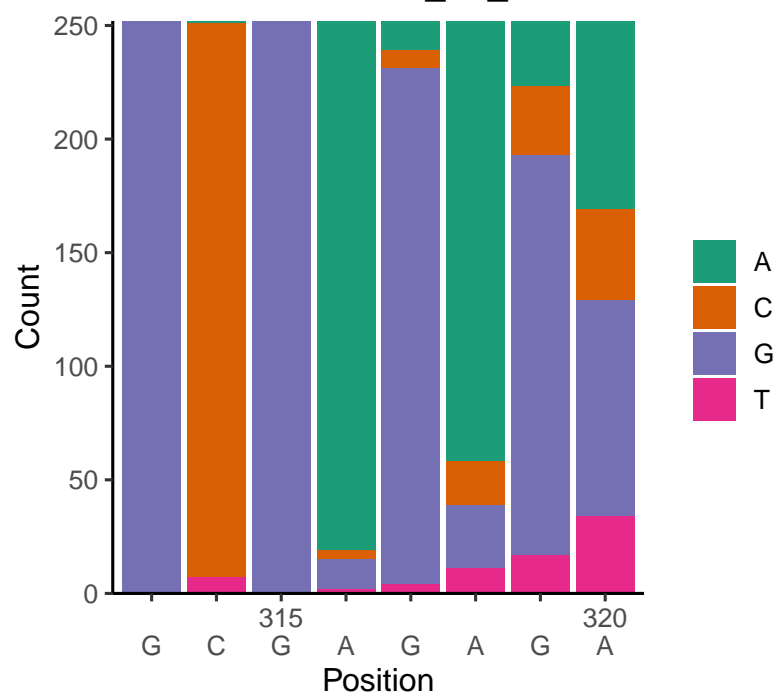
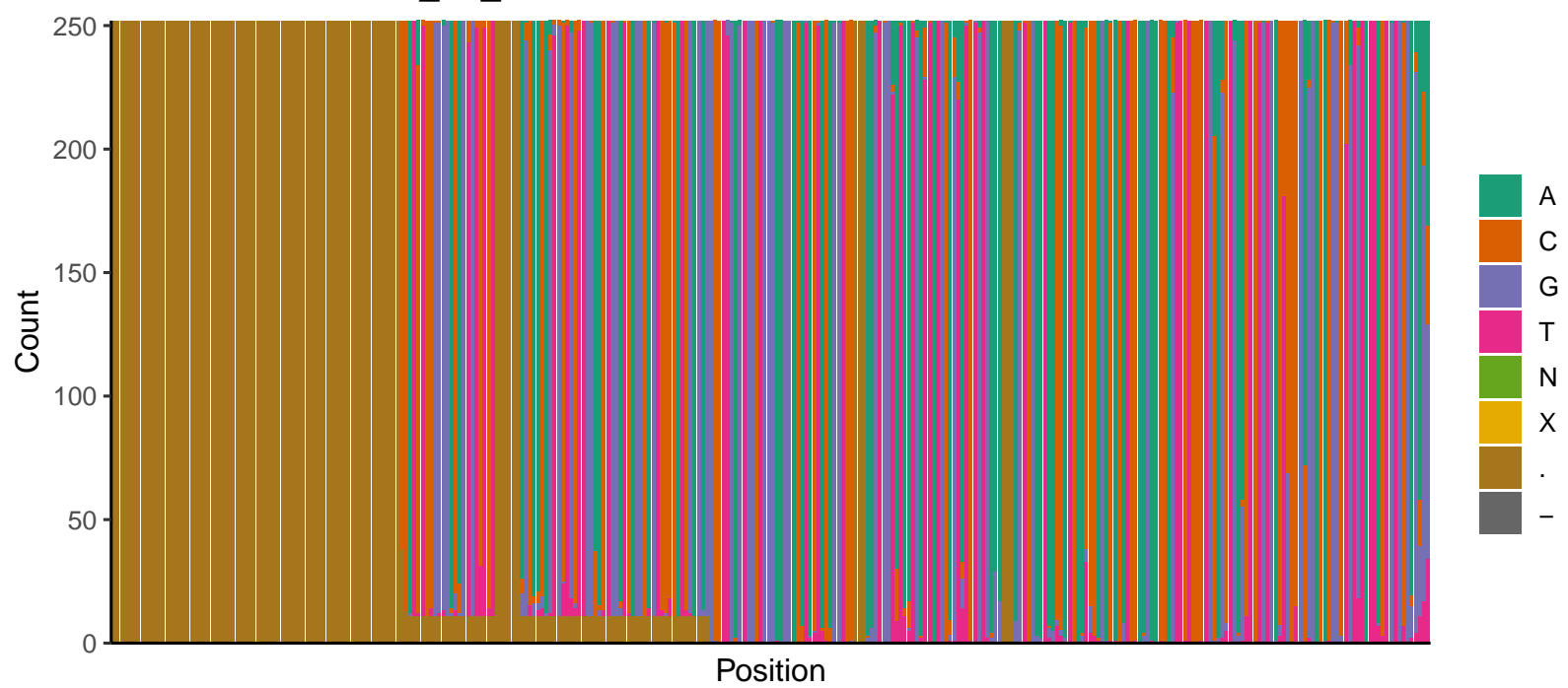


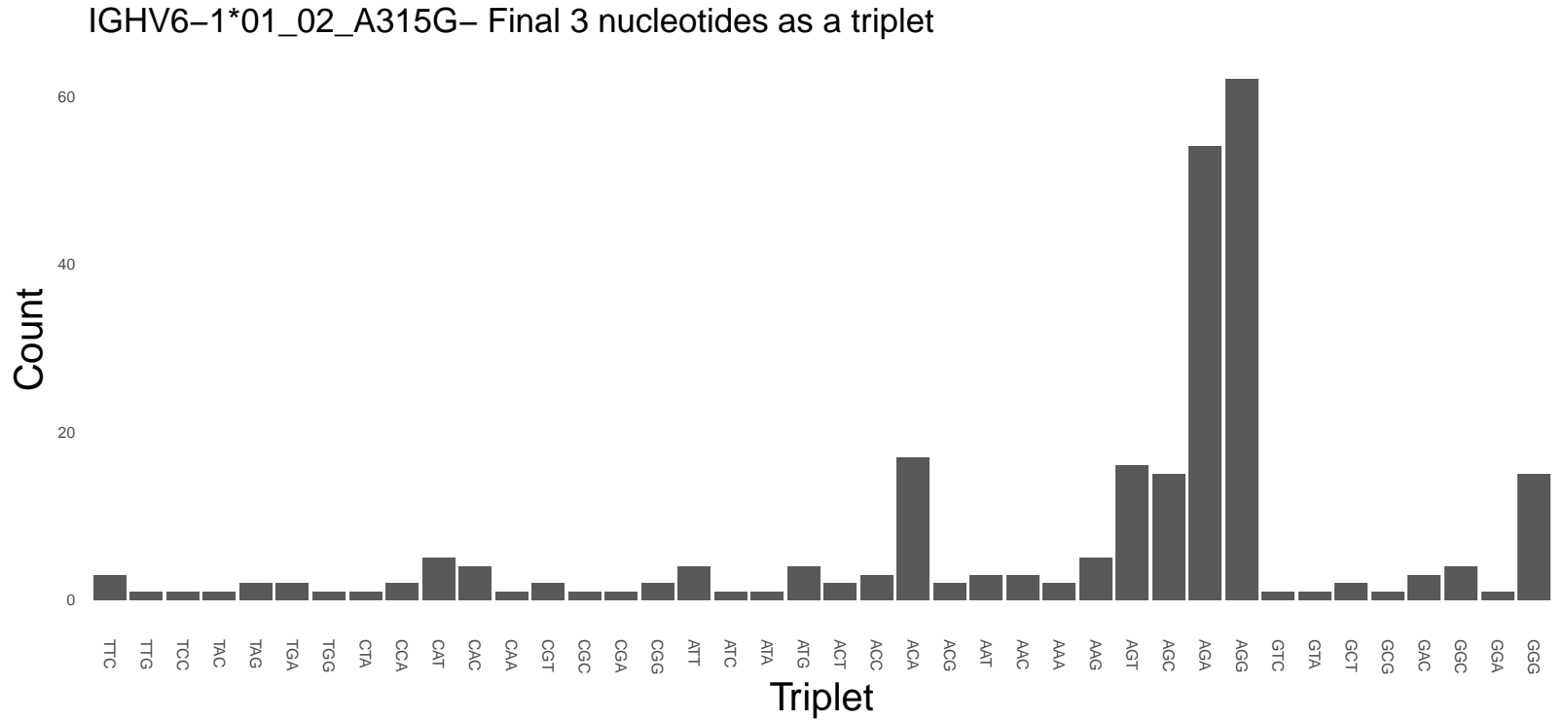
Gene IGHV6-1*01_02_A315G



Gene IGHV6-1*01_02_A315G

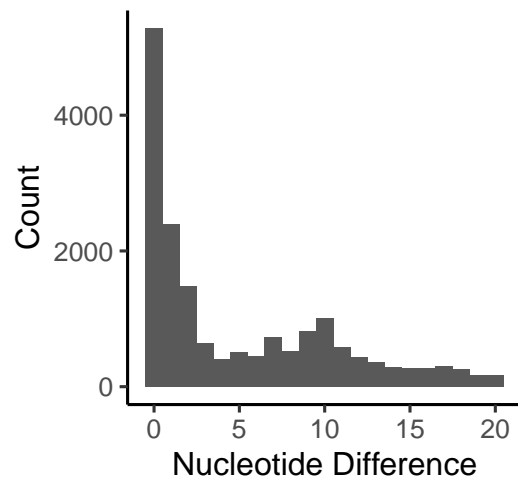


IGHV6-1*01_02_A315G- Final 3 nucleotides as a triplet



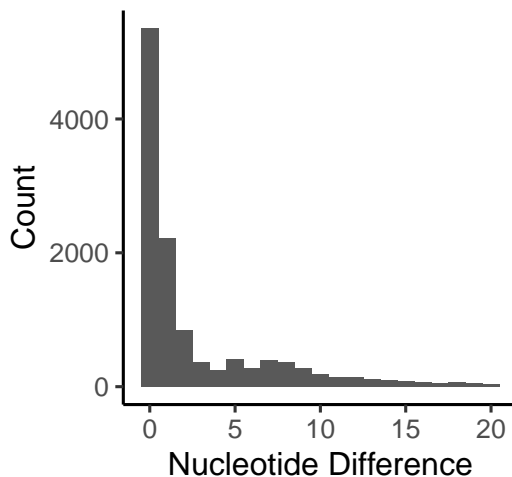
IGHV1-2*02

18455 sequences assigned
5279 (28.6%) exact matches, in which:
5062 unique CDR3
6 unique J



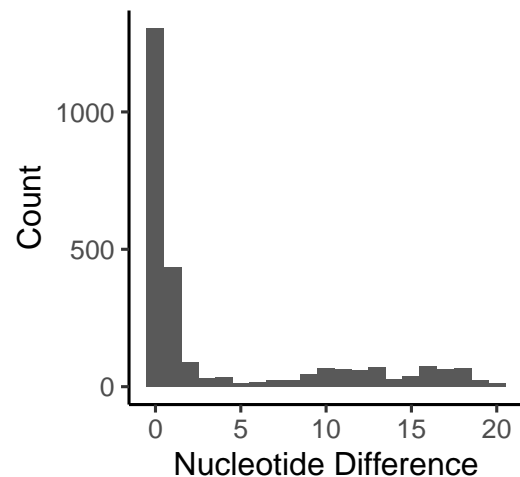
IGHV1-8*01

12049 sequences assigned
5353 (44.4%) exact matches, in which:
5136 unique CDR3
6 unique J



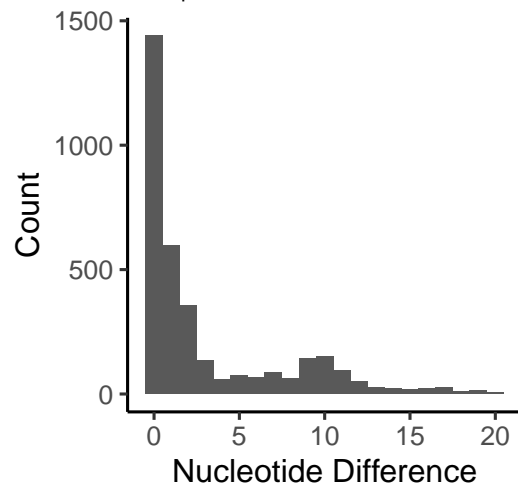
IGHV1-24*01

2655 sequences assigned
1304 (49.1%) exact matches, in which:
1239 unique CDR3
6 unique J



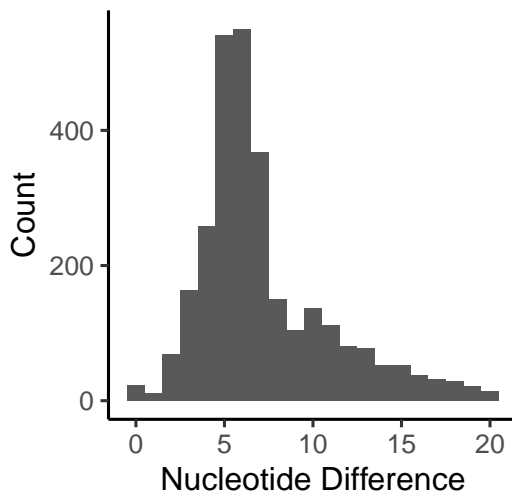
IGHV1-2*04

3506 sequences assigned
1440 (41.1%) exact matches, in which:
1391 unique CDR3
6 unique J



