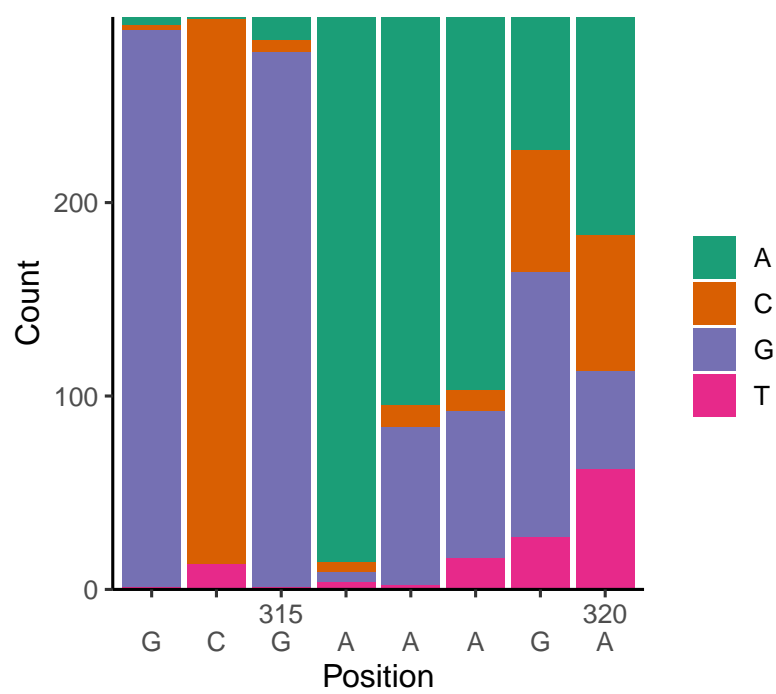
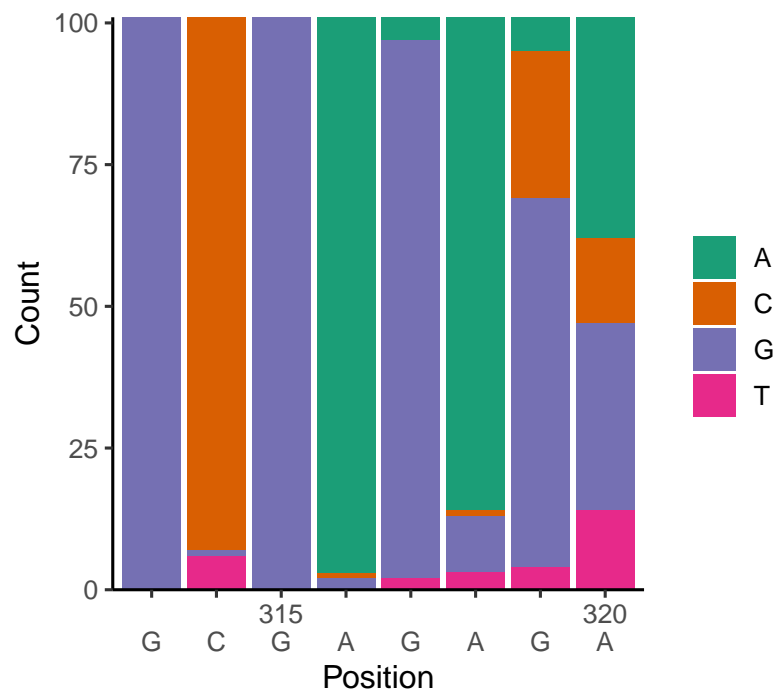


