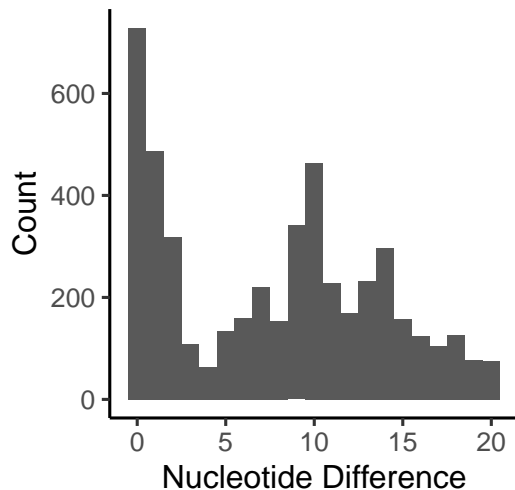


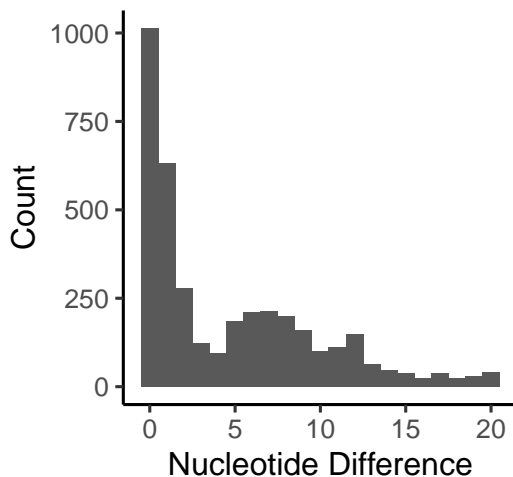
IGHV1-2*02

5490 sequences assigned
729 (13.3%) exact matches, in which:
673 unique CDR3
6 unique J



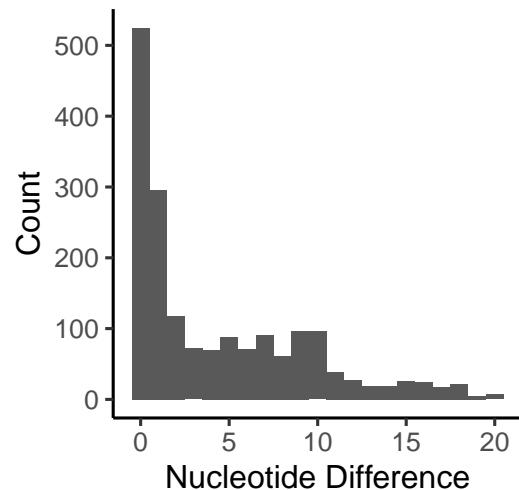
IGHV1-8*01

4085 sequences assigned
1013 (24.8%) exact matches, in which:
927 unique CDR3
6 unique J



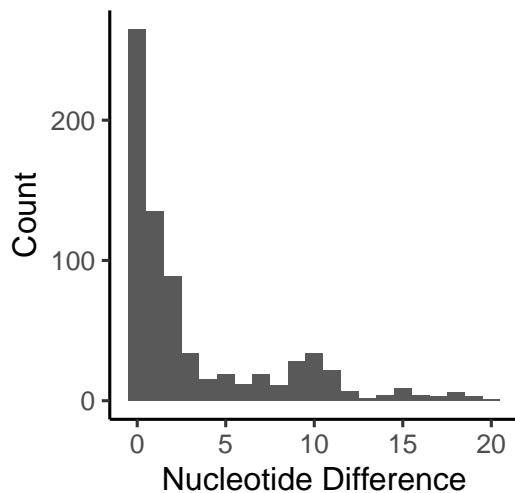
IGHV1-46*01

1889 sequences assigned
525 (27.8%) exact matches, in which:
490 unique CDR3
6 unique J



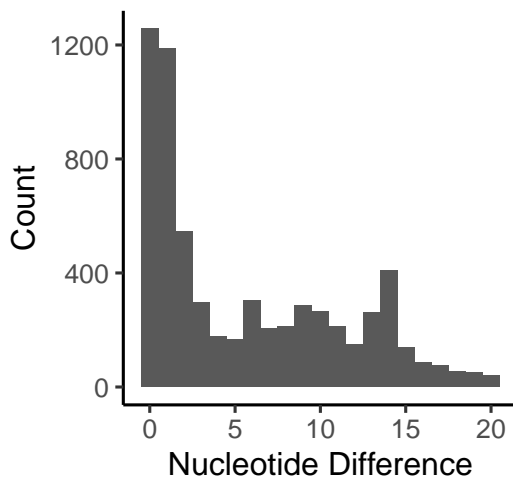
IGHV1-2*04

727 sequences assigned
265 (36.5%) exact matches, in which:
243 unique CDR3
6 unique J



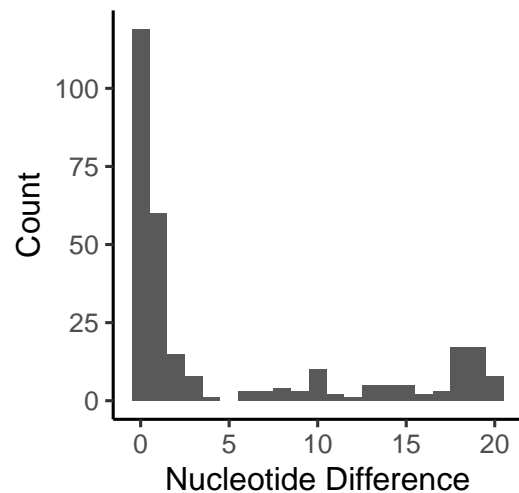
IGHV1-18*01

6955 sequences assigned
1257 (18.1%) exact matches, in which:
1103 unique CDR3
6 unique J



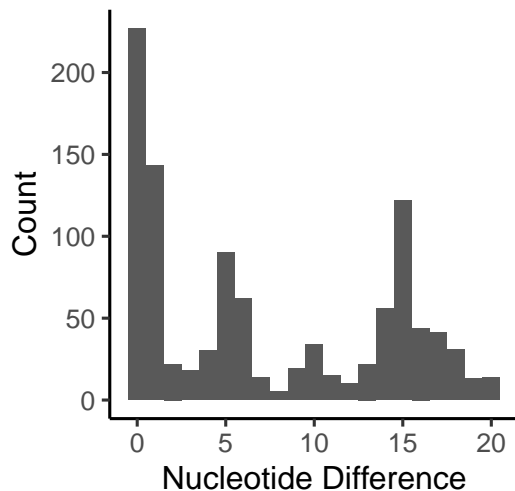
IGHV1-58*01_03

341 sequences assigned
119 (34.9%) exact matches, in which:
106 unique CDR3
4 unique J



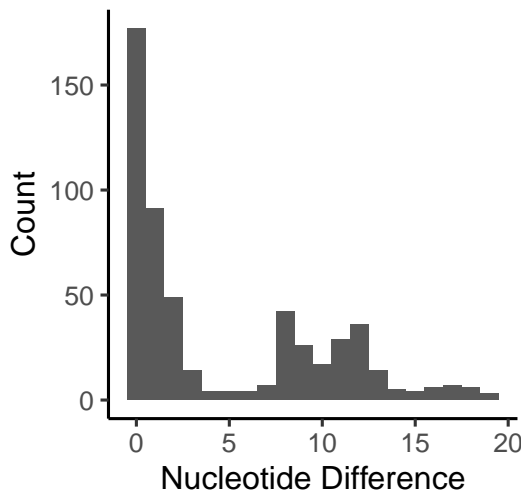
IGHV1-3*01_05

1114 sequences assigned
227 (20.4%) exact matches, in which:
209 unique CDR3
6 unique J



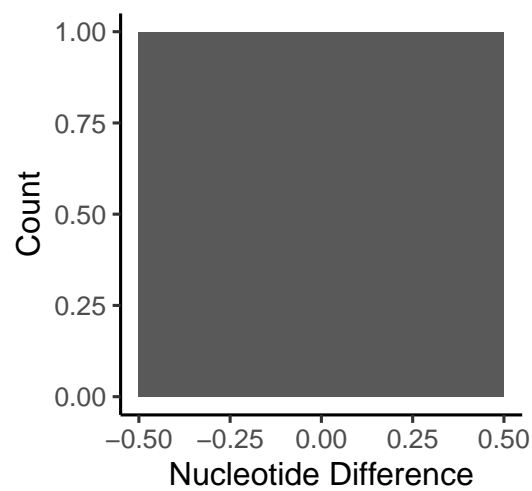
IGHV1-24*01

558 sequences assigned
177 (31.7%) exact matches, in which:
167 unique CDR3
6 unique J



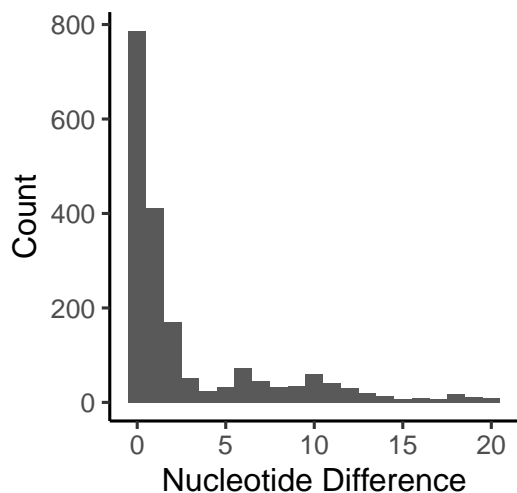
IGHV1-69-2*01

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



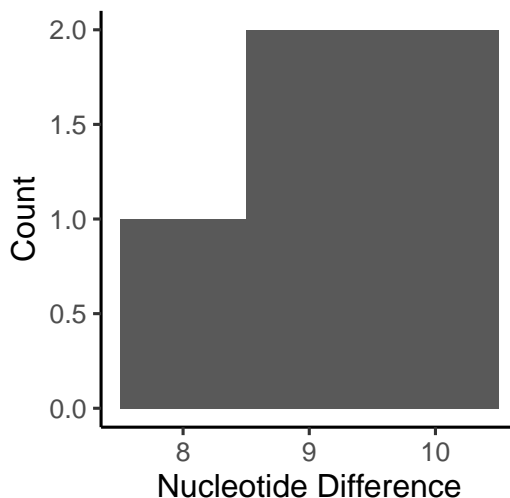
IGHV1-69*01_12_13

1954 sequences assigned
787 (40.3%) exact matches, in which:
733 unique CDR3
6 unique J



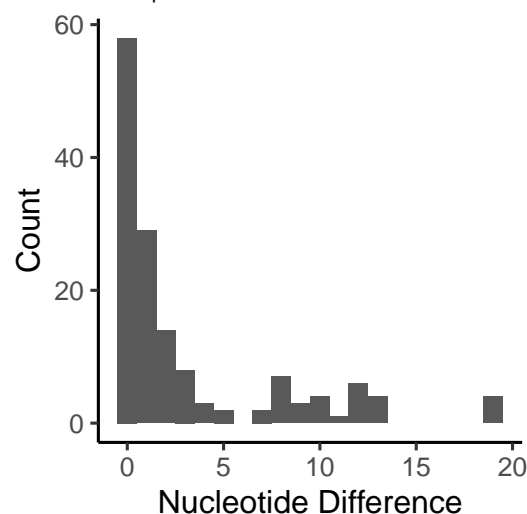
IGHV1-NL1*01

5 sequences assigned
No exact matches.



