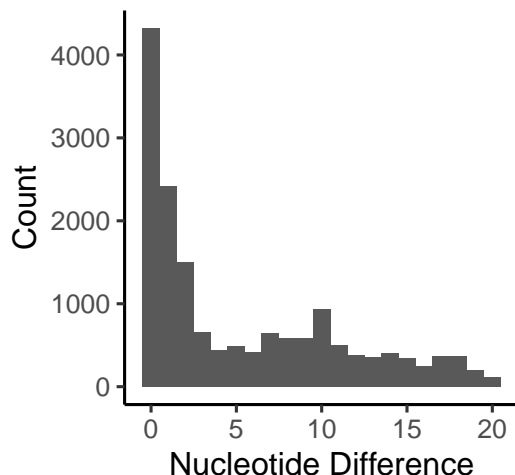


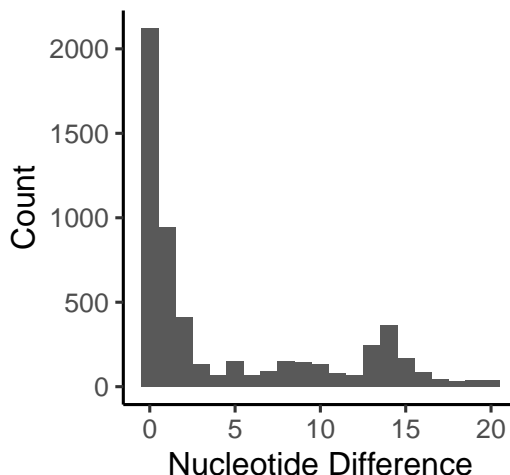
IGHV1-2*02

17192 sequences assigned
4320 (25.1%) exact matches, in which:
4001 unique CDR3
6 unique J



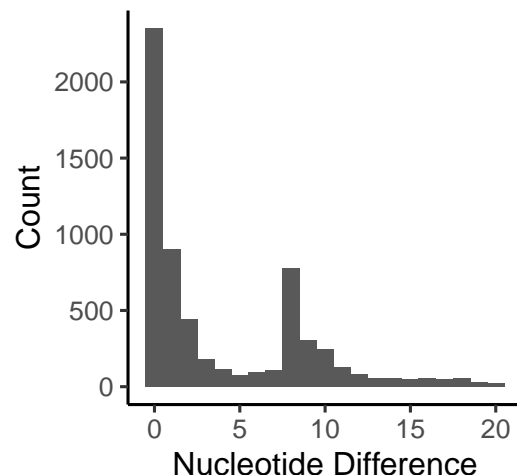
IGHV1-8*01

5675 sequences assigned
2121 (37.4%) exact matches, in which:
2001 unique CDR3
6 unique J



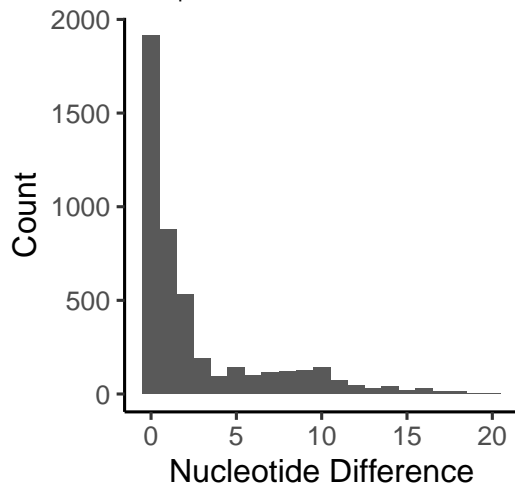
IGHV1-18*04

6498 sequences assigned
2351 (36.2%) exact matches, in which:
2241 unique CDR3
6 unique J



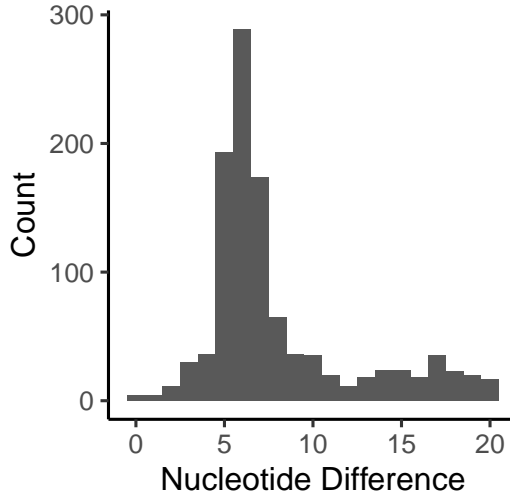
IGHV1-2*04

4783 sequences assigned
1913 (40%) exact matches, in which:
1819 unique CDR3
6 unique J



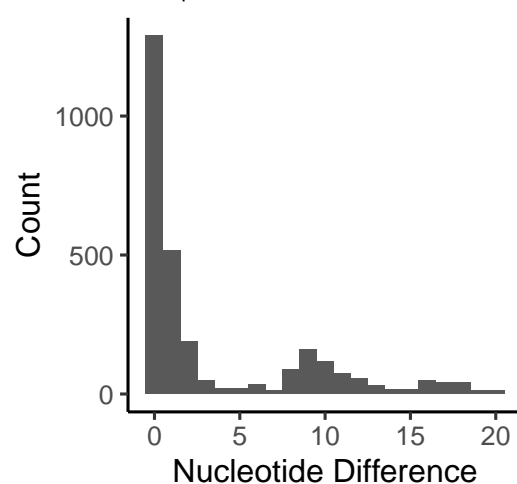
IGHV1-8*02

1139 sequences assigned
4 (0.4%) exact matches, in which:
4 unique CDR3
3 unique J



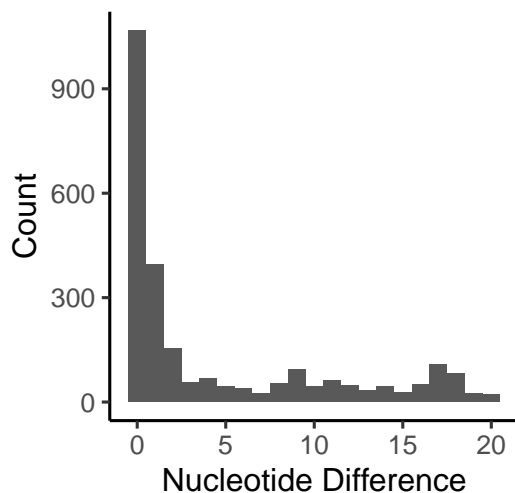
IGHV1-24*01

2993 sequences assigned
1289 (43.1%) exact matches, in which:
1226 unique CDR3
6 unique J



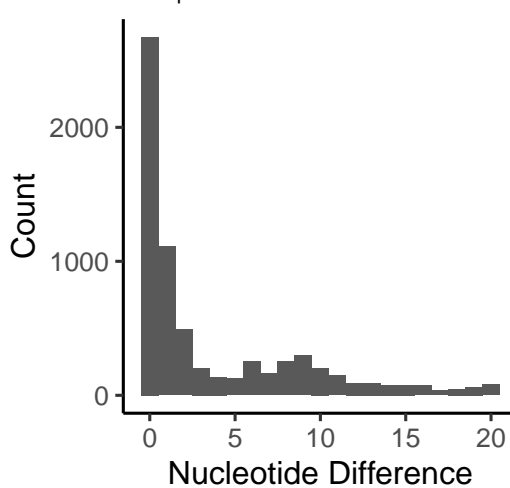
IGHV1-3*01_05

2783 sequences assigned
1068 (38.4%) exact matches, in which:
1003 unique CDR3
6 unique J



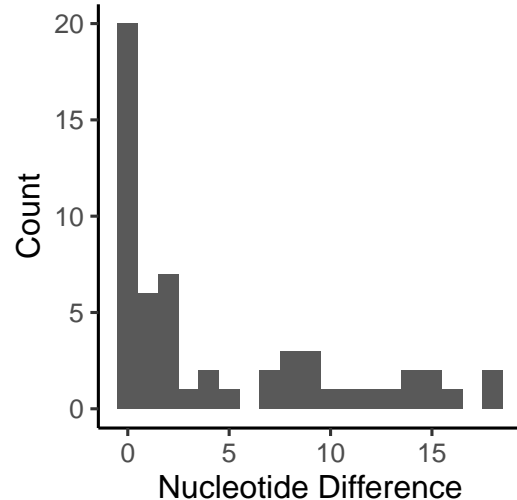
IGHV1-18*01

7563 sequences assigned
2674 (35.4%) exact matches, in which:
2567 unique CDR3
6 unique J



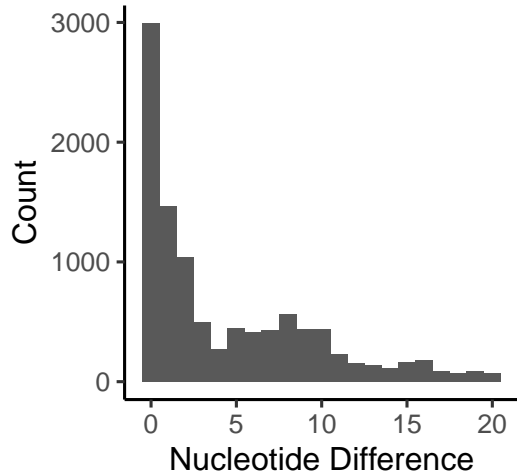
IGHV1-45*02

58 sequences assigned
20 (34.5%) exact matches, in which:
19 unique CDR3
4 unique J



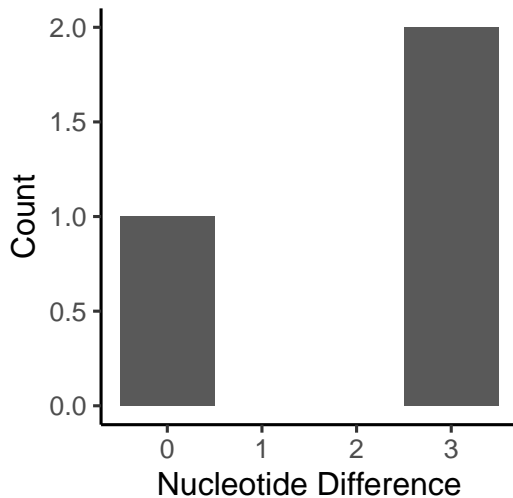
IGHV1-46*01

11120 sequences assigned
2992 (26.9%) exact matches, in which:
2844 unique CDR3
6 unique J



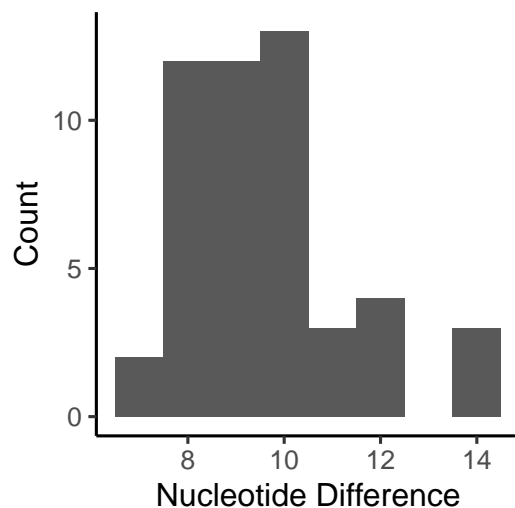
IGHV1-68*01

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



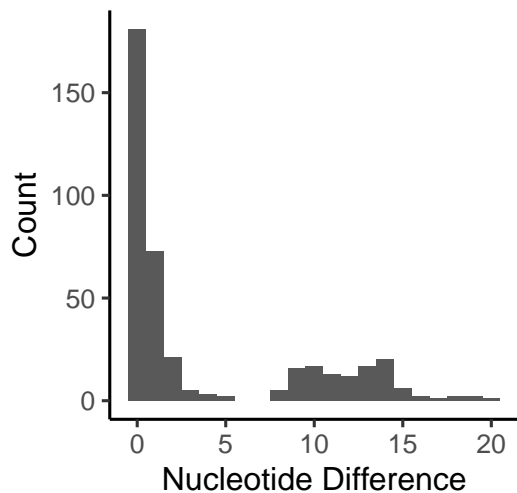
IGHV1-NL1*01

49 sequences assigned
No exact matches.



