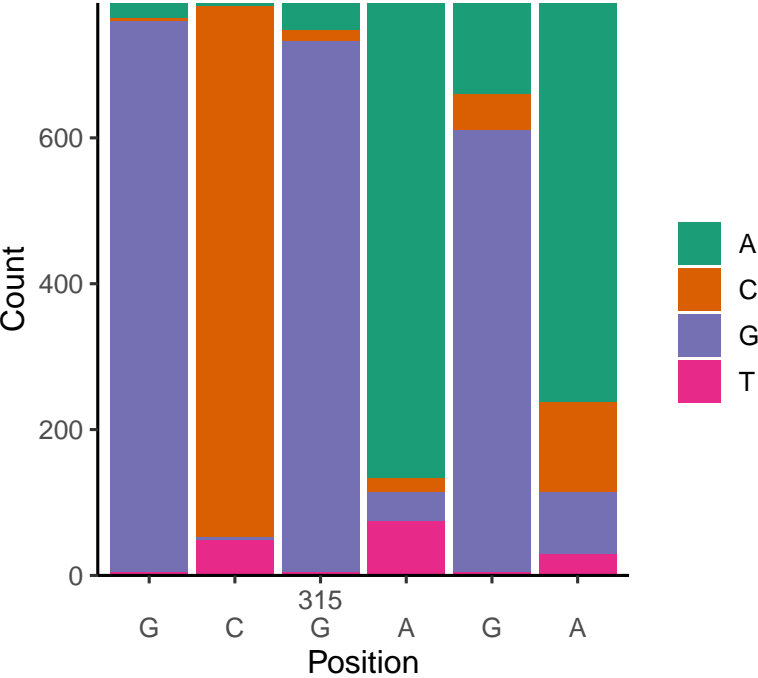
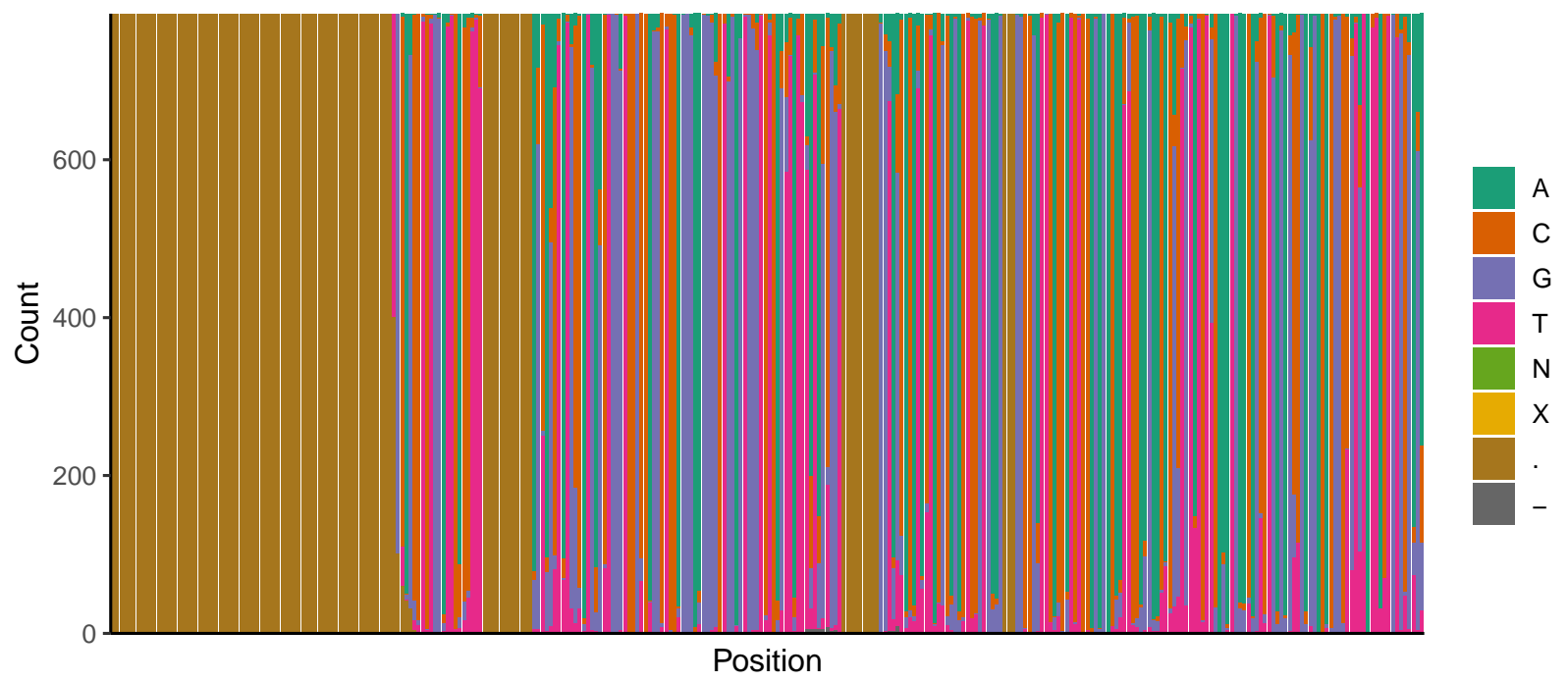
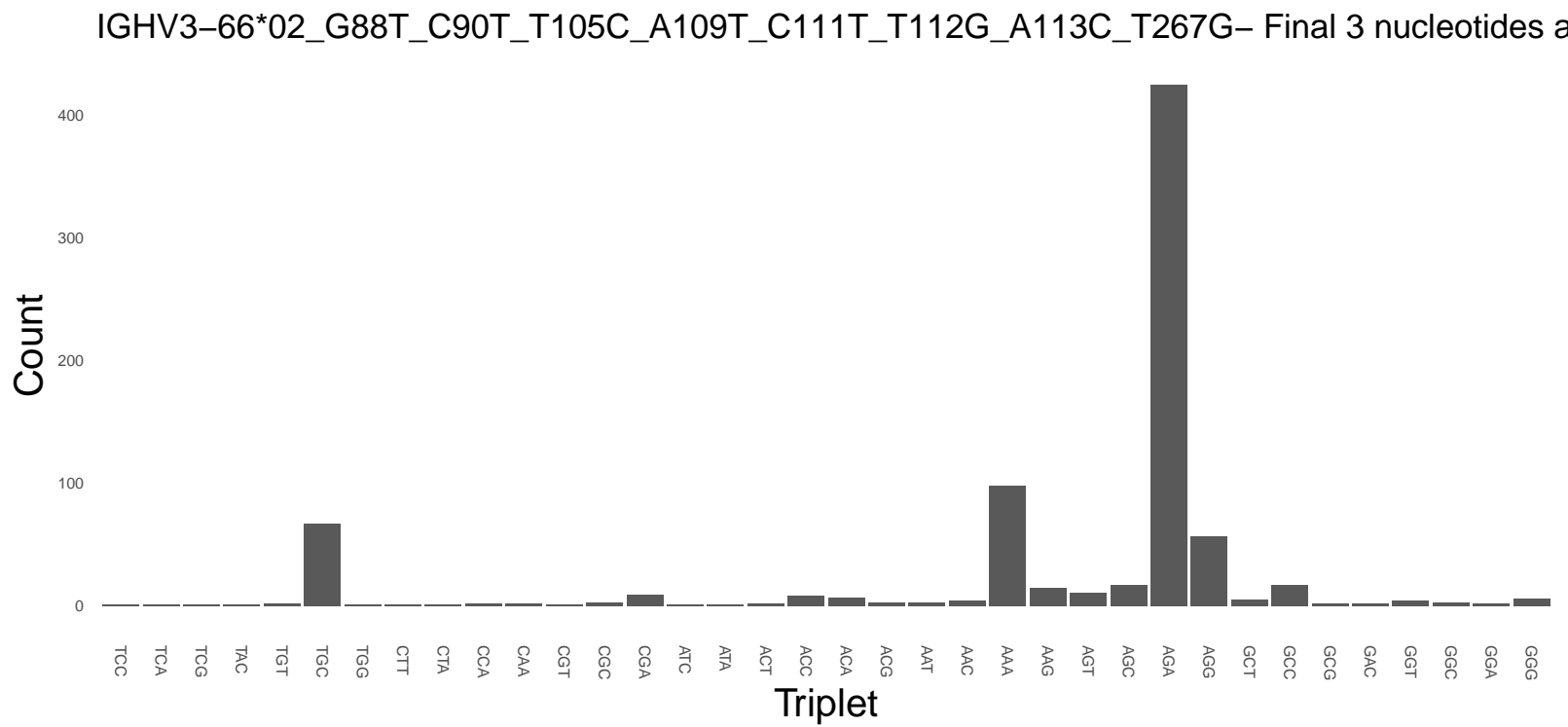


Gene IGHV3-66*02_G88T_C90T_T105C_A109T_C111T_T112G_A113C_T267G



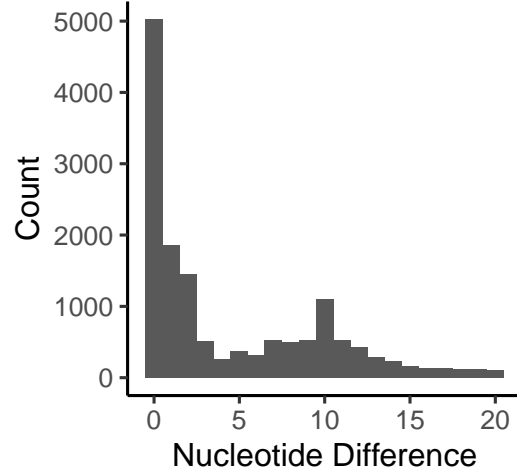
Gene IGHV3-66*02_G88T_C90T_T105C_A109T_C111T_T112G_A113C_T267G





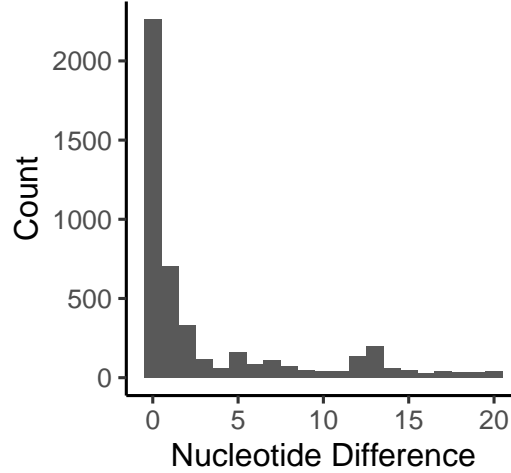
IGHV1-2*02

16825 sequences assigned
5024 (29.9%) exact matches, in which:
4815 unique CDR3
7 unique J



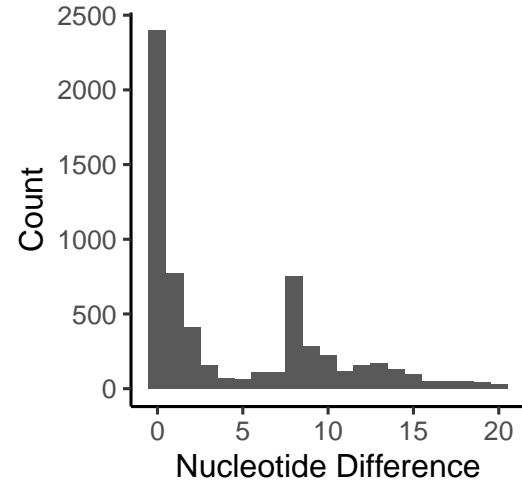
IGHV1-8*01

5271 sequences assigned
2262 (42.9%) exact matches, in which:
2196 unique CDR3
7 unique J



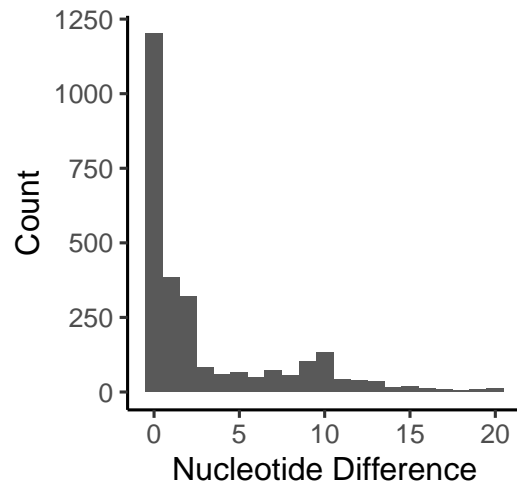
IGHV1-18*04

6768 sequences assigned
2398 (35.4%) exact matches, in which:
2349 unique CDR3
7 unique J



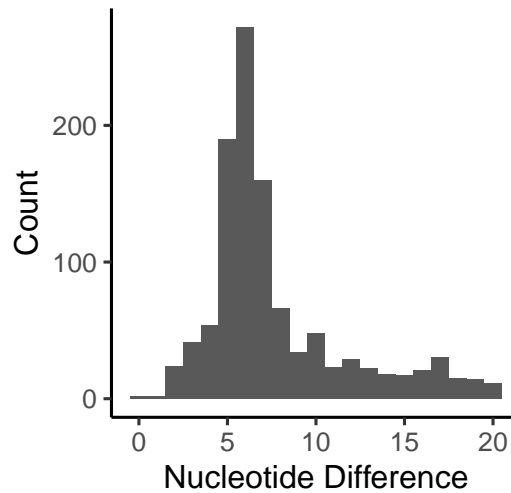
IGHV1-2*04

2844 sequences assigned
1201 (42.2%) exact matches, in which:
1163 unique CDR3
7 unique J



