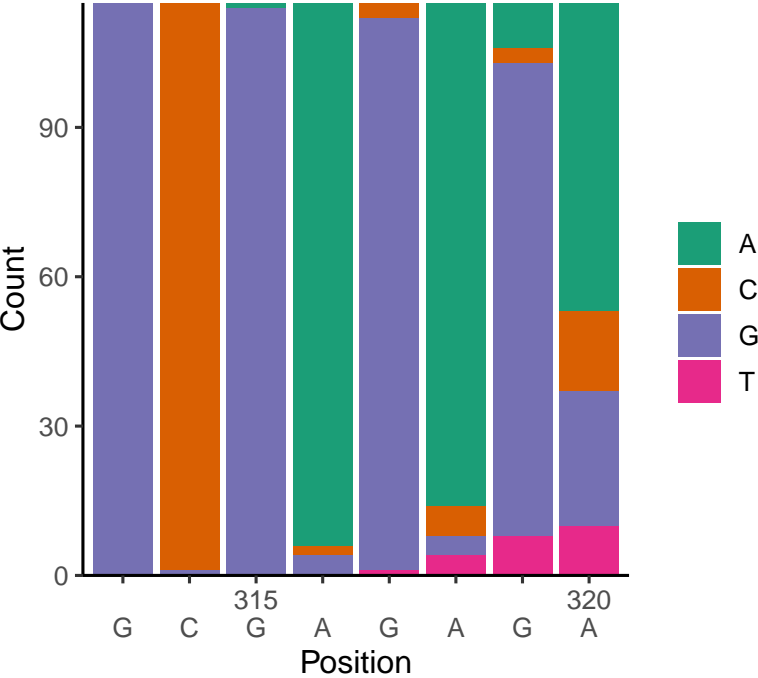
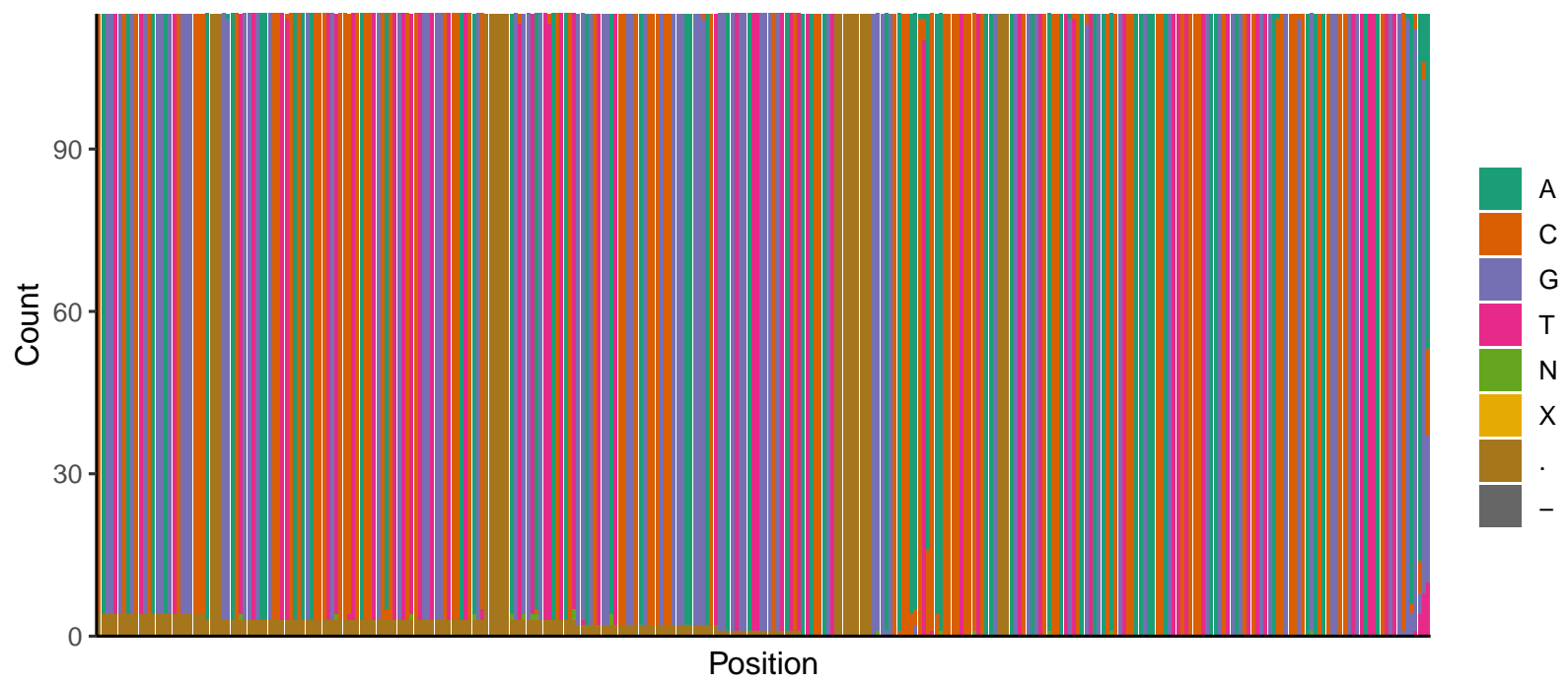


