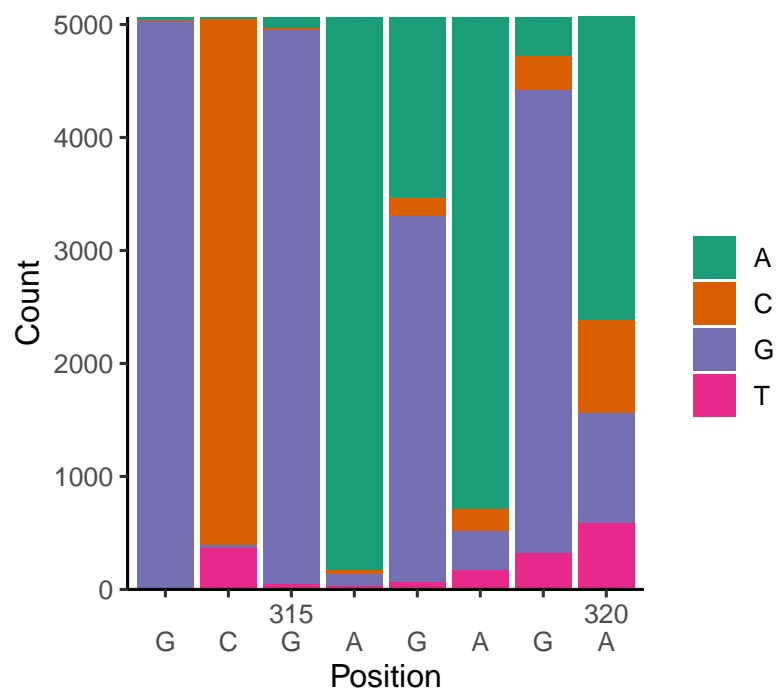
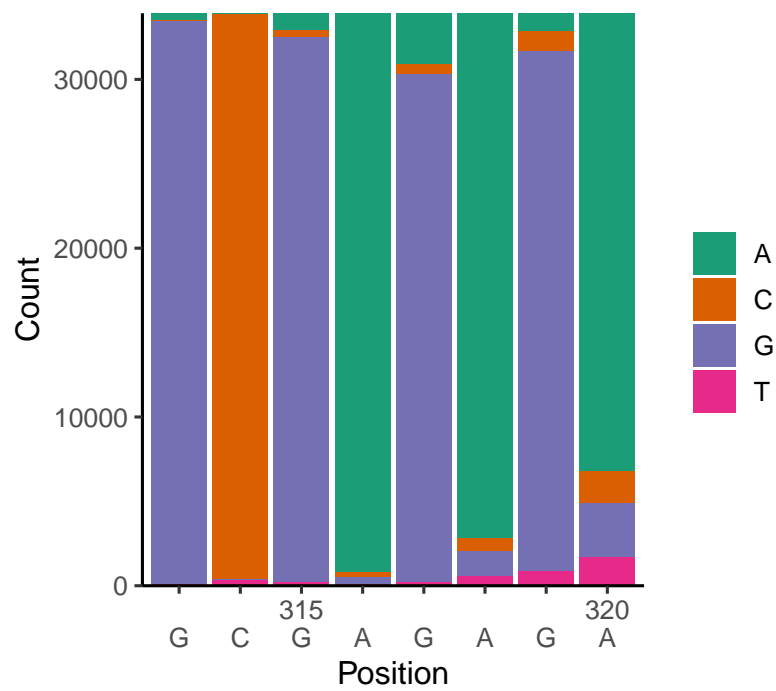


Gene IGHV3-33*01_T105C_A173T_T192G_C288T



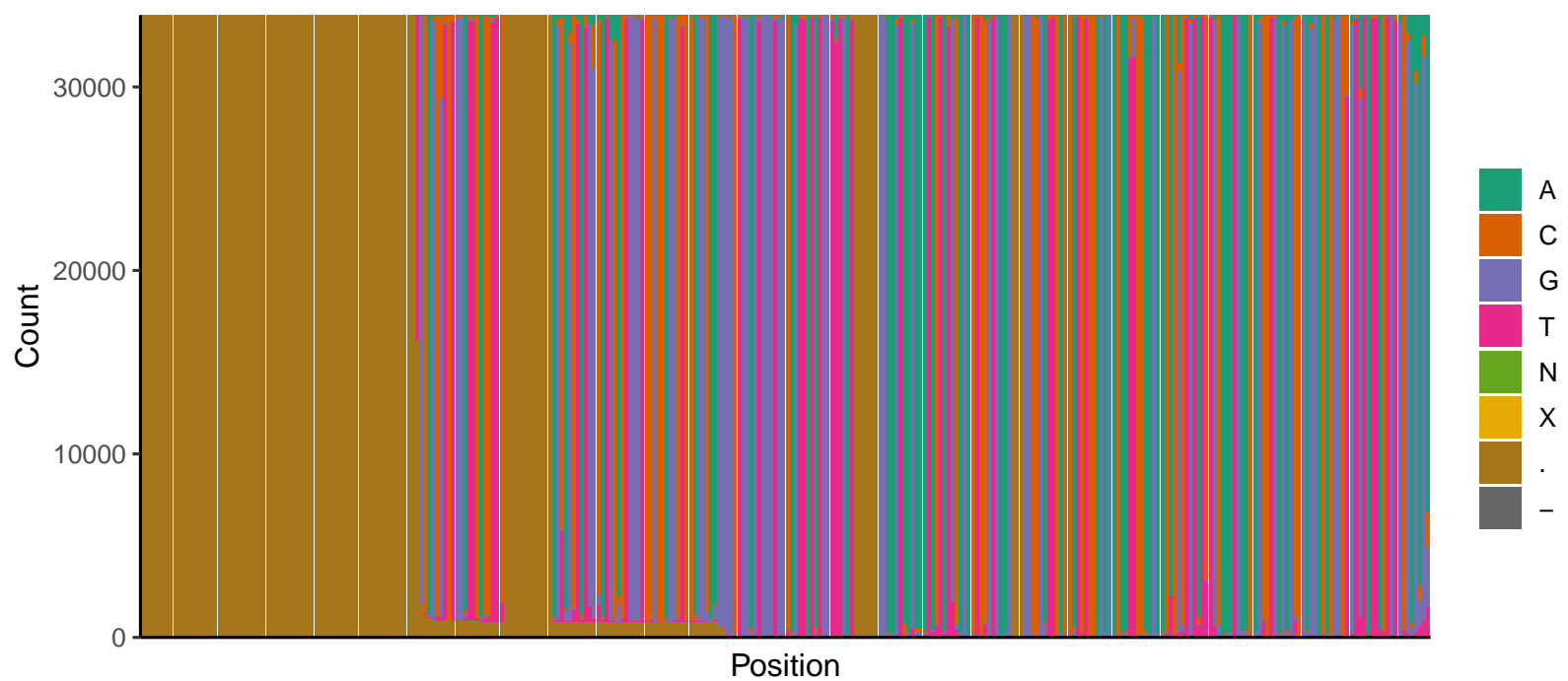
Gene IGHV3-33*01_T105C_A173T_T192G



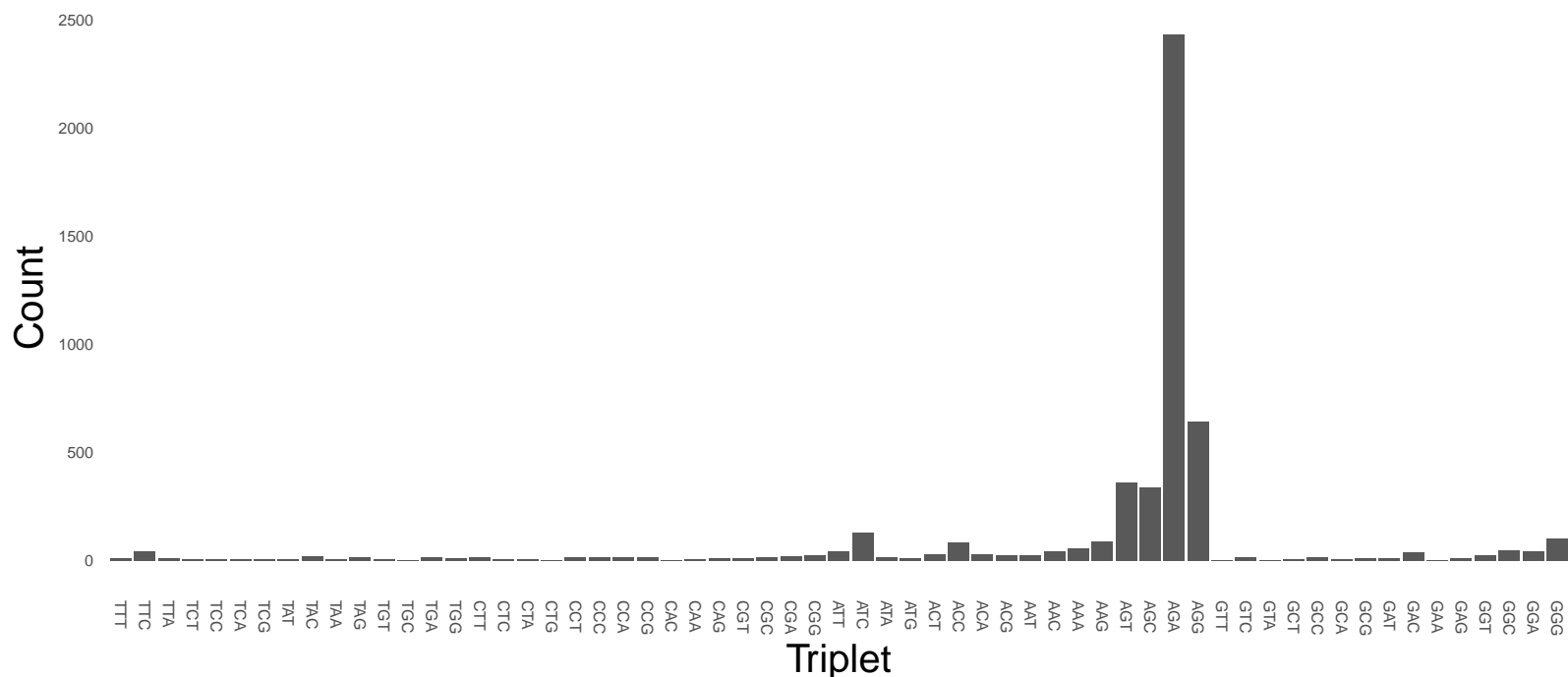
Gene IGHV3-33*01_T105C_A173T_T192G_C288T



Gene IGHV3-33*01_T105C_A173T_T192G



IGHV3-33*01_T105C_A173T_T192G_C288T- Final 3 nucleotides as a triplet

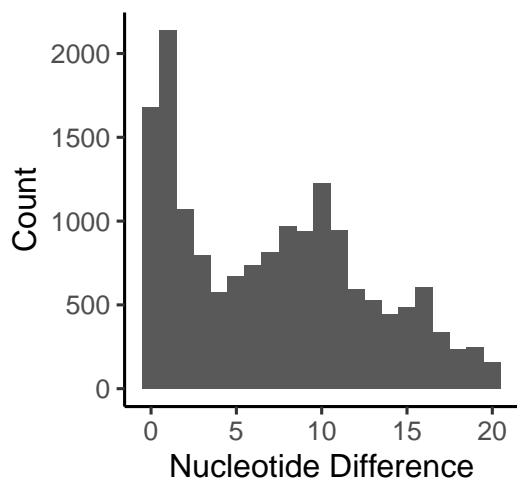


IGHV3-33*01_T105C_A173T_T192G- Final 3 nucleotides as a triplet



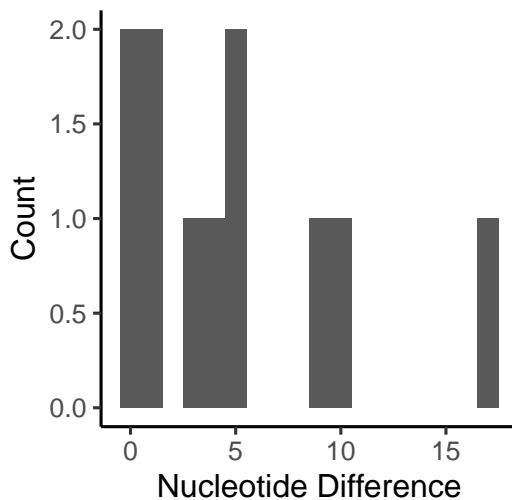
IGHV1-2*02

18184 sequences assigned
1677 (9.2%) exact matches, in which:
1338 unique CDR3
6 unique J



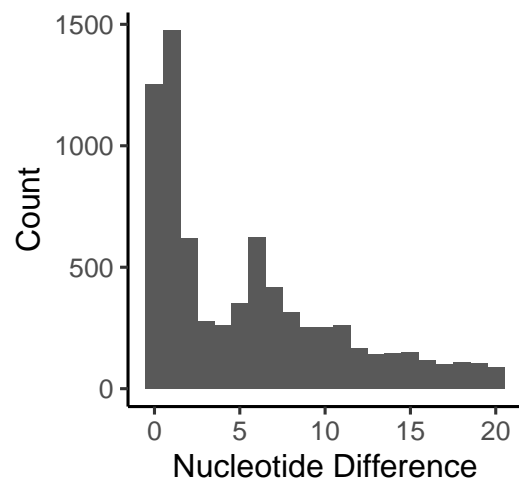
IGHV1-8*01

11 sequences assigned
2 (18.2%) exact matches, in which:
2 unique CDR3
1 unique J



