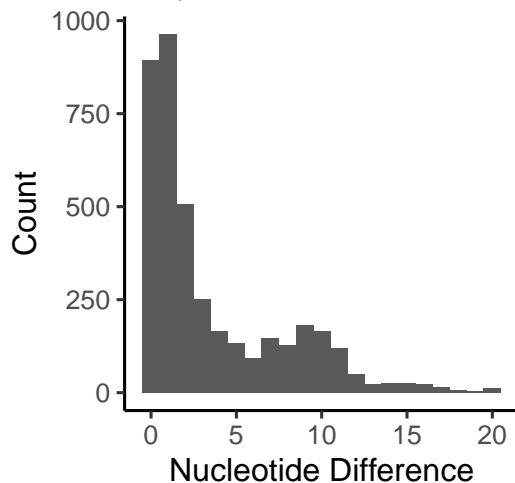


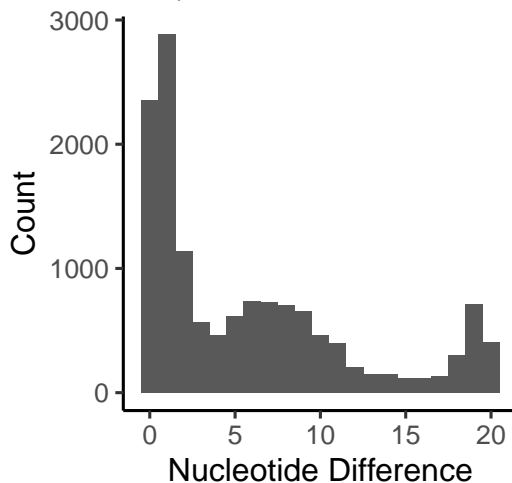
IGHV1-2*04

4017 sequences assigned
895 (22.3%) exact matches, in which:
731 unique CDR3
6 unique J



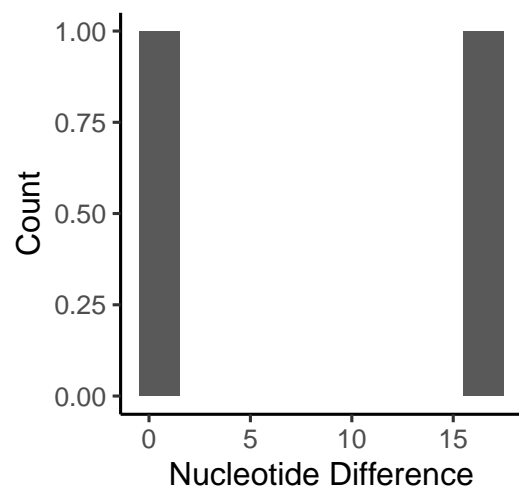
IGHV1-8*01

14808 sequences assigned
2354 (15.9%) exact matches, in which:
1889 unique CDR3
6 unique J



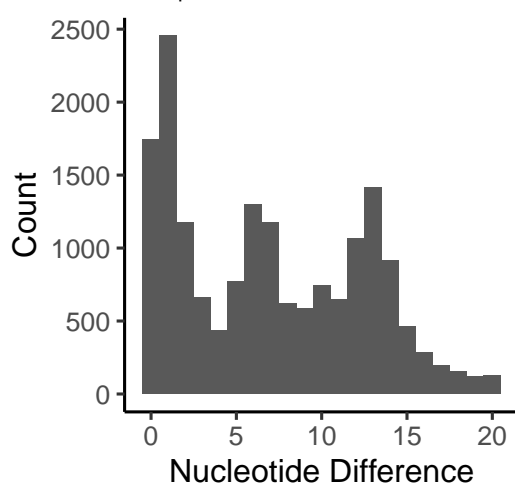
IGHV1-45*02

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



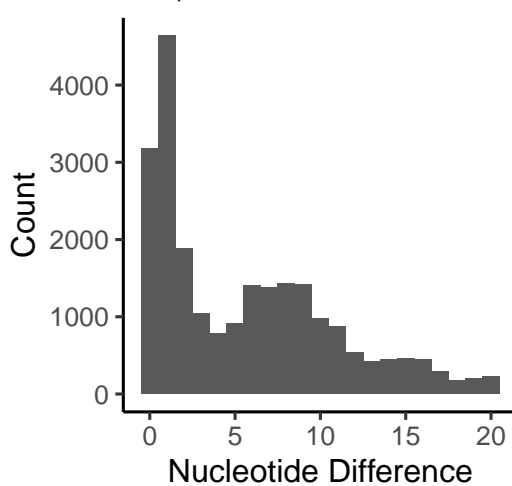
IGHV1-2*06

17624 sequences assigned
1746 (9.9%) exact matches, in which:
1390 unique CDR3
6 unique J



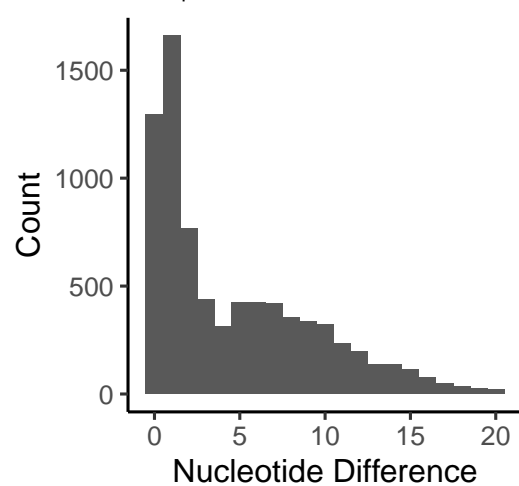
IGHV1-18*01

27068 sequences assigned
3185 (11.8%) exact matches, in which:
2444 unique CDR3
6 unique J



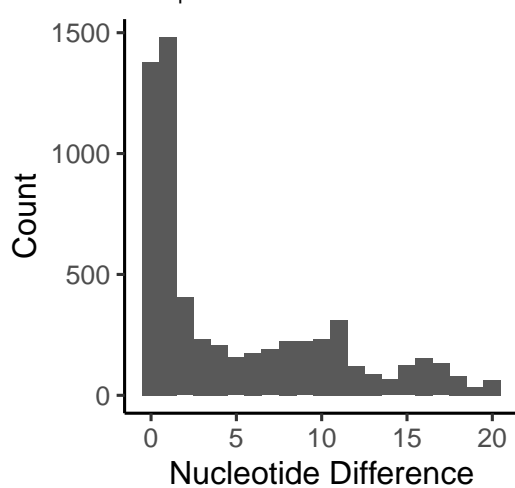
IGHV1-46*01

8334 sequences assigned
1293 (15.5%) exact matches, in which:
1086 unique CDR3
6 unique J



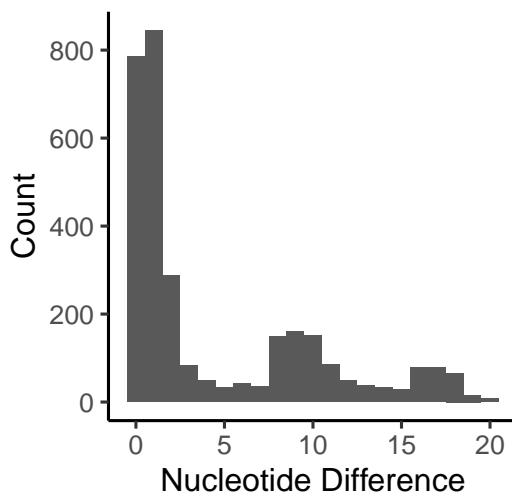
IGHV1-3*01_05

6364 sequences assigned
1379 (21.7%) exact matches, in which:
1076 unique CDR3
6 unique J



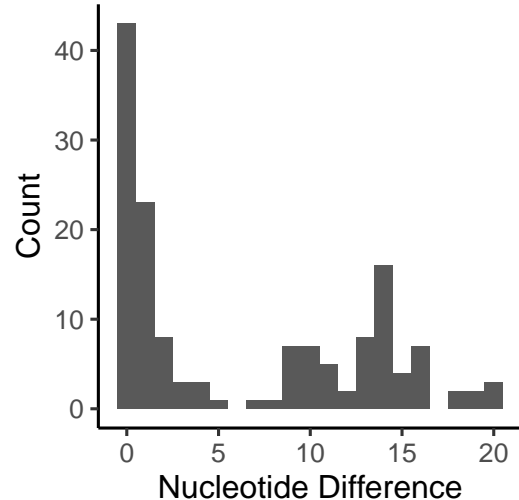
IGHV1-24*01

4475 sequences assigned
785 (17.5%) exact matches, in which:
638 unique CDR3
6 unique J



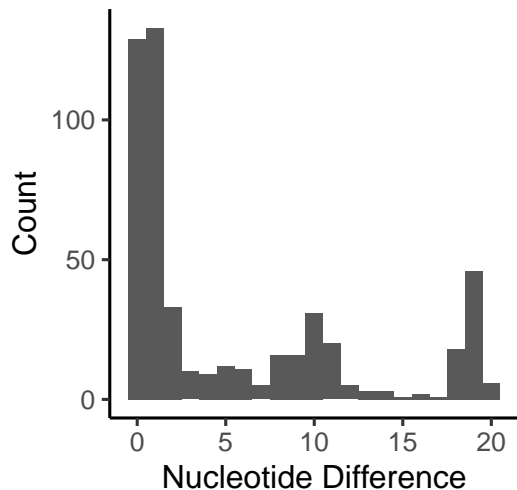
IGHV1-58*02

149 sequences assigned
43 (28.9%) exact matches, in which:
42 unique CDR3
4 unique J



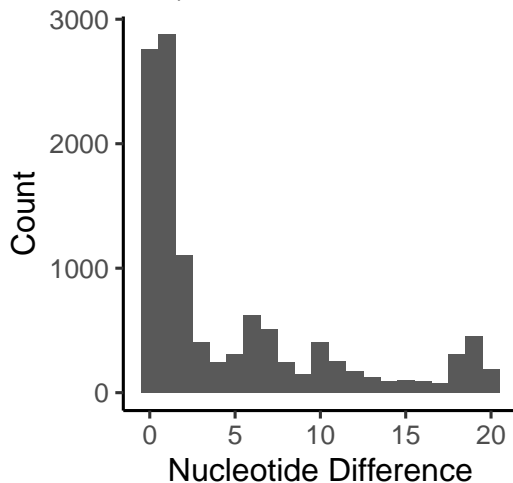
IGHV1–58*01_03

534 sequences assigned
129 (24.2%) exact matches, in which:
105 unique CDR3
5 unique J



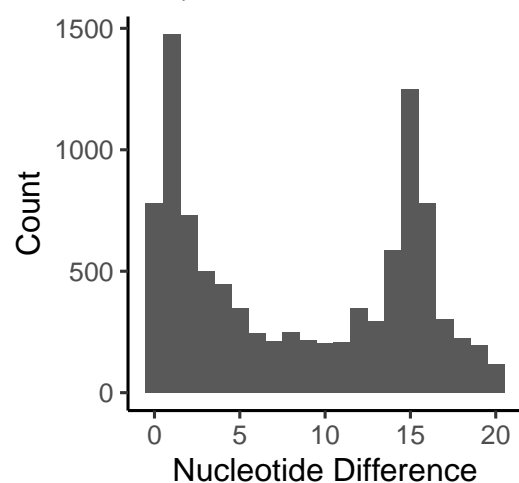
IGHV1–69*01_12_13

12117 sequences assigned
2756 (22.7%) exact matches, in which:
2263 unique CDR3
6 unique J



