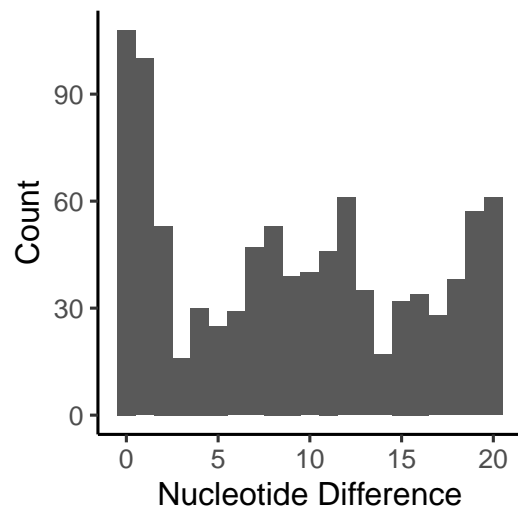


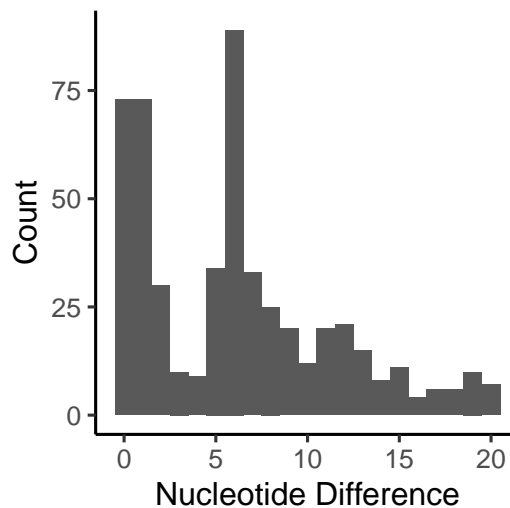
IGHV1-2*02

1426 sequences assigned
108 (7.6%) exact matches, in which:
91 unique CDR3
5 unique J



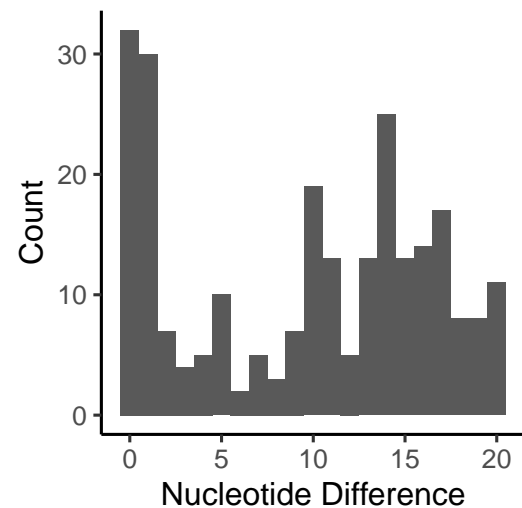
IGHV1-8*03

579 sequences assigned
73 (12.6%) exact matches, in which:
57 unique CDR3
6 unique J



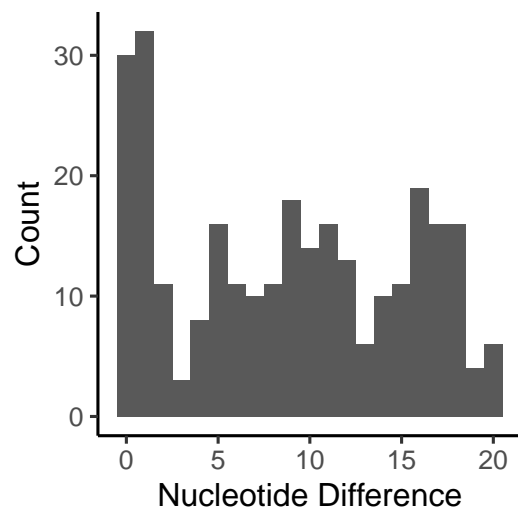
IGHV1-24*01

375 sequences assigned
32 (8.5%) exact matches, in which:
30 unique CDR3
4 unique J



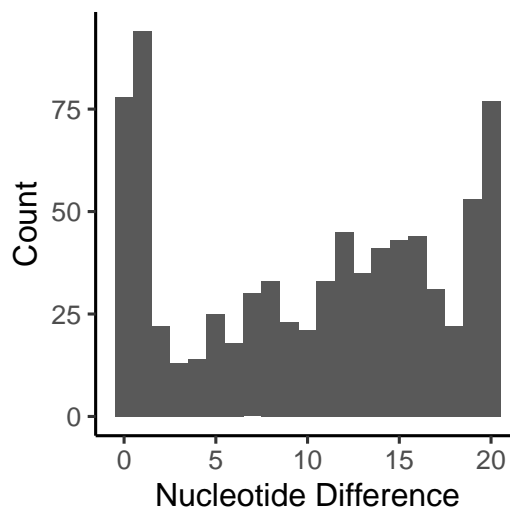
IGHV1-3*01

530 sequences assigned
30 (5.7%) exact matches, in which:
20 unique CDR3
4 unique J



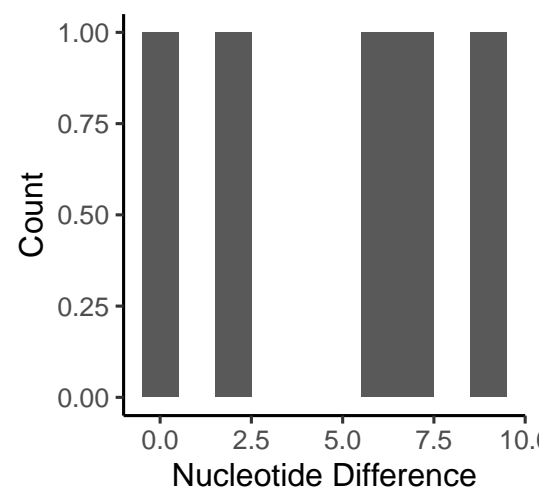
IGHV1-18*01

1287 sequences assigned
78 (6.1%) exact matches, in which:
68 unique CDR3
6 unique J



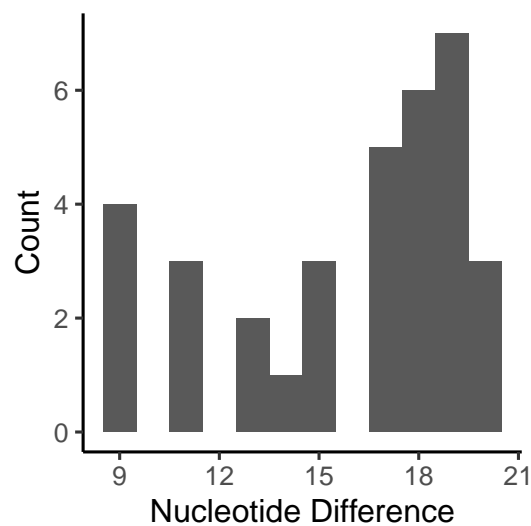
IGHV1-45*02

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



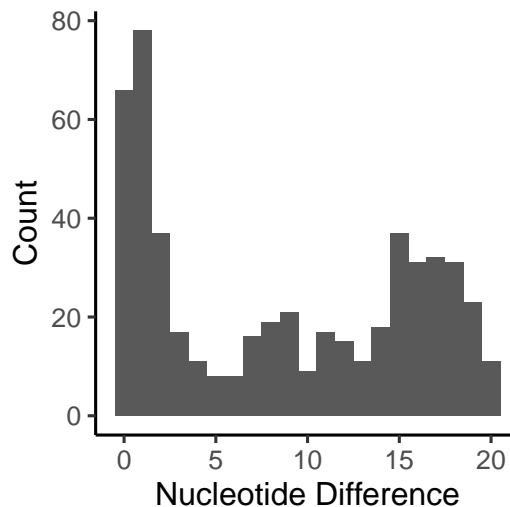
IGHV1-3*04

95 sequences assigned
No exact matches.



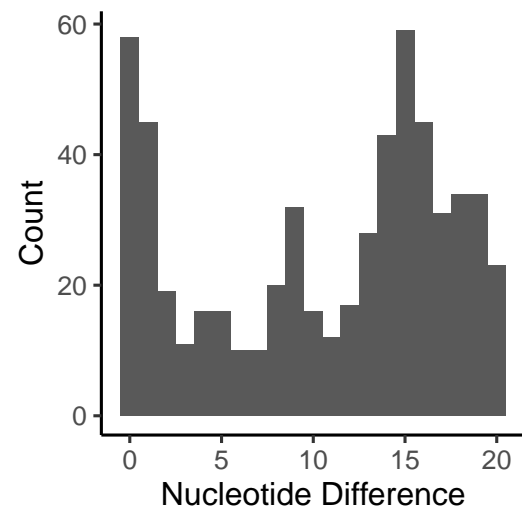
IGHV1-18*04

917 sequences assigned
66 (7.2%) exact matches, in which:
50 unique CDR3
6 unique J



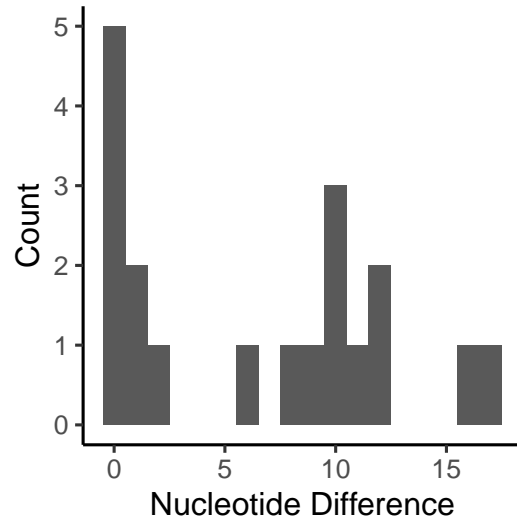
IGHV1-46*01

808 sequences assigned
58 (7.2%) exact matches, in which:
49 unique CDR3
6 unique J



