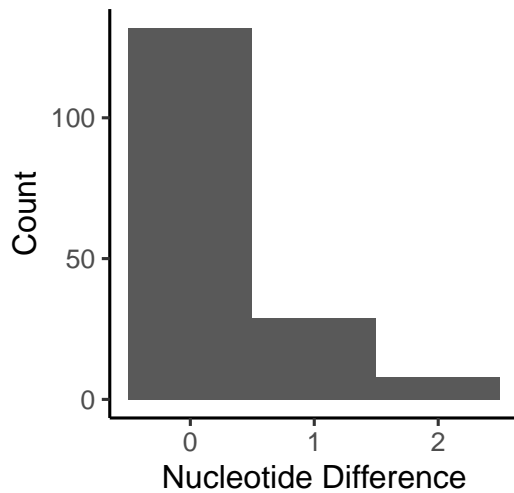


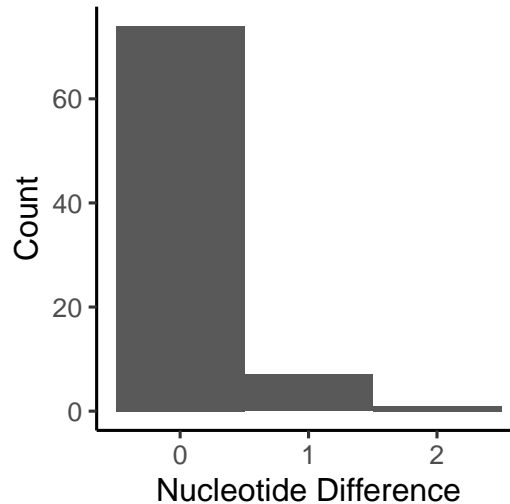
IGHV1-2*02

169 sequences assigned
132 (78.1%) exact matches, in which:
132 unique CDR3
6 unique J



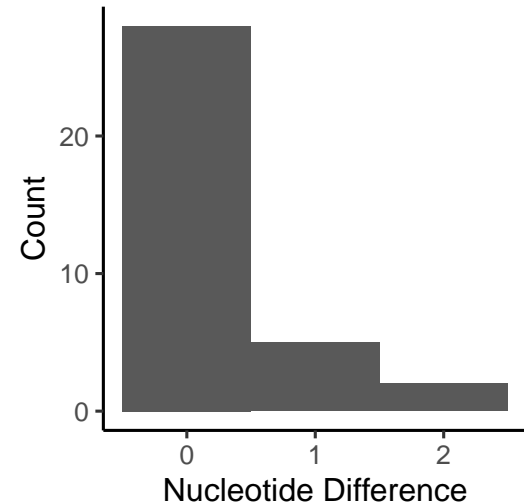
IGHV1-8*01

82 sequences assigned
74 (90.2%) exact matches, in which:
74 unique CDR3
5 unique J



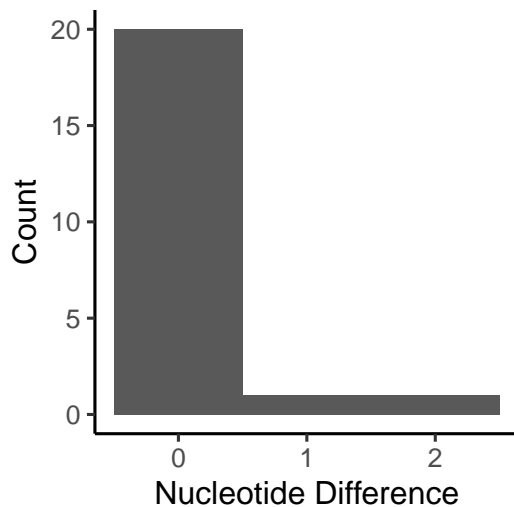
IGHV1-46*01

35 sequences assigned
28 (80%) exact matches, in which:
28 unique CDR3
5 unique J



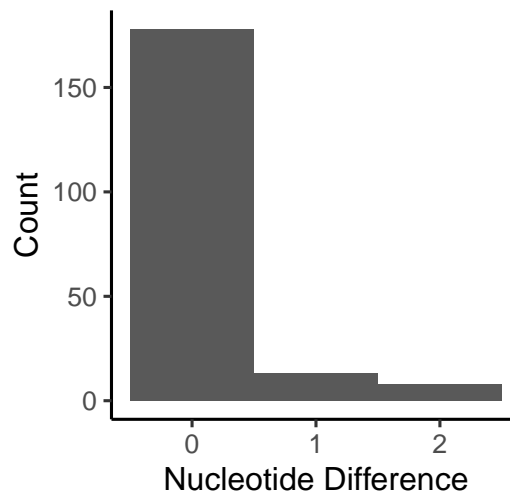
IGHV1-2*04

22 sequences assigned
20 (90.9%) exact matches, in which:
20 unique CDR3
4 unique J



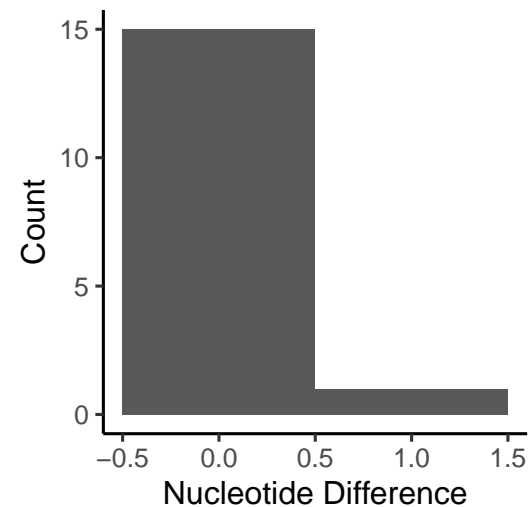
IGHV1-18*01

199 sequences assigned
178 (89.4%) exact matches, in which:
176 unique CDR3
5 unique J



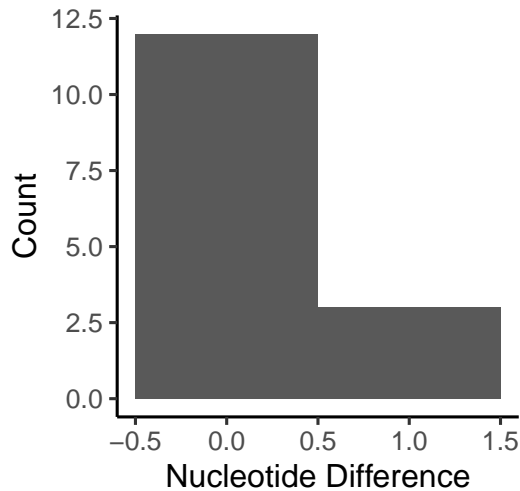
IGHV1-46*03

16 sequences assigned
15 (93.8%) exact matches, in which:
15 unique CDR3
4 unique J



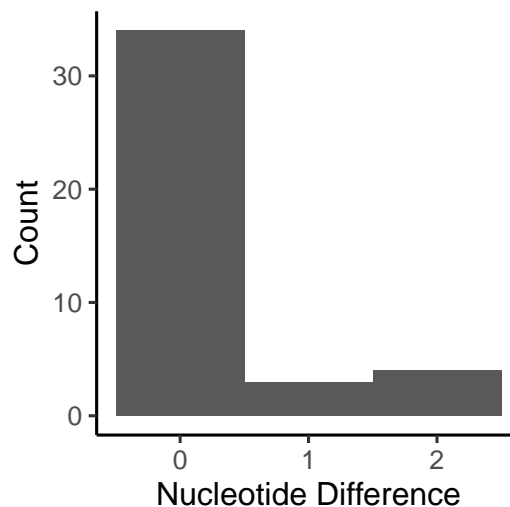
IGHV1-3*01_05

15 sequences assigned
12 (80%) exact matches, in which:
12 unique CDR3
4 unique J



