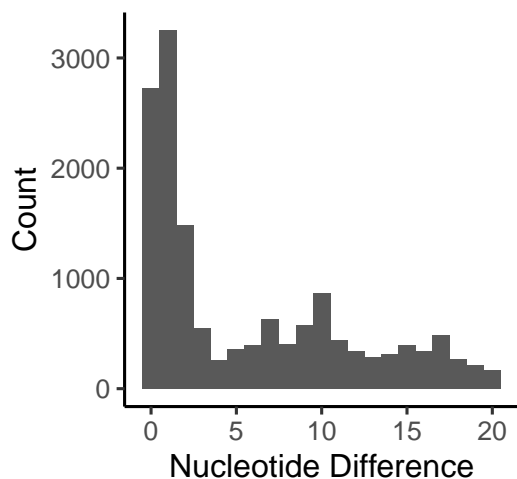


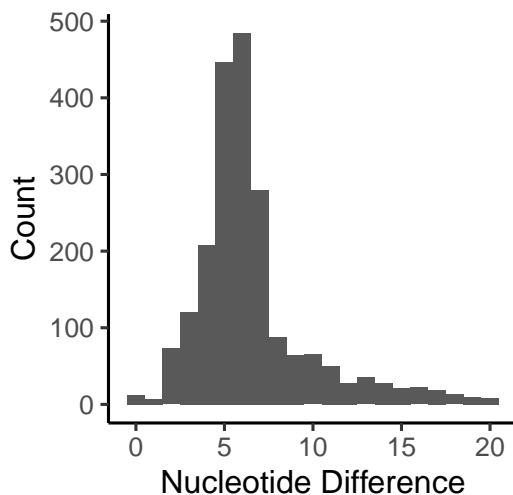
IGHV1-2*02

16320 sequences assigned
2728 (16.7%) exact matches, in which:
2243 unique CDR3
6 unique J



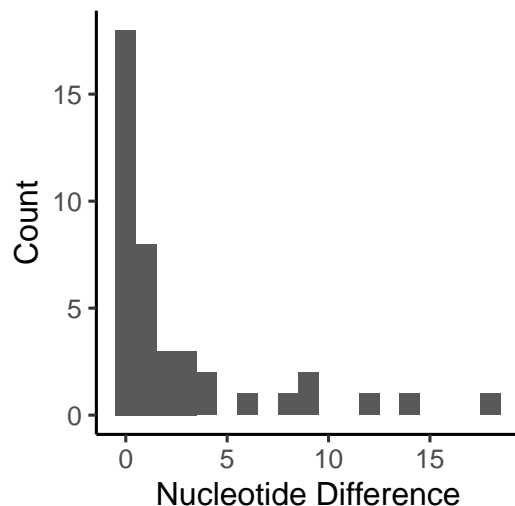
IGHV1-8*02

2148 sequences assigned
12 (0.6%) exact matches, in which:
12 unique CDR3
4 unique J



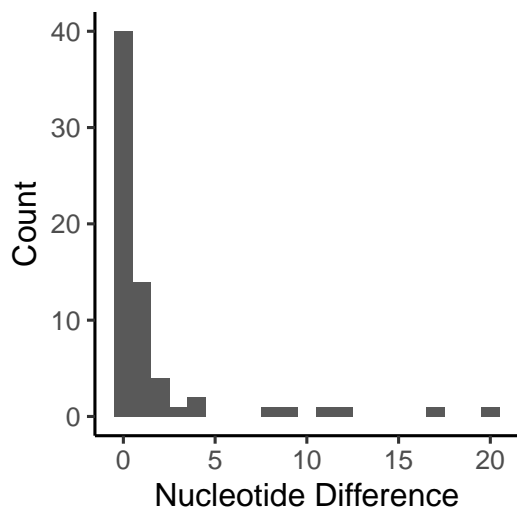
IGHV1-45*02

52 sequences assigned
18 (34.6%) exact matches, in which:
15 unique CDR3
4 unique J



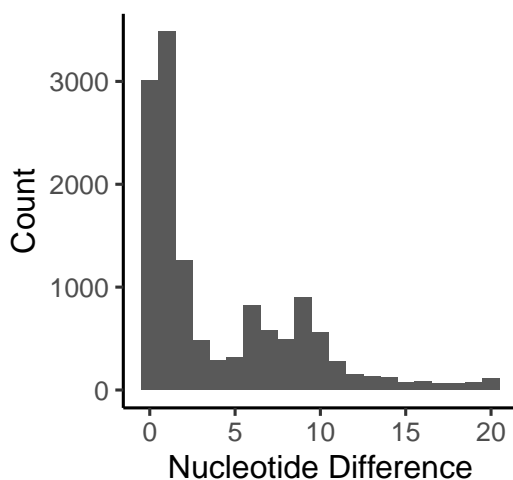
IGHV1-3*02

67 sequences assigned
40 (59.7%) exact matches, in which:
40 unique CDR3
5 unique J



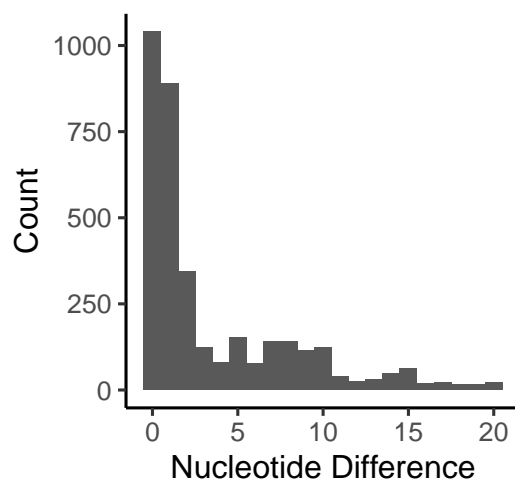
IGHV1-18*01

13851 sequences assigned
3011 (21.7%) exact matches, in which:
2458 unique CDR3
6 unique J



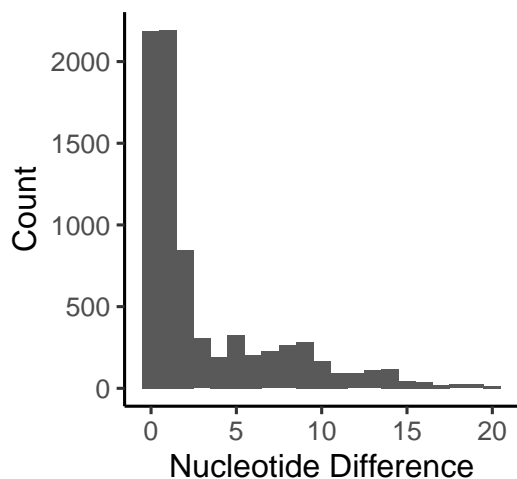
IGHV1-46*01

3640 sequences assigned
1040 (28.6%) exact matches, in which:
932 unique CDR3
6 unique J



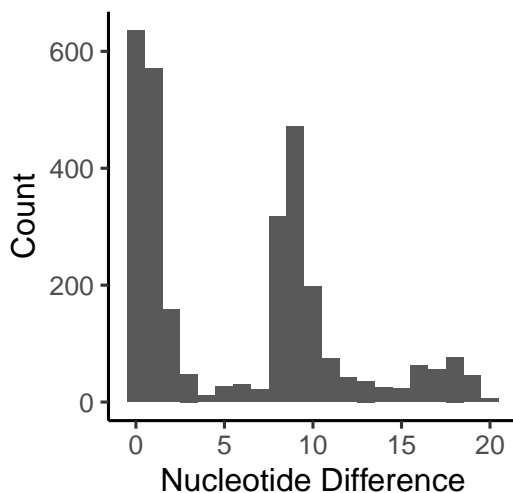
IGHV1-8*01

8477 sequences assigned
2187 (25.8%) exact matches, in which:
1863 unique CDR3
6 unique J



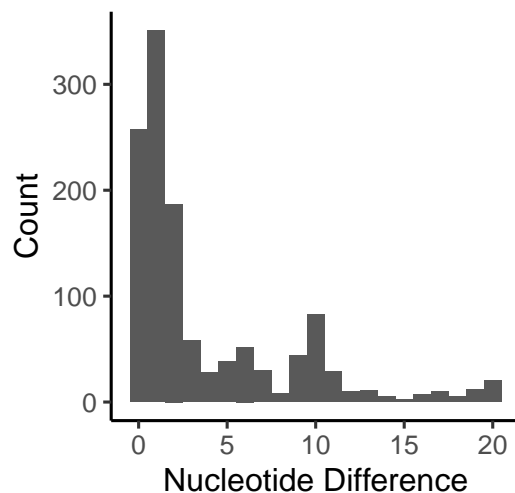
IGHV1-24*01

2972 sequences assigned
636 (21.4%) exact matches, in which:
550 unique CDR3
6 unique J



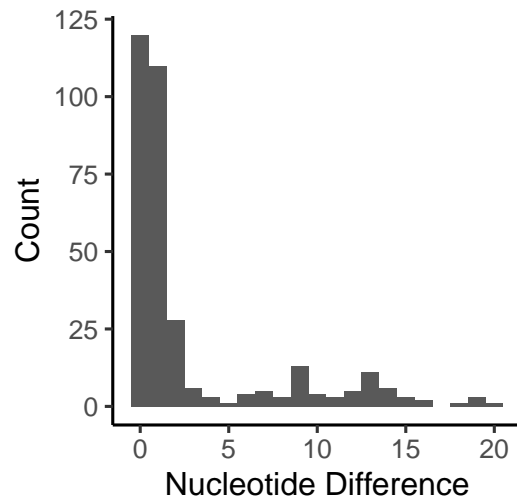
IGHV1-46*03

1804 sequences assigned
257 (14.2%) exact matches, in which:
194 unique CDR3
6 unique J



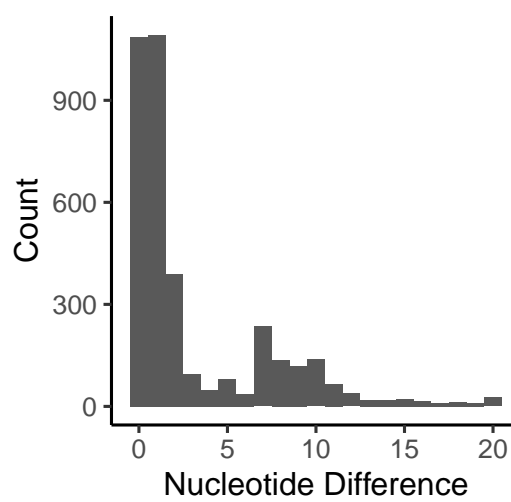
IGHV1-58*02

344 sequences assigned
120 (34.9%) exact matches, in which:
104 unique CDR3
5 unique J



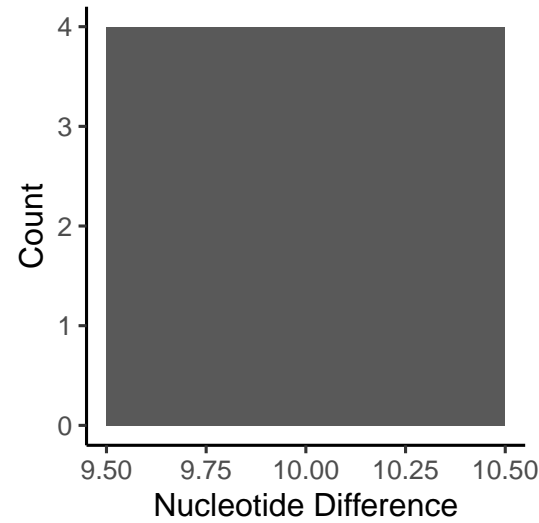
IGHV1-69*02

3793 sequences assigned
1087 (28.7%) exact matches, in which:
976 unique CDR3
6 unique J



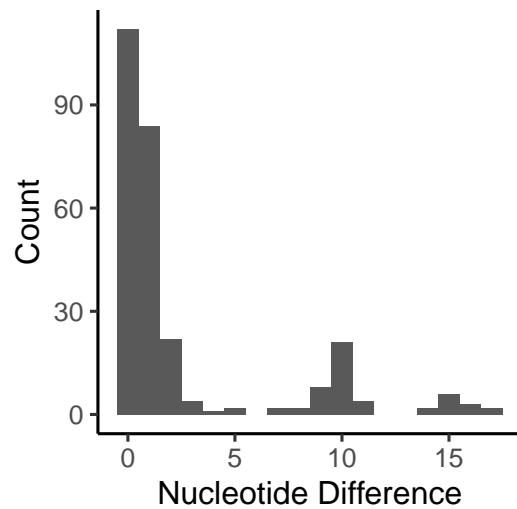
IGHV1-NL1*01

4 sequences assigned
No exact matches.



