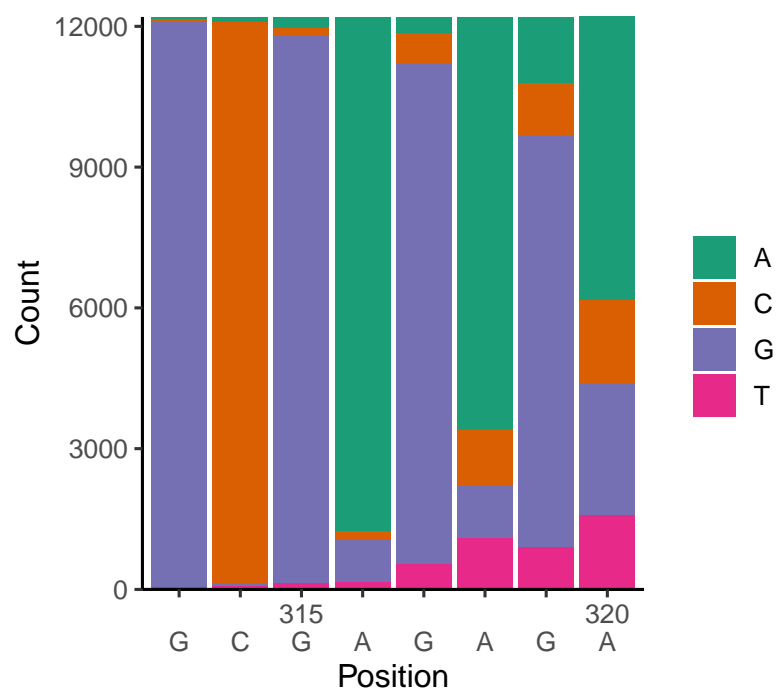
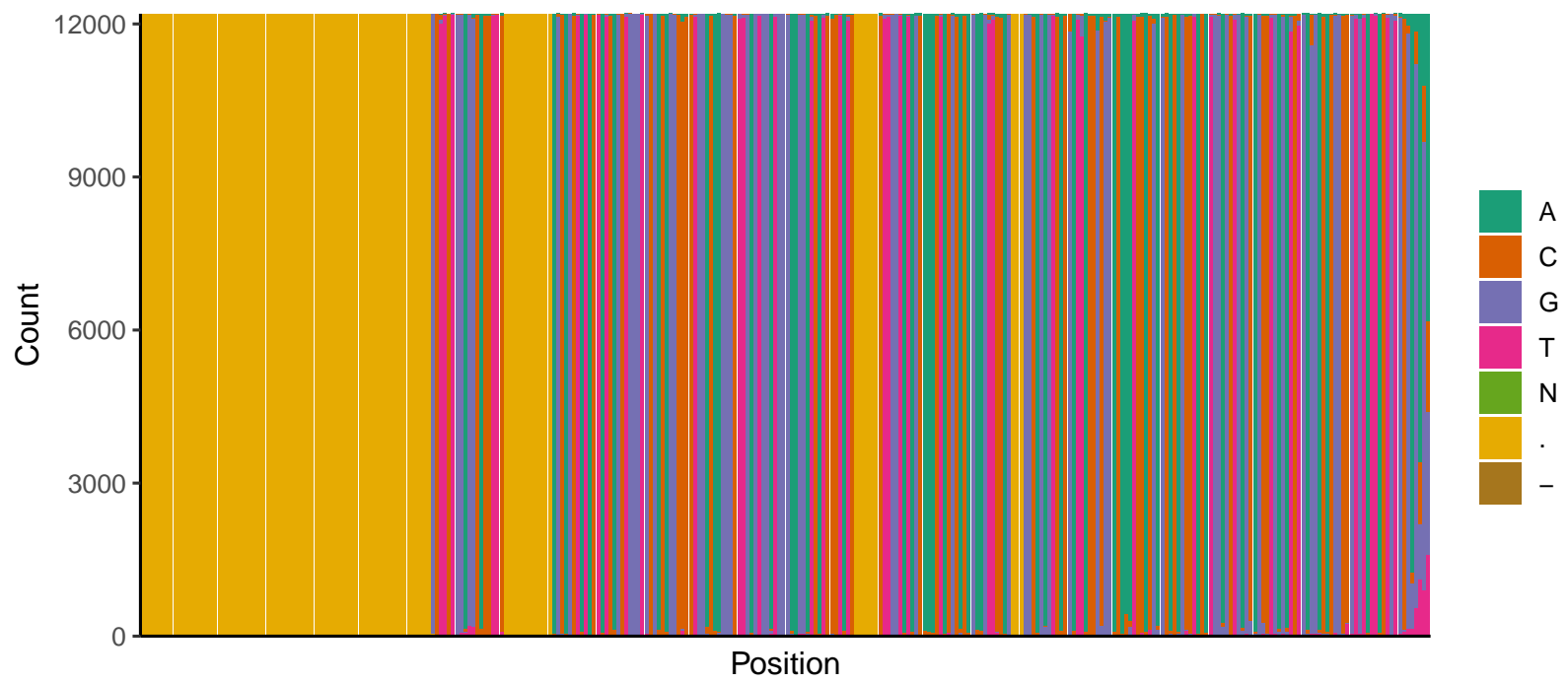


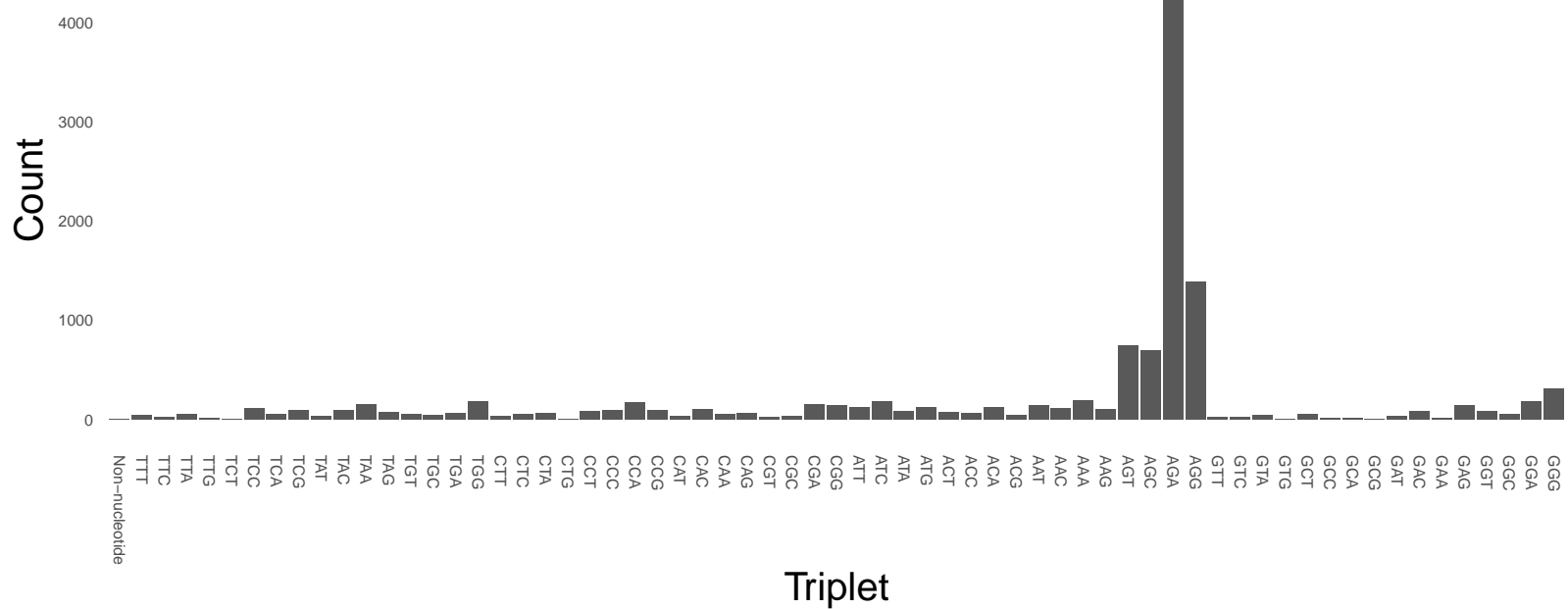
Gene IGHV1-69*08_C191T



Gene IGHV1-69*08_C191T

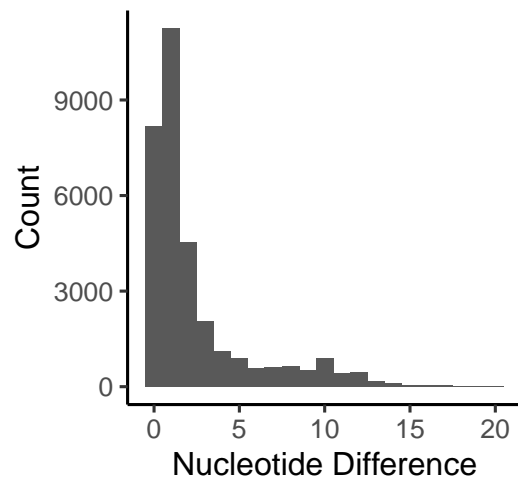


IGHV1-69*08_C191T- Final 3 nucleotides as a triplet



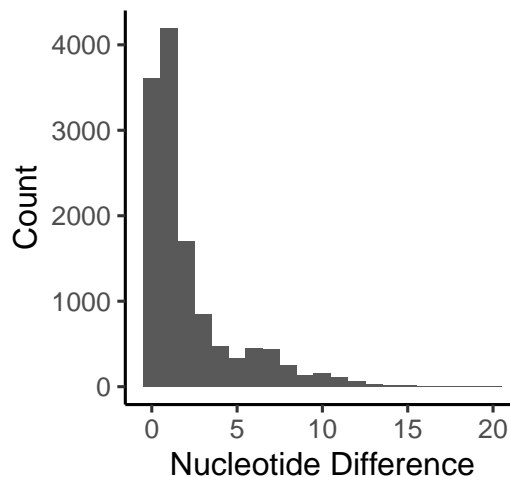
IGHV1-2*02

32601 sequences assigned
8172 (25.1%) exact matches, in which:
6609 unique CDR3
7 unique J



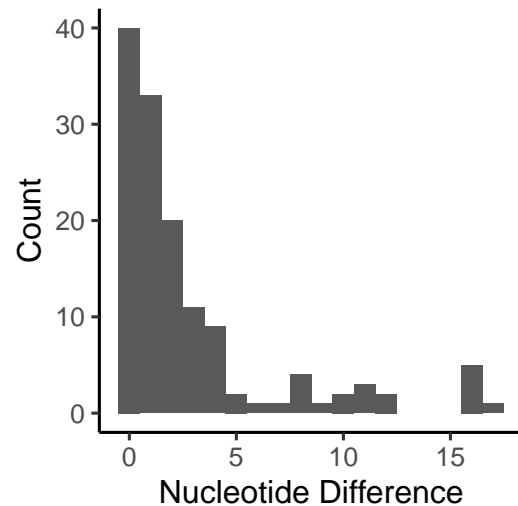
IGHV1-18*01

12893 sequences assigned
3610 (28%) exact matches, in which:
3003 unique CDR3
7 unique J



