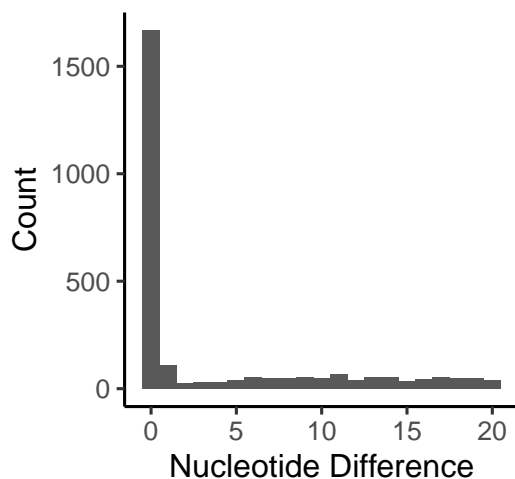


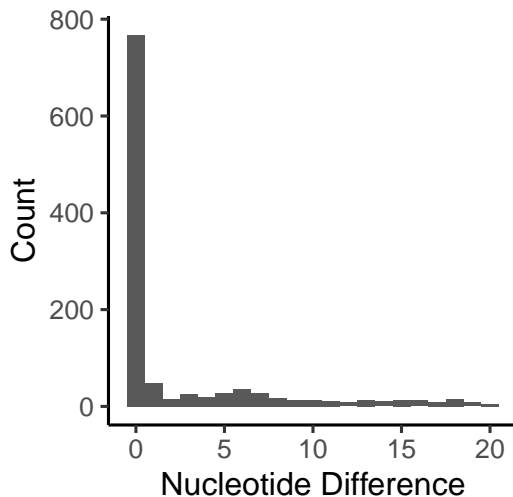
IGHV1-2*02

2894 sequences assigned
1667 (57.6%) exact matches, in which:
1651 unique CDR3
6 unique J



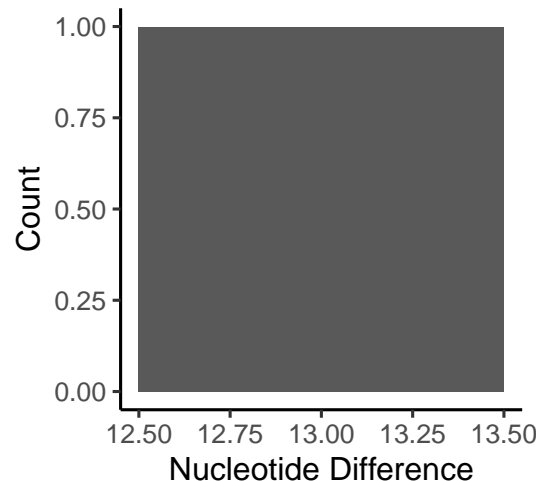
IGHV1-8*01

1223 sequences assigned
768 (62.8%) exact matches, in which:
762 unique CDR3
6 unique J



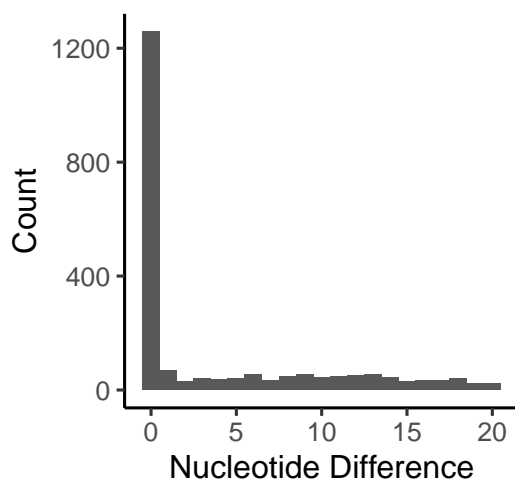
IGHV1-45*02

3 sequences assigned
No exact matches.



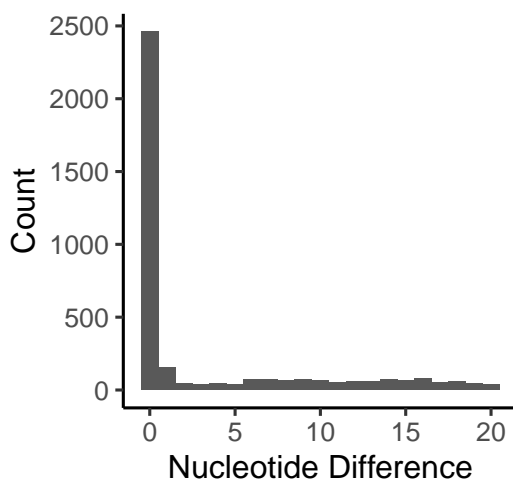
IGHV1-2*06

2323 sequences assigned
1258 (54.2%) exact matches, in which:
1248 unique CDR3
6 unique J



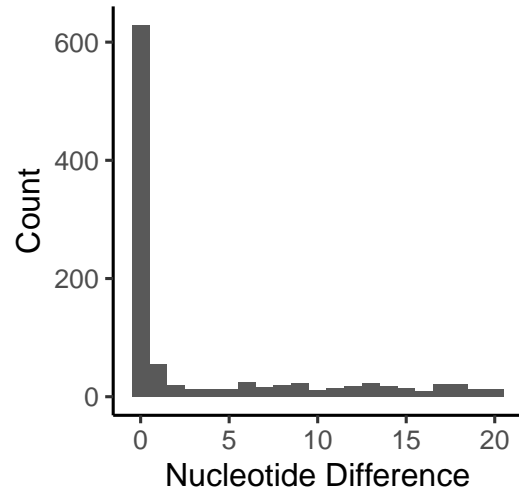
IGHV1-18*01

4075 sequences assigned
2460 (60.4%) exact matches, in which:
2434 unique CDR3
6 unique J



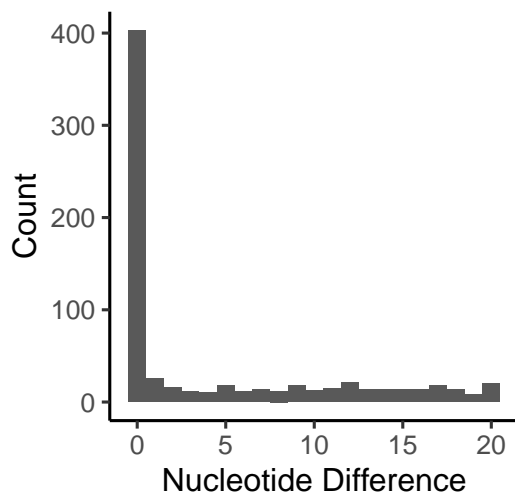
IGHV1-46*01

1109 sequences assigned
629 (56.7%) exact matches, in which:
627 unique CDR3
6 unique J



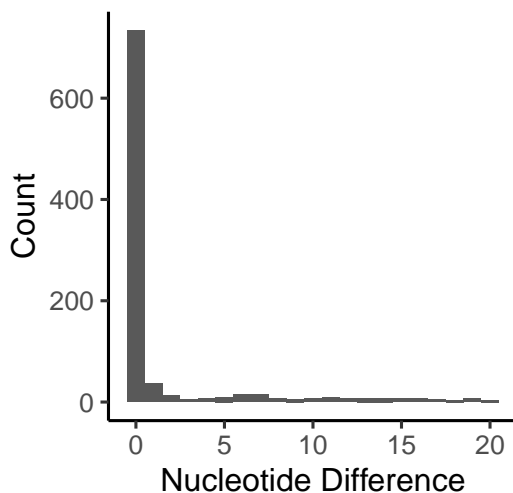
IGHV1-3*01_05

772 sequences assigned
403 (52.2%) exact matches, in which:
400 unique CDR3
6 unique J



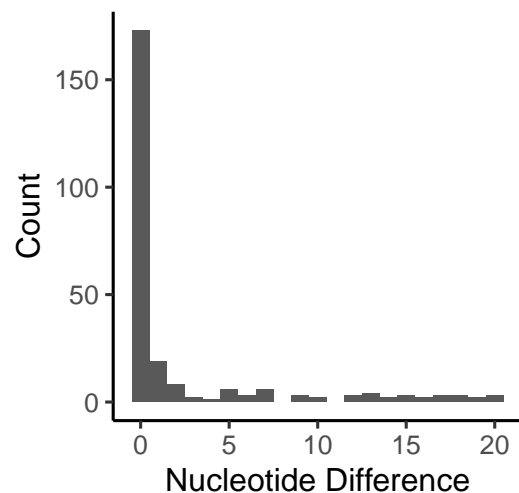
IGHV1-24*01

979 sequences assigned
734 (75%) exact matches, in which:
729 unique CDR3
6 unique J



