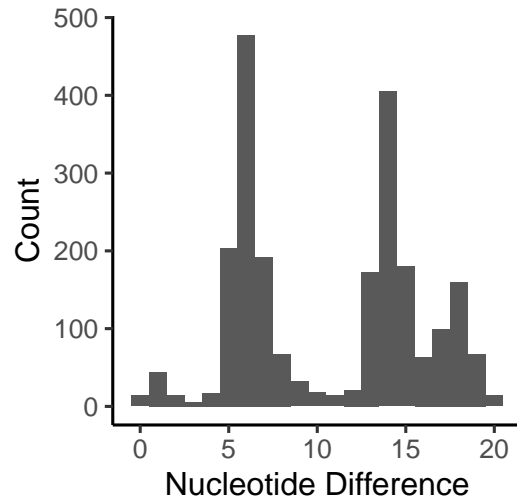


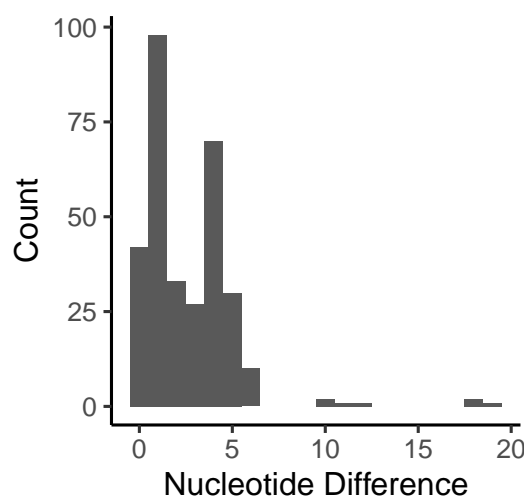
IGHV1-2*02

2560 sequences assigned
14 (0.5%) exact matches, in which:
14 unique CDR3
3 unique J



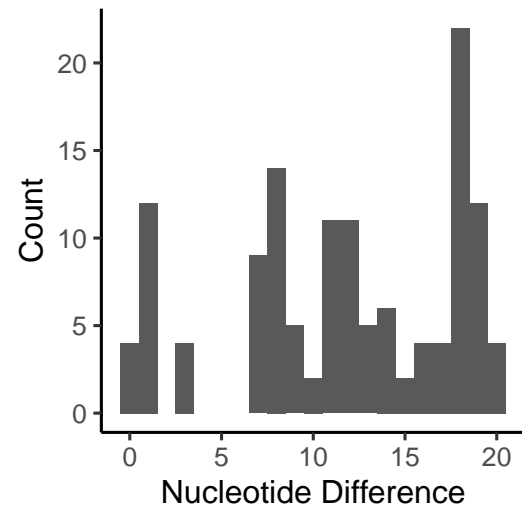
IGHV1-3*01_05

318 sequences assigned
42 (13.2%) exact matches, in which:
29 unique CDR3
2 unique J



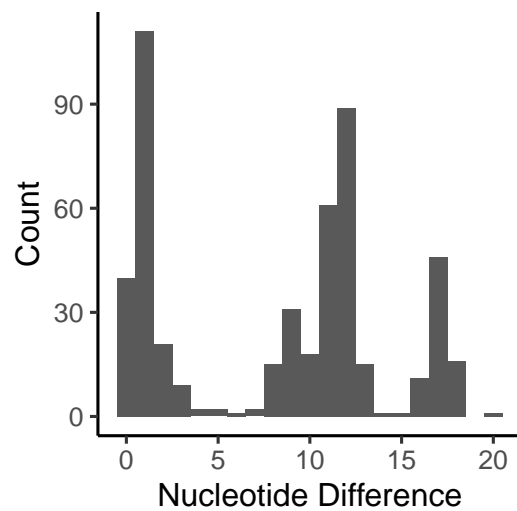
IGHV1-18*04

163 sequences assigned
4 (2.5%) exact matches, in which:
3 unique CDR3
3 unique J



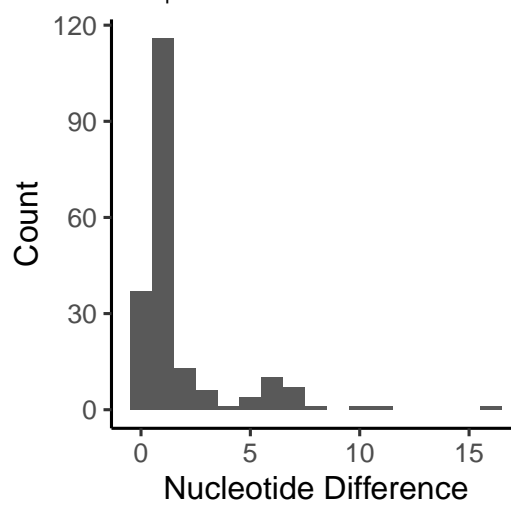
IGHV1-2*04

497 sequences assigned
40 (8%) exact matches, in which:
24 unique CDR3
2 unique J



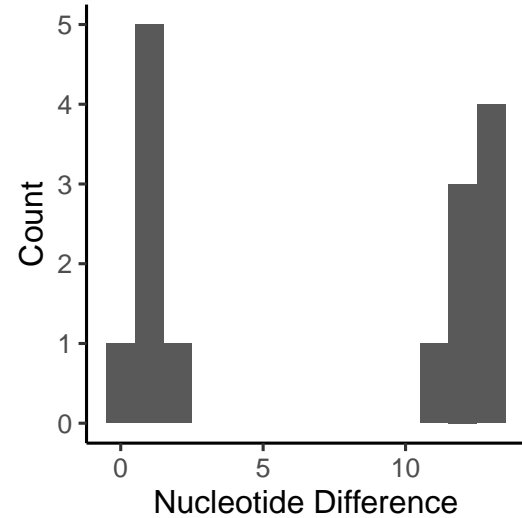
IGHV1-8*01

199 sequences assigned
37 (18.6%) exact matches, in which:
24 unique CDR3
2 unique J



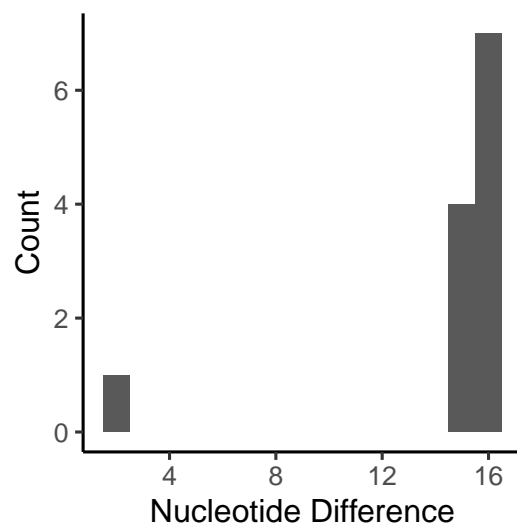
IGHV1-24*01

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



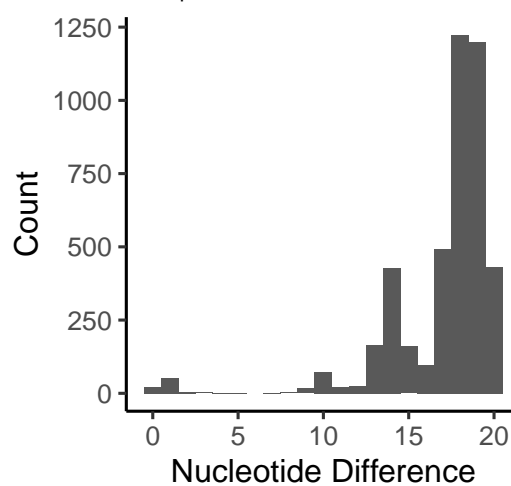
IGHV1-3*04

12 sequences assigned
No exact matches.



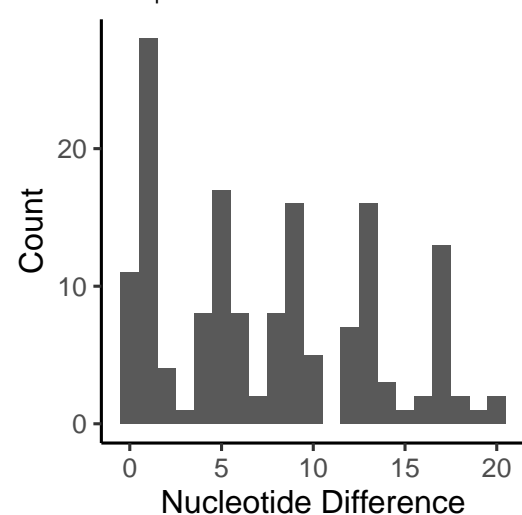
IGHV1-18*01

5380 sequences assigned
22 (0.4%) exact matches, in which:
15 unique CDR3
2 unique J



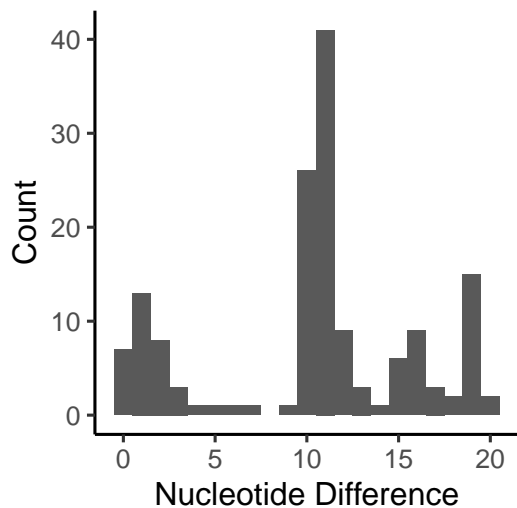
IGHV1-46*01

252 sequences assigned
11 (4.4%) exact matches, in which:
9 unique CDR3
2 unique J