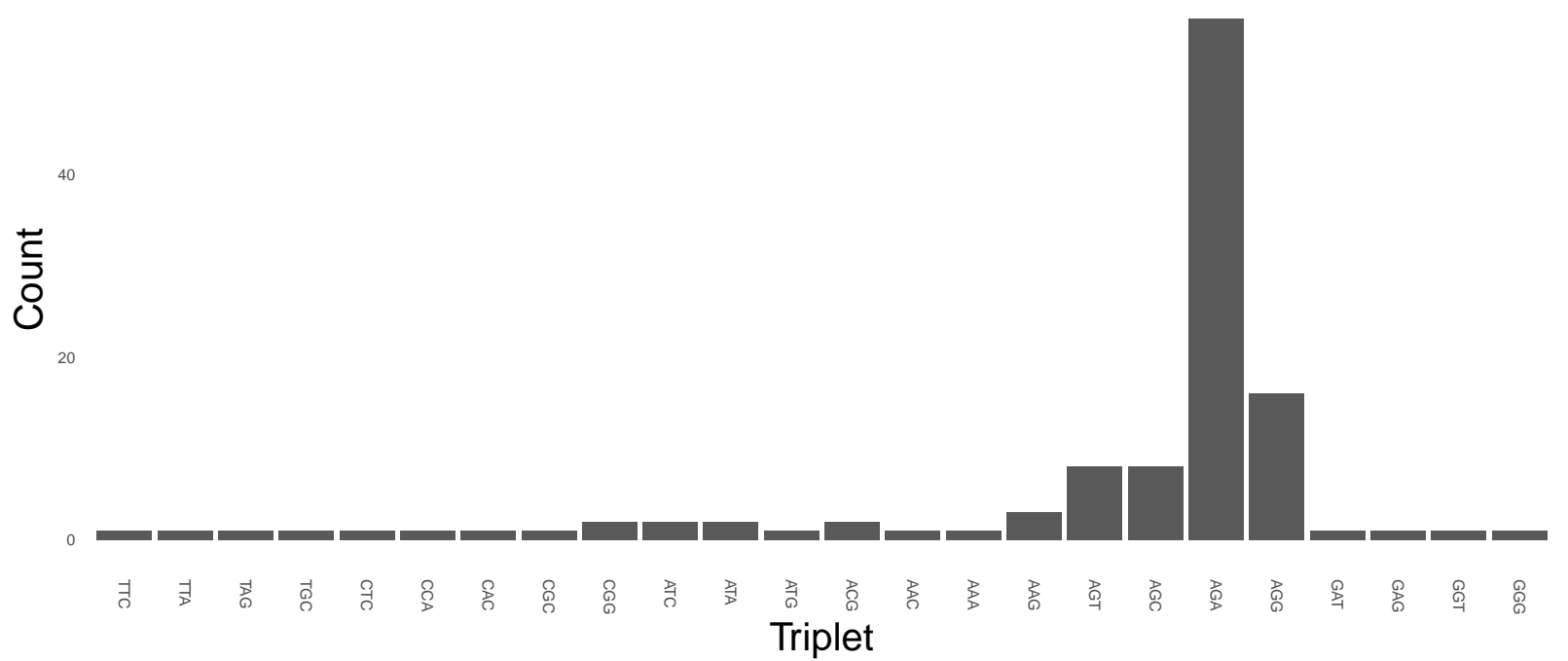
Gene IGHV4-61*02_A234G



Gene IGHV4-61*02_A234G

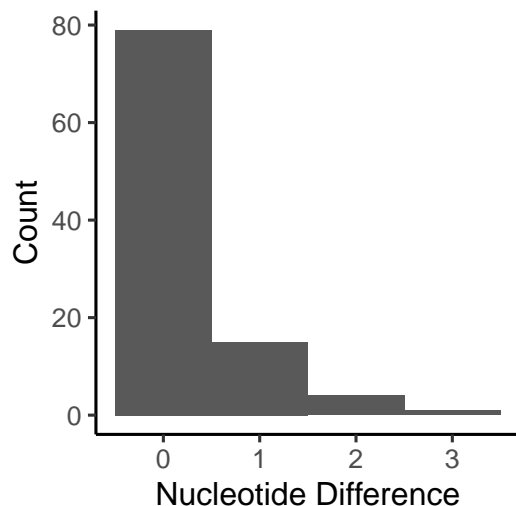


IGHV4-61*02_A234G- Final 3 nucleotides as a triplet



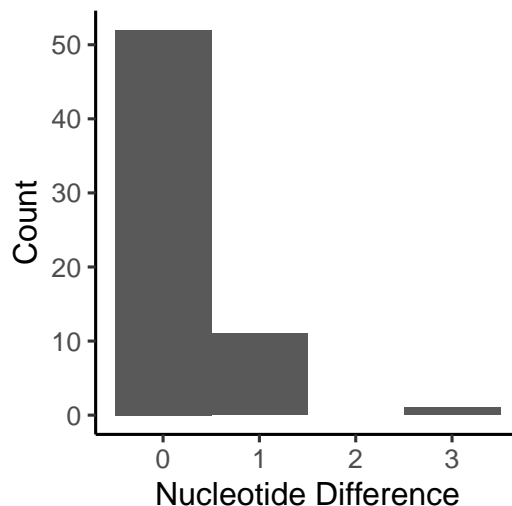
IGHV1-2*02

102 sequences assigned
79 (77.5%) exact matches, in which:
77 unique CDR3
5 unique J



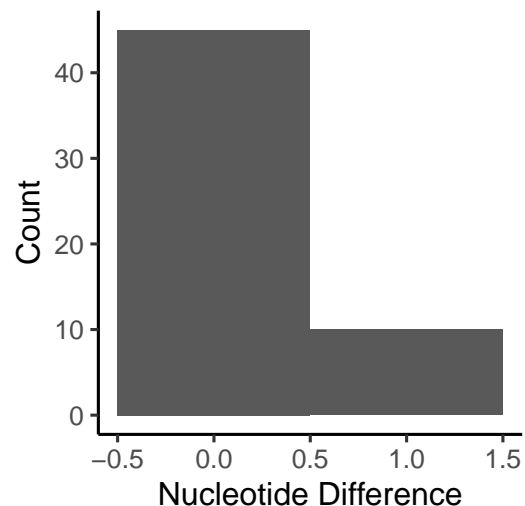
IGHV1-8*01

64 sequences assigned
52 (81.2%) exact matches, in which:
52 unique CDR3
6 unique J



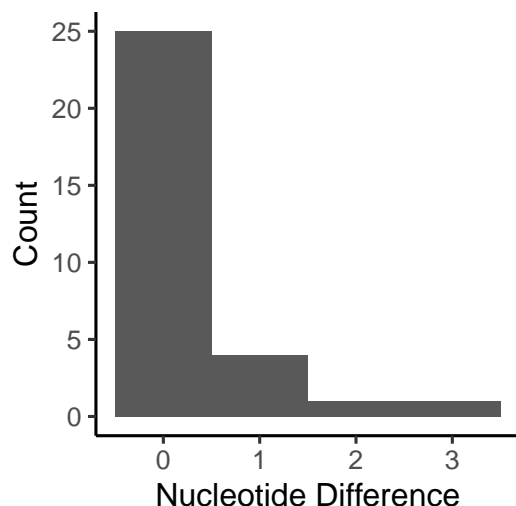
IGHV1-46*01

55 sequences assigned
45 (81.8%) exact matches, in which:
44 unique CDR3
5 unique J



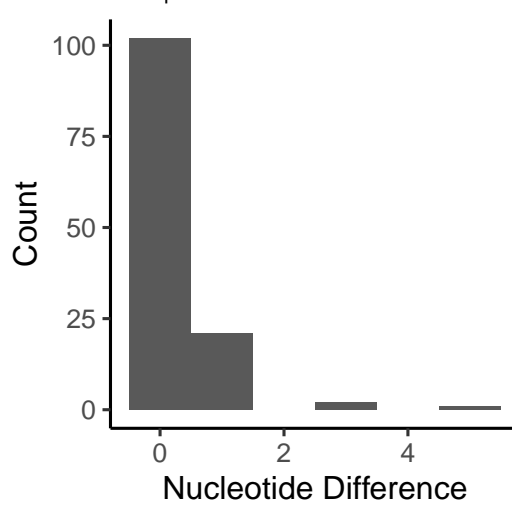
IGHV1-2*04

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



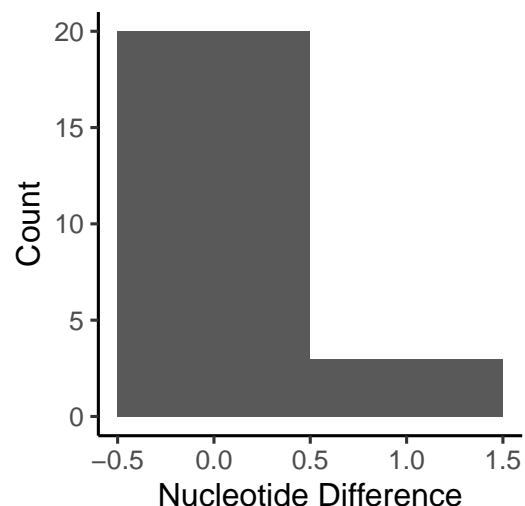
IGHV1-18*01

127 sequences assigned
102 (80.3%) exact matches, in which:
102 unique CDR3
4 unique J



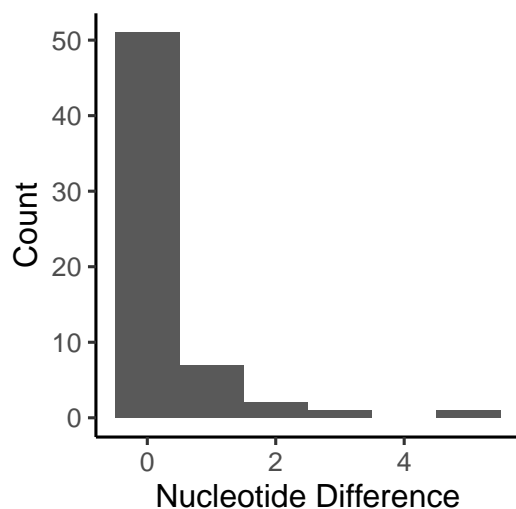
IGHV1-46*03

23 sequences assigned
20 (87%) exact matches, in which:
19 unique CDR3
5 unique J



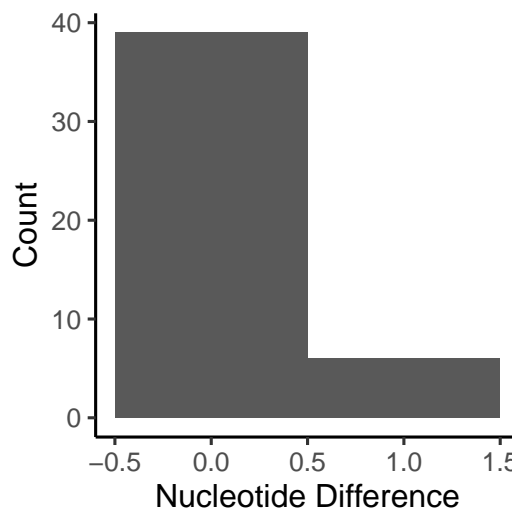
IGHV1-3*01

62 sequences assigned
51 (82.3%) exact matches, in which:
51 unique CDR3
6 unique J



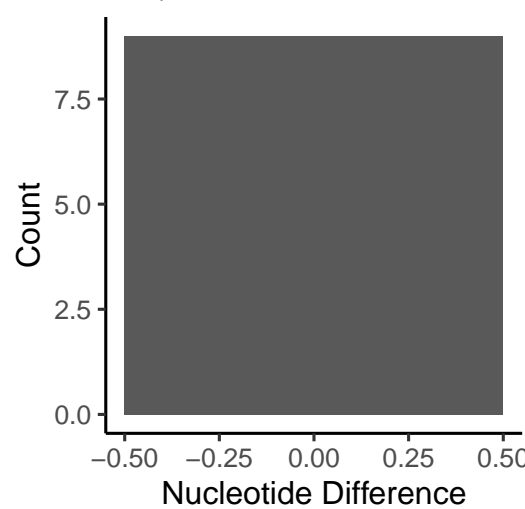
IGHV1-24*01

45 sequences assigned
39 (86.7%) exact matches, in which:
39 unique CDR3
5 unique J