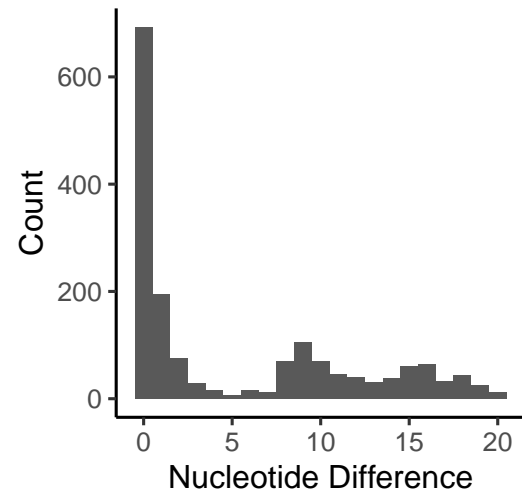
IGHV1-8*02

1194 sequences assigned
2 (0.2%) exact matches, in which:
2 unique CDR3
2 unique J



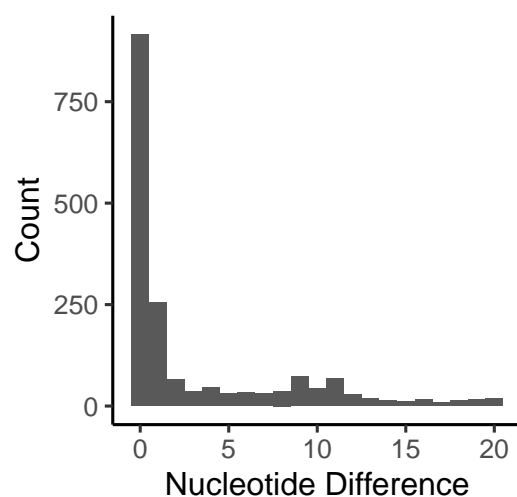
IGHV1-24*01

2012 sequences assigned
693 (34.4%) exact matches, in which:
674 unique CDR3
7 unique J



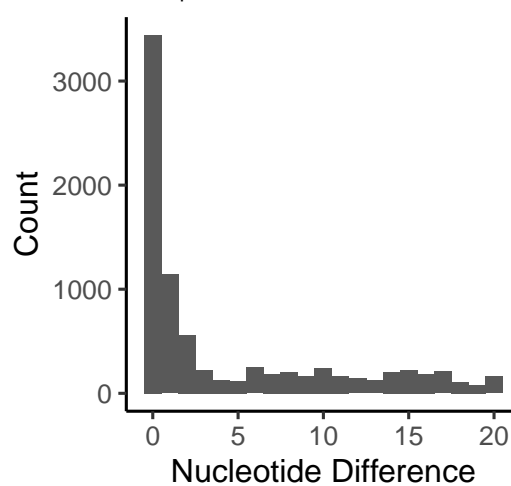
IGHV1-3*01_05

2063 sequences assigned
916 (44.4%) exact matches, in which:
876 unique CDR3
7 unique J



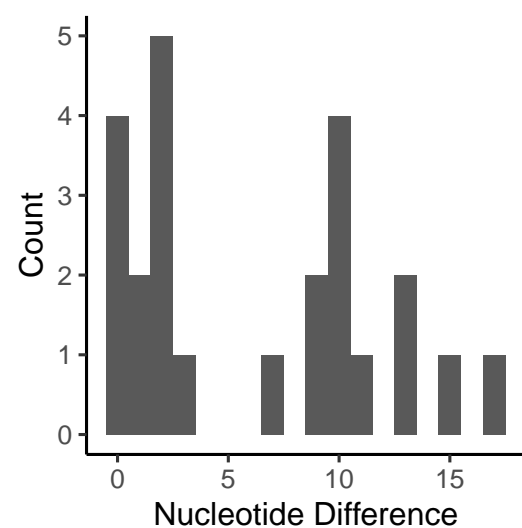
IGHV1-18*01

9956 sequences assigned
3442 (34.6%) exact matches, in which:
3352 unique CDR3
7 unique J



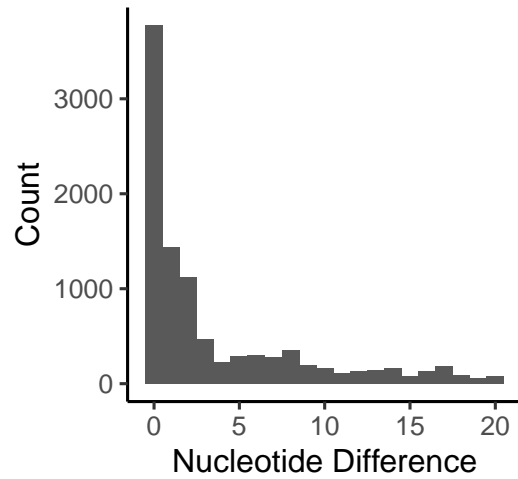
IGHV1-45*02

31 sequences assigned
4 (12.9%) exact matches, in which:
4 unique CDR3
3 unique J



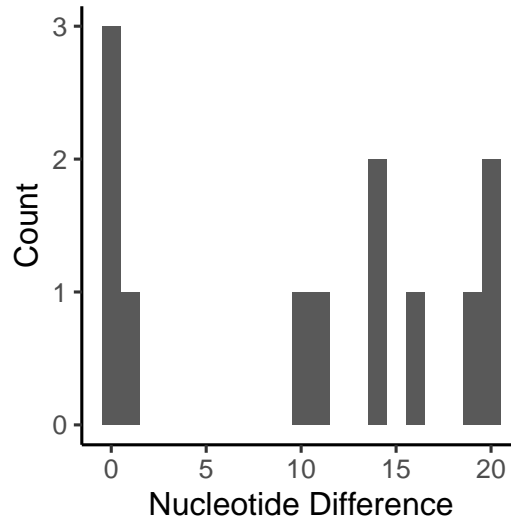
IGHV1-46*01

10994 sequences assigned
3773 (34.3%) exact matches, in which:
3658 unique CDR3
7 unique J



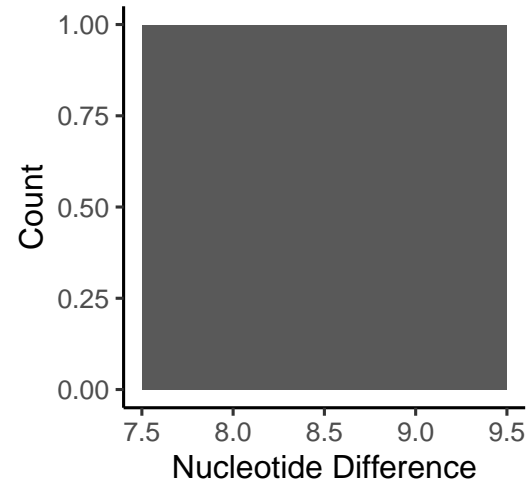
IGHV1-69-2*01

66 sequences assigned
3 (4.5%) exact matches, in which:
3 unique CDR3
2 unique J



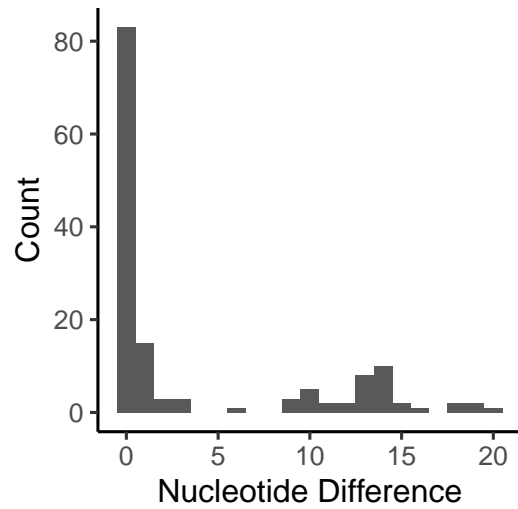
IGHV1-NL1*01

2 sequences assigned
No exact matches.



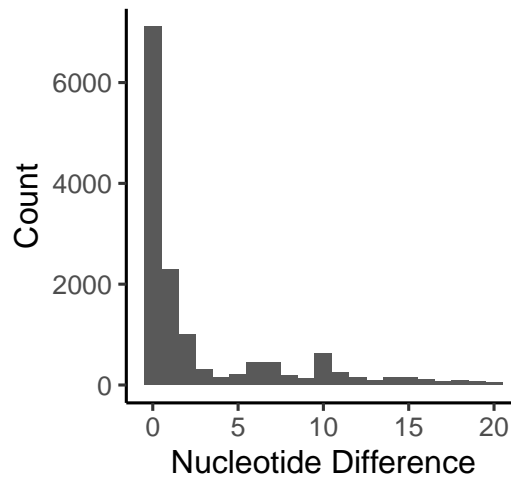
IGHV1-58*02

151 sequences assigned
83 (55%) exact matches, in which:
82 unique CDR3
7 unique J



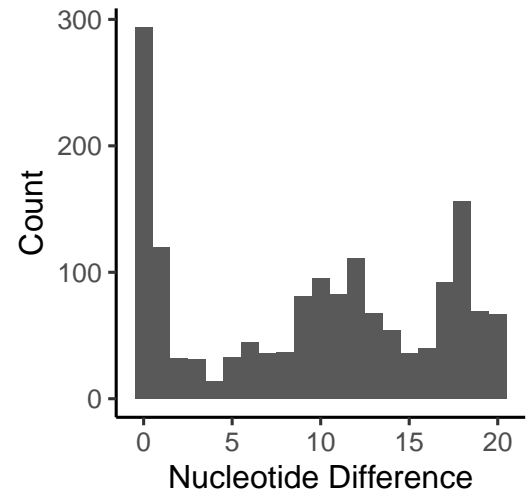
IGHV1-69*01_12_13

15126 sequences assigned
7108 (47%) exact matches, in which:
6914 unique CDR3
7 unique J



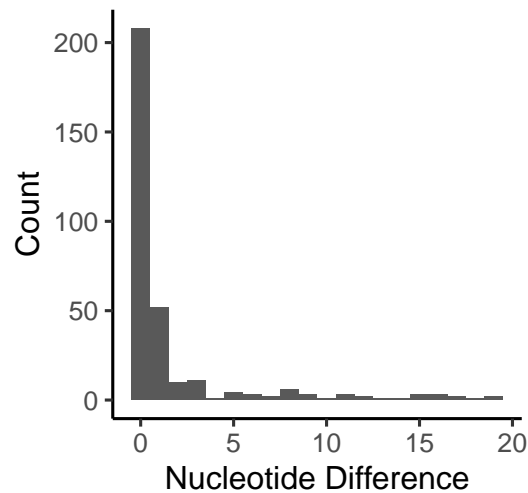
IGHV2-5*01

1884 sequences assigned
294 (15.6%) exact matches, in which:
285 unique CDR3
7 unique J



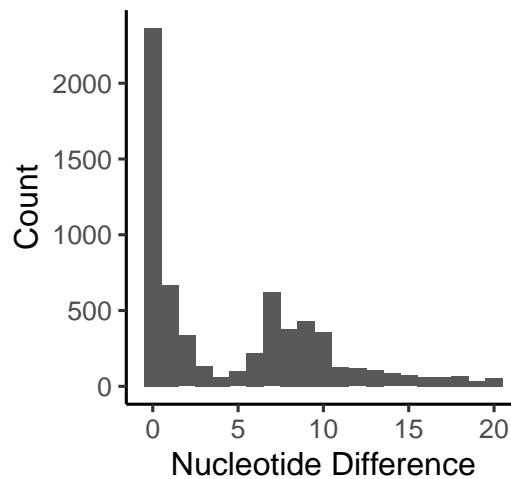
IGHV1-58*01_03

390 sequences assigned
208 (53.3%) exact matches, in which:
202 unique CDR3
7 unique J



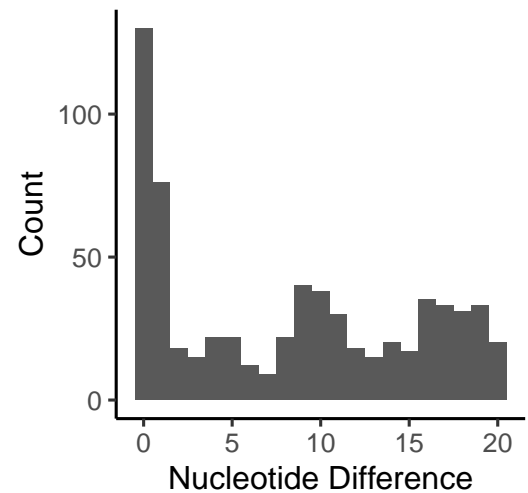
IGHV1-69*06_14

6972 sequences assigned
2364 (33.9%) exact matches, in which:
2318 unique CDR3
7 unique J



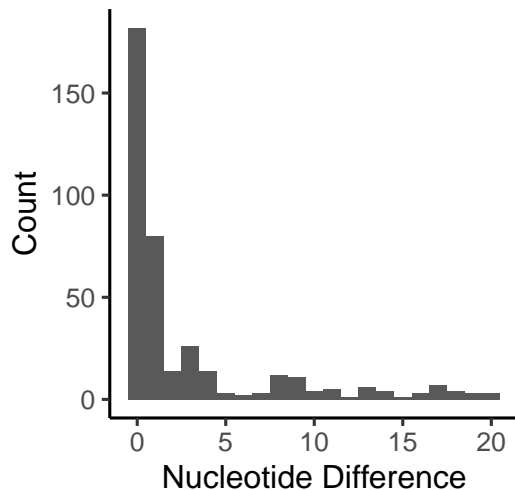
IGHV2-5*02

912 sequences assigned
130 (14.3%) exact matches, in which:
124 unique CDR3
7 unique J



