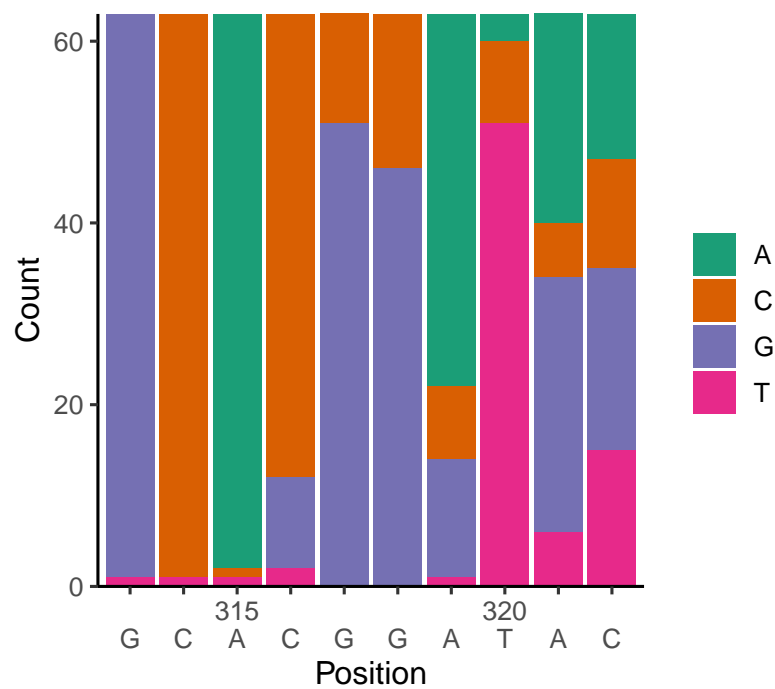
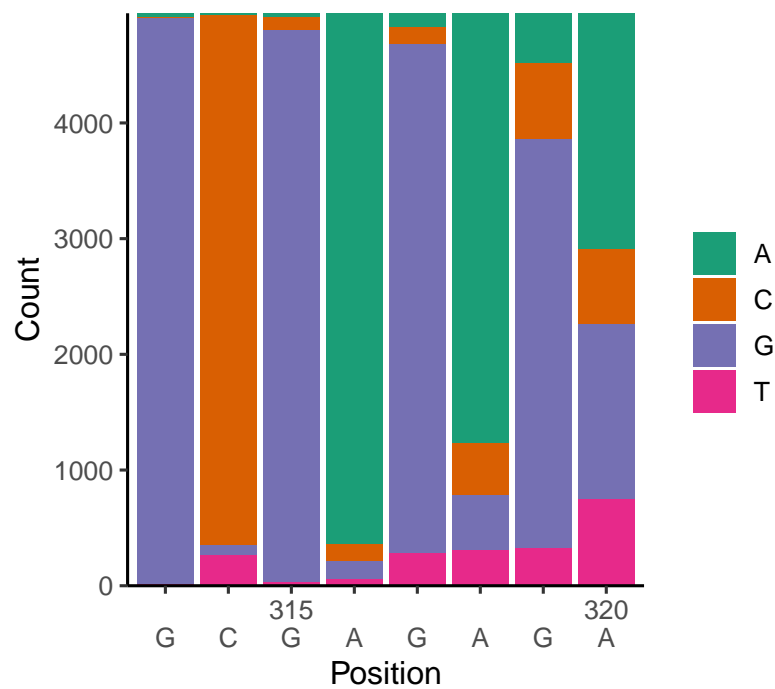


