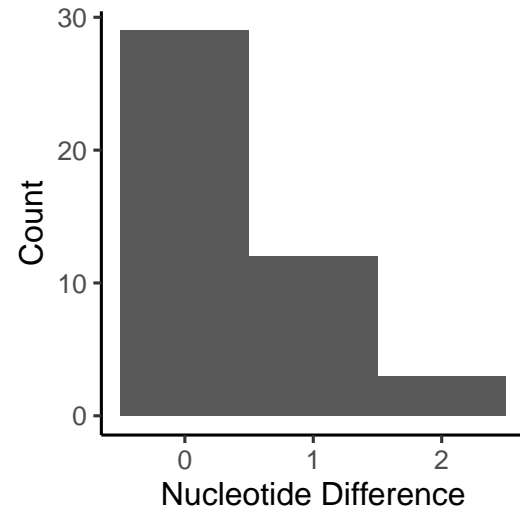
IGHV3-43*02

68 sequences assigned
56 (82.4%) exact matches, in which:
56 unique CDR3
4 unique J



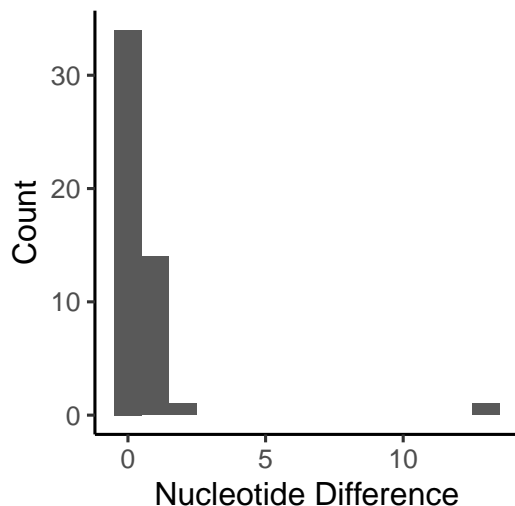
IGHV3-49*03

44 sequences assigned
29 (65.9%) exact matches, in which:
29 unique CDR3
4 unique J



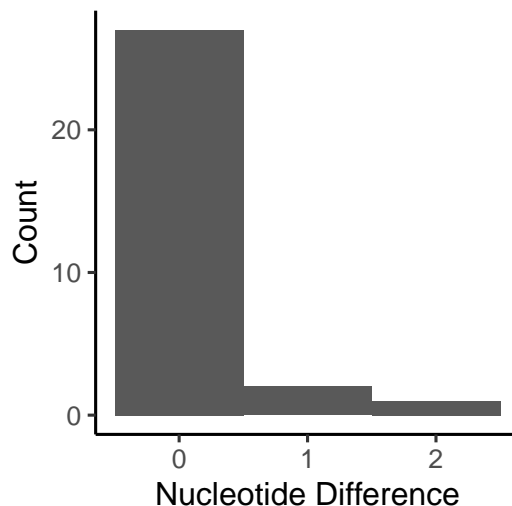
IGHV3-49*04

50 sequences assigned
34 (68%) exact matches, in which:
34 unique CDR3
4 unique J



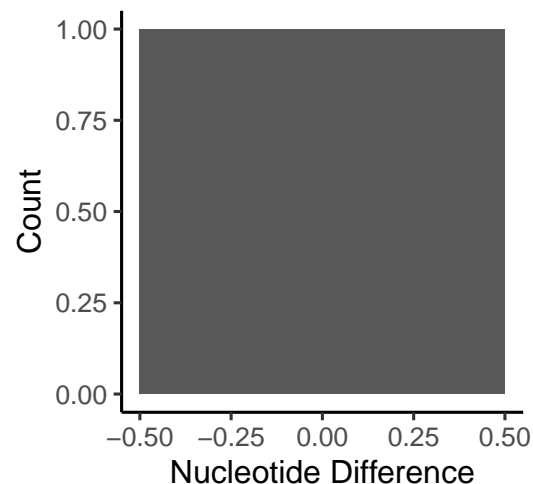
IGHV3-64*01

30 sequences assigned
27 (90%) exact matches, in which:
26 unique CDR3
4 unique J



