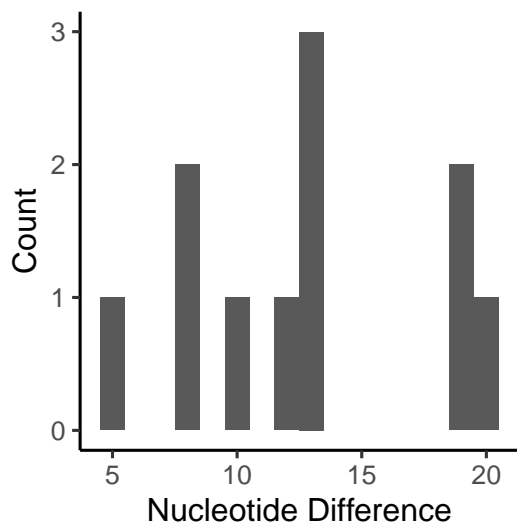


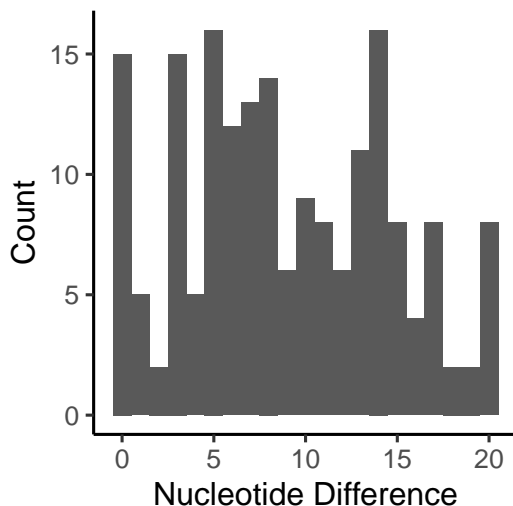
IGHV1-2*02

15 sequences assigned
No exact matches.



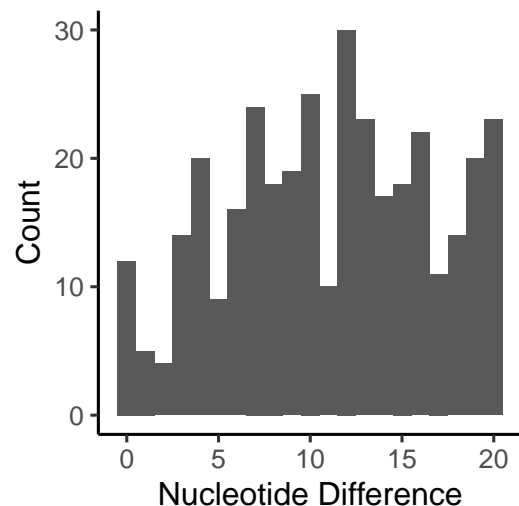
IGHV1-3*01_05

229 sequences assigned
15 (6.6%) exact matches, in which:
14 unique CDR3
5 unique J



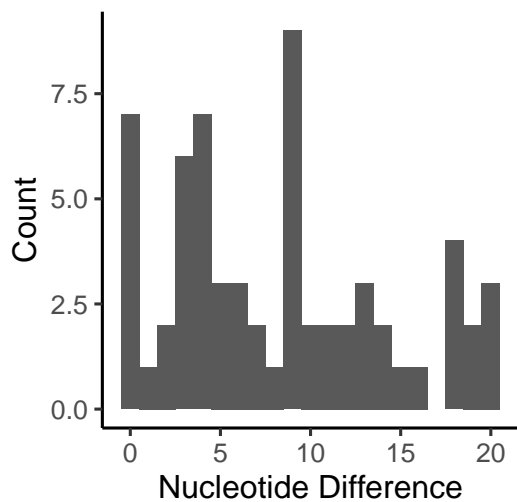
IGHV1-18*04

495 sequences assigned
12 (2.4%) exact matches, in which:
10 unique CDR3
4 unique J



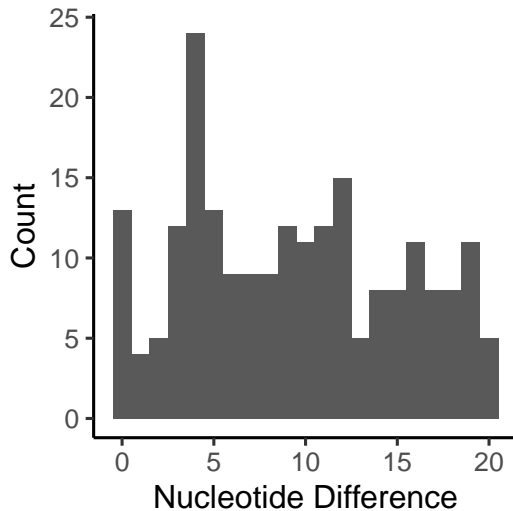
IGHV1-2*04

69 sequences assigned
7 (10.1%) exact matches, in which:
6 unique CDR3
3 unique J



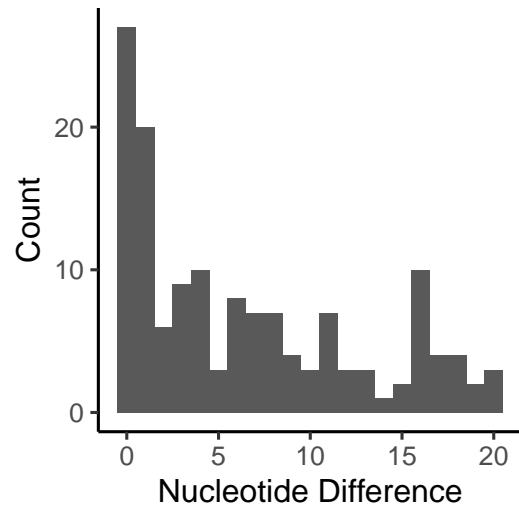
IGHV1-8*01

282 sequences assigned
13 (4.6%) exact matches, in which:
11 unique CDR3
3 unique J



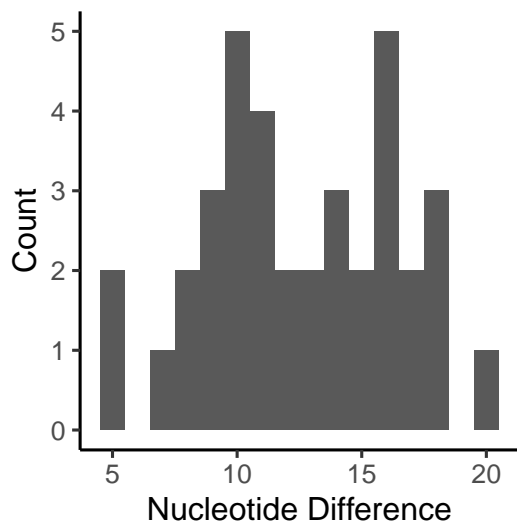
IGHV1-24*01

192 sequences assigned
27 (14.1%) exact matches, in which:
19 unique CDR3
5 unique J



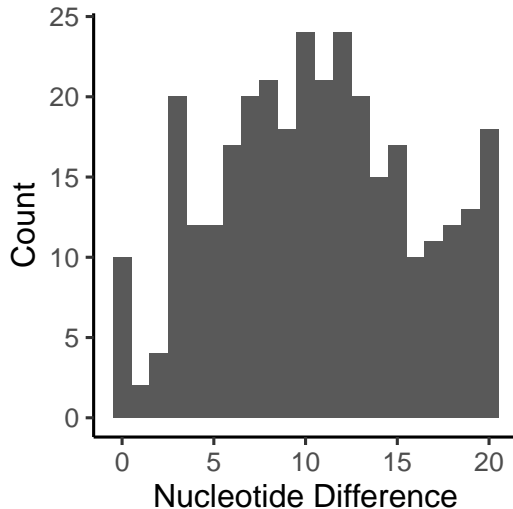
IGHV1-3*04

54 sequences assigned
No exact matches.



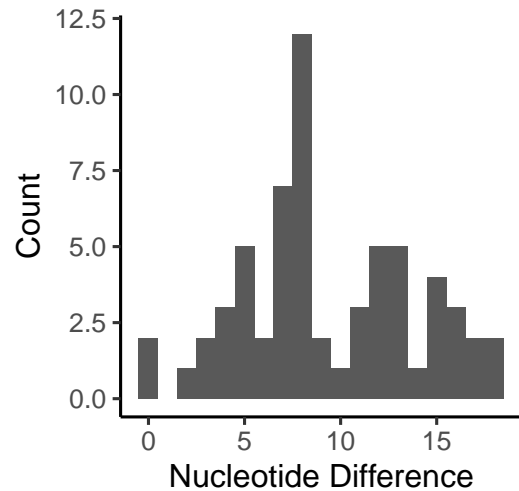
IGHV1-18*01

459 sequences assigned
10 (2.2%) exact matches, in which:
10 unique CDR3
5 unique J