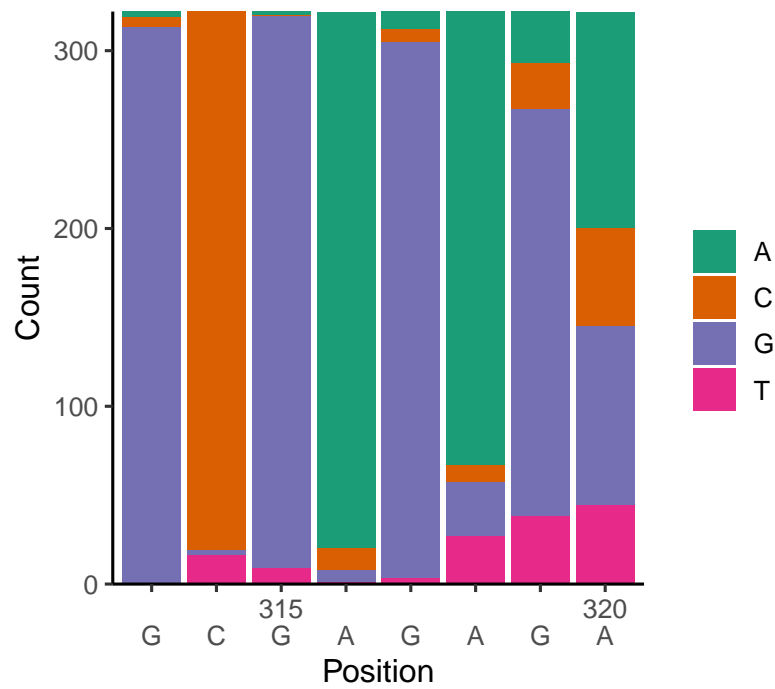
Gene IGHV2-26*01_G49C



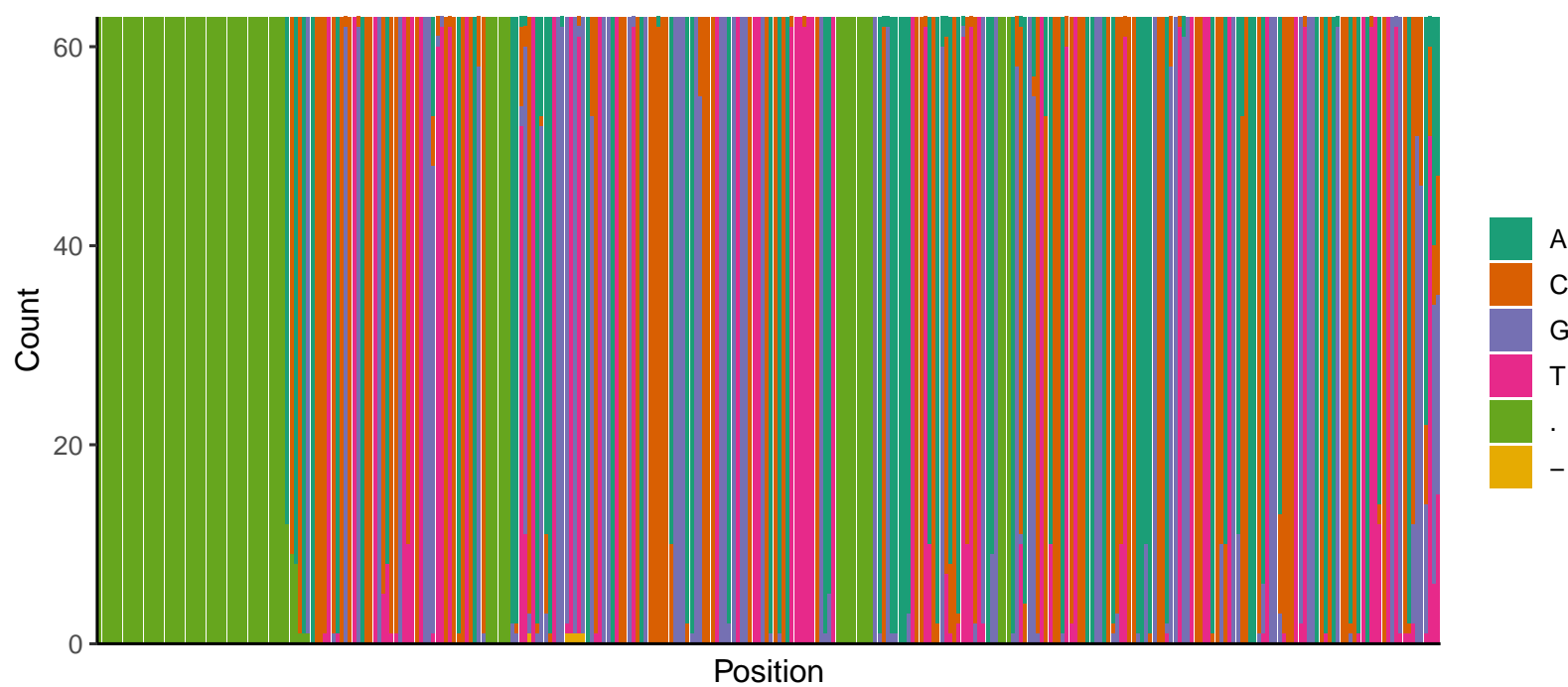
Gene IGHV4-38-2*02_A70G



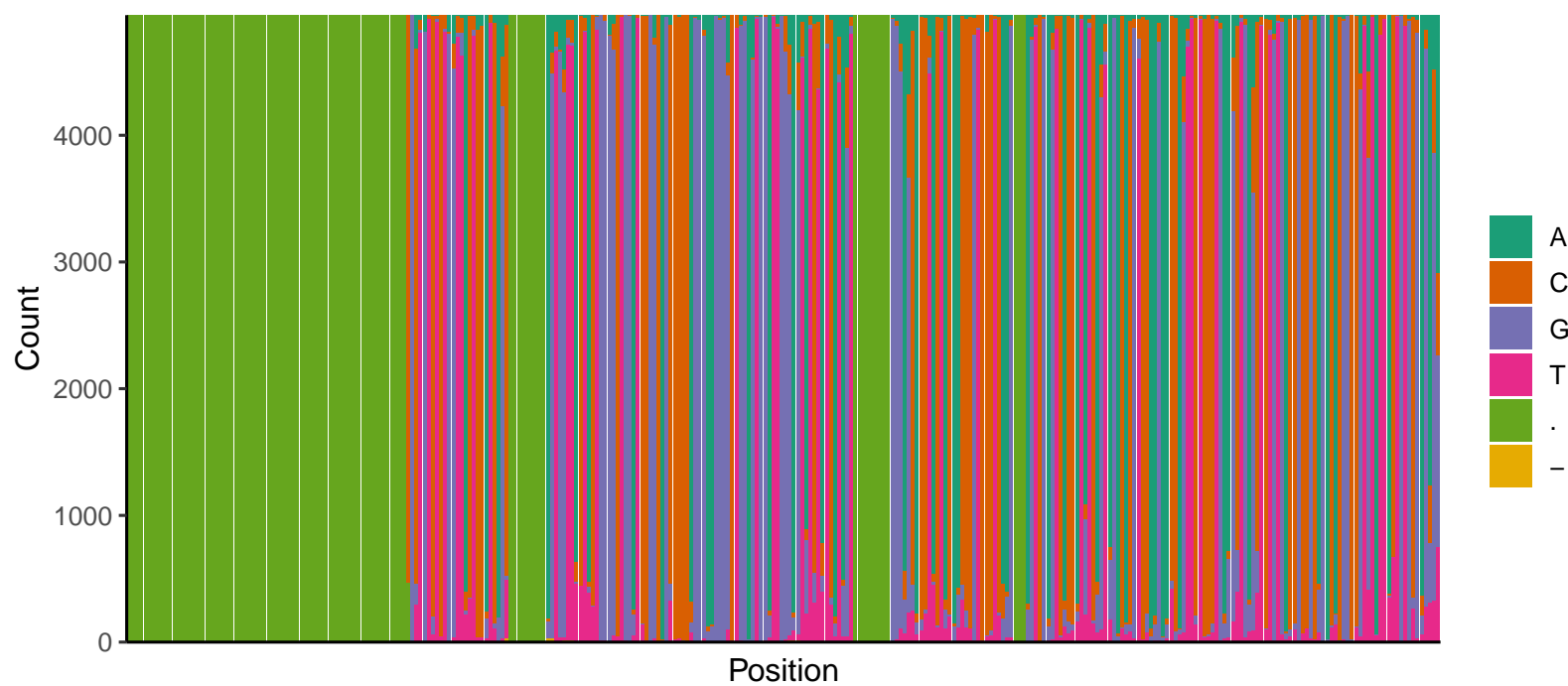
Gene IGHV7-4-1*02_A18G



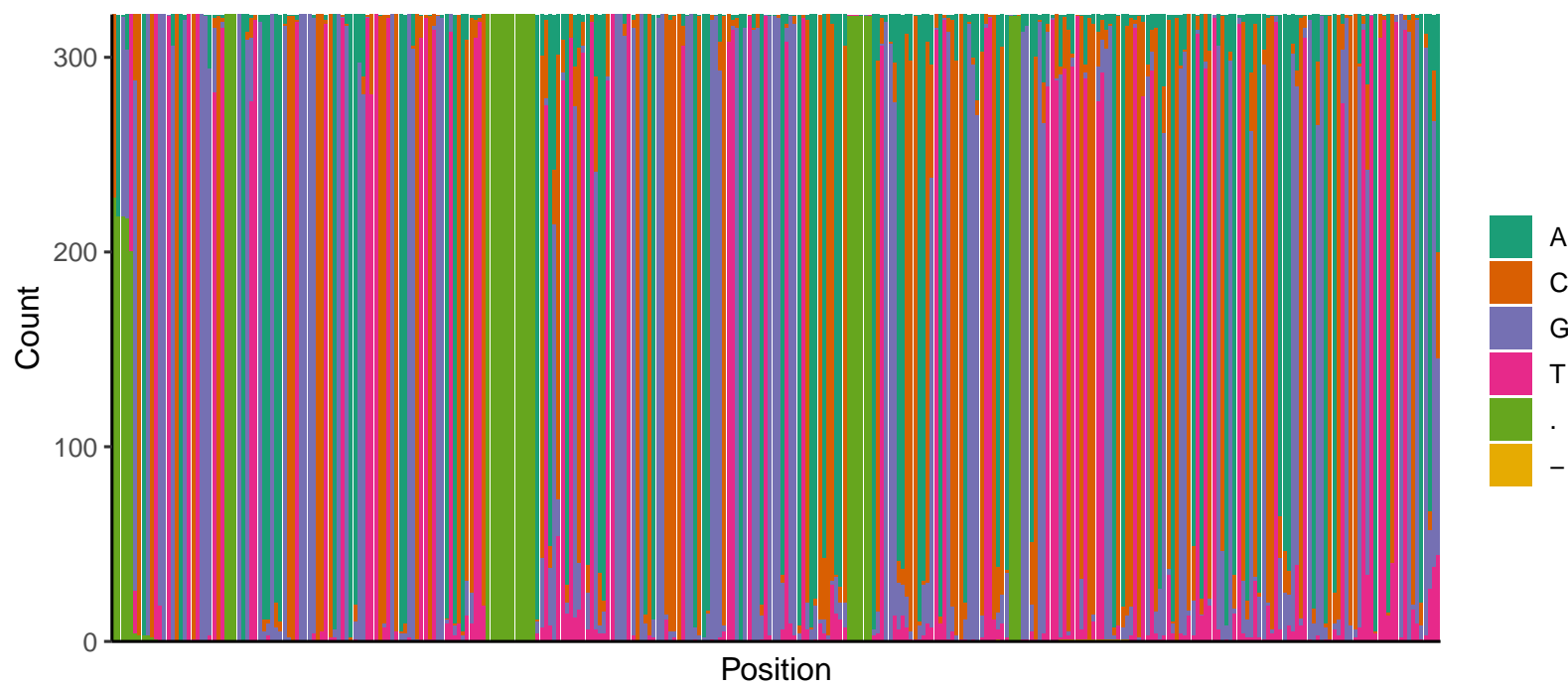
Gene IGHV2-26*01_G49C



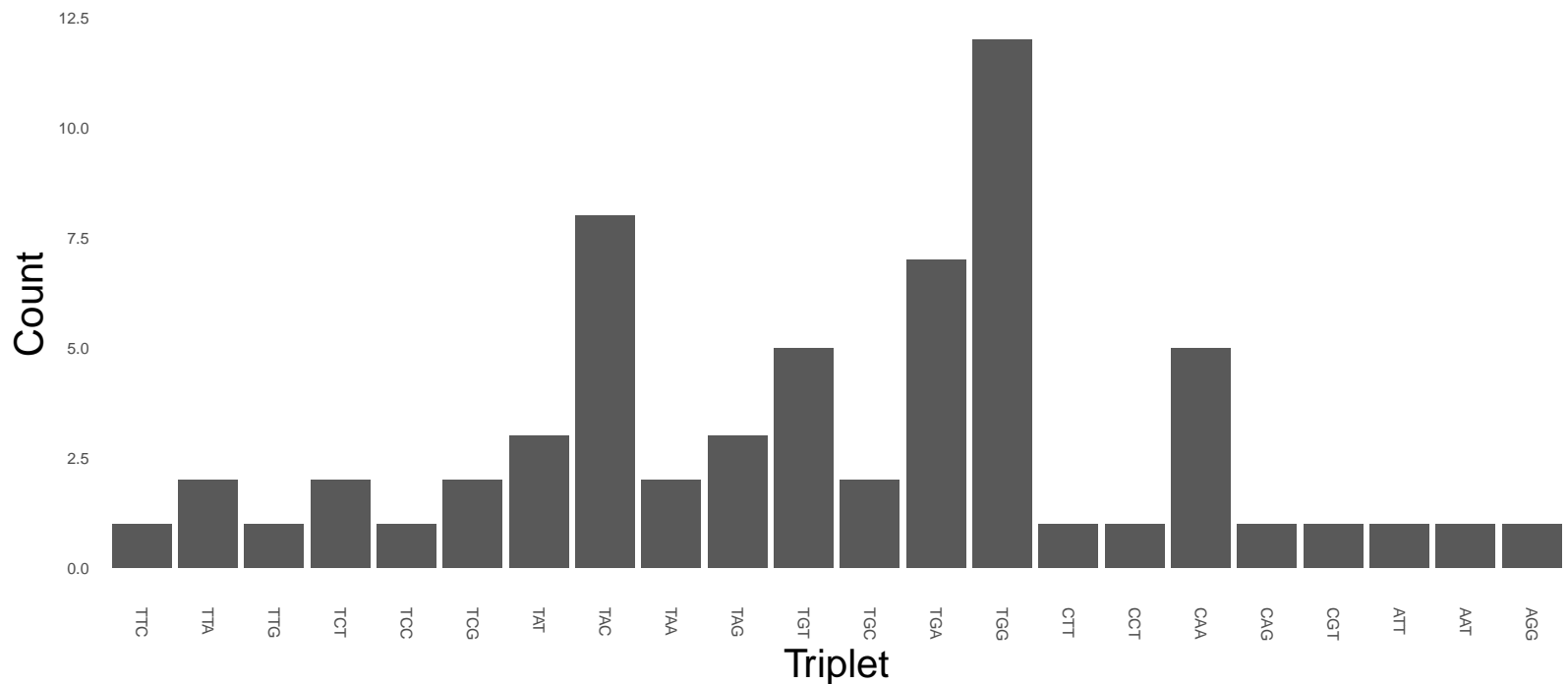
Gene IGHV4-38-2*02_A70G



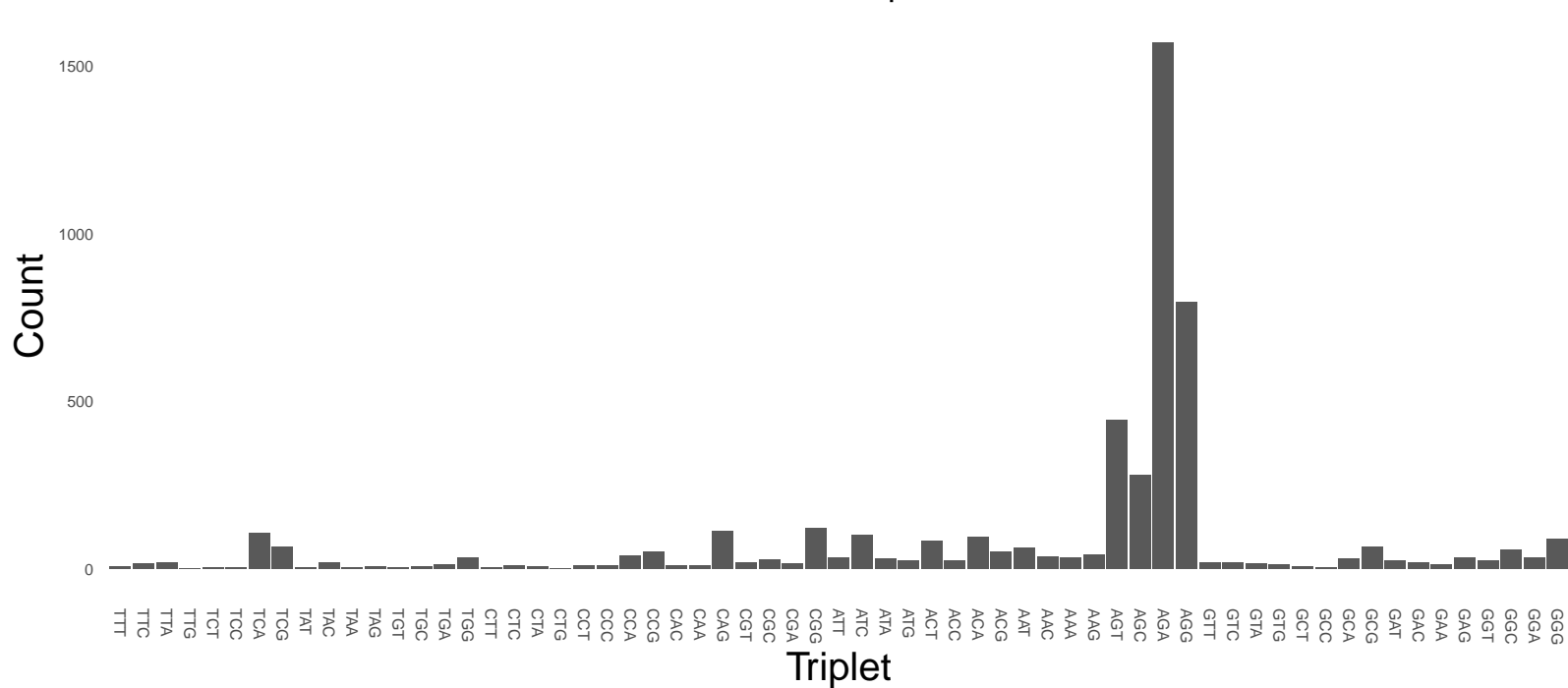
Gene IGHV7-4-1*02_A18G



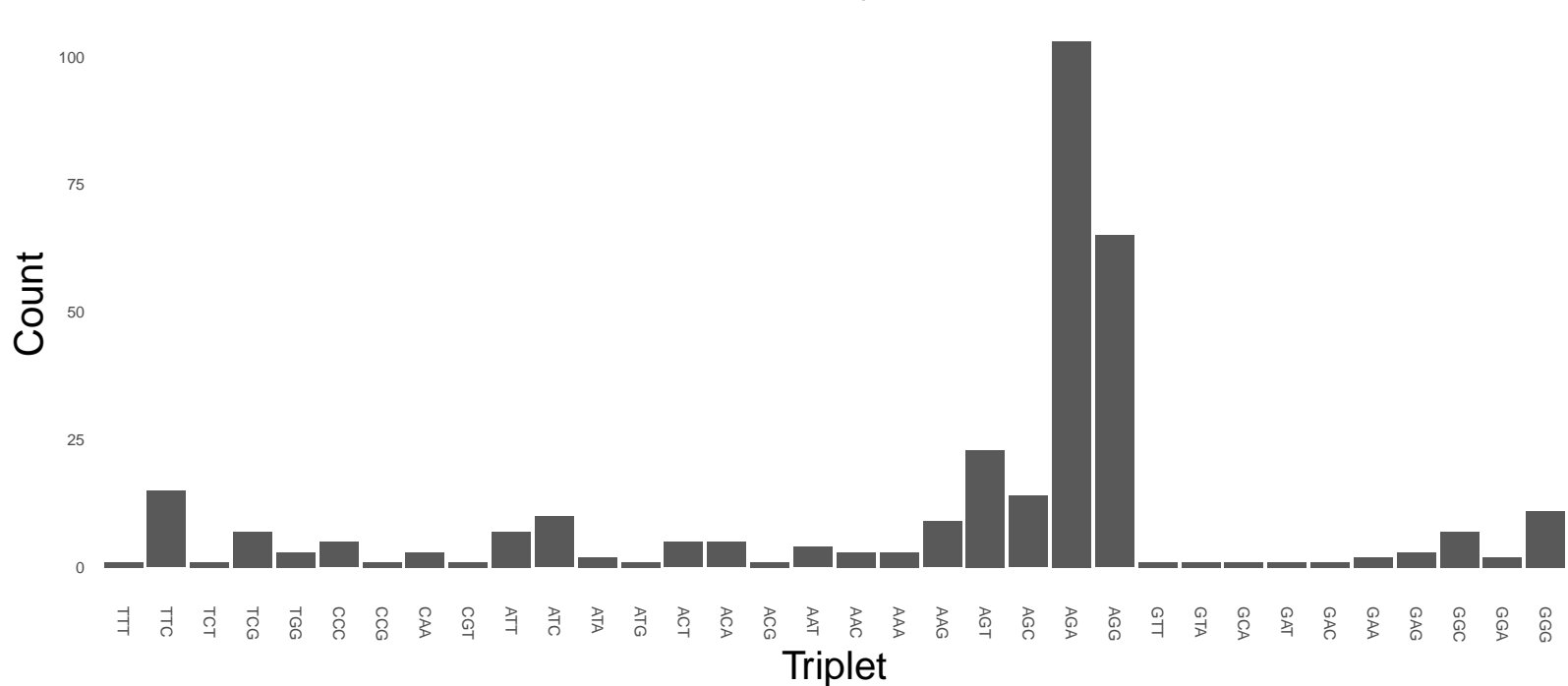
IGHV2-26*01_G49C- Final 3 nucleotides as a triplet



IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet

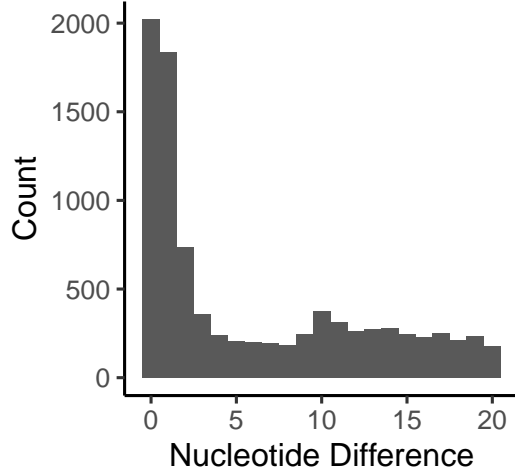


IGHV7-4-1*02_A18G- Final 3 nucleotides as a triplet



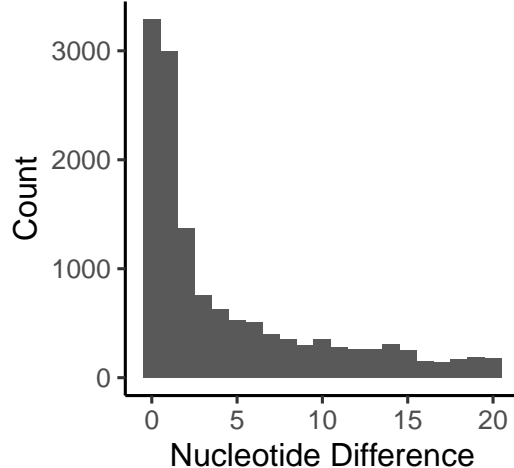
IGHV1-2*02

10672 sequences assigned
2021 (18.9%) exact matches, in which:
1684 unique CDR3
6 unique J



