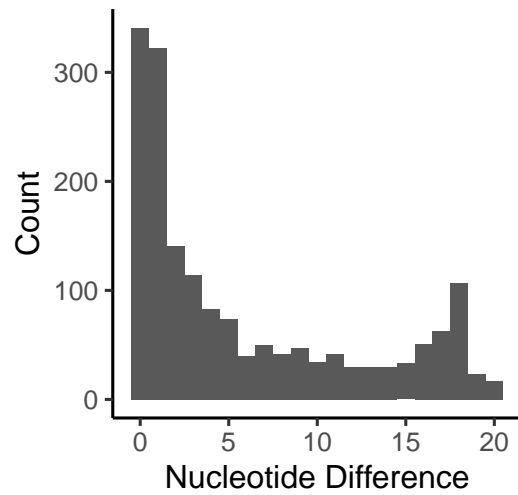


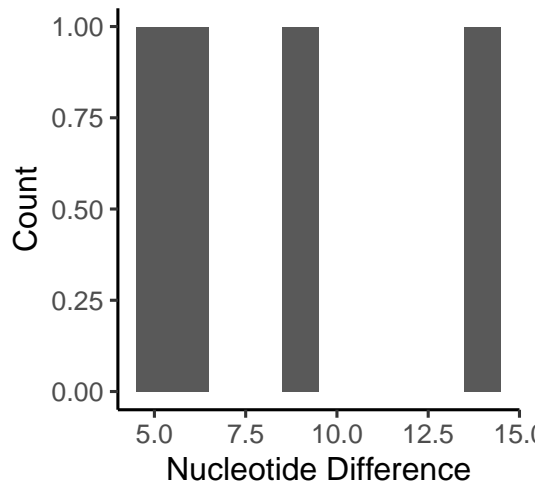
IGHV1-2*04

2138 sequences assigned
341 (15.9%) exact matches, in which:
301 unique CDR3
6 unique J



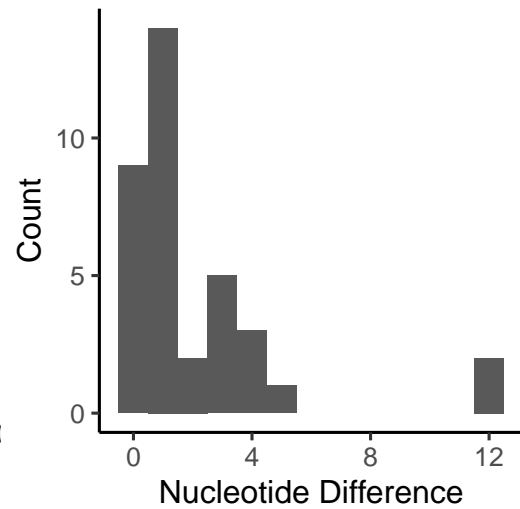
IGHV1-8*02

4 sequences assigned
No exact matches.



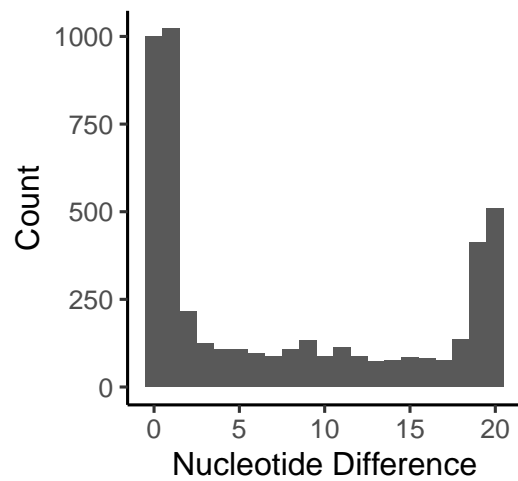
IGHV1-45*02

37 sequences assigned
9 (24.3%) exact matches, in which:
7 unique CDR3
1 unique J



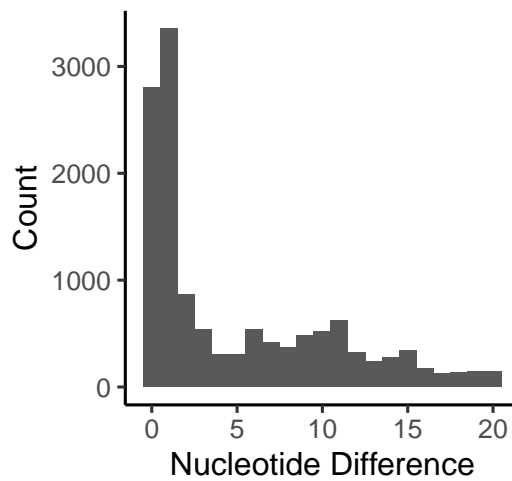
IGHV1-3*01_05

5744 sequences assigned
1001 (17.4%) exact matches, in which:
855 unique CDR3
6 unique J



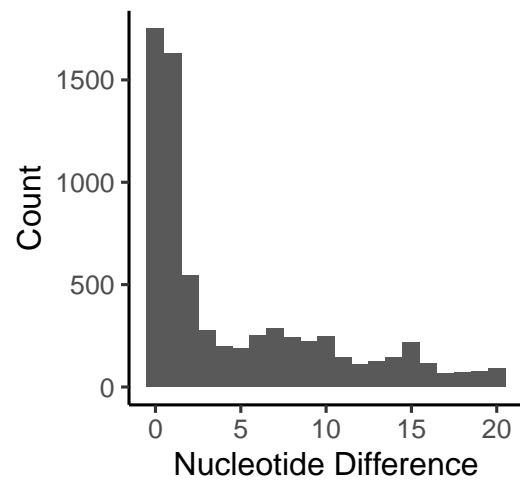
IGHV1-18*01

15102 sequences assigned
2800 (18.5%) exact matches, in which:
2286 unique CDR3
6 unique J



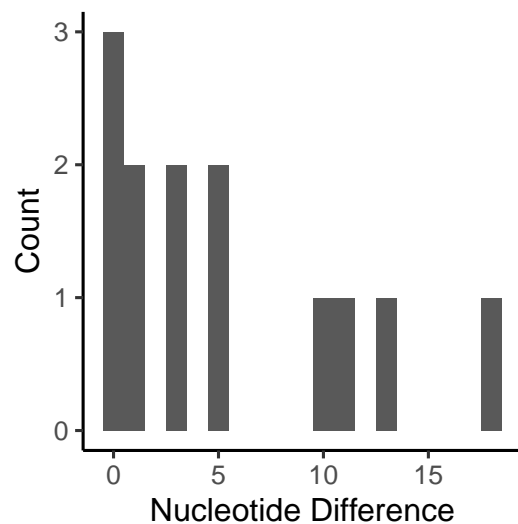
IGHV1-46*01

7909 sequences assigned
1750 (22.1%) exact matches, in which:
1456 unique CDR3
6 unique J



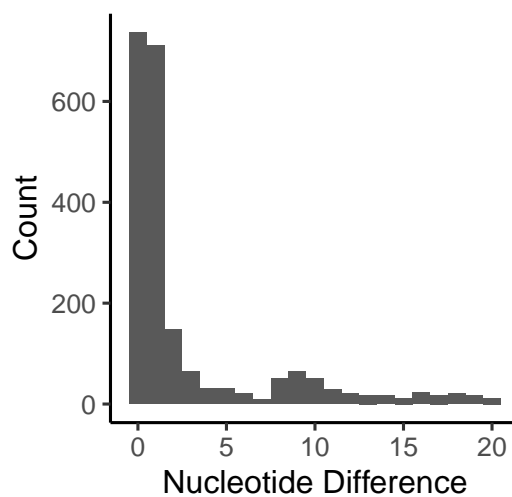
IGHV1-8*01

13 sequences assigned
3 (23.1%) exact matches, in which:
3 unique CDR3
2 unique J



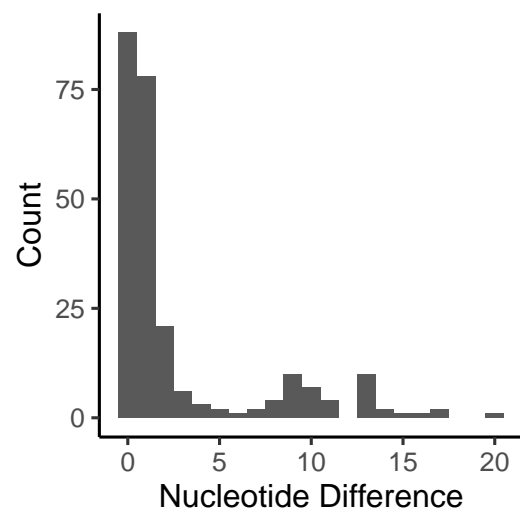
IGHV1-24*01

2703 sequences assigned
737 (27.3%) exact matches, in which:
643 unique CDR3
6 unique J



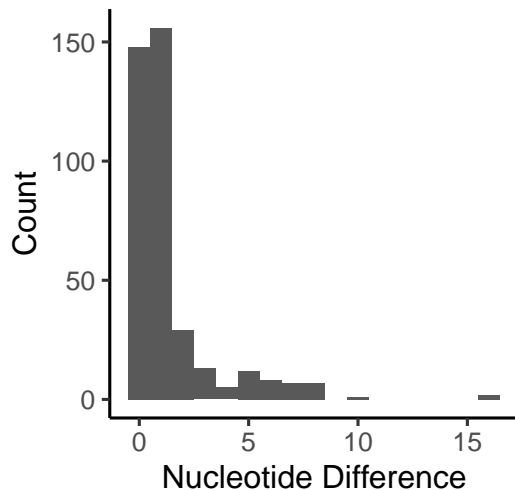
IGHV1-58*02

249 sequences assigned
88 (35.3%) exact matches, in which:
74 unique CDR3
5 unique J



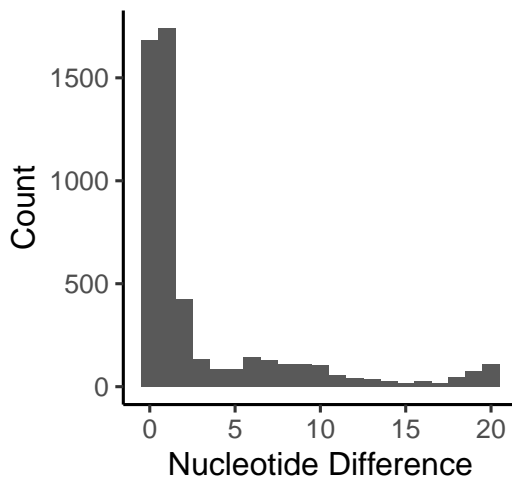
IGHV1-58*01_03

399 sequences assigned
148 (37.1%) exact matches, in which:
122 unique CDR3
5 unique J