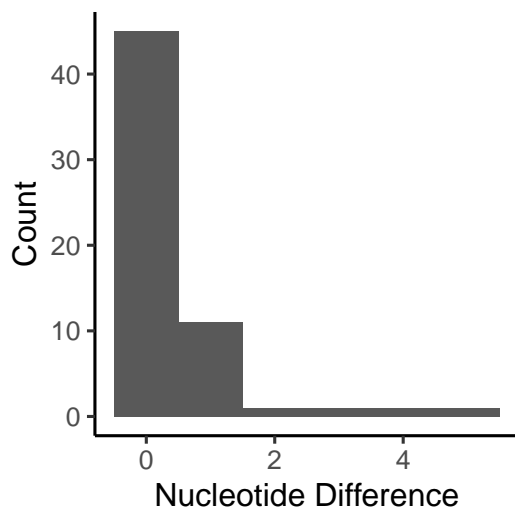
IGHV3-69-1*02

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



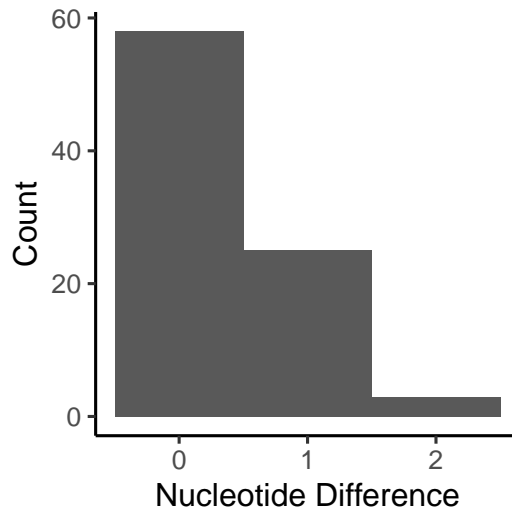
IGHV3-53*01

60 sequences assigned
45 (75%) exact matches, in which:
45 unique CDR3
5 unique J



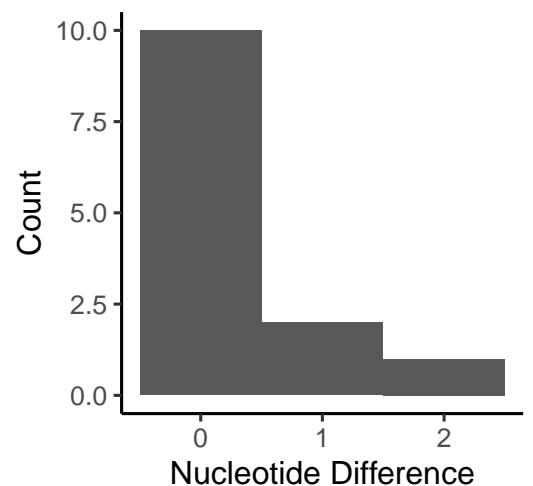
IGHV3-66*01

86 sequences assigned
58 (67.4%) exact matches, in which:
58 unique CDR3
6 unique J



