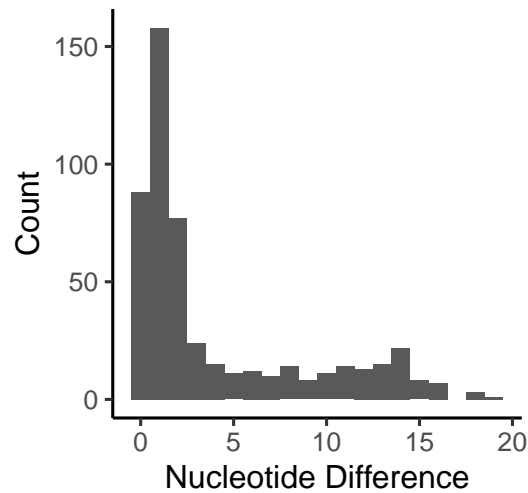


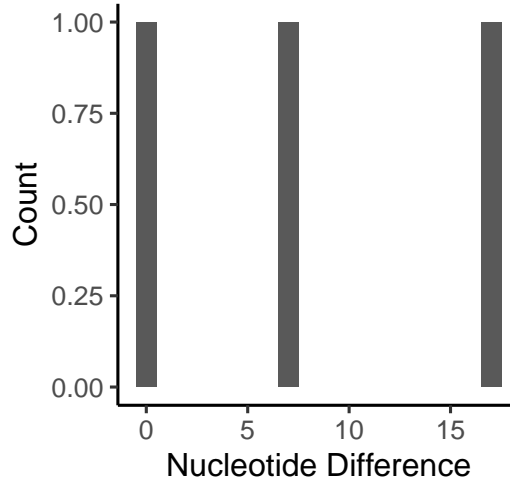
IGHV1-2*04

515 sequences assigned
88 (17.1%) exact matches, in which:
76 unique CDR3
5 unique J



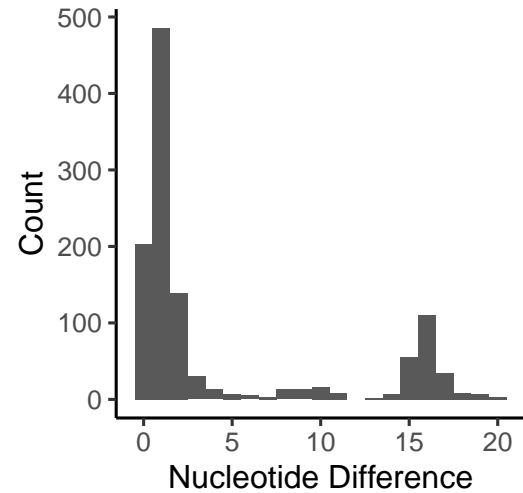
IGHV1-8*02

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



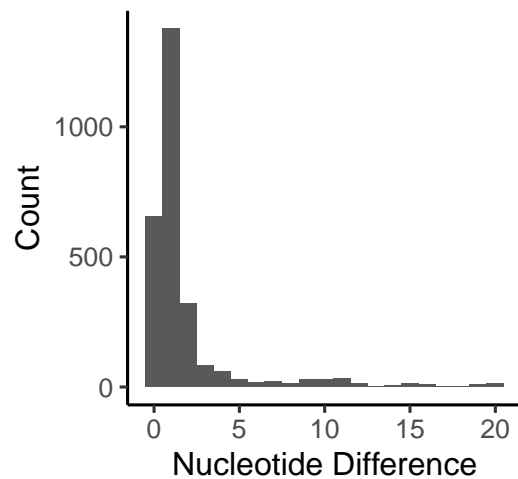
IGHV1-24*01

1168 sequences assigned
203 (17.4%) exact matches, in which:
119 unique CDR3
6 unique J



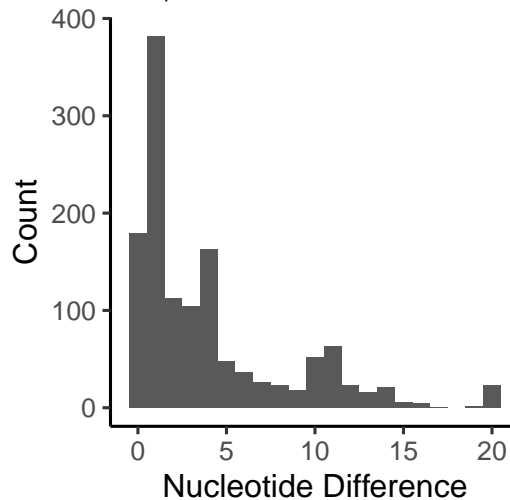
IGHV1-3*01_05

3366 sequences assigned
656 (19.5%) exact matches, in which:
413 unique CDR3
6 unique J



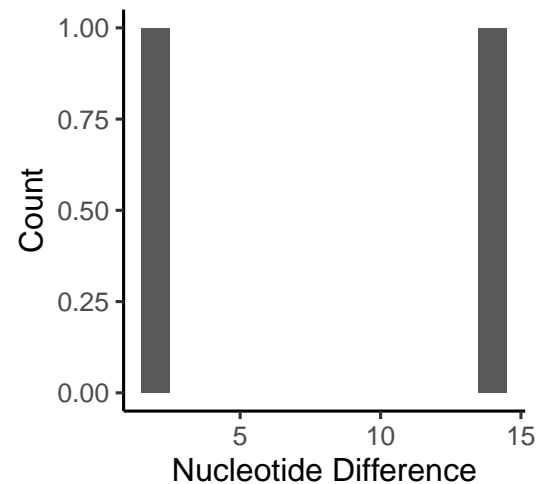
IGHV1-18*01

1440 sequences assigned
179 (12.4%) exact matches, in which:
137 unique CDR3
6 unique J



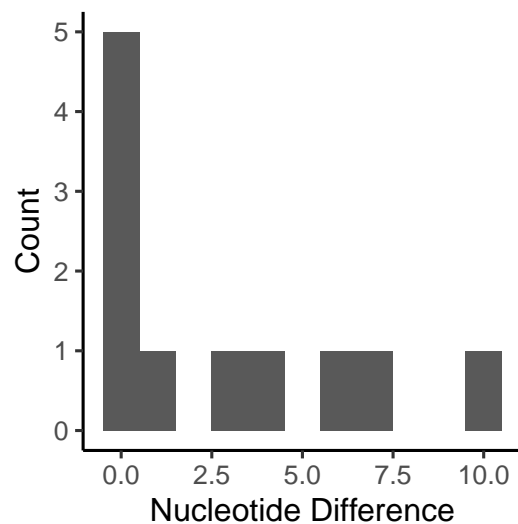
IGHV1-45*02

4 sequences assigned
No exact matches.



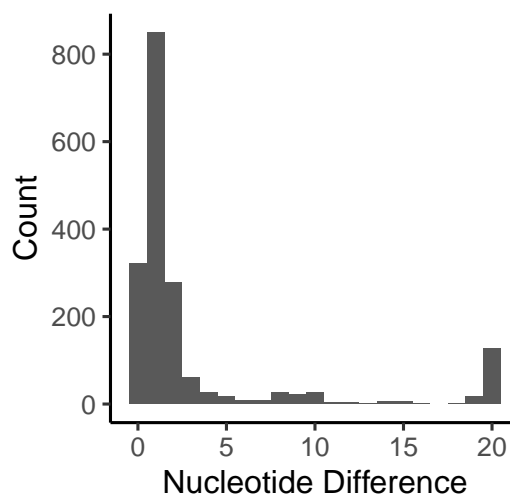
IGHV1-8*01

12 sequences assigned
5 (41.7%) exact matches, in which:
5 unique CDR3
3 unique J



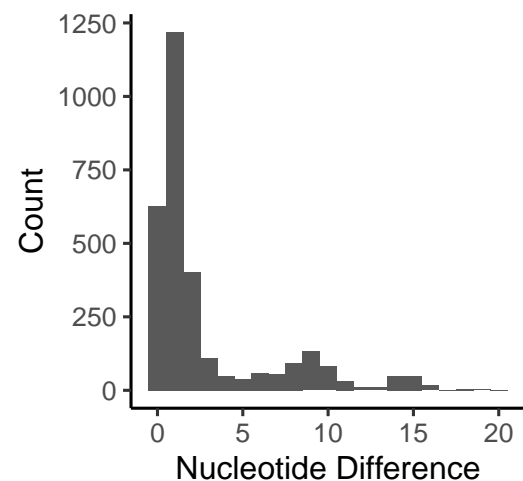
IGHV1-18*04

2240 sequences assigned
321 (14.3%) exact matches, in which:
226 unique CDR3
4 unique J



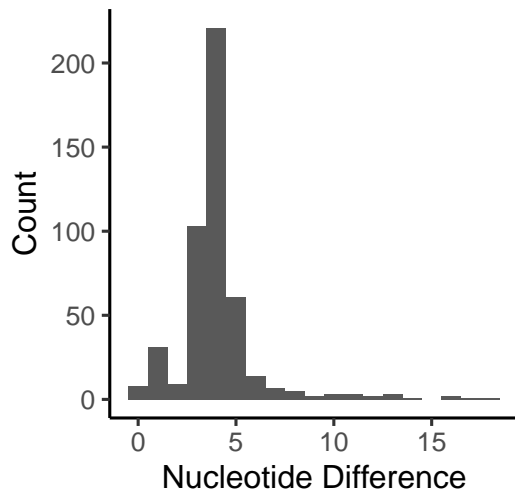
IGHV1-46*01

3086 sequences assigned
628 (20.3%) exact matches, in which:
474 unique CDR3
6 unique J