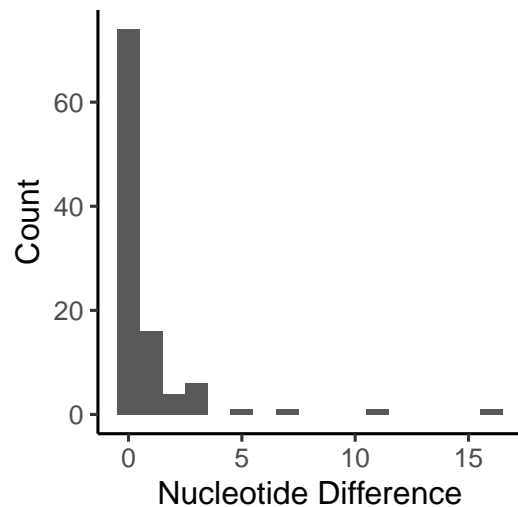
IGHV1-45*02

136 sequences assigned
40 (29.4%) exact matches, in which:
37 unique CDR3
6 unique J



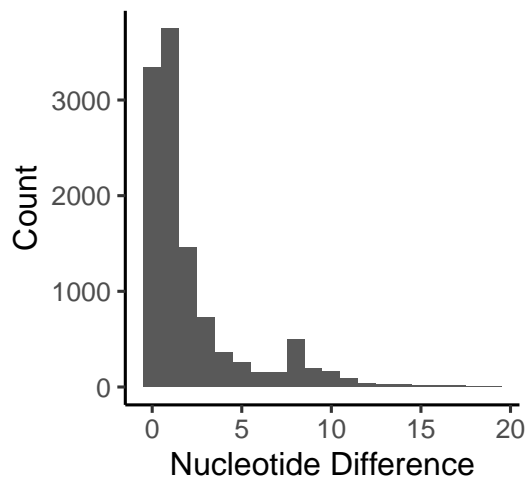
IGHV1-3*02

104 sequences assigned
74 (71.2%) exact matches, in which:
74 unique CDR3
6 unique J



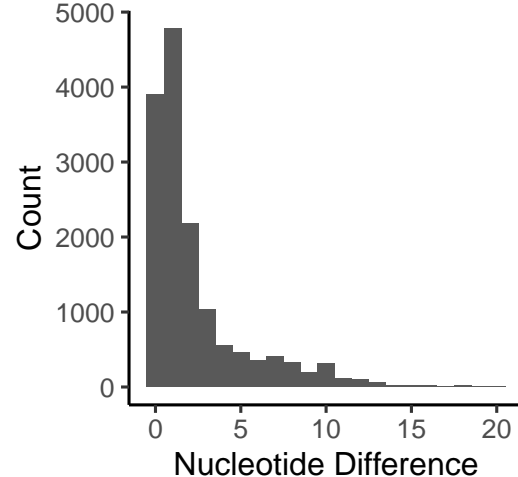
IGHV1-18*04

11274 sequences assigned
3336 (29.6%) exact matches, in which:
2758 unique CDR3
7 unique J



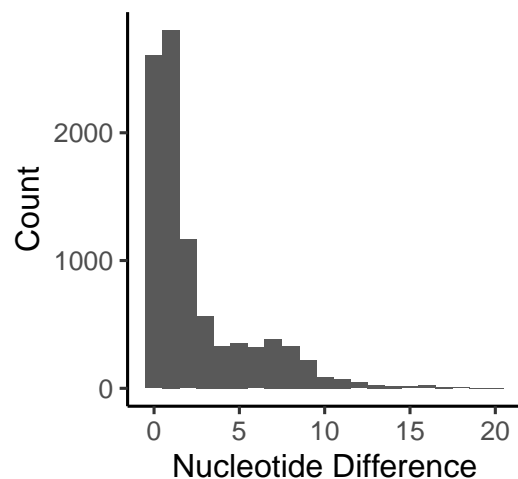
IGHV1-46*01

14897 sequences assigned
3900 (26.2%) exact matches, in which:
3263 unique CDR3
7 unique J



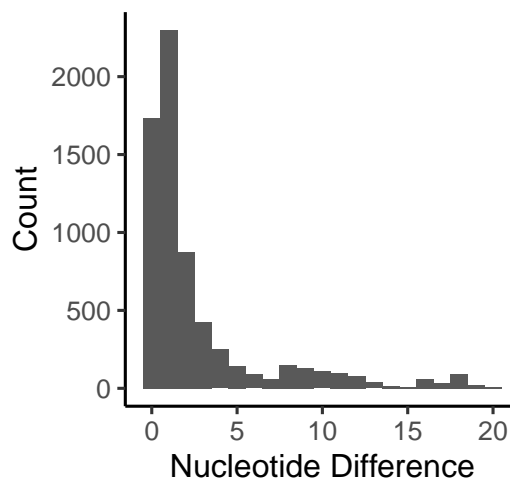
IGHV1-8*01

9405 sequences assigned
2604 (27.7%) exact matches, in which:
2204 unique CDR3
7 unique J



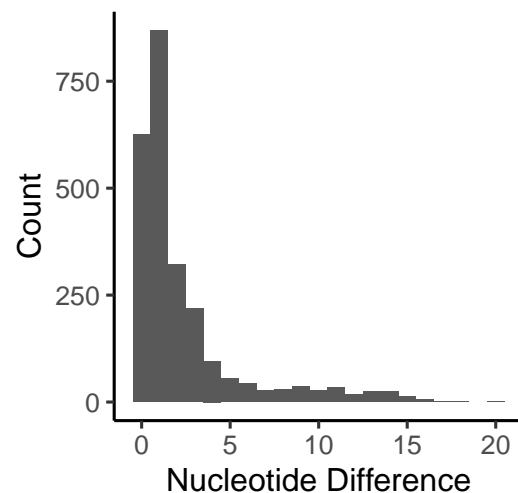
IGHV1-24*01

6729 sequences assigned
1733 (25.8%) exact matches, in which:
1407 unique CDR3
7 unique J



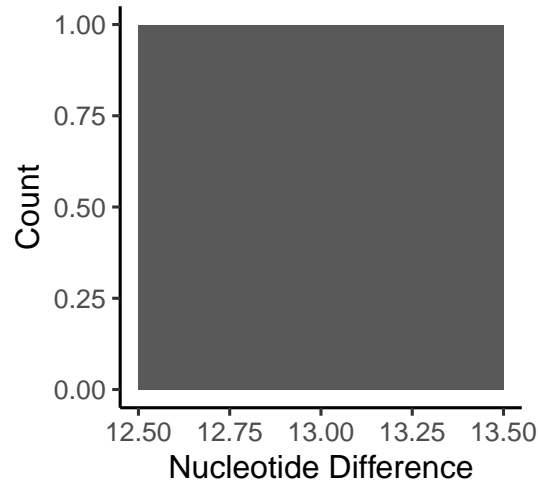
IGHV1-58*02

2483 sequences assigned
626 (25.2%) exact matches, in which:
520 unique CDR3
7 unique J



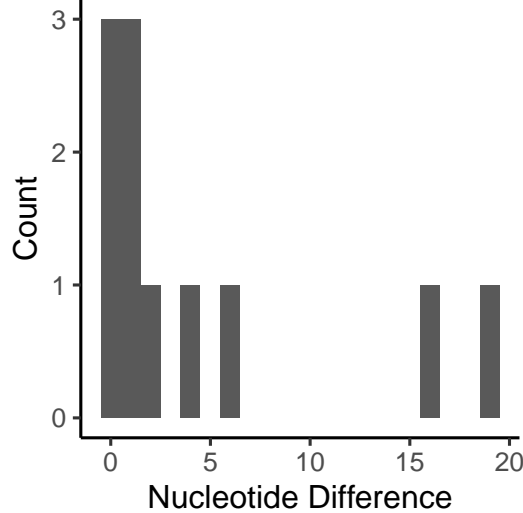
IGHV1-69-2*01

1 sequences assigned
No exact matches.



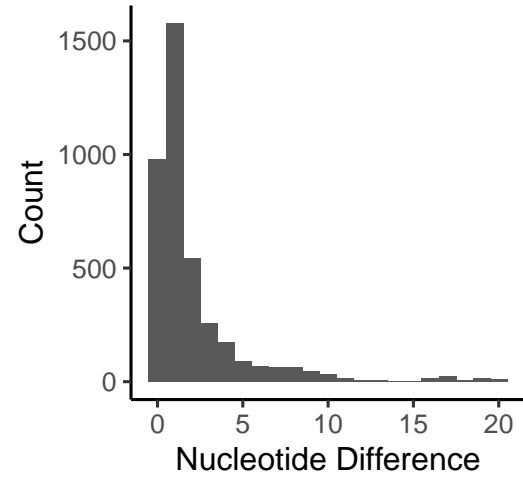
IGHV1-69D*01

11 sequences assigned
3 (27.3%) exact matches, in which:
3 unique CDR3
1 unique J



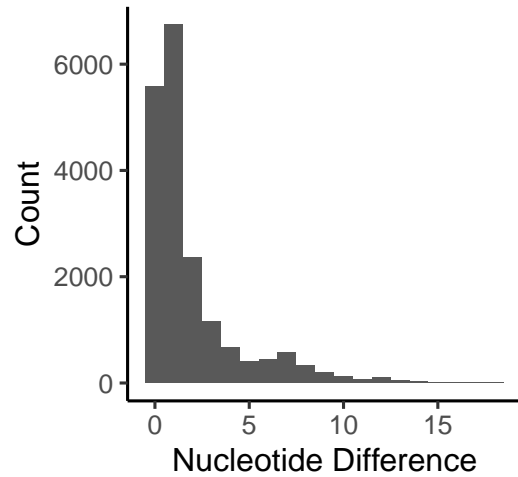
IGHV2-26*01

4096 sequences assigned
981 (24%) exact matches, in which:
776 unique CDR3
7 unique J



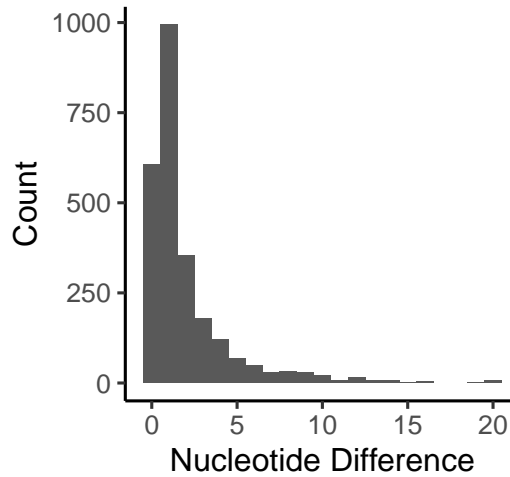
IGHV1-69*04_09

18827 sequences assigned
5579 (29.6%) exact matches, in which:
4612 unique CDR3
7 unique J



