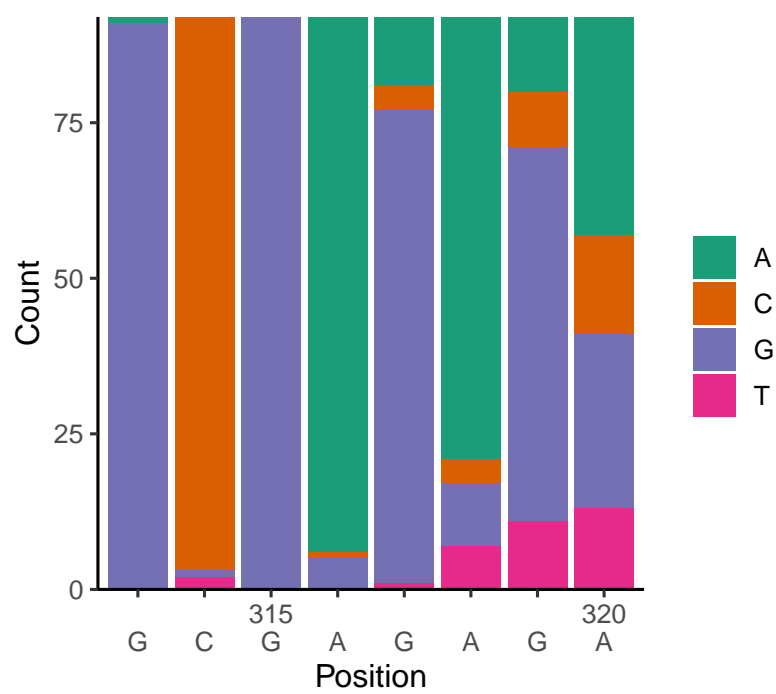
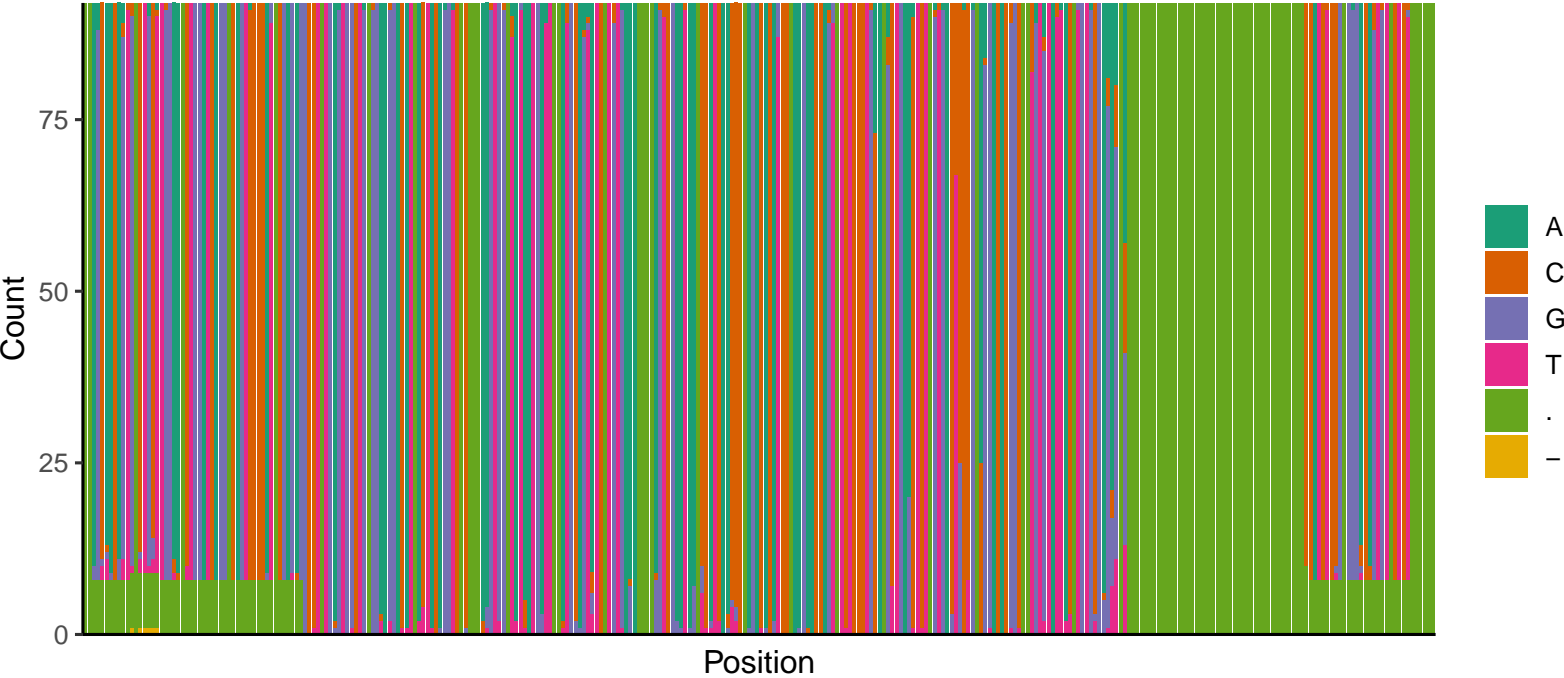


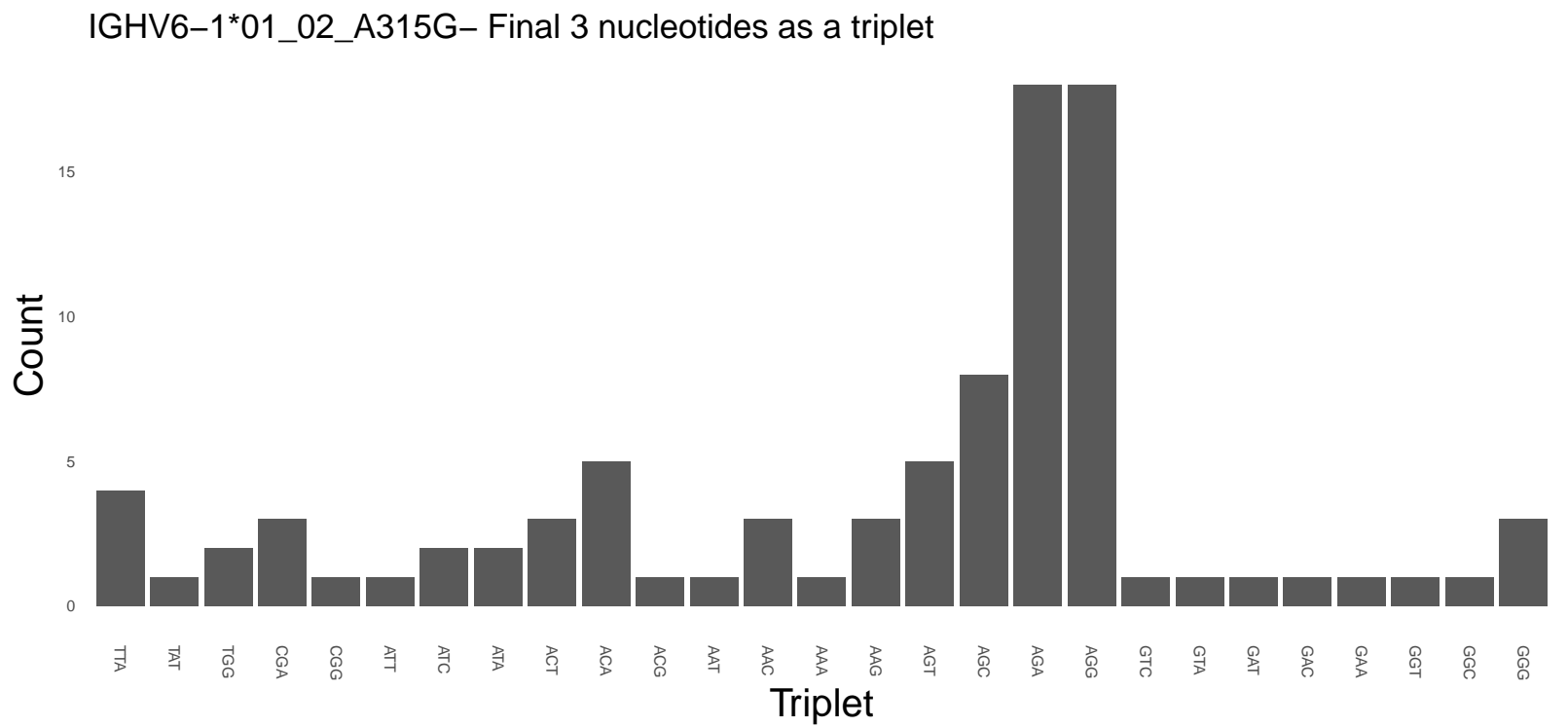
Gene IGHV6-1*01_02_A315G



Gene IGHV6-1*01_02_A315G

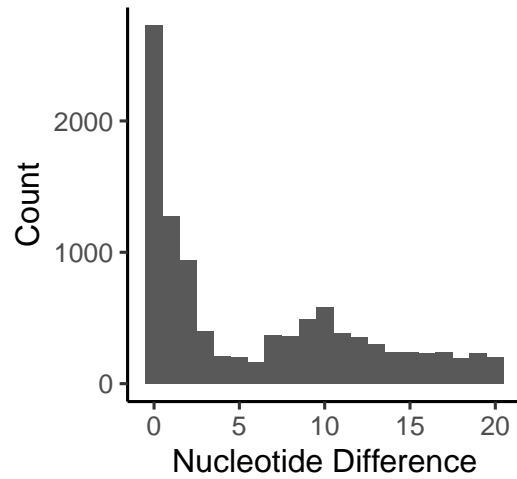


IGHV6-1*01_02_A315G- Final 3 nucleotides as a triplet



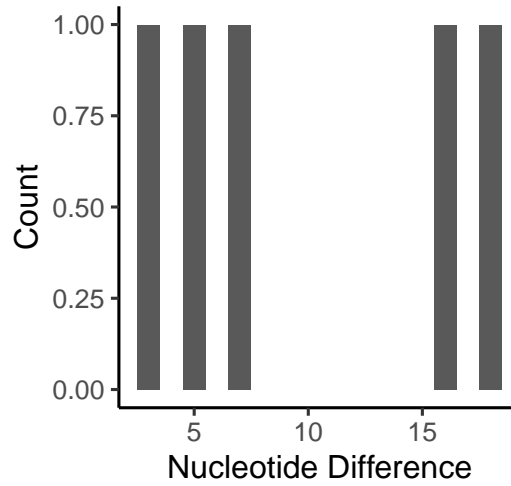
IGHV1-2*02

12116 sequences assigned
2727 (22.5%) exact matches, in which:
2596 unique CDR3
6 unique J



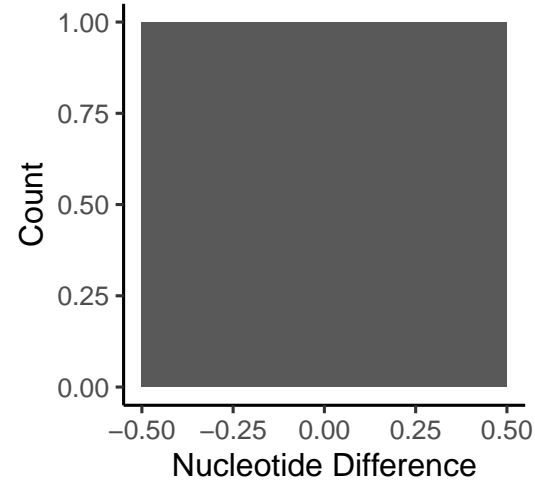
IGHV1-8*02

7 sequences assigned
No exact matches.



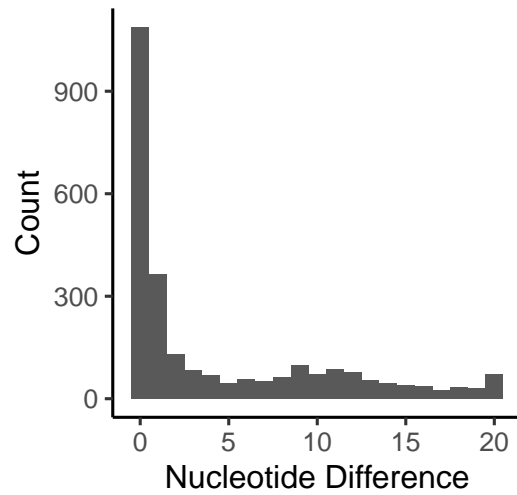
IGHV1-38-4*01

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



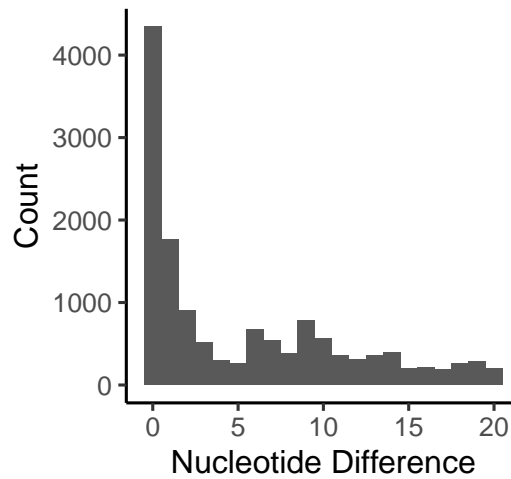
IGHV1-3*01_05

3106 sequences assigned
1088 (35%) exact matches, in which:
1014 unique CDR3
6 unique J