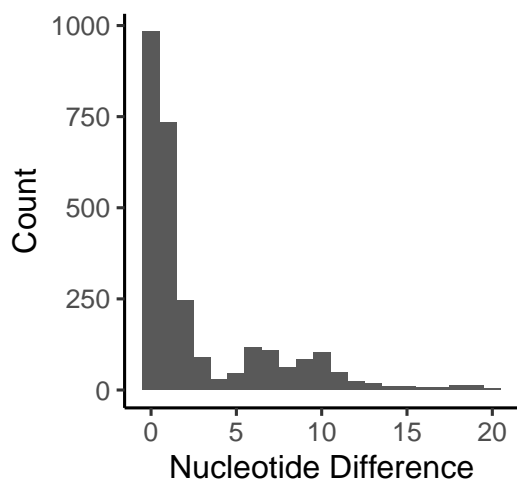
IGHV2-26*01

156 sequences assigned
58 (37.2%) exact matches, in which:
53 unique CDR3
5 unique J



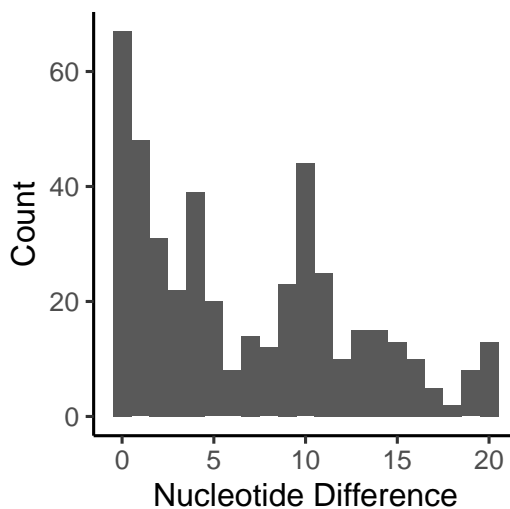
IGHV1-69*04_09

2850 sequences assigned
983 (34.5%) exact matches, in which:
914 unique CDR3
6 unique J



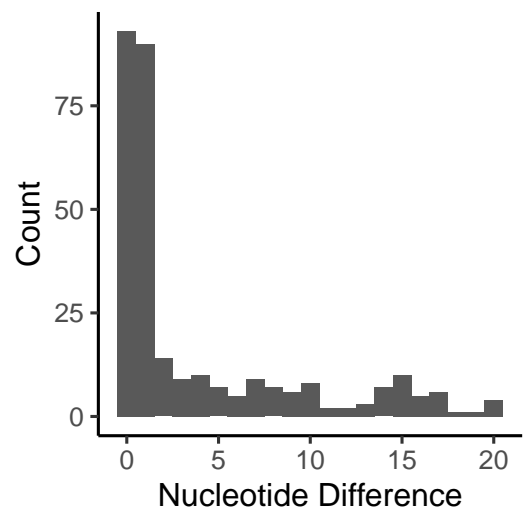
IGHV2-5*01

475 sequences assigned
67 (14.1%) exact matches, in which:
59 unique CDR3
6 unique J



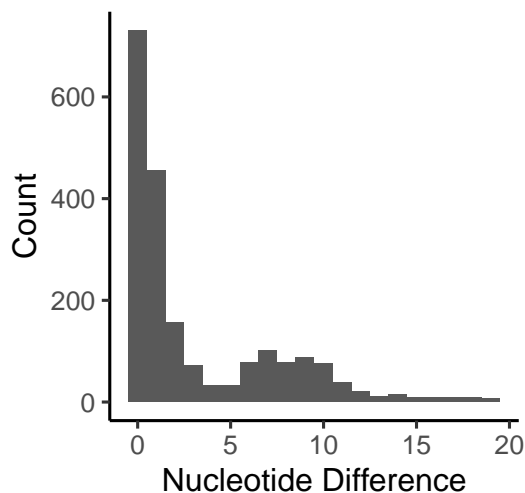
IGHV2-70*01

312 sequences assigned
93 (29.8%) exact matches, in which:
82 unique CDR3
5 unique J



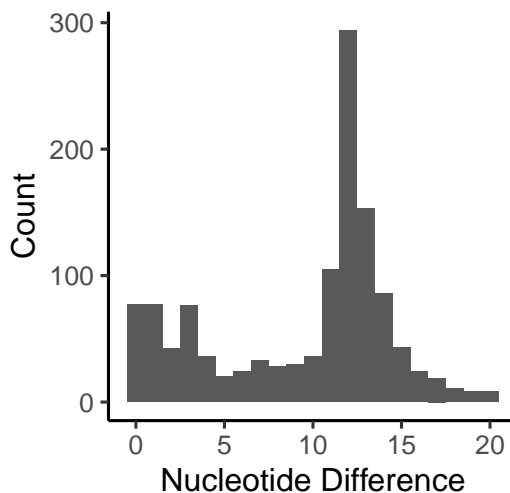
IGHV1-69*06_14

2075 sequences assigned
731 (35.2%) exact matches, in which:
662 unique CDR3
6 unique J



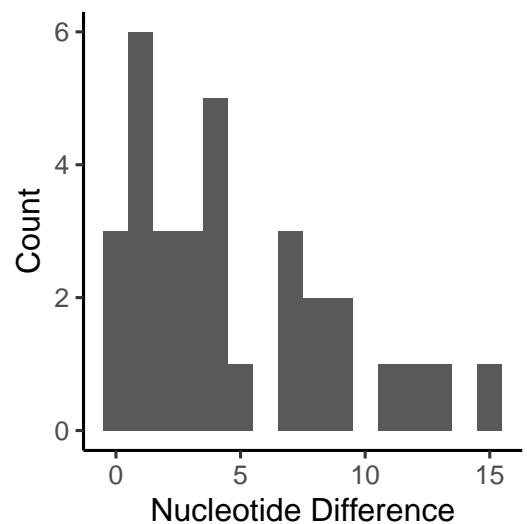
IGHV2-5*02

1267 sequences assigned
77 (6.1%) exact matches, in which:
72 unique CDR3
5 unique J



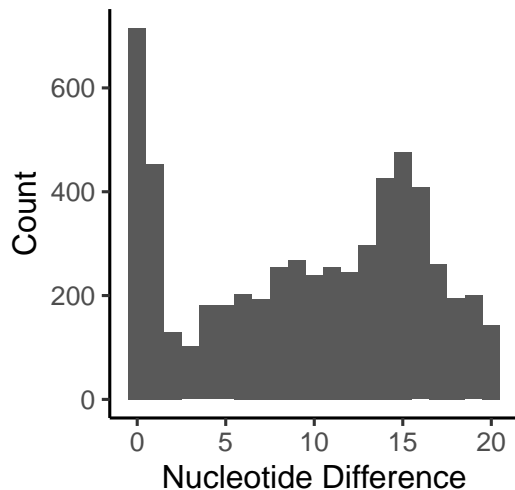
IGHV2-70*12

32 sequences assigned
3 (9.4%) exact matches, in which:
3 unique CDR3
2 unique J



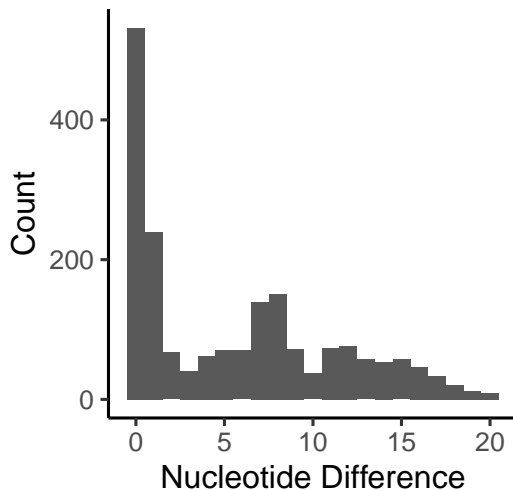
IGHV3-7*01

6925 sequences assigned
716 (10.3%) exact matches, in which:
537 unique CDR3
6 unique J



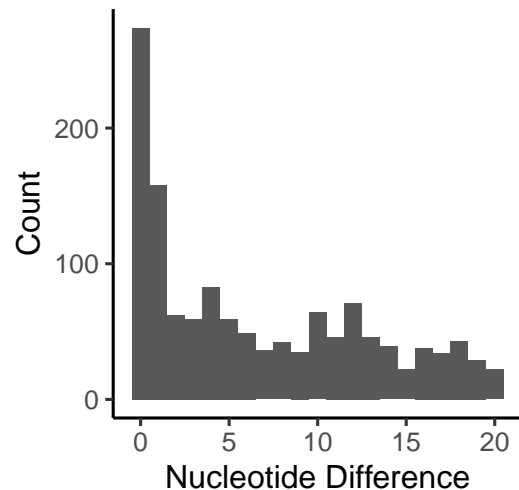
IGHV3-11*01

2198 sequences assigned
532 (24.2%) exact matches, in which:
404 unique CDR3
6 unique J



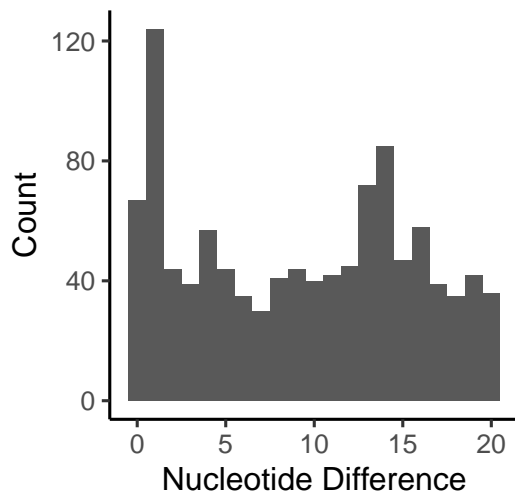
IGHV3-15*01_02

1470 sequences assigned
274 (18.6%) exact matches, in which:
193 unique CDR3
6 unique J



