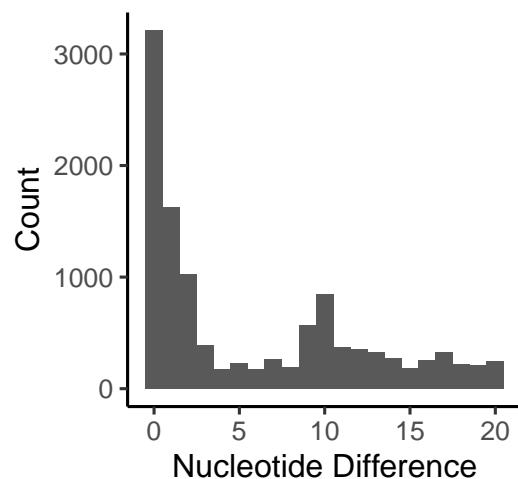


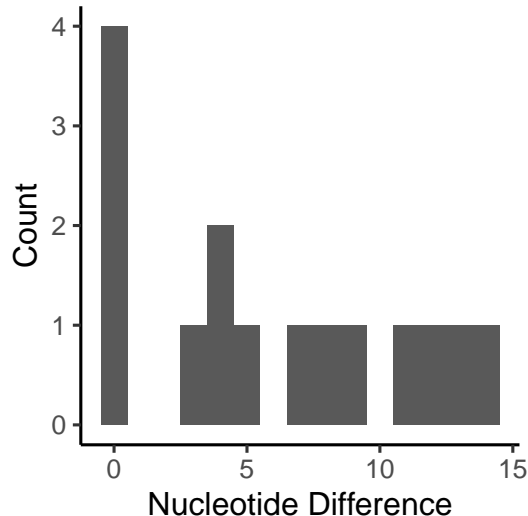
IGHV1-2*02

12459 sequences assigned
3211 (25.8%) exact matches, in which:
2979 unique CDR3
6 unique J



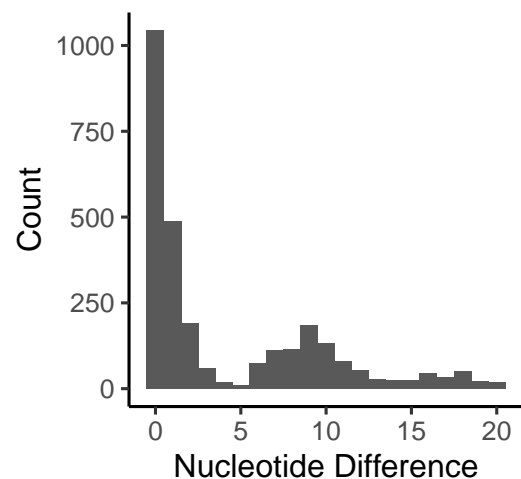
IGHV1-8*01

15 sequences assigned
4 (26.7%) exact matches, in which:
3 unique CDR3
3 unique J



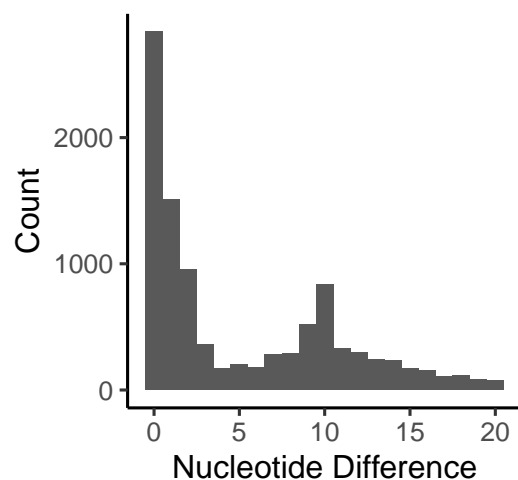
IGHV1-24*01

2846 sequences assigned
1044 (36.7%) exact matches, in which:
987 unique CDR3
6 unique J



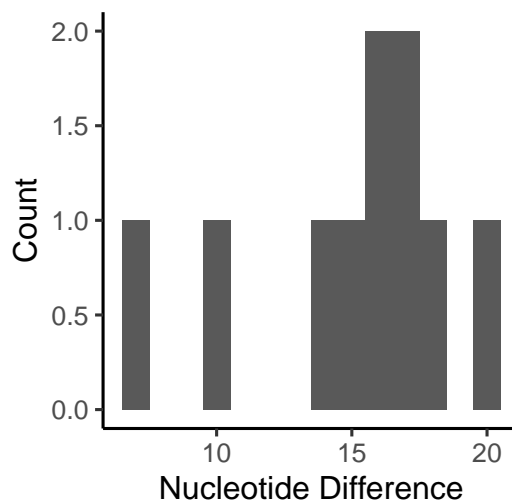
IGHV1-2*06

11444 sequences assigned
2839 (24.8%) exact matches, in which:
2620 unique CDR3
6 unique J



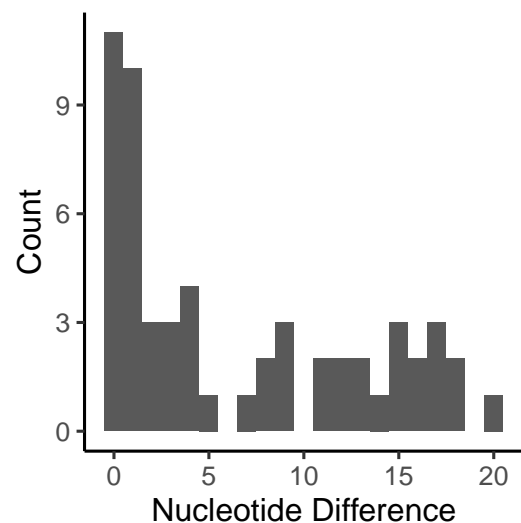
IGHV1-8*02

11 sequences assigned
No exact matches.



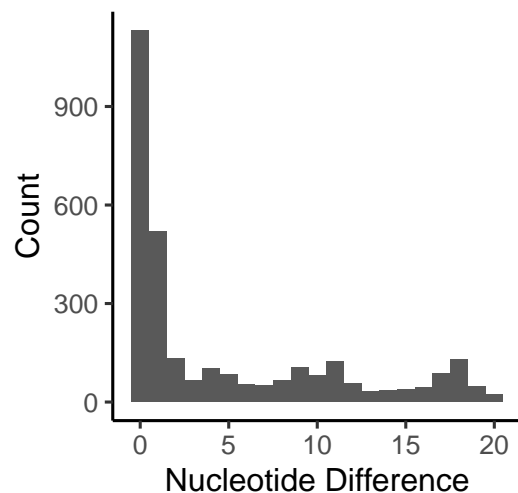
IGHV1-45*02

78 sequences assigned
11 (14.1%) exact matches, in which:
11 unique CDR3
4 unique J



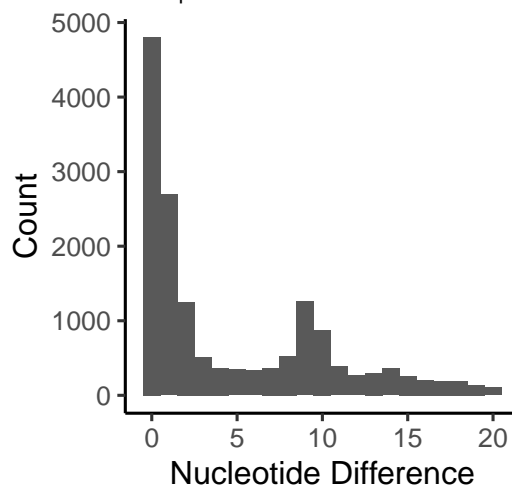
IGHV1-3*01_05

3689 sequences assigned
1132 (30.7%) exact matches, in which:
1020 unique CDR3
6 unique J



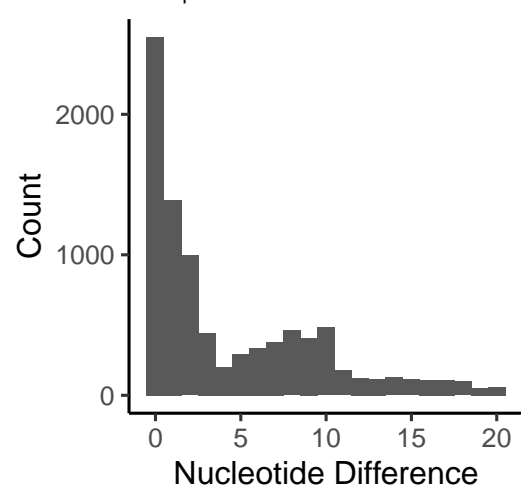
IGHV1-18*01

16656 sequences assigned
4805 (28.8%) exact matches, in which:
4390 unique CDR3
6 unique J



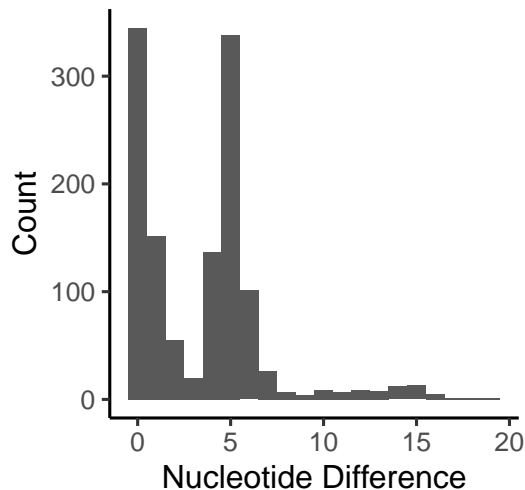
IGHV1-46*01

10180 sequences assigned
2550 (25%) exact matches, in which:
2389 unique CDR3
6 unique J



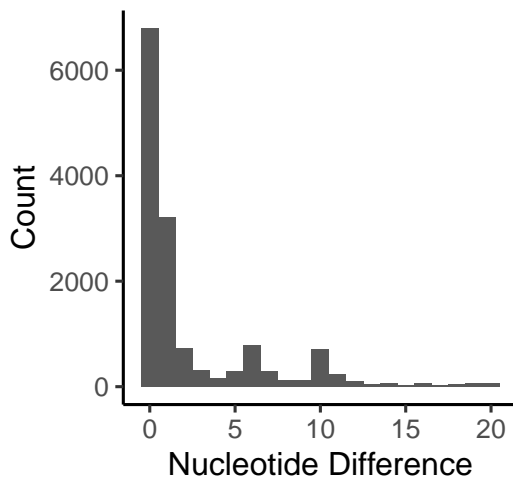
IGHV1–58*01_03

1344 sequences assigned
345 (25.7%) exact matches, in which:
328 unique CDR3
6 unique J



