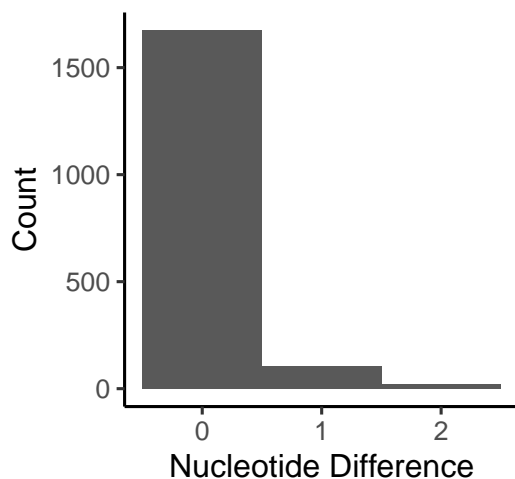


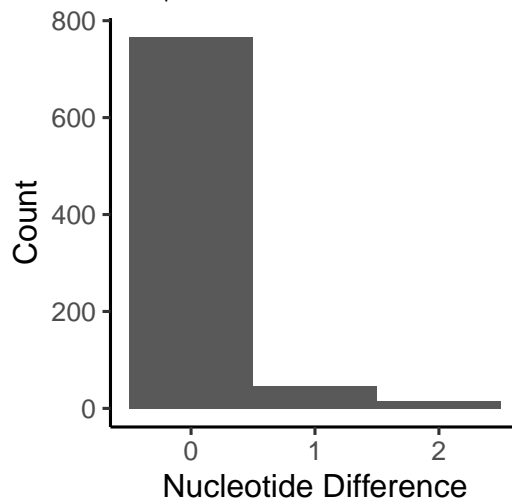
IGHV1-2*02

1802 sequences assigned
1674 (92.9%) exact matches, in which:
1658 unique CDR3
6 unique J



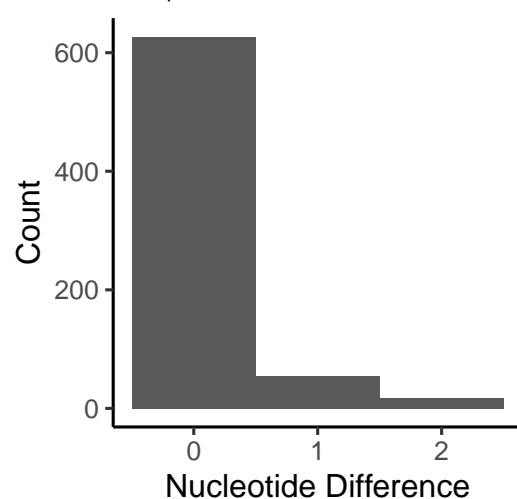
IGHV1-8*01

828 sequences assigned
767 (92.6%) exact matches, in which:
761 unique CDR3
6 unique J



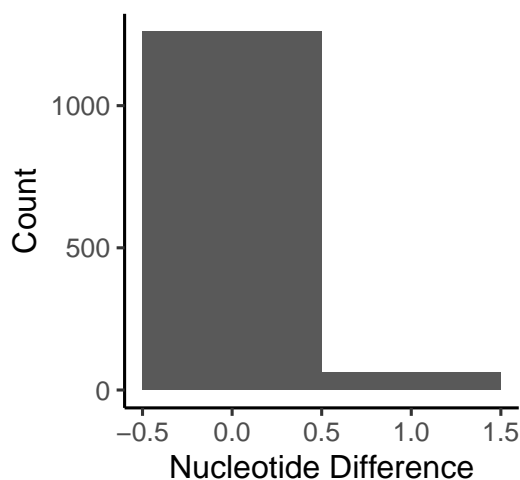
IGHV1-46*01

698 sequences assigned
627 (89.8%) exact matches, in which:
625 unique CDR3
6 unique J



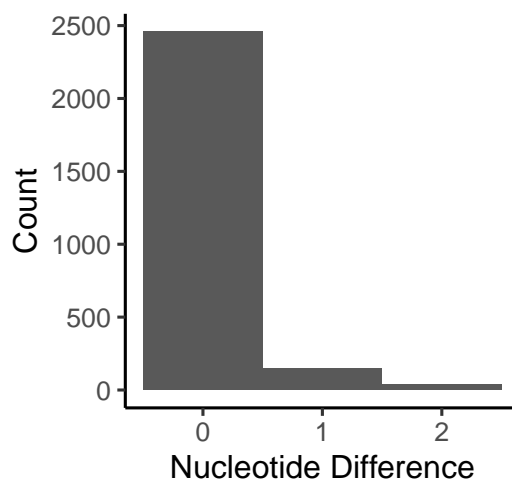
IGHV1-2*06

1323 sequences assigned
1260 (95.2%) exact matches, in which:
1251 unique CDR3
6 unique J



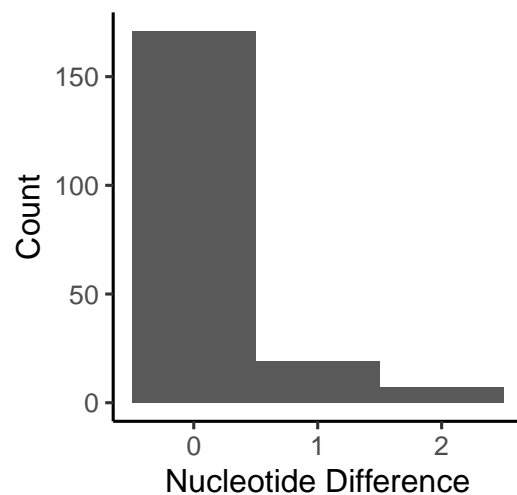
IGHV1-18*01

2647 sequences assigned
2458 (92.9%) exact matches, in which:
2432 unique CDR3
6 unique J



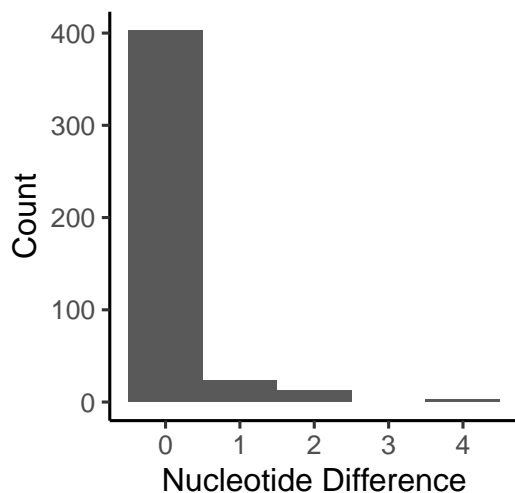
IGHV1-58*01_03

197 sequences assigned
171 (86.8%) exact matches, in which:
169 unique CDR3
6 unique J



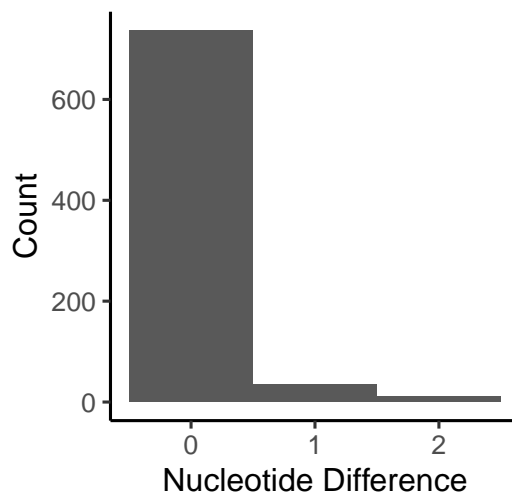
IGHV1-3*01_05

442 sequences assigned
403 (91.2%) exact matches, in which:
400 unique CDR3
6 unique J