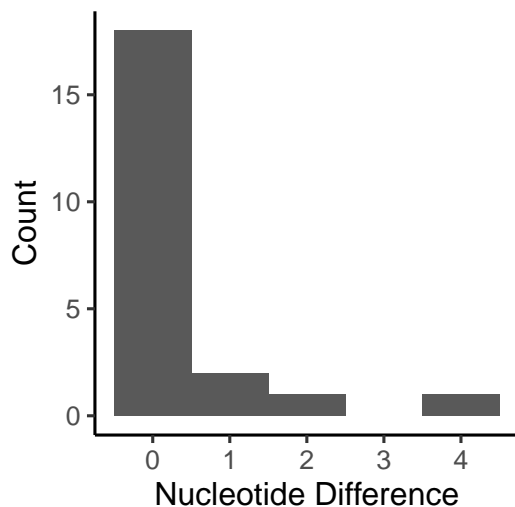
IGHV3-72*01

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



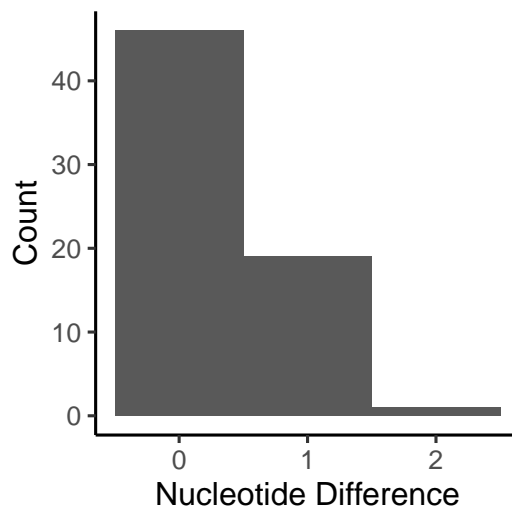
IGHV3-53*04

22 sequences assigned
18 (81.8%) exact matches, in which:
18 unique CDR3
6 unique J



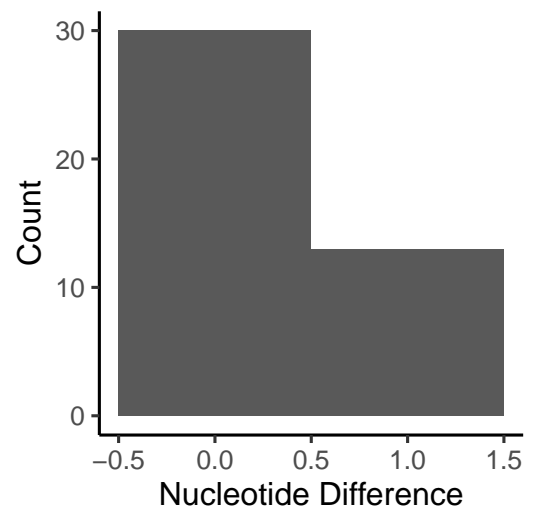
IGHV3-66*02

66 sequences assigned
46 (69.7%) exact matches, in which:
46 unique CDR3
5 unique J



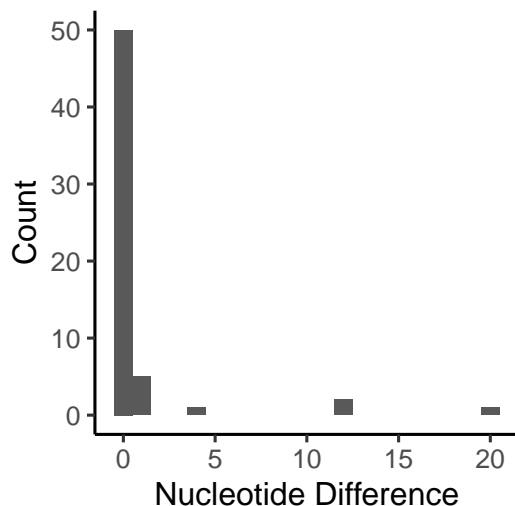
IGHV3-73*01

43 sequences assigned
30 (69.8%) exact matches, in which:
30 unique CDR3
3 unique J



