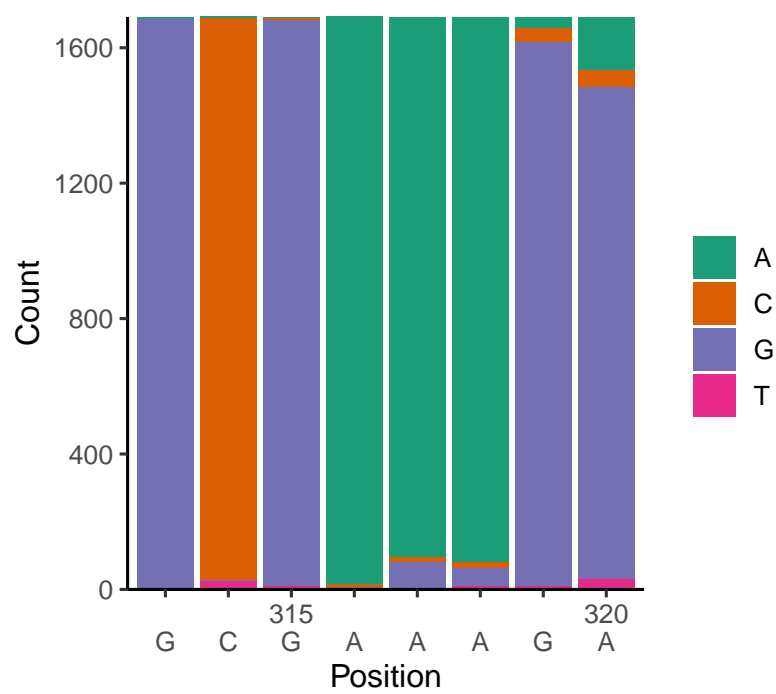
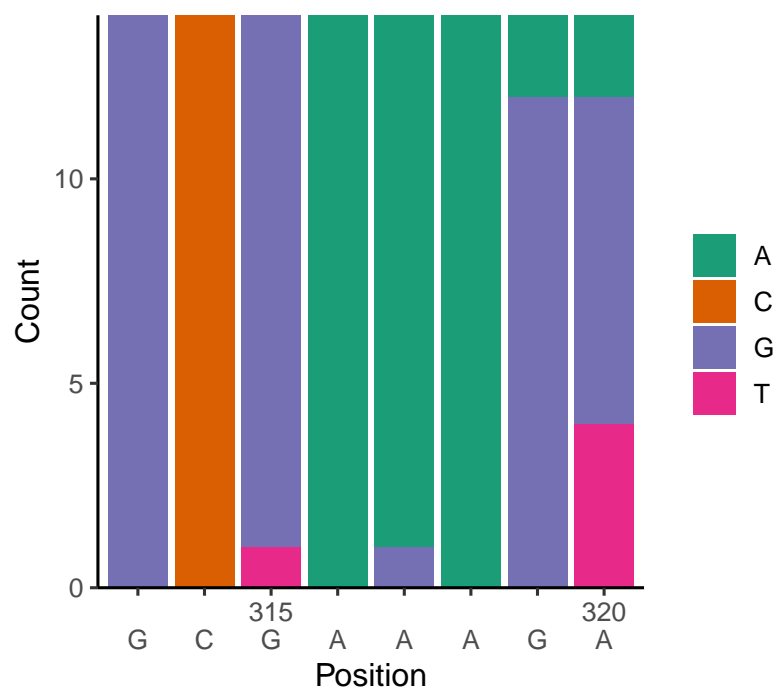