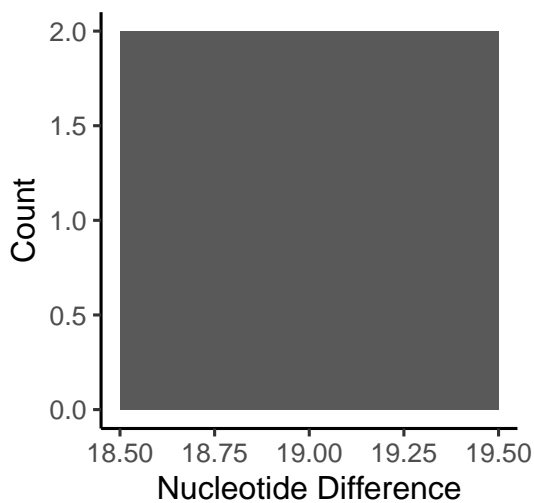
IGHV1-58*02

411 sequences assigned
181 (44%) exact matches, in which:
174 unique CDR3
6 unique J



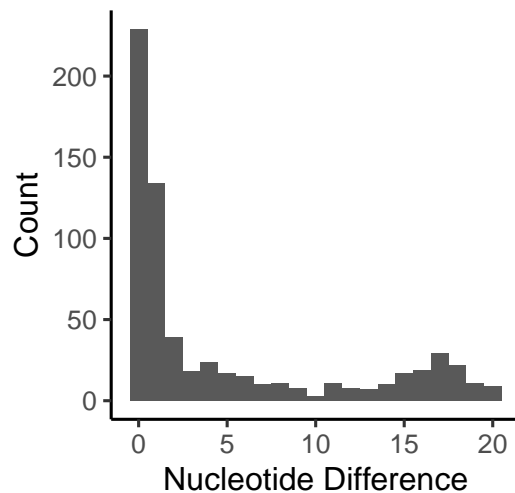
IGHV1-69-2*01

2 sequences assigned
No exact matches.



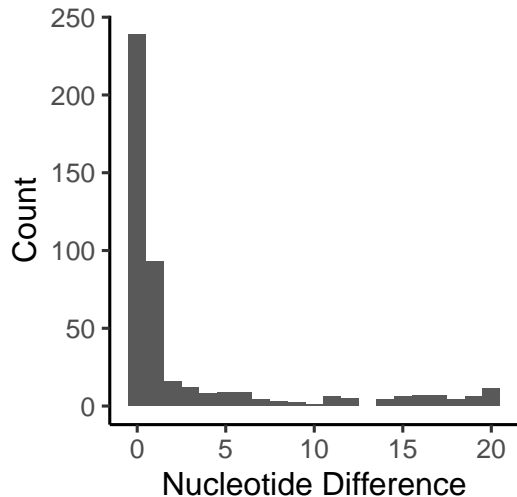
IGHV2-5*01

713 sequences assigned
229 (32.1%) exact matches, in which:
215 unique CDR3
6 unique J



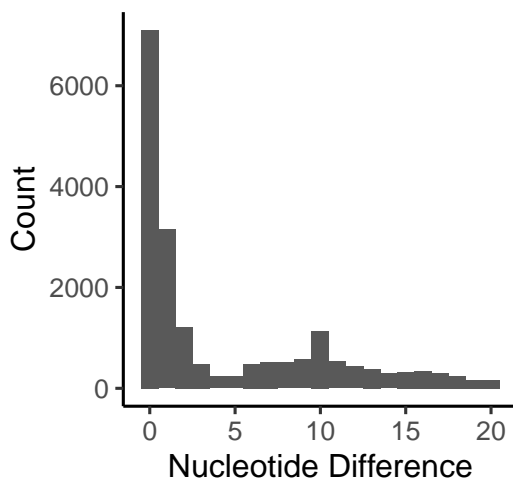
IGHV1-58*01_03

480 sequences assigned
239 (49.8%) exact matches, in which:
230 unique CDR3
5 unique J



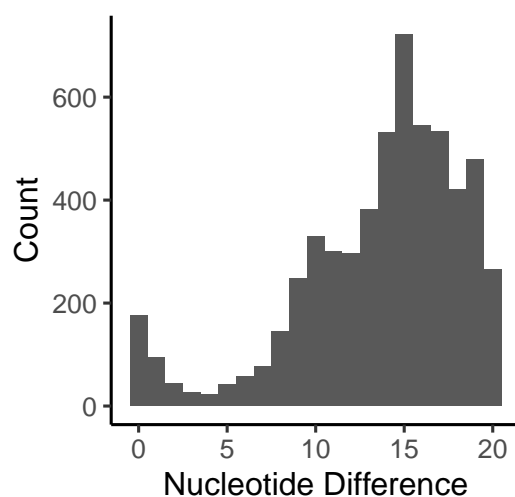
IGHV1-69*01_12_13

22032 sequences assigned
7104 (32.2%) exact matches, in which:
6725 unique CDR3
6 unique J



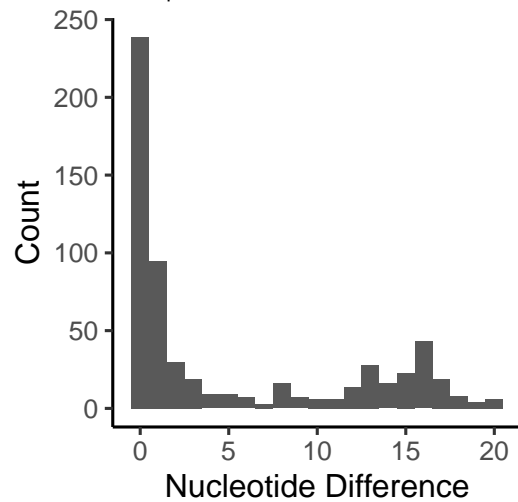
IGHV2-5*02

6988 sequences assigned
175 (2.5%) exact matches, in which:
165 unique CDR3
6 unique J



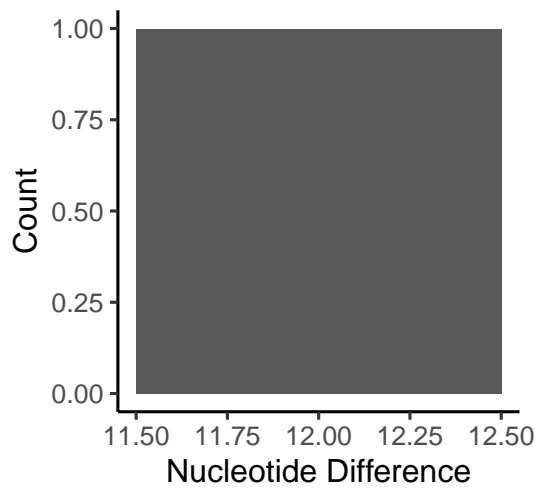
IGHV2-26*01

634 sequences assigned
239 (37.7%) exact matches, in which:
223 unique CDR3
5 unique J



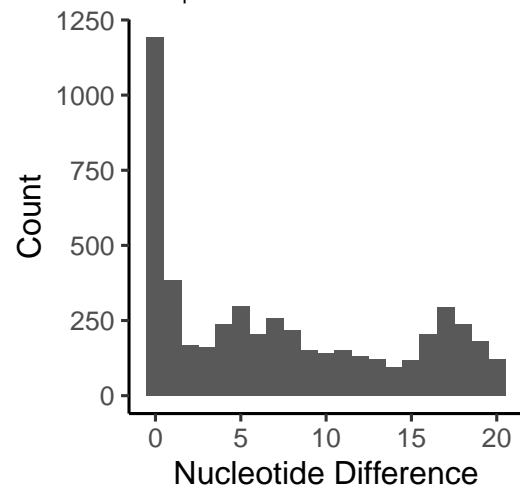
IGHV2-70D*04

1 sequences assigned
No exact matches.



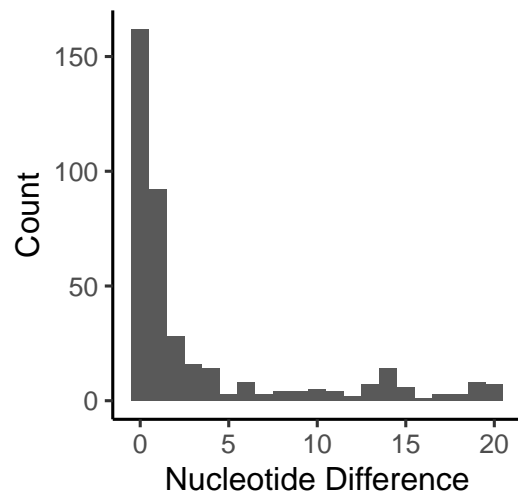
IGHV3-9*01

6052 sequences assigned
1192 (19.7%) exact matches, in which:
975 unique CDR3
6 unique J



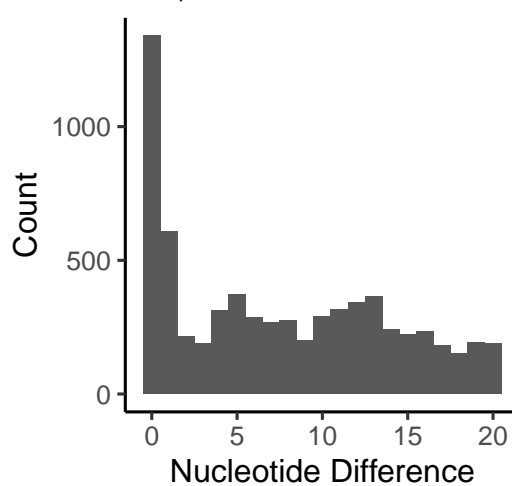
IGHV2-70*01

411 sequences assigned
162 (39.4%) exact matches, in which:
149 unique CDR3
5 unique J



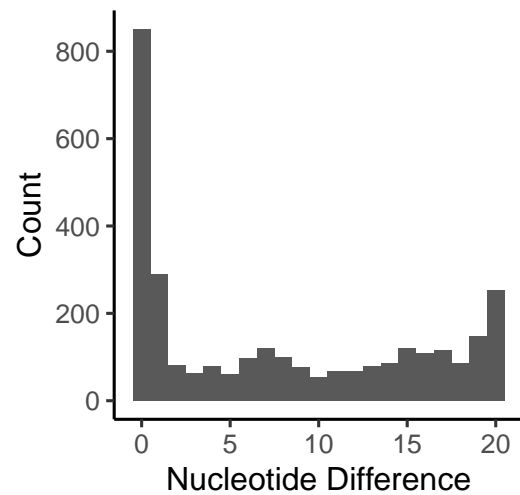
IGHV3-7*01

7860 sequences assigned
1340 (17%) exact matches, in which:
1165 unique CDR3
6 unique J



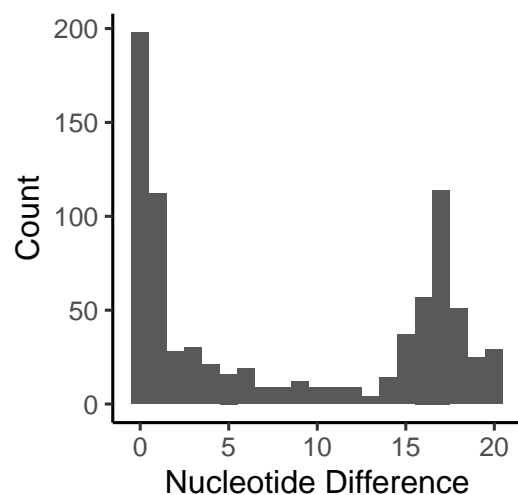
IGHV3-11*01

4238 sequences assigned
851 (20.1%) exact matches, in which:
726 unique CDR3
6 unique J



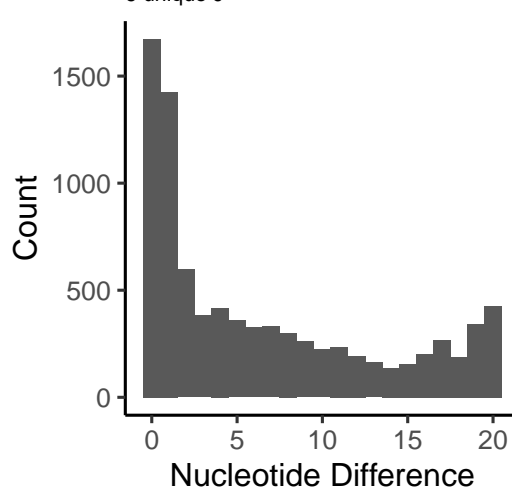
IGHV2-70*11_15

856 sequences assigned
198 (23.1%) exact matches, in which:
193 unique CDR3
6 unique J



