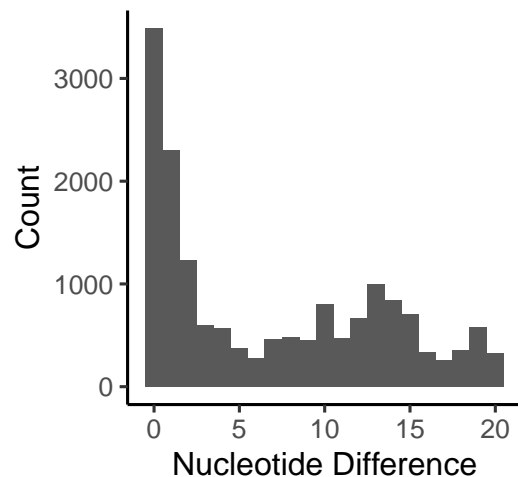


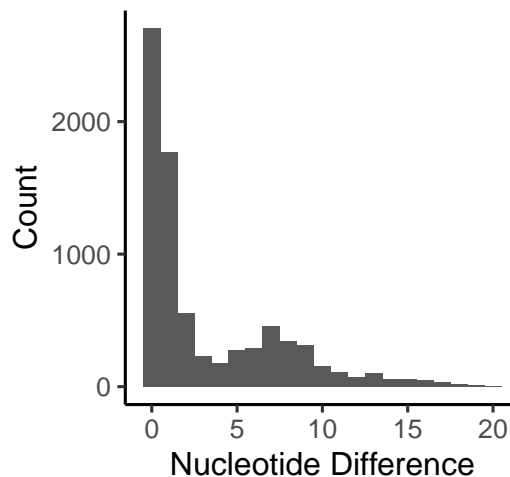
IGHV1-2*02

18215 sequences assigned
3487 (19.1%) exact matches, in which:
3129 unique CDR3
7 unique J



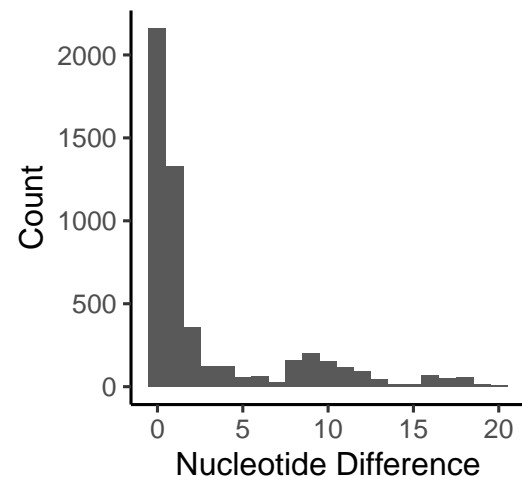
IGHV1-8*01

7833 sequences assigned
2703 (34.5%) exact matches, in which:
2463 unique CDR3
7 unique J



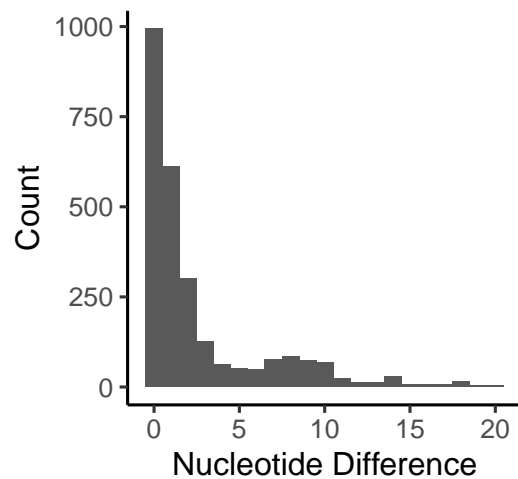
IGHV1-24*01

5317 sequences assigned
2160 (40.6%) exact matches, in which:
1976 unique CDR3
7 unique J



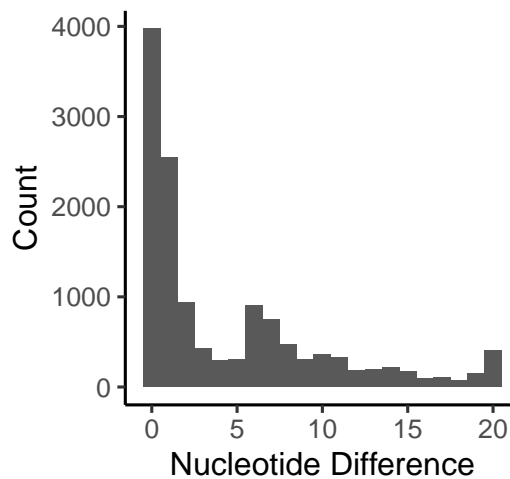
IGHV1-2*04

2627 sequences assigned
994 (37.8%) exact matches, in which:
913 unique CDR3
7 unique J



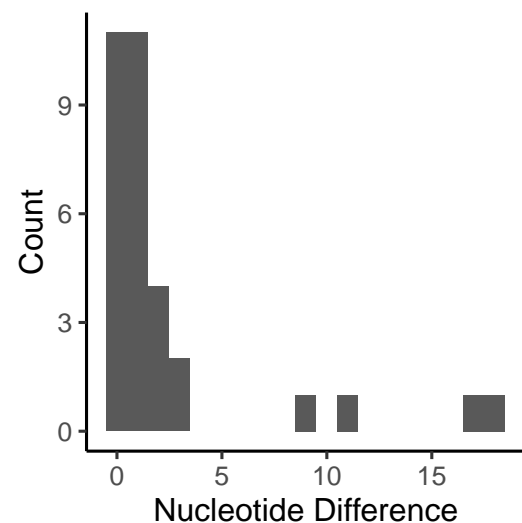
IGHV1-18*01

14481 sequences assigned
3974 (27.4%) exact matches, in which:
3633 unique CDR3
7 unique J



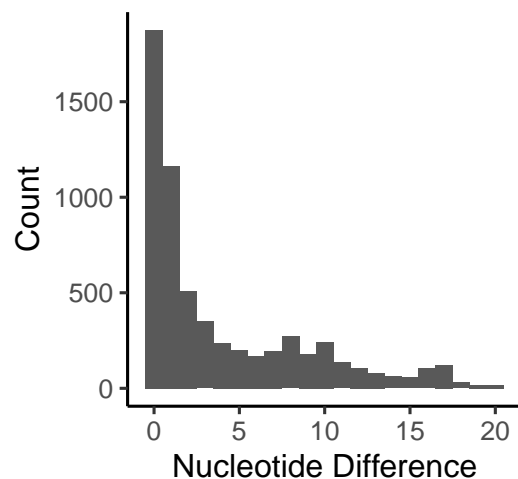
IGHV1-45*02

32 sequences assigned
11 (34.4%) exact matches, in which:
10 unique CDR3
4 unique J



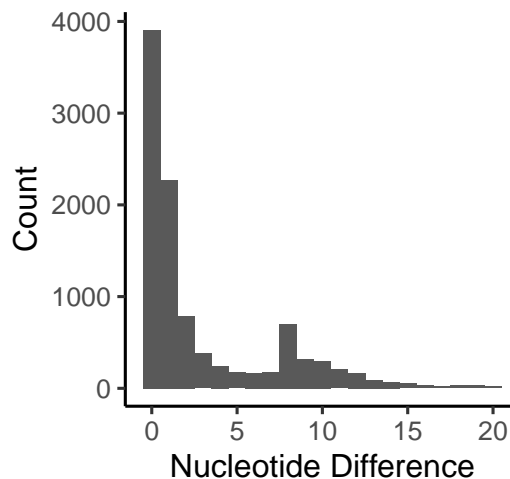
IGHV1-3*01_05

6246 sequences assigned
1875 (30%) exact matches, in which:
1635 unique CDR3
7 unique J



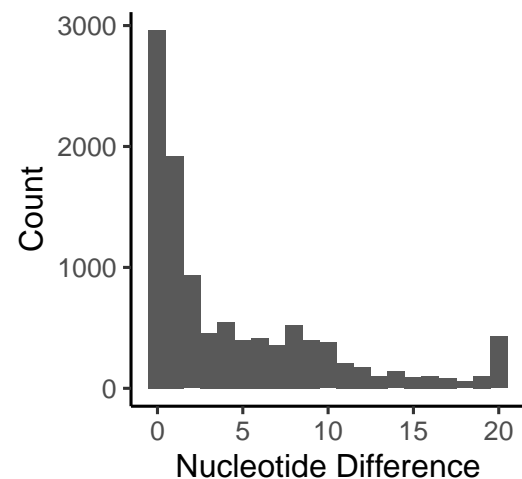
IGHV1-18*04

10268 sequences assigned
3906 (38%) exact matches, in which:
3555 unique CDR3
7 unique J



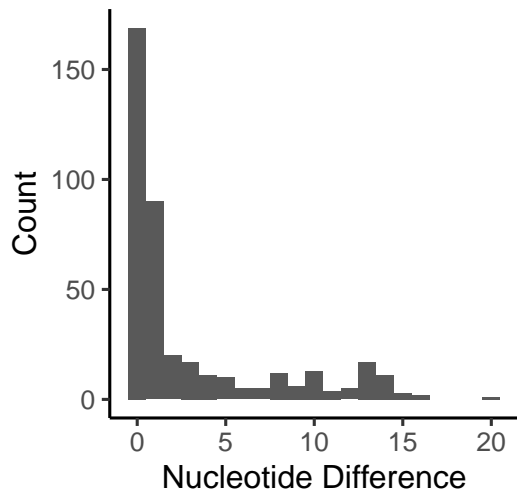
IGHV1-46*01

12517 sequences assigned
2963 (23.7%) exact matches, in which:
2700 unique CDR3
7 unique J



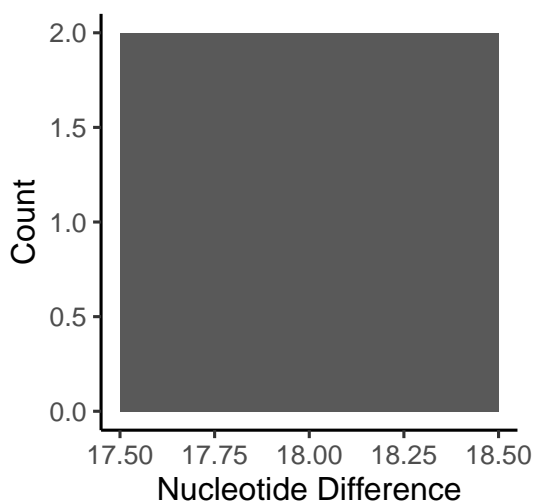
IGHV1-58*02

532 sequences assigned
169 (31.8%) exact matches, in which:
153 unique CDR3
7 unique J



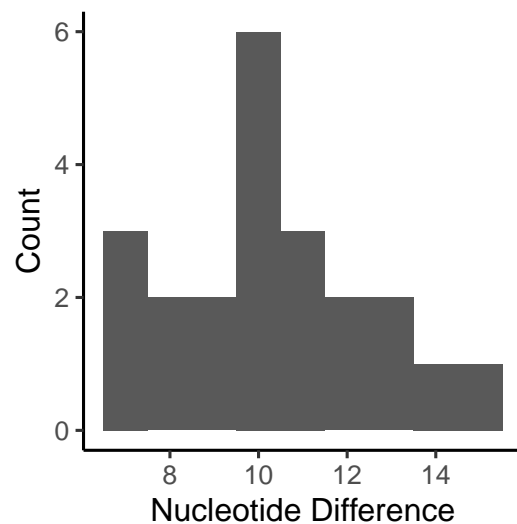
IGHV1-69-2*01

2 sequences assigned
No exact matches.