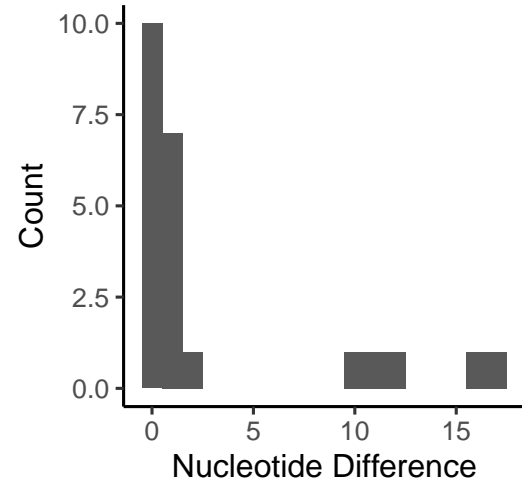
IGHV1-18*01

15357 sequences assigned
4344 (28.3%) exact matches, in which:
4124 unique CDR3
6 unique J



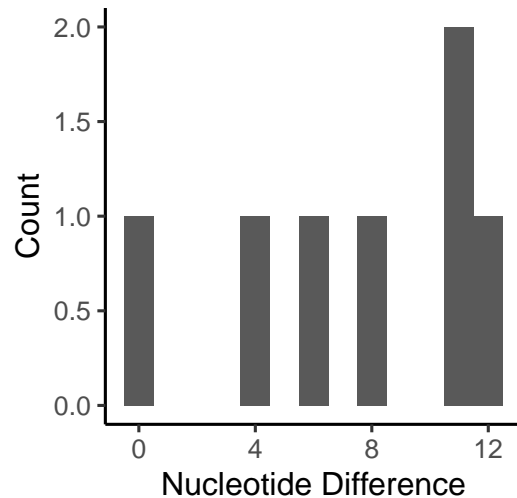
IGHV1-45*02

23 sequences assigned
10 (43.5%) exact matches, in which:
10 unique CDR3
4 unique J



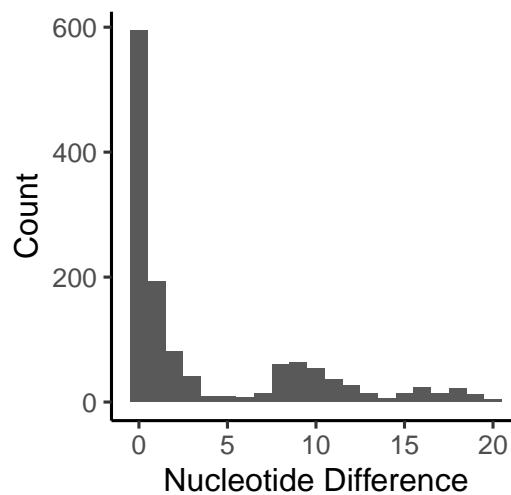
IGHV1-8*01

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



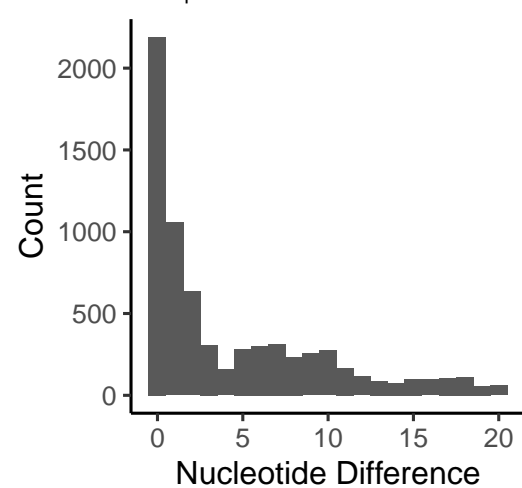
IGHV1-24*01

1387 sequences assigned
595 (42.9%) exact matches, in which:
577 unique CDR3
6 unique J



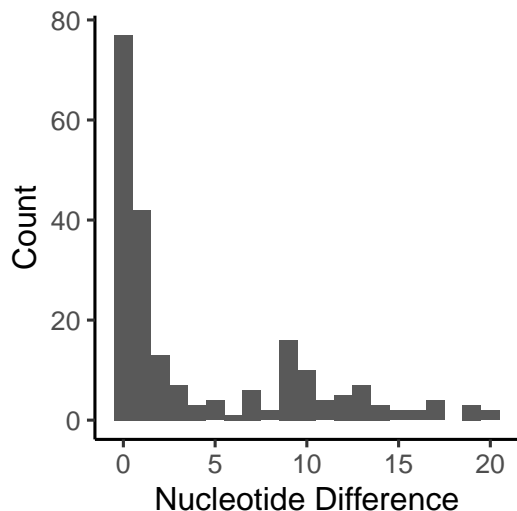
IGHV1-46*01

7515 sequences assigned
2190 (29.1%) exact matches, in which:
2097 unique CDR3
6 unique J



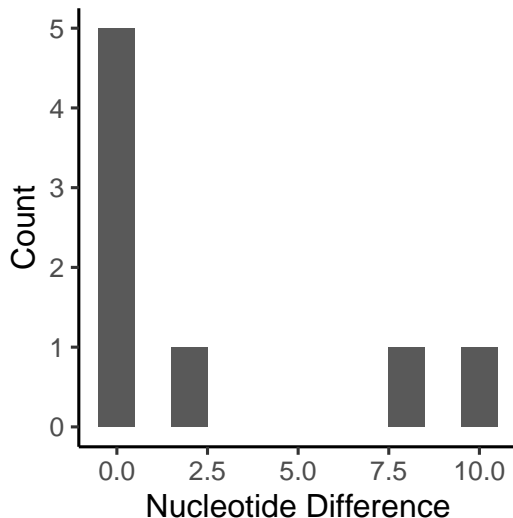
IGHV1-58*02

225 sequences assigned
77 (34.2%) exact matches, in which:
75 unique CDR3
5 unique J



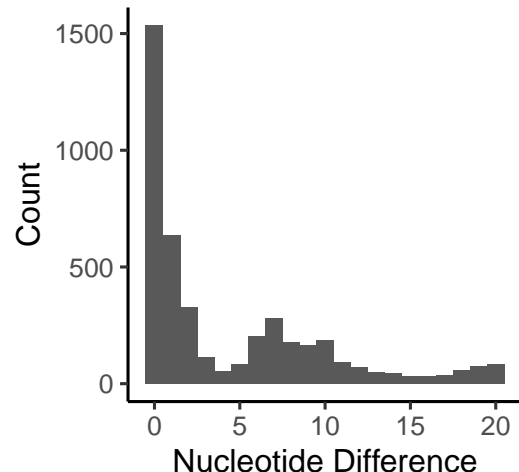
IGHV1-69-2*01

12 sequences assigned
5 (41.7%) exact matches, in which:
5 unique CDR3
2 unique J



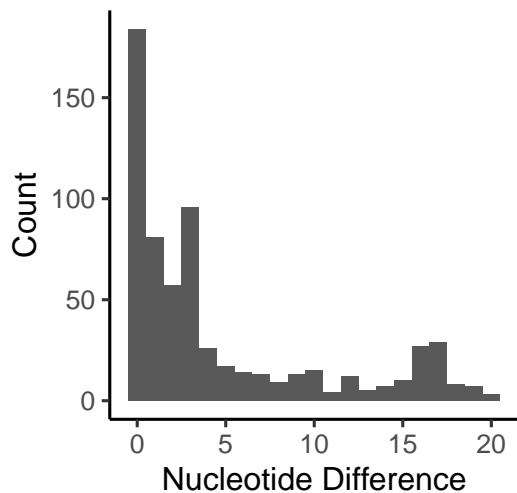
IGHV1-69*06_14

4689 sequences assigned
1535 (32.7%) exact matches, in which:
1487 unique CDR3
6 unique J



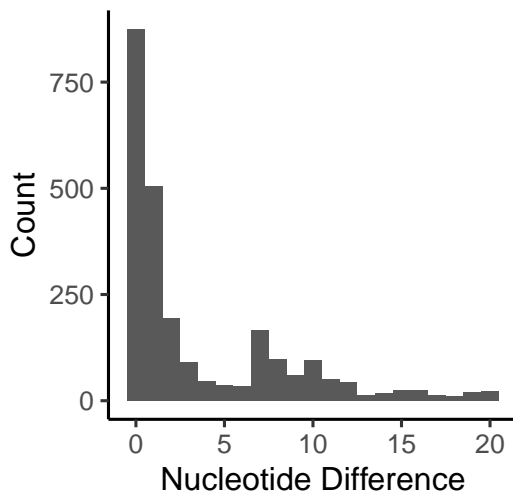
IGHV1-58*01_03

676 sequences assigned
184 (27.2%) exact matches, in which:
172 unique CDR3
5 unique J



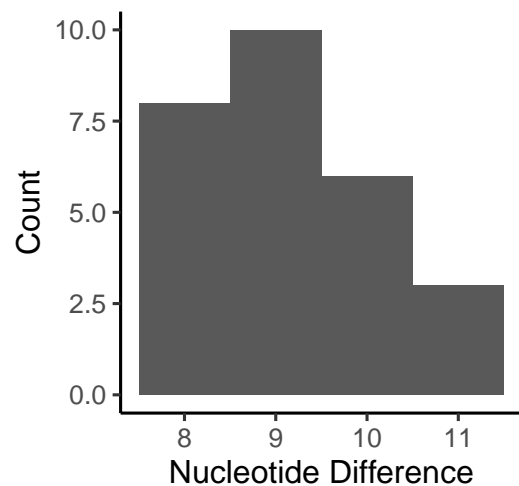
IGHV1-69*02

2633 sequences assigned
875 (33.2%) exact matches, in which:
849 unique CDR3
6 unique J



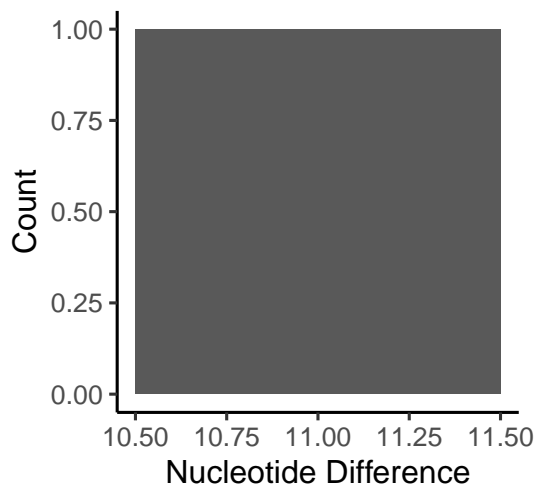
IGHV1-NL1*01

27 sequences assigned
No exact matches.



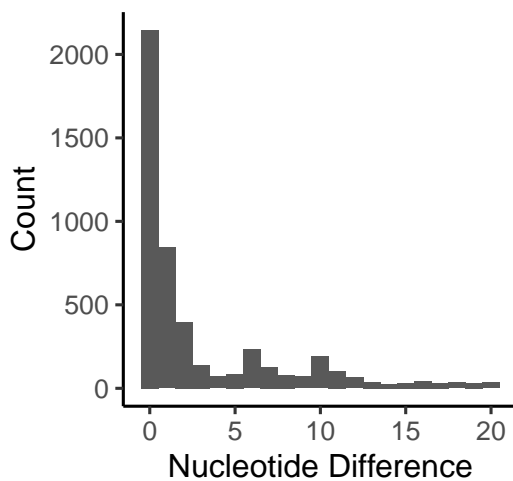
IGHV1-68*01

1 sequences assigned
No exact matches.



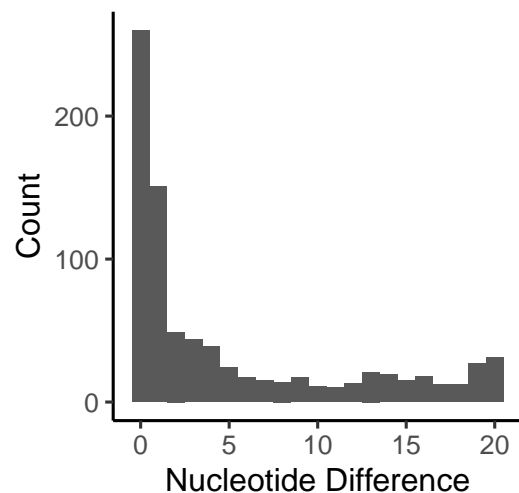
IGHV1-69*01_12_13

5273 sequences assigned
2146 (40.7%) exact matches, in which:
2077 unique CDR3
6 unique J



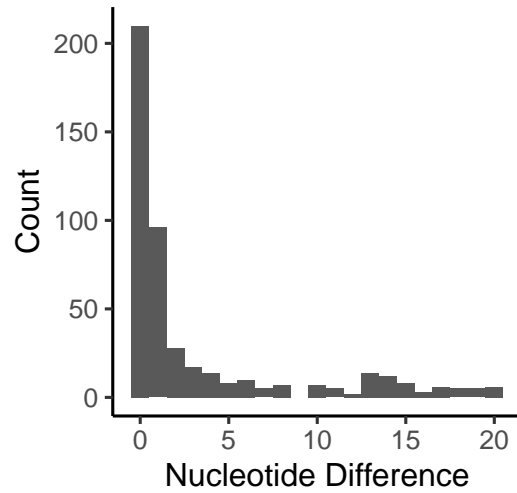
IGHV2-5*02

900 sequences assigned
260 (28.9%) exact matches, in which:
247 unique CDR3
6 unique J



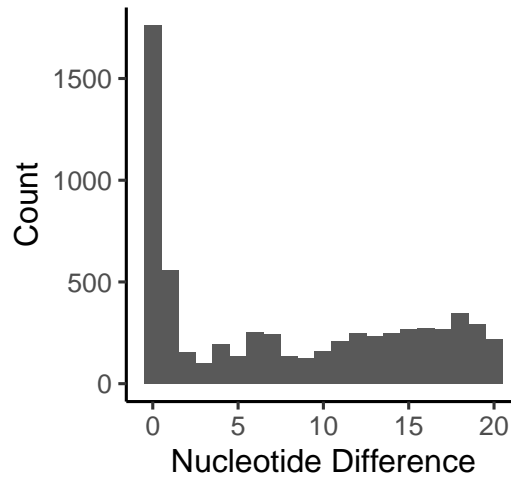
IGHV2-26*01

488 sequences assigned
210 (43%) exact matches, in which:
191 unique CDR3
6 unique J