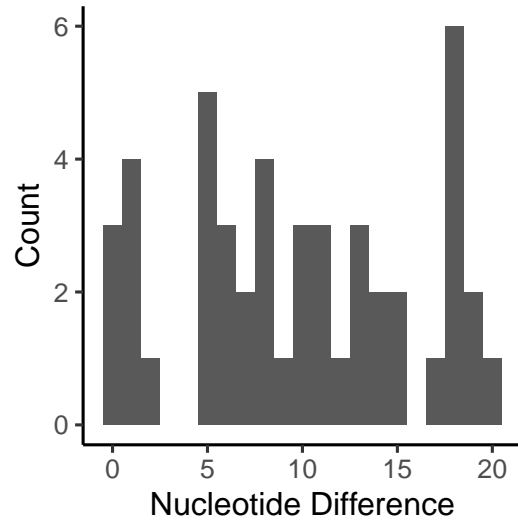
IGHV1-46*01

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



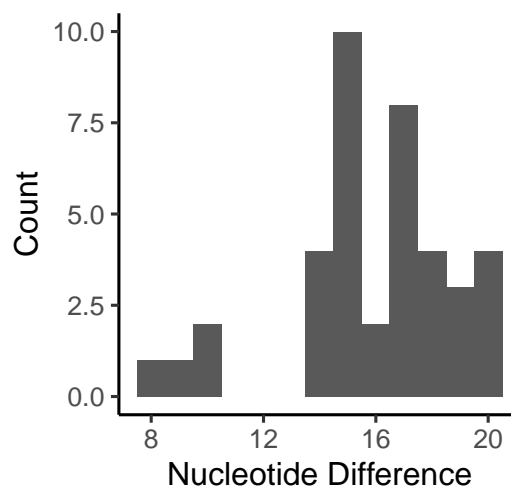
IGHV1-46*03

68 sequences assigned
3 (4.4%) exact matches, in which:
2 unique CDR3
1 unique J



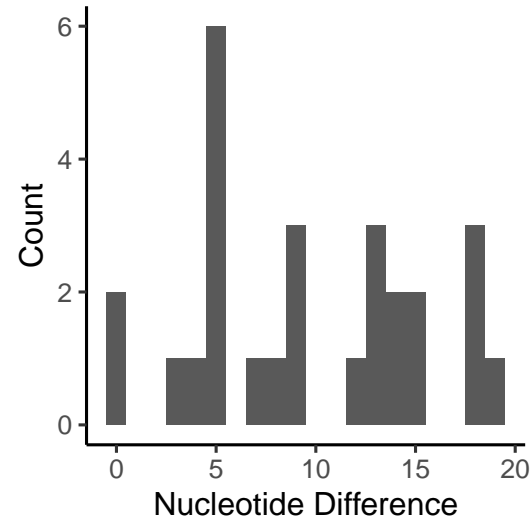
IGHV1-69*08

58 sequences assigned
No exact matches.



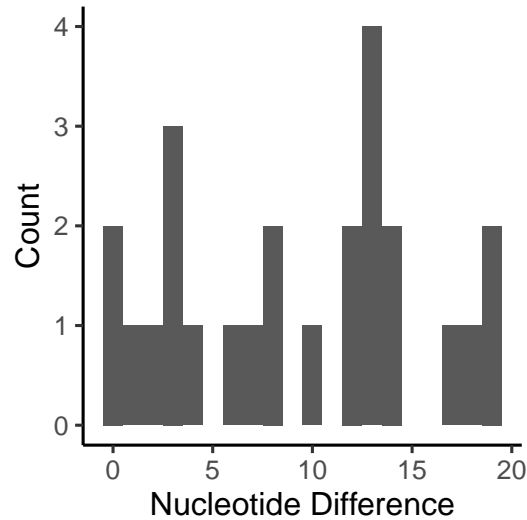
IGHV2-26*01

33 sequences assigned
2 (6.1%) exact matches, in which:
2 unique CDR3
2 unique J



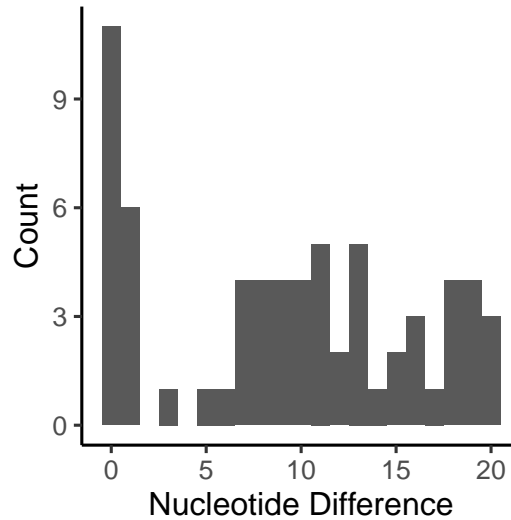
IGHV1-58*02

31 sequences assigned
2 (6.5%) exact matches, in which:
2 unique CDR3
1 unique J



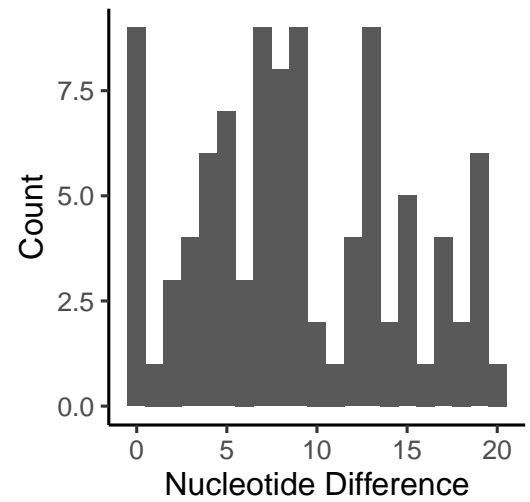
IGHV1-69*04_09

99 sequences assigned
11 (11.1%) exact matches, in which:
8 unique CDR3
2 unique J



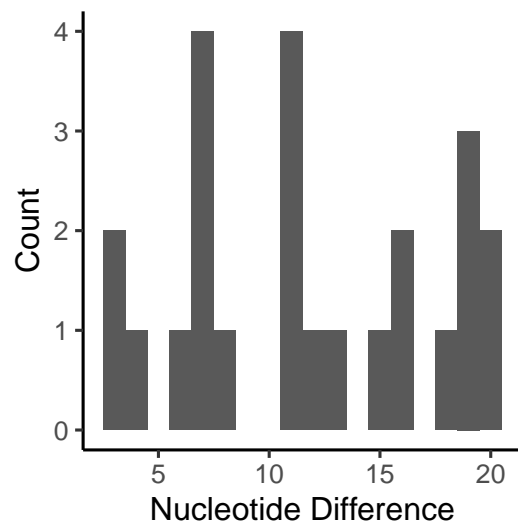
IGHV2-70*11_15

106 sequences assigned
9 (8.5%) exact matches, in which:
7 unique CDR3
3 unique J



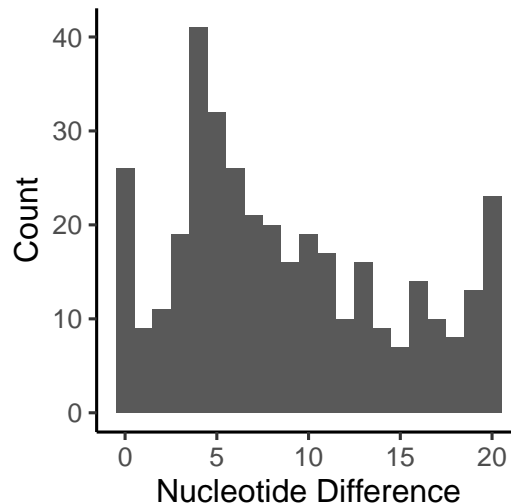
IGHV1-69*02

39 sequences assigned
No exact matches.



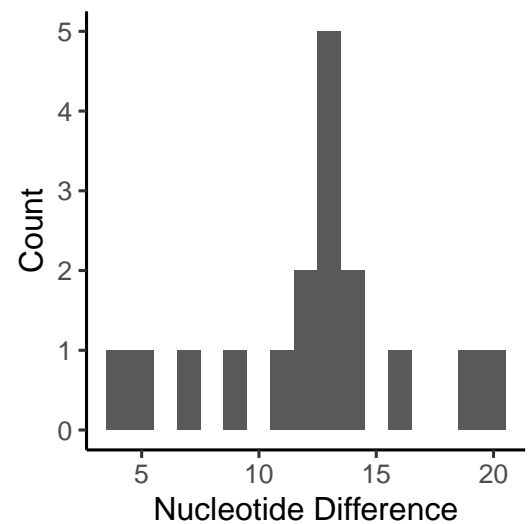
IGHV2-5*02

449 sequences assigned
26 (5.8%) exact matches, in which:
22 unique CDR3
4 unique J



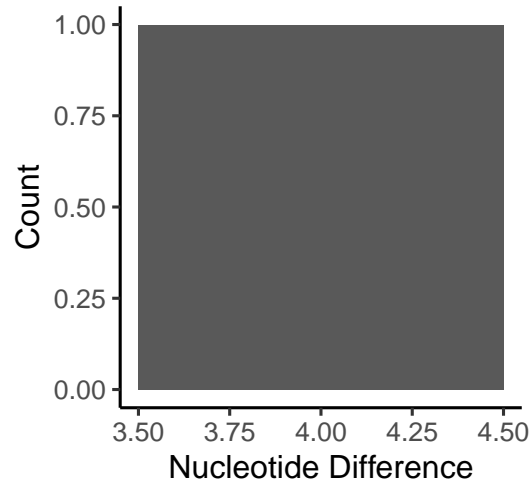
IGHV2-70*16_17

18 sequences assigned
No exact matches.



