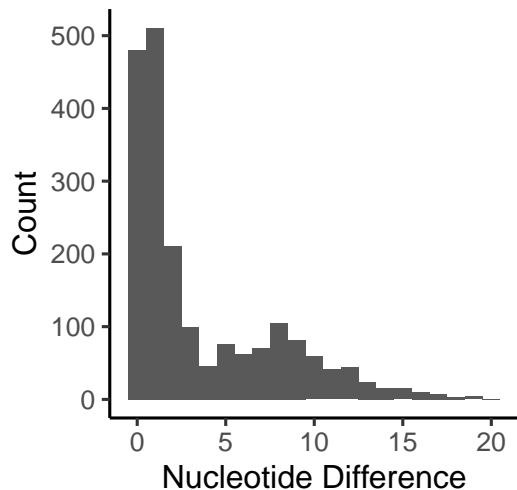


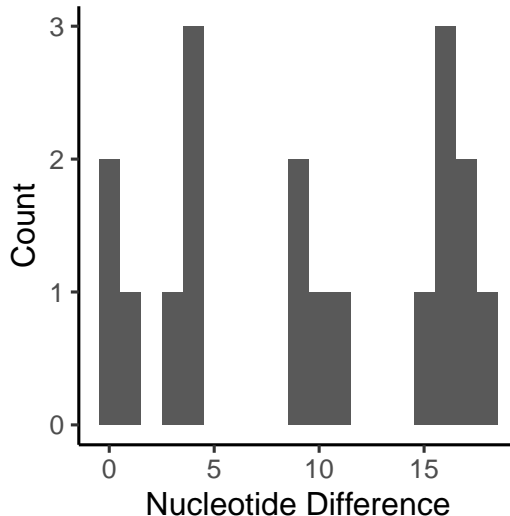
IGHV1-2*04

2009 sequences assigned
480 (23.9%) exact matches, in which:
413 unique CDR3
6 unique J



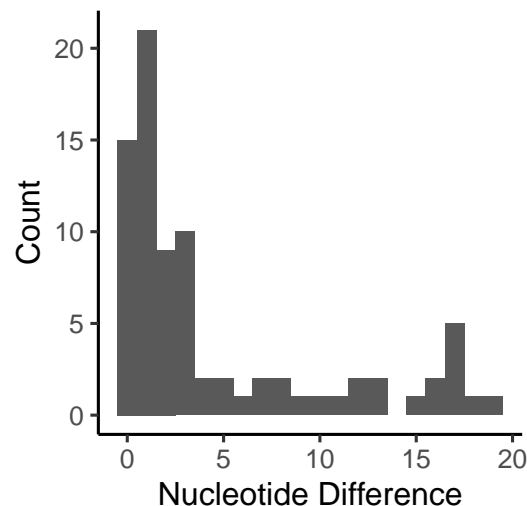
IGHV1-8*01

37 sequences assigned
2 (5.4%) exact matches, in which:
2 unique CDR3
1 unique J



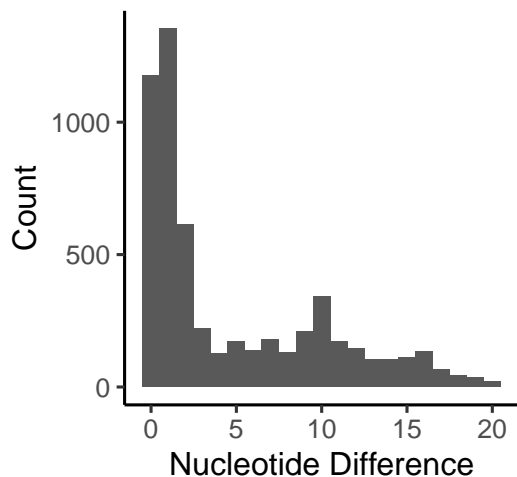
IGHV1-45*02

83 sequences assigned
15 (18.1%) exact matches, in which:
14 unique CDR3
3 unique J



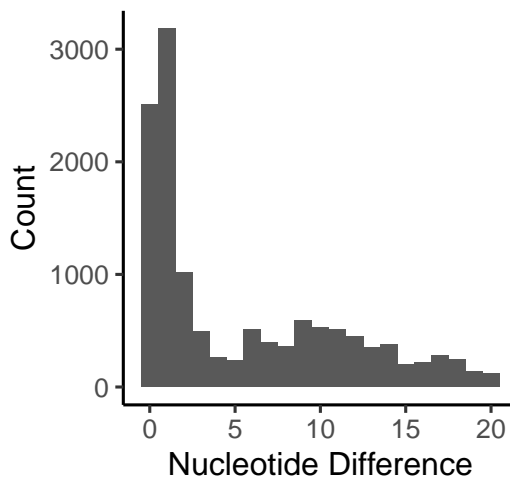
IGHV1-2*06

5975 sequences assigned
1178 (19.7%) exact matches, in which:
966 unique CDR3
6 unique J



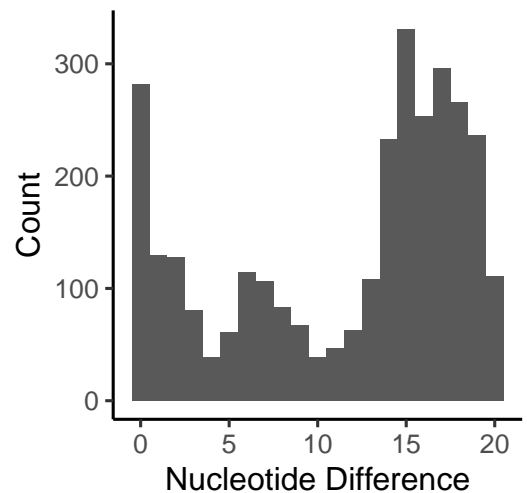
IGHV1-18*01

14561 sequences assigned
2509 (17.2%) exact matches, in which:
1966 unique CDR3
6 unique J



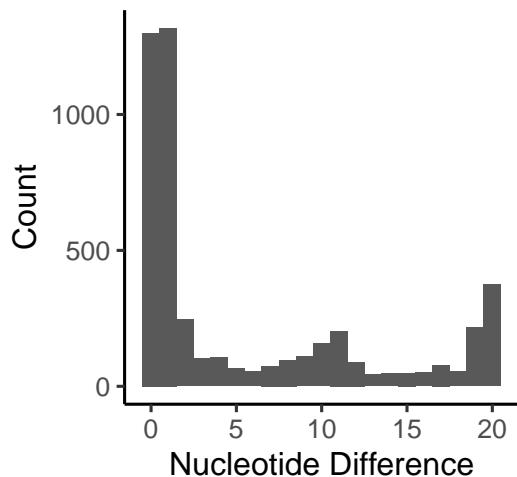
IGHV1-46*01

3419 sequences assigned
282 (8.2%) exact matches, in which:
279 unique CDR3
6 unique J



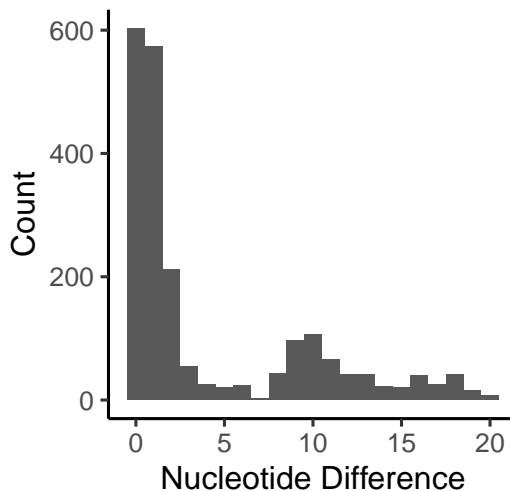
IGHV1-3*01_05

5240 sequences assigned
1300 (24.8%) exact matches, in which:
1070 unique CDR3
6 unique J



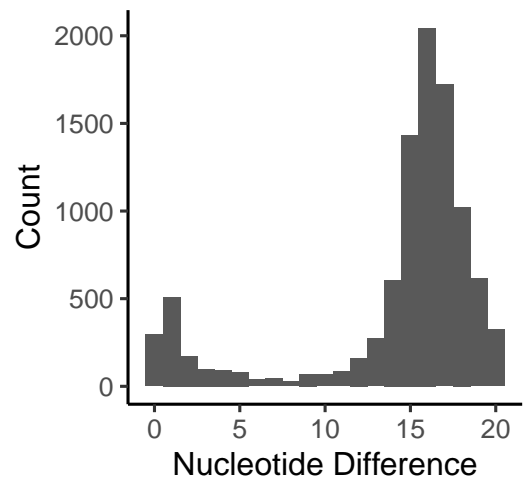
IGHV1-24*01

2100 sequences assigned
603 (28.7%) exact matches, in which:
496 unique CDR3
6 unique J



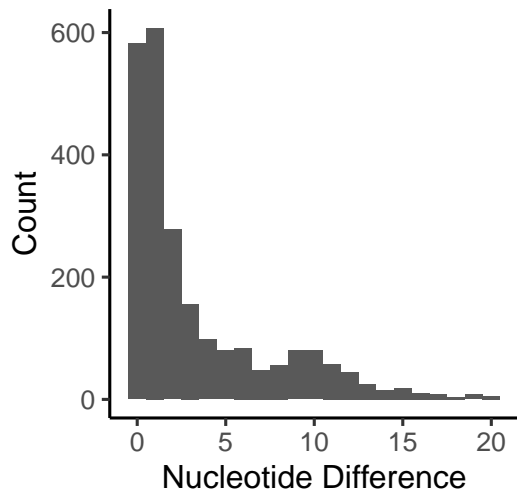
IGHV1-46*03

11391 sequences assigned
295 (2.6%) exact matches, in which:
201 unique CDR3
6 unique J



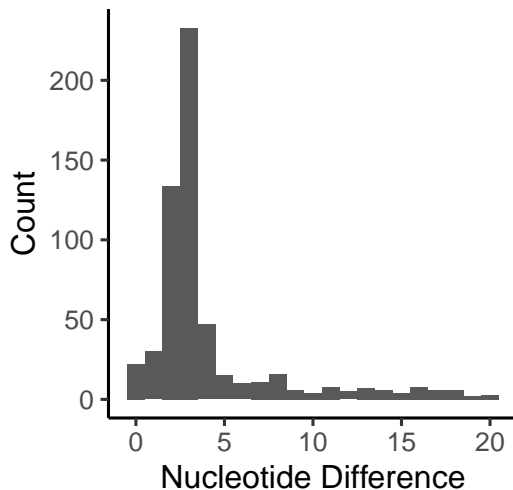
IGHV1-46*04

2550 sequences assigned
582 (22.8%) exact matches, in which:
494 unique CDR3
6 unique J



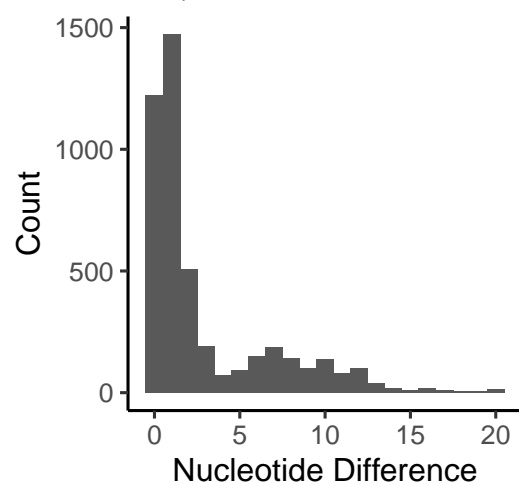
IGHV1-58*02_C86G_T9C

588 sequences assigned
22 (3.7%) exact matches, in which:
22 unique CDR3
4 unique J