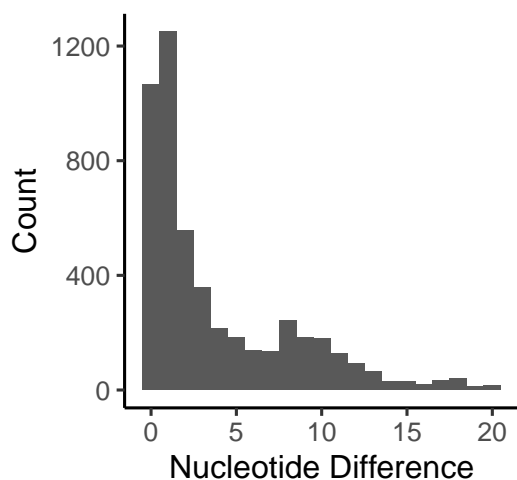
IGHV1-18*01

9744 sequences assigned
1255 (12.9%) exact matches, in which:
990 unique CDR3
6 unique J



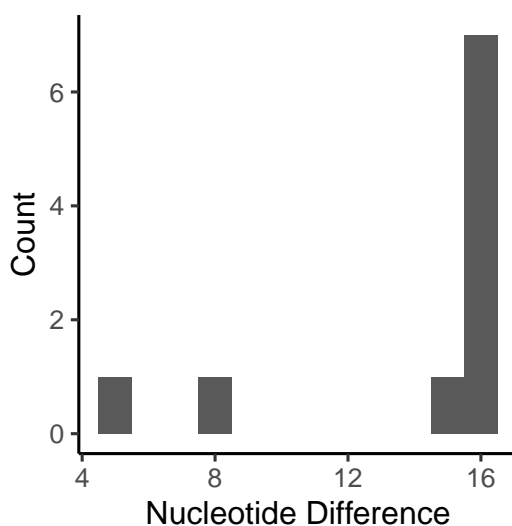
IGHV1-2*04

5048 sequences assigned
1066 (21.1%) exact matches, in which:
862 unique CDR3
6 unique J



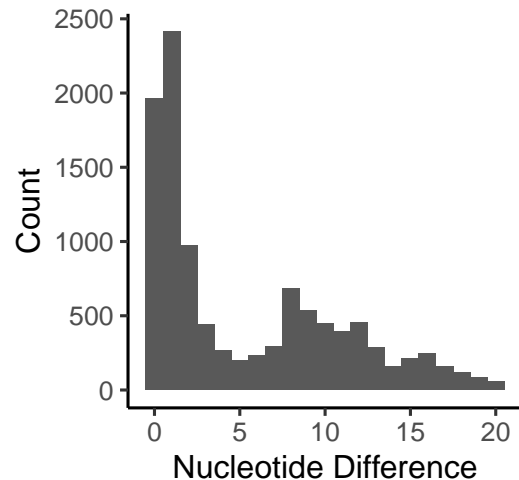
IGHV1-8*02

11 sequences assigned
No exact matches.



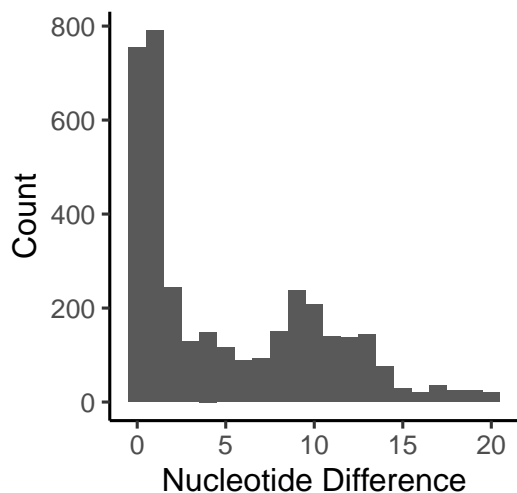
IGHV1-18*04

11774 sequences assigned
1966 (16.7%) exact matches, in which:
1518 unique CDR3
6 unique J



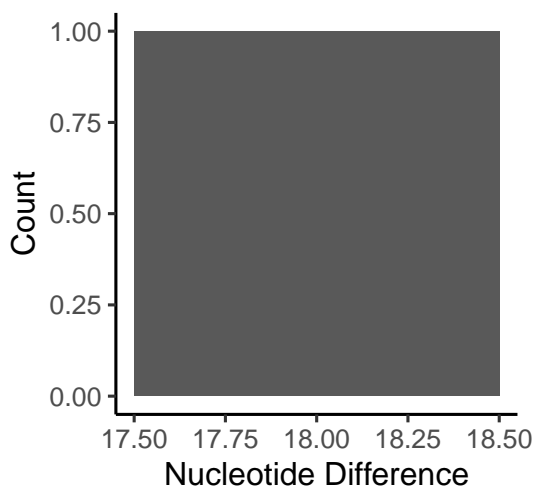
IGHV1-3*01_05

4224 sequences assigned
755 (17.9%) exact matches, in which:
575 unique CDR3
6 unique J



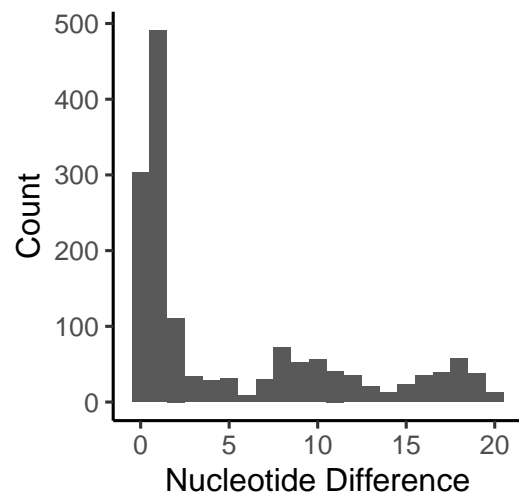
IGHV1-8*03

2 sequences assigned
No exact matches.



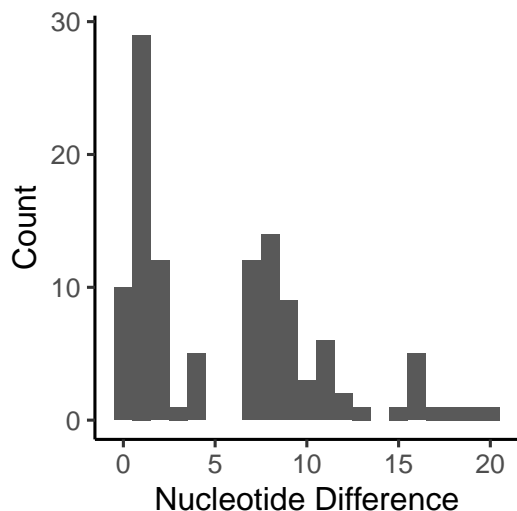
IGHV1-24*01

2169 sequences assigned
303 (14%) exact matches, in which:
208 unique CDR3
6 unique J



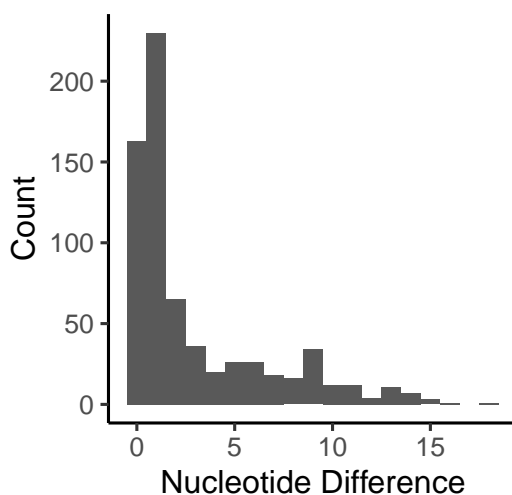
IGHV1-45*02

115 sequences assigned
10 (8.7%) exact matches, in which:
10 unique CDR3
3 unique J



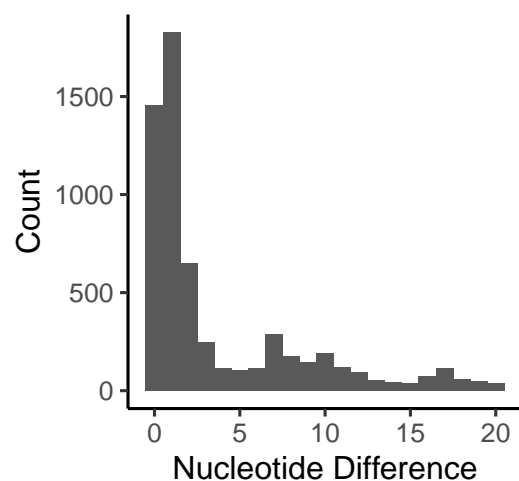
IGHV1-58*01_03

685 sequences assigned
163 (23.8%) exact matches, in which:
117 unique CDR3
6 unique J



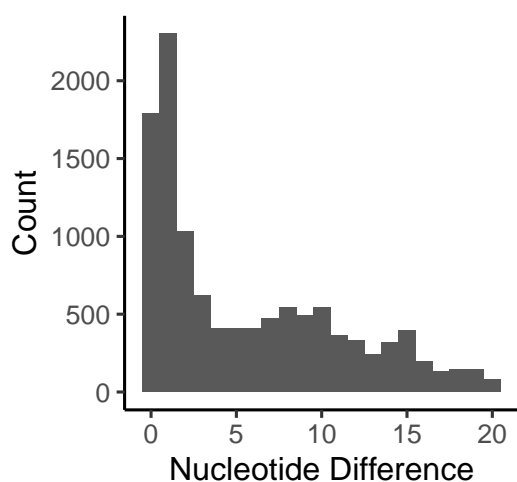
IGHV1-69*04_09

7492 sequences assigned
1455 (19.4%) exact matches, in which:
1215 unique CDR3
6 unique J



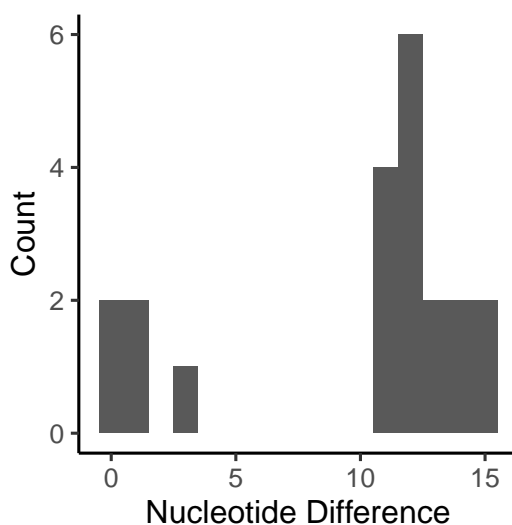
IGHV1-46*01

12610 sequences assigned
1789 (14.2%) exact matches, in which:
1436 unique CDR3
6 unique J



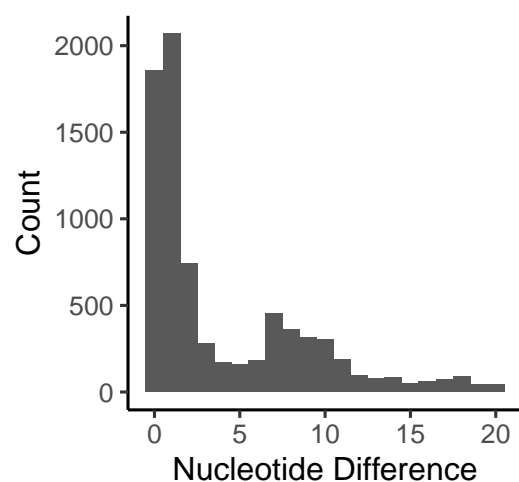
IGHV1-69-2*01

24 sequences assigned
2 (8.3%) exact matches, in which:
2 unique CDR3
1 unique J



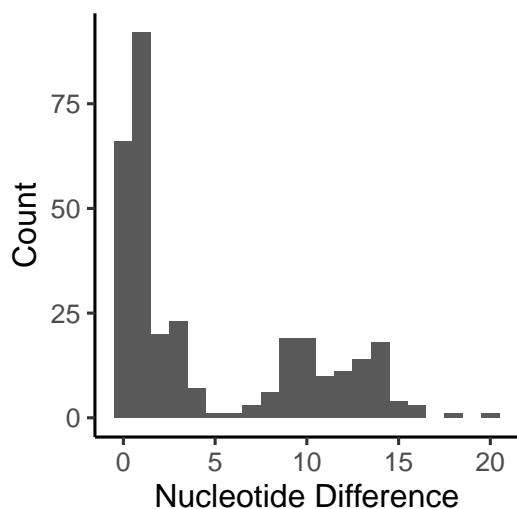
IGHV1-69*06_14

8355 sequences assigned
1854 (22.2%) exact matches, in which:
1535 unique CDR3
6 unique J



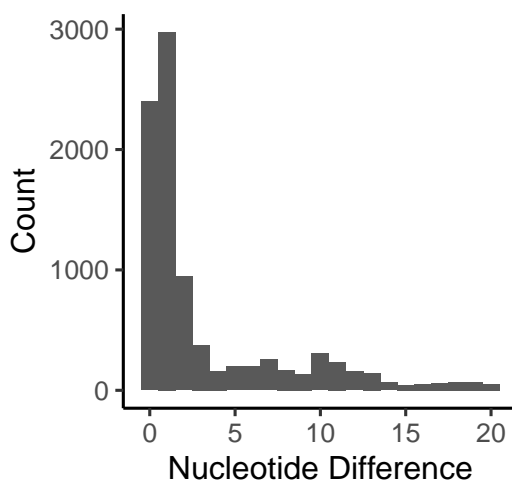
IGHV1-58*02

320 sequences assigned
66 (20.6%) exact matches, in which:
52 unique CDR3
5 unique J



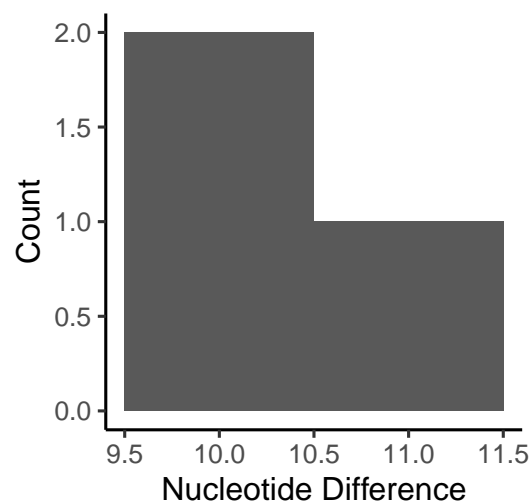
IGHV1-69*01_12_13

9696 sequences assigned
2400 (24.8%) exact matches, in which:
1948 unique CDR3
6 unique J



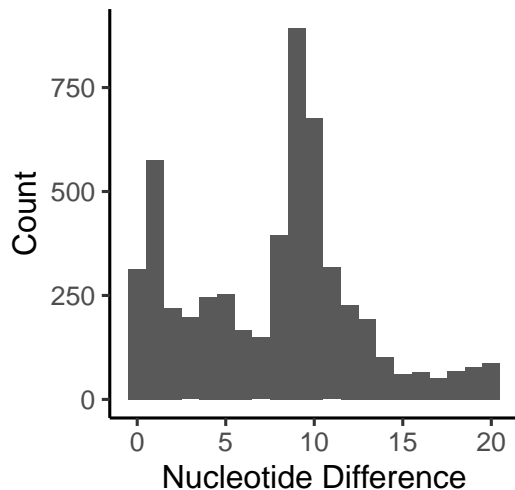
IGHV1-NL1*01

3 sequences assigned
No exact matches.