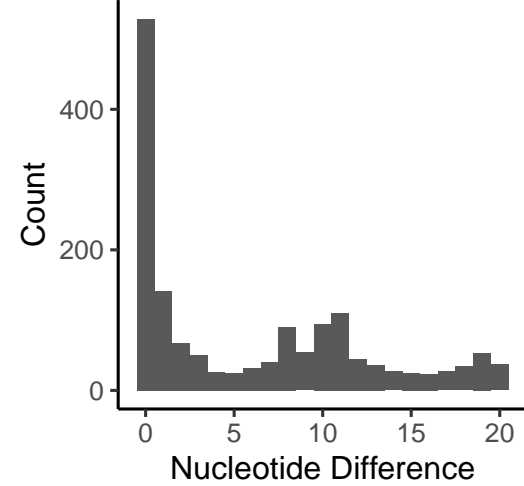
IGHV3-7*03

7937 sequences assigned
1761 (22.2%) exact matches, in which:
1526 unique CDR3
6 unique J



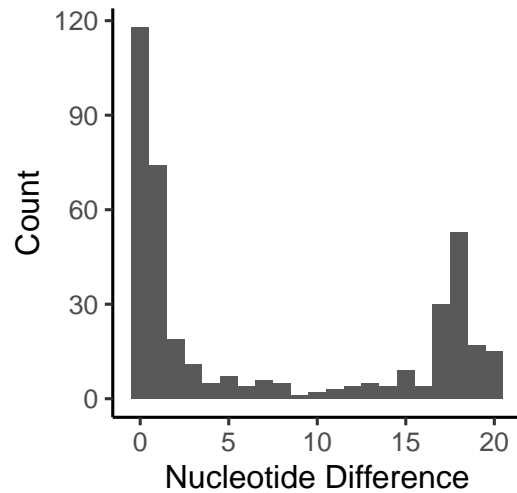
IGHV3-13*04

1699 sequences assigned
529 (31.1%) exact matches, in which:
449 unique CDR3
6 unique J



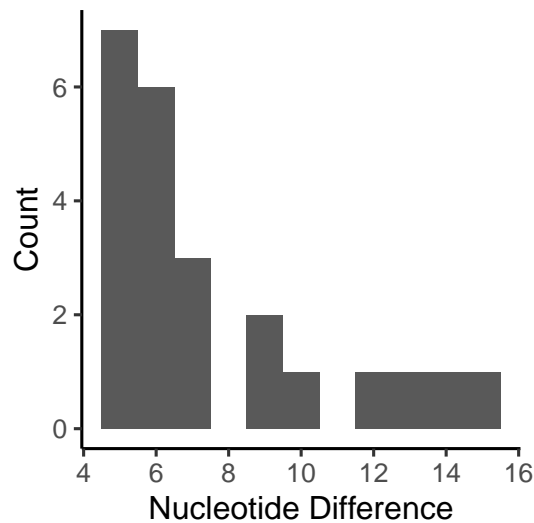
IGHV2-70*01

434 sequences assigned
118 (27.2%) exact matches, in which:
113 unique CDR3
5 unique J



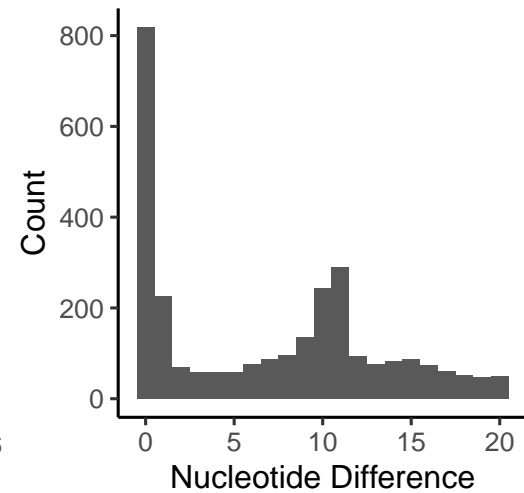
IGHV3-9*01

25 sequences assigned
No exact matches.



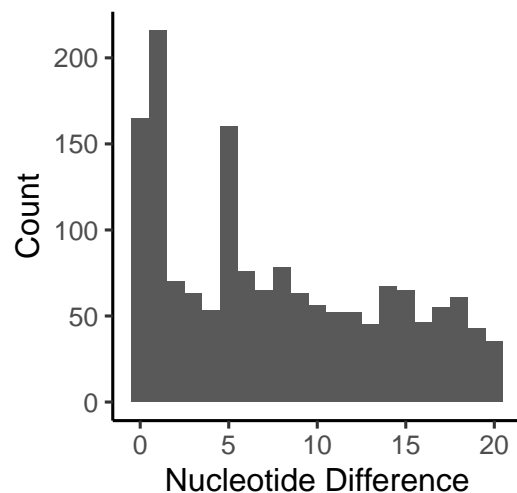
IGHV3-15*01_02

3880 sequences assigned
819 (21.1%) exact matches, in which:
717 unique CDR3
6 unique J



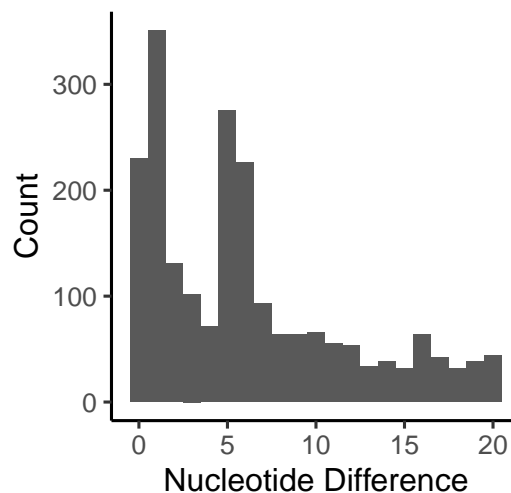
IGHV3-7*01

1785 sequences assigned
165 (9.2%) exact matches, in which:
164 unique CDR3
6 unique J



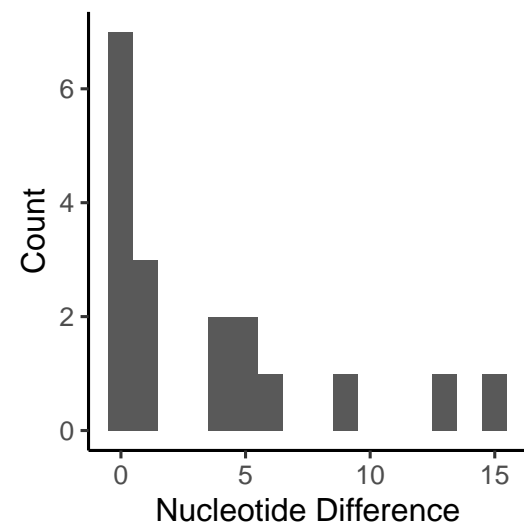
IGHV3-11*06

2380 sequences assigned
230 (9.7%) exact matches, in which:
225 unique CDR3
5 unique J



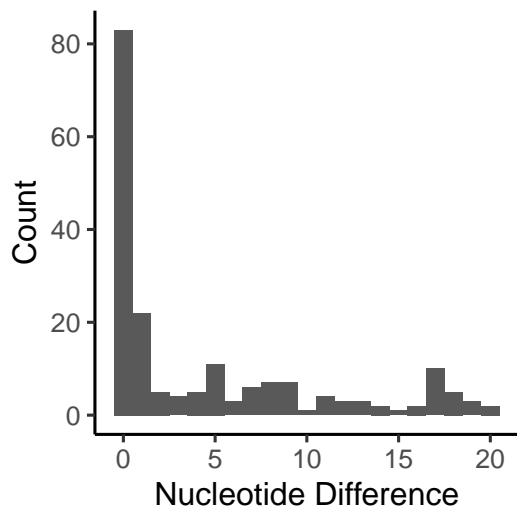
IGHV3-19*01

18 sequences assigned
7 (38.9%) exact matches, in which:
6 unique CDR3
2 unique J



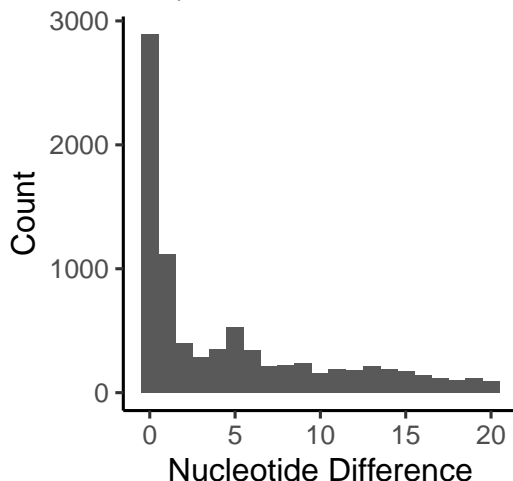
IGHV3-20*01_02

203 sequences assigned
83 (40.9%) exact matches, in which:
73 unique CDR3
5 unique J



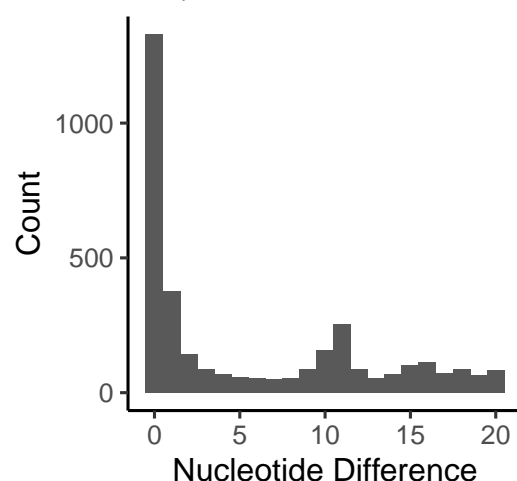
IGHV3-21*01_02

9523 sequences assigned
2891 (30.4%) exact matches, in which:
2470 unique CDR3
6 unique J



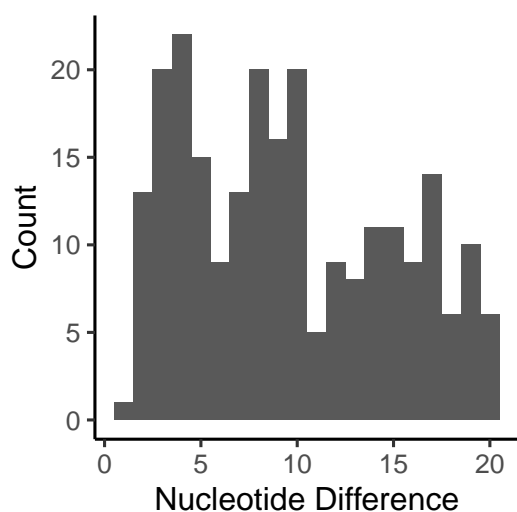
IGHV3-30*03

3910 sequences assigned
1329 (34%) exact matches, in which:
1283 unique CDR3
6 unique J



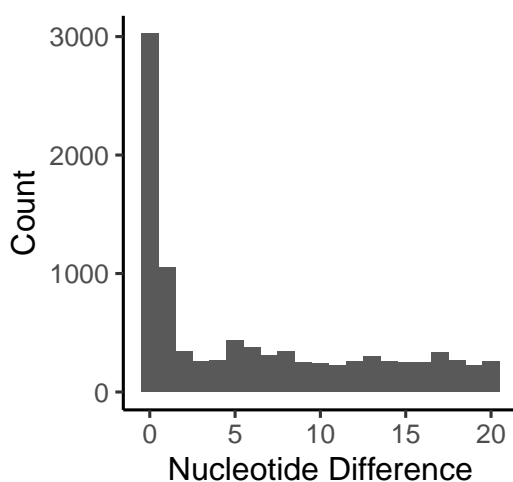
IGHV3-20*03_04

329 sequences assigned
No exact matches.



