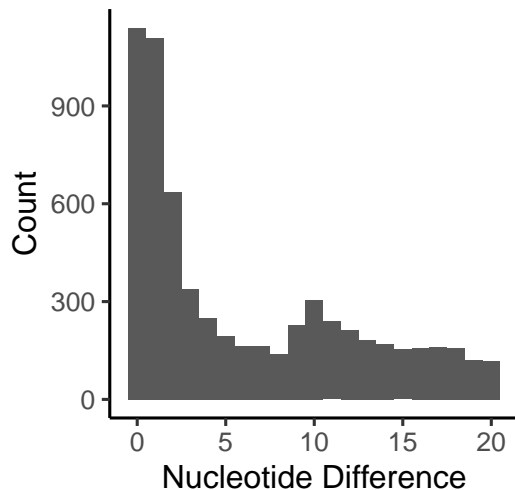


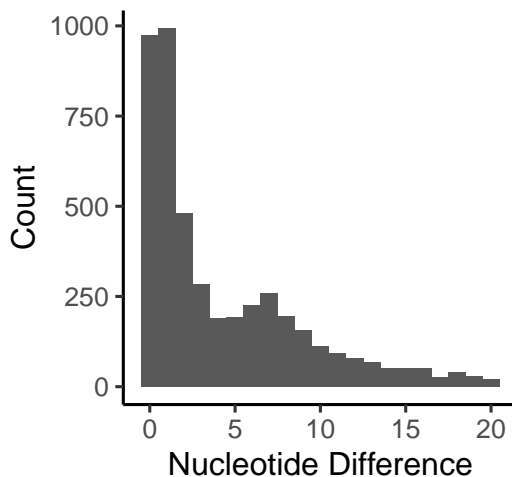
IGHV1-2*02

7115 sequences assigned
1140 (16%) exact matches, in which:
916 unique CDR3
6 unique J



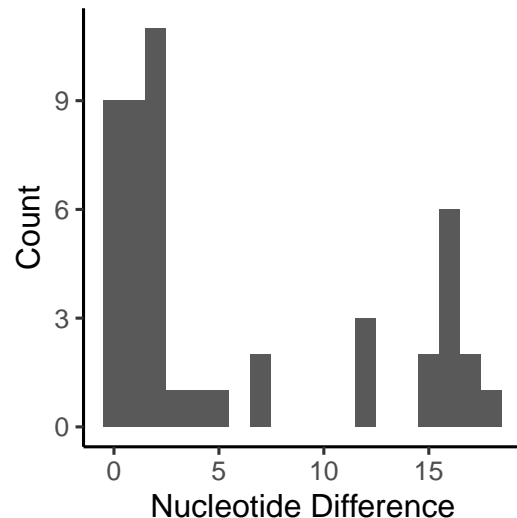
IGHV1-8*01

4914 sequences assigned
975 (19.8%) exact matches, in which:
780 unique CDR3
6 unique J



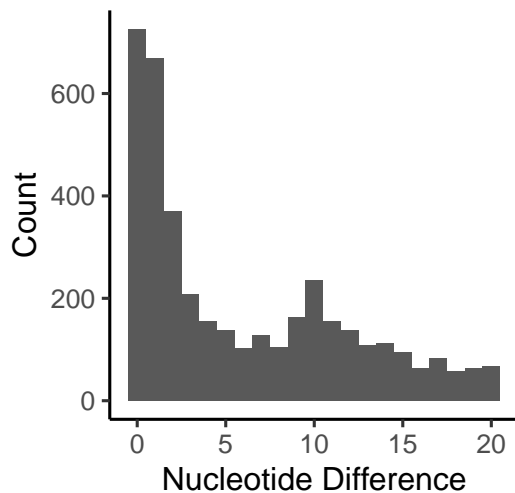
IGHV1-45*02

53 sequences assigned
9 (17%) exact matches, in which:
9 unique CDR3
3 unique J



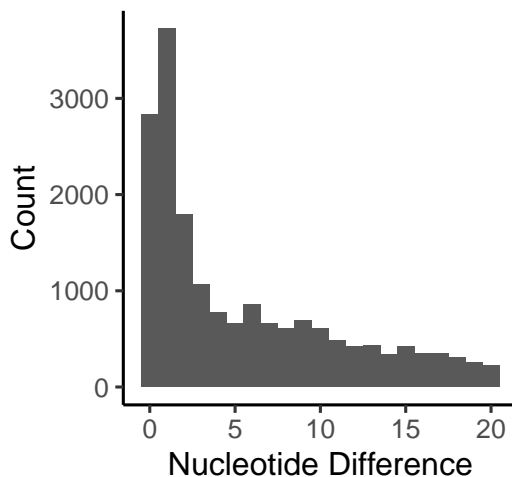
IGHV1-2*06

4476 sequences assigned
726 (16.2%) exact matches, in which:
609 unique CDR3
6 unique J



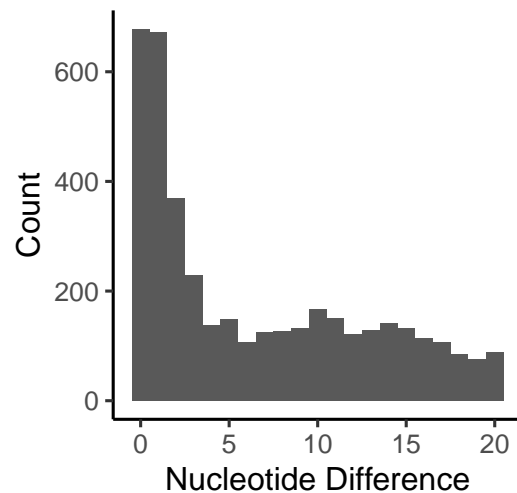
IGHV1-18*01

19384 sequences assigned
2831 (14.6%) exact matches, in which:
2132 unique CDR3
6 unique J



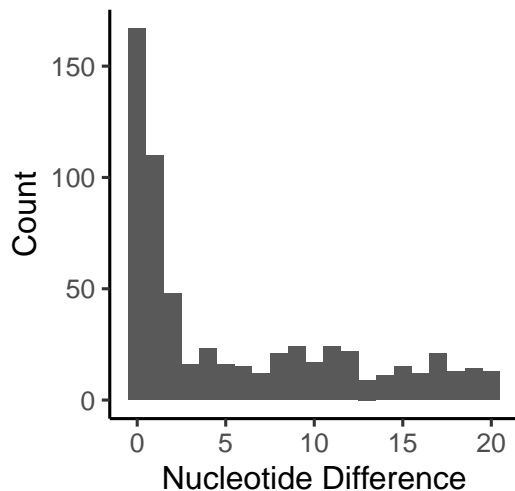
IGHV1-46*01

4911 sequences assigned
678 (13.8%) exact matches, in which:
561 unique CDR3
6 unique J



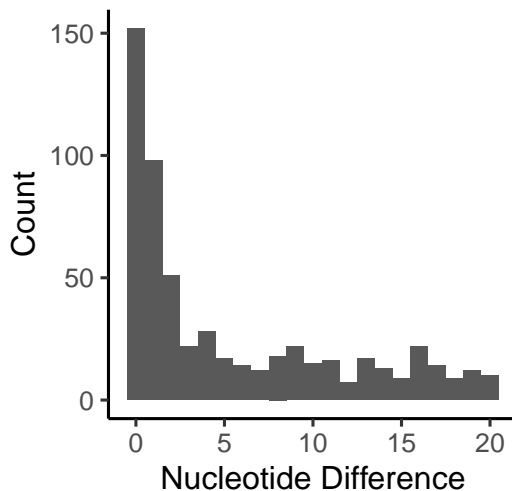
IGHV1-3*01_05

737 sequences assigned
167 (22.7%) exact matches, in which:
139 unique CDR3
6 unique J



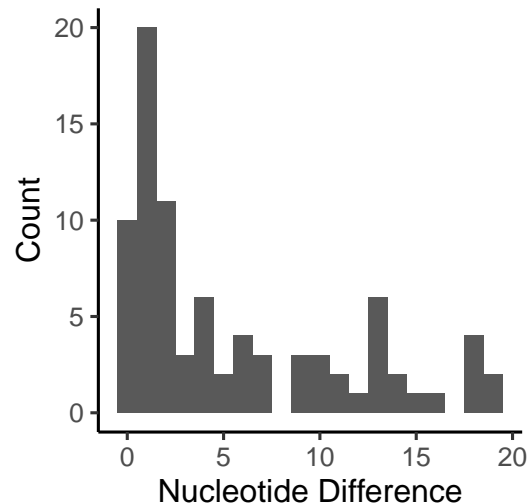
IGHV1-24*01

651 sequences assigned
152 (23.3%) exact matches, in which:
138 unique CDR3
6 unique J



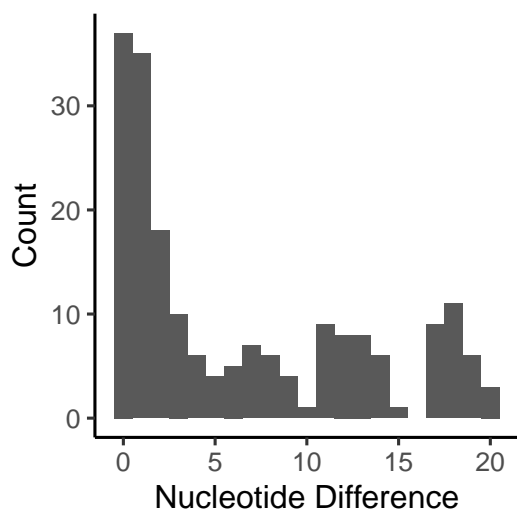
IGHV1-58*02

93 sequences assigned
10 (10.8%) exact matches, in which:
9 unique CDR3
3 unique J



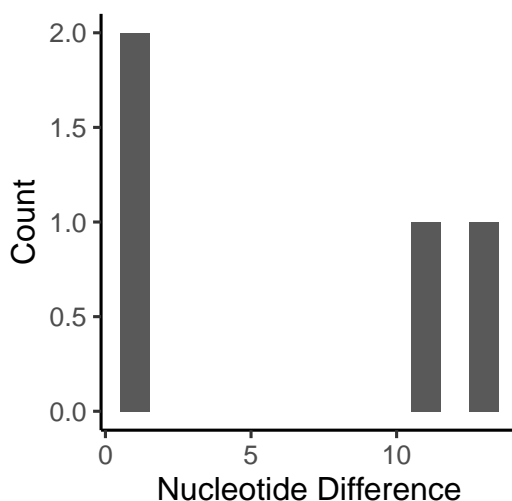
IGHV1-58*01_03

208 sequences assigned
37 (17.8%) exact matches, in which:
32 unique CDR3
6 unique J



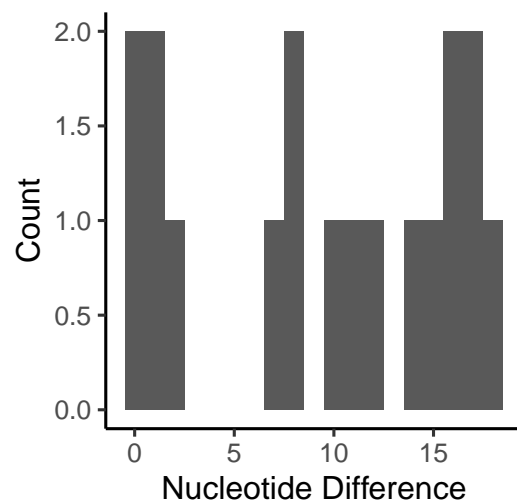
IGHV2-26*01

4 sequences assigned
No exact matches.



