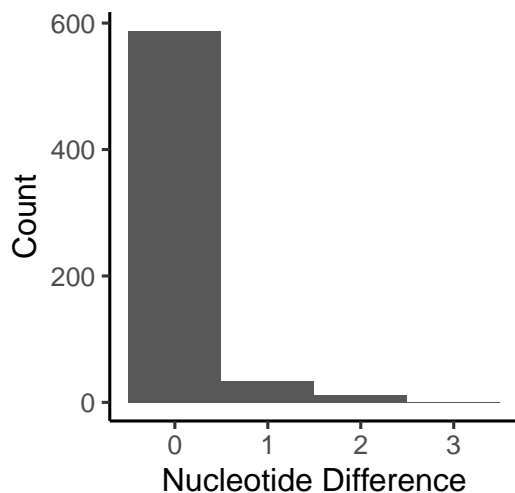


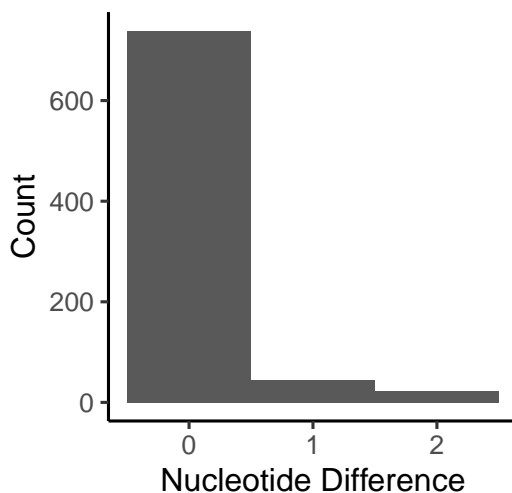
IGHV1-2*04

635 sequences assigned
588 (92.6%) exact matches, in which:
587 unique CDR3
6 unique J



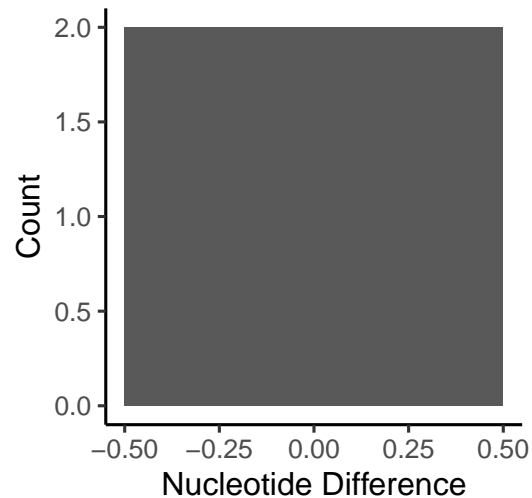
IGHV1-18*01

805 sequences assigned
739 (91.8%) exact matches, in which:
738 unique CDR3
6 unique J



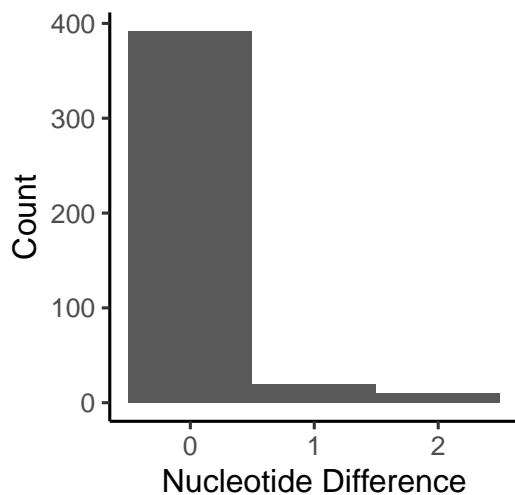
IGHV1-45*02

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



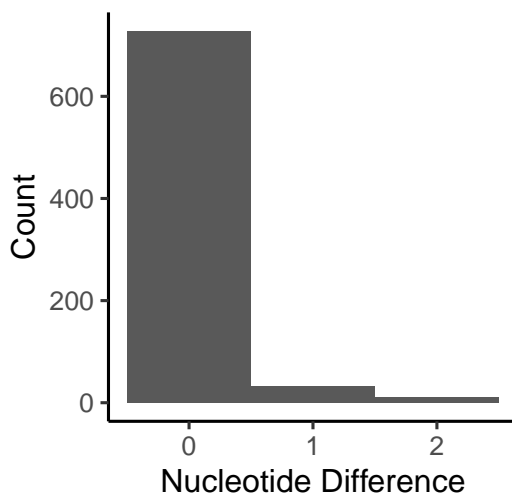
IGHV1-3*01_05

421 sequences assigned
392 (93.1%) exact matches, in which:
390 unique CDR3
6 unique J



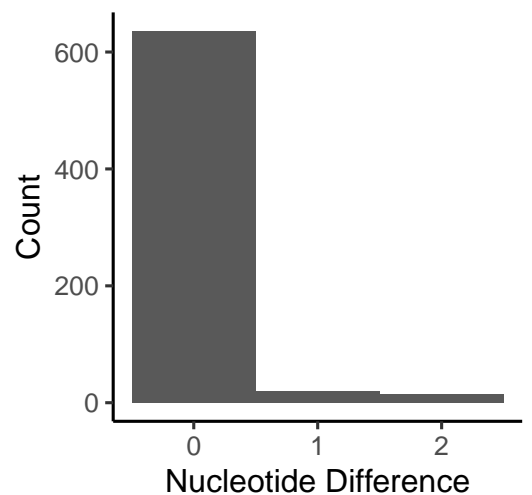
IGHV1-18*04

771 sequences assigned
728 (94.4%) exact matches, in which:
726 unique CDR3
6 unique J



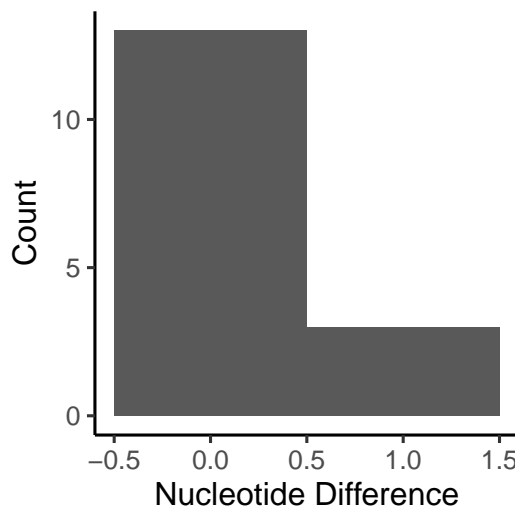
IGHV1-46*01

671 sequences assigned
636 (94.8%) exact matches, in which:
634 unique CDR3
6 unique J