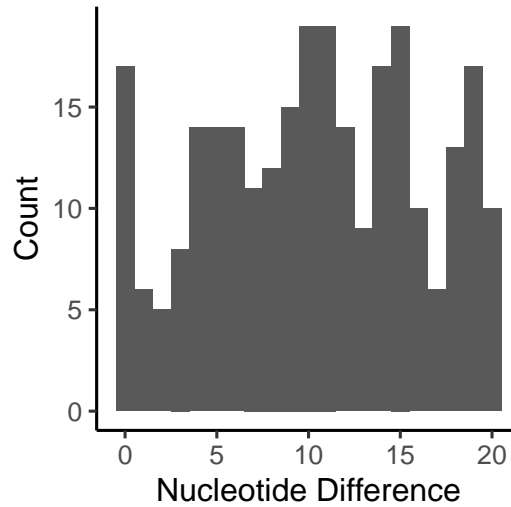
IGHV2-70D*04

1 sequences assigned
No exact matches.



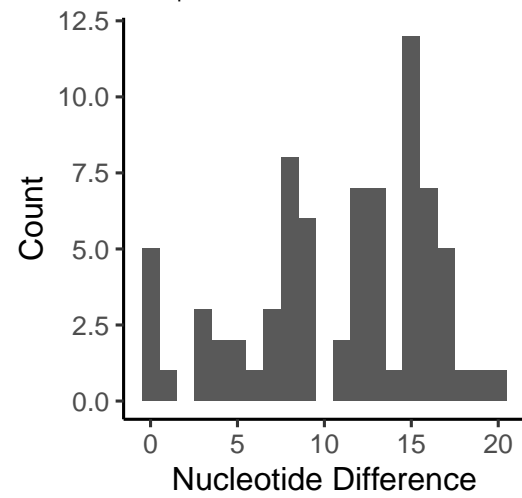
IGHV3-9*01

378 sequences assigned
17 (4.5%) exact matches, in which:
12 unique CDR3
3 unique J



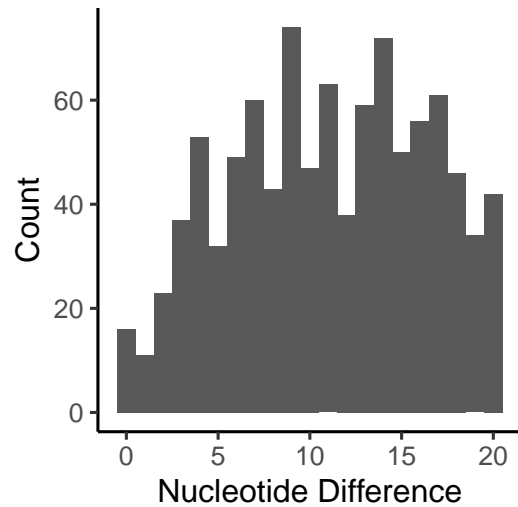
IGHV3-13*01

86 sequences assigned
5 (5.8%) exact matches, in which:
3 unique CDR3
2 unique J



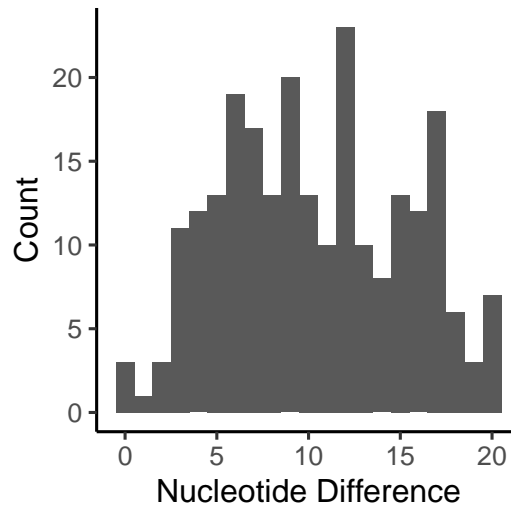
IGHV3-7*01

1291 sequences assigned
16 (1.2%) exact matches, in which:
12 unique CDR3
4 unique J



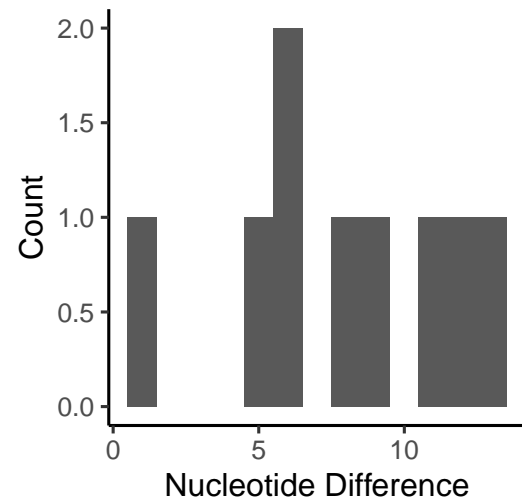
IGHV3-11*01

328 sequences assigned
3 (0.9%) exact matches, in which:
2 unique CDR3
1 unique J



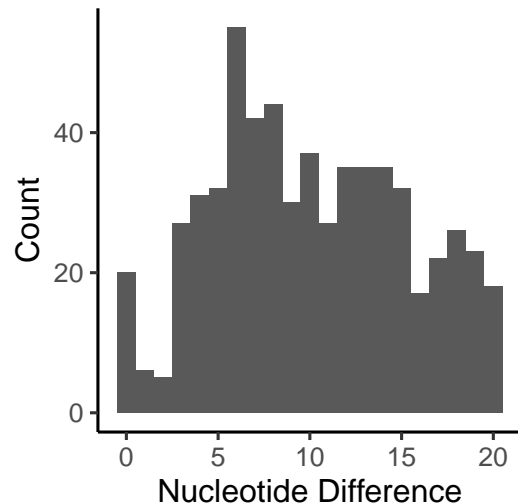
IGHV3-13*05

14 sequences assigned
No exact matches.



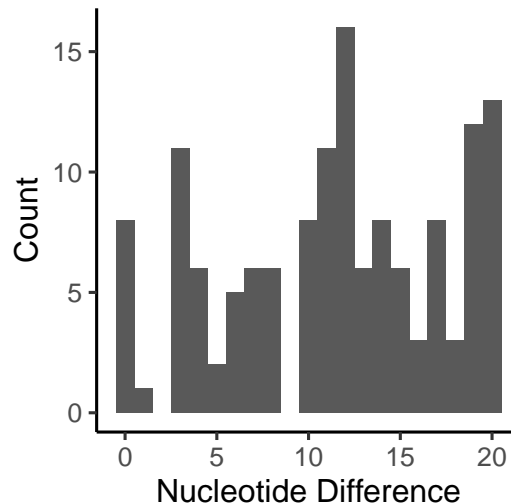
IGHV3-7*03

807 sequences assigned
20 (2.5%) exact matches, in which:
14 unique CDR3
4 unique J



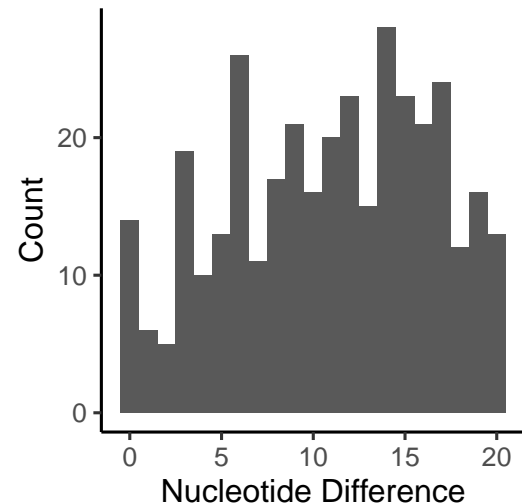
IGHV3-11*06

196 sequences assigned
8 (4.1%) exact matches, in which:
3 unique CDR3
2 unique J



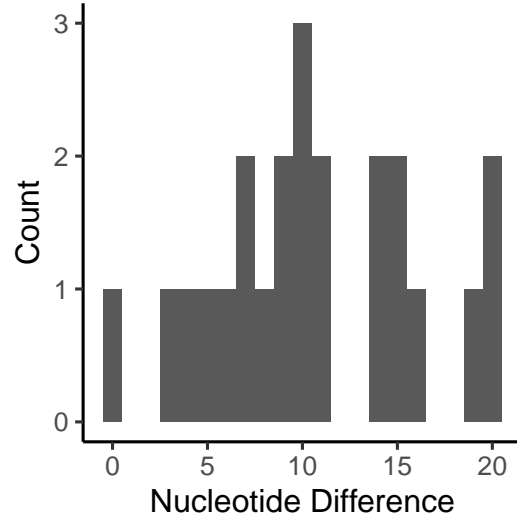
IGHV3-15*01_02

483 sequences assigned
14 (2.9%) exact matches, in which:
9 unique CDR3
4 unique J