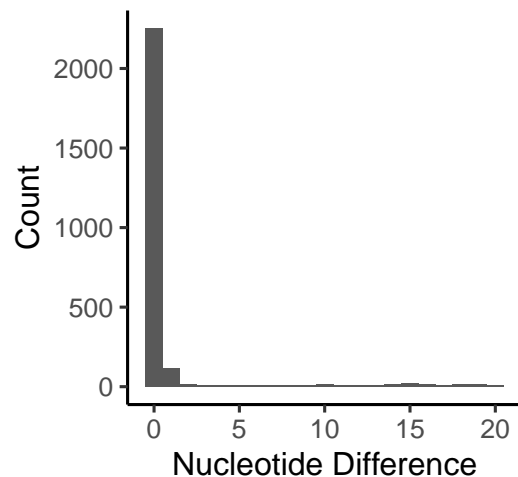
IGHV1-58*01_03

268 sequences assigned
173 (64.6%) exact matches, in which:
171 unique CDR3
6 unique J



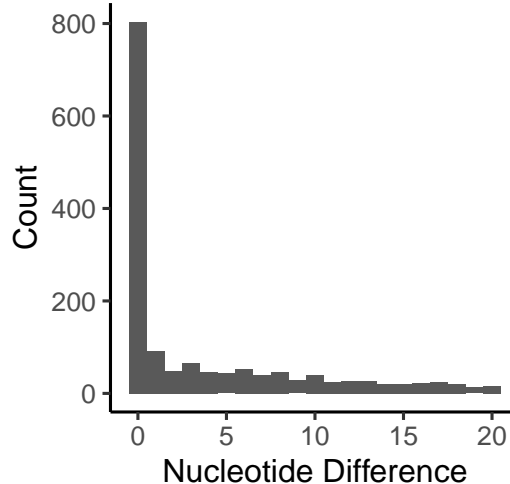
IGHV1-69*01_12_13

2804 sequences assigned
2252 (80.3%) exact matches, in which:
2243 unique CDR3
6 unique J



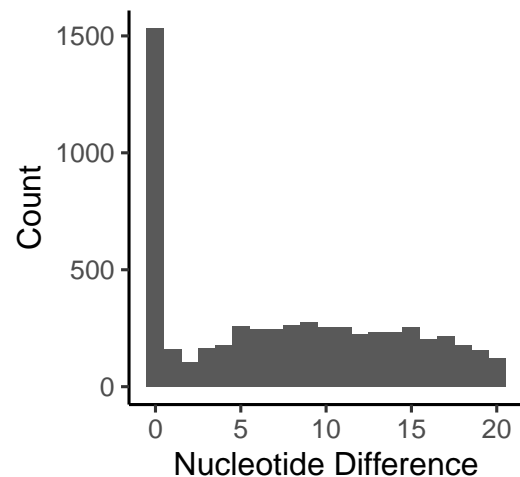
IGHV2-5*02

1649 sequences assigned
804 (48.8%) exact matches, in which:
796 unique CDR3
6 unique J



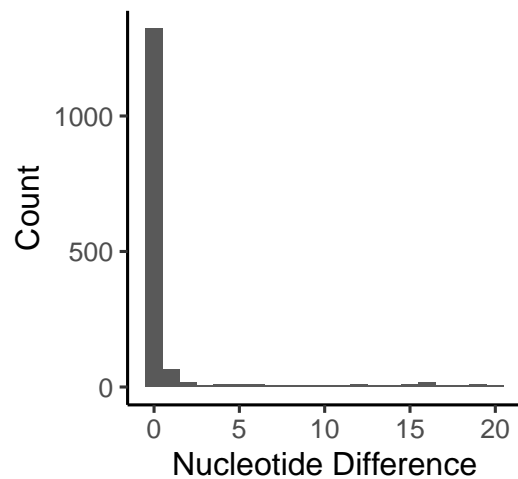
IGHV3-7*01

6412 sequences assigned
1532 (23.9%) exact matches, in which:
1475 unique CDR3
6 unique J



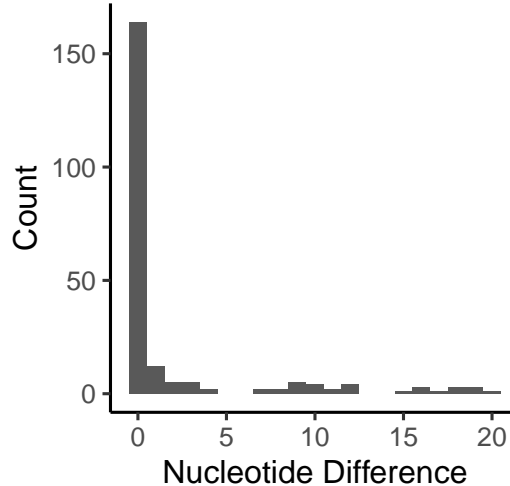
IGHV1-69*06_14

1660 sequences assigned
1322 (79.6%) exact matches, in which:
1314 unique CDR3
6 unique J



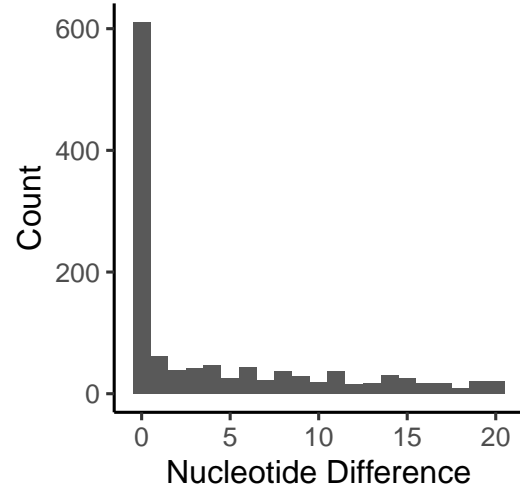
IGHV2-26*01

245 sequences assigned
164 (66.9%) exact matches, in which:
164 unique CDR3
5 unique J



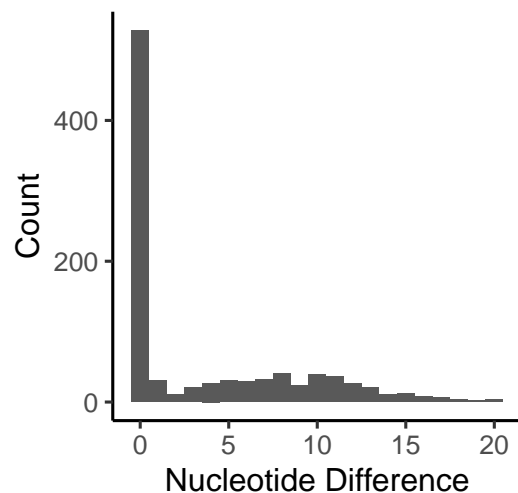
IGHV3-9*01

1291 sequences assigned
611 (47.3%) exact matches, in which:
594 unique CDR3
6 unique J



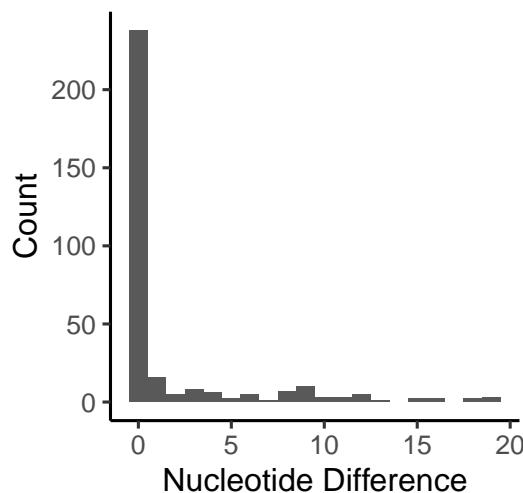
IGHV2-5*01

971 sequences assigned
528 (54.4%) exact matches, in which:
523 unique CDR3
6 unique J



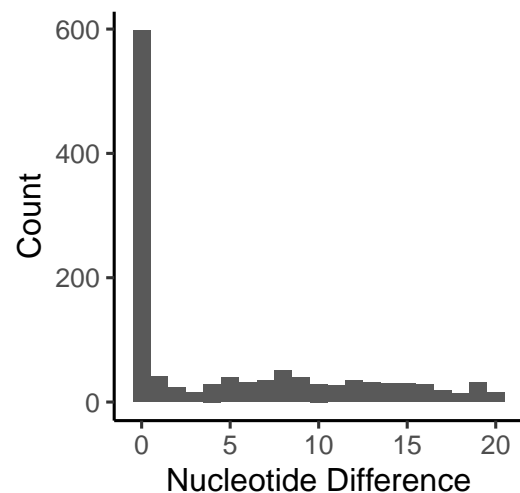
IGHV2-70*01

332 sequences assigned
238 (71.7%) exact matches, in which:
234 unique CDR3
5 unique J