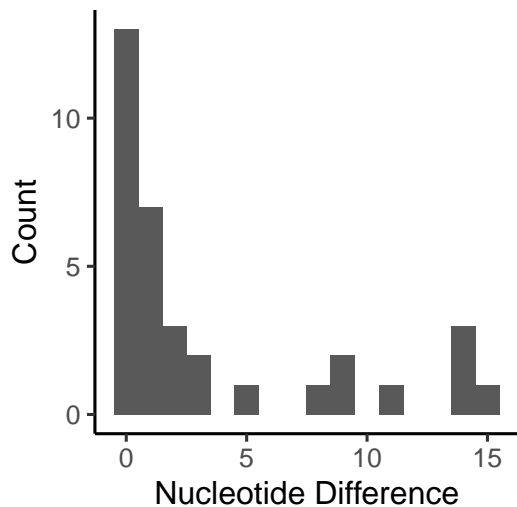
IGHV2–5*02

10547 sequences assigned
781 (7.4%) exact matches, in which:
579 unique CDR3
6 unique J



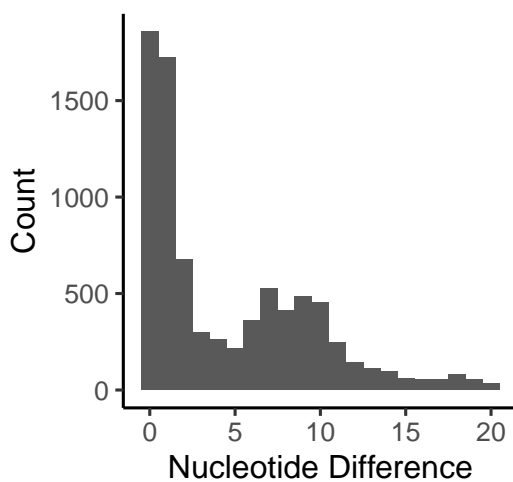
IGHV1–68*02_03

34 sequences assigned
13 (38.2%) exact matches, in which:
10 unique CDR3
3 unique J



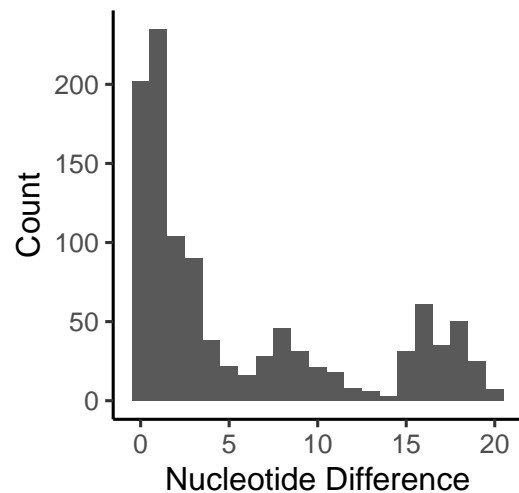
IGHV1–69*06_14

8607 sequences assigned
1857 (21.6%) exact matches, in which:
1583 unique CDR3
6 unique J



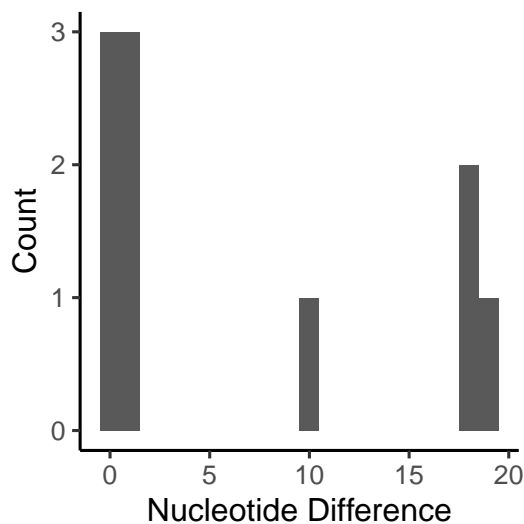
IGHV2–26*01

1127 sequences assigned
202 (17.9%) exact matches, in which:
162 unique CDR3
5 unique J



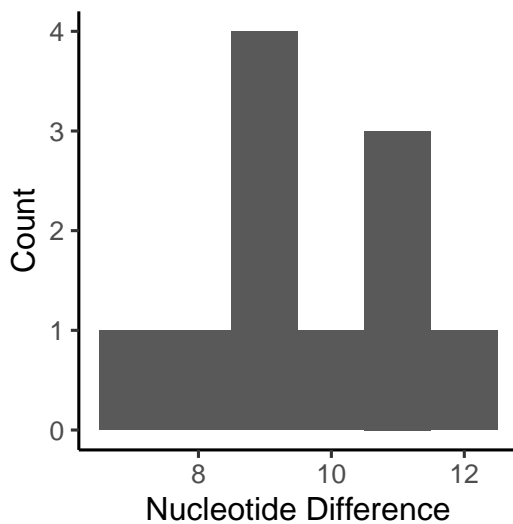
IGHV1–69–2*01

28 sequences assigned
3 (10.7%) exact matches, in which:
3 unique CDR3
2 unique J



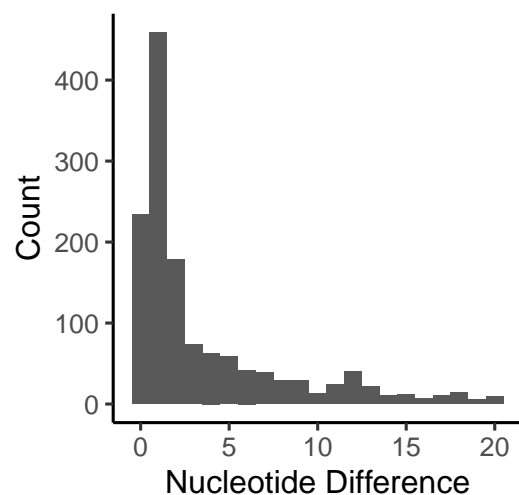
IGHV1–NL1*01

11 sequences assigned
No exact matches.



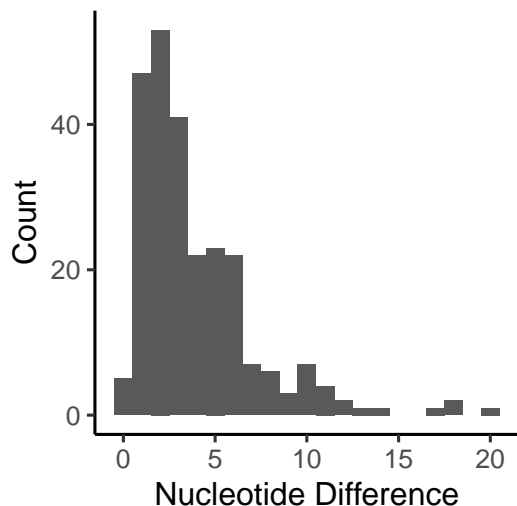
IGHV2–70*01

1475 sequences assigned
234 (15.9%) exact matches, in which:
165 unique CDR3
5 unique J



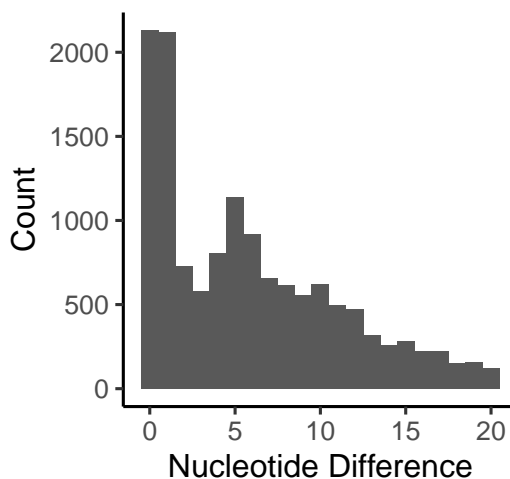
IGHV2-70*12

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



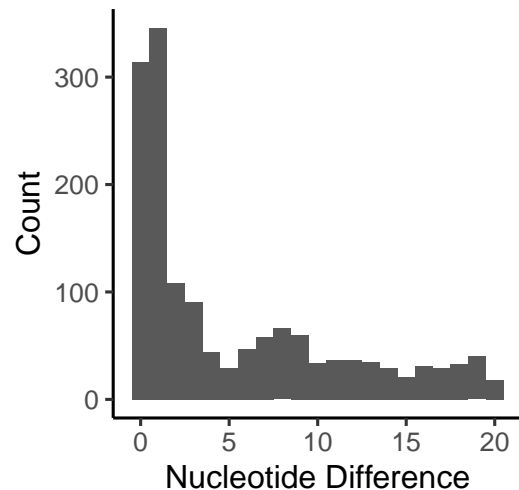
IGHV3-9*01

15608 sequences assigned
2130 (13.6%) exact matches, in which:
1198 unique CDR3
6 unique J



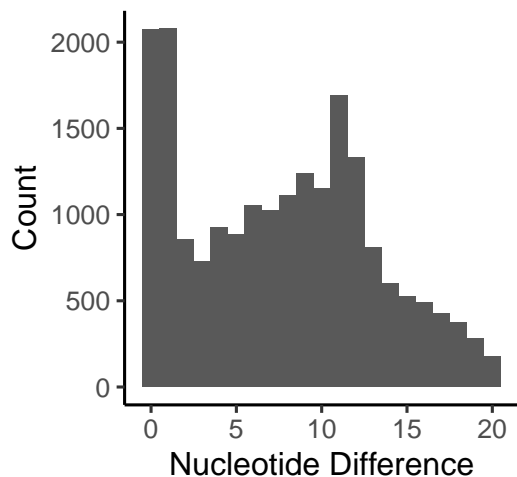
IGHV3-13*01

1609 sequences assigned
314 (19.5%) exact matches, in which:
210 unique CDR3
6 unique J



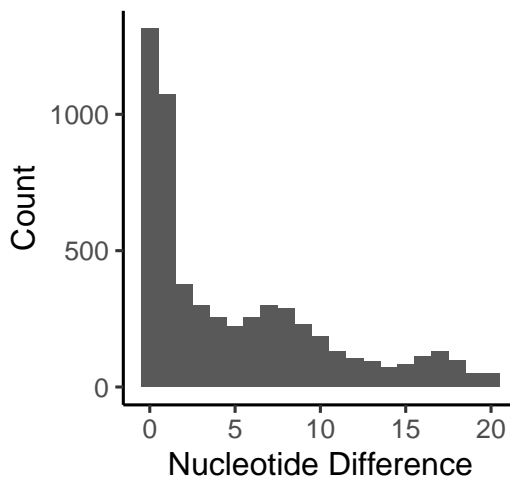
IGHV3-7*01

21731 sequences assigned
2073 (9.5%) exact matches, in which:
1357 unique CDR3
6 unique J