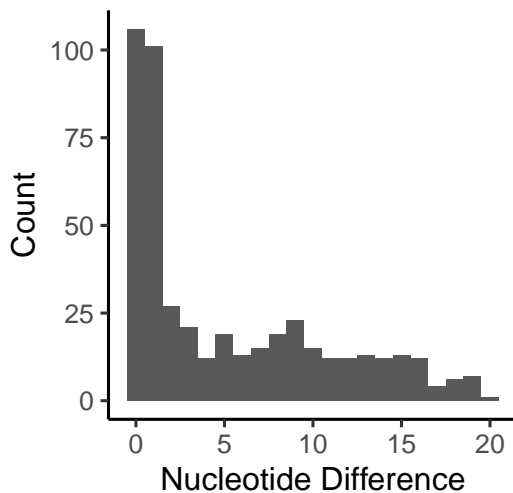
IGHV3-7*03

1344 sequences assigned
67 (5%) exact matches, in which:
54 unique CDR3
4 unique J



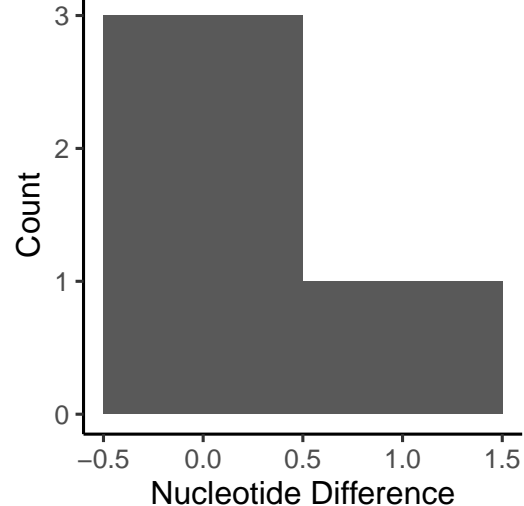
IGHV3-11*04

478 sequences assigned
106 (22.2%) exact matches, in which:
102 unique CDR3
5 unique J



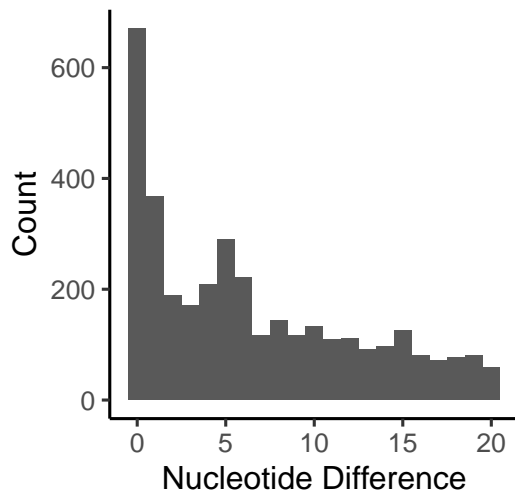
IGHV3-19*01

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



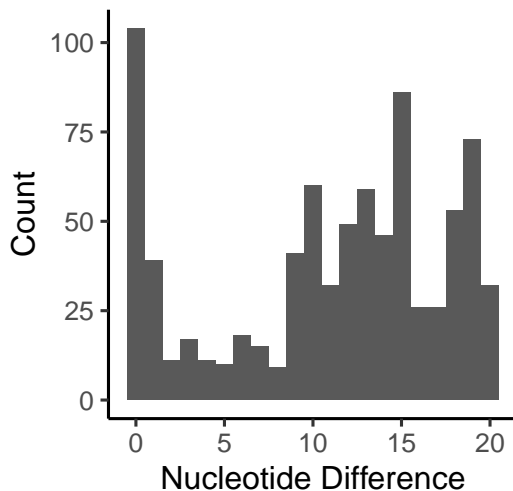
IGHV3-9*01

4081 sequences assigned
671 (16.4%) exact matches, in which:
477 unique CDR3
6 unique J



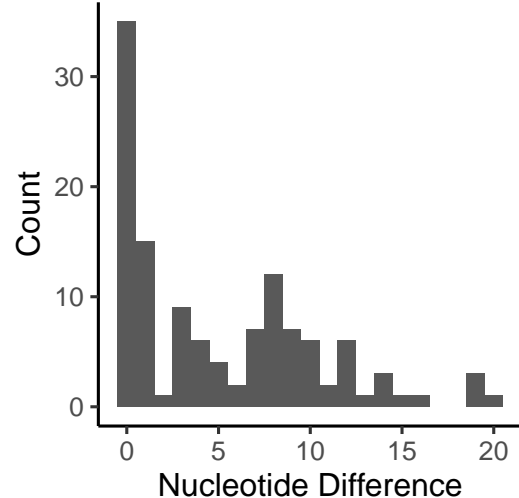
IGHV3-13*01

908 sequences assigned
104 (11.5%) exact matches, in which:
84 unique CDR3
5 unique J



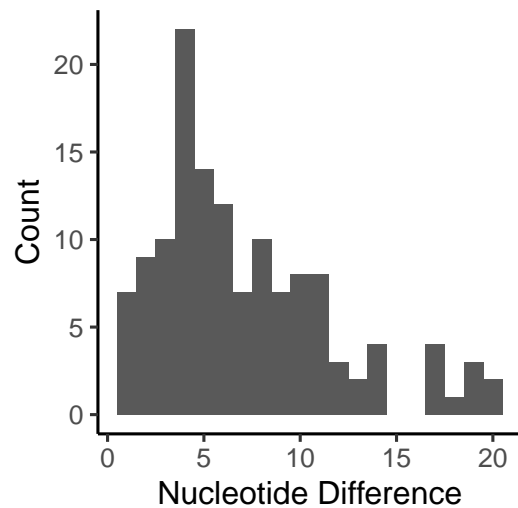
IGHV3-20*01_02

130 sequences assigned
35 (26.9%) exact matches, in which:
28 unique CDR3
4 unique J



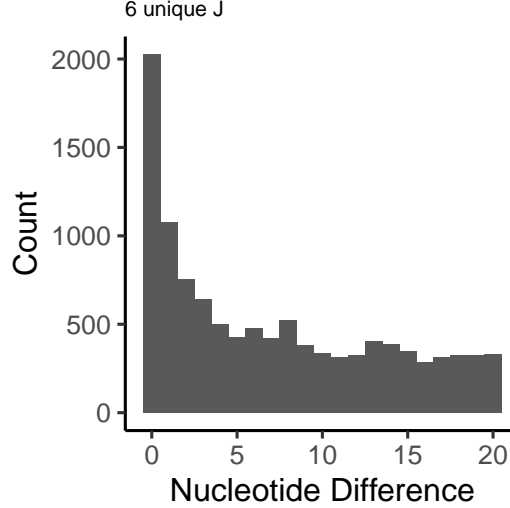
IGHV3-20*03_04

156 sequences assigned
No exact matches.



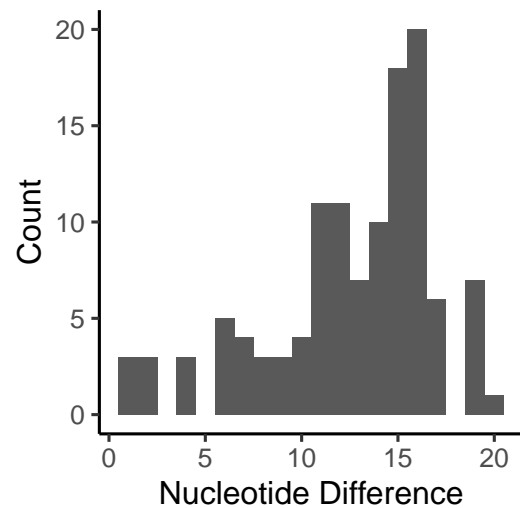
IGHV3-23*01_04

13628 sequences assigned
2026 (14.9%) exact matches, in which:
1337 unique CDR3
6 unique J



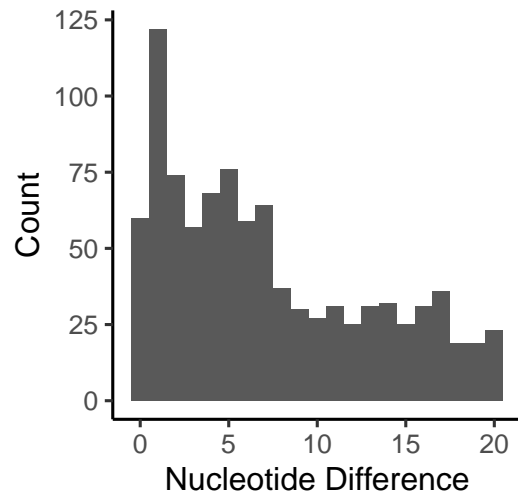
IGHV3-30*04

132 sequences assigned
No exact matches.



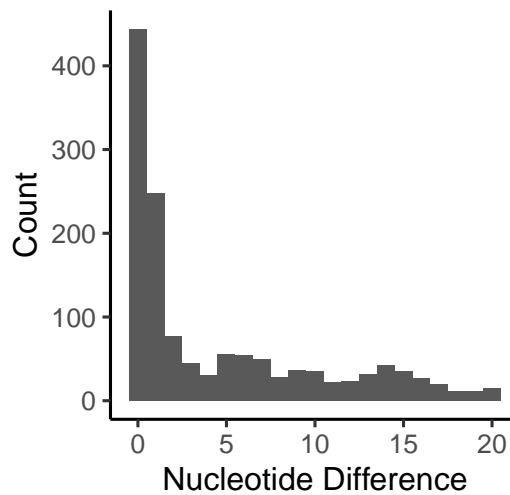
IGHV3-21*04

1061 sequences assigned
60 (5.7%) exact matches, in which:
56 unique CDR3
4 unique J



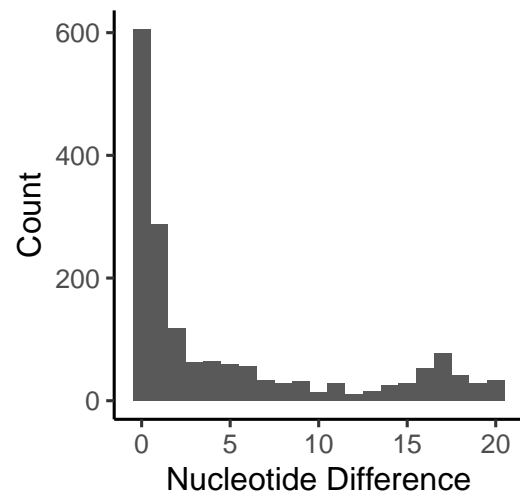
IGHV3-30-3*01

1416 sequences assigned
444 (31.4%) exact matches, in which:
327 unique CDR3
6 unique J



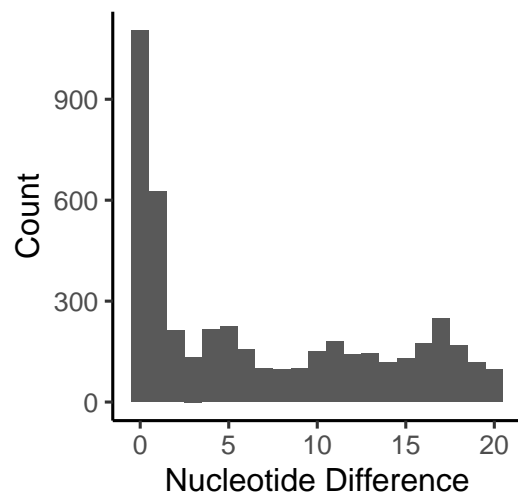
IGHV3-33*01

1888 sequences assigned
606 (32.1%) exact matches, in which:
469 unique CDR3
6 unique J



