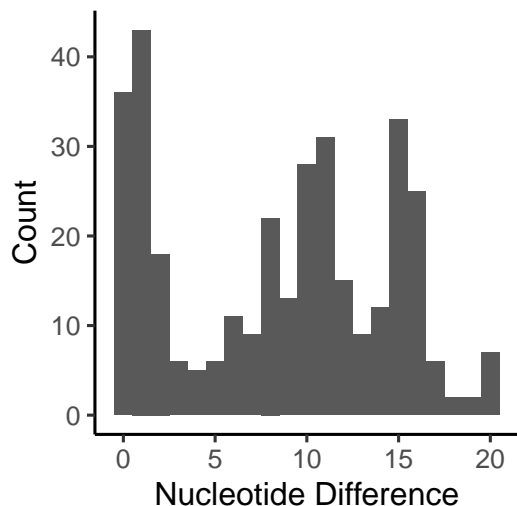


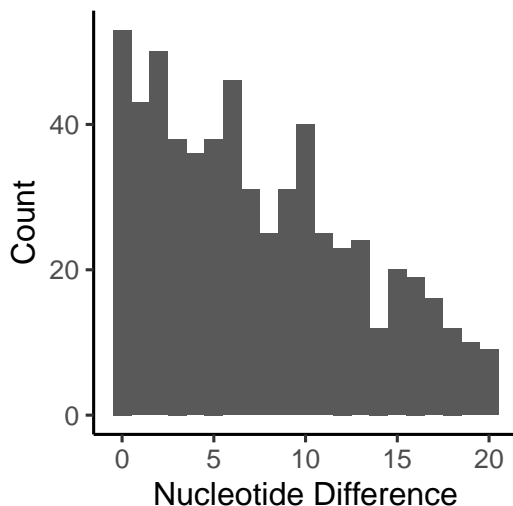
IGHV1-2*04

510 sequences assigned
36 (7.1%) exact matches, in which:
28 unique CDR3
5 unique J



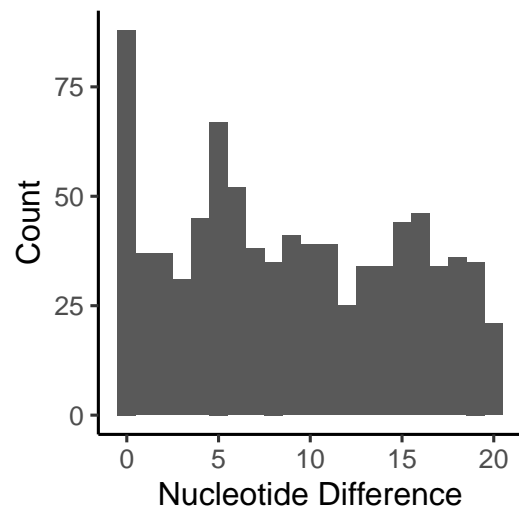
IGHV1-8*01

945 sequences assigned
53 (5.6%) exact matches, in which:
50 unique CDR3
6 unique J



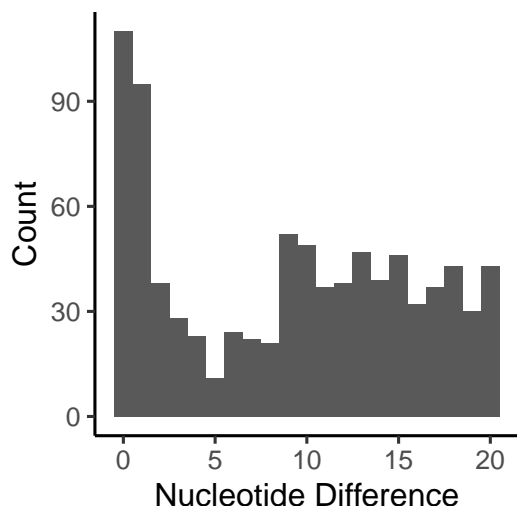
IGHV1-46*01

1479 sequences assigned
88 (5.9%) exact matches, in which:
83 unique CDR3
6 unique J



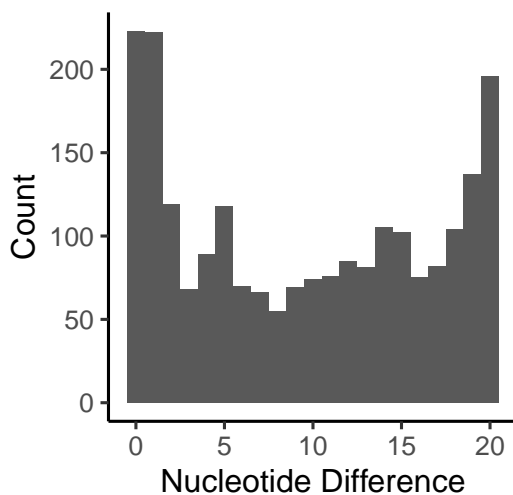
IGHV1-3*01

1334 sequences assigned
110 (8.2%) exact matches, in which:
101 unique CDR3
6 unique J



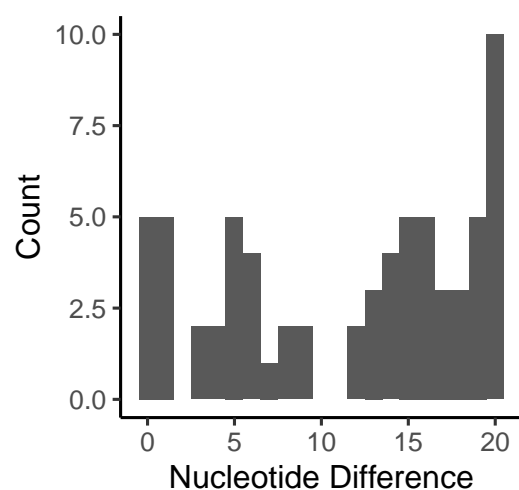
IGHV1-18*01

5107 sequences assigned
223 (4.4%) exact matches, in which:
197 unique CDR3
7 unique J



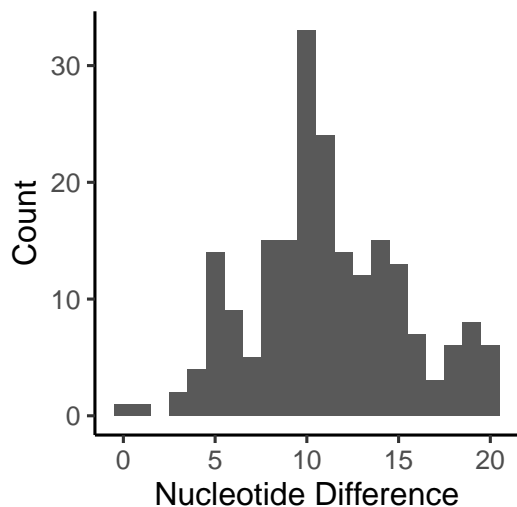
IGHV1-58*01

90 sequences assigned
5 (5.6%) exact matches, in which:
5 unique CDR3
3 unique J



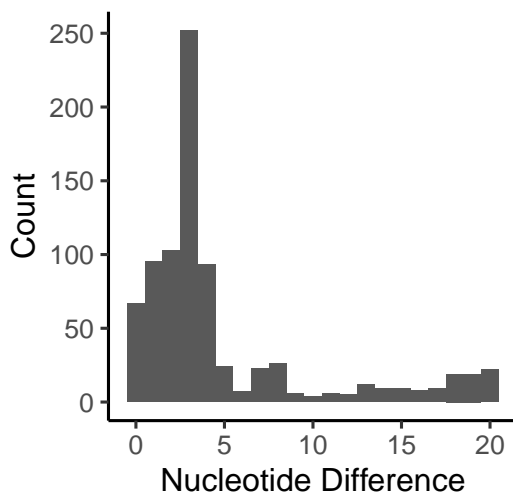
IGHV1-3*04

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



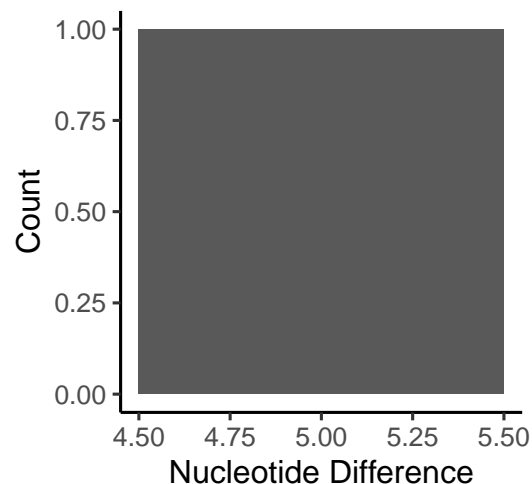
IGHV1-24*01

966 sequences assigned
67 (6.9%) exact matches, in which:
61 unique CDR3
7 unique J



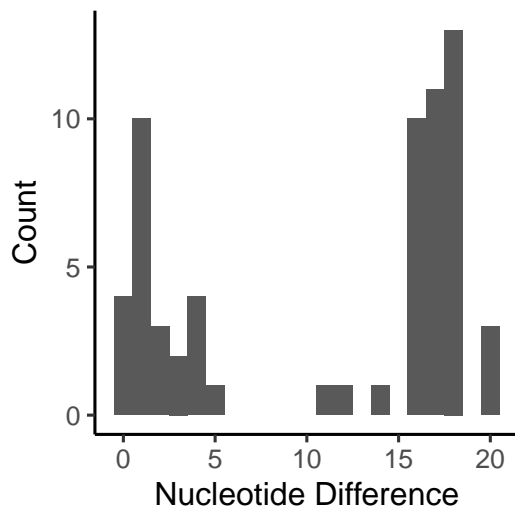
IGHV1-68*02

1 sequences assigned
No exact matches.



