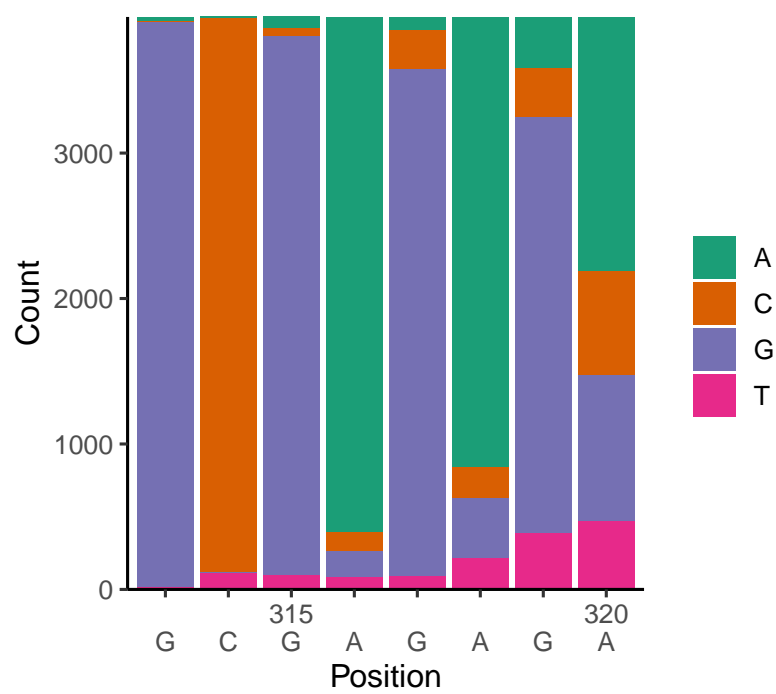
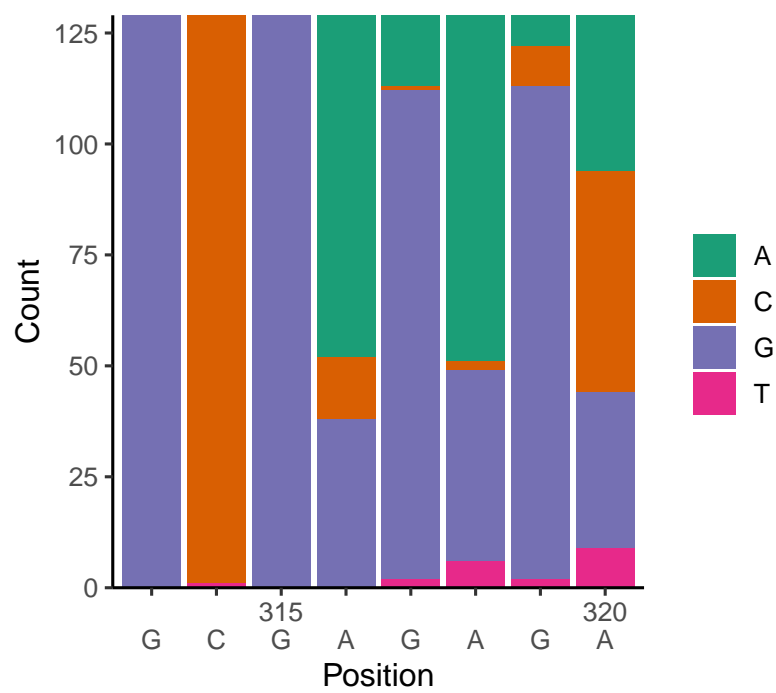