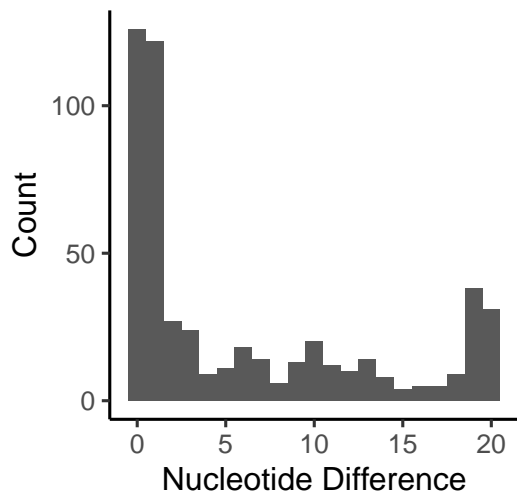
IGHV1-69*04_09

4604 sequences assigned
1221 (26.5%) exact matches, in which:
1051 unique CDR3
6 unique J



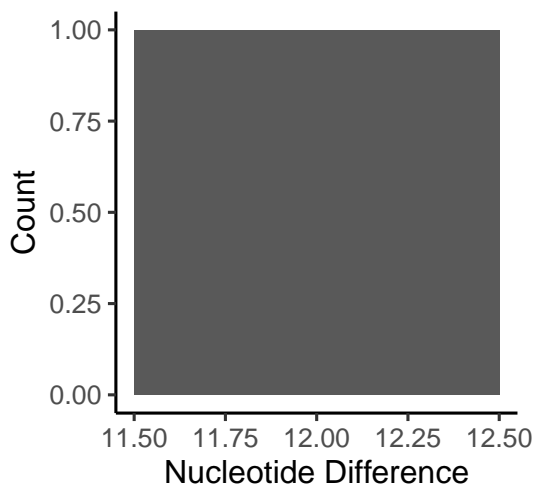
IGHV1-58*02

690 sequences assigned
126 (18.3%) exact matches, in which:
104 unique CDR3
5 unique J



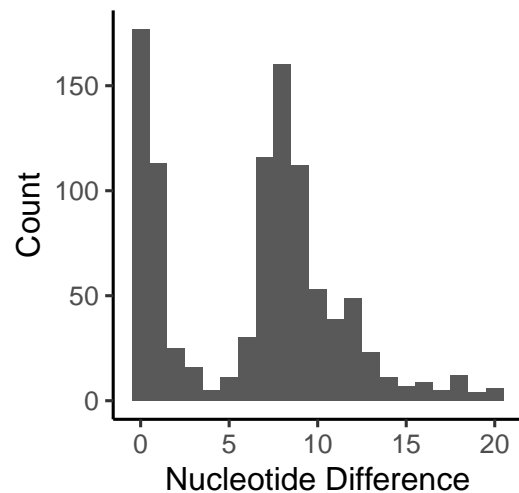
IGHV1-69-2*01

2 sequences assigned
No exact matches.



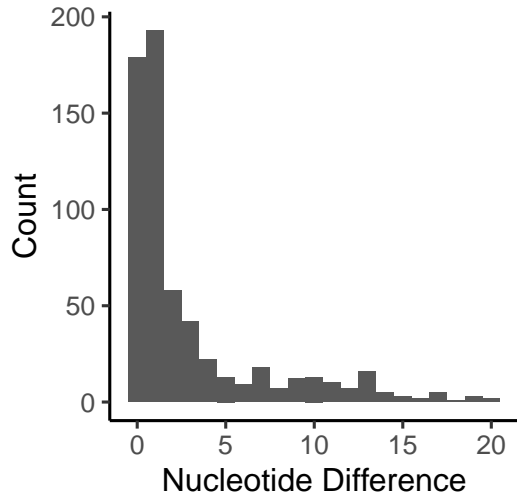
IGHV1-69*06_14

1029 sequences assigned
177 (17.2%) exact matches, in which:
170 unique CDR3
6 unique J



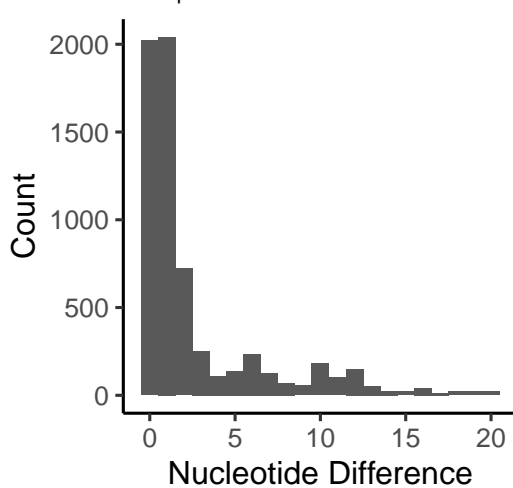
IGHV1-58*01_03

1030 sequences assigned
179 (17.4%) exact matches, in which:
152 unique CDR3
6 unique J



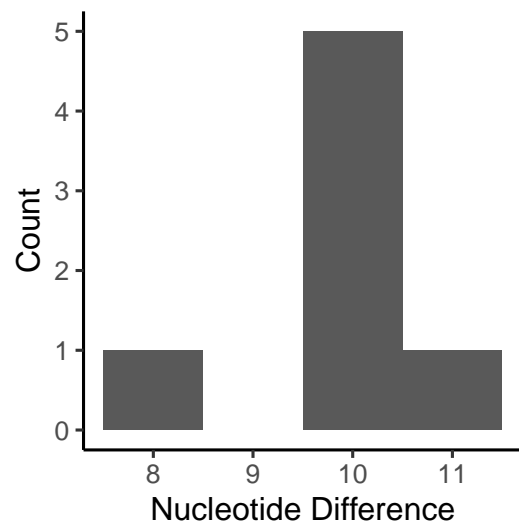
IGHV1-69*01_12_13

6569 sequences assigned
2021 (30.8%) exact matches, in which:
1711 unique CDR3
6 unique J



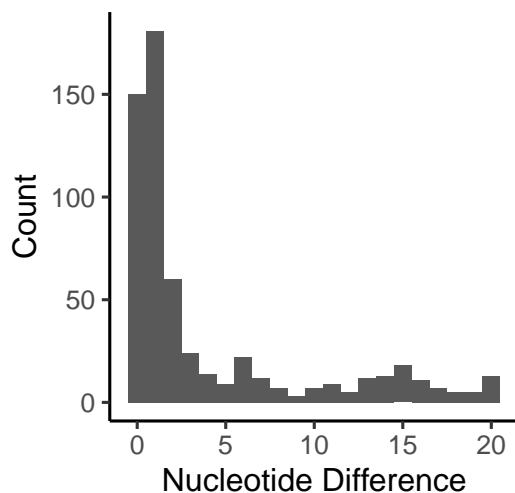
IGHV1-NL1*01

7 sequences assigned
No exact matches.



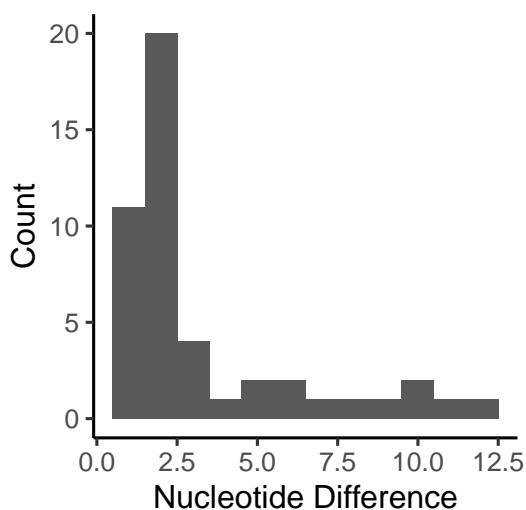
IGHV2-5*02

646 sequences assigned
150 (23.2%) exact matches, in which:
117 unique CDR3
5 unique J



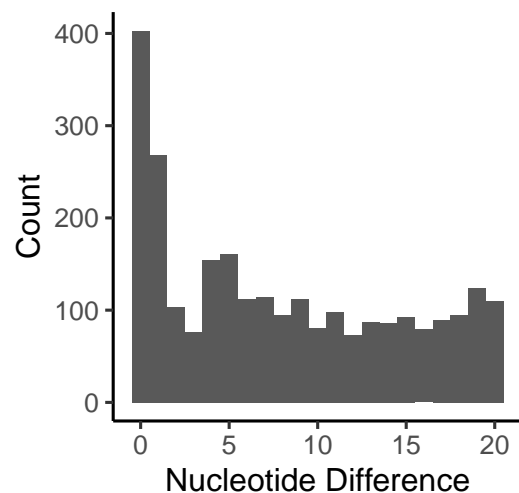
IGHV2-70*12

48 sequences assigned
No exact matches.



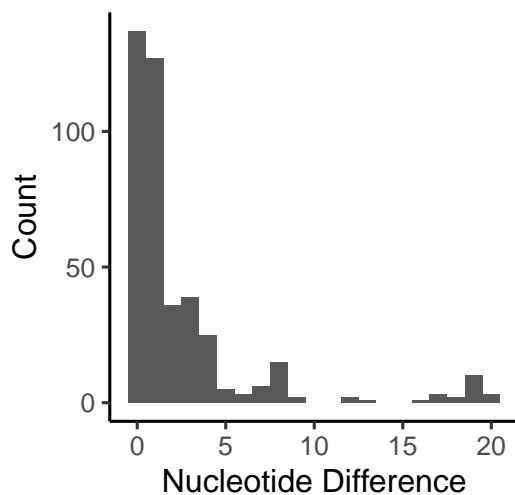
IGHV3-7*01

3180 sequences assigned
403 (12.7%) exact matches, in which:
364 unique CDR3
6 unique J



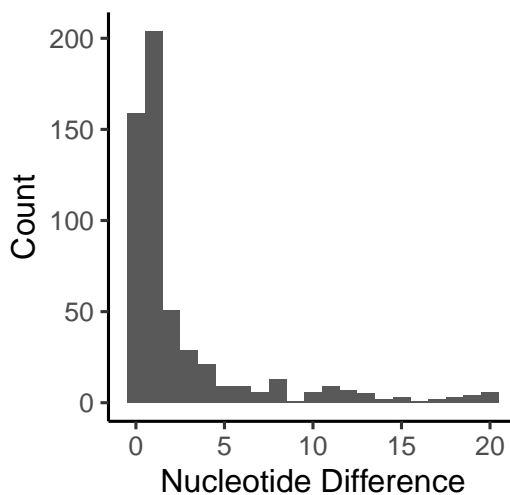
IGHV2-26*01

431 sequences assigned
137 (31.8%) exact matches, in which:
108 unique CDR3
5 unique J