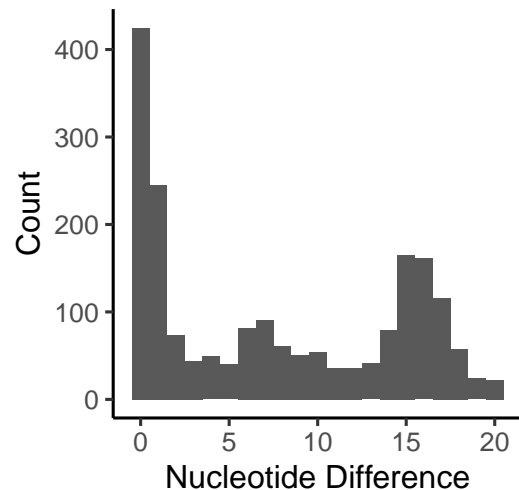
IGHV1–69*01_12_13

14545 sequences assigned
6793 (46.7%) exact matches, in which:
6331 unique CDR3
6 unique J



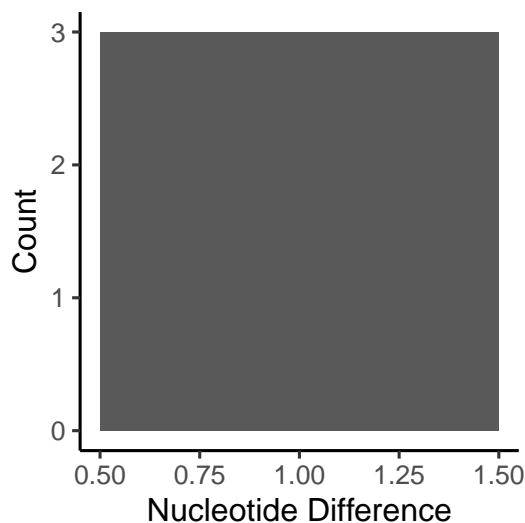
IGHV2–5*02

2334 sequences assigned
425 (18.2%) exact matches, in which:
382 unique CDR3
6 unique J



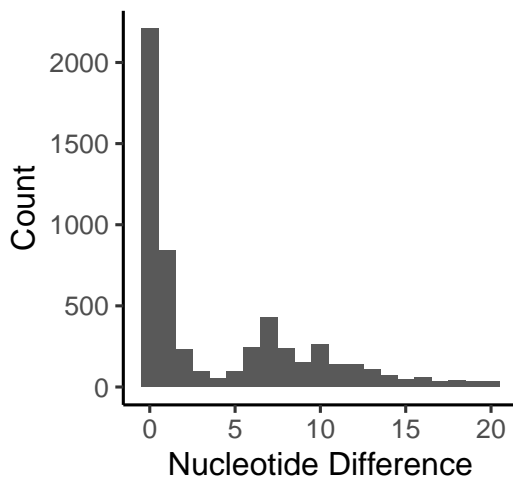
IGHV1–68*01

3 sequences assigned
No exact matches.



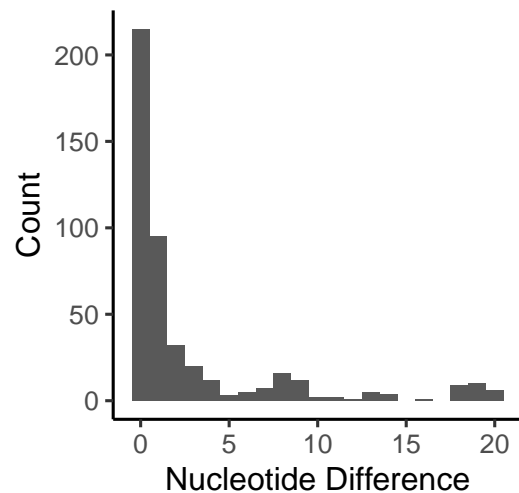
IGHV1–69*06_14

5796 sequences assigned
2208 (38.1%) exact matches, in which:
2104 unique CDR3
6 unique J



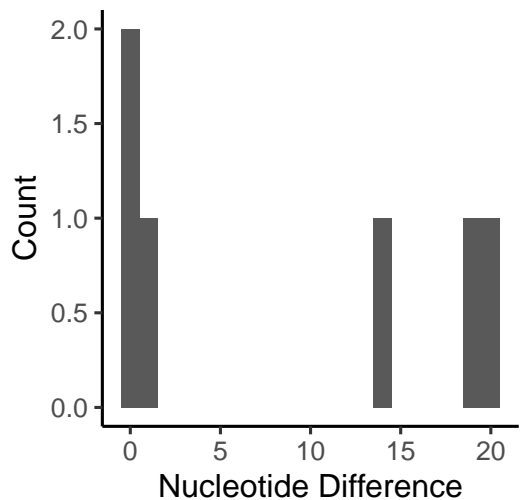
IGHV2–26*01

463 sequences assigned
215 (46.4%) exact matches, in which:
191 unique CDR3
5 unique J



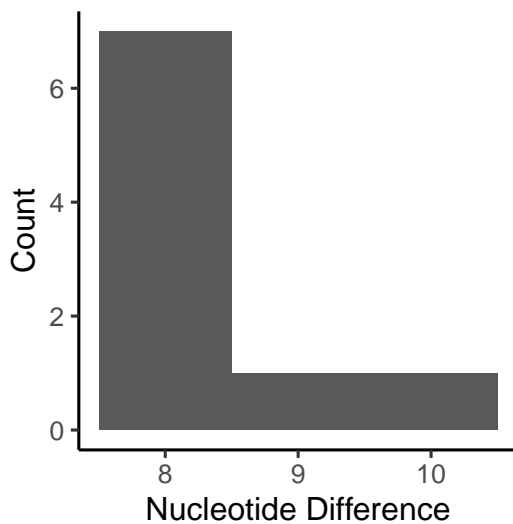
IGHV1–69–2*01

6 sequences assigned
2 (33.3%) exact matches, in which:
2 unique CDR3
2 unique J



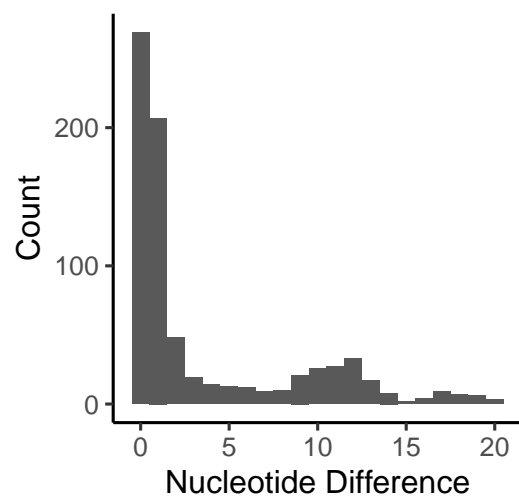
IGHV1–NL1*01

9 sequences assigned
No exact matches.



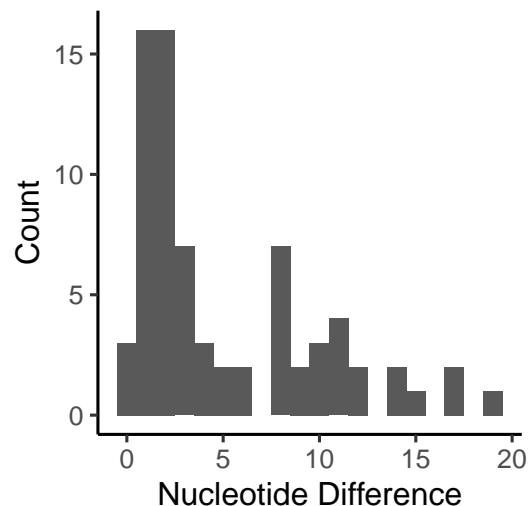
IGHV2–70*01

784 sequences assigned
269 (34.3%) exact matches, in which:
231 unique CDR3
6 unique J



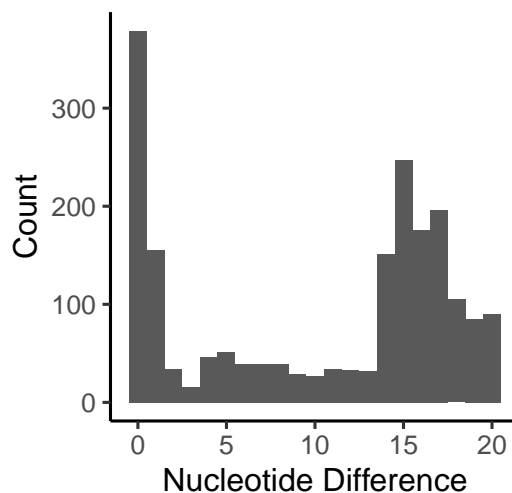
IGHV2-70*12

74 sequences assigned
3 (4.1%) exact matches, in which:
3 unique CDR3
2 unique J



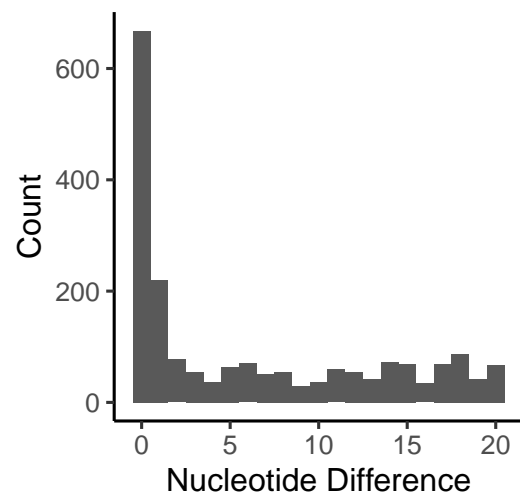
IGHV3-7*04

2465 sequences assigned
379 (15.4%) exact matches, in which:
285 unique CDR3
6 unique J



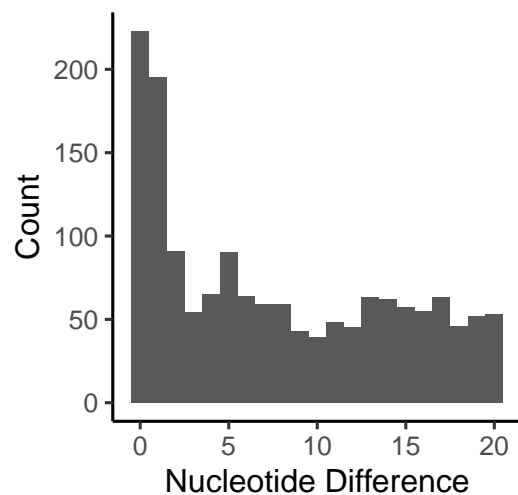
IGHV3-11*03_05

2301 sequences assigned
668 (29%) exact matches, in which:
518 unique CDR3
6 unique J



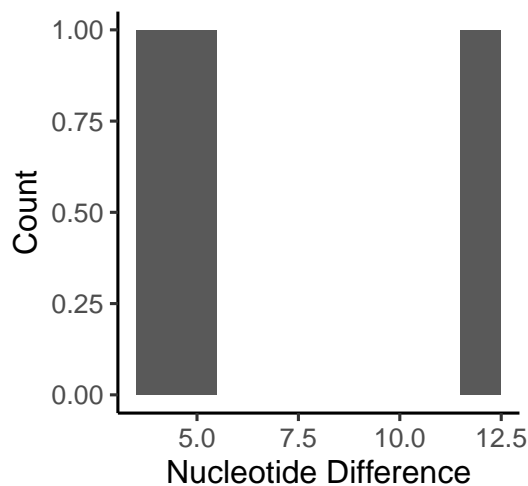
IGHV3-7*01

1707 sequences assigned
223 (13.1%) exact matches, in which:
218 unique CDR3
6 unique J



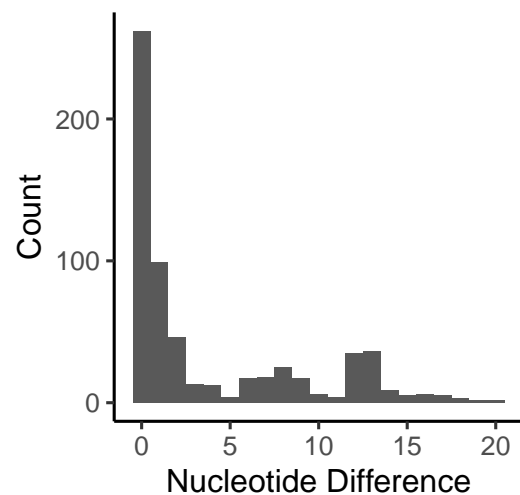
IGHV3-9*01

4 sequences assigned
No exact matches.