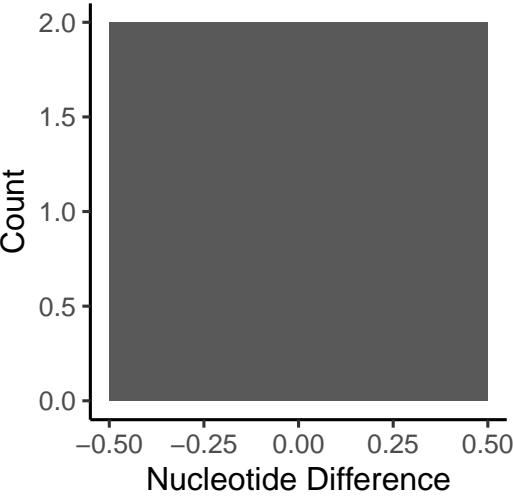
IGHV1-58*01

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



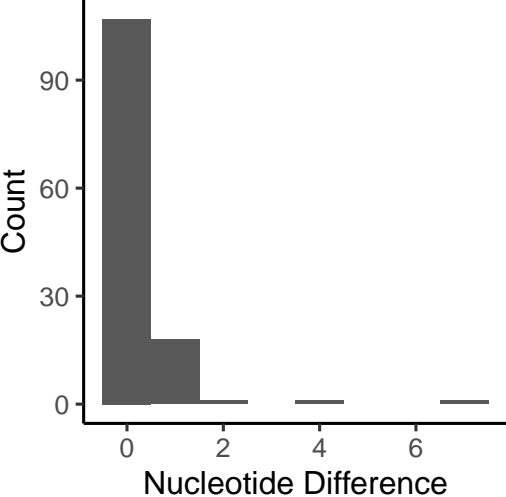
IGHV1-58*02

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
2 unique J



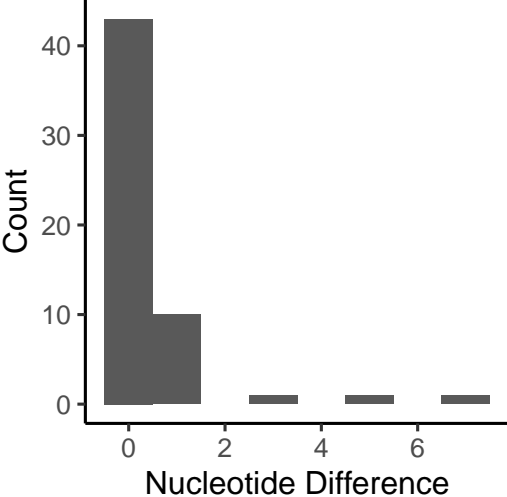
IGHV1-69*06

129 sequences assigned
107 (82.9%) exact matches, in which:
105 unique CDR3
6 unique J



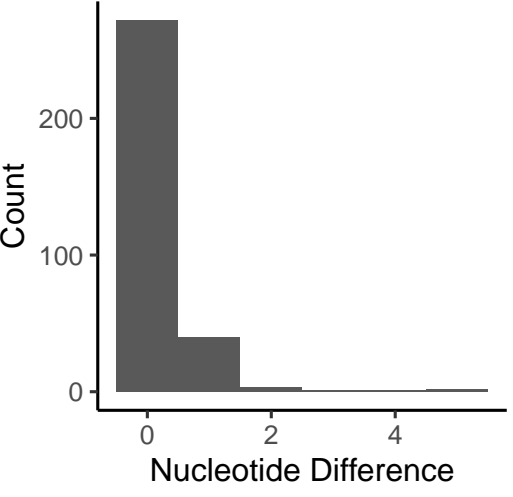
IGHV2-26*01

56 sequences assigned
43 (76.8%) exact matches, in which:
43 unique CDR3
5 unique J



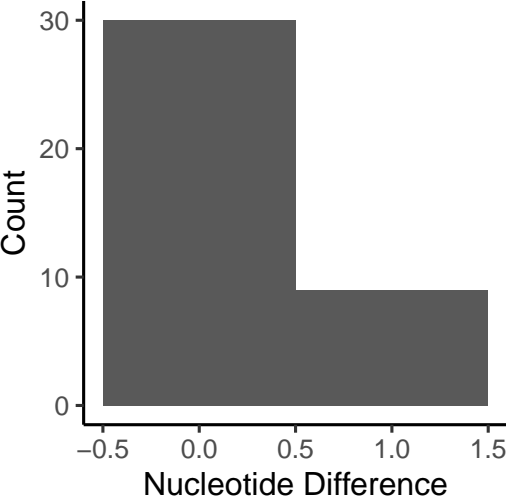
IGHV1-69*01

319 sequences assigned
272 (85.3%) exact matches, in which:
263 unique CDR3
6 unique J



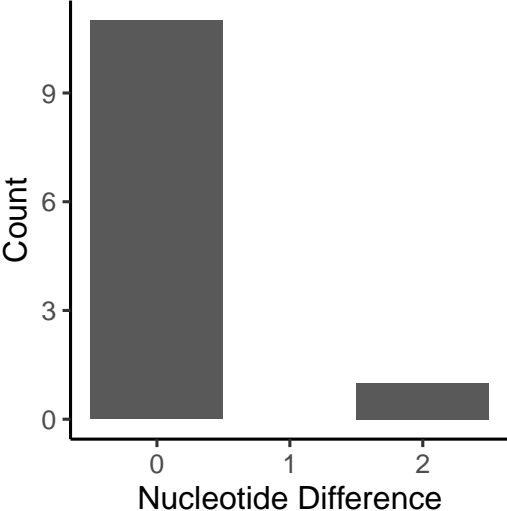
IGHV2-5*01

39 sequences assigned
30 (76.9%) exact matches, in which:
29 unique CDR3
4 unique J



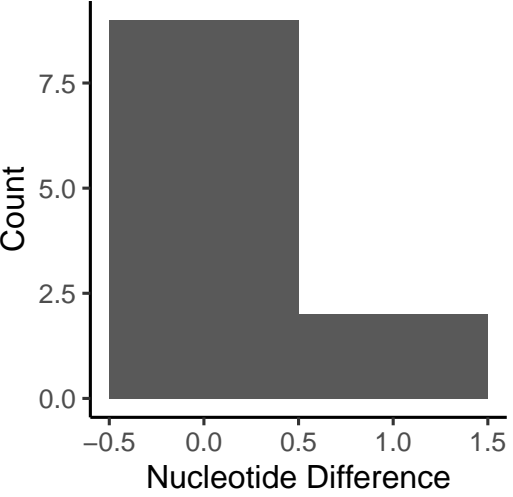
IGHV2-70*01

12 sequences assigned
11 (91.7%) exact matches, in which:
11 unique CDR3
5 unique J



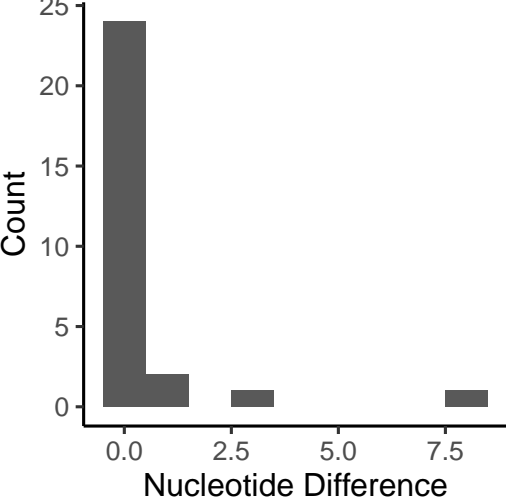
IGHV1-69-2*01

11 sequences assigned
9 (81.8%) exact matches, in which:
9 unique CDR3
4 unique J



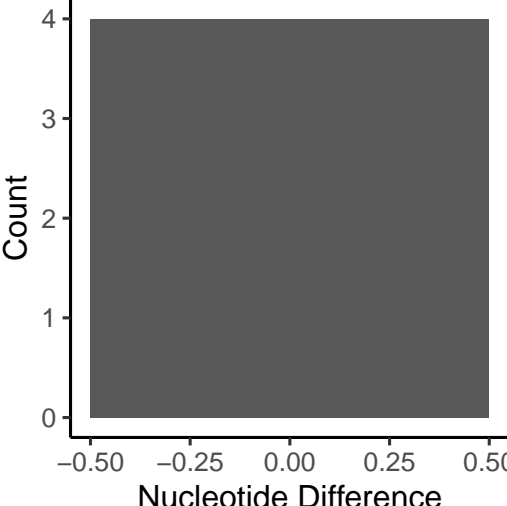
IGHV2-5*02

28 sequences assigned
24 (85.7%) exact matches, in which:
24 unique CDR3
4 unique J