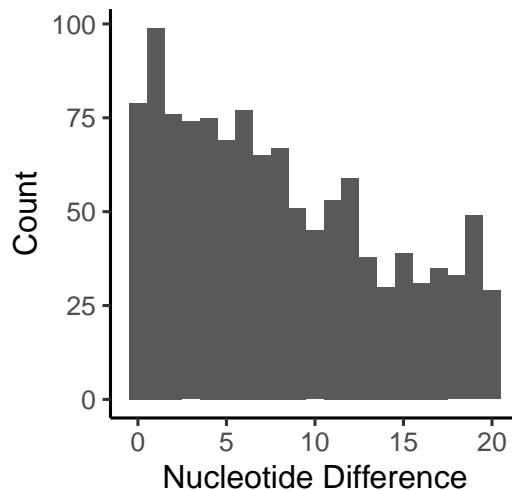
IGHV1-69-2*01

127 sequences assigned
4 (3.1%) exact matches, in which:
4 unique CDR3
3 unique J



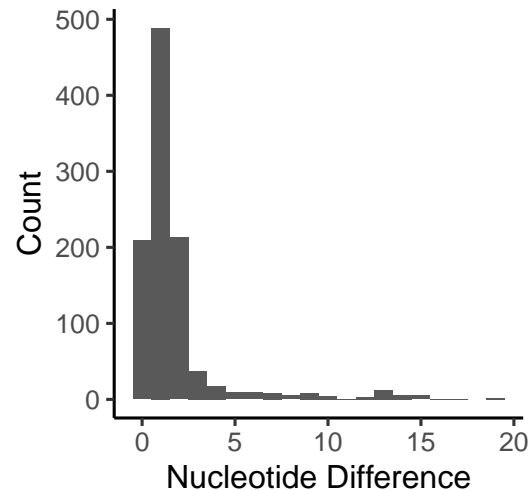
IGHV2-5*02

1385 sequences assigned
79 (5.7%) exact matches, in which:
74 unique CDR3
5 unique J



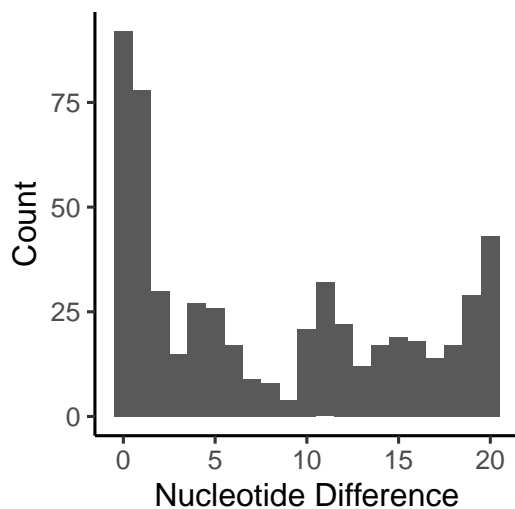
IGHV2-70*15

1066 sequences assigned
209 (19.6%) exact matches, in which:
78 unique CDR3
4 unique J



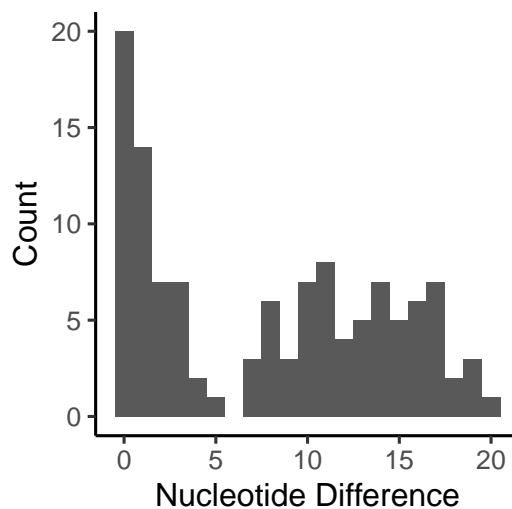
IGHV1-69*04

1237 sequences assigned
92 (7.4%) exact matches, in which:
89 unique CDR3
6 unique J



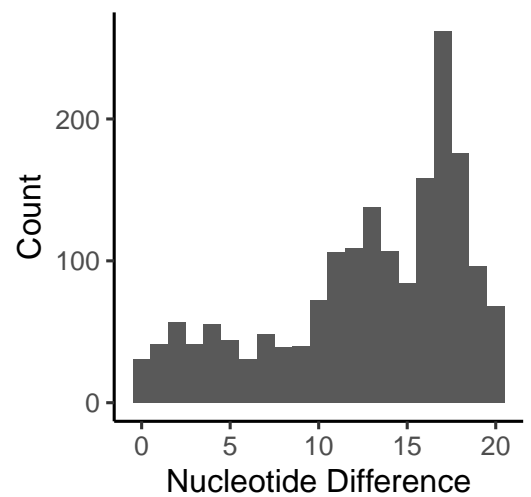
IGHV2-26*01

124 sequences assigned
20 (16.1%) exact matches, in which:
19 unique CDR3
6 unique J



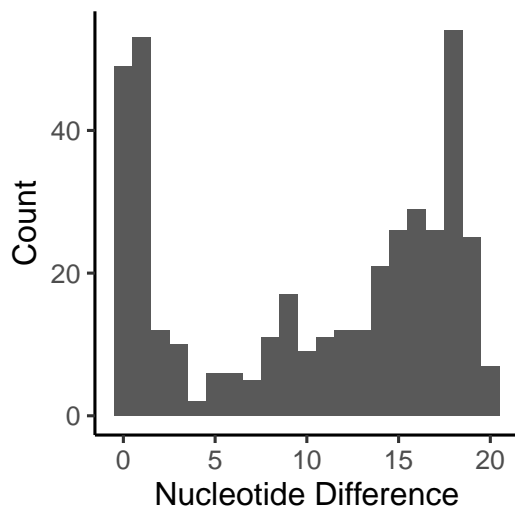
IGHV3-7*01

2158 sequences assigned
31 (1.4%) exact matches, in which:
31 unique CDR3
5 unique J



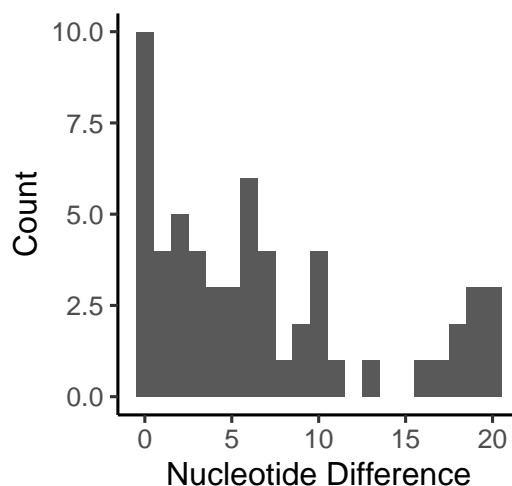
IGHV1-69*06

733 sequences assigned
49 (6.7%) exact matches, in which:
40 unique CDR3
4 unique J



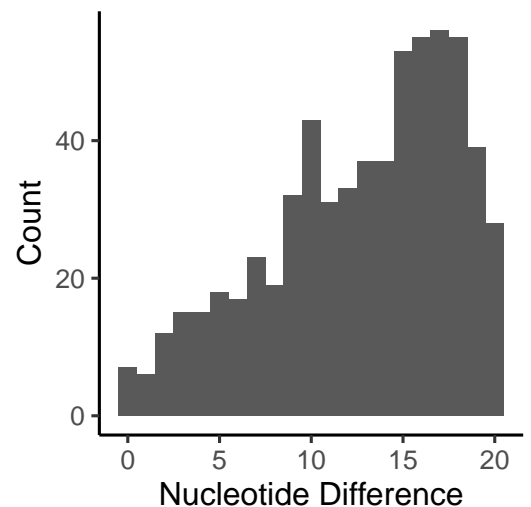
IGHV2-70*01

74 sequences assigned
10 (13.5%) exact matches, in which:
10 unique CDR3
4 unique J