Gene IGHV1-69*06_14_G240A



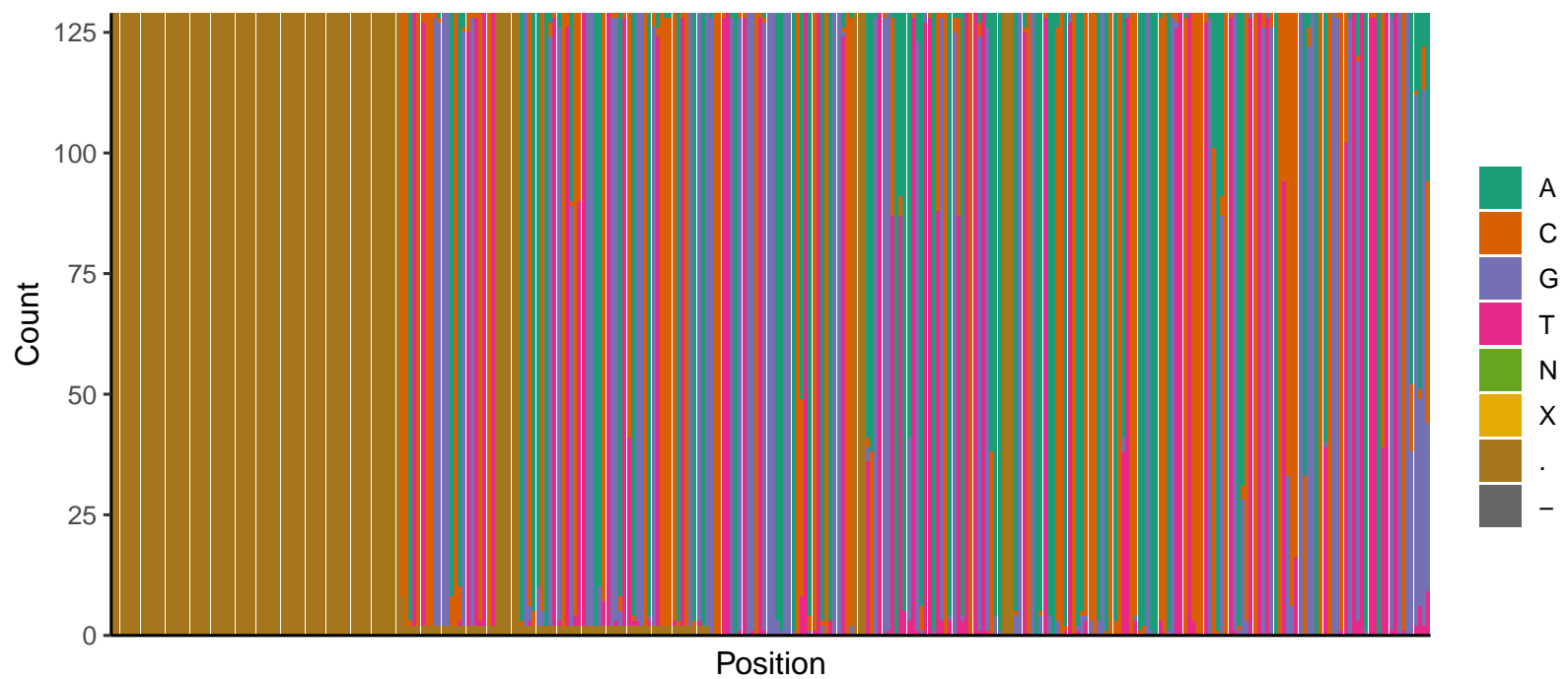
Gene IGHV6-1*01_02_A315G



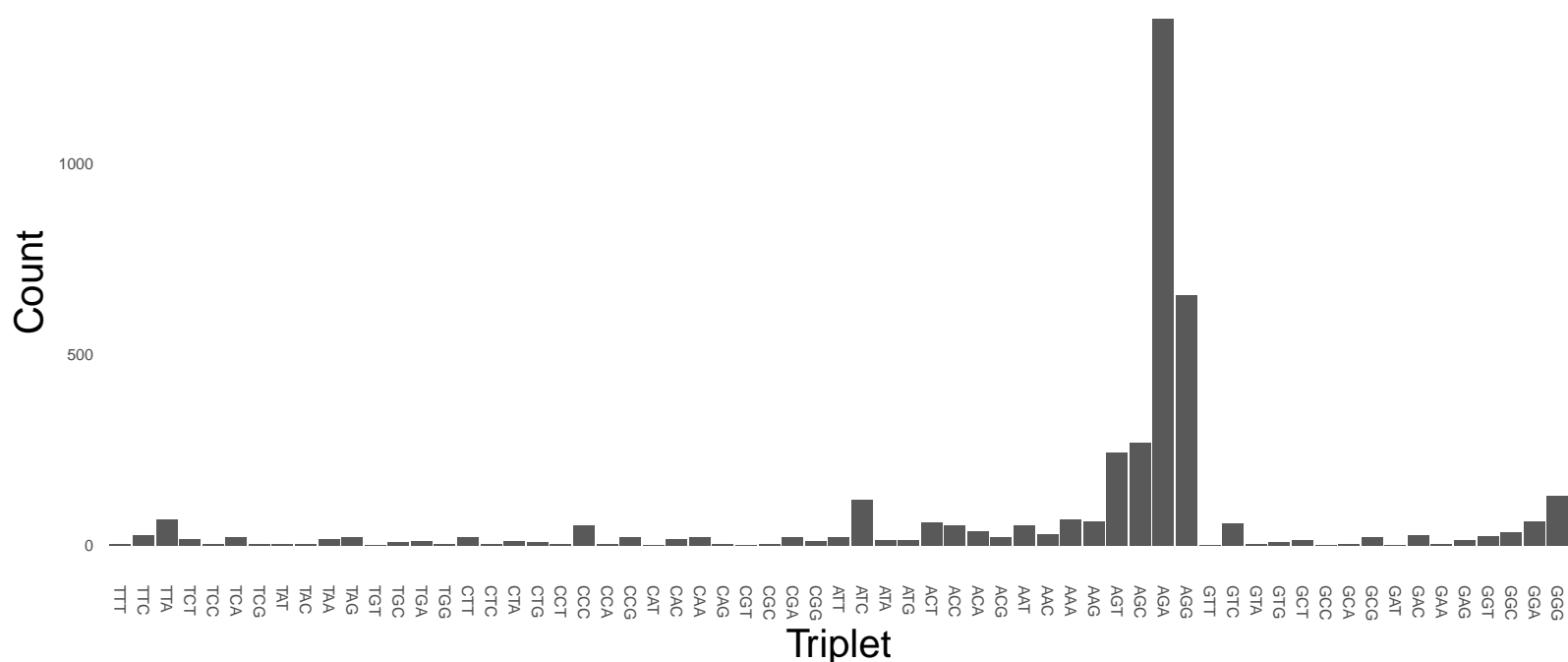
Gene IGHV1-69*06_14_G240A



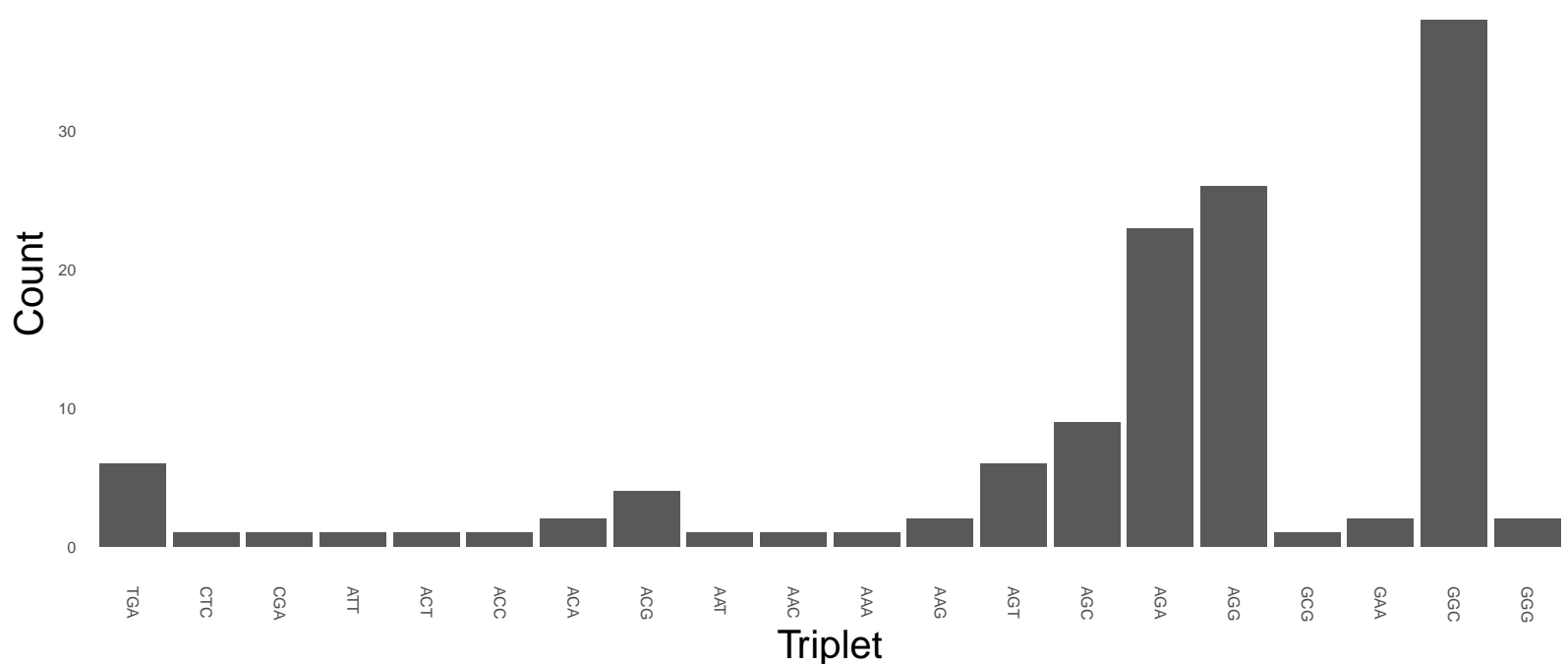
Gene IGHV6-1*01_02_A315G



IGHV1-69*06_14_G240A- Final 3 nucleotides as a triplet

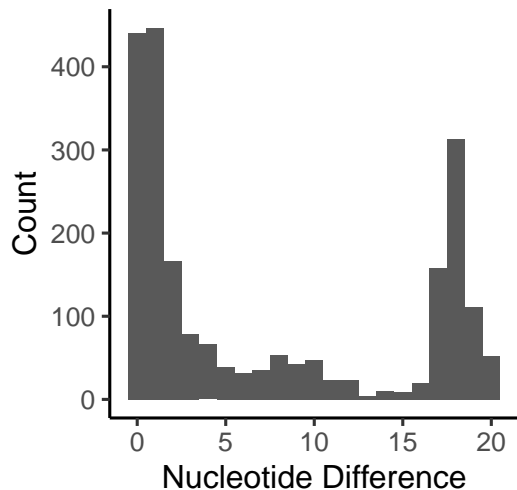


IGHV6-1*01_02_A315G- Final 3 nucleotides as a triplet



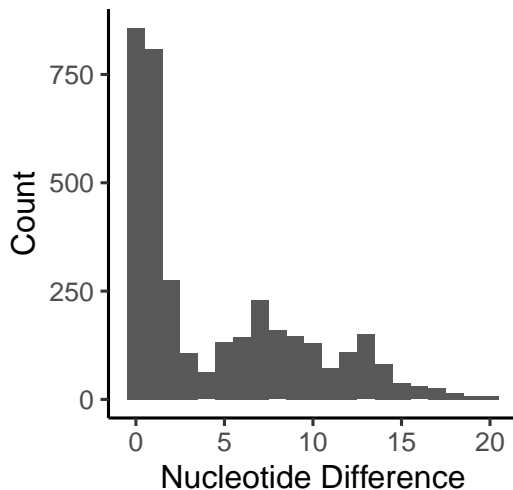
IGHV1-2*04

3045 sequences assigned
441 (14.5%) exact matches, in which:
375 unique CDR3
6 unique J



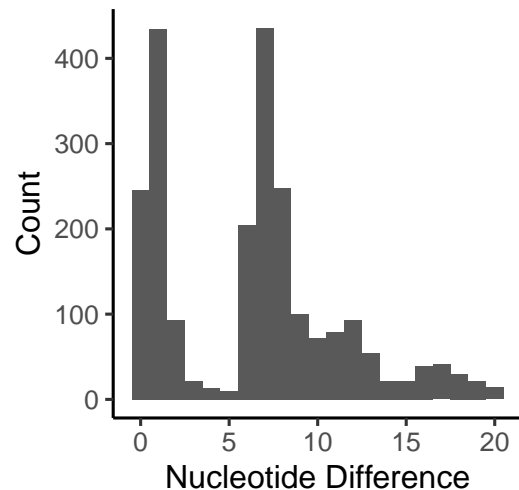
IGHV1-8*01

3888 sequences assigned
858 (22.1%) exact matches, in which:
704 unique CDR3
6 unique J



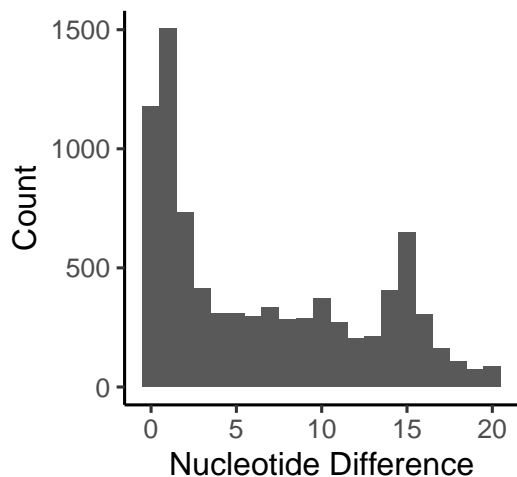
IGHV1-24*01

2346 sequences assigned
246 (10.5%) exact matches, in which:
162 unique CDR3
6 unique J



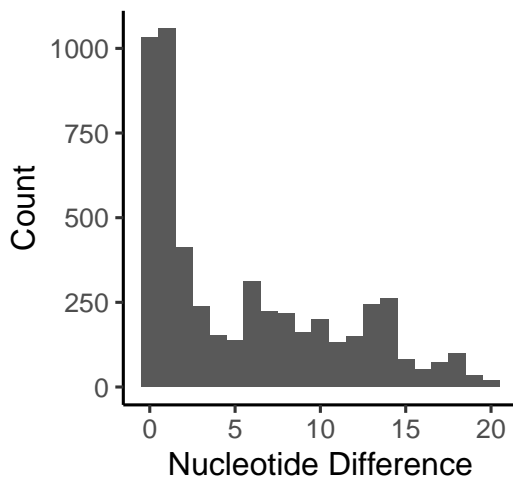
IGHV1-2*06

10682 sequences assigned
1176 (11%) exact matches, in which:
917 unique CDR3
6 unique J



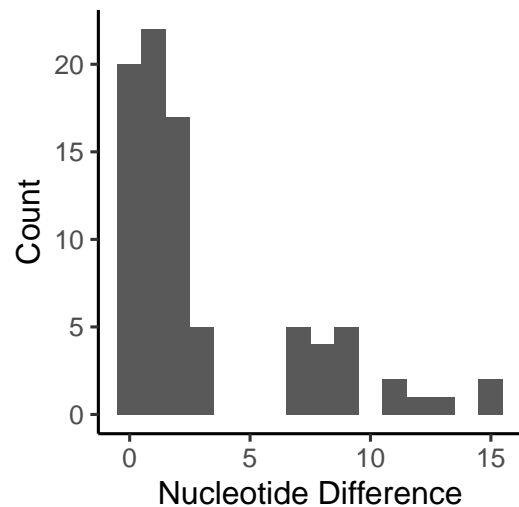
IGHV1-18*01

7130 sequences assigned
1031 (14.5%) exact matches, in which:
872 unique CDR3
6 unique J



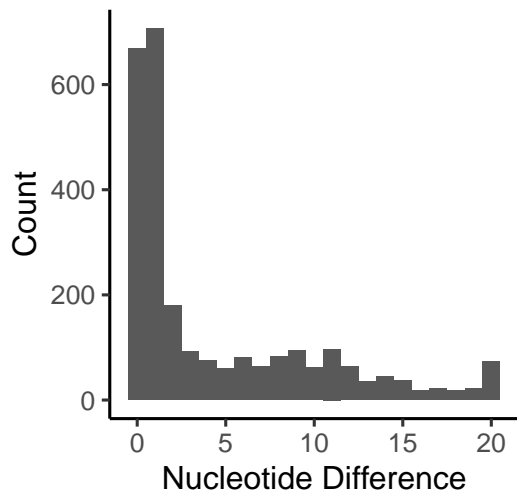
IGHV1-45*02

84 sequences assigned
20 (23.8%) exact matches, in which:
12 unique CDR3
4 unique J



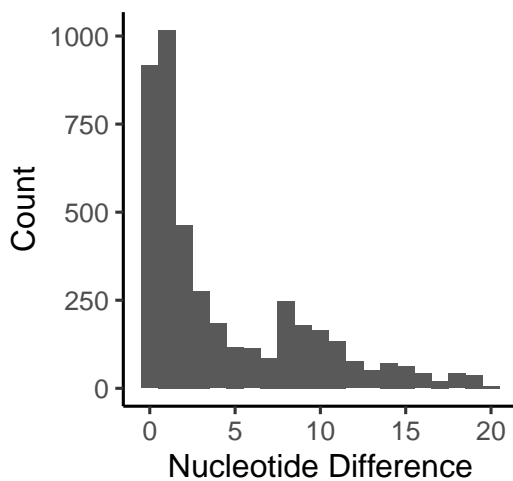
IGHV1-3*01_05

2926 sequences assigned
668 (22.8%) exact matches, in which:
535 unique CDR3
6 unique J



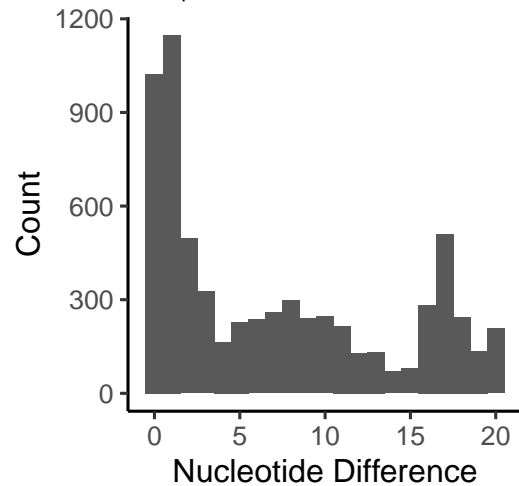
IGHV1-18*04

4726 sequences assigned
916 (19.4%) exact matches, in which:
760 unique CDR3
6 unique J



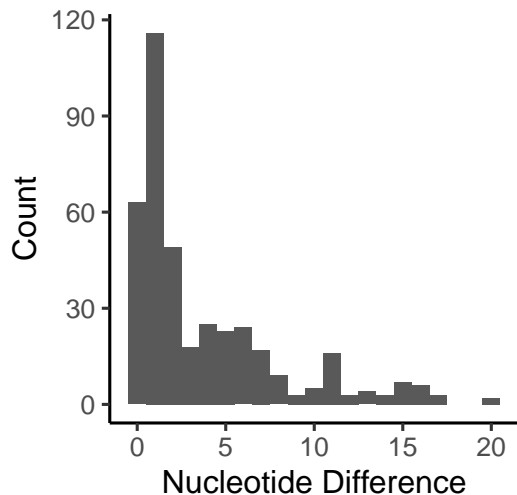
IGHV1-46*01

8129 sequences assigned
1024 (12.6%) exact matches, in which:
853 unique CDR3
6 unique J



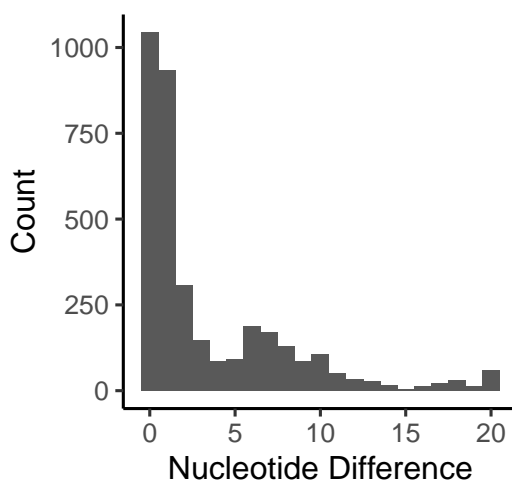
IGHV1-58*01_03

592 sequences assigned
63 (10.6%) exact matches, in which:
53 unique CDR3
4 unique J



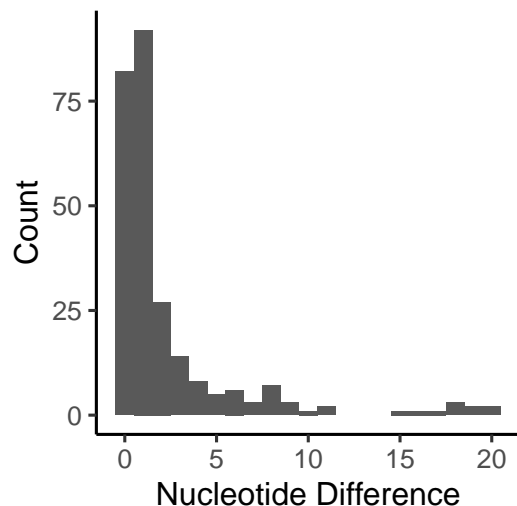
IGHV1-69*06_14_G240.

