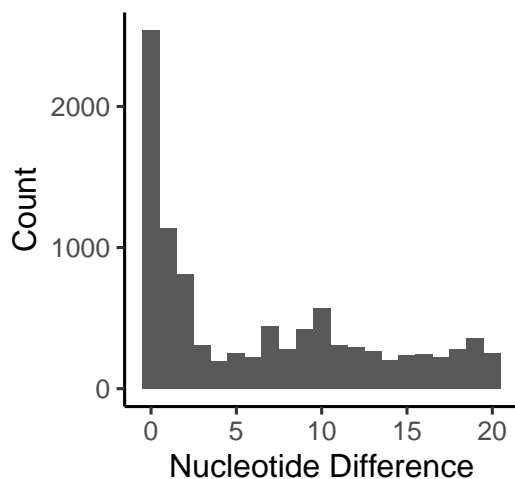


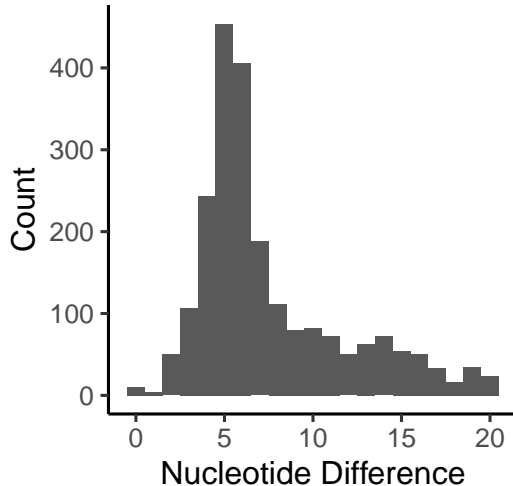
IGHV1-2*02

12221 sequences assigned
2539 (20.8%) exact matches, in which:
2427 unique CDR3
6 unique J



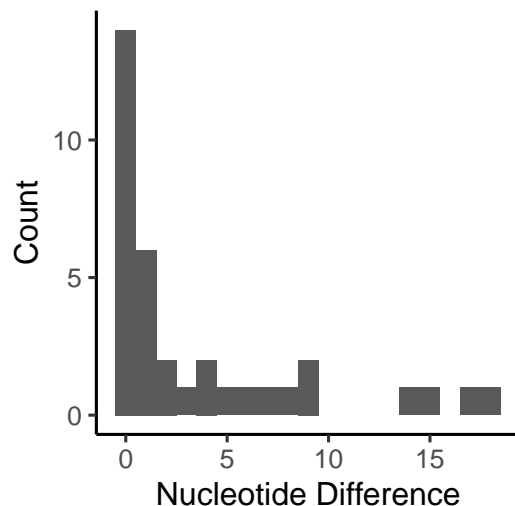
IGHV1-8*02

2559 sequences assigned
10 (0.4%) exact matches, in which:
10 unique CDR3
2 unique J



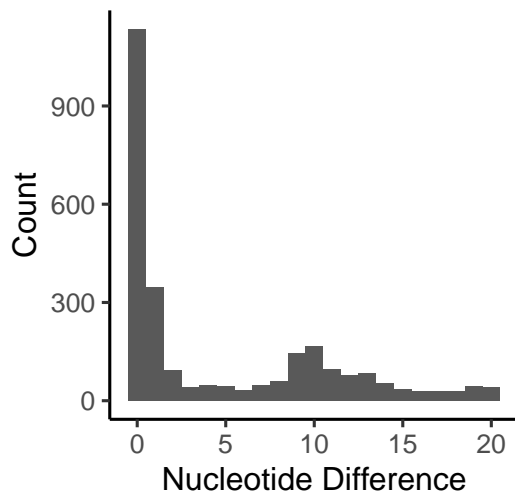
IGHV1-45*02

36 sequences assigned
14 (38.9%) exact matches, in which:
13 unique CDR3
4 unique J



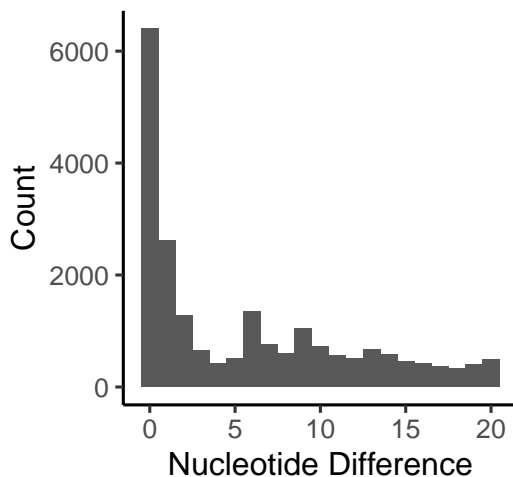
IGHV1-3*01_05

3179 sequences assigned
1135 (35.7%) exact matches, in which:
1081 unique CDR3
6 unique J



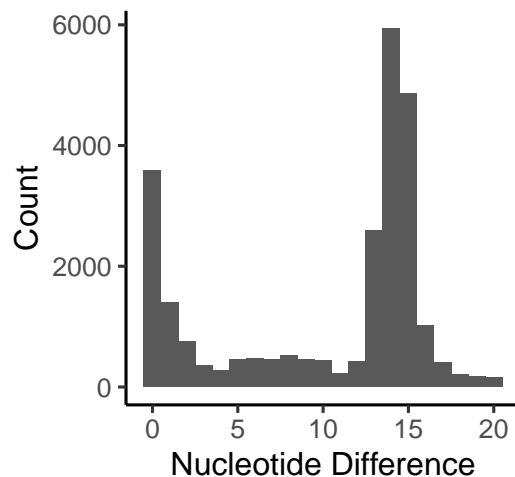
IGHV1-18*01

25511 sequences assigned
6400 (25.1%) exact matches, in which:
6036 unique CDR3
6 unique J



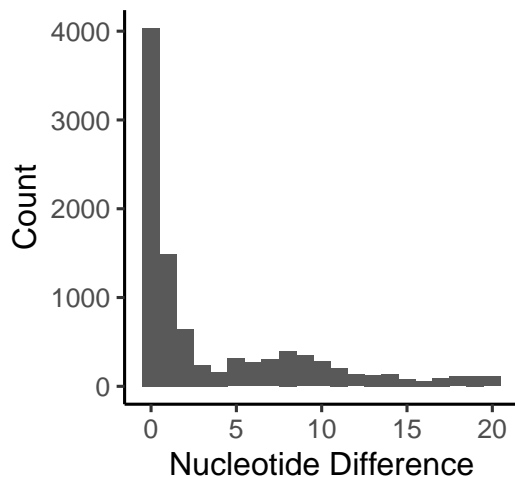
IGHV1-46*01

27444 sequences assigned
3590 (13.1%) exact matches, in which:
3473 unique CDR3
6 unique J



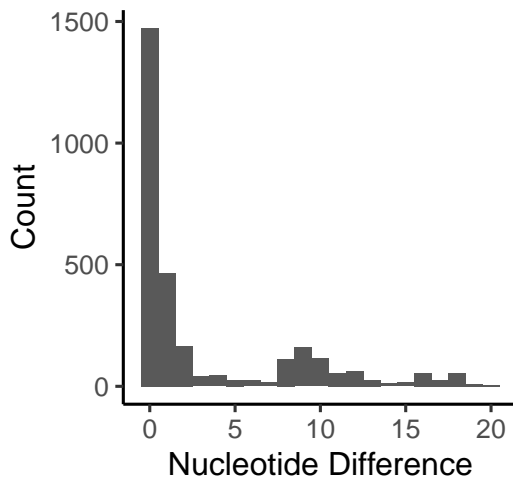
IGHV1-8*01

10282 sequences assigned
4035 (39.2%) exact matches, in which:
3884 unique CDR3
6 unique J



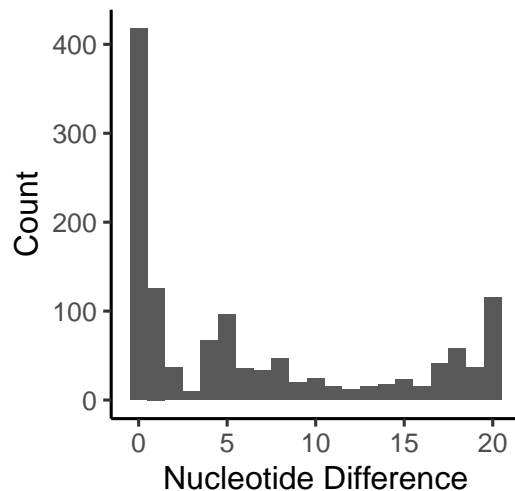
IGHV1-24*01

3476 sequences assigned
1473 (42.4%) exact matches, in which:
1431 unique CDR3
6 unique J



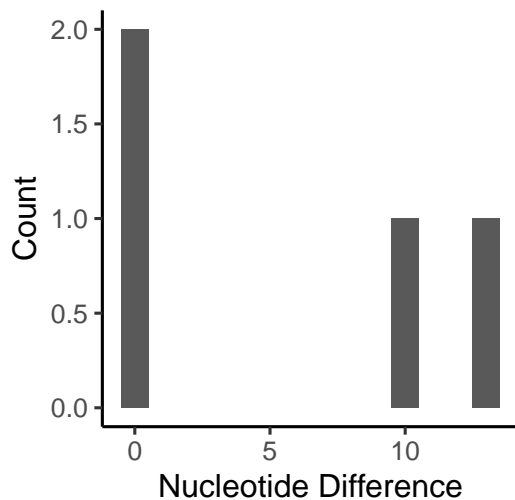
IGHV1-58*01_03

1549 sequences assigned
418 (27%) exact matches, in which:
403 unique CDR3
6 unique J



