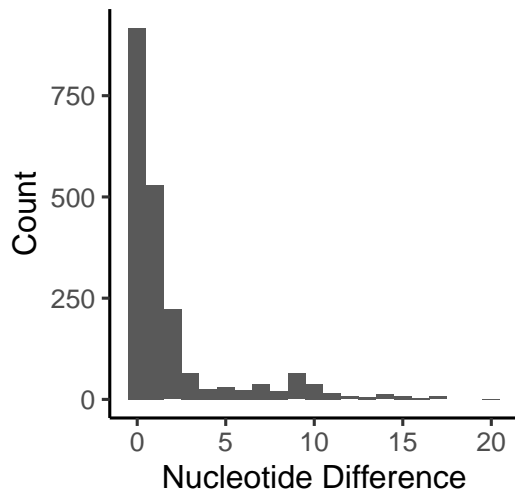


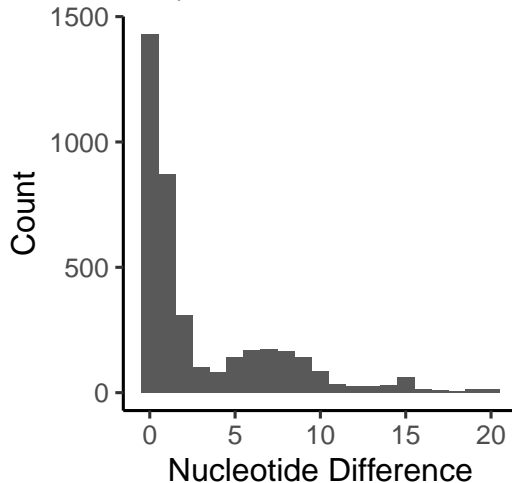
IGHV1-2*04

2214 sequences assigned
918 (41.5%) exact matches, in which:
847 unique CDR3
6 unique J



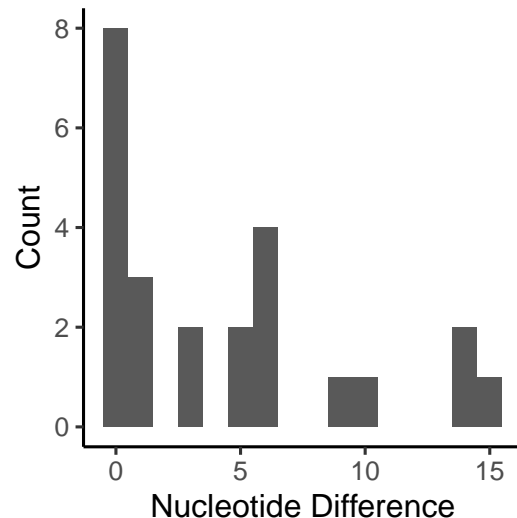
IGHV1-8*01

3933 sequences assigned
1429 (36.3%) exact matches, in which:
1306 unique CDR3
6 unique J



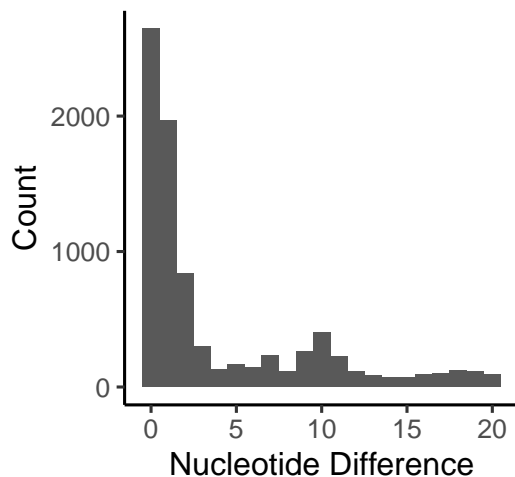
IGHV1-45*02

24 sequences assigned
8 (33.3%) exact matches, in which:
8 unique CDR3
3 unique J



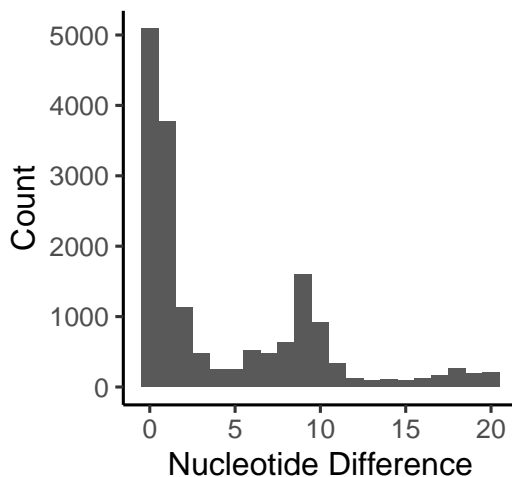
IGHV1-2*06

9333 sequences assigned
2645 (28.3%) exact matches, in which:
2386 unique CDR3
6 unique J



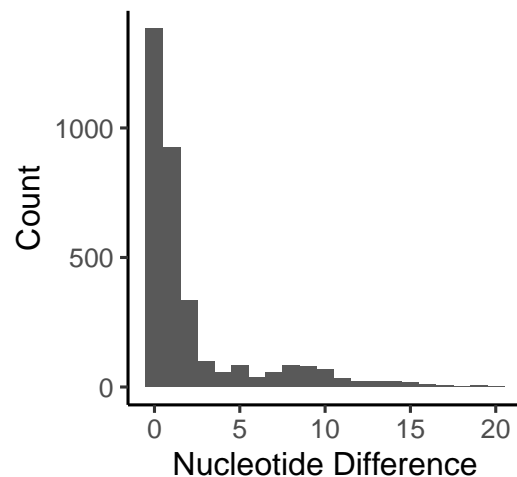
IGHV1-18*01

18083 sequences assigned
5089 (28.1%) exact matches, in which:
4510 unique CDR3
6 unique J



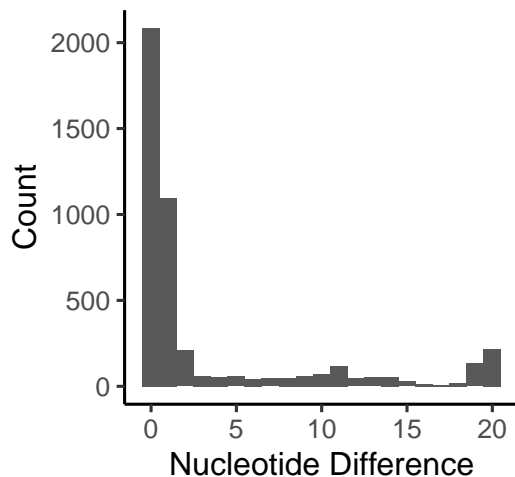
IGHV1-46*01

3371 sequences assigned
1383 (41%) exact matches, in which:
1278 unique CDR3
6 unique J



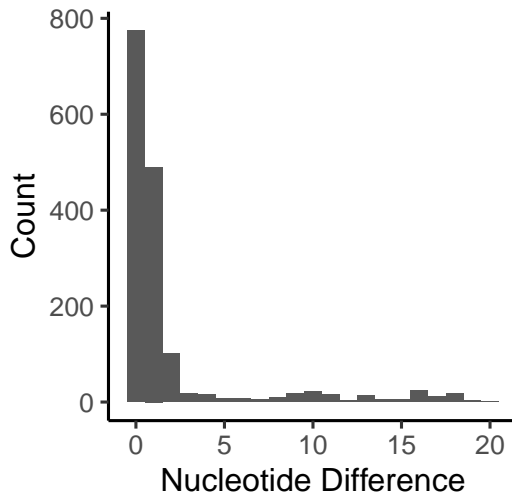
IGHV1-3*01_05

4983 sequences assigned
2085 (41.8%) exact matches, in which:
1879 unique CDR3
6 unique J



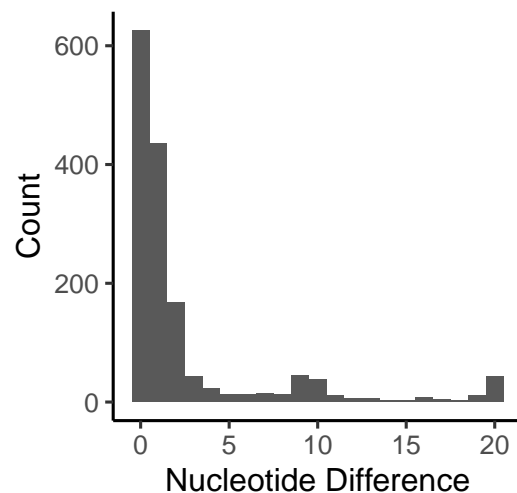
IGHV1-24*01

1593 sequences assigned
775 (48.7%) exact matches, in which:
673 unique CDR3
6 unique J



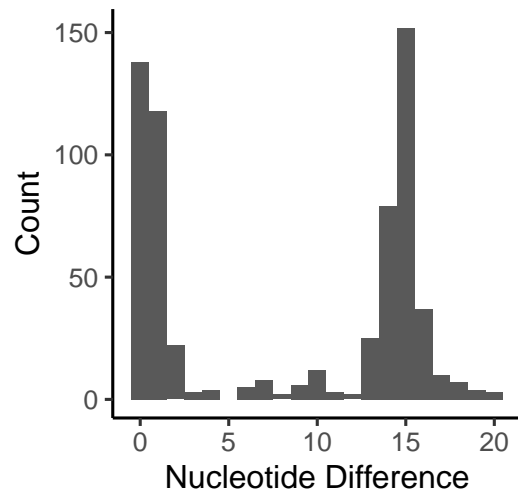
IGHV1-46*03

1725 sequences assigned
626 (36.3%) exact matches, in which:
549 unique CDR3
6 unique J



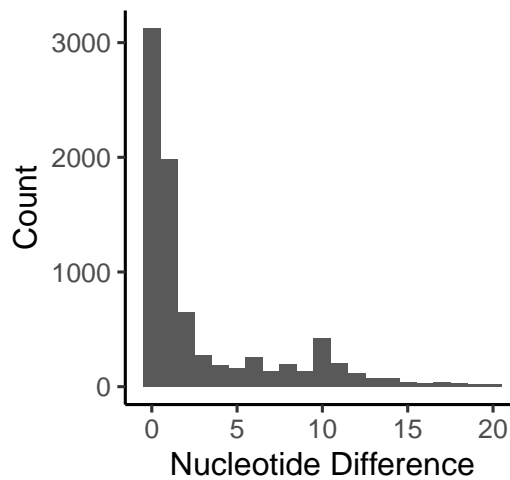
IGHV1-58*02

645 sequences assigned
138 (21.4%) exact matches, in which:
130 unique CDR3
5 unique J