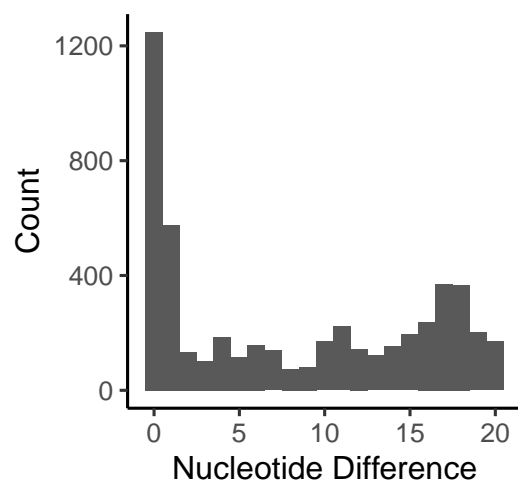
IGHV3-13*04

647 sequences assigned
262 (40.5%) exact matches, in which:
202 unique CDR3
5 unique J



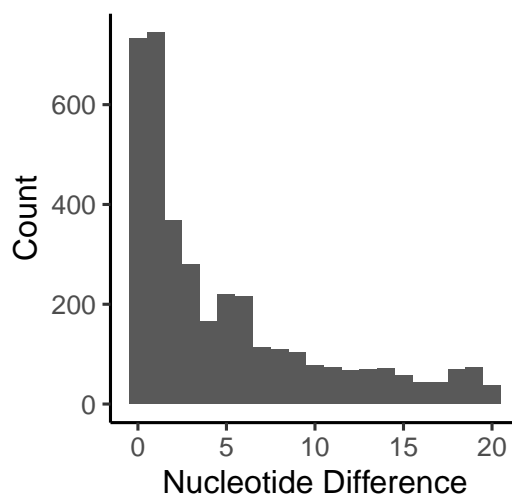
IGHV3-7*03

6430 sequences assigned
1248 (19.4%) exact matches, in which:
968 unique CDR3
6 unique J



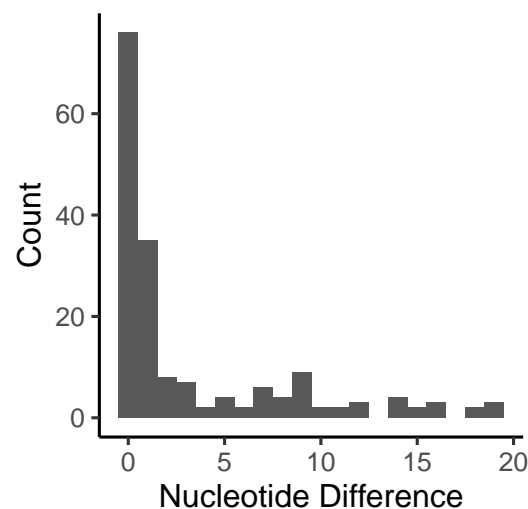
IGHV3-11*06

4130 sequences assigned
733 (17.7%) exact matches, in which:
599 unique CDR3
6 unique J



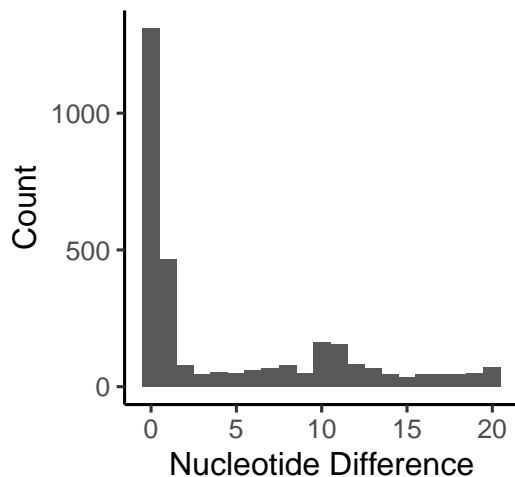
IGHV3-13*05

187 sequences assigned
76 (40.6%) exact matches, in which:
56 unique CDR3
6 unique J



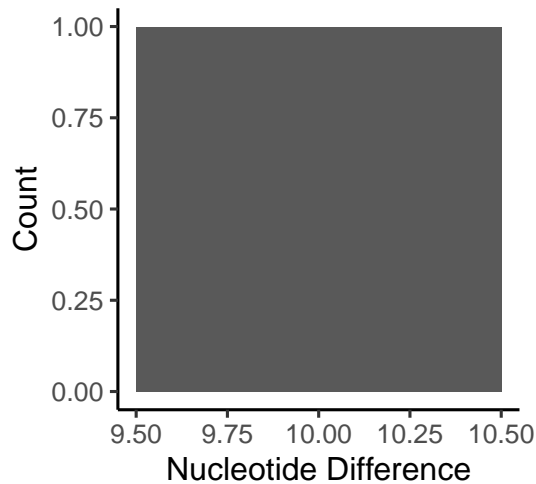
IGHV3-15*01_02

3577 sequences assigned
1310 (36.6%) exact matches, in which:
1010 unique CDR3
6 unique J



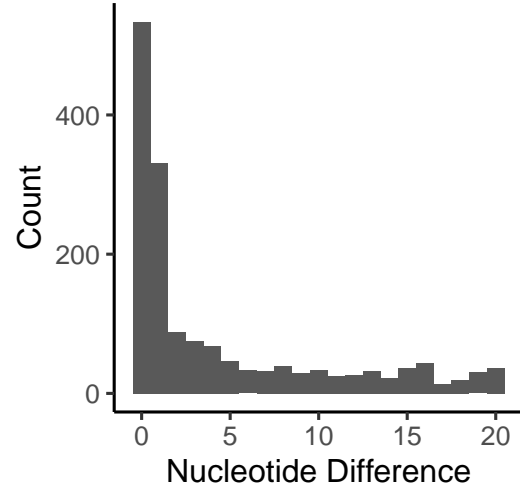
IGHV3-22*01_02

1 sequences assigned
No exact matches.



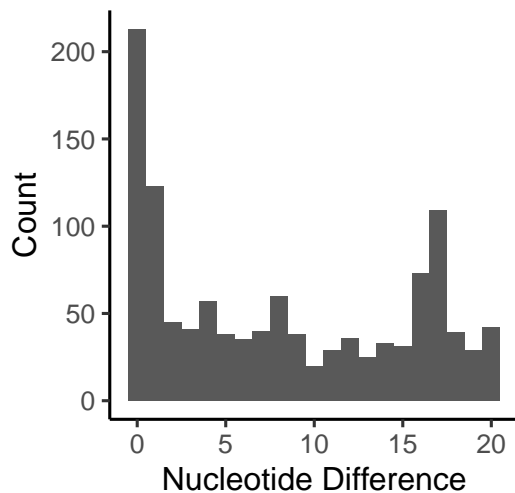
IGHV3-30*03

1935 sequences assigned
534 (27.6%) exact matches, in which:
504 unique CDR3
6 unique J



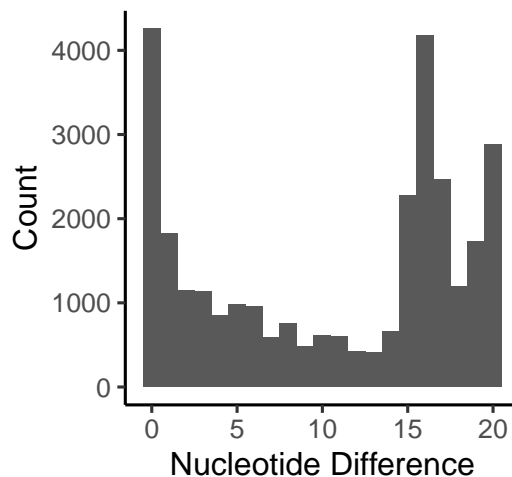
IGHV3-20*03_04

1552 sequences assigned
213 (13.7%) exact matches, in which:
163 unique CDR3
6 unique J



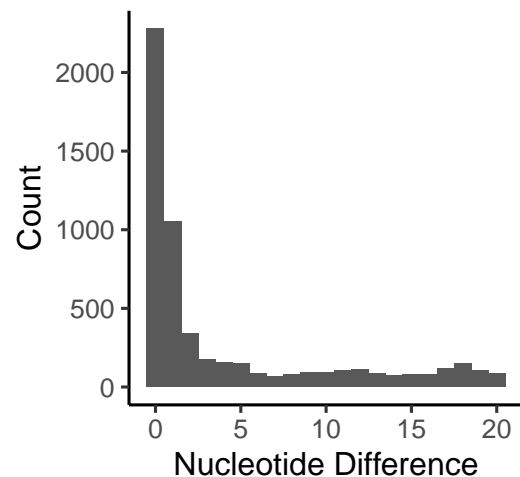
IGHV3-23*01_04

38214 sequences assigned
4257 (11.1%) exact matches, in which:
3010 unique CDR3
6 unique J



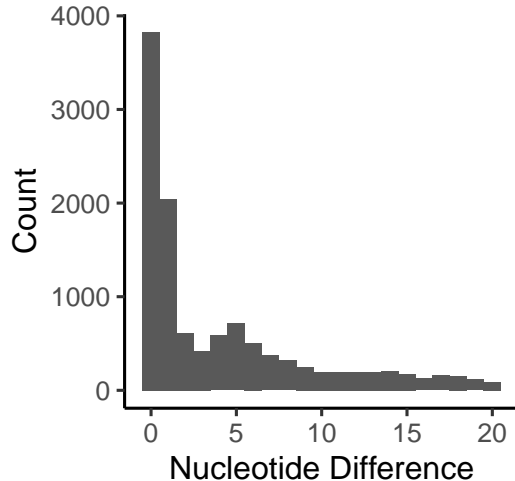
IGHV3-33*01

6401 sequences assigned
2278 (35.6%) exact matches, in which:
1828 unique CDR3
6 unique J



