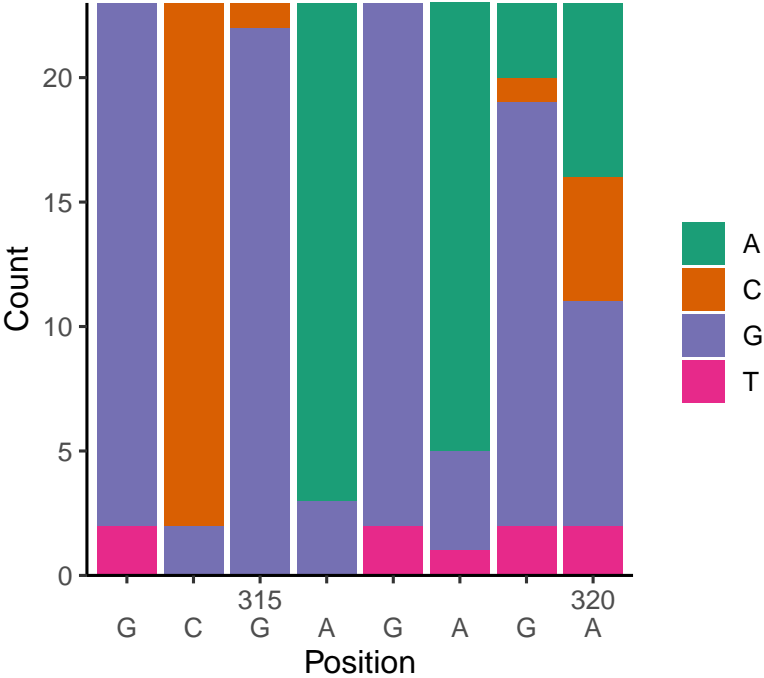
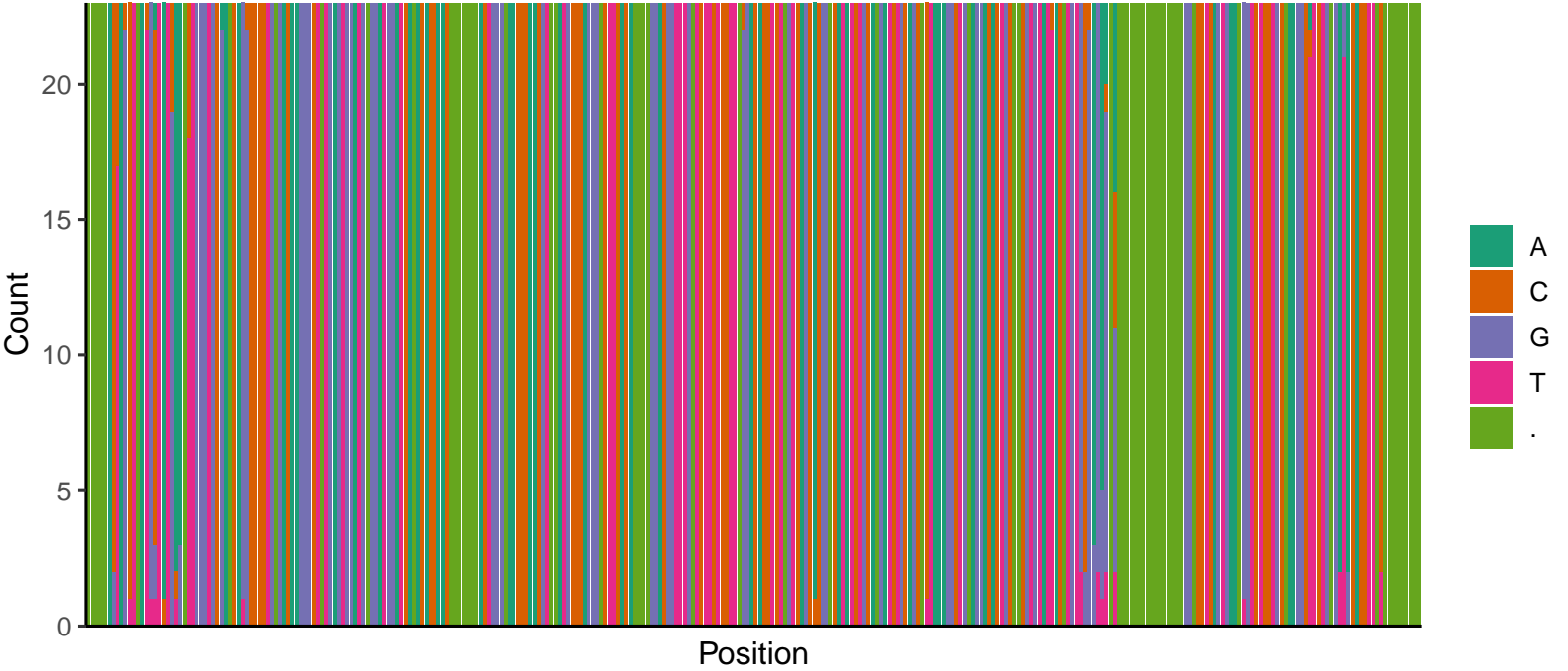


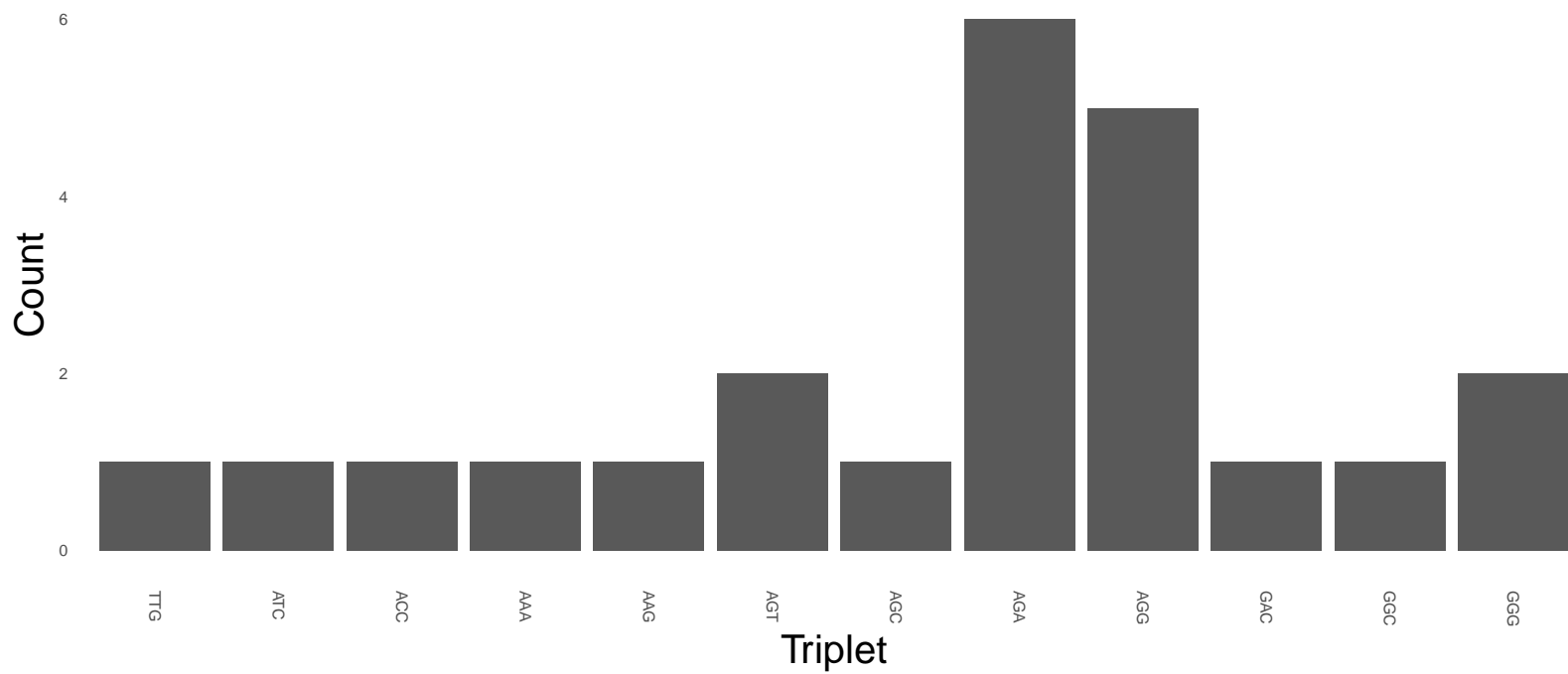
Gene IGHV7-4-1*01_T63C



Gene IGHV7-4-1*01_T63C

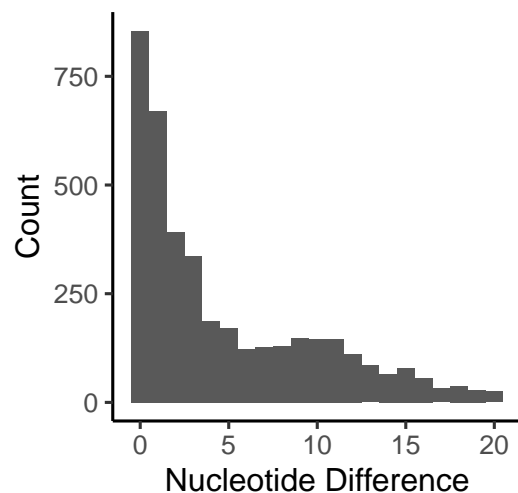


IGHV7-4-1*01_T63C- Final 3 nucleotides as a triplet



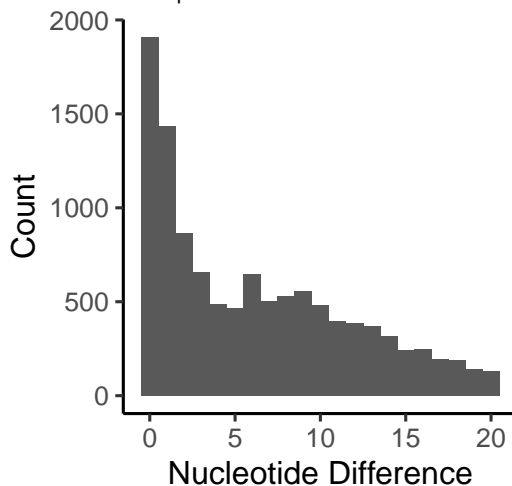
IGHV1-2*04

4152 sequences assigned
855 (20.6%) exact matches, in which:
798 unique CDR3
6 unique J



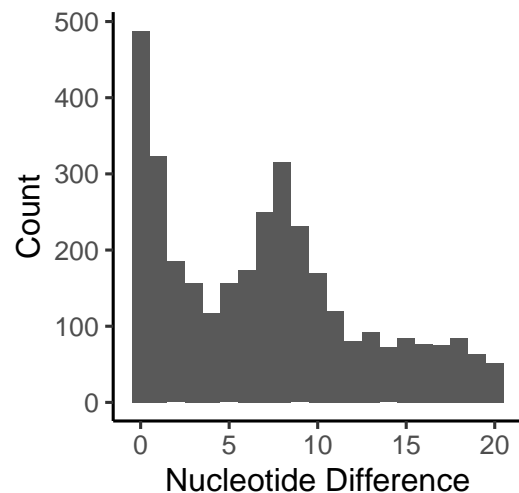
IGHV1-18*01

12001 sequences assigned
1907 (15.9%) exact matches, in which:
1780 unique CDR3
6 unique J