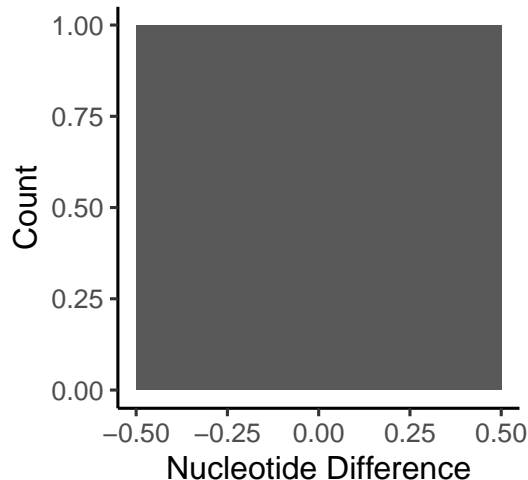
IGHV3-74*01

60 sequences assigned
50 (83.3%) exact matches, in which:
50 unique CDR3
5 unique J



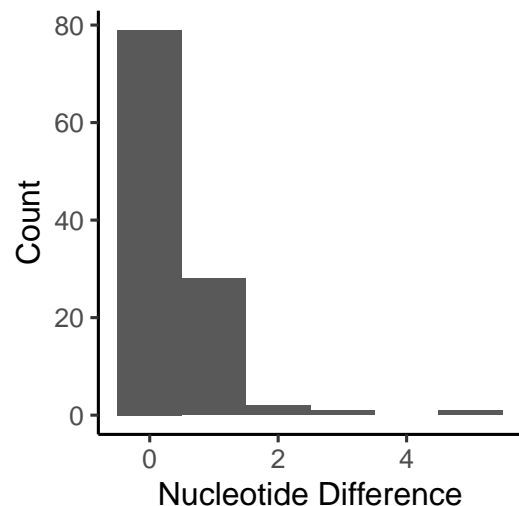
IGHV4-28*03

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



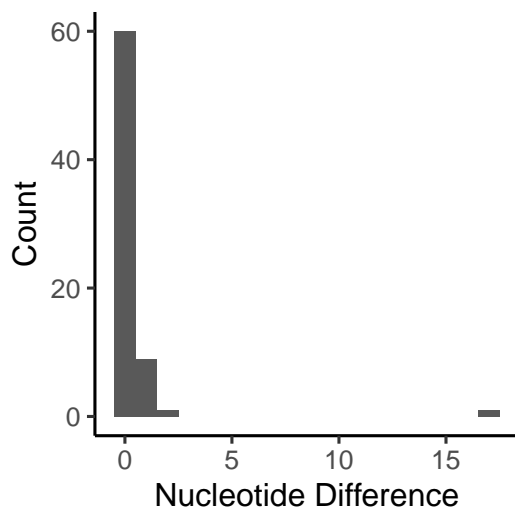
IGHV4-31*03

113 sequences assigned
79 (69.9%) exact matches, in which:
79 unique CDR3
6 unique J



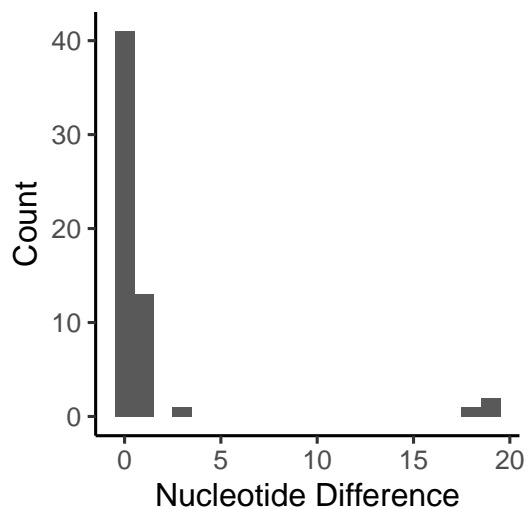
IGHV3-64D*06

71 sequences assigned
60 (84.5%) exact matches, in which:
60 unique CDR3
6 unique J



