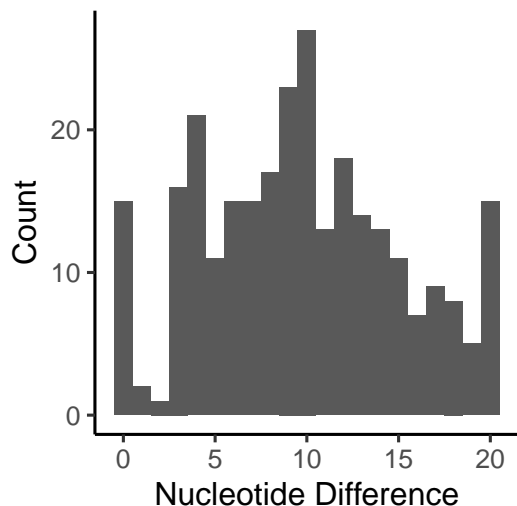


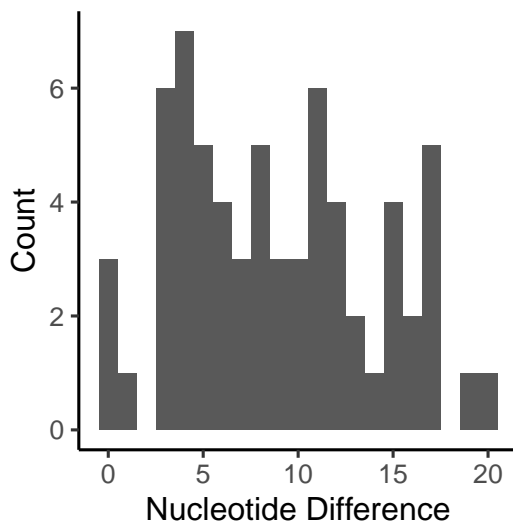
IGHV1-2*02

344 sequences assigned
15 (4.4%) exact matches, in which:
15 unique CDR3
5 unique J



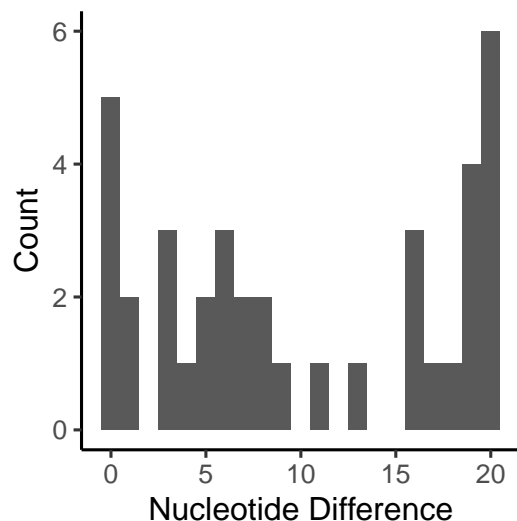
IGHV1-3*01_05

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



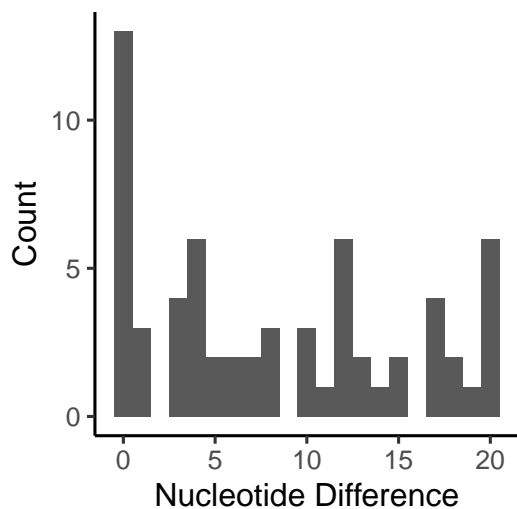
IGHV1-24*01

51 sequences assigned
5 (9.8%) exact matches, in which:
3 unique CDR3
2 unique J



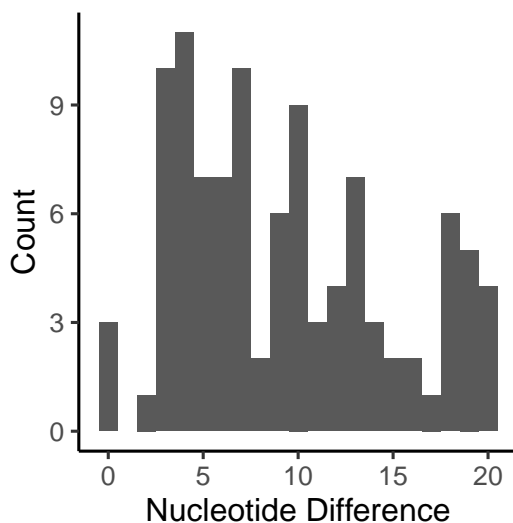
IGHV1-2*04

68 sequences assigned
13 (19.1%) exact matches, in which:
13 unique CDR3
4 unique J



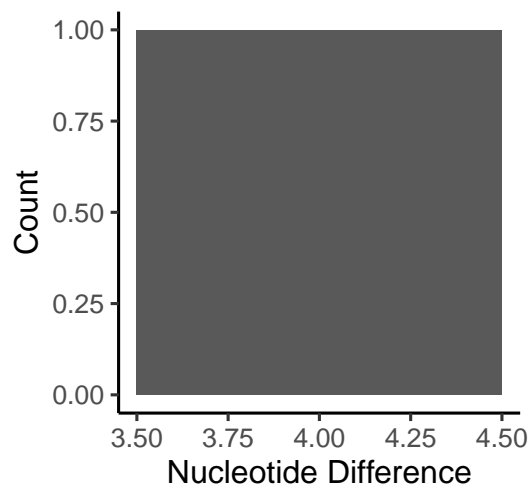
IGHV1-8*01

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



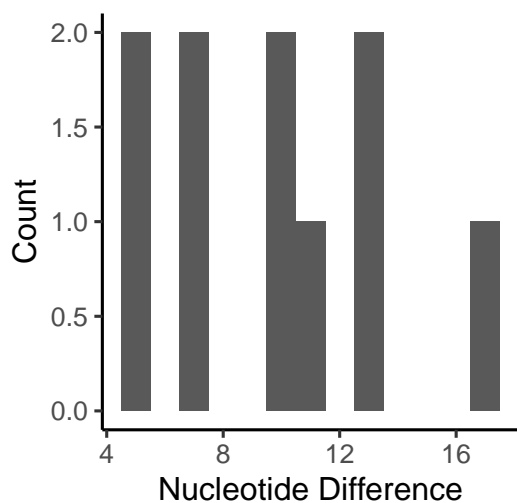
IGHV1-45*02

1 sequences assigned
No exact matches.



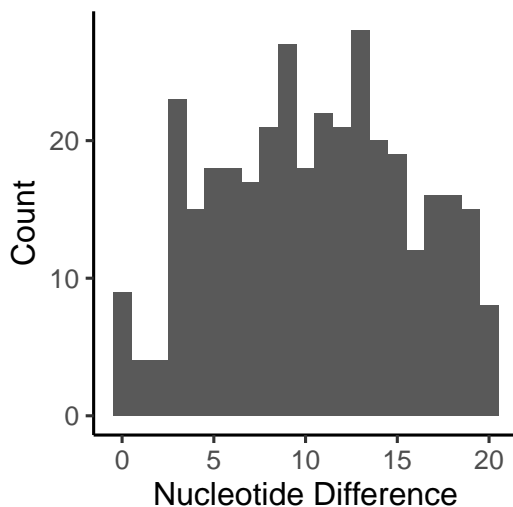
IGHV1-3*04

11 sequences assigned
No exact matches.