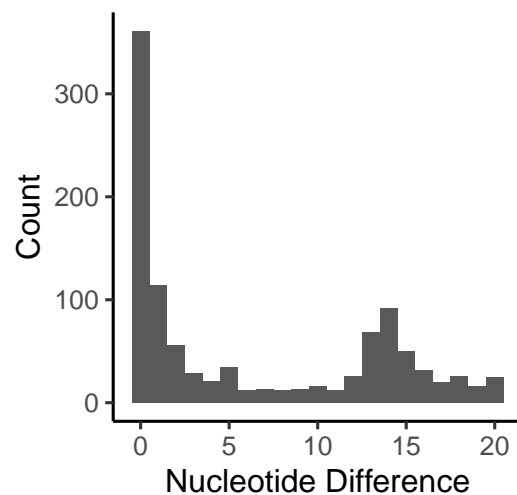
IGHV3-23*01_04

12612 sequences assigned
3024 (24%) exact matches, in which:
2550 unique CDR3
6 unique J



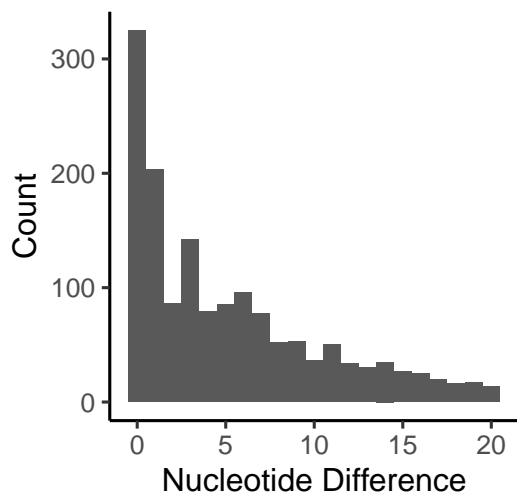
IGHV3-33*01

1145 sequences assigned
361 (31.5%) exact matches, in which:
333 unique CDR3
6 unique J



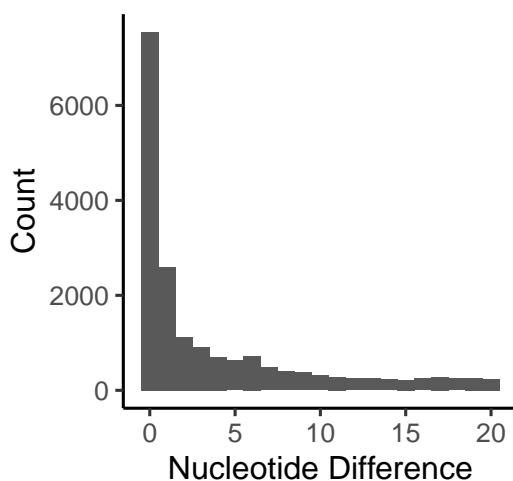
IGHV3-21*04

1762 sequences assigned
325 (18.4%) exact matches, in which:
321 unique CDR3
6 unique J



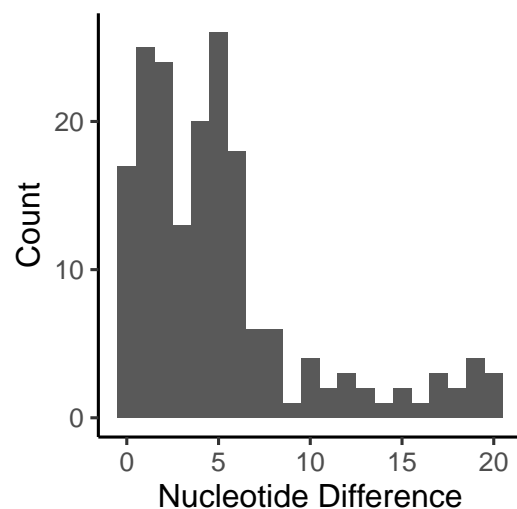
IGHV3-30-3*01

20155 sequences assigned
7545 (37.4%) exact matches, in which:
6503 unique CDR3
6 unique J



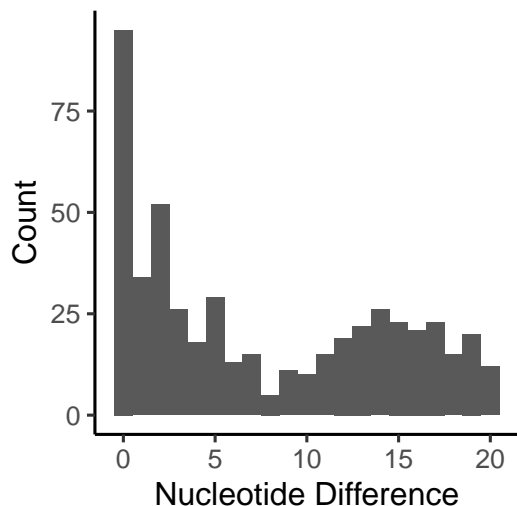
IGHV3-33*05

227 sequences assigned
17 (7.5%) exact matches, in which:
17 unique CDR3
3 unique J



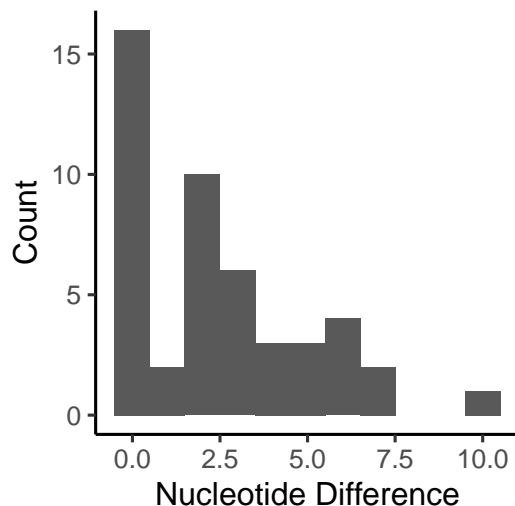
IGHV3-33*08

576 sequences assigned
95 (16.5%) exact matches, in which:
93 unique CDR3
6 unique J



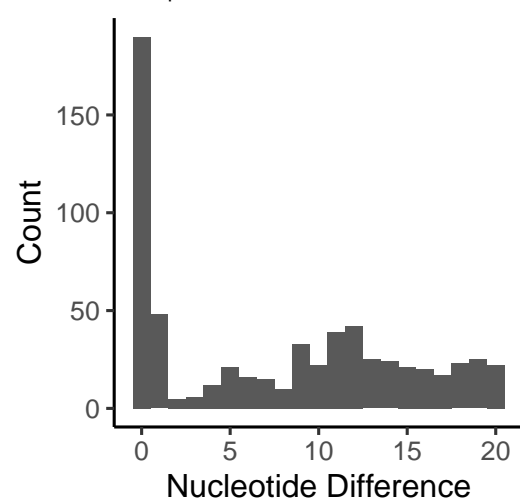
IGHV3-38-3*01

47 sequences assigned
16 (34%) exact matches, in which:
16 unique CDR3
3 unique J



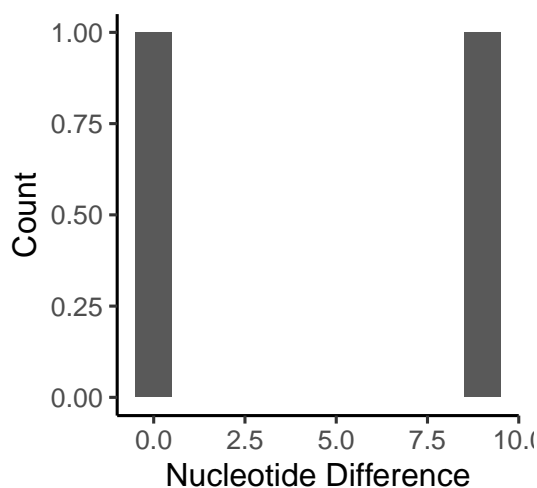
IGHV3-43*02

767 sequences assigned
190 (24.8%) exact matches, in which:
171 unique CDR3
6 unique J



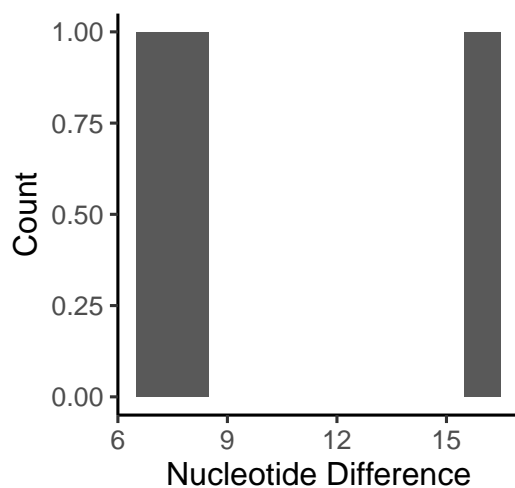
IGHV3-35*01

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



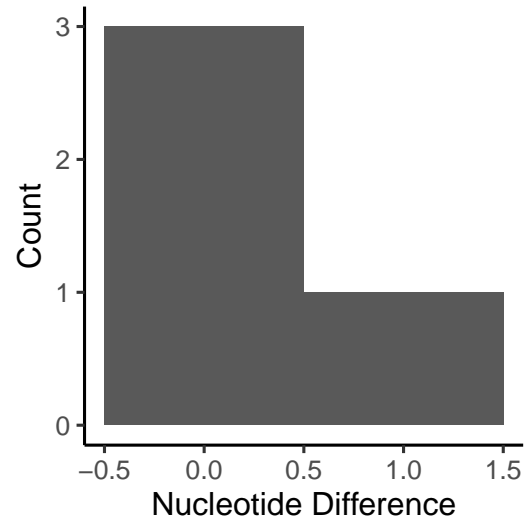
IGHV3-38*03

3 sequences assigned
No exact matches.



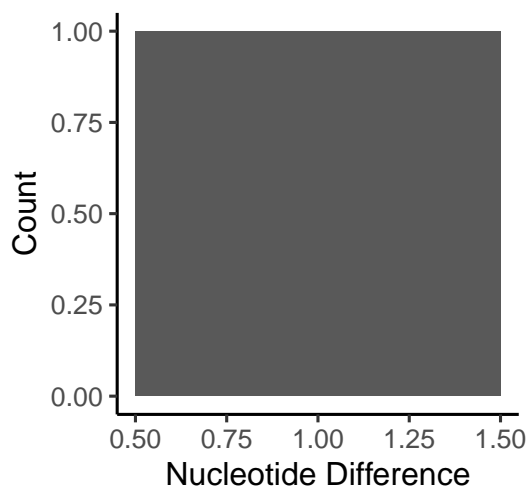
IGHV3-47*01

4 sequences assigned
3 (75%) exact matches, in which:
2 unique CDR3
2 unique J



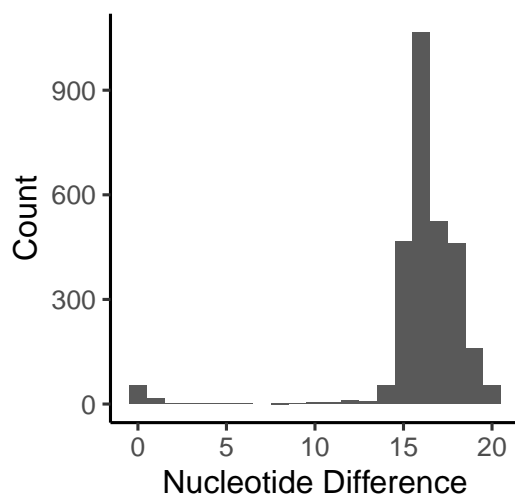
IGHV3-35*02

1 sequences assigned
No exact matches.



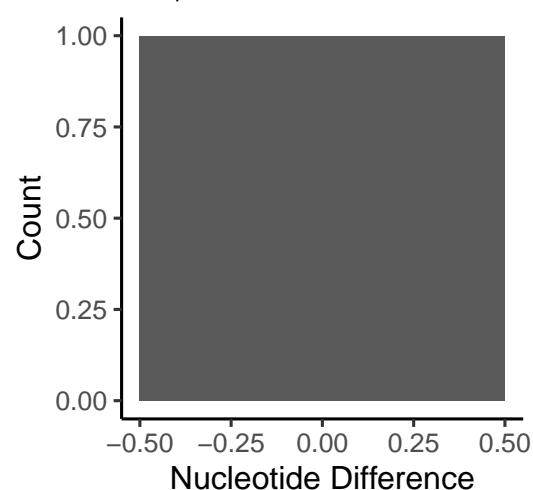
IGHV3-43*01

3136 sequences assigned
54 (1.7%) exact matches, in which:
49 unique CDR3
5 unique J



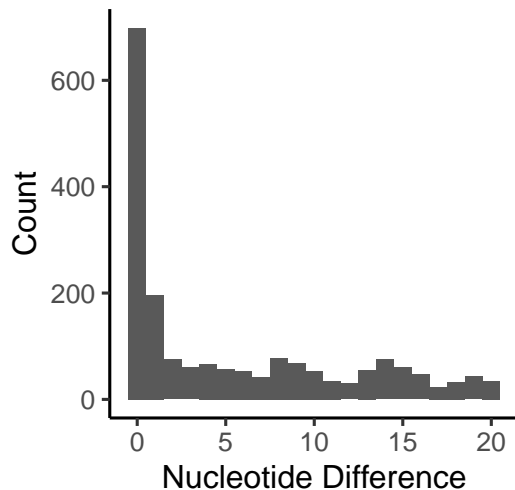
IGHV3-47*02

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



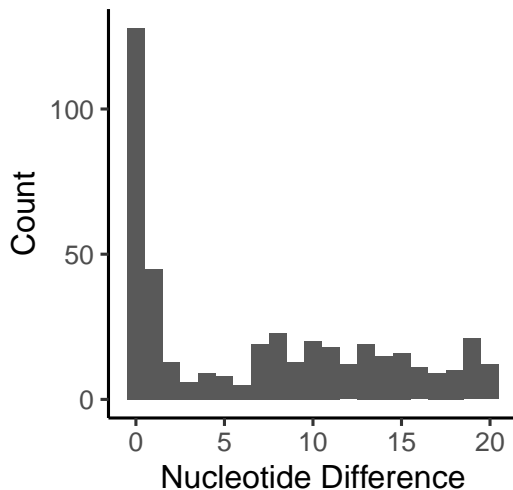
IGHV3-48*02

2501 sequences assigned
699 (27.9%) exact matches, in which:
596 unique CDR3
6 unique J



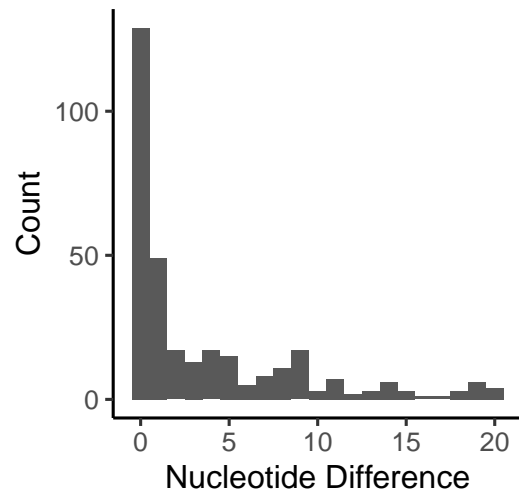
IGHV3-49*04

497 sequences assigned
128 (25.8%) exact matches, in which:
116 unique CDR3
6 unique J



