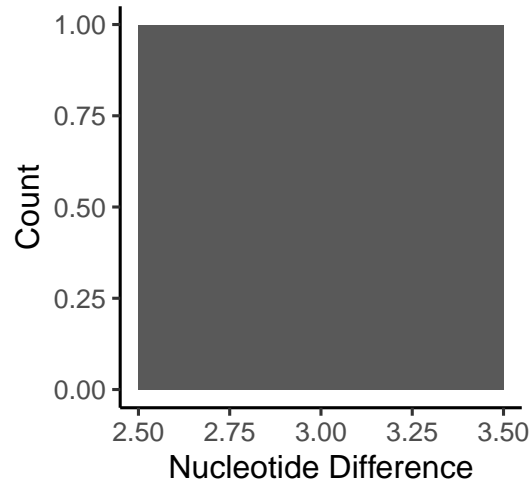


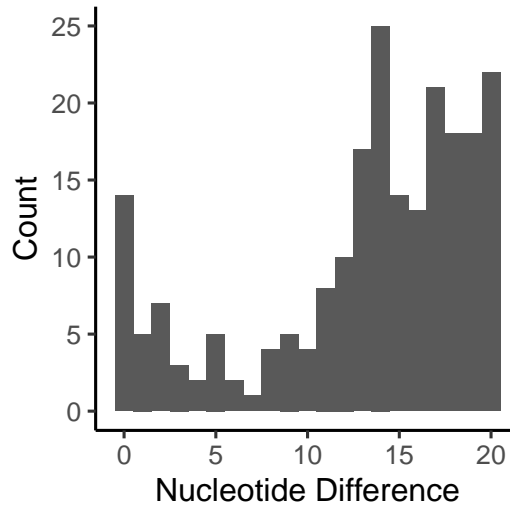
IGHV1/OR21-1*01

1 sequences assigned
No exact matches.



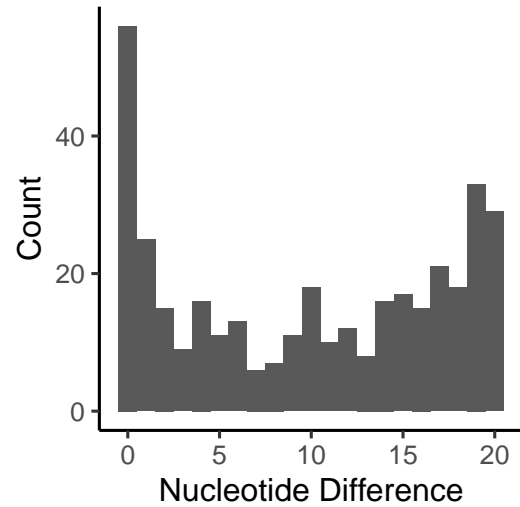
IGHV1-3*01

476 sequences assigned
14 (2.9%) exact matches, in which:
12 unique CDR3
3 unique J



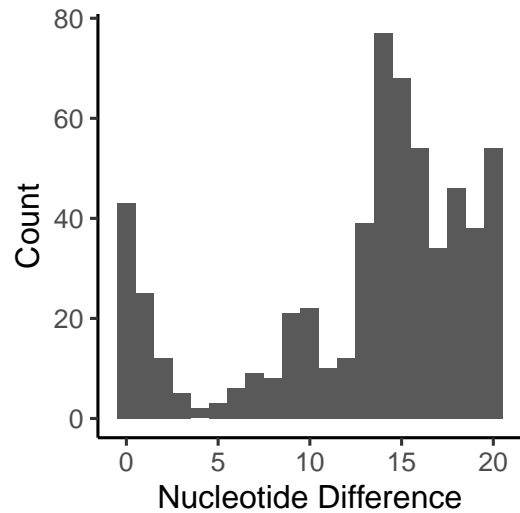
IGHV1-18*01

1003 sequences assigned
56 (5.6%) exact matches, in which:
54 unique CDR3
6 unique J



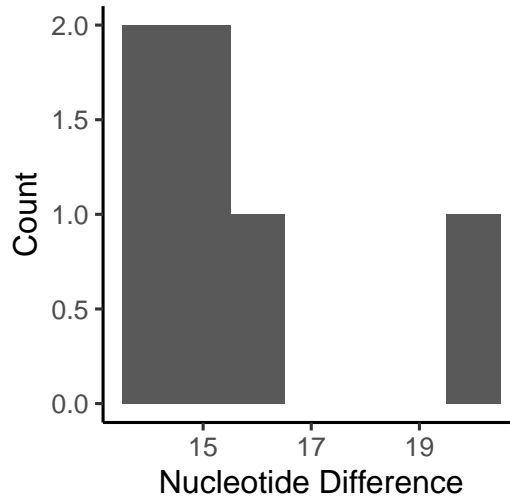
IGHV1-2*02

931 sequences assigned
43 (4.6%) exact matches, in which:
41 unique CDR3
6 unique J



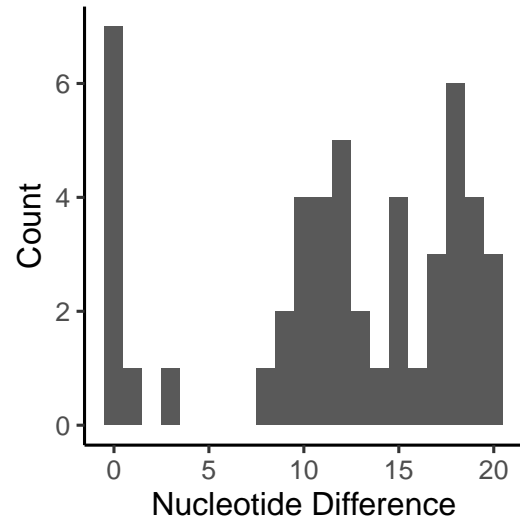
IGHV1-3*04

49 sequences assigned
No exact matches.



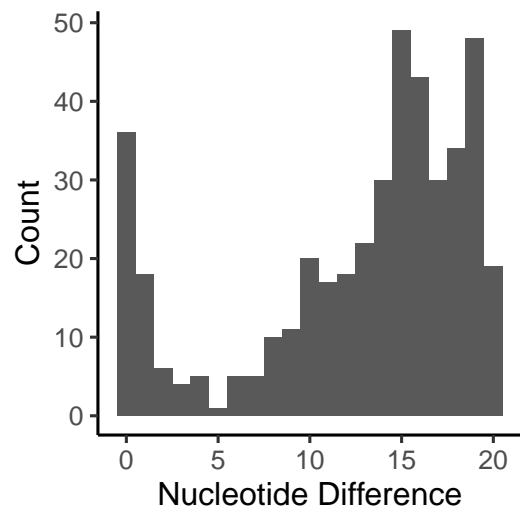
IGHV1-24*01

68 sequences assigned
7 (10.3%) exact matches, in which:
7 unique CDR3
2 unique J



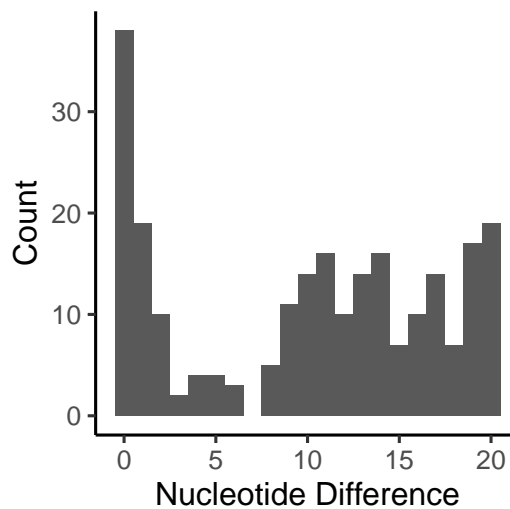
IGHV1-2*06

999 sequences assigned
36 (3.6%) exact matches, in which:
36 unique CDR3
5 unique J



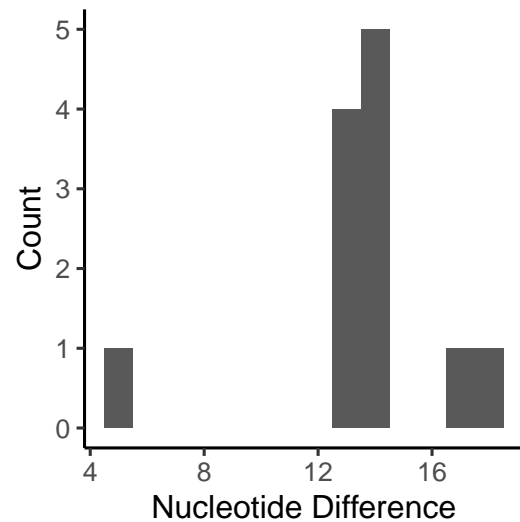
IGHV1-8*01

850 sequences assigned
38 (4.5%) exact matches, in which:
38 unique CDR3
7 unique J



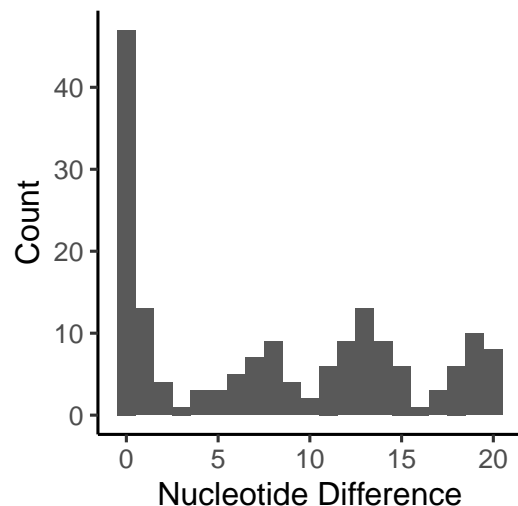
IGHV1-45*02

38 sequences assigned
No exact matches.



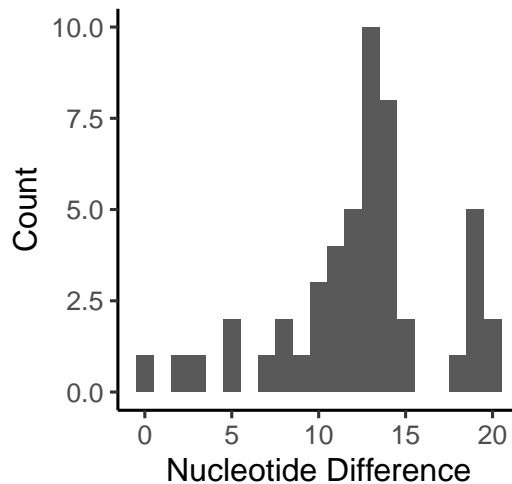
IGHV1-46*01

584 sequences assigned
47 (8%) exact matches, in which:
47 unique CDR3
5 unique J



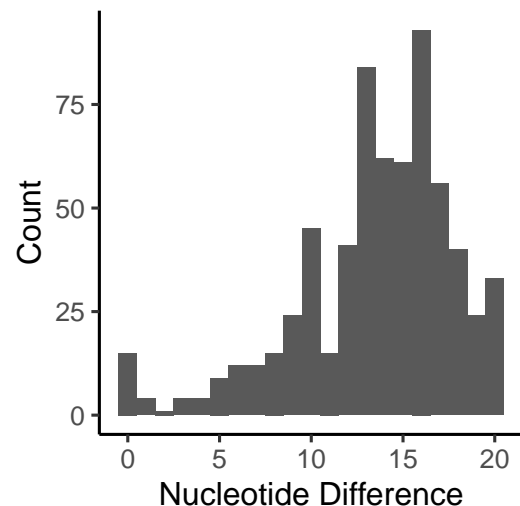
IGHV1-69-2*01

52 sequences assigned
1 (1.9%) exact matches, in which:
1 unique CDR3
1 unique J



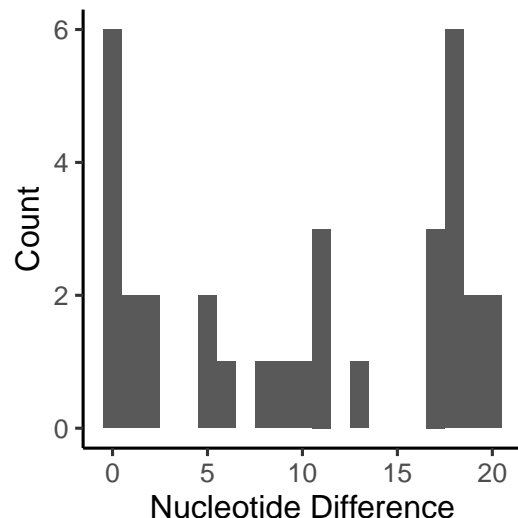
IGHV2-5*01

853 sequences assigned
15 (1.8%) exact matches, in which:
15 unique CDR3
3 unique J