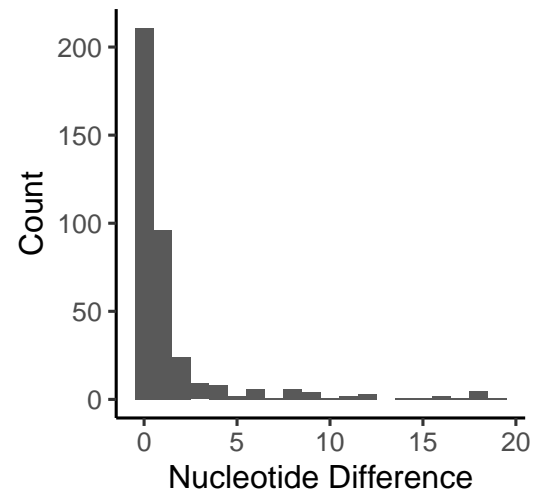
IGHV1-69*01_12_13

9101 sequences assigned
3124 (34.3%) exact matches, in which:
2925 unique CDR3
6 unique J



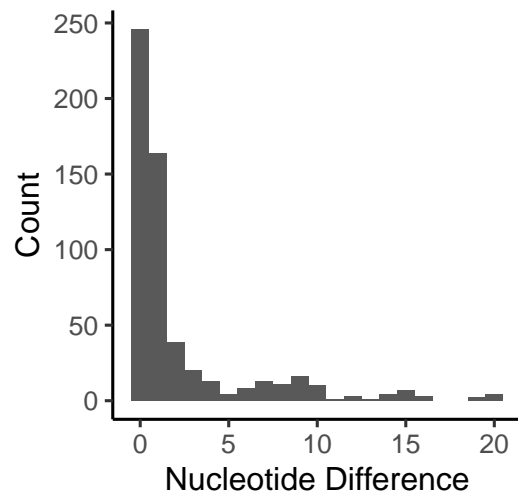
IGHV2-26*01

390 sequences assigned
211 (54.1%) exact matches, in which:
197 unique CDR3
5 unique J



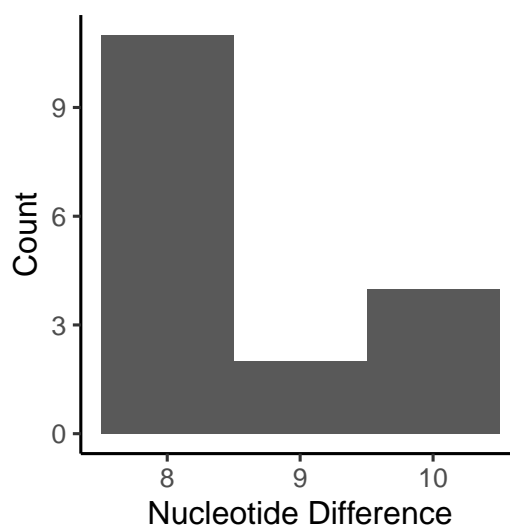
IGHV1-58*01_03

747 sequences assigned
246 (32.9%) exact matches, in which:
221 unique CDR3
6 unique J



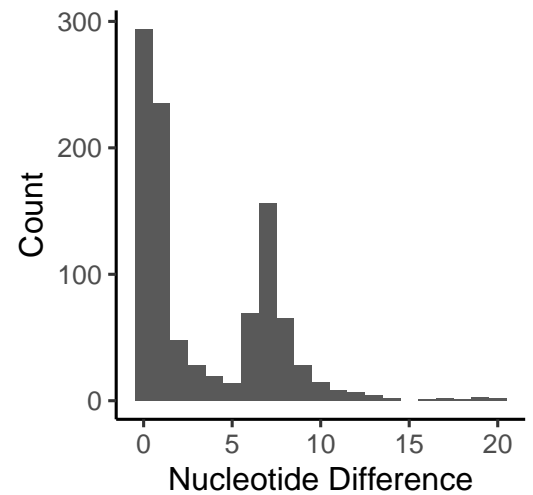
IGHV1-NL1*01

17 sequences assigned
No exact matches.



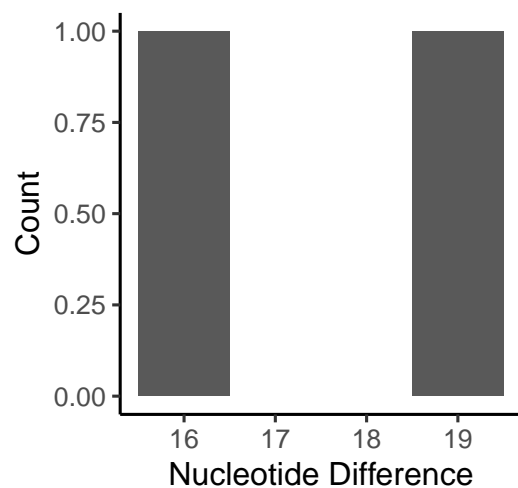
IGHV2-70*01

1030 sequences assigned
294 (28.5%) exact matches, in which:
262 unique CDR3
6 unique J



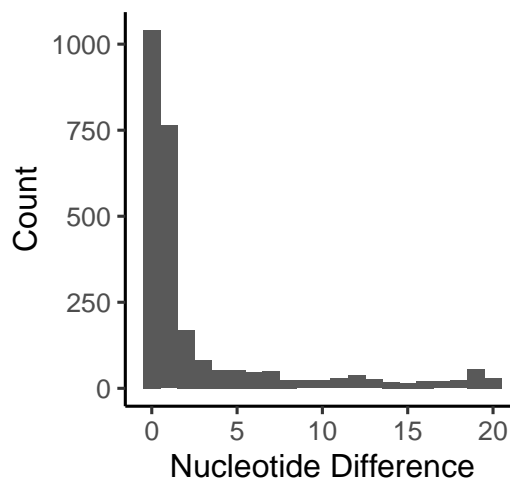
IGHV1-69-2*01

2 sequences assigned
No exact matches.



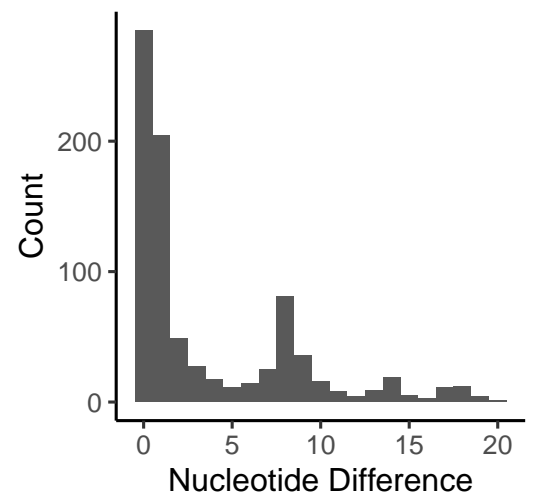
IGHV2-5*02

2969 sequences assigned
1041 (35.1%) exact matches, in which:
948 unique CDR3
6 unique J



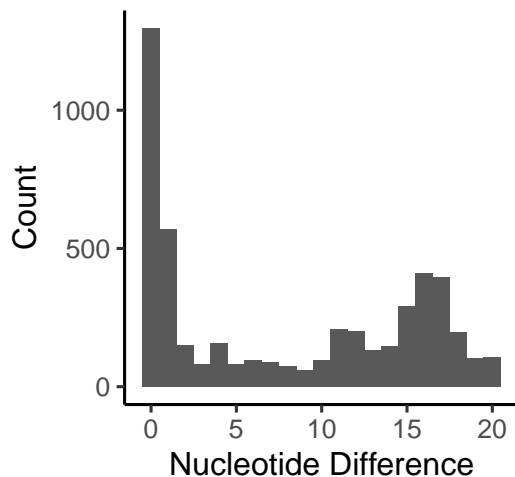
IGHV2-70*11_15

868 sequences assigned
285 (32.8%) exact matches, in which:
258 unique CDR3
6 unique J



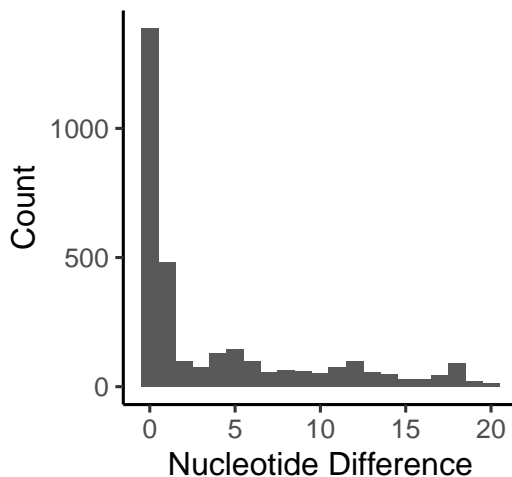
IGHV3-7*01

10620 sequences assigned
1296 (12.2%) exact matches, in which:
933 unique CDR3
6 unique J



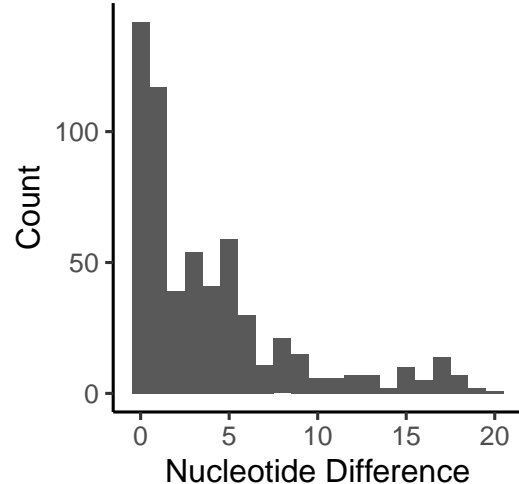
IGHV3-9*01

3496 sequences assigned
1387 (39.7%) exact matches, in which:
980 unique CDR3
6 unique J



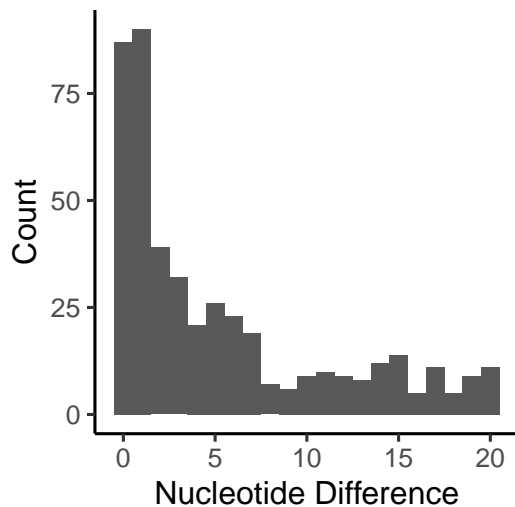
IGHV3-11*06

621 sequences assigned
142 (22.9%) exact matches, in which:
140 unique CDR3
6 unique J