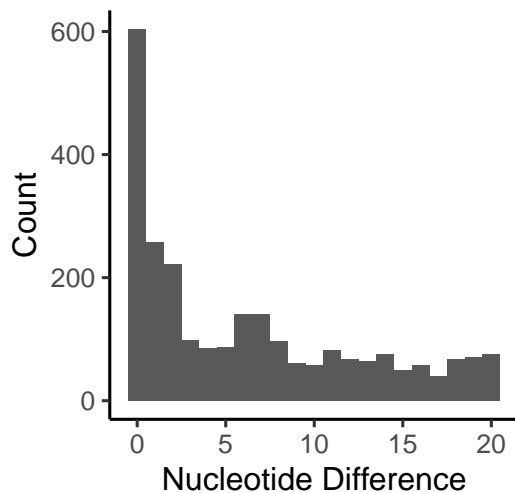
IGHV3-53*04

466 sequences assigned
129 (27.7%) exact matches, in which:
115 unique CDR3
5 unique J



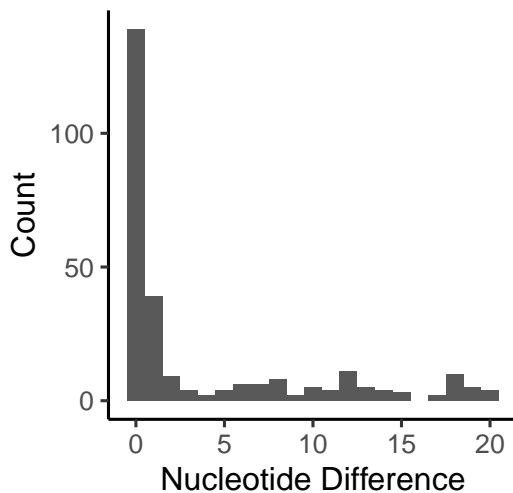
IGHV3-48*03

3264 sequences assigned
604 (18.5%) exact matches, in which:
525 unique CDR3
6 unique J



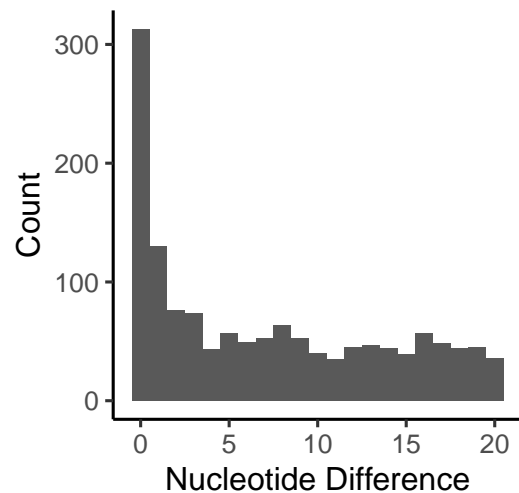
IGHV3-49*03_05

315 sequences assigned
139 (44.1%) exact matches, in which:
122 unique CDR3
5 unique J



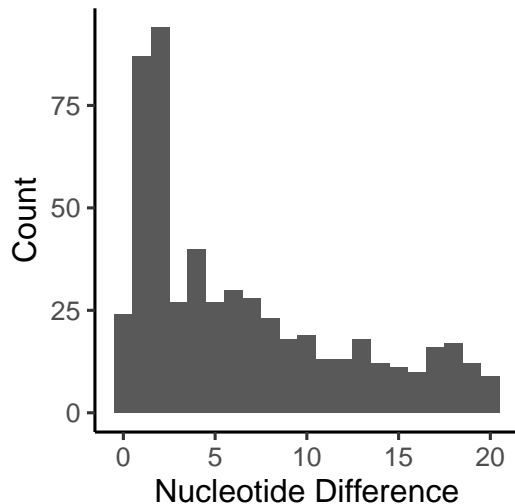
IGHV3-53*01_02

1643 sequences assigned
313 (19.1%) exact matches, in which:
280 unique CDR3
6 unique J



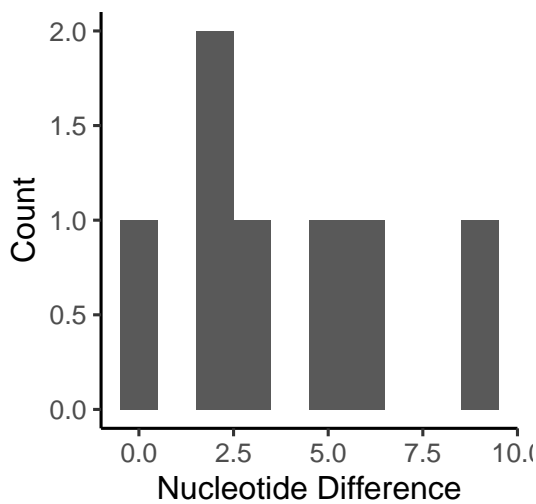
IGHV3-48*04

632 sequences assigned
24 (3.8%) exact matches, in which:
24 unique CDR3
4 unique J



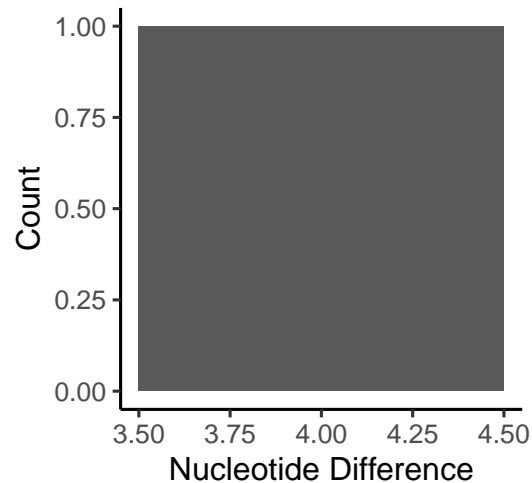
IGHV3-52*01_03

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



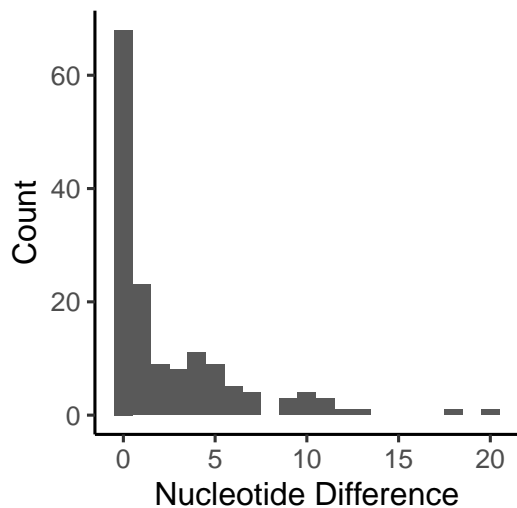
IGHV3-62*04

1 sequences assigned
No exact matches.



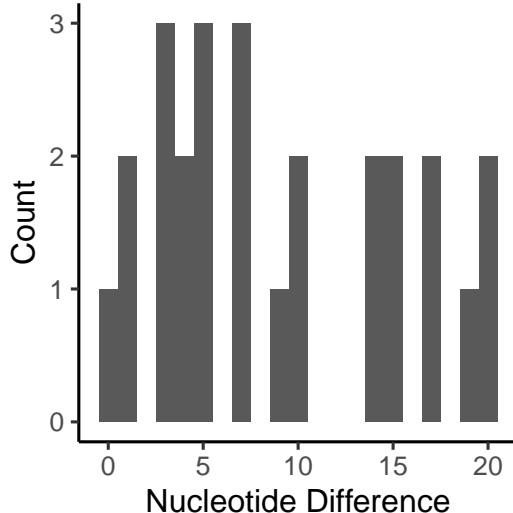
IGHV3-64*01

177 sequences assigned
68 (38.4%) exact matches, in which:
59 unique CDR3
5 unique J



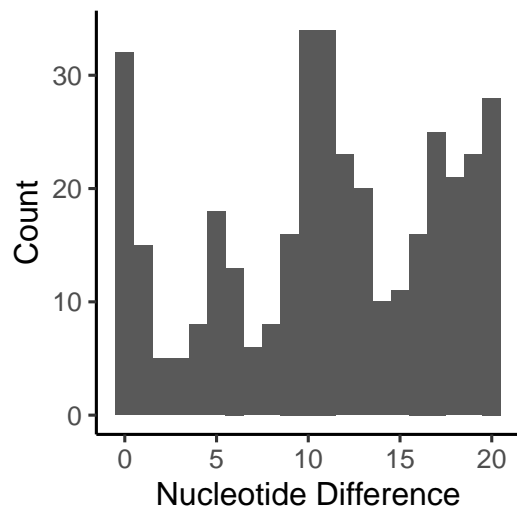
IGHV3-69-1*01

83 sequences assigned
1 (1.2%) exact matches, in which:
1 unique CDR3
1 unique J



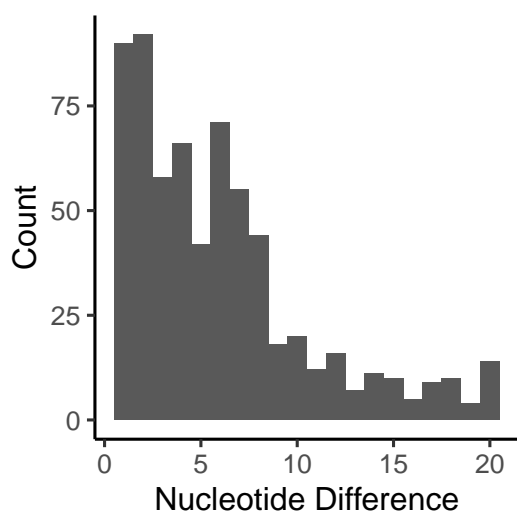
IGHV3-72*01

502 sequences assigned
32 (6.4%) exact matches, in which:
29 unique CDR3
3 unique J



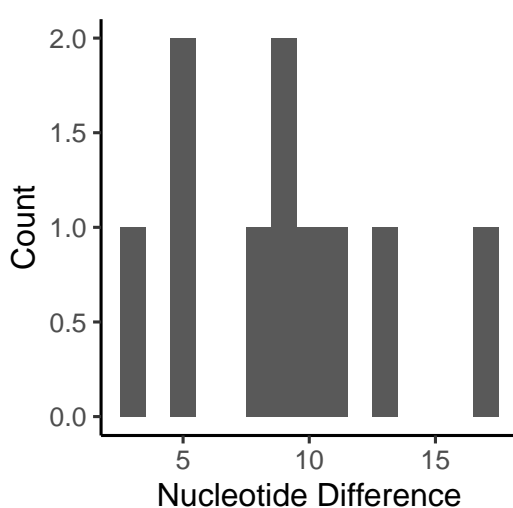
IGHV3-64*04

781 sequences assigned
No exact matches.



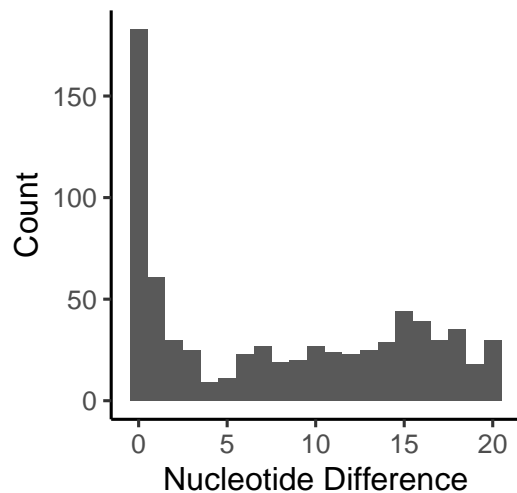
IGHV3-69-1*02

25 sequences assigned
No exact matches.



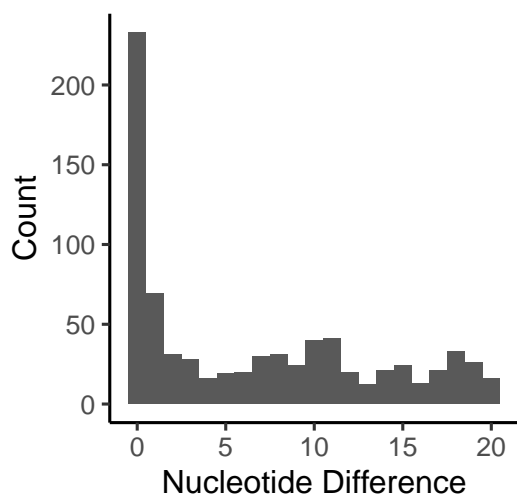
IGHV3-73*01_02

966 sequences assigned
183 (18.9%) exact matches, in which:
154 unique CDR3
4 unique J



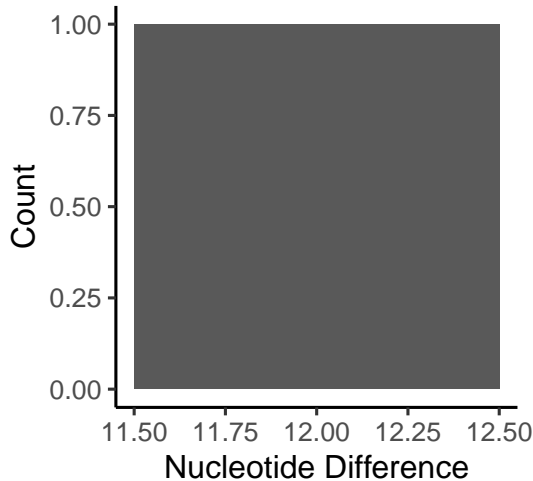
IGHV3-66*02

996 sequences assigned
233 (23.4%) exact matches, in which:
197 unique CDR3
6 unique J



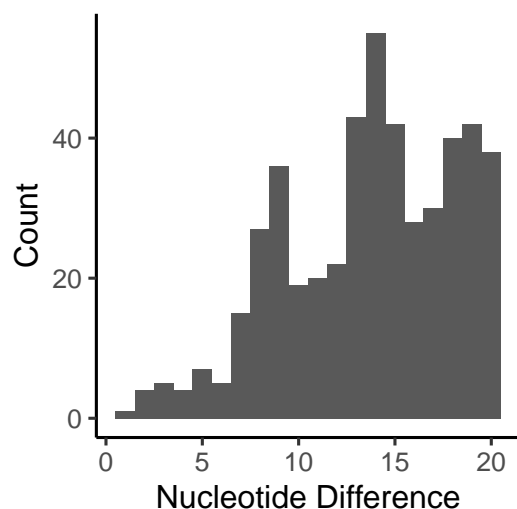
IGHV3-71*01_04

3 sequences assigned
No exact matches.