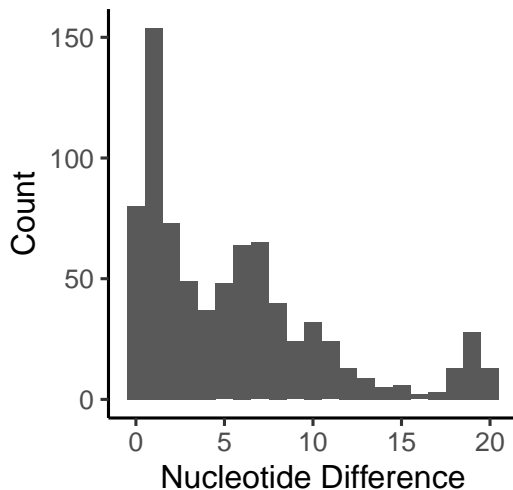
IGHV2-5*02

6706 sequences assigned
314 (4.7%) exact matches, in which:
220 unique CDR3
6 unique J



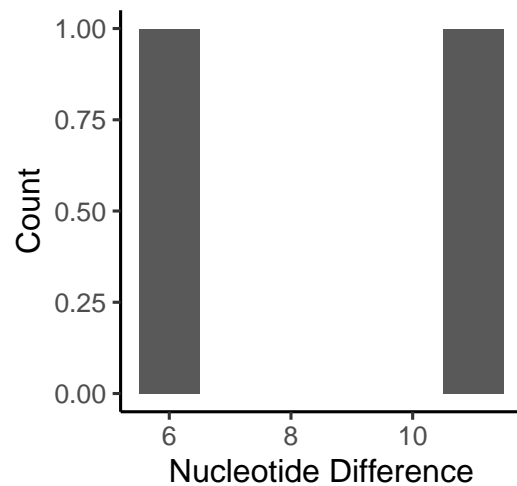
IGHV2-70*04

799 sequences assigned
80 (10%) exact matches, in which:
58 unique CDR3
5 unique J



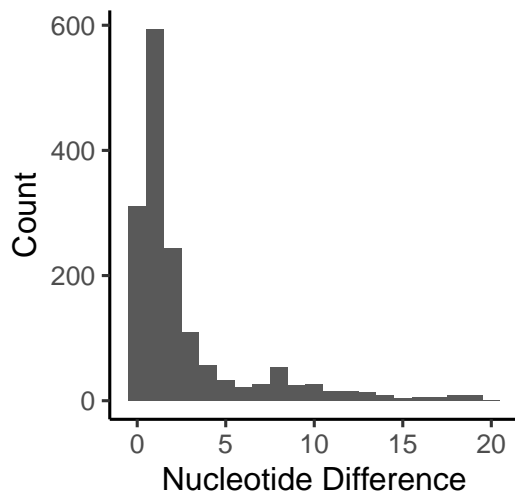
IGHV2-70D*14

2 sequences assigned
No exact matches.



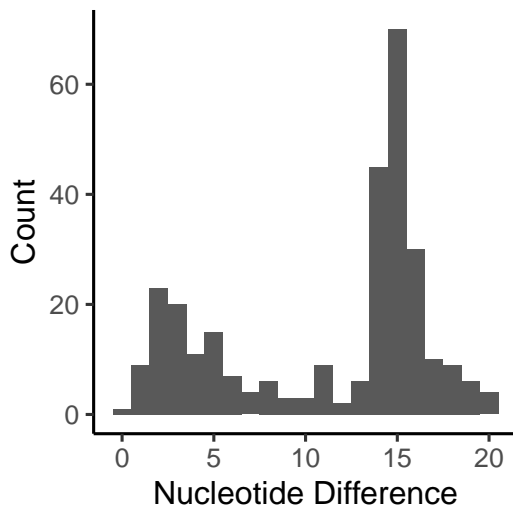
IGHV2-26*01

1970 sequences assigned
311 (15.8%) exact matches, in which:
203 unique CDR3
6 unique J



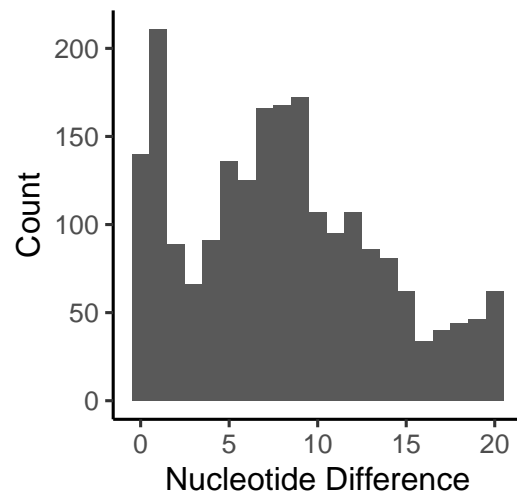
IGHV2-70*12

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



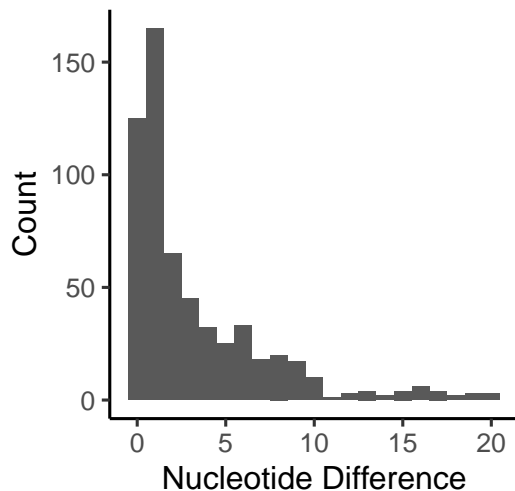
IGHV3-7*01

2478 sequences assigned
140 (5.6%) exact matches, in which:
122 unique CDR3
6 unique J



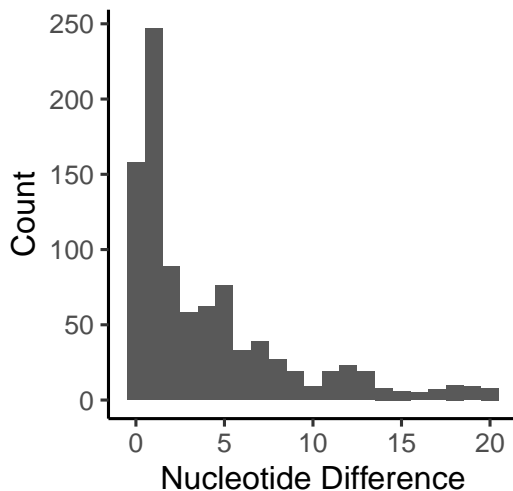
IGHV2-70*01

718 sequences assigned
125 (17.4%) exact matches, in which:
105 unique CDR3
6 unique J



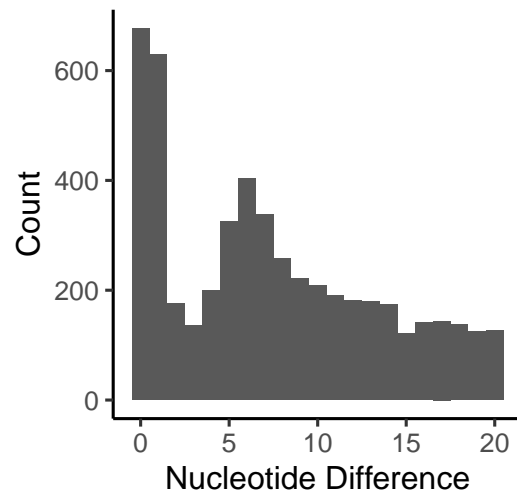
IGHV2-70*11_15

1010 sequences assigned
158 (15.6%) exact matches, in which:
111 unique CDR3
5 unique J



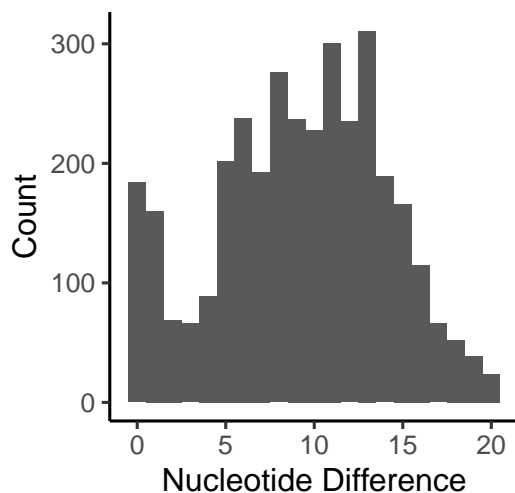
IGHV3-7*03

8596 sequences assigned
677 (7.9%) exact matches, in which:
434 unique CDR3
6 unique J



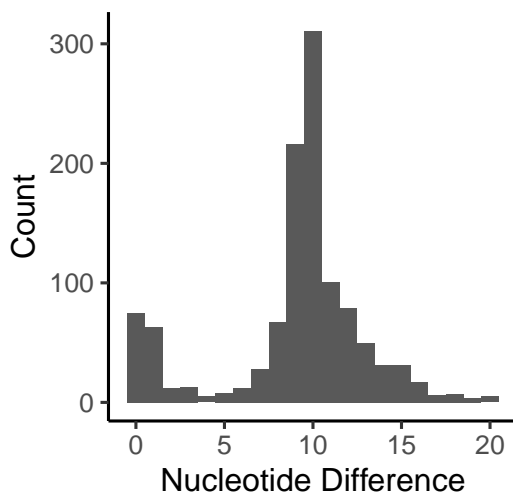
IGHV3-7*04

3781 sequences assigned
184 (4.9%) exact matches, in which:
115 unique CDR3
5 unique J



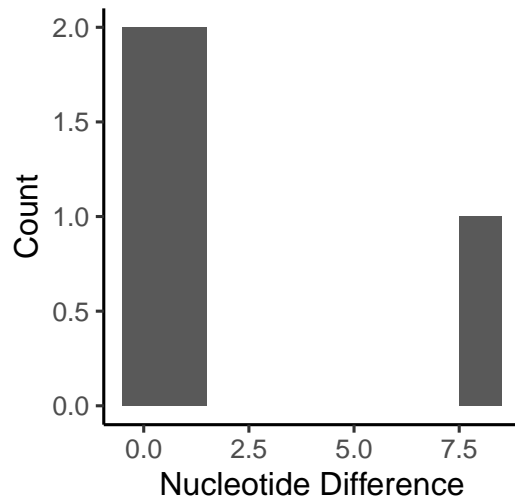
IGHV3-13*04

1149 sequences assigned
75 (6.5%) exact matches, in which:
39 unique CDR3
5 unique J



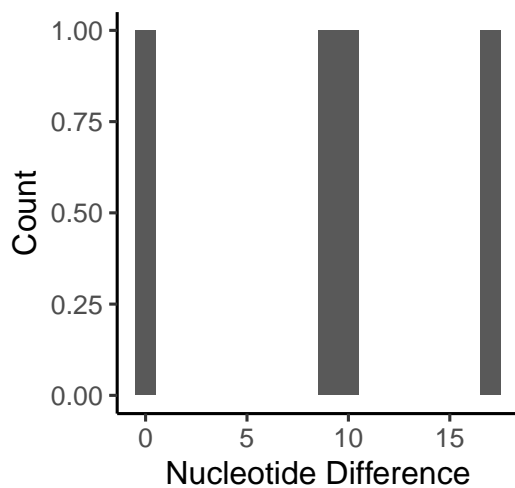
IGHV3-19*01

5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
2 unique J



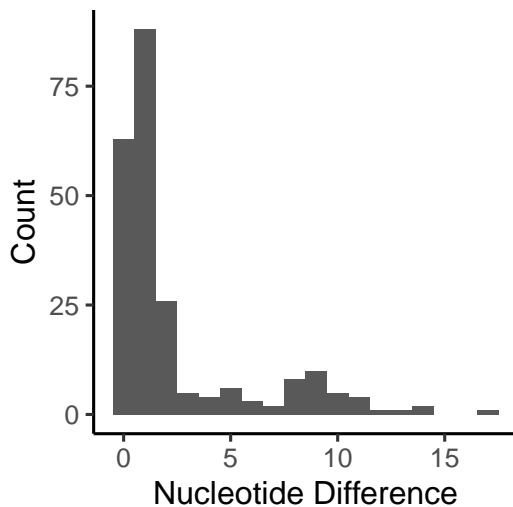
IGHV3-9*01

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



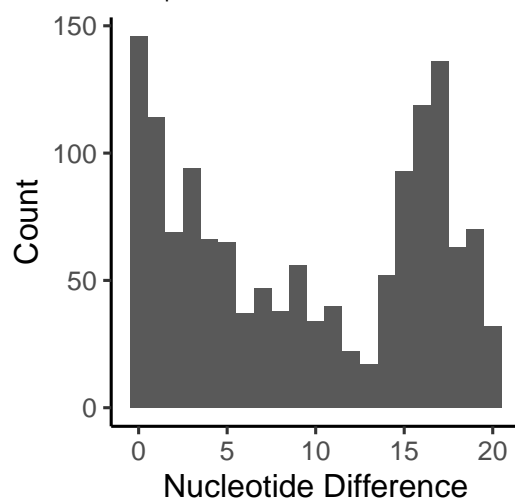
IGHV3-13*05

229 sequences assigned
63 (27.5%) exact matches, in which:
38 unique CDR3
5 unique J