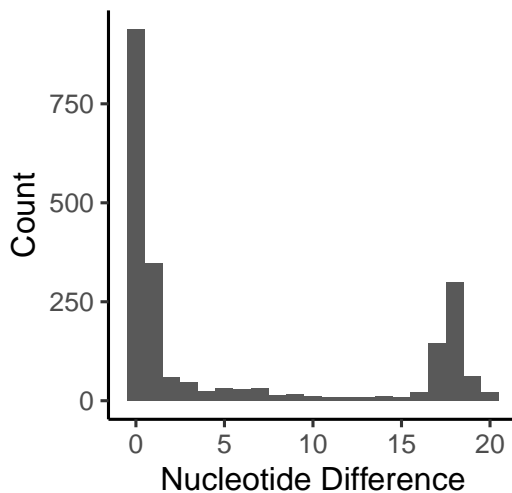
IGHV3-7*03

645 sequences assigned
87 (13.5%) exact matches, in which:
79 unique CDR3
6 unique J



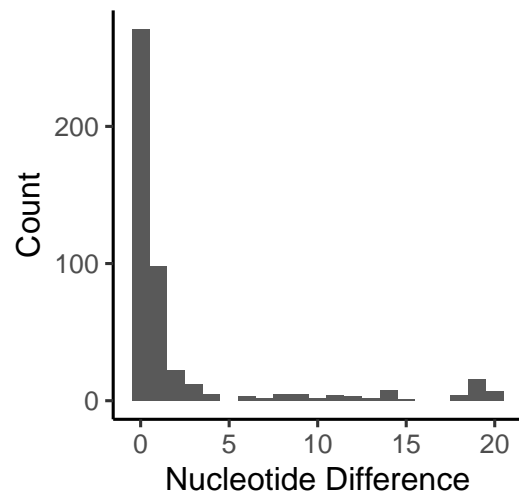
IGHV3-11*01

2301 sequences assigned
939 (40.8%) exact matches, in which:
690 unique CDR3
6 unique J



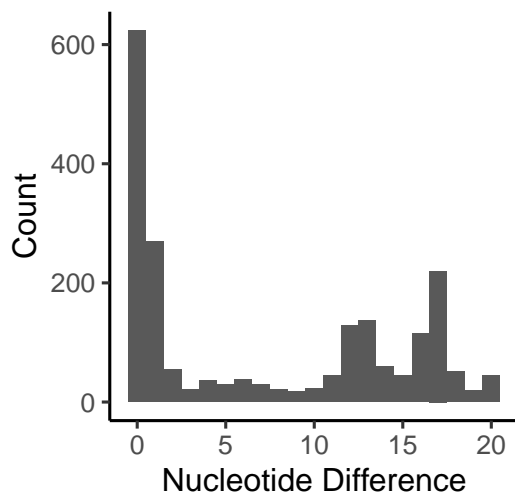
IGHV3-13*01

498 sequences assigned
271 (54.4%) exact matches, in which:
171 unique CDR3
6 unique J



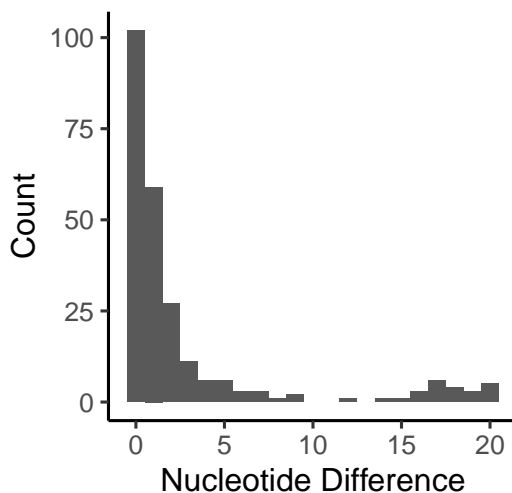
IGHV3-7*04

2258 sequences assigned
624 (27.6%) exact matches, in which:
424 unique CDR3
6 unique J



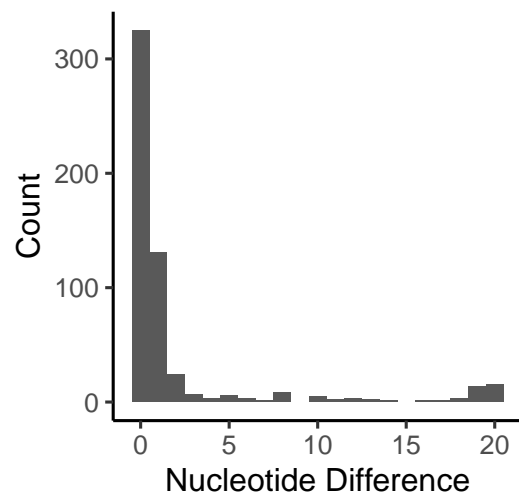
IGHV3-11*04

255 sequences assigned
102 (40%) exact matches, in which:
99 unique CDR3
5 unique J



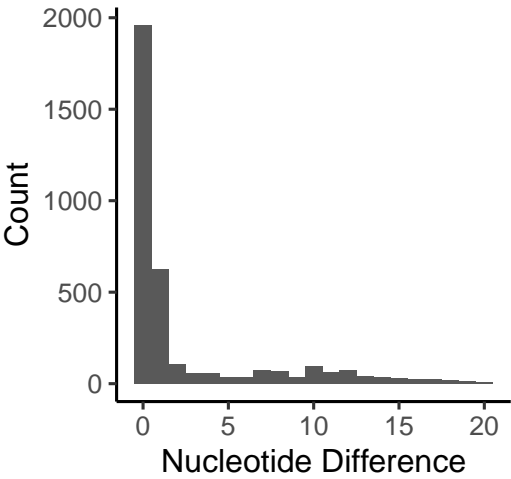
IGHV3-13*04

568 sequences assigned
325 (57.2%) exact matches, in which:
214 unique CDR3
6 unique J



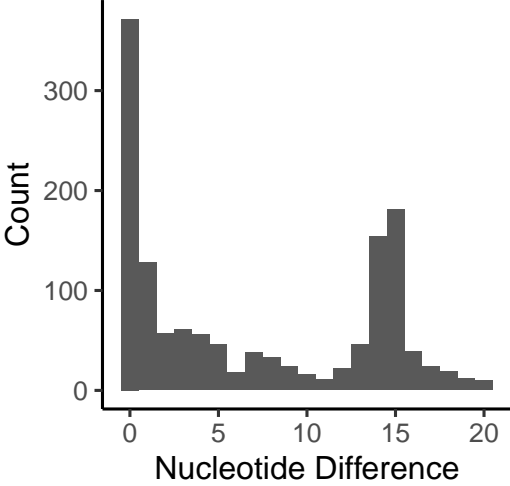
IGHV3-15*01_02

4858 sequences assigned
1958 (40.3%) exact matches, in which:
1401 unique CDR3
6 unique J



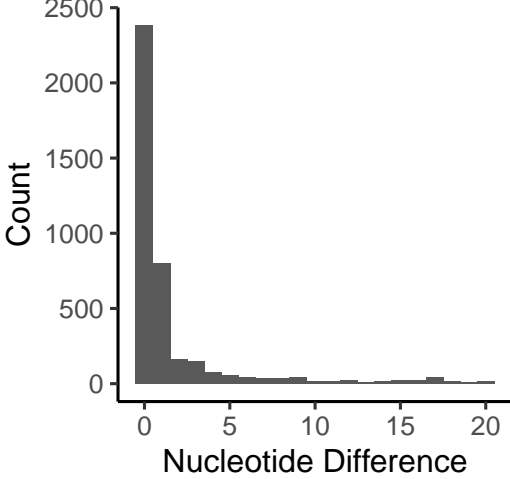
IGHV3-20*03_04

1448 sequences assigned
372 (25.7%) exact matches, in which:
265 unique CDR3
6 unique J



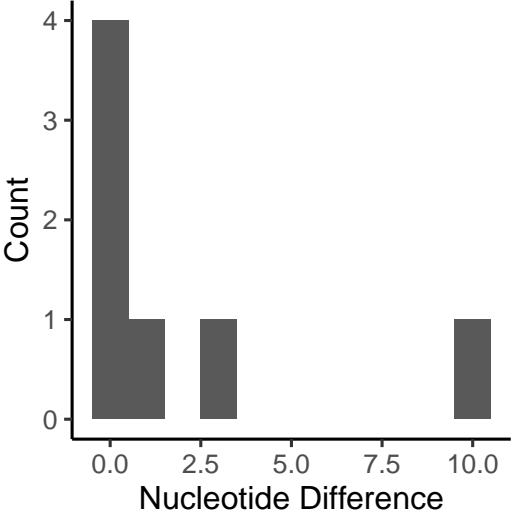
IGHV3-30*01

4151 sequences assigned
2382 (57.4%) exact matches, in which:
1714 unique CDR3
6 unique J



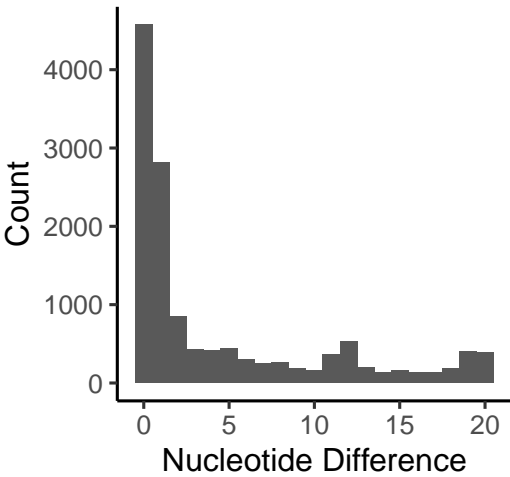
IGHV3-19*01

7 sequences assigned
4 (57.1%) exact matches, in which:
4 unique CDR3
4 unique J



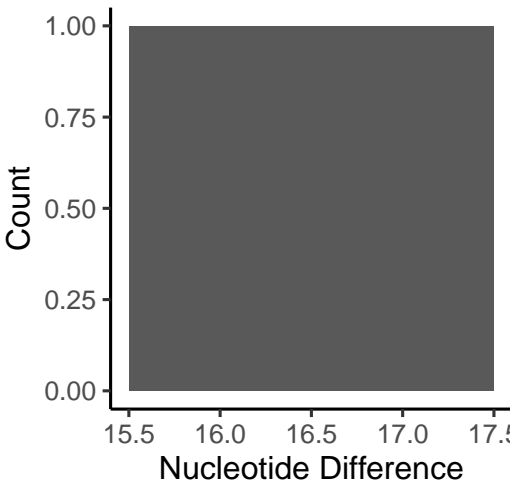
IGHV3-21*01_02

15070 sequences assigned
4574 (30.4%) exact matches, in which:
3095 unique CDR3
6 unique J



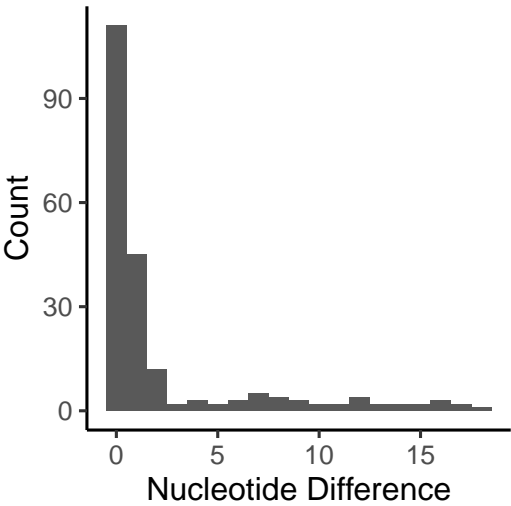
IGHV3-30-3*01

41 sequences assigned
No exact matches.