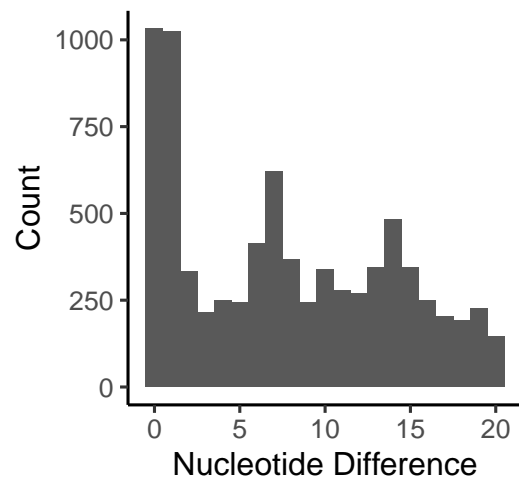
IGHV3-11*01

8892 sequences assigned
1314 (14.8%) exact matches, in which:
864 unique CDR3
6 unique J



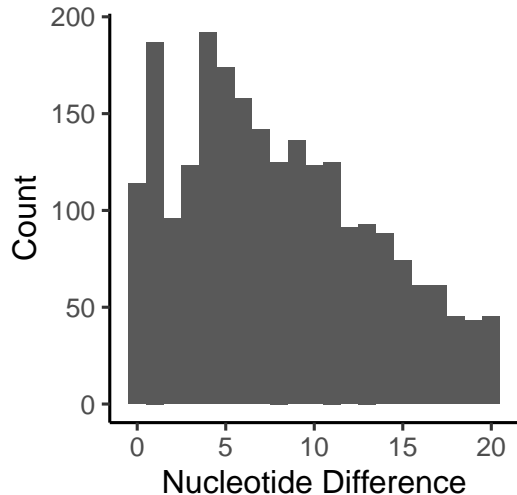
IGHV3-15*01_02

8423 sequences assigned
1032 (12.3%) exact matches, in which:
590 unique CDR3
6 unique J



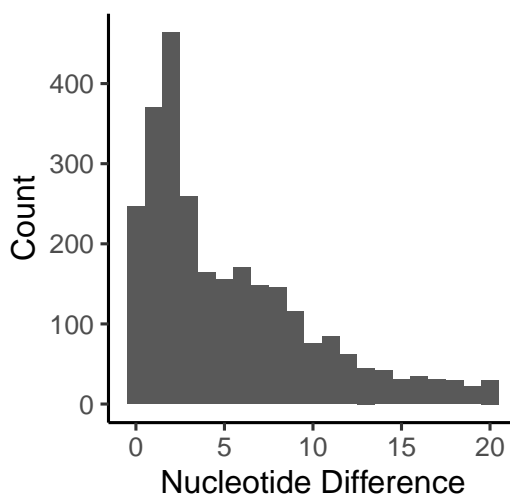
IGHV3-7*03

2667 sequences assigned
114 (4.3%) exact matches, in which:
107 unique CDR3
5 unique J



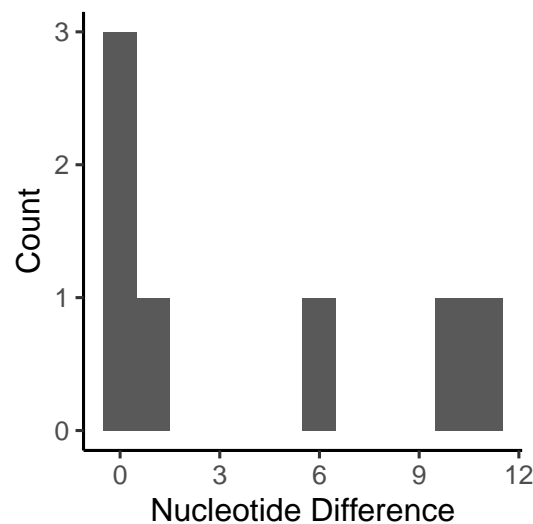
IGHV3-11*04

2978 sequences assigned
247 (8.3%) exact matches, in which:
226 unique CDR3
6 unique J



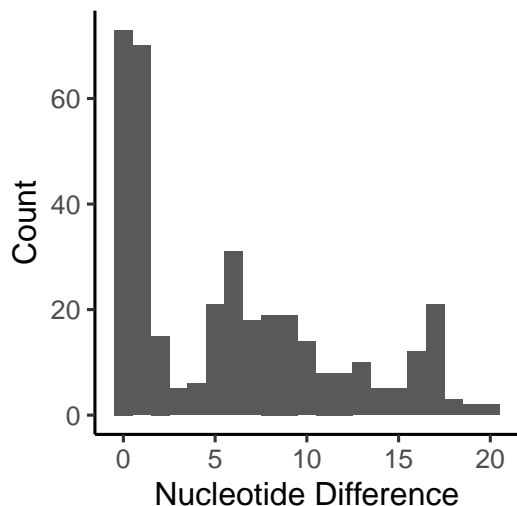
IGHV3-19*01

7 sequences assigned
3 (42.9%) exact matches, in which:
2 unique CDR3
1 unique J



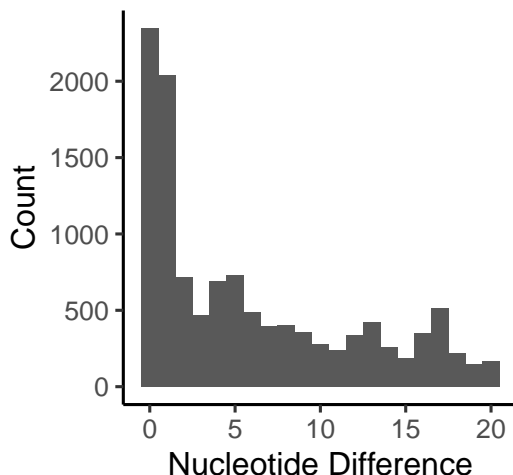
IGHV3-20*01_02

517 sequences assigned
73 (14.1%) exact matches, in which:
38 unique CDR3
5 unique J



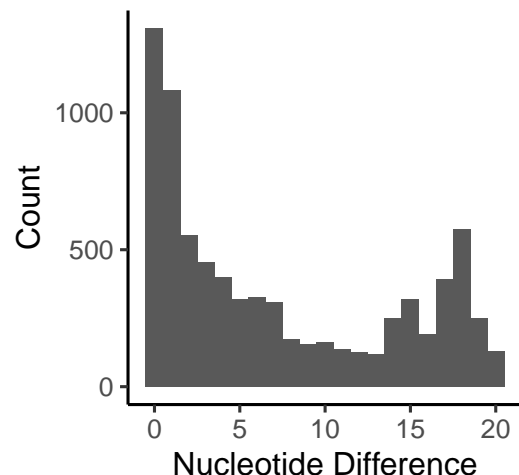
IGHV3-21*01_02

15879 sequences assigned
2346 (14.8%) exact matches, in which:
1474 unique CDR3
6 unique J



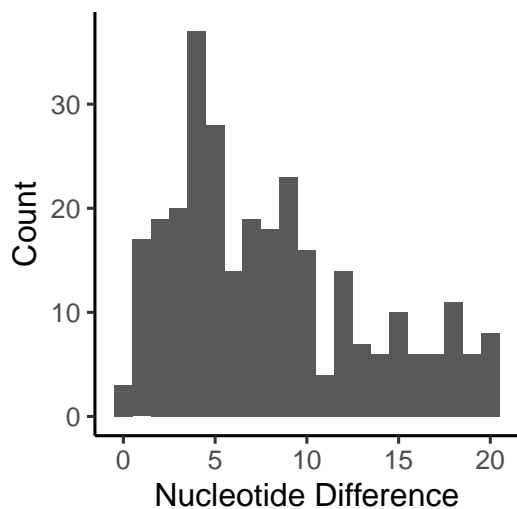
IGHV3-30*01

8422 sequences assigned
1308 (15.5%) exact matches, in which:
896 unique CDR3
6 unique J



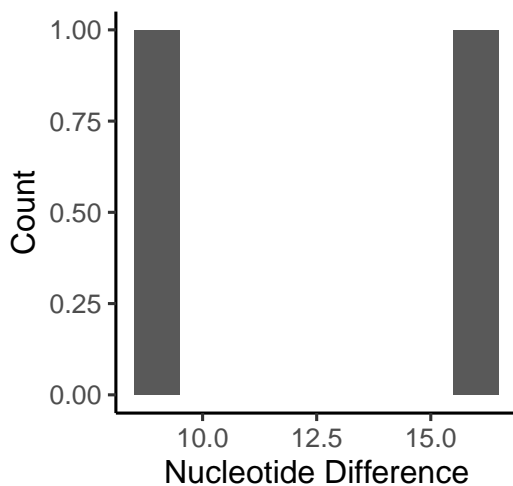
IGHV3-20*03_04

640 sequences assigned
3 (0.5%) exact matches, in which:
3 unique CDR3
3 unique J



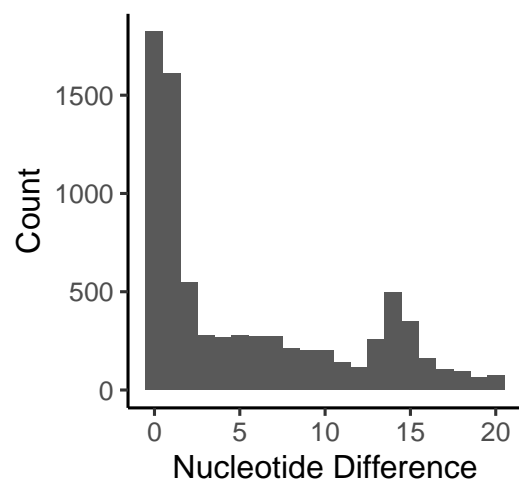
IGHV3-22*01_02

2 sequences assigned
No exact matches.