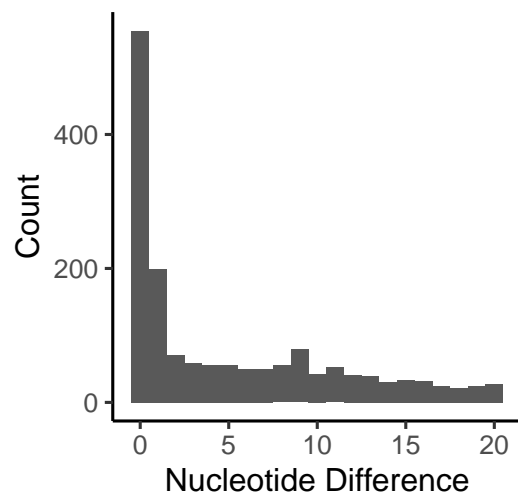
IGHV3-74*03

1396 sequences assigned
No exact matches.



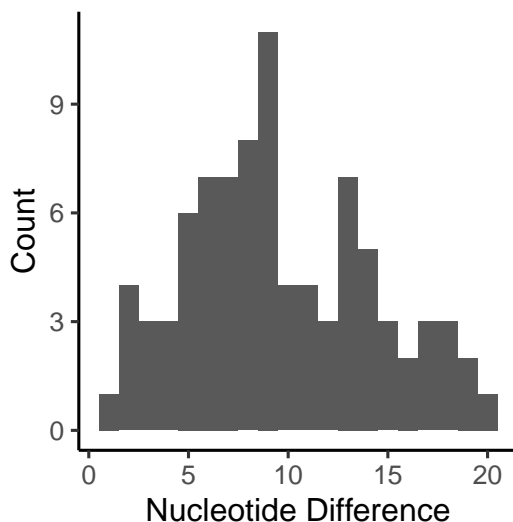
IGHV3-74*01_02

1852 sequences assigned
555 (30%) exact matches, in which:
470 unique CDR3
6 unique J



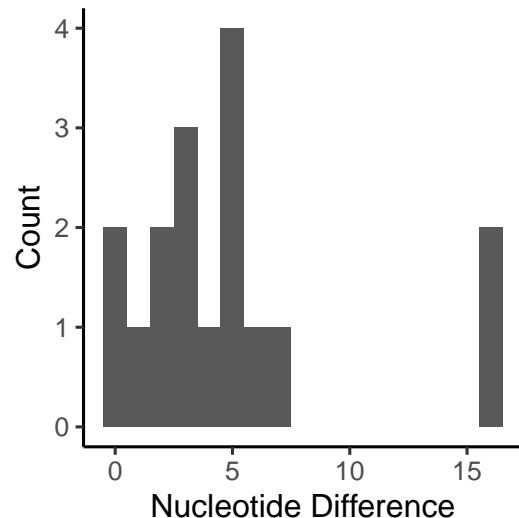
IGHV3-NL1*01

127 sequences assigned
No exact matches.



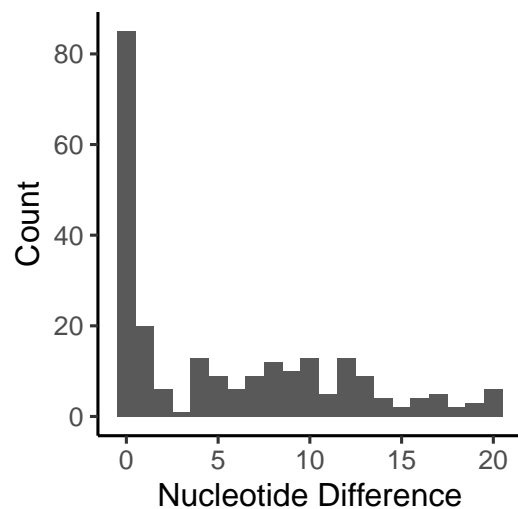
IGHV4-28*03

27 sequences assigned
2 (7.4%) exact matches, in which:
2 unique CDR3
2 unique J



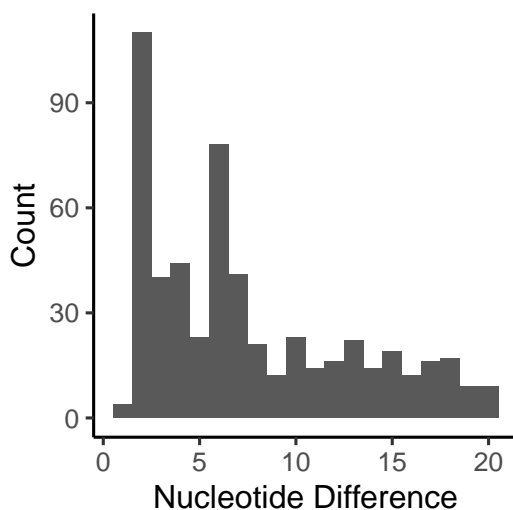
IGHV3-43D*03

265 sequences assigned
85 (32.1%) exact matches, in which:
74 unique CDR3
4 unique J



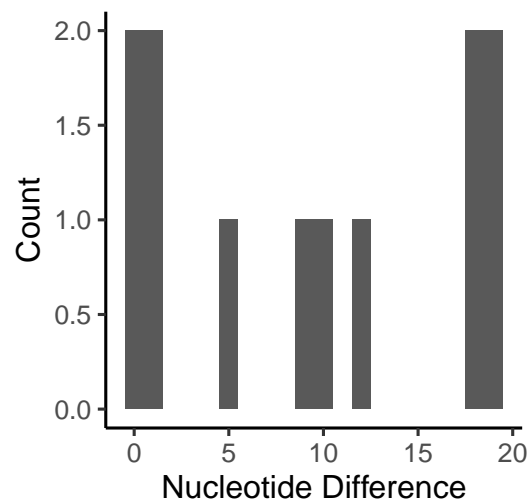
IGHV4-4*07

627 sequences assigned
No exact matches.



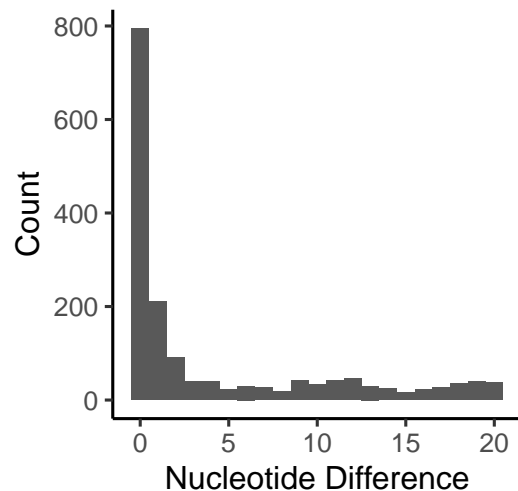
IGHV4-28*01_07

21 sequences assigned
2 (9.5%) exact matches, in which:
2 unique CDR3
1 unique J



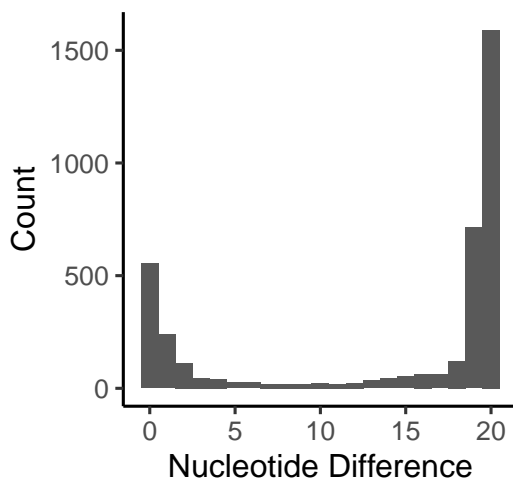
IGHV3-64D*06

2525 sequences assigned
795 (31.5%) exact matches, in which:
656 unique CDR3
6 unique J



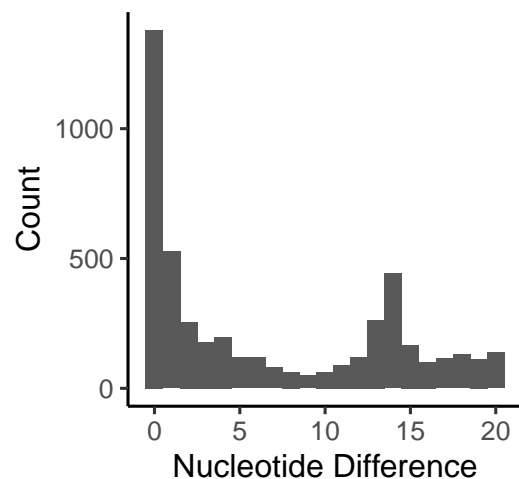
IGHV4-4*02_03

5791 sequences assigned
554 (9.6%) exact matches, in which:
529 unique CDR3
6 unique J



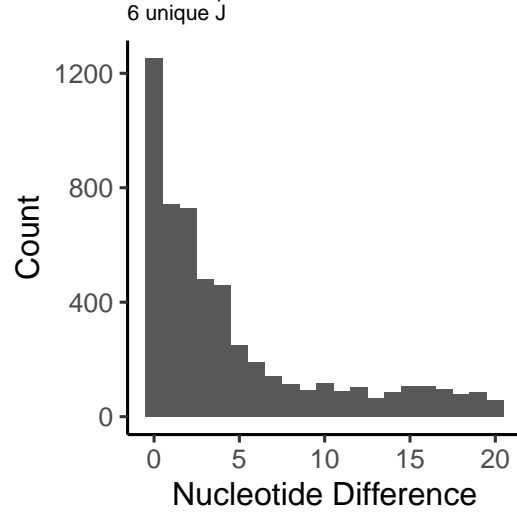
IGHV4-30-4*01

6217 sequences assigned
1380 (22.2%) exact matches, in which:
1302 unique CDR3
6 unique J



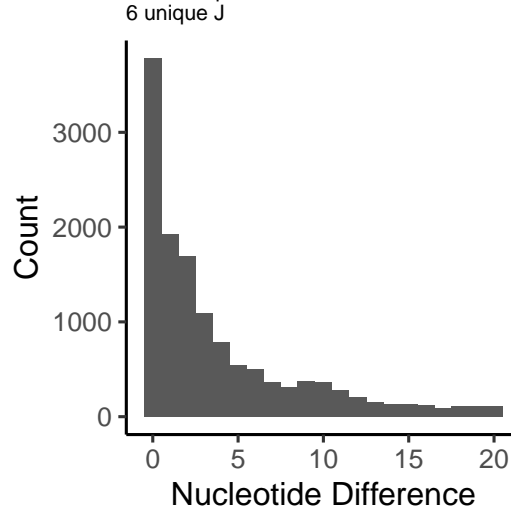
IGHV4-30-2*01

6230 sequences assigned
1252 (20.1%) exact matches, in which:
1132 unique CDR3
6 unique J



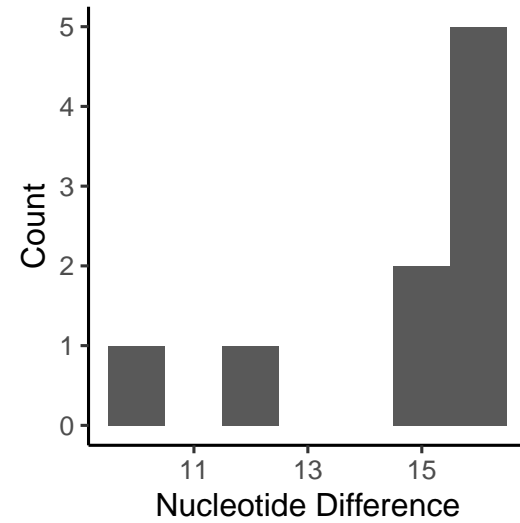
IGHV4-34*01_02

14332 sequences assigned
3780 (26.4%) exact matches, in which:
3553 unique CDR3
6 unique J



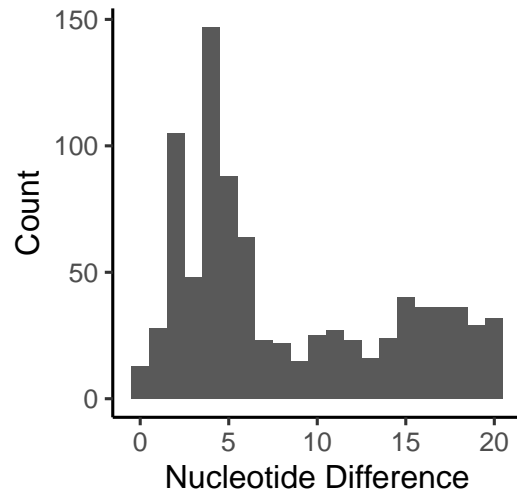
IGHV4-55*09

10 sequences assigned
No exact matches.