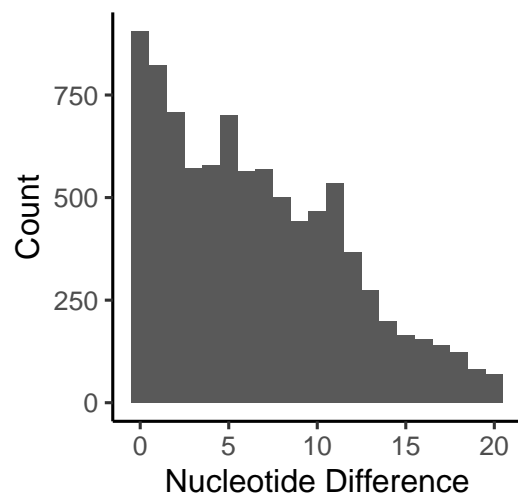
IGHV1-46*01

3817 sequences assigned
488 (12.8%) exact matches, in which:
465 unique CDR3
6 unique J



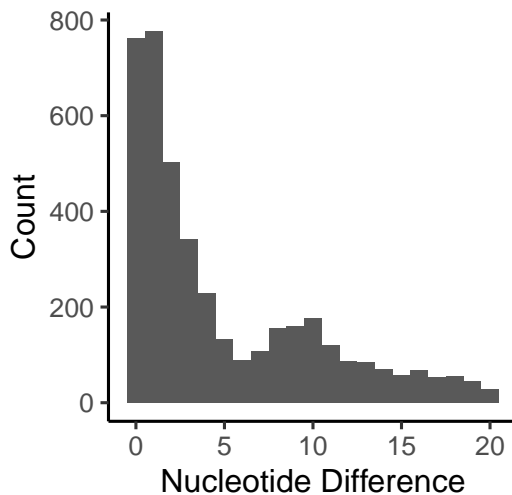
IGHV1-3*01_05

9560 sequences assigned
906 (9.5%) exact matches, in which:
823 unique CDR3
6 unique J



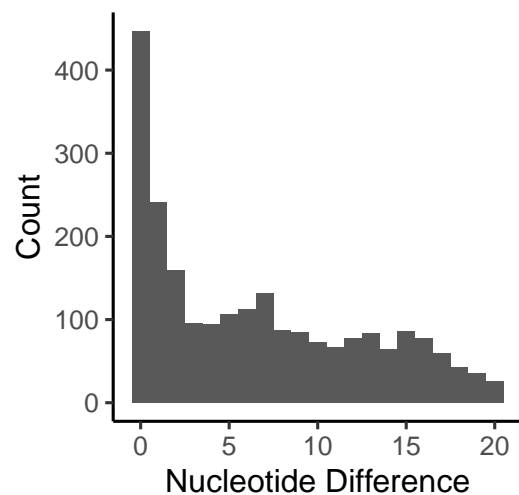
IGHV1-24*01

4212 sequences assigned
761 (18.1%) exact matches, in which:
694 unique CDR3
6 unique J



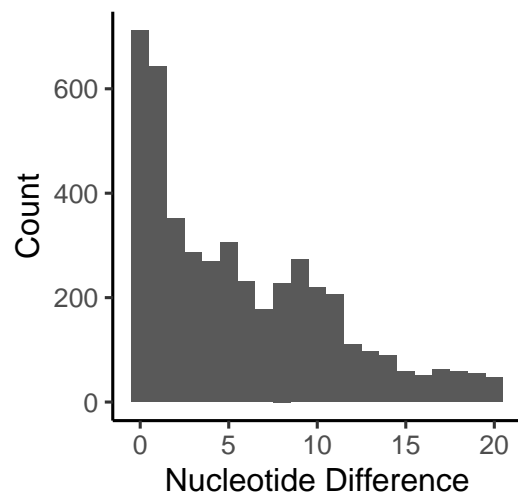
IGHV1-46*04

2468 sequences assigned
447 (18.1%) exact matches, in which:
428 unique CDR3
6 unique J



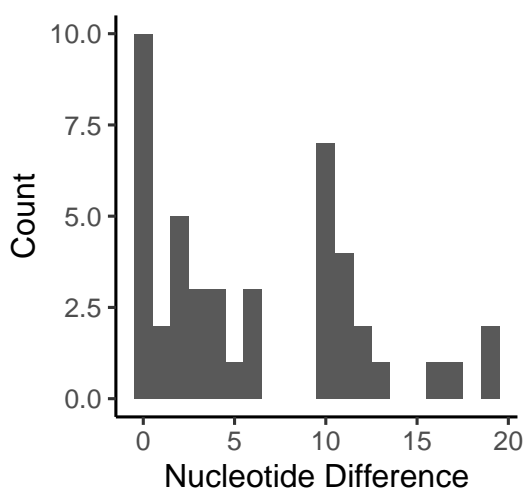
IGHV1-8*01

4797 sequences assigned
712 (14.8%) exact matches, in which:
656 unique CDR3
6 unique J



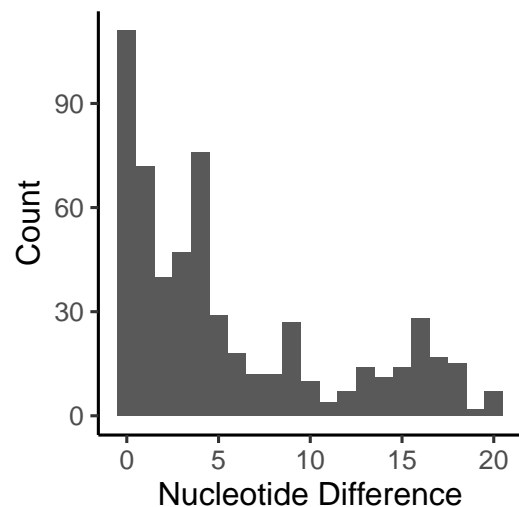
IGHV1-45*02

45 sequences assigned
10 (22.2%) exact matches, in which:
9 unique CDR3
3 unique J



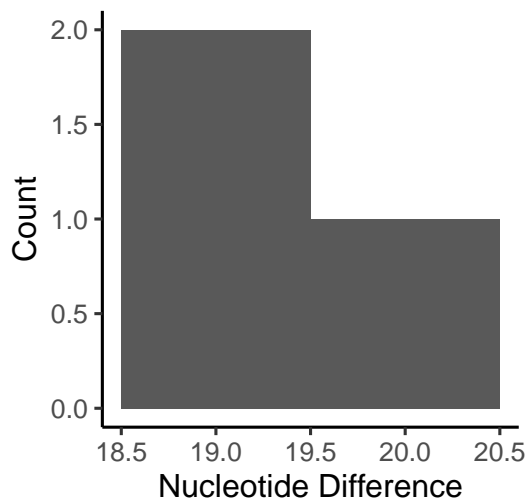
IGHV1-58*02

624 sequences assigned
111 (17.8%) exact matches, in which:
107 unique CDR3
6 unique J



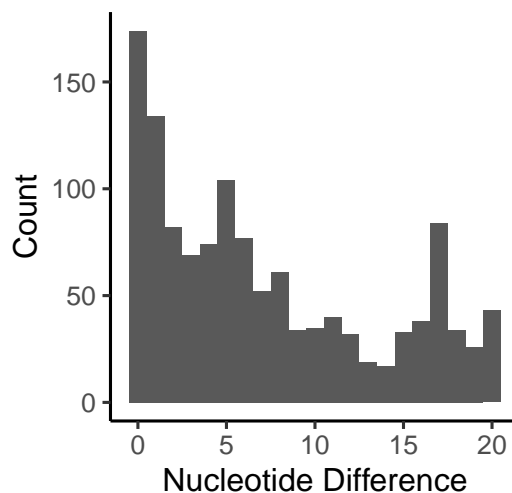
IGHV1-69-2*01

3 sequences assigned
No exact matches.



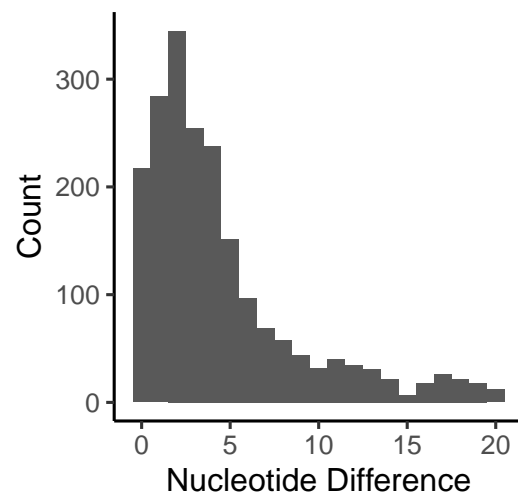
IGHV2-5*02

1414 sequences assigned
174 (12.3%) exact matches, in which:
159 unique CDR3
6 unique J



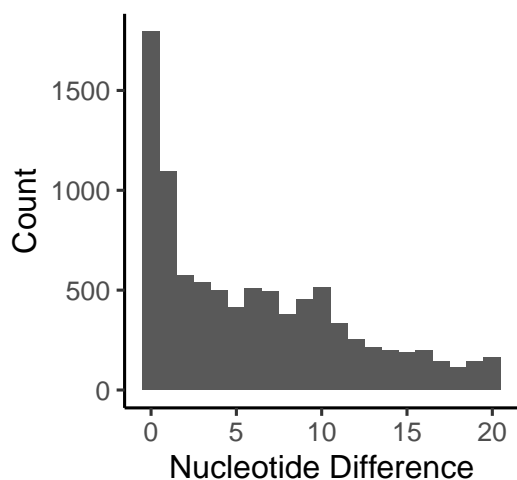
IGHV2-70*11_15

2106 sequences assigned
217 (10.3%) exact matches, in which:
198 unique CDR3
6 unique J



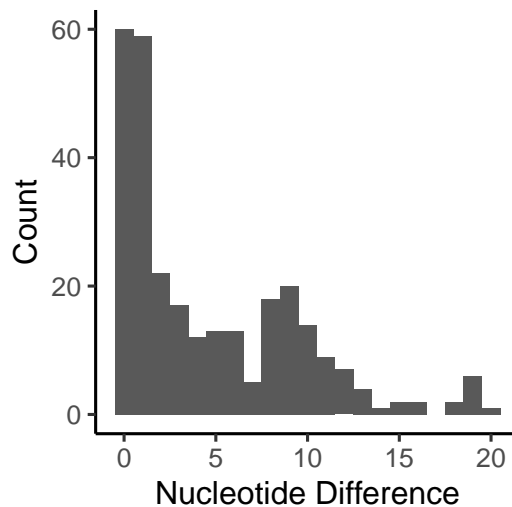
IGHV1-69*04_09

10081 sequences assigned
1794 (17.8%) exact matches, in which:
1721 unique CDR3
6 unique J



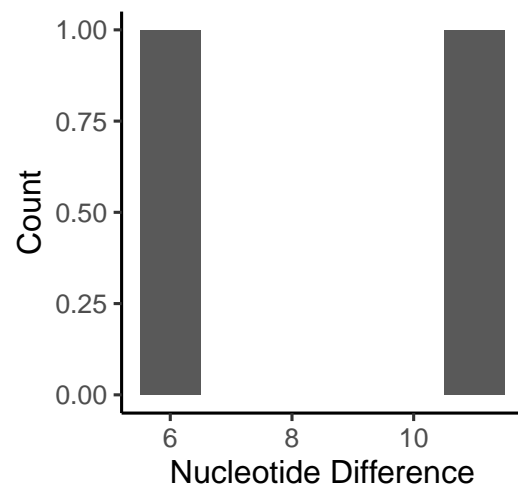
IGHV2-26*01

301 sequences assigned
60 (19.9%) exact matches, in which:
55 unique CDR3
5 unique J



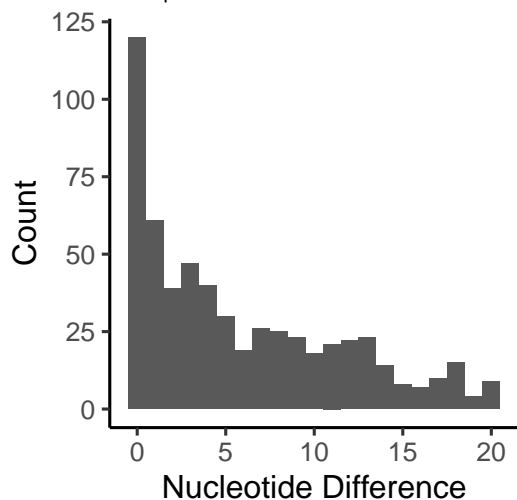
IGHV2-70D*04

3 sequences assigned
No exact matches.