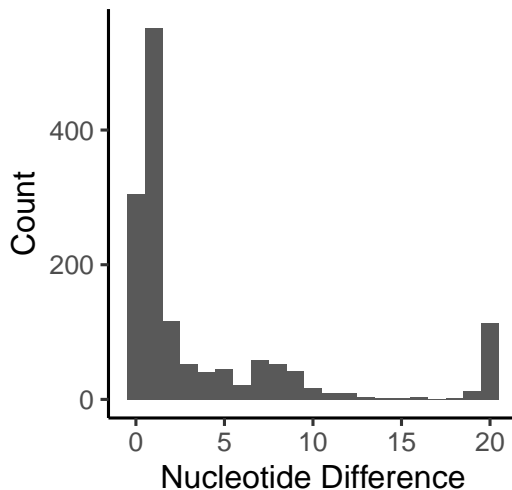
IGHV1-58*01_03

477 sequences assigned
8 (1.7%) exact matches, in which:
5 unique CDR3
2 unique J



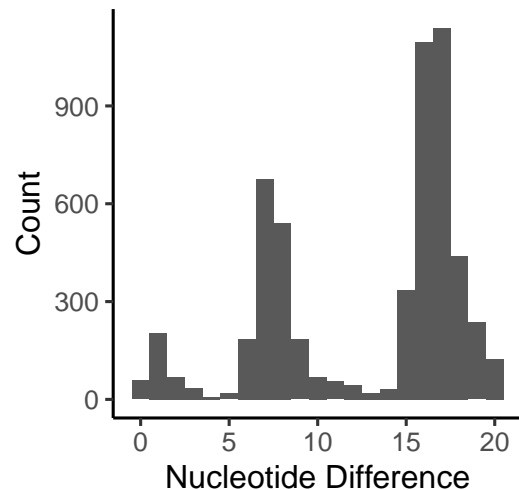
IGHV1-69*06_14

1886 sequences assigned
305 (16.2%) exact matches, in which:
228 unique CDR3
6 unique J



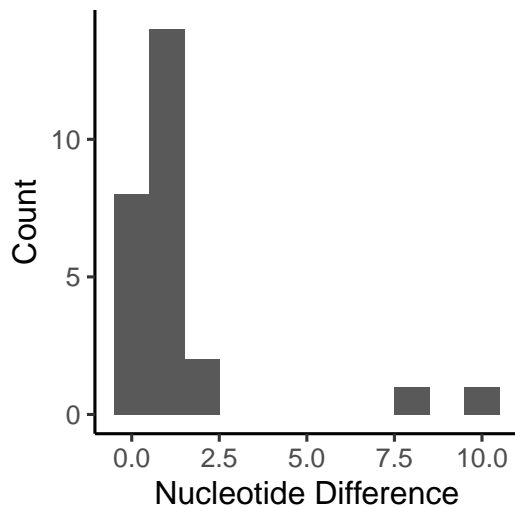
IGHV2-5*02

5815 sequences assigned
58 (1%) exact matches, in which:
33 unique CDR3
2 unique J



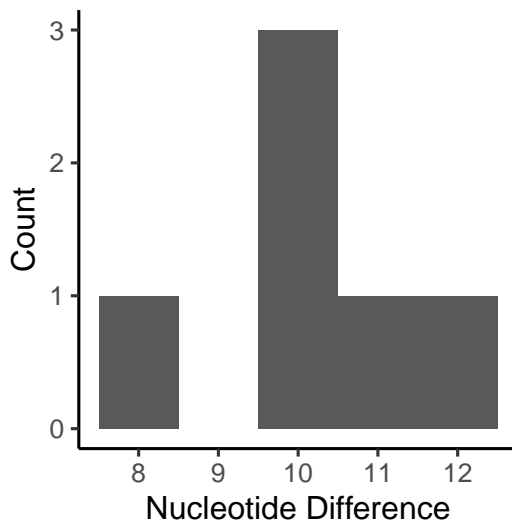
IGHV1-69-2*01

26 sequences assigned
8 (30.8%) exact matches, in which:
7 unique CDR3
1 unique J



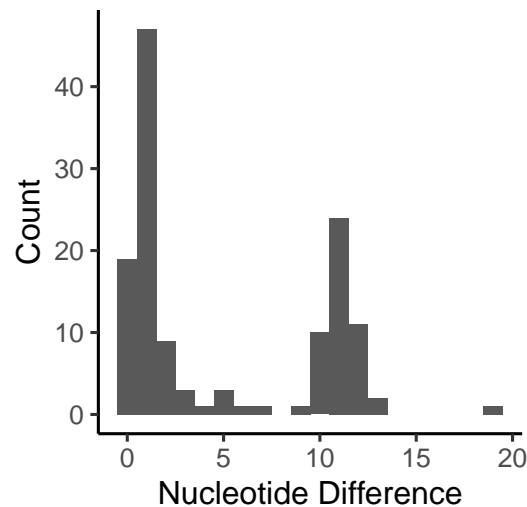
IGHV1-NL1*01

6 sequences assigned
No exact matches.



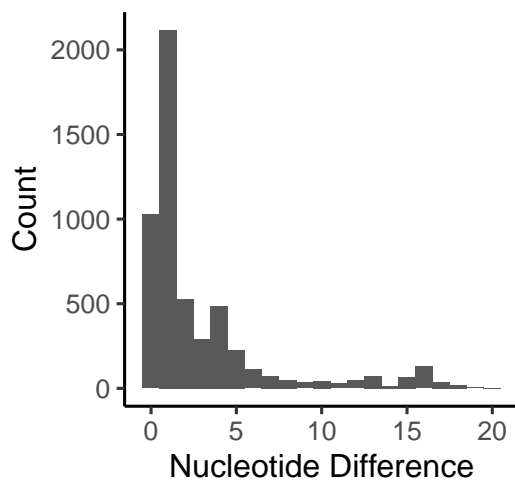
IGHV2-26*01

133 sequences assigned
19 (14.3%) exact matches, in which:
12 unique CDR3
3 unique J



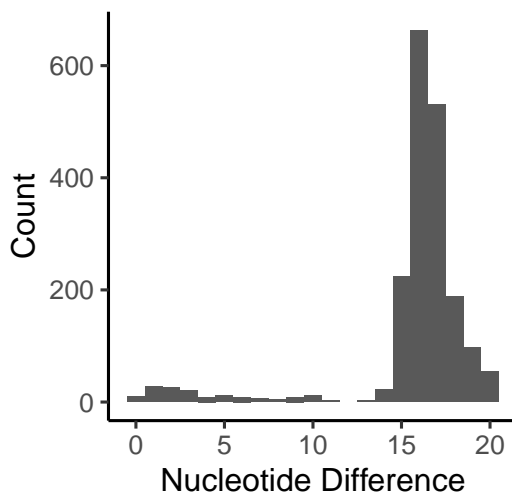
IGHV1-69*01_12_13

5460 sequences assigned
1028 (18.8%) exact matches, in which:
741 unique CDR3
6 unique J



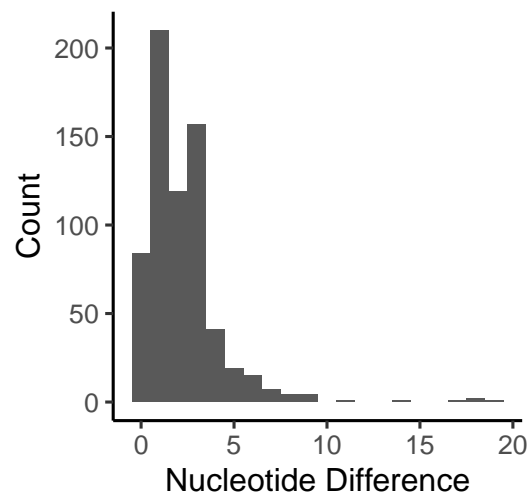
IGHV2-5*01

2049 sequences assigned
10 (0.5%) exact matches, in which:
9 unique CDR3
4 unique J



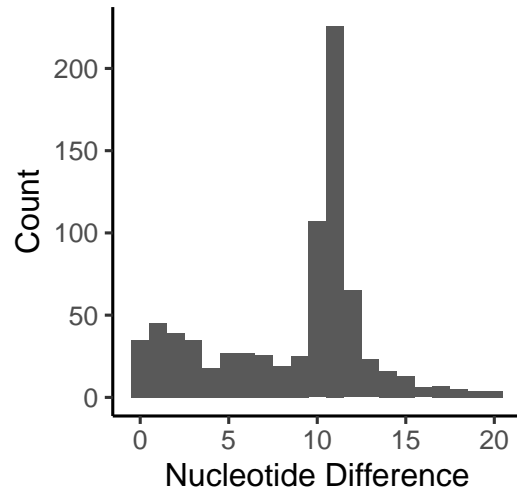
IGHV2-70*01

666 sequences assigned
84 (12.6%) exact matches, in which:
57 unique CDR3
4 unique J



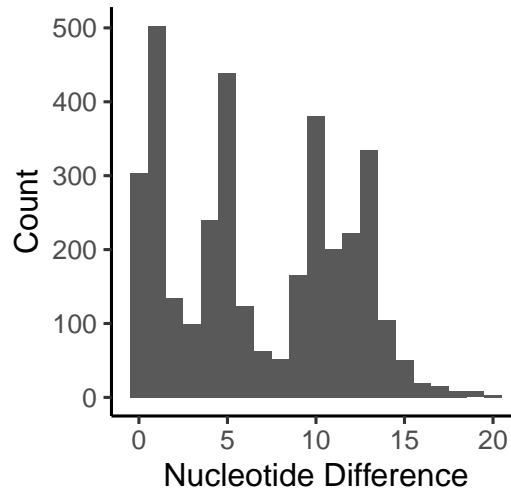
IGHV3-7*01

775 sequences assigned
35 (4.5%) exact matches, in which:
31 unique CDR3
4 unique J