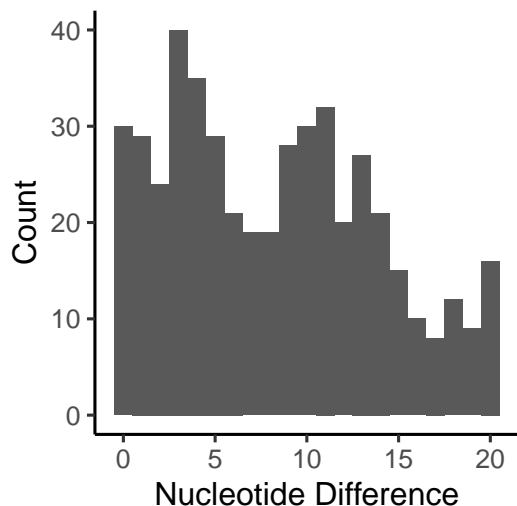
IGHV3-7*04

1091 sequences assigned
7 (0.6%) exact matches, in which:
7 unique CDR3
3 unique J



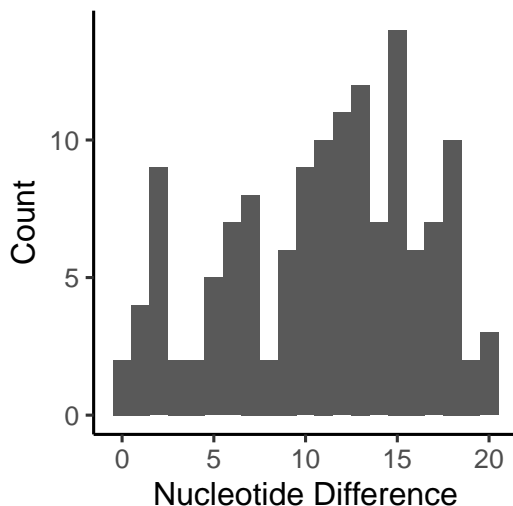
IGHV3-9*01

709 sequences assigned
30 (4.2%) exact matches, in which:
28 unique CDR3
5 unique J



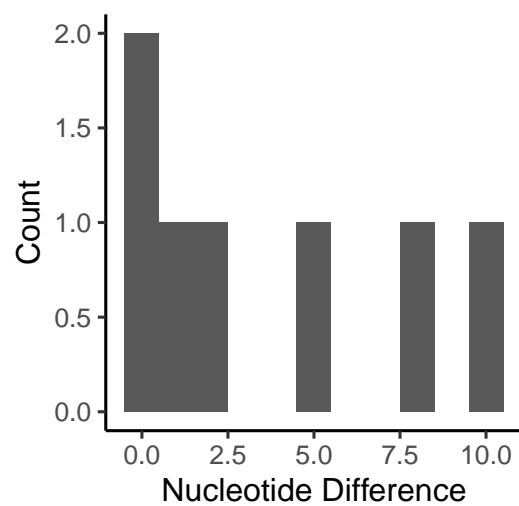
IGHV3-13*01

226 sequences assigned
2 (0.9%) exact matches, in which:
2 unique CDR3
2 unique J



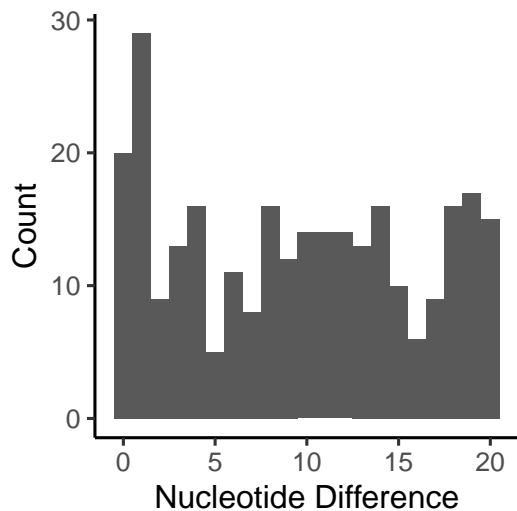
IGHV3-20*01

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
2 unique J



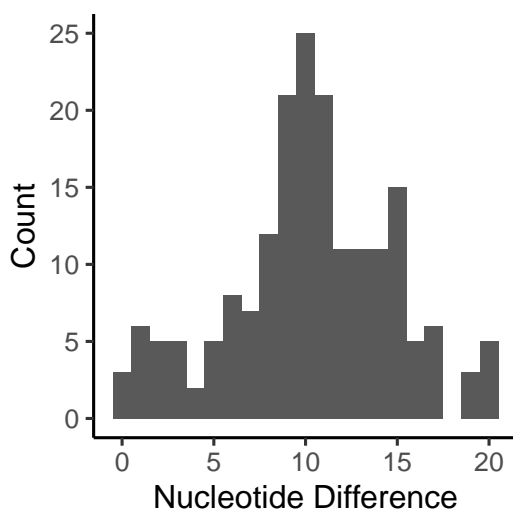
IGHV3-11*01

429 sequences assigned
20 (4.7%) exact matches, in which:
19 unique CDR3
4 unique J



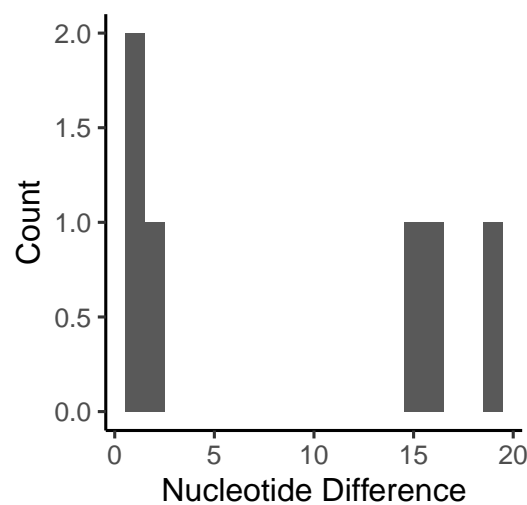
IGHV3-15*01

270 sequences assigned
3 (1.1%) exact matches, in which:
3 unique CDR3
3 unique J



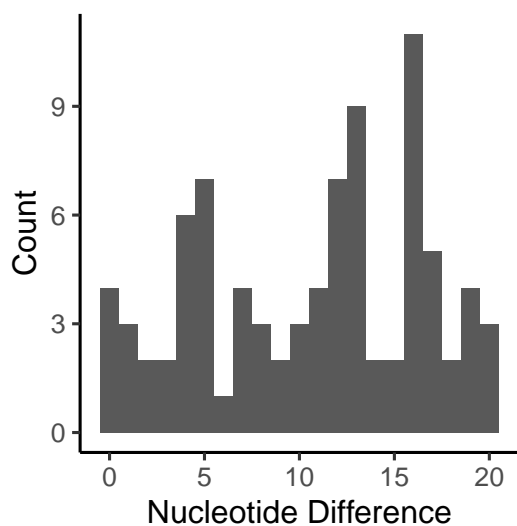
IGHV3-20*04

12 sequences assigned
No exact matches.



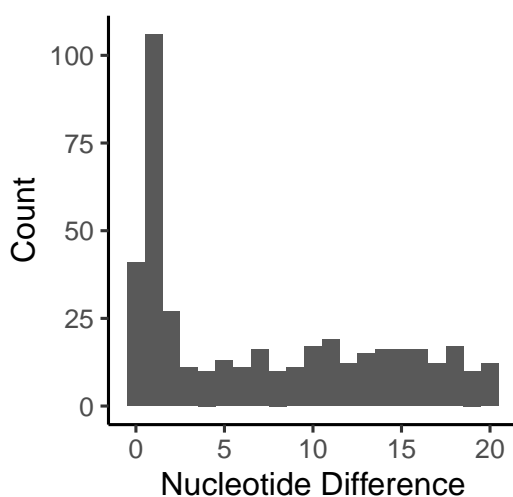
IGHV3-11*06

144 sequences assigned
4 (2.8%) exact matches, in which:
4 unique CDR3
2 unique J



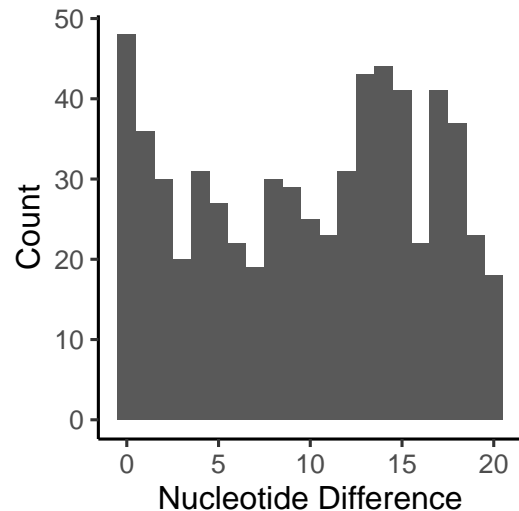
IGHV3-15*07

584 sequences assigned
41 (7%) exact matches, in which:
26 unique CDR3
3 unique J