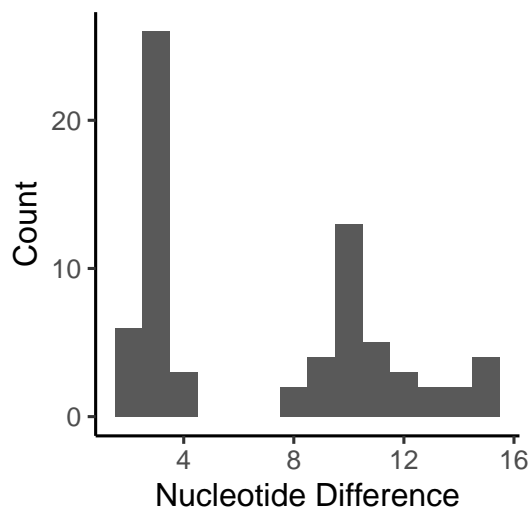
IGHV1-69*01_12_13

159 sequences assigned
7 (4.4%) exact matches, in which:
7 unique CDR3
3 unique J



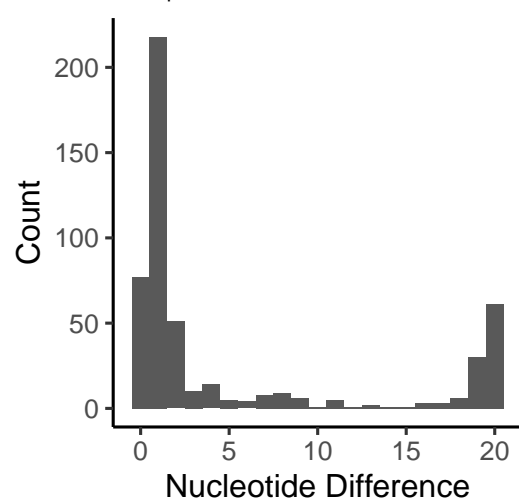
IGHV2-5*01

70 sequences assigned
No exact matches.



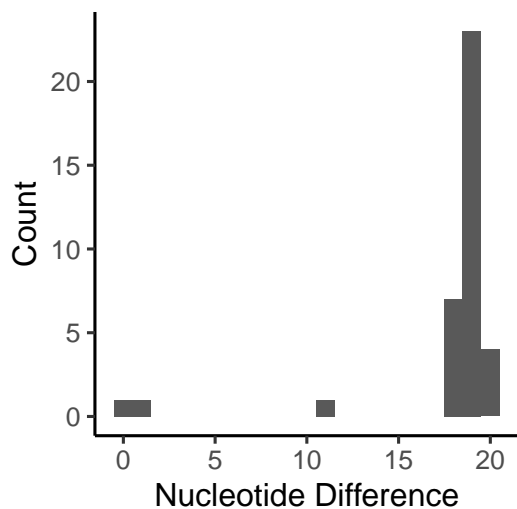
IGHV3-7*03

1848 sequences assigned
77 (4.2%) exact matches, in which:
45 unique CDR3
2 unique J



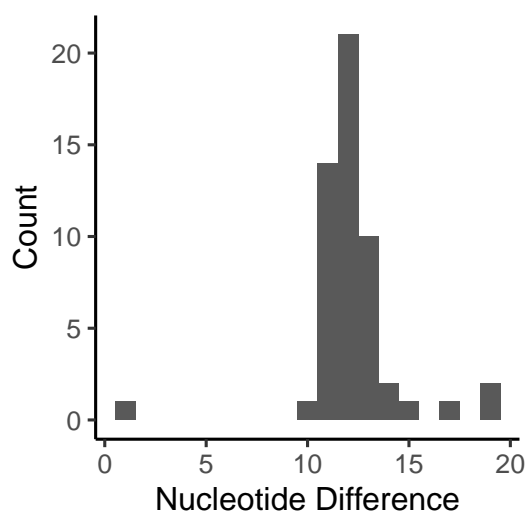
IGHV1-69*04_09

37 sequences assigned
1 (2.7%) exact matches, in which:
1 unique CDR3
1 unique J



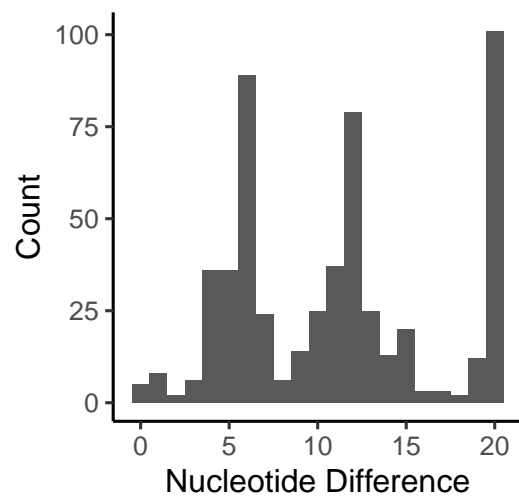
IGHV2-5*02

62 sequences assigned
No exact matches.



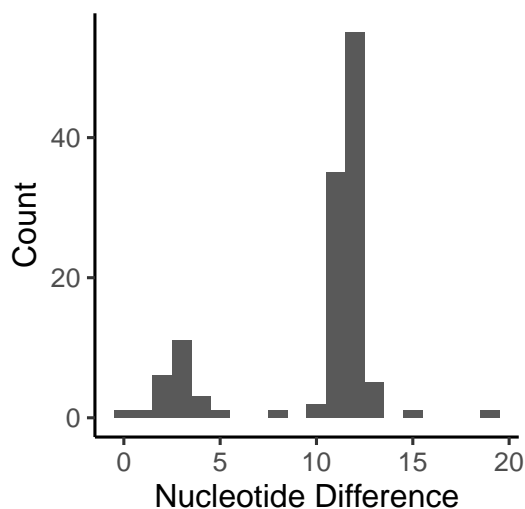
IGHV3-9*01

926 sequences assigned
5 (0.5%) exact matches, in which:
3 unique CDR3
2 unique J



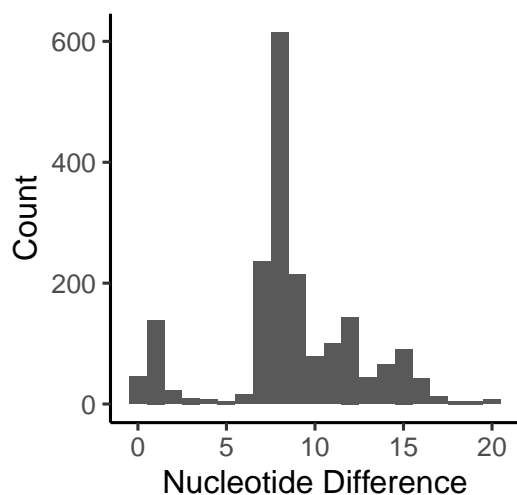
IGHV1-69*06_14

123 sequences assigned
1 (0.8%) exact matches, in which:
1 unique CDR3
1 unique J



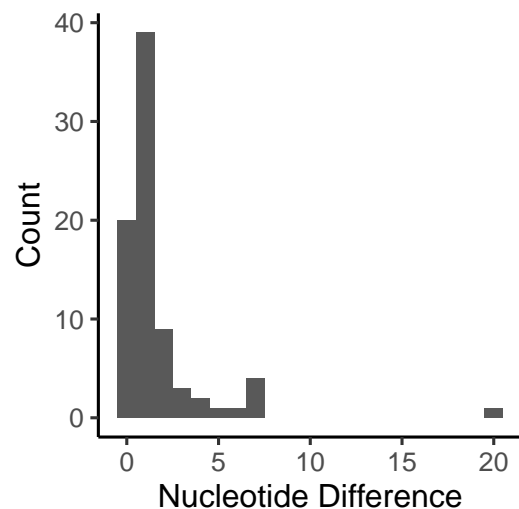
IGHV3-7*01

1923 sequences assigned
45 (2.3%) exact matches, in which:
23 unique CDR3
3 unique J



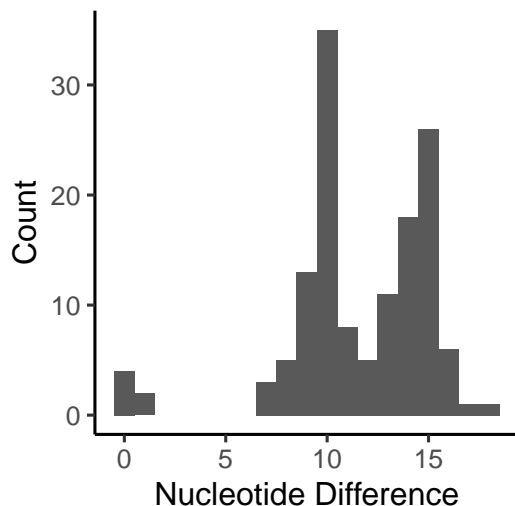
IGHV3-9*03

80 sequences assigned
20 (25%) exact matches, in which:
11 unique CDR3
2 unique J