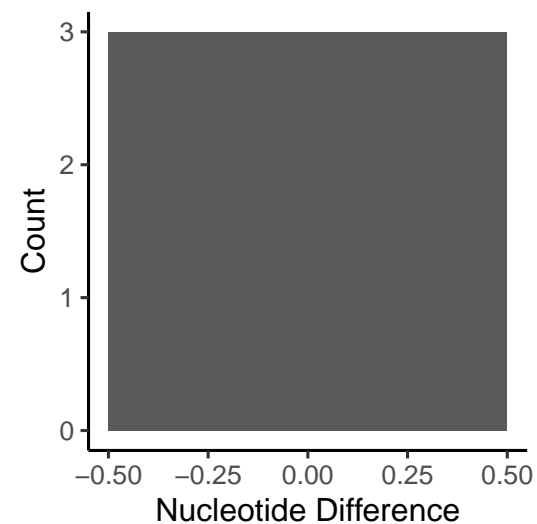
IGHV1-24*01

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



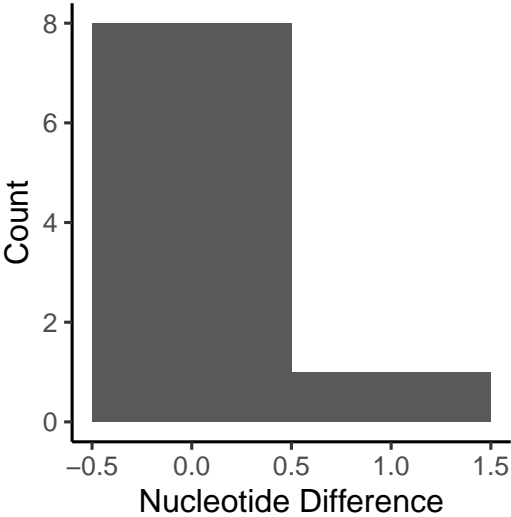
IGHV1-58*02

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



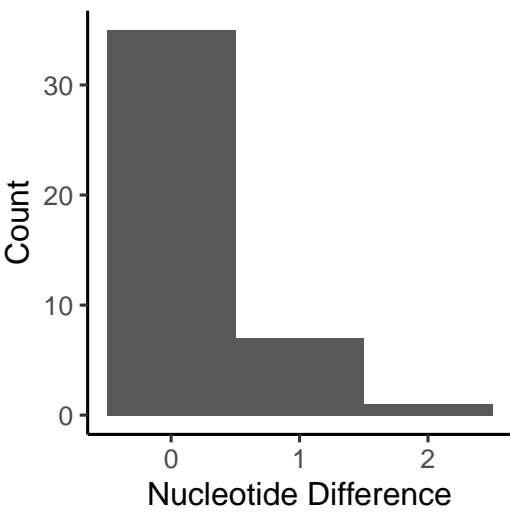
IGHV1-58*01_03

9 sequences assigned
8 (88.9%) exact matches, in which:
8 unique CDR3
5 unique J



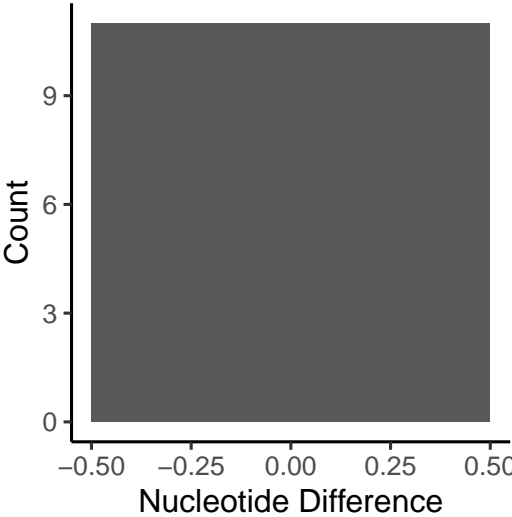
IGHV1-69*06_14

43 sequences assigned
35 (81.4%) exact matches, in which:
35 unique CDR3
5 unique J



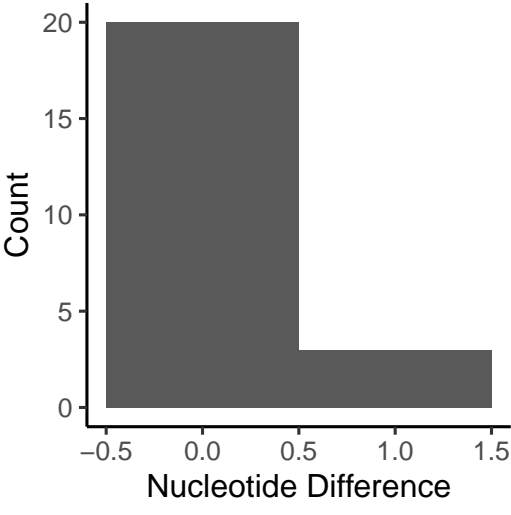
IGHV2-26*01

11 sequences assigned
11 (100%) exact matches, in which:
11 unique CDR3
4 unique J



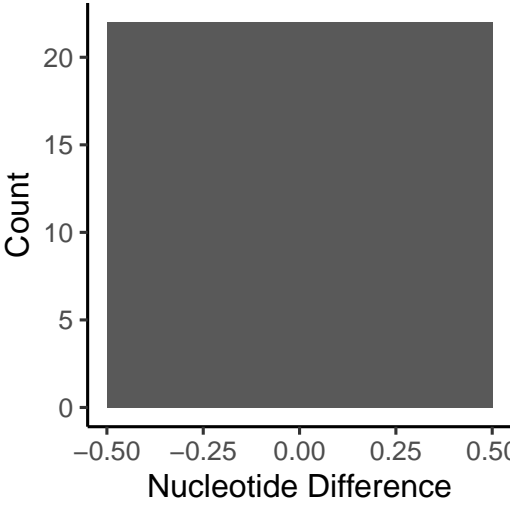
IGHV1-69*02

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



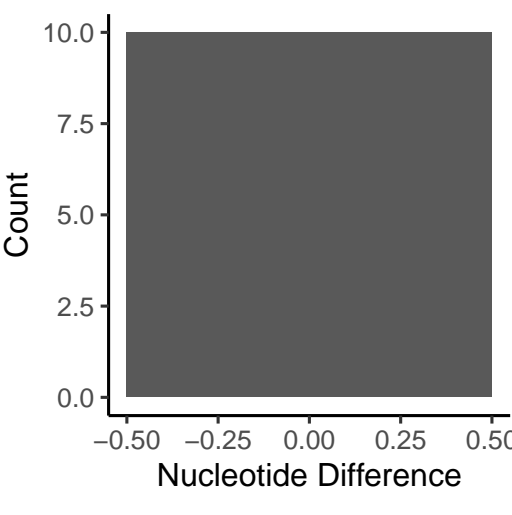
IGHV2-5*01

22 sequences assigned
22 (100%) exact matches, in which:
22 unique CDR3
4 unique J



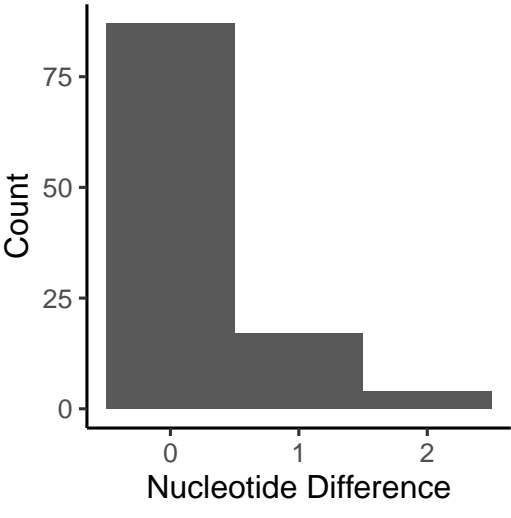
IGHV2-70*01

10 sequences assigned
10 (100%) exact matches, in which:
10 unique CDR3
4 unique J