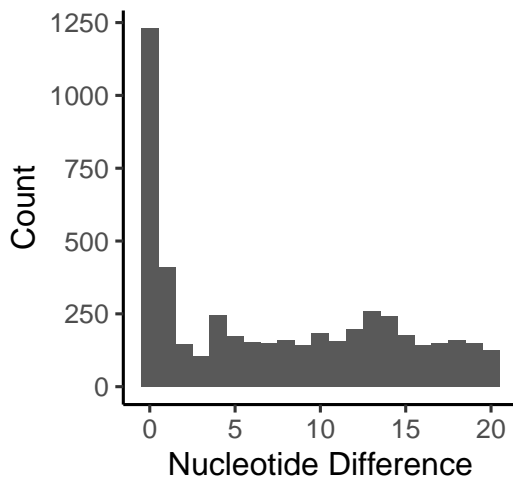
IGHV2-26*01

413 sequences assigned
182 (44.1%) exact matches, in which:
176 unique CDR3
6 unique J



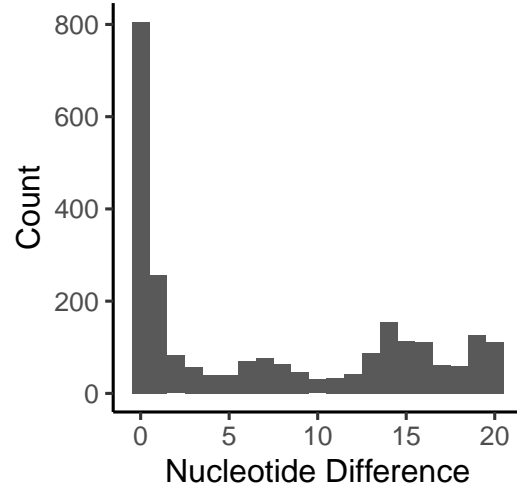
IGHV3-7*01

6245 sequences assigned
1230 (19.7%) exact matches, in which:
1140 unique CDR3
7 unique J



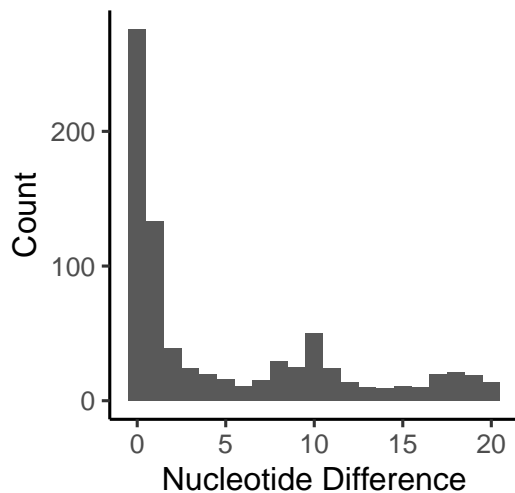
IGHV3-11*01

14201 sequences assigned
806 (5.7%) exact matches, in which:
741 unique CDR3
7 unique J



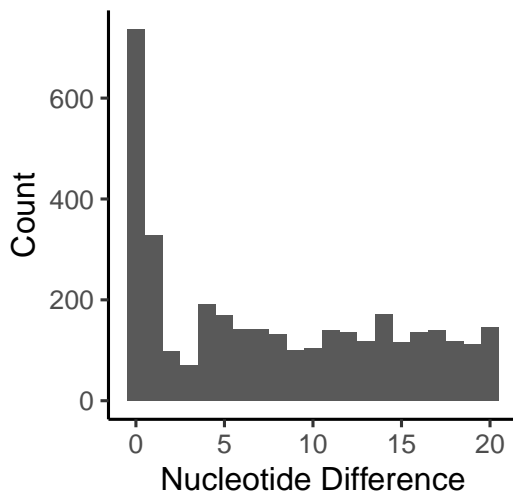
IGHV2-70*01

858 sequences assigned
276 (32.2%) exact matches, in which:
270 unique CDR3
7 unique J



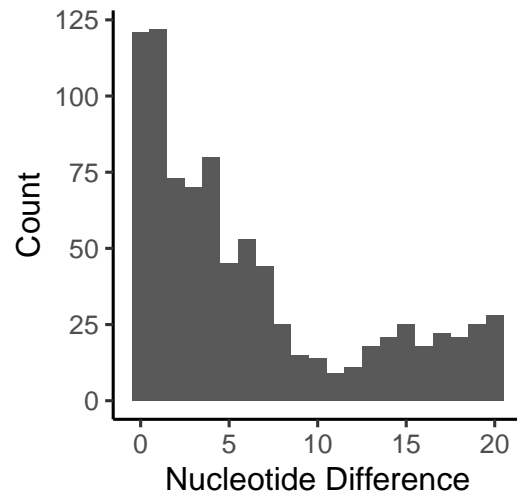
IGHV3-7*03

4765 sequences assigned
737 (15.5%) exact matches, in which:
653 unique CDR3
7 unique J



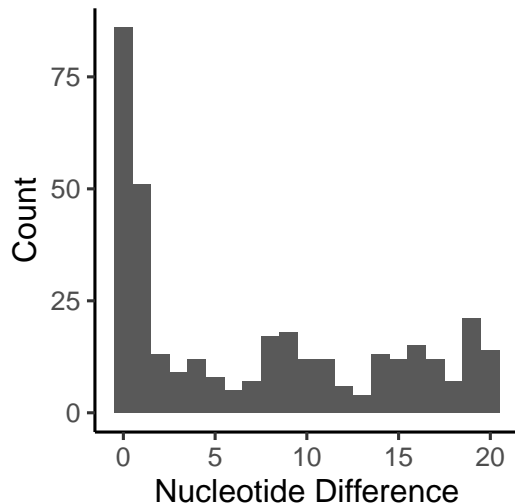
IGHV3-11*04

1048 sequences assigned
121 (11.5%) exact matches, in which:
121 unique CDR3
7 unique J



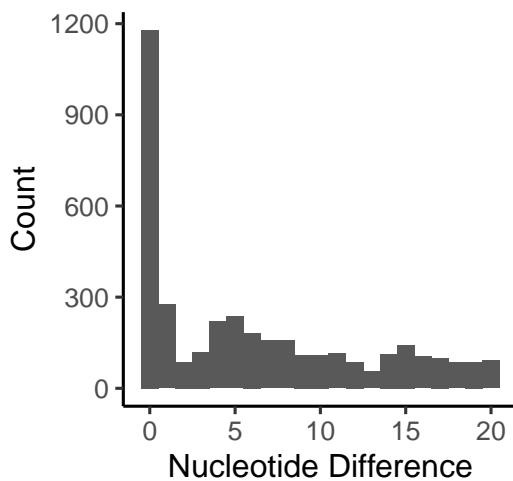
IGHV2-70*04

383 sequences assigned
86 (22.5%) exact matches, in which:
80 unique CDR3
6 unique J



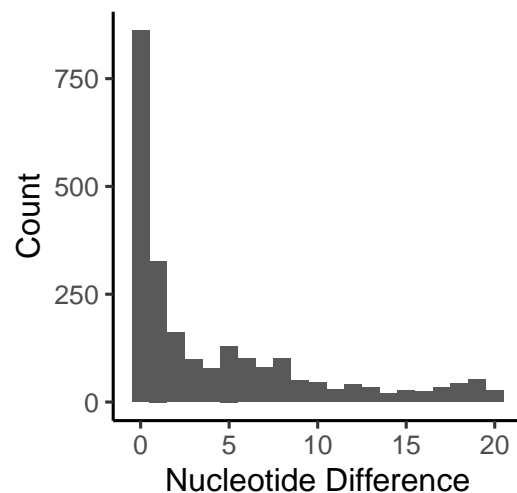
IGHV3-9*01

5041 sequences assigned
1179 (23.4%) exact matches, in which:
1063 unique CDR3
7 unique J



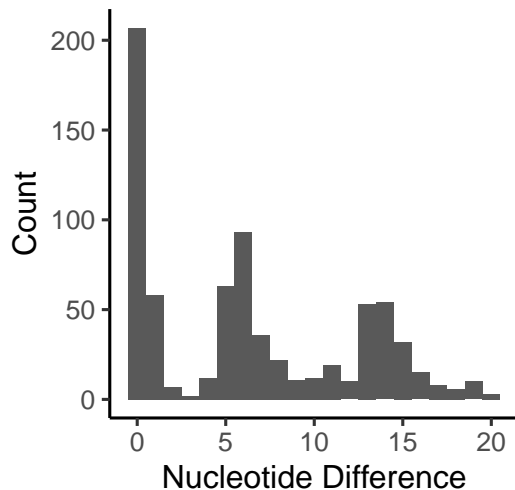
IGHV3-11*06

3393 sequences assigned
862 (25.4%) exact matches, in which:
775 unique CDR3
7 unique J



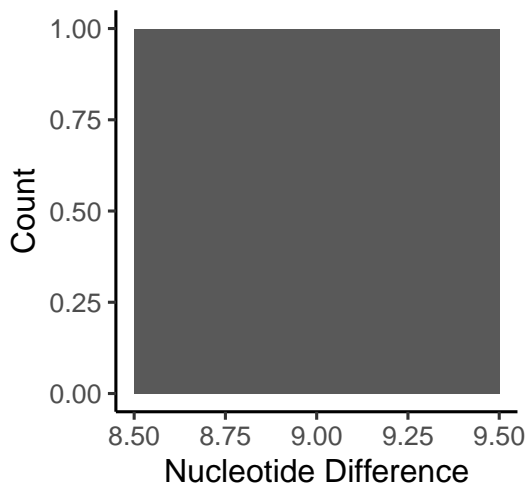
IGHV3-13*01

766 sequences assigned
207 (27%) exact matches, in which:
184 unique CDR3
6 unique J



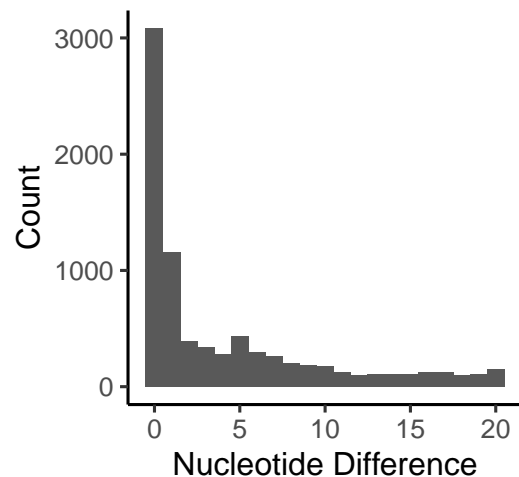
IGHV3-19*01

1 sequences assigned
No exact matches.



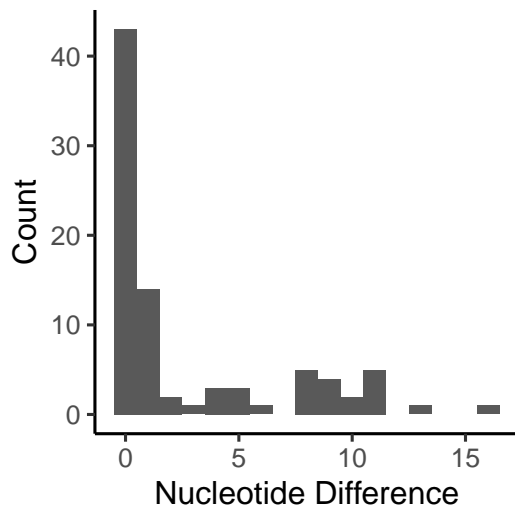
IGHV3-21*01_02

9987 sequences assigned
3082 (30.9%) exact matches, in which:
2759 unique CDR3
7 unique J



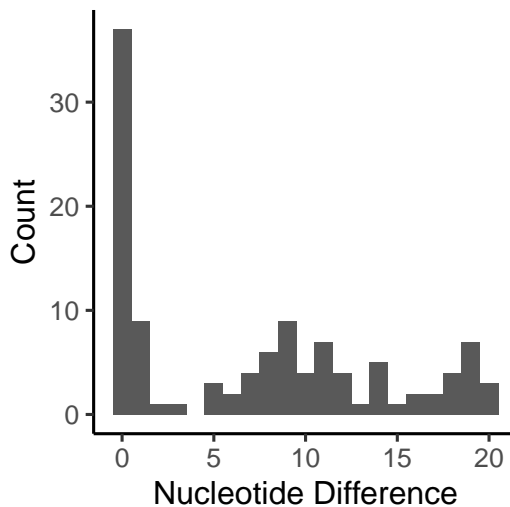
IGHV3-13*05

86 sequences assigned
43 (50%) exact matches, in which:
39 unique CDR3
5 unique J



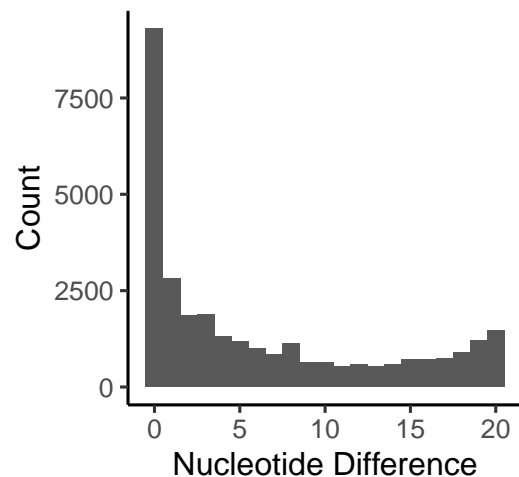
IGHV3-20*01_02

131 sequences assigned
37 (28.2%) exact matches, in which:
34 unique CDR3
5 unique J