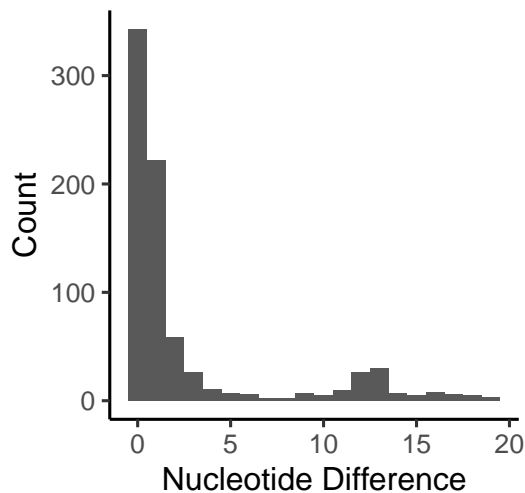
IGHV1-NL1*01

22 sequences assigned
No exact matches.



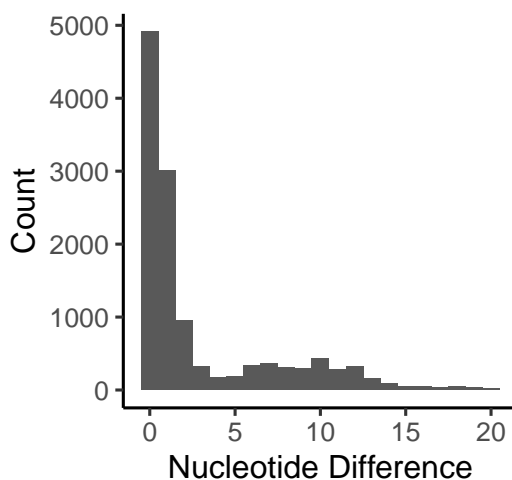
IGHV1-58*01_03

794 sequences assigned
343 (43.2%) exact matches, in which:
311 unique CDR3
7 unique J



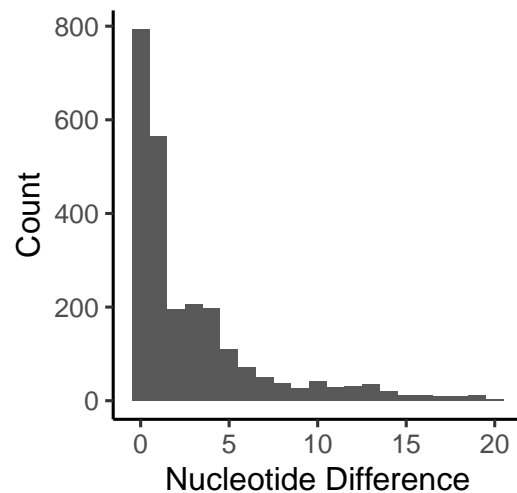
IGHV1-69*01_12_13

12446 sequences assigned
4912 (39.5%) exact matches, in which:
4533 unique CDR3
7 unique J



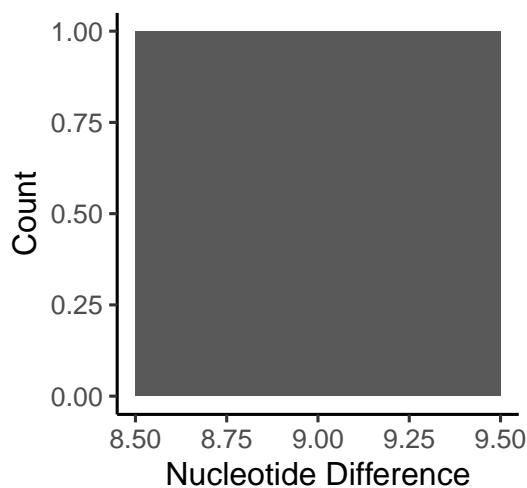
IGHV2-5*02

2504 sequences assigned
794 (31.7%) exact matches, in which:
712 unique CDR3
7 unique J



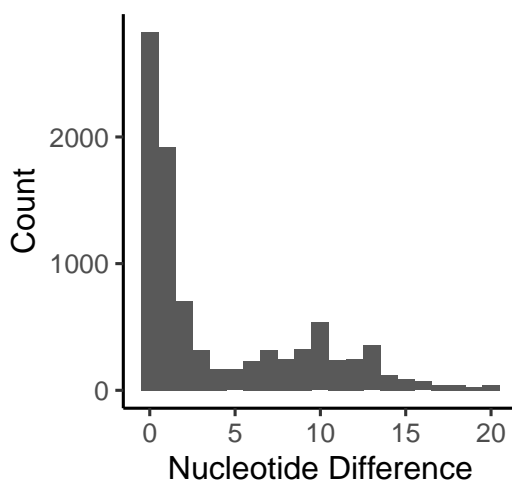
IGHV1-68*01

1 sequences assigned
No exact matches.



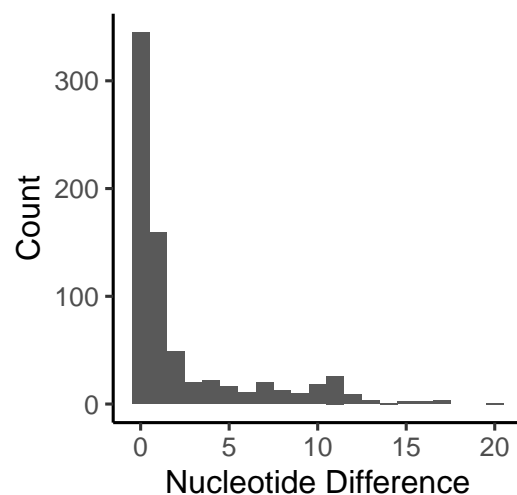
IGHV1-69*04_09

9218 sequences assigned
2828 (30.7%) exact matches, in which:
2632 unique CDR3
7 unique J



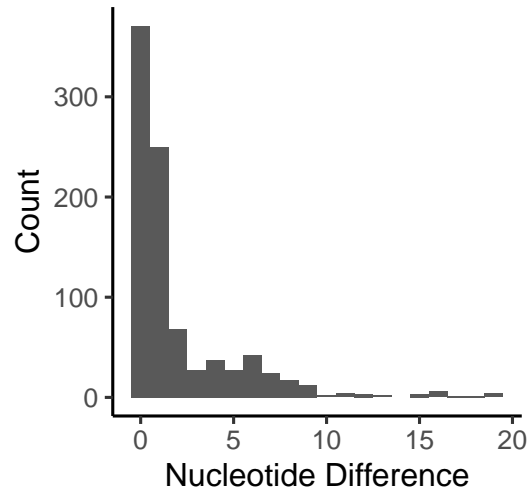
IGHV2-26*01

731 sequences assigned
345 (47.2%) exact matches, in which:
323 unique CDR3
6 unique J



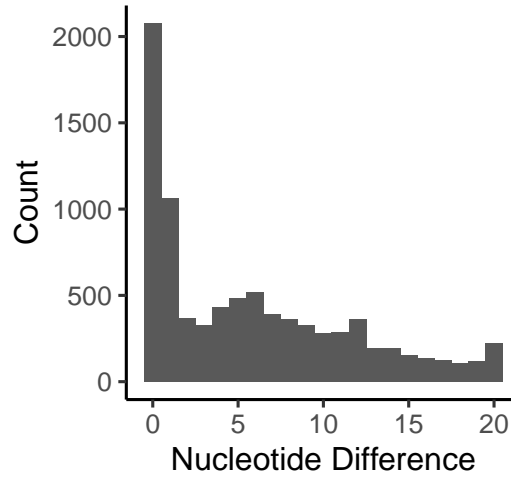
IGHV2-70*01

902 sequences assigned
371 (41.1%) exact matches, in which:
336 unique CDR3
6 unique J



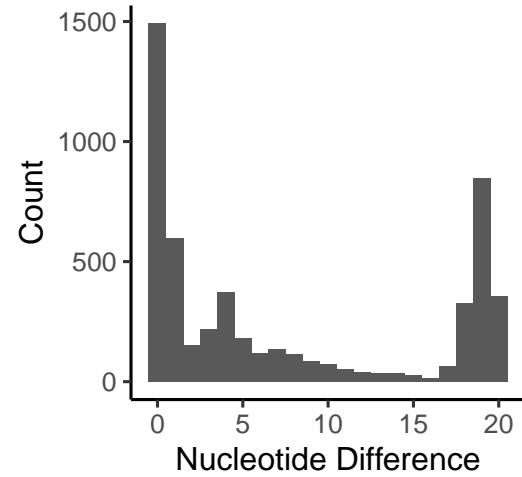
IGHV3-7*01

9189 sequences assigned
2076 (22.6%) exact matches, in which:
1508 unique CDR3
7 unique J



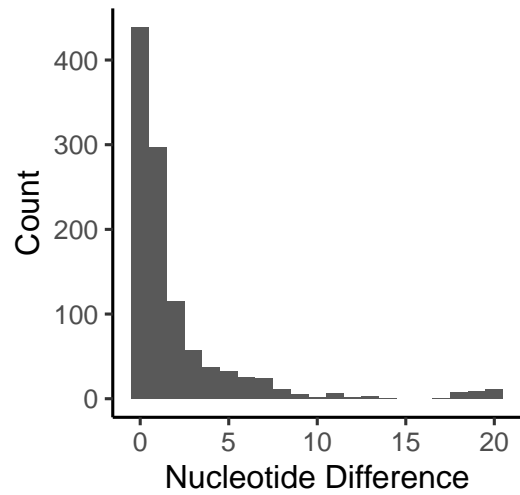
IGHV3-11*01

5661 sequences assigned
1492 (26.4%) exact matches, in which:
1054 unique CDR3
7 unique J



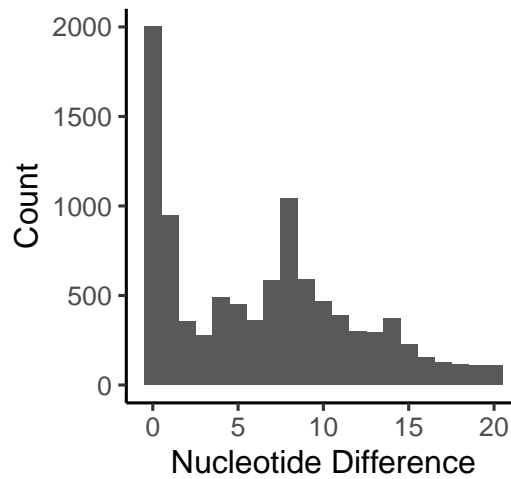
IGHV2-70*11_15

1099 sequences assigned
439 (39.9%) exact matches, in which:
403 unique CDR3
7 unique J



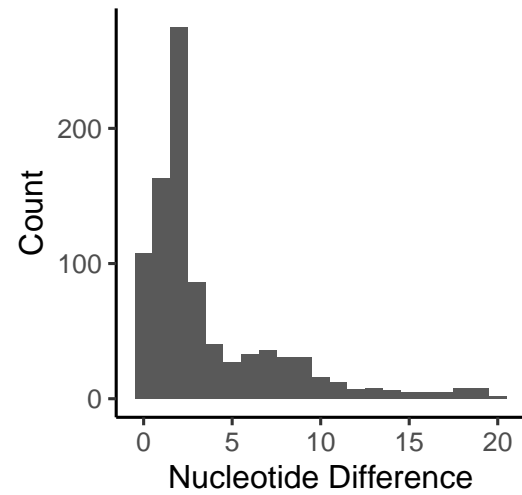
IGHV3-7*03

10114 sequences assigned
2001 (19.8%) exact matches, in which:
1389 unique CDR3
7 unique J



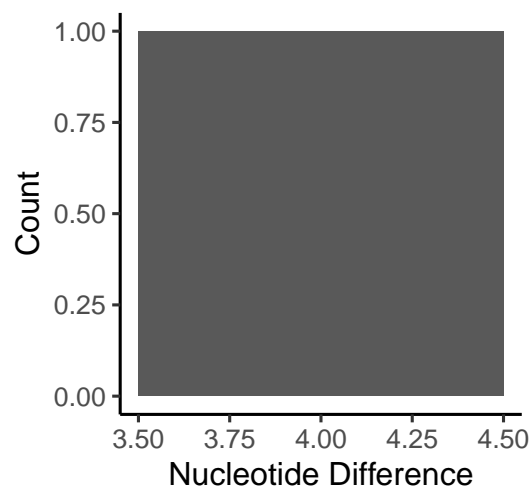
IGHV3-11*04

937 sequences assigned
108 (11.5%) exact matches, in which:
108 unique CDR3
6 unique J



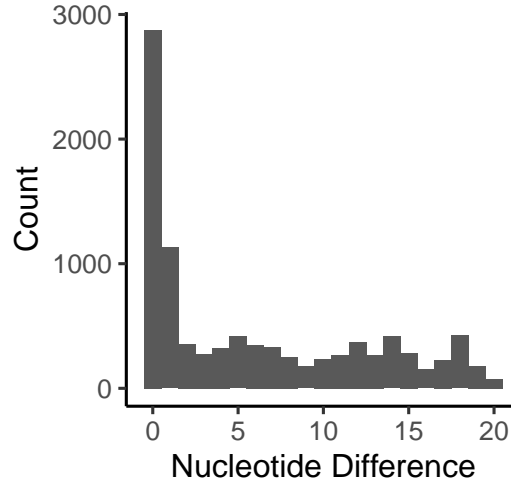
IGHV2-70D*14

1 sequences assigned
No exact matches.