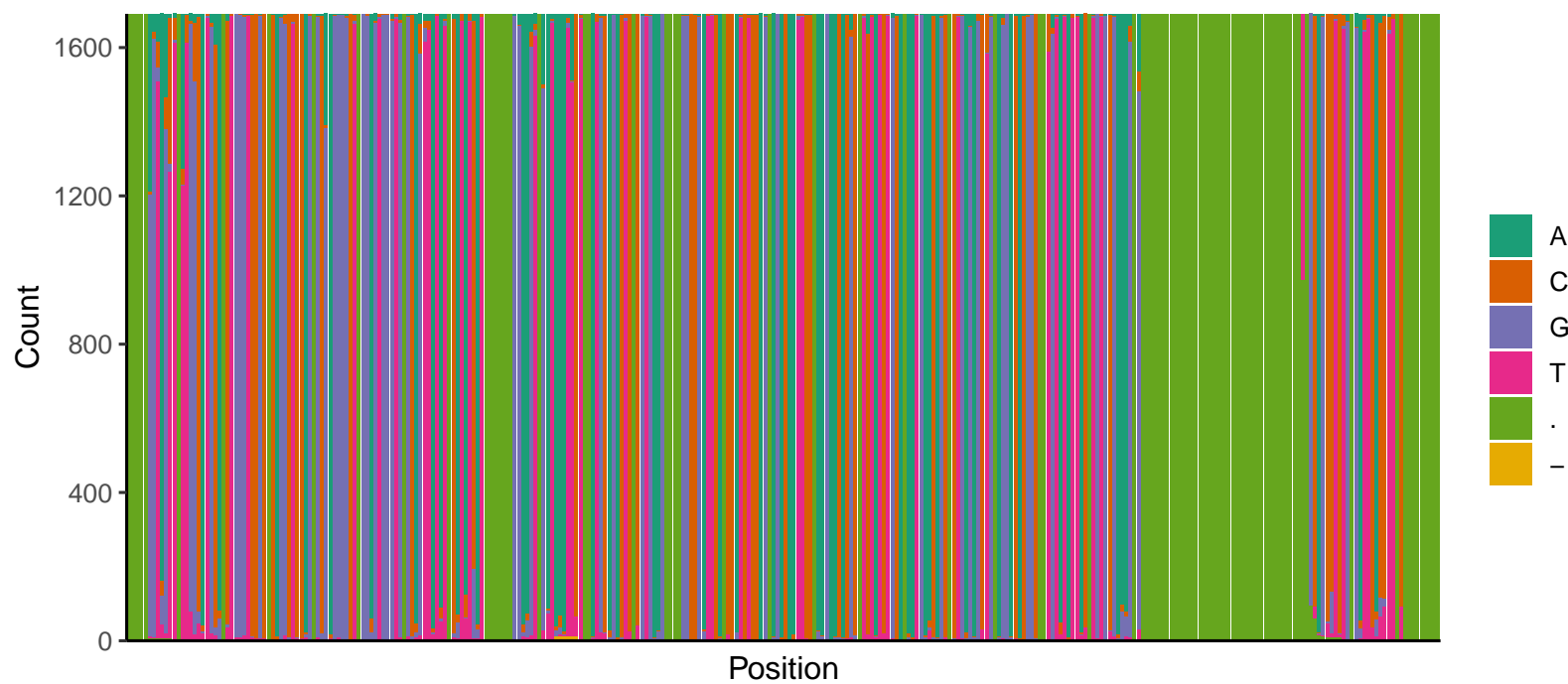
Gene IGHV3-30*18_G261C_G303A



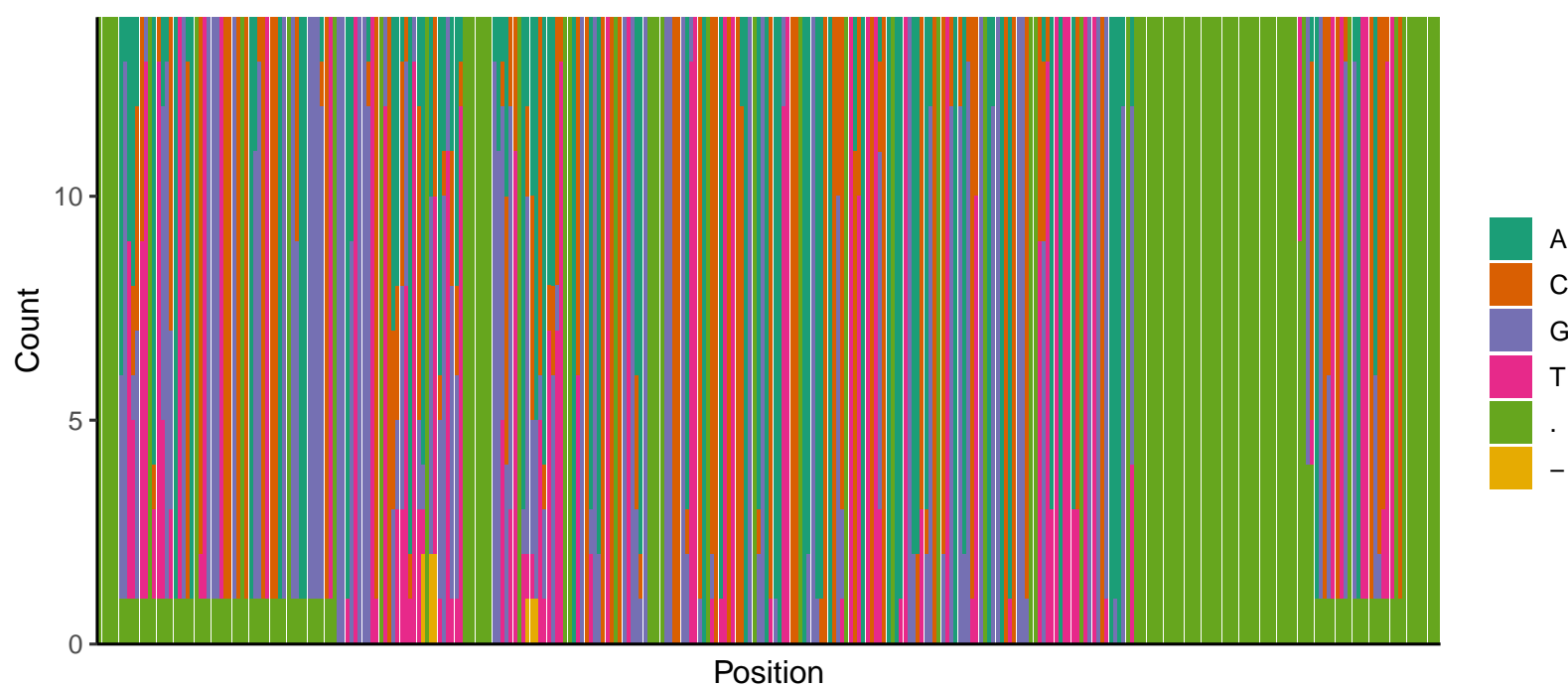
Gene IGHV3-NL1*01_G261C_G303A



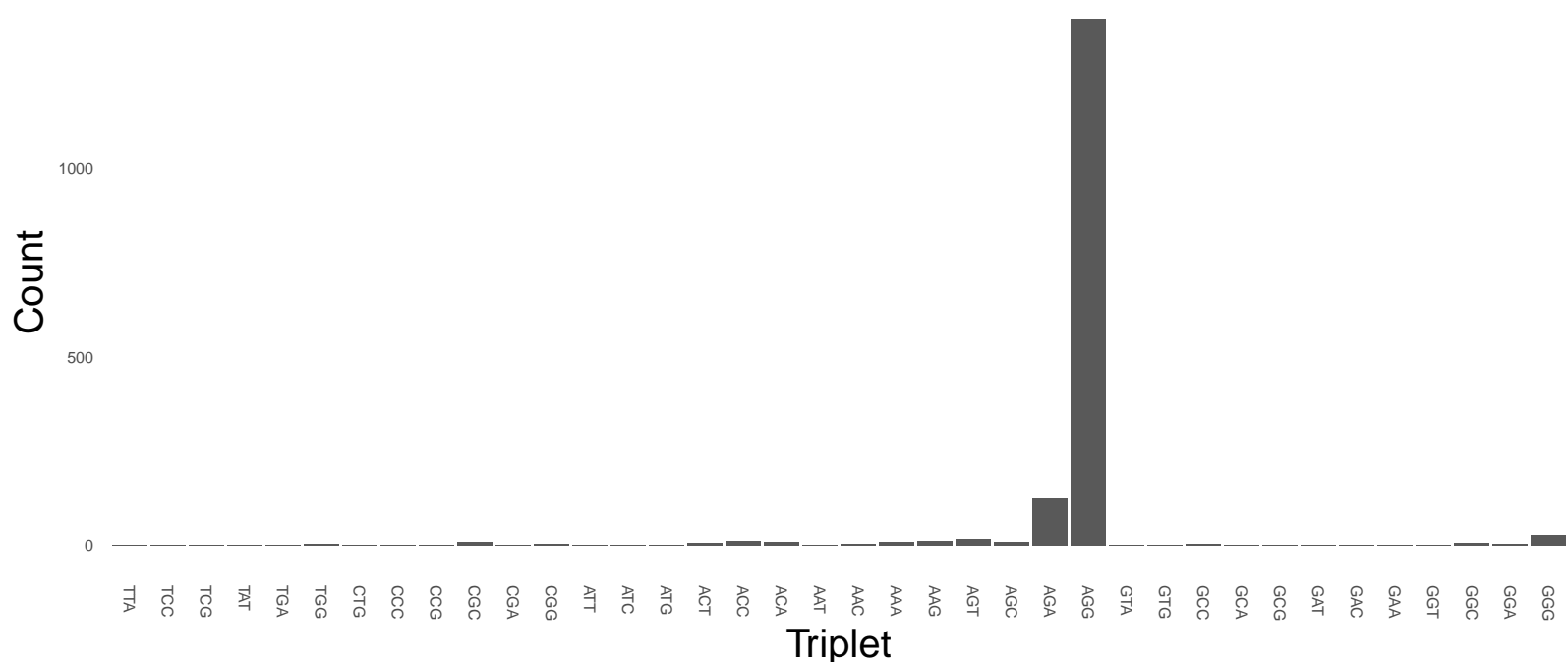
Gene IGHV3-30*18_G261C_G303A



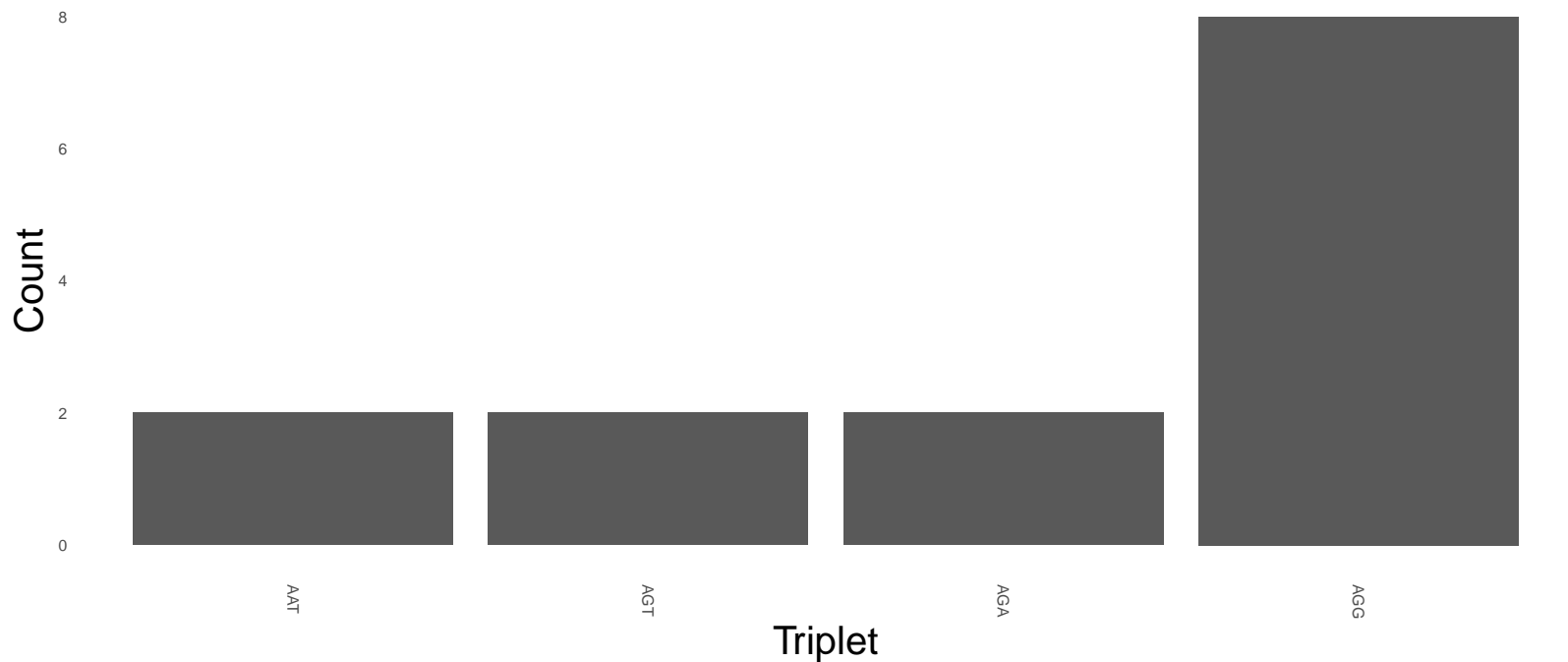
Gene IGHV3-NL1*01_G261C_G303A



IGHV3-30*18_G261C_G303A- Final 3 nucleotides as a triplet

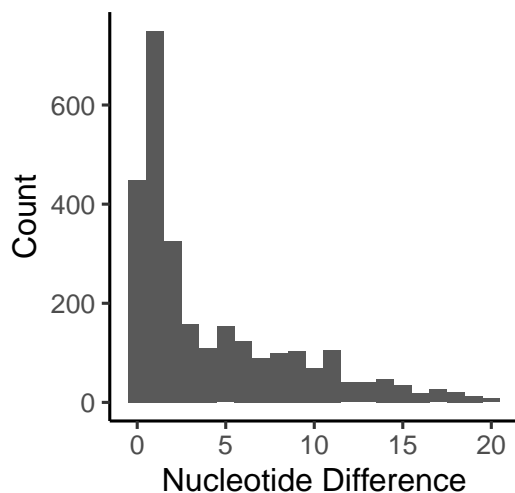


IGHV3-NL1*01_G261C_G303A- Final 3 nucleotides as a triplet



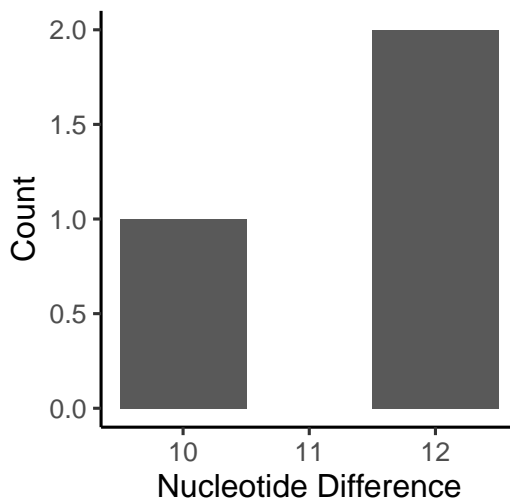
IGHV1-2*04

3053 sequences assigned
448 (14.7%) exact matches, in which:
354 unique CDR3
5 unique J



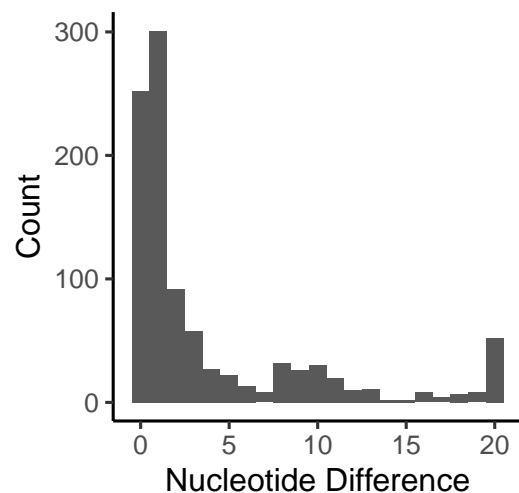
IGHV1-8*02

3 sequences assigned
No exact matches.



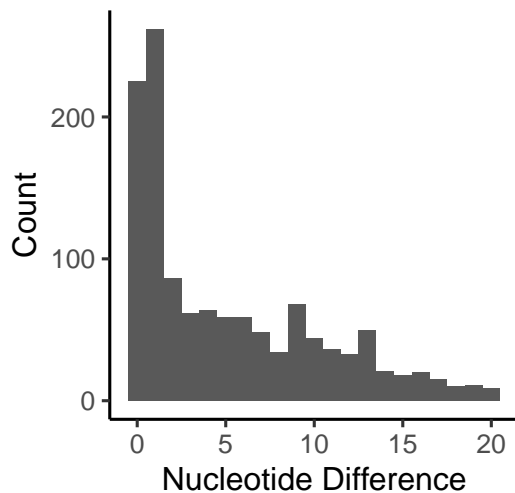
IGHV1-24*01

1180 sequences assigned
252 (21.4%) exact matches, in which:
189 unique CDR3
6 unique J



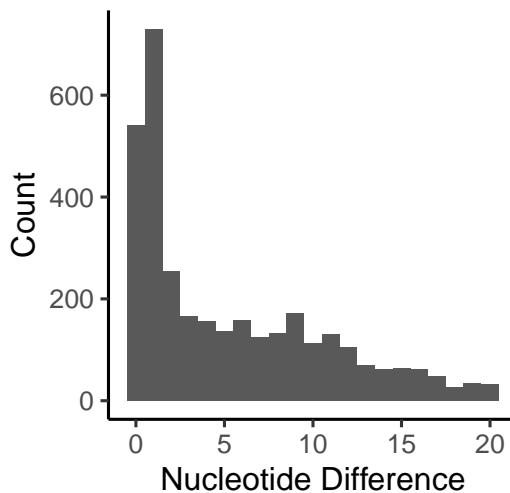
IGHV1-3*01_05

1498 sequences assigned
225 (15%) exact matches, in which:
169 unique CDR3
5 unique J



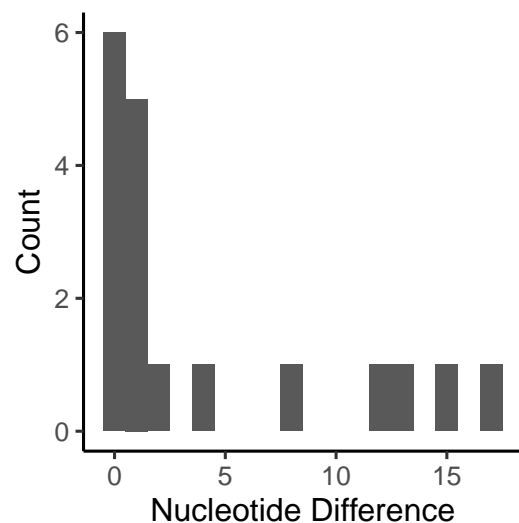
IGHV1-18*01

4795 sequences assigned
541 (11.3%) exact matches, in which:
428 unique CDR3
6 unique J



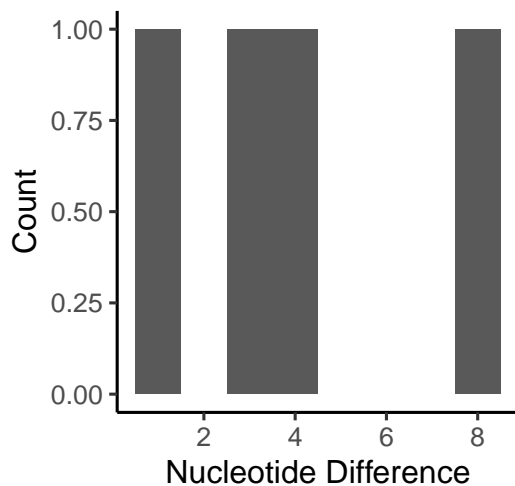
IGHV1-45*02

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



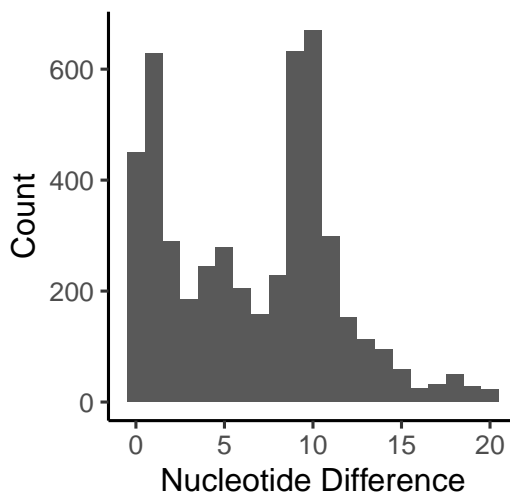
IGHV1-8*01

4 sequences assigned
No exact matches.



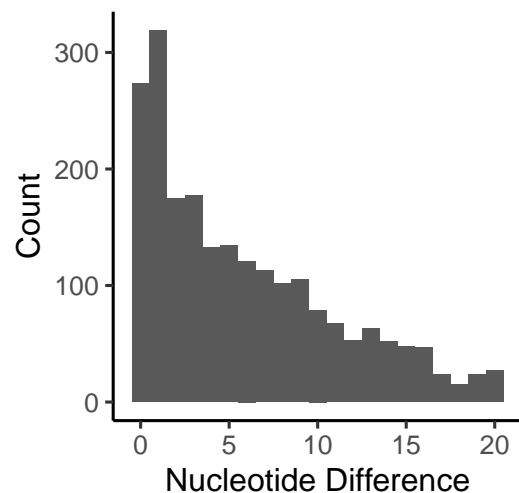
IGHV1-18*04

5399 sequences assigned
450 (8.3%) exact matches, in which:
368 unique CDR3
6 unique J



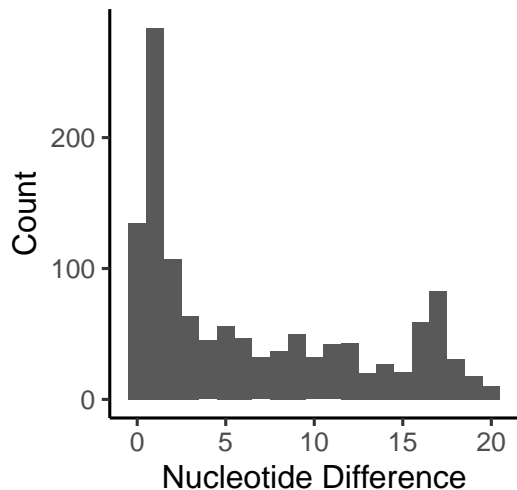
IGHV1-46*01

2775 sequences assigned
273 (9.8%) exact matches, in which:
216 unique CDR3
6 unique J



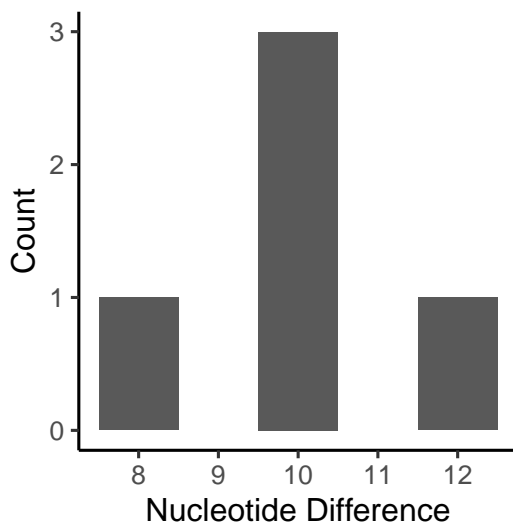
IGHV1-46*03

1303 sequences assigned
135 (10.4%) exact matches, in which:
101 unique CDR3
6 unique J



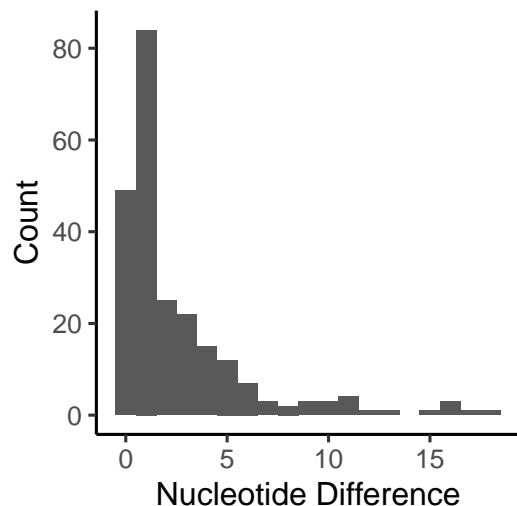
IGHV1-NL1*01

5 sequences assigned
No exact matches.