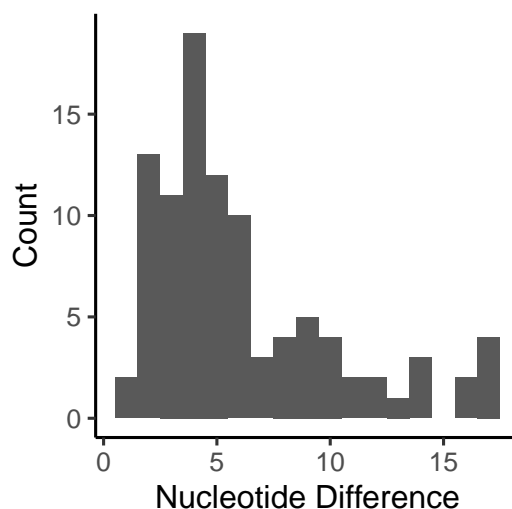
IGHV2-5*01

616 sequences assigned
120 (19.5%) exact matches, in which:
119 unique CDR3
6 unique J



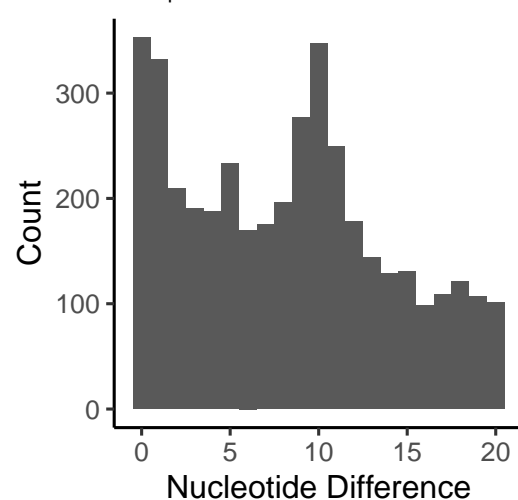
IGHV2-70*12

106 sequences assigned
No exact matches.



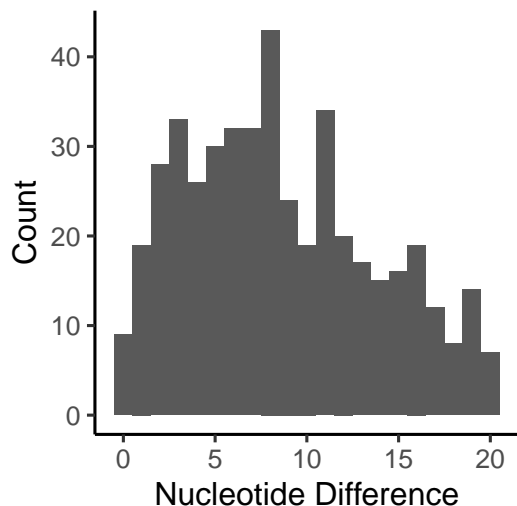
IGHV3-7*01

4407 sequences assigned
353 (8%) exact matches, in which:
316 unique CDR3
6 unique J



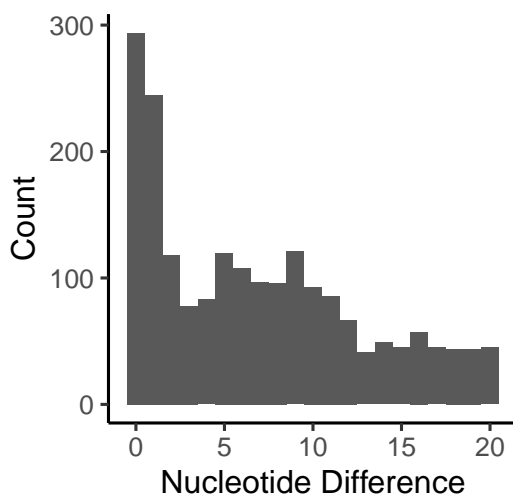
IGHV3-7*03

511 sequences assigned
9 (1.8%) exact matches, in which:
9 unique CDR3
4 unique J



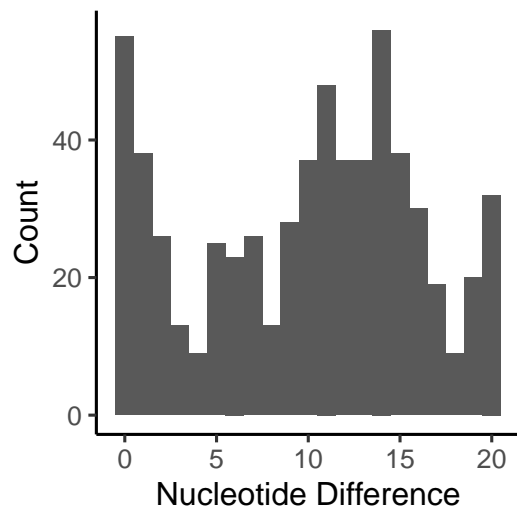
IGHV3-11*01

2306 sequences assigned
294 (12.7%) exact matches, in which:
272 unique CDR3
6 unique J



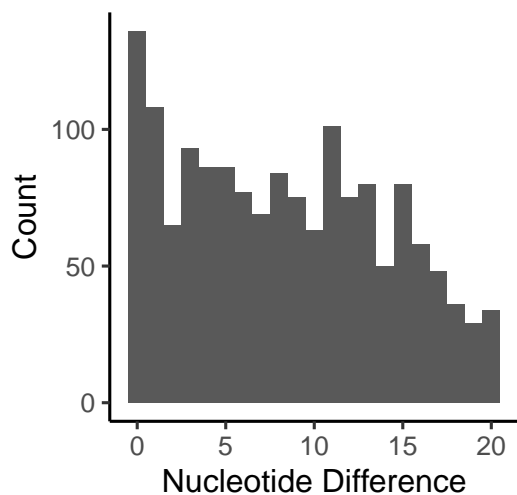
IGHV3-13*01

769 sequences assigned
55 (7.2%) exact matches, in which:
51 unique CDR3
5 unique J



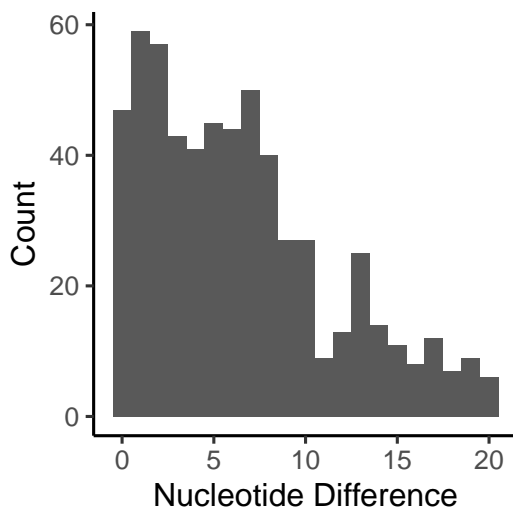
IGHV3-7*04

1724 sequences assigned
136 (7.9%) exact matches, in which:
127 unique CDR3
6 unique J



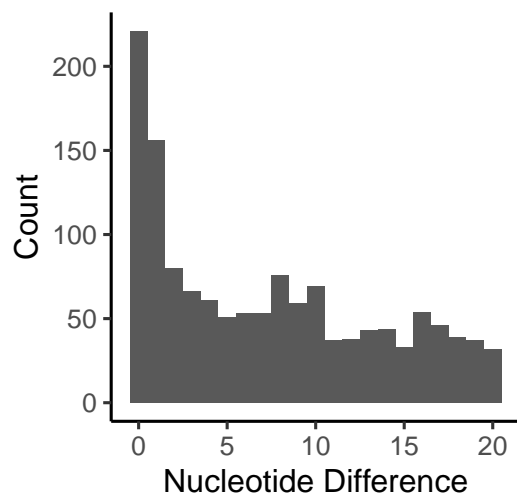
IGHV3-11*04

621 sequences assigned
47 (7.6%) exact matches, in which:
47 unique CDR3
6 unique J



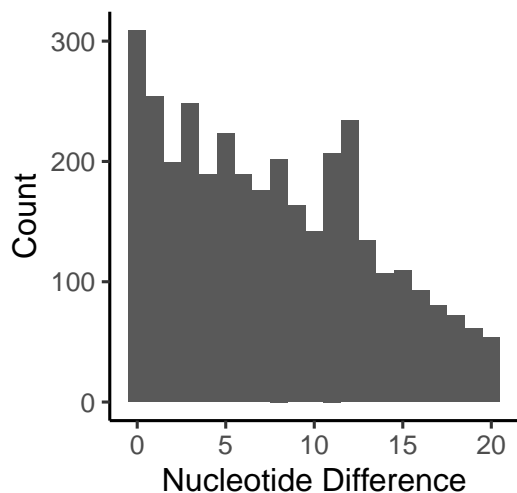
IGHV3-15*07

1540 sequences assigned
221 (14.4%) exact matches, in which:
211 unique CDR3
6 unique J



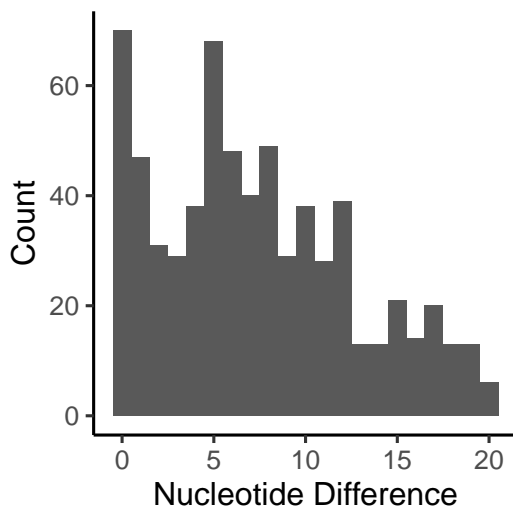
IGHV3-9*01

3766 sequences assigned
309 (8.2%) exact matches, in which:
281 unique CDR3
6 unique J



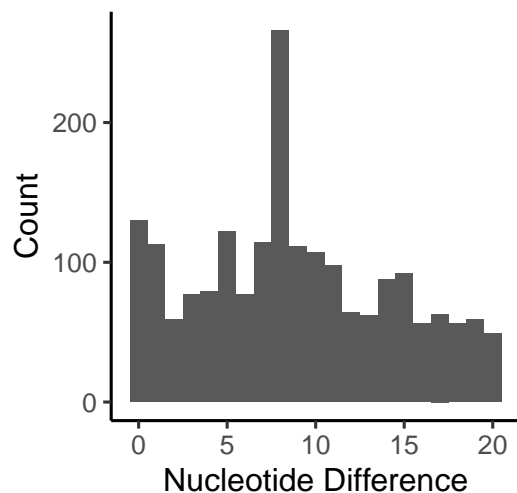
IGHV3-11*06

740 sequences assigned
70 (9.5%) exact matches, in which:
67 unique CDR3
6 unique J



