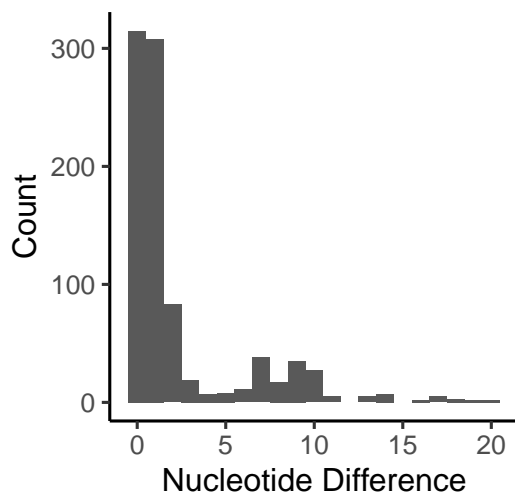


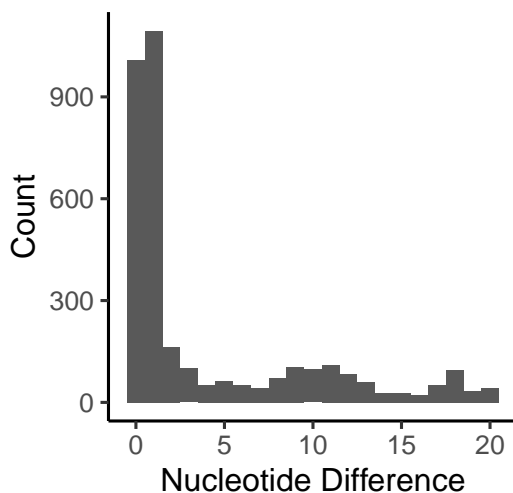
IGHV1-2*04

1002 sequences assigned
315 (31.4%) exact matches, in which:
269 unique CDR3
6 unique J



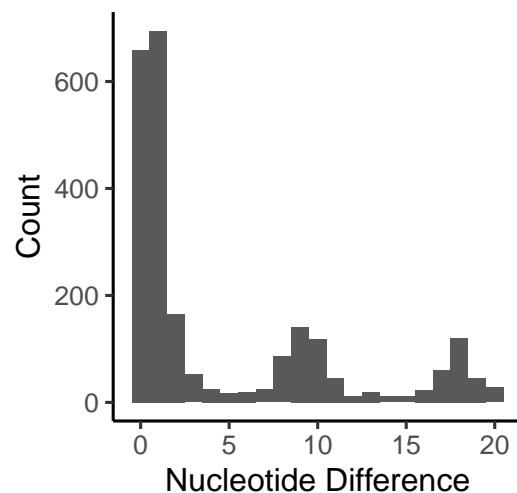
IGHV1-3*01_05

3976 sequences assigned
1009 (25.4%) exact matches, in which:
823 unique CDR3
6 unique J



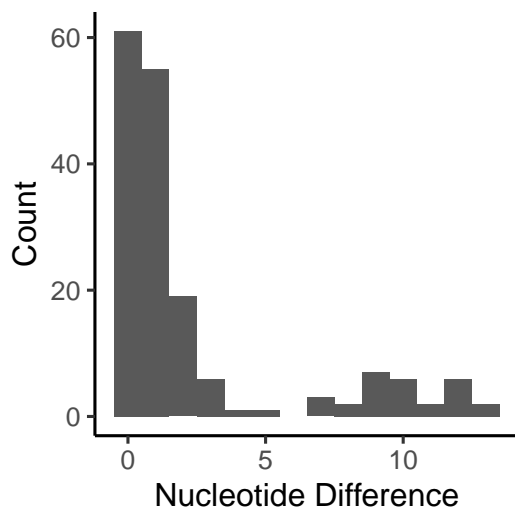
IGHV1-24*01

2681 sequences assigned
659 (24.6%) exact matches, in which:
545 unique CDR3
6 unique J



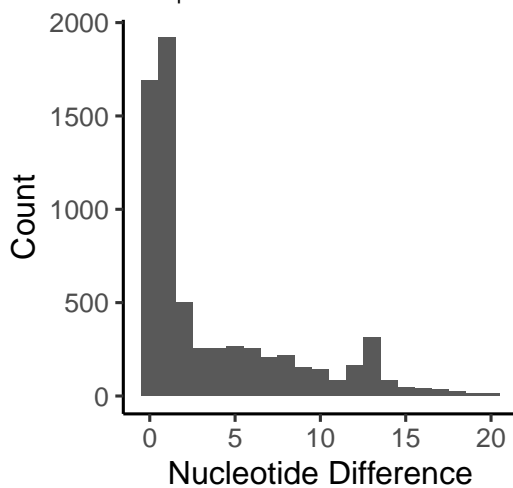
IGHV1-2*05

171 sequences assigned
61 (35.7%) exact matches, in which:
50 unique CDR3
5 unique J



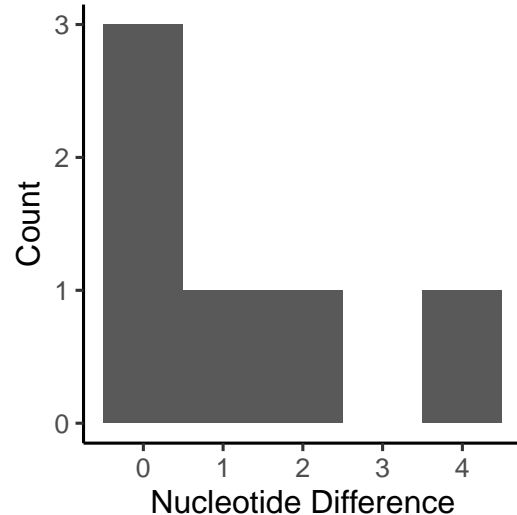
IGHV1-8*01

7869 sequences assigned
1688 (21.5%) exact matches, in which:
1420 unique CDR3
6 unique J



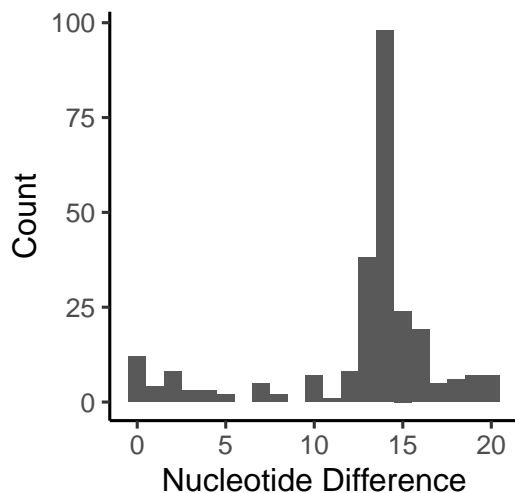
IGHV1-45*02

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



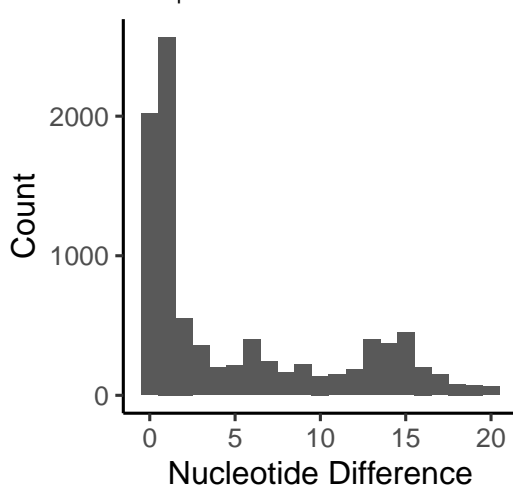
IGHV1-2*06

278 sequences assigned
12 (4.3%) exact matches, in which:
12 unique CDR3
4 unique J



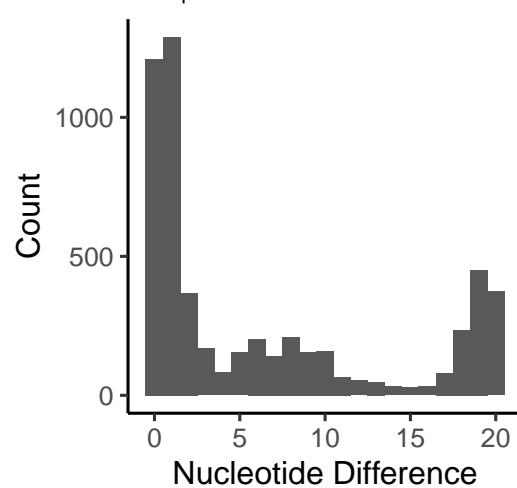
IGHV1-18*01

10381 sequences assigned
2020 (19.5%) exact matches, in which:
1630 unique CDR3
6 unique J



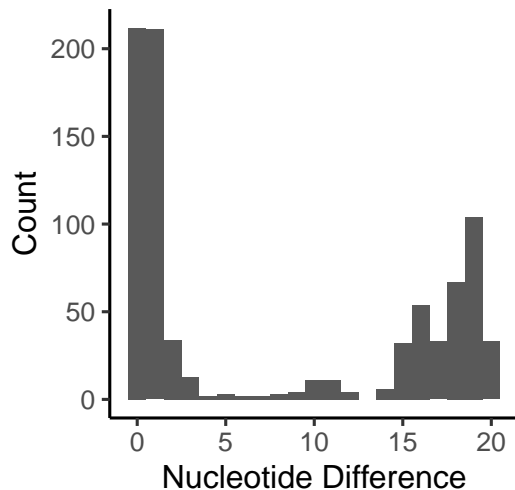
IGHV1-46*01

6366 sequences assigned
1209 (19%) exact matches, in which:
1021 unique CDR3
6 unique J



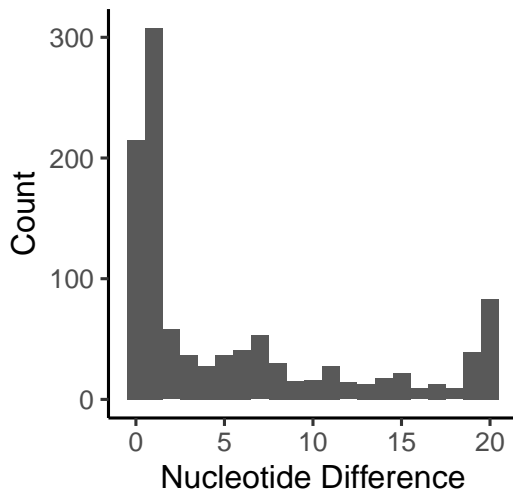
IGHV1–58*01_03

1077 sequences assigned
212 (19.7%) exact matches, in which:
175 unique CDR3
6 unique J