Gene IGHV3-30-3*02_C189T



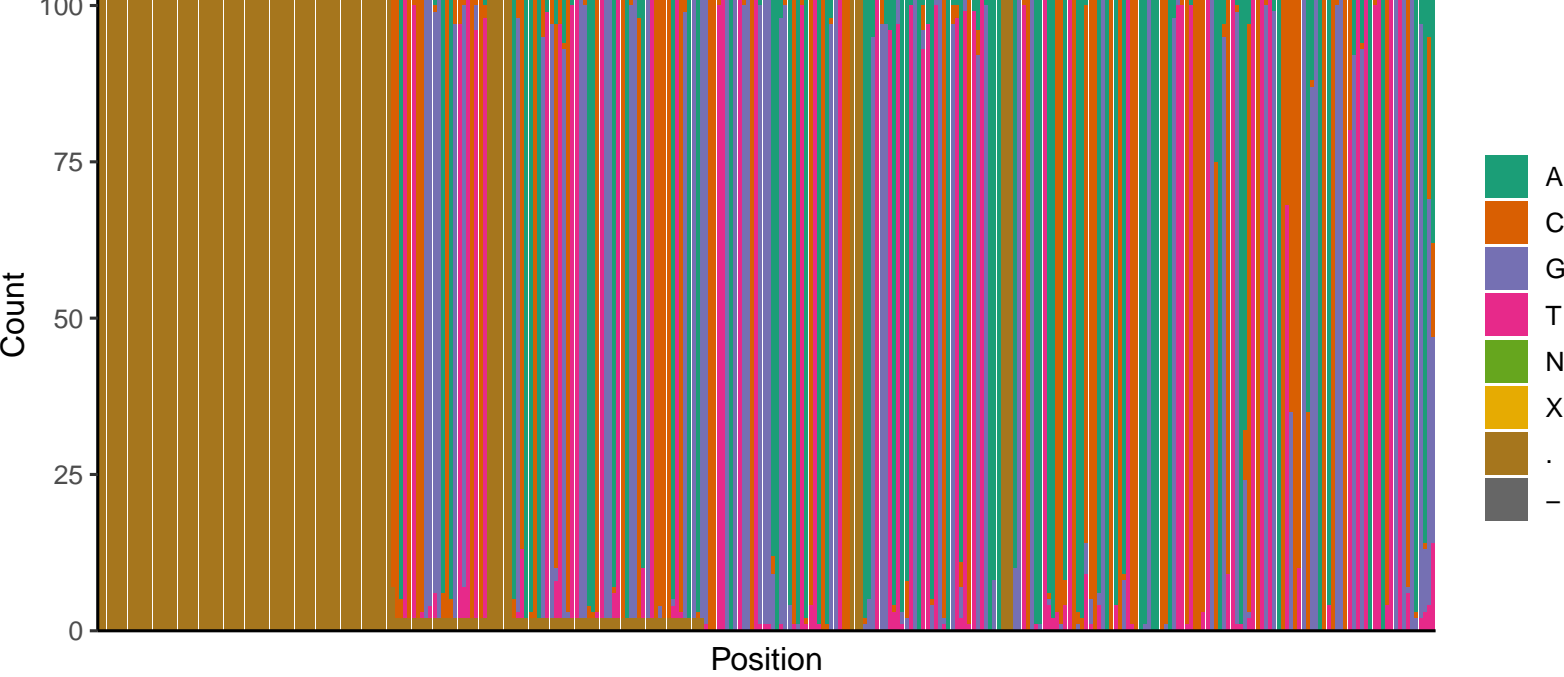
Gene IGHV6-1*01_02_A315G



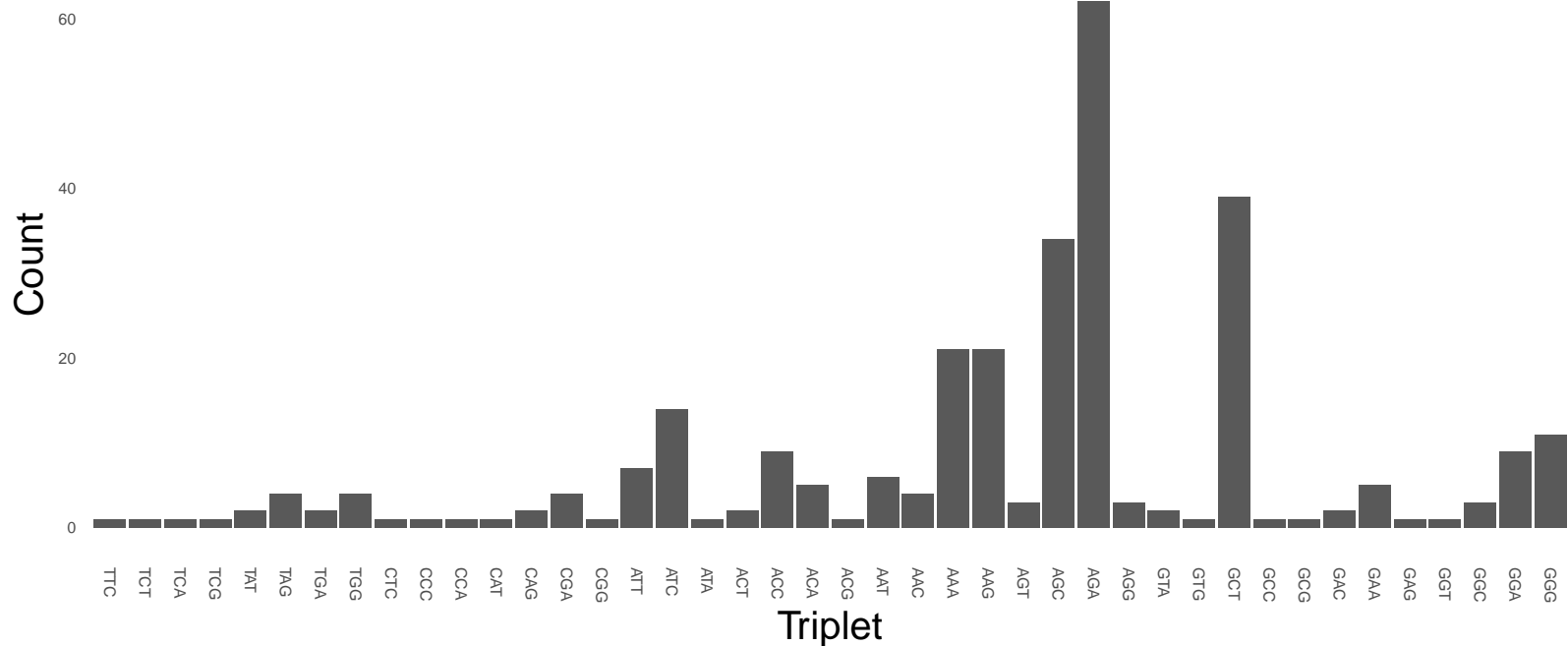
Gene IGHV3-30-3*02_C189T



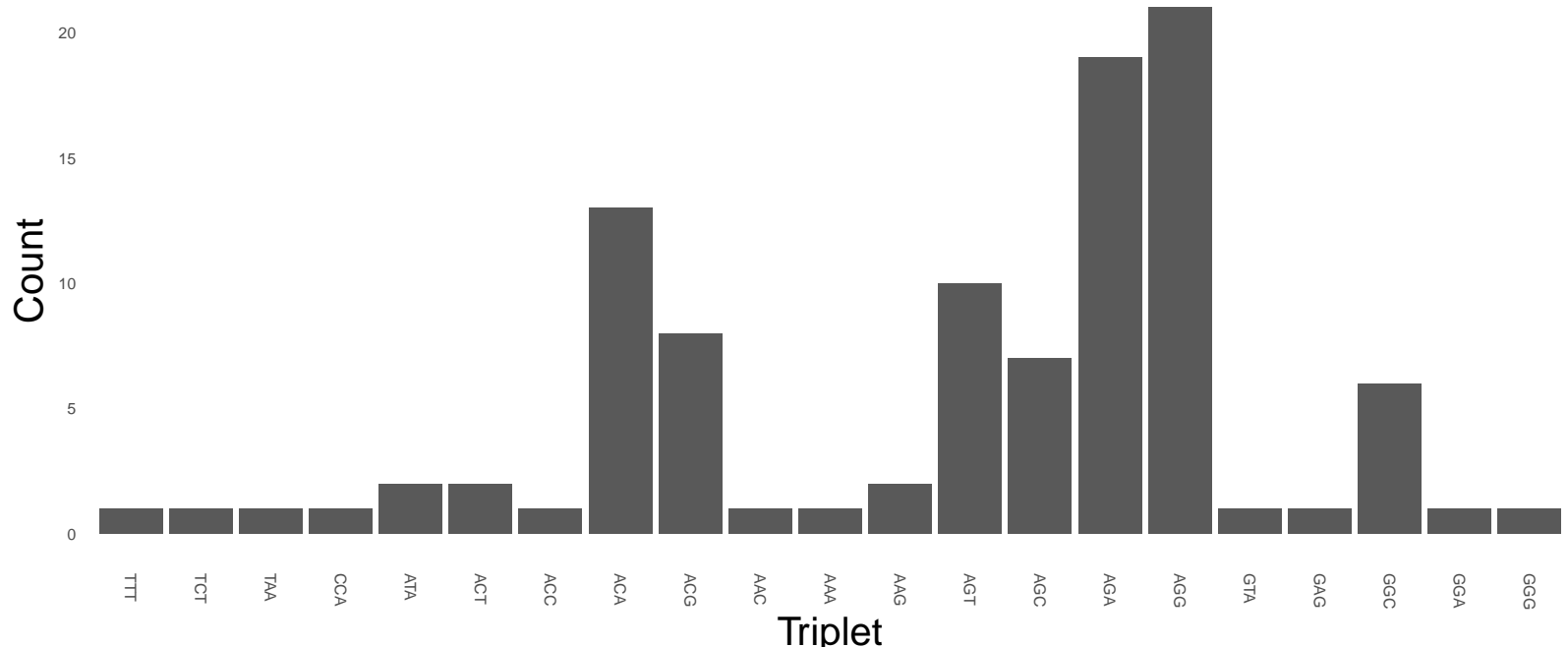
Gene IGHV6-1*01_02_A315G



IGHV3–30–3*02_C189T– Final 3 nucleotides as a triplet

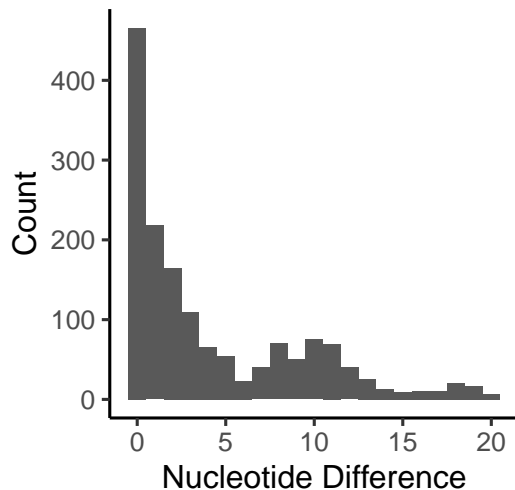


IGHV6–1*01_02_A315G– Final 3 nucleotides as a triplet



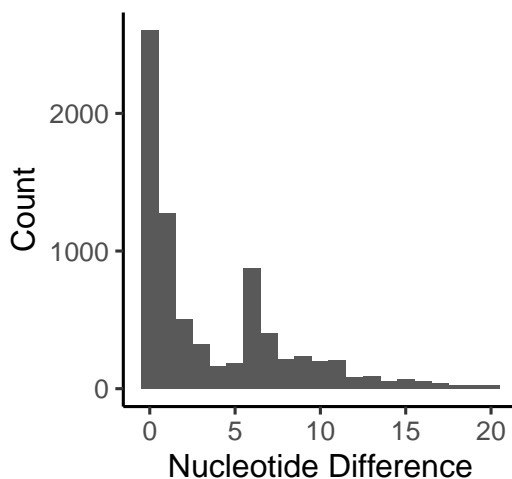
IGHV1-2*04

1688 sequences assigned
466 (27.6%) exact matches, in which:
434 unique CDR3
6 unique J



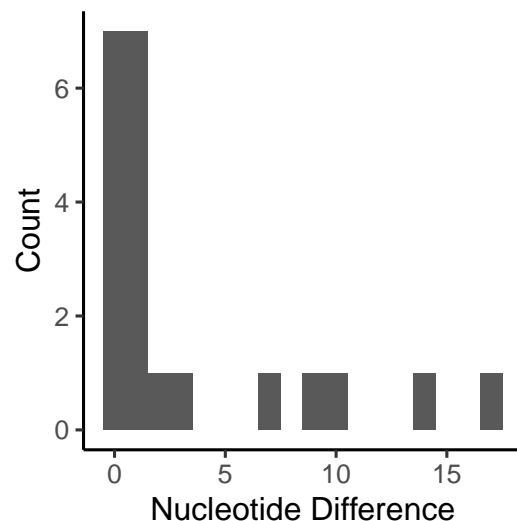
IGHV1-18*01

9148 sequences assigned
2603 (28.5%) exact matches, in which:
2413 unique CDR3
6 unique J



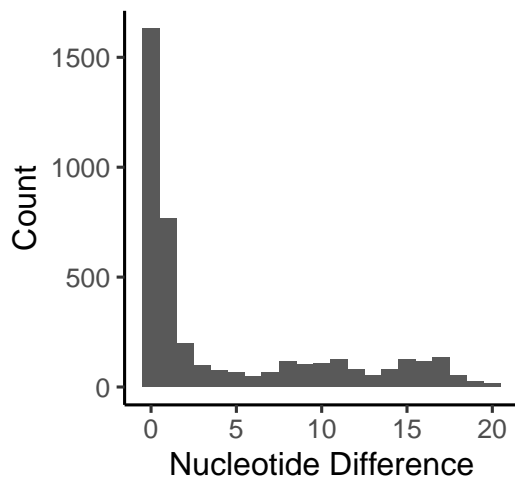
IGHV1-45*02

21 sequences assigned
7 (33.3%) exact matches, in which:
7 unique CDR3
3 unique J



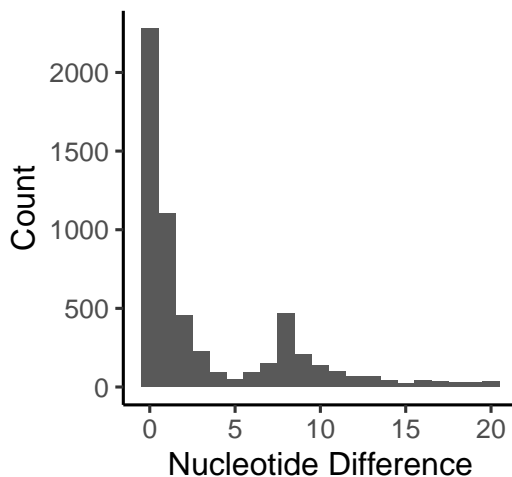
IGHV1-3*01_05

4313 sequences assigned
1630 (37.8%) exact matches, in which:
1493 unique CDR3
6 unique J



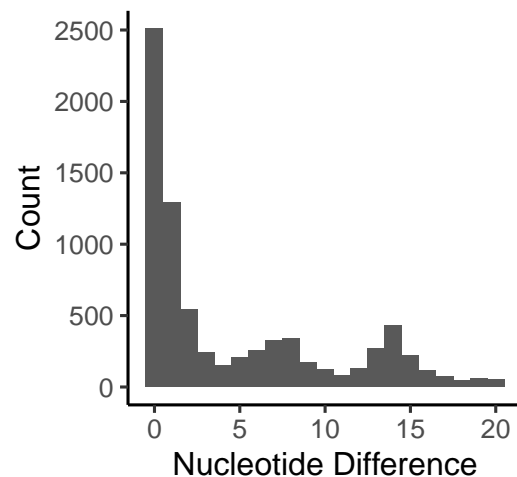
IGHV1-18*04

6815 sequences assigned
2278 (33.4%) exact matches, in which:
2129 unique CDR3
6 unique J



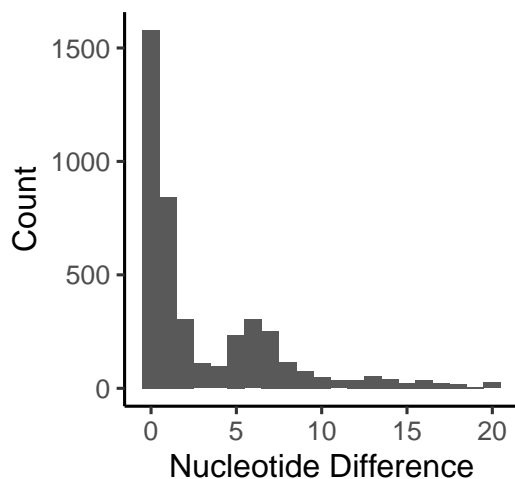
IGHV1-46*01

8067 sequences assigned
2509 (31.1%) exact matches, in which:
2308 unique CDR3
6 unique J



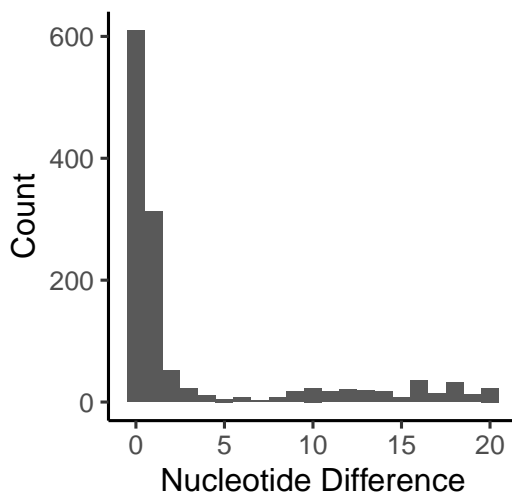
IGHV1-8*01

4469 sequences assigned
1579 (35.3%) exact matches, in which:
1455 unique CDR3
6 unique J



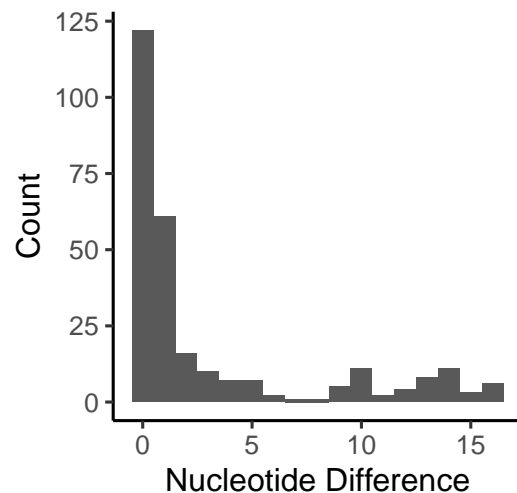
IGHV1-24*01

1424 sequences assigned
610 (42.8%) exact matches, in which:
546 unique CDR3
6 unique J



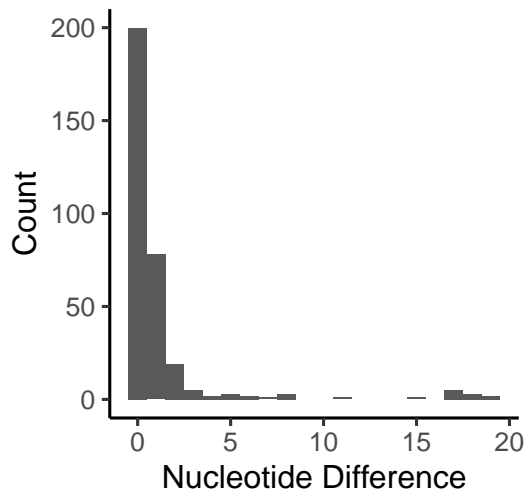
IGHV1-58*02

318 sequences assigned
122 (38.4%) exact matches, in which:
114 unique CDR3
5 unique J