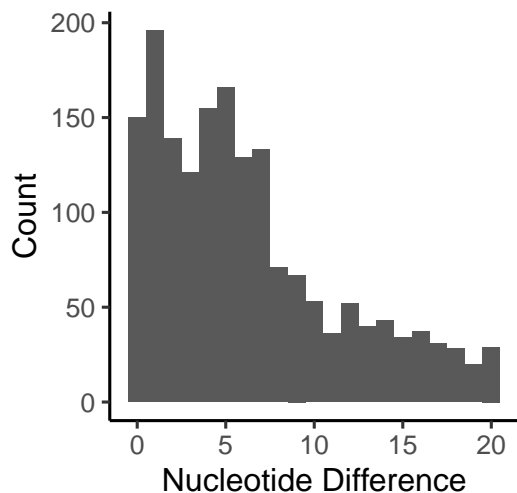
IGHV3-30-3*01

8858 sequences assigned
1823 (20.6%) exact matches, in which:
1189 unique CDR3
6 unique J



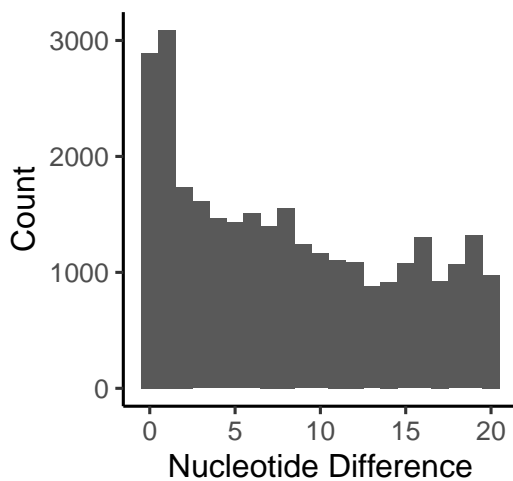
IGHV3-21*04

2016 sequences assigned
150 (7.4%) exact matches, in which:
144 unique CDR3
5 unique J



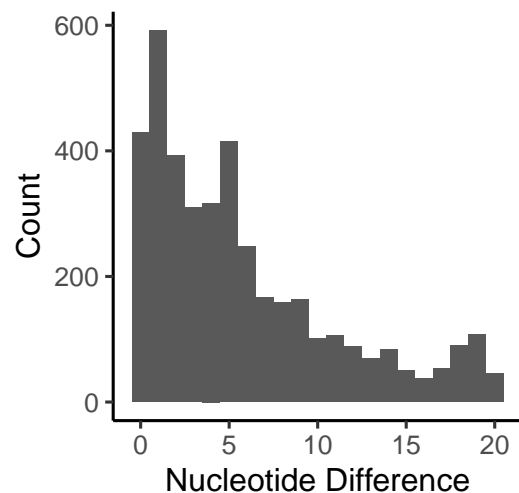
IGHV3-23*01_04

42888 sequences assigned
2891 (6.7%) exact matches, in which:
1654 unique CDR3
6 unique J



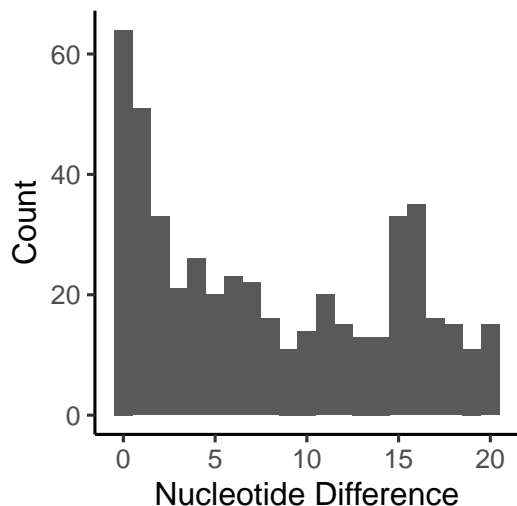
IGHV3-30*03

4395 sequences assigned
429 (9.8%) exact matches, in which:
378 unique CDR3
6 unique J



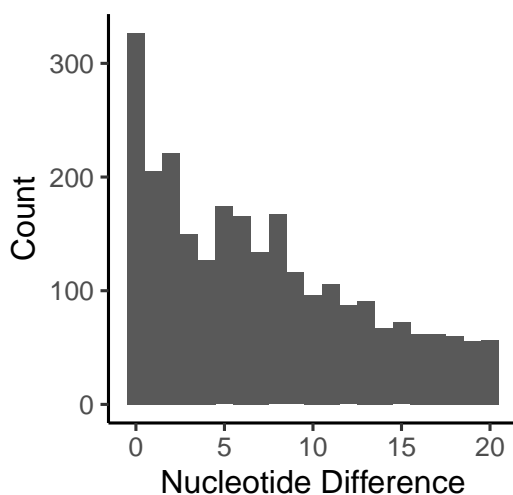
IGHV3-30*04

558 sequences assigned
64 (11.5%) exact matches, in which:
58 unique CDR3
5 unique J



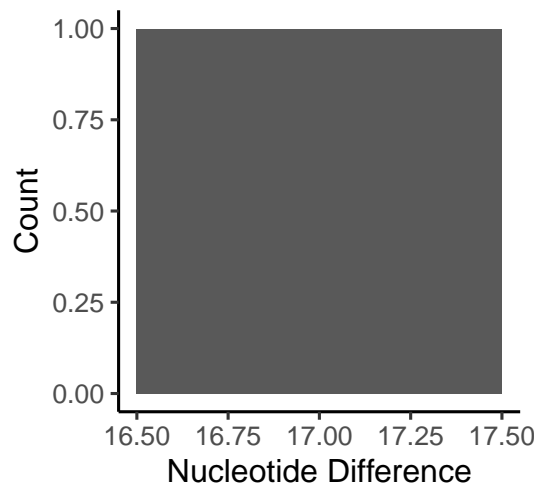
IGHV3-33*08

2888 sequences assigned
327 (11.3%) exact matches, in which:
257 unique CDR3
6 unique J



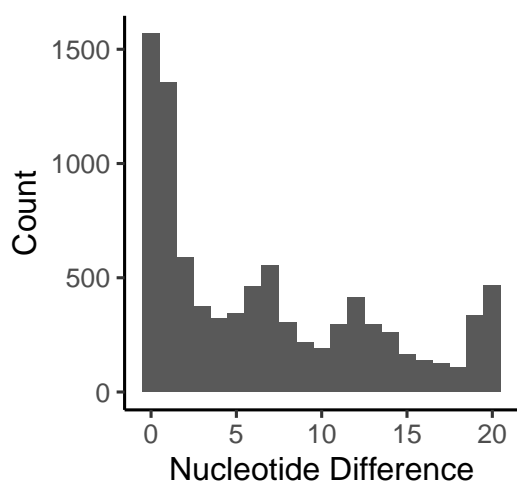
IGHV3-43*02

2 sequences assigned
No exact matches.



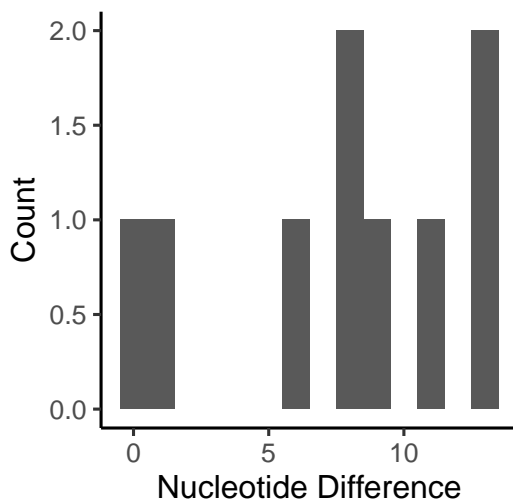
IGHV3-33*01

10105 sequences assigned
1568 (15.5%) exact matches, in which:
1025 unique CDR3
6 unique J



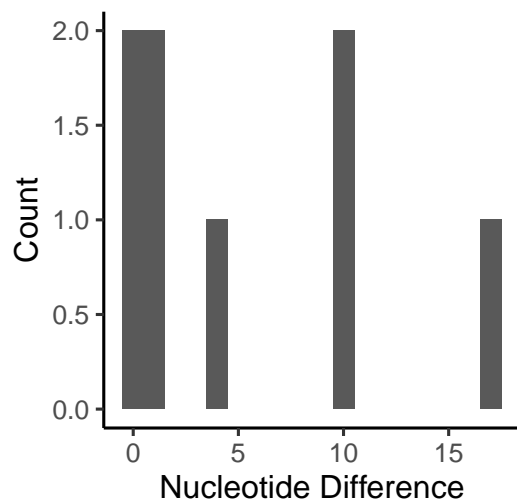
IGHV3-35*01

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



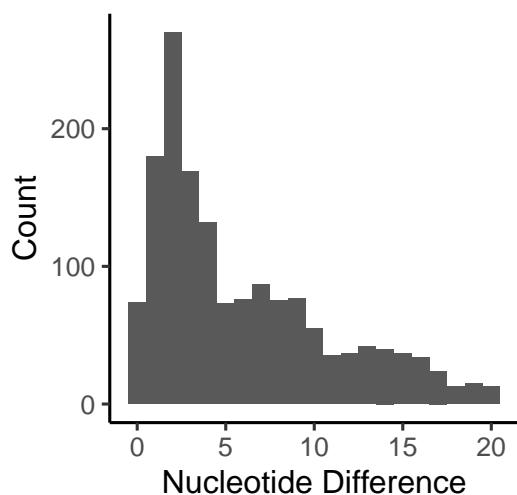
IGHV3-47*01

8 sequences assigned
2 (25%) exact matches, in which:
1 unique CDR3
0 unique J



IGHV3-33*06

1626 sequences assigned
74 (4.6%) exact matches, in which:
73 unique CDR3
6 unique J



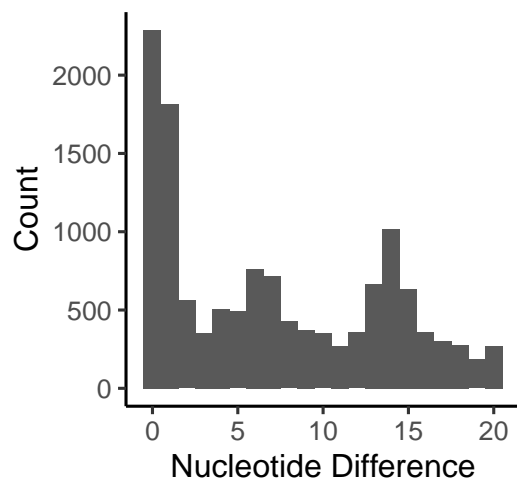
IGHV3-43*01

1 sequences assigned
No exact matches.