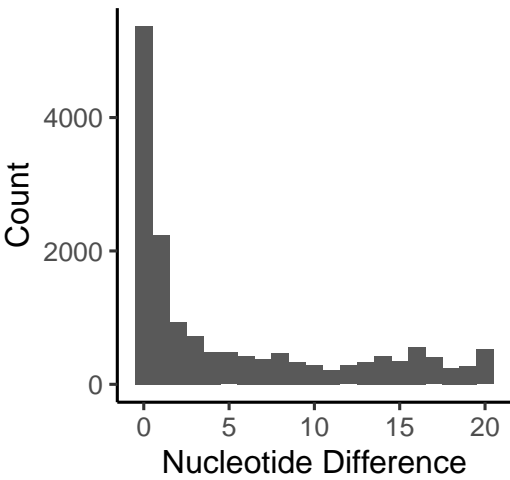
IGHV3-20*01_02

224 sequences assigned
111 (49.6%) exact matches, in which:
81 unique CDR3
5 unique J



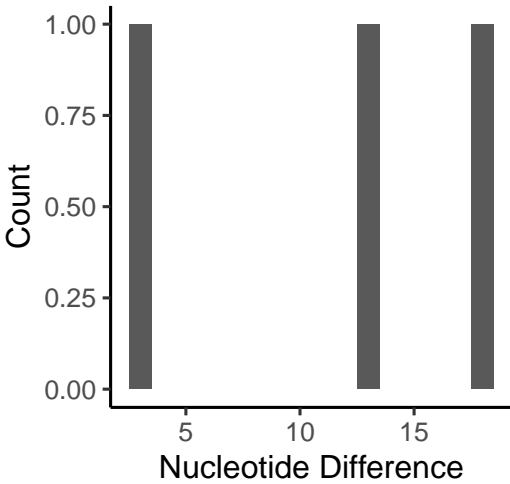
IGHV3-23*01_04

21308 sequences assigned
5372 (25.2%) exact matches, in which:
3553 unique CDR3
6 unique J



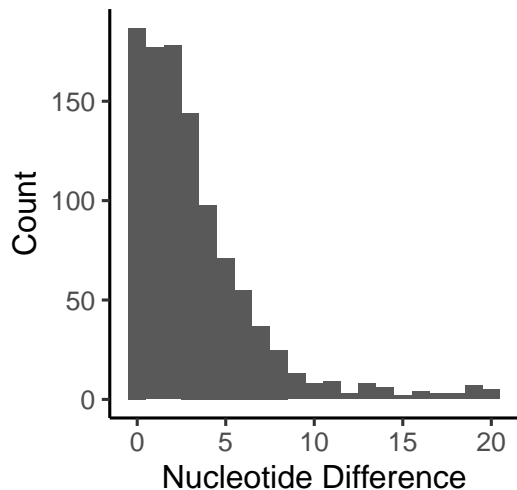
IGHV3-30-3*02

80 sequences assigned
No exact matches.



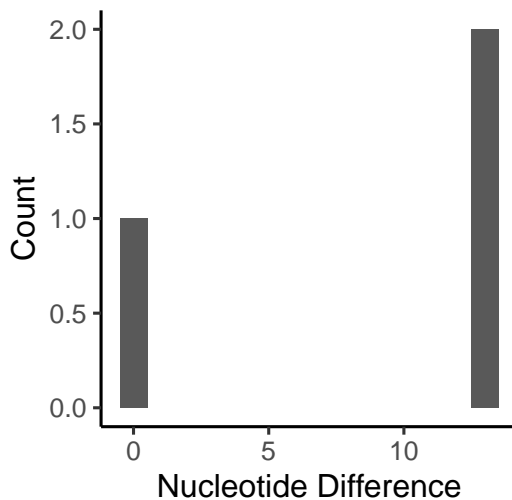
IGHV3-30*07

1072 sequences assigned
187 (17.4%) exact matches, in which:
183 unique CDR3
6 unique J



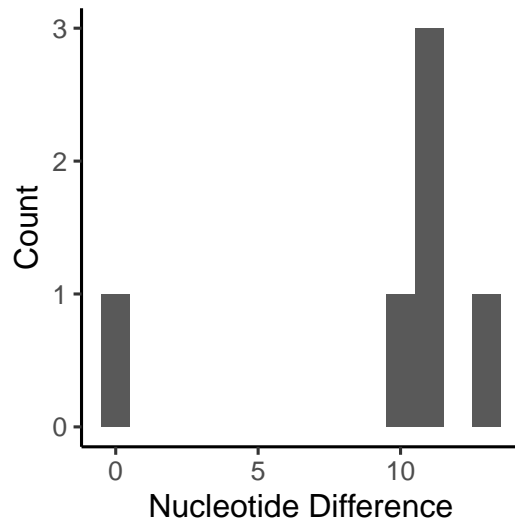
IGHV3-35*01

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



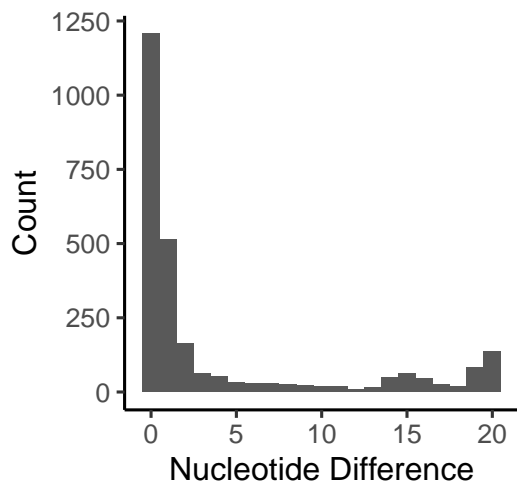
IGHV3-47*02

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



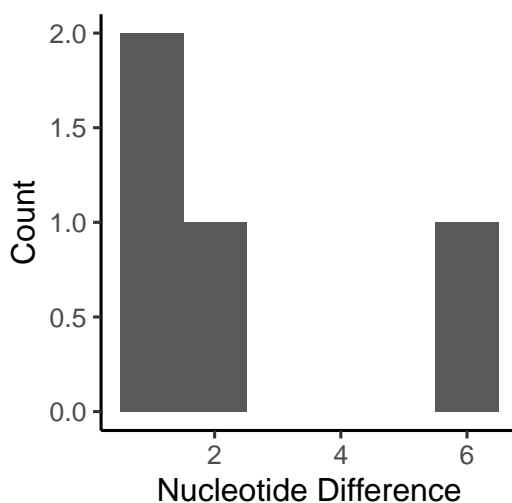
IGHV3-30*18

3055 sequences assigned
1207 (39.5%) exact matches, in which:
880 unique CDR3
6 unique J



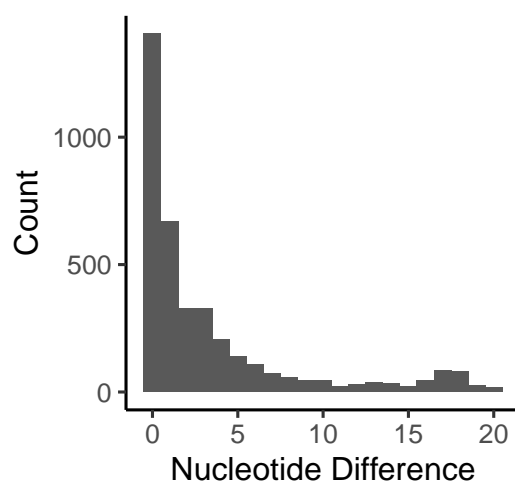
IGHV3-43*01

4 sequences assigned
No exact matches.



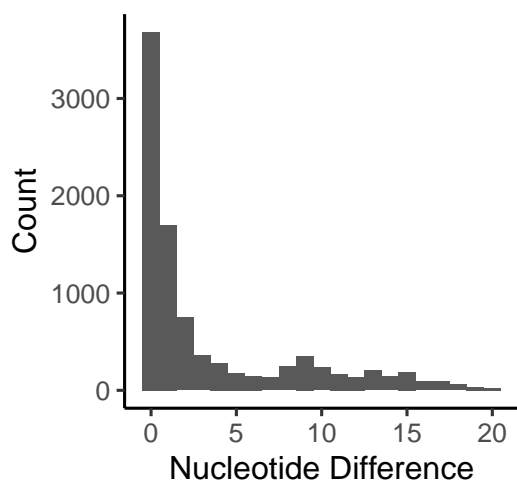
IGHV3-48*01

3958 sequences assigned
1406 (35.5%) exact matches, in which:
994 unique CDR3
6 unique J



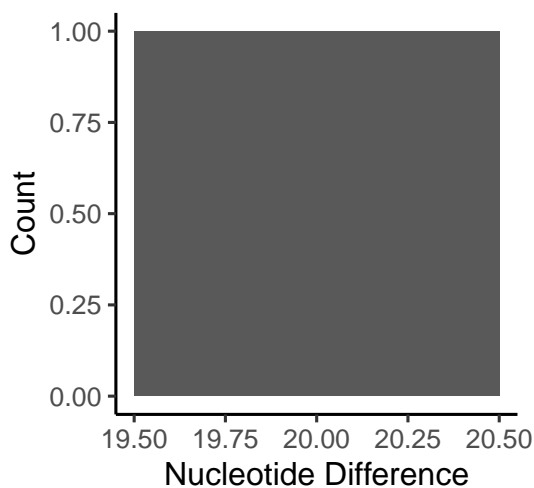
IGHV3-33*01

9638 sequences assigned
3683 (38.2%) exact matches, in which:
2718 unique CDR3
6 unique J



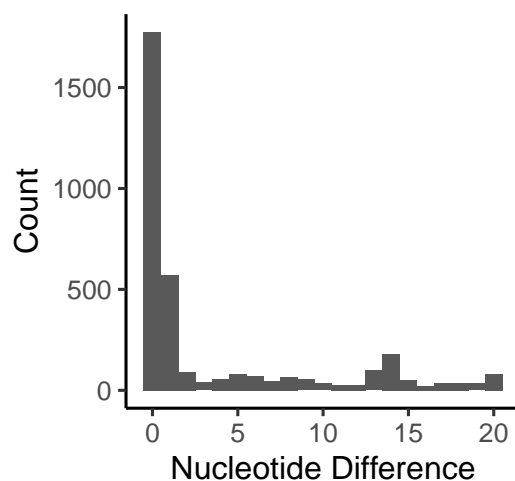
IGHV3-43*02

1 sequences assigned
No exact matches.