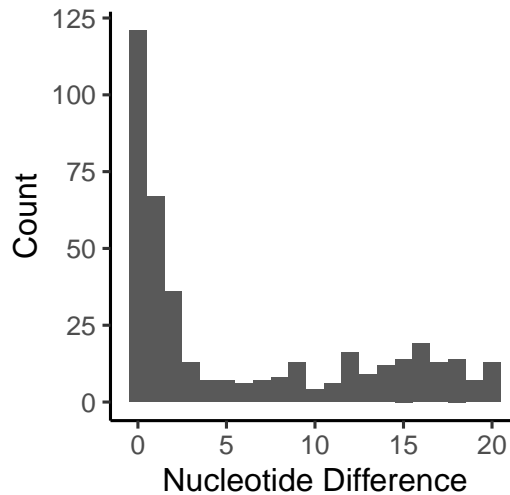
IGHV3-21*01_02

5477 sequences assigned
1105 (20.2%) exact matches, in which:
801 unique CDR3
6 unique J



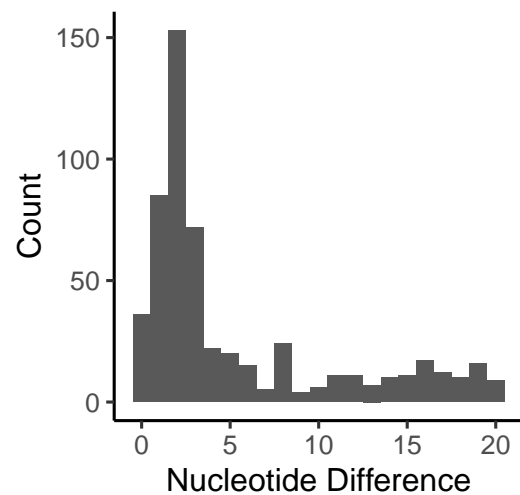
IGHV3-30*03

637 sequences assigned
121 (19%) exact matches, in which:
114 unique CDR3
4 unique J



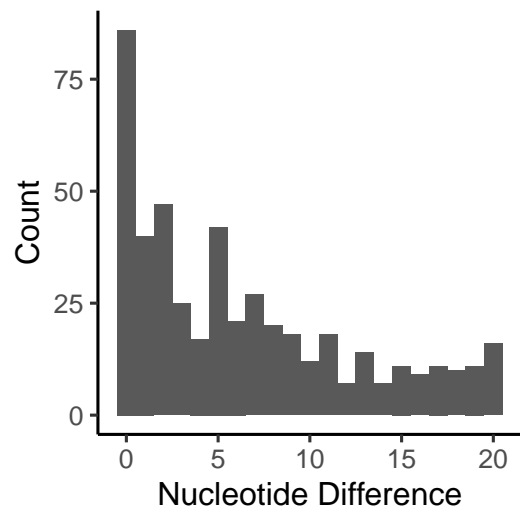
IGHV3-33*06

605 sequences assigned
36 (6%) exact matches, in which:
36 unique CDR3
6 unique J



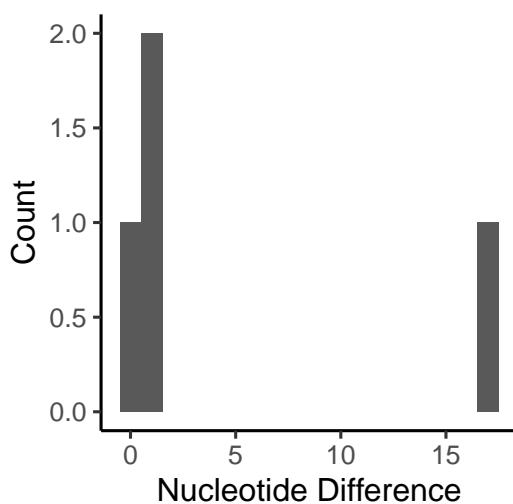
IGHV3-33*08

565 sequences assigned
86 (15.2%) exact matches, in which:
82 unique CDR3
5 unique J



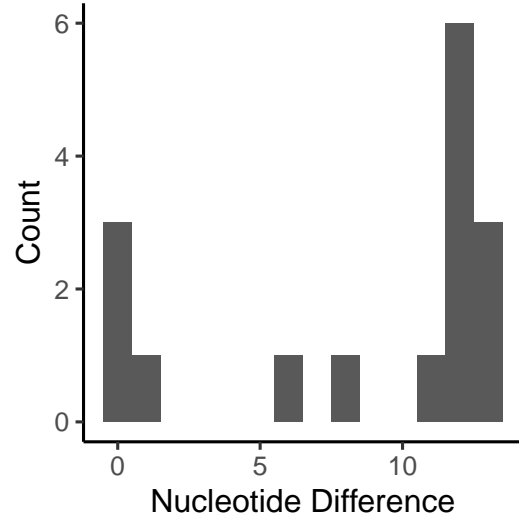
IGHV3-47*01

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



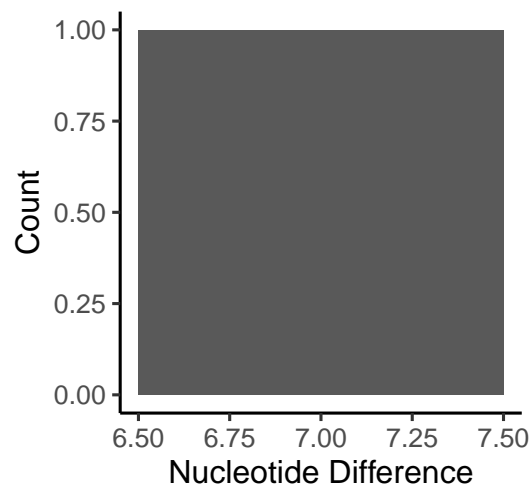
IGHV3-52*01_03

16 sequences assigned
3 (18.8%) exact matches, in which:
2 unique CDR3
1 unique J



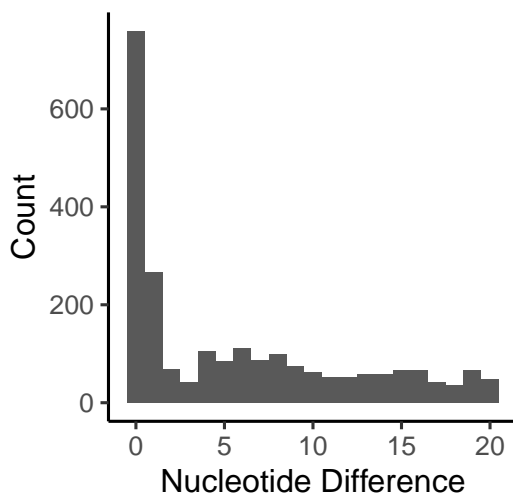
IGHV3-35*01

1 sequences assigned
No exact matches.



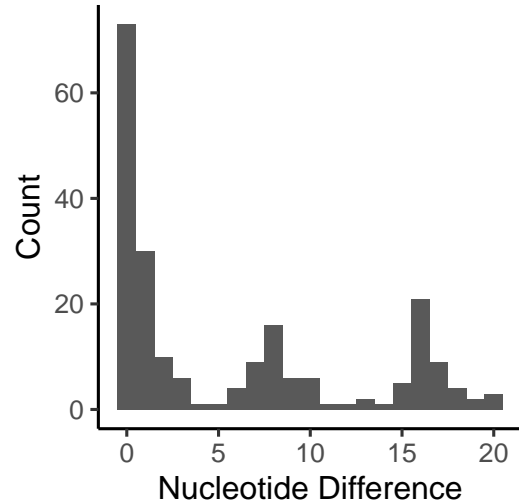
IGHV3-48*03

2604 sequences assigned
759 (29.1%) exact matches, in which:
541 unique CDR3
6 unique J



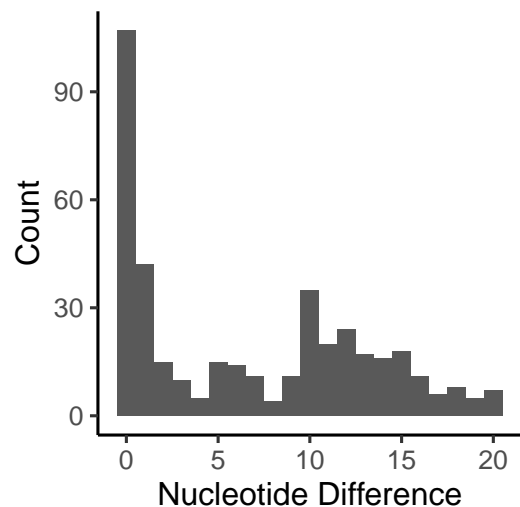
IGHV3-53*04

288 sequences assigned
73 (25.3%) exact matches, in which:
56 unique CDR3
5 unique J



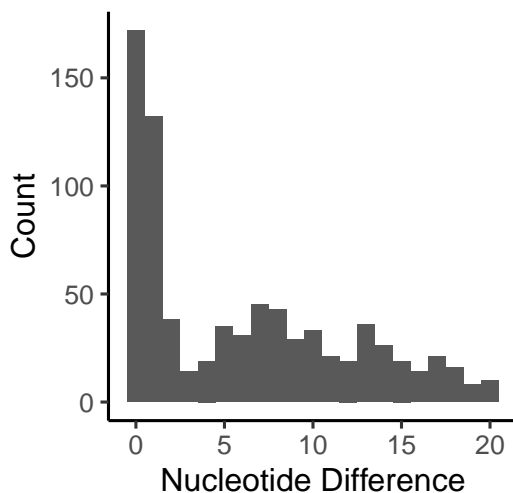
IGHV3-43*02

585 sequences assigned
107 (18.3%) exact matches, in which:
79 unique CDR3
4 unique J



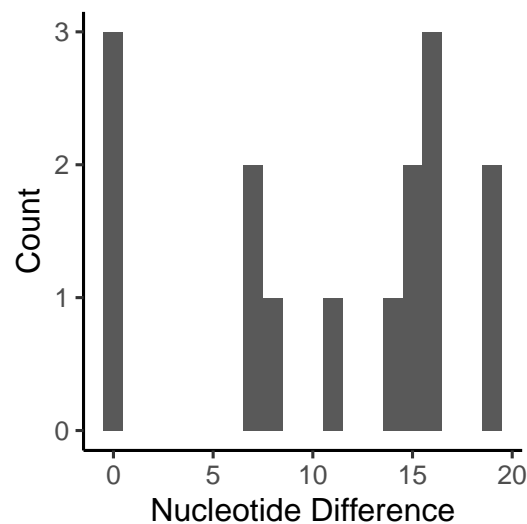
IGHV3-49*04

867 sequences assigned
172 (19.8%) exact matches, in which:
123 unique CDR3
6 unique J