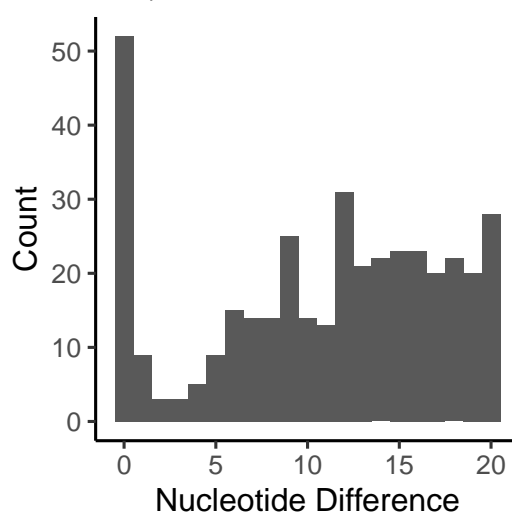
IGHV1-58*01

95 sequences assigned
6 (6.3%) exact matches, in which:
6 unique CDR3
4 unique J



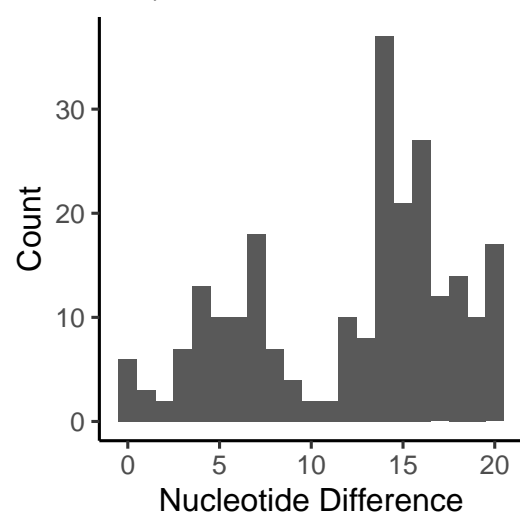
IGHV1-69*06

729 sequences assigned
52 (7.1%) exact matches, in which:
48 unique CDR3
5 unique J



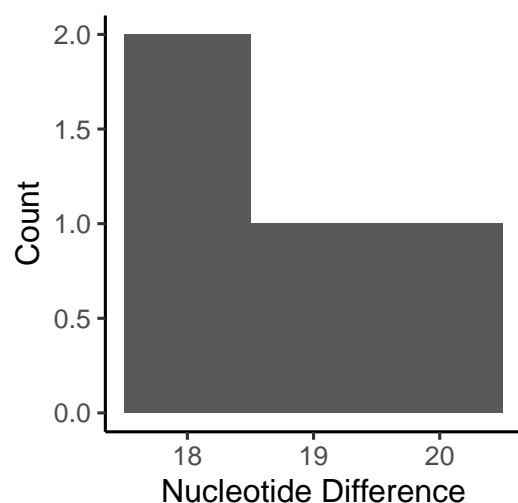
IGHV2-5*02

359 sequences assigned
6 (1.7%) exact matches, in which:
6 unique CDR3
2 unique J



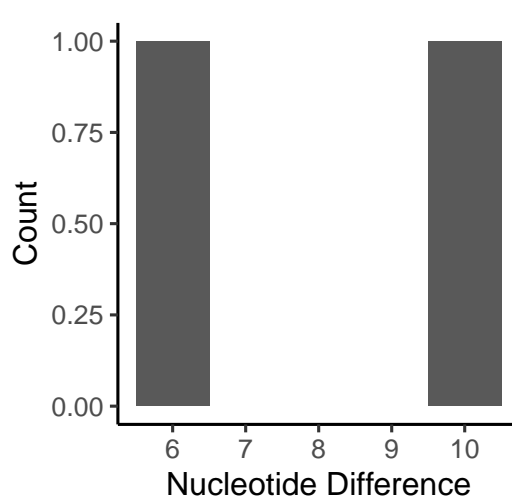
IGHV1-58*02

6 sequences assigned
No exact matches.



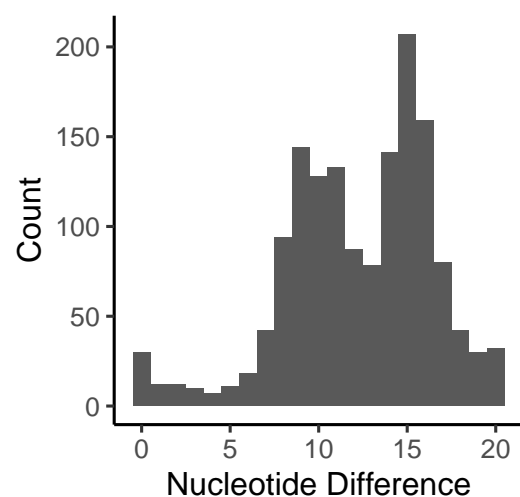
IGHV1-NL1*01

2 sequences assigned
No exact matches.



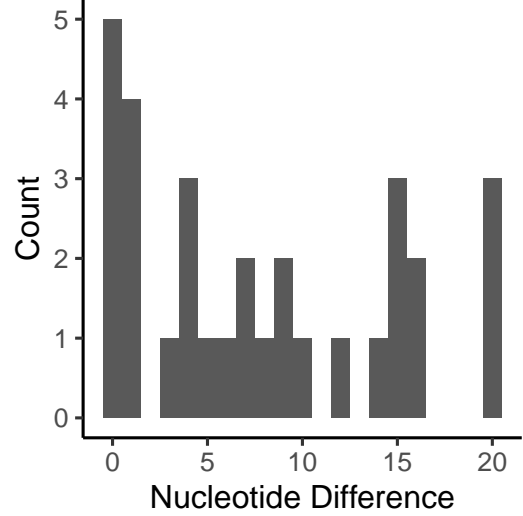
IGHV2-26*01

1658 sequences assigned
30 (1.8%) exact matches, in which:
28 unique CDR3
6 unique J



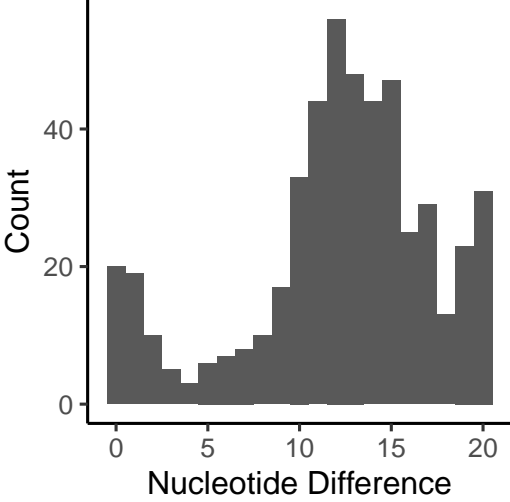
IGHV2-70*01

47 sequences assigned
5 (10.6%) exact matches, in which:
5 unique CDR3
2 unique J



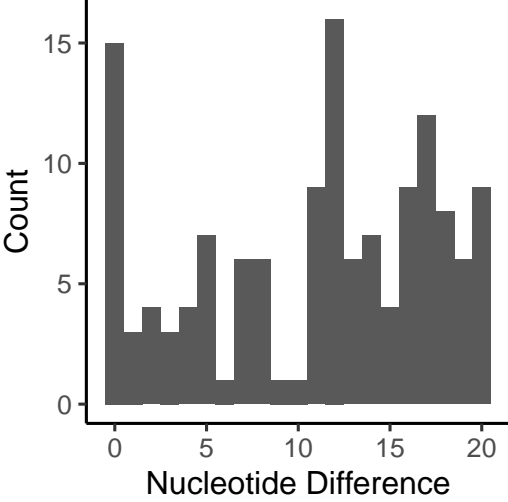
IGHV3-7*03

1187 sequences assigned
20 (1.7%) exact matches, in which:
20 unique CDR3
6 unique J



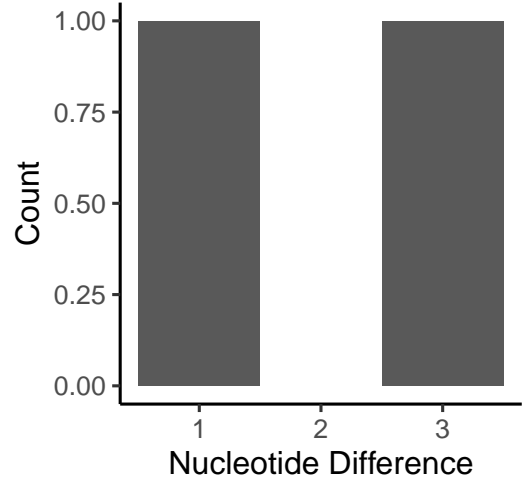
IGHV3-13*01

686 sequences assigned
15 (2.2%) exact matches, in which:
15 unique CDR3
6 unique J



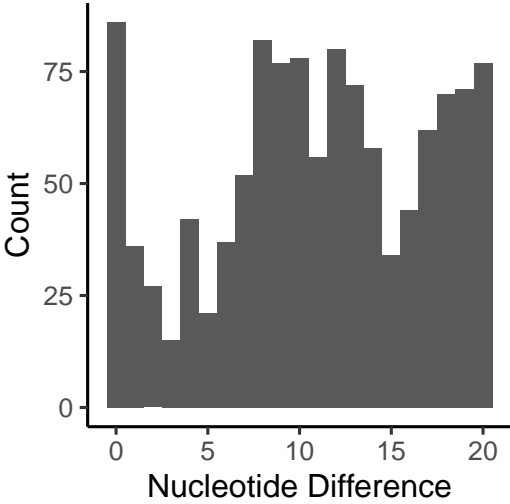
IGHV2-70*12

2 sequences assigned
No exact matches.



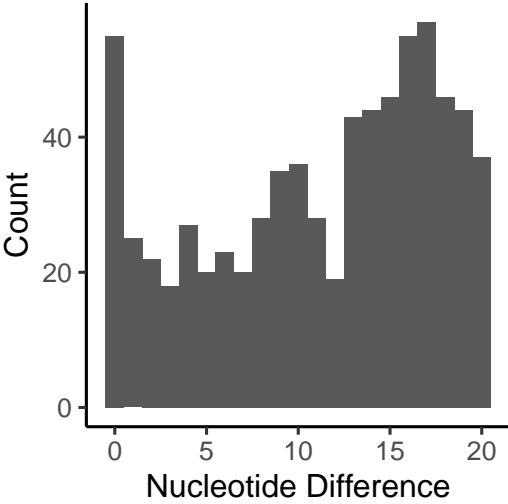
IGHV3-9*01

3248 sequences assigned
86 (2.6%) exact matches, in which:
80 unique CDR3
6 unique J



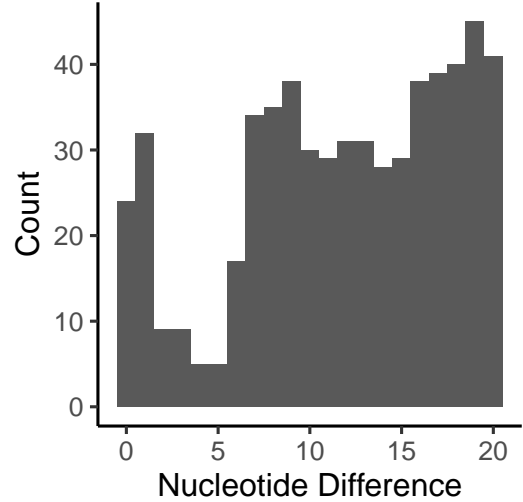
IGHV3-15*01

1477 sequences assigned
55 (3.7%) exact matches, in which:
50 unique CDR3
5 unique J