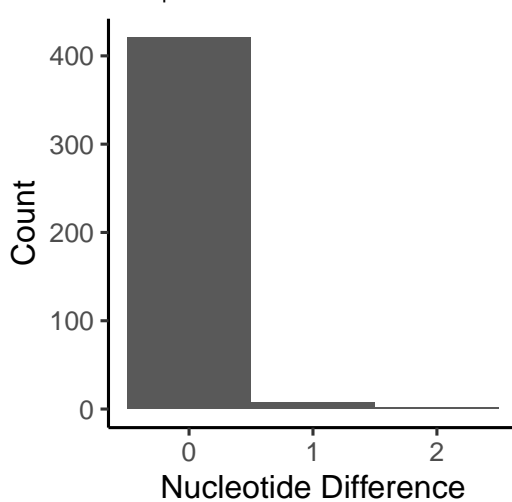
IGHV1-8*01

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



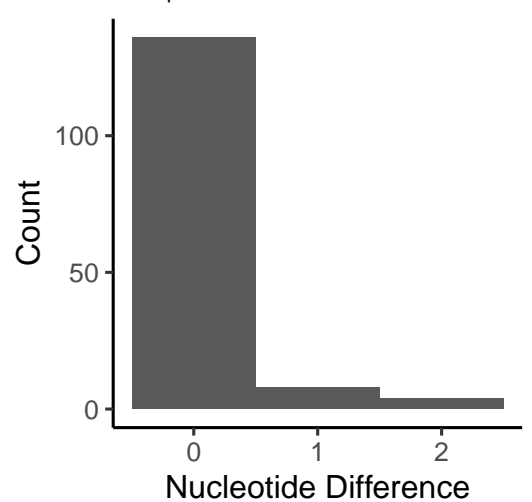
IGHV1-24*01

430 sequences assigned
421 (97.9%) exact matches, in which:
420 unique CDR3
6 unique J



IGHV1-58*01_03

148 sequences assigned
136 (91.9%) exact matches, in which:
136 unique CDR3
6 unique J



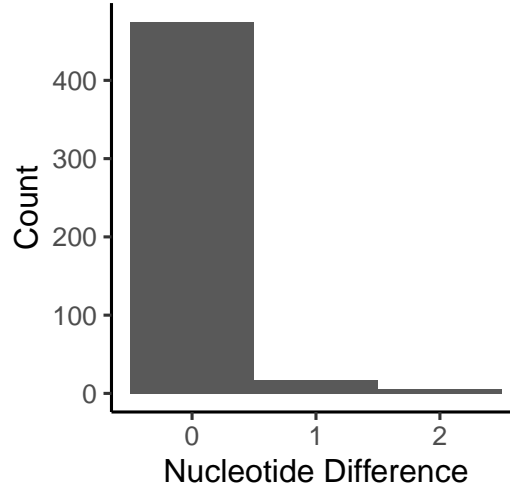
IGHV1-68*01

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



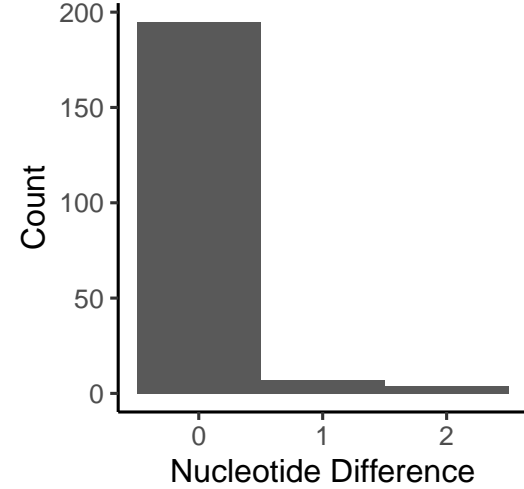
IGHV1-69*06_14

498 sequences assigned
475 (95.4%) exact matches, in which:
473 unique CDR3
6 unique J



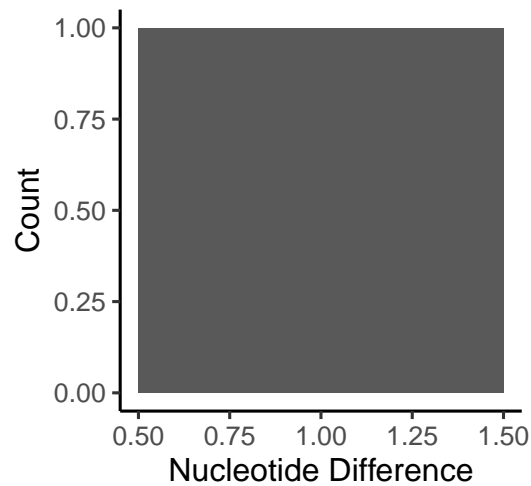
IGHV2-70*01

206 sequences assigned
195 (94.7%) exact matches, in which:
194 unique CDR3
5 unique J



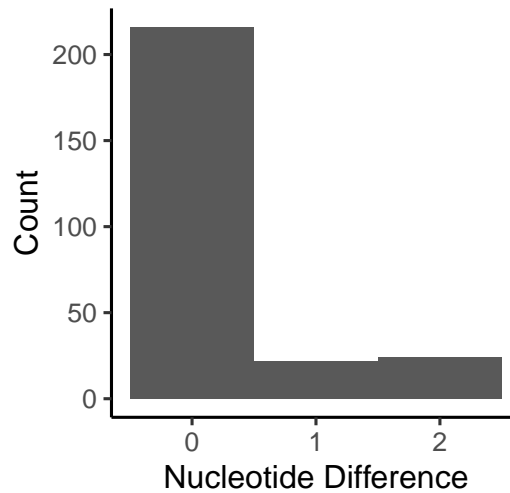
IGHV1-69-2*01

1 sequences assigned
No exact matches.



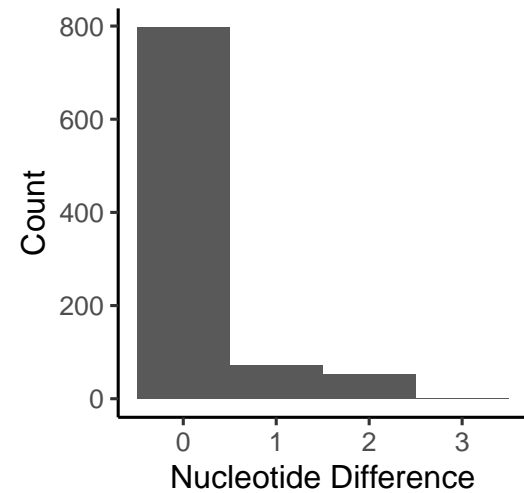
IGHV2-5*02

262 sequences assigned
216 (82.4%) exact matches, in which:
215 unique CDR3
6 unique J



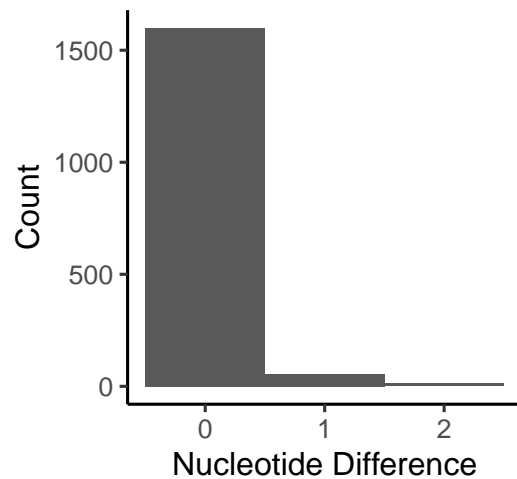
IGHV3-7*03

923 sequences assigned
798 (86.5%) exact matches, in which:
786 unique CDR3
6 unique J