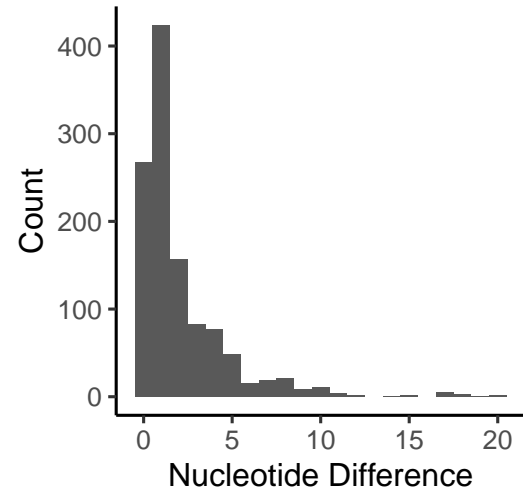
IGHV2-5*01

2549 sequences assigned
607 (23.8%) exact matches, in which:
486 unique CDR3
7 unique J



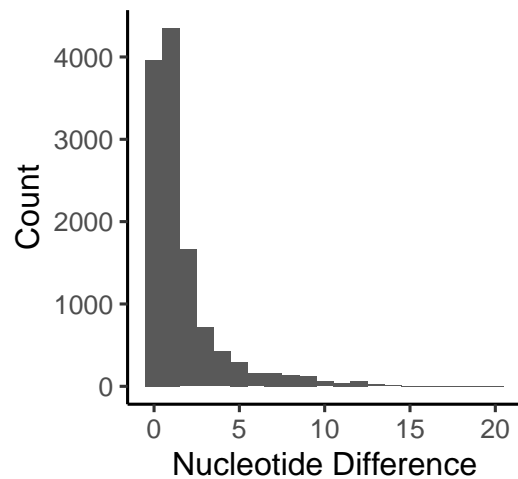
IGHV2-70*11_15

1178 sequences assigned
267 (22.7%) exact matches, in which:
204 unique CDR3
7 unique J



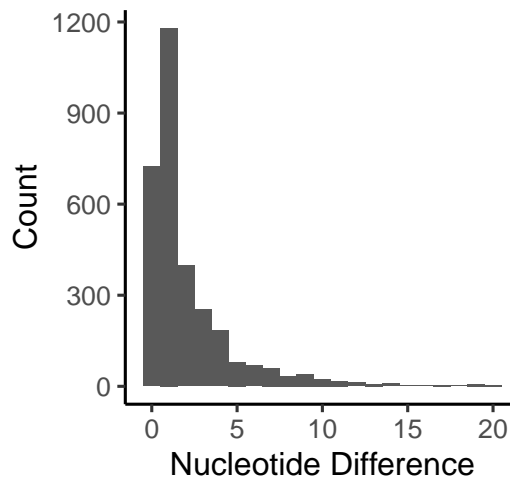
IGHV1-69*08_C191T

12200 sequences assigned
3960 (32.5%) exact matches, in which:
3380 unique CDR3
7 unique J



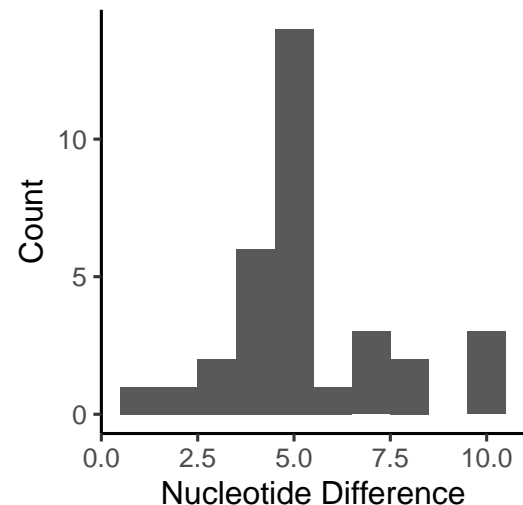
IGHV2-5*02

3168 sequences assigned
724 (22.9%) exact matches, in which:
586 unique CDR3
7 unique J



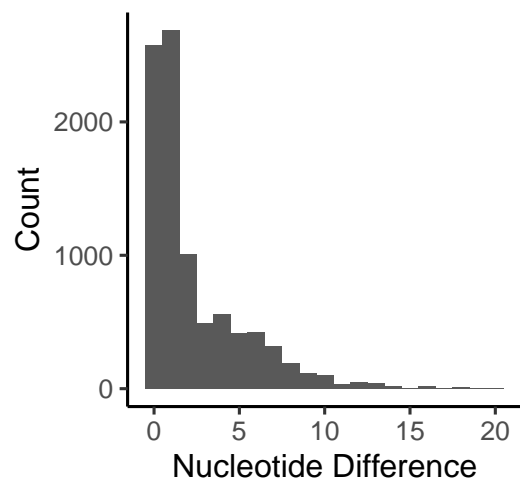
IGHV2-70D*04

33 sequences assigned
No exact matches.



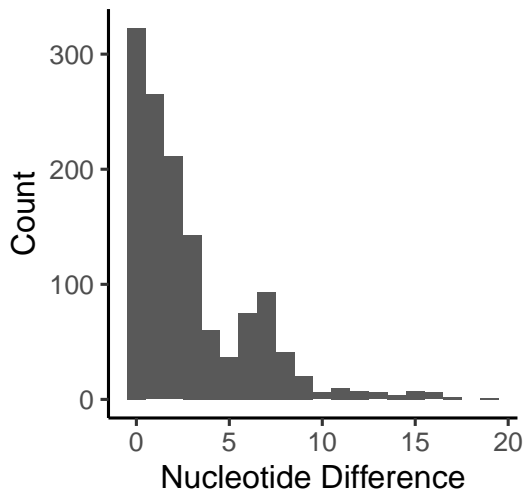
IGHV3-7*01

9100 sequences assigned
2574 (28.3%) exact matches, in which:
2232 unique CDR3
7 unique J



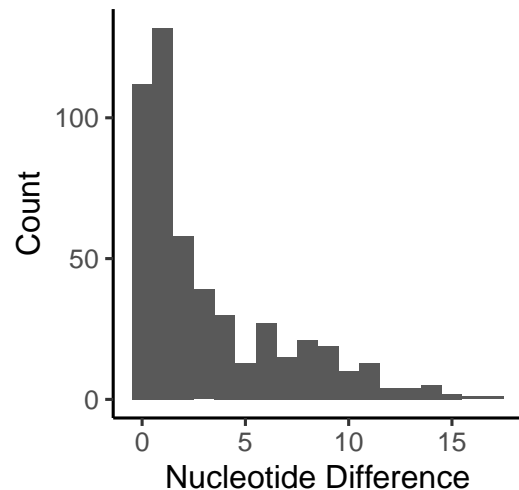
IGHV3-11*04

1318 sequences assigned
323 (24.5%) exact matches, in which:
321 unique CDR3
7 unique J



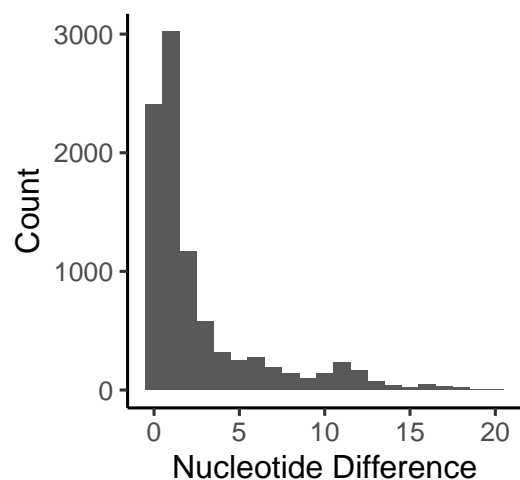
IGHV3-13*05

506 sequences assigned
112 (22.1%) exact matches, in which:
90 unique CDR3
6 unique J



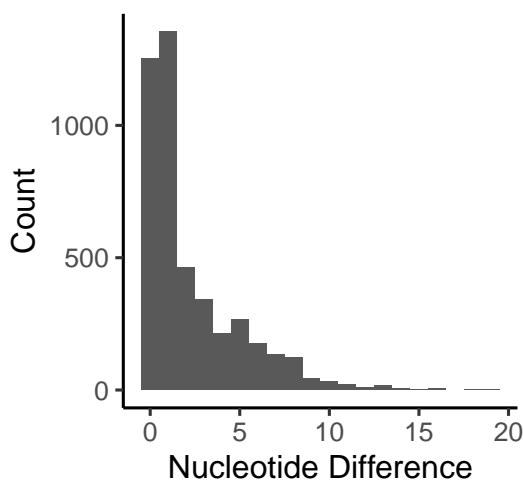
IGHV3-9*01

9209 sequences assigned
2403 (26.1%) exact matches, in which:
1994 unique CDR3
7 unique J



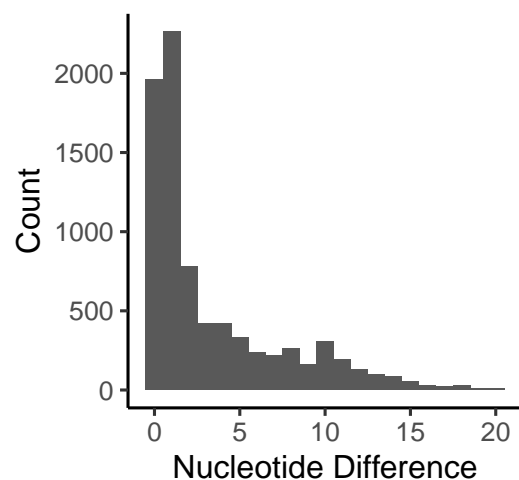
IGHV3-11*06

4462 sequences assigned
1254 (28.1%) exact matches, in which:
1064 unique CDR3
7 unique J



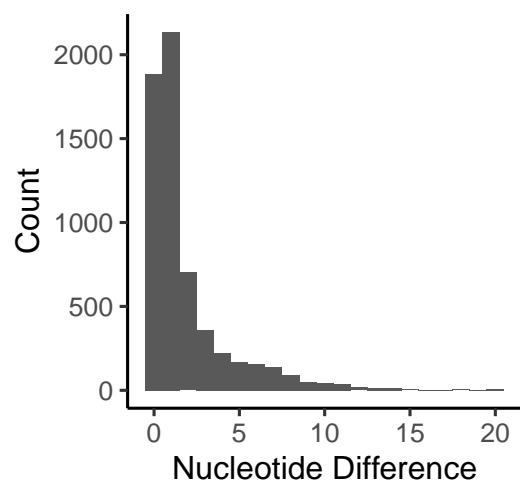
IGHV3-15*01_02

8046 sequences assigned
1959 (24.3%) exact matches, in which:
1585 unique CDR3
7 unique J



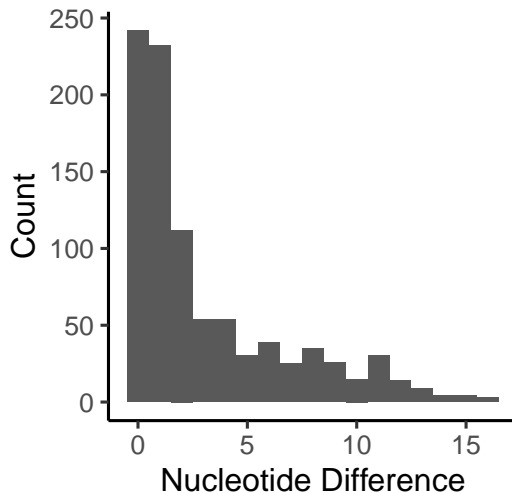
IGHV3-11*01

6074 sequences assigned
1884 (31%) exact matches, in which:
1618 unique CDR3
7 unique J