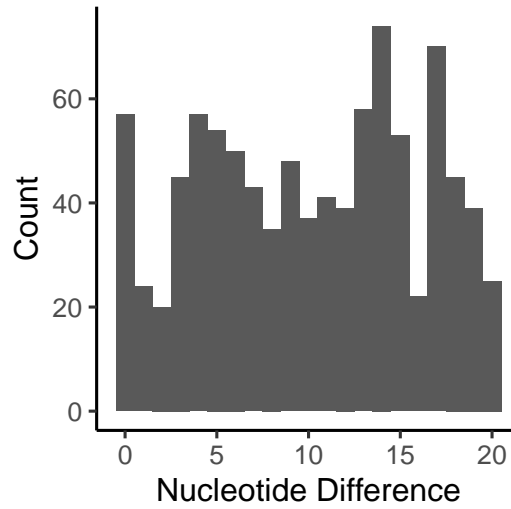
IGHV3-20*01_02

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



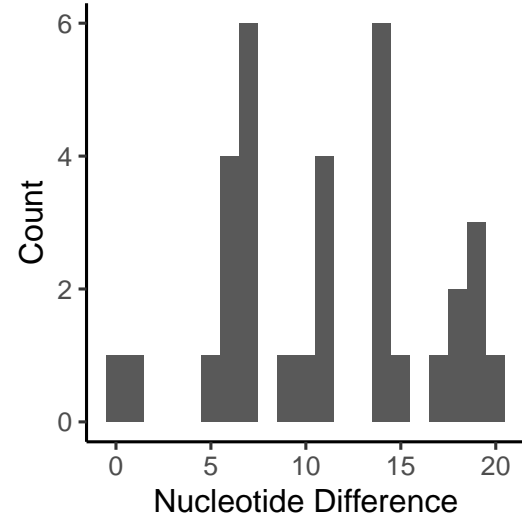
IGHV3-21*01_02

1148 sequences assigned
57 (5%) exact matches, in which:
36 unique CDR3
7 unique J



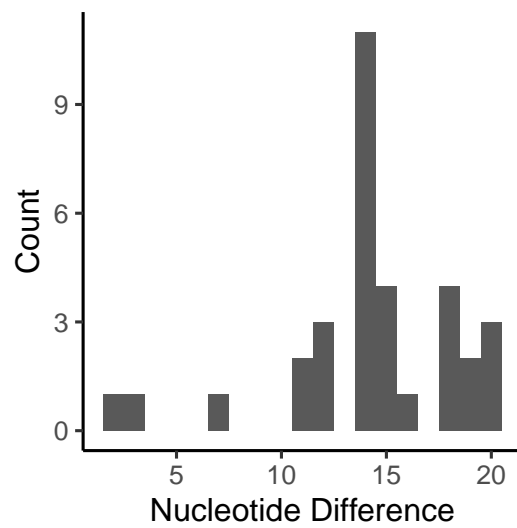
IGHV3-30*03

87 sequences assigned
1 (1.1%) exact matches, in which:
1 unique CDR3
1 unique J



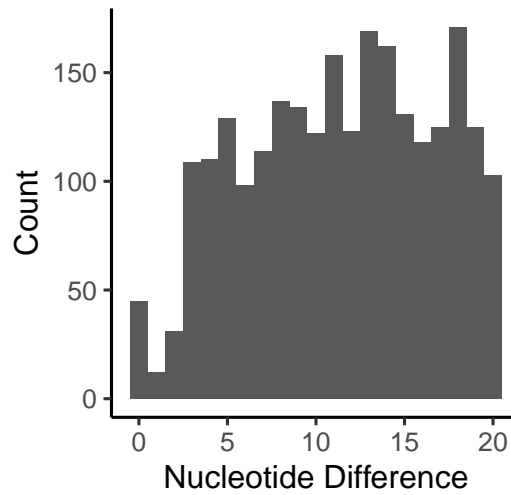
IGHV3-20*03_04

57 sequences assigned
No exact matches.



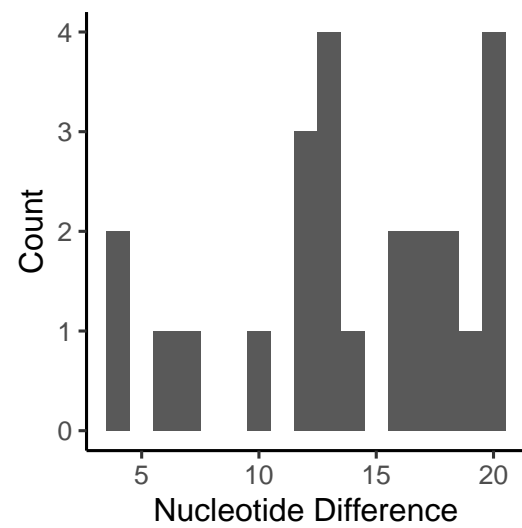
IGHV3-23*01_04

3372 sequences assigned
45 (1.3%) exact matches, in which:
28 unique CDR3
7 unique J



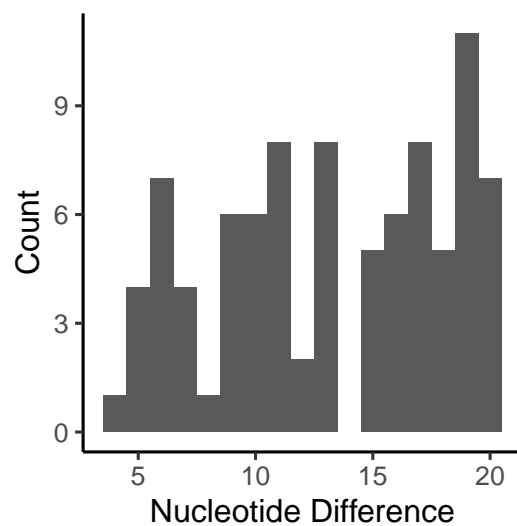
IGHV3-30*04

78 sequences assigned
No exact matches.



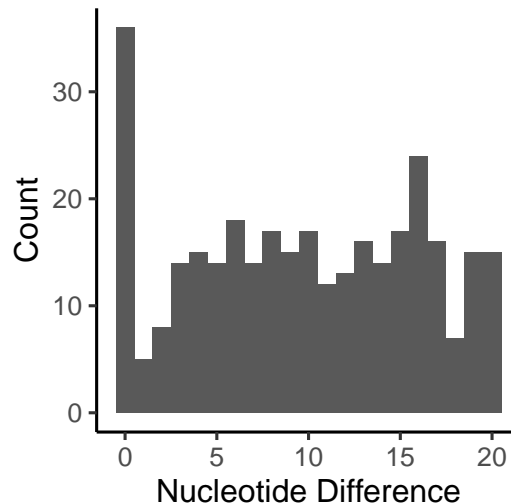
IGHV3-21*06

187 sequences assigned
No exact matches.



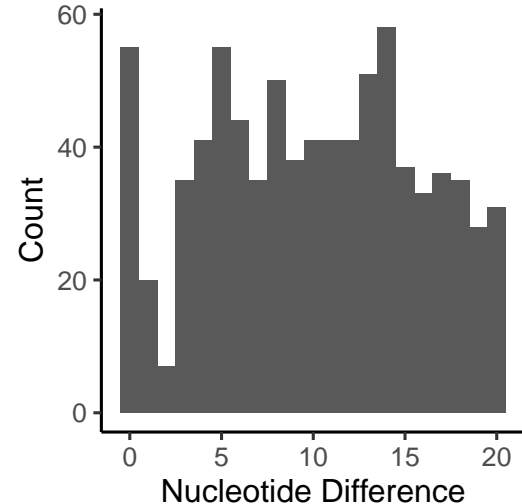
IGHV3-30-3*01

464 sequences assigned
36 (7.8%) exact matches, in which:
22 unique CDR3
4 unique J



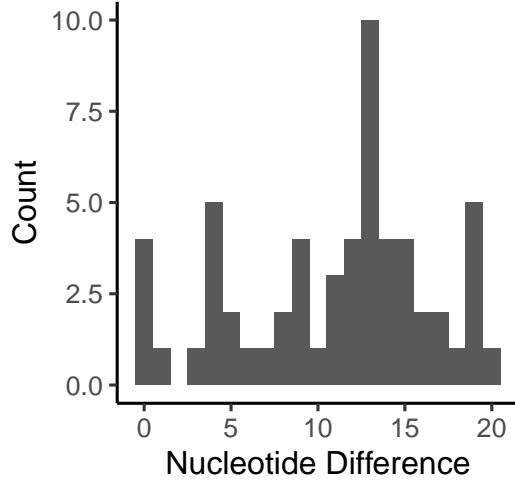
IGHV3-33*01

1023 sequences assigned
55 (5.4%) exact matches, in which:
31 unique CDR3
6 unique J



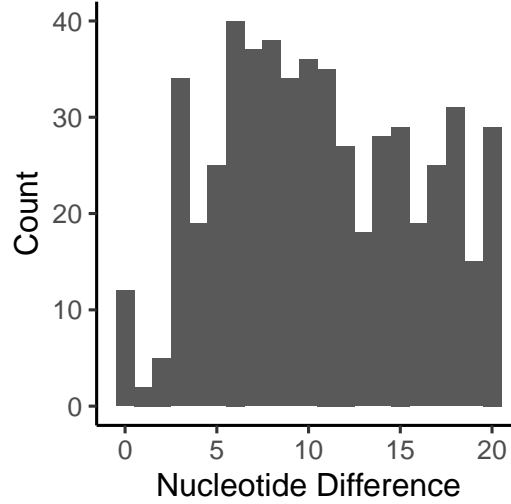
IGHV3-43*01

69 sequences assigned
4 (5.8%) exact matches, in which:
2 unique CDR3
1 unique J



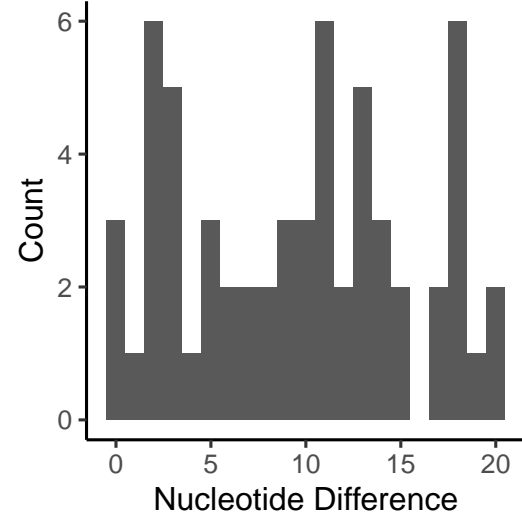
IGHV3-48*03

702 sequences assigned
12 (1.7%) exact matches, in which:
8 unique CDR3
3 unique J