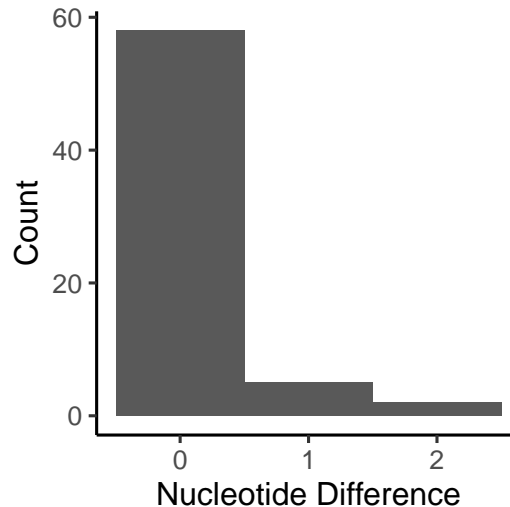
IGHV1-69*01_12_13

1668 sequences assigned
1599 (95.9%) exact matches, in which:
1595 unique CDR3
6 unique J



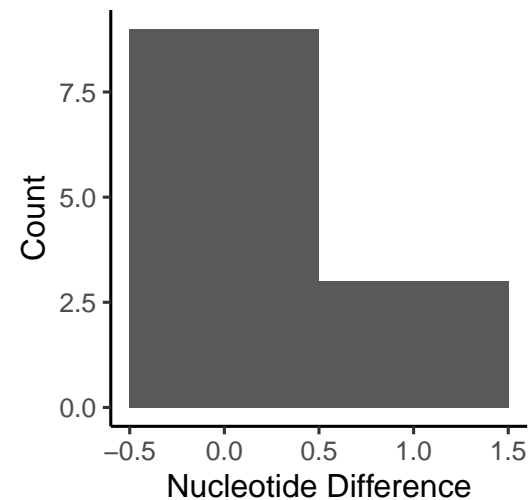
IGHV2-26*01

65 sequences assigned
58 (89.2%) exact matches, in which:
58 unique CDR3
5 unique J



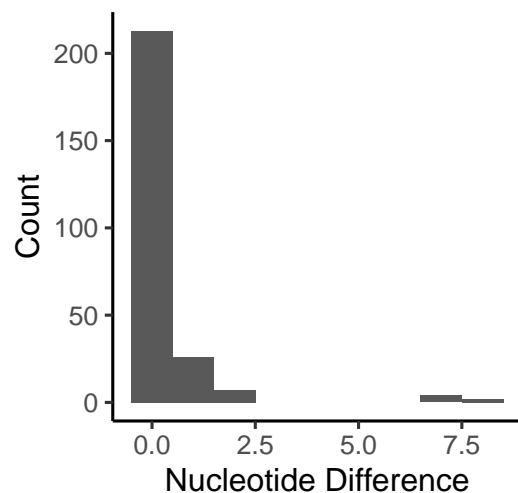
IGHV3-9*01

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



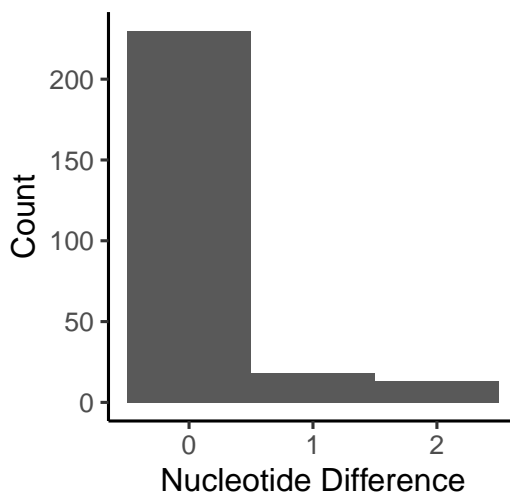
IGHV3–11*06

252 sequences assigned
213 (84.5%) exact matches, in which:
210 unique CDR3
6 unique J



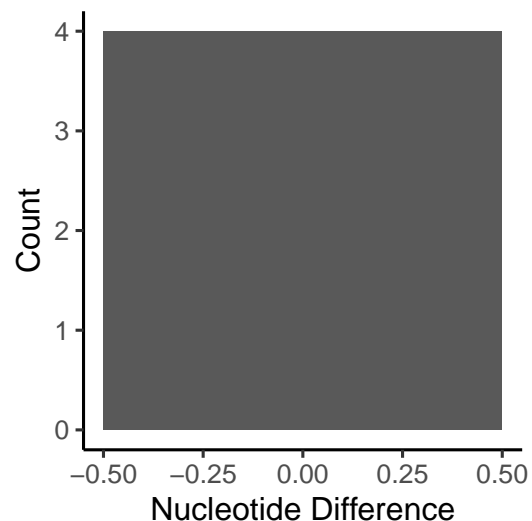
IGHV3–15*07

261 sequences assigned
230 (88.1%) exact matches, in which:
228 unique CDR3
6 unique J



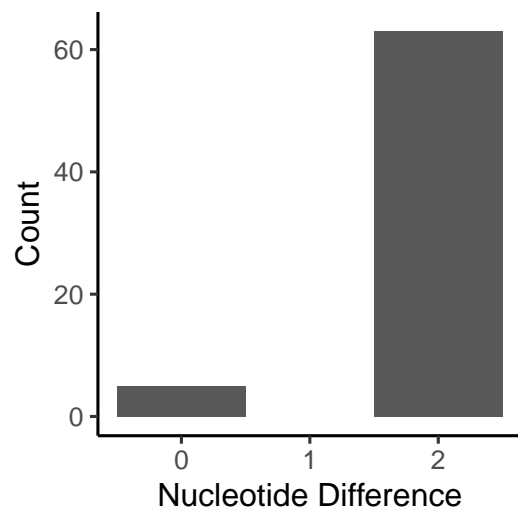
IGHV3–20*01_02

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



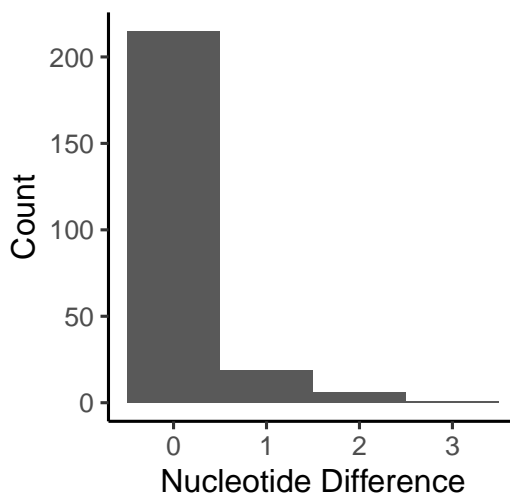
IGHV3–13*01

68 sequences assigned
5 (7.4%) exact matches, in which:
5 unique CDR3
4 unique J



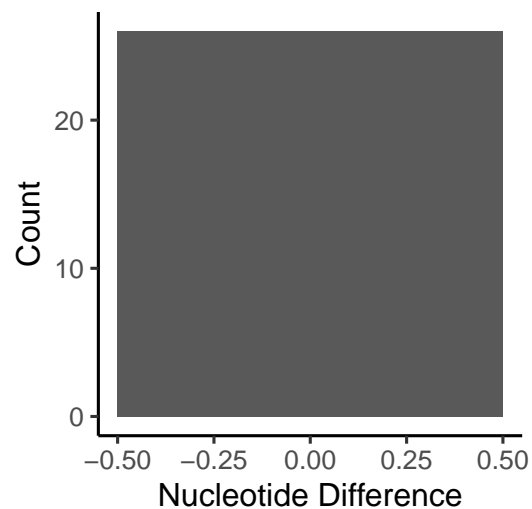
IGHV3–15*01_02

241 sequences assigned
215 (89.2%) exact matches, in which:
213 unique CDR3
6 unique J