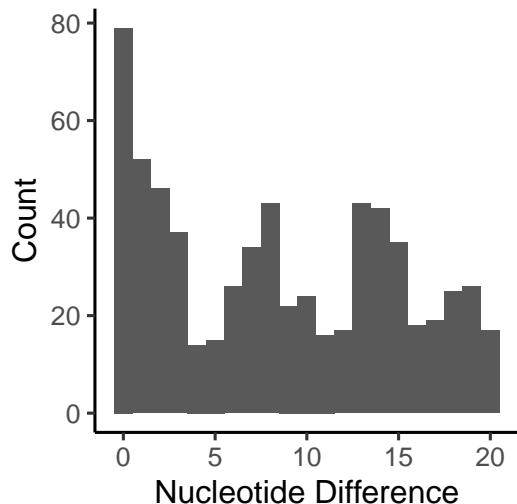
IGHV3-53*05

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



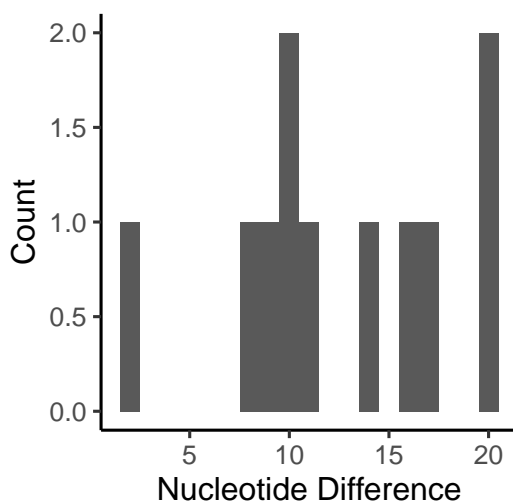
IGHV3-53*01_02

976 sequences assigned
79 (8.1%) exact matches, in which:
65 unique CDR3
6 unique J



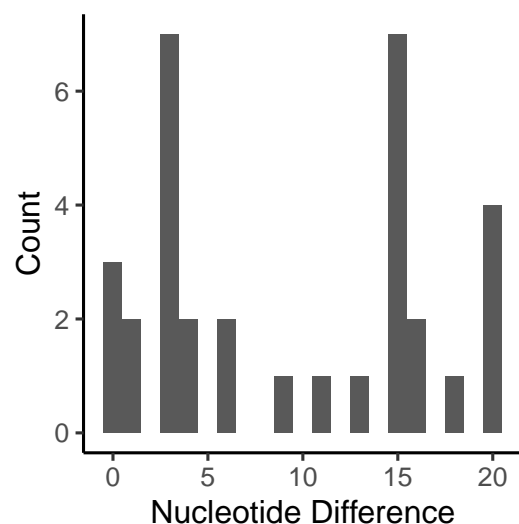
IGHV3-66*01

17 sequences assigned
No exact matches.



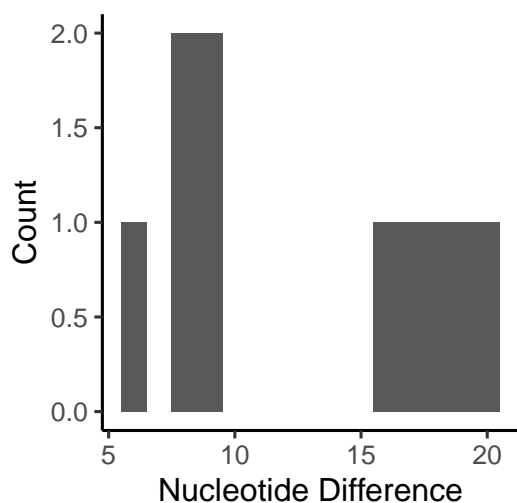
IGHV3-69-1*01

38 sequences assigned
3 (7.9%) exact matches, in which:
3 unique CDR3
3 unique J



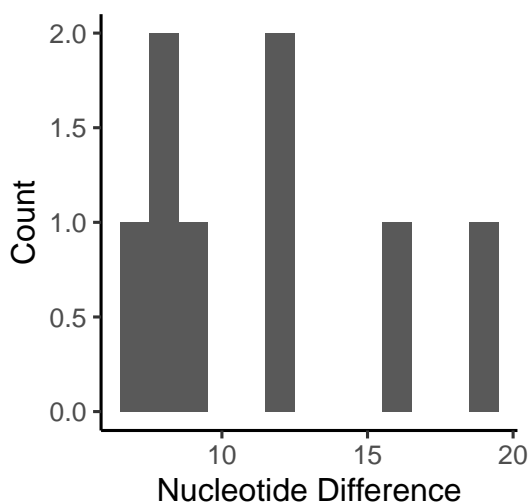
IGHV3-64*04

31 sequences assigned
No exact matches.



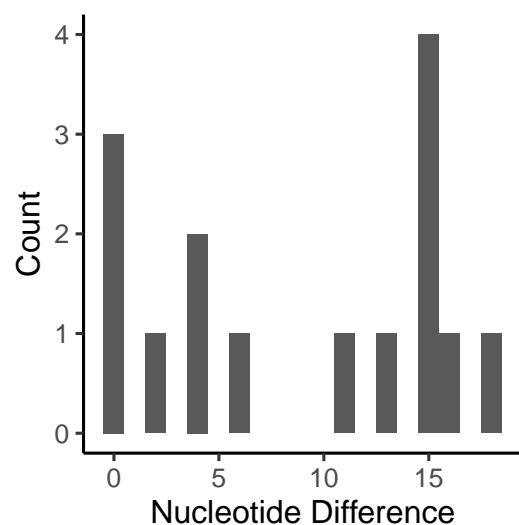
IGHV3-66*02

11 sequences assigned
No exact matches.



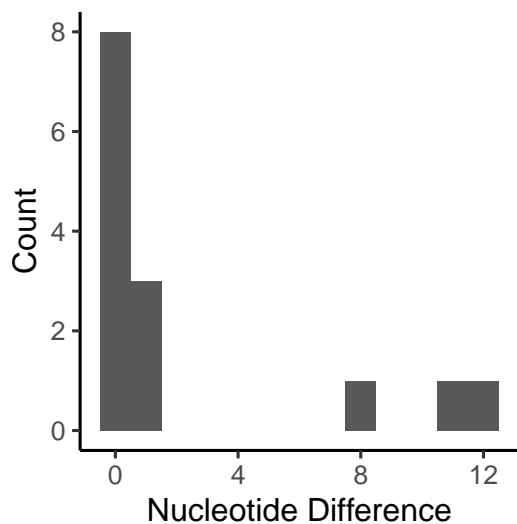
IGHV3-69-1*02

29 sequences assigned
3 (10.3%) exact matches, in which:
3 unique CDR3
2 unique J



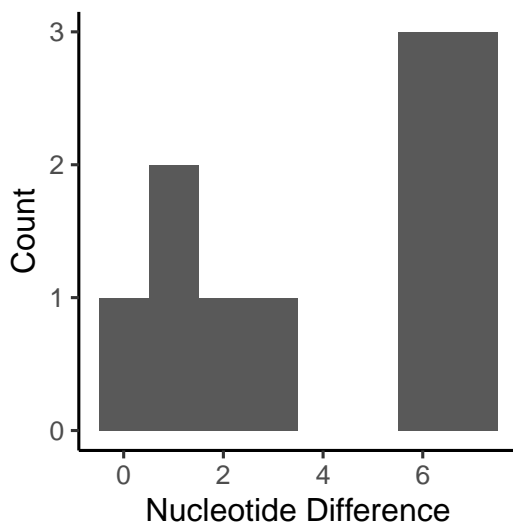
IGHV3-64*02_07

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



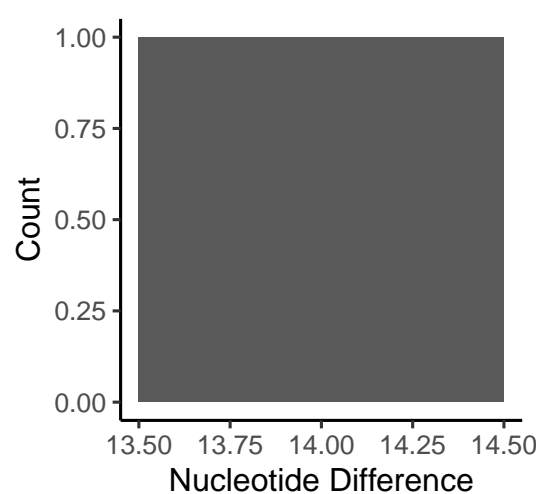
IGHV3-66*03

11 sequences assigned
1 (9.1%) exact matches, in which:
1 unique CDR3
1 unique J



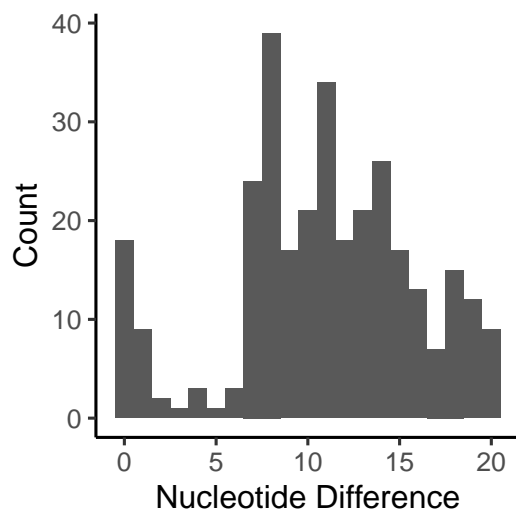
IGHV3-71*01_04

2 sequences assigned
No exact matches.