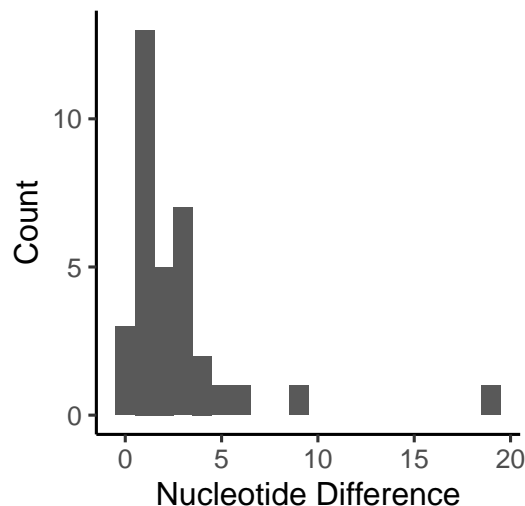
IGHV2–5*02

1251 sequences assigned
215 (17.2%) exact matches, in which:
175 unique CDR3
6 unique J



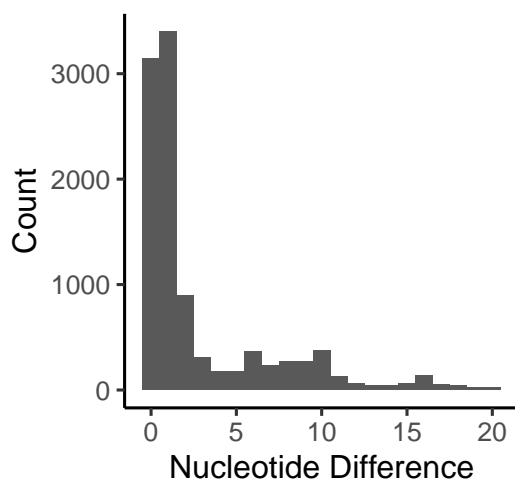
IGHV2–70*12

34 sequences assigned
3 (8.8%) exact matches, in which:
3 unique CDR3
3 unique J



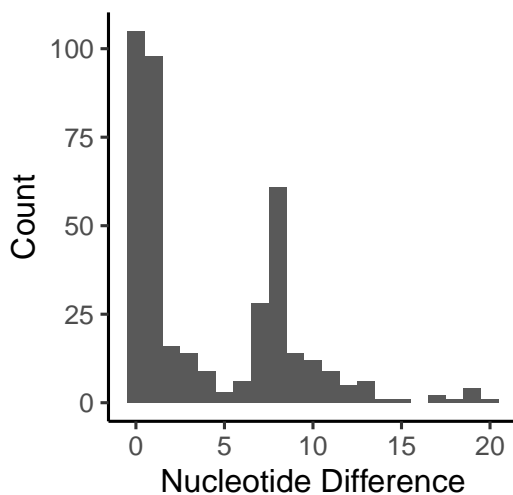
IGHV1–69*01_12_13

10789 sequences assigned
3141 (29.1%) exact matches, in which:
2635 unique CDR3
6 unique J



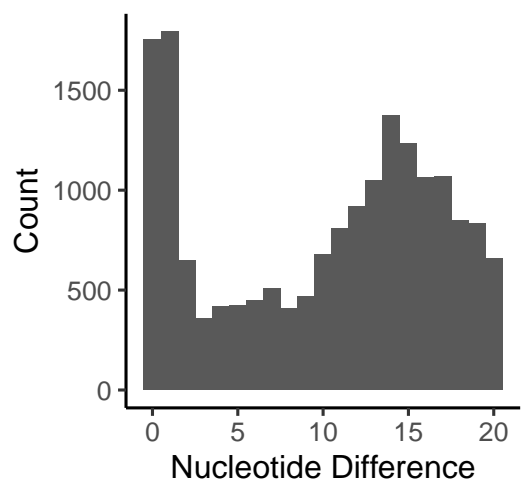
IGHV2–26*01

404 sequences assigned
105 (26%) exact matches, in which:
92 unique CDR3
5 unique J



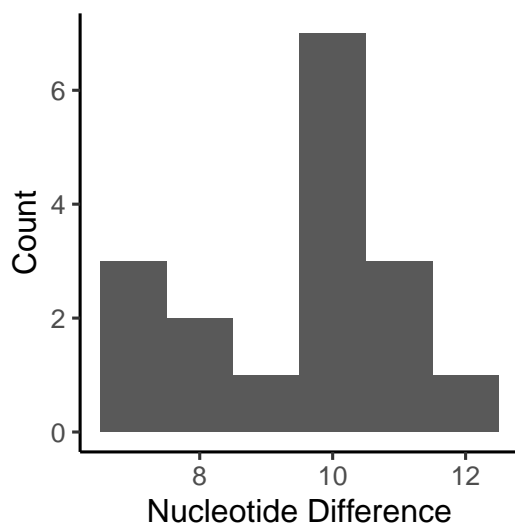
IGHV3–7*01

21918 sequences assigned
1754 (8%) exact matches, in which:
1150 unique CDR3
6 unique J



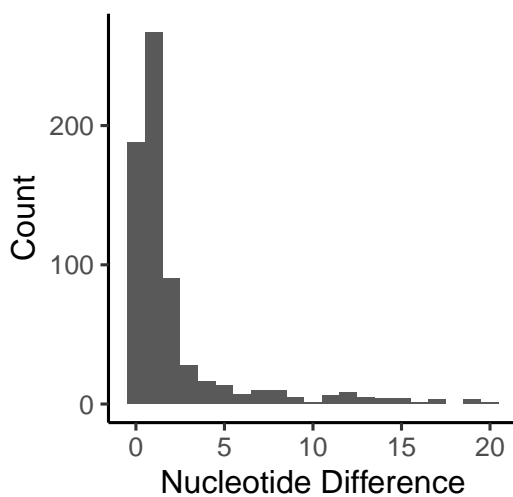
IGHV1–NL1*01

17 sequences assigned
No exact matches.



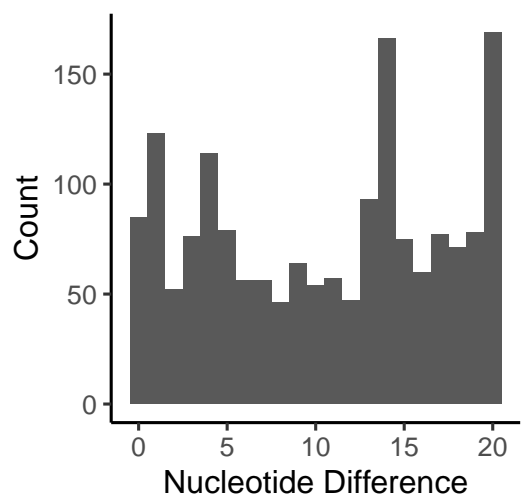
IGHV2–70*01

682 sequences assigned
188 (27.6%) exact matches, in which:
151 unique CDR3
4 unique J



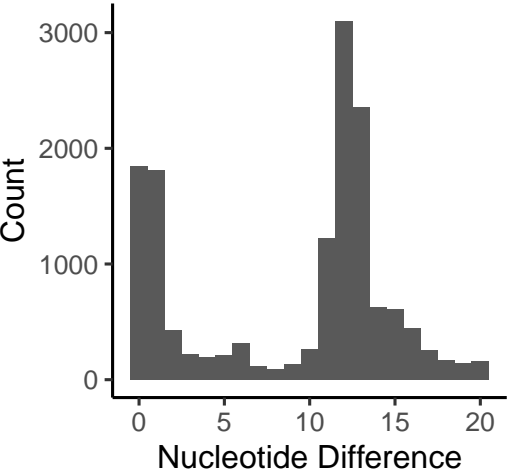
IGHV3–7*03

2474 sequences assigned
85 (3.4%) exact matches, in which:
76 unique CDR3
6 unique J



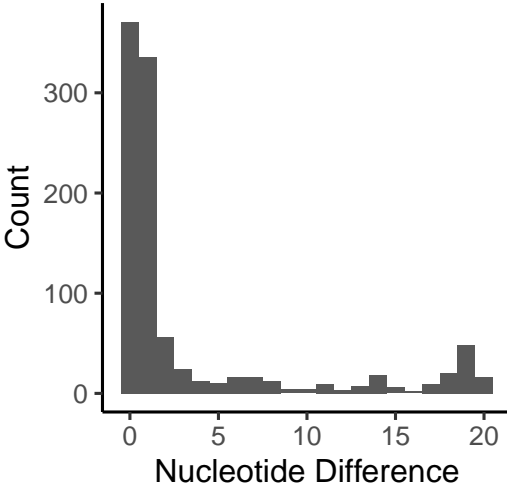
IGHV3-9*01

15598 sequences assigned
1844 (11.8%) exact matches, in which:
1022 unique CDR3
6 unique J



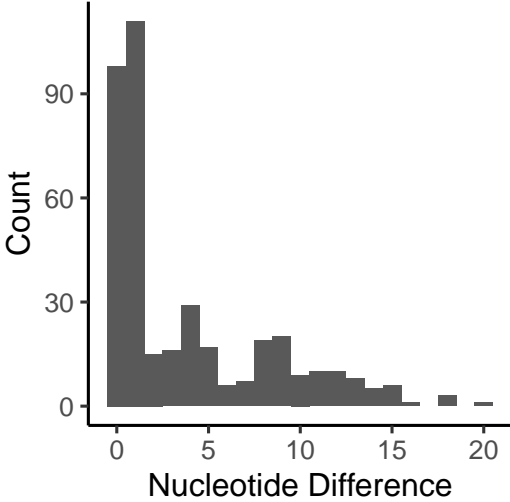
IGHV3-13*01

1099 sequences assigned
371 (33.8%) exact matches, in which:
233 unique CDR3
5 unique J



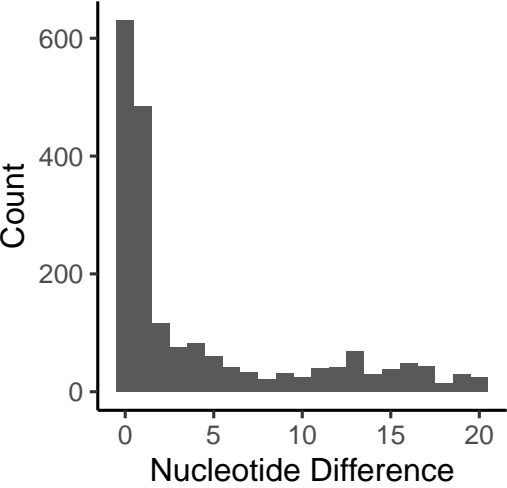
IGHV3-20*01_02

447 sequences assigned
98 (21.9%) exact matches, in which:
59 unique CDR3
5 unique J