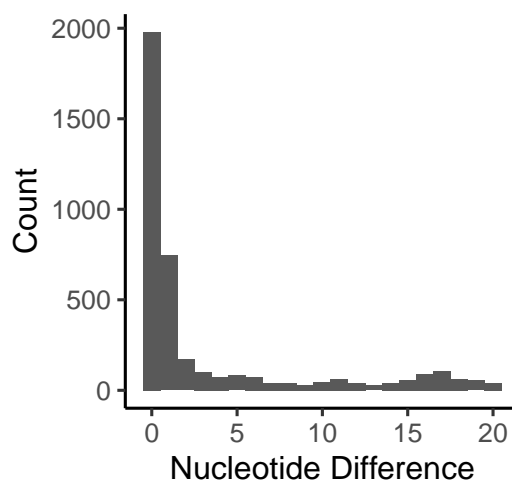
IGHV3-21*01_02

12076 sequences assigned
3827 (31.7%) exact matches, in which:
2848 unique CDR3
6 unique J



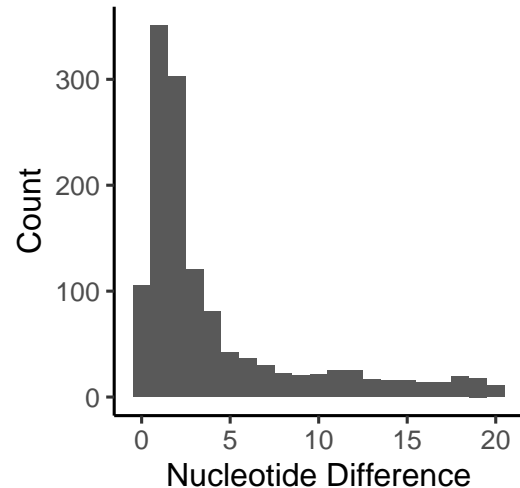
IGHV3-30-3*01

4630 sequences assigned
1979 (42.7%) exact matches, in which:
1538 unique CDR3
6 unique J



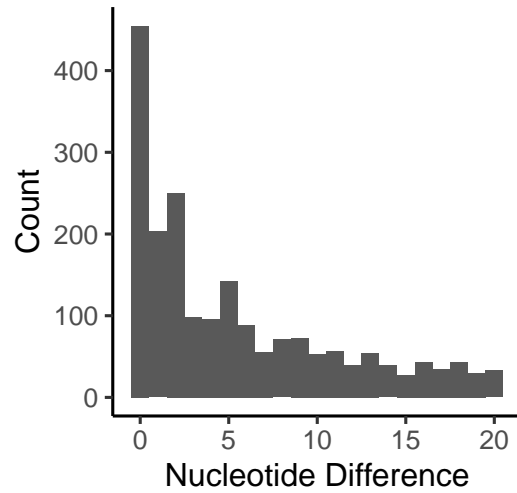
IGHV3-33*06

1389 sequences assigned
105 (7.6%) exact matches, in which:
101 unique CDR3
5 unique J



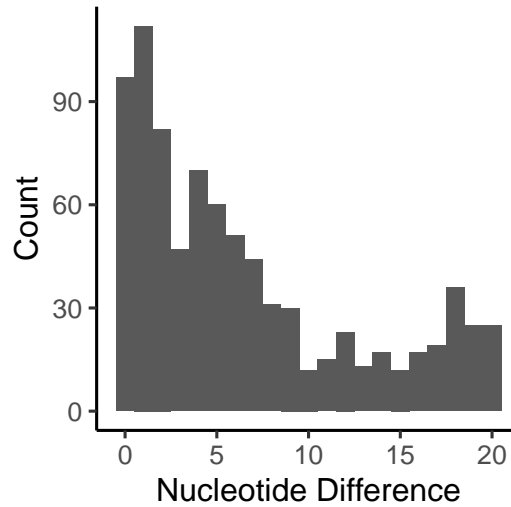
IGHV3–33*08

2281 sequences assigned
455 (19.9%) exact matches, in which:
421 unique CDR3
6 unique J



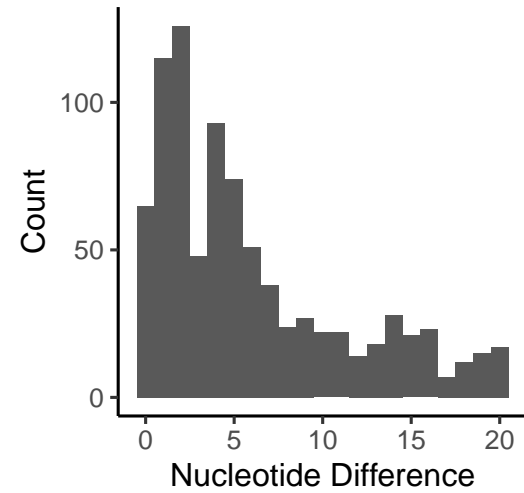
IGHV3–48*01

917 sequences assigned
97 (10.6%) exact matches, in which:
92 unique CDR3
6 unique J



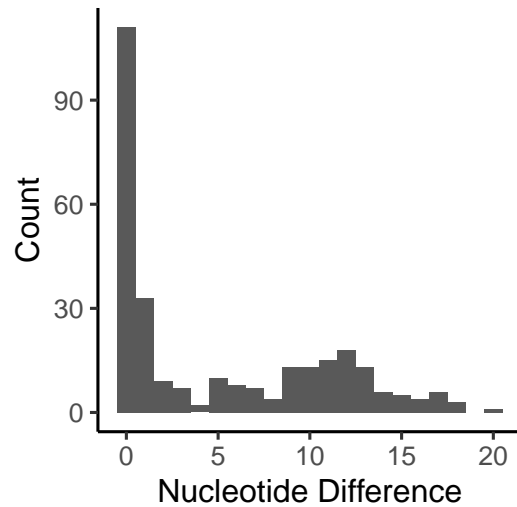
IGHV3–48*04

986 sequences assigned
65 (6.6%) exact matches, in which:
64 unique CDR3
6 unique J



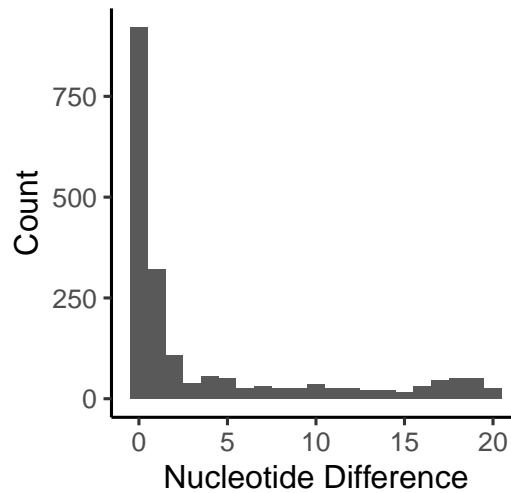
IGHV3–43*01

312 sequences assigned
111 (35.6%) exact matches, in which:
86 unique CDR3
6 unique J



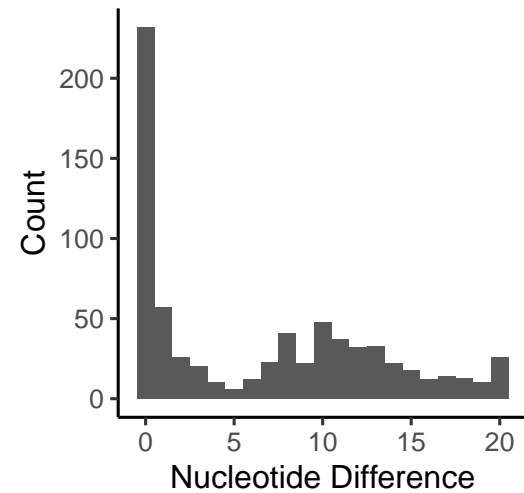
IGHV3–48*02

2165 sequences assigned
922 (42.6%) exact matches, in which:
717 unique CDR3
6 unique J



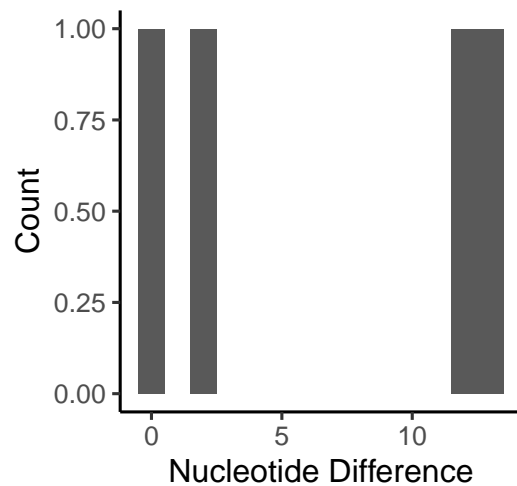
IGHV3–49*04

849 sequences assigned
232 (27.3%) exact matches, in which:
194 unique CDR3
6 unique J



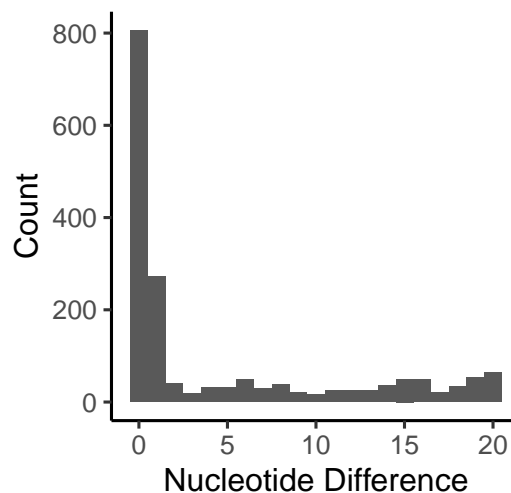
IGHV3–47*02

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



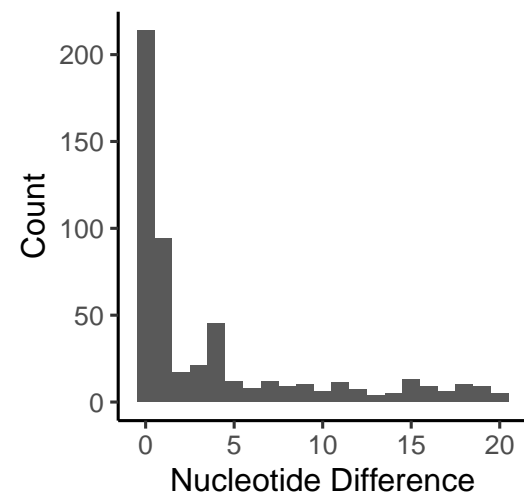
IGHV3–48*03

2321 sequences assigned
806 (34.7%) exact matches, in which:
634 unique CDR3
6 unique J



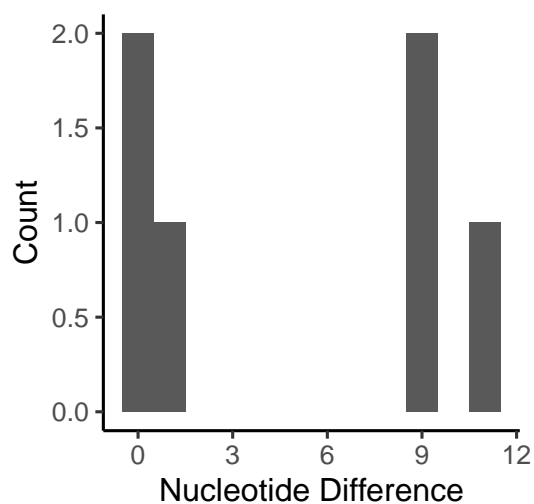
IGHV3–49*03_05

576 sequences assigned
214 (37.2%) exact matches, in which:
175 unique CDR3
5 unique J