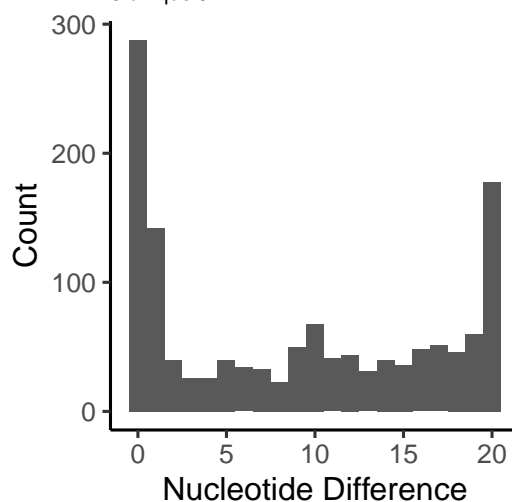
IGHV3-72*01

350 sequences assigned
18 (5.1%) exact matches, in which:
15 unique CDR3
4 unique J



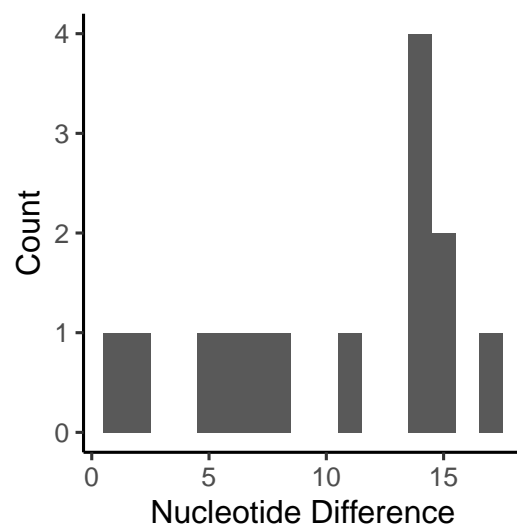
IGHV3-74*01_02

1851 sequences assigned
288 (15.6%) exact matches, in which:
217 unique CDR3
5 unique J



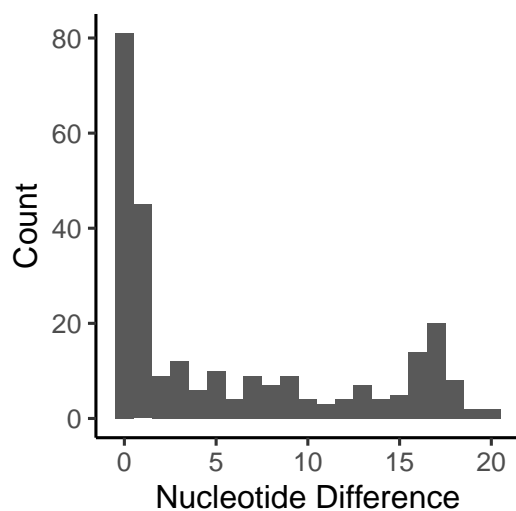
IGHV3-NL1*01

28 sequences assigned
No exact matches.



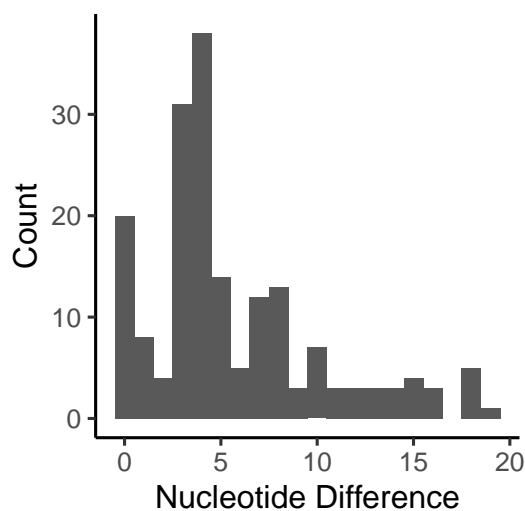
IGHV3-73*01_02

295 sequences assigned
81 (27.5%) exact matches, in which:
51 unique CDR3
5 unique J



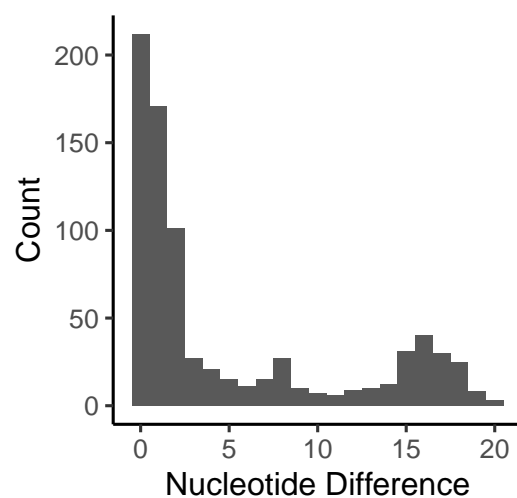
IGHV3-43D*04

185 sequences assigned
20 (10.8%) exact matches, in which:
17 unique CDR3
2 unique J



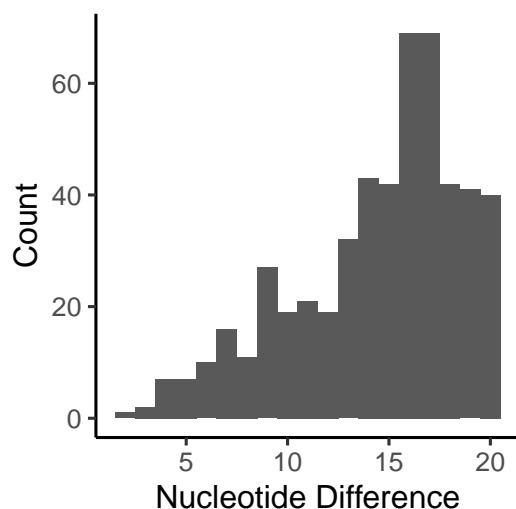
IGHV4-4*07

1082 sequences assigned
212 (19.6%) exact matches, in which:
192 unique CDR3
5 unique J



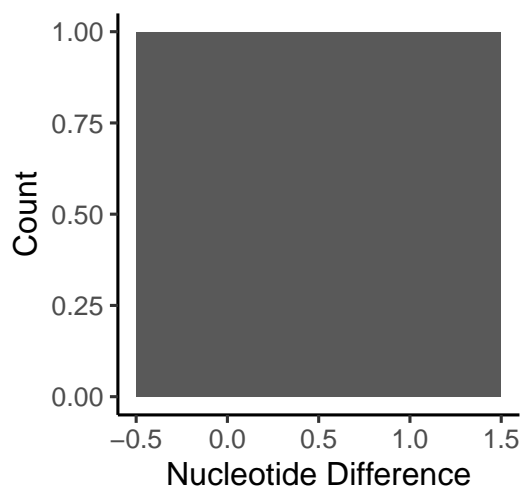
IGHV3-74*03

872 sequences assigned
No exact matches.



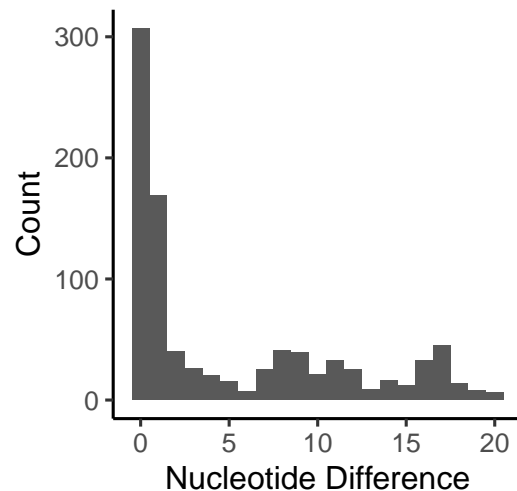
IGHV3-64D*06

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



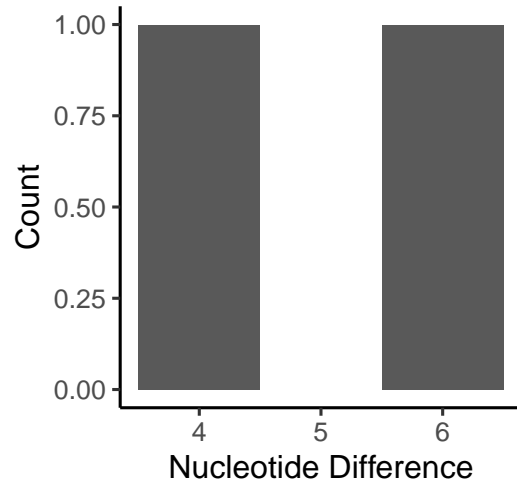
IGHV4-4*02_03

1063 sequences assigned
307 (28.9%) exact matches, in which:
250 unique CDR3
6 unique J



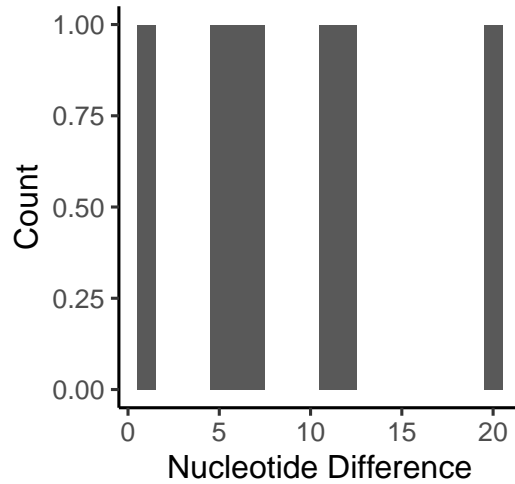
IGHV4-28*01_07

4 sequences assigned
No exact matches.



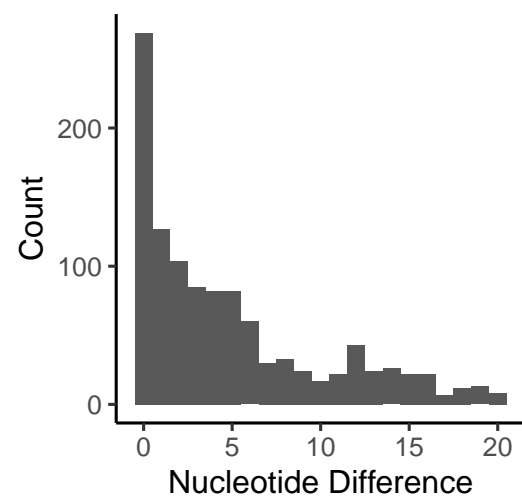
IGHV4-30-4*07

8 sequences assigned
No exact matches.



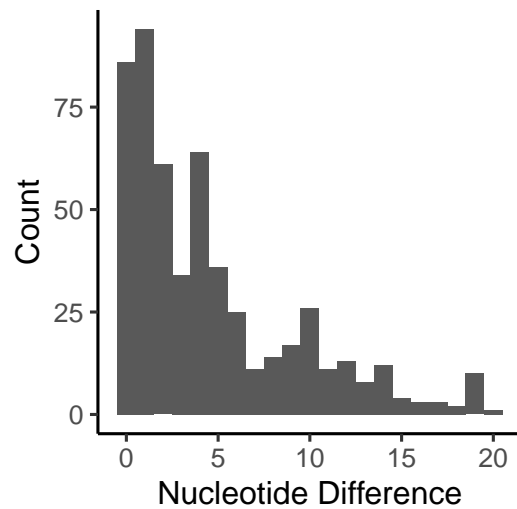
IGHV4-31*02

1194 sequences assigned
269 (22.5%) exact matches, in which:
240 unique CDR3
6 unique J



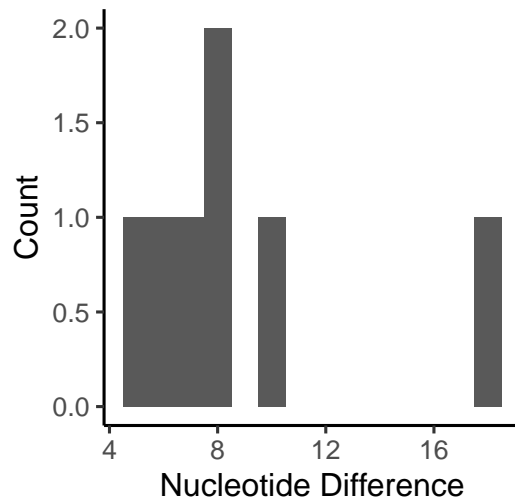
IGHV4-30-2*01

554 sequences assigned
86 (15.5%) exact matches, in which:
66 unique CDR3
5 unique J



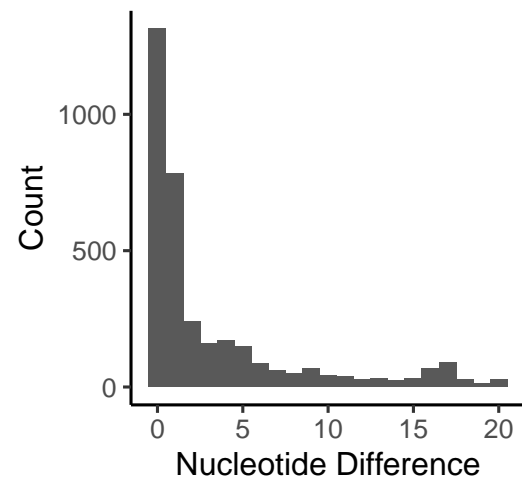
IGHV4-30-4*08

8 sequences assigned
No exact matches.