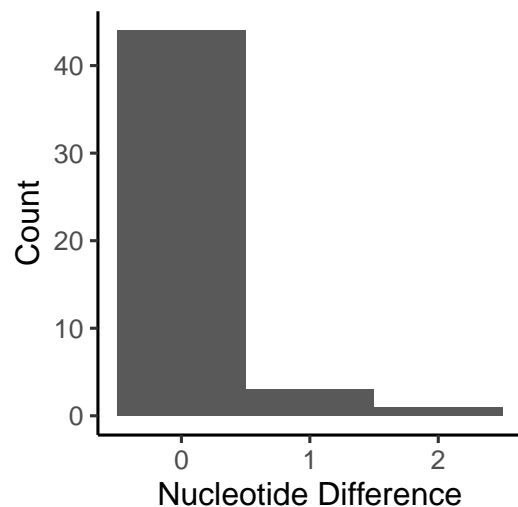
IGHV3–20*03_04

26 sequences assigned
26 (100%) exact matches, in which:
26 unique CDR3
4 unique J



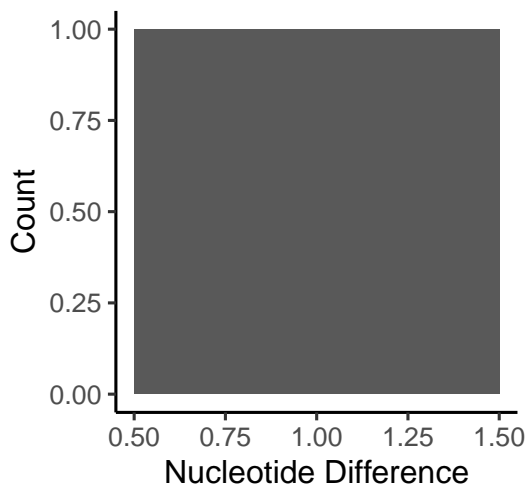
IGHV3–13*05

48 sequences assigned
44 (91.7%) exact matches, in which:
44 unique CDR3
4 unique J



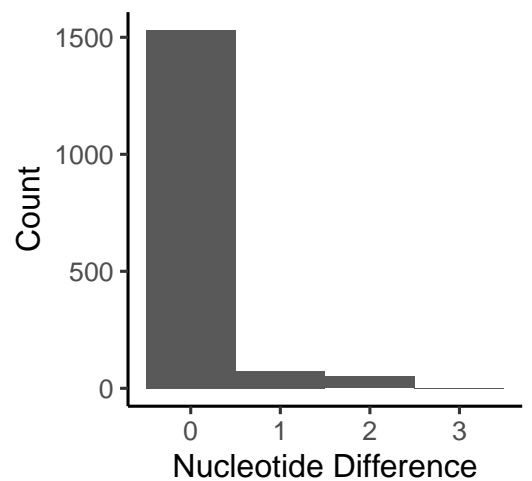
IGHV3–19*01

1 sequences assigned
No exact matches.



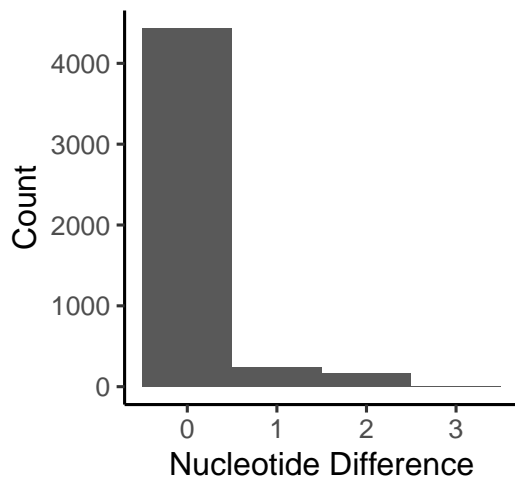
IGHV3–21*01_02

1656 sequences assigned
1531 (92.5%) exact matches, in which:
1499 unique CDR3
6 unique J



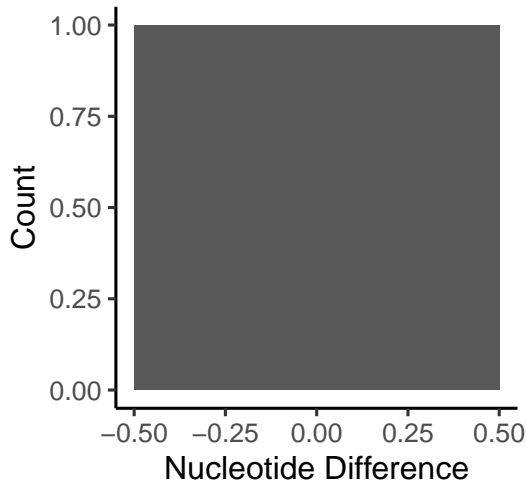
IGHV3-23*01_04

4844 sequences assigned
4432 (91.5%) exact matches, in which:
4362 unique CDR3
6 unique J



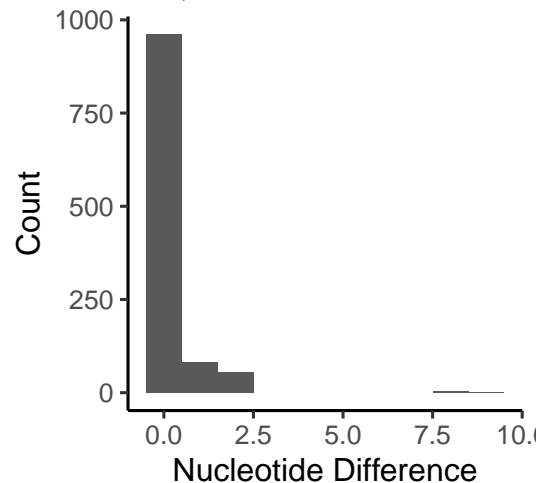
IGHV3-35*01

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



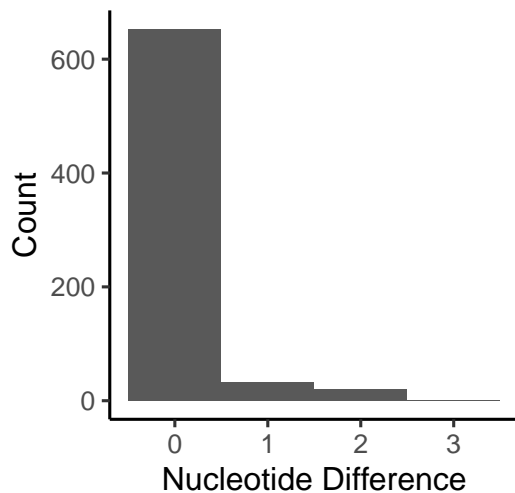
IGHV3-48*02

1100 sequences assigned
961 (87.4%) exact matches, in which:
944 unique CDR3
6 unique J