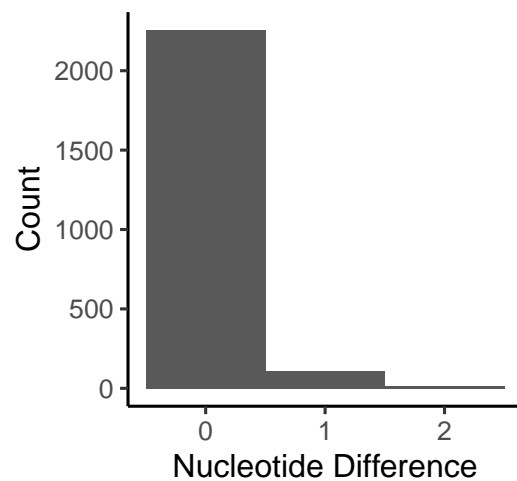
IGHV1-24*01

783 sequences assigned
737 (94.1%) exact matches, in which:
732 unique CDR3
6 unique J



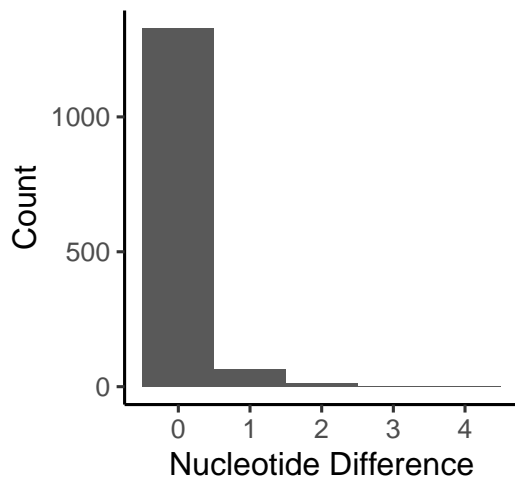
IGHV1-69*01_12_13

2383 sequences assigned
2256 (94.7%) exact matches, in which:
2248 unique CDR3
6 unique J



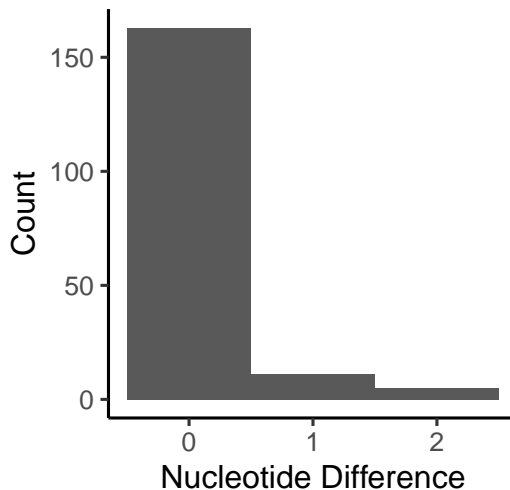
IGHV1-69*06_14

1408 sequences assigned
1328 (94.3%) exact matches, in which:
1320 unique CDR3
6 unique J



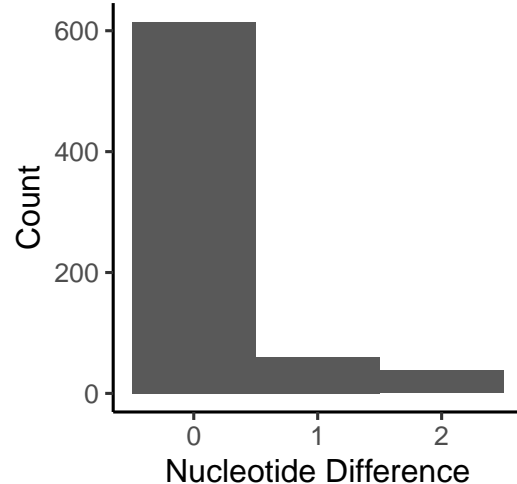
IGHV2-26*01

179 sequences assigned
163 (91.1%) exact matches, in which:
163 unique CDR3
5 unique J



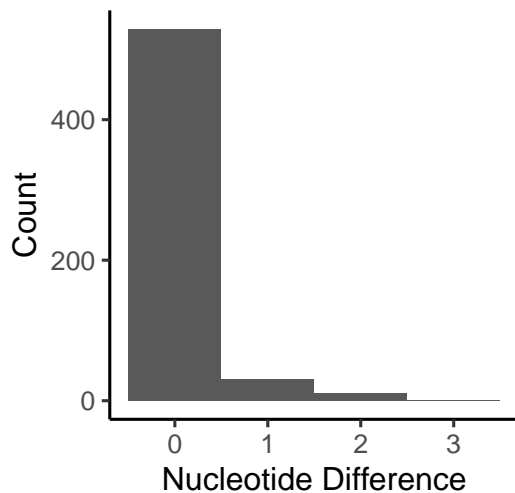
IGHV3-9*01

713 sequences assigned
615 (86.3%) exact matches, in which:
598 unique CDR3
6 unique J



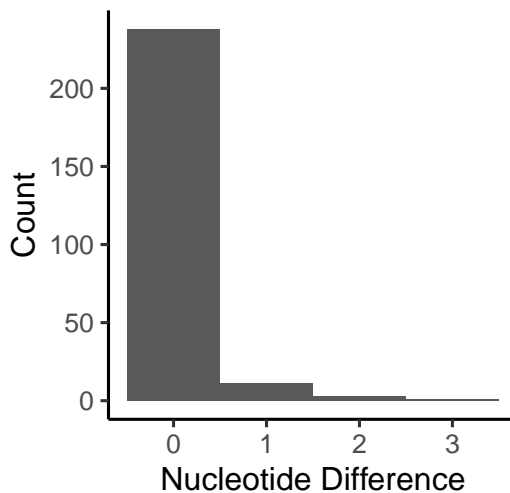
IGHV2-5*01

571 sequences assigned
529 (92.6%) exact matches, in which:
524 unique CDR3
6 unique J



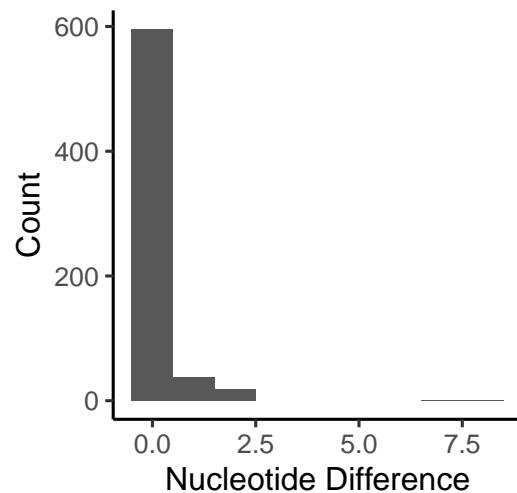
IGHV2-70*01

253 sequences assigned
238 (94.1%) exact matches, in which:
234 unique CDR3
5 unique J



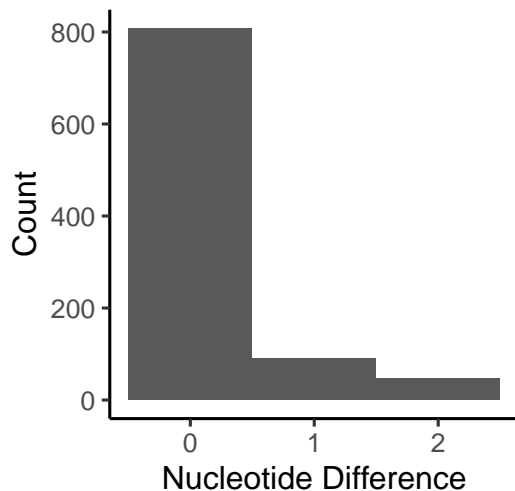
IGHV3-11*01

653 sequences assigned
596 (91.3%) exact matches, in which:
581 unique CDR3
6 unique J



