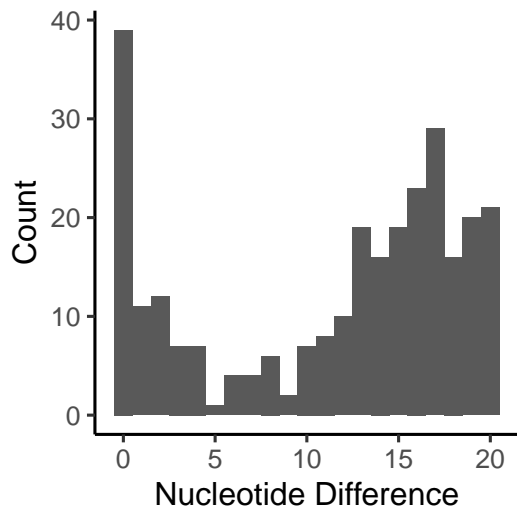


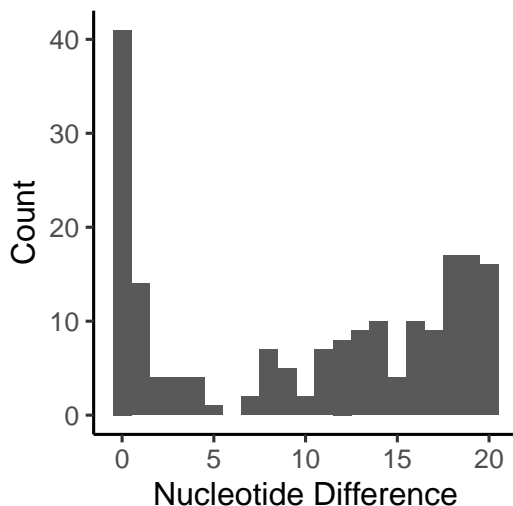
IGHV1-2*06

672 sequences assigned
39 (5.8%) exact matches, in which:
38 unique CDR3
4 unique J



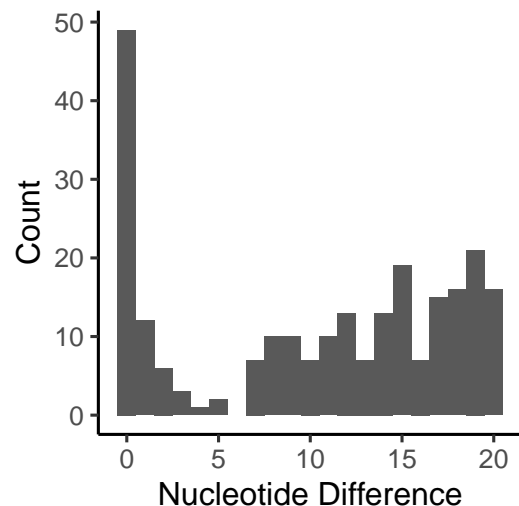
IGHV1-18*01

505 sequences assigned
41 (8.1%) exact matches, in which:
41 unique CDR3
7 unique J



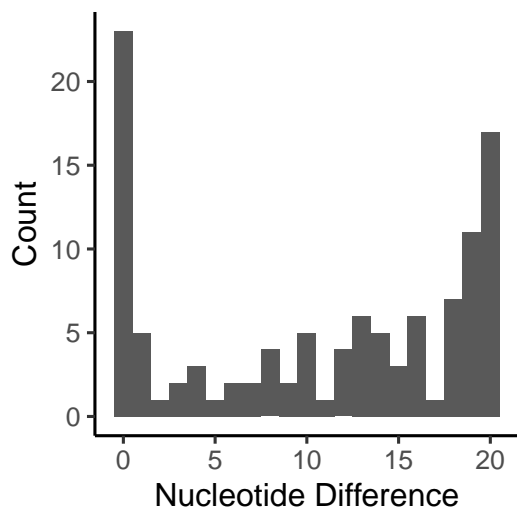
IGHV1-46*01

641 sequences assigned
49 (7.6%) exact matches, in which:
49 unique CDR3
6 unique J



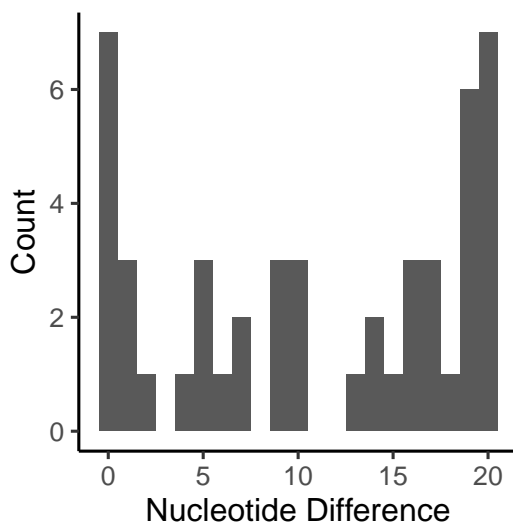
IGHV1-3*01

298 sequences assigned
23 (7.7%) exact matches, in which:
23 unique CDR3
5 unique J



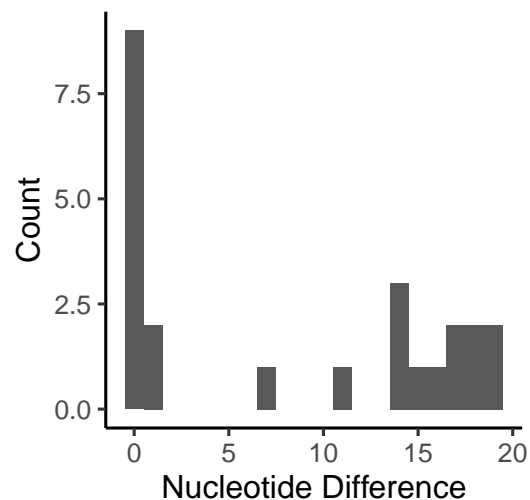
IGHV1-24*01

78 sequences assigned
7 (9%) exact matches, in which:
7 unique CDR3
4 unique J



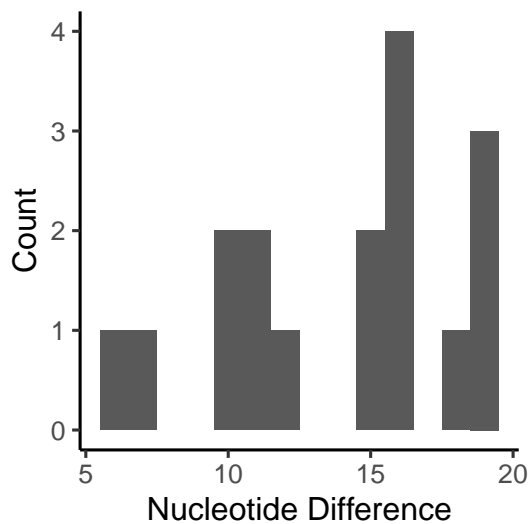
IGHV1-58*01

51 sequences assigned
9 (17.6%) exact matches, in which:
9 unique CDR3
3 unique J



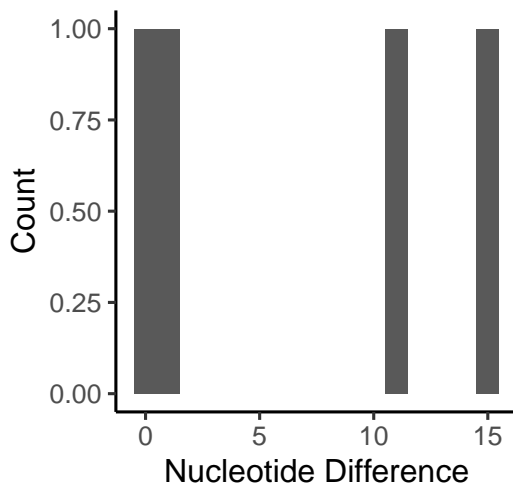
IGHV1-3*04

59 sequences assigned
No exact matches.