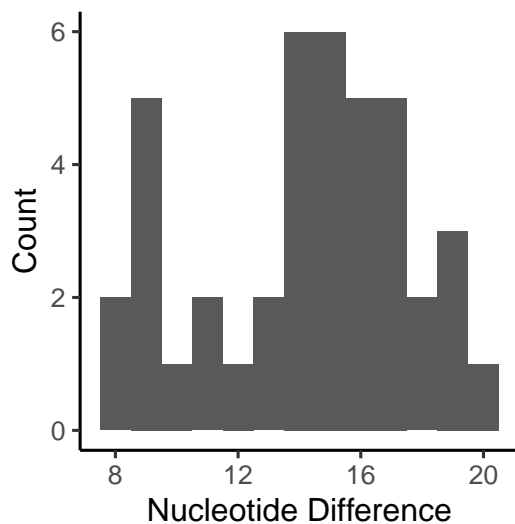
IGHV3-21*01

1067 sequences assigned
48 (4.5%) exact matches, in which:
43 unique CDR3
7 unique J



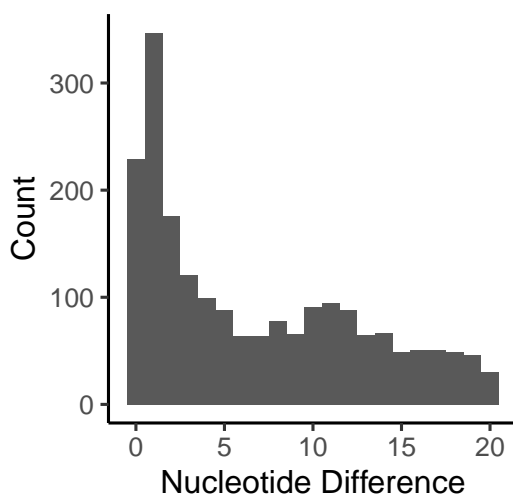
IGHV3-21*02

217 sequences assigned
No exact matches.



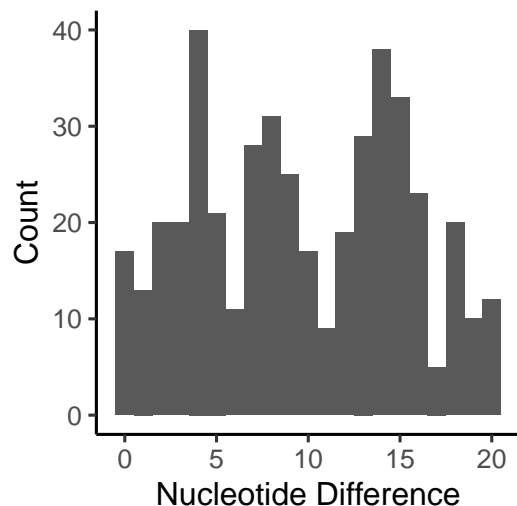
IGHV3-33*01

2533 sequences assigned
229 (9%) exact matches, in which:
159 unique CDR3
6 unique J



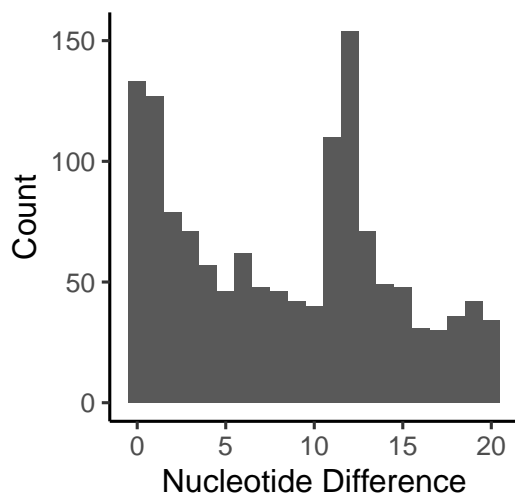
IGHV3-48*02

646 sequences assigned
17 (2.6%) exact matches, in which:
14 unique CDR3
4 unique J



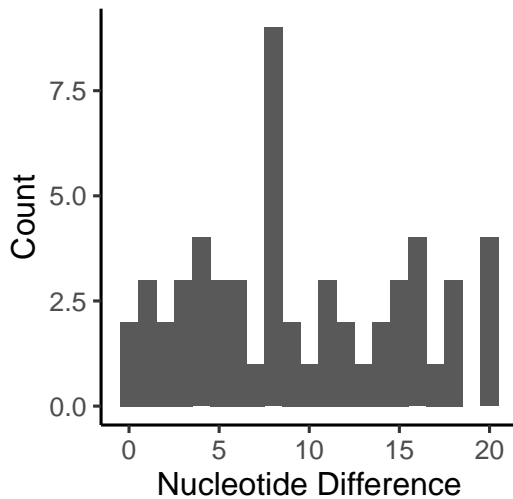
IGHV3-30-3*01

1883 sequences assigned
133 (7.1%) exact matches, in which:
116 unique CDR3
7 unique J



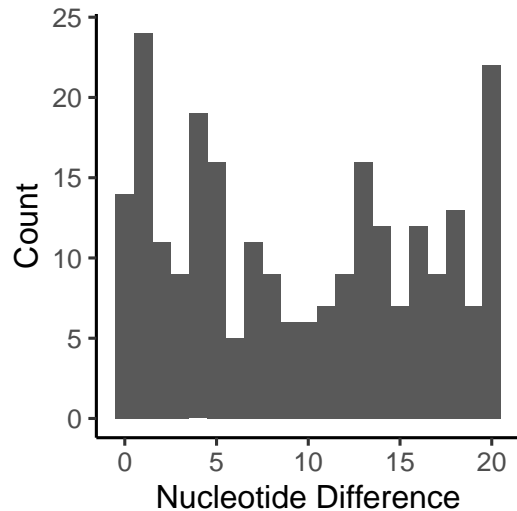
IGHV3-43*01

94 sequences assigned
2 (2.1%) exact matches, in which:
2 unique CDR3
2 unique J



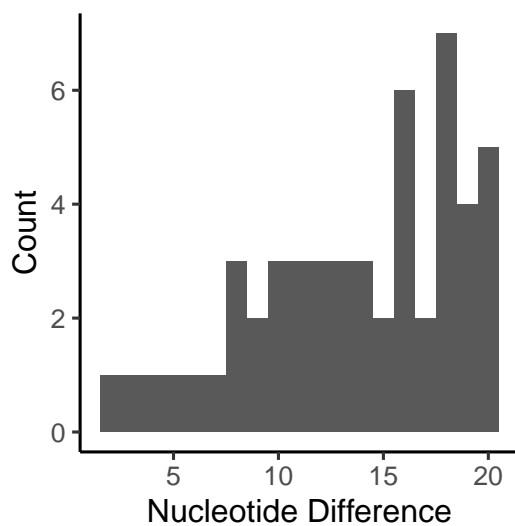
IGHV3-49*03

323 sequences assigned
14 (4.3%) exact matches, in which:
12 unique CDR3
3 unique J



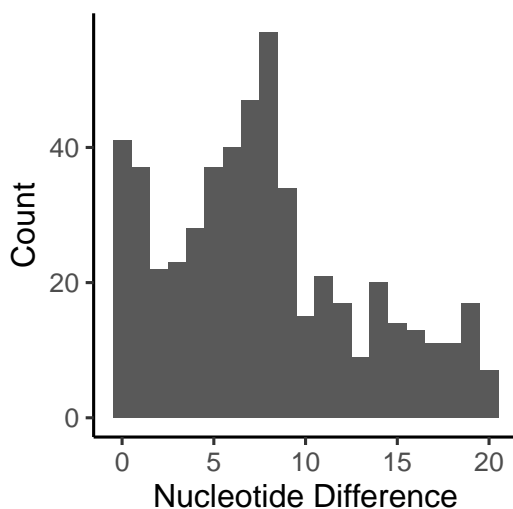
IGHV3-30*04

150 sequences assigned
No exact matches.



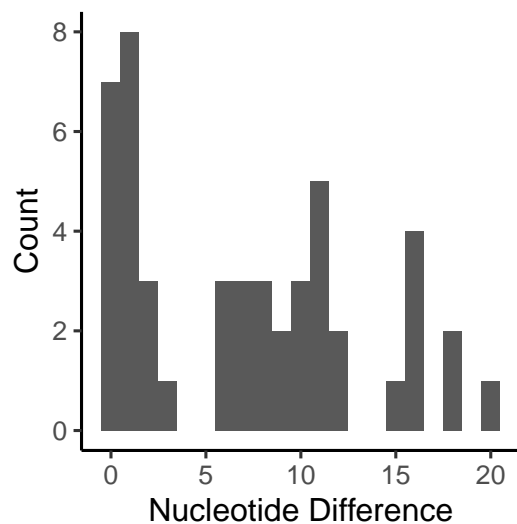
IGHV3-48*01

716 sequences assigned
41 (5.7%) exact matches, in which:
34 unique CDR3
4 unique J