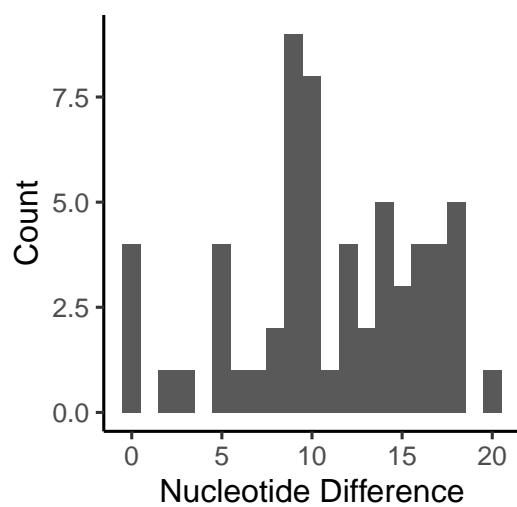
IGHV1-18*01

470 sequences assigned
9 (1.9%) exact matches, in which:
9 unique CDR3
4 unique J



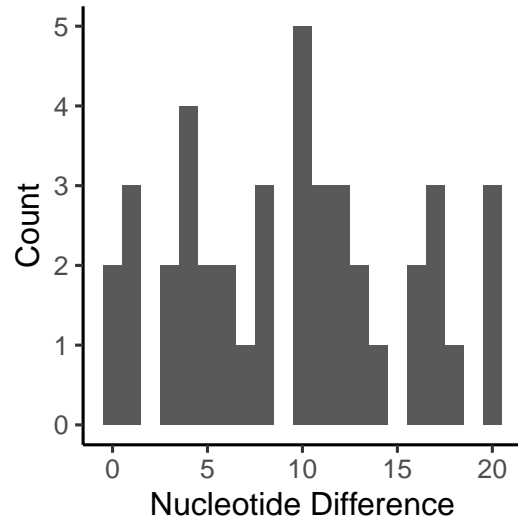
IGHV1-46*01

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



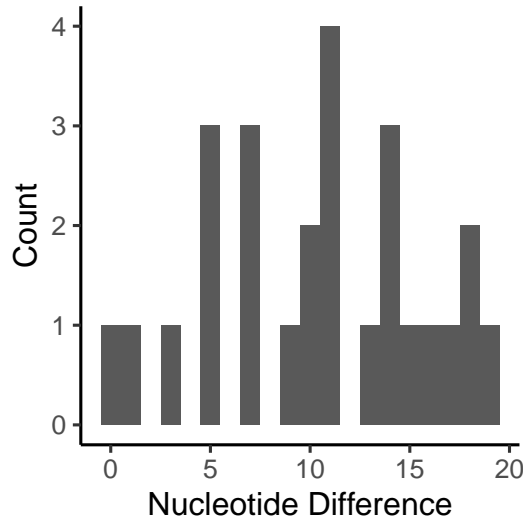
IGHV1-46*03

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



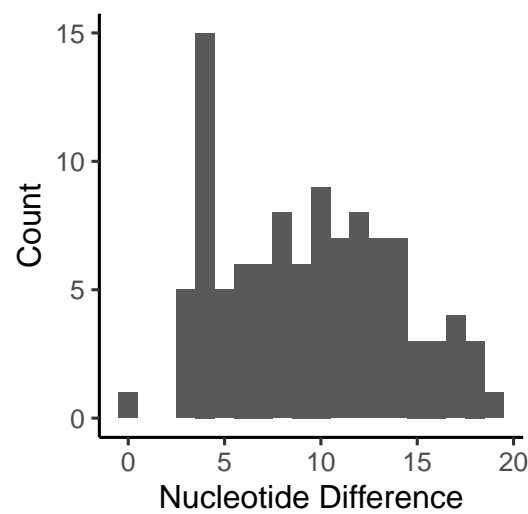
IGHV1-69*02

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



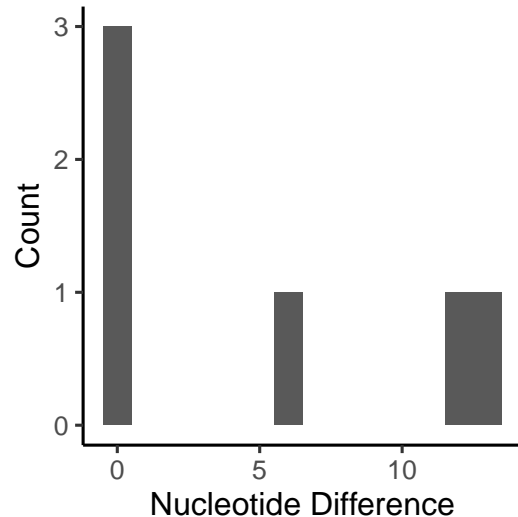
IGHV2-5*02

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



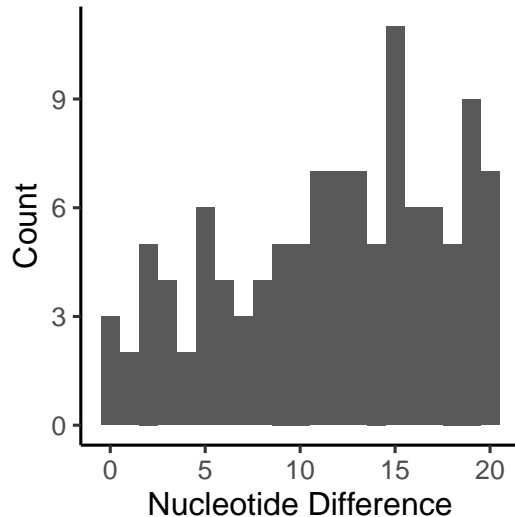
IGHV1-58*02

10 sequences assigned
3 (30%) exact matches, in which:
2 unique CDR3
2 unique J



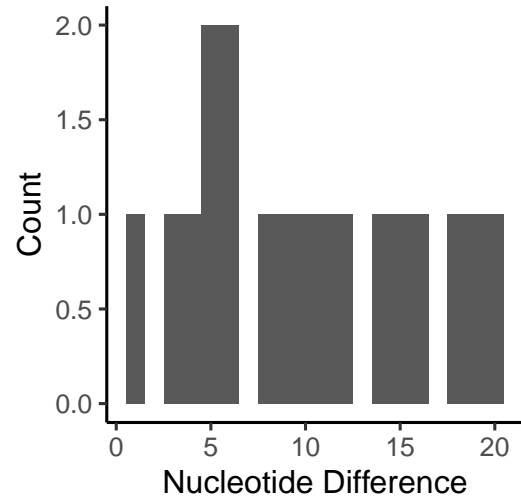
IGHV1-69*01_12_13

211 sequences assigned
3 (1.4%) exact matches, in which:
3 unique CDR3
3 unique J



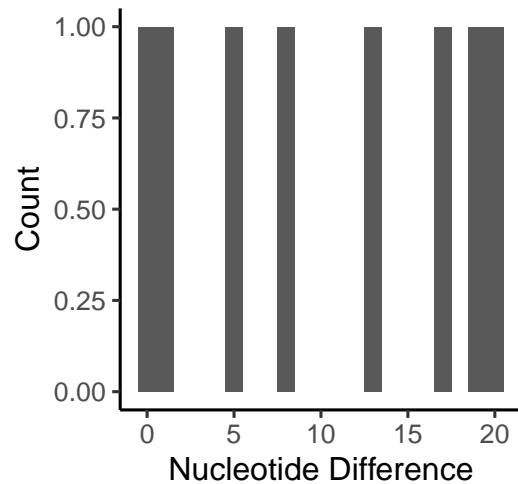
IGHV2-26*01

18 sequences assigned
No exact matches.



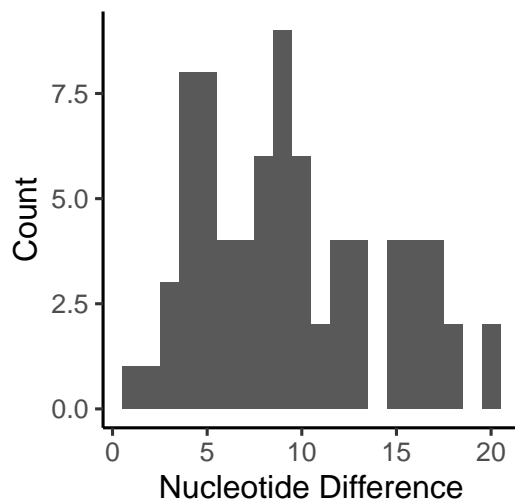
IGHV1-58*01_03

12 sequences assigned
1 (8.3%) exact matches, in which:
1 unique CDR3
1 unique J



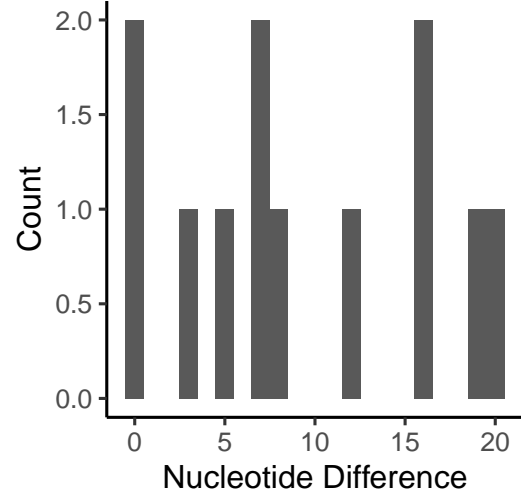
IGHV2-5*01

79 sequences assigned
No exact matches.