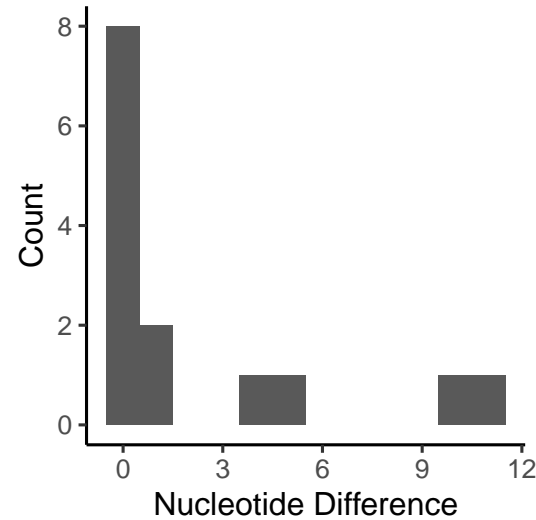
IGHV3-11*06

3852 sequences assigned
304 (7.9%) exact matches, in which:
198 unique CDR3
5 unique J



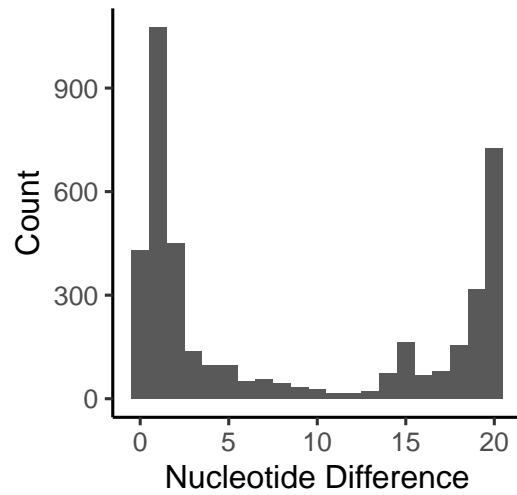
IGHV3-19*01

14 sequences assigned
8 (57.1%) exact matches, in which:
8 unique CDR3
3 unique J



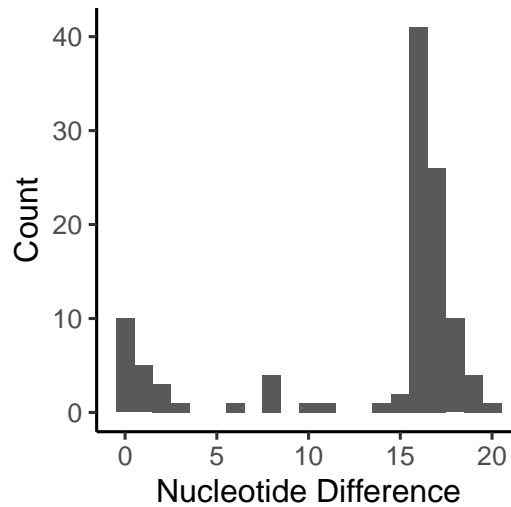
IGHV3-7*03

5015 sequences assigned
431 (8.6%) exact matches, in which:
236 unique CDR3
5 unique J



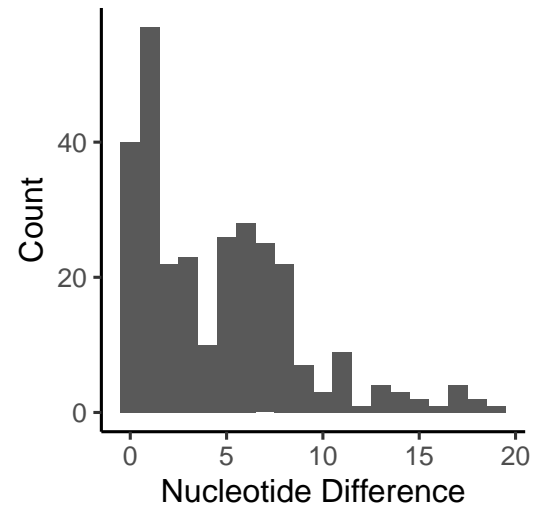
IGHV3-13*05

118 sequences assigned
10 (8.5%) exact matches, in which:
9 unique CDR3
3 unique J



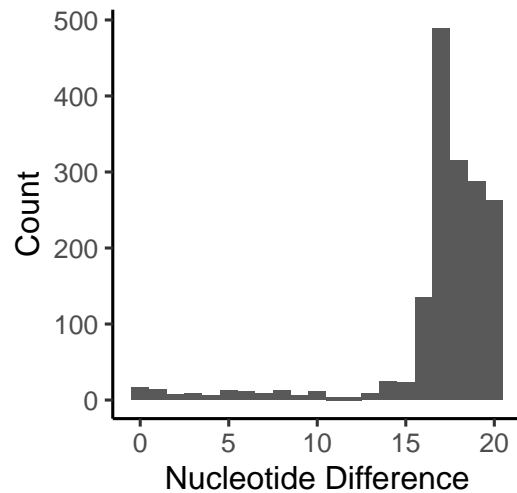
IGHV3-21*04

296 sequences assigned
40 (13.5%) exact matches, in which:
29 unique CDR3
4 unique J



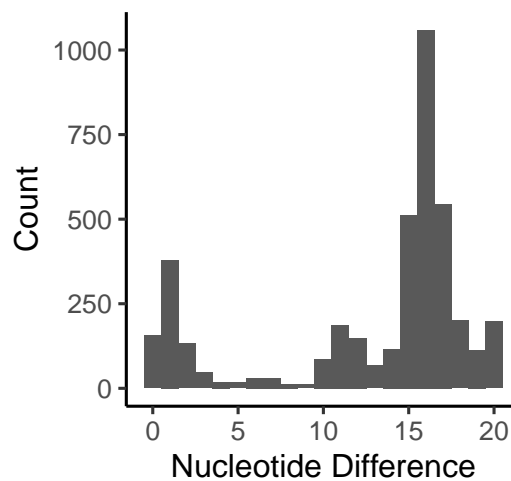
IGHV3-7*05

1802 sequences assigned
16 (0.9%) exact matches, in which:
14 unique CDR3
3 unique J



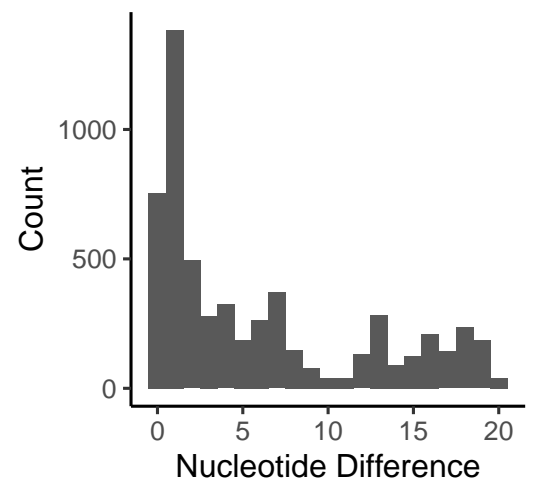
IGHV3-15*01_02

6176 sequences assigned
156 (2.5%) exact matches, in which:
90 unique CDR3
4 unique J



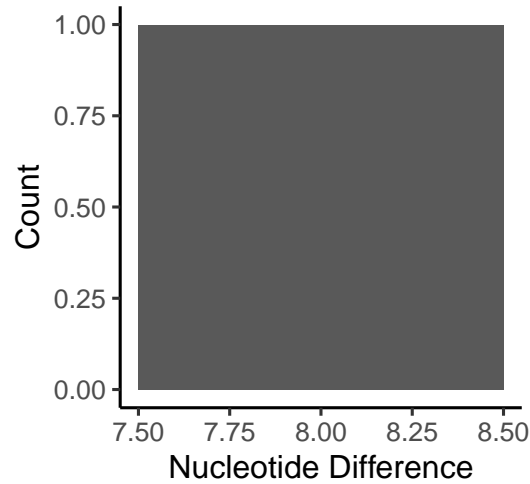
IGHV3-21*01_02

5861 sequences assigned
754 (12.9%) exact matches, in which:
456 unique CDR3
6 unique J



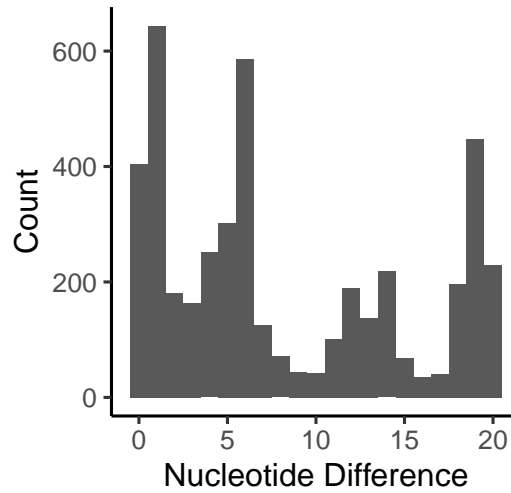
IGHV3-22*01_02

1 sequences assigned
No exact matches.



