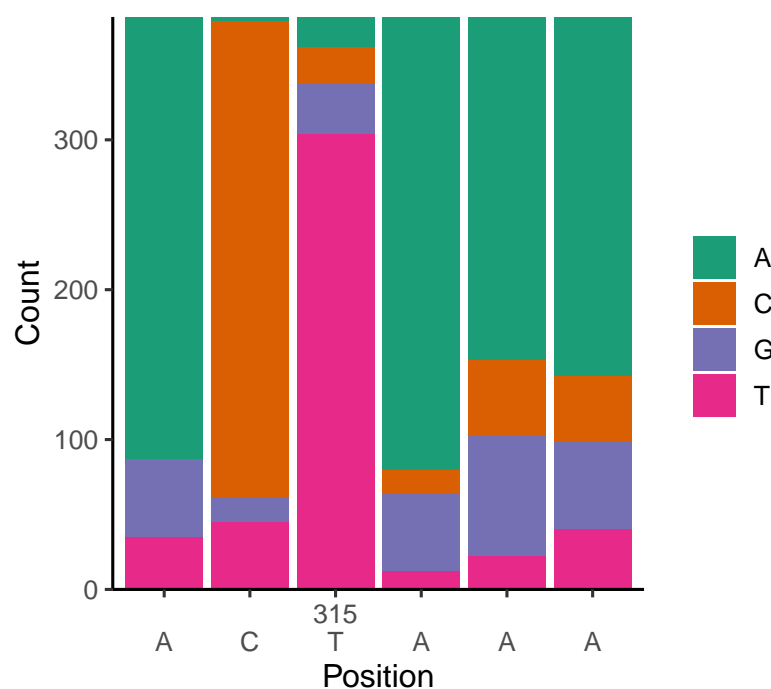
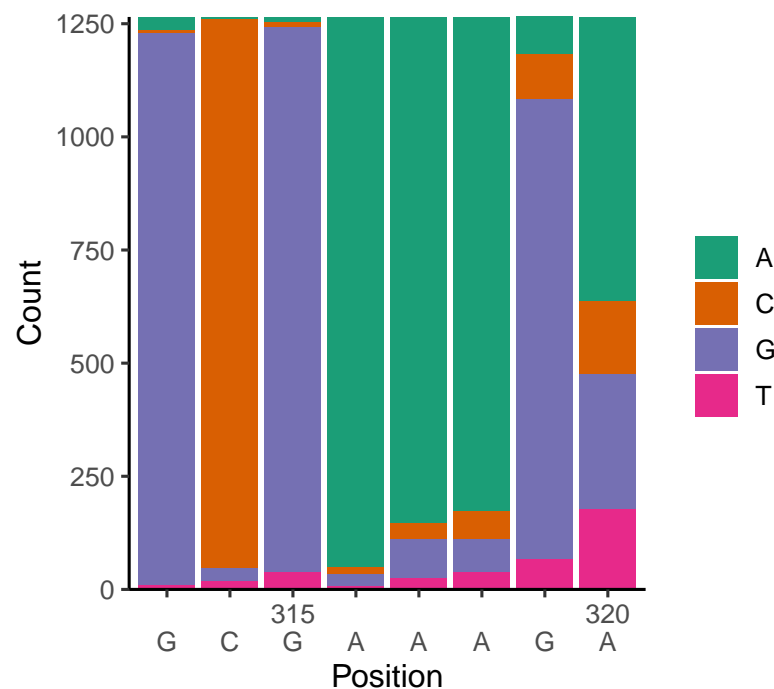