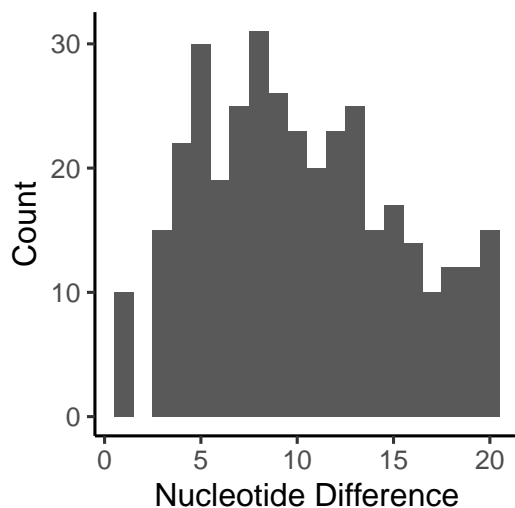
IGHV2-70*01

15 sequences assigned
2 (13.3%) exact matches, in which:
2 unique CDR3
2 unique J



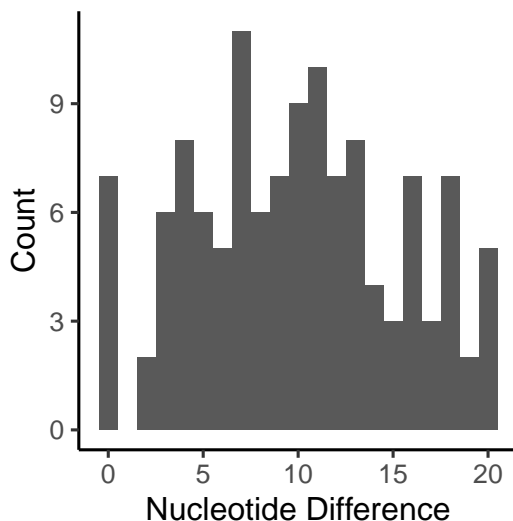
IGHV3-7*01

392 sequences assigned
No exact matches.



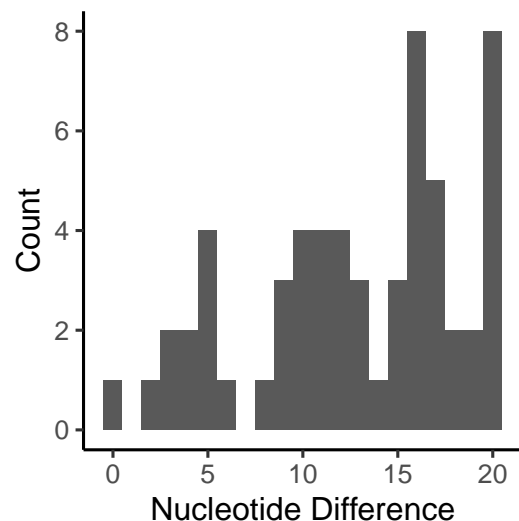
IGHV3-11*01

147 sequences assigned
7 (4.8%) exact matches, in which:
5 unique CDR3
2 unique J



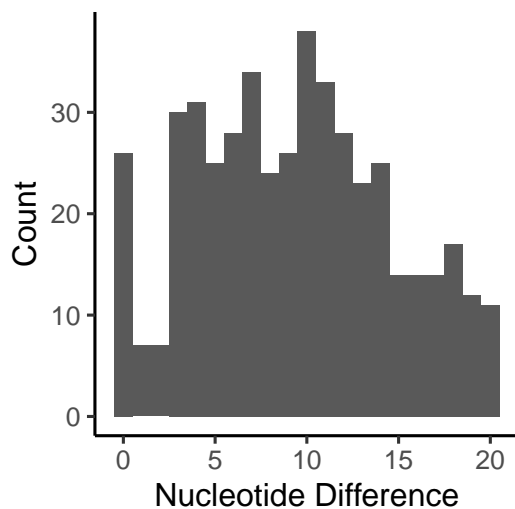
IGHV3-13*01

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



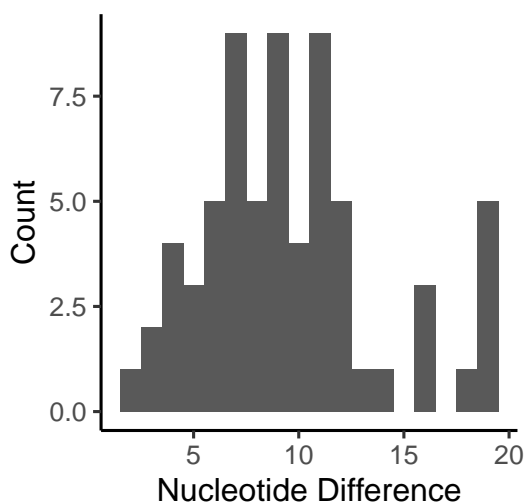
IGHV3-7*03

536 sequences assigned
26 (4.9%) exact matches, in which:
15 unique CDR3
3 unique J



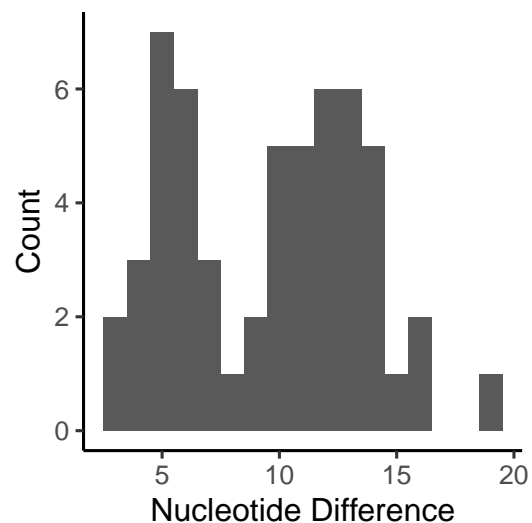
IGHV3-11*06

76 sequences assigned
No exact matches.



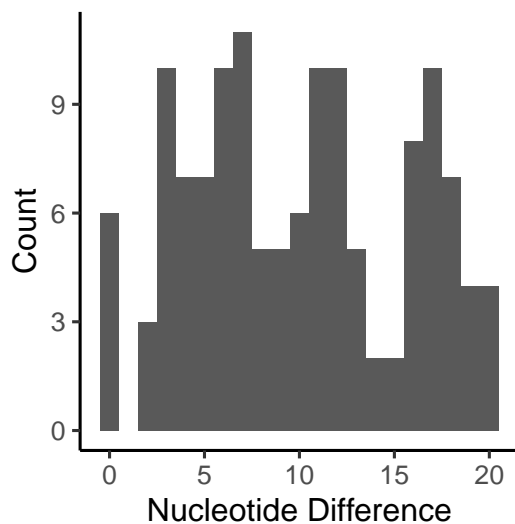
IGHV3-13*04

62 sequences assigned
No exact matches.



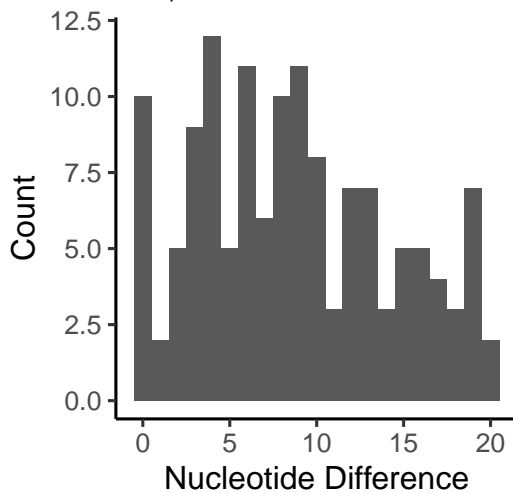
IGHV3-9*01

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



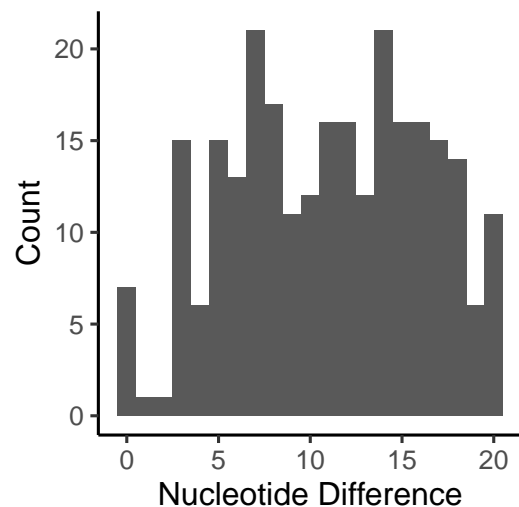
IGHV3-11*03_05

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



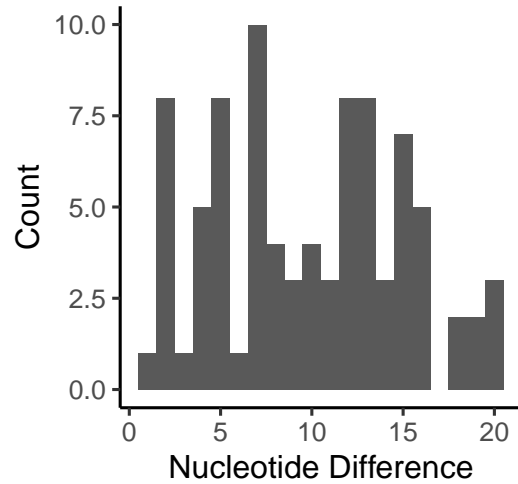
IGHV3-15*01_02

321 sequences assigned
7 (2.2%) exact matches, in which:
5 unique CDR3
2 unique J