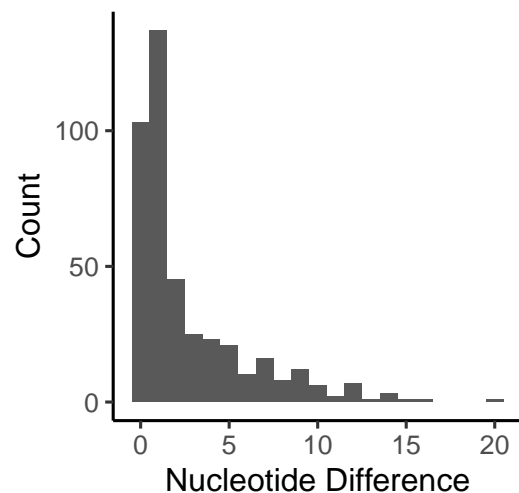
IGHV3-13*01

928 sequences assigned
242 (26.1%) exact matches, in which:
205 unique CDR3
7 unique J



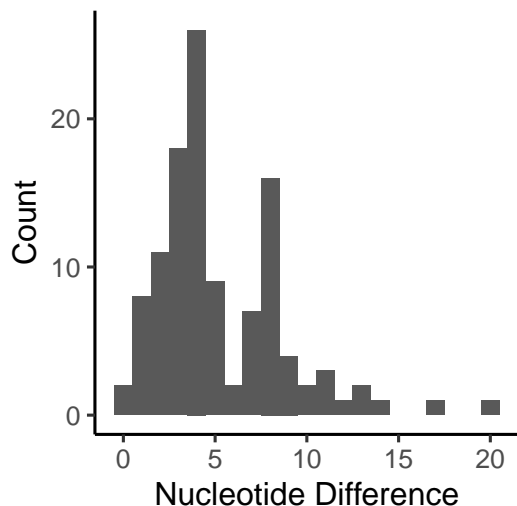
IGHV3-20*01_02

422 sequences assigned
103 (24.4%) exact matches, in which:
78 unique CDR3
6 unique J



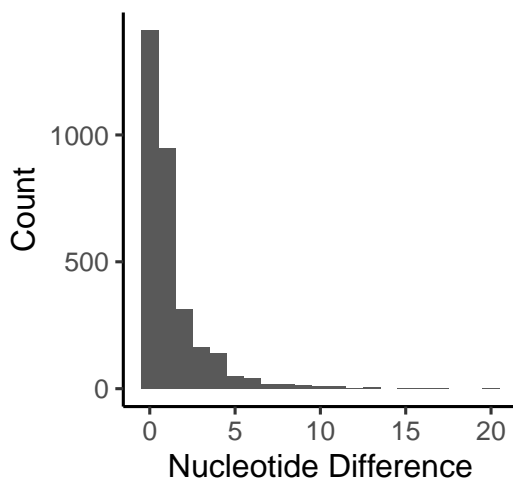
IGHV3-20*03_04

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



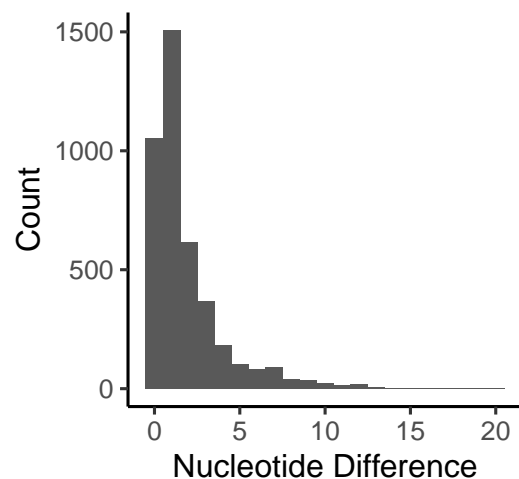
IGHV3-30*03

3147 sequences assigned
1412 (44.9%) exact matches, in which:
1386 unique CDR3
7 unique J



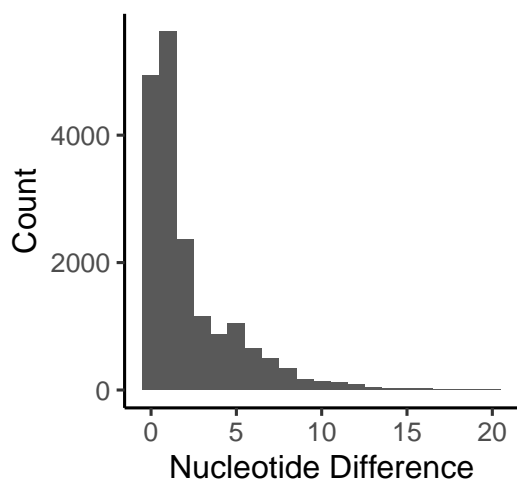
IGHV3-33*06

4151 sequences assigned
1053 (25.4%) exact matches, in which:
834 unique CDR3
7 unique J



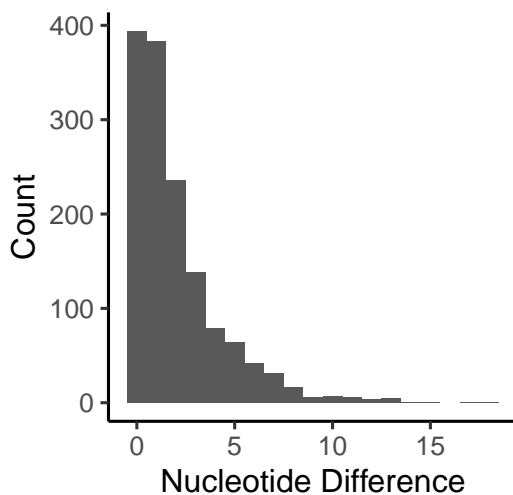
IGHV3-21*01_02

18169 sequences assigned
4944 (27.2%) exact matches, in which:
4128 unique CDR3
7 unique J



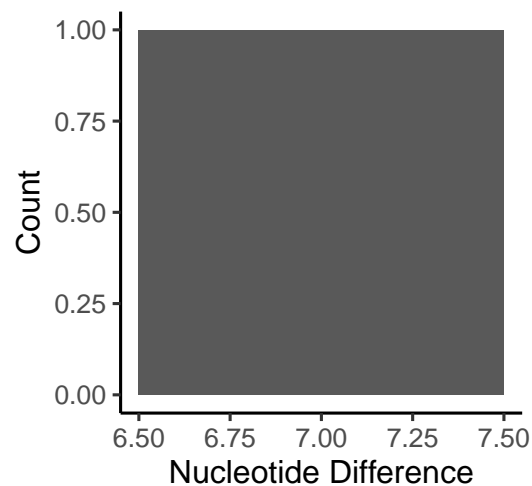
IGHV3-33*01

1416 sequences assigned
394 (27.8%) exact matches, in which:
383 unique CDR3
7 unique J



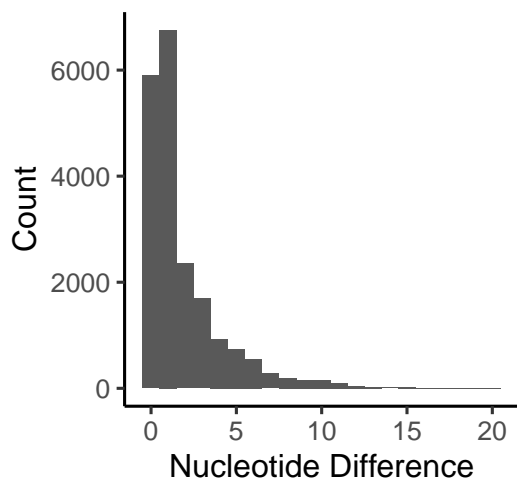
IGHV3-35*01

1 sequences assigned
No exact matches.



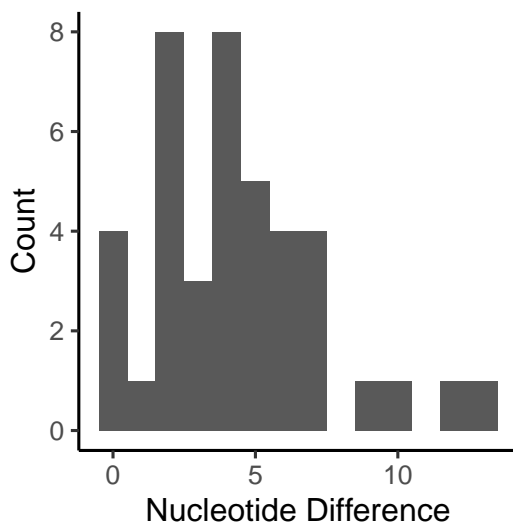
IGHV3-30-3*01

19950 sequences assigned
5900 (29.6%) exact matches, in which:
4878 unique CDR3
7 unique J



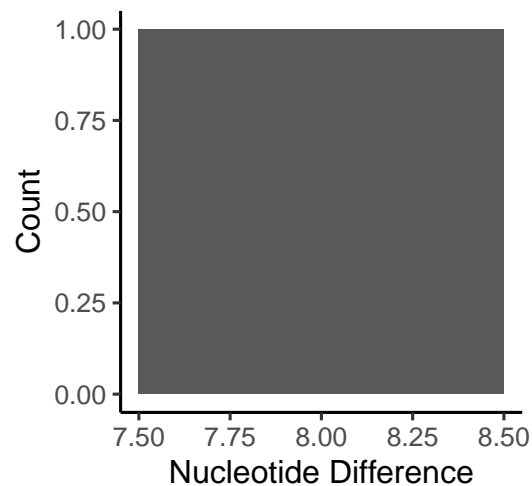
IGHV3-33*05

41 sequences assigned
4 (9.8%) exact matches, in which:
4 unique CDR3
3 unique J



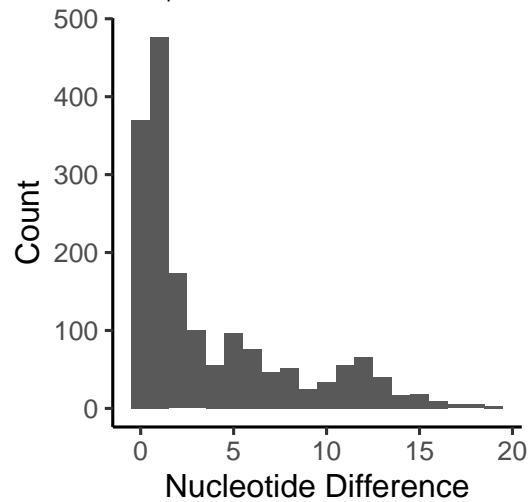
IGHV3-41*02

1 sequences assigned
No exact matches.