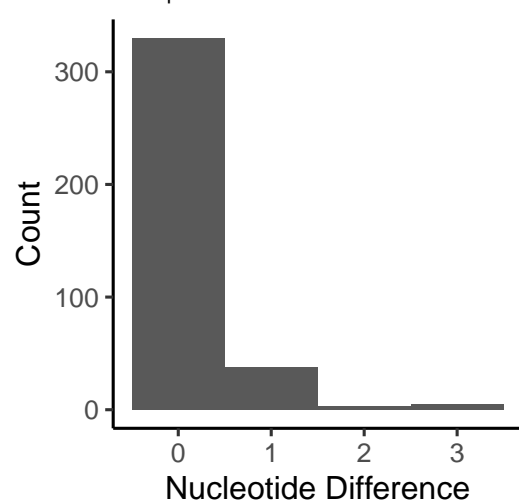
IGHV4-30-2*01

58 sequences assigned
41 (70.7%) exact matches, in which:
41 unique CDR3
5 unique J



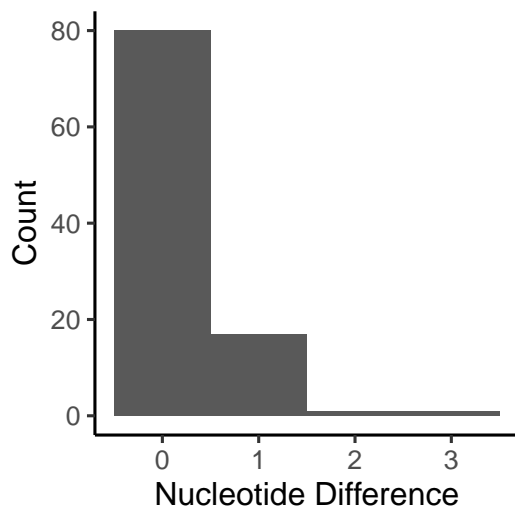
IGHV4-34*01

376 sequences assigned
330 (87.8%) exact matches, in which:
329 unique CDR3
5 unique J



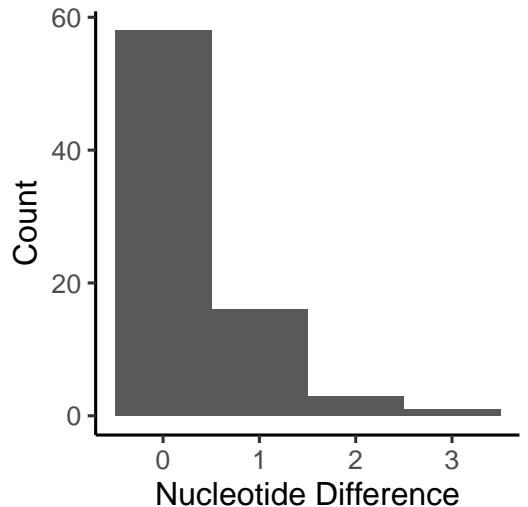
IGHV4-4*02

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



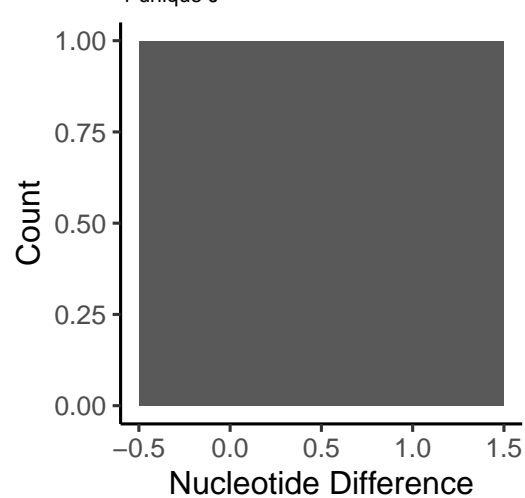
IGHV4-30-4*01

78 sequences assigned
58 (74.4%) exact matches, in which:
58 unique CDR3
4 unique J