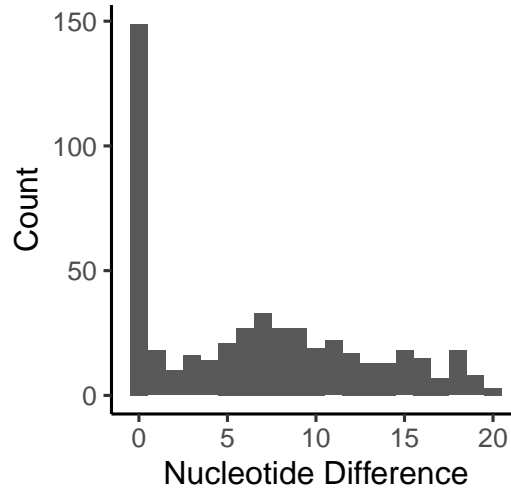
IGHV3-20*03_04

100 sequences assigned
No exact matches.



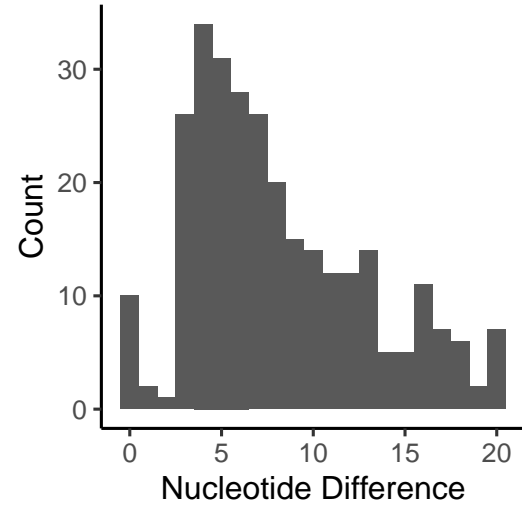
IGHV3-33*01

565 sequences assigned
149 (26.4%) exact matches, in which:
107 unique CDR3
6 unique J



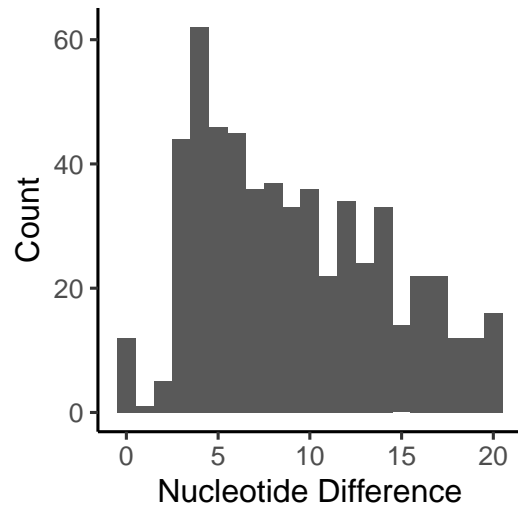
IGHV3-48*01

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



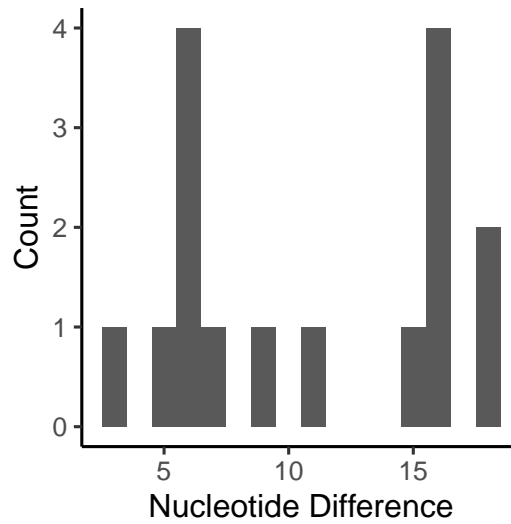
IGHV3-21*01_02

713 sequences assigned
12 (1.7%) exact matches, in which:
9 unique CDR3
4 unique J



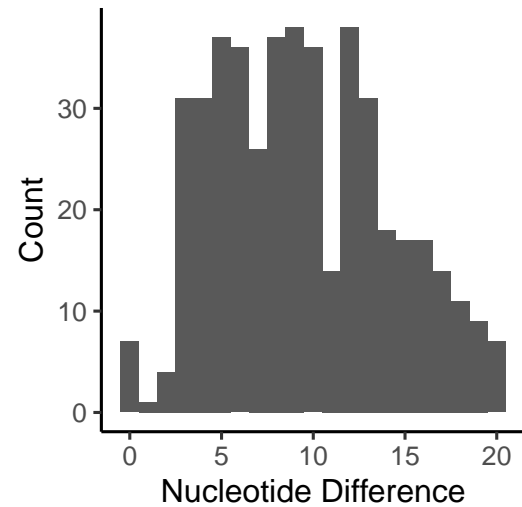
IGHV3-43*01

18 sequences assigned
No exact matches.



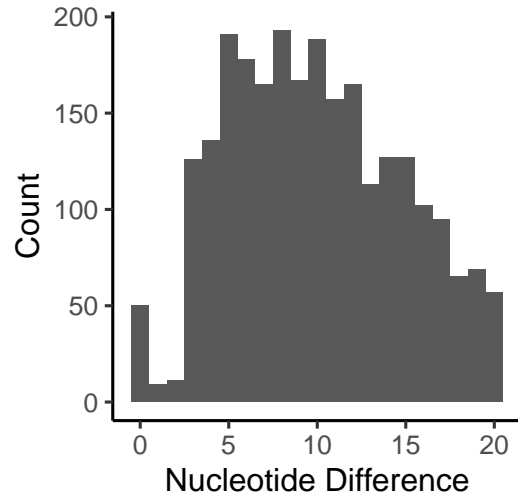
IGHV3-48*03

533 sequences assigned
7 (1.3%) exact matches, in which:
6 unique CDR3
3 unique J



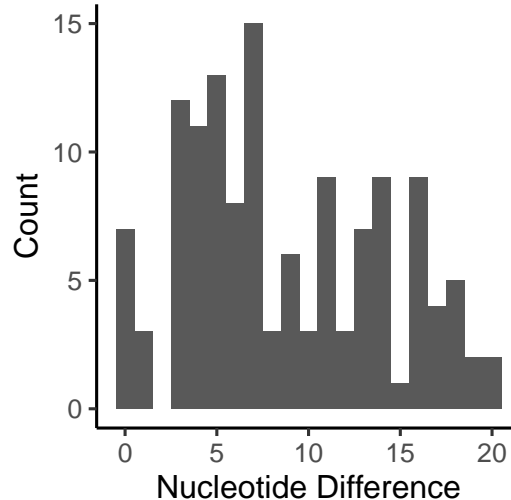
IGHV3-23*01_04

2994 sequences assigned
50 (1.7%) exact matches, in which:
35 unique CDR3
5 unique J



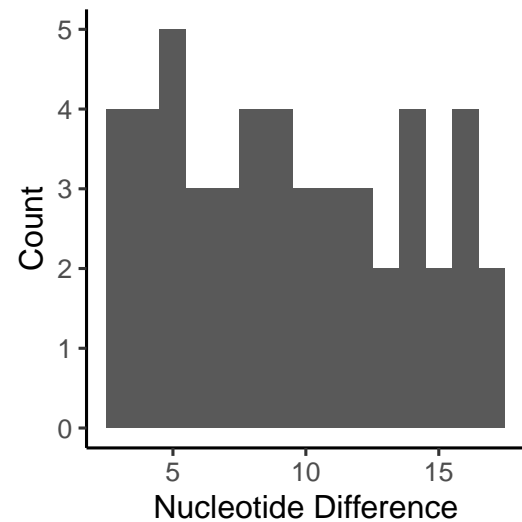
IGHV3-43*02

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



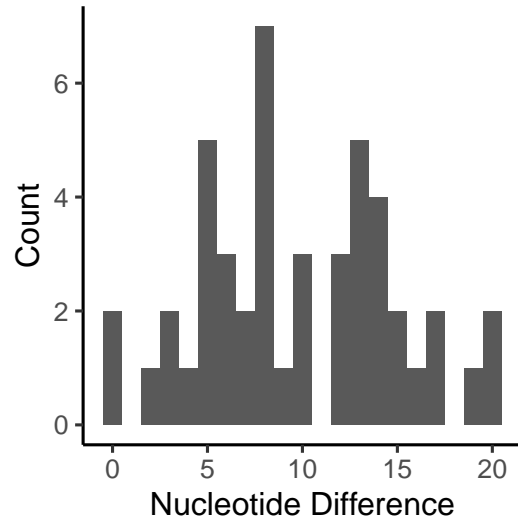
IGHV3-49*04

64 sequences assigned
No exact matches.