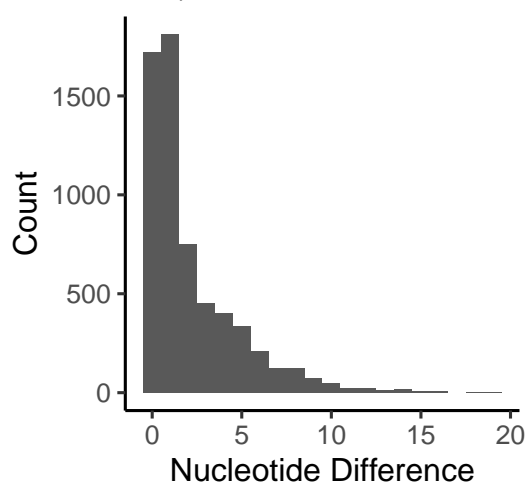
IGHV3-43*01

1728 sequences assigned
370 (21.4%) exact matches, in which:
310 unique CDR3
7 unique J



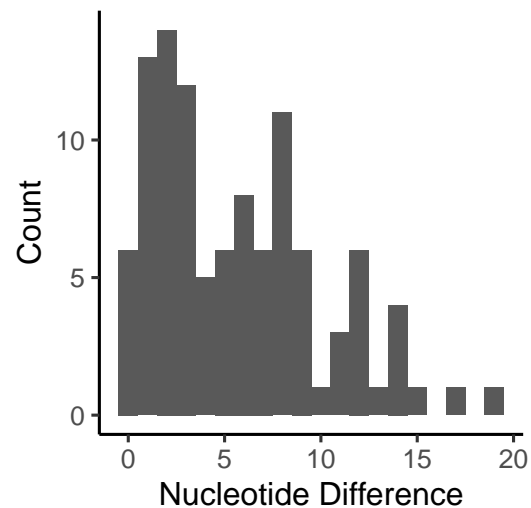
IGHV3-48*04

6150 sequences assigned
1723 (28%) exact matches, in which:
1420 unique CDR3
7 unique J



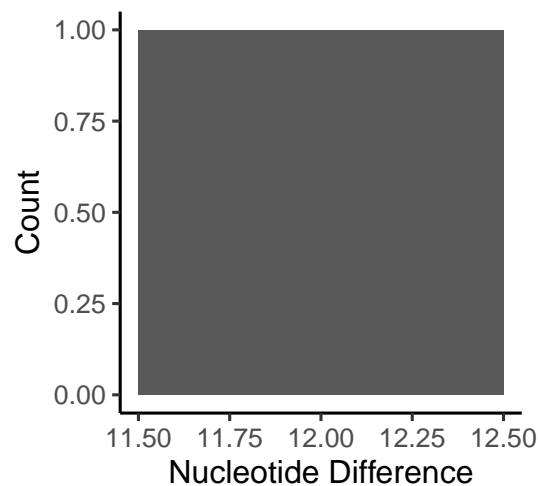
IGHV3-53*05

105 sequences assigned
6 (5.7%) exact matches, in which:
6 unique CDR3
3 unique J



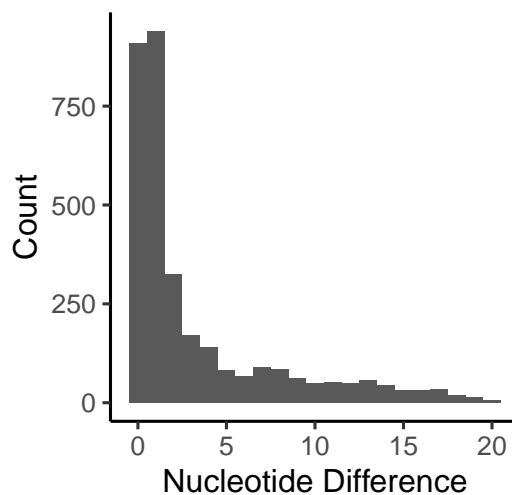
IGHV3-47*01

1 sequences assigned
No exact matches.



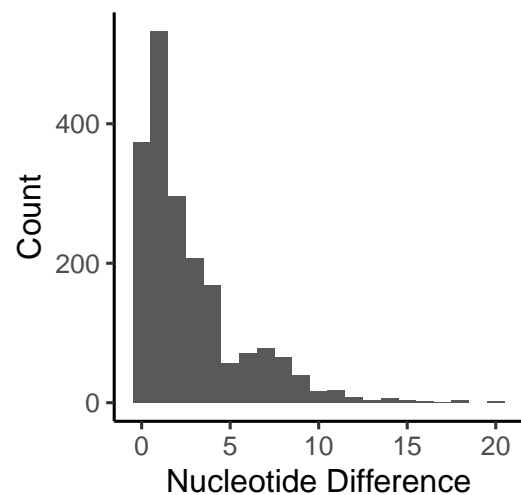
IGHV3-49*03_05

3271 sequences assigned
910 (27.8%) exact matches, in which:
768 unique CDR3
7 unique J



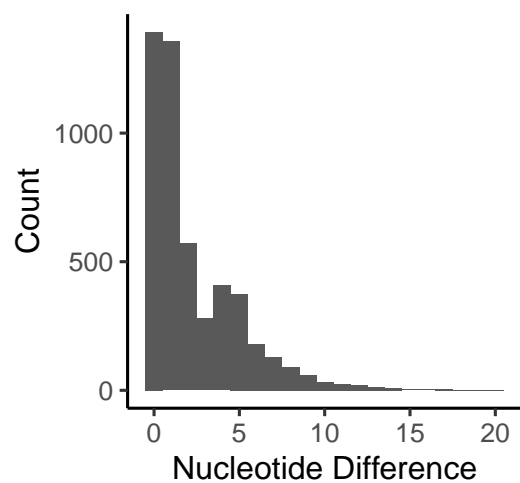
IGHV3-53*01_02

1960 sequences assigned
373 (19%) exact matches, in which:
310 unique CDR3
6 unique J



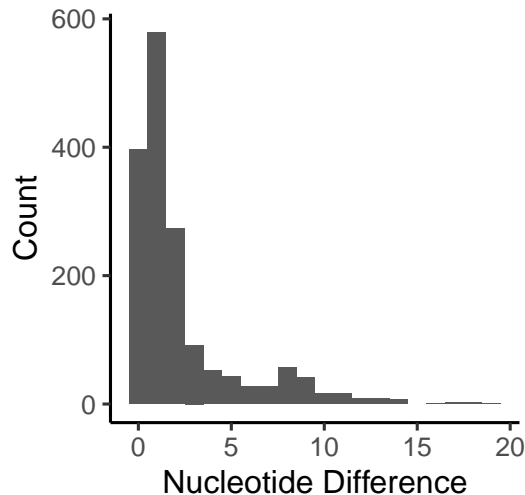
IGHV3-48*01

4955 sequences assigned
1393 (28.1%) exact matches, in which:
1182 unique CDR3
7 unique J



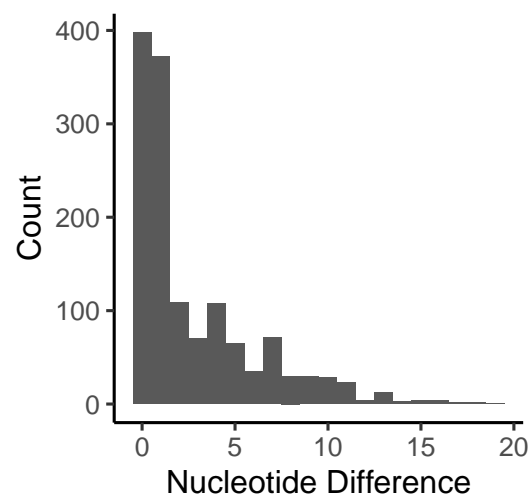
IGHV3-53*04

1653 sequences assigned
397 (24%) exact matches, in which:
332 unique CDR3
7 unique J



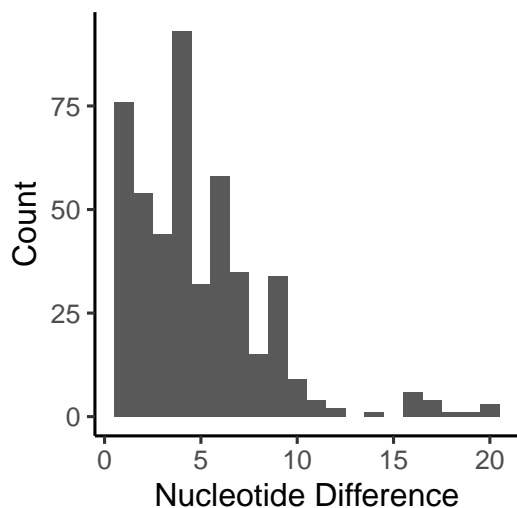
IGHV3-64*01

1370 sequences assigned
398 (29.1%) exact matches, in which:
351 unique CDR3
7 unique J



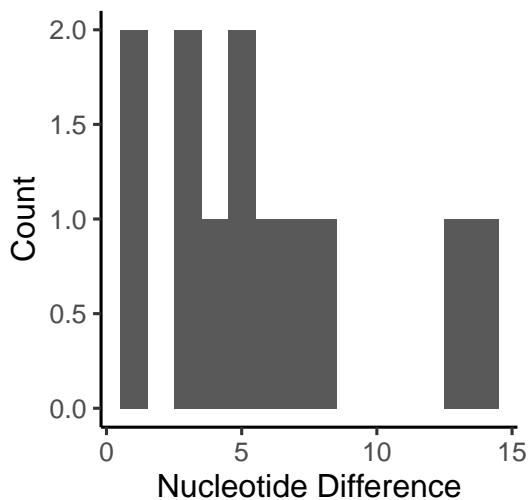
IGHV3-64*04

476 sequences assigned
No exact matches.



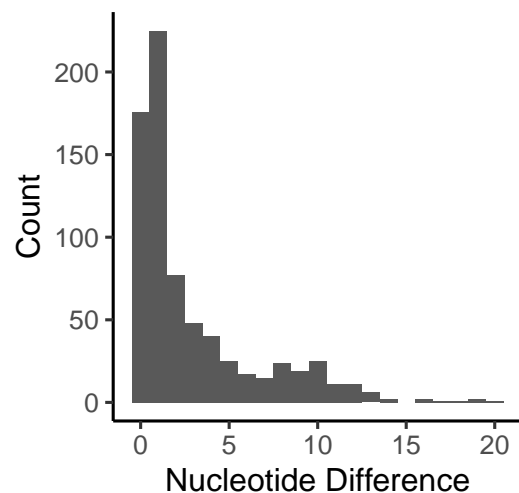
IGHV3-66*03

12 sequences assigned
No exact matches.