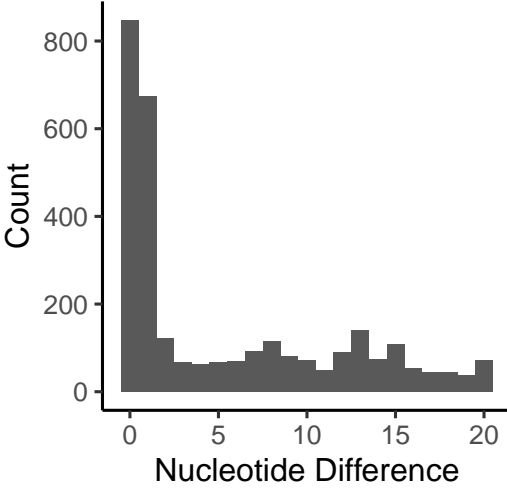
IGHV3-11*01

2399 sequences assigned
631 (26.3%) exact matches, in which:
419 unique CDR3
6 unique J



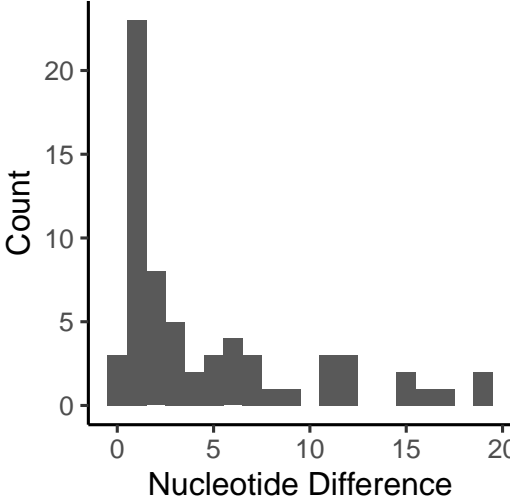
IGHV3-15*01_02

4385 sequences assigned
848 (19.3%) exact matches, in which:
490 unique CDR3
6 unique J



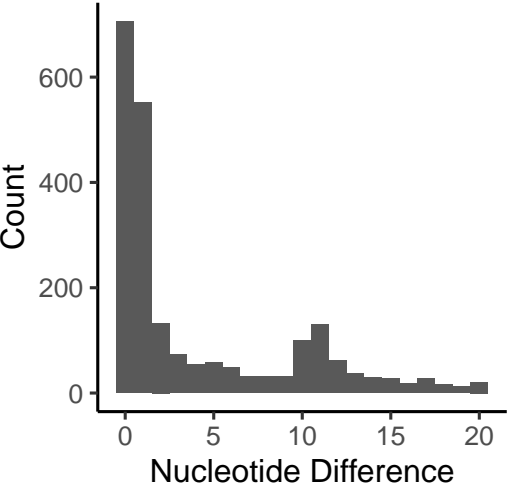
IGHV3-20*03_04

171 sequences assigned
3 (1.8%) exact matches, in which:
3 unique CDR3
2 unique J



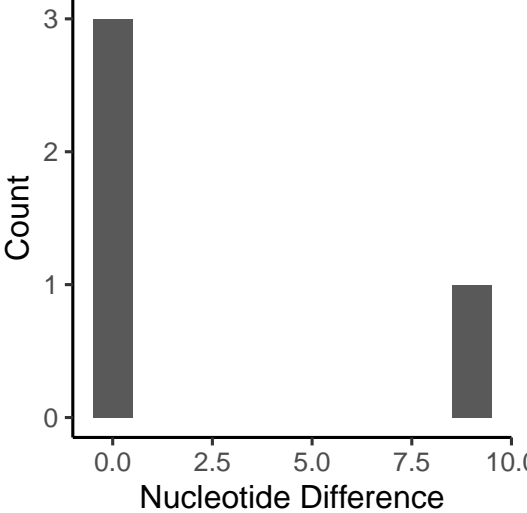
IGHV3-11*04

2639 sequences assigned
706 (26.8%) exact matches, in which:
516 unique CDR3
6 unique J



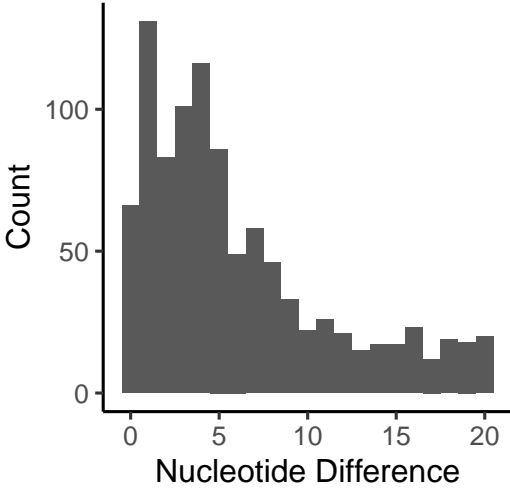
IGHV3-19*01

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



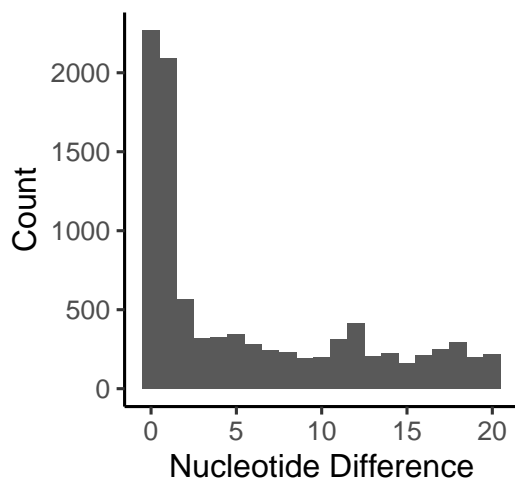
IGHV3-21*04

1098 sequences assigned
66 (6%) exact matches, in which:
63 unique CDR3
6 unique J



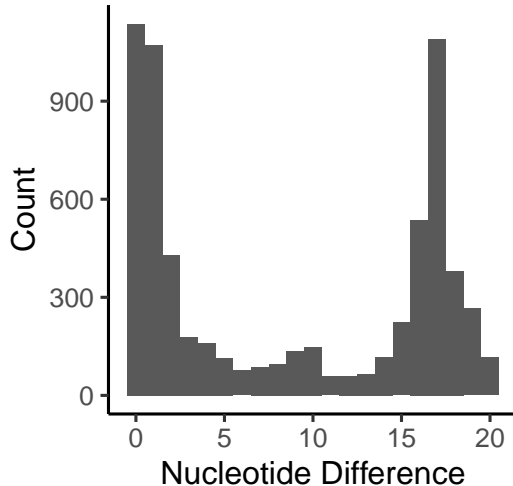
IGHV3-21*01_02

12856 sequences assigned
2268 (17.6%) exact matches, in which:
1412 unique CDR3
6 unique J



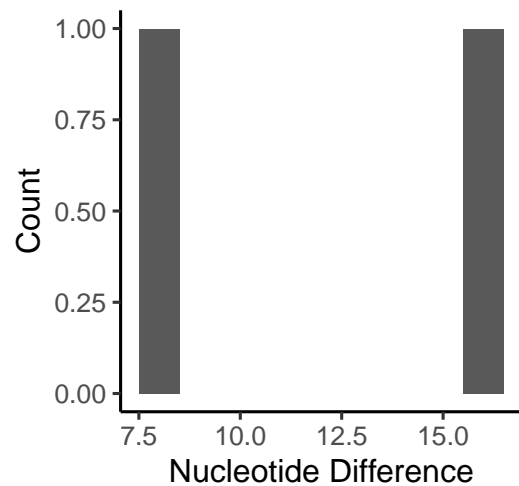
IGHV3-33*01

7932 sequences assigned
1137 (14.3%) exact matches, in which:
753 unique CDR3
6 unique J



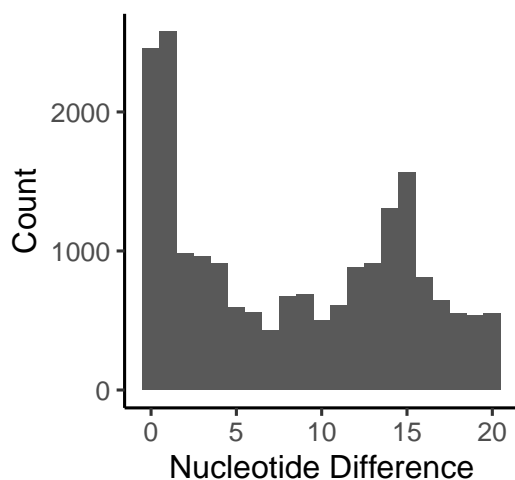
IGHV3-35*01

2 sequences assigned
No exact matches.



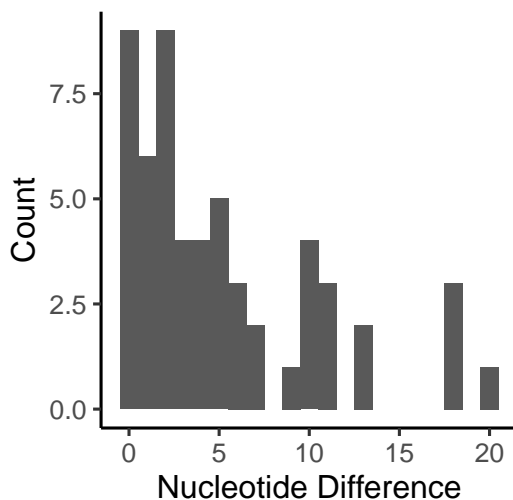
IGHV3-23*01_04

26692 sequences assigned
2459 (9.2%) exact matches, in which:
1404 unique CDR3
6 unique J



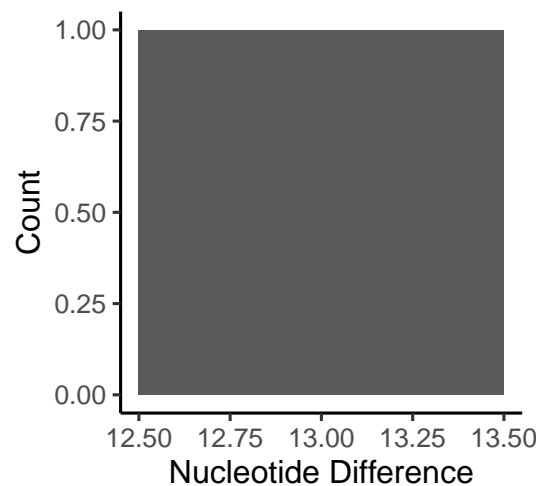
IGHV3-33*05

84 sequences assigned
9 (10.7%) exact matches, in which:
9 unique CDR3
3 unique J



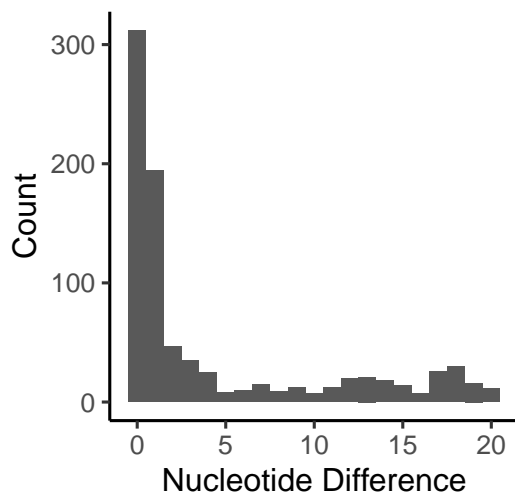
IGHV3-38*01

1 sequences assigned
No exact matches.