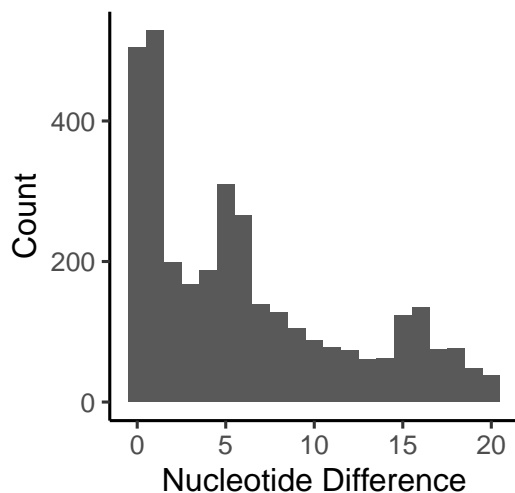
IGHV3-20*03_04

1909 sequences assigned
146 (7.6%) exact matches, in which:
88 unique CDR3
5 unique J



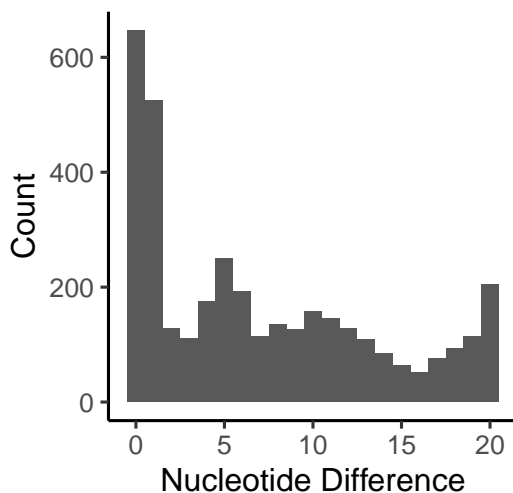
IGHV3-11*06

4393 sequences assigned
505 (11.5%) exact matches, in which:
367 unique CDR3
6 unique J



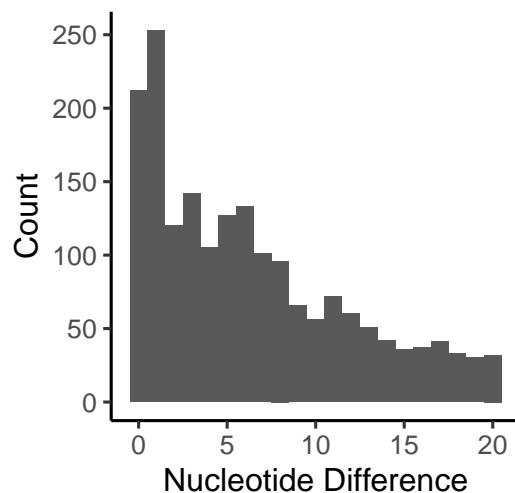
IGHV3-15*01_02

4546 sequences assigned
647 (14.2%) exact matches, in which:
365 unique CDR3
5 unique J



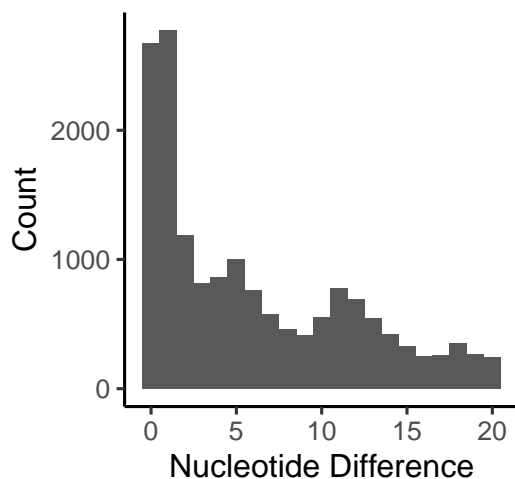
IGHV3-21*04

2036 sequences assigned
212 (10.4%) exact matches, in which:
184 unique CDR3
6 unique J



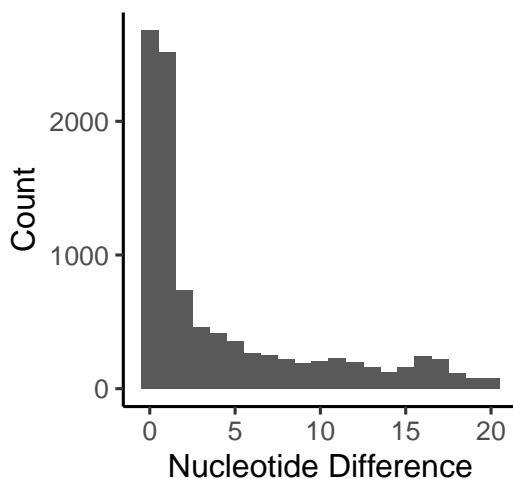
IGHV3-21*01_02

18534 sequences assigned
2672 (14.4%) exact matches, in which:
1647 unique CDR3
6 unique J



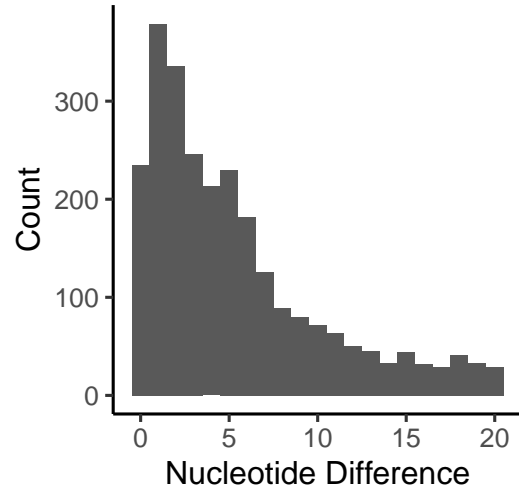
IGHV3-30-3*01

11101 sequences assigned
2680 (24.1%) exact matches, in which:
1691 unique CDR3
6 unique J



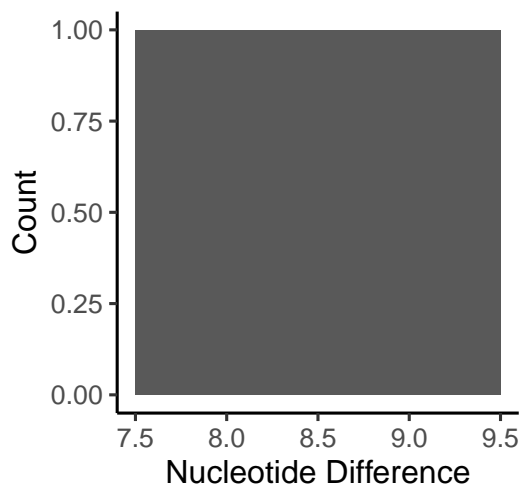
IGHV3-30*07

2771 sequences assigned
235 (8.5%) exact matches, in which:
196 unique CDR3
5 unique J



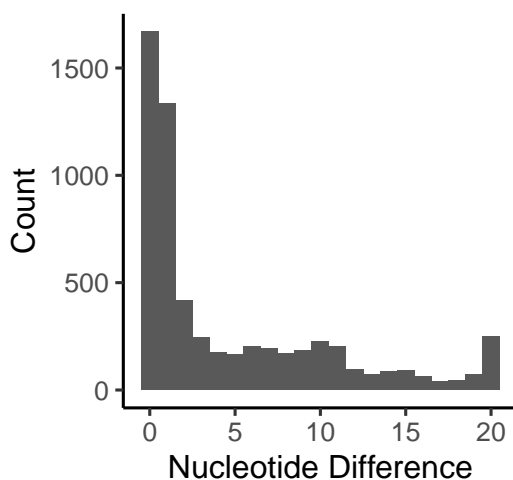
IGHV3-22*01_02

2 sequences assigned
No exact matches.



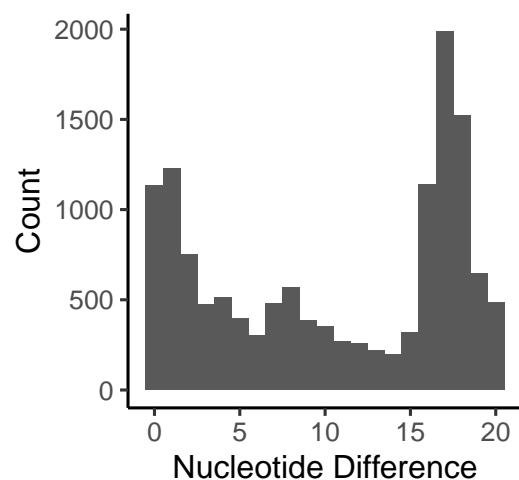
IGHV3-30*01

7405 sequences assigned
1669 (22.5%) exact matches, in which:
1102 unique CDR3
6 unique J



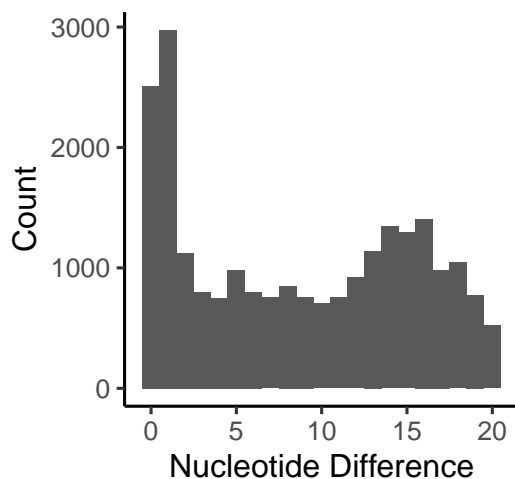
IGHV3-30*18

15544 sequences assigned
1133 (7.3%) exact matches, in which:
652 unique CDR3
6 unique J



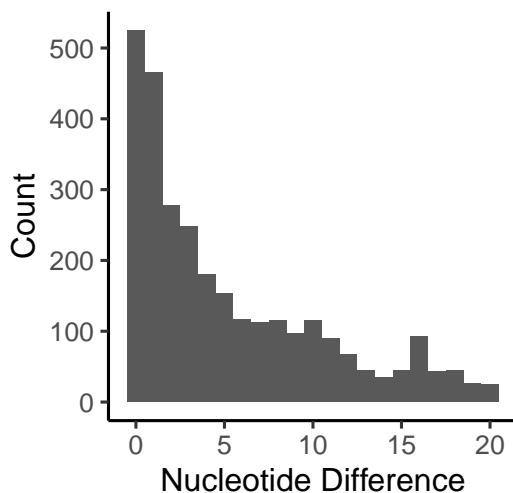
IGHV3-23*01_04

28530 sequences assigned
2512 (8.8%) exact matches, in which:
1366 unique CDR3
6 unique J



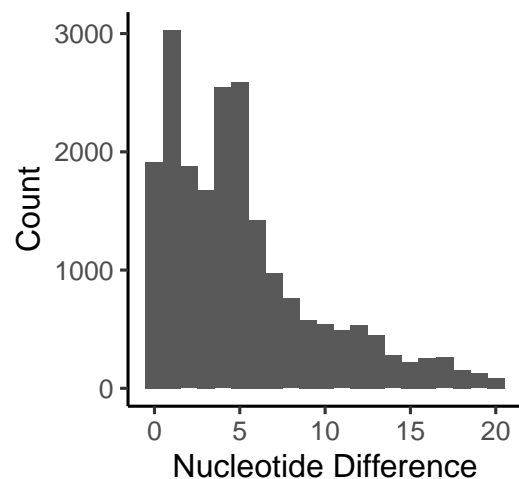
IGHV3-30*03

3618 sequences assigned
525 (14.5%) exact matches, in which:
441 unique CDR3
6 unique J



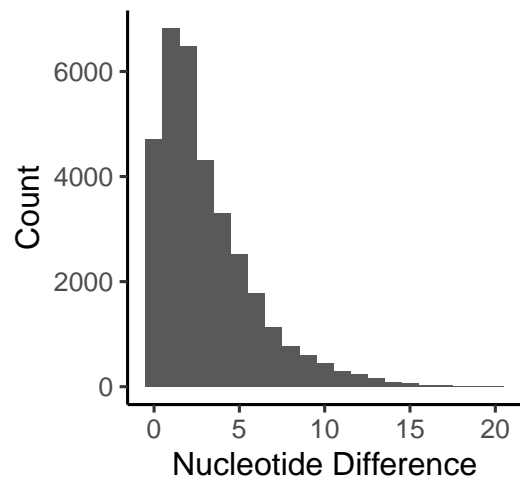
IGHV3-33*01

22693 sequences assigned
1914 (8.4%) exact matches, in which:
1225 unique CDR3
6 unique J



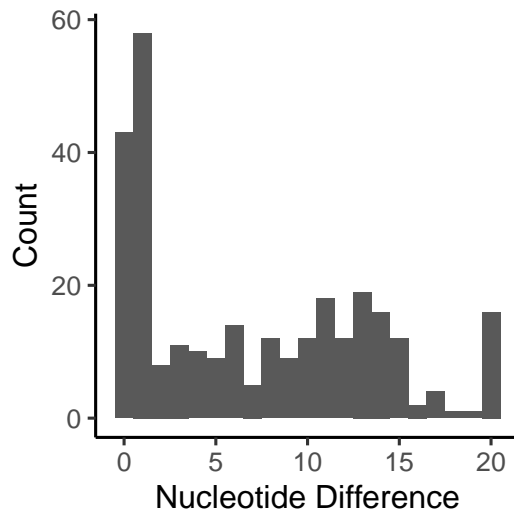
IGHV3-33*01_T105C_A

33918 sequences assigned
4710 (13.9%) exact matches, in which:
3025 unique CDR3
6 unique J