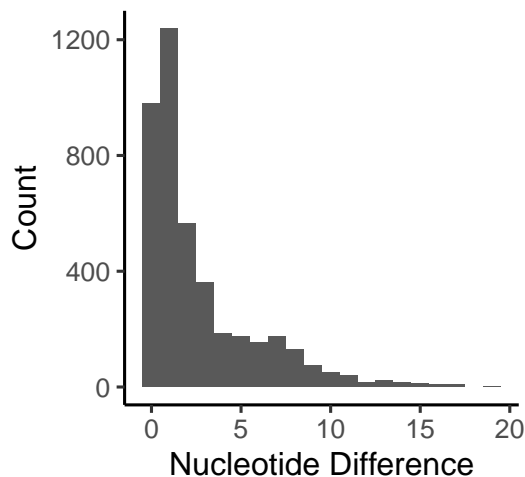
IGHV3-72*01

731 sequences assigned
176 (24.1%) exact matches, in which:
135 unique CDR3
7 unique J



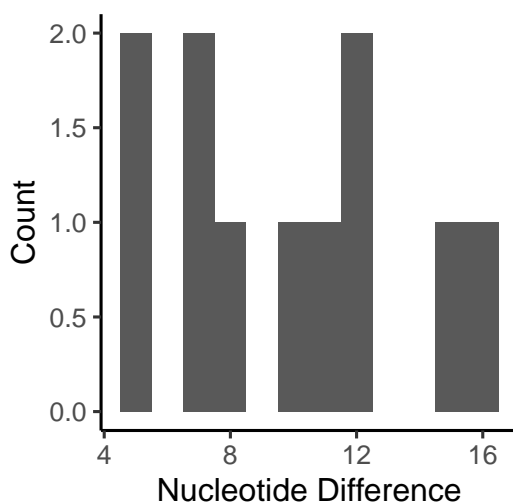
IGHV3-66*01

4216 sequences assigned
981 (23.3%) exact matches, in which:
804 unique CDR3
7 unique J



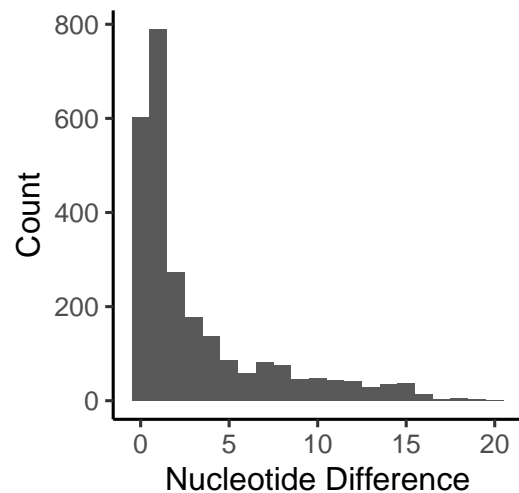
IGHV3-69-1*01

11 sequences assigned
No exact matches.



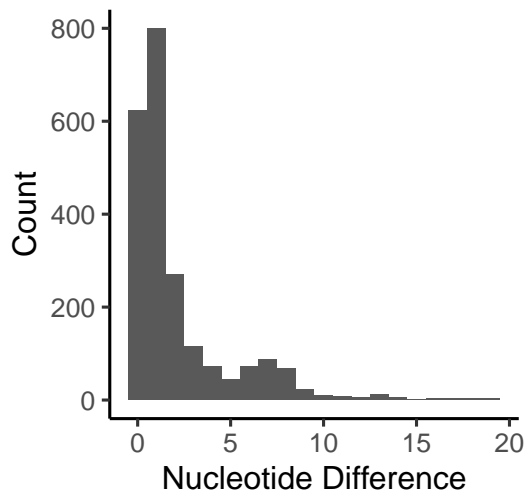
IGHV3-73*01_02

2593 sequences assigned
602 (23.2%) exact matches, in which:
507 unique CDR3
7 unique J



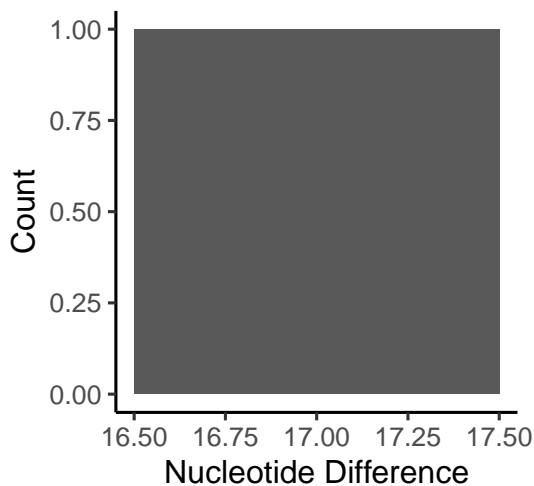
IGHV3-66*02

2233 sequences assigned
623 (27.9%) exact matches, in which:
530 unique CDR3
7 unique J



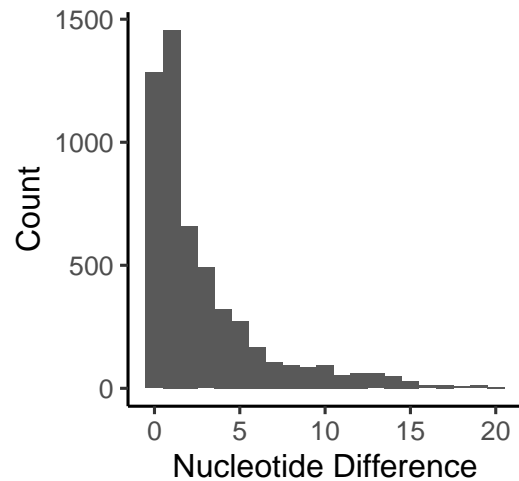
IGHV3-71*01_04

1 sequences assigned
No exact matches.



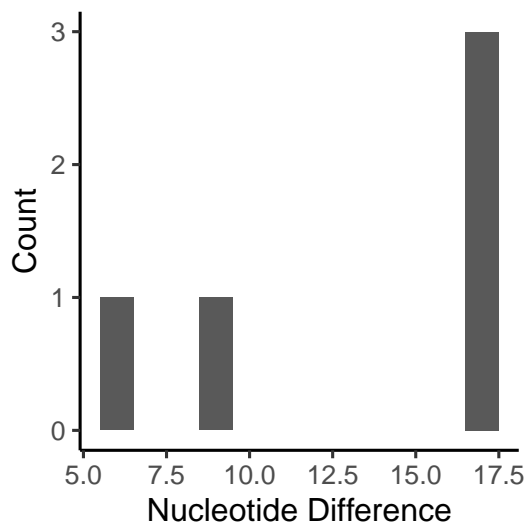
IGHV3-74*01_02

5369 sequences assigned
1284 (23.9%) exact matches, in which:
1105 unique CDR3
7 unique J



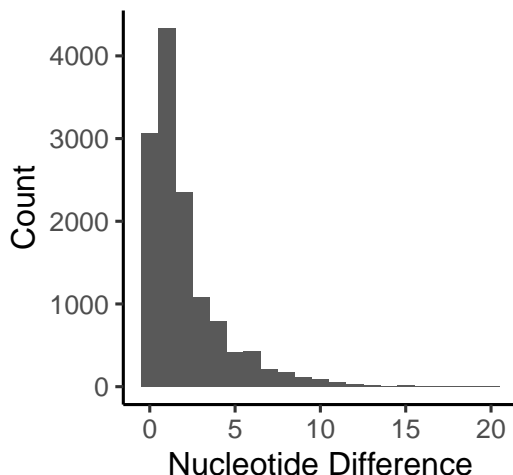
IGHV3-43D*04

5 sequences assigned
No exact matches.



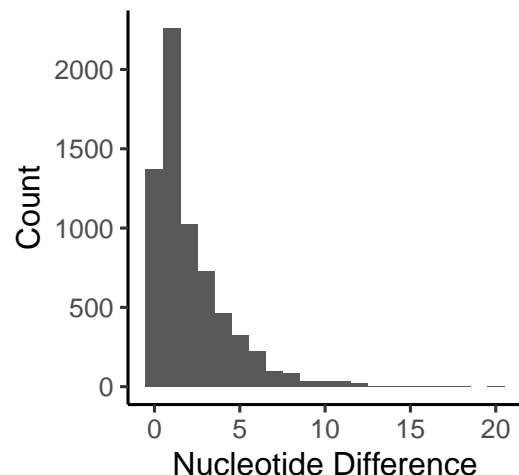
IGHV4-4*07

13241 sequences assigned
3067 (23.2%) exact matches, in which:
2564 unique CDR3
7 unique J



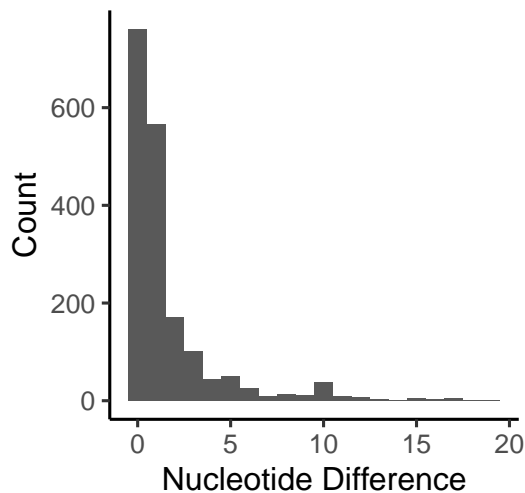
IGHV4-30-4*01

6723 sequences assigned
1370 (20.4%) exact matches, in which:
1109 unique CDR3
7 unique J



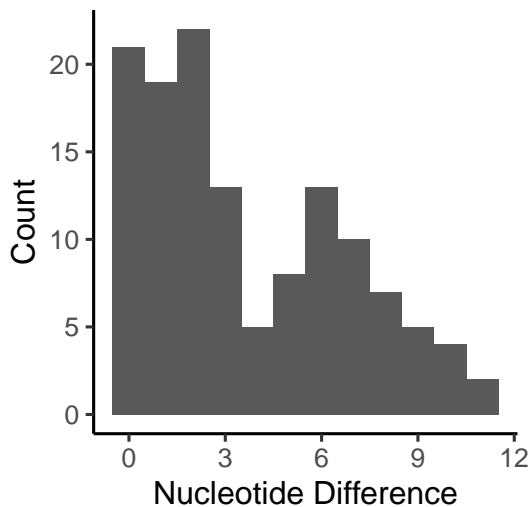
IGHV3-64D*06

1856 sequences assigned
761 (41%) exact matches, in which:
581 unique CDR3
7 unique J



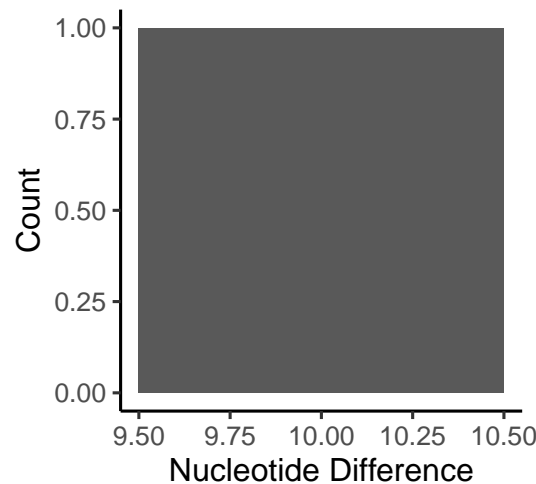
IGHV4-28*03

130 sequences assigned
21 (16.2%) exact matches, in which:
19 unique CDR3
5 unique J



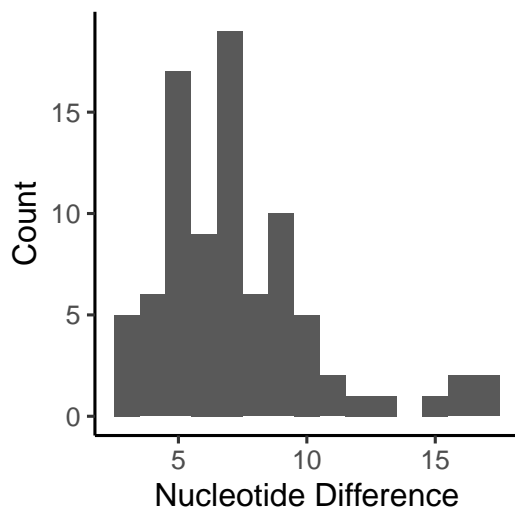
IGHV4-30-2*04

1 sequences assigned
No exact matches.