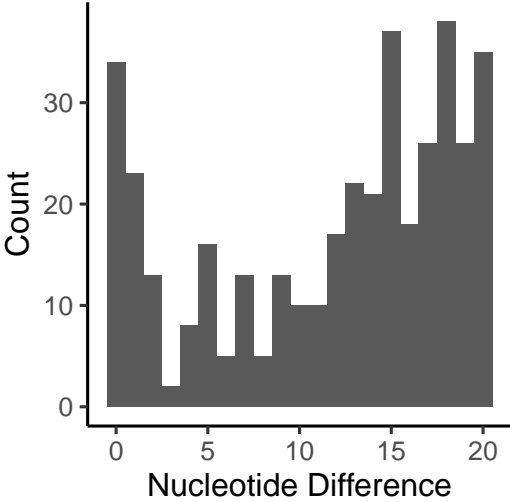
IGHV3-7*01

922 sequences assigned
24 (2.6%) exact matches, in which:
18 unique CDR3
4 unique J



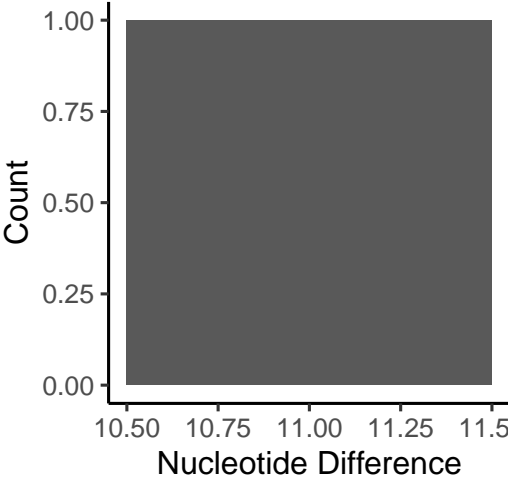
IGHV3-11*01

934 sequences assigned
34 (3.6%) exact matches, in which:
34 unique CDR3
6 unique J



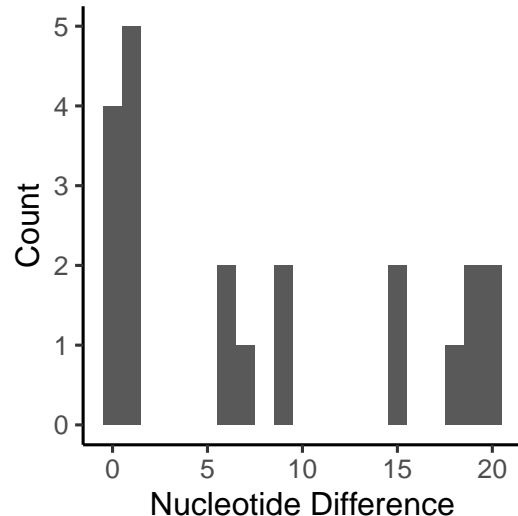
IGHV3-19*01

1 sequences assigned
No exact matches.



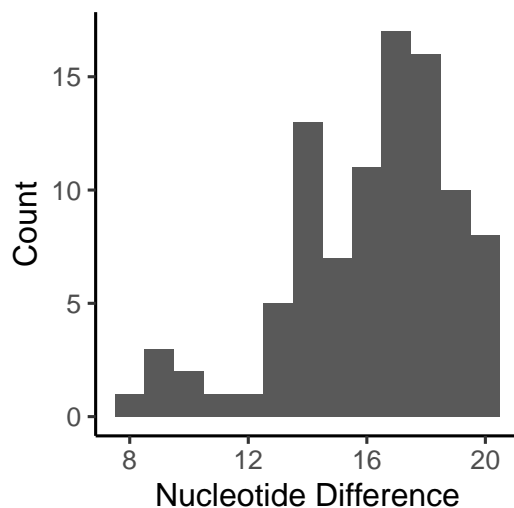
IGHV3-20*01

33 sequences assigned
4 (12.1%) exact matches, in which:
4 unique CDR3
3 unique J



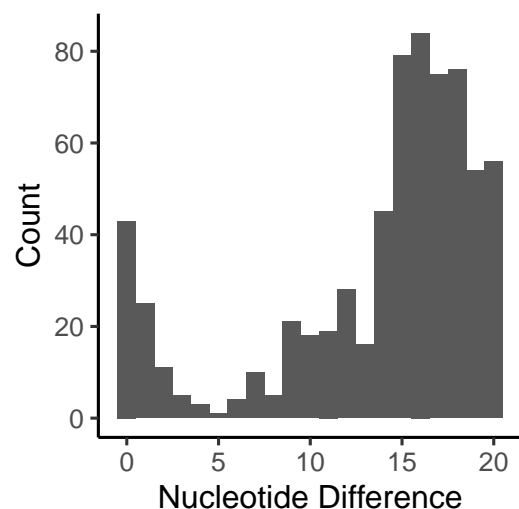
IGHV3-21*02

217 sequences assigned
No exact matches.



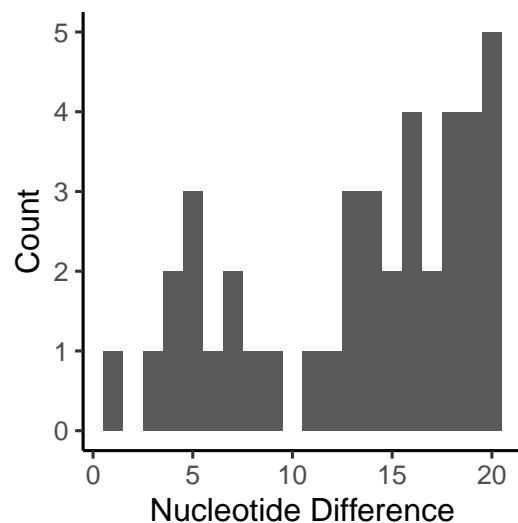
IGHV3-23*04

1346 sequences assigned
43 (3.2%) exact matches, in which:
43 unique CDR3
5 unique J



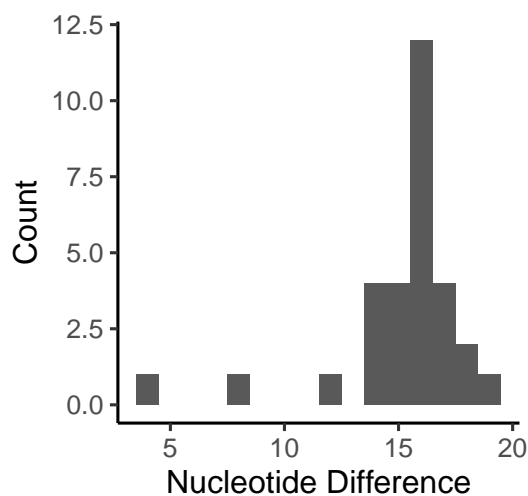
IGHV3-20*04

70 sequences assigned
No exact matches.



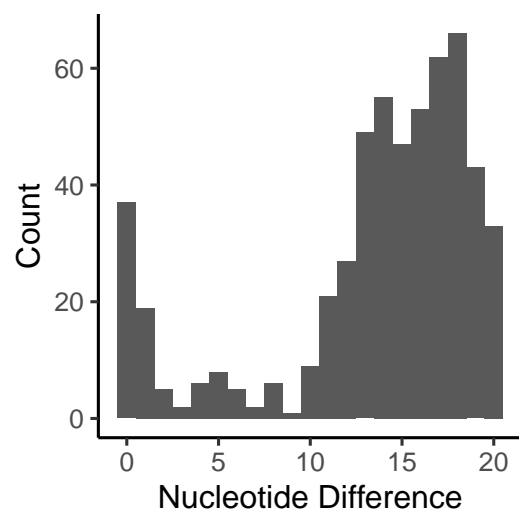
IGHV3-21*04

31 sequences assigned
No exact matches.



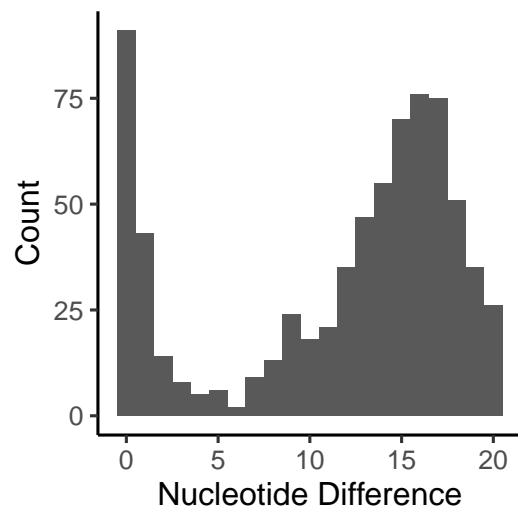
IGHV3-30-3*01

1182 sequences assigned
37 (3.1%) exact matches, in which:
37 unique CDR3
5 unique J



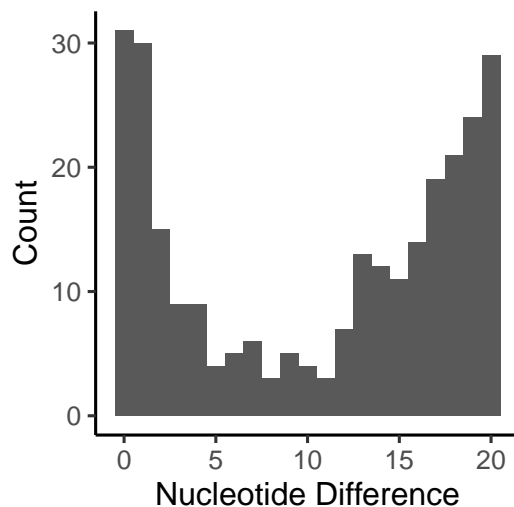
IGHV3-21*01

1366 sequences assigned
91 (6.7%) exact matches, in which:
91 unique CDR3
6 unique J



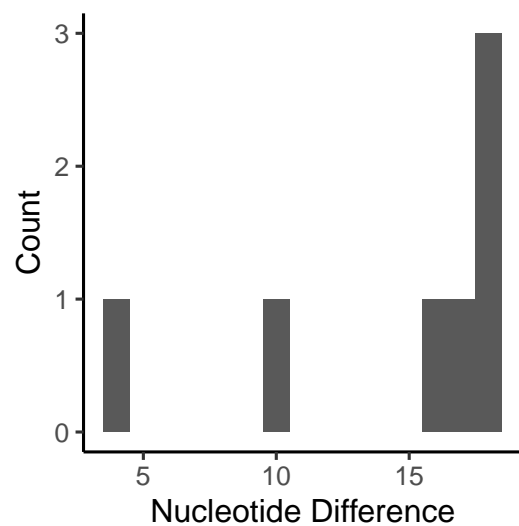
IGHV3-23*03

484 sequences assigned
31 (6.4%) exact matches, in which:
26 unique CDR3
6 unique J



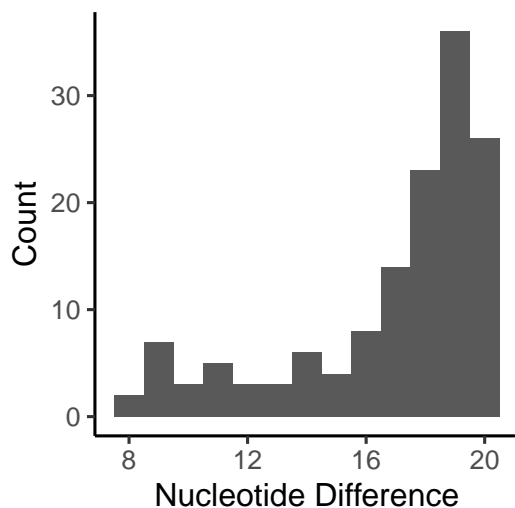
IGHV3-30-3*02

37 sequences assigned
No exact matches.



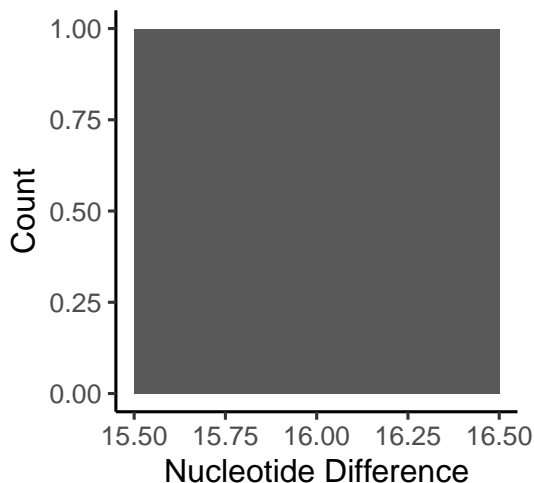
IGHV3–30*03

738 sequences assigned
No exact matches.