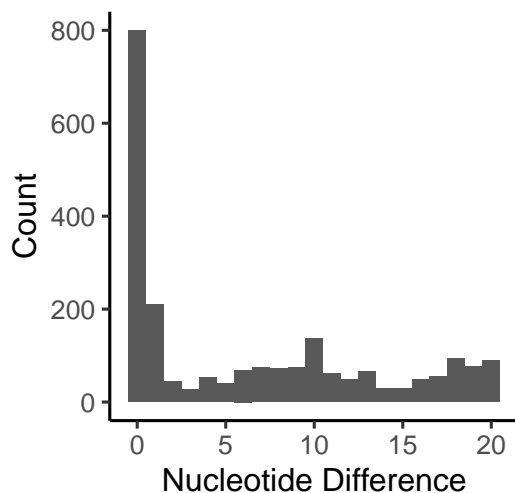
IGHV3-23*01_04

40938 sequences assigned
9297 (22.7%) exact matches, in which:
7976 unique CDR3
7 unique J



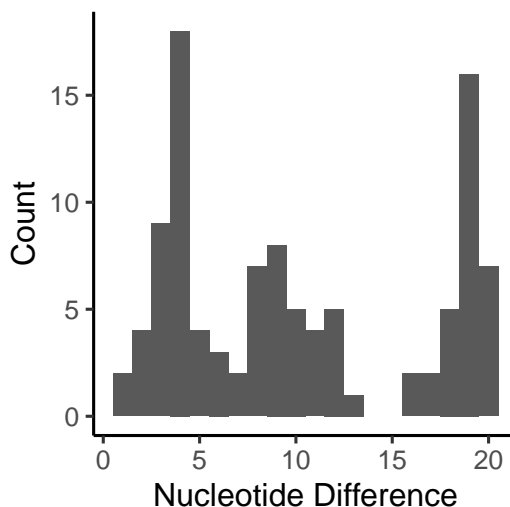
IGHV3-15*01_02

3057 sequences assigned
800 (26.2%) exact matches, in which:
710 unique CDR3
7 unique J



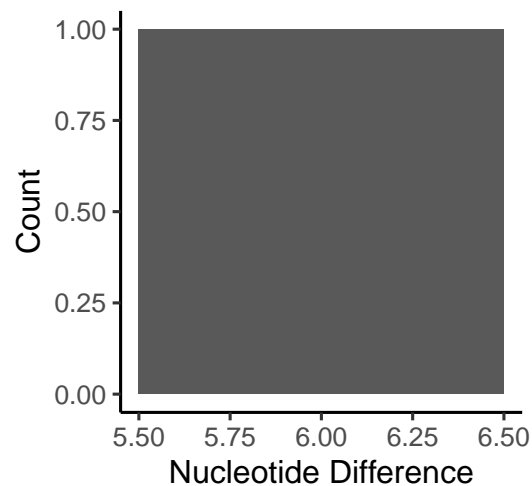
IGHV3-20*03_04

181 sequences assigned
No exact matches.



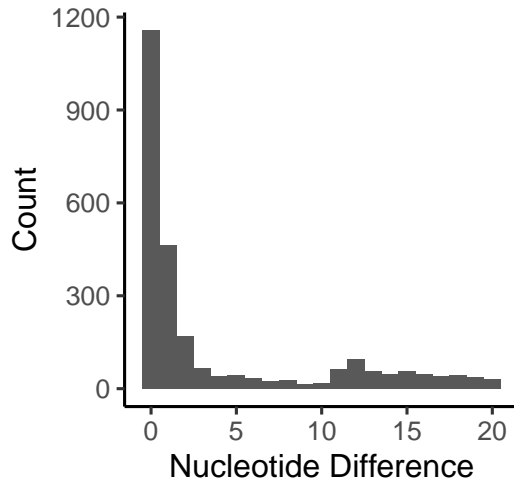
IGHV3-25*04

1 sequences assigned
No exact matches.



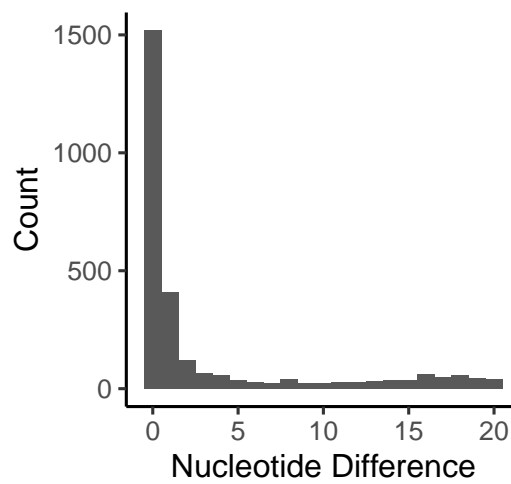
IGHV3-30-3*01

2830 sequences assigned
1157 (40.9%) exact matches, in which:
1075 unique CDR3
7 unique J



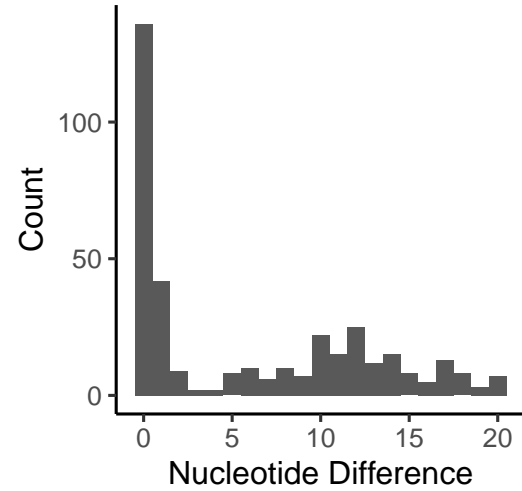
IGHV3-33*01

3459 sequences assigned
1519 (43.9%) exact matches, in which:
1408 unique CDR3
7 unique J



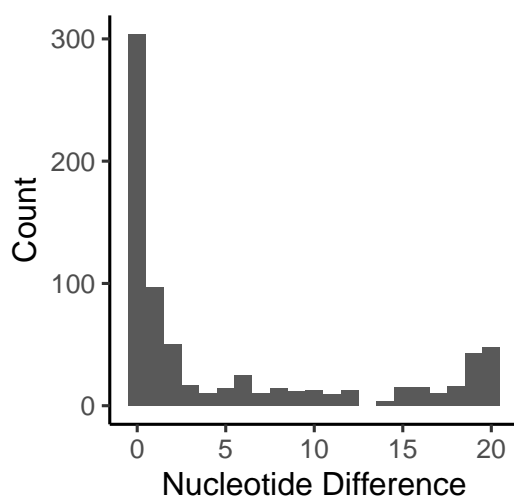
IGHV3-43*01

468 sequences assigned
136 (29.1%) exact matches, in which:
126 unique CDR3
7 unique J



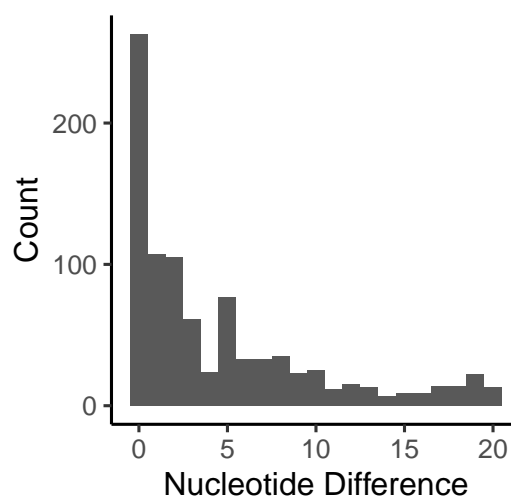
IGHV3-30*03

920 sequences assigned
304 (33%) exact matches, in which:
302 unique CDR3
7 unique J



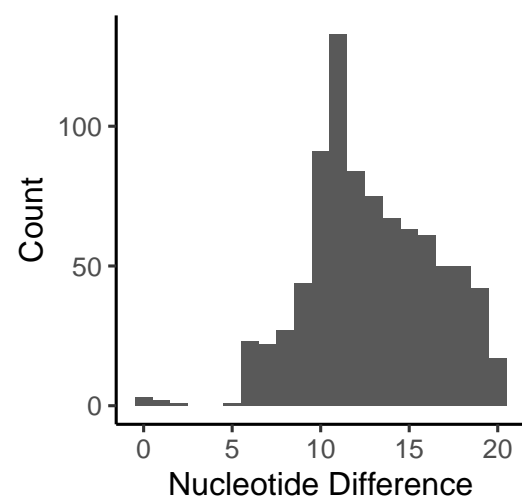
IGHV3-33*08

1132 sequences assigned
263 (23.2%) exact matches, in which:
259 unique CDR3
7 unique J



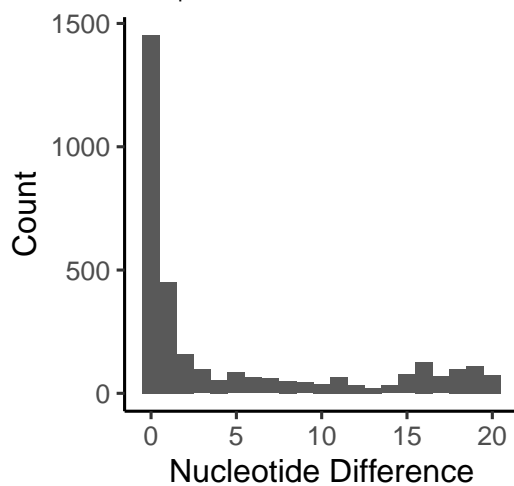
IGHV3-43*02

971 sequences assigned
3 (0.3%) exact matches, in which:
3 unique CDR3
2 unique J



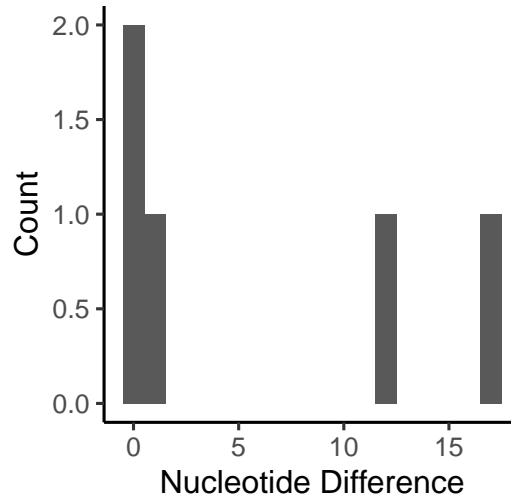
IGHV3-30*18

3757 sequences assigned
1453 (38.7%) exact matches, in which:
1300 unique CDR3
7 unique J



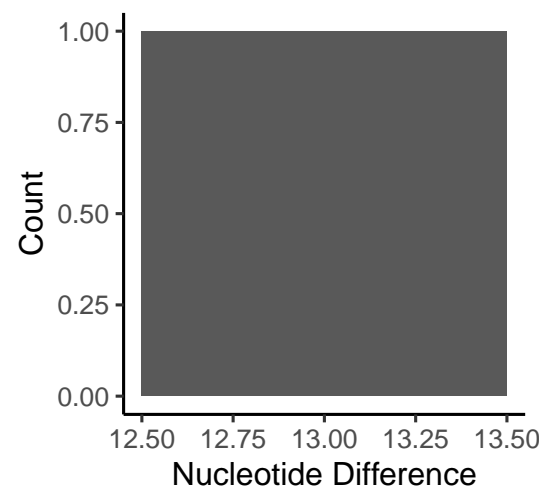
IGHV3-35*01

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



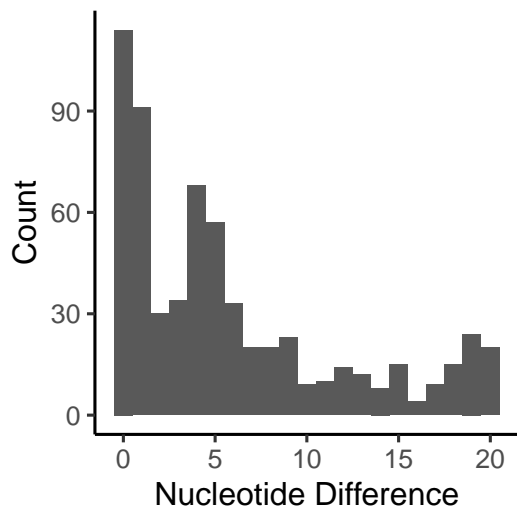
IGHV3-47*02

1 sequences assigned
No exact matches.