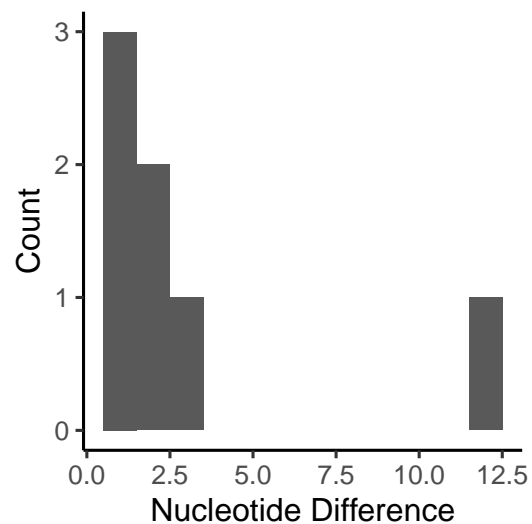
IGHV1-8*01

14747 sequences assigned
3288 (22.3%) exact matches, in which:
2720 unique CDR3
6 unique J



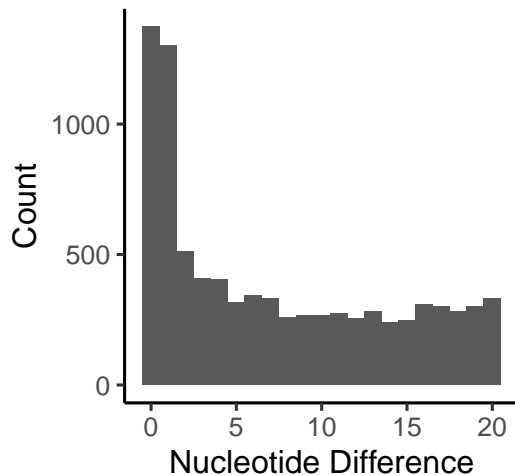
IGHV1-45*02

10 sequences assigned
No exact matches.



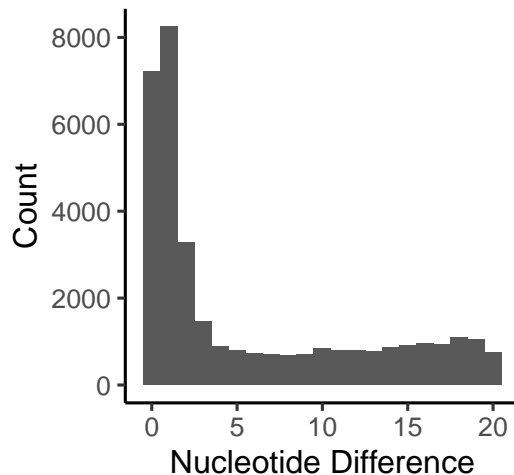
IGHV1-2*06

9626 sequences assigned
1373 (14.3%) exact matches, in which:
1123 unique CDR3
6 unique J



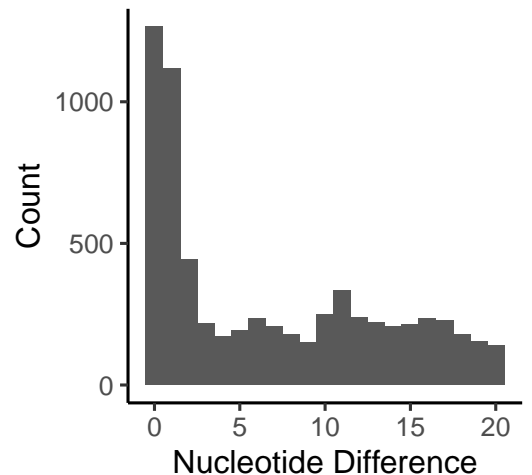
IGHV1-18*01

39744 sequences assigned
7218 (18.2%) exact matches, in which:
5673 unique CDR3
6 unique J



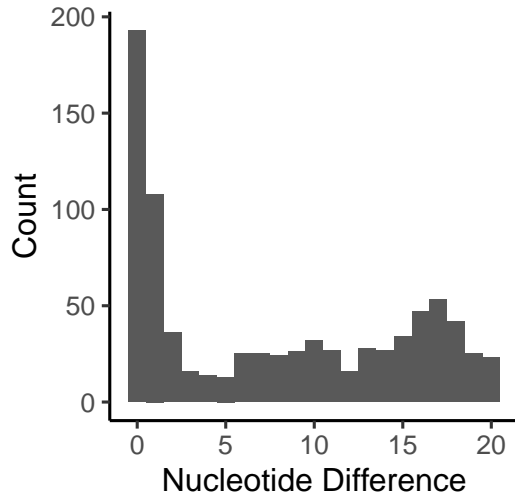
IGHV1-46*01

7775 sequences assigned
1265 (16.3%) exact matches, in which:
1054 unique CDR3
6 unique J



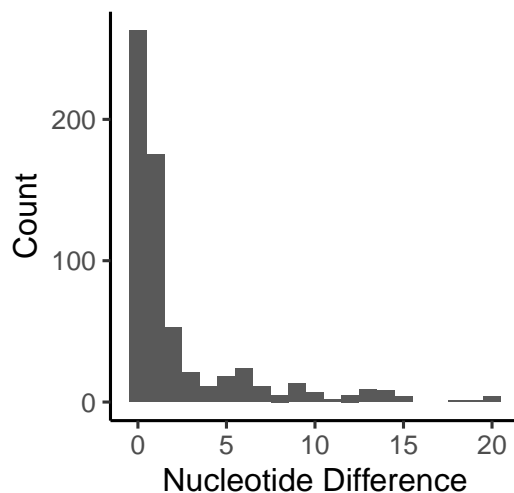
IGHV1-3*01_05

1134 sequences assigned
193 (17%) exact matches, in which:
170 unique CDR3
6 unique J



