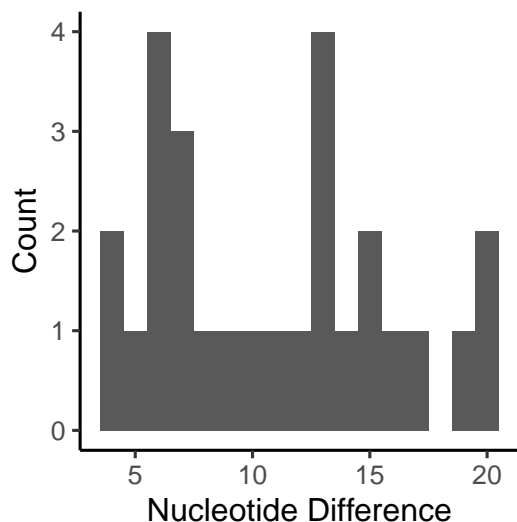


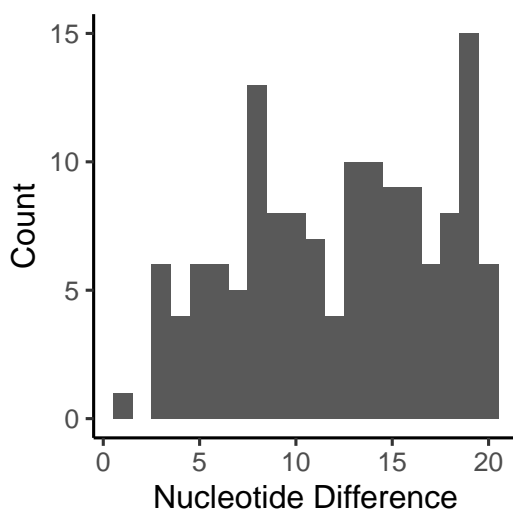
IGHV1-2*04

48 sequences assigned
No exact matches.



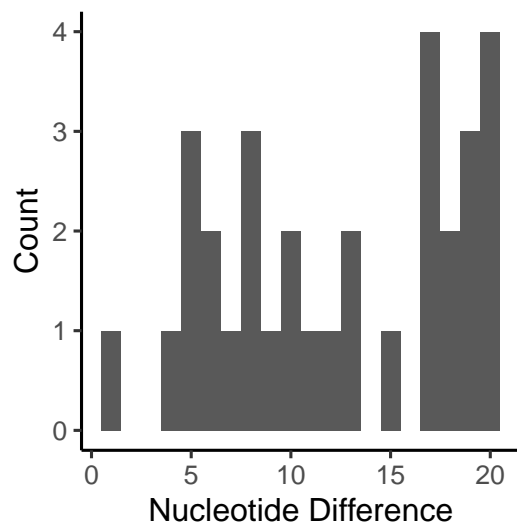
IGHV1-3*01_05

194 sequences assigned
No exact matches.



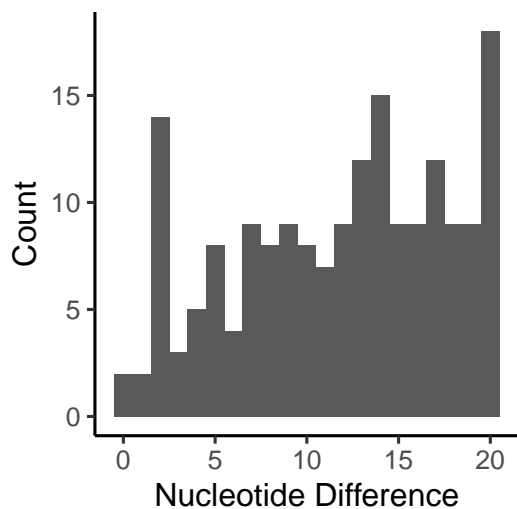
IGHV1-24*01

71 sequences assigned
No exact matches.



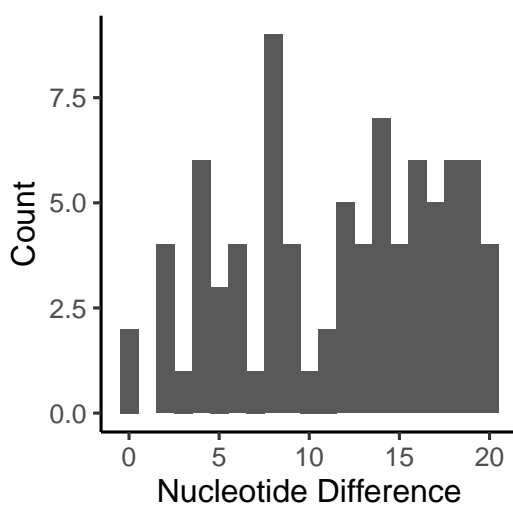
IGHV1-2*06

304 sequences assigned
2 (0.7%) exact matches, in which:
2 unique CDR3
2 unique J



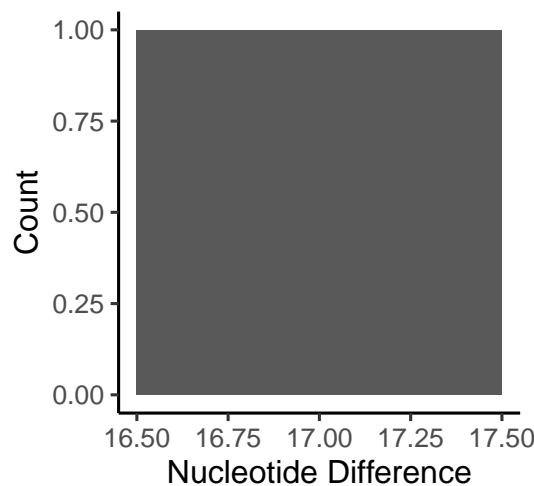
IGHV1-8*01

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



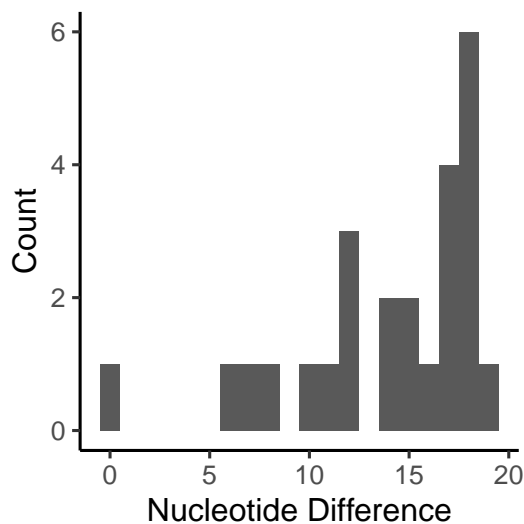
IGHV1-45*02

1 sequences assigned
No exact matches.



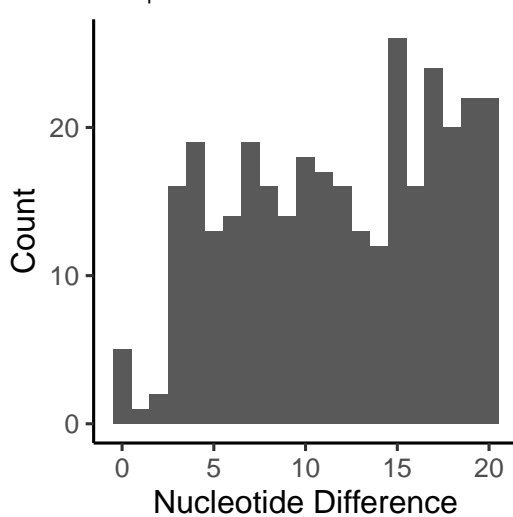
IGHV1-3*04

47 sequences assigned
1 (2.1%) exact matches, in which:
1 unique CDR3
1 unique J



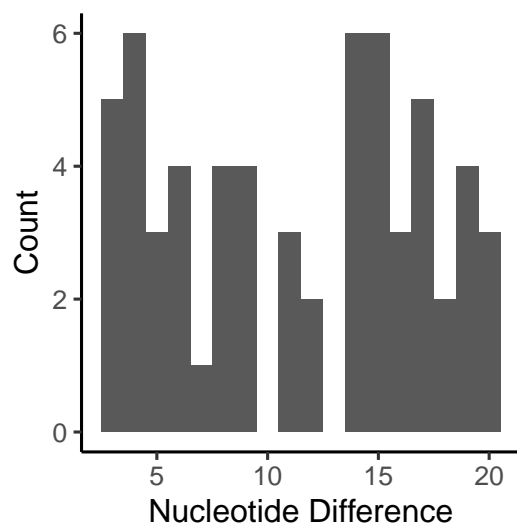
IGHV1-18*01

571 sequences assigned
5 (0.9%) exact matches, in which:
5 unique CDR3
3 unique J



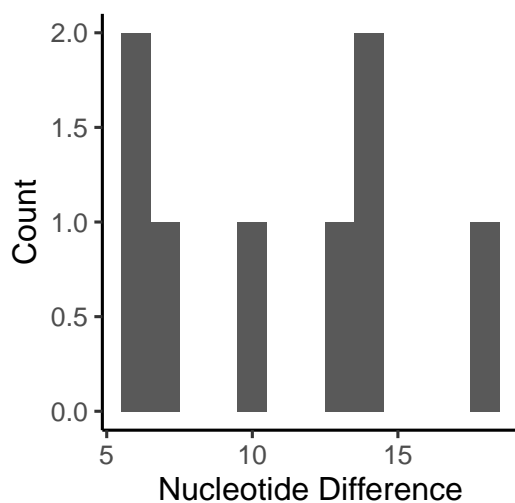
IGHV1-46*03

109 sequences assigned
No exact matches.