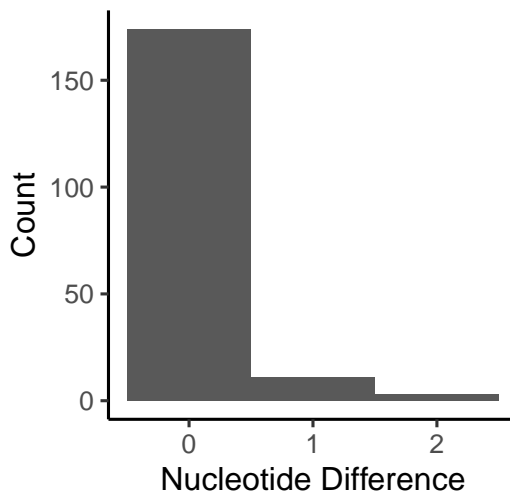
IGHV3-30-3*01

706 sequences assigned
653 (92.5%) exact matches, in which:
645 unique CDR3
6 unique J



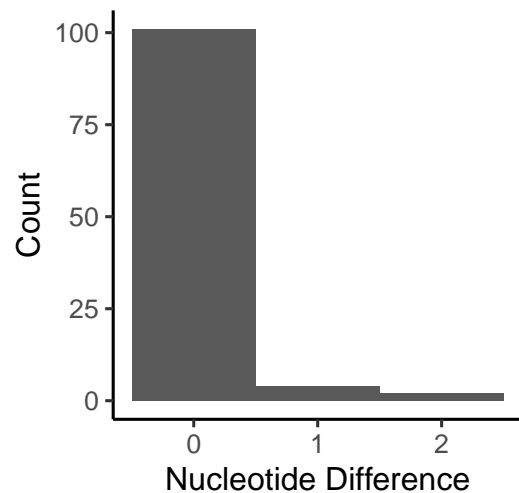
IGHV3-43*01

188 sequences assigned
174 (92.6%) exact matches, in which:
173 unique CDR3
6 unique J



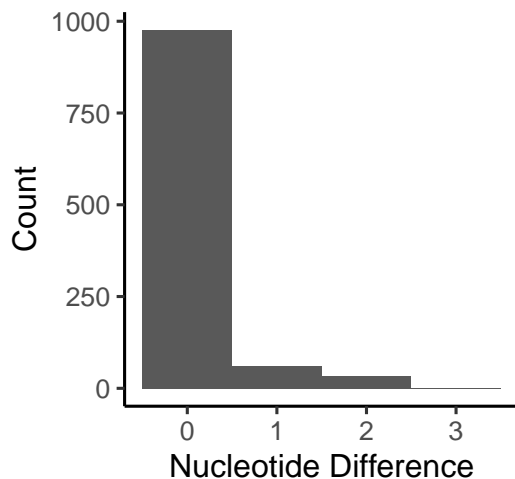
IGHV3-49*03_05

107 sequences assigned
101 (94.4%) exact matches, in which:
101 unique CDR3
4 unique J



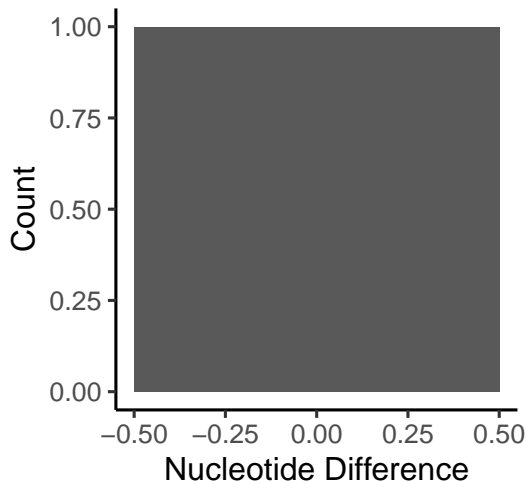
IGHV3-33*01

1070 sequences assigned
976 (91.2%) exact matches, in which:
967 unique CDR3
6 unique J



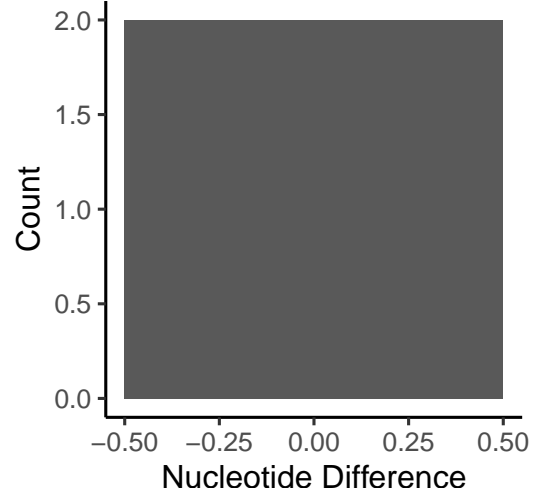
IGHV3-47*02

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



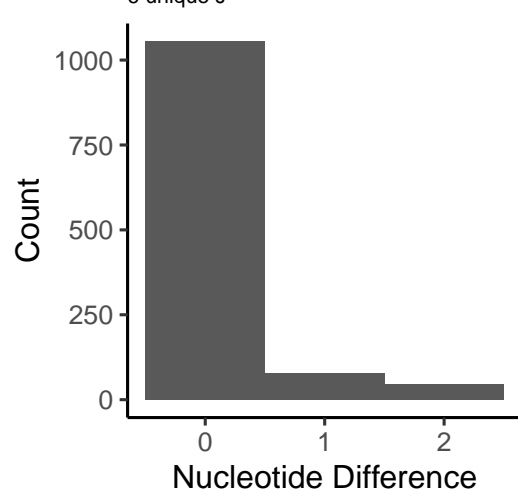
IGHV3-52*01_03

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



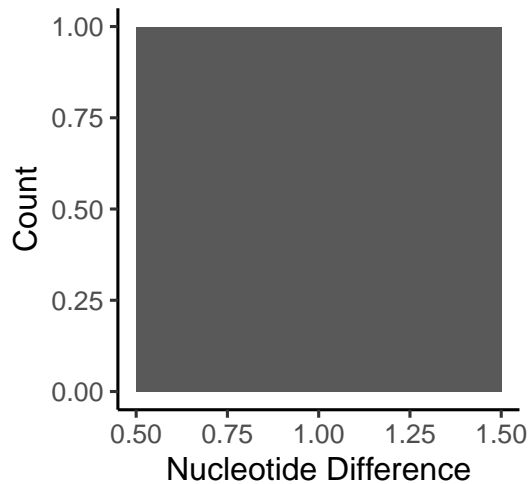
IGHV3-53*01_02

1178 sequences assigned
1055 (89.6%) exact matches, in which:
1038 unique CDR3
6 unique J