3936 sequences assigned
1044 (26.5%) exact matches, in which:
907 unique CDR3
6 unique J



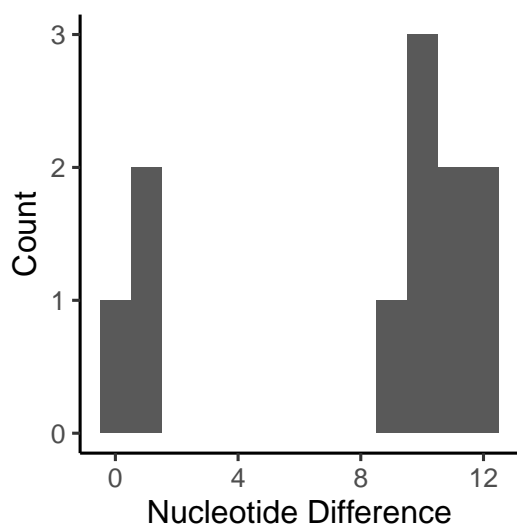
IGHV2-26*01

263 sequences assigned
82 (31.2%) exact matches, in which:
60 unique CDR3
5 unique J



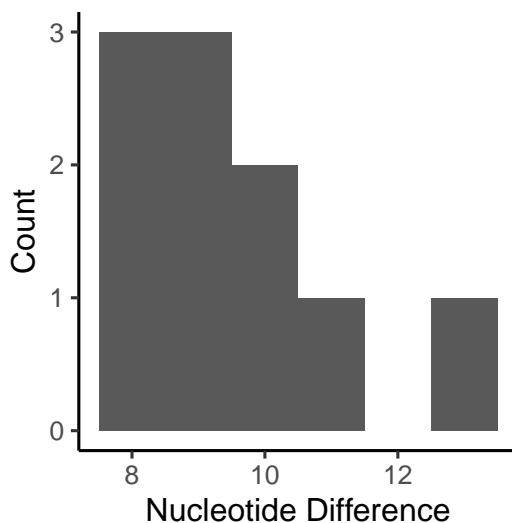
IGHV1-69-2*01

135 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



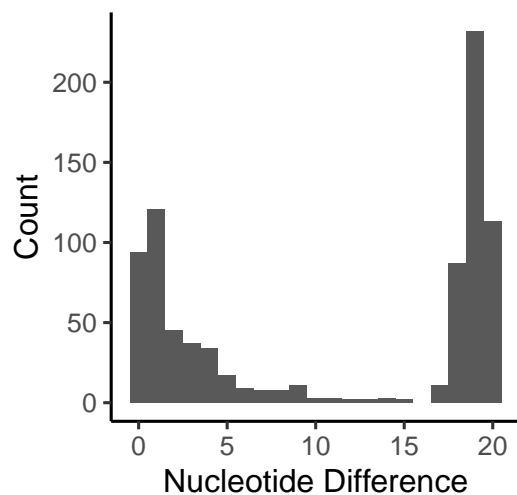
IGHV1-NL1*01

10 sequences assigned
No exact matches.



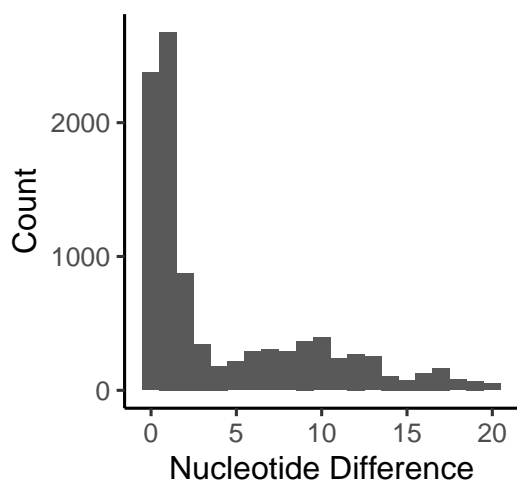
IGHV2-70*01

931 sequences assigned
94 (10.1%) exact matches, in which:
64 unique CDR3
4 unique J



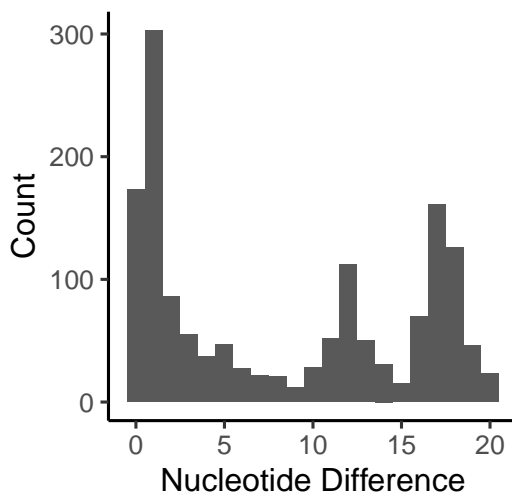
IGHV1-69*01_12_13

10227 sequences assigned
2375 (23.2%) exact matches, in which:
1967 unique CDR3
6 unique J



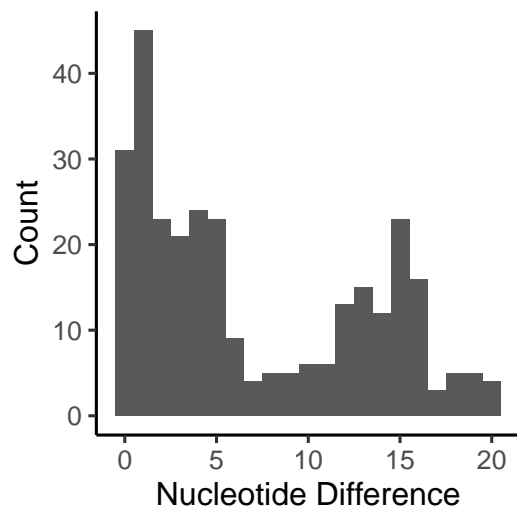
IGHV2-5*02

1603 sequences assigned
173 (10.8%) exact matches, in which:
133 unique CDR3
6 unique J



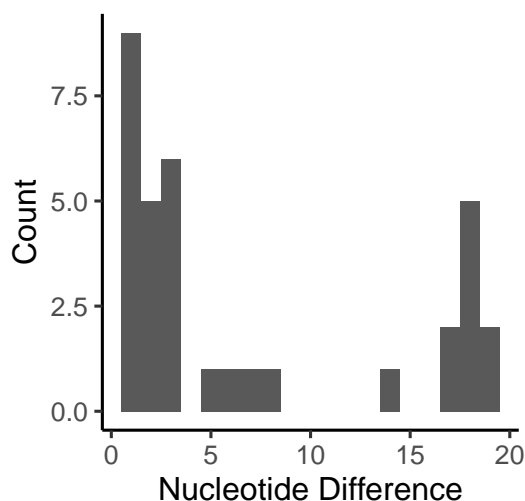
IGHV2-70*04

319 sequences assigned
31 (9.7%) exact matches, in which:
24 unique CDR3
4 unique J



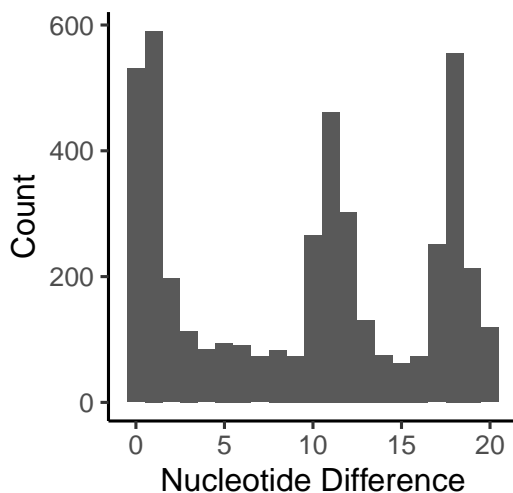
IGHV2-70*12

35 sequences assigned
No exact matches.



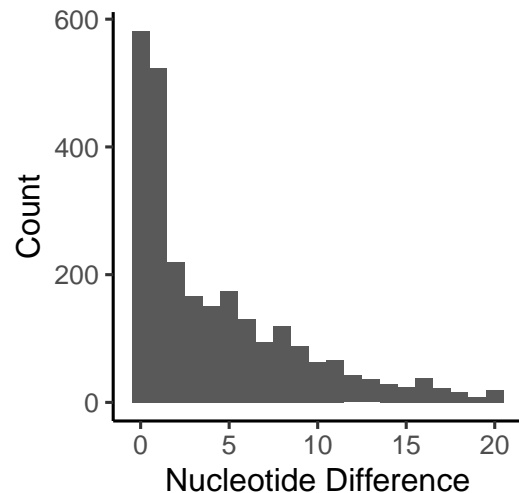
IGHV3-9*01

4769 sequences assigned
531 (11.1%) exact matches, in which:
274 unique CDR3
6 unique J



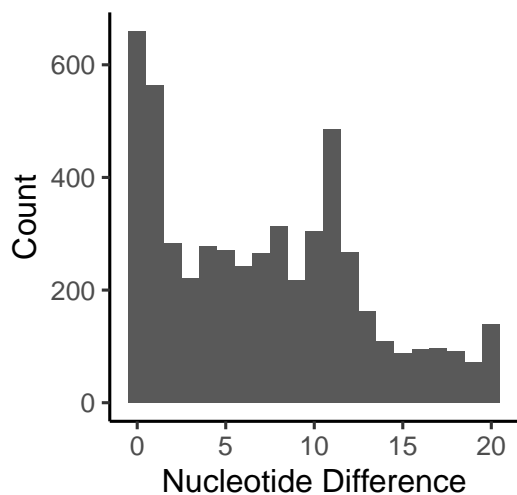
IGHV3-11*06

3460 sequences assigned
582 (16.8%) exact matches, in which:
389 unique CDR3
6 unique J



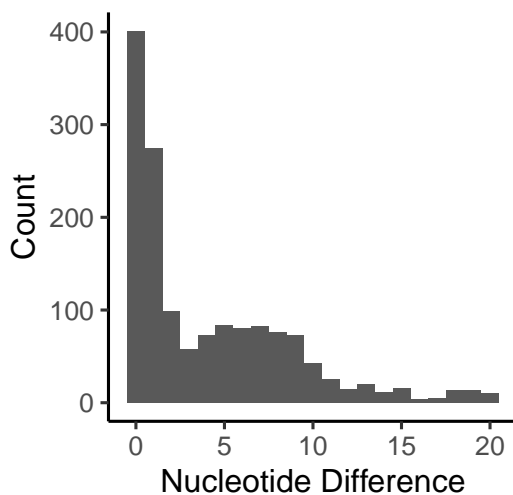
IGHV3-7*01

6892 sequences assigned
660 (9.6%) exact matches, in which:
472 unique CDR3
6 unique J



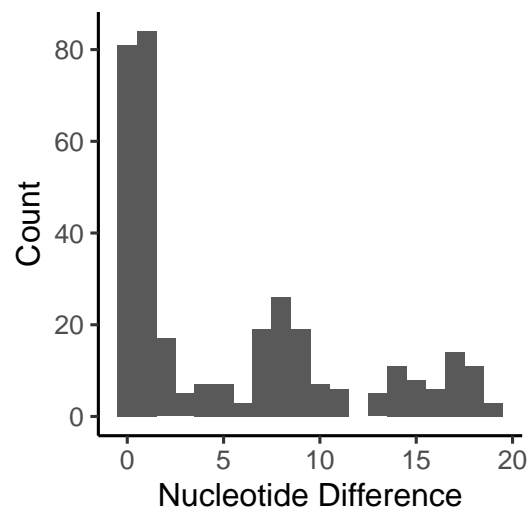
IGHV3-11*01

1624 sequences assigned
401 (24.7%) exact matches, in which:
274 unique CDR3
6 unique J



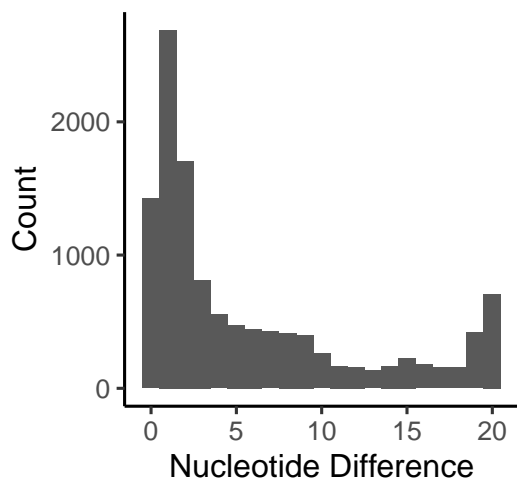
IGHV3-13*01

344 sequences assigned
81 (23.5%) exact matches, in which:
49 unique CDR3
5 unique J