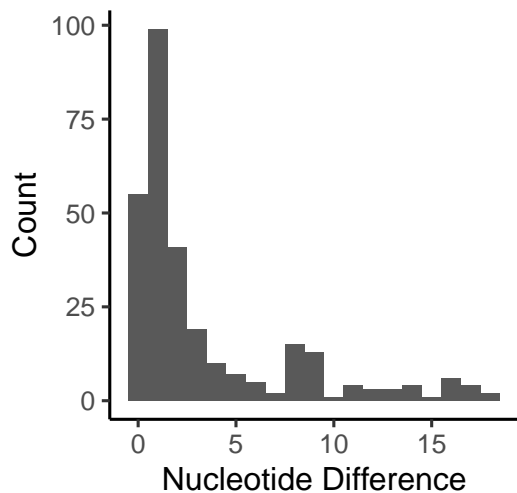
IGHV2-26*01

237 sequences assigned
49 (20.7%) exact matches, in which:
42 unique CDR3
5 unique J



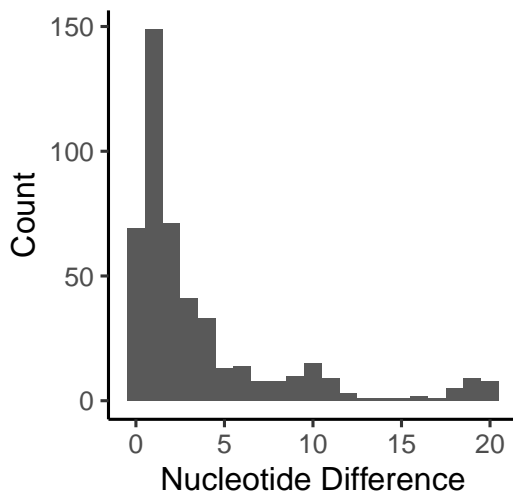
IGHV1-58*02

386 sequences assigned
55 (14.2%) exact matches, in which:
46 unique CDR3
5 unique J



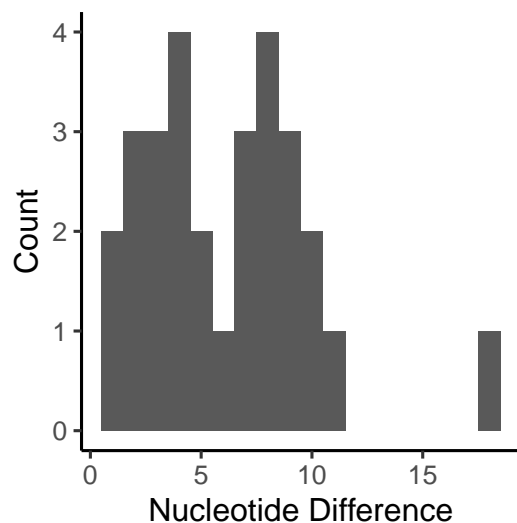
IGHV2-5*01

844 sequences assigned
69 (8.2%) exact matches, in which:
52 unique CDR3
6 unique J



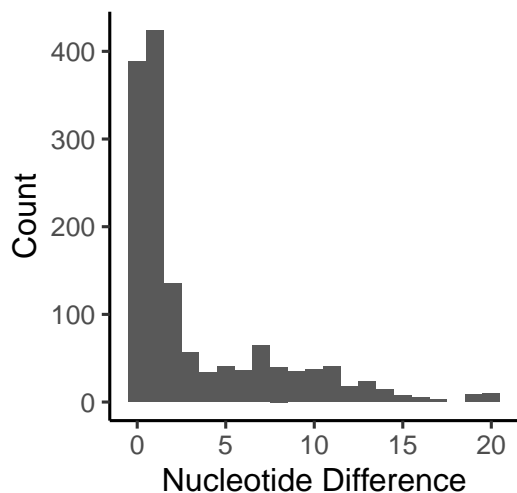
IGHV2-70*12

34 sequences assigned
No exact matches.



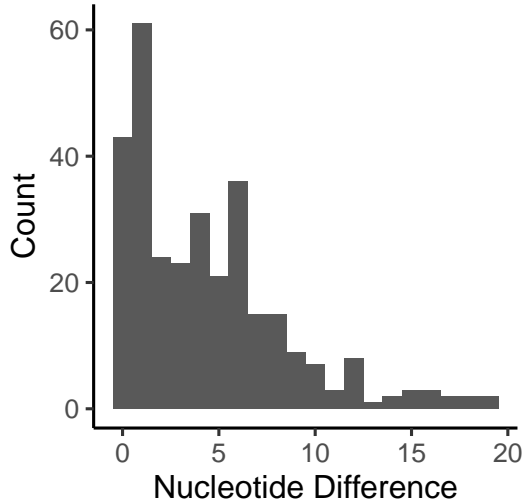
IGHV1-69*04_09

2136 sequences assigned
388 (18.2%) exact matches, in which:
322 unique CDR3
6 unique J



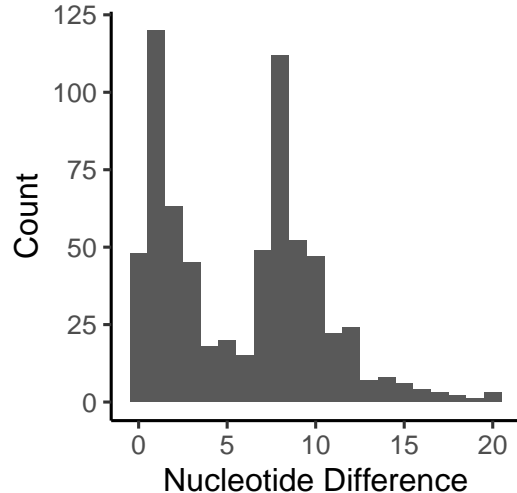
IGHV2-5*02

540 sequences assigned
43 (8%) exact matches, in which:
30 unique CDR3
4 unique J



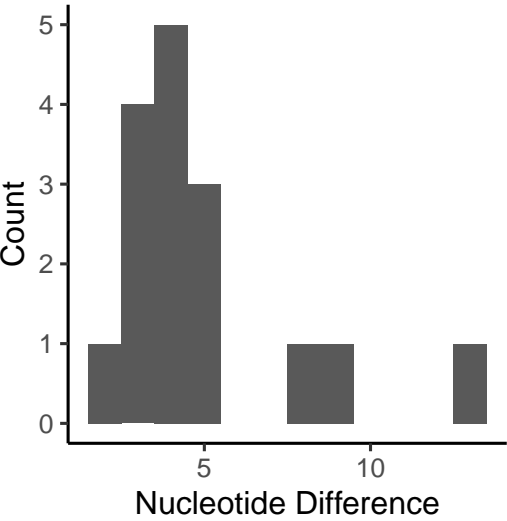
IGHV2-70*11_15

749 sequences assigned
48 (6.4%) exact matches, in which:
36 unique CDR3
4 unique J



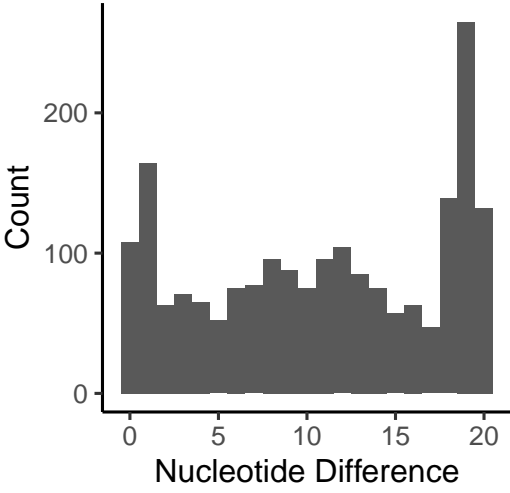
IGHV2-70D*04

17 sequences assigned
No exact matches.



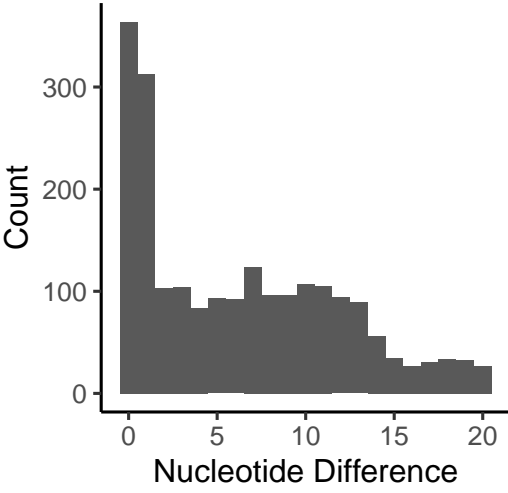
IGHV3-7*04

4334 sequences assigned
108 (2.5%) exact matches, in which:
68 unique CDR3
5 unique J



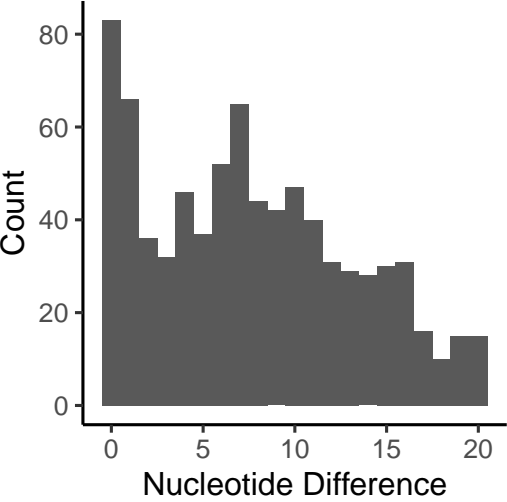
IGHV3-11*06

2314 sequences assigned
364 (15.7%) exact matches, in which:
256 unique CDR3
5 unique J



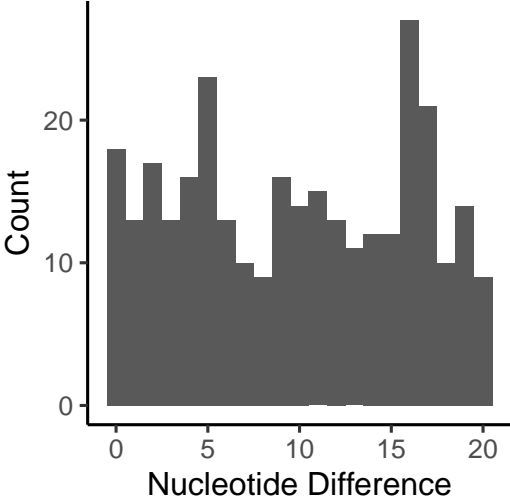
IGHV3-7*01

946 sequences assigned
83 (8.8%) exact matches, in which:
74 unique CDR3
5 unique J



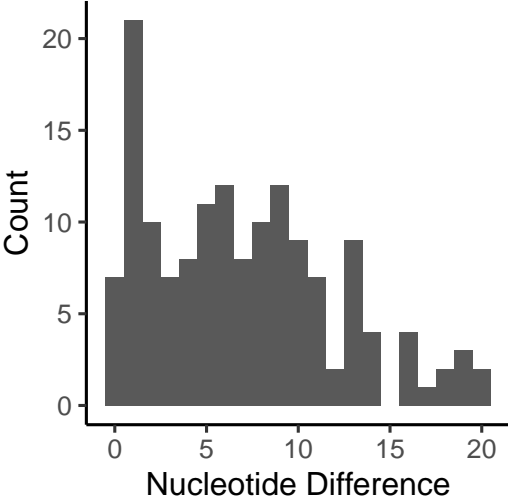
IGHV3-7*05

443 sequences assigned
18 (4.1%) exact matches, in which:
17 unique CDR3
4 unique J



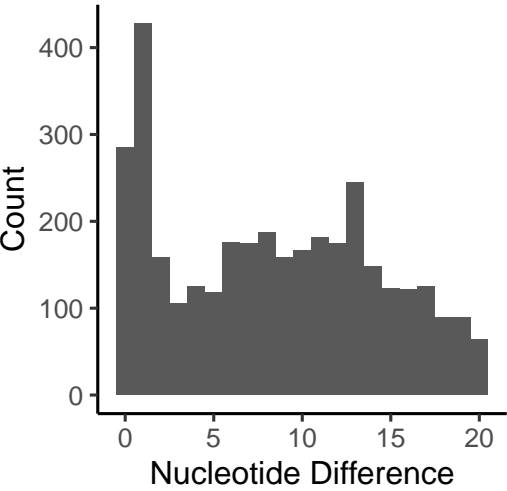
IGHV3-11*03_05

167 sequences assigned
7 (4.2%) exact matches, in which:
7 unique CDR3
4 unique J



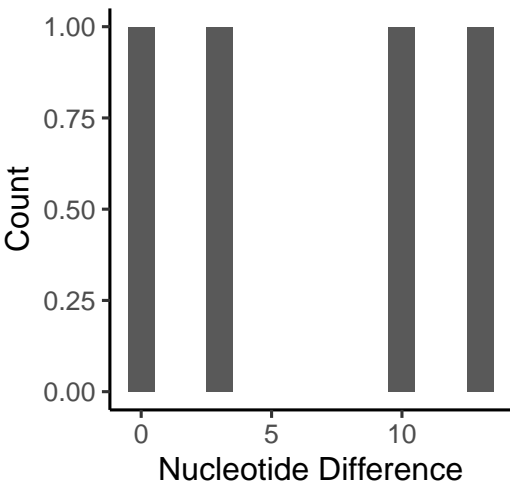
IGHV3-7*03

4167 sequences assigned
285 (6.8%) exact matches, in which:
199 unique CDR3
5 unique J



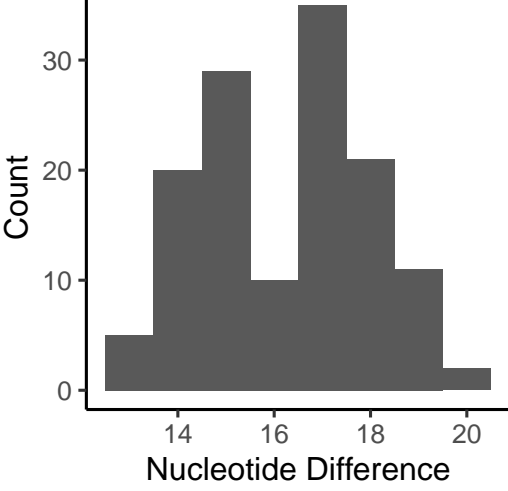
IGHV3-9*01

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



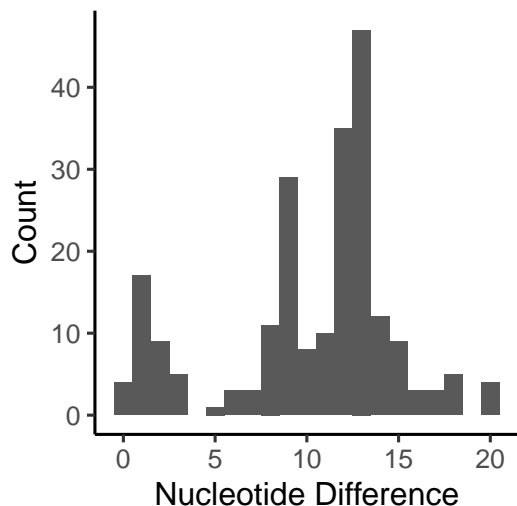
IGHV3-13*01

156 sequences assigned
No exact matches.