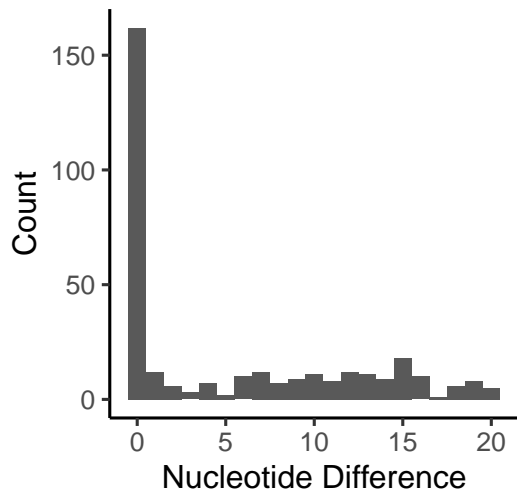
IGHV3-11*01

1400 sequences assigned
598 (42.7%) exact matches, in which:
581 unique CDR3
6 unique J



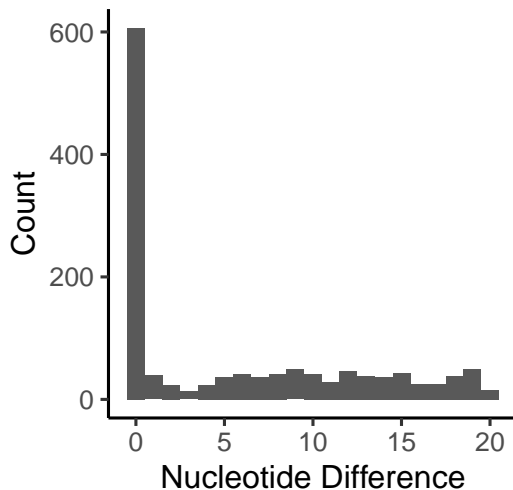
IGHV3-13*01

389 sequences assigned
162 (41.6%) exact matches, in which:
155 unique CDR3
5 unique J



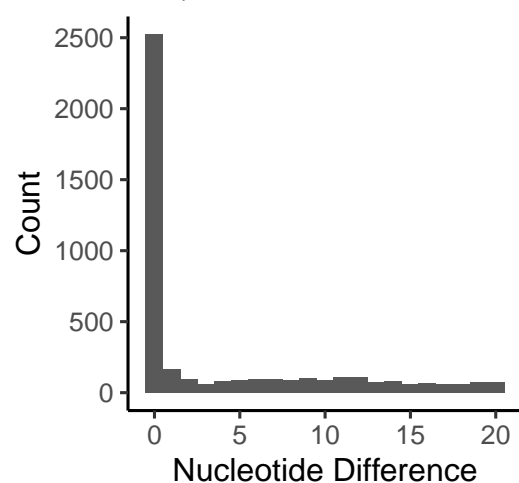
IGHV3-15*01_02

1411 sequences assigned
607 (43%) exact matches, in which:
587 unique CDR3
6 unique J



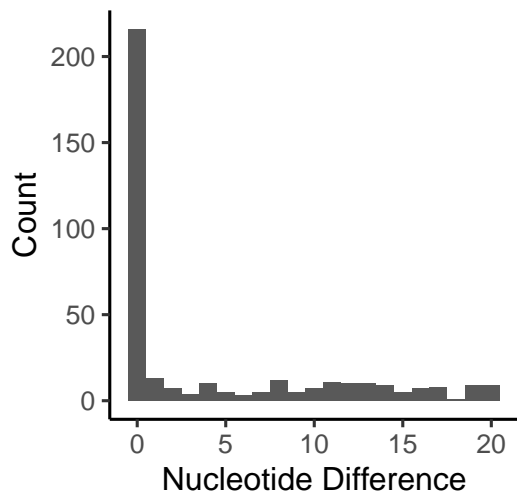
IGHV3-21*01_02

4717 sequences assigned
2523 (53.5%) exact matches, in which:
2390 unique CDR3
6 unique J



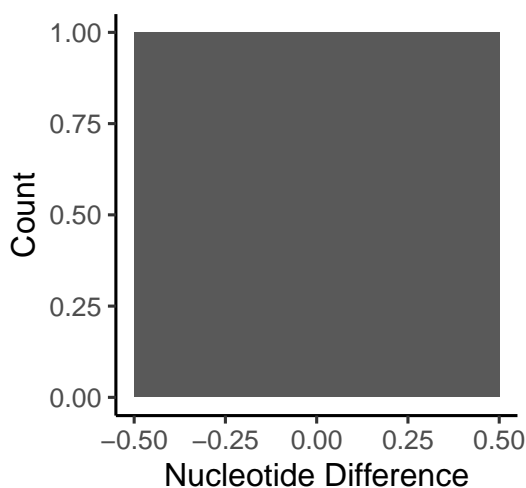
IGHV3-13*04

390 sequences assigned
216 (55.4%) exact matches, in which:
210 unique CDR3
5 unique J



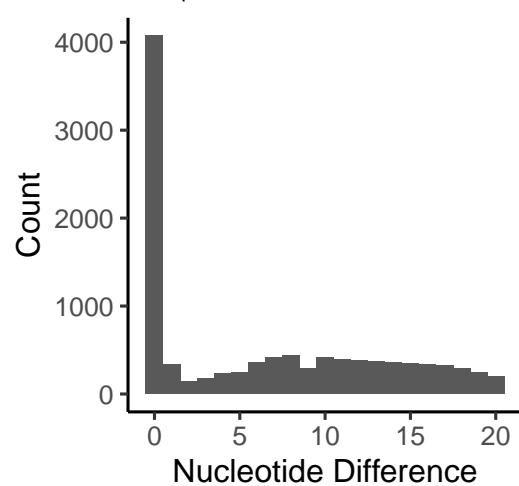
IGHV3-19*01

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



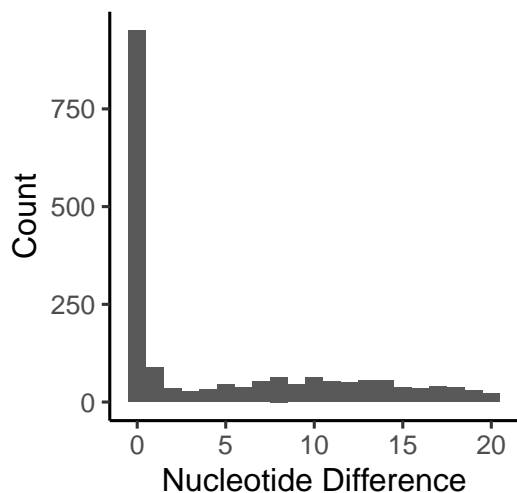
IGHV3-23*01_04

11927 sequences assigned
4074 (34.2%) exact matches, in which:
3890 unique CDR3
6 unique J



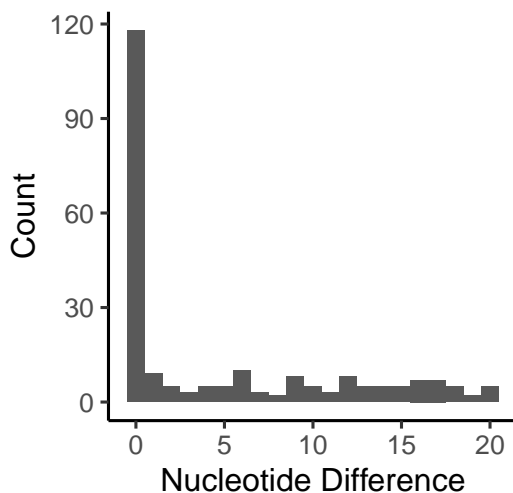
IGHV3-15*07

2037 sequences assigned
951 (46.7%) exact matches, in which:
910 unique CDR3
6 unique J