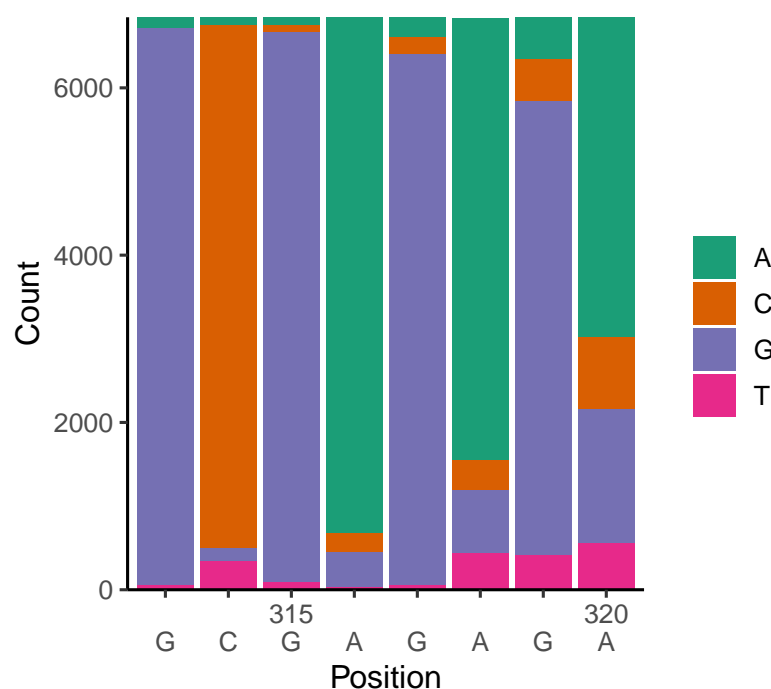
Gene IGHV3-13*01_C301G



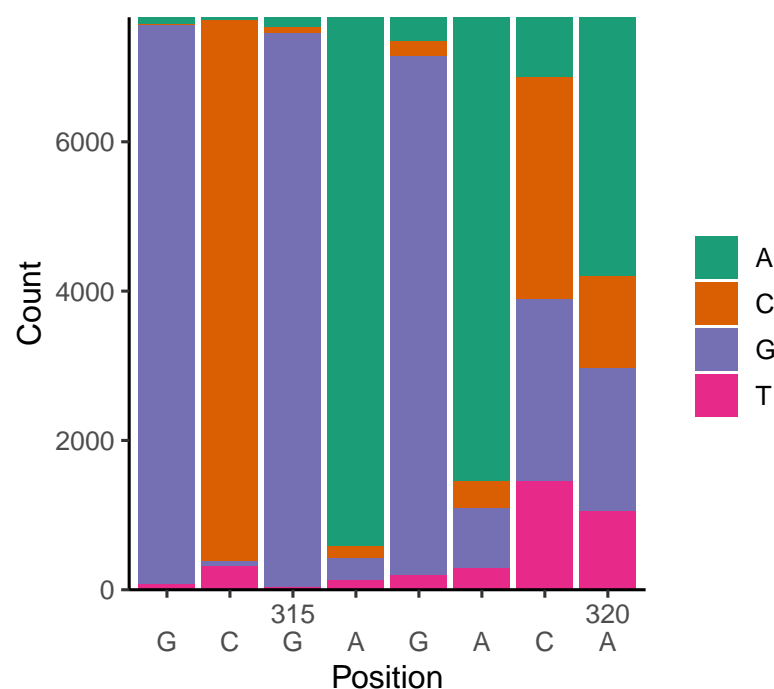
Gene IGHV3-103*01_G51A_A170G_A2



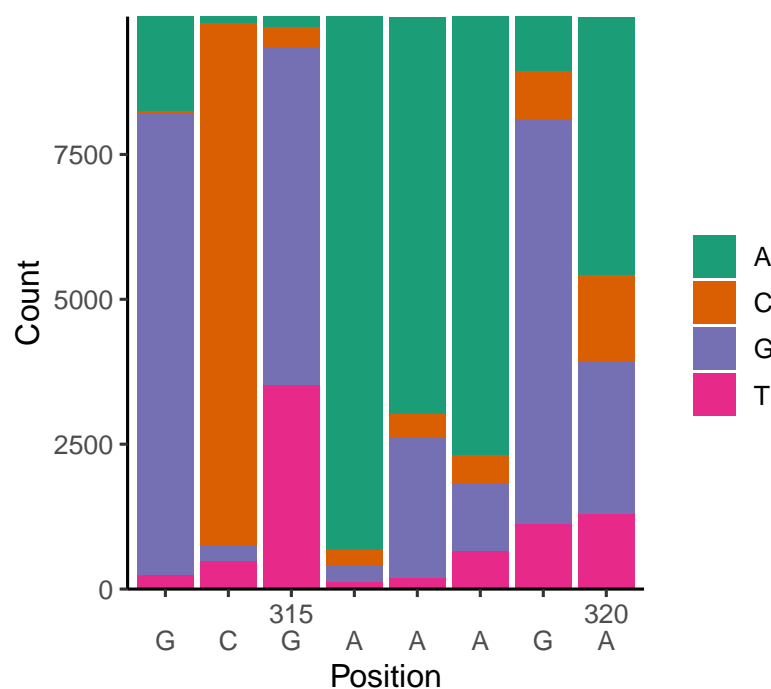
Gene IGHV3-54*02_G170C