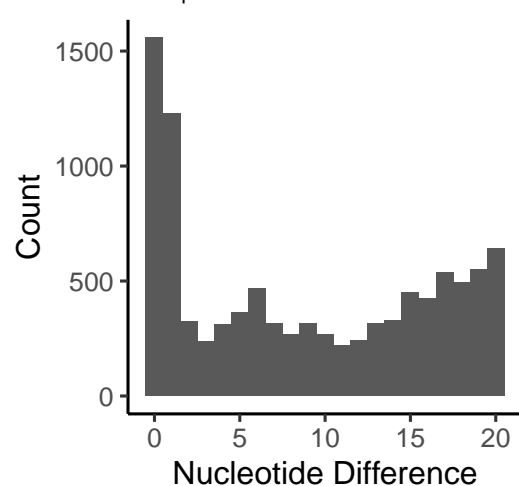
IGHV2-70*11_15

857 sequences assigned
159 (18.6%) exact matches, in which:
119 unique CDR3
5 unique J



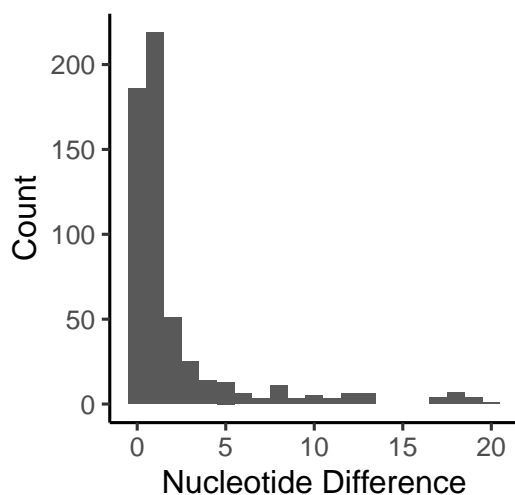
IGHV3-7*03

13669 sequences assigned
1558 (11.4%) exact matches, in which:
984 unique CDR3
6 unique J



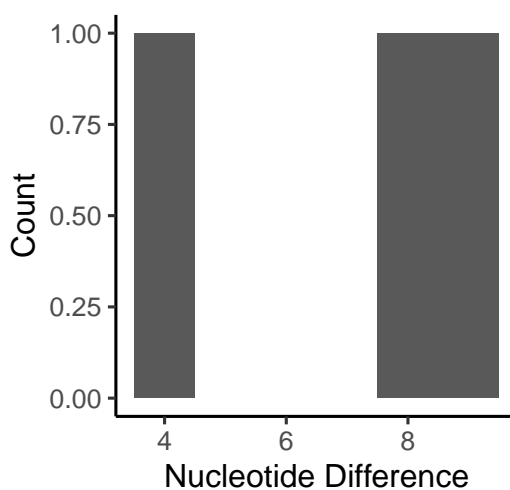
IGHV2-70*01

576 sequences assigned
186 (32.3%) exact matches, in which:
139 unique CDR3
5 unique J



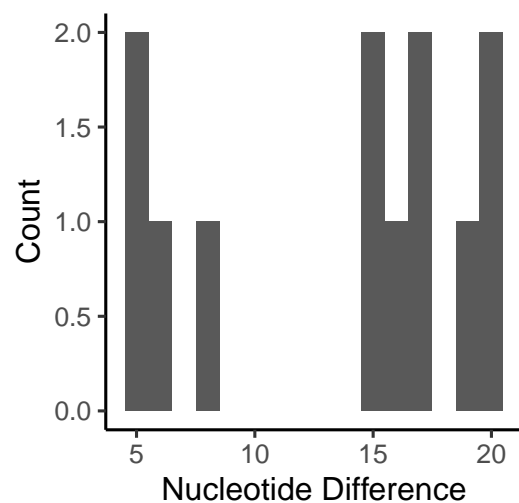
IGHV2-70D*04

5 sequences assigned
No exact matches.



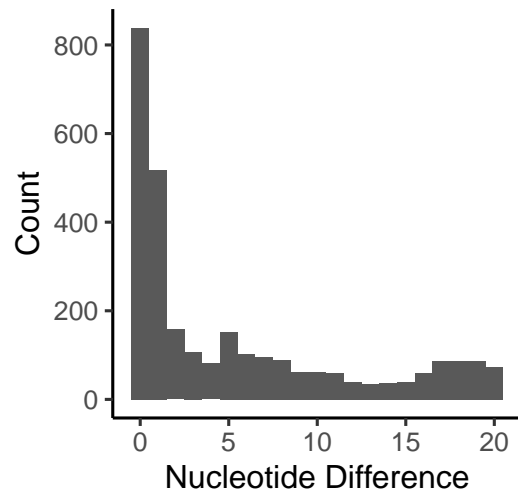
IGHV3-9*01

27 sequences assigned
No exact matches.



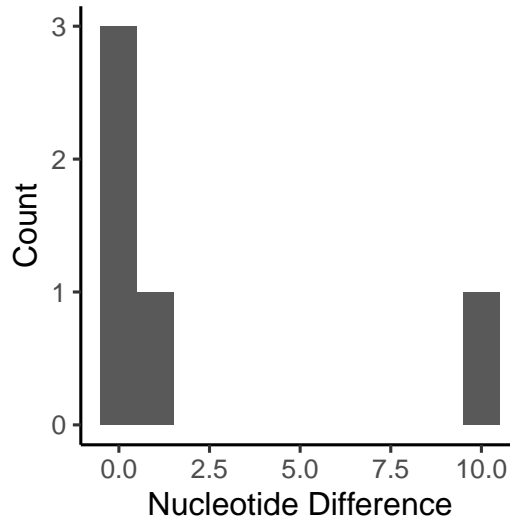
IGHV3-11*06

5576 sequences assigned
839 (15%) exact matches, in which:
576 unique CDR3
6 unique J



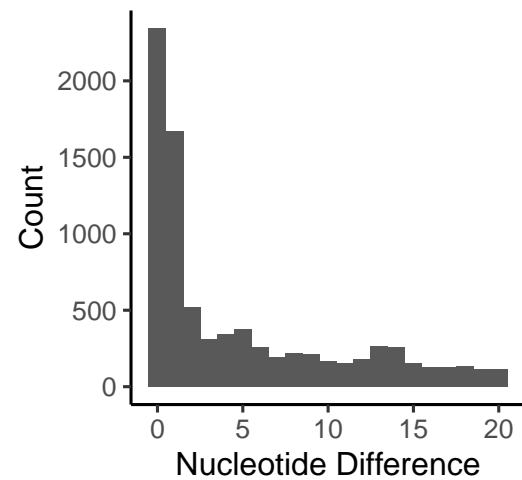
IGHV3-19*01

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



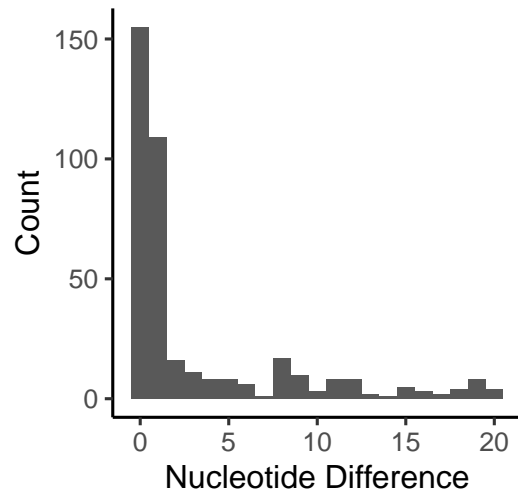
IGHV3-21*01_02

9281 sequences assigned
2343 (25.2%) exact matches, in which:
1483 unique CDR3
6 unique J



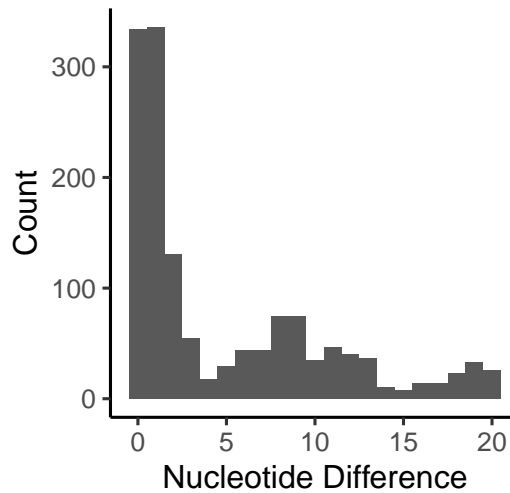
IGHV3-13*05

448 sequences assigned
155 (34.6%) exact matches, in which:
108 unique CDR3
6 unique J



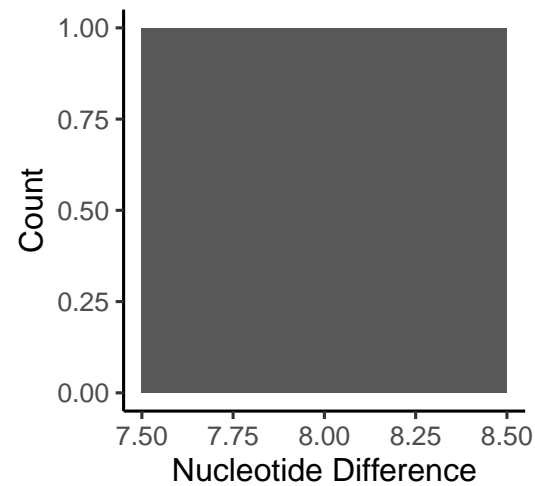
IGHV3-20*03_04

1824 sequences assigned
334 (18.3%) exact matches, in which:
206 unique CDR3
6 unique J



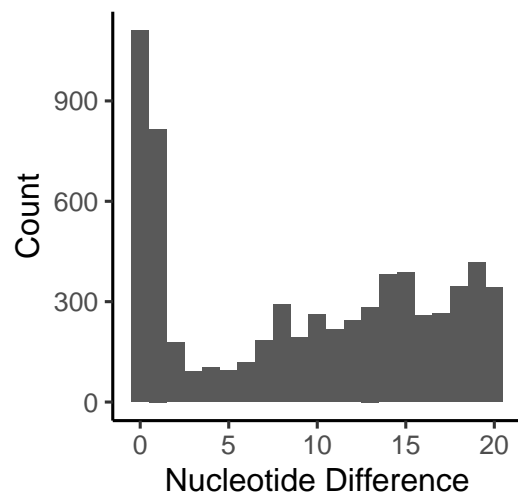
IGHV3-22*01_02

1 sequences assigned
No exact matches.