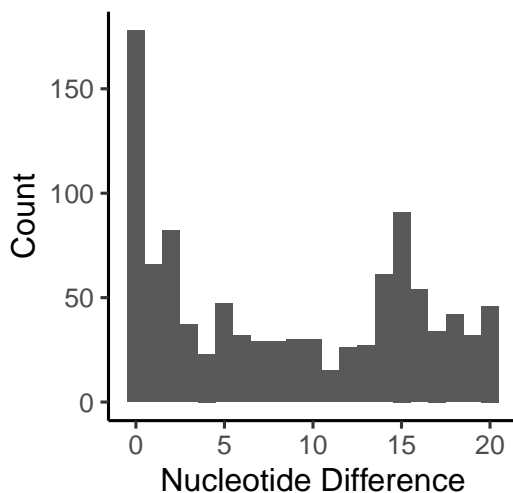
IGHV3-30*03

1079 sequences assigned
312 (28.9%) exact matches, in which:
288 unique CDR3
6 unique J



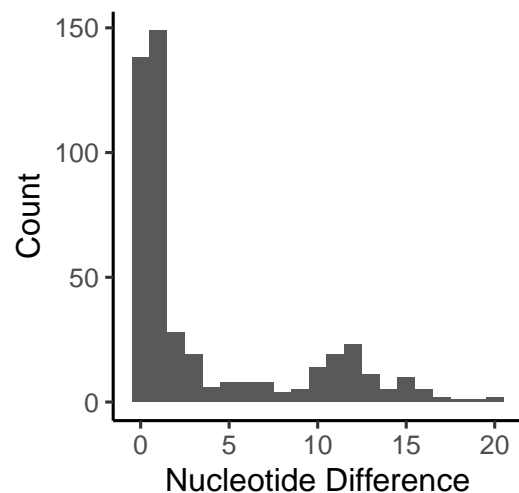
IGHV3-33*08

1315 sequences assigned
178 (13.5%) exact matches, in which:
144 unique CDR3
6 unique J



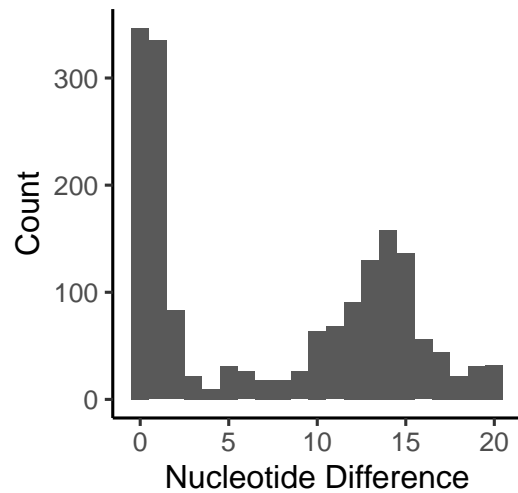
IGHV3-43*01

577 sequences assigned
138 (23.9%) exact matches, in which:
89 unique CDR3
6 unique J



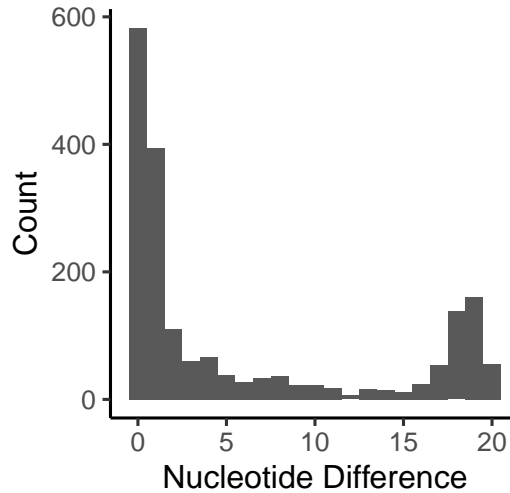
IGHV3-43*02

2062 sequences assigned
347 (16.8%) exact matches, in which:
112 unique CDR3
6 unique J



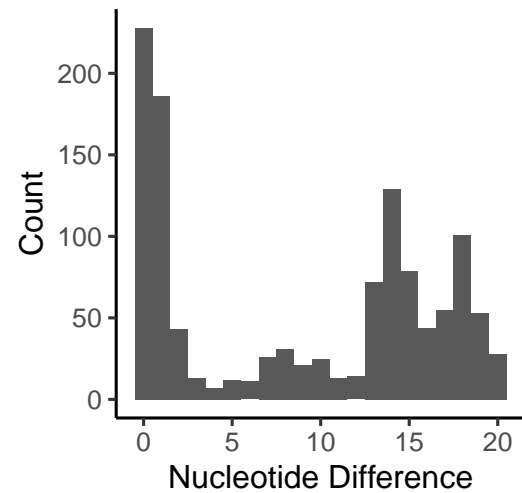
IGHV3-48*02

2185 sequences assigned
583 (26.7%) exact matches, in which:
363 unique CDR3
6 unique J



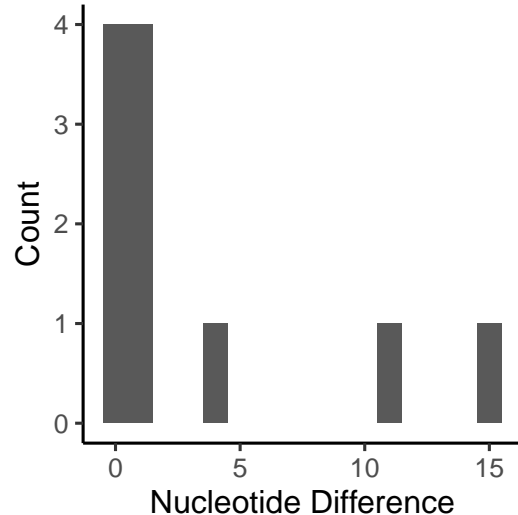
IGHV3-49*04

1449 sequences assigned
228 (15.7%) exact matches, in which:
133 unique CDR3
6 unique J



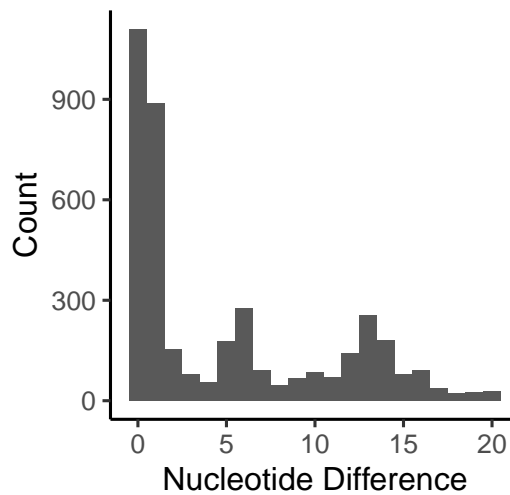
IGHV3-47*01

11 sequences assigned
4 (36.4%) exact matches, in which:
2 unique CDR3
2 unique J



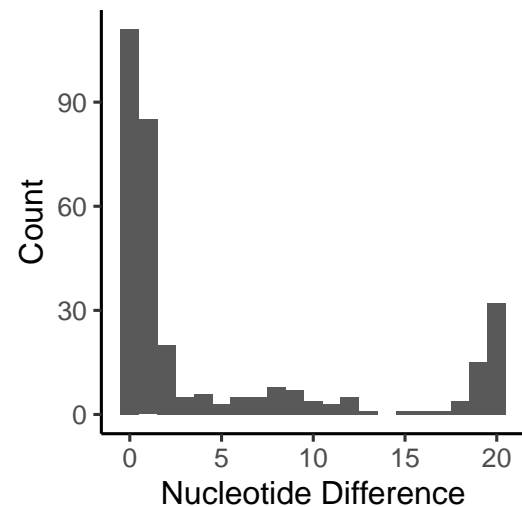
IGHV3-48*03

4483 sequences assigned
1110 (24.8%) exact matches, in which:
654 unique CDR3
6 unique J



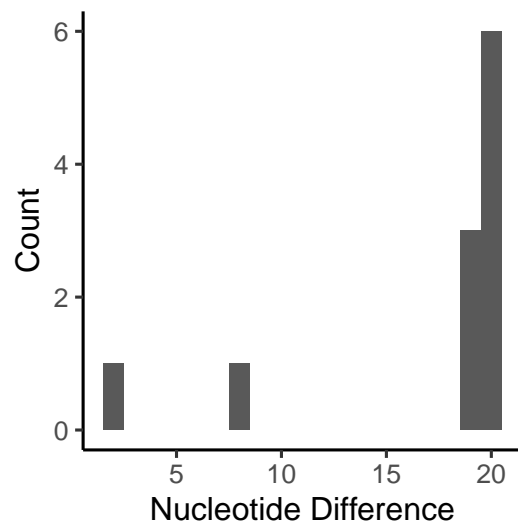
IGHV3-49*03_05

352 sequences assigned
111 (31.5%) exact matches, in which:
66 unique CDR3
5 unique J



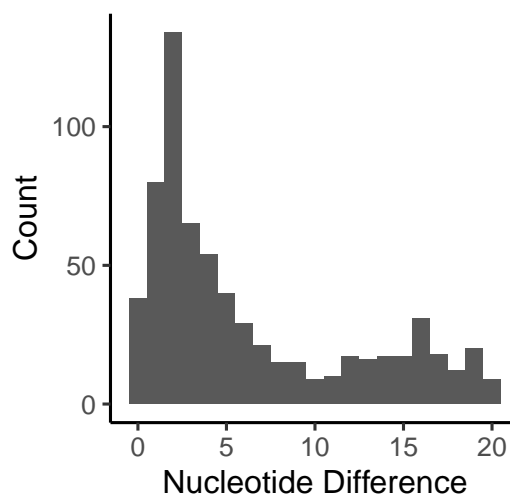
IGHV3-47*02

11 sequences assigned
No exact matches.