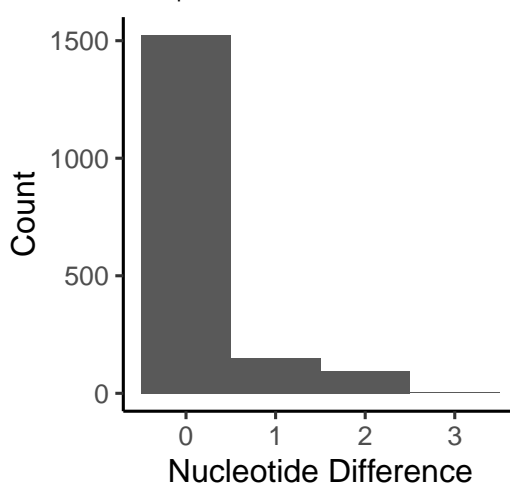
IGHV2-5*02

944 sequences assigned
808 (85.6%) exact matches, in which:
800 unique CDR3
6 unique J



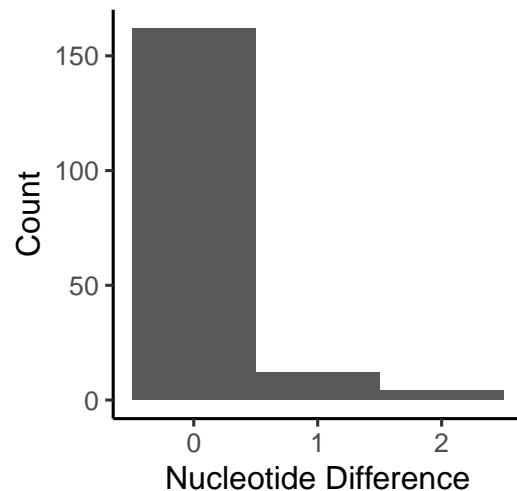
IGHV3-7*01

1772 sequences assigned
1524 (86%) exact matches, in which:
1470 unique CDR3
6 unique J



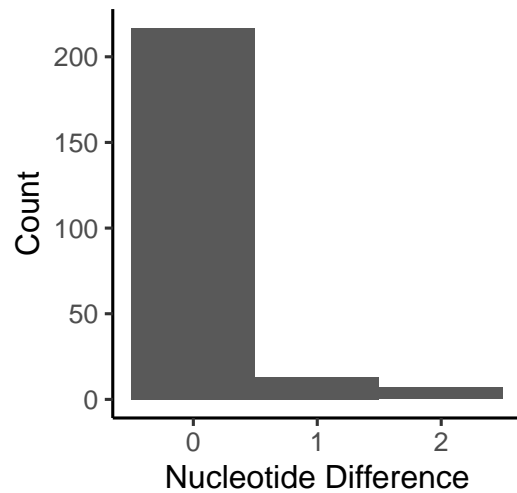
IGHV3-13*01

178 sequences assigned
162 (91%) exact matches, in which:
155 unique CDR3
5 unique J



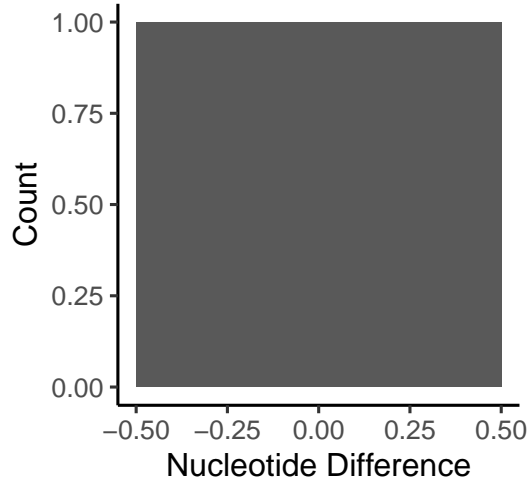
IGHV3-13*04

237 sequences assigned
217 (91.6%) exact matches, in which:
211 unique CDR3
5 unique J



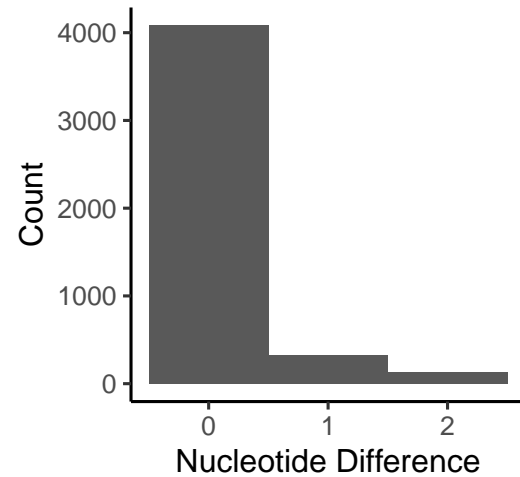
IGHV3-19*01

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



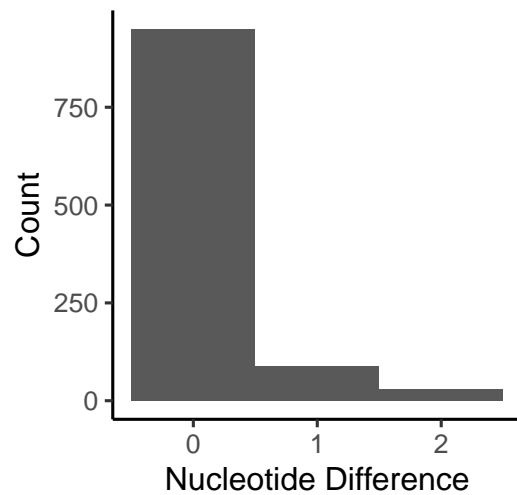
IGHV3-23*01_04

4547 sequences assigned
4083 (89.8%) exact matches, in which:
3901 unique CDR3
6 unique J



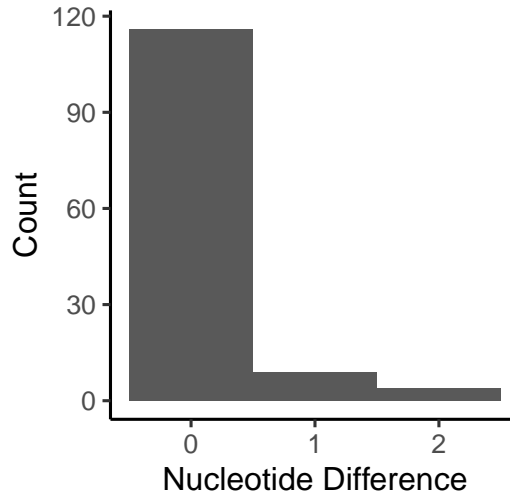
IGHV3-15*07

1067 sequences assigned
950 (89%) exact matches, in which:
911 unique CDR3
6 unique J