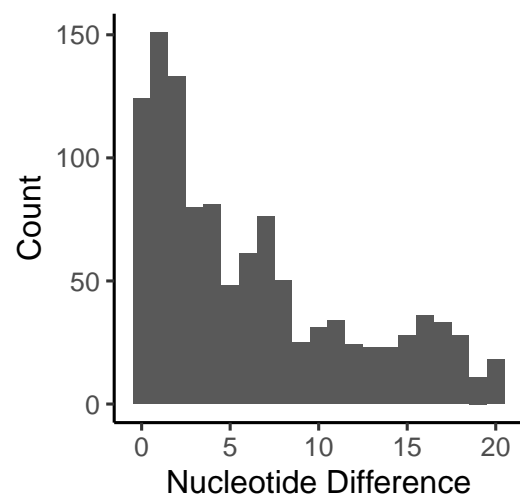
IGHV3-7*03

11269 sequences assigned
1673 (14.8%) exact matches, in which:
1219 unique CDR3
6 unique J



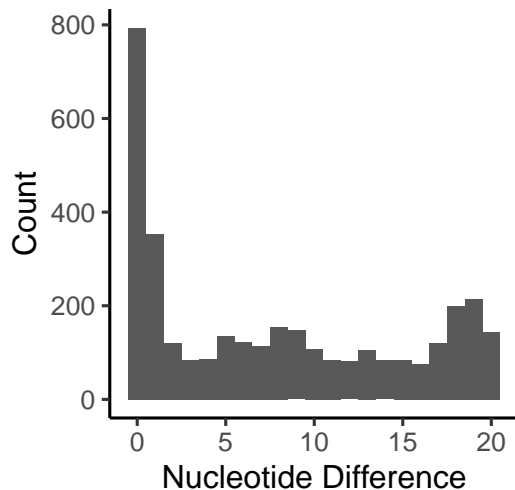
IGHV3-11*04

1222 sequences assigned
124 (10.1%) exact matches, in which:
124 unique CDR3
4 unique J



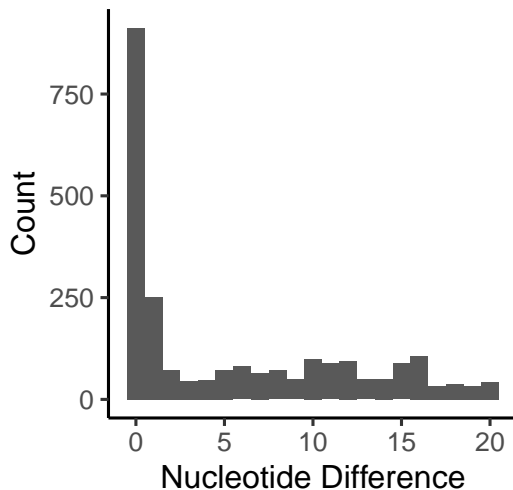
IGHV3-11*06

4363 sequences assigned
794 (18.2%) exact matches, in which:
677 unique CDR3
6 unique J



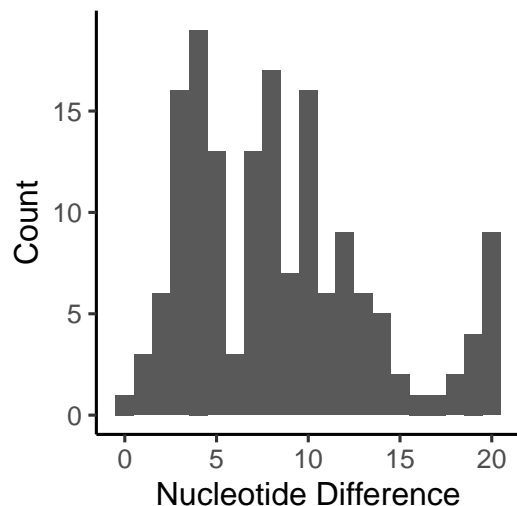
IGHV3-15*01_02

2971 sequences assigned
913 (30.7%) exact matches, in which:
735 unique CDR3
6 unique J



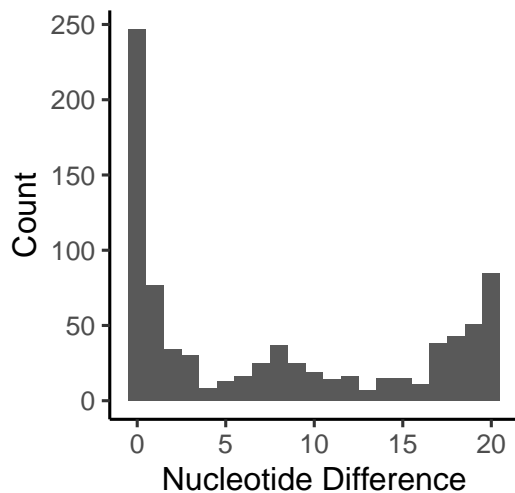
IGHV3-20*03_04

180 sequences assigned
1 (0.6%) exact matches, in which:
1 unique CDR3
1 unique J



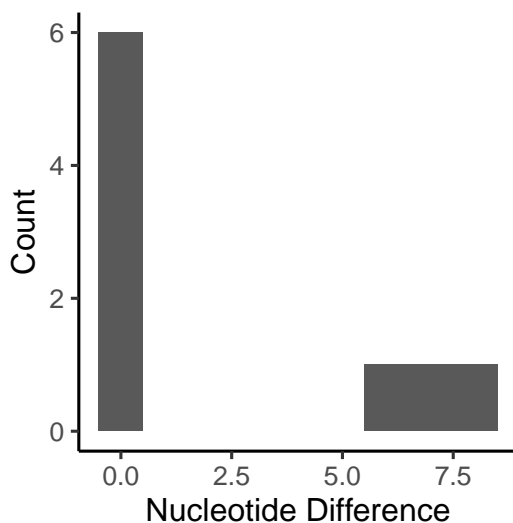
IGHV3-13*01

1116 sequences assigned
247 (22.1%) exact matches, in which:
210 unique CDR3
5 unique J



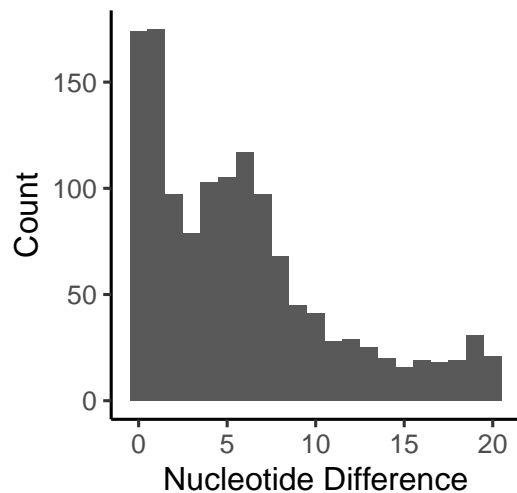
IGHV3-19*01

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



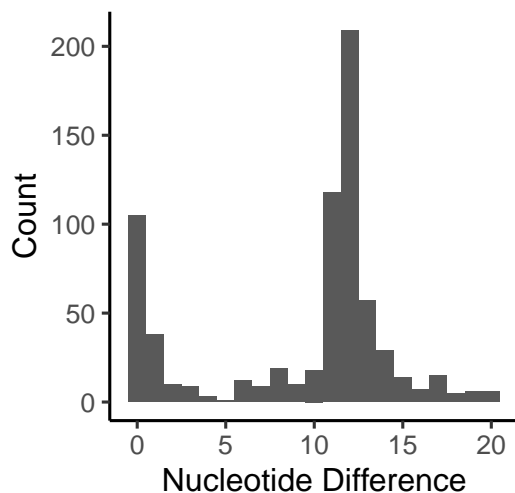
IGHV3-21*04

1530 sequences assigned
174 (11.4%) exact matches, in which:
171 unique CDR3
6 unique J



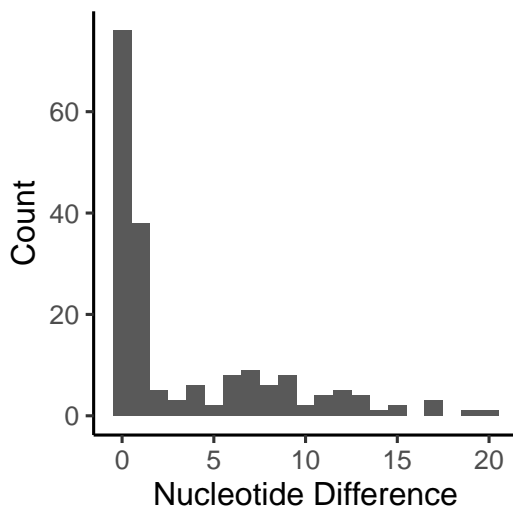
IGHV3-13*05

714 sequences assigned
105 (14.7%) exact matches, in which:
88 unique CDR3
5 unique J



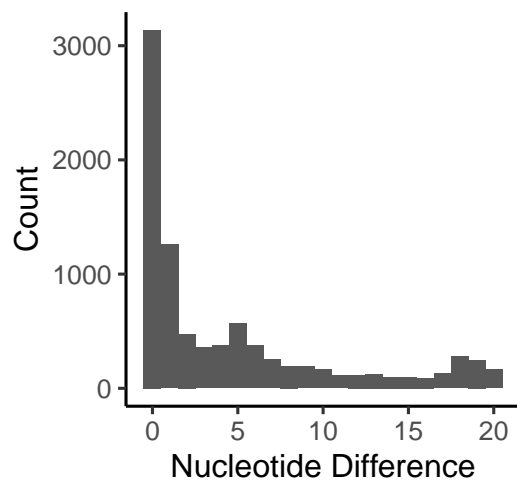
IGHV3-20*01_02

186 sequences assigned
76 (40.9%) exact matches, in which:
60 unique CDR3
4 unique J



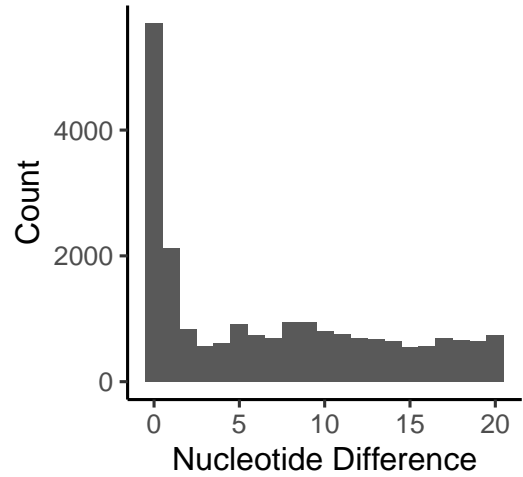
IGHV3-21*01_02

9952 sequences assigned
3137 (31.5%) exact matches, in which:
2573 unique CDR3
6 unique J



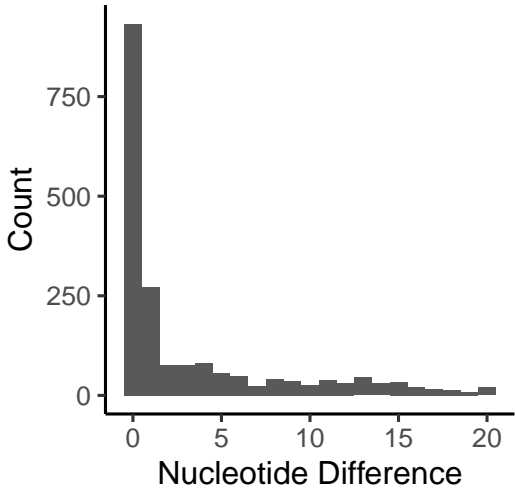
IGHV3-23*01_04

28496 sequences assigned
5696 (20%) exact matches, in which:
4444 unique CDR3
6 unique J



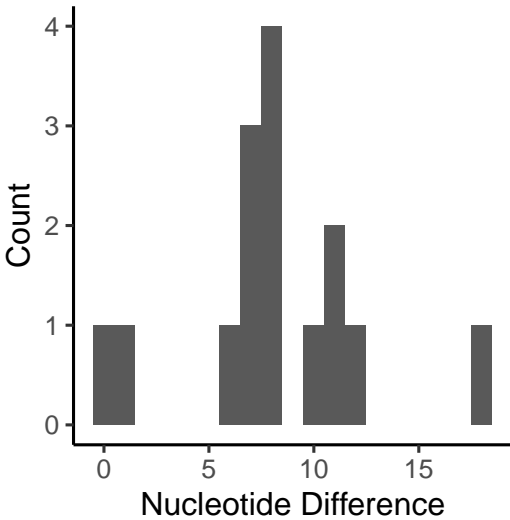
IGHV3-33*01

2184 sequences assigned
933 (42.7%) exact matches, in which:
806 unique CDR3
6 unique J



