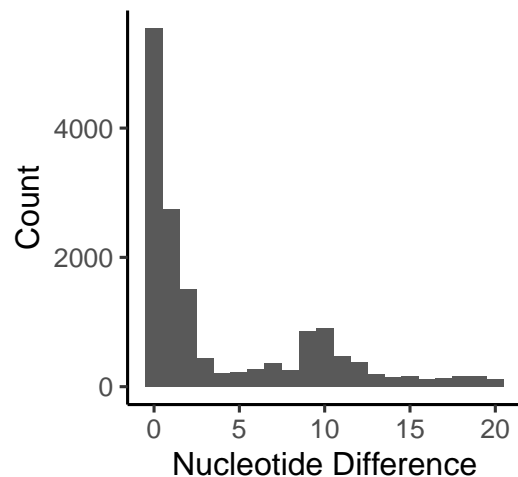


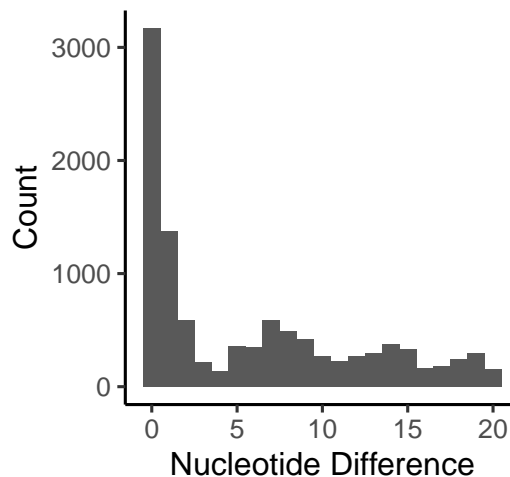
IGHV1-2*02

17732 sequences assigned
5542 (31.3%) exact matches, in which:
5161 unique CDR3
6 unique J



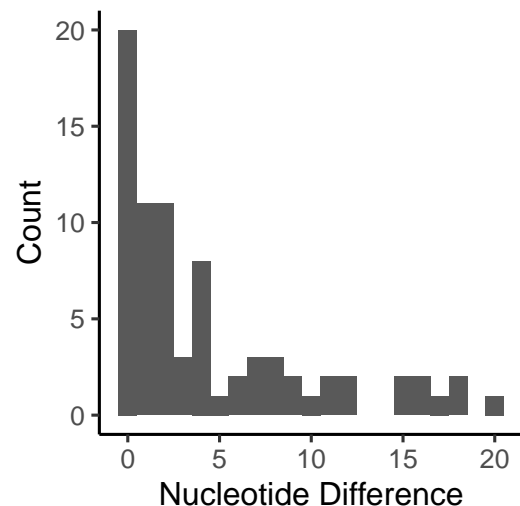
IGHV1-8*01

12146 sequences assigned
3168 (26.1%) exact matches, in which:
3034 unique CDR3
6 unique J



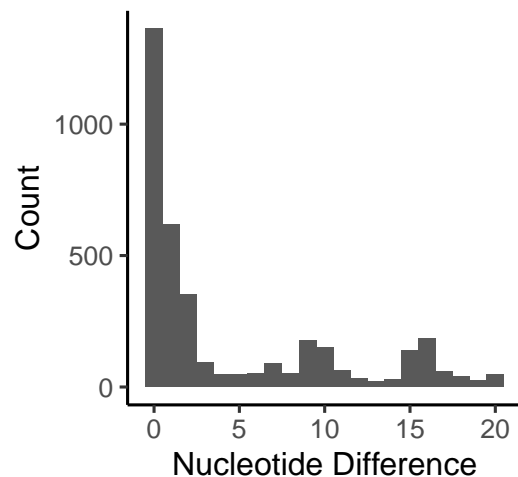
IGHV1-45*02

80 sequences assigned
20 (25%) exact matches, in which:
19 unique CDR3
4 unique J



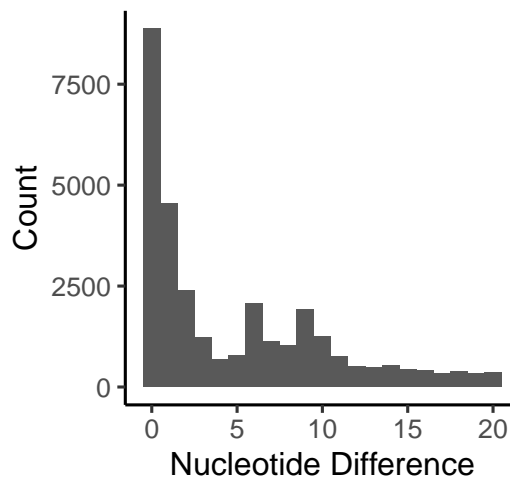
IGHV1-2*04

4085 sequences assigned
1363 (33.4%) exact matches, in which:
1303 unique CDR3
6 unique J



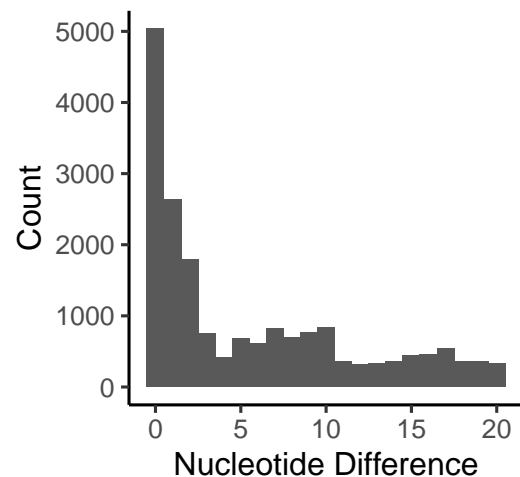
IGHV1-18*01

38353 sequences assigned
8874 (23.1%) exact matches, in which:
8272 unique CDR3
6 unique J



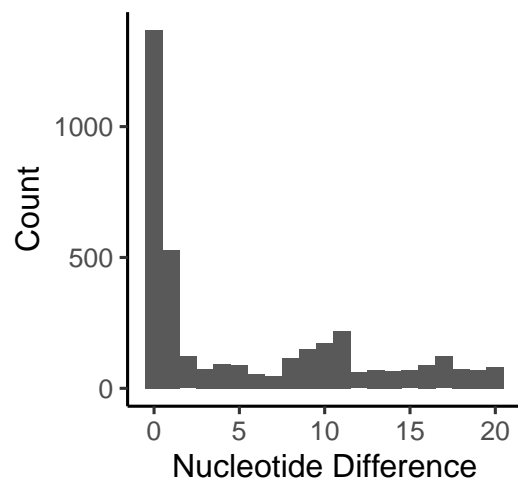
IGHV1-46*01

25942 sequences assigned
5037 (19.4%) exact matches, in which:
4760 unique CDR3
6 unique J



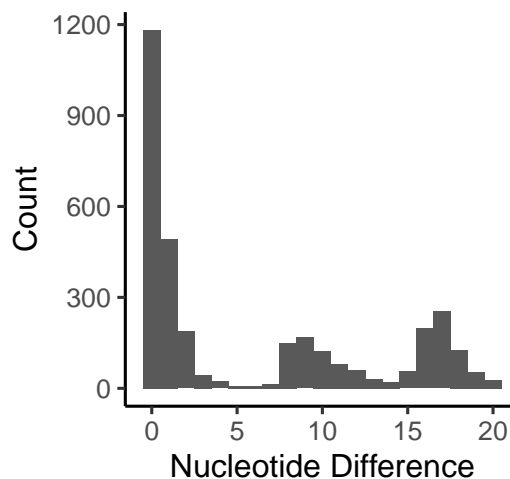
IGHV1-3*01_05

5174 sequences assigned
1369 (26.5%) exact matches, in which:
1293 unique CDR3
6 unique J



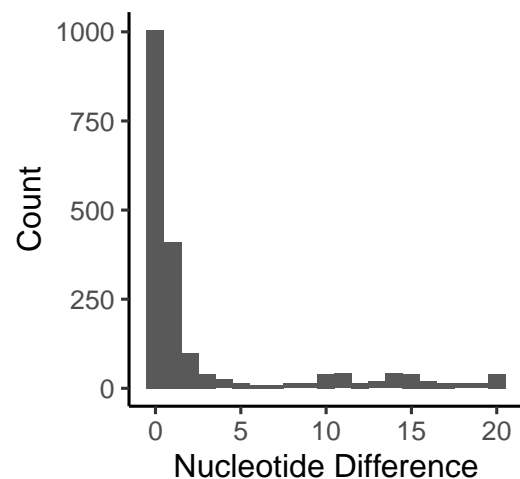
IGHV1-24*01

3587 sequences assigned
1182 (33%) exact matches, in which:
1134 unique CDR3
6 unique J



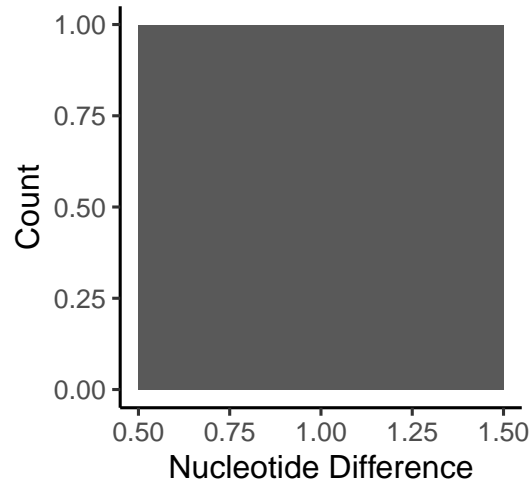
IGHV1-58*01_03

2517 sequences assigned
1005 (39.9%) exact matches, in which:
947 unique CDR3
6 unique J



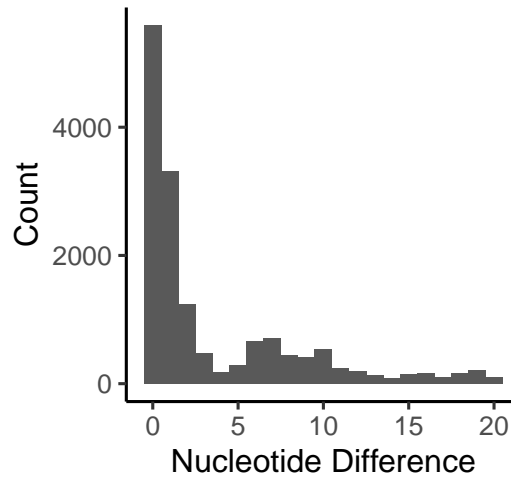
IGHV1-68*01

1 sequences assigned
No exact matches.