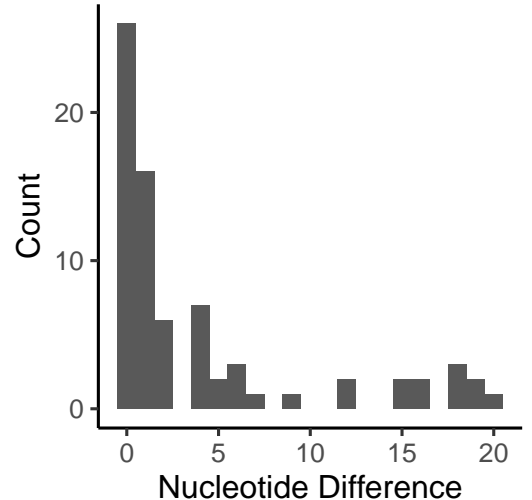
IGHV1-24*01

659 sequences assigned
263 (39.9%) exact matches, in which:
230 unique CDR3
6 unique J



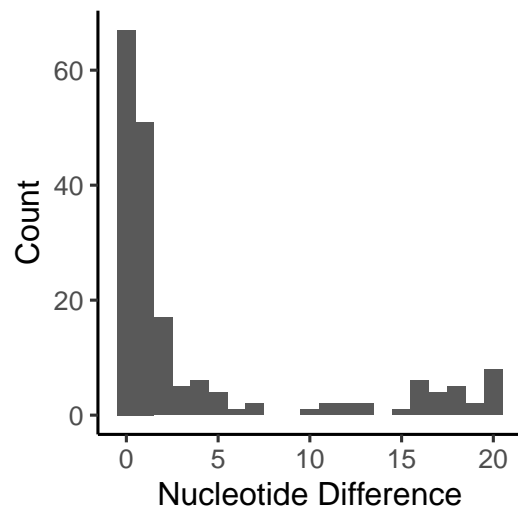
IGHV1-58*02

88 sequences assigned
26 (29.5%) exact matches, in which:
21 unique CDR3
5 unique J



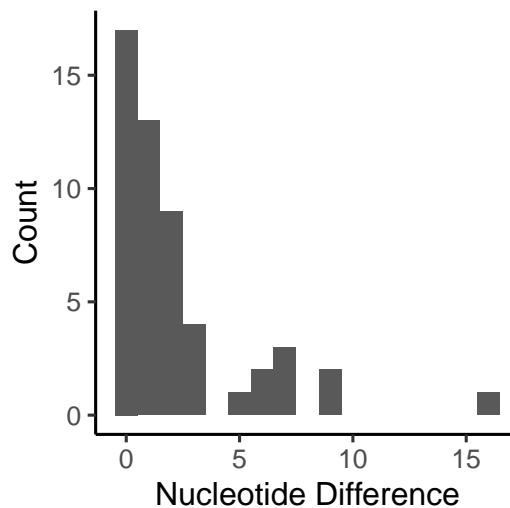
IGHV1-58*01_03

242 sequences assigned
67 (27.7%) exact matches, in which:
62 unique CDR3
5 unique J



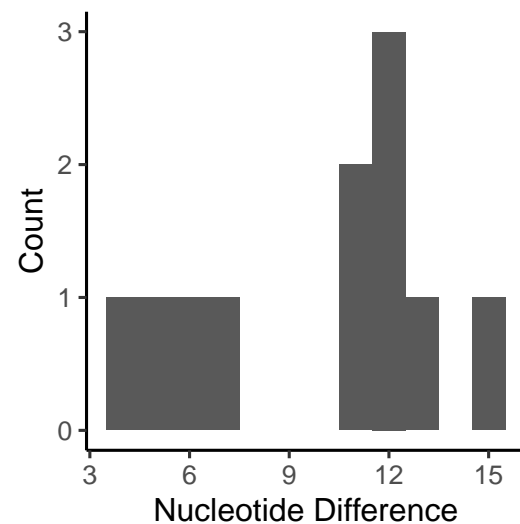
IGHV2-26*01_G49C

63 sequences assigned
17 (27%) exact matches, in which:
13 unique CDR3
6 unique J



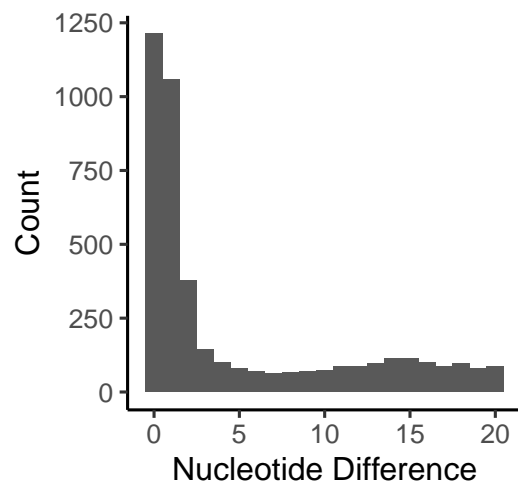
IGHV2-70D*04

11 sequences assigned
No exact matches.



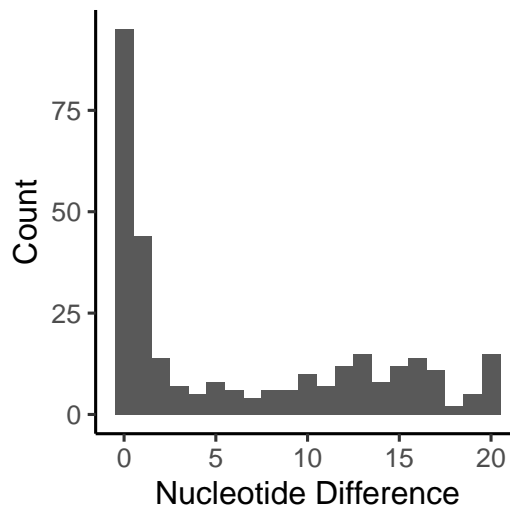
IGHV1-69*04_09

5074 sequences assigned
1213 (23.9%) exact matches, in which:
1018 unique CDR3
6 unique J



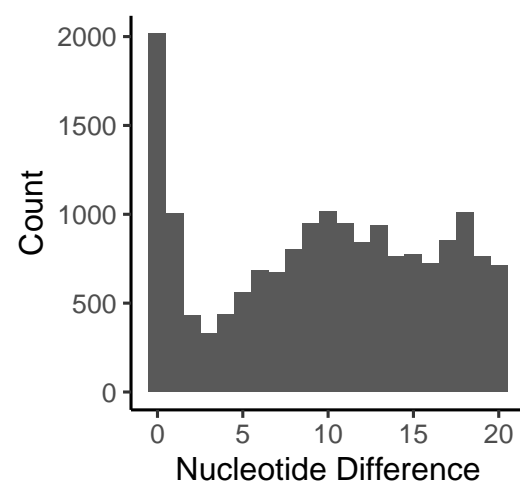
IGHV2-70*01

366 sequences assigned
95 (26%) exact matches, in which:
87 unique CDR3
5 unique J



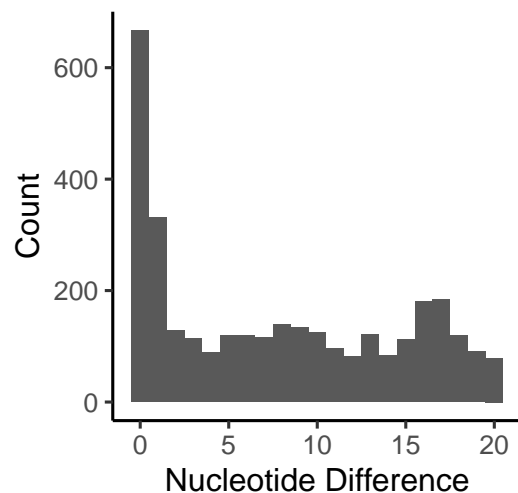
IGHV3-7*01

19470 sequences assigned
2016 (10.4%) exact matches, in which:
1792 unique CDR3
6 unique J



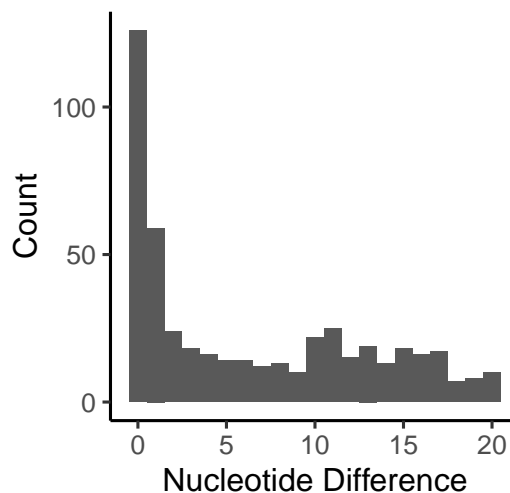
IGHV2-5*02

3710 sequences assigned
667 (18%) exact matches, in which:
589 unique CDR3
6 unique J



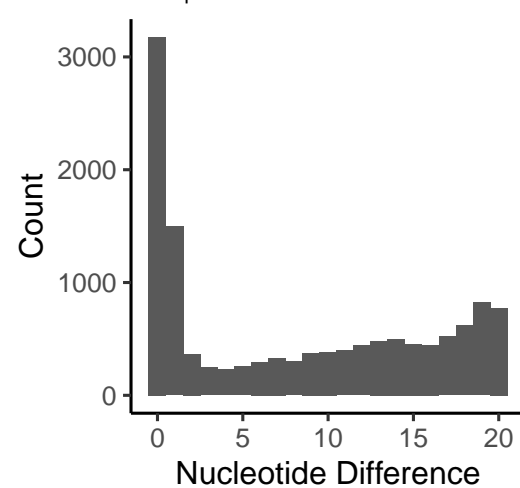
IGHV2-70*11_15

512 sequences assigned
126 (24.6%) exact matches, in which:
115 unique CDR3
6 unique J



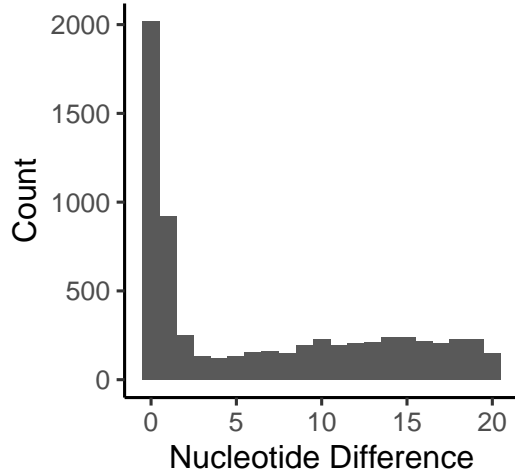
IGHV3-9*01

16001 sequences assigned
3176 (19.8%) exact matches, in which:
2812 unique CDR3
6 unique J



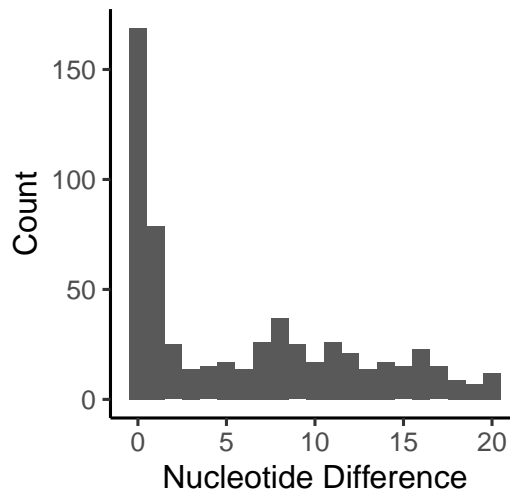
IGHV3-11*01

8245 sequences assigned
2018 (24.5%) exact matches, in which:
1797 unique CDR3
6 unique J