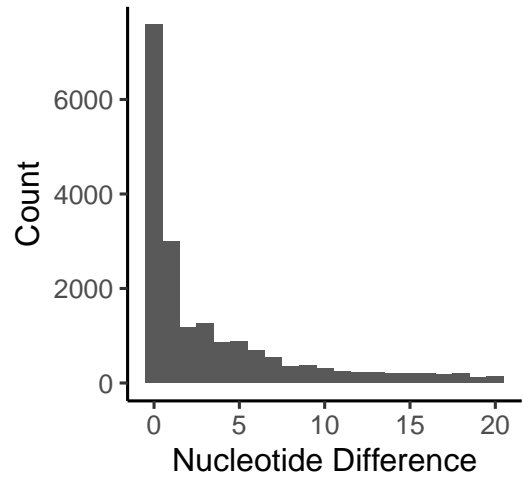
IGHV3-35*01

15 sequences assigned
1 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J



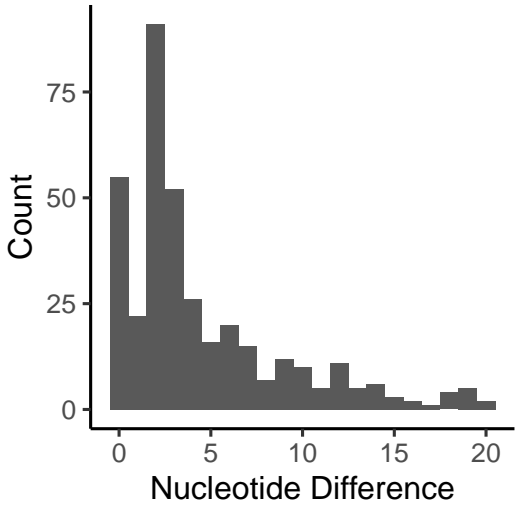
IGHV3-30-3*01

33457 sequences assigned
7582 (22.7%) exact matches, in which:
6254 unique CDR3
6 unique J



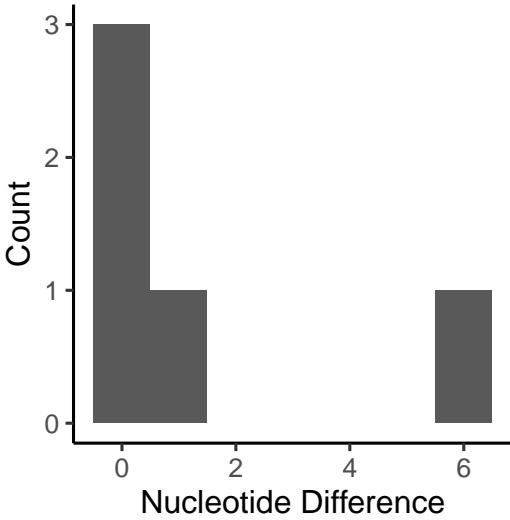
IGHV3-33*06

410 sequences assigned
55 (13.4%) exact matches, in which:
54 unique CDR3
4 unique J



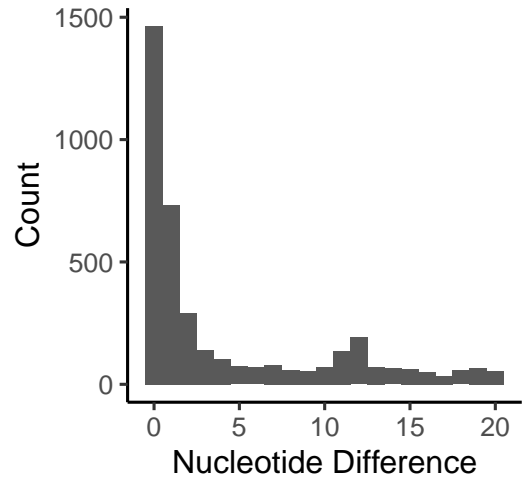
IGHV3-35*02

5 sequences assigned
3 (60%) exact matches, in which:
3 unique CDR3
2 unique J



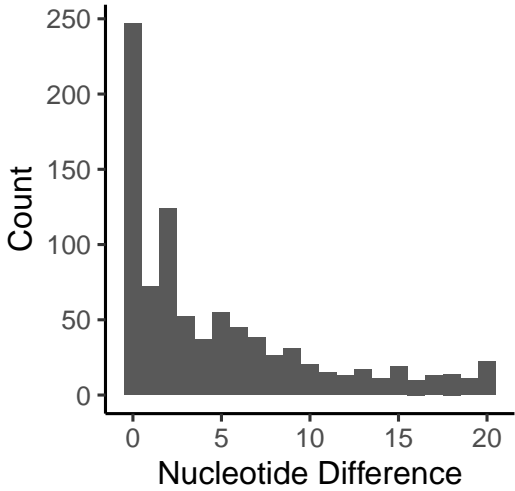
IGHV3-30*03

4480 sequences assigned
1464 (32.7%) exact matches, in which:
1391 unique CDR3
6 unique J



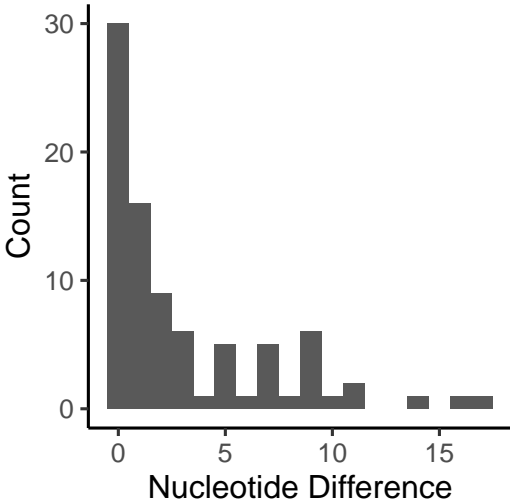
IGHV3-33*08

962 sequences assigned
247 (25.7%) exact matches, in which:
235 unique CDR3
6 unique J



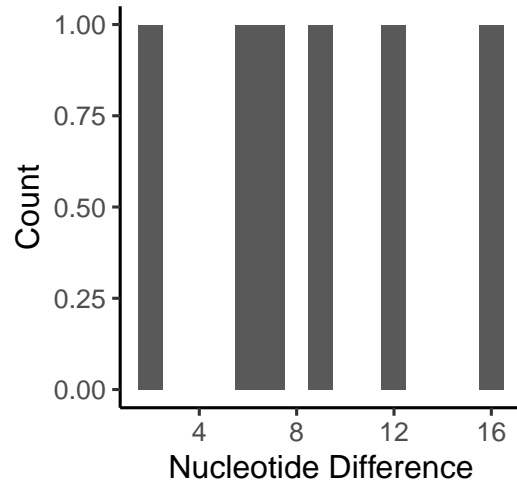
IGHV3-38-3*01

86 sequences assigned
30 (34.9%) exact matches, in which:
30 unique CDR3
3 unique J



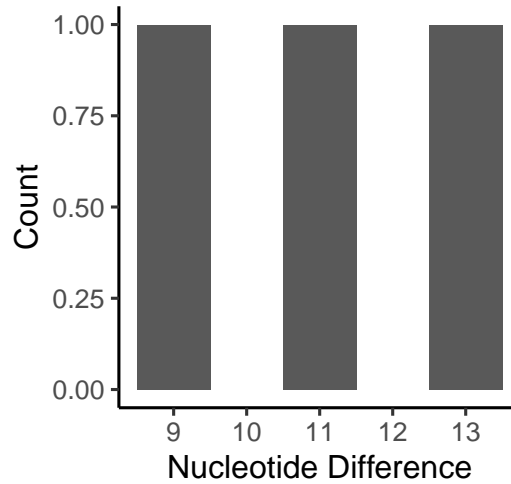
IGHV3-38*02

6 sequences assigned
No exact matches.



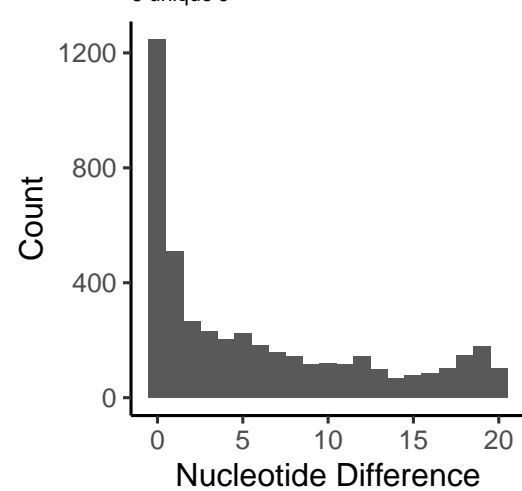
IGHV3-47*02

3 sequences assigned
No exact matches.



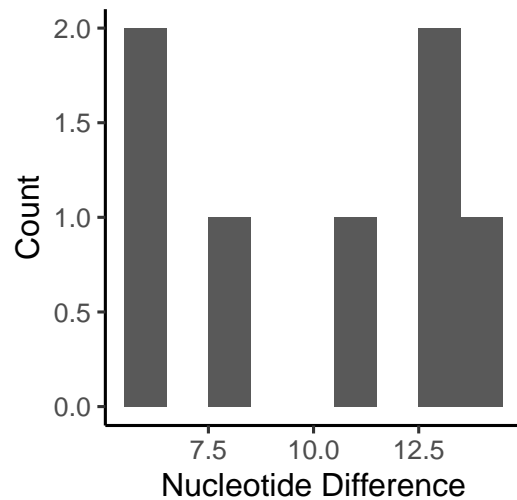
IGHV3-48*04

5750 sequences assigned
1247 (21.7%) exact matches, in which:
1051 unique CDR3
6 unique J



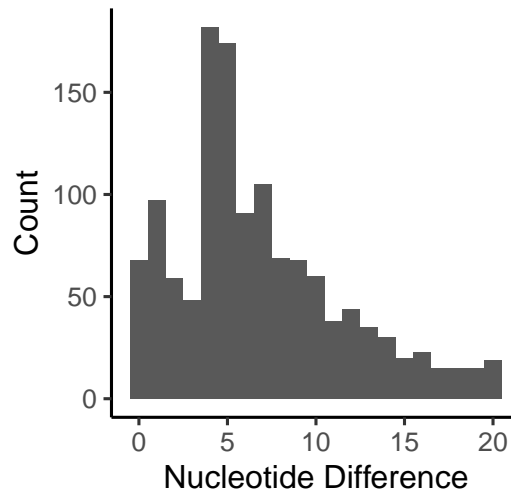
IGHV3-38*03

7 sequences assigned
No exact matches.



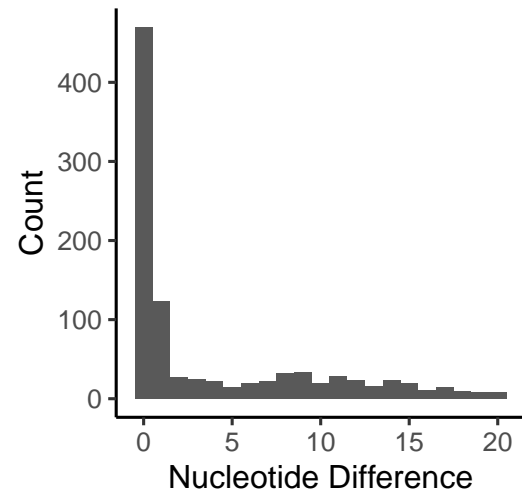
IGHV3-48*01

1370 sequences assigned
68 (5%) exact matches, in which:
68 unique CDR3
5 unique J



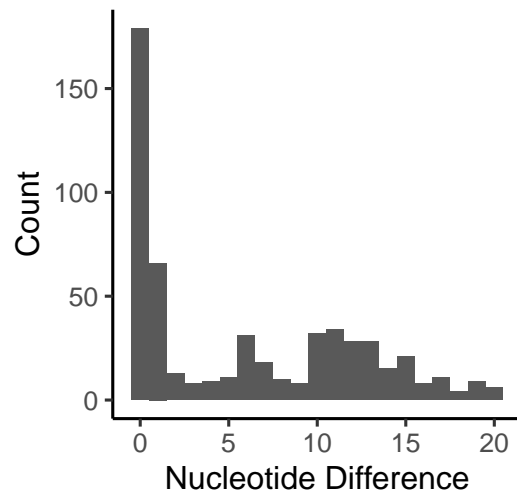
IGHV3-49*03_05

1077 sequences assigned
470 (43.6%) exact matches, in which:
395 unique CDR3
6 unique J