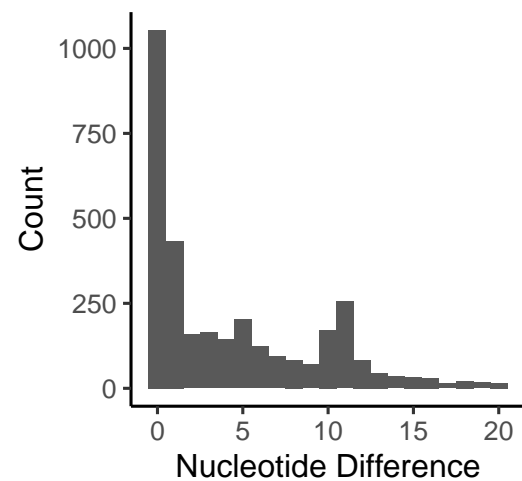
IGHV3-9*01

9573 sequences assigned
2875 (30%) exact matches, in which:
1949 unique CDR3
7 unique J



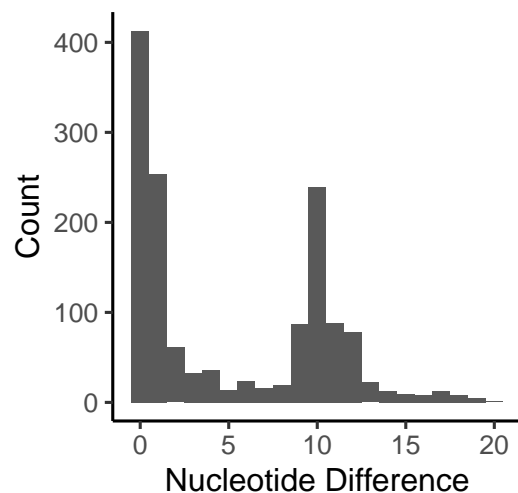
IGHV3-11*06

3303 sequences assigned
1054 (31.9%) exact matches, in which:
740 unique CDR3
7 unique J



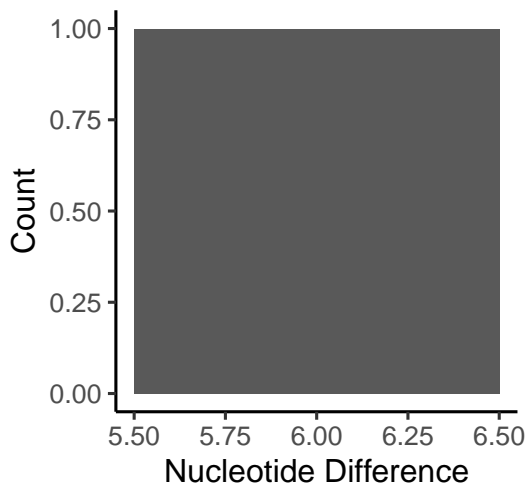
IGHV3-13*01

1445 sequences assigned
413 (28.6%) exact matches, in which:
251 unique CDR3
7 unique J



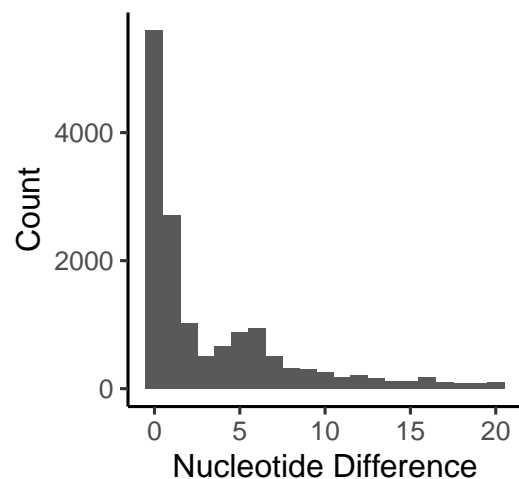
IGHV3-19*01

1 sequences assigned
No exact matches.



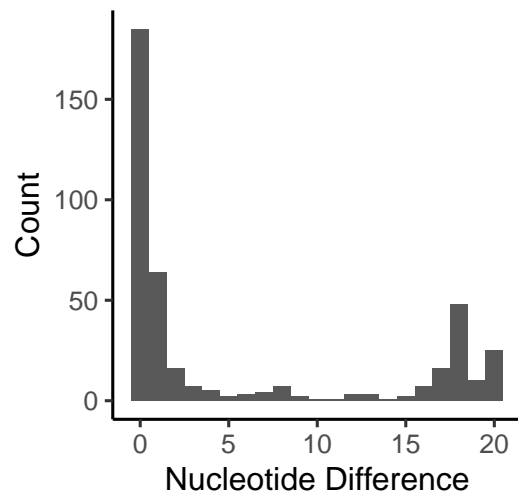
IGHV3-21*01_02

15613 sequences assigned
5597 (35.8%) exact matches, in which:
3800 unique CDR3
7 unique J



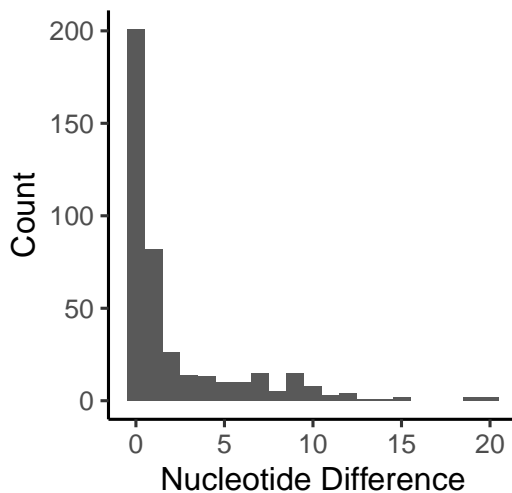
IGHV3-13*05

487 sequences assigned
185 (38%) exact matches, in which:
118 unique CDR3
6 unique J



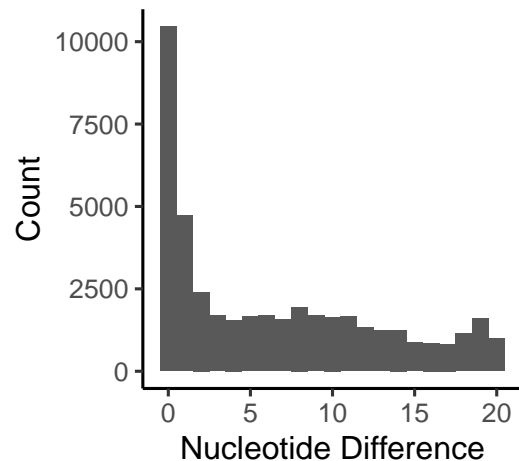
IGHV3-20*01_02

430 sequences assigned
201 (46.7%) exact matches, in which:
127 unique CDR3
6 unique J



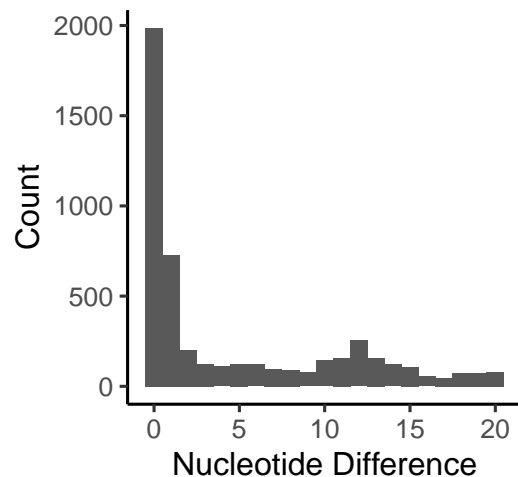
IGHV3-23*01_04

48434 sequences assigned
10461 (21.6%) exact matches, in which:
6831 unique CDR3
7 unique J



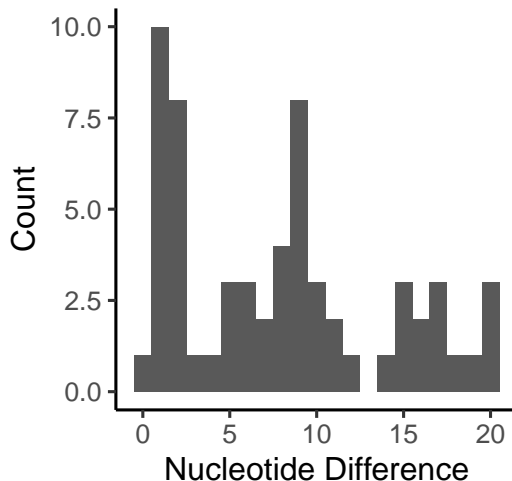
IGHV3-15*01_02

5651 sequences assigned
1986 (35.1%) exact matches, in which:
1458 unique CDR3
7 unique J



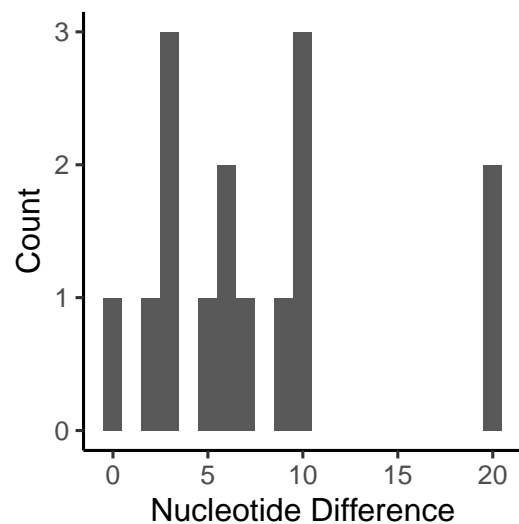
IGHV3-20*03_04

65 sequences assigned
1 (1.5%) exact matches, in which:
1 unique CDR3
1 unique J



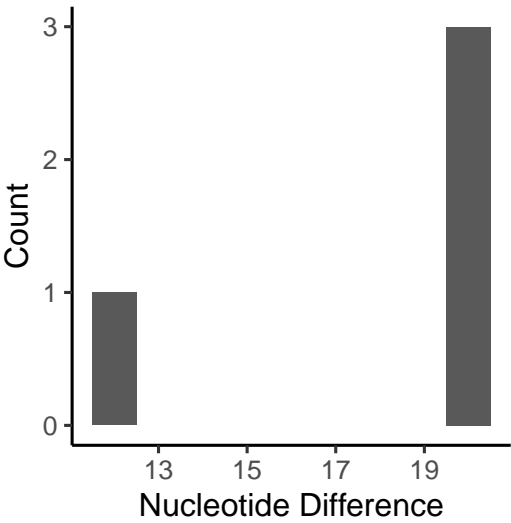
IGHV3-30-3*01

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



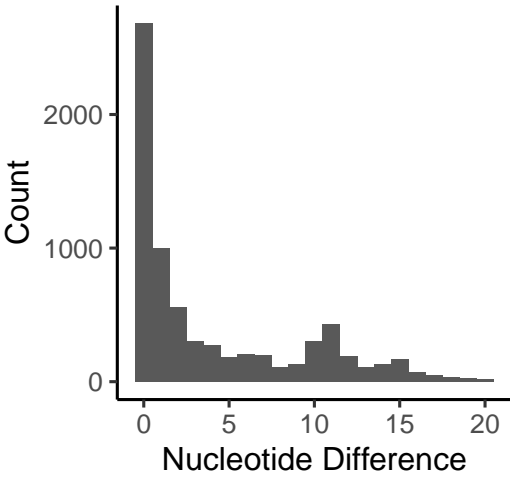
IGHV3-30-3*02

14 sequences assigned
No exact matches.