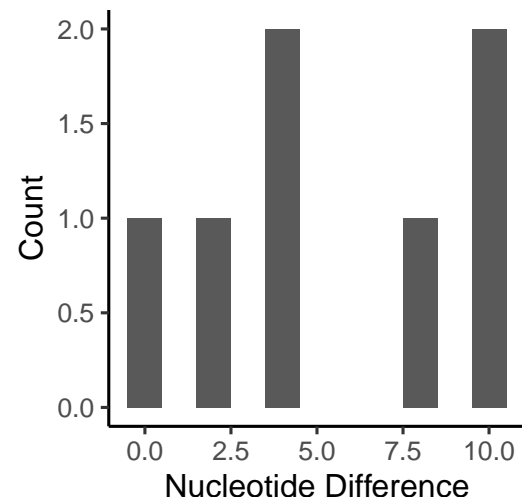
IGHV3-48*04

742 sequences assigned
38 (5.1%) exact matches, in which:
38 unique CDR3
4 unique J



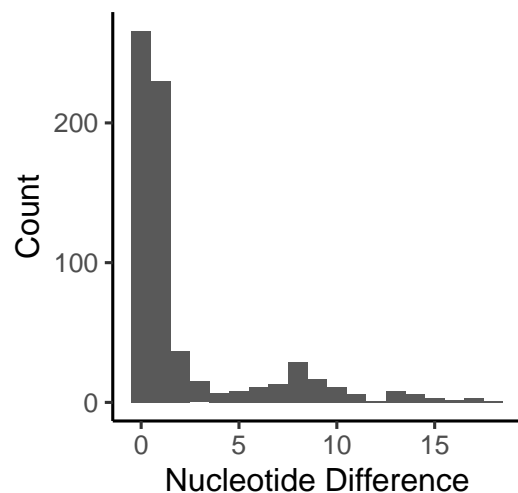
IGHV3-52*01_03

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



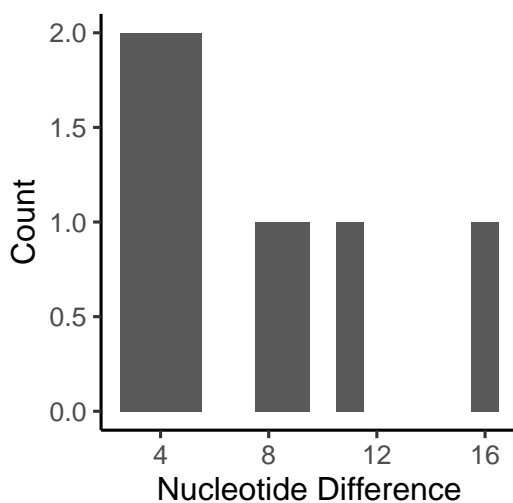
IGHV3-53*04

831 sequences assigned
266 (32%) exact matches, in which:
171 unique CDR3
5 unique J



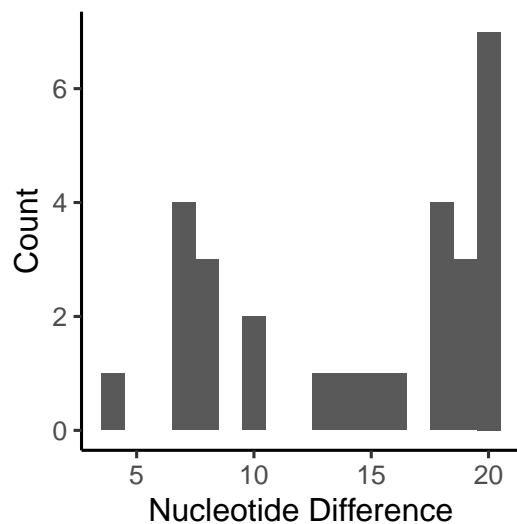
IGHV3-64*04

13 sequences assigned
No exact matches.



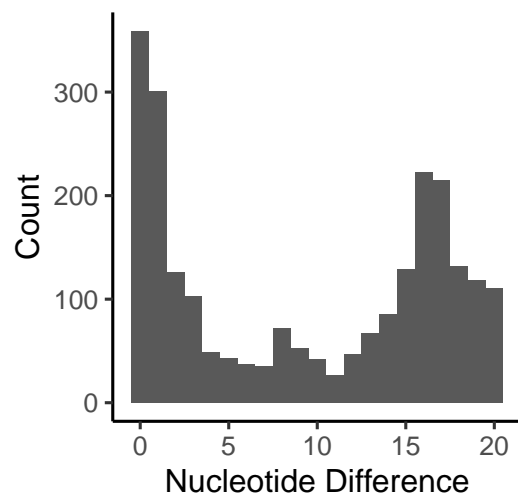
IGHV3-66*02

166 sequences assigned
No exact matches.



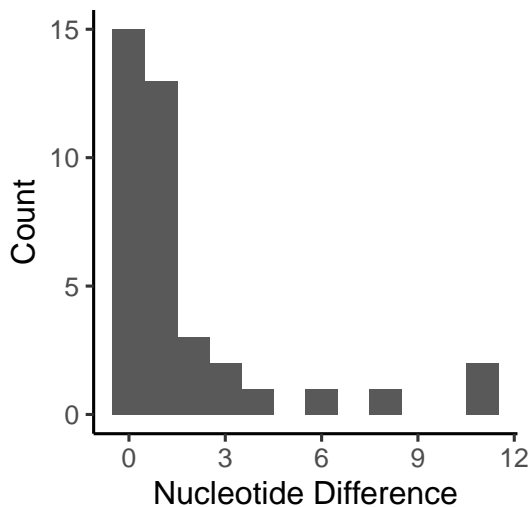
IGHV3-53*01_02

4549 sequences assigned
359 (7.9%) exact matches, in which:
240 unique CDR3
6 unique J



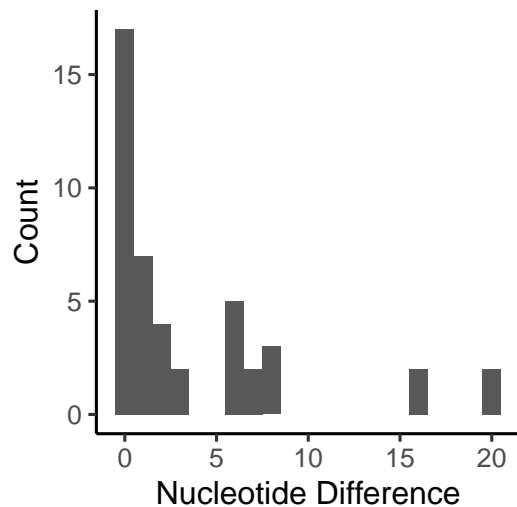
IGHV3-64*02_07

39 sequences assigned
15 (38.5%) exact matches, in which:
12 unique CDR3
2 unique J



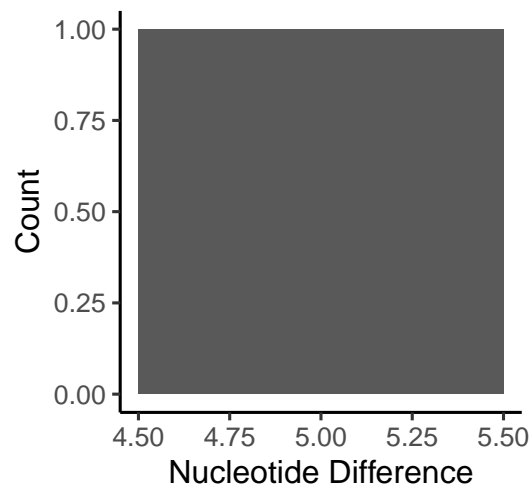
IGHV3-66*03

47 sequences assigned
17 (36.2%) exact matches, in which:
16 unique CDR3
3 unique J



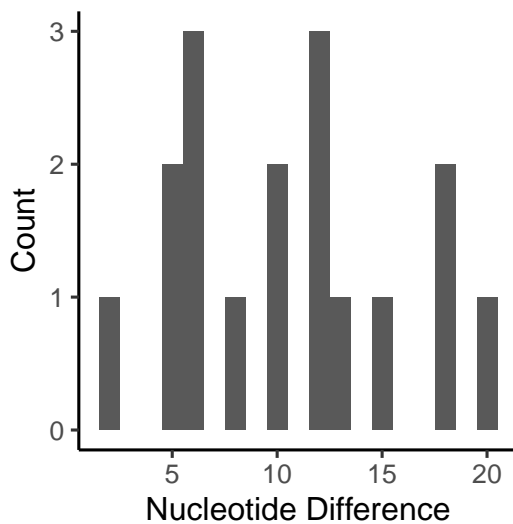
IGHV3-62*03

1 sequences assigned
No exact matches.



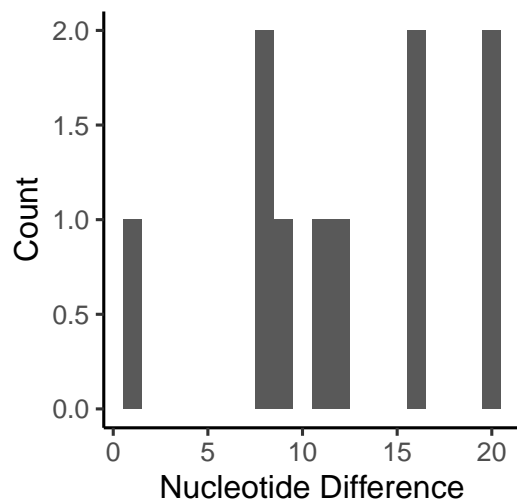
IGHV3-66*01

31 sequences assigned
No exact matches.