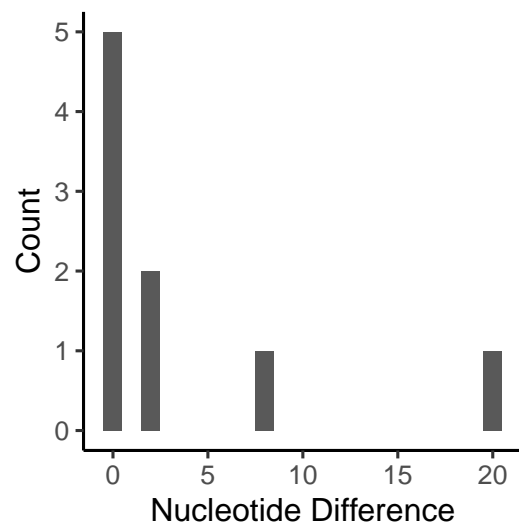
IGHV1-45*02

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



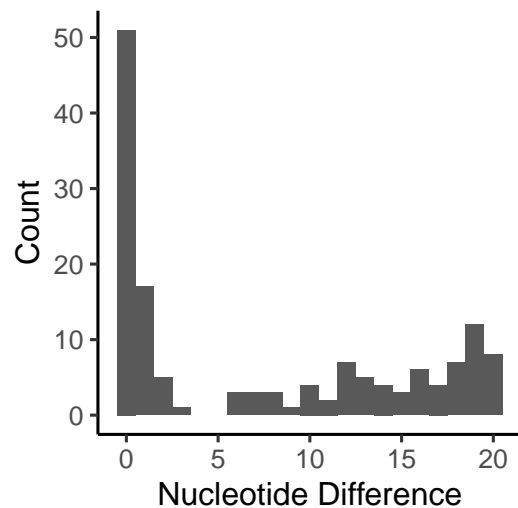
IGHV1-69-2*01

19 sequences assigned
5 (26.3%) exact matches, in which:
5 unique CDR3
3 unique J



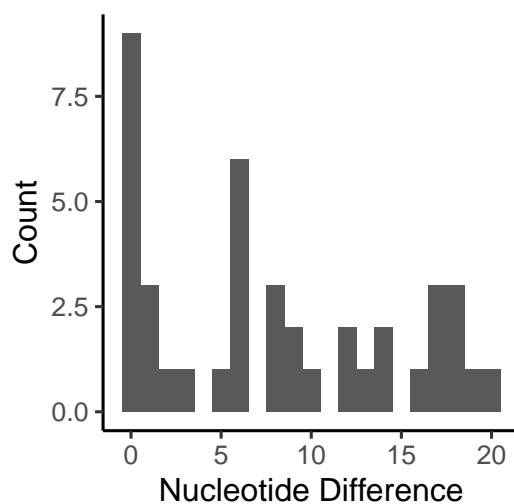
IGHV1-69*06

336 sequences assigned
51 (15.2%) exact matches, in which:
51 unique CDR3
5 unique J



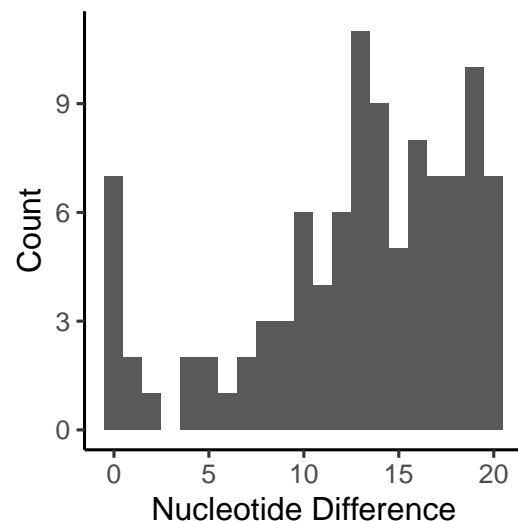
IGHV2-70*01

78 sequences assigned
9 (11.5%) exact matches, in which:
9 unique CDR3
5 unique J



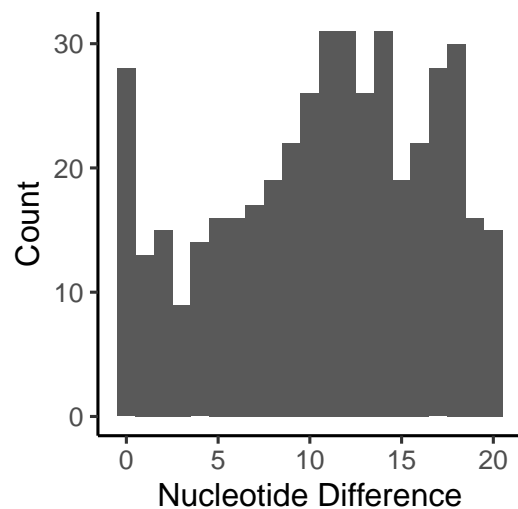
IGHV3-7*04

185 sequences assigned
7 (3.8%) exact matches, in which:
7 unique CDR3
4 unique J



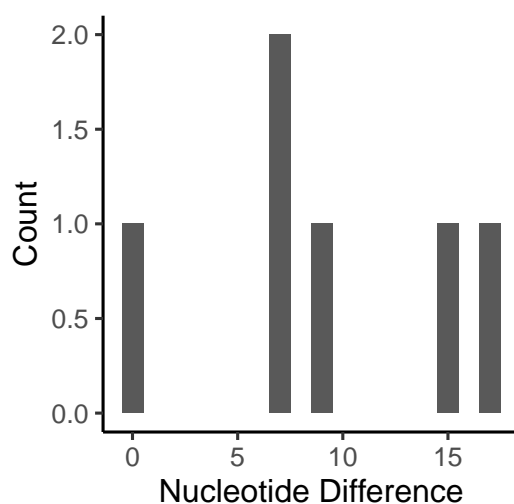
IGHV2-5*02

781 sequences assigned
28 (3.6%) exact matches, in which:
28 unique CDR3
5 unique J



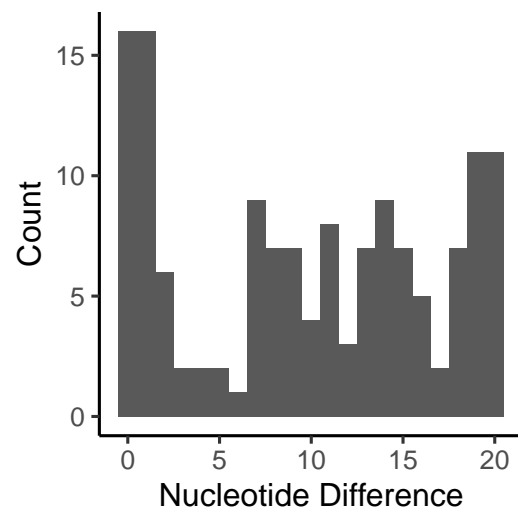
IGHV2-70*13

27 sequences assigned
1 (3.7%) exact matches, in which:
1 unique CDR3
1 unique J



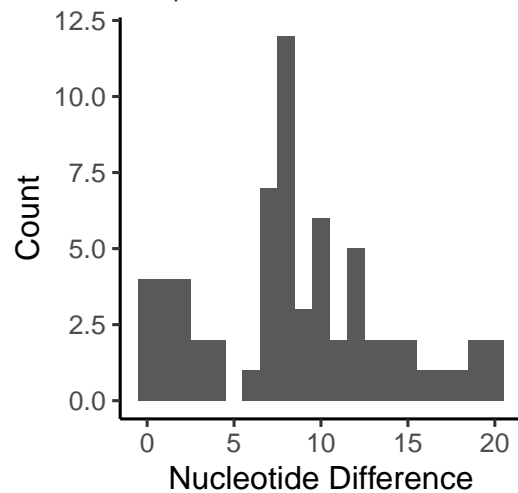
IGHV3-11*05

319 sequences assigned
16 (5%) exact matches, in which:
16 unique CDR3
3 unique J