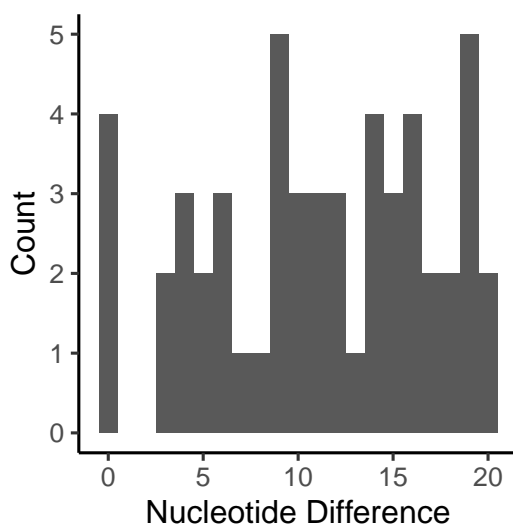
IGHV1-58*02

11 sequences assigned
No exact matches.



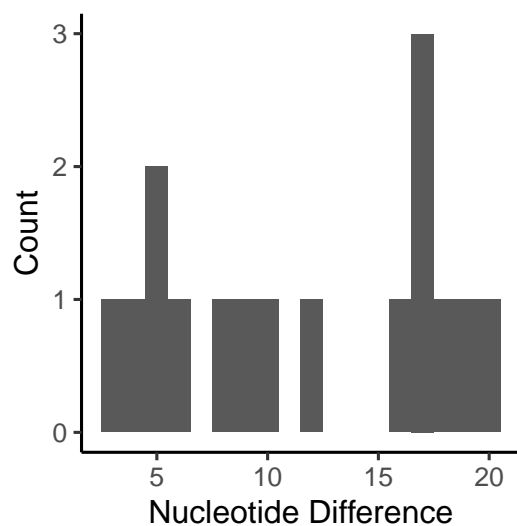
IGHV1-69*04_09

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



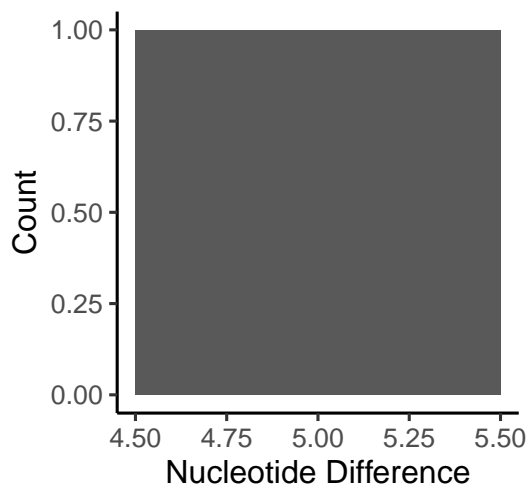
IGHV2-70*01

21 sequences assigned
No exact matches.



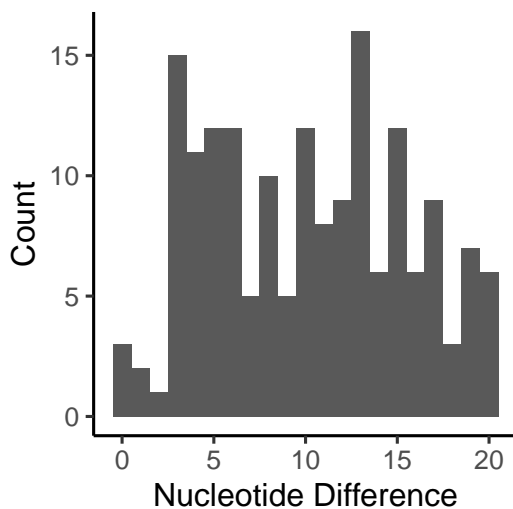
IGHV1-58*01_03

5 sequences assigned
No exact matches.



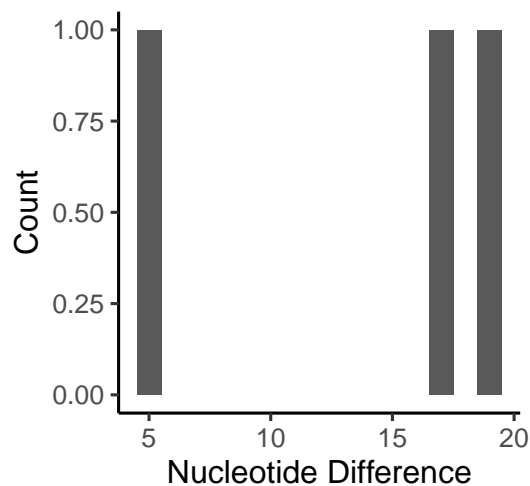
IGHV2-5*02

235 sequences assigned
3 (1.3%) exact matches, in which:
3 unique CDR3
2 unique J



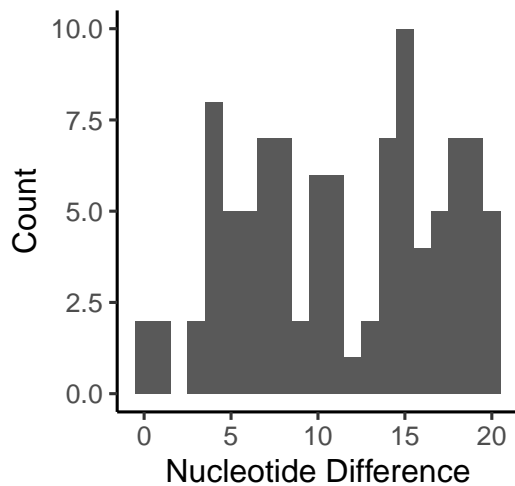
IGHV2-70*13

9 sequences assigned
No exact matches.



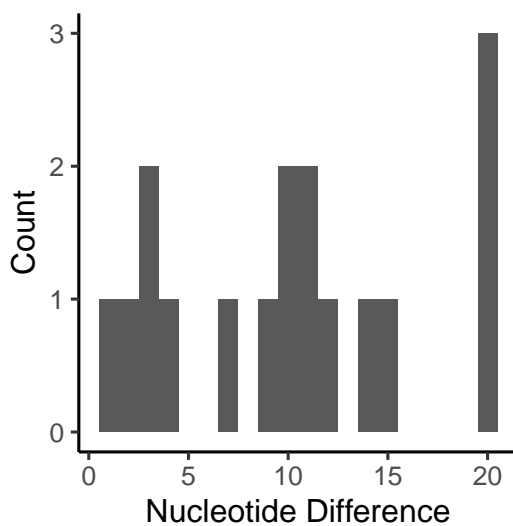
IGHV1-69*01_12_13

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



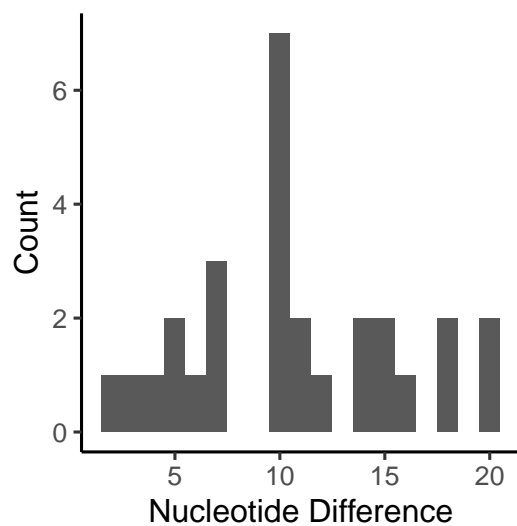
IGHV2-26*01

22 sequences assigned
No exact matches.