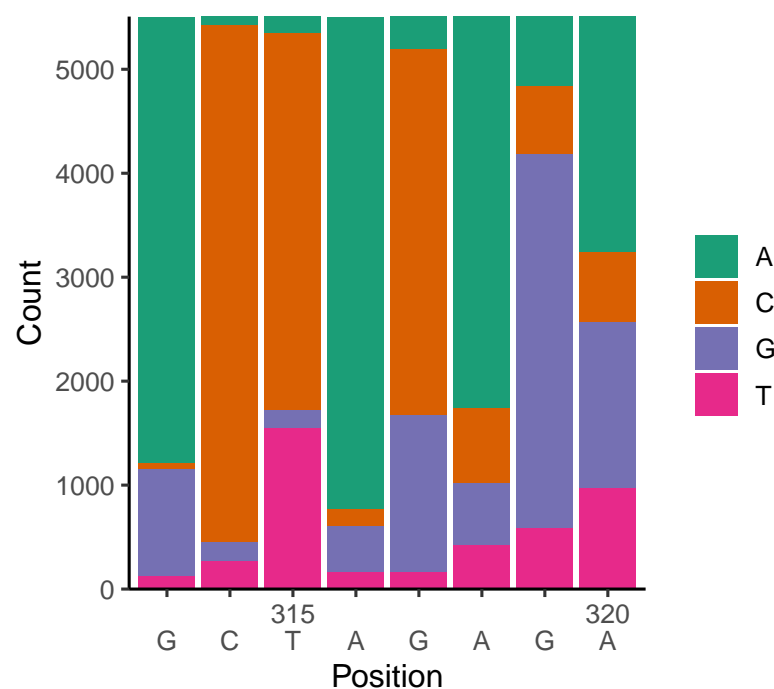
Gene IGHV4-65*01_G48A_A66C_A232



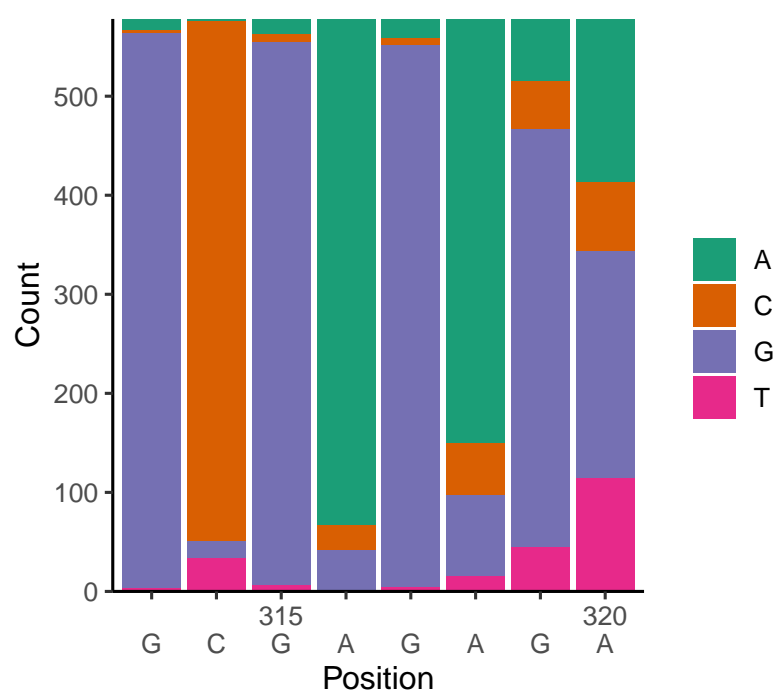
Gene IGHV3-103*01_G51A_A170G



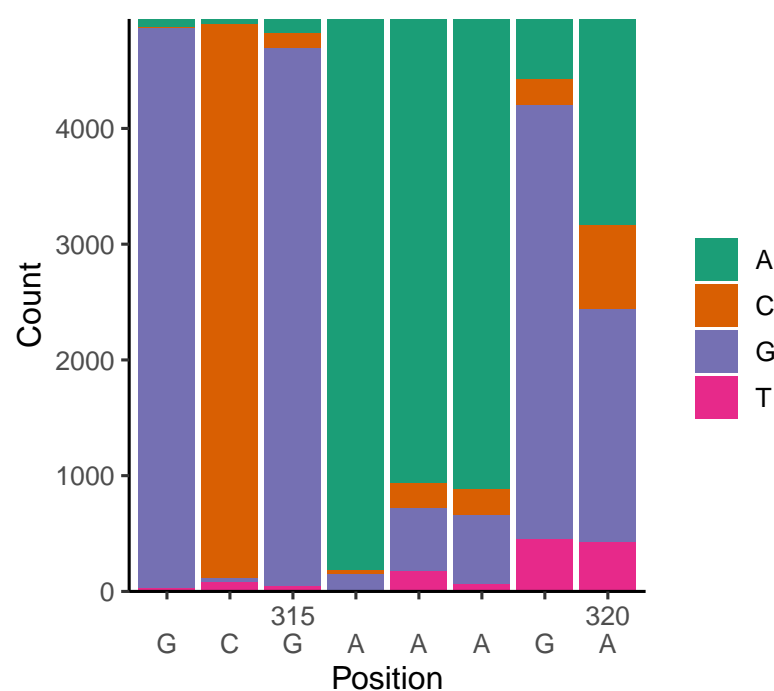
Gene IGHV3-38*02_C27A_C38T_A39C