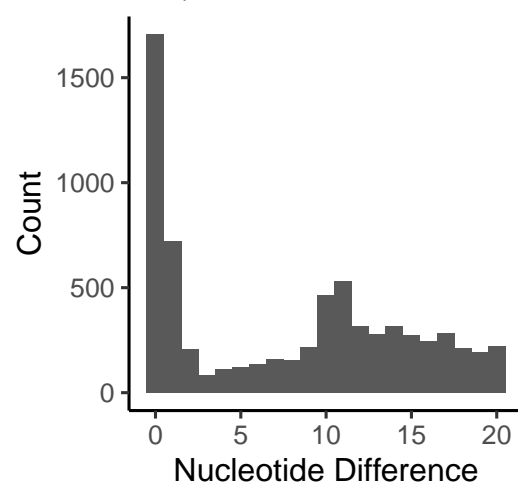
IGHV3-20*01_02

668 sequences assigned
169 (25.3%) exact matches, in which:
152 unique CDR3
5 unique J



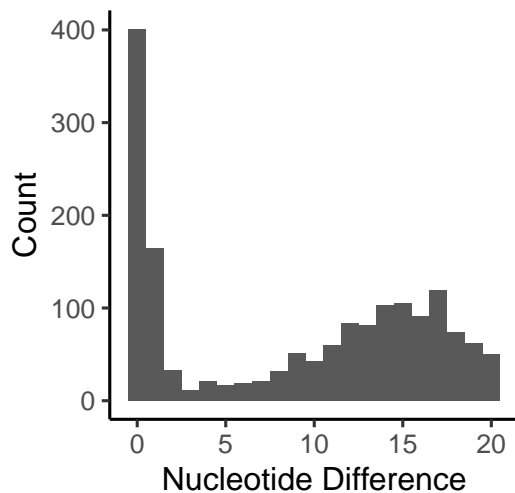
IGHV3-30-3*01

8978 sequences assigned
1706 (19%) exact matches, in which:
1555 unique CDR3
6 unique J



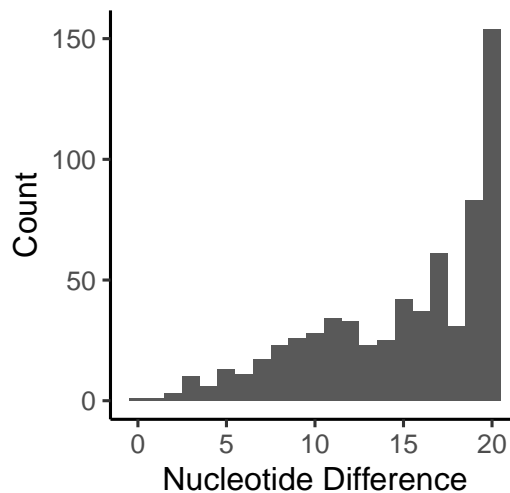
IGHV3-13*01

2008 sequences assigned
401 (20%) exact matches, in which:
342 unique CDR3
5 unique J



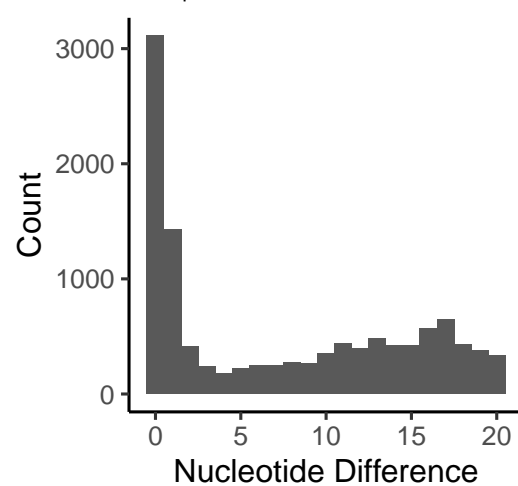
IGHV3-20*03_04

1403 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



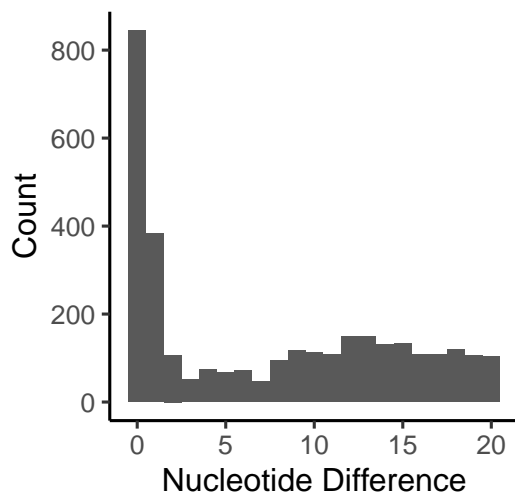
IGHV3-33*01

14535 sequences assigned
3112 (21.4%) exact matches, in which:
2401 unique CDR3
6 unique J



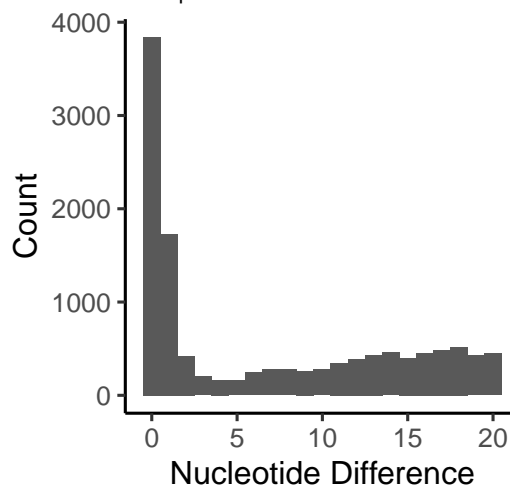
IGHV3-15*01_02

3807 sequences assigned
845 (22.2%) exact matches, in which:
766 unique CDR3
6 unique J



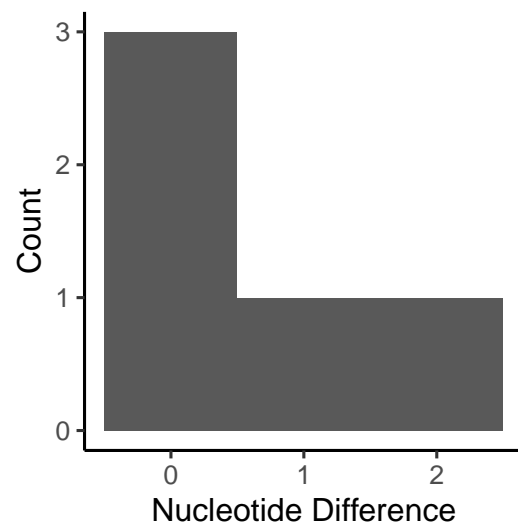
IGHV3-21*01_02

16827 sequences assigned
3841 (22.8%) exact matches, in which:
3333 unique CDR3
6 unique J



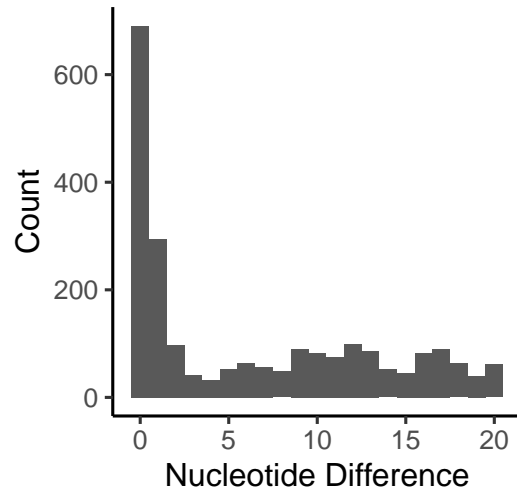
IGHV3-35*01

5 sequences assigned
3 (60%) exact matches, in which:
2 unique CDR3
1 unique J



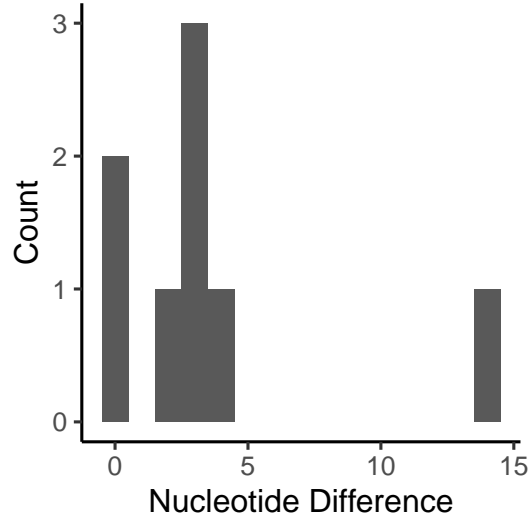
IGHV3-43*02

2666 sequences assigned
691 (25.9%) exact matches, in which:
619 unique CDR3
6 unique J



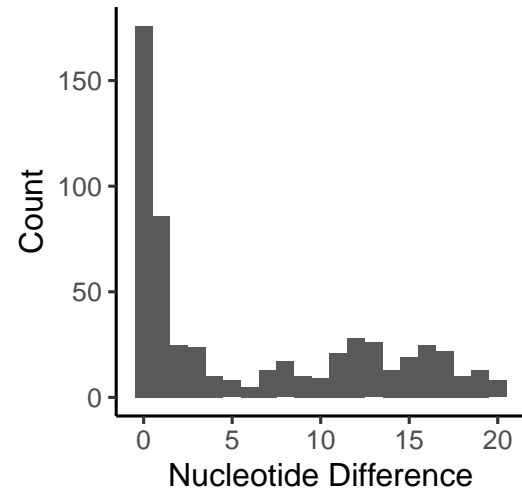
IGHV3-52*01_03

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



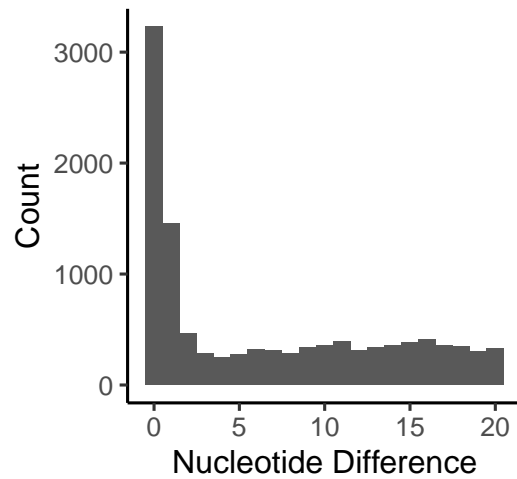
IGHV3-64*01

613 sequences assigned
176 (28.7%) exact matches, in which:
156 unique CDR3
6 unique J