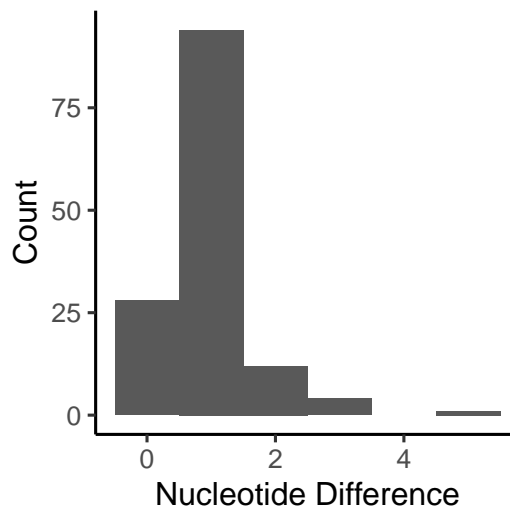
IGHV3-11*01

138 sequences assigned
4 (2.9%) exact matches, in which:
3 unique CDR3
2 unique J



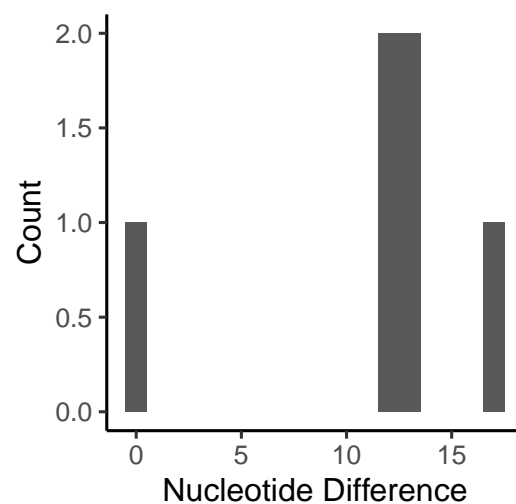
IGHV3-13*01

139 sequences assigned
28 (20.1%) exact matches, in which:
15 unique CDR3
1 unique J



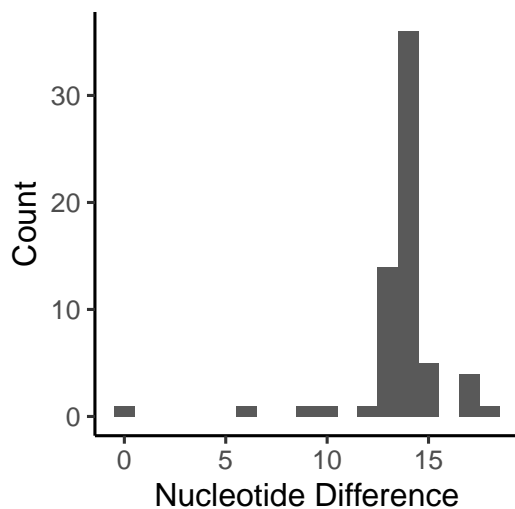
IGHV3-21*04

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



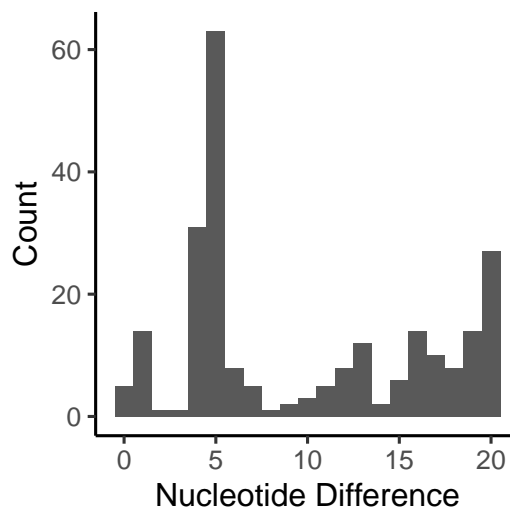
IGHV3-11*04

77 sequences assigned
1 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



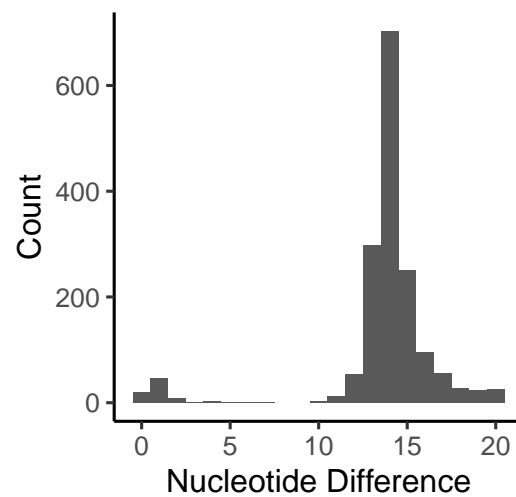
IGHV3-15*07

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



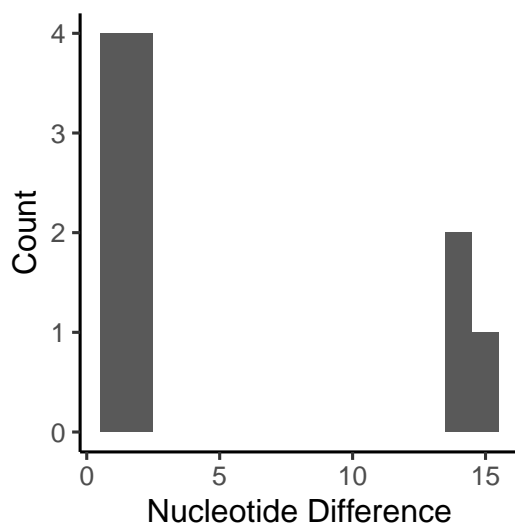
IGHV3-21*01_02

1683 sequences assigned
20 (1.2%) exact matches, in which:
11 unique CDR3
2 unique J



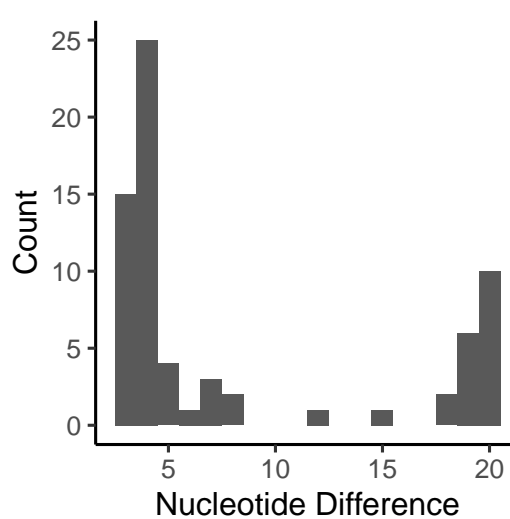
IGHV3-11*03_05

12 sequences assigned
No exact matches.



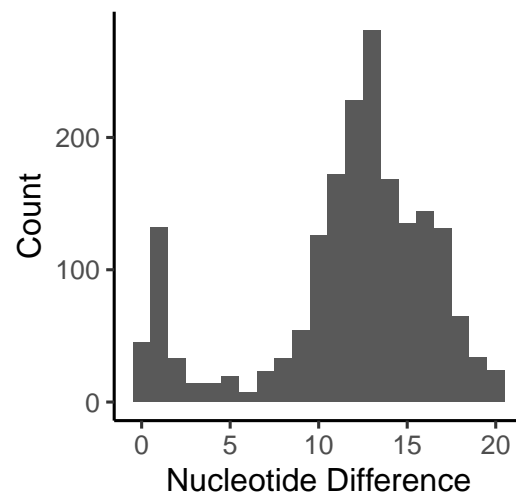
IGHV3-15*01_02

315 sequences assigned
No exact matches.



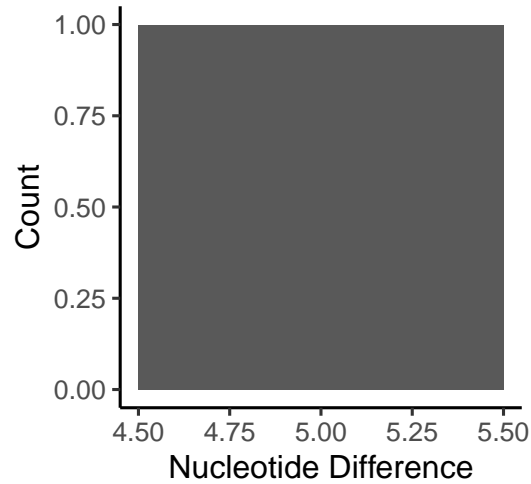
IGHV3-23*01_04

2840 sequences assigned
45 (1.6%) exact matches, in which:
26 unique CDR3
3 unique J



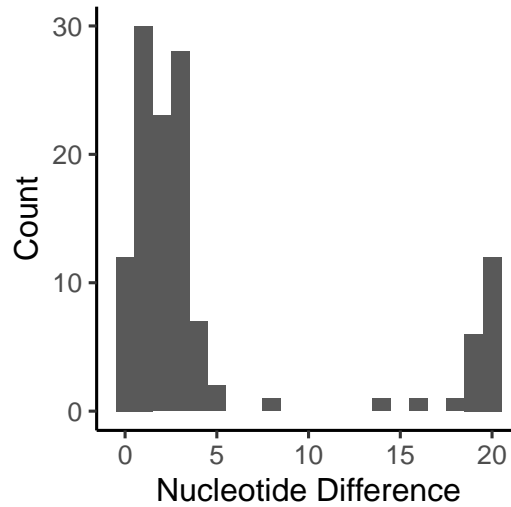
IGHV3-30-3*01

1 sequences assigned
No exact matches.