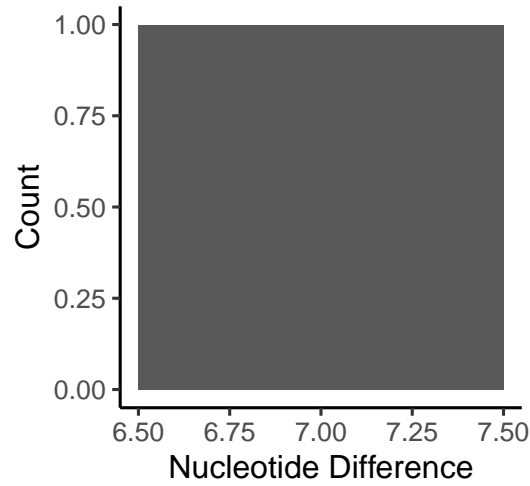
IGHV2-70*11_15

34 sequences assigned
No exact matches.



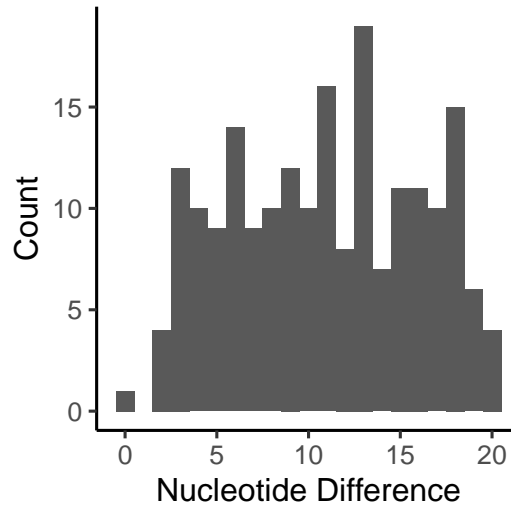
IGHV2-70D*04

1 sequences assigned
No exact matches.



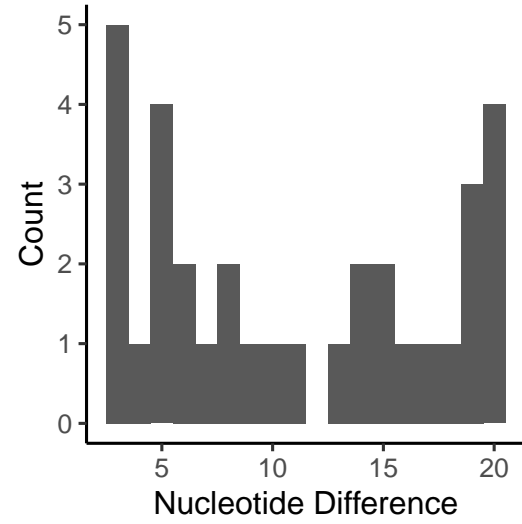
IGHV3-9*01

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



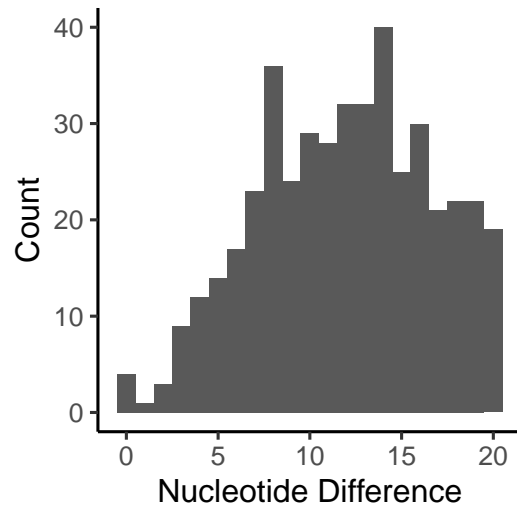
IGHV3-13*01

64 sequences assigned
No exact matches.



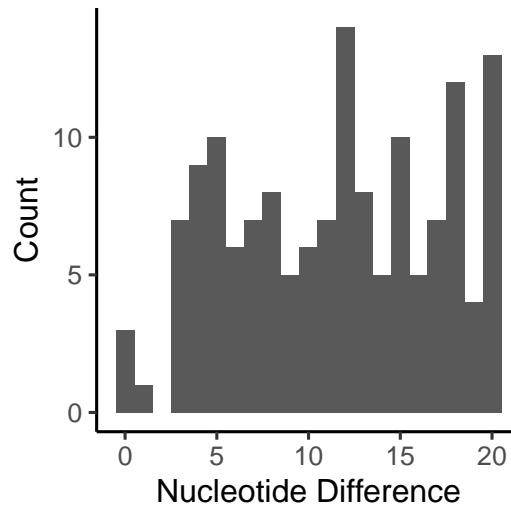
IGHV3-7*01

556 sequences assigned
4 (0.7%) exact matches, in which:
4 unique CDR3
2 unique J



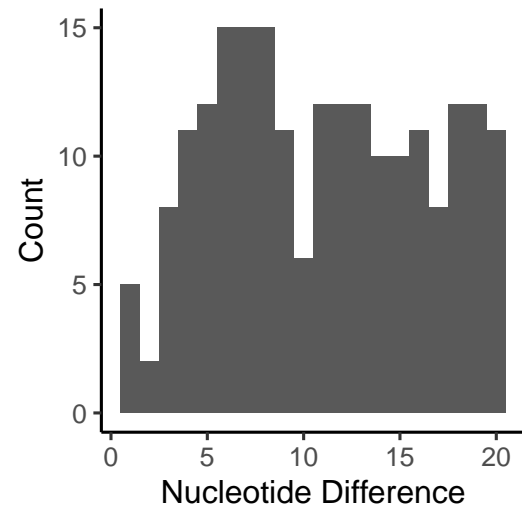
IGHV3-11*01

231 sequences assigned
3 (1.3%) exact matches, in which:
3 unique CDR3
2 unique J



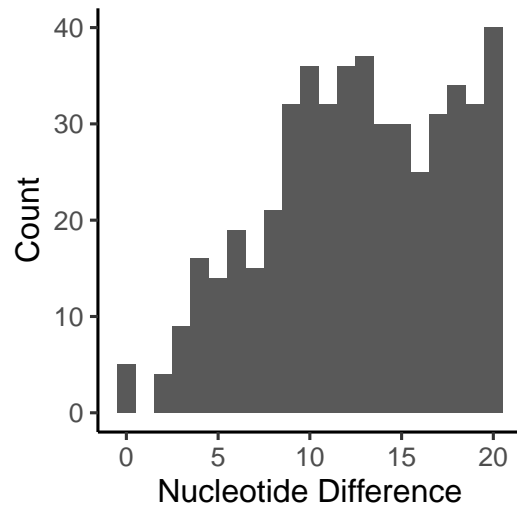
IGHV3-15*07

333 sequences assigned
No exact matches.



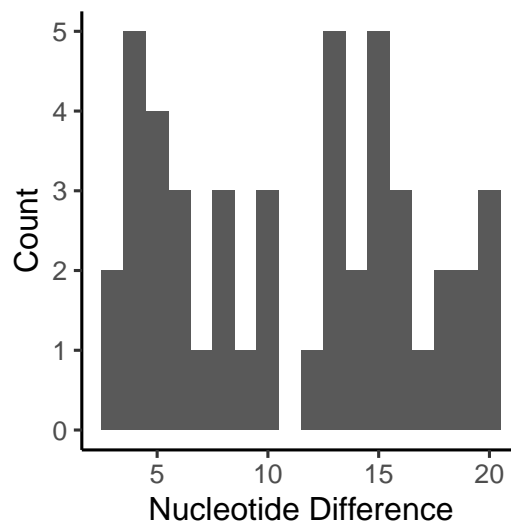
IGHV3-7*03

719 sequences assigned
5 (0.7%) exact matches, in which:
5 unique CDR3
3 unique J



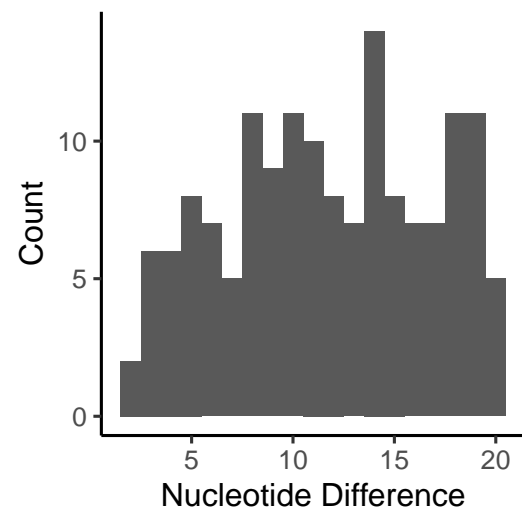
IGHV3-11*06

66 sequences assigned
No exact matches.