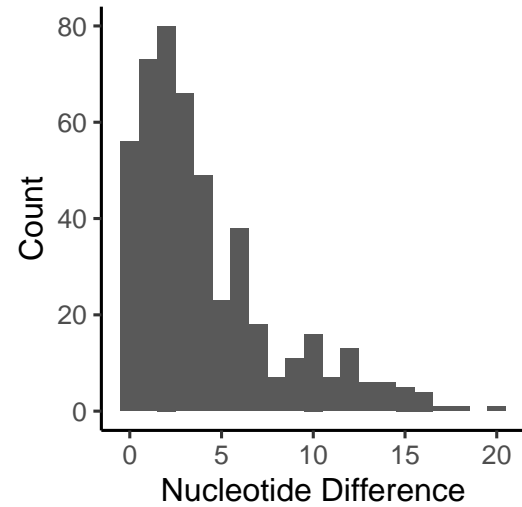
IGHV3-30*03

6883 sequences assigned
405 (5.9%) exact matches, in which:
271 unique CDR3
6 unique J



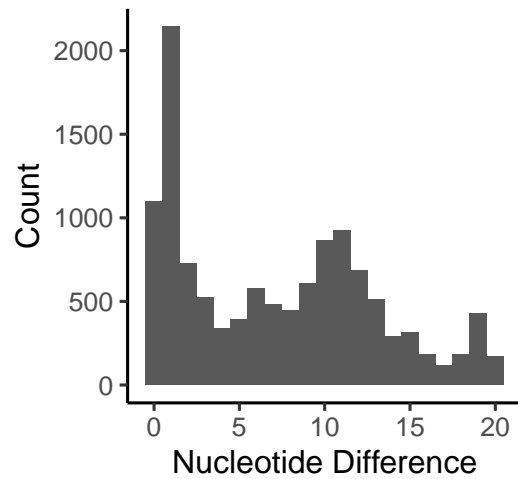
IGHV3-33*06

507 sequences assigned
56 (11%) exact matches, in which:
42 unique CDR3
4 unique J



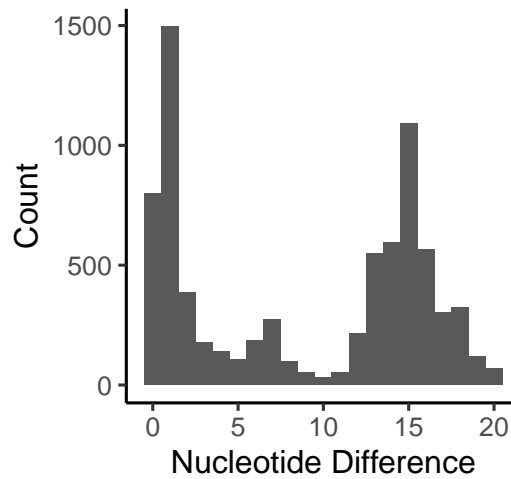
IGHV3-23*01_04

15690 sequences assigned
1097 (7%) exact matches, in which:
602 unique CDR3
6 unique J



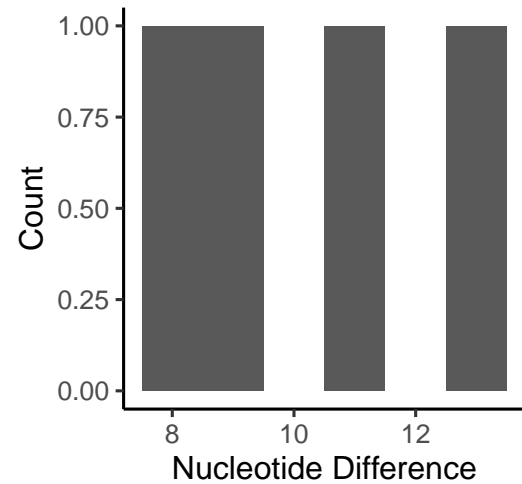
IGHV3-33*01

7752 sequences assigned
798 (10.3%) exact matches, in which:
450 unique CDR3
6 unique J



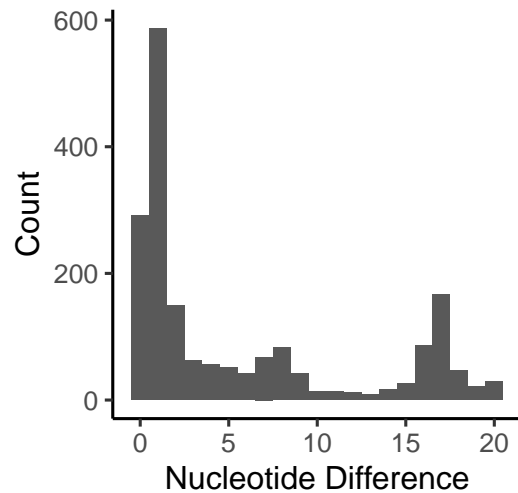
IGHV3-35*01

4 sequences assigned
No exact matches.



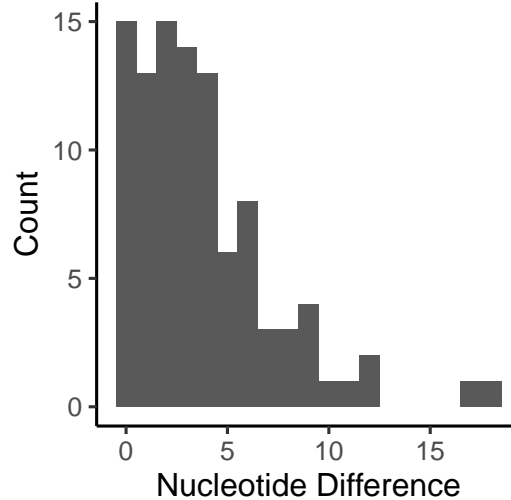
IGHV3-30-3*01

3455 sequences assigned
291 (8.4%) exact matches, in which:
163 unique CDR3
6 unique J



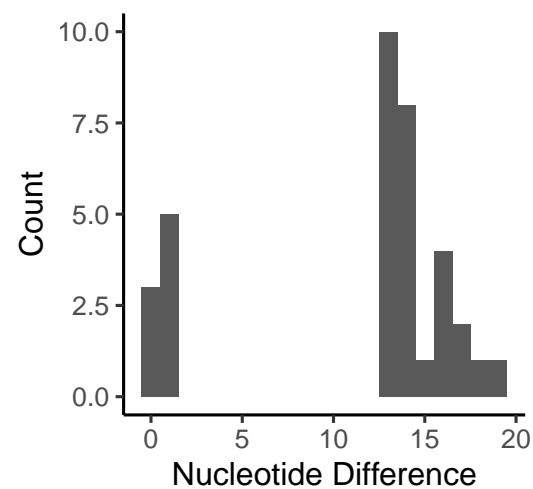
IGHV3-33*05

101 sequences assigned
15 (14.9%) exact matches, in which:
12 unique CDR3
3 unique J



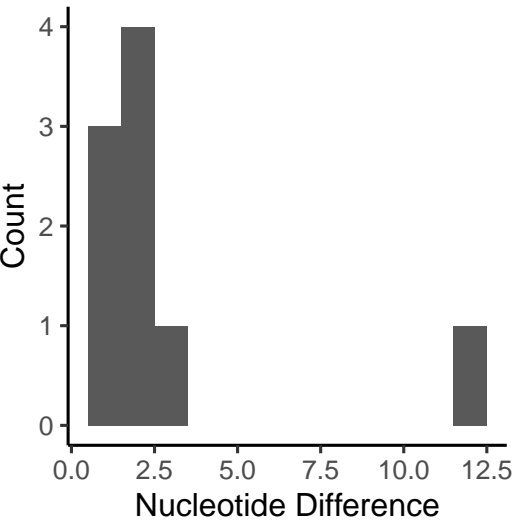
IGHV3-43*01

36 sequences assigned
3 (8.3%) exact matches, in which:
1 unique CDR3
1 unique J



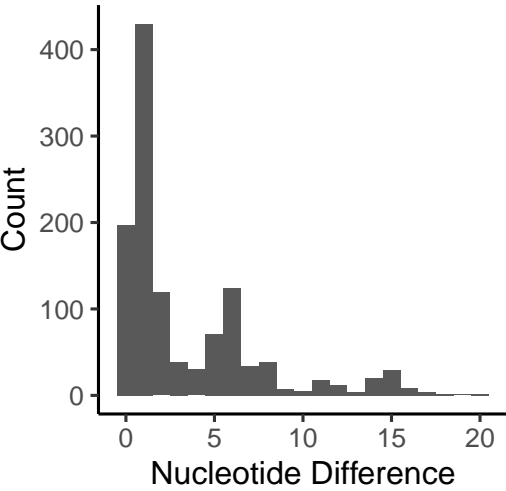
IGHV3-47*02

9 sequences assigned
No exact matches.



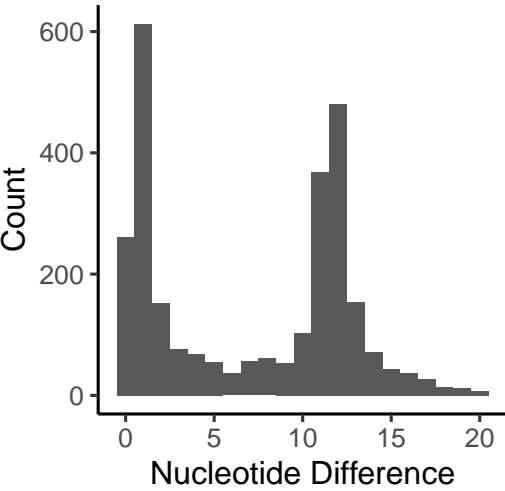
IGHV3-49*03_05

1197 sequences assigned
197 (16.5%) exact matches, in which:
107 unique CDR3
4 unique J



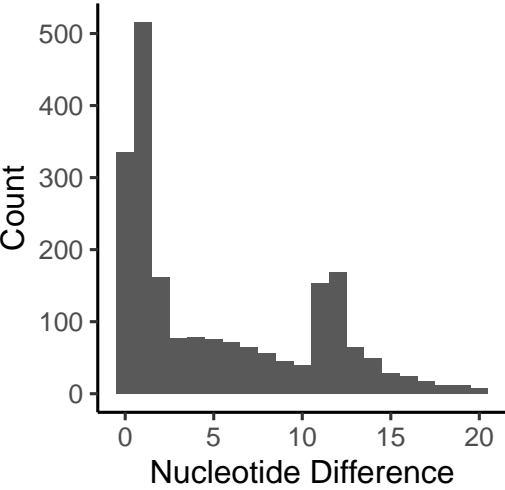
IGHV3-53*01_02

2769 sequences assigned
261 (9.4%) exact matches, in which:
150 unique CDR3
4 unique J