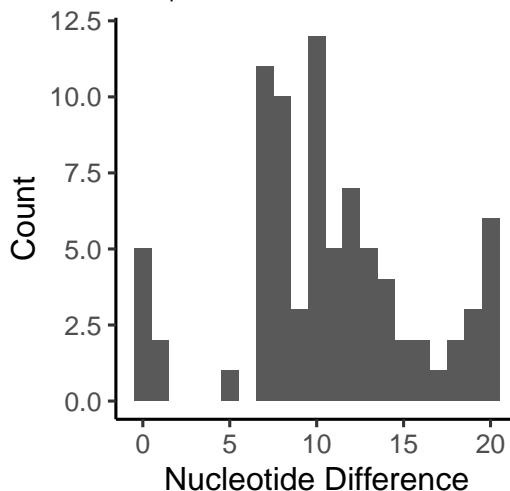
IGHV3-48*01

734 sequences assigned
114 (15.5%) exact matches, in which:
114 unique CDR3
7 unique J



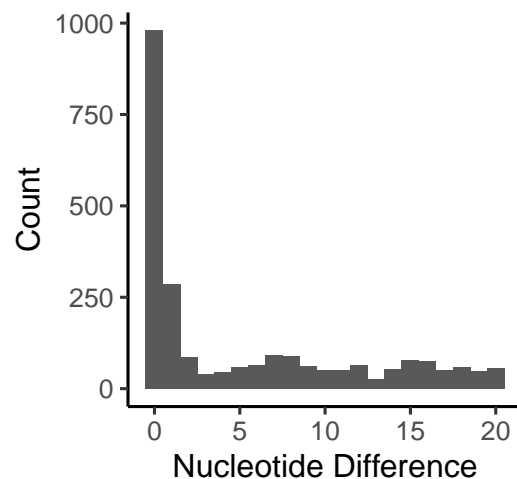
IGHV3-49*04

261 sequences assigned
5 (1.9%) exact matches, in which:
3 unique CDR3
2 unique J



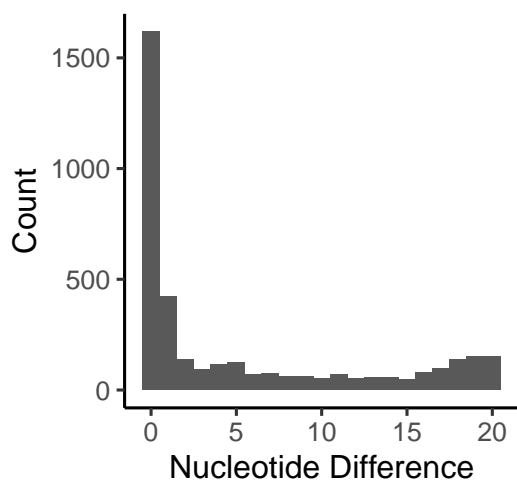
IGHV3-53*01_02

3081 sequences assigned
980 (31.8%) exact matches, in which:
888 unique CDR3
7 unique J



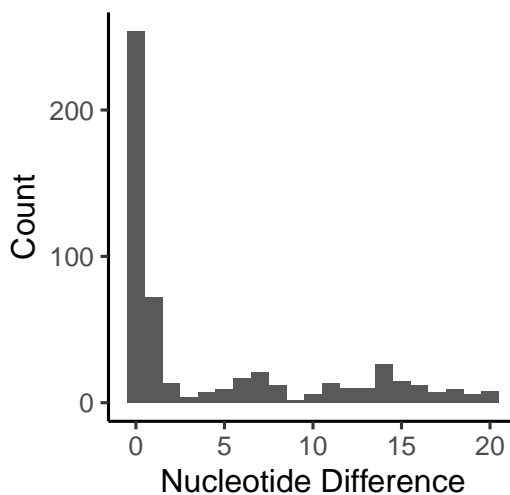
IGHV3-48*02

4924 sequences assigned
1618 (32.9%) exact matches, in which:
1447 unique CDR3
7 unique J



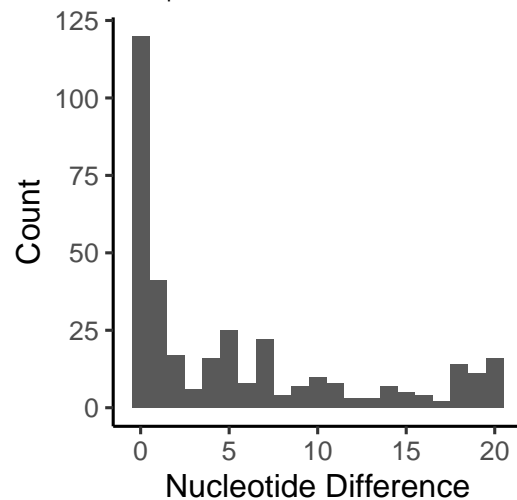
IGHV3-49*03_05

630 sequences assigned
254 (40.3%) exact matches, in which:
241 unique CDR3
7 unique J



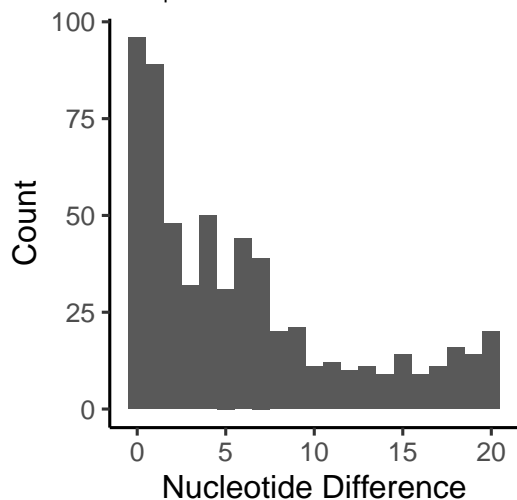
IGHV3-64*01

423 sequences assigned
120 (28.4%) exact matches, in which:
107 unique CDR3
7 unique J



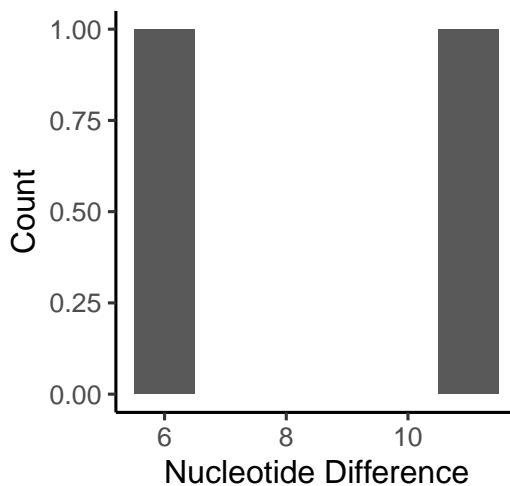
IGHV3-48*04

827 sequences assigned
96 (11.6%) exact matches, in which:
96 unique CDR3
6 unique J



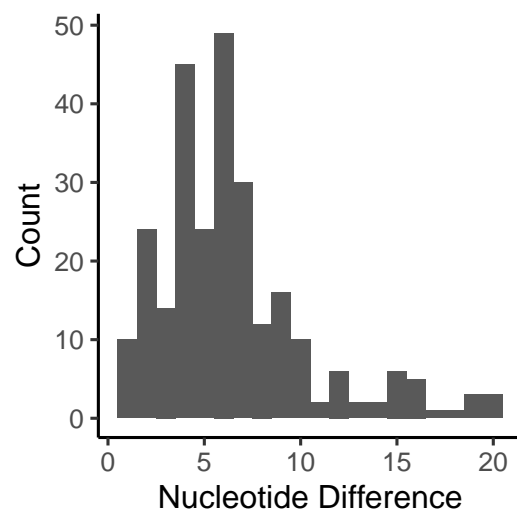
IGHV3-52*01_03

2 sequences assigned
No exact matches.



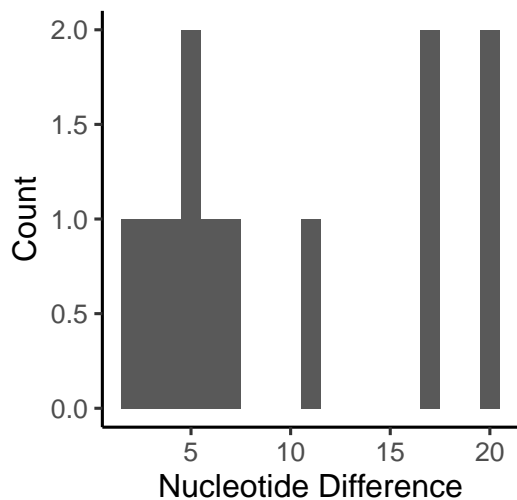
IGHV3-64*04

299 sequences assigned
No exact matches.



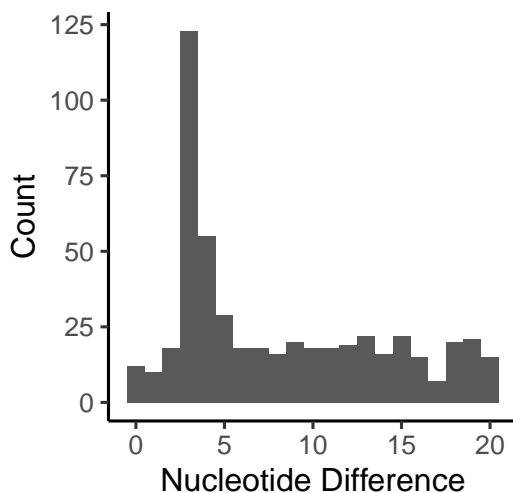
IGHV3-66*01

25 sequences assigned
No exact matches.



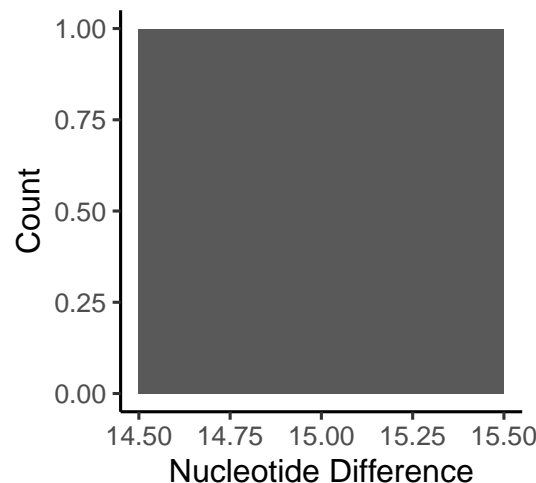
IGHV3-66*02_G88T_C90

785 sequences assigned
12 (1.5%) exact matches, in which:
12 unique CDR3
3 unique J



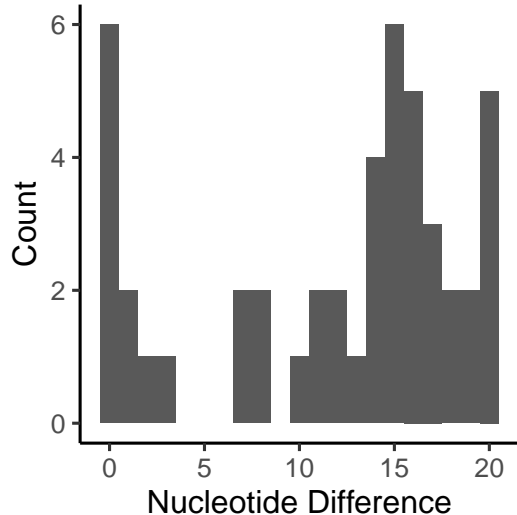
IGHV3-71*01_04

2 sequences assigned
No exact matches.



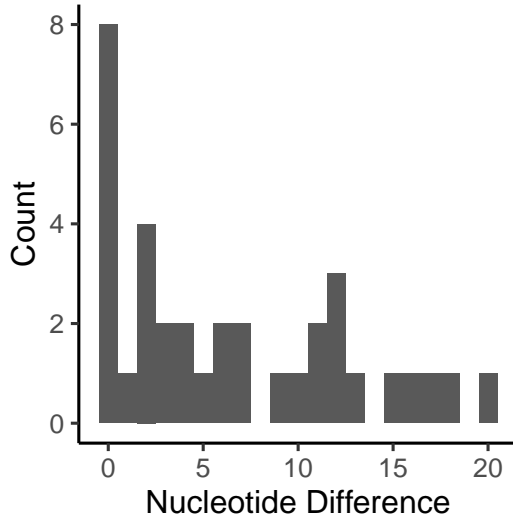
IGHV3-66*02

118 sequences assigned
6 (5.1%) exact matches, in which:
4 unique CDR3
2 unique J



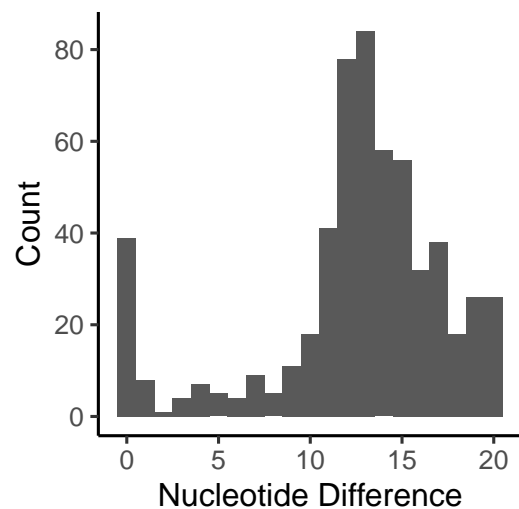
IGHV3-69-1*01

53 sequences assigned
8 (15.1%) exact matches, in which:
8 unique CDR3
6 unique J



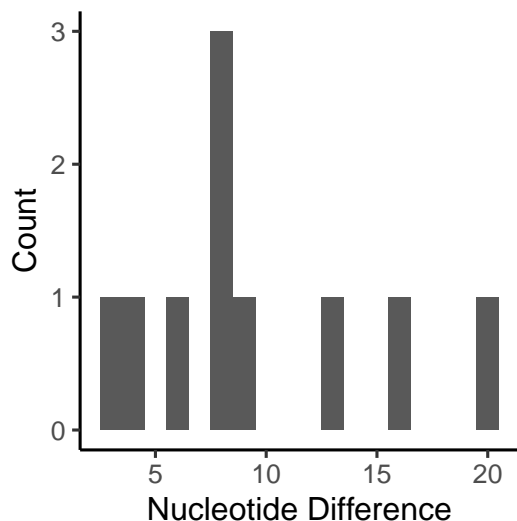
IGHV3-72*01

766 sequences assigned
39 (5.1%) exact matches, in which:
35 unique CDR3
5 unique J



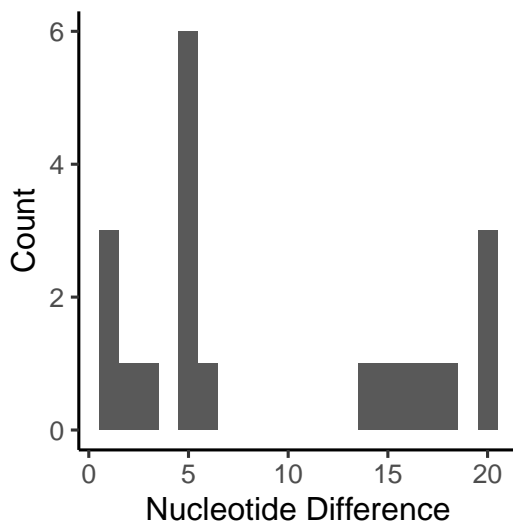
IGHV3-66*04

21 sequences assigned
No exact matches.