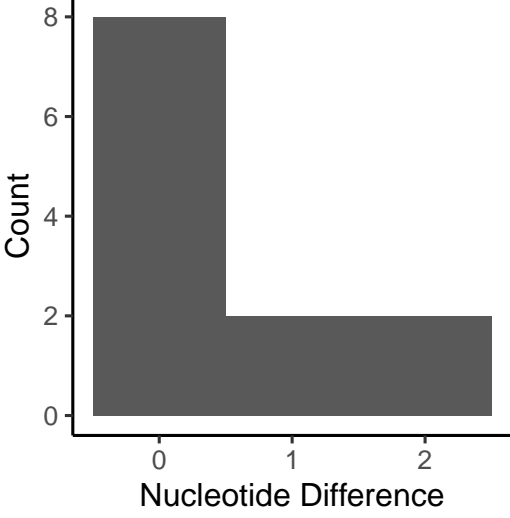
IGHV1-69*01_12_13

108 sequences assigned
87 (80.6%) exact matches, in which:
87 unique CDR3
6 unique J



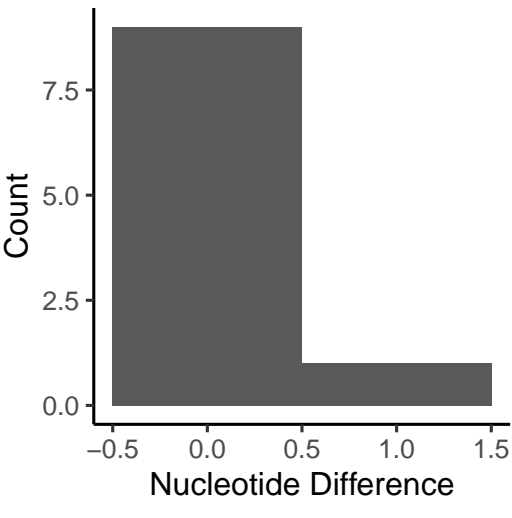
IGHV2-5*02

12 sequences assigned
8 (66.7%) exact matches, in which:
8 unique CDR3
4 unique J



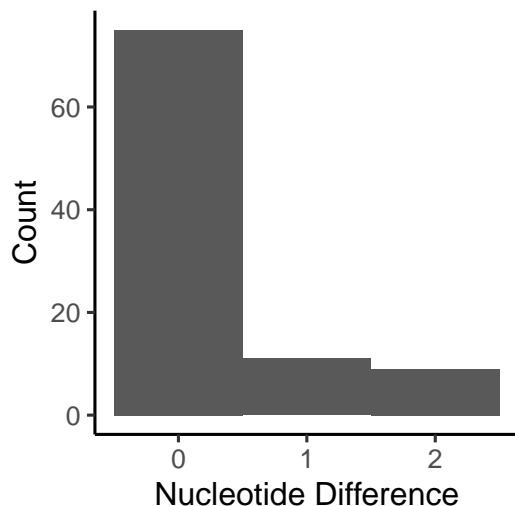
IGHV2-70*11_15

10 sequences assigned
9 (90%) exact matches, in which:
9 unique CDR3
4 unique J



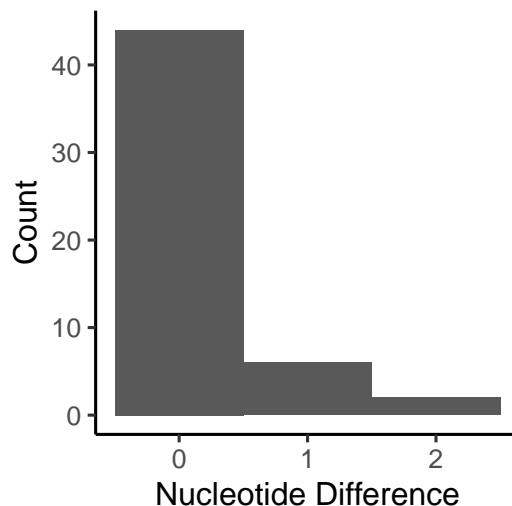
IGHV3-7*01

95 sequences assigned
75 (78.9%) exact matches, in which:
75 unique CDR3
5 unique J



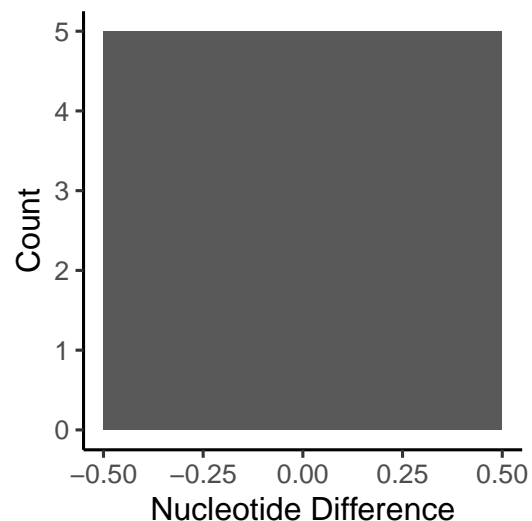
IGHV3-11*01

52 sequences assigned
44 (84.6%) exact matches, in which:
43 unique CDR3
5 unique J



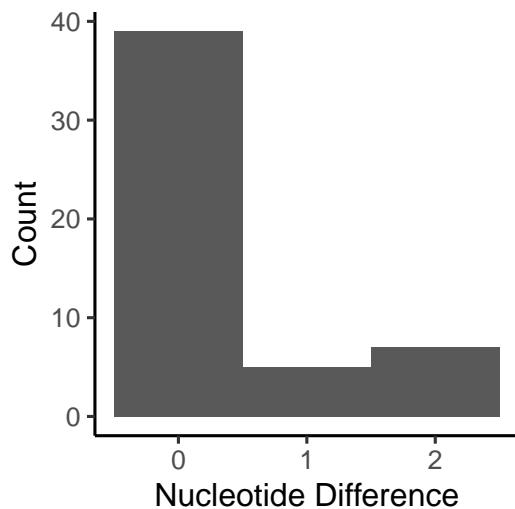
IGHV3-13*05

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



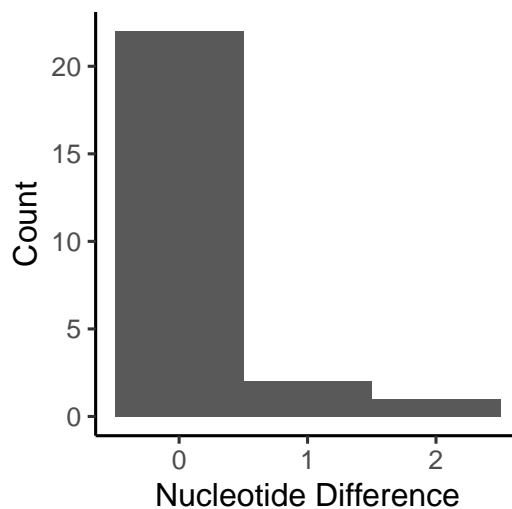
IGHV3-7*03

51 sequences assigned
39 (76.5%) exact matches, in which:
39 unique CDR3
5 unique J



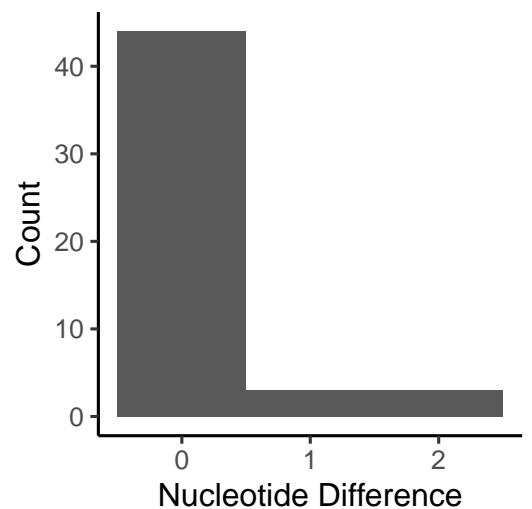
IGHV3-11*06

25 sequences assigned
22 (88%) exact matches, in which:
22 unique CDR3
4 unique J