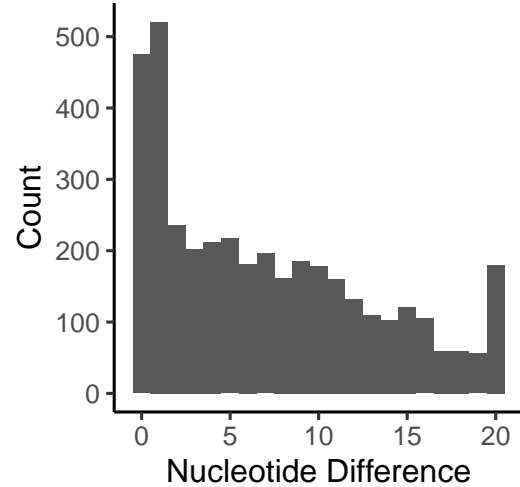
IGHV3-43*01

1092 sequences assigned
43 (3.9%) exact matches, in which:
21 unique CDR3
3 unique J



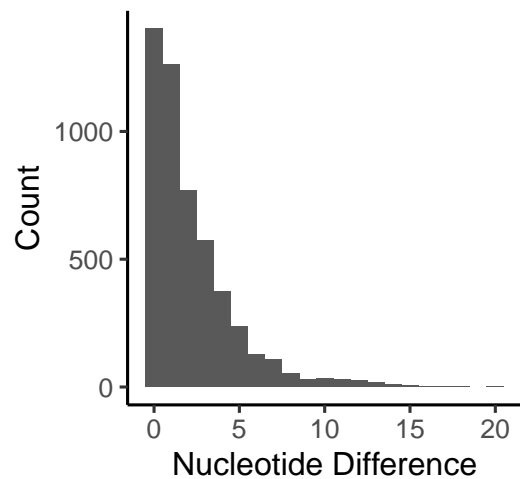
IGHV3-48*01

4909 sequences assigned
475 (9.7%) exact matches, in which:
304 unique CDR3
6 unique J



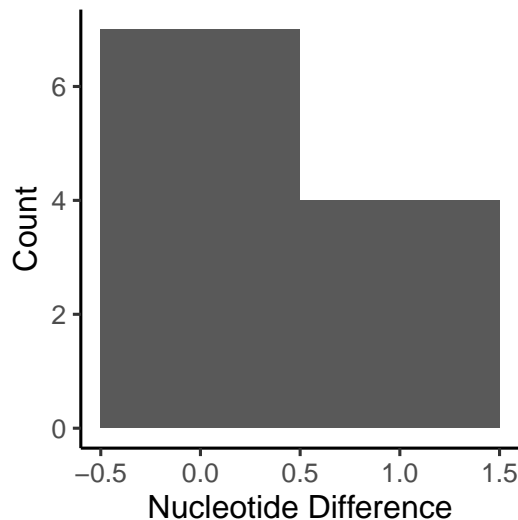
IGHV3-33*01_T105C_A

5067 sequences assigned
1402 (27.7%) exact matches, in which:
976 unique CDR3
6 unique J



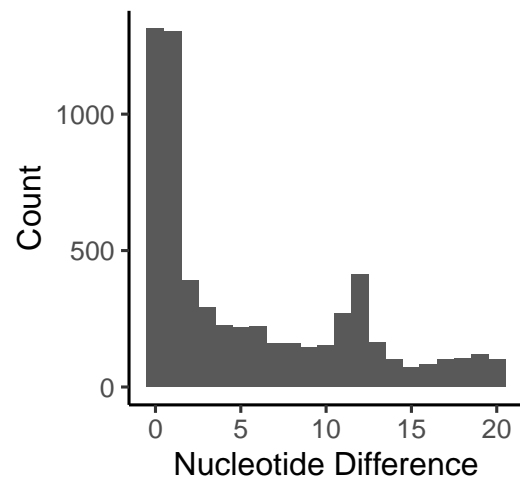
IGHV3-47*01

11 sequences assigned
7 (63.6%) exact matches, in which:
5 unique CDR3
1 unique J



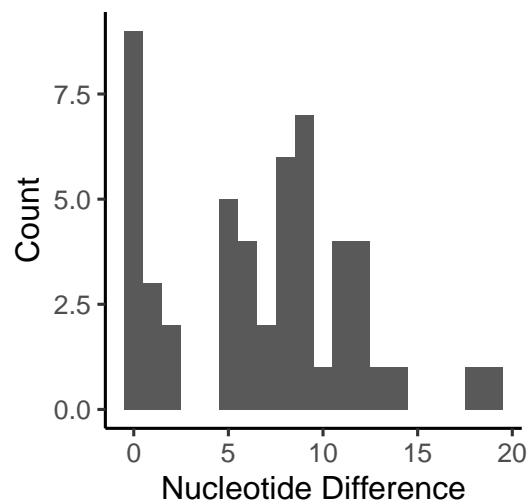
IGHV3-48*03

7781 sequences assigned
1313 (16.9%) exact matches, in which:
769 unique CDR3
6 unique J



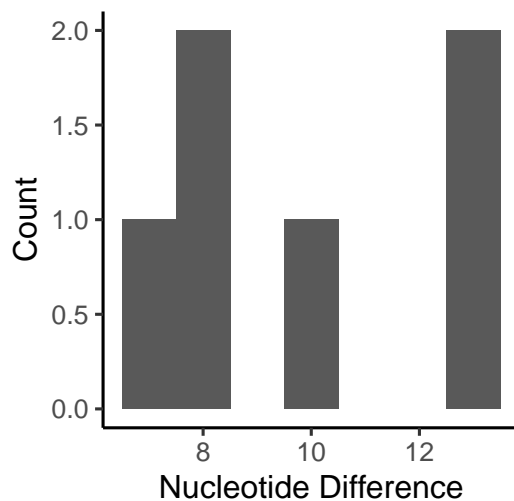
IGHV3-35*01

51 sequences assigned
9 (17.6%) exact matches, in which:
9 unique CDR3
3 unique J



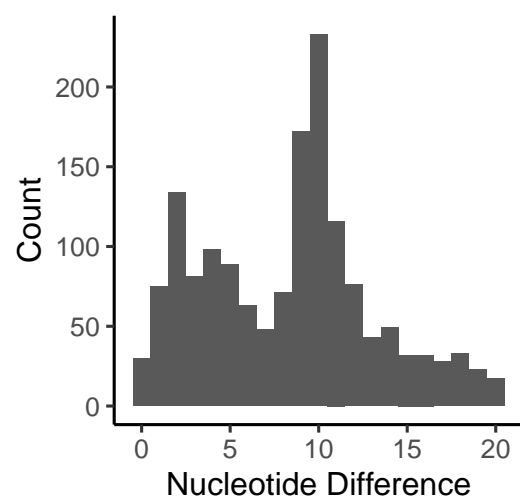
IGHV3-47*02

6 sequences assigned
No exact matches.



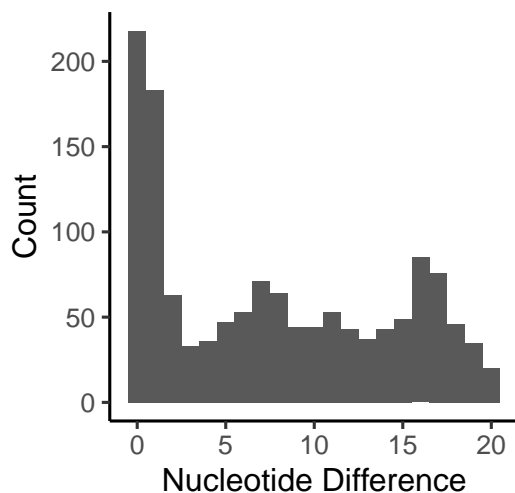
IGHV3-48*04

2212 sequences assigned
30 (1.4%) exact matches, in which:
28 unique CDR3
6 unique J



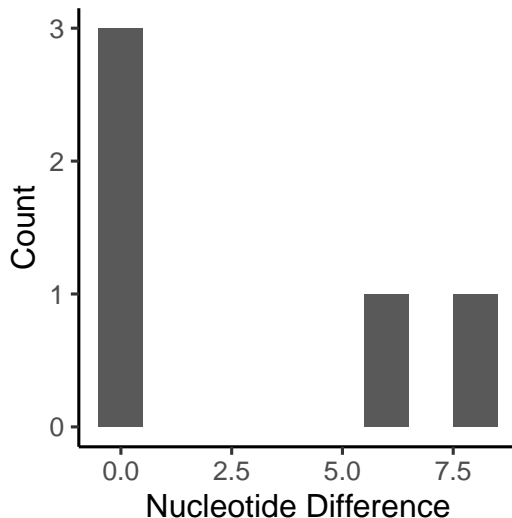
IGHV3-49*04

1431 sequences assigned
218 (15.2%) exact matches, in which:
132 unique CDR3
6 unique J



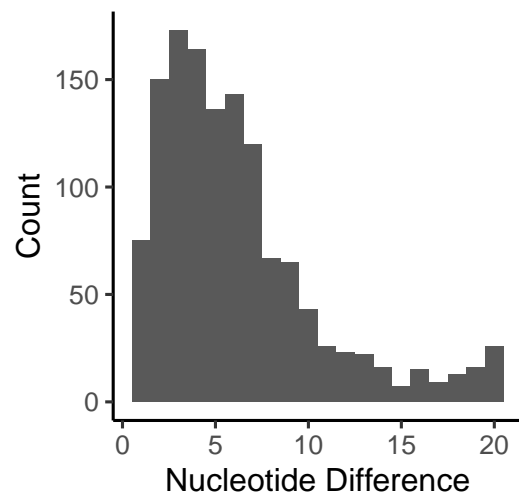
IGHV3-52*01_03

5 sequences assigned
3 (60%) exact matches, in which:
3 unique CDR3
2 unique J



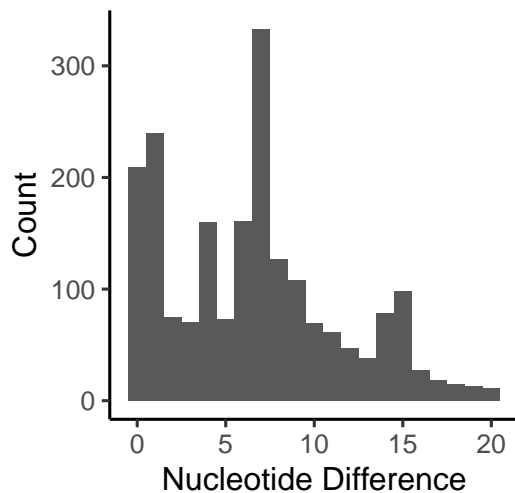
IGHV3-64*04

1435 sequences assigned
No exact matches.



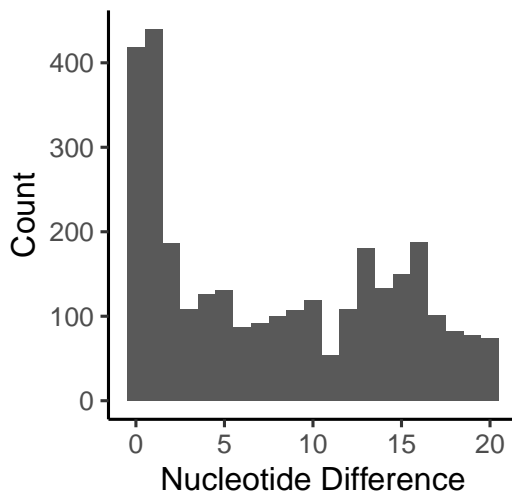
IGHV3-49*03_05

2133 sequences assigned
209 (9.8%) exact matches, in which:
120 unique CDR3
6 unique J



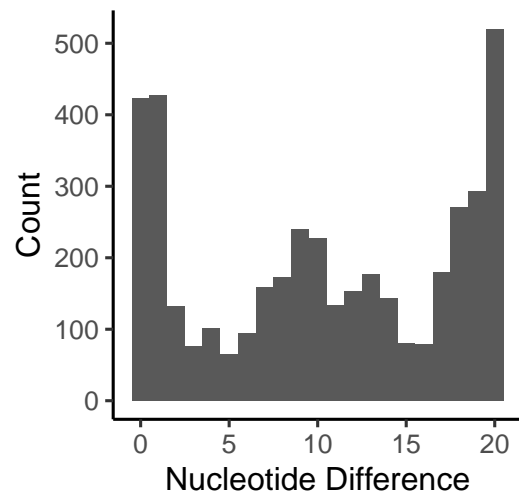
IGHV3-53*01_02

3448 sequences assigned
419 (12.2%) exact matches, in which:
276 unique CDR3
6 unique J



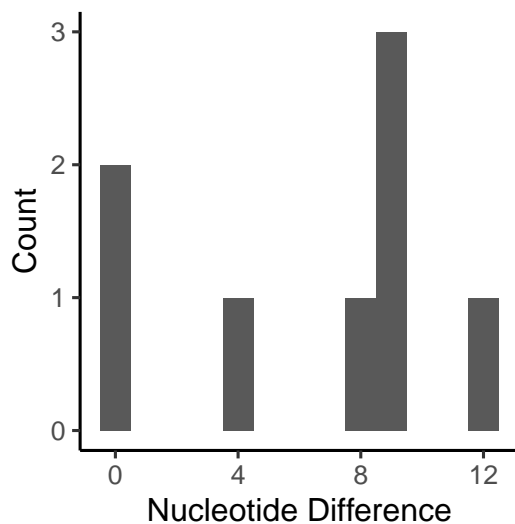
IGHV3-66*01

6541 sequences assigned
423 (6.5%) exact matches, in which:
293 unique CDR3
6 unique J