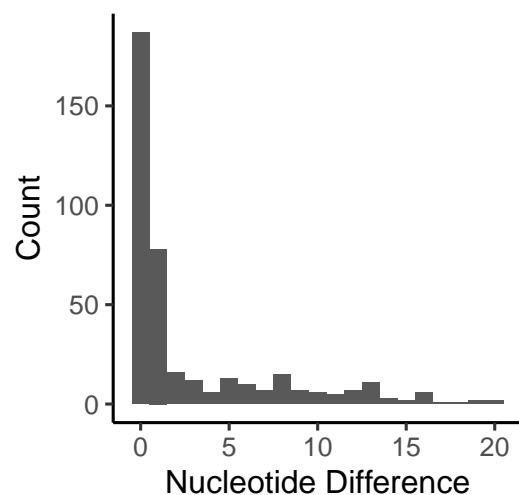
IGHV3-69-1*02

48 sequences assigned
No exact matches.



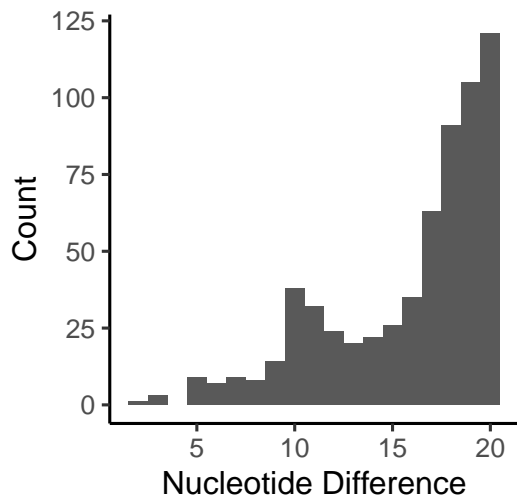
IGHV3-73*01_02

521 sequences assigned
187 (35.9%) exact matches, in which:
173 unique CDR3
7 unique J



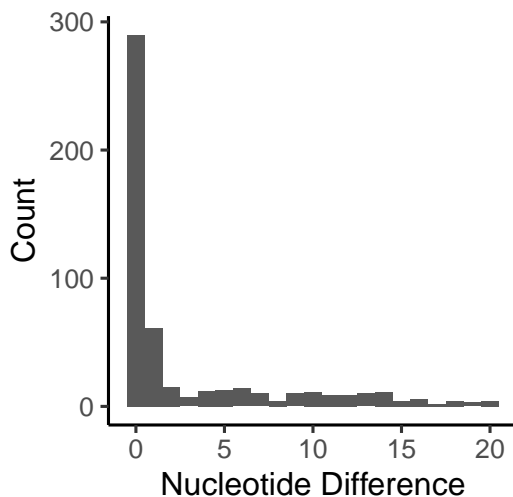
IGHV3-74*03

1623 sequences assigned
No exact matches.



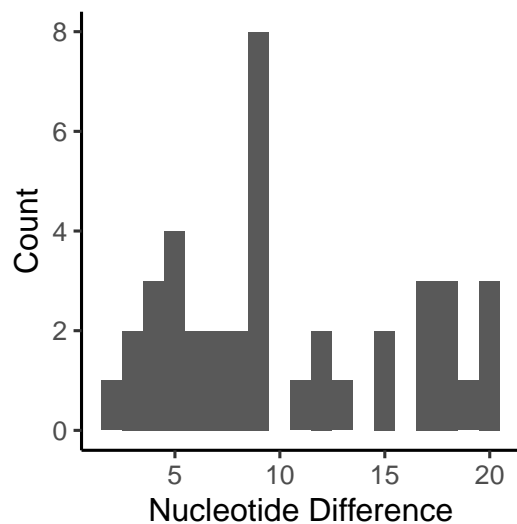
IGHV3-64D*06

549 sequences assigned
290 (52.8%) exact matches, in which:
251 unique CDR3
6 unique J



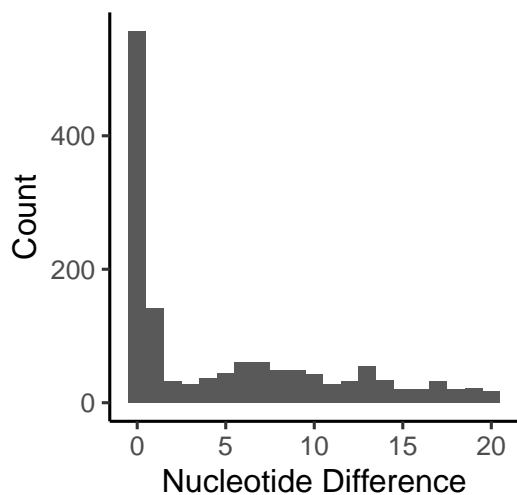
IGHV3-NL1*01

56 sequences assigned
No exact matches.



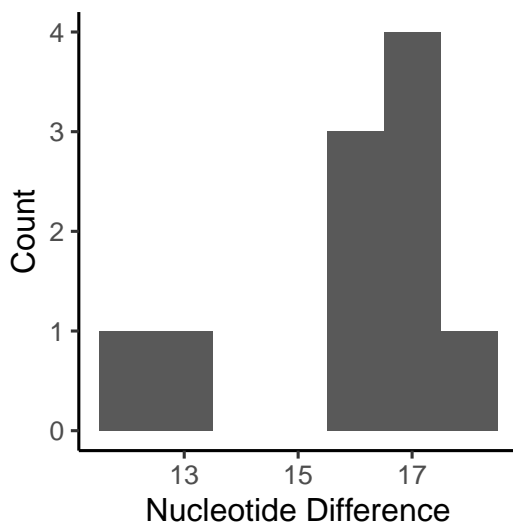
IGHV3-74*01_02

1694 sequences assigned
557 (32.9%) exact matches, in which:
490 unique CDR3
7 unique J



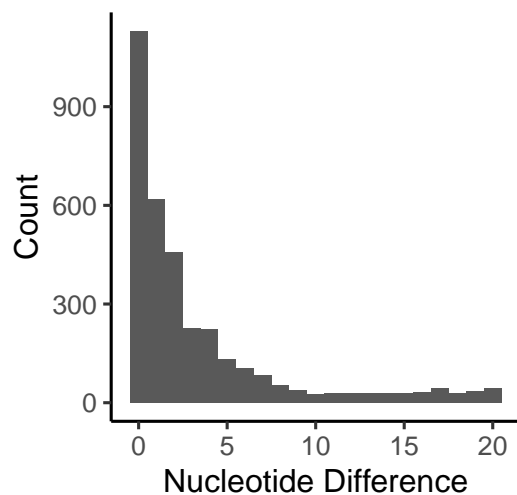
IGHV3-64D*08

13 sequences assigned
No exact matches.



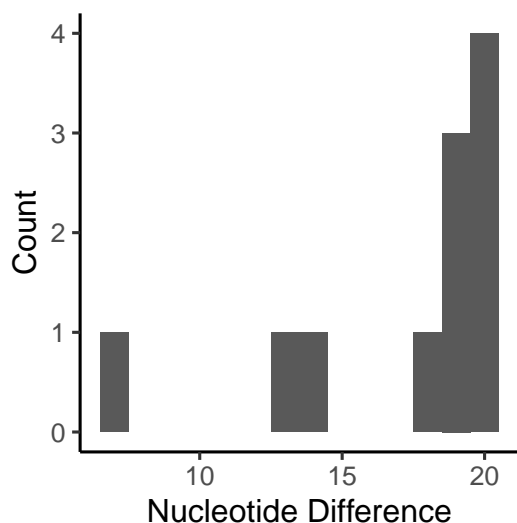
IGHV4-4*07

4596 sequences assigned
1130 (24.6%) exact matches, in which:
1106 unique CDR3
7 unique J



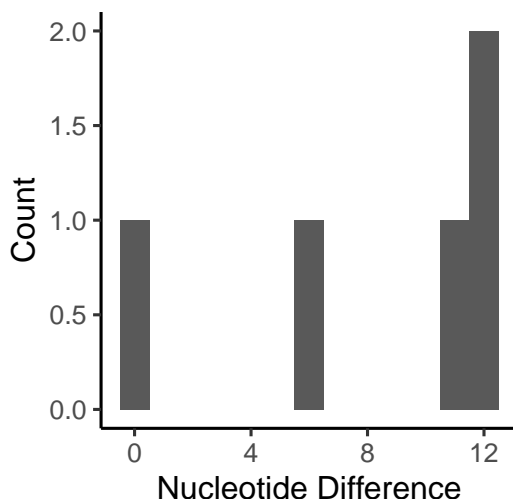
IGHV3-43D*04

18 sequences assigned
No exact matches.



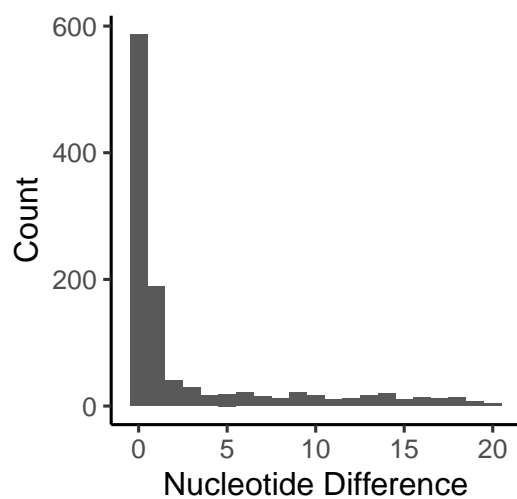
IGHV3-64D*09

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



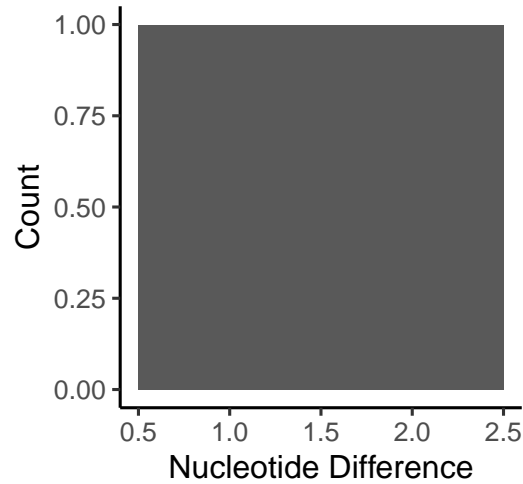
IGHV4-4*02_03

1200 sequences assigned
587 (48.9%) exact matches, in which:
566 unique CDR3
7 unique J



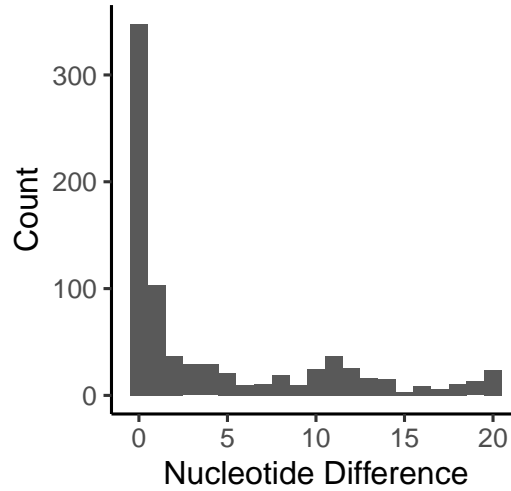
IGHV4-28*03

2 sequences assigned
No exact matches.



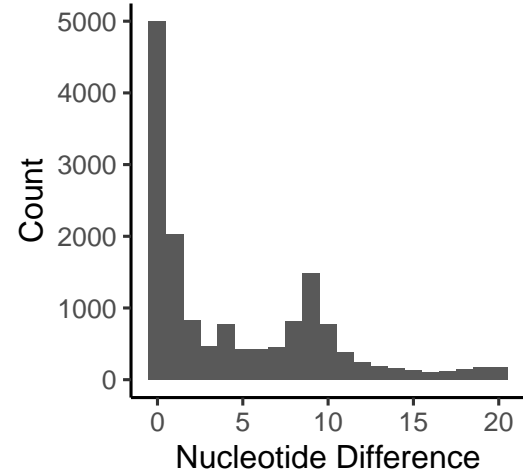
IGHV4-30-4*01

1063 sequences assigned
348 (32.7%) exact matches, in which:
338 unique CDR3
6 unique J



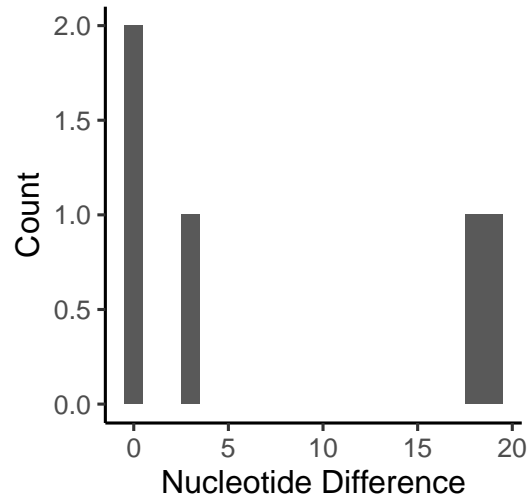
IGHV4-34*01_02

17336 sequences assigned
4997 (28.8%) exact matches, in which:
4756 unique CDR3
7 unique J



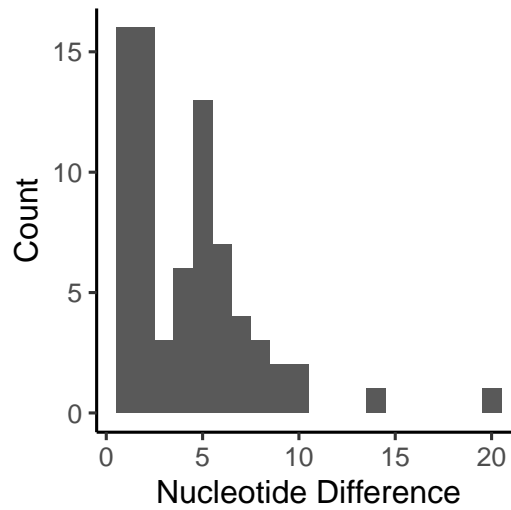
IGHV4-28*01_07

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



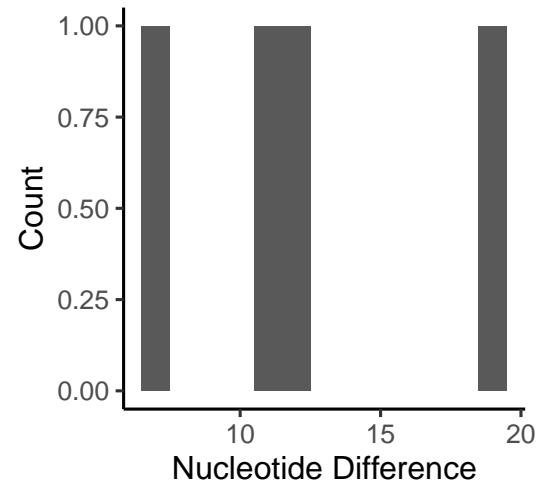
IGHV4-30-2*03

86 sequences assigned
No exact matches.