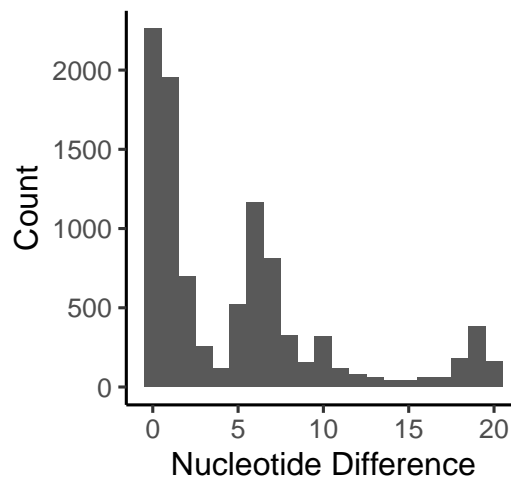
IGHV1-58*01_03

289 sequences assigned
112 (38.8%) exact matches, in which:
106 unique CDR3
5 unique J



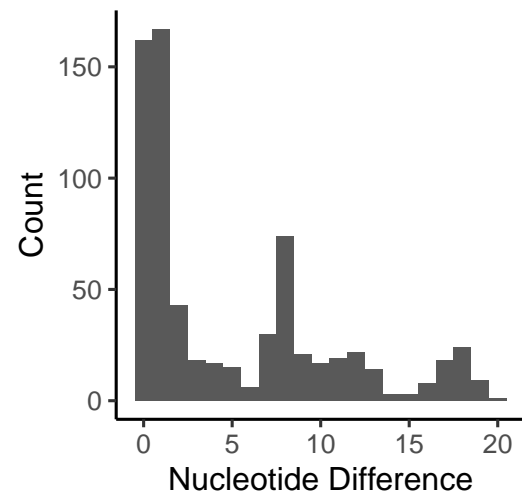
IGHV1-69*01_12_13

9999 sequences assigned
2261 (22.6%) exact matches, in which:
2021 unique CDR3
6 unique J



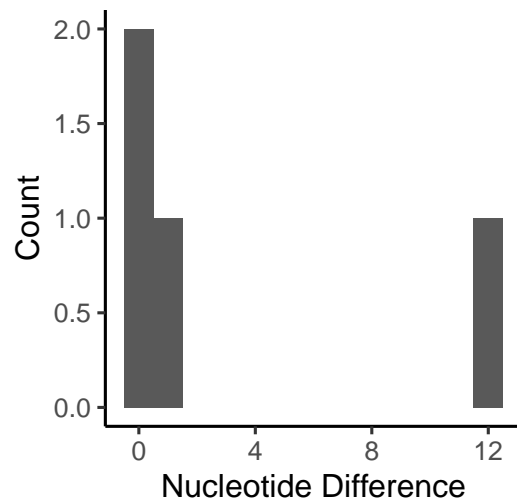
IGHV2-5*01

729 sequences assigned
162 (22.2%) exact matches, in which:
137 unique CDR3
5 unique J



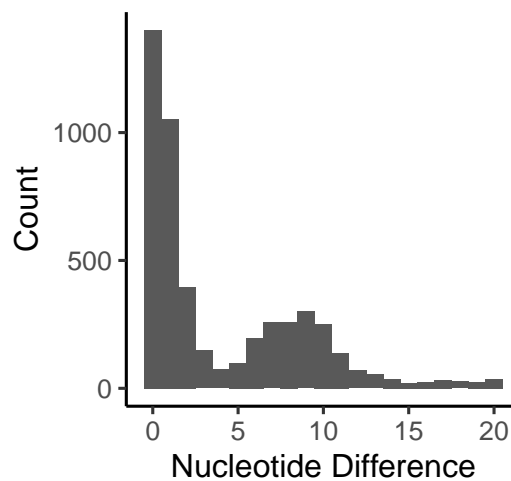
IGHV1-69-2*01

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



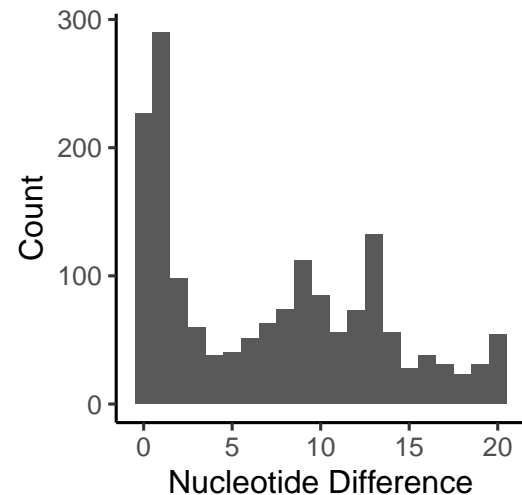
IGHV1-69*06_14

5019 sequences assigned
1401 (27.9%) exact matches, in which:
1268 unique CDR3
6 unique J



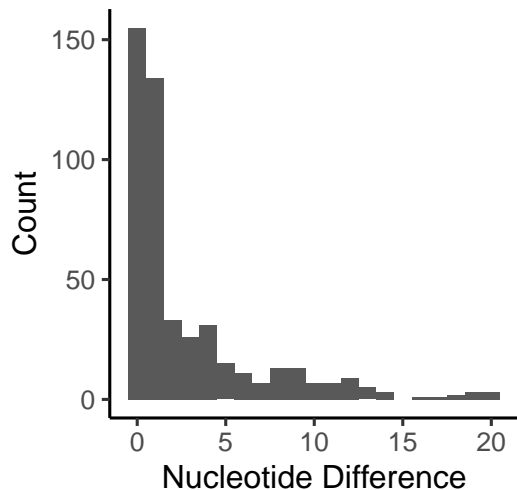
IGHV2-5*02

2831 sequences assigned
227 (8%) exact matches, in which:
174 unique CDR3
5 unique J



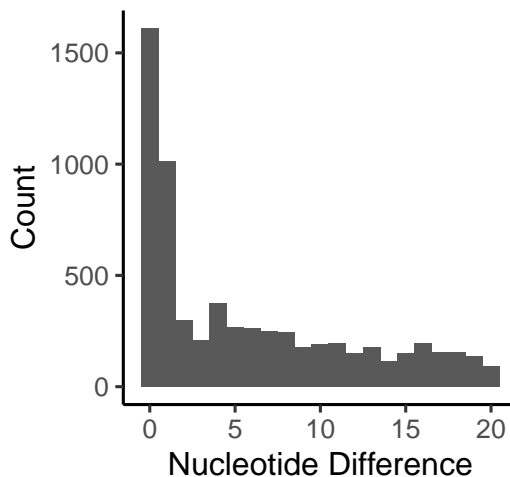
IGHV2-26*01

492 sequences assigned
155 (31.5%) exact matches, in which:
121 unique CDR3
6 unique J



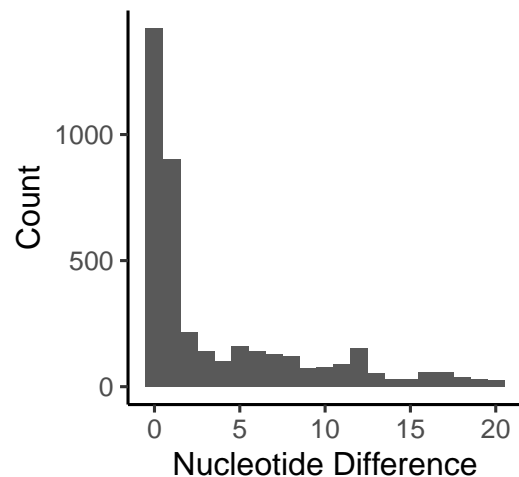
IGHV3-7*01

6879 sequences assigned
1610 (23.4%) exact matches, in which:
1122 unique CDR3
6 unique J



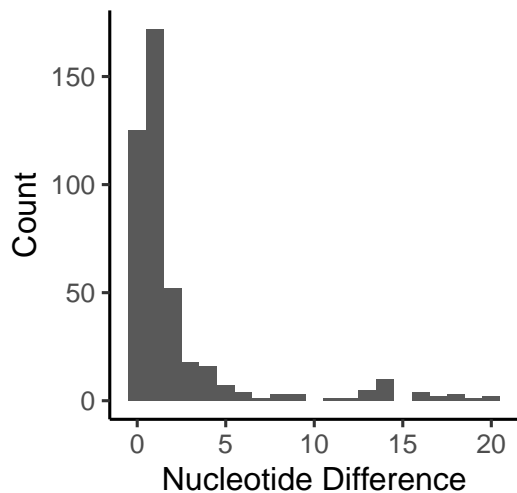
IGHV3-11*01

4997 sequences assigned
1421 (28.4%) exact matches, in which:
953 unique CDR3
6 unique J



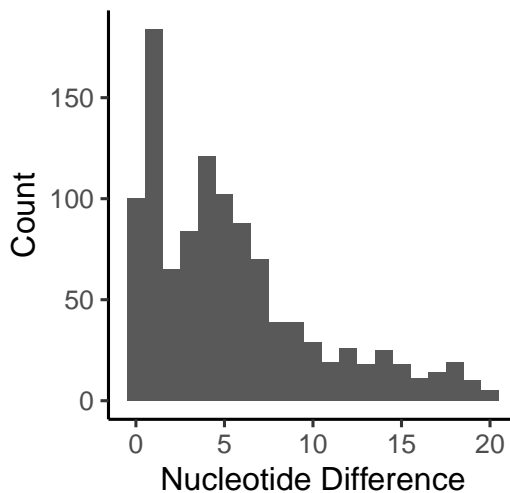
IGHV2-70*01

436 sequences assigned
125 (28.7%) exact matches, in which:
100 unique CDR3
5 unique J



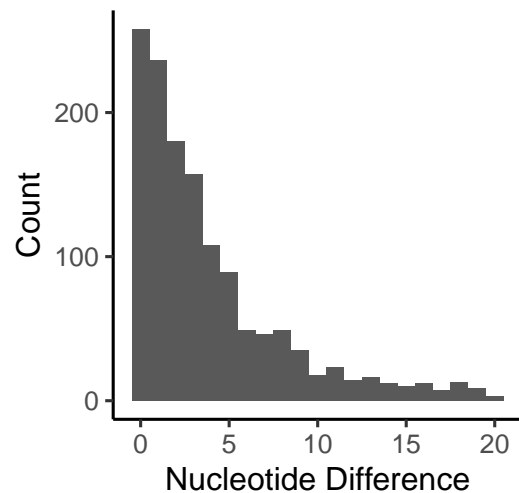
IGHV3-7*03

1159 sequences assigned
100 (8.6%) exact matches, in which:
97 unique CDR3
6 unique J