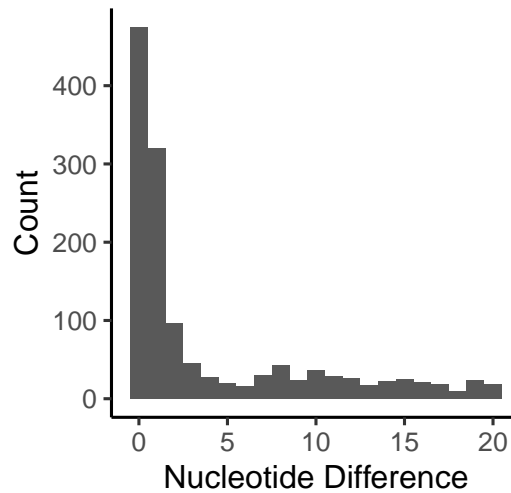
IGHV3-48*03

13342 sequences assigned
3229 (24.2%) exact matches, in which:
2866 unique CDR3
6 unique J



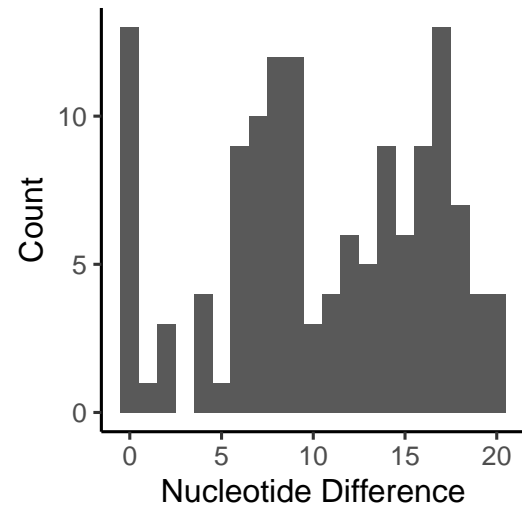
IGHV3-53*04

1556 sequences assigned
475 (30.5%) exact matches, in which:
394 unique CDR3
6 unique J



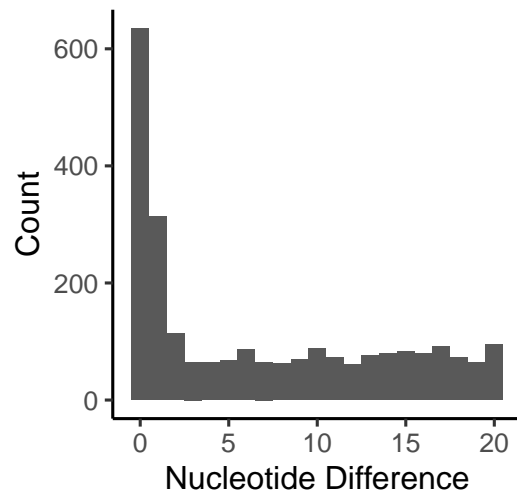
IGHV3-64*02_07

246 sequences assigned
13 (5.3%) exact matches, in which:
11 unique CDR3
4 unique J



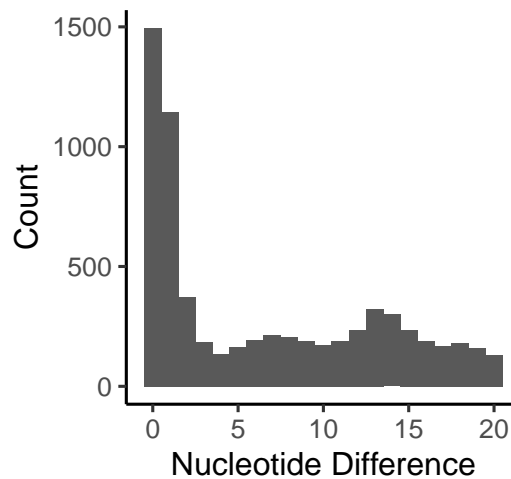
IGHV3-49*04

3256 sequences assigned
635 (19.5%) exact matches, in which:
579 unique CDR3
6 unique J



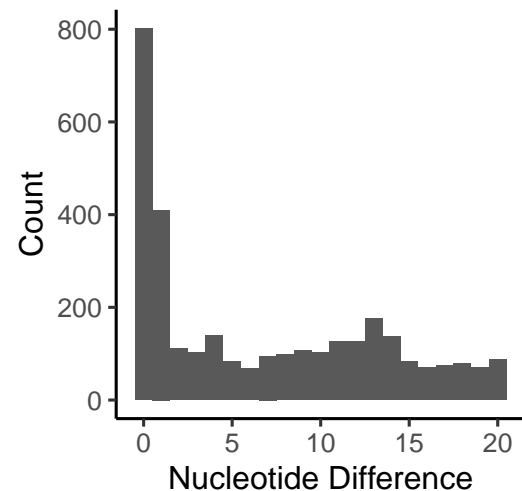
IGHV3-53*01_02

8752 sequences assigned
1495 (17.1%) exact matches, in which:
1214 unique CDR3
6 unique J



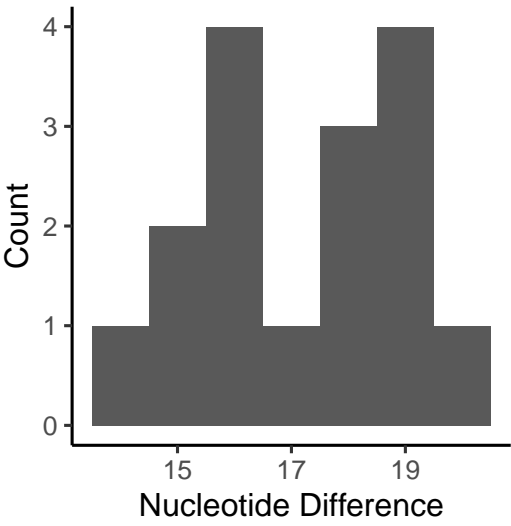
IGHV3-66*01

3787 sequences assigned
802 (21.2%) exact matches, in which:
703 unique CDR3
6 unique J



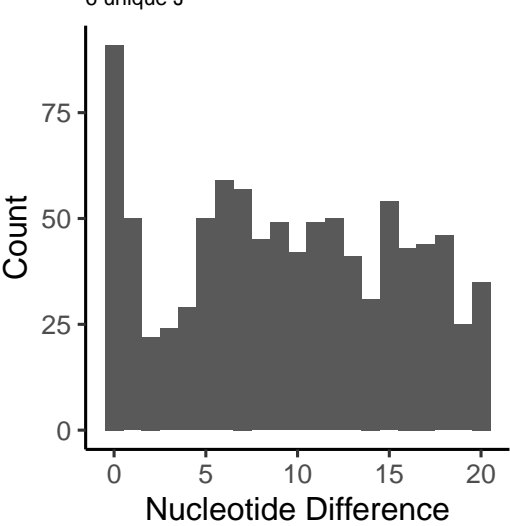
IGHV3-69-1*01

24 sequences assigned
No exact matches.



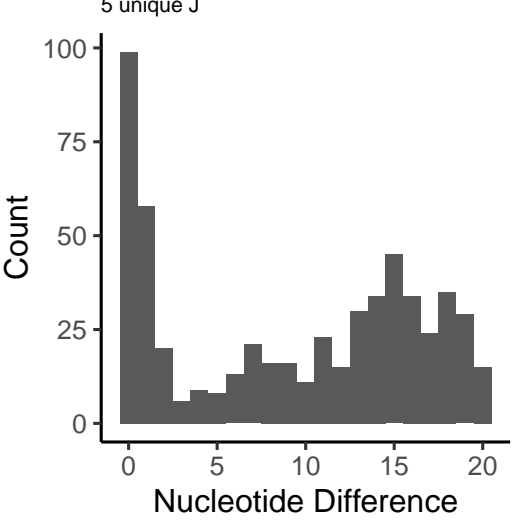
IGHV3-72*01

1118 sequences assigned
91 (8.1%) exact matches, in which:
82 unique CDR3
6 unique J



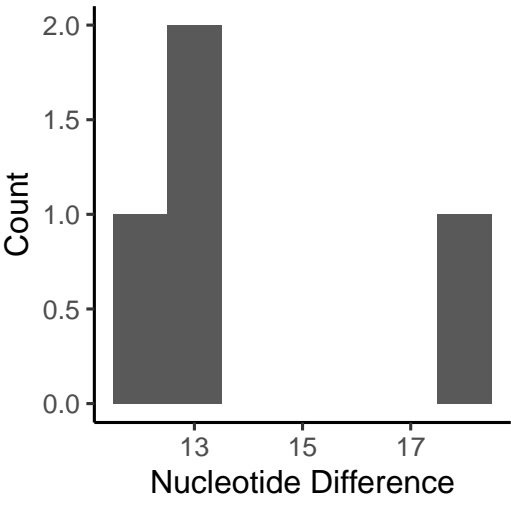
IGHV3-43D*04

603 sequences assigned
99 (16.4%) exact matches, in which:
87 unique CDR3
5 unique J



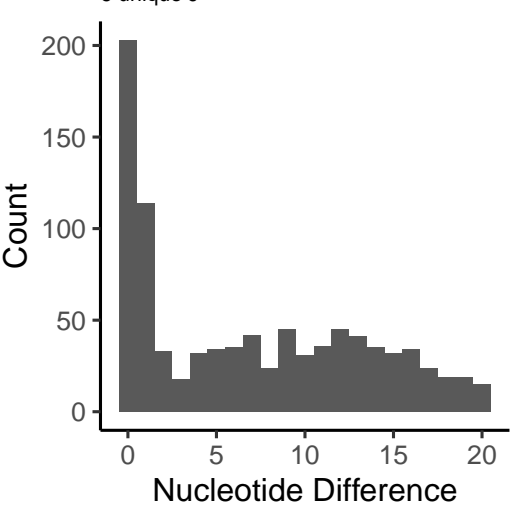
IGHV3-69-1*02

19 sequences assigned
No exact matches.



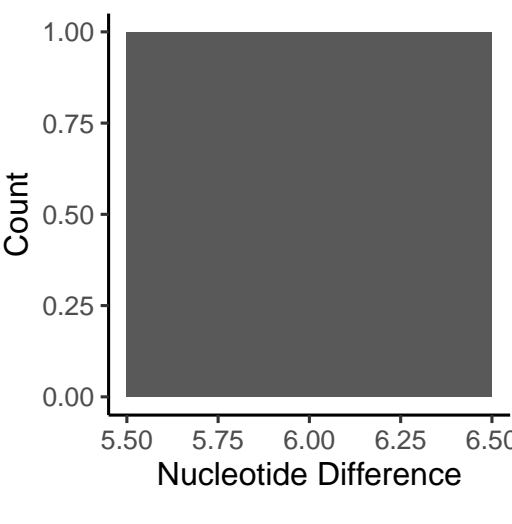
IGHV3-73*01_02

1017 sequences assigned
203 (20%) exact matches, in which:
179 unique CDR3
6 unique J



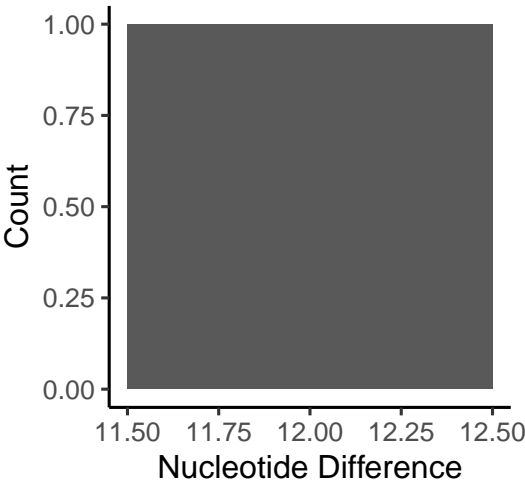
IGHV3-64D*06

1 sequences assigned
No exact matches.