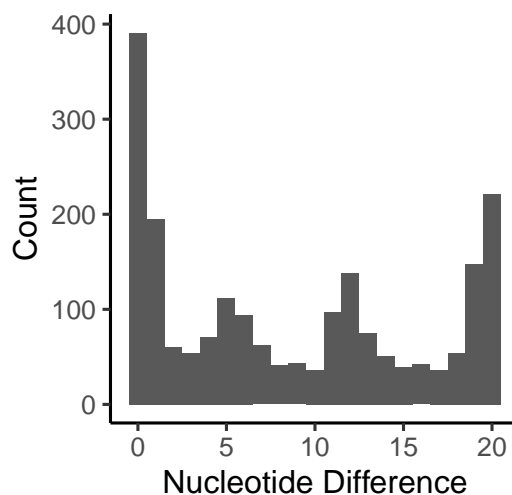
IGHV1-68*01

4 sequences assigned
2 (50%) exact matches, in which:
2 unique CDR3
1 unique J



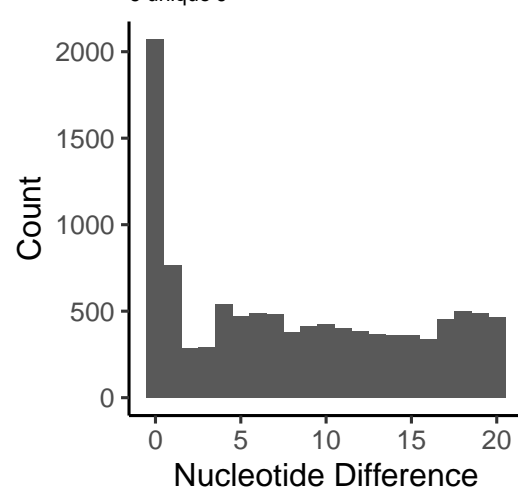
IGHV2-5*02

2542 sequences assigned
391 (15.4%) exact matches, in which:
376 unique CDR3
6 unique J



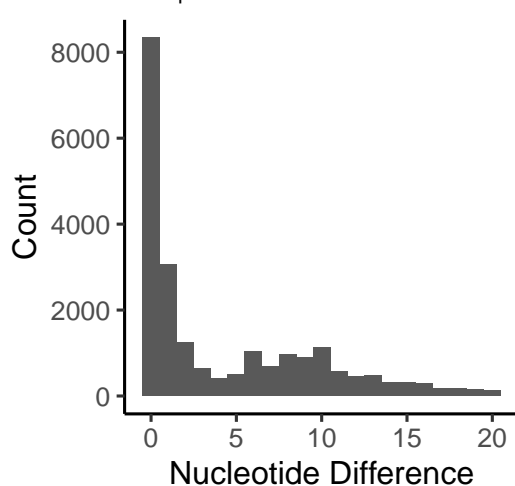
IGHV3-7*01

13704 sequences assigned
2071 (15.1%) exact matches, in which:
1802 unique CDR3
6 unique J



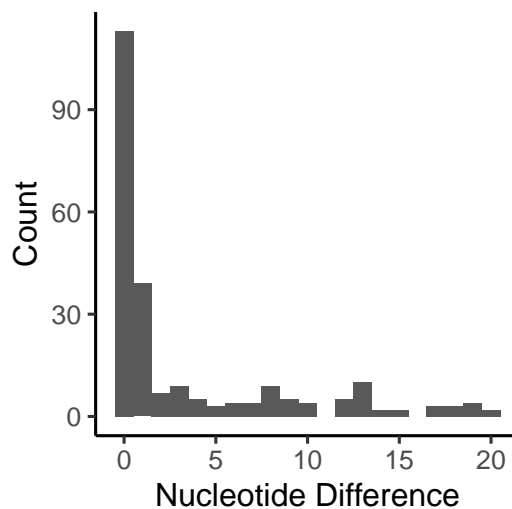
IGHV1-69*01_12_13

24091 sequences assigned
8338 (34.6%) exact matches, in which:
8041 unique CDR3
6 unique J



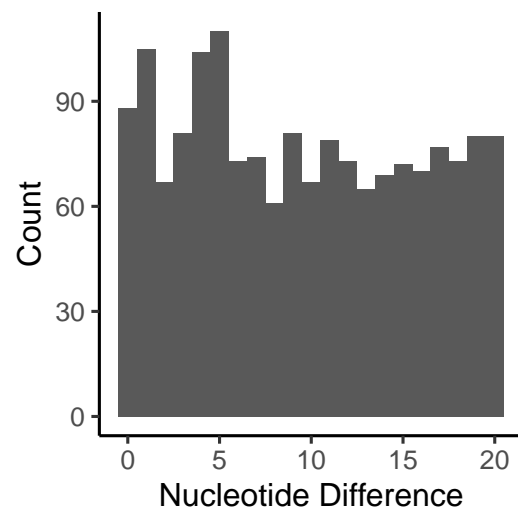
IGHV2-26*01

364 sequences assigned
113 (31%) exact matches, in which:
103 unique CDR3
6 unique J



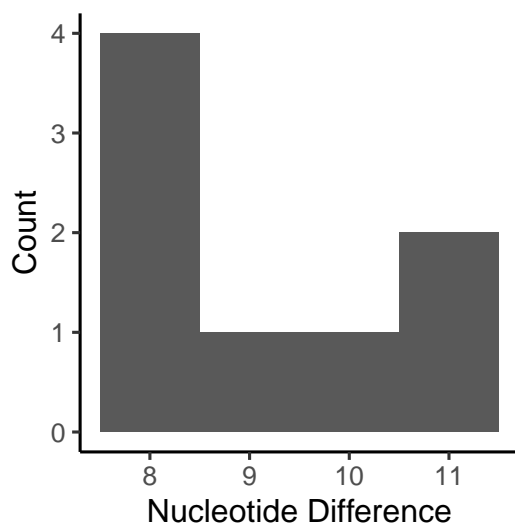
IGHV3-7*03

2403 sequences assigned
88 (3.7%) exact matches, in which:
85 unique CDR3
5 unique J



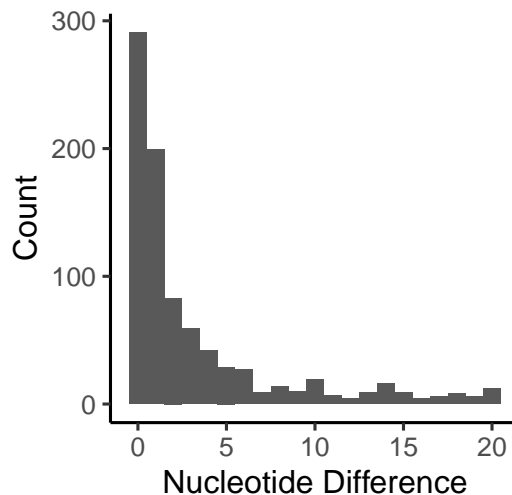
IGHV1-NL1*01

8 sequences assigned
No exact matches.



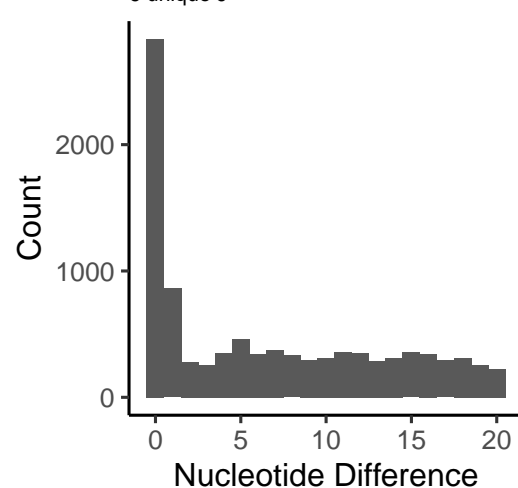
IGHV2-70*01

960 sequences assigned
291 (30.3%) exact matches, in which:
272 unique CDR3
6 unique J



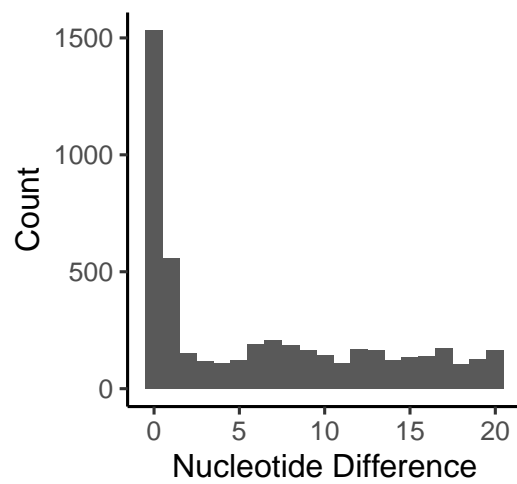
IGHV3-9*01

12339 sequences assigned
2836 (23%) exact matches, in which:
2385 unique CDR3
6 unique J



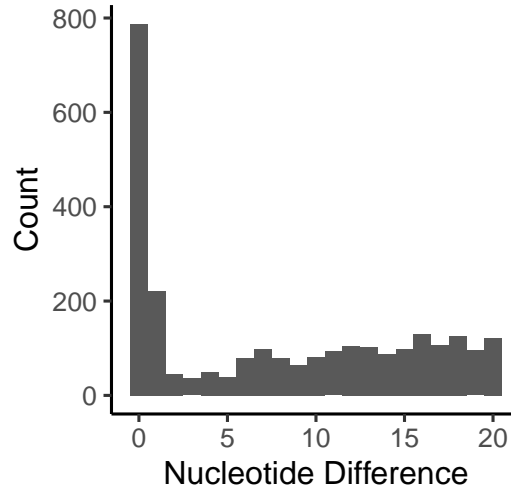
IGHV3-11*01

6979 sequences assigned
1532 (22%) exact matches, in which:
1320 unique CDR3
6 unique J



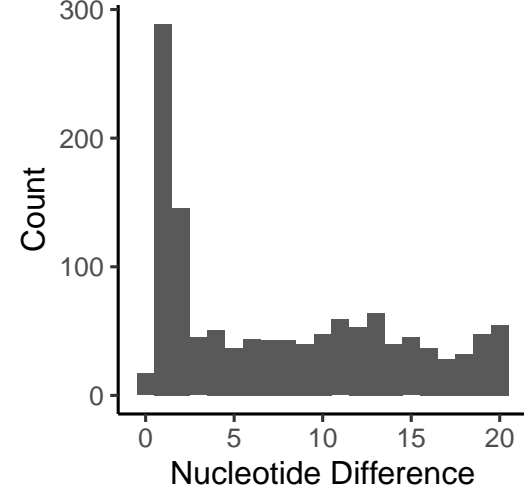
IGHV3-15*01_02

4435 sequences assigned
788 (17.8%) exact matches, in which:
666 unique CDR3
6 unique J