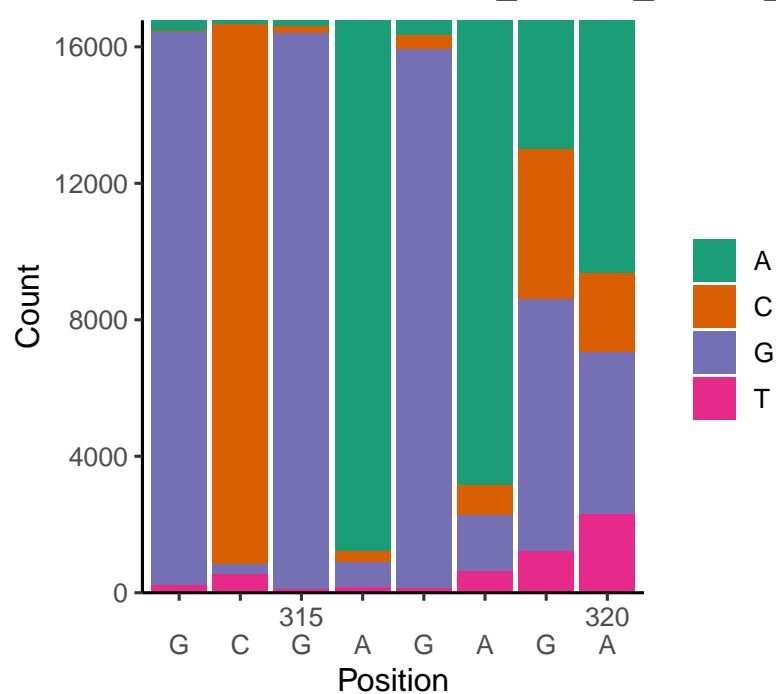
Gene IGHV4-73*01_C84T_G147A_T163



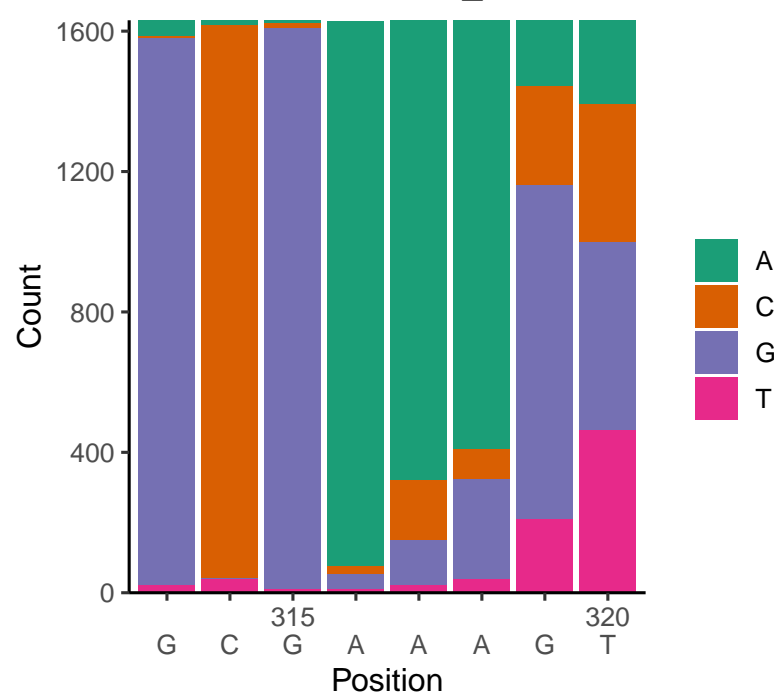
Gene IGHV5-20*02_A141G_C312T



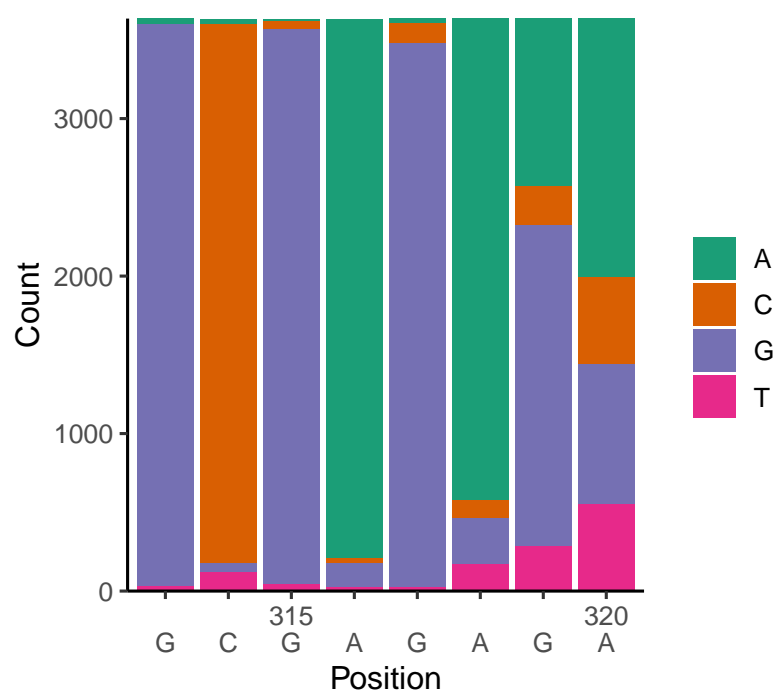
Gene IGHV4-160*01_A106G_A109T_C