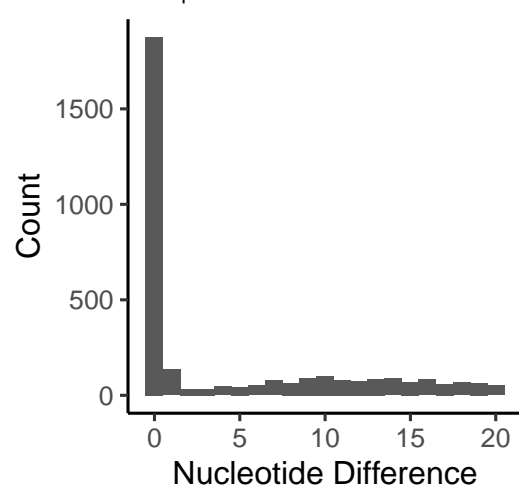
IGHV3-20*01_02

254 sequences assigned
118 (46.5%) exact matches, in which:
111 unique CDR3
5 unique J



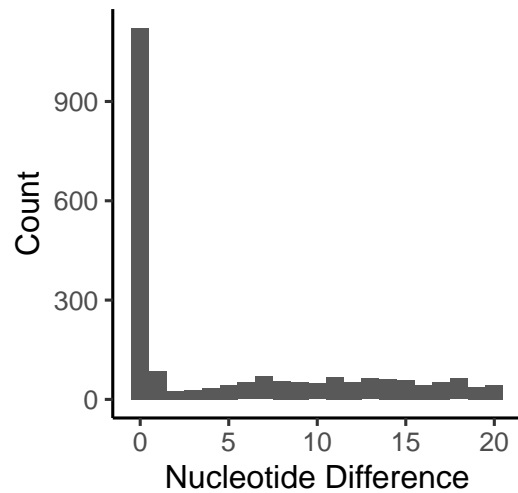
IGHV3-30-3*01

3757 sequences assigned
1876 (49.9%) exact matches, in which:
1828 unique CDR3
6 unique J



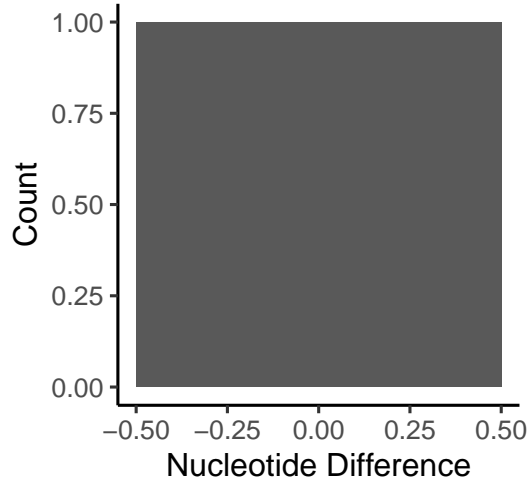
IGHV3–33*01

2474 sequences assigned
1123 (45.4%) exact matches, in which:
1088 unique CDR3
6 unique J



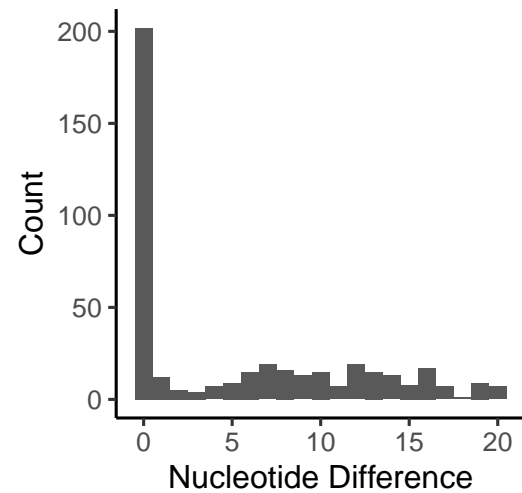
IGHV3–47*02

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



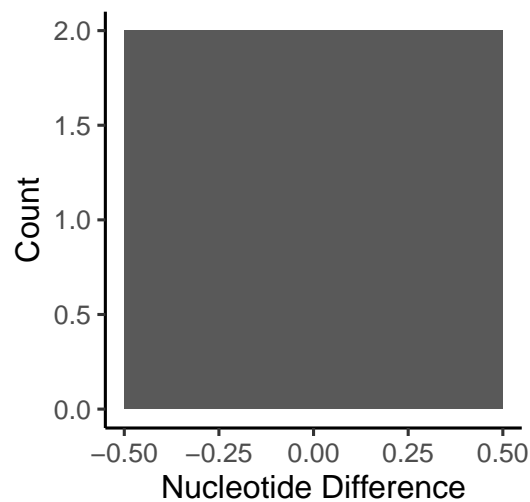
IGHV3–49*04

450 sequences assigned
202 (44.9%) exact matches, in which:
202 unique CDR3
6 unique J



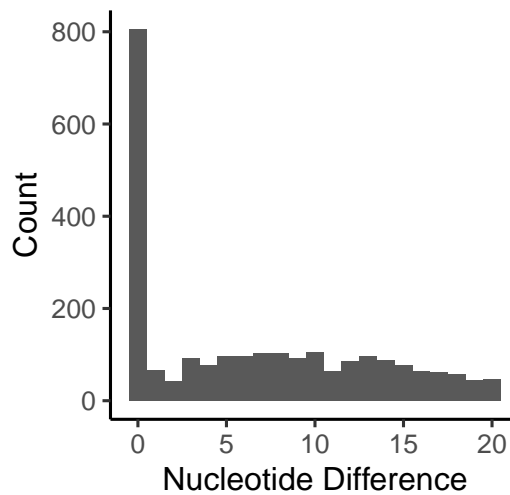
IGHV3–35*01

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



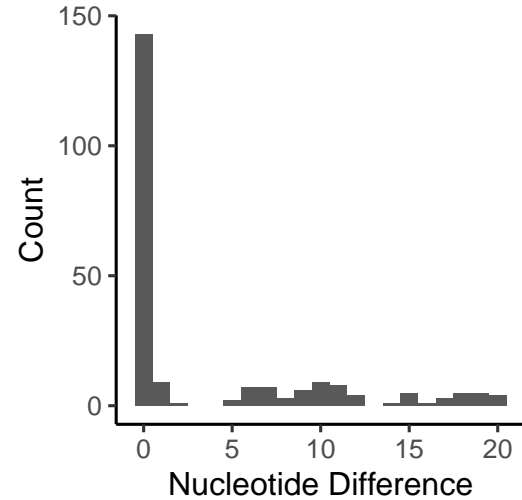
IGHV3–48*02

2797 sequences assigned
806 (28.8%) exact matches, in which:
756 unique CDR3
6 unique J



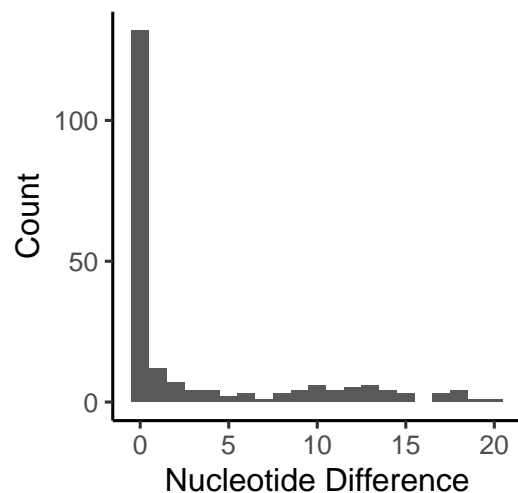
IGHV3–49*03_05

238 sequences assigned
143 (60.1%) exact matches, in which:
141 unique CDR3
5 unique J



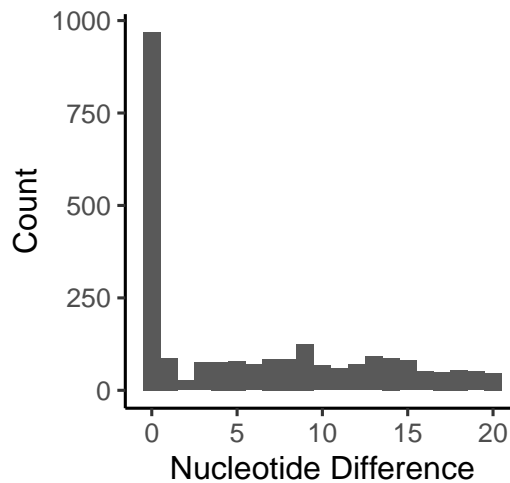
IGHV3–43*01

237 sequences assigned
132 (55.7%) exact matches, in which:
128 unique CDR3
6 unique J