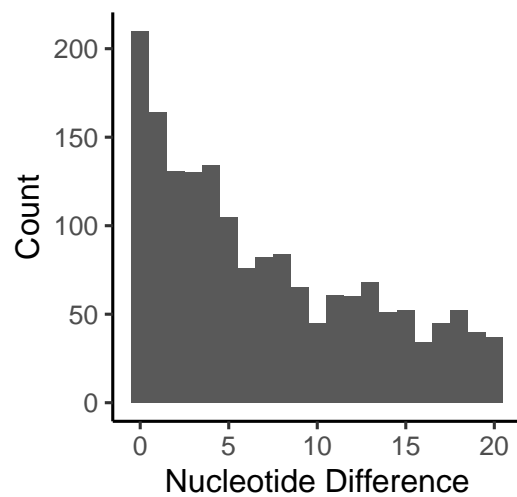
IGHV3-20*03_04

2269 sequences assigned
17 (0.7%) exact matches, in which:
12 unique CDR3
3 unique J



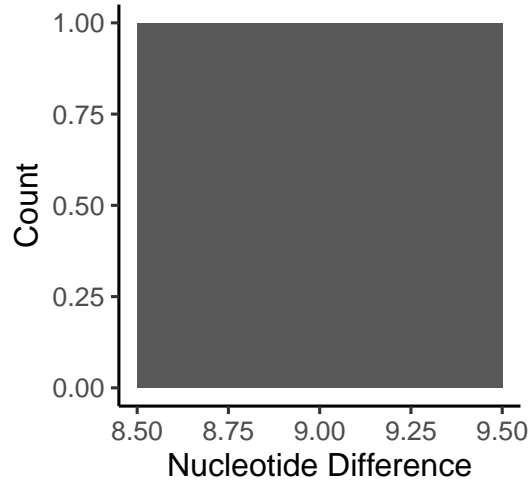
IGHV3-11*04

2091 sequences assigned
210 (10%) exact matches, in which:
207 unique CDR3
6 unique J



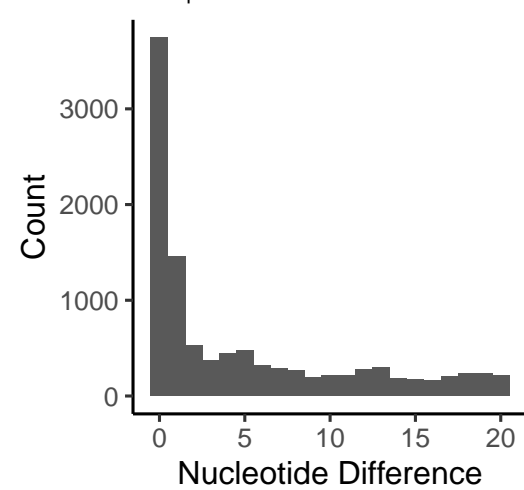
IGHV3-16*01_02

1 sequences assigned
No exact matches.



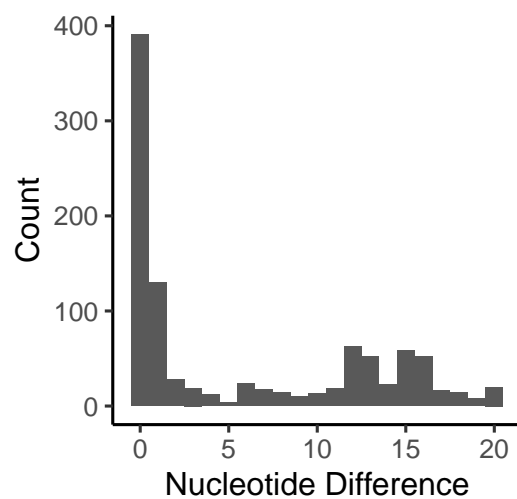
IGHV3-21*01_02

12974 sequences assigned
3743 (28.9%) exact matches, in which:
3186 unique CDR3
6 unique J



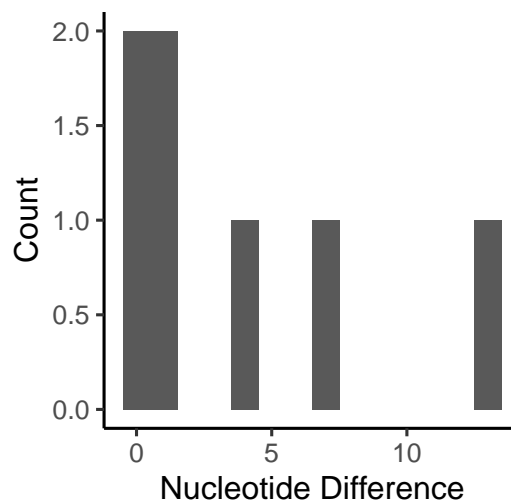
IGHV3-13*01

1212 sequences assigned
391 (32.3%) exact matches, in which:
342 unique CDR3
6 unique J



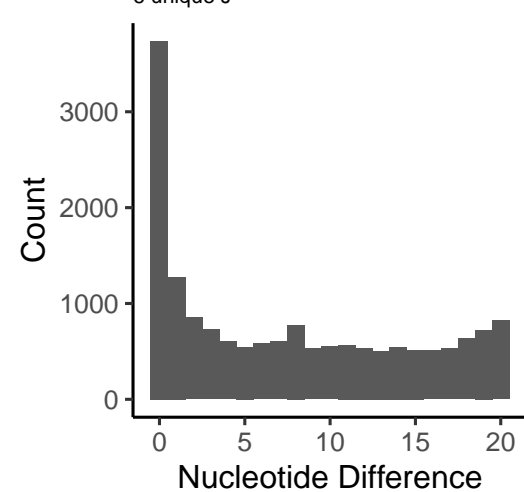
IGHV3-19*01

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



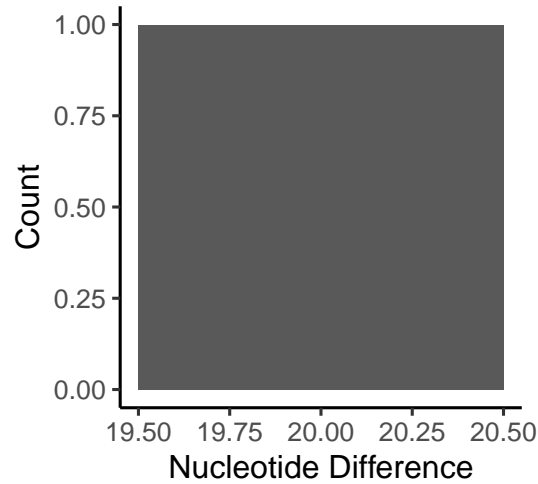
IGHV3-23*01_04

34167 sequences assigned
3738 (10.9%) exact matches, in which:
3162 unique CDR3
6 unique J



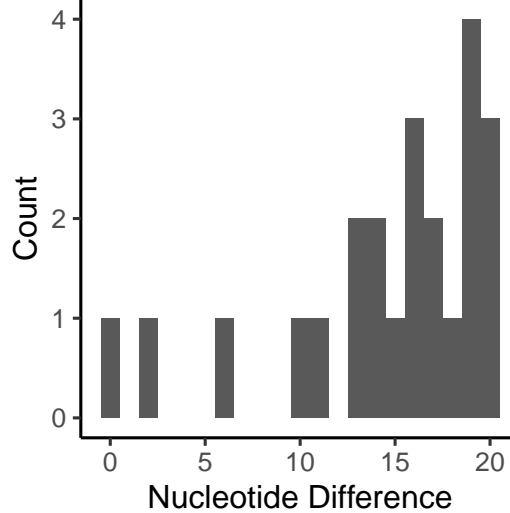
IGHV3-30-3*01

7 sequences assigned
No exact matches.



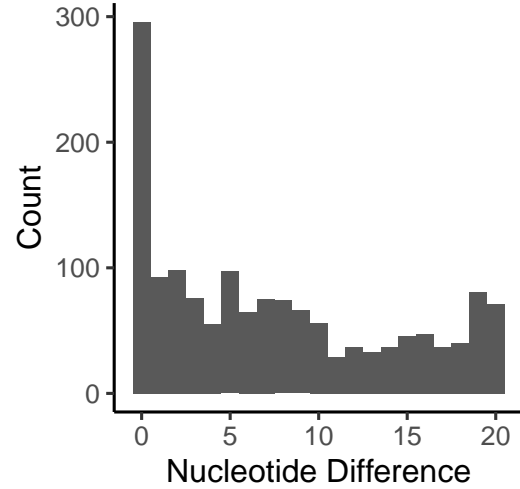
IGHV3-30-3*03

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



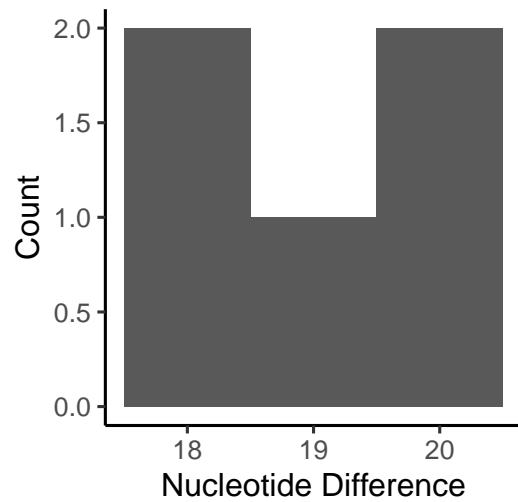
IGHV3-33*08

2304 sequences assigned
296 (12.8%) exact matches, in which:
291 unique CDR3
6 unique J



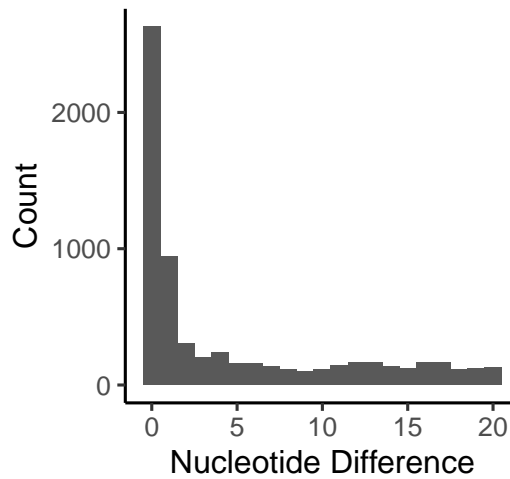
IGHV3-30-3*02

15 sequences assigned
No exact matches.