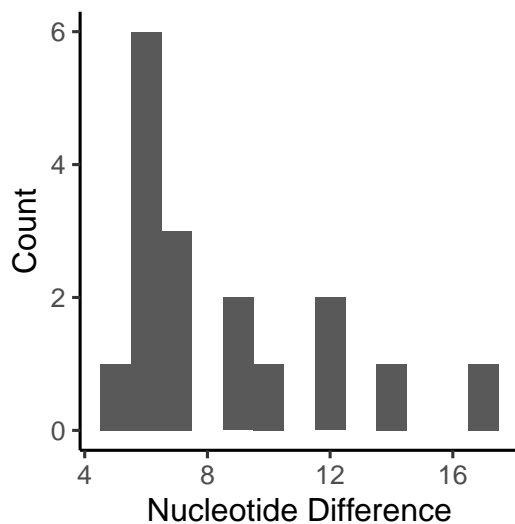
IGHV3-15*01_02

228 sequences assigned
No exact matches.



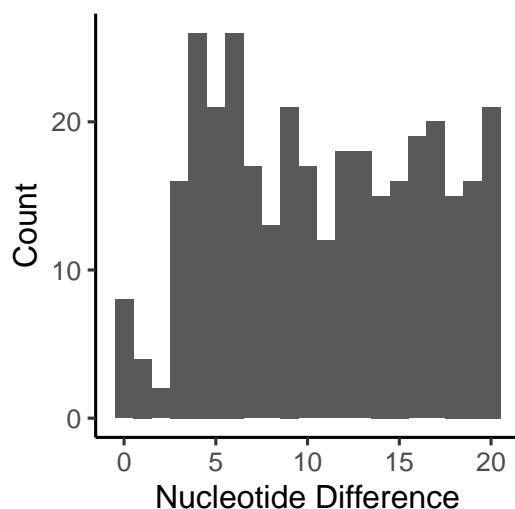
IGHV3-20*01_02

28 sequences assigned
No exact matches.



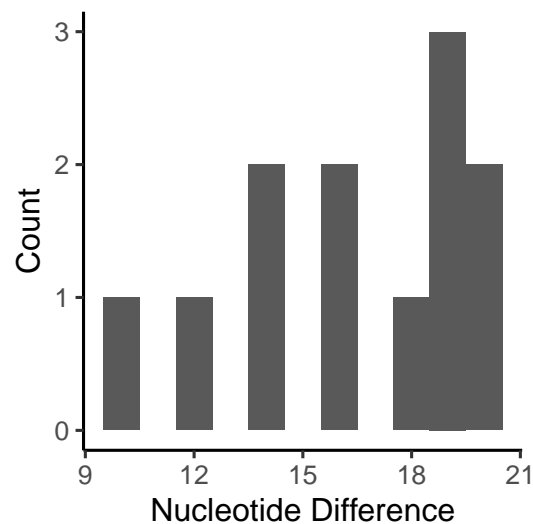
IGHV3-21*01_02

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



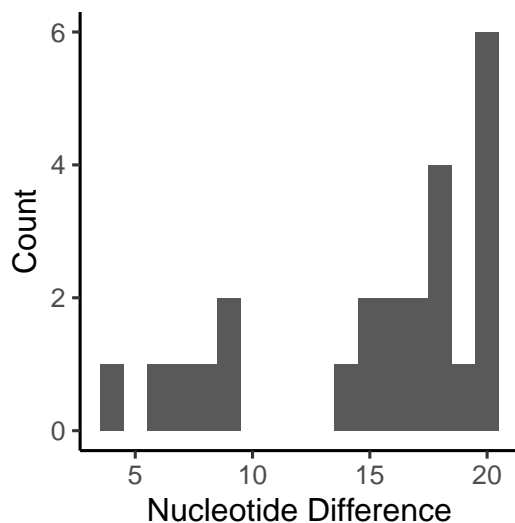
IGHV3-33*03

25 sequences assigned
No exact matches.



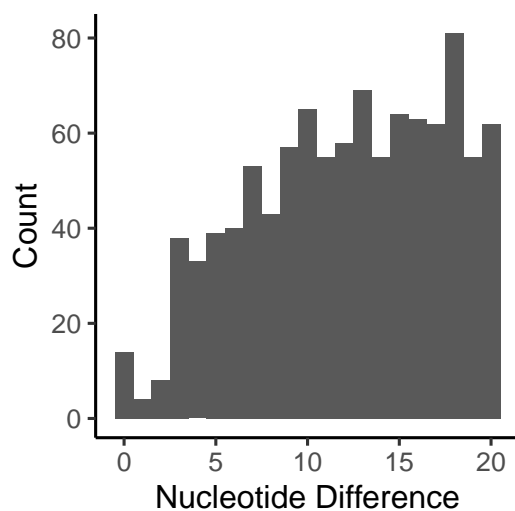
IGHV3-20*03_04

51 sequences assigned
No exact matches.



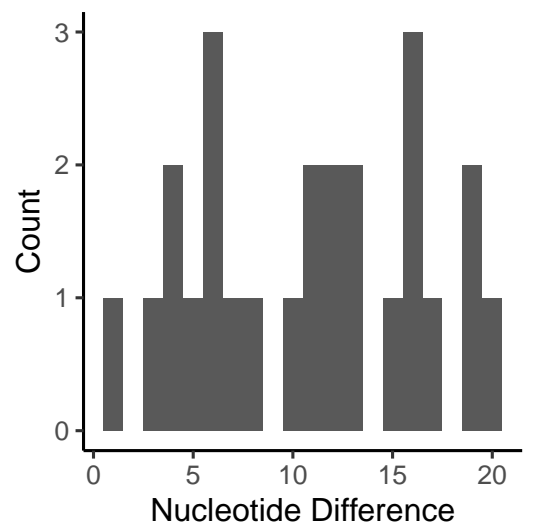
IGHV3-23*01_04

1813 sequences assigned
14 (0.8%) exact matches, in which:
13 unique CDR3
4 unique J



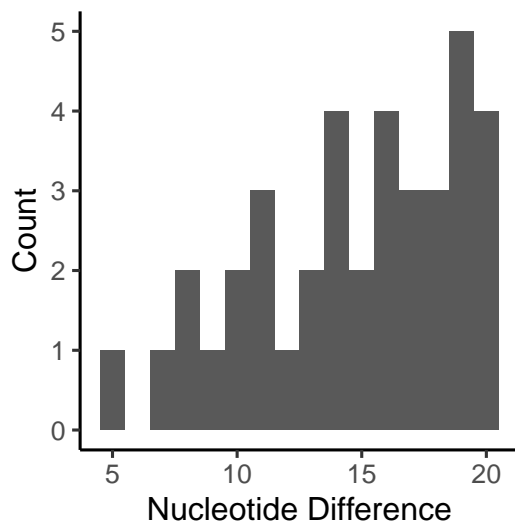
IGHV3-43*01

34 sequences assigned
No exact matches.



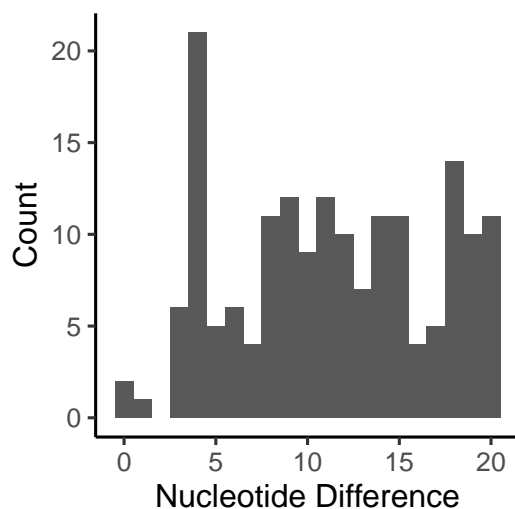
IGHV3-21*06

96 sequences assigned
No exact matches.