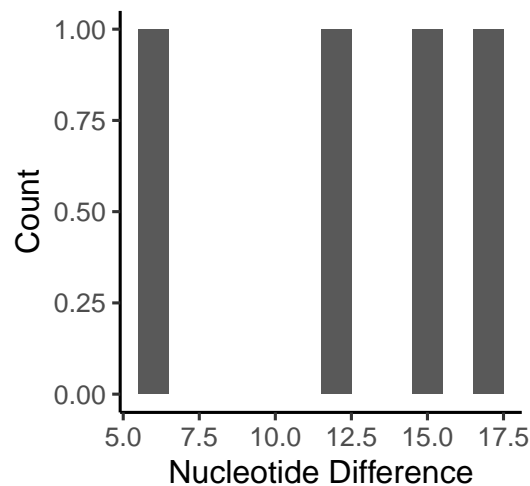
IGHV4-34*01_02

3747 sequences assigned
1314 (35.1%) exact matches, in which:
1037 unique CDR3
6 unique J



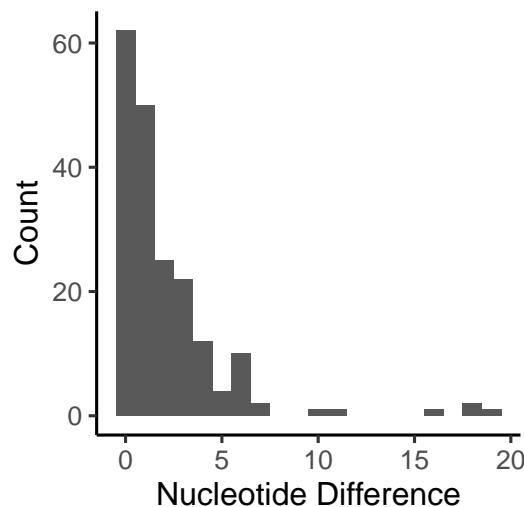
IGHV4-30-4*01

4 sequences assigned
No exact matches.



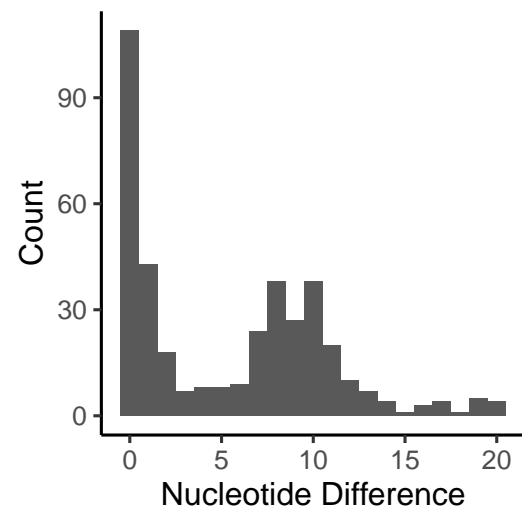
IGHV4-31*01

212 sequences assigned
62 (29.2%) exact matches, in which:
53 unique CDR3
5 unique J



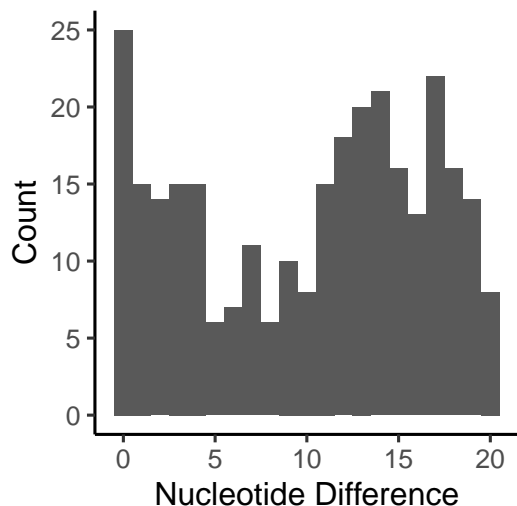
IGHV4-38-2*01

418 sequences assigned
109 (26.1%) exact matches, in which:
104 unique CDR3
6 unique J



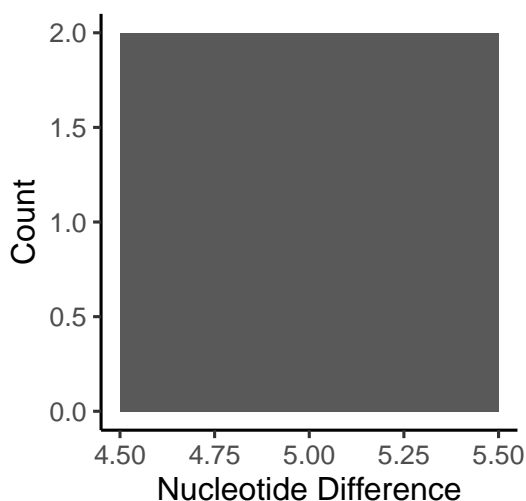
IGHV4-38-2*02

391 sequences assigned
25 (6.4%) exact matches, in which:
22 unique CDR3
4 unique J



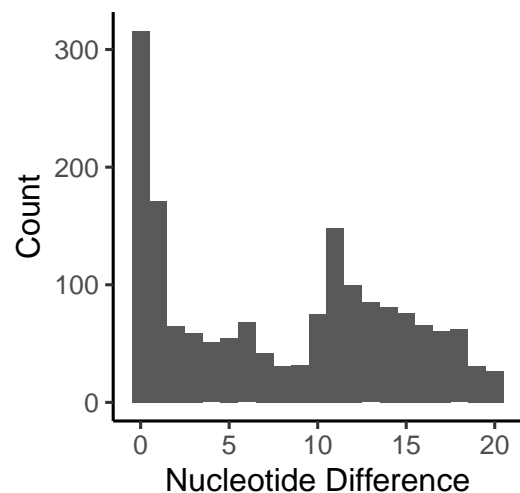
IGHV4-55*02_04_08

2 sequences assigned
No exact matches.



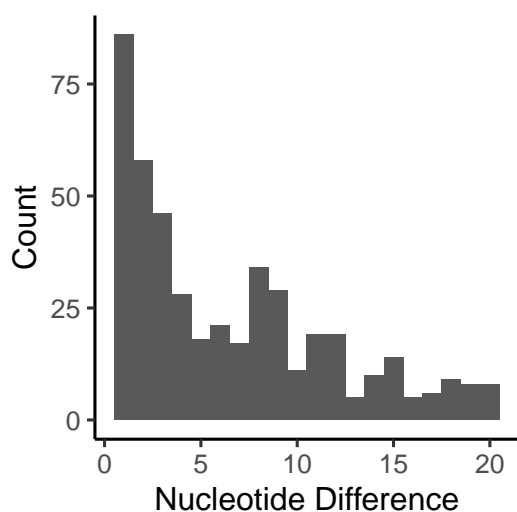
IGHV4-61*01

2099 sequences assigned
316 (15.1%) exact matches, in which:
287 unique CDR3
6 unique J



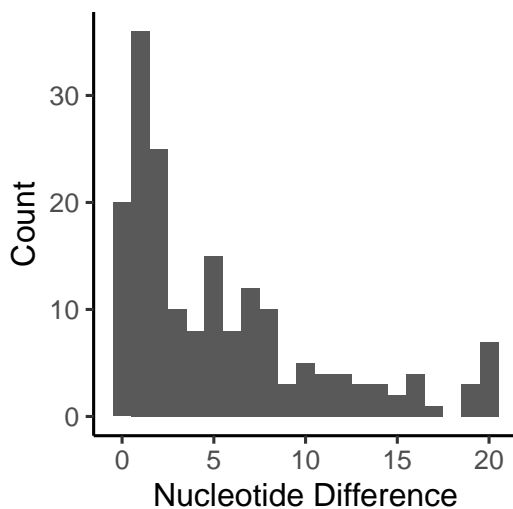
IGHV4-39*07

578 sequences assigned
No exact matches.



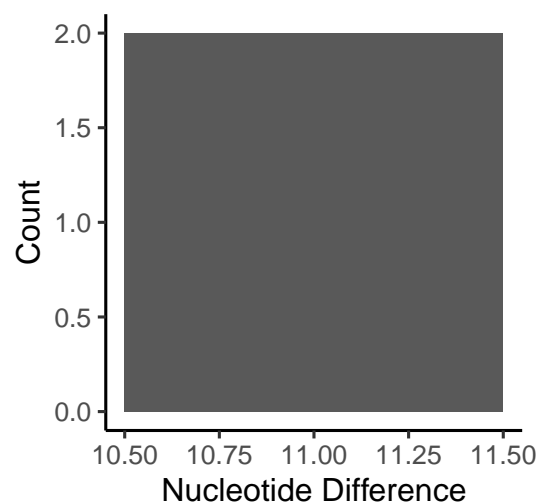
IGHV4-59*08

277 sequences assigned
20 (7.2%) exact matches, in which:
20 unique CDR3
4 unique J



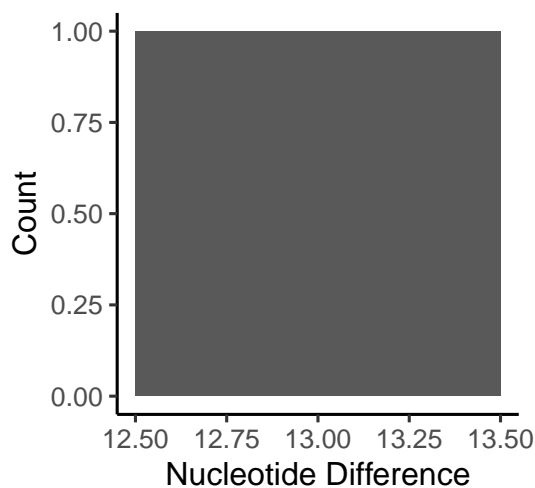
IGHV1/OR15-3*02

2 sequences assigned
No exact matches.