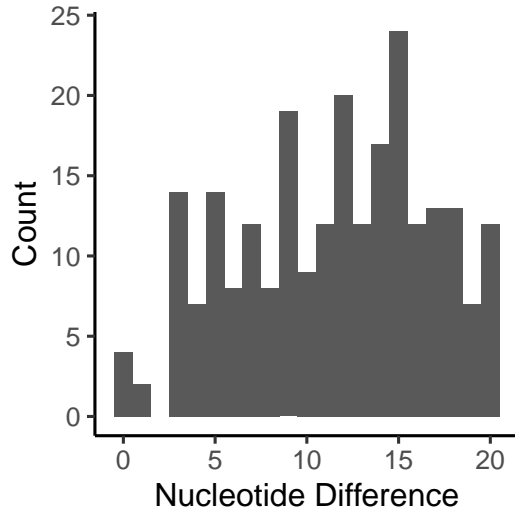
IGHV3-53*04

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



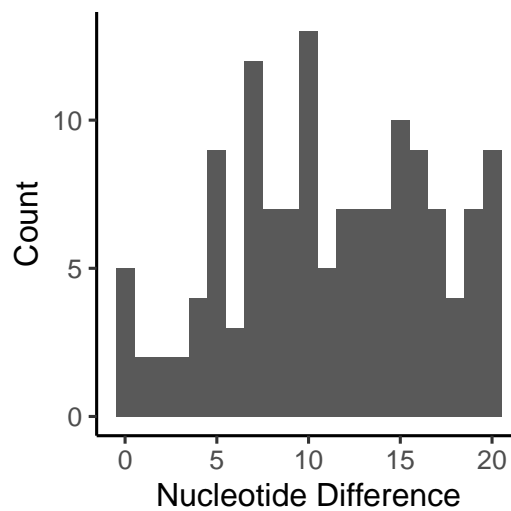
IGHV3-43*02

306 sequences assigned
4 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



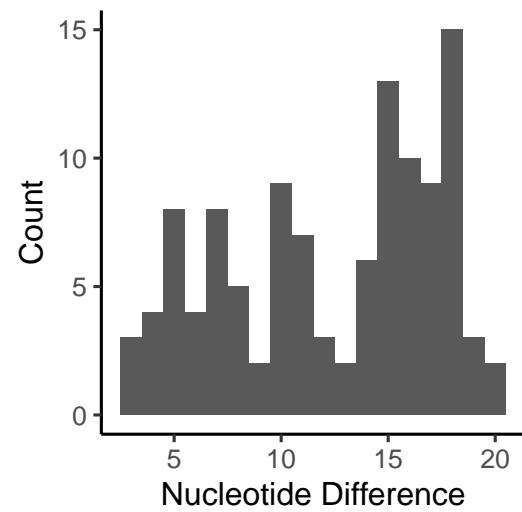
IGHV3-49*04

238 sequences assigned
5 (2.1%) exact matches, in which:
3 unique CDR3
2 unique J



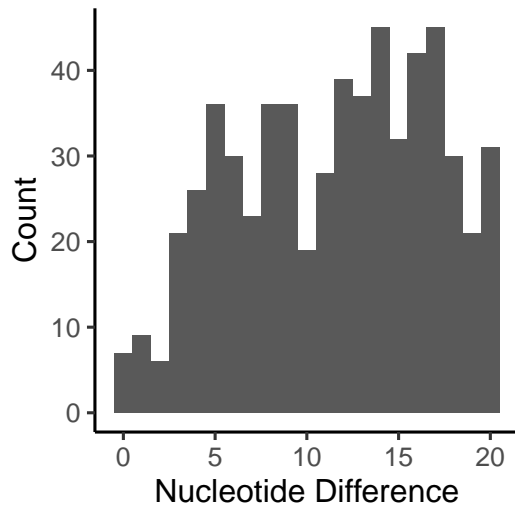
IGHV3-53*01_02

181 sequences assigned
No exact matches.



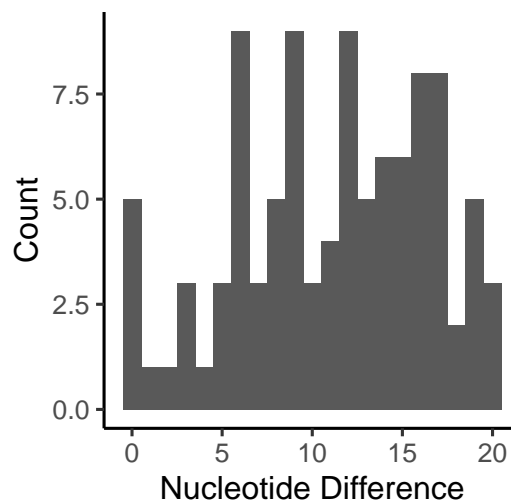
IGHV3-48*01

771 sequences assigned
7 (0.9%) exact matches, in which:
4 unique CDR3
3 unique J



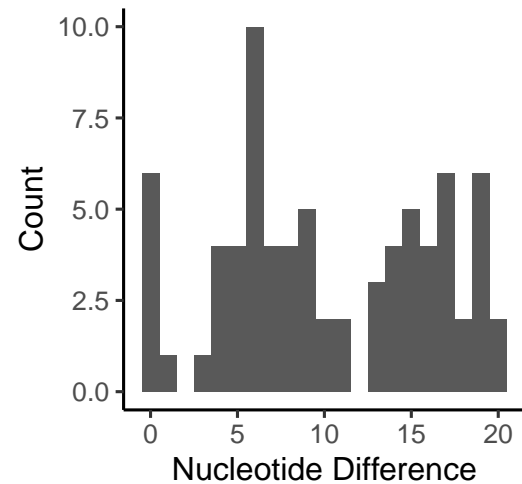
IGHV3-49*03_05

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



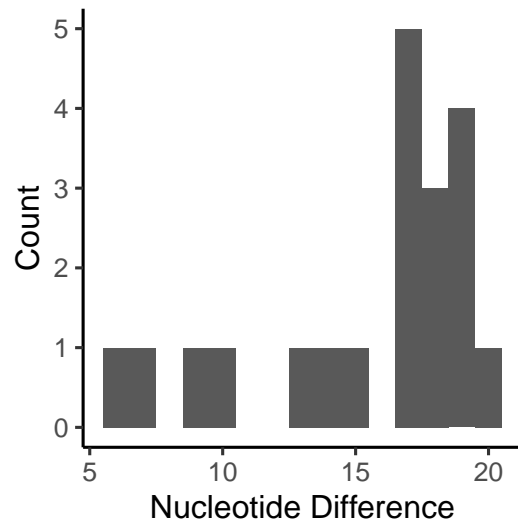
IGHV3-64*01

105 sequences assigned
6 (5.7%) exact matches, in which:
3 unique CDR3
3 unique J



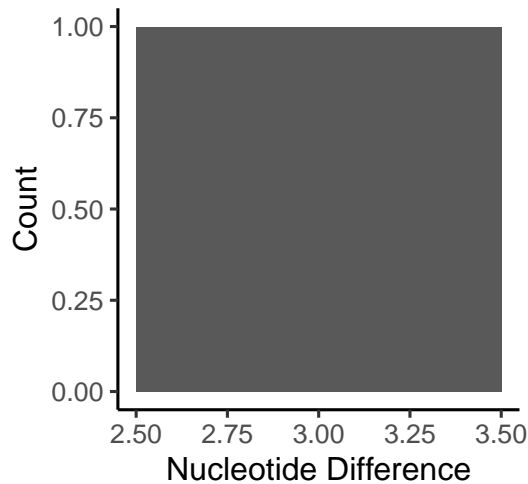
IGHV3-64*02_07

34 sequences assigned
No exact matches.



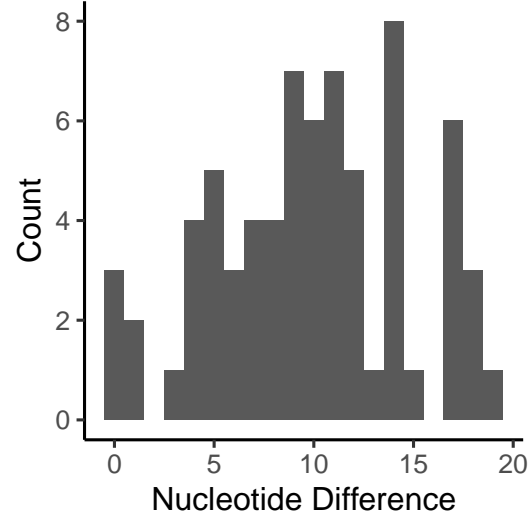
IGHV3-69-1*01

5 sequences assigned
No exact matches.