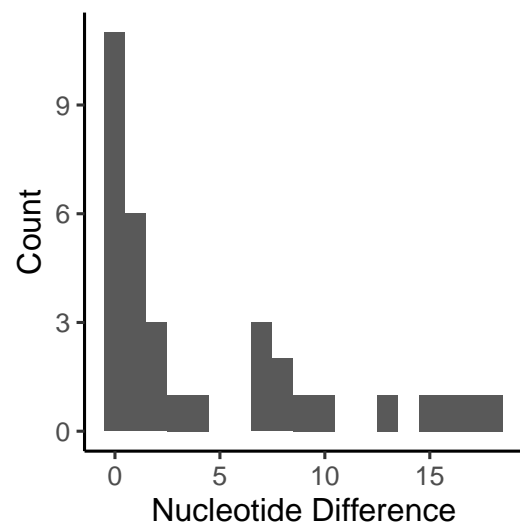
IGHV1-8*02

3020 sequences assigned
23 (0.8%) exact matches, in which:
23 unique CDR3
4 unique J



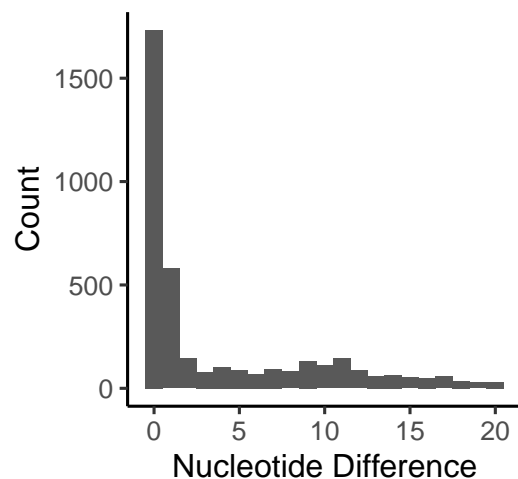
IGHV1-45*02

38 sequences assigned
11 (28.9%) exact matches, in which:
11 unique CDR3
4 unique J



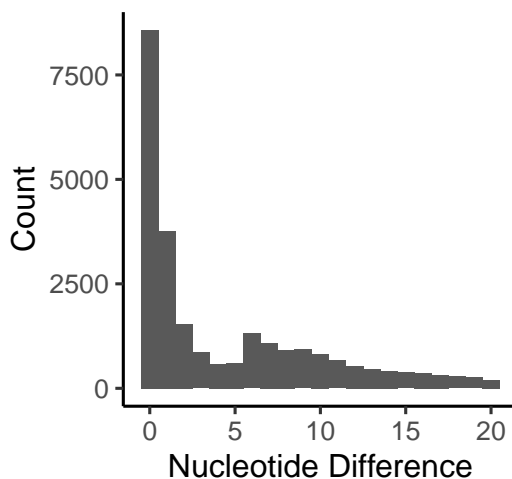
IGHV1-3*01_05

4176 sequences assigned
1733 (41.5%) exact matches, in which:
1663 unique CDR3
6 unique J



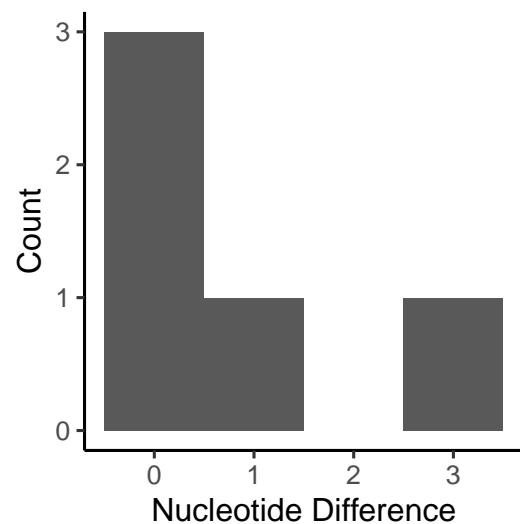
IGHV1-18*01

26276 sequences assigned
8574 (32.6%) exact matches, in which:
8135 unique CDR3
6 unique J



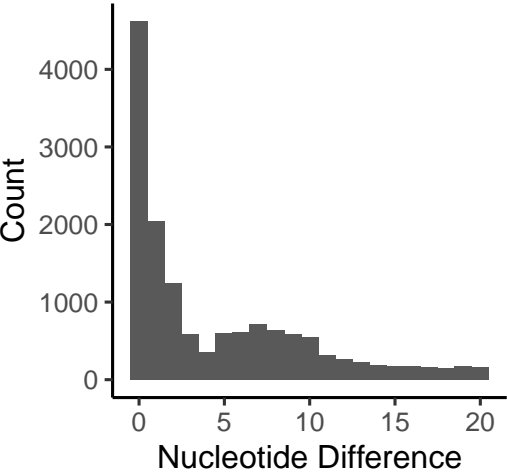
IGHV1-45*03

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



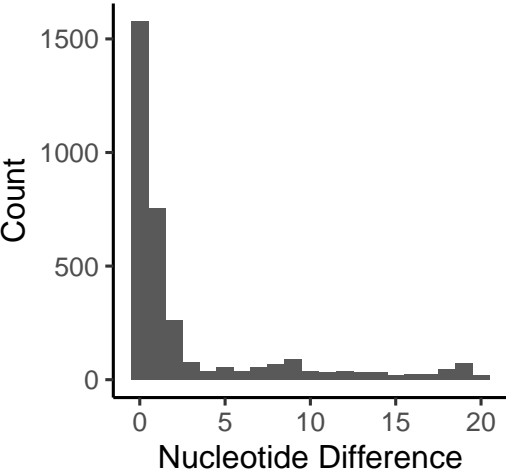
IGHV1-46*01

15473 sequences assigned
4618 (29.8%) exact matches, in which:
4409 unique CDR3
6 unique J



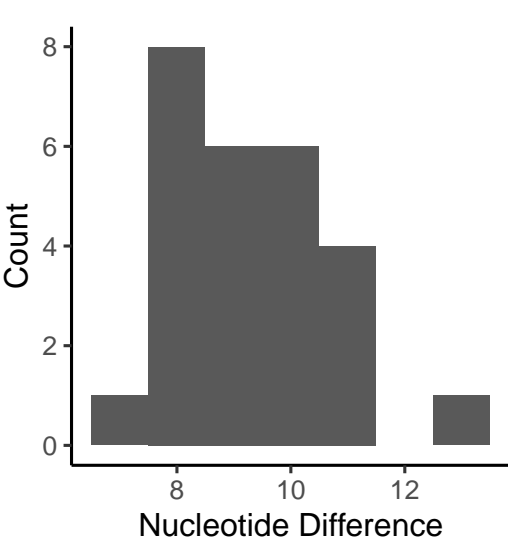
IGHV1-69*02

3667 sequences assigned
1577 (43%) exact matches, in which:
1508 unique CDR3
6 unique J



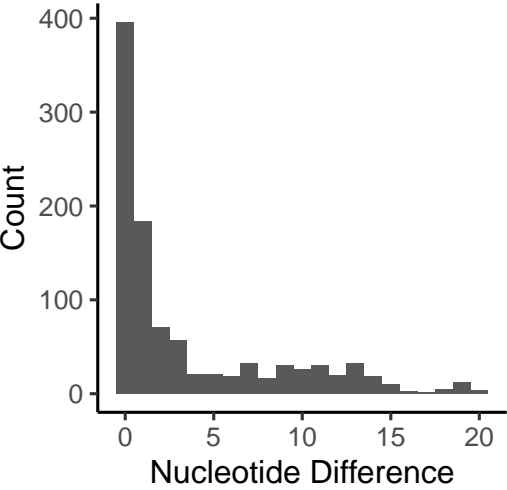
IGHV1-NL1*01

26 sequences assigned
No exact matches.



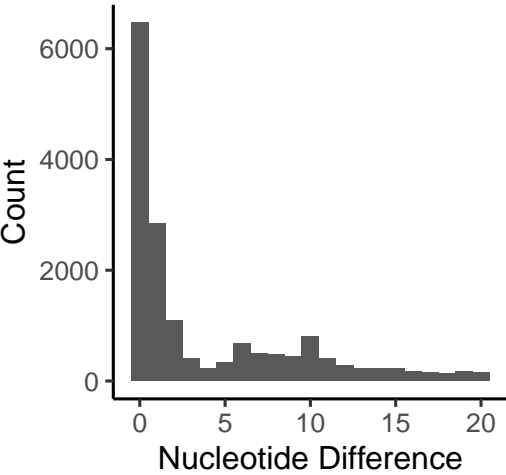
IGHV1-58*02

1048 sequences assigned
396 (37.8%) exact matches, in which:
384 unique CDR3
6 unique J



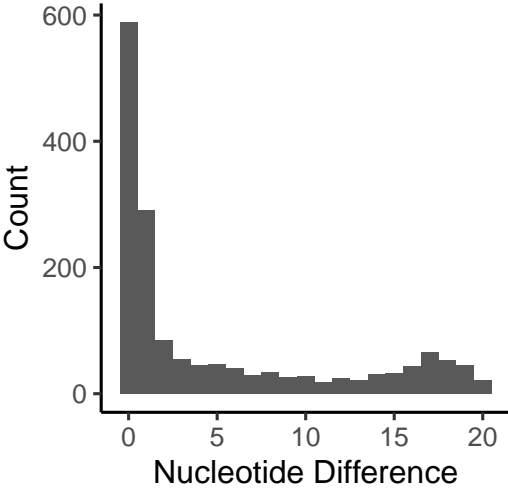
IGHV1-69*01_12_13

17858 sequences assigned
6469 (36.2%) exact matches, in which:
6253 unique CDR3
6 unique J



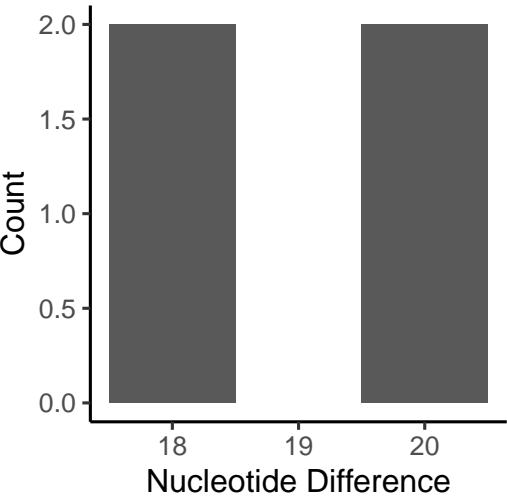
IGHV2-5*01

1694 sequences assigned
589 (34.8%) exact matches, in which:
563 unique CDR3
6 unique J



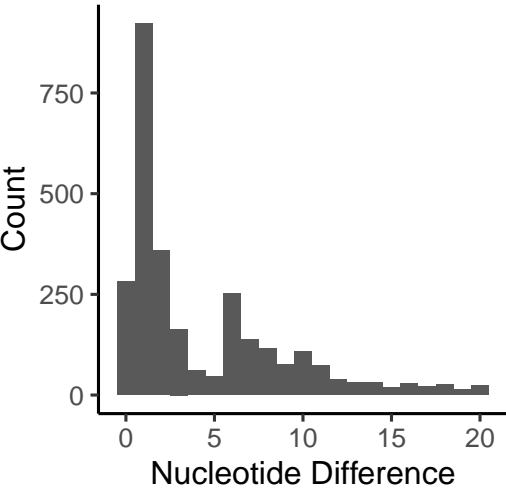
IGHV1-69-2*01

5 sequences assigned
No exact matches.