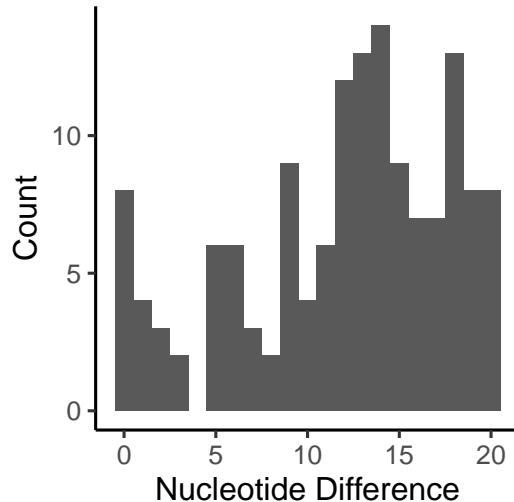
IGHV2-26*01

83 sequences assigned
4 (4.8%) exact matches, in which:
4 unique CDR3
3 unique J



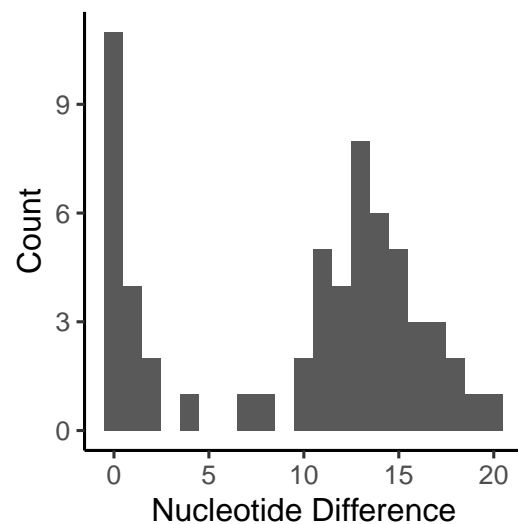
IGHV3-7*01

238 sequences assigned
8 (3.4%) exact matches, in which:
7 unique CDR3
4 unique J



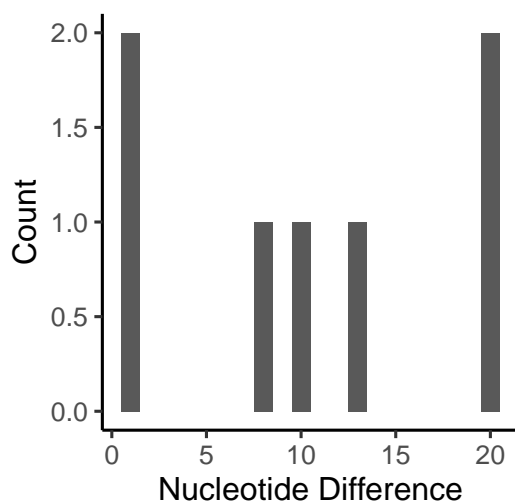
IGHV3-11*06

174 sequences assigned
11 (6.3%) exact matches, in which:
11 unique CDR3
2 unique J



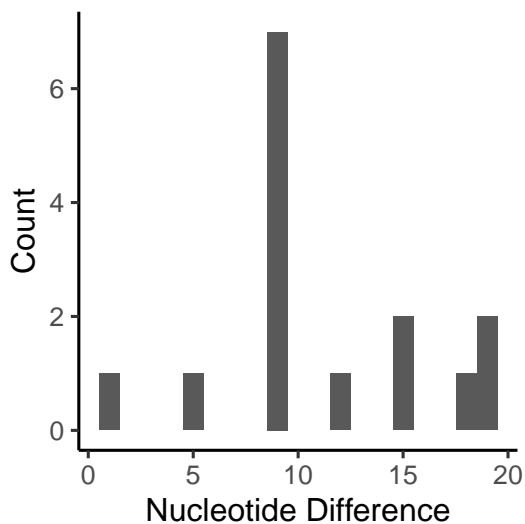
IGHV3-13*01

27 sequences assigned
No exact matches.



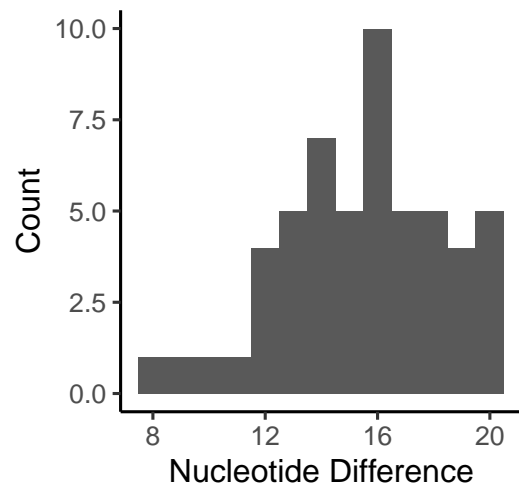
IGHV3-20*01

17 sequences assigned
No exact matches.



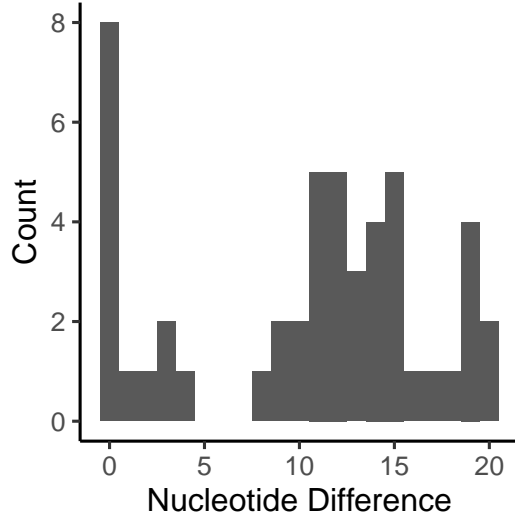
IGHV3-21*02

203 sequences assigned
No exact matches.



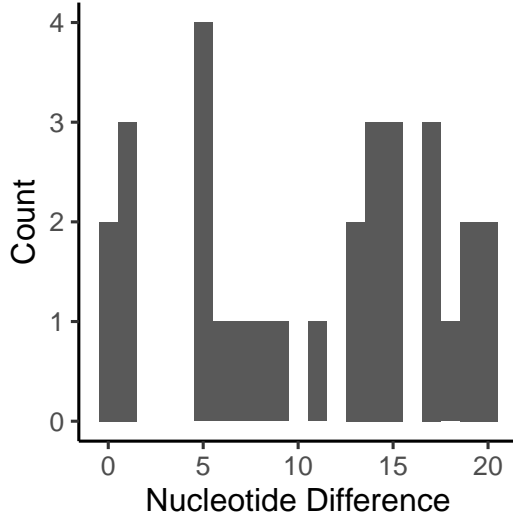
IGHV3-13*04

63 sequences assigned
8 (12.7%) exact matches, in which:
8 unique CDR3
4 unique J



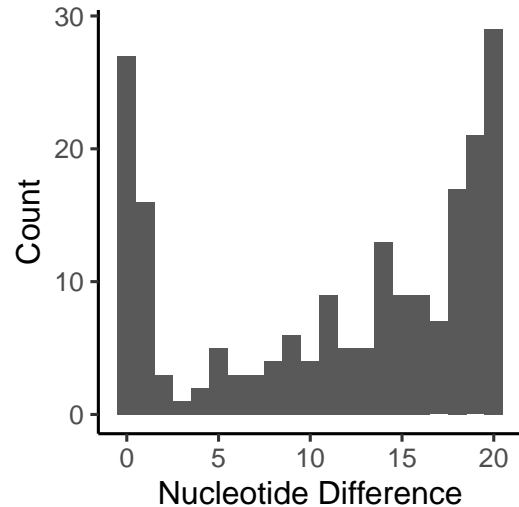
IGHV3-20*04

110 sequences assigned
2 (1.8%) exact matches, in which:
2 unique CDR3
2 unique J