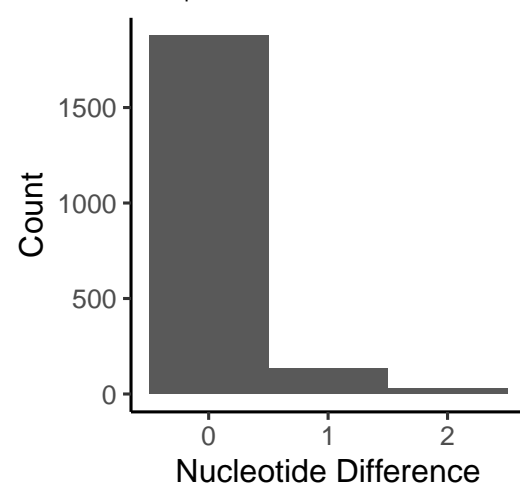
IGHV3-20*01_02

129 sequences assigned
116 (89.9%) exact matches, in which:
109 unique CDR3
5 unique J



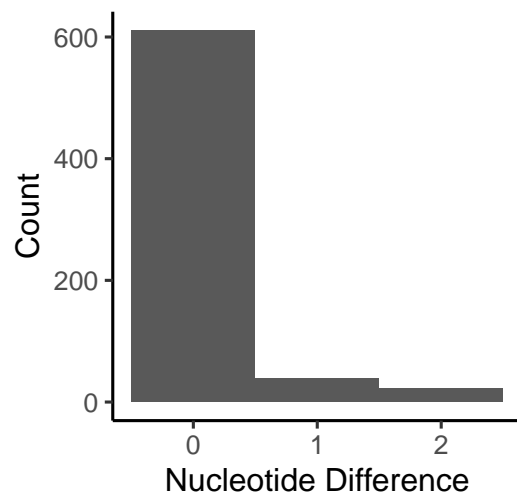
IGHV3-30-3*01

2040 sequences assigned
1876 (92%) exact matches, in which:
1833 unique CDR3
6 unique J



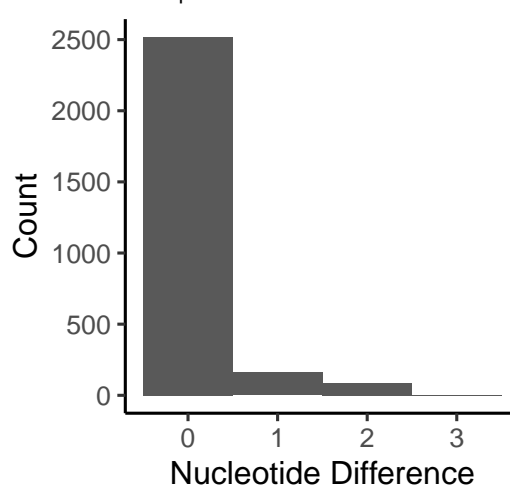
IGHV3-15*01_02

672 sequences assigned
611 (90.9%) exact matches, in which:
591 unique CDR3
6 unique J



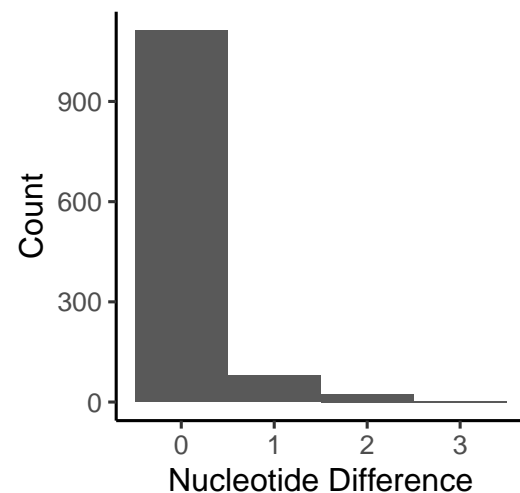
IGHV3-21*01_02

2768 sequences assigned
2518 (91%) exact matches, in which:
2392 unique CDR3
6 unique J



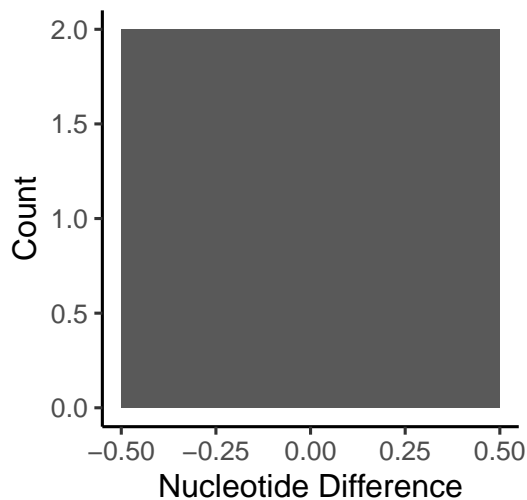
IGHV3-33*01

1219 sequences assigned
1113 (91.3%) exact matches, in which:
1083 unique CDR3
6 unique J



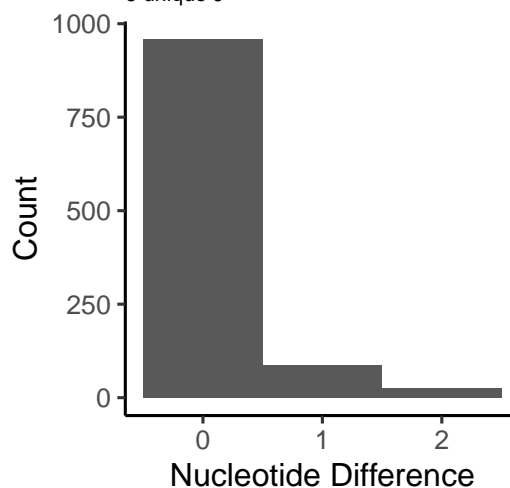
IGHV3–35*01

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



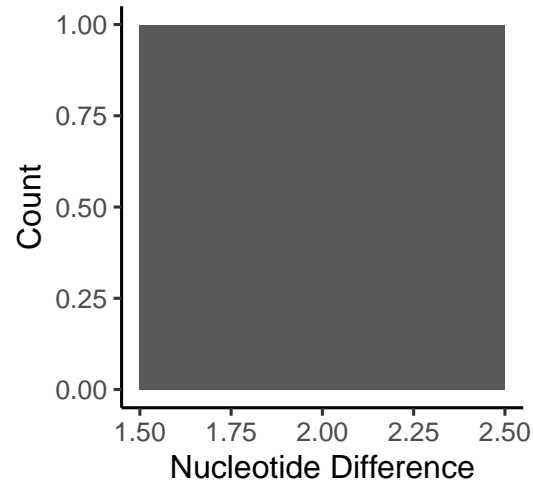
IGHV3–48*03

1070 sequences assigned
958 (89.5%) exact matches, in which:
920 unique CDR3
6 unique J



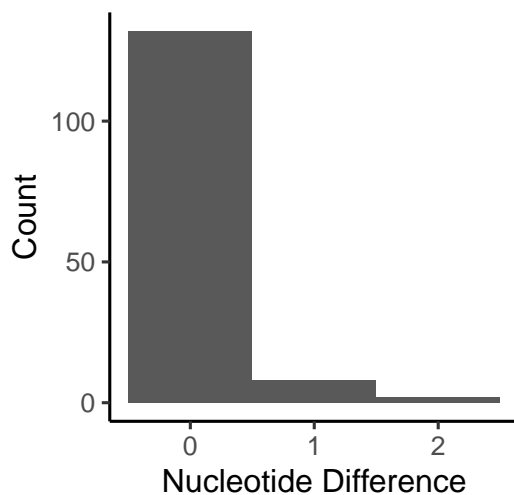
IGHV3–52*01_03

1 sequences assigned
No exact matches.



