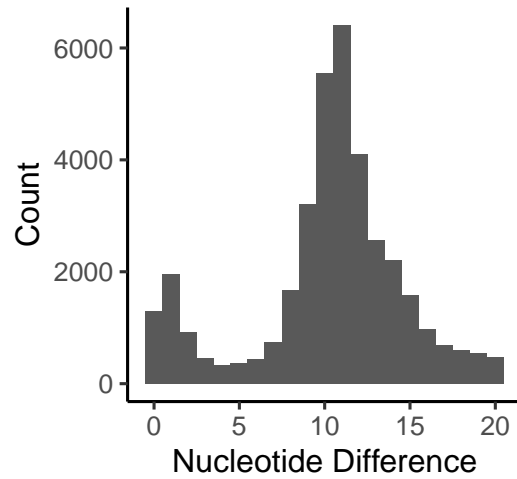


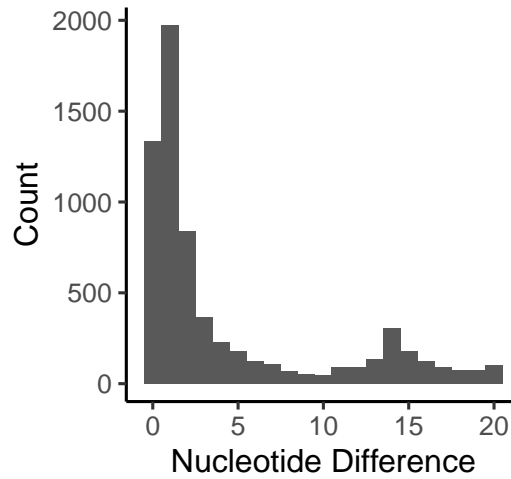
IGHV1-2*02

40731 sequences assigned
1303 (3.2%) exact matches, in which:
1134 unique CDR3
6 unique J



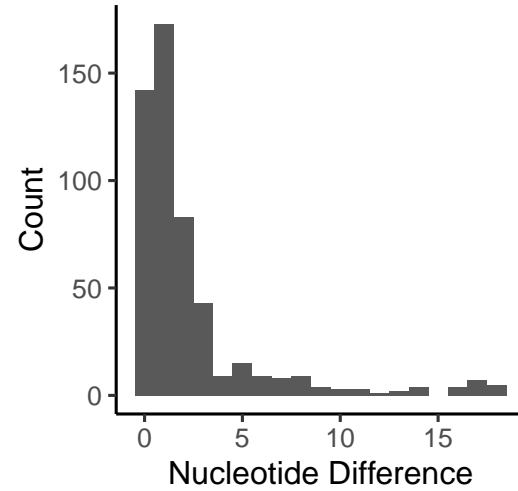
IGHV1-8*01

6845 sequences assigned
1334 (19.5%) exact matches, in which:
1150 unique CDR3
6 unique J



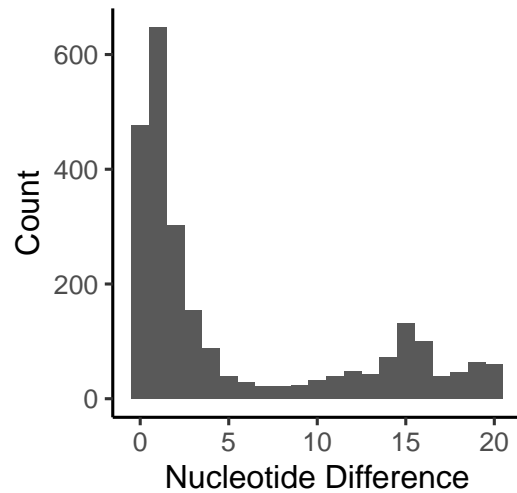
IGHV1-24*01

525 sequences assigned
142 (27%) exact matches, in which:
132 unique CDR3
5 unique J



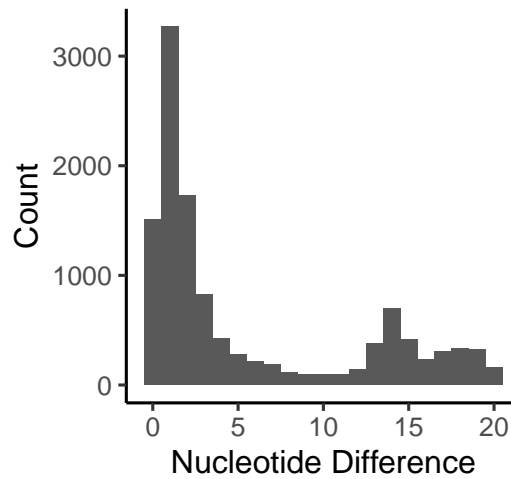
IGHV1-2*04

3591 sequences assigned
477 (13.3%) exact matches, in which:
421 unique CDR3
6 unique J



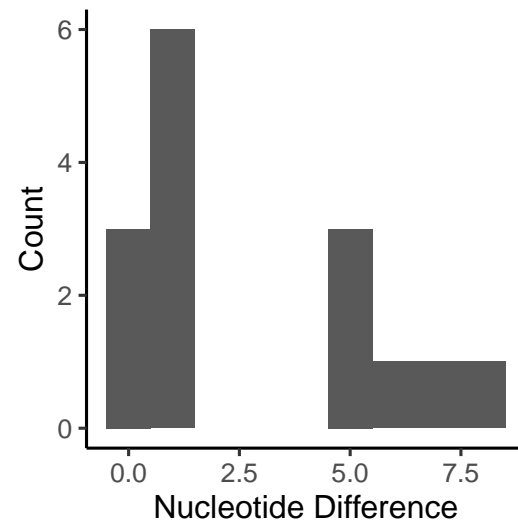
IGHV1-18*01

25921 sequences assigned
1506 (5.8%) exact matches, in which:
1240 unique CDR3
6 unique J



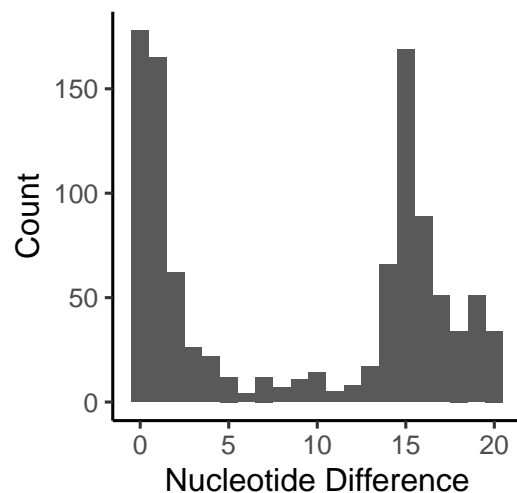
IGHV1-45*02

69 sequences assigned
3 (4.3%) exact matches, in which:
3 unique CDR3
3 unique J



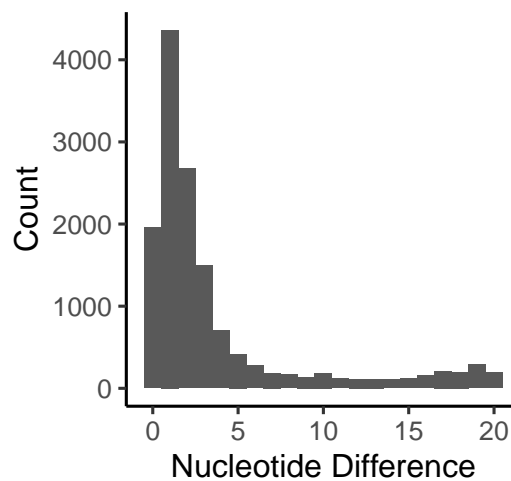
IGHV1-3*01_05

1301 sequences assigned
178 (13.7%) exact matches, in which:
162 unique CDR3
6 unique J



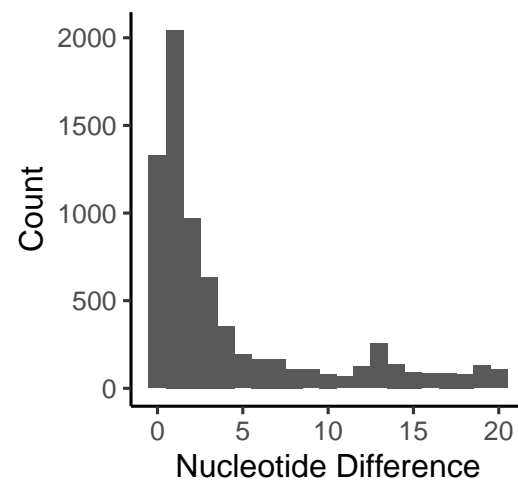
IGHV1-18*04

15032 sequences assigned
1960 (13%) exact matches, in which:
1637 unique CDR3
6 unique J



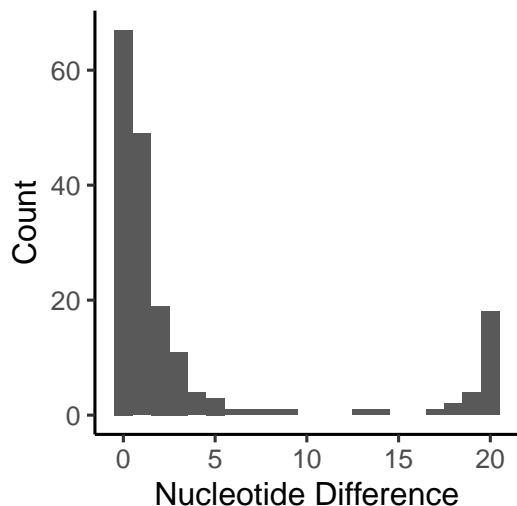
IGHV1-46*01

10106 sequences assigned
1328 (13.1%) exact matches, in which:
1156 unique CDR3
6 unique J