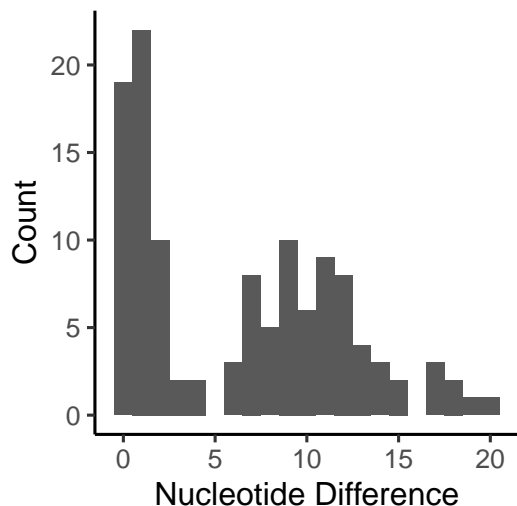
IGHV3-15*01_02

2443 sequences assigned
130 (5.3%) exact matches, in which:
126 unique CDR3
6 unique J



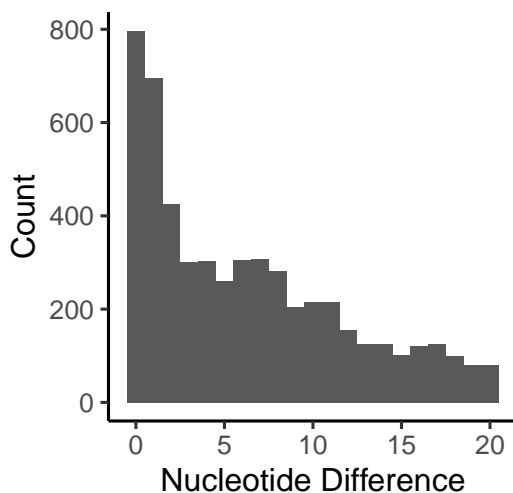
IGHV3-20*01_02

121 sequences assigned
19 (15.7%) exact matches, in which:
19 unique CDR3
5 unique J



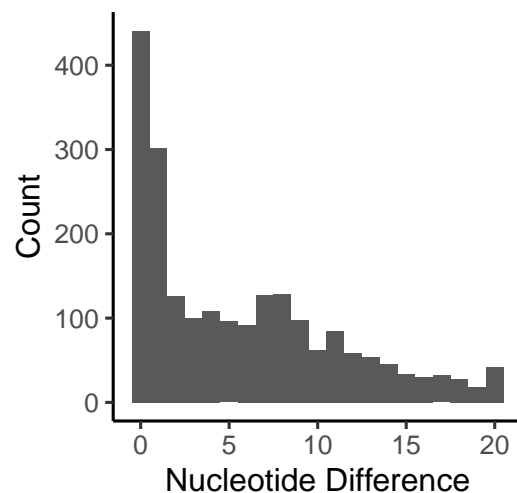
IGHV3-21*01_02

6320 sequences assigned
797 (12.6%) exact matches, in which:
743 unique CDR3
6 unique J



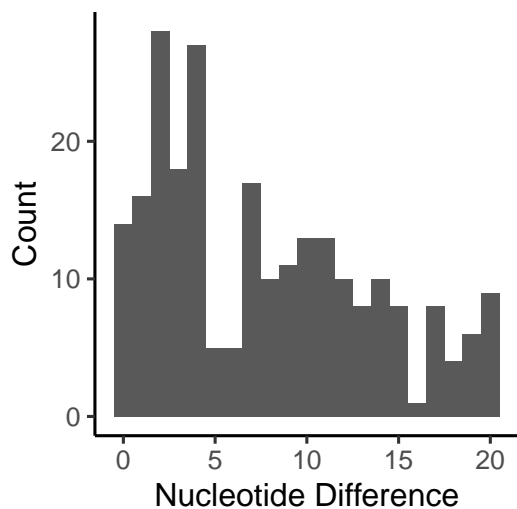
IGHV3-30*03

2302 sequences assigned
441 (19.2%) exact matches, in which:
397 unique CDR3
6 unique J



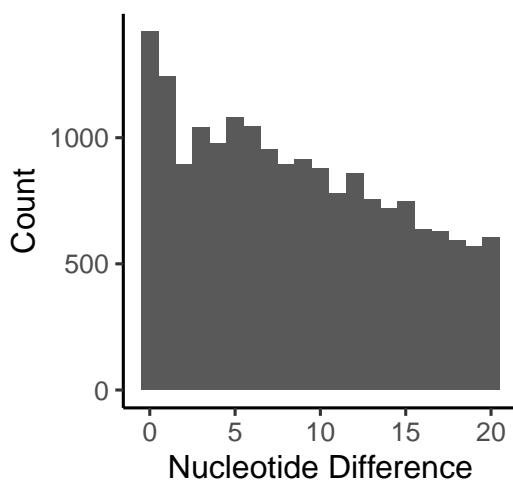
IGHV3-20*03_04

315 sequences assigned
14 (4.4%) exact matches, in which:
13 unique CDR3
3 unique J



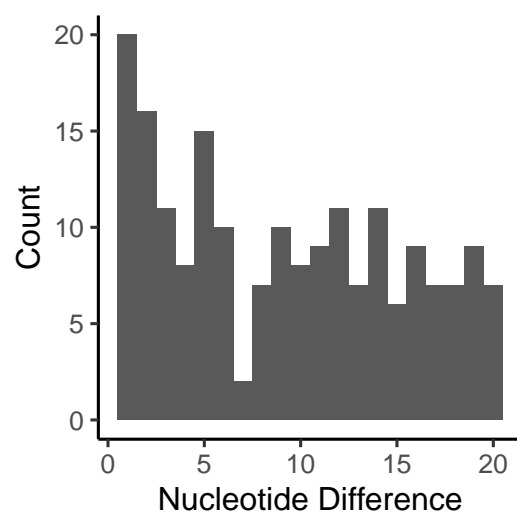
IGHV3-23*01_04

21506 sequences assigned
1420 (6.6%) exact matches, in which:
1337 unique CDR3
6 unique J



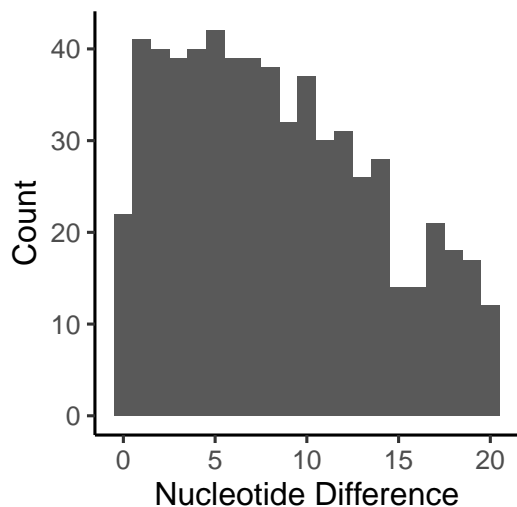
IGHV3-30*04

263 sequences assigned
No exact matches.



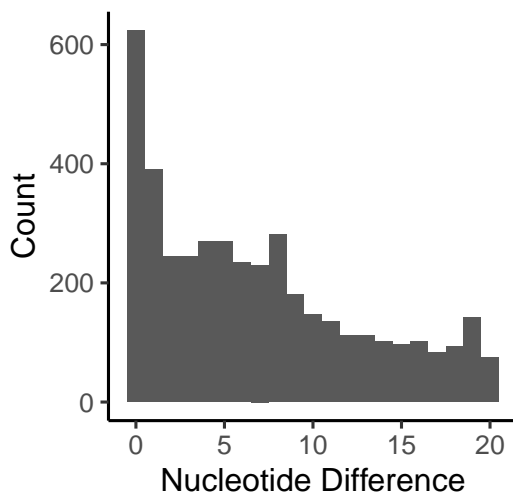
IGHV3-21*04

755 sequences assigned
22 (2.9%) exact matches, in which:
22 unique CDR3
6 unique J



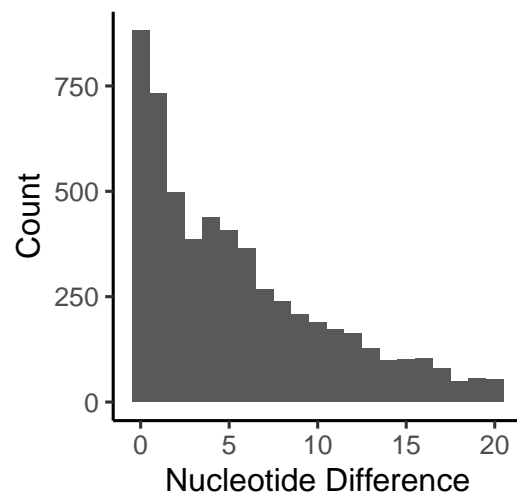
IGHV3-30-3*01

4684 sequences assigned
624 (13.3%) exact matches, in which:
596 unique CDR3
6 unique J



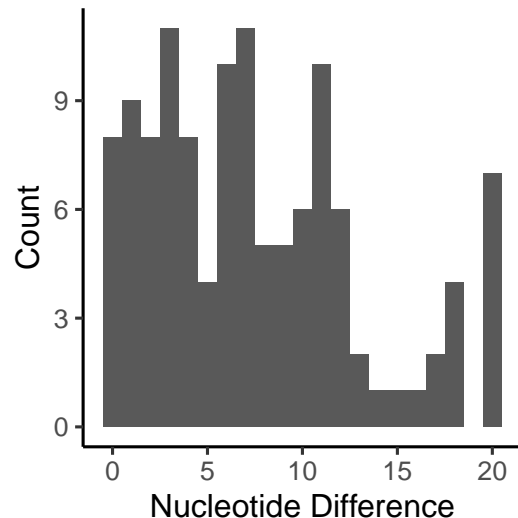
IGHV3-33*01

5970 sequences assigned
882 (14.8%) exact matches, in which:
835 unique CDR3
6 unique J



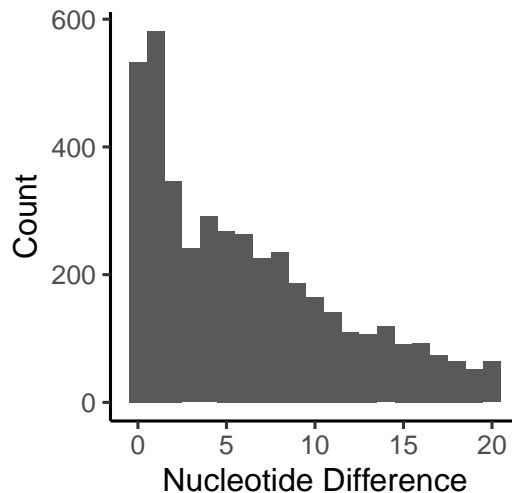
IGHV3-33*05

186 sequences assigned
8 (4.3%) exact matches, in which:
8 unique CDR3
3 unique J



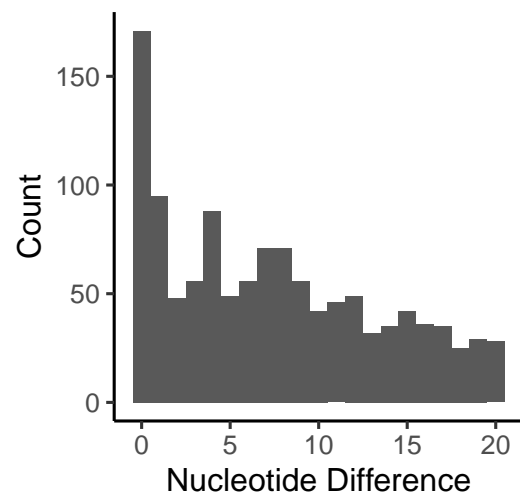
IGHV3-48*01

4536 sequences assigned
533 (11.8%) exact matches, in which:
476 unique CDR3
6 unique J