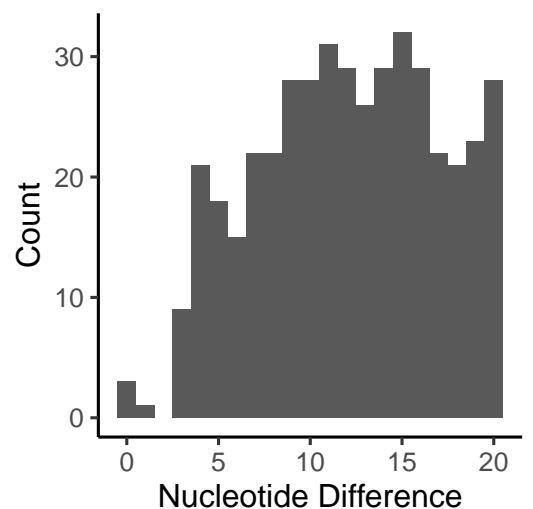
IGHV3-33*01

263 sequences assigned
2 (0.8%) exact matches, in which:
2 unique CDR3
2 unique J



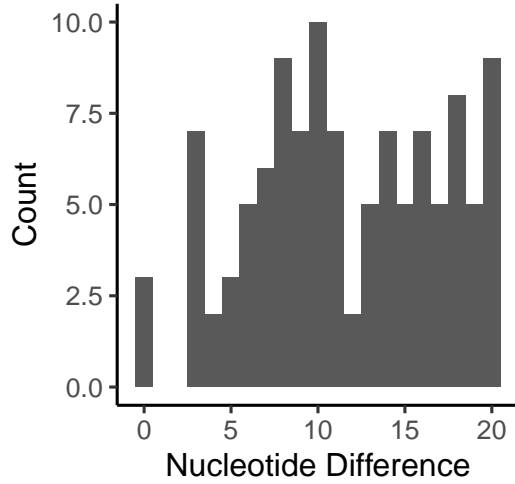
IGHV3-48*01

672 sequences assigned
3 (0.4%) exact matches, in which:
3 unique CDR3
2 unique J



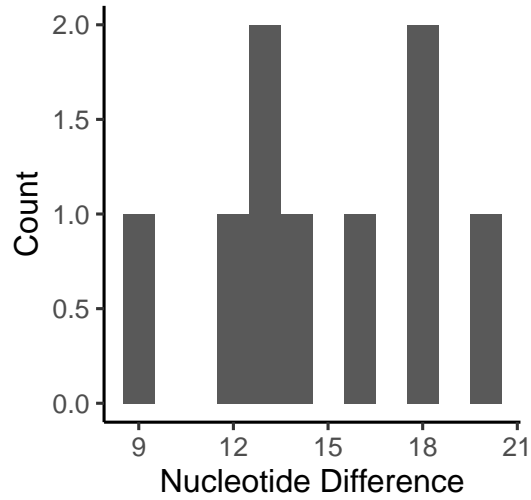
IGHV3-49*03_05

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



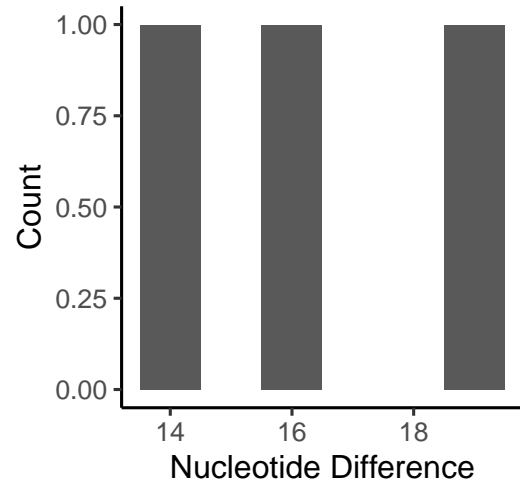
IGHV3-64*02_07

25 sequences assigned
No exact matches.



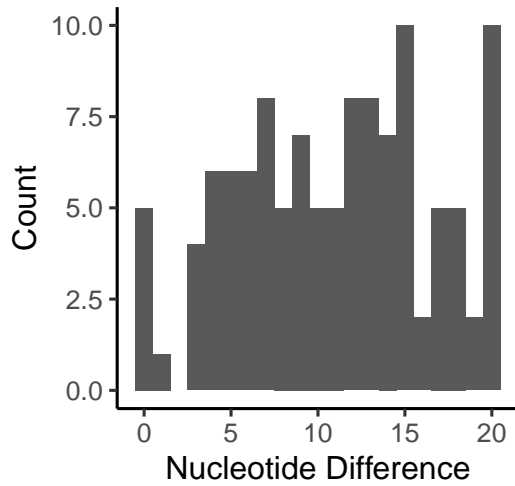
IGHV3-69-1*02

4 sequences assigned
No exact matches.



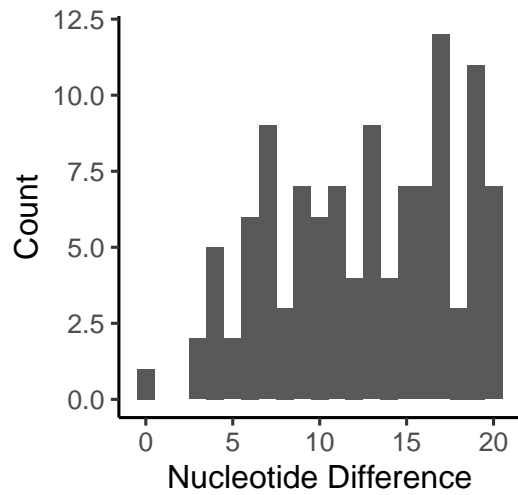
IGHV3-53*01_02

206 sequences assigned
5 (2.4%) exact matches, in which:
5 unique CDR3
4 unique J



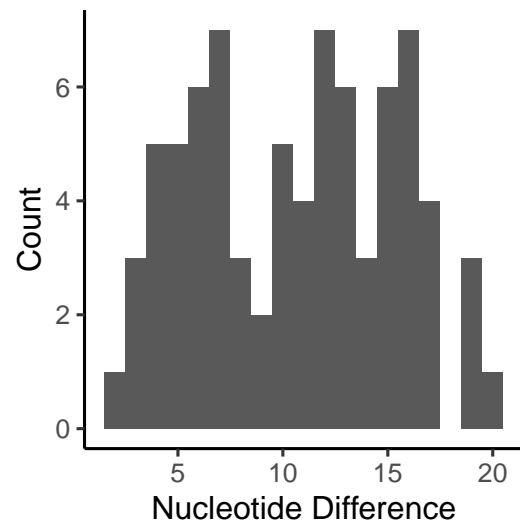
IGHV3-66*01

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



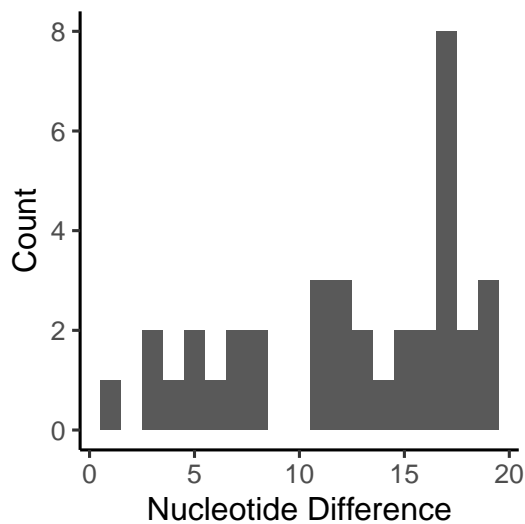
IGHV3-72*01

98 sequences assigned
No exact matches.



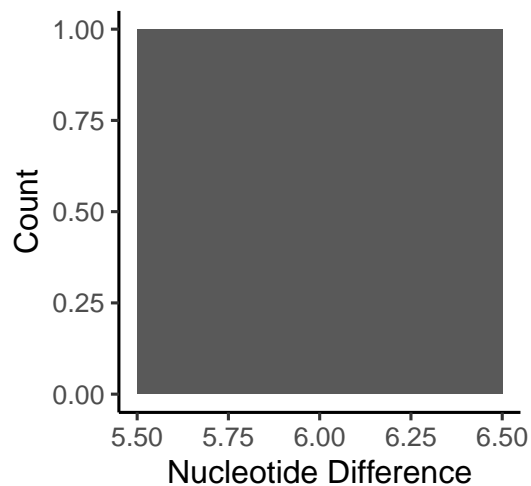
IGHV3-64*01

52 sequences assigned
No exact matches.