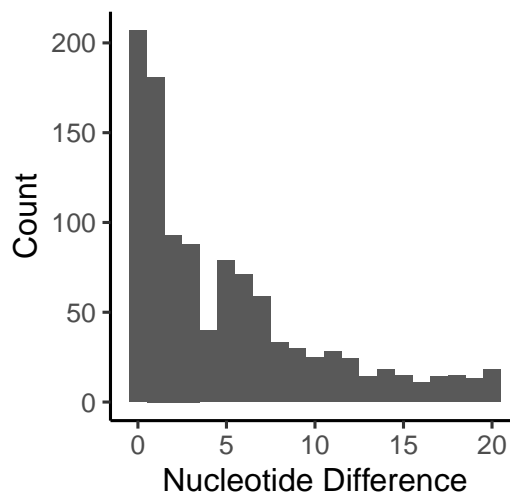
IGHV3-15*01_02

8537 sequences assigned
1111 (13%) exact matches, in which:
657 unique CDR3
6 unique J



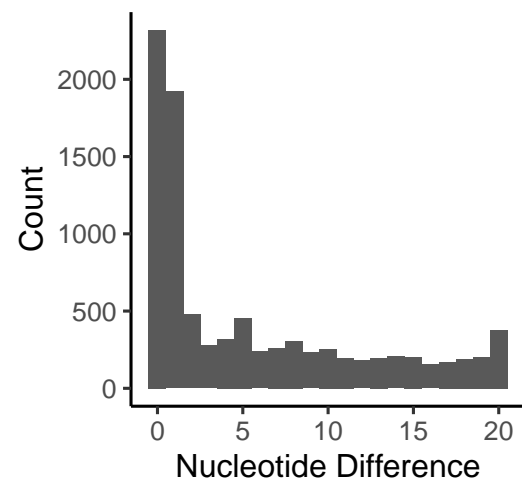
IGHV3-21*04

1889 sequences assigned
207 (11%) exact matches, in which:
179 unique CDR3
6 unique J



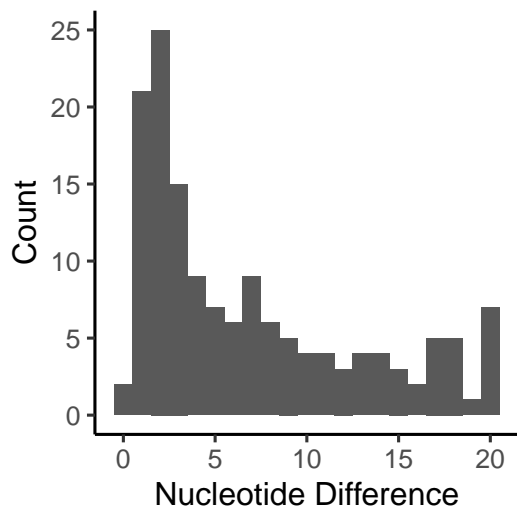
IGHV3-23*01_04

13189 sequences assigned
2319 (17.6%) exact matches, in which:
1338 unique CDR3
6 unique J



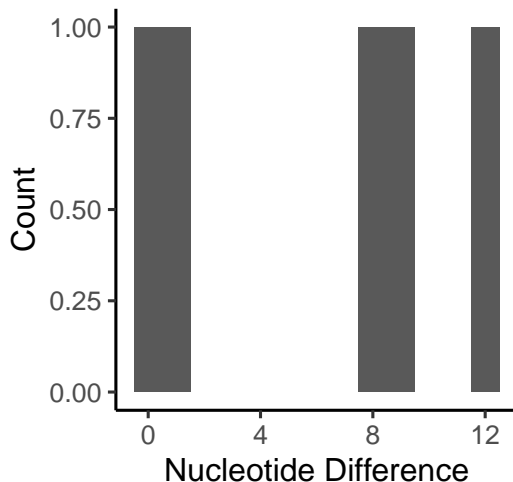
IGHV3-30-5*01

493 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
1 unique J



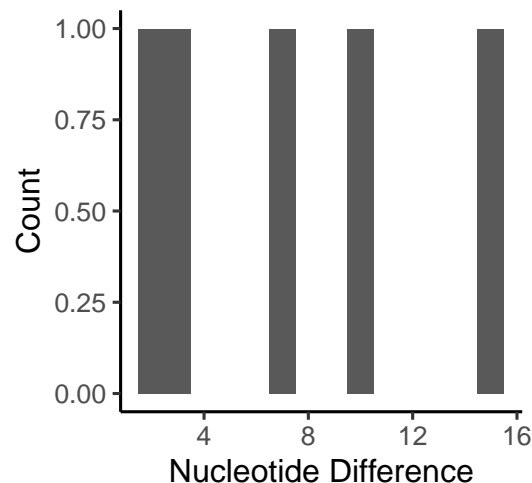
IGHV3-35*01

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



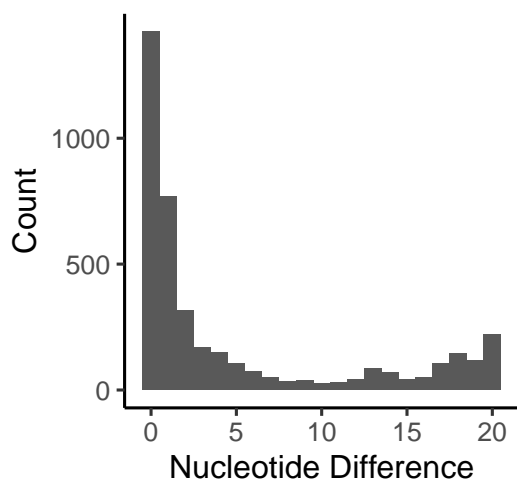
IGHV3-47*02

5 sequences assigned
No exact matches.



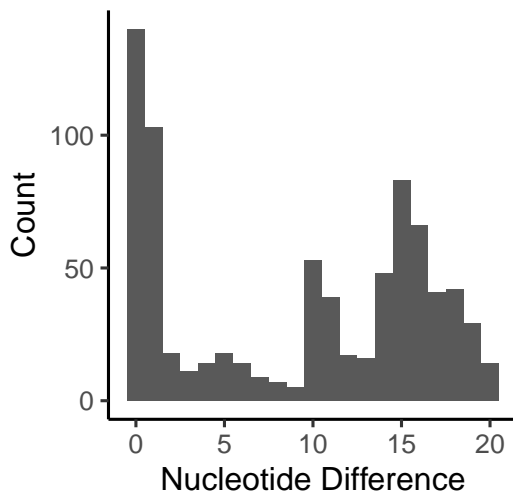
IGHV3-33*01

7712 sequences assigned
1423 (18.5%) exact matches, in which:
1010 unique CDR3
6 unique J



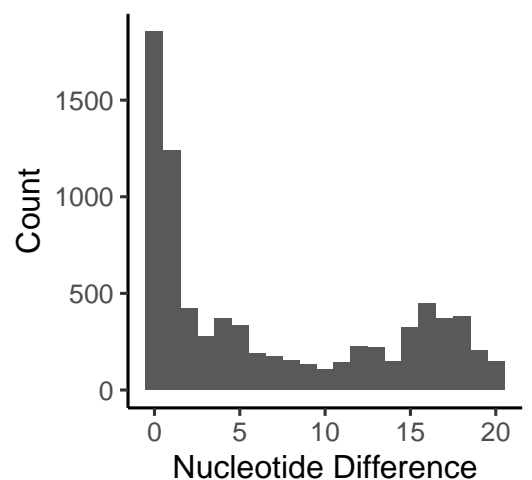
IGHV3-43*01

835 sequences assigned
140 (16.8%) exact matches, in which:
80 unique CDR3
5 unique J



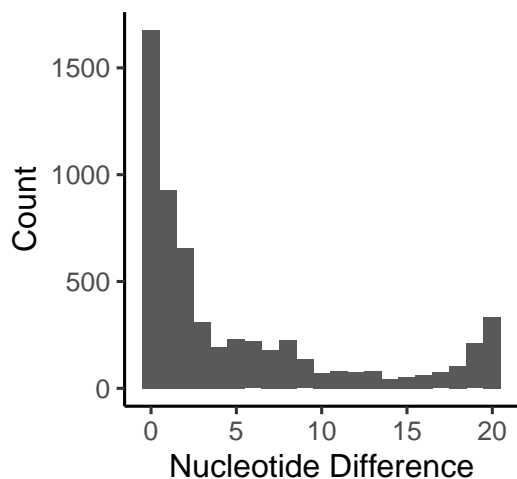
IGHV3-48*01

9402 sequences assigned
1854 (19.7%) exact matches, in which:
1201 unique CDR3
6 unique J



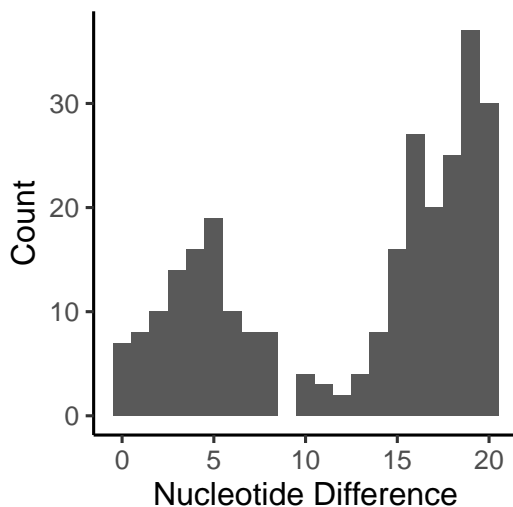
IGHV3-33*08

10893 sequences assigned
1677 (15.4%) exact matches, in which:
1132 unique CDR3
6 unique J



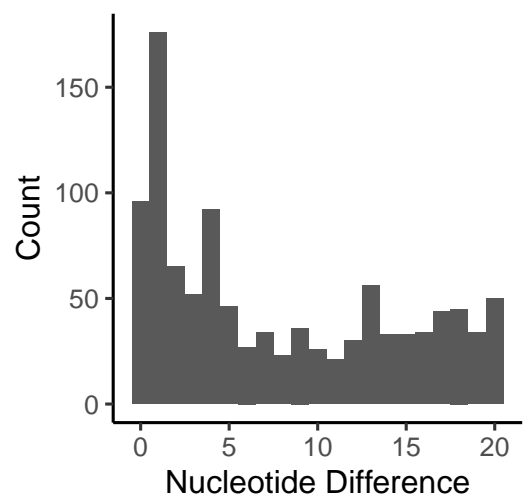
IGHV3-43*01_C246T_A24

403 sequences assigned
7 (1.7%) exact matches, in which:
7 unique CDR3
4 unique J



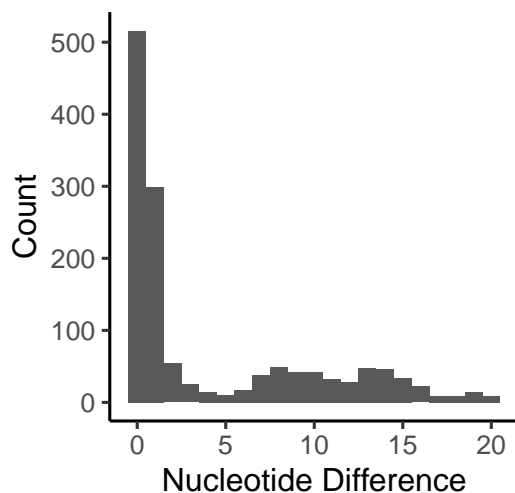
IGHV3-48*04

1522 sequences assigned
96 (6.3%) exact matches, in which:
89 unique CDR3
6 unique J



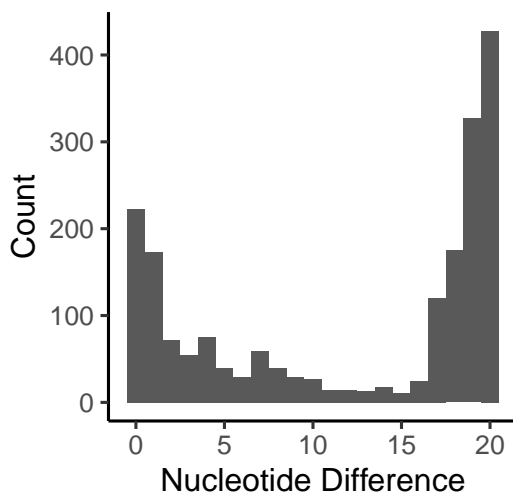
IGHV3-49*03_05

1479 sequences assigned
516 (34.9%) exact matches, in which:
309 unique CDR3
6 unique J