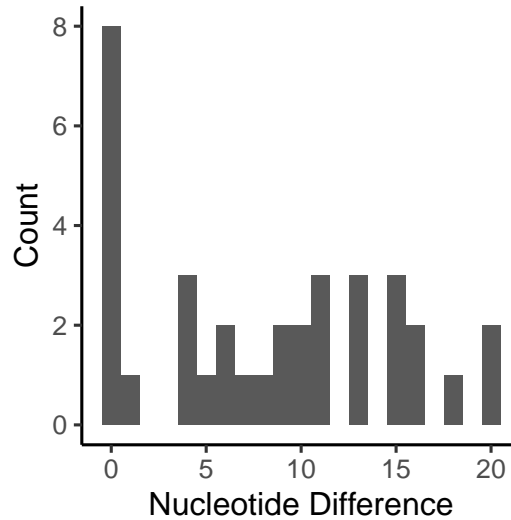
IGHV3-49*03_05

55 sequences assigned
2 (3.6%) exact matches, in which:
2 unique CDR3
2 unique J



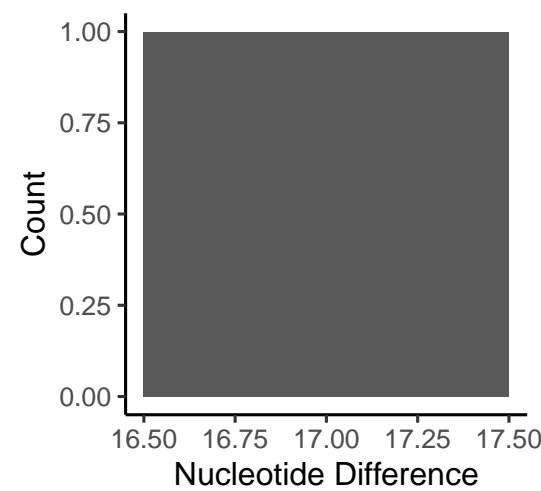
IGHV3-64*01

37 sequences assigned
8 (21.6%) exact matches, in which:
5 unique CDR3
1 unique J



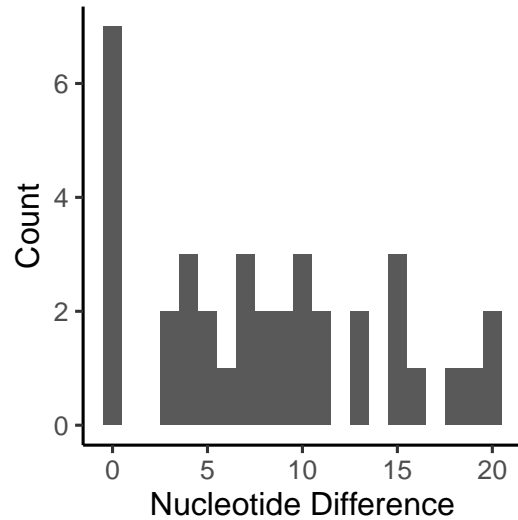
IGHV3-69-1*01

2 sequences assigned
No exact matches.



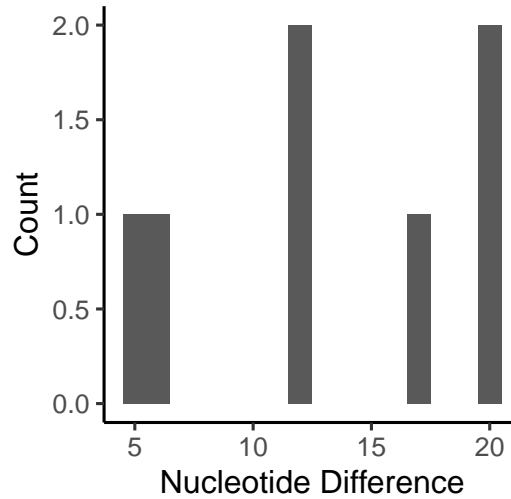
IGHV3-53*04

41 sequences assigned
7 (17.1%) exact matches, in which:
5 unique CDR3
2 unique J



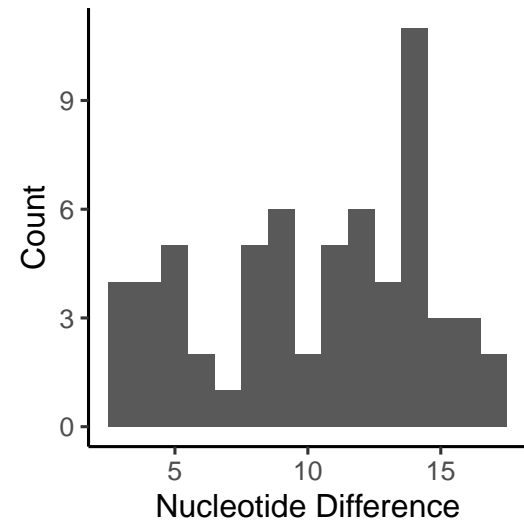
IGHV3-64*02_07

8 sequences assigned
No exact matches.



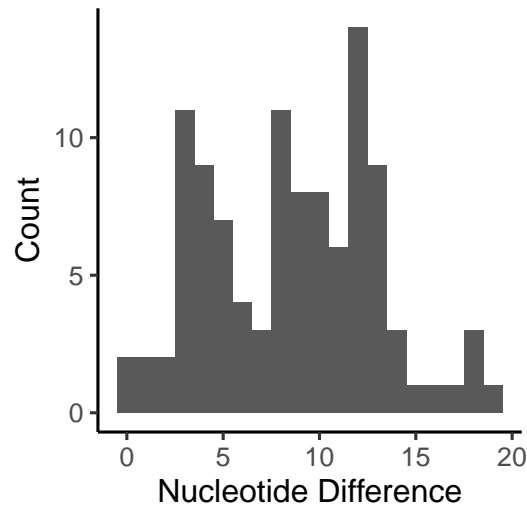
IGHV3-72*01

65 sequences assigned
No exact matches.