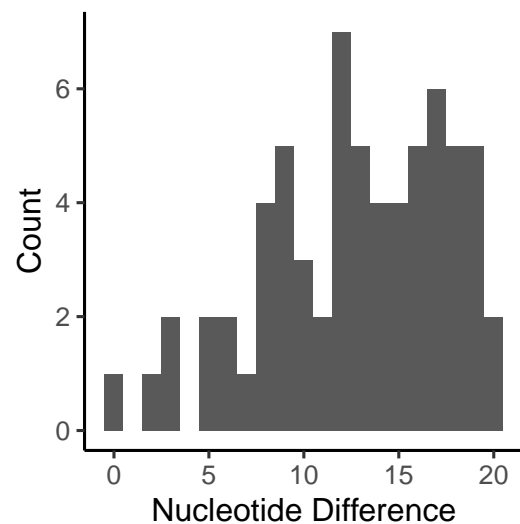
IGHV3-69-1*01

2 sequences assigned
No exact matches.



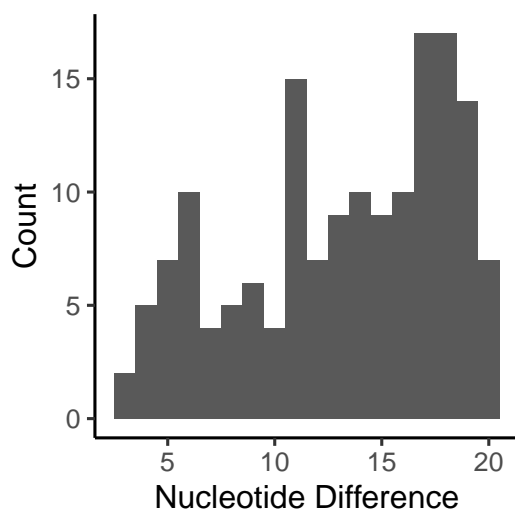
IGHV3-73*01_02

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



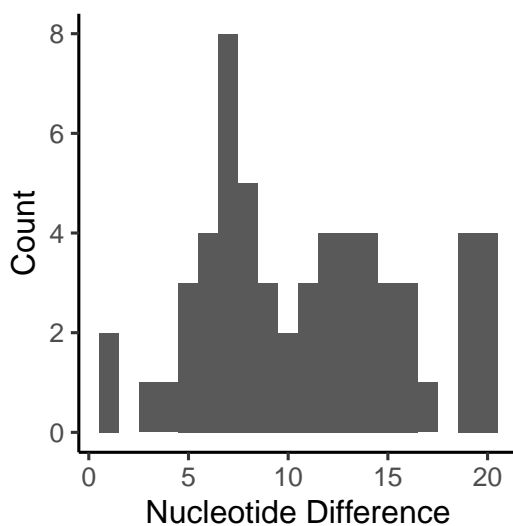
IGHV3-74*03

250 sequences assigned
No exact matches.



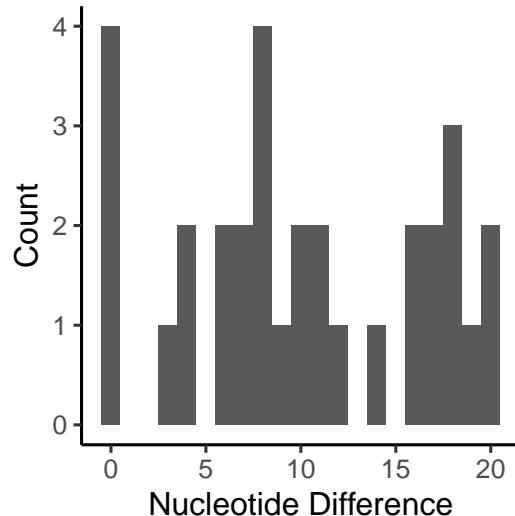
IGHV3-64D*06

106 sequences assigned
No exact matches.



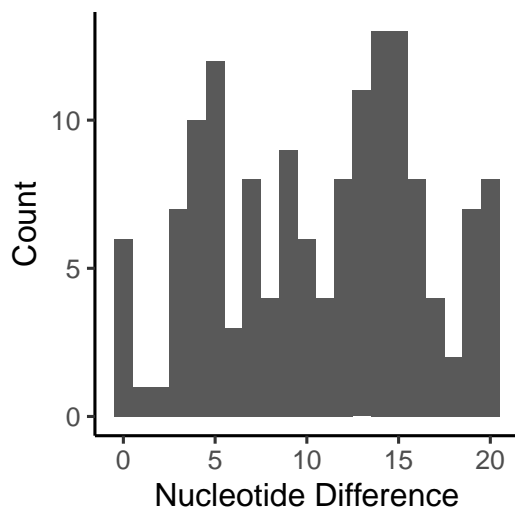
IGHV4-30-2*01

51 sequences assigned
4 (7.8%) exact matches, in which:
3 unique CDR3
2 unique J



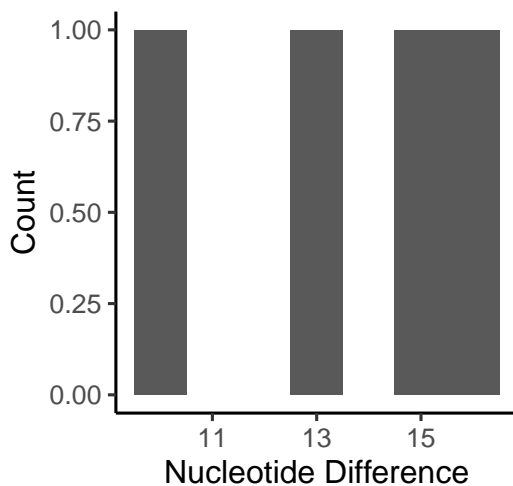
IGHV3-74*01_02

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



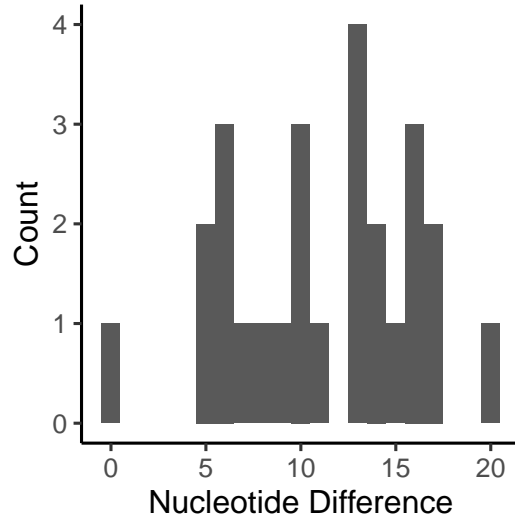
IGHV3-64D*08

13 sequences assigned
No exact matches.



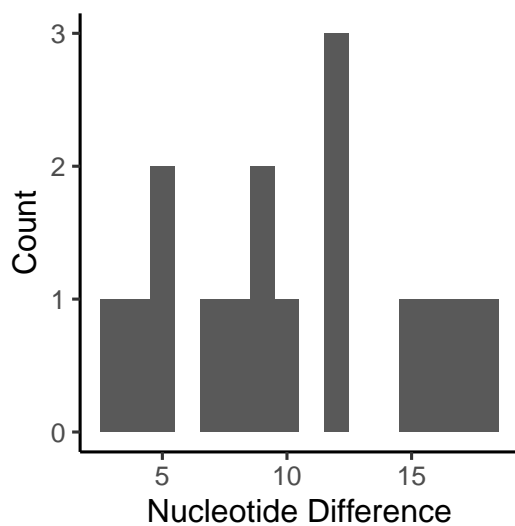
IGHV4-30-4*07

62 sequences assigned
1 (1.6%) exact matches, in which:
1 unique CDR3
1 unique J



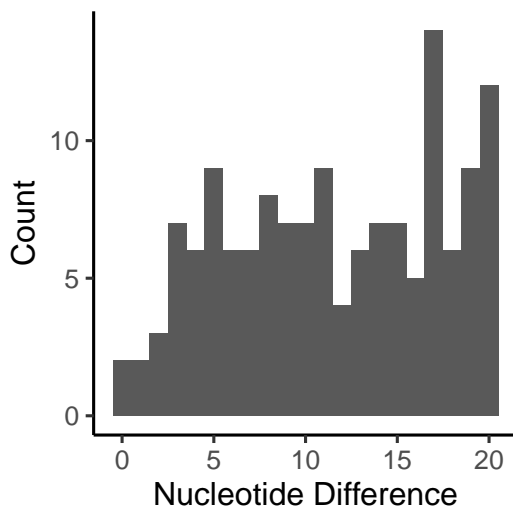
IGHV3-43D*03

23 sequences assigned
No exact matches.