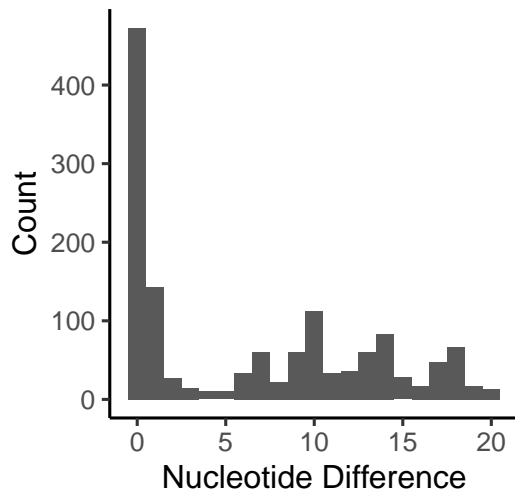
IGHV3-48*03

4648 sequences assigned
1775 (38.2%) exact matches, in which:
1267 unique CDR3
6 unique J



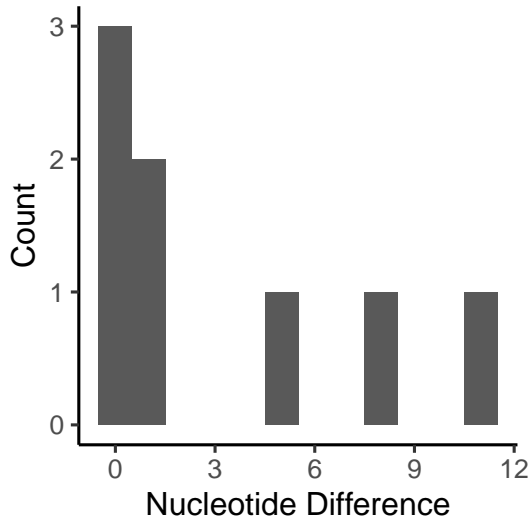
IGHV3-49*04

1411 sequences assigned
473 (33.5%) exact matches, in which:
346 unique CDR3
6 unique J



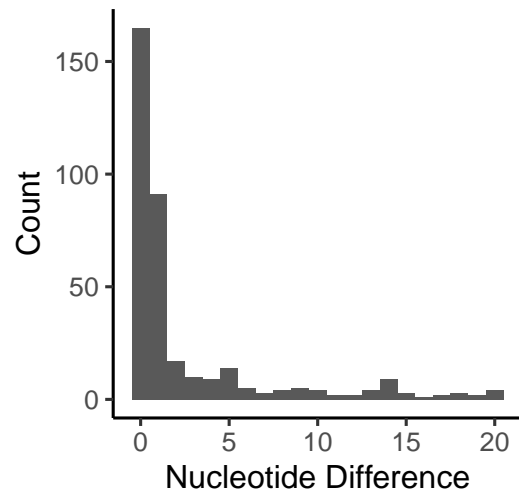
IGHV3-52*01_03

8 sequences assigned
3 (37.5%) exact matches, in which:
2 unique CDR3
1 unique J



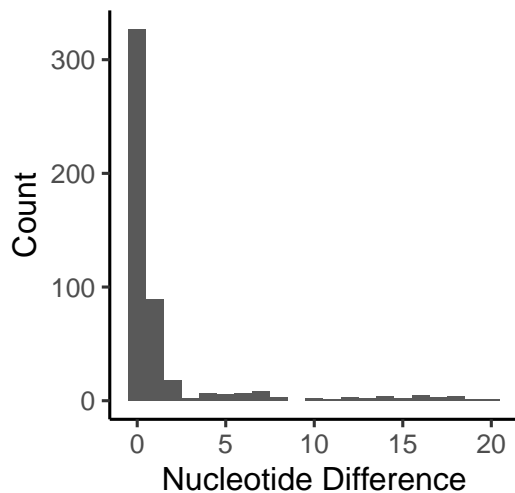
IGHV3-64*01

590 sequences assigned
165 (28%) exact matches, in which:
112 unique CDR3
6 unique J



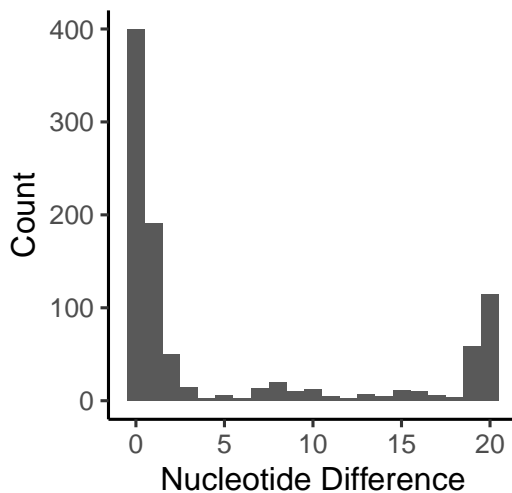
IGHV3-49*03_05

503 sequences assigned
327 (65%) exact matches, in which:
243 unique CDR3
6 unique J



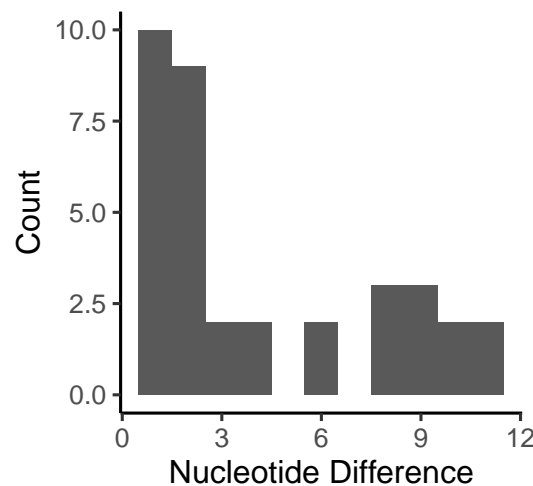
IGHV3-53*04

1016 sequences assigned
400 (39.4%) exact matches, in which:
277 unique CDR3
6 unique J



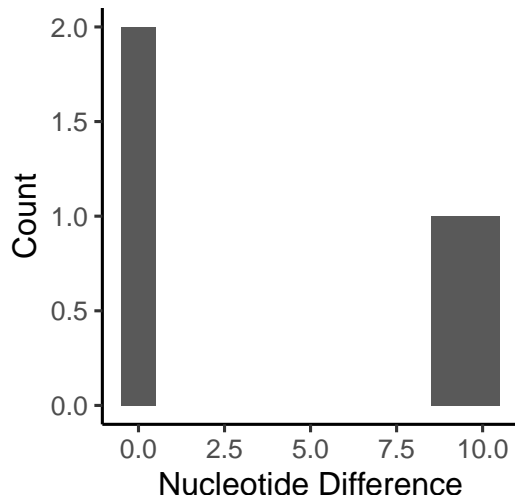
IGHV3-64*04

37 sequences assigned
No exact matches.



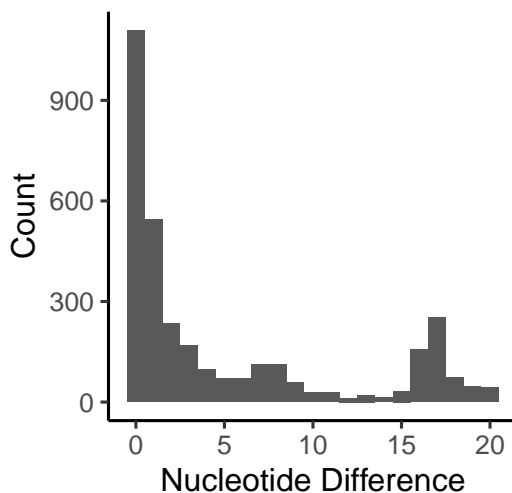
IGHV3-52*02

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



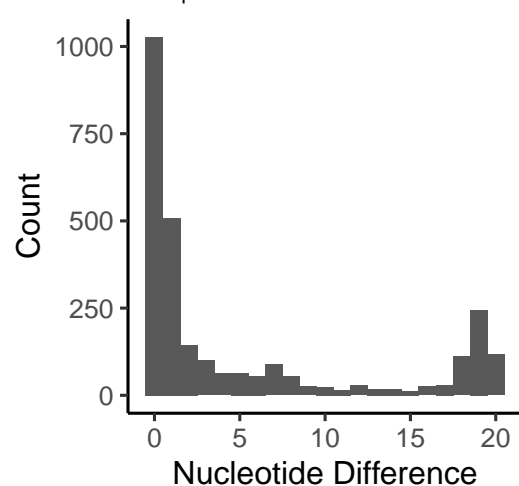
IGHV3-53*01_02

4427 sequences assigned
1109 (25.1%) exact matches, in which:
771 unique CDR3
6 unique J



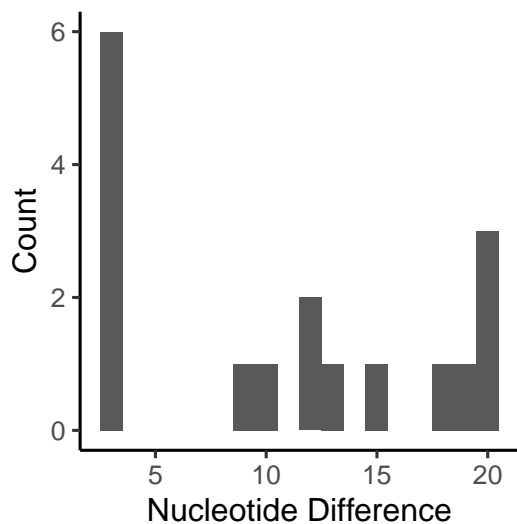
IGHV3-66*01

3685 sequences assigned
1027 (27.9%) exact matches, in which:
711 unique CDR3
6 unique J



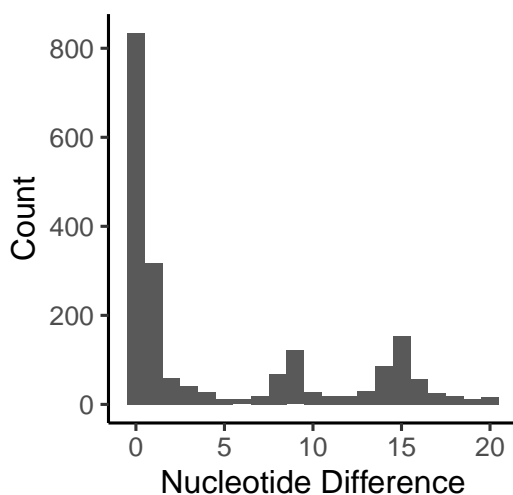
IGHV3-69-1*01

468 sequences assigned
No exact matches.