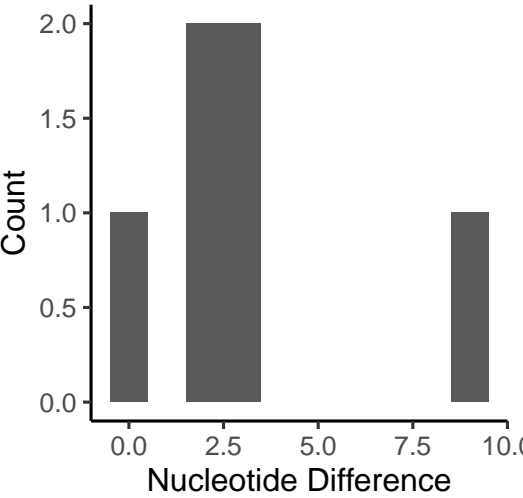
IGHV3-48*01

3956 sequences assigned
335 (8.5%) exact matches, in which:
206 unique CDR3
6 unique J



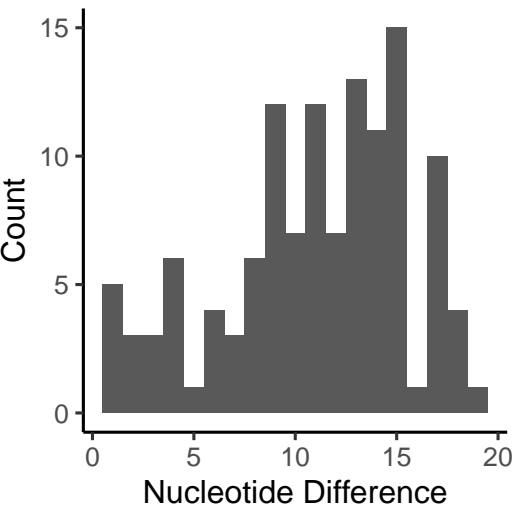
IGHV3-52*01_03

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



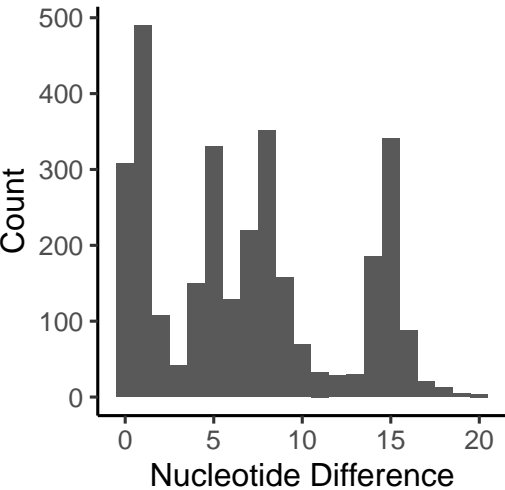
IGHV3-64*04

125 sequences assigned
No exact matches.



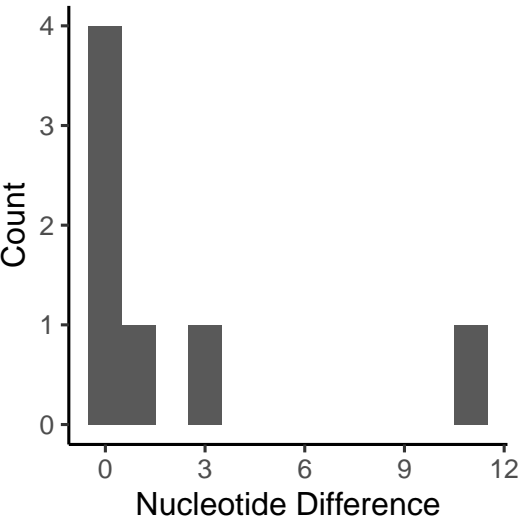
IGHV3-48*02

3107 sequences assigned
308 (9.9%) exact matches, in which:
179 unique CDR3
5 unique J



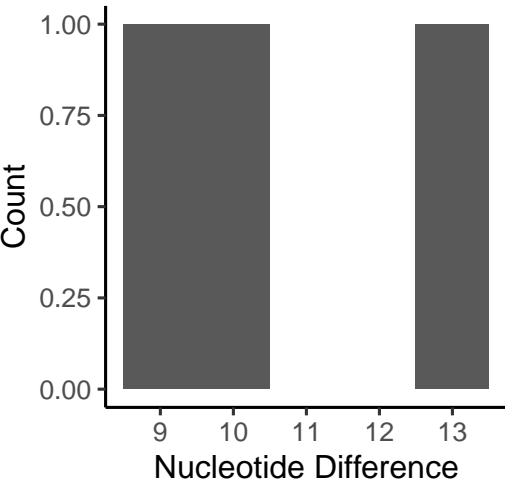
IGHV3-53*05

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



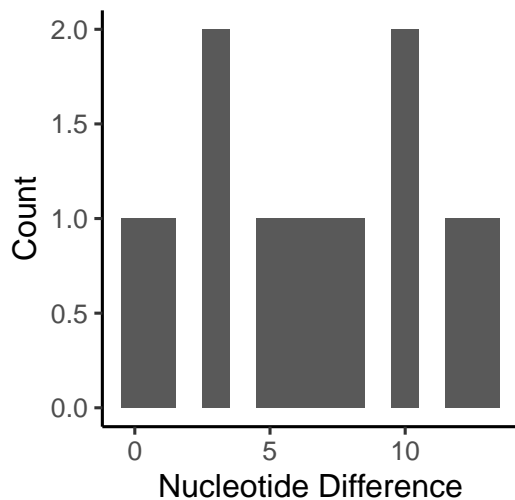
IGHV3-66*01

4 sequences assigned
No exact matches.



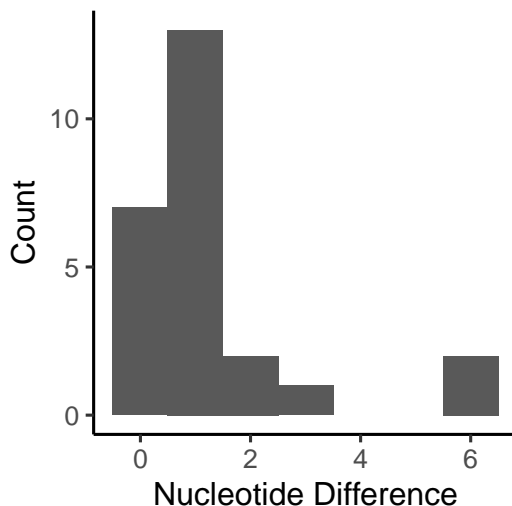
IGHV3-66*02

13 sequences assigned
1 (7.7%) exact matches, in which:
1 unique CDR3
1 unique J



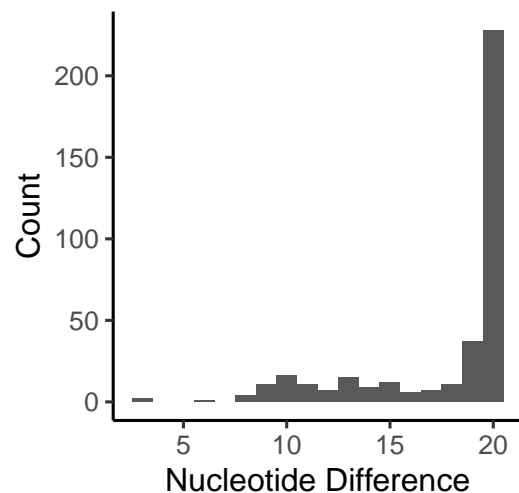
IGHV3-69-1*02

25 sequences assigned
7 (28%) exact matches, in which:
4 unique CDR3
3 unique J



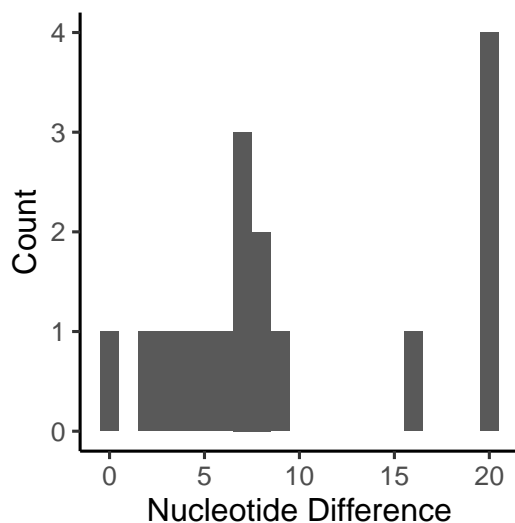
IGHV3-74*03

1457 sequences assigned
No exact matches.