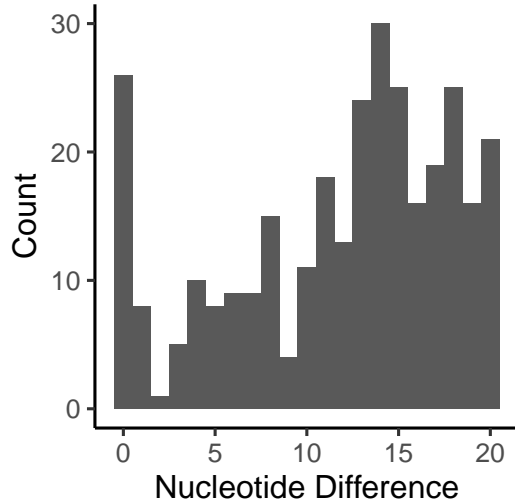
IGHV3-30-3*01

443 sequences assigned
27 (6.1%) exact matches, in which:
27 unique CDR3
4 unique J



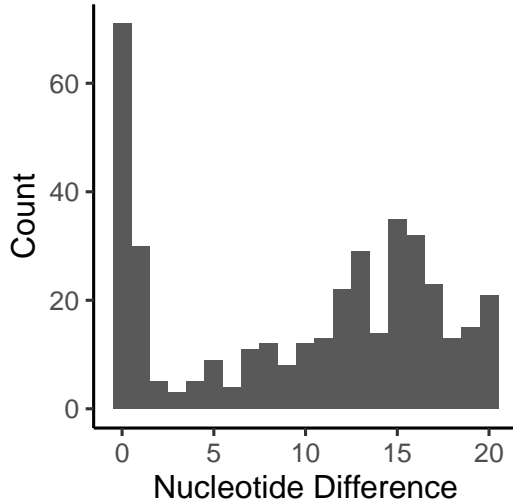
IGHV3-15*01

572 sequences assigned
26 (4.5%) exact matches, in which:
24 unique CDR3
6 unique J



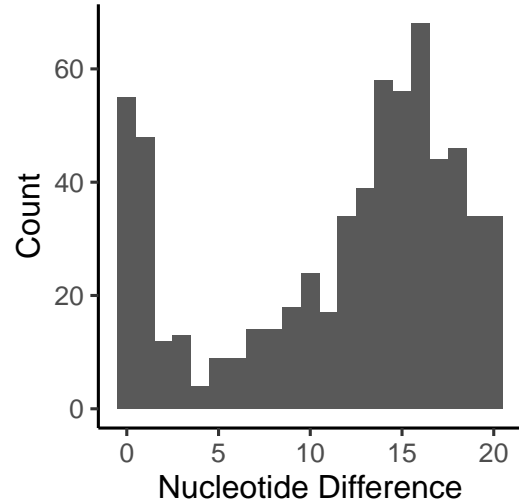
IGHV3-21*01

605 sequences assigned
71 (11.7%) exact matches, in which:
70 unique CDR3
6 unique J



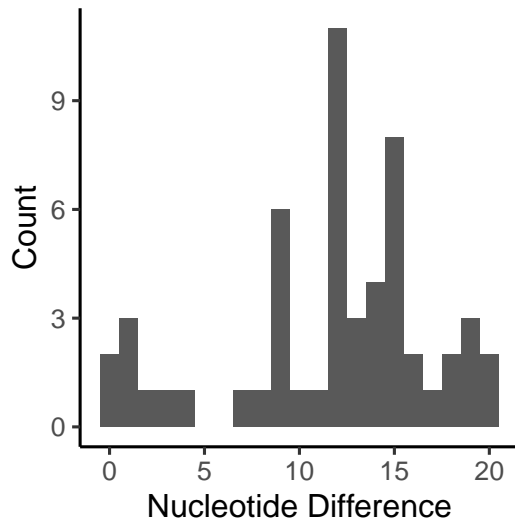
IGHV3-33*01

1315 sequences assigned
55 (4.2%) exact matches, in which:
50 unique CDR3
6 unique J



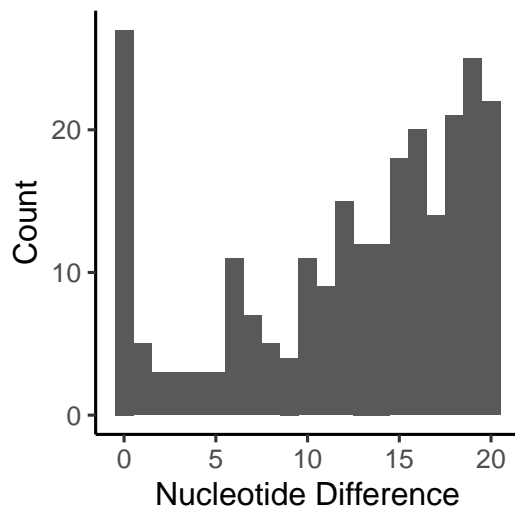
IGHV3-43*01

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



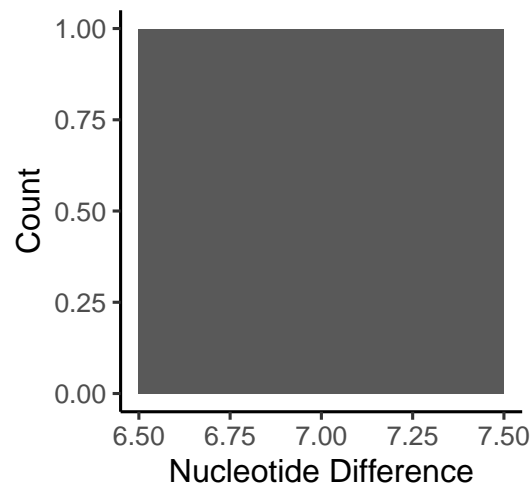
IGHV3-53*01

508 sequences assigned
27 (5.3%) exact matches, in which:
27 unique CDR3
6 unique J



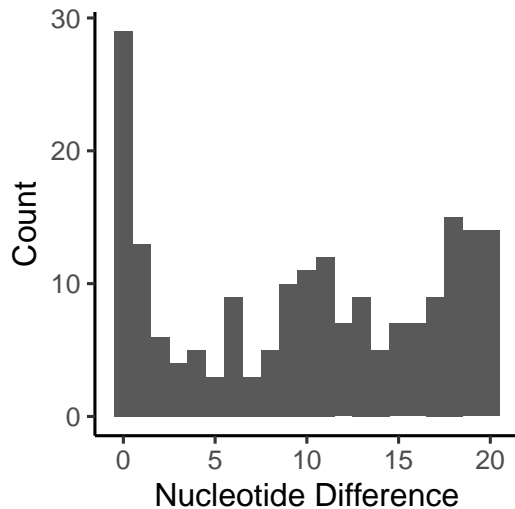
IGHV3-69-1*01

1 sequences assigned
No exact matches.



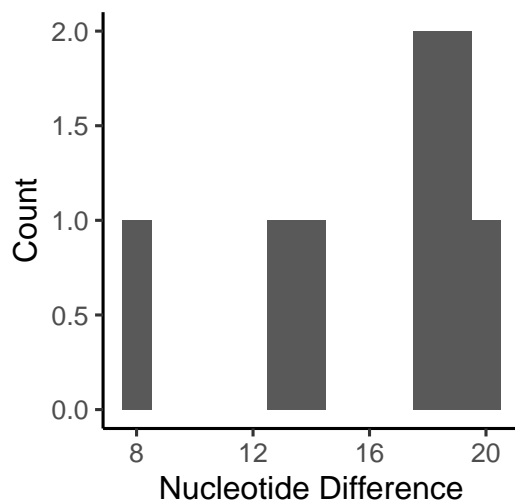
IGHV3-48*02

364 sequences assigned
29 (8%) exact matches, in which:
29 unique CDR3
5 unique J



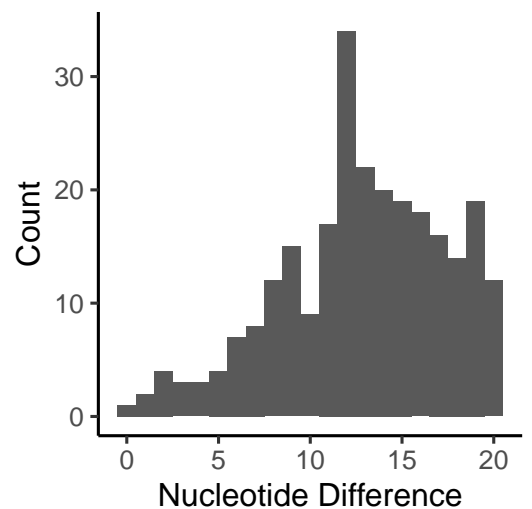
IGHV3-64*02

10 sequences assigned
No exact matches.