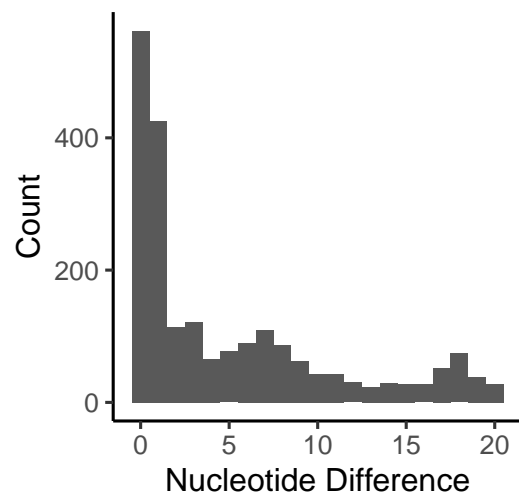
IGHV3-53*01_02

5454 sequences assigned
223 (4.1%) exact matches, in which:
151 unique CDR3
6 unique J



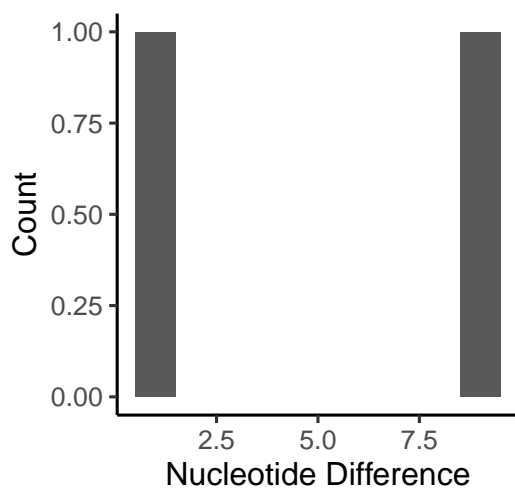
IGHV3-66*01

2387 sequences assigned
562 (23.5%) exact matches, in which:
405 unique CDR3
6 unique J



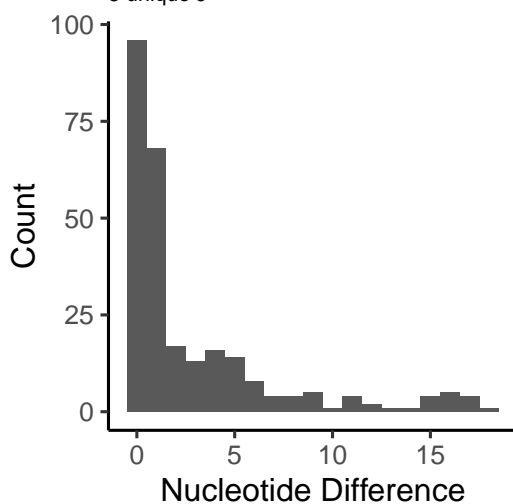
IGHV3-52*02

2 sequences assigned
No exact matches.



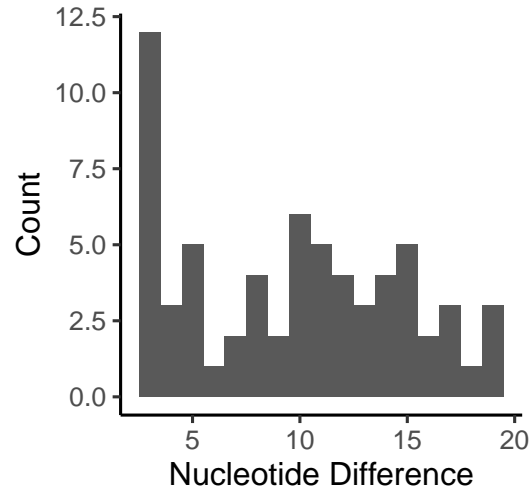
IGHV3-64*01

311 sequences assigned
96 (30.9%) exact matches, in which:
64 unique CDR3
5 unique J



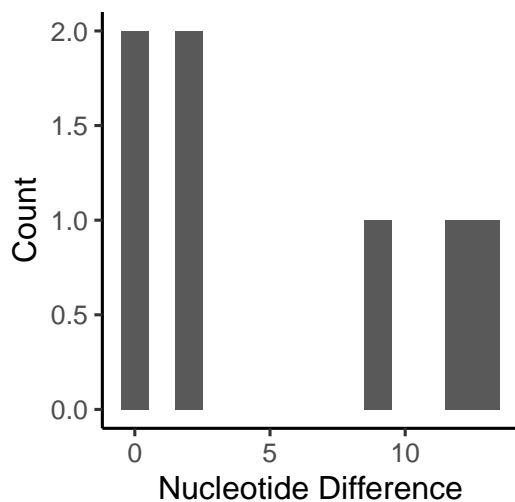
IGHV3-69-1*01

87 sequences assigned
No exact matches.



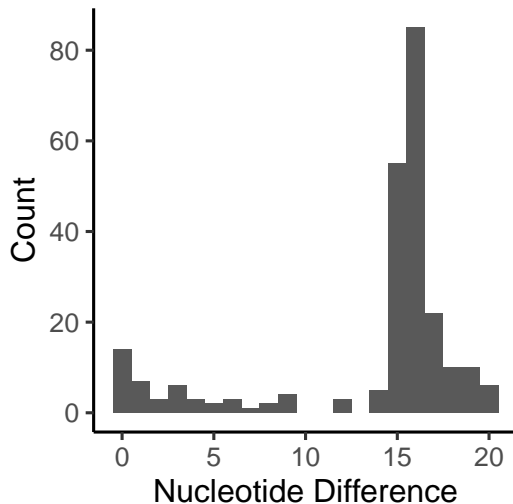
IGHV3-52*01_03

7 sequences assigned
2 (28.6%) exact matches, in which:
1 unique CDR3
1 unique J



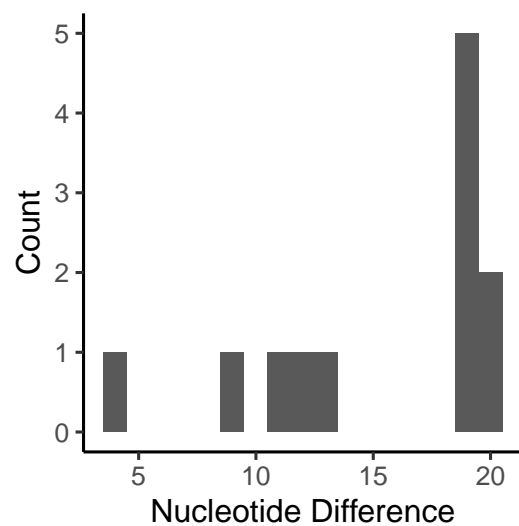
IGHV3-64*02_07

264 sequences assigned
14 (5.3%) exact matches, in which:
12 unique CDR3
5 unique J



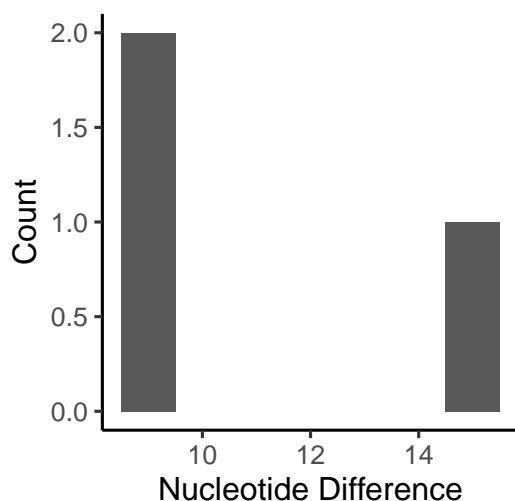
IGHV3-69-1*02

22 sequences assigned
No exact matches.



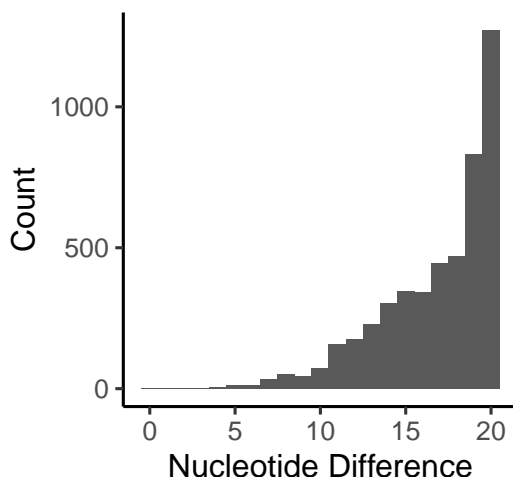
IGHV3-71*01_04

6 sequences assigned
No exact matches.



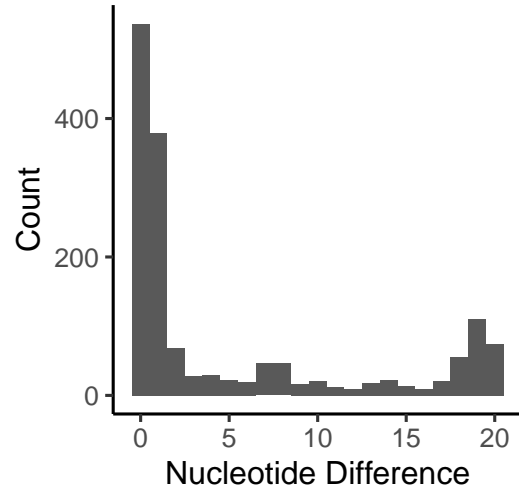
IGHV3-74*03

16964 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



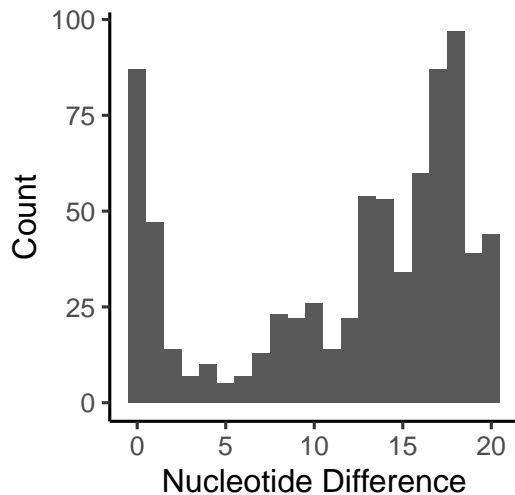
IGHV3-64D*06

2494 sequences assigned
537 (21.5%) exact matches, in which:
251 unique CDR3
6 unique J