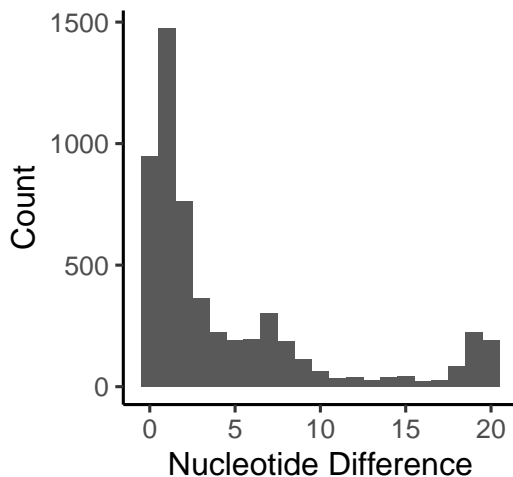
IGHV1-58*01_03

214 sequences assigned
67 (31.3%) exact matches, in which:
64 unique CDR3
5 unique J



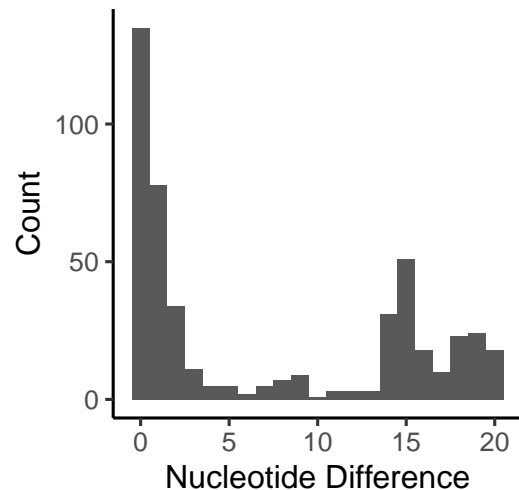
IGHV1-69*06_14

7742 sequences assigned
947 (12.2%) exact matches, in which:
839 unique CDR3
6 unique J



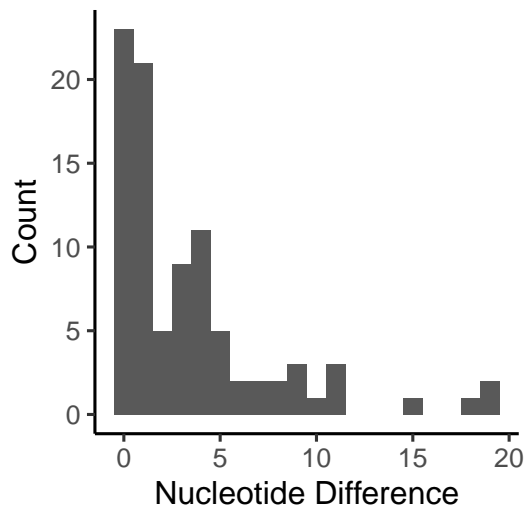
IGHV2-70*01

522 sequences assigned
135 (25.9%) exact matches, in which:
121 unique CDR3
5 unique J



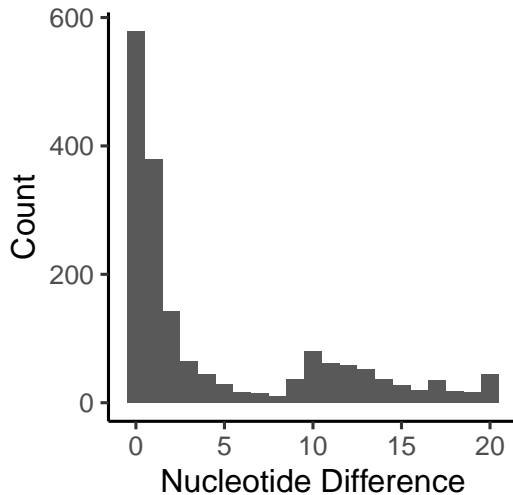
IGHV1-69-2*01

93 sequences assigned
23 (24.7%) exact matches, in which:
22 unique CDR3
4 unique J



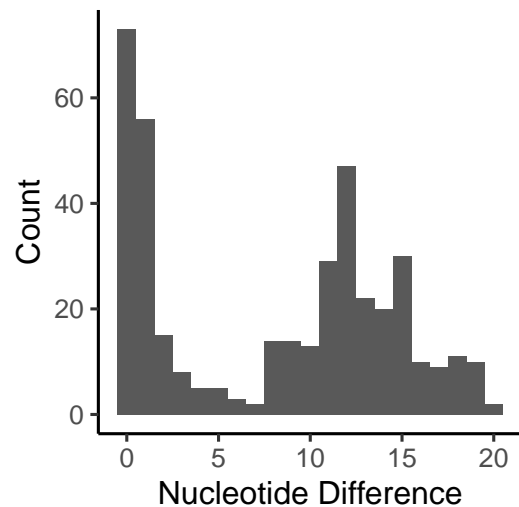
IGHV2-5*01

2250 sequences assigned
579 (25.7%) exact matches, in which:
519 unique CDR3
6 unique J



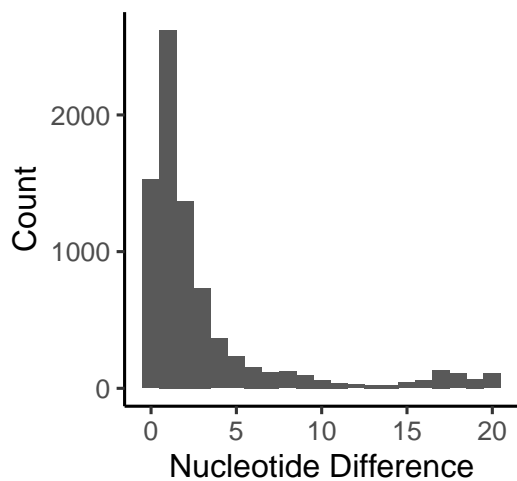
IGHV2-70*04

460 sequences assigned
73 (15.9%) exact matches, in which:
60 unique CDR3
6 unique J



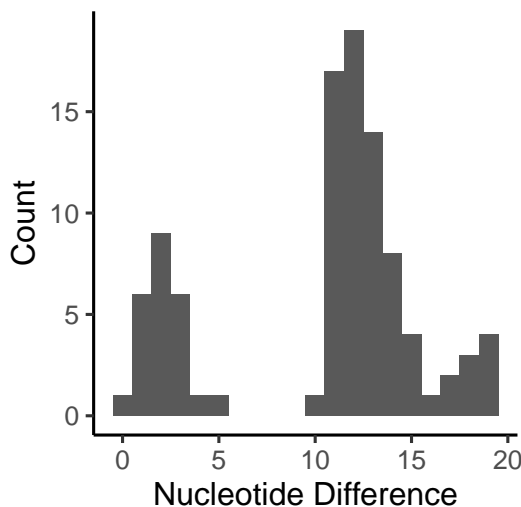
IGHV1-69*01_12_13

9693 sequences assigned
1528 (15.8%) exact matches, in which:
1333 unique CDR3
6 unique J



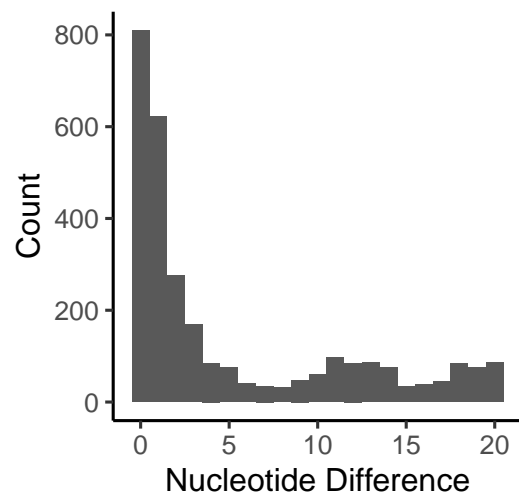
IGHV2-26*01

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



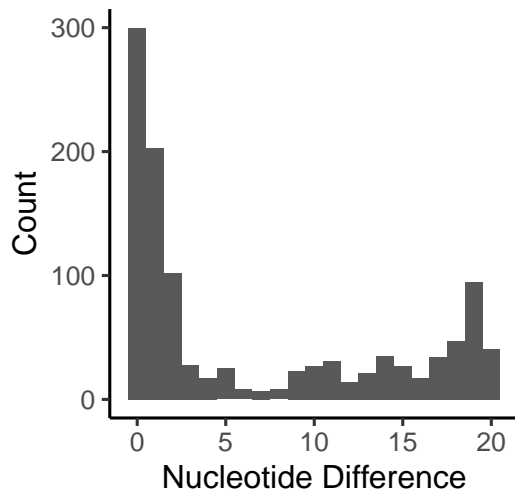
IGHV3-7*01

3647 sequences assigned
810 (22.2%) exact matches, in which:
682 unique CDR3
6 unique J