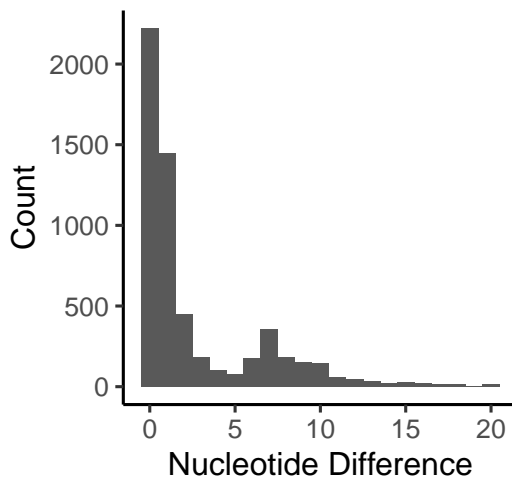
IGHV1-58*01_03

335 sequences assigned
200 (59.7%) exact matches, in which:
179 unique CDR3
6 unique J



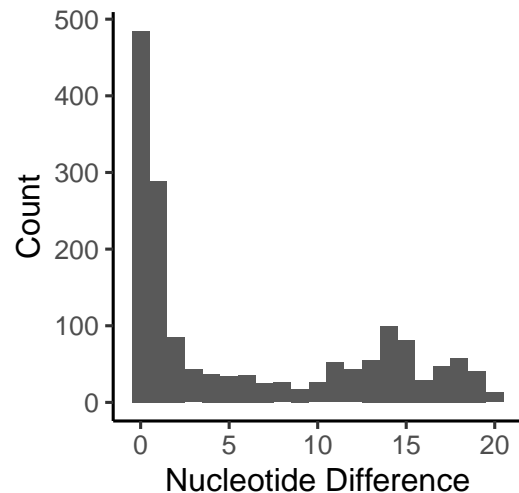
IGHV1-69*04_09

6331 sequences assigned
2221 (35.1%) exact matches, in which:
2093 unique CDR3
6 unique J



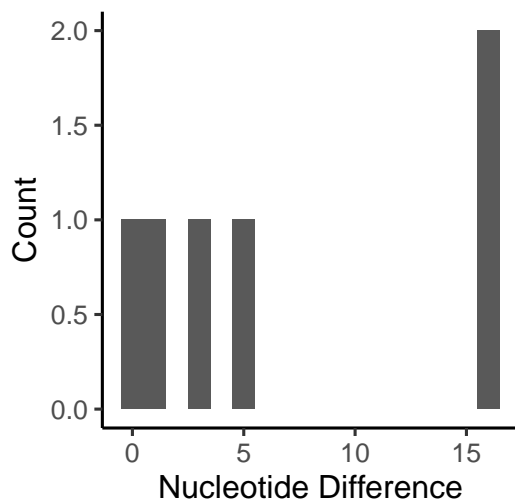
IGHV2-5*02

1776 sequences assigned
485 (27.3%) exact matches, in which:
445 unique CDR3
6 unique J



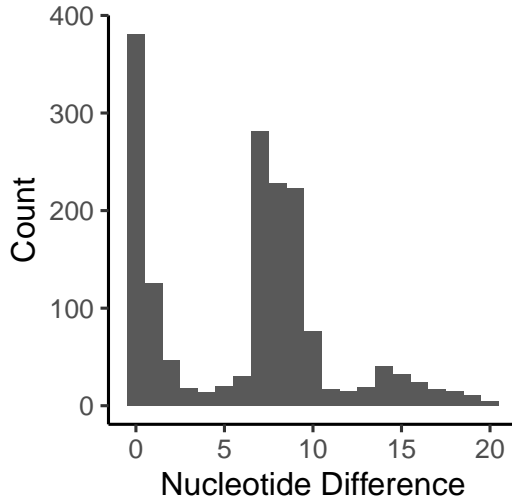
IGHV1-68*01

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



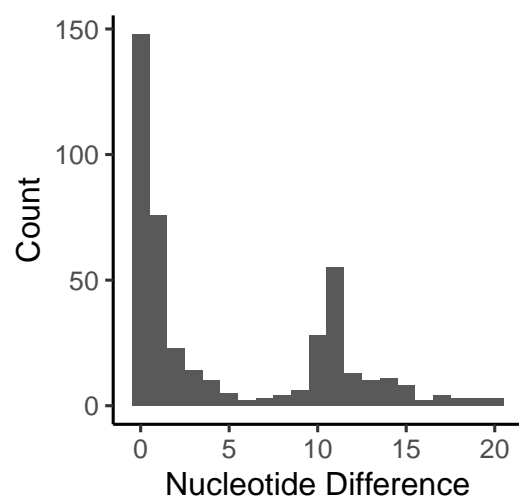
IGHV1-69*06_14

1675 sequences assigned
381 (22.7%) exact matches, in which:
374 unique CDR3
6 unique J



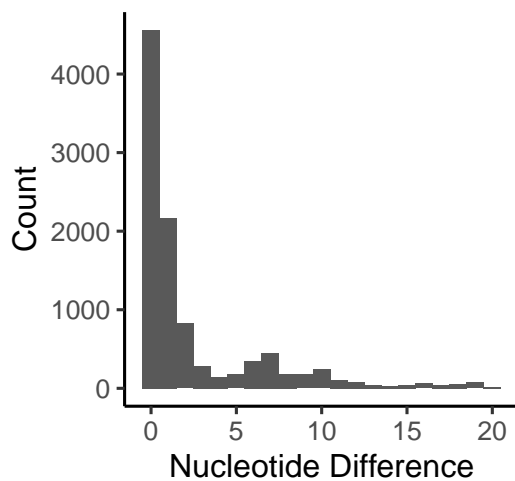
IGHV2-26*01

438 sequences assigned
148 (33.8%) exact matches, in which:
138 unique CDR3
5 unique J



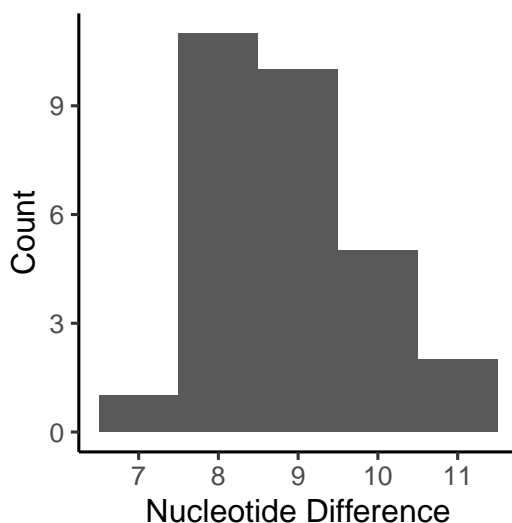
IGHV1-69*01_12_13

10546 sequences assigned
4560 (43.2%) exact matches, in which:
4258 unique CDR3
6 unique J



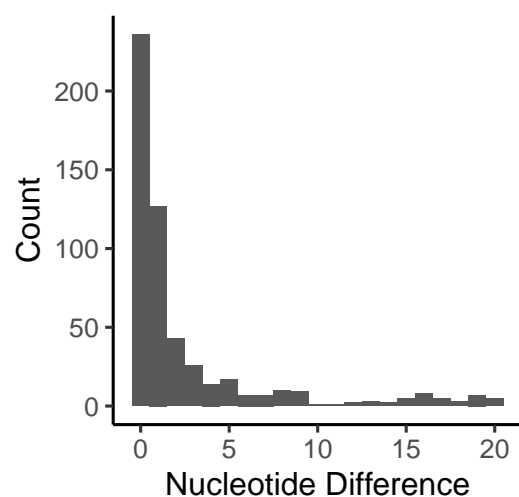
IGHV1-NL1*01

29 sequences assigned
No exact matches.



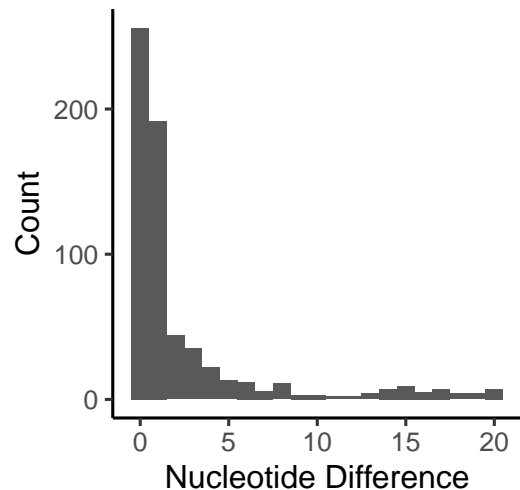
IGHV2-70*01

591 sequences assigned
236 (39.9%) exact matches, in which:
218 unique CDR3
6 unique J



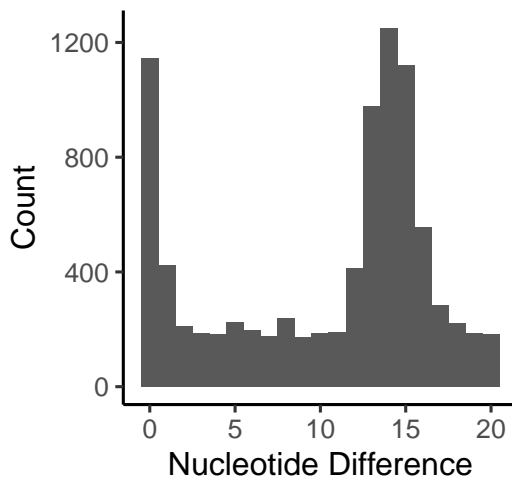
IGHV2-70*11_15

864 sequences assigned
256 (29.6%) exact matches, in which:
236 unique CDR3
5 unique J



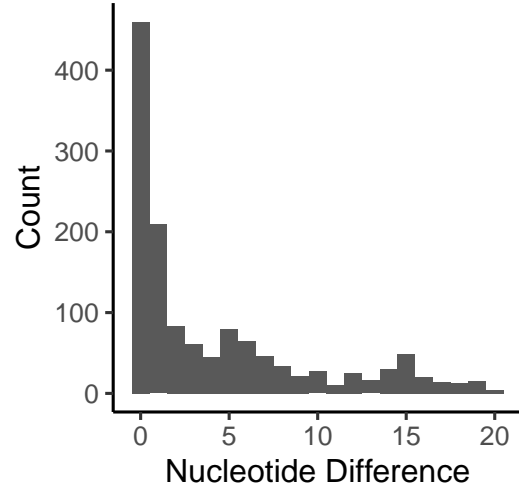
IGHV3-9*01

9853 sequences assigned
1144 (11.6%) exact matches, in which:
878 unique CDR3
6 unique J



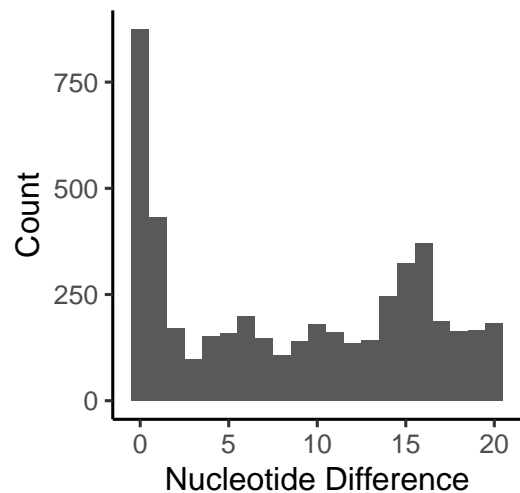
IGHV3-11*06

1635 sequences assigned
460 (28.1%) exact matches, in which:
372 unique CDR3
6 unique J



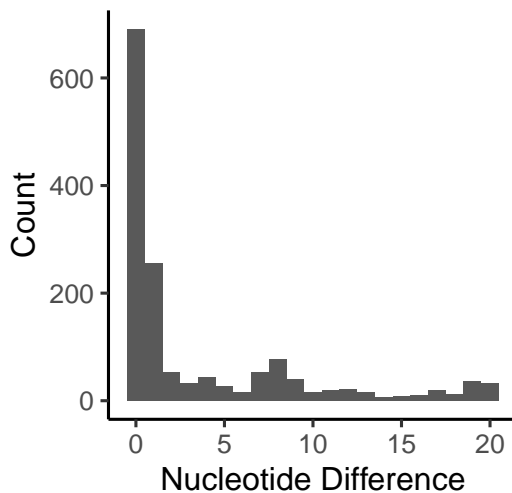
IGHV3-7*01

5487 sequences assigned
875 (15.9%) exact matches, in which:
697 unique CDR3
6 unique J