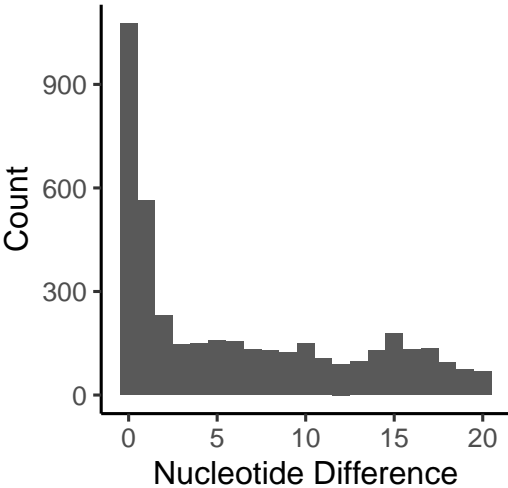
IGHV1-69*04_09

3286 sequences assigned
281 (8.6%) exact matches, in which:
280 unique CDR3
6 unique J



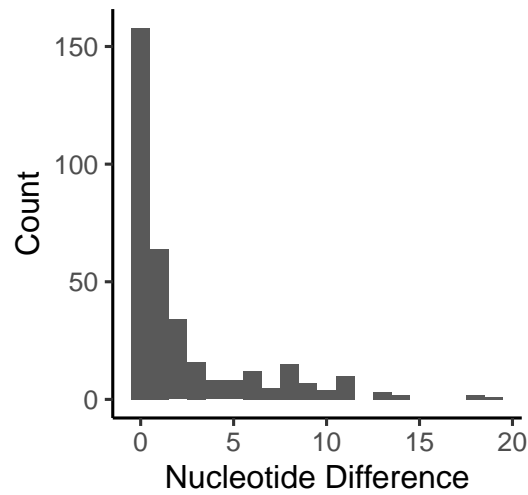
IGHV2-5*02

4385 sequences assigned
1077 (24.6%) exact matches, in which:
1033 unique CDR3
6 unique J



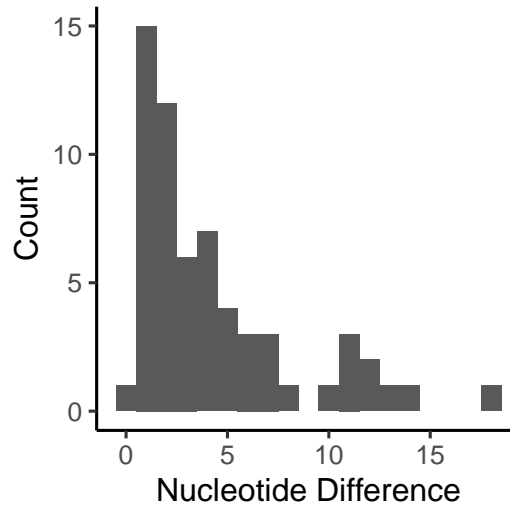
IGHV2-26*01

352 sequences assigned
158 (44.9%) exact matches, in which:
153 unique CDR3
5 unique J



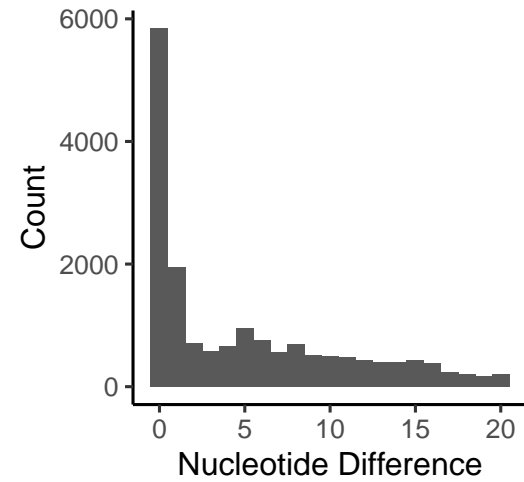
IGHV2-70*12

64 sequences assigned
1 (1.6%) exact matches, in which:
1 unique CDR3
1 unique J



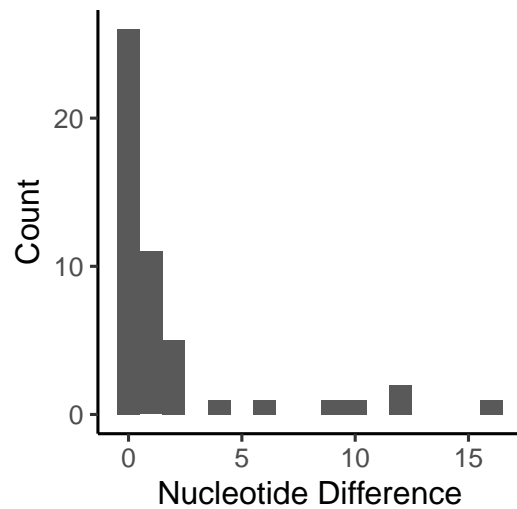
IGHV3-9*01

18612 sequences assigned
5844 (31.4%) exact matches, in which:
4806 unique CDR3
6 unique J



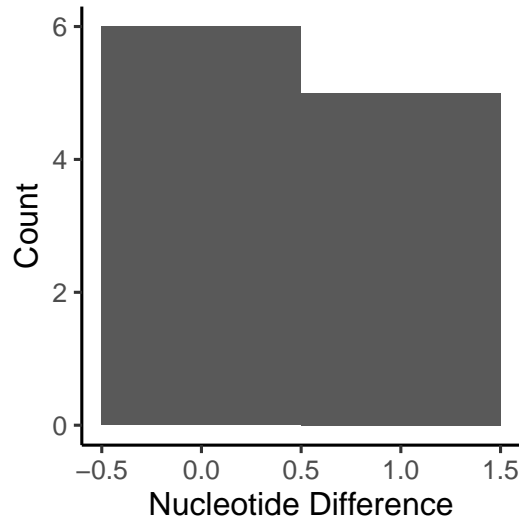
IGHV2-26*04

49 sequences assigned
26 (53.1%) exact matches, in which:
26 unique CDR3
5 unique J



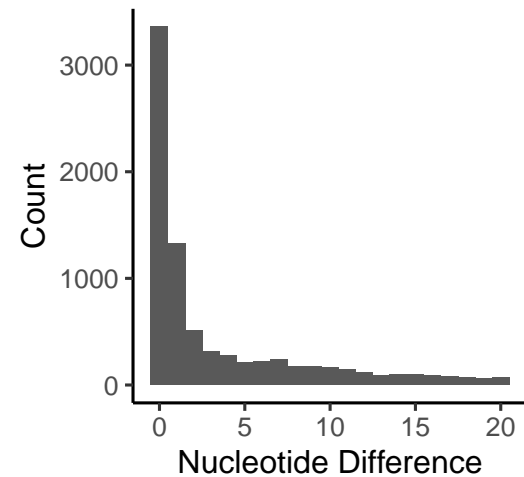
IGHV2-70D*14

11 sequences assigned
6 (54.5%) exact matches, in which:
4 unique CDR3
2 unique J



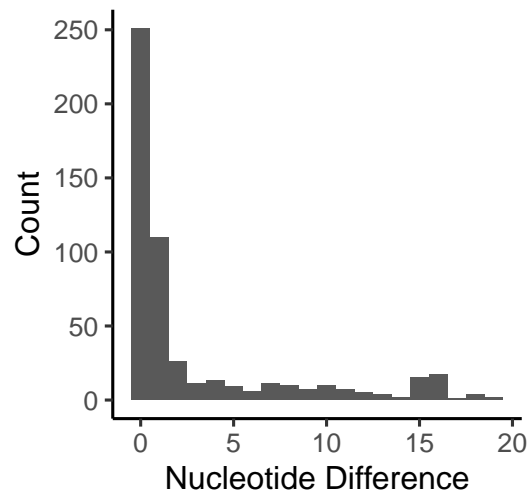
IGHV3-11*01

8285 sequences assigned
3360 (40.6%) exact matches, in which:
2836 unique CDR3
6 unique J



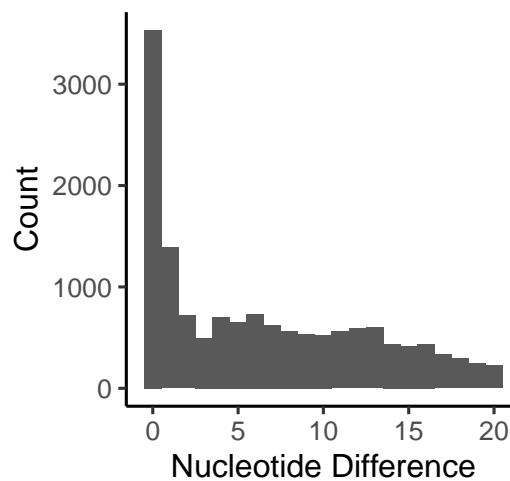
IGHV2-70*01

526 sequences assigned
251 (47.7%) exact matches, in which:
248 unique CDR3
6 unique J



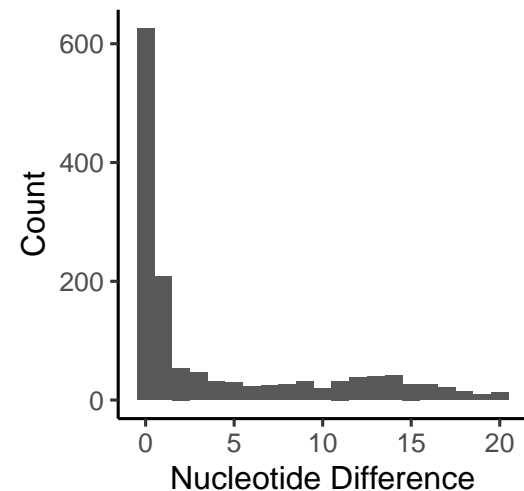
IGHV3-7*01

16069 sequences assigned
3534 (22%) exact matches, in which:
2970 unique CDR3
6 unique J



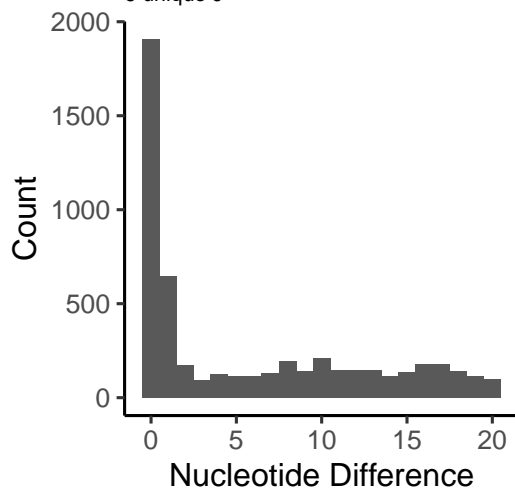
IGHV3-13*01

1483 sequences assigned
626 (42.2%) exact matches, in which:
497 unique CDR3
5 unique J



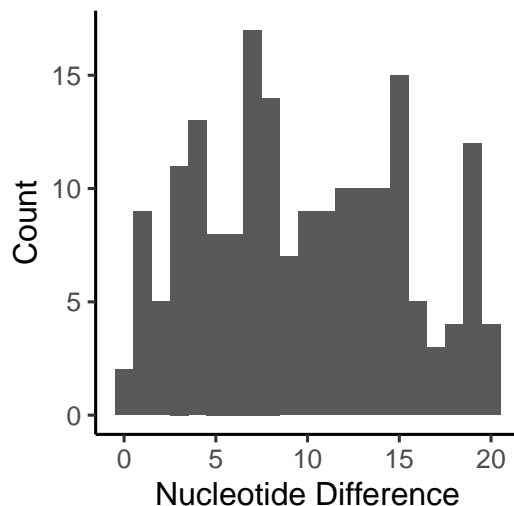
IGHV3-15*01_02

6318 sequences assigned
1906 (30.2%) exact matches, in which:
1625 unique CDR3
6 unique J



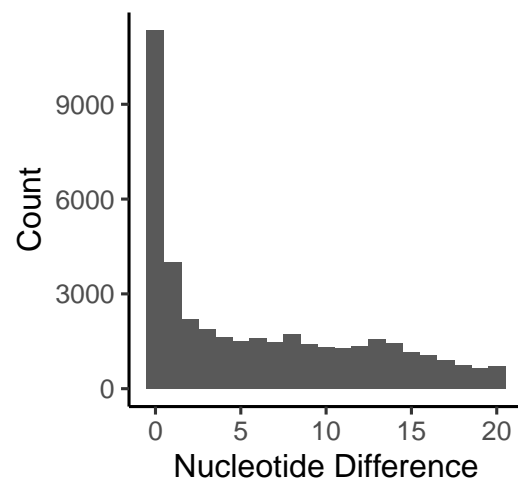
IGHV3-20*03_04

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



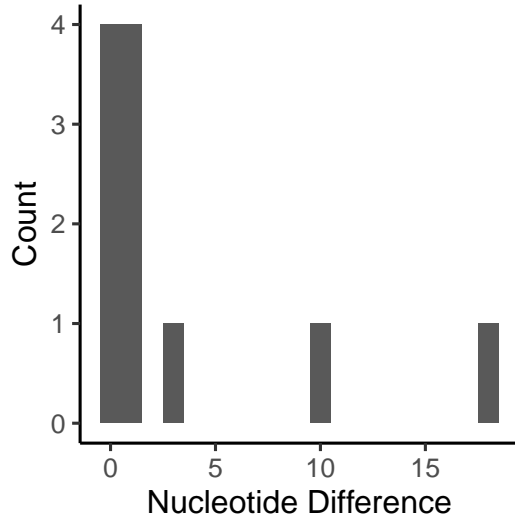
IGHV3-23*01_04

46003 sequences assigned
11338 (24.6%) exact matches, in which:
9309 unique CDR3
6 unique J



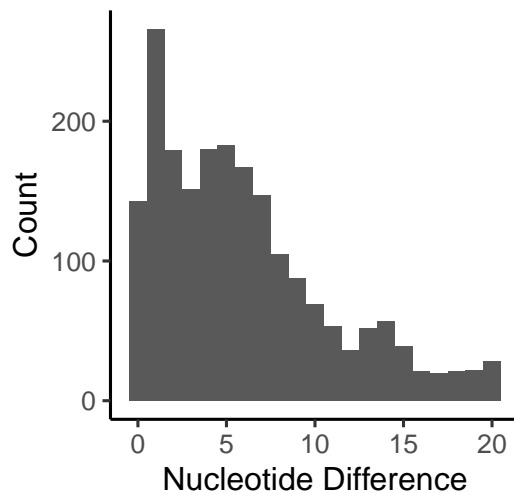
IGHV3-19*01

11 sequences assigned
4 (36.4%) exact matches, in which:
3 unique CDR3
1 unique J