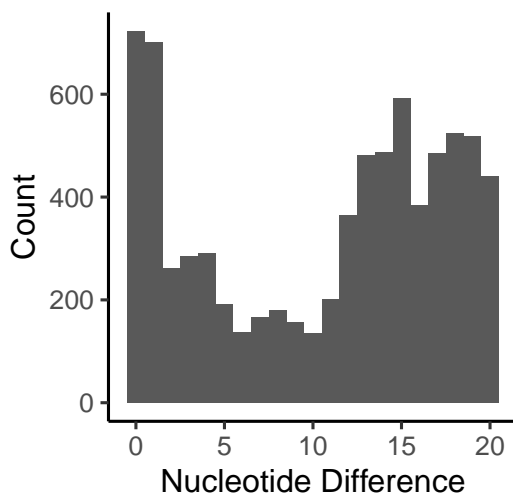
IGHV3-72*01

1505 sequences assigned
87 (5.8%) exact matches, in which:
50 unique CDR3
5 unique J



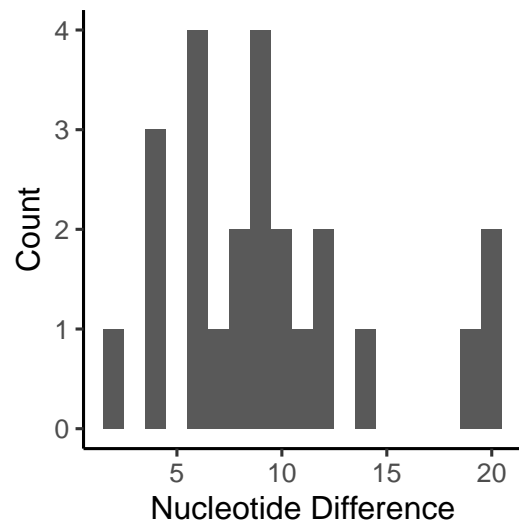
IGHV3-74*01_02

11745 sequences assigned
723 (6.2%) exact matches, in which:
485 unique CDR3
6 unique J



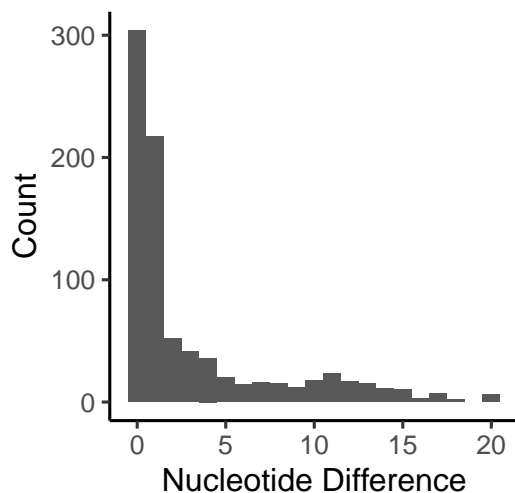
IGHV3-NL1*01

76 sequences assigned
No exact matches.



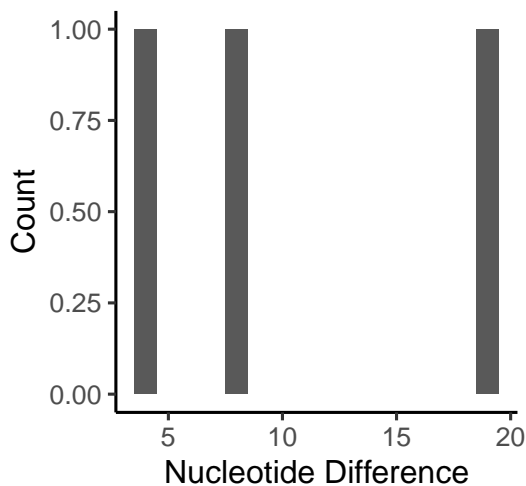
IGHV3-73*01_02

968 sequences assigned
304 (31.4%) exact matches, in which:
192 unique CDR3
5 unique J



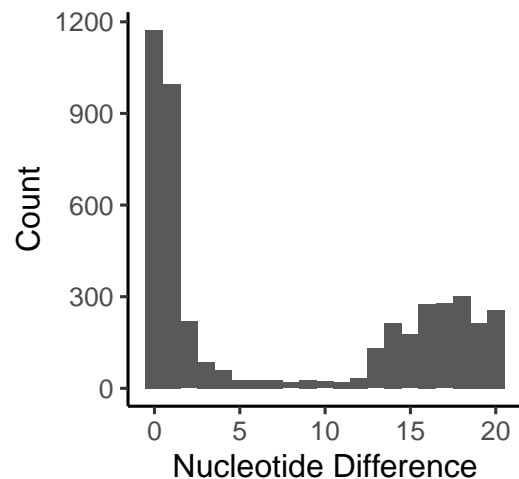
IGHV3-43D*04

4 sequences assigned
No exact matches.



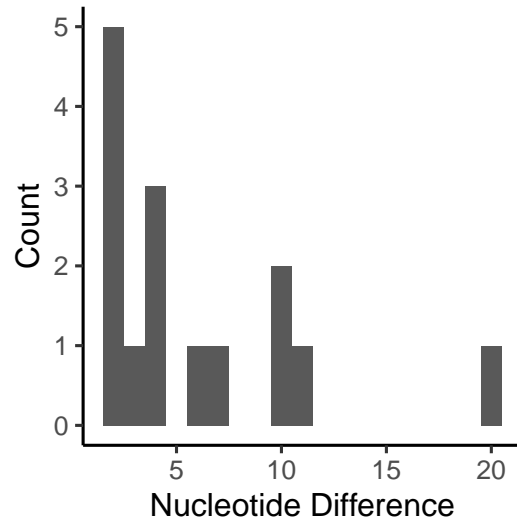
IGHV4-4*02_03

7041 sequences assigned
1173 (16.7%) exact matches, in which:
904 unique CDR3
6 unique J



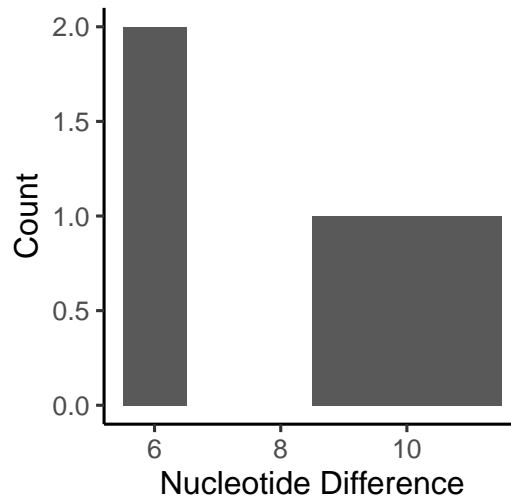
IGHV4-28*03

20 sequences assigned
No exact matches.



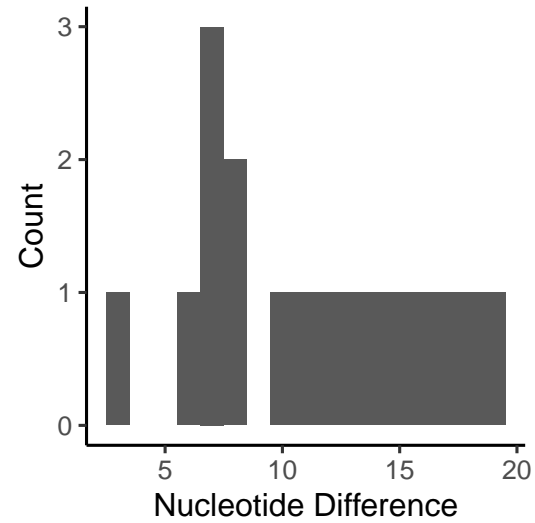
IGHV4-30-2*01

8 sequences assigned
No exact matches.



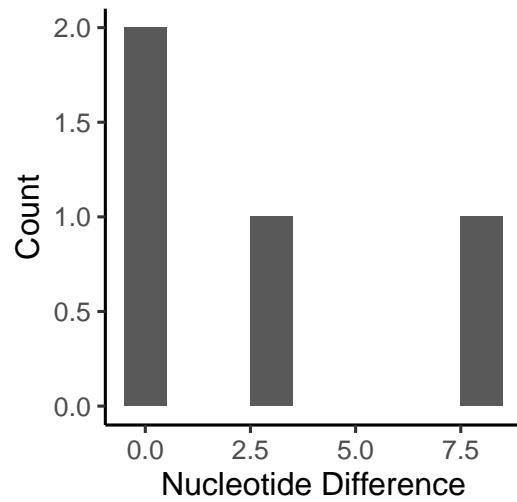
IGHV4-30-4*08

27 sequences assigned
No exact matches.



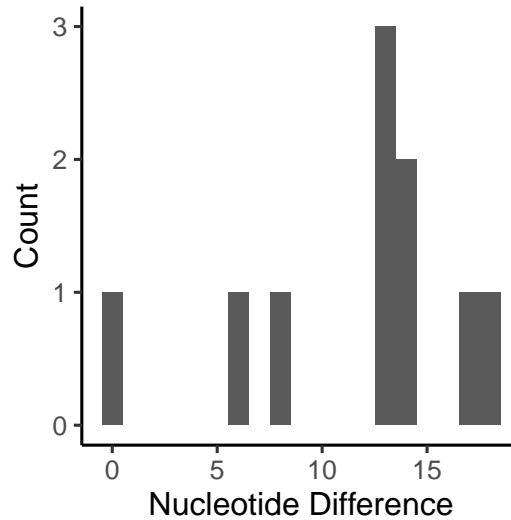
IGHV4-28*01_07

5 sequences assigned
2 (40%) exact matches, in which:
1 unique CDR3
1 unique J



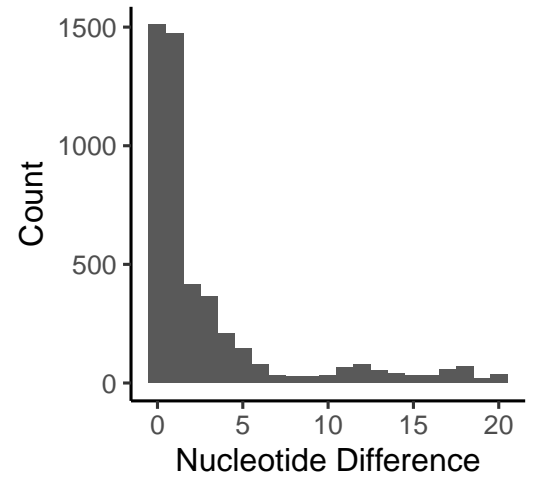
IGHV4-30-4*01

30 sequences assigned
1 (3.3%) exact matches, in which:
1 unique CDR3
1 unique J



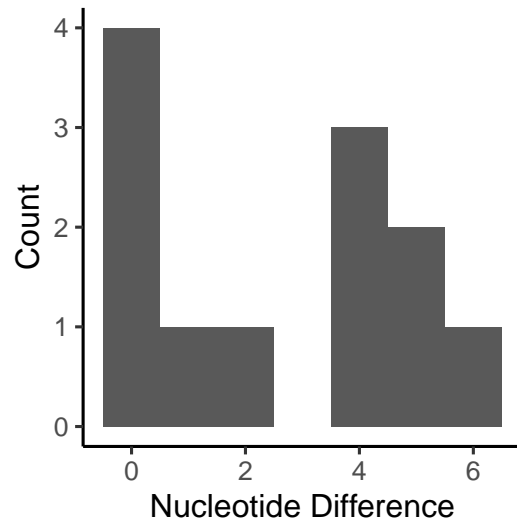
IGHV4-31*02

5621 sequences assigned
1510 (26.9%) exact matches, in which:
1207 unique CDR3
6 unique J