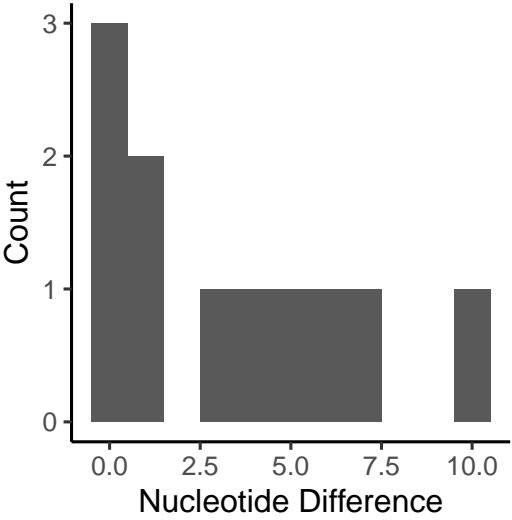
IGHV3-33*01

8316 sequences assigned
2682 (32.3%) exact matches, in which:
1968 unique CDR3
7 unique J



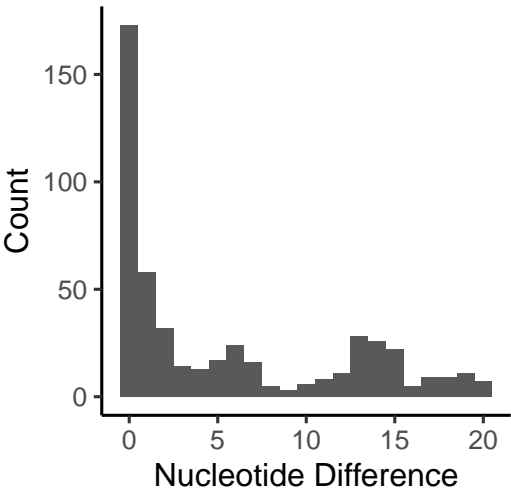
IGHV3-35*01

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



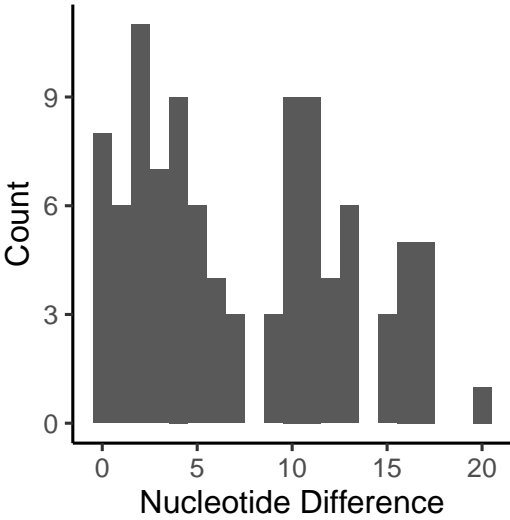
IGHV3-30*03

522 sequences assigned
173 (33.1%) exact matches, in which:
161 unique CDR3
6 unique J



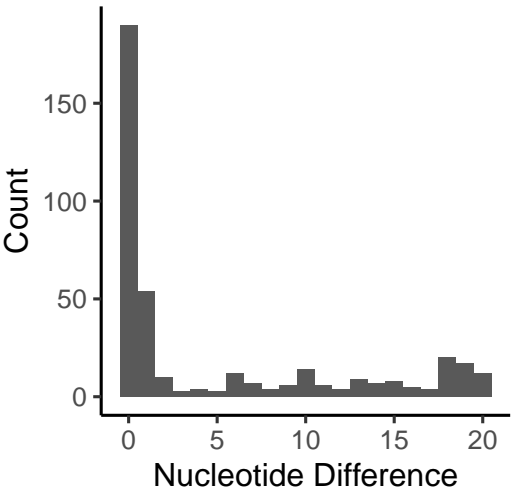
IGHV3-33*05

104 sequences assigned
8 (7.7%) exact matches, in which:
7 unique CDR3
3 unique J



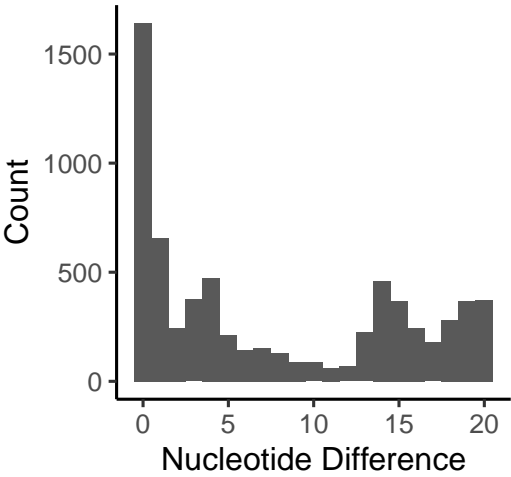
IGHV3-43*01

420 sequences assigned
190 (45.2%) exact matches, in which:
128 unique CDR3
7 unique J



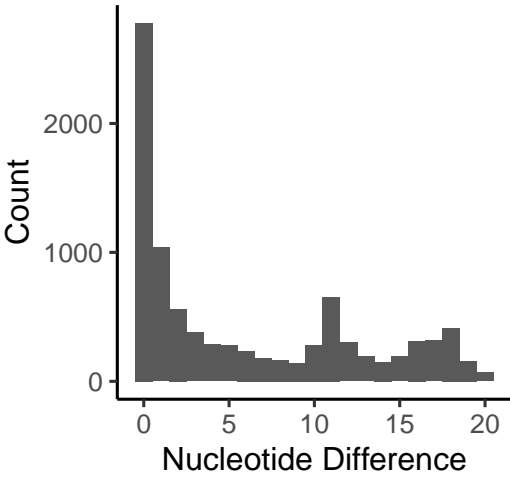
IGHV3-30*18

11425 sequences assigned
1642 (14.4%) exact matches, in which:
1121 unique CDR3
7 unique J



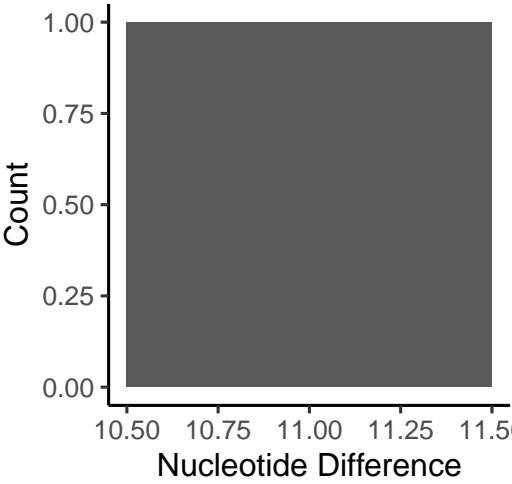
IGHV3-33*08

9587 sequences assigned
2779 (29%) exact matches, in which:
2016 unique CDR3
7 unique J



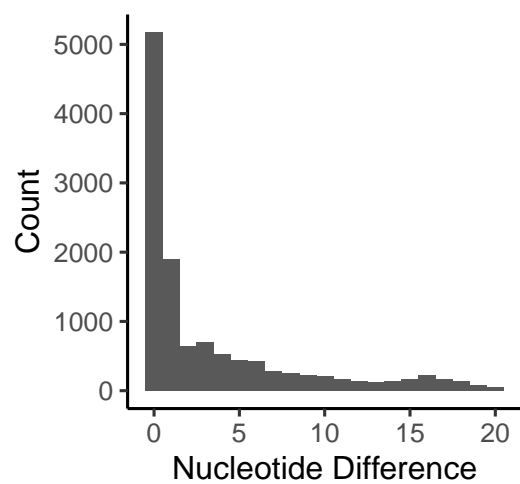
IGHV3-47*01

1 sequences assigned
No exact matches.



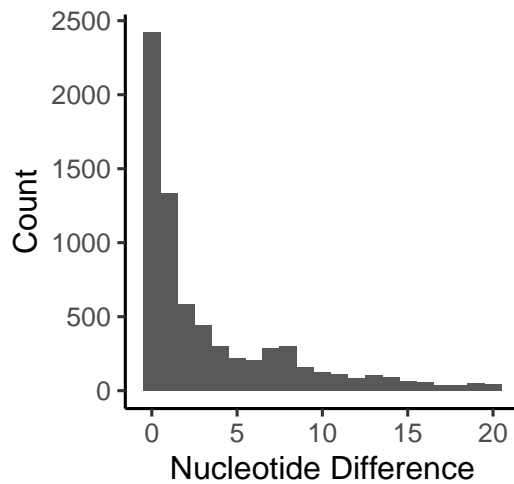
IGHV3-48*03

13154 sequences assigned
5173 (39.3%) exact matches, in which:
3499 unique CDR3
7 unique J



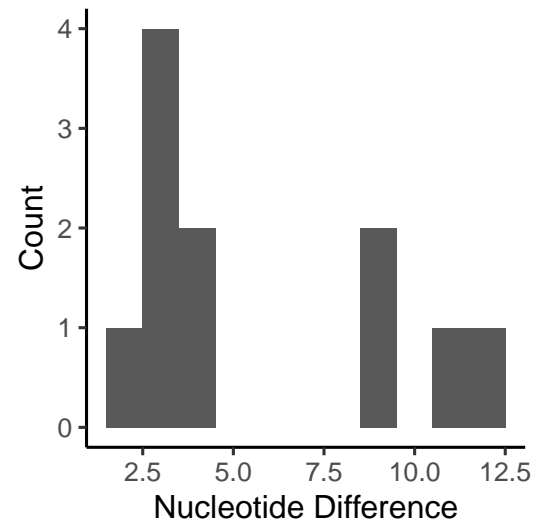
IGHV3-53*01_02

7400 sequences assigned
2421 (32.7%) exact matches, in which:
1652 unique CDR3
7 unique J



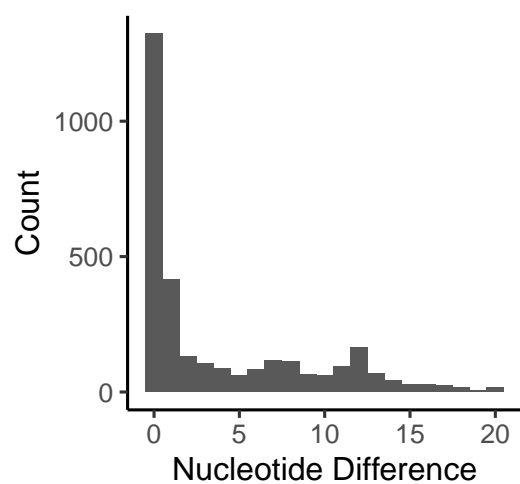
IGHV3-69-1*01

12 sequences assigned
No exact matches.