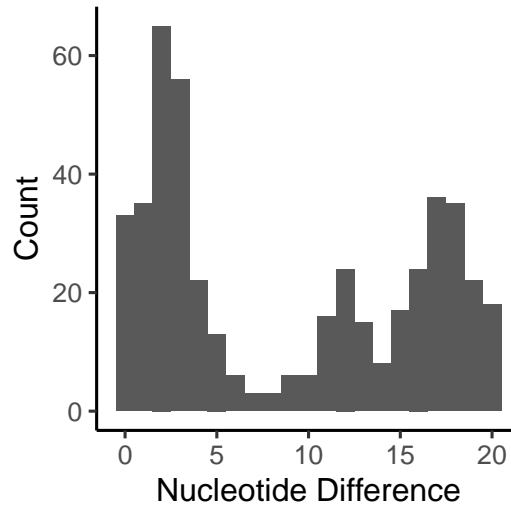
IGHV1-58*02

46 sequences assigned
5 (10.9%) exact matches, in which:
4 unique CDR3
3 unique J



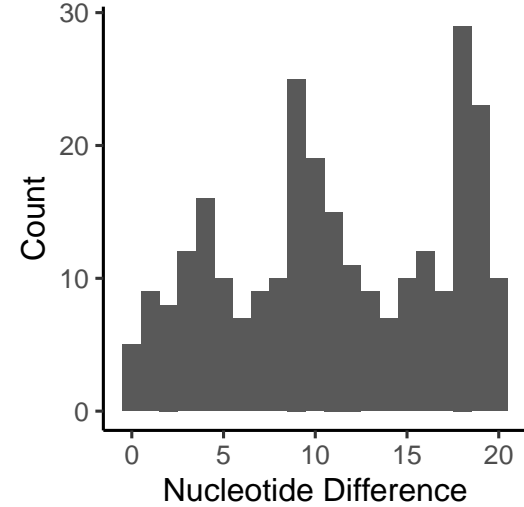
IGHV1-69*10

860 sequences assigned
33 (3.8%) exact matches, in which:
26 unique CDR3
5 unique J



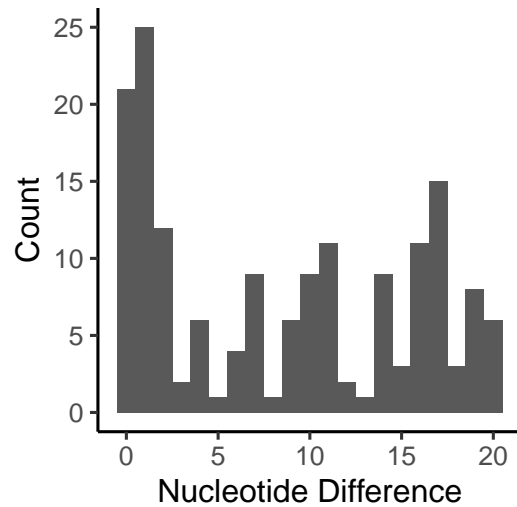
IGHV2-5*02

378 sequences assigned
5 (1.3%) exact matches, in which:
5 unique CDR3
3 unique J



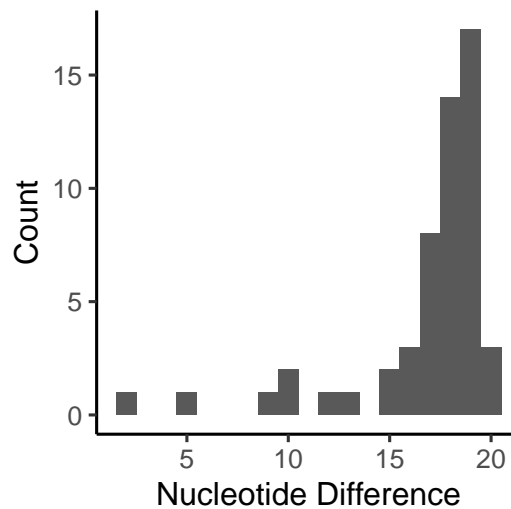
IGHV1-69-2*01

355 sequences assigned
21 (5.9%) exact matches, in which:
20 unique CDR3
5 unique J



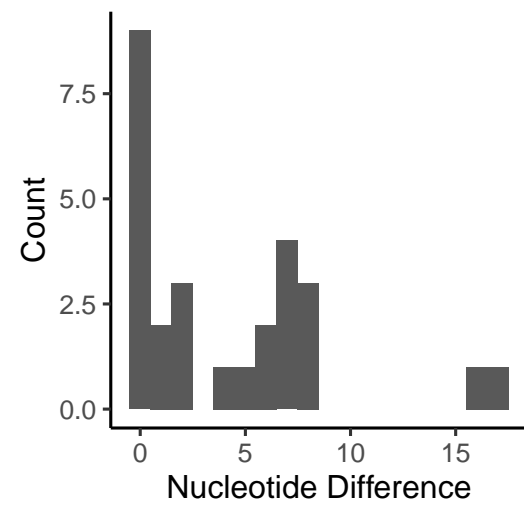
IGHV1-69*13

110 sequences assigned
No exact matches.



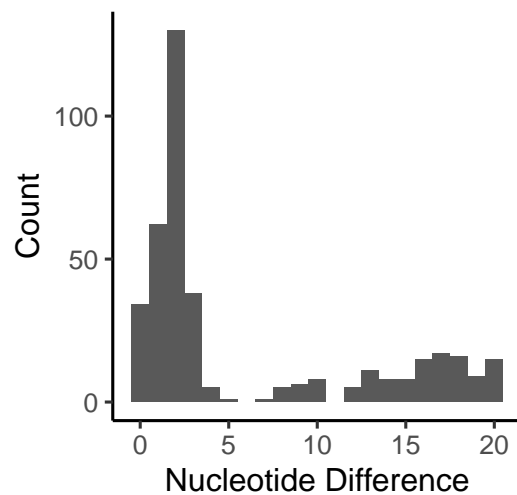
IGHV2-26*01

27 sequences assigned
9 (33.3%) exact matches, in which:
8 unique CDR3
3 unique J



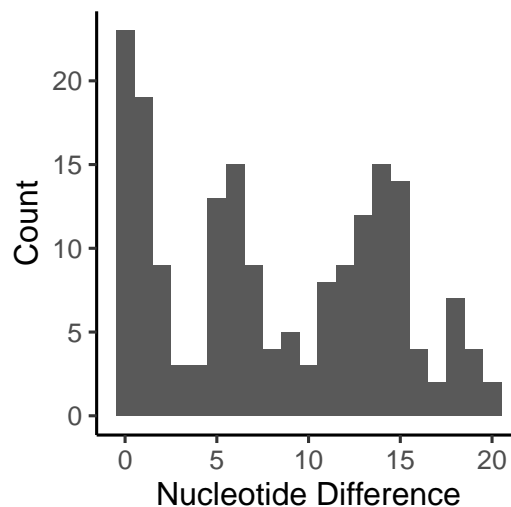
IGHV1-69*09

759 sequences assigned
34 (4.5%) exact matches, in which:
34 unique CDR3
4 unique J



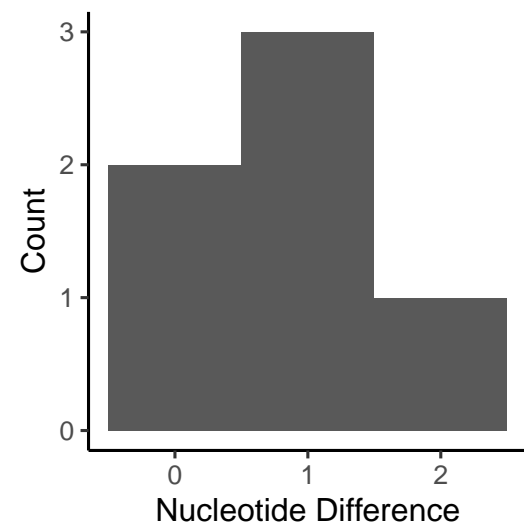
IGHV2-5*01

216 sequences assigned
23 (10.6%) exact matches, in which:
21 unique CDR3
5 unique J



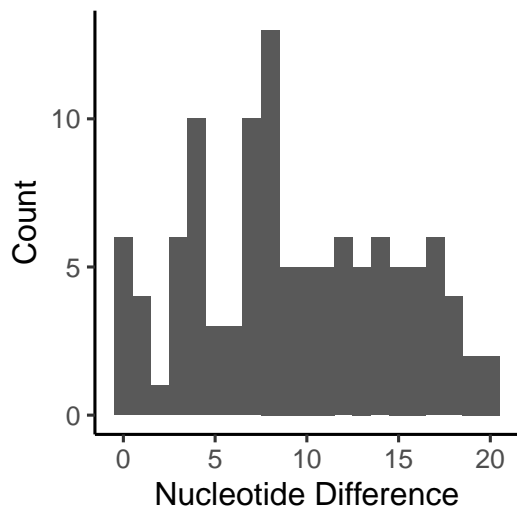
IGHV2-26*04

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



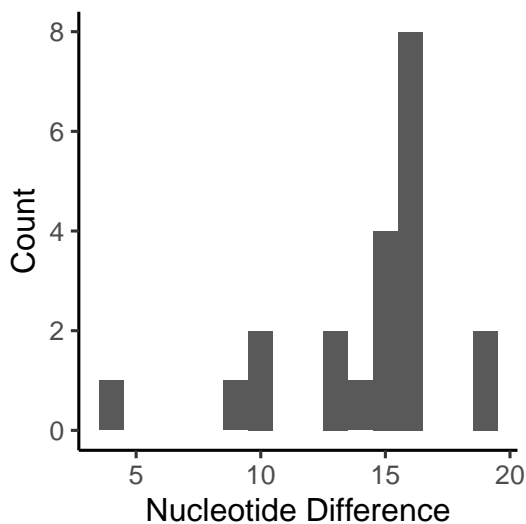
IGHV2-70*15

130 sequences assigned
6 (4.6%) exact matches, in which:
6 unique CDR3
2 unique J



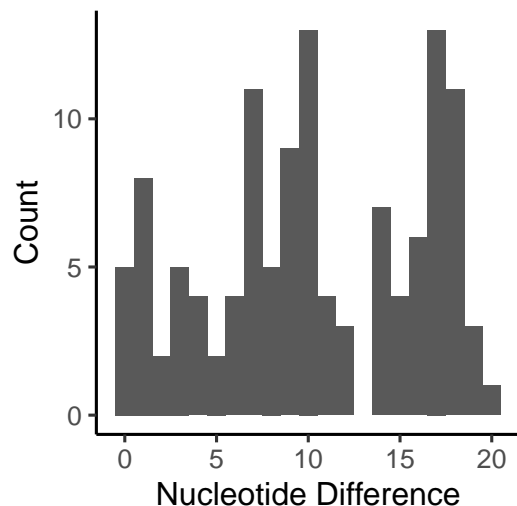
IGHV3-9*01

45 sequences assigned
No exact matches.