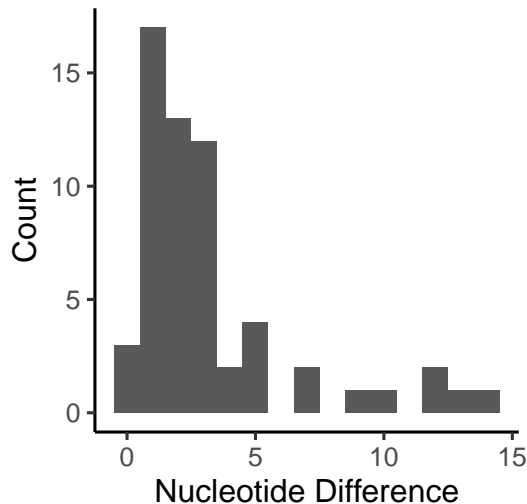
IGHV3-11*04

1432 sequences assigned
258 (18%) exact matches, in which:
243 unique CDR3
6 unique J



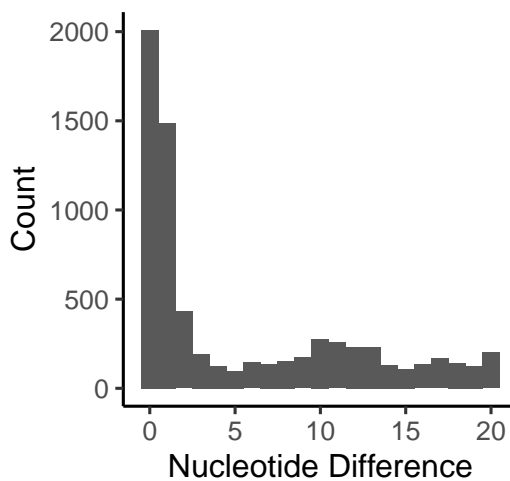
IGHV2-70*12

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



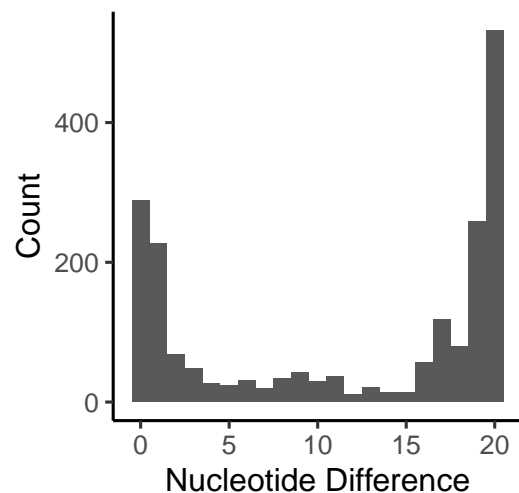
IGHV3-9*01

8647 sequences assigned
2009 (23.2%) exact matches, in which:
1170 unique CDR3
6 unique J



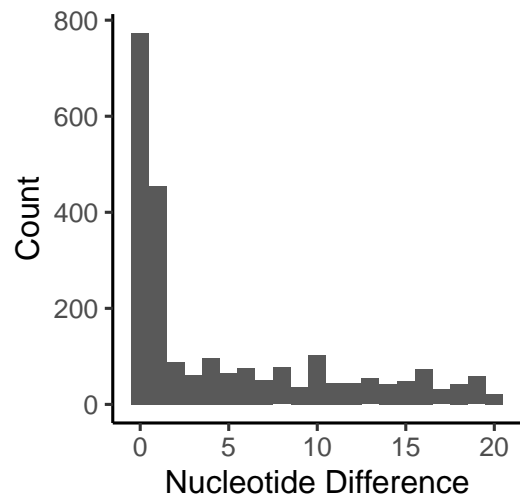
IGHV3-13*01

2568 sequences assigned
288 (11.2%) exact matches, in which:
189 unique CDR3
6 unique J



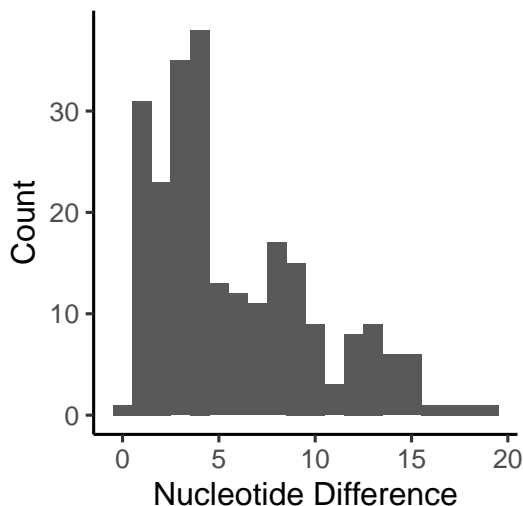
IGHV3-15*01_02

3700 sequences assigned
774 (20.9%) exact matches, in which:
457 unique CDR3
6 unique J



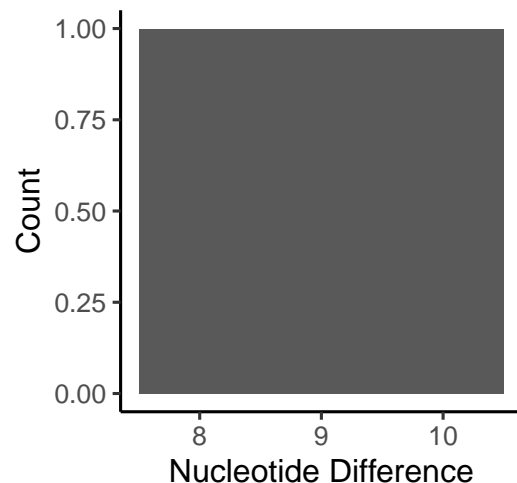
IGHV3-20*03_04

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



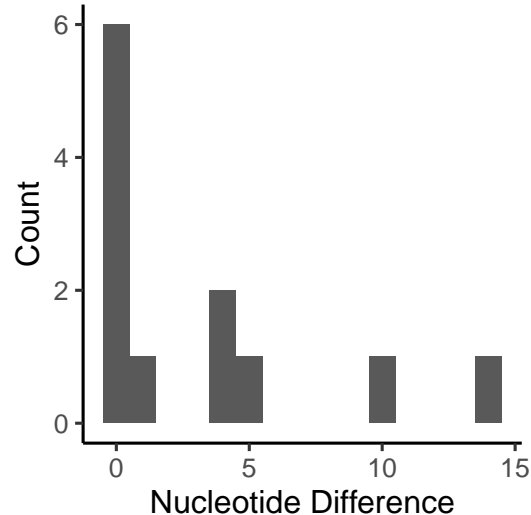
IGHV3-22*01_02

3 sequences assigned
No exact matches.



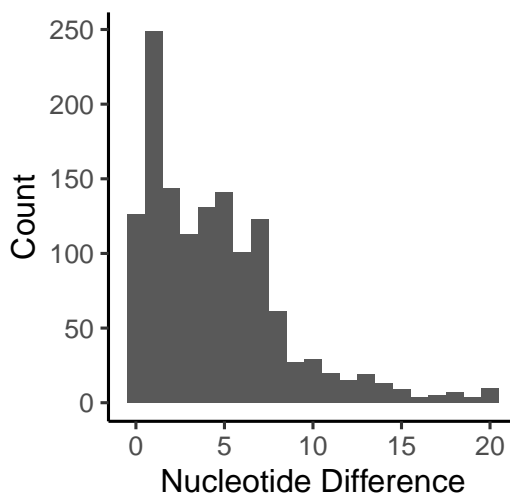
IGHV3-19*01

12 sequences assigned
6 (50%) exact matches, in which:
6 unique CDR3
3 unique J



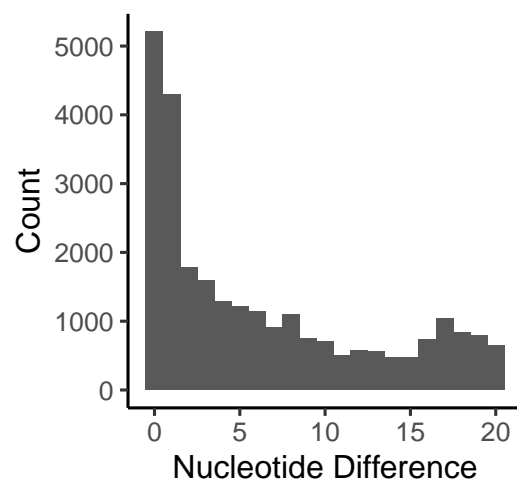
IGHV3-21*04

1435 sequences assigned
126 (8.8%) exact matches, in which:
116 unique CDR3
5 unique J



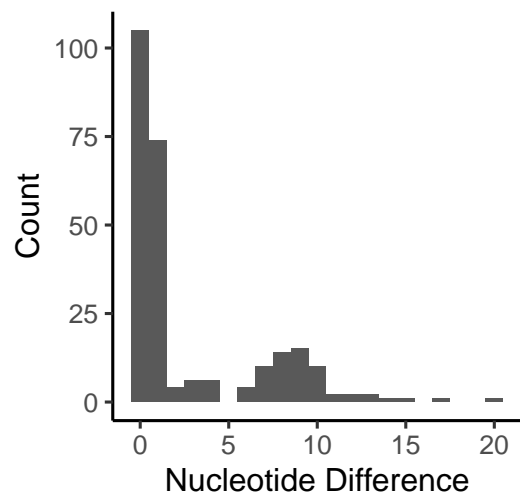
IGHV3-23*01_04

34351 sequences assigned
5208 (15.2%) exact matches, in which:
2963 unique CDR3
6 unique J



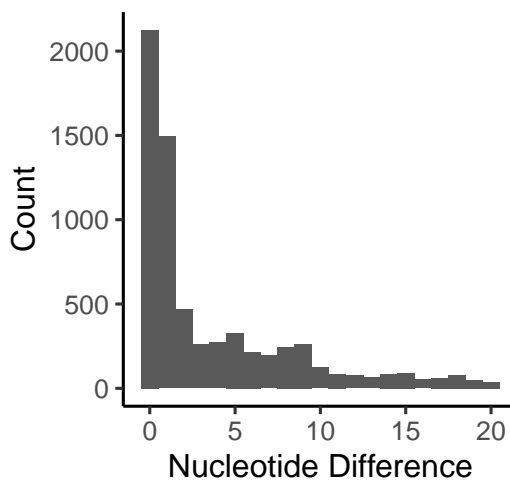
IGHV3-20*01_02

258 sequences assigned
105 (40.7%) exact matches, in which:
64 unique CDR3
5 unique J



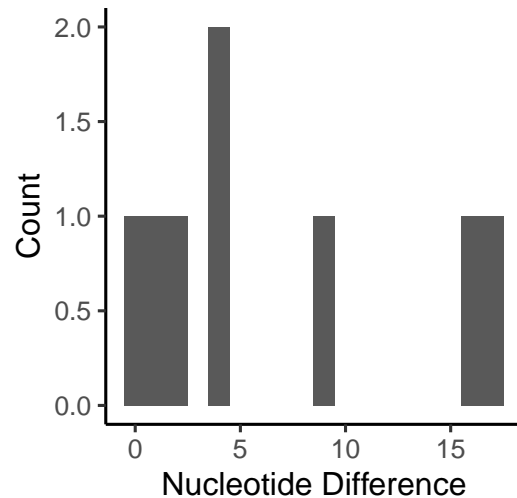
IGHV3-21*01_02

7630 sequences assigned
2125 (27.9%) exact matches, in which:
1368 unique CDR3
6 unique J