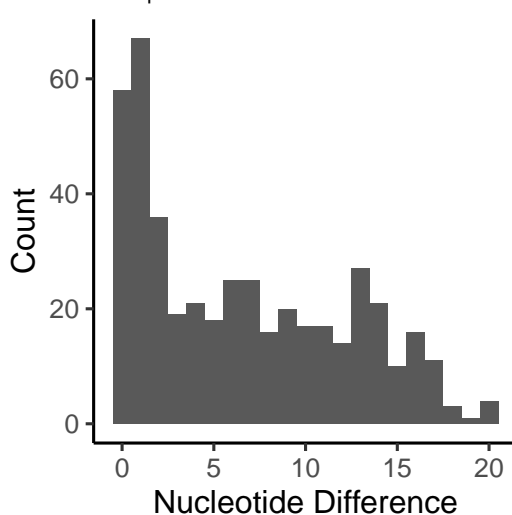
IGHV3-52*02

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



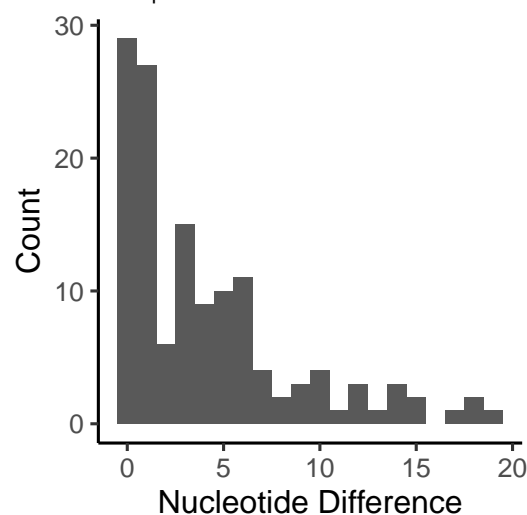
IGHV3-64*01

458 sequences assigned
58 (12.7%) exact matches, in which:
34 unique CDR3
6 unique J



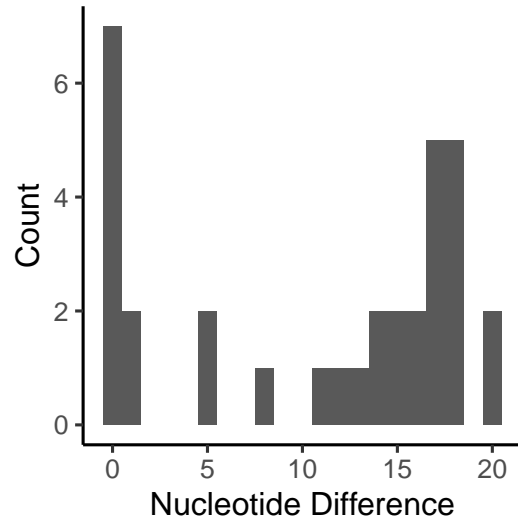
IGHV3-69-1*01

138 sequences assigned
29 (21%) exact matches, in which:
21 unique CDR3
3 unique J



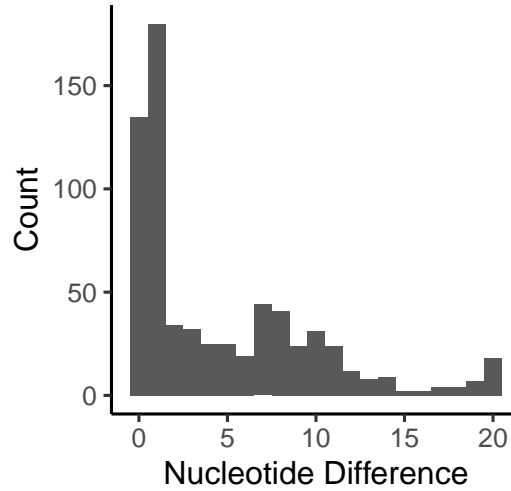
IGHV3-69-1*02

70 sequences assigned
7 (10%) exact matches, in which:
7 unique CDR3
3 unique J



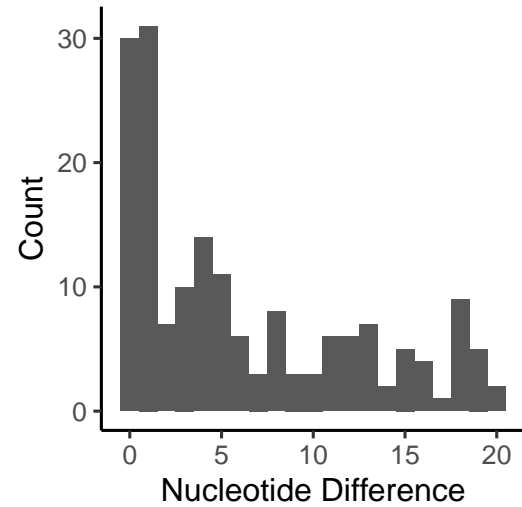
IGHV3-73*01_02

813 sequences assigned
135 (16.6%) exact matches, in which:
73 unique CDR3
6 unique J



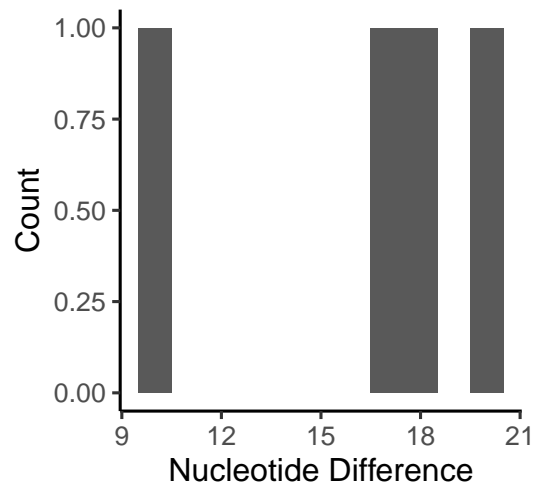
IGHV3-43D*04

302 sequences assigned
30 (9.9%) exact matches, in which:
14 unique CDR3
3 unique J



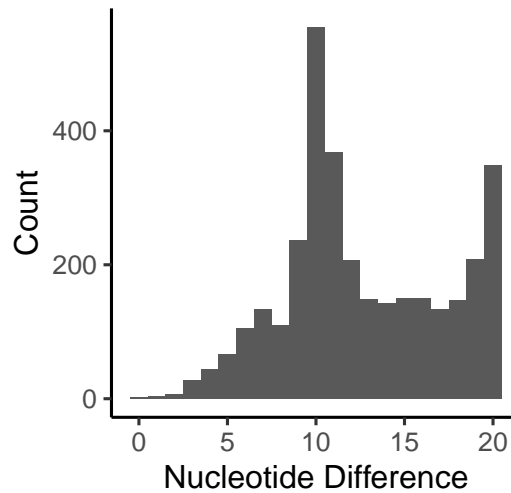
IGHV3-71*01_04

4 sequences assigned
No exact matches.



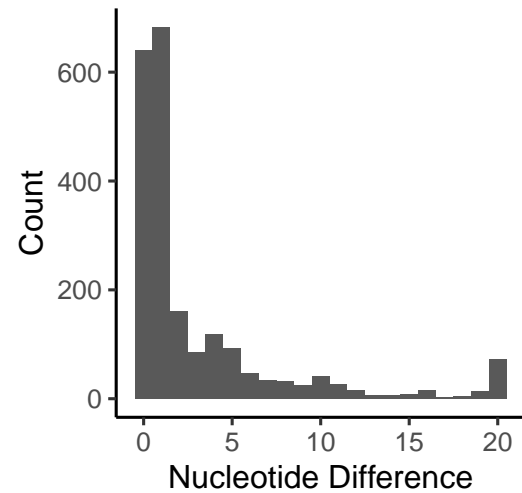
IGHV3-74*03

5326 sequences assigned
3 (0.1%) exact matches, in which:
2 unique CDR3
2 unique J



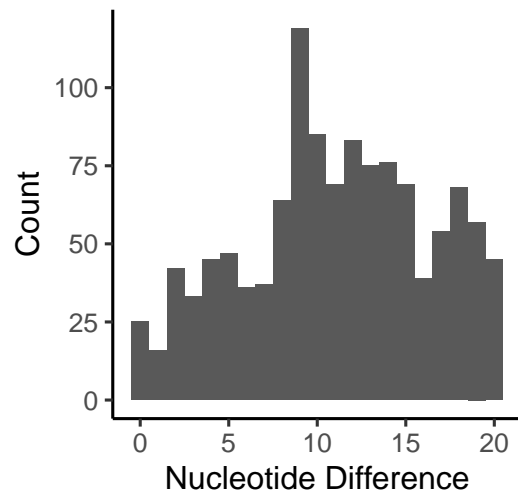
IGHV3-64D*06

2552 sequences assigned
641 (25.1%) exact matches, in which:
300 unique CDR3
6 unique J



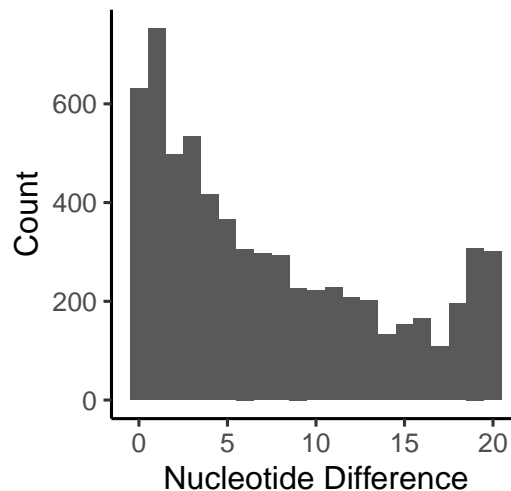
IGHV3-72*01

1289 sequences assigned
25 (1.9%) exact matches, in which:
17 unique CDR3
5 unique J



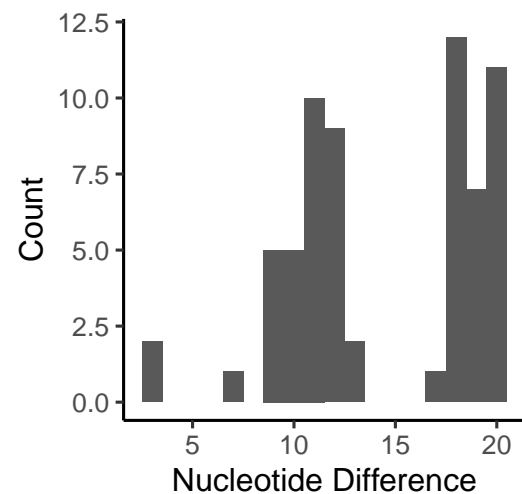
IGHV3-74*01_02

9214 sequences assigned
632 (6.9%) exact matches, in which:
406 unique CDR3
6 unique J



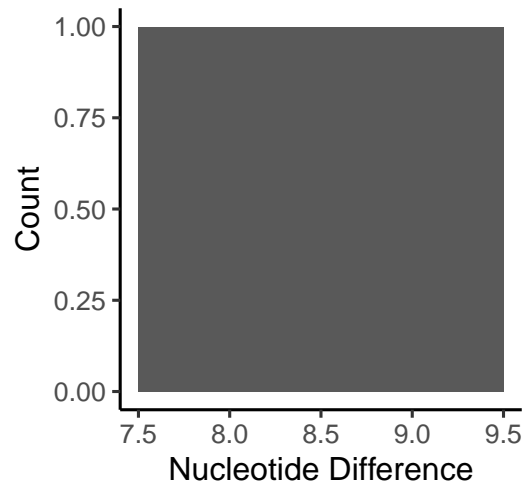
IGHV3-64D*08

74 sequences assigned
No exact matches.



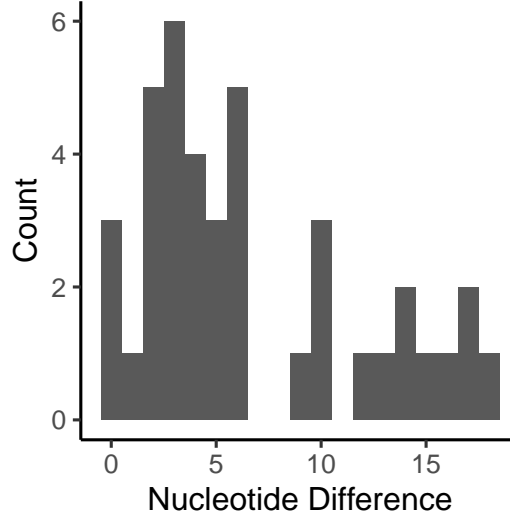
IGHV3-64D*09

4 sequences assigned
No exact matches.



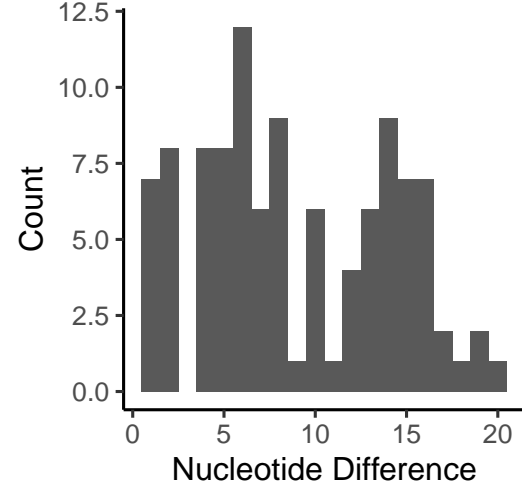
IGHV4-28*03

53 sequences assigned
3 (5.7%) exact matches, in which:
2 unique CDR3
2 unique J



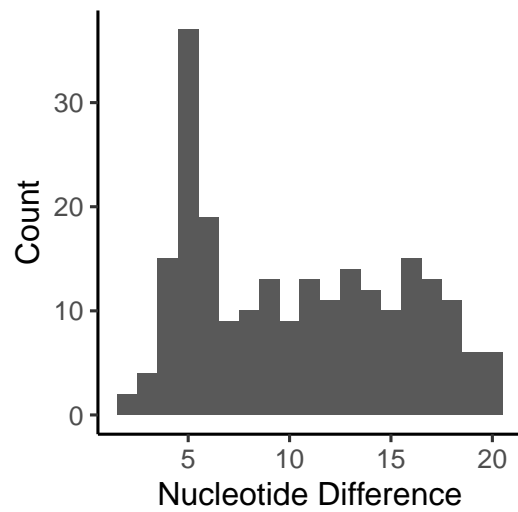
IGHV4-30-2*03

127 sequences assigned
No exact matches.