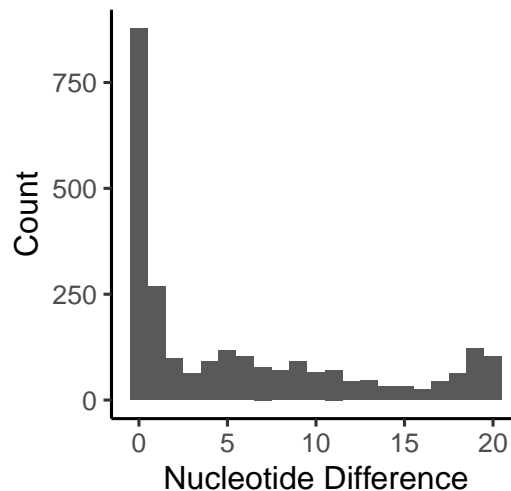
IGHV3-43*01

581 sequences assigned
179 (30.8%) exact matches, in which:
151 unique CDR3
5 unique J



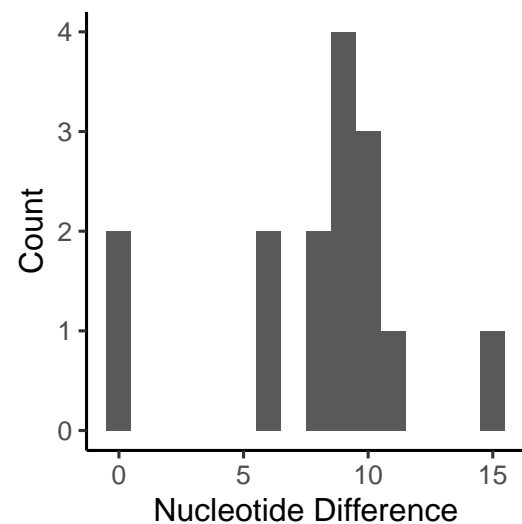
IGHV3-48*02

2813 sequences assigned
878 (31.2%) exact matches, in which:
727 unique CDR3
6 unique J



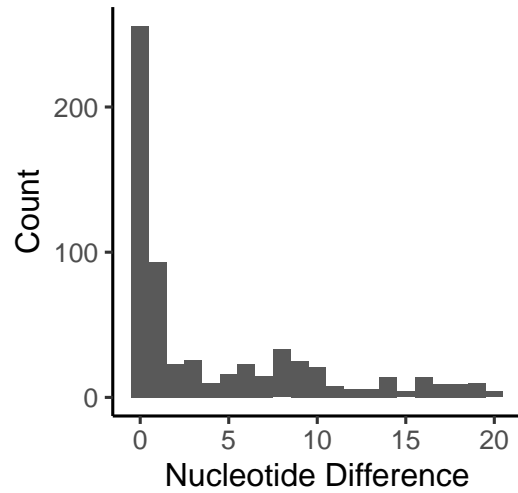
IGHV3-52*01_03

15 sequences assigned
2 (13.3%) exact matches, in which:
2 unique CDR3
1 unique J



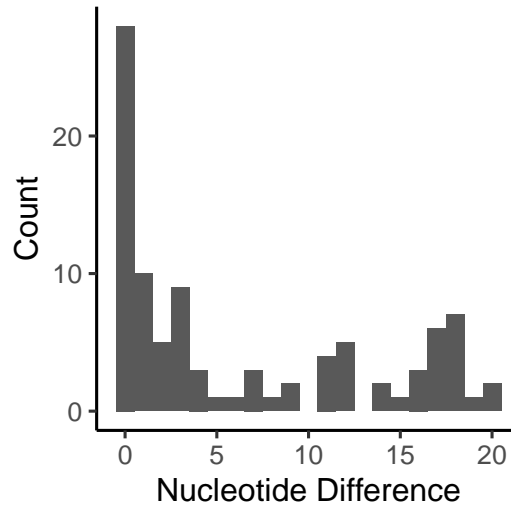
IGHV3-53*04

647 sequences assigned
256 (39.6%) exact matches, in which:
222 unique CDR3
6 unique J



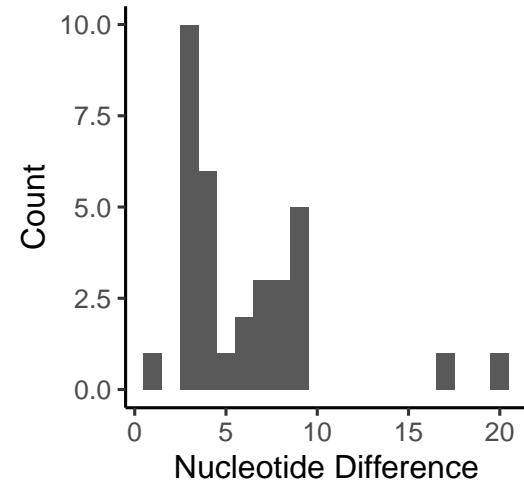
IGHV3-64*02_07

101 sequences assigned
28 (27.7%) exact matches, in which:
21 unique CDR3
4 unique J



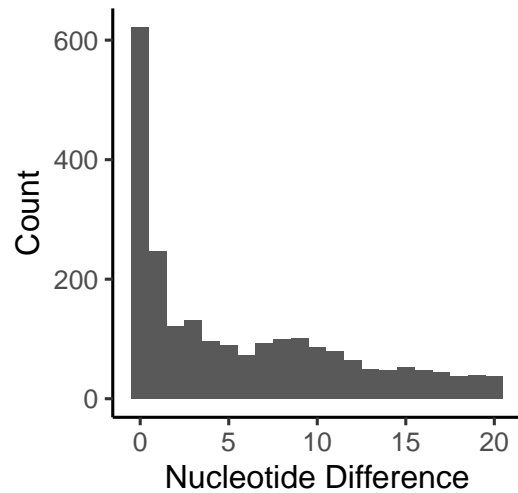
IGHV3-69-1*02

59 sequences assigned
No exact matches.



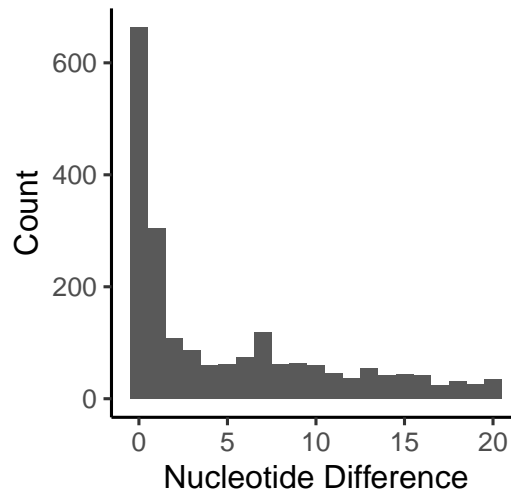
IGHV3-53*01_02

2803 sequences assigned
622 (22.2%) exact matches, in which:
531 unique CDR3
6 unique J



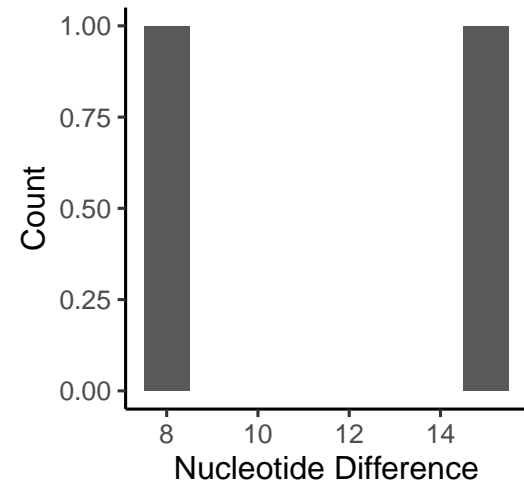
IGHV3-66*01

2757 sequences assigned
664 (24.1%) exact matches, in which:
556 unique CDR3
6 unique J



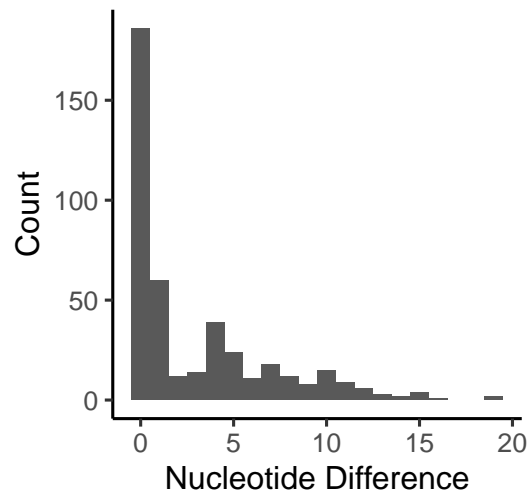
IGHV3-71*03

3 sequences assigned
No exact matches.



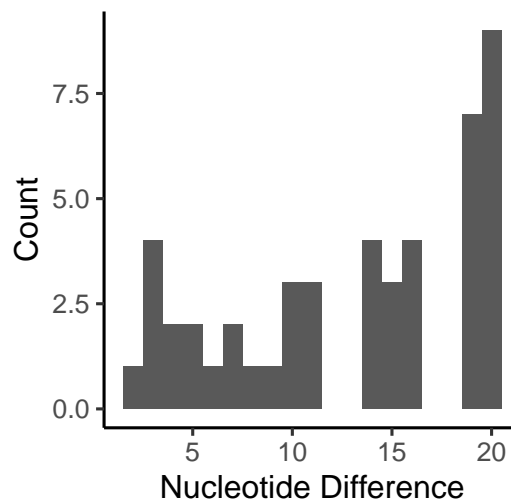
IGHV3-64*01

441 sequences assigned
186 (42.2%) exact matches, in which:
154 unique CDR3
6 unique J



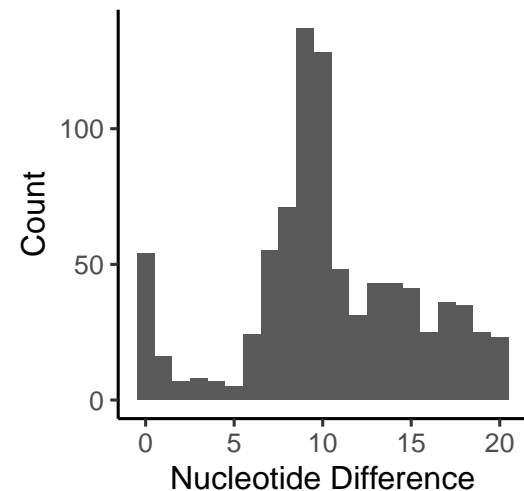
IGHV3-69-1*01

95 sequences assigned
No exact matches.



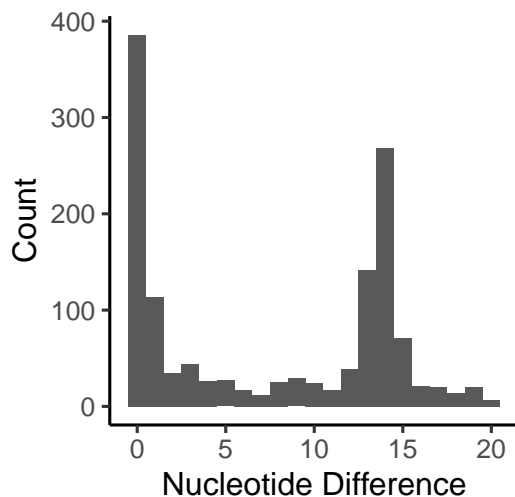
IGHV3-72*01

979 sequences assigned
54 (5.5%) exact matches, in which:
43 unique CDR3
5 unique J



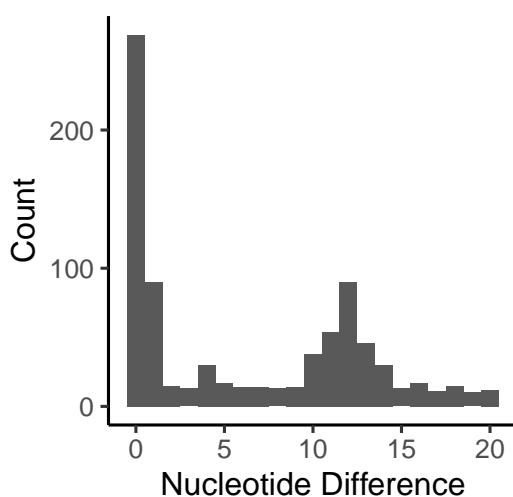
IGHV3-73*01_02

1412 sequences assigned
386 (27.3%) exact matches, in which:
335 unique CDR3
6 unique J