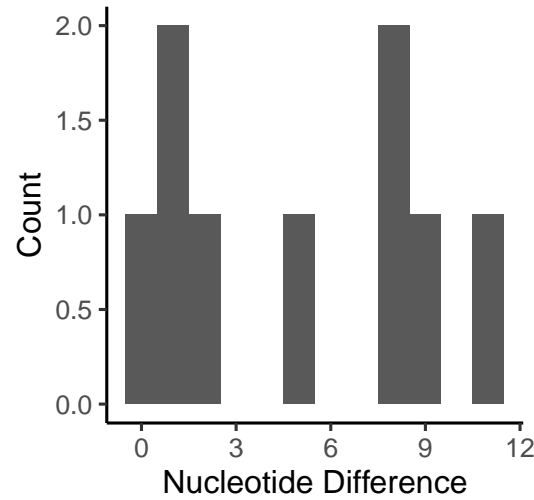
IGHV3-33*01

8602 sequences assigned
2629 (30.6%) exact matches, in which:
2297 unique CDR3
6 unique J



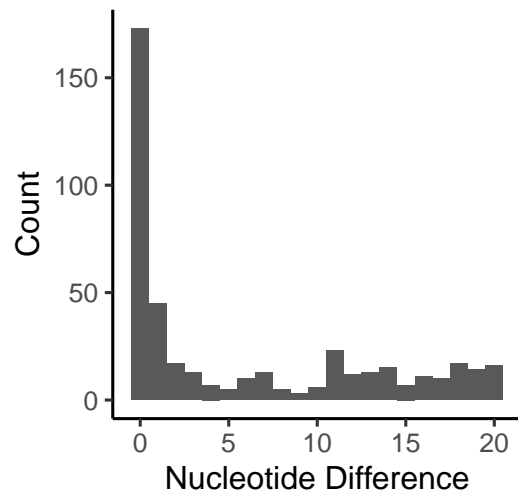
IGHV3-35*01

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



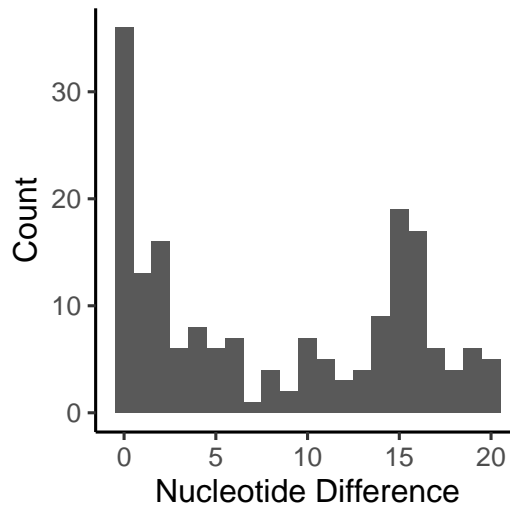
IGHV3-30*03

702 sequences assigned
173 (24.6%) exact matches, in which:
165 unique CDR3
6 unique J



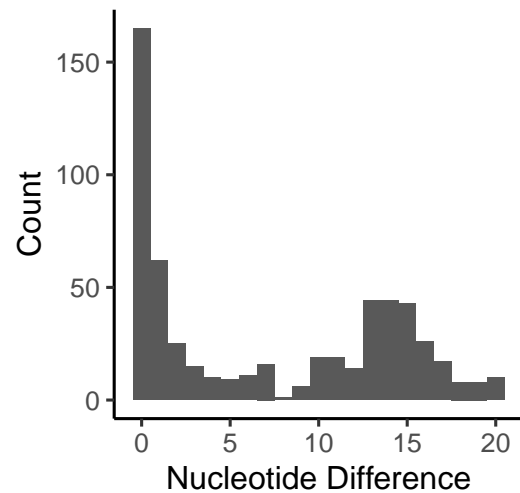
IGHV3-33*05

239 sequences assigned
36 (15.1%) exact matches, in which:
35 unique CDR3
5 unique J



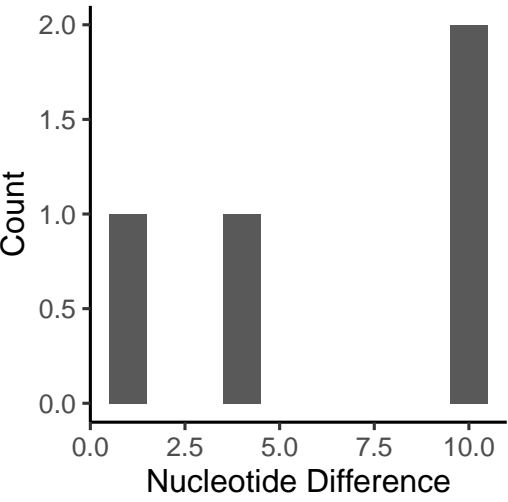
IGHV3-43*01

782 sequences assigned
165 (21.1%) exact matches, in which:
137 unique CDR3
6 unique J



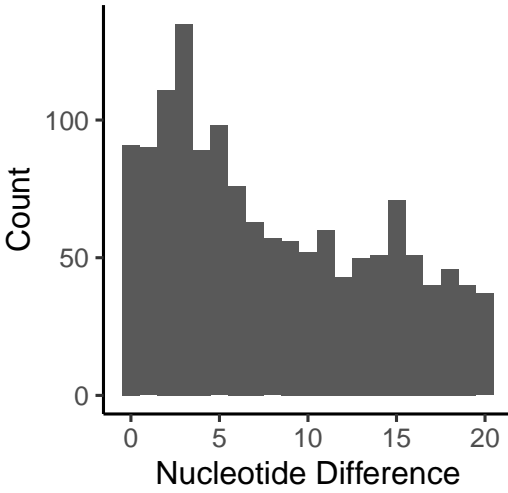
IGHV3-47*02

4 sequences assigned
No exact matches.



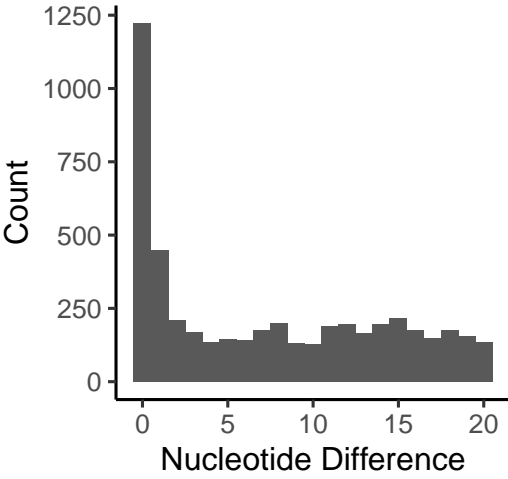
IGHV3-48*04

1904 sequences assigned
91 (4.8%) exact matches, in which:
91 unique CDR3
5 unique J



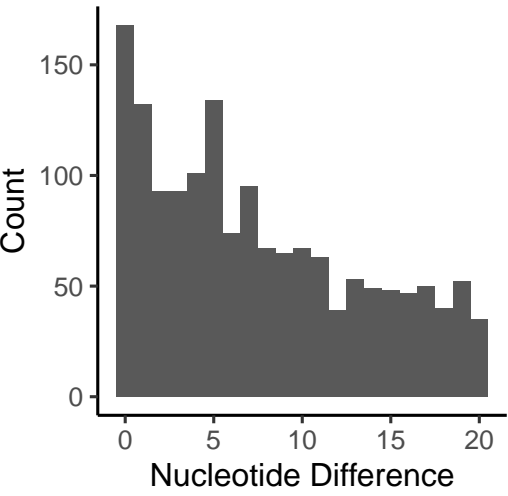
IGHV3-53*01_02

7694 sequences assigned
1222 (15.9%) exact matches, in which:
1052 unique CDR3
6 unique J



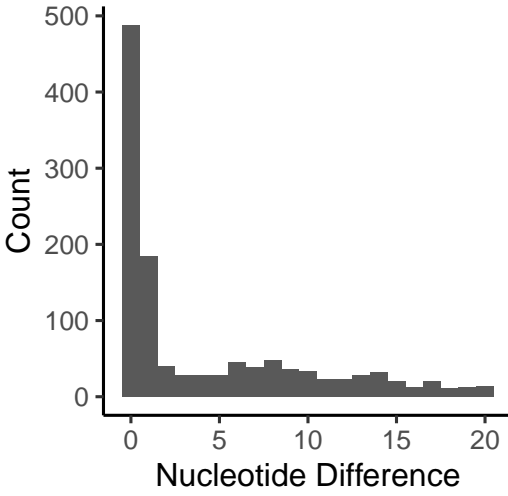
IGHV3-48*01

1907 sequences assigned
168 (8.8%) exact matches, in which:
167 unique CDR3
6 unique J



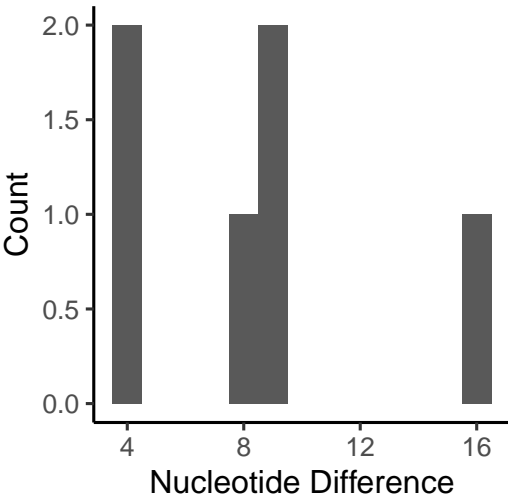
IGHV3-49*03_05

1731 sequences assigned
488 (28.2%) exact matches, in which:
406 unique CDR3
6 unique J



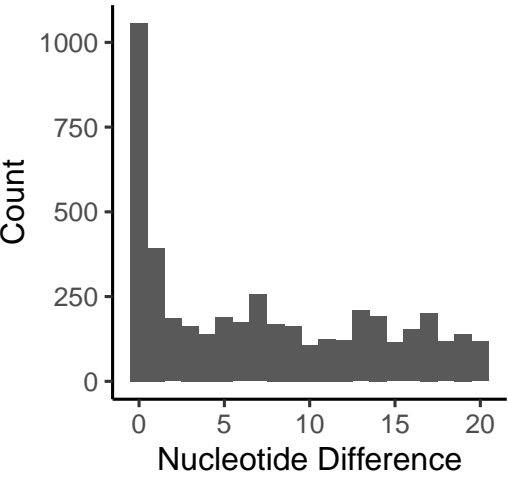
IGHV3-64*04

6 sequences assigned
No exact matches.