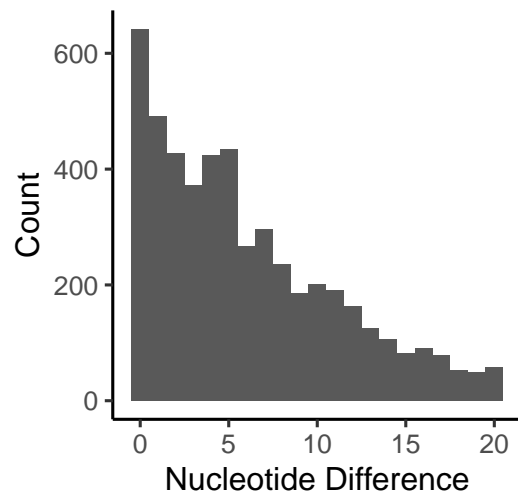
IGHV3-49*03_05

1372 sequences assigned
171 (12.5%) exact matches, in which:
158 unique CDR3
6 unique J



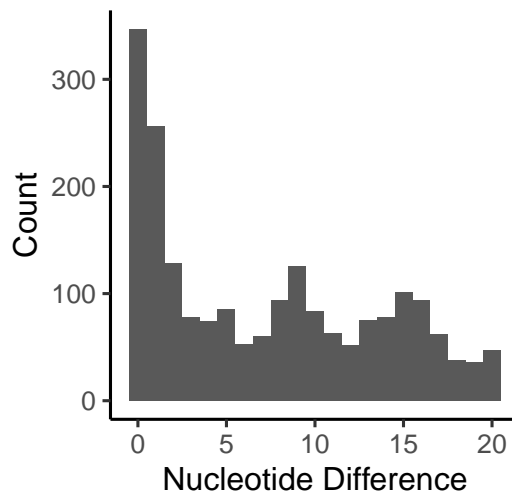
IGHV3-33*08

5300 sequences assigned
642 (12.1%) exact matches, in which:
610 unique CDR3
6 unique J



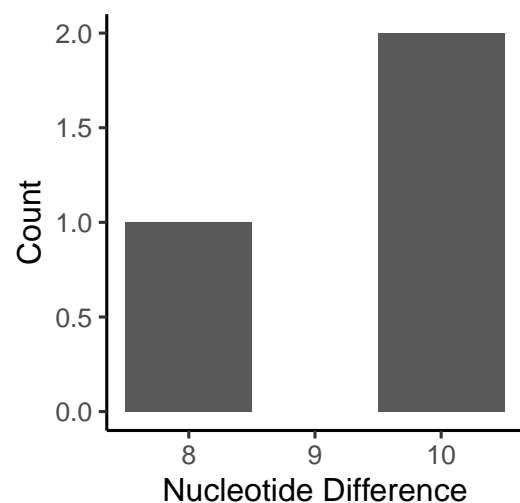
IGHV3-48*02

2387 sequences assigned
347 (14.5%) exact matches, in which:
315 unique CDR3
6 unique J



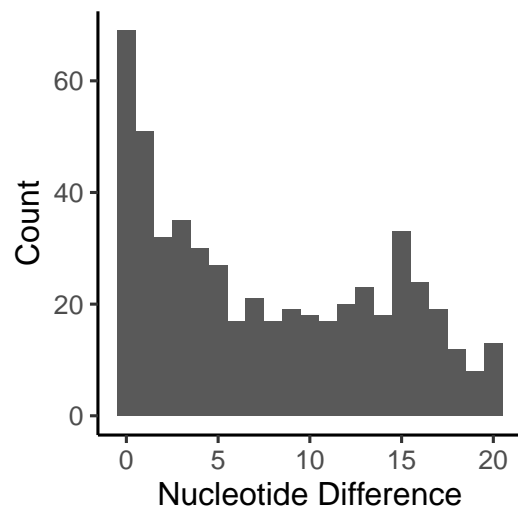
IGHV3-52*01_03

3 sequences assigned
No exact matches.



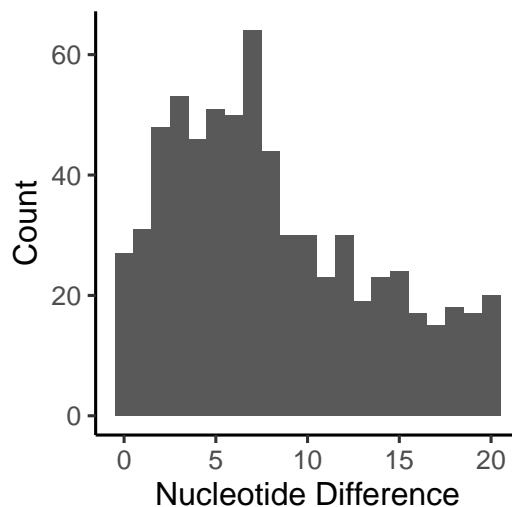
IGHV3-43*01

650 sequences assigned
69 (10.6%) exact matches, in which:
66 unique CDR3
6 unique J



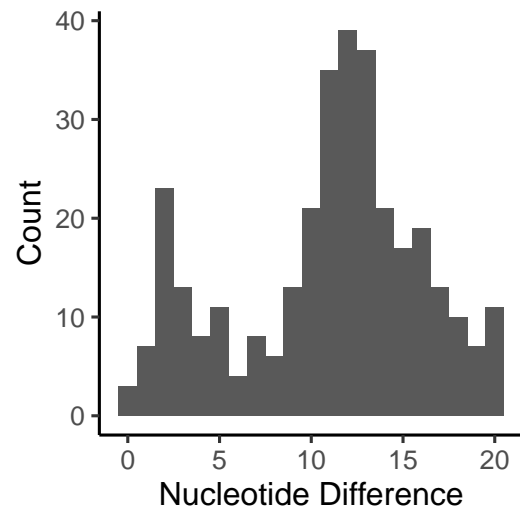
IGHV3-48*04

760 sequences assigned
27 (3.6%) exact matches, in which:
27 unique CDR3
5 unique J



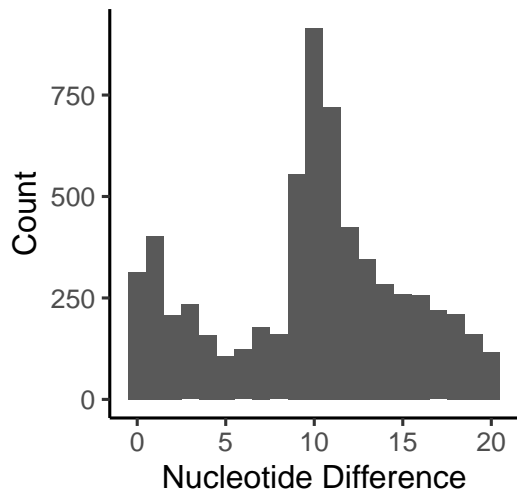
IGHV3-53*05

365 sequences assigned
3 (0.8%) exact matches, in which:
3 unique CDR3
2 unique J



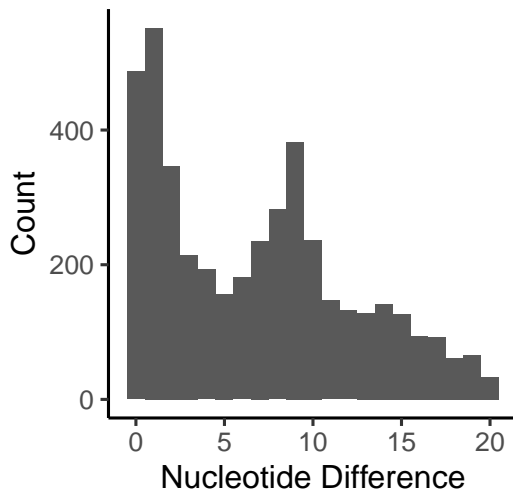
IGHV3-53*01_02

7214 sequences assigned
313 (4.3%) exact matches, in which:
274 unique CDR3
6 unique J



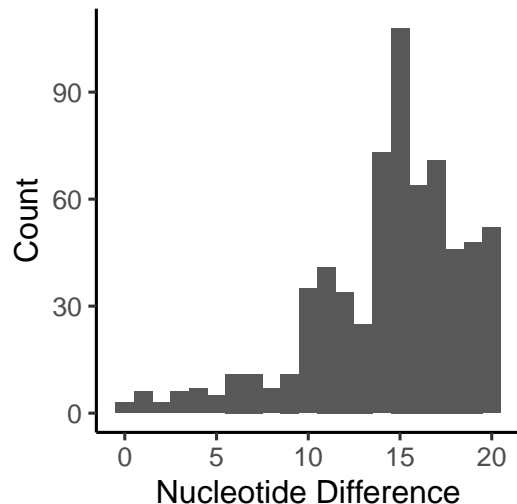
IGHV3-66*01

4677 sequences assigned
487 (10.4%) exact matches, in which:
452 unique CDR3
6 unique J



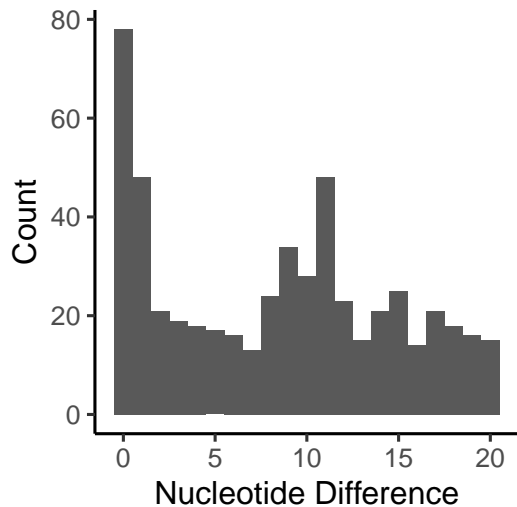
IGHV3-72*01

1149 sequences assigned
3 (0.3%) exact matches, in which:
3 unique CDR3
2 unique J



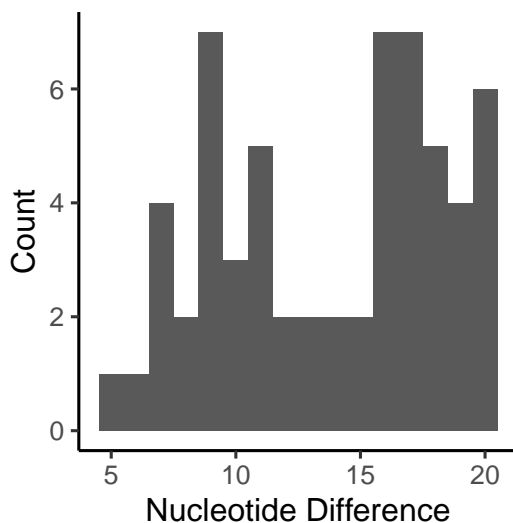
IGHV3-64*01

590 sequences assigned
78 (13.2%) exact matches, in which:
72 unique CDR3
6 unique J



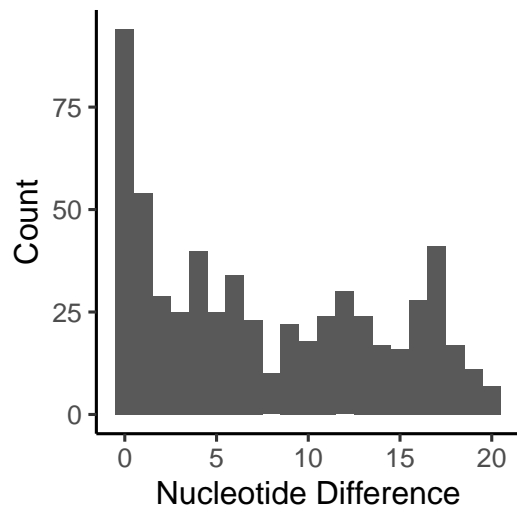
IGHV3-69-1*01

80 sequences assigned
No exact matches.