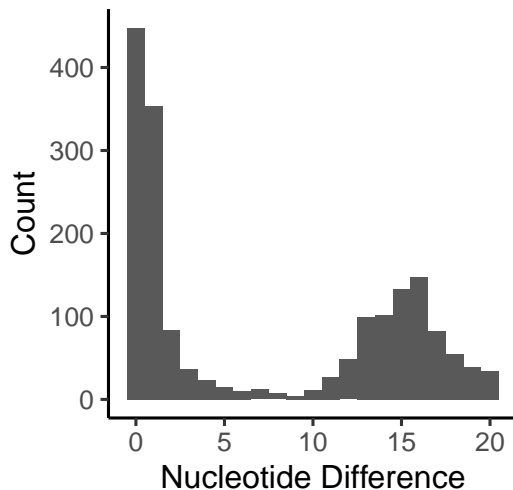
IGHV3-7*05

1268 sequences assigned
300 (23.7%) exact matches, in which:
272 unique CDR3
6 unique J



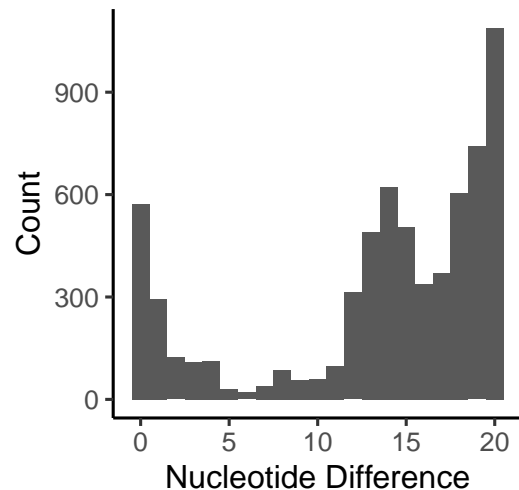
IGHV3-11*06

3068 sequences assigned
448 (14.6%) exact matches, in which:
380 unique CDR3
6 unique J



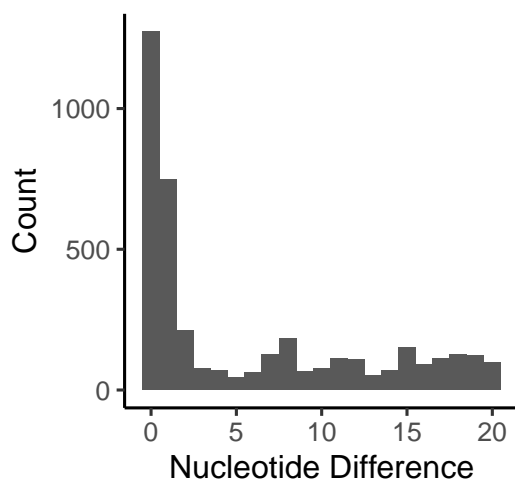
IGHV3-15*07

33159 sequences assigned
573 (1.7%) exact matches, in which:
541 unique CDR3
6 unique J



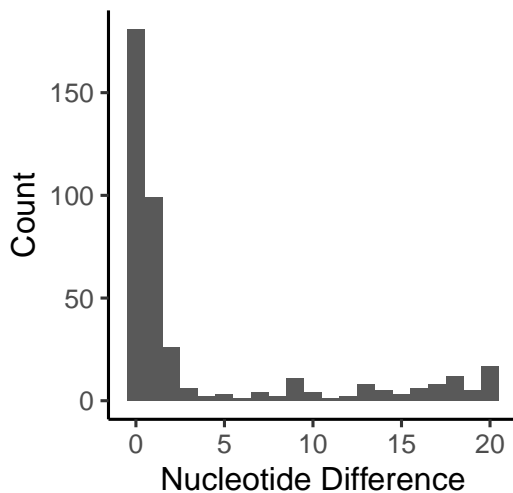
IGHV3-9*01

5365 sequences assigned
1273 (23.7%) exact matches, in which:
1135 unique CDR3
6 unique J



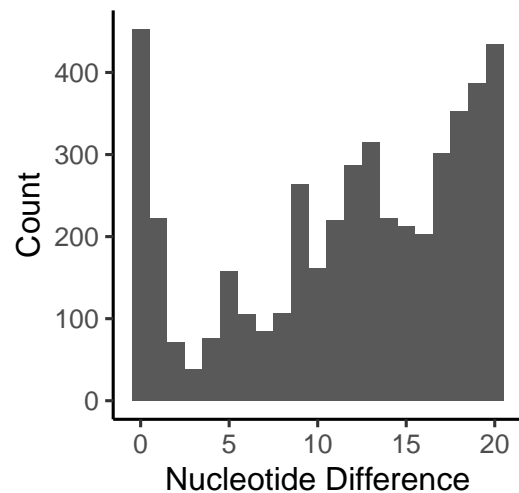
IGHV3-13*01

454 sequences assigned
181 (39.9%) exact matches, in which:
149 unique CDR3
5 unique J



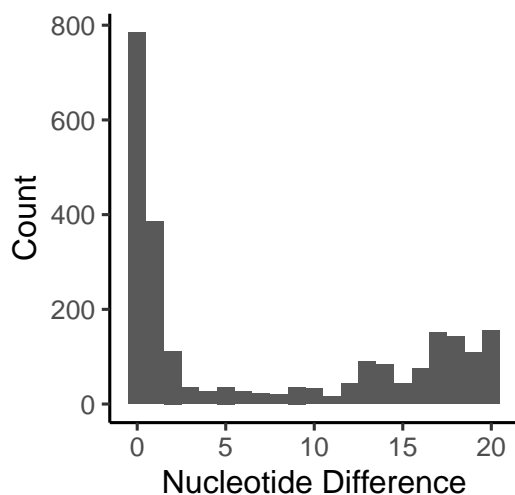
IGHV3-15*01_02

7686 sequences assigned
453 (5.9%) exact matches, in which:
419 unique CDR3
6 unique J



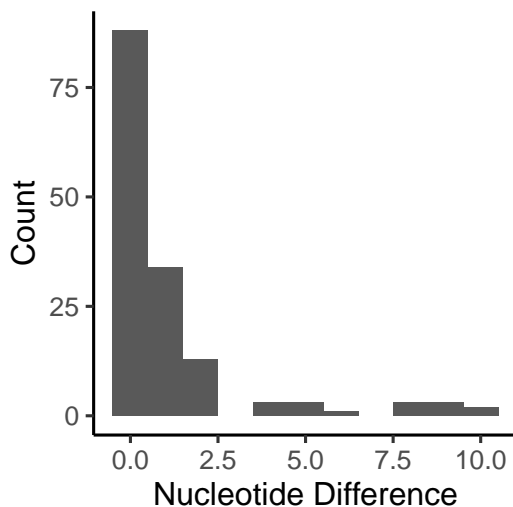
IGHV3-11*01

3745 sequences assigned
785 (21%) exact matches, in which:
698 unique CDR3
6 unique J



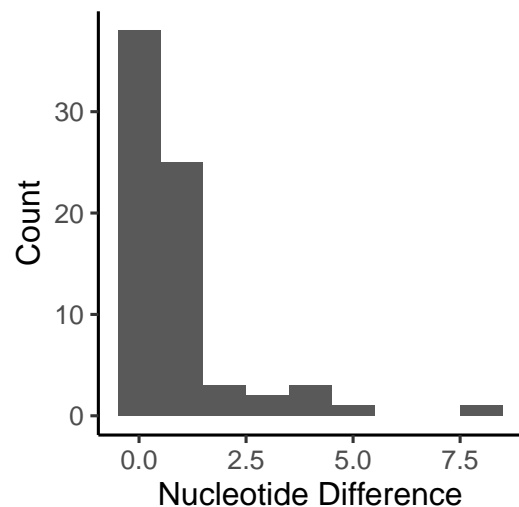
IGHV3-13*05

239 sequences assigned
88 (36.8%) exact matches, in which:
77 unique CDR3
5 unique J



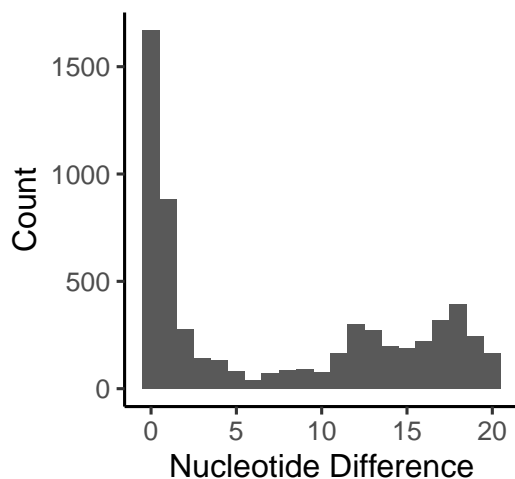
IGHV3-20*03_04

78 sequences assigned
38 (48.7%) exact matches, in which:
35 unique CDR3
5 unique J



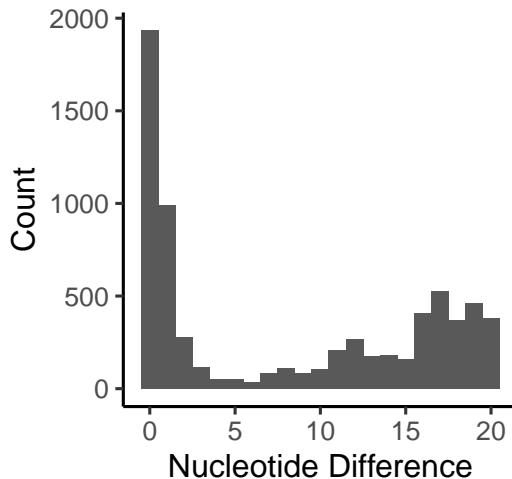
IGHV3-21*01_02

8539 sequences assigned
1669 (19.5%) exact matches, in which:
1497 unique CDR3
6 unique J