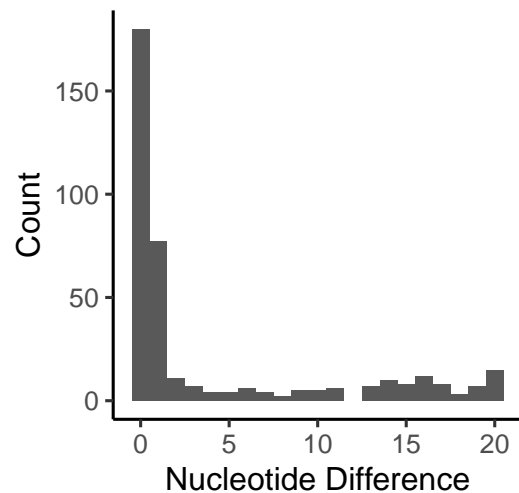
IGHV3-11*01

1934 sequences assigned
691 (35.7%) exact matches, in which:
533 unique CDR3
6 unique J



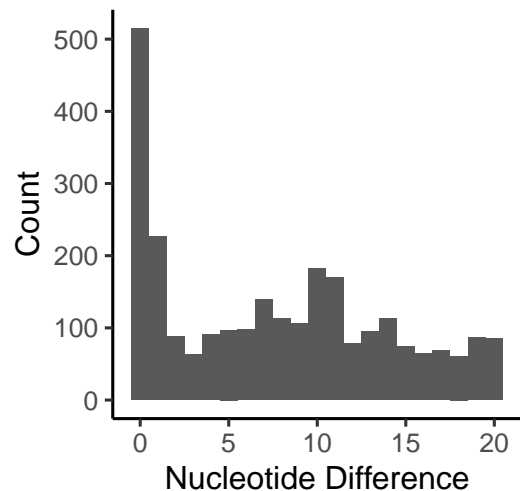
IGHV3-13*01

582 sequences assigned
180 (30.9%) exact matches, in which:
132 unique CDR3
5 unique J



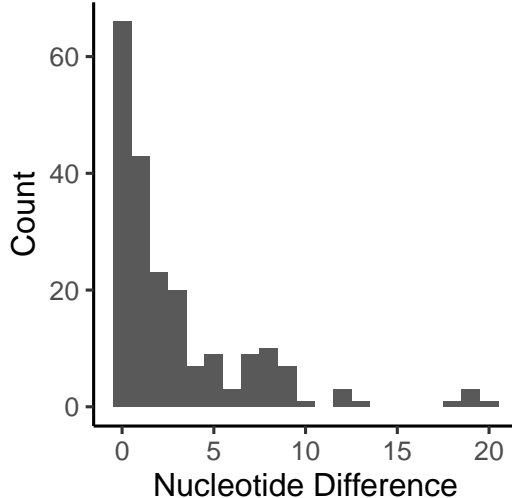
IGHV3-7*03

3301 sequences assigned
515 (15.6%) exact matches, in which:
414 unique CDR3
6 unique J



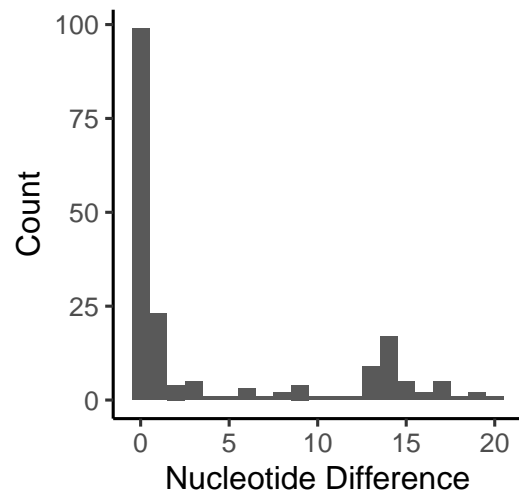
IGHV3-11*04

257 sequences assigned
66 (25.7%) exact matches, in which:
65 unique CDR3
5 unique J



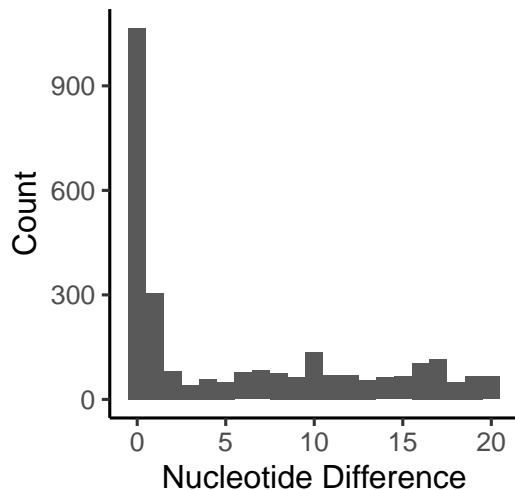
IGHV3-13*05

197 sequences assigned
99 (50.3%) exact matches, in which:
71 unique CDR3
5 unique J



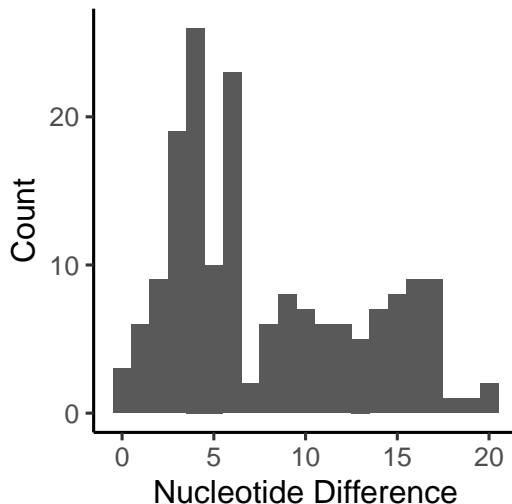
IGHV3-15*01_02

3538 sequences assigned
1067 (30.2%) exact matches, in which:
834 unique CDR3
6 unique J



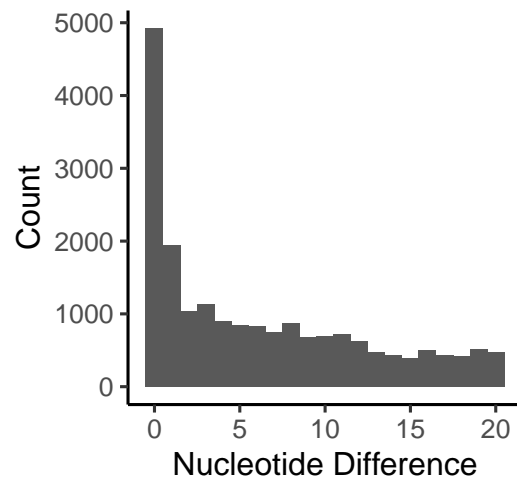
IGHV3-20*03_04

228 sequences assigned
3 (1.3%) exact matches, in which:
3 unique CDR3
1 unique J



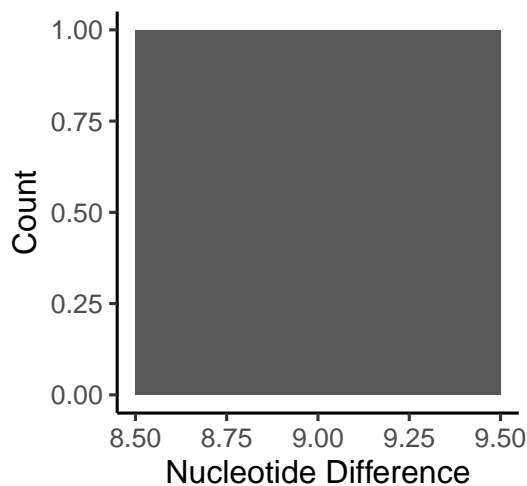
IGHV3-23*01_04

24802 sequences assigned
4922 (19.8%) exact matches, in which:
3532 unique CDR3
6 unique J



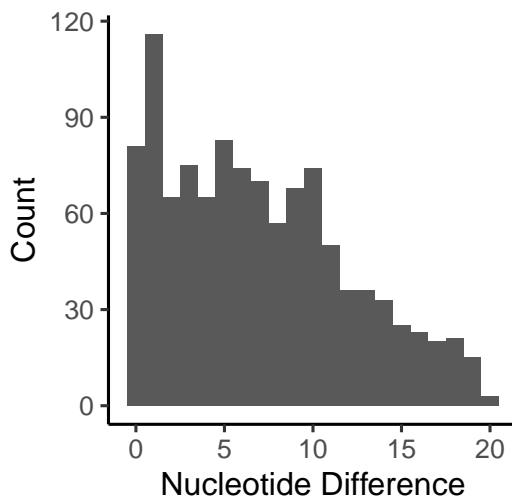
IGHV3-19*01

1 sequences assigned
No exact matches.



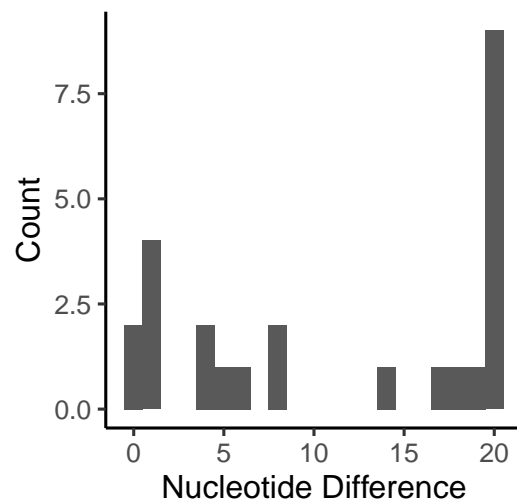
IGHV3-21*04

1249 sequences assigned
81 (6.5%) exact matches, in which:
80 unique CDR3
6 unique J



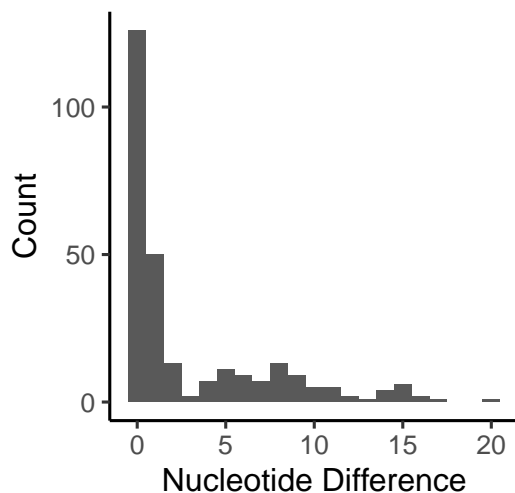
IGHV3-30-3*01

230 sequences assigned
2 (0.9%) exact matches, in which:
2 unique CDR3
1 unique J



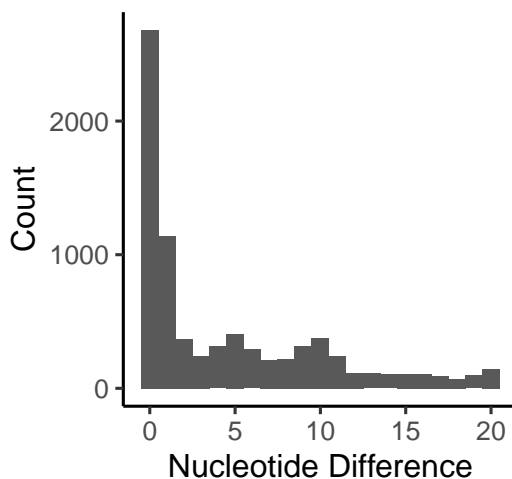
IGHV3-20*01_02

338 sequences assigned
126 (37.3%) exact matches, in which:
88 unique CDR3
6 unique J