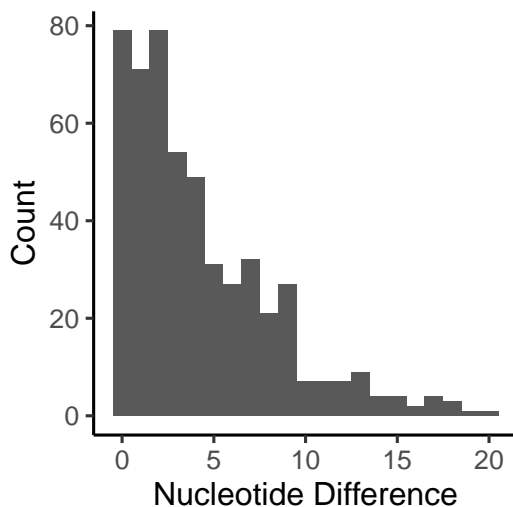
IGHV3-7*03

15573 sequences assigned
1424 (9.1%) exact matches, in which:
785 unique CDR3
6 unique J



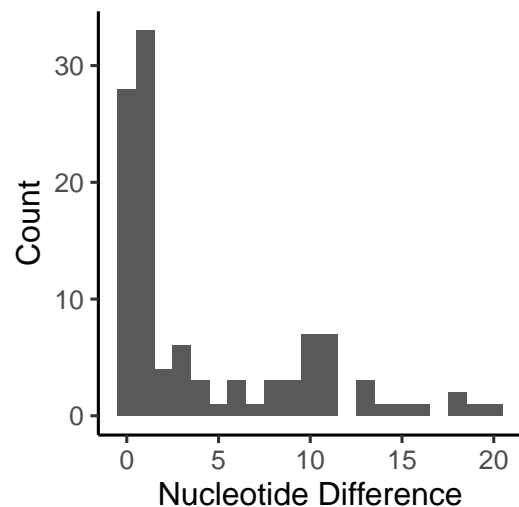
IGHV3-11*04

537 sequences assigned
79 (14.7%) exact matches, in which:
77 unique CDR3
6 unique J



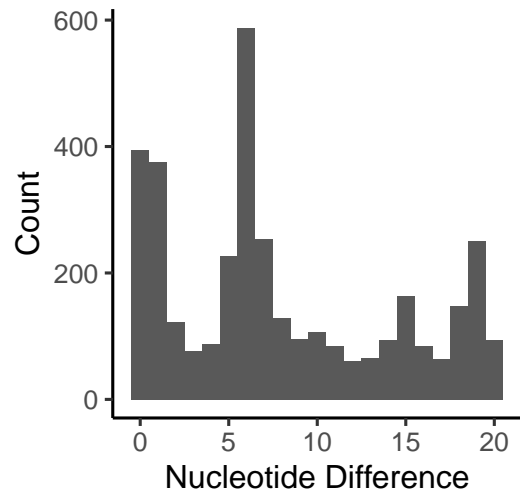
IGHV3-13*05

109 sequences assigned
28 (25.7%) exact matches, in which:
19 unique CDR3
4 unique J



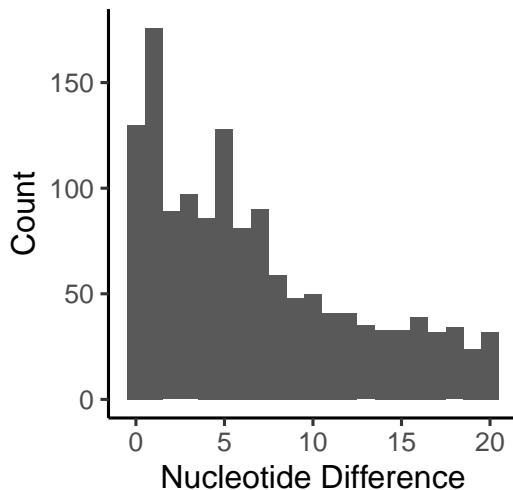
IGHV3-15*01_02

3983 sequences assigned
395 (9.9%) exact matches, in which:
228 unique CDR3
6 unique J



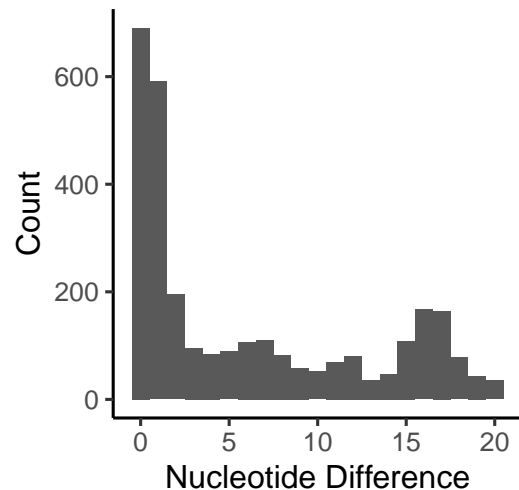
IGHV3-21*04

1906 sequences assigned
130 (6.8%) exact matches, in which:
113 unique CDR3
6 unique J



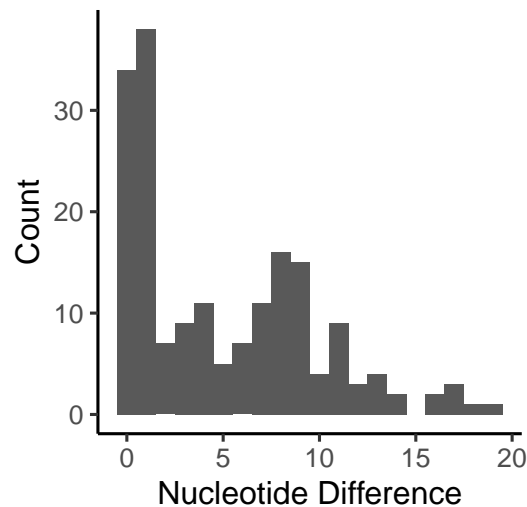
IGHV3-30-3*01

3305 sequences assigned
691 (20.9%) exact matches, in which:
440 unique CDR3
6 unique J



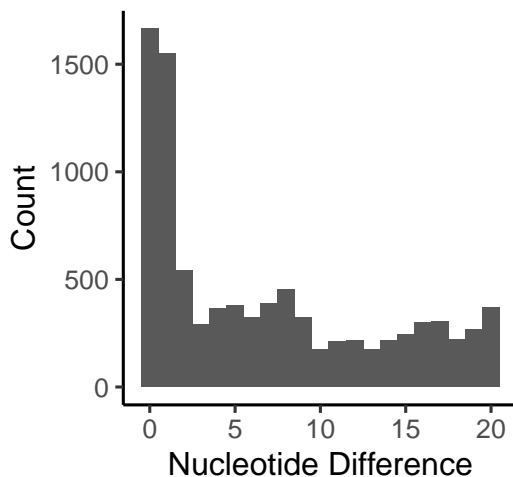
IGHV3-20*01_02

203 sequences assigned
34 (16.7%) exact matches, in which:
16 unique CDR3
4 unique J



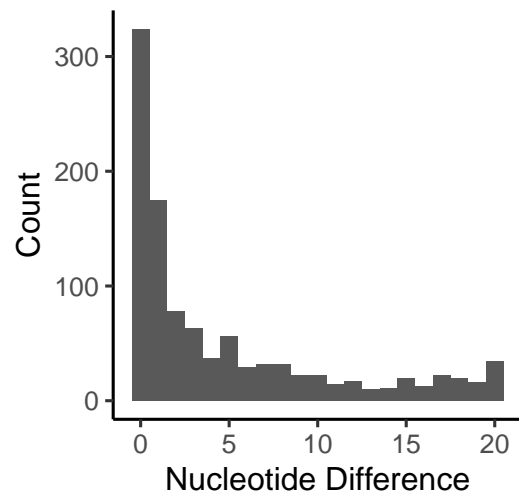
IGHV3-21*01_02

11463 sequences assigned
1665 (14.5%) exact matches, in which:
1068 unique CDR3
6 unique J



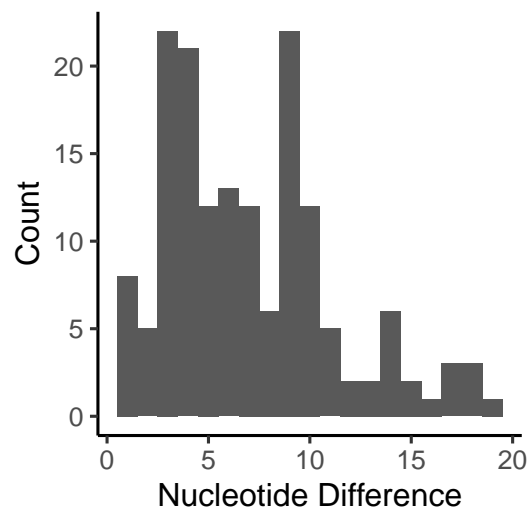
IGHV3-30*03

2720 sequences assigned
324 (11.9%) exact matches, in which:
285 unique CDR3
6 unique J



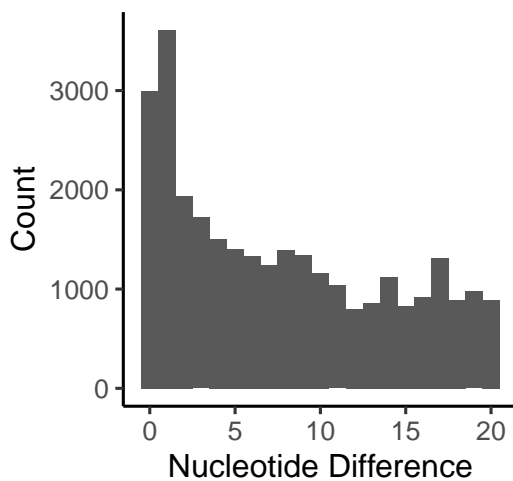
IGHV3-20*03_04

160 sequences assigned
No exact matches.



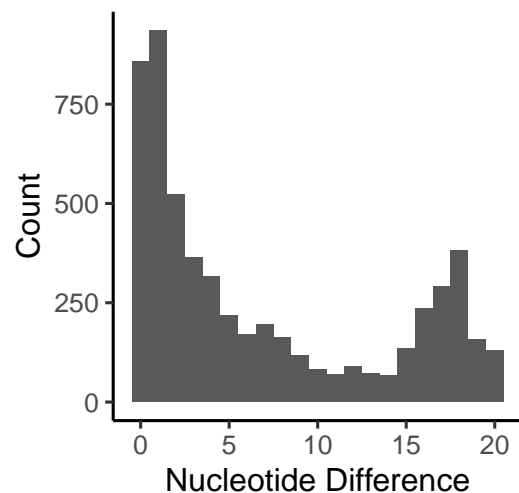
IGHV3-23*01_04

39181 sequences assigned
2997 (7.6%) exact matches, in which:
1762 unique CDR3
6 unique J



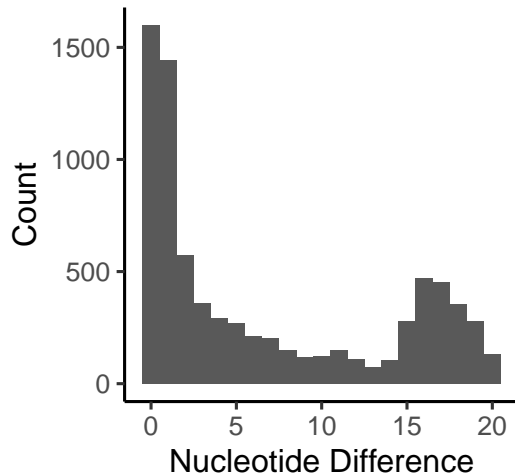
IGHV3-30*18

5976 sequences assigned
857 (14.3%) exact matches, in which:
510 unique CDR3
6 unique J



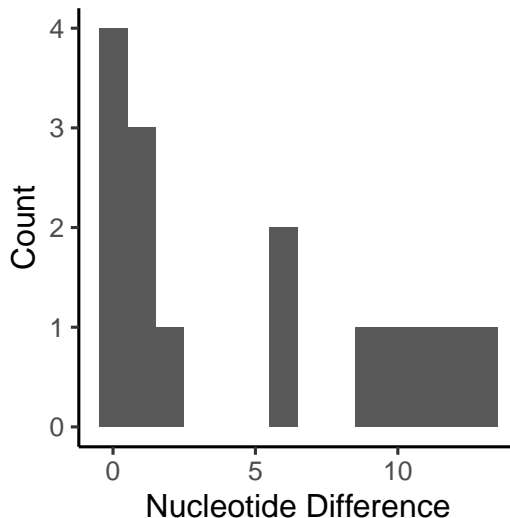
IGHV3-33*01

8548 sequences assigned
1598 (18.7%) exact matches, in which:
1019 unique CDR3
6 unique J