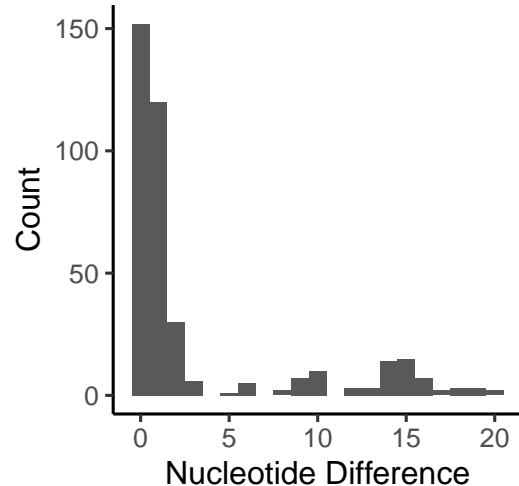
IGHV3-30*18

9765 sequences assigned
1934 (19.8%) exact matches, in which:
1750 unique CDR3
6 unique J



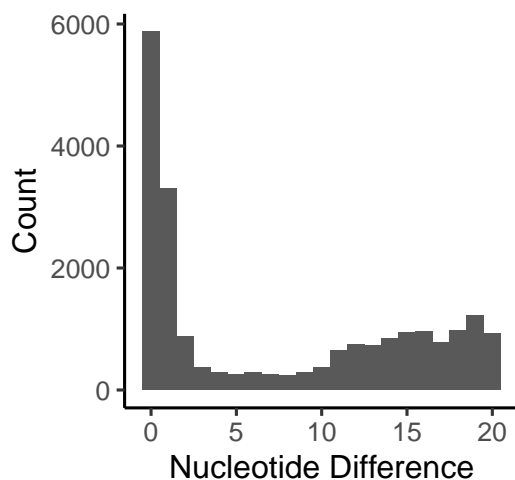
IGHV3-43*01

479 sequences assigned
152 (31.7%) exact matches, in which:
132 unique CDR3
6 unique J



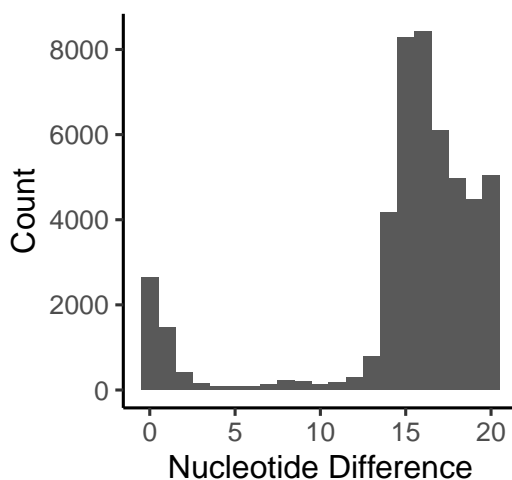
IGHV3-23*01_04

30433 sequences assigned
5873 (19.3%) exact matches, in which:
5219 unique CDR3
6 unique J



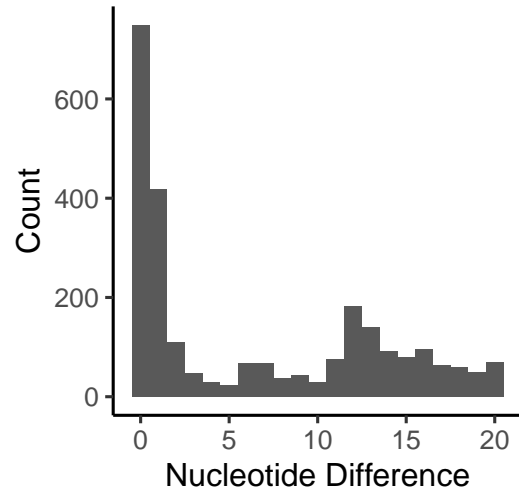
IGHV3-33*01

61849 sequences assigned
2652 (4.3%) exact matches, in which:
1950 unique CDR3
6 unique J



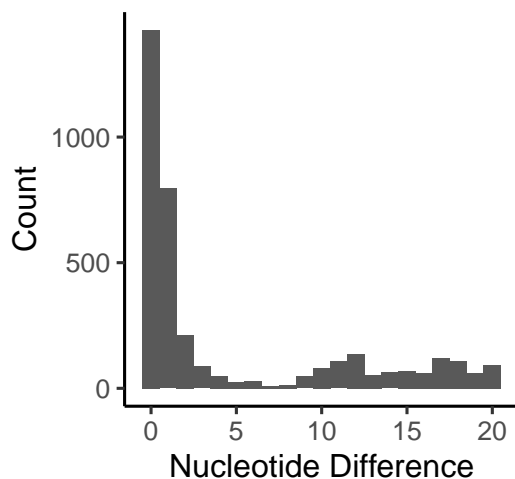
IGHV3-48*02

3224 sequences assigned
749 (23.2%) exact matches, in which:
657 unique CDR3
6 unique J



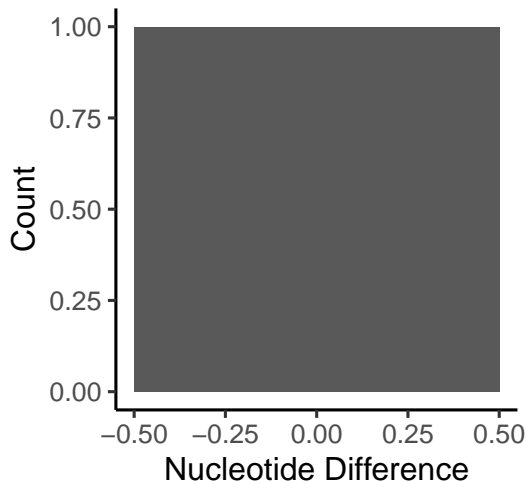
IGHV3-30-3*01

4664 sequences assigned
1426 (30.6%) exact matches, in which:
1299 unique CDR3
6 unique J



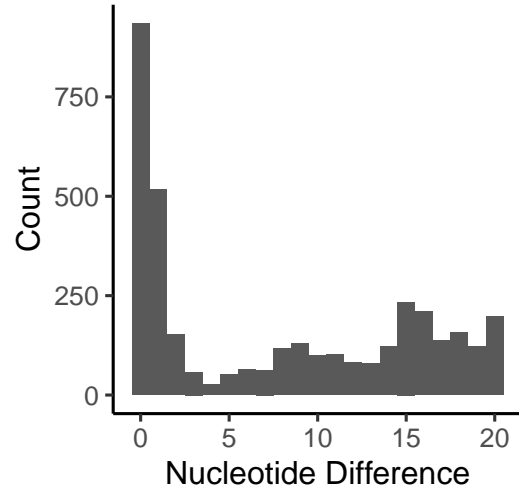
IGHV3-35*01

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



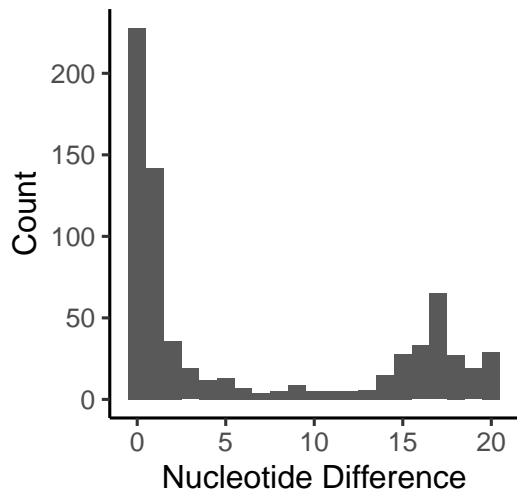
IGHV3-48*03

4887 sequences assigned
935 (19.1%) exact matches, in which:
825 unique CDR3
6 unique J



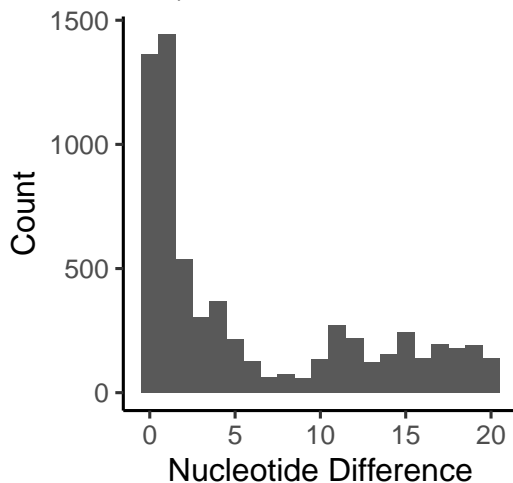
IGHV3-49*04

906 sequences assigned
228 (25.2%) exact matches, in which:
209 unique CDR3
6 unique J