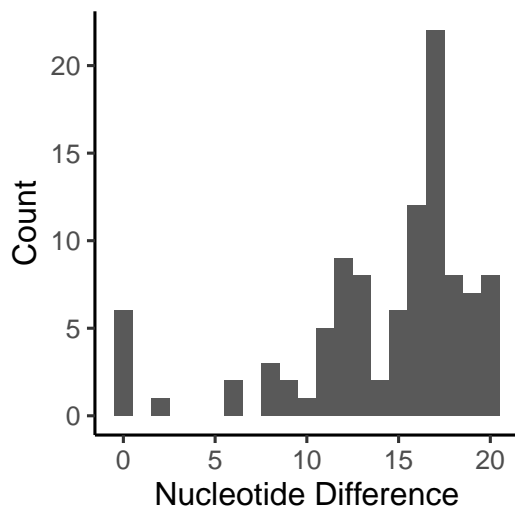
IGHV3-72*01

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



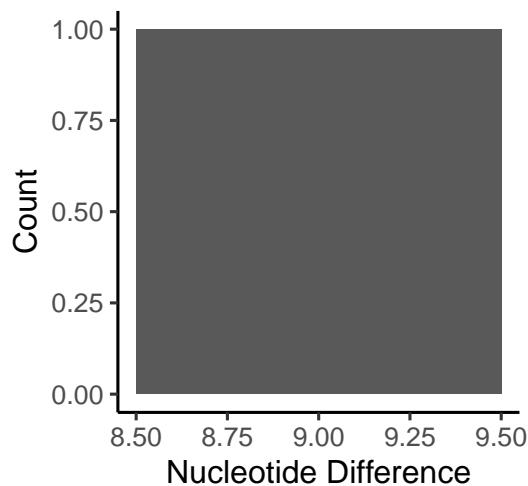
IGHV3-49*05

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



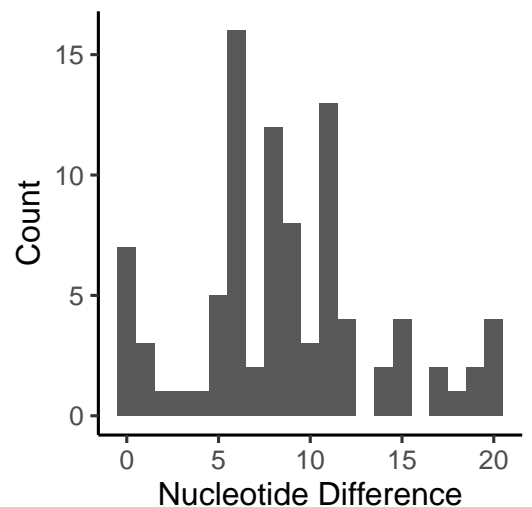
IGHV3-66*03

1 sequences assigned
No exact matches.



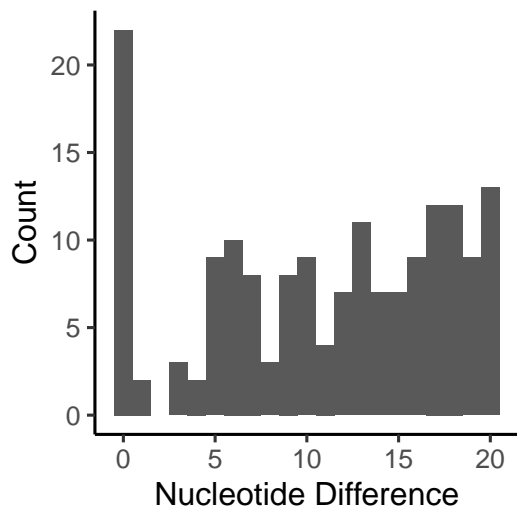
IGHV3-73*02

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



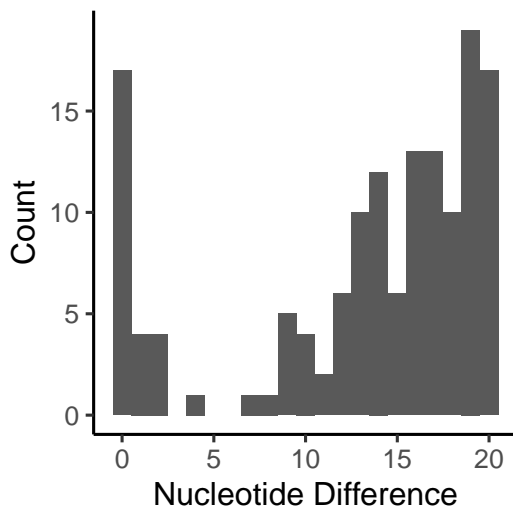
IGHV3-74*01

346 sequences assigned
22 (6.4%) exact matches, in which:
22 unique CDR3
5 unique J



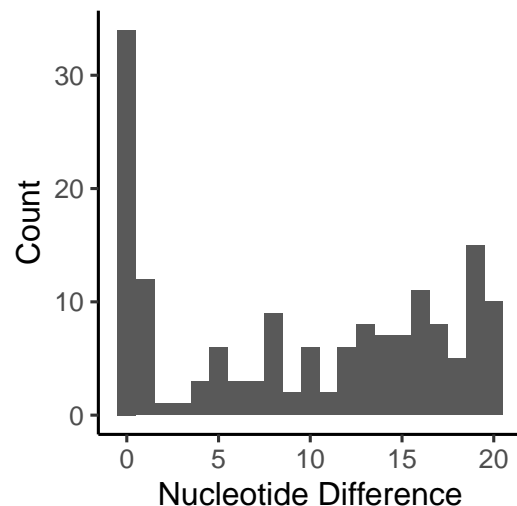
IGHV4-4*02

353 sequences assigned
17 (4.8%) exact matches, in which:
17 unique CDR3
5 unique J



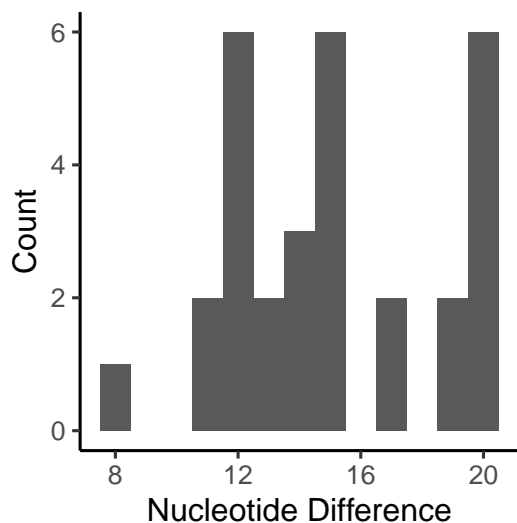
IGHV4-31*03

412 sequences assigned
34 (8.3%) exact matches, in which:
34 unique CDR3
7 unique J



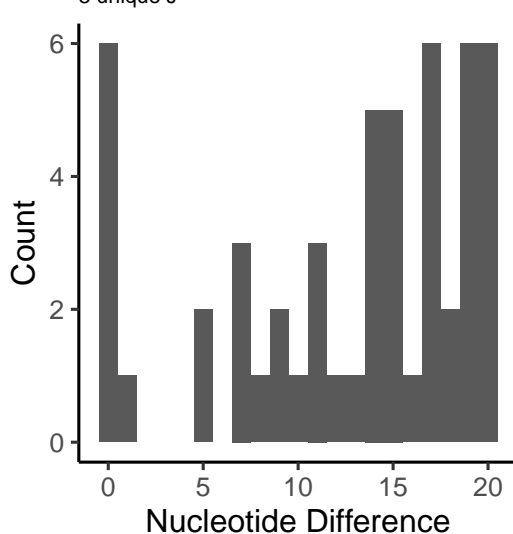
IGHV3-74*03

60 sequences assigned
No exact matches.