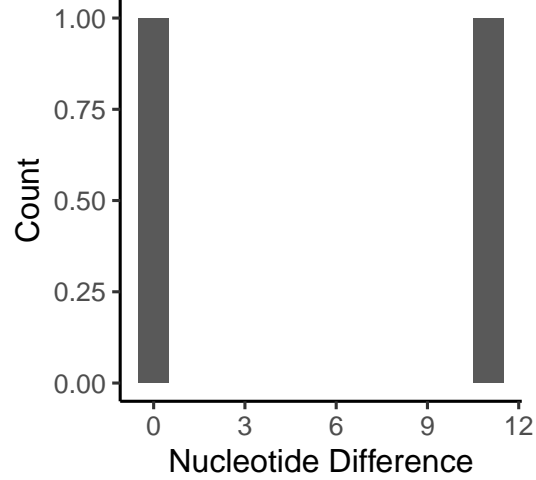
IGHV3-30-3*01

36 sequences assigned
1 (2.8%) exact matches, in which:
1 unique CDR3
1 unique J



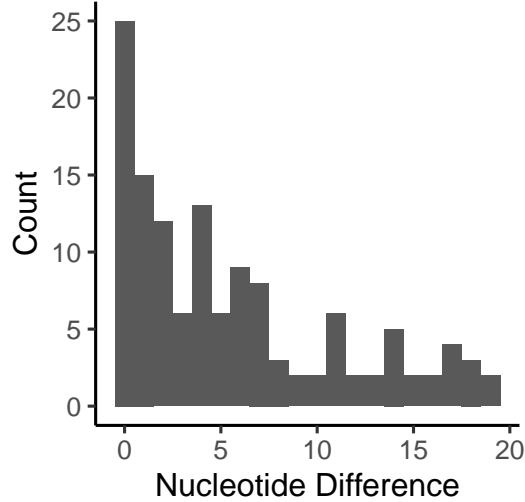
IGHV3-30-3*02

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



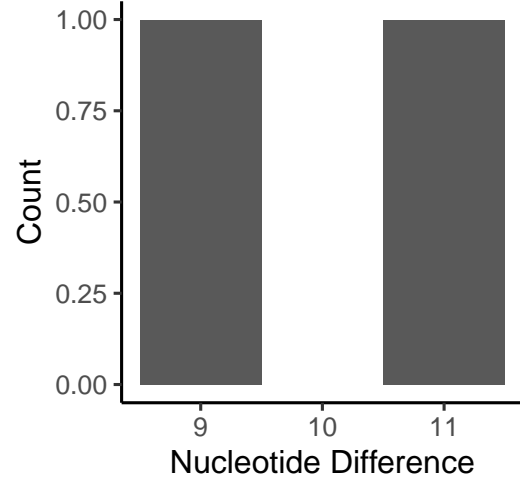
IGHV3-33*05

136 sequences assigned
25 (18.4%) exact matches, in which:
25 unique CDR3
4 unique J



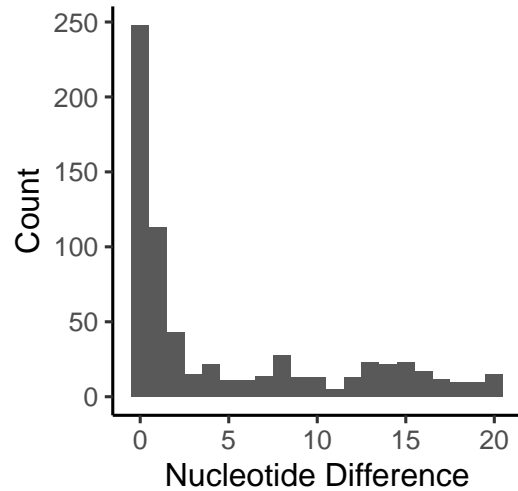
IGHV3-35*01

2 sequences assigned
No exact matches.



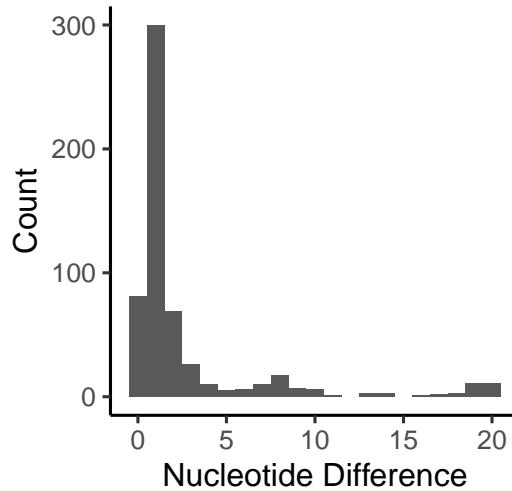
IGHV3-30*03

712 sequences assigned
248 (34.8%) exact matches, in which:
232 unique CDR3
5 unique J



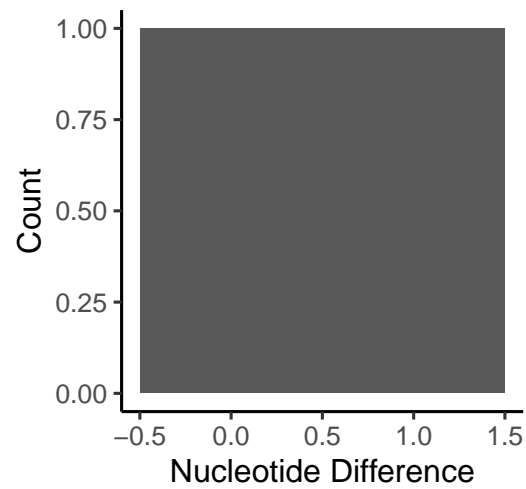
IGHV3-33*06

578 sequences assigned
81 (14%) exact matches, in which:
78 unique CDR3
6 unique J



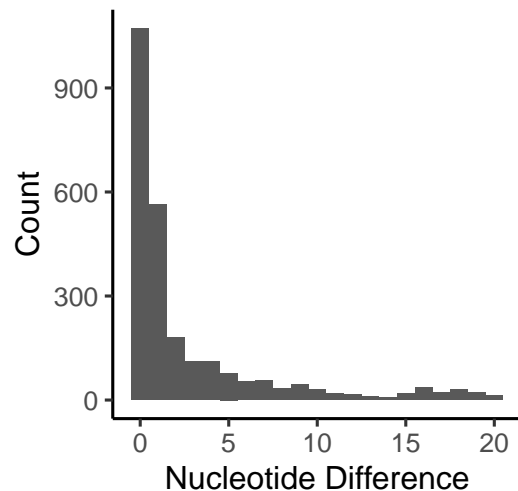
IGHV3-35*02

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



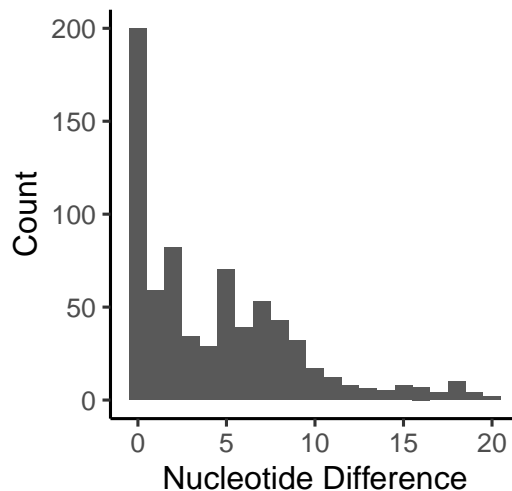
IGHV3-33*01

2631 sequences assigned
1072 (40.7%) exact matches, in which:
720 unique CDR3
6 unique J



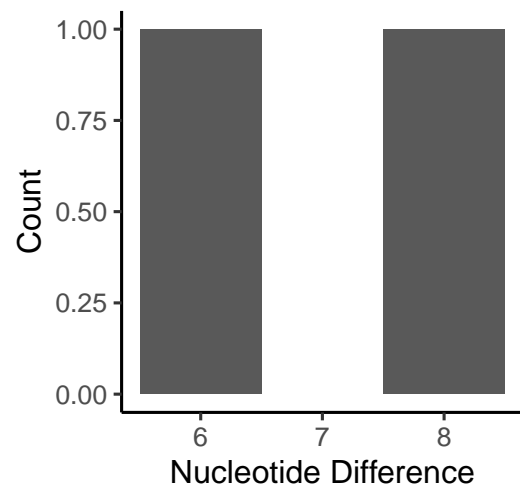
IGHV3-33*08

764 sequences assigned
200 (26.2%) exact matches, in which:
174 unique CDR3
6 unique J



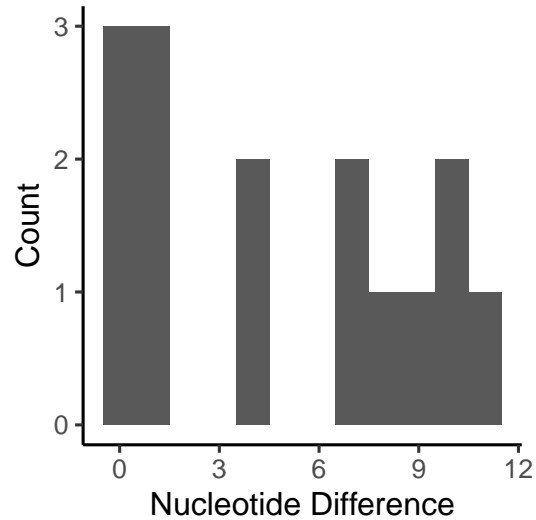
IGHV3-38-3*01

2 sequences assigned
No exact matches.



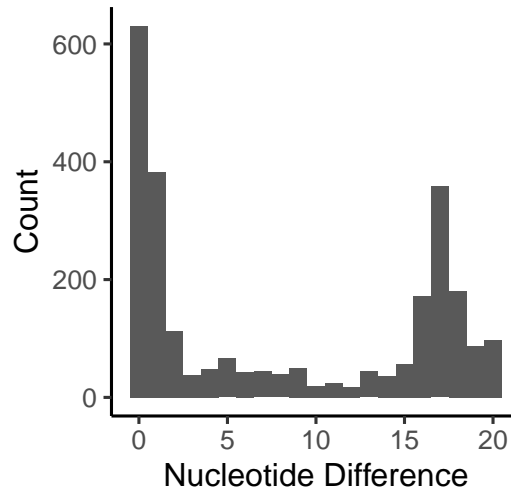
IGHV3-38*02

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



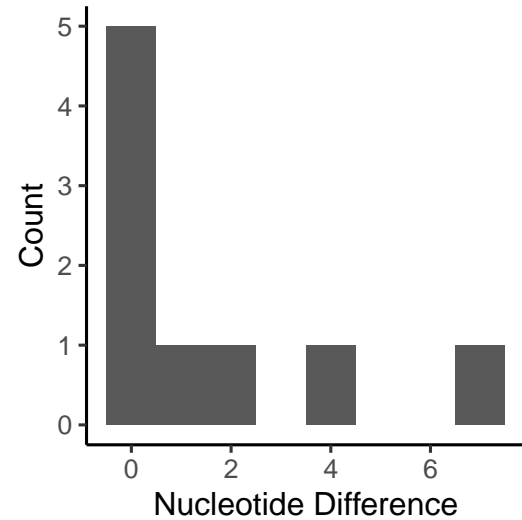
IGHV3-48*02

3194 sequences assigned
631 (19.8%) exact matches, in which:
418 unique CDR3
6 unique J