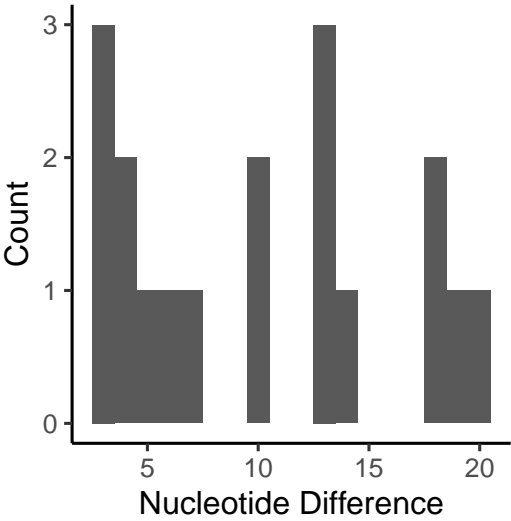
IGHV3-66*04

14 sequences assigned
No exact matches.



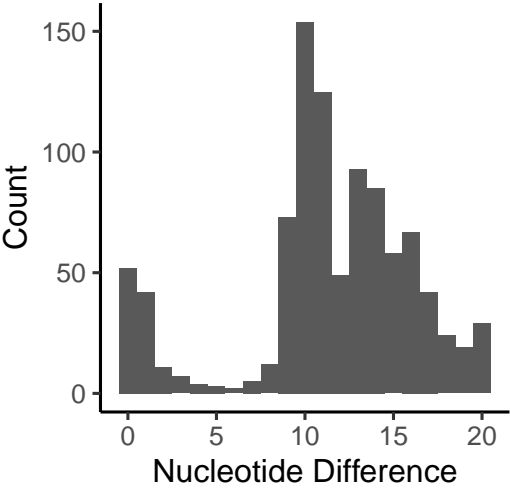
IGHV3-69-1*01

40 sequences assigned
No exact matches.



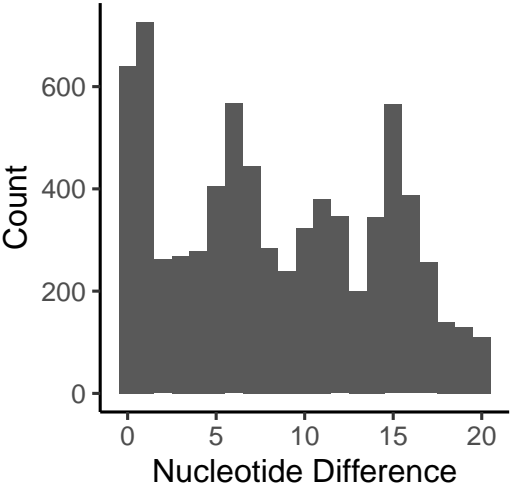
IGHV3-72*01

1488 sequences assigned
52 (3.5%) exact matches, in which:
30 unique CDR3
5 unique J



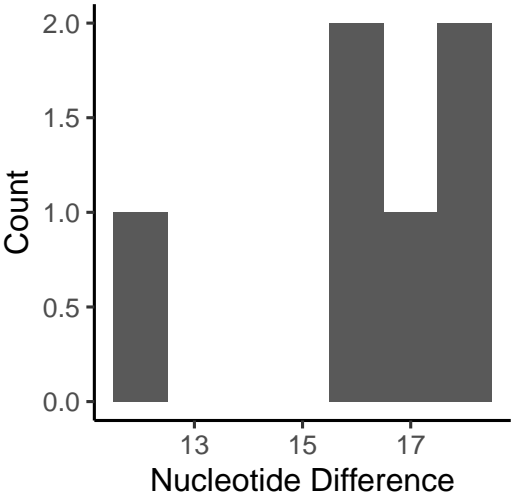
IGHV3-74*01_02

8242 sequences assigned
640 (7.8%) exact matches, in which:
433 unique CDR3
6 unique J



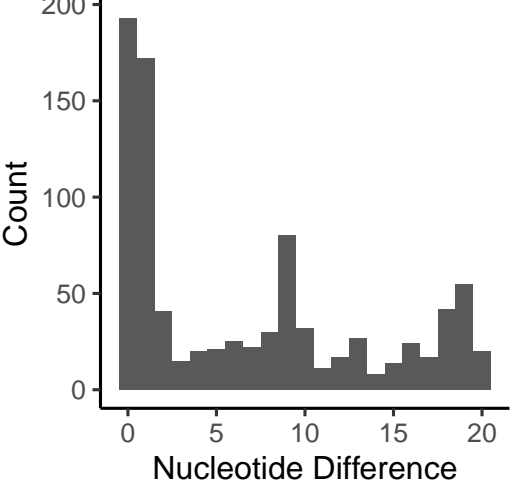
IGHV3-69-1*02

16 sequences assigned
No exact matches.



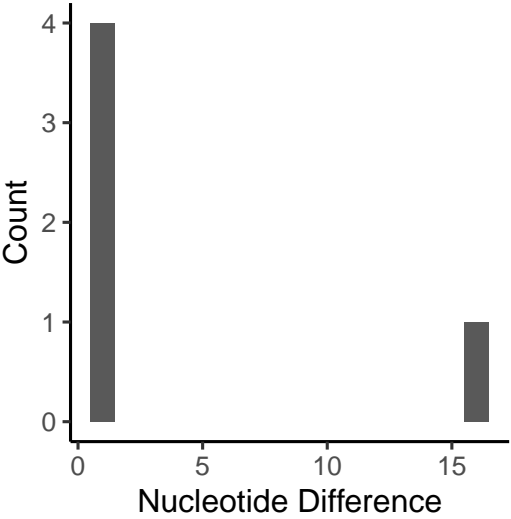
IGHV3-73*01_02

1365 sequences assigned
193 (14.1%) exact matches, in which:
121 unique CDR3
6 unique J



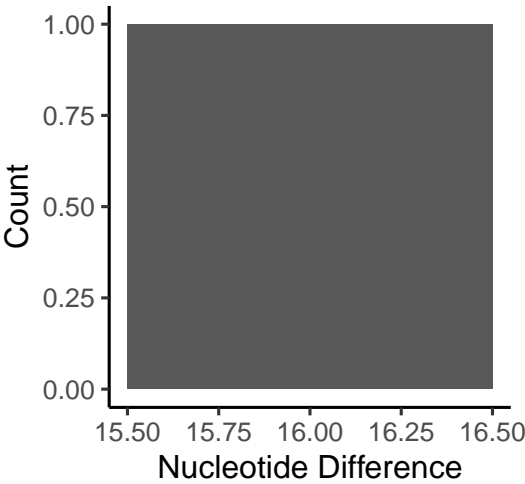
IGHV3-43D*04

5 sequences assigned
No exact matches.



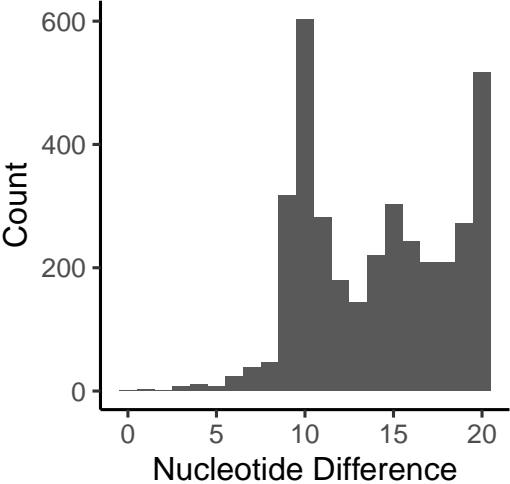
IGHV3-71*01_04

2 sequences assigned
No exact matches.



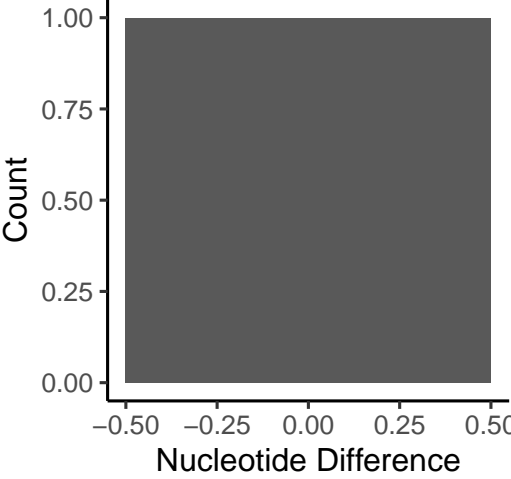
IGHV3-74*03

6415 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



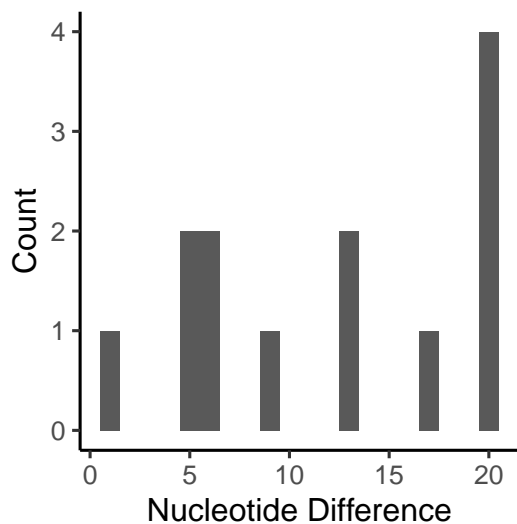
IGHV3-64D*06

80 sequences assigned
1 (1.2%) exact matches, in which:
1 unique CDR3
1 unique J



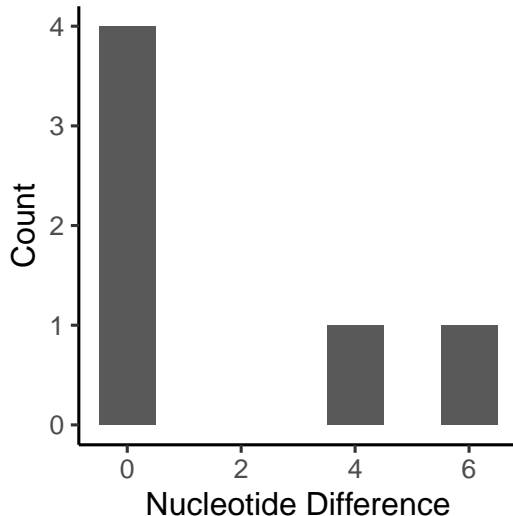
IGHV3–NL1*01

44 sequences assigned
No exact matches.