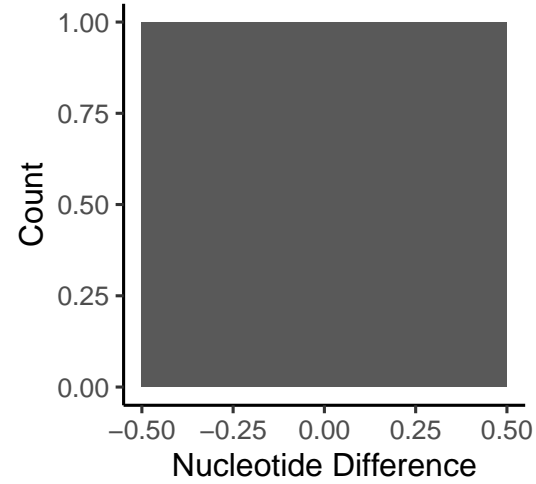
IGHV3-33*01

130 sequences assigned
12 (9.2%) exact matches, in which:
5 unique CDR3
1 unique J



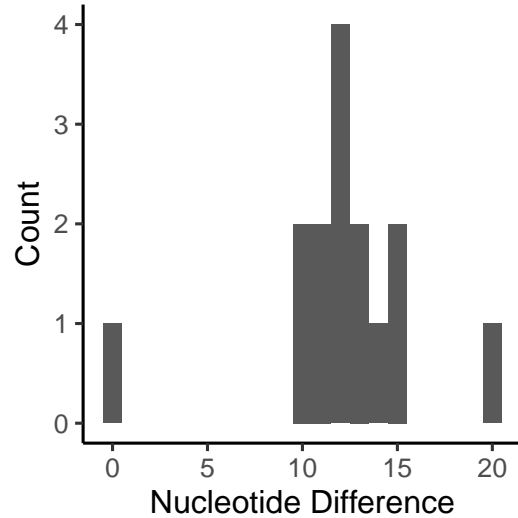
IGHV3-43*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



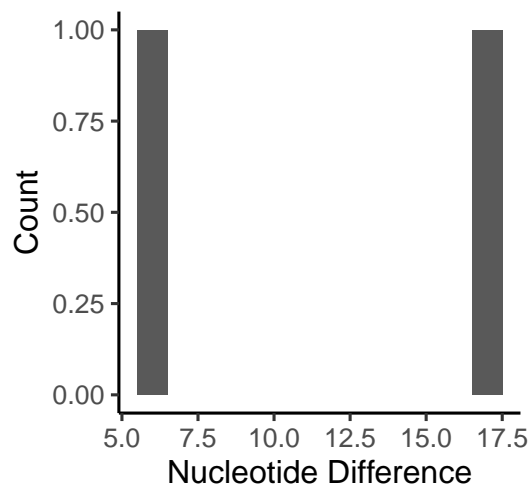
IGHV3-30*03

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



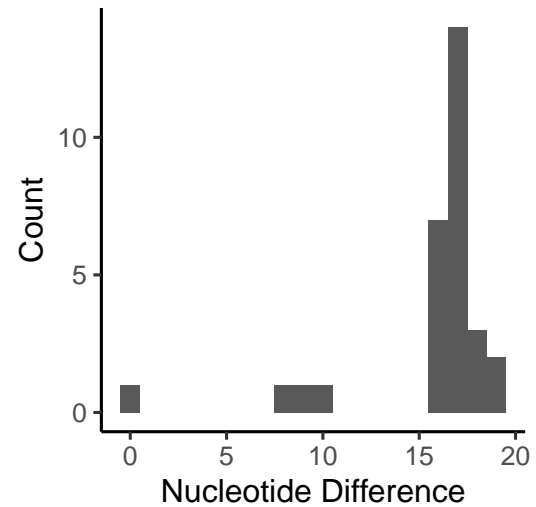
IGHV3-33*03

2 sequences assigned
No exact matches.



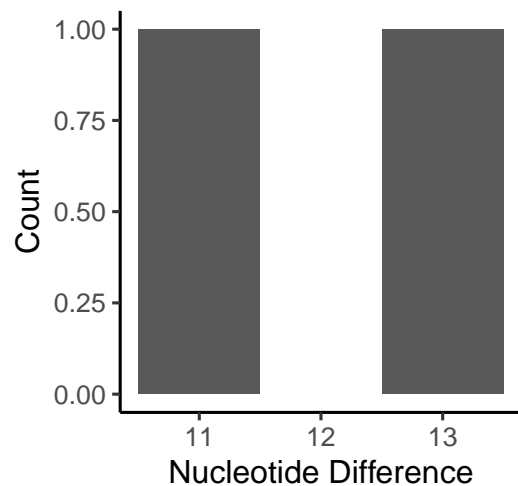
IGHV3-48*01

30 sequences assigned
1 (3.3%) exact matches, in which:
1 unique CDR3
1 unique J



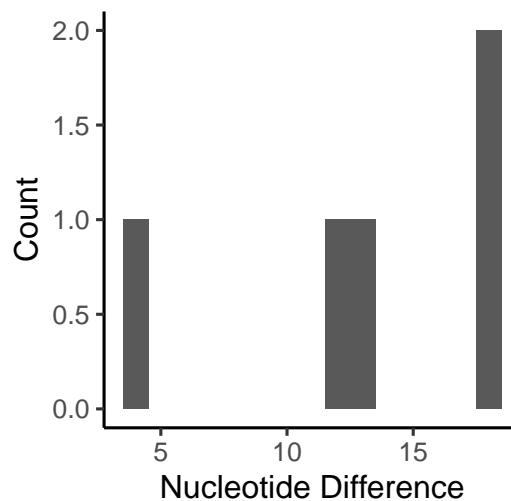
IGHV3-30-3*03

2 sequences assigned
No exact matches.



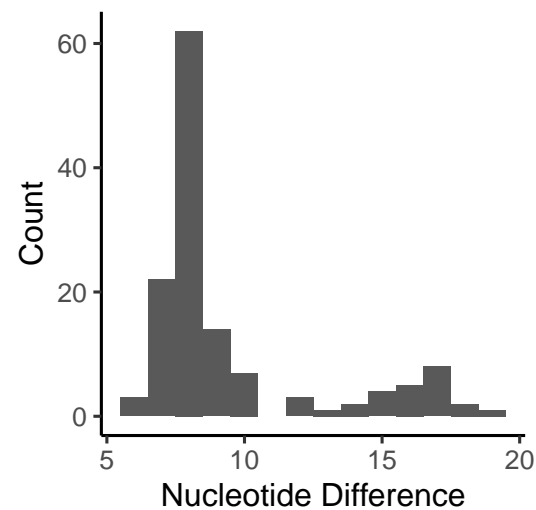
IGHV3-33*08

5 sequences assigned
No exact matches.



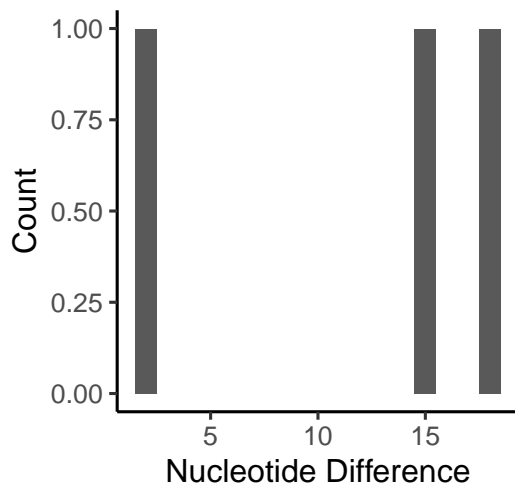
IGHV3-48*02

160 sequences assigned
No exact matches.



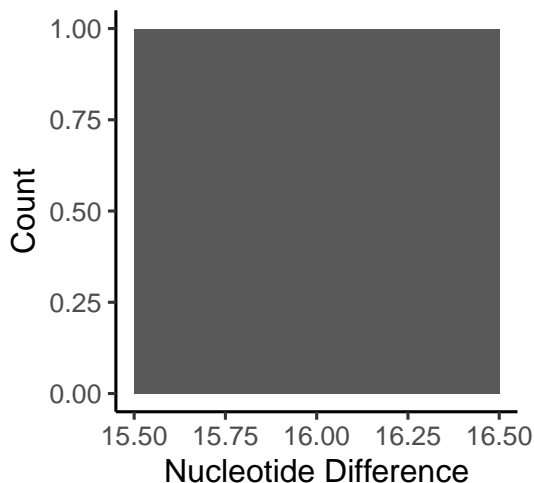
IGHV3-48*03

3 sequences assigned
No exact matches.



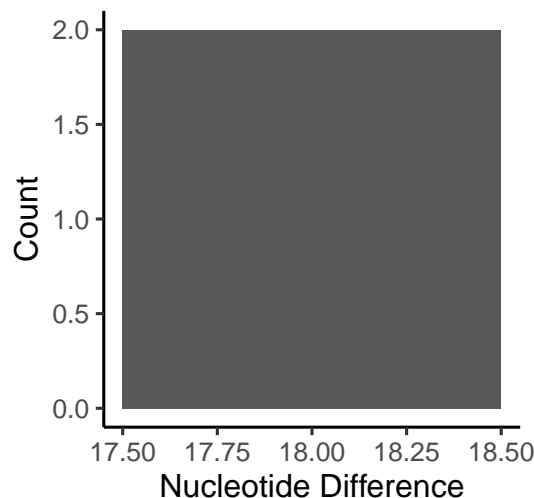
IGHV3-53*05

2 sequences assigned
No exact matches.



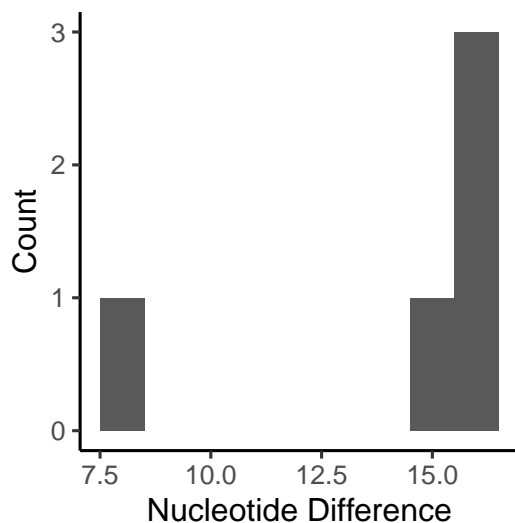
IGHV3-64*04

25 sequences assigned
No exact matches.