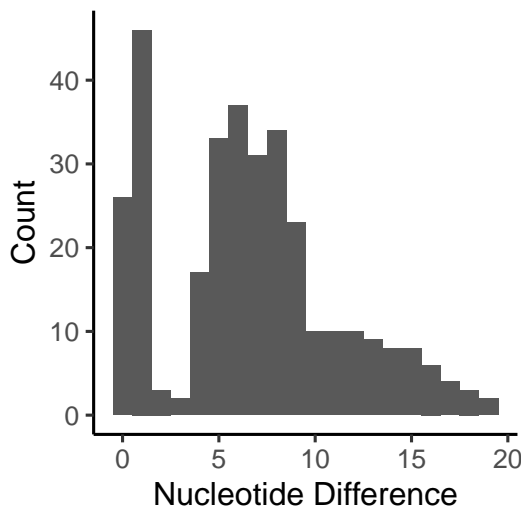
IGHV3-13*05

251 sequences assigned
4 (1.6%) exact matches, in which:
2 unique CDR3
2 unique J



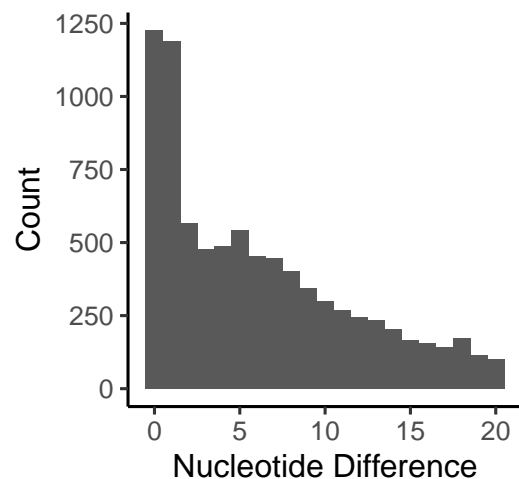
IGHV3-20*01_02

328 sequences assigned
26 (7.9%) exact matches, in which:
17 unique CDR3
3 unique J



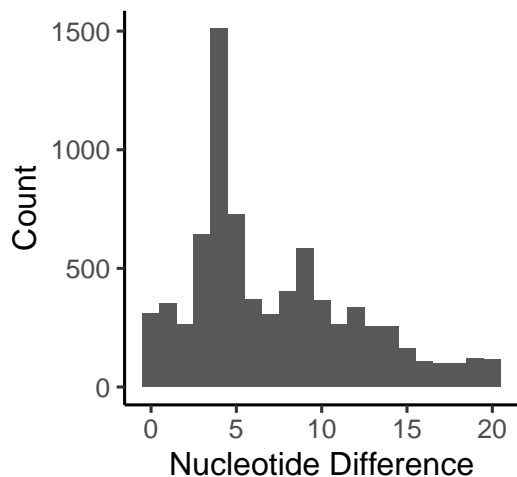
IGHV3-21*01_02

9870 sequences assigned
1226 (12.4%) exact matches, in which:
789 unique CDR3
6 unique J



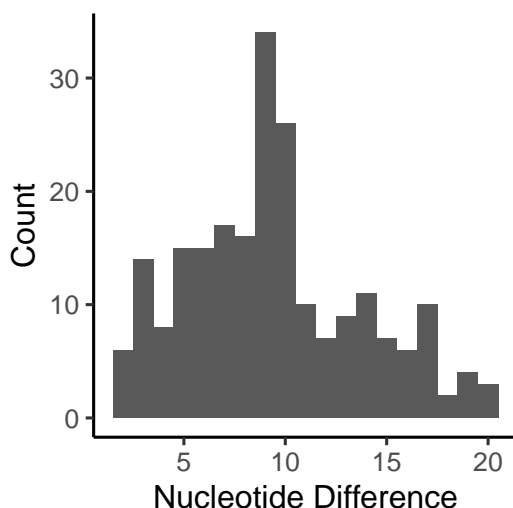
IGHV3-15*01_02

9297 sequences assigned
309 (3.3%) exact matches, in which:
189 unique CDR3
6 unique J



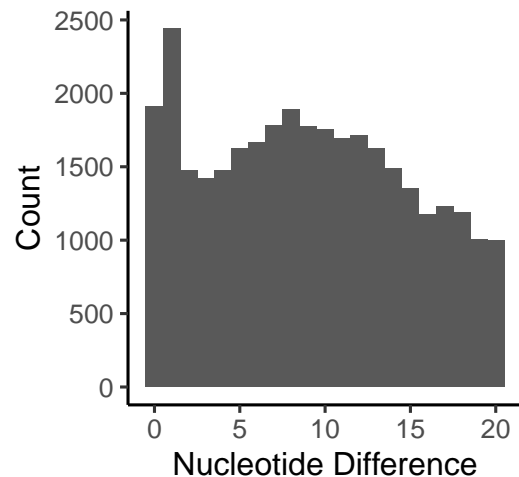
IGHV3-20*03_04

818 sequences assigned
No exact matches.



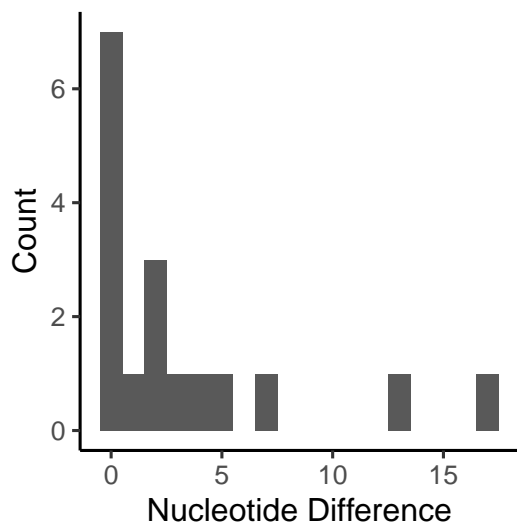
IGHV3-23*01_04

42706 sequences assigned
1911 (4.5%) exact matches, in which:
1135 unique CDR3
6 unique J



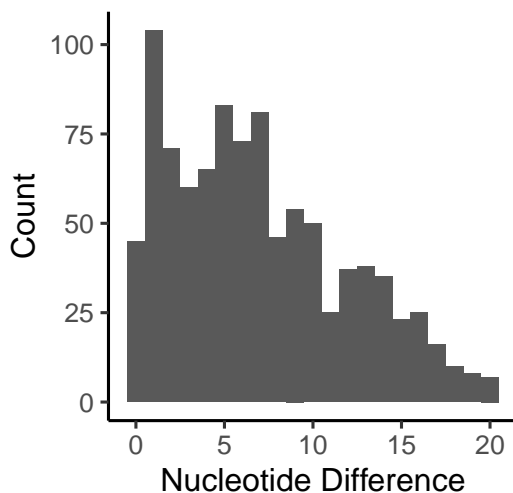
IGHV3-19*01

17 sequences assigned
7 (41.2%) exact matches, in which:
7 unique CDR3
3 unique J



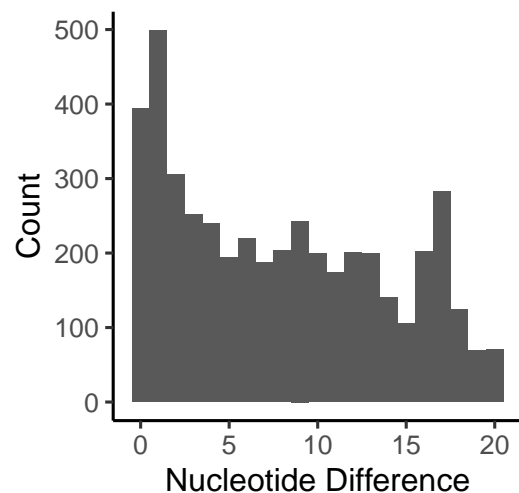
IGHV3-21*04

1140 sequences assigned
45 (3.9%) exact matches, in which:
40 unique CDR3
4 unique J



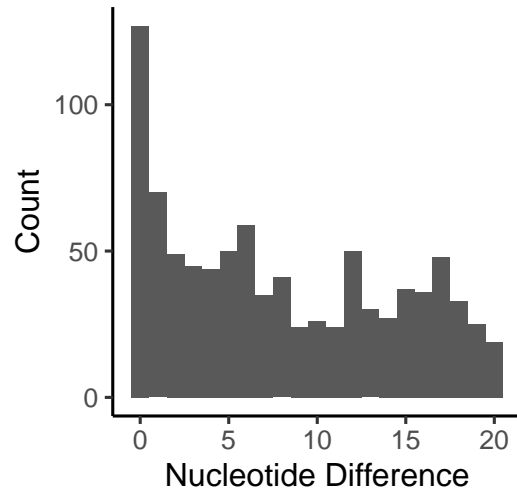
IGHV3-30-3*01

6101 sequences assigned
394 (6.5%) exact matches, in which:
269 unique CDR3
6 unique J



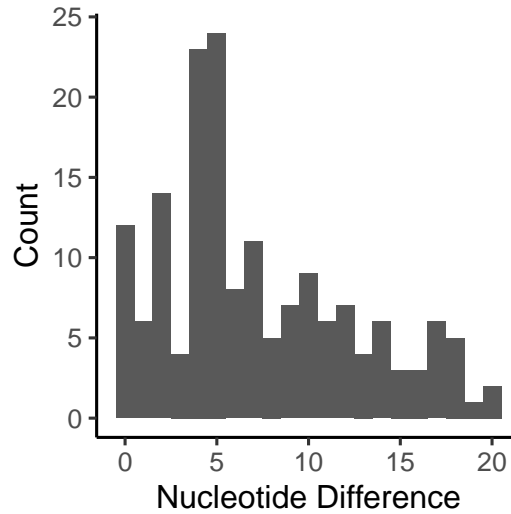
IGHV3-30*03

1214 sequences assigned
127 (10.5%) exact matches, in which:
117 unique CDR3
5 unique J



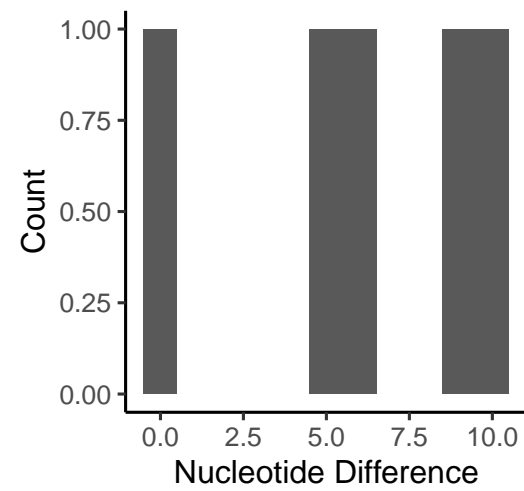
IGHV3-33*05

192 sequences assigned
12 (6.2%) exact matches, in which:
11 unique CDR3
2 unique J



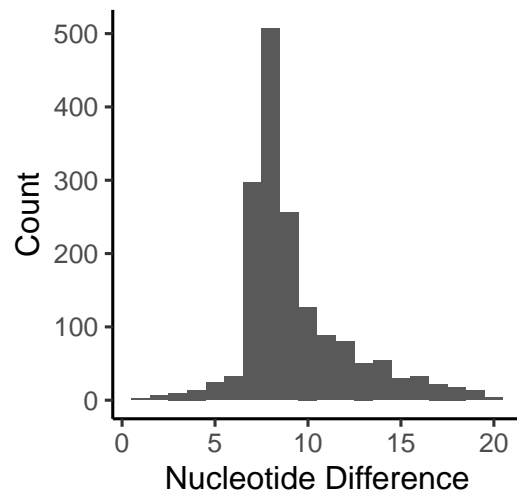
IGHV3-38*02

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



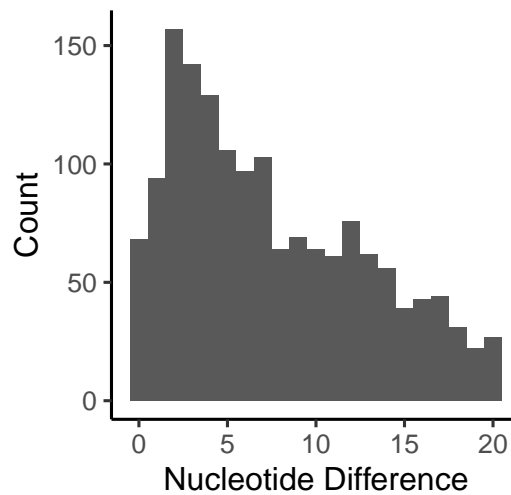
IGHV3-30*18_G261C_G:

1691 sequences assigned
No exact matches.