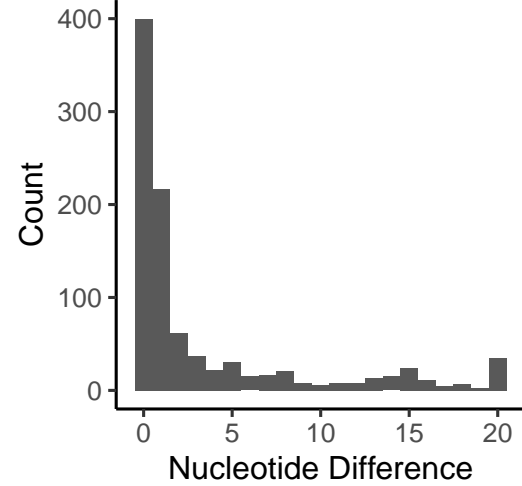
IGHV1-69*04_09

16107 sequences assigned
5588 (34.7%) exact matches, in which:
5339 unique CDR3
6 unique J



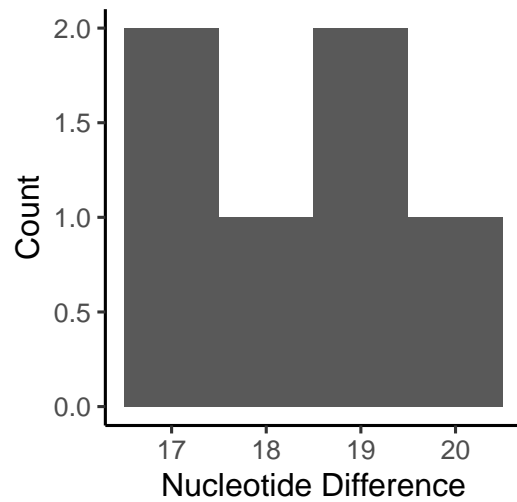
IGHV2-5*01

1124 sequences assigned
400 (35.6%) exact matches, in which:
372 unique CDR3
6 unique J



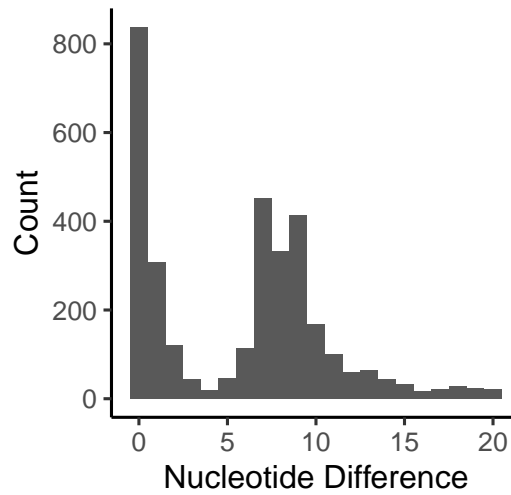
IGHV1-69-2*01

8 sequences assigned
No exact matches.



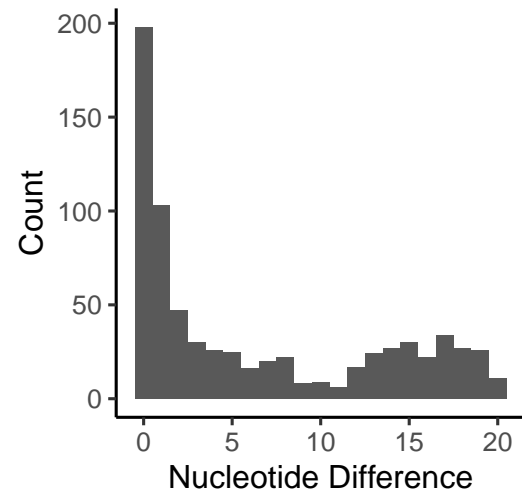
IGHV1-69*06_14

3695 sequences assigned
838 (22.7%) exact matches, in which:
828 unique CDR3
6 unique J



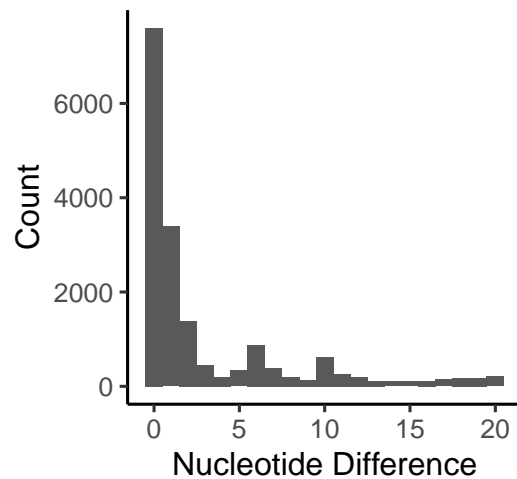
IGHV2-5*02

1014 sequences assigned
198 (19.5%) exact matches, in which:
184 unique CDR3
6 unique J



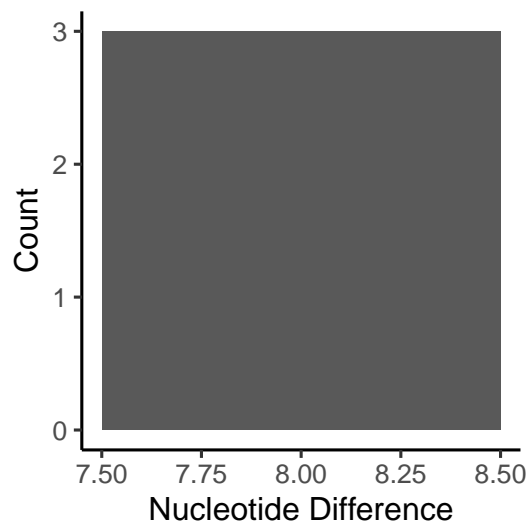
IGHV1-69*01_12_13

20422 sequences assigned
7598 (37.2%) exact matches, in which:
7263 unique CDR3
6 unique J



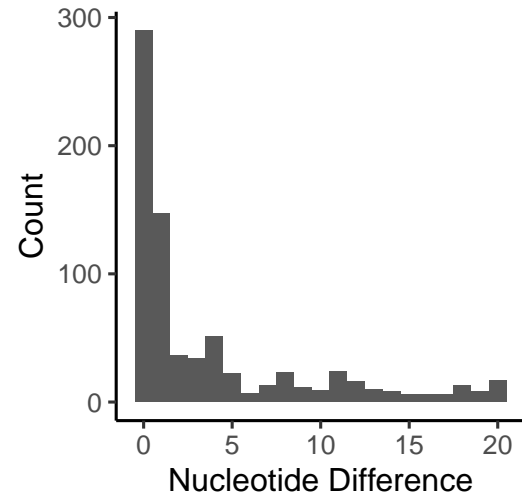
IGHV1-NL1*01

3 sequences assigned
No exact matches.



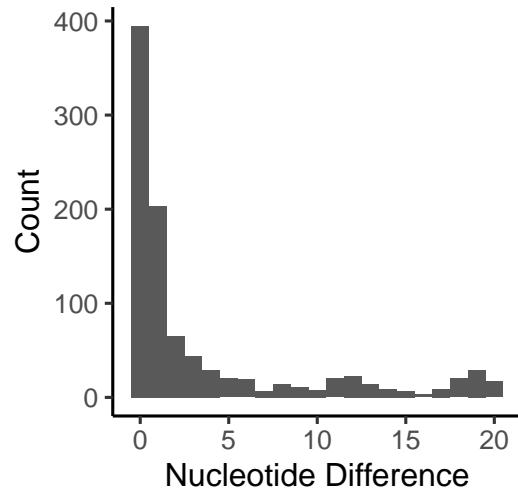
IGHV2-26*01

931 sequences assigned
290 (31.1%) exact matches, in which:
270 unique CDR3
6 unique J



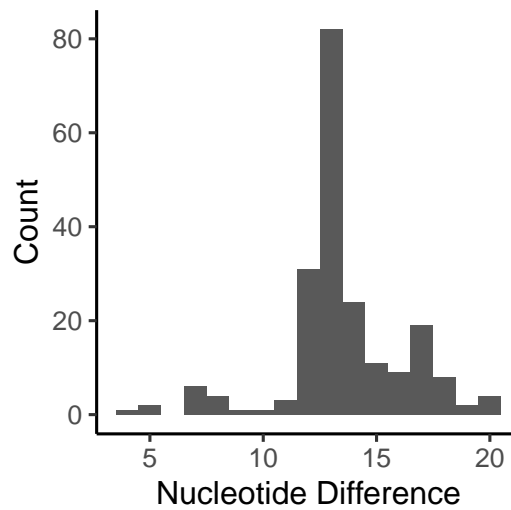
IGHV2-70*01

1082 sequences assigned
395 (36.5%) exact matches, in which:
370 unique CDR3
6 unique J



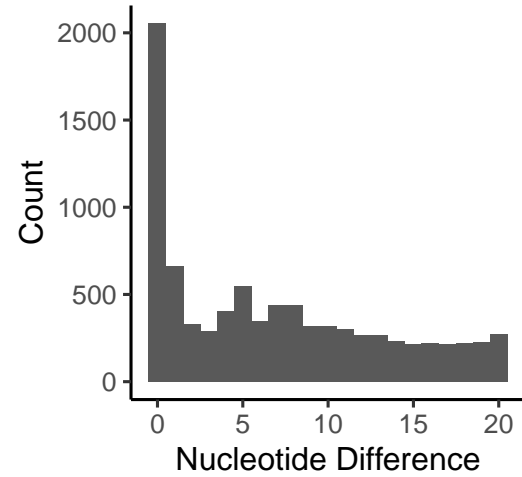
IGHV2-70D*04

226 sequences assigned
No exact matches.



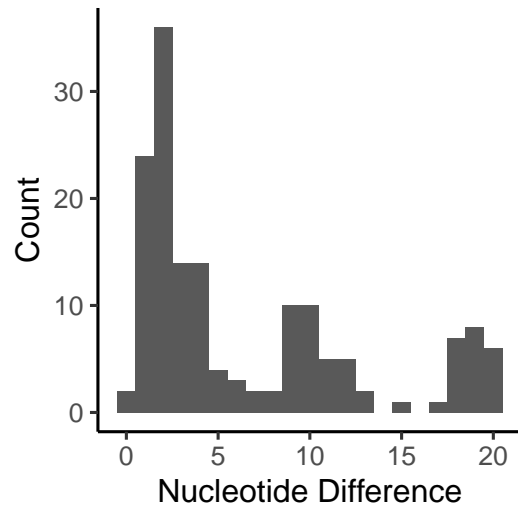
IGHV3-9*01

10942 sequences assigned
2054 (18.8%) exact matches, in which:
1615 unique CDR3
6 unique J



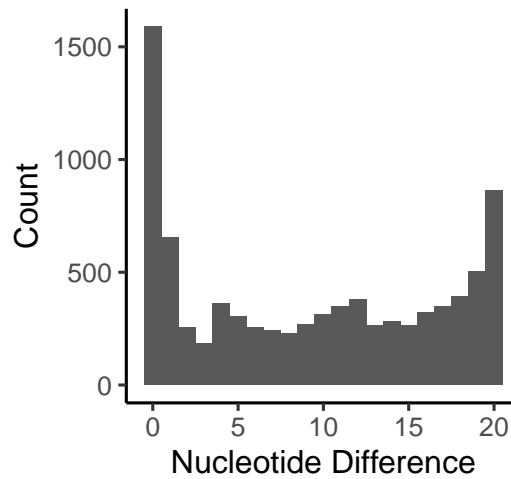
IGHV2-70*12

285 sequences assigned
2 (0.7%) exact matches, in which:
2 unique CDR3
2 unique J



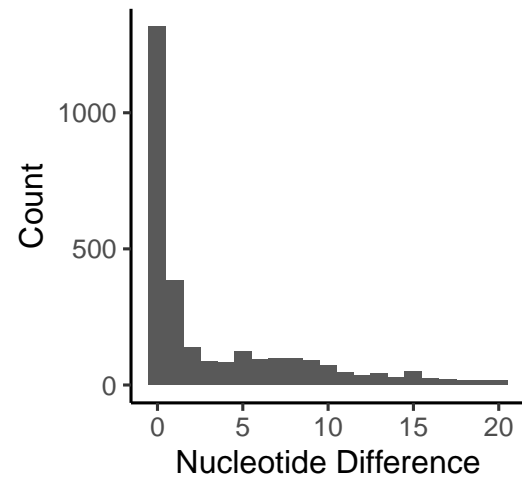
IGHV3-7*01

14950 sequences assigned
1589 (10.6%) exact matches, in which:
1367 unique CDR3
6 unique J



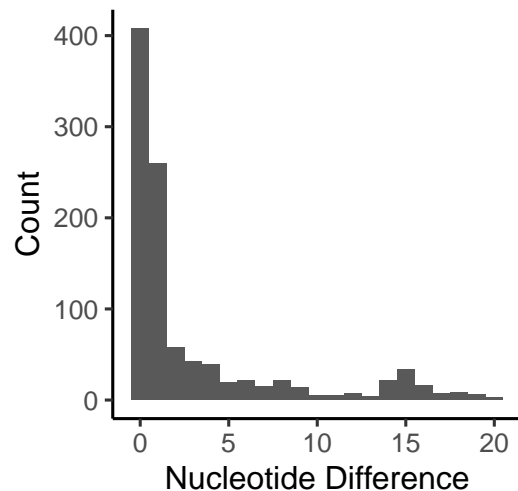
IGHV3-11*01

3737 sequences assigned
1316 (35.2%) exact matches, in which:
1116 unique CDR3
6 unique J