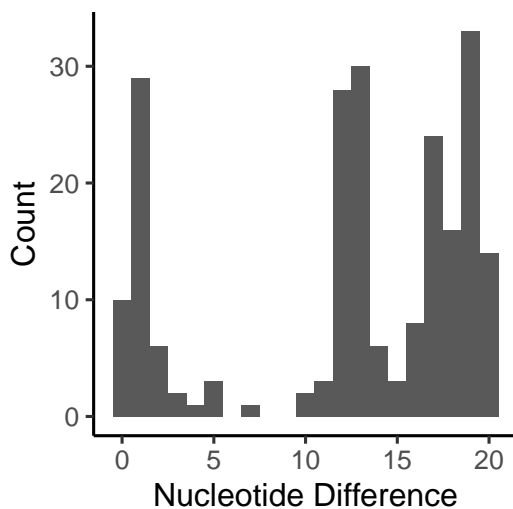
IGHV3-48*04

5 sequences assigned
No exact matches.



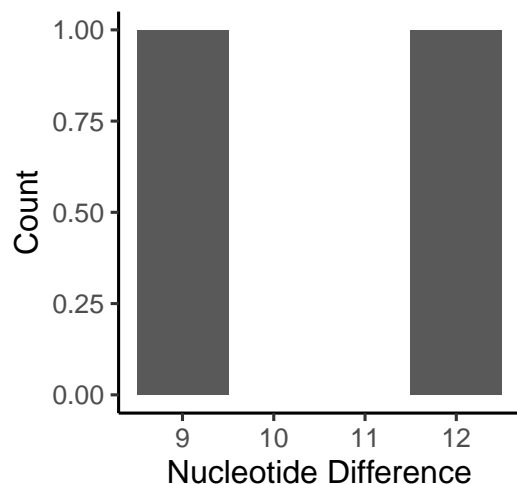
IGHV3-53*01_02

231 sequences assigned
10 (4.3%) exact matches, in which:
6 unique CDR3
1 unique J



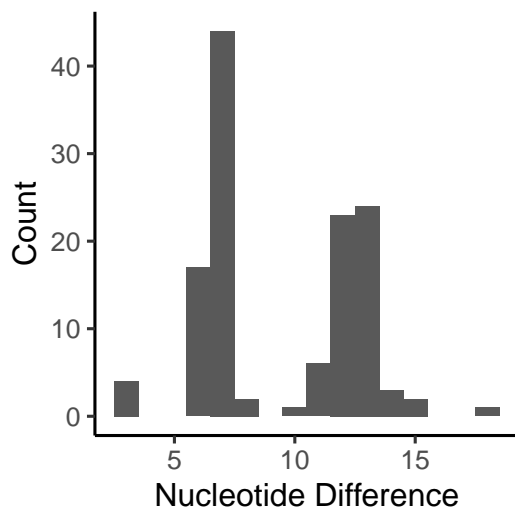
IGHV3-66*01

3 sequences assigned
No exact matches.



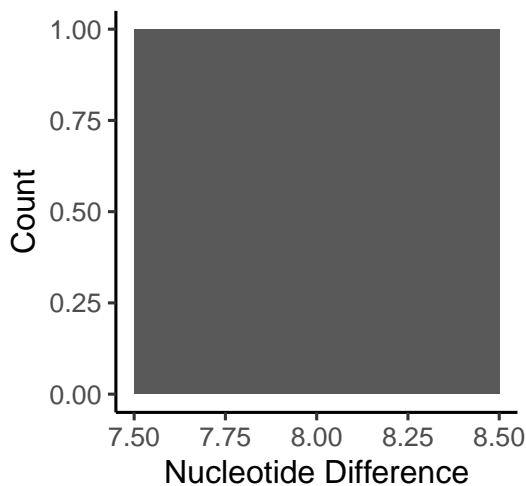
IGHV3-49*03_05

149 sequences assigned
No exact matches.



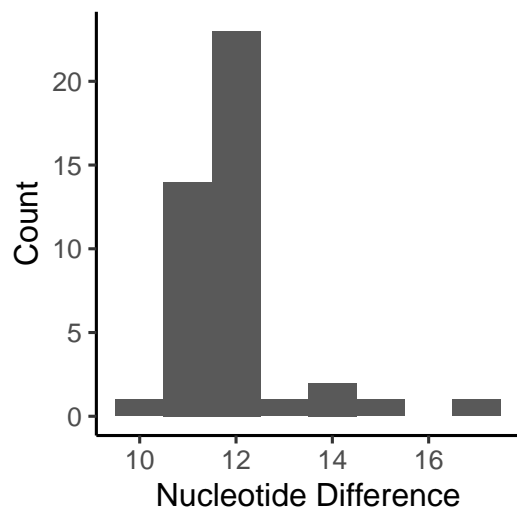
IGHV3-64*01

1 sequences assigned
No exact matches.



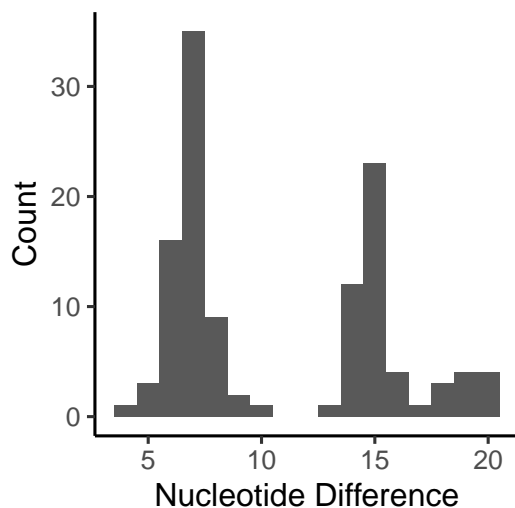
IGHV3-66*02

107 sequences assigned
No exact matches.



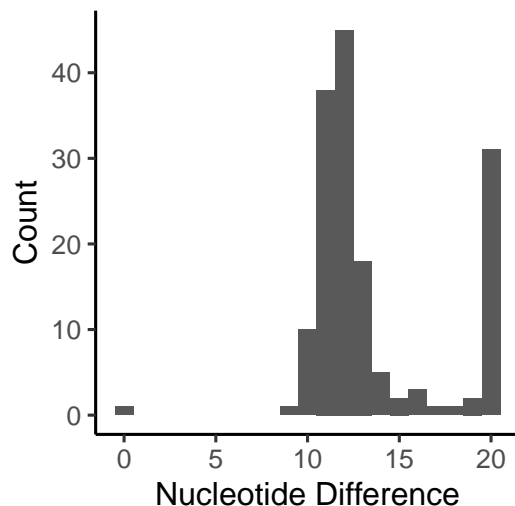
IGHV3-72*01

119 sequences assigned
No exact matches.



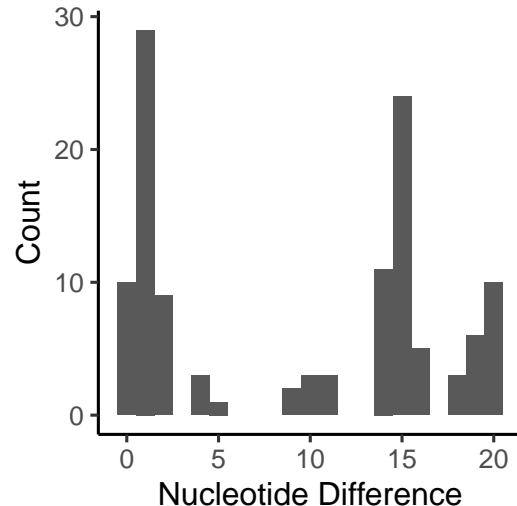
IGHV3-74*01_02

250 sequences assigned
1 (0.4%) exact matches, in which:
1 unique CDR3
1 unique J



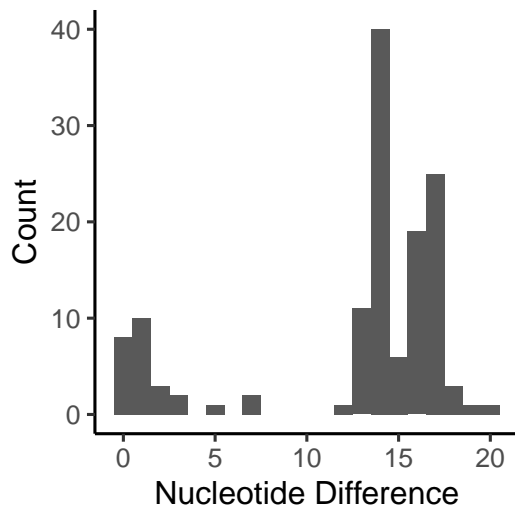
IGHV4-4*02_03

172 sequences assigned
10 (5.8%) exact matches, in which:
6 unique CDR3
3 unique J