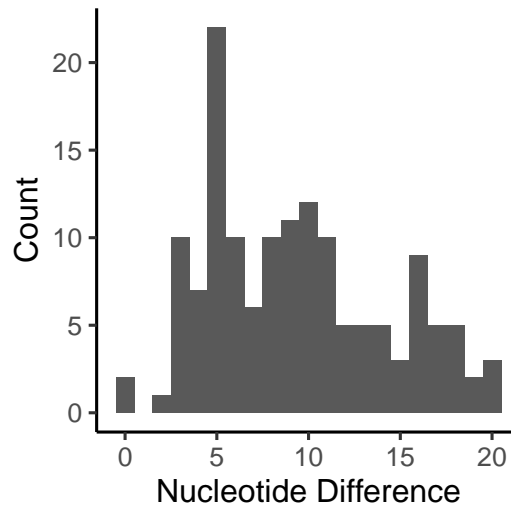
IGHV3-53*01_02

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



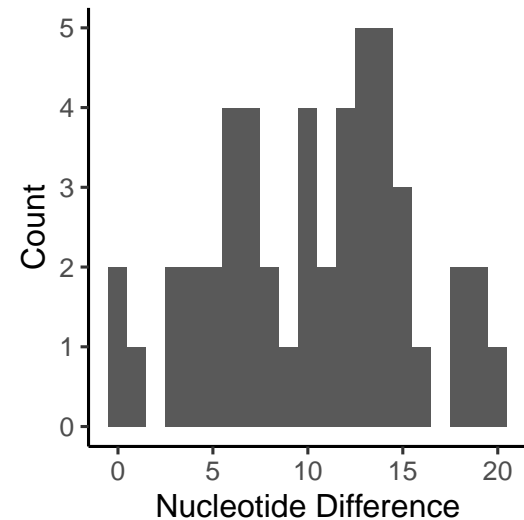
IGHV3-66*02

157 sequences assigned
2 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



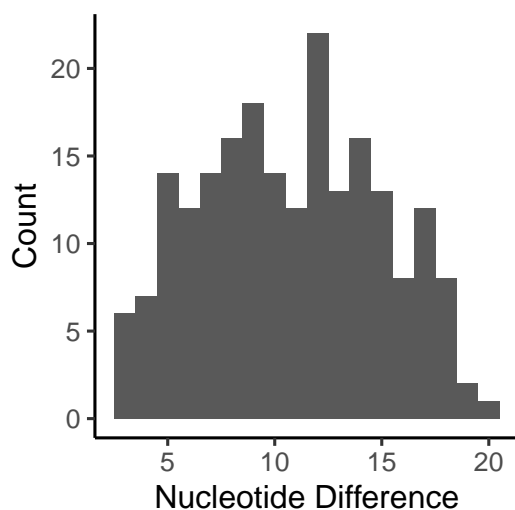
IGHV3-73*01_02

57 sequences assigned
2 (3.5%) exact matches, in which:
2 unique CDR3
2 unique J



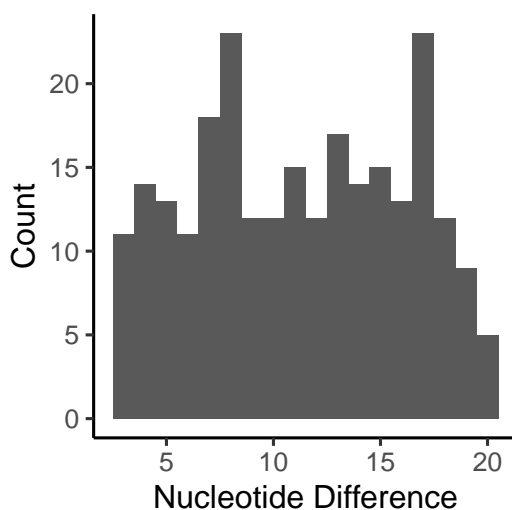
IGHV3-74*03

232 sequences assigned
No exact matches.



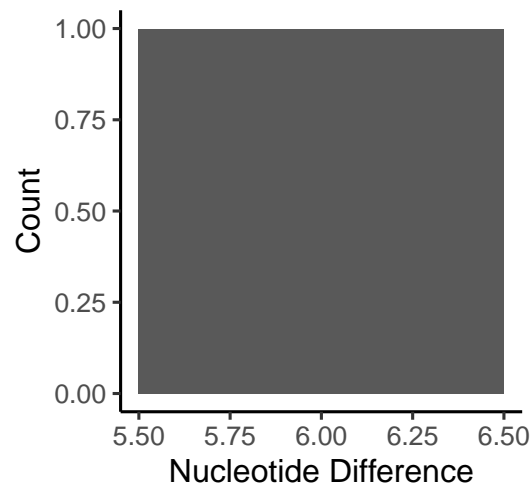
IGHV4-4*07

284 sequences assigned
No exact matches.



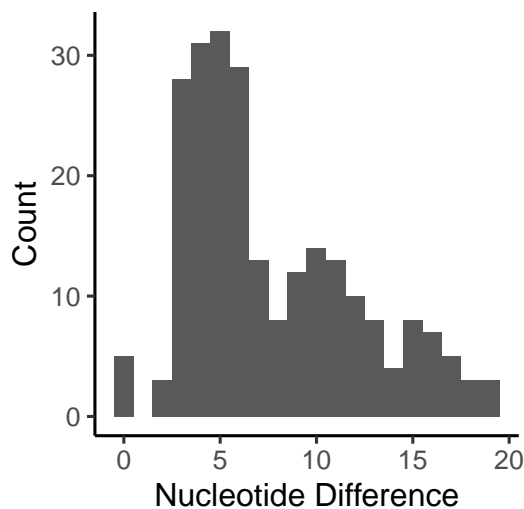
IGHV4-28*02_05

2 sequences assigned
No exact matches.



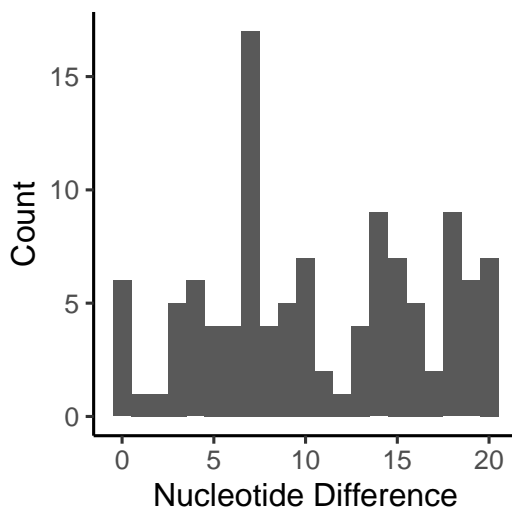
IGHV3-74*01_02

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



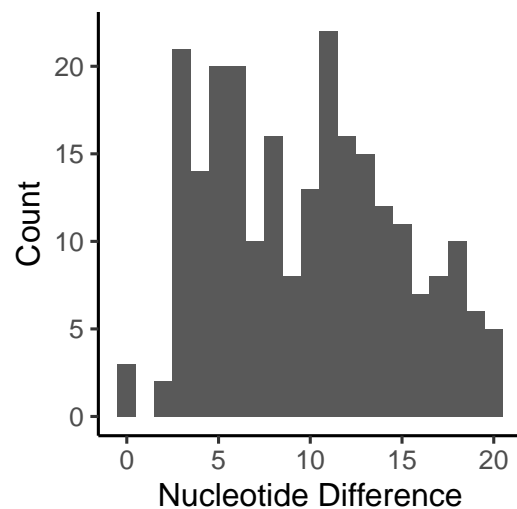
IGHV4-4*02_03

142 sequences assigned
6 (4.2%) exact matches, in which:
4 unique CDR3
2 unique J



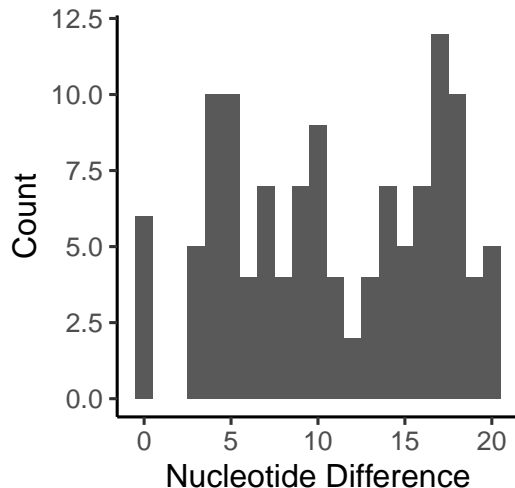
IGHV4-31*02

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



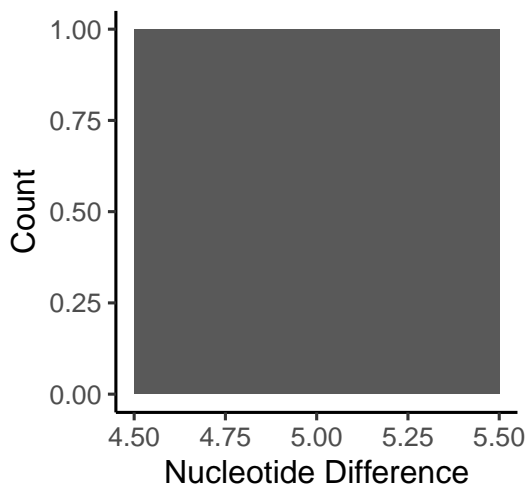
IGHV3-64D*06

186 sequences assigned
6 (3.2%) exact matches, in which:
5 unique CDR3
2 unique J



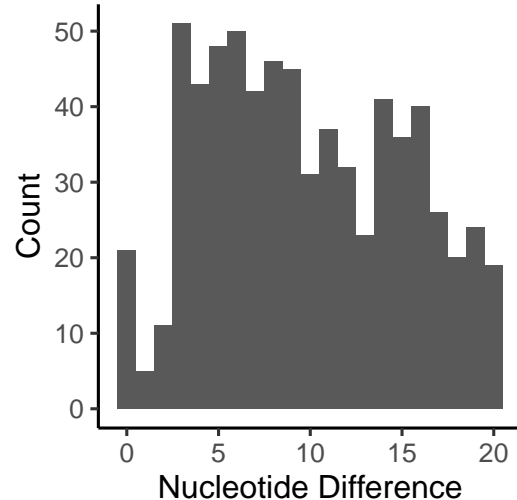
IGHV4-28*01_07

3 sequences assigned
No exact matches.