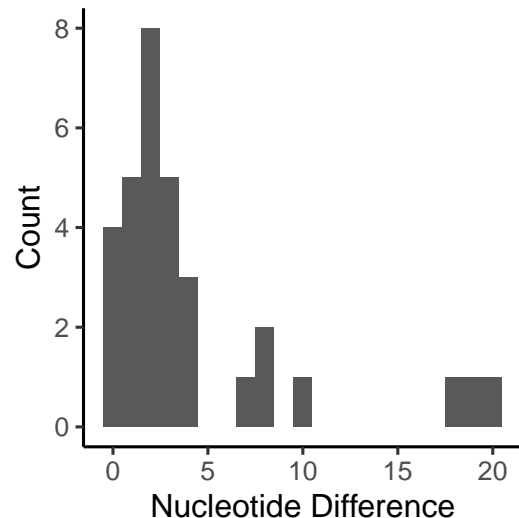
IGHV3-53*01_02

8168 sequences assigned
1365 (16.7%) exact matches, in which:
1133 unique CDR3
6 unique J



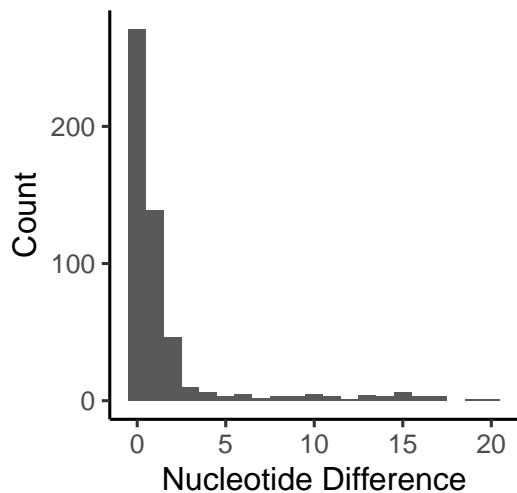
IGHV3-66*03

38 sequences assigned
4 (10.5%) exact matches, in which:
4 unique CDR3
2 unique J



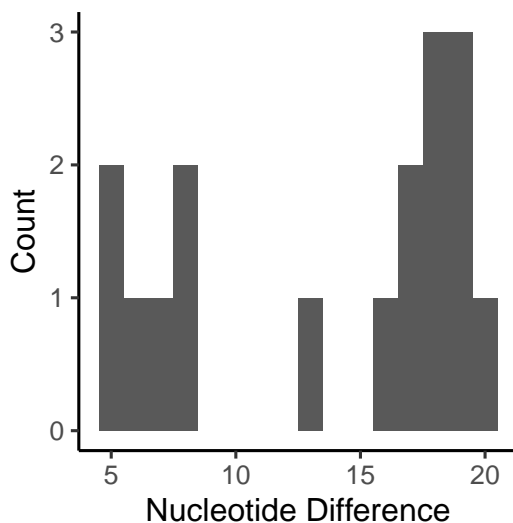
IGHV3-49*03_05

548 sequences assigned
271 (49.5%) exact matches, in which:
254 unique CDR3
6 unique J



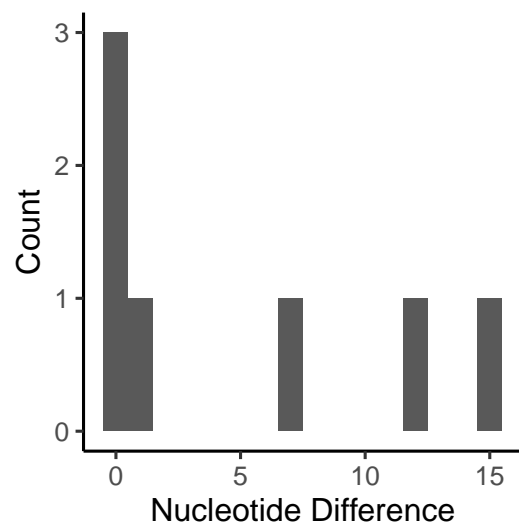
IGHV3-64*04

31 sequences assigned
No exact matches.



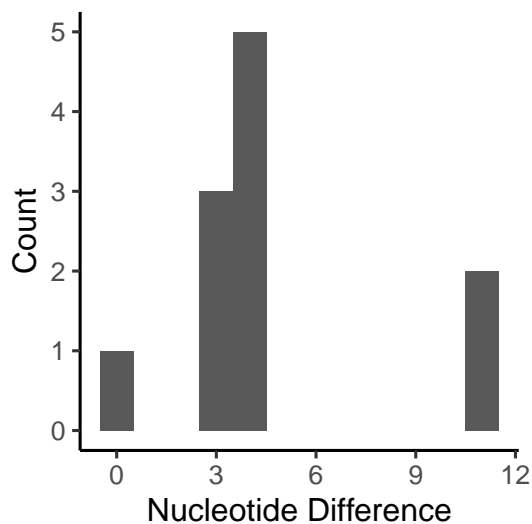
IGHV3-69-1*01

10 sequences assigned
3 (30%) exact matches, in which:
3 unique CDR3
2 unique J



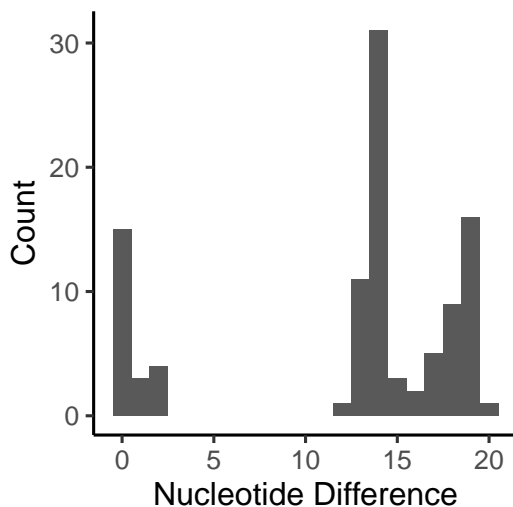
IGHV3-52*01_03

11 sequences assigned
1 (9.1%) exact matches, in which:
1 unique CDR3
1 unique J



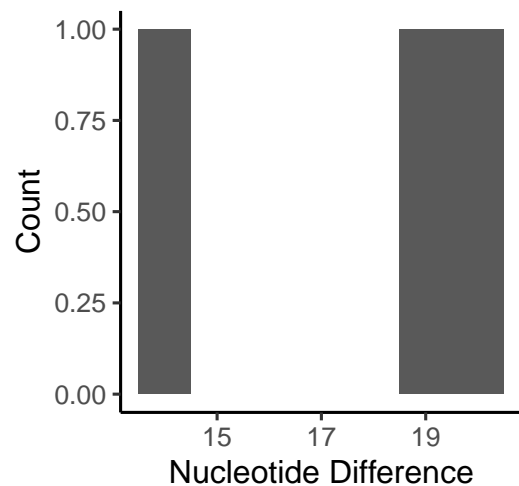
IGHV3-64*02_07

108 sequences assigned
15 (13.9%) exact matches, in which:
15 unique CDR3
5 unique J



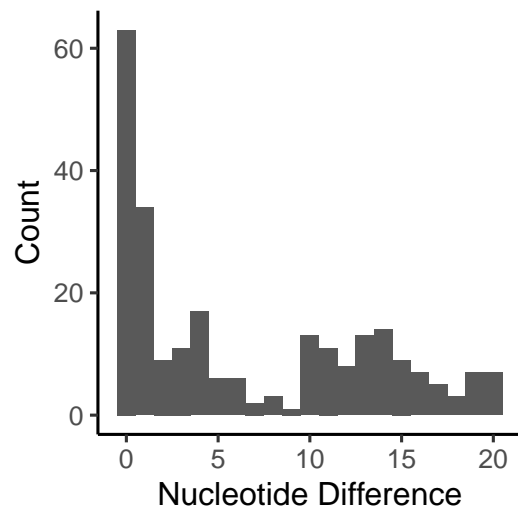
IGHV3-69-1*02

7 sequences assigned
No exact matches.



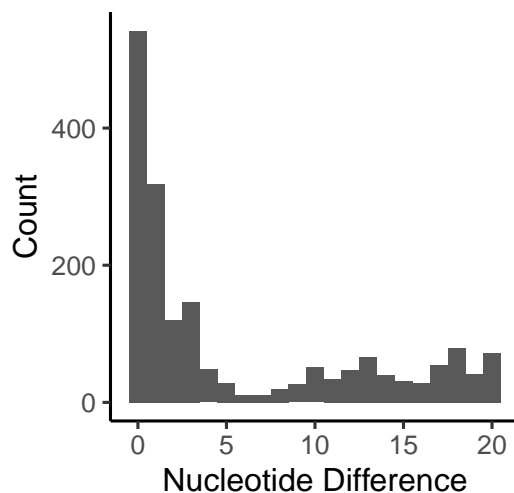
IGHV3-72*01

368 sequences assigned
63 (17.1%) exact matches, in which:
57 unique CDR3
5 unique J



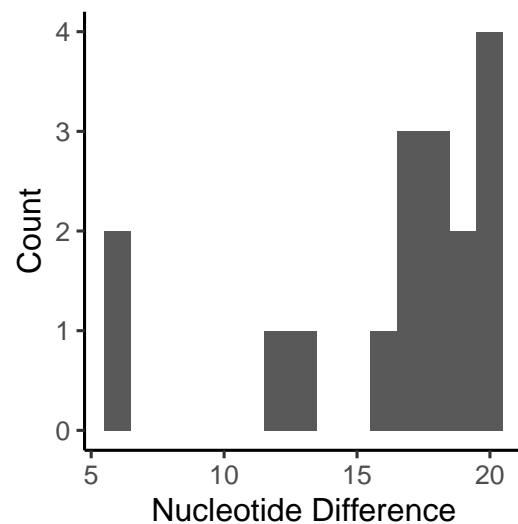
IGHV3-74*01_02

1998 sequences assigned
542 (27.1%) exact matches, in which:
492 unique CDR3
6 unique J



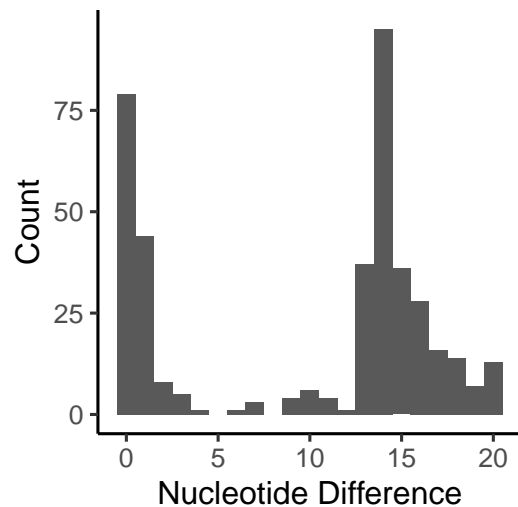
IGHV3-NL1*01

33 sequences assigned
No exact matches.