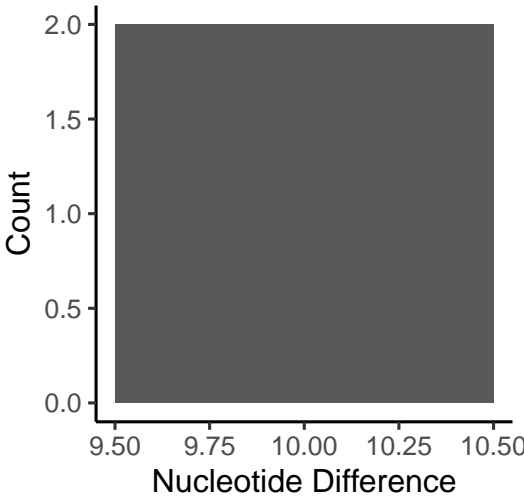
IGHV3-48*02

6220 sequences assigned
1057 (17%) exact matches, in which:
898 unique CDR3
6 unique J



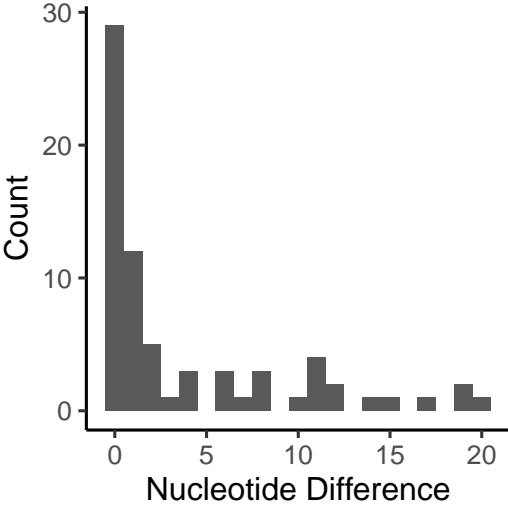
IGHV3-52*01_03

2 sequences assigned
No exact matches.



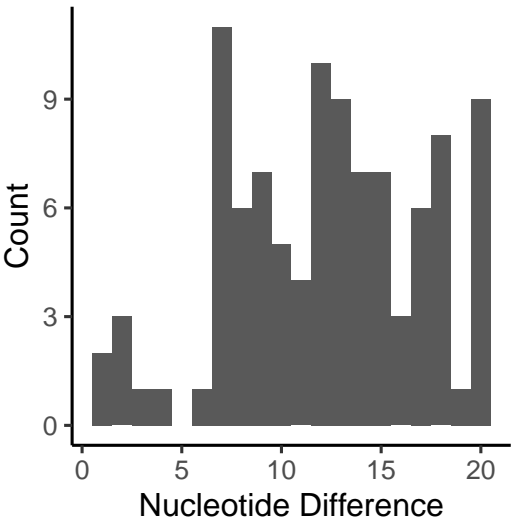
IGHV3-64*02_07

73 sequences assigned
29 (39.7%) exact matches, in which:
20 unique CDR3
4 unique J



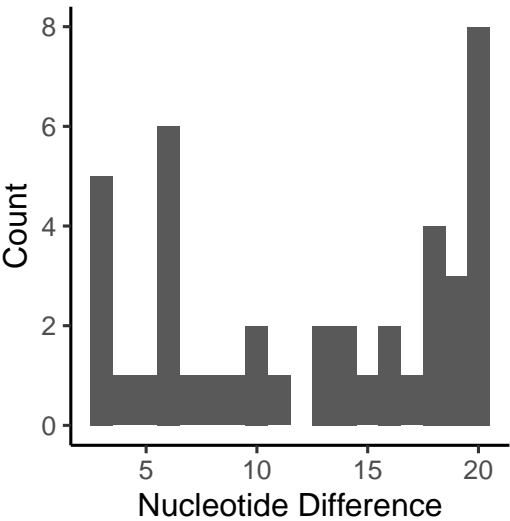
IGHV3-66*01

171 sequences assigned
No exact matches.



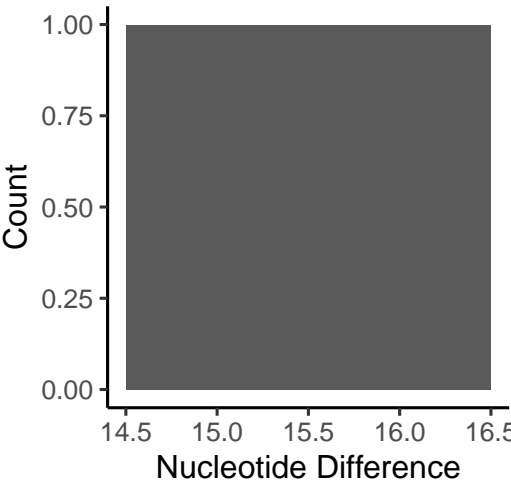
IGHV3-69-1*01

97 sequences assigned
No exact matches.



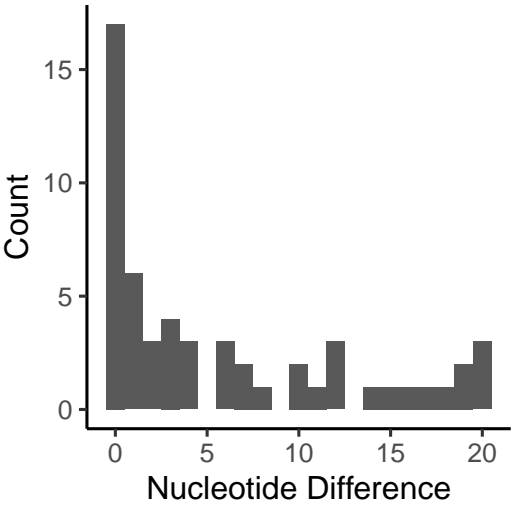
IGHV3-71*01_04

5 sequences assigned
No exact matches.



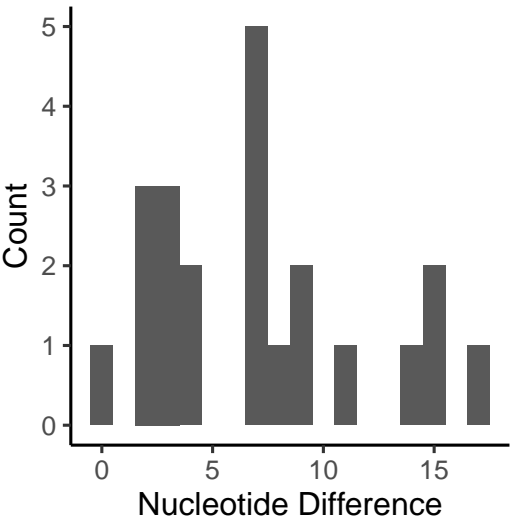
IGHV3-66*03

115 sequences assigned
17 (14.8%) exact matches, in which:
17 unique CDR3
4 unique J



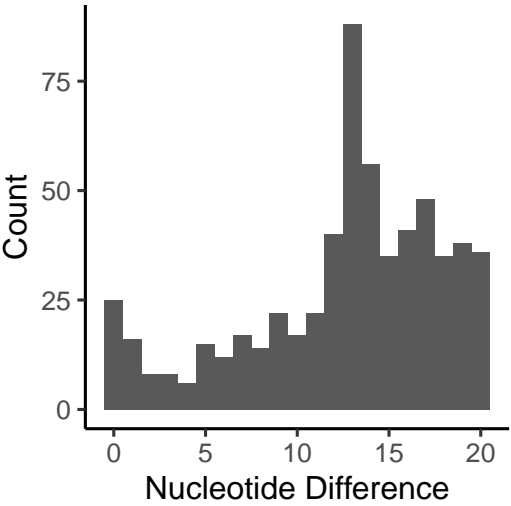
IGHV3-69-1*02

145 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



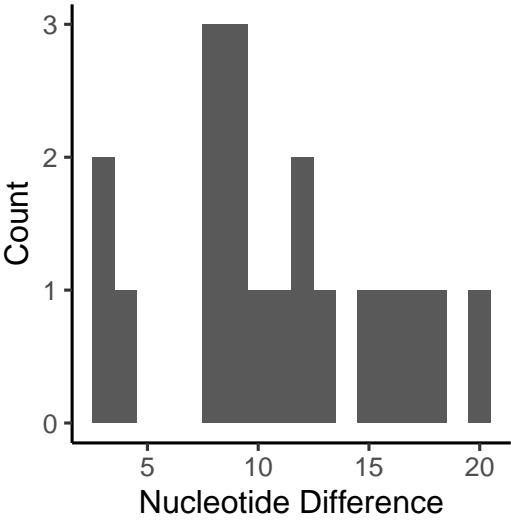
IGHV3-72*01

974 sequences assigned
25 (2.6%) exact matches, in which:
22 unique CDR3
5 unique J



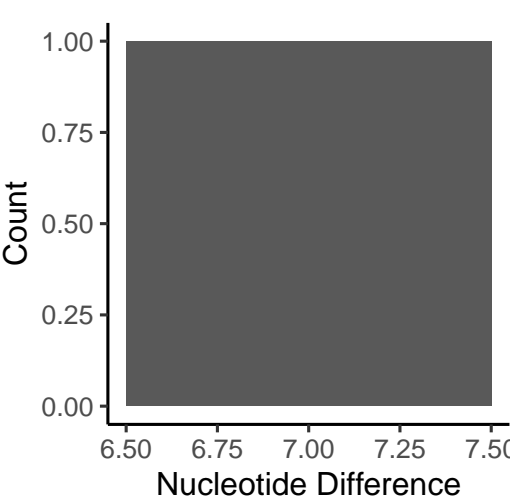
IGHV3-66*04

32 sequences assigned
No exact matches.