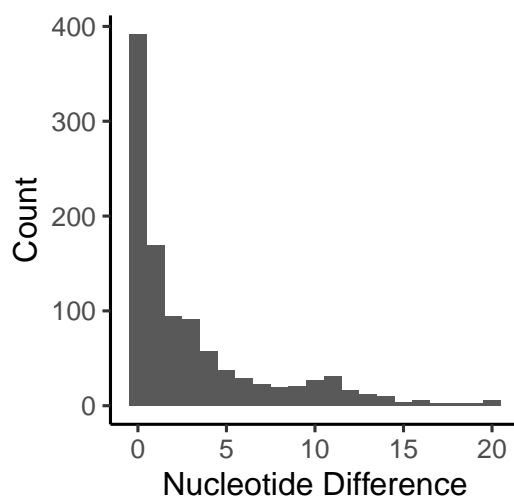
IGHV3-49*04

3134 sequences assigned
1323 (42.2%) exact matches, in which:
943 unique CDR3
7 unique J



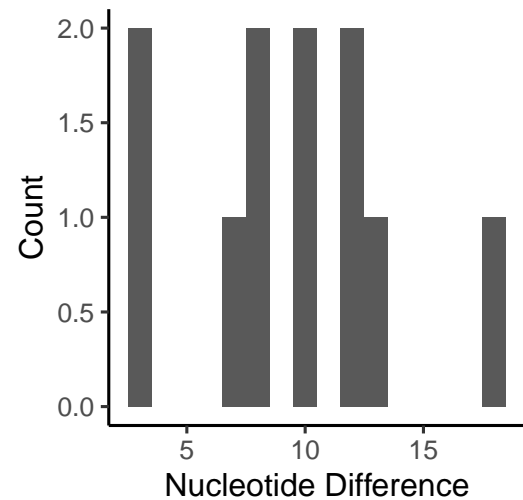
IGHV3-64*01

1111 sequences assigned
392 (35.3%) exact matches, in which:
259 unique CDR3
7 unique J



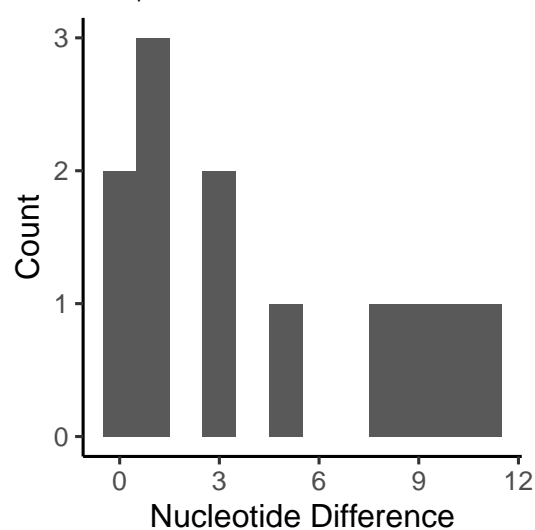
IGHV3-69-1*02

18 sequences assigned
No exact matches.



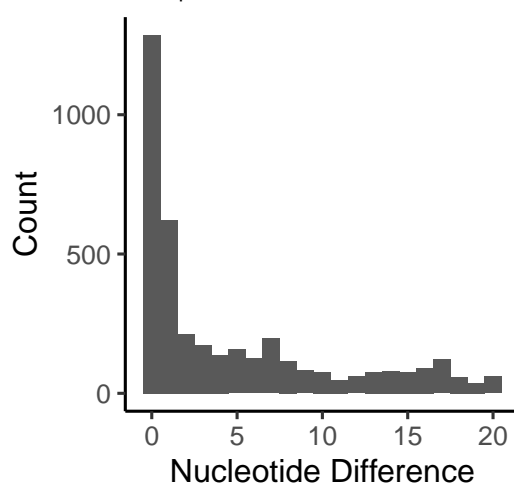
IGHV3-52*01_03

12 sequences assigned
2 (16.7%) exact matches, in which:
2 unique CDR3
1 unique J



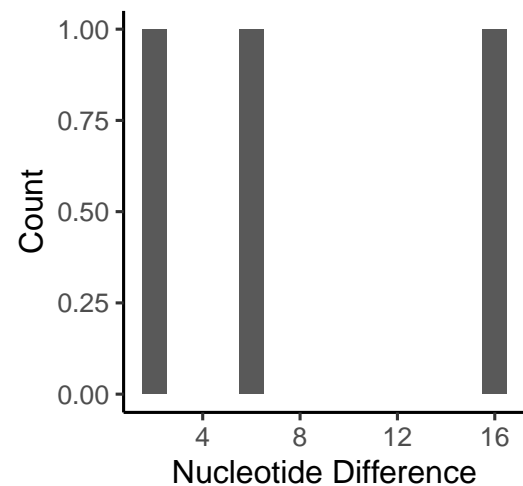
IGHV3-66*01

4636 sequences assigned
1286 (27.7%) exact matches, in which:
892 unique CDR3
7 unique J



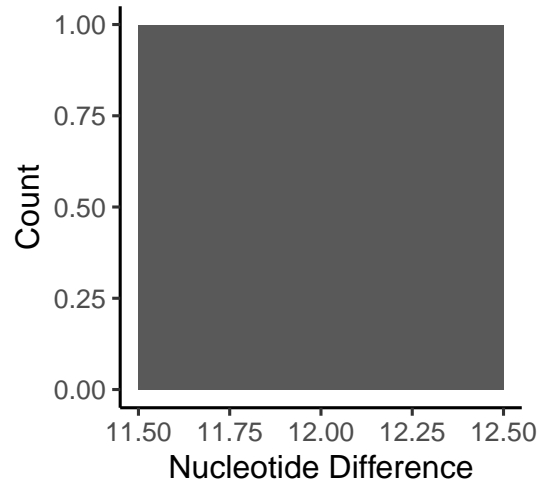
IGHV3-71*03

3 sequences assigned
No exact matches.



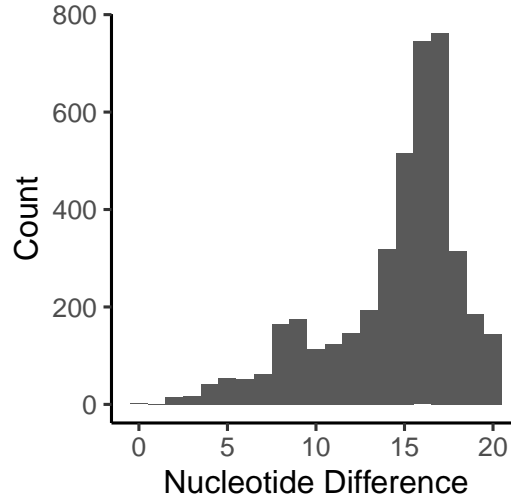
IGHV3-71*01_04

2 sequences assigned
No exact matches.



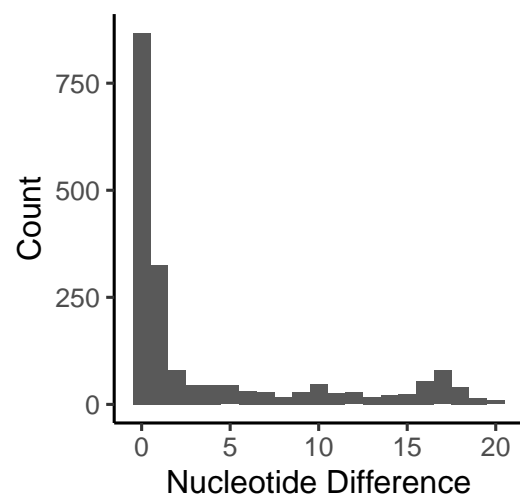
IGHV3-74*03

4465 sequences assigned
2 (0%) exact matches, in which:
2 unique CDR3
1 unique J



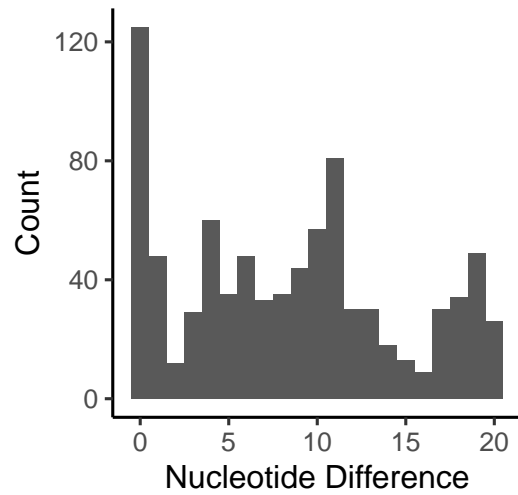
IGHV3-64D*06

1982 sequences assigned
868 (43.8%) exact matches, in which:
518 unique CDR3
7 unique J



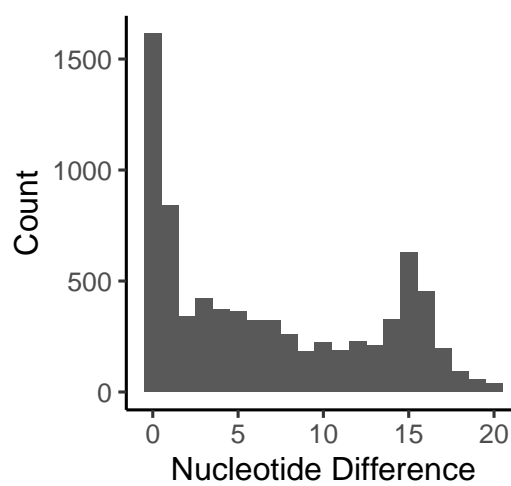
IGHV3-72*01

905 sequences assigned
125 (13.8%) exact matches, in which:
90 unique CDR3
7 unique J



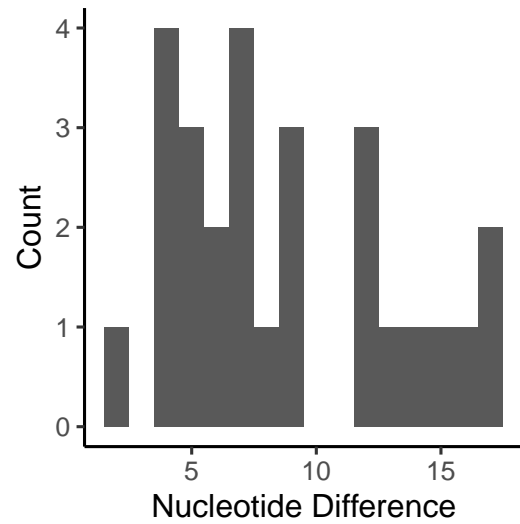
IGHV3-74*01_02

7812 sequences assigned
1614 (20.7%) exact matches, in which:
1061 unique CDR3
7 unique J



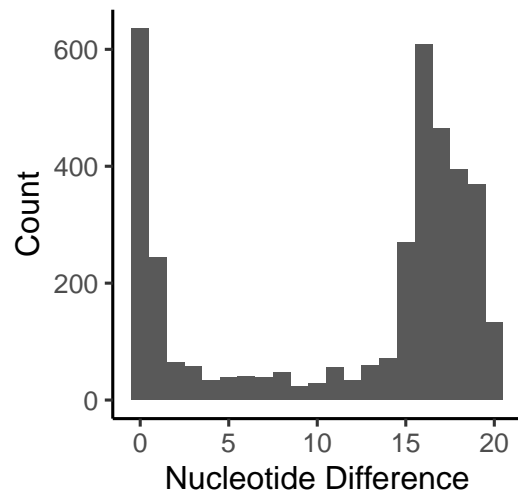
IGHV3-NL1*01

37 sequences assigned
No exact matches.