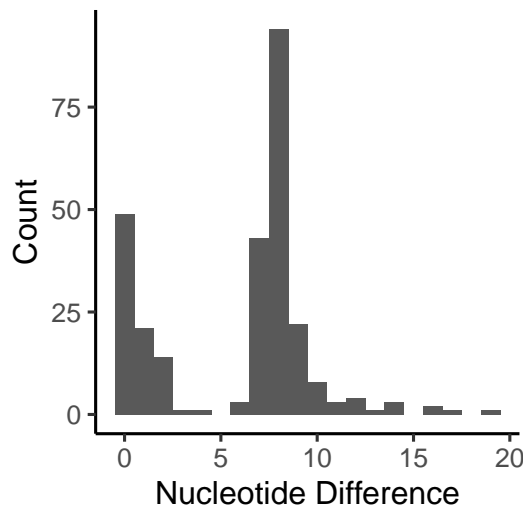
IGHV3-73*01_02

709 sequences assigned
79 (11.1%) exact matches, in which:
76 unique CDR3
6 unique J



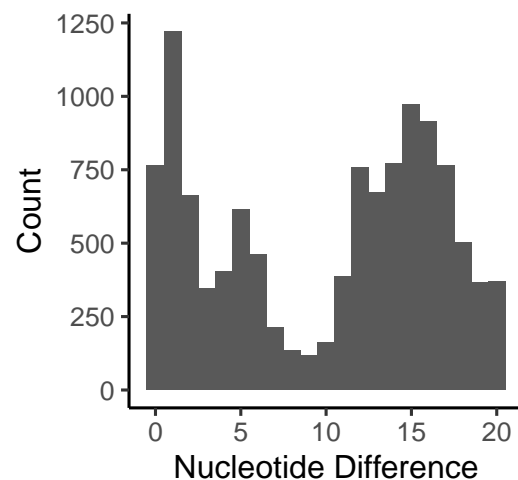
IGHV3-43D*04

278 sequences assigned
49 (17.6%) exact matches, in which:
46 unique CDR3
5 unique J



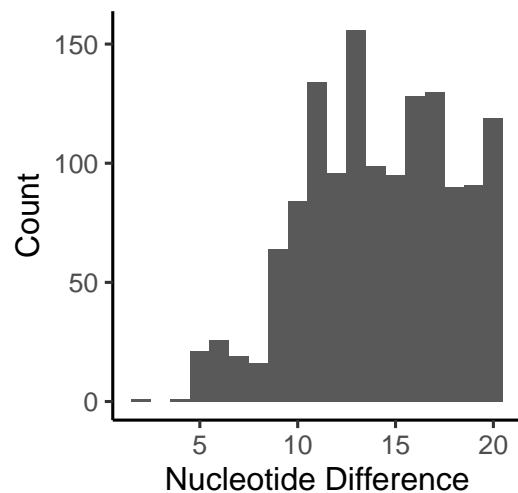
IGHV4-4*07

15924 sequences assigned
766 (4.8%) exact matches, in which:
646 unique CDR3
6 unique J



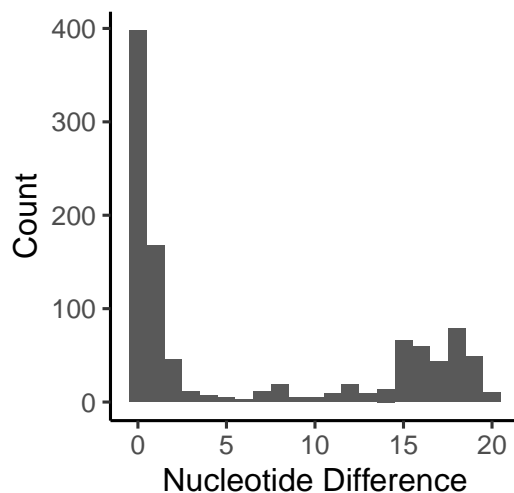
IGHV3-74*03

2746 sequences assigned
No exact matches.



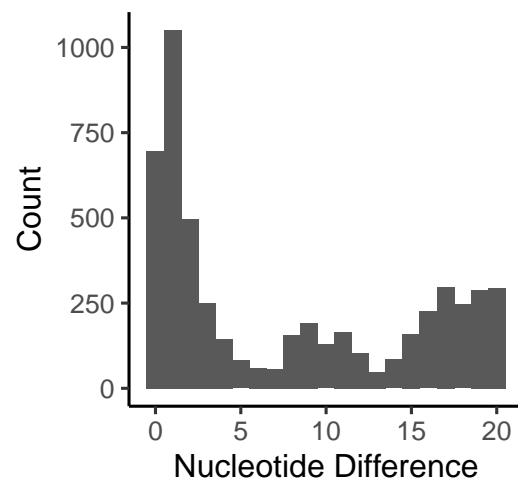
IGHV3-64D*08

1113 sequences assigned
398 (35.8%) exact matches, in which:
357 unique CDR3
6 unique J



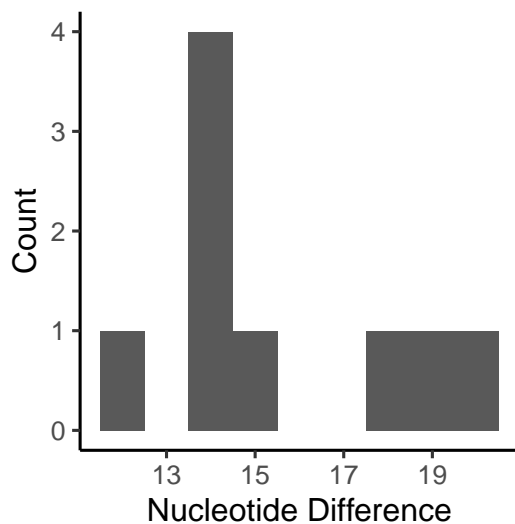
IGHV4-4*02_03

9510 sequences assigned
697 (7.3%) exact matches, in which:
573 unique CDR3
6 unique J



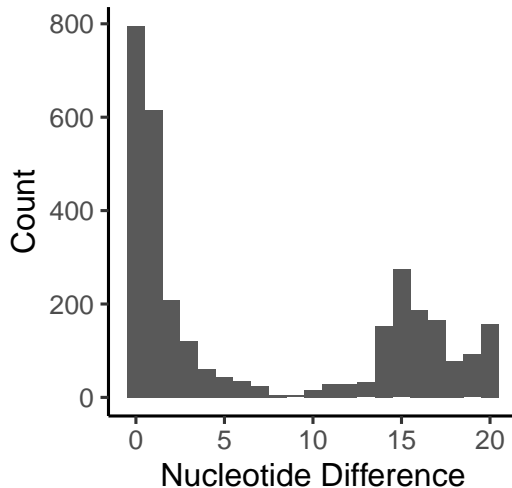
IGHV4-28*03

12 sequences assigned
No exact matches.



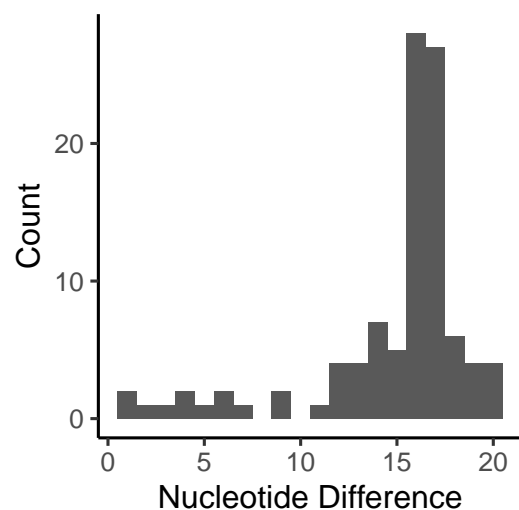
IGHV4-30-4*01

5044 sequences assigned
796 (15.8%) exact matches, in which:
637 unique CDR3
6 unique J



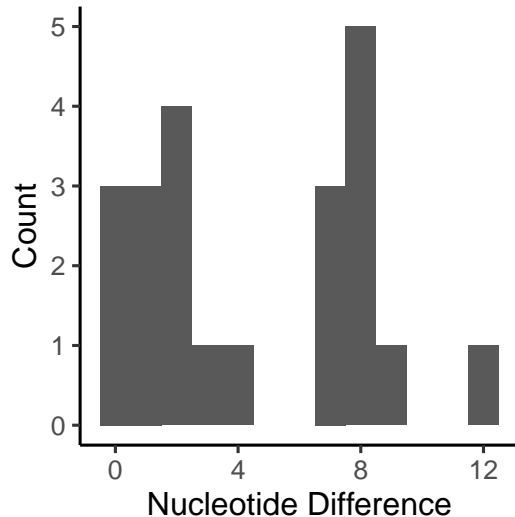
IGHV4-38-2*02

201 sequences assigned
No exact matches.