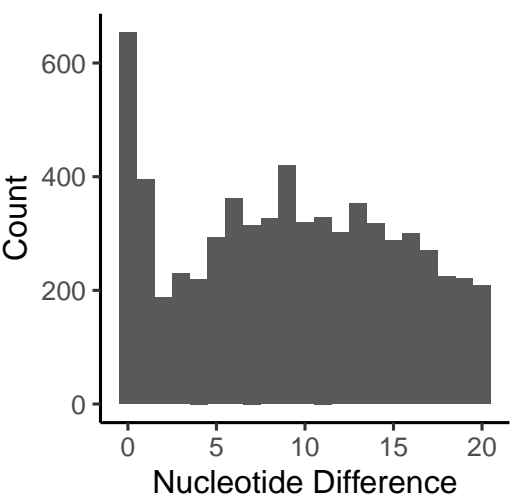
IGHV3-71*01_04

2 sequences assigned
No exact matches.



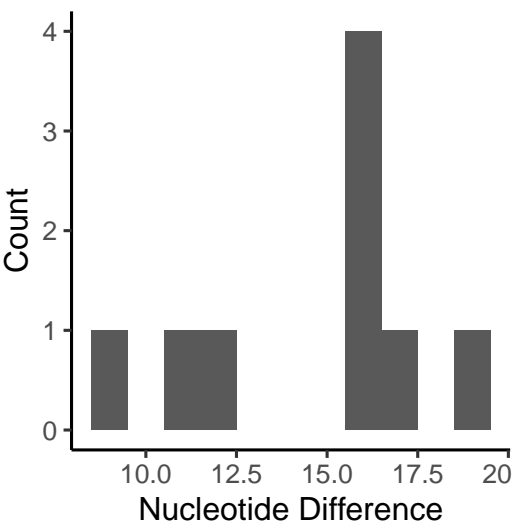
IGHV3-74*01_02

8245 sequences assigned
654 (7.9%) exact matches, in which:
572 unique CDR3
6 unique J



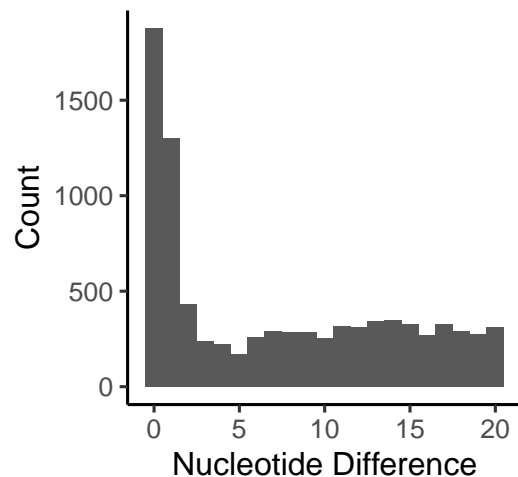
IGHV3-NL1*01

40 sequences assigned
No exact matches.



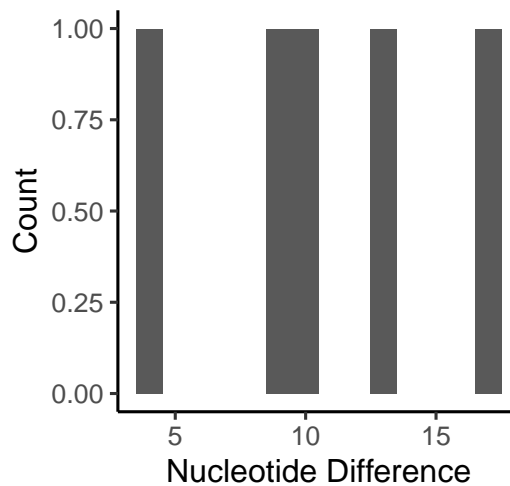
IGHV4-4*07

11607 sequences assigned
1876 (16.2%) exact matches, in which:
1386 unique CDR3
6 unique J



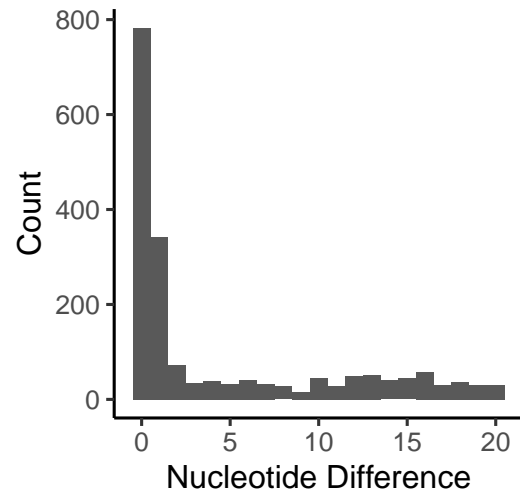
IGHV4-28*02_05

7 sequences assigned
No exact matches.



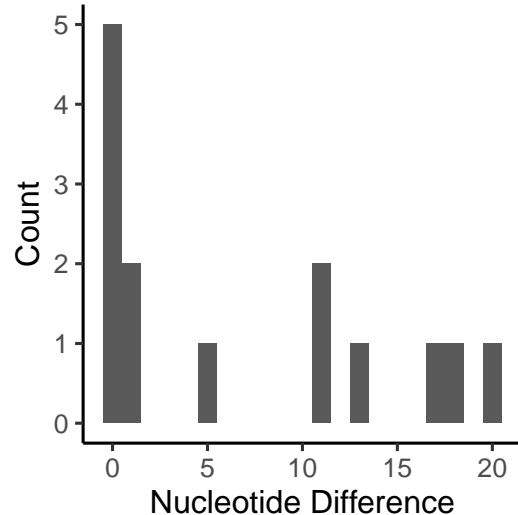
IGHV4-31*02

2162 sequences assigned
783 (36.2%) exact matches, in which:
756 unique CDR3
6 unique J



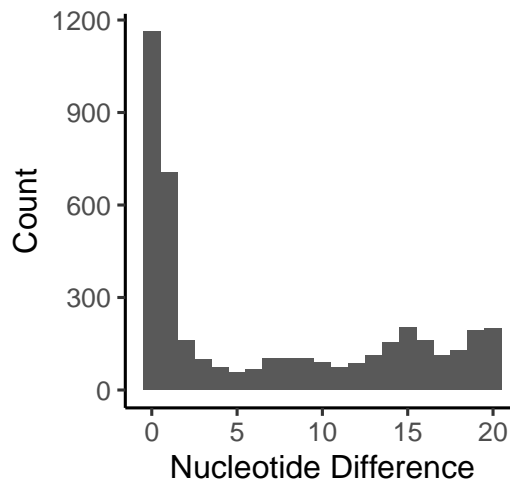
IGHV4-28*03

16 sequences assigned
5 (31.2%) exact matches, in which:
3 unique CDR3
2 unique J



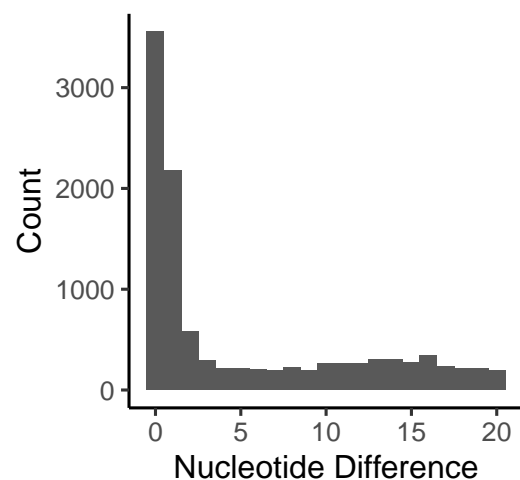
IGHV4-30-4*01

5429 sequences assigned
1162 (21.4%) exact matches, in which:
868 unique CDR3
6 unique J



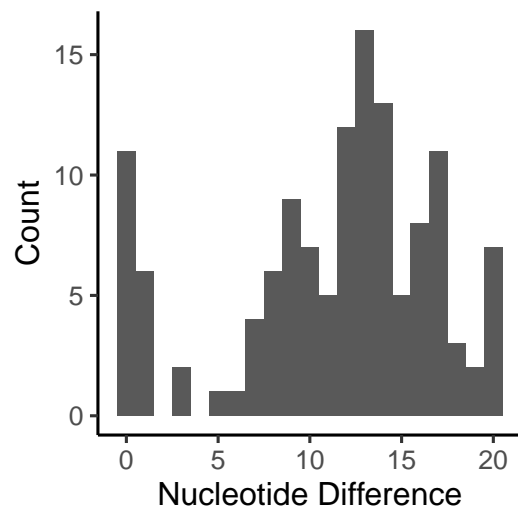
IGHV4-31*03_04

12599 sequences assigned
3555 (28.2%) exact matches, in which:
3047 unique CDR3
6 unique J



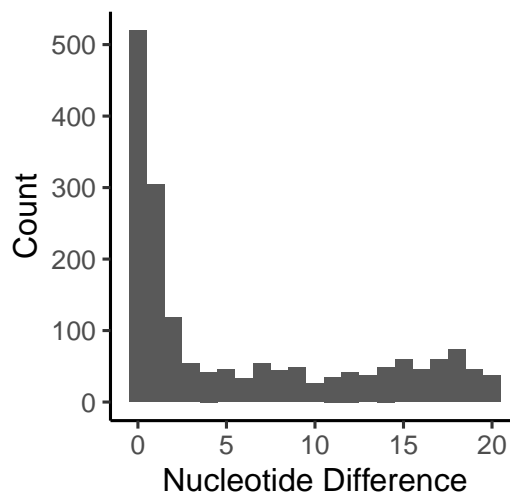
IGHV4-28*01_07

143 sequences assigned
11 (7.7%) exact matches, in which:
7 unique CDR3
3 unique J



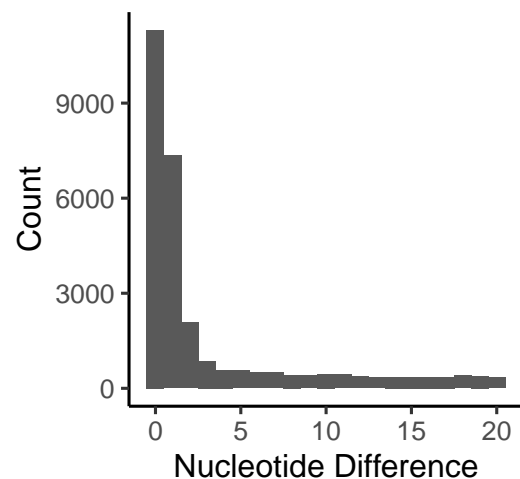
IGHV4-30-2*01

2288 sequences assigned
520 (22.7%) exact matches, in which:
384 unique CDR3
6 unique J



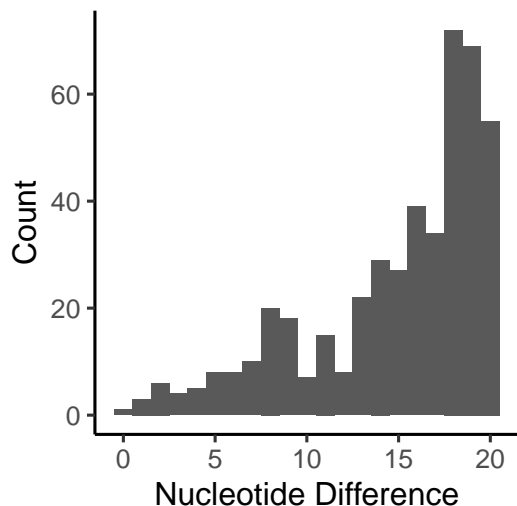
IGHV4-34*01_02

32264 sequences assigned
11306 (35%) exact matches, in which:
8496 unique CDR3
6 unique J