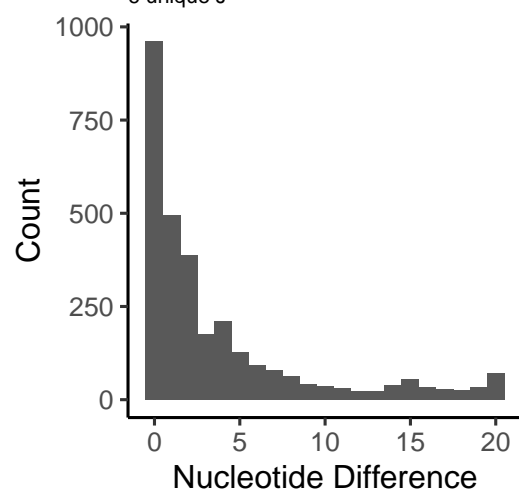
IGHV3-43D*03

880 sequences assigned
269 (30.6%) exact matches, in which:
217 unique CDR3
6 unique J



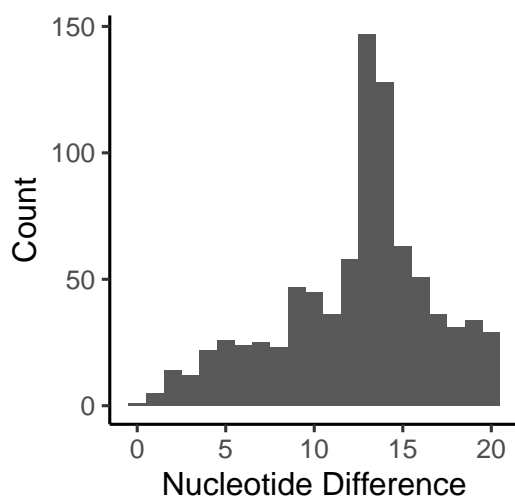
IGHV4-4*07

3801 sequences assigned
961 (25.3%) exact matches, in which:
924 unique CDR3
6 unique J



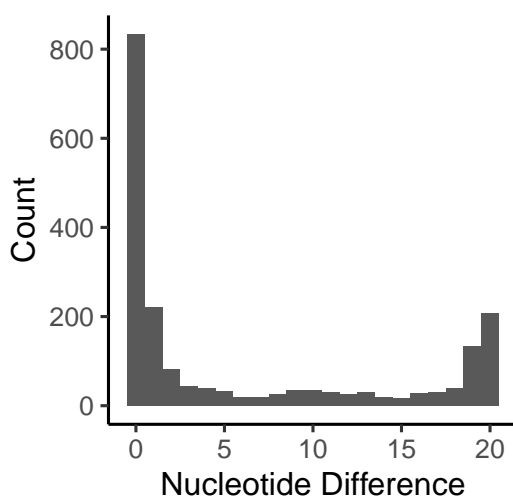
IGHV3-74*03

1216 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



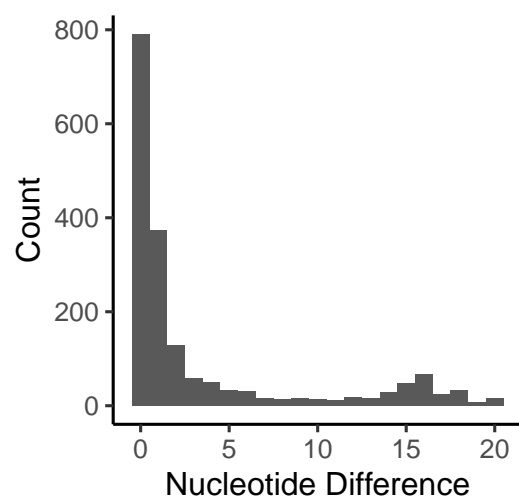
IGHV3-64D*06

2148 sequences assigned
834 (38.8%) exact matches, in which:
645 unique CDR3
6 unique J



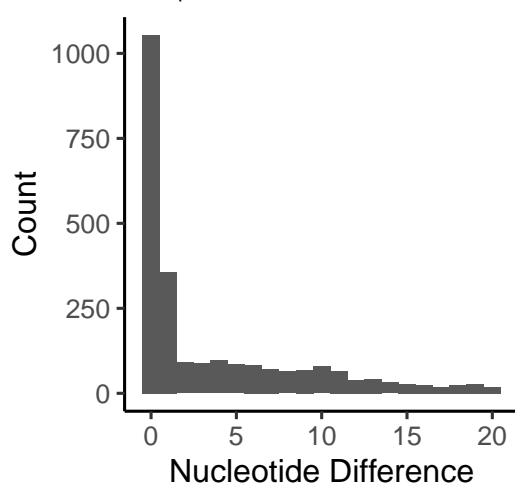
IGHV4-4*02_03

2546 sequences assigned
791 (31.1%) exact matches, in which:
724 unique CDR3
6 unique J



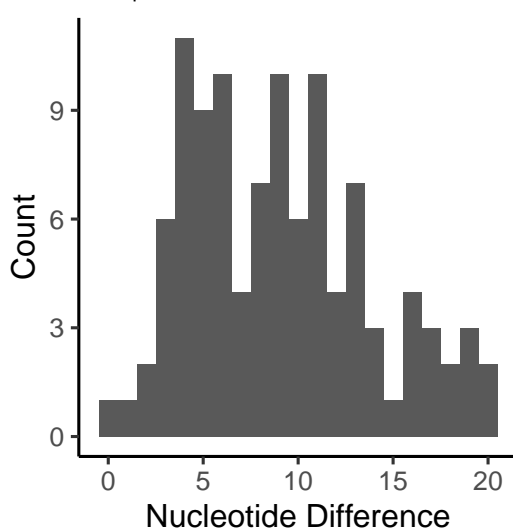
IGHV3-74*01_02

2556 sequences assigned
1054 (41.2%) exact matches, in which:
855 unique CDR3
6 unique J



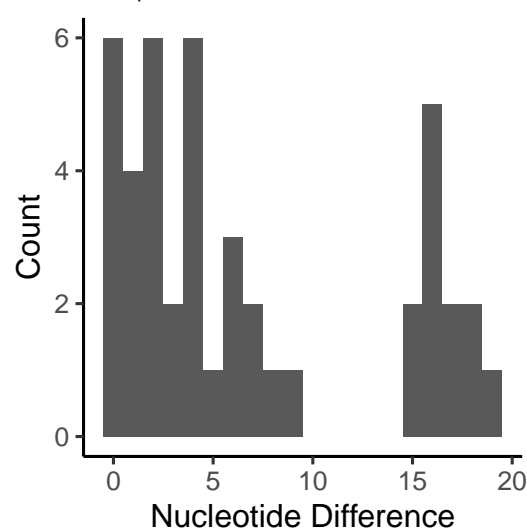
IGHV3-NL1*01

133 sequences assigned
1 (0.8%) exact matches, in which:
1 unique CDR3
1 unique J



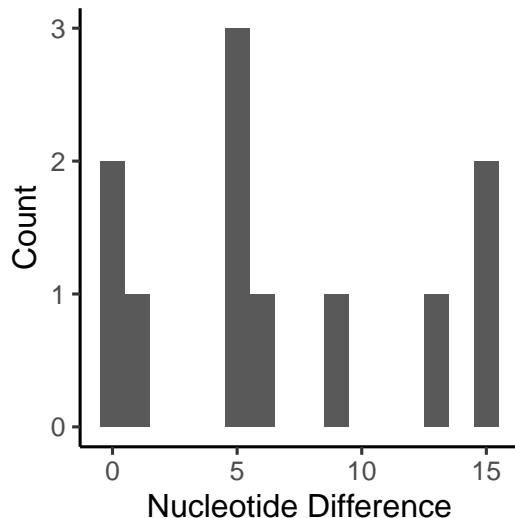
IGHV4-28*03

59 sequences assigned
6 (10.2%) exact matches, in which:
5 unique CDR3
3 unique J



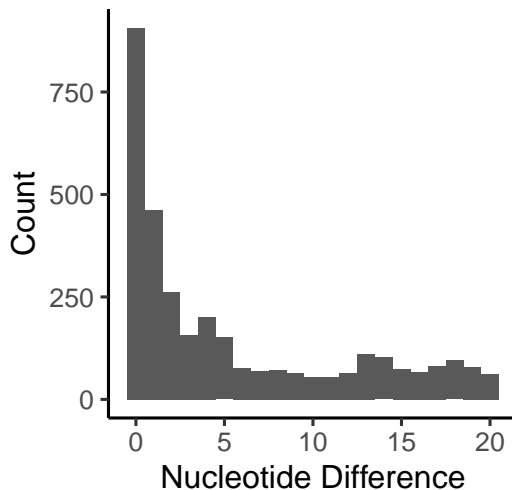
IGHV4-28*01_07

12 sequences assigned
2 (16.7%) exact matches, in which:
2 unique CDR3
2 unique J



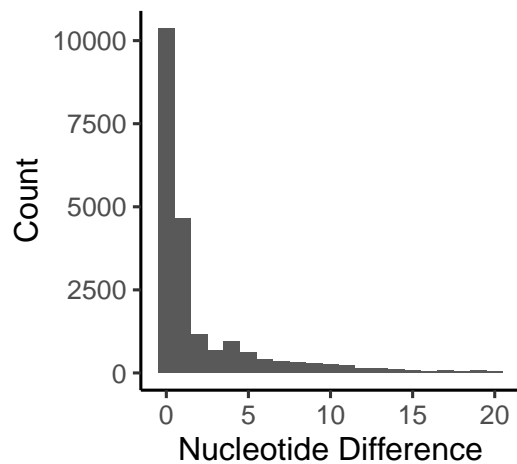
IGHV4-30-2*01

3428 sequences assigned
907 (26.5%) exact matches, in which:
828 unique CDR3
6 unique J



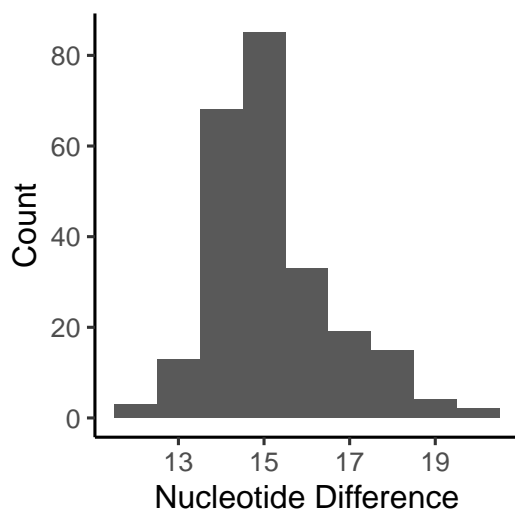
IGHV4-34*01_02

22333 sequences assigned
10376 (46.5%) exact matches, in which:
9235 unique CDR3
6 unique J



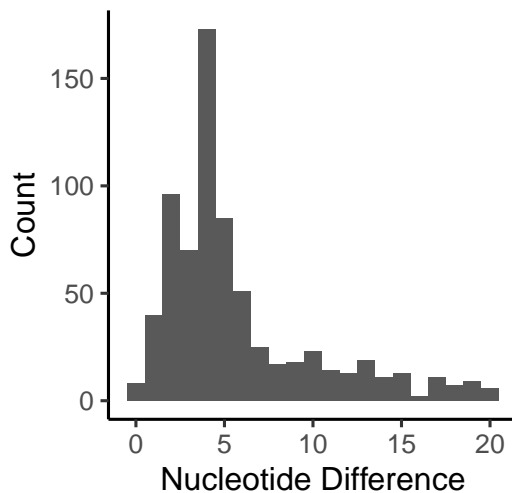
IGHV4-28*02_05

261 sequences assigned
No exact matches.