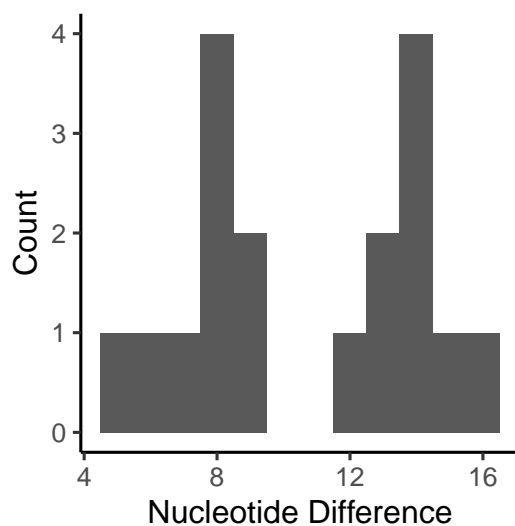
IGHV3-52*01_03

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



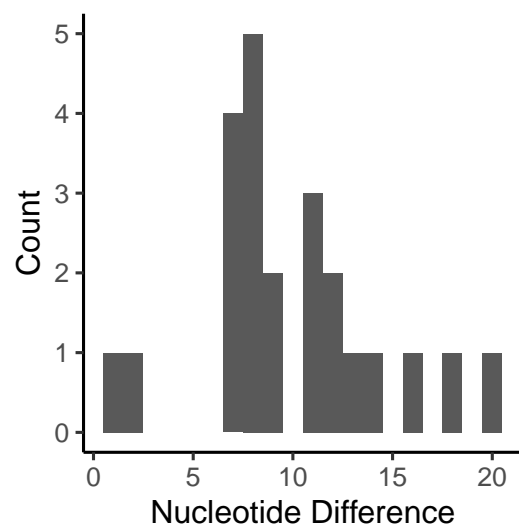
IGHV3-66*01

20 sequences assigned
No exact matches.



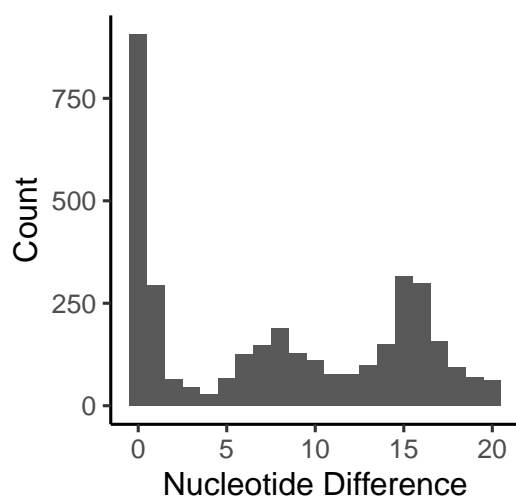
IGHV3-66*04

29 sequences assigned
No exact matches.



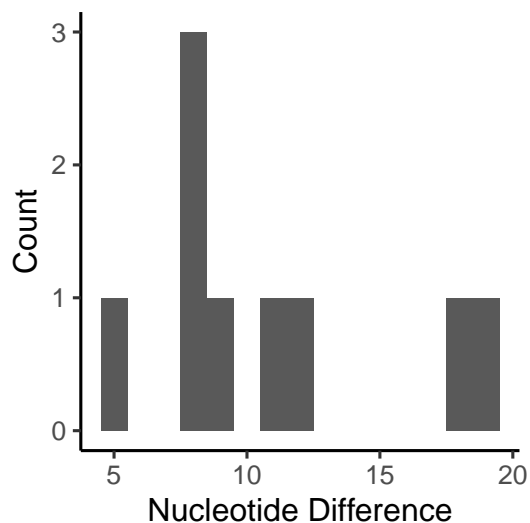
IGHV3-53*01_02

4212 sequences assigned
907 (21.5%) exact matches, in which:
713 unique CDR3
6 unique J



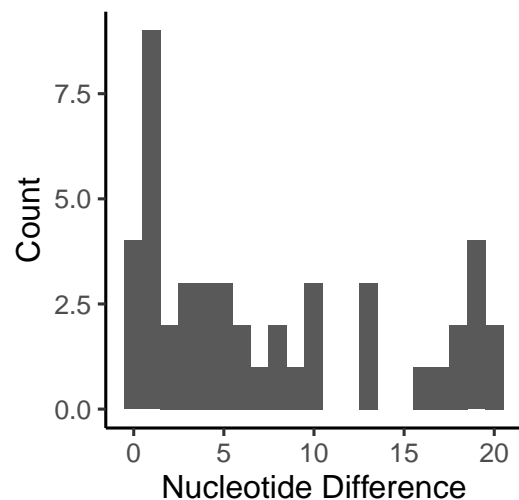
IGHV3-66*02

12 sequences assigned
No exact matches.



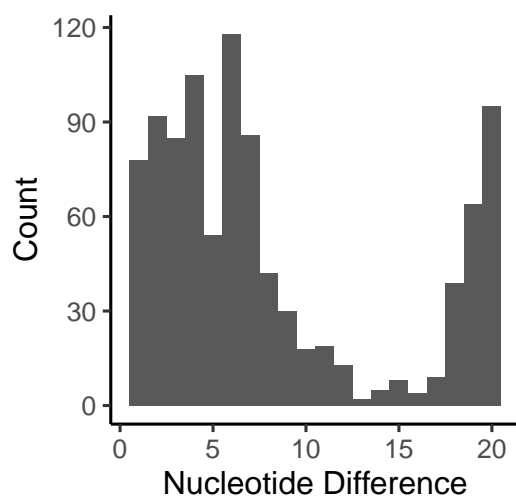
IGHV3-69-1*01

73 sequences assigned
4 (5.5%) exact matches, in which:
4 unique CDR3
3 unique J



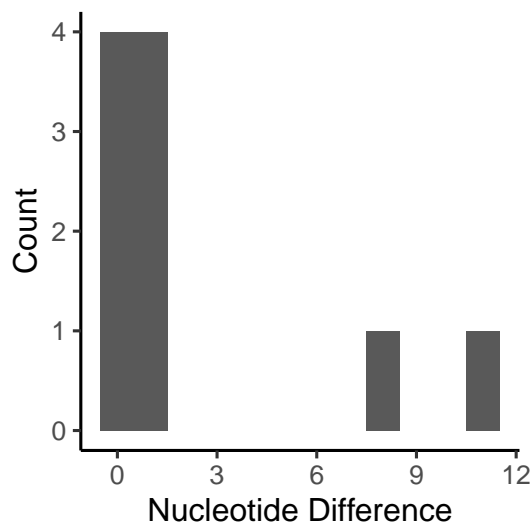
IGHV3-64*04

1103 sequences assigned
No exact matches.



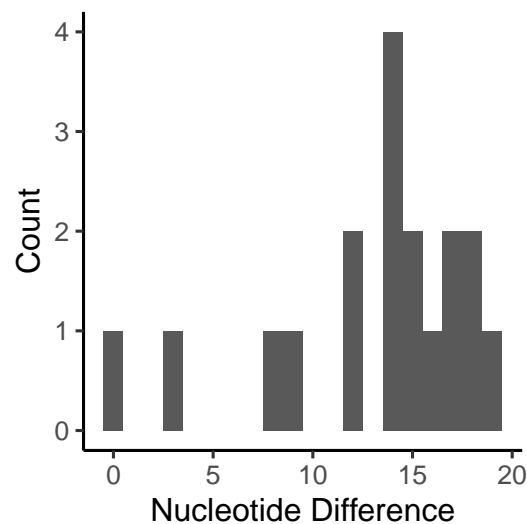
IGHV3-66*03

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



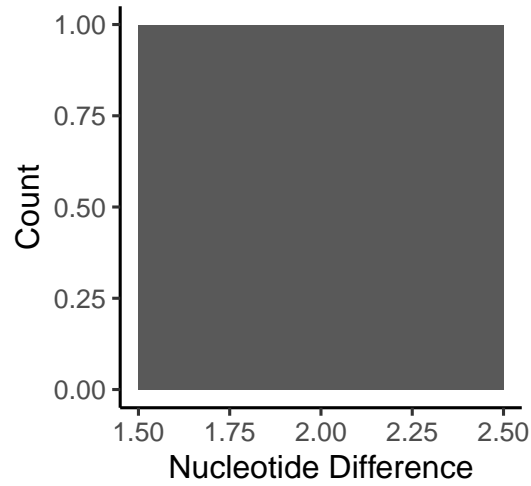
IGHV3-69-1*02

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



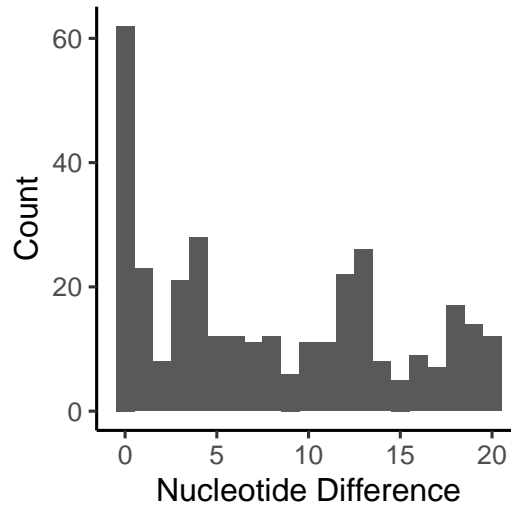
IGHV3-71*02

1 sequences assigned
No exact matches.