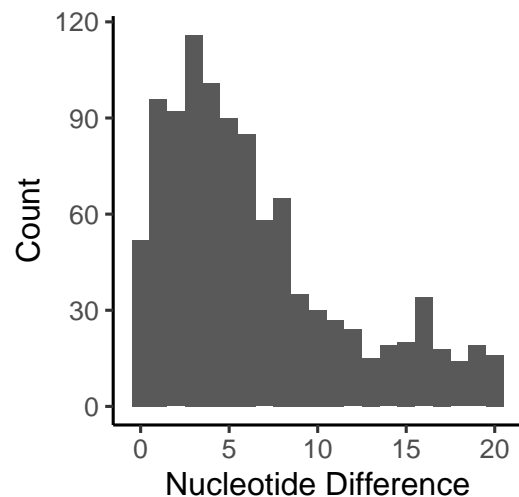
IGHV3-35*01

15 sequences assigned
4 (26.7%) exact matches, in which:
3 unique CDR3
1 unique J



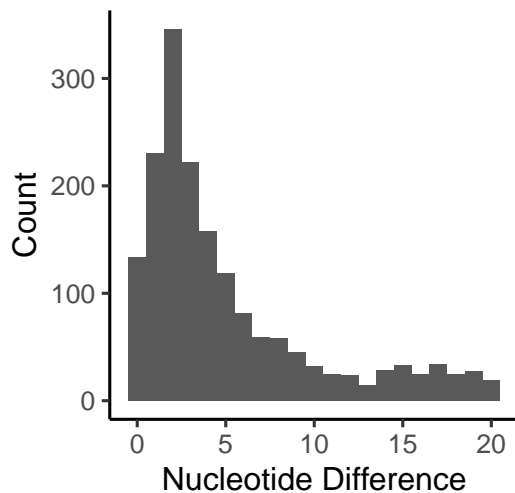
IGHV3-48*01

1069 sequences assigned
52 (4.9%) exact matches, in which:
49 unique CDR3
5 unique J



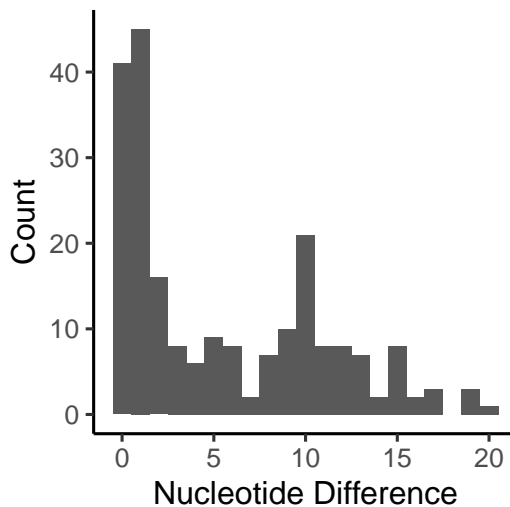
IGHV3-33*06

1849 sequences assigned
134 (7.2%) exact matches, in which:
124 unique CDR3
6 unique J



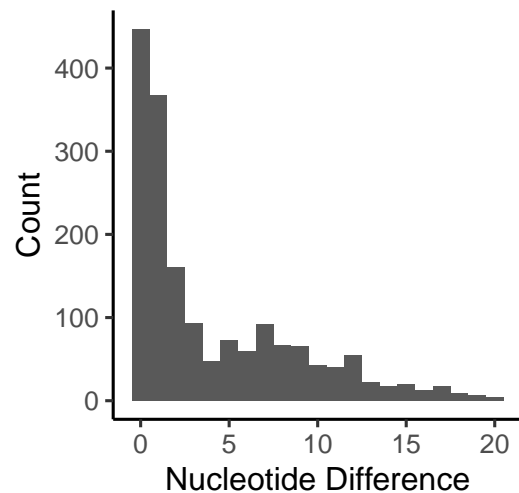
IGHV3-43*01

1301 sequences assigned
41 (3.2%) exact matches, in which:
25 unique CDR3
3 unique J



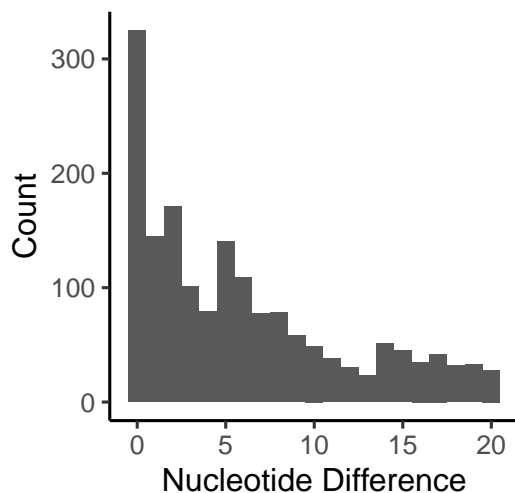
IGHV3-48*02

2998 sequences assigned
447 (14.9%) exact matches, in which:
287 unique CDR3
6 unique J



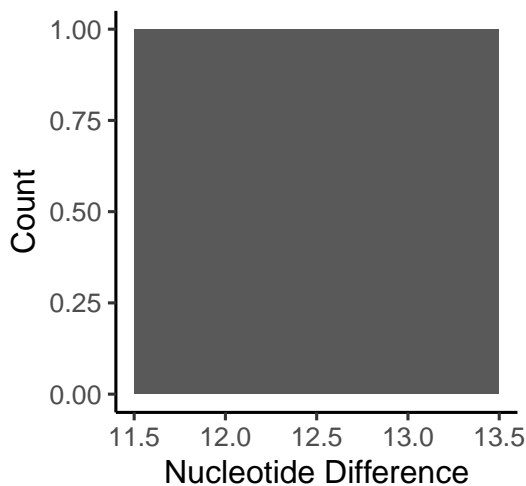
IGHV3-33*08

1842 sequences assigned
325 (17.6%) exact matches, in which:
260 unique CDR3
6 unique J



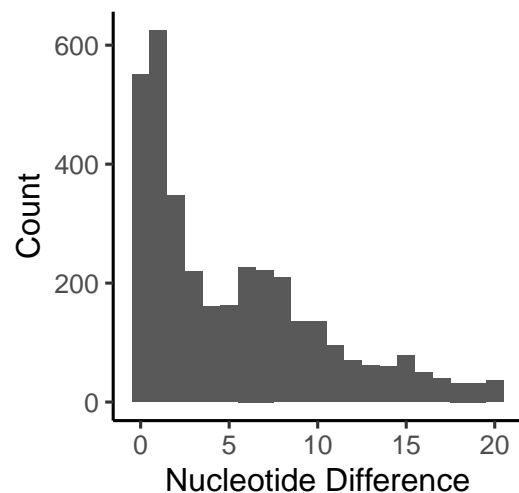
IGHV3-47*02

2 sequences assigned
No exact matches.



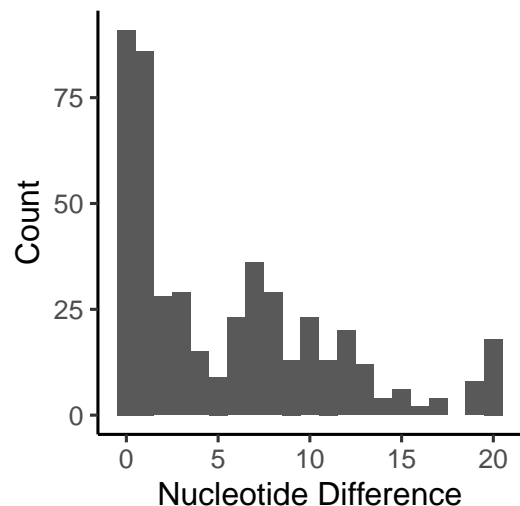
IGHV3-48*03

3845 sequences assigned
550 (14.3%) exact matches, in which:
341 unique CDR3
6 unique J



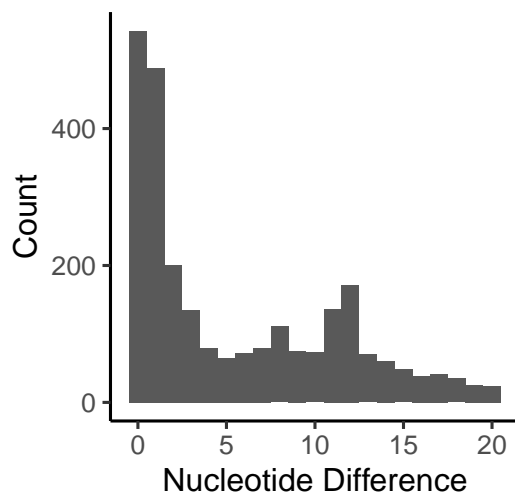
IGHV3-49*04

796 sequences assigned
91 (11.4%) exact matches, in which:
50 unique CDR3
5 unique J



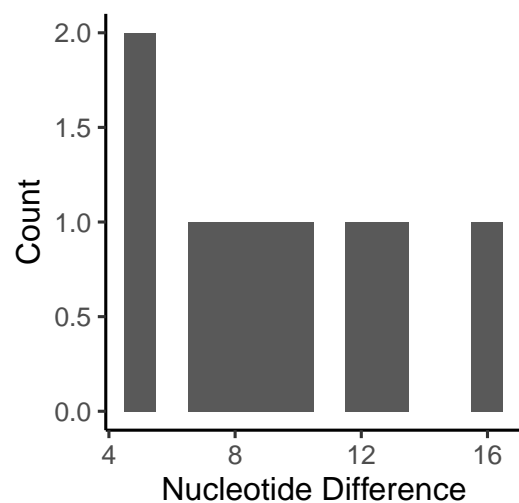
IGHV3-53*01_02

2683 sequences assigned
543 (20.2%) exact matches, in which:
360 unique CDR3
6 unique J



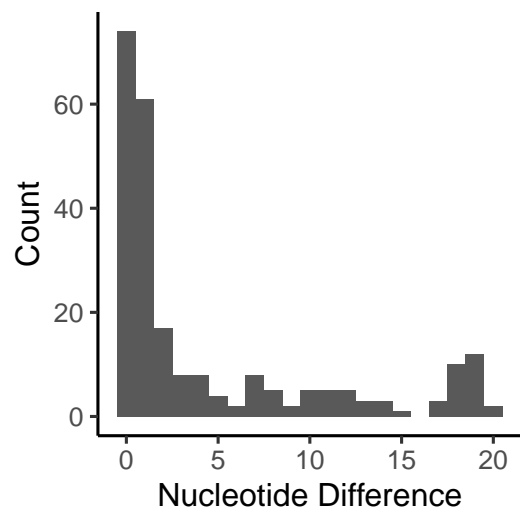
IGHV3-66*02

13 sequences assigned
No exact matches.



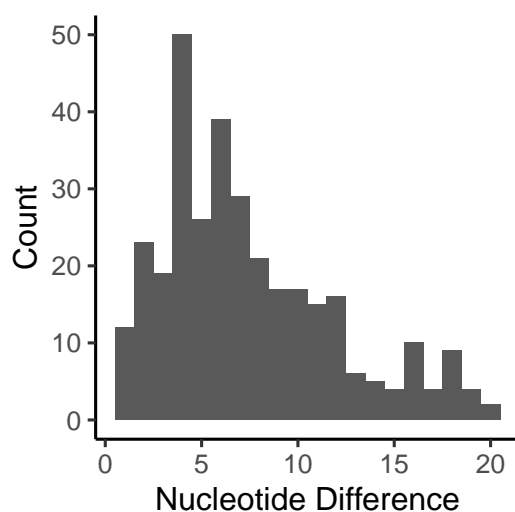
IGHV3-49*03_05

247 sequences assigned
74 (30%) exact matches, in which:
46 unique CDR3
5 unique J



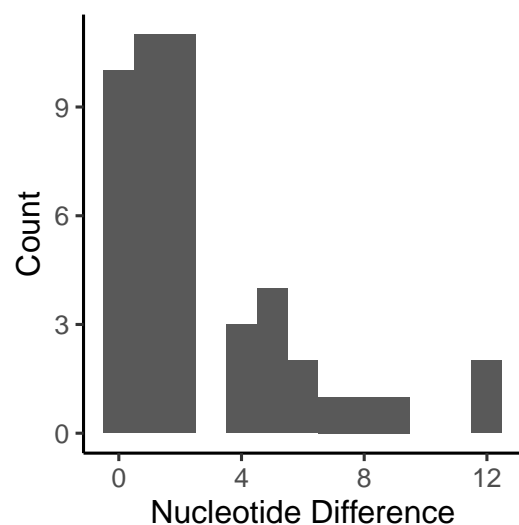
IGHV3-64*04

339 sequences assigned
No exact matches.