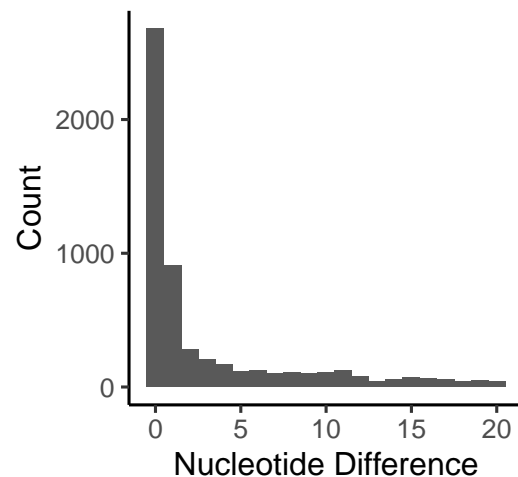
IGHV3-21*04

2158 sequences assigned
143 (6.6%) exact matches, in which:
143 unique CDR3
5 unique J



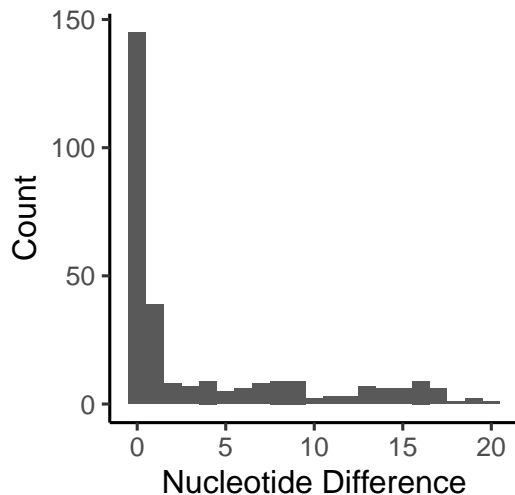
IGHV3-30*01

5641 sequences assigned
2679 (47.5%) exact matches, in which:
2299 unique CDR3
6 unique J



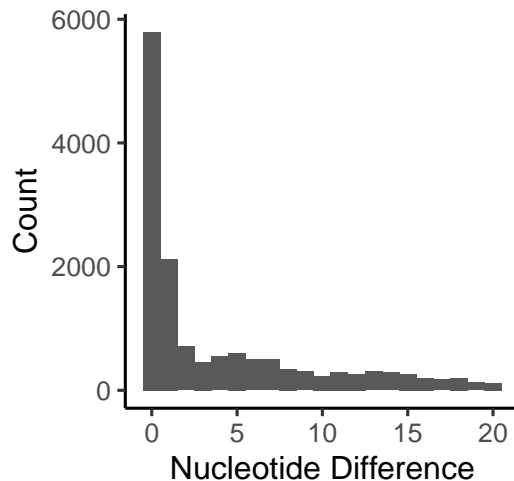
IGHV3-20*01_02

365 sequences assigned
145 (39.7%) exact matches, in which:
115 unique CDR3
5 unique J



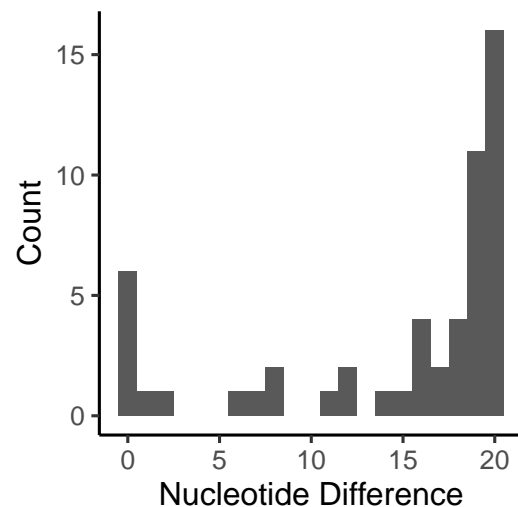
IGHV3-21*01_02

15539 sequences assigned
5793 (37.3%) exact matches, in which:
4883 unique CDR3
6 unique J



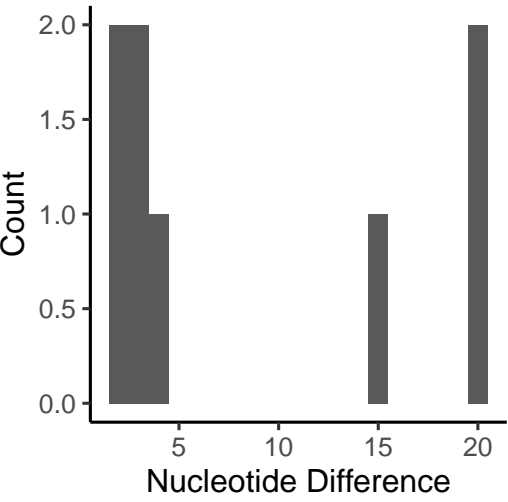
IGHV3-30-3*01

90 sequences assigned
6 (6.7%) exact matches, in which:
6 unique CDR3
4 unique J



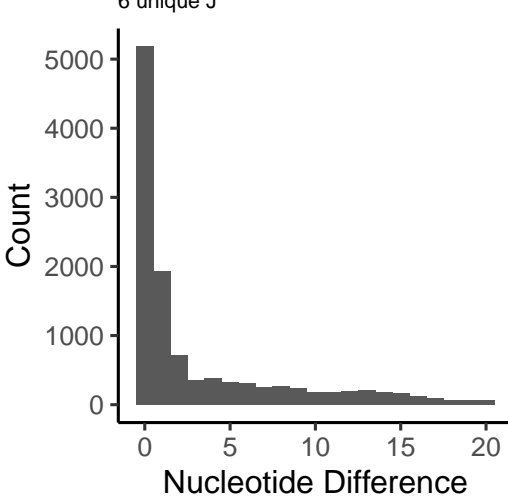
IGHV3-30-3*02

28 sequences assigned
No exact matches.



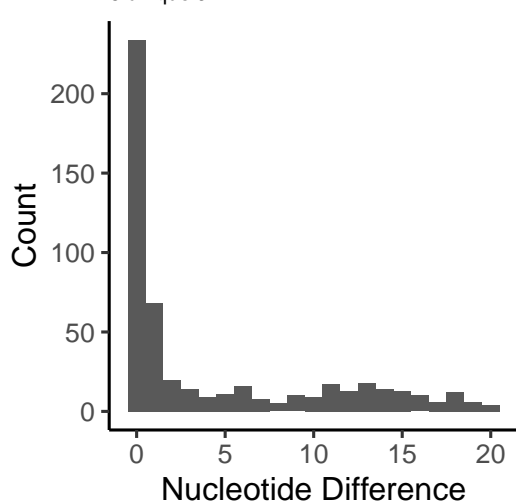
IGHV3-33*01

11941 sequences assigned
5184 (43.4%) exact matches, in which:
4470 unique CDR3
6 unique J



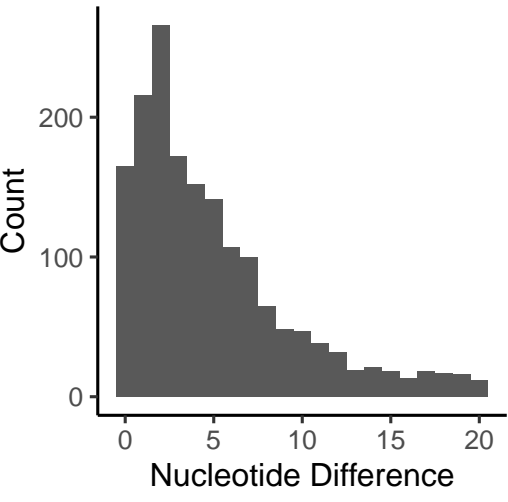
IGHV3-43*01

556 sequences assigned
234 (42.1%) exact matches, in which:
203 unique CDR3
6 unique J



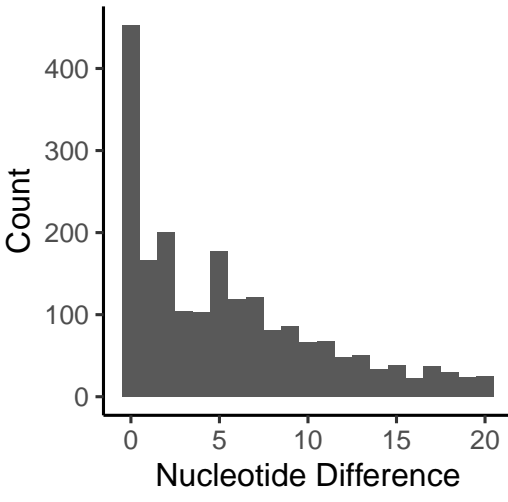
IGHV3-30*07

1718 sequences assigned
165 (9.6%) exact matches, in which:
165 unique CDR3
6 unique J



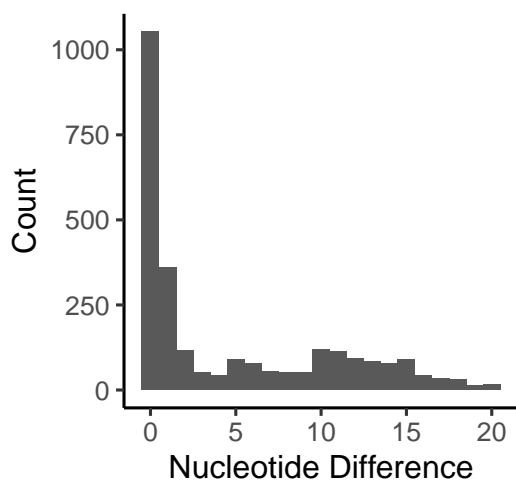
IGHV3-33*08

2171 sequences assigned
453 (20.9%) exact matches, in which:
441 unique CDR3
6 unique J



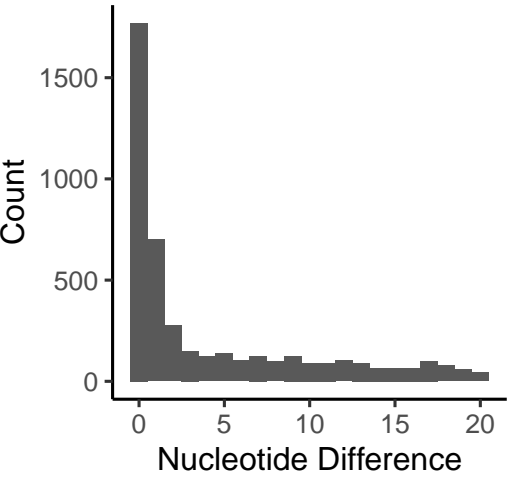
IGHV3-43*02

2894 sequences assigned
1053 (36.4%) exact matches, in which:
888 unique CDR3
6 unique J



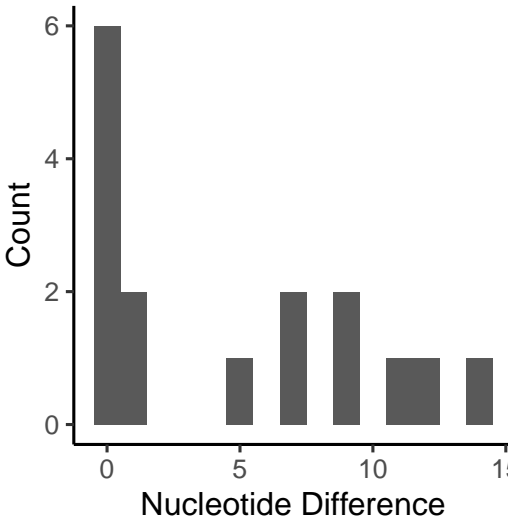
IGHV3-30*18

4916 sequences assigned
1770 (36%) exact matches, in which:
1543 unique CDR3
6 unique J



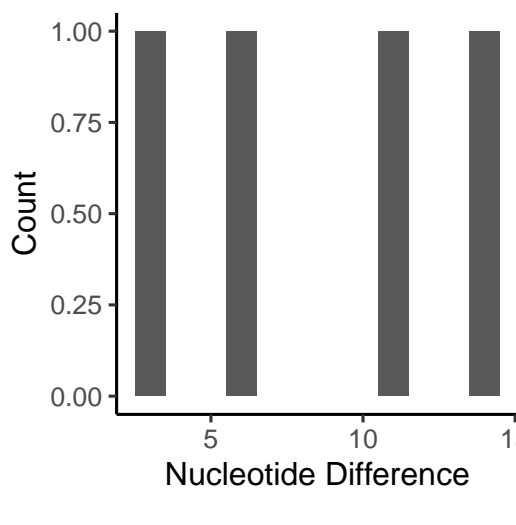
IGHV3-35*01

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



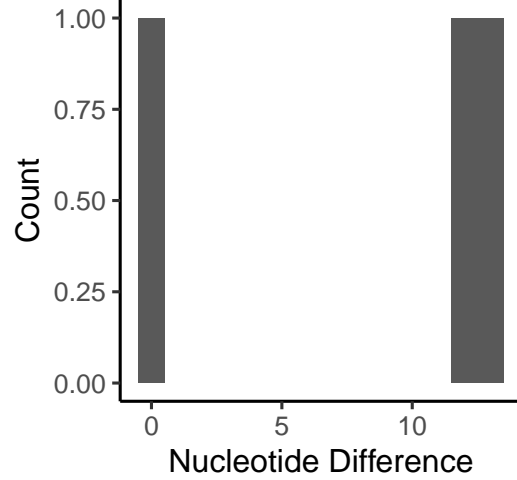
IGHV3-47*01

4 sequences assigned
No exact matches.