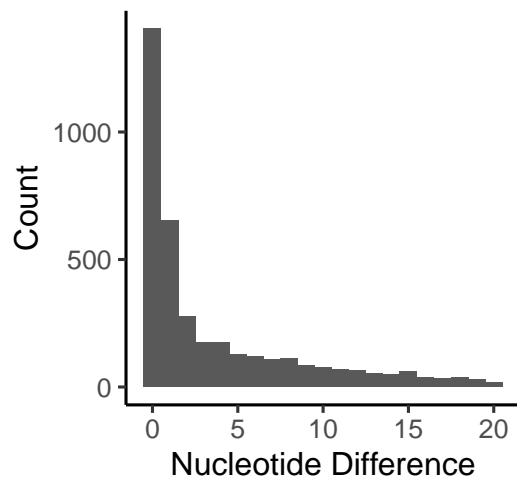
IGHV4-30-4*08

748 sequences assigned
8 (1.1%) exact matches, in which:
8 unique CDR3
4 unique J



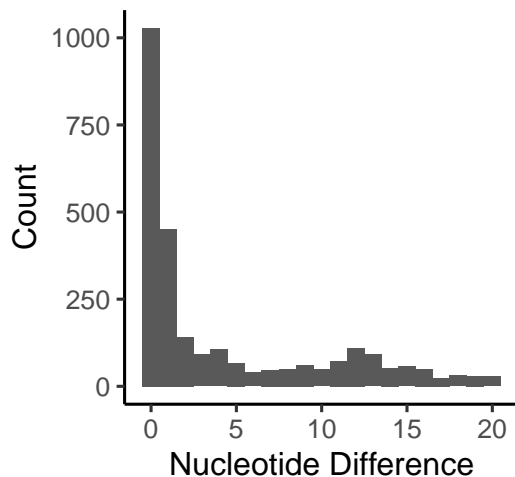
IGHV4-38-2*02

4018 sequences assigned
1405 (35%) exact matches, in which:
1356 unique CDR3
6 unique J



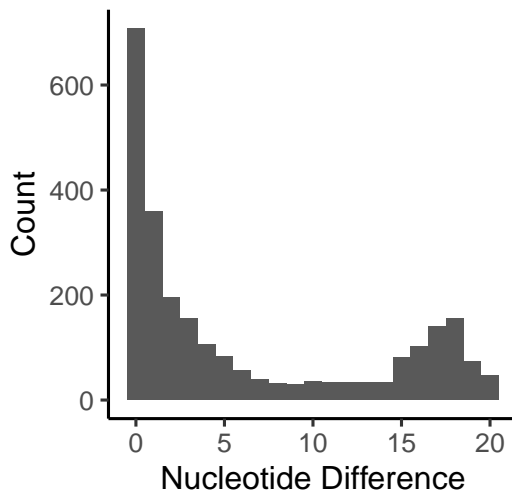
IGHV4-30-4*01

2824 sequences assigned
1028 (36.4%) exact matches, in which:
976 unique CDR3
6 unique J



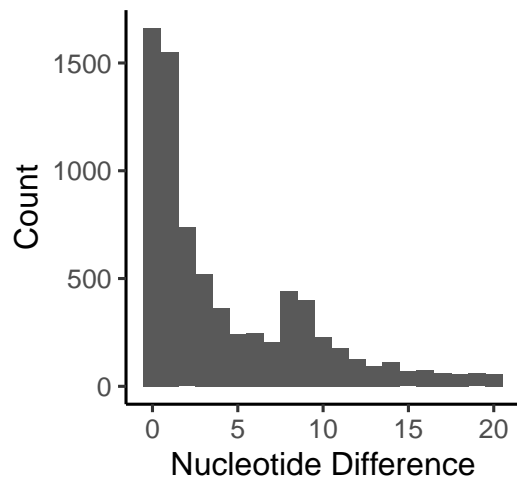
IGHV4-31*02

3812 sequences assigned
708 (18.6%) exact matches, in which:
677 unique CDR3
6 unique J



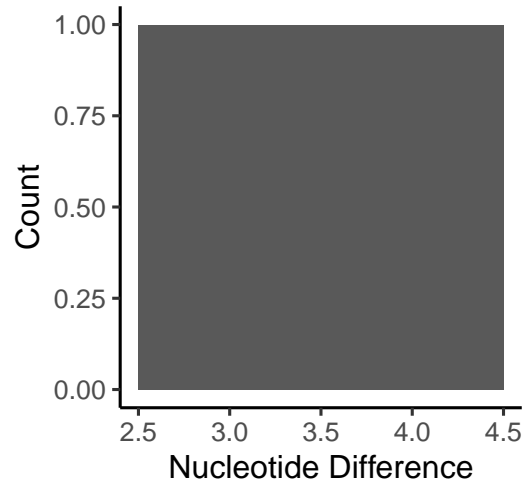
IGHV4-39*07

8536 sequences assigned
1662 (19.5%) exact matches, in which:
1566 unique CDR3
6 unique J



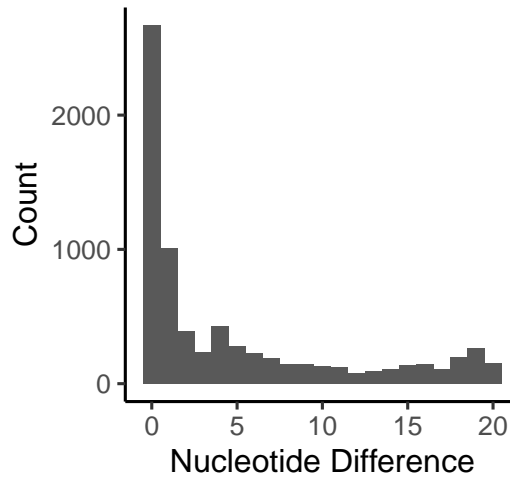
IGHV4-55*09

5 sequences assigned
No exact matches.



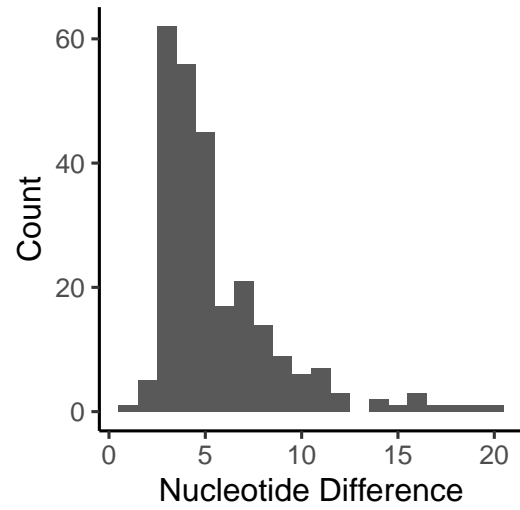
IGHV4-59*01_07

7773 sequences assigned
2668 (34.3%) exact matches, in which:
2518 unique CDR3
6 unique J



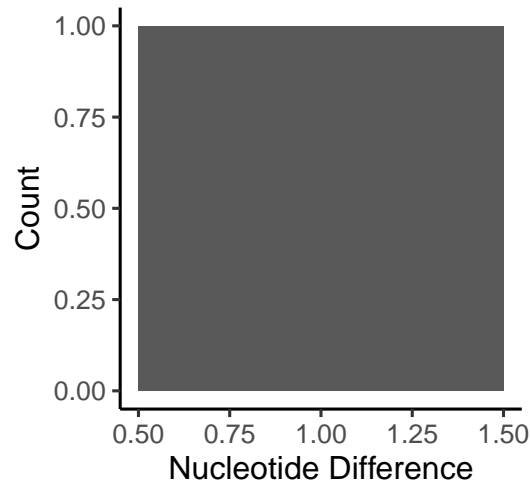
IGHV4-61*02

268 sequences assigned
No exact matches.



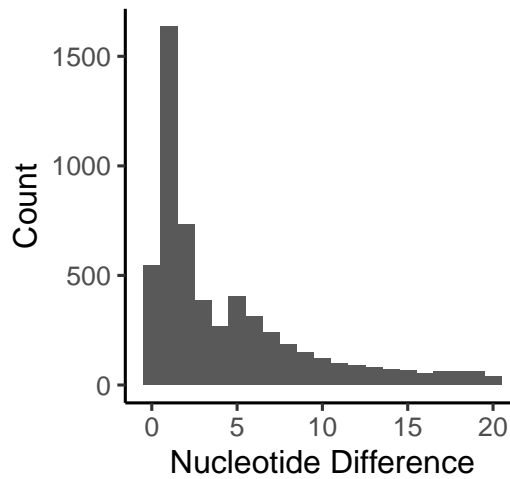
IGHV4-55*02_04_08

1 sequences assigned
No exact matches.



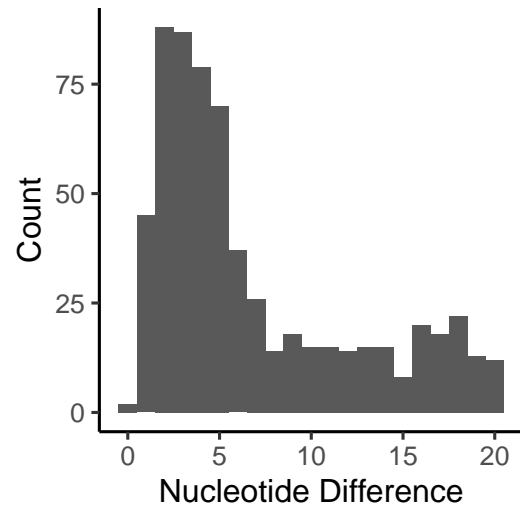
IGHV4-59*12

5917 sequences assigned
546 (9.2%) exact matches, in which:
539 unique CDR3
6 unique J



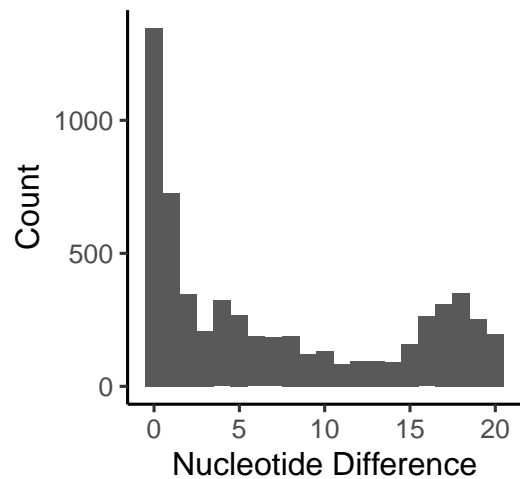
IGHV4-61*08

722 sequences assigned
2 (0.3%) exact matches, in which:
2 unique CDR3
2 unique J



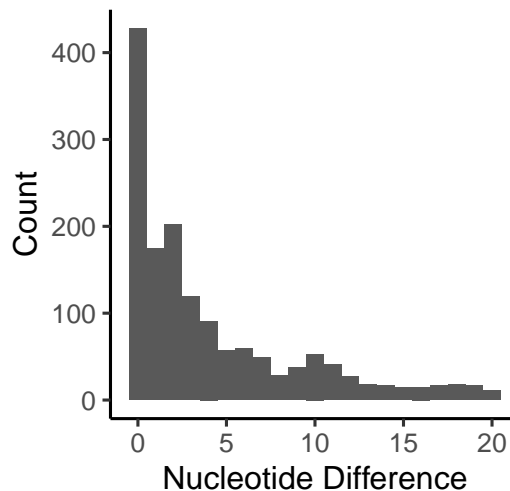
IGHV4-59*08

6679 sequences assigned
1347 (20.2%) exact matches, in which:
1275 unique CDR3
6 unique J



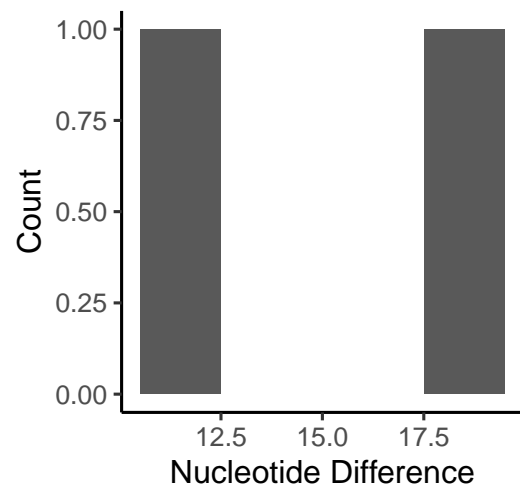
IGHV4-61*01

1532 sequences assigned
428 (27.9%) exact matches, in which:
415 unique CDR3
6 unique J



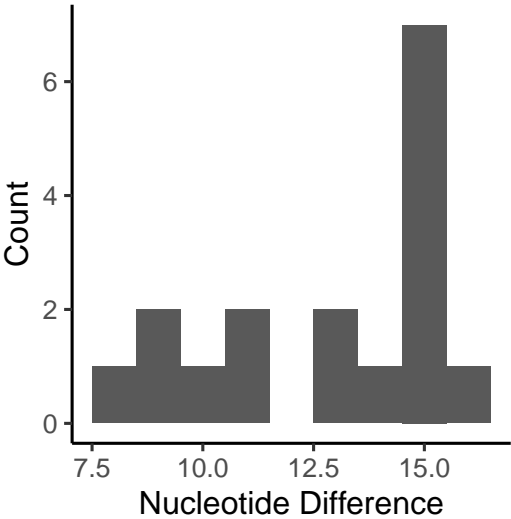
IGHV1/OR15-2*02_03

4 sequences assigned
No exact matches.