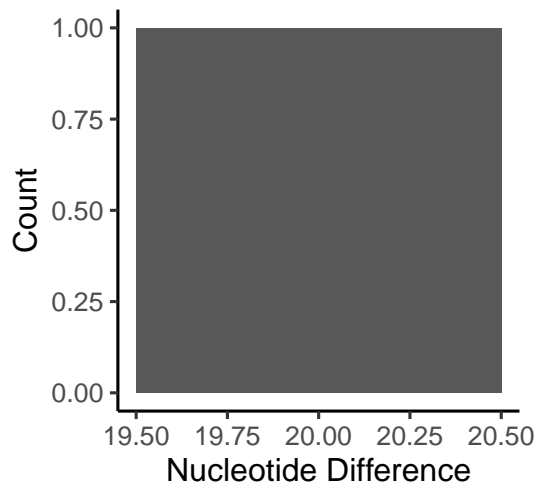
IGHV3-73*01_02

135 sequences assigned
8 (5.9%) exact matches, in which:
4 unique CDR3
1 unique J



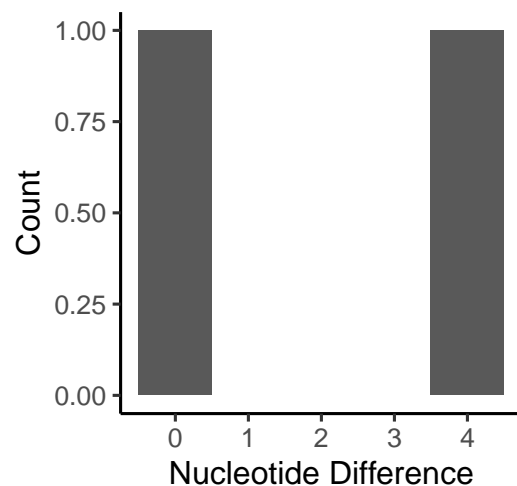
IGHV3-64D*08

423 sequences assigned
No exact matches.



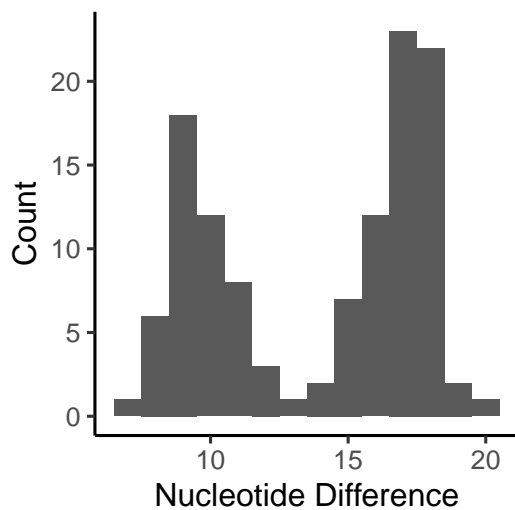
IGHV4-30-4*01

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



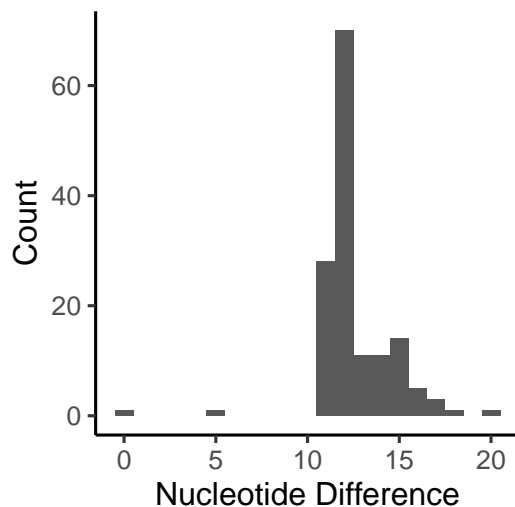
IGHV3-74*03

126 sequences assigned
No exact matches.



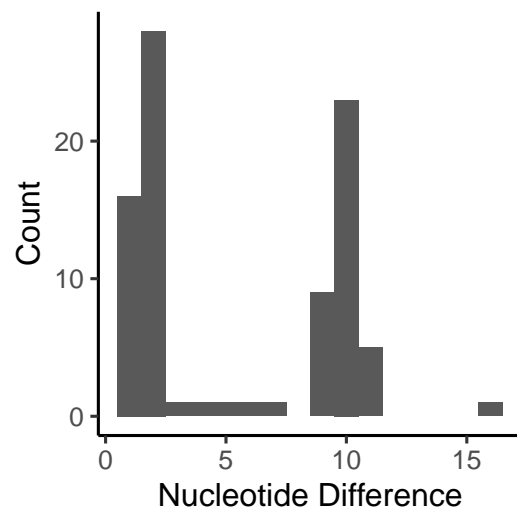
IGHV4-4*07

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



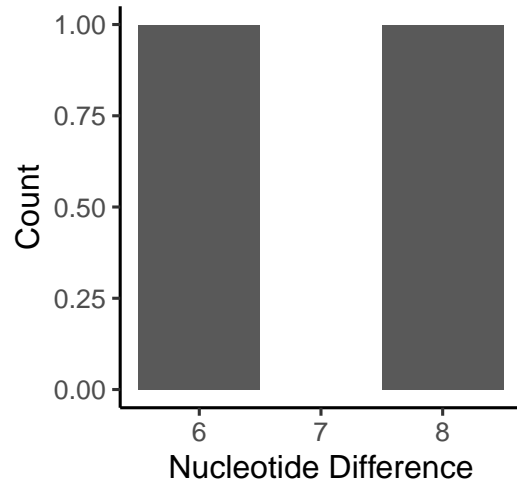
IGHV4-30-2*03

87 sequences assigned
No exact matches.



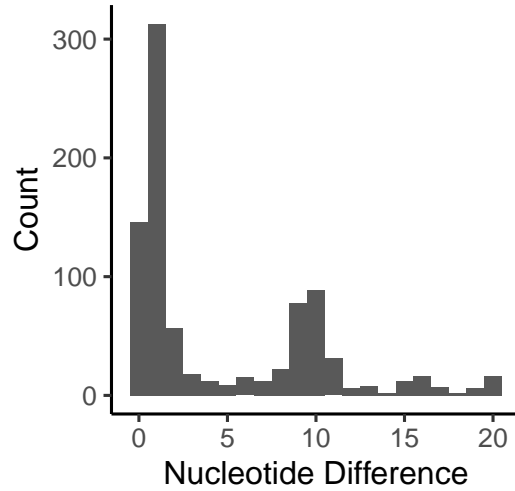
IGHV4-30-2*04

2 sequences assigned
No exact matches.



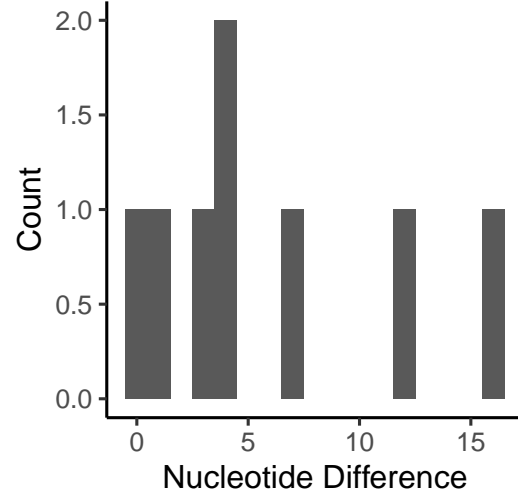
IGHV4-34*01_02

3638 sequences assigned
146 (4%) exact matches, in which:
96 unique CDR3
5 unique J



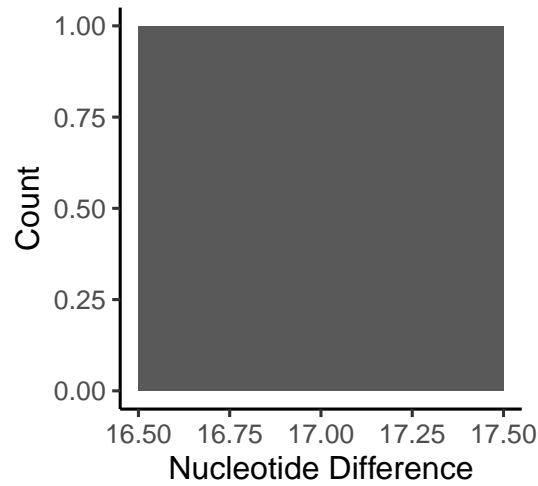
IGHV4-39*07

8 sequences assigned
1 (12.5%) exact matches, in which:
1 unique CDR3
1 unique J



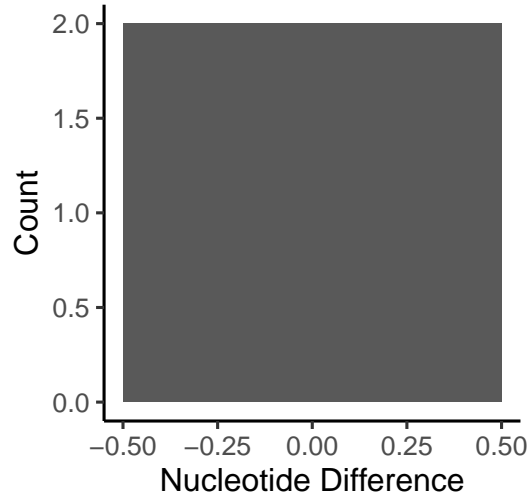
IGHV4-30-4*05

1 sequences assigned
No exact matches.