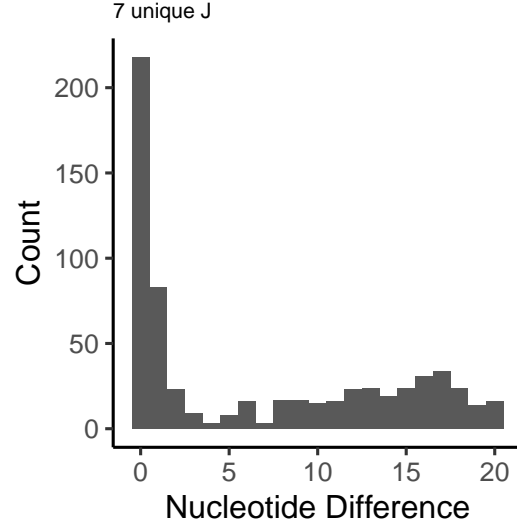
IGHV4-30-4*01

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



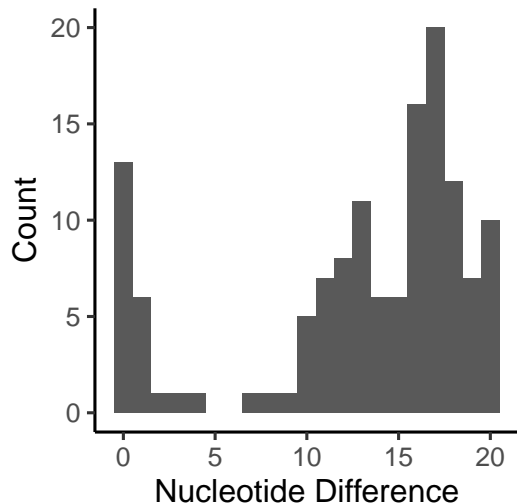
IGHV4-34*01

1156 sequences assigned
218 (18.9%) exact matches, in which:
216 unique CDR3
7 unique J



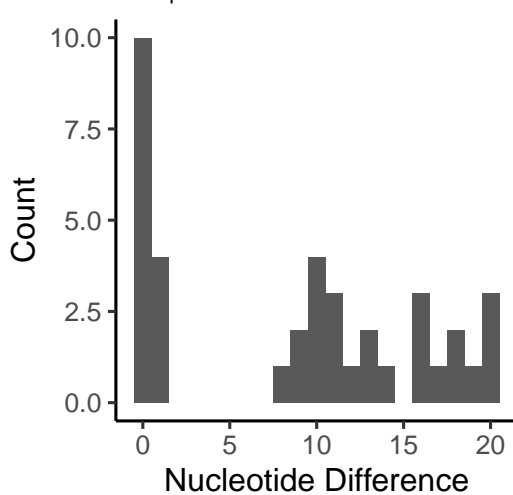
IGHV3-64D*06

266 sequences assigned
13 (4.9%) exact matches, in which:
13 unique CDR3
6 unique J



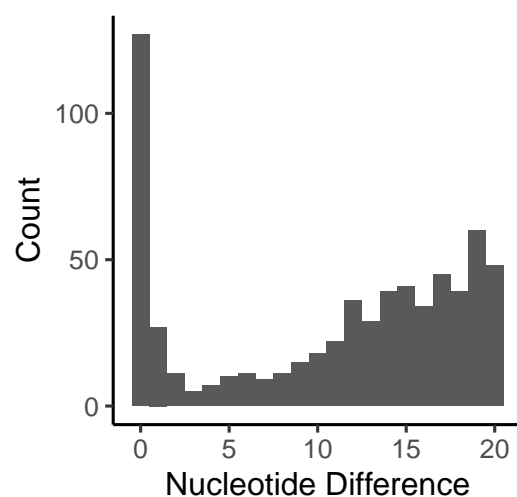
IGHV4-30-2*01

87 sequences assigned
10 (11.5%) exact matches, in which:
10 unique CDR3
5 unique J



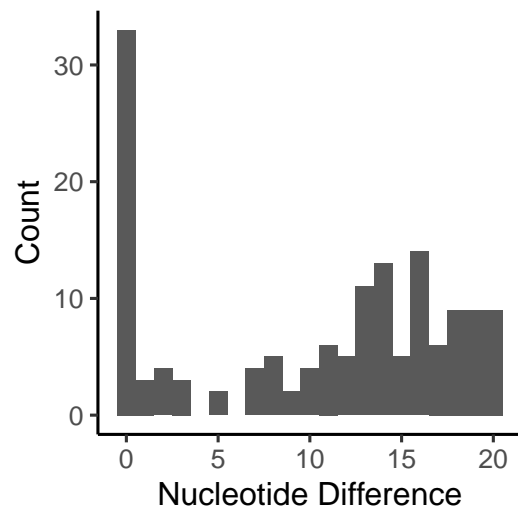
IGHV4-39*01

1632 sequences assigned
127 (7.8%) exact matches, in which:
126 unique CDR3
6 unique J



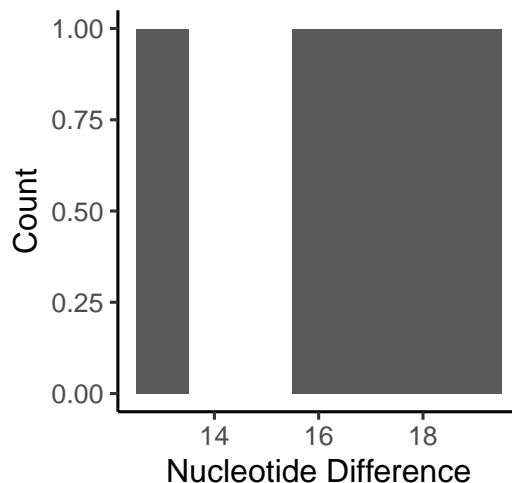
IGHV4-59*01

400 sequences assigned
33 (8.2%) exact matches, in which:
33 unique CDR3
5 unique J



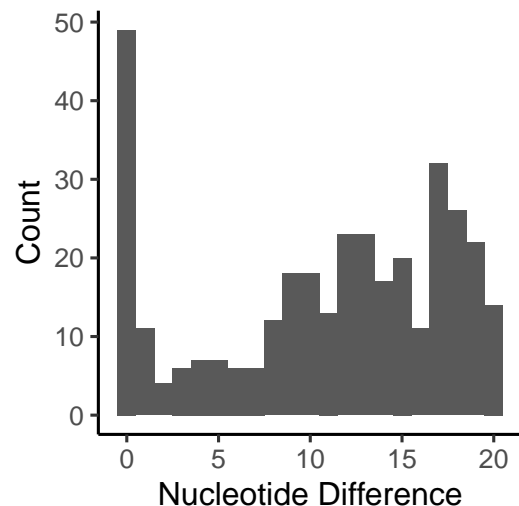
IGHV4-61*08

34 sequences assigned
No exact matches.