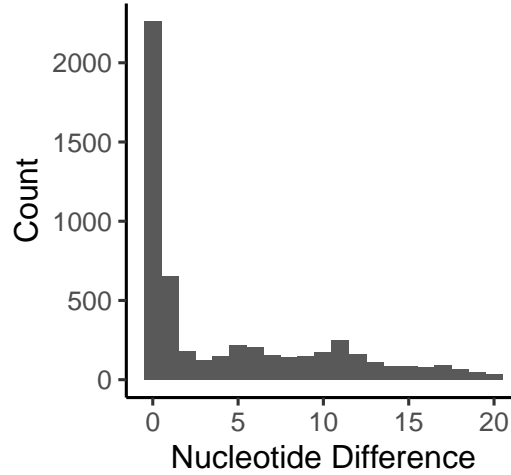
IGHV3-47*02

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



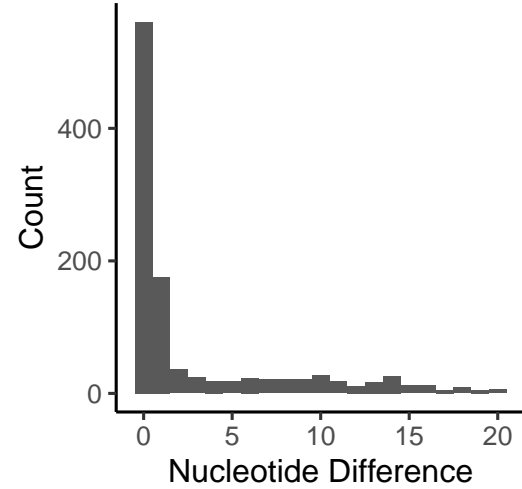
IGHV3-48*03

5668 sequences assigned
2261 (39.9%) exact matches, in which:
1900 unique CDR3
6 unique J



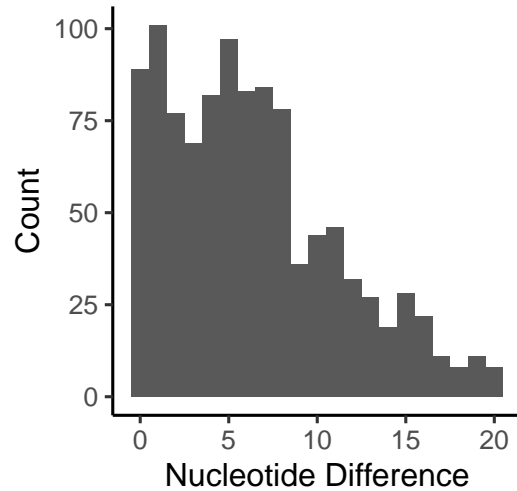
IGHV3-49*03_05

1092 sequences assigned
561 (51.4%) exact matches, in which:
484 unique CDR3
6 unique J



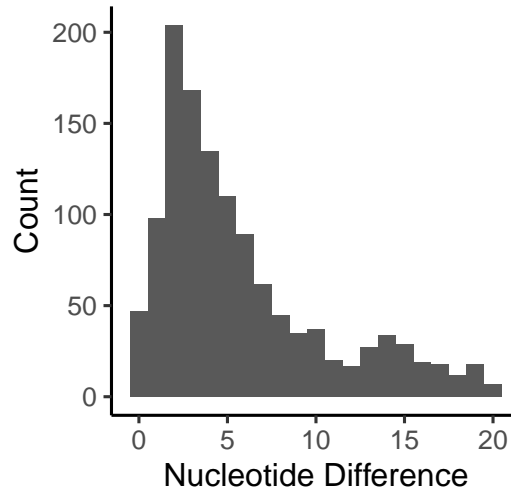
IGHV3-48*01

1094 sequences assigned
89 (8.1%) exact matches, in which:
89 unique CDR3
6 unique J



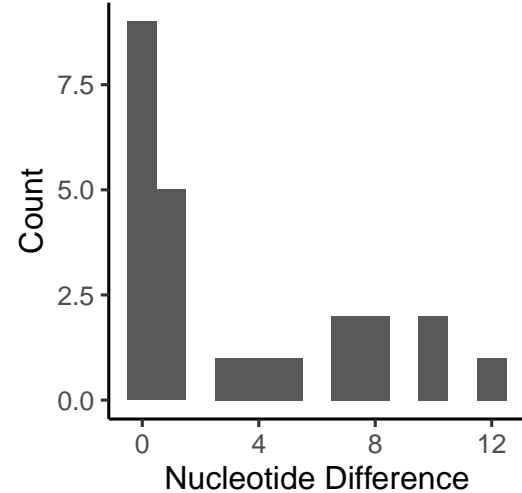
IGHV3-48*04

1291 sequences assigned
47 (3.6%) exact matches, in which:
47 unique CDR3
5 unique J



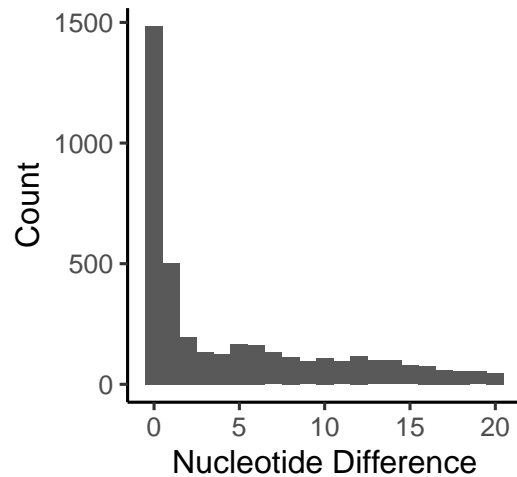
IGHV3-52*01_03

24 sequences assigned
9 (37.5%) exact matches, in which:
6 unique CDR3
4 unique J



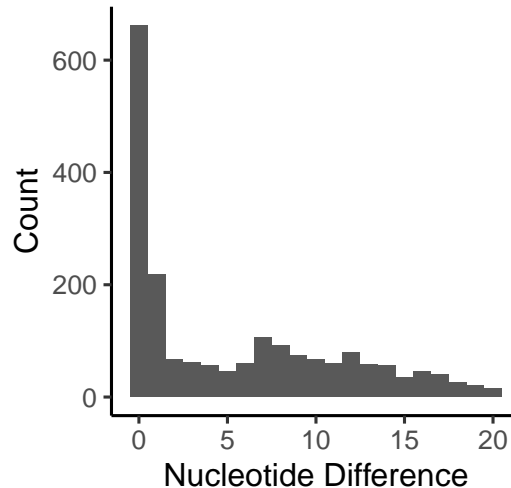
IGHV3-48*02

4282 sequences assigned
1485 (34.7%) exact matches, in which:
1255 unique CDR3
6 unique J



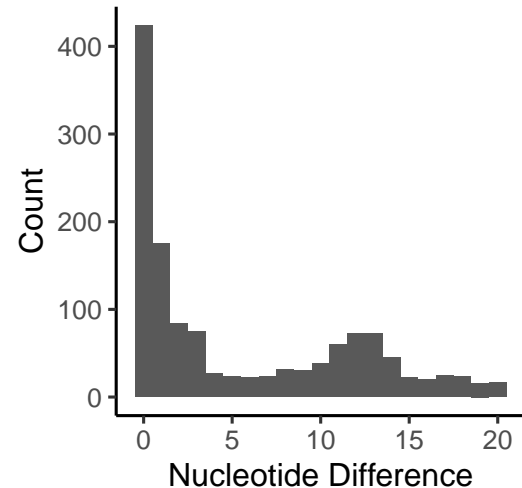
IGHV3-49*04

2080 sequences assigned
662 (31.8%) exact matches, in which:
580 unique CDR3
6 unique J



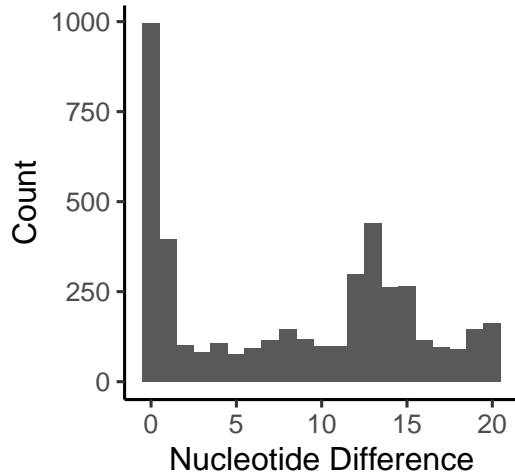
IGHV3-53*04

1403 sequences assigned
424 (30.2%) exact matches, in which:
361 unique CDR3
6 unique J



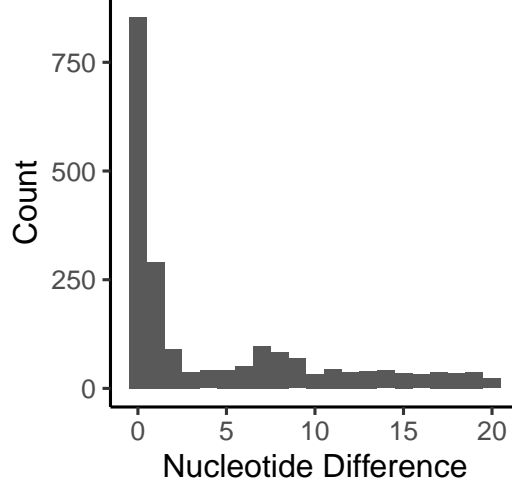
IGHV3-53*01_02

4661 sequences assigned
995 (21.3%) exact matches, in which:
837 unique CDR3
6 unique J



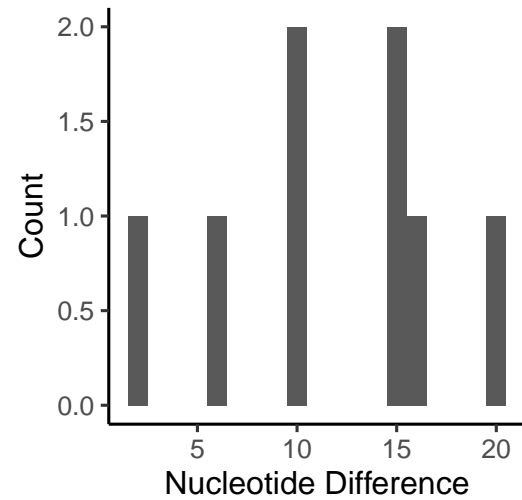
IGHV3-66*02

2241 sequences assigned
855 (38.2%) exact matches, in which:
734 unique CDR3
6 unique J



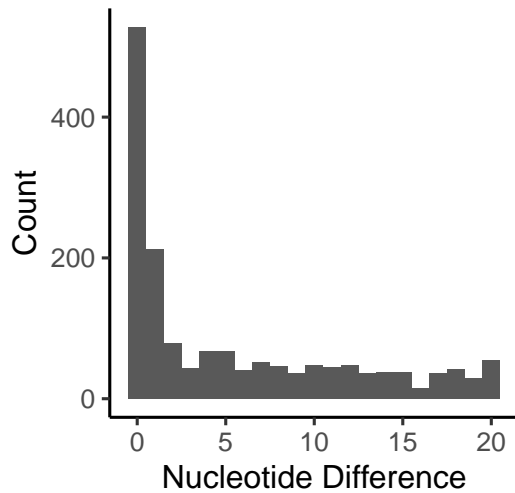
IGHV3-71*01_04

11 sequences assigned
No exact matches.



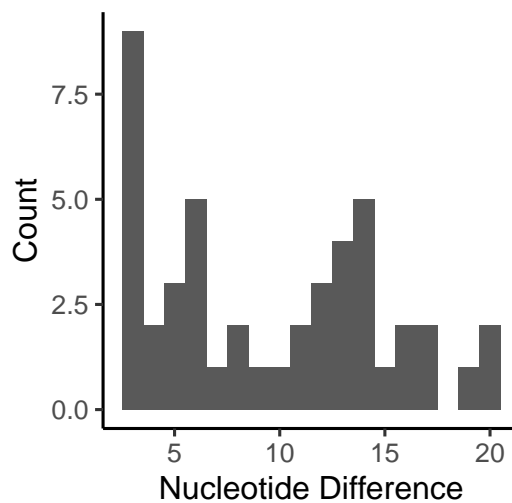
IGHV3-64*01

2564 sequences assigned
528 (20.6%) exact matches, in which:
420 unique CDR3
6 unique J



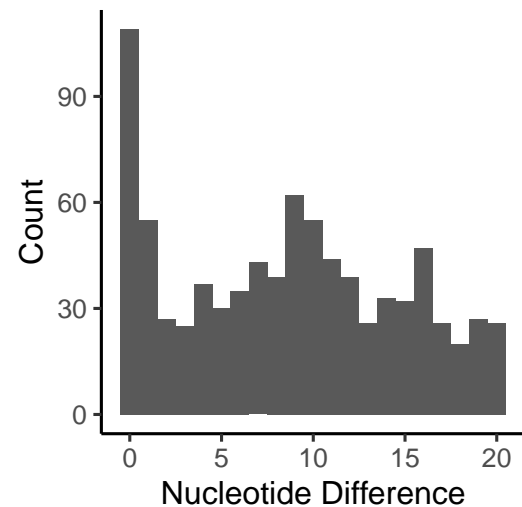
IGHV3-69-1*01

55 sequences assigned
No exact matches.