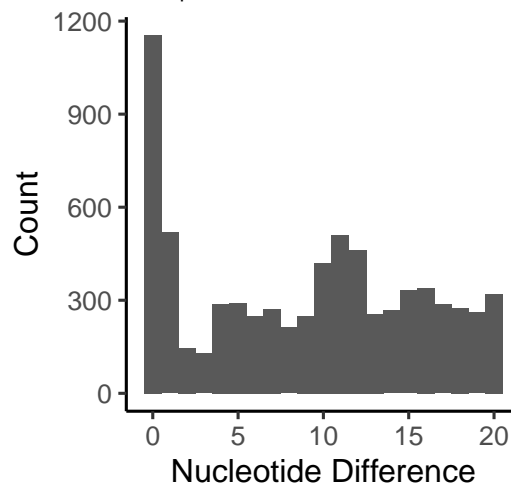
IGHV2-70*11_15

1097 sequences assigned
408 (37.2%) exact matches, in which:
379 unique CDR3
6 unique J



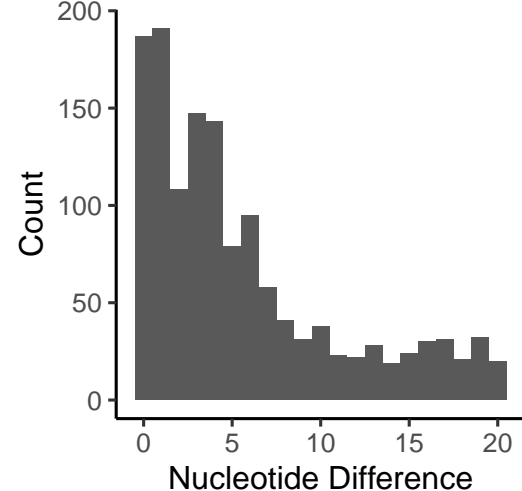
IGHV3-7*03

11136 sequences assigned
1155 (10.4%) exact matches, in which:
979 unique CDR3
6 unique J



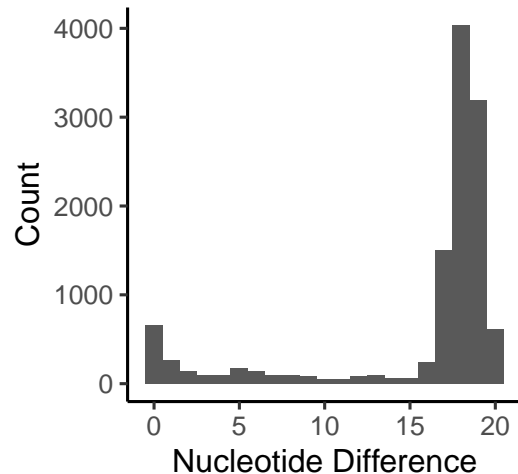
IGHV3-11*04

1758 sequences assigned
187 (10.6%) exact matches, in which:
182 unique CDR3
6 unique J



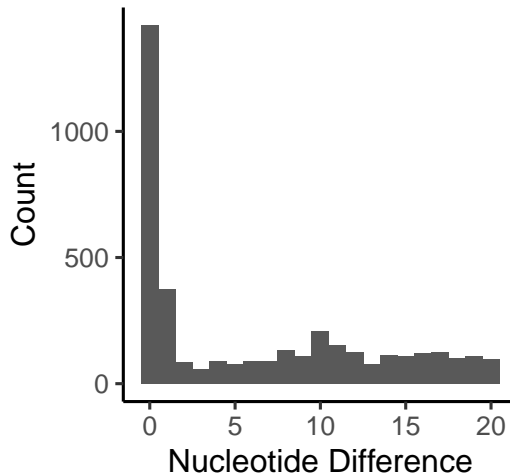
IGHV3-11*06

13482 sequences assigned
659 (4.9%) exact matches, in which:
574 unique CDR3
6 unique J



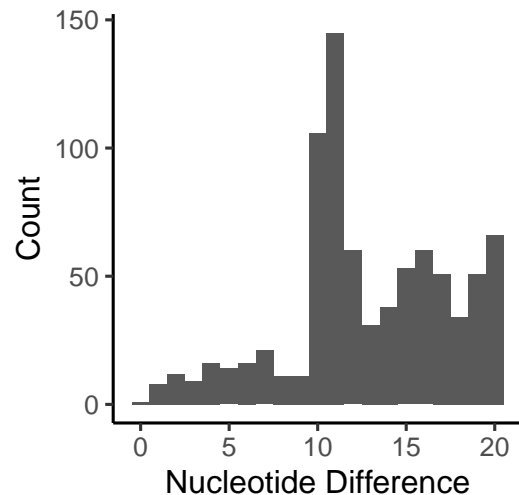
IGHV3-15*01_02

6652 sequences assigned
1420 (21.3%) exact matches, in which:
1180 unique CDR3
6 unique J



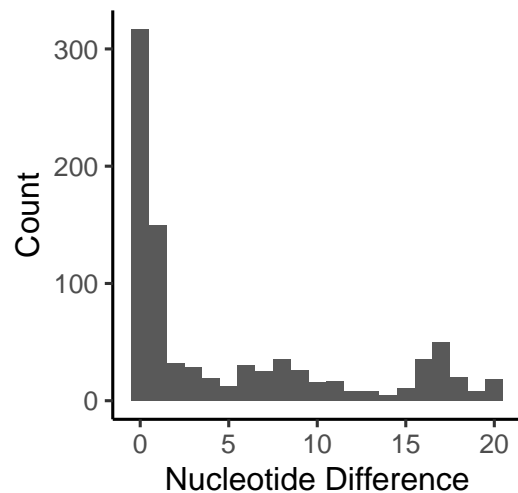
IGHV3-20*03_04

1323 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



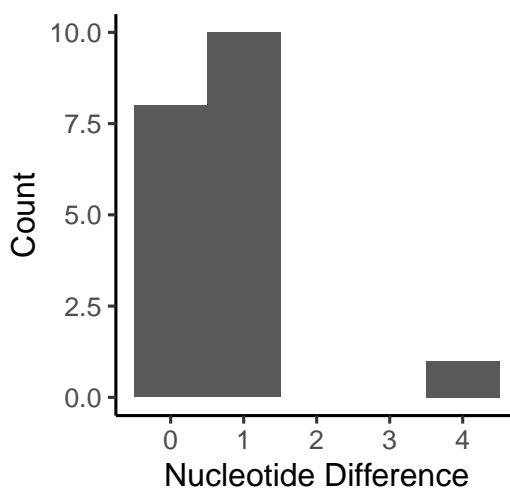
IGHV3-13*01

1217 sequences assigned
317 (26%) exact matches, in which:
254 unique CDR3
6 unique J



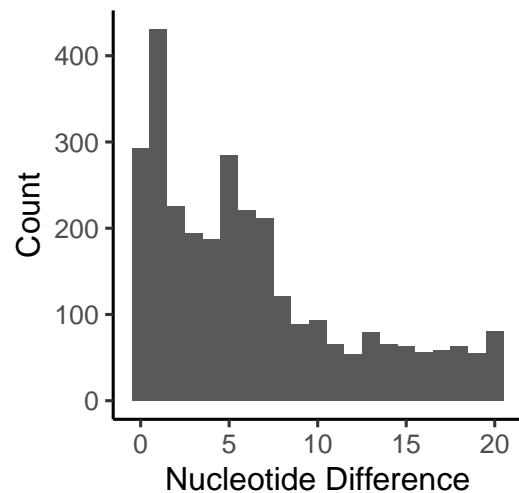
IGHV3-19*01

19 sequences assigned
8 (42.1%) exact matches, in which:
6 unique CDR3
1 unique J



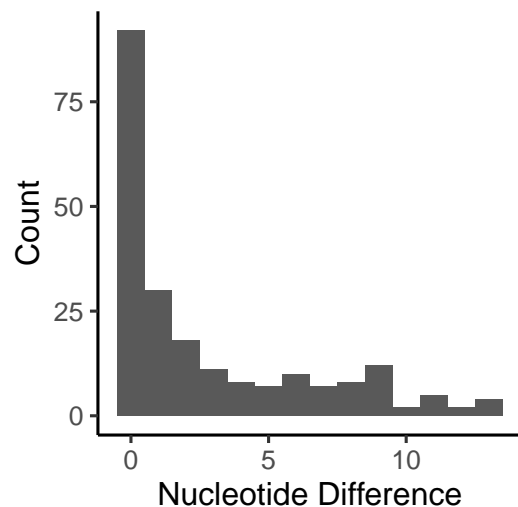
IGHV3-21*04

4098 sequences assigned
293 (7.1%) exact matches, in which:
290 unique CDR3
6 unique J



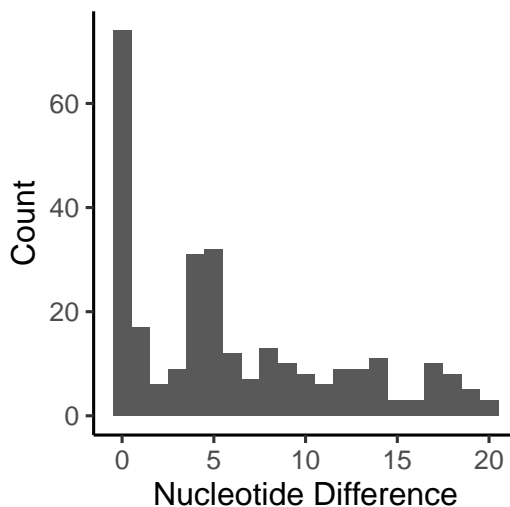
IGHV3-13*05

222 sequences assigned
92 (41.4%) exact matches, in which:
76 unique CDR3
6 unique J



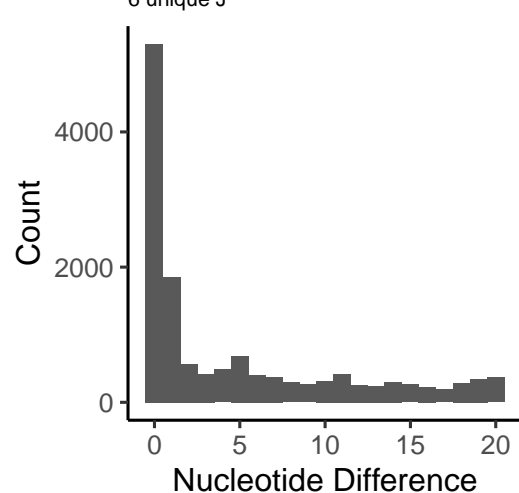
IGHV3-20*01_02

583 sequences assigned
74 (12.7%) exact matches, in which:
56 unique CDR3
6 unique J



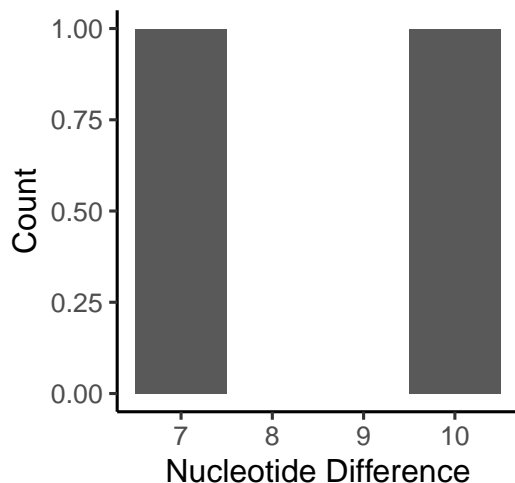
IGHV3-21*01_02

16954 sequences assigned
5300 (31.3%) exact matches, in which:
4297 unique CDR3
6 unique J



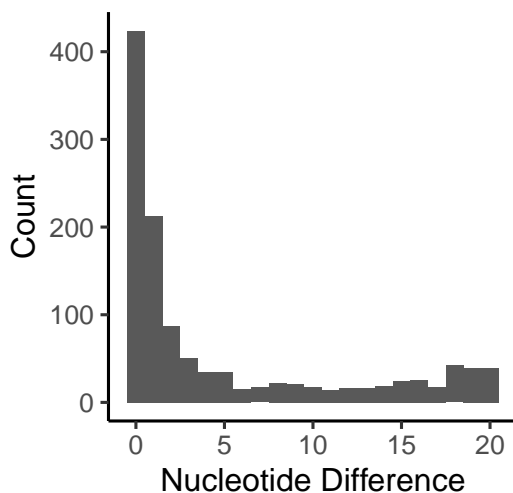
IGHV3-22*01_02

2 sequences assigned
No exact matches.