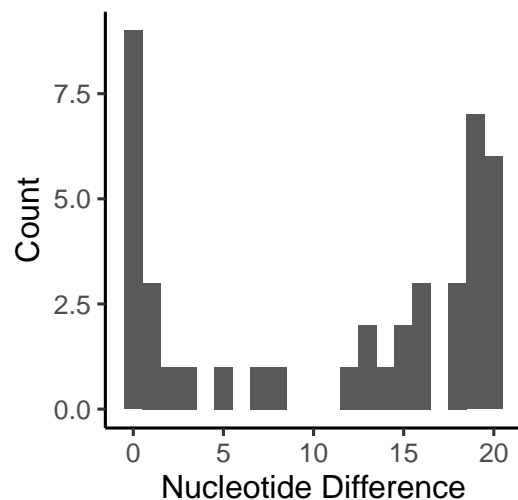
IGHV5-51*01

598 sequences assigned
49 (8.2%) exact matches, in which:
49 unique CDR3
7 unique J



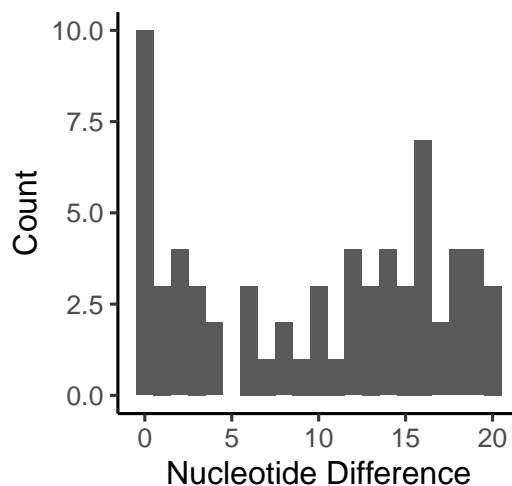
IGHV4-61*01

87 sequences assigned
9 (10.3%) exact matches, in which:
9 unique CDR3
6 unique J



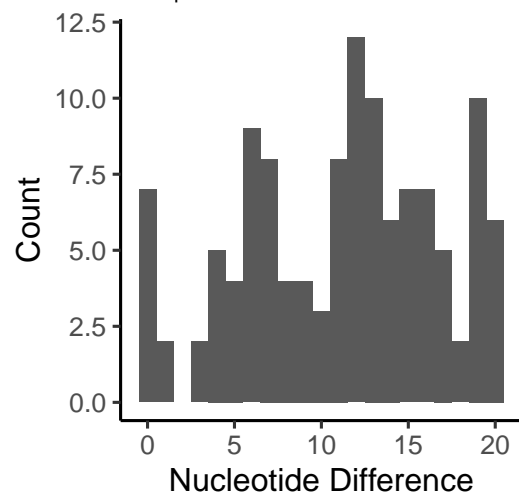
IGHV5-10-1*01

116 sequences assigned
10 (8.6%) exact matches, in which:
9 unique CDR3
3 unique J



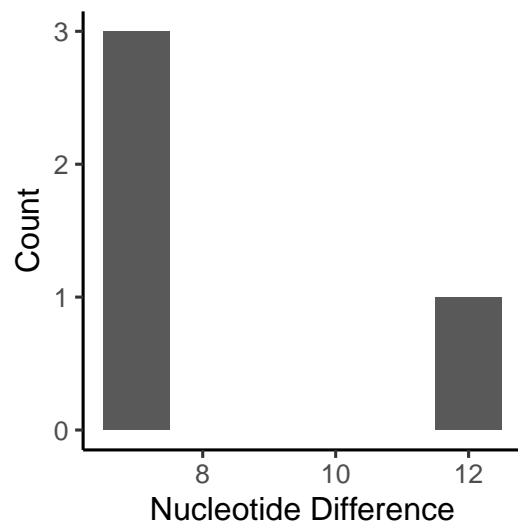
IGHV6-1*01

184 sequences assigned
7 (3.8%) exact matches, in which:
7 unique CDR3
3 unique J



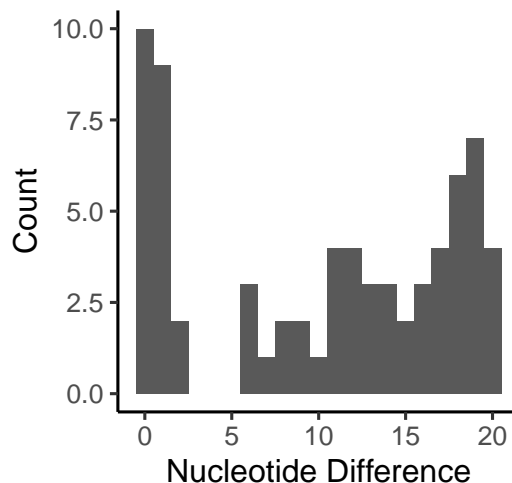
IGHV4-61*03

10 sequences assigned
No exact matches.



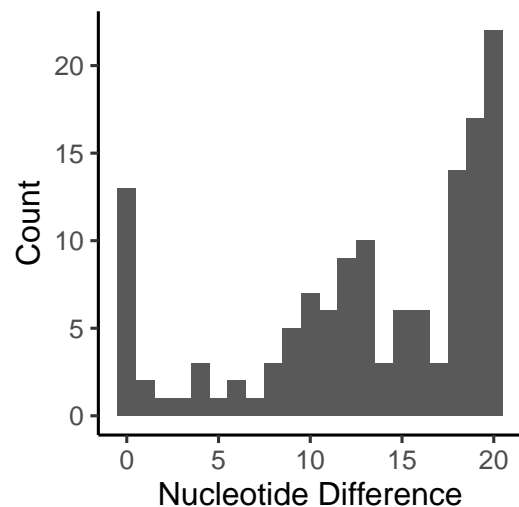
IGHV5-10-1*03

176 sequences assigned
10 (5.7%) exact matches, in which:
10 unique CDR3
4 unique J