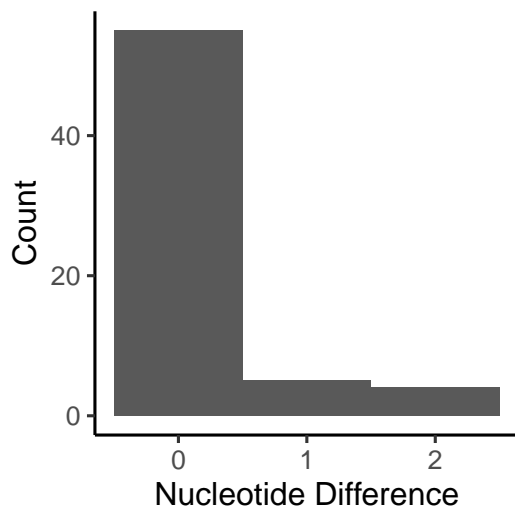
IGHV3-15*01_02

50 sequences assigned
44 (88%) exact matches, in which:
43 unique CDR3
4 unique J



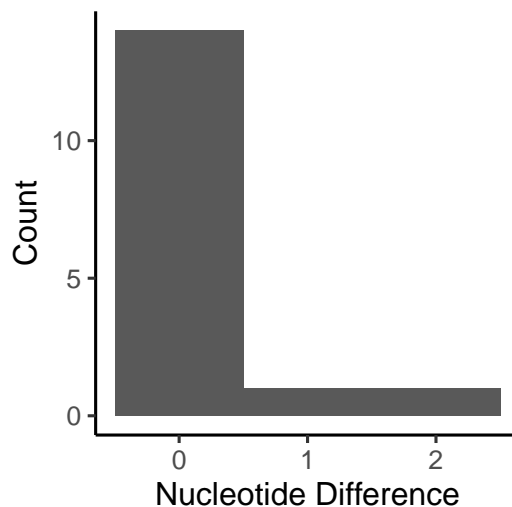
IGHV3-9*01

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



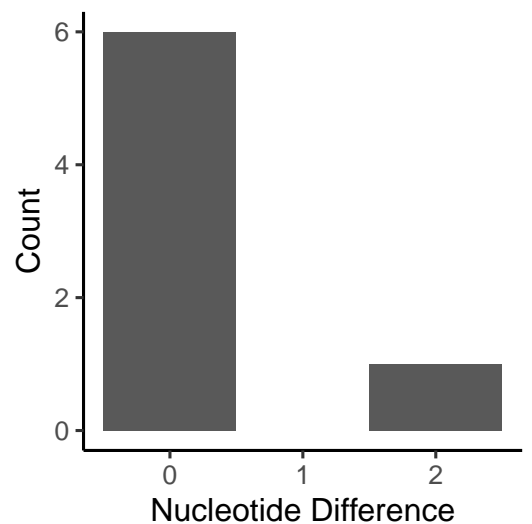
IGHV3-13*01

16 sequences assigned
14 (87.5%) exact matches, in which:
14 unique CDR3
4 unique J



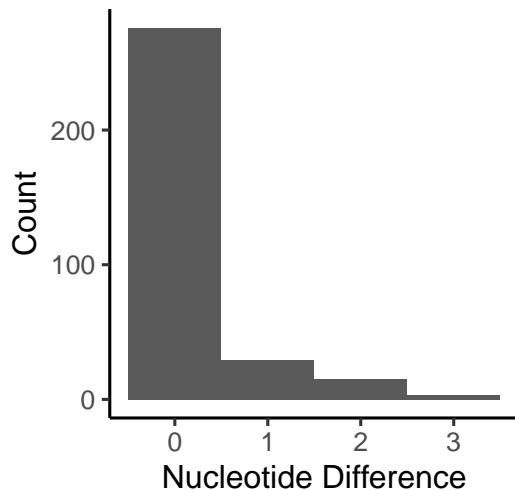
IGHV3-20*01_02

7 sequences assigned
6 (85.7%) exact matches, in which:
6 unique CDR3
3 unique J



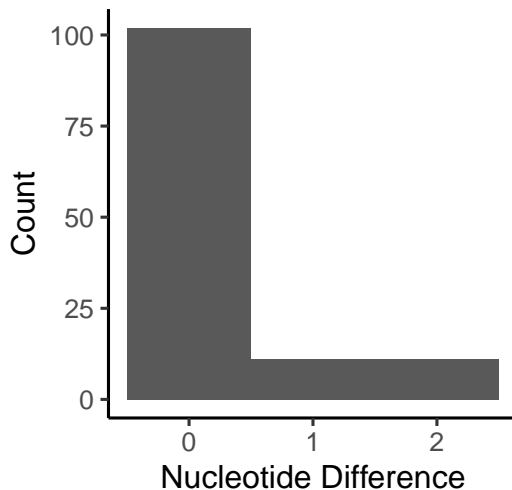
IGHV3-21*01_02

323 sequences assigned
276 (85.4%) exact matches, in which:
275 unique CDR3
6 unique J



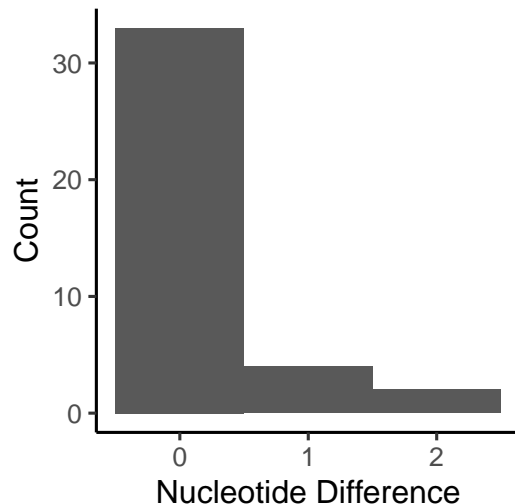
IGHV3-33*01

124 sequences assigned
102 (82.3%) exact matches, in which:
102 unique CDR3
4 unique J



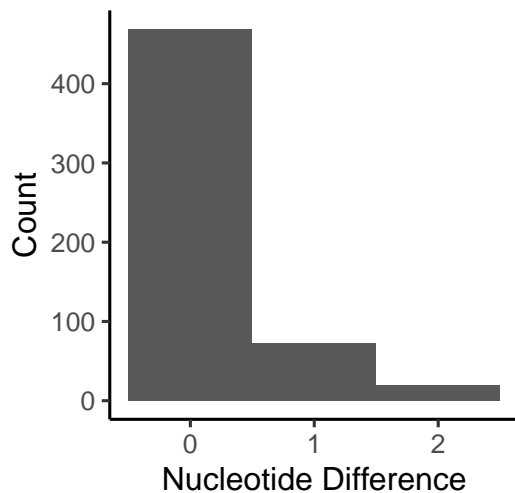
IGHV3-48*01

39 sequences assigned
33 (84.6%) exact matches, in which:
31 unique CDR3
5 unique J



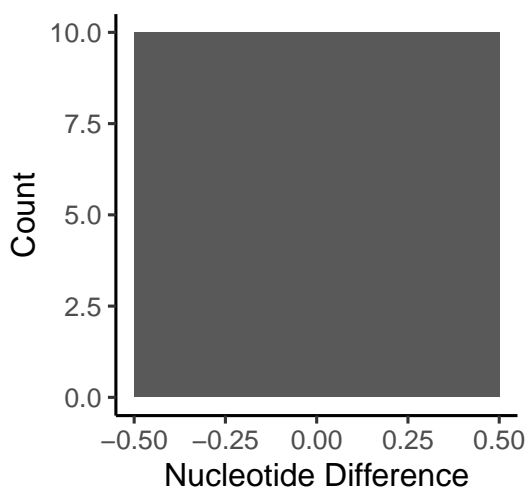
IGHV3-23*01_04

562 sequences assigned
469 (83.5%) exact matches, in which:
468 unique CDR3
6 unique J