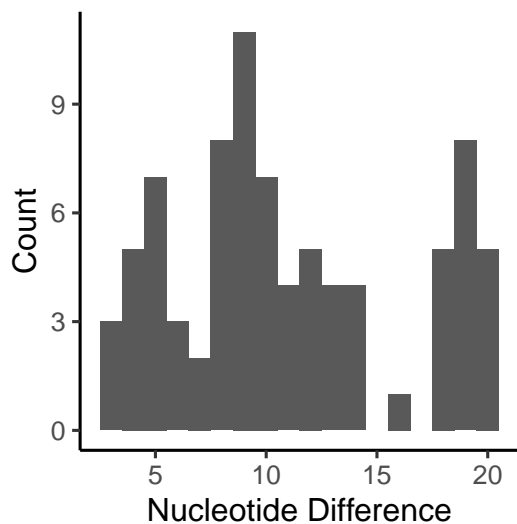
IGHV4-34*01_02

828 sequences assigned
21 (2.5%) exact matches, in which:
13 unique CDR3
5 unique J



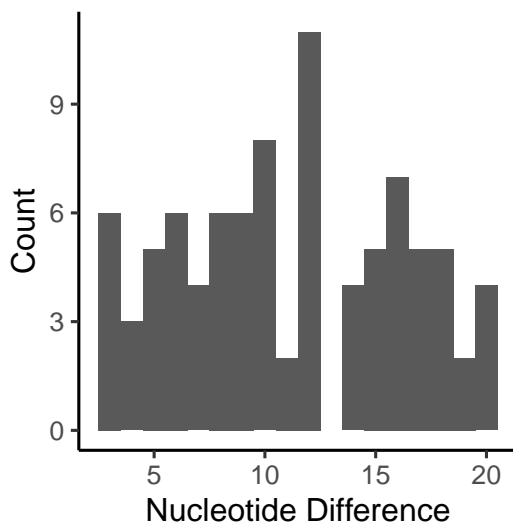
IGHV4-39*02

113 sequences assigned
No exact matches.



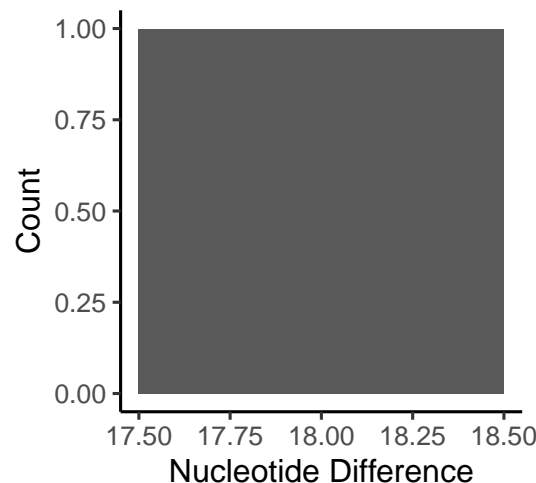
IGHV4-59*11

118 sequences assigned
No exact matches.



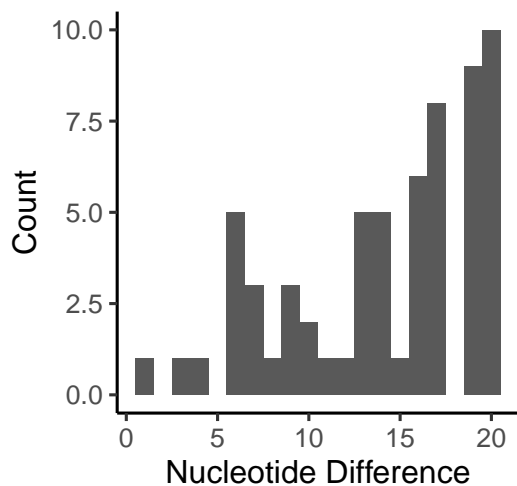
IGHV4/OR15-8*01

2 sequences assigned
No exact matches.



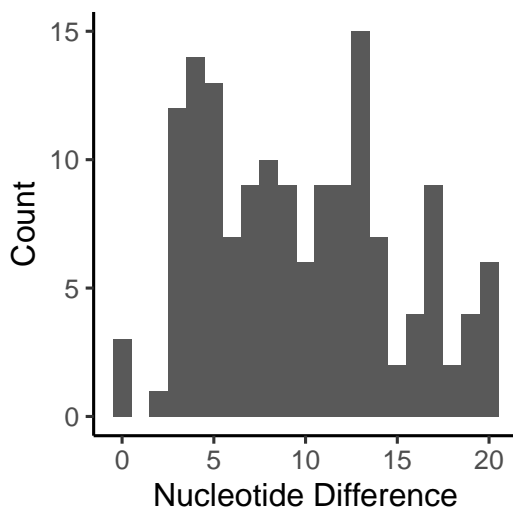
IGHV4-59*02

117 sequences assigned
No exact matches.



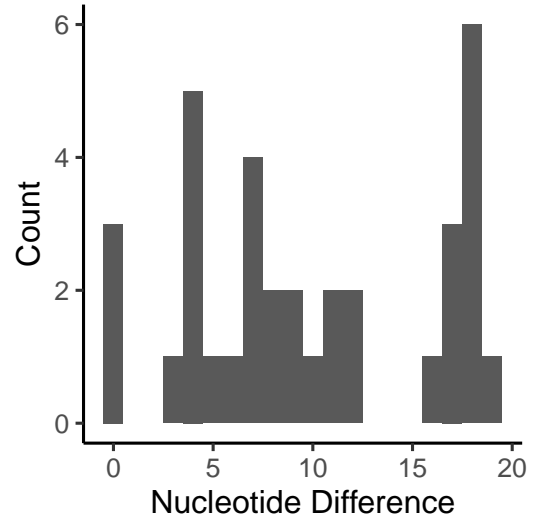
IGHV4-61*01

205 sequences assigned
3 (1.5%) exact matches, in which:
2 unique CDR3
2 unique J



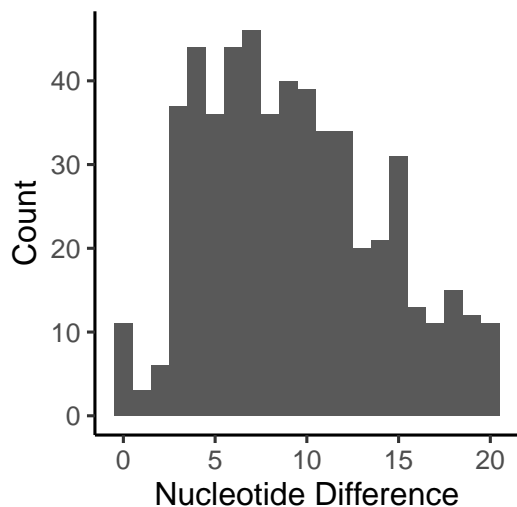
IGHV5-10-1*01_03

46 sequences assigned
3 (6.5%) exact matches, in which:
3 unique CDR3
2 unique J



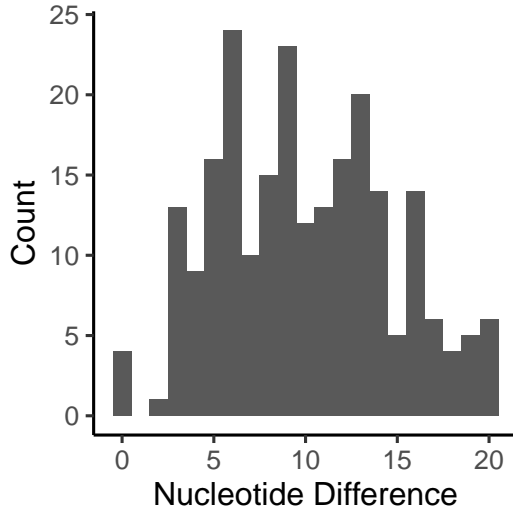
IGHV4-59*01_07

651 sequences assigned
11 (1.7%) exact matches, in which:
7 unique CDR3
3 unique J



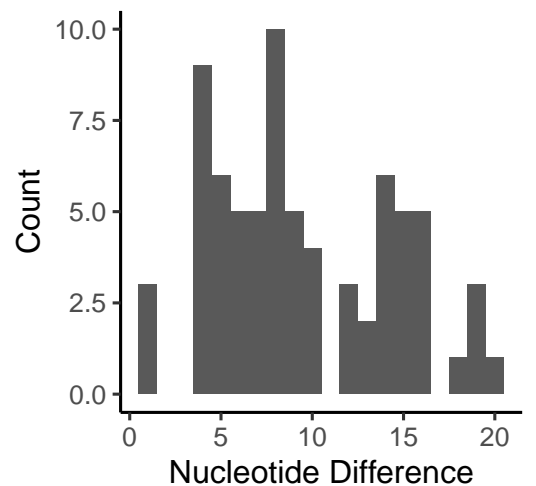
IGHV4-61*02

279 sequences assigned
4 (1.4%) exact matches, in which:
3 unique CDR3
2 unique J