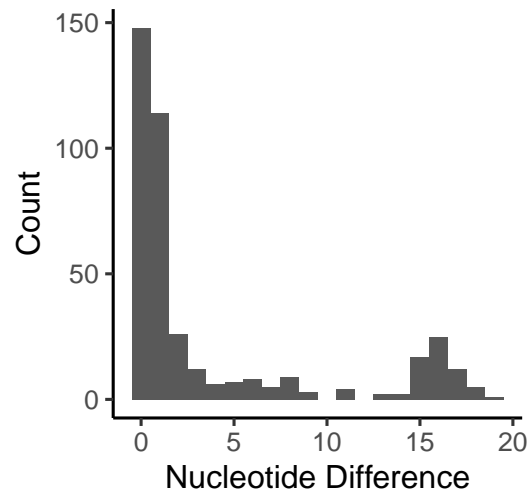
IGHV1-69*04_09

5719 sequences assigned
1684 (29.4%) exact matches, in which:
1459 unique CDR3
6 unique J



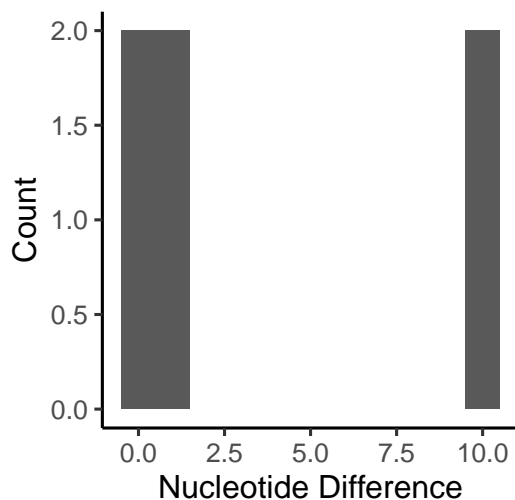
IGHV2-26*01

406 sequences assigned
148 (36.5%) exact matches, in which:
123 unique CDR3
5 unique J



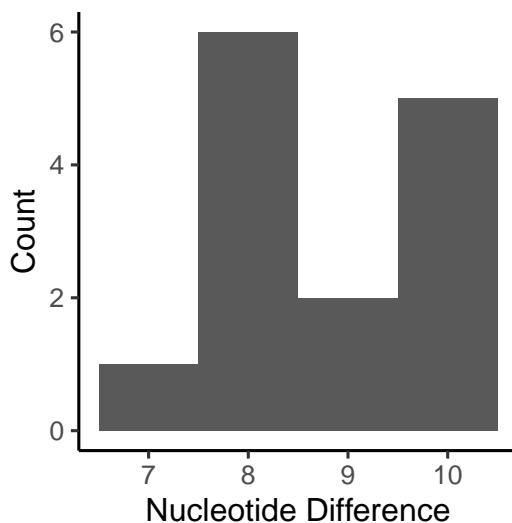
IGHV1-68*01

6 sequences assigned
2 (33.3%) exact matches, in which:
2 unique CDR3
1 unique J



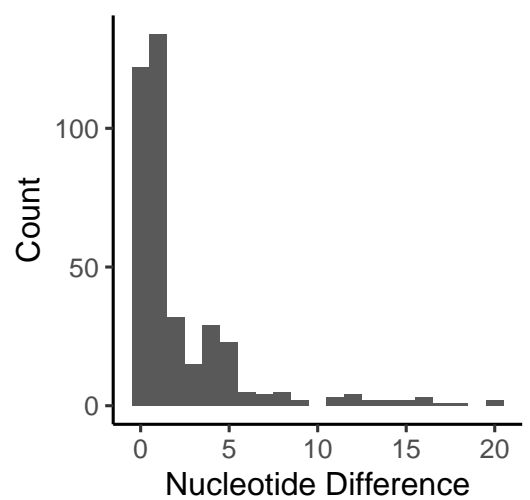
IGHV1-NL1*01

14 sequences assigned
No exact matches.



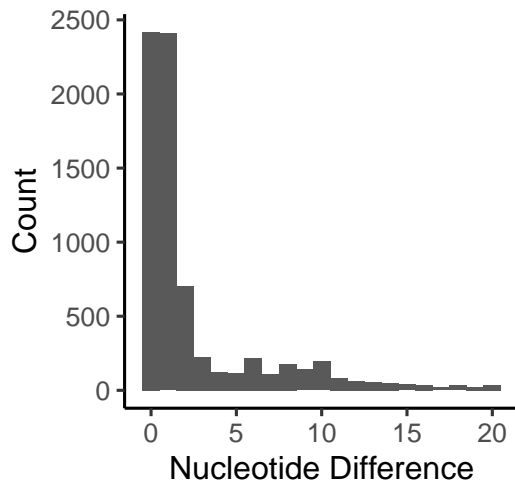
IGHV2-70*01

454 sequences assigned
122 (26.9%) exact matches, in which:
103 unique CDR3
5 unique J



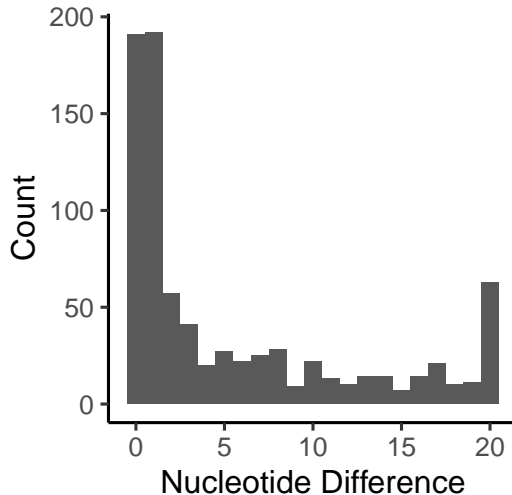
IGHV1-69*01_12_13

8048 sequences assigned
2418 (30%) exact matches, in which:
2114 unique CDR3
6 unique J



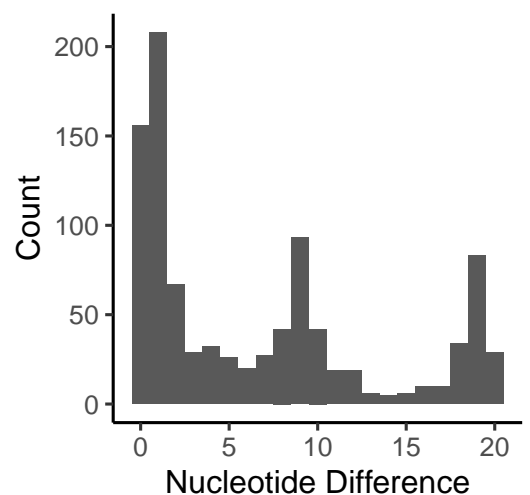
IGHV2-5*02

1553 sequences assigned
191 (12.3%) exact matches, in which:
166 unique CDR3
6 unique J



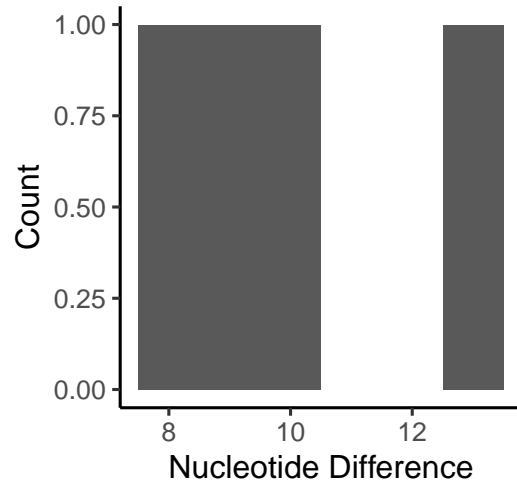
IGHV2-70*11_15

989 sequences assigned
156 (15.8%) exact matches, in which:
134 unique CDR3
5 unique J



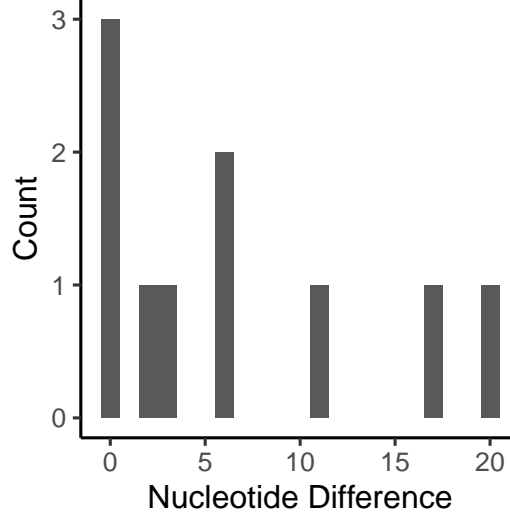
IGHV2-70D*04

4 sequences assigned
No exact matches.



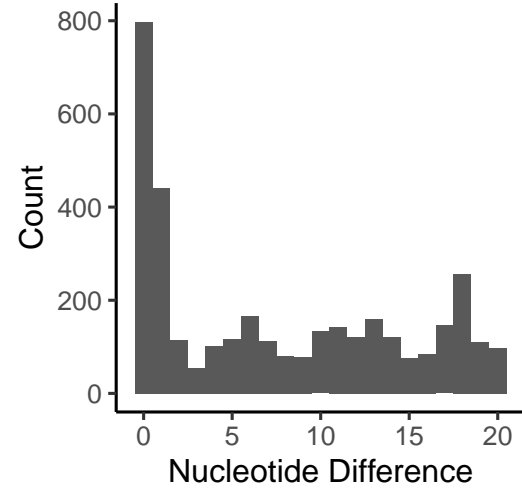
IGHV3-9*01

14 sequences assigned
3 (21.4%) exact matches, in which:
2 unique CDR3
1 unique J



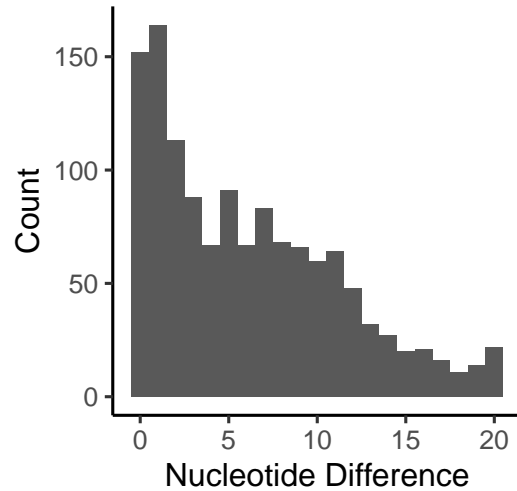
IGHV3-15*01_02

4681 sequences assigned
798 (17%) exact matches, in which:
480 unique CDR3
6 unique J



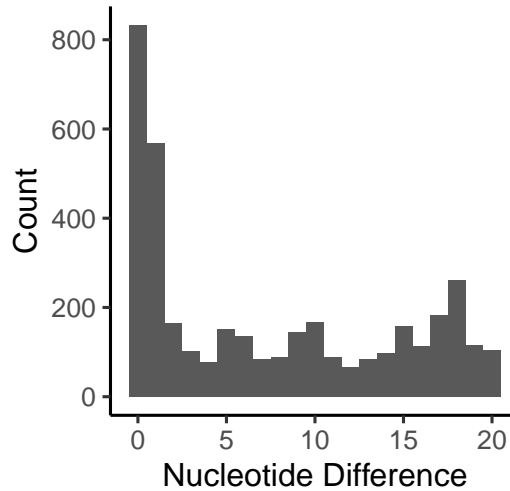
IGHV3-7*01

1356 sequences assigned
152 (11.2%) exact matches, in which:
146 unique CDR3
5 unique J