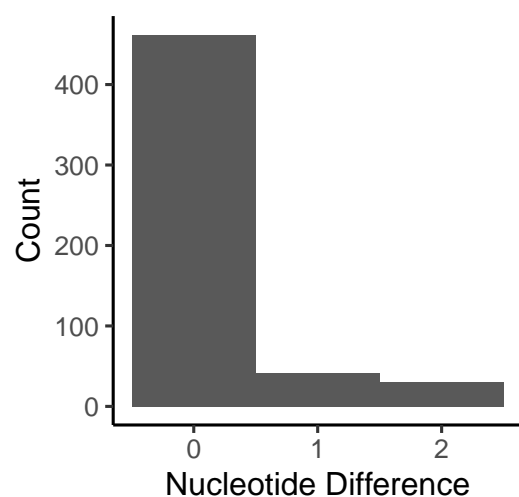
IGHV3-69-1*02

1 sequences assigned
No exact matches.



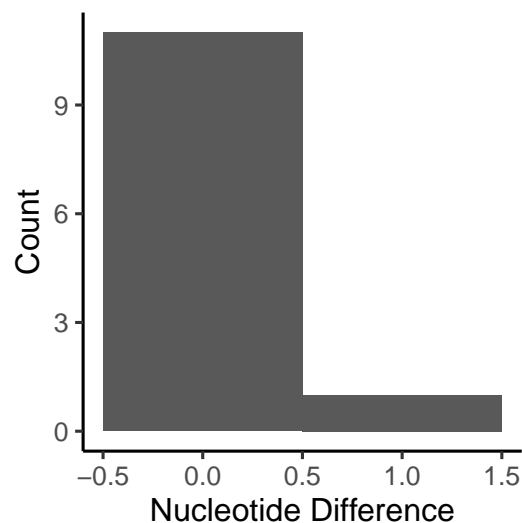
IGHV3-74*01_02

534 sequences assigned
462 (86.5%) exact matches, in which:
447 unique CDR3
6 unique J



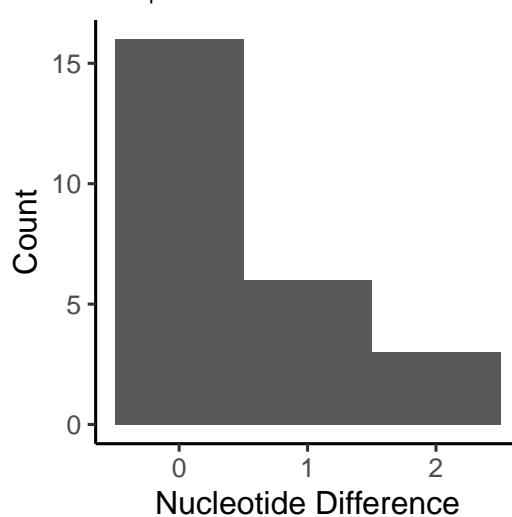
IGHV3-64*02_07

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



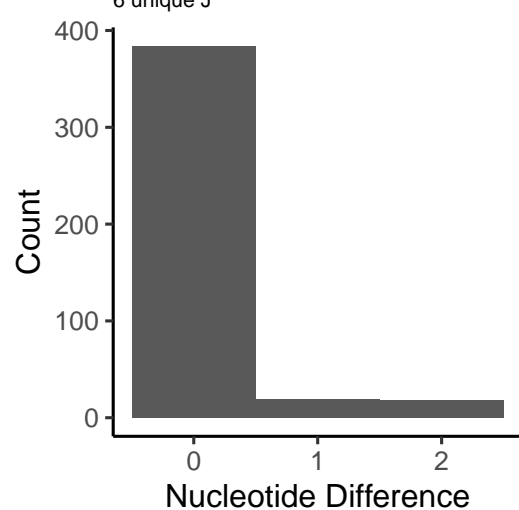
IGHV3-72*01

25 sequences assigned
16 (64%) exact matches, in which:
14 unique CDR3
5 unique J



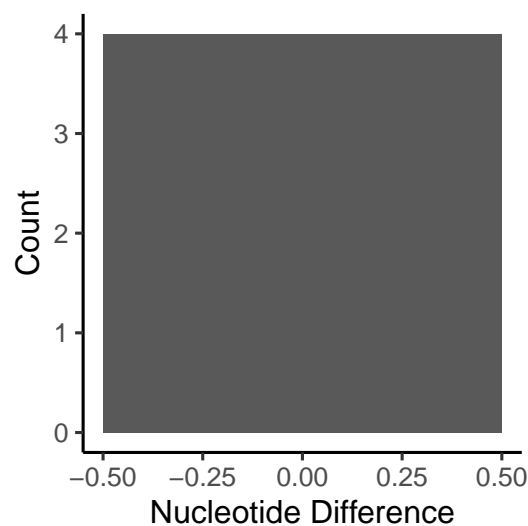
IGHV3-64D*06

421 sequences assigned
384 (91.2%) exact matches, in which:
381 unique CDR3
6 unique J



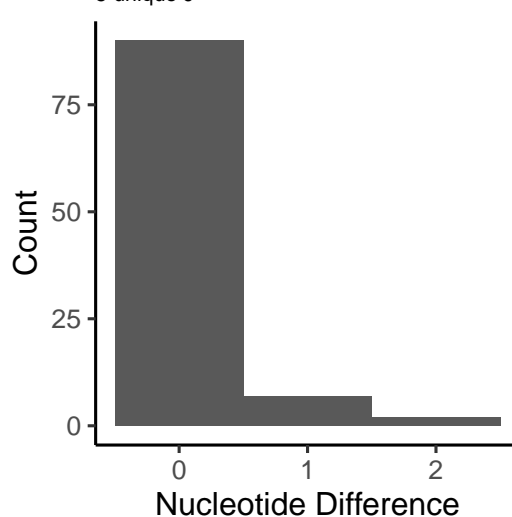
IGHV3-66*03

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



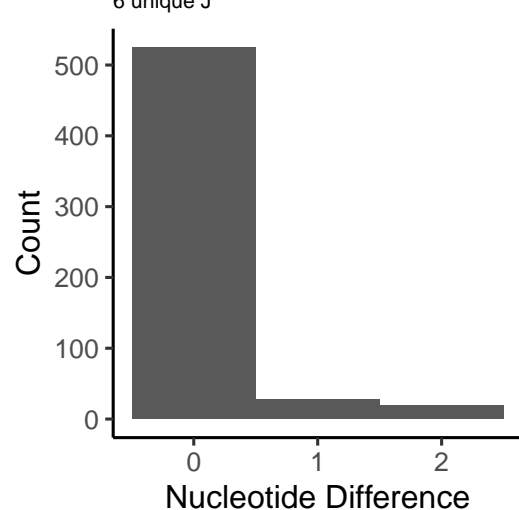
IGHV3-73*01_02

99 sequences assigned
90 (90.9%) exact matches, in which:
90 unique CDR3
5 unique J