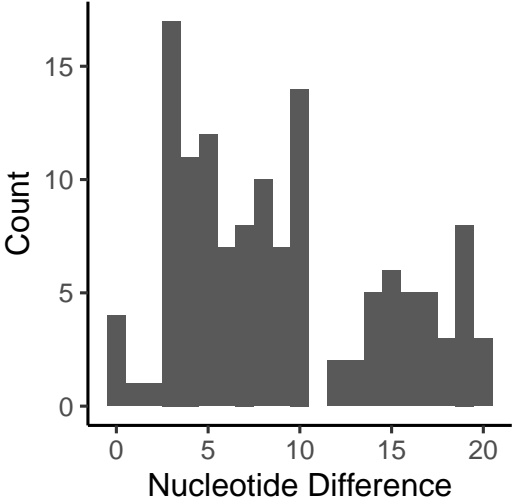
IGHV5-51*07

81 sequences assigned
No exact matches.



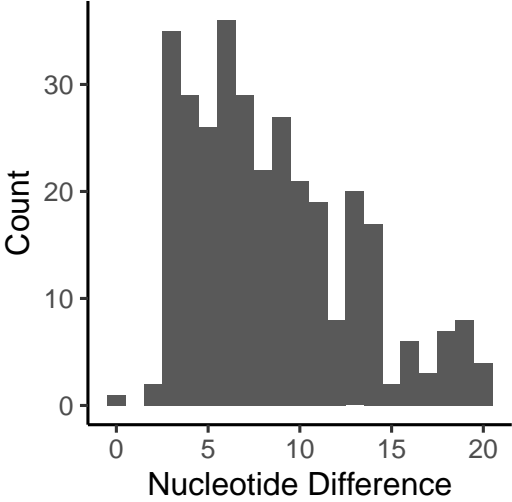
IGHV5-51*01_03

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

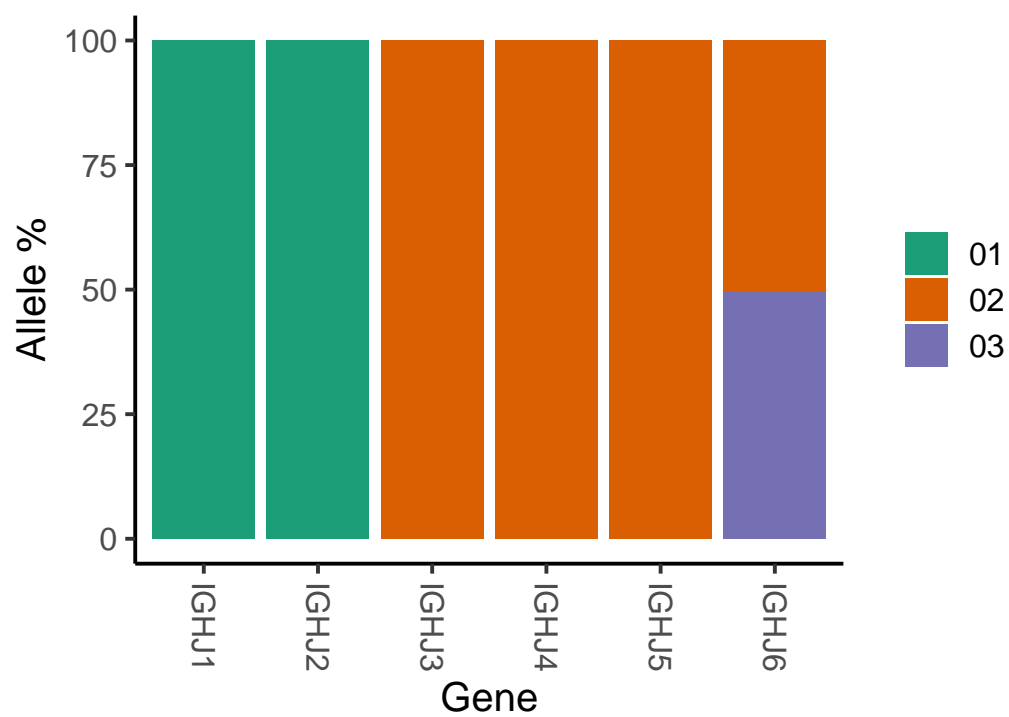


IGHV6-1*01_02

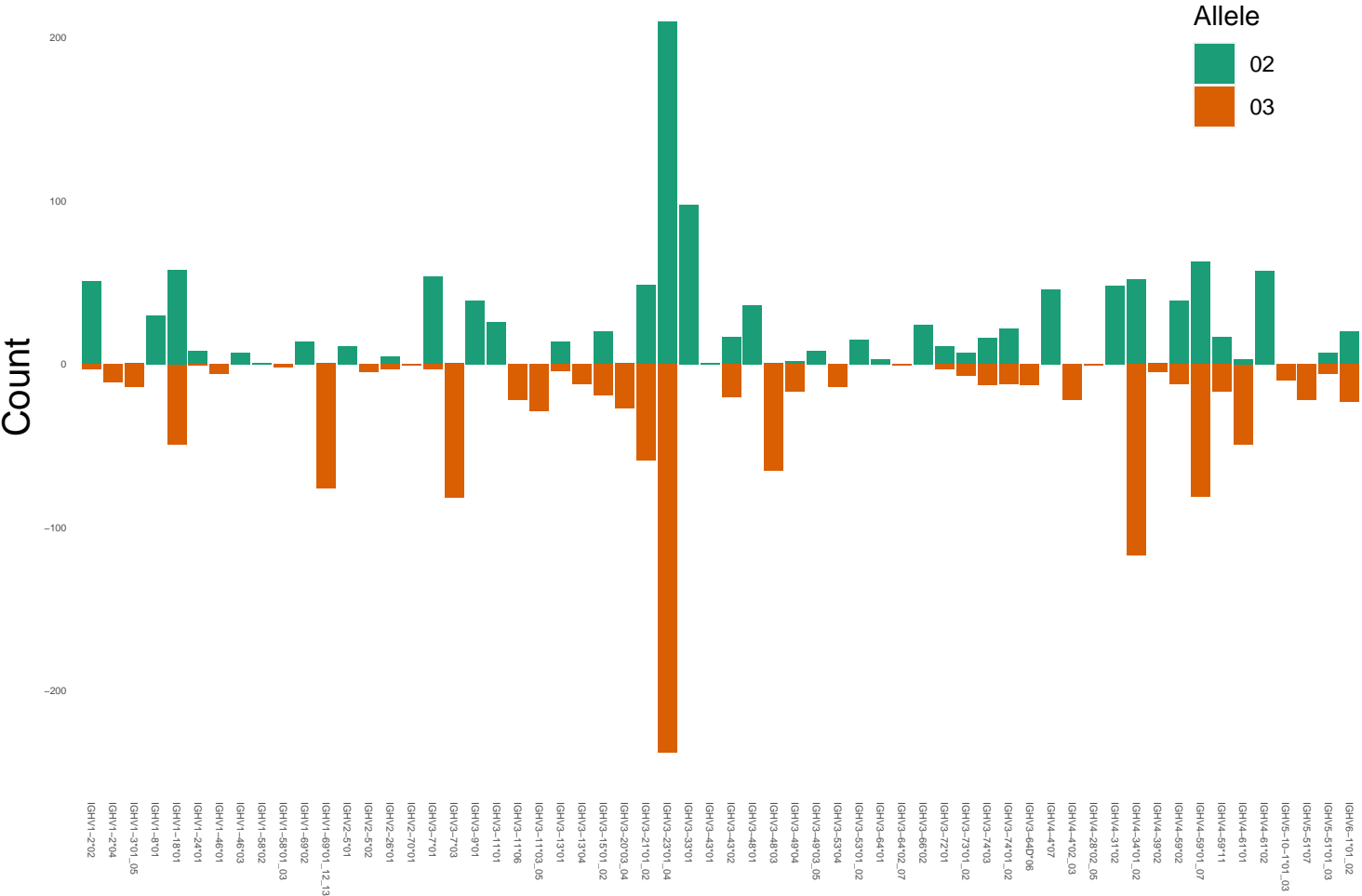
336 sequences assigned
1 (0.3%) exact matches, in which:
1 unique CDR3
1 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]