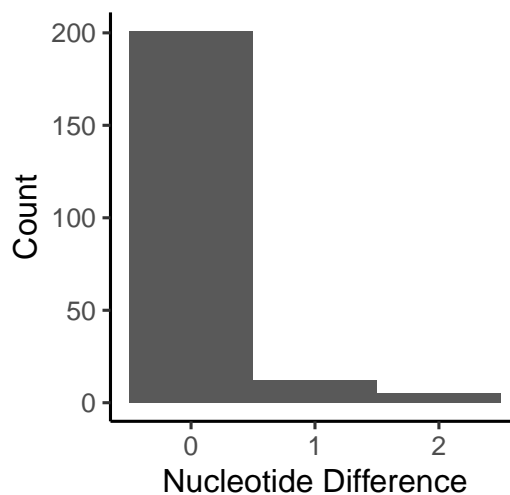
IGHV3–43*01

142 sequences assigned
132 (93%) exact matches, in which:
128 unique CDR3
6 unique J



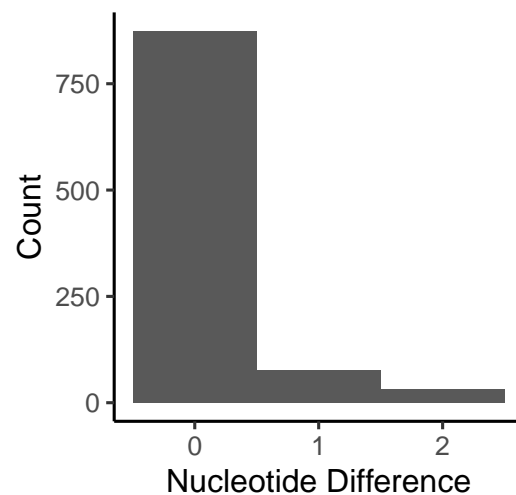
IGHV3–49*04

218 sequences assigned
201 (92.2%) exact matches, in which:
201 unique CDR3
6 unique J



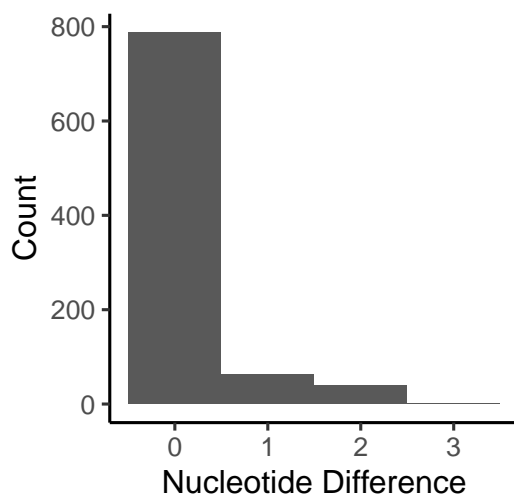
IGHV3–53*01_02

981 sequences assigned
874 (89.1%) exact matches, in which:
829 unique CDR3
6 unique J



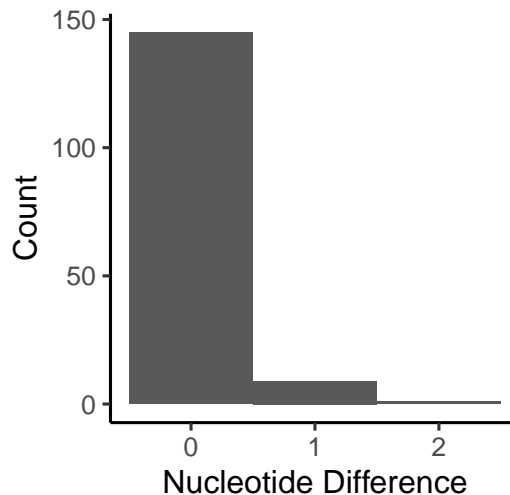
IGHV3–48*02

892 sequences assigned
788 (88.3%) exact matches, in which:
749 unique CDR3
6 unique J



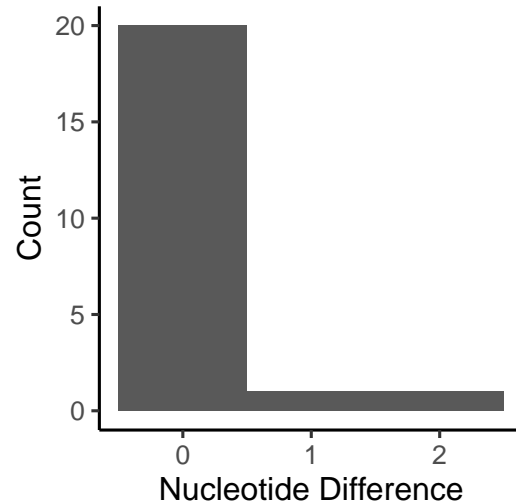
IGHV3–49*03_05

155 sequences assigned
145 (93.5%) exact matches, in which:
143 unique CDR3
5 unique J



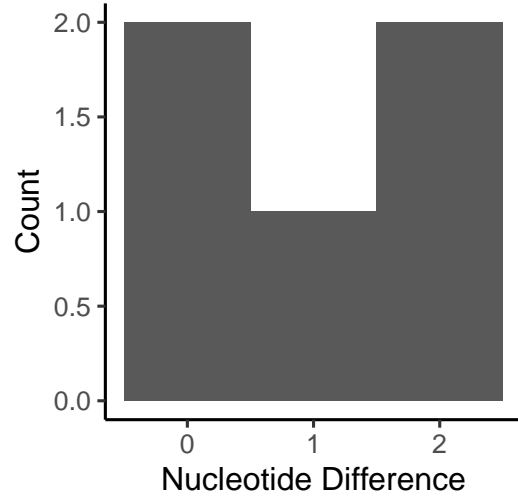
IGHV3–64*02_07

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



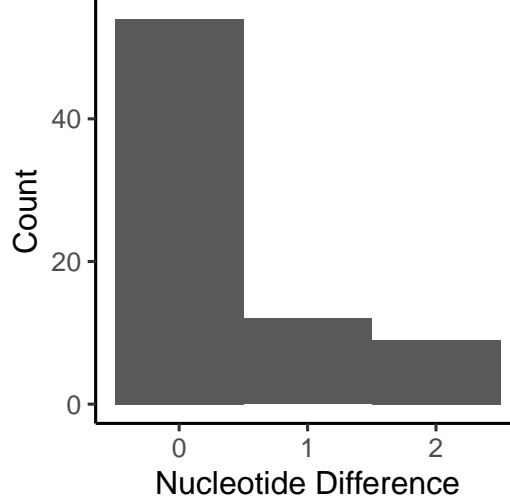
IGHV3-66*03

5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
2 unique J



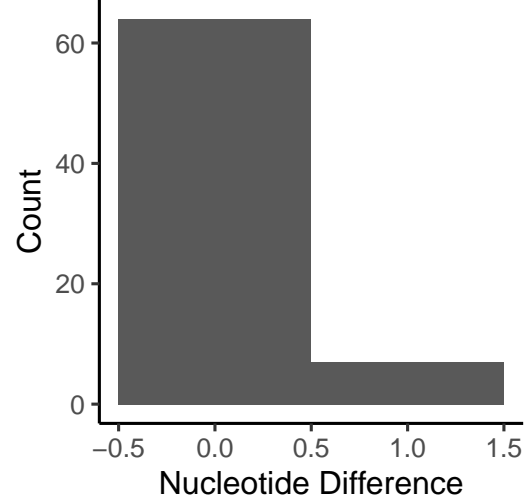
IGHV3-72*01

75 sequences assigned
54 (72%) exact matches, in which:
51 unique CDR3
5 unique J