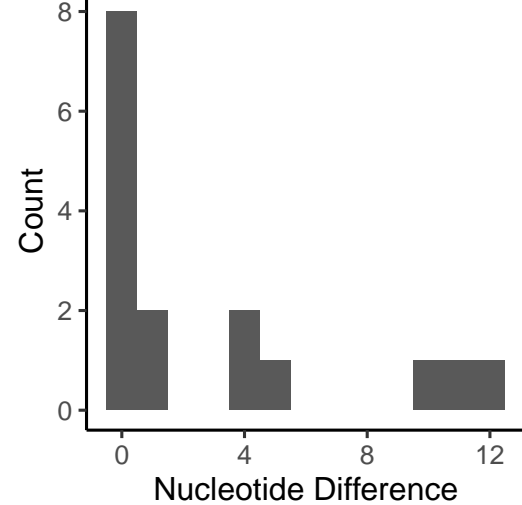
IGHV3-11*06

5630 sequences assigned
833 (14.8%) exact matches, in which:
522 unique CDR3
6 unique J



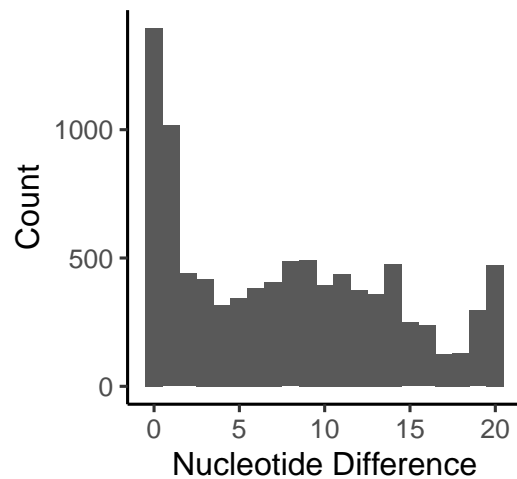
IGHV3-19*01

16 sequences assigned
8 (50%) exact matches, in which:
7 unique CDR3
3 unique J



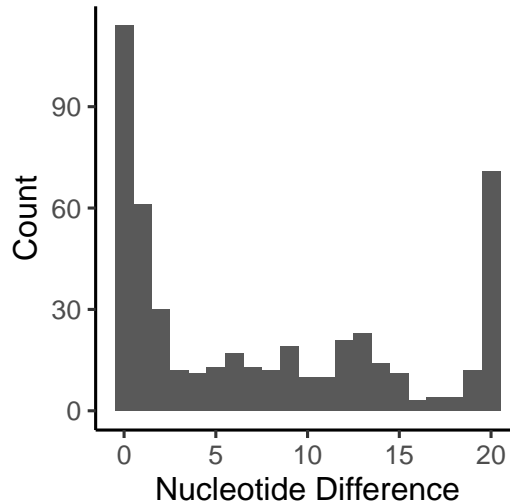
IGHV3-7*03

10755 sequences assigned
1396 (13%) exact matches, in which:
864 unique CDR3
6 unique J



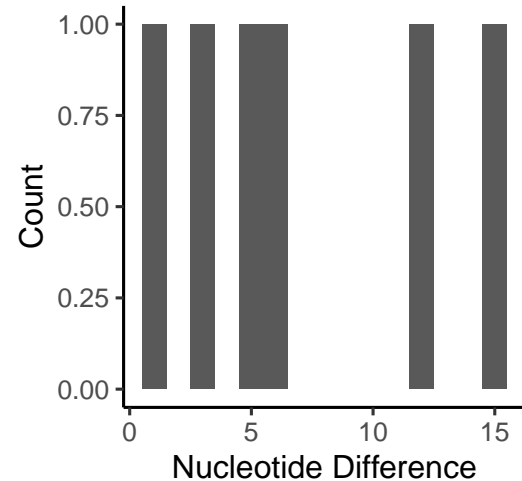
IGHV3-13*05

706 sequences assigned
114 (16.1%) exact matches, in which:
80 unique CDR3
5 unique J



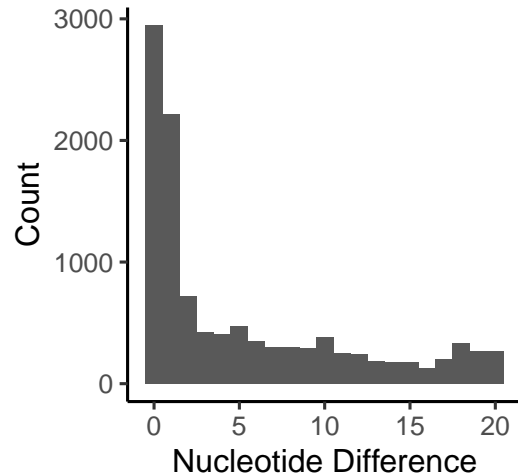
IGHV3-20*03_04

12 sequences assigned
No exact matches.



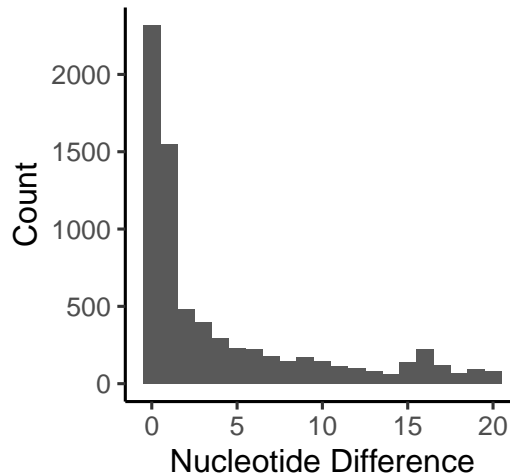
IGHV3-21*01_02

13712 sequences assigned
2946 (21.5%) exact matches, in which:
1766 unique CDR3
6 unique J



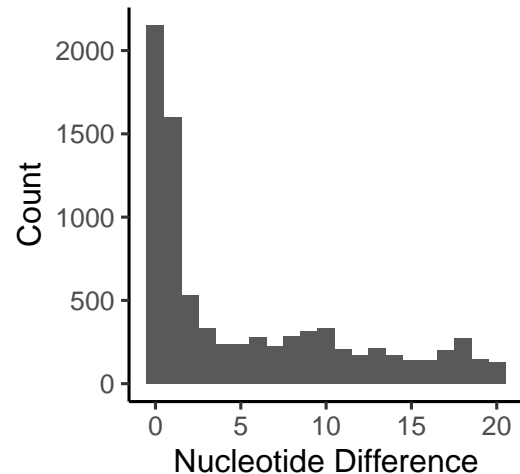
IGHV3-30-3*01

8386 sequences assigned
2317 (27.6%) exact matches, in which:
1475 unique CDR3
6 unique J



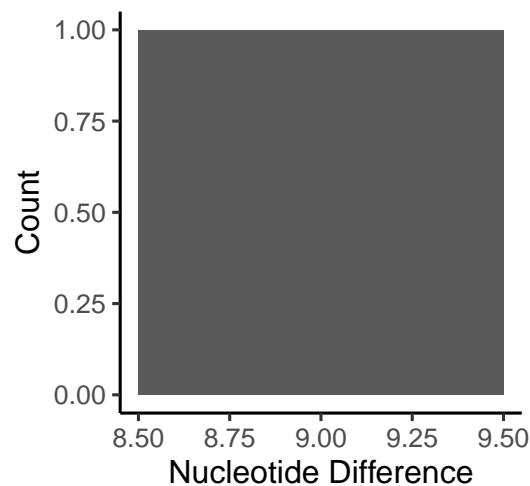
IGHV3-33*01

9997 sequences assigned
2151 (21.5%) exact matches, in which:
1336 unique CDR3
6 unique J



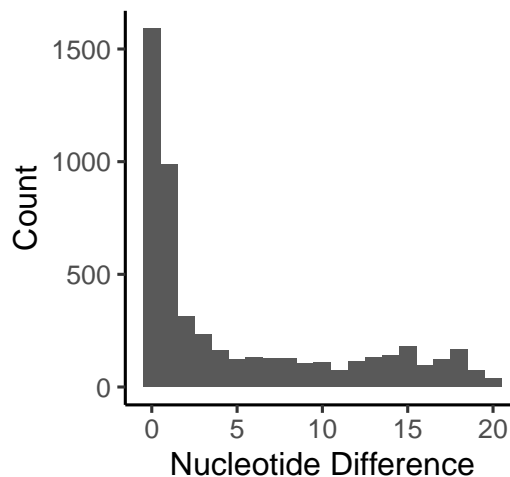
IGHV3-22*01_02

1 sequences assigned
No exact matches.



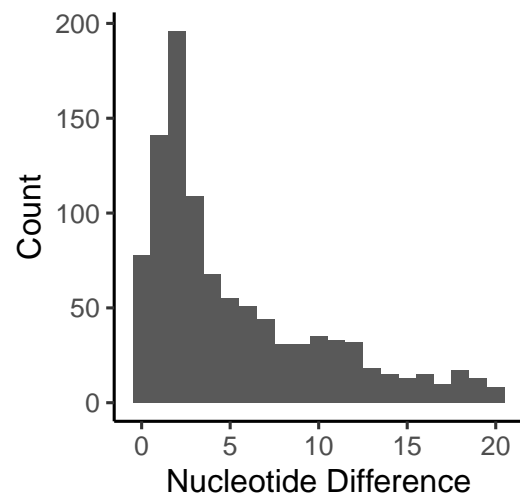
IGHV3-30*01

5931 sequences assigned
1590 (26.8%) exact matches, in which:
1035 unique CDR3
6 unique J



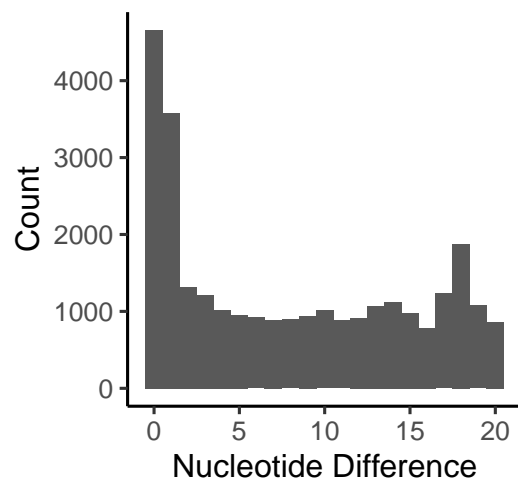
IGHV3-33*06

1062 sequences assigned
78 (7.3%) exact matches, in which:
73 unique CDR3
6 unique J



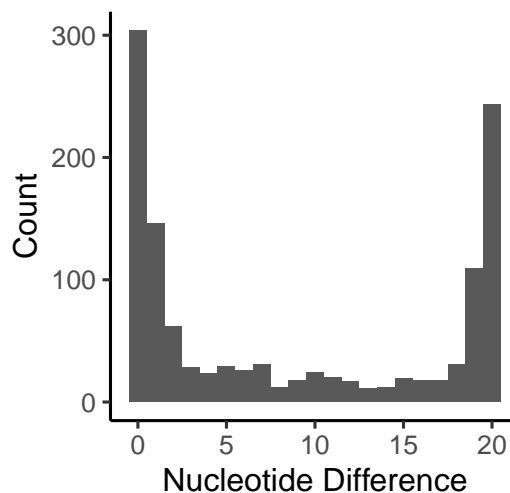
IGHV3-23*01_04

40001 sequences assigned
4658 (11.6%) exact matches, in which:
2656 unique CDR3
6 unique J