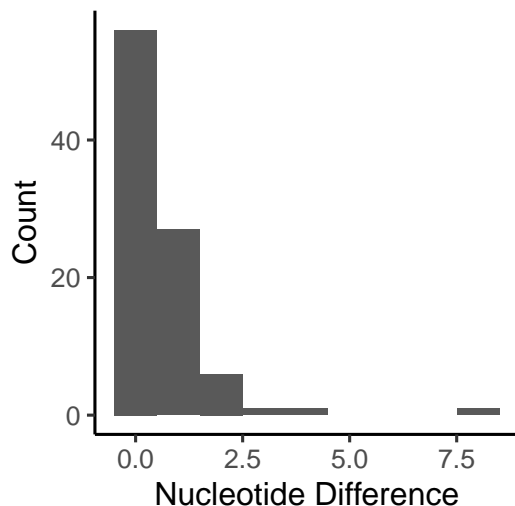
IGHV2-70*04

4 sequences assigned
4 (100%) exact matches, in which:
3 unique CDR3
2 unique J



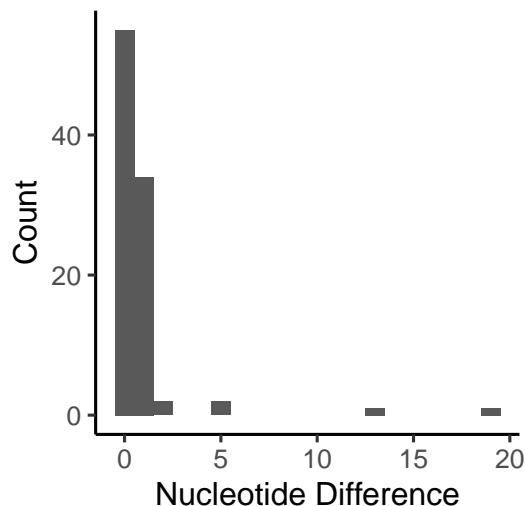
IGHV3-7*01

92 sequences assigned
56 (60.9%) exact matches, in which:
54 unique CDR3
6 unique J



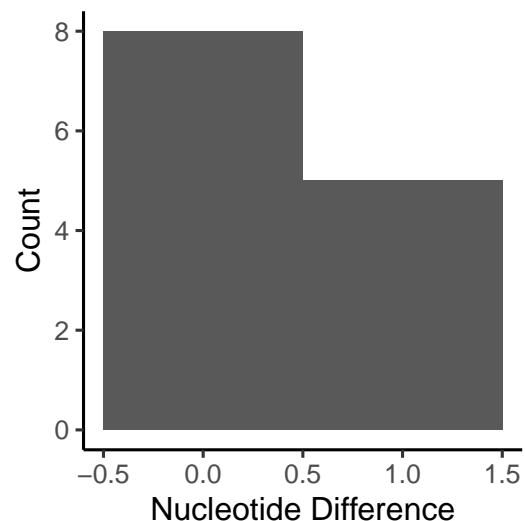
IGHV3-11*01

95 sequences assigned
55 (57.9%) exact matches, in which:
54 unique CDR3
6 unique J



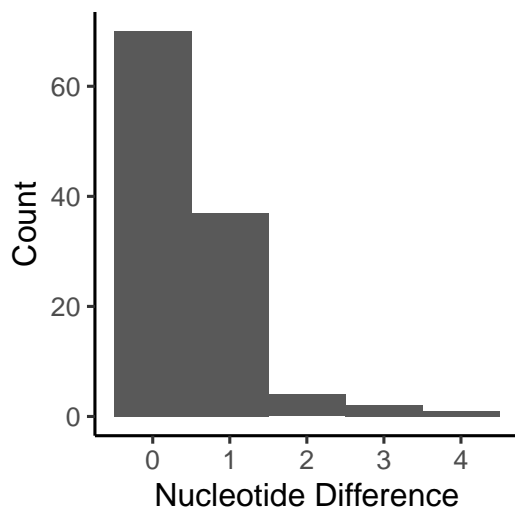
IGHV3-13*05

13 sequences assigned
8 (61.5%) exact matches, in which:
8 unique CDR3
4 unique J



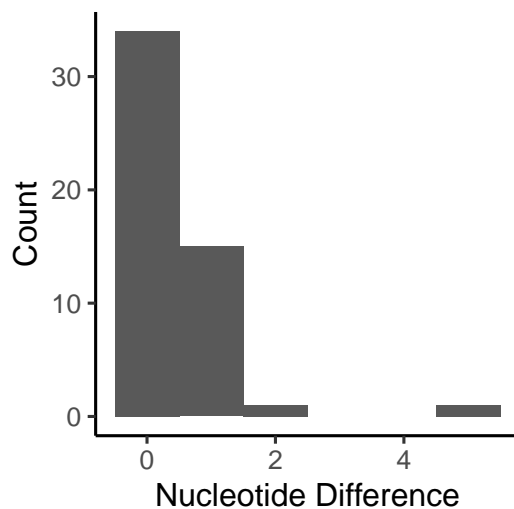
IGHV3-7*03

114 sequences assigned
70 (61.4%) exact matches, in which:
69 unique CDR3
6 unique J



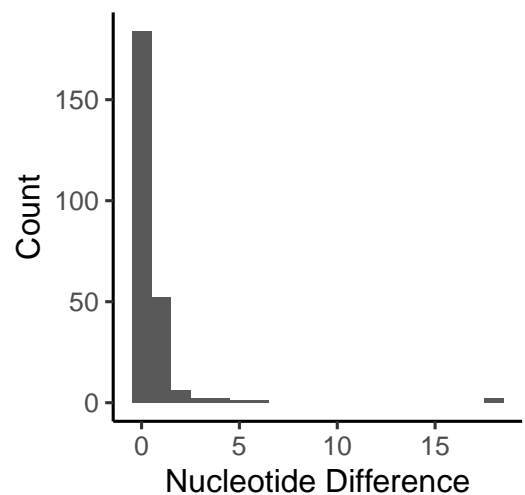
IGHV3-11*06

51 sequences assigned
34 (66.7%) exact matches, in which:
34 unique CDR3
5 unique J



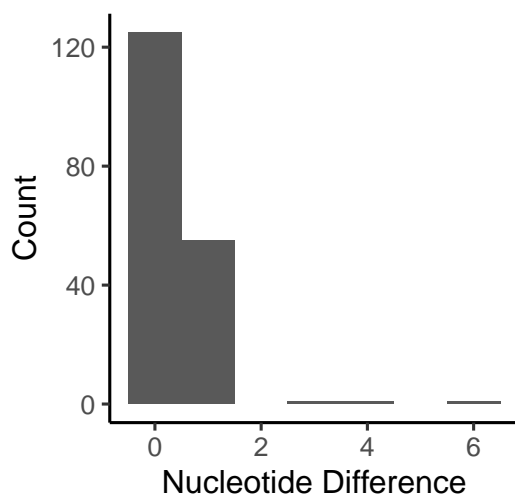
IGHV3-15*01

250 sequences assigned
184 (73.6%) exact matches, in which:
179 unique CDR3
5 unique J



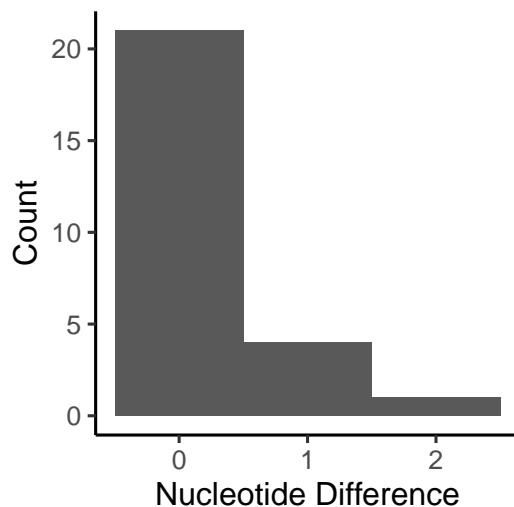
IGHV3-9*01

183 sequences assigned
125 (68.3%) exact matches, in which:
125 unique CDR3
6 unique J



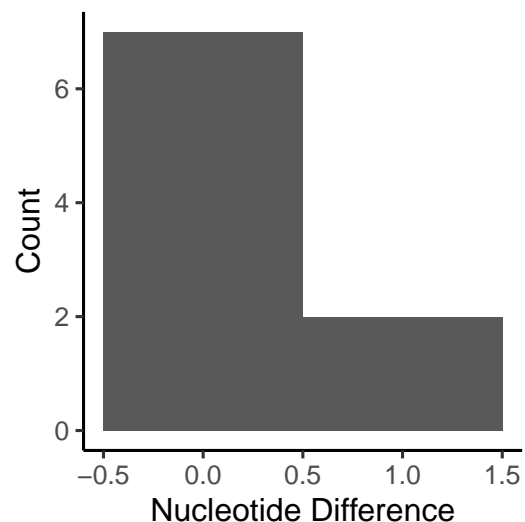
IGHV3-13*01

26 sequences assigned
21 (80.8%) exact matches, in which:
20 unique CDR3
5 unique J