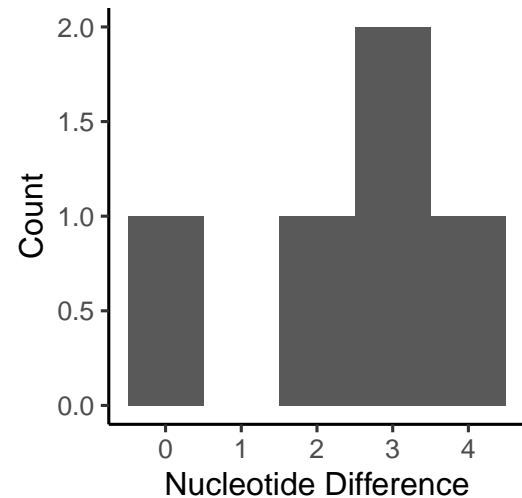
IGHV3–48*03

2714 sequences assigned
969 (35.7%) exact matches, in which:
924 unique CDR3
6 unique J



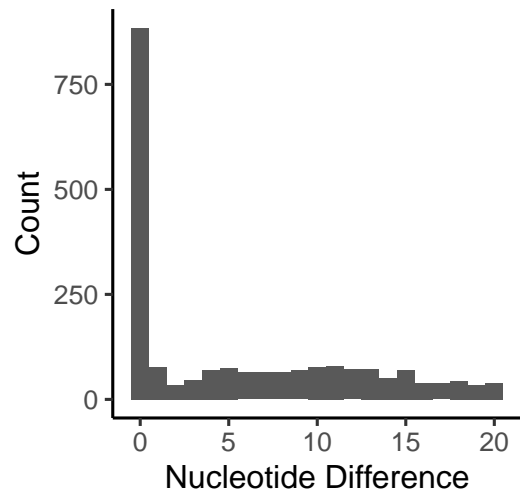
IGHV3–52*01_03

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



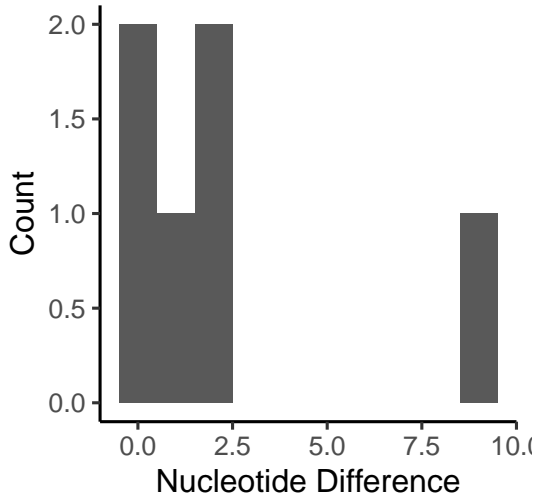
IGHV3-53*01_02

2256 sequences assigned
885 (39.2%) exact matches, in which:
835 unique CDR3
6 unique J



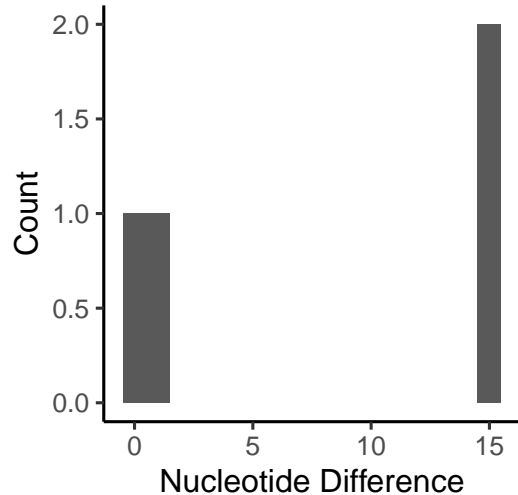
IGHV3-66*03

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
2 unique J



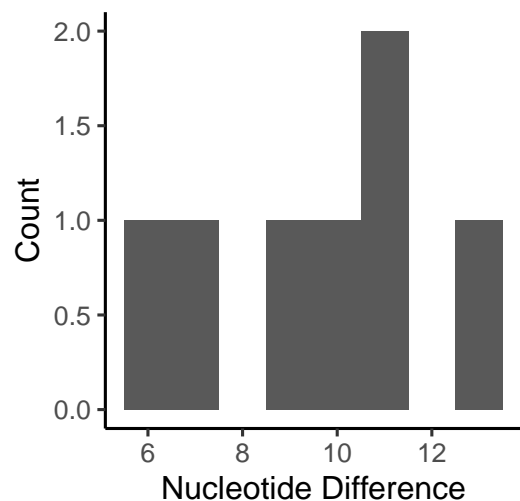
IGHV3-69-1*02

9 sequences assigned
1 (11.1%) exact matches, in which:
1 unique CDR3
1 unique J



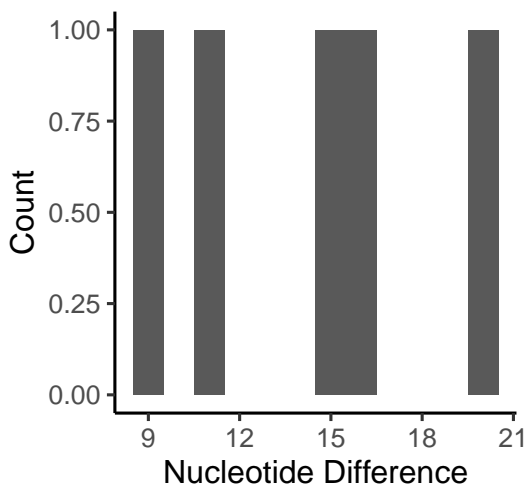
IGHV3-64*05

8 sequences assigned
No exact matches.



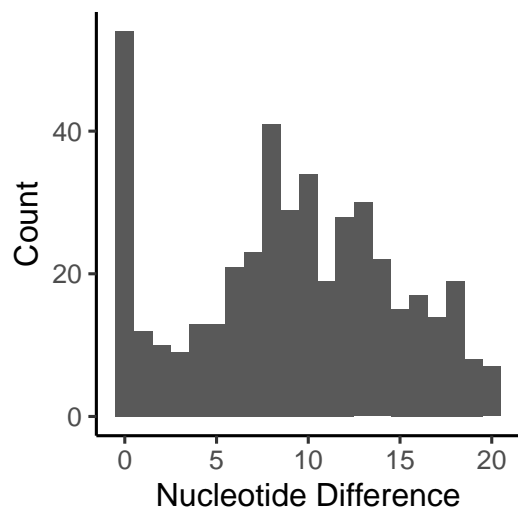
IGHV3-66*04

6 sequences assigned
No exact matches.



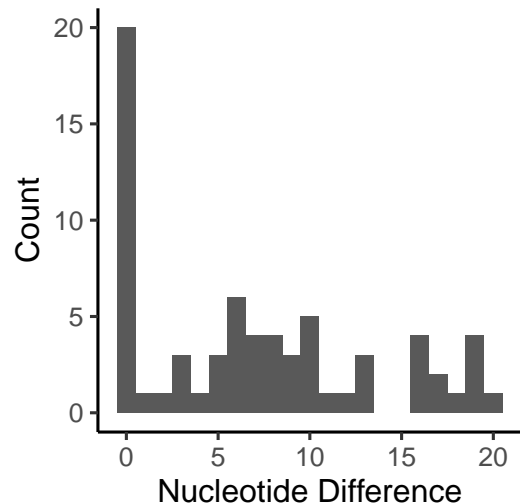
IGHV3-72*01

488 sequences assigned
54 (11.1%) exact matches, in which:
51 unique CDR3
5 unique J



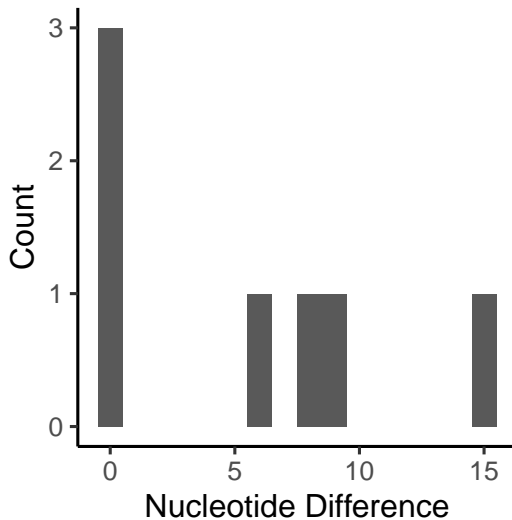
IGHV3-64*02_07

73 sequences assigned
20 (27.4%) exact matches, in which:
19 unique CDR3
4 unique J