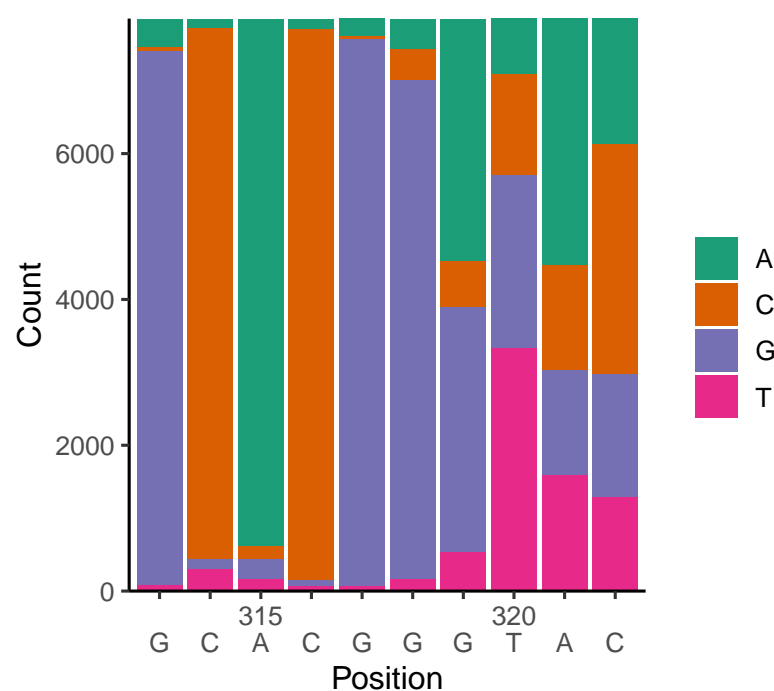
Gene IGHV5-43*01_A106G



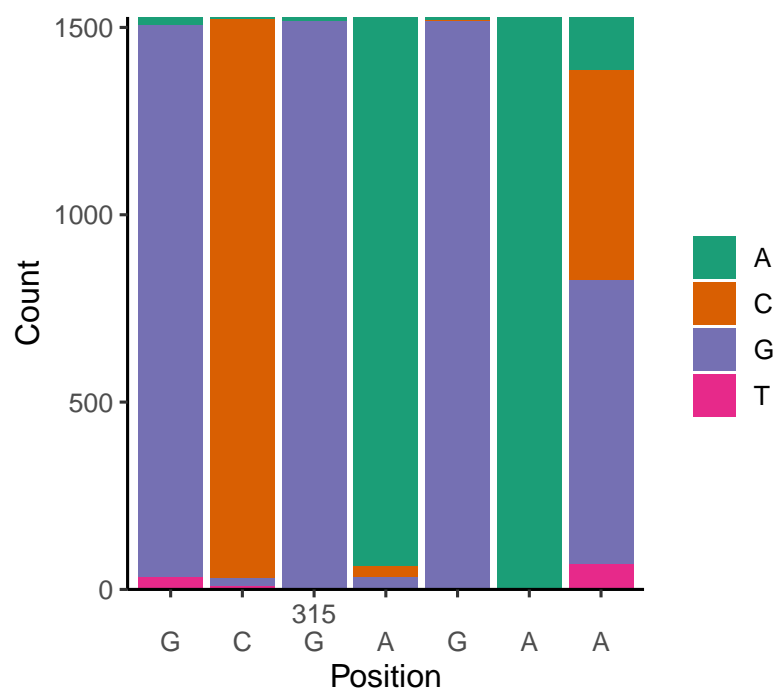
Gene IGHV4S13*01_T85A_C137G_G26



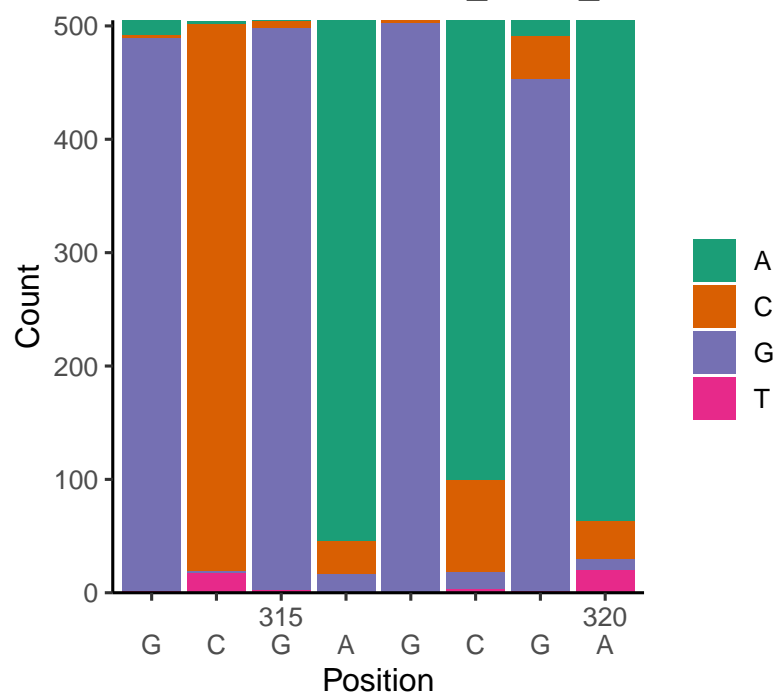
Gene IGHV2S1*01_G289T



Gene IGHV4-169*01_T60C_G61C