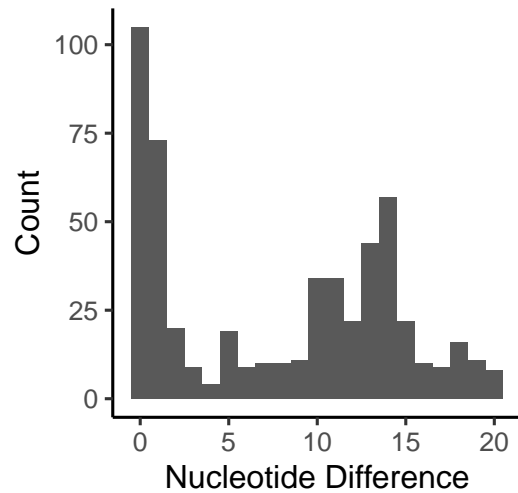
IGHV3-52*02

9 sequences assigned
5 (55.6%) exact matches, in which:
4 unique CDR3
2 unique J



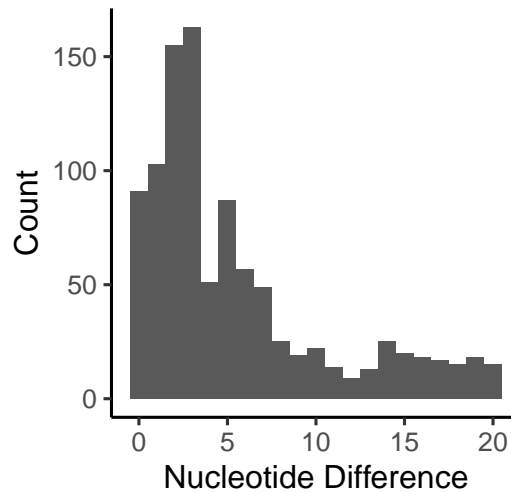
IGHV3-43*01

618 sequences assigned
105 (17%) exact matches, in which:
62 unique CDR3
4 unique J



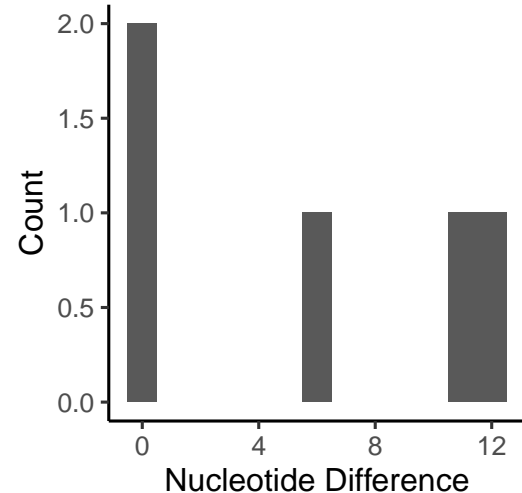
IGHV3-48*04

1237 sequences assigned
91 (7.4%) exact matches, in which:
85 unique CDR3
5 unique J



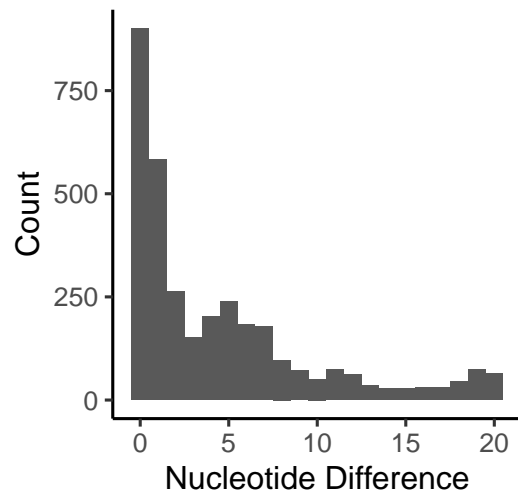
IGHV3-52*01_03

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



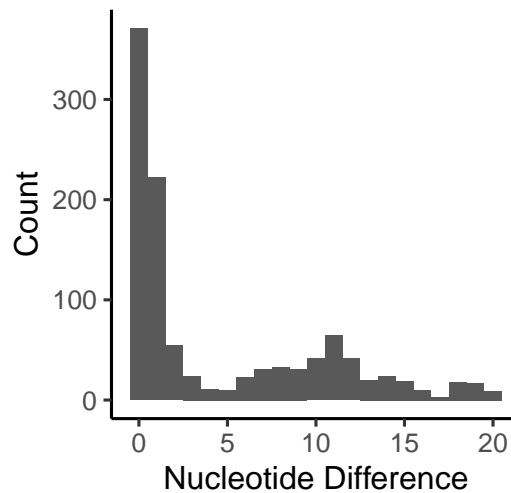
IGHV3-48*01

3588 sequences assigned
901 (25.1%) exact matches, in which:
621 unique CDR3
6 unique J



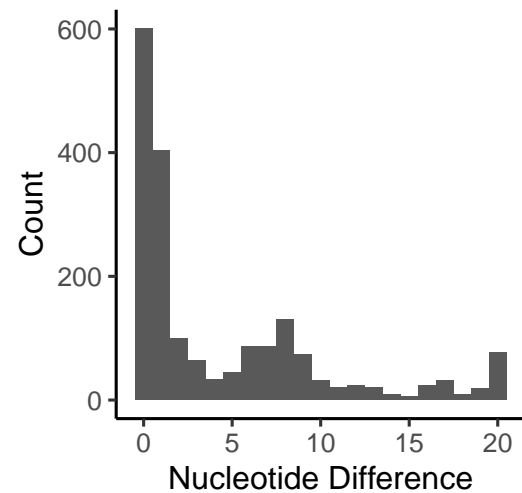
IGHV3-49*03_05

2445 sequences assigned
371 (15.2%) exact matches, in which:
229 unique CDR3
6 unique J



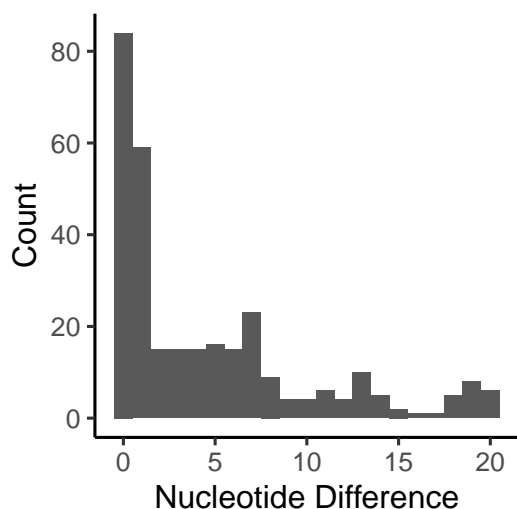
IGHV3-53*01_02

2636 sequences assigned
601 (22.8%) exact matches, in which:
399 unique CDR3
6 unique J



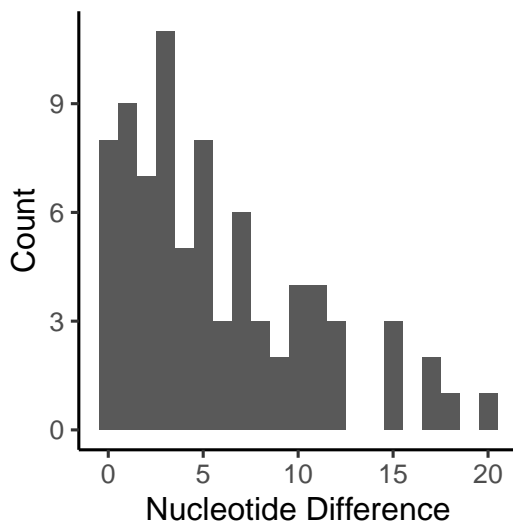
IGHV3-64*01

316 sequences assigned
84 (26.6%) exact matches, in which:
59 unique CDR3
6 unique J



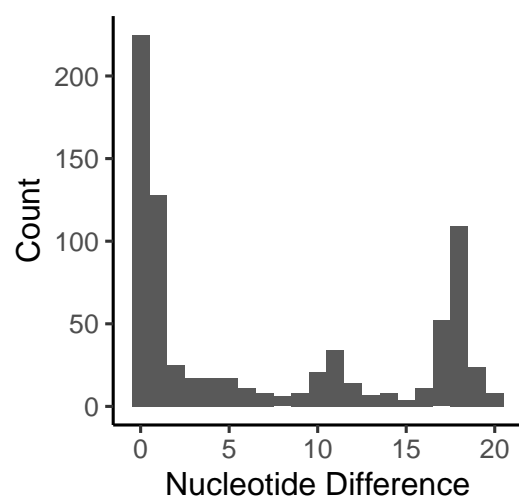
IGHV3-69-1*01

91 sequences assigned
8 (8.8%) exact matches, in which:
8 unique CDR3
5 unique J



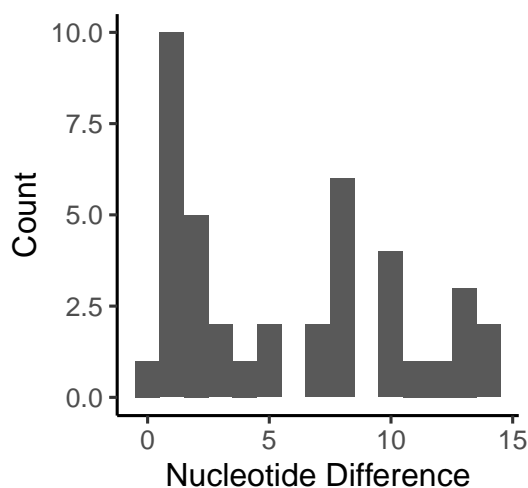
IGHV3-73*01_02

781 sequences assigned
225 (28.8%) exact matches, in which:
139 unique CDR3
6 unique J



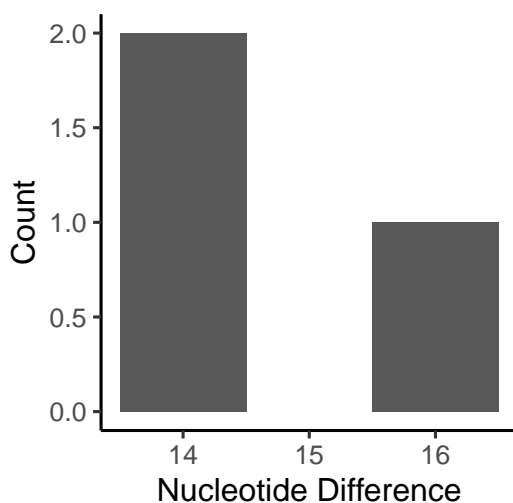
IGHV3-66*01

47 sequences assigned
1 (2.1%) exact matches, in which:
1 unique CDR3
1 unique J



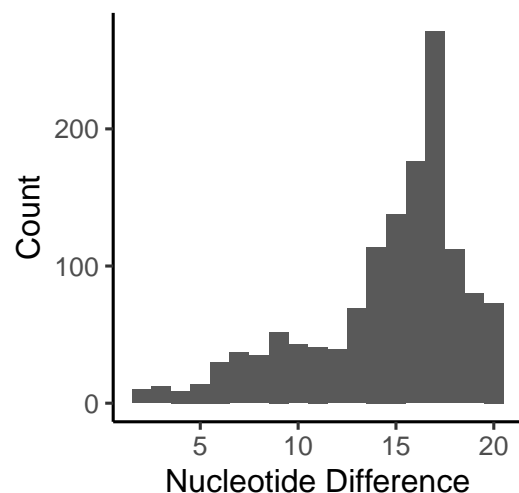
IGHV3-71*01_04

4 sequences assigned
No exact matches.