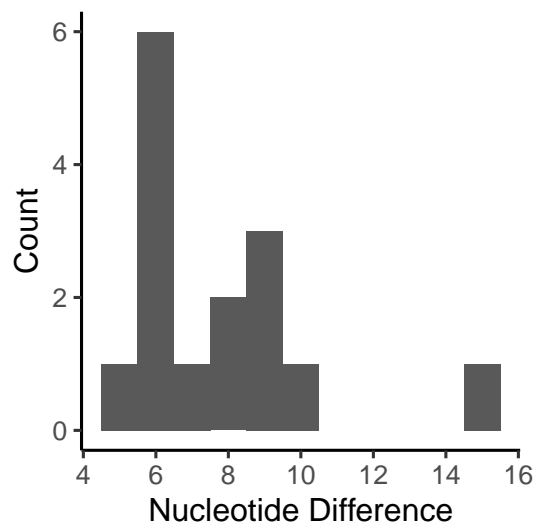
IGHV4–30–4*01

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



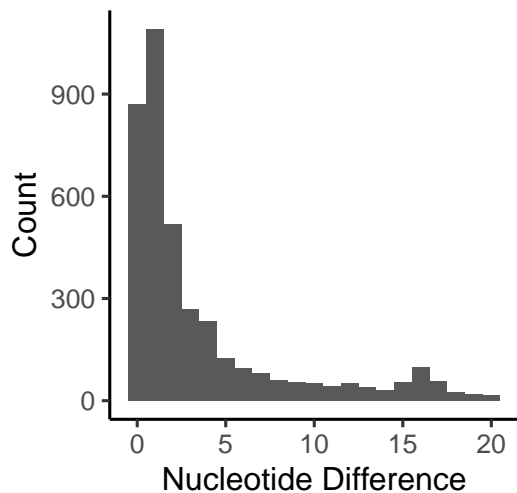
IGHV4–30–4*08

18 sequences assigned
No exact matches.



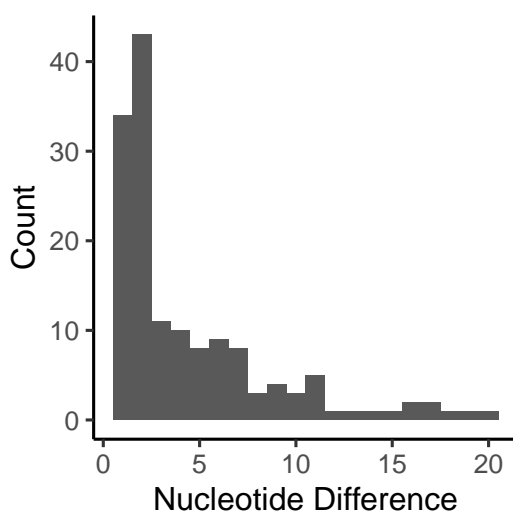
IGHV4–4*07

4727 sequences assigned
870 (18.4%) exact matches, in which:
674 unique CDR3
6 unique J



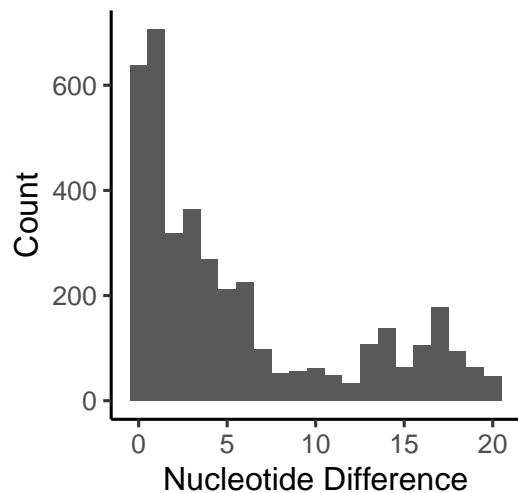
IGHV4–30–2*03

186 sequences assigned
No exact matches.



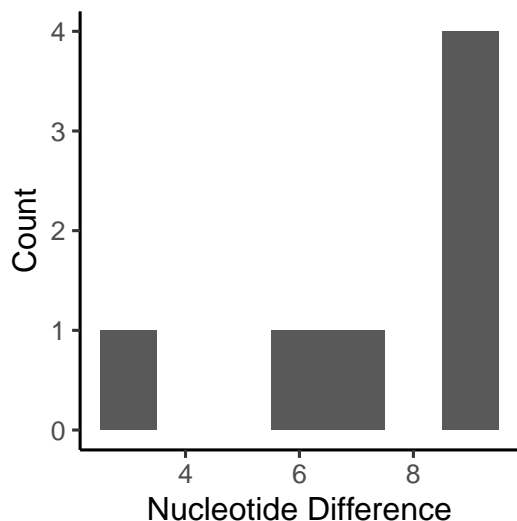
IGHV4–31*02

4908 sequences assigned
639 (13%) exact matches, in which:
528 unique CDR3
6 unique J



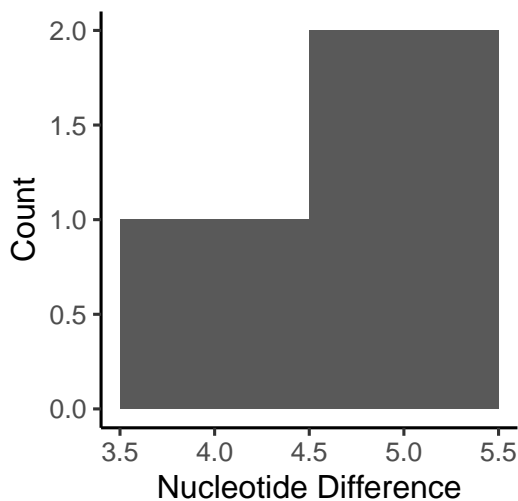
IGHV4–28*02_05

7 sequences assigned
No exact matches.



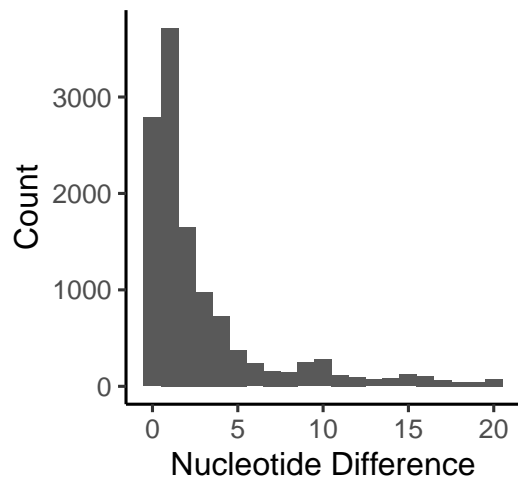
IGHV4–30–2*04

3 sequences assigned
No exact matches.



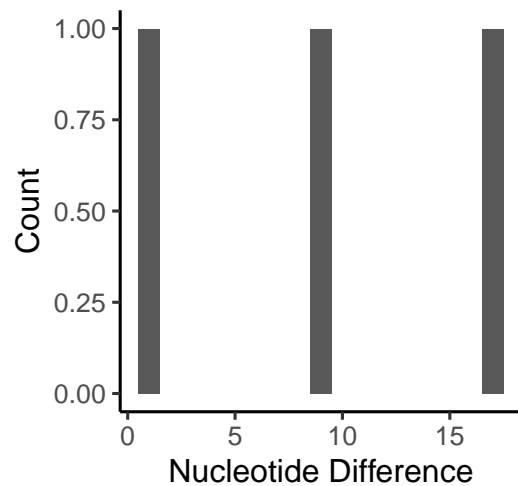
IGHV4–34*01_02

13408 sequences assigned
2788 (20.8%) exact matches, in which:
1969 unique CDR3
6 unique J



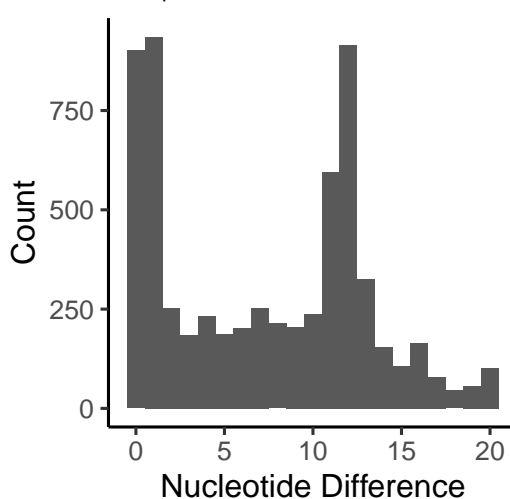
IGHV4-38-2*01

4 sequences assigned
No exact matches.



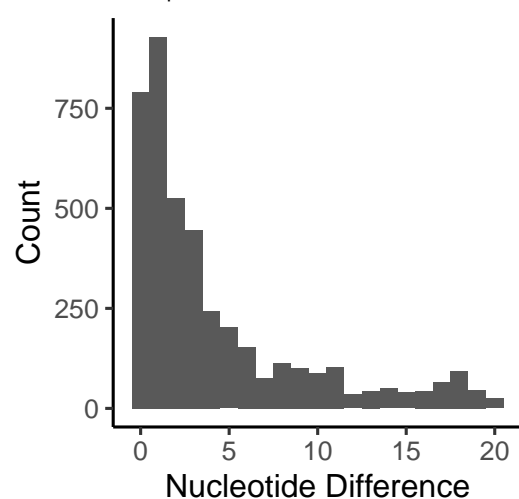
IGHV4-59*01_07

6760 sequences assigned
901 (13.3%) exact matches, in which:
758 unique CDR3
6 unique J



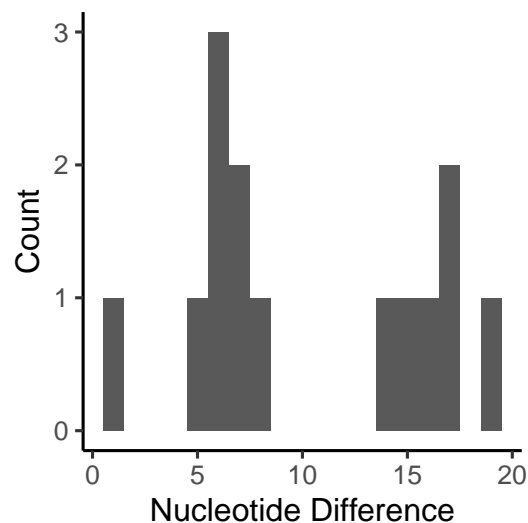
IGHV4-61*01

5455 sequences assigned
791 (14.5%) exact matches, in which:
680 unique CDR3
6 unique J



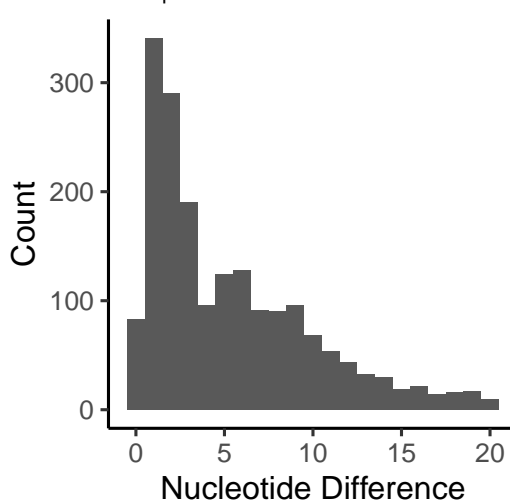
IGHV4-38-2*02

48 sequences assigned
No exact matches.