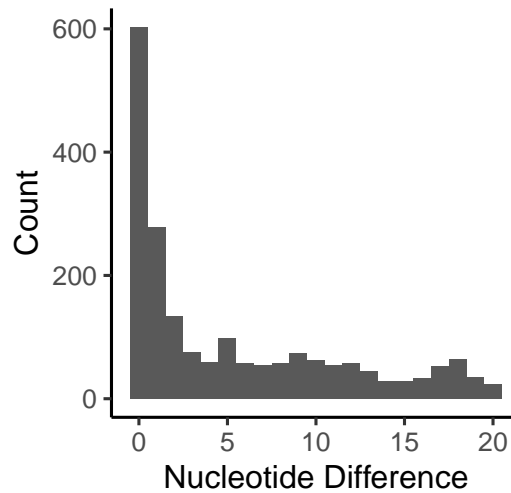
IGHV4-30-4*08

1150 sequences assigned
13 (1.1%) exact matches, in which:
13 unique CDR3
4 unique J



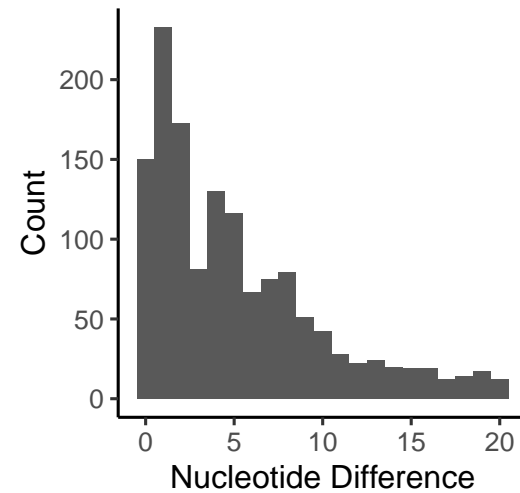
IGHV4-38-2*02

2625 sequences assigned
603 (23%) exact matches, in which:
573 unique CDR3
6 unique J



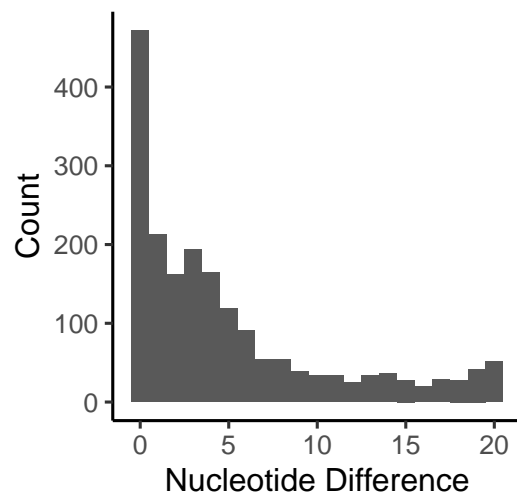
IGHV4-59*08

1548 sequences assigned
150 (9.7%) exact matches, in which:
148 unique CDR3
6 unique J



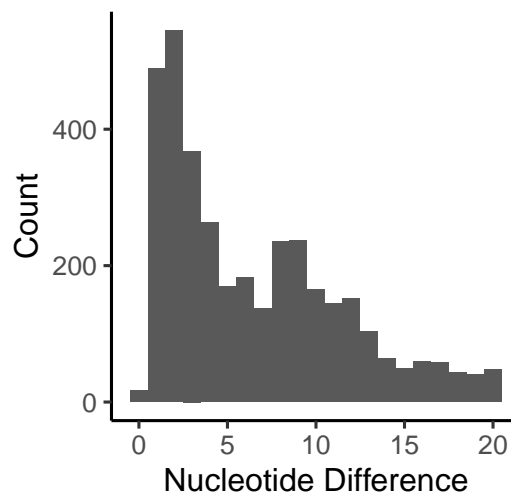
IGHV4-31*02

2380 sequences assigned
472 (19.8%) exact matches, in which:
431 unique CDR3
6 unique J



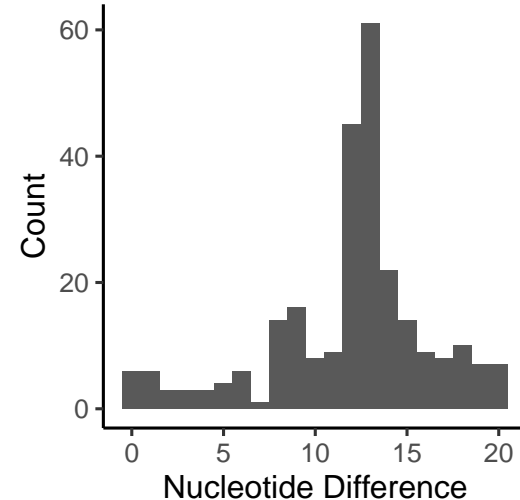
IGHV4-39*07

3929 sequences assigned
17 (0.4%) exact matches, in which:
17 unique CDR3
4 unique J



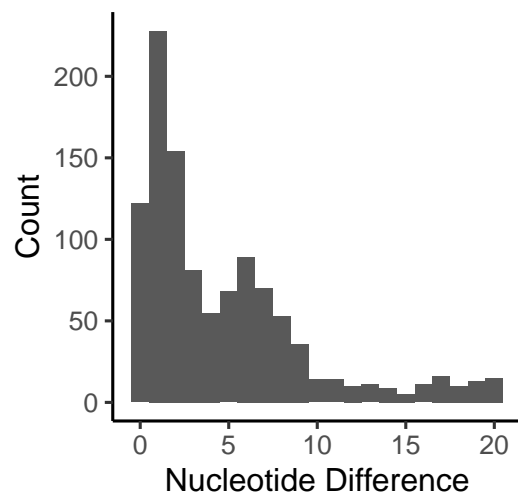
IGHV4-59*11

557 sequences assigned
6 (1.1%) exact matches, in which:
4 unique CDR3
2 unique J



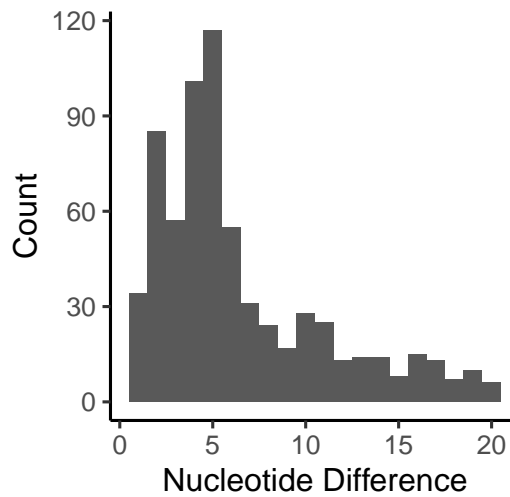
IGHV4–59*12

1179 sequences assigned
122 (10.3%) exact matches, in which:
120 unique CDR3
6 unique J



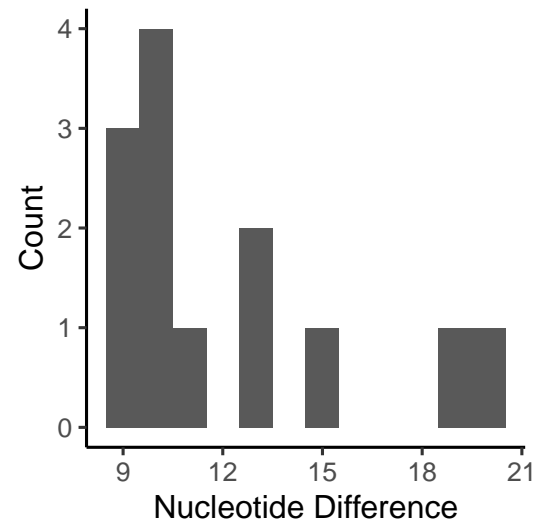
IGHV4–61*08

895 sequences assigned
No exact matches.



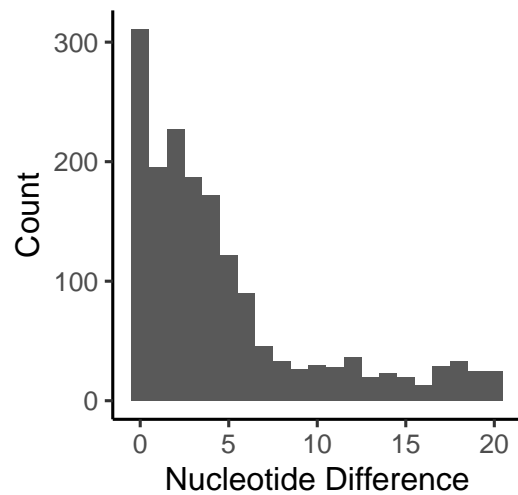
IGHV1/OR15–3*02

14 sequences assigned
No exact matches.



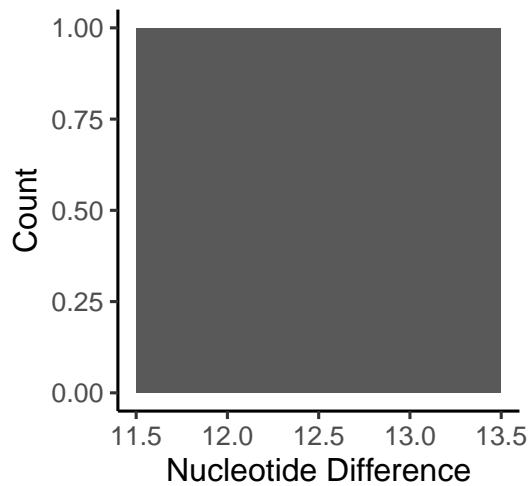
IGHV4–61*01

1885 sequences assigned
311 (16.5%) exact matches, in which:
305 unique CDR3
6 unique J



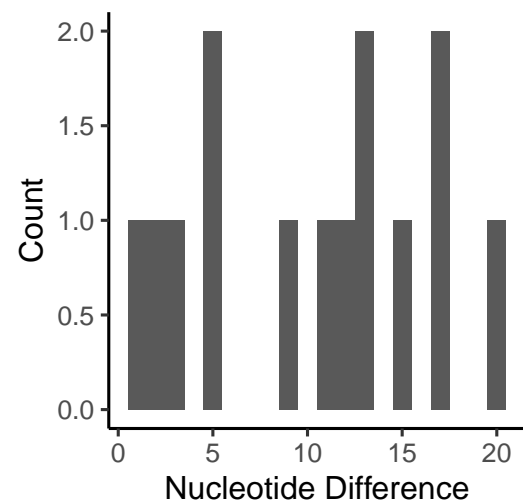
IGHV1/OR15–2*01

3 sequences assigned
No exact matches.



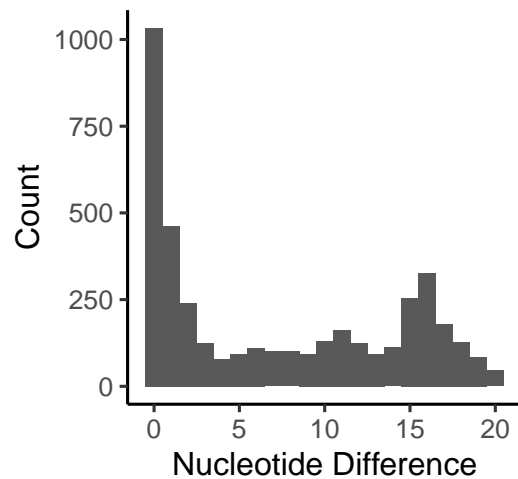
IGHV4/OR15–8*01

23 sequences assigned
No exact matches.



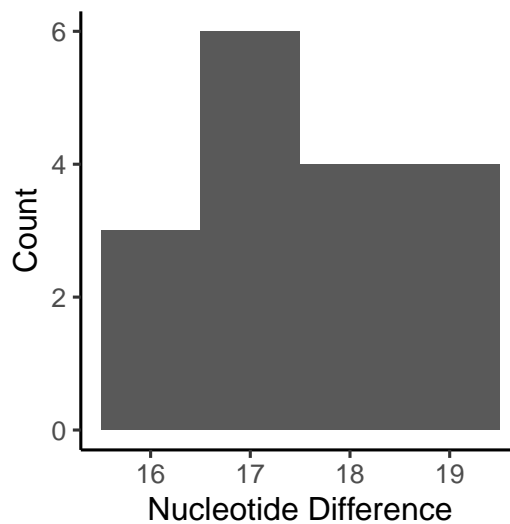
IGHV4–61*02

4865 sequences assigned
1033 (21.2%) exact matches, in which:
998 unique CDR3
6 unique J



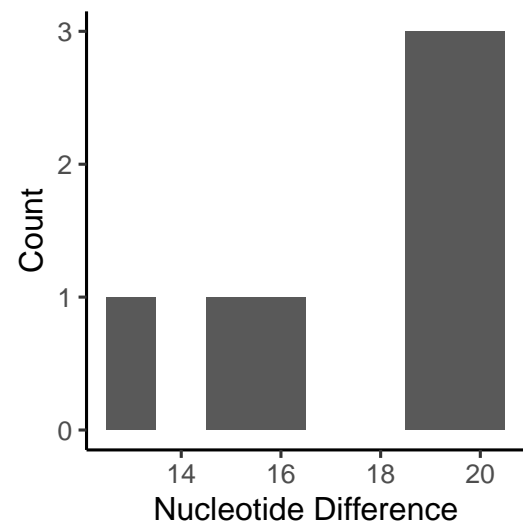
IGHV1/OR15–2*02_03

22 sequences assigned
No exact matches.



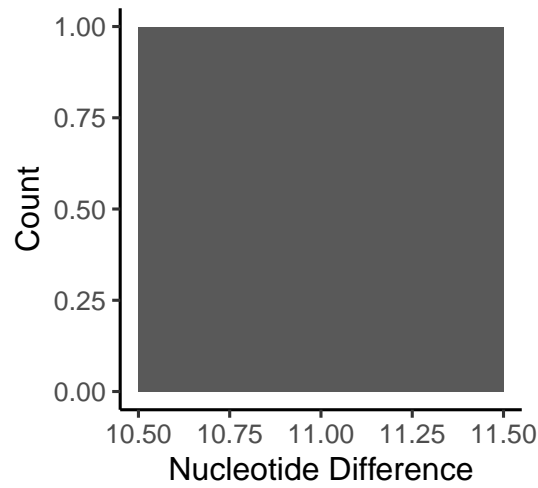
IGHV4/OR15–8*02

15 sequences assigned
No exact matches.