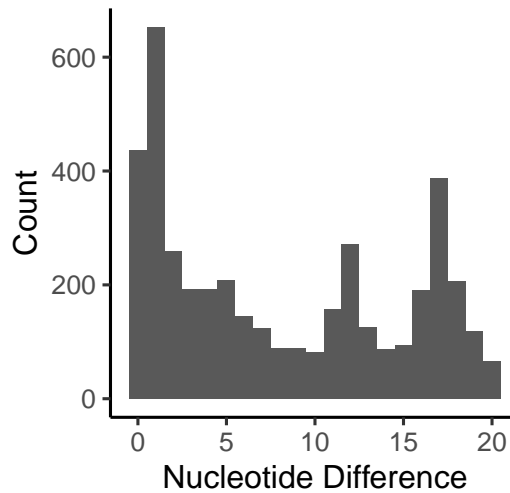
IGHV3-NL1*01

255 sequences assigned
No exact matches.



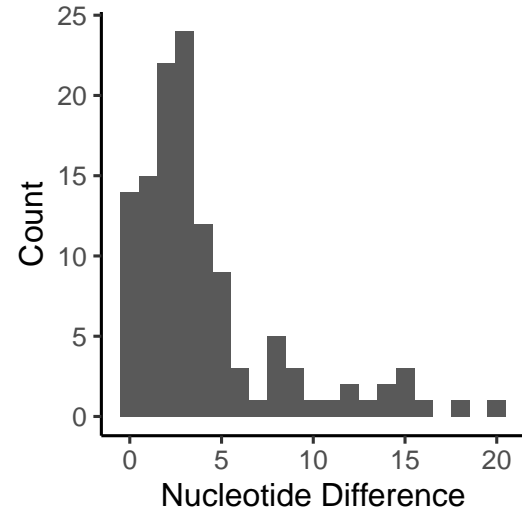
IGHV4-30-4*01

4397 sequences assigned
437 (9.9%) exact matches, in which:
289 unique CDR3
6 unique J



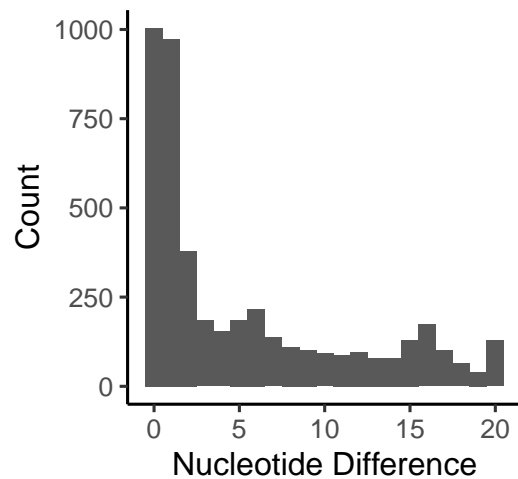
IGHV4-30-2*05

132 sequences assigned
14 (10.6%) exact matches, in which:
13 unique CDR3
6 unique J



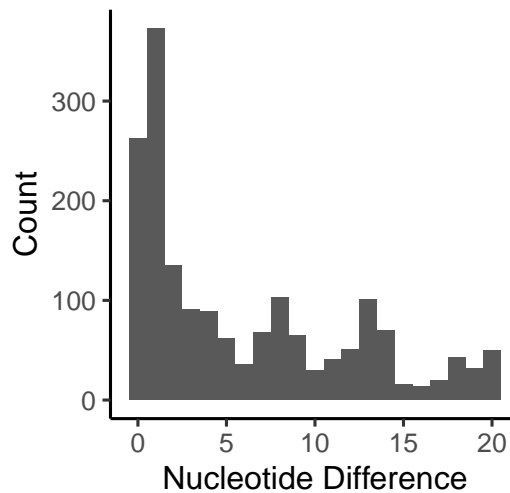
IGHV4-4*02_03

5402 sequences assigned
1004 (18.6%) exact matches, in which:
753 unique CDR3
6 unique J



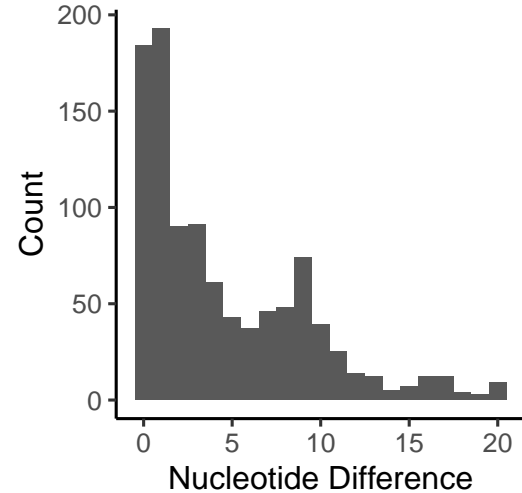
IGHV4-30-2*01

2431 sequences assigned
262 (10.8%) exact matches, in which:
153 unique CDR3
6 unique J



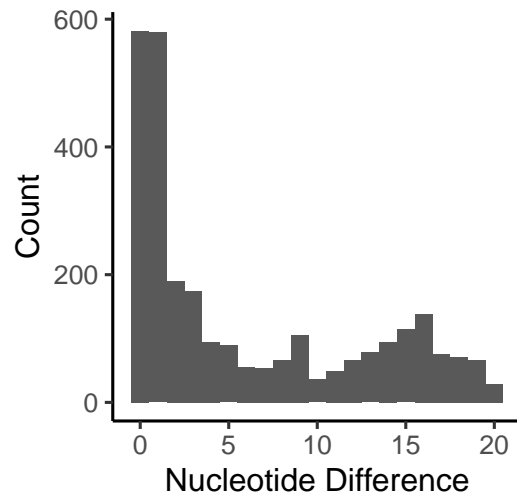
IGHV4-31*01

1053 sequences assigned
184 (17.5%) exact matches, in which:
149 unique CDR3
6 unique J



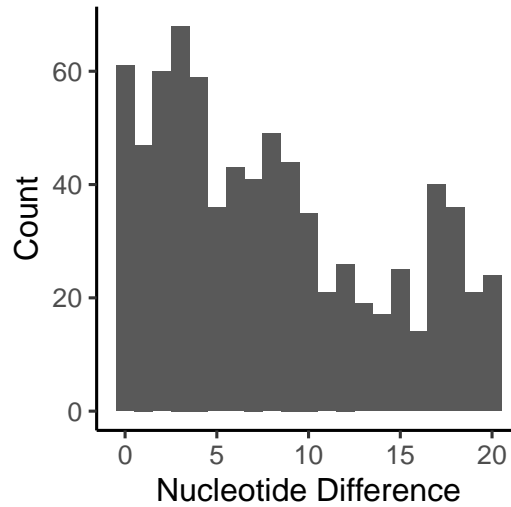
IGHV4-31*02

3144 sequences assigned
582 (18.5%) exact matches, in which:
453 unique CDR3
6 unique J



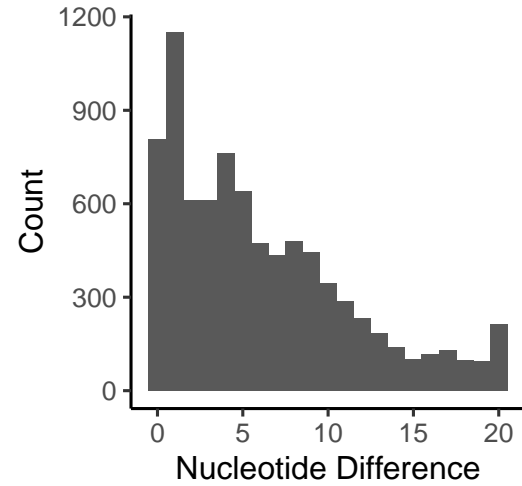
IGHV4-38-2*02

1437 sequences assigned
61 (4.2%) exact matches, in which:
52 unique CDR3
4 unique J



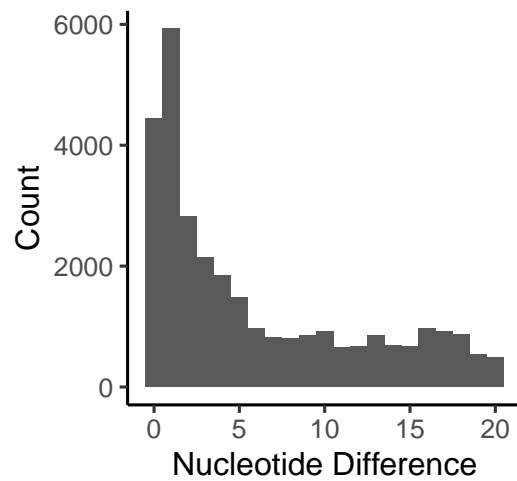
IGHV4-59*08

10532 sequences assigned
807 (7.7%) exact matches, in which:
656 unique CDR3
6 unique J



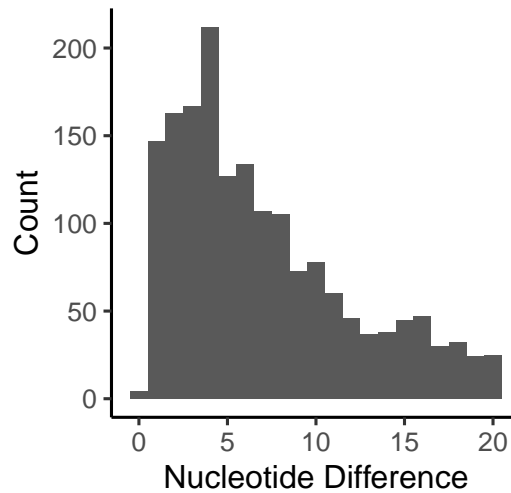
IGHV4-34*01_02

33489 sequences assigned
4438 (13.3%) exact matches, in which:
2901 unique CDR3
6 unique J



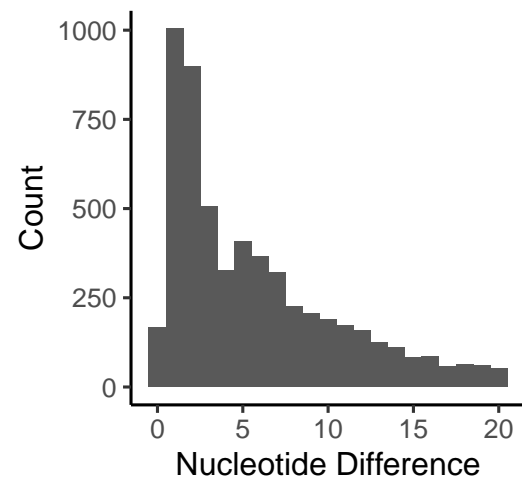
IGHV4-39*07

2041 sequences assigned
4 (0.2%) exact matches, in which:
4 unique CDR3
2 unique J



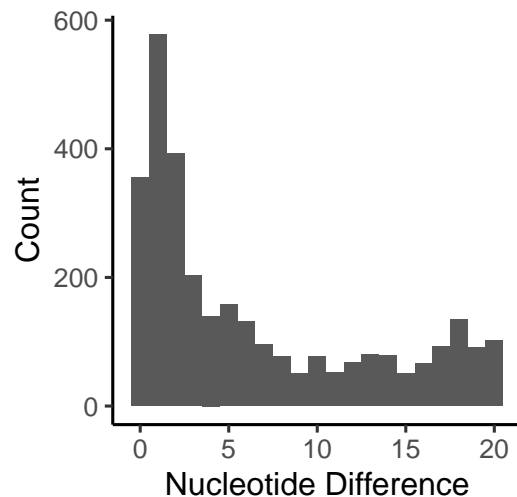
IGHV4-59*12

8522 sequences assigned
167 (2%) exact matches, in which:
160 unique CDR3
6 unique J



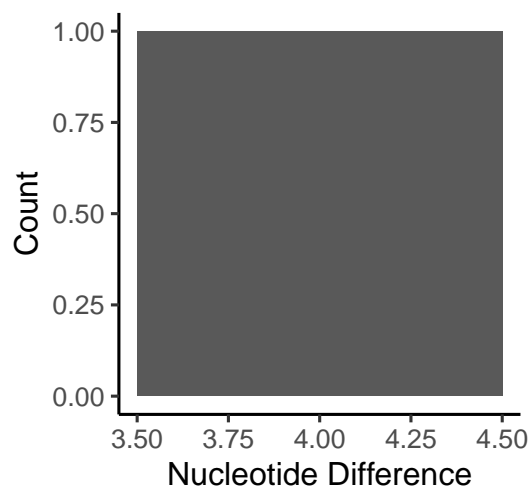
IGHV4-38-2*01

3883 sequences assigned
356 (9.2%) exact matches, in which:
300 unique CDR3
6 unique J



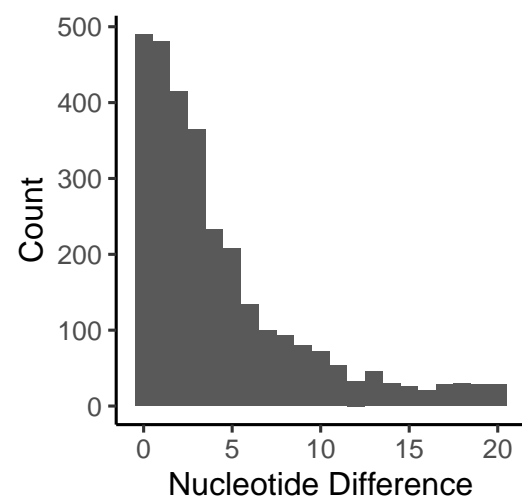
IGHV4-55*09

2 sequences assigned
No exact matches.