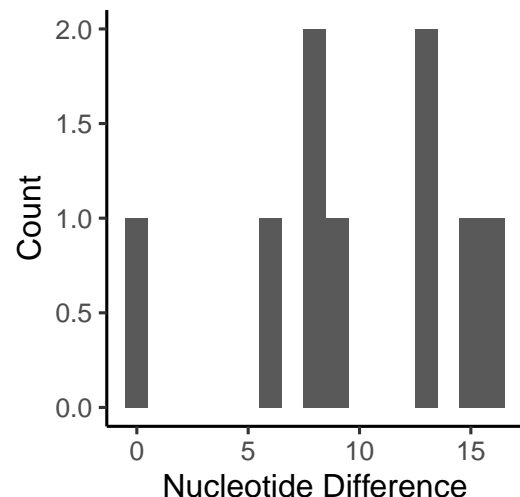
IGHV3-30*03

1589 sequences assigned
304 (19.1%) exact matches, in which:
292 unique CDR3
6 unique J



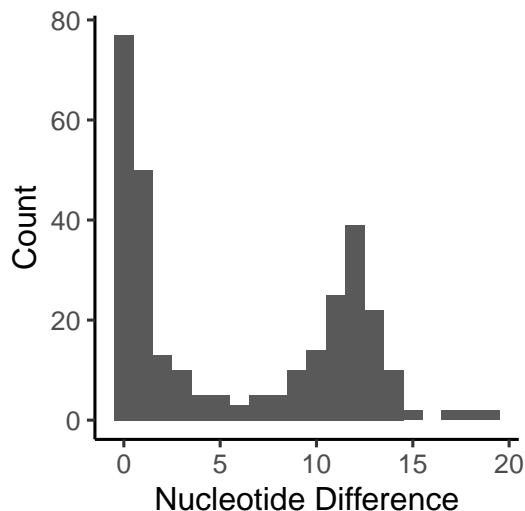
IGHV3-35*01

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



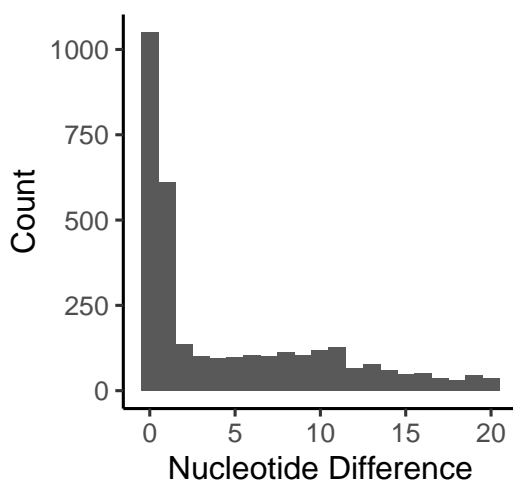
IGHV3-43*01

394 sequences assigned
77 (19.5%) exact matches, in which:
45 unique CDR3
5 unique J



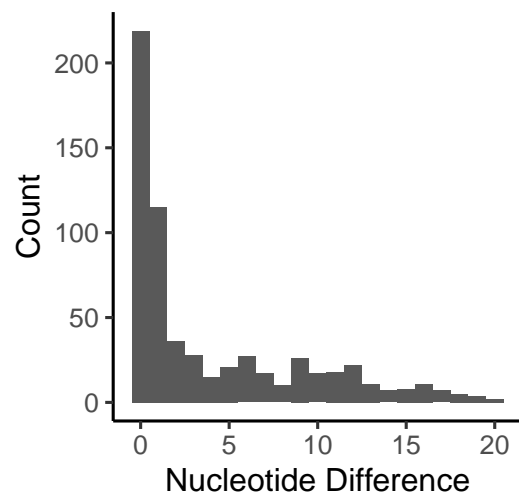
IGHV3-48*03

4692 sequences assigned
1050 (22.4%) exact matches, in which:
637 unique CDR3
6 unique J



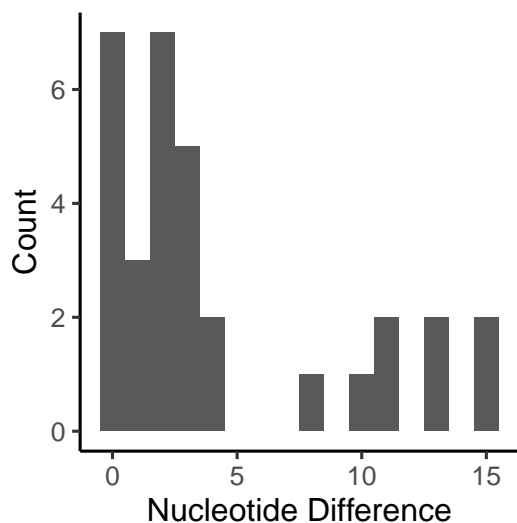
IGHV3-49*03_05

689 sequences assigned
219 (31.8%) exact matches, in which:
127 unique CDR3
6 unique J



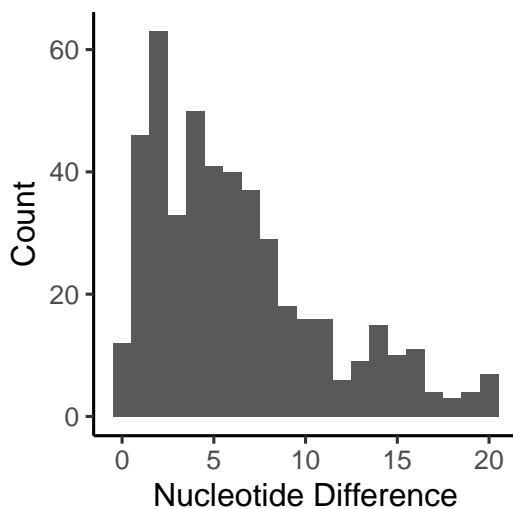
IGHV3-47*02

32 sequences assigned
7 (21.9%) exact matches, in which:
4 unique CDR3
2 unique J



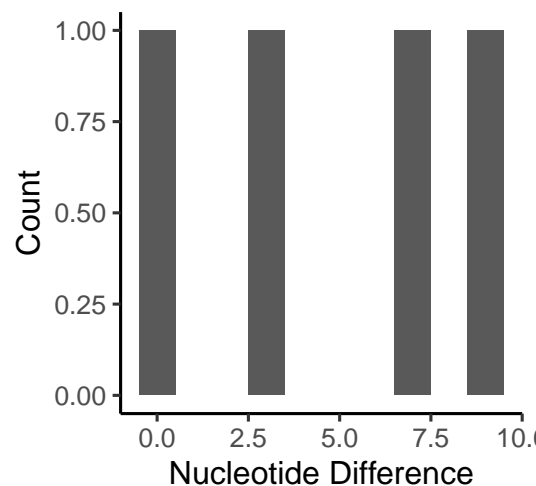
IGHV3-48*04

668 sequences assigned
12 (1.8%) exact matches, in which:
12 unique CDR3
5 unique J



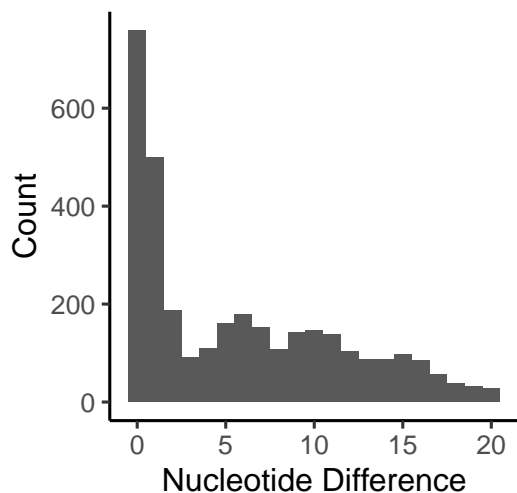
IGHV3-52*02

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



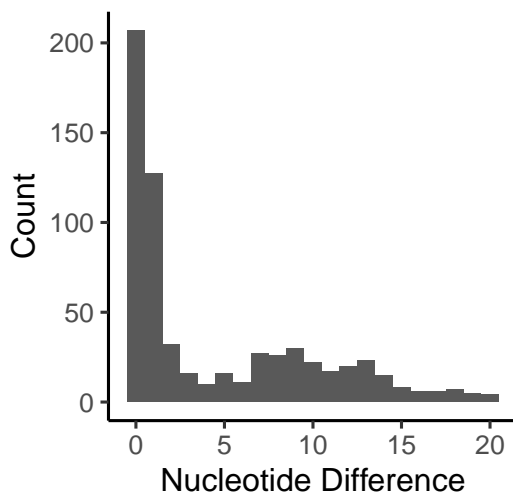
IGHV3-48*01

4068 sequences assigned
759 (18.7%) exact matches, in which:
463 unique CDR3
6 unique J



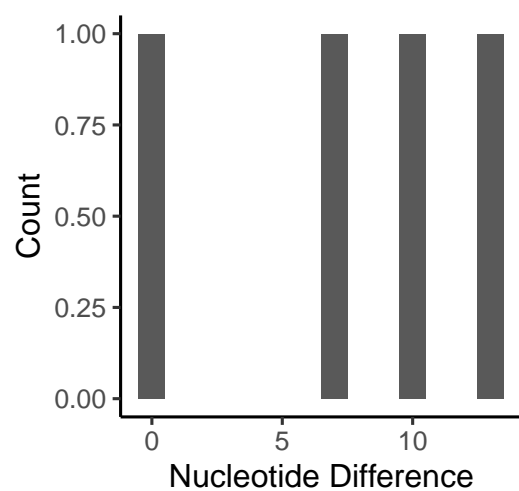
IGHV3-49*04

661 sequences assigned
207 (31.3%) exact matches, in which:
120 unique CDR3
6 unique J



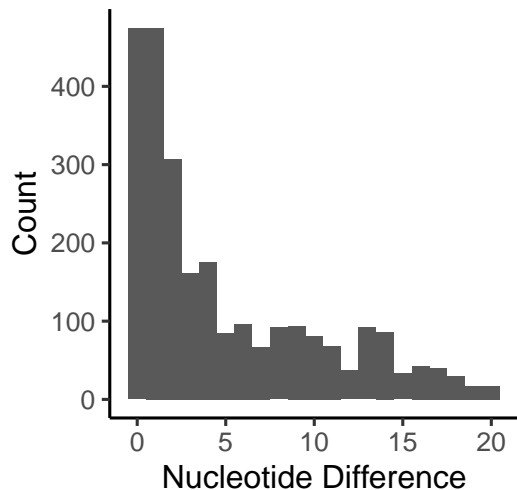
IGHV3-52*01_03

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



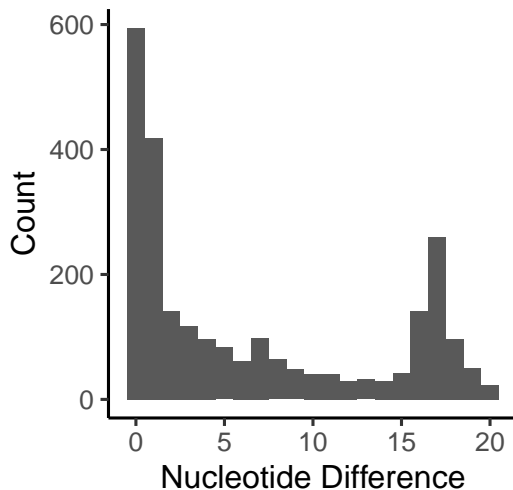
IGHV3-53*01_02

2933 sequences assigned
474 (16.2%) exact matches, in which:
292 unique CDR3
6 unique J