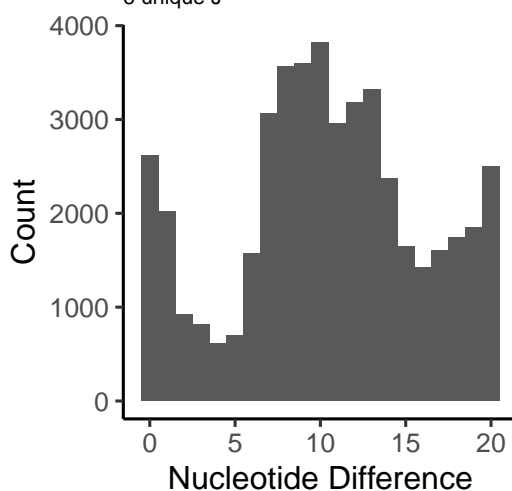
IGHV4-28*01_07

22 sequences assigned
3 (13.6%) exact matches, in which:
3 unique CDR3
2 unique J



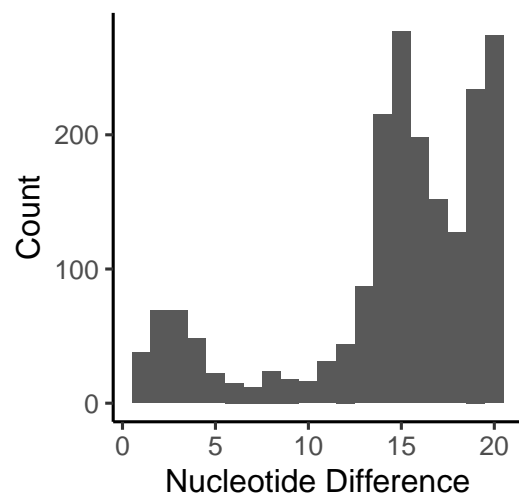
IGHV4-31*02

54266 sequences assigned
2612 (4.8%) exact matches, in which:
2068 unique CDR3
6 unique J



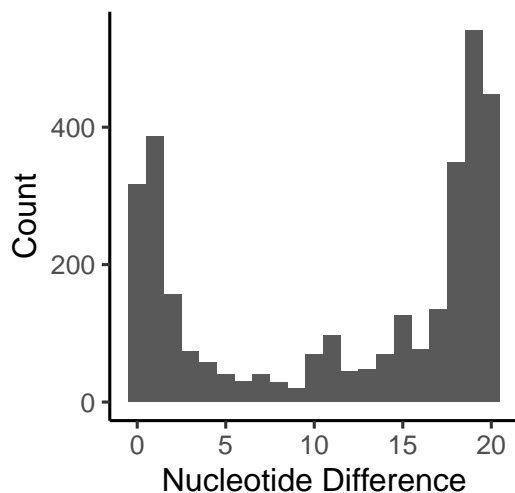
IGHV4-39*07

4717 sequences assigned
No exact matches.



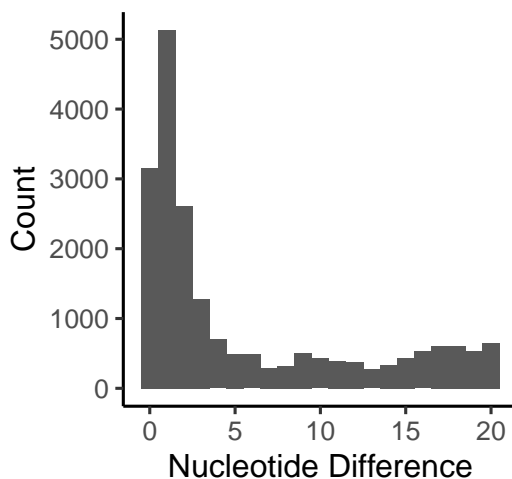
IGHV4-30-2*01

5029 sequences assigned
316 (6.3%) exact matches, in which:
258 unique CDR3
6 unique J



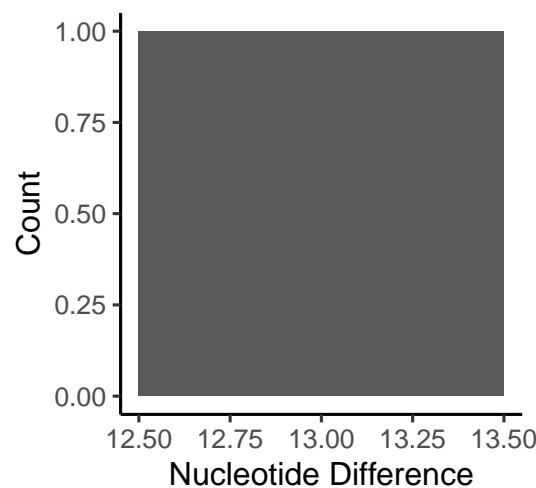
IGHV4-34*01_02

28443 sequences assigned
3158 (11.1%) exact matches, in which:
2623 unique CDR3
6 unique J



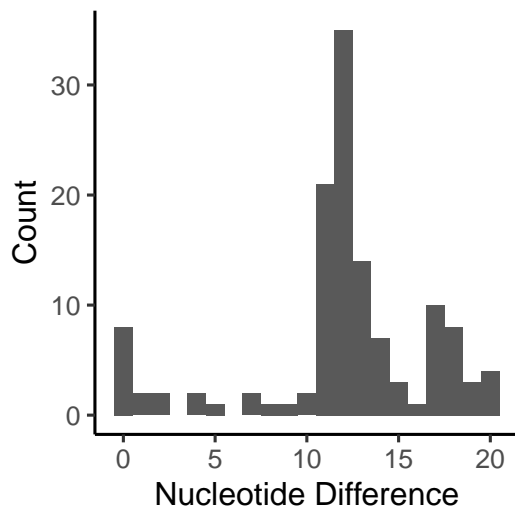
IGHV4-55*09

3 sequences assigned
No exact matches.



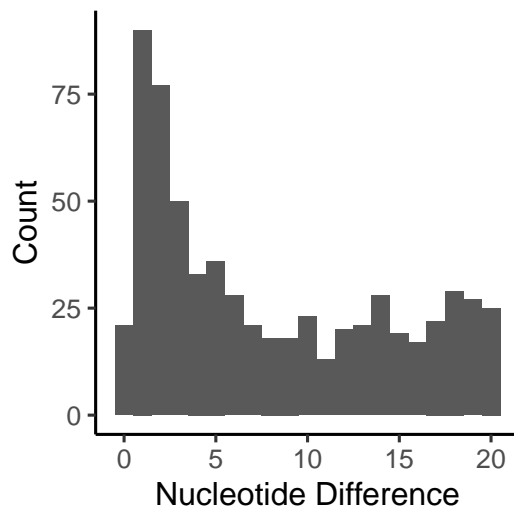
IGHV4–59*02

831 sequences assigned
8 (1%) exact matches, in which:
8 unique CDR3
3 unique J



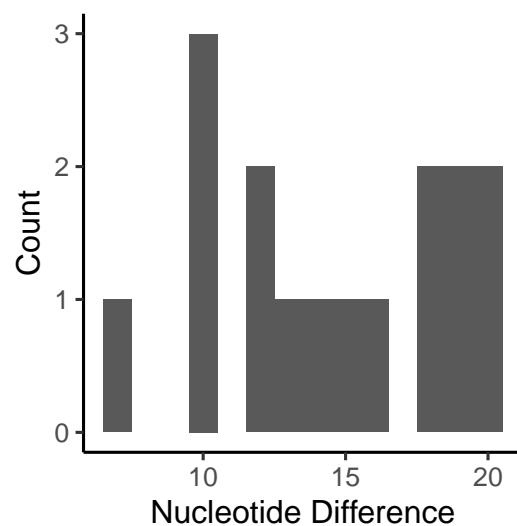
IGHV4–59*12

966 sequences assigned
21 (2.2%) exact matches, in which:
21 unique CDR3
4 unique J



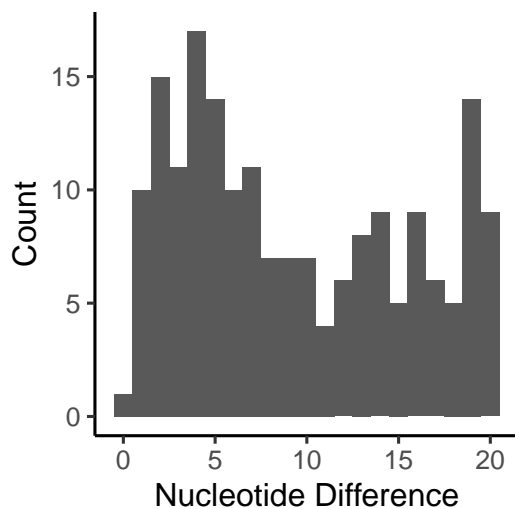
IGHV4/OR15–8*01

25 sequences assigned
No exact matches.