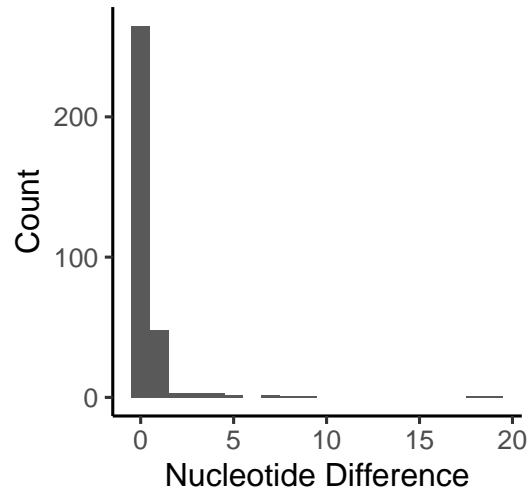
IGHV4-38-2*02

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



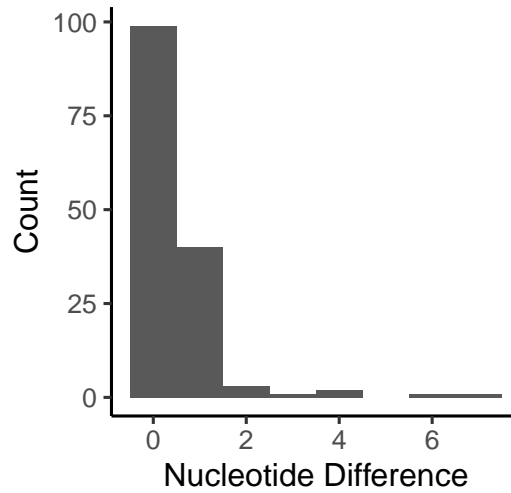
IGHV4-39*01

330 sequences assigned
265 (80.3%) exact matches, in which:
263 unique CDR3
6 unique J



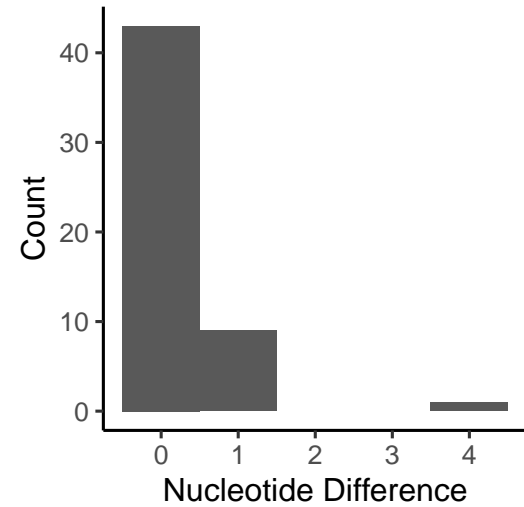
IGHV4-61*02

147 sequences assigned
99 (67.3%) exact matches, in which:
99 unique CDR3
6 unique J



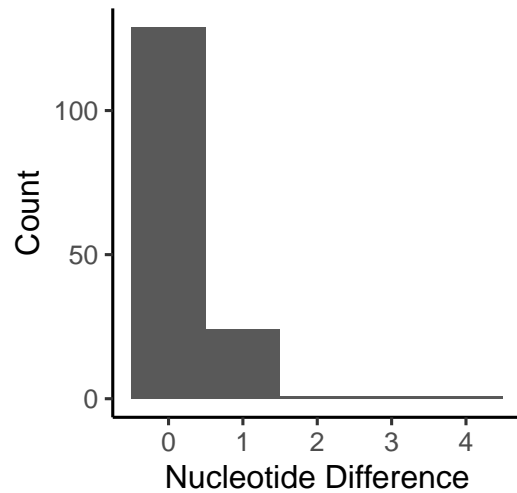
IGHV5-51*03

53 sequences assigned
43 (81.1%) exact matches, in which:
43 unique CDR3
5 unique J