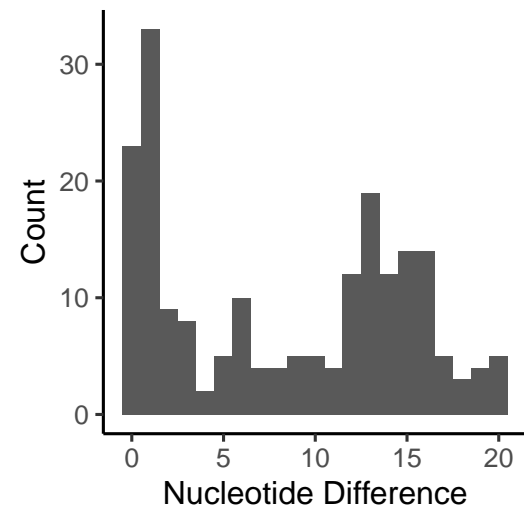
IGHV3-33*06

1652 sequences assigned
68 (4.1%) exact matches, in which:
64 unique CDR3
6 unique J



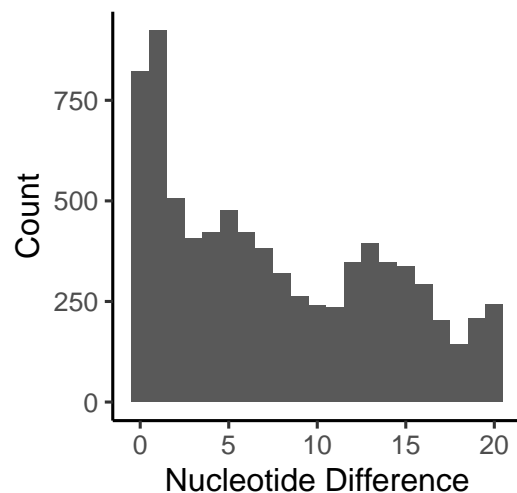
IGHV3-43*01

344 sequences assigned
23 (6.7%) exact matches, in which:
13 unique CDR3
3 unique J



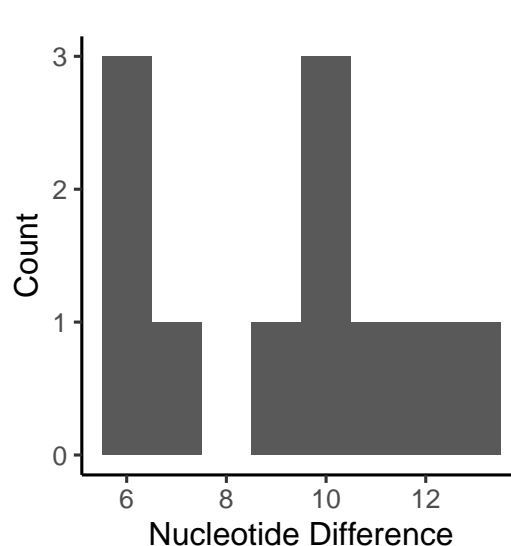
IGHV3-33*01

8869 sequences assigned
821 (9.3%) exact matches, in which:
541 unique CDR3
6 unique J



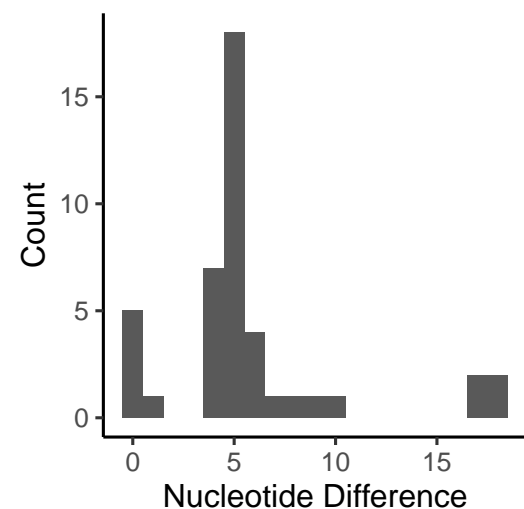
IGHV3-35*01

11 sequences assigned
No exact matches.



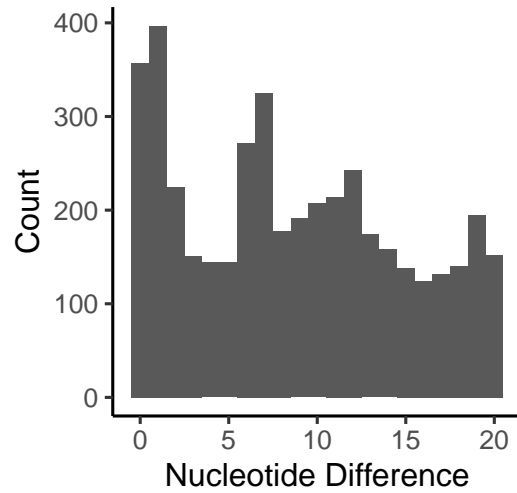
IGHV3-47*02

43 sequences assigned
5 (11.6%) exact matches, in which:
3 unique CDR3
1 unique J



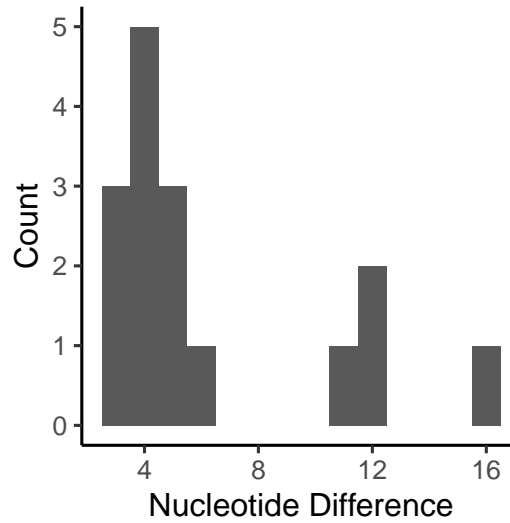
IGHV3-48*01

5651 sequences assigned
357 (6.3%) exact matches, in which:
256 unique CDR3
6 unique J



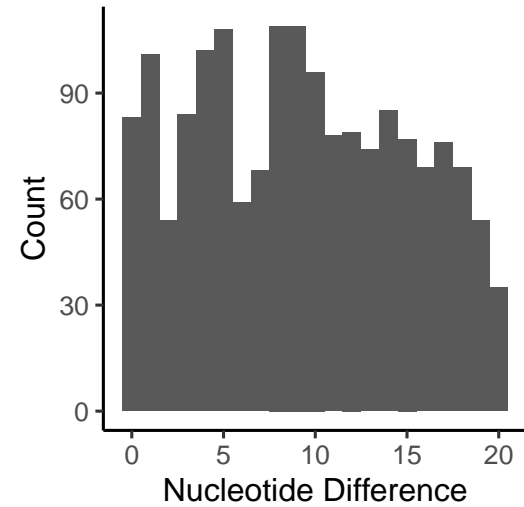
IGHV3-52*01_03

16 sequences assigned
No exact matches.



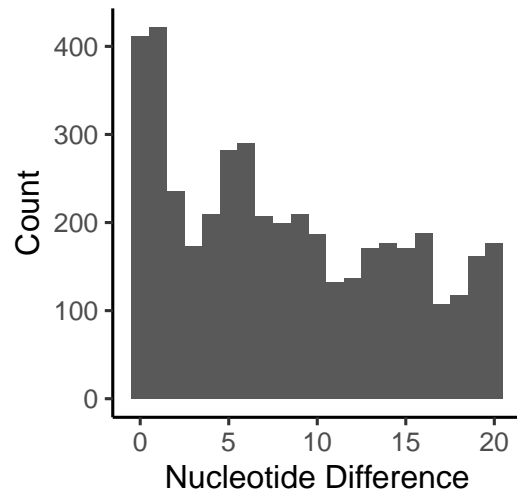
IGHV3-53*01_02

1883 sequences assigned
83 (4.4%) exact matches, in which:
60 unique CDR3
5 unique J



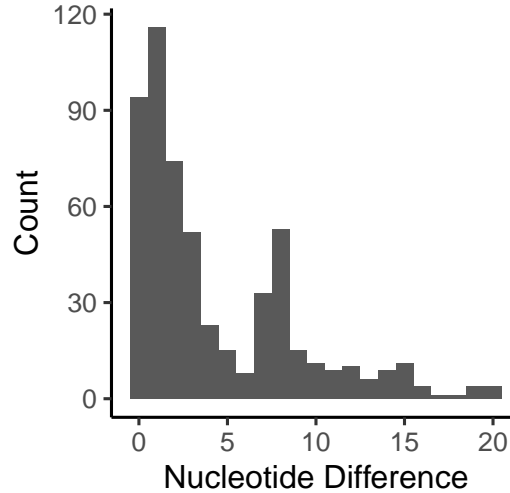
IGHV3-48*04

7070 sequences assigned
412 (5.8%) exact matches, in which:
302 unique CDR3
6 unique J



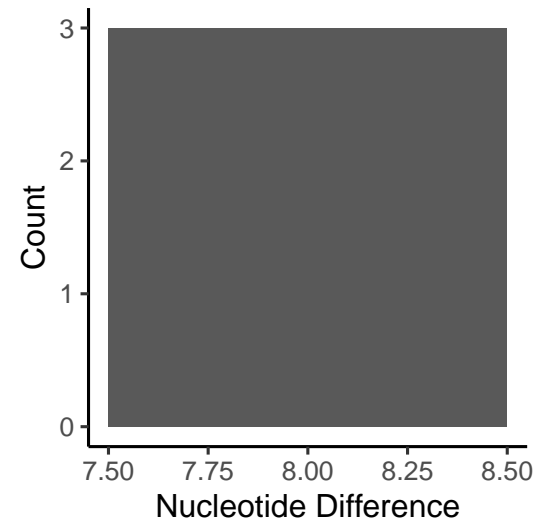
IGHV3-53*04

1100 sequences assigned
94 (8.5%) exact matches, in which:
60 unique CDR3
5 unique J



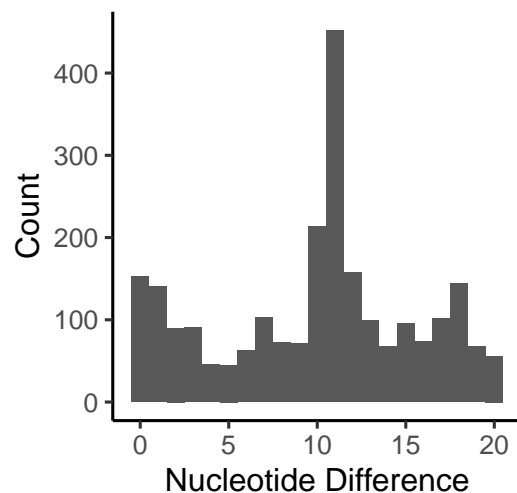
IGHV3-62*03

3 sequences assigned
No exact matches.



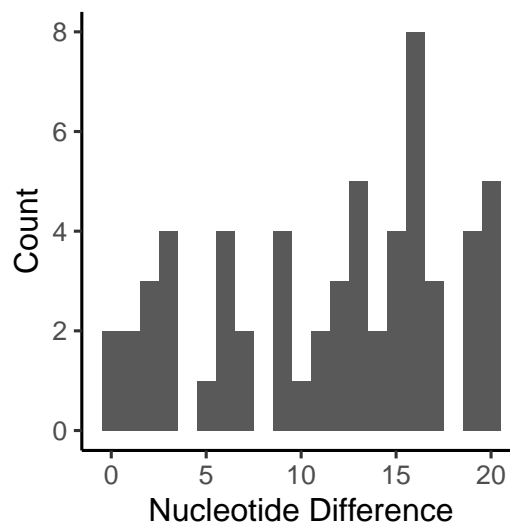
IGHV3-49*03_05

2962 sequences assigned
153 (5.2%) exact matches, in which:
84 unique CDR3
5 unique J



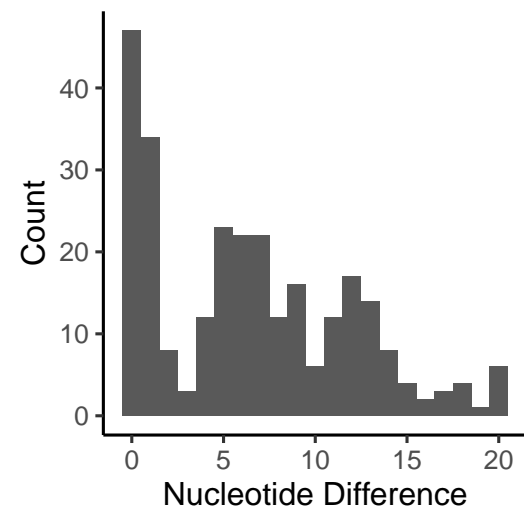
IGHV3-53*05

65 sequences assigned
2 (3.1%) exact matches, in which:
2 unique CDR3
1 unique J



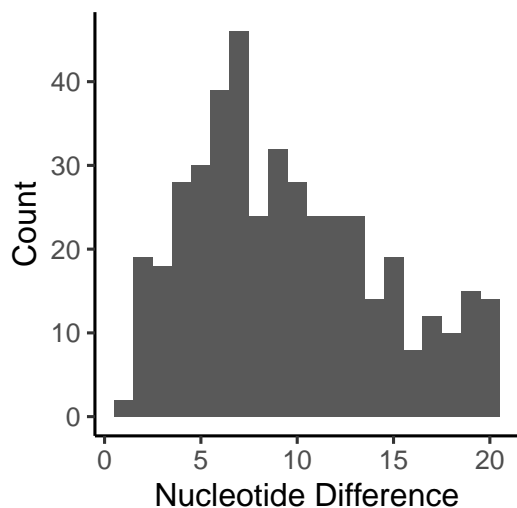
IGHV3-64*01

299 sequences assigned
47 (15.7%) exact matches, in which:
30 unique CDR3
6 unique J



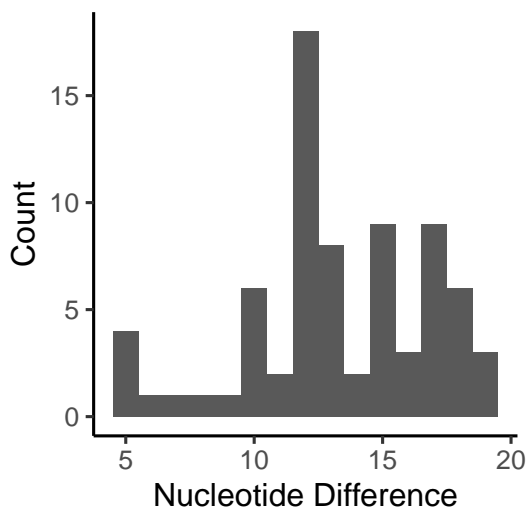
IGHV3-64*04

492 sequences assigned
No exact matches.