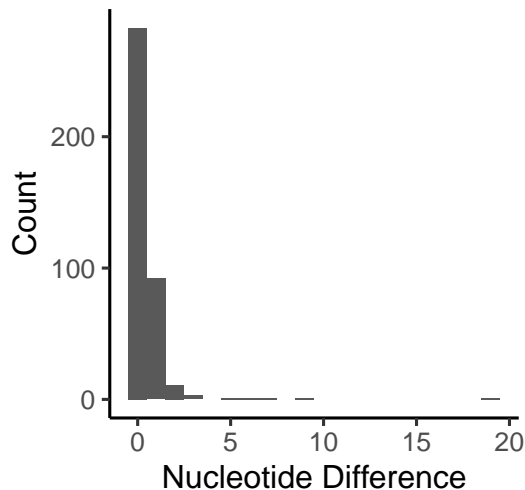
IGHV3-20*01

9 sequences assigned
7 (77.8%) exact matches, in which:
7 unique CDR3
3 unique J



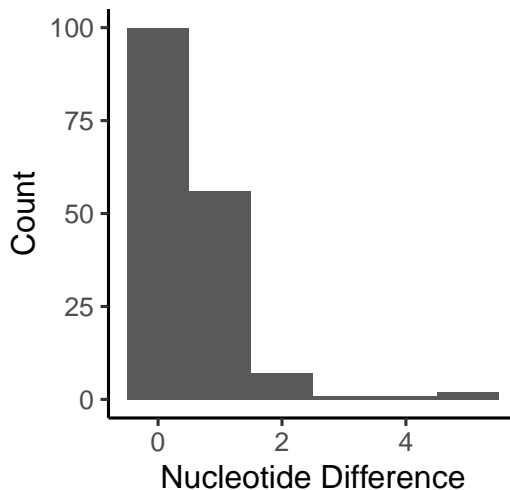
IGHV3-21*01

396 sequences assigned
283 (71.5%) exact matches, in which:
280 unique CDR3
6 unique J



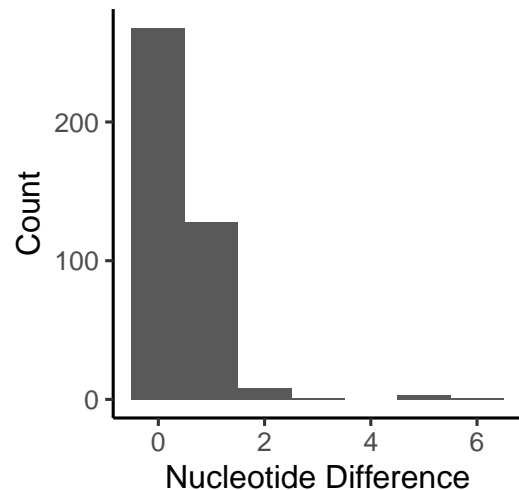
IGHV3-30-3*01

167 sequences assigned
100 (59.9%) exact matches, in which:
100 unique CDR3
6 unique J



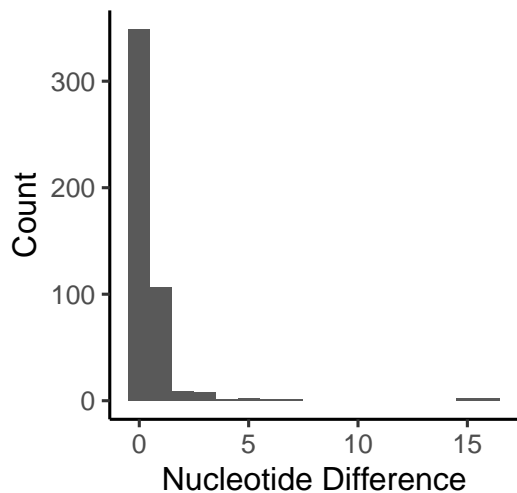
IGHV3-33*01

411 sequences assigned
268 (65.2%) exact matches, in which:
265 unique CDR3
6 unique J



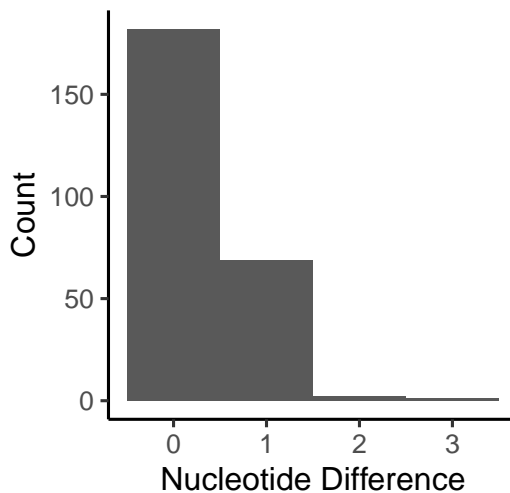
IGHV3-23*01

484 sequences assigned
349 (72.1%) exact matches, in which:
348 unique CDR3
6 unique J



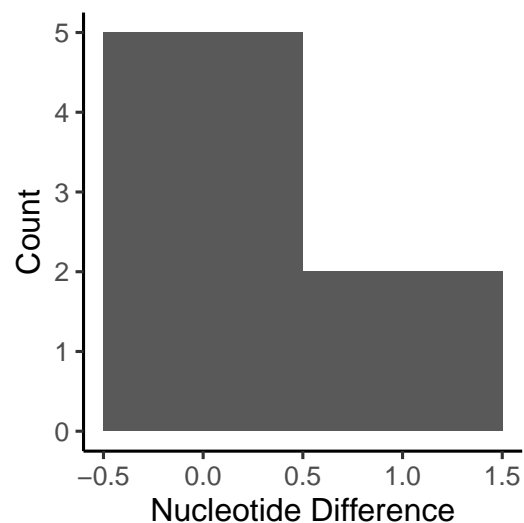
IGHV3-30*01

254 sequences assigned
182 (71.7%) exact matches, in which:
177 unique CDR3
6 unique J



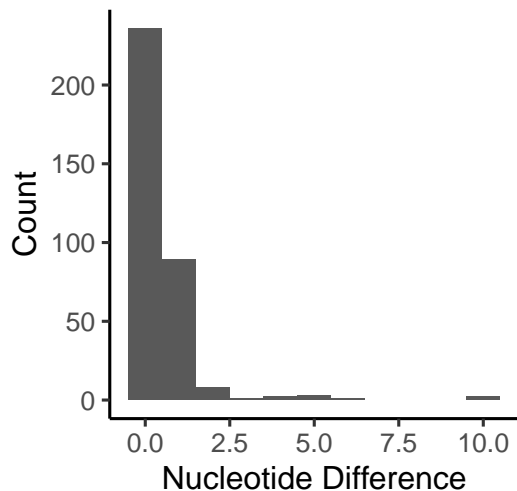
IGHV3-43*01

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



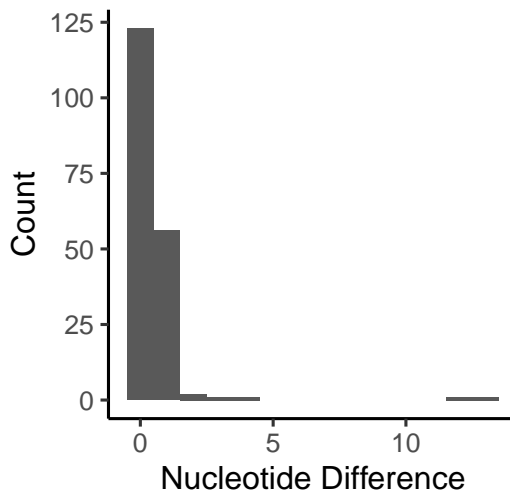
IGHV3-23*04

350 sequences assigned
236 (67.4%) exact matches, in which:
235 unique CDR3
6 unique J



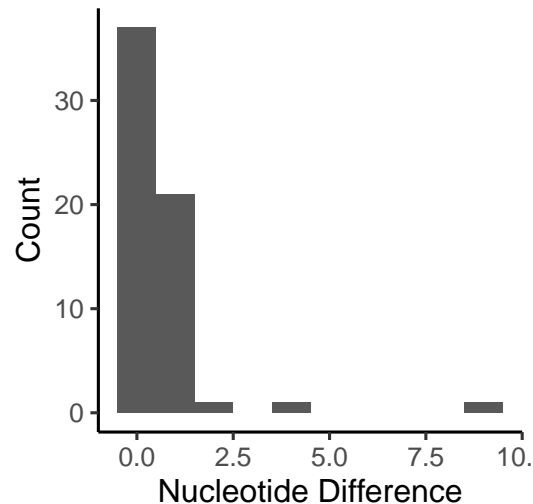
IGHV3-30*18

188 sequences assigned
123 (65.4%) exact matches, in which:
122 unique CDR3
6 unique J



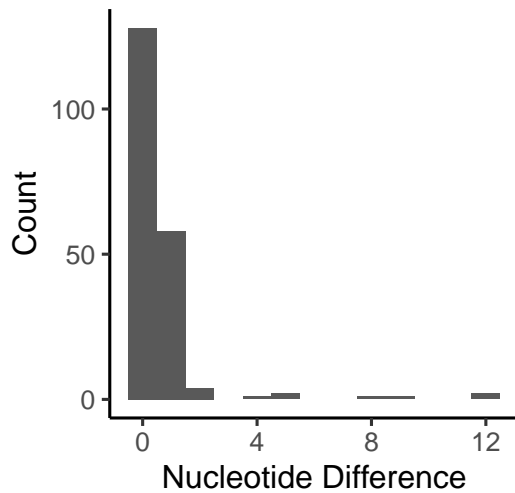
IGHV3-48*01

61 sequences assigned
37 (60.7%) exact matches, in which:
37 unique CDR3
5 unique J