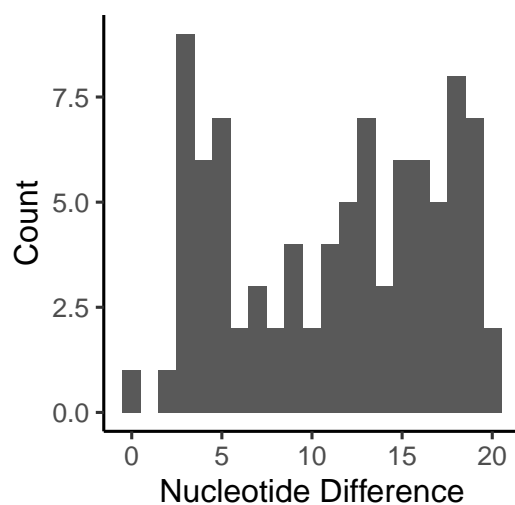
IGHV4-4*02_03

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



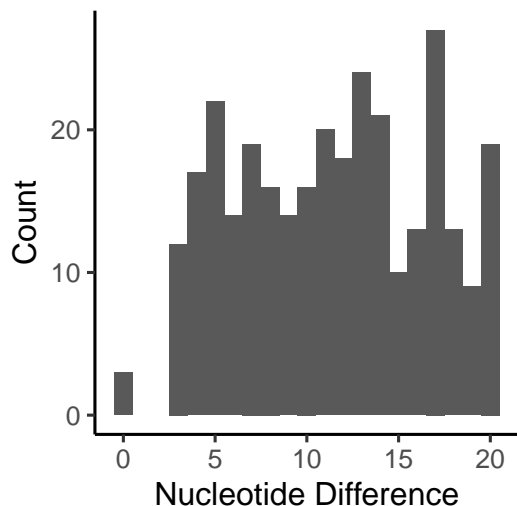
IGHV4-31*02

182 sequences assigned
1 (0.5%) exact matches, in which:
1 unique CDR3
1 unique J



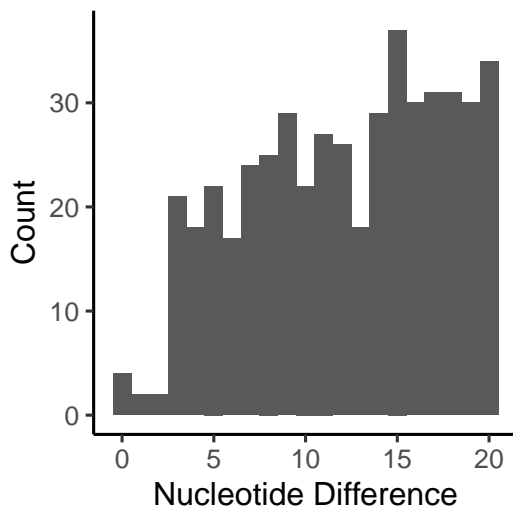
IGHV4-34*01_02

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



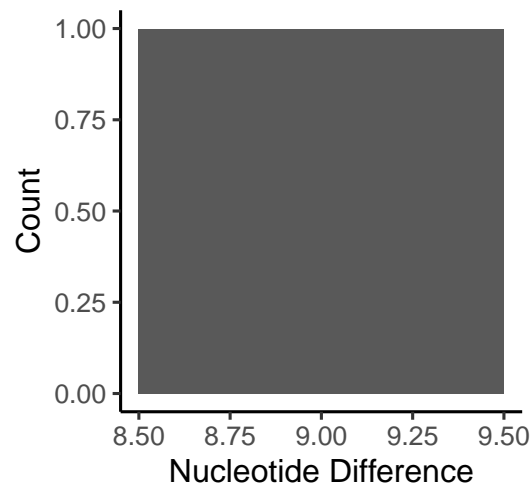
IGHV4-59*08

816 sequences assigned
4 (0.5%) exact matches, in which:
4 unique CDR3
2 unique J



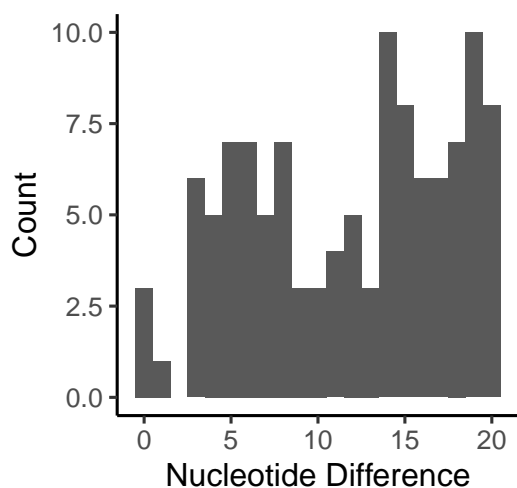
IGHV4-61*03

1 sequences assigned
No exact matches.



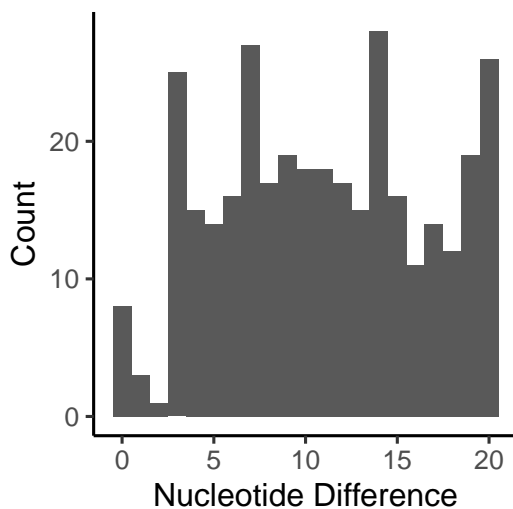
IGHV4-38-2*02

182 sequences assigned
3 (1.6%) exact matches, in which:
2 unique CDR3
2 unique J



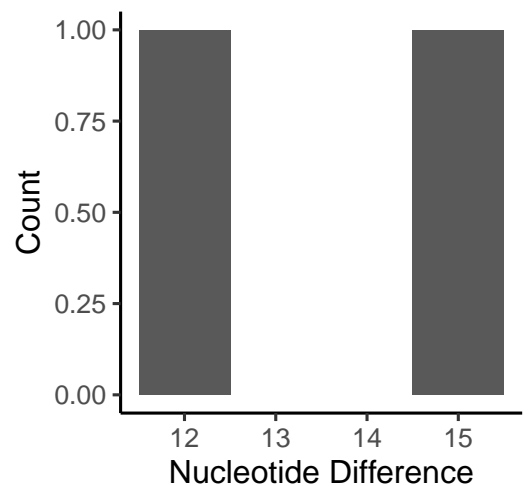
IGHV4-59*01_07

571 sequences assigned
8 (1.4%) exact matches, in which:
8 unique CDR3
4 unique J



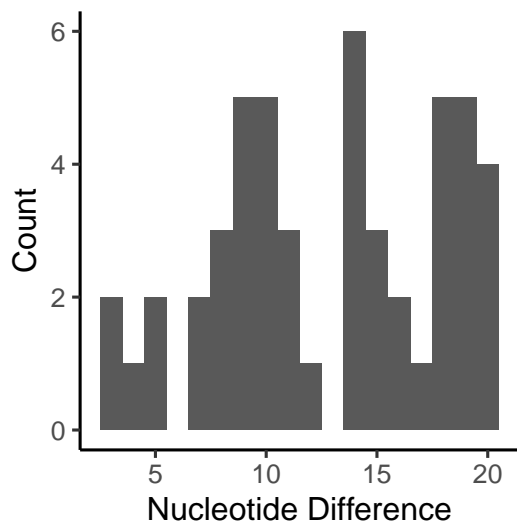
IGHV4-61*08

5 sequences assigned
No exact matches.



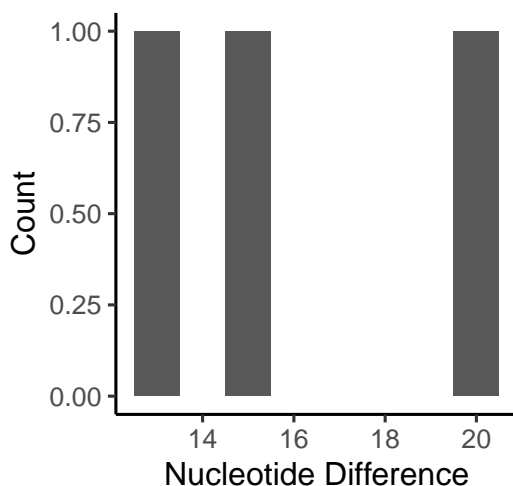
IGHV4-39*02

103 sequences assigned
No exact matches.