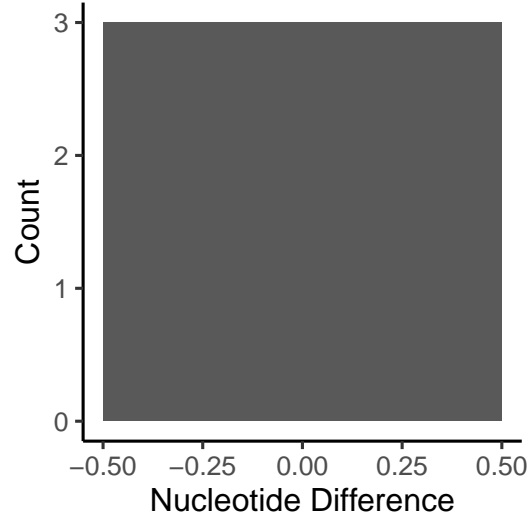
IGHV3-43D*04

71 sequences assigned
64 (90.1%) exact matches, in which:
62 unique CDR3
6 unique J



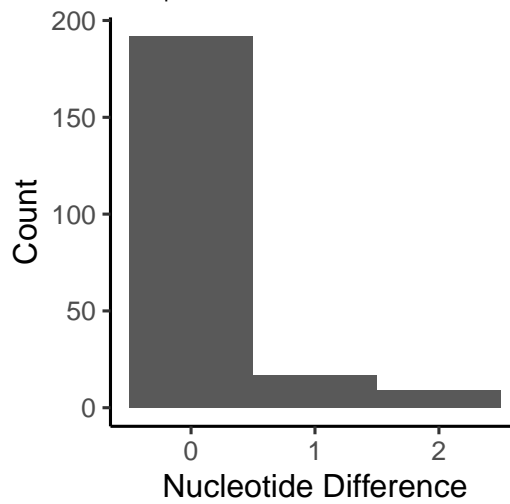
IGHV3-69-1*01

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



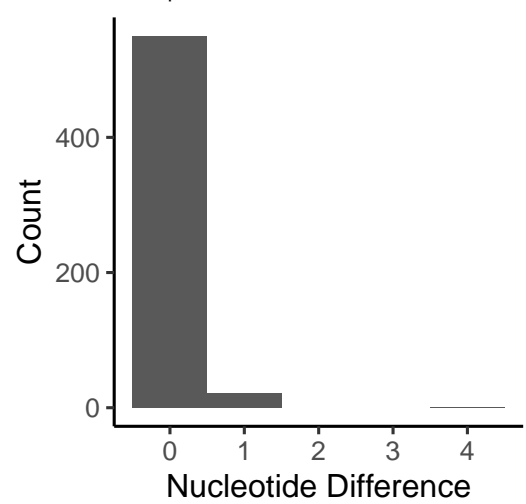
IGHV3-73*01_02

218 sequences assigned
192 (88.1%) exact matches, in which:
191 unique CDR3
6 unique J



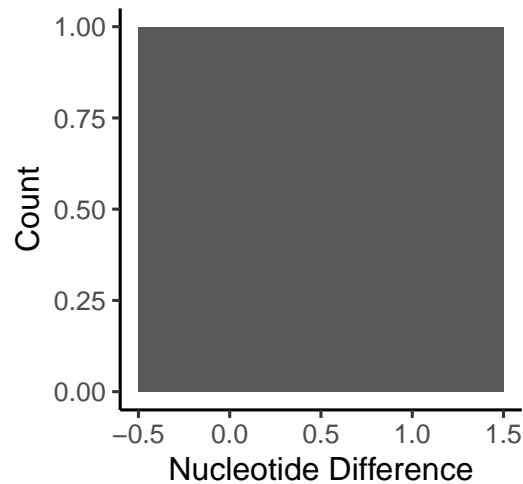
IGHV3-64D*09

573 sequences assigned
550 (96%) exact matches, in which:
536 unique CDR3
6 unique J



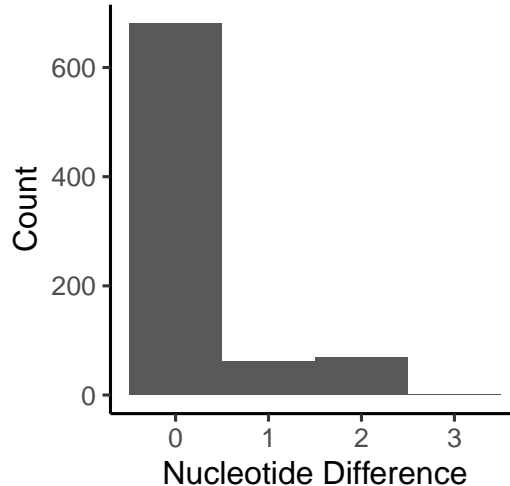
IGHV3-69-1*02

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



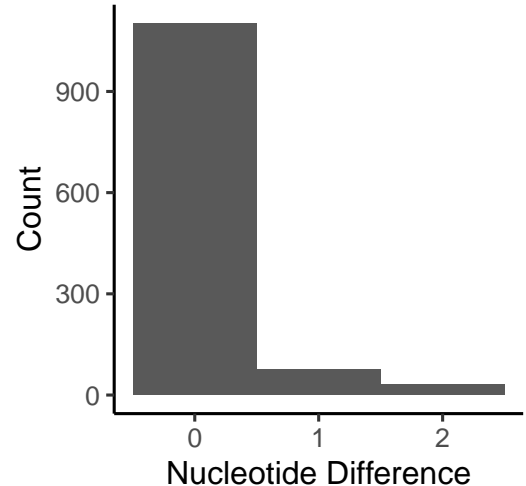
IGHV3-74*01_02

812 sequences assigned
681 (83.9%) exact matches, in which:
650 unique CDR3
6 unique J



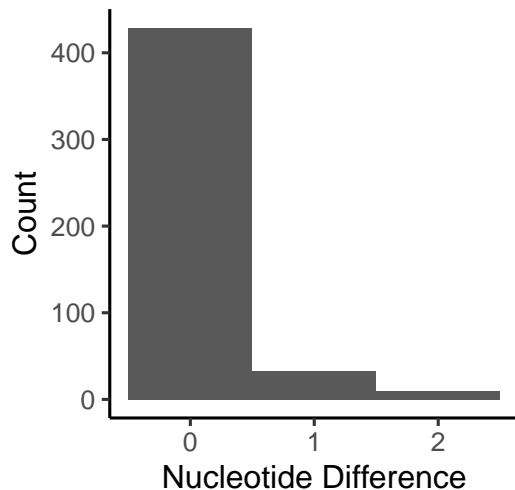
IGHV4-4*07

1209 sequences assigned
1102 (91.1%) exact matches, in which:
1070 unique CDR3
6 unique J



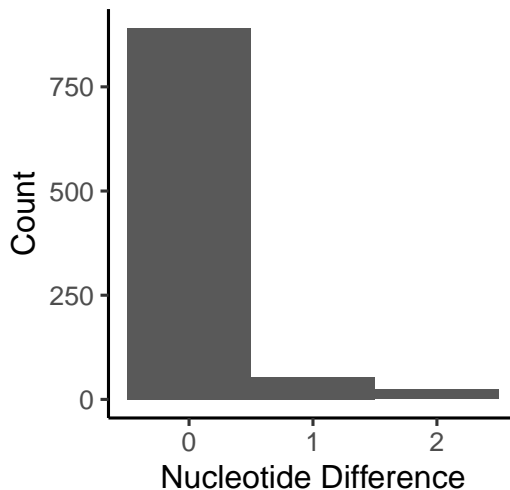
IGHV4-4*02_03

472 sequences assigned
429 (90.9%) exact matches, in which:
422 unique CDR3
6 unique J