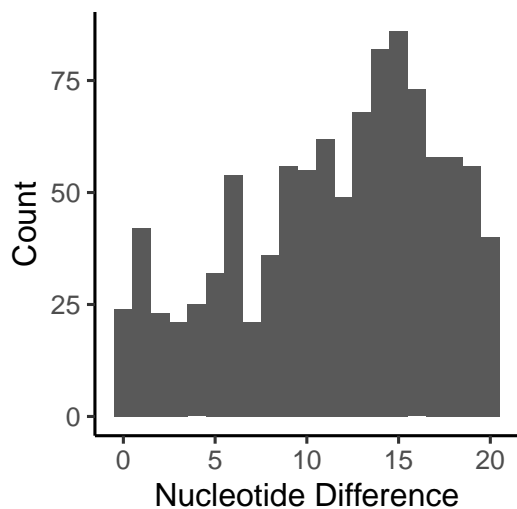
IGHV3-11*06

191 sequences assigned
5 (2.6%) exact matches, in which:
5 unique CDR3
1 unique J



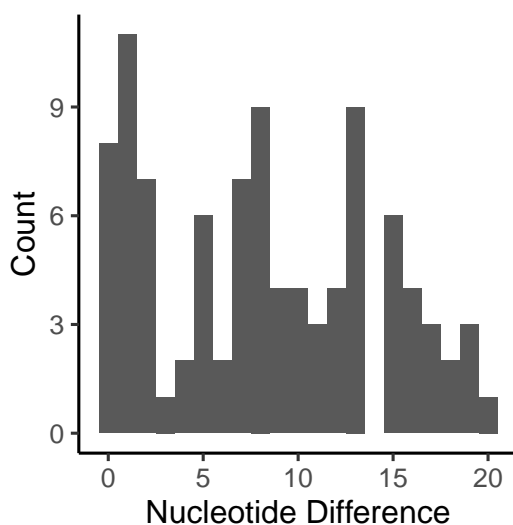
IGHV3-7*01

1267 sequences assigned
24 (1.9%) exact matches, in which:
21 unique CDR3
4 unique J



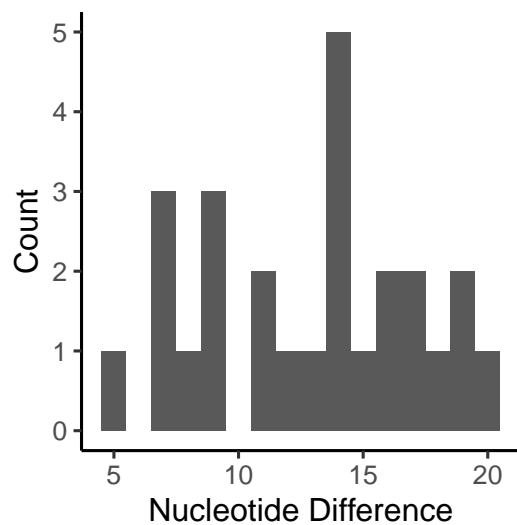
IGHV3-9*03

104 sequences assigned
8 (7.7%) exact matches, in which:
6 unique CDR3
4 unique J



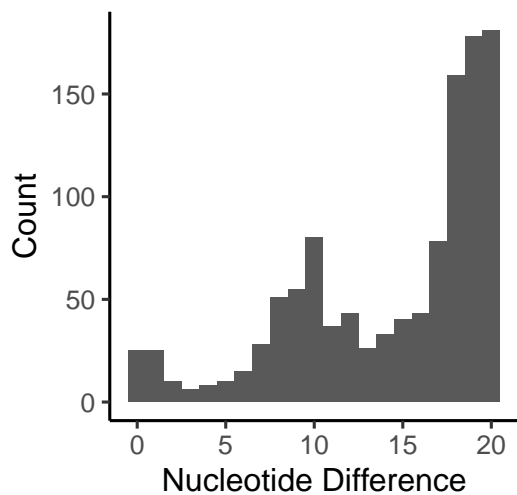
IGHV3-13*01

28 sequences assigned
No exact matches.



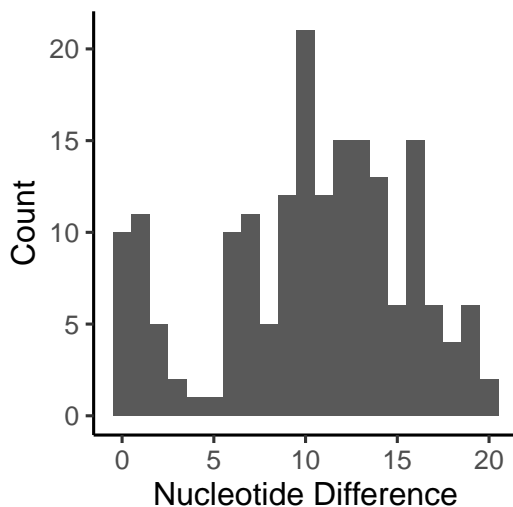
IGHV3-7*03

1725 sequences assigned
25 (1.4%) exact matches, in which:
18 unique CDR3
5 unique J



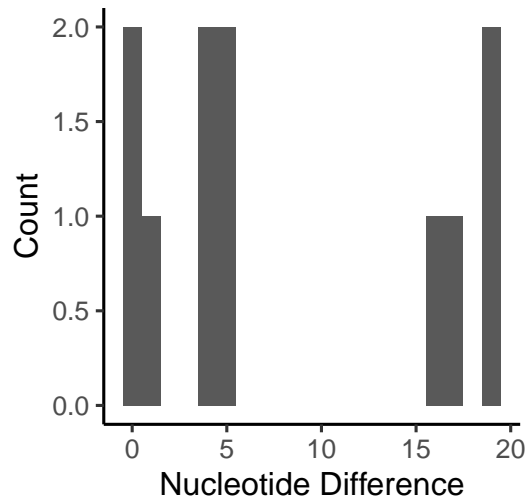
IGHV3-11*04

233 sequences assigned
10 (4.3%) exact matches, in which:
10 unique CDR3
3 unique J



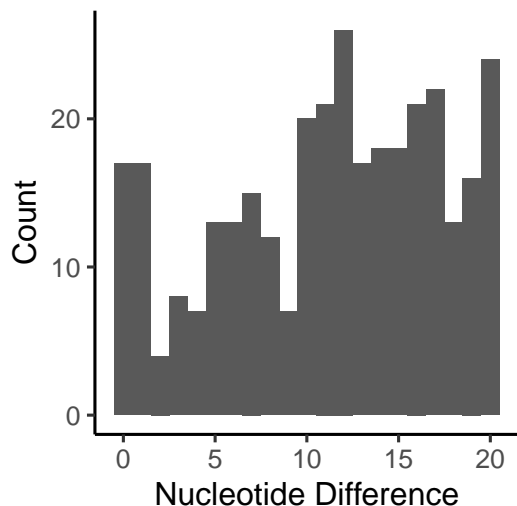
IGHV3-13*05

17 sequences assigned
2 (11.8%) exact matches, in which:
2 unique CDR3
2 unique J



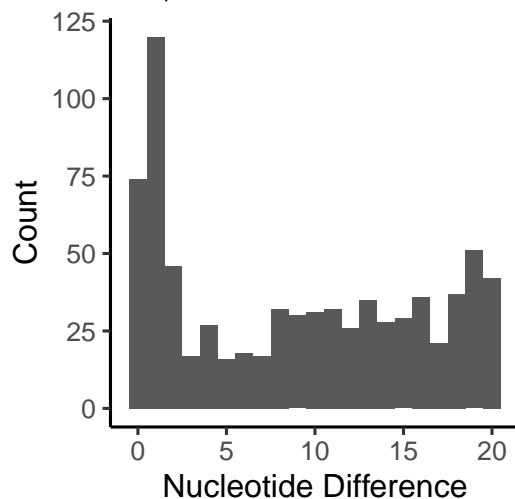
IGHV3-15*01

511 sequences assigned
17 (3.3%) exact matches, in which:
16 unique CDR3
5 unique J



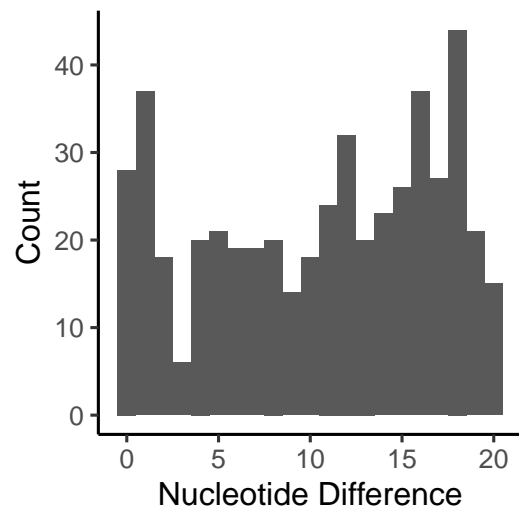
IGHV3-23*04

1260 sequences assigned
74 (5.9%) exact matches, in which:
58 unique CDR3
4 unique J