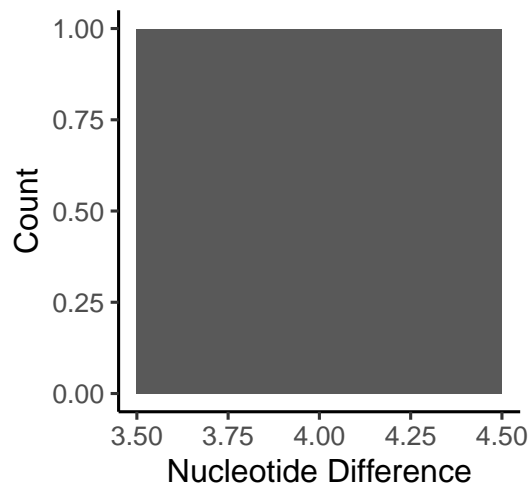
IGHV3-66*01

2797 sequences assigned
595 (21.3%) exact matches, in which:
384 unique CDR3
6 unique J



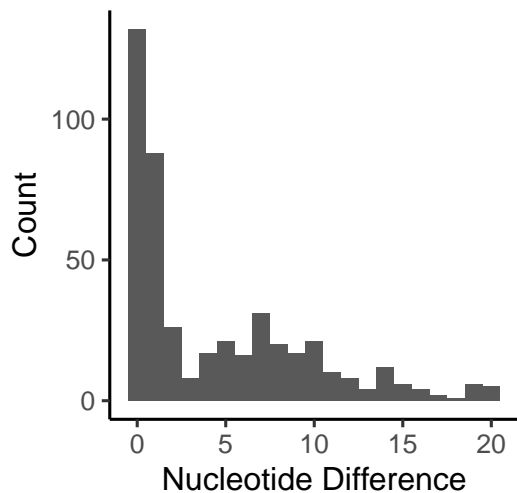
IGHV3-71*01_04

2 sequences assigned
No exact matches.



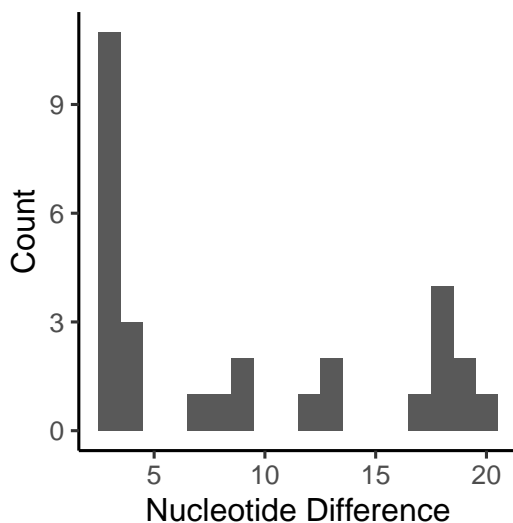
IGHV3-64*01

810 sequences assigned
132 (16.3%) exact matches, in which:
83 unique CDR3
5 unique J



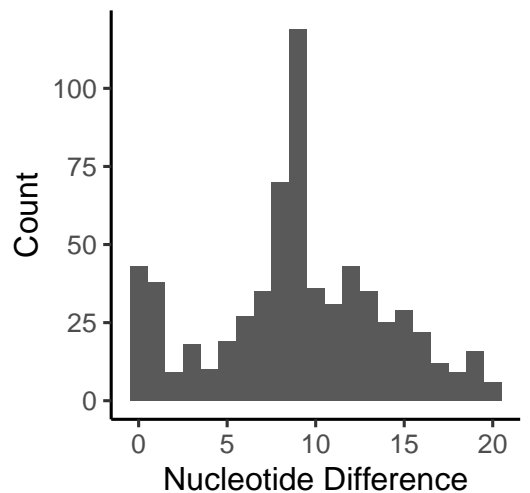
IGHV3-69-1*01

552 sequences assigned
No exact matches.



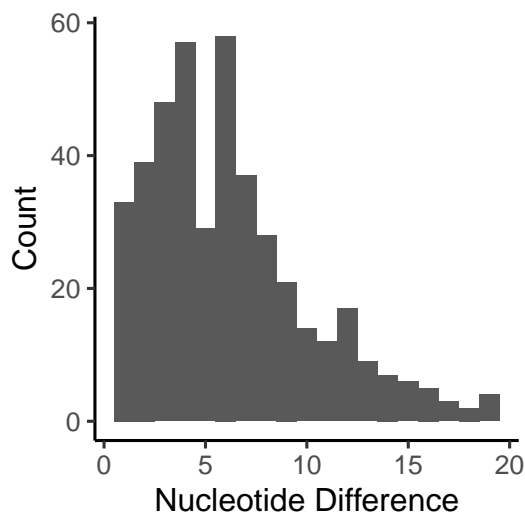
IGHV3-72*01

763 sequences assigned
43 (5.6%) exact matches, in which:
24 unique CDR3
5 unique J



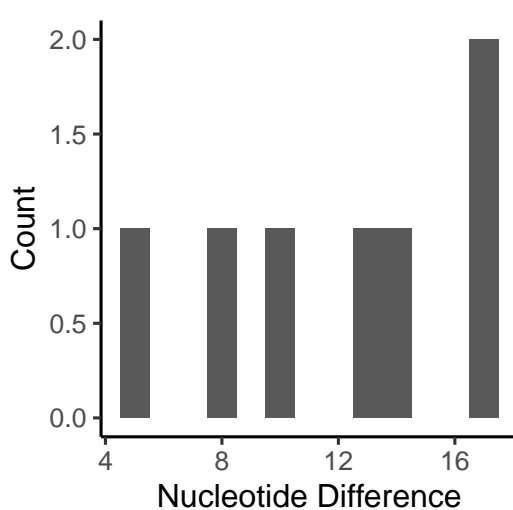
IGHV3-64*04

447 sequences assigned
No exact matches.



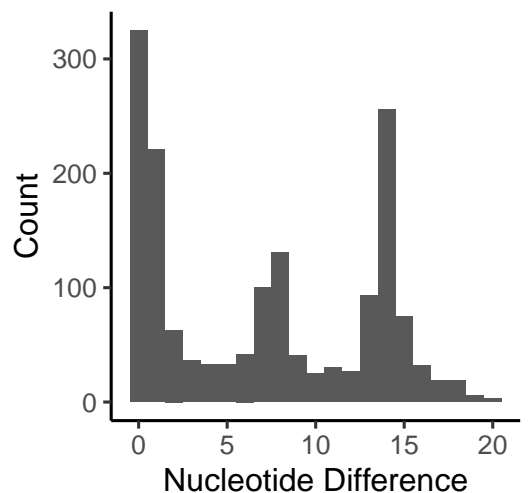
IGHV3-69-1*02

20 sequences assigned
No exact matches.



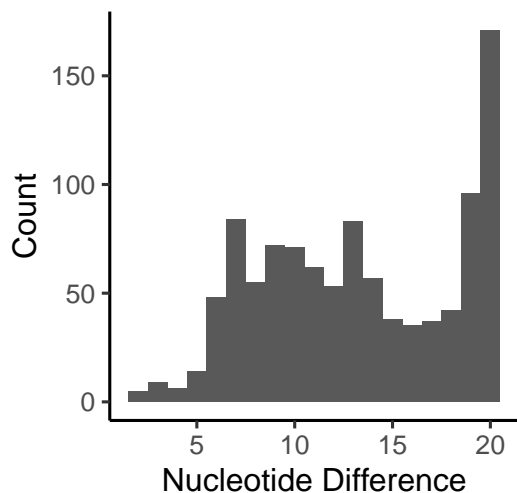
IGHV3-73*01_02

2329 sequences assigned
325 (14%) exact matches, in which:
195 unique CDR3
6 unique J



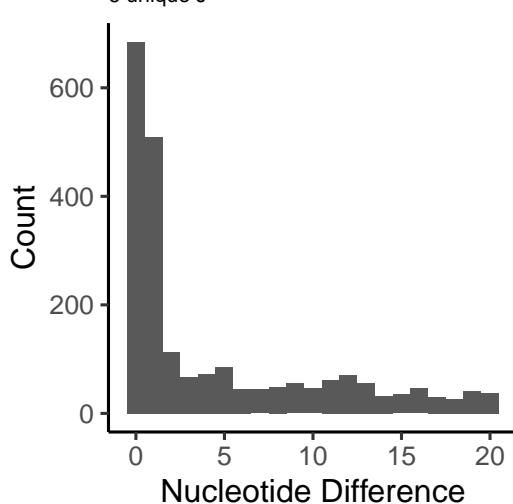
IGHV3-74*03

2125 sequences assigned
No exact matches.



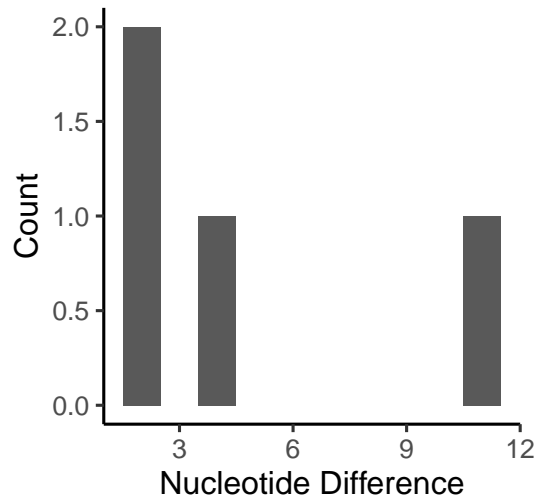
IGHV3-64D*06

3022 sequences assigned
685 (22.7%) exact matches, in which:
381 unique CDR3
6 unique J



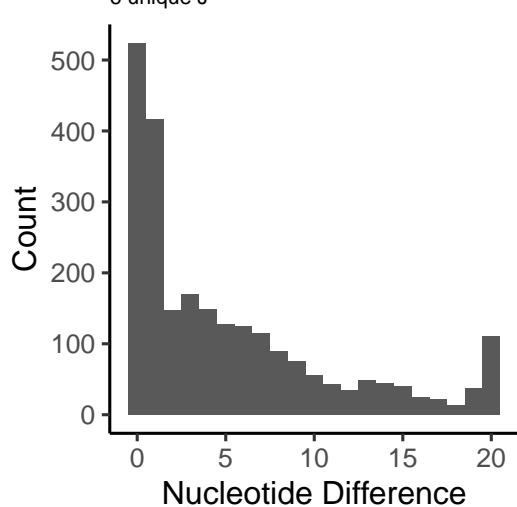
IGHV4-28*03

4 sequences assigned
No exact matches.