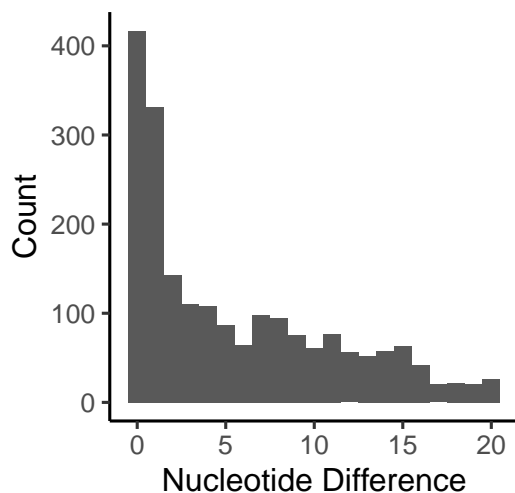
IGHV3-48*03

15716 sequences assigned
2288 (14.6%) exact matches, in which:
1357 unique CDR3
6 unique J



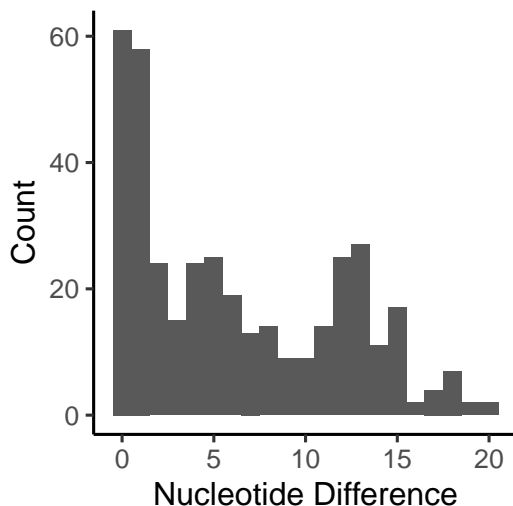
IGHV3-49*04

2729 sequences assigned
417 (15.3%) exact matches, in which:
257 unique CDR3
6 unique J



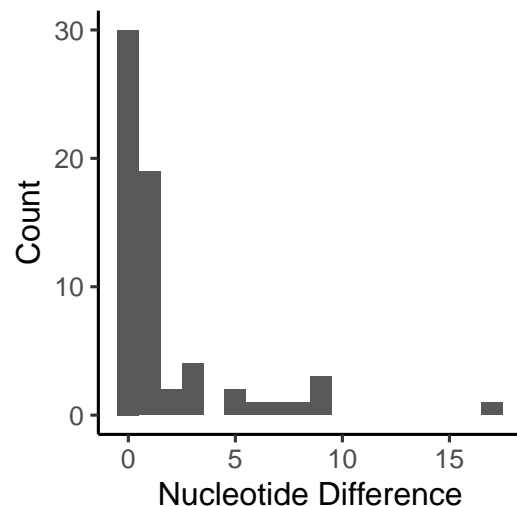
IGHV3-64*01

415 sequences assigned
61 (14.7%) exact matches, in which:
42 unique CDR3
5 unique J



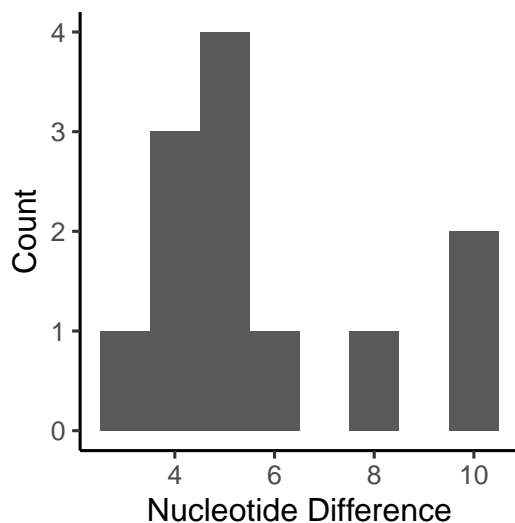
IGHV3-66*03

65 sequences assigned
30 (46.2%) exact matches, in which:
27 unique CDR3
3 unique J



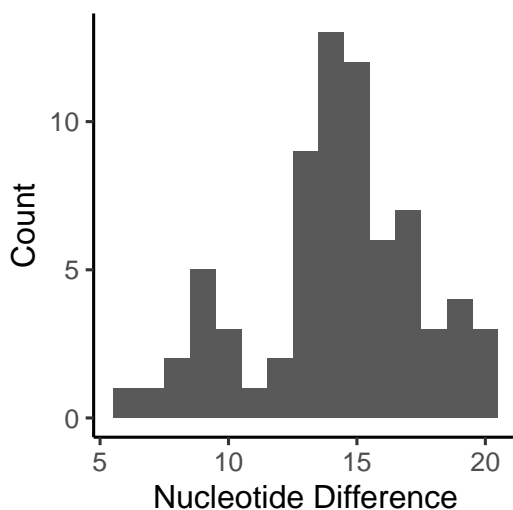
IGHV3-52*01_03

12 sequences assigned
No exact matches.



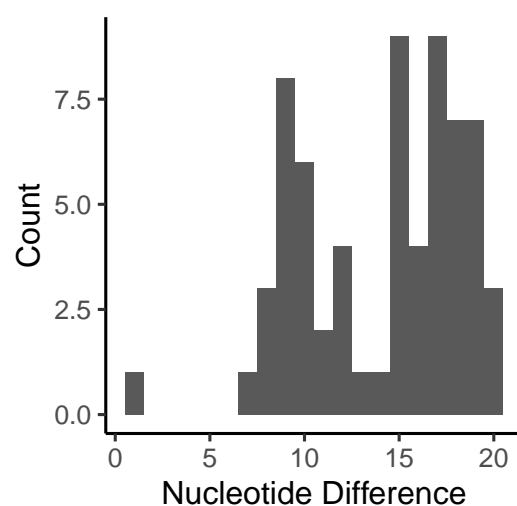
IGHV3-66*01

82 sequences assigned
No exact matches.



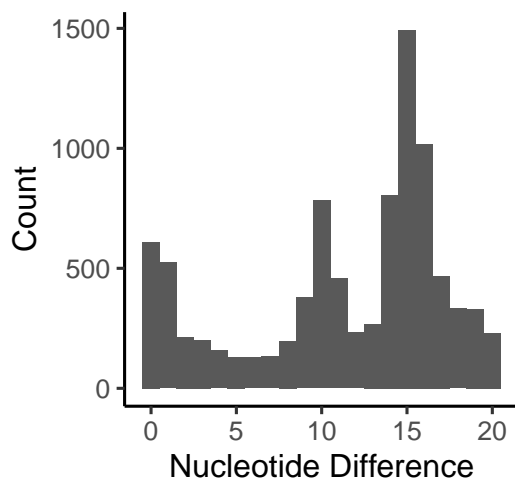
IGHV3-66*04

70 sequences assigned
No exact matches.



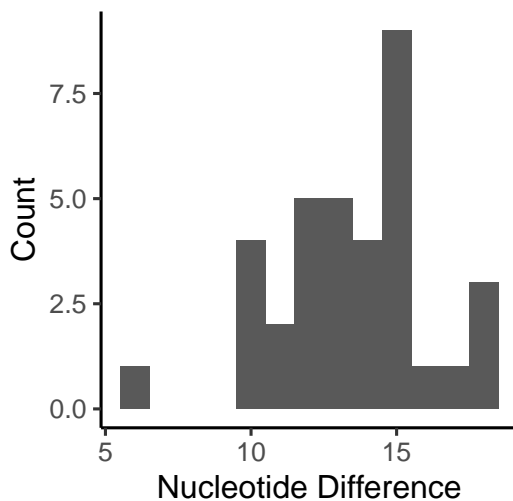
IGHV3-53*01_02

9639 sequences assigned
609 (6.3%) exact matches, in which:
400 unique CDR3
6 unique J



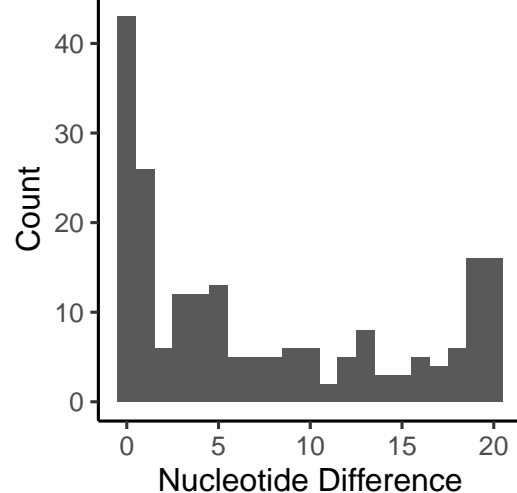
IGHV3-66*02

38 sequences assigned
No exact matches.



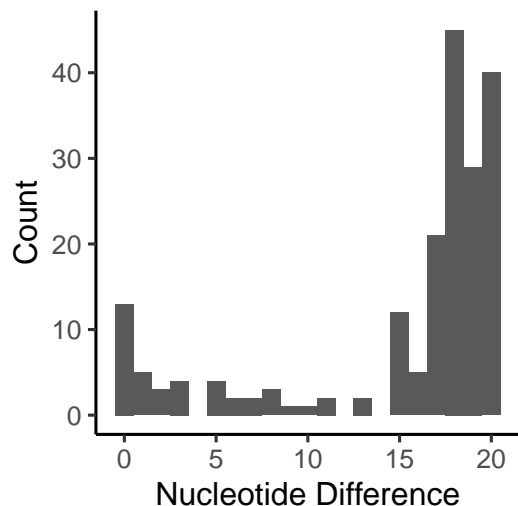
IGHV3-69-1*01

255 sequences assigned
43 (16.9%) exact matches, in which:
42 unique CDR3
4 unique J



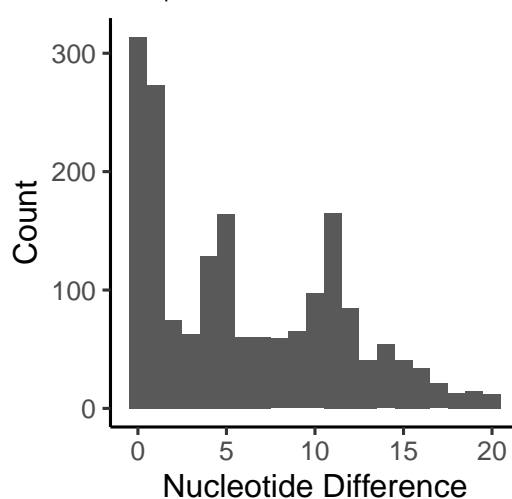
IGHV3-69-1*02

454 sequences assigned
13 (2.9%) exact matches, in which:
12 unique CDR3
4 unique J



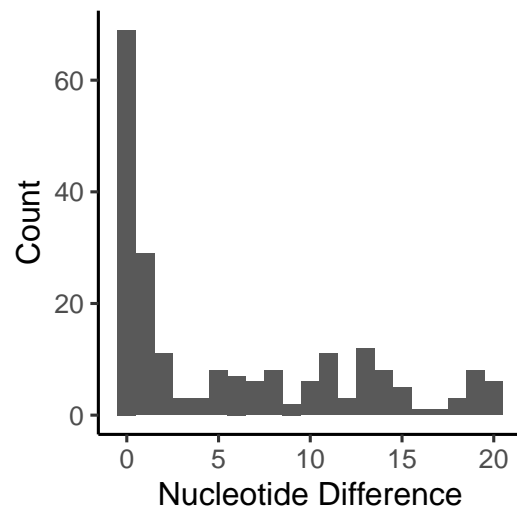
IGHV3-73*01_02

1963 sequences assigned
314 (16%) exact matches, in which:
189 unique CDR3
5 unique J



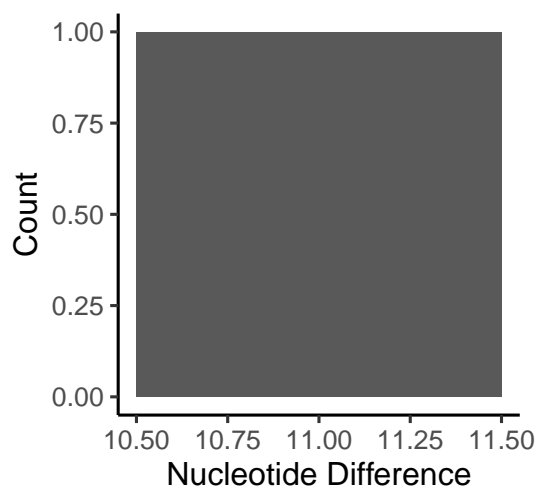
IGHV3-43D*04

572 sequences assigned
69 (12.1%) exact matches, in which:
42 unique CDR3
5 unique J



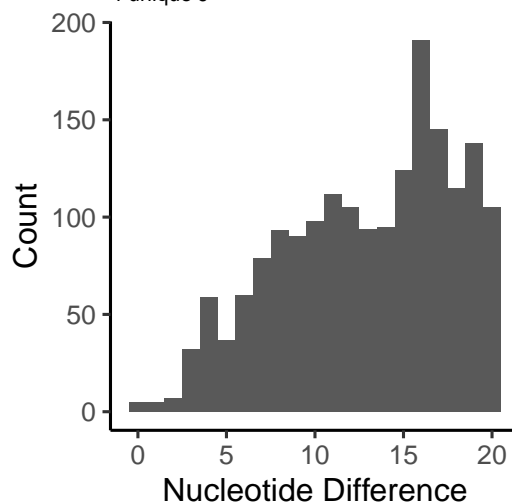
IGHV3-71*01_04

1 sequences assigned
No exact matches.