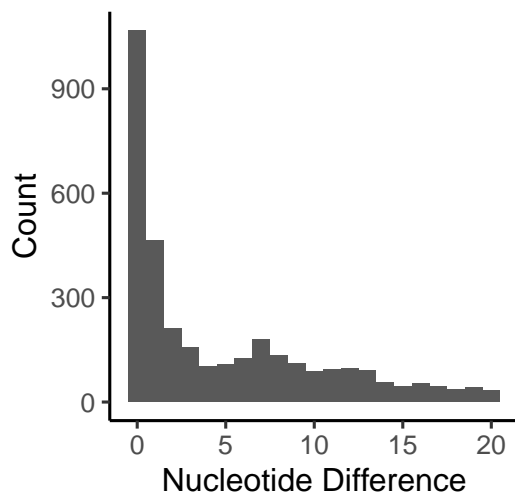
IGHV3-72*01

946 sequences assigned
109 (11.5%) exact matches, in which:
94 unique CDR3
5 unique J



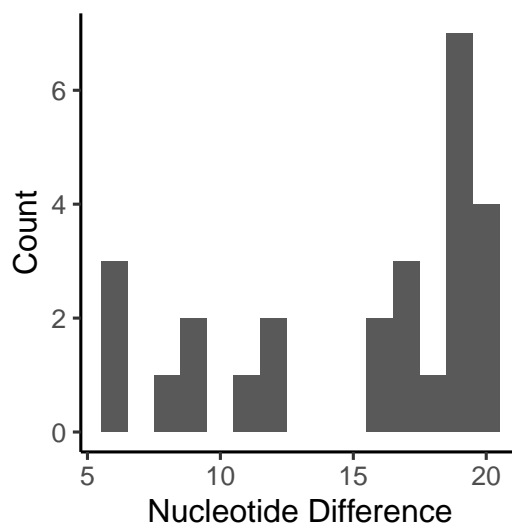
IGHV3-66*01

3700 sequences assigned
1068 (28.9%) exact matches, in which:
919 unique CDR3
6 unique J



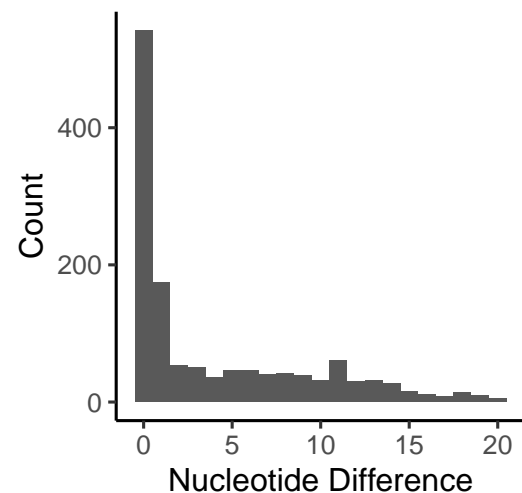
IGHV3-69-1*02

42 sequences assigned
No exact matches.



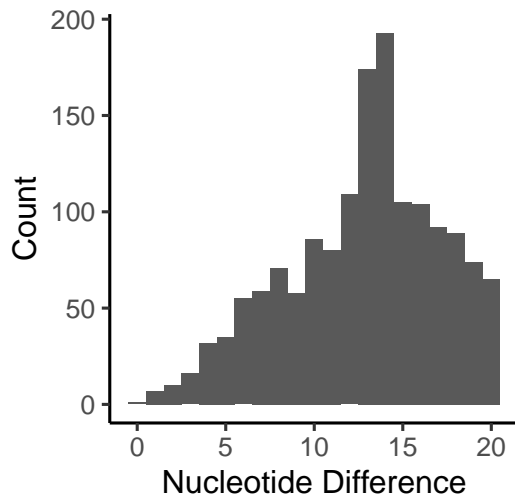
IGHV3-73*01_02

1377 sequences assigned
542 (39.4%) exact matches, in which:
459 unique CDR3
6 unique J



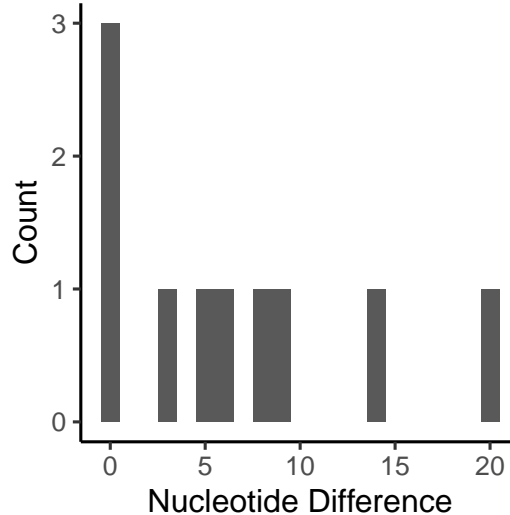
IGHV3-74*03

1984 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



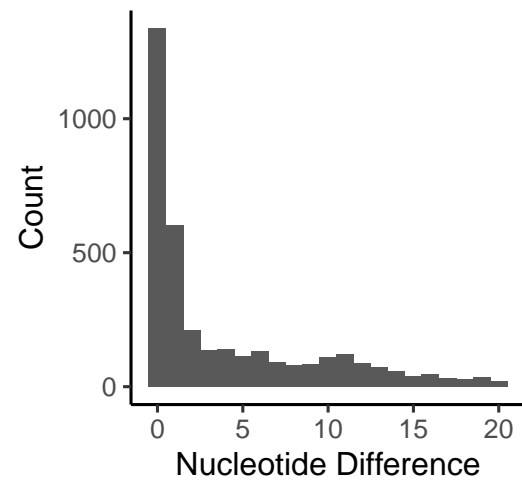
IGHV3-64D*06

13 sequences assigned
3 (23.1%) exact matches, in which:
3 unique CDR3
2 unique J



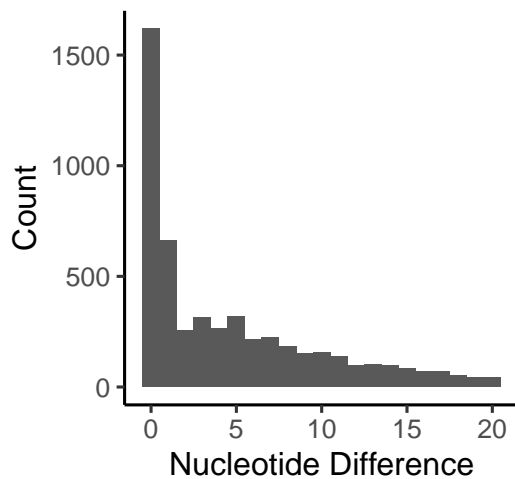
IGHV4-4*07

3830 sequences assigned
1337 (34.9%) exact matches, in which:
1280 unique CDR3
6 unique J



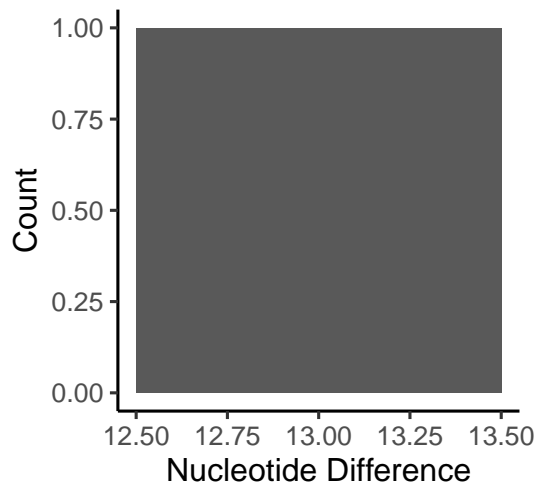
IGHV3-74*01_02

5453 sequences assigned
1619 (29.7%) exact matches, in which:
1340 unique CDR3
6 unique J



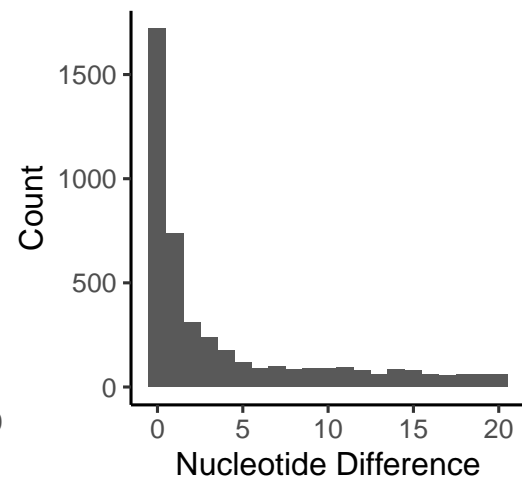
IGHV3-64D*08

1 sequences assigned
No exact matches.



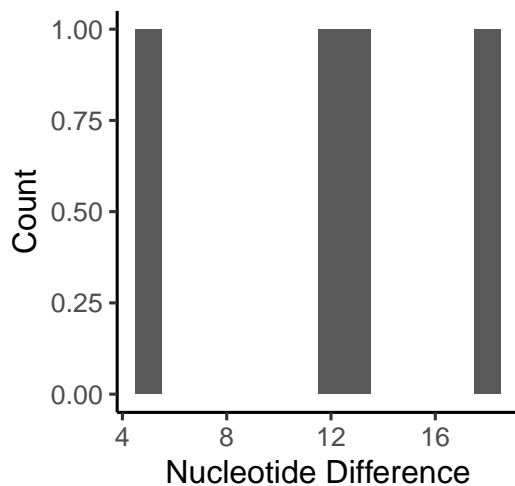
IGHV4-4*02_03

5159 sequences assigned
1720 (33.3%) exact matches, in which:
1635 unique CDR3
6 unique J



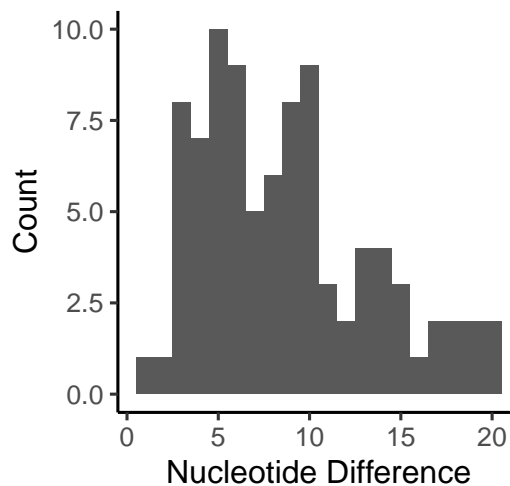
IGHV3-43D*04

5 sequences assigned
No exact matches.



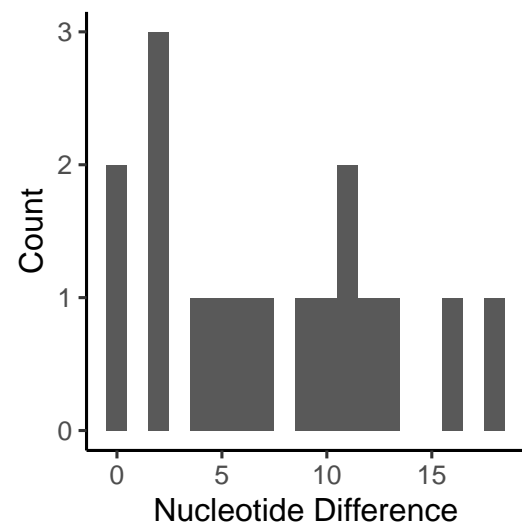
IGHV3-NL1*01

114 sequences assigned
No exact matches.



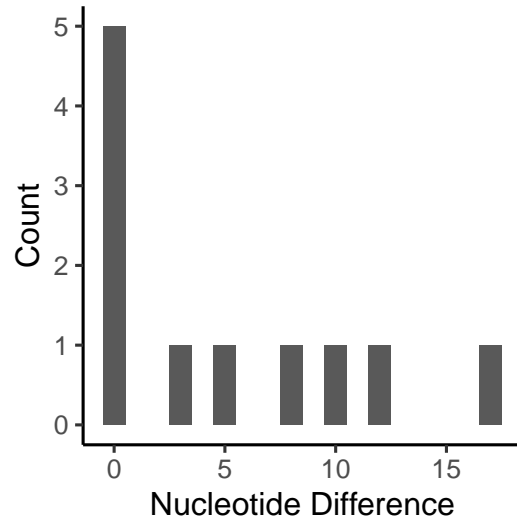
IGHV4-28*03

17 sequences assigned
2 (11.8%) exact matches, in which:
2 unique CDR3
1 unique J



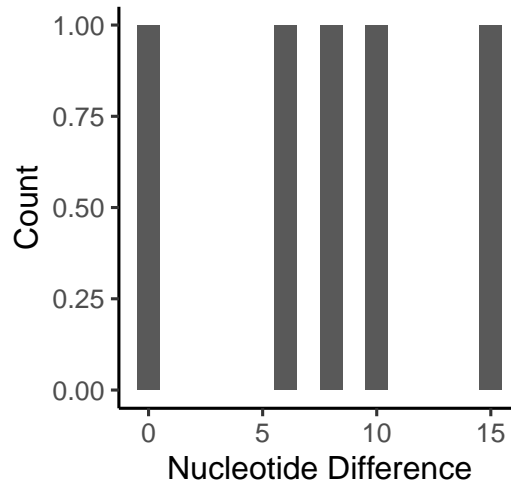
IGHV4-28*01_07

13 sequences assigned
5 (38.5%) exact matches, in which:
5 unique CDR3
3 unique J