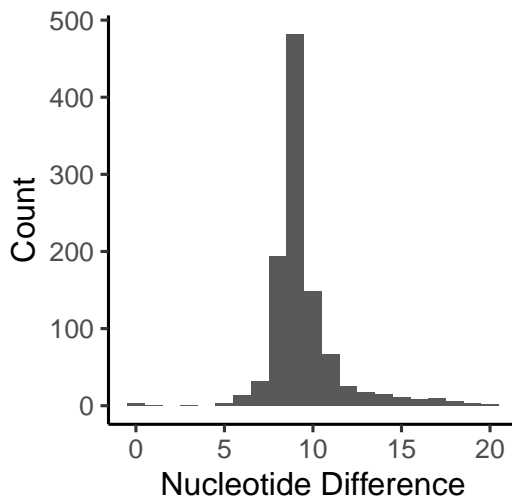
IGHV3-66*03

18 sequences assigned
1 (5.6%) exact matches, in which:
1 unique CDR3
1 unique J



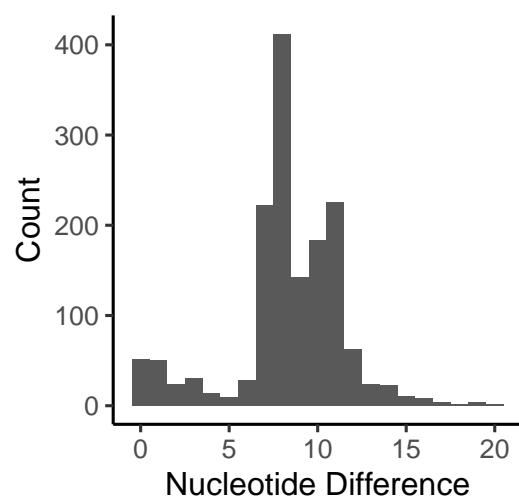
IGHV3-72*01

1053 sequences assigned
3 (0.3%) exact matches, in which:
2 unique CDR3
2 unique J



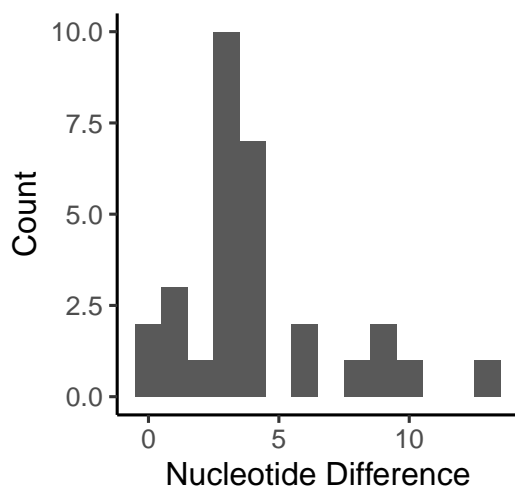
IGHV3-74*01_02

1539 sequences assigned
52 (3.4%) exact matches, in which:
34 unique CDR3
4 unique J



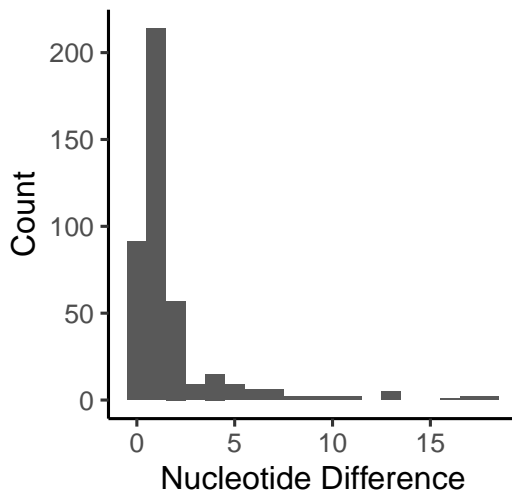
IGHV3-69-1*01

30 sequences assigned
2 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J



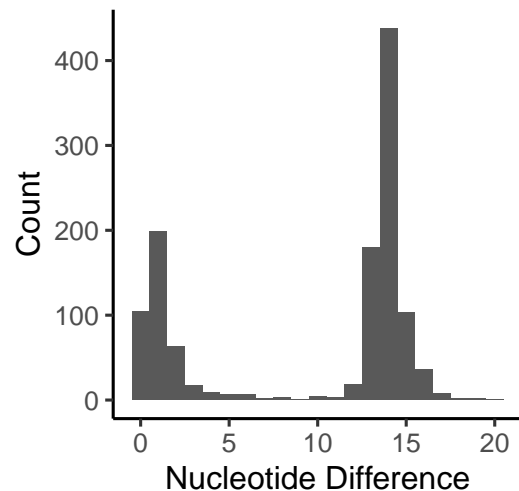
IGHV3-73*01_02

427 sequences assigned
91 (21.3%) exact matches, in which:
45 unique CDR3
2 unique J



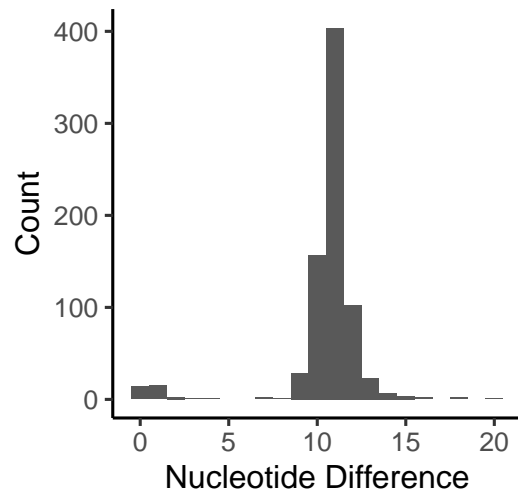
IGHV3-64D*06

1222 sequences assigned
104 (8.5%) exact matches, in which:
68 unique CDR3
2 unique J



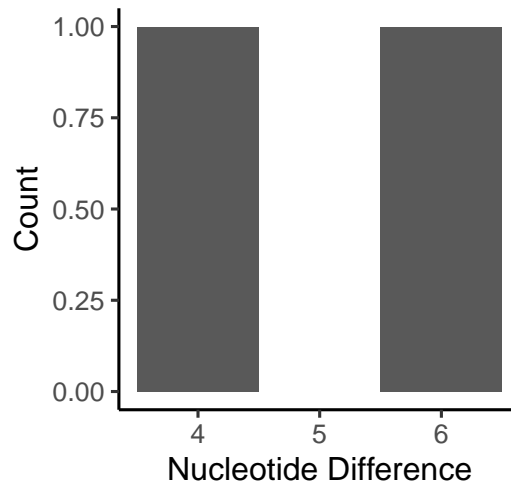
IGHV3–64D*08

773 sequences assigned
14 (1.8%) exact matches, in which:
10 unique CDR3
3 unique J



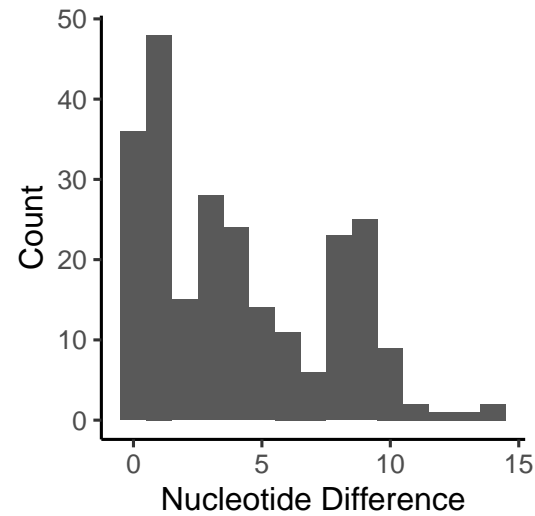
IGHV4–28*03

2 sequences assigned
No exact matches.



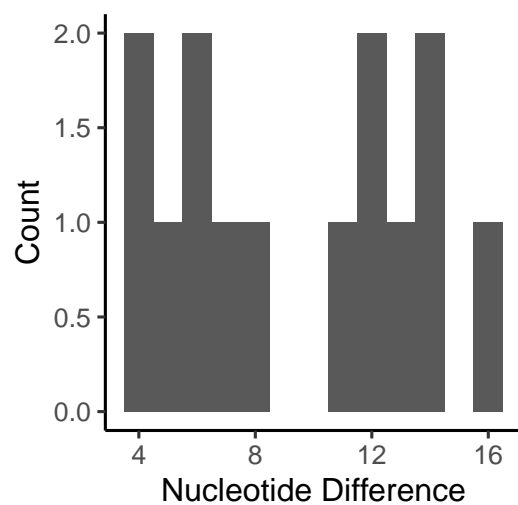
IGHV4–30–4*01

1501 sequences assigned
36 (2.4%) exact matches, in which:
27 unique CDR3
5 unique J



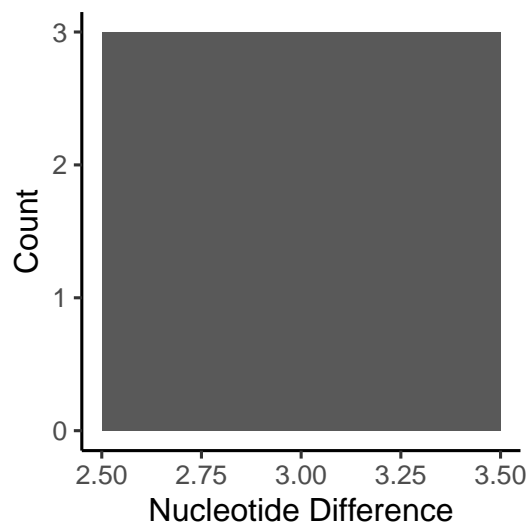
IGHV3–NL1*01

19 sequences assigned
No exact matches.



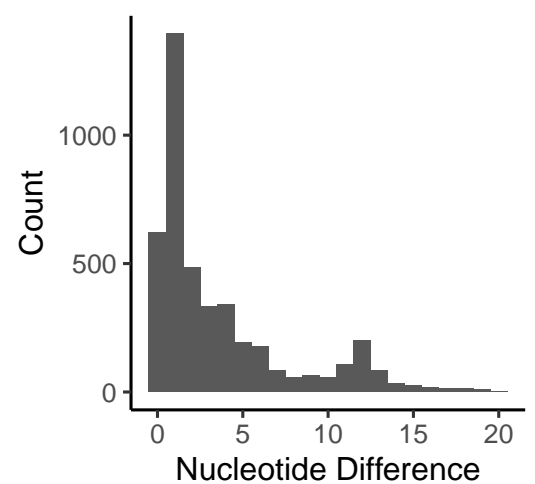
IGHV4–28*01_07

3 sequences assigned
No exact matches.