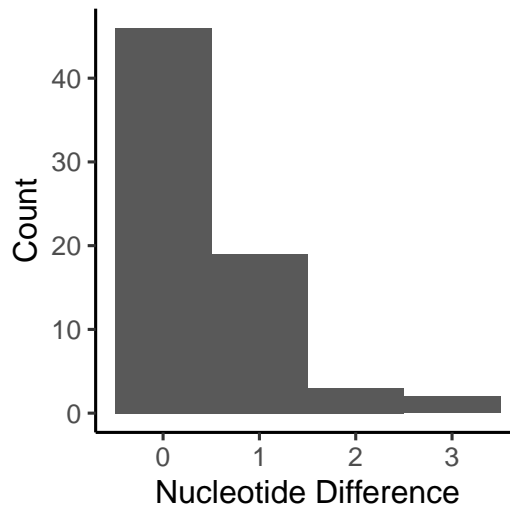
IGHV3-48*03

197 sequences assigned
128 (65%) exact matches, in which:
125 unique CDR3
6 unique J



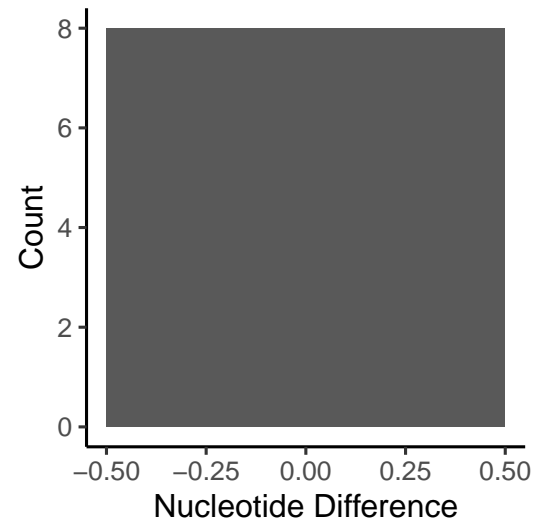
IGHV3-53*02

70 sequences assigned
46 (65.7%) exact matches, in which:
46 unique CDR3
5 unique J



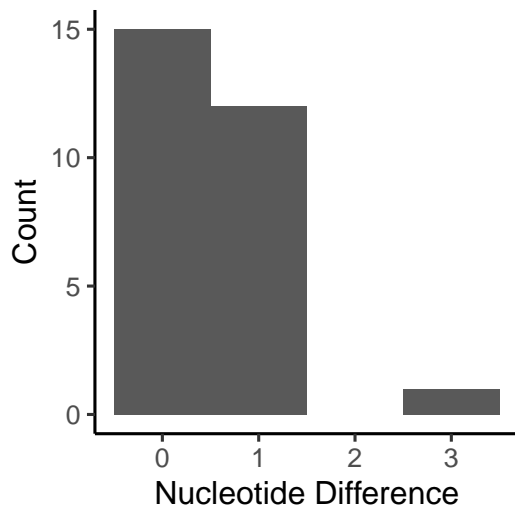
IGHV3-72*01

8 sequences assigned
8 (100%) exact matches, in which:
8 unique CDR3
4 unique J



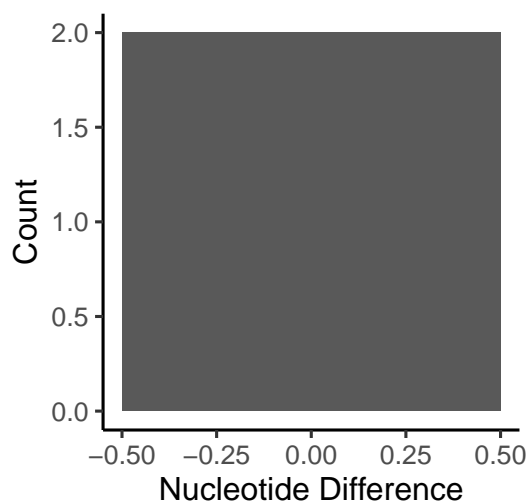
IGHV3-49*03

28 sequences assigned
15 (53.6%) exact matches, in which:
15 unique CDR3
5 unique J



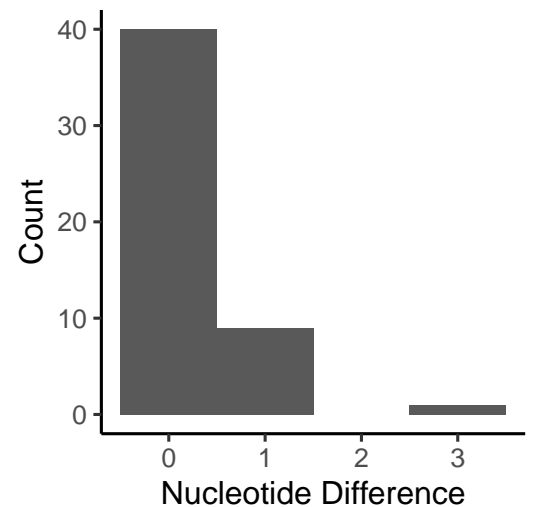
IGHV3-64*02

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
2 unique J



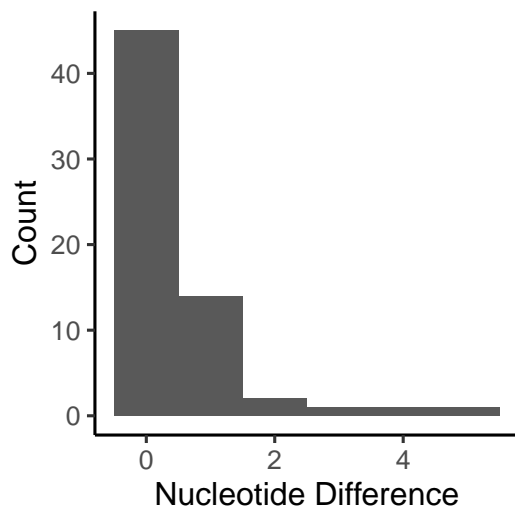
IGHV3-73*02

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



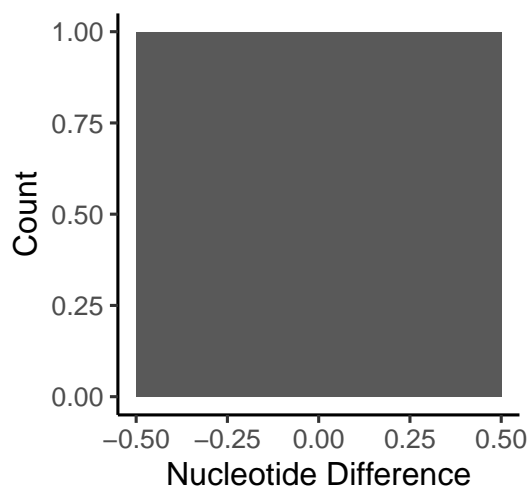
IGHV3-49*04

64 sequences assigned
45 (70.3%) exact matches, in which:
44 unique CDR3
5 unique J



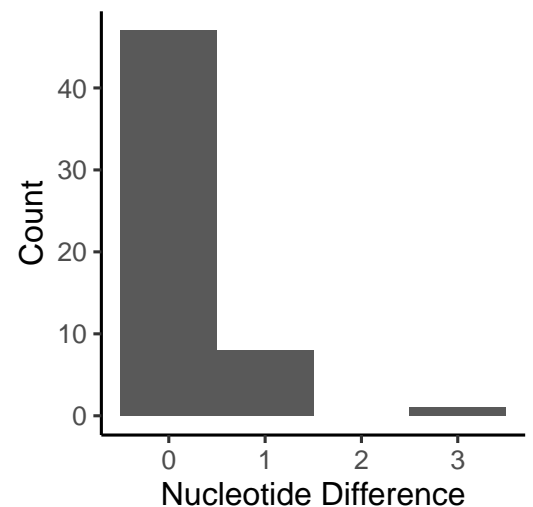
IGHV3-66*03

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



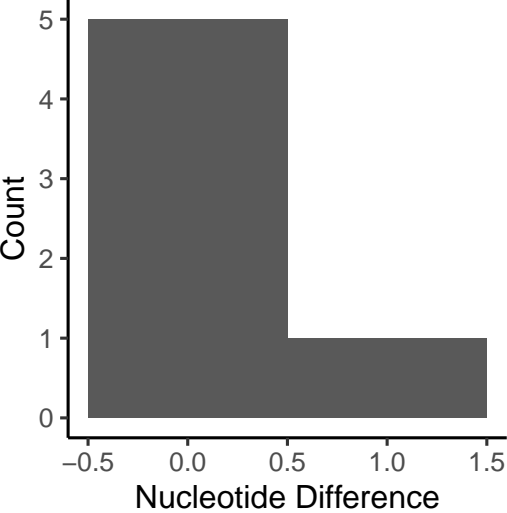
IGHV3-74*01

56 sequences assigned
47 (83.9%) exact matches, in which:
47 unique CDR3
4 unique J



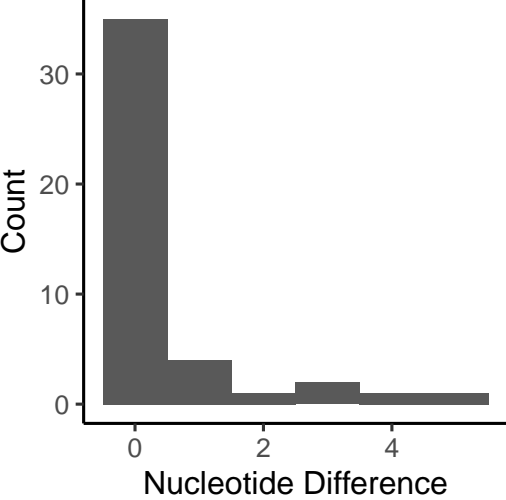
IGHV3-43D*04

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



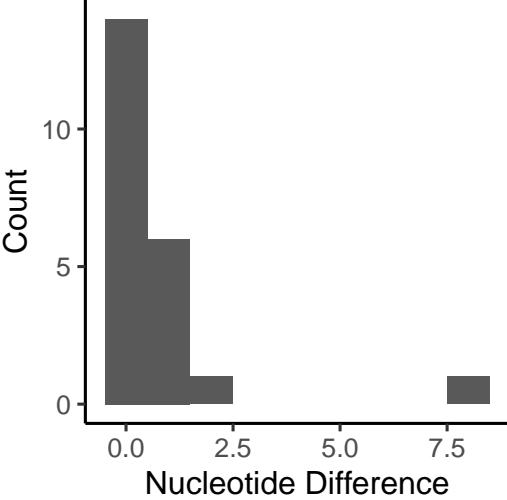
IGHV4-4*07

44 sequences assigned
35 (79.5%) exact matches, in which:
32 unique CDR3
5 unique J



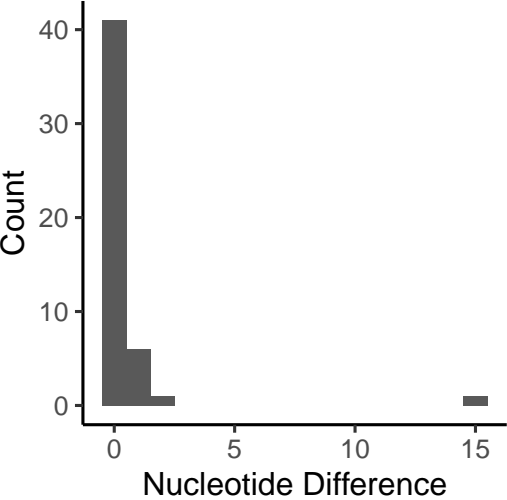
IGHV4-31*01

22 sequences assigned
14 (63.6%) exact matches, in which:
14 unique CDR3
3 unique J



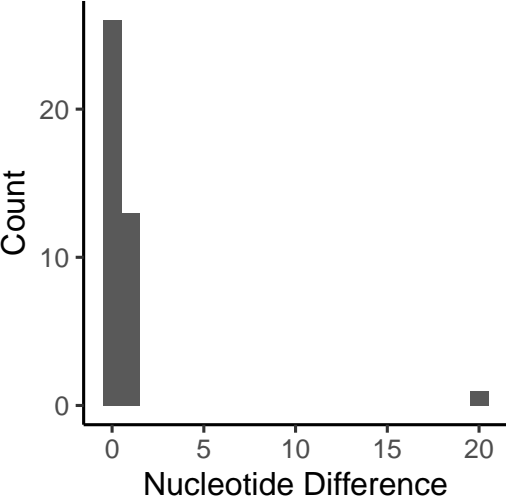
IGHV3-64D*06

49 sequences assigned
41 (83.7%) exact matches, in which:
40 unique CDR3
5 unique J



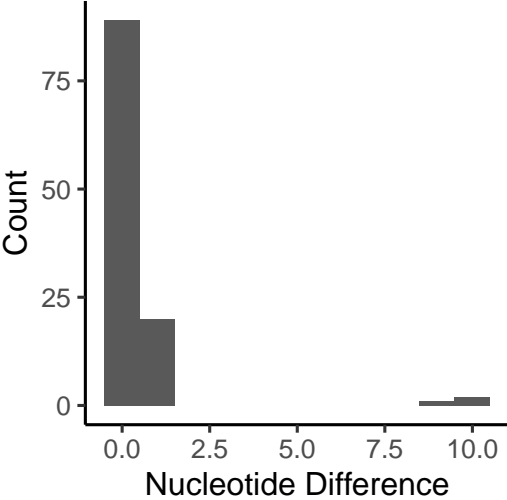
IGHV4-30-4*01

40 sequences assigned
26 (65%) exact matches, in which:
24 unique CDR3
4 unique J



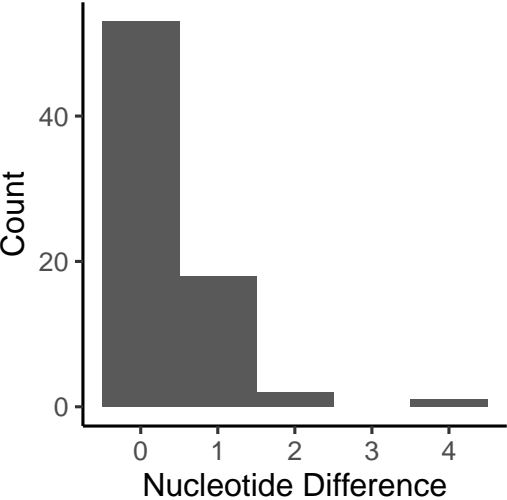
IGHV4-31*03

112 sequences assigned
89 (79.5%) exact matches, in which:
89 unique CDR3
5 unique J



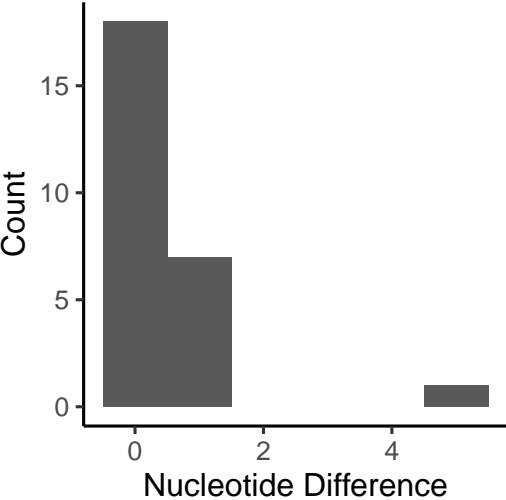
IGHV4-4*02

74 sequences assigned
53 (71.6%) exact matches, in which:
53 unique CDR3
6 unique J



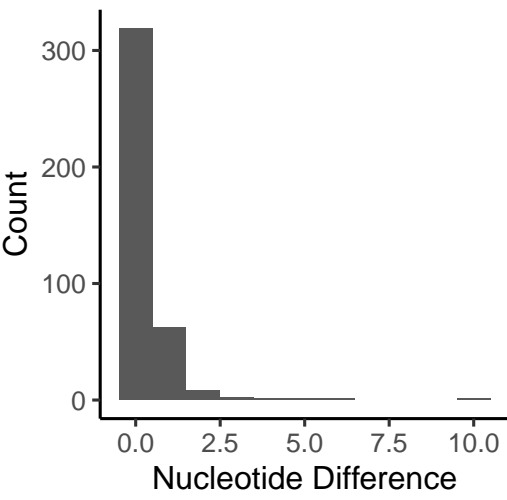
IGHV4-30-2*01

26 sequences assigned
18 (69.2%) exact matches, in which:
18 unique CDR3
4 unique J



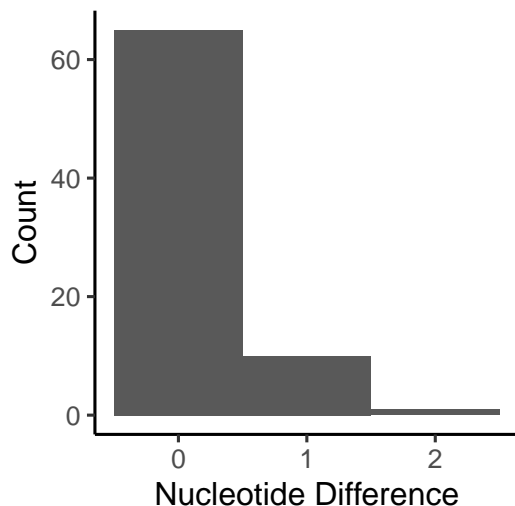
IGHV4-34*01

396 sequences assigned
319 (80.6%) exact matches, in which:
315 unique CDR3
6 unique J



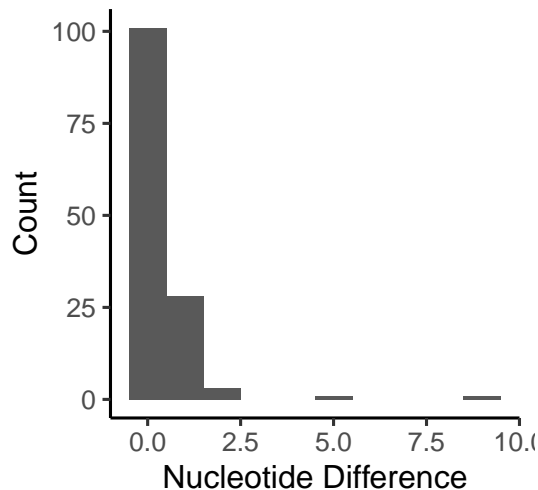
IGHV4-38-2*01

76 sequences assigned
65 (85.5%) exact matches, in which:
65 unique CDR3
6 unique J



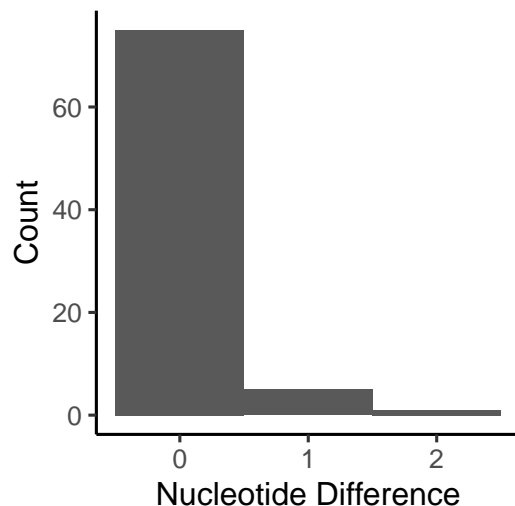
IGHV4-59*01

135 sequences assigned
101 (74.8%) exact matches, in which:
100 unique CDR3
5 unique J



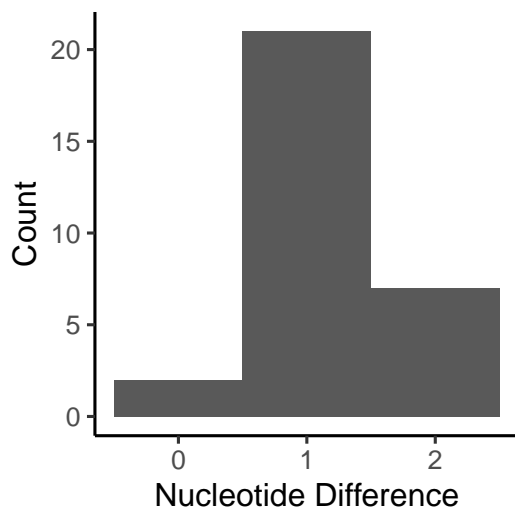
IGHV5-10-1*03

81 sequences assigned
75 (92.6%) exact matches, in which:
75 unique CDR3
6 unique J



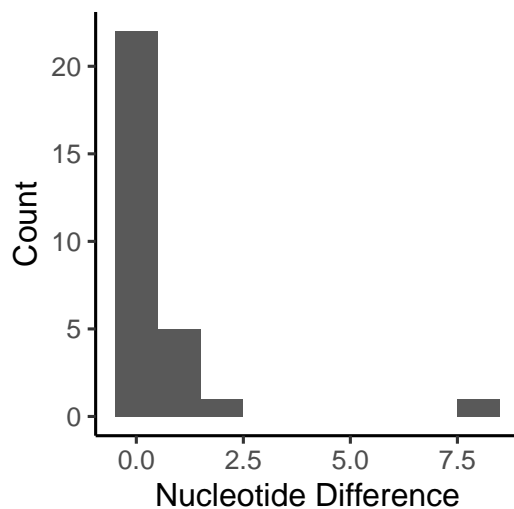
IGHV4-38-2*02

30 sequences assigned
2 (6.7%) exact matches, in which:
2 unique CDR3
2 unique J



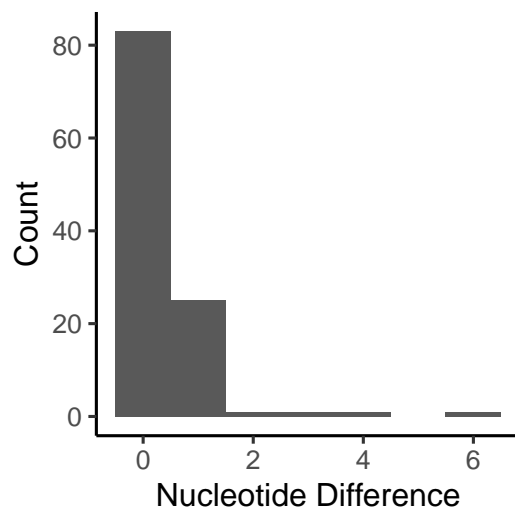
IGHV4-61*01

29 sequences assigned
22 (75.9%) exact matches, in which:
22 unique CDR3
5 unique J



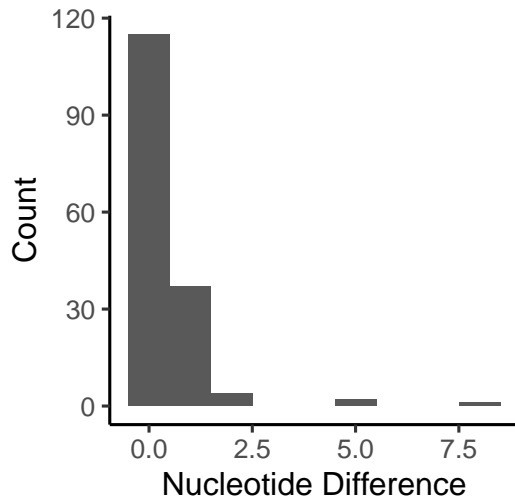
IGHV5-51*01

112 sequences assigned
83 (74.1%) exact matches, in which:
82 unique CDR3
5 unique J



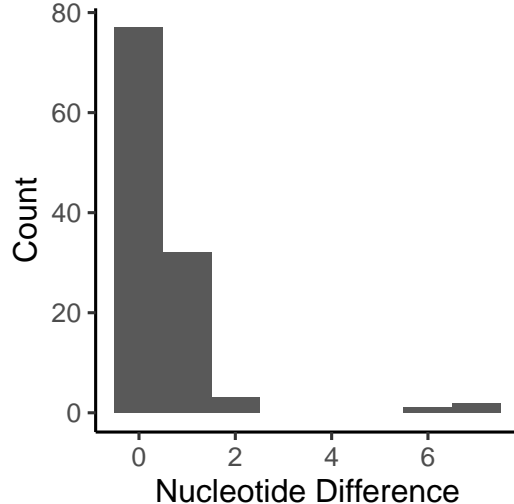
IGHV4-39*01

159 sequences assigned
115 (72.3%) exact matches, in which:
110 unique CDR3
6 unique J



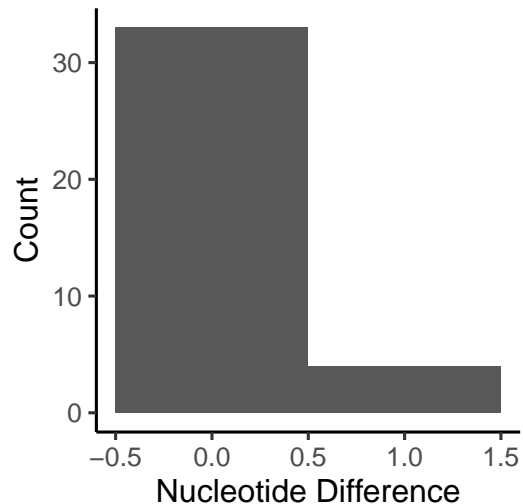
IGHV4-61*02_A234G

115 sequences assigned
77 (67%) exact matches, in which:
77 unique CDR3
5 unique J



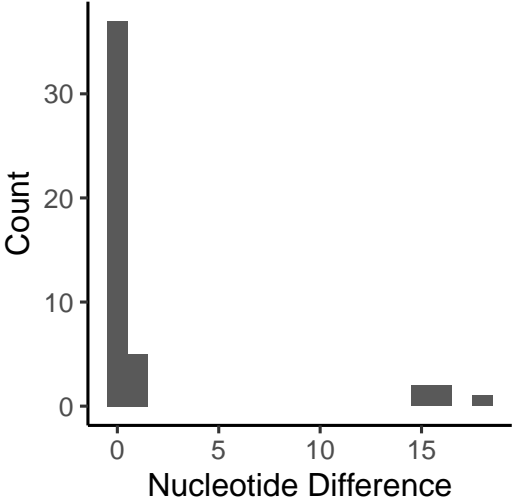
IGHV5-51*03

37 sequences assigned
33 (89.2%) exact matches, in which:
33 unique CDR3
5 unique J



IGHV6-1*01

47 sequences assigned
37 (78.7%) exact matches, in which:
35 unique CDR3
5 unique J



IGHV4-61*02_A234G