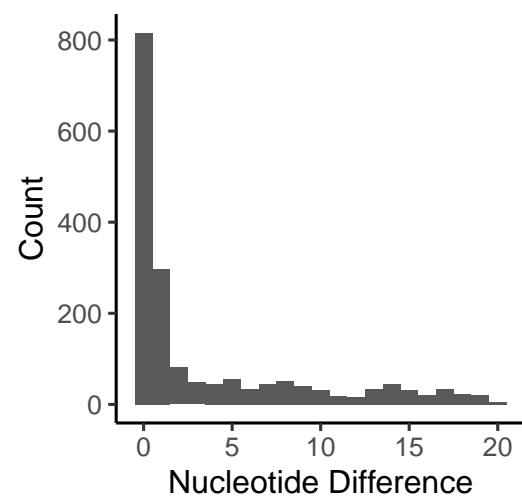
IGHV3-72*01

517 sequences assigned
62 (12%) exact matches, in which:
51 unique CDR3
6 unique J



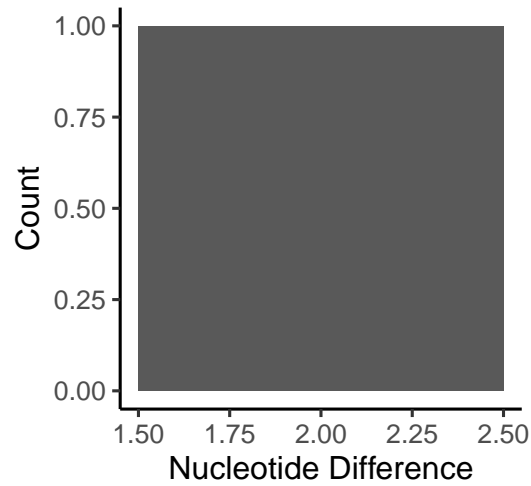
IGHV3-74*01_02

1952 sequences assigned
816 (41.8%) exact matches, in which:
618 unique CDR3
6 unique J



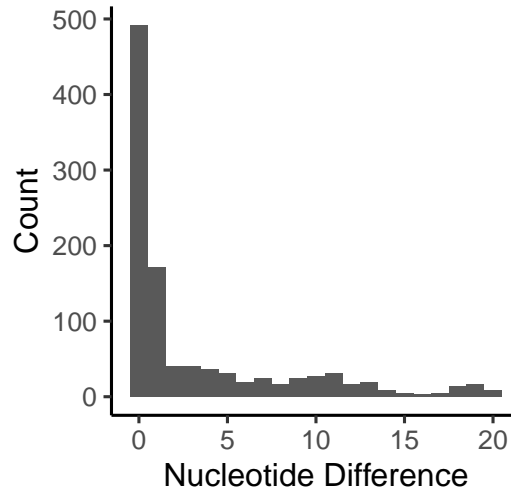
IGHV3-71*03

1 sequences assigned
No exact matches.



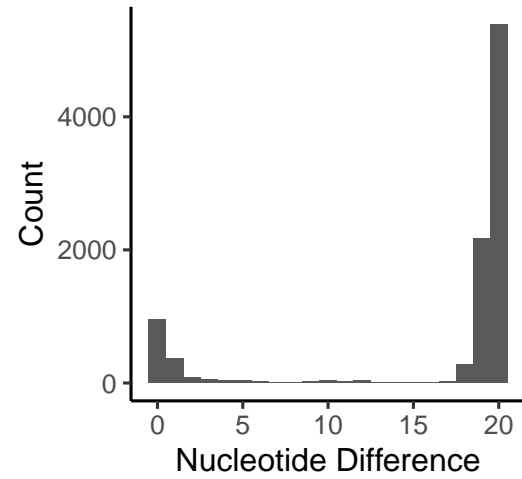
IGHV3-73*01_02

1272 sequences assigned
492 (38.7%) exact matches, in which:
379 unique CDR3
6 unique J



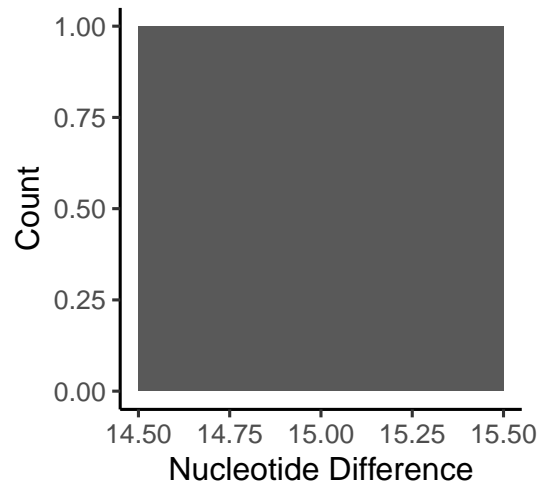
IGHV3-64D*06

14609 sequences assigned
959 (6.6%) exact matches, in which:
673 unique CDR3
6 unique J



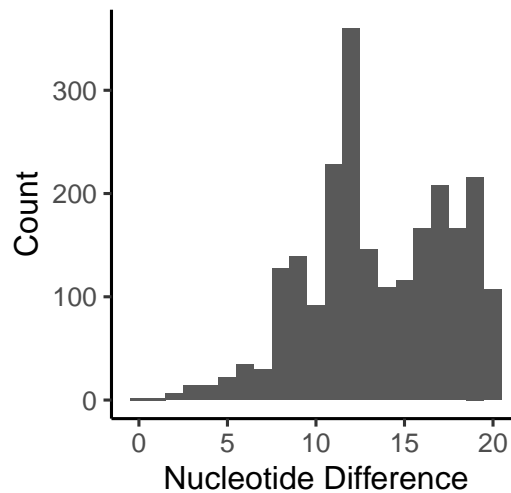
IGHV3-71*01_04

3 sequences assigned
No exact matches.



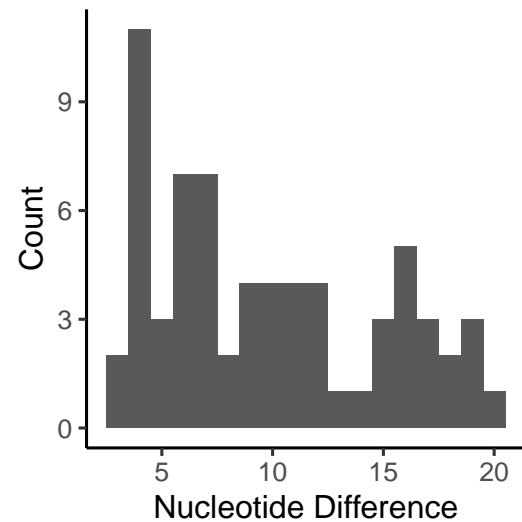
IGHV3-74*03

2907 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
1 unique J



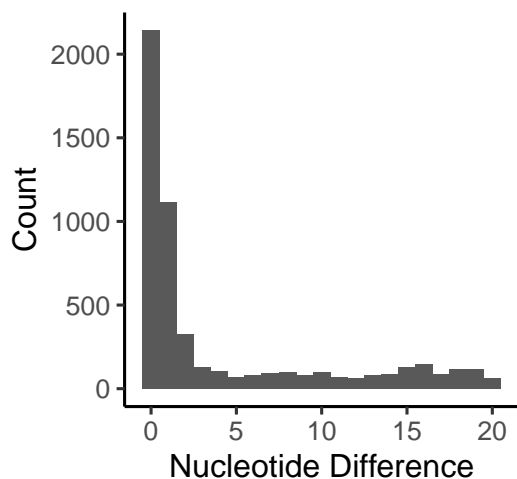
IGHV3-NL1*01

88 sequences assigned
No exact matches.



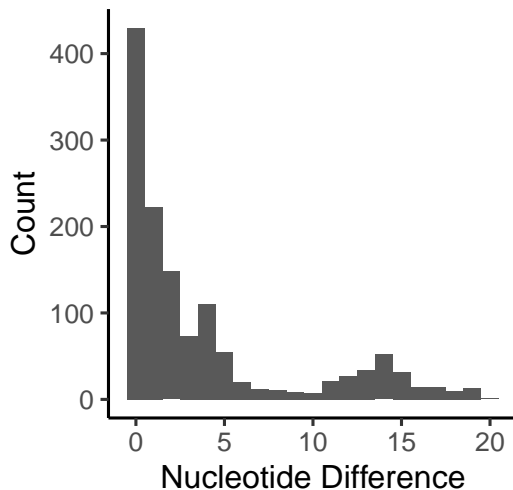
IGHV4-4*02_03

6218 sequences assigned
2142 (34.4%) exact matches, in which:
1930 unique CDR3
6 unique J



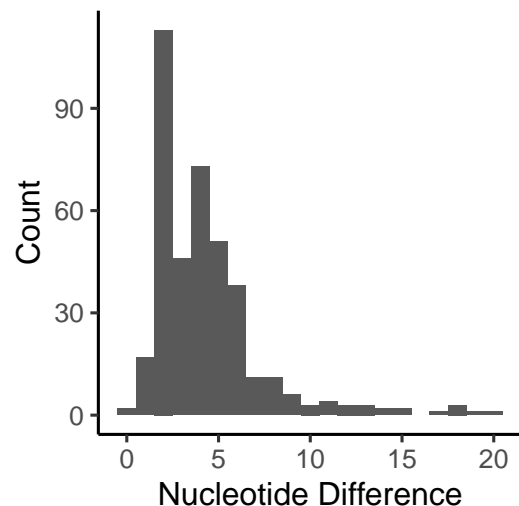
IGHV4-30-2*01

1349 sequences assigned
430 (31.9%) exact matches, in which:
363 unique CDR3
6 unique J



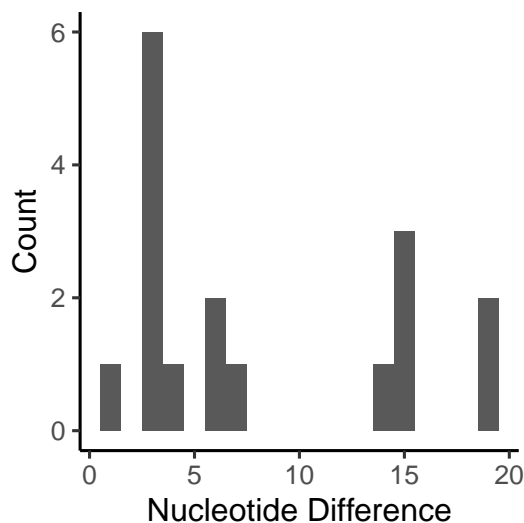
IGHV4-30-4*08

456 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
2 unique J



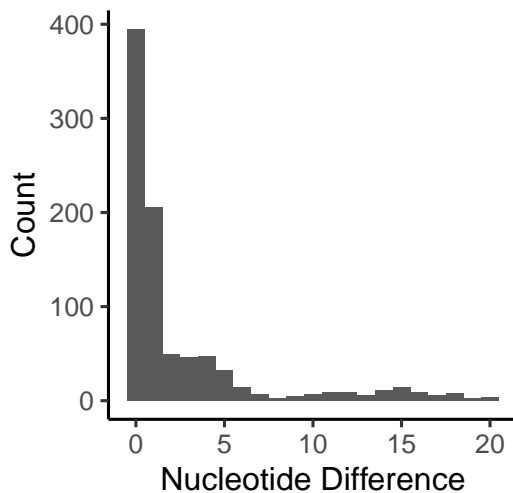
IGHV4-28*03

27 sequences assigned
No exact matches.