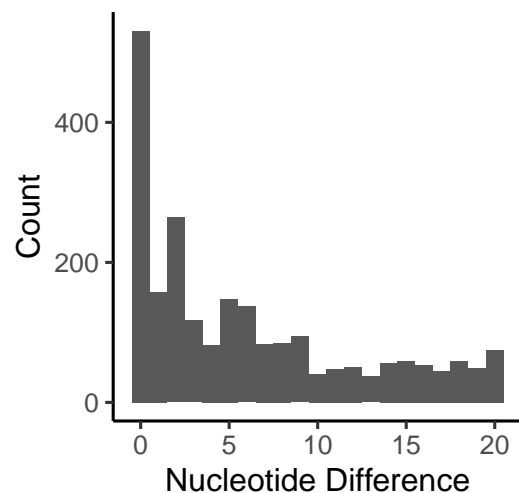
IGHV3-30*03

2088 sequences assigned
424 (20.3%) exact matches, in which:
407 unique CDR3
6 unique J



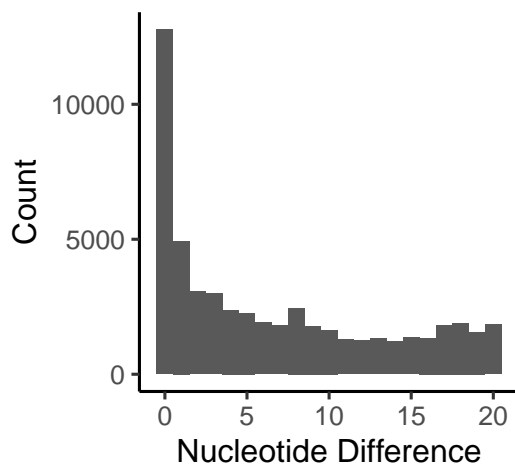
IGHV3-33*08

3081 sequences assigned
531 (17.2%) exact matches, in which:
514 unique CDR3
6 unique J



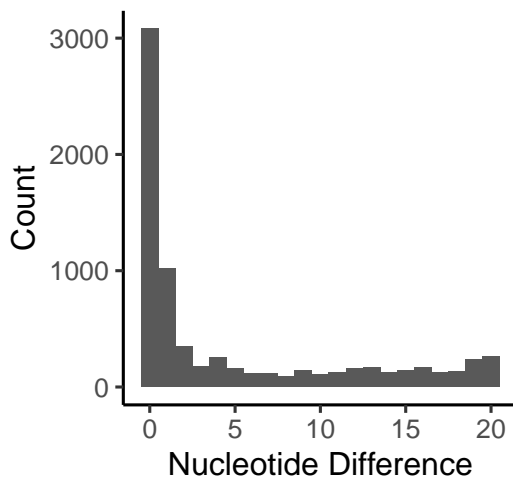
IGHV3-23*01_04

91560 sequences assigned
12772 (13.9%) exact matches, in which:
9744 unique CDR3
6 unique J



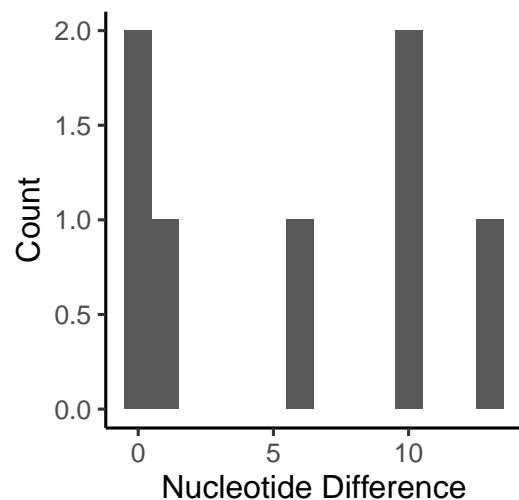
IGHV3-33*01

9756 sequences assigned
3081 (31.6%) exact matches, in which:
2627 unique CDR3
6 unique J



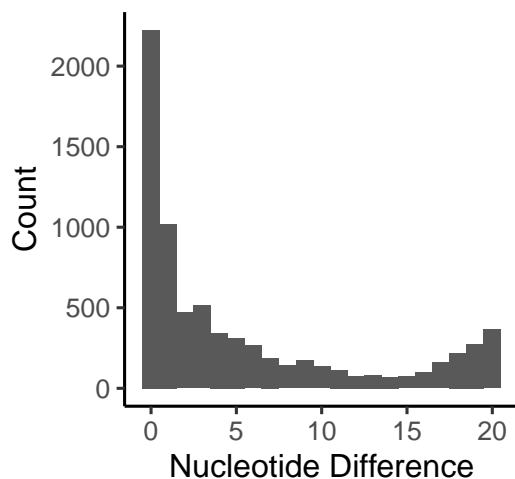
IGHV3-35*01

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



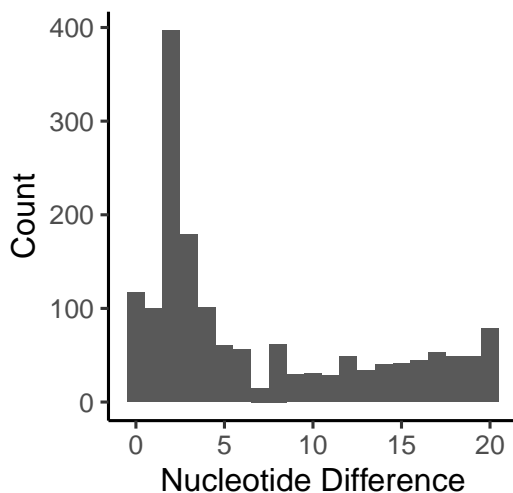
IGHV3-30-3*01

9635 sequences assigned
2224 (23.1%) exact matches, in which:
1898 unique CDR3
6 unique J



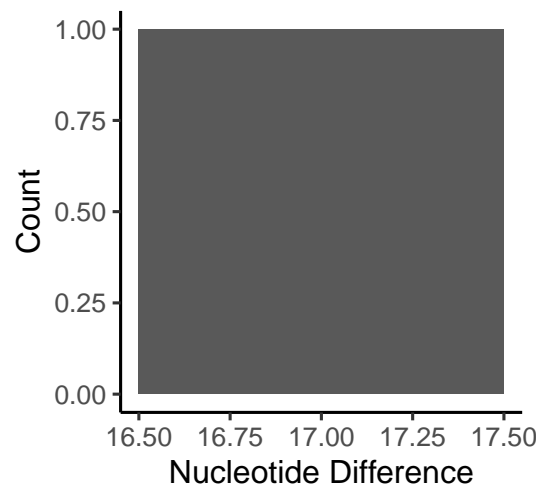
IGHV3-33*06

2114 sequences assigned
117 (5.5%) exact matches, in which:
117 unique CDR3
6 unique J



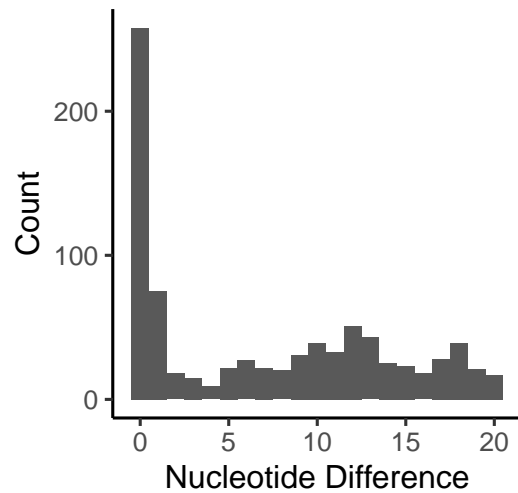
IGHV3-38-3*01

1 sequences assigned
No exact matches.



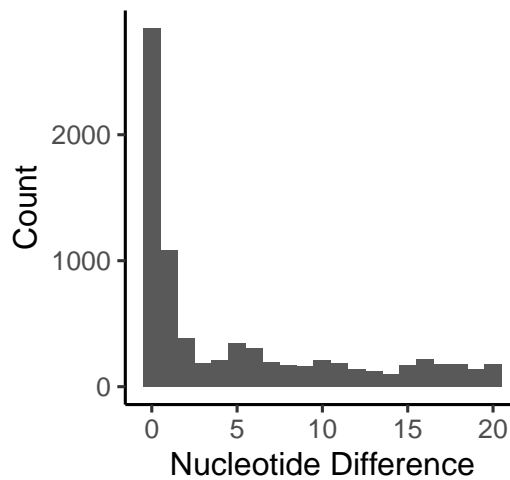
IGHV3-43*01

1253 sequences assigned
258 (20.6%) exact matches, in which:
215 unique CDR3
6 unique J



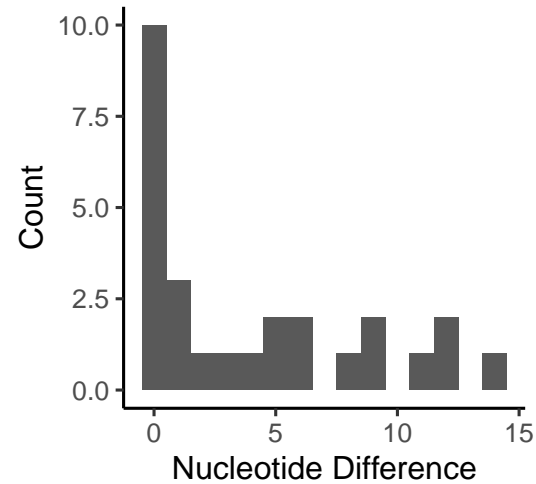
IGHV3-48*02

12138 sequences assigned
2844 (23.4%) exact matches, in which:
2301 unique CDR3
6 unique J



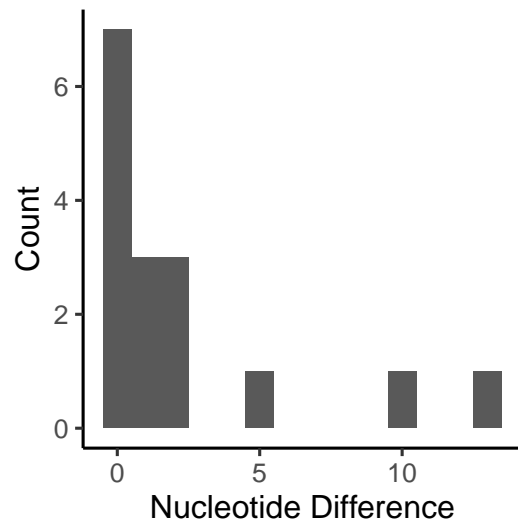
IGHV3-52*01_03

27 sequences assigned
10 (37%) exact matches, in which:
9 unique CDR3
3 unique J



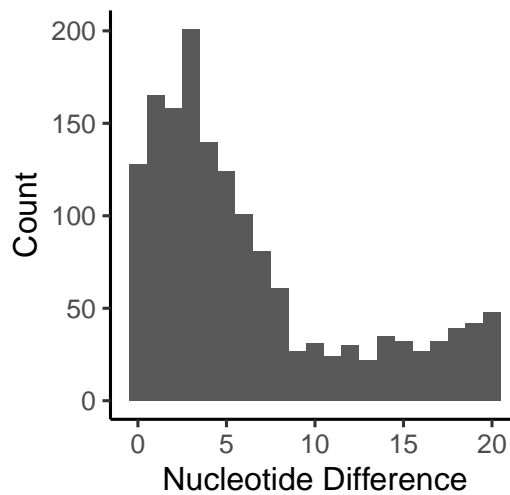
IGHV3-47*02

16 sequences assigned
7 (43.8%) exact matches, in which:
3 unique CDR3
2 unique J