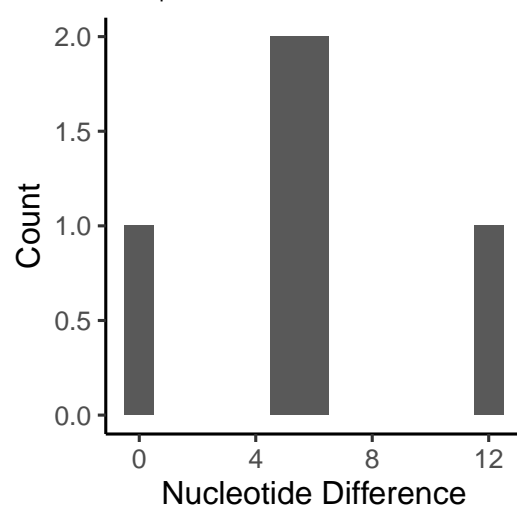
IGHV3-74*03

2491 sequences assigned
5 (0.2%) exact matches, in which:
4 unique CDR3
4 unique J



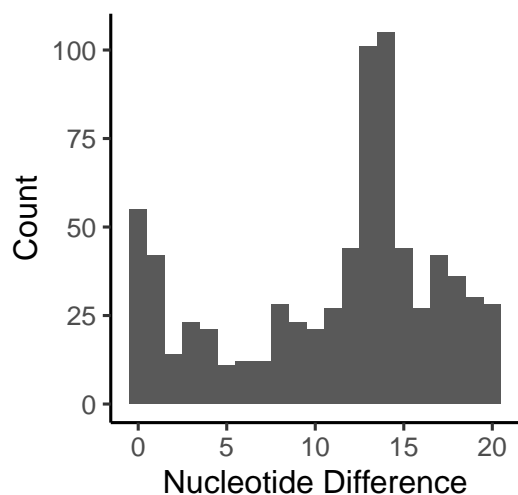
IGHV3-64D*06

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



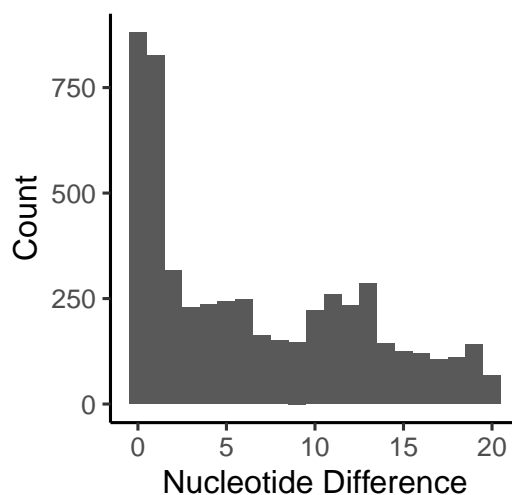
IGHV3-72*01

927 sequences assigned
55 (5.9%) exact matches, in which:
32 unique CDR3
4 unique J



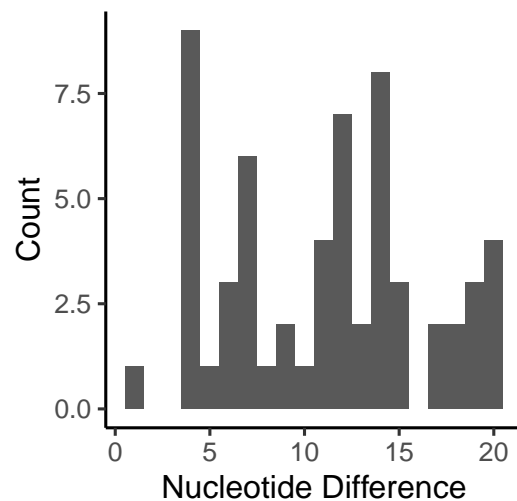
IGHV3-74*01_02

6455 sequences assigned
881 (13.6%) exact matches, in which:
588 unique CDR3
6 unique J



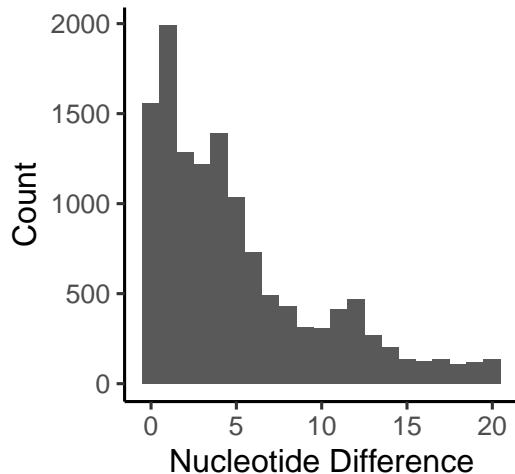
IGHV3-NL1*01

69 sequences assigned
No exact matches.



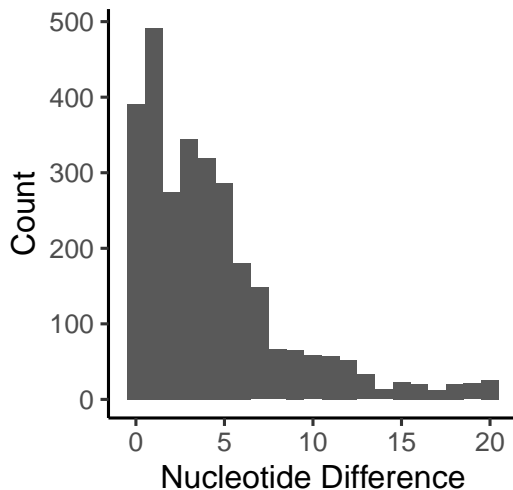
IGHV4-4*02_03

13888 sequences assigned
1560 (11.2%) exact matches, in which:
1088 unique CDR3
6 unique J



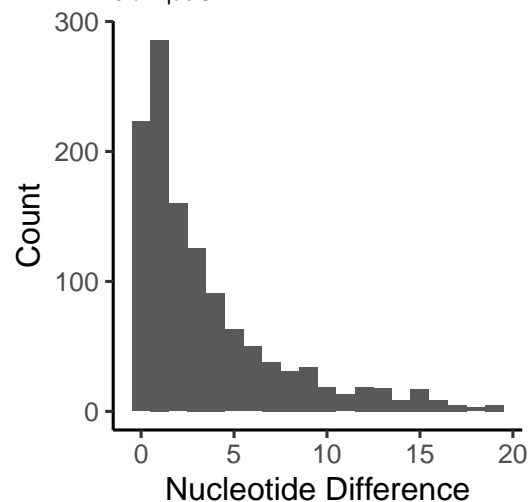
IGHV4-30-4*01

5576 sequences assigned
391 (7%) exact matches, in which:
311 unique CDR3
5 unique J



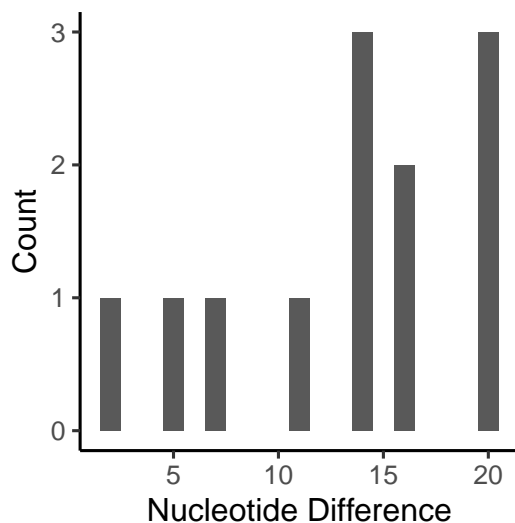
IGHV4-31*01

1696 sequences assigned
223 (13.1%) exact matches, in which:
181 unique CDR3
5 unique J



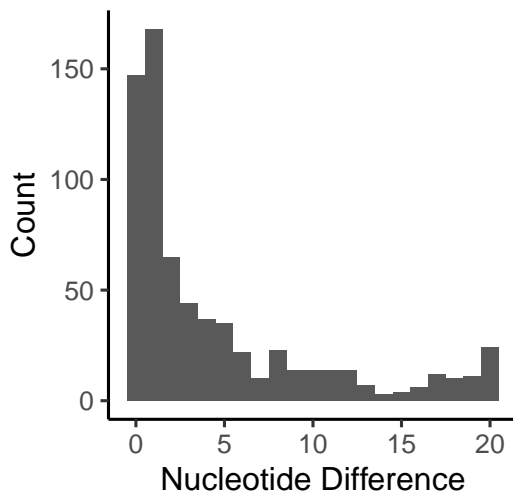
IGHV4-28*03

25 sequences assigned
No exact matches.