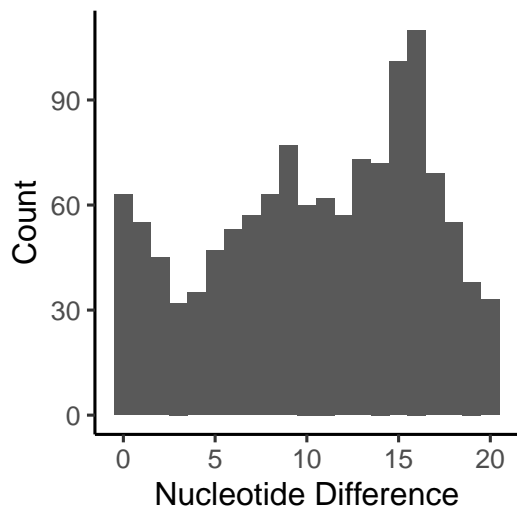
IGHV3-49*05

84 sequences assigned
7 (8.3%) exact matches, in which:
7 unique CDR3
3 unique J



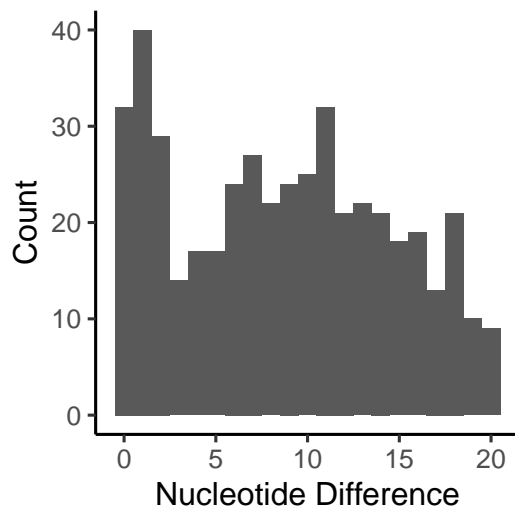
IGHV3-53*01

1952 sequences assigned
63 (3.2%) exact matches, in which:
62 unique CDR3
6 unique J



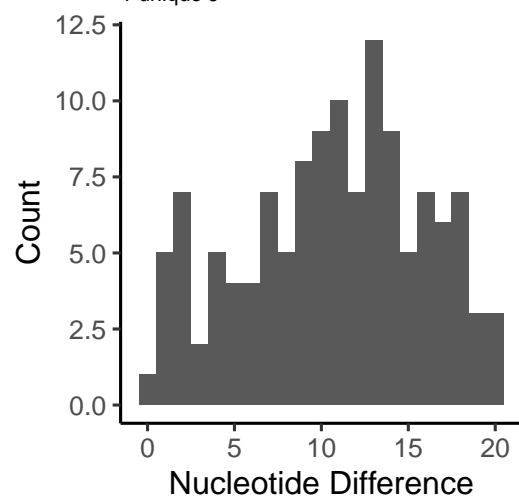
IGHV3-66*01

559 sequences assigned
32 (5.7%) exact matches, in which:
29 unique CDR3
4 unique J



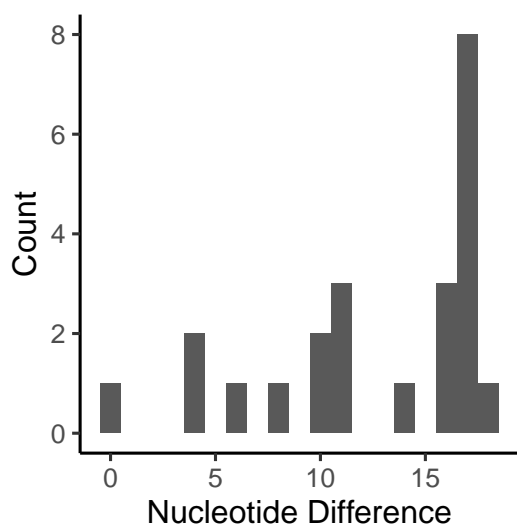
IGHV3-72*01

166 sequences assigned
1 (0.6%) exact matches, in which:
1 unique CDR3
1 unique J



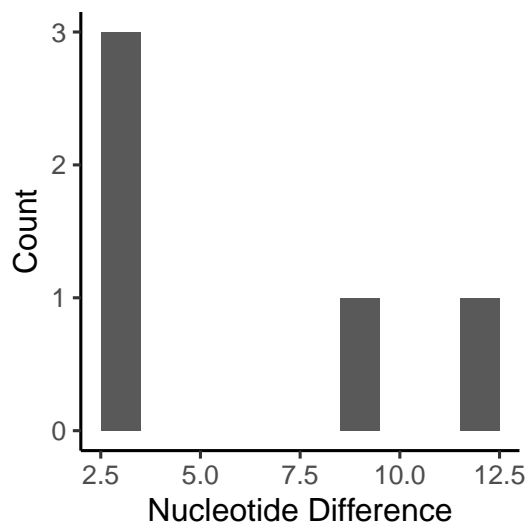
IGHV3-64*02

26 sequences assigned
1 (3.8%) exact matches, in which:
1 unique CDR3
1 unique J



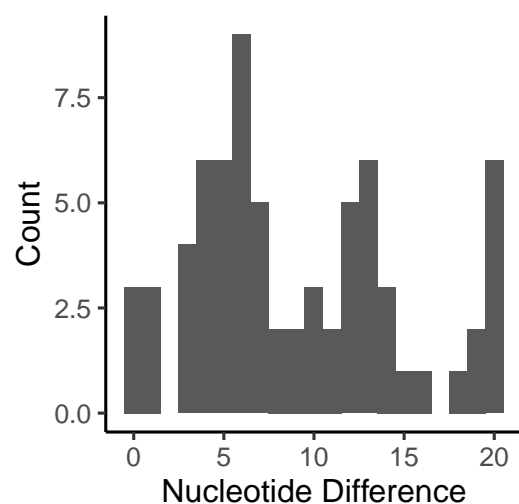
IGHV3-69-1*01

10 sequences assigned
No exact matches.



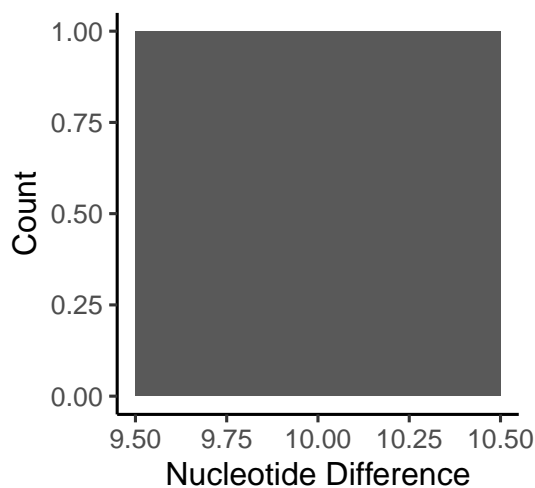
IGHV3-73*01

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



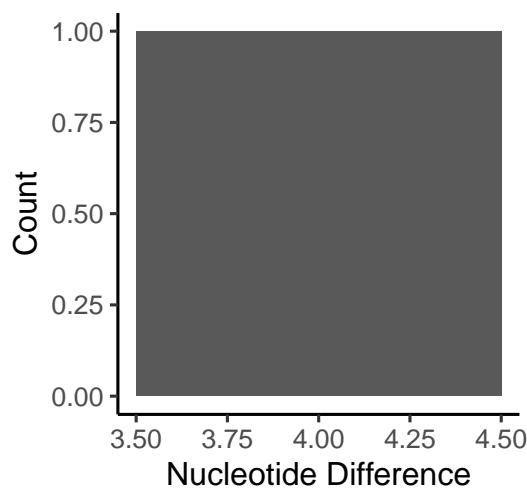
IGHV3-64*04

1 sequences assigned
No exact matches.



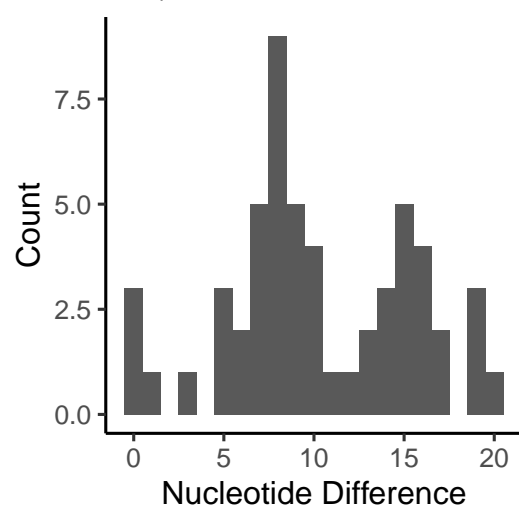
IGHV3-69-1*02

8 sequences assigned
No exact matches.