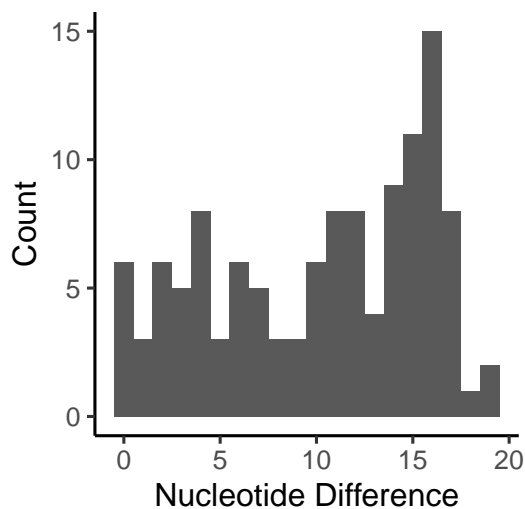
IGHV3-33*08

720 sequences assigned
28 (3.9%) exact matches, in which:
23 unique CDR3
5 unique J



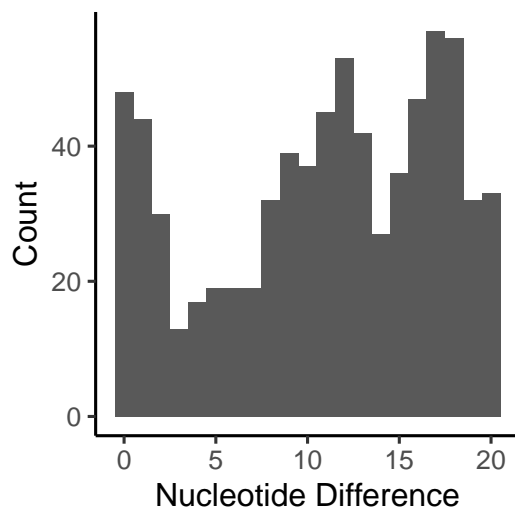
IGHV3-20*04

155 sequences assigned
6 (3.9%) exact matches, in which:
6 unique CDR3
3 unique J



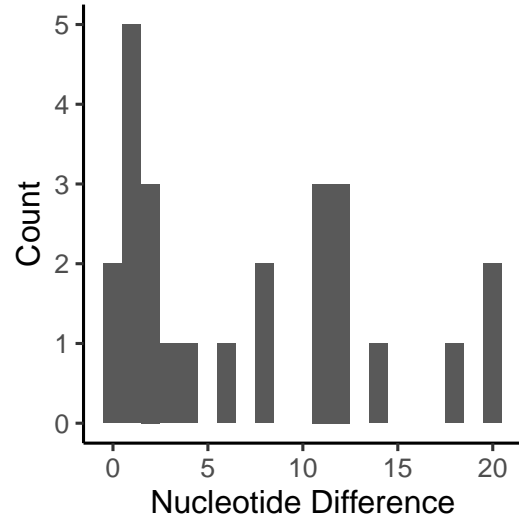
IGHV3-30-3*01

1048 sequences assigned
48 (4.6%) exact matches, in which:
39 unique CDR3
4 unique J



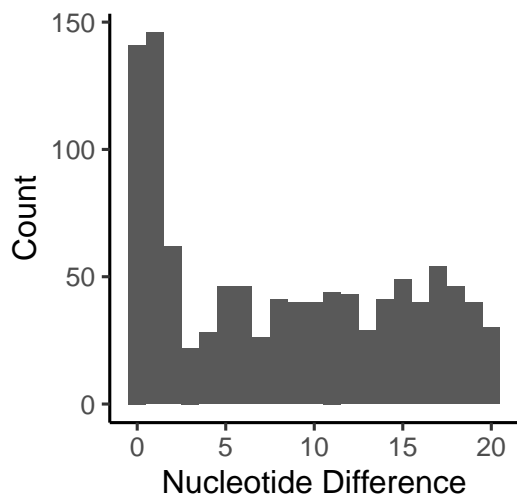
IGHV3-43*01

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



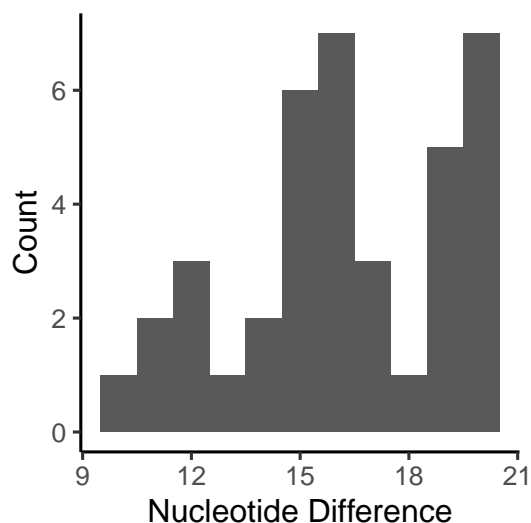
IGHV3-21*01

1358 sequences assigned
141 (10.4%) exact matches, in which:
95 unique CDR3
7 unique J



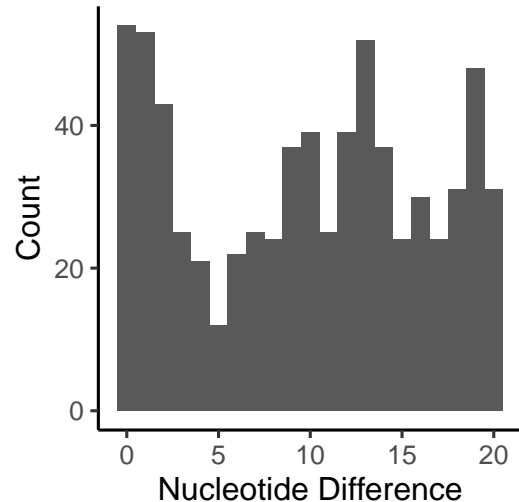
IGHV3-30*04

125 sequences assigned
No exact matches.



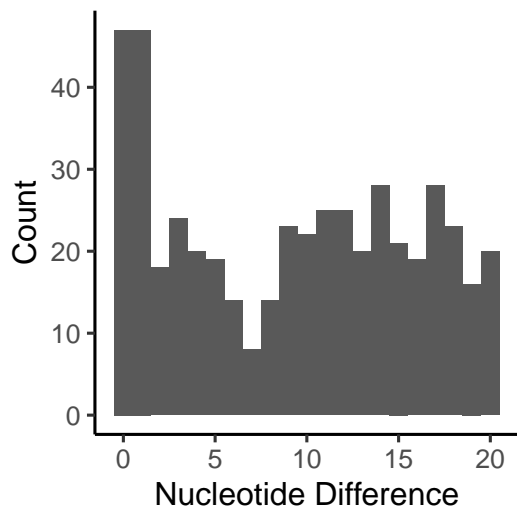
IGHV3-48*03

1023 sequences assigned
54 (5.3%) exact matches, in which:
42 unique CDR3
5 unique J



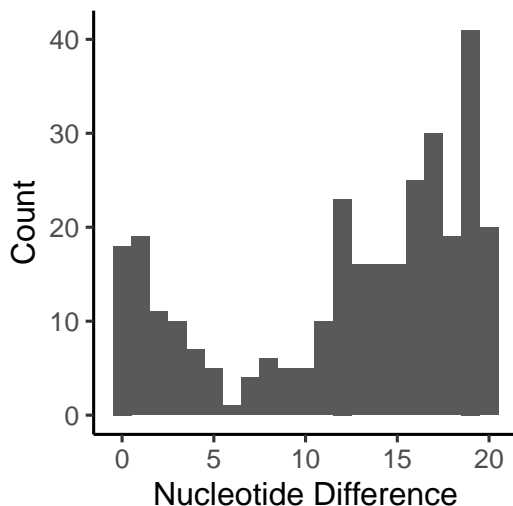
IGHV3-48*04

761 sequences assigned
47 (6.2%) exact matches, in which:
39 unique CDR3
6 unique J



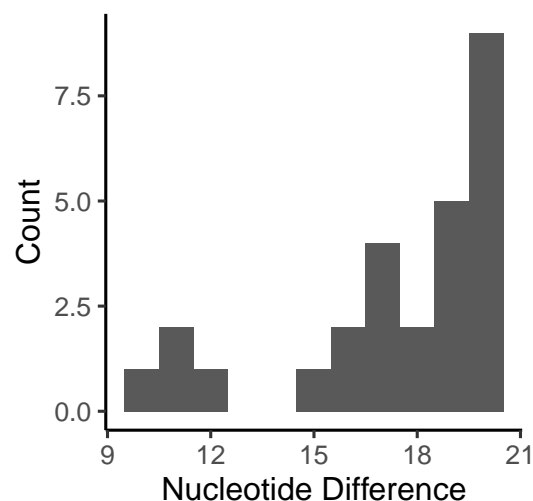
IGHV3-53*02

512 sequences assigned
18 (3.5%) exact matches, in which:
18 unique CDR3
3 unique J



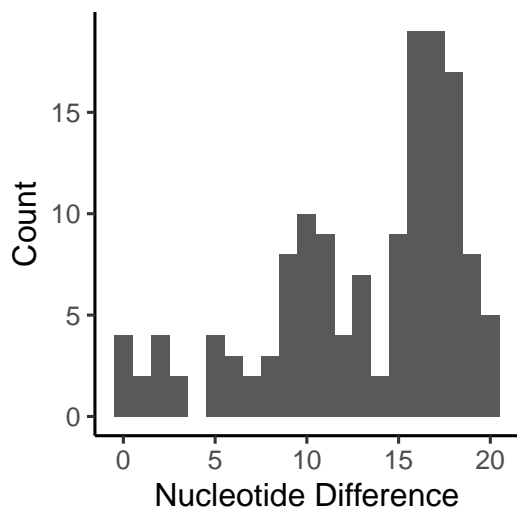
IGHV3-64*07

38 sequences assigned
No exact matches.