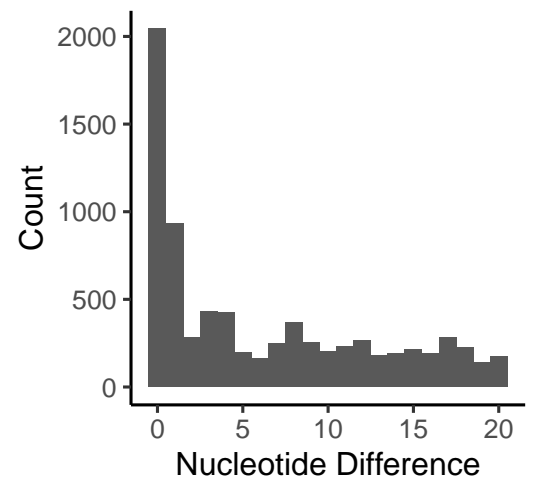
IGHV3-48*04

2701 sequences assigned
128 (4.7%) exact matches, in which:
128 unique CDR3
5 unique J



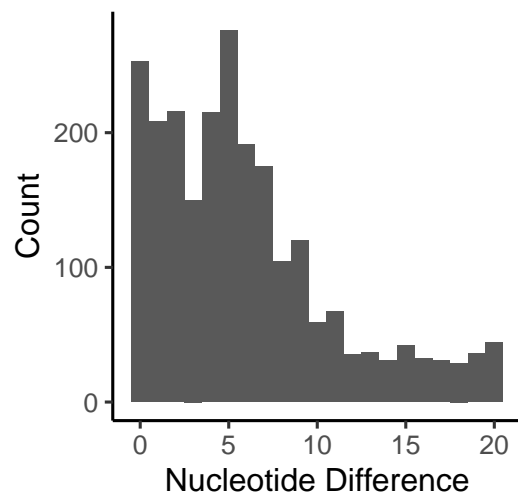
IGHV3-53*01_02

12358 sequences assigned
2044 (16.5%) exact matches, in which:
1733 unique CDR3
6 unique J



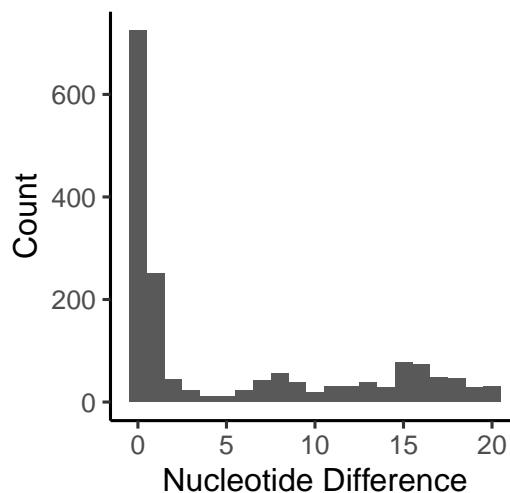
IGHV3-48*01

2904 sequences assigned
253 (8.7%) exact matches, in which:
251 unique CDR3
5 unique J



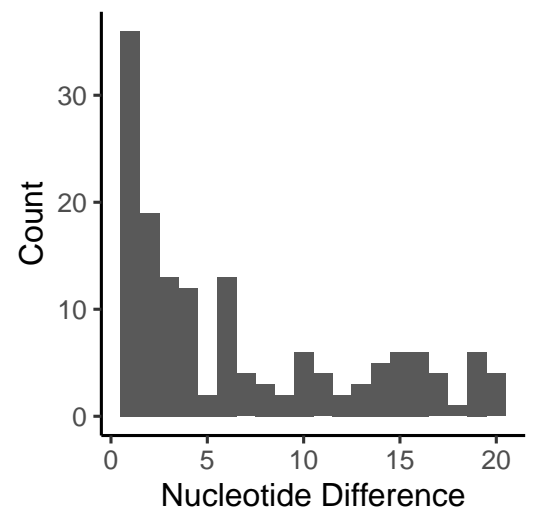
IGHV3-49*03_05

2180 sequences assigned
725 (33.3%) exact matches, in which:
620 unique CDR3
6 unique J



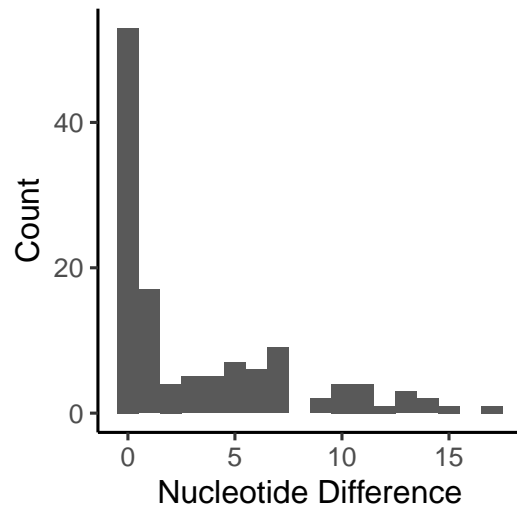
IGHV3-64*04

187 sequences assigned
No exact matches.



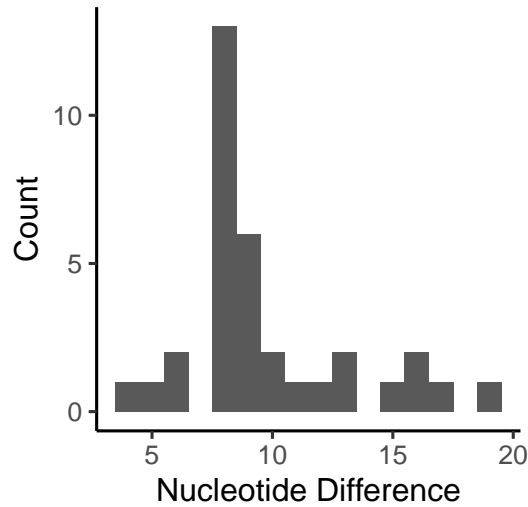
IGHV3-64*02_07

134 sequences assigned
53 (39.6%) exact matches, in which:
42 unique CDR3
5 unique J



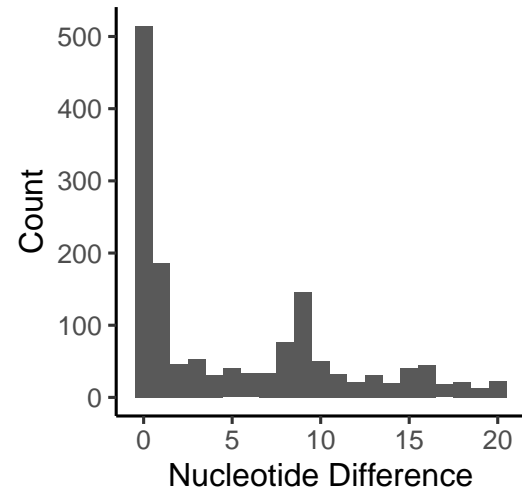
IGHV3-69-1*02

708 sequences assigned
No exact matches.



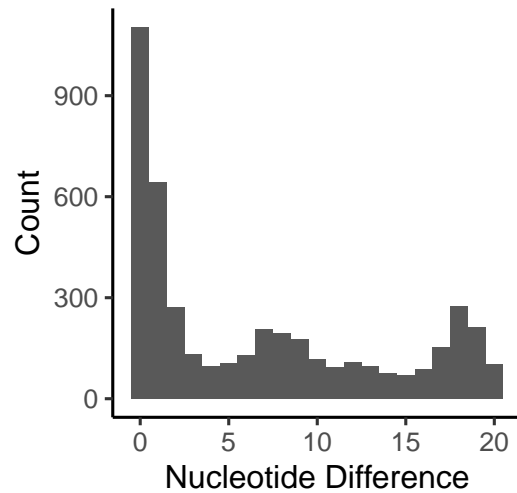
IGHV3-73*01_02

1690 sequences assigned
515 (30.5%) exact matches, in which:
426 unique CDR3
6 unique J



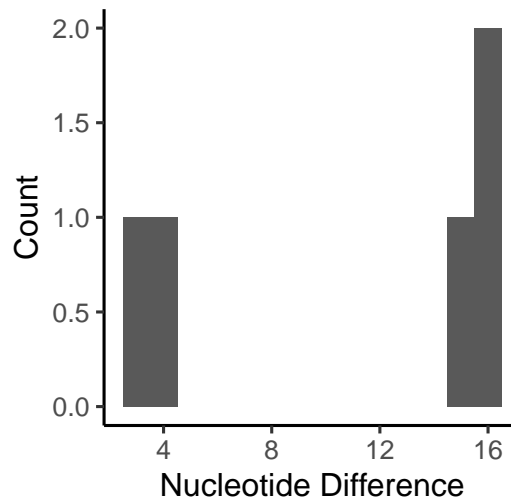
IGHV3-66*01

6975 sequences assigned
1104 (15.8%) exact matches, in which:
929 unique CDR3
6 unique J



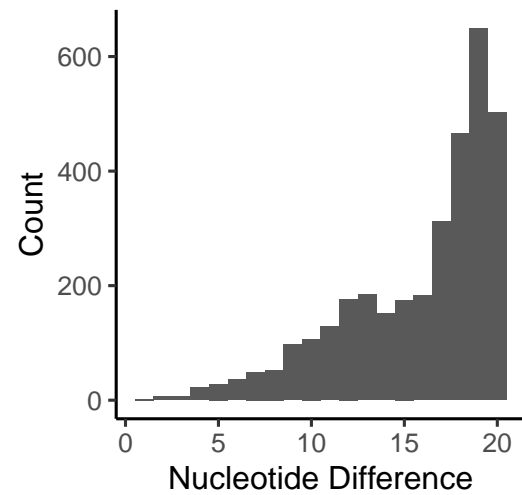
IGHV3-71*01_04

12 sequences assigned
No exact matches.



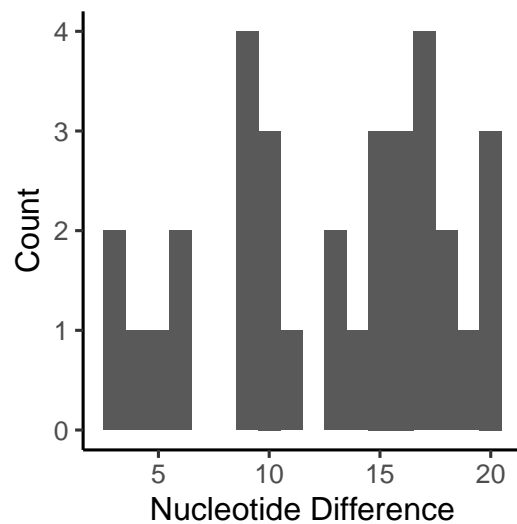
IGHV3-74*03

8148 sequences assigned
No exact matches.