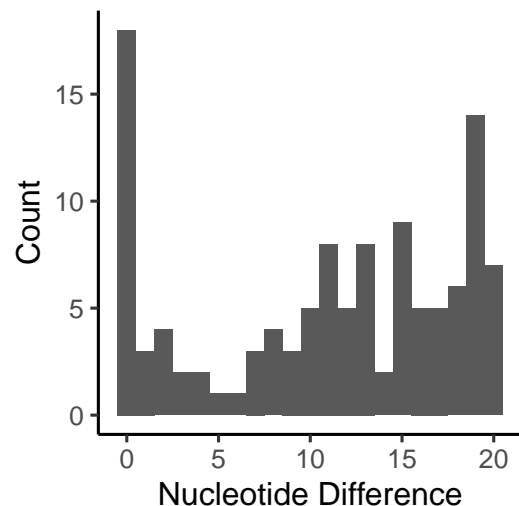
IGHV3–41*02

1 sequences assigned
No exact matches.



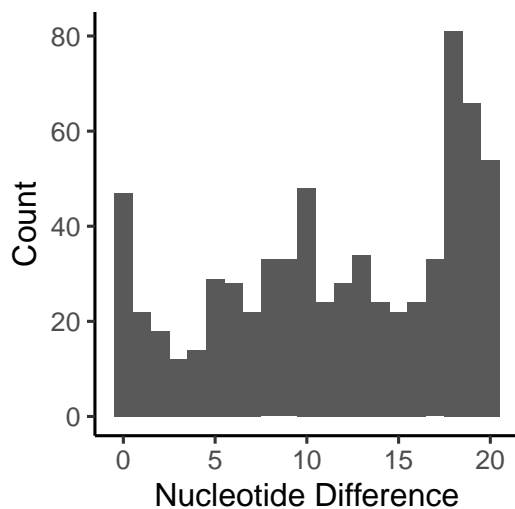
IGHV3–48*01

143 sequences assigned
18 (12.6%) exact matches, in which:
18 unique CDR3
5 unique J



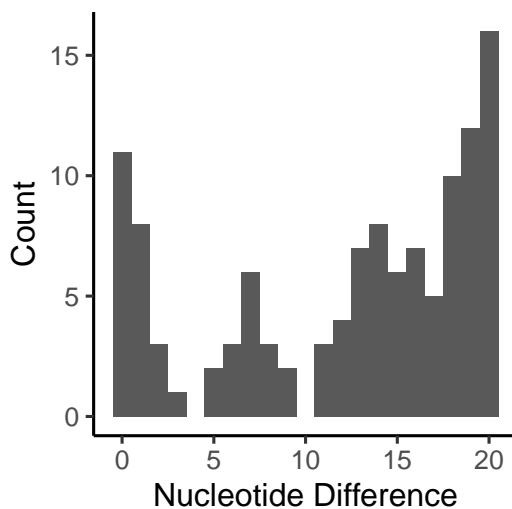
IGHV3–33*08

1559 sequences assigned
47 (3%) exact matches, in which:
44 unique CDR3
5 unique J



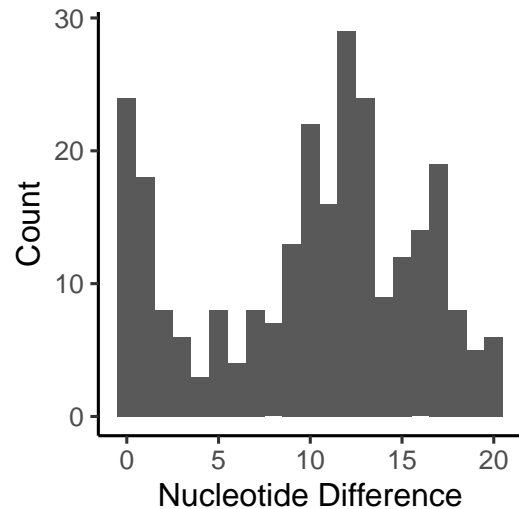
IGHV3–43*02

287 sequences assigned
11 (3.8%) exact matches, in which:
10 unique CDR3
3 unique J



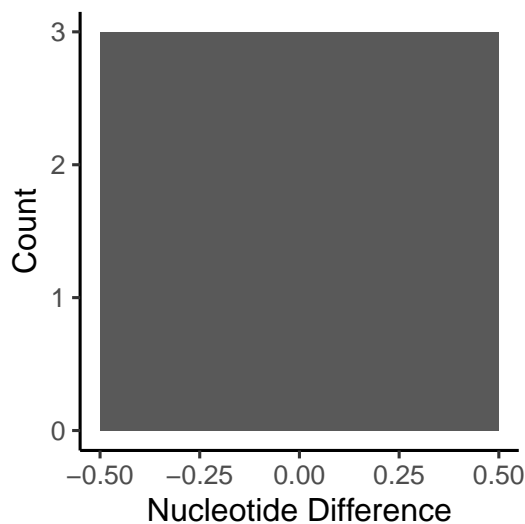
IGHV3–48*02

439 sequences assigned
24 (5.5%) exact matches, in which:
20 unique CDR3
5 unique J



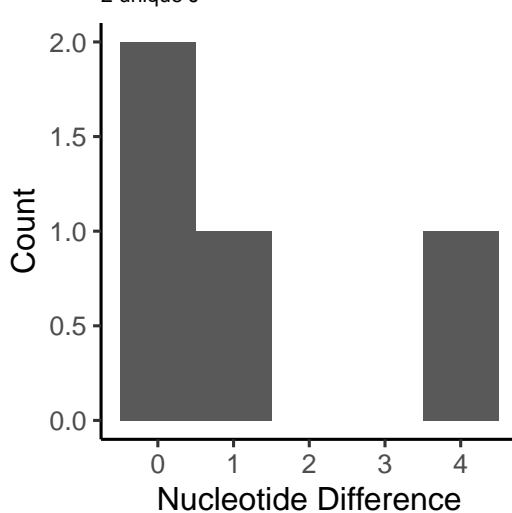
IGHV3–35*01

4 sequences assigned
3 (75%) exact matches, in which:
2 unique CDR3
2 unique J



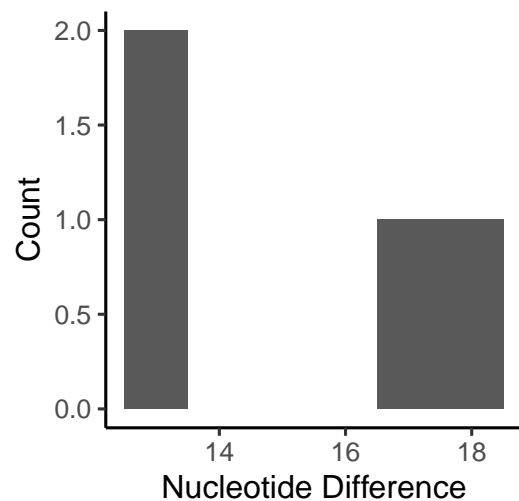
IGHV3–47*02

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



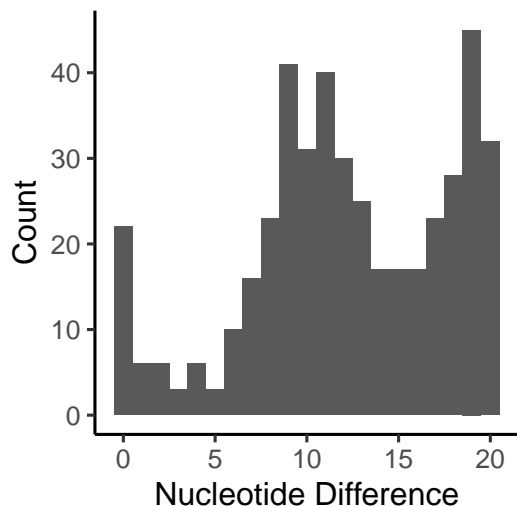
IGHV3–48*03

8 sequences assigned
No exact matches.



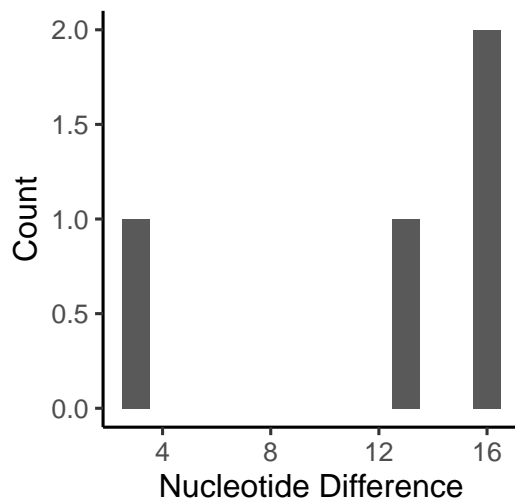
IGHV3-49*05

1143 sequences assigned
22 (1.9%) exact matches, in which:
21 unique CDR3
6 unique J



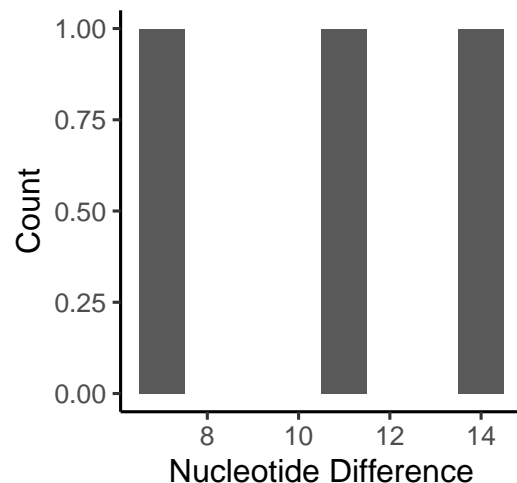
IGHV3-64*02

5 sequences assigned
No exact matches.



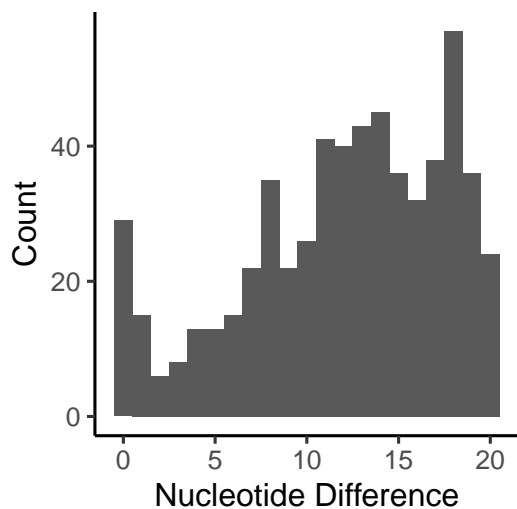
IGHV3-66*03

3 sequences assigned
No exact matches.



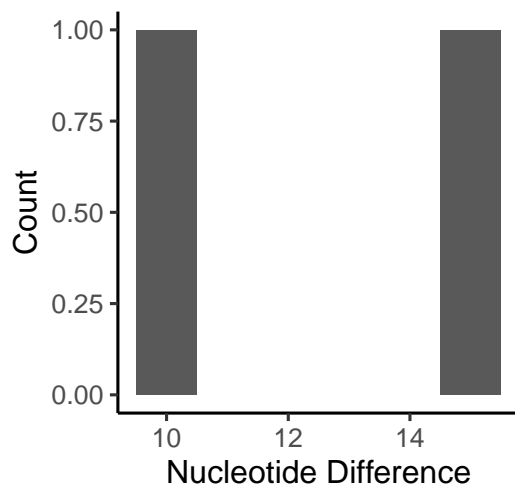
IGHV3-53*01

1082 sequences assigned
29 (2.7%) exact matches, in which:
29 unique CDR3
6 unique J



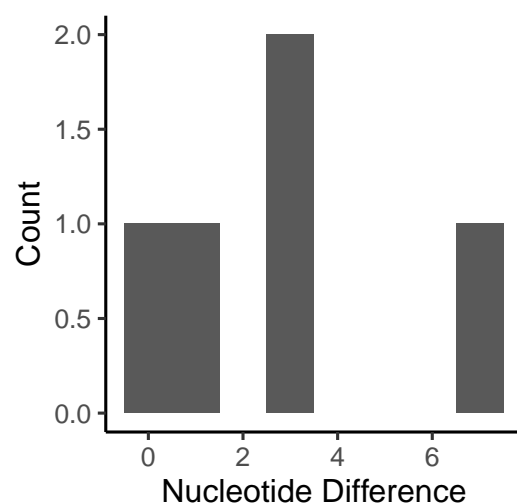
IGHV3-64*04

2 sequences assigned
No exact matches.