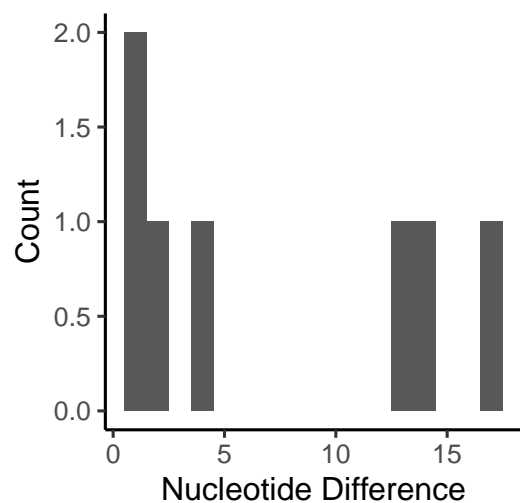
IGHV3-66*03

51 sequences assigned
10 (19.6%) exact matches, in which:
10 unique CDR3
5 unique J



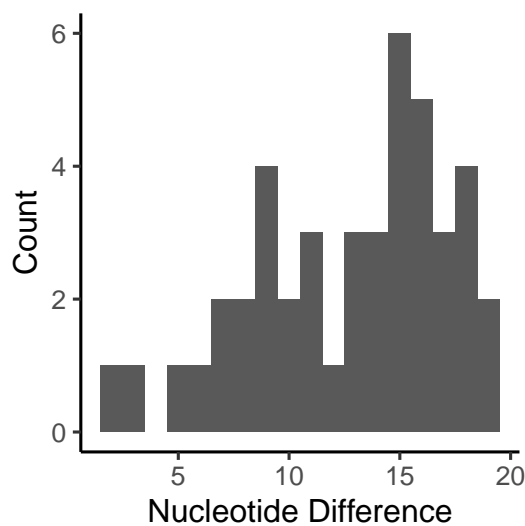
IGHV3-52*01_03

7 sequences assigned
No exact matches.



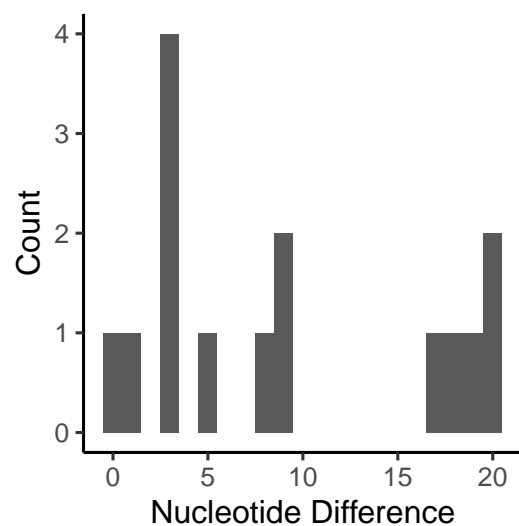
IGHV3-66*01

46 sequences assigned
No exact matches.



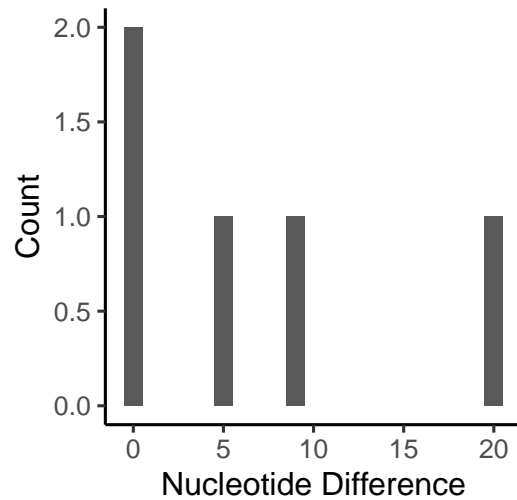
IGHV3-69-1*01

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



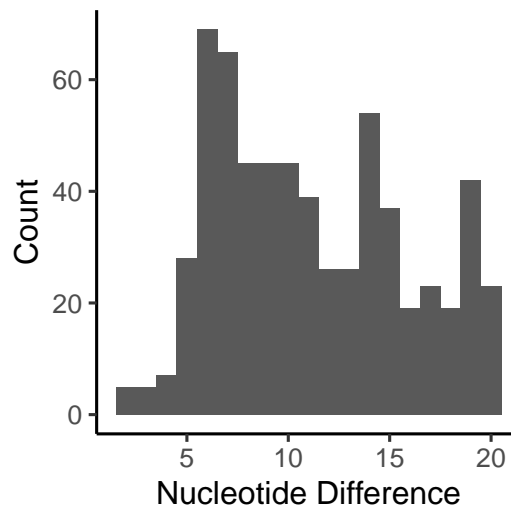
IGHV3-69-1*02

5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
1 unique J



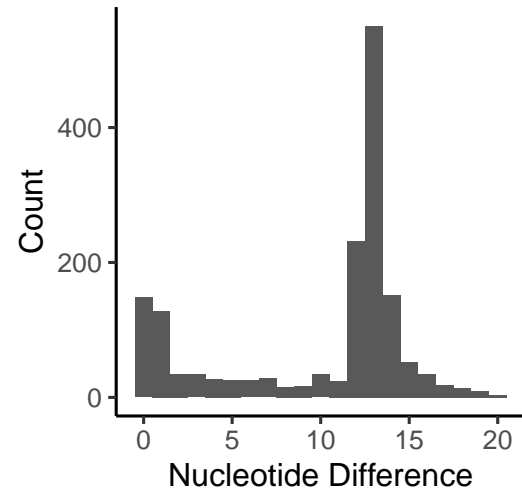
IGHV3-74*03

666 sequences assigned
No exact matches.



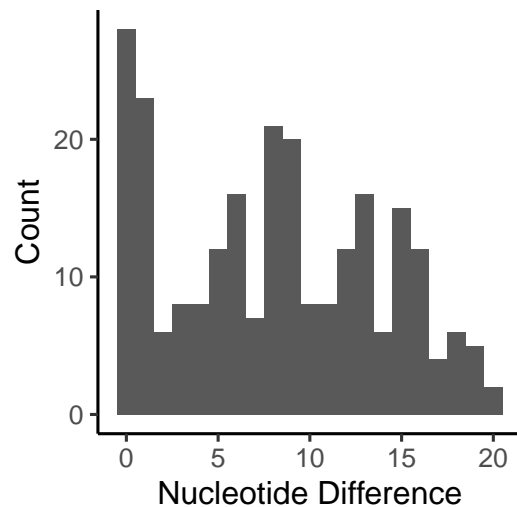
IGHV3-64D*06

1912 sequences assigned
148 (7.7%) exact matches, in which:
73 unique CDR3
5 unique J



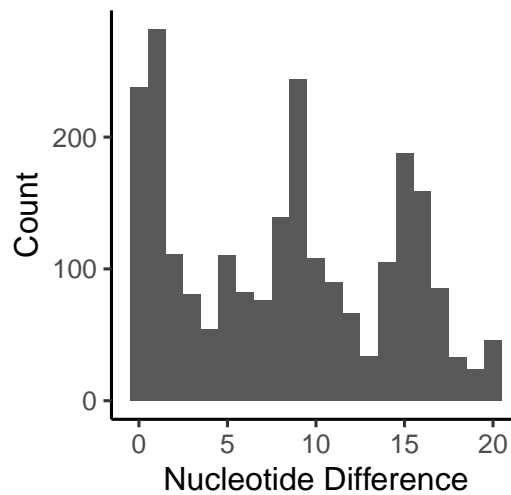
IGHV3-72*01

253 sequences assigned
28 (11.1%) exact matches, in which:
18 unique CDR3
5 unique J



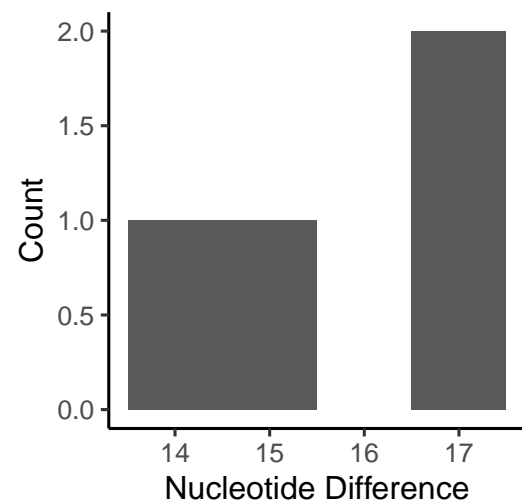
IGHV3-74*01_02

2490 sequences assigned
238 (9.6%) exact matches, in which:
134 unique CDR3
5 unique J



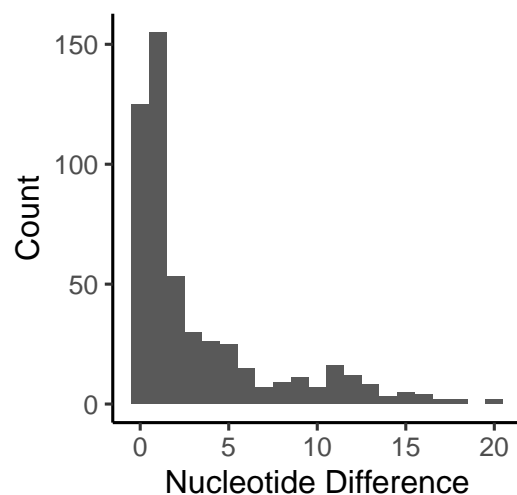
IGHV3-64D*08

19 sequences assigned
No exact matches.



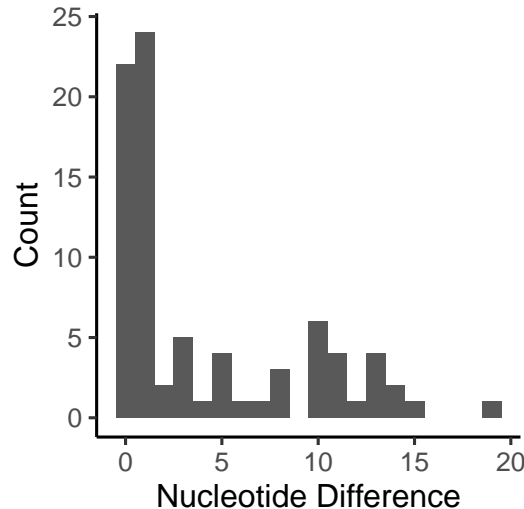
IGHV3-73*01_02

547 sequences assigned
125 (22.9%) exact matches, in which:
75 unique CDR3
5 unique J



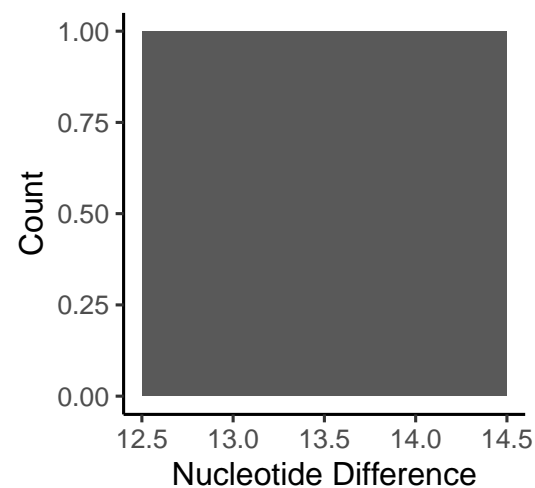
IGHV3-43D*04

82 sequences assigned
22 (26.8%) exact matches, in which:
13 unique CDR3
3 unique J



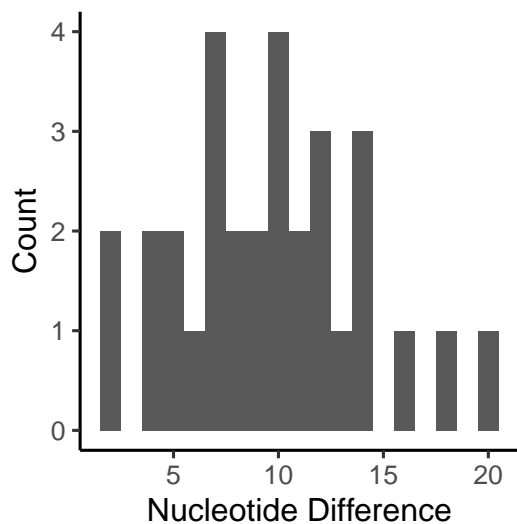
IGHV3-64D*09

3 sequences assigned
No exact matches.