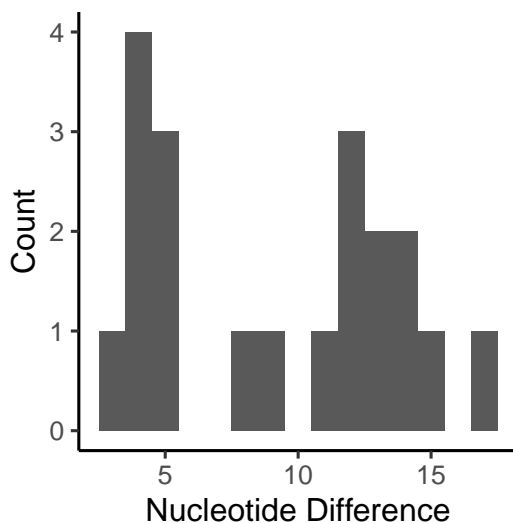
IGHV3-74*01_02

2937 sequences assigned
524 (17.8%) exact matches, in which:
325 unique CDR3
6 unique J



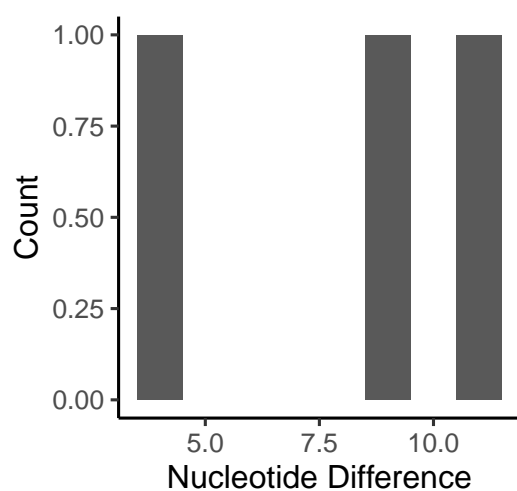
IGHV3-NL1*01

30 sequences assigned
No exact matches.



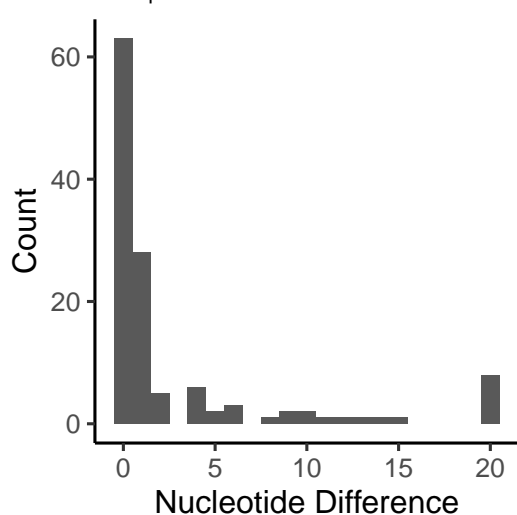
IGHV4-28*01_07

3 sequences assigned
No exact matches.



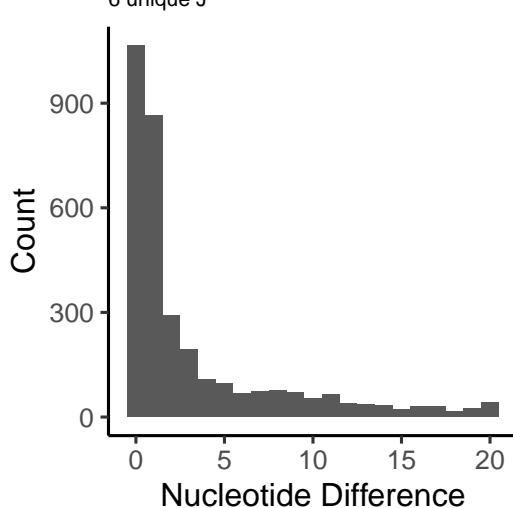
IGHV3-43D*04

143 sequences assigned
63 (44.1%) exact matches, in which:
35 unique CDR3
3 unique J



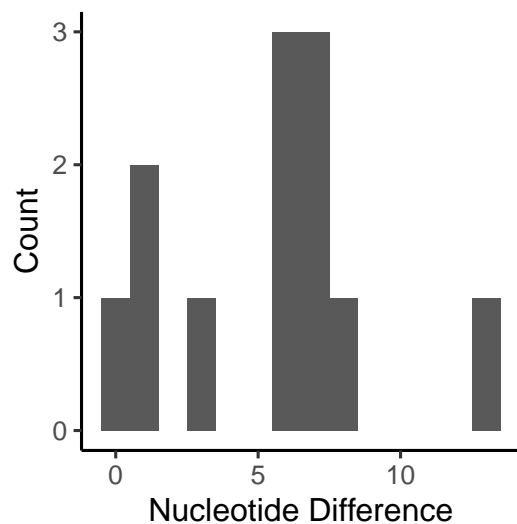
IGHV4-4*02_03

5105 sequences assigned
1066 (20.9%) exact matches, in which:
870 unique CDR3
6 unique J



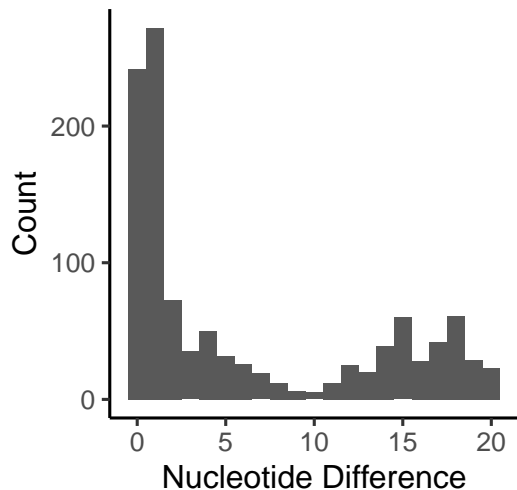
IGHV4-28*02_05

12 sequences assigned
1 (8.3%) exact matches, in which:
1 unique CDR3
1 unique J



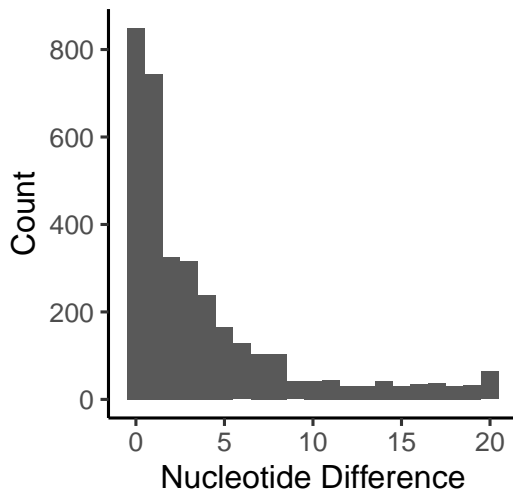
IGHV4-30-2*01

1679 sequences assigned
242 (14.4%) exact matches, in which:
174 unique CDR3
6 unique J



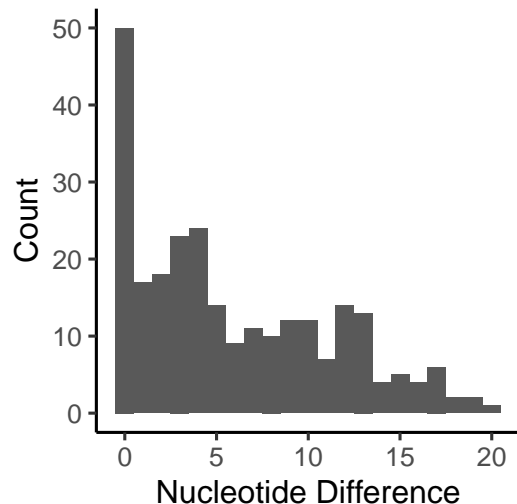
IGHV4-31*02

4064 sequences assigned
850 (20.9%) exact matches, in which:
732 unique CDR3
6 unique J



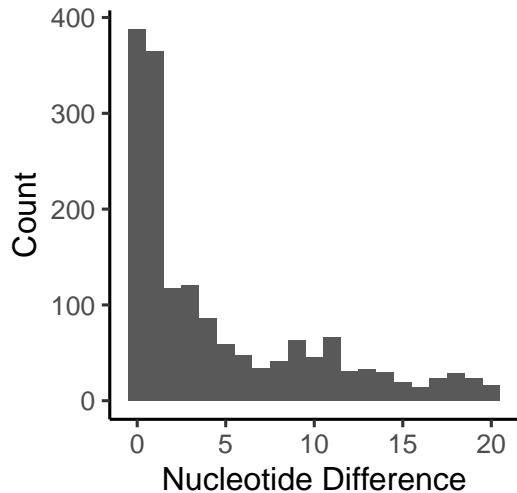
IGHV4-38-2*02

366 sequences assigned
50 (13.7%) exact matches, in which:
41 unique CDR3
5 unique J



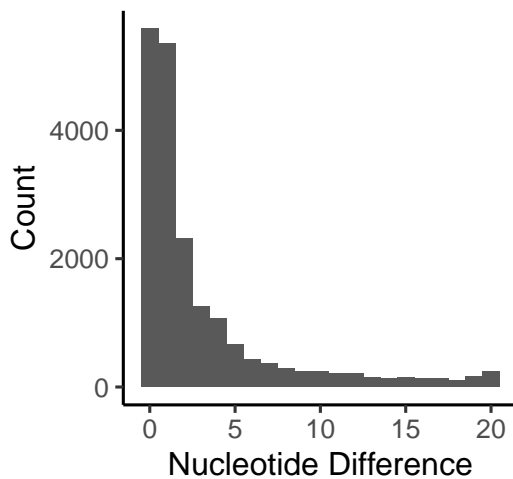
IGHV4-30-4*01

1996 sequences assigned
388 (19.4%) exact matches, in which:
319 unique CDR3
6 unique J



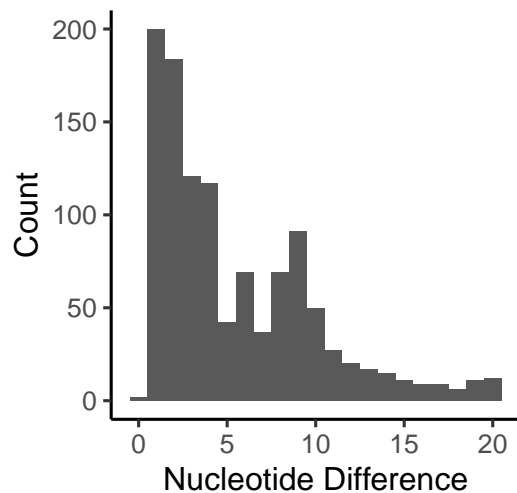
IGHV4-34*01_02

22022 sequences assigned
5584 (25.4%) exact matches, in which:
4450 unique CDR3
6 unique J