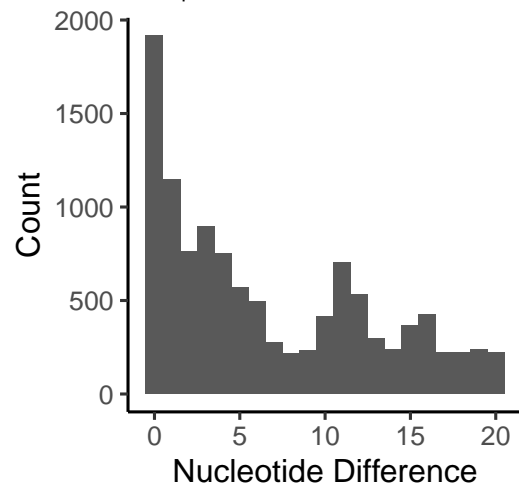
IGHV4-30-4*01

1167 sequences assigned
395 (33.8%) exact matches, in which:
363 unique CDR3
6 unique J



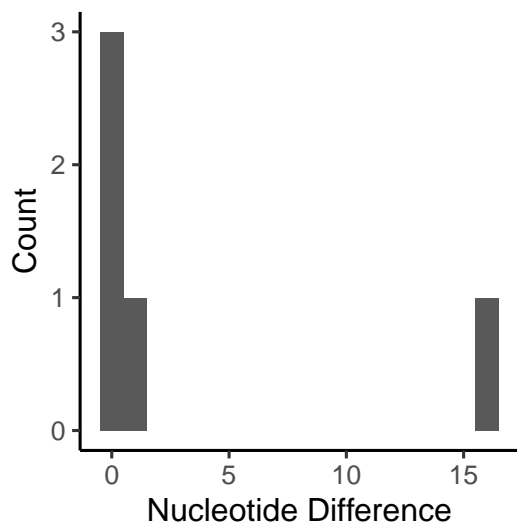
IGHV4-31*02

12287 sequences assigned
1916 (15.6%) exact matches, in which:
1770 unique CDR3
6 unique J



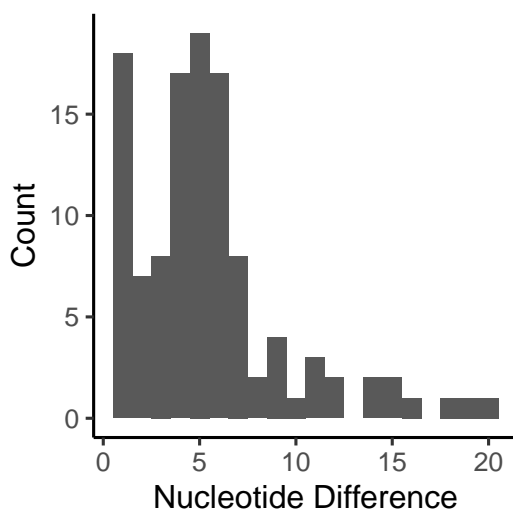
IGHV4-28*01_07

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



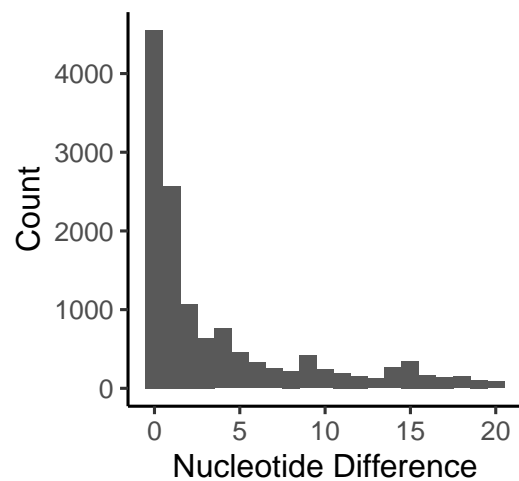
IGHV4-30-2*03

157 sequences assigned
No exact matches.



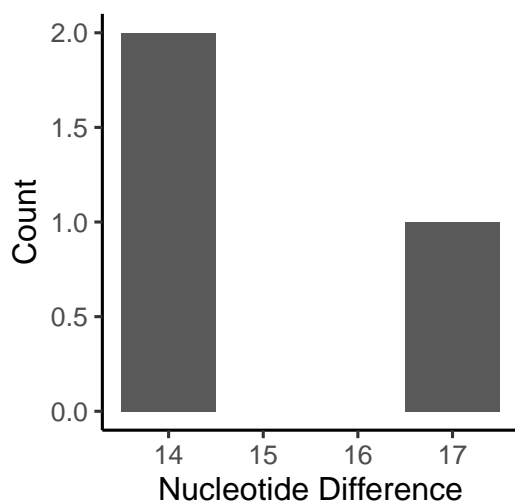
IGHV4-34*01_02

14213 sequences assigned
4553 (32%) exact matches, in which:
4026 unique CDR3
6 unique J



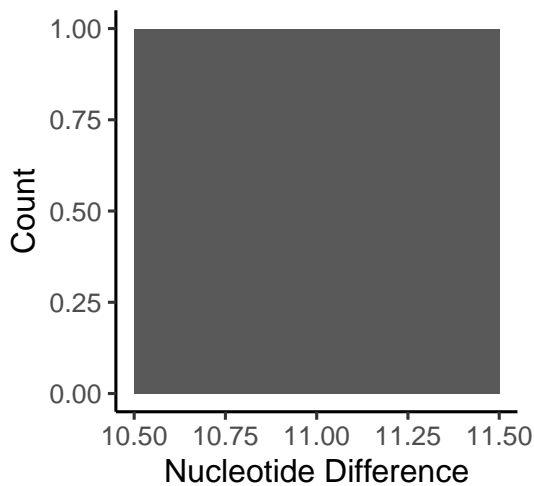
IGHV4-38-2*01

7 sequences assigned
No exact matches.



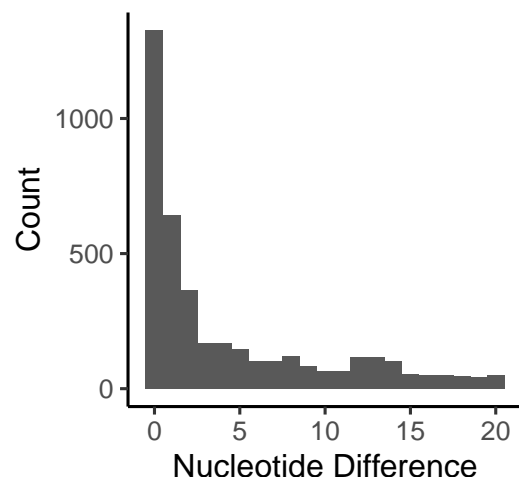
IGHV4-55*09

10 sequences assigned
No exact matches.



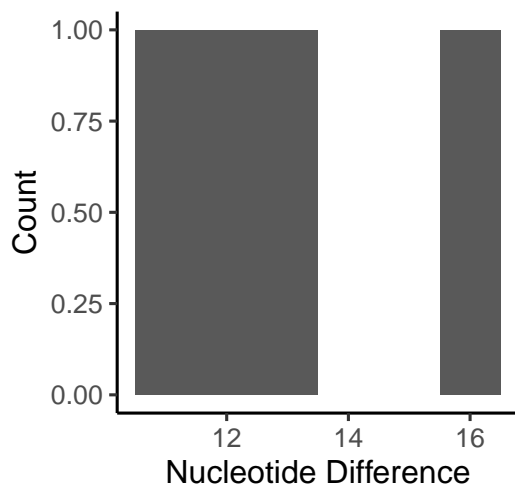
IGHV4-61*01

4468 sequences assigned
1326 (29.7%) exact matches, in which:
1273 unique CDR3
6 unique J



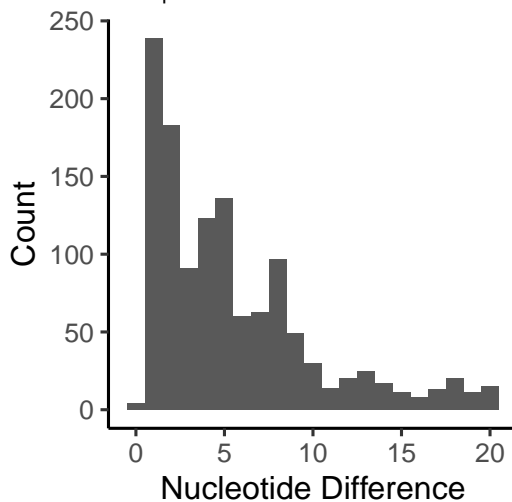
IGHV4-38-2*02

8 sequences assigned
No exact matches.



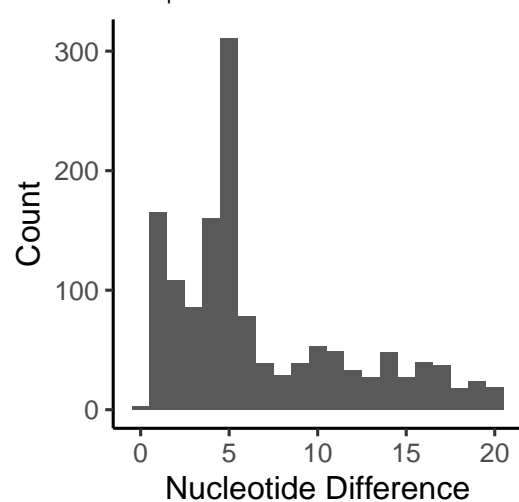
IGHV4-59*08

1326 sequences assigned
4 (0.3%) exact matches, in which:
4 unique CDR3
1 unique J



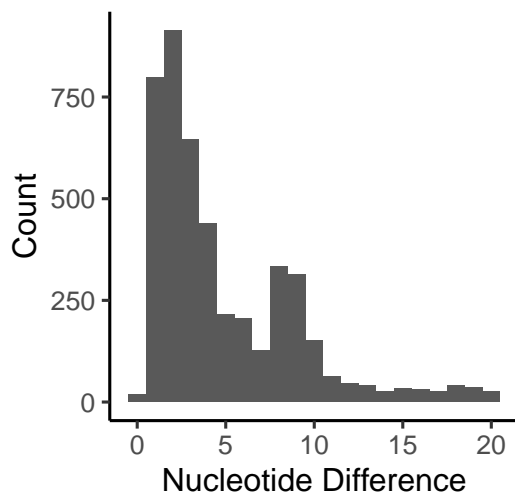
IGHV4-61*08

1798 sequences assigned
3 (0.2%) exact matches, in which:
3 unique CDR3
3 unique J



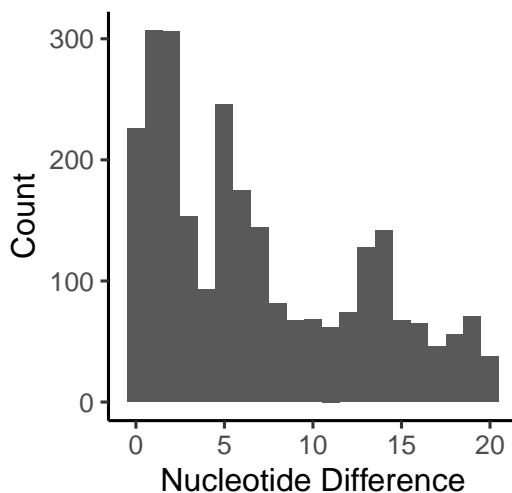
IGHV4-39*07

4912 sequences assigned
18 (0.4%) exact matches, in which:
18 unique CDR3
4 unique J



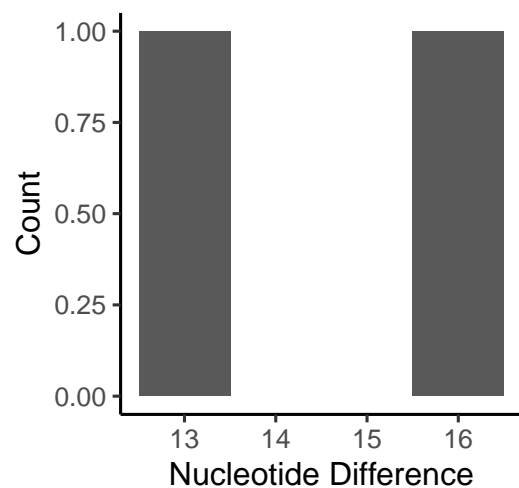
IGHV4-59*12

2866 sequences assigned
226 (7.9%) exact matches, in which:
224 unique CDR3
6 unique J



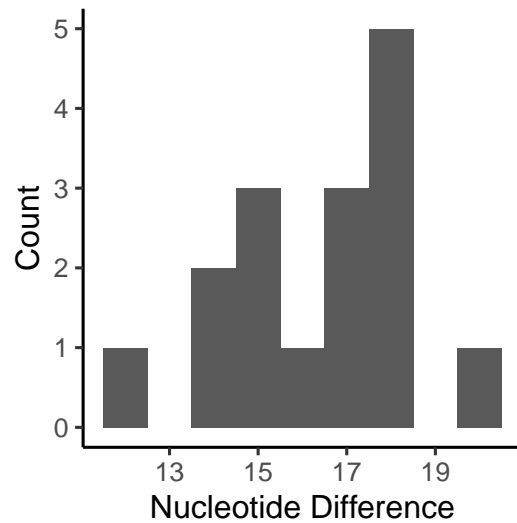
IGHV1/OR15-2*01

2 sequences assigned
No exact matches.