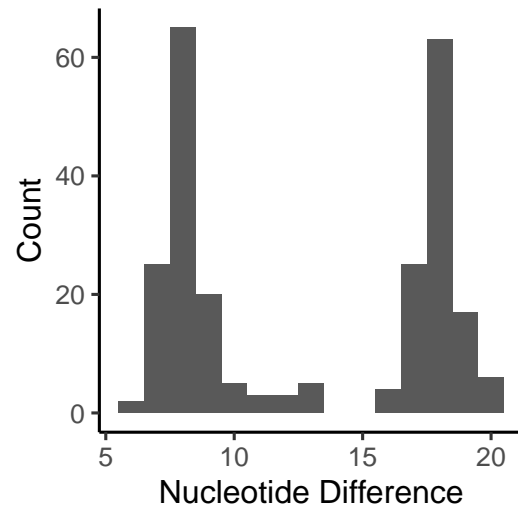
IGHV4-38-2*01

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
2 unique J



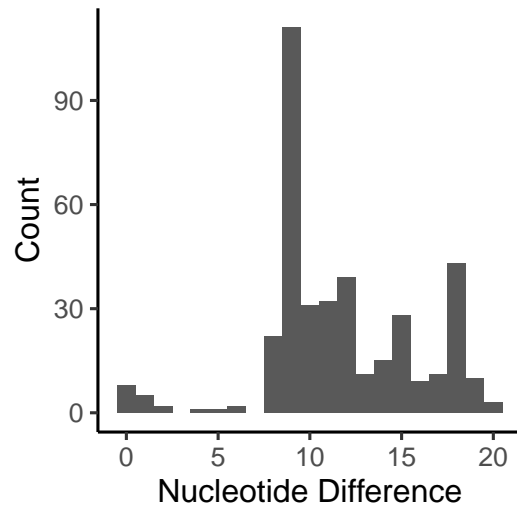
IGHV4-59*02

315 sequences assigned
No exact matches.



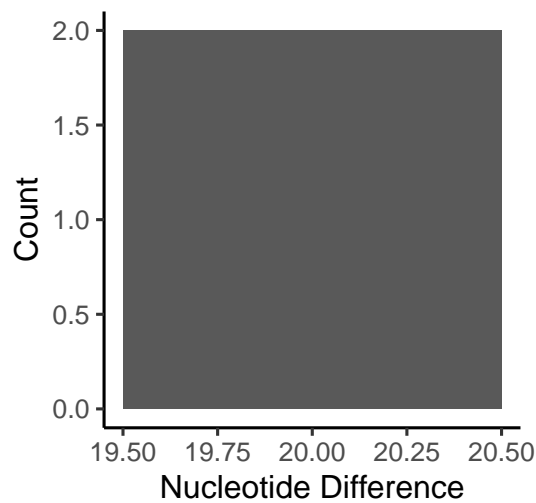
IGHV4-31*02

494 sequences assigned
8 (1.6%) exact matches, in which:
8 unique CDR3
2 unique J



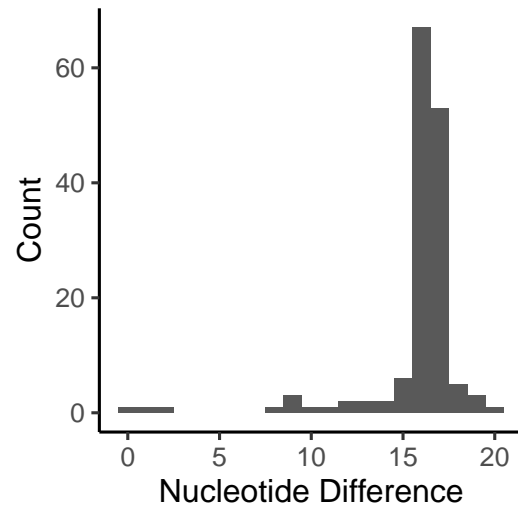
IGHV4-39*02

357 sequences assigned
No exact matches.



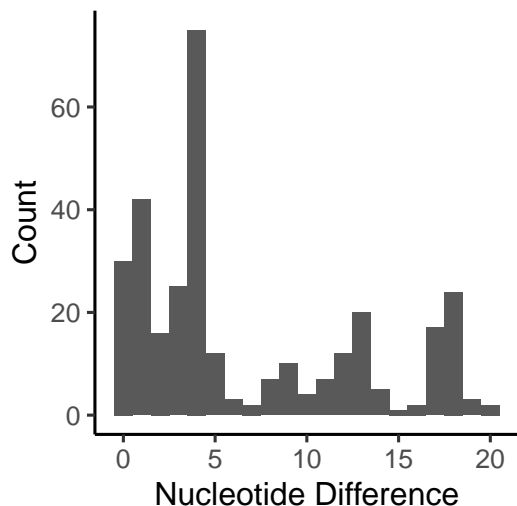
IGHV4-59*08

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



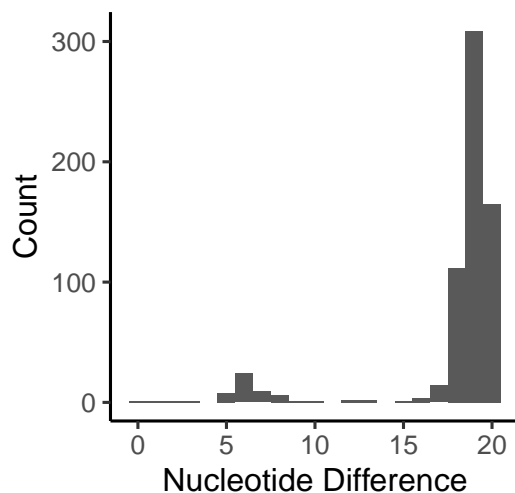
IGHV4-59*01_07

425 sequences assigned
30 (7.1%) exact matches, in which:
18 unique CDR3
5 unique J



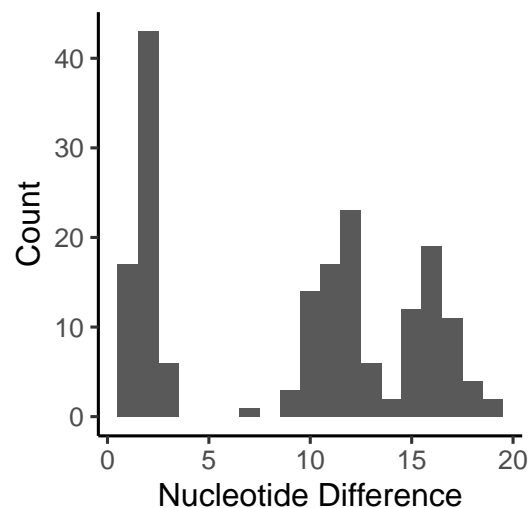
IGHV4-61*02

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



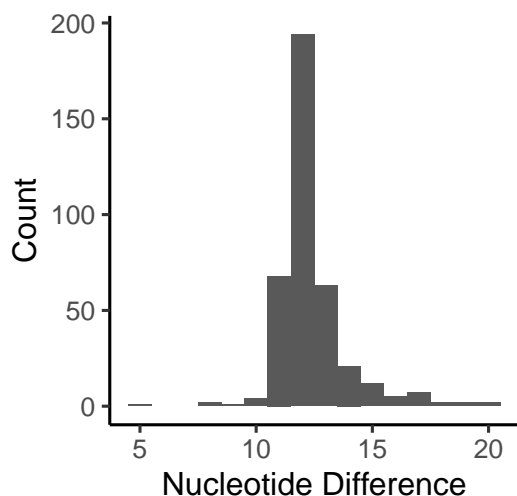
IGHV5-51*07

187 sequences assigned
No exact matches.



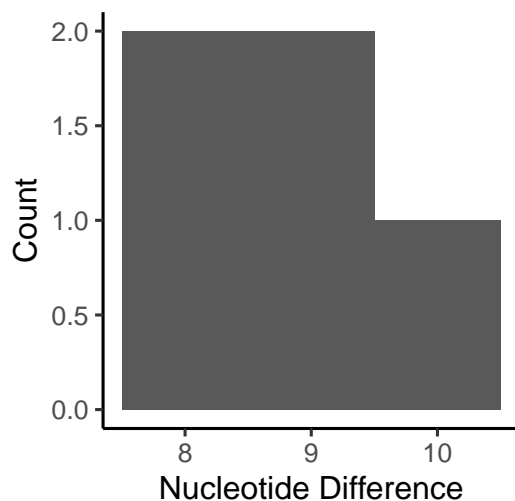
IGHV4-59*11

412 sequences assigned
No exact matches.



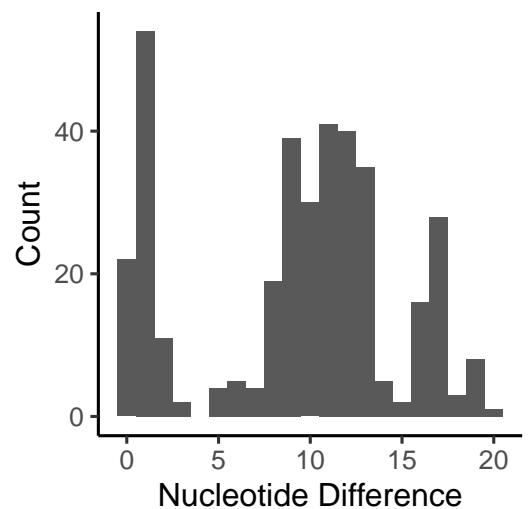
IGHV4-61*03

6 sequences assigned
No exact matches.