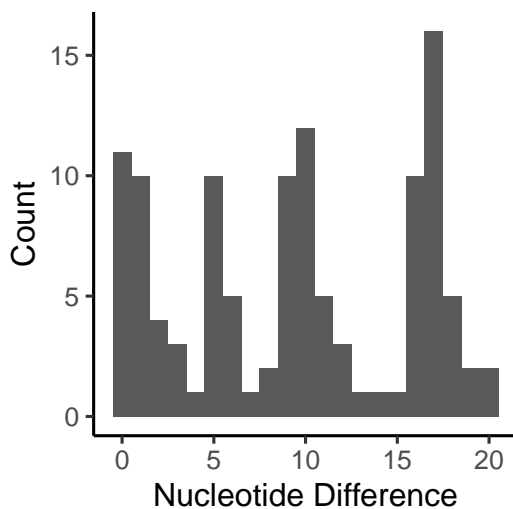
IGHV3-49*03

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



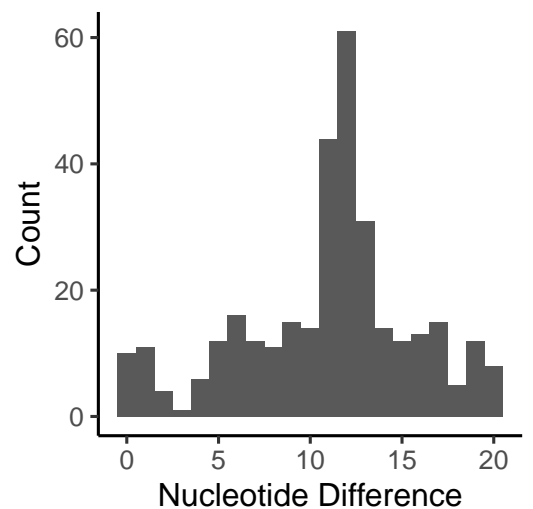
IGHV3-53*04

148 sequences assigned
11 (7.4%) exact matches, in which:
11 unique CDR3
5 unique J



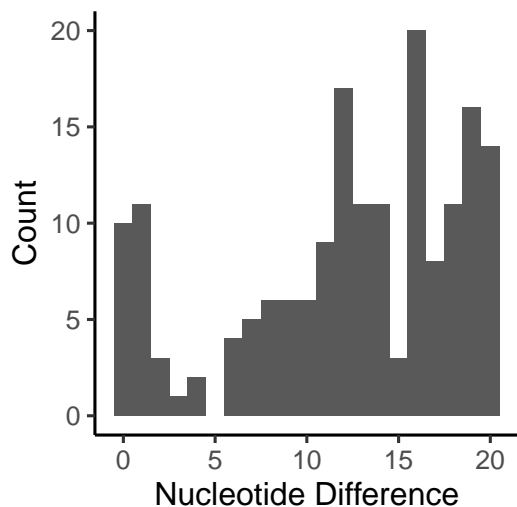
IGHV3-66*01

500 sequences assigned
10 (2%) exact matches, in which:
8 unique CDR3
3 unique J



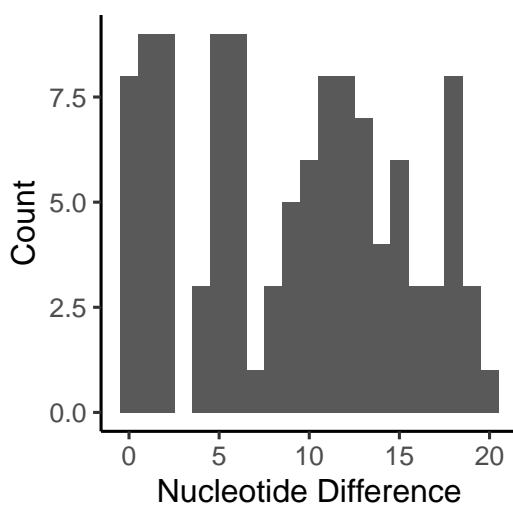
IGHV3-49*04

220 sequences assigned
10 (4.5%) exact matches, in which:
7 unique CDR3
3 unique J



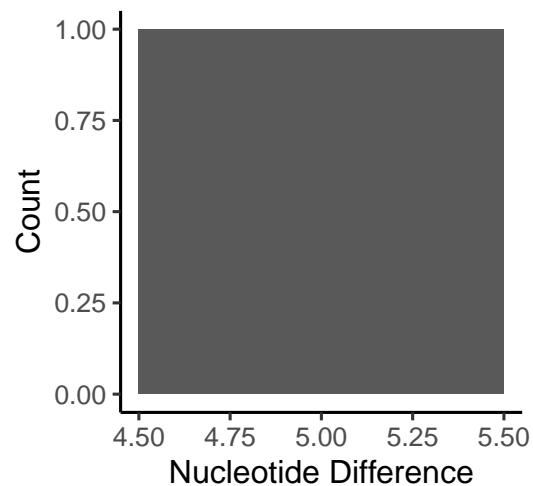
IGHV3-64*01

154 sequences assigned
8 (5.2%) exact matches, in which:
6 unique CDR3
1 unique J



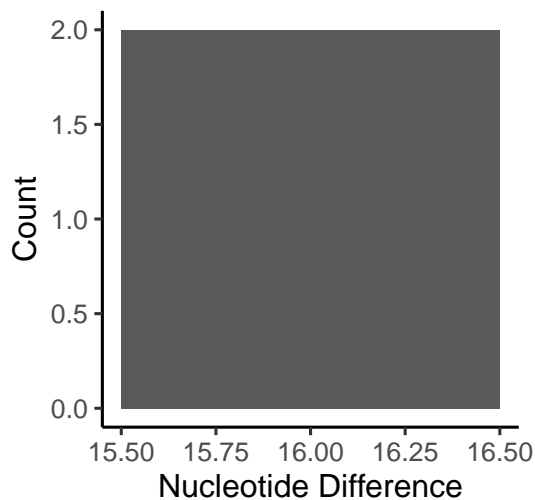
IGHV3-69-1*01

5 sequences assigned
No exact matches.



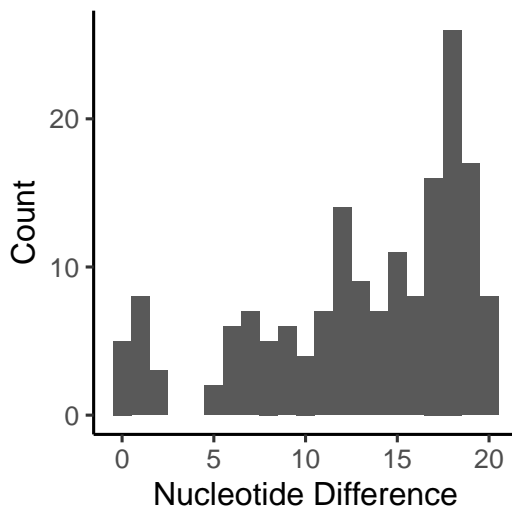
IGHV3-69-1*02

2 sequences assigned
No exact matches.



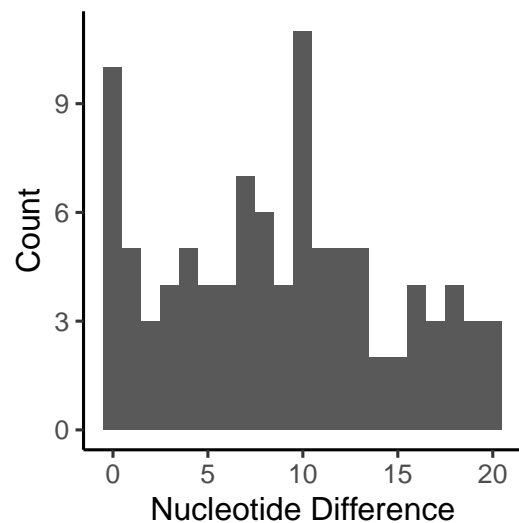
IGHV3-73*02

230 sequences assigned
5 (2.2%) exact matches, in which:
5 unique CDR3
3 unique J



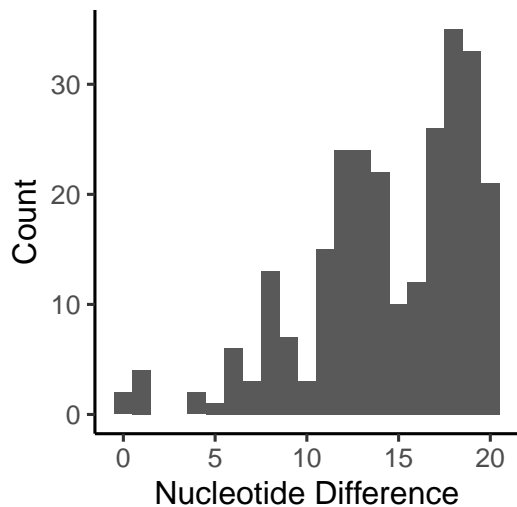
IGHV3-64D*06

132 sequences assigned
10 (7.6%) exact matches, in which:
9 unique CDR3
2 unique J