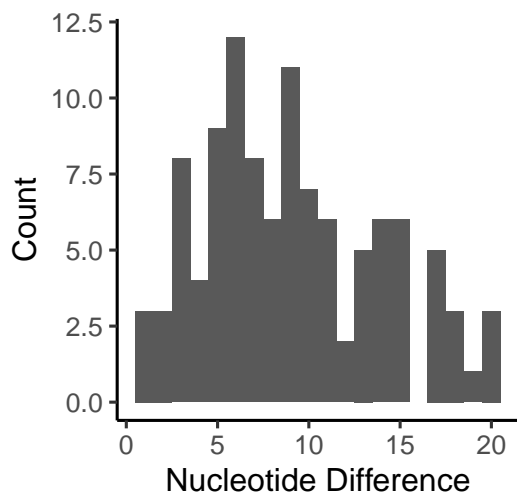
IGHV3-73*01_02

666 sequences assigned
94 (14.1%) exact matches, in which:
88 unique CDR3
6 unique J



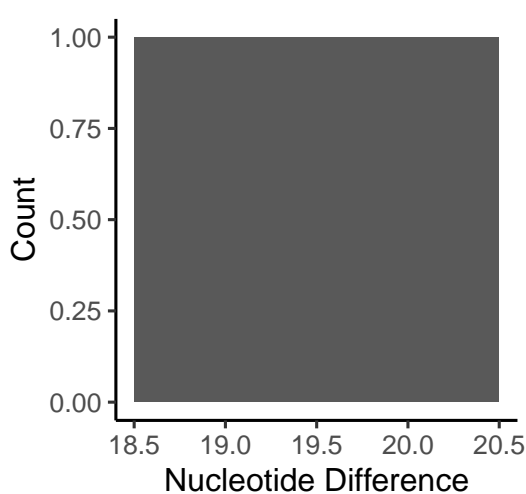
IGHV3-64*04

117 sequences assigned
No exact matches.



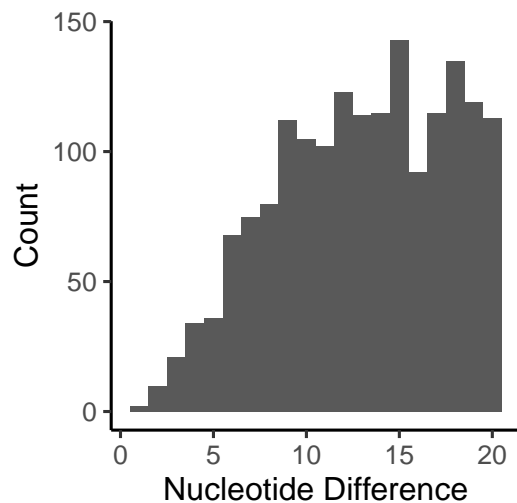
IGHV3-71*01_04

25 sequences assigned
No exact matches.



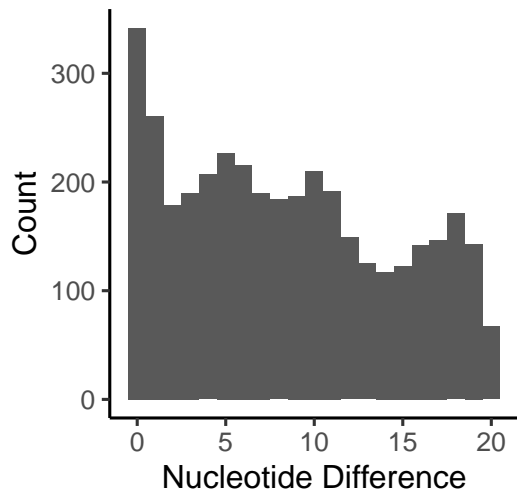
IGHV3-74*03

2191 sequences assigned
No exact matches.



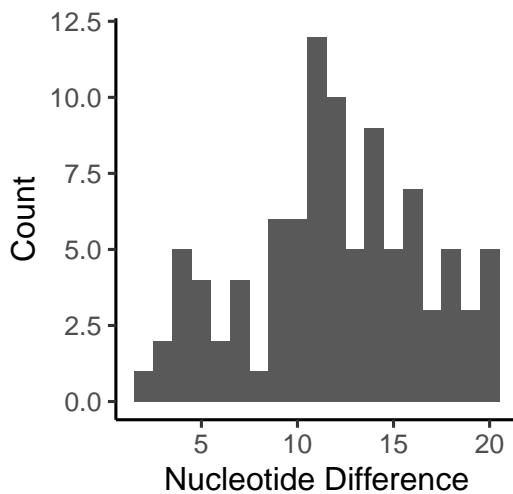
IGHV3-74*01_02

4123 sequences assigned
342 (8.3%) exact matches, in which:
317 unique CDR3
6 unique J



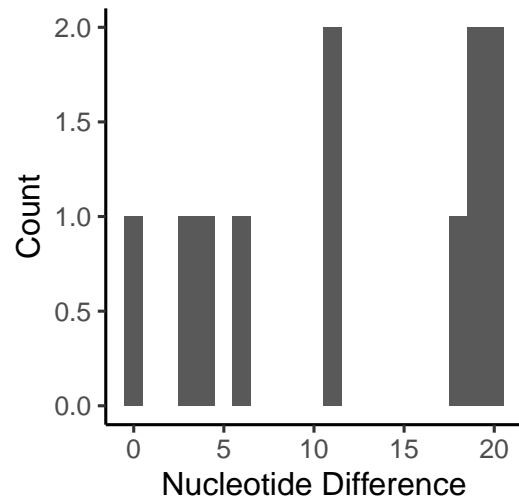
IGHV3-NL1*01

107 sequences assigned
No exact matches.



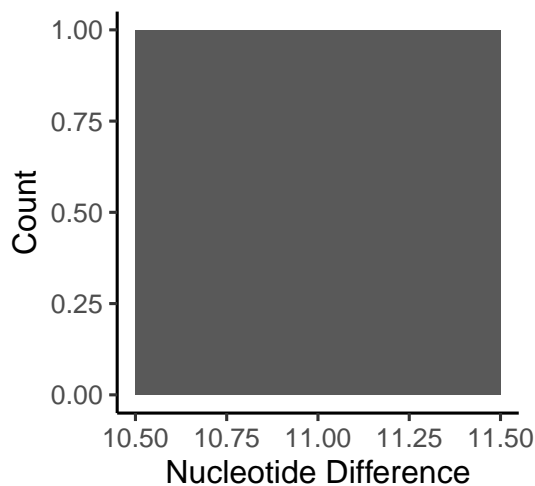
IGHV4-28*01_07

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



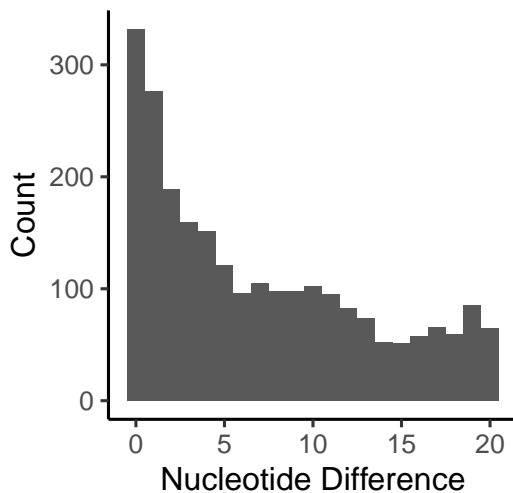
IGHV3-43D*04

4 sequences assigned
No exact matches.



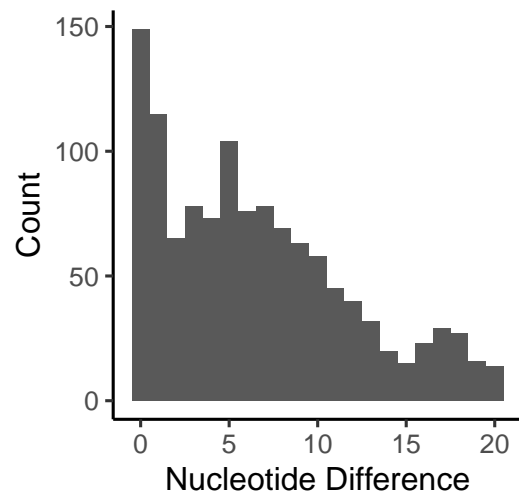
IGHV4-4*02_03

2813 sequences assigned
332 (11.8%) exact matches, in which:
301 unique CDR3
6 unique J



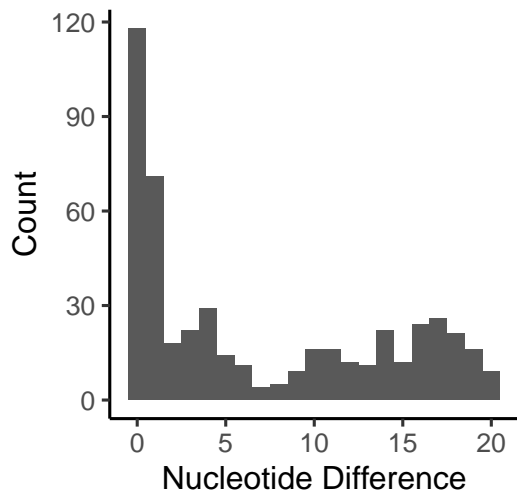
IGHV4-30-4*01

1335 sequences assigned
149 (11.2%) exact matches, in which:
141 unique CDR3
6 unique J



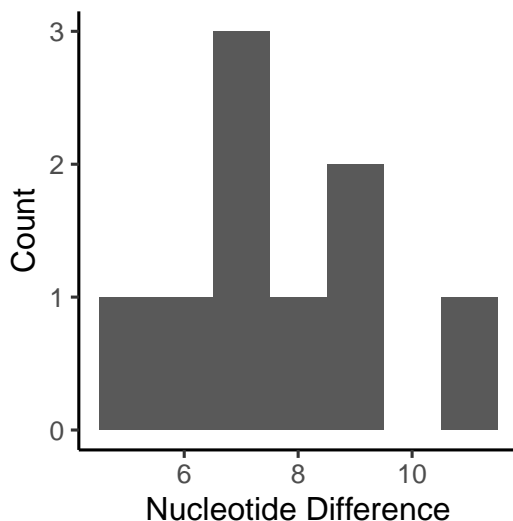
IGHV3-64D*06

643 sequences assigned
118 (18.4%) exact matches, in which:
109 unique CDR3
6 unique J



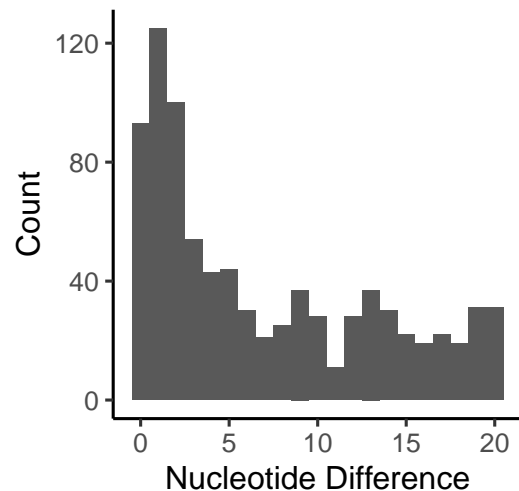
IGHV4-28*03

9 sequences assigned
No exact matches.