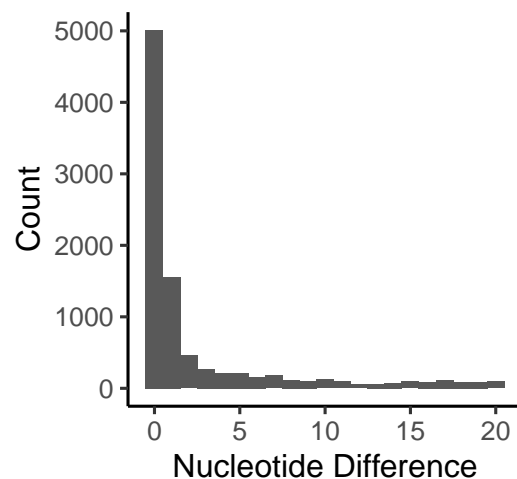
IGHV3-21*01_02

8777 sequences assigned
2681 (30.5%) exact matches, in which:
2034 unique CDR3
6 unique J



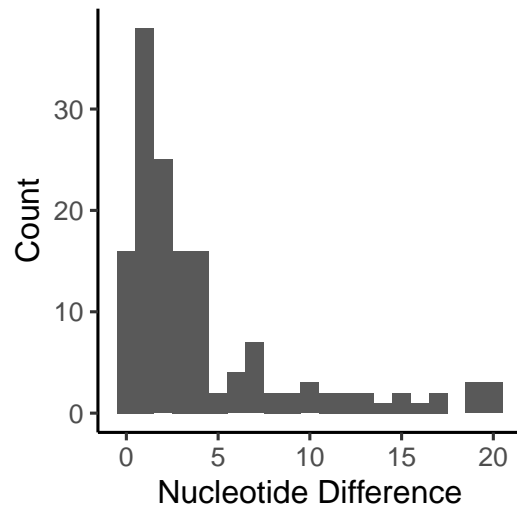
IGHV3-30*04

9950 sequences assigned
5011 (50.4%) exact matches, in which:
3748 unique CDR3
6 unique J



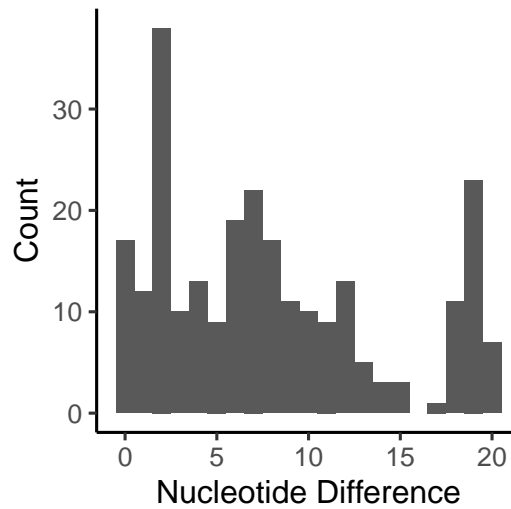
IGHV3-30-3*02_C189T

296 sequences assigned
16 (5.4%) exact matches, in which:
16 unique CDR3
4 unique J



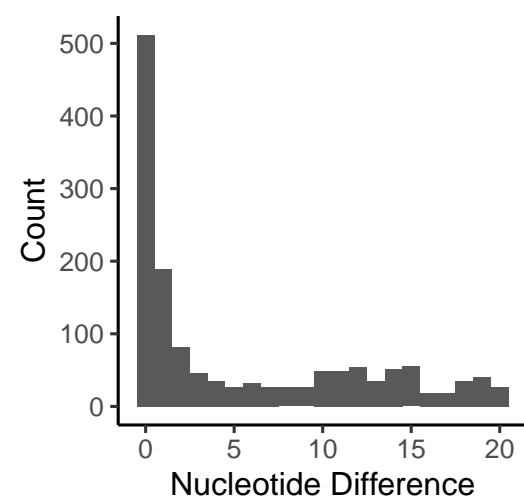
IGHV3-33*08

317 sequences assigned
17 (5.4%) exact matches, in which:
17 unique CDR3
5 unique J



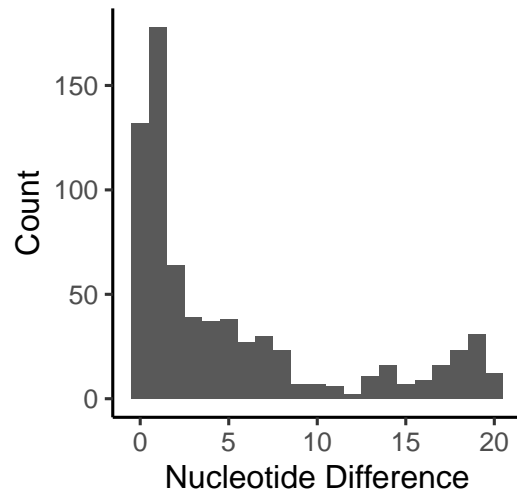
IGHV3-43*02

1691 sequences assigned
512 (30.3%) exact matches, in which:
380 unique CDR3
6 unique J



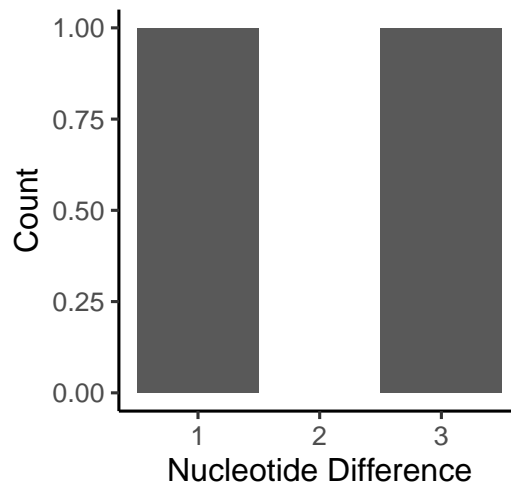
IGHV3-33*01

835 sequences assigned
132 (15.8%) exact matches, in which:
127 unique CDR3
6 unique J



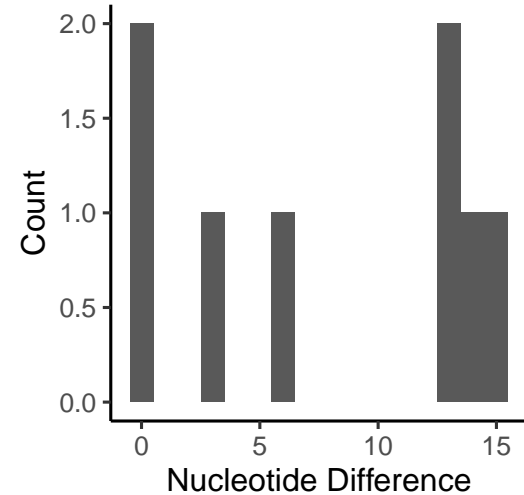
IGHV3-35*01

2 sequences assigned
No exact matches.



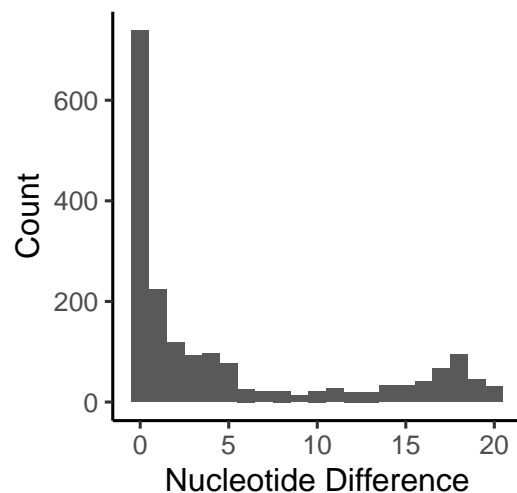
IGHV3-47*02

9 sequences assigned
2 (22.2%) exact matches, in which:
2 unique CDR3
1 unique J



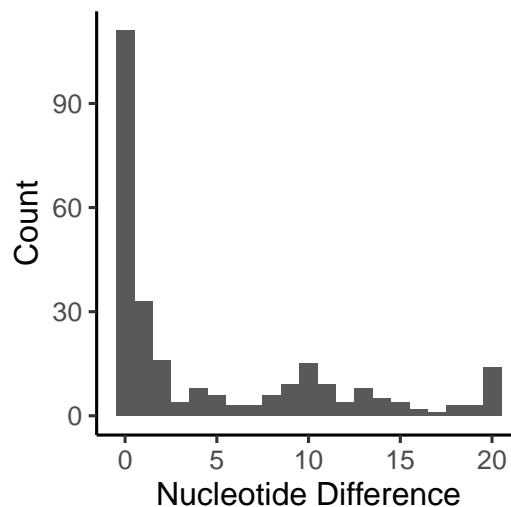
IGHV3-33*06

2072 sequences assigned
739 (35.7%) exact matches, in which:
575 unique CDR3
6 unique J



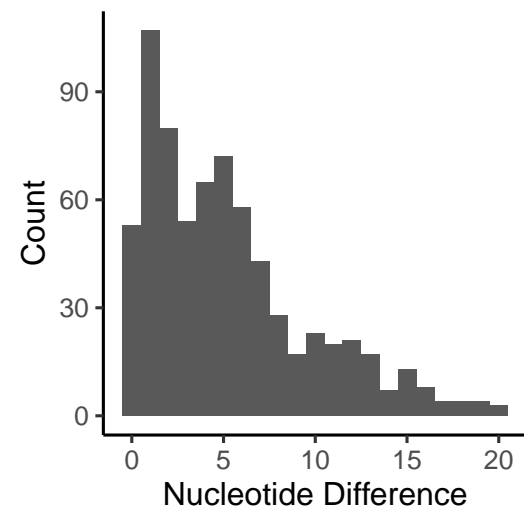
IGHV3-43*01

406 sequences assigned
111 (27.3%) exact matches, in which:
94 unique CDR3
6 unique J



IGHV3-48*01

755 sequences assigned
53 (7%) exact matches, in which:
53 unique CDR3
5 unique J



2116 sequences assigned
779 (36.8%) exact matches, in which:
587 unique CDR3
6 unique J



324 sequences assigned
160 (49.4%) exact matches, in which:
128 unique CDR3
6 unique J



425 sequences assigned
163 (38.4%) exact matches, in which:
123 unique CDR3
6 unique J



1973 sequences assigned
972 (49.3%) exact matches, in which:
761 unique CDR3
6 unique J



9 sequences assigned
2 (22.2%) exact matches, in which:
1 unique CDR3
1 unique J



3035 sequences assigned
653 (21.5%) exact matches, in which:
512 unique CDR3
6 unique J



895 sequences assigned
182 (20.3%) exact matches, in which:
146 unique CDR3
6 unique J



2171 sequences assigned
542 (25%) exact matches, in which:
431 unique CDR3
6 unique J

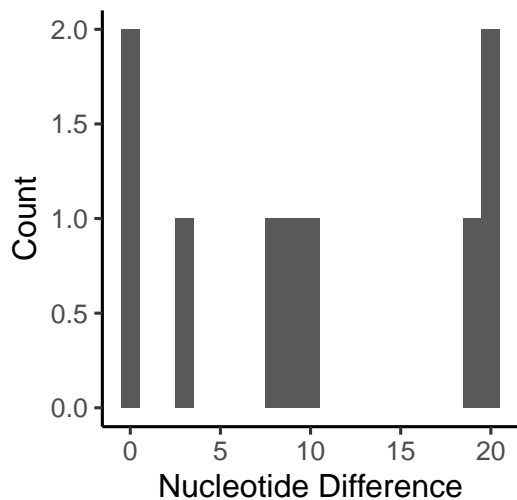


27 sequences assigned
No exact matches.