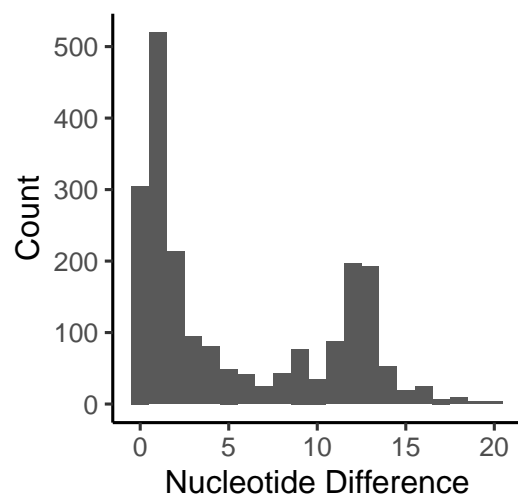
IGHV4–31*02

4922 sequences assigned
620 (12.6%) exact matches, in which:
412 unique CDR3
6 unique J



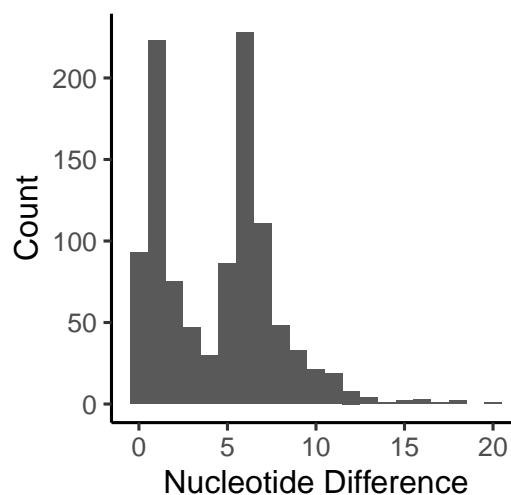
IGHV4–4*02_03

3024 sequences assigned
305 (10.1%) exact matches, in which:
197 unique CDR3
5 unique J



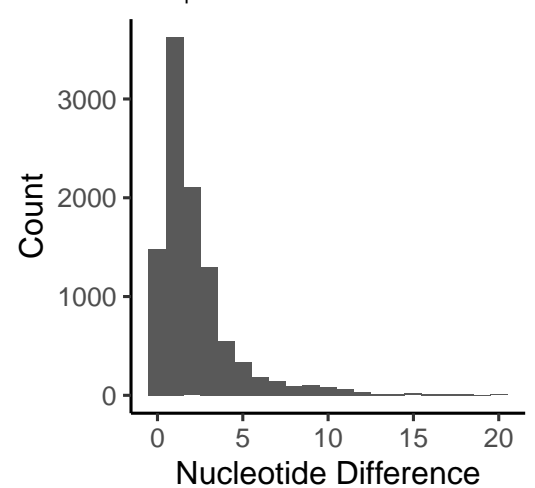
IGHV4–30–2*01

1046 sequences assigned
93 (8.9%) exact matches, in which:
58 unique CDR3
5 unique J



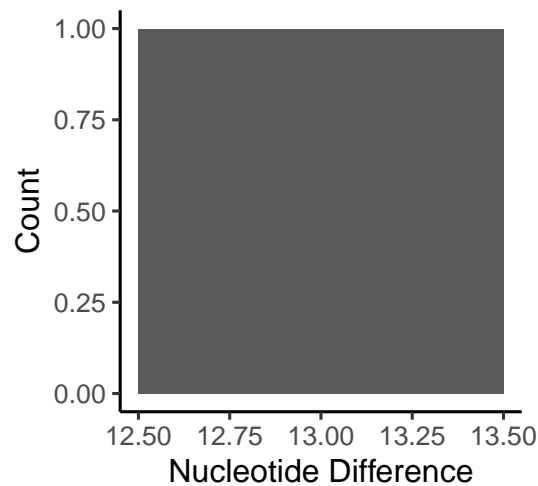
IGHV4–34*01_02

10282 sequences assigned
1479 (14.4%) exact matches, in which:
921 unique CDR3
6 unique J



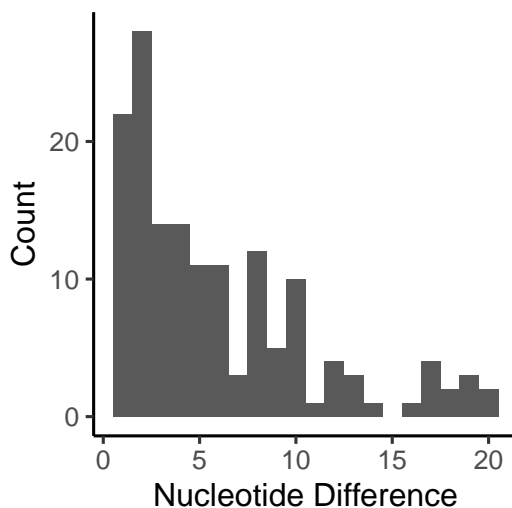
IGHV4-38-2*01

7 sequences assigned
No exact matches.



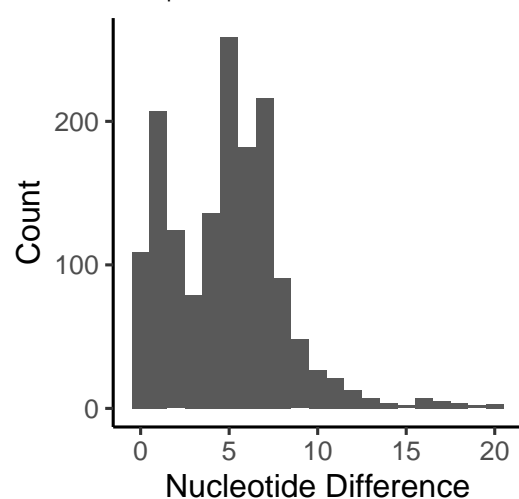
IGHV4-59*08

168 sequences assigned
No exact matches.



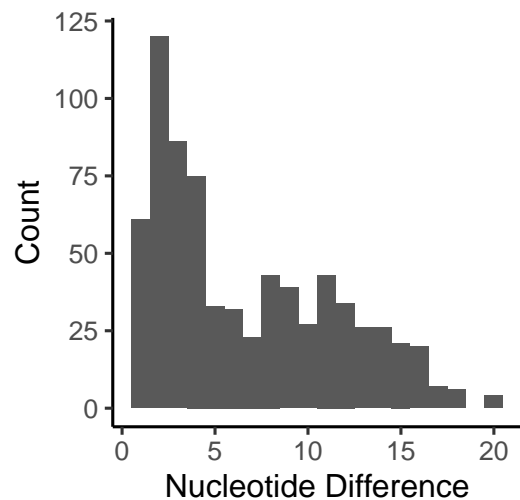
IGHV4-61*01

1590 sequences assigned
109 (6.9%) exact matches, in which:
87 unique CDR3
5 unique J



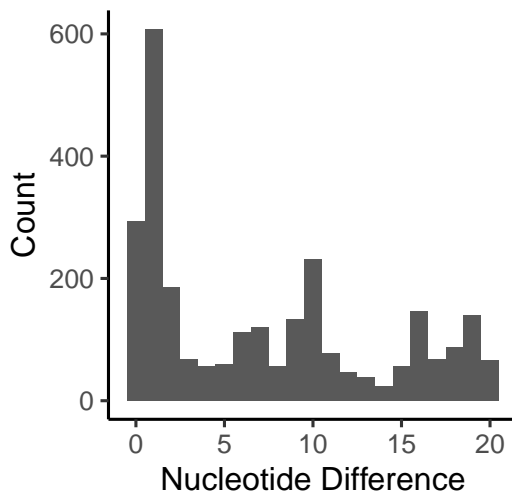
IGHV4-39*07

791 sequences assigned
No exact matches.



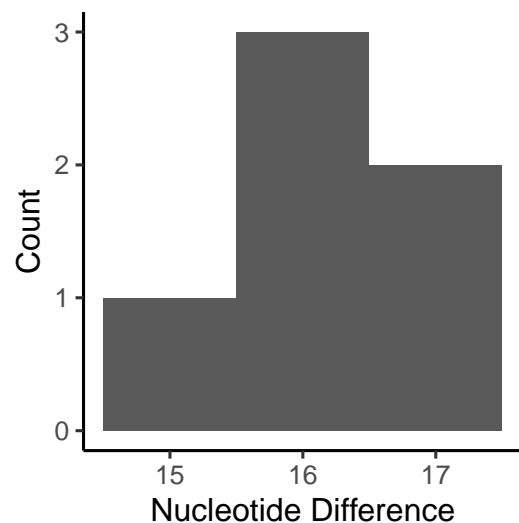
IGHV4-59*01_07

3661 sequences assigned
294 (8%) exact matches, in which:
210 unique CDR3
6 unique J



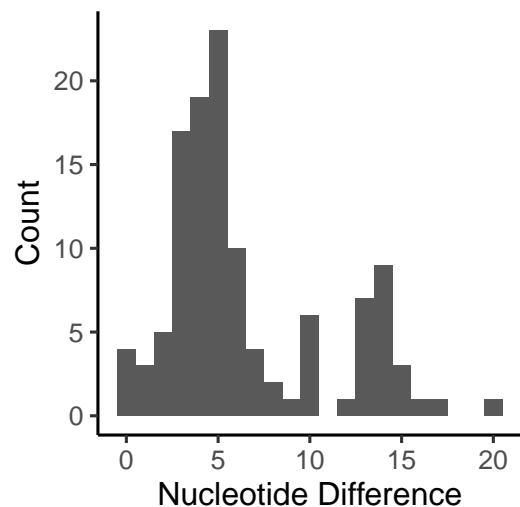
IGHV1/OR15-2*02_03

6 sequences assigned
No exact matches.