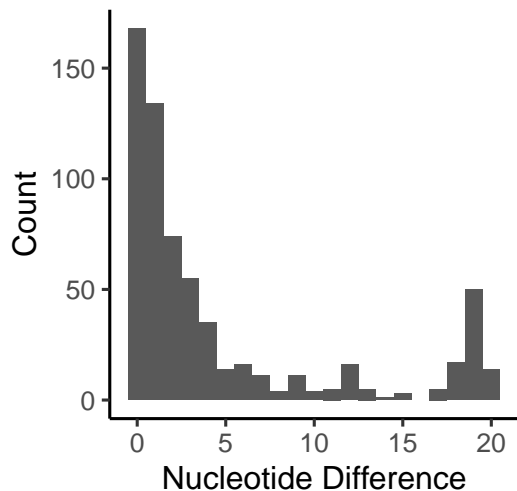
IGHV4-39*07

1768 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
1 unique J



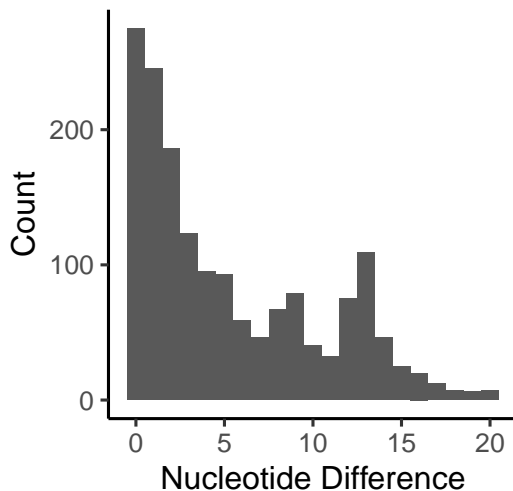
IGHV4-31*01

667 sequences assigned
168 (25.2%) exact matches, in which:
142 unique CDR3
5 unique J



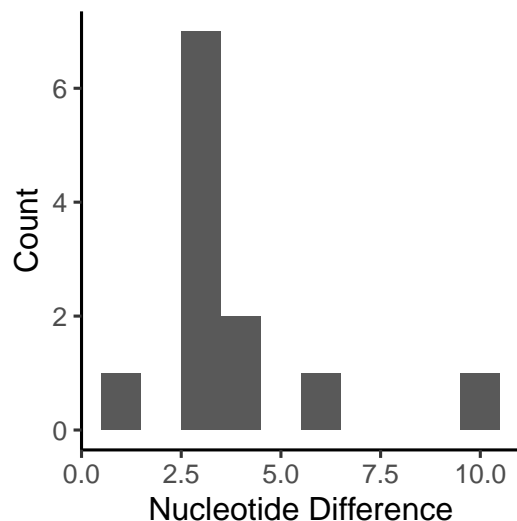
IGHV4-38-2*01

2946 sequences assigned
275 (9.3%) exact matches, in which:
249 unique CDR3
6 unique J



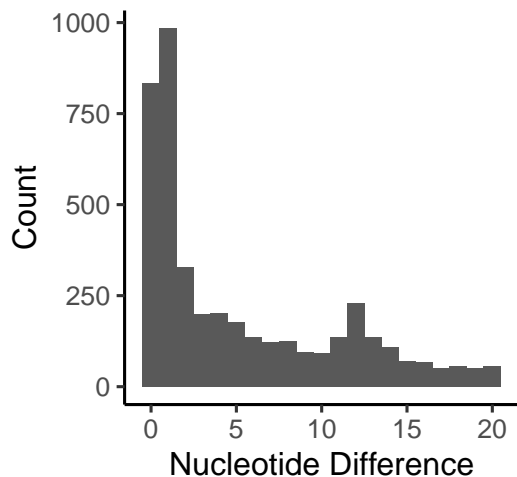
IGHV4-55*09

12 sequences assigned
No exact matches.



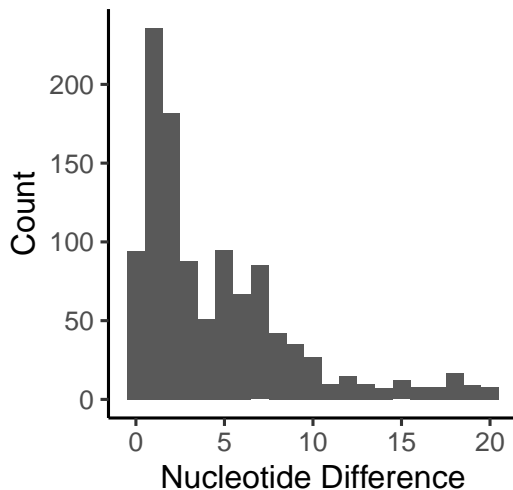
IGHV4-59*08

6848 sequences assigned
835 (12.2%) exact matches, in which:
691 unique CDR3
6 unique J



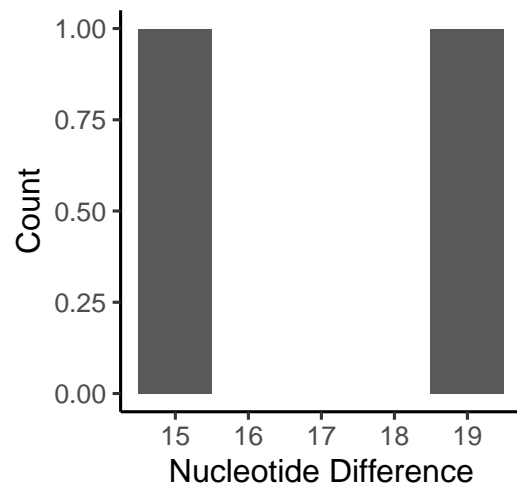
IGHV4-59*12

1329 sequences assigned
94 (7.1%) exact matches, in which:
94 unique CDR3
5 unique J



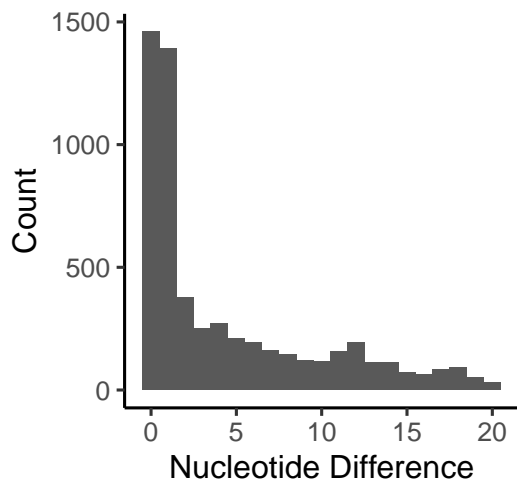
IGHV1/OR15-1*04

2 sequences assigned
No exact matches.



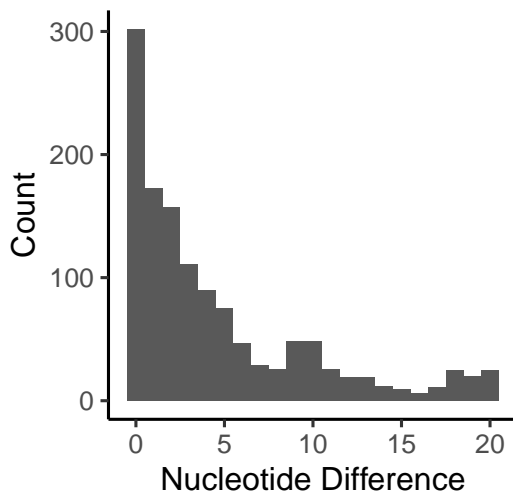
IGHV4-59*01_07

6854 sequences assigned
1460 (21.3%) exact matches, in which:
1216 unique CDR3
6 unique J



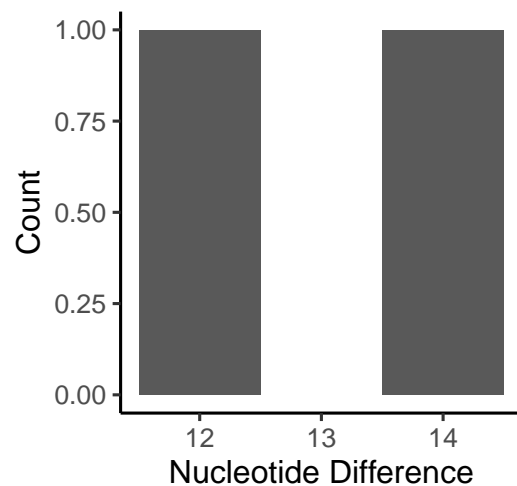
IGHV4-61*01

1381 sequences assigned
302 (21.9%) exact matches, in which:
258 unique CDR3
6 unique J



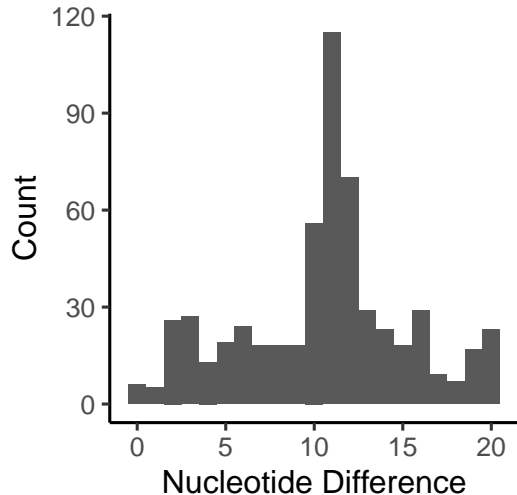
IGHV1/OR15-2*02_03

6 sequences assigned
No exact matches.



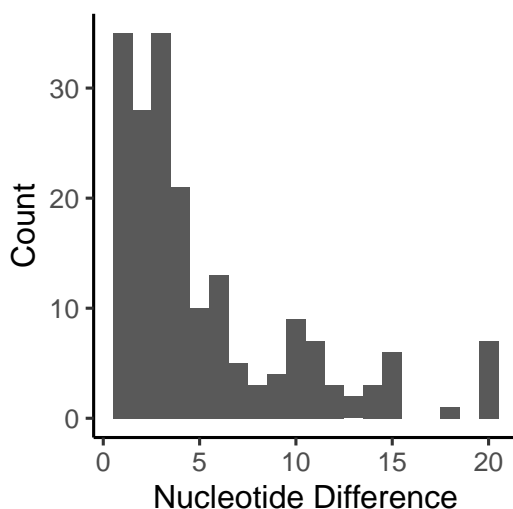
IGHV4-59*11

751 sequences assigned
6 (0.8%) exact matches, in which:
6 unique CDR3
3 unique J



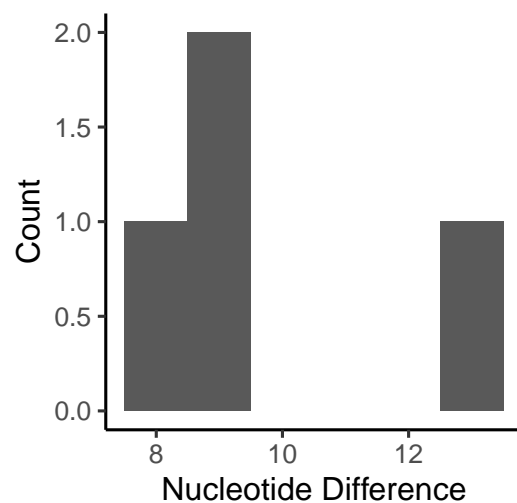
IGHV4-61*08

210 sequences assigned
No exact matches.