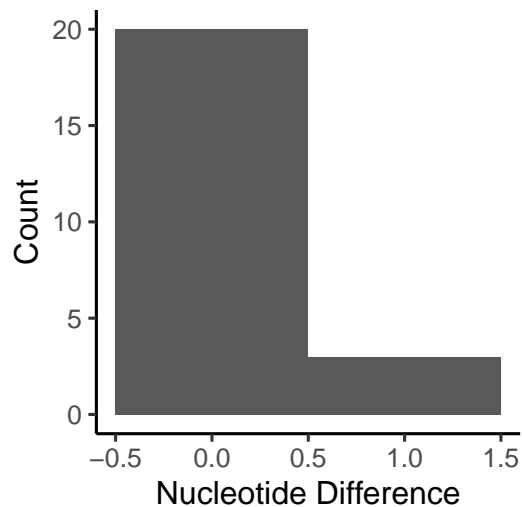
IGHV3-43*01

10 sequences assigned
10 (100%) exact matches, in which:
10 unique CDR3
3 unique J



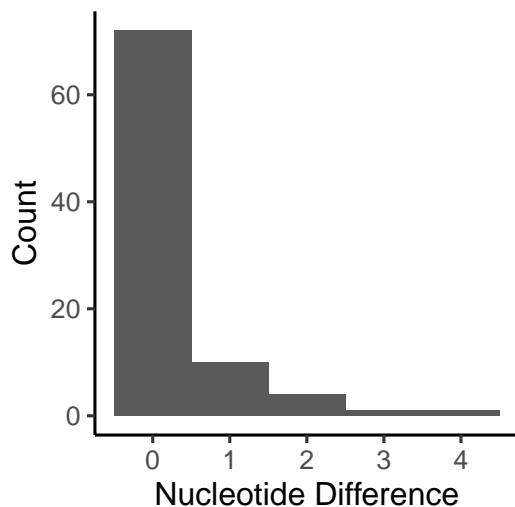
IGHV3-48*02

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



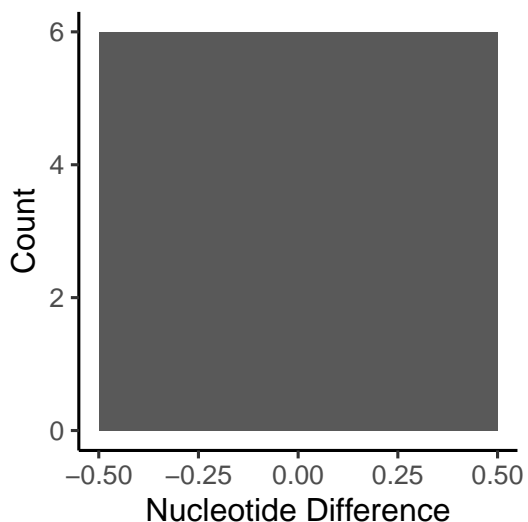
IGHV3-30-3*01

88 sequences assigned
72 (81.8%) exact matches, in which:
72 unique CDR3
5 unique J



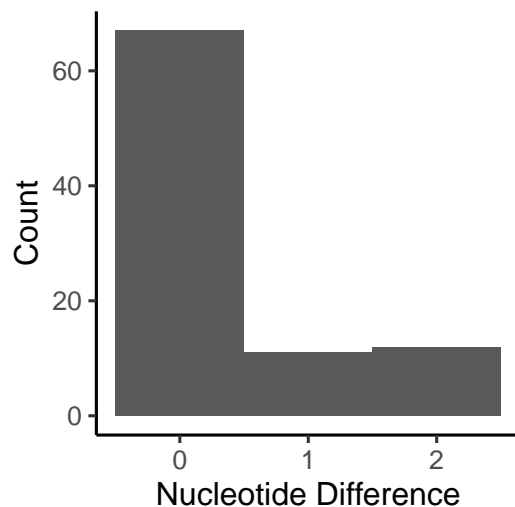
IGHV3-43*02

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



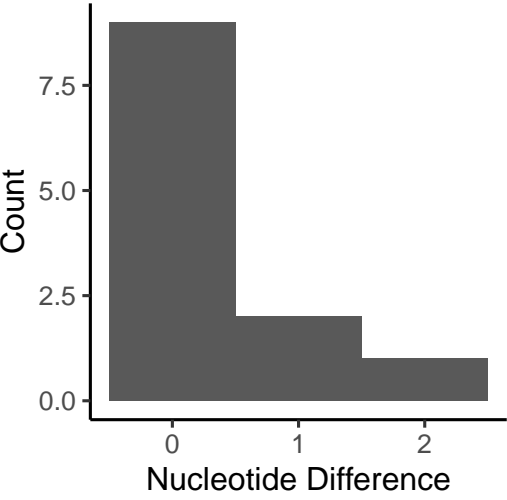
IGHV3-48*03

90 sequences assigned
67 (74.4%) exact matches, in which:
67 unique CDR3
6 unique J