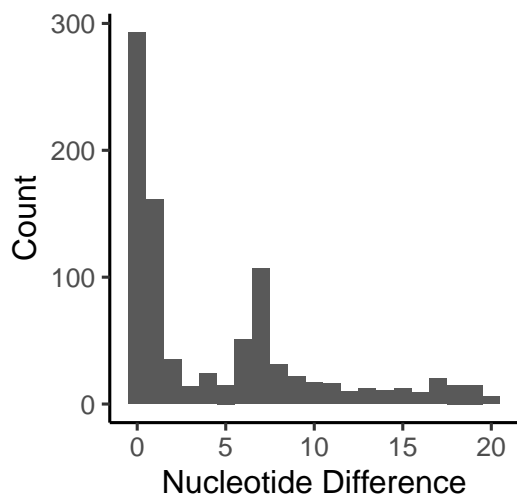
IGHV3-74*03

2290 sequences assigned
No exact matches.



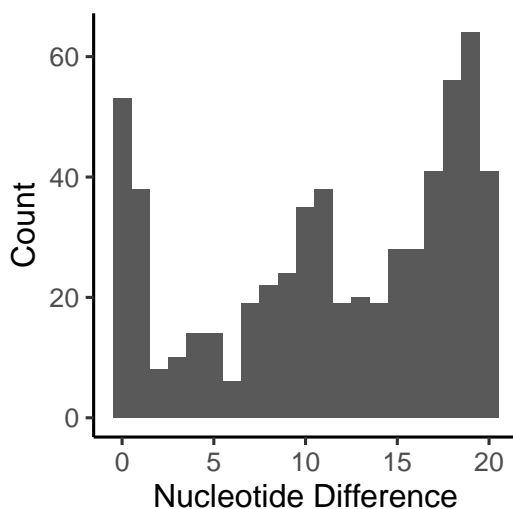
IGHV3-66*02

1021 sequences assigned
293 (28.7%) exact matches, in which:
202 unique CDR3
6 unique J



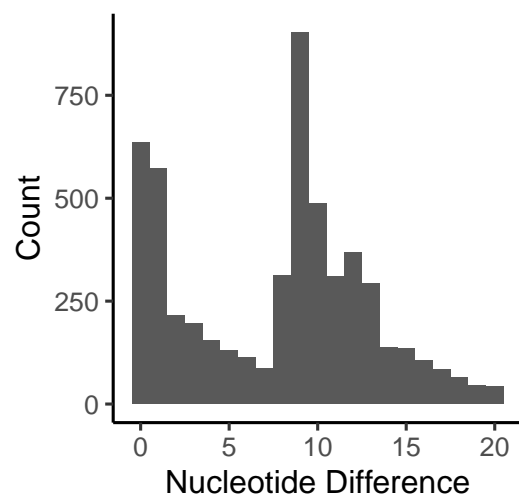
IGHV3-72*01

677 sequences assigned
53 (7.8%) exact matches, in which:
35 unique CDR3
6 unique J



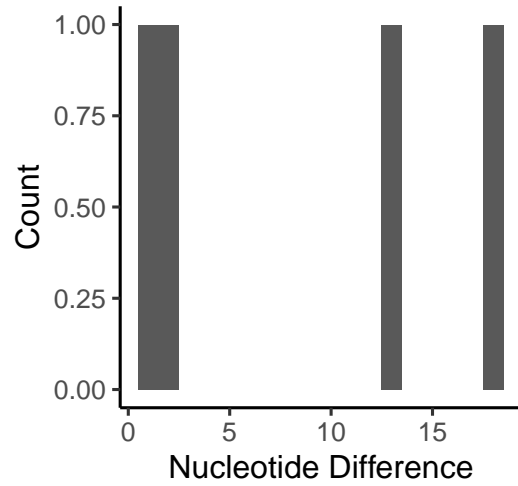
IGHV3-74*01_02

6067 sequences assigned
635 (10.5%) exact matches, in which:
420 unique CDR3
6 unique J



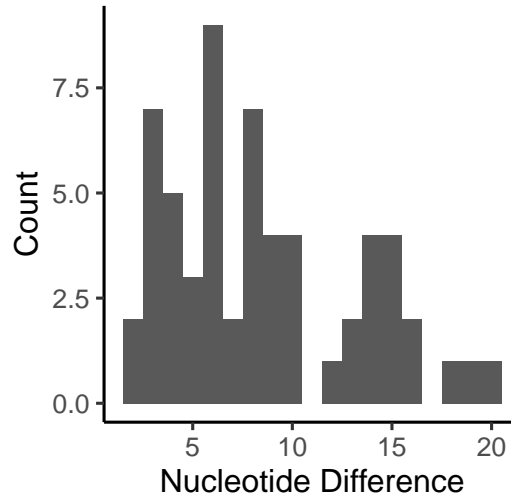
IGHV3-43D*04

6 sequences assigned
No exact matches.



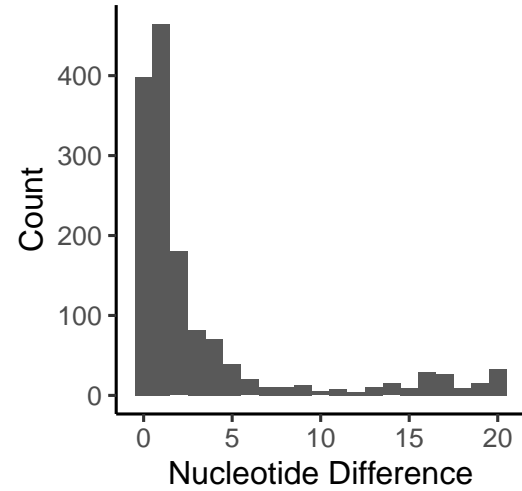
IGHV3-NL1*01

64 sequences assigned
No exact matches.



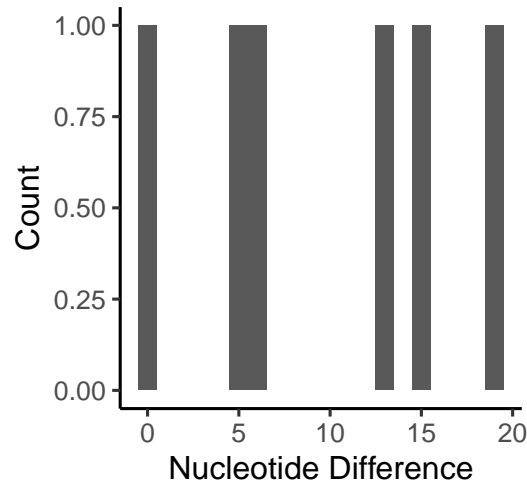
IGHV4-30-2*01

1515 sequences assigned
398 (26.3%) exact matches, in which:
243 unique CDR3
6 unique J



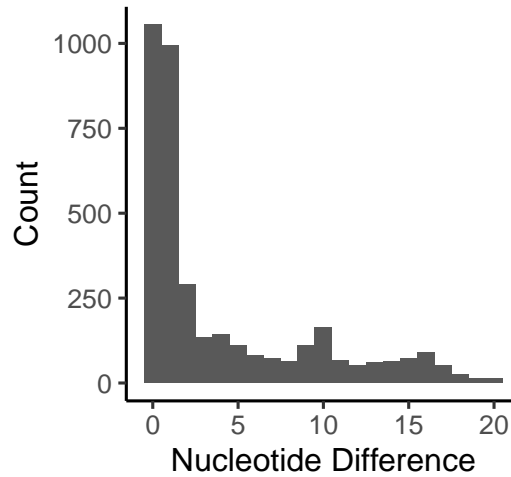
IGHV3-64D*06

15 sequences assigned
1 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J



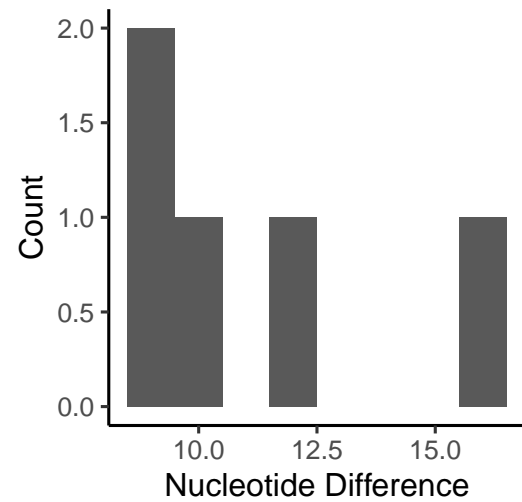
IGHV4-4*07

4197 sequences assigned
1055 (25.1%) exact matches, in which:
882 unique CDR3
6 unique J



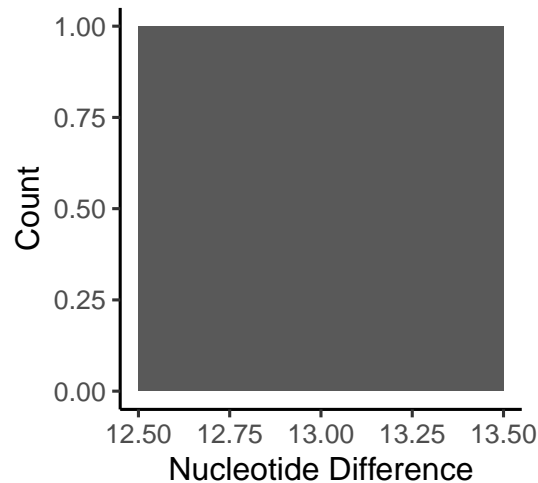
IGHV4-30-4*01

7 sequences assigned
No exact matches.



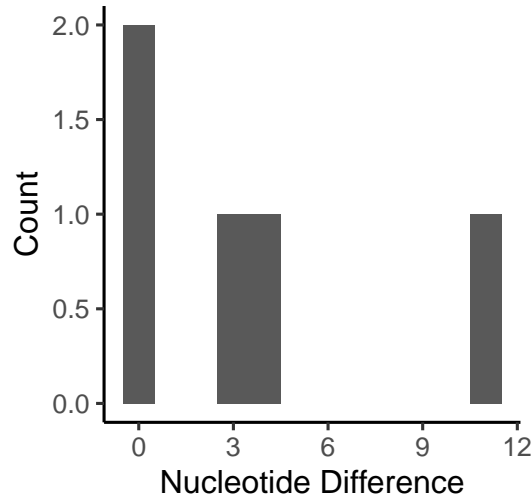
IGHV3-64D*09

1 sequences assigned
No exact matches.



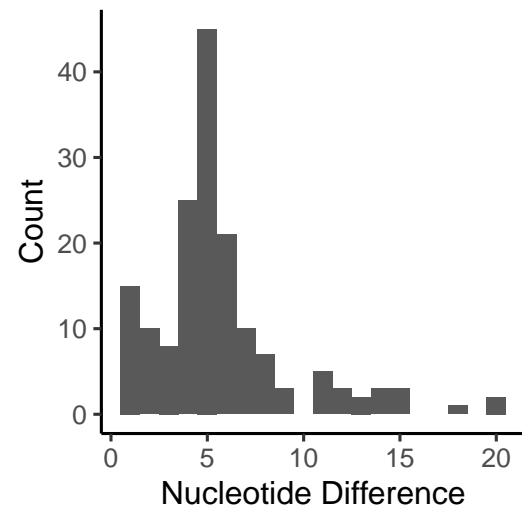
IGHV4-28*03

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



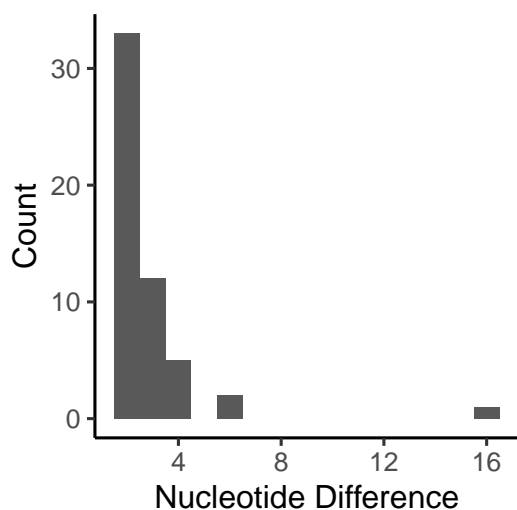
IGHV4-30-2*03

173 sequences assigned
No exact matches.