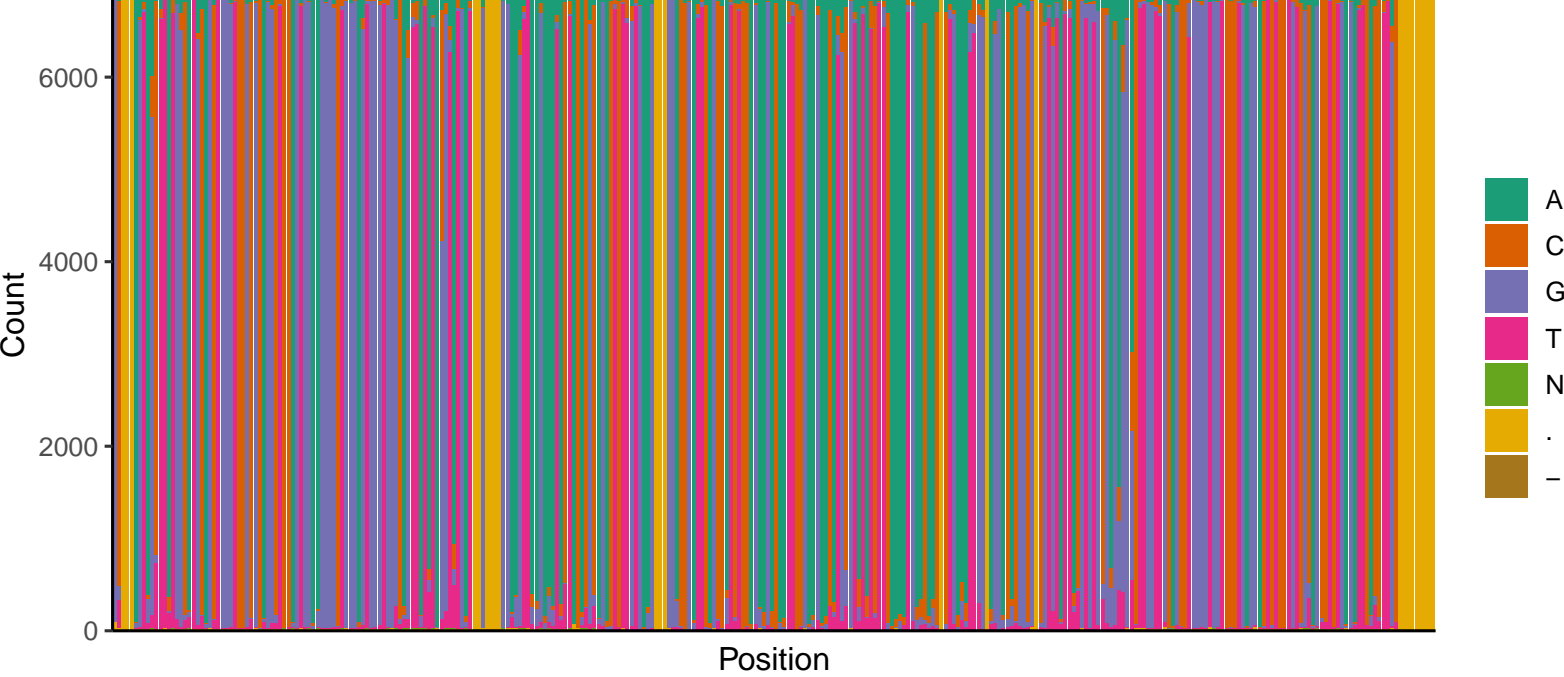
Gene IGHV4-169*02_T60C_G61C



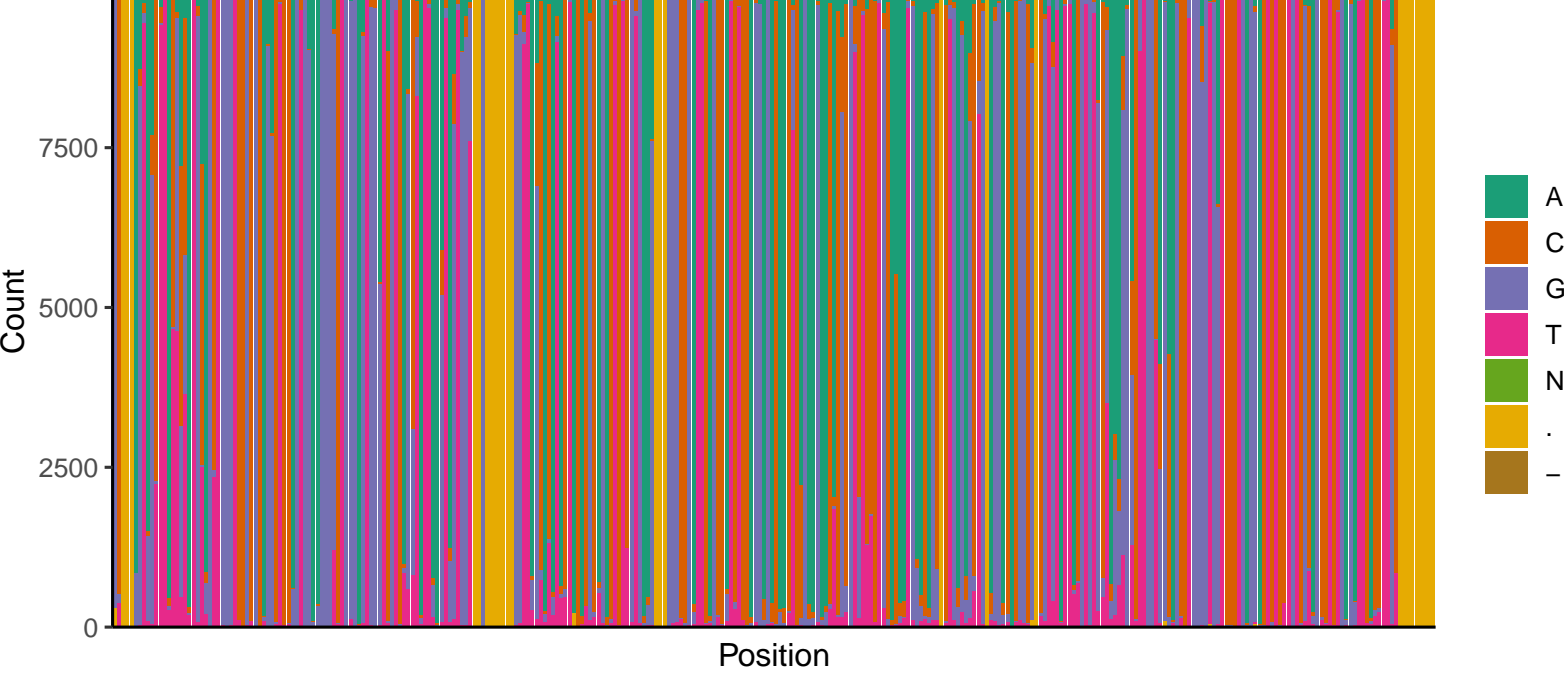
Gene IGHV3-13*01_C301G



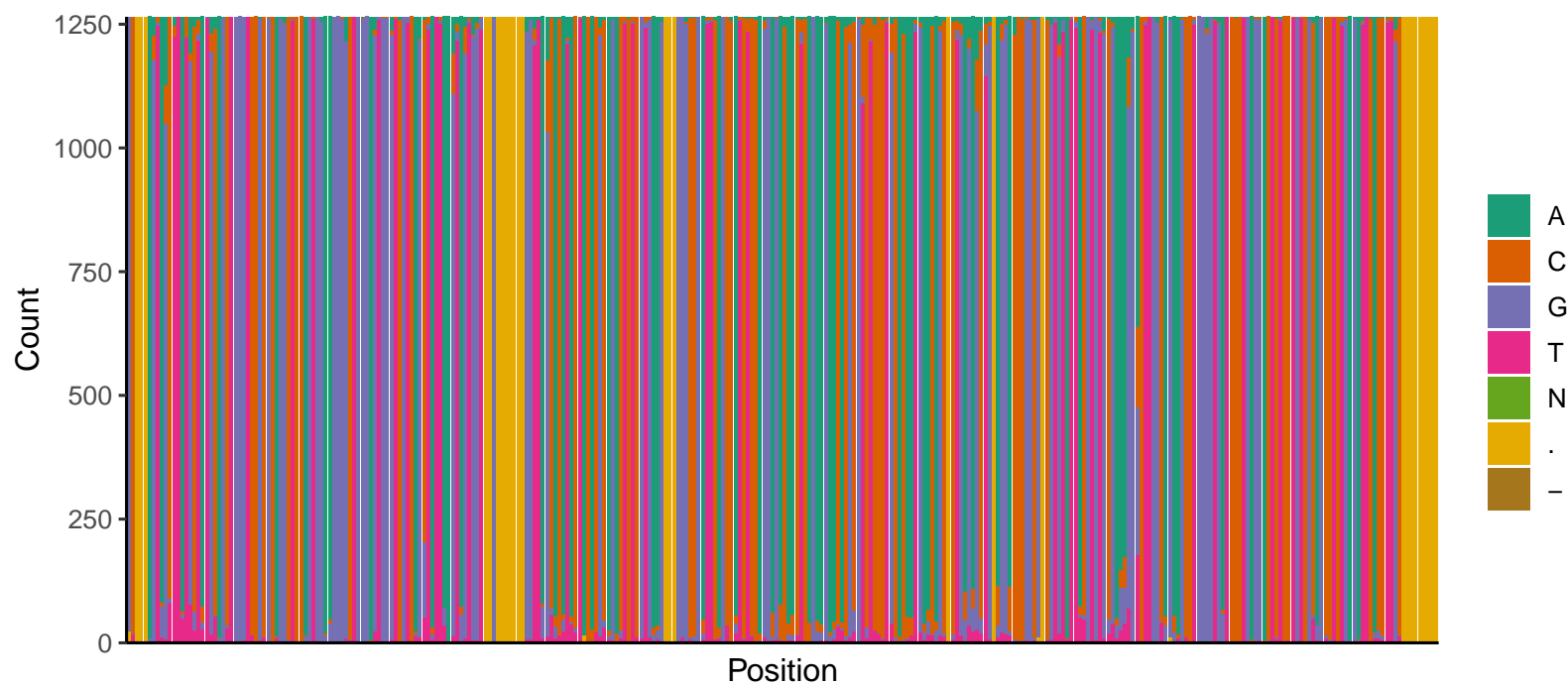
Gene IGHV3-54*02_G170C



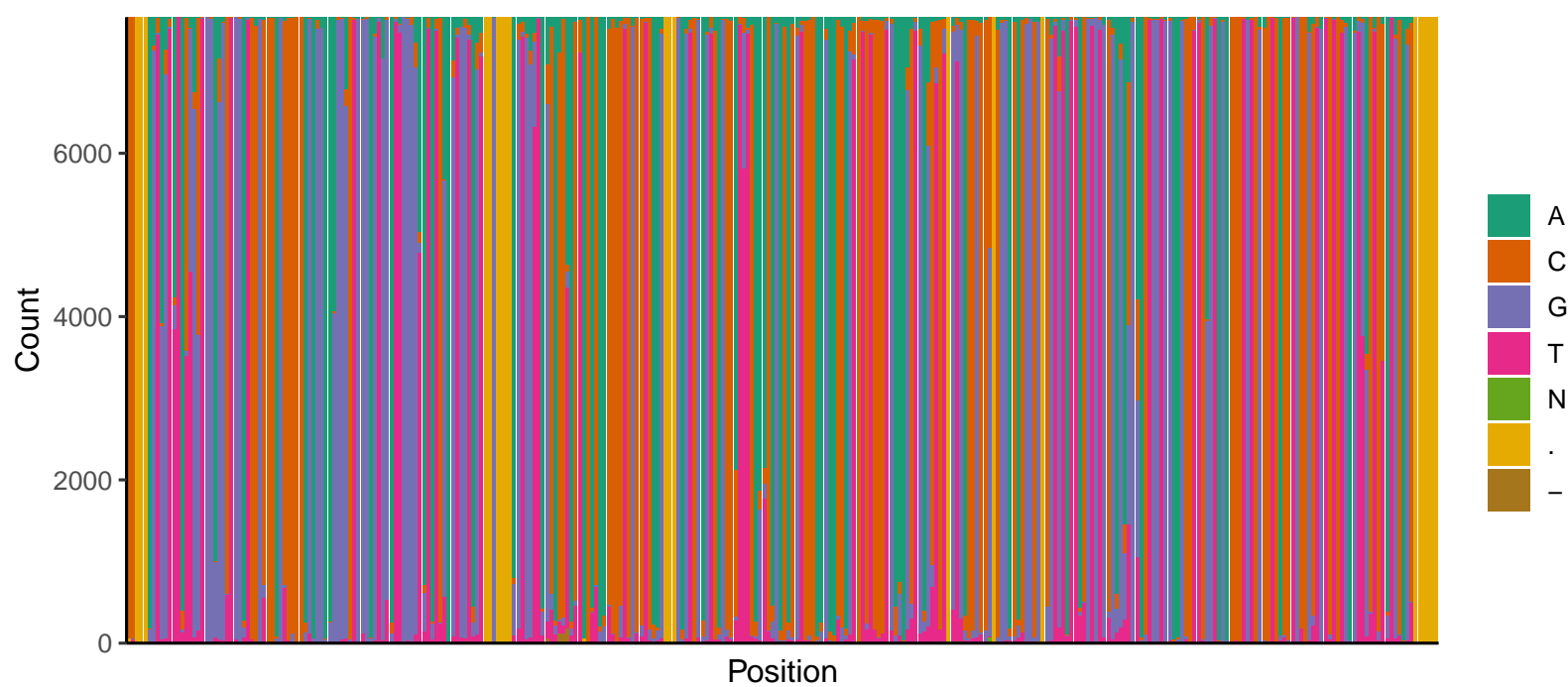