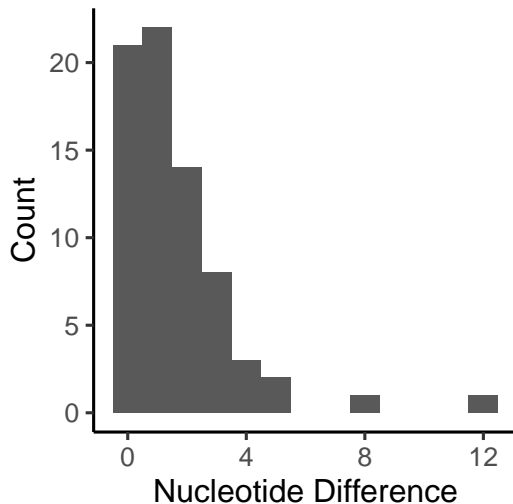
IGHV3-NL1*01

86 sequences assigned
No exact matches.



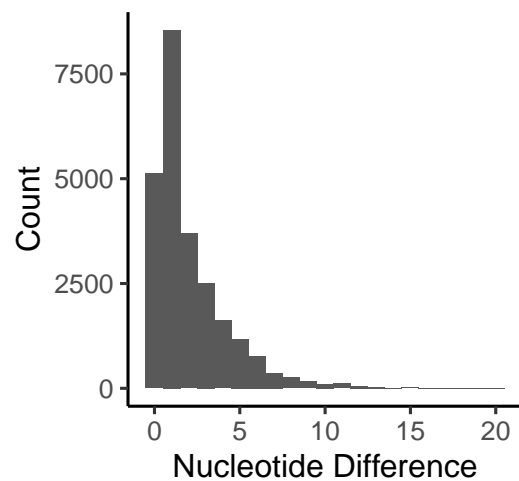
IGHV4-28*02_05

72 sequences assigned
21 (29.2%) exact matches, in which:
14 unique CDR3
5 unique J



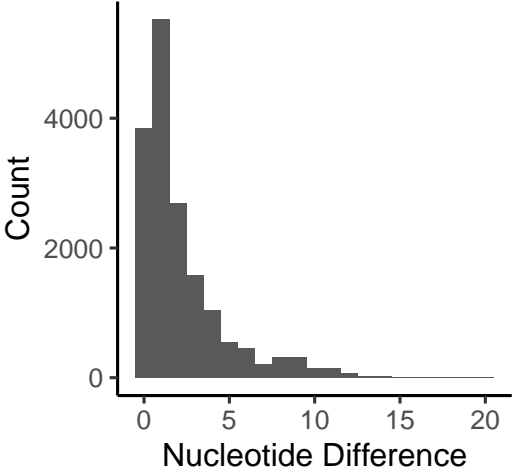
IGHV4-31*03_04

24614 sequences assigned
5123 (20.8%) exact matches, in which:
4068 unique CDR3
7 unique J



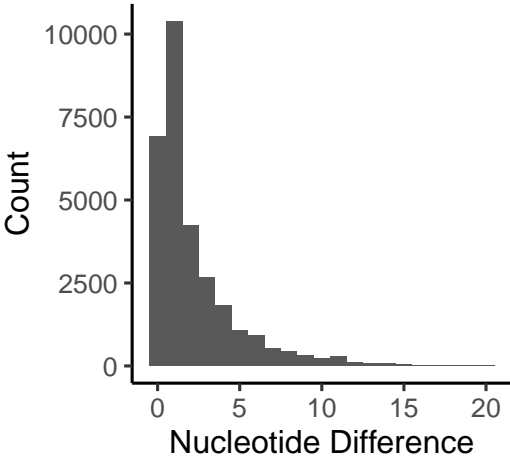
IGHV4-34*01_02

17004 sequences assigned
3845 (22.6%) exact matches, in which:
3168 unique CDR3
7 unique J



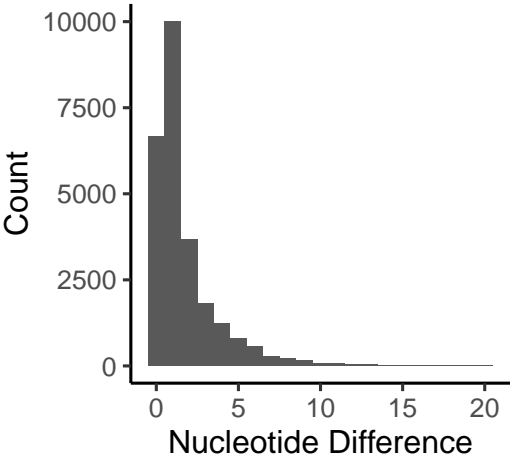
IGHV4-39*07

30154 sequences assigned
6914 (22.9%) exact matches, in which:
5390 unique CDR3
7 unique J



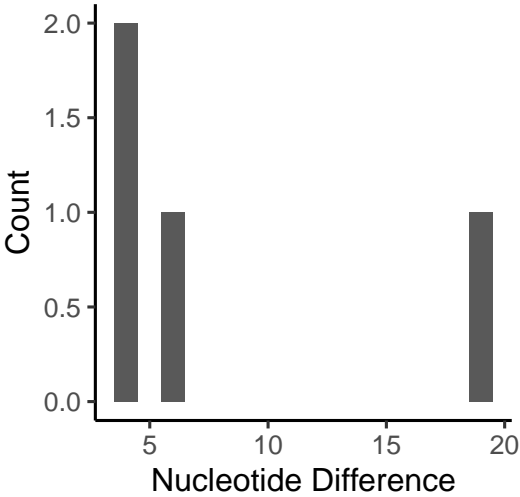
IGHV4-59*01_07

25734 sequences assigned
6677 (25.9%) exact matches, in which:
5266 unique CDR3
7 unique J



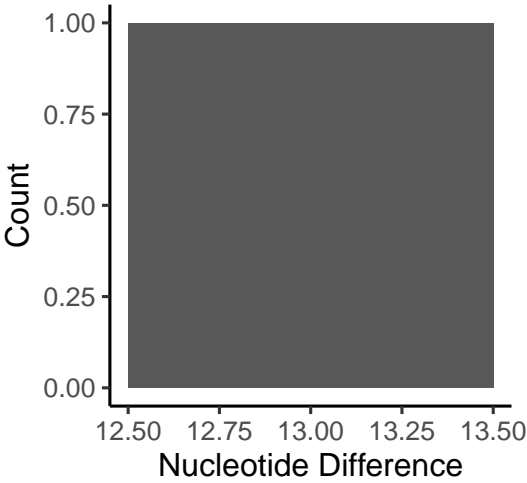
IGHV4-38-2*01

4 sequences assigned
No exact matches.



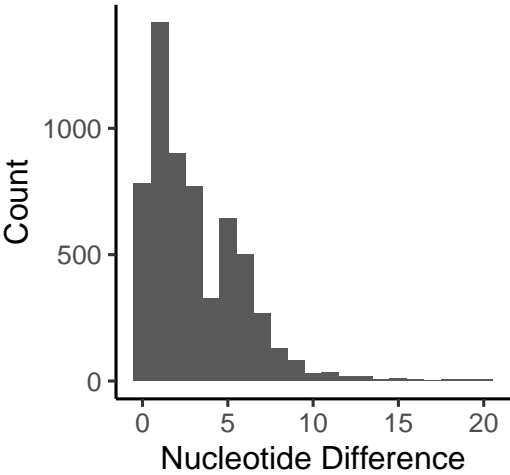
IGHV4-55*02_04_08

1 sequences assigned
No exact matches.



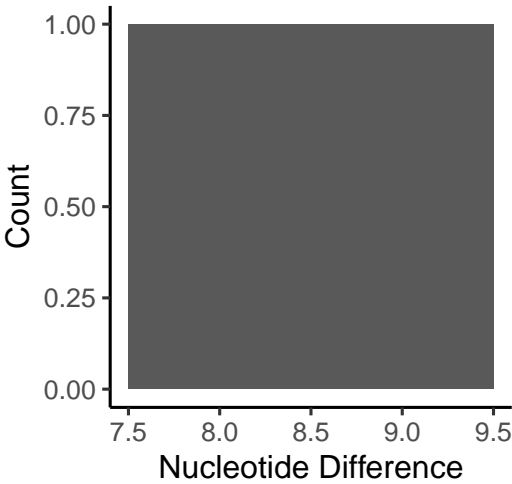
IGHV4-59*12

5965 sequences assigned
783 (13.1%) exact matches, in which:
767 unique CDR3
7 unique J



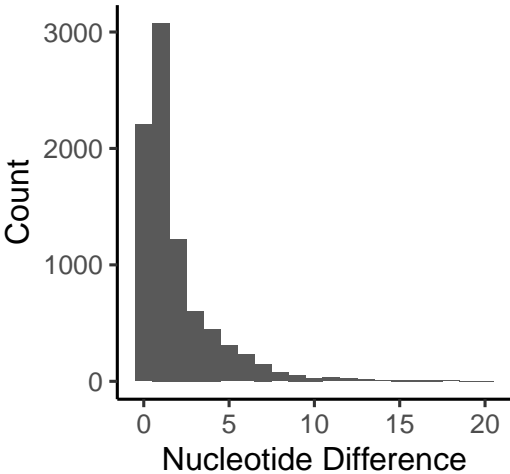
IGHV4-38-2*02

3 sequences assigned
No exact matches.