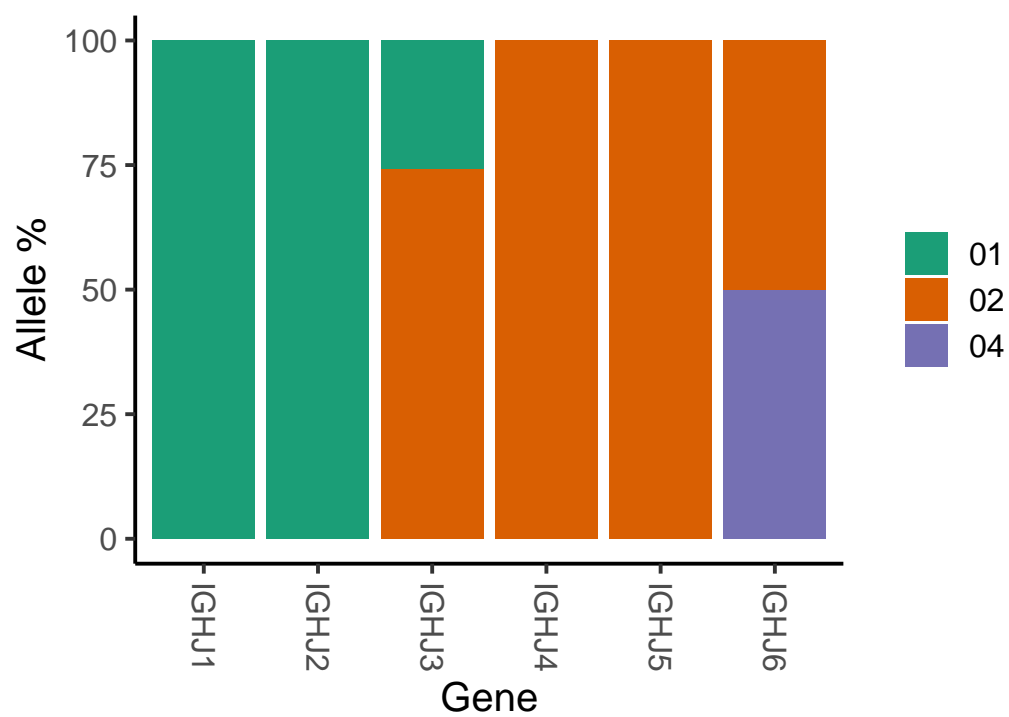


IGHV7-4-1*02

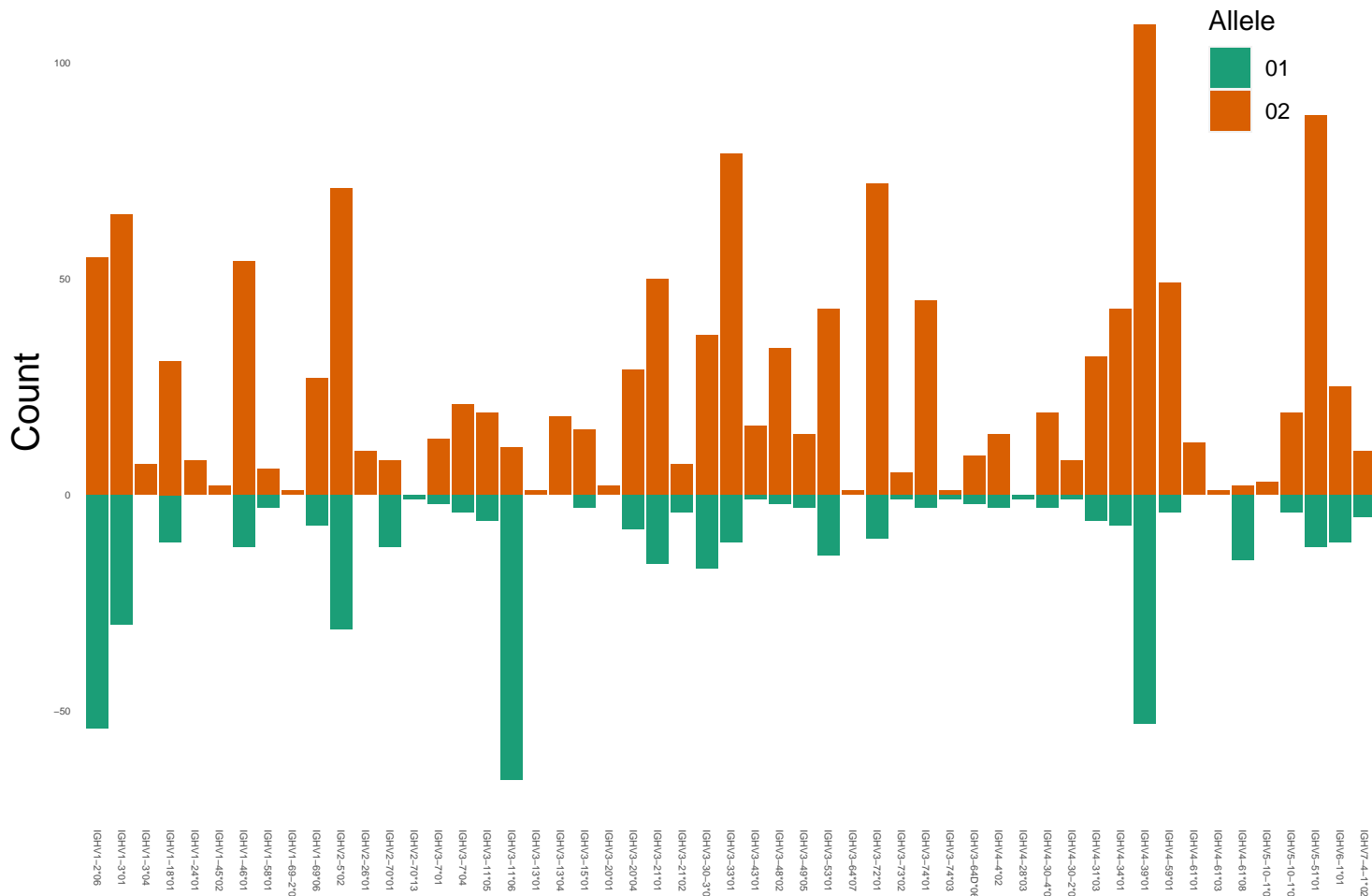
225 sequences assigned
13 (5.8%) exact matches, in which:
13 unique CDR3
5 unique J



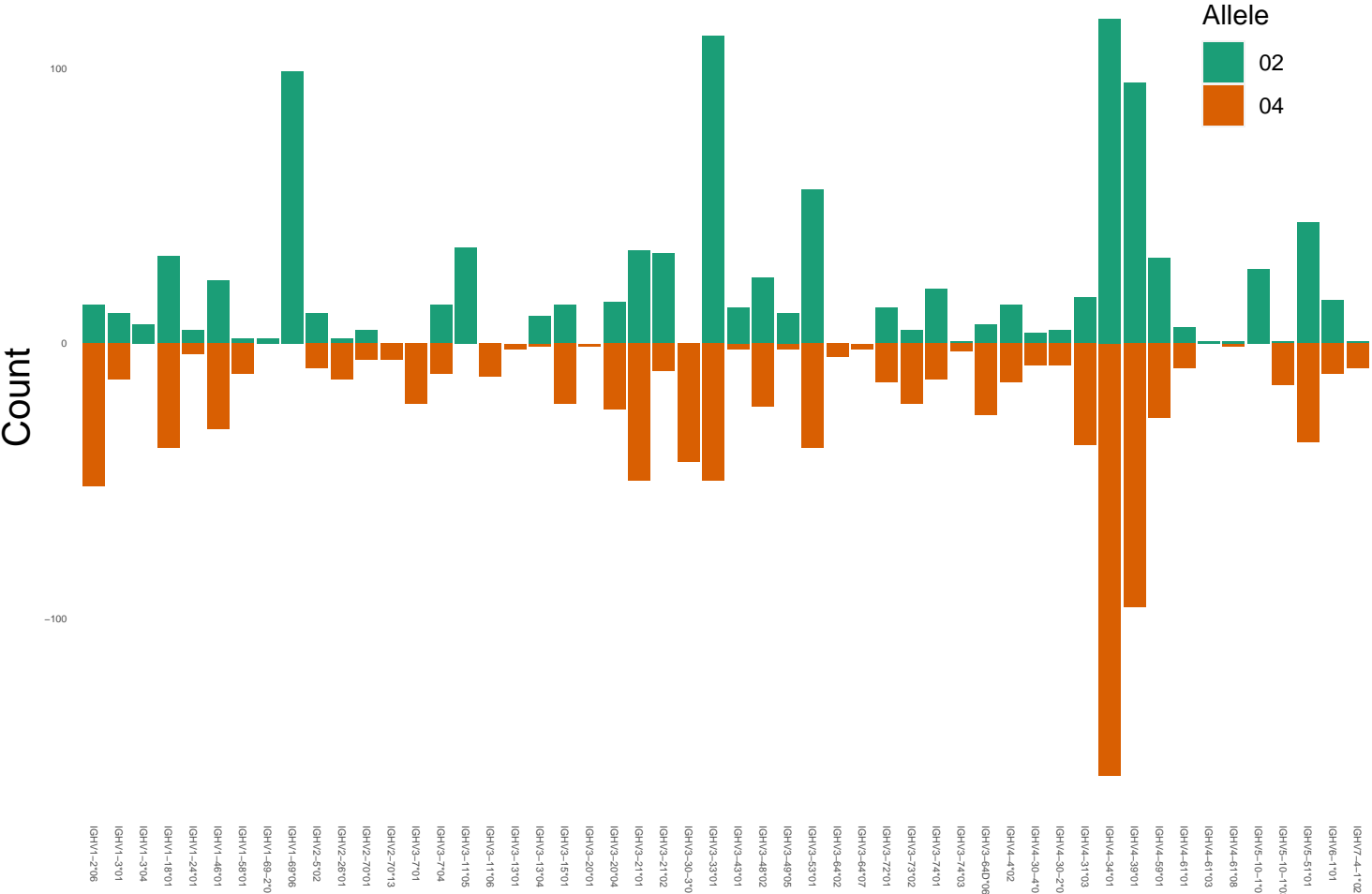
Allele Usage



Sequence Count by IGHJ3 allele usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.