Gene IGHV3-103*01_G51A_A170G



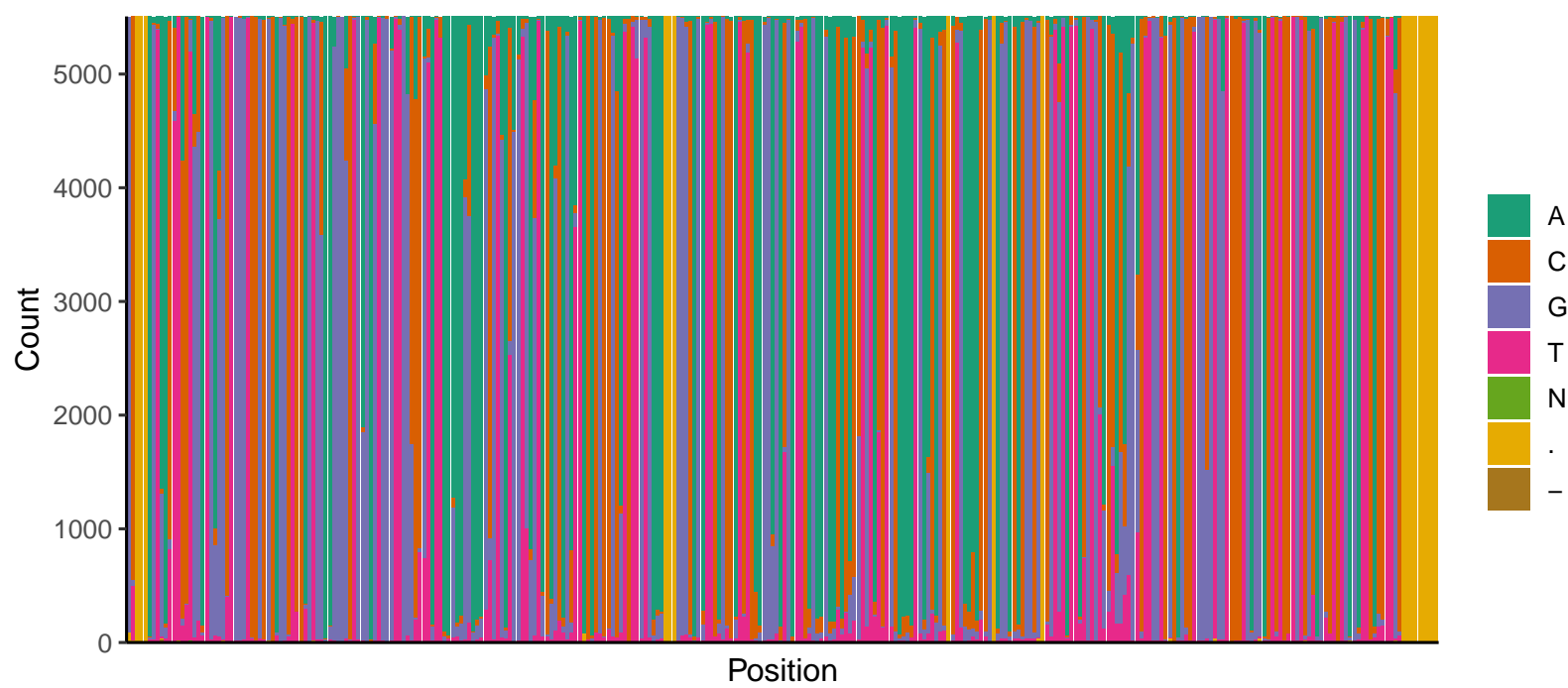
Gene IGHV3-103*01_G51A_A170G_A295C



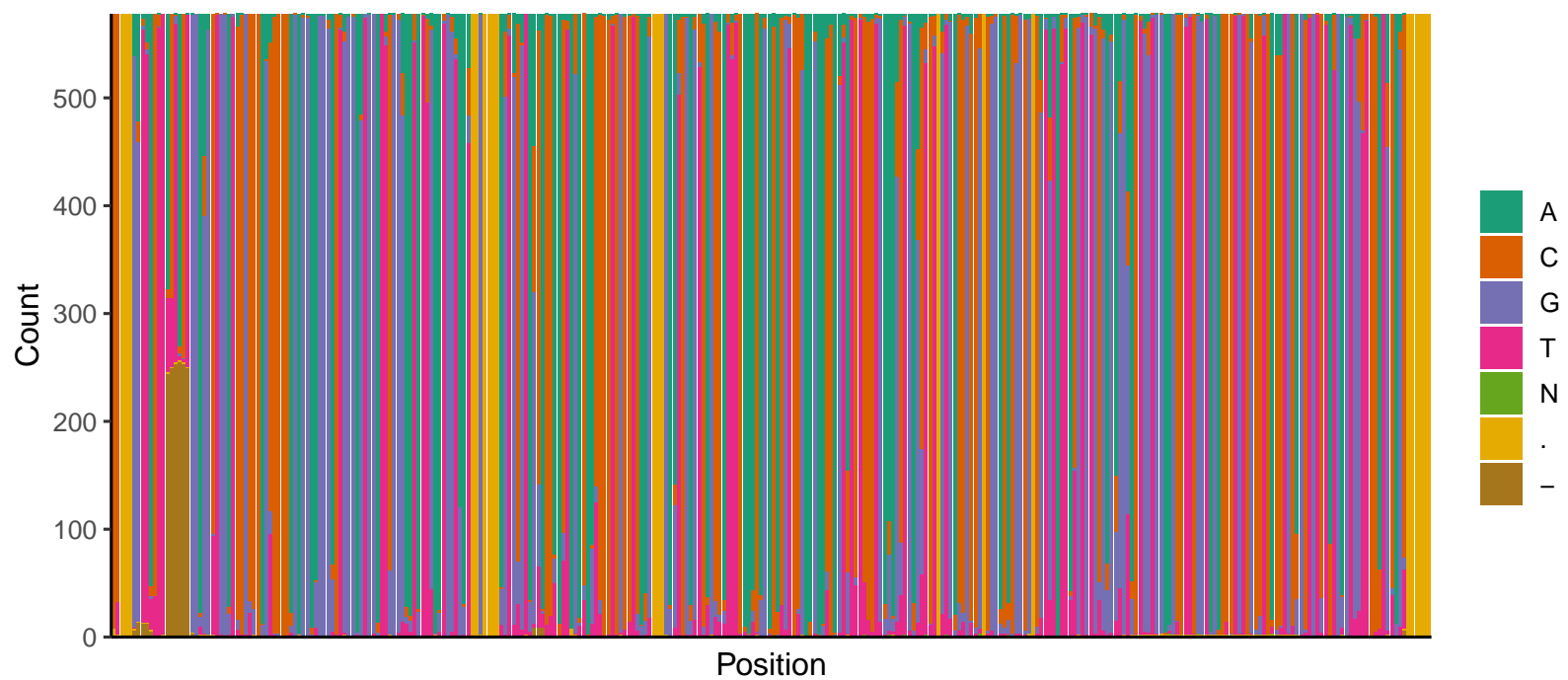
Gene IGHV4-65*01_G48A_A66C_A232C_T234G_A238G_C239T