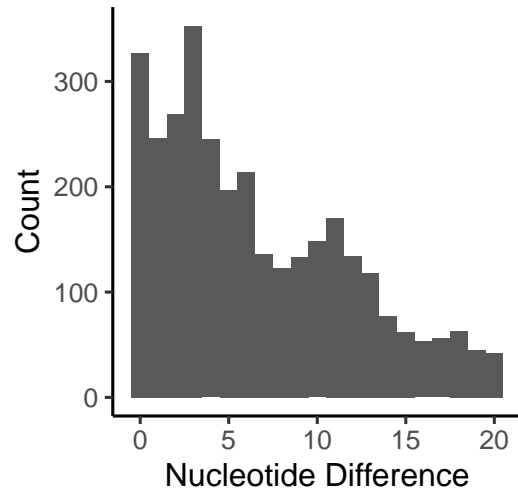
IGHV4-30-2*01

1003 sequences assigned
93 (9.3%) exact matches, in which:
82 unique CDR3
6 unique J



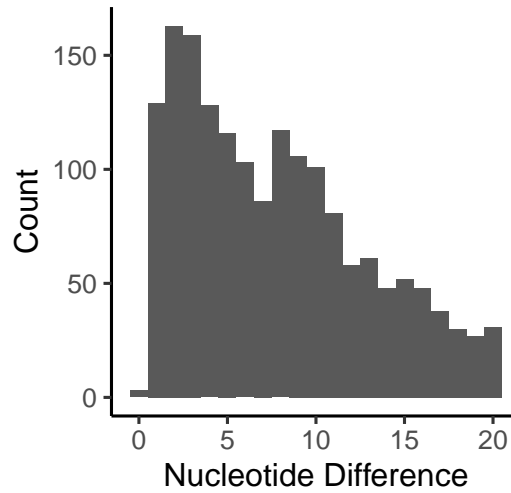
IGHV4-31*02

3448 sequences assigned
327 (9.5%) exact matches, in which:
308 unique CDR3
6 unique J



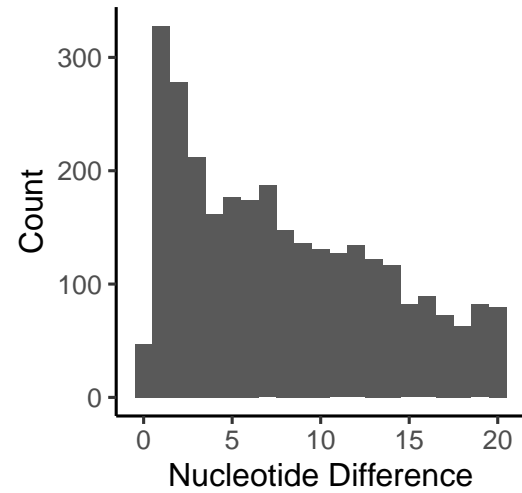
IGHV4-39*07

2092 sequences assigned
3 (0.1%) exact matches, in which:
3 unique CDR3
2 unique J



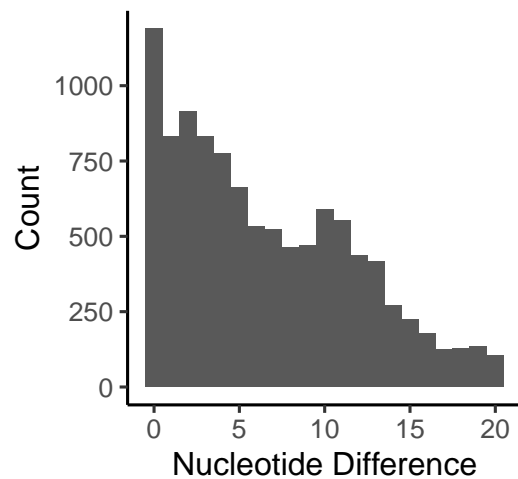
IGHV4-59*12

3571 sequences assigned
47 (1.3%) exact matches, in which:
47 unique CDR3
6 unique J



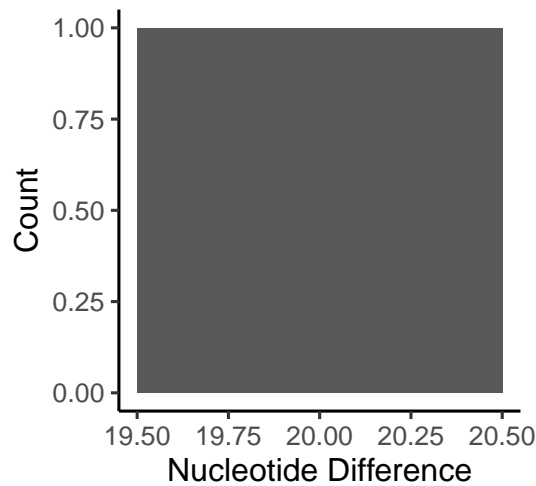
IGHV4-34*01_02

11094 sequences assigned
1189 (10.7%) exact matches, in which:
1138 unique CDR3
6 unique J



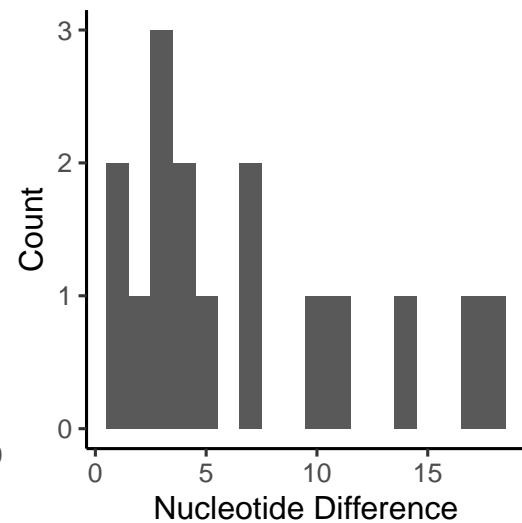
IGHV4-55*09

1 sequences assigned
No exact matches.



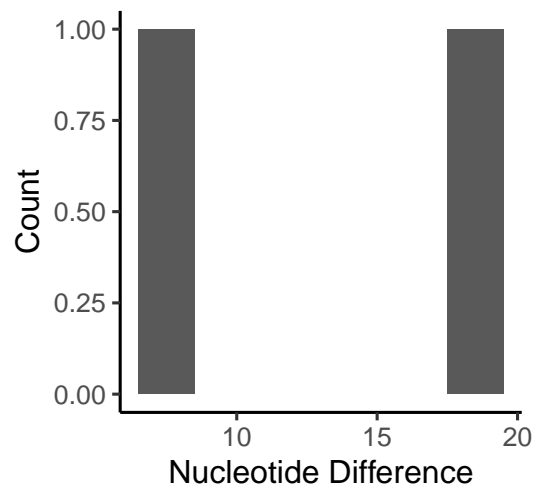
IGHV4-61*05

19 sequences assigned
No exact matches.



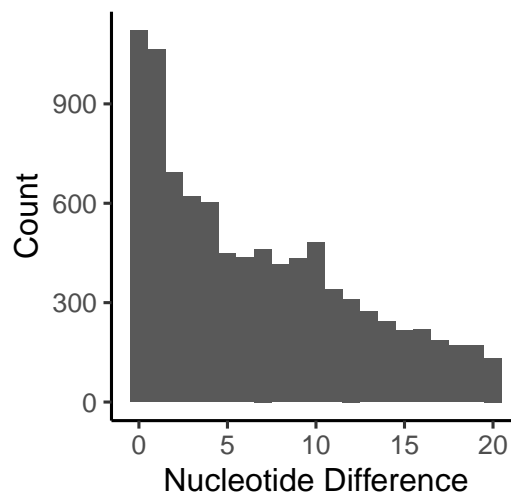
IGHV4-38-2*01

7 sequences assigned
No exact matches.



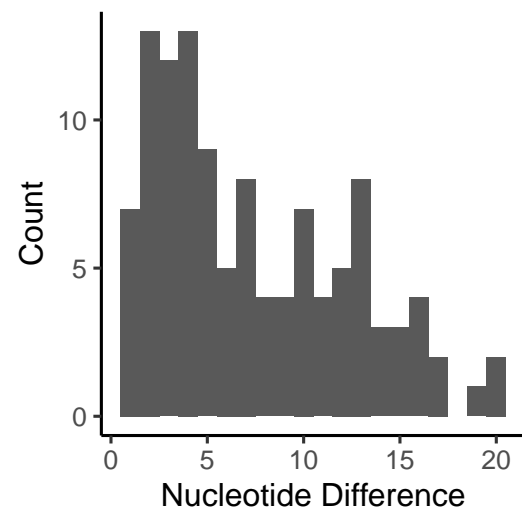
IGHV4-59*08

10171 sequences assigned
1122 (11%) exact matches, in which:
1042 unique CDR3
6 unique J



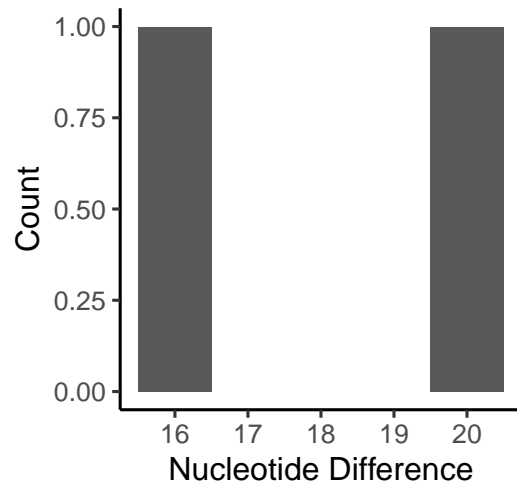
IGHV4-61*08

132 sequences assigned
No exact matches.



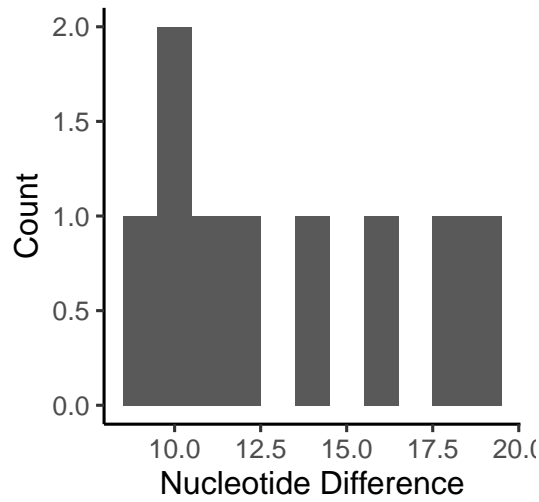
IGHV1/OR15-1*04

4 sequences assigned
No exact matches.



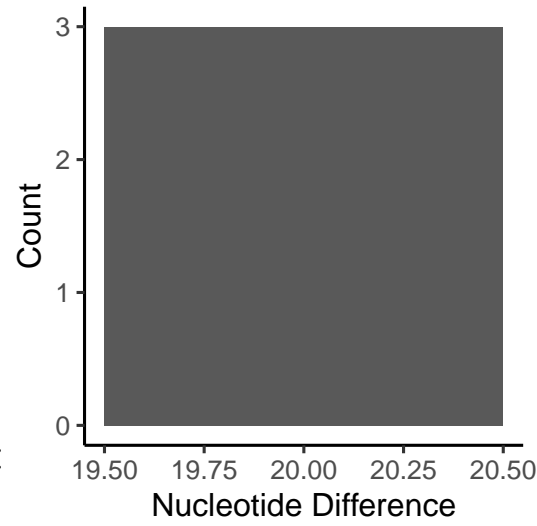
IGHV1/OR15-3*02

9 sequences assigned
No exact matches.



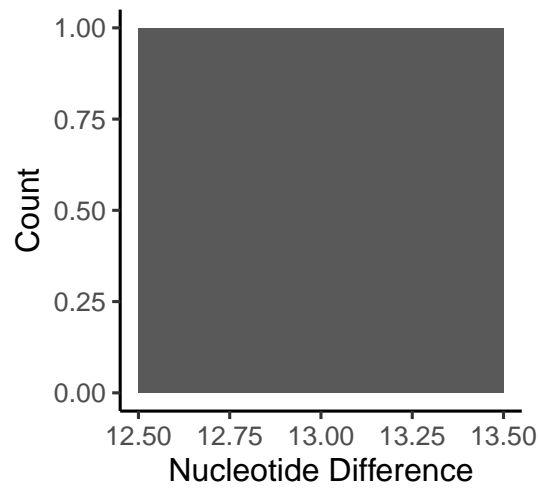
IGHV4/OR15-8*02

14 sequences assigned
No exact matches.