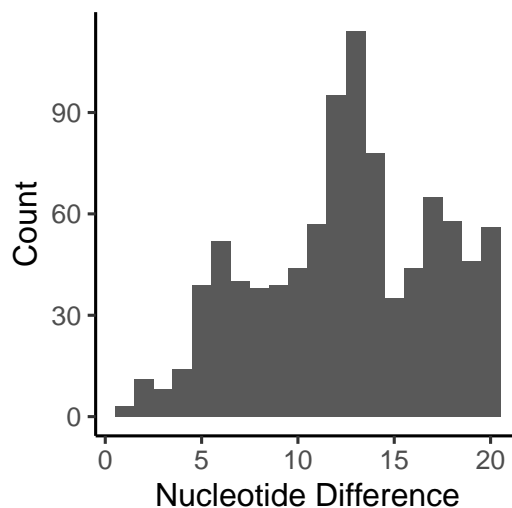
IGHV3-69-1*02

19 sequences assigned
2 (10.5%) exact matches, in which:
1 unique CDR3
1 unique J



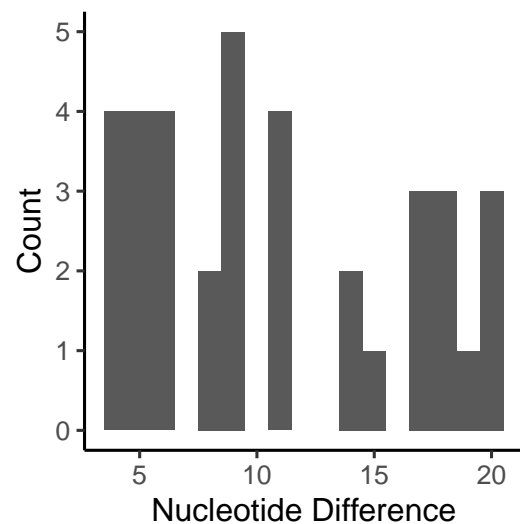
IGHV3-74*03

1924 sequences assigned
No exact matches.



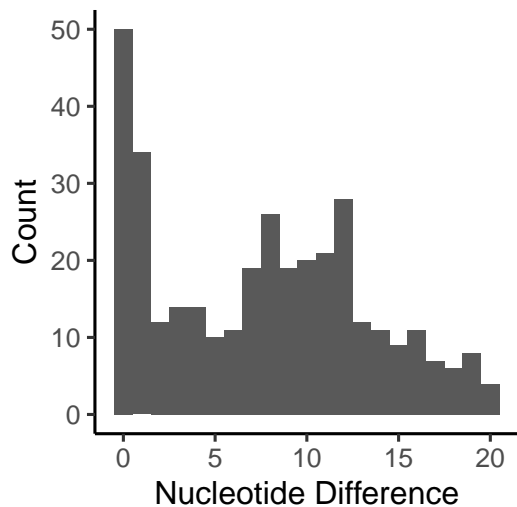
IGHV3-NL1*01

42 sequences assigned
No exact matches.



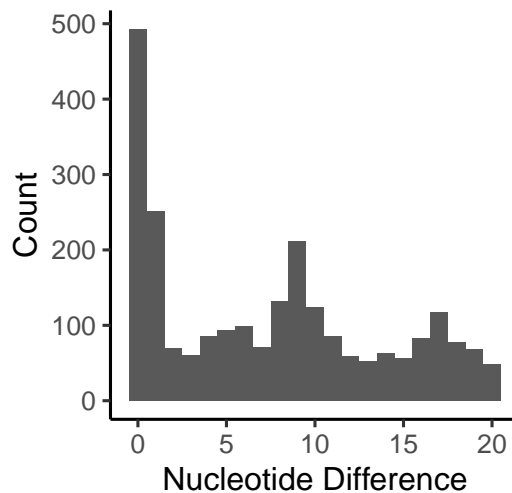
IGHV3-72*01

540 sequences assigned
50 (9.3%) exact matches, in which:
39 unique CDR3
4 unique J



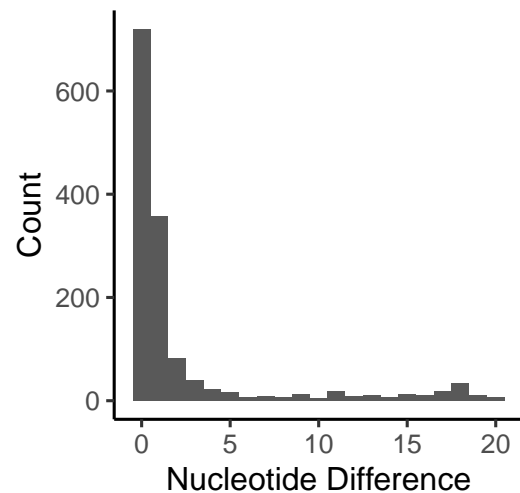
IGHV3-74*01_02

2832 sequences assigned
493 (17.4%) exact matches, in which:
357 unique CDR3
6 unique J



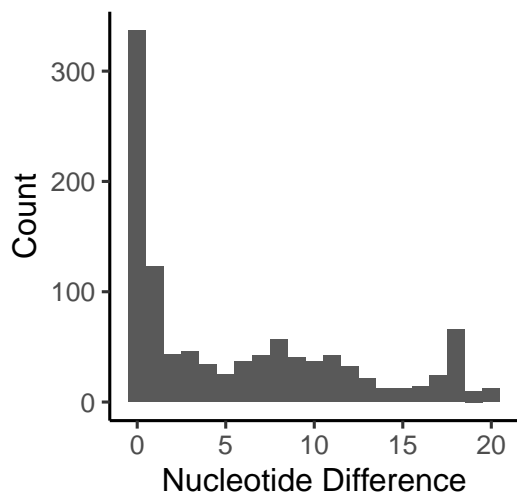
IGHV4-4*02_03

1613 sequences assigned
720 (44.6%) exact matches, in which:
659 unique CDR3
6 unique J



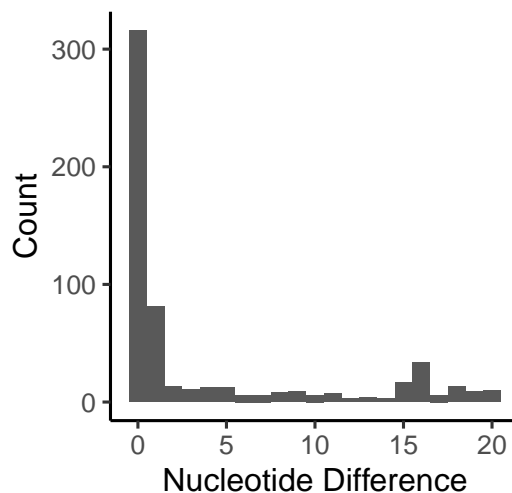
IGHV3-73*01_02

1193 sequences assigned
337 (28.2%) exact matches, in which:
268 unique CDR3
6 unique J



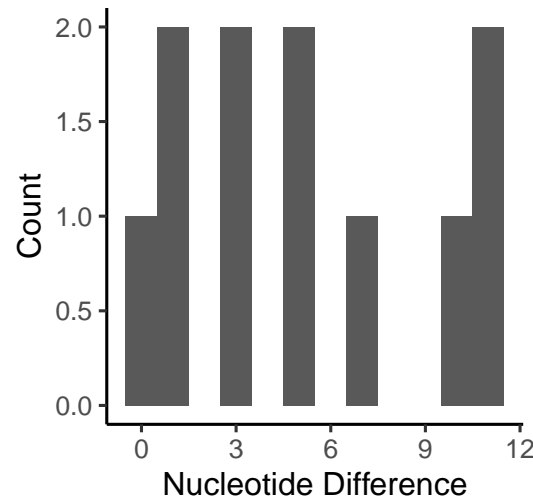
IGHV3-64D*06

677 sequences assigned
316 (46.7%) exact matches, in which:
218 unique CDR3
6 unique J



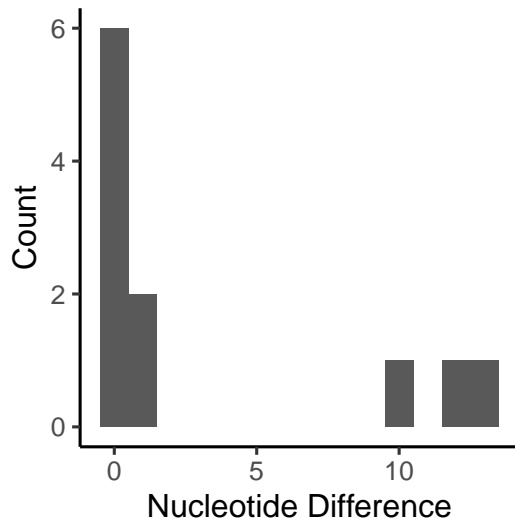
IGHV4-28*03

13 sequences assigned
1 (7.7%) exact matches, in which:
1 unique CDR3
1 unique J



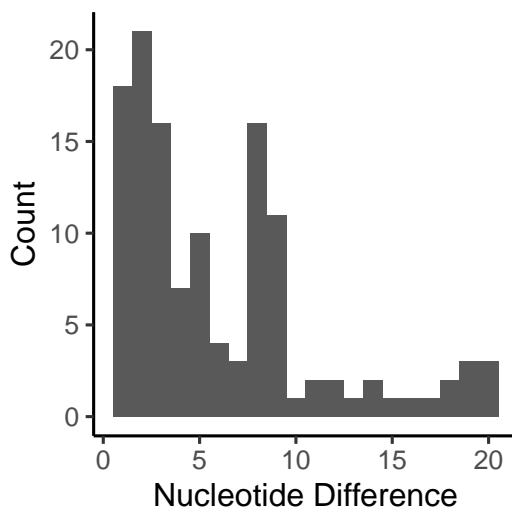
IGHV4-28*01_07

17 sequences assigned
6 (35.3%) exact matches, in which:
5 unique CDR3
4 unique J



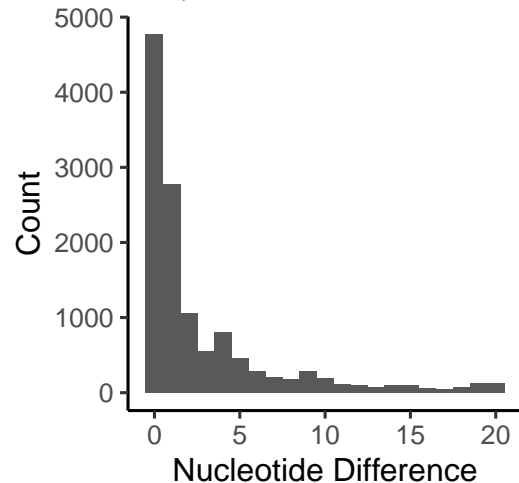
IGHV4-30-2*03

150 sequences assigned
No exact matches.