Gene IGHV3-38*02_C27A_C38T_A39C_T300C



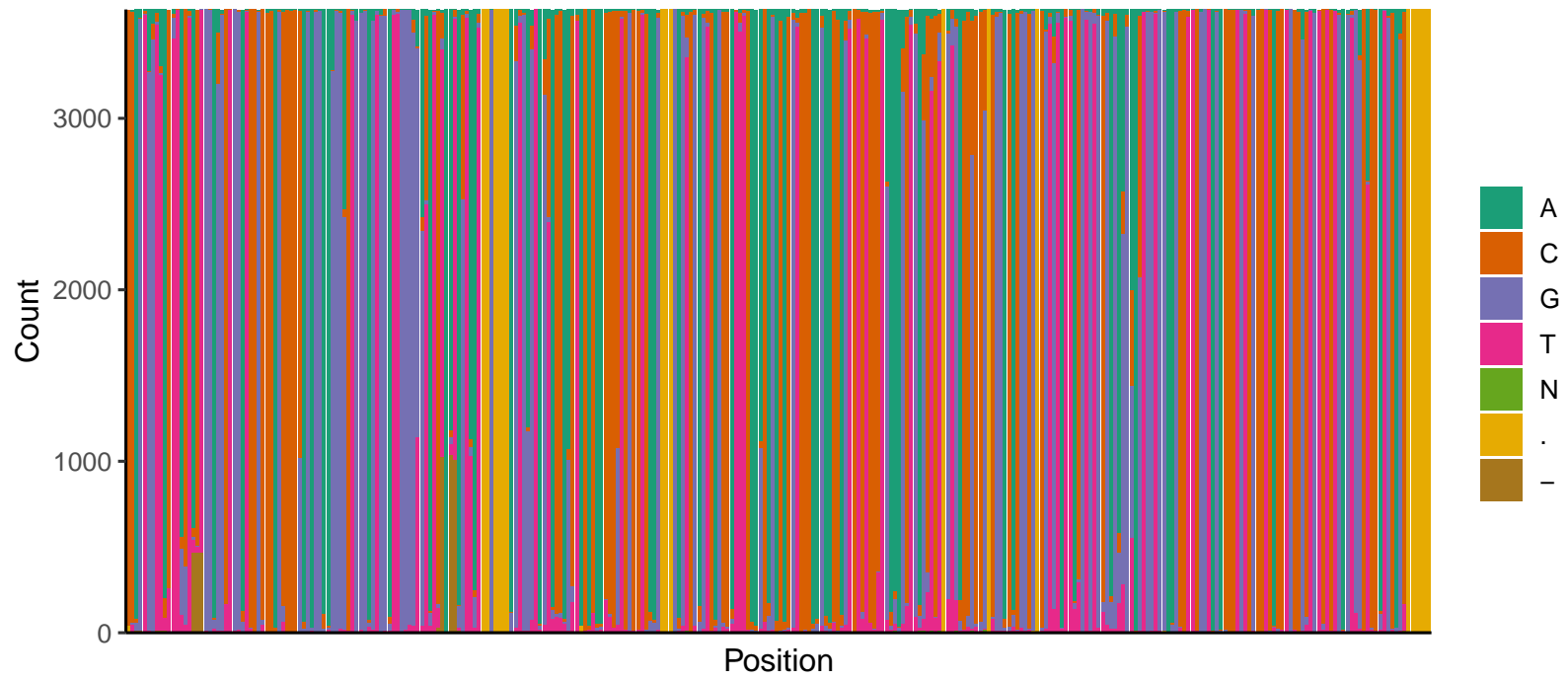
Gene IGHV4-73*01_C84T_G147A_T163A_C168T_T169G



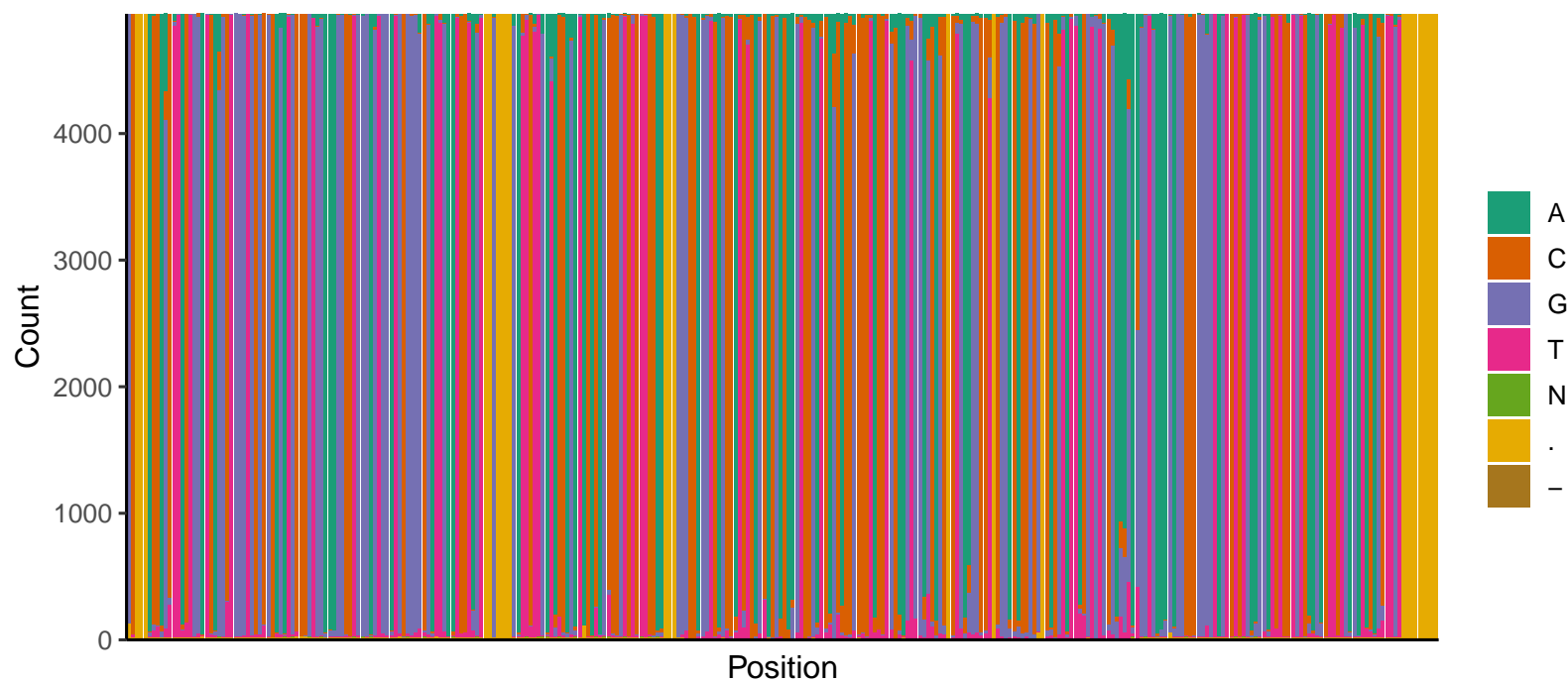
Gene IGHV4-160*01_A106G_A109T_G147A