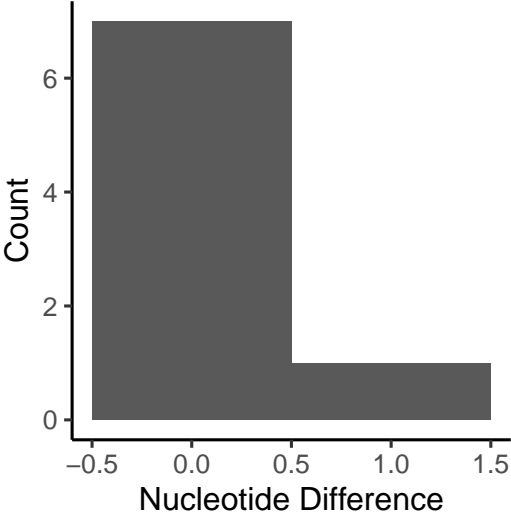
IGHV4-4*02_03

571 sequences assigned
525 (91.9%) exact matches, in which:
522 unique CDR3
6 unique J



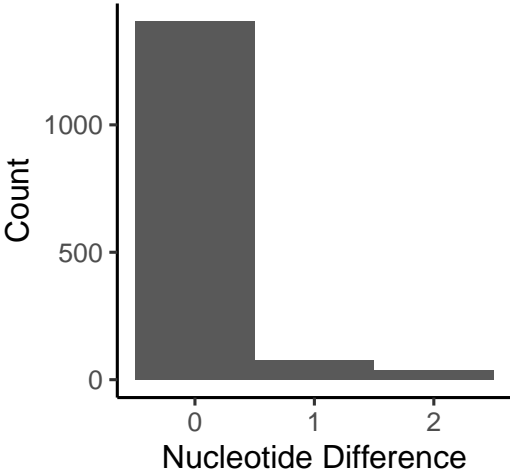
IGHV4-28*01_07

8 sequences assigned
7 (87.5%) exact matches, in which:
7 unique CDR3
4 unique J



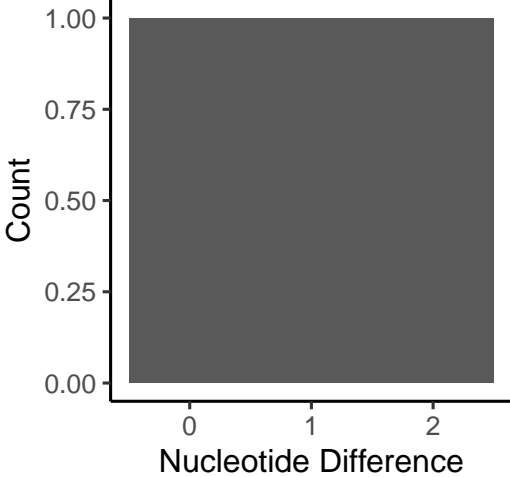
IGHV4-31*02

1523 sequences assigned
1406 (92.3%) exact matches, in which:
1393 unique CDR3
6 unique J



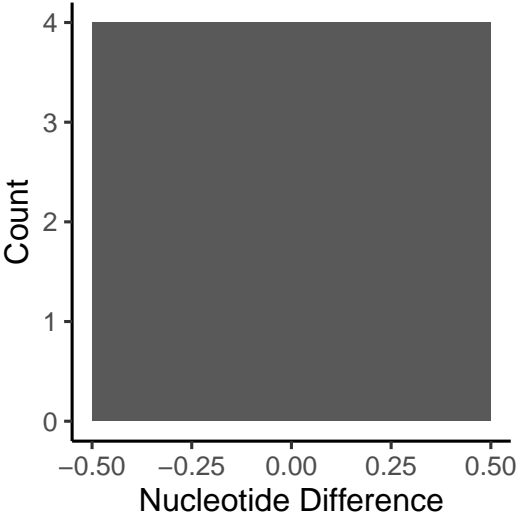
IGHV4-39*02

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



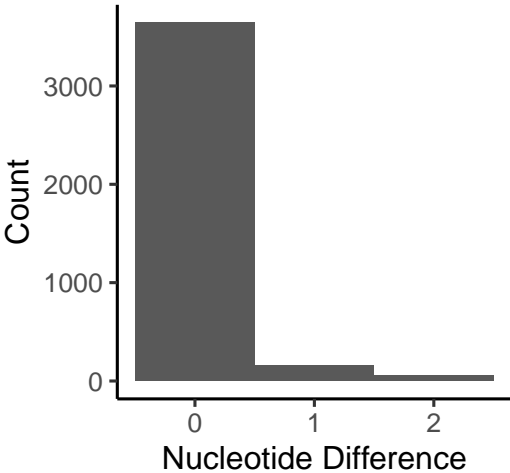
IGHV4-28*02_05

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



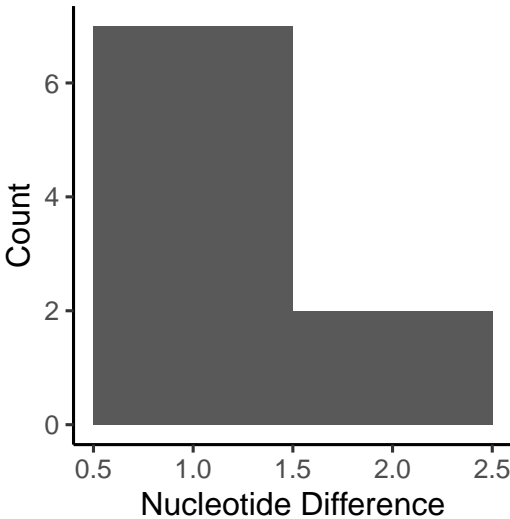
IGHV4-34*01_02

3850 sequences assigned
3643 (94.6%) exact matches, in which:
3583 unique CDR3
6 unique J



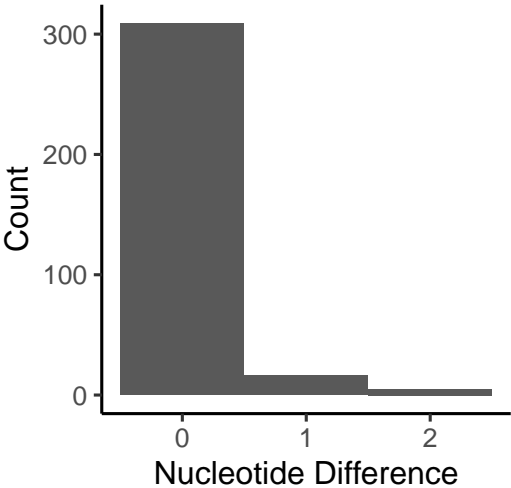
IGHV4-39*07

9 sequences assigned
No exact matches.