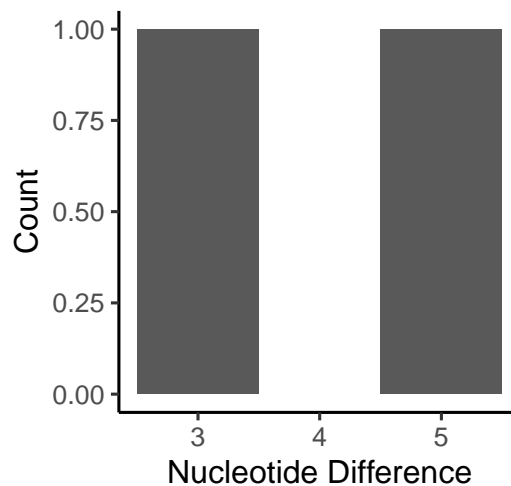
IGHV4-28*02_05

12 sequences assigned
4 (33.3%) exact matches, in which:
4 unique CDR3
3 unique J



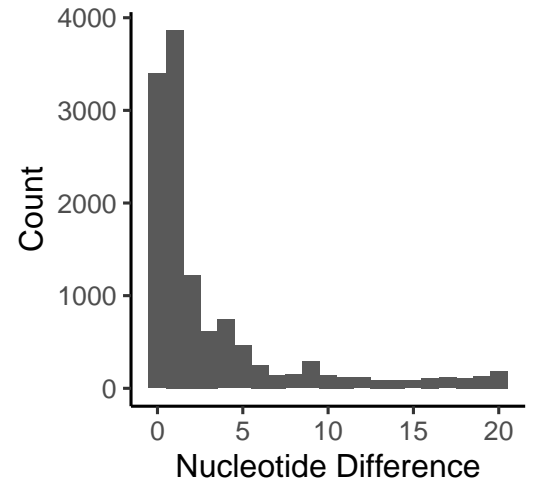
IGHV4-30-2*04

2 sequences assigned
No exact matches.



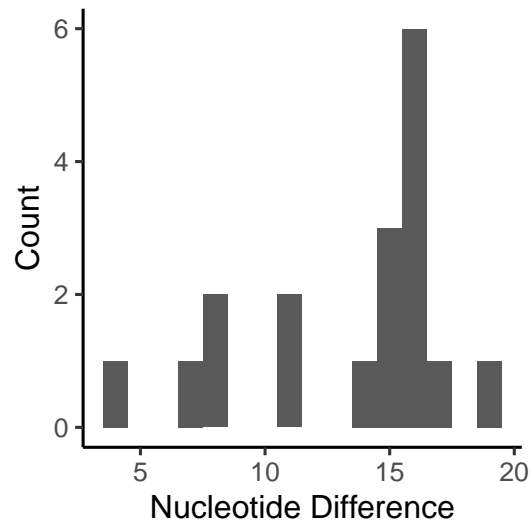
IGHV4-34*01_02

13596 sequences assigned
3400 (25%) exact matches, in which:
2419 unique CDR3
6 unique J



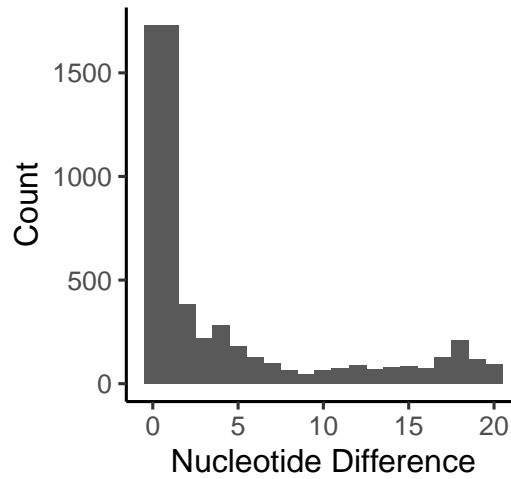
IGHV4-38-2*02

100 sequences assigned
No exact matches.



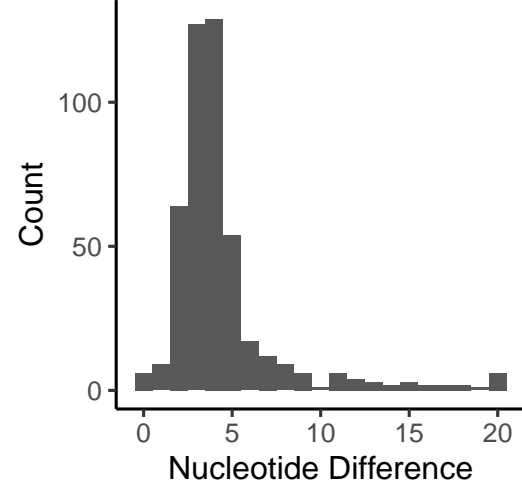
IGHV4-59*01_07

8205 sequences assigned
1728 (21.1%) exact matches, in which:
1362 unique CDR3
6 unique J



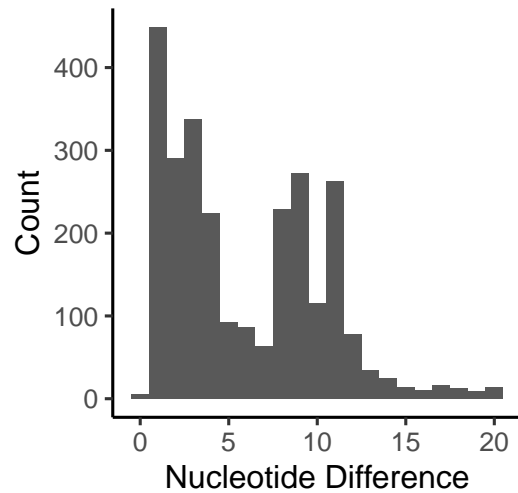
IGHV4-61*05

497 sequences assigned
6 (1.2%) exact matches, in which:
6 unique CDR3
4 unique J



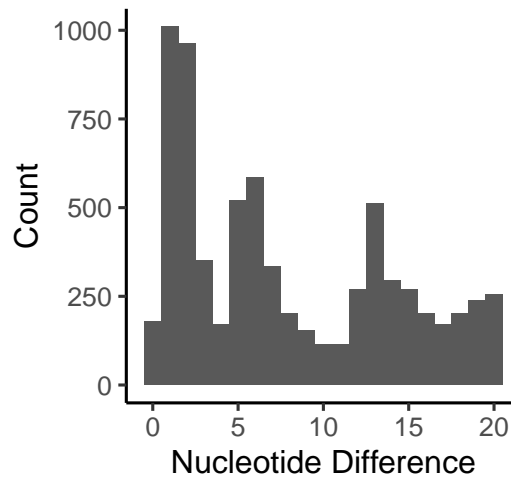
IGHV4-39*07

2834 sequences assigned
5 (0.2%) exact matches, in which:
5 unique CDR3
3 unique J



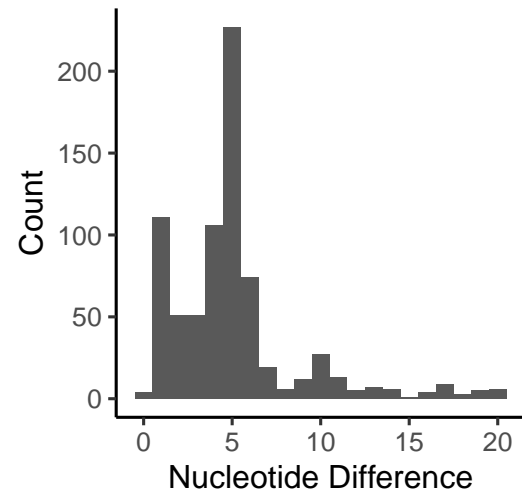
IGHV4-59*12

14519 sequences assigned
179 (1.2%) exact matches, in which:
171 unique CDR3
6 unique J



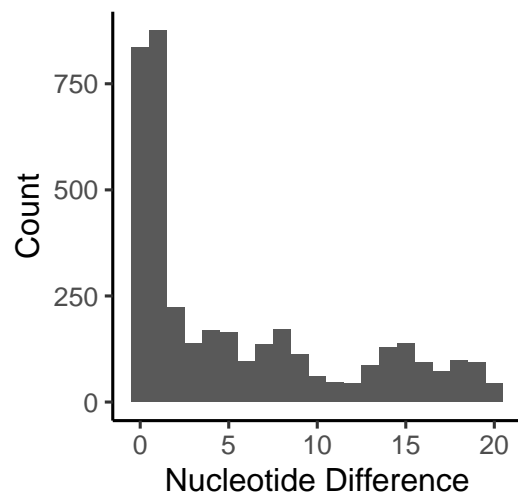
IGHV4-61*08

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



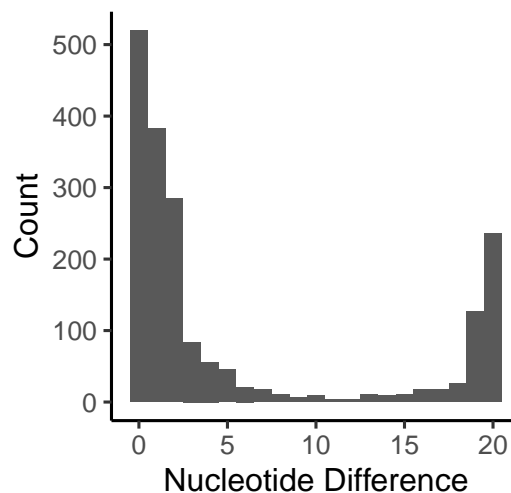
IGHV4-59*08

5442 sequences assigned
836 (15.4%) exact matches, in which:
655 unique CDR3
6 unique J



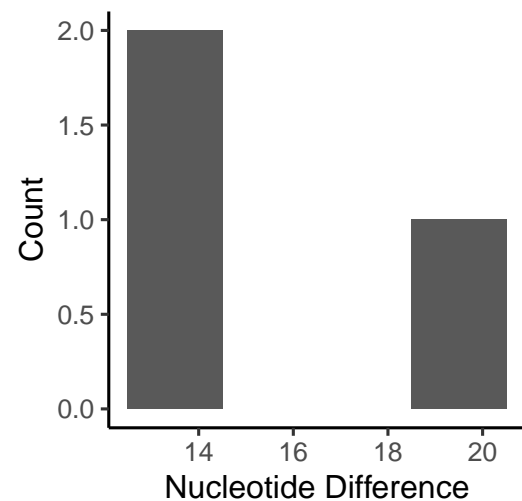
IGHV4-61*01

2157 sequences assigned
520 (24.1%) exact matches, in which:
454 unique CDR3
6 unique J



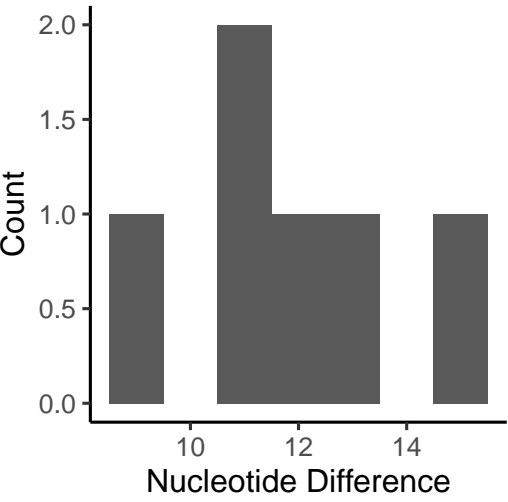
IGHV1/OR15-2*02_03

15 sequences assigned
No exact matches.