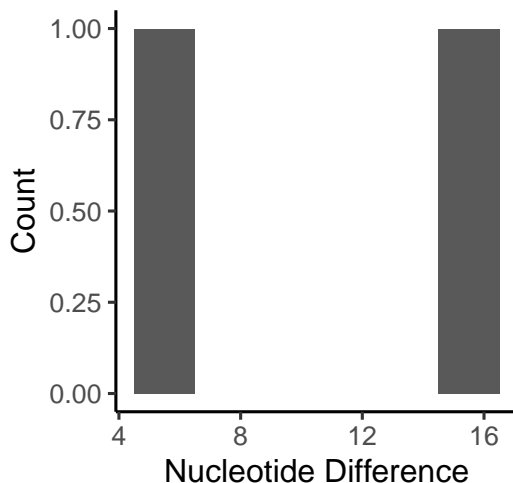
IGHV3–NL1*01

46 sequences assigned
No exact matches.



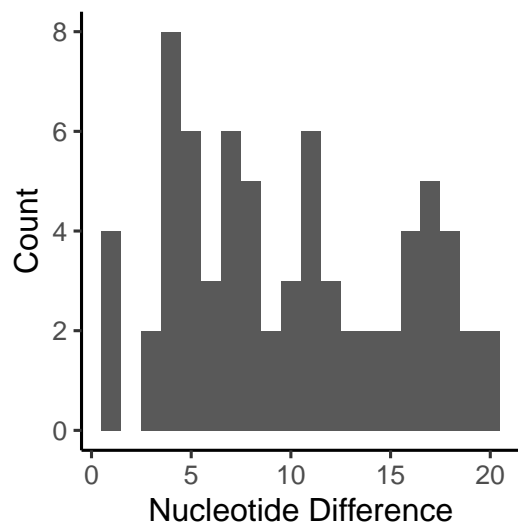
IGHV4–28*01_07

4 sequences assigned
No exact matches.



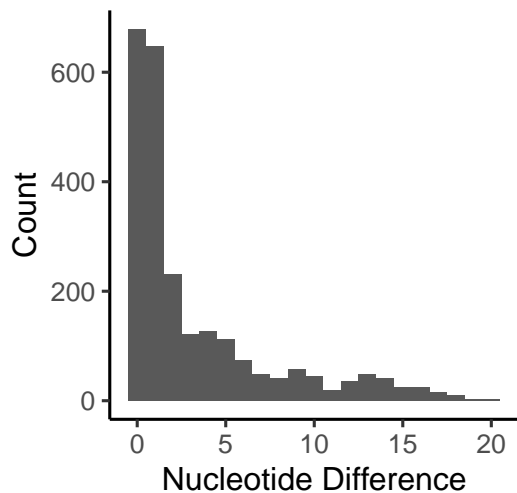
IGHV4–30–2*03

82 sequences assigned
No exact matches.



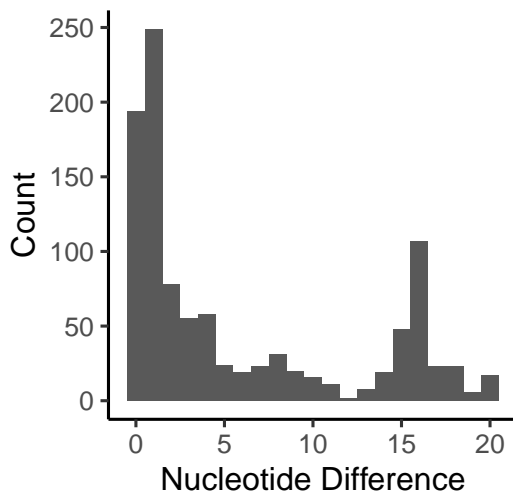
IGHV4–4*02_03

2480 sequences assigned
679 (27.4%) exact matches, in which:
519 unique CDR3
6 unique J



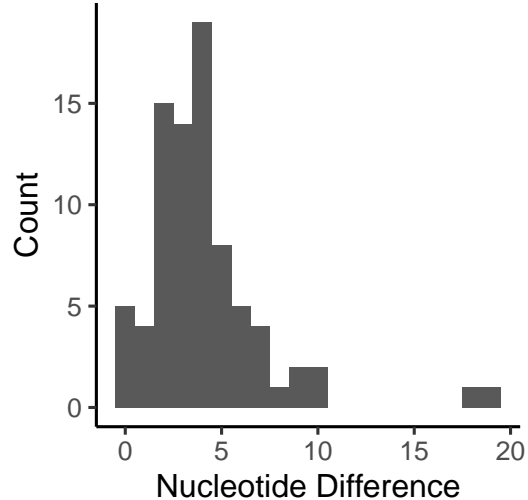
IGHV4–30–4*01

2347 sequences assigned
194 (8.3%) exact matches, in which:
129 unique CDR3
6 unique J



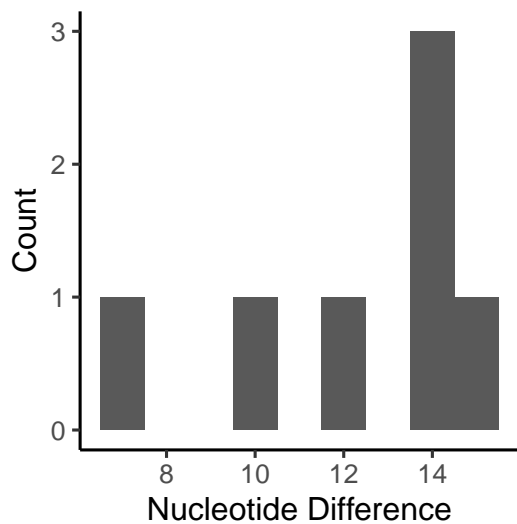
IGHV4–30–2*05

86 sequences assigned
5 (5.8%) exact matches, in which:
5 unique CDR3
2 unique J



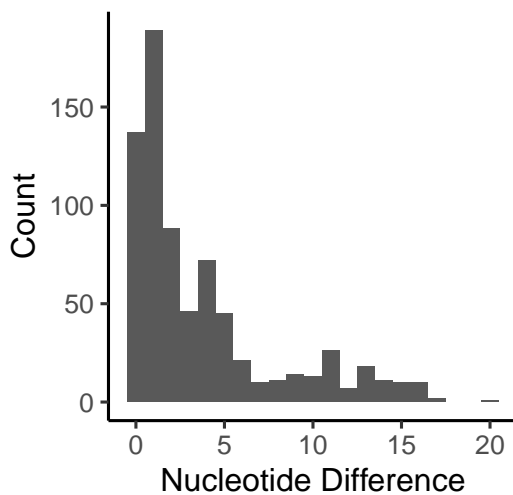
IGHV4–28*03

7 sequences assigned
No exact matches.



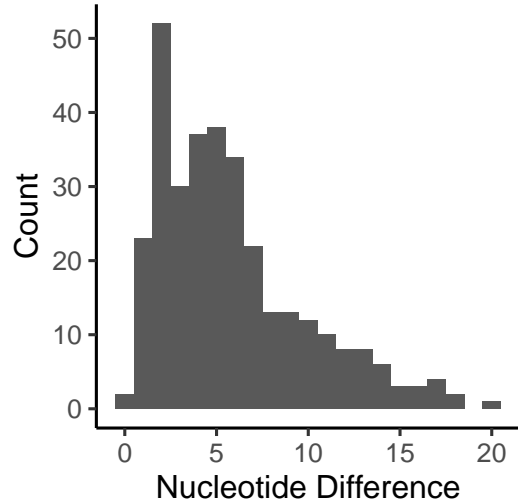
IGHV4–30–2*01

763 sequences assigned
137 (18%) exact matches, in which:
78 unique CDR3
5 unique J



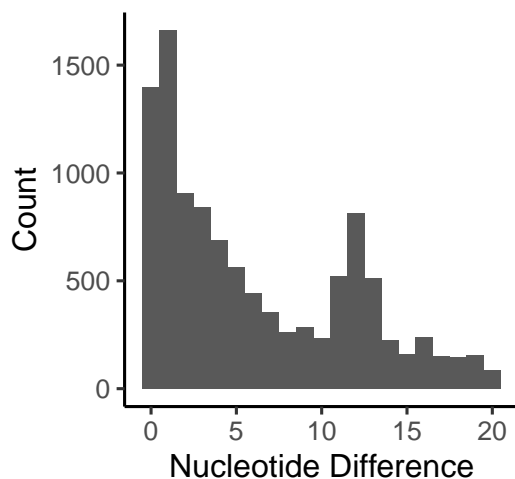
IGHV4–30–4*08

373 sequences assigned
2 (0.5%) exact matches, in which:
2 unique CDR3
1 unique J



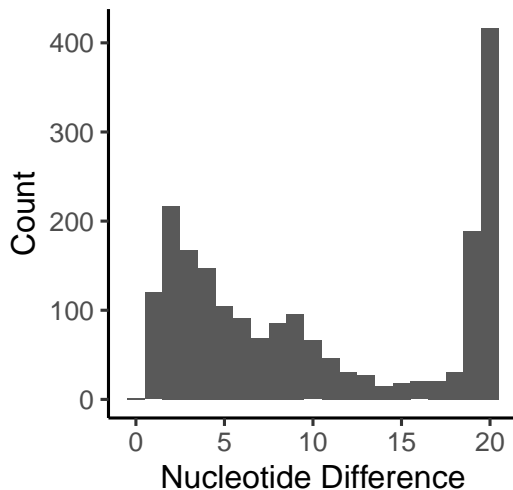
IGHV4-31*02

14519 sequences assigned
1400 (9.6%) exact matches, in which:
1091 unique CDR3
6 unique J



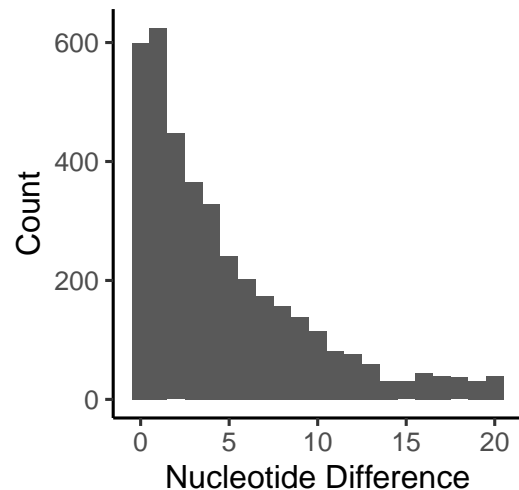
IGHV4-39*07

2673 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
2 unique J



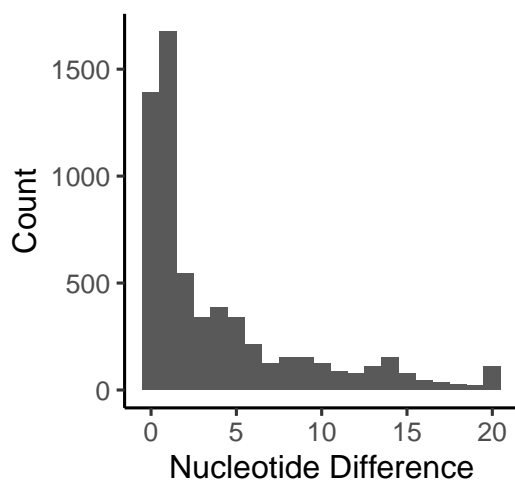
IGHV4-61*01

4534 sequences assigned
599 (13.2%) exact matches, in which:
503 unique CDR3
6 unique J



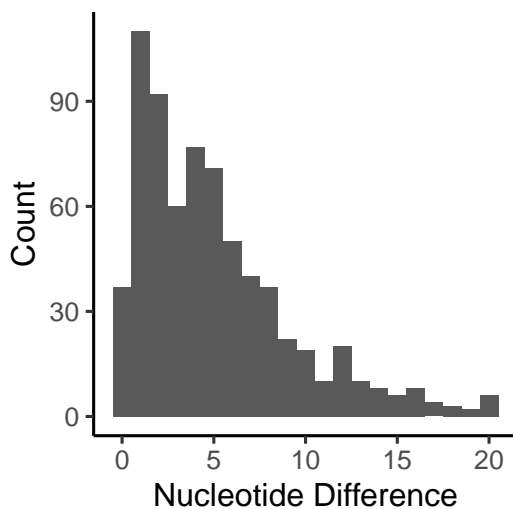
IGHV4-34*01_02

7575 sequences assigned
1393 (18.4%) exact matches, in which:
961 unique CDR3
6 unique J



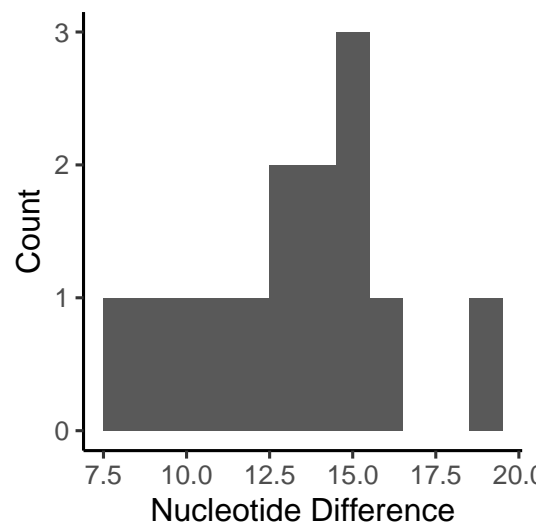
IGHV4-59*08

725 sequences assigned
37 (5.1%) exact matches, in which:
36 unique CDR3
4 unique J



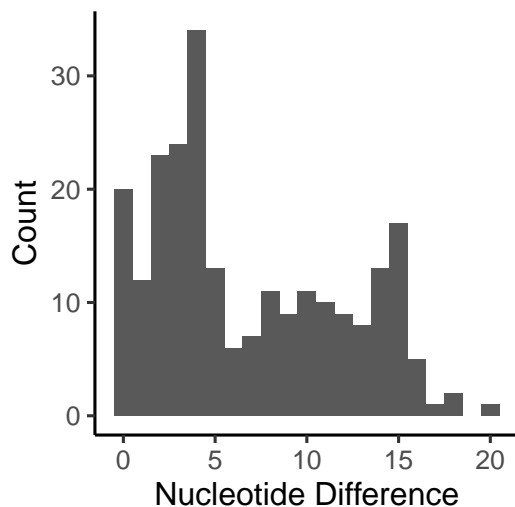
IGHV1/OR15-3*02

14 sequences assigned
No exact matches.