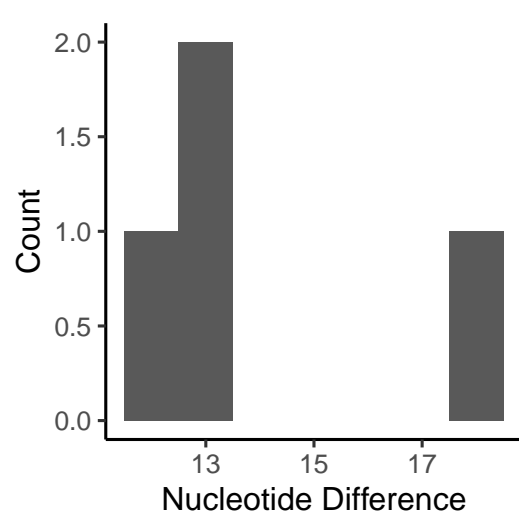
IGHV4-59*12

2116 sequences assigned
83 (3.9%) exact matches, in which:
82 unique CDR3
6 unique J



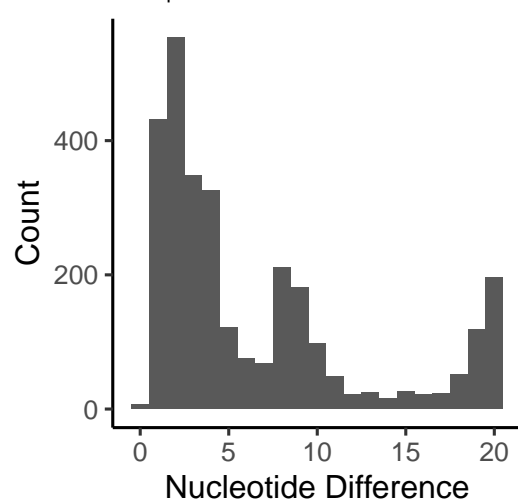
IGHV1/OR15-2*02_03

5 sequences assigned
No exact matches.



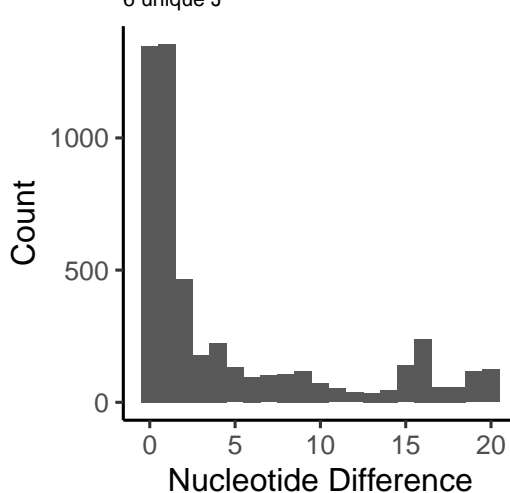
IGHV4-39*07

3431 sequences assigned
7 (0.2%) exact matches, in which:
7 unique CDR3
5 unique J



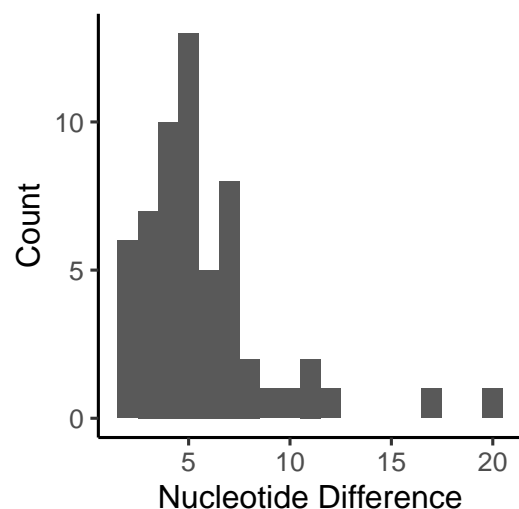
IGHV4-59*13

6754 sequences assigned
1347 (19.9%) exact matches, in which:
1137 unique CDR3
6 unique J



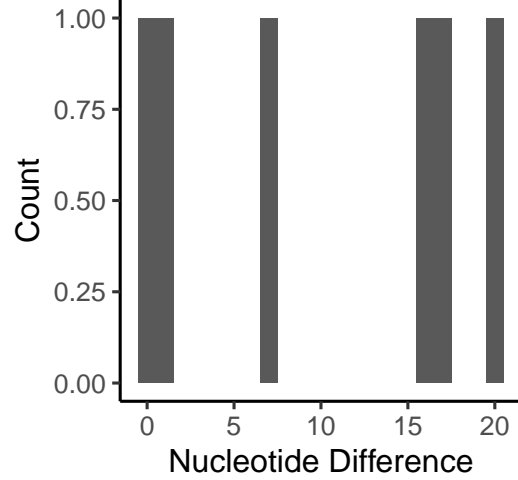
IGHV4/OR15-8*01

68 sequences assigned
No exact matches.



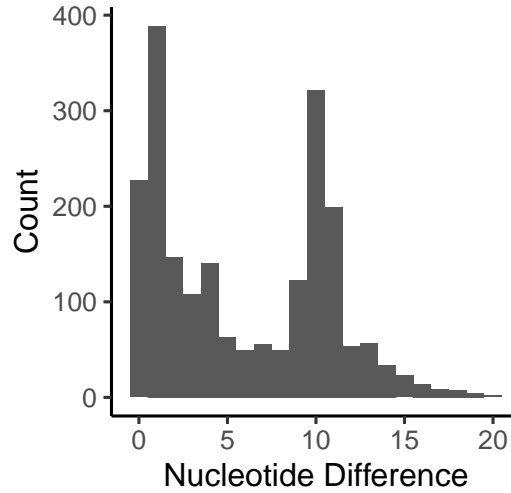
IGHV5-10-1*01_03

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



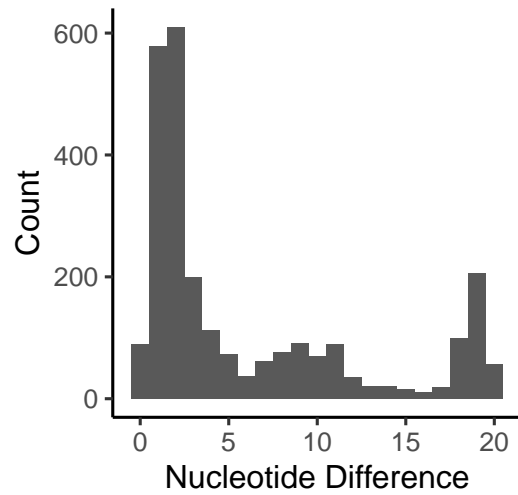
IGHV6-1*01_02

2241 sequences assigned
227 (10.1%) exact matches, in which:
184 unique CDR3
5 unique J



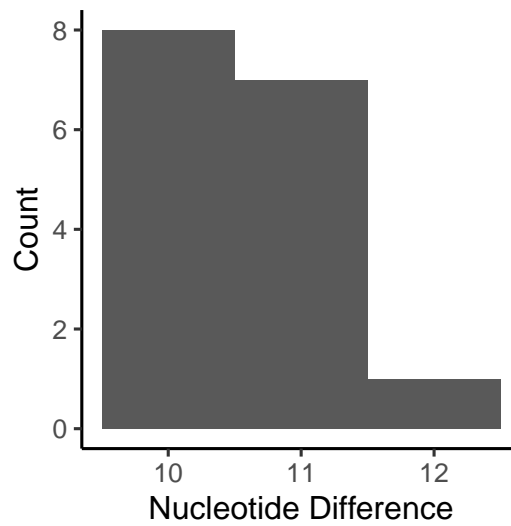
IGHV5-51*07

2696 sequences assigned
89 (3.3%) exact matches, in which:
64 unique CDR3
5 unique J



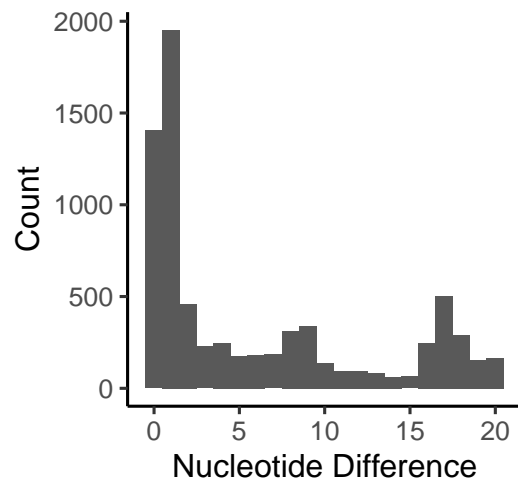
IGHV3/OR16-9*01

16 sequences assigned
No exact matches.



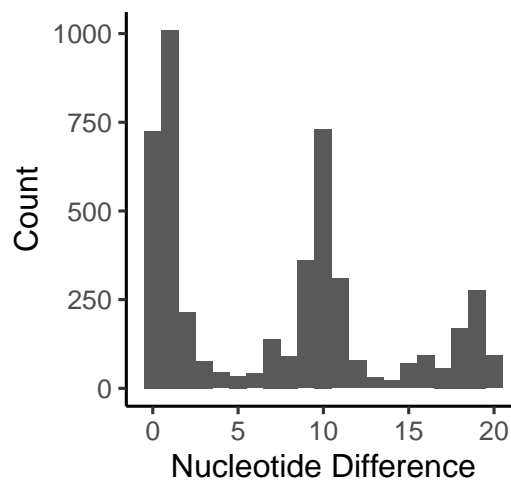
IGHV5-51*01_03

8528 sequences assigned
1405 (16.5%) exact matches, in which:
739 unique CDR3
6 unique J



IGHV7-4-1*02

5178 sequences assigned
725 (14%) exact matches, in which:
587 unique CDR3
6 unique J





[illegible]