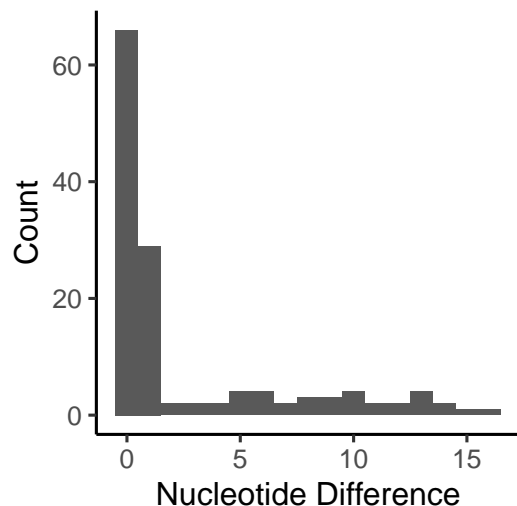
IGHV3-73*01_02

2287 sequences assigned
835 (36.5%) exact matches, in which:
593 unique CDR3
6 unique J



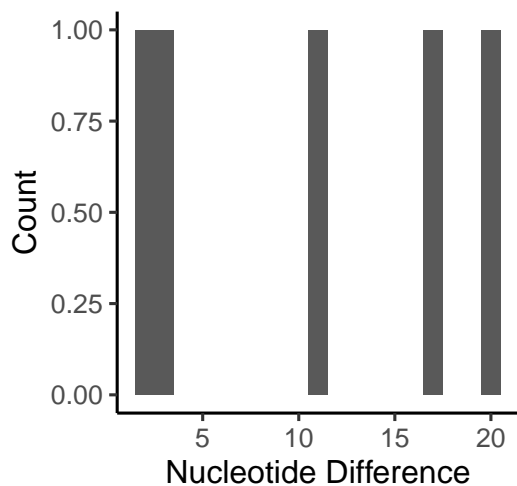
IGHV3-43D*04

137 sequences assigned
66 (48.2%) exact matches, in which:
53 unique CDR3
4 unique J



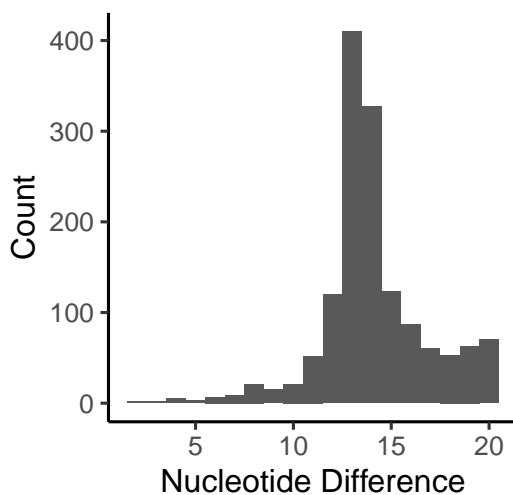
IGHV3-69-1*02

21 sequences assigned
No exact matches.



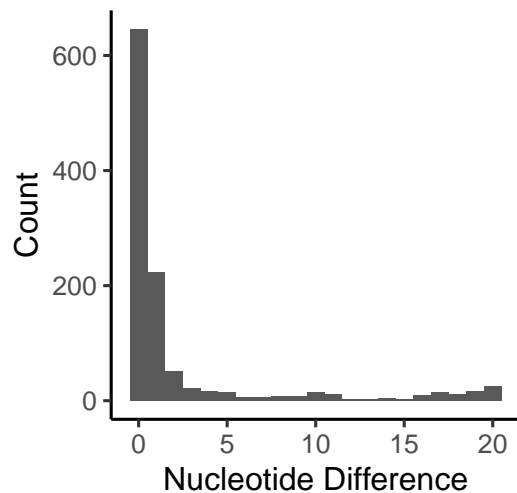
IGHV3-74*03

2682 sequences assigned
No exact matches.



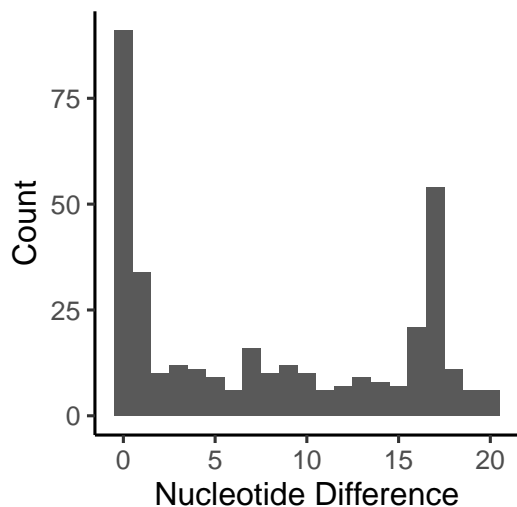
IGHV3-64D*06

1256 sequences assigned
646 (51.4%) exact matches, in which:
427 unique CDR3
6 unique J



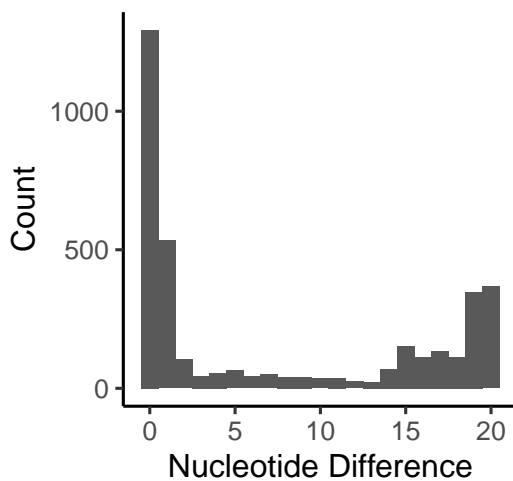
IGHV3-72*01

619 sequences assigned
91 (14.7%) exact matches, in which:
63 unique CDR3
5 unique J



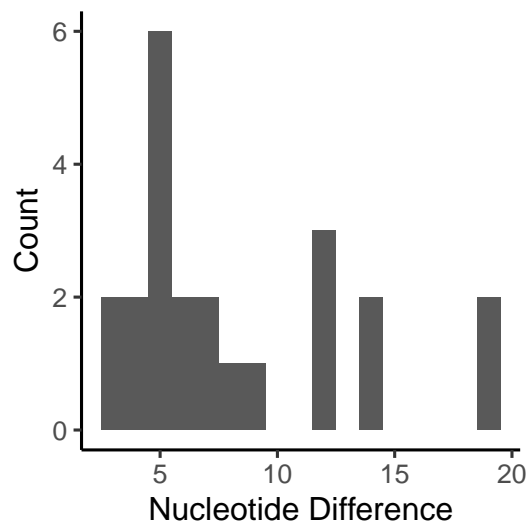
IGHV3-74*01_02

4833 sequences assigned
1293 (26.8%) exact matches, in which:
834 unique CDR3
6 unique J



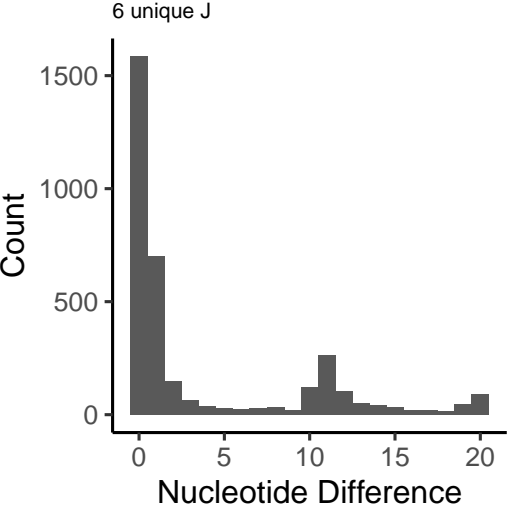
IGHV3-NL1*01

38 sequences assigned
No exact matches.



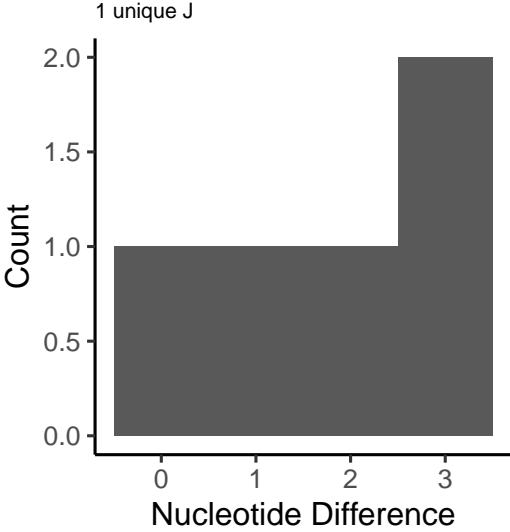
IGHV4-4*02_03

5332 sequences assigned
1585 (29.7%) exact matches, in which:
1374 unique CDR3
6 unique J



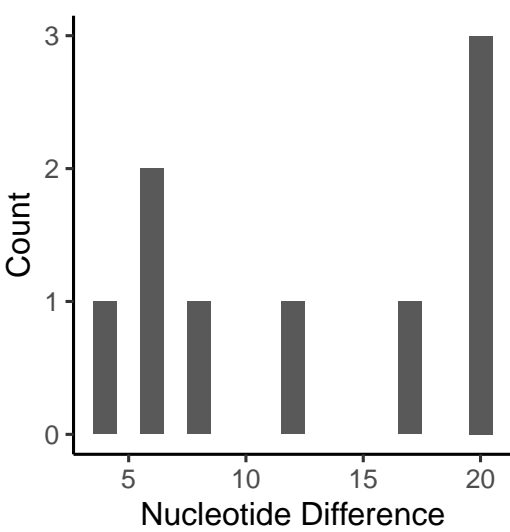
IGHV4-28*02_05

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



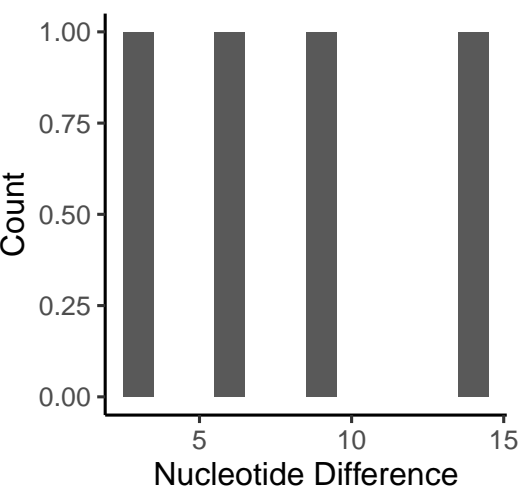
IGHV4-30-4*08

129 sequences assigned
No exact matches.