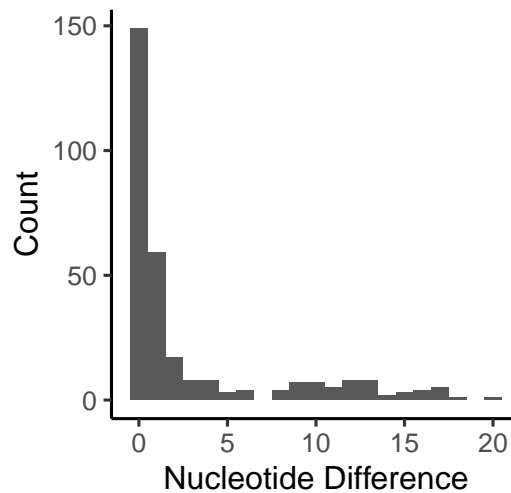
IGHV3-73*01_02

4041 sequences assigned
636 (15.7%) exact matches, in which:
434 unique CDR3
7 unique J



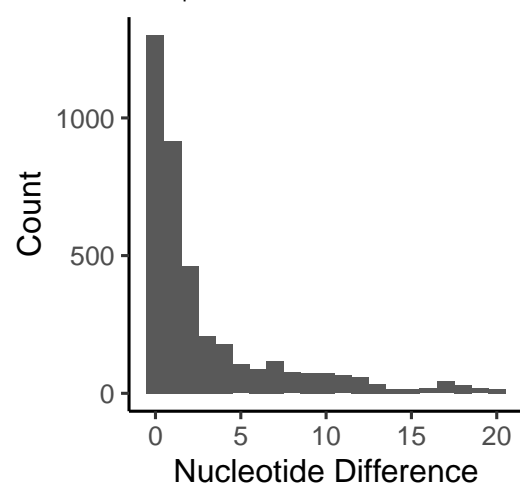
IGHV3-43D*04

327 sequences assigned
149 (45.6%) exact matches, in which:
110 unique CDR3
6 unique J



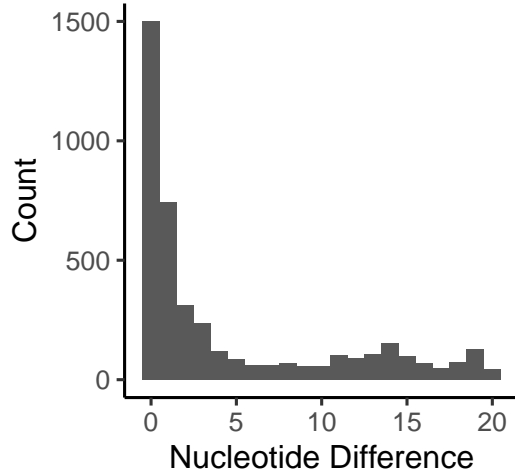
IGHV4-4*07

3982 sequences assigned
1301 (32.7%) exact matches, in which:
1166 unique CDR3
7 unique J



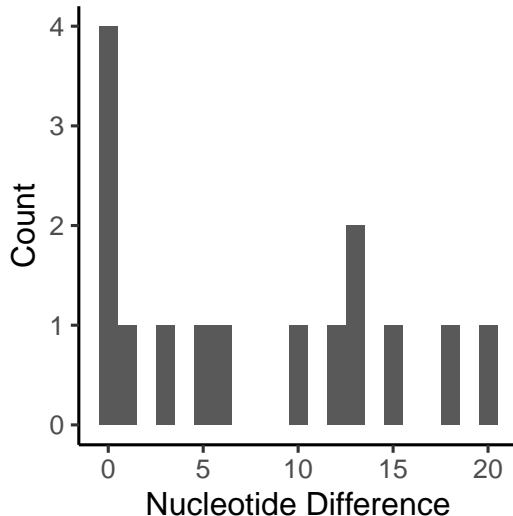
IGHV4-4*02_03

4456 sequences assigned
1500 (33.7%) exact matches, in which:
1363 unique CDR3
7 unique J



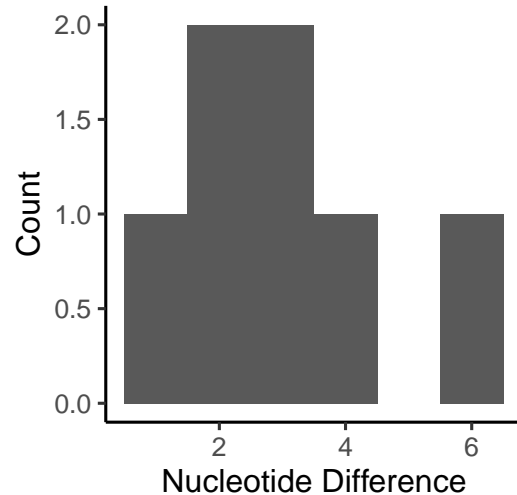
IGHV4-30-4*01

16 sequences assigned
4 (25%) exact matches, in which:
4 unique CDR3
3 unique J



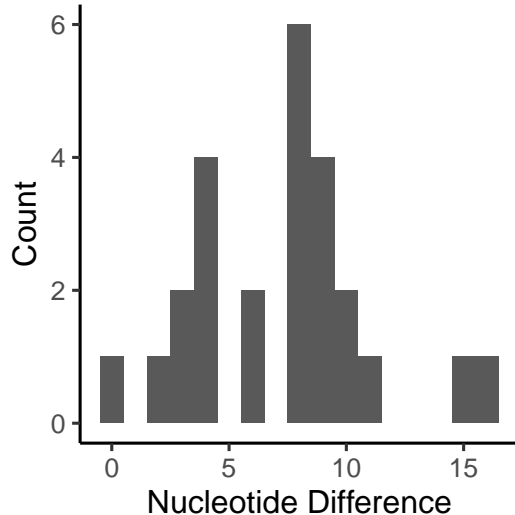
IGHV4-30-2*04

7 sequences assigned
No exact matches.



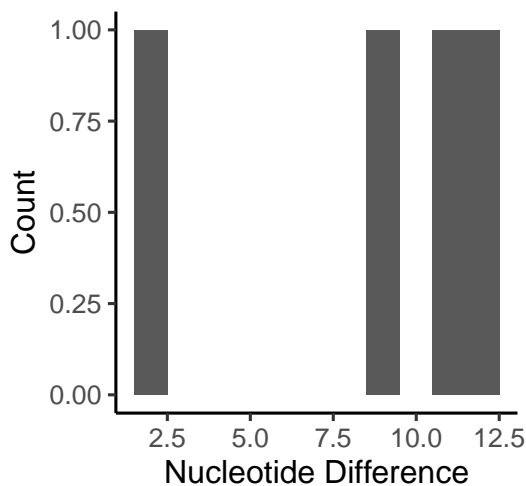
IGHV4-28*03

26 sequences assigned
1 (3.8%) exact matches, in which:
1 unique CDR3
1 unique J



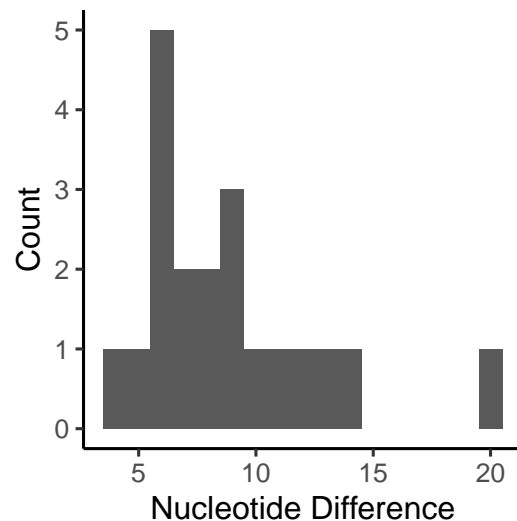
IGHV4-30-2*01

4 sequences assigned
No exact matches.



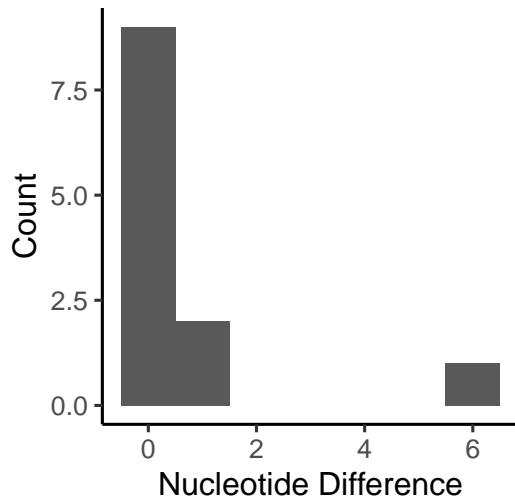
IGHV4-30-4*08

24 sequences assigned
No exact matches.



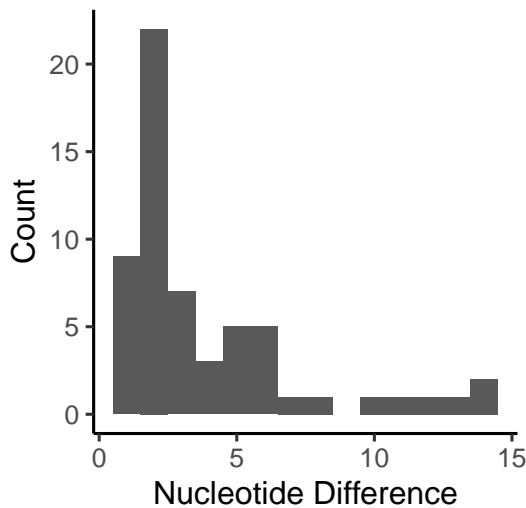
IGHV4-28*01_07

12 sequences assigned
9 (75%) exact matches, in which:
9 unique CDR3
5 unique J



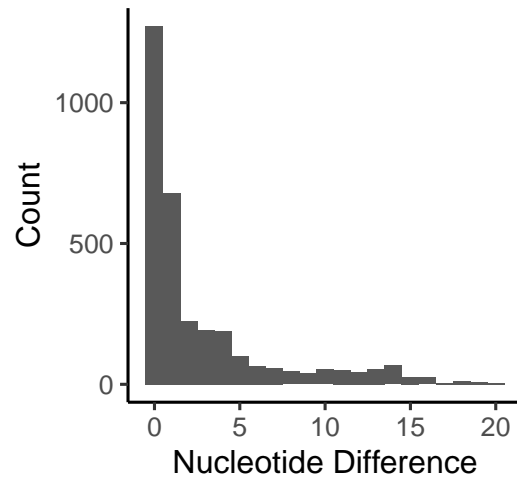
IGHV4-30-2*03

66 sequences assigned
No exact matches.



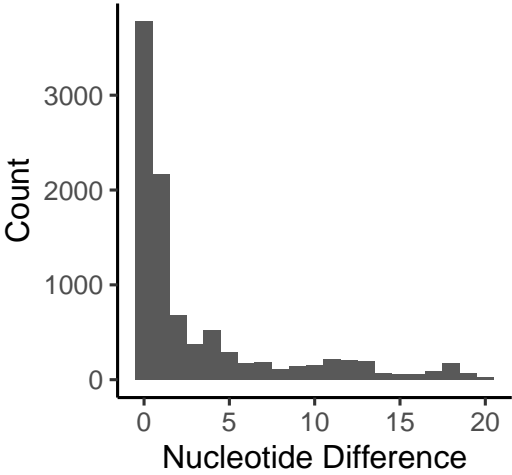
IGHV4-31*02

3475 sequences assigned
1272 (36.6%) exact matches, in which:
1184 unique CDR3
7 unique J



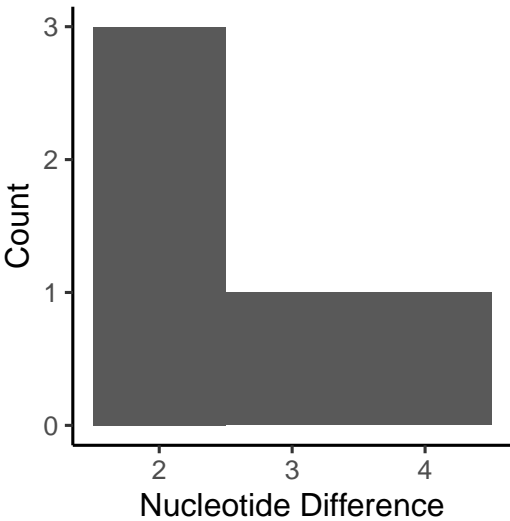
IGHV4-34*01_02

9985 sequences assigned
3778 (37.8%) exact matches, in which:
3326 unique CDR3
7 unique J



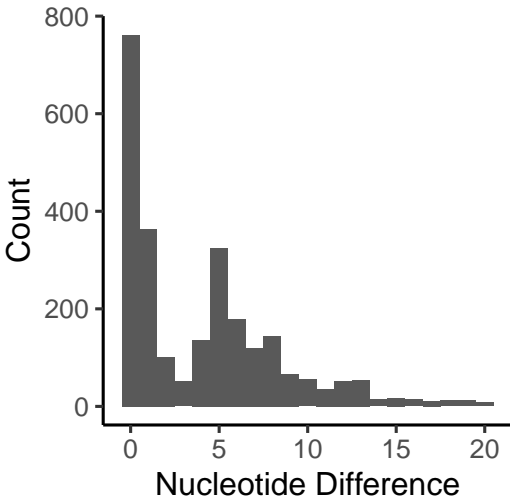
IGHV4-55*09

6 sequences assigned
No exact matches.