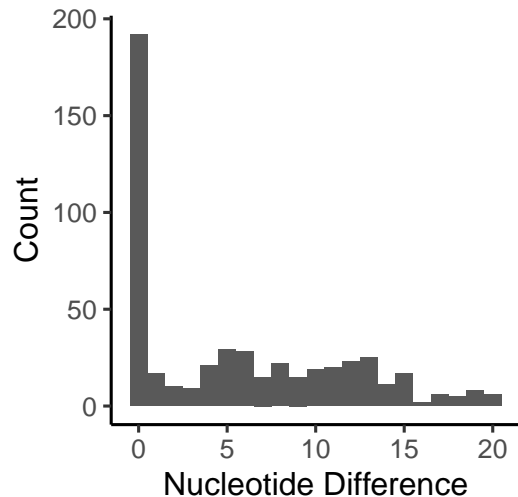
IGHV3-69-1*01

20 sequences assigned
3 (15%) exact matches, in which:
3 unique CDR3
2 unique J



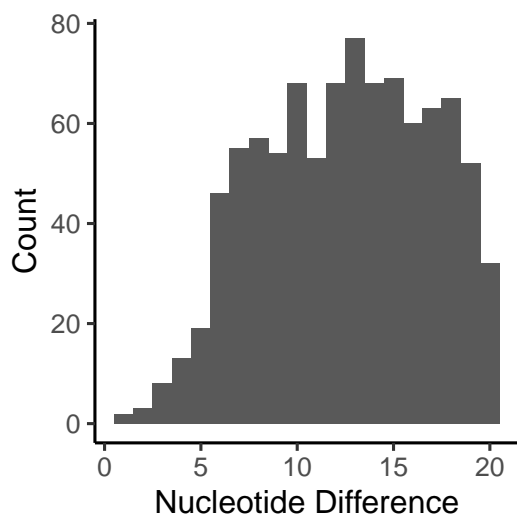
IGHV3-73*01_02

584 sequences assigned
192 (32.9%) exact matches, in which:
190 unique CDR3
6 unique J



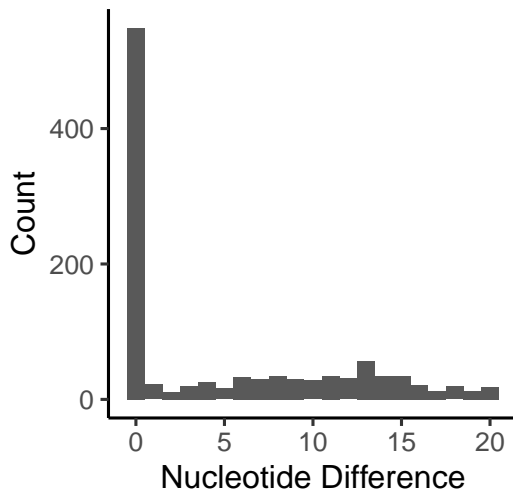
IGHV3-74*03

1147 sequences assigned
No exact matches.



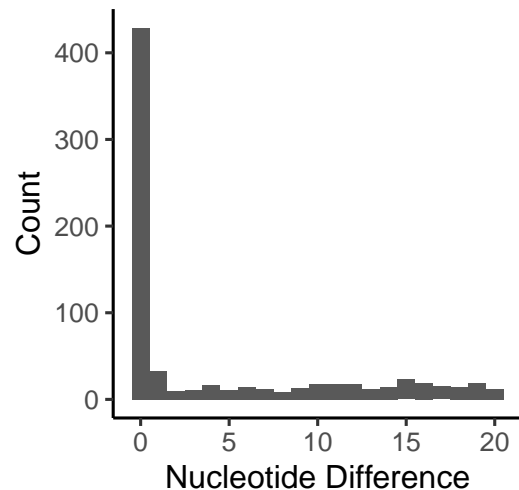
IGHV3-64D*09

1293 sequences assigned
549 (42.5%) exact matches, in which:
535 unique CDR3
6 unique J



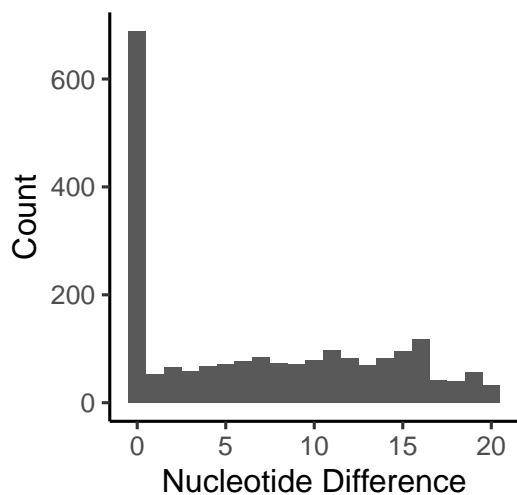
IGHV4-4*02_03

880 sequences assigned
429 (48.8%) exact matches, in which:
422 unique CDR3
6 unique J



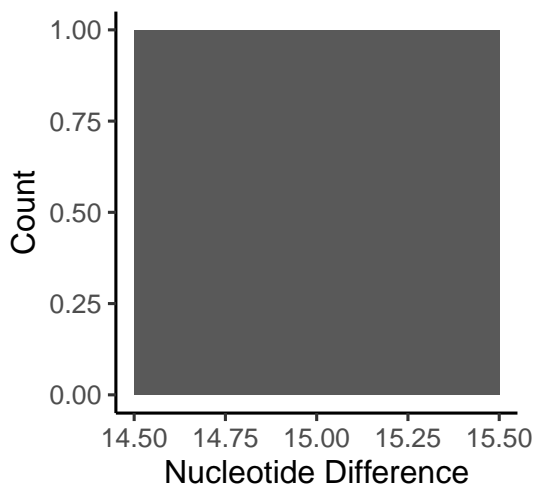
IGHV3-74*01_02

2411 sequences assigned
689 (28.6%) exact matches, in which:
652 unique CDR3
6 unique J



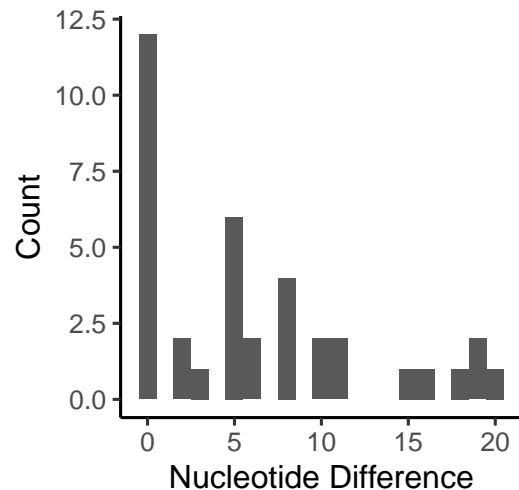
IGHV3-NL1*01

4 sequences assigned
No exact matches.



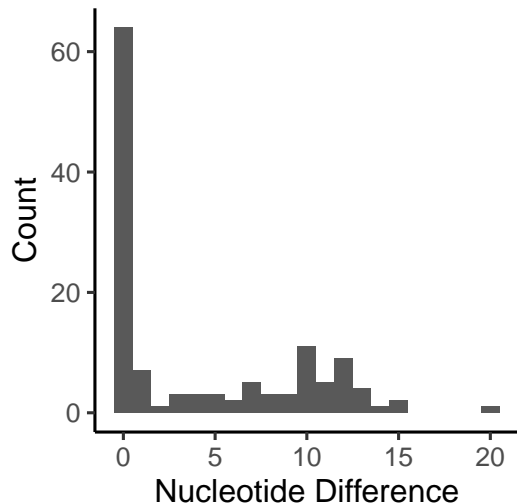
IGHV4-28*01_07

40 sequences assigned
12 (30%) exact matches, in which:
11 unique CDR3
5 unique J



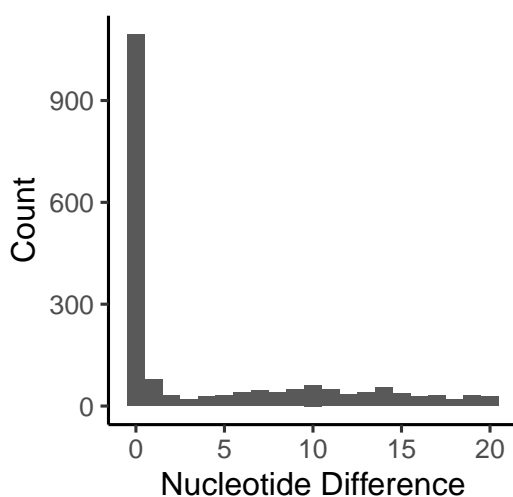
IGHV3-43D*04

139 sequences assigned
64 (46%) exact matches, in which:
62 unique CDR3
6 unique J