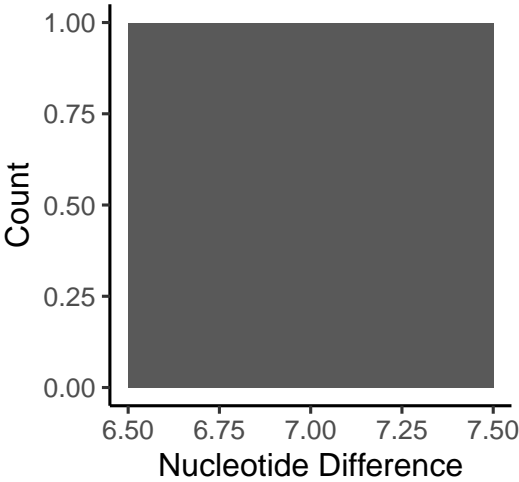
IGHV1/OR15-3*02

18 sequences assigned
No exact matches.



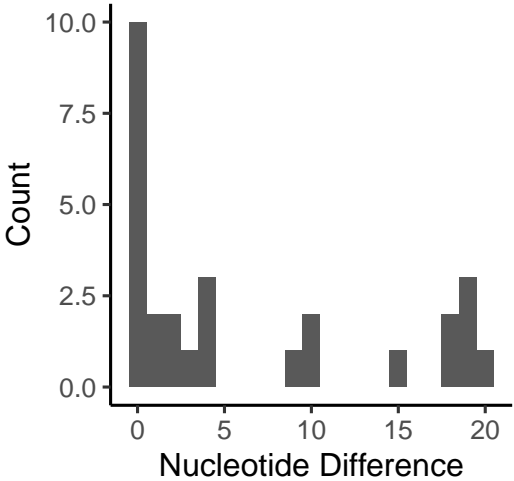
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



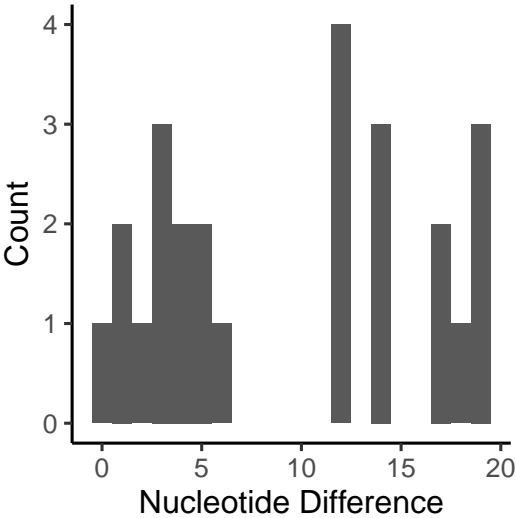
IGHV5-51*06

40 sequences assigned
10 (25%) exact matches, in which:
10 unique CDR3
4 unique J



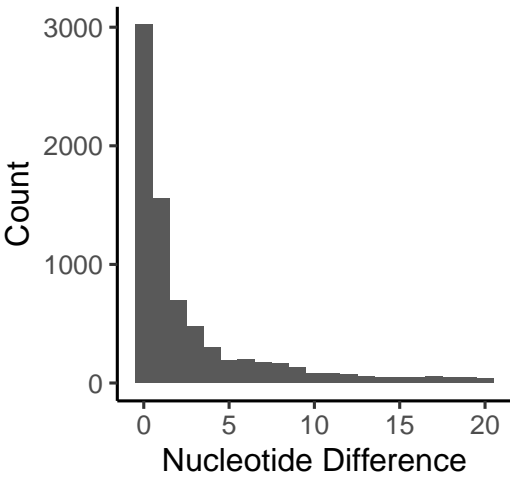
IGHV4/OR15-8*01

37 sequences assigned
1 (2.7%) exact matches, in which:
1 unique CDR3
1 unique J



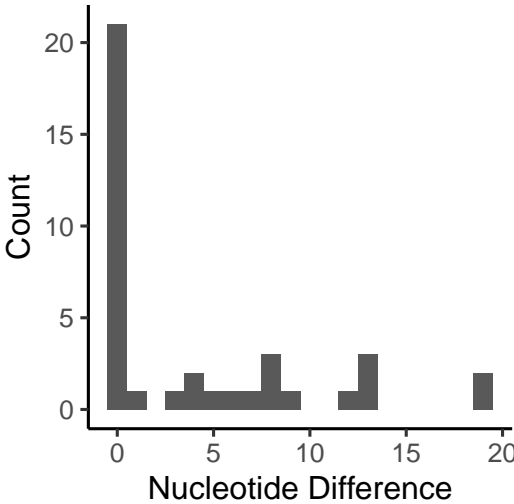
IGHV5-10-1*01_03

8151 sequences assigned
3021 (37.1%) exact matches, in which:
2453 unique CDR3
6 unique J



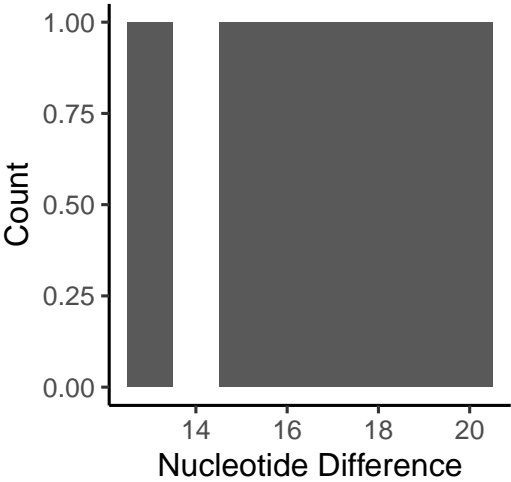
IGHV5-51*07

38 sequences assigned
21 (55.3%) exact matches, in which:
20 unique CDR3
4 unique J



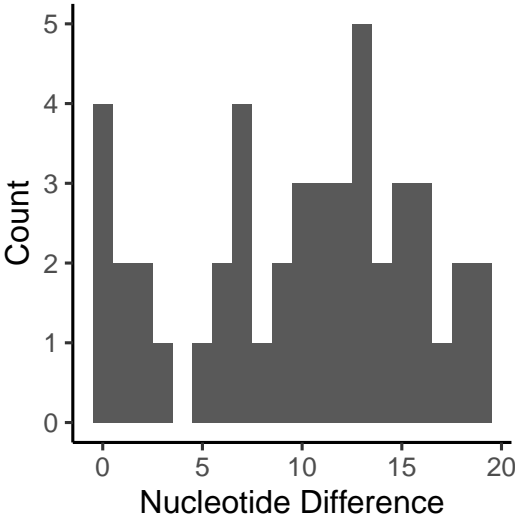
IGHV4/OR15-8*02

39 sequences assigned
No exact matches.



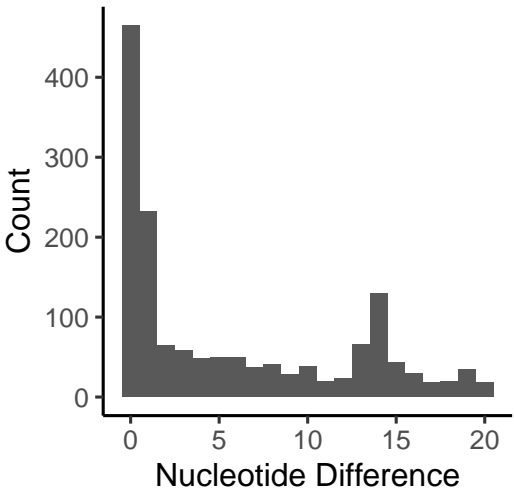
IGHV5-51*04

58 sequences assigned
4 (6.9%) exact matches, in which:
4 unique CDR3
3 unique J



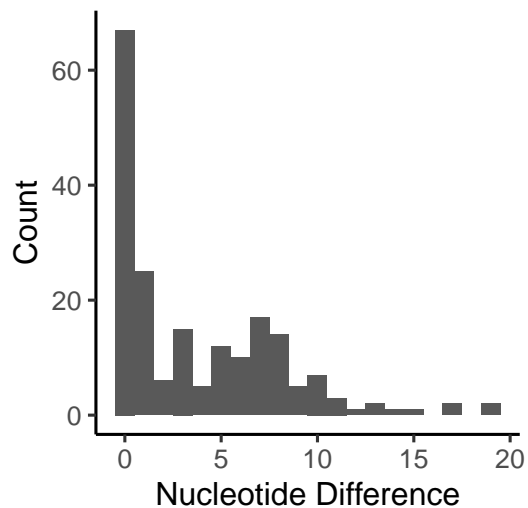
IGHV6-1*01_02

1560 sequences assigned
465 (29.8%) exact matches, in which:
434 unique CDR3
6 unique J



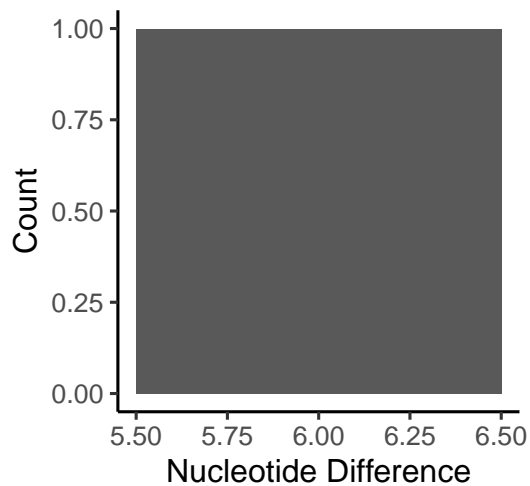
IGHV6-1*01_02_A315G

199 sequences assigned
67 (33.7%) exact matches, in which:
67 unique CDR3
5 unique J



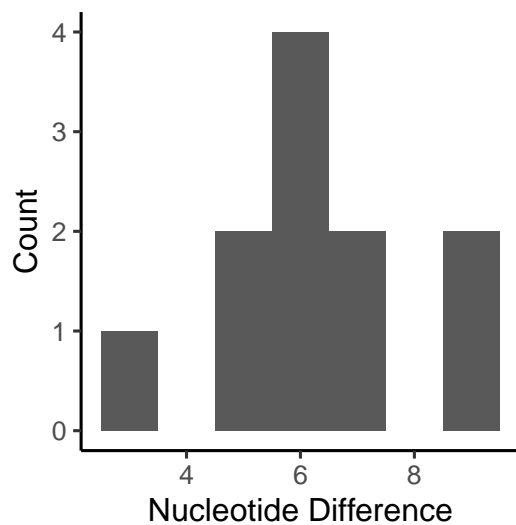
IGHV3/OR16-13*01

1 sequences assigned
No exact matches.



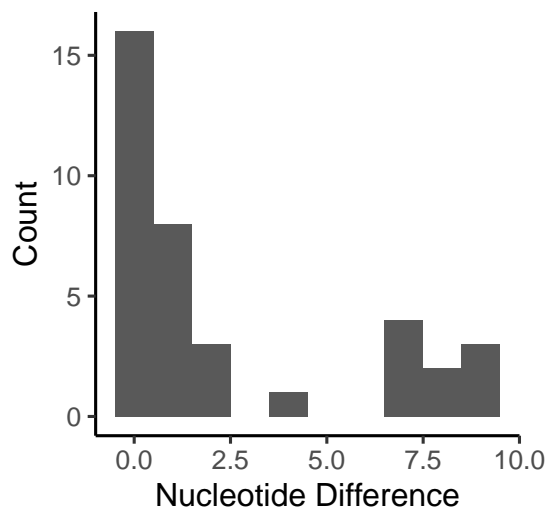
IGHV3/OR16-9*01

11 sequences assigned
No exact matches.



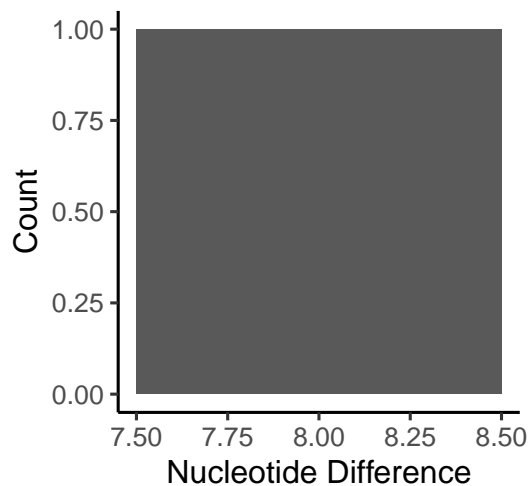
IGHV7-4-1*01

39 sequences assigned
16 (41%) exact matches, in which:
16 unique CDR3
4 unique J



IGHV3/OR16-10*01_03

1 sequences assigned
No exact matches.





Warning – no inferred sequences found.