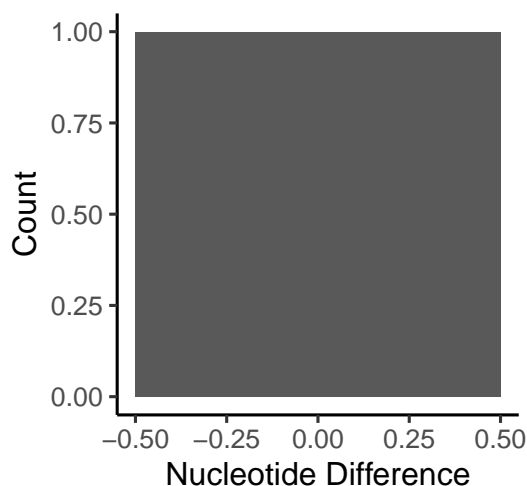
IGHV3-66*04

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



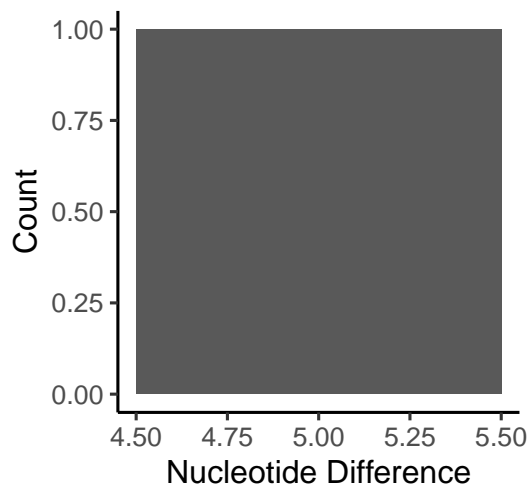
IGHV3-62*01

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



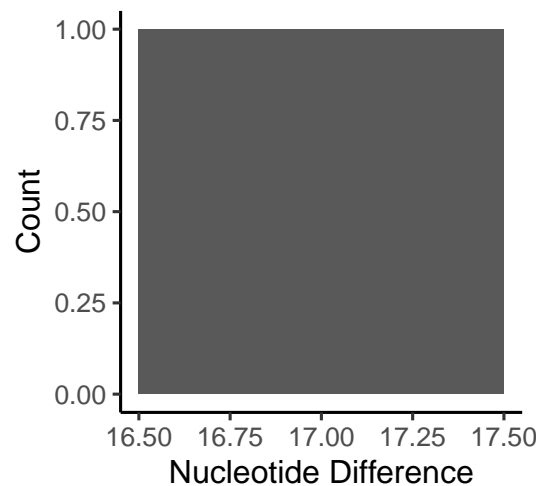
IGHV3-66*01

32 sequences assigned
No exact matches.



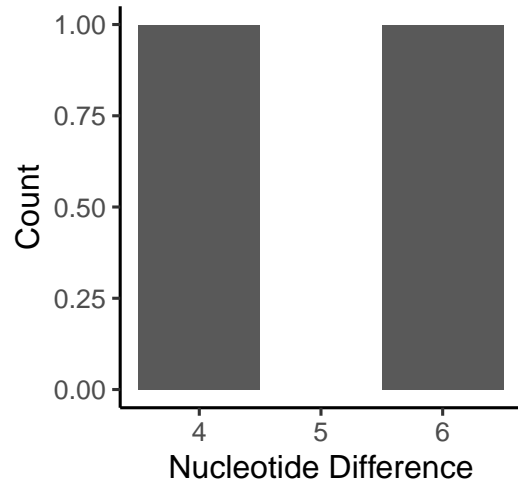
IGHV3-69-1*01

1 sequences assigned
No exact matches.



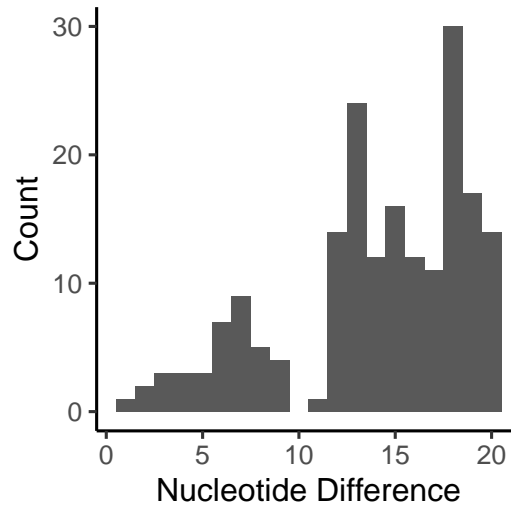
IGHV3-69-1*02

2 sequences assigned
No exact matches.



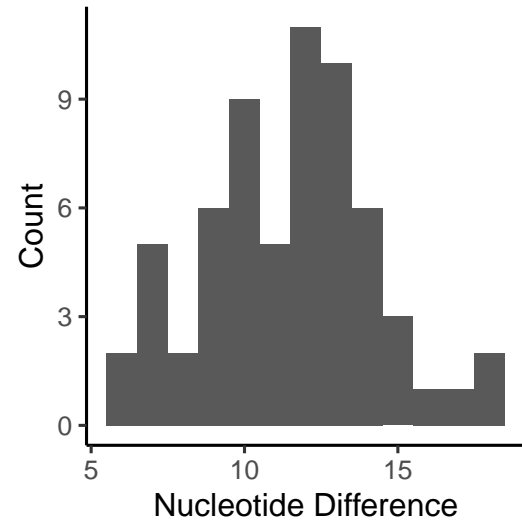
IGHV3-72*01

234 sequences assigned
No exact matches.



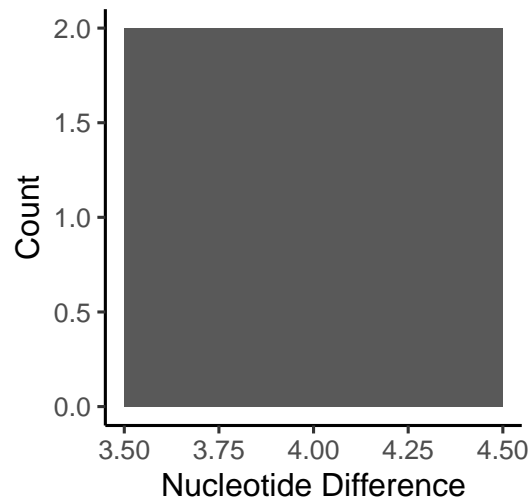
IGHV3-74*03

130 sequences assigned
No exact matches.



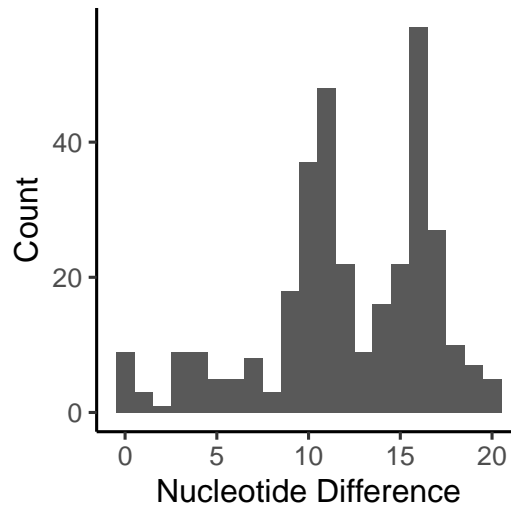
IGHV3-71*01

2 sequences assigned
No exact matches.



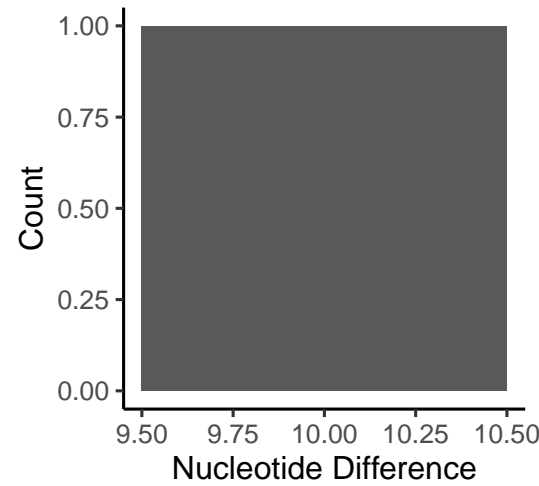
IGHV3-73*02

436 sequences assigned
9 (2.1%) exact matches, in which:
9 unique CDR3
4 unique J



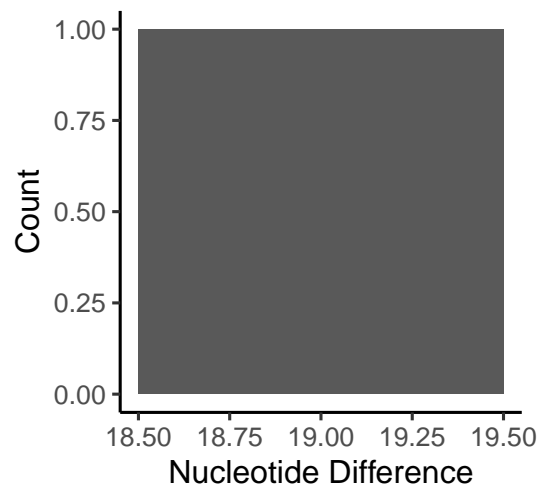
IGHV3-64D*08

1 sequences assigned
No exact matches.



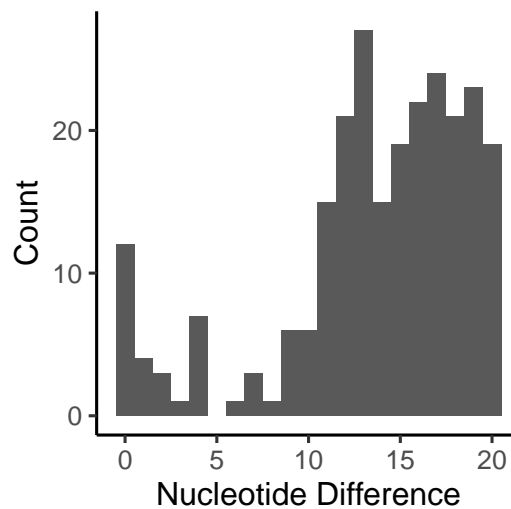
IGHV3-71*02

1 sequences assigned
No exact matches.



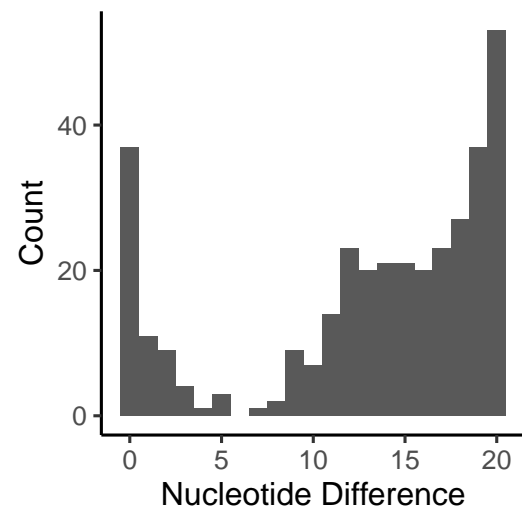
IGHV3-74*01

557 sequences assigned
12 (2.2%) exact matches, in which:
12 unique CDR3
5 unique J



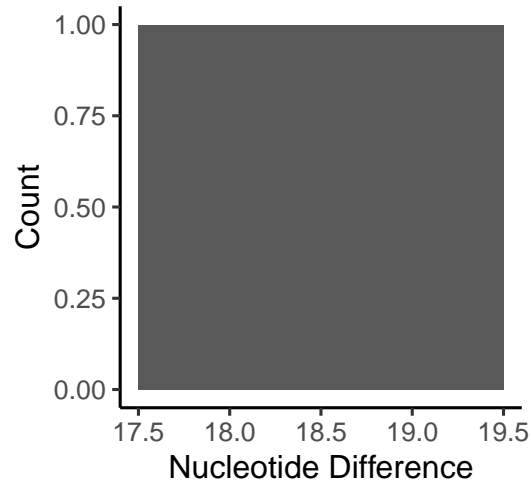
IGHV4-4*07

794 sequences assigned
37 (4.7%) exact matches, in which:
36 unique CDR3
6 unique J



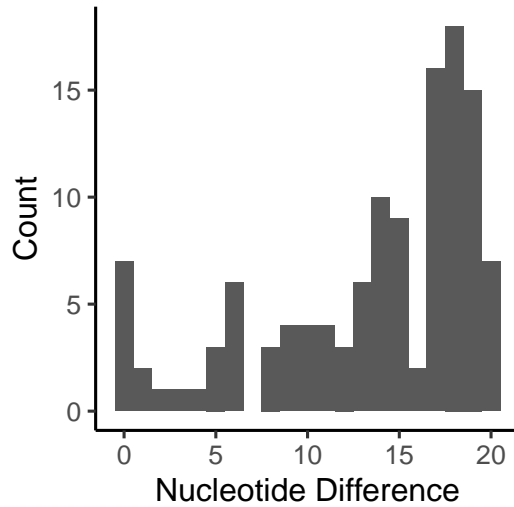
IGHV4-28*01

2 sequences assigned
No exact matches.