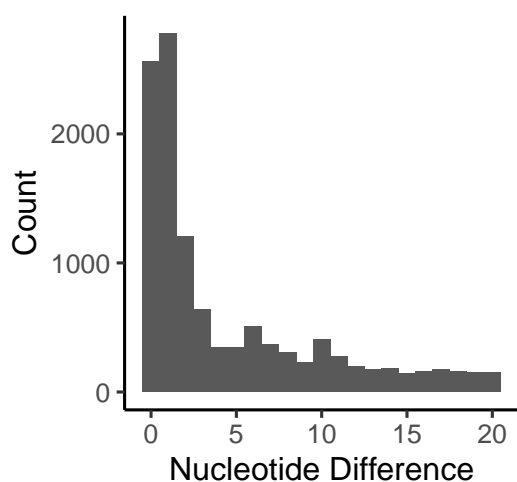
IGHV2-70*11_15

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



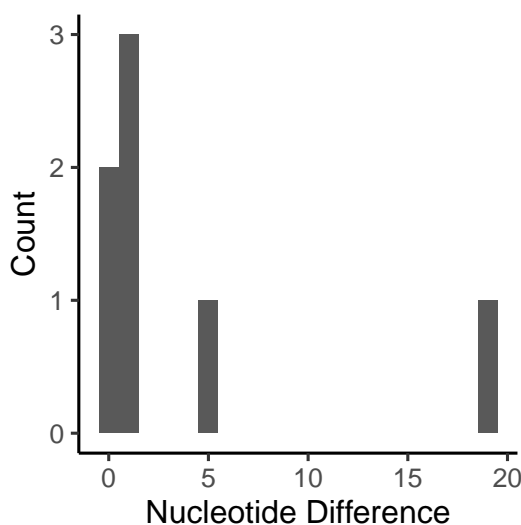
IGHV1-69*01_12_13

12638 sequences assigned
2561 (20.3%) exact matches, in which:
2015 unique CDR3
6 unique J



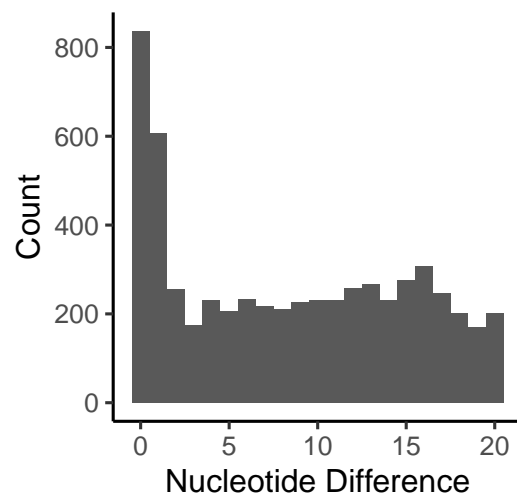
IGHV2-26*02

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



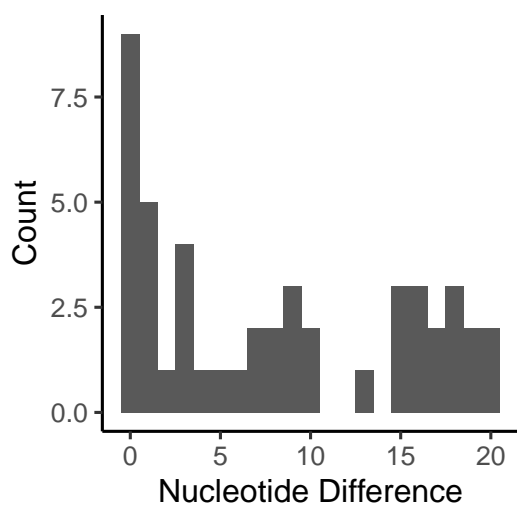
IGHV3-7*01

6645 sequences assigned
837 (12.6%) exact matches, in which:
663 unique CDR3
6 unique J



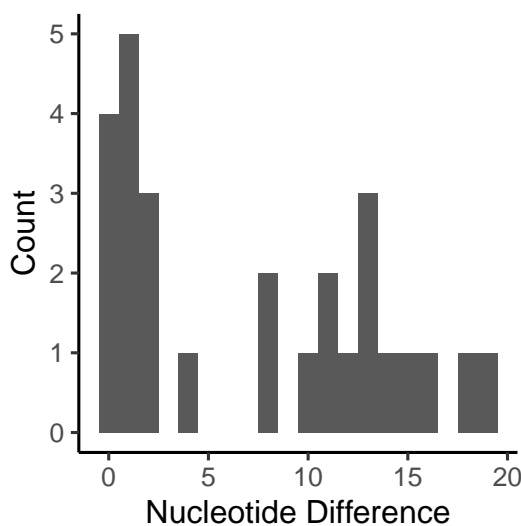
IGHV2-5*01

54 sequences assigned
9 (16.7%) exact matches, in which:
9 unique CDR3
3 unique J



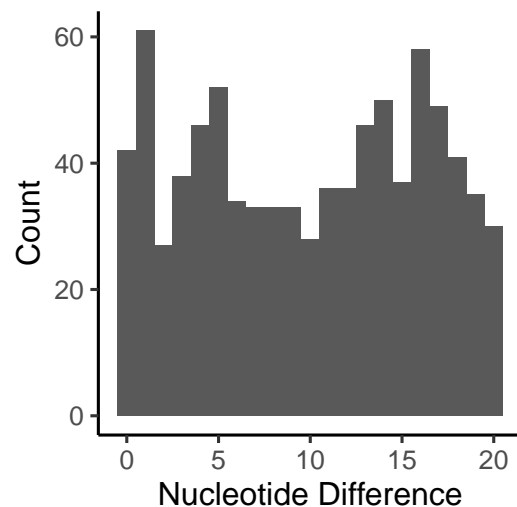
IGHV2-70*01

31 sequences assigned
4 (12.9%) exact matches, in which:
4 unique CDR3
3 unique J



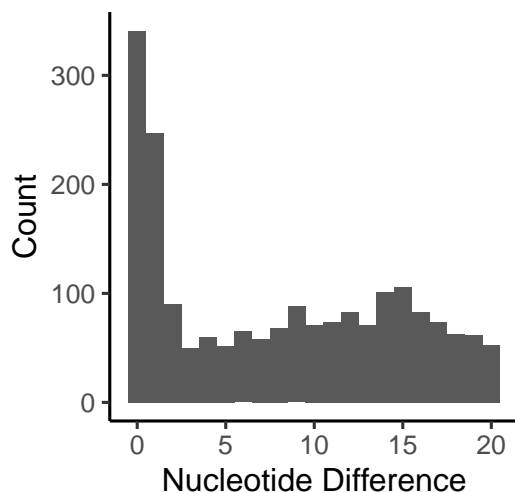
IGHV3-7*03

1025 sequences assigned
42 (4.1%) exact matches, in which:
42 unique CDR3
5 unique J



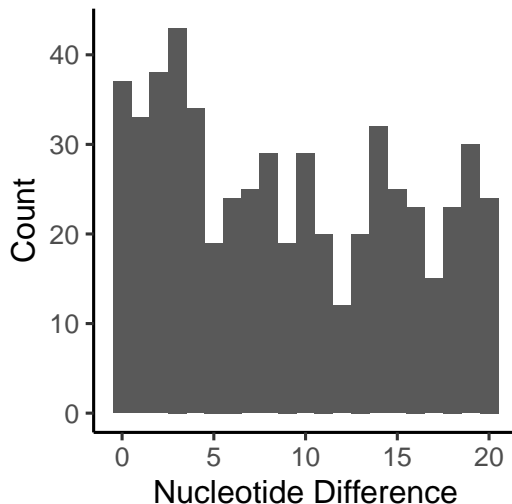
IGHV3-7*05

2257 sequences assigned
341 (15.1%) exact matches, in which:
265 unique CDR3
6 unique J



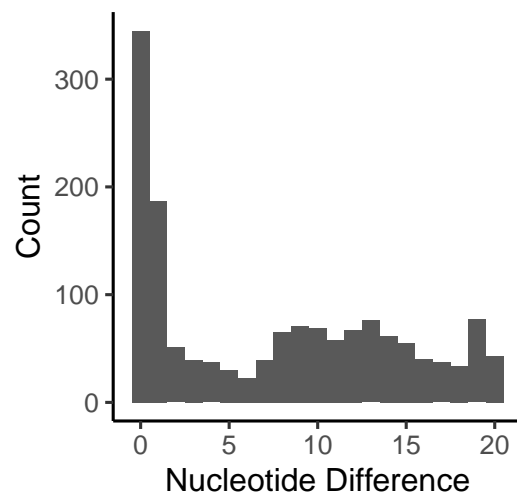
IGHV3-11*04

660 sequences assigned
37 (5.6%) exact matches, in which:
37 unique CDR3
6 unique J



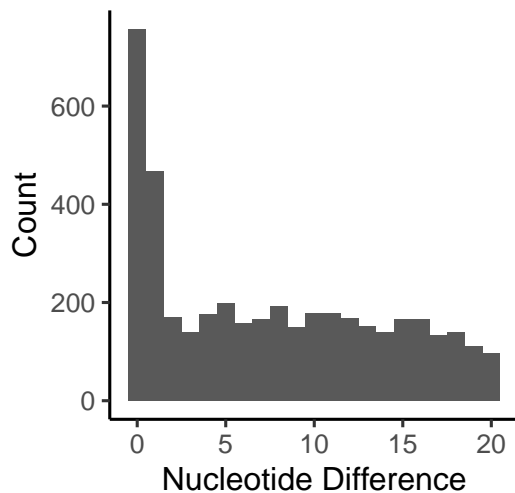
IGHV3-15*07

1836 sequences assigned
345 (18.8%) exact matches, in which:
307 unique CDR3
6 unique J



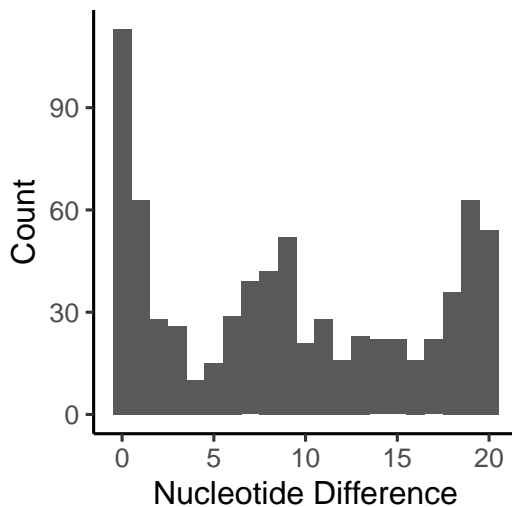
IGHV3-9*01

5075 sequences assigned
757 (14.9%) exact matches, in which:
599 unique CDR3
6 unique J