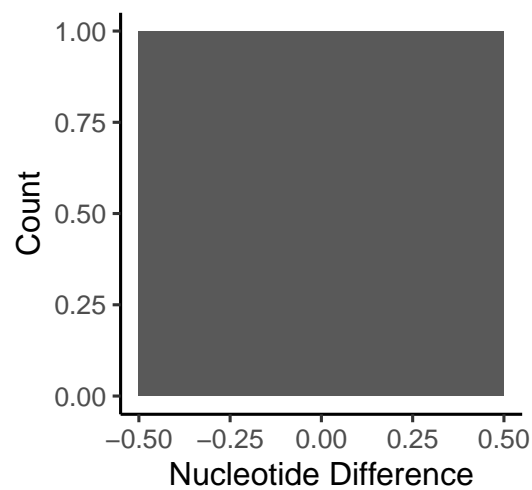
IGHV4-30-4*01

970 sequences assigned
892 (92%) exact matches, in which:
876 unique CDR3
6 unique J



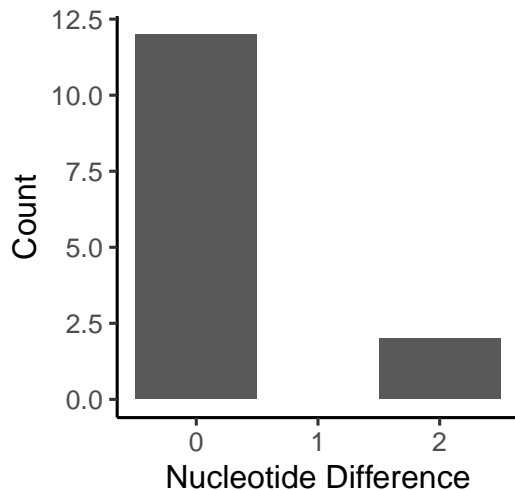
IGHV4-38-2*01

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



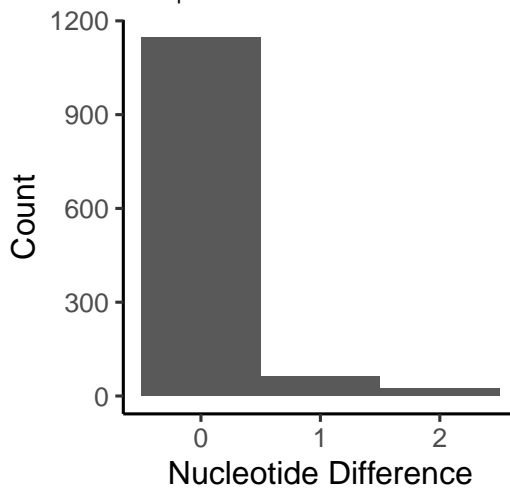
IGHV4-28*01_07

14 sequences assigned
12 (85.7%) exact matches, in which:
11 unique CDR3
5 unique J



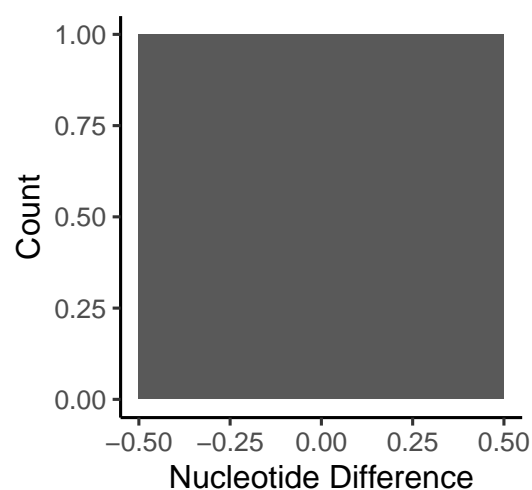
IGHV4-31*02

1231 sequences assigned
1146 (93.1%) exact matches, in which:
1128 unique CDR3
6 unique J



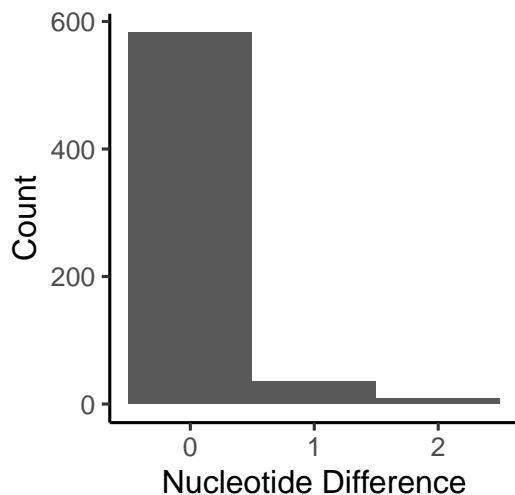
IGHV4-38-2*02

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



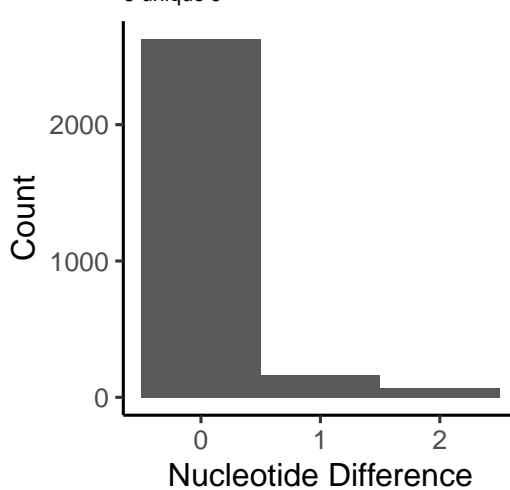
IGHV4-30-2*01

627 sequences assigned
583 (93%) exact matches, in which:
568 unique CDR3
6 unique J



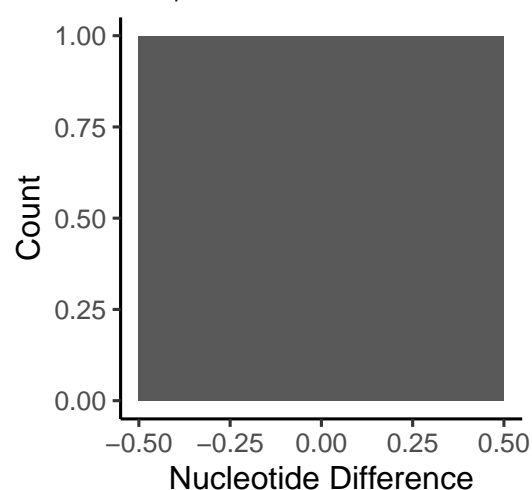
IGHV4-34*01_02

2861 sequences assigned
2628 (91.9%) exact matches, in which:
2538 unique CDR3
6 unique J