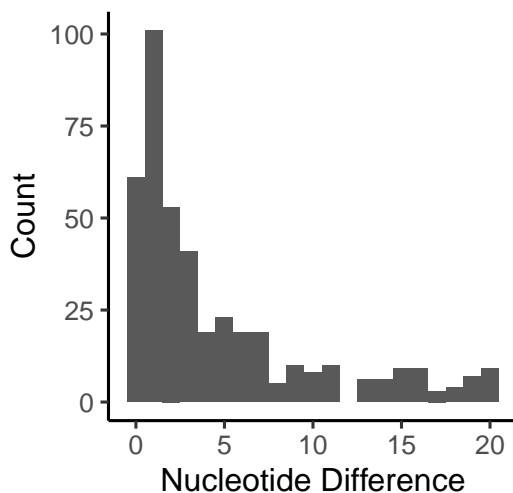
IGHV4-55*07

1 sequences assigned
No exact matches.



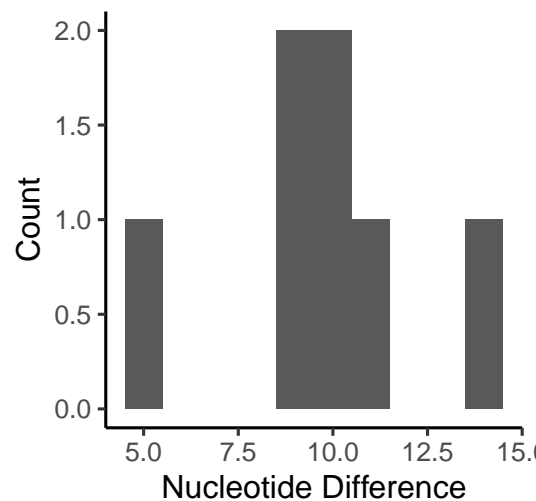
IGHV4-59*12

534 sequences assigned
61 (11.4%) exact matches, in which:
60 unique CDR3
5 unique J



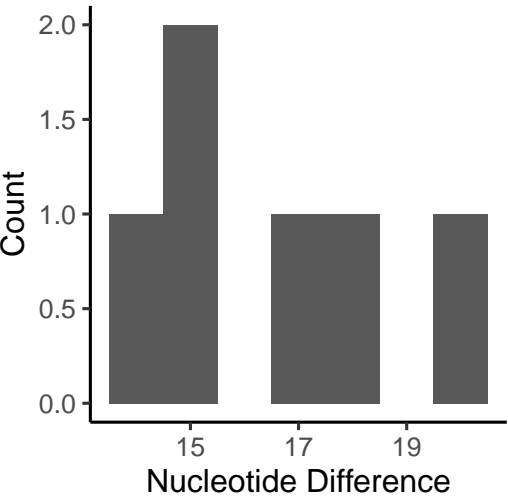
IGHV4/OR15-8*01

11 sequences assigned
No exact matches.



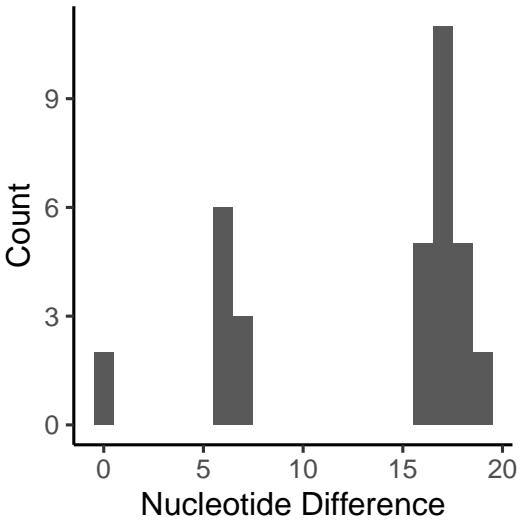
IGHV4/OR15-8*02

7 sequences assigned
No exact matches.



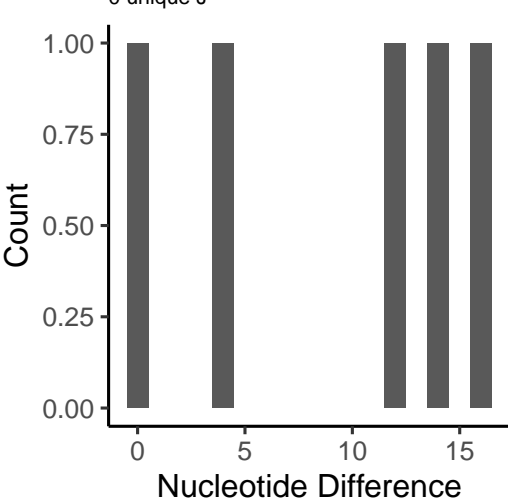
IGHV5-10-1*01_03

34 sequences assigned
2 (5.9%) exact matches, in which:
2 unique CDR3
1 unique J



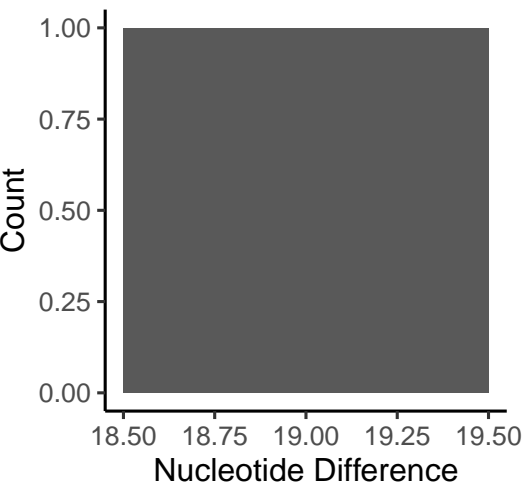
IGHV5-51*07

11 sequences assigned
1 (9.1%) exact matches, in which:
1 unique CDR3
0 unique J



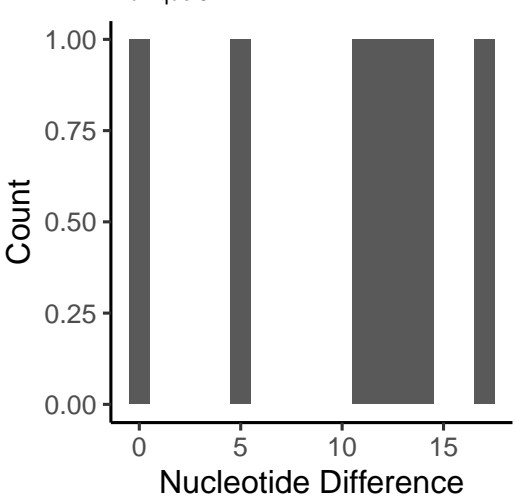
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



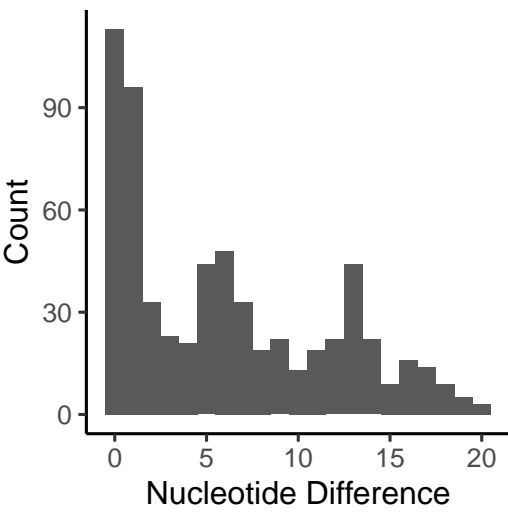
IGHV5-51*04

9 sequences assigned
1 (11.1%) exact matches, in which:
1 unique CDR3
1 unique J



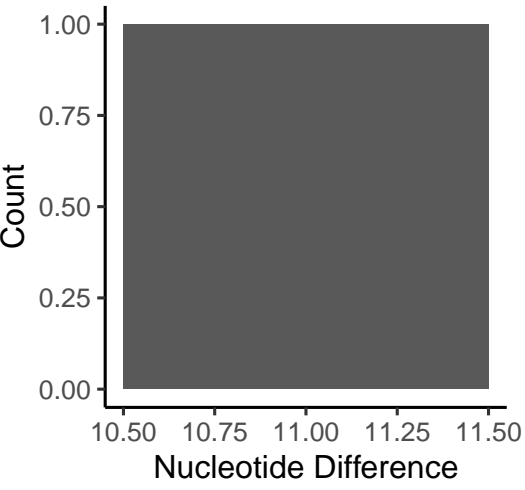
IGHV6-1*01_02

726 sequences assigned
113 (15.6%) exact matches, in which:
105 unique CDR3
6 unique J



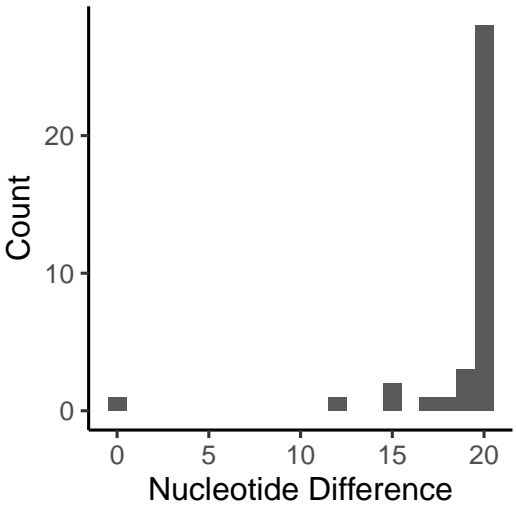
IGHV5-10-1*04

1 sequences assigned
No exact matches.



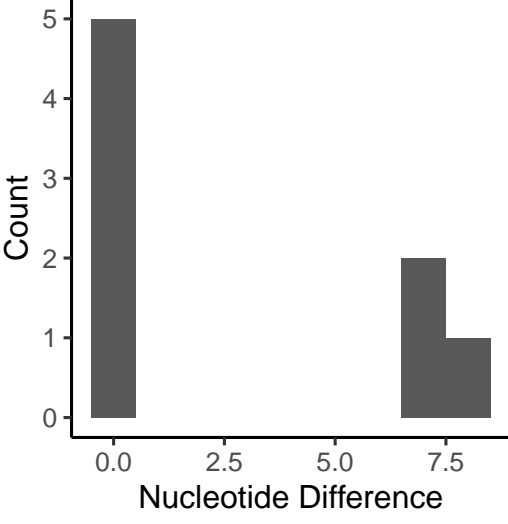
IGHV5-51*06

79 sequences assigned
1 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



IGHV7-4-1*01

8 sequences assigned
5 (62.5%) exact matches, in which:
4 unique CDR3
2 unique J



IGHV7-4-1*02

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J