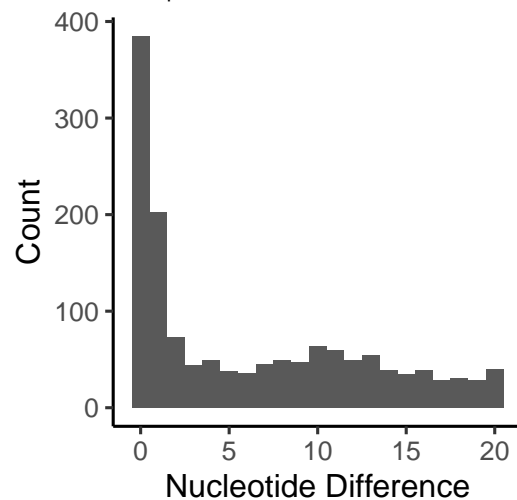
IGHV3-11*06

952 sequences assigned
113 (11.9%) exact matches, in which:
90 unique CDR3
6 unique J



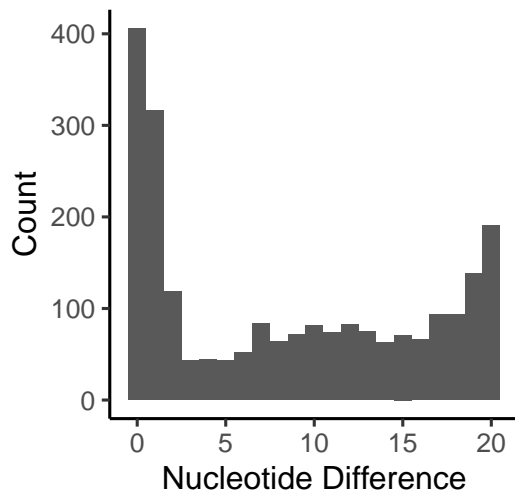
IGHV3-15*01_02

1600 sequences assigned
385 (24.1%) exact matches, in which:
326 unique CDR3
6 unique J



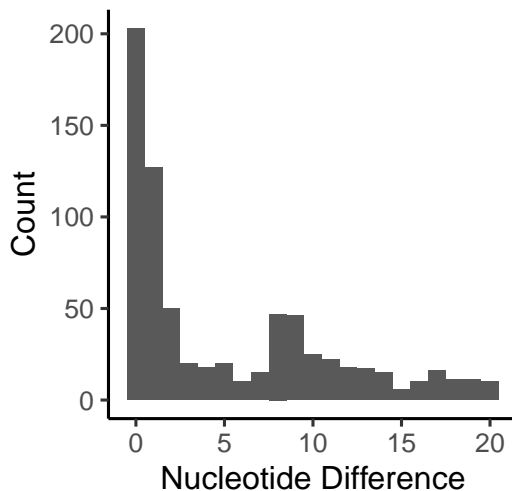
IGHV3-11*01

2750 sequences assigned
406 (14.8%) exact matches, in which:
338 unique CDR3
6 unique J



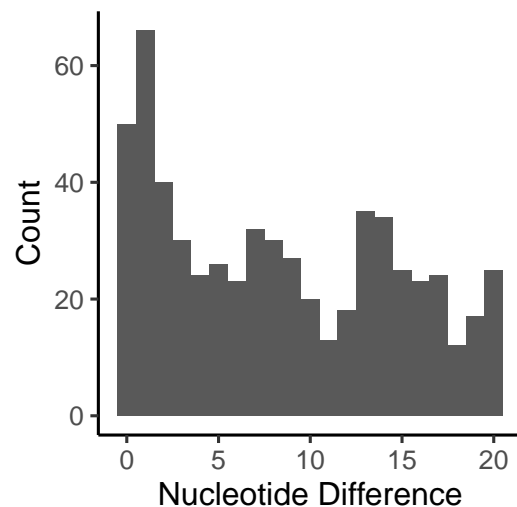
IGHV3-13*01

758 sequences assigned
203 (26.8%) exact matches, in which:
147 unique CDR3
6 unique J



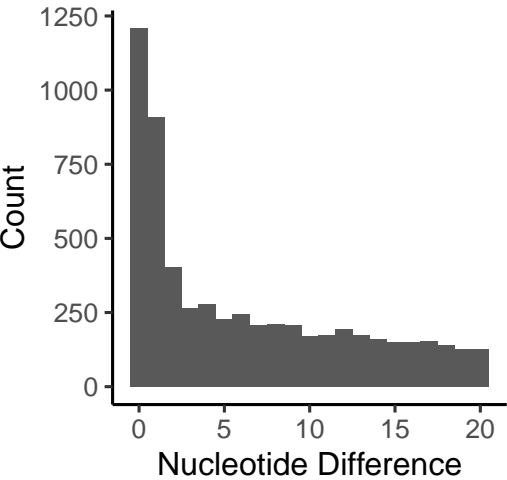
IGHV3-20*03_04

942 sequences assigned
50 (5.3%) exact matches, in which:
42 unique CDR3
6 unique J



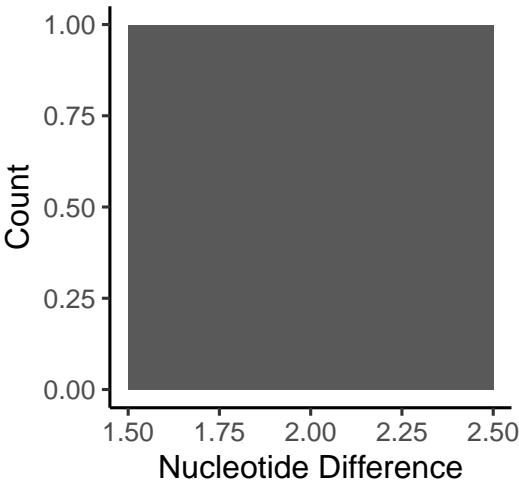
IGHV3-21*01_02

7026 sequences assigned
1208 (17.2%) exact matches, in which:
980 unique CDR3
6 unique J



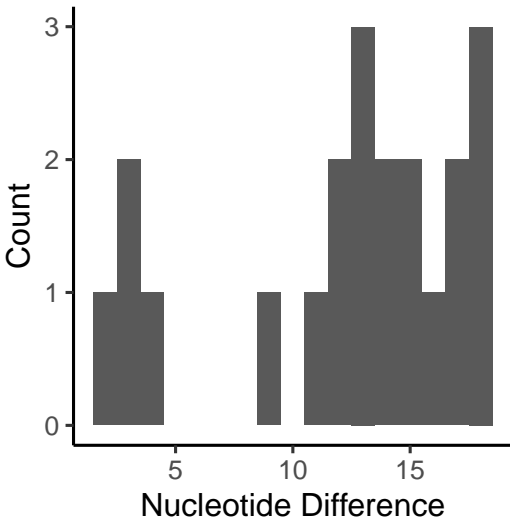
IGHV3-30-3*01

12 sequences assigned
No exact matches.



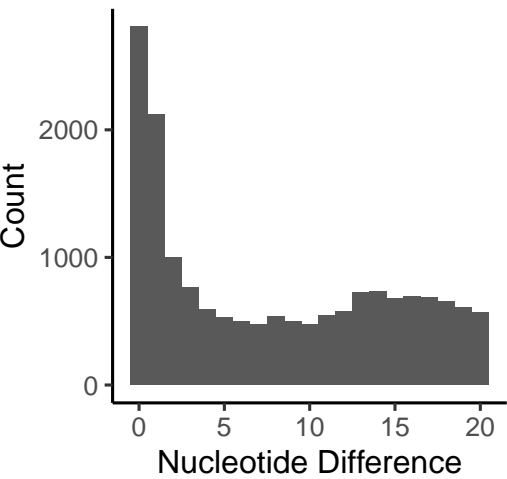
IGHV3-30-3*03

40 sequences assigned
No exact matches.



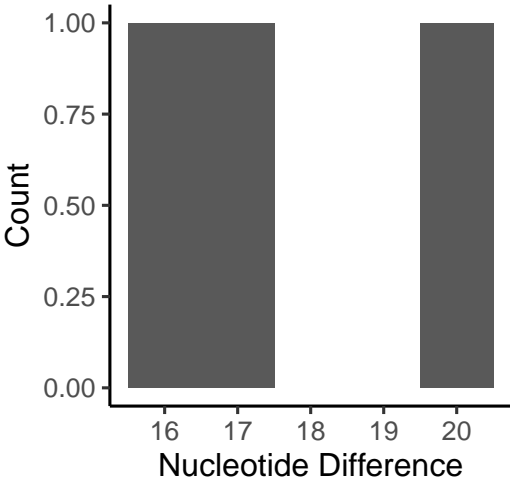
IGHV3-23*01_04

21363 sequences assigned
2808 (13.1%) exact matches, in which:
2219 unique CDR3
6 unique J



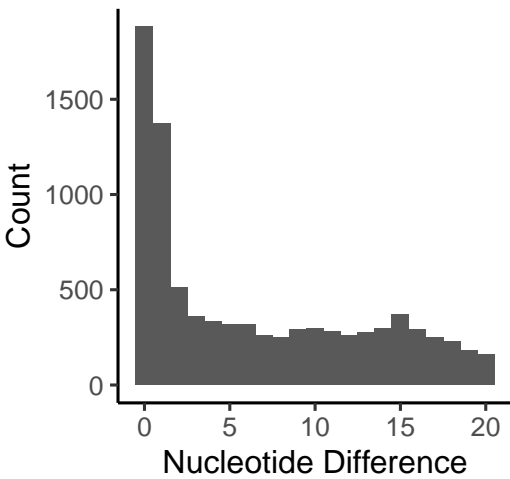
IGHV3-30-3*02

18 sequences assigned
No exact matches.