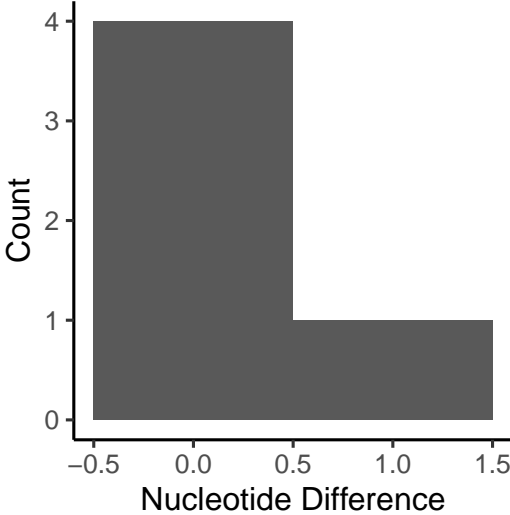
IGHV3-49*04

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



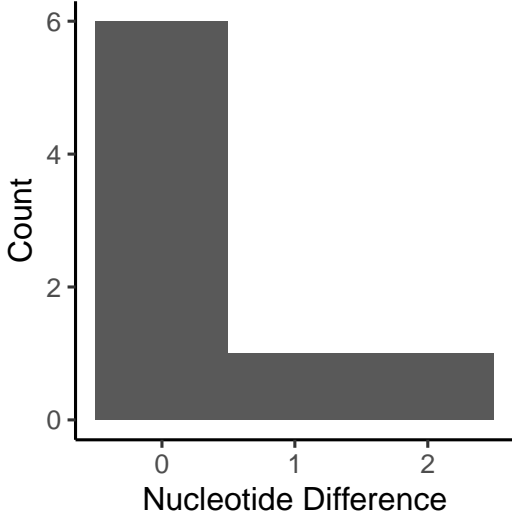
IGHV3-64*01

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



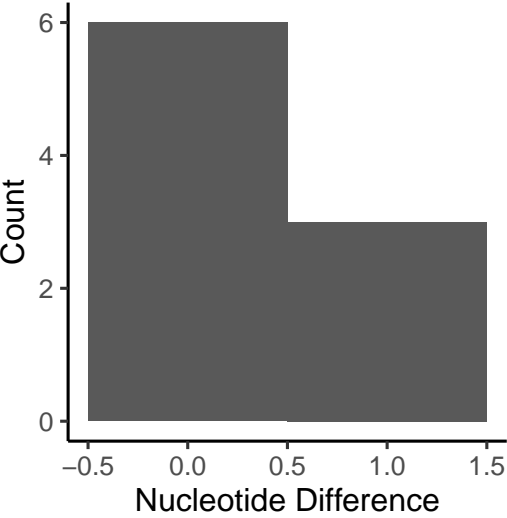
IGHV3-66*02

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



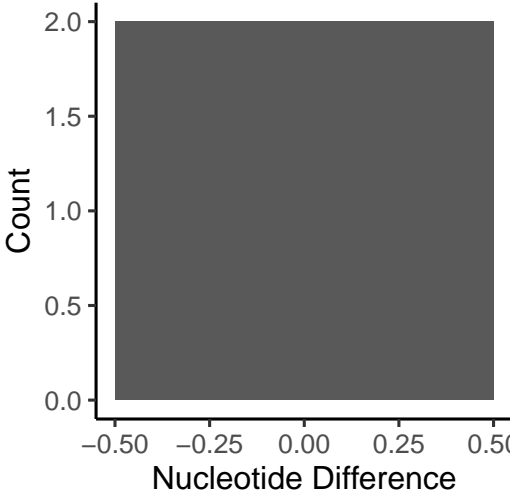
IGHV3-49*03_05

9 sequences assigned
6 (66.7%) exact matches, in which:
6 unique CDR3
4 unique J



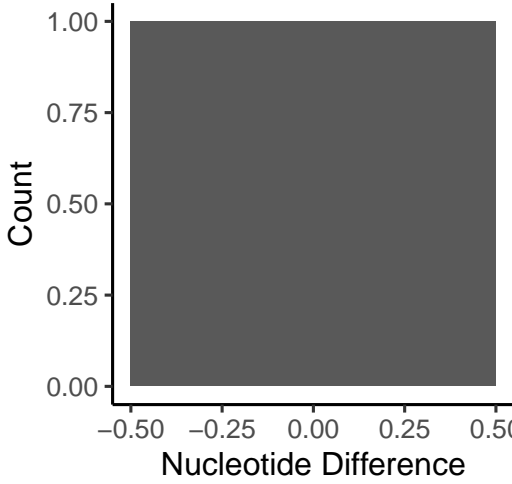
IGHV3-64*02_07

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



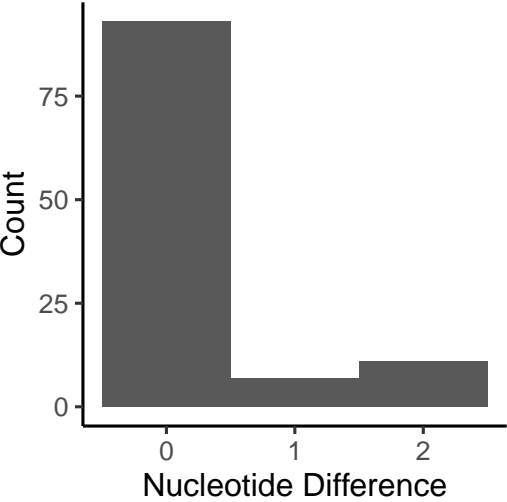
IGHV3-69-1*01

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



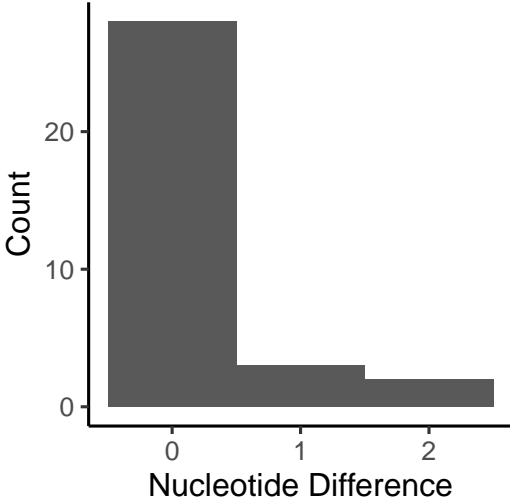
IGHV3-53*01_02

111 sequences assigned
93 (83.8%) exact matches, in which:
92 unique CDR3
6 unique J



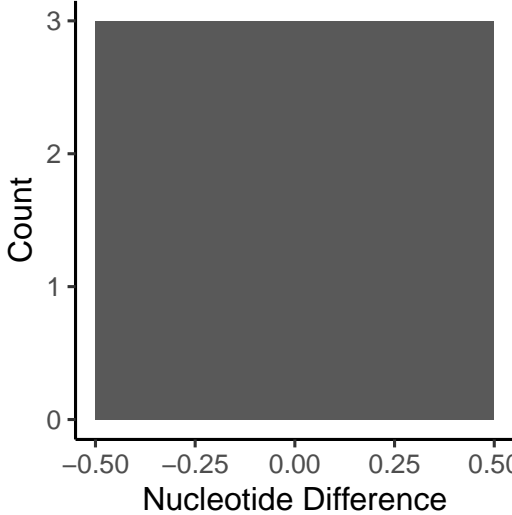
IGHV3-66*01

33 sequences assigned
28 (84.8%) exact matches, in which:
28 unique CDR3
4 unique J



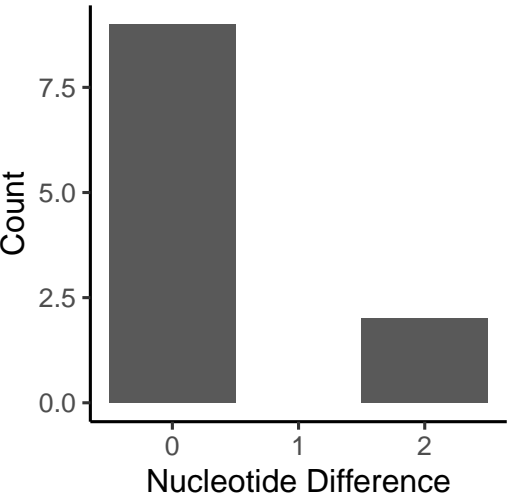
IGHV3-72*01

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



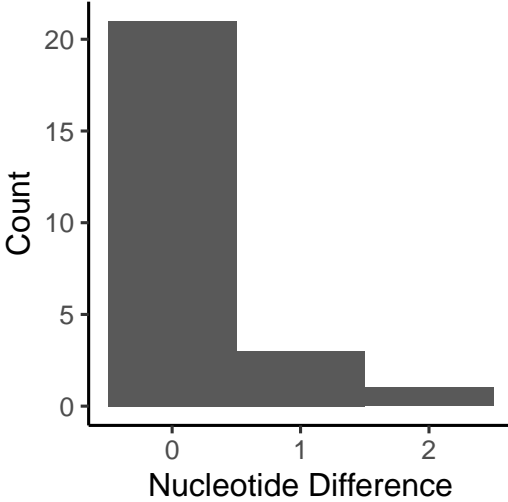
IGHV3-73*01_02

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



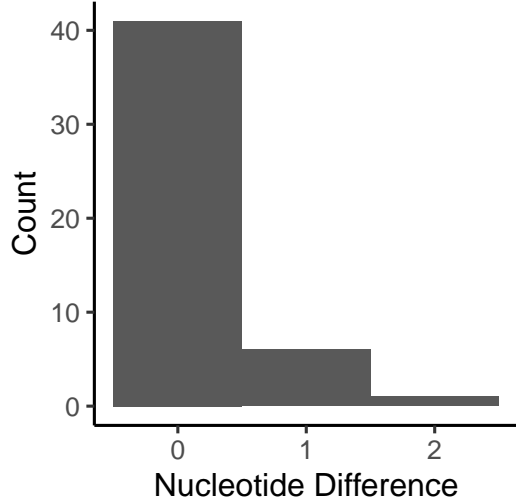
IGHV3-64D*06

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



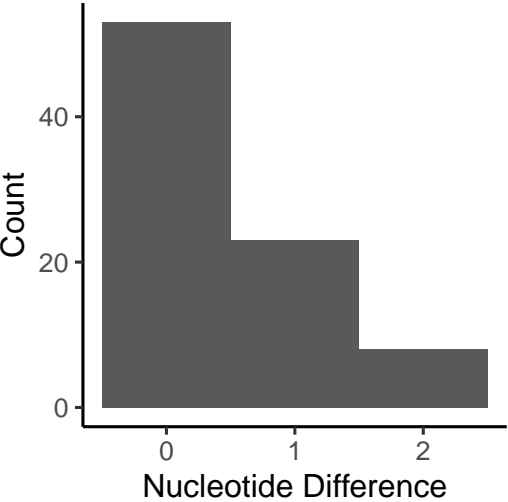
IGHV4-30-4*01

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



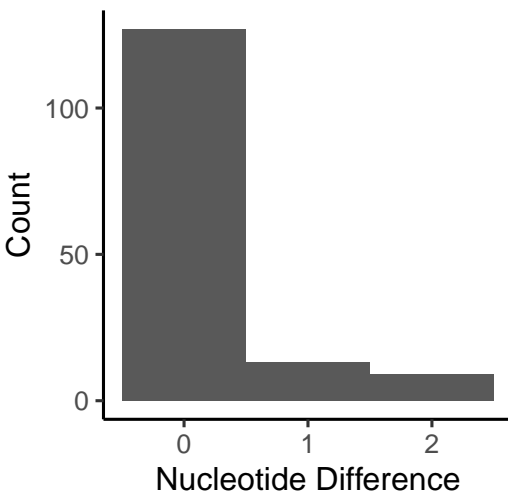
IGHV3-74*01_02

84 sequences assigned
53 (63.1%) exact matches, in which:
51 unique CDR3
6 unique J