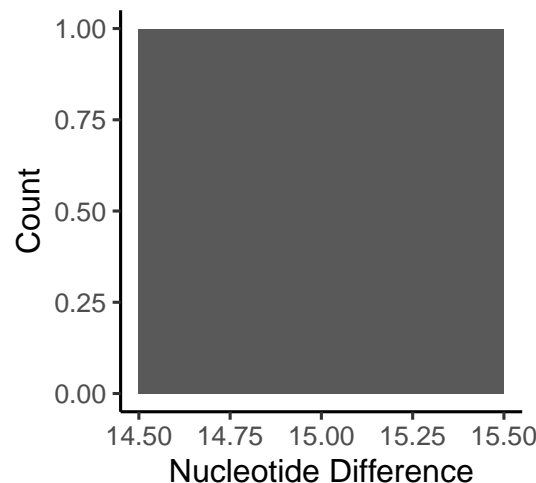
IGHV3-66*03

100 sequences assigned
No exact matches.



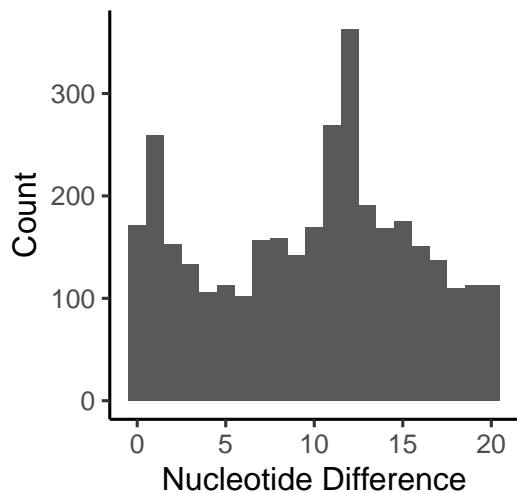
IGHV3-71*01_04

1 sequences assigned
No exact matches.



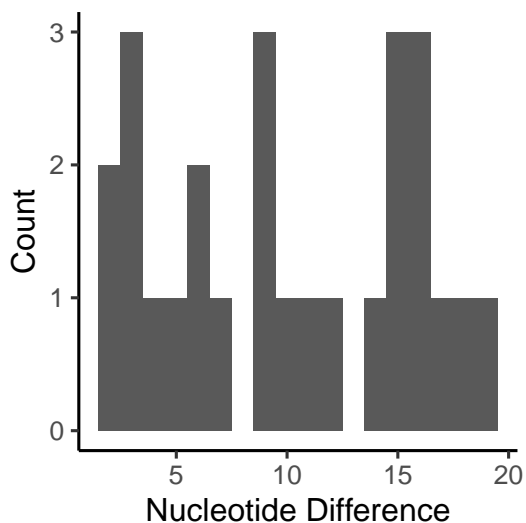
IGHV3-66*01

5291 sequences assigned
171 (3.2%) exact matches, in which:
118 unique CDR3
6 unique J



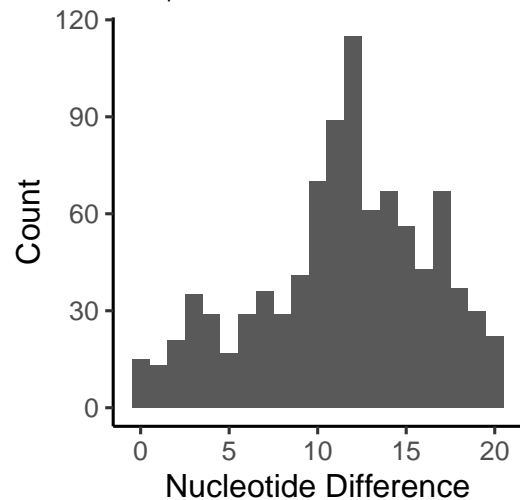
IGHV3-69-1*01

54 sequences assigned
No exact matches.



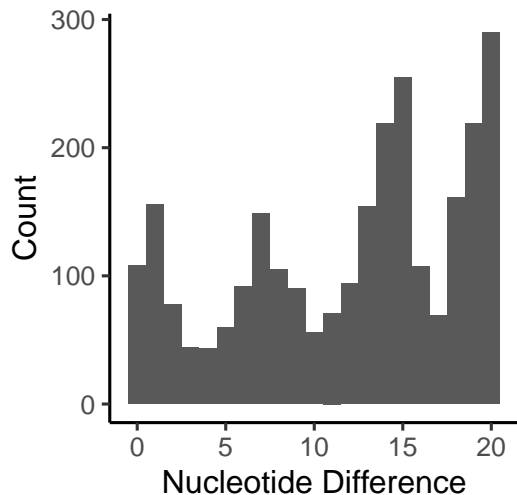
IGHV3-72*01

1660 sequences assigned
15 (0.9%) exact matches, in which:
11 unique CDR3
3 unique J



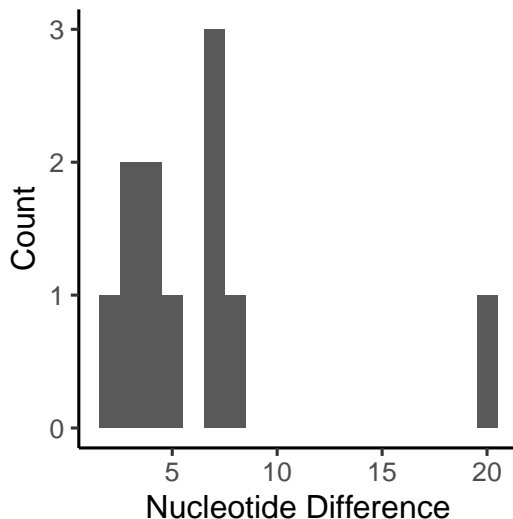
IGHV3-66*02

4067 sequences assigned
108 (2.7%) exact matches, in which:
74 unique CDR3
5 unique J



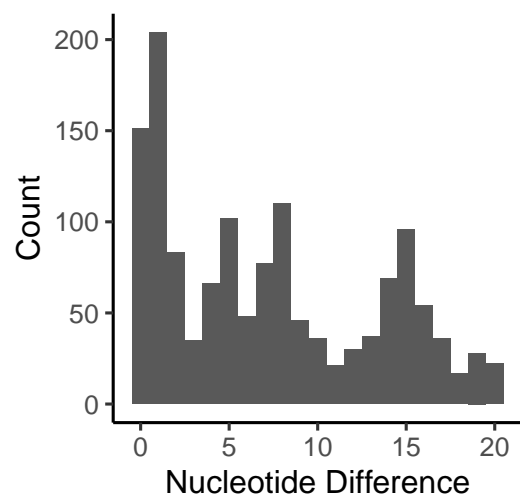
IGHV3-69-1*02

19 sequences assigned
No exact matches.



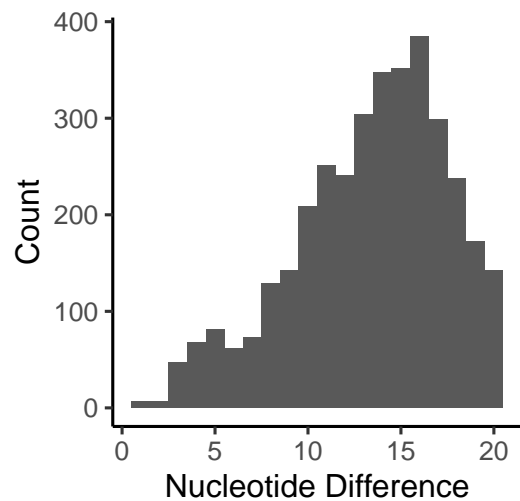
IGHV3-73*01_02

1518 sequences assigned
151 (9.9%) exact matches, in which:
92 unique CDR3
5 unique J



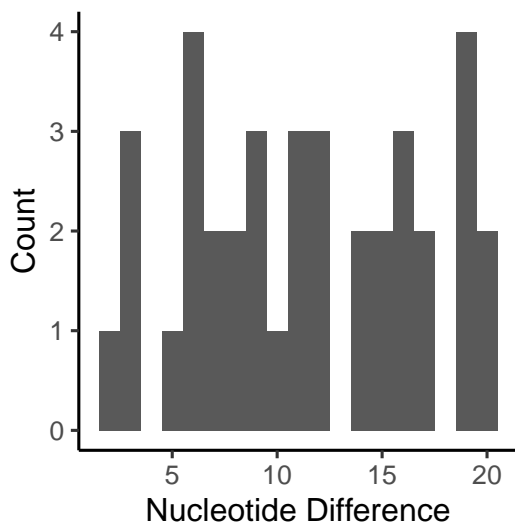
IGHV3-74*03

4992 sequences assigned
No exact matches.



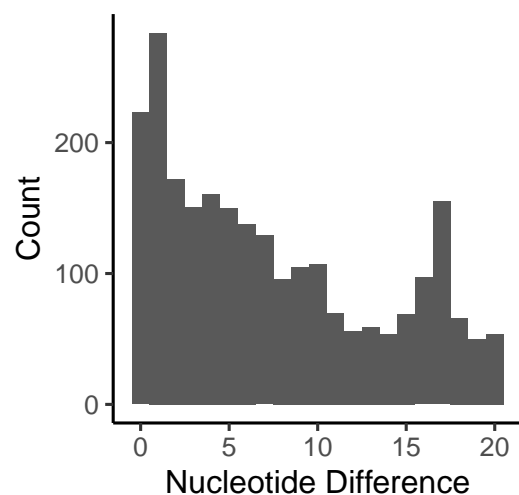
IGHV3-NL1*01

81 sequences assigned
No exact matches.



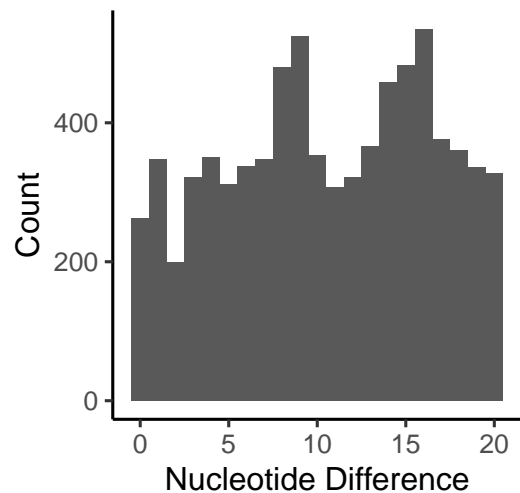
IGHV4-4*02_03

2894 sequences assigned
223 (7.7%) exact matches, in which:
163 unique CDR3
5 unique J



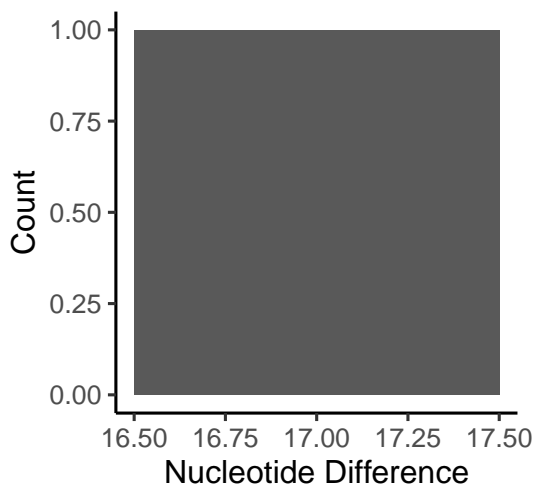
IGHV3-74*01_02

8650 sequences assigned
262 (3%) exact matches, in which:
178 unique CDR3
6 unique J



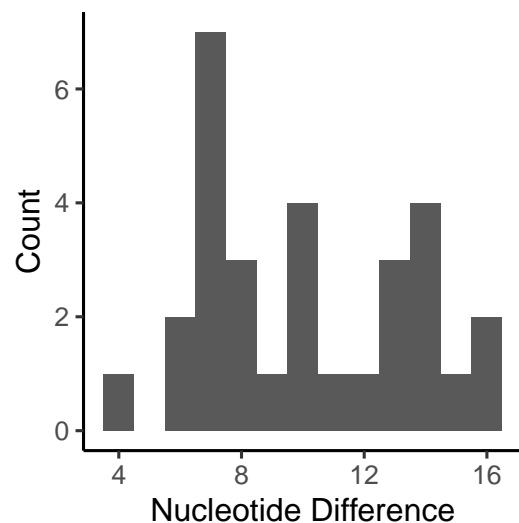
IGHV3-NL1*01_G261C_

14 sequences assigned
No exact matches.