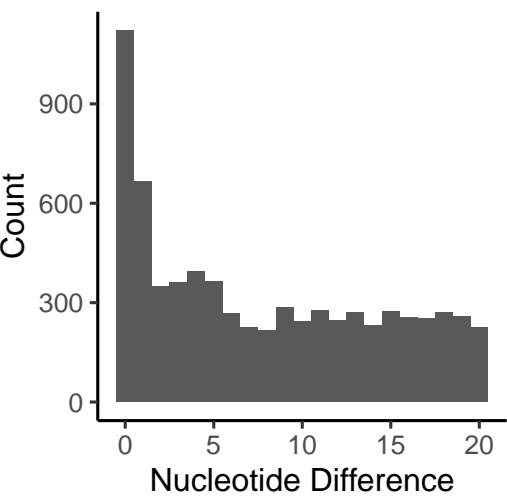
IGHV3-33*01

9762 sequences assigned
1881 (19.3%) exact matches, in which:
1360 unique CDR3
6 unique J



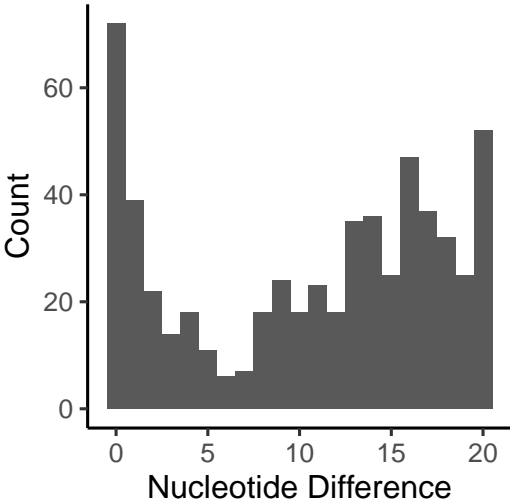
IGHV3-23*01_04_C113C

8657 sequences assigned
1122 (13%) exact matches, in which:
949 unique CDR3
6 unique J



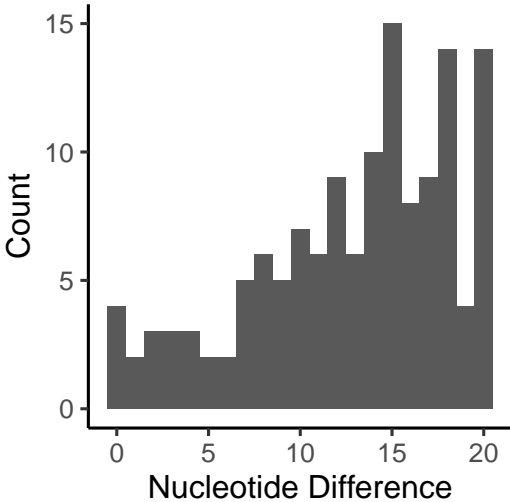
IGHV3-30*03

748 sequences assigned
72 (9.6%) exact matches, in which:
72 unique CDR3
6 unique J



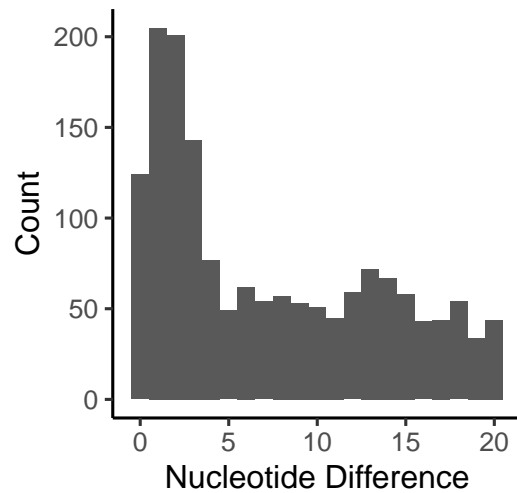
IGHV3-33*05

206 sequences assigned
4 (1.9%) exact matches, in which:
4 unique CDR3
3 unique J



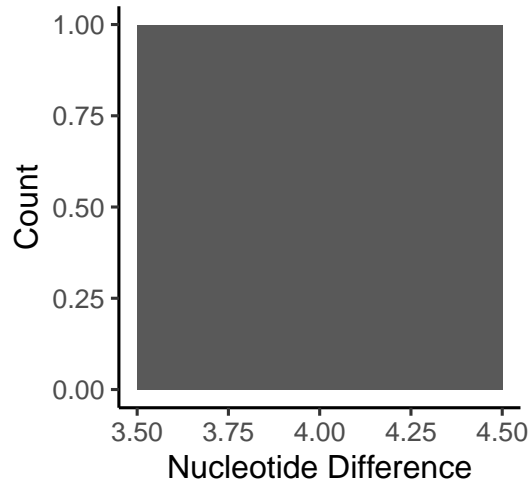
IGHV3-33*06

1801 sequences assigned
124 (6.9%) exact matches, in which:
119 unique CDR3
6 unique J



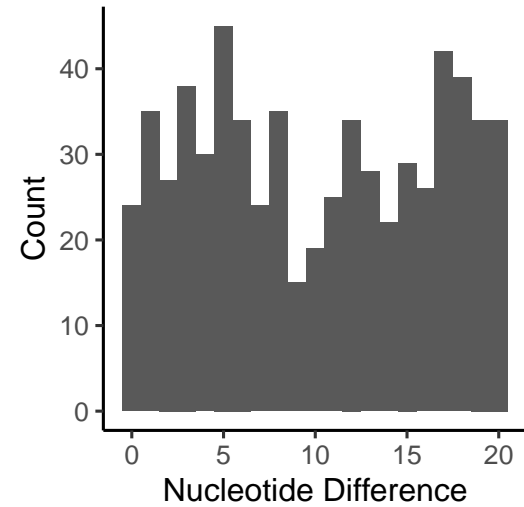
IGHV3-47*02

1 sequences assigned
No exact matches.



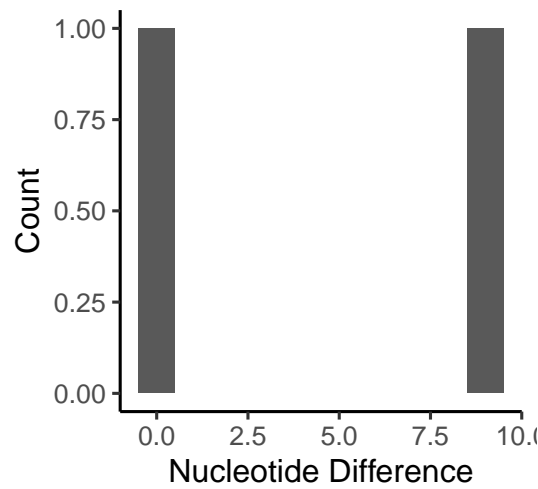
IGHV3-48*04

892 sequences assigned
24 (2.7%) exact matches, in which:
24 unique CDR3
6 unique J



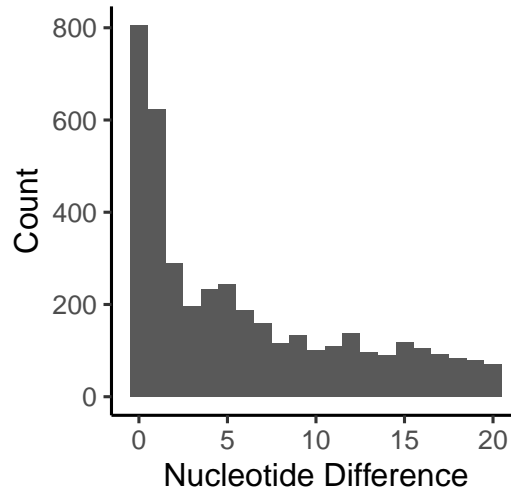
IGHV3-35*01

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



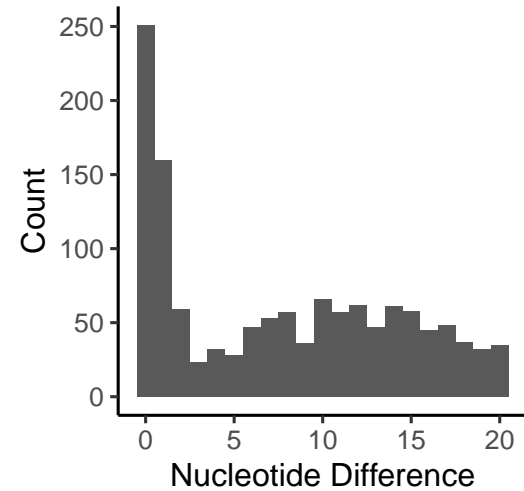
IGHV3-48*01

4574 sequences assigned
806 (17.6%) exact matches, in which:
668 unique CDR3
6 unique J



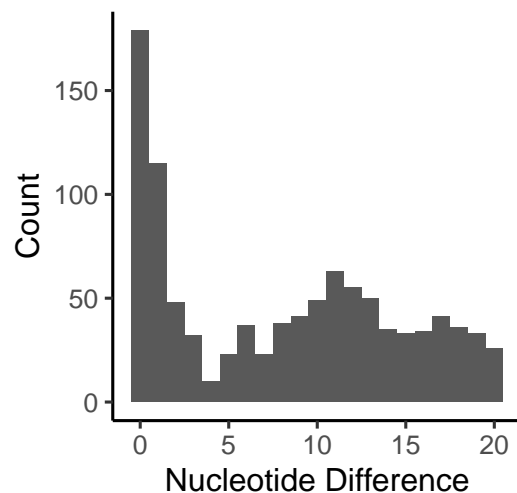
IGHV3-49*04

1537 sequences assigned
251 (16.3%) exact matches, in which:
210 unique CDR3
6 unique J



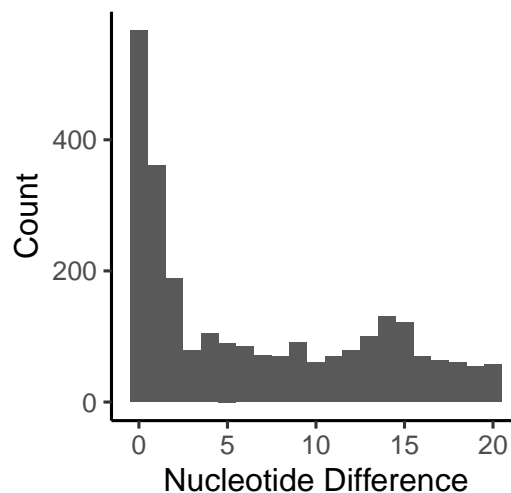
IGHV3-43*01

1174 sequences assigned
179 (15.2%) exact matches, in which:
140 unique CDR3
6 unique J



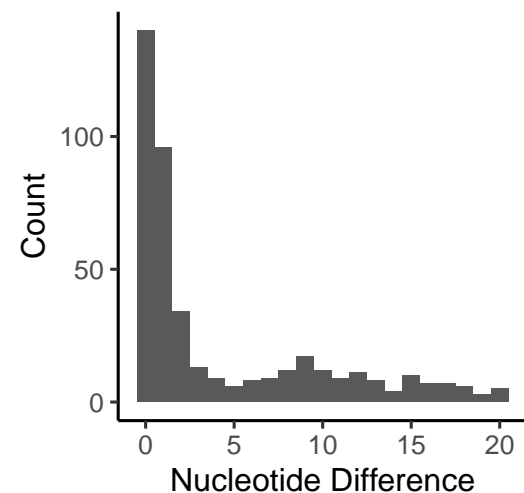
IGHV3-48*02

3028 sequences assigned
567 (18.7%) exact matches, in which:
442 unique CDR3
6 unique J



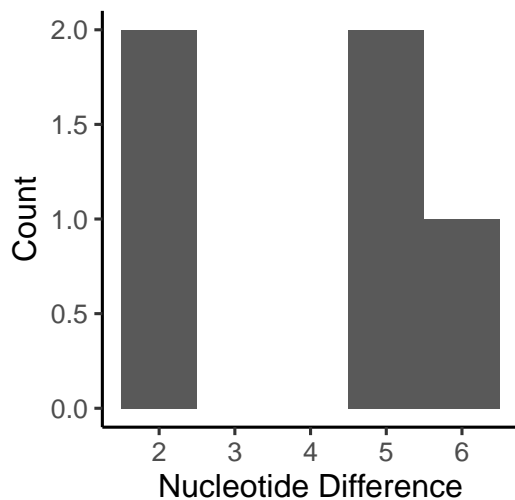
IGHV3-49*03_05

491 sequences assigned
140 (28.5%) exact matches, in which:
121 unique CDR3
5 unique J



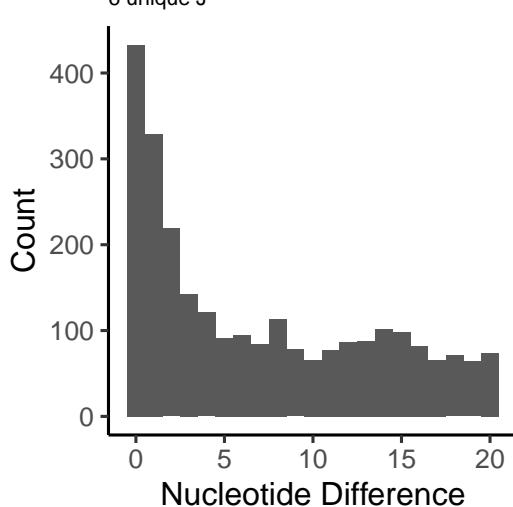
IGHV3-52*02

6 sequences assigned
No exact matches.