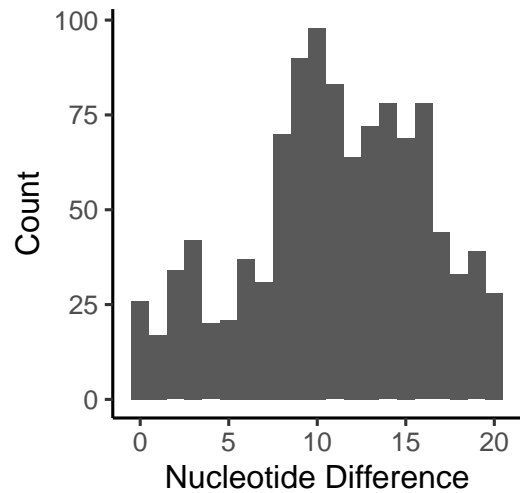
IGHV3-73*02

104 sequences assigned
3 (2.9%) exact matches, in which:
3 unique CDR3
2 unique J



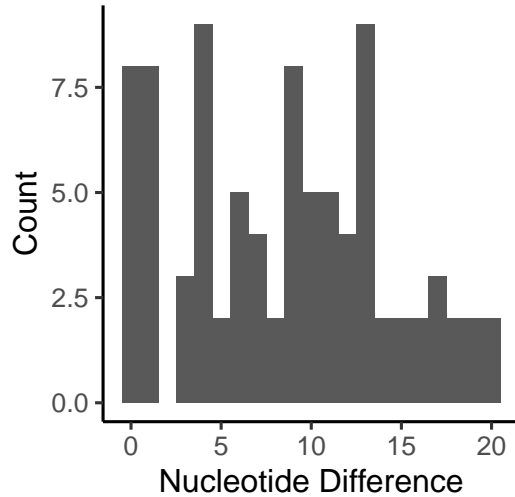
IGHV3-74*01

1474 sequences assigned
26 (1.8%) exact matches, in which:
21 unique CDR3
5 unique J



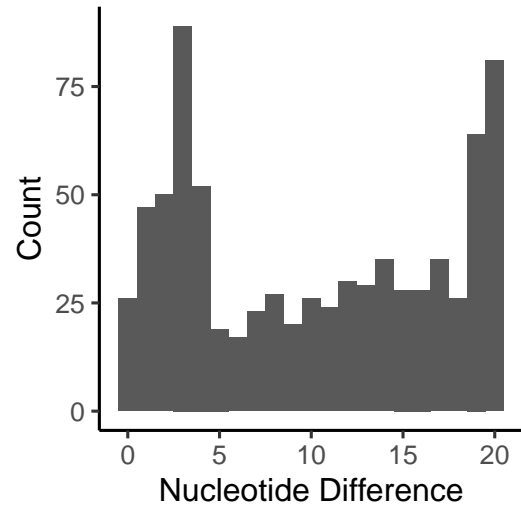
IGHV3-64D*06

92 sequences assigned
8 (8.7%) exact matches, in which:
7 unique CDR3
1 unique J



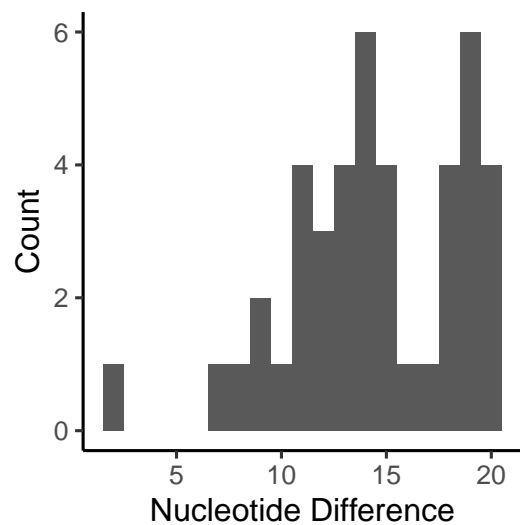
IGHV4-4*02

1239 sequences assigned
26 (2.1%) exact matches, in which:
22 unique CDR3
7 unique J



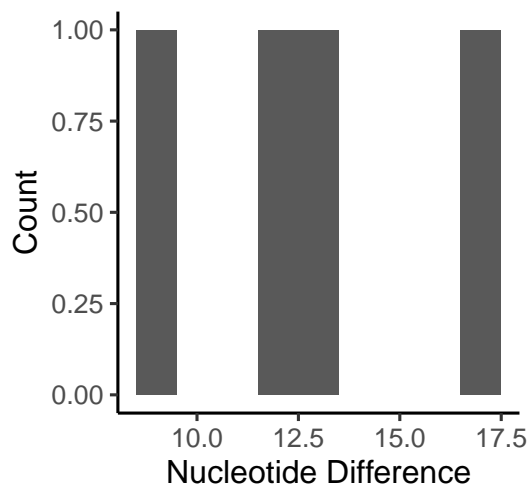
IGHV3-74*03

266 sequences assigned
No exact matches.



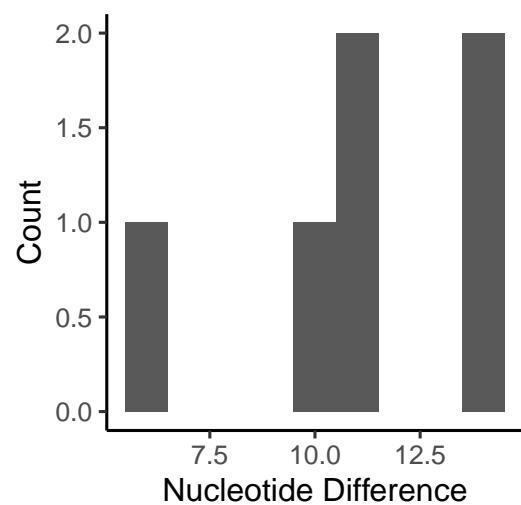
IGHV3-64D*08

8 sequences assigned
No exact matches.



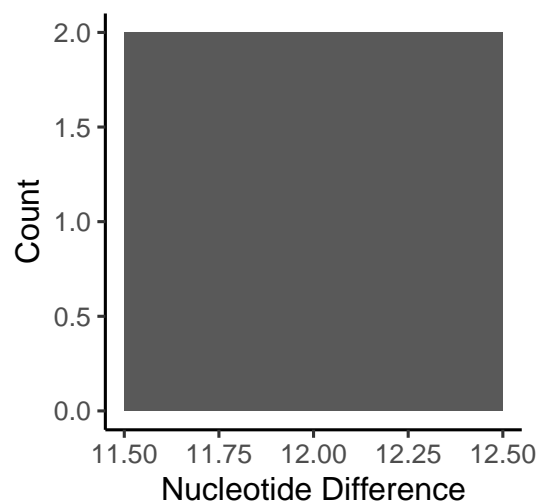
IGHV4-28*01

6 sequences assigned
No exact matches.



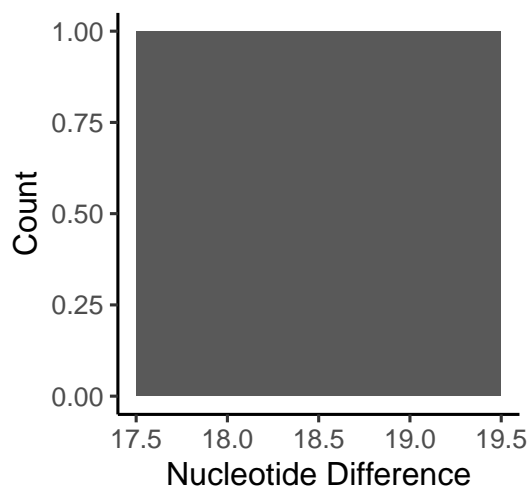
IGHV3-43D*04

9 sequences assigned
No exact matches.



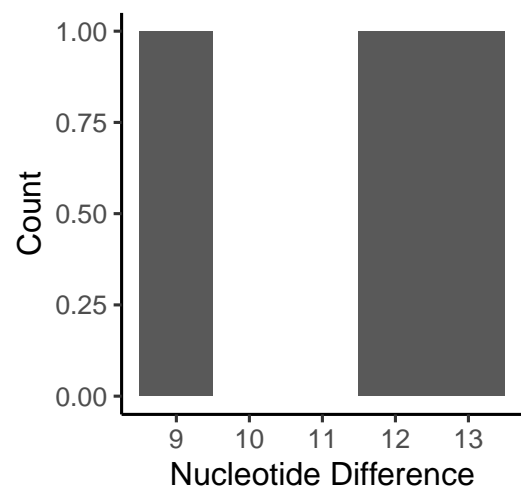
IGHV3-NL1*01

2 sequences assigned
No exact matches.



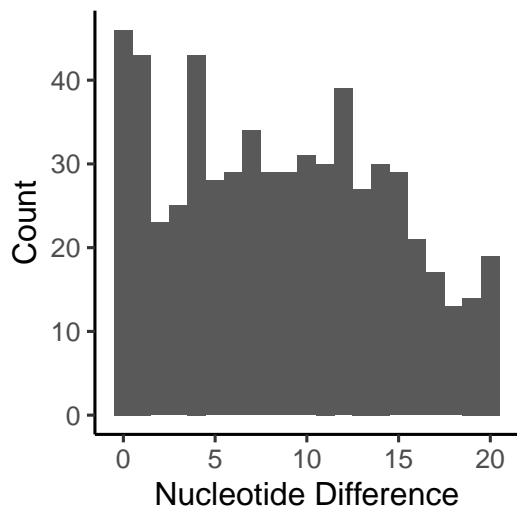
IGHV4-28*07

3 sequences assigned
No exact matches.