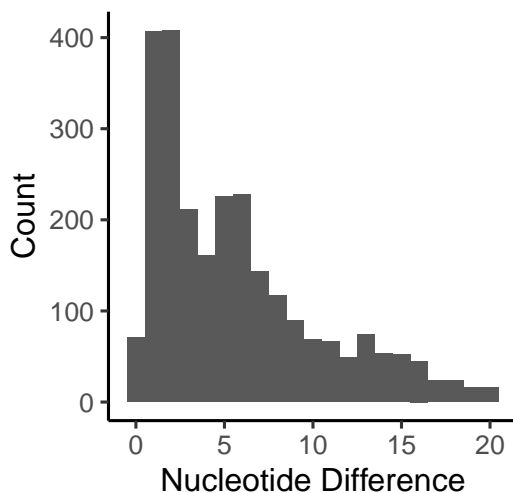
IGHV4-38-2*02

237 sequences assigned
20 (8.4%) exact matches, in which:
20 unique CDR3
5 unique J



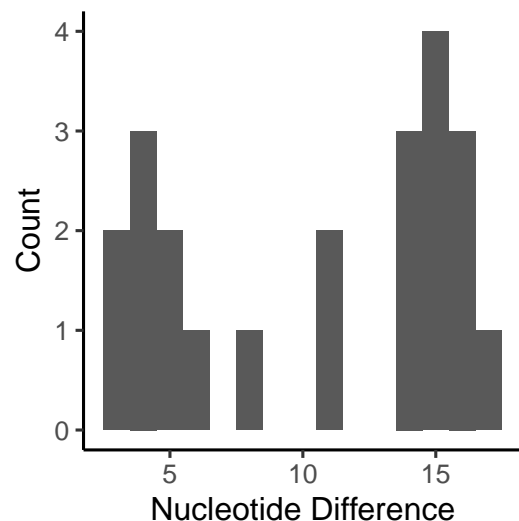
IGHV4-59*12

3332 sequences assigned
71 (2.1%) exact matches, in which:
70 unique CDR3
6 unique J



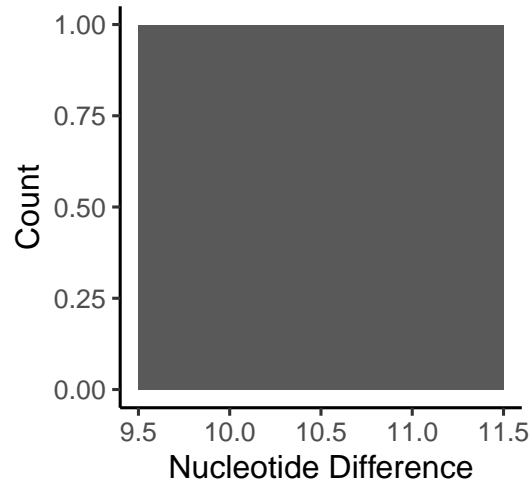
IGHV4/OR15-8*01

22 sequences assigned
No exact matches.



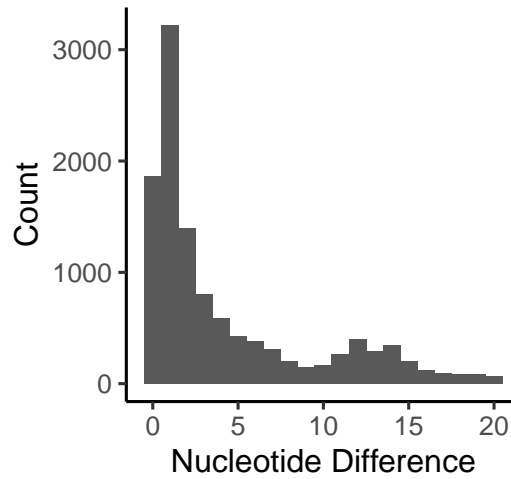
IGHV1/OR15-9*01

2 sequences assigned
No exact matches.



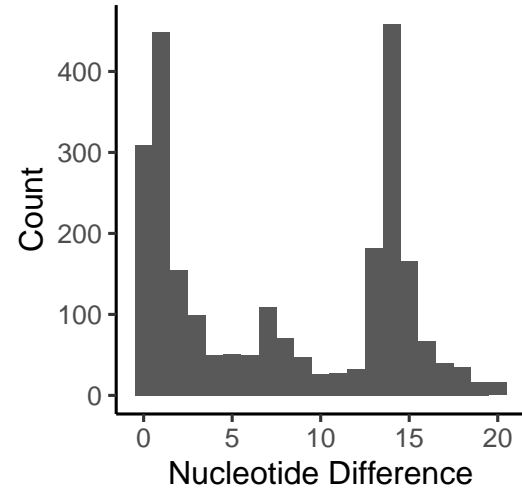
IGHV5-51*01_03

12089 sequences assigned
1860 (15.4%) exact matches, in which:
1008 unique CDR3
6 unique J



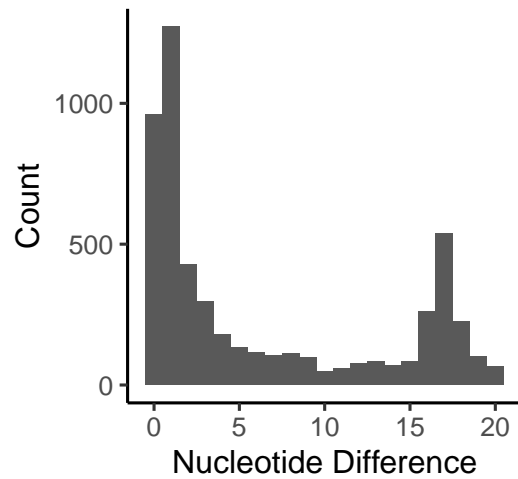
IGHV7-4-1*02

2478 sequences assigned
309 (12.5%) exact matches, in which:
233 unique CDR3
6 unique J



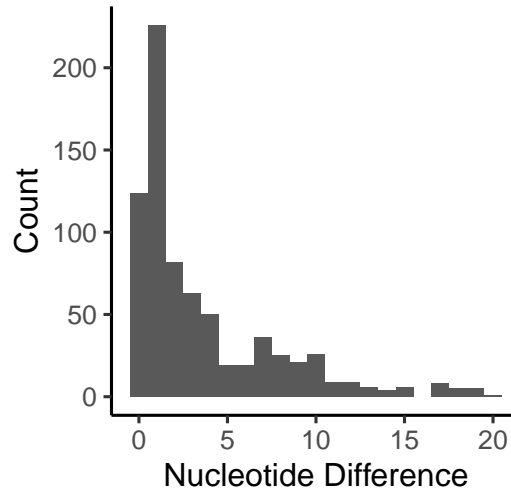
IGHV5-10-1*01_03

6734 sequences assigned
960 (14.3%) exact matches, in which:
591 unique CDR3
6 unique J



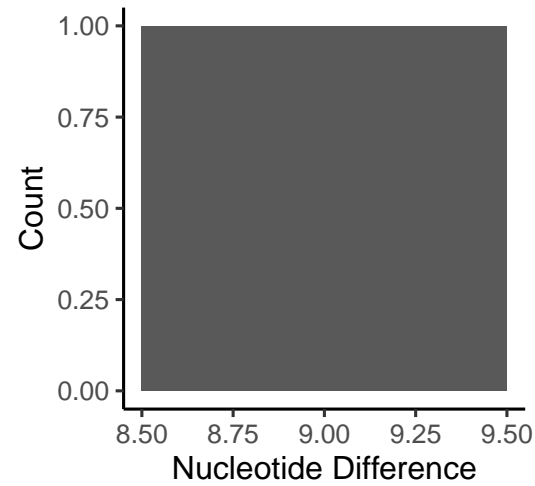
IGHV6-1*01_02

797 sequences assigned
124 (15.6%) exact matches, in which:
103 unique CDR3
4 unique J



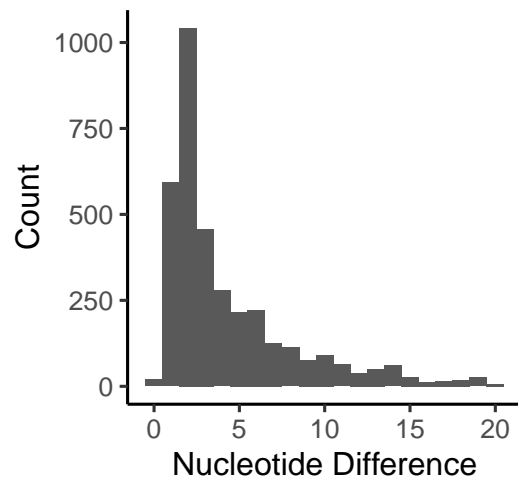
IGHV7-81*01

1 sequences assigned
No exact matches.



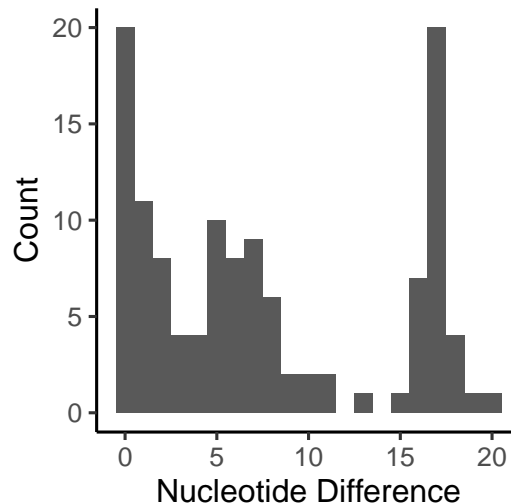
IGHV5-51*07

3611 sequences assigned
20 (0.6%) exact matches, in which:
18 unique CDR3
4 unique J

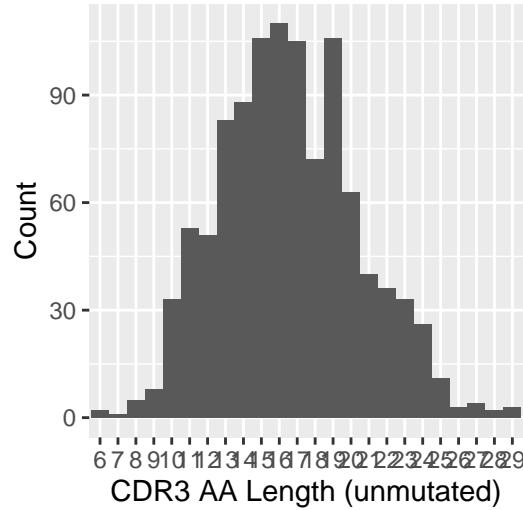


IGHV6-1*01_02_A315G

129 sequences assigned
20 (15.5%) exact matches, in which:
20 unique CDR3
4 unique J



IGHV1-69*06_14_G240A



IGHV6-1*01_02_A315G