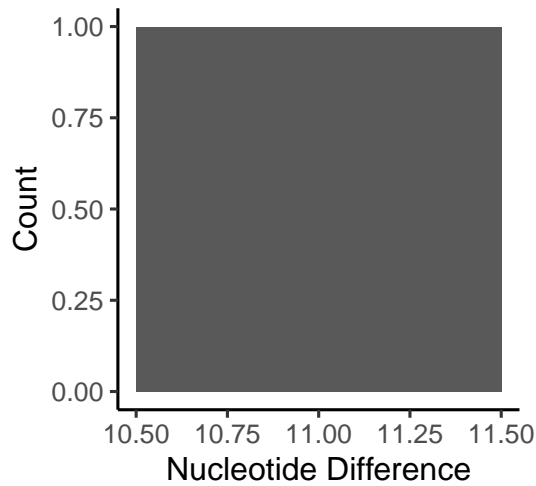
IGHV1/OR15-2*02_03

24 sequences assigned
No exact matches.



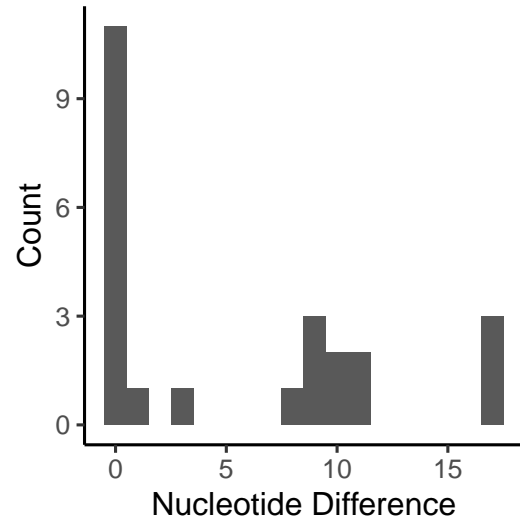
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



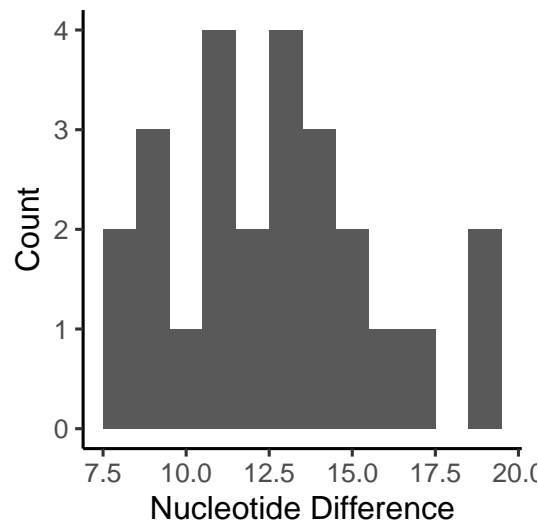
IGHV5-51*06

26 sequences assigned
11 (42.3%) exact matches, in which:
11 unique CDR3
5 unique J



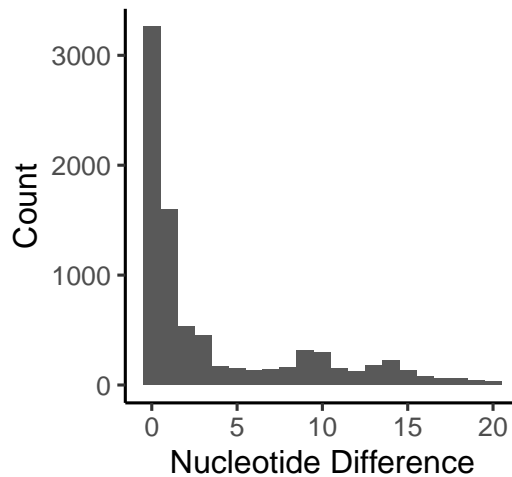
IGHV1/OR15-3*02

27 sequences assigned
No exact matches.



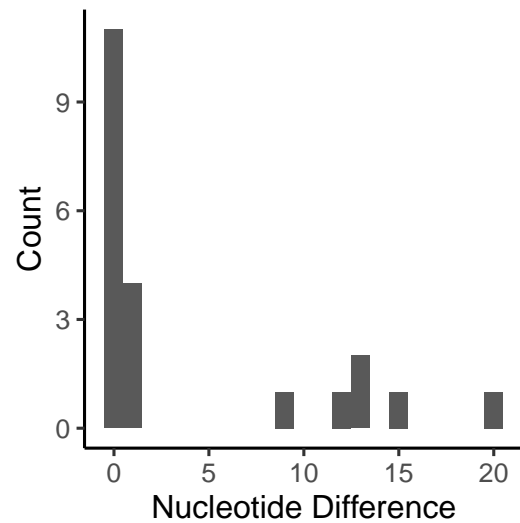
IGHV5-10-1*01_03

8798 sequences assigned
3260 (37.1%) exact matches, in which:
2335 unique CDR3
6 unique J



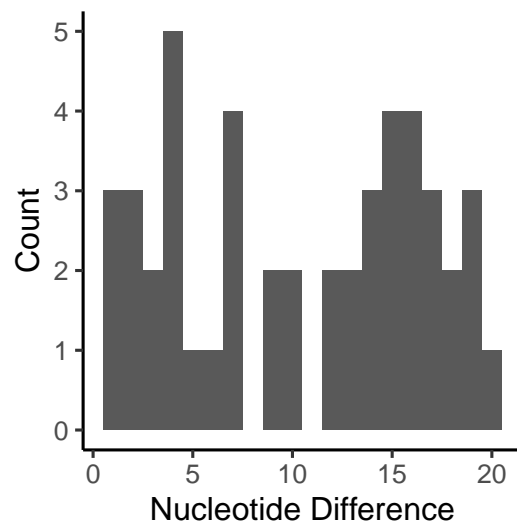
IGHV5-51*07

22 sequences assigned
11 (50%) exact matches, in which:
11 unique CDR3
3 unique J



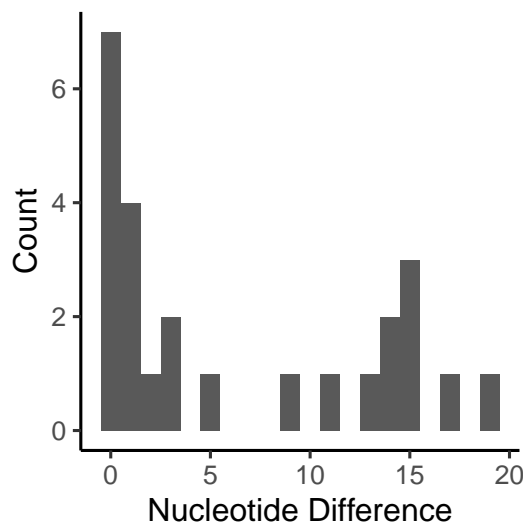
IGHV4/OR15-8*01

129 sequences assigned
No exact matches.



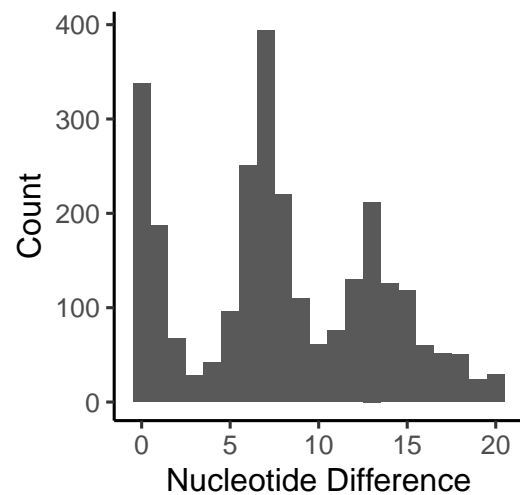
IGHV5-51*04

31 sequences assigned
7 (22.6%) exact matches, in which:
7 unique CDR3
3 unique J



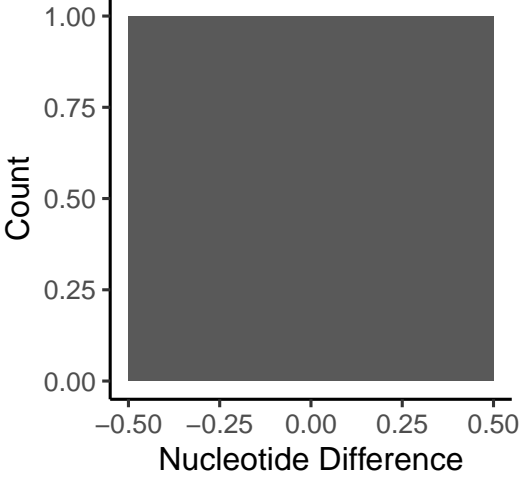
IGHV6-1*01_02

2878 sequences assigned
338 (11.7%) exact matches, in which:
309 unique CDR3
6 unique J



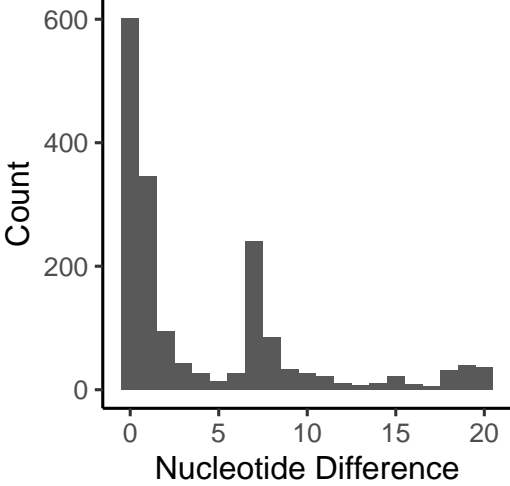
IGHV3/OR16-13*01

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



IGHV7-4-1*02

1829 sequences assigned
602 (32.9%) exact matches, in which:
559 unique CDR3
6 unique J





[illegible]