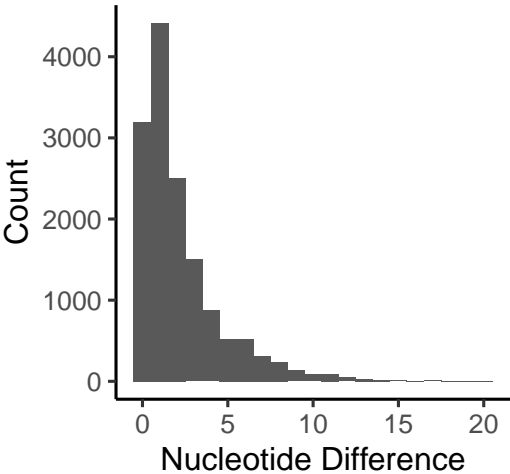
IGHV4-59*08

8540 sequences assigned
2207 (25.8%) exact matches, in which:
1732 unique CDR3
7 unique J



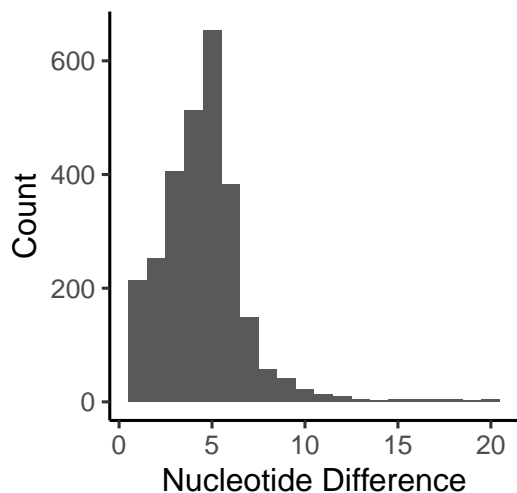
IGHV4-61*02

14535 sequences assigned
3197 (22%) exact matches, in which:
2682 unique CDR3
7 unique J



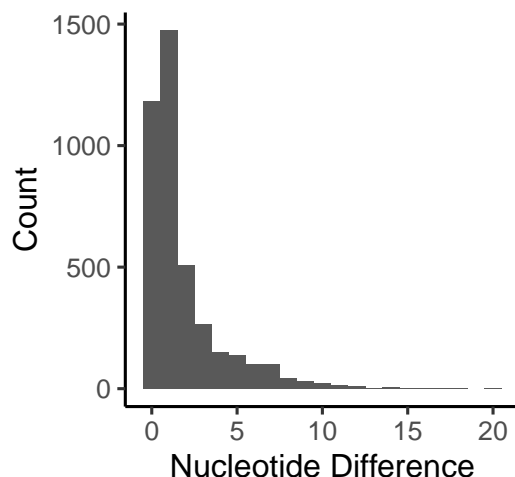
IGHV4-61*08

2751 sequences assigned
No exact matches.



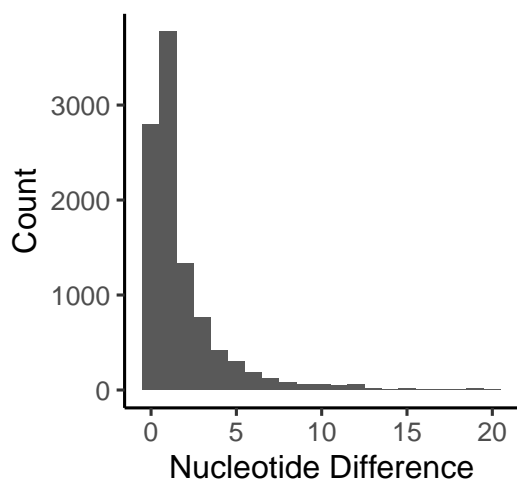
IGHV6-1*01_02

4059 sequences assigned
1181 (29.1%) exact matches, in which:
961 unique CDR3
7 unique J



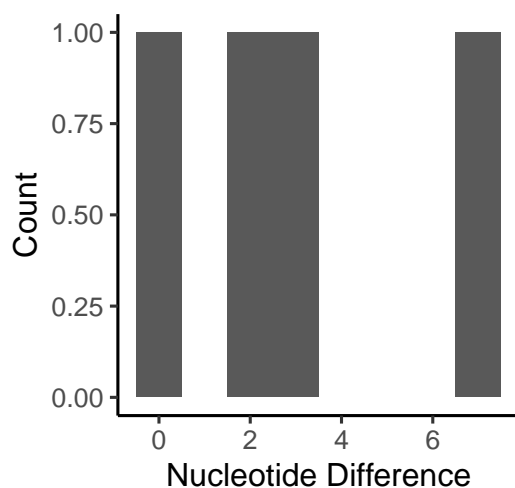
IGHV5-10-1*01_03

10088 sequences assigned
2798 (27.7%) exact matches, in which:
2206 unique CDR3
7 unique J



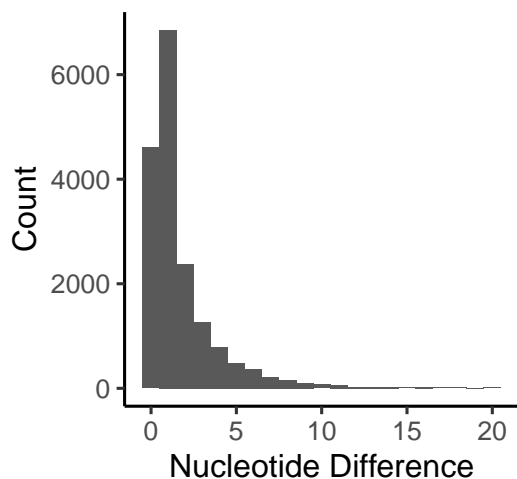
IGHV7-81*01

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J

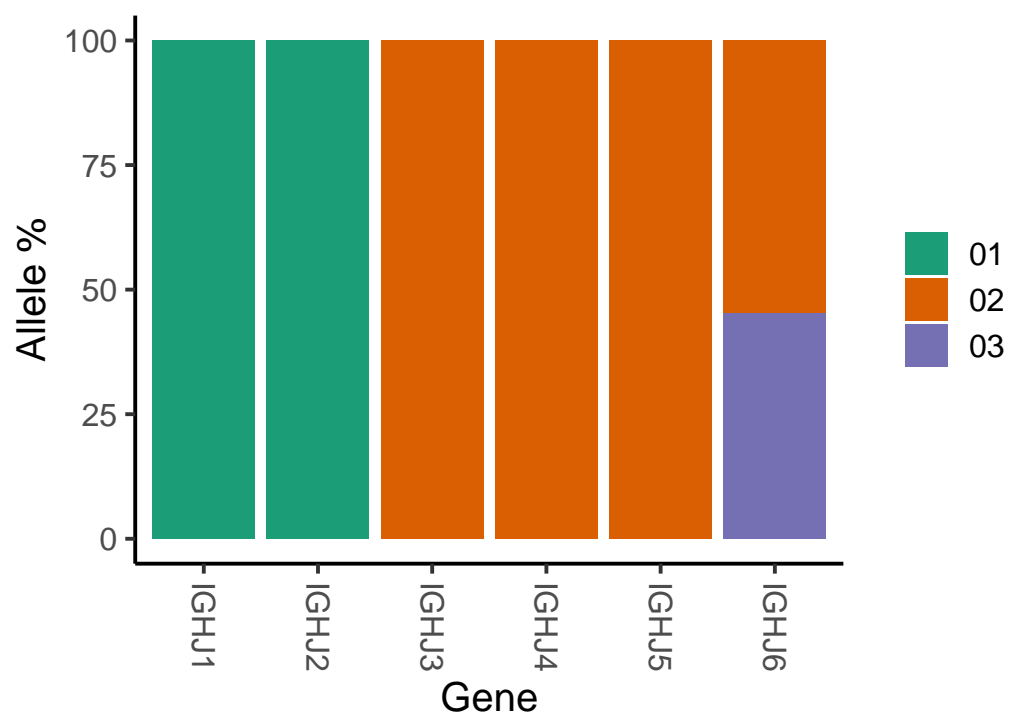


IGHV5-51*01_03

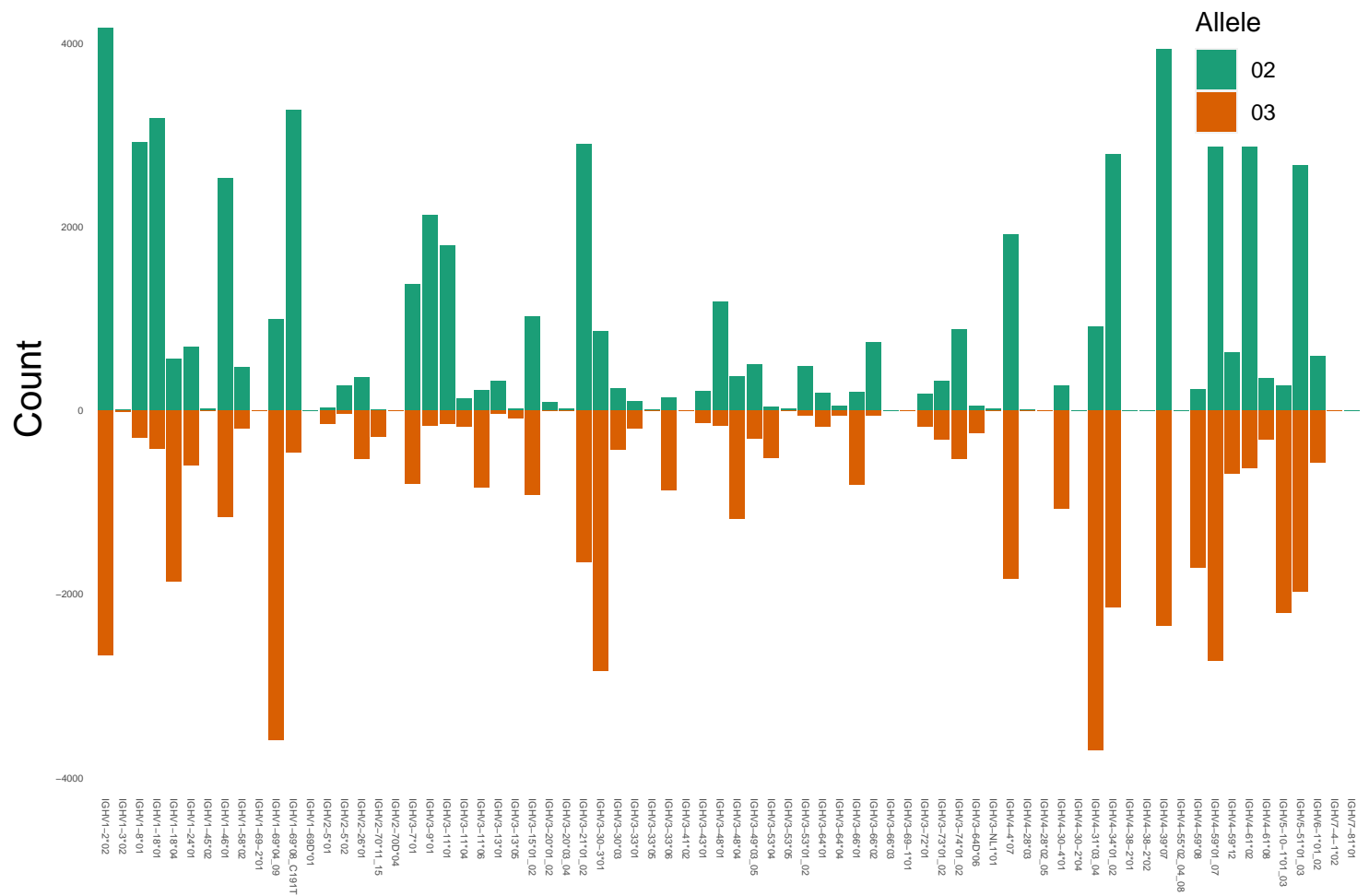
17562 sequences assigned
4606 (26.2%) exact matches, in which:
3635 unique CDR3
7 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Novel sequence(s)IGHV1-69*08_C191TIGHV3-11*06_T300CIGHV4-59*02_G88AIGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5-51*07_A128G are not listed in the genotype and will be ignored.