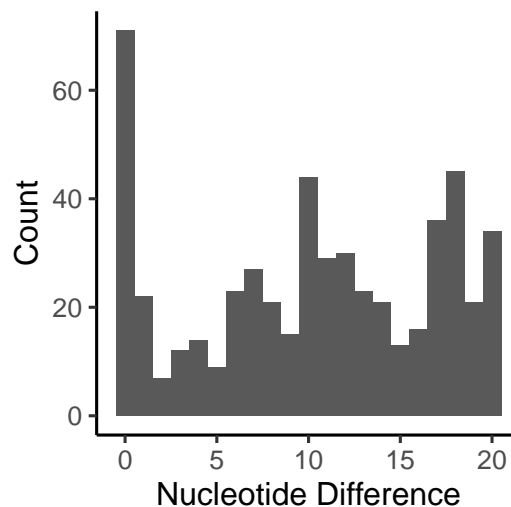
IGHV3-69-1*01

175 sequences assigned
No exact matches.



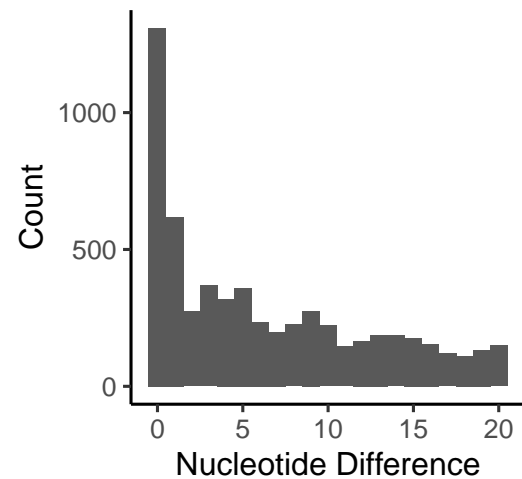
IGHV3-72*01

1292 sequences assigned
71 (5.5%) exact matches, in which:
63 unique CDR3
5 unique J



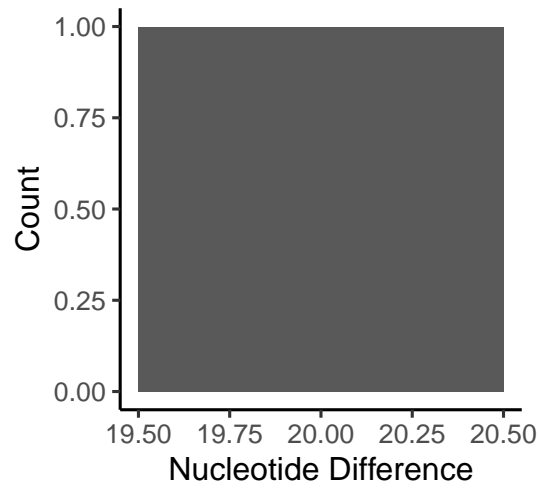
IGHV3-74*01_02

7230 sequences assigned
1309 (18.1%) exact matches, in which:
1059 unique CDR3
6 unique J



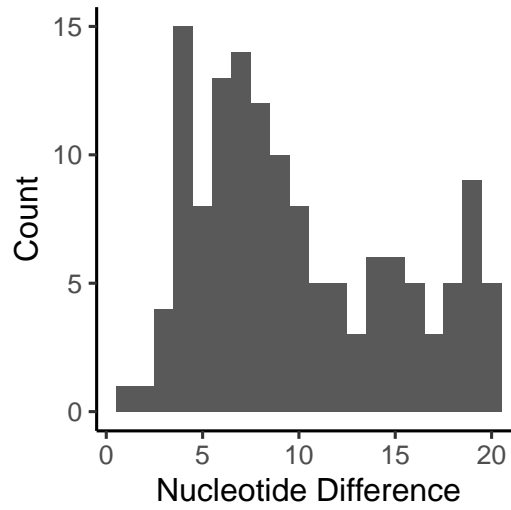
IGHV3-43D*03

3 sequences assigned
No exact matches.



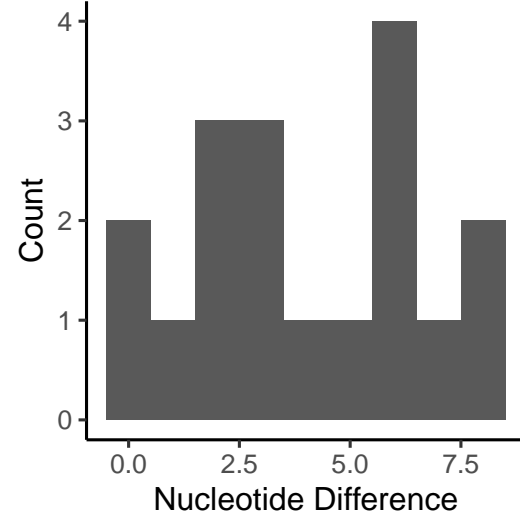
IGHV3-NL1*01

256 sequences assigned
No exact matches.



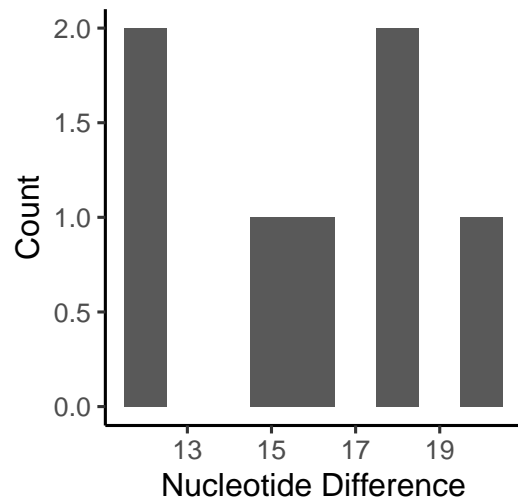
IGHV4-28*03

26 sequences assigned
2 (7.7%) exact matches, in which:
2 unique CDR3
2 unique J



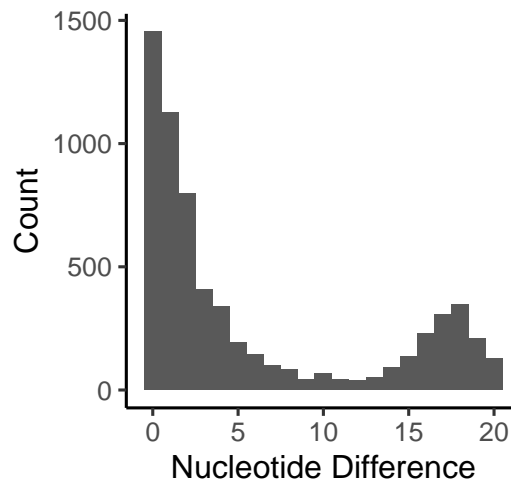
IGHV3-43D*04

31 sequences assigned
No exact matches.



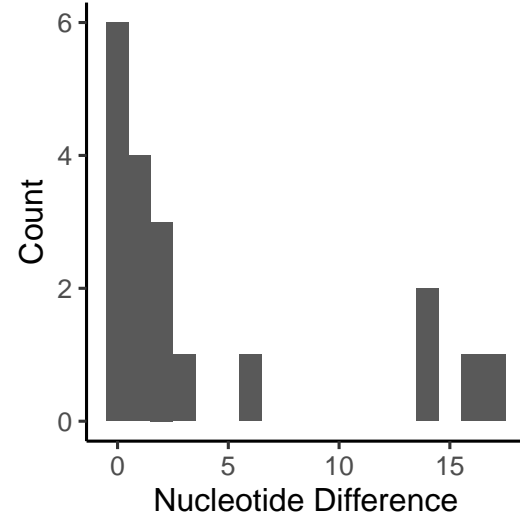
IGHV4-4*07

8707 sequences assigned
1454 (16.7%) exact matches, in which:
1348 unique CDR3
6 unique J



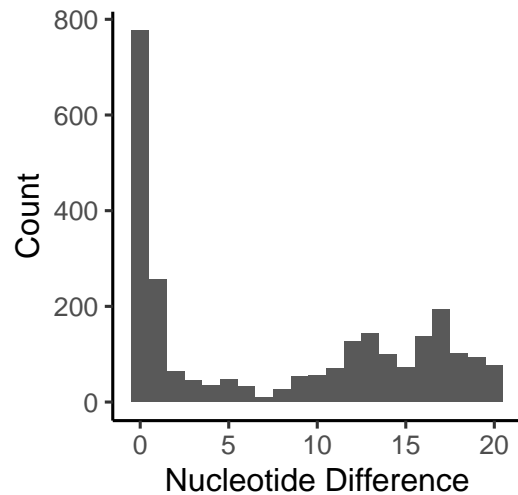
IGHV4-28*01_07

19 sequences assigned
6 (31.6%) exact matches, in which:
5 unique CDR3
3 unique J



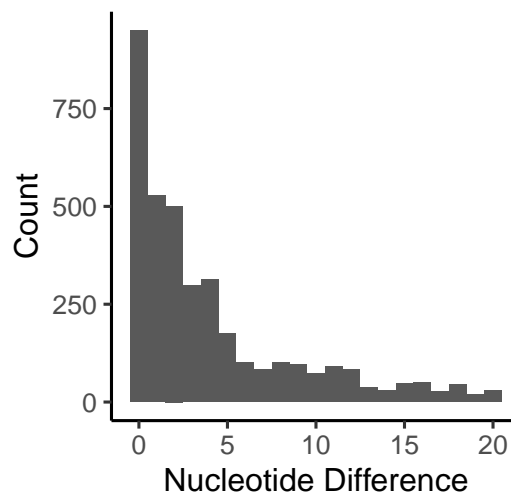
IGHV3-64D*06

3020 sequences assigned
777 (25.7%) exact matches, in which:
597 unique CDR3
6 unique J



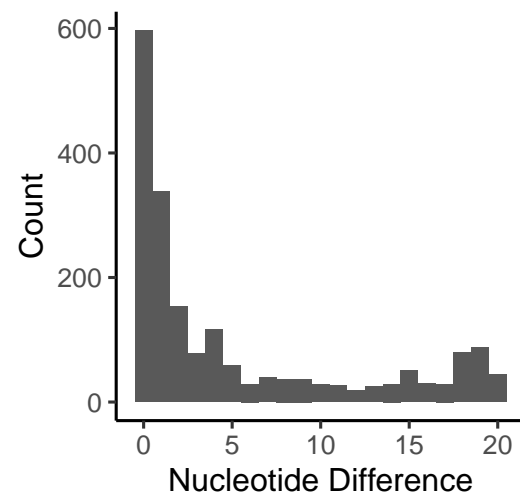
IGHV4-4*02_03

4562 sequences assigned
950 (20.8%) exact matches, in which:
880 unique CDR3
6 unique J



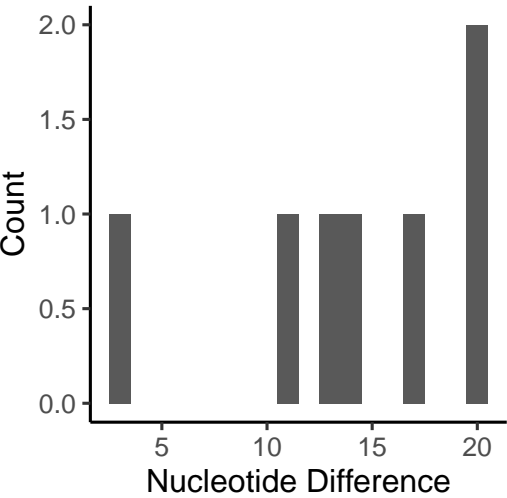
IGHV4-30-2*01

2189 sequences assigned
597 (27.3%) exact matches, in which:
520 unique CDR3
6 unique J



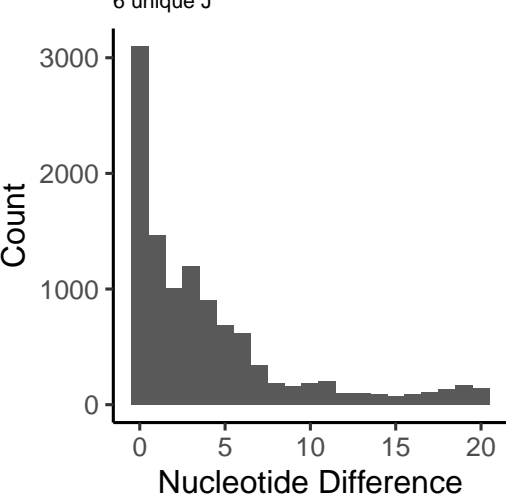
IGHV4-30-4*01

79 sequences assigned
No exact matches.