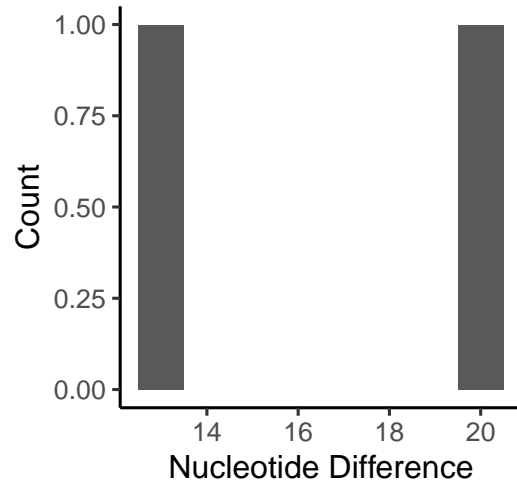
IGHV1/OR15-3*02

5 sequences assigned
No exact matches.



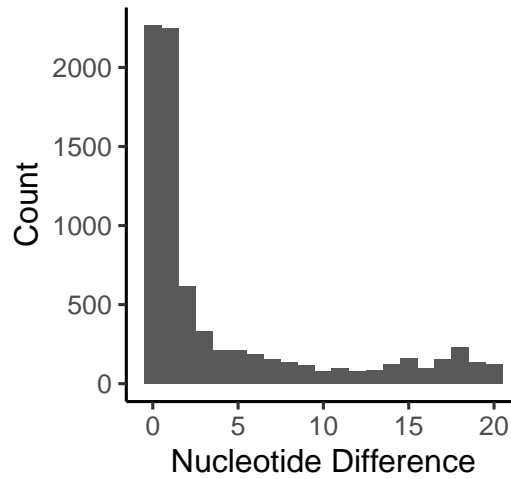
IGHV1/OR15-4*01

2 sequences assigned
No exact matches.



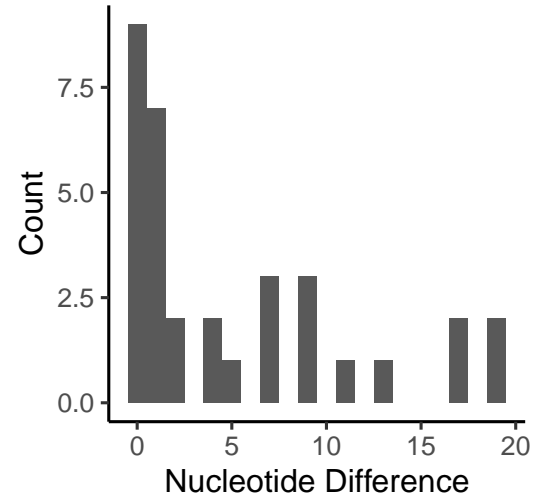
IGHV5-10-1*01_03

9422 sequences assigned
2266 (24.1%) exact matches, in which:
1582 unique CDR3
6 unique J



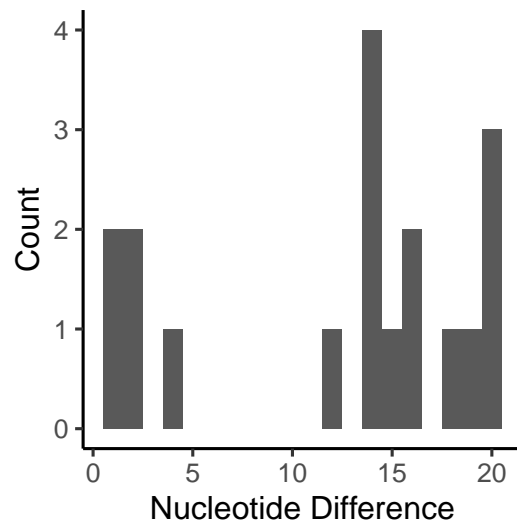
IGHV5-51*07

41 sequences assigned
9 (22%) exact matches, in which:
9 unique CDR3
4 unique J



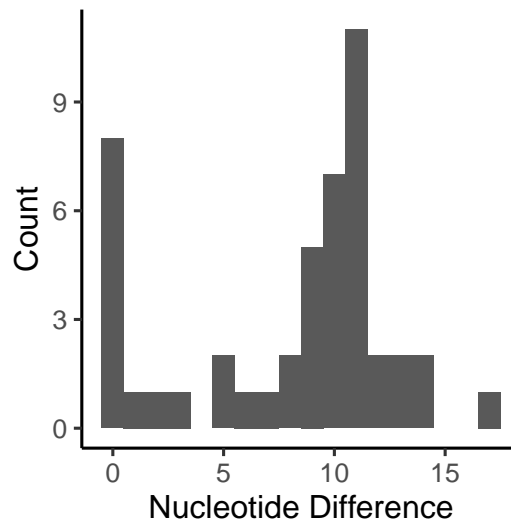
IGHV4/OR15-8*01

50 sequences assigned
No exact matches.



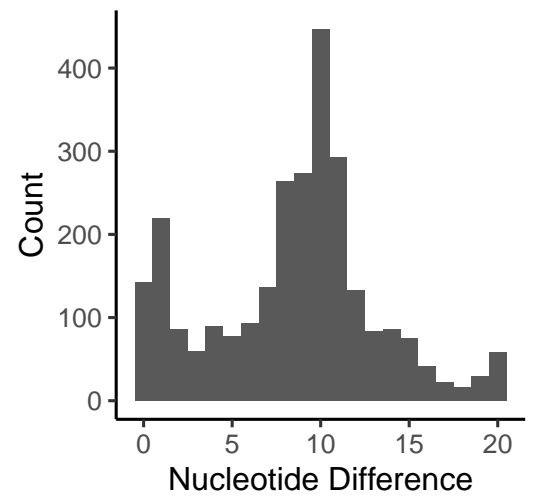
IGHV5-51*04

74 sequences assigned
8 (10.8%) exact matches, in which:
8 unique CDR3
3 unique J



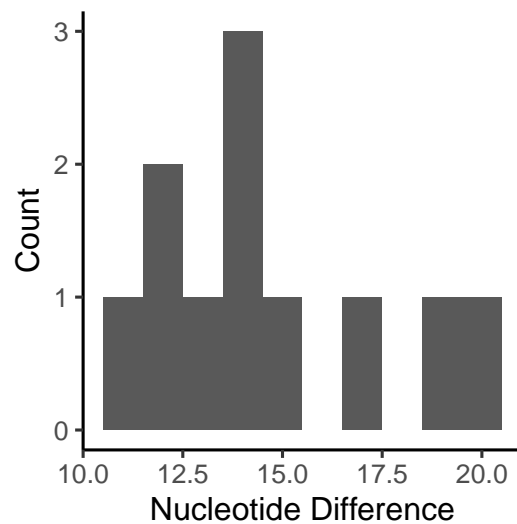
IGHV6-1*01_02

3003 sequences assigned
142 (4.7%) exact matches, in which:
121 unique CDR3
5 unique J



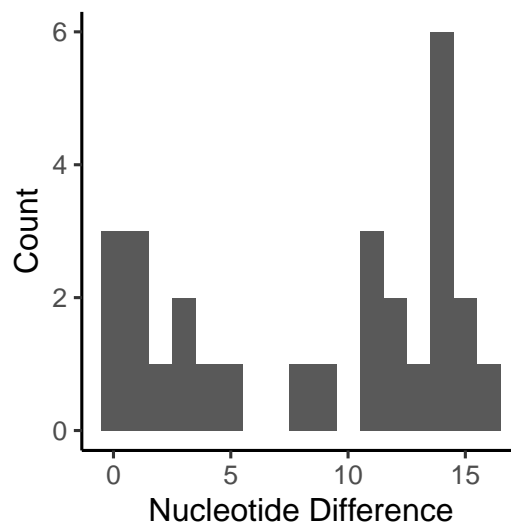
IGHV4/OR15-8*02

50 sequences assigned
No exact matches.



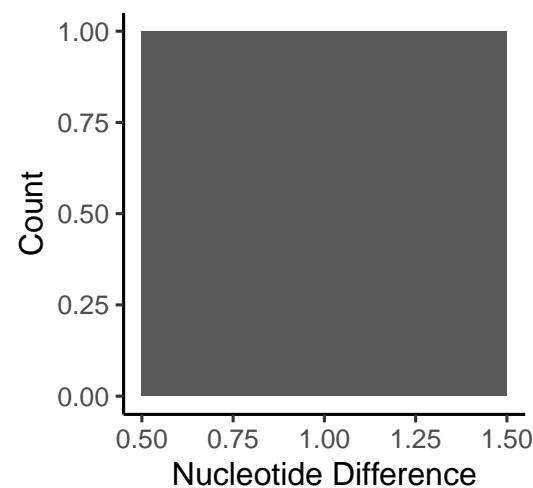
IGHV5-51*06

35 sequences assigned
3 (8.6%) exact matches, in which:
3 unique CDR3
2 unique J



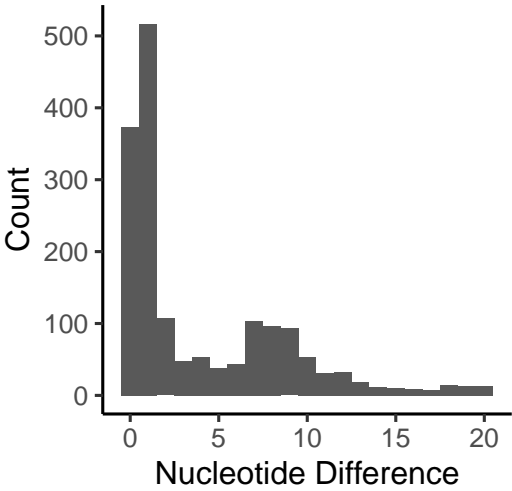
IGHV3/OR16-9*01

1 sequences assigned
No exact matches.



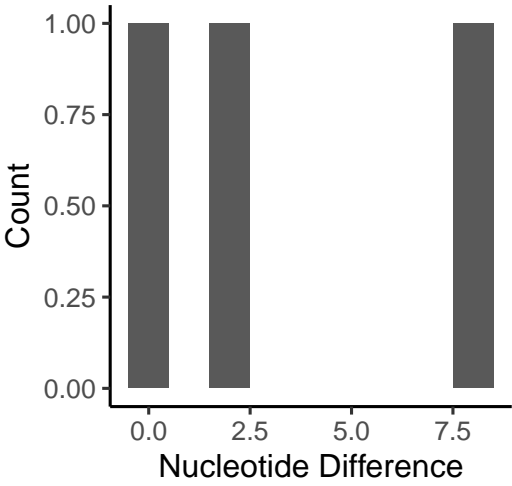
IGHV7-4-1*02

1836 sequences assigned
373 (20.3%) exact matches, in which:
313 unique CDR3
5 unique J



IGHV7-81*01

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J





Novel sequence(s)IGHV3-53*01_02_A225G_T267G_G303A are not listed in the genotype and will be ignored.