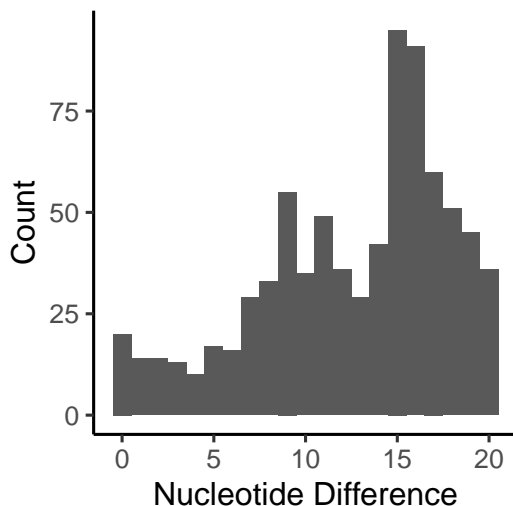
IGHV4-30-4*01

837 sequences assigned
46 (5.5%) exact matches, in which:
43 unique CDR3
6 unique J



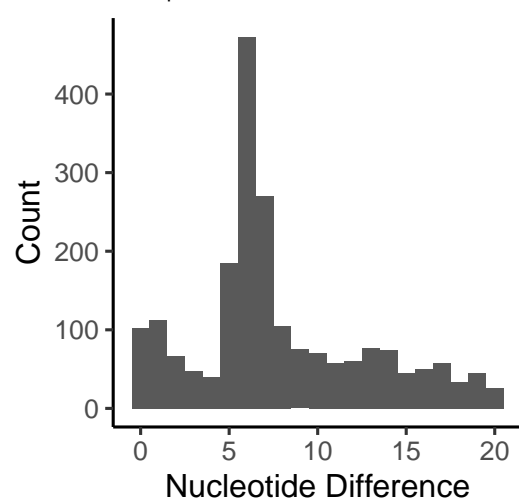
IGHV4-34*01

1099 sequences assigned
20 (1.8%) exact matches, in which:
16 unique CDR3
6 unique J



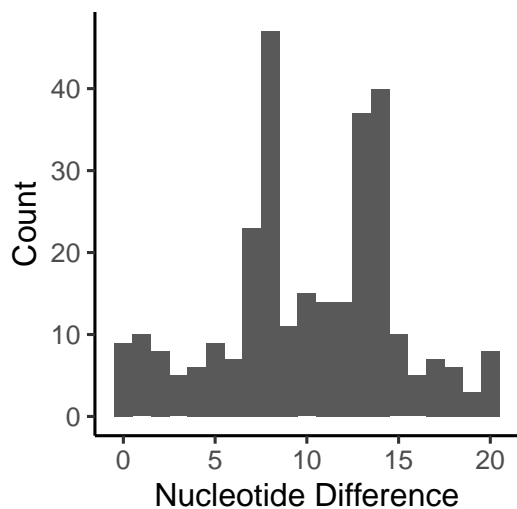
IGHV4-59*01

2852 sequences assigned
102 (3.6%) exact matches, in which:
76 unique CDR3
7 unique J



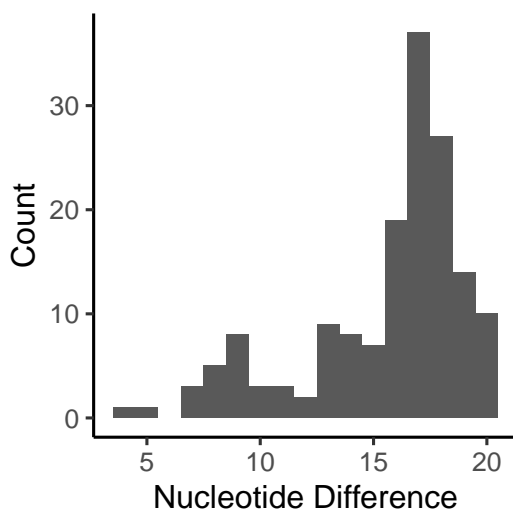
IGHV4-30-2*01

516 sequences assigned
9 (1.7%) exact matches, in which:
8 unique CDR3
4 unique J



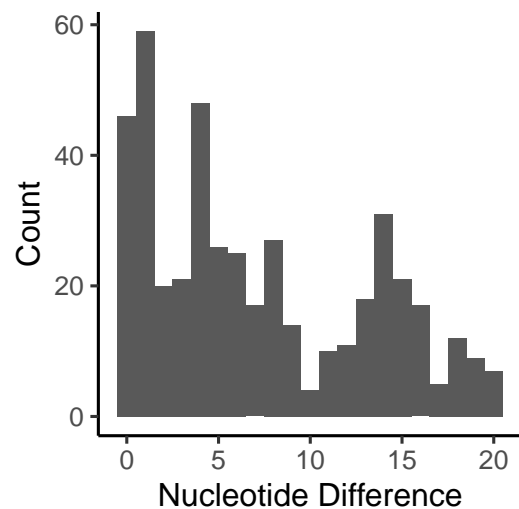
IGHV4-34*02

279 sequences assigned
No exact matches.



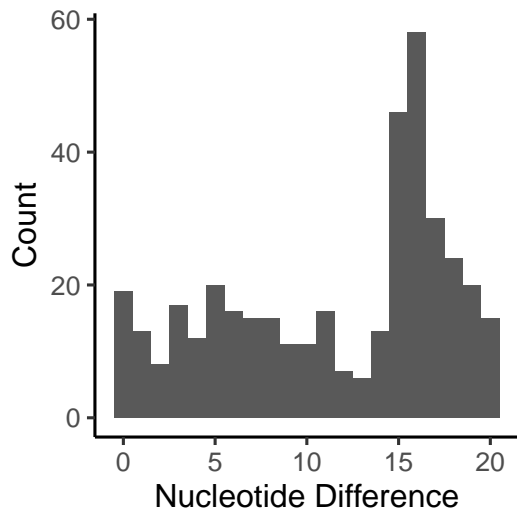
IGHV4-61*01

568 sequences assigned
46 (8.1%) exact matches, in which:
28 unique CDR3
6 unique J



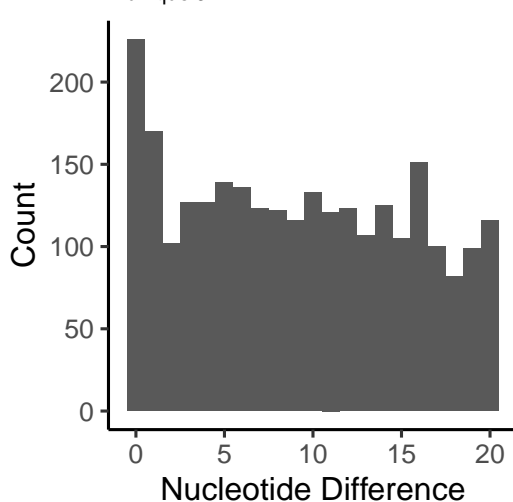
IGHV4-31*03

663 sequences assigned
19 (2.9%) exact matches, in which:
17 unique CDR3
6 unique J



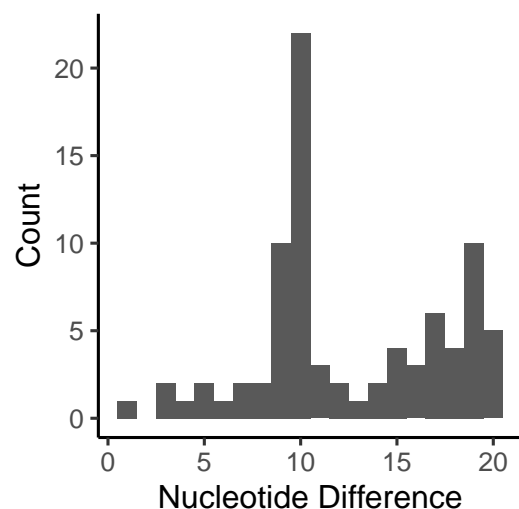
IGHV4-39*01

4510 sequences assigned
226 (5%) exact matches, in which:
202 unique CDR3
7 unique J



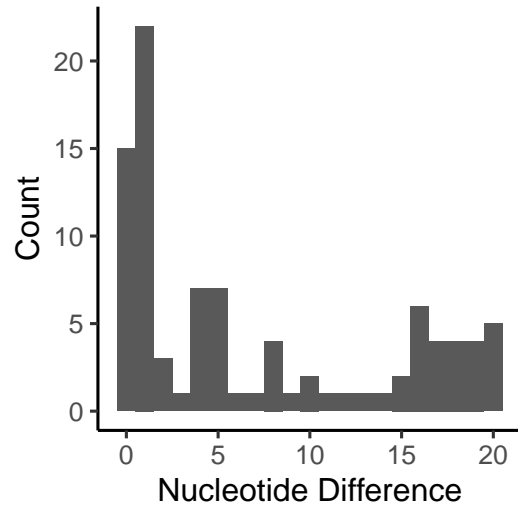
IGHV4-61*08

110 sequences assigned
No exact matches.