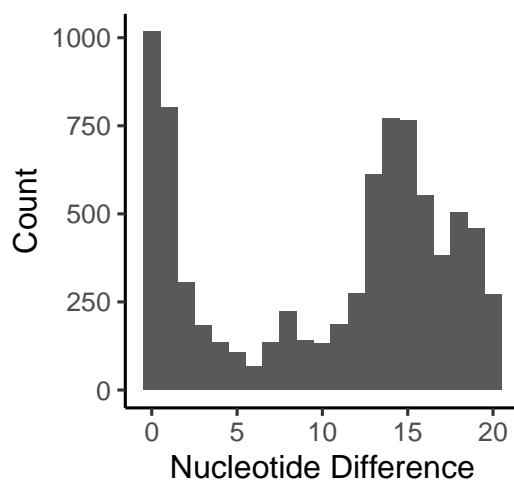
IGHV4–59*08

382 sequences assigned
1 (0.3%) exact matches, in which:
1 unique CDR3
1 unique J



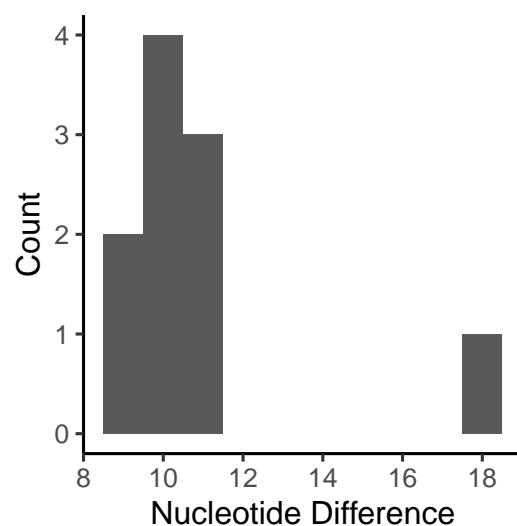
IGHV4–61*01

12872 sequences assigned
1017 (7.9%) exact matches, in which:
815 unique CDR3
6 unique J



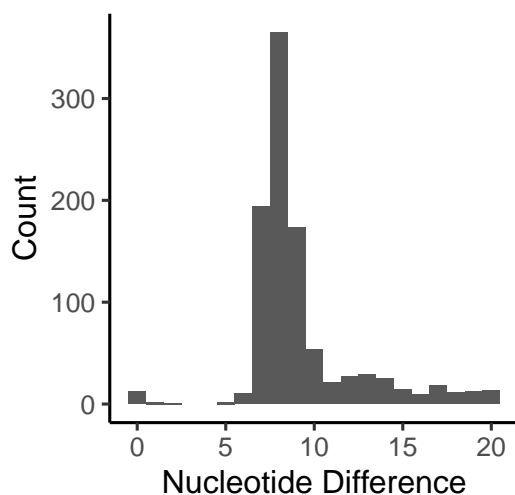
IGHV4/OR15–8*02

72 sequences assigned
No exact matches.



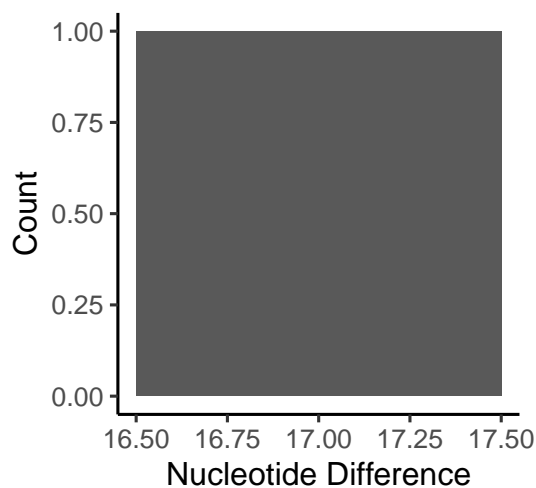
IGHV4–59*11

2312 sequences assigned
12 (0.5%) exact matches, in which:
12 unique CDR3
4 unique J



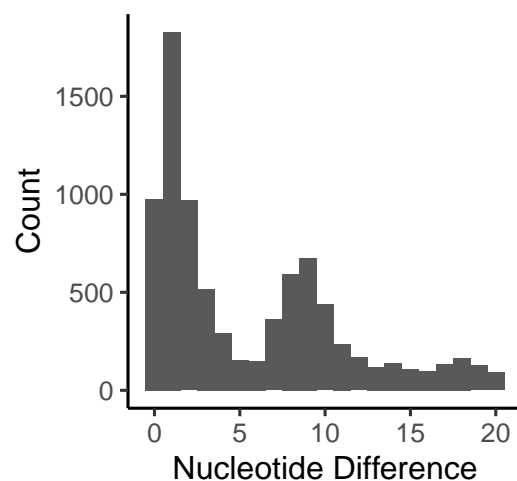
IGHV1/OR15–2*02_03

1 sequences assigned
No exact matches.



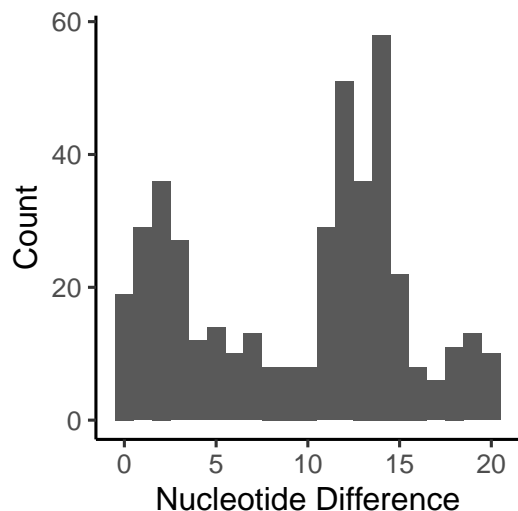
IGHV5–10–1*01_03

9234 sequences assigned
976 (10.6%) exact matches, in which:
853 unique CDR3
6 unique J



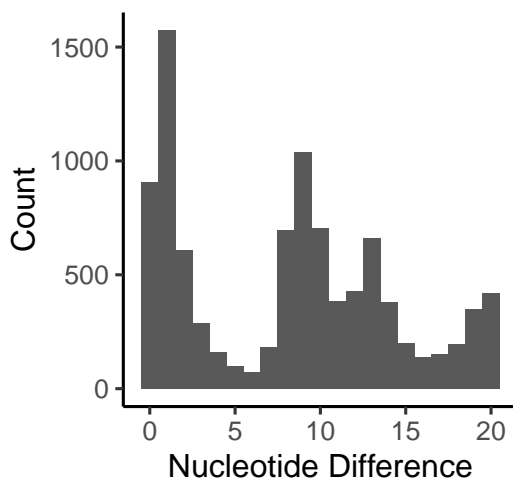
IGHV5-51*04

645 sequences assigned
19 (2.9%) exact matches, in which:
19 unique CDR3
3 unique J



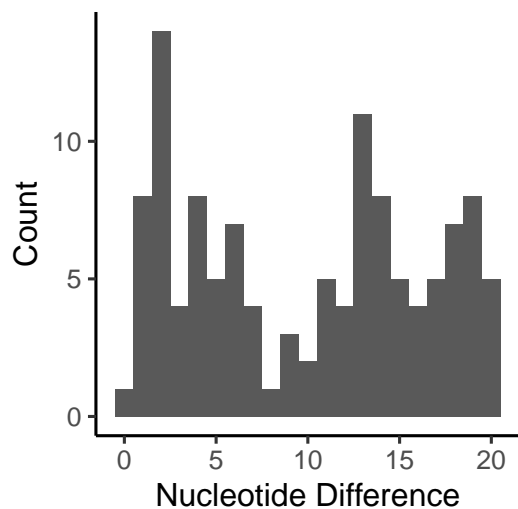
IGHV6-1*01_02

11799 sequences assigned
908 (7.7%) exact matches, in which:
724 unique CDR3
6 unique J



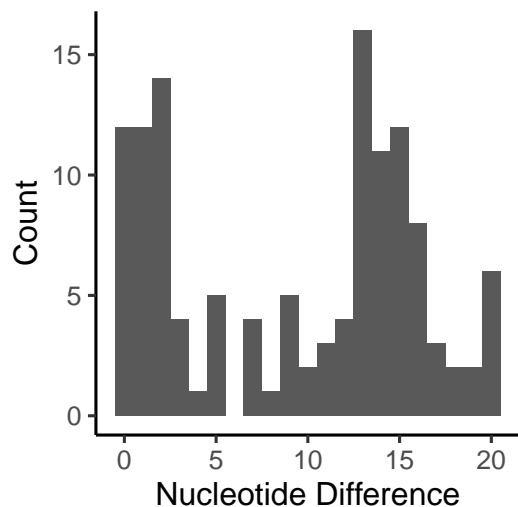
IGHV5-51*06

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



IGHV5-51*07

165 sequences assigned
12 (7.3%) exact matches, in which:
12 unique CDR3
4 unique J





Warning – no inferred sequences found.