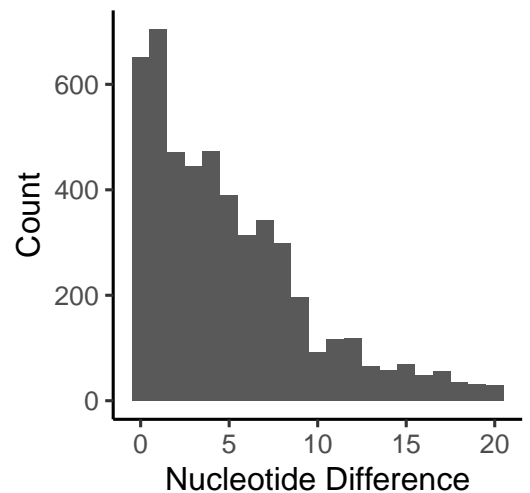
IGHV4-30-2*01

835 sequences assigned
147 (17.6%) exact matches, in which:
82 unique CDR3
6 unique J



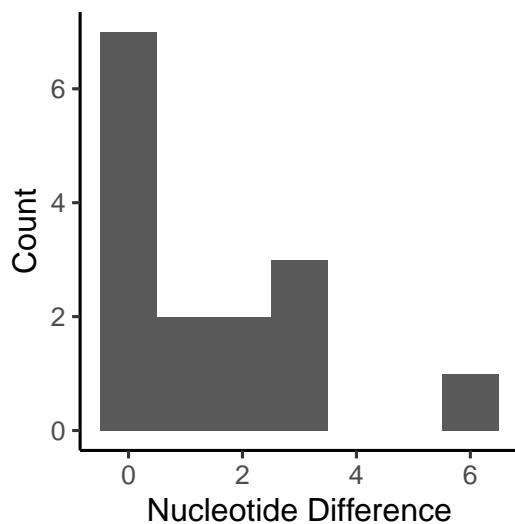
IGHV4-31*02

5279 sequences assigned
651 (12.3%) exact matches, in which:
532 unique CDR3
6 unique J



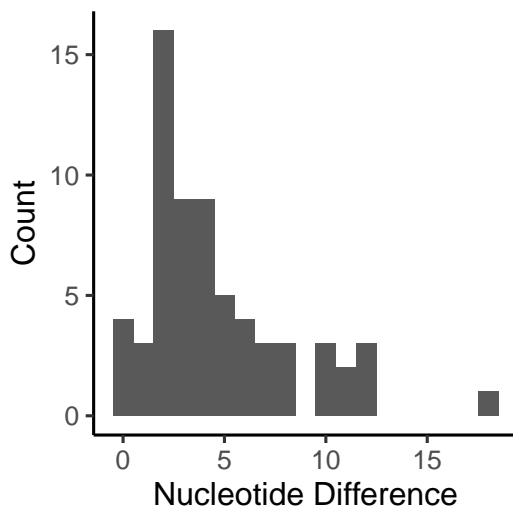
IGHV4-28*02_05

15 sequences assigned
7 (46.7%) exact matches, in which:
5 unique CDR3
2 unique J



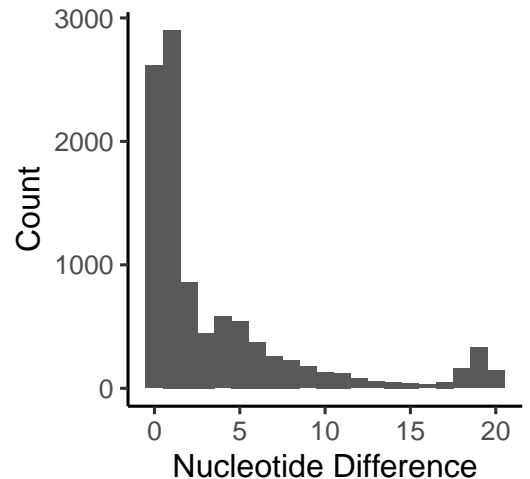
IGHV4-30-2*05

72 sequences assigned
4 (5.6%) exact matches, in which:
4 unique CDR3
1 unique J



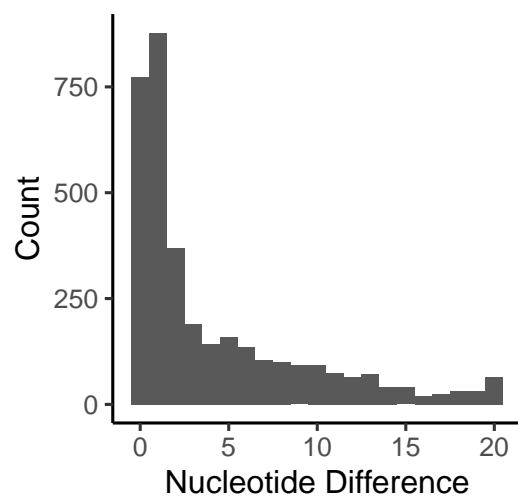
IGHV4-34*01_02

11030 sequences assigned
2614 (23.7%) exact matches, in which:
1768 unique CDR3
6 unique J



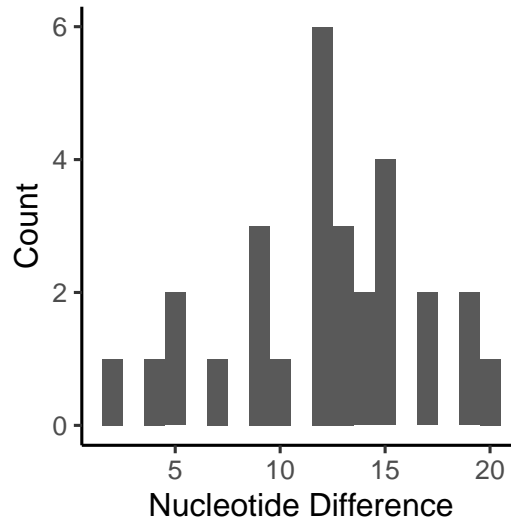
IGHV4-38-2*01

6309 sequences assigned
774 (12.3%) exact matches, in which:
648 unique CDR3
6 unique J



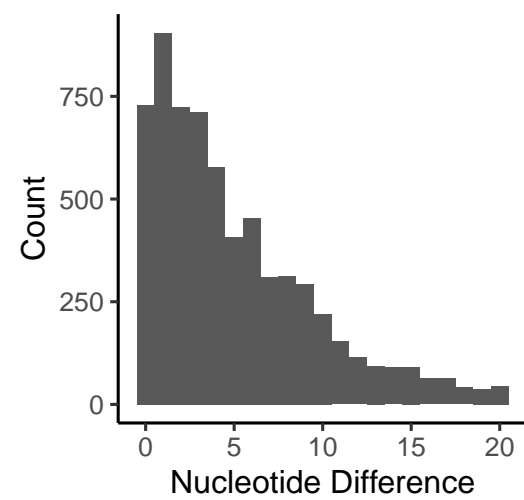
IGHV4-39*07

49 sequences assigned
No exact matches.



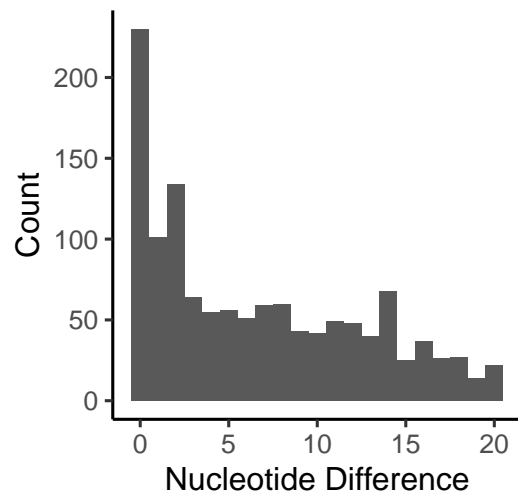
IGHV4-61*01

8131 sequences assigned
728 (9%) exact matches, in which:
622 unique CDR3
6 unique J



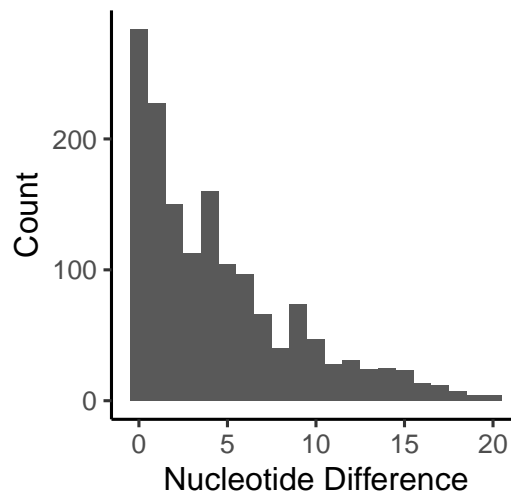
IGHV4-38-2*02

1593 sequences assigned
230 (14.4%) exact matches, in which:
192 unique CDR3
5 unique J



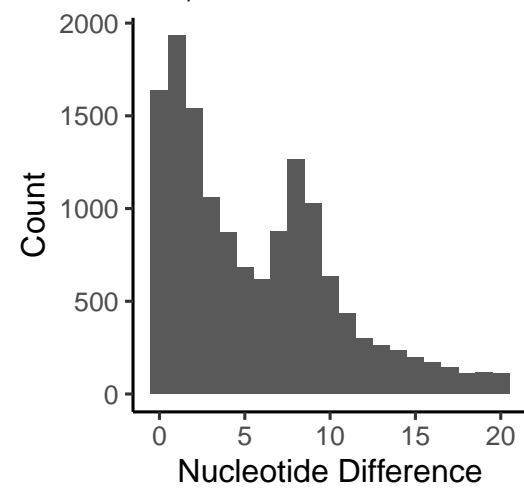
IGHV4-59*08

1687 sequences assigned
284 (16.8%) exact matches, in which:
265 unique CDR3
6 unique J



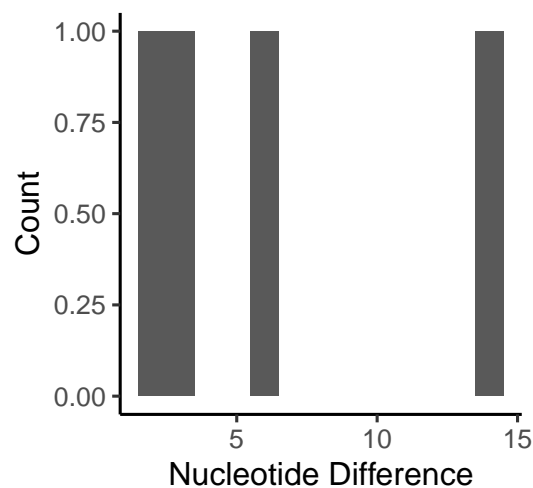
IGHV4-61*02

16986 sequences assigned
1638 (9.6%) exact matches, in which:
1195 unique CDR3
6 unique J



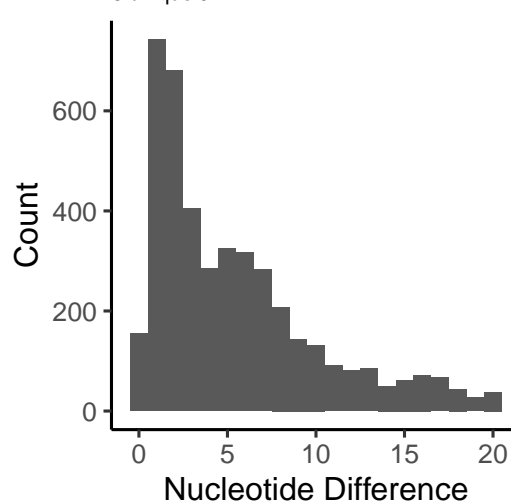
IGHV4-39*02

8 sequences assigned
No exact matches.