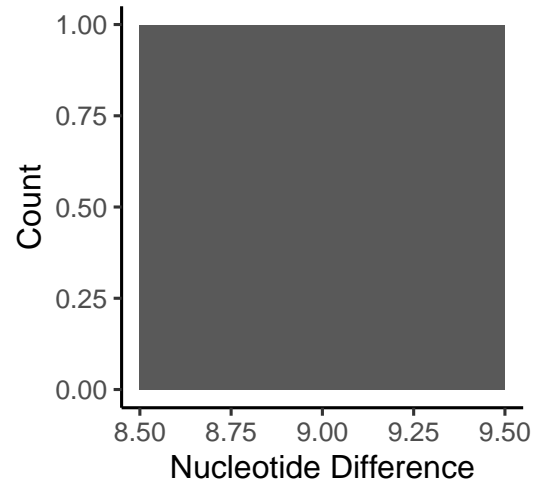
IGHV4-30-4*01

504 sequences assigned
7 (1.4%) exact matches, in which:
7 unique CDR3
4 unique J



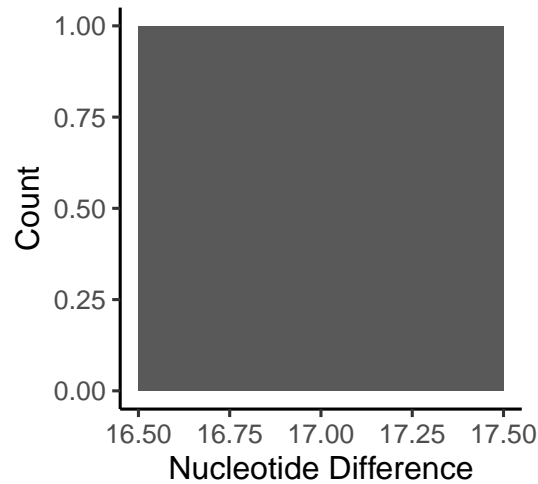
IGHV4-30-2*05

2 sequences assigned
No exact matches.



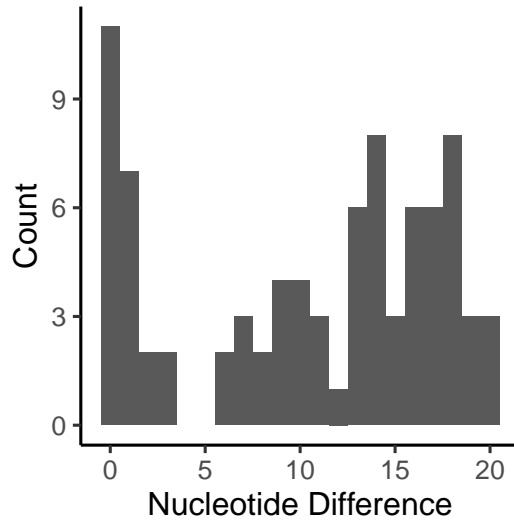
IGHV4-28*02

1 sequences assigned
No exact matches.



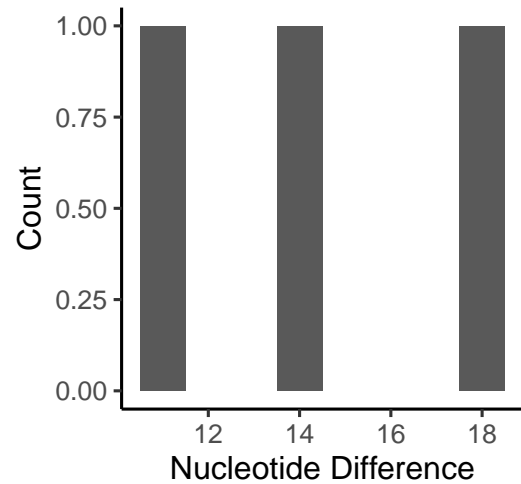
IGHV4-30-2*01

334 sequences assigned
11 (3.3%) exact matches, in which:
11 unique CDR3
5 unique J



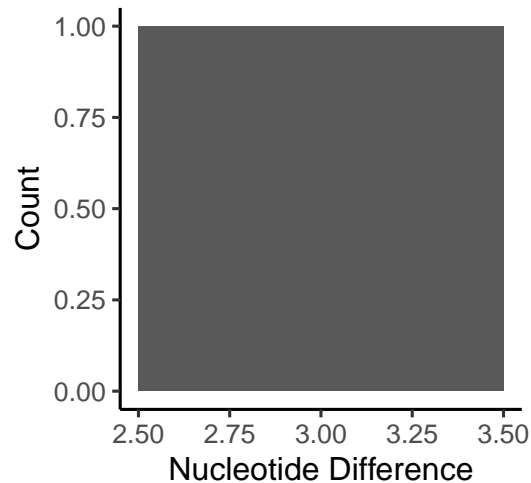
IGHV4-31*03

6 sequences assigned
No exact matches.



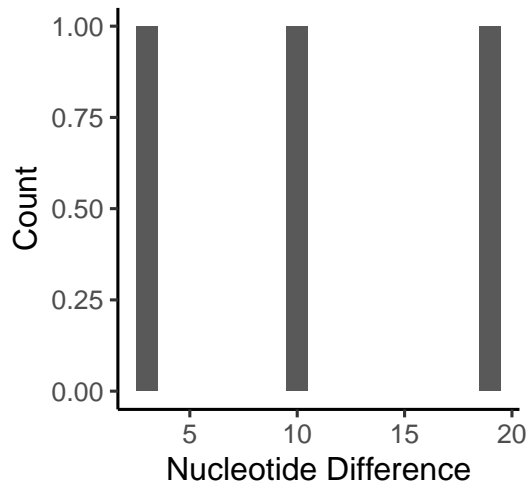
IGHV4-28*03

1 sequences assigned
No exact matches.



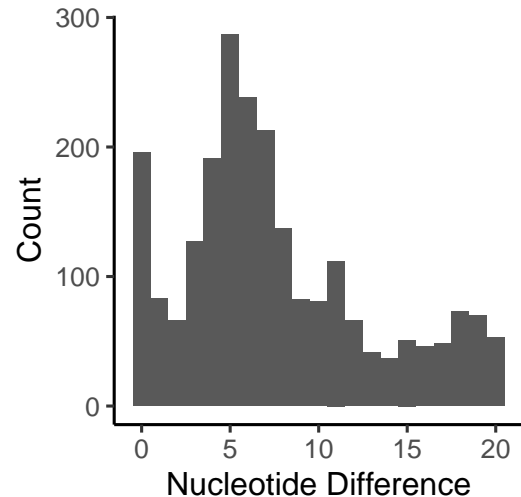
IGHV4-30-2*03

5 sequences assigned
No exact matches.



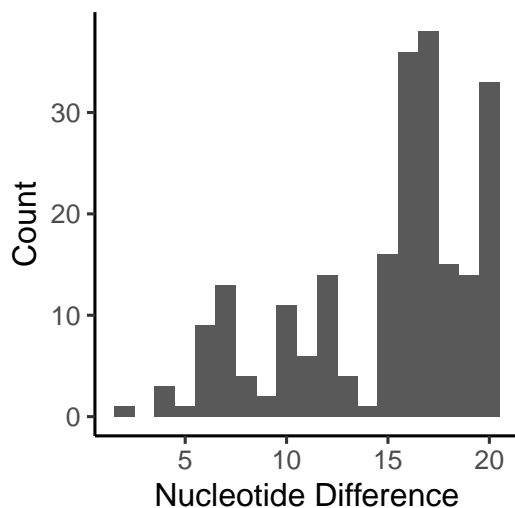
IGHV4-34*01

3002 sequences assigned
196 (6.5%) exact matches, in which:
191 unique CDR3
7 unique J



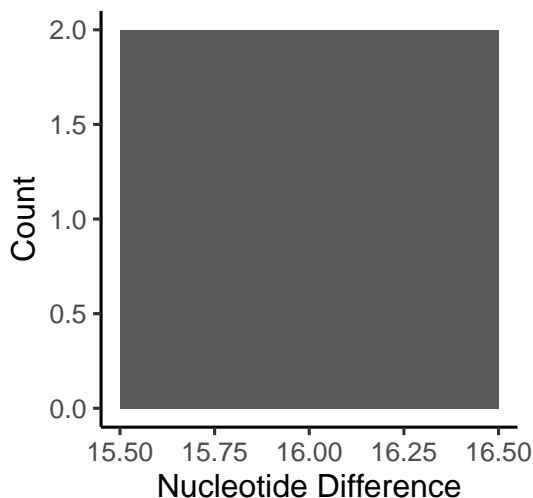
IGHV4-34*02

1107 sequences assigned
No exact matches.



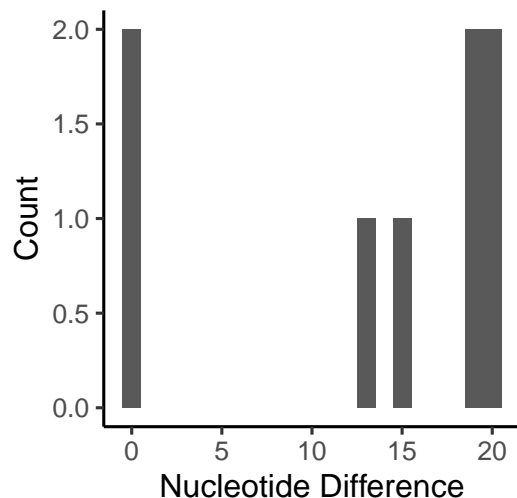
IGHV4-39*07

33 sequences assigned
No exact matches.



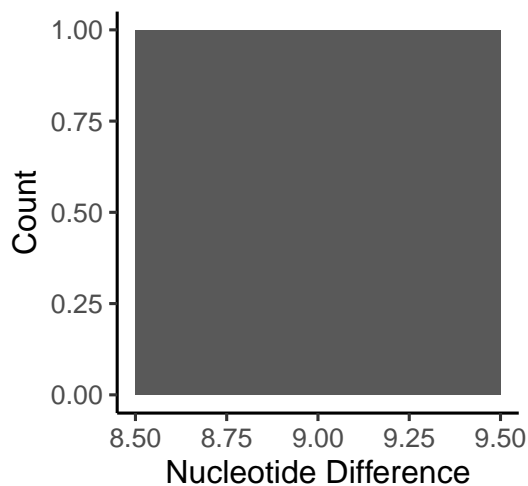
IGHV4-59*08

23 sequences assigned
2 (8.7%) exact matches, in which:
2 unique CDR3
2 unique J



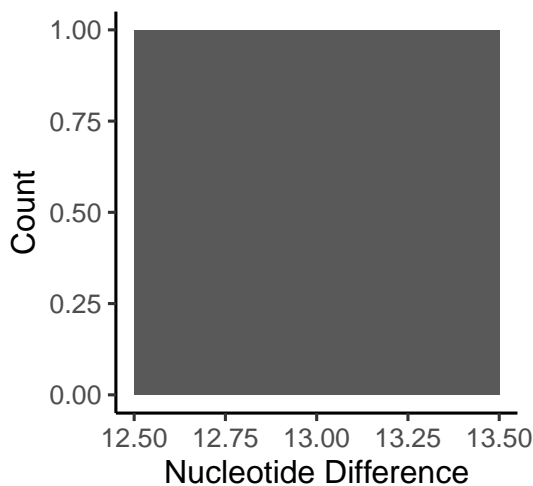
IGHV4-38-2*02

13 sequences assigned
No exact matches.