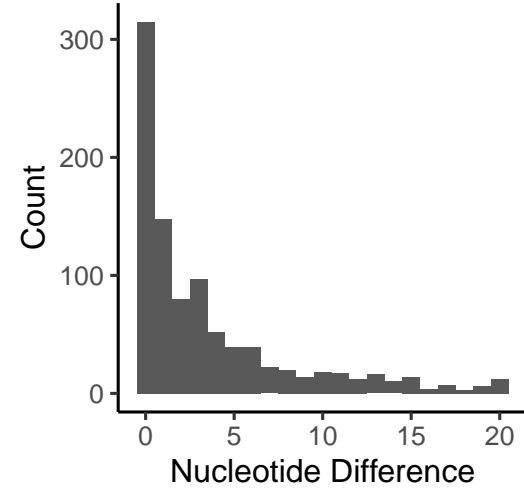
IGHV4-30-2*01

9 sequences assigned
1 (11.1%) exact matches, in which:
1 unique CDR3
1 unique J



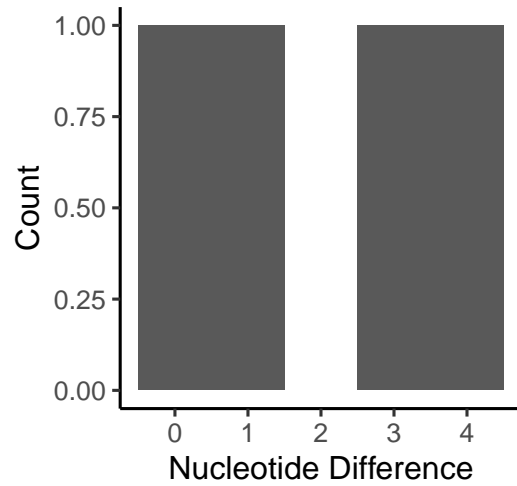
IGHV4-31*01

1038 sequences assigned
315 (30.3%) exact matches, in which:
306 unique CDR3
6 unique J



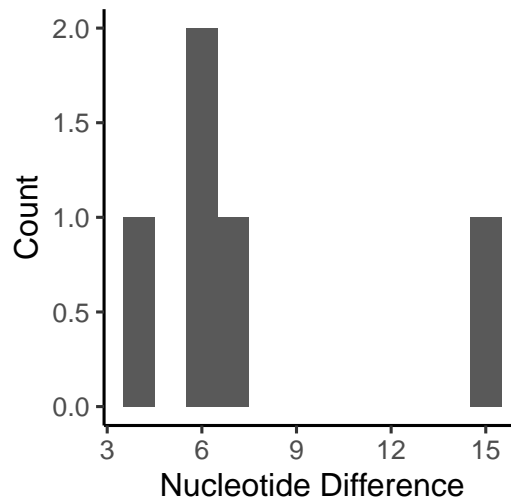
IGHV4-28*02_05

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



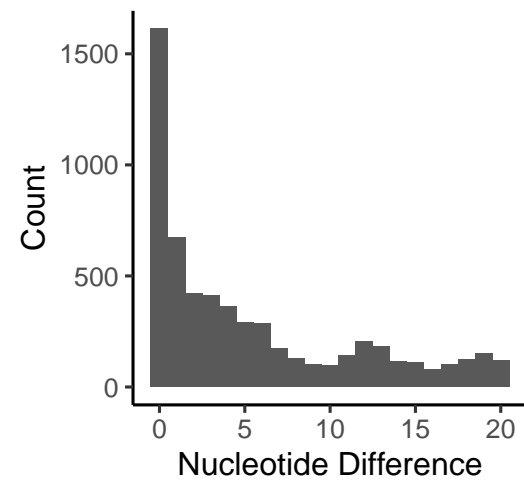
IGHV4-30-2*04

6 sequences assigned
No exact matches.



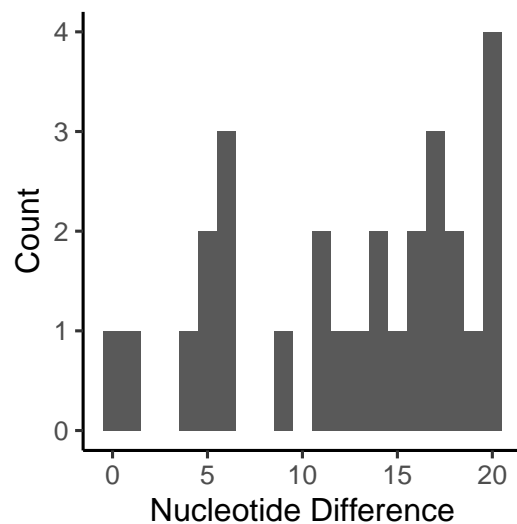
IGHV4-31*02

7268 sequences assigned
1613 (22.2%) exact matches, in which:
1572 unique CDR3
6 unique J



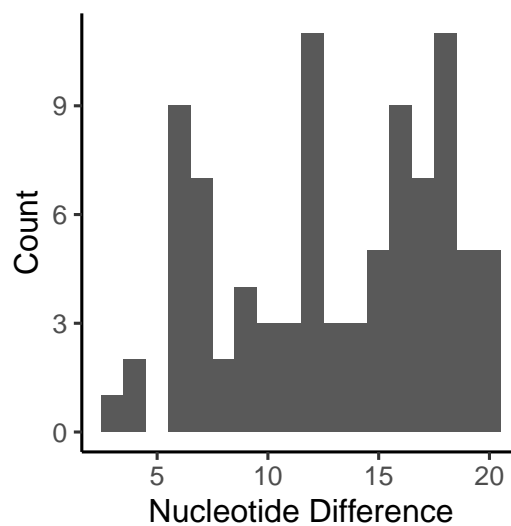
IGHV4-30-4*01

38 sequences assigned
1 (2.6%) exact matches, in which:
1 unique CDR3
1 unique J



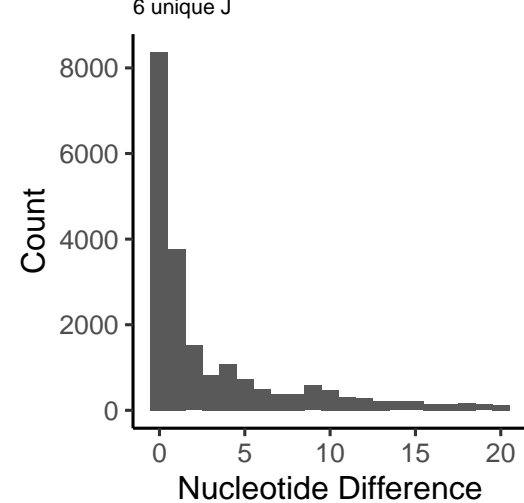
IGHV4-30-4*08

115 sequences assigned
No exact matches.



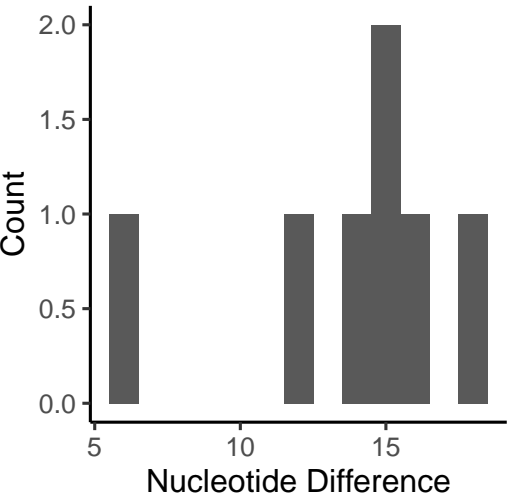
IGHV4-34*01_02

21925 sequences assigned
8371 (38.2%) exact matches, in which:
7809 unique CDR3
6 unique J



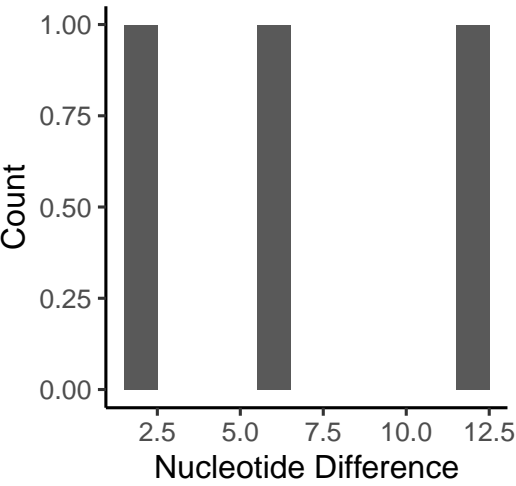
IGHV4-38-2*01

14 sequences assigned
No exact matches.



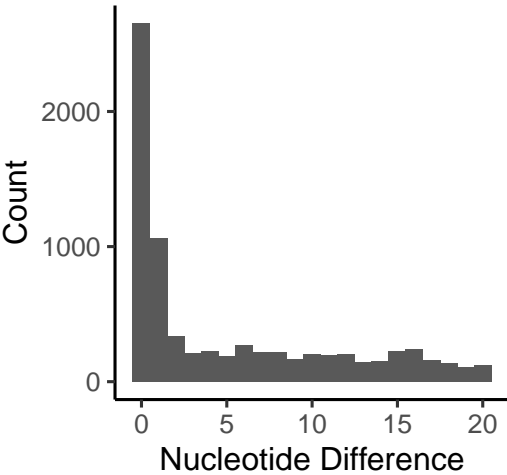
IGHV4-55*09

4 sequences assigned
No exact matches.



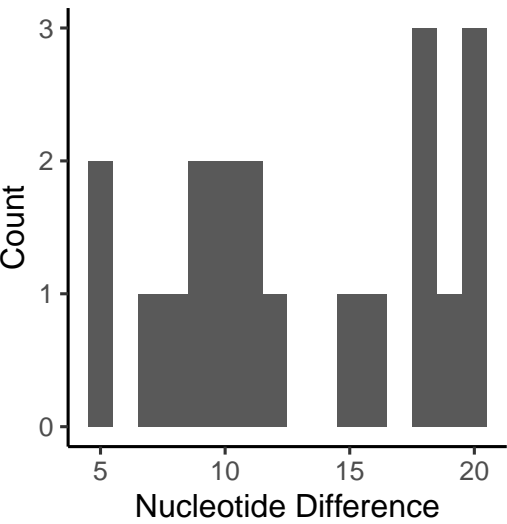
IGHV4-61*02

8470 sequences assigned
2652 (31.3%) exact matches, in which:
2570 unique CDR3
6 unique J



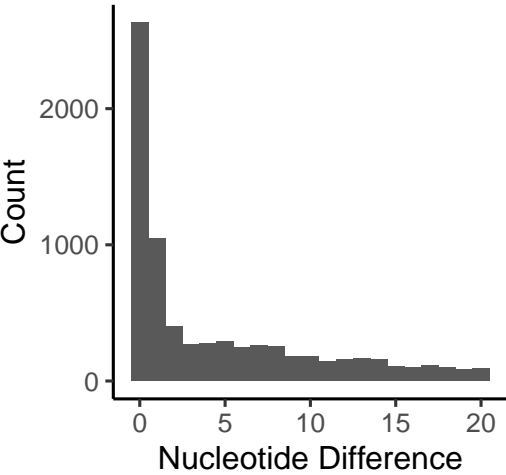
IGHV4-38-2*02

26 sequences assigned
No exact matches.



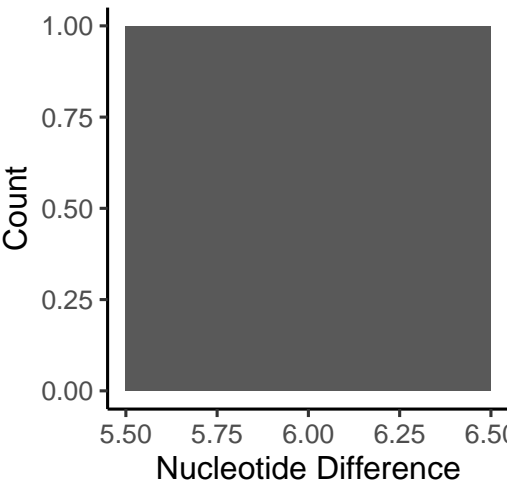
IGHV4-59*08

8081 sequences assigned
2631 (32.6%) exact matches, in which:
2509 unique CDR3
6 unique J



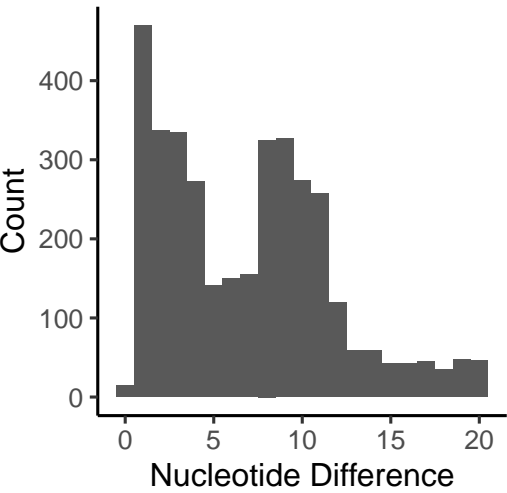
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