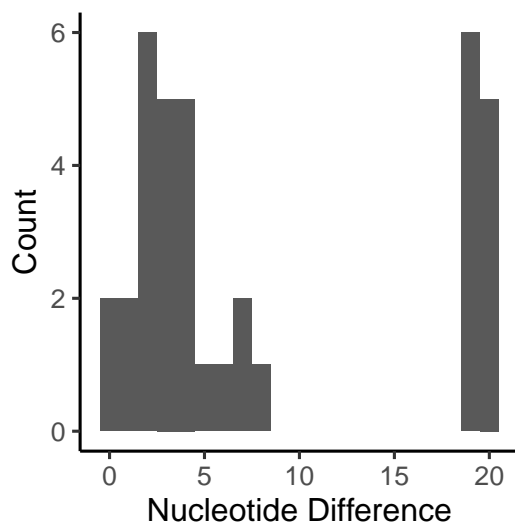
IGHV4-34*01_02

13680 sequences assigned
4770 (34.9%) exact matches, in which:
4198 unique CDR3
6 unique J



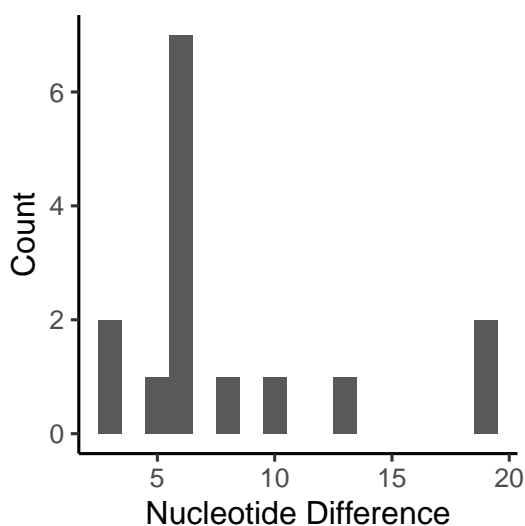
IGHV4-28*02_05

38 sequences assigned
2 (5.3%) exact matches, in which:
2 unique CDR3
1 unique J



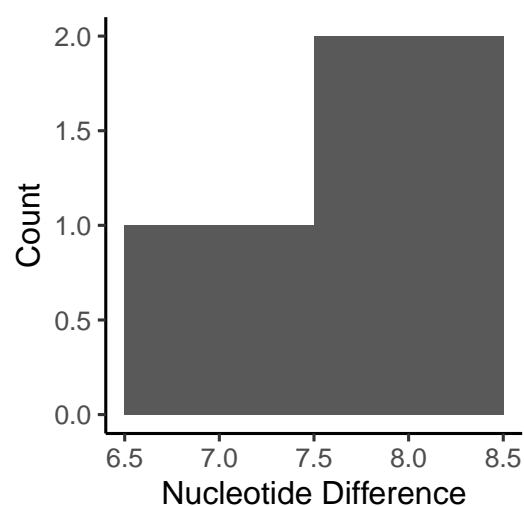
IGHV4-30-4*08

18 sequences assigned
No exact matches.



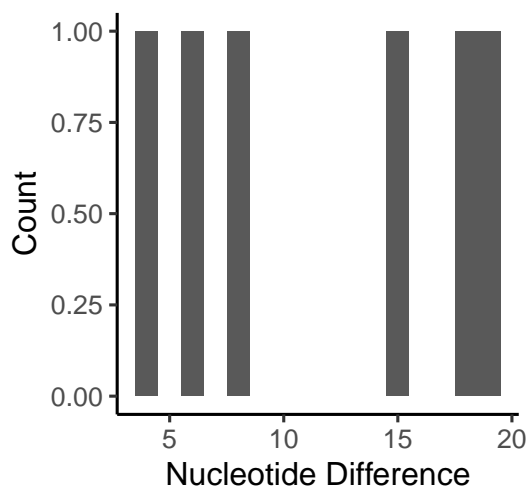
IGHV4-38-2*01

7 sequences assigned
No exact matches.



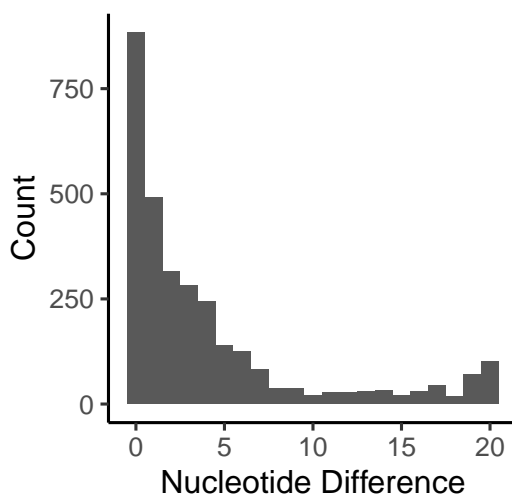
IGHV4-30-4*01

10 sequences assigned
No exact matches.



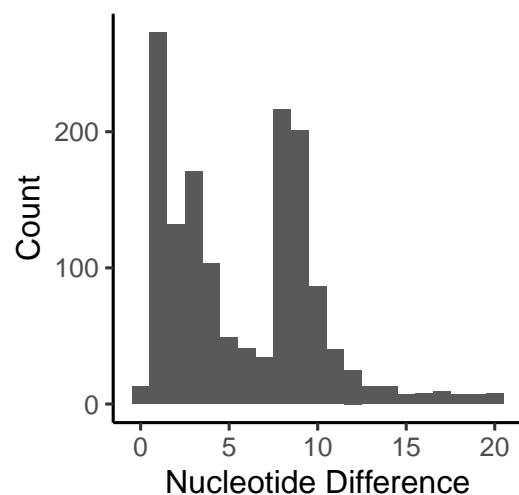
IGHV4-31*02

3798 sequences assigned
884 (23.3%) exact matches, in which:
834 unique CDR3
6 unique J



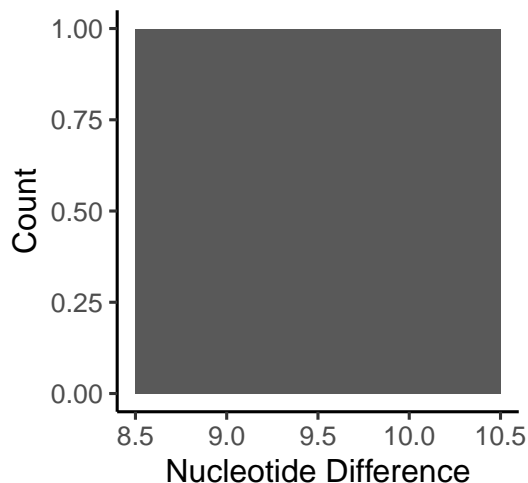
IGHV4-39*07

1776 sequences assigned
13 (0.7%) exact matches, in which:
13 unique CDR3
3 unique J



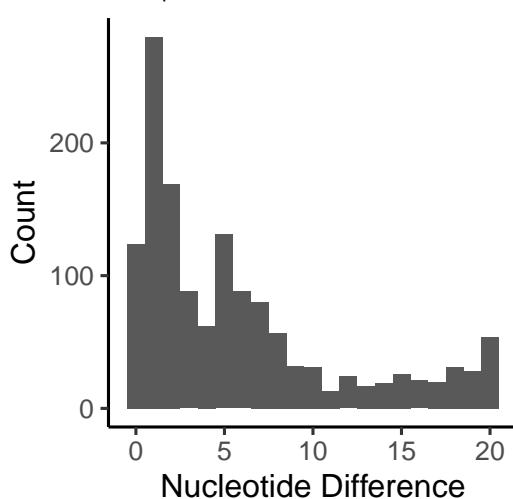
IGHV4-55*09

2 sequences assigned
No exact matches.



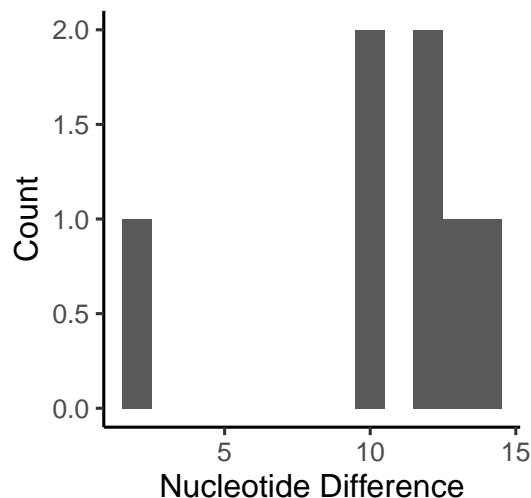
IGHV4-59*12

2031 sequences assigned
124 (6.1%) exact matches, in which:
121 unique CDR3
5 unique J



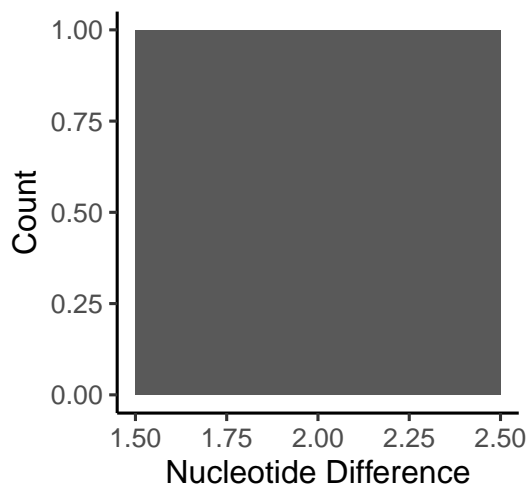
IGHV1/OR15-3*02

7 sequences assigned
No exact matches.



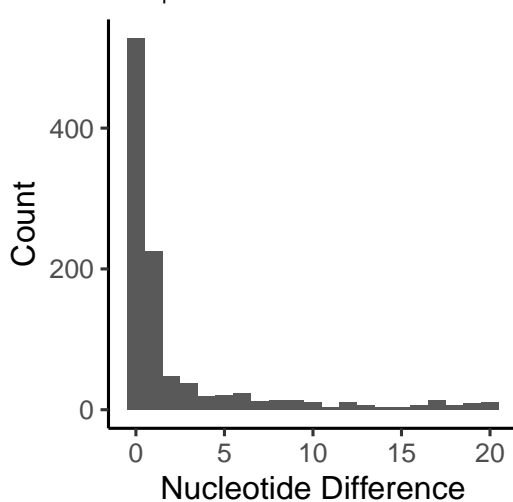
IGHV4-55*02_04_08

1 sequences assigned
No exact matches.



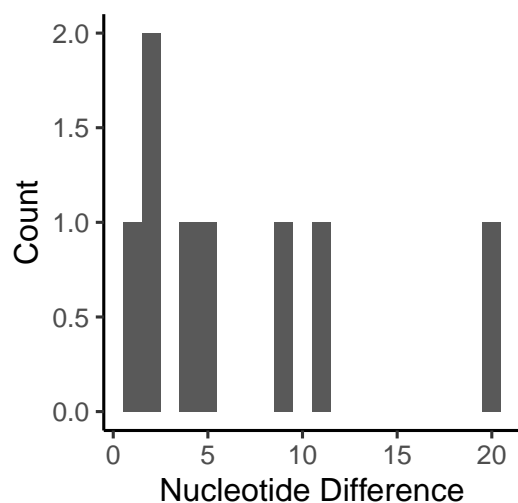
IGHV4-61*01

1188 sequences assigned
528 (44.4%) exact matches, in which:
507 unique CDR3
6 unique J



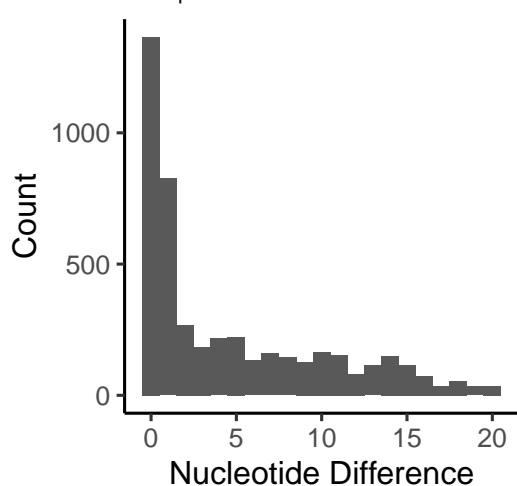
IGHV4/OR15-8*01

18 sequences assigned
No exact matches.