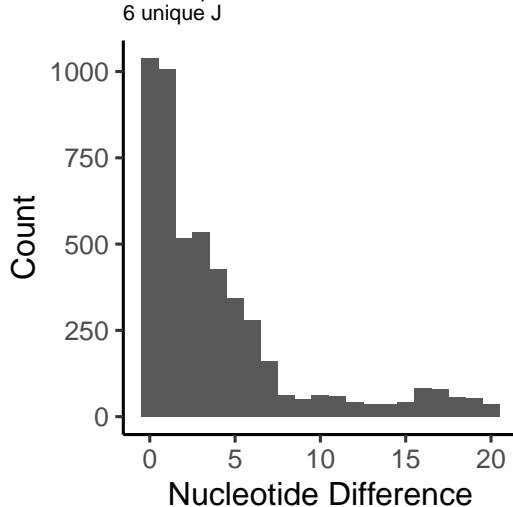
IGHV4-30-2*05

53 sequences assigned
No exact matches.



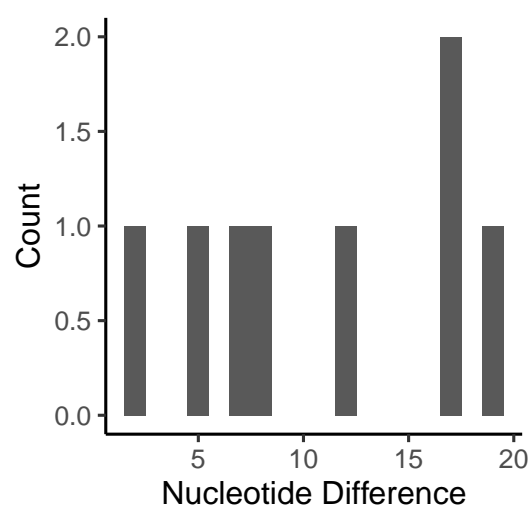
IGHV4-31*02

5525 sequences assigned
1038 (18.8%) exact matches, in which:
867 unique CDR3
6 unique J



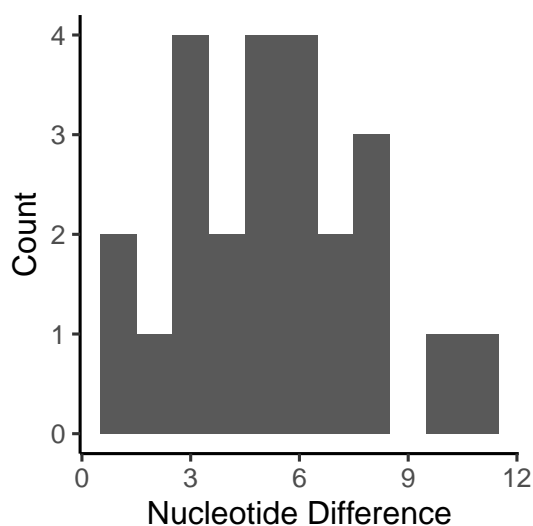
IGHV4-38-2*02

10 sequences assigned
No exact matches.



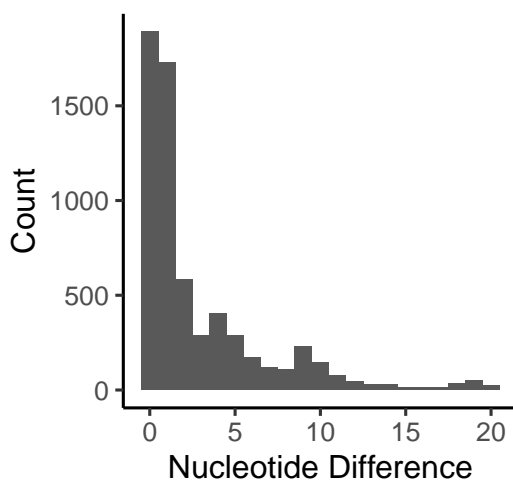
IGHV4-30-4*07

27 sequences assigned
No exact matches.



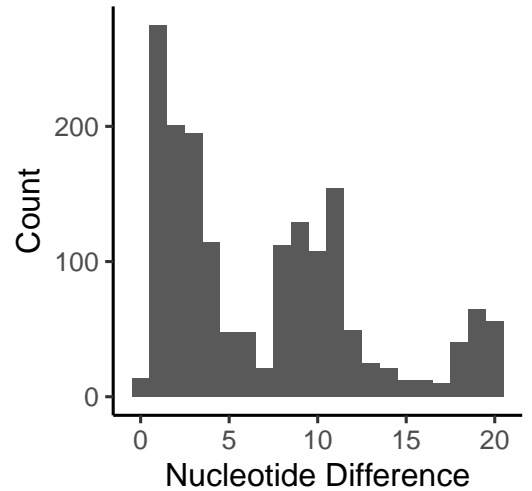
IGHV4-34*01_02

6471 sequences assigned
1891 (29.2%) exact matches, in which:
1411 unique CDR3
6 unique J



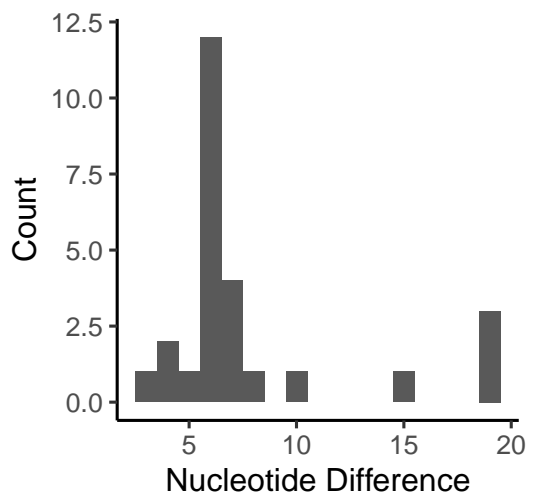
IGHV4-39*07

1859 sequences assigned
14 (0.8%) exact matches, in which:
14 unique CDR3
5 unique J



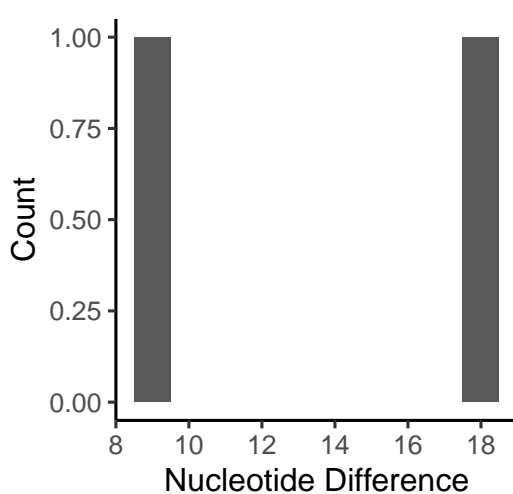
IGHV4-30-4*08

28 sequences assigned
No exact matches.



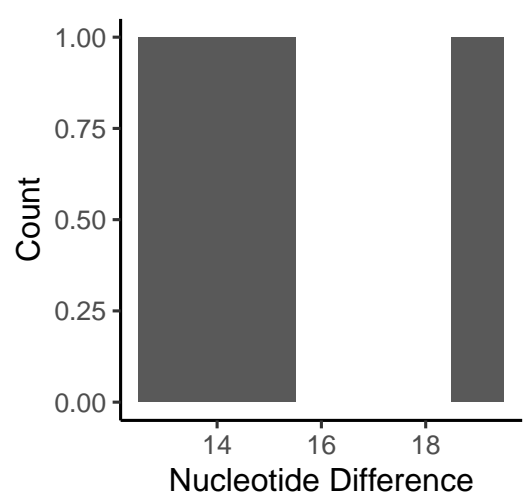
IGHV4-38-2*01

4 sequences assigned
No exact matches.



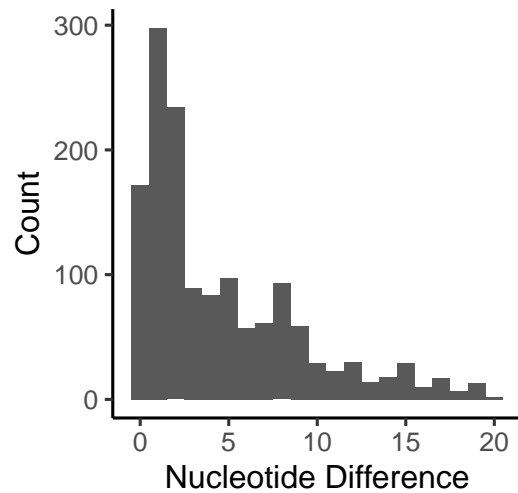
IGHV4-55*09

4 sequences assigned
No exact matches.



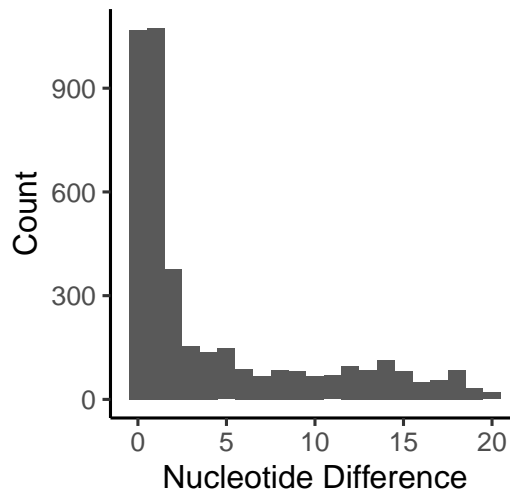
IGHV4–59*08

1484 sequences assigned
172 (11.6%) exact matches, in which:
161 unique CDR3
5 unique J



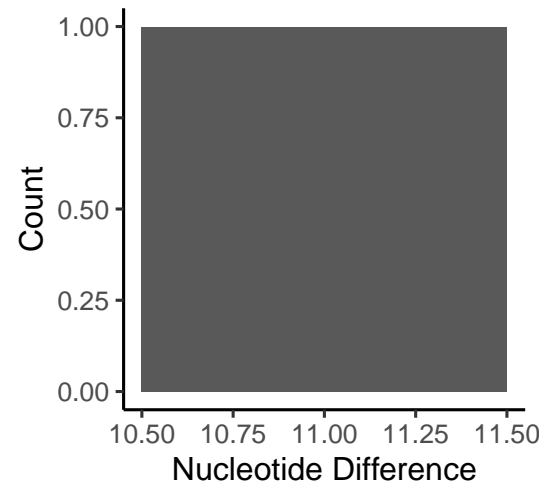
IGHV4–61*02

5888 sequences assigned
1069 (18.2%) exact matches, in which:
905 unique CDR3
6 unique J



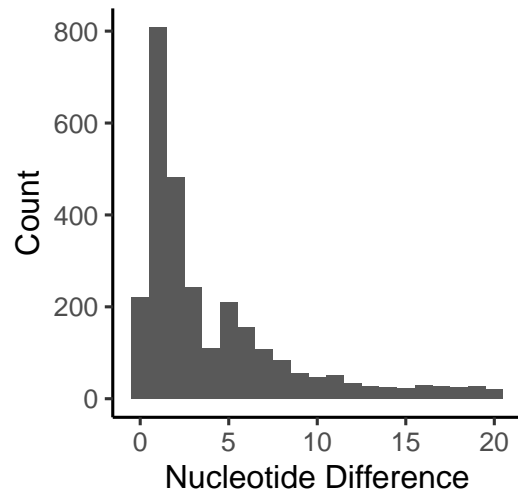
IGHV1/OR15–9*01

1 sequences assigned
No exact matches.