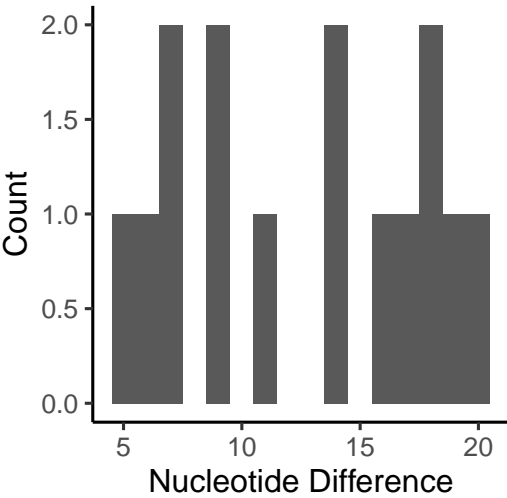
IGHV4-31*02

14095 sequences assigned
3098 (22%) exact matches, in which:
2937 unique CDR3
6 unique J



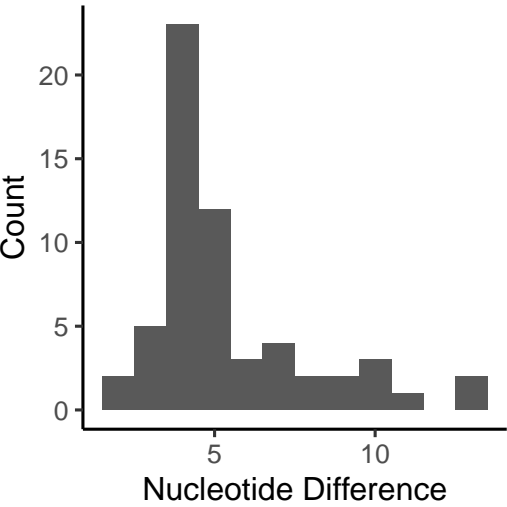
IGHV4-38-2*02

43 sequences assigned
No exact matches.



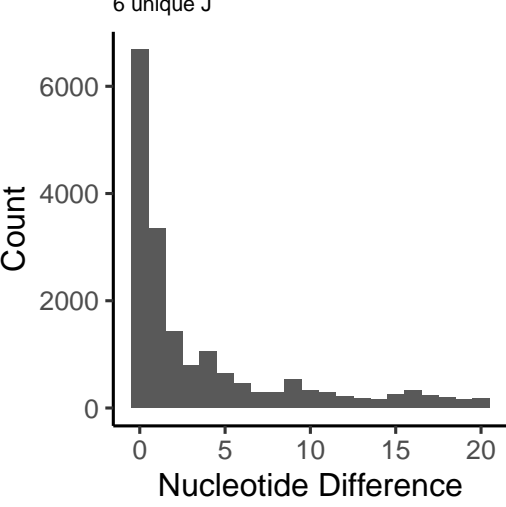
IGHV4-30-4*07

62 sequences assigned
No exact matches.



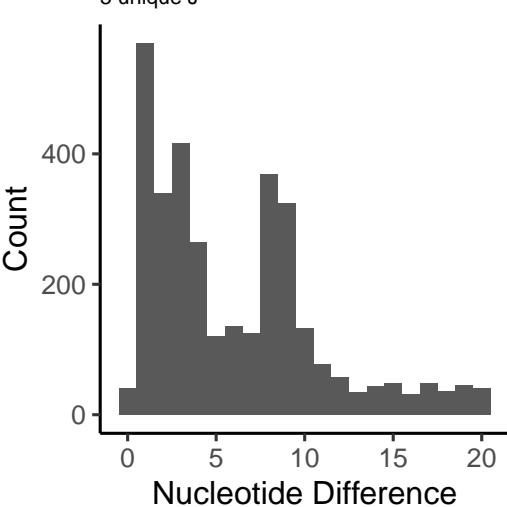
IGHV4-34*01_02

26503 sequences assigned
6682 (25.2%) exact matches, in which:
6099 unique CDR3
6 unique J



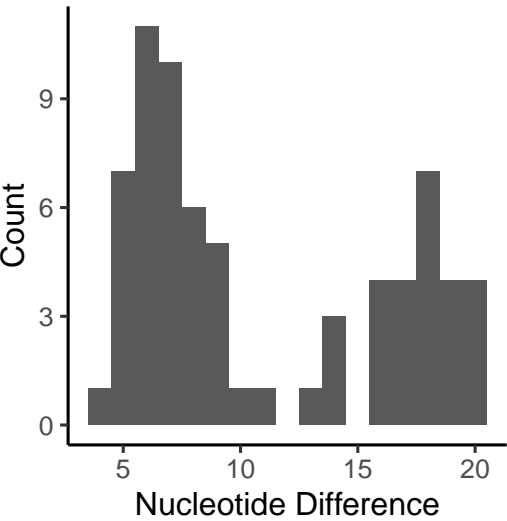
IGHV4-39*07

4438 sequences assigned
40 (0.9%) exact matches, in which:
40 unique CDR3
5 unique J



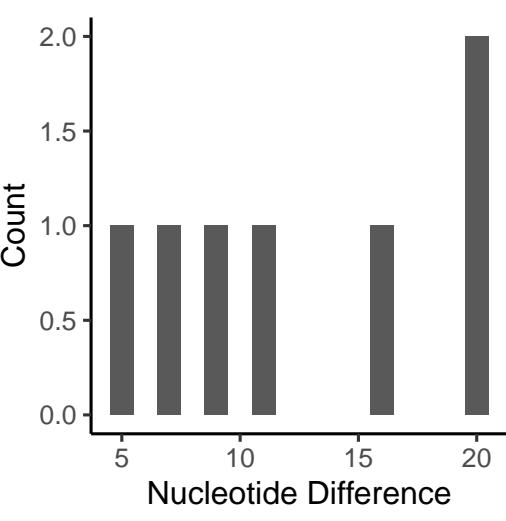
IGHV4-30-4*08

157 sequences assigned
No exact matches.



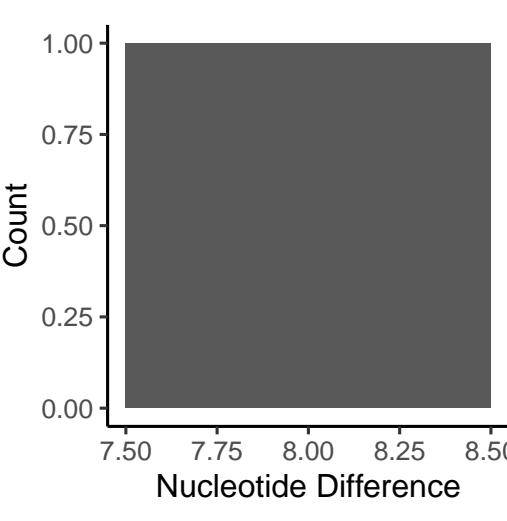
IGHV4-38-2*01

12 sequences assigned
No exact matches.



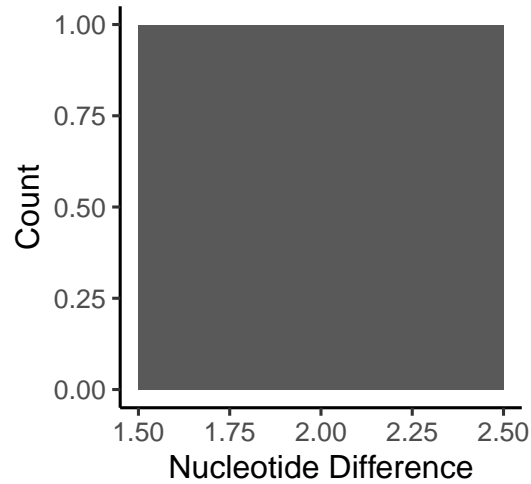
IGHV4-55*07

14 sequences assigned
No exact matches.



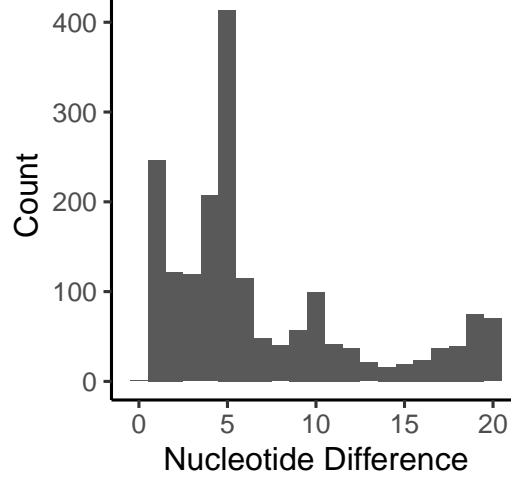
IGHV4-55*09

7 sequences assigned
No exact matches.



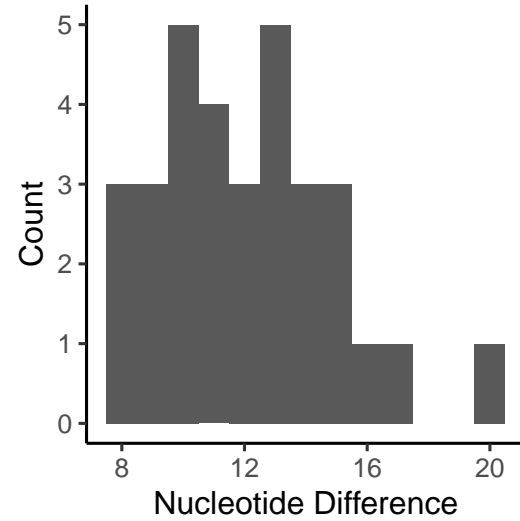
IGHV4-61*08

2409 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



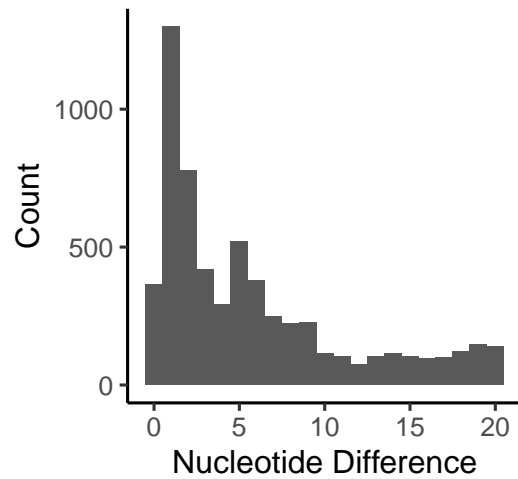
IGHV1/OR15-3*02

43 sequences assigned
No exact matches.



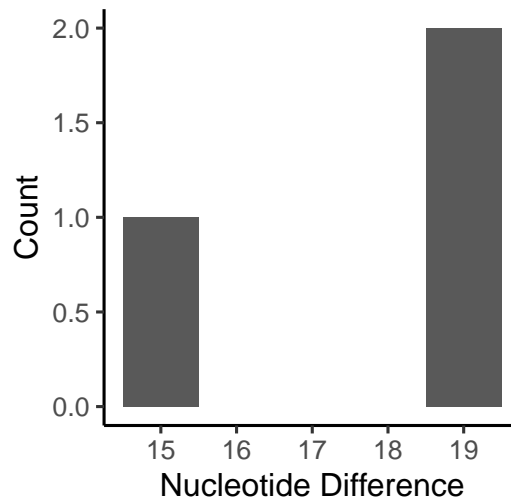
IGHV4-59*12

8701 sequences assigned
363 (4.2%) exact matches, in which:
362 unique CDR3
6 unique J



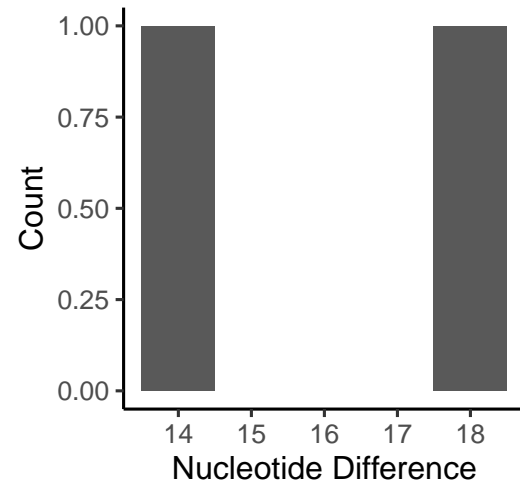
IGHV1/OR15-1*04

11 sequences assigned
No exact matches.