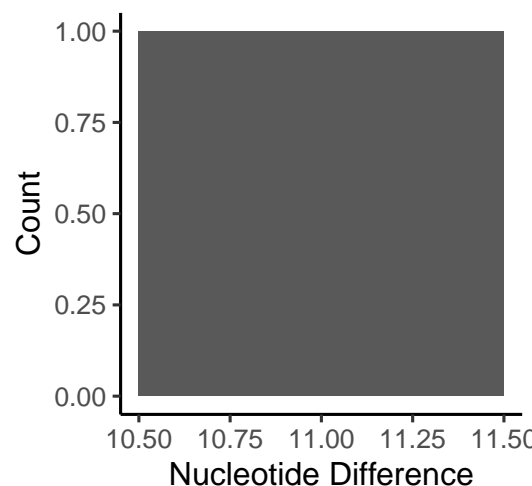
IGHV4-61*01

5 sequences assigned
No exact matches.



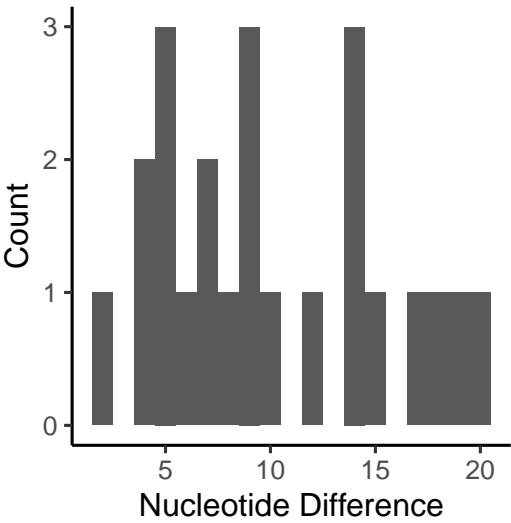
IGHV4/OR15-8*01

7 sequences assigned
No exact matches.



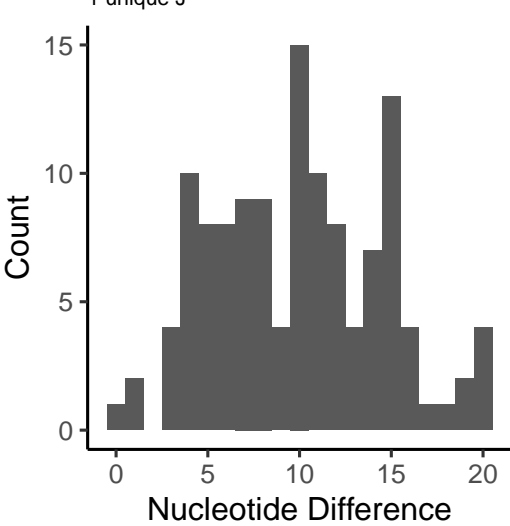
IGHV5-10-1*01_03

37 sequences assigned
No exact matches.



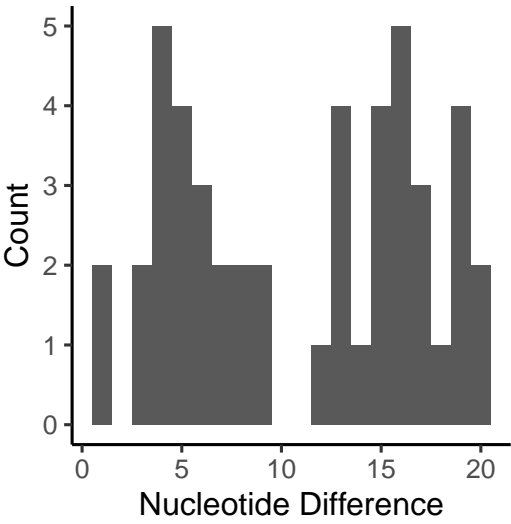
IGHV6-1*01_02

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



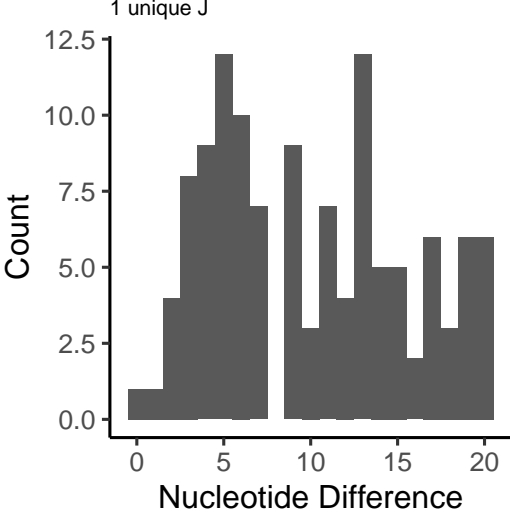
IGHV5-51*07

76 sequences assigned
No exact matches.



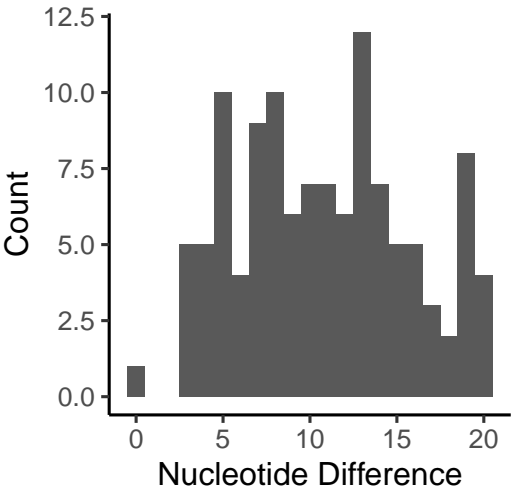
IGHV7-4-1*02

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

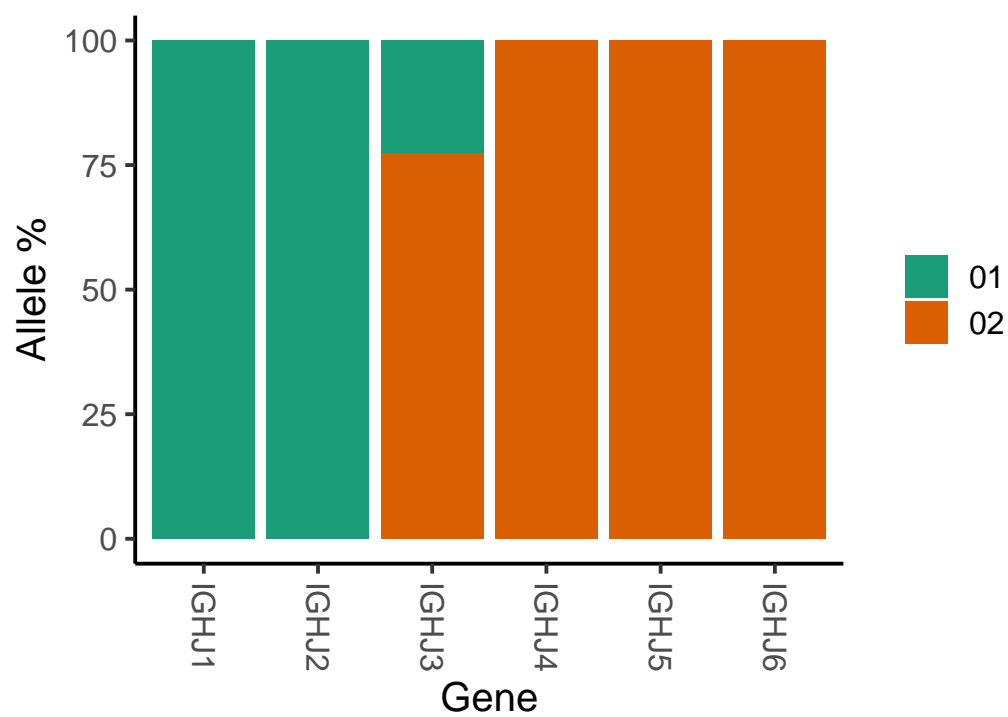


IGHV5-51*01_03

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



Allele Usage



[illegible]