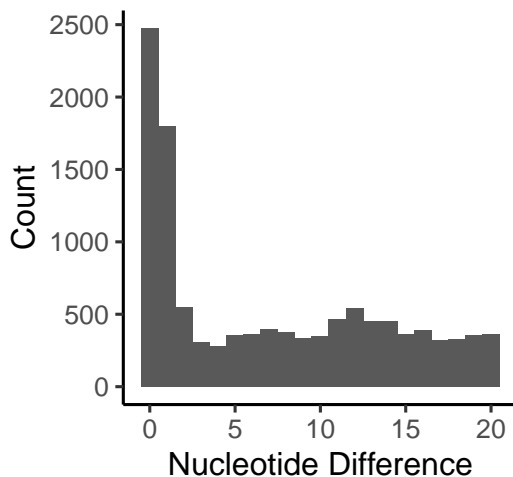
IGHV4-38-2*02

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



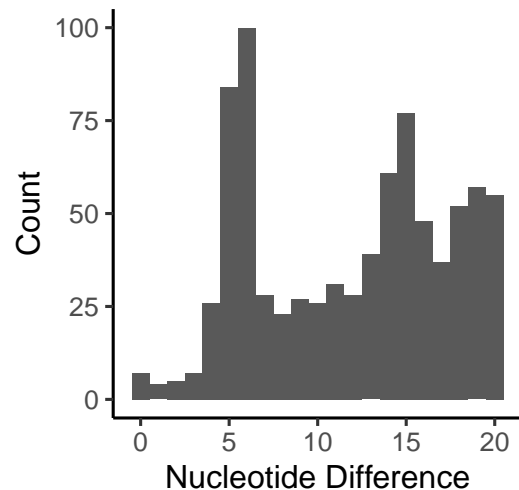
IGHV4-59*08

14654 sequences assigned
2474 (16.9%) exact matches, in which:
1788 unique CDR3
6 unique J



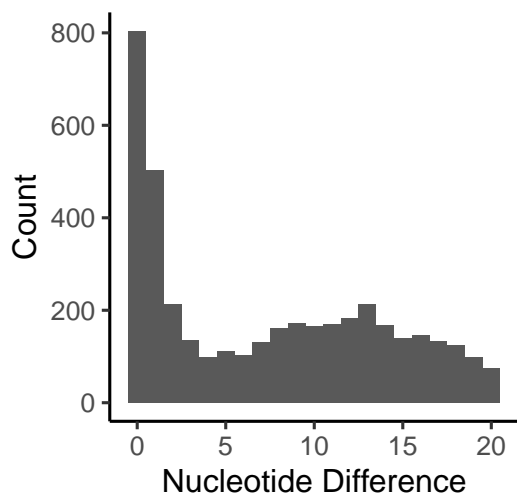
IGHV4-61*08

1467 sequences assigned
7 (0.5%) exact matches, in which:
7 unique CDR3
4 unique J



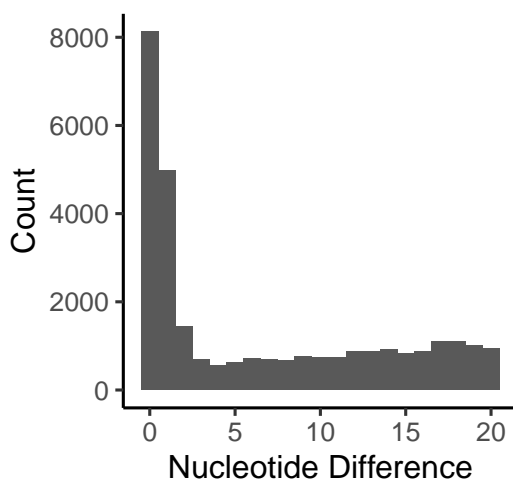
IGHV4-38-2*02_A70G

4948 sequences assigned
804 (16.2%) exact matches, in which:
643 unique CDR3
6 unique J



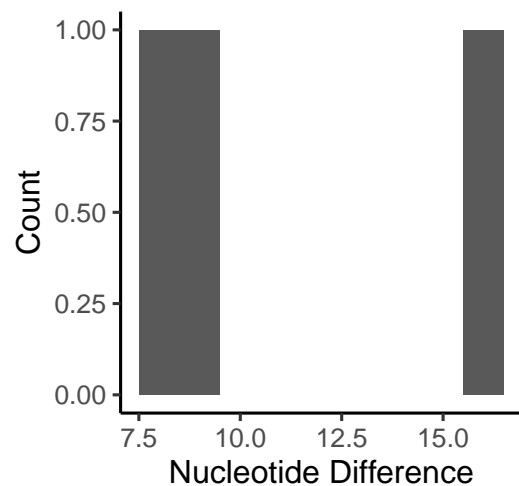
IGHV4-59*01_07

40320 sequences assigned
8126 (20.2%) exact matches, in which:
5880 unique CDR3
6 unique J



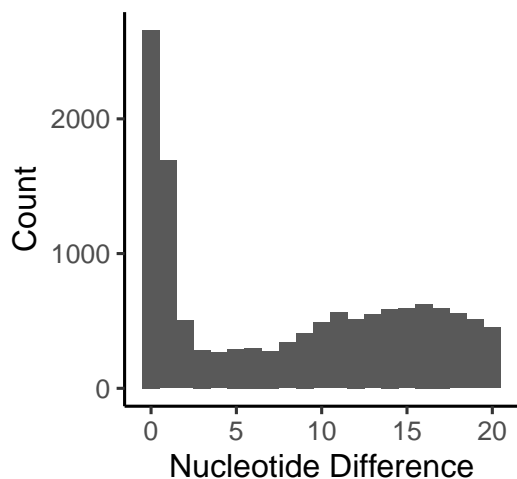
IGHV5-10-1*01_03

7 sequences assigned
No exact matches.



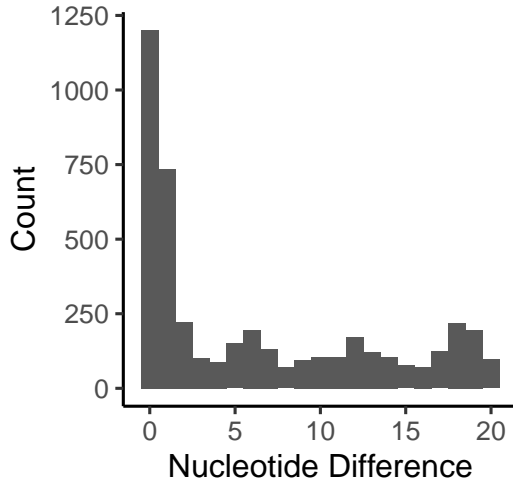
IGHV4-39*01_05

17910 sequences assigned
2659 (14.8%) exact matches, in which:
1994 unique CDR3
6 unique J



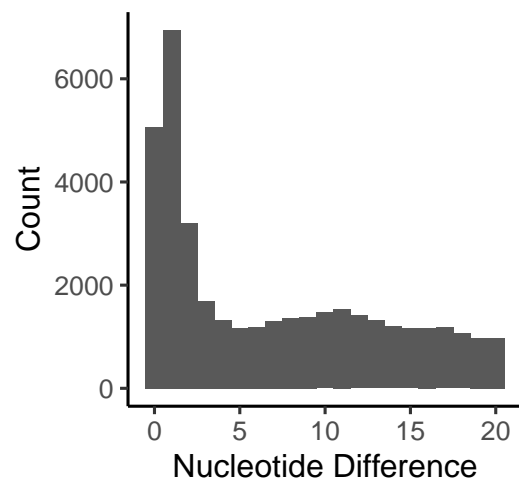
IGHV4-61*01

5126 sequences assigned
1201 (23.4%) exact matches, in which:
881 unique CDR3
6 unique J



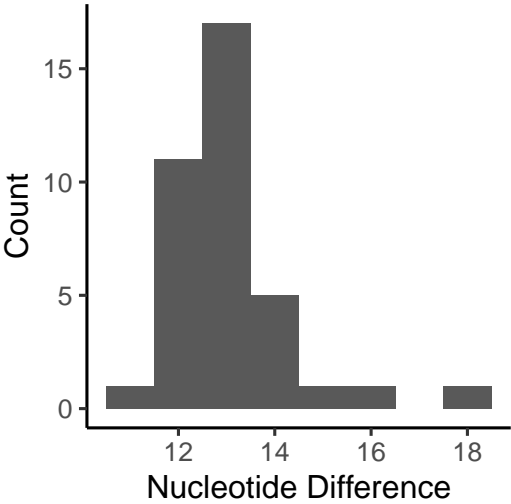
IGHV5-51*01_03

44385 sequences assigned
5069 (11.4%) exact matches, in which:
3960 unique CDR3
6 unique J



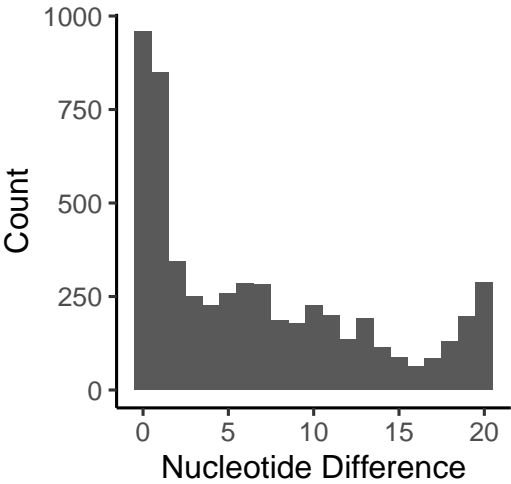
IGHV5-78*01

37 sequences assigned
No exact matches.



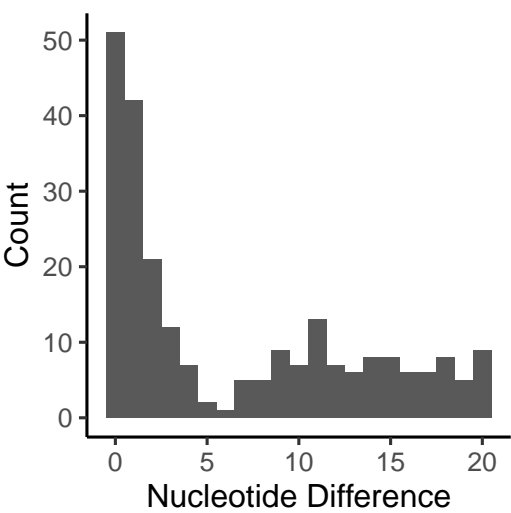
IGHV6-1*01_02

6425 sequences assigned
958 (14.9%) exact matches, in which:
753 unique CDR3
6 unique J



IGHV7-4-1*02_A18G

322 sequences assigned
51 (15.8%) exact matches, in which:
46 unique CDR3
6 unique J





Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning: IGHV4–31*02, IGHV4–31*03_04 have identical germline sequences.