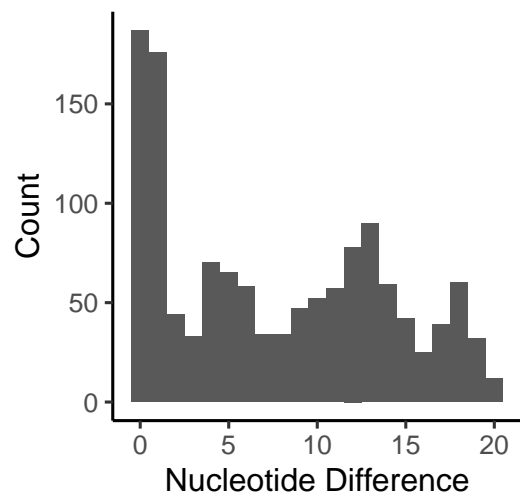
IGHV4-28*03

33 sequences assigned
No exact matches.



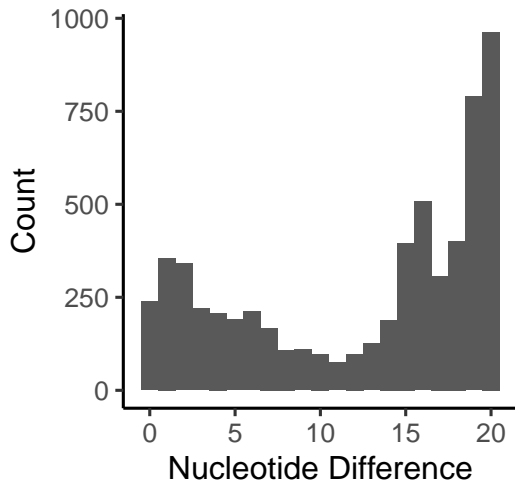
IGHV3-64D*06

1747 sequences assigned
187 (10.7%) exact matches, in which:
115 unique CDR3
6 unique J



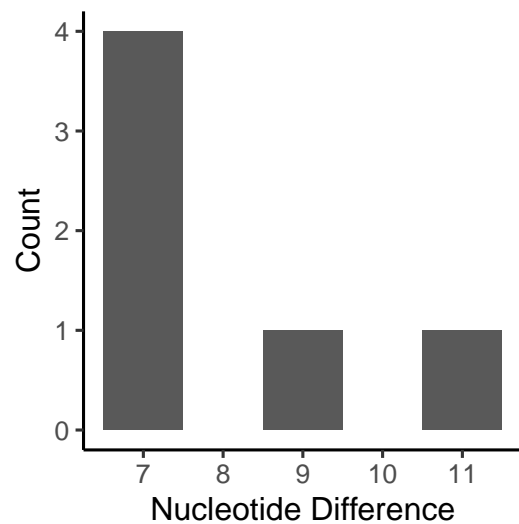
IGHV4-4*07

8792 sequences assigned
239 (2.7%) exact matches, in which:
190 unique CDR3
6 unique J



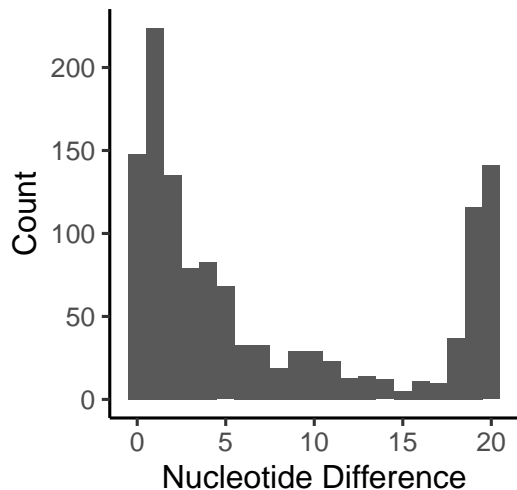
IGHV4-28*01_07

23 sequences assigned
No exact matches.



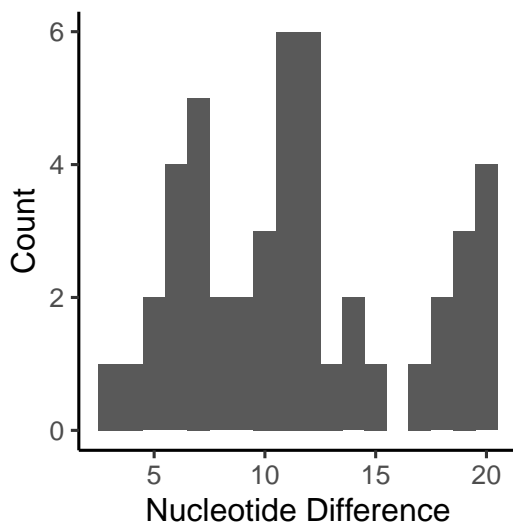
IGHV4-30-2*01

1428 sequences assigned
148 (10.4%) exact matches, in which:
105 unique CDR3
6 unique J



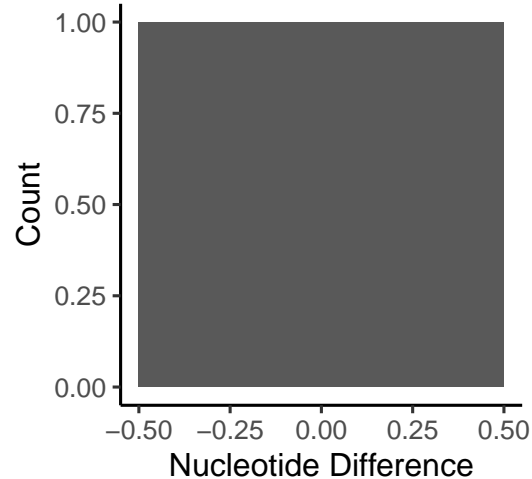
IGHV4-30-4*08

65 sequences assigned
No exact matches.



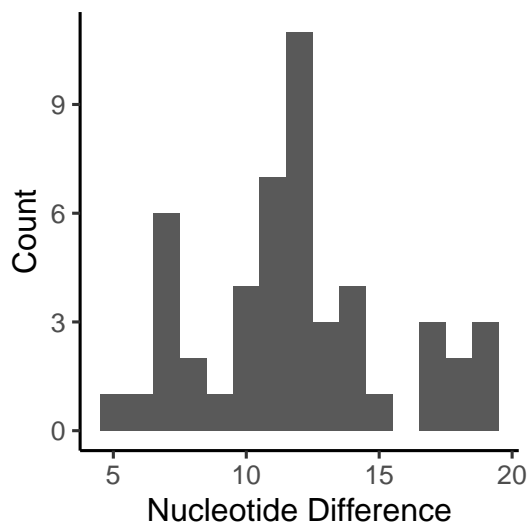
IGHV4-38-2*01

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



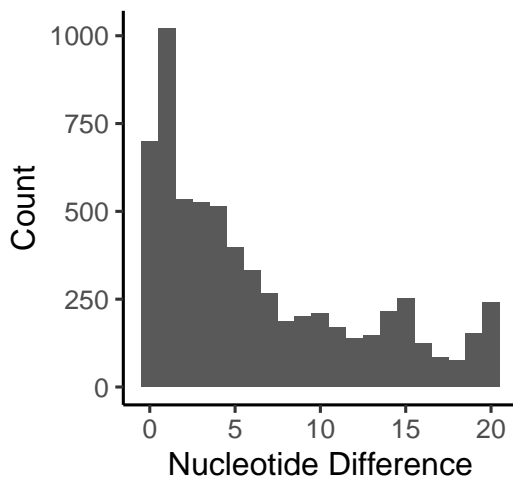
IGHV4-30-4*01

80 sequences assigned
No exact matches.



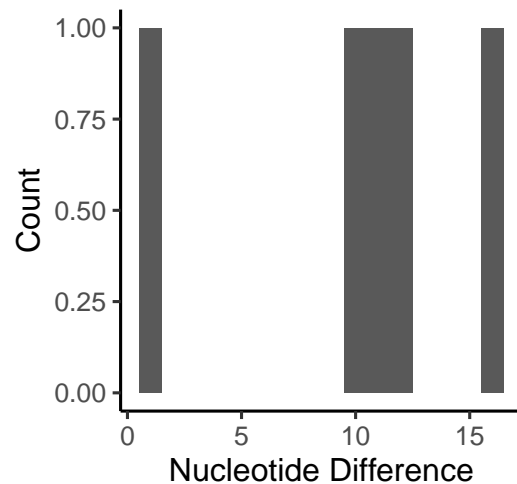
IGHV4-31*02

7928 sequences assigned
700 (8.8%) exact matches, in which:
555 unique CDR3
6 unique J



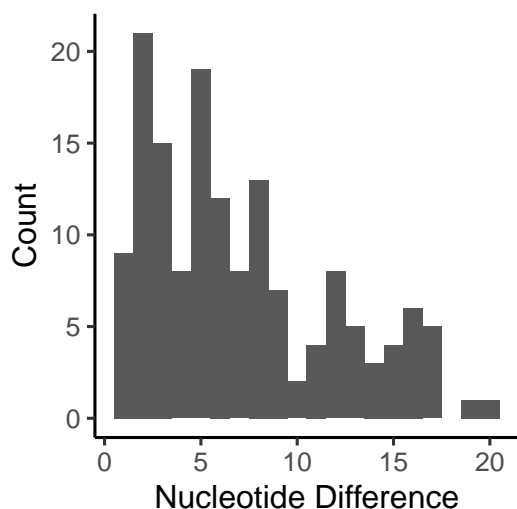
IGHV4-38-2*02

8 sequences assigned
No exact matches.



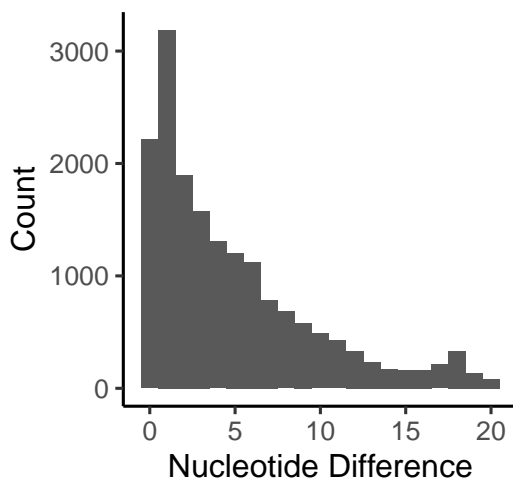
IGHV4-30-2*03

185 sequences assigned
No exact matches.



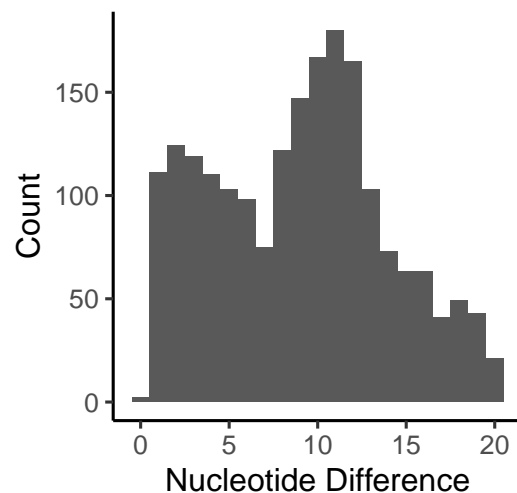
IGHV4-34*01_02

18390 sequences assigned
2215 (12%) exact matches, in which:
1476 unique CDR3
6 unique J



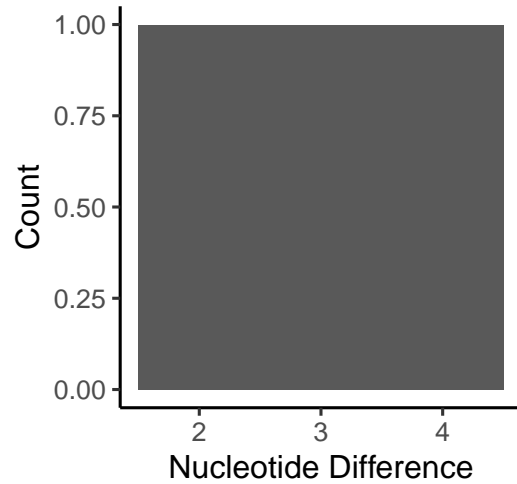
IGHV4-39*07

2230 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
2 unique J



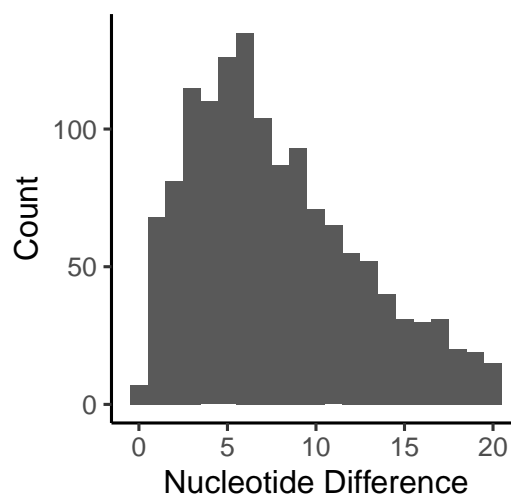
IGHV4-55*09

5 sequences assigned
No exact matches.



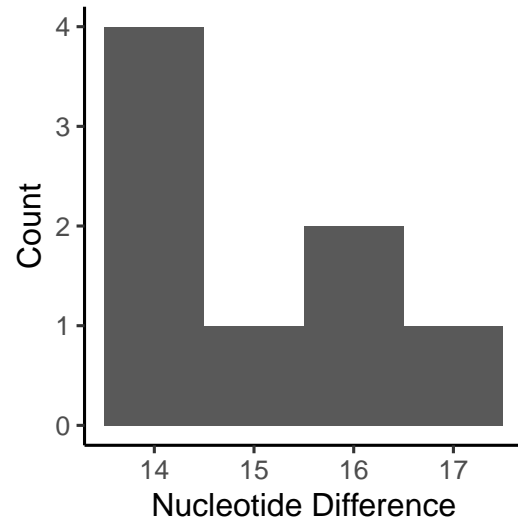
IGHV4-61*01

1542 sequences assigned
7 (0.5%) exact matches, in which:
4 unique CDR3
2 unique J



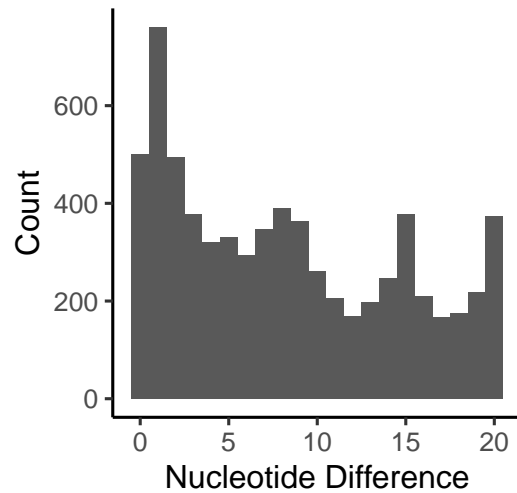
IGHV4/OR15-8*02

34 sequences assigned
No exact matches.