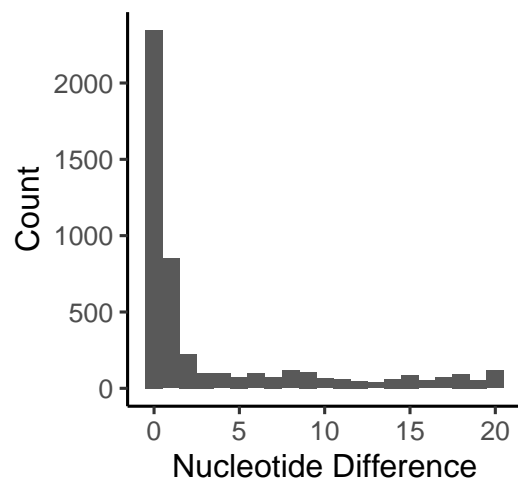
IGHV1/OR15-4*01

2 sequences assigned
No exact matches.



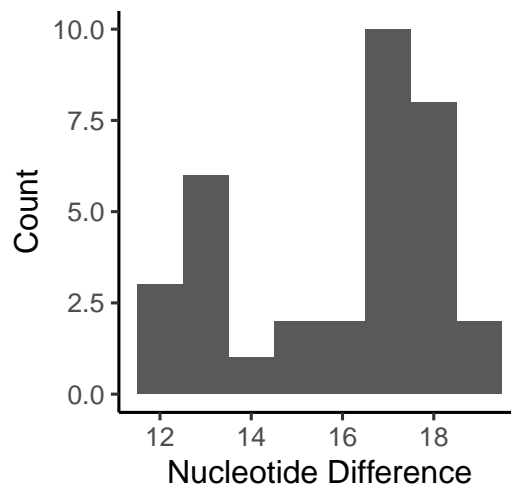
IGHV4-61*01

6438 sequences assigned
2347 (36.5%) exact matches, in which:
2271 unique CDR3
6 unique J



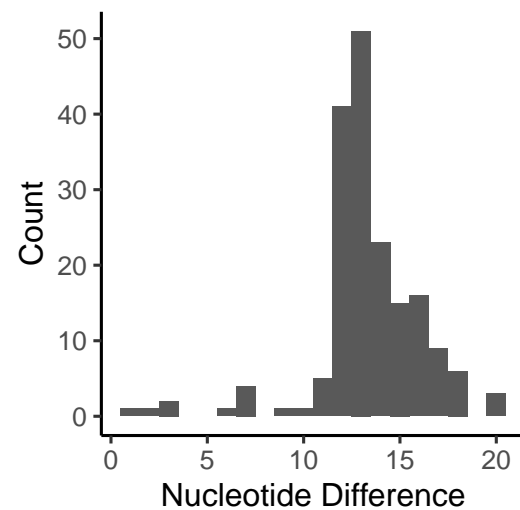
IGHV1/OR15-2*02_03

51 sequences assigned
No exact matches.



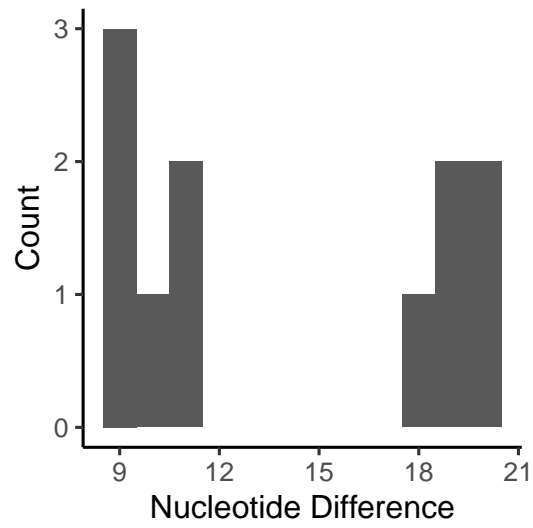
IGHV4/OR15-8*01

218 sequences assigned
No exact matches.



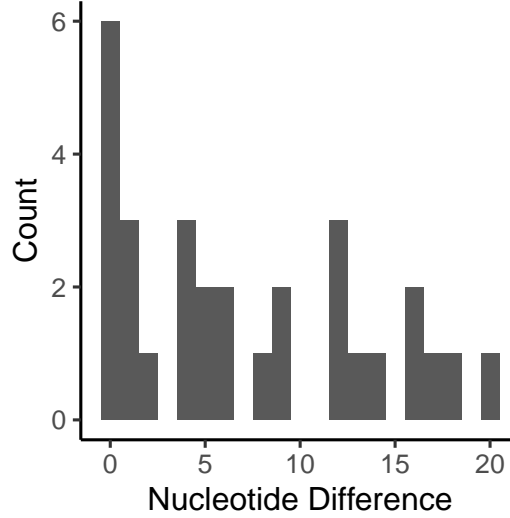
IGHV4/OR15–8*02

335 sequences assigned
No exact matches.



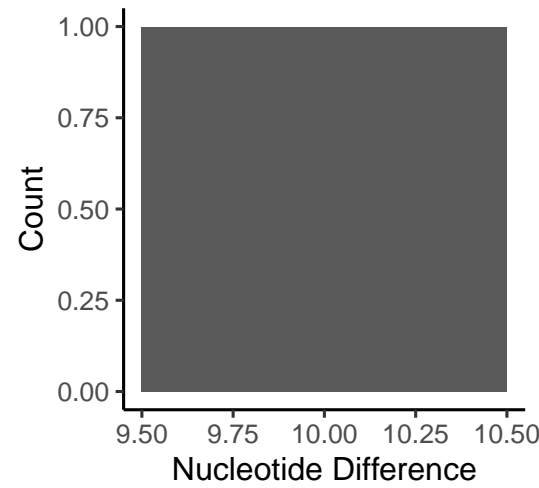
IGHV5–51*06

30 sequences assigned
6 (20%) exact matches, in which:
6 unique CDR3
3 unique J



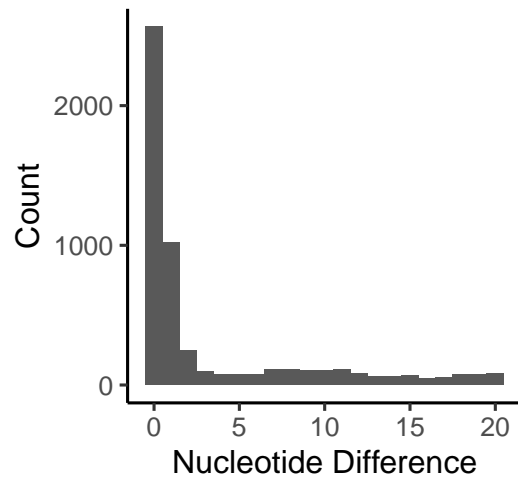
IGHV3/OR16–9*01

1 sequences assigned
No exact matches.



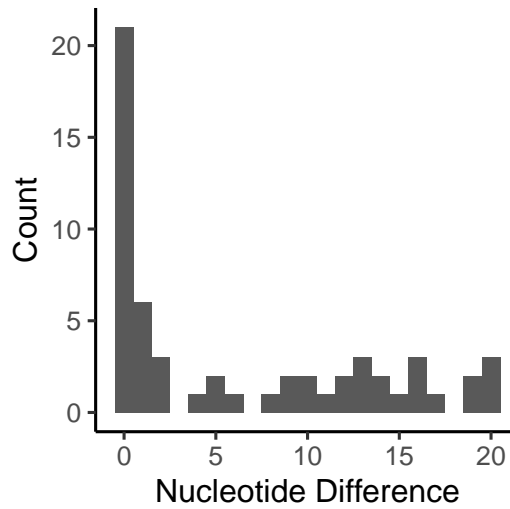
IGHV5–10–1*01_03

5967 sequences assigned
2565 (43%) exact matches, in which:
2161 unique CDR3
6 unique J



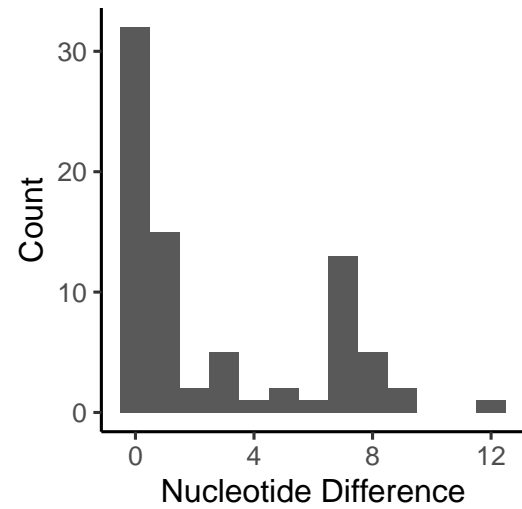
IGHV5–51*07

72 sequences assigned
21 (29.2%) exact matches, in which:
20 unique CDR3
5 unique J



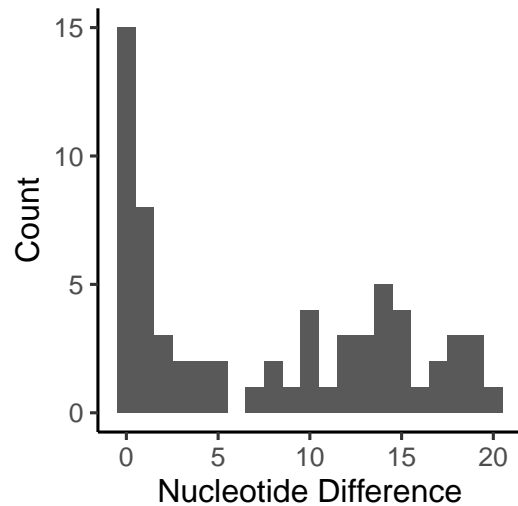
IGHV7–4–1*01

79 sequences assigned
32 (40.5%) exact matches, in which:
31 unique CDR3
6 unique J



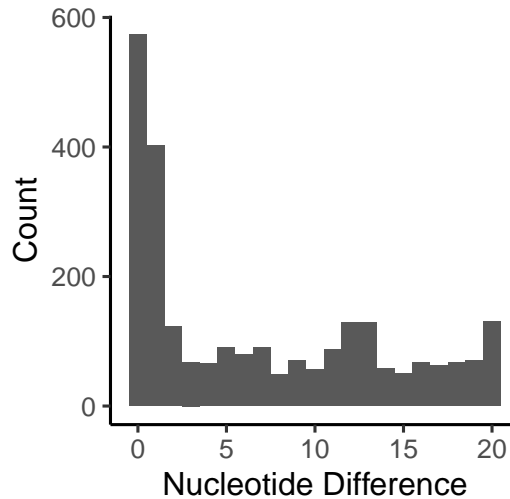
IGHV5–51*04

139 sequences assigned
15 (10.8%) exact matches, in which:
15 unique CDR3
4 unique J



IGHV6–1*01_02

4306 sequences assigned
574 (13.3%) exact matches, in which:
547 unique CDR3
6 unique J





[illegible]