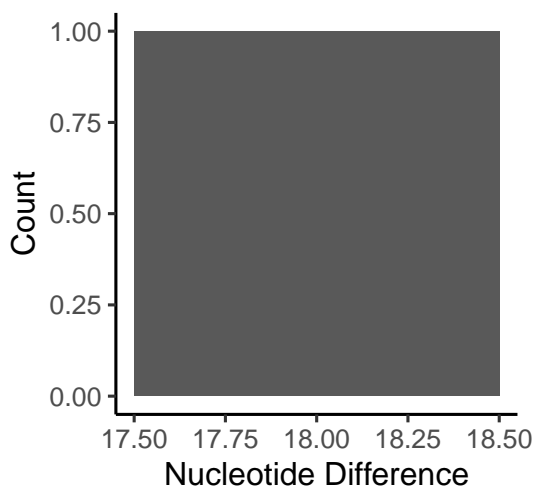
IGHV4-59*08

5310 sequences assigned
1365 (25.7%) exact matches, in which:
1235 unique CDR3
6 unique J



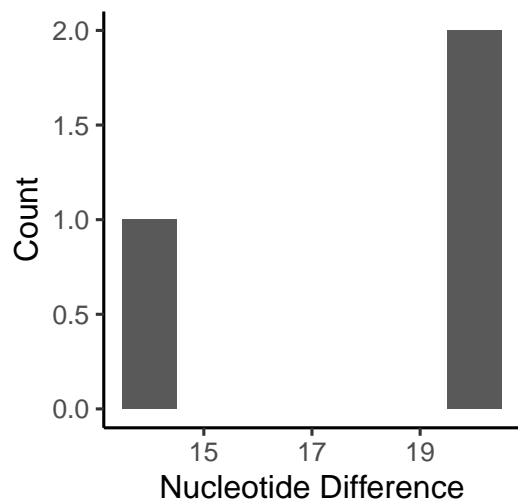
IGHV1/OR15-2*02_03

1 sequences assigned
No exact matches.



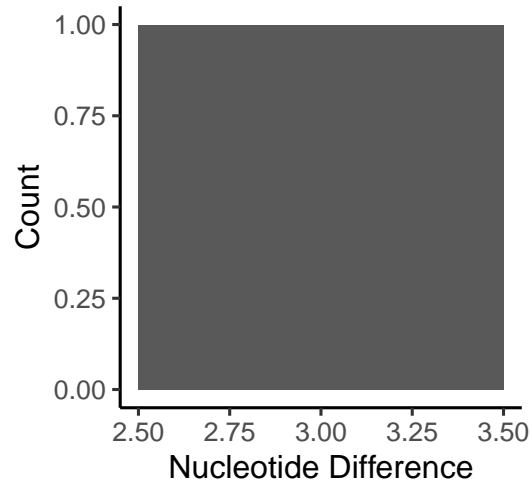
IGHV4/OR15-8*02

11 sequences assigned
No exact matches.



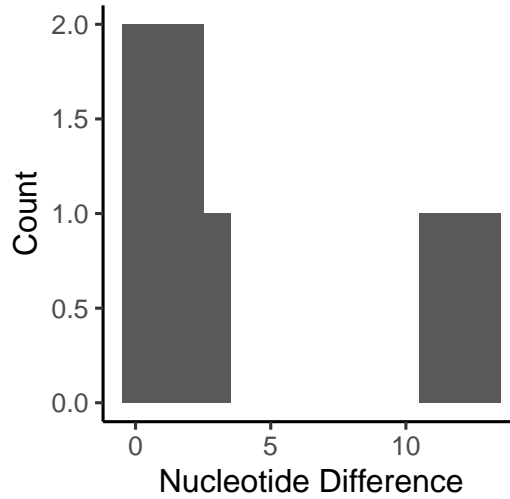
IGHV4/OR15-8*03

17 sequences assigned
No exact matches.



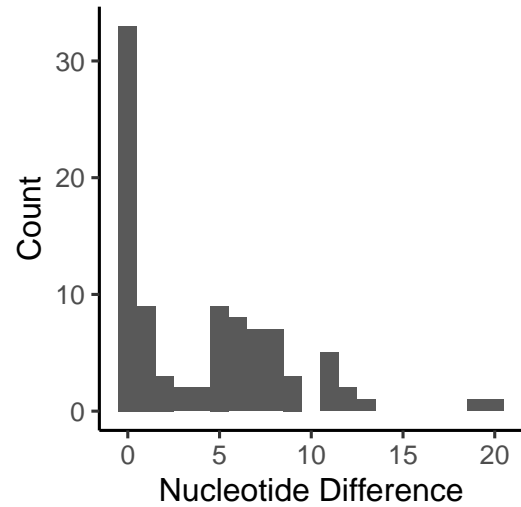
IGHV5-51*06

24 sequences assigned
2 (8.3%) exact matches, in which:
2 unique CDR3
2 unique J



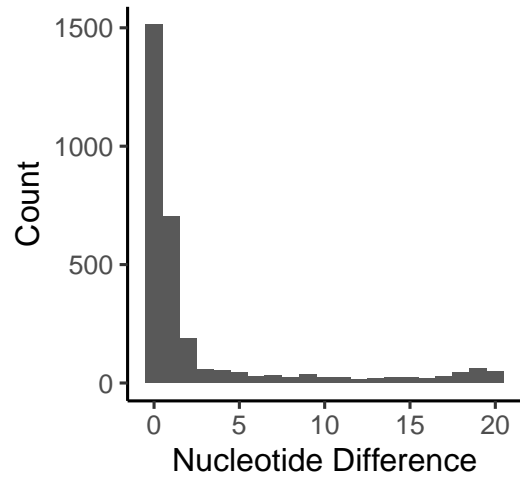
IGHV6-1*01_02_A315G

101 sequences assigned
33 (32.7%) exact matches, in which:
33 unique CDR3
5 unique J



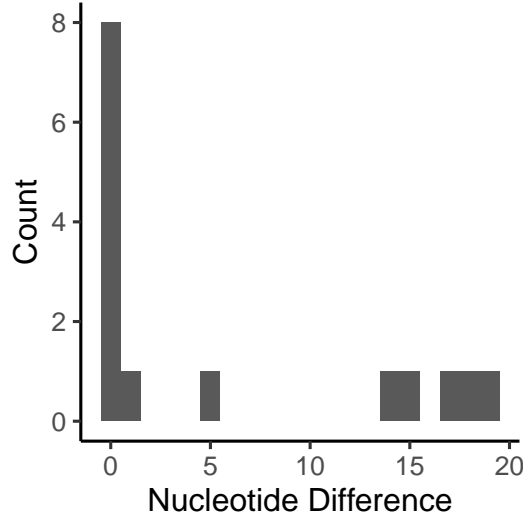
IGHV5-10-1*01_03

3427 sequences assigned
1513 (44.1%) exact matches, in which:
1119 unique CDR3
6 unique J



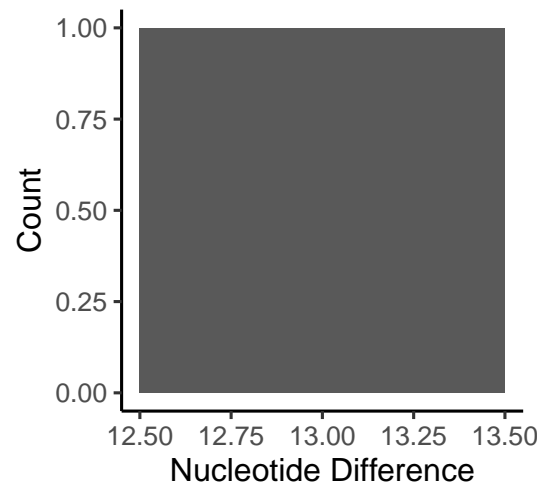
IGHV5-51*07

19 sequences assigned
8 (42.1%) exact matches, in which:
8 unique CDR3
5 unique J



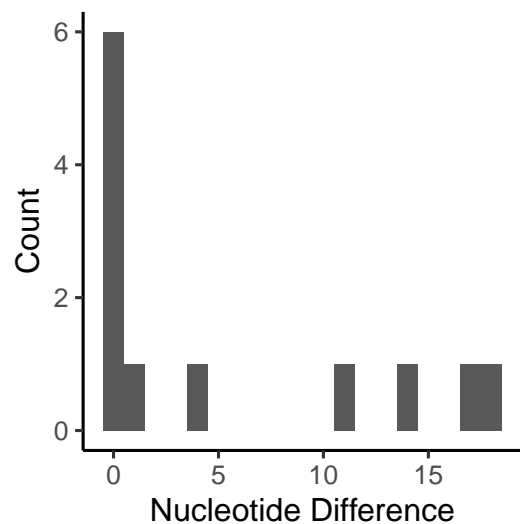
IGHV3/OR16-10*01_03

1 sequences assigned
No exact matches.



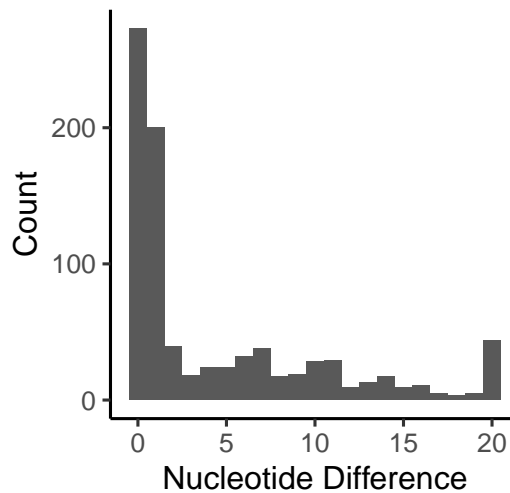
IGHV5-51*04

16 sequences assigned
6 (37.5%) exact matches, in which:
6 unique CDR3
2 unique J



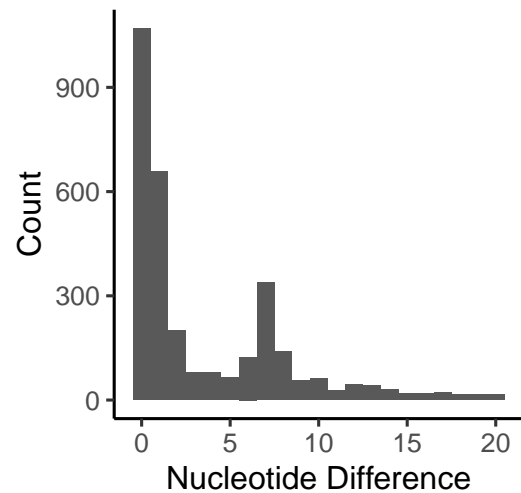
IGHV6-1*01_02

1211 sequences assigned
273 (22.5%) exact matches, in which:
250 unique CDR3
6 unique J



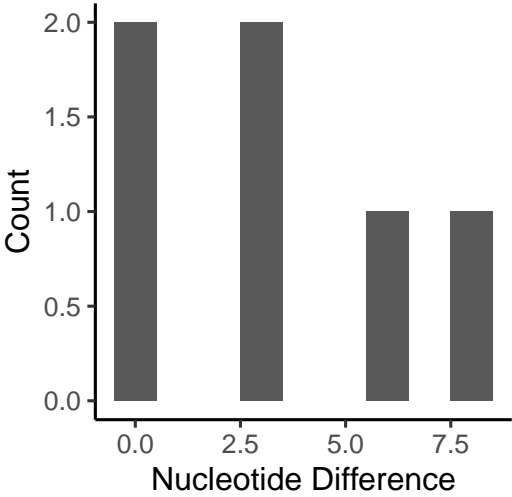
IGHV7-4-1*02

3405 sequences assigned
1070 (31.4%) exact matches, in which:
967 unique CDR3
6 unique J

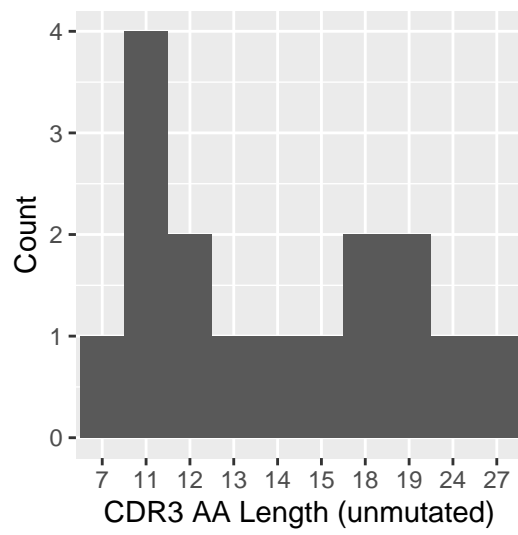


IGHV7-81*01

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



IGHV3-30-3*02_C189T



IGHV6-1*01_02_A315G