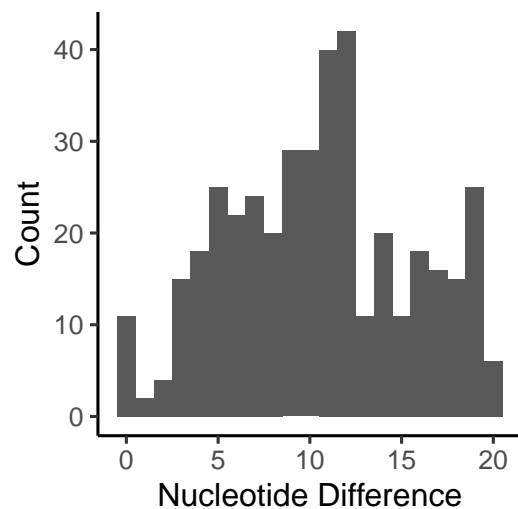
IGHV3-73*01_02

95 sequences assigned
3 (3.2%) exact matches, in which:
3 unique CDR3
2 unique J



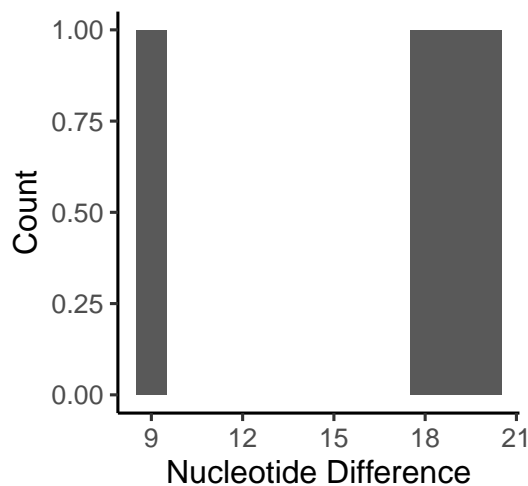
IGHV3-66*01

478 sequences assigned
11 (2.3%) exact matches, in which:
4 unique CDR3
2 unique J



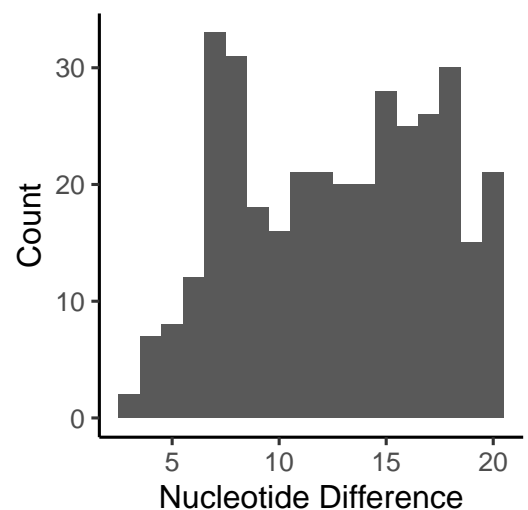
IGHV3-69-1*02

5 sequences assigned
No exact matches.



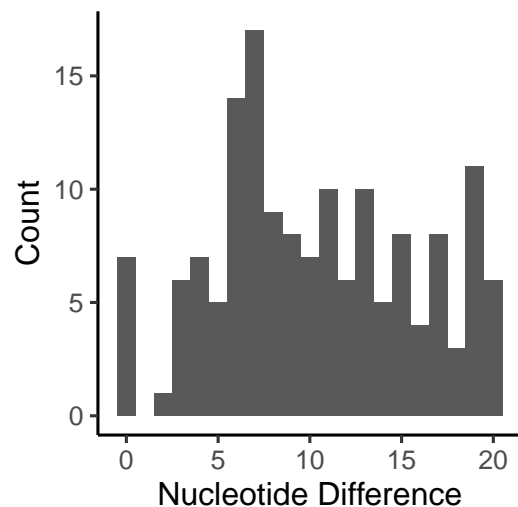
IGHV3-74*03

582 sequences assigned
No exact matches.



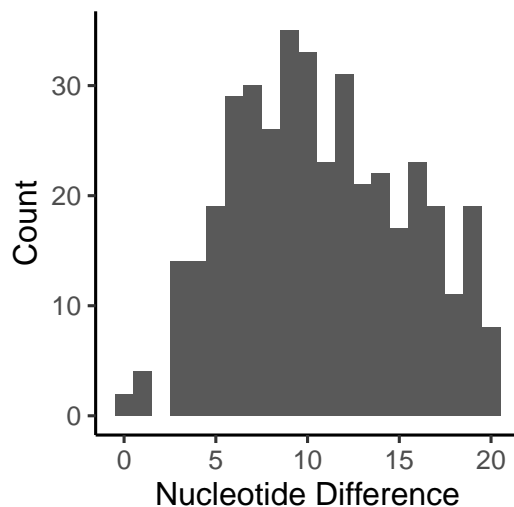
IGHV3-66*02

247 sequences assigned
7 (2.8%) exact matches, in which:
6 unique CDR3
3 unique J



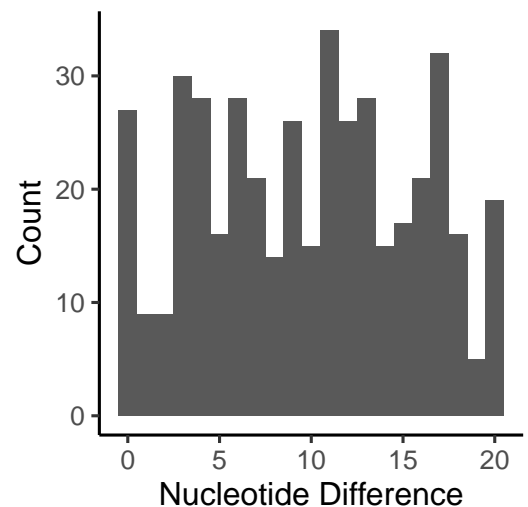
IGHV3-72*01

456 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
1 unique J



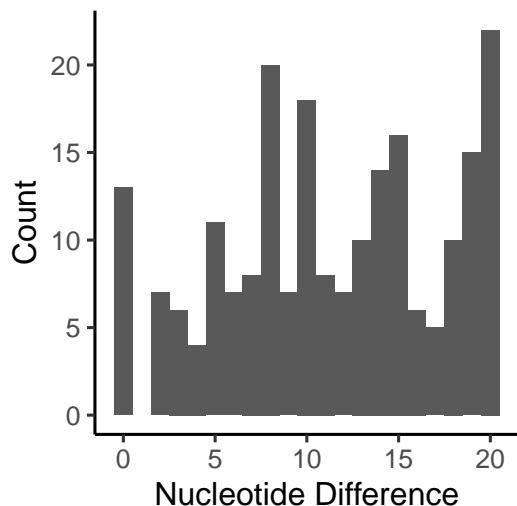
IGHV3-74*01_02

533 sequences assigned
27 (5.1%) exact matches, in which:
14 unique CDR3
5 unique J



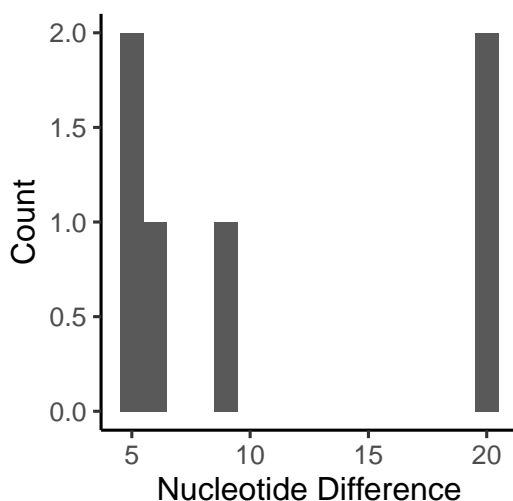
IGHV3-64D*09

352 sequences assigned
13 (3.7%) exact matches, in which:
6 unique CDR3
4 unique J



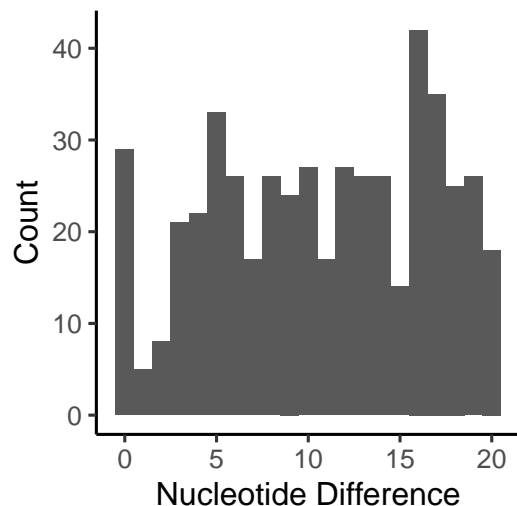
IGHV4-28*01_07

6 sequences assigned
No exact matches.