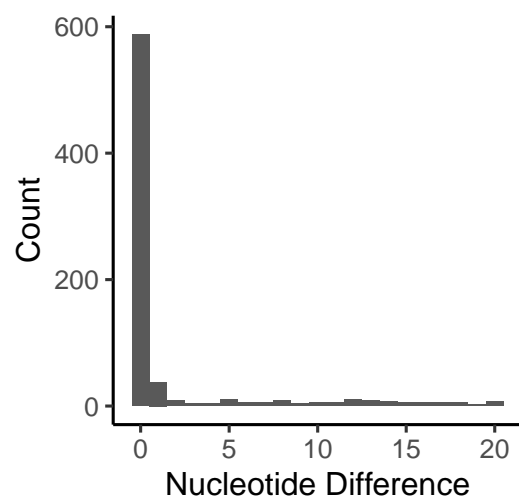
IGHV4-4*07

1997 sequences assigned
1095 (54.8%) exact matches, in which:
1063 unique CDR3
6 unique J



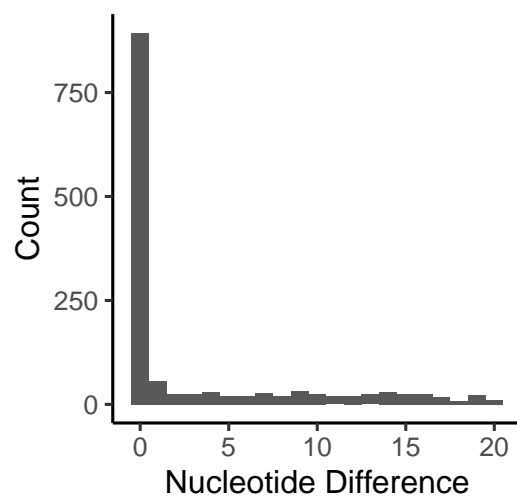
IGHV4-30-2*01

823 sequences assigned
588 (71.4%) exact matches, in which:
571 unique CDR3
6 unique J



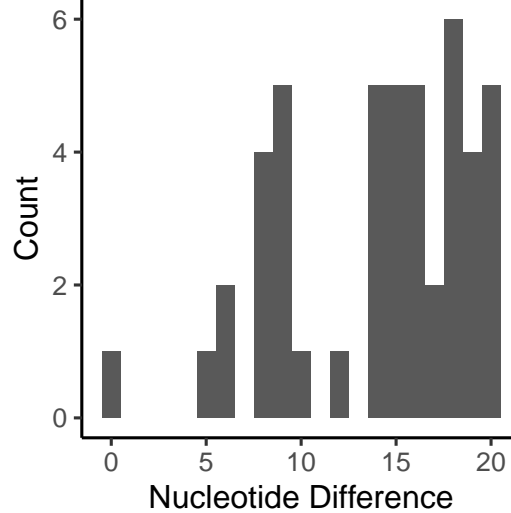
IGHV4-30-4*01

1584 sequences assigned
894 (56.4%) exact matches, in which:
876 unique CDR3
6 unique J



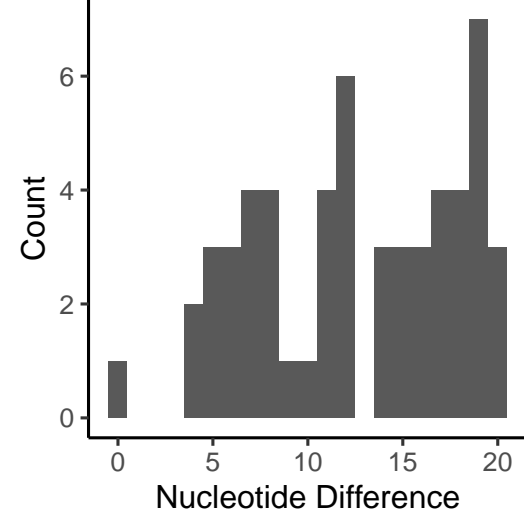
IGHV4-38-2*02

67 sequences assigned
1 (1.5%) exact matches, in which:
1 unique CDR3
1 unique J



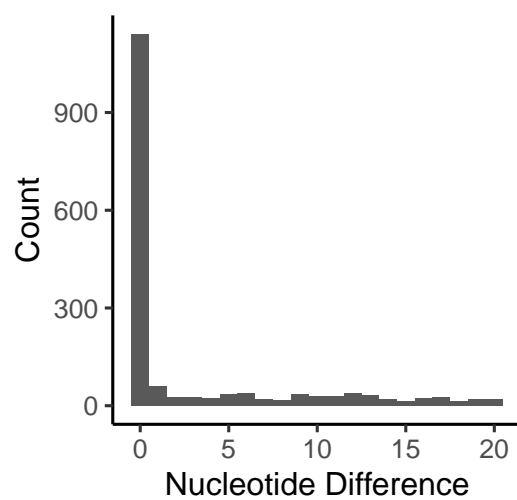
IGHV4-59*02

90 sequences assigned
1 (1.1%) exact matches, in which:
1 unique CDR3
1 unique J



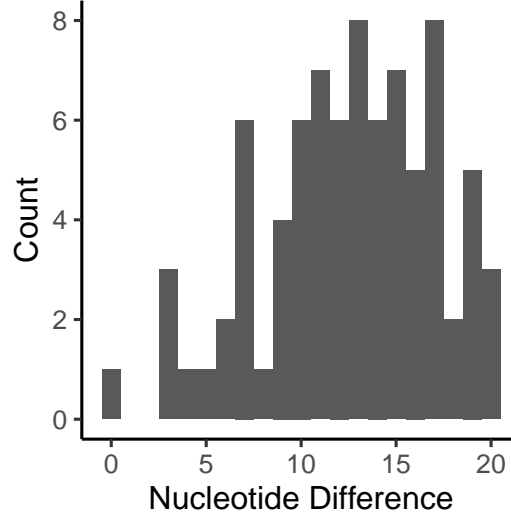
IGHV4-31*02

1934 sequences assigned
1141 (59%) exact matches, in which:
1122 unique CDR3
6 unique J



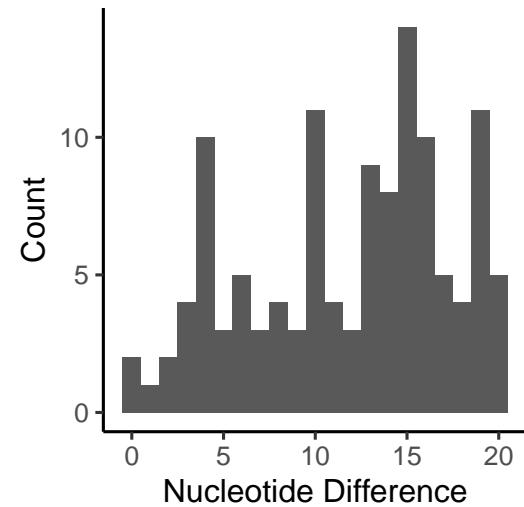
IGHV4-39*02

114 sequences assigned
1 (0.9%) exact matches, in which:
1 unique CDR3
1 unique J



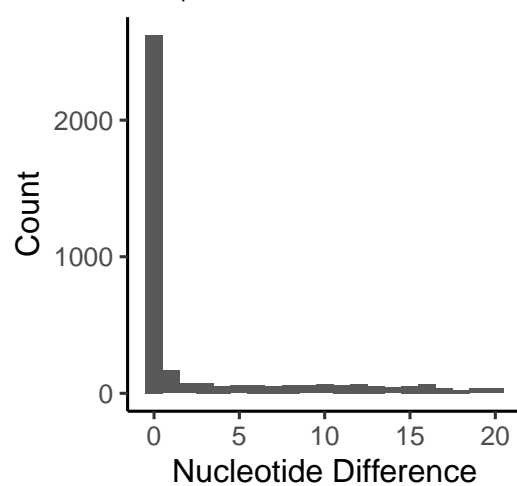
IGHV4-59*11

177 sequences assigned
2 (1.1%) exact matches, in which:
2 unique CDR3
2 unique J