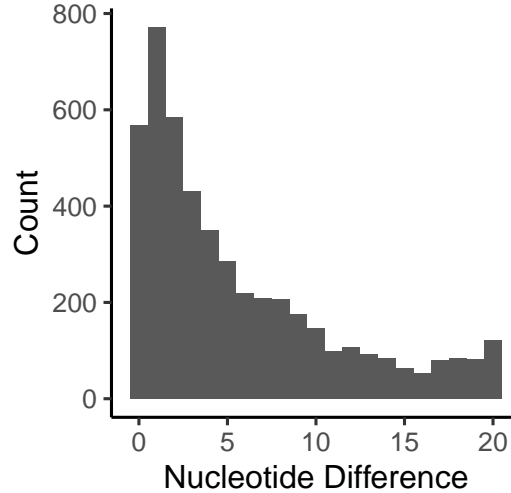
IGHV4-59*08

7426 sequences assigned
501 (6.7%) exact matches, in which:
375 unique CDR3
6 unique J



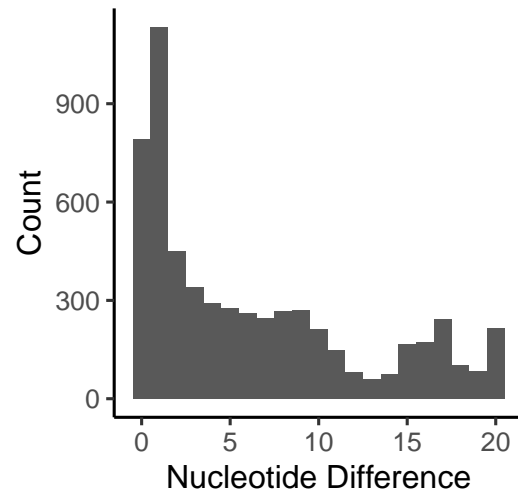
IGHV4-61*02

6882 sequences assigned
568 (8.3%) exact matches, in which:
452 unique CDR3
6 unique J



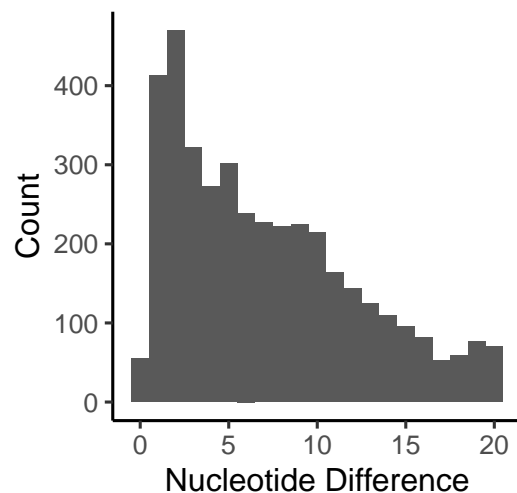
IGHV5-10-1*01_03

7694 sequences assigned
792 (10.3%) exact matches, in which:
470 unique CDR3
6 unique J



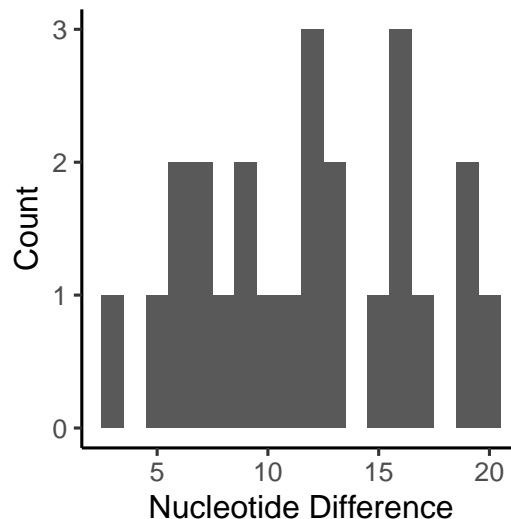
IGHV4-59*12

5298 sequences assigned
55 (1%) exact matches, in which:
54 unique CDR3
4 unique J



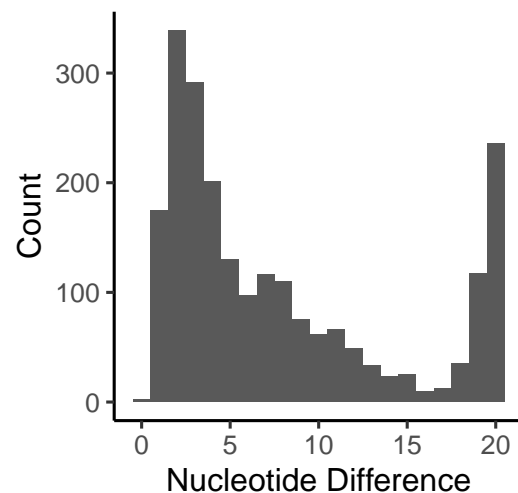
IGHV4/OR15-8*01

29 sequences assigned
No exact matches.



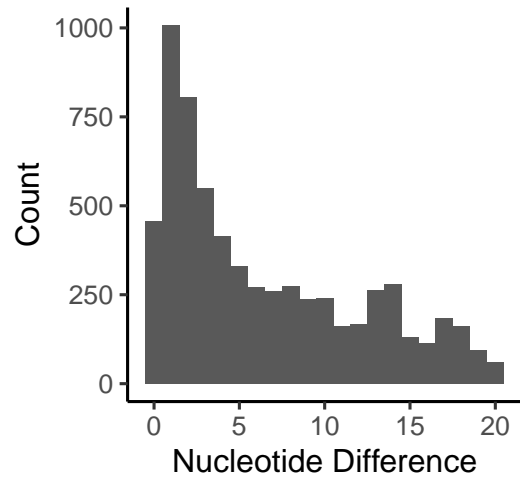
IGHV5-51*07

2601 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
1 unique J



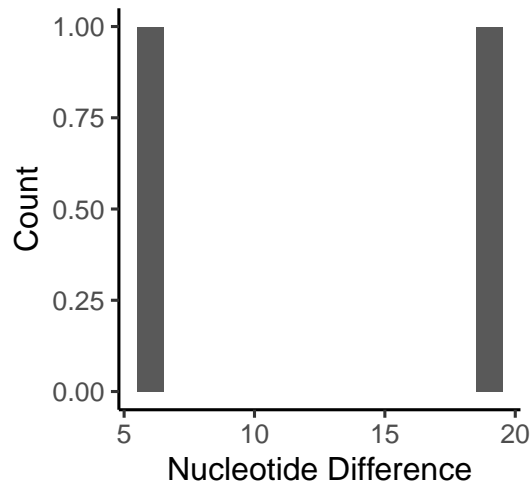
IGHV5–51*01_03

7716 sequences assigned
457 (5.9%) exact matches, in which:
258 unique CDR3
6 unique J



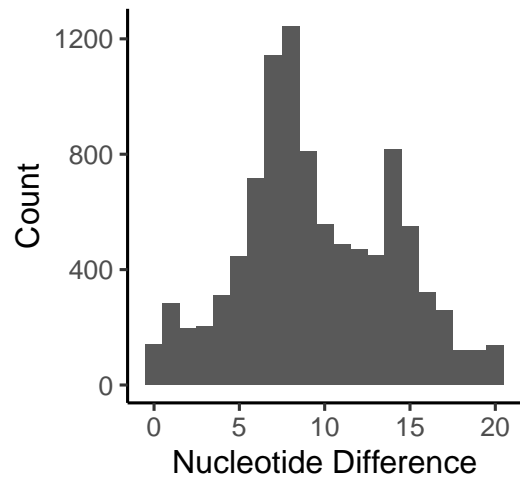
IGHV3/OR16–10*01_03

2 sequences assigned
No exact matches.



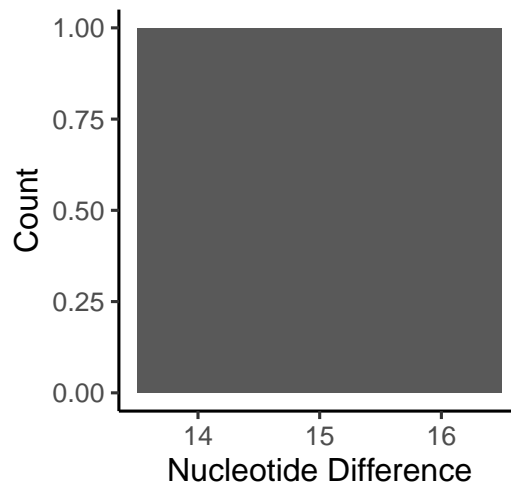
IGHV6–1*01_02

10020 sequences assigned
141 (1.4%) exact matches, in which:
112 unique CDR3
5 unique J



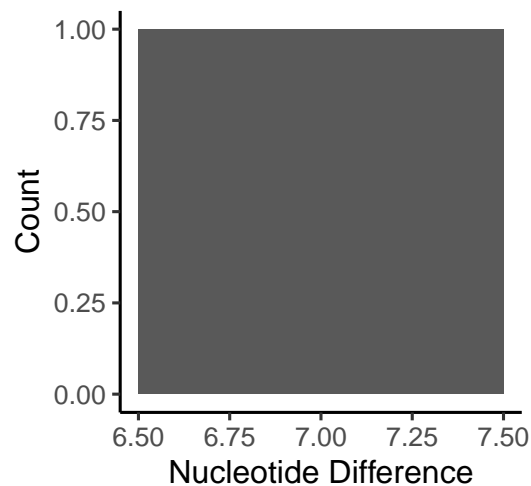
IGHV3/OR16–13*01

3 sequences assigned
No exact matches.



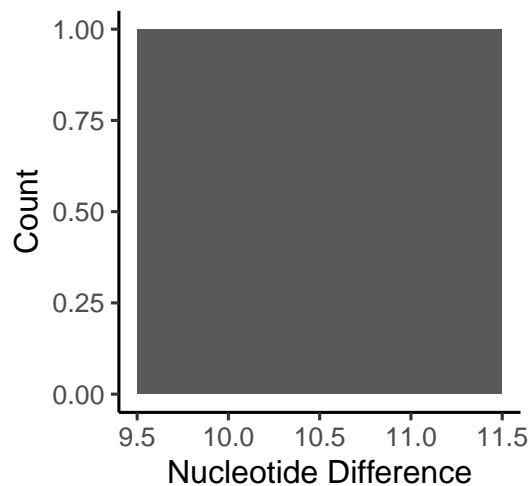
IGHV3/OR16–9*01

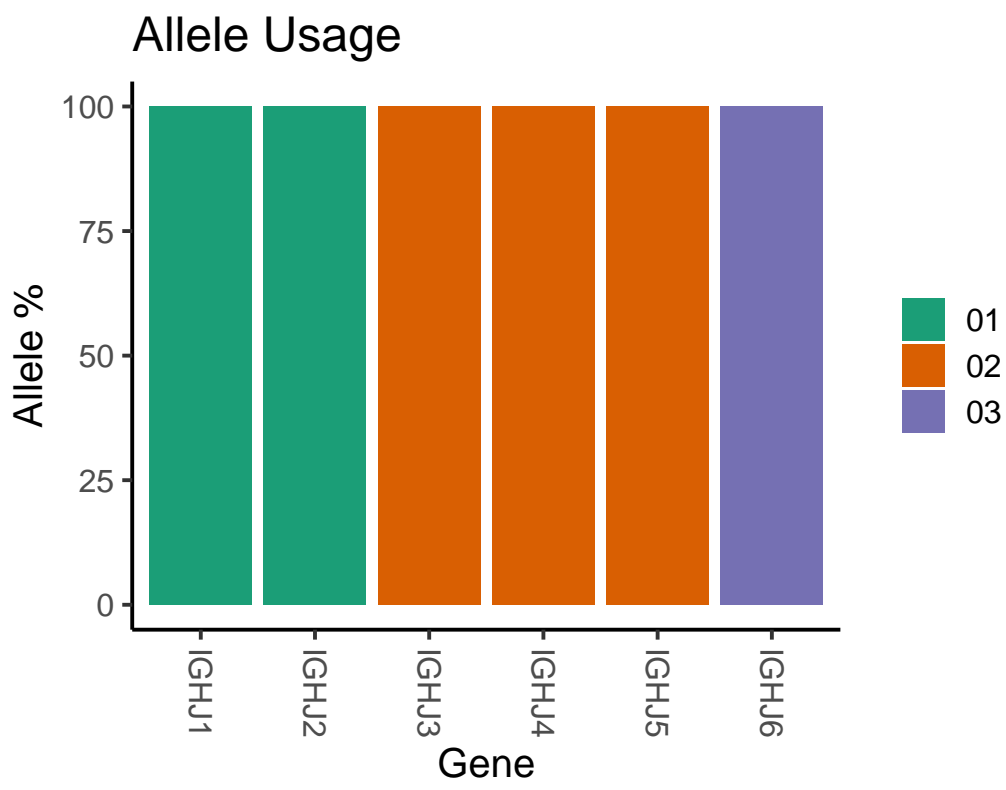
1 sequences assigned
No exact matches.



IGHV7–4–1*02

2 sequences assigned
No exact matches.





[illegible]