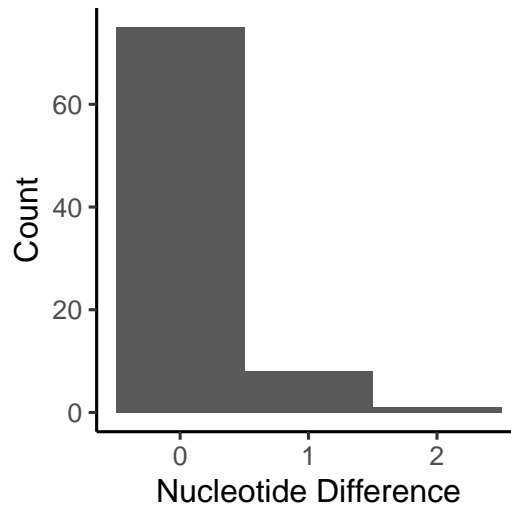
IGHV4-59*01

159 sequences assigned
129 (81.1%) exact matches, in which:
129 unique CDR3
5 unique J



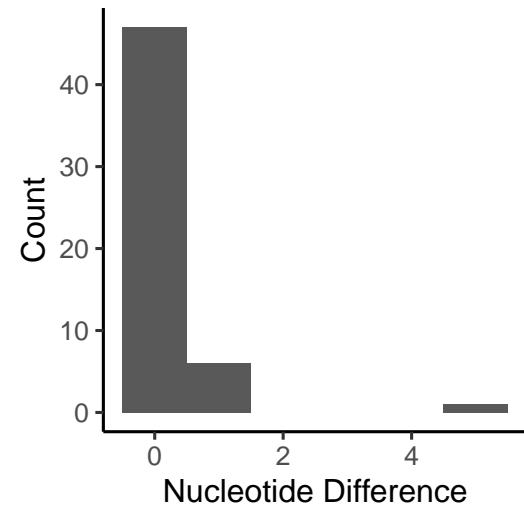
IGHV5-10-1*03

84 sequences assigned
75 (89.3%) exact matches, in which:
74 unique CDR3
6 unique J



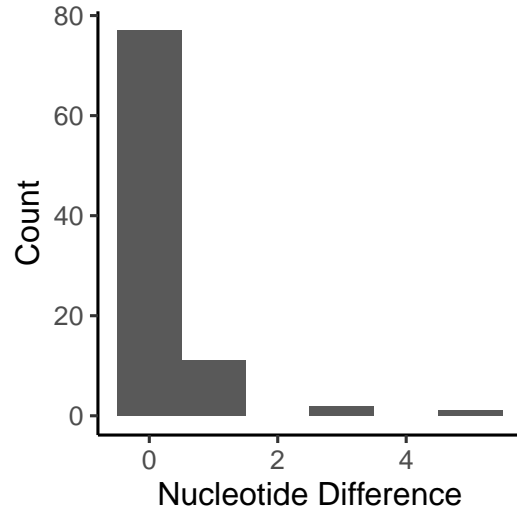
IGHV6-1*01

54 sequences assigned
47 (87%) exact matches, in which:
47 unique CDR3
5 unique J



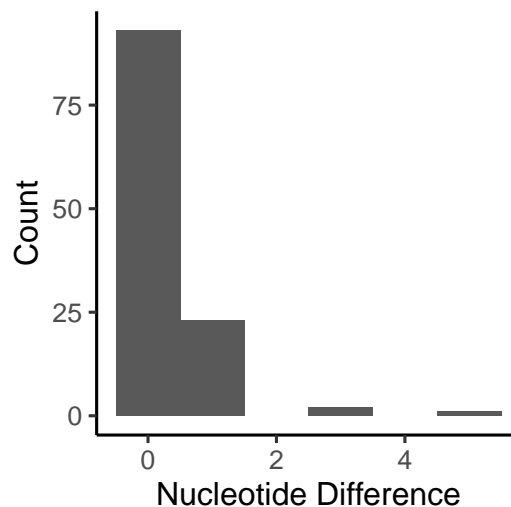
IGHV4-59*08

91 sequences assigned
77 (84.6%) exact matches, in which:
77 unique CDR3
6 unique J