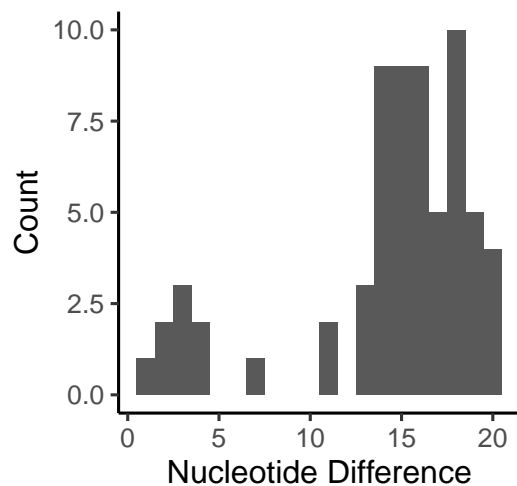
IGHV4-55*08

1 sequences assigned
No exact matches.



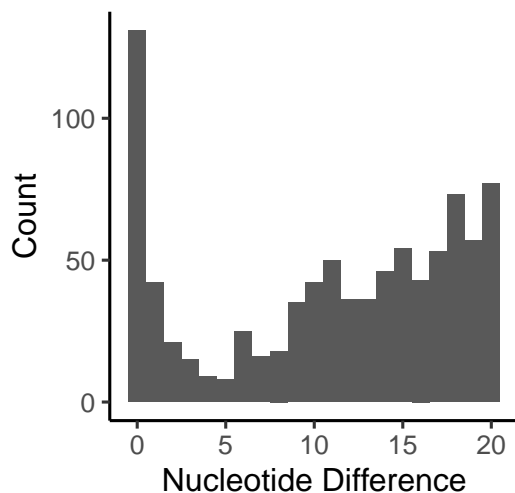
IGHV4-59*12

134 sequences assigned
No exact matches.



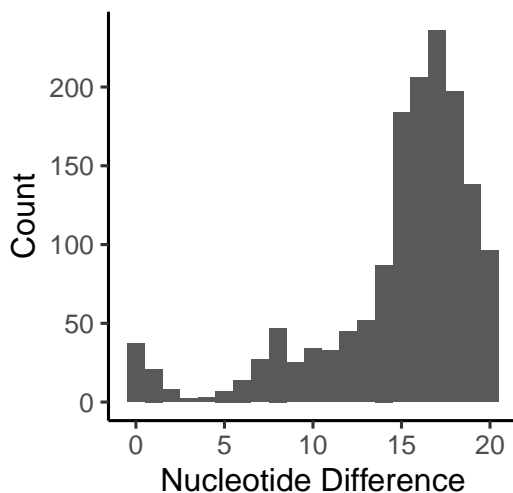
IGHV4-39*01

2429 sequences assigned
131 (5.4%) exact matches, in which:
125 unique CDR3
7 unique J



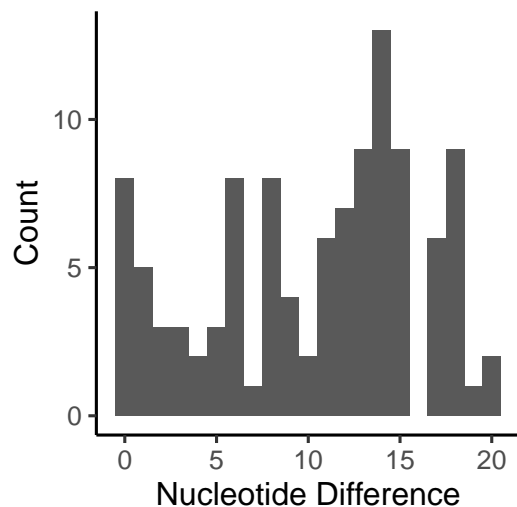
IGHV4-59*01

2200 sequences assigned
37 (1.7%) exact matches, in which:
35 unique CDR3
6 unique J



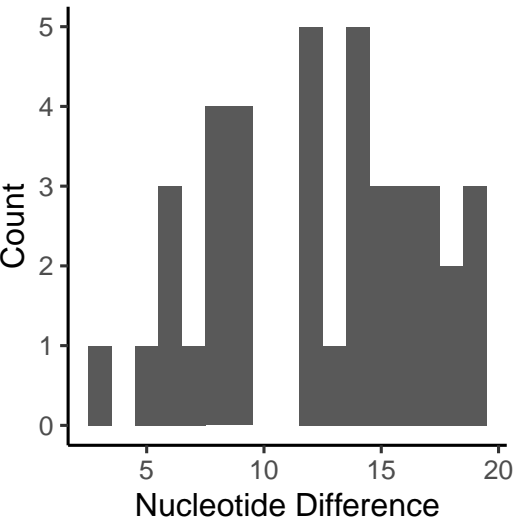
IGHV4-61*01

150 sequences assigned
8 (5.3%) exact matches, in which:
8 unique CDR3
4 unique J



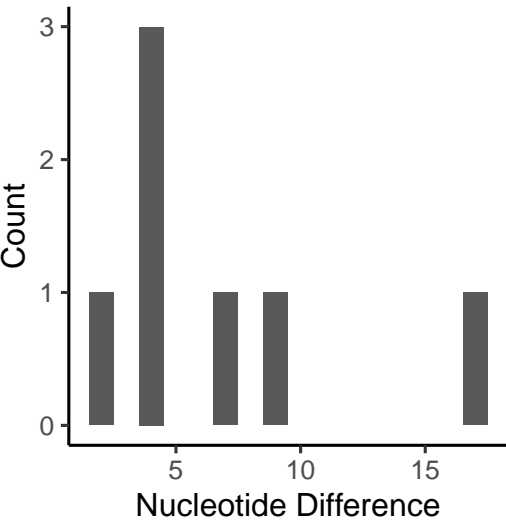
IGHV4-61*03

178 sequences assigned
No exact matches.



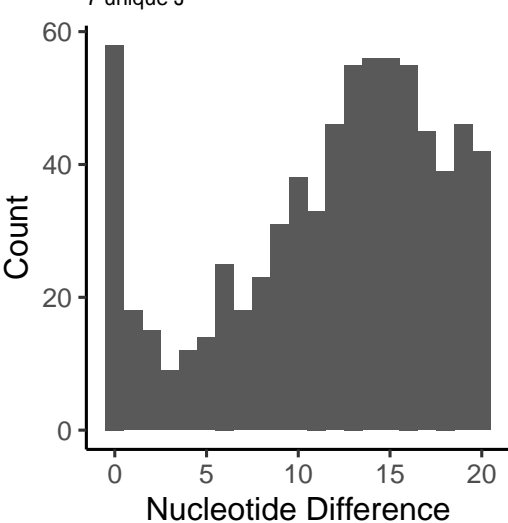
IGHV1/OR15-1*04

12 sequences assigned
No exact matches.



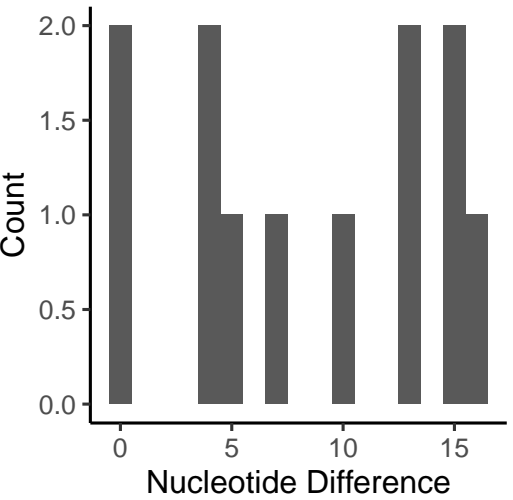
IGHV5-51*01

1180 sequences assigned
58 (4.9%) exact matches, in which:
56 unique CDR3
7 unique J



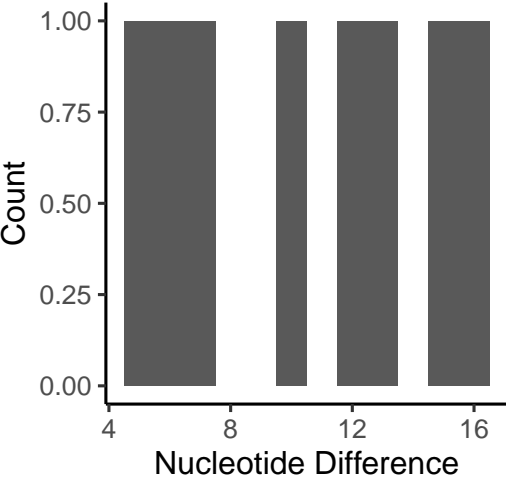
IGHV4-61*07

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



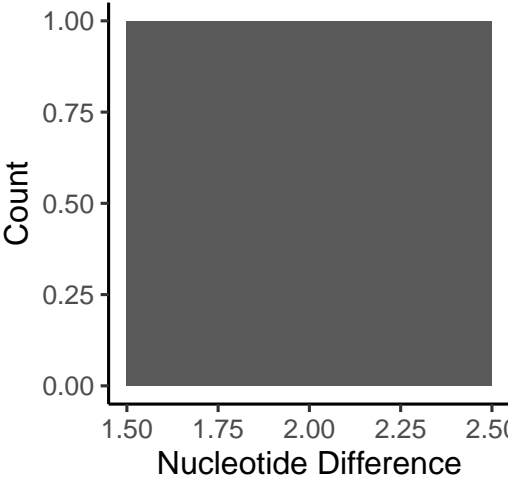
IGHV4/OR15-8*02

10 sequences assigned
No exact matches.



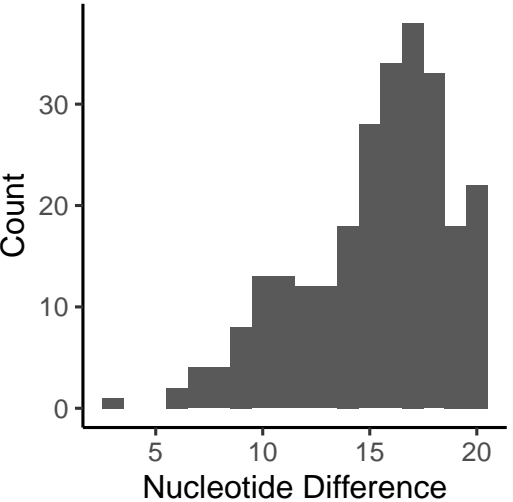
IGHV5-78*01

1 sequences assigned
No exact matches.



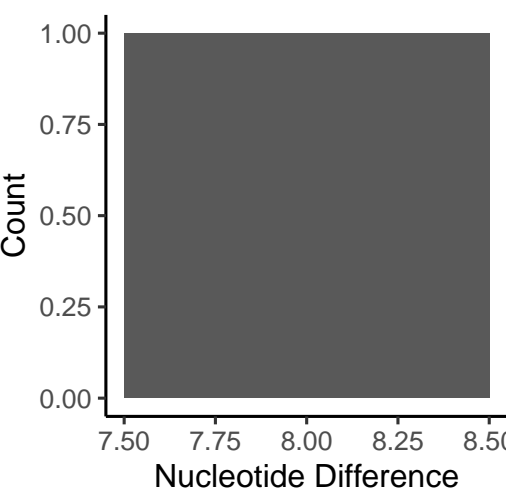
IGHV4-61*08

302 sequences assigned
No exact matches.