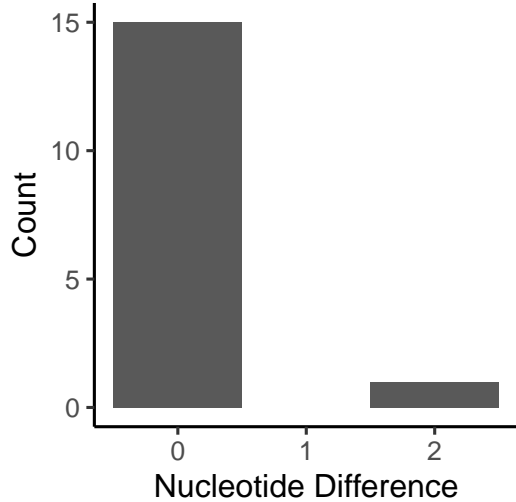
IGHV4-4*07

149 sequences assigned
127 (85.2%) exact matches, in which:
126 unique CDR3
6 unique J



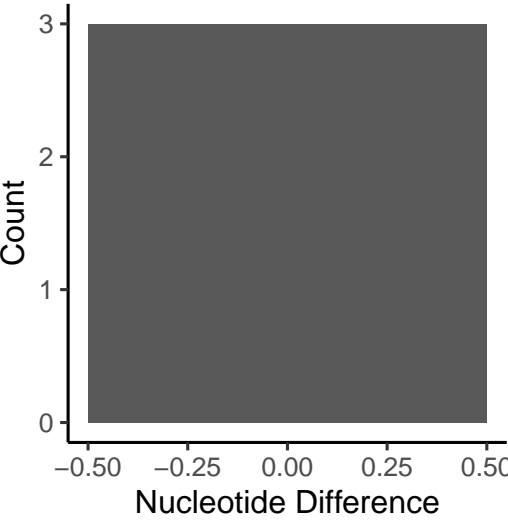
IGHV4-30-2*01

16 sequences assigned
15 (93.8%) exact matches, in which:
15 unique CDR3
4 unique J



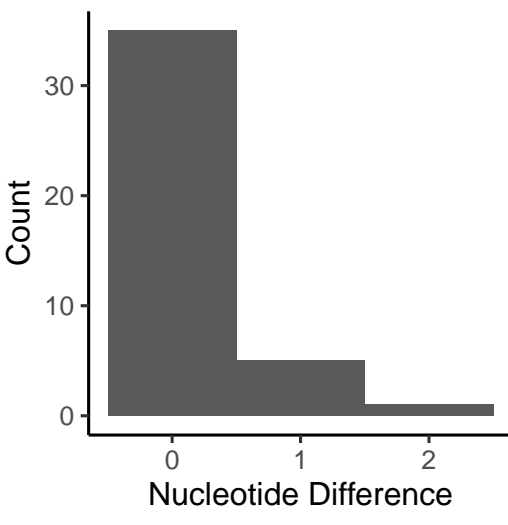
IGHV3-43D*04

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



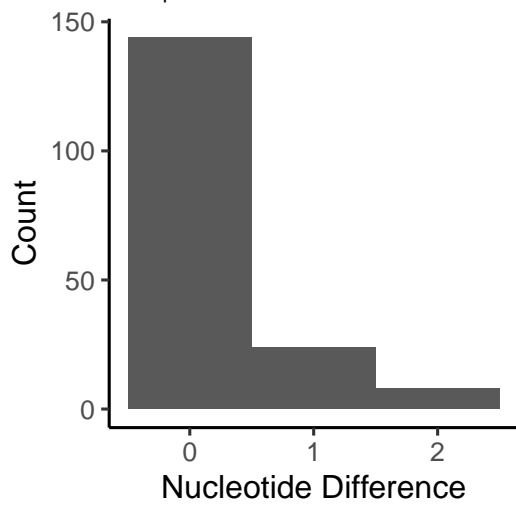
IGHV4-4*02_03

41 sequences assigned
35 (85.4%) exact matches, in which:
35 unique CDR3
4 unique J



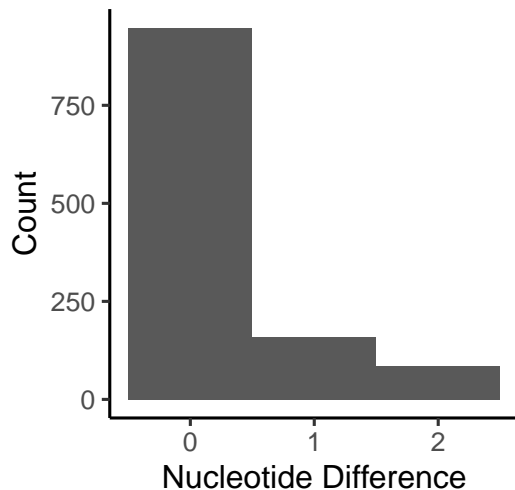
IGHV4-31*02

176 sequences assigned
144 (81.8%) exact matches, in which:
144 unique CDR3
6 unique J



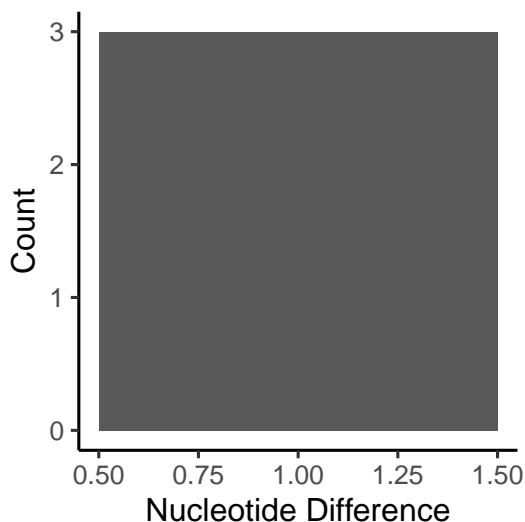
IGHV4-34*01_02

1193 sequences assigned
948 (79.5%) exact matches, in which:
941 unique CDR3
6 unique J



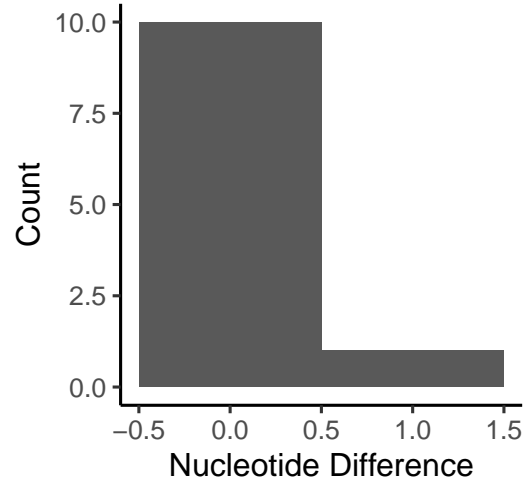
IGHV4-59*12

3 sequences assigned
No exact matches.