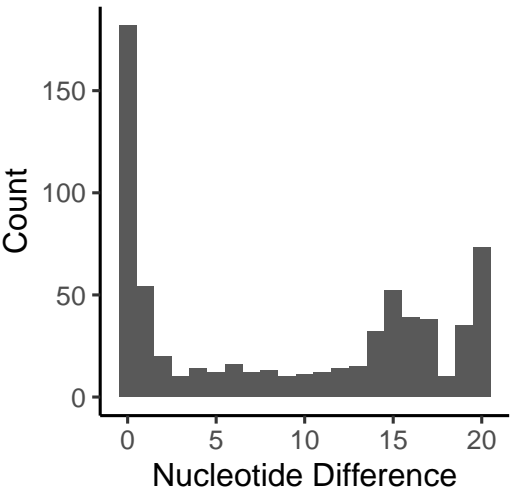
IGHV3-71*03

1 sequences assigned
No exact matches.



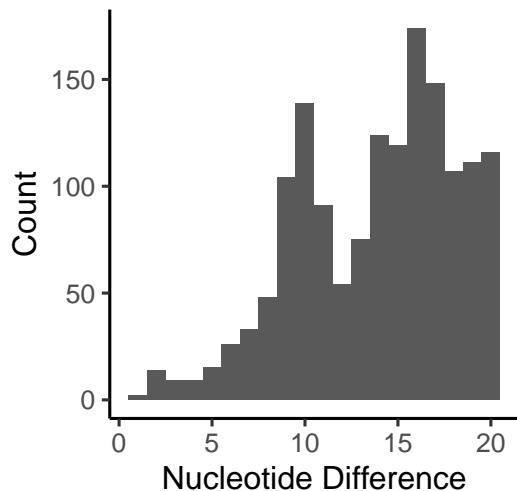
IGHV3-73*01_02

1378 sequences assigned
182 (13.2%) exact matches, in which:
164 unique CDR3
5 unique J



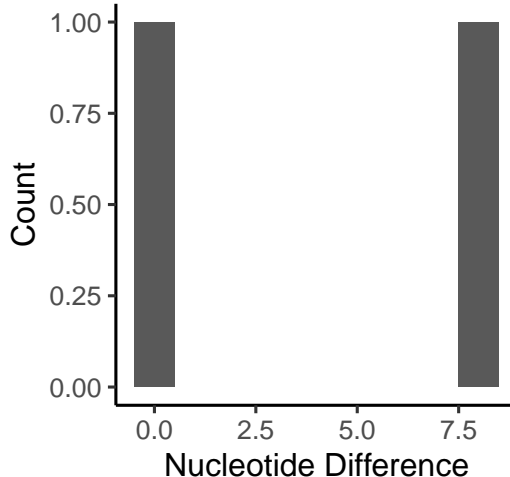
IGHV3-74*03

2852 sequences assigned
No exact matches.



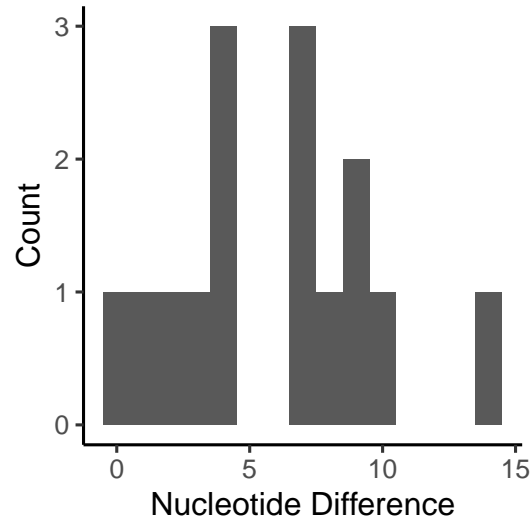
IGHV3-64D*06

2 sequences assigned
1 (50%) exact matches, in which:
1 unique CDR3
1 unique J



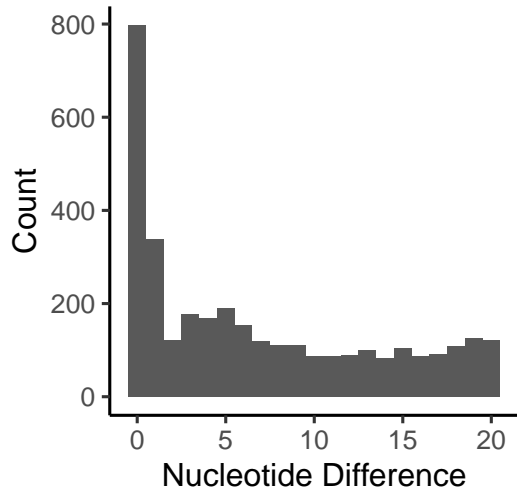
IGHV4-28*03

17 sequences assigned
1 (5.9%) exact matches, in which:
1 unique CDR3
1 unique J



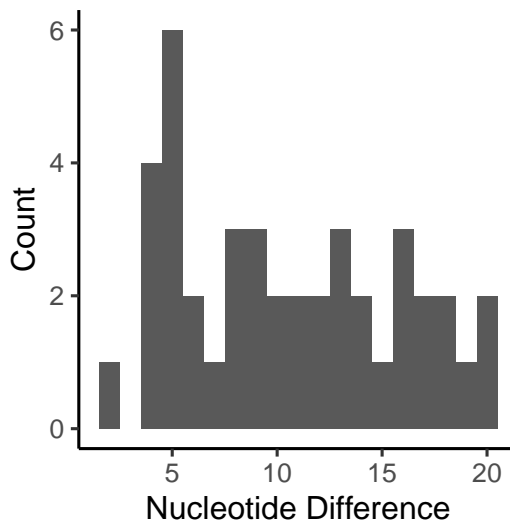
IGHV3-74*01_02

4393 sequences assigned
798 (18.2%) exact matches, in which:
662 unique CDR3
6 unique J



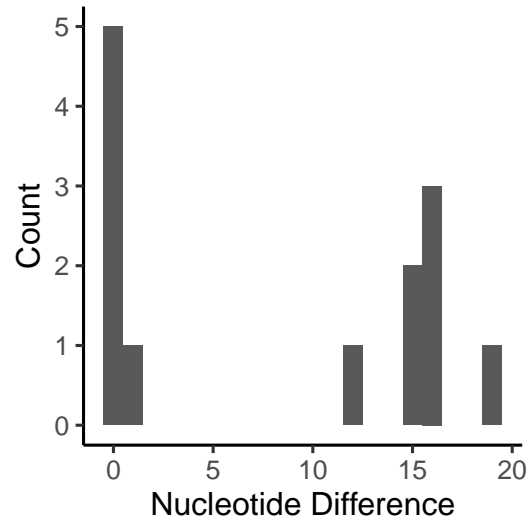
IGHV3-NL1*01

103 sequences assigned
No exact matches.



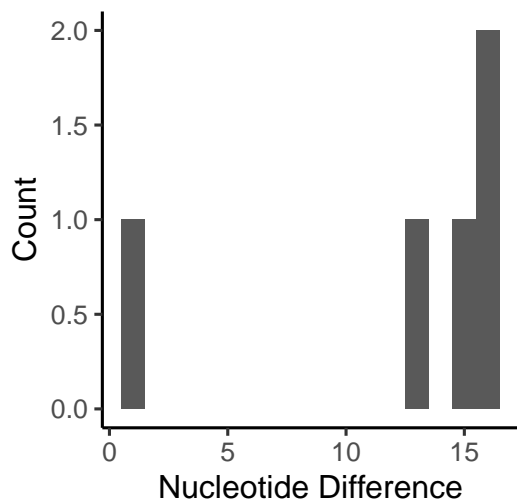
IGHV4-28*01_07

15 sequences assigned
5 (33.3%) exact matches, in which:
5 unique CDR3
3 unique J



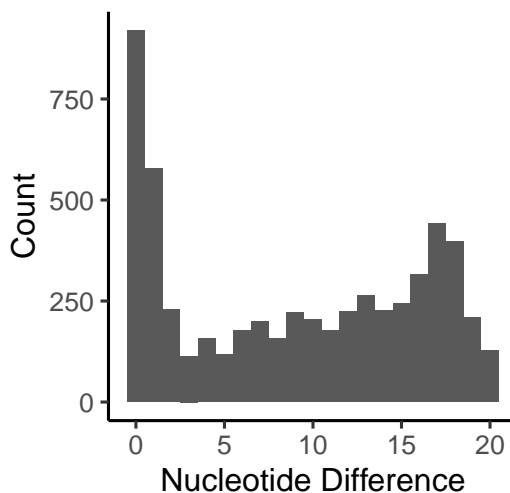
IGHV3-43D*04

146 sequences assigned
No exact matches.



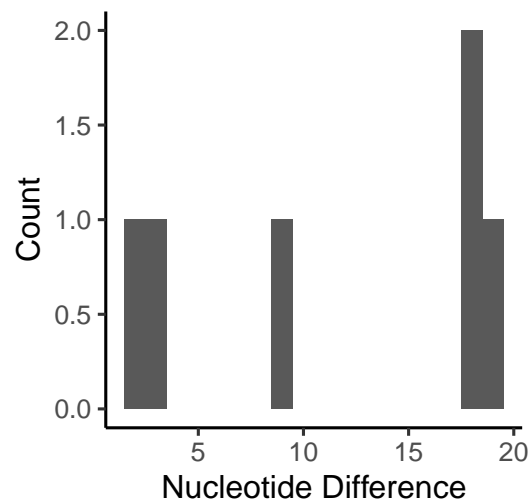
IGHV4-4*07

7025 sequences assigned
920 (13.1%) exact matches, in which:
871 unique CDR3
6 unique J



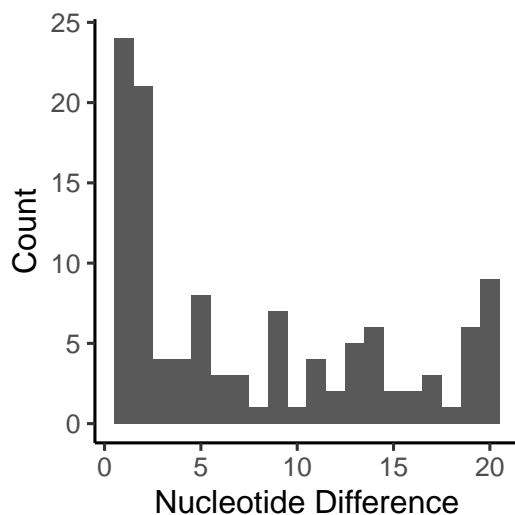
IGHV4-30-4*01

175 sequences assigned
No exact matches.