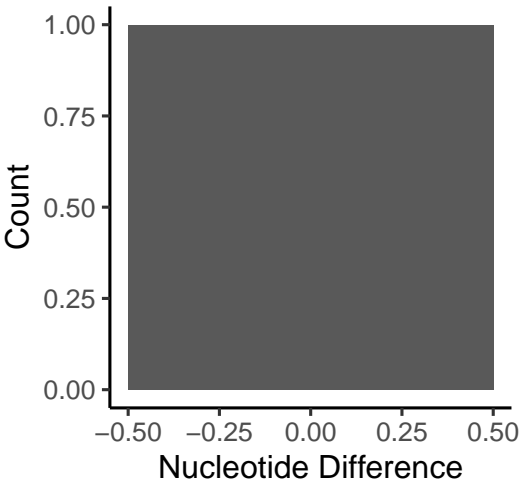
IGHV4-30-2*01

330 sequences assigned
309 (93.6%) exact matches, in which:
305 unique CDR3
6 unique J



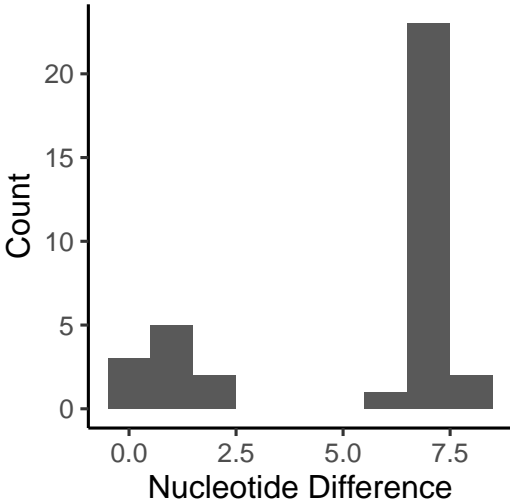
IGHV4-38-2*01

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



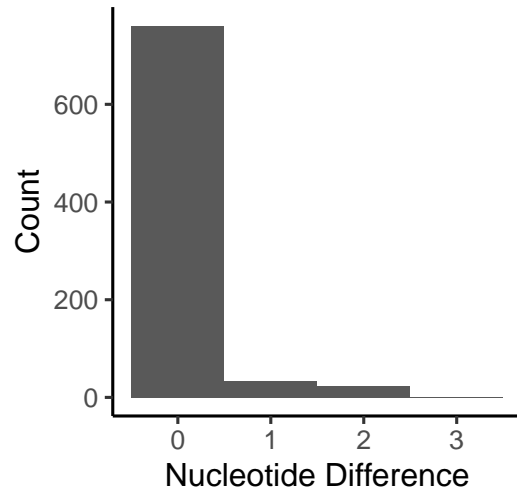
IGHV4-59*12

36 sequences assigned
3 (8.3%) exact matches, in which:
3 unique CDR3
2 unique J



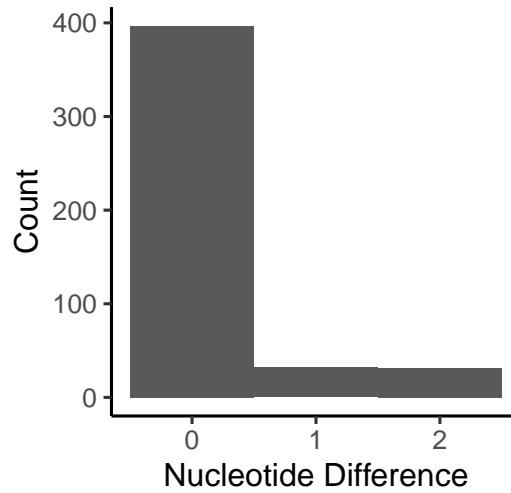
IGHV4-61*01

819 sequences assigned
761 (92.9%) exact matches, in which:
746 unique CDR3
6 unique J



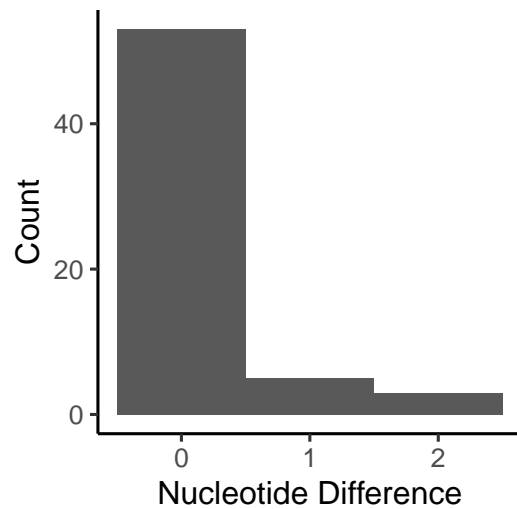
IGHV6-1*01_02

460 sequences assigned
397 (86.3%) exact matches, in which:
396 unique CDR3
6 unique J



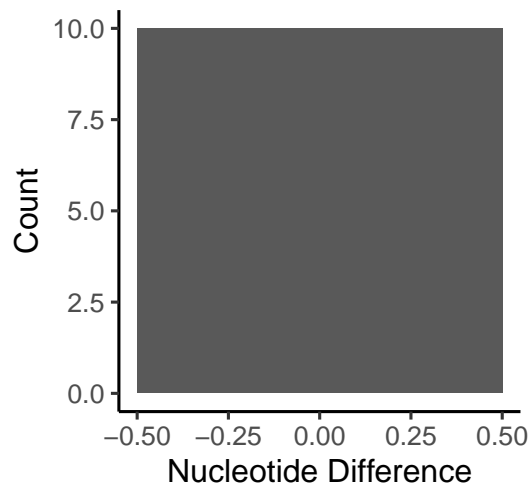
IGHV5-10-1*01_03

61 sequences assigned
53 (86.9%) exact matches, in which:
53 unique CDR3
6 unique J



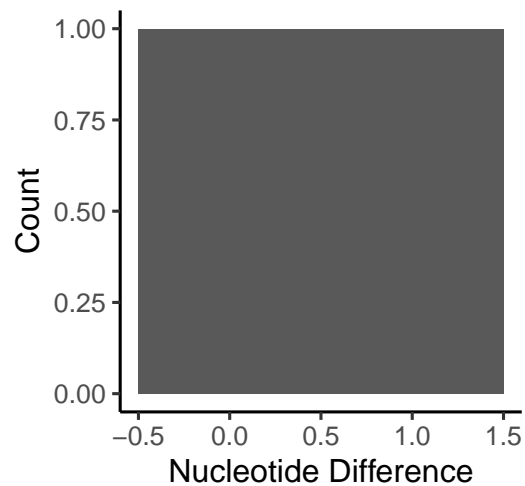
IGHV7-4-1*01

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



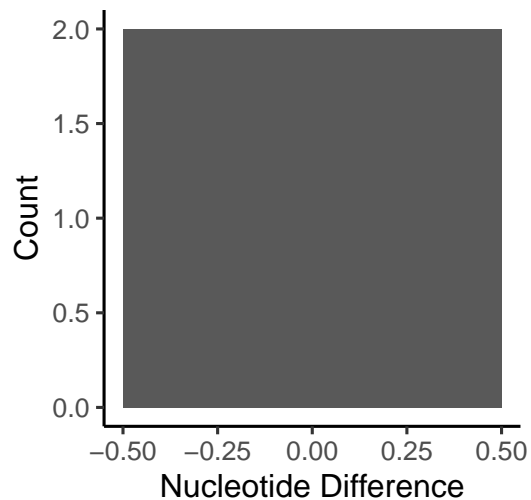
IGHV5-51*04

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



IGHV7-81*01

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





[illegible]