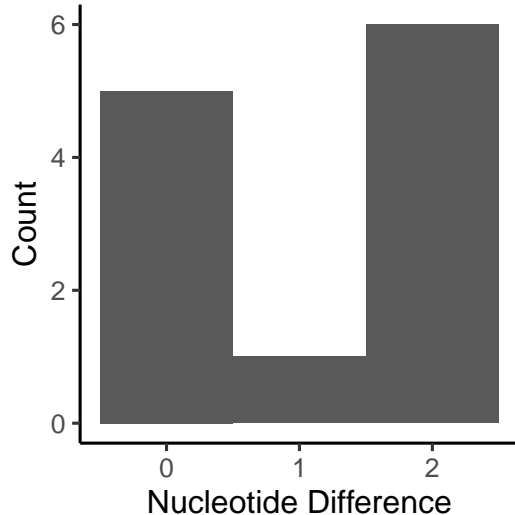
IGHV5-10-1*01_03

11 sequences assigned
10 (90.9%) exact matches, in which:
10 unique CDR3
3 unique J



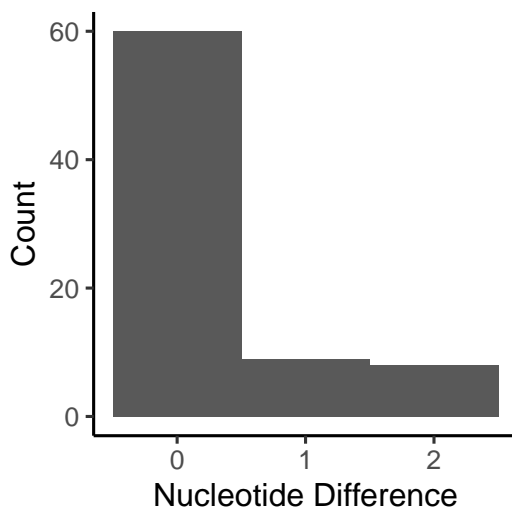
IGHV4-39*07

12 sequences assigned
5 (41.7%) exact matches, in which:
5 unique CDR3
3 unique J



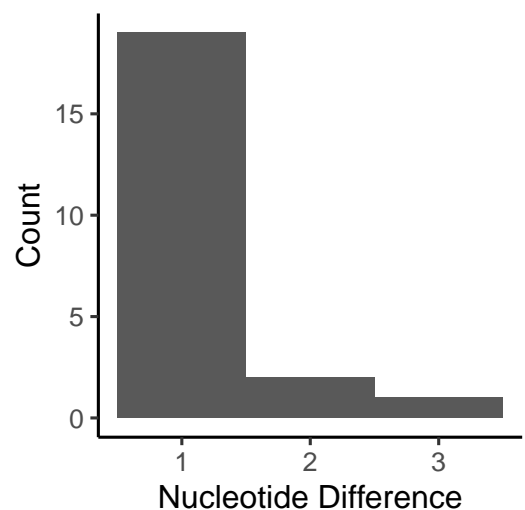
IGHV4-61*01

77 sequences assigned
60 (77.9%) exact matches, in which:
60 unique CDR3
6 unique J



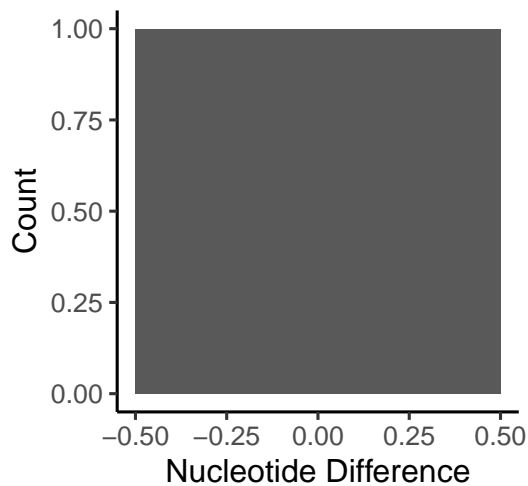
IGHV5-51*07

22 sequences assigned
No exact matches.



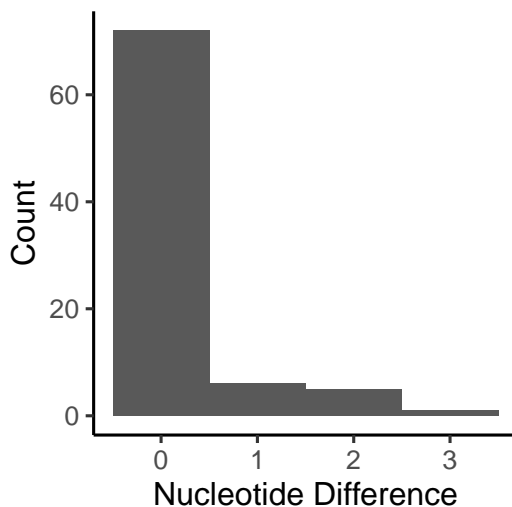
IGHV4-59*11

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



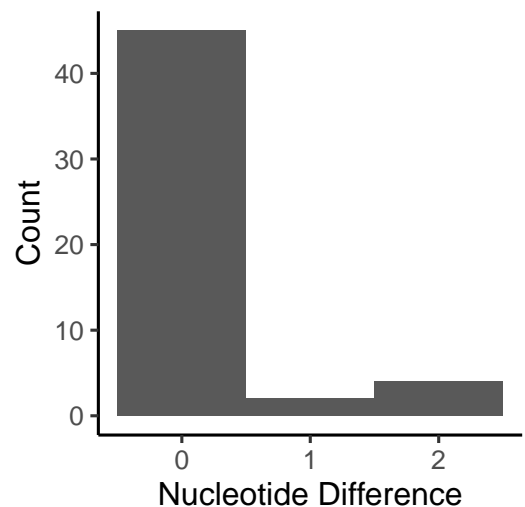
IGHV4-61*02

84 sequences assigned
72 (85.7%) exact matches, in which:
72 unique CDR3
5 unique J



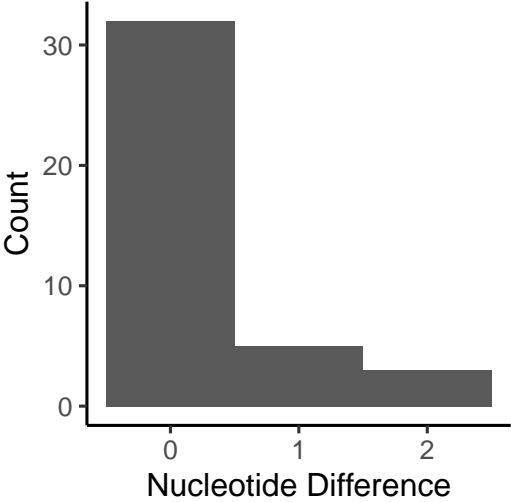
IGHV5-51*01_03

51 sequences assigned
45 (88.2%) exact matches, in which:
45 unique CDR3
4 unique J



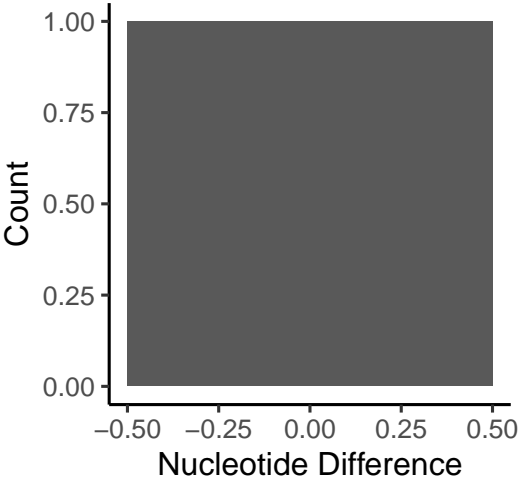
IGHV6-1*01_02

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



IGHV7-4-1*01

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



IGHV7-4-1*02

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