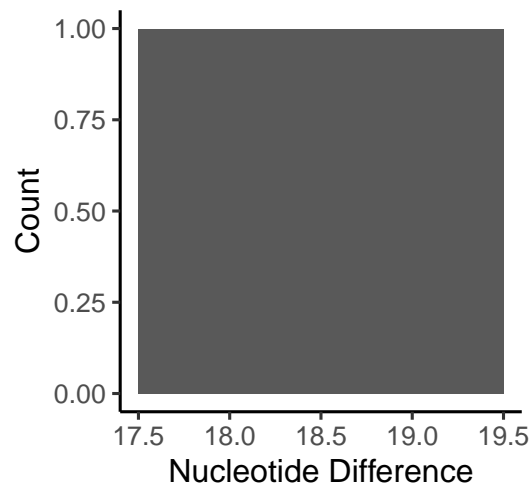
IGHV4-61*01

4071 sequences assigned
490 (12%) exact matches, in which:
415 unique CDR3
6 unique J



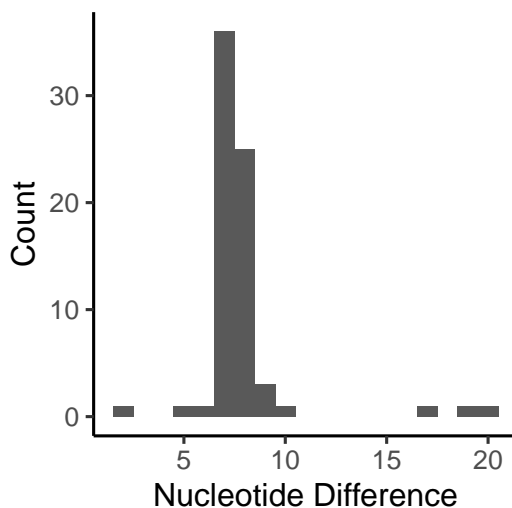
IGHV1/OR15-2*02_03

3 sequences assigned
No exact matches.



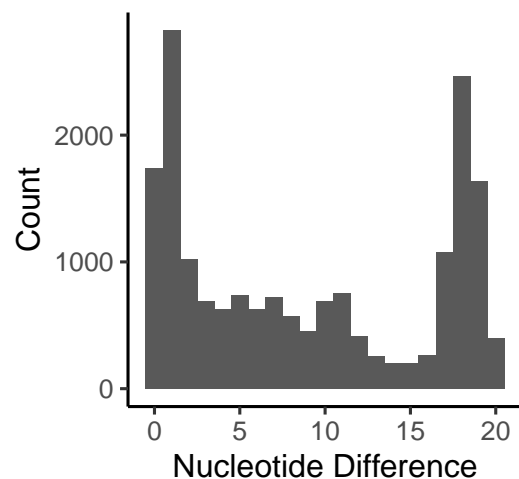
IGHV4/OR15-8*02

173 sequences assigned
No exact matches.



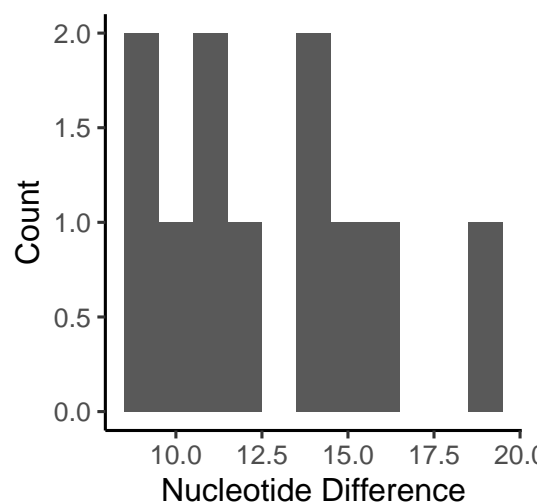
IGHV5-51*01_03

19216 sequences assigned
1739 (9%) exact matches, in which:
909 unique CDR3
6 unique J



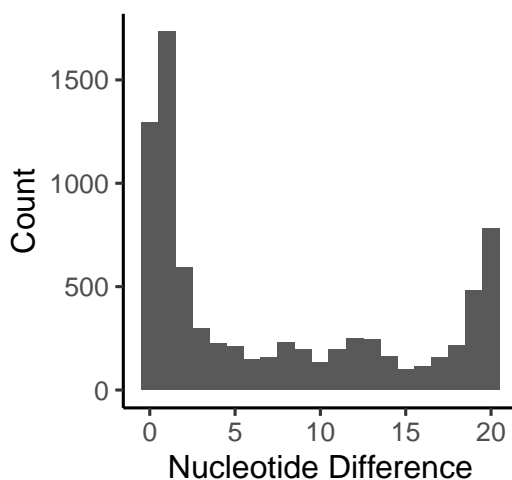
IGHV1/OR15-3*02

12 sequences assigned
No exact matches.



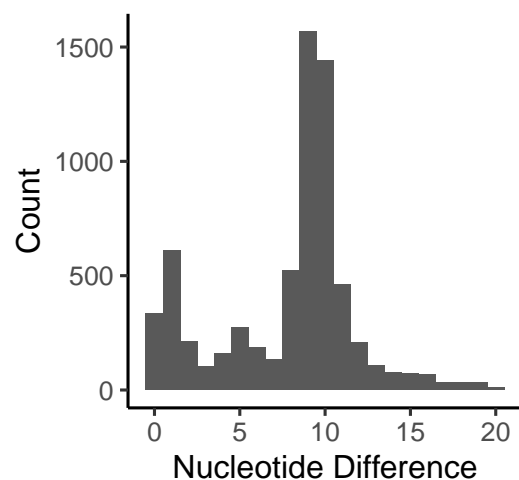
IGHV5-10-1*01_03

11064 sequences assigned
1293 (11.7%) exact matches, in which:
737 unique CDR3
6 unique J



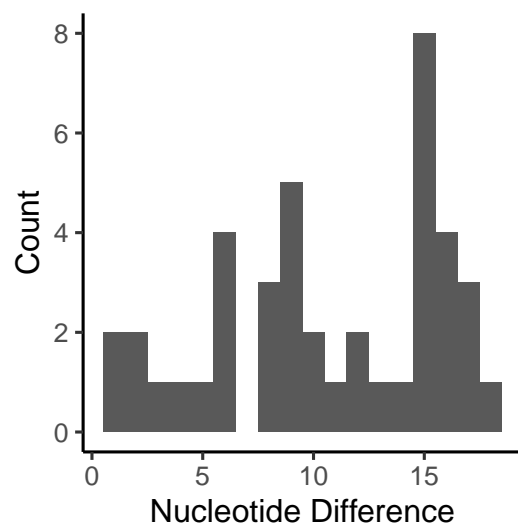
IGHV6-1*01_02

6668 sequences assigned
335 (5%) exact matches, in which:
255 unique CDR3
6 unique J



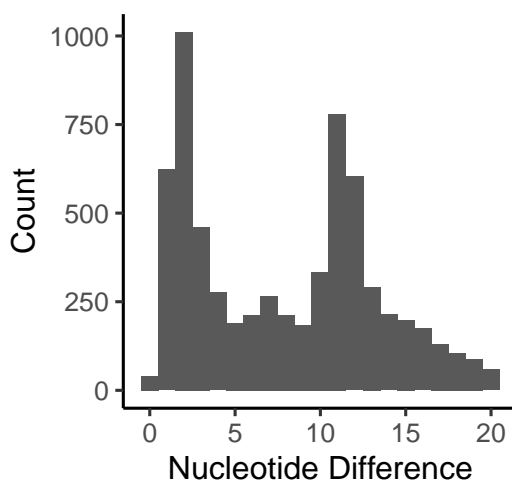
IGHV4/OR15-8*01

62 sequences assigned
No exact matches.



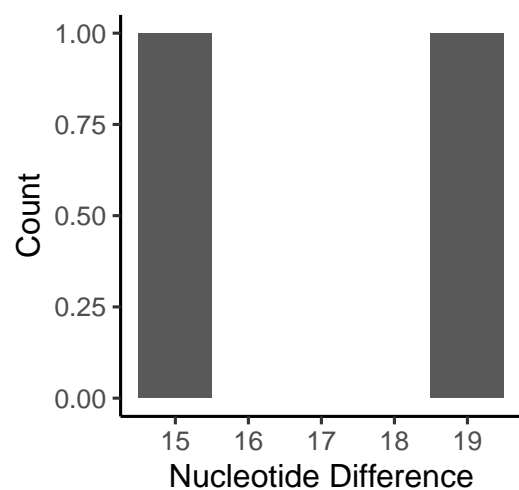
IGHV5-51*07

6626 sequences assigned
41 (0.6%) exact matches, in which:
31 unique CDR3
4 unique J



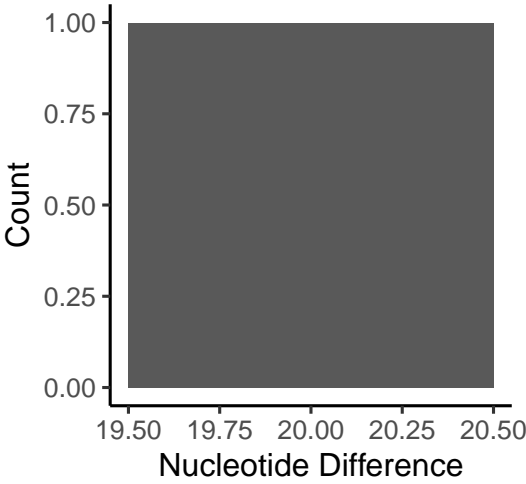
IGHV3/OR16-6*02

3 sequences assigned
No exact matches.



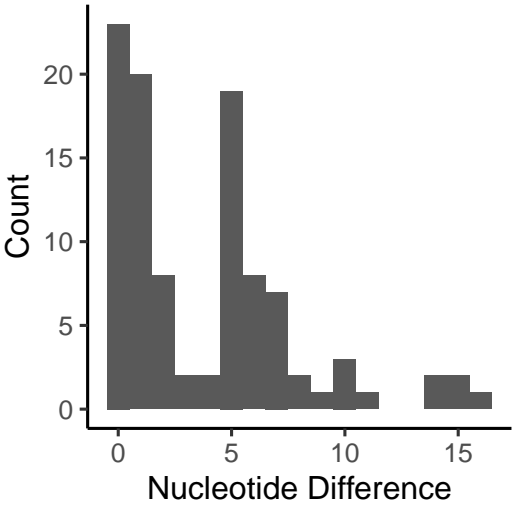
IGHV3/OR16-8*01

1 sequences assigned
No exact matches.



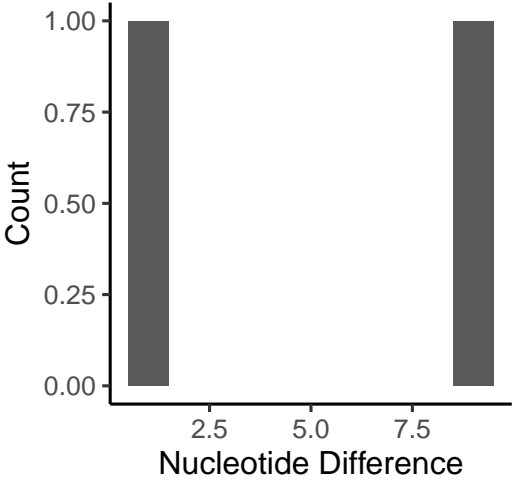
IGHV7-4-1*01

101 sequences assigned
23 (22.8%) exact matches, in which:
21 unique CDR3
3 unique J



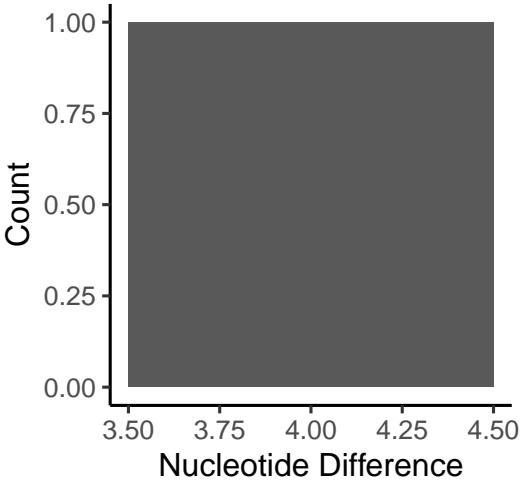
IGHV3/OR16-9*01

2 sequences assigned
No exact matches.

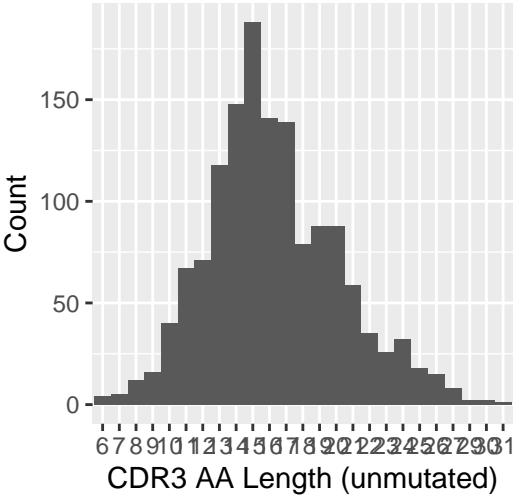


IGHV3/OR16-10*01_03

1 sequences assigned
No exact matches.



IGHV3-33*01_T105C_A173T_T192G_C288T



IGHV3-33*01_T105C_A173T_T192G