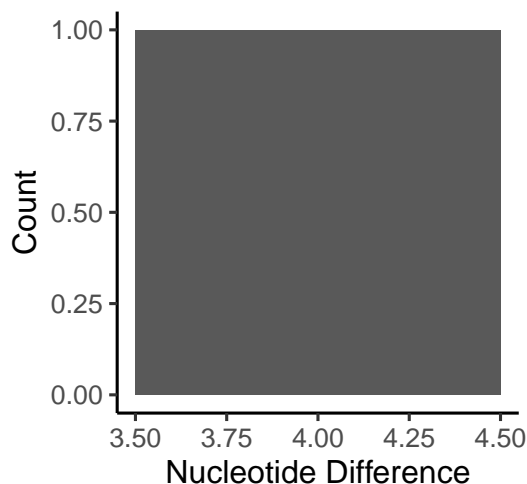
IGHV4-31*02

756 sequences assigned
29 (3.8%) exact matches, in which:
19 unique CDR3
4 unique J



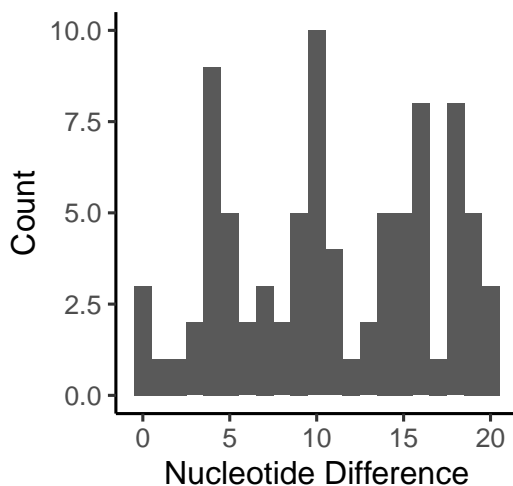
IGHV3-NL1*01

1 sequences assigned
No exact matches.



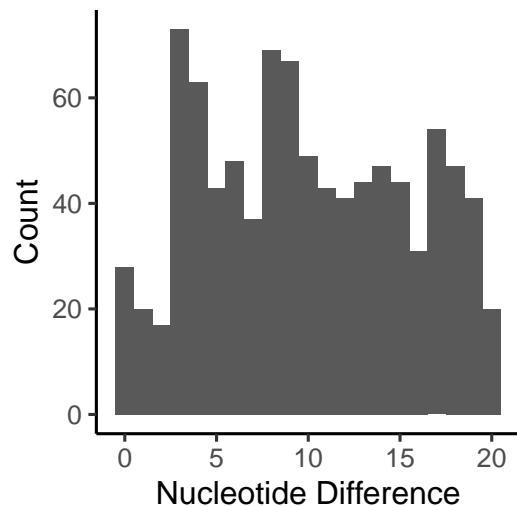
IGHV4-30-2*01

122 sequences assigned
3 (2.5%) exact matches, in which:
2 unique CDR3
1 unique J



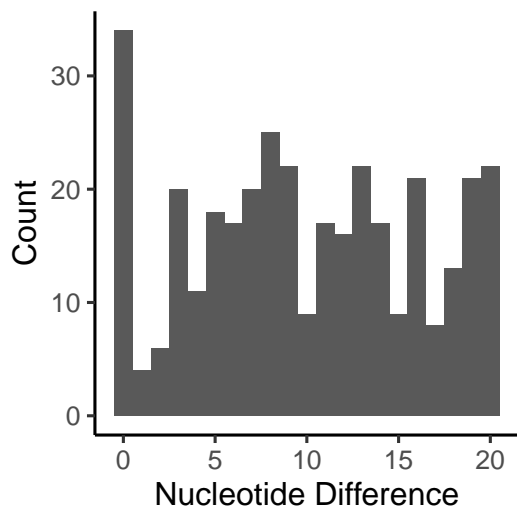
IGHV4-34*01_02

1259 sequences assigned
28 (2.2%) exact matches, in which:
15 unique CDR3
6 unique J



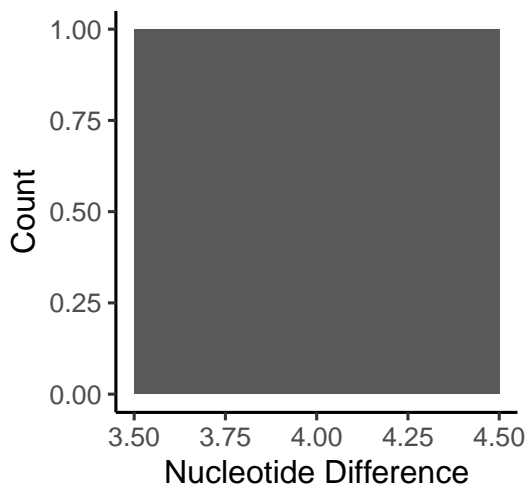
IGHV4-4*02_03

586 sequences assigned
34 (5.8%) exact matches, in which:
22 unique CDR3
5 unique J



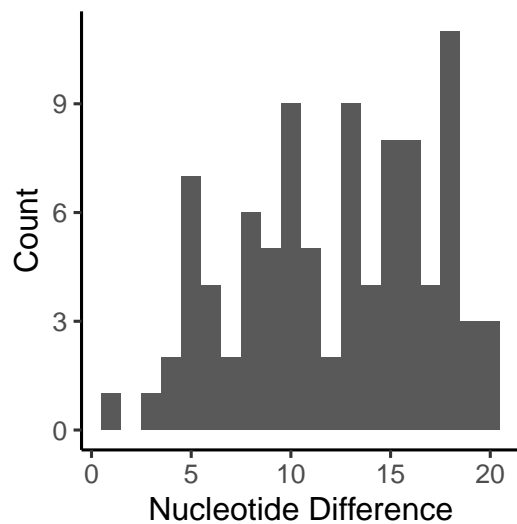
IGHV4-30-4*08

1 sequences assigned
No exact matches.



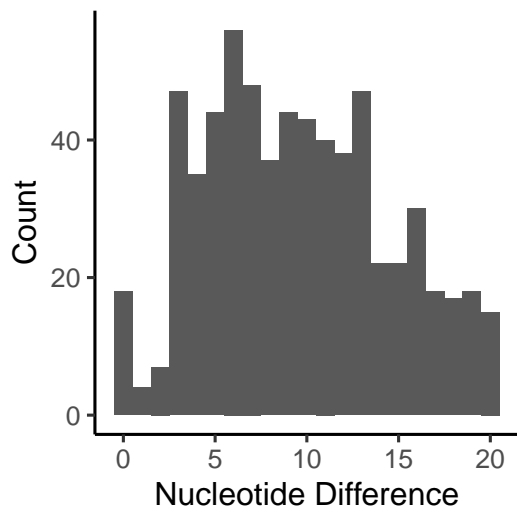
IGHV4-39*02

144 sequences assigned
No exact matches.



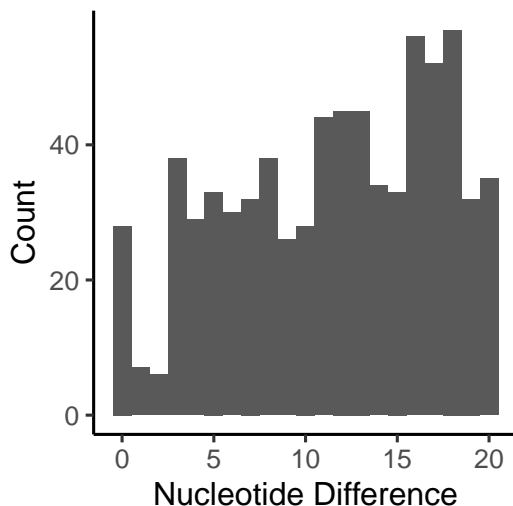
IGHV4-59*08

857 sequences assigned
18 (2.1%) exact matches, in which:
14 unique CDR3
5 unique J



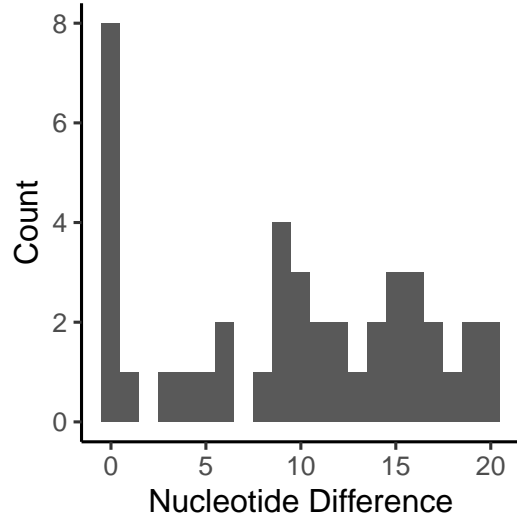
IGHV4-61*02

1106 sequences assigned
28 (2.5%) exact matches, in which:
20 unique CDR3
5 unique J



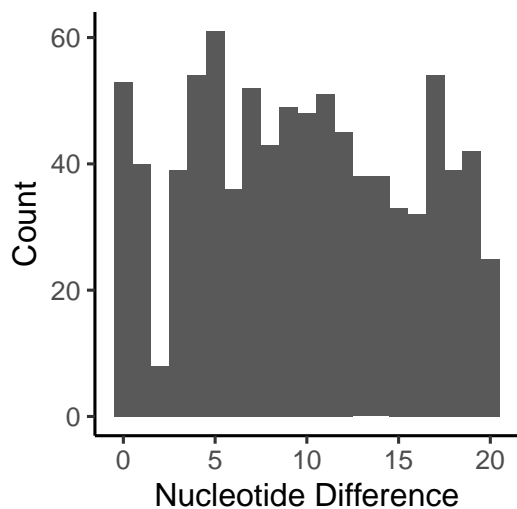
IGHV5-10-1*01_03

58 sequences assigned
8 (13.8%) exact matches, in which:
7 unique CDR3
4 unique J