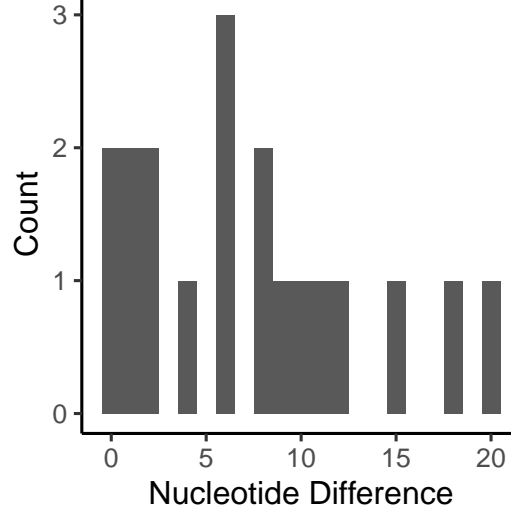
IGHV4-34*01_02

4146 sequences assigned
2623 (63.3%) exact matches, in which:
2531 unique CDR3
6 unique J



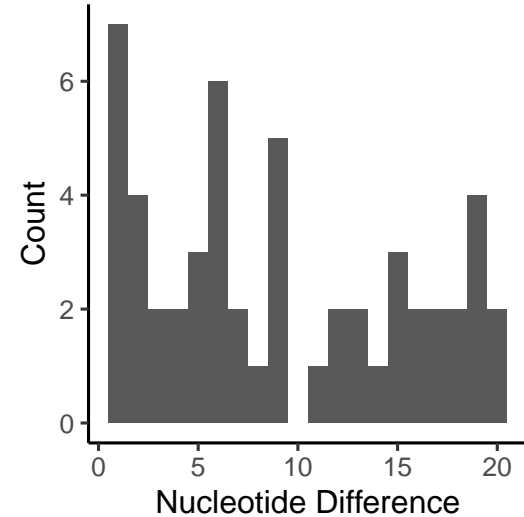
IGHV4-39*07

21 sequences assigned
2 (9.5%) exact matches, in which:
2 unique CDR3
2 unique J



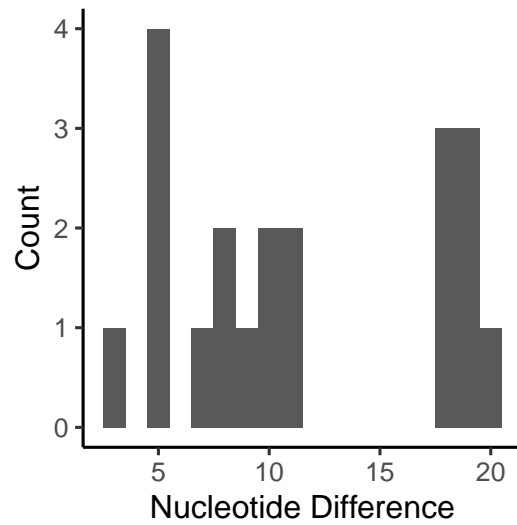
IGHV4-59*12

70 sequences assigned
No exact matches.



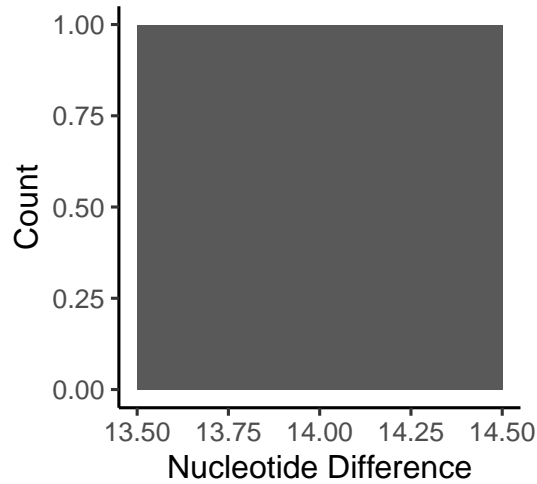
IGHV4–59*13

40 sequences assigned
No exact matches.



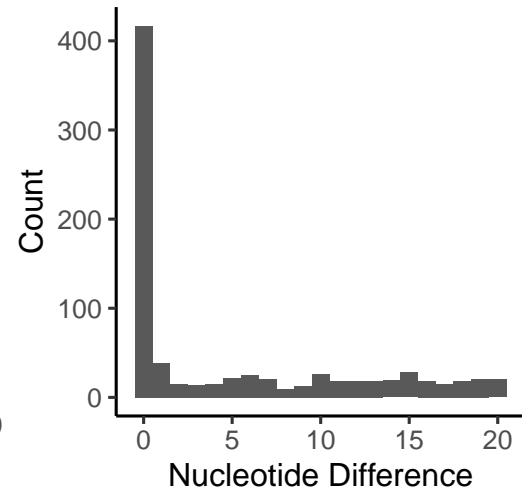
IGHV5–51*04

1 sequences assigned
No exact matches.



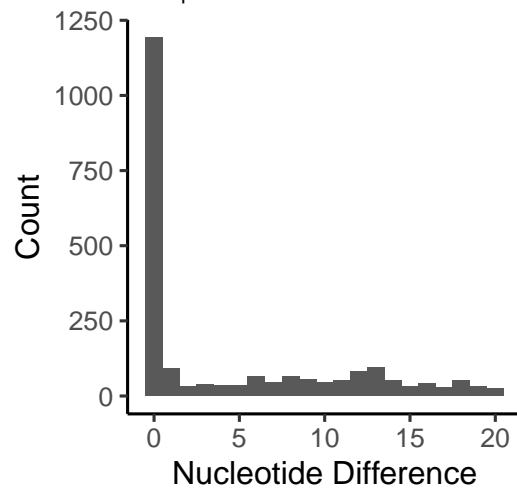
IGHV7–4–1*02

887 sequences assigned
417 (47%) exact matches, in which:
416 unique CDR3
6 unique J



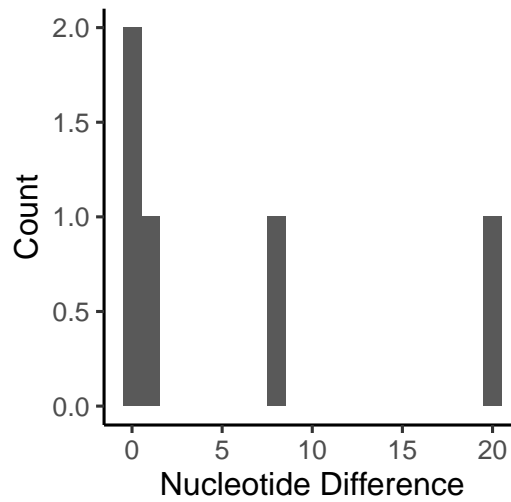
IGHV4–61*01

2455 sequences assigned
1192 (48.6%) exact matches, in which:
1151 unique CDR3
6 unique J



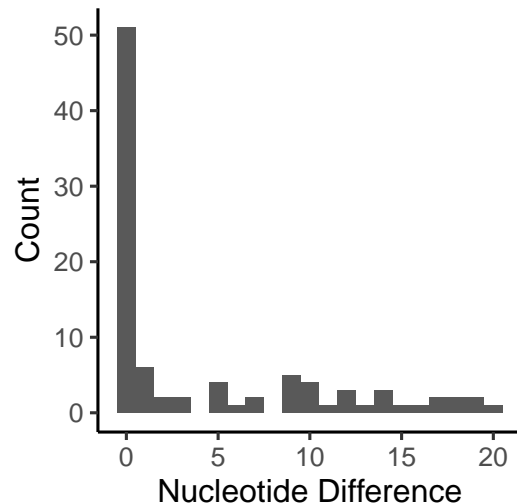
IGHV5–51*07

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



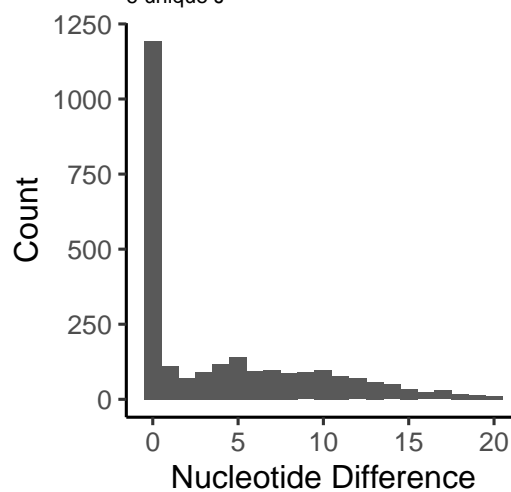
IGHV5–10–1*01_03

118 sequences assigned
51 (43.2%) exact matches, in which:
51 unique CDR3
5 unique J



IGHV6–1*01_02

2621 sequences assigned
1193 (45.5%) exact matches, in which:
1172 unique CDR3
6 unique J





[illegible]