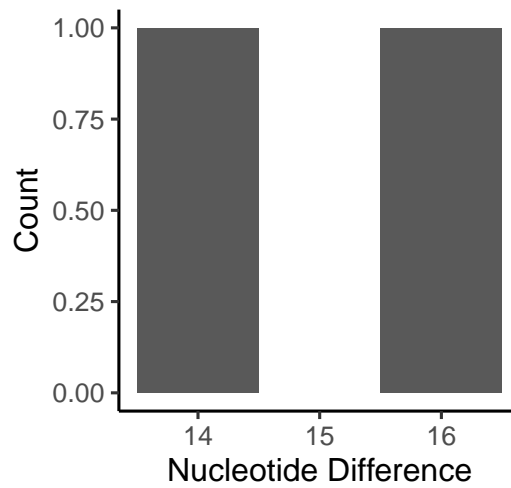
IGHV1/OR15-2*01

1 sequences assigned
No exact matches.



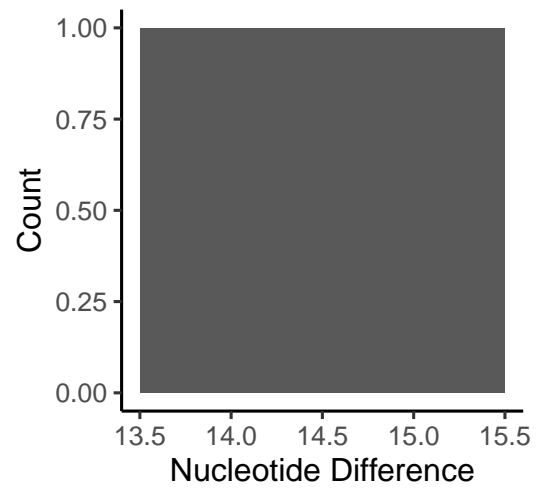
IGHV1/OR15-4*01

2 sequences assigned
No exact matches.



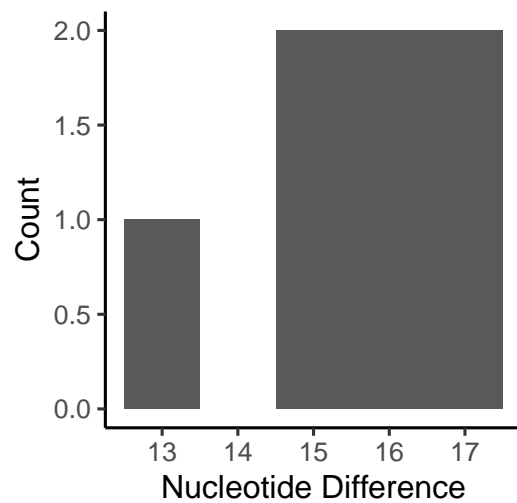
IGHV4/OR15-8*03

3 sequences assigned
No exact matches.



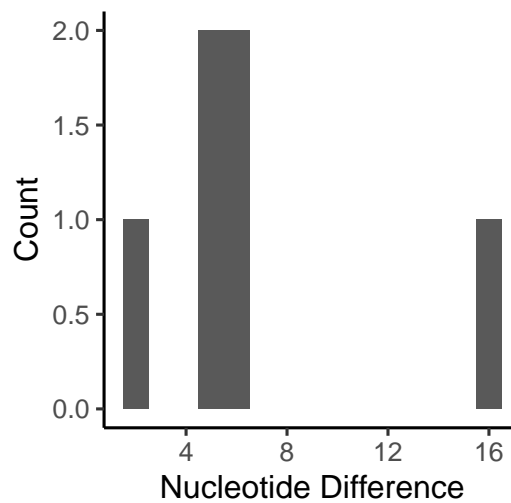
IGHV1/OR15-2*02_03

17 sequences assigned
No exact matches.



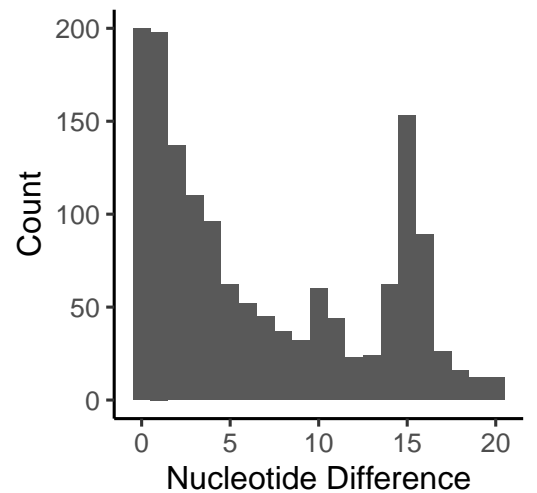
IGHV4/OR15-8*01

9 sequences assigned
No exact matches.



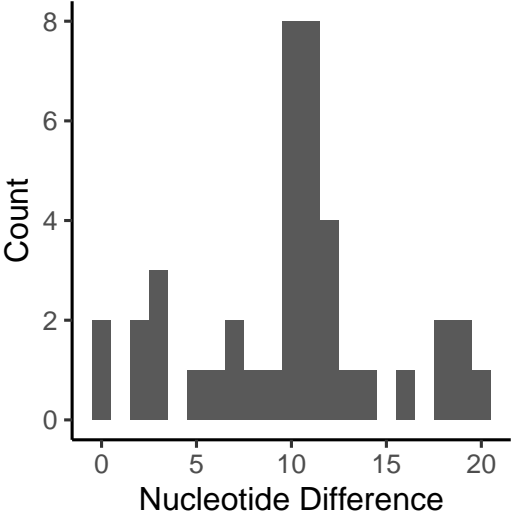
IGHV5-10-1*01_03

1840 sequences assigned
200 (10.9%) exact matches, in which:
188 unique CDR3
6 unique J



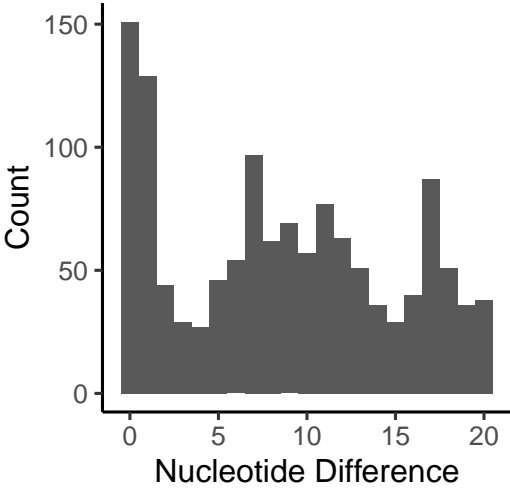
IGHV5-51*04

43 sequences assigned
2 (4.7%) exact matches, in which:
2 unique CDR3
2 unique J



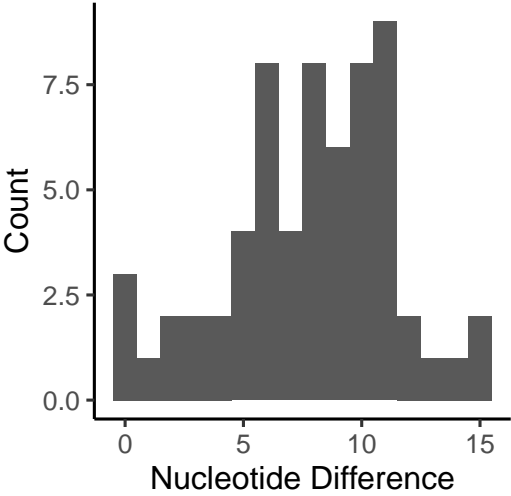
IGHV6-1*01_02

1419 sequences assigned
151 (10.6%) exact matches, in which:
146 unique CDR3
5 unique J



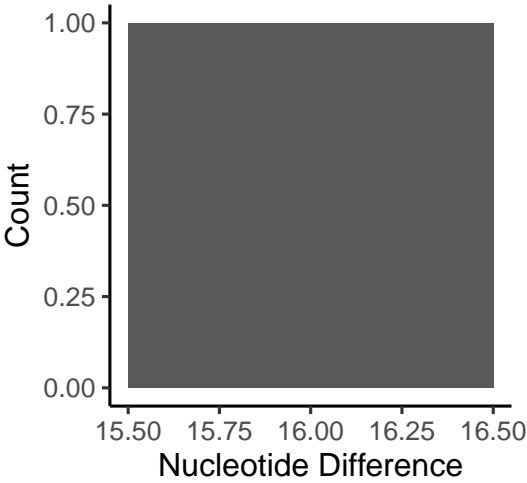
IGHV5-51*06

64 sequences assigned
3 (4.7%) exact matches, in which:
3 unique CDR3
2 unique J



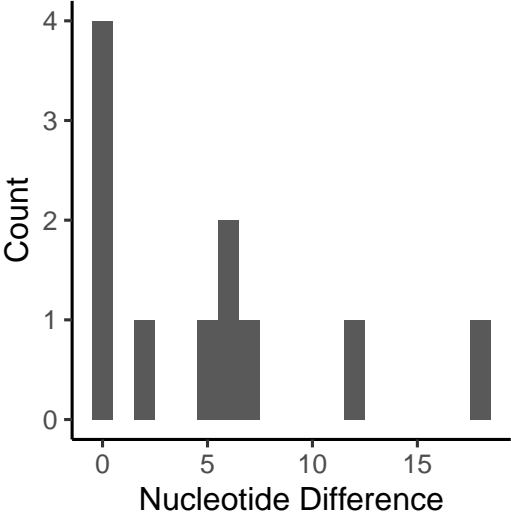
IGHV3/OR16-6*02

1 sequences assigned
No exact matches.



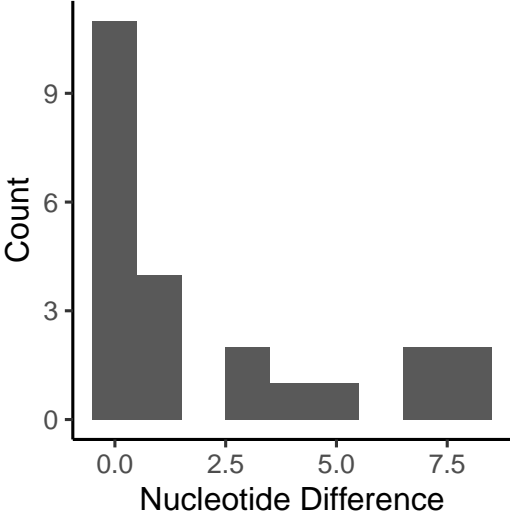
IGHV5-51*07

12 sequences assigned
4 (33.3%) exact matches, in which:
4 unique CDR3
2 unique J

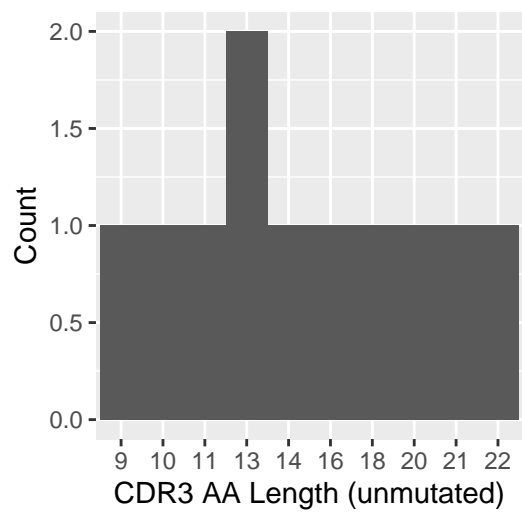


IGHV7-4-1*01_T63C

23 sequences assigned
11 (47.8%) exact matches, in which:
11 unique CDR3
4 unique J



IGHV7-4-1*01_T63C





[illegible]