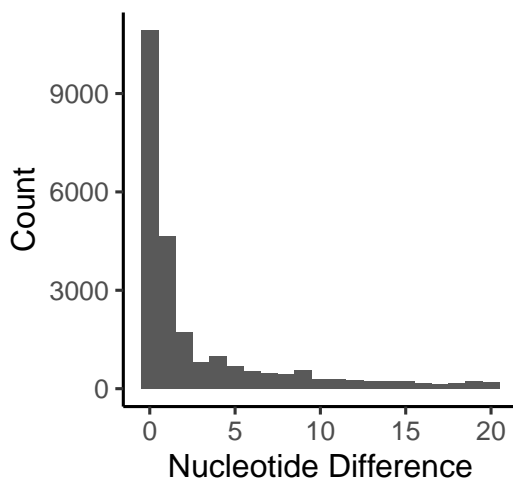
IGHV4-30-2*03

153 sequences assigned
No exact matches.



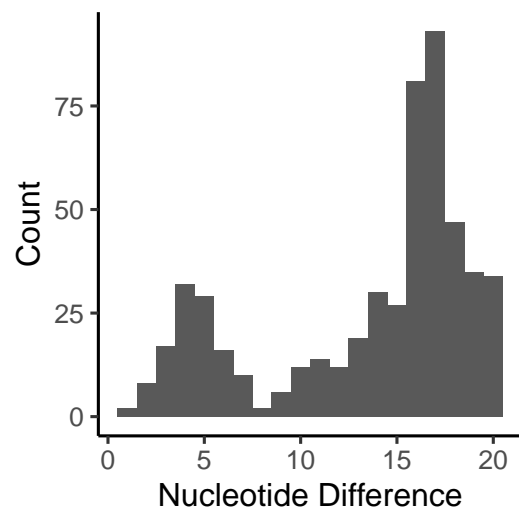
IGHV4-34*01_02

26492 sequences assigned
10925 (41.2%) exact matches, in which:
10179 unique CDR3
6 unique J



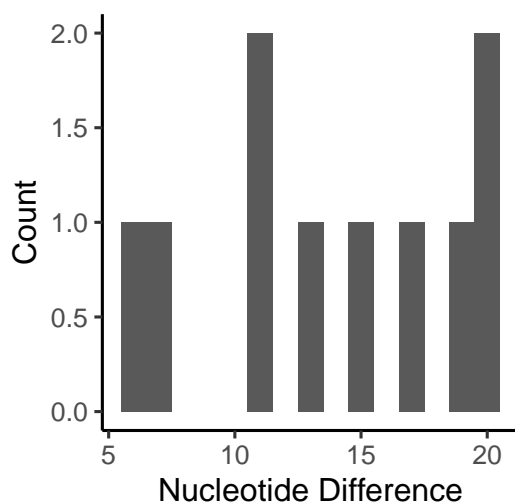
IGHV4-39*02

830 sequences assigned
No exact matches.



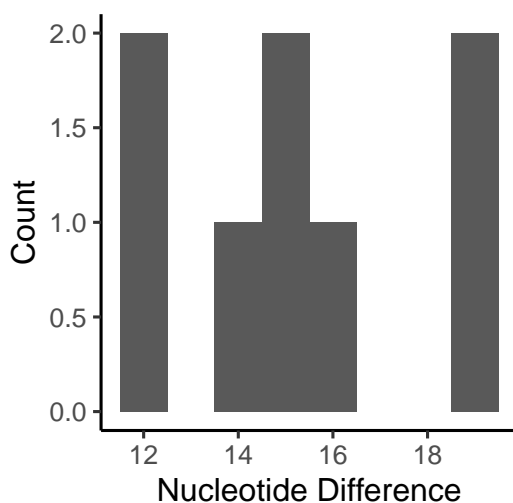
IGHV4-30-4*08

33 sequences assigned
No exact matches.



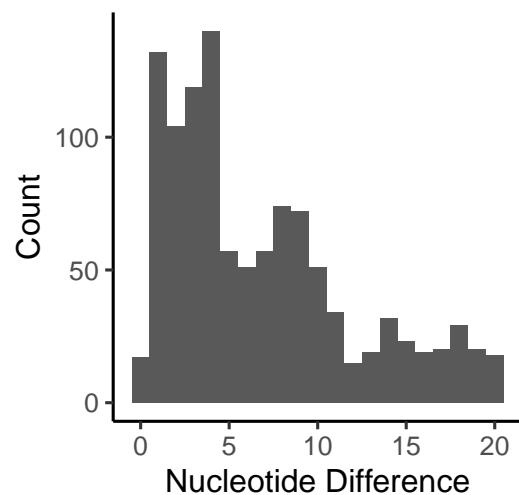
IGHV4-38-2*01

29 sequences assigned
No exact matches.



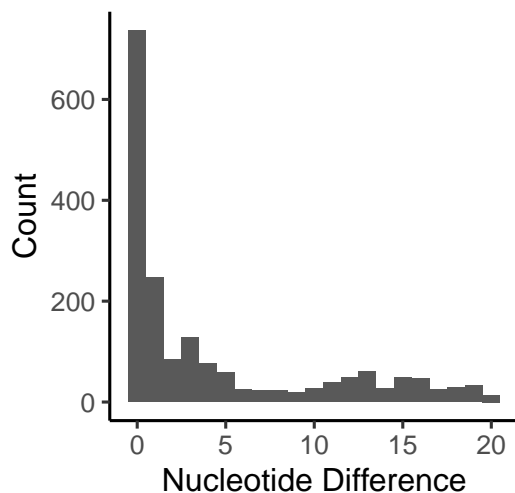
IGHV4-39*07

1201 sequences assigned
17 (1.4%) exact matches, in which:
17 unique CDR3
4 unique J



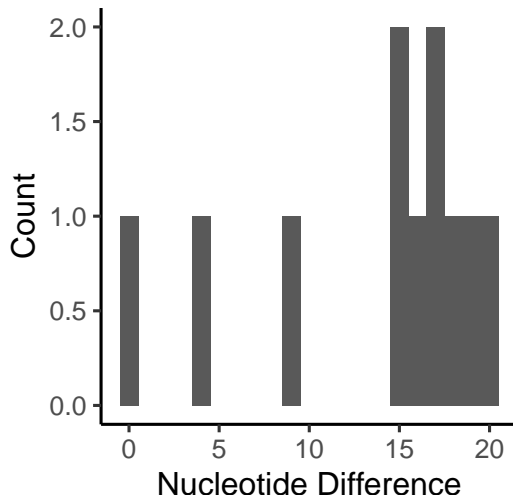
IGHV4-31*02

2550 sequences assigned
737 (28.9%) exact matches, in which:
707 unique CDR3
6 unique J



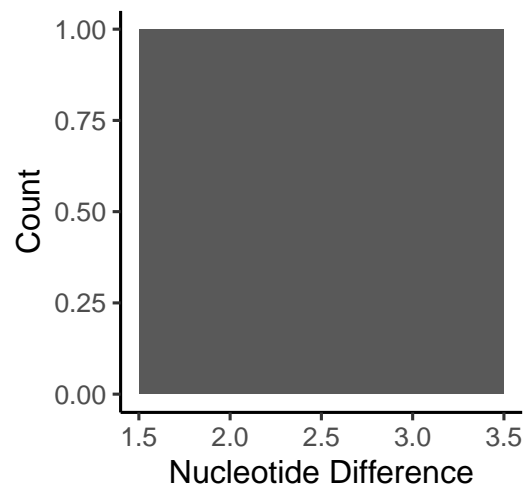
IGHV4-38-2*02

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



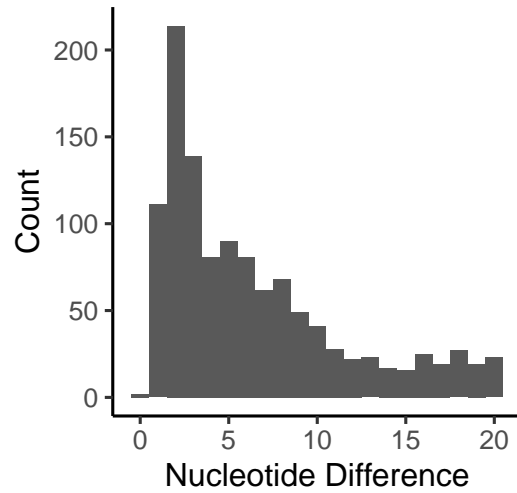
IGHV4-55*09

3 sequences assigned
No exact matches.



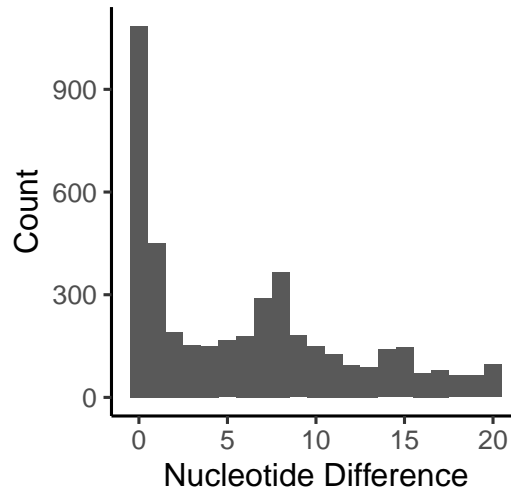
IGHV4–59*08

1509 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
2 unique J



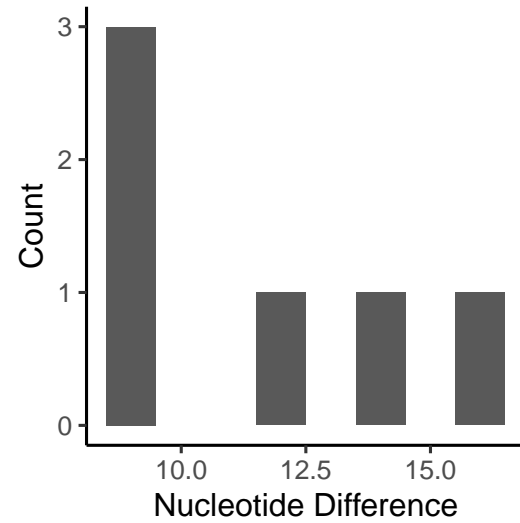
IGHV4–61*01

5629 sequences assigned
1086 (19.3%) exact matches, in which:
1044 unique CDR3
6 unique J



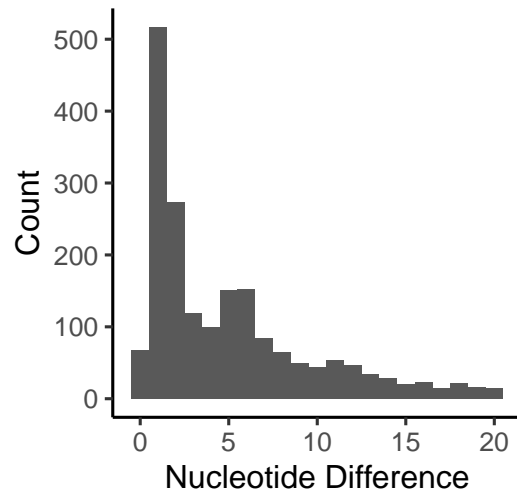
IGHV1/OR15–3*02

8 sequences assigned
No exact matches.