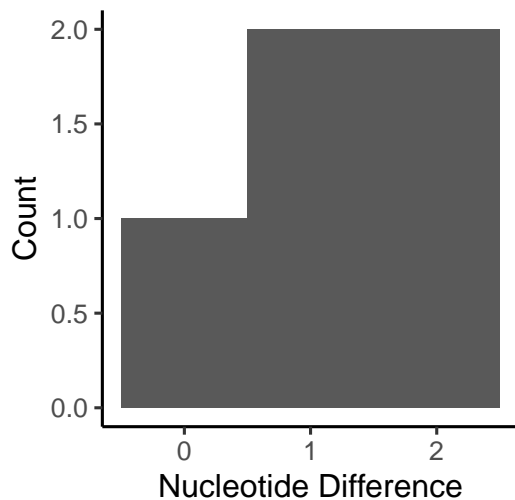
IGHV4-39*02

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



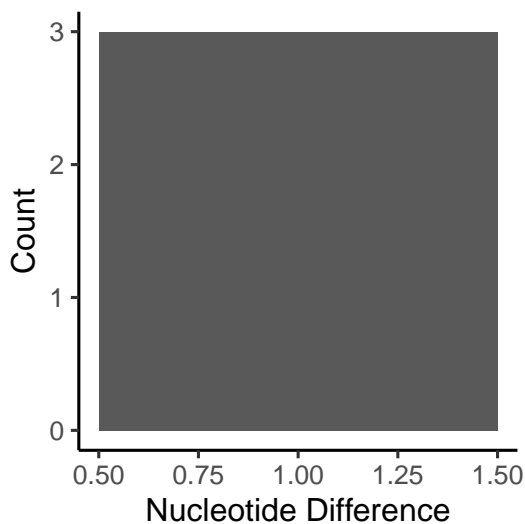
IGHV4–39*07

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



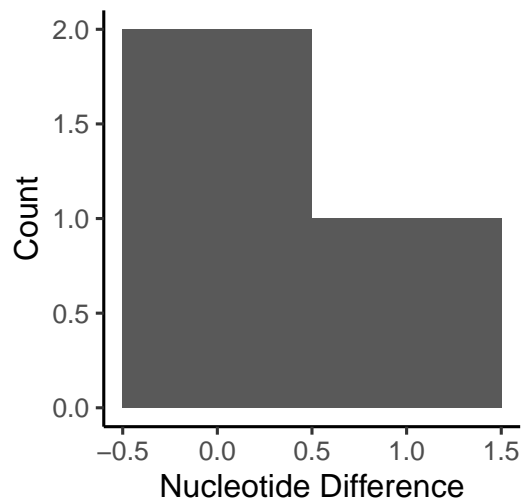
IGHV4–59*12

3 sequences assigned
No exact matches.



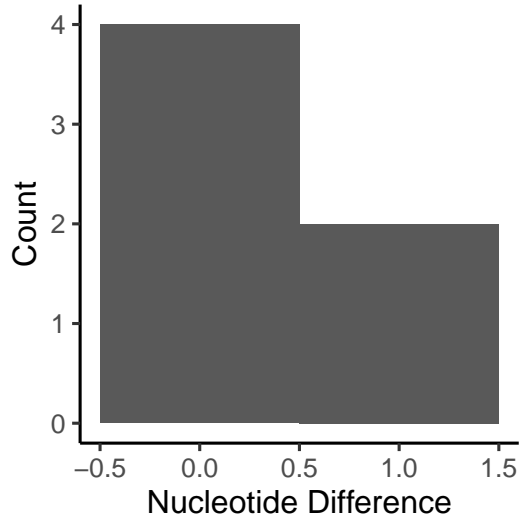
IGHV5–51*07

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



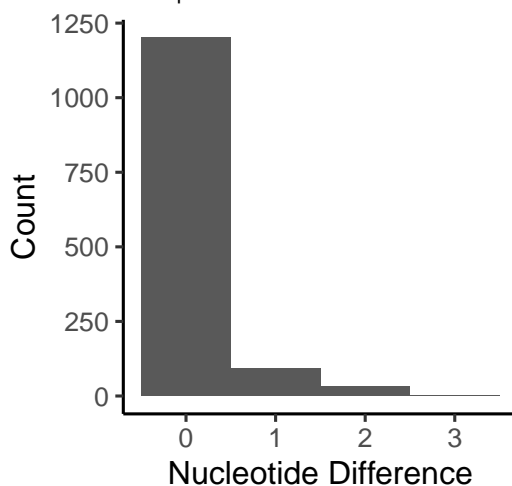
IGHV4–59*08

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



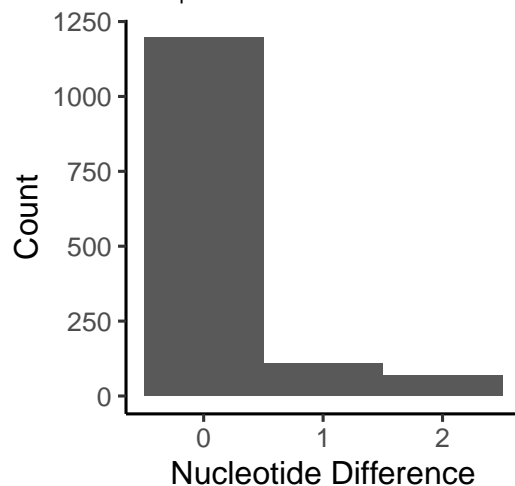
IGHV4–61*01

1326 sequences assigned
1201 (90.6%) exact matches, in which:
1159 unique CDR3
6 unique J



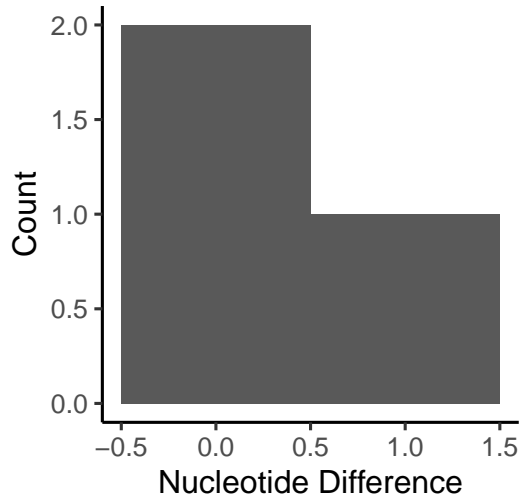
IGHV6–1*01_02

1373 sequences assigned
1196 (87.1%) exact matches, in which:
1175 unique CDR3
6 unique J



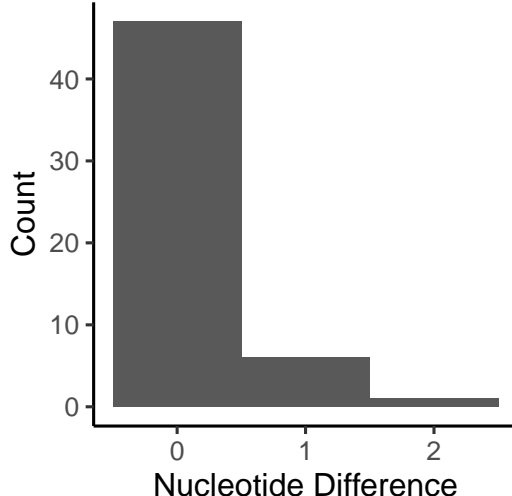
IGHV4–59*11

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



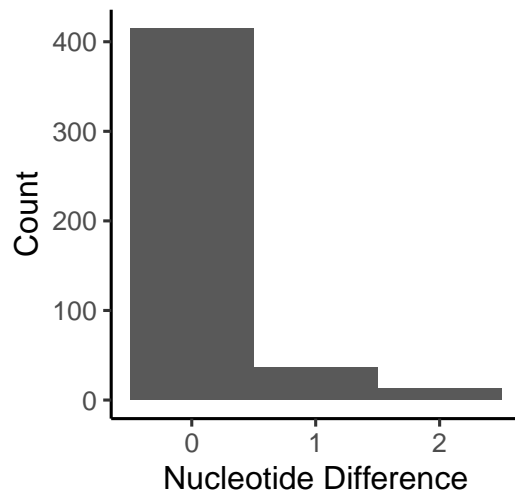
IGHV5–10–1*01_03

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



IGHV7–4–1*02

464 sequences assigned
415 (89.4%) exact matches, in which:
414 unique CDR3
6 unique J





[illegible]