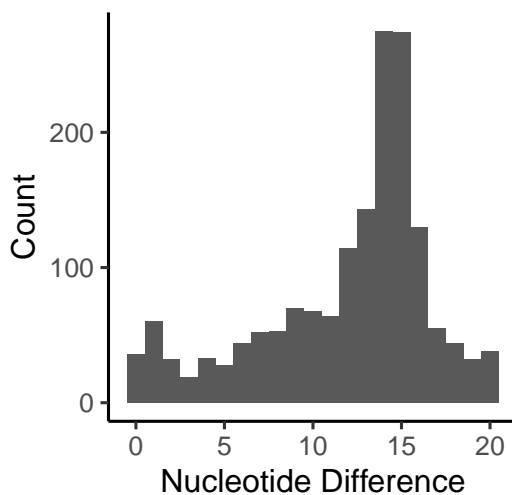
IGHV3-72*01

398 sequences assigned
2 (0.5%) exact matches, in which:
2 unique CDR3
1 unique J



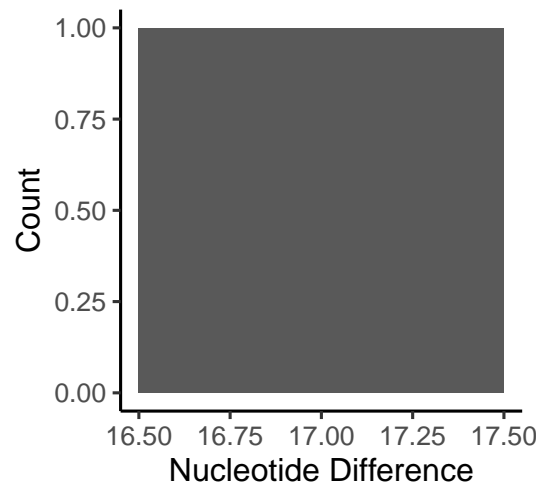
IGHV3-74*01

2194 sequences assigned
36 (1.6%) exact matches, in which:
27 unique CDR3
3 unique J



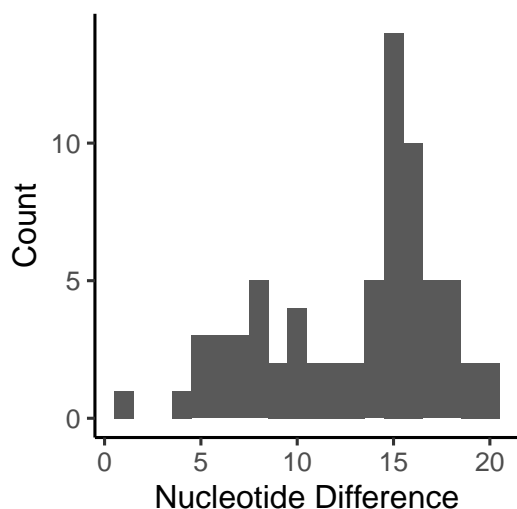
IGHV3-NL1*01

2 sequences assigned
No exact matches.



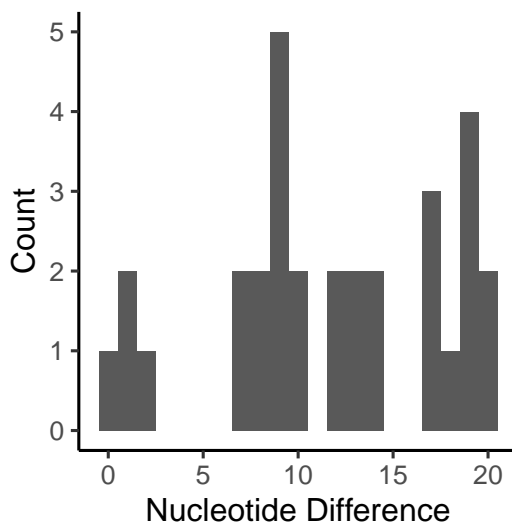
IGHV3-73*01

109 sequences assigned
No exact matches.



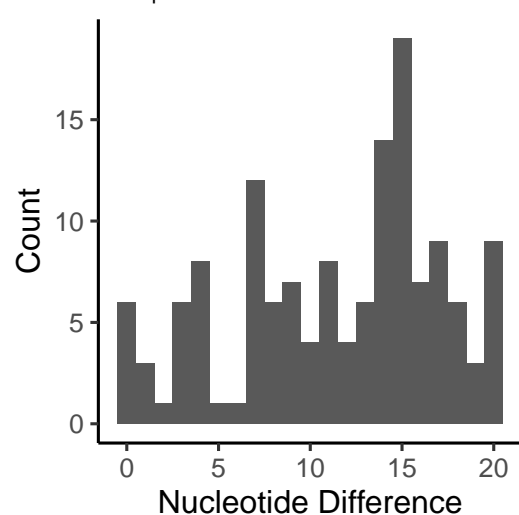
IGHV3-43D*04

58 sequences assigned
1 (1.7%) exact matches, in which:
1 unique CDR3
1 unique J



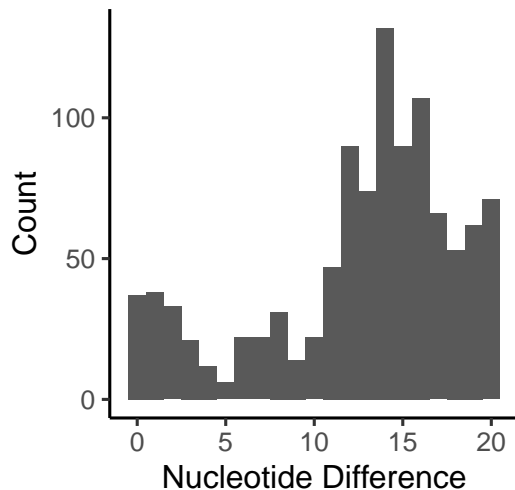
IGHV4-4*02

275 sequences assigned
6 (2.2%) exact matches, in which:
5 unique CDR3
4 unique J



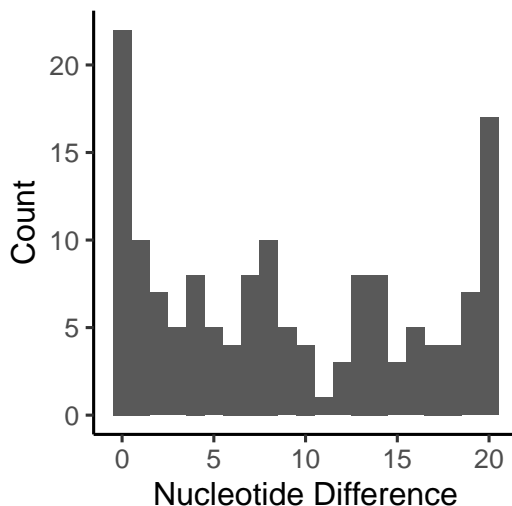
IGHV4-4*07

1501 sequences assigned
37 (2.5%) exact matches, in which:
32 unique CDR3
5 unique J



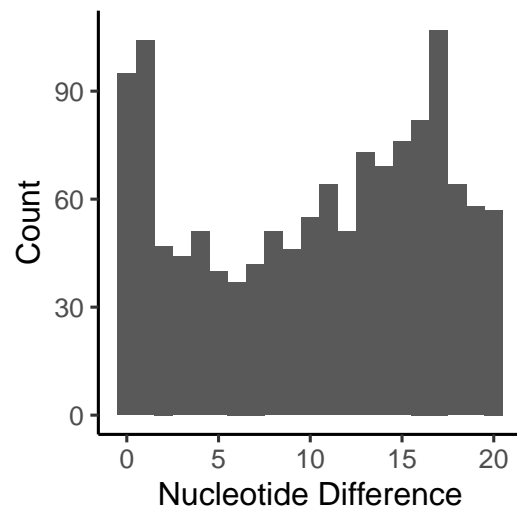
IGHV4-30-4*08

246 sequences assigned
22 (8.9%) exact matches, in which:
21 unique CDR3
3 unique J



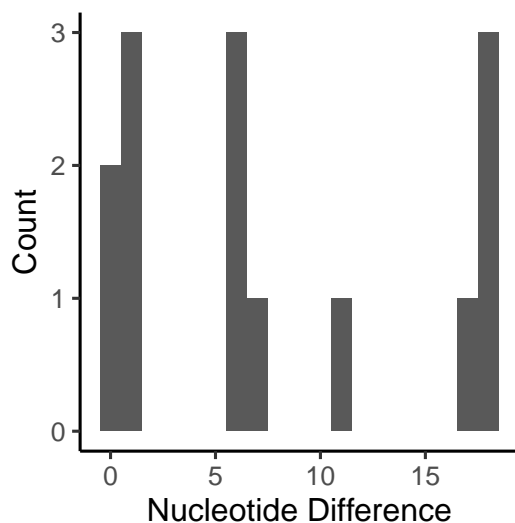
IGHV4-38-2*01

2167 sequences assigned
95 (4.4%) exact matches, in which:
72 unique CDR3
5 unique J



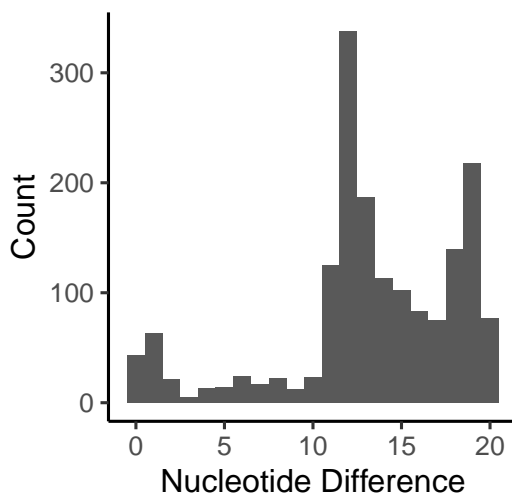
IGHV4-28*07

14 sequences assigned
2 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



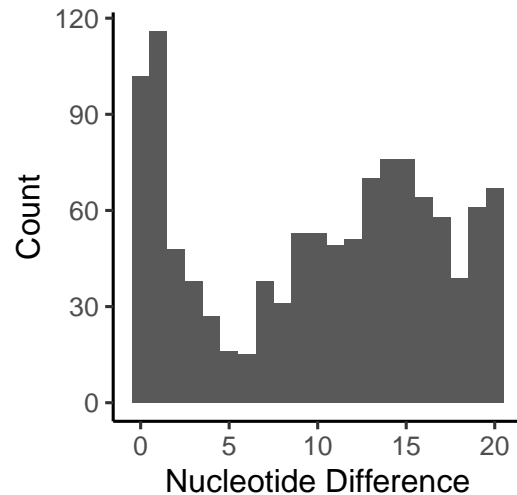
IGHV4-34*01

1961 sequences assigned
43 (2.2%) exact matches, in which:
37 unique CDR3
6 unique J