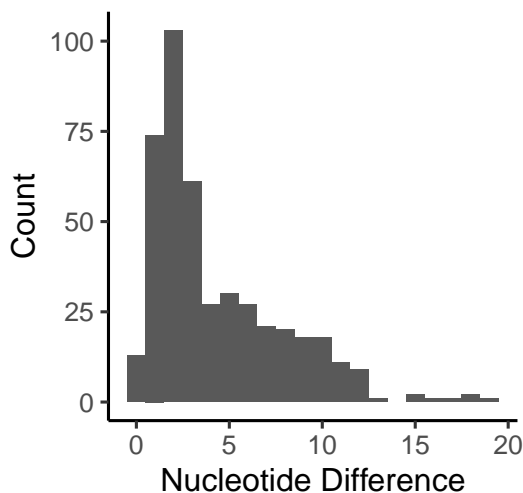
IGHV4-59*02

3690 sequences assigned
4 (0.1%) exact matches, in which:
4 unique CDR3
3 unique J



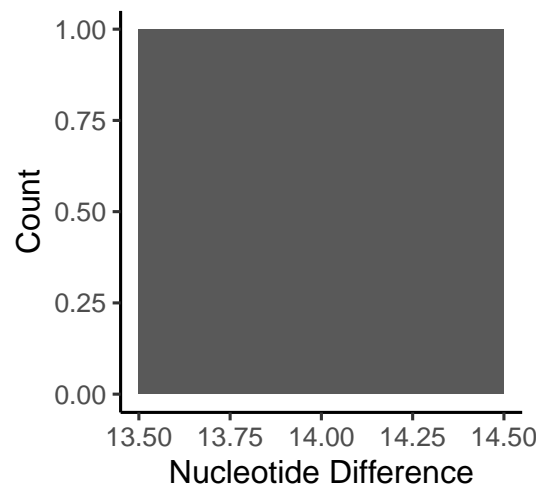
IGHV4-59*12

453 sequences assigned
13 (2.9%) exact matches, in which:
13 unique CDR3
4 unique J



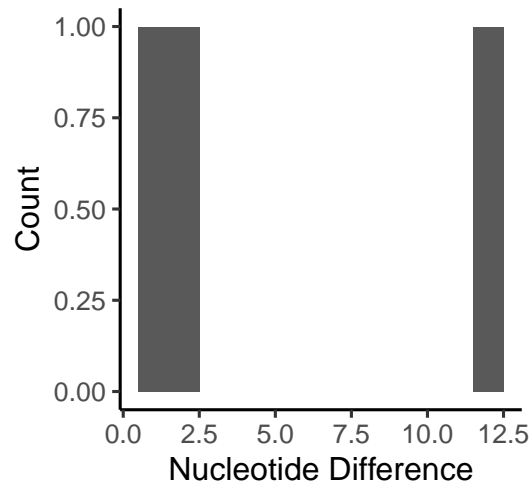
IGHV1/OR15-3*02

1 sequences assigned
No exact matches.



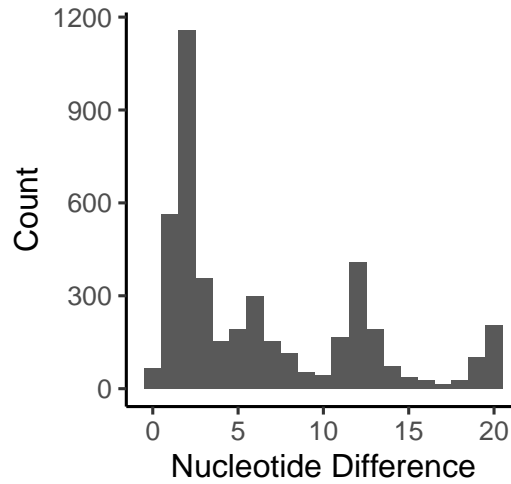
IGHV4/OR15-8*01

7 sequences assigned
No exact matches.



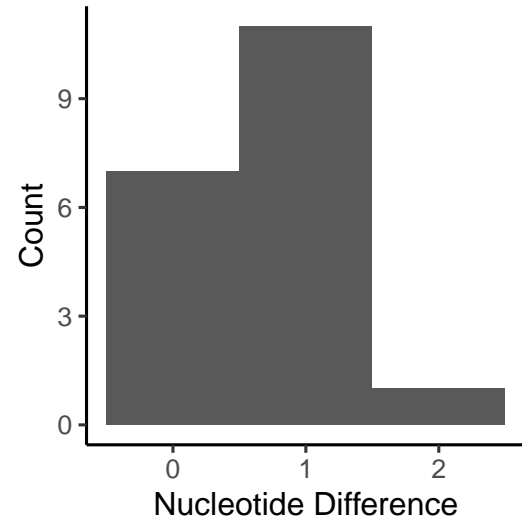
IGHV5-51*07

4548 sequences assigned
66 (1.5%) exact matches, in which:
45 unique CDR3
4 unique J



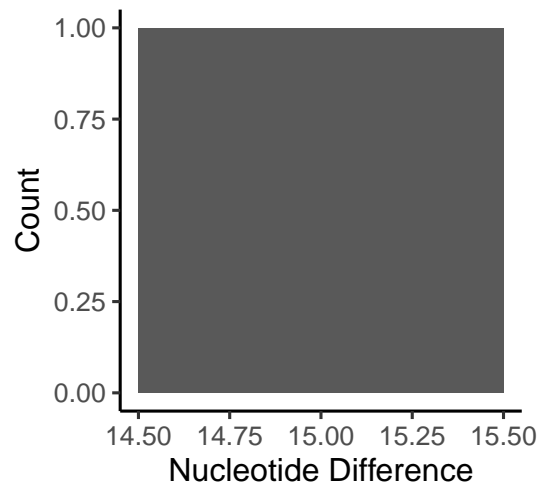
IGHV7-4-1*01

19 sequences assigned
7 (36.8%) exact matches, in which:
6 unique CDR3
1 unique J



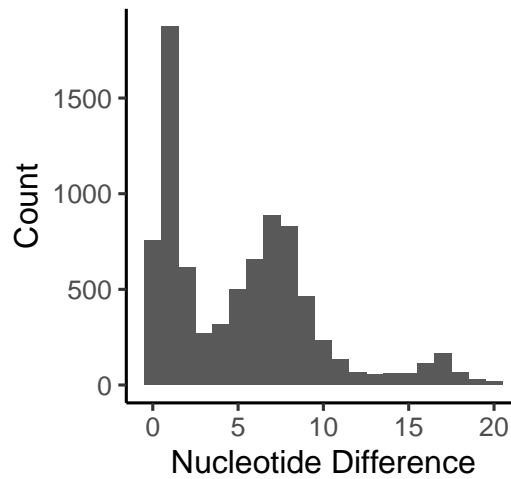
IGHV4/OR15-8*02

2 sequences assigned
No exact matches.



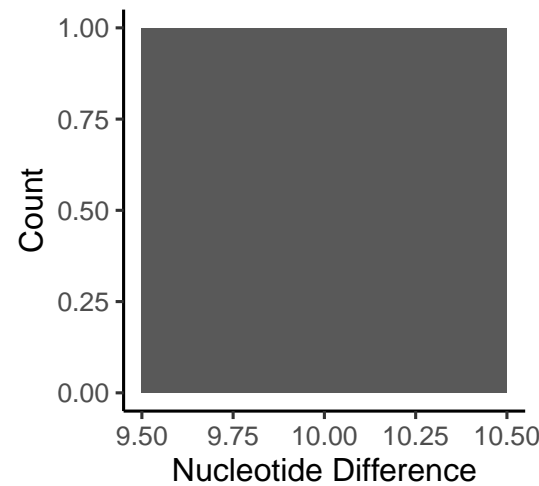
IGHV5-51*01_03

8192 sequences assigned
757 (9.2%) exact matches, in which:
410 unique CDR3
5 unique J



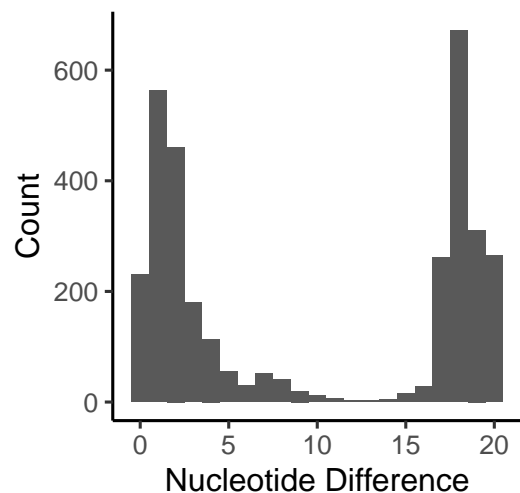
IGHV7-4-1*02

1 sequences assigned
No exact matches.



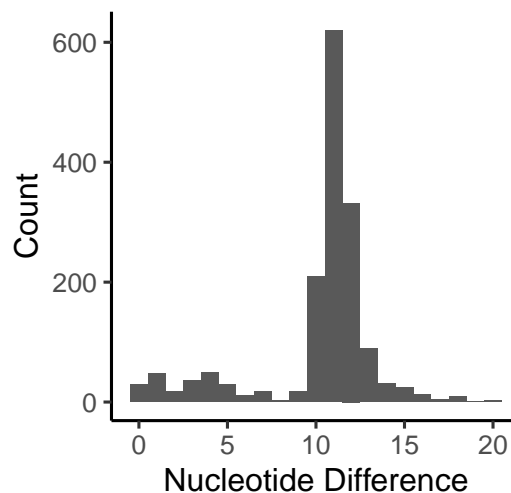
IGHV5-10-1*01_03

5753 sequences assigned
231 (4%) exact matches, in which:
145 unique CDR3
4 unique J



IGHV6-1*01_02

1602 sequences assigned
29 (1.8%) exact matches, in which:
25 unique CDR3
6 unique J





Warning – no inferred sequences found.