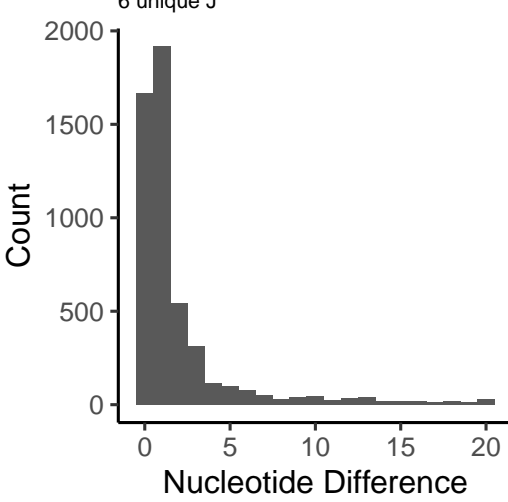
IGHV1/OR15-3*02

6 sequences assigned
No exact matches.



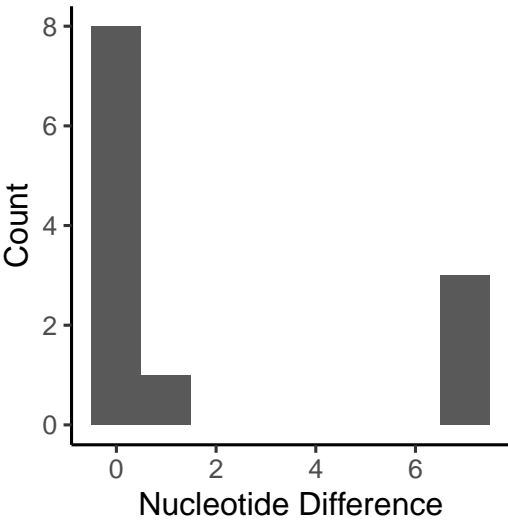
IGHV5-10-1*01_03

5962 sequences assigned
1666 (27.9%) exact matches, in which:
959 unique CDR3
6 unique J



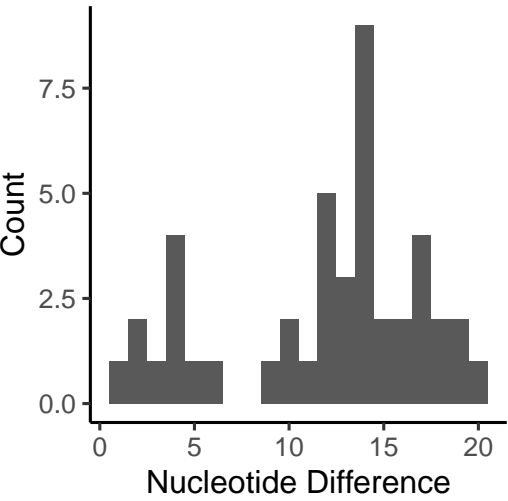
IGHV5-51*07

13 sequences assigned
8 (61.5%) exact matches, in which:
8 unique CDR3
4 unique J



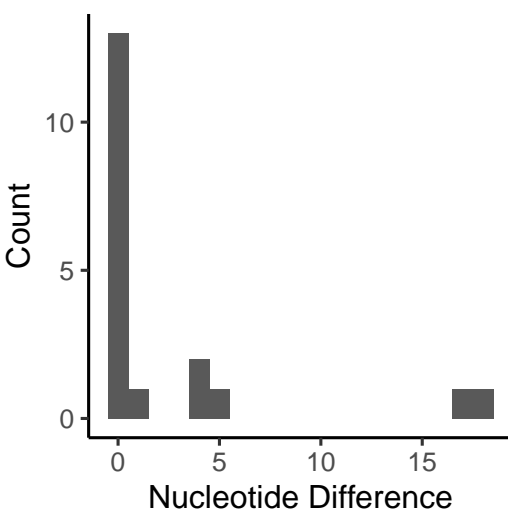
IGHV4/OR15-8*01

62 sequences assigned
No exact matches.



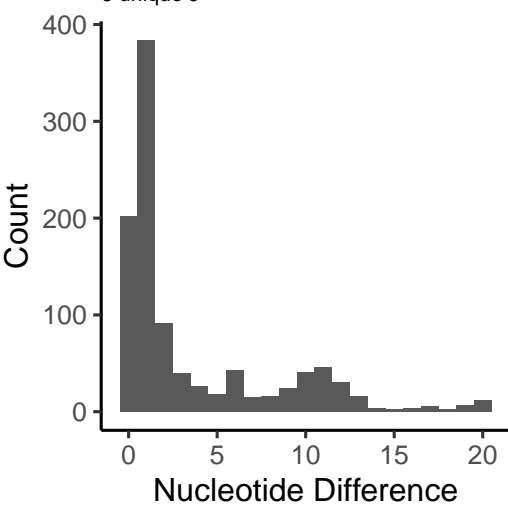
IGHV5-51*04

19 sequences assigned
13 (68.4%) exact matches, in which:
13 unique CDR3
6 unique J



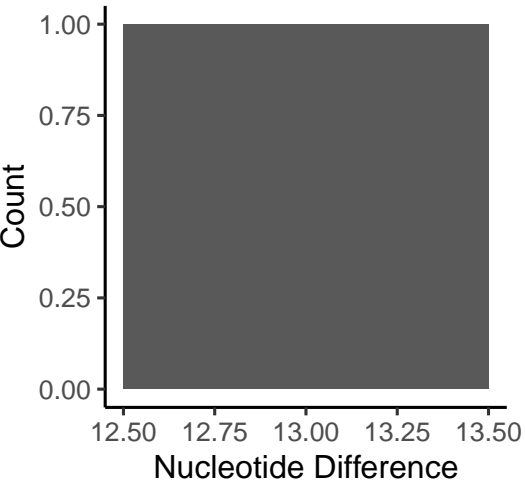
IGHV6-1*01_02

1271 sequences assigned
202 (15.9%) exact matches, in which:
152 unique CDR3
6 unique J



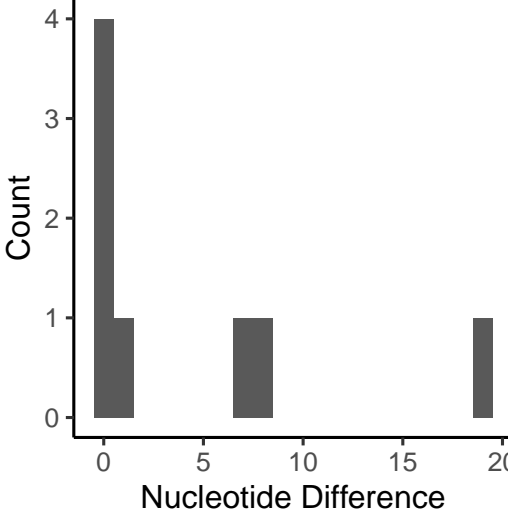
IGHV4/OR15-8*02

230 sequences assigned
No exact matches.



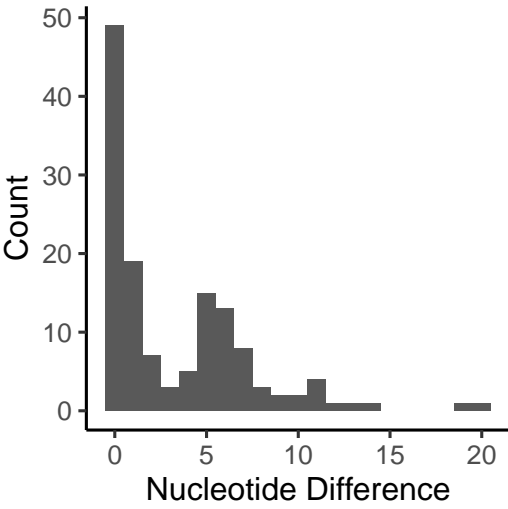
IGHV5-51*06

36 sequences assigned
4 (11.1%) exact matches, in which:
4 unique CDR3
3 unique J



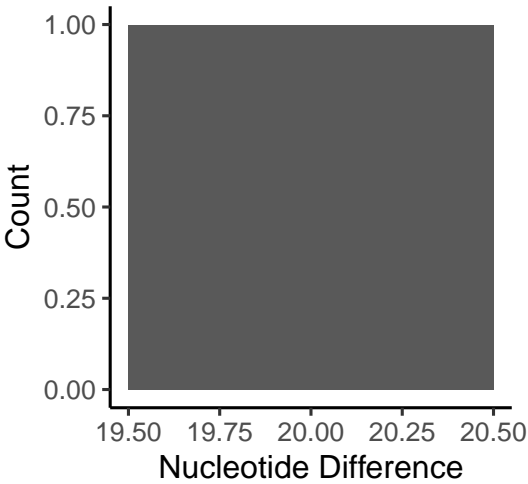
IGHV6-1*01_02_A315G

322 sequences assigned
49 (15.2%) exact matches, in which:
49 unique CDR3
4 unique J



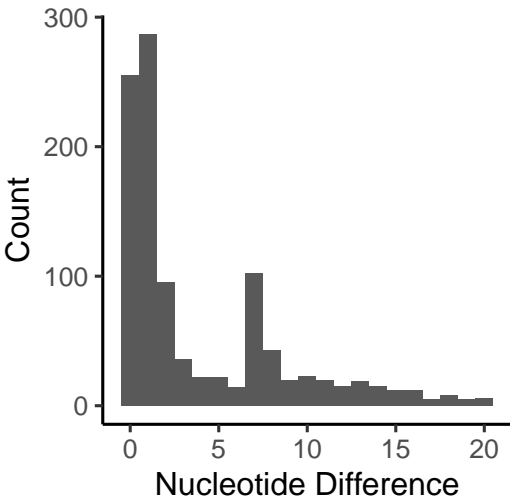
IGHV3/OR16-9*01

3 sequences assigned
No exact matches.



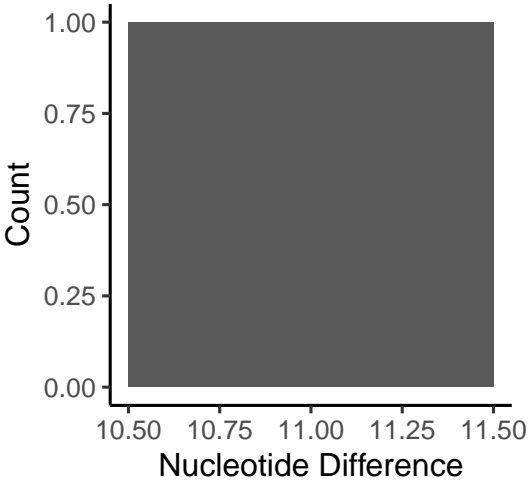
IGHV7-4-1*02

1090 sequences assigned
255 (23.4%) exact matches, in which:
196 unique CDR3
5 unique J



IGHV7-81*01

2 sequences assigned
No exact matches.





Warning – no inferred sequences found.