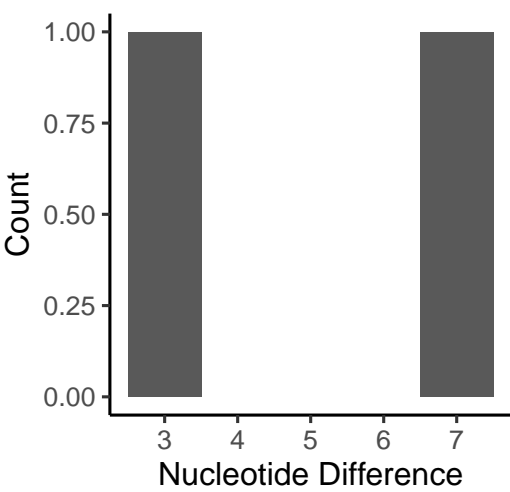
IGHV4-28*03

7 sequences assigned
No exact matches.



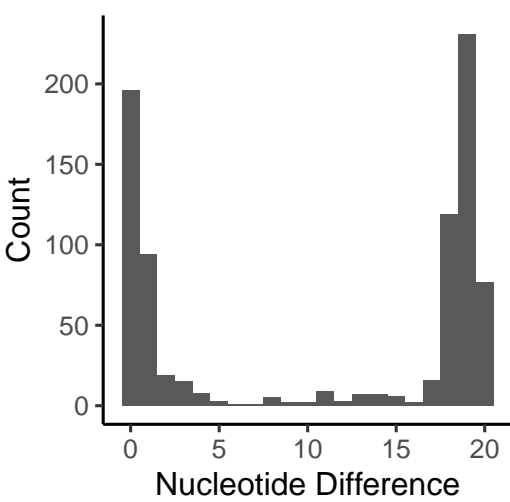
IGHV4-30-4*05

2 sequences assigned
No exact matches.



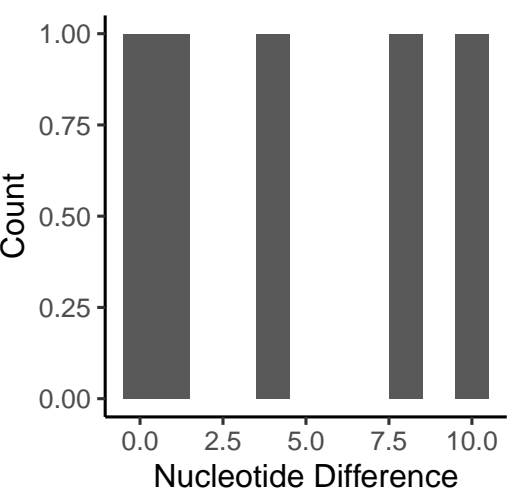
IGHV4-31*01

900 sequences assigned
196 (21.8%) exact matches, in which:
190 unique CDR3
6 unique J



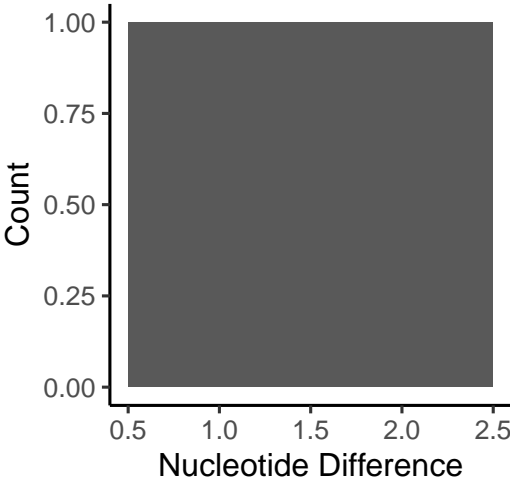
IGHV4-28*01_07

10 sequences assigned
1 (10%) exact matches, in which:
1 unique CDR3
1 unique J



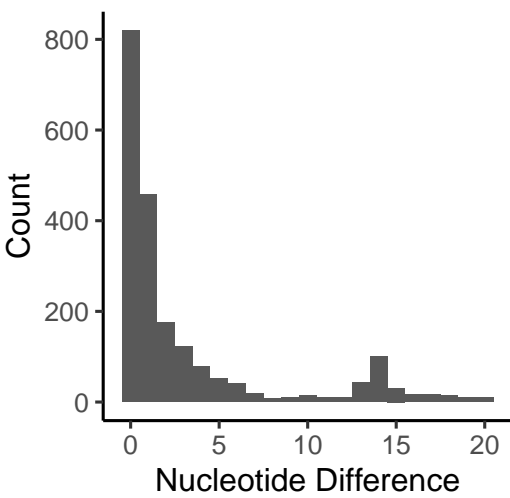
IGHV4-30-4*07

2 sequences assigned
No exact matches.



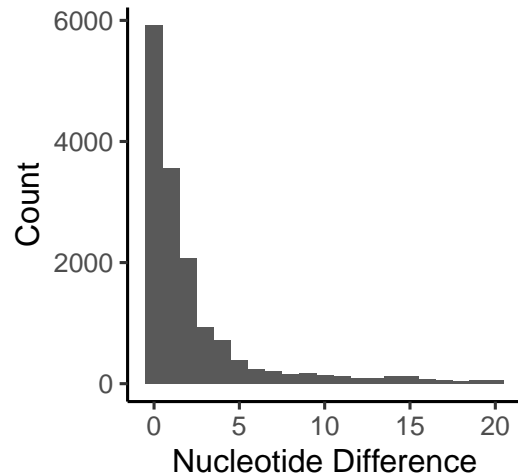
IGHV4-31*02

2911 sequences assigned
820 (28.2%) exact matches, in which:
758 unique CDR3
6 unique J



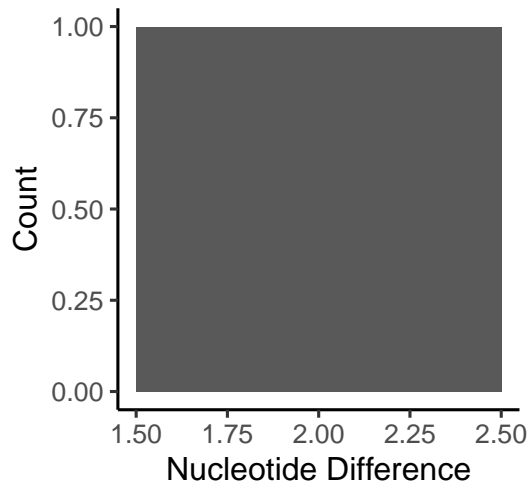
IGHV4-34*01_02

18280 sequences assigned
5917 (32.4%) exact matches, in which:
4868 unique CDR3
6 unique J



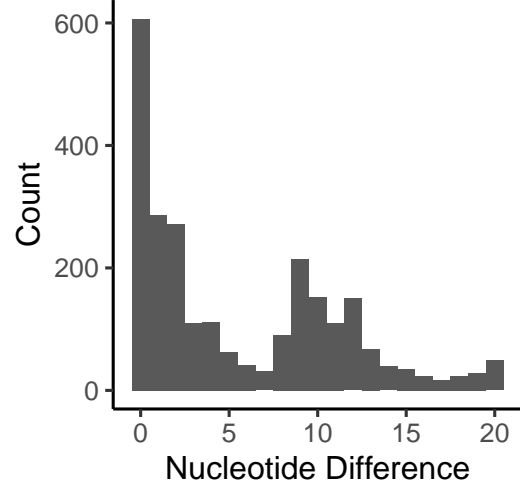
IGHV4-55*09

1 sequences assigned
No exact matches.



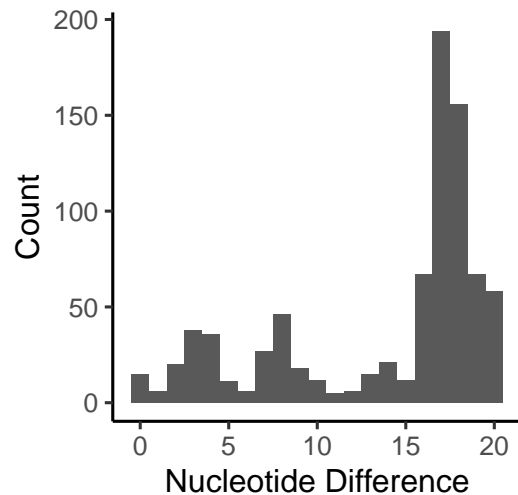
IGHV4-61*01

2767 sequences assigned
607 (21.9%) exact matches, in which:
576 unique CDR3
6 unique J



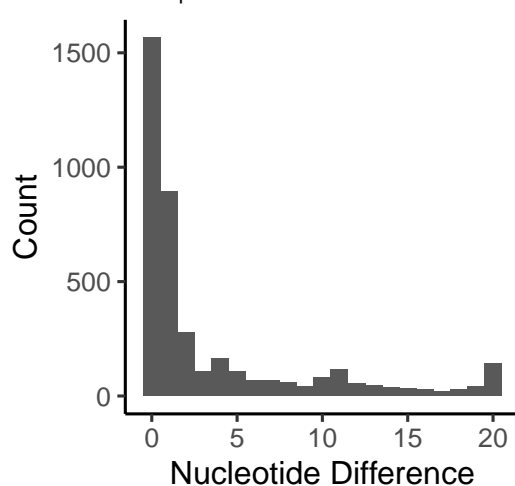
IGHV4-38-2*02

1115 sequences assigned
15 (1.3%) exact matches, in which:
15 unique CDR3
5 unique J



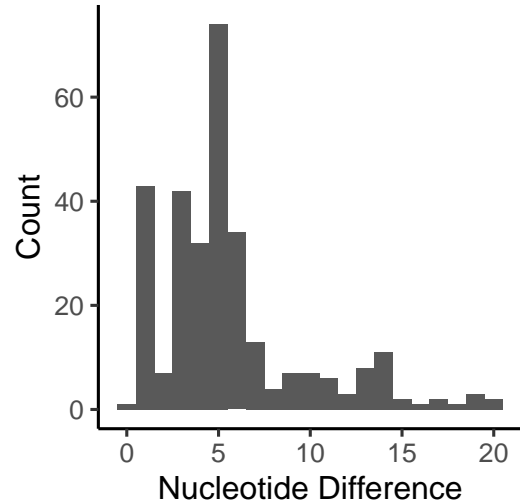
IGHV4-59*08

4701 sequences assigned
1566 (33.3%) exact matches, in which:
1414 unique CDR3
6 unique J