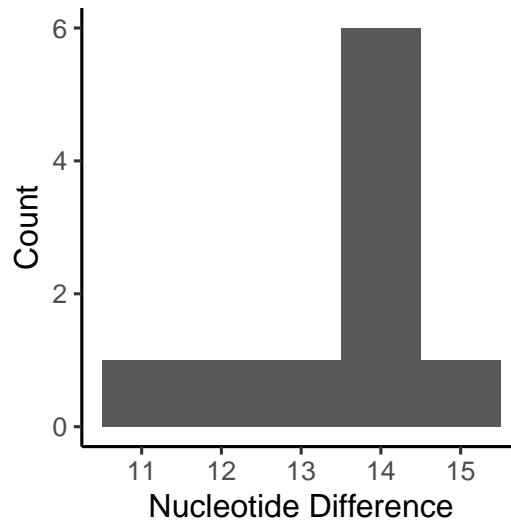
IGHV4–59*12

2491 sequences assigned
67 (2.7%) exact matches, in which:
67 unique CDR3
5 unique J



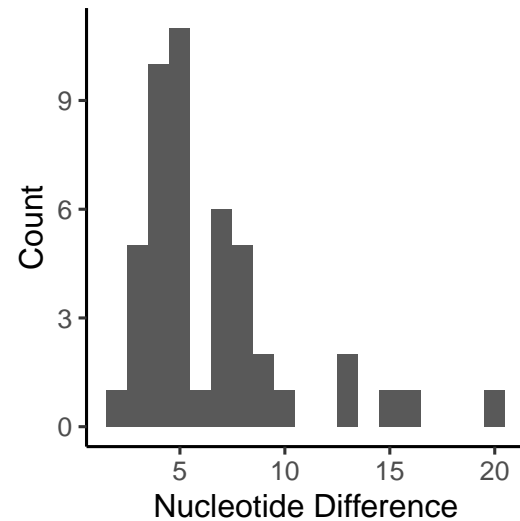
IGHV1/OR15–1*04

18 sequences assigned
No exact matches.



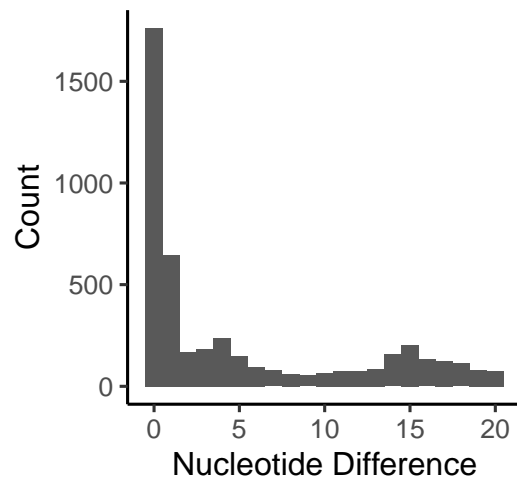
IGHV4/OR15–8*01

51 sequences assigned
No exact matches.



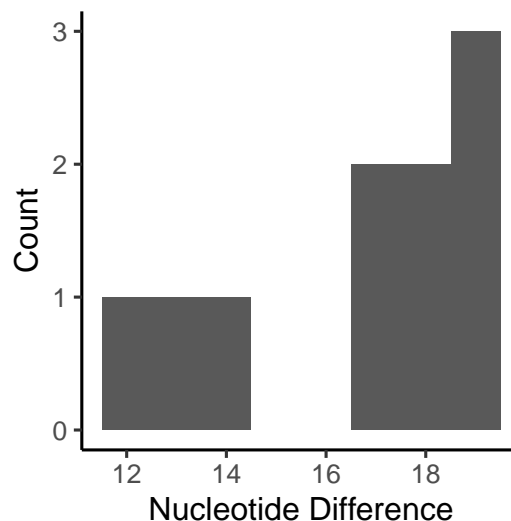
IGHV4–59*13

6583 sequences assigned
1762 (26.8%) exact matches, in which:
1714 unique CDR3
6 unique J



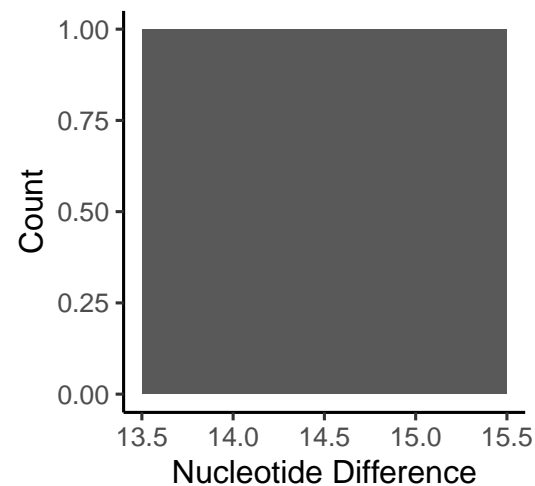
IGHV1/OR15–2*02_03

19 sequences assigned
No exact matches.



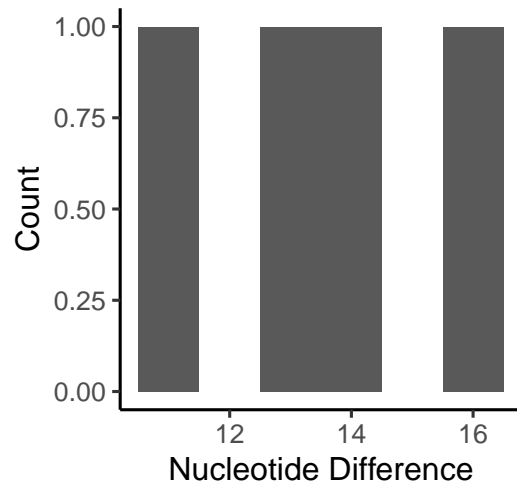
IGHV4/OR15–8*02

5 sequences assigned
No exact matches.



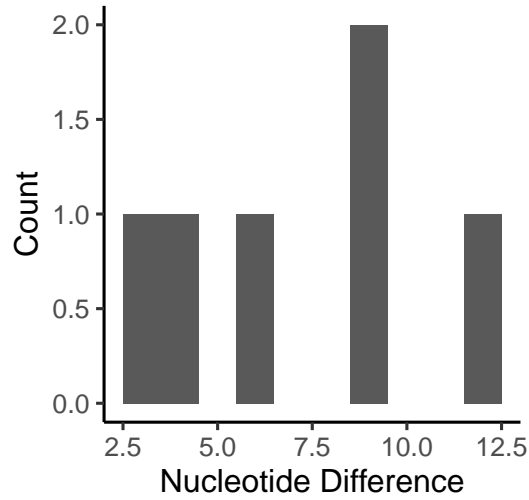
IGHV5-10-1*01_03

4 sequences assigned
No exact matches.



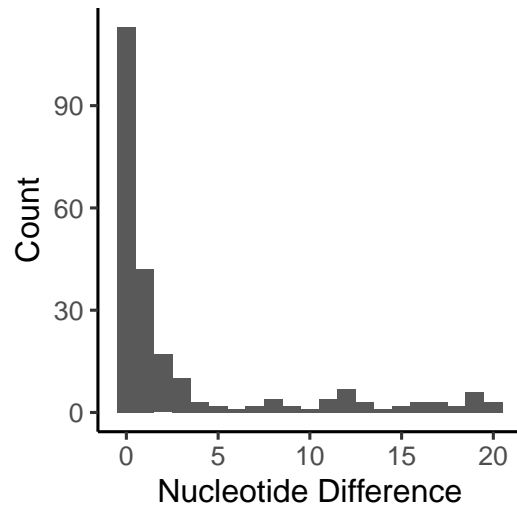
IGHV3/OR16-9*01

7 sequences assigned
No exact matches.



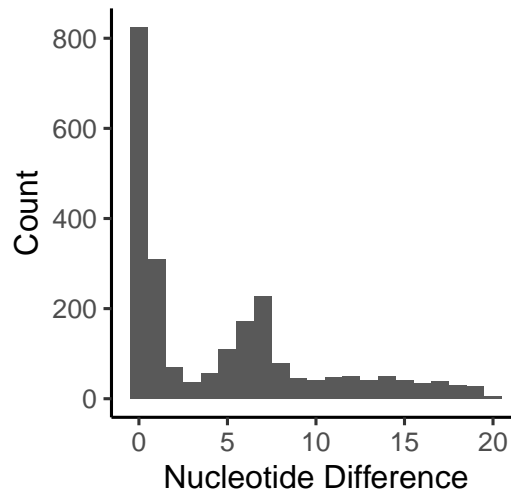
IGHV5-51*07

253 sequences assigned
113 (44.7%) exact matches, in which:
108 unique CDR3
6 unique J



IGHV7-4-1*02

2949 sequences assigned
825 (28%) exact matches, in which:
793 unique CDR3
6 unique J



IGHV6-1*01_02

2357 sequences assigned
328 (13.9%) exact matches, in which:
316 unique CDR3
6 unique J