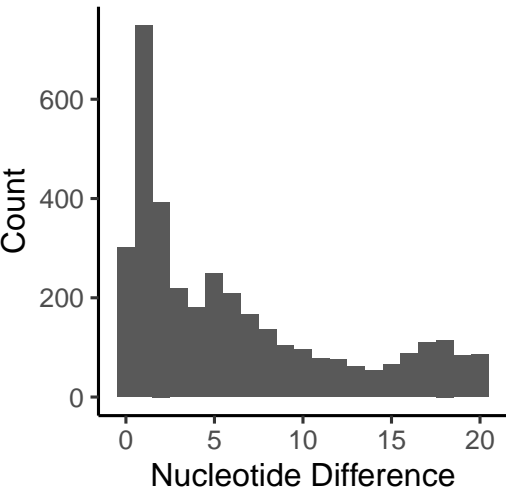
IGHV4-39*07

3964 sequences assigned
15 (0.4%) exact matches, in which:
15 unique CDR3
3 unique J



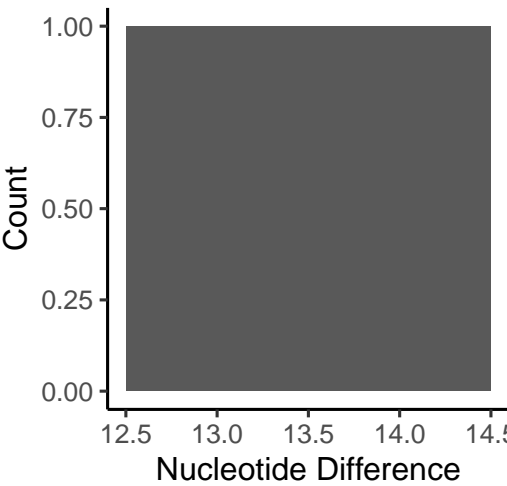
IGHV4-59*12

4283 sequences assigned
302 (7.1%) exact matches, in which:
300 unique CDR3
6 unique J



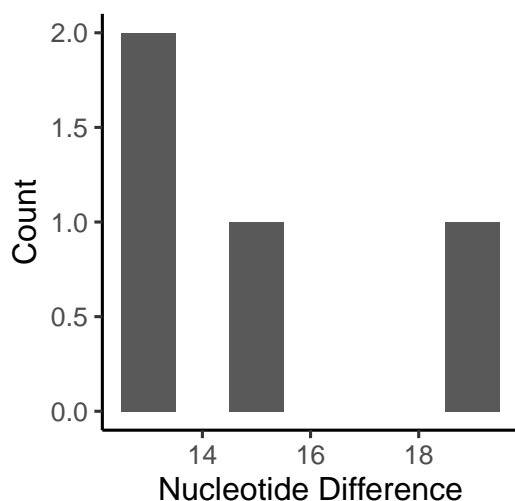
IGHV1/OR15-2*01

2 sequences assigned
No exact matches.



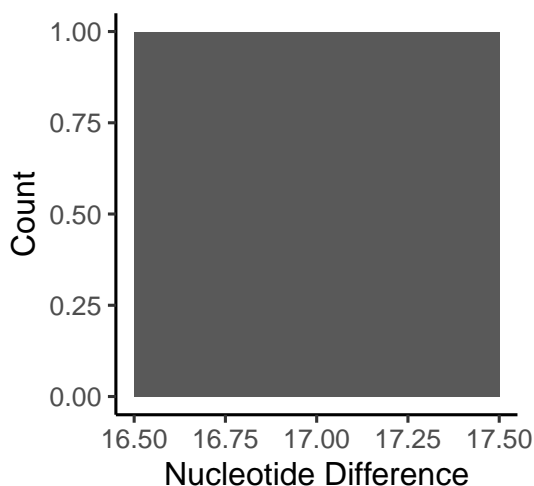
IGHV1/OR15-2*02_03

6 sequences assigned
No exact matches.



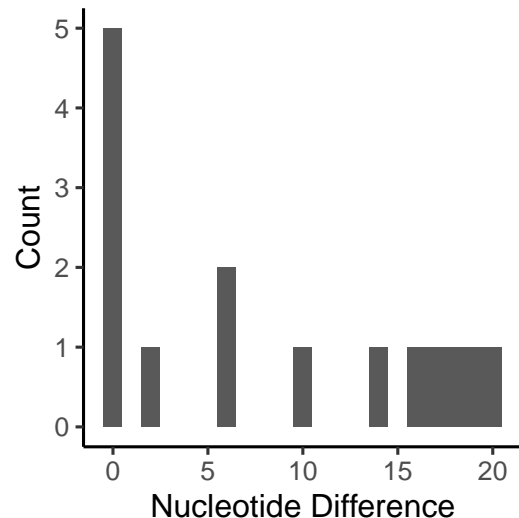
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



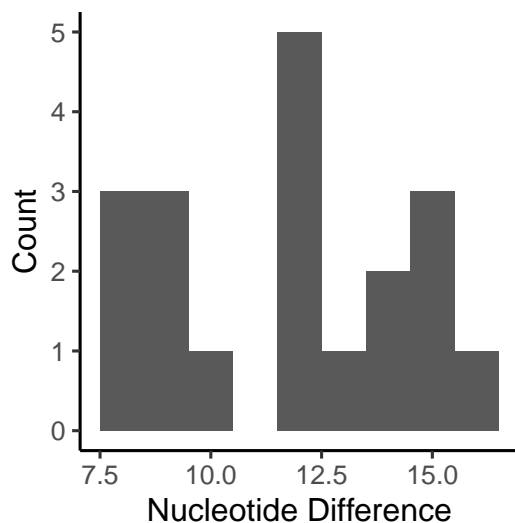
IGHV5-51*06

17 sequences assigned
5 (29.4%) exact matches, in which:
5 unique CDR3
1 unique J



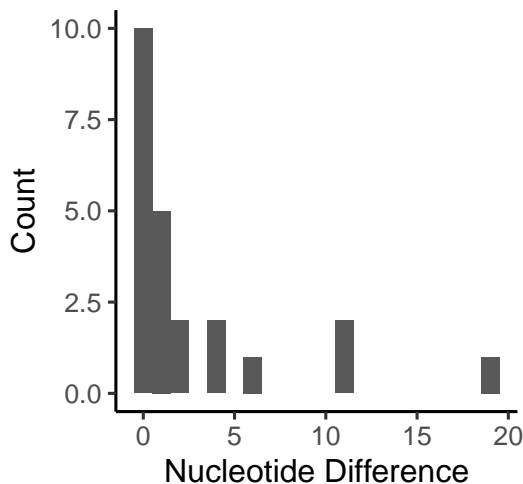
IGHV1/OR15-3*02

20 sequences assigned
No exact matches.



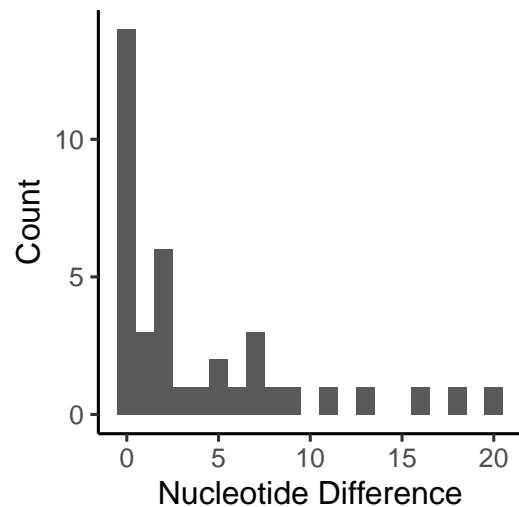
IGHV5-10-1*01_03

23 sequences assigned
10 (43.5%) exact matches, in which:
10 unique CDR3
3 unique J



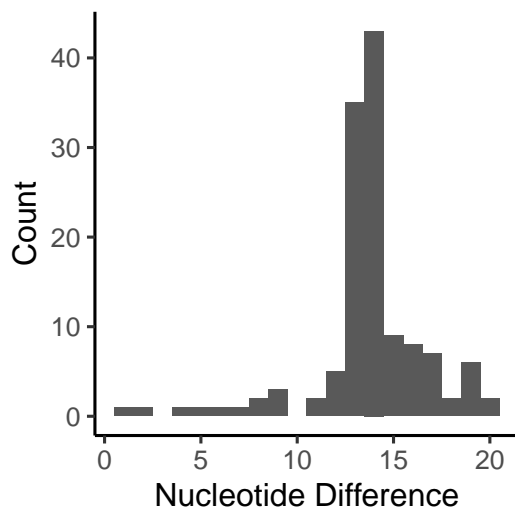
IGHV5-51*07

42 sequences assigned
14 (33.3%) exact matches, in which:
14 unique CDR3
3 unique J



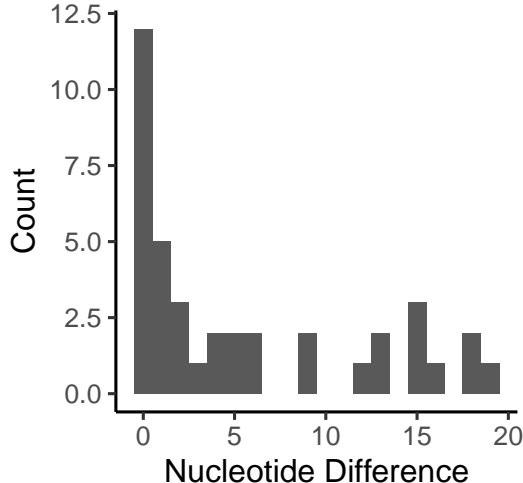
IGHV4/OR15-8*01

160 sequences assigned
No exact matches.



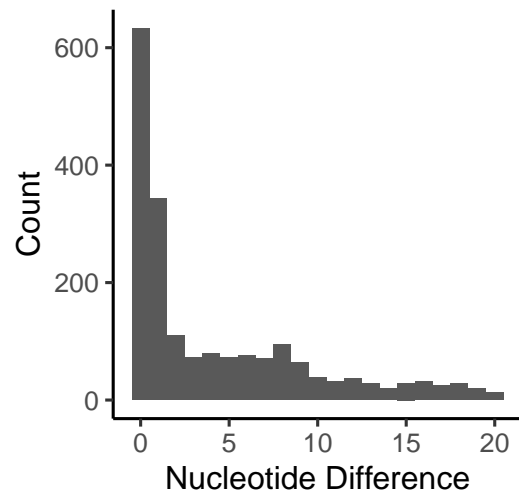
IGHV5-51*04

41 sequences assigned
12 (29.3%) exact matches, in which:
11 unique CDR3
3 unique J



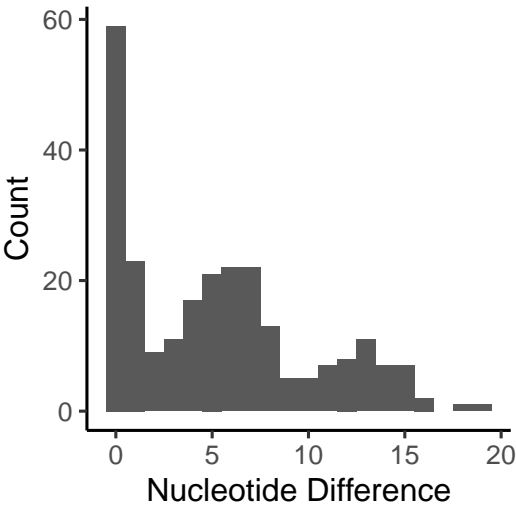
IGHV6-1*01_02

1988 sequences assigned
633 (31.8%) exact matches, in which:
600 unique CDR3
6 unique J



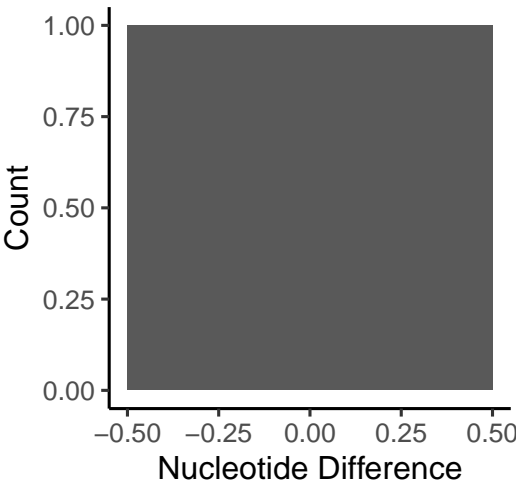
IGHV6-1*01_02_A315G

252 sequences assigned
59 (23.4%) exact matches, in which:
58 unique CDR3
6 unique J



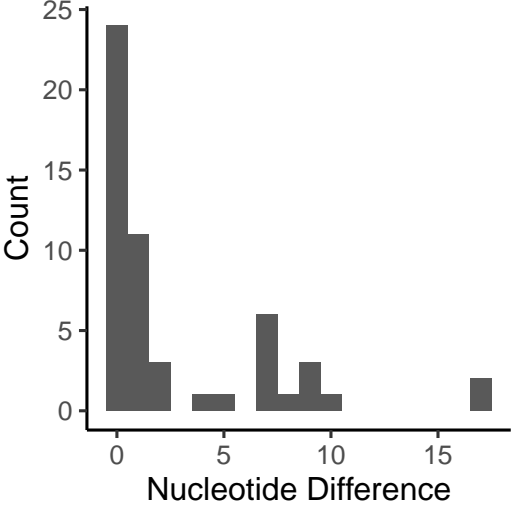
IGHV3/OR16-9*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



IGHV7-4-1*01

53 sequences assigned
24 (45.3%) exact matches, in which:
24 unique CDR3
3 unique J



IGHV6-1*01_02_A315G