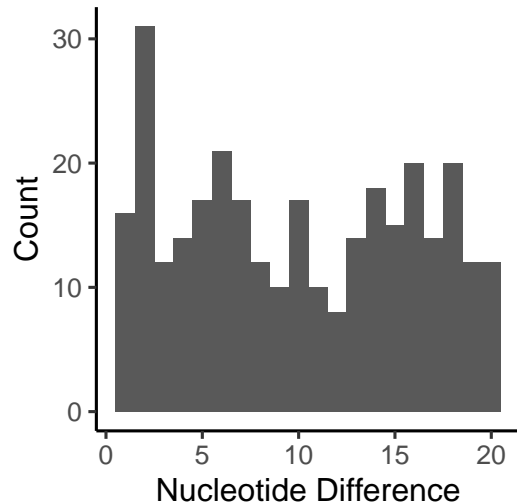
IGHV3-53*01_02

3029 sequences assigned
433 (14.3%) exact matches, in which:
349 unique CDR3
6 unique J



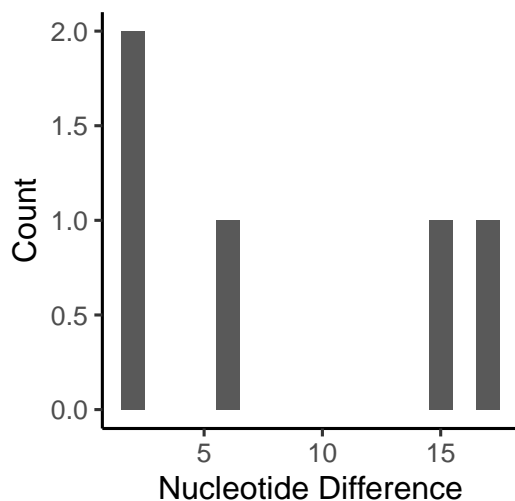
IGHV3-66*01

404 sequences assigned
No exact matches.



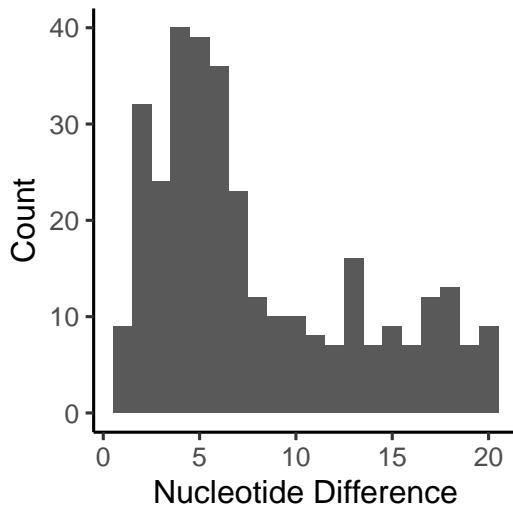
IGHV3-52*01_03

5 sequences assigned
No exact matches.



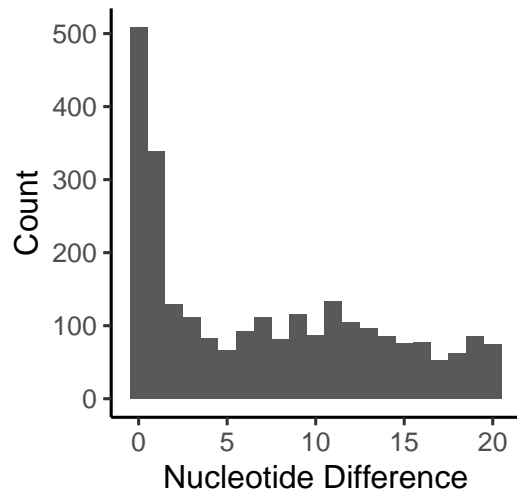
IGHV3-64*04

401 sequences assigned
No exact matches.



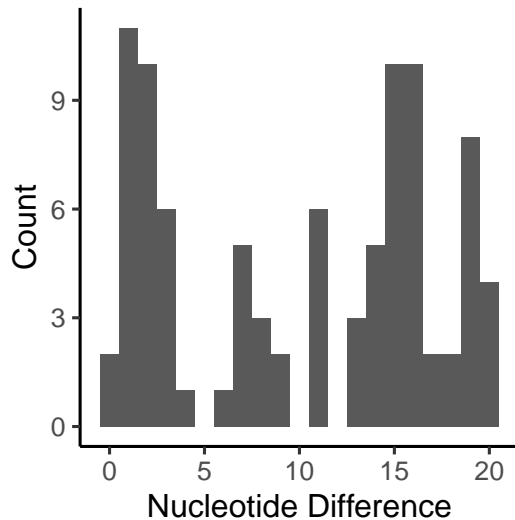
IGHV3-66*02

3094 sequences assigned
509 (16.5%) exact matches, in which:
395 unique CDR3
6 unique J



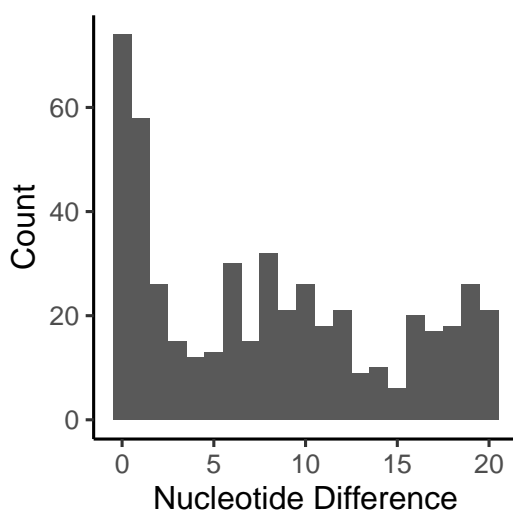
IGHV3-53*05

119 sequences assigned
2 (1.7%) exact matches, in which:
2 unique CDR3
1 unique J



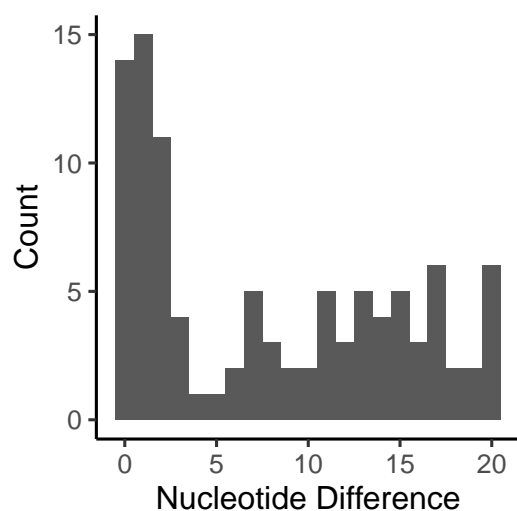
IGHV3-64*02_07

622 sequences assigned
74 (11.9%) exact matches, in which:
56 unique CDR3
6 unique J



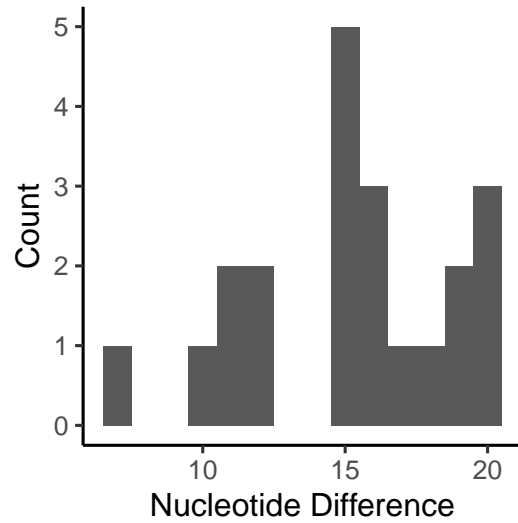
IGHV3-66*03

194 sequences assigned
14 (7.2%) exact matches, in which:
13 unique CDR3
2 unique J



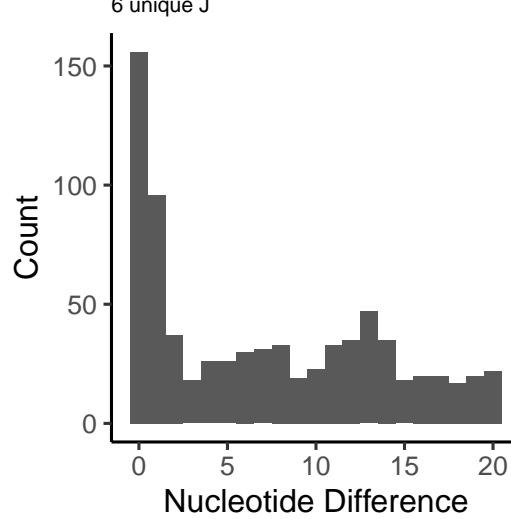
IGHV3-69-1*01

43 sequences assigned
No exact matches.



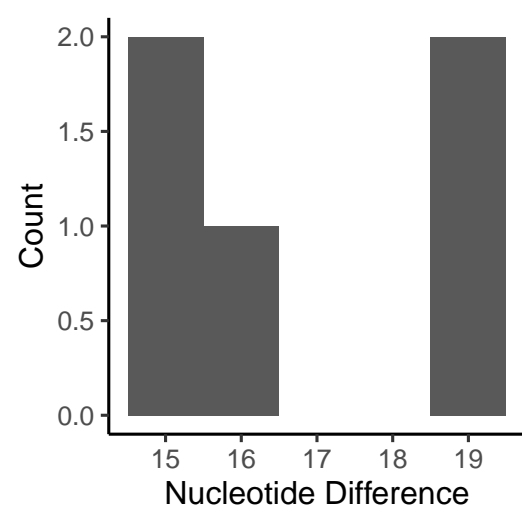
IGHV3-73*01_02

931 sequences assigned
156 (16.8%) exact matches, in which:
141 unique CDR3
6 unique J



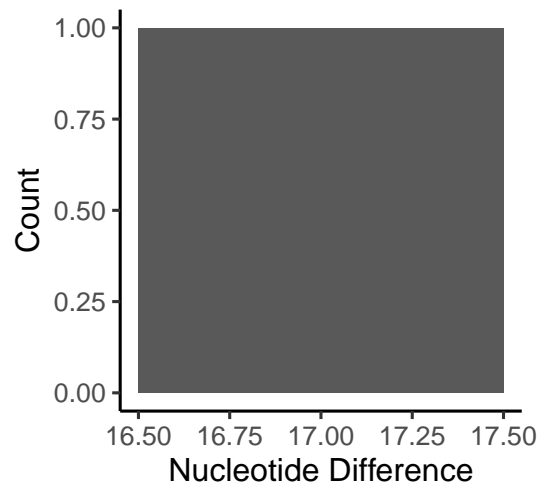
IGHV3-43D*04

13 sequences assigned
No exact matches.