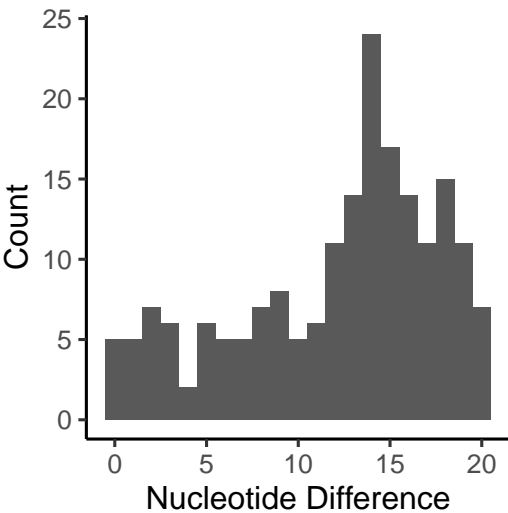
IGHV5-10-1*03

1 sequences assigned
No exact matches.



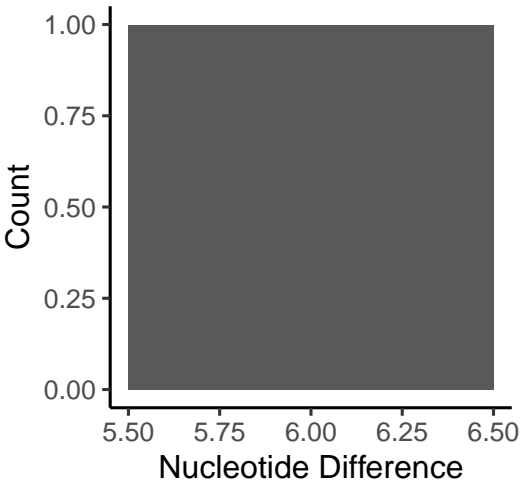
IGHV6-1*01

289 sequences assigned
5 (1.7%) exact matches, in which:
5 unique CDR3
3 unique J



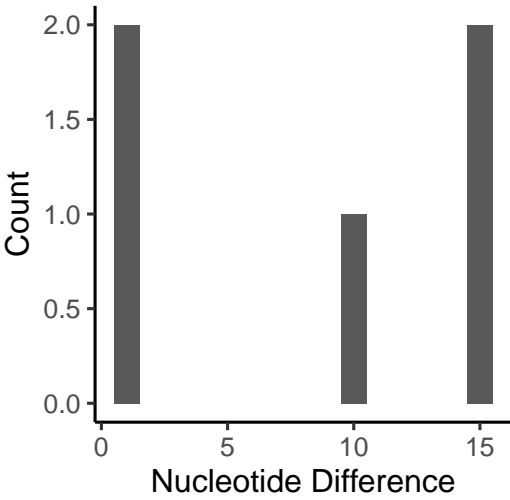
IGHV3/OR16-6*02

1 sequences assigned
No exact matches.



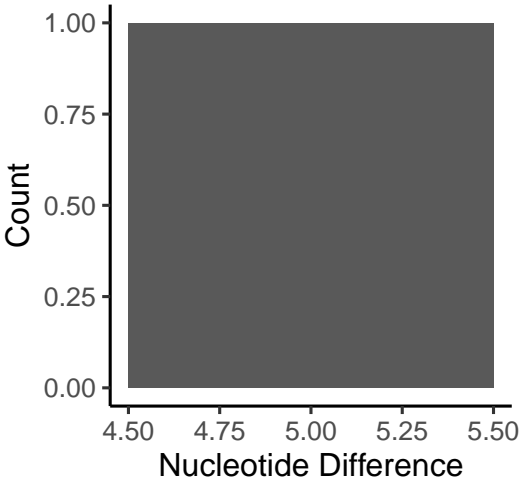
IGHV3/OR16-12*01

7 sequences assigned
No exact matches.



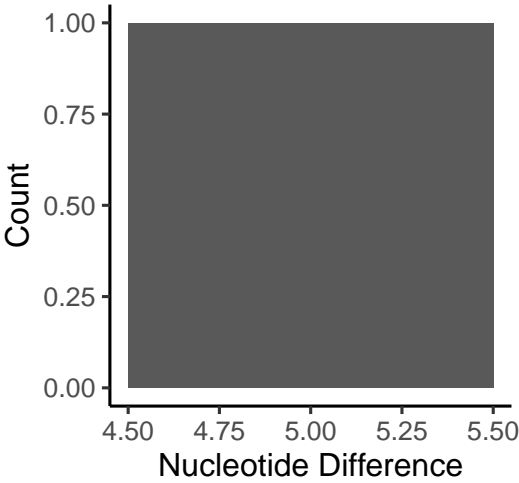
IGHV3/OR16-8*01

1 sequences assigned
No exact matches.



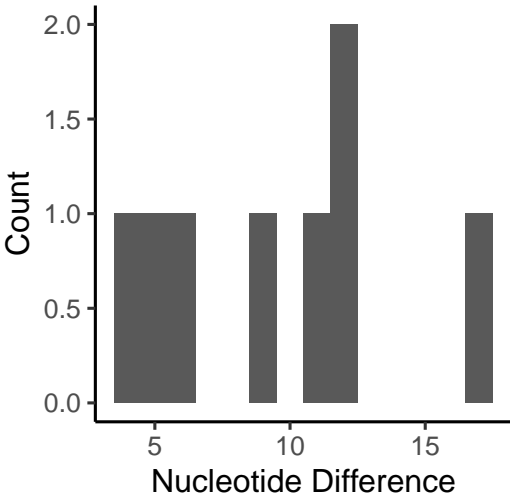
IGHV3/OR16-15*02

1 sequences assigned
No exact matches.



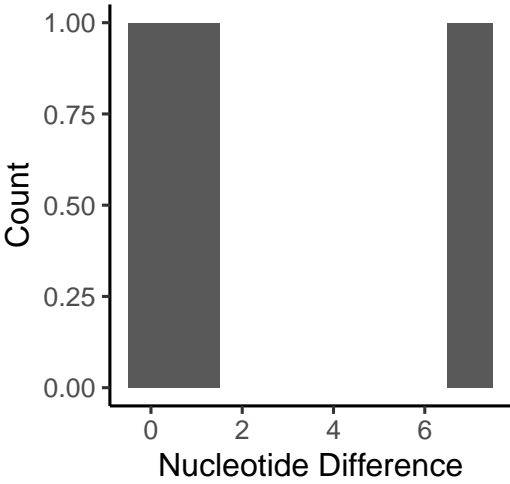
IGHV3/OR16-9*01

8 sequences assigned
No exact matches.

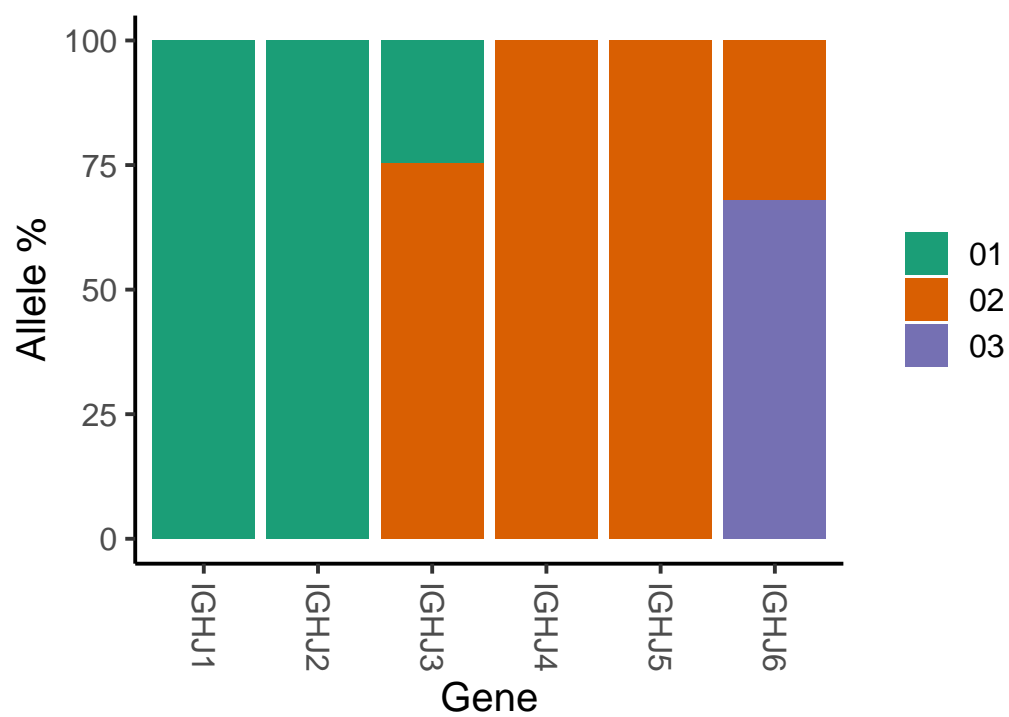


IGHV7-81*01

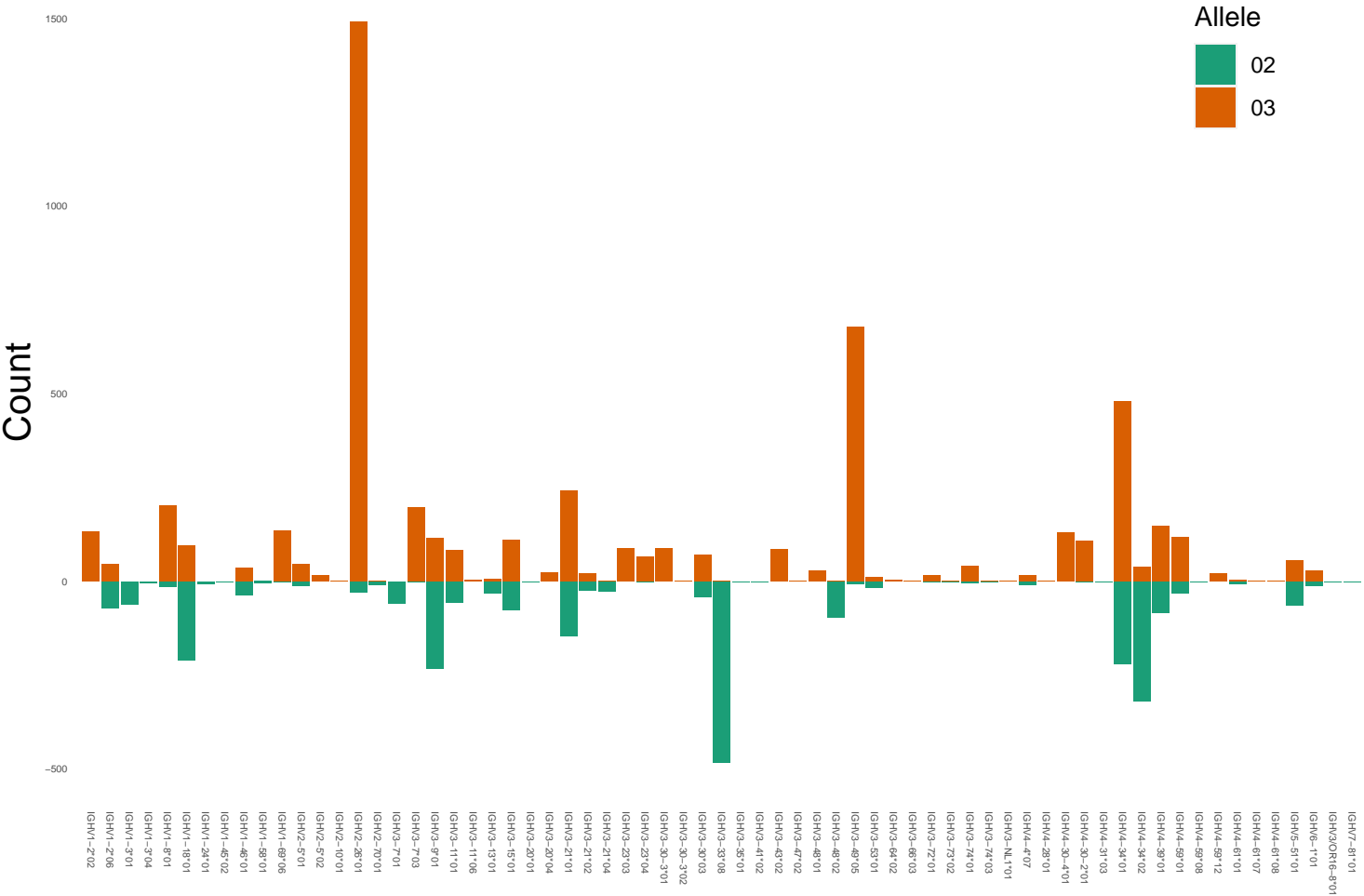
4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.