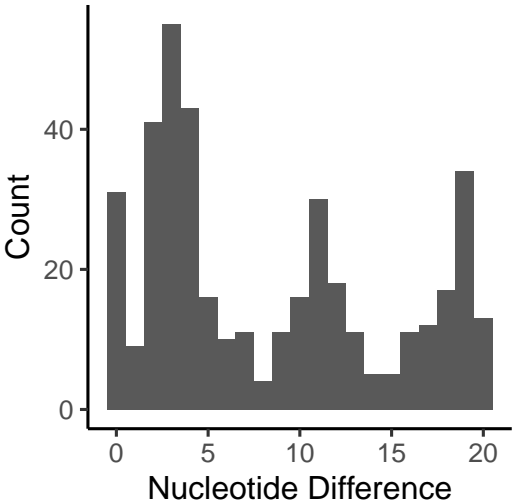
IGHV4-61*01

2550 sequences assigned
762 (29.9%) exact matches, in which:
717 unique CDR3
7 unique J



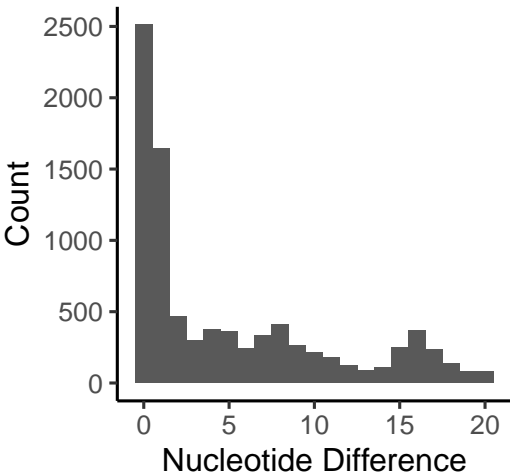
IGHV4-38-2*02

449 sequences assigned
31 (6.9%) exact matches, in which:
31 unique CDR3
6 unique J



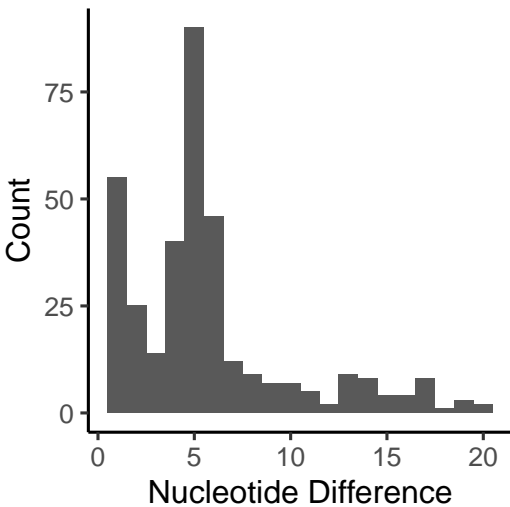
IGHV4-59*08

9606 sequences assigned
2512 (26.2%) exact matches, in which:
2256 unique CDR3
7 unique J



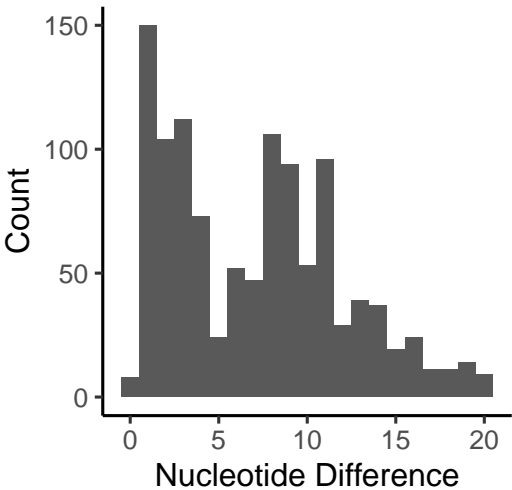
IGHV4-61*08

357 sequences assigned
No exact matches.



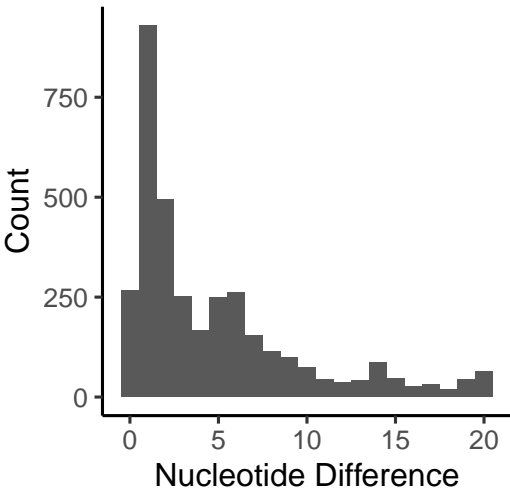
IGHV4-39*07

1362 sequences assigned
8 (0.6%) exact matches, in which:
8 unique CDR3
3 unique J



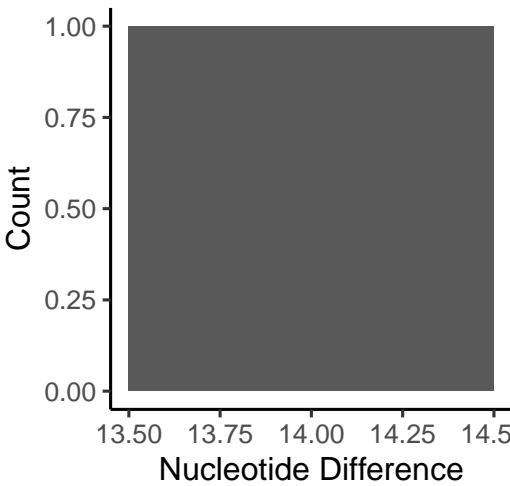
IGHV4-59*12

3649 sequences assigned
266 (7.3%) exact matches, in which:
264 unique CDR3
7 unique J



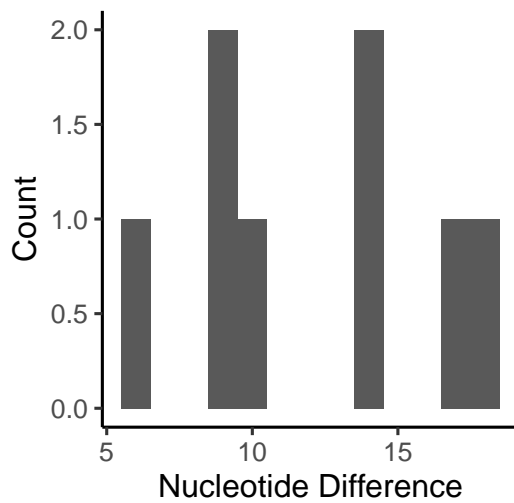
IGHV1/OR15-2*01

1 sequences assigned
No exact matches.



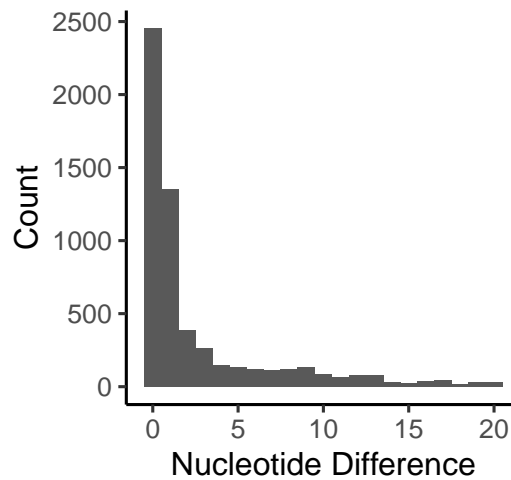
IGHV1/OR15-3*02

8 sequences assigned
No exact matches.



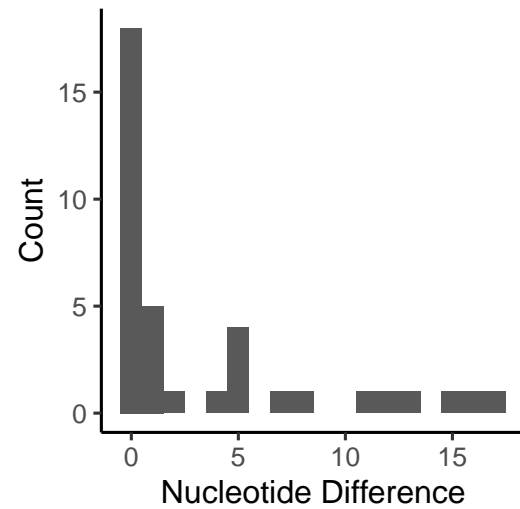
IGHV5-10-1*01_03

5814 sequences assigned
2453 (42.2%) exact matches, in which:
1915 unique CDR3
7 unique J



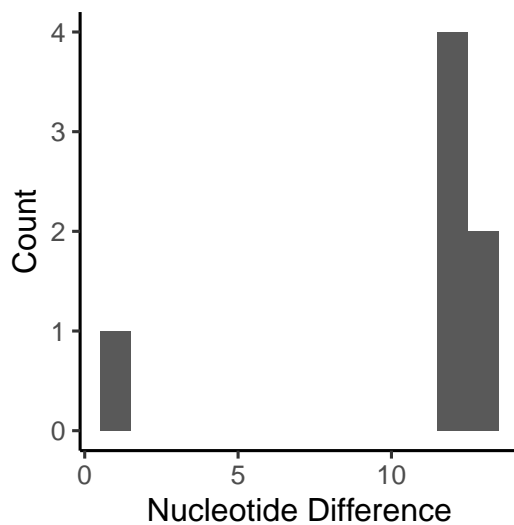
IGHV5-51*07

38 sequences assigned
18 (47.4%) exact matches, in which:
18 unique CDR3
5 unique J



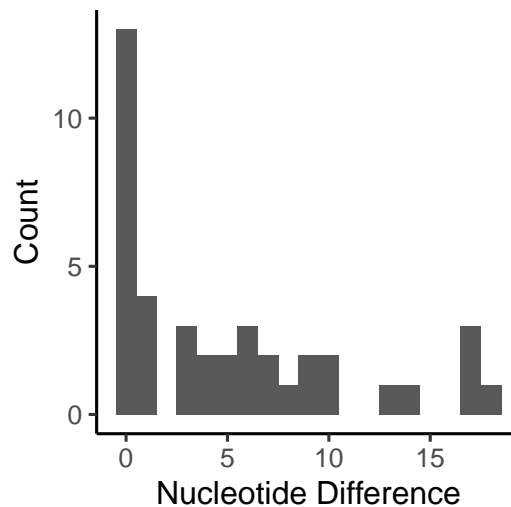
IGHV4/OR15-8*01

8 sequences assigned
No exact matches.