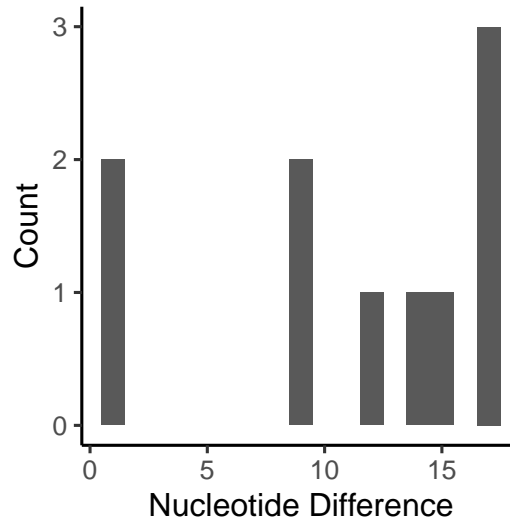
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



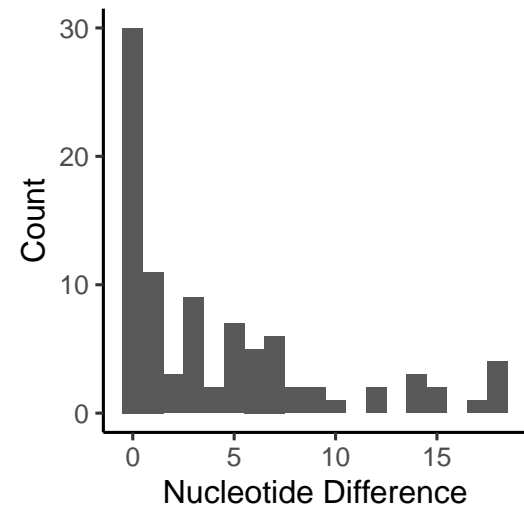
IGHV5-51*06

11 sequences assigned
No exact matches.



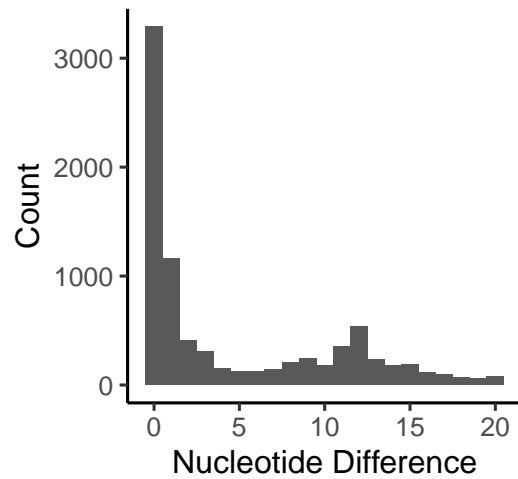
IGHV6-1*01_02_A315G

92 sequences assigned
30 (32.6%) exact matches, in which:
30 unique CDR3
5 unique J



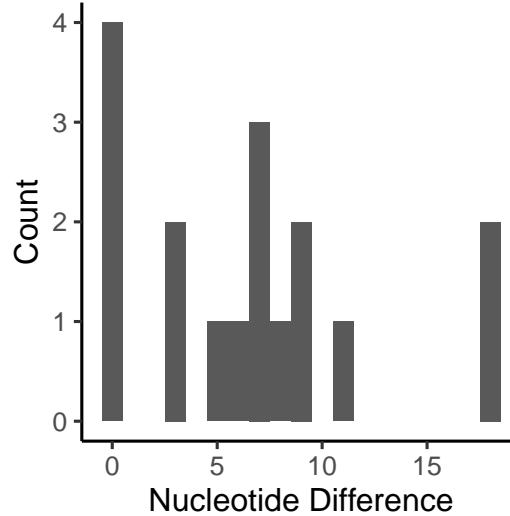
IGHV5-10-1*01_03

8683 sequences assigned
3289 (37.9%) exact matches, in which:
2746 unique CDR3
6 unique J



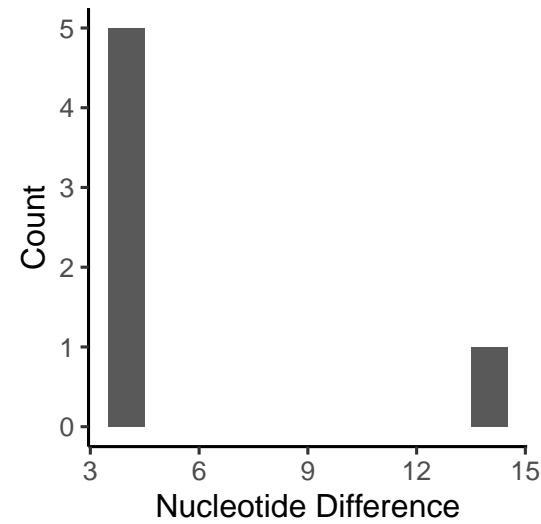
IGHV5-51*07

21 sequences assigned
4 (19%) exact matches, in which:
4 unique CDR3
3 unique J



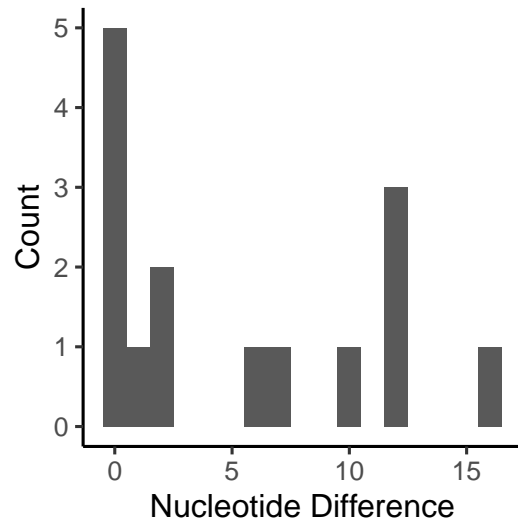
IGHV3/OR16-8*01

10 sequences assigned
No exact matches.



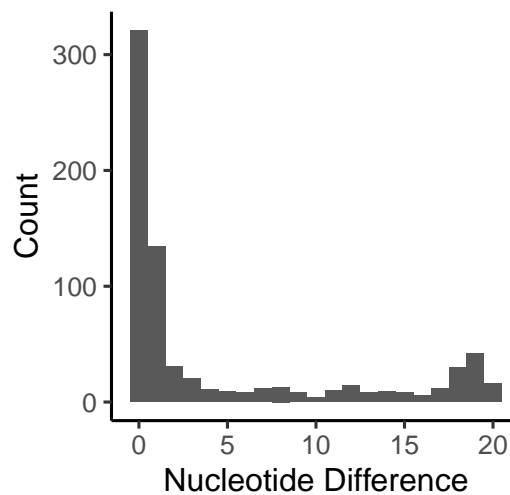
IGHV5-51*04

16 sequences assigned
5 (31.2%) exact matches, in which:
5 unique CDR3
4 unique J



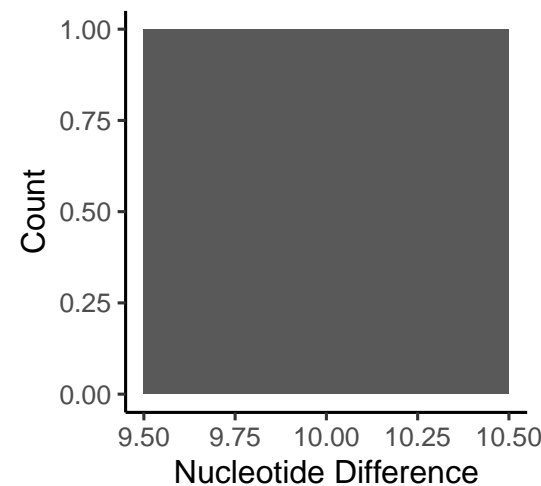
IGHV6-1*01_02

793 sequences assigned
321 (40.5%) exact matches, in which:
301 unique CDR3
6 unique J



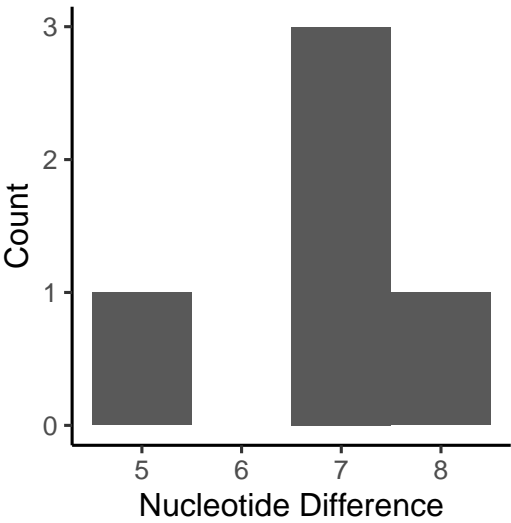
IGHV3/OR16-9*01

1 sequences assigned
No exact matches.



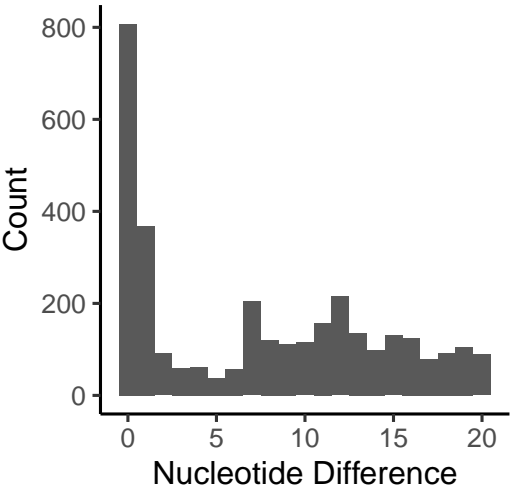
IGHV3/OR16-10*01_03

6 sequences assigned
No exact matches.



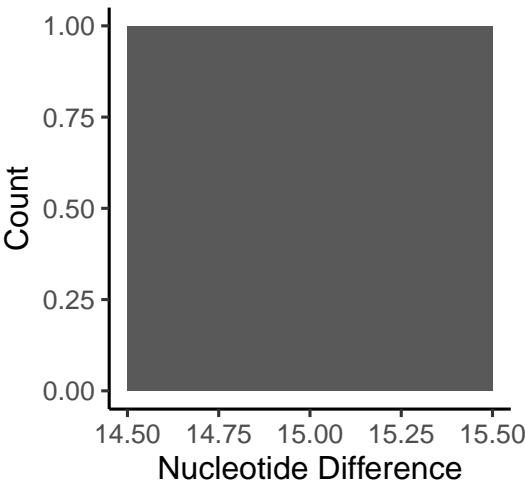
IGHV7-4-1*02

3896 sequences assigned
808 (20.7%) exact matches, in which:
766 unique CDR3
6 unique J



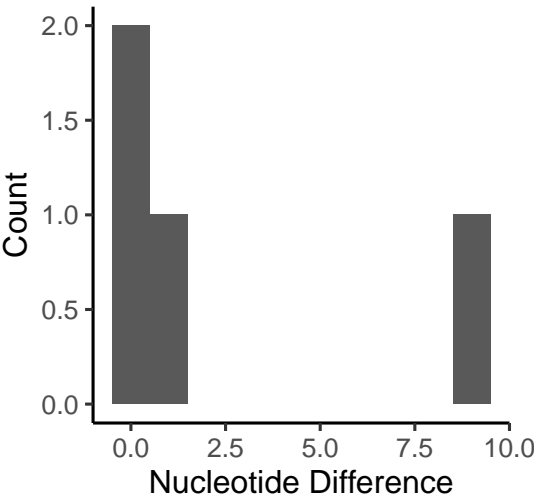
IGHV3/OR16-13*01

1 sequences assigned
No exact matches.



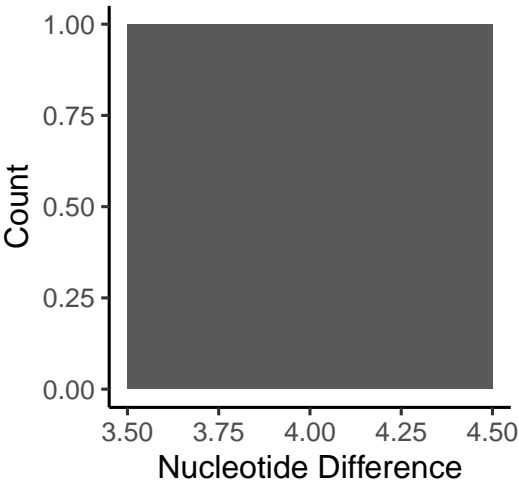
IGHV7-81*01

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

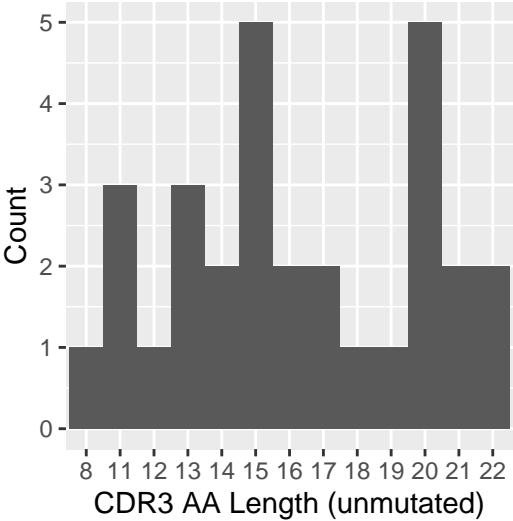


IGHV3/OR16-17*01

1 sequences assigned
No exact matches.



IGHV6-1*01_02_A315G





[illegible]