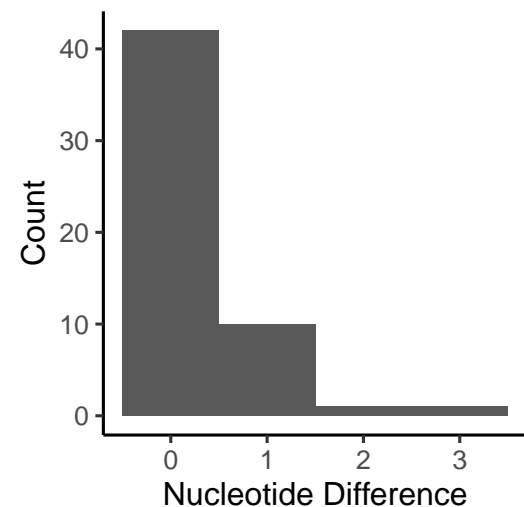
IGHV5-51*01

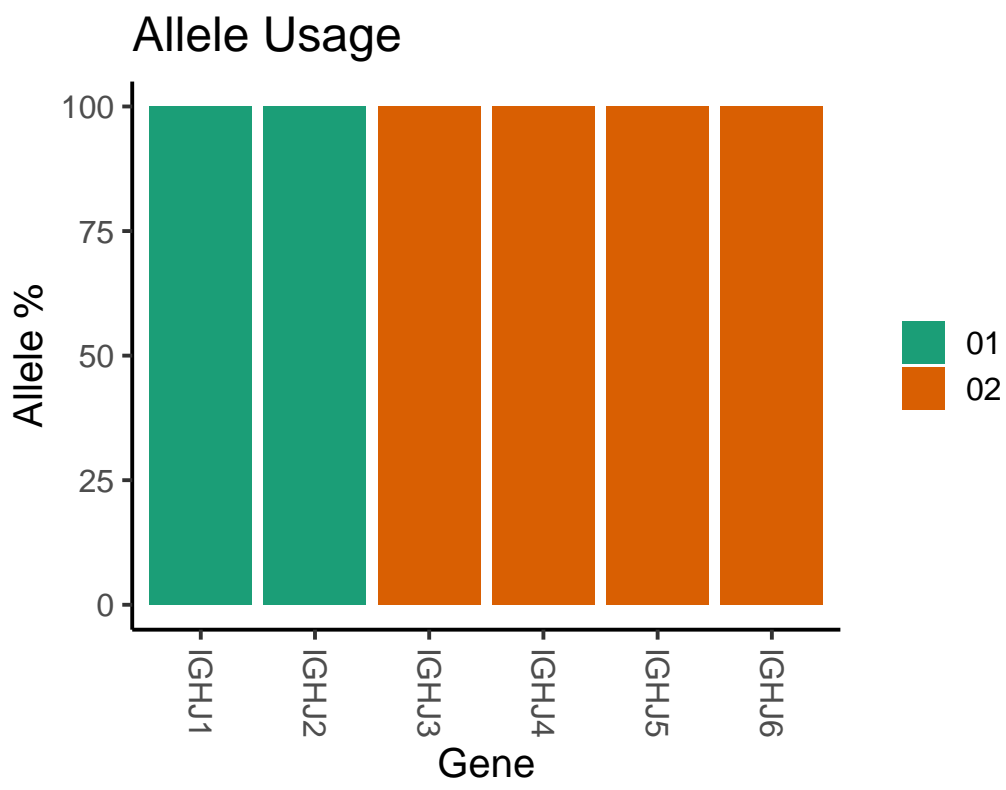
119 sequences assigned
93 (78.2%) exact matches, in which:
93 unique CDR3
5 unique J



IGHV7-4-1*02

54 sequences assigned
42 (77.8%) exact matches, in which:
42 unique CDR3
6 unique J





[illegible]