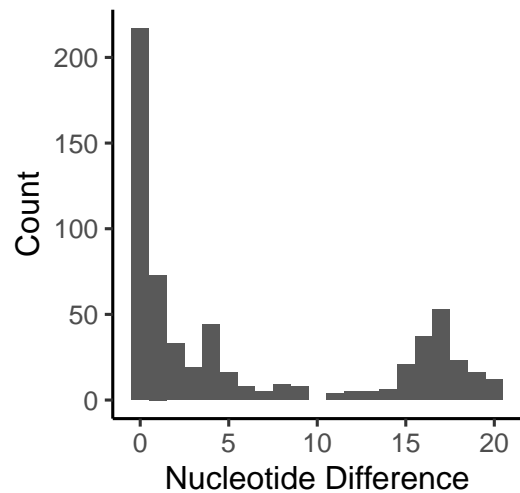
IGHV4-38-2*01

8 sequences assigned
No exact matches.



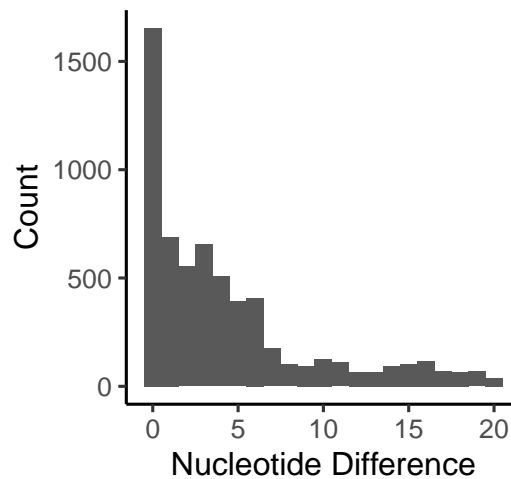
IGHV4-30-2*01

686 sequences assigned
217 (31.6%) exact matches, in which:
205 unique CDR3
6 unique J



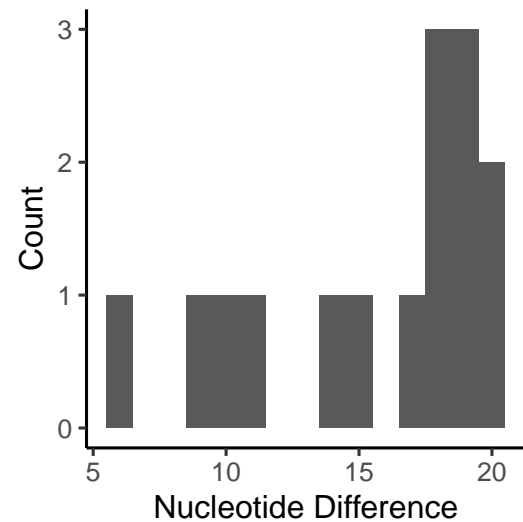
IGHV4-31*02

6974 sequences assigned
1654 (23.7%) exact matches, in which:
1614 unique CDR3
7 unique J



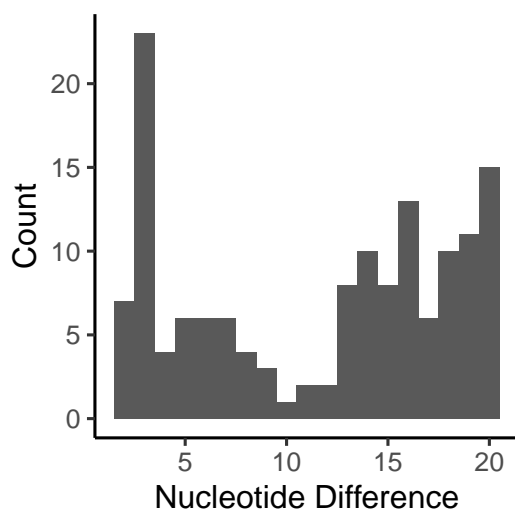
IGHV4-38-2*02

206 sequences assigned
No exact matches.



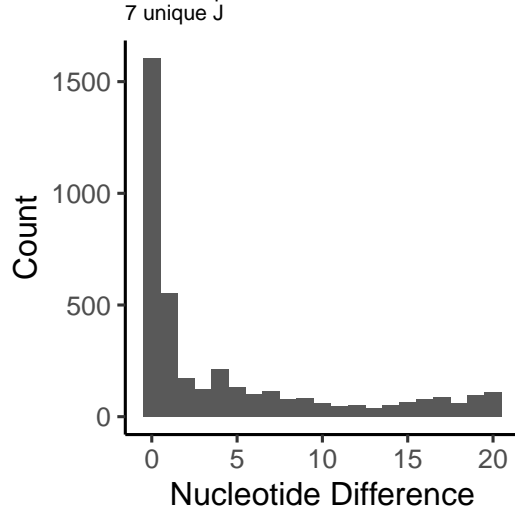
IGHV4-39*02

695 sequences assigned
No exact matches.



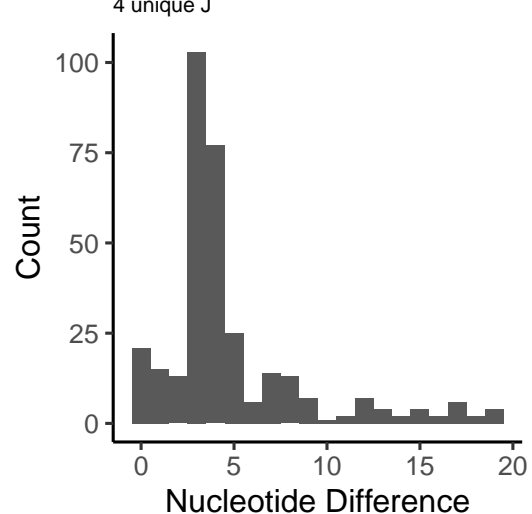
IGHV4-59*08

5734 sequences assigned
1604 (28%) exact matches, in which:
1568 unique CDR3
7 unique J



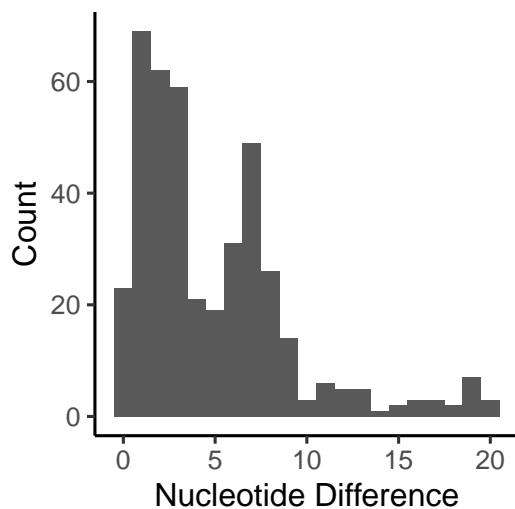
IGHV4-61*02

362 sequences assigned
21 (5.8%) exact matches, in which:
20 unique CDR3
4 unique J



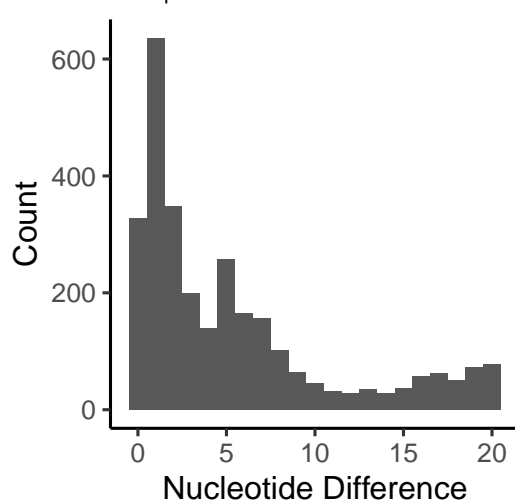
IGHV4-39*07

442 sequences assigned
23 (5.2%) exact matches, in which:
23 unique CDR3
6 unique J



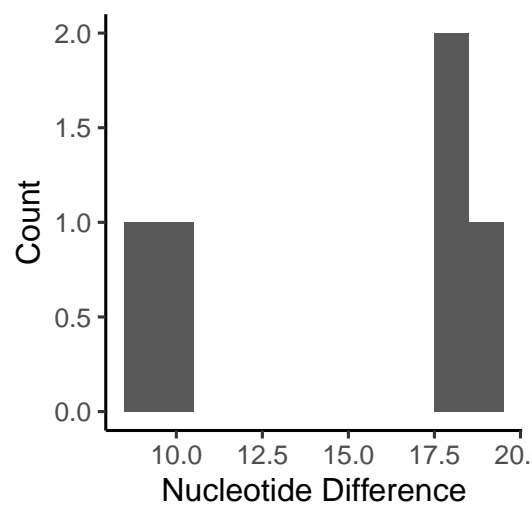
IGHV4-59*12

4030 sequences assigned
328 (8.1%) exact matches, in which:
327 unique CDR3
7 unique J



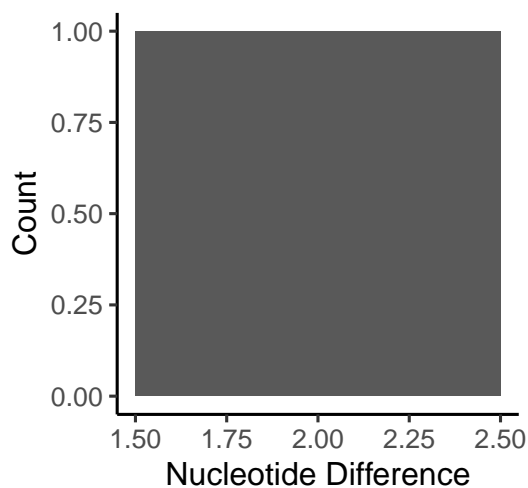
IGHV1/OR15-2*02_03

6 sequences assigned
No exact matches.



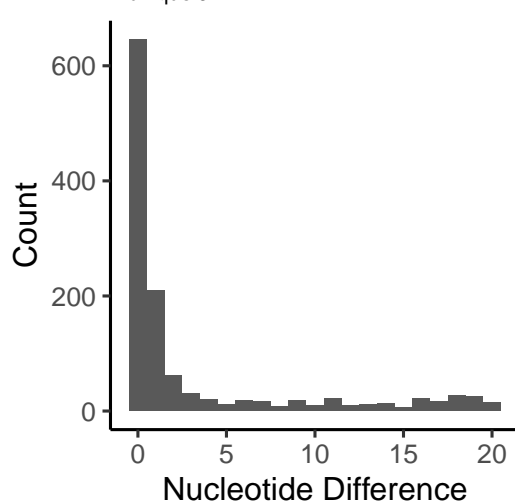
IGHV4-55*09

1 sequences assigned
No exact matches.



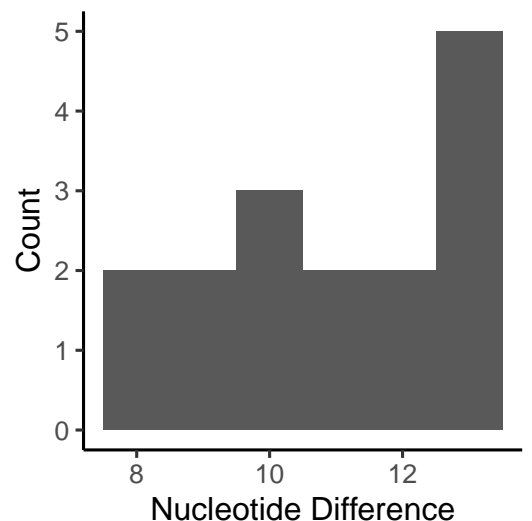
IGHV4-61*01

1418 sequences assigned
646 (45.6%) exact matches, in which:
637 unique CDR3
7 unique J



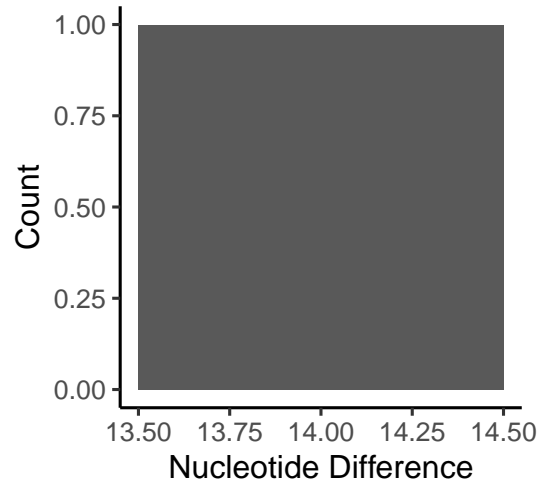
IGHV1/OR15-3*02

16 sequences assigned
No exact matches.