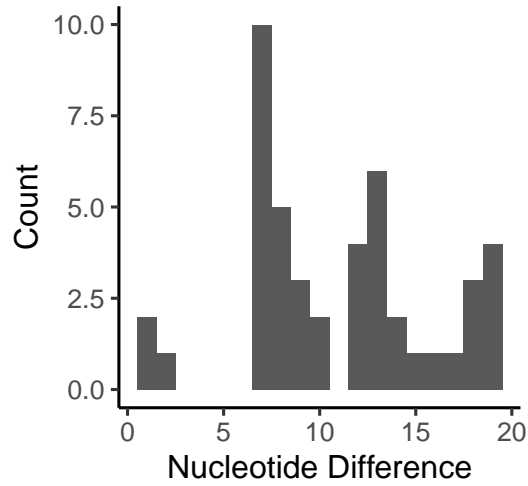
IGHV5-10-1*03

141 sequences assigned
15 (10.6%) exact matches, in which:
10 unique CDR3
3 unique J



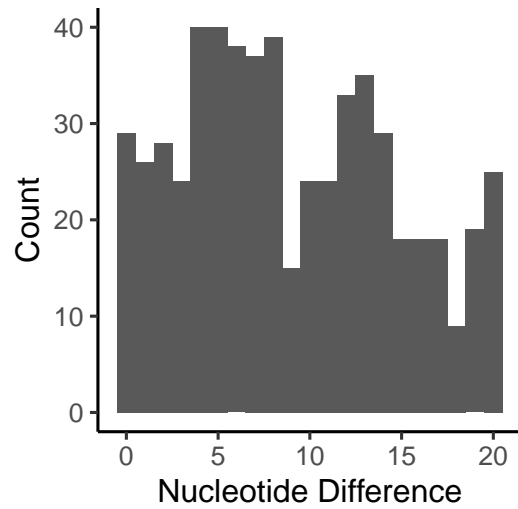
IGHV7-4-1*01

79 sequences assigned
No exact matches.



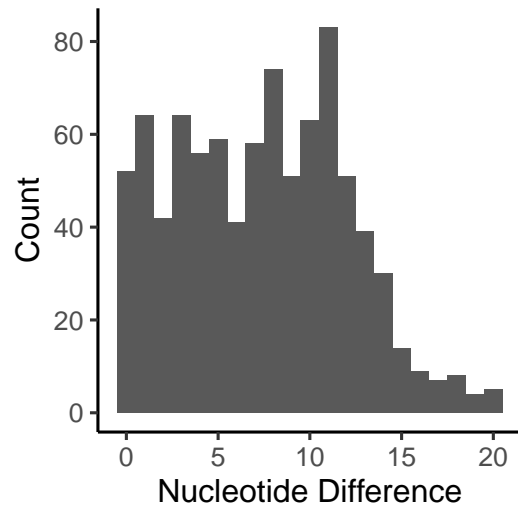
IGHV5-51*01

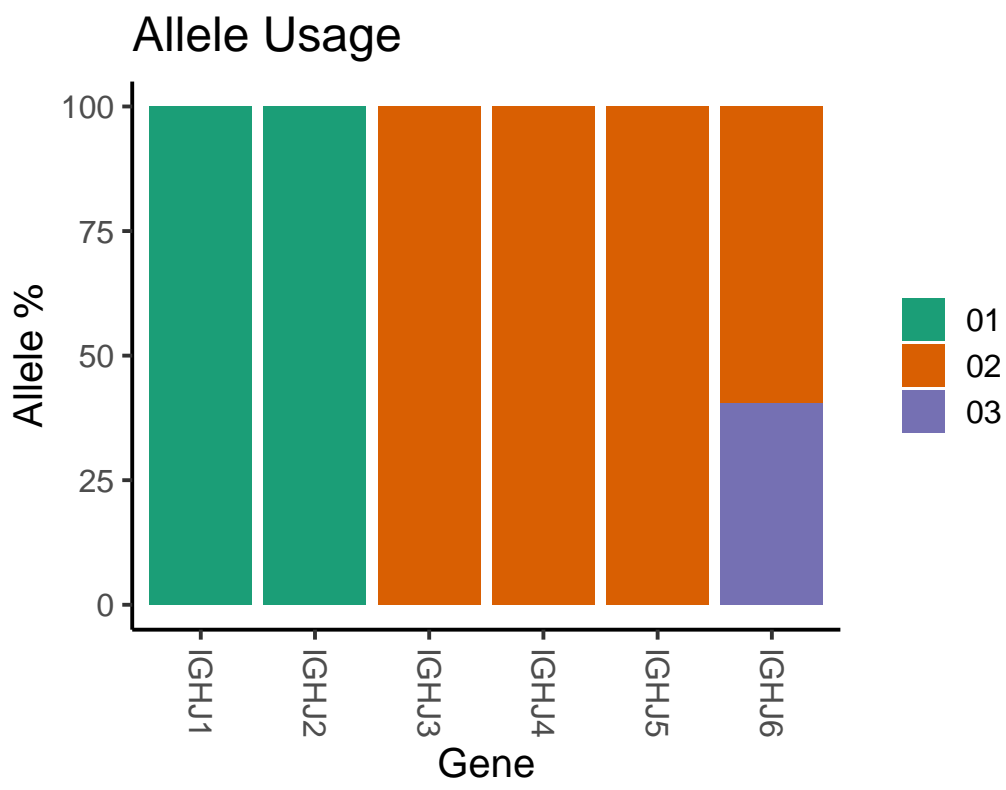
973 sequences assigned
29 (3%) exact matches, in which:
27 unique CDR3
5 unique J



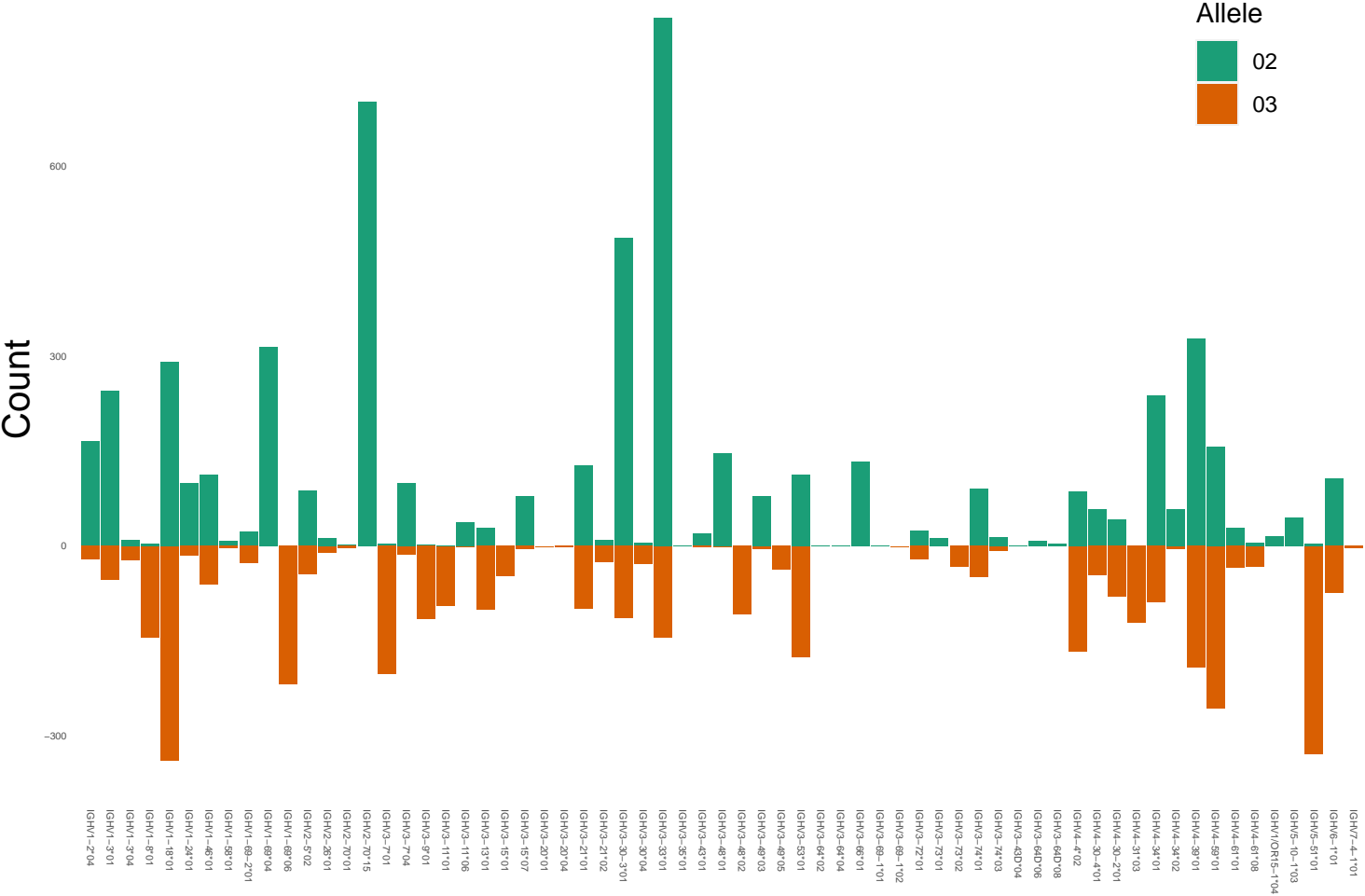
IGHV6-1*01

950 sequences assigned
52 (5.5%) exact matches, in which:
48 unique CDR3
5 unique J





Sequence Count by IGHJ6 allele usage



[illegible]