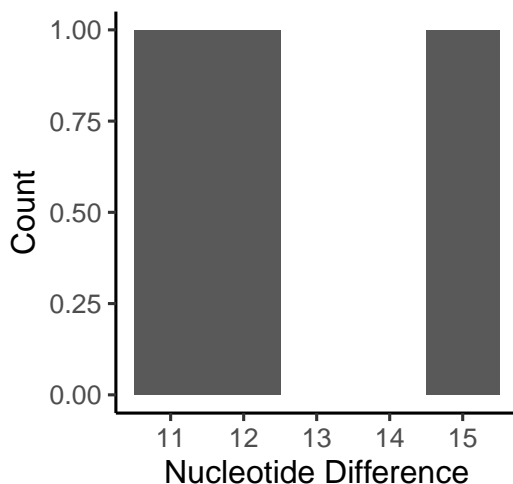
IGHV4-59*01_07

1191 sequences assigned
53 (4.5%) exact matches, in which:
26 unique CDR3
5 unique J



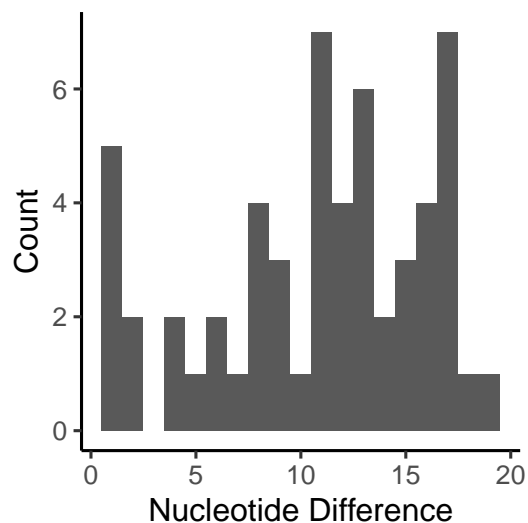
IGHV4/OR15-8*01

6 sequences assigned
No exact matches.



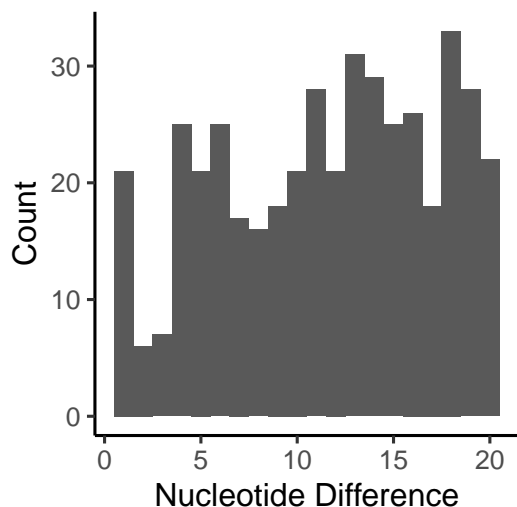
IGHV5-51*07

67 sequences assigned
No exact matches.



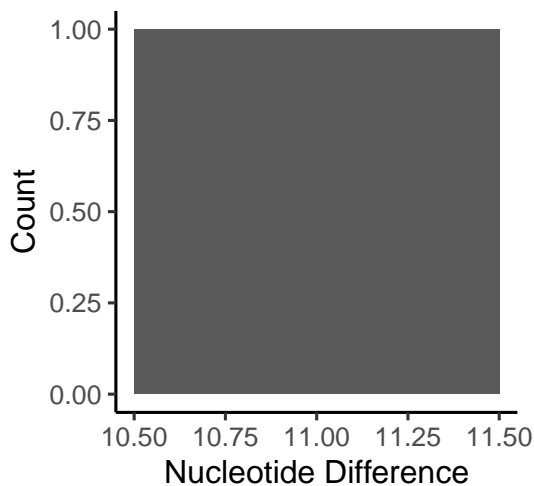
IGHV4-59*11

640 sequences assigned
No exact matches.



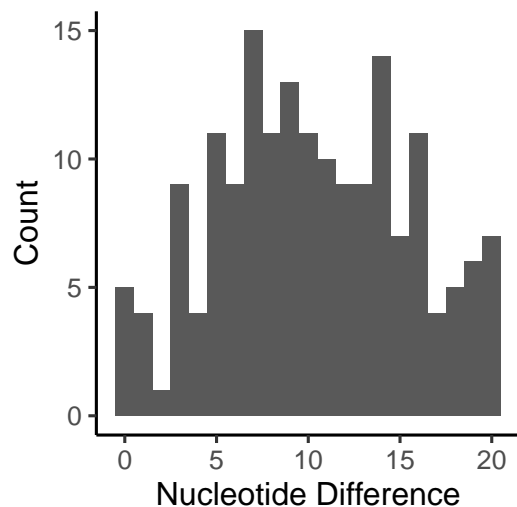
IGHV4/OR15-8*02

11 sequences assigned
No exact matches.



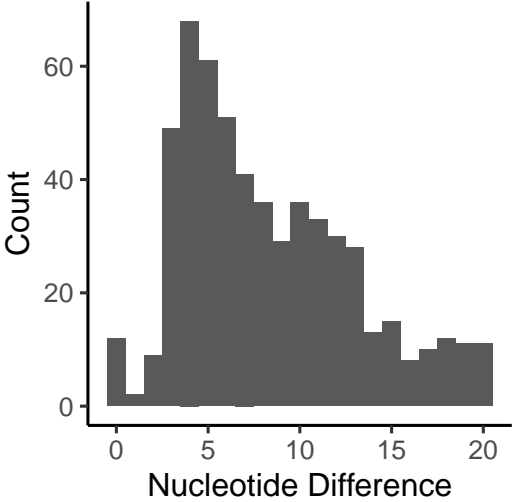
IGHV5-51*01_03

215 sequences assigned
5 (2.3%) exact matches, in which:
5 unique CDR3
3 unique J



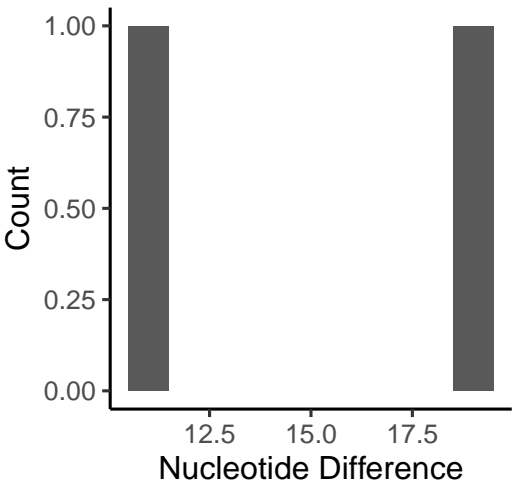
IGHV6-1*01_02

601 sequences assigned
12 (2%) exact matches, in which:
12 unique CDR3
4 unique J

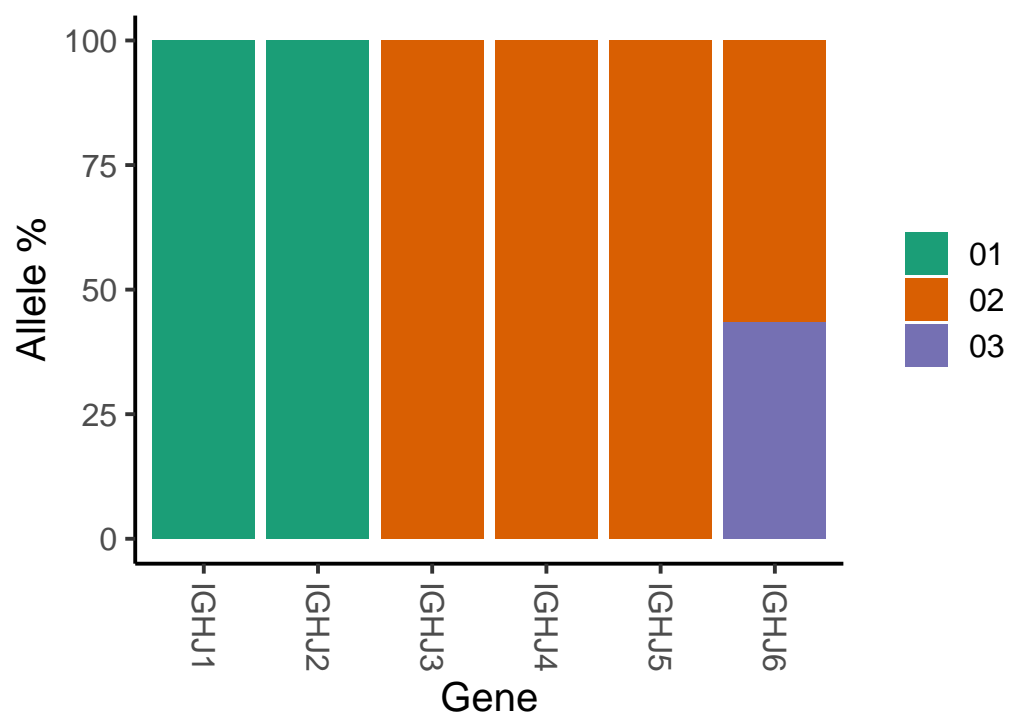


IGHV7-4-1*01

3 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage