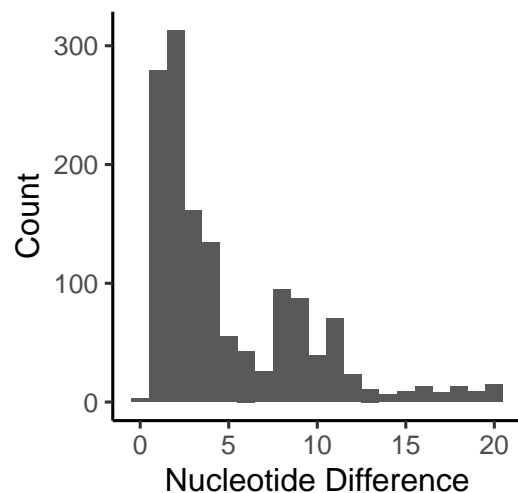
IGHV4-61*08

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



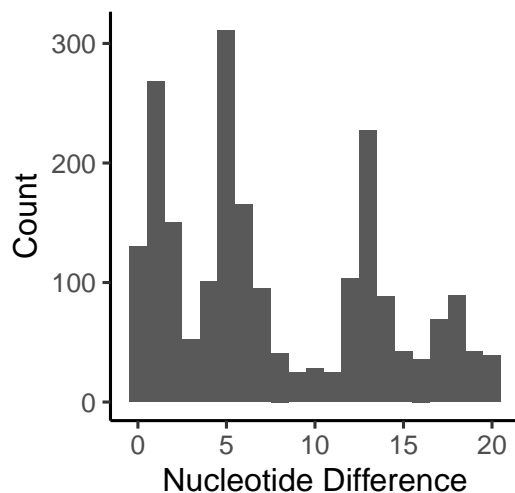
IGHV4-39*07

2456 sequences assigned
3 (0.1%) exact matches, in which:
3 unique CDR3
1 unique J



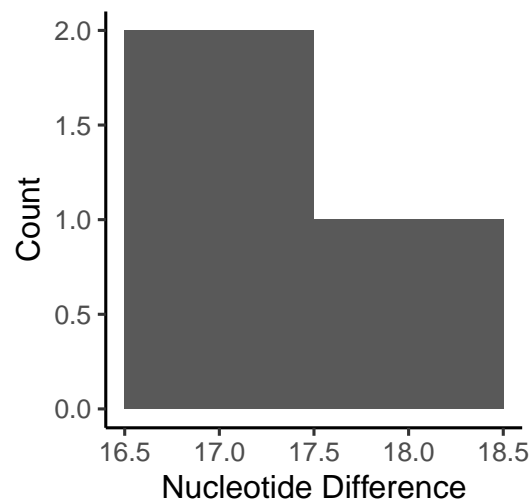
IGHV4-59*12

2678 sequences assigned
130 (4.9%) exact matches, in which:
130 unique CDR3
6 unique J



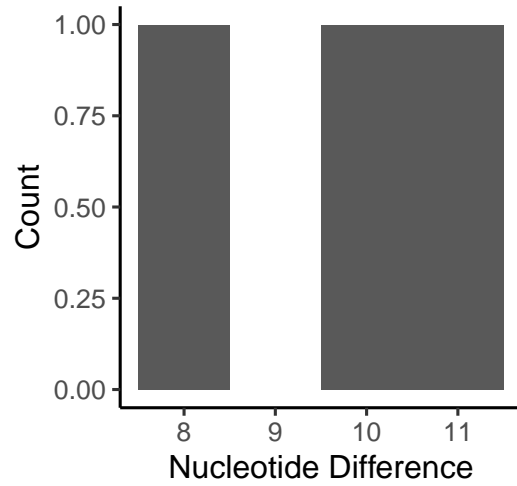
IGHV1/OR15-2*02_03

3 sequences assigned
No exact matches.



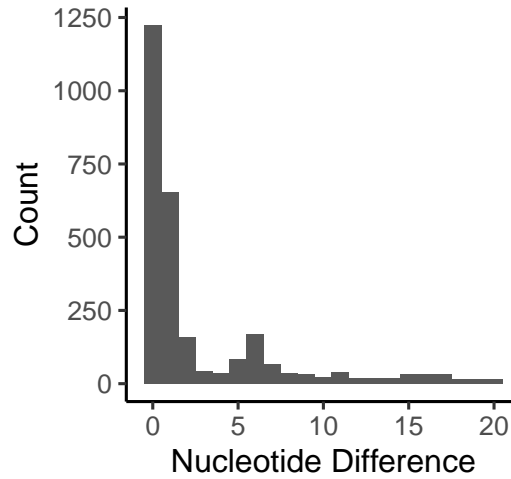
IGHV1/OR15-3*02

3 sequences assigned
No exact matches.



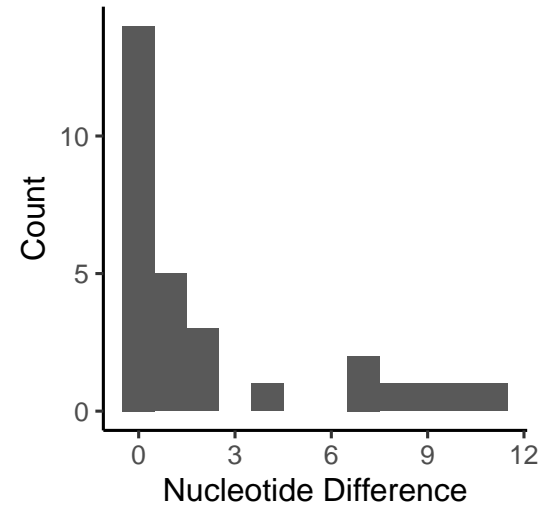
IGHV5-10-1*01_03

3793 sequences assigned
1223 (32.2%) exact matches, in which:
900 unique CDR3
6 unique J



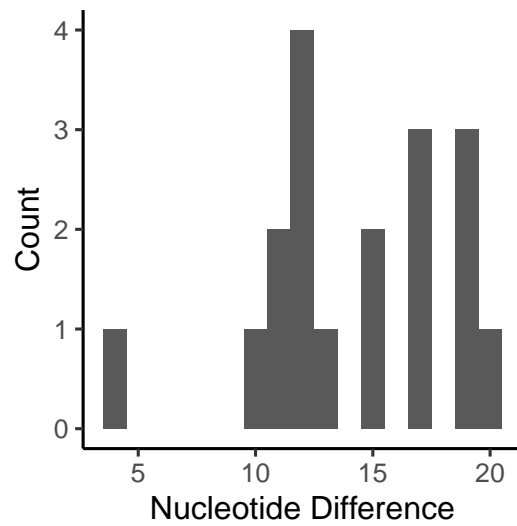
IGHV5-51*07

34 sequences assigned
14 (41.2%) exact matches, in which:
14 unique CDR3
4 unique J



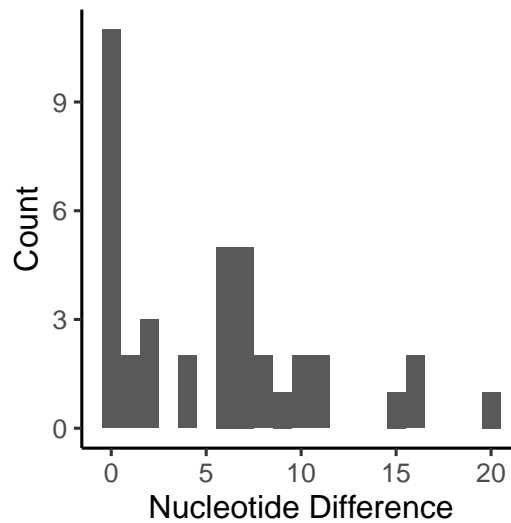
IGHV4/OR15-8*01

39 sequences assigned
No exact matches.



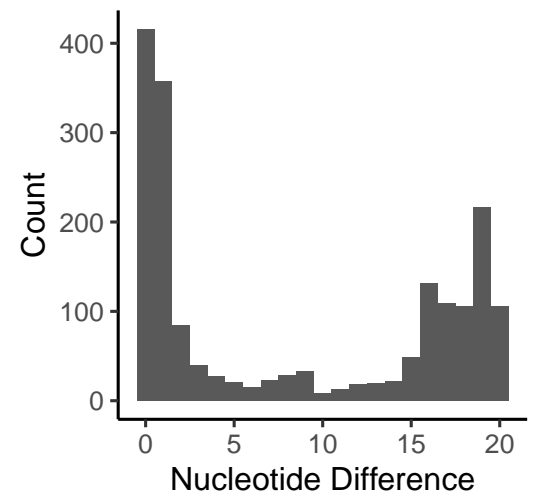
IGHV5-51*04

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



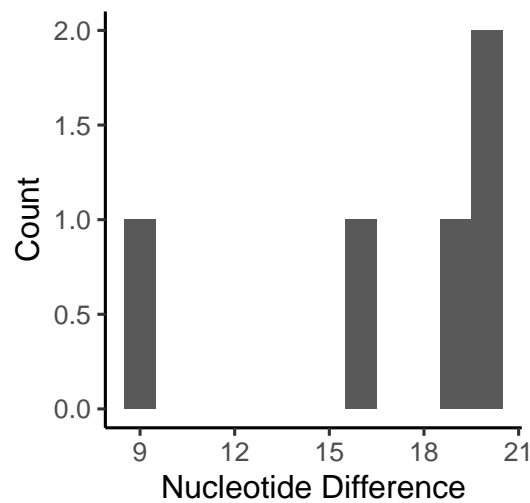
IGHV6-1*01_02

3372 sequences assigned
416 (12.3%) exact matches, in which:
389 unique CDR3
6 unique J



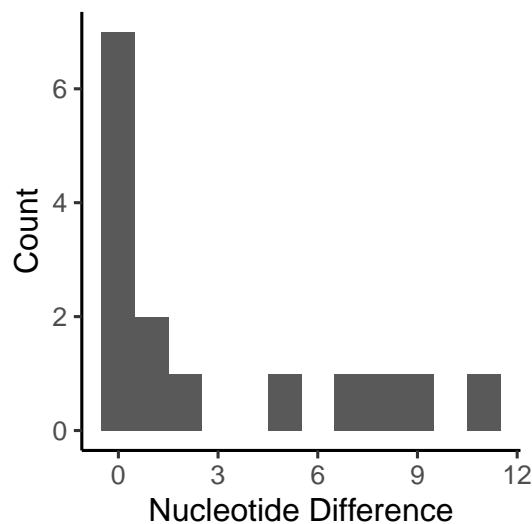
IGHV4/OR15-8*02

21 sequences assigned
No exact matches.



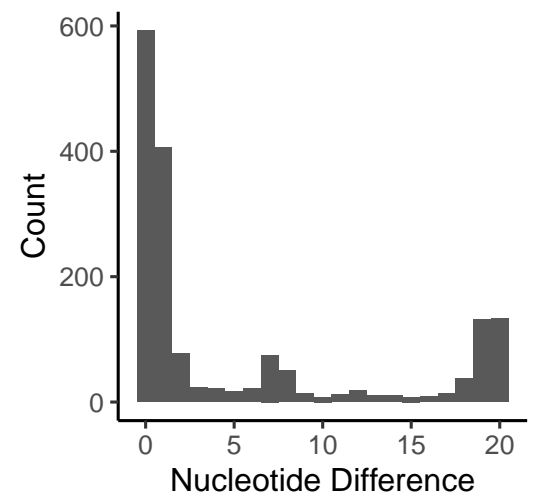
IGHV5-51*06

20 sequences assigned
7 (35%) exact matches, in which:
7 unique CDR3
3 unique J



IGHV7-4-1*02

1890 sequences assigned
593 (31.4%) exact matches, in which:
550 unique CDR3
6 unique J





Warning – no inferred sequences found.