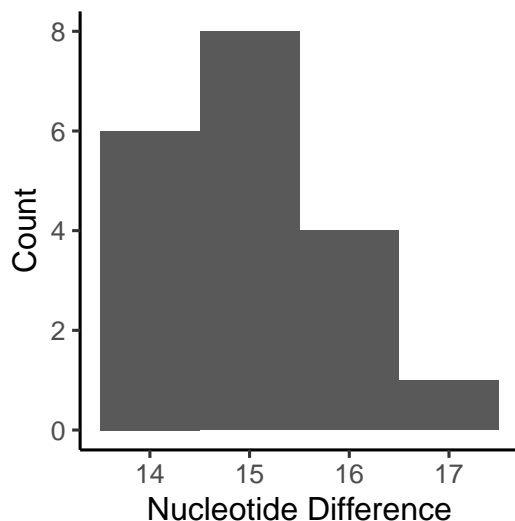
IGHV4-39*01

1961 sequences assigned
102 (5.2%) exact matches, in which:
83 unique CDR3
5 unique J



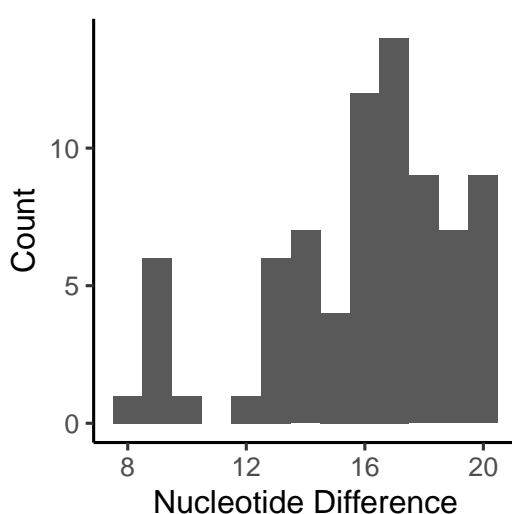
IGHV4-30-4*01

53 sequences assigned
No exact matches.



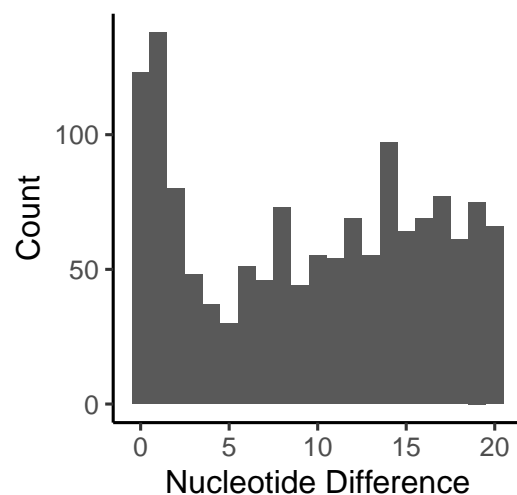
IGHV4-34*02

263 sequences assigned
No exact matches.



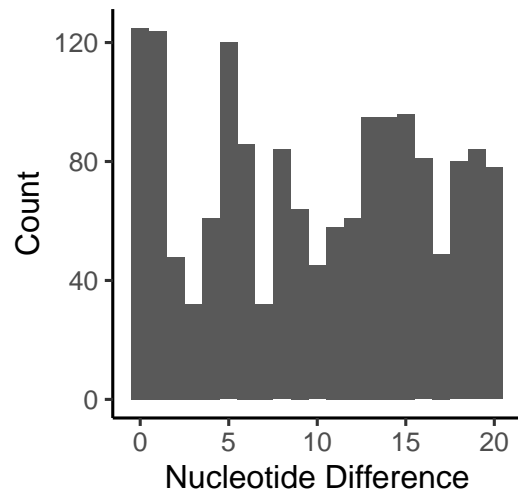
IGHV4-39*07

2244 sequences assigned
123 (5.5%) exact matches, in which:
104 unique CDR3
6 unique J



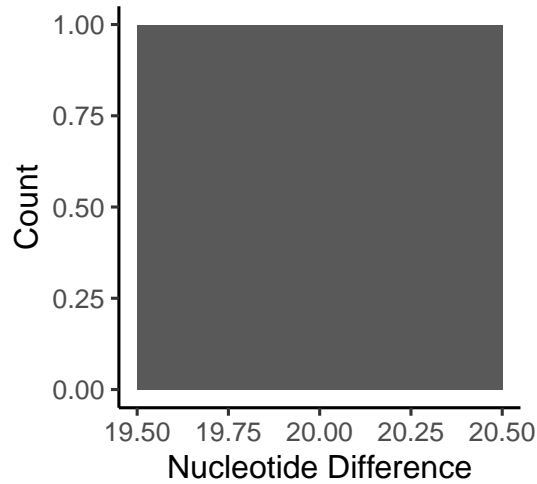
IGHV4-59*01

2252 sequences assigned
125 (5.6%) exact matches, in which:
93 unique CDR3
7 unique J



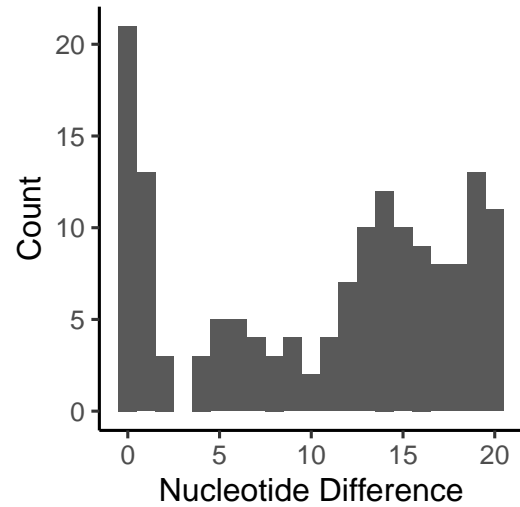
IGHV4-61*05

4 sequences assigned
No exact matches.



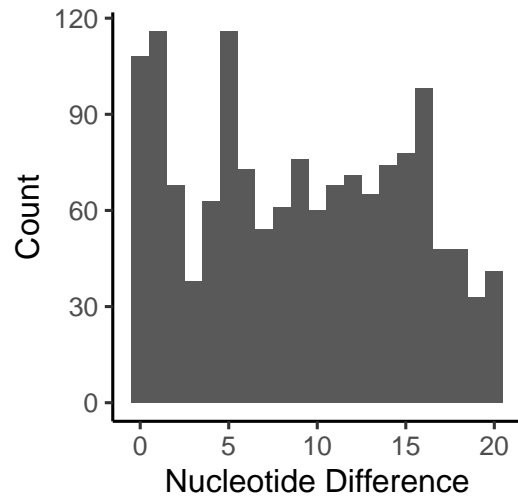
IGHV5-10-1*03

234 sequences assigned
21 (9%) exact matches, in which:
17 unique CDR3
5 unique J



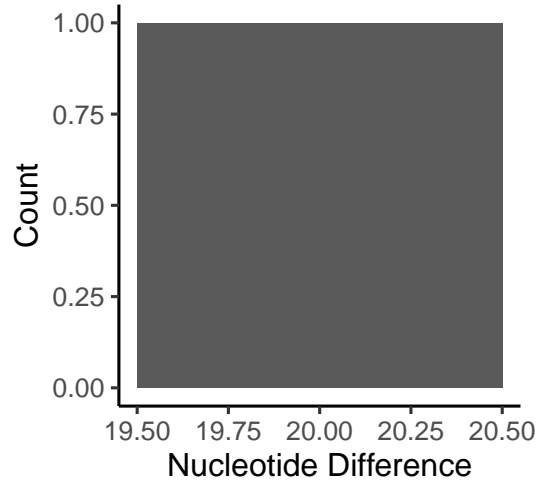
IGHV4-59*08

2122 sequences assigned
108 (5.1%) exact matches, in which:
81 unique CDR3
7 unique J



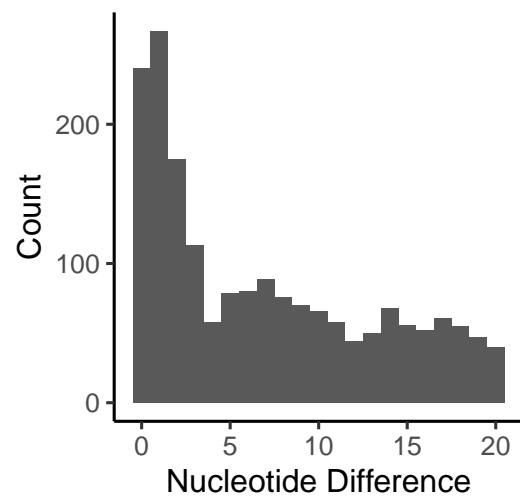
IGHV4-61*07

1 sequences assigned
No exact matches.