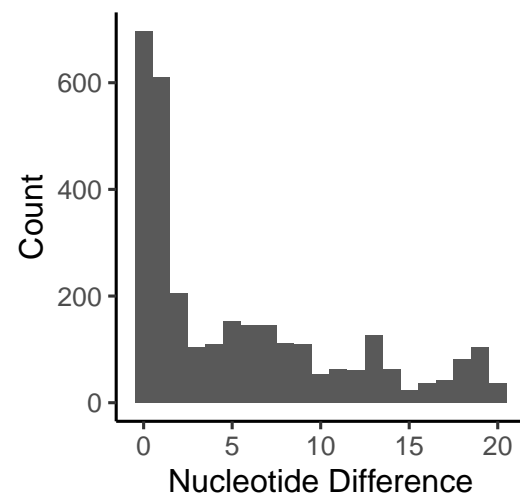
IGHV5-51*04

40 sequences assigned
13 (32.5%) exact matches, in which:
12 unique CDR3
5 unique J



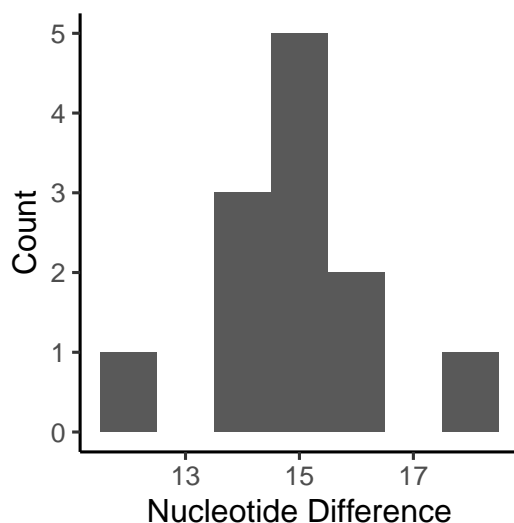
IGHV6-1*01_02

3529 sequences assigned
697 (19.8%) exact matches, in which:
624 unique CDR3
7 unique J



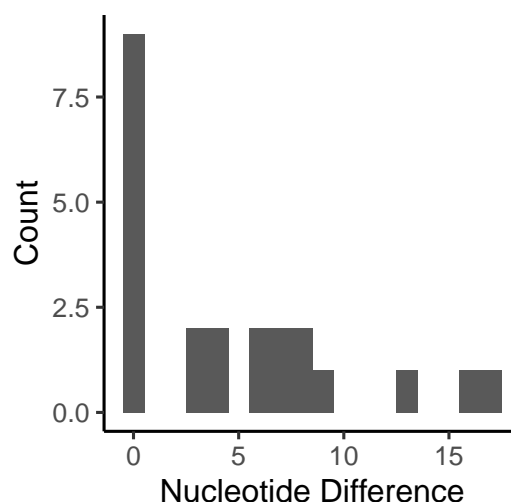
IGHV4/OR15-8*02

15 sequences assigned
No exact matches.



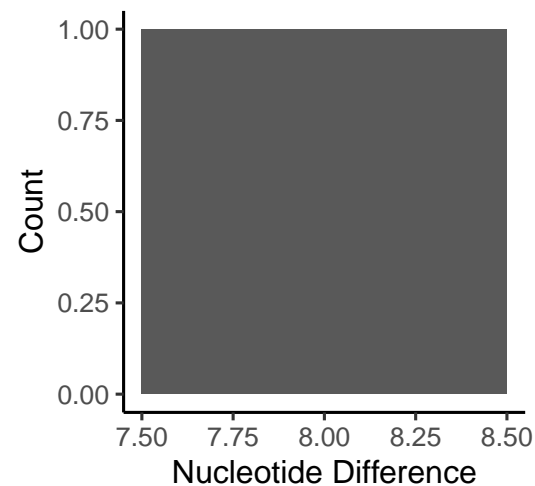
IGHV5-51*06

23 sequences assigned
9 (39.1%) exact matches, in which:
9 unique CDR3
4 unique J



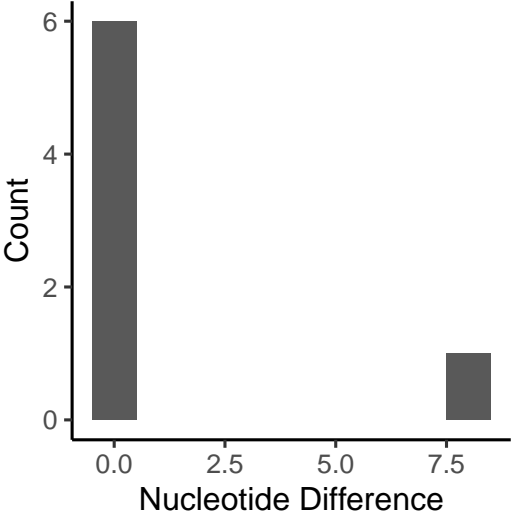
IGHV3/OR16-13*01

1 sequences assigned
No exact matches.



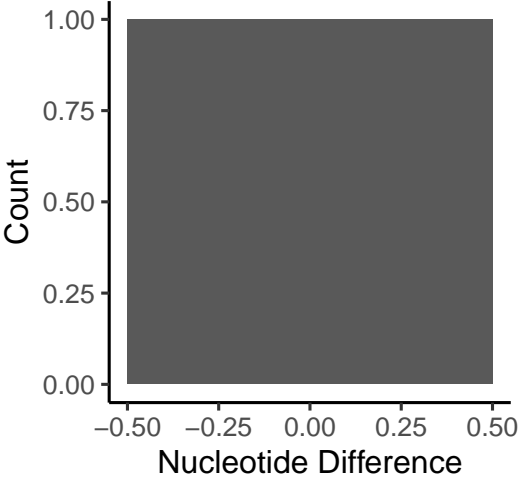
IGHV7-4-1*01

7 sequences assigned
6 (85.7%) exact matches, in which:
6 unique CDR3
4 unique J

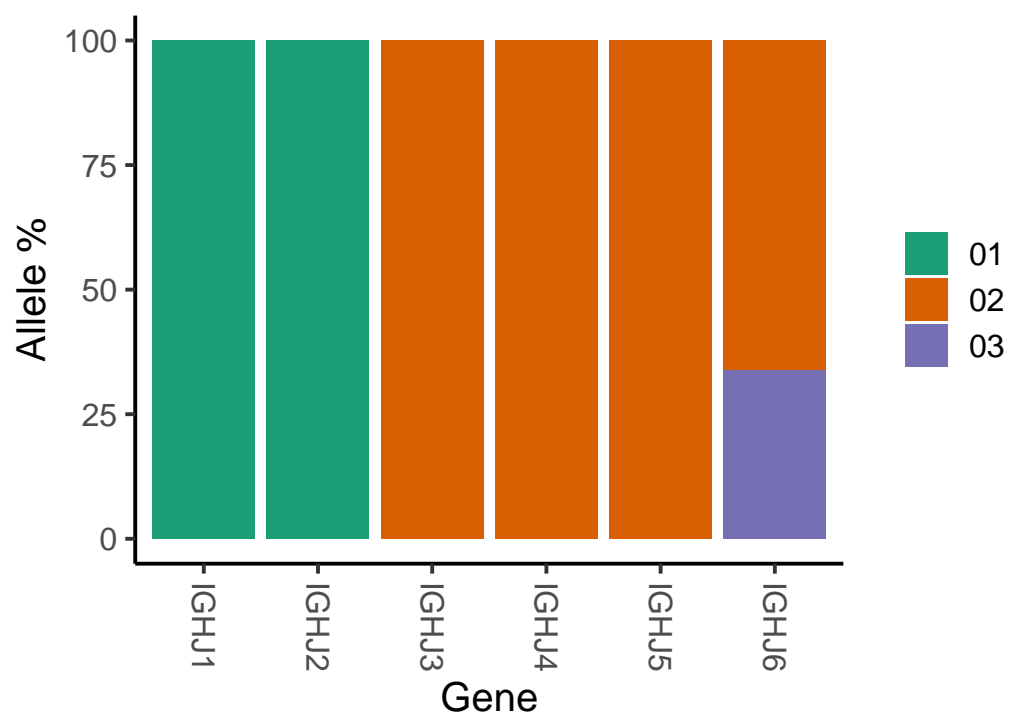


IGHV7-4-1*02

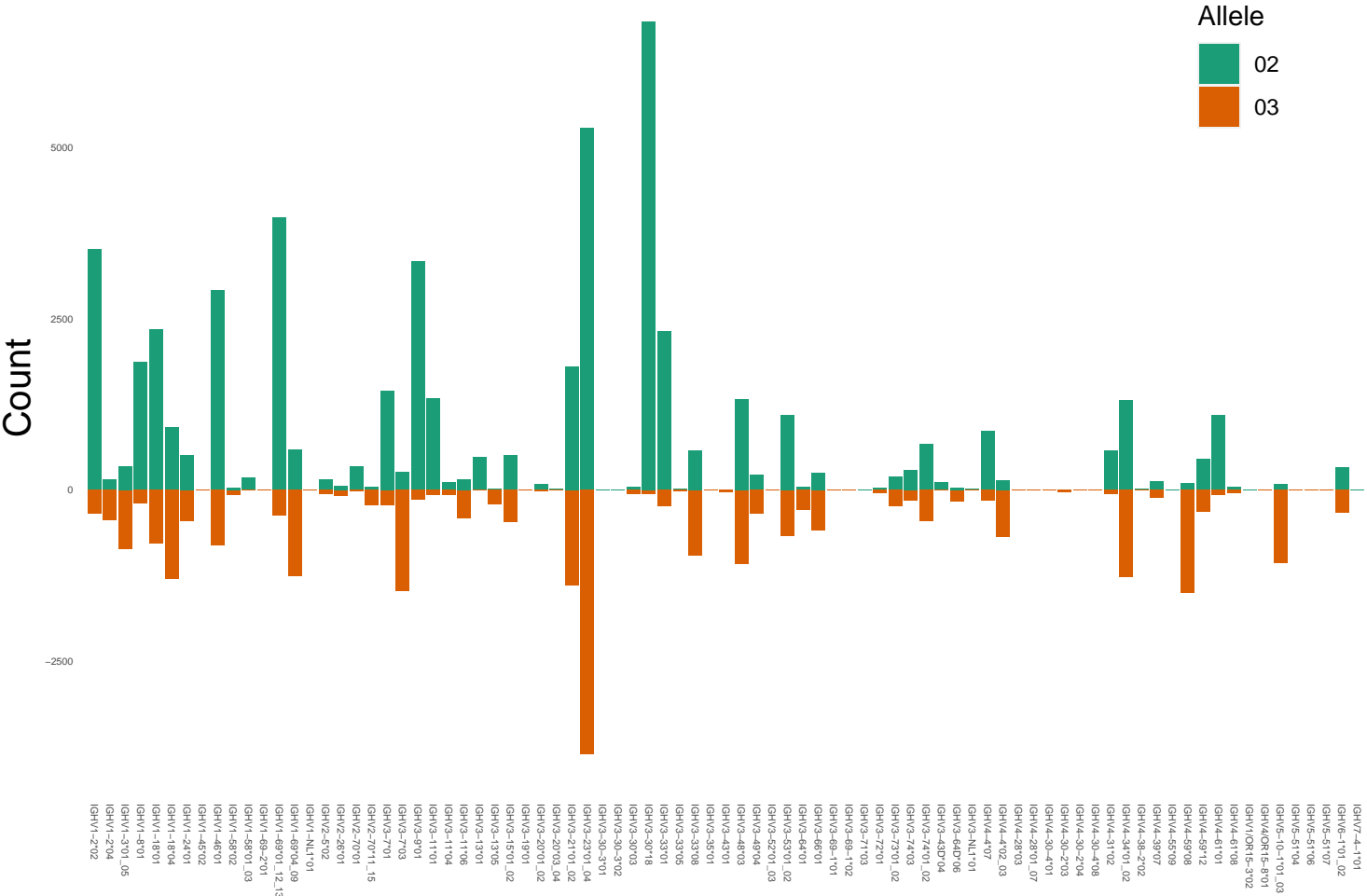
1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.