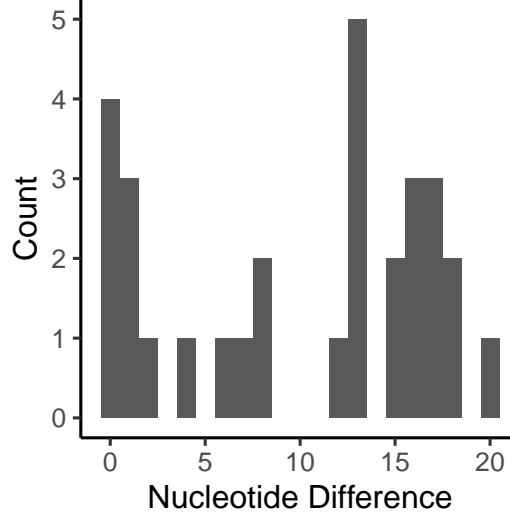
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



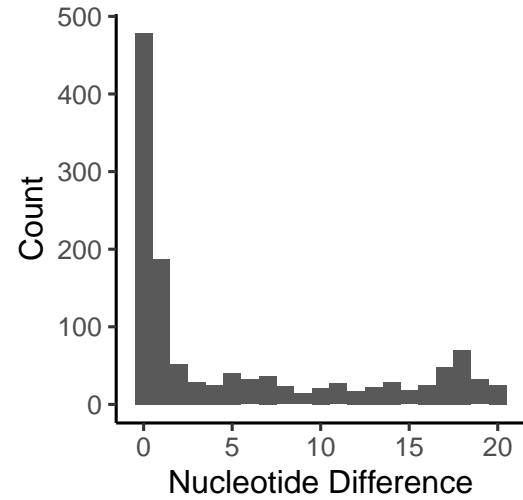
IGHV5-51*04

35 sequences assigned
4 (11.4%) exact matches, in which:
4 unique CDR3
3 unique J



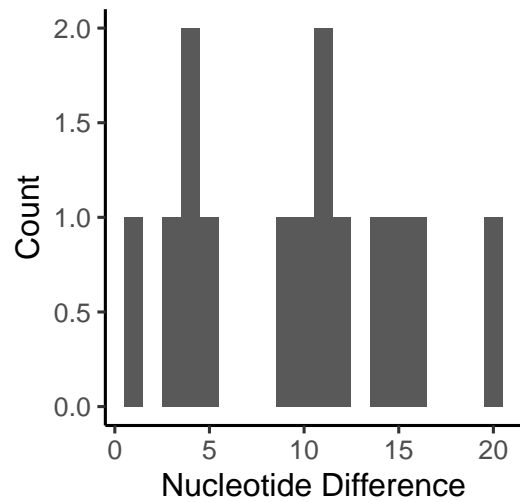
IGHV6-1*01_02

1726 sequences assigned
479 (27.8%) exact matches, in which:
469 unique CDR3
7 unique J



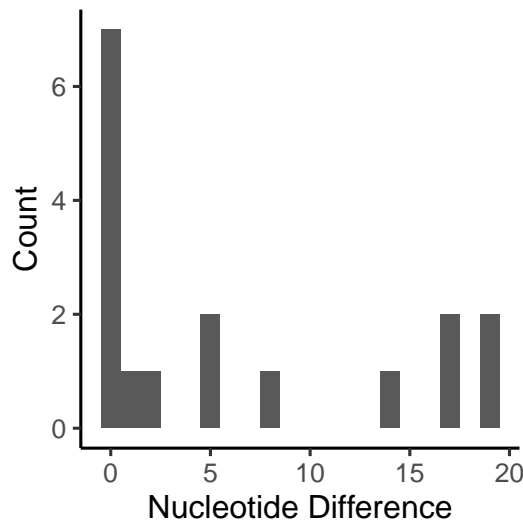
IGHV4/OR15-8*01

18 sequences assigned
No exact matches.



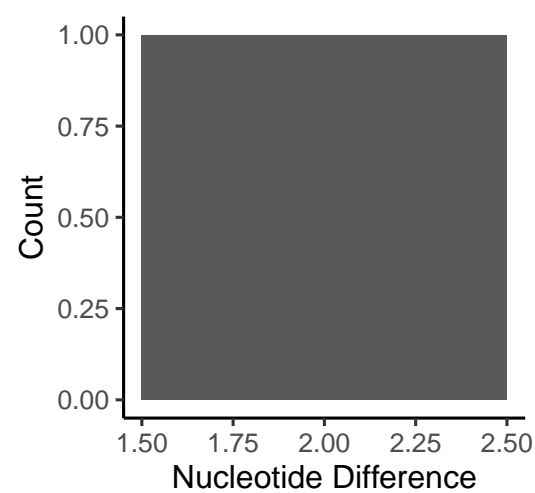
IGHV5-51*06

21 sequences assigned
7 (33.3%) exact matches, in which:
7 unique CDR3
3 unique J



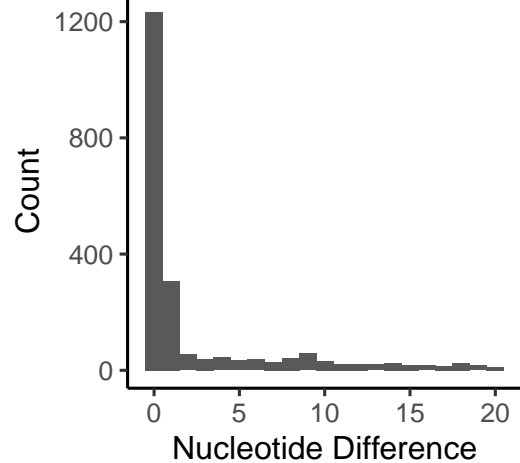
IGHV3/OR16-10*01_03

2 sequences assigned
No exact matches.



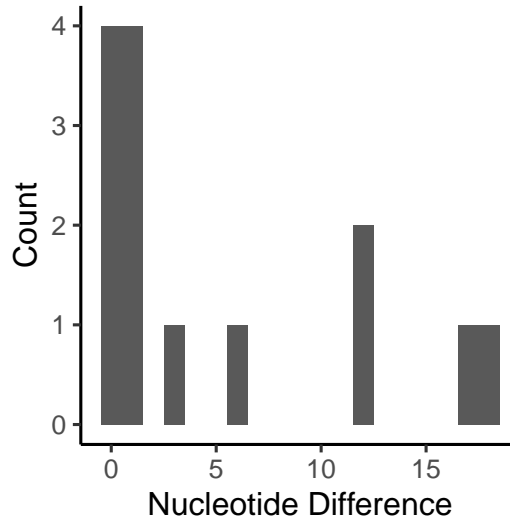
IGHV5-10-1*01_03

2180 sequences assigned
1233 (56.6%) exact matches, in which:
1108 unique CDR3
7 unique J



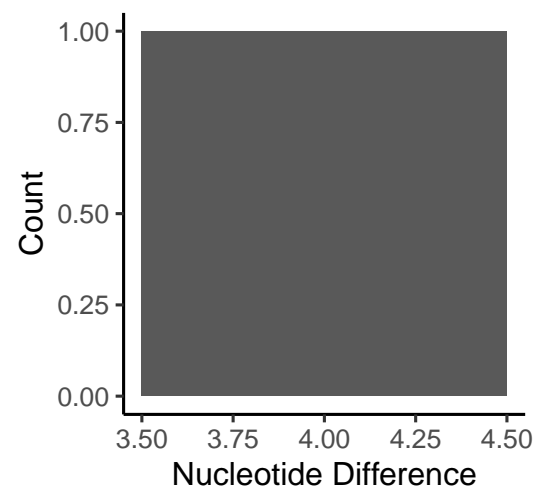
IGHV5-51*07

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



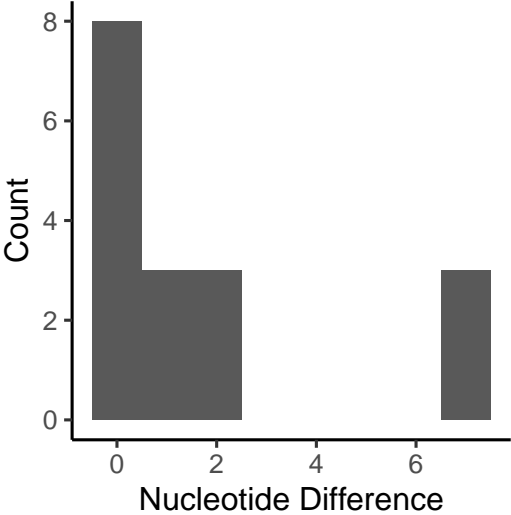
IGHV3/OR16-12*01

1 sequences assigned
No exact matches.



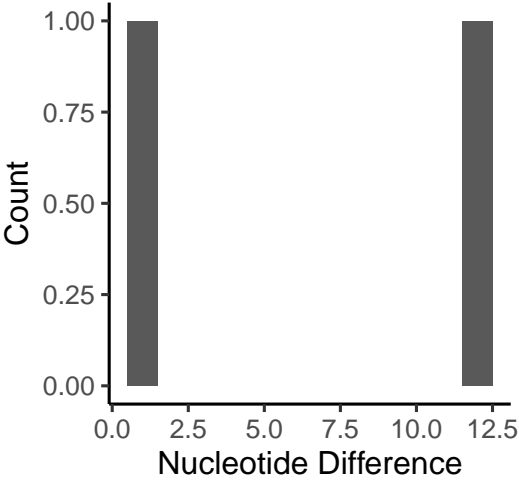
IGHV7-4-1*01

19 sequences assigned
8 (42.1%) exact matches, in which:
7 unique CDR3
3 unique J

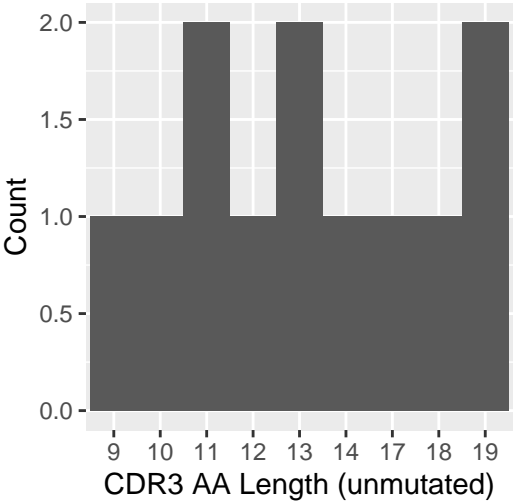


IGHV7-4-1*02

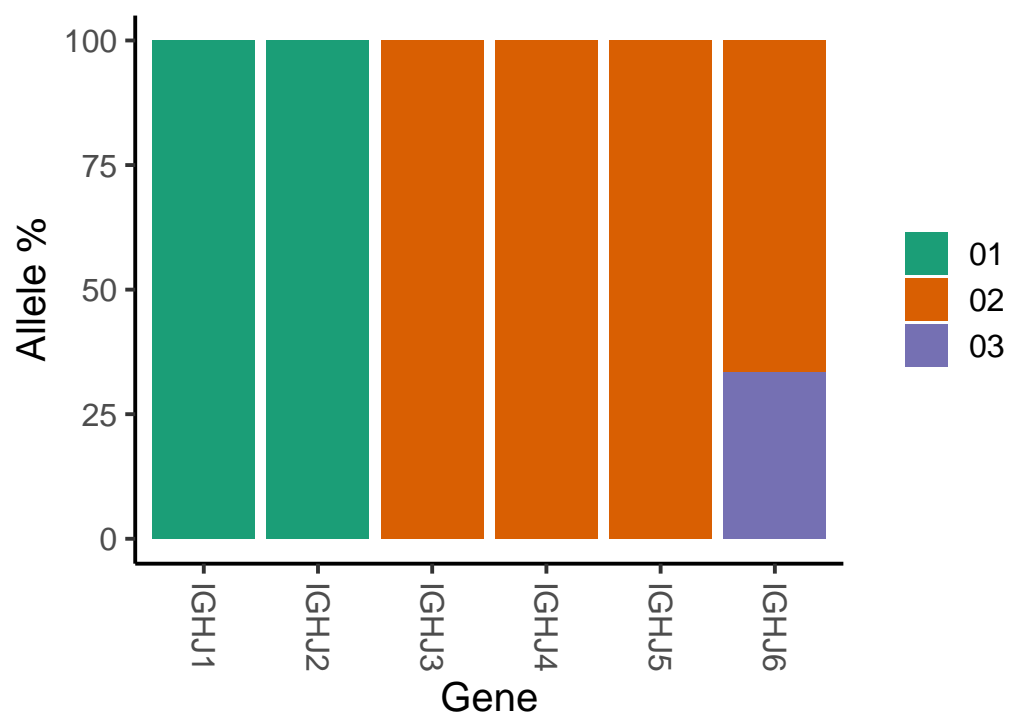
4 sequences assigned
No exact matches.



IGHV3-66*02_G88T_C90T_T105C_A109T_C111T_T112G_A113C_T267G



Allele Usage



Sequence Count by IGHJ6 allele usage