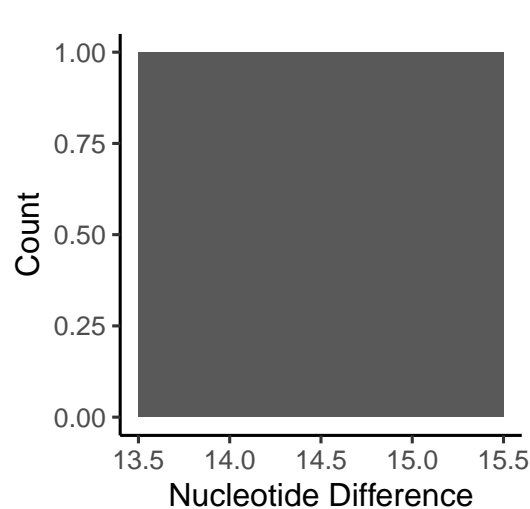
IGHV5-51*01

2263 sequences assigned
240 (10.6%) exact matches, in which:
177 unique CDR3
7 unique J



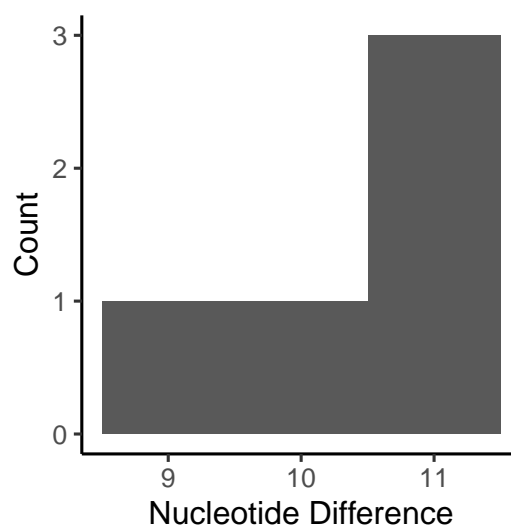
IGHV4-61*01

6 sequences assigned
No exact matches.



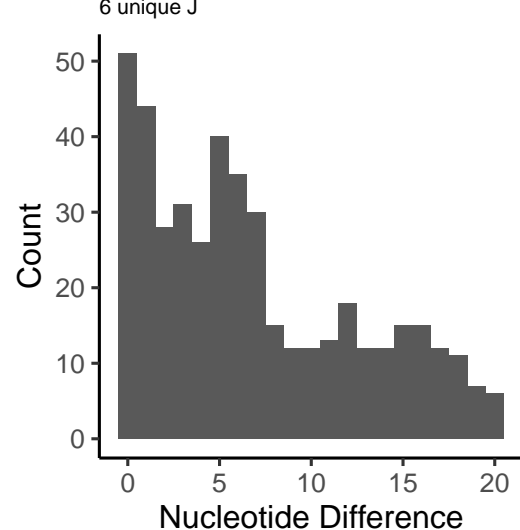
IGHV4-61*08

9 sequences assigned
No exact matches.



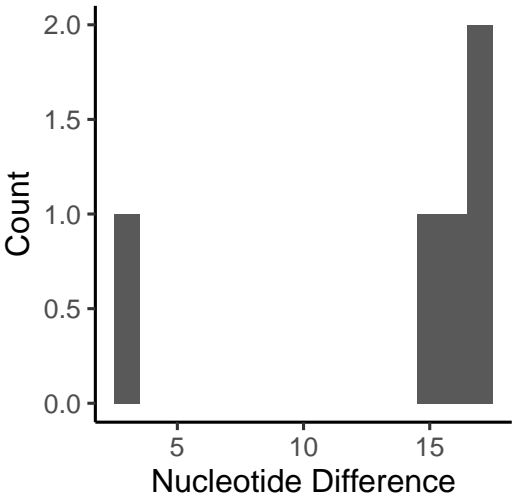
IGHV6-1*01

609 sequences assigned
51 (8.4%) exact matches, in which:
40 unique CDR3
6 unique J

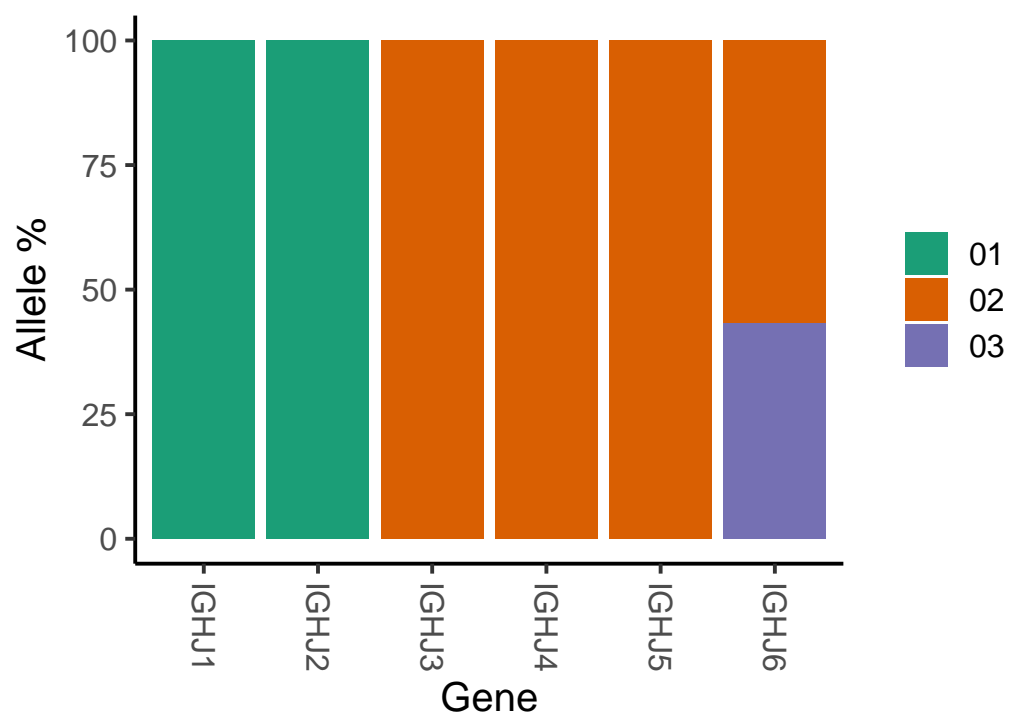


IGHV7-4-1*01

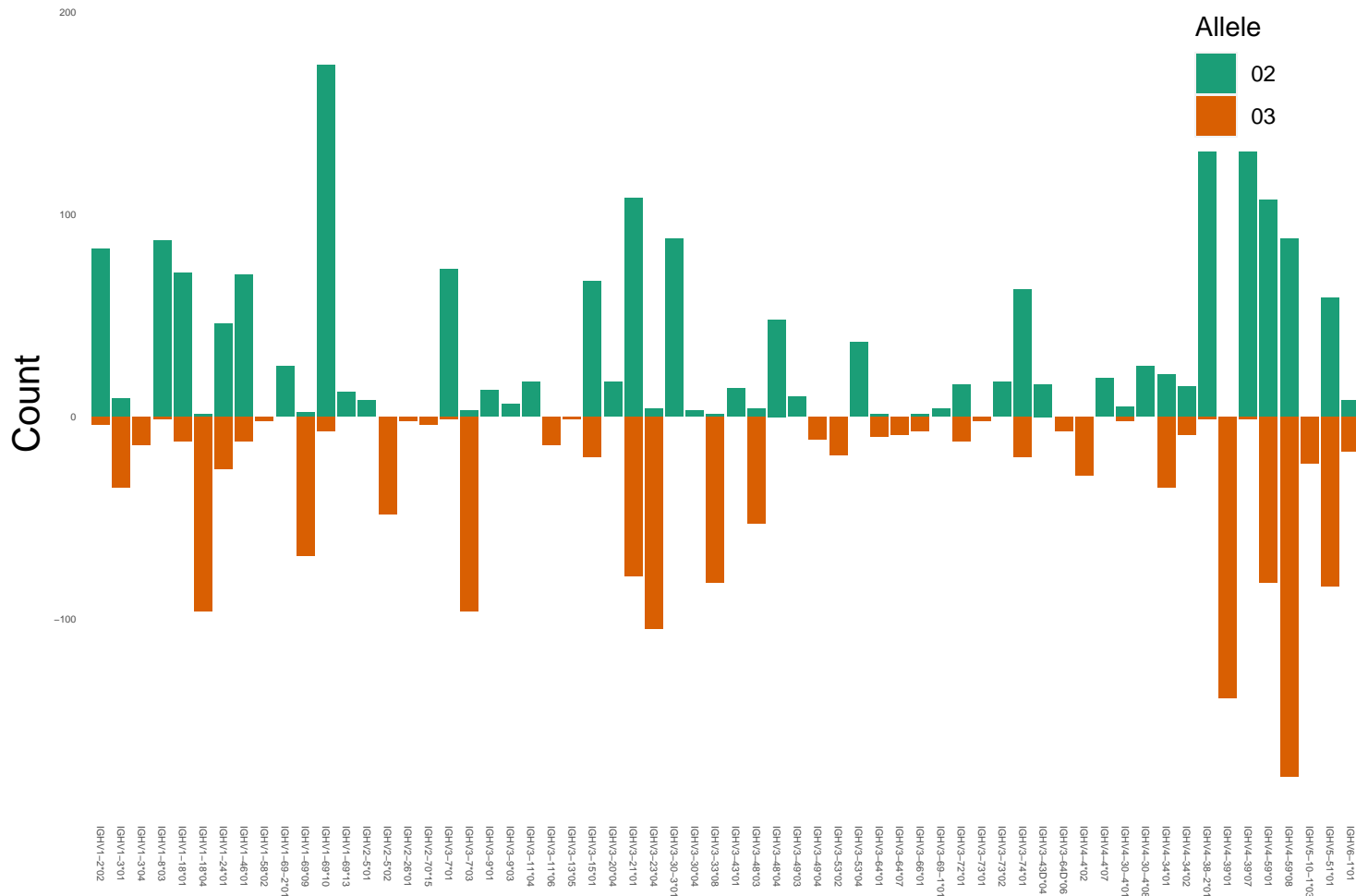
6 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]