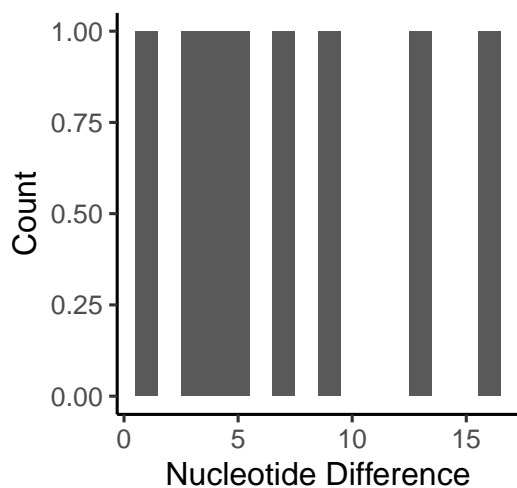
IGHV5-51*01_03

381 sequences assigned
22 (5.8%) exact matches, in which:
11 unique CDR3
2 unique J



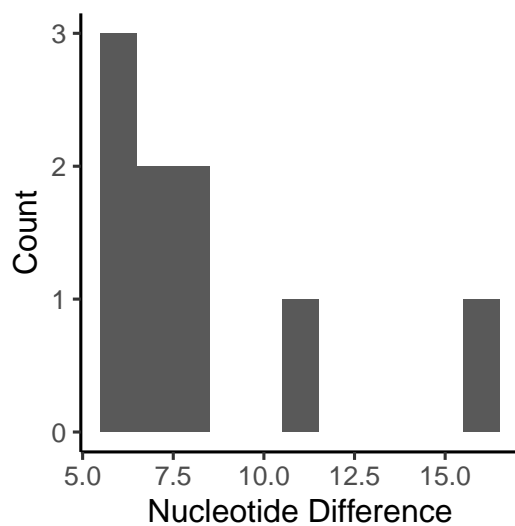
IGHV4-61*01

9 sequences assigned
No exact matches.



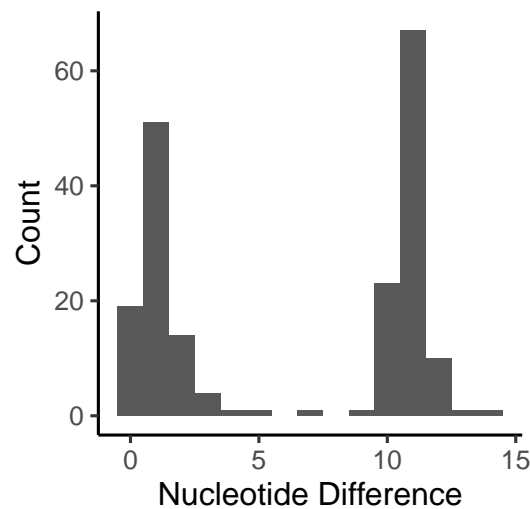
IGHV5-10-1*01_03

17 sequences assigned
No exact matches.



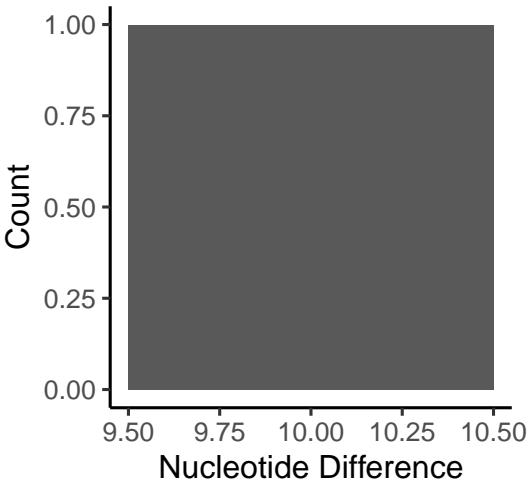
IGHV6-1*01_02

222 sequences assigned
19 (8.6%) exact matches, in which:
16 unique CDR3
4 unique J

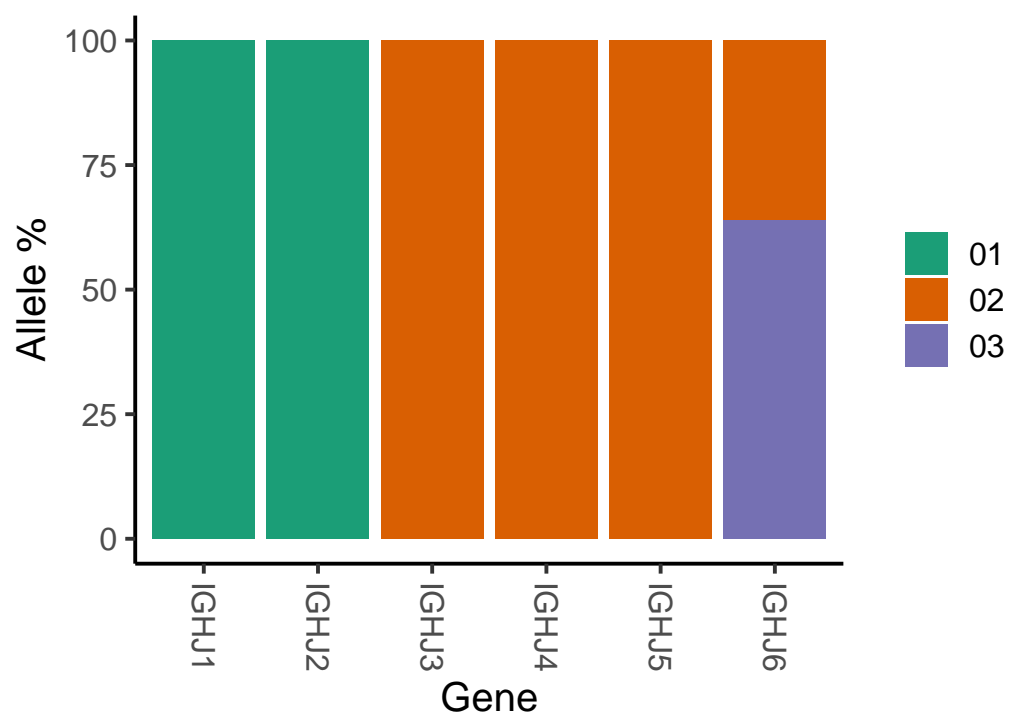


IGHV7-4-1*02

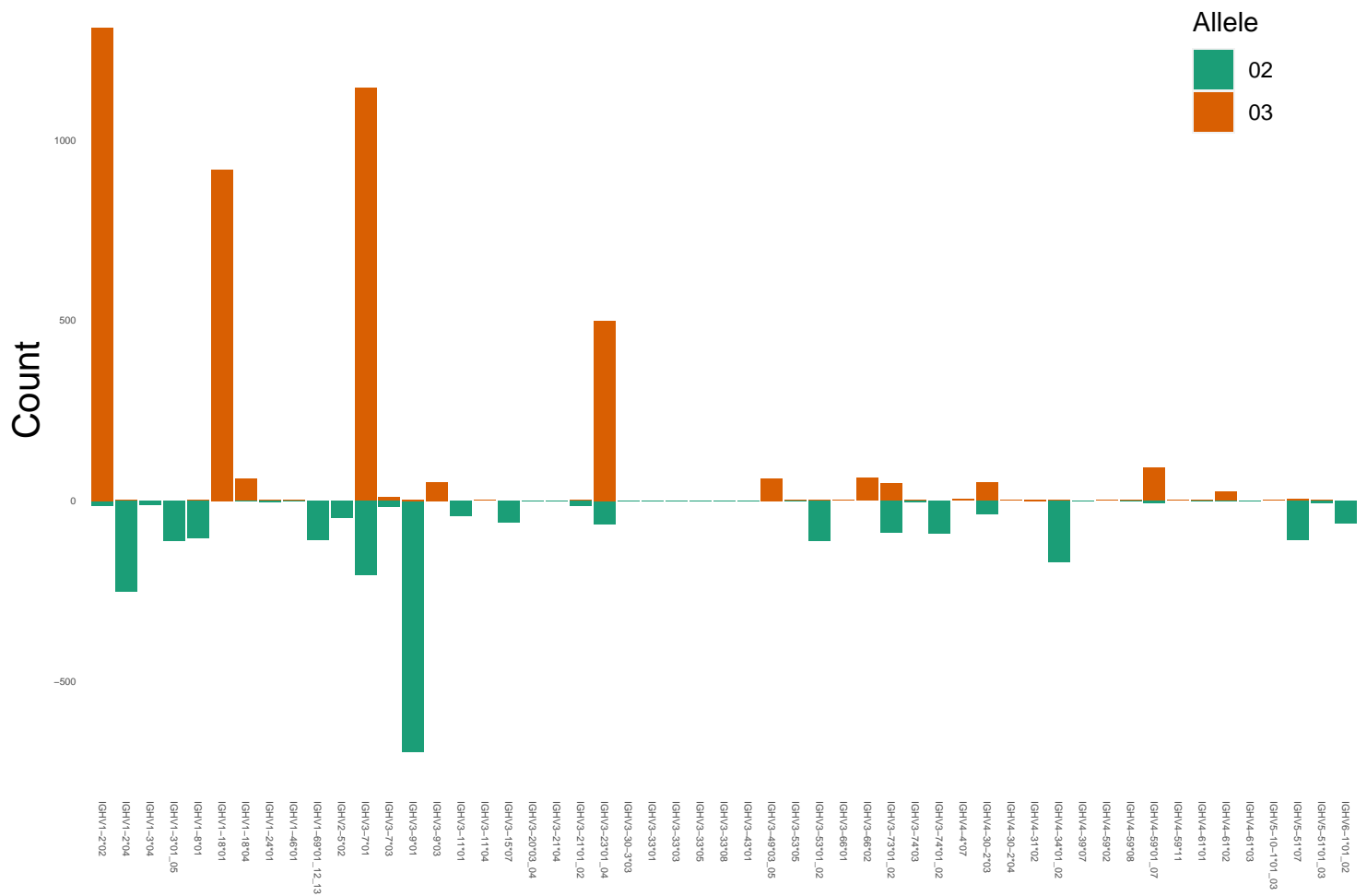
1 sequences assigned
No exact matches.



Allele Usage



Sequence Count byIGHJ6 allele usage



[illegible]