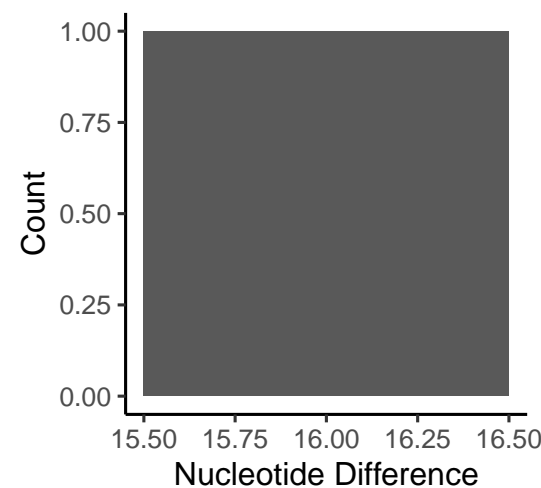
IGHV4-59*12

5980 sequences assigned
155 (2.6%) exact matches, in which:
151 unique CDR3
6 unique J



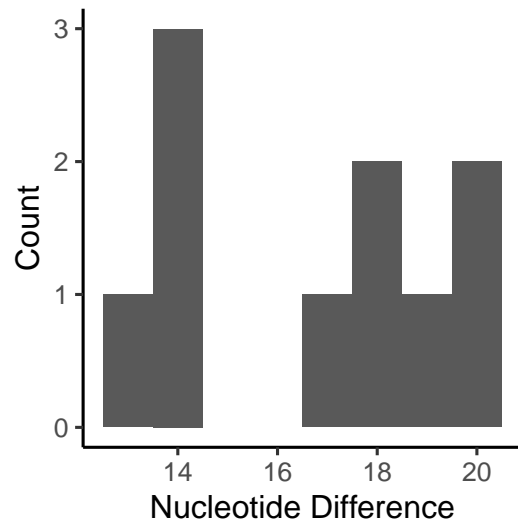
IGHV1/OR15-2*01

1 sequences assigned
No exact matches.



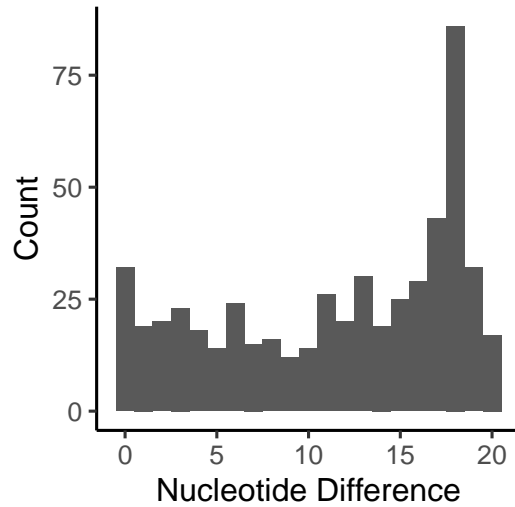
IGHV1/OR15-2*02_03

11 sequences assigned
No exact matches.



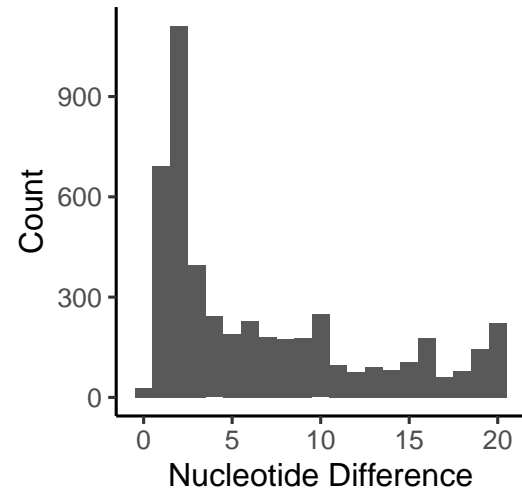
IGHV4/OR15-8*01_C193/

678 sequences assigned
32 (4.7%) exact matches, in which:
28 unique CDR3
3 unique J



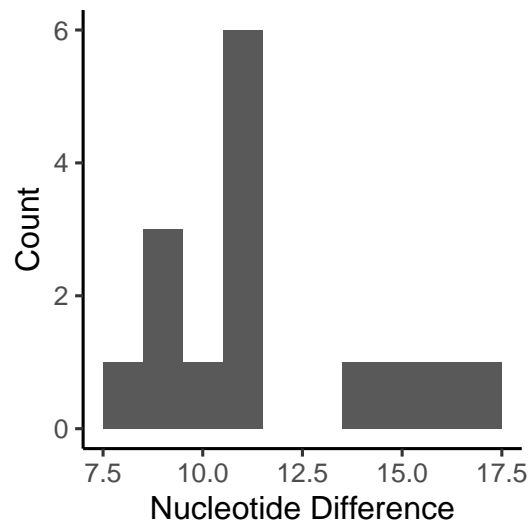
IGHV5-51*07

5437 sequences assigned
28 (0.5%) exact matches, in which:
24 unique CDR3
4 unique J



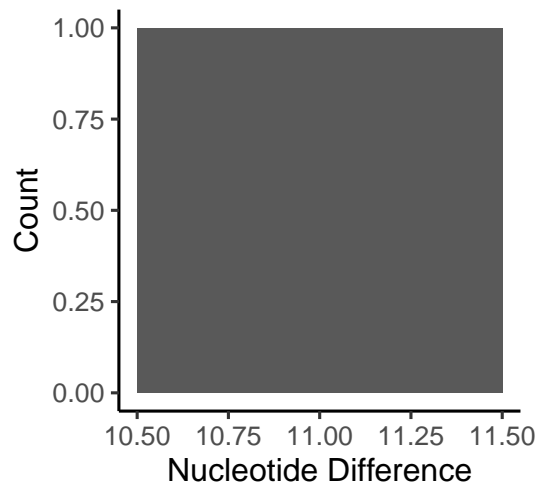
IGHV1/OR15-3*02

17 sequences assigned
No exact matches.



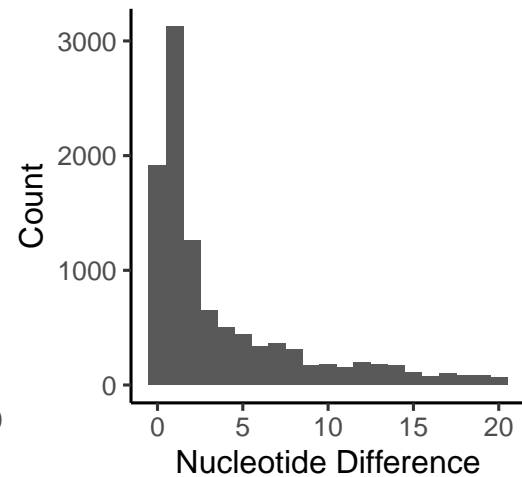
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



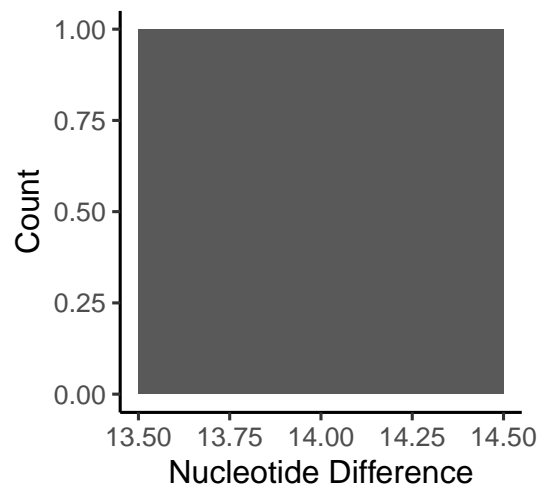
IGHV5-51*01_03

13350 sequences assigned
1916 (14.4%) exact matches, in which:
946 unique CDR3
6 unique J



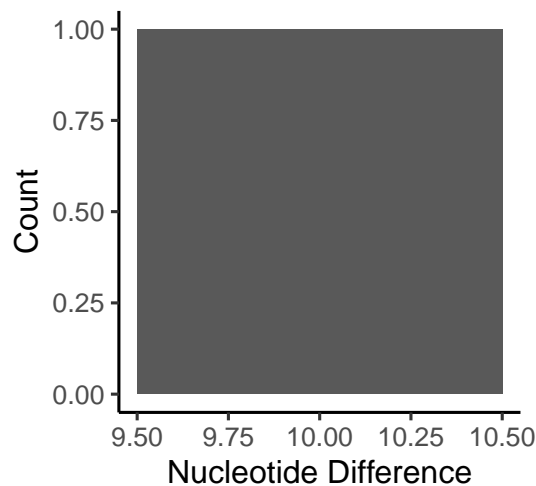
IGHV1/OR15-4*01

2 sequences assigned
No exact matches.



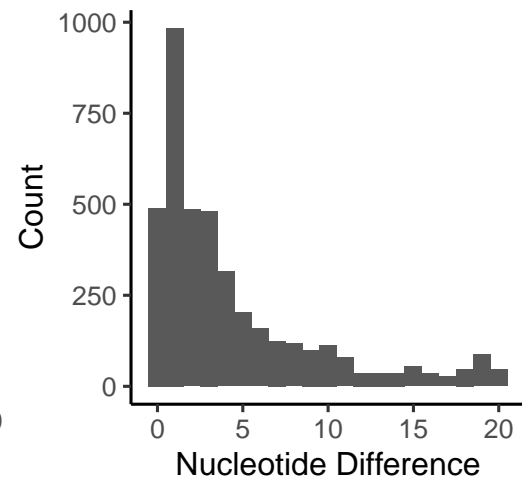
IGHV5-10-1*01_03

1 sequences assigned
No exact matches.



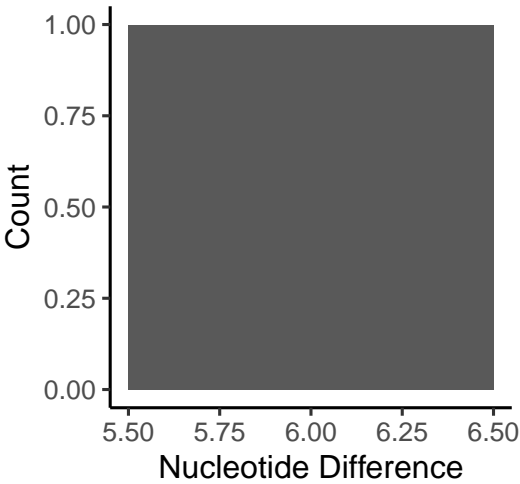
IGHV6-1*01_02

4286 sequences assigned
490 (11.4%) exact matches, in which:
348 unique CDR3
6 unique J



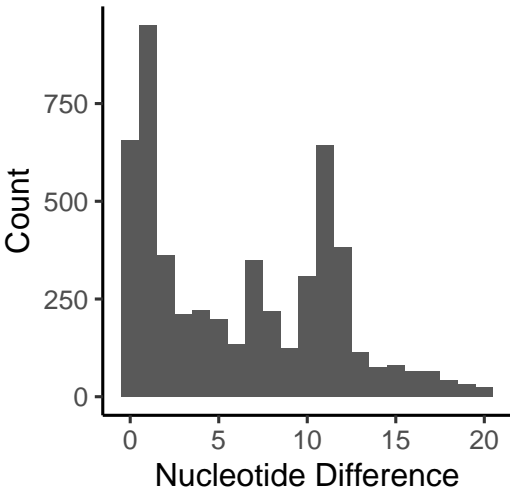
IGHV3/OR16-13*01

1 sequences assigned
No exact matches.



IGHV7-4-1*02

5311 sequences assigned
655 (12.3%) exact matches, in which:
491 unique CDR3
6 unique J





Warning – no inferred sequences found.