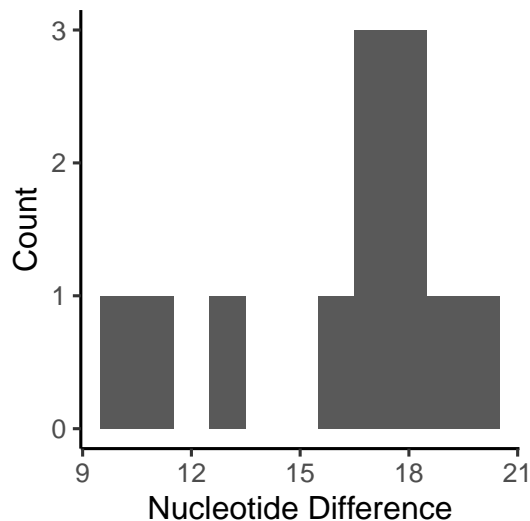
IGHV4–59*12

3595 sequences assigned
222 (6.2%) exact matches, in which:
211 unique CDR3
5 unique J



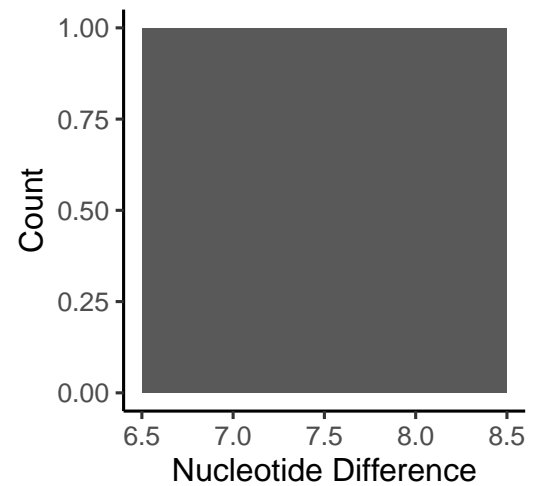
IGHV1/OR15–2*02_03

13 sequences assigned
No exact matches.



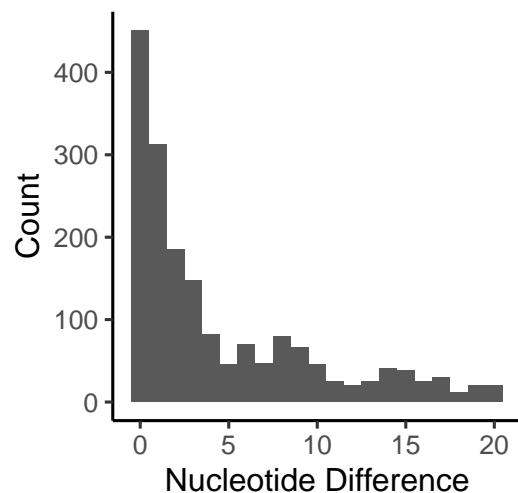
IGHV5–10–1*01_03

2 sequences assigned
No exact matches.



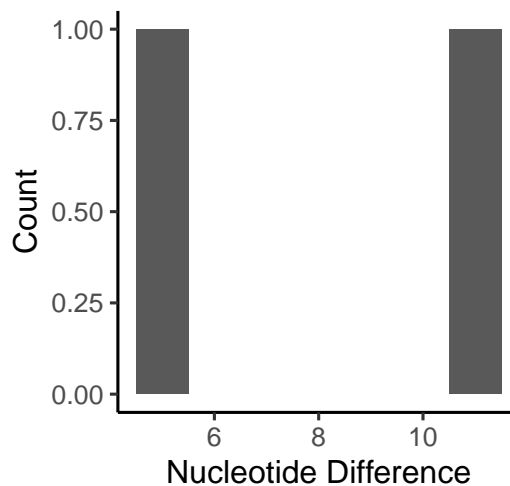
IGHV4–61*01

1846 sequences assigned
451 (24.4%) exact matches, in which:
414 unique CDR3
6 unique J



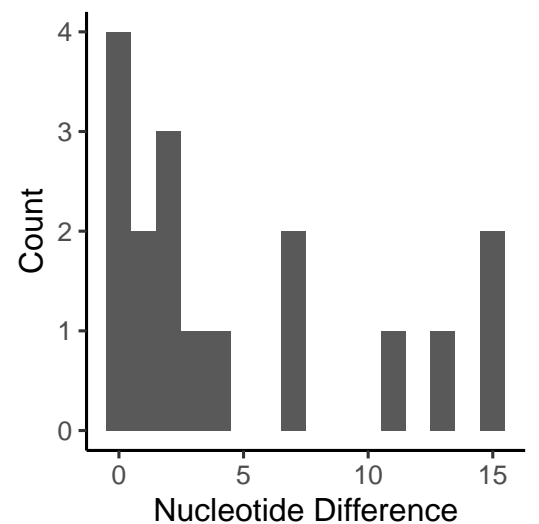
IGHV4/OR15–8*01

4 sequences assigned
No exact matches.



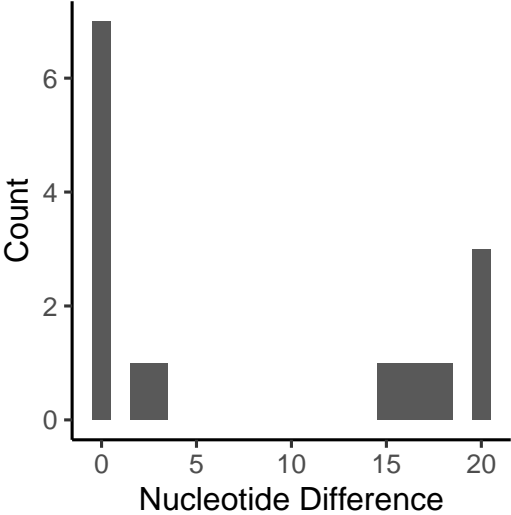
IGHV5–51*04

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



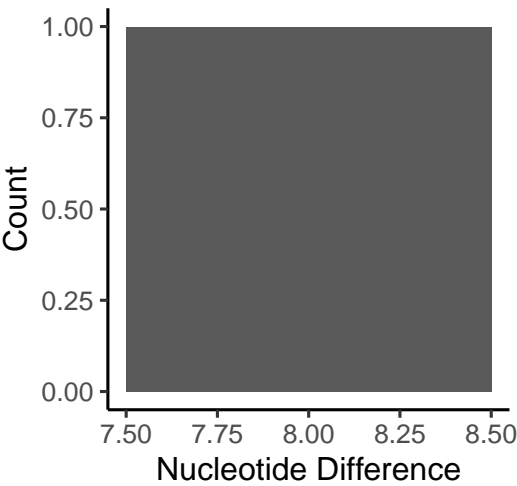
IGHV5-51*06

96 sequences assigned
7 (7.3%) exact matches, in which:
7 unique CDR3
3 unique J



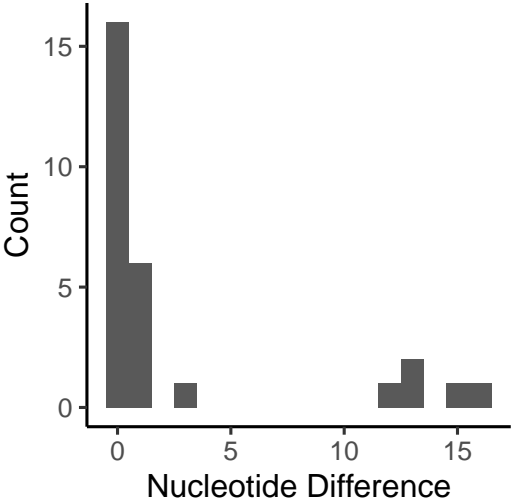
IGHV3/OR16-6*02

2 sequences assigned
No exact matches.



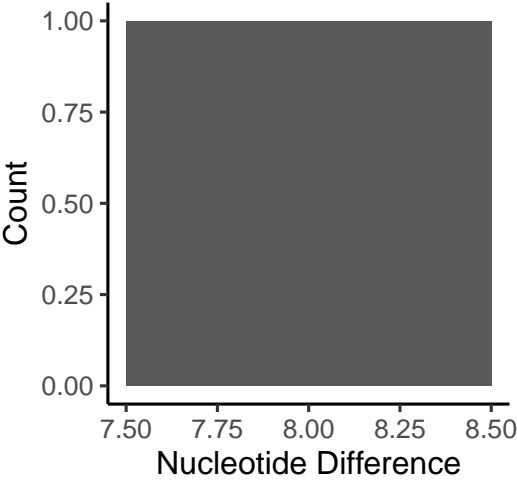
IGHV5-51*07

28 sequences assigned
16 (57.1%) exact matches, in which:
14 unique CDR3
5 unique J



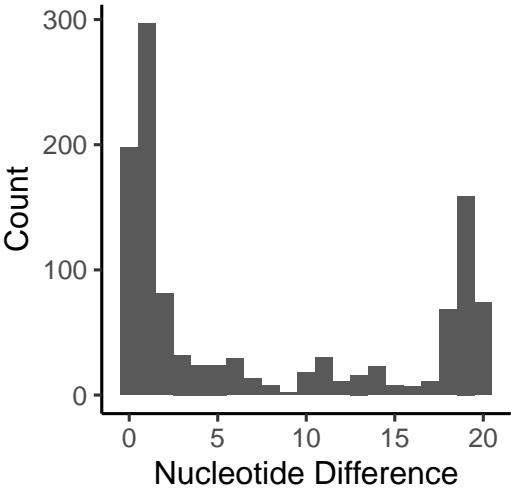
IGHV3/OR16-10*01_03

1 sequences assigned
No exact matches.



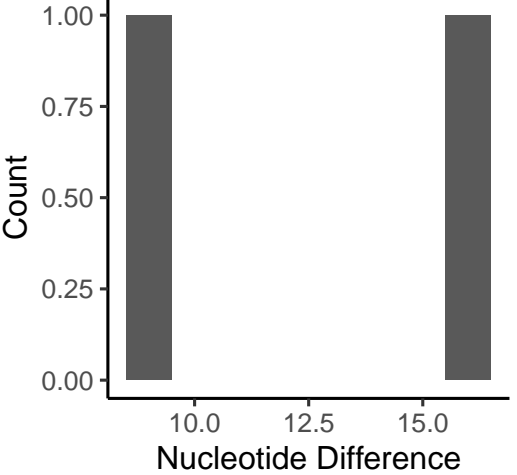
IGHV6-1*01_02

1233 sequences assigned
198 (16.1%) exact matches, in which:
160 unique CDR3
6 unique J



IGHV7-4-1*02

2 sequences assigned
No exact matches.





[illegible]