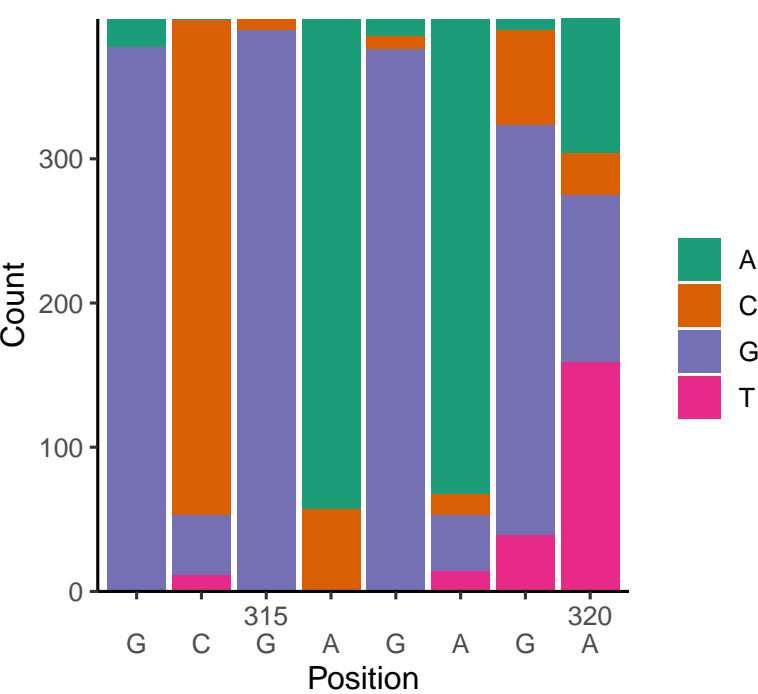
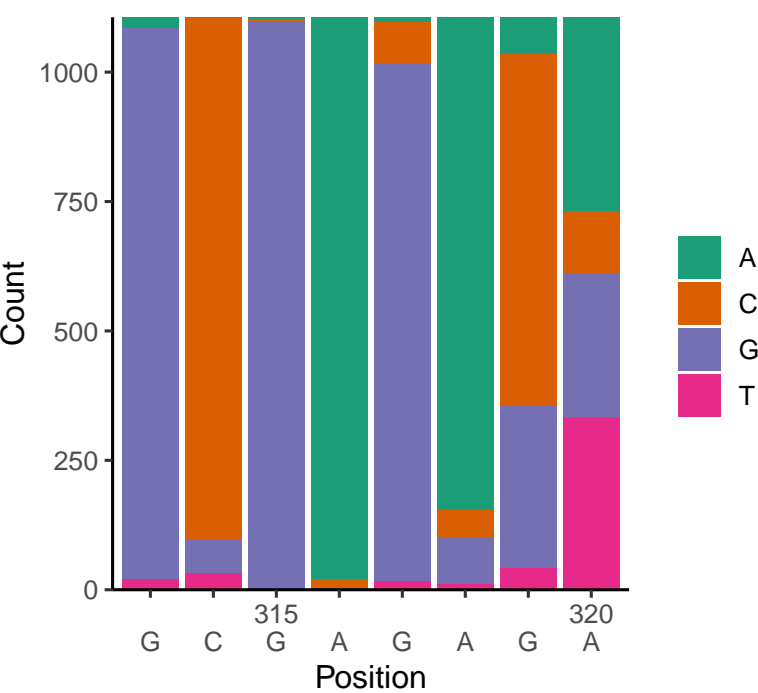


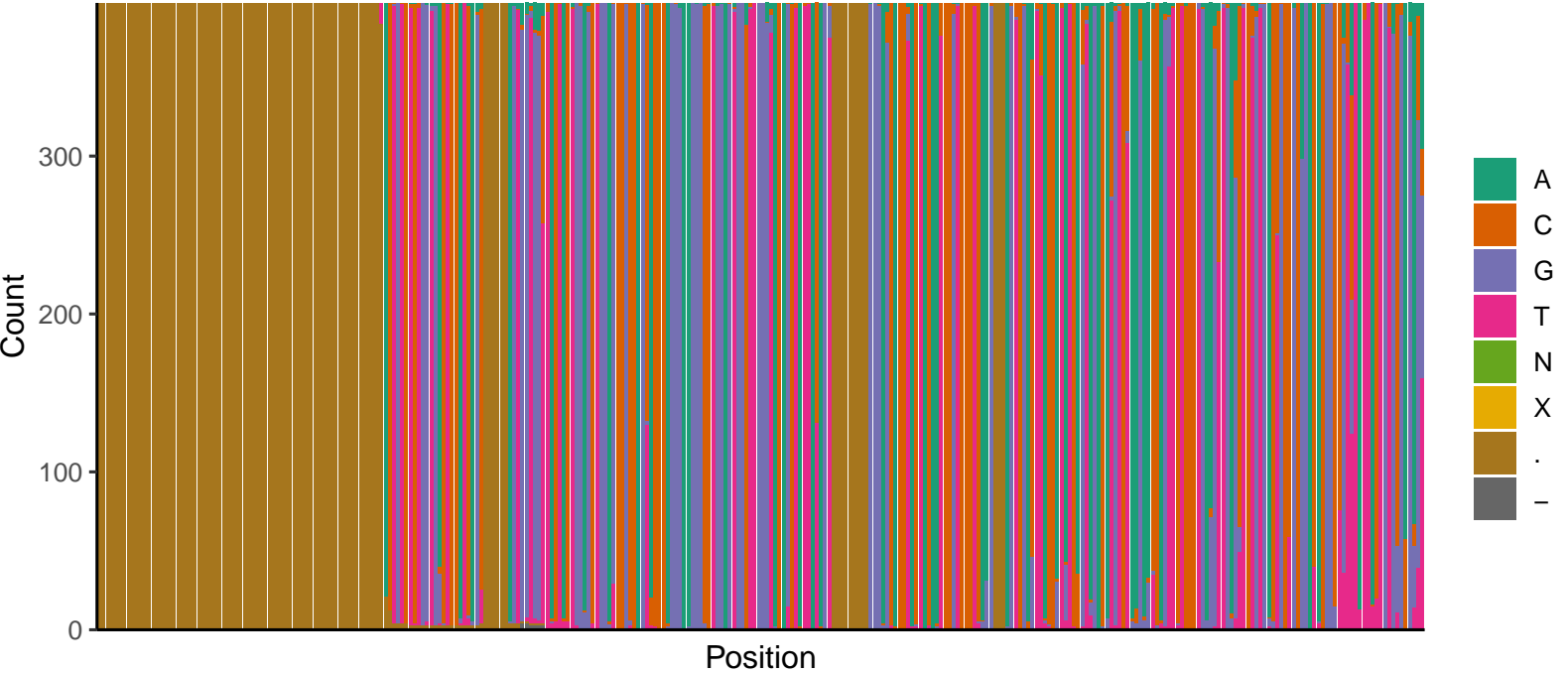
Gene IGHV4-31*02_G83A_T125G_A157C_T167G_C204T_G226C_C245T_C271T_G303



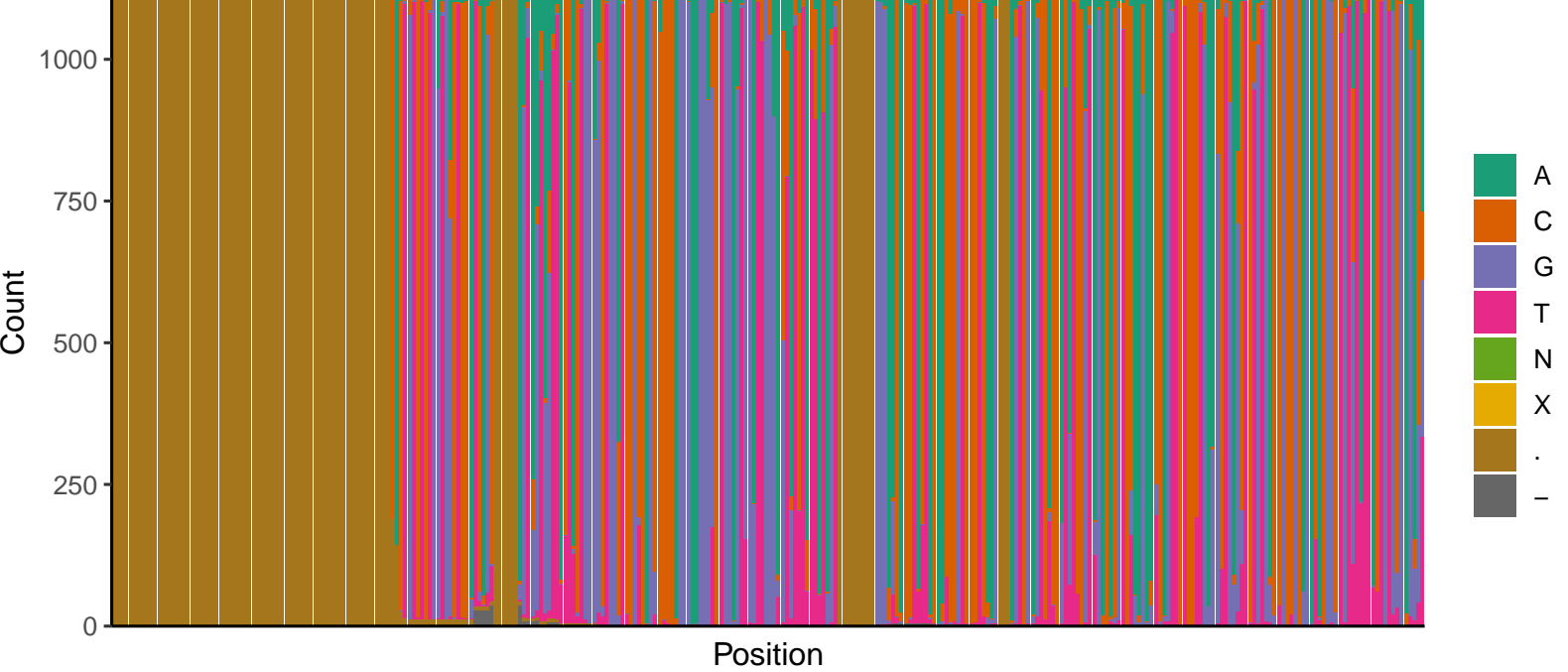
Gene IGHV4-39*02_G164C_G191A_C258G



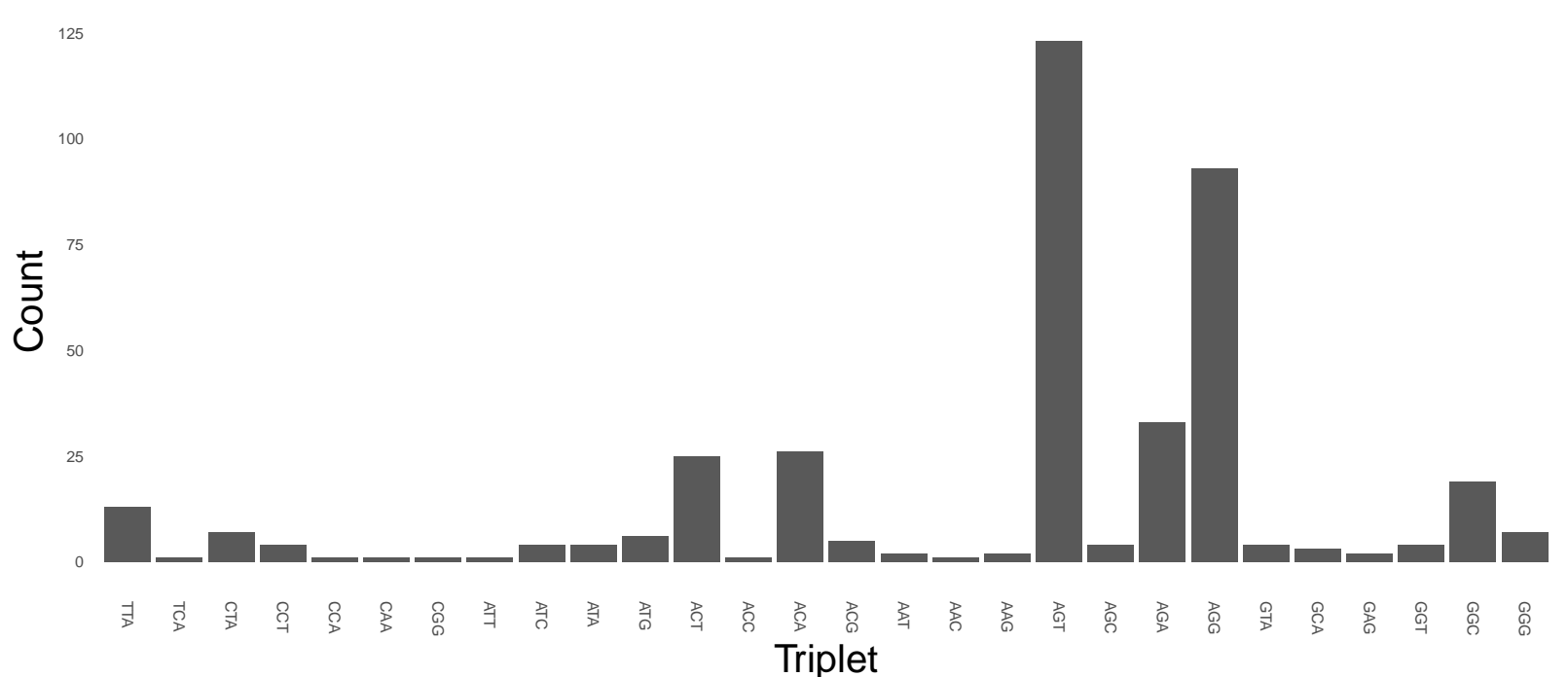
Gene IGHV4-31*02_G83A_T125G_A157C_T167G_C204T_G226C_C245T_C271T_G303



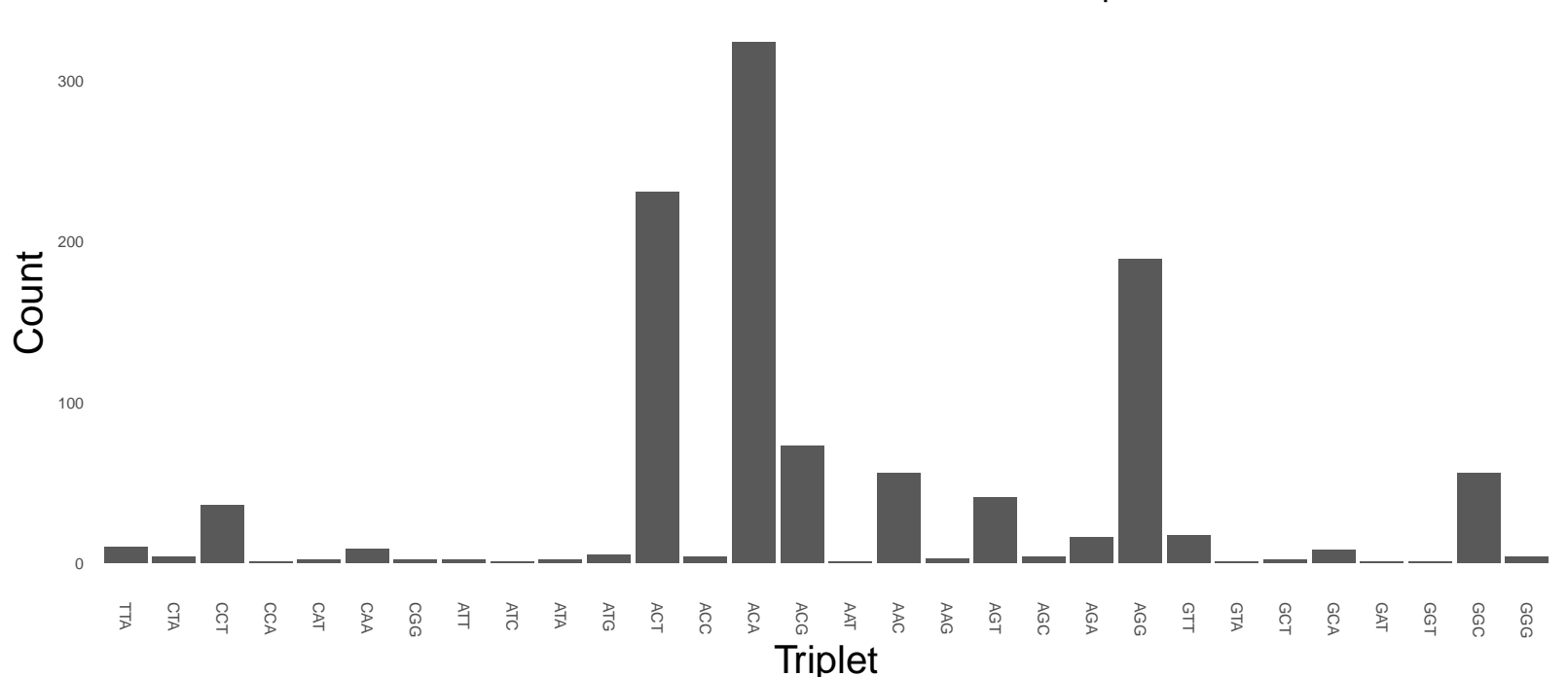
Gene IGHV4-39*02_G164C_G191A_C258G



IGHV4-31*02_G83A_T125G_A157C_T167G_C204T_G226C_C245T_C271T_G303T- Final 3 nucleotides as a triplet

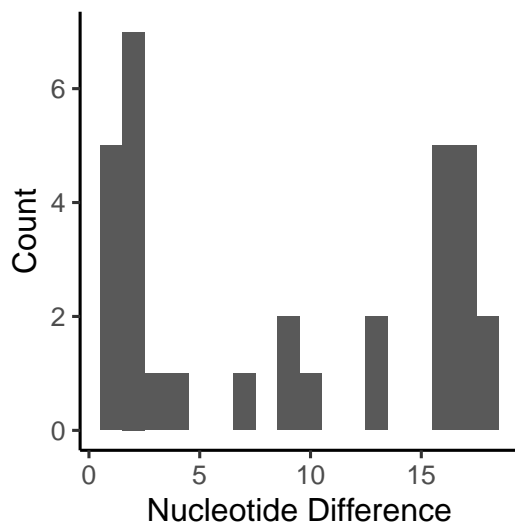


IGHV4-39*02_G164C_G191A_C258G- Final 3 nucleotides as a triplet



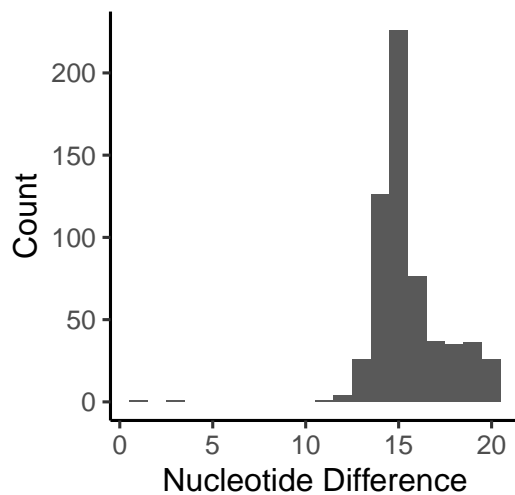
IGHV1-2*04

39 sequences assigned
No exact matches.



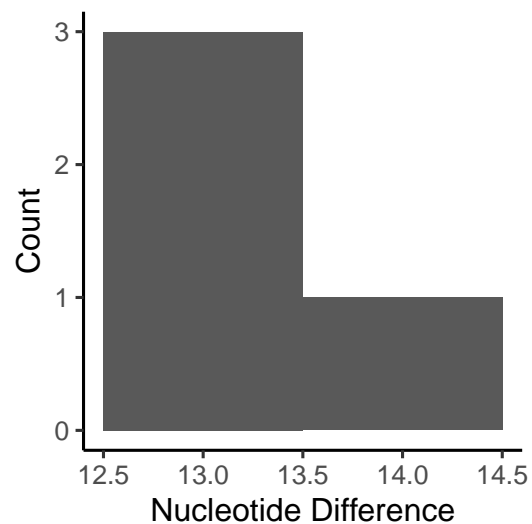
IGHV1-8*01

653 sequences assigned
No exact matches.



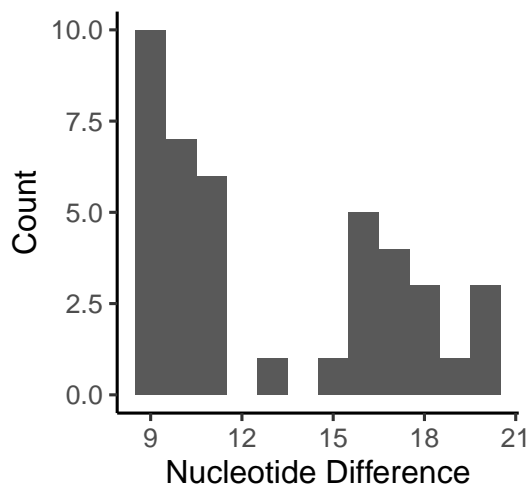
IGHV1-58*01_03

4 sequences assigned
No exact matches.



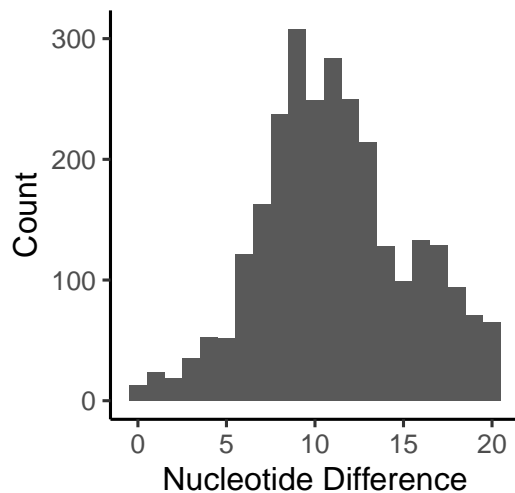
IGHV1-3*04

44 sequences assigned
No exact matches.



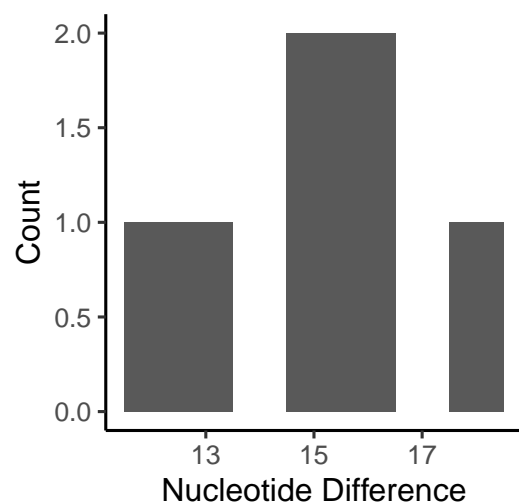
IGHV1-18*01

2898 sequences assigned
13 (0.4%) exact matches, in which:
11 unique CDR3
4 unique J



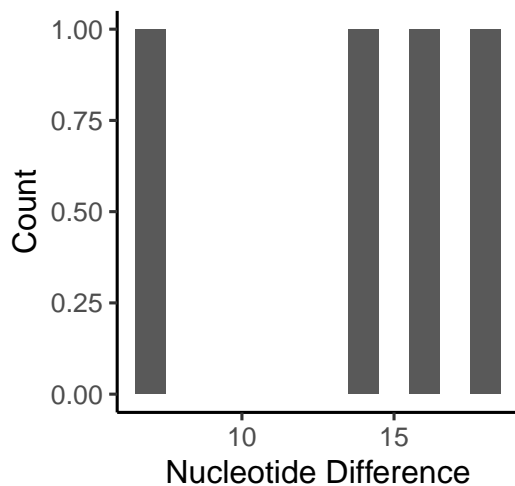
IGHV1-69-2*01

8 sequences assigned
No exact matches.



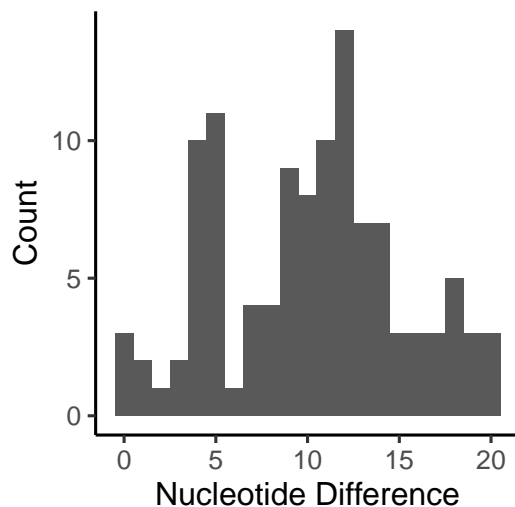
IGHV1-3*01_05

8 sequences assigned
No exact matches.



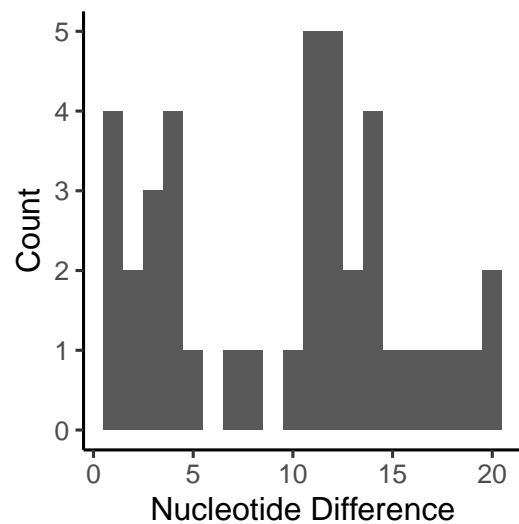
IGHV1-46*01

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



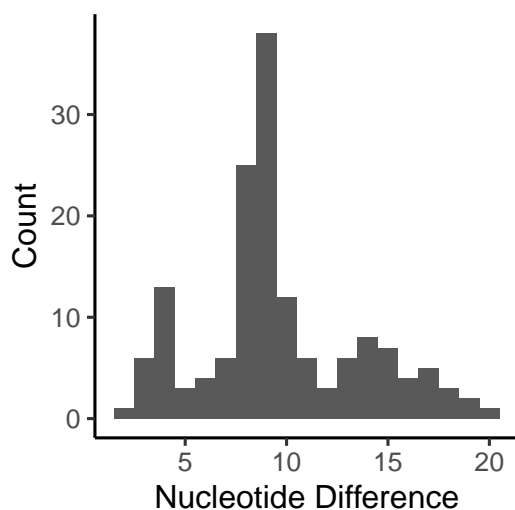
IGHV1-69*01_12_13

134 sequences assigned
No exact matches.



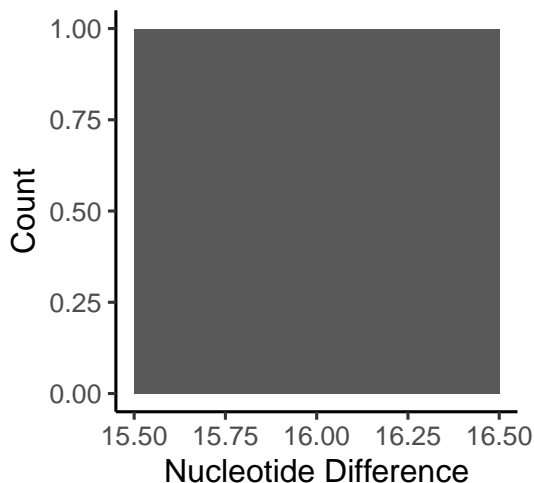
IGHV1-69*06_14

199 sequences assigned
No exact matches.



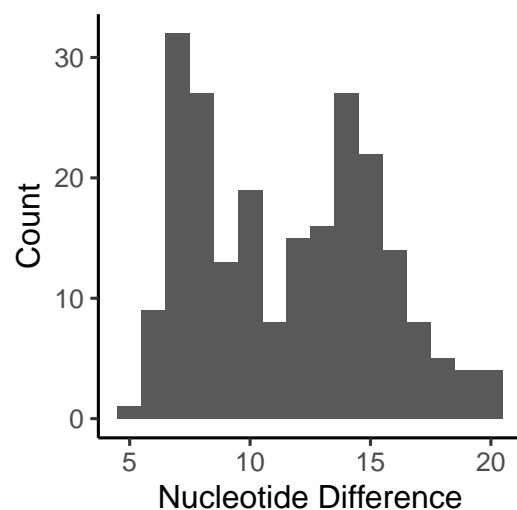
IGHV2-70*04

1 sequences assigned
No exact matches.



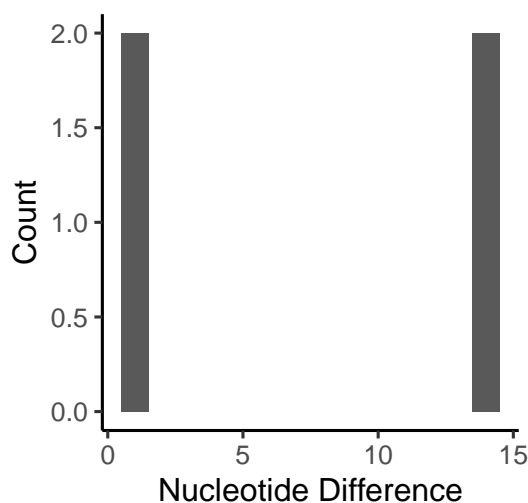
IGHV3-9*01

259 sequences assigned
No exact matches.



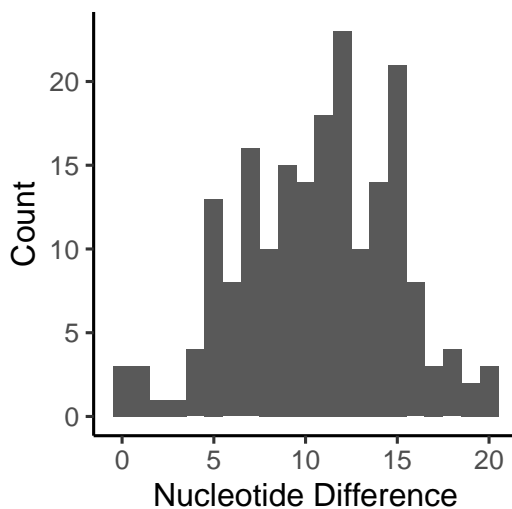
IGHV2-5*02

5 sequences assigned
No exact matches.



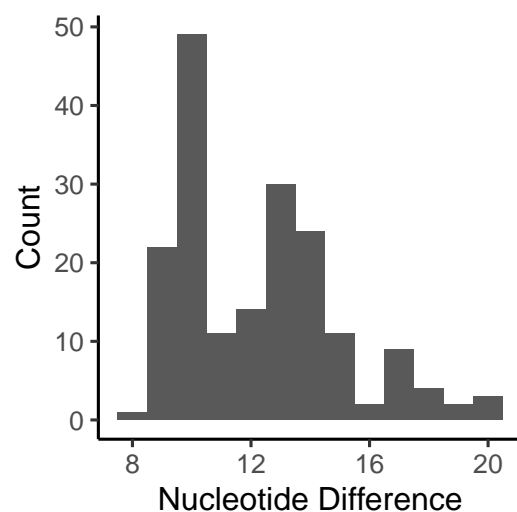
IGHV3-7*01

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



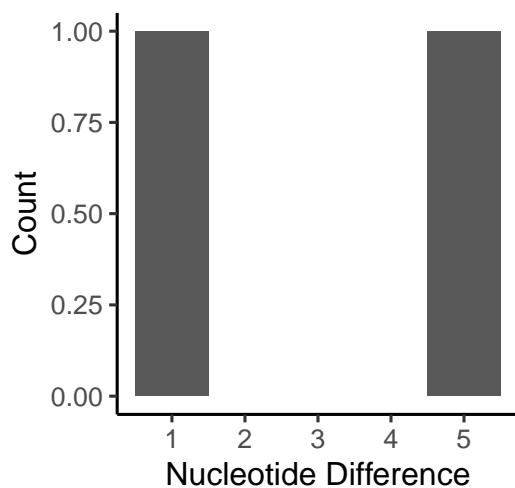
IGHV3-11*01

186 sequences assigned
No exact matches.



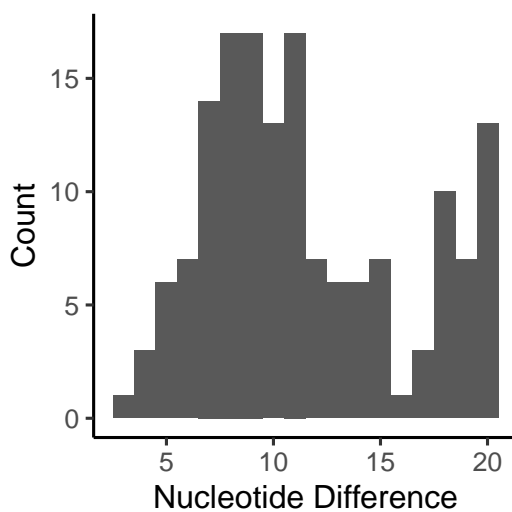
IGHV2-70*01

2 sequences assigned
No exact matches.



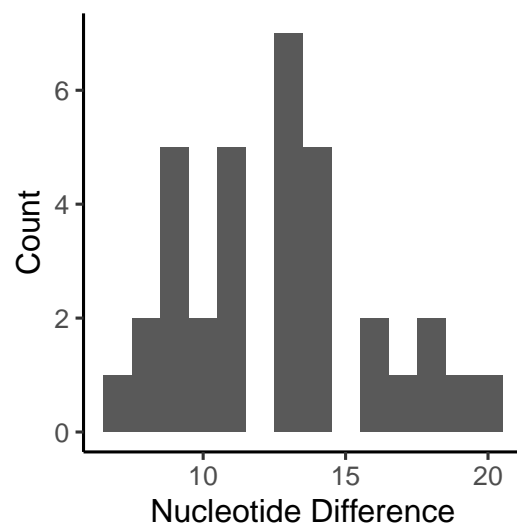
IGHV3-7*03

195 sequences assigned
No exact matches.



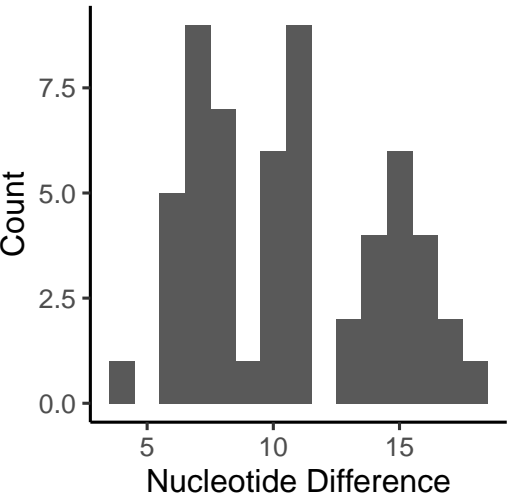
IGHV3-11*04

37 sequences assigned
No exact matches.



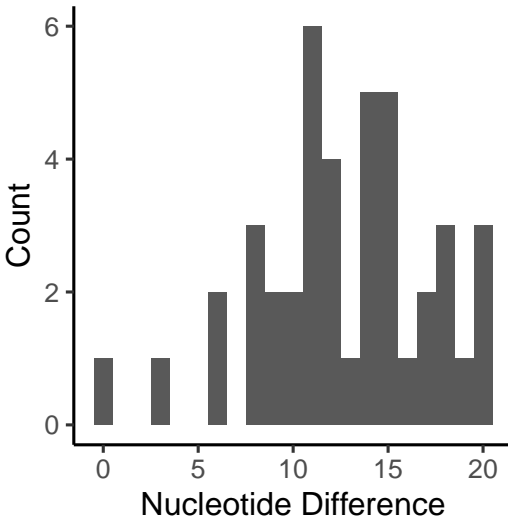
IGHV3-11*06

57 sequences assigned
No exact matches.



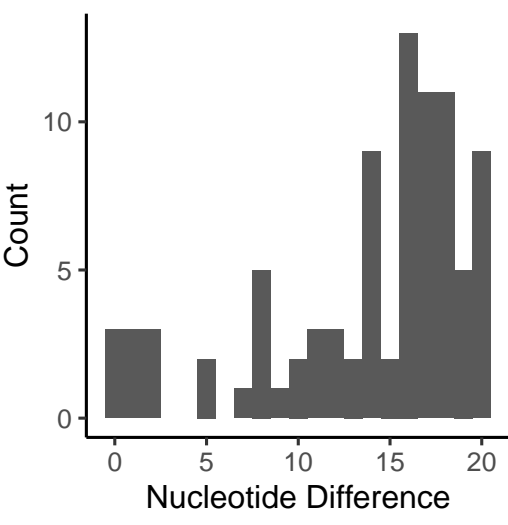
IGHV3-21*04

56 sequences assigned
1 (1.8%) exact matches, in which:
1 unique CDR3
1 unique J



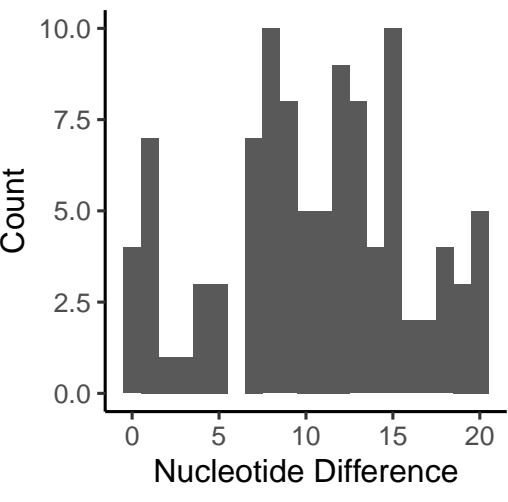
IGHV3-30-3*01

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



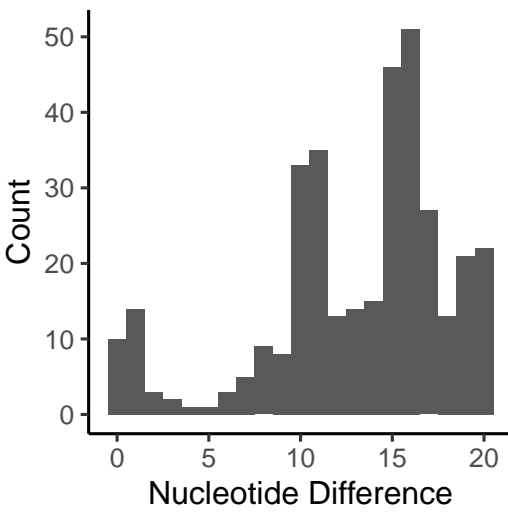
IGHV3-15*07

117 sequences assigned
4 (3.4%) exact matches, in which:
4 unique CDR3
1 unique J



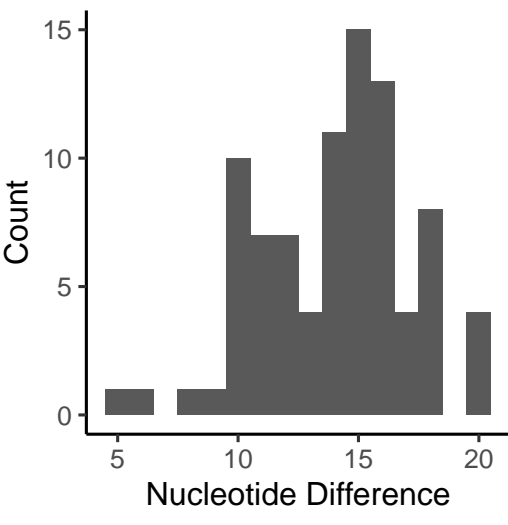
IGHV3-21*01_02

447 sequences assigned
10 (2.2%) exact matches, in which:
8 unique CDR3
3 unique J



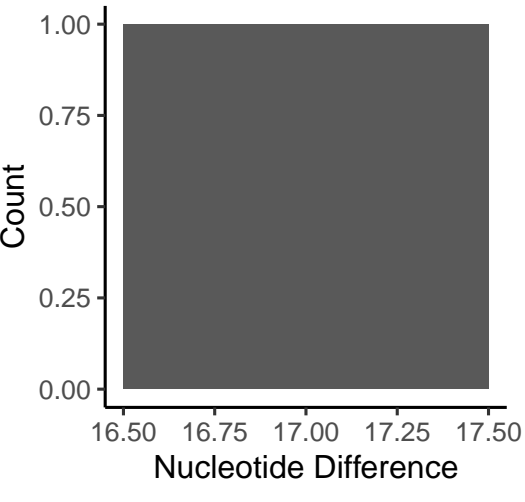
IGHV3-30*03

134 sequences assigned
No exact matches.



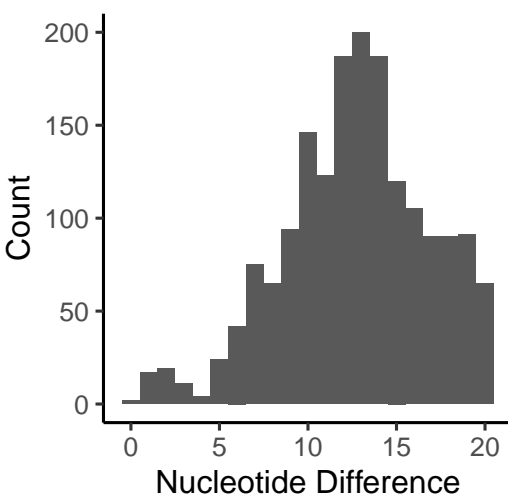
IGHV3-20*01_02

1 sequences assigned
No exact matches.



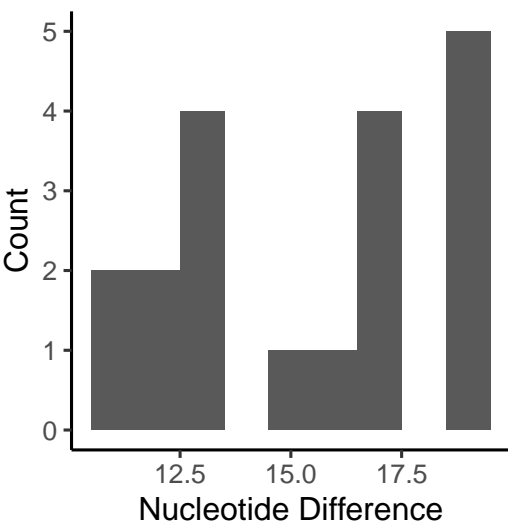
IGHV3-23*01_04

2066 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
2 unique J



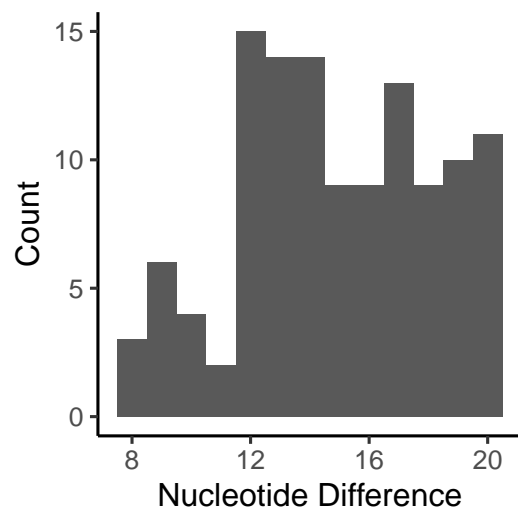
IGHV3-30*04

31 sequences assigned
No exact matches.



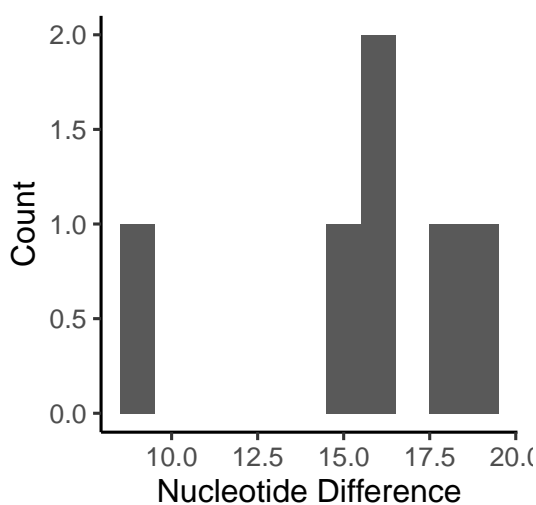
IGHV3-30*18

136 sequences assigned
No exact matches.



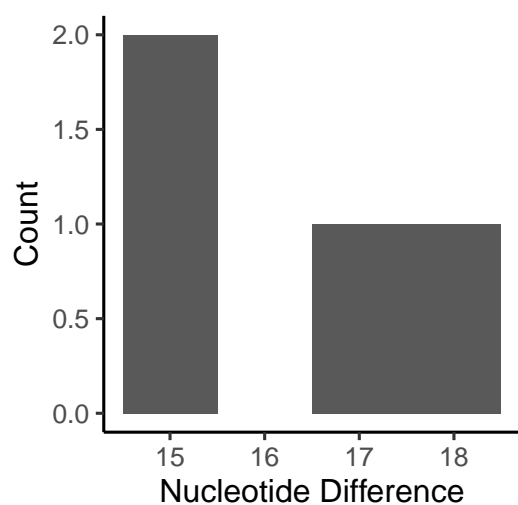
IGHV3-48*01

17 sequences assigned
No exact matches.



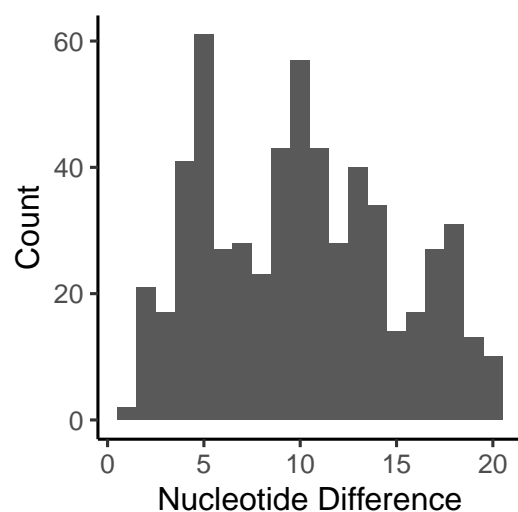
IGHV3-49*04

5 sequences assigned
No exact matches.



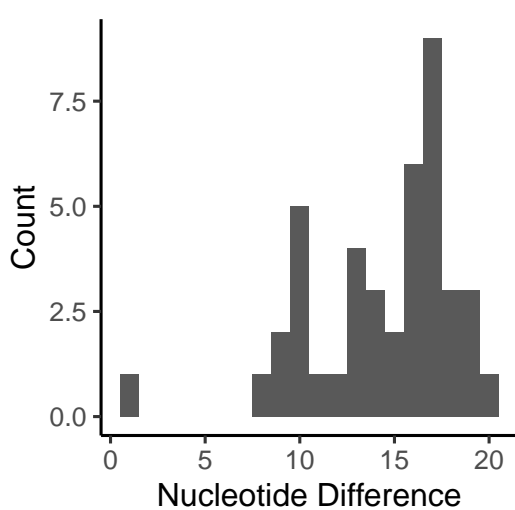
IGHV3-33*01

656 sequences assigned
No exact matches.



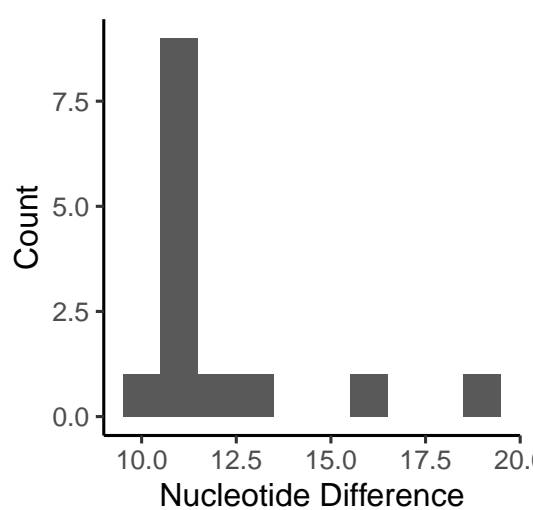
IGHV3-48*02

118 sequences assigned
No exact matches.



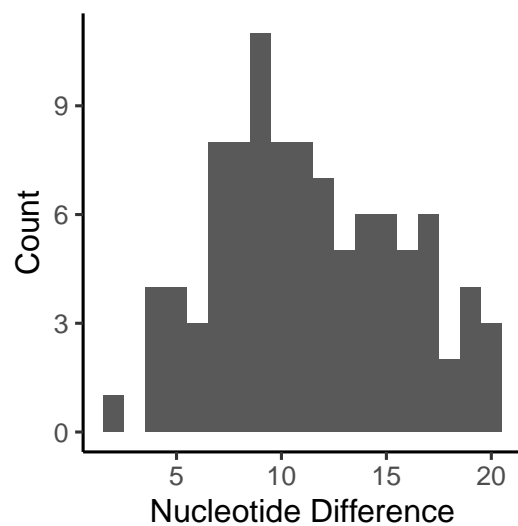
IGHV3-49*03_05

18 sequences assigned
No exact matches.



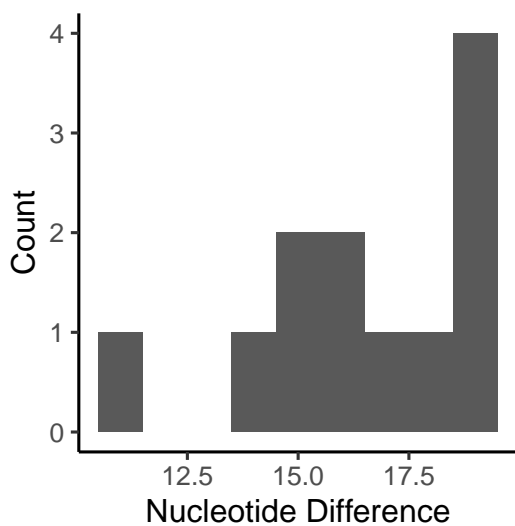
IGHV3-33*06

114 sequences assigned
No exact matches.



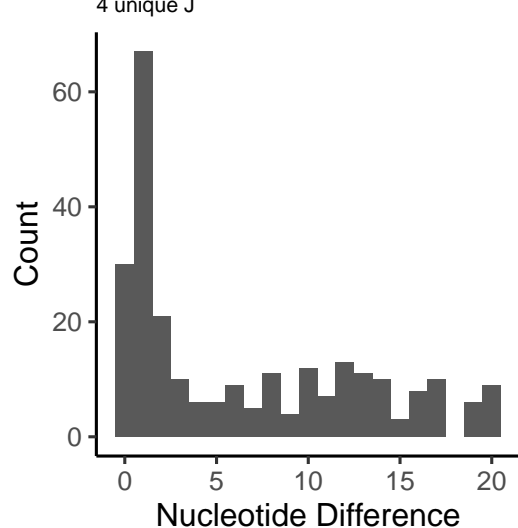
IGHV3-48*04

24 sequences assigned
No exact matches.



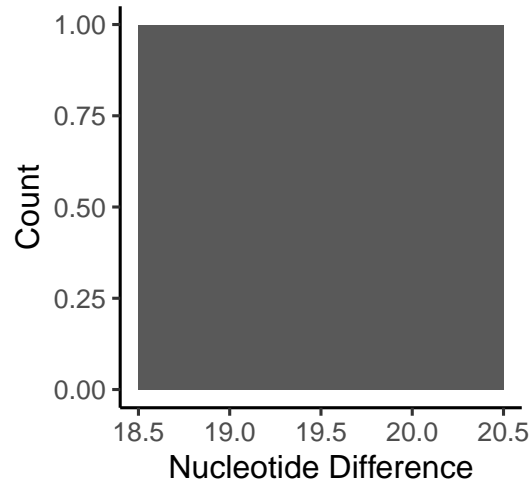
IGHV3-53*01_02

296 sequences assigned
30 (10.1%) exact matches, in which:
15 unique CDR3
4 unique J



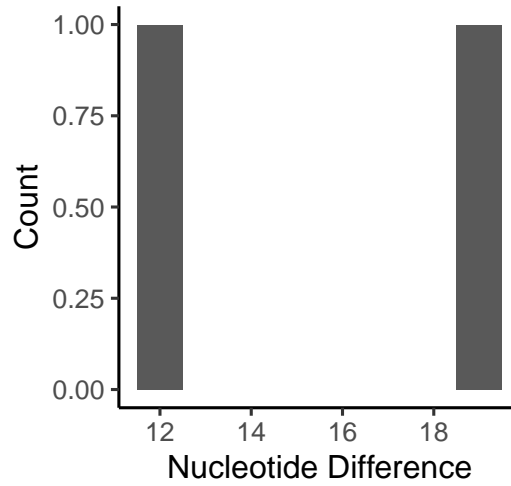
IGHV3-64*04

8 sequences assigned
No exact matches.



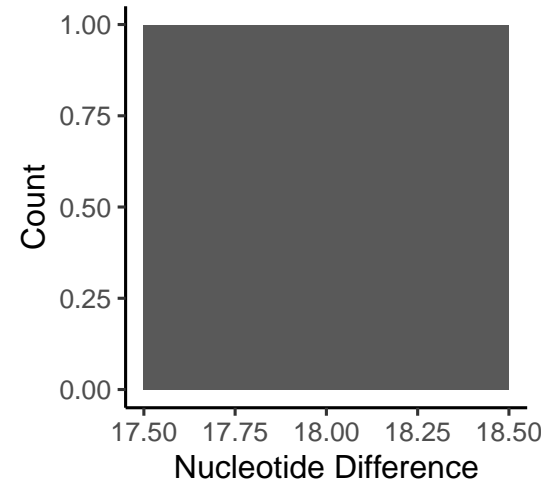
IGHV3-66*02

3 sequences assigned
No exact matches.



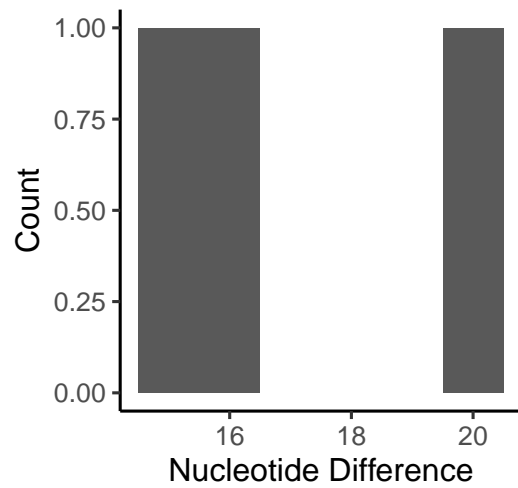
IGHV3-73*01_02

1 sequences assigned
No exact matches.



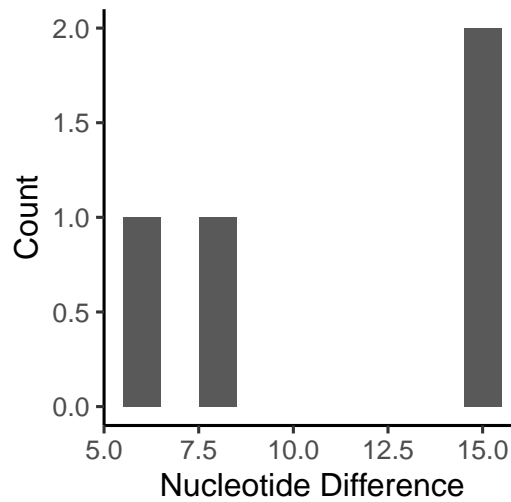
IGHV3-64*02_07

4 sequences assigned
No exact matches.



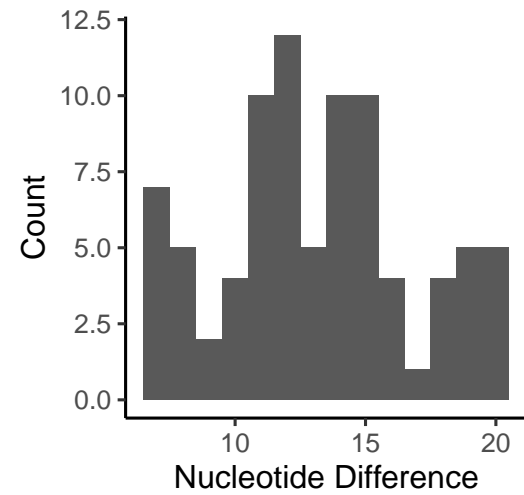
IGHV3-66*03

4 sequences assigned
No exact matches.



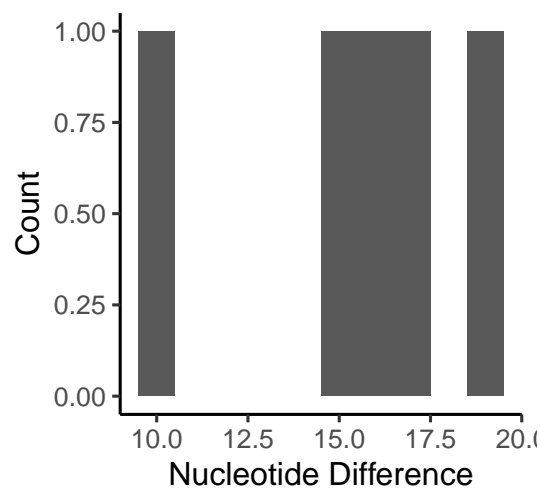
IGHV3-74*03

131 sequences assigned
No exact matches.



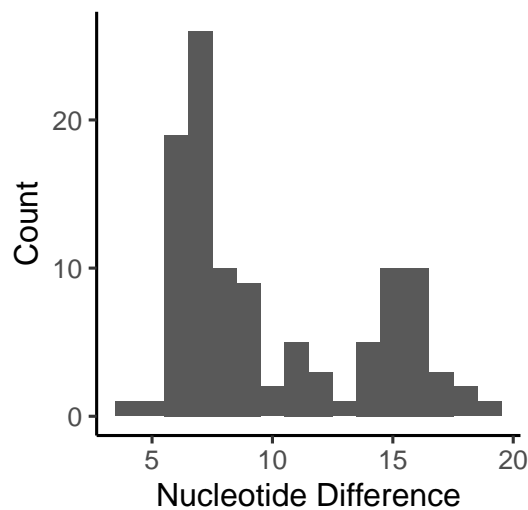
IGHV3-66*01

7 sequences assigned
No exact matches.



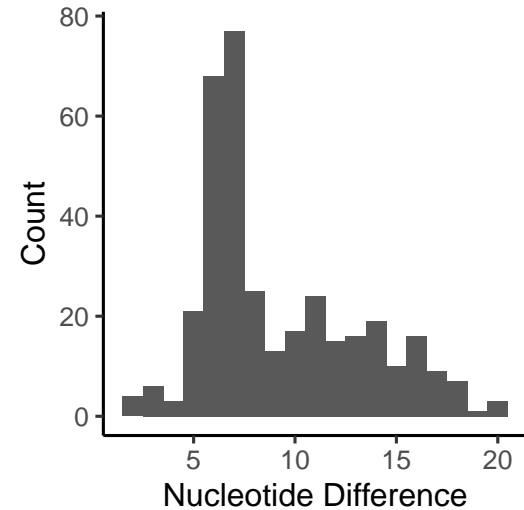
IGHV3-72*01

124 sequences assigned
No exact matches.



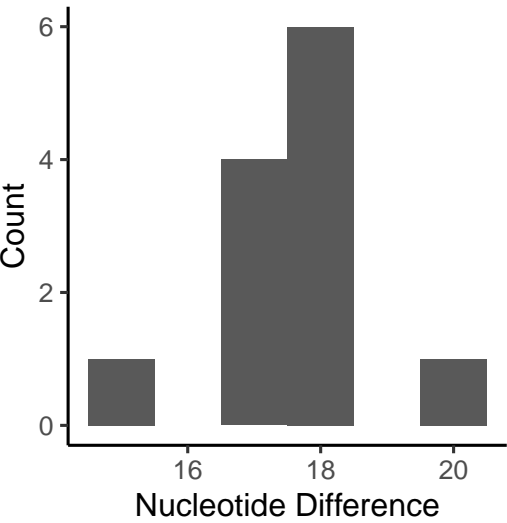
IGHV3-74*01_02

379 sequences assigned
No exact matches.



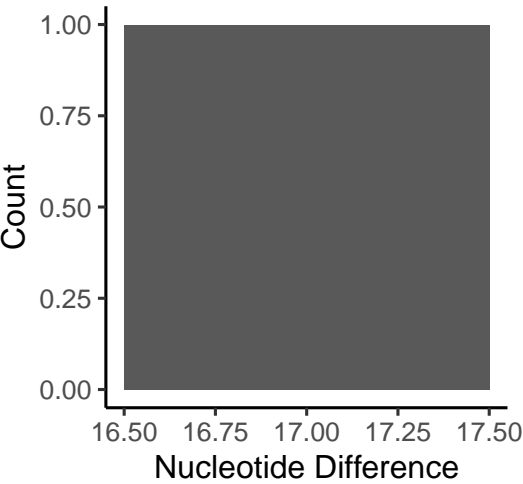
IGHV3-64D*06

18 sequences assigned
No exact matches.



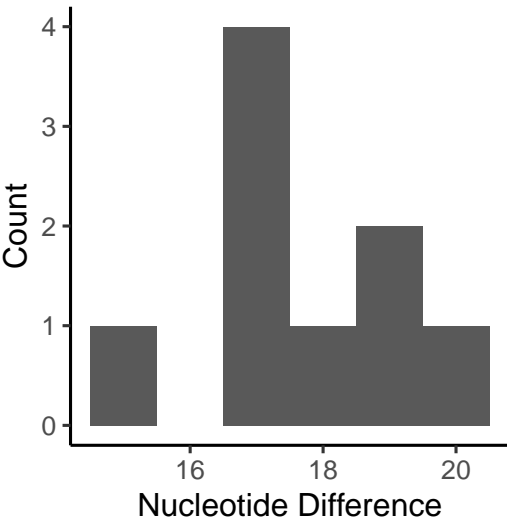
IGHV4-28*03

5 sequences assigned
No exact matches.



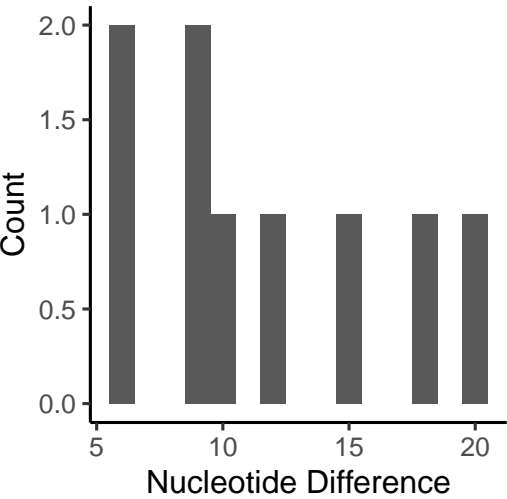
IGHV4-30-2*03

31 sequences assigned
No exact matches.



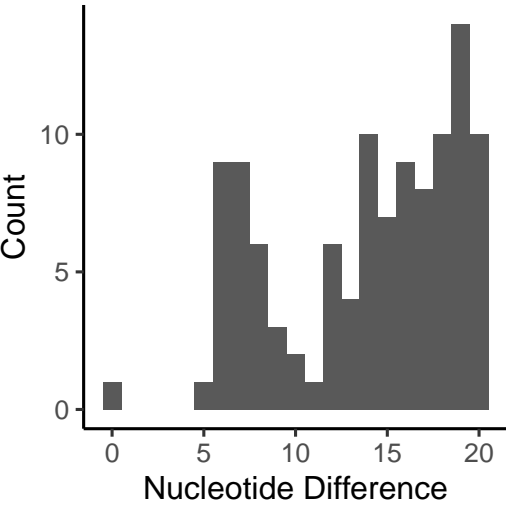
IGHV3-NL1*01

10 sequences assigned
No exact matches.



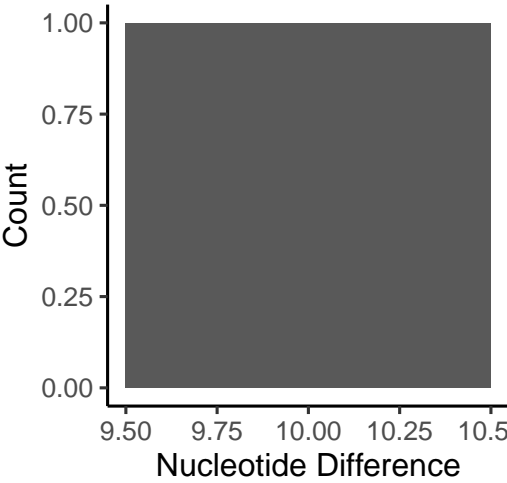
IGHV4-30-4*01

1176 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



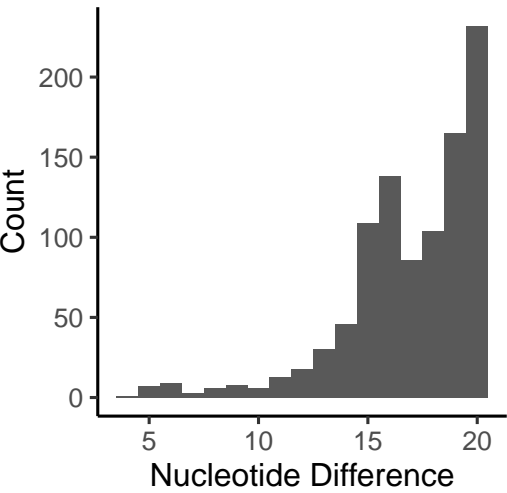
IGHV4-30-2*04

1 sequences assigned
No exact matches.



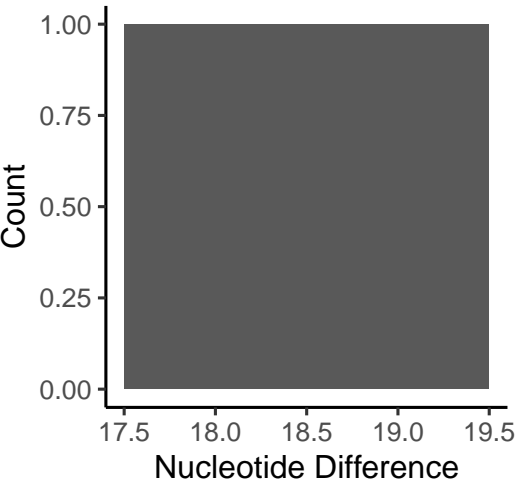
IGHV4-4*02_03

1367 sequences assigned
No exact matches.



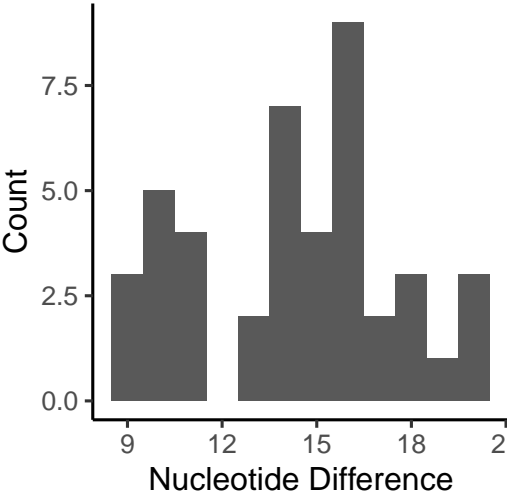
IGHV4-30-2*01

5 sequences assigned
No exact matches.



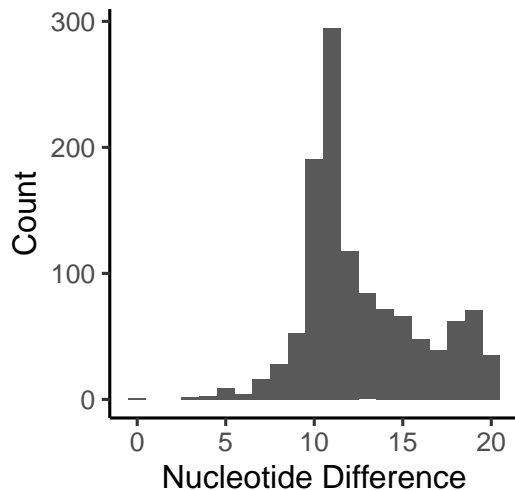
IGHV4-30-4*08

198 sequences assigned
No exact matches.



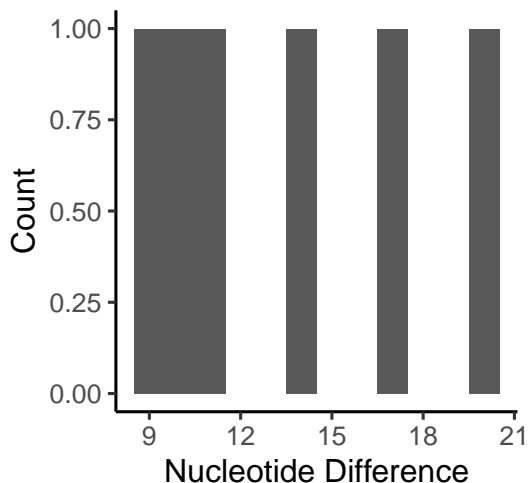
IGHV4-31*02

1525 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



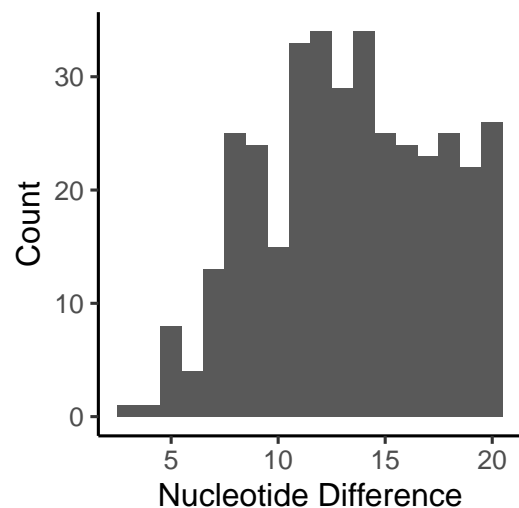
IGHV4-38-2*01

6 sequences assigned
No exact matches.



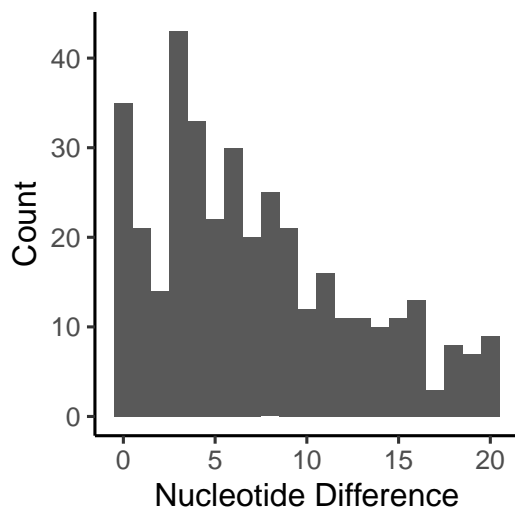
IGHV4-39*07

523 sequences assigned
No exact matches.



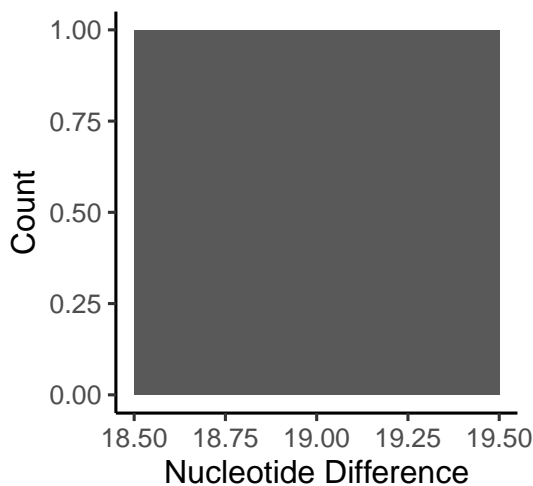
IGHV4-31*02_G83A_T125C_A157G_T167G_C224T_C226G

397 sequences assigned
35 (8.8%) exact matches, in which:
30 unique CDR3
4 unique J



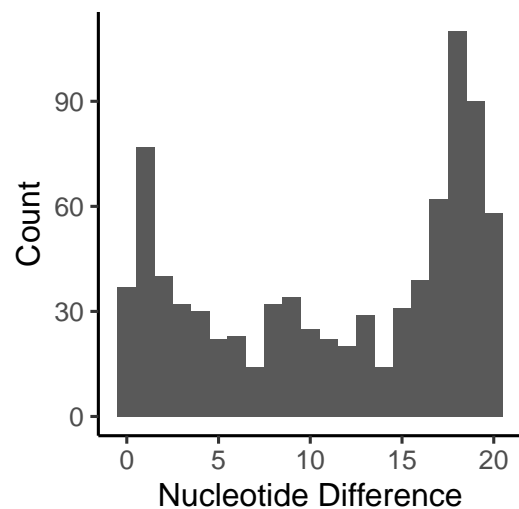
IGHV4-38-2*02

4 sequences assigned
No exact matches.



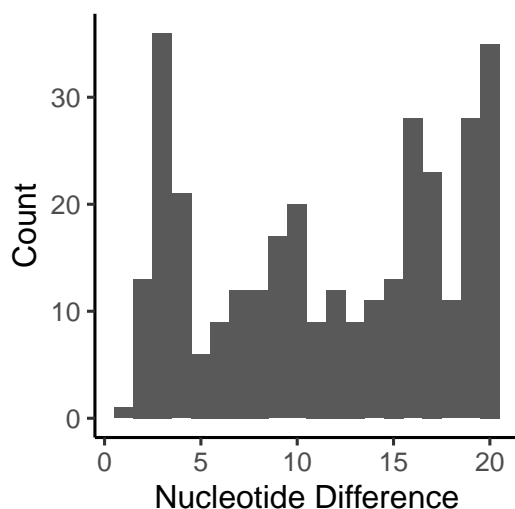
IGHV4-39*02_G164C_G165A

1106 sequences assigned
37 (3.3%) exact matches, in which:
28 unique CDR3
4 unique J



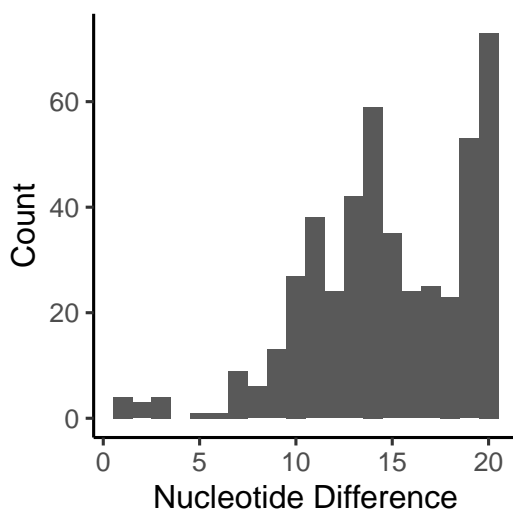
IGHV4-34*01_02

390 sequences assigned
No exact matches.



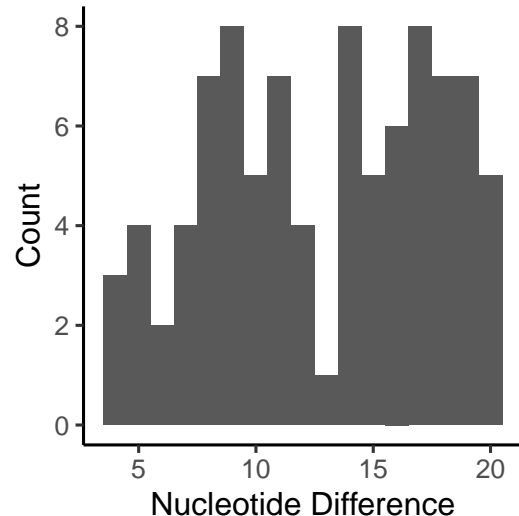
IGHV4-39*02

601 sequences assigned
No exact matches.



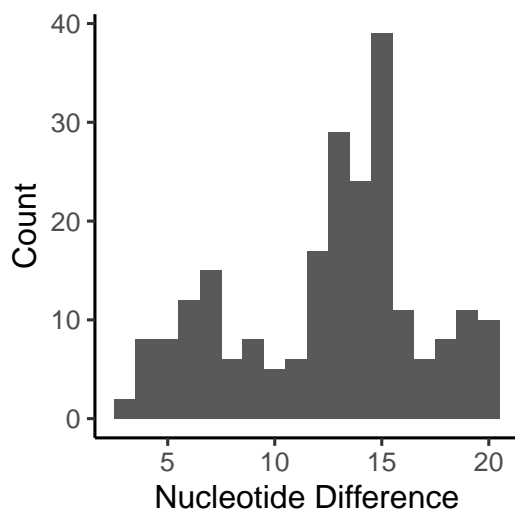
IGHV4-59*08

148 sequences assigned
No exact matches.



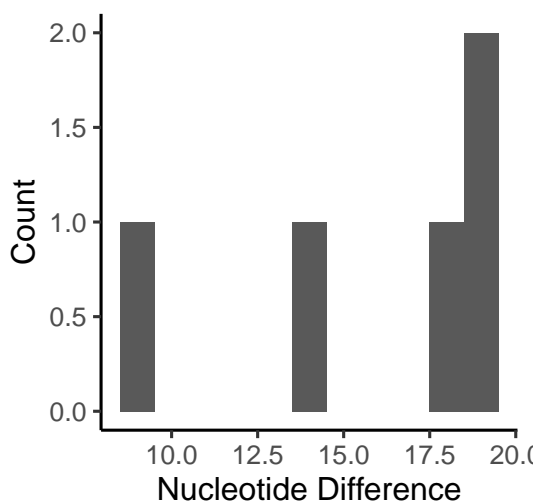
IGHV4–59*12

426 sequences assigned
No exact matches.



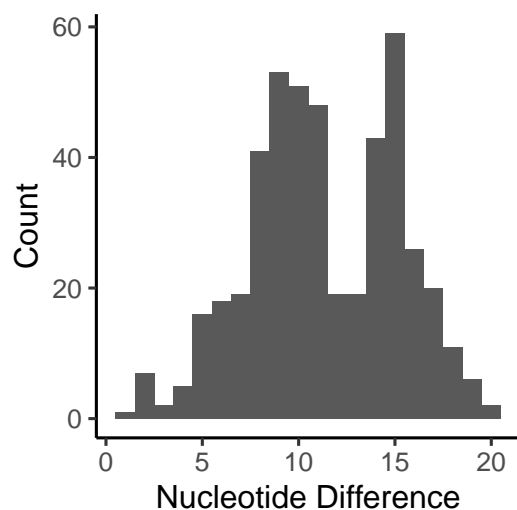
IGHV4/OR15–8*01

5 sequences assigned
No exact matches.



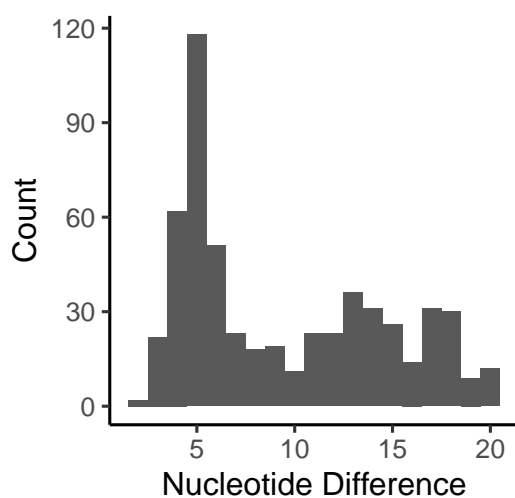
IGHV5–51*01_03

532 sequences assigned
No exact matches.



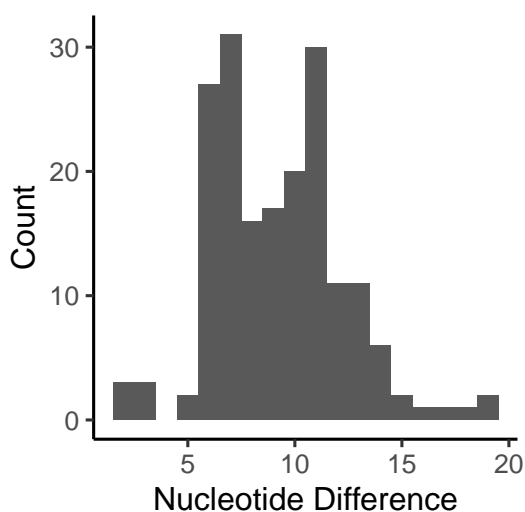
IGHV4–59*01_07

658 sequences assigned
No exact matches.



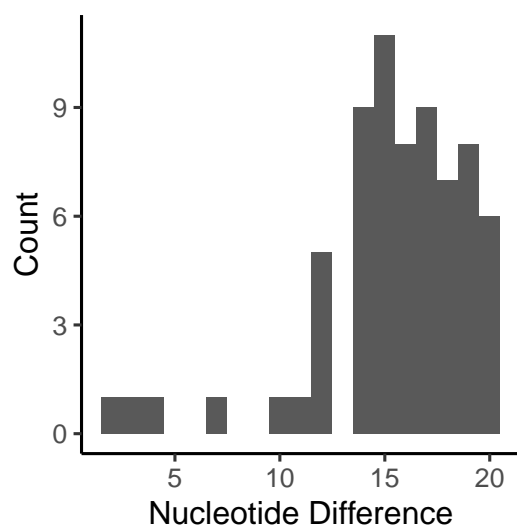
IGHV5–10–1*01_03

199 sequences assigned
No exact matches.



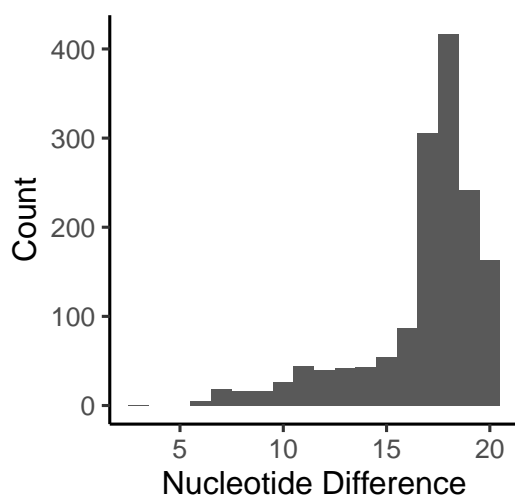
IGHV6–1*01_02

94 sequences assigned
No exact matches.



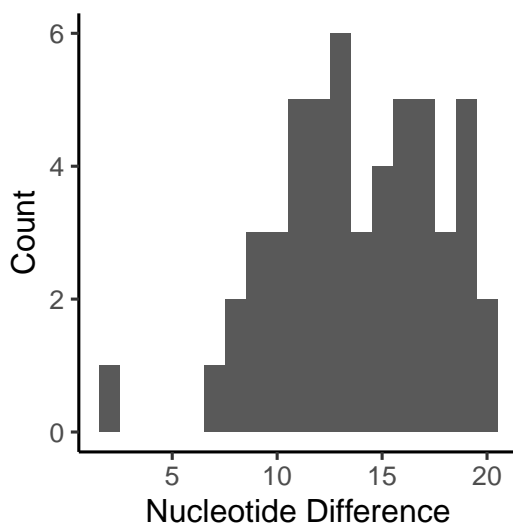
IGHV4–61*01

2033 sequences assigned
No exact matches.



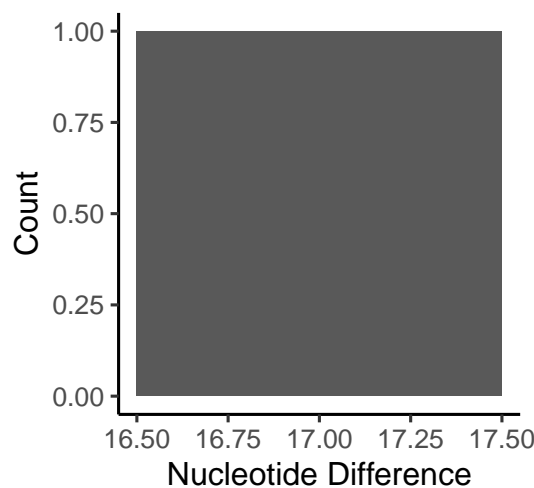
IGHV5–51*07

162 sequences assigned
No exact matches.

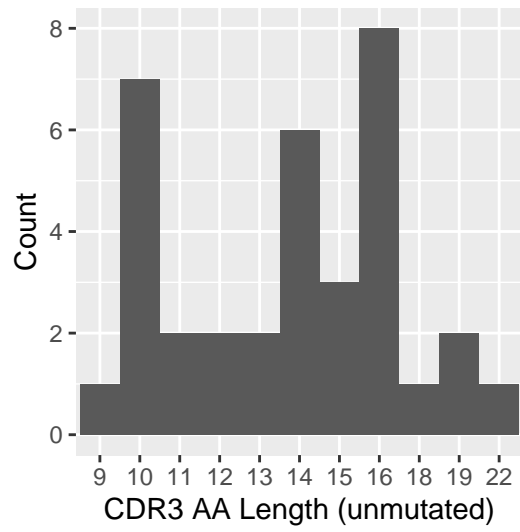


IGHV7–4–1*01

1 sequences assigned
No exact matches.



IGHV4-31*02_G83A_T125G_A157C_T167G_C204T_G226C_C245T_C271T_G303T



IGHV4-39*02_G164C_G191A_C258G