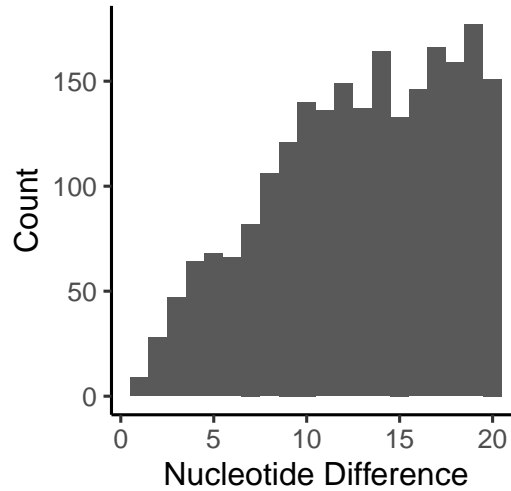
IGHV3-71*03

1 sequences assigned
No exact matches.



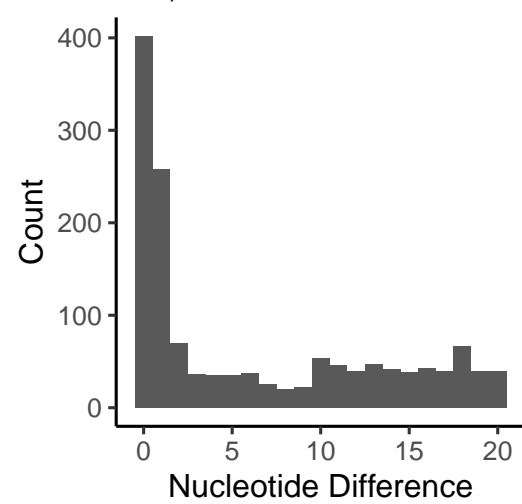
IGHV3-74*03

3635 sequences assigned
No exact matches.



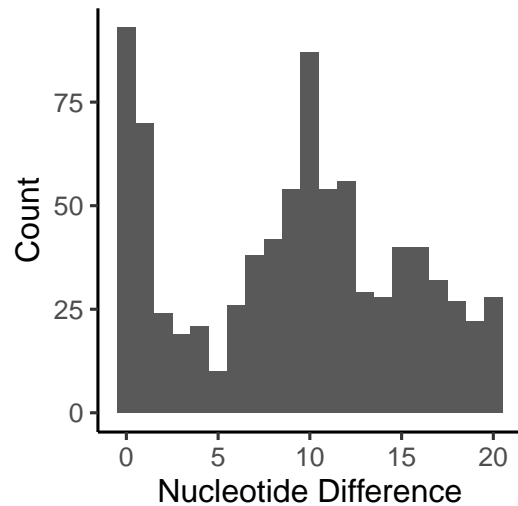
IGHV3-64D*08

1760 sequences assigned
402 (22.8%) exact matches, in which:
278 unique CDR3
6 unique J



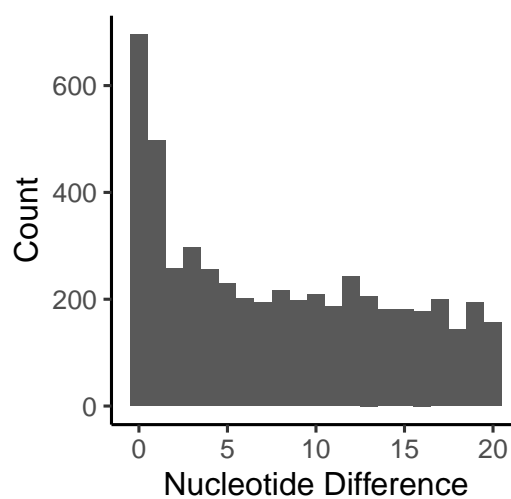
IGHV3-72*01

969 sequences assigned
93 (9.6%) exact matches, in which:
77 unique CDR3
6 unique J



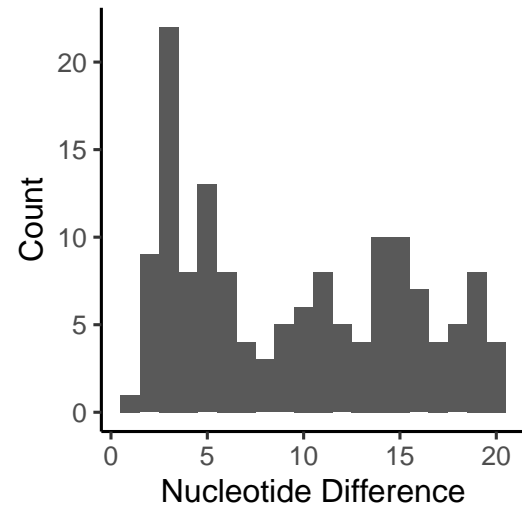
IGHV3-74*01_02

5815 sequences assigned
696 (12%) exact matches, in which:
554 unique CDR3
6 unique J



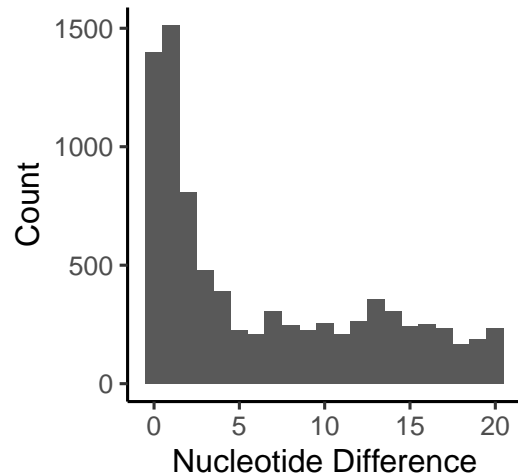
IGHV3-NL1*01

208 sequences assigned
No exact matches.



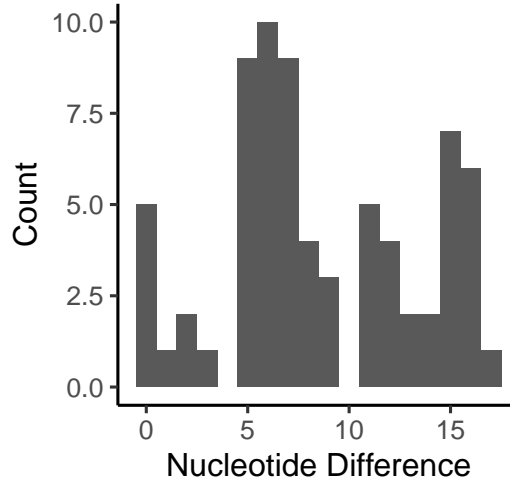
IGHV4-4*07

10572 sequences assigned
1399 (13.2%) exact matches, in which:
985 unique CDR3
6 unique J



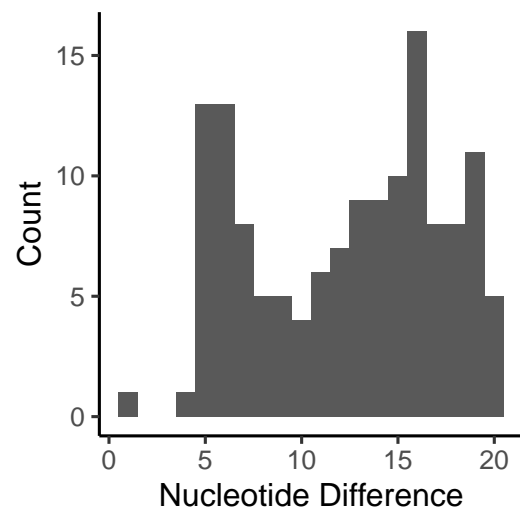
IGHV4-28*06

73 sequences assigned
5 (6.8%) exact matches, in which:
3 unique CDR3
3 unique J



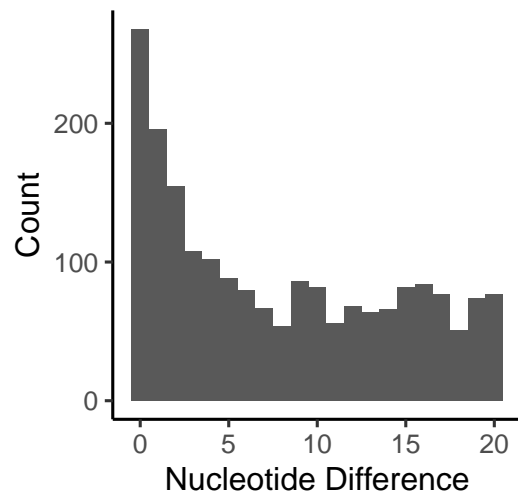
IGHV4-30-2*03

232 sequences assigned
No exact matches.



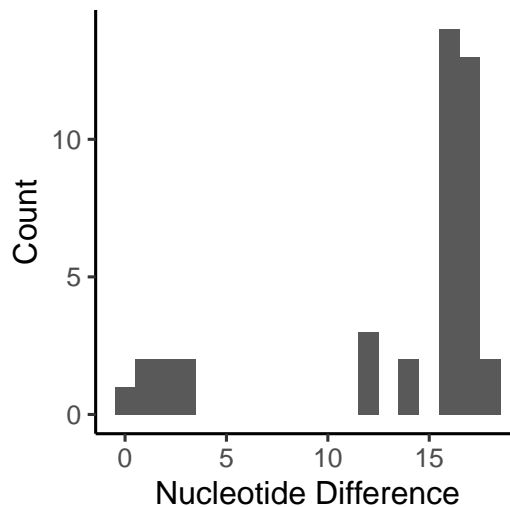
IGHV4-4*02_03

2579 sequences assigned
268 (10.4%) exact matches, in which:
188 unique CDR3
6 unique J



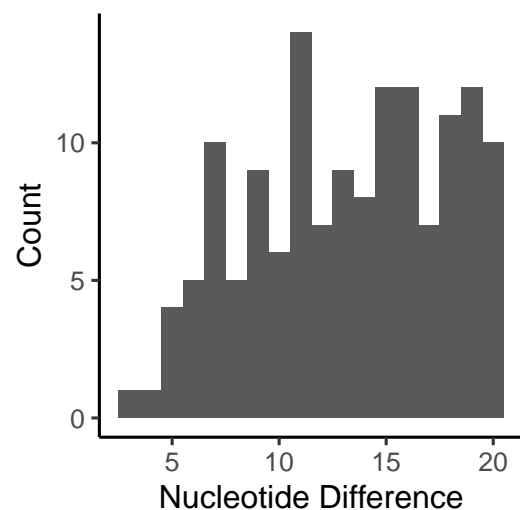
IGHV4-28*01_07

42 sequences assigned
1 (2.4%) exact matches, in which:
1 unique CDR3
1 unique J



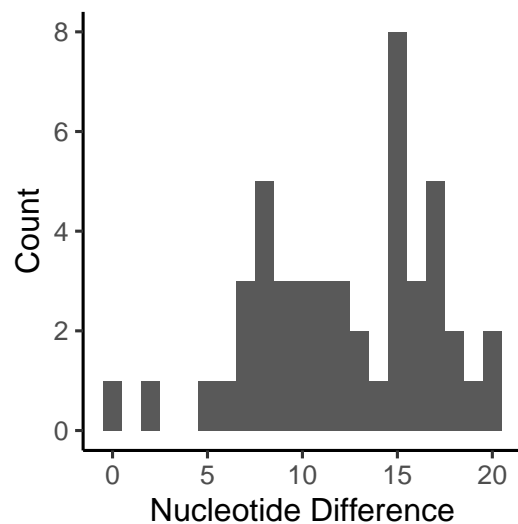
IGHV4-30-4*08

211 sequences assigned
No exact matches.



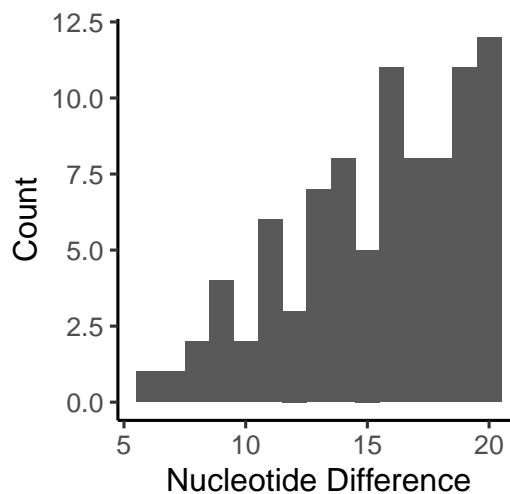
IGHV4-28*03

53 sequences assigned
1 (1.9%) exact matches, in which:
1 unique CDR3
0 unique J



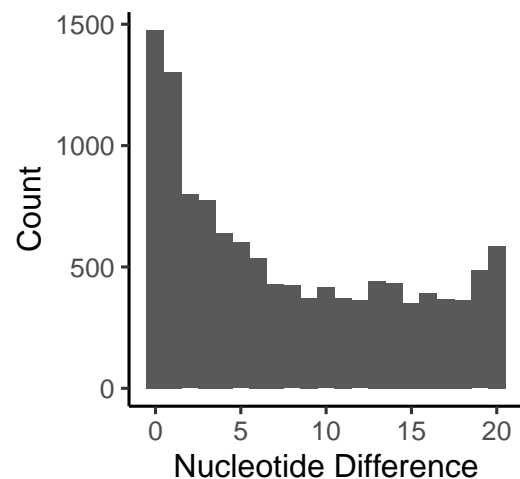
IGHV4-30-4*01

197 sequences assigned
No exact matches.



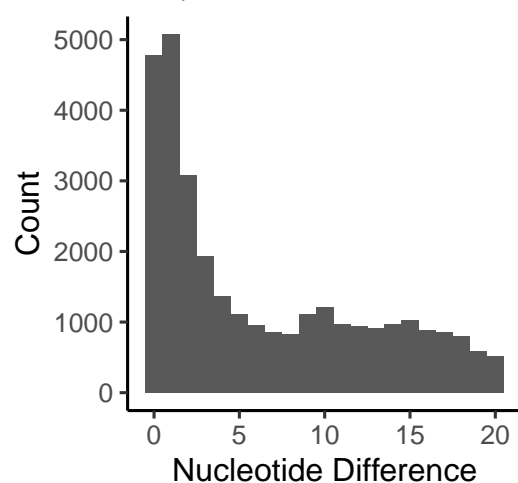
IGHV4-31*02

16287 sequences assigned
1476 (9.1%) exact matches, in which:
1049 unique CDR3
6 unique J



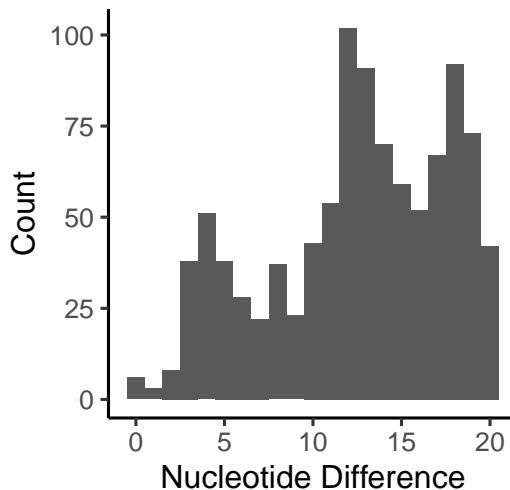
IGHV4-34*01_02

34782 sequences assigned
4773 (13.7%) exact matches, in which:
3186 unique CDR3
6 unique J



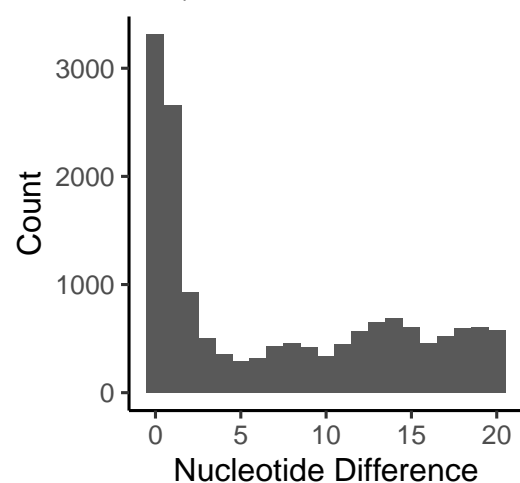
IGHV4-39*02

1483 sequences assigned
6 (0.4%) exact matches, in which:
6 unique CDR3
2 unique J



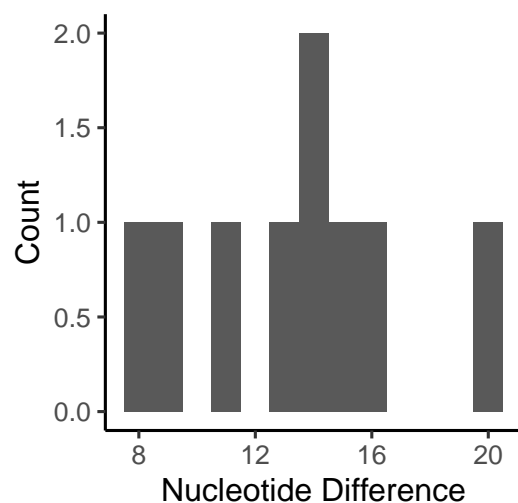
IGHV4-59*11

18303 sequences assigned
3313 (18.1%) exact matches, in which:
2337 unique CDR3
6 unique J



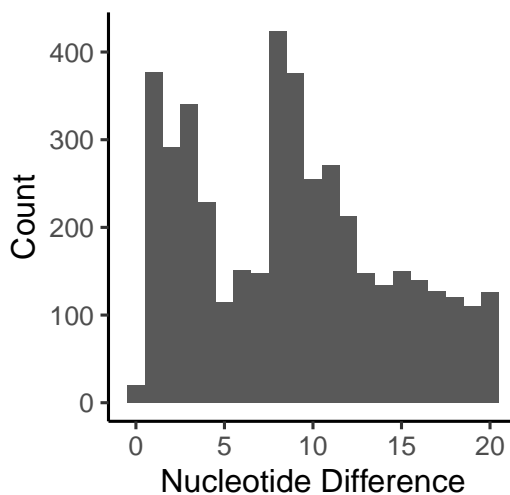
IGHV4-38-2*01

15 sequences assigned
No exact matches.



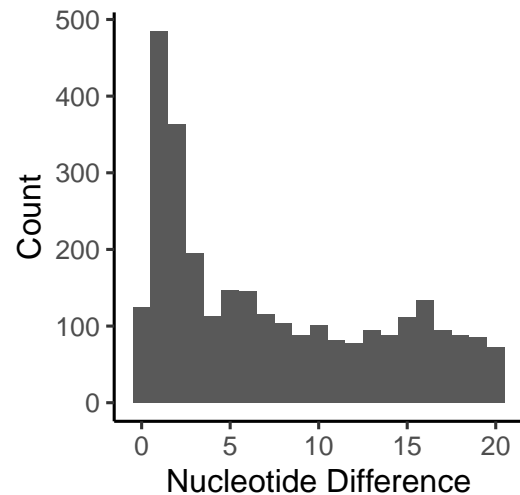
IGHV4-39*07

5130 sequences assigned
20 (0.4%) exact matches, in which:
20 unique CDR3
5 unique J



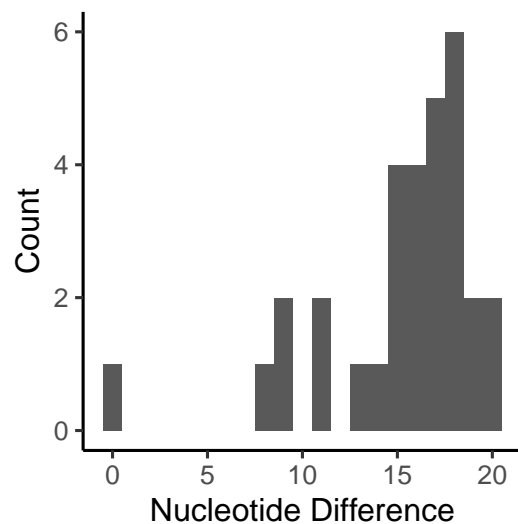
IGHV4-59*12

3472 sequences assigned
124 (3.6%) exact matches, in which:
111 unique CDR3
5 unique J



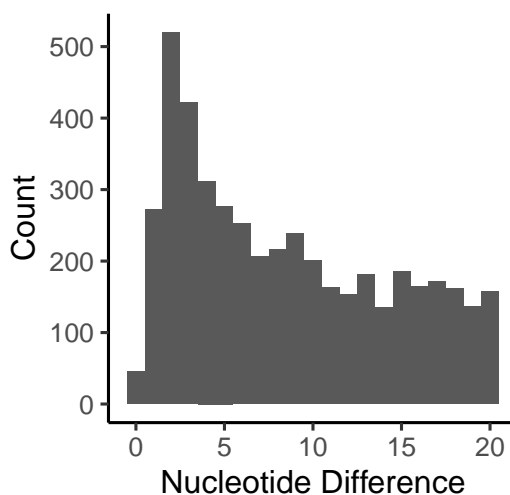
IGHV4-38-2*02

62 sequences assigned
1 (1.6%) exact matches, in which:
1 unique CDR3
1 unique J



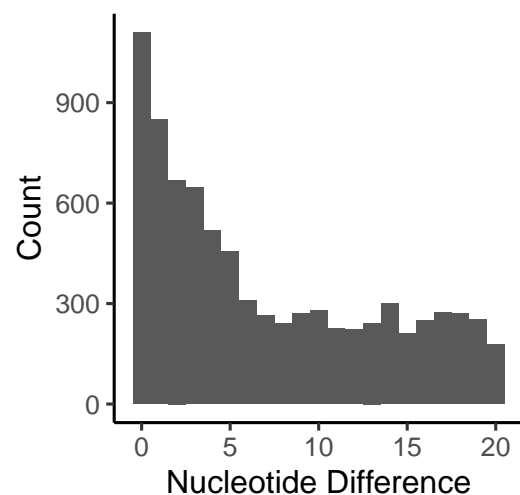
IGHV4-59*08

5472 sequences assigned
45 (0.8%) exact matches, in which:
44 unique CDR3
6 unique J



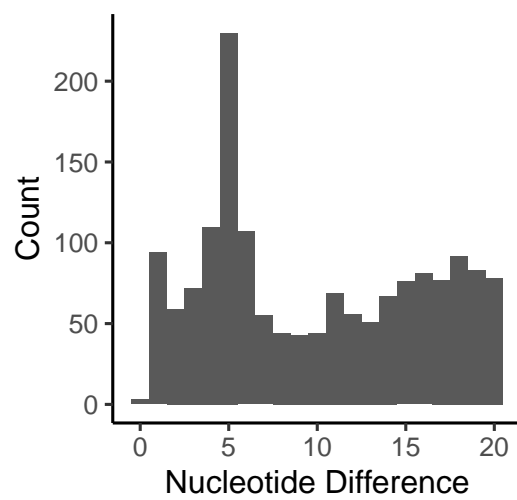
IGHV4-61*01

9169 sequences assigned
1110 (12.1%) exact matches, in which:
860 unique CDR3
6 unique J



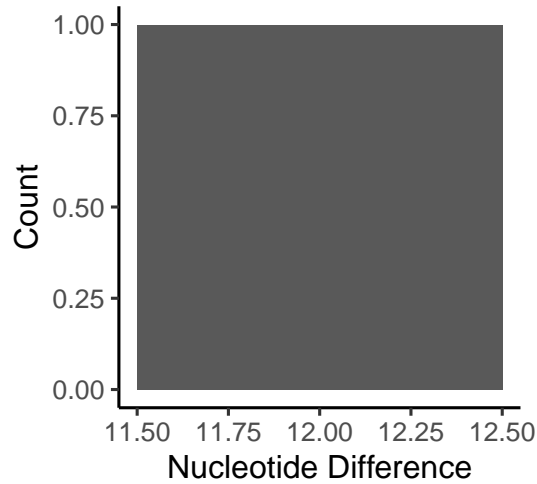
IGHV4-61*08

2198 sequences assigned
3 (0.1%) exact matches, in which:
3 unique CDR3
2 unique J



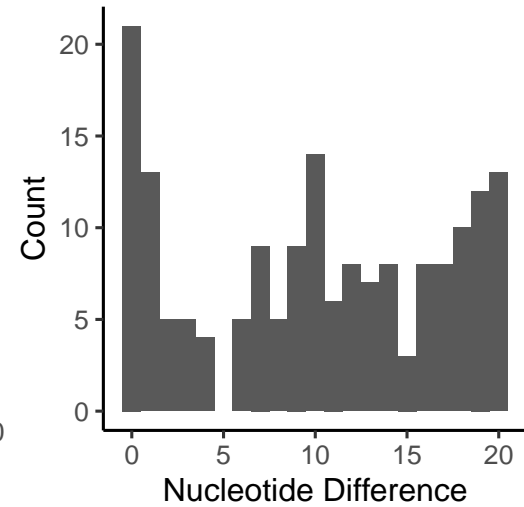
IGHV1/OR15-3*02

1 sequences assigned
No exact matches.



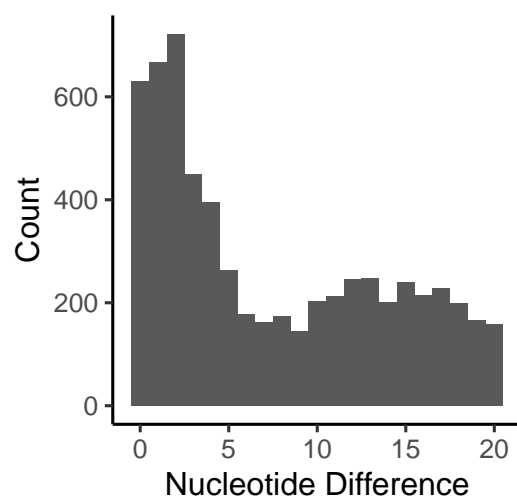
IGHV5-10-1*01_03

215 sequences assigned
21 (9.8%) exact matches, in which:
16 unique CDR3
4 unique J



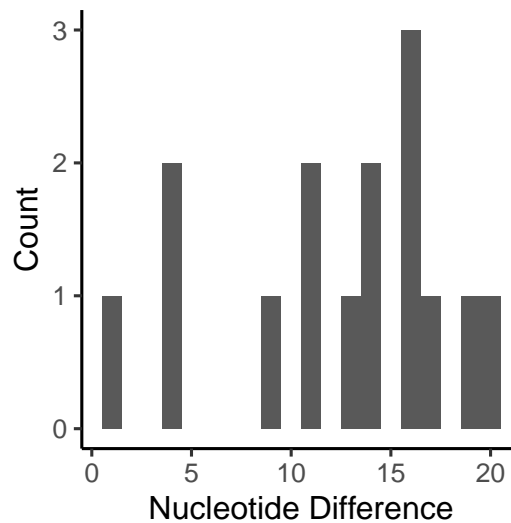
IGHV4-61*09

7711 sequences assigned
630 (8.2%) exact matches, in which:
452 unique CDR3
6 unique J



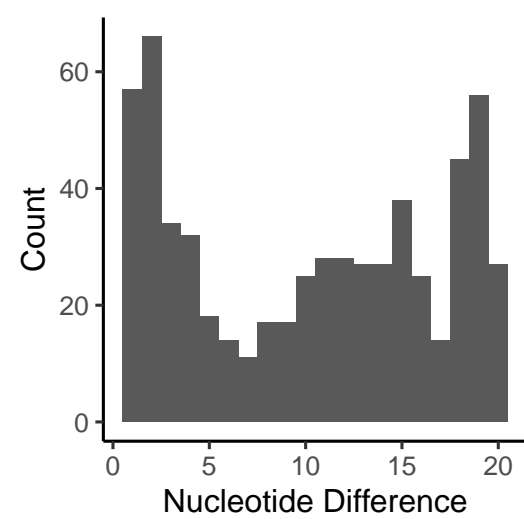
IGHV4/OR15-8*01

25 sequences assigned
No exact matches.



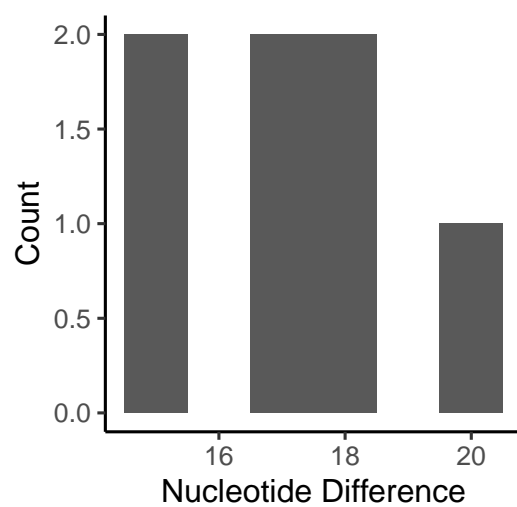
IGHV5-51*07

734 sequences assigned
No exact matches.



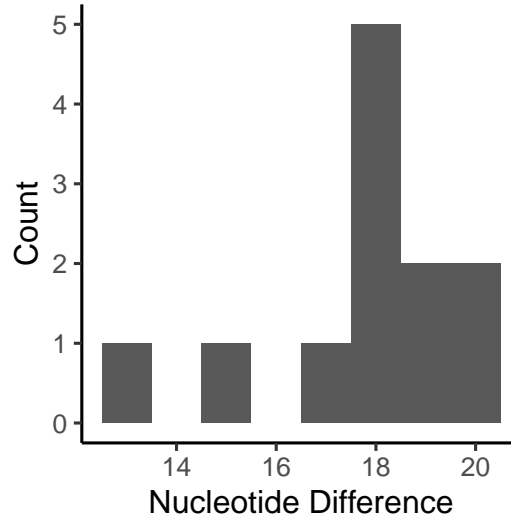
IGHV1/OR15-2*02_03

11 sequences assigned
No exact matches.



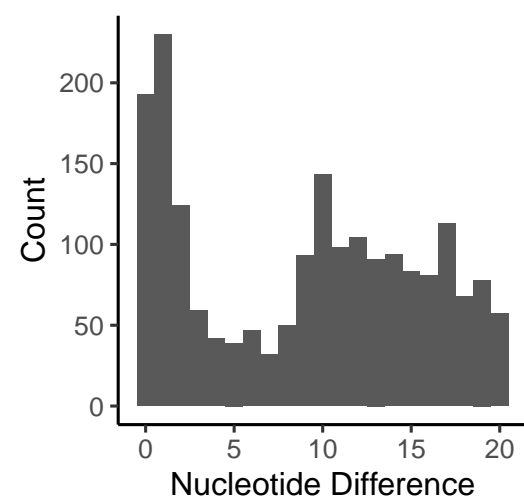
IGHV4/OR15-8*02

39 sequences assigned
No exact matches.



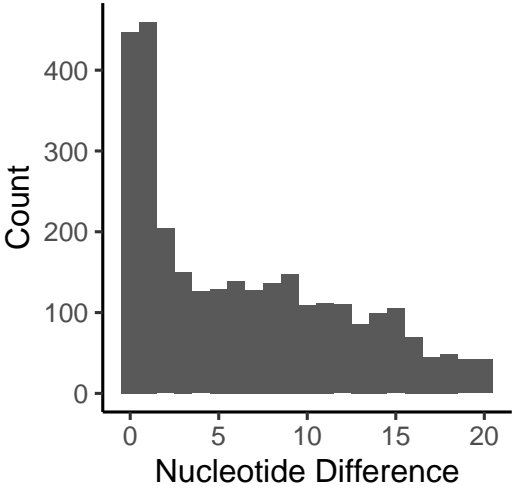
IGHV5-51*01_03

2415 sequences assigned
193 (8%) exact matches, in which:
151 unique CDR3
6 unique J



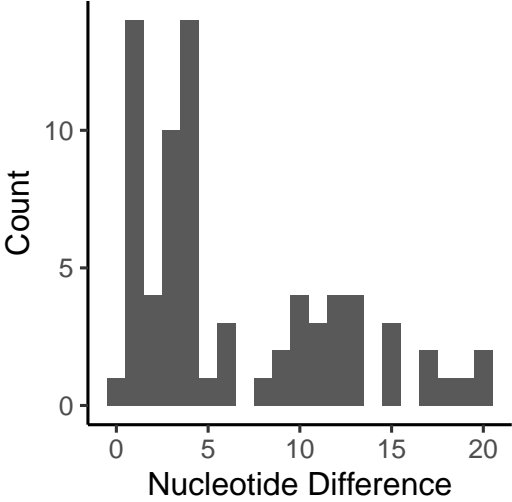
IGHV6-1*01_02

3168 sequences assigned
447 (14.1%) exact matches, in which:
332 unique CDR3
6 unique J



IGHV7-4-1*01

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





Warning – no inferred sequences found.