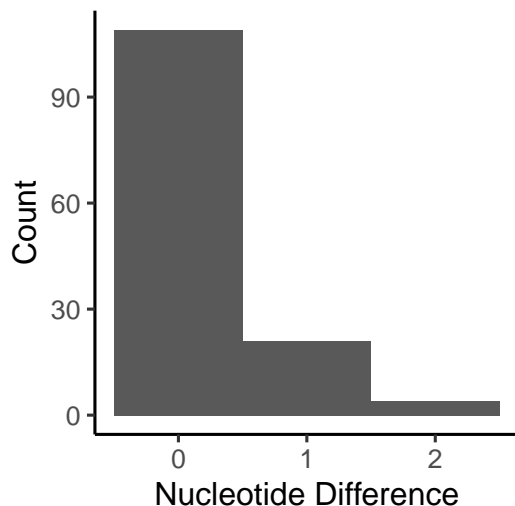


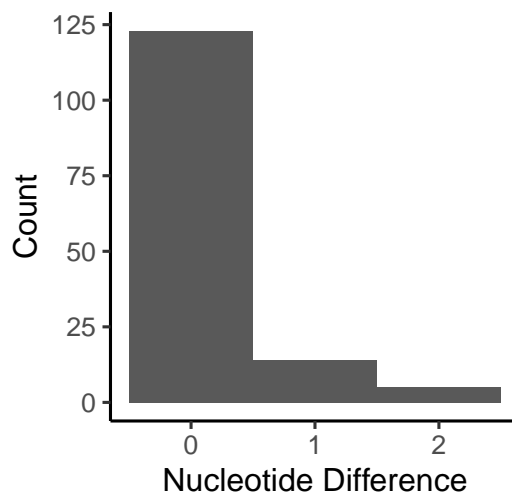
IGHV1-2*02

134 sequences assigned
109 (81.3%) exact matches, in which:
107 unique CDR3
6 unique J



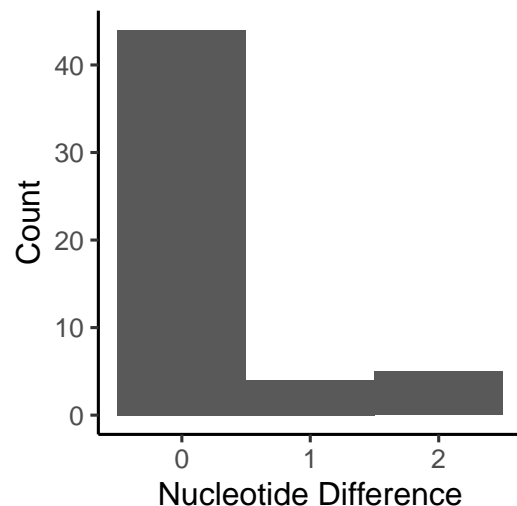
IGHV1-8*01

142 sequences assigned
123 (86.6%) exact matches, in which:
123 unique CDR3
5 unique J



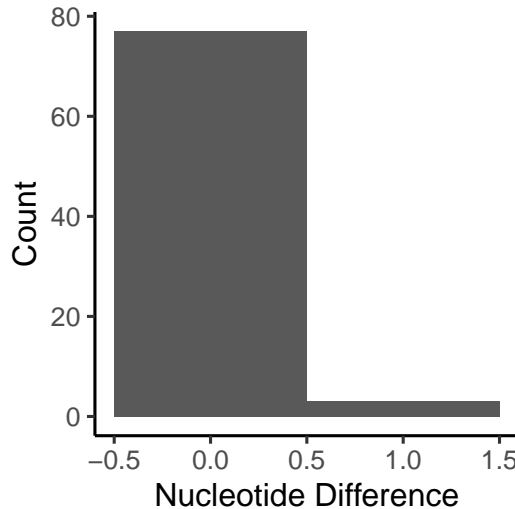
IGHV1-46*01

53 sequences assigned
44 (83%) exact matches, in which:
44 unique CDR3
4 unique J



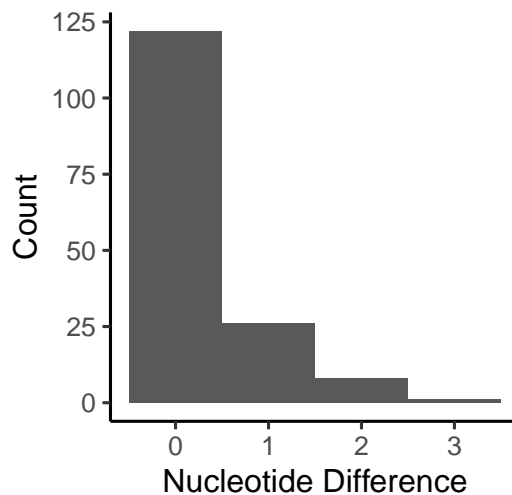
IGHV1-2*06

80 sequences assigned
77 (96.2%) exact matches, in which:
77 unique CDR3
6 unique J



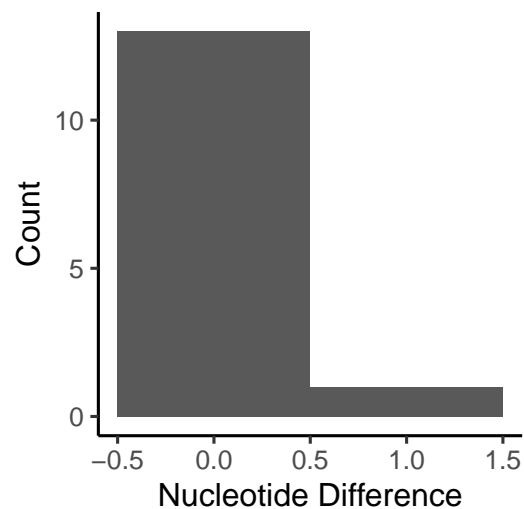
IGHV1-18*01

157 sequences assigned
122 (77.7%) exact matches, in which:
121 unique CDR3
6 unique J



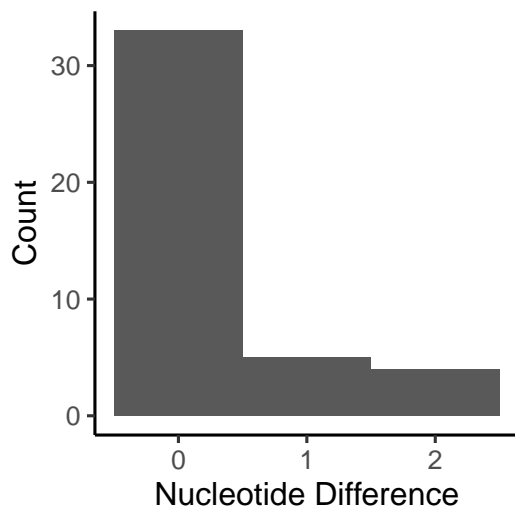
IGHV1-58*02

14 sequences assigned
13 (92.9%) exact matches, in which:
13 unique CDR3
4 unique J



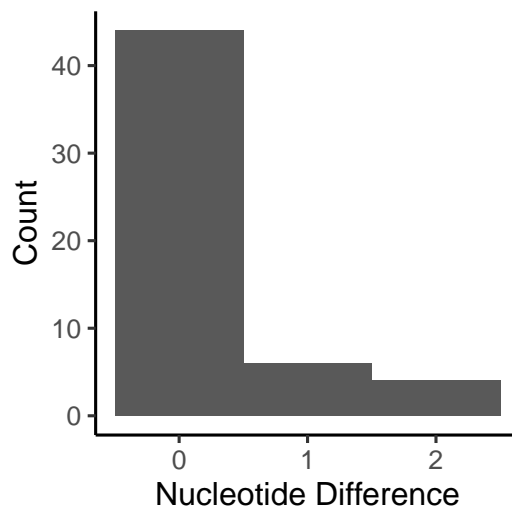
IGHV1-3*01_05

42 sequences assigned
33 (78.6%) exact matches, in which:
33 unique CDR3
5 unique J



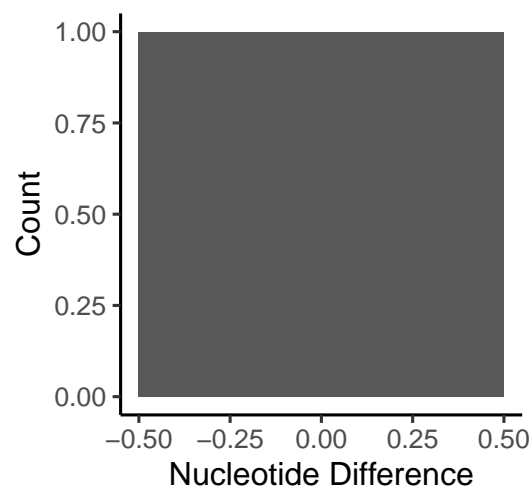
IGHV1-24*01

54 sequences assigned
44 (81.5%) exact matches, in which:
43 unique CDR3
5 unique J



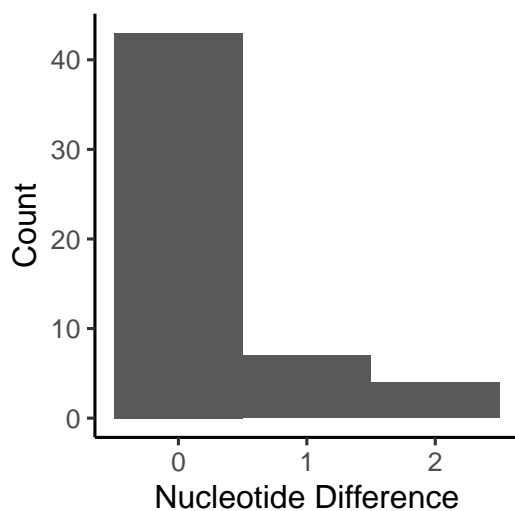
IGHV1-69-2*01

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



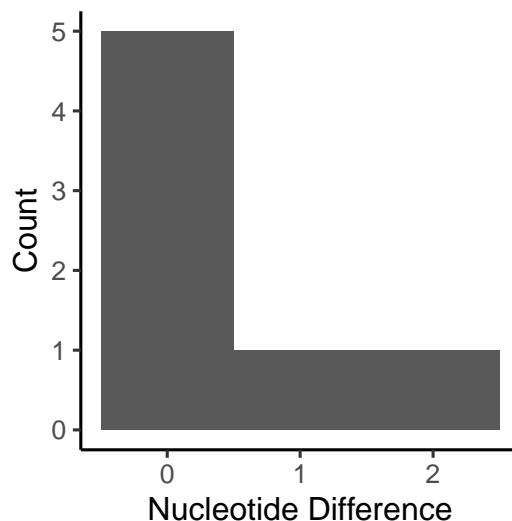
IGHV1-69*01_12_13

54 sequences assigned
43 (79.6%) exact matches, in which:
43 unique CDR3
4 unique J



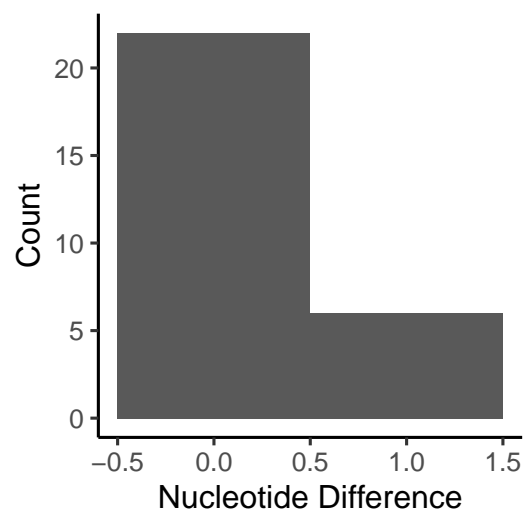
IGHV2-26*01

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



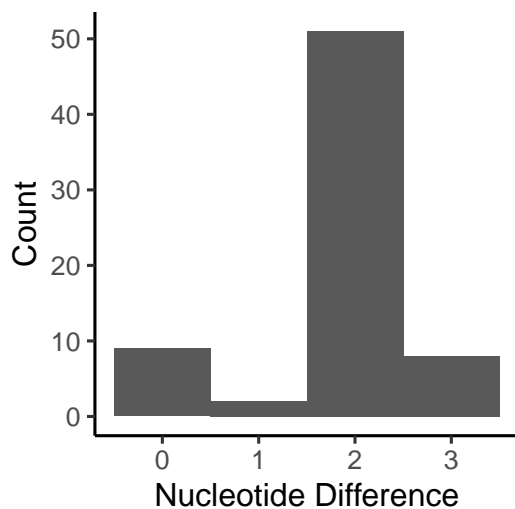
IGHV3-9*01

28 sequences assigned
22 (78.6%) exact matches, in which:
22 unique CDR3
5 unique J



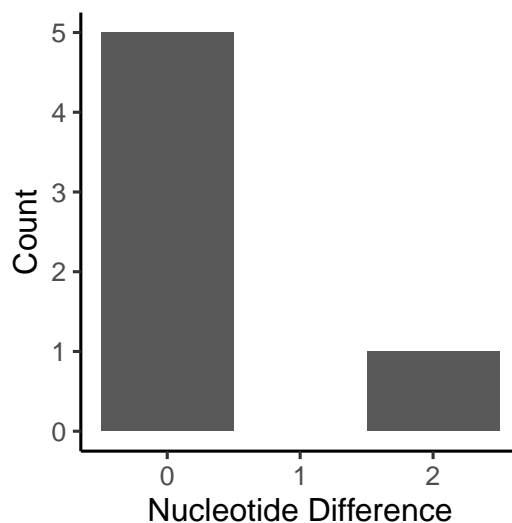
IGHV1-69*06_14

70 sequences assigned
9 (12.9%) exact matches, in which:
9 unique CDR3
2 unique J



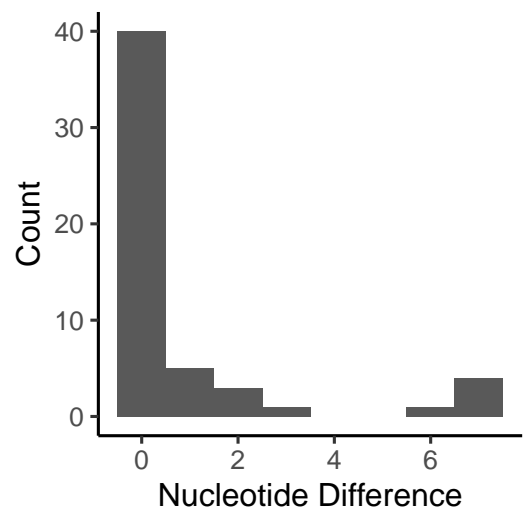
IGHV2-70*01

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



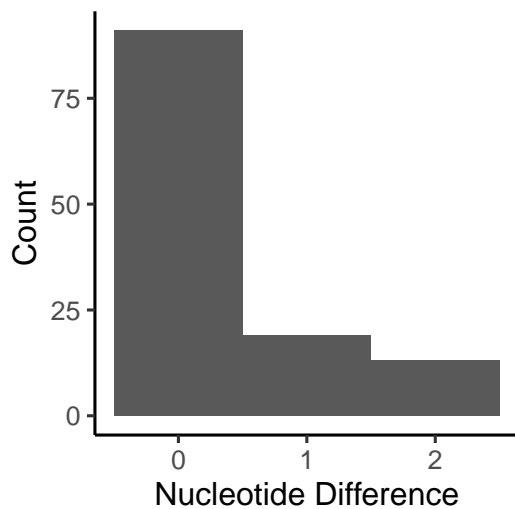
IGHV3-11*01

54 sequences assigned
40 (74.1%) exact matches, in which:
40 unique CDR3
5 unique J



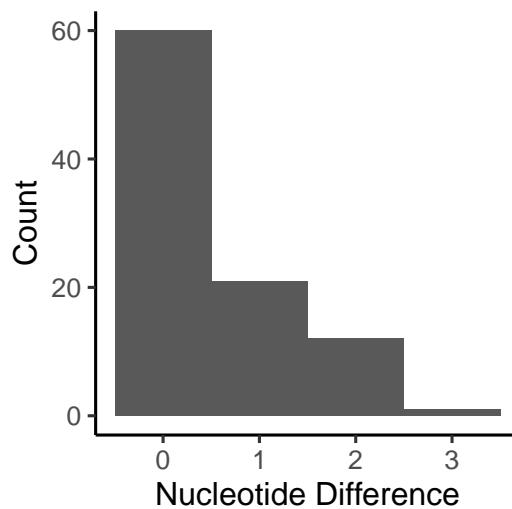
IGHV2-5*02

123 sequences assigned
91 (74%) exact matches, in which:
91 unique CDR3
5 unique J



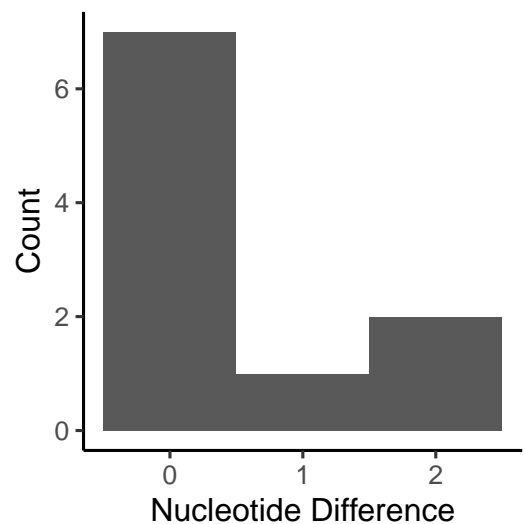
IGHV3-7*01

94 sequences assigned
60 (63.8%) exact matches, in which:
60 unique CDR3
5 unique J



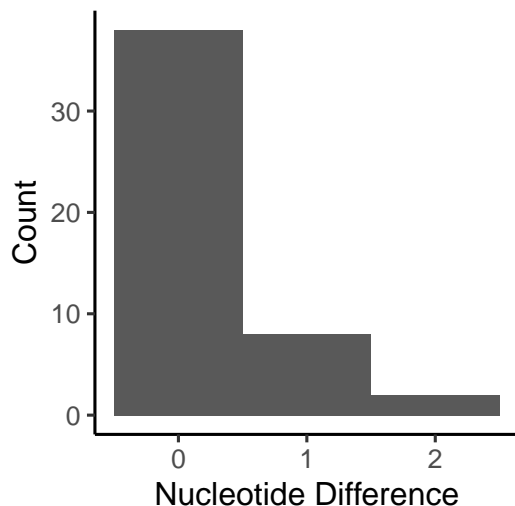
IGHV3-13*01

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



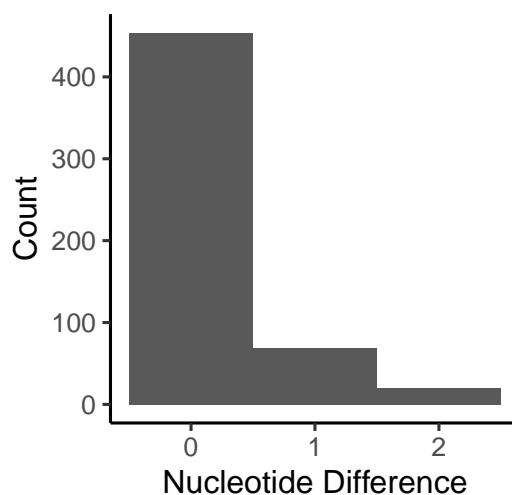
IGHV3-15*01_02

48 sequences assigned
38 (79.2%) exact matches, in which:
38 unique CDR3
4 unique J



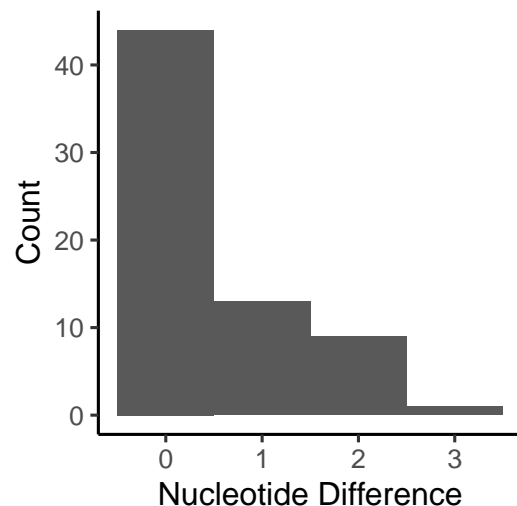
IGHV3-23*01_04

543 sequences assigned
454 (83.6%) exact matches, in which:
454 unique CDR3
6 unique J



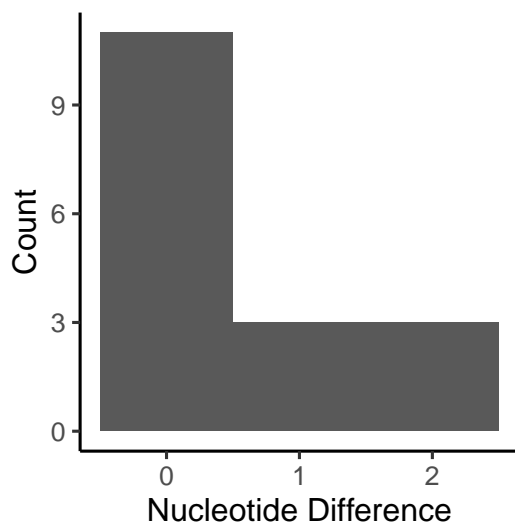
IGHV3-33*01

67 sequences assigned
44 (65.7%) exact matches, in which:
44 unique CDR3
6 unique J



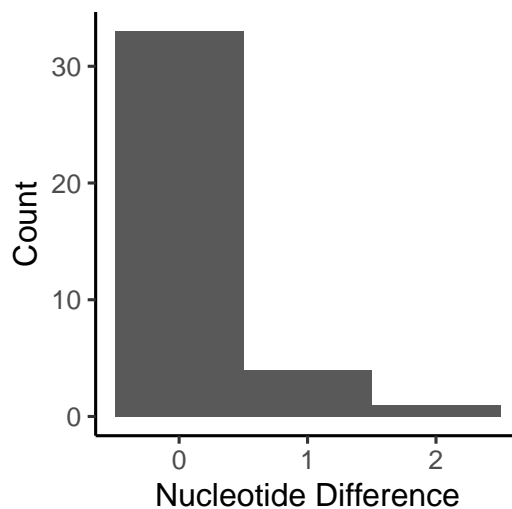
IGHV3-20*01_02

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



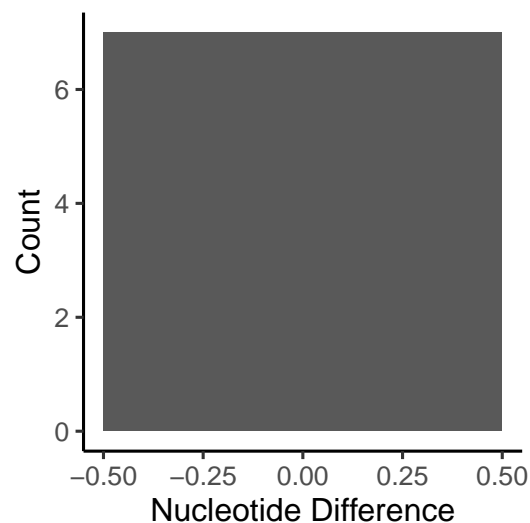
IGHV3-30-3*01

38 sequences assigned
33 (86.8%) exact matches, in which:
33 unique CDR3
4 unique J



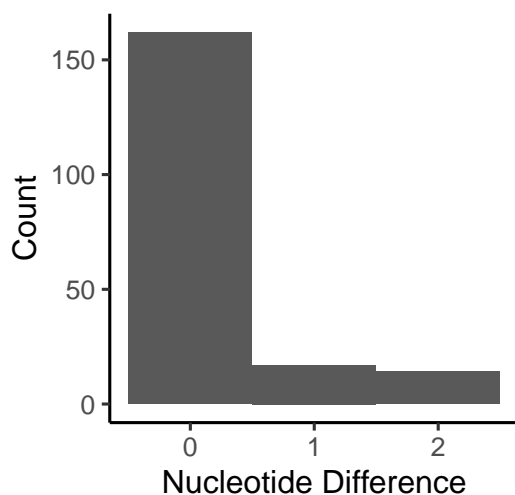
IGHV3-43*01

7 sequences assigned
7 (100%) exact matches, in which:
6 unique CDR3
3 unique J



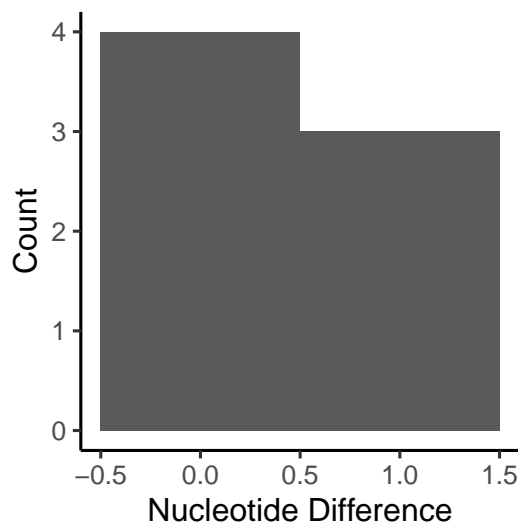
IGHV3-21*01_02

193 sequences assigned
162 (83.9%) exact matches, in which:
162 unique CDR3
6 unique J



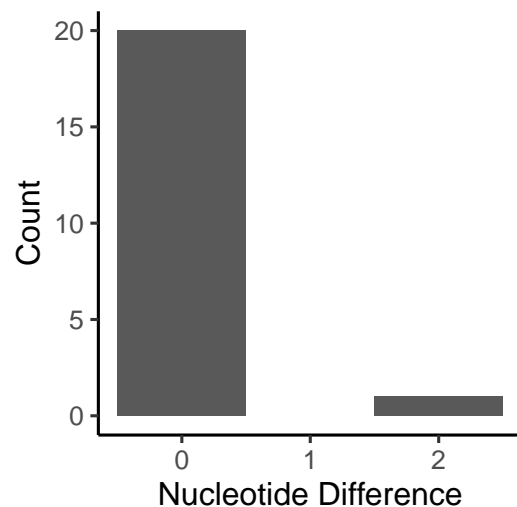
IGHV3-30-3*03

7 sequences assigned
4 (57.1%) exact matches, in which:
4 unique CDR3
2 unique J



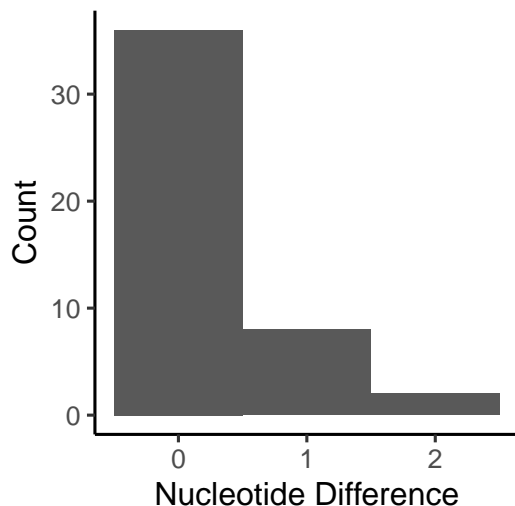
IGHV3-43*02

21 sequences assigned
20 (95.2%) exact matches, in which:
18 unique CDR3
3 unique J



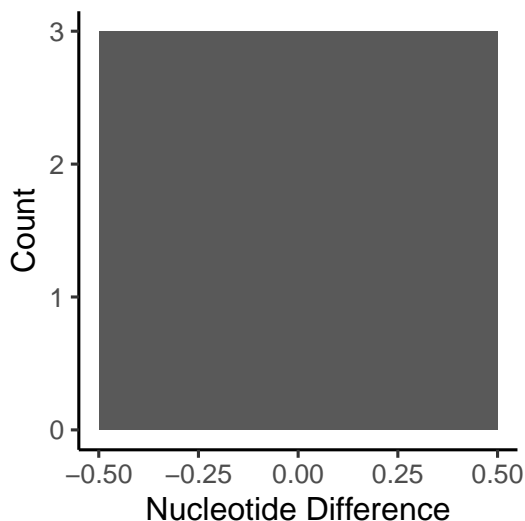
IGHV3-48*01

46 sequences assigned
36 (78.3%) exact matches, in which:
35 unique CDR3
5 unique J



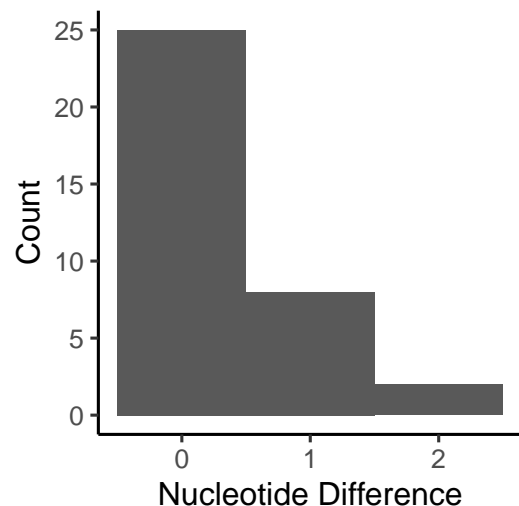
IGHV3-49*04

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



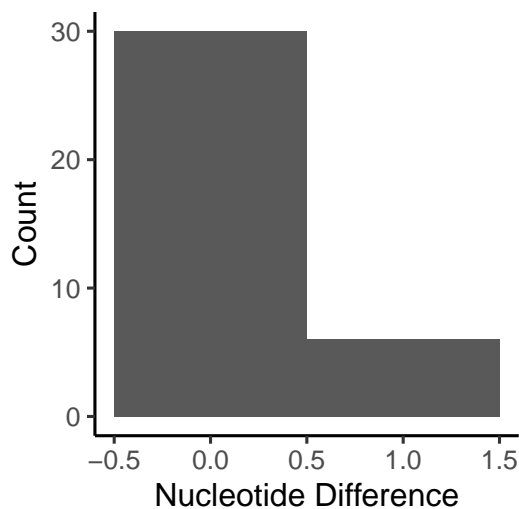
IGHV3-53*01_02

35 sequences assigned
25 (71.4%) exact matches, in which:
25 unique CDR3
5 unique J



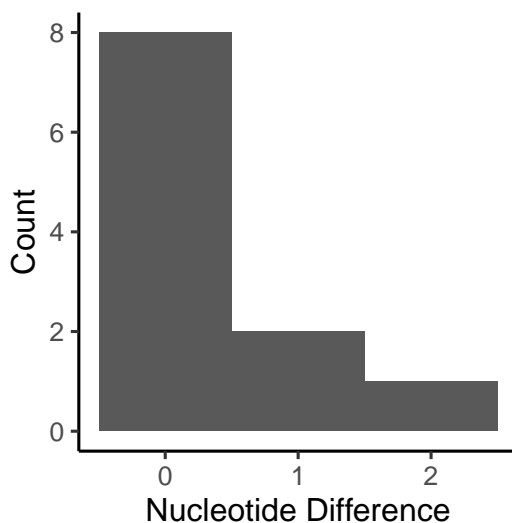
IGHV3-48*02

36 sequences assigned
30 (83.3%) exact matches, in which:
29 unique CDR3
5 unique J



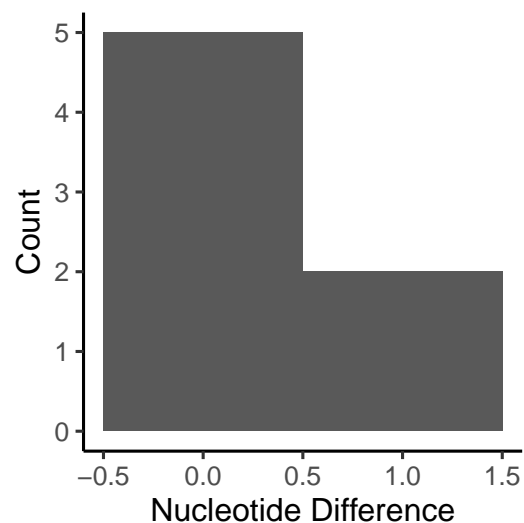
IGHV3-49*03_05

11 sequences assigned
8 (72.7%) exact matches, in which:
8 unique CDR3
2 unique J



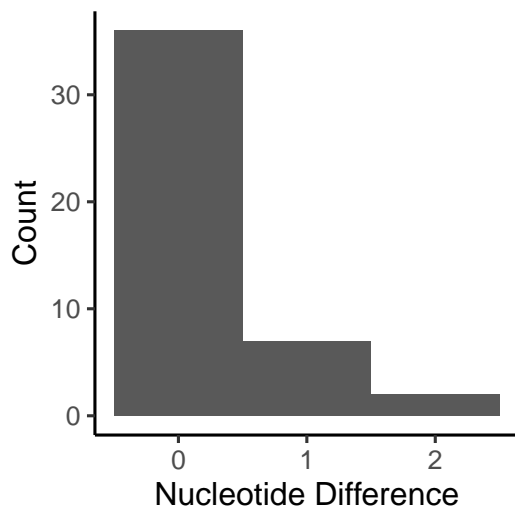
IGHV3-64*01

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



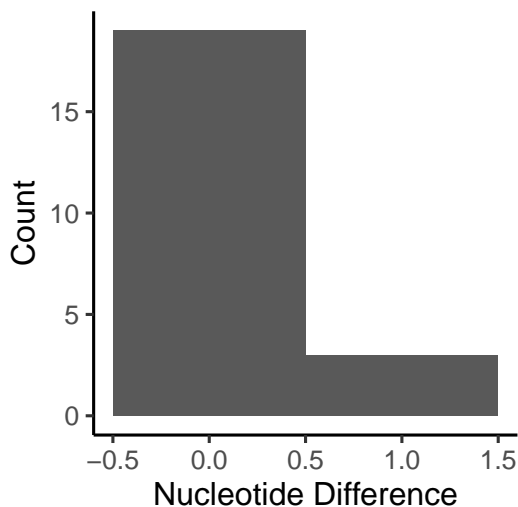
IGHV3-48*03

45 sequences assigned
36 (80%) exact matches, in which:
35 unique CDR3
5 unique J



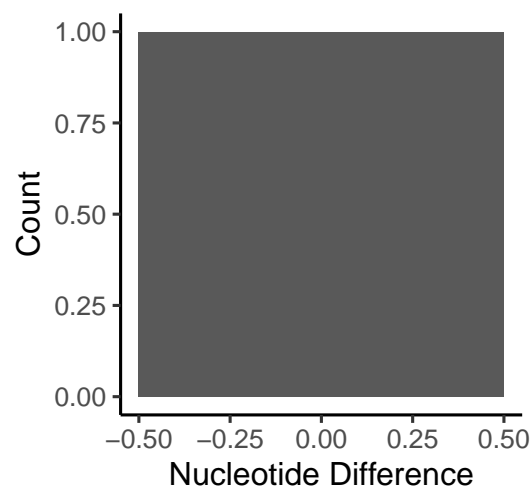
IGHV3-53*04

22 sequences assigned
19 (86.4%) exact matches, in which:
19 unique CDR3
4 unique J



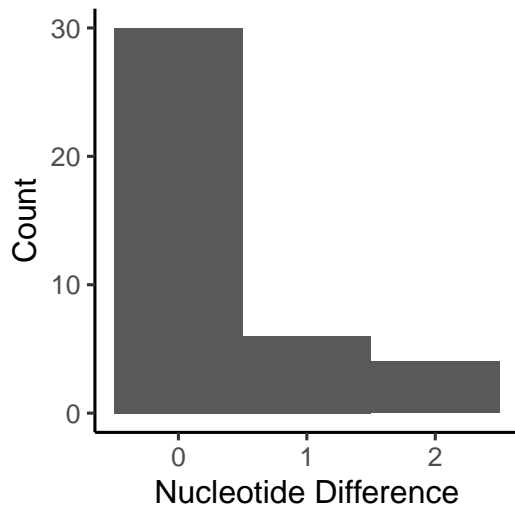
IGHV3-64*02_07

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



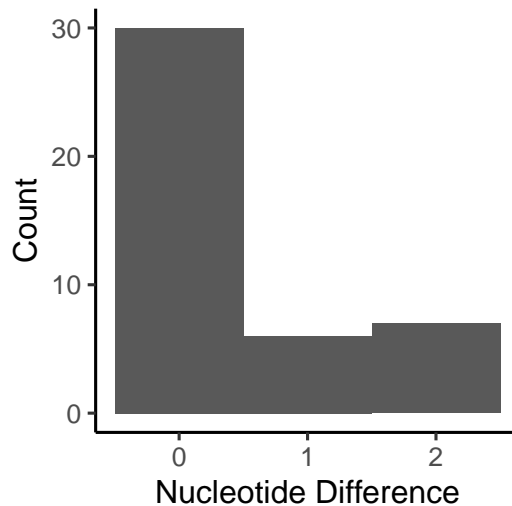
IGHV3-66*02

40 sequences assigned
30 (75%) exact matches, in which:
29 unique CDR3
5 unique J



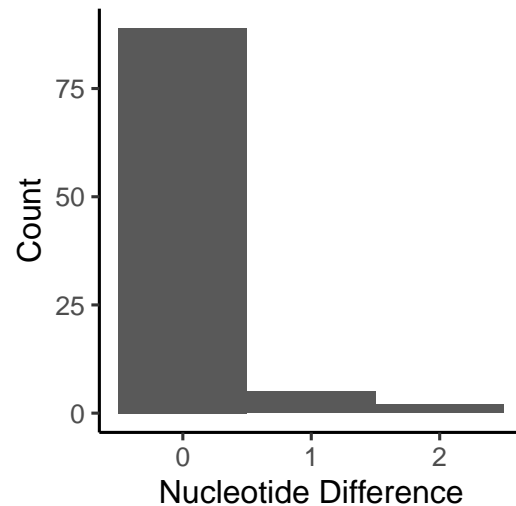
IGHV3-74*01_02

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



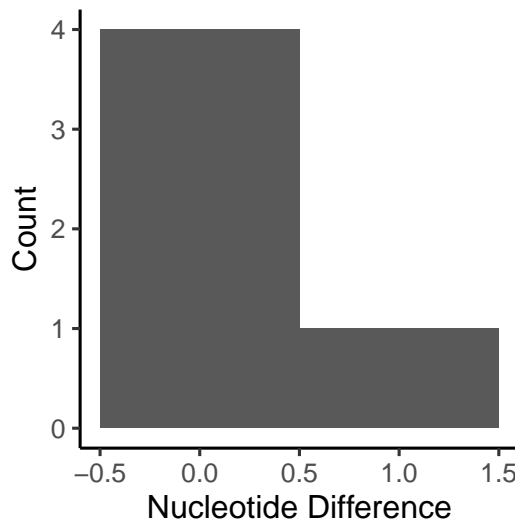
IGHV4-4*07

96 sequences assigned
89 (92.7%) exact matches, in which:
85 unique CDR3
5 unique J



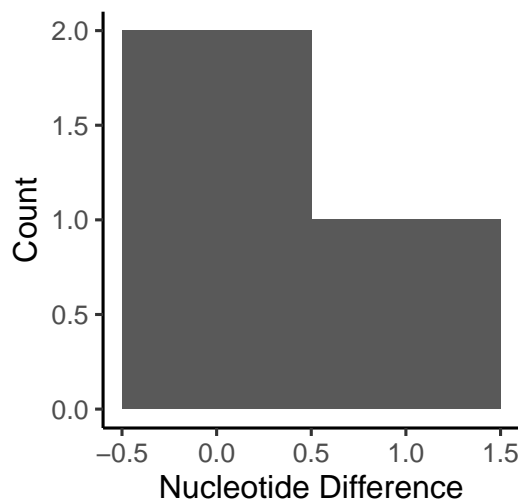
IGHV3-72*01

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



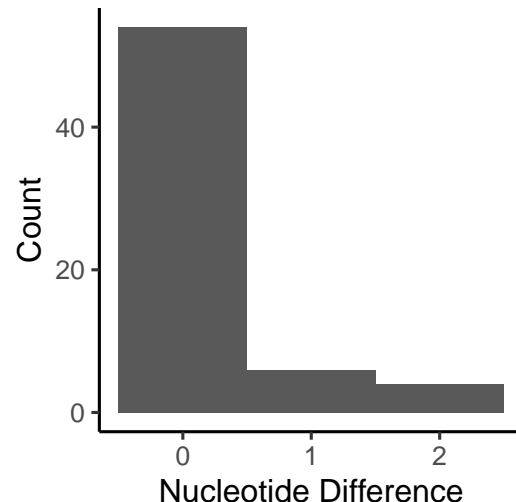
IGHV3-64D*06

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
2 unique J



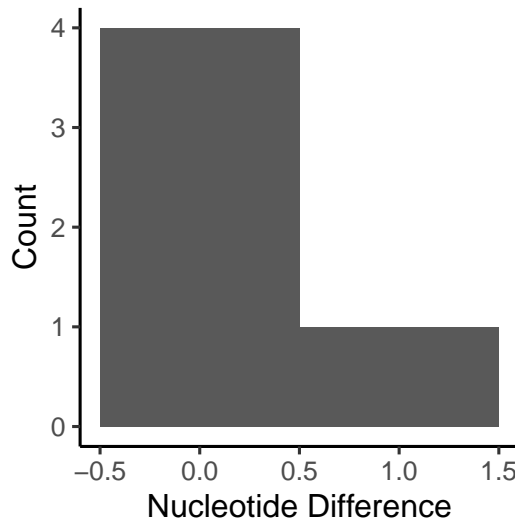
IGHV4-4*02_03

64 sequences assigned
54 (84.4%) exact matches, in which:
53 unique CDR3
5 unique J



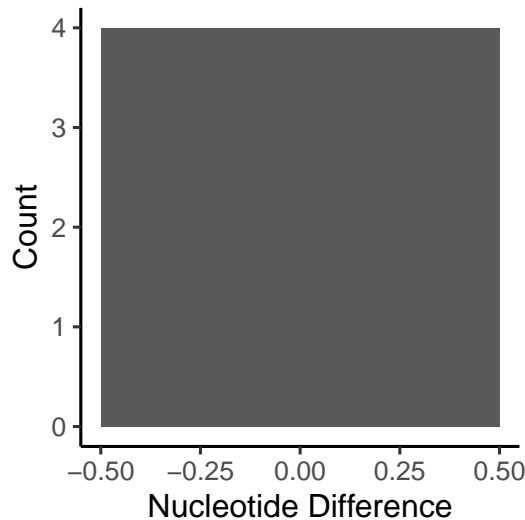
IGHV3-73*01_02

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



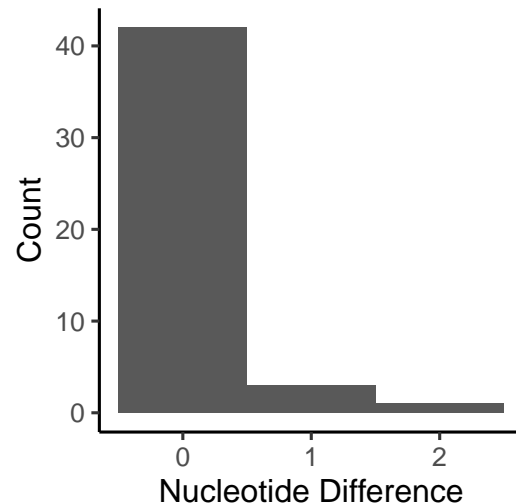
IGHV3-64D*08

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



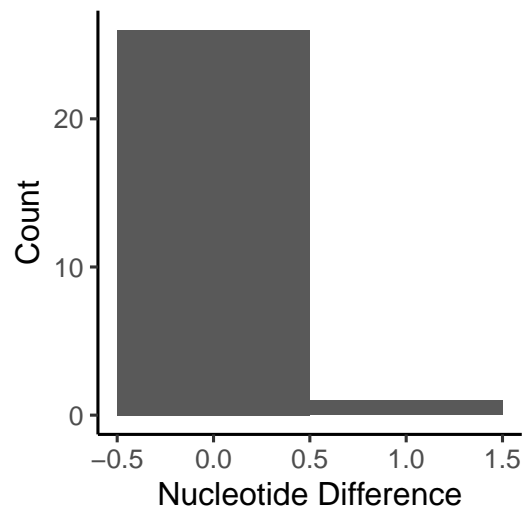
IGHV4-30-2*01

46 sequences assigned
42 (91.3%) exact matches, in which:
40 unique CDR3
4 unique J



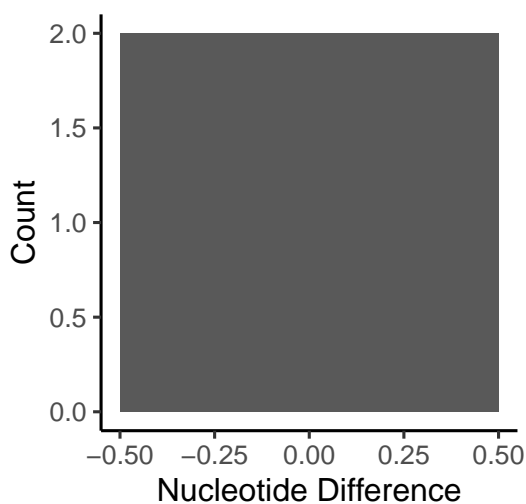
IGHV4-30-4*01

27 sequences assigned
26 (96.3%) exact matches, in which:
24 unique CDR3
5 unique J



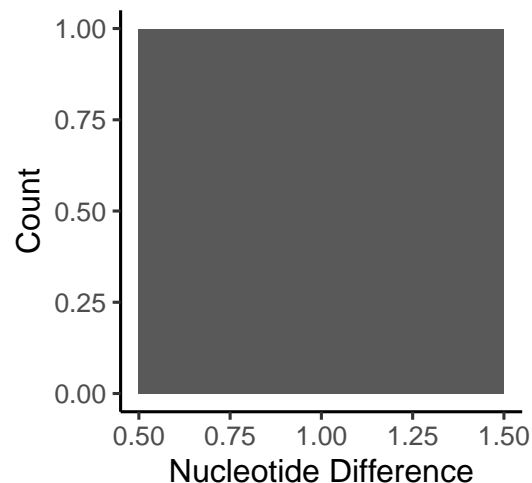
IGHV4-38-2*01

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



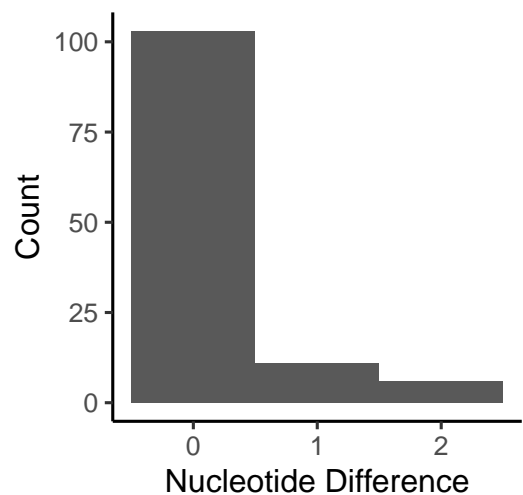
IGHV4-59*08

1 sequences assigned
No exact matches.



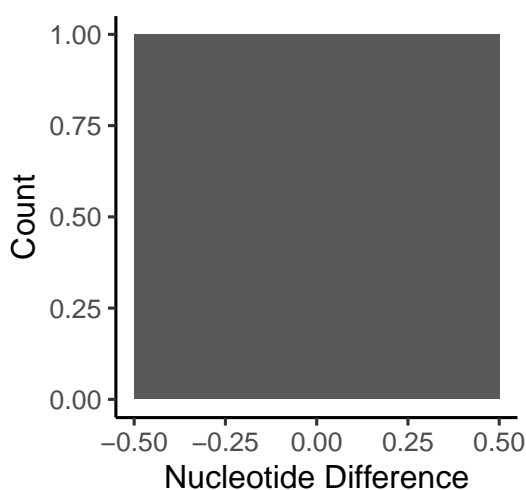
IGHV4-31*02

120 sequences assigned
103 (85.8%) exact matches, in which:
101 unique CDR3
6 unique J



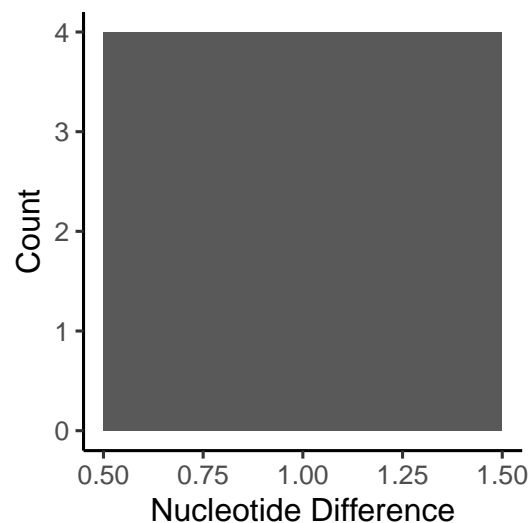
IGHV4-38-2*02

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



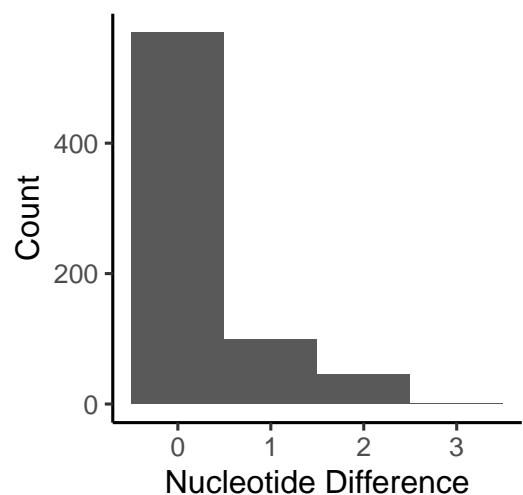
IGHV4-59*12

4 sequences assigned
No exact matches.



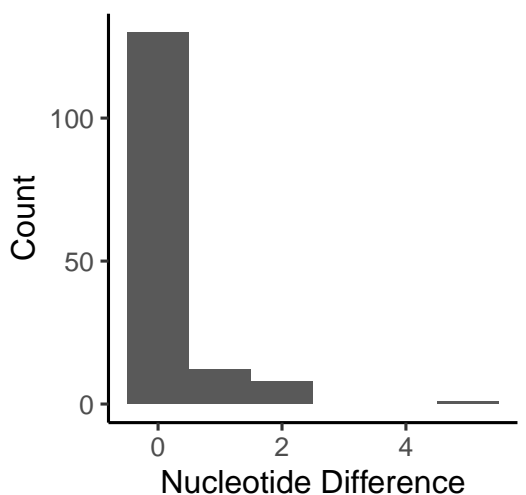
IGHV4-34*01_02

715 sequences assigned
570 (79.7%) exact matches, in which:
549 unique CDR3
6 unique J



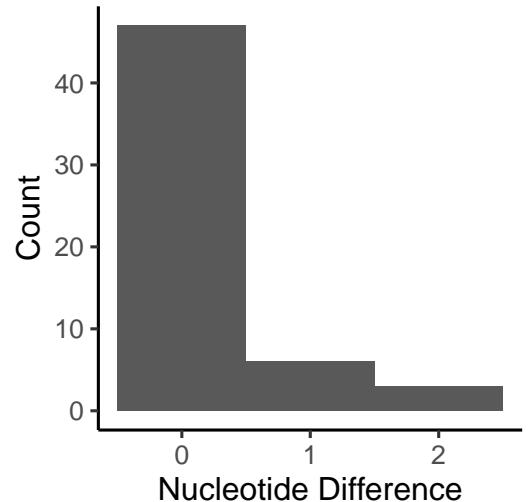
IGHV4-39*07

151 sequences assigned
130 (86.1%) exact matches, in which:
128 unique CDR3
5 unique J



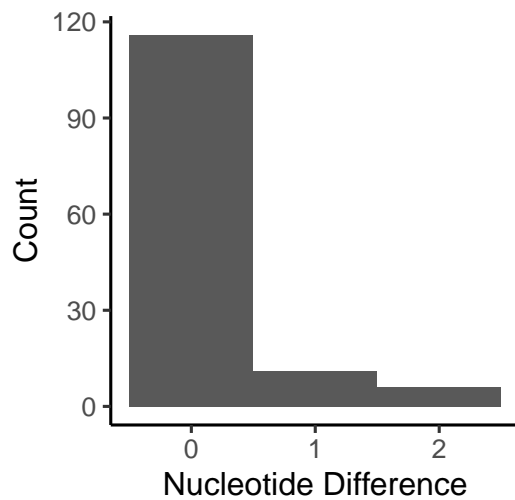
IGHV4-61*01

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



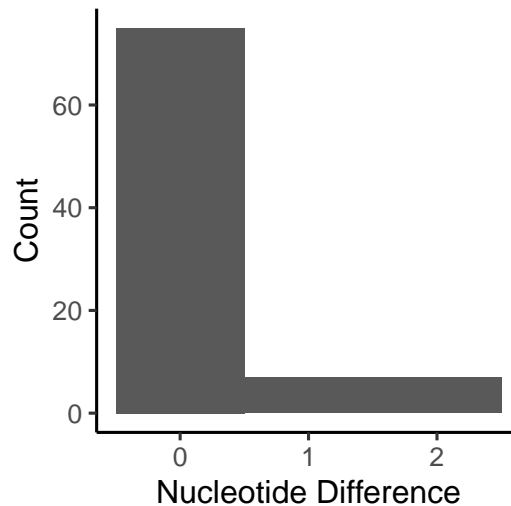
IGHV4–61*02

133 sequences assigned
116 (87.2%) exact matches, in which:
115 unique CDR3
5 unique J



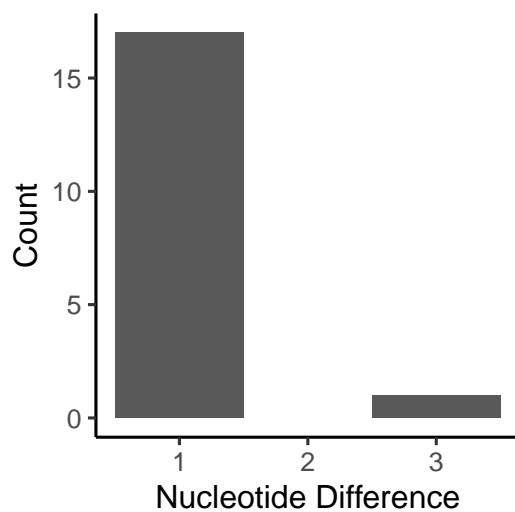
IGHV6–1*01_02

89 sequences assigned
75 (84.3%) exact matches, in which:
75 unique CDR3
5 unique J



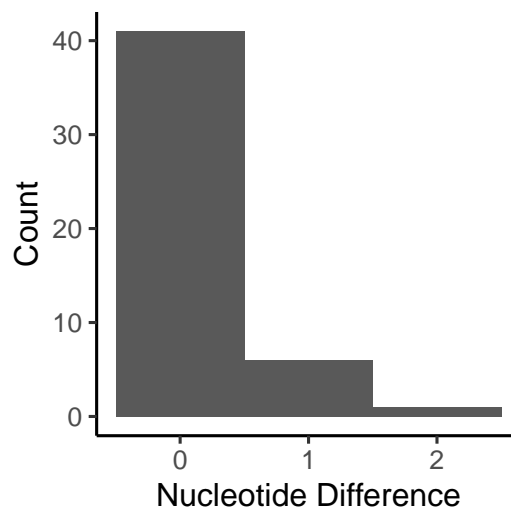
IGHV5–51*07

18 sequences assigned
No exact matches.



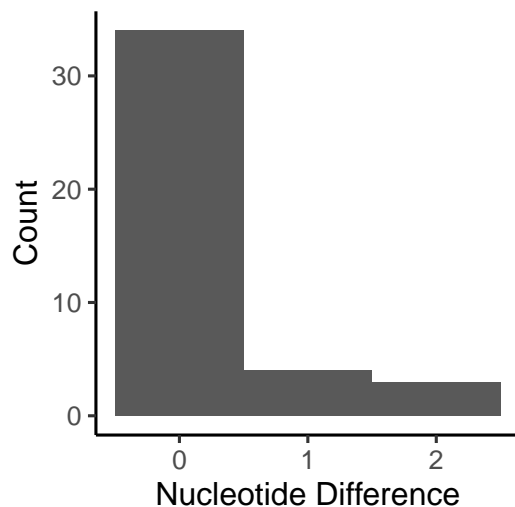
IGHV7–4–1*02

48 sequences assigned
41 (85.4%) exact matches, in which:
40 unique CDR3
6 unique J



IGHV5–51*01_03

41 sequences assigned
34 (82.9%) exact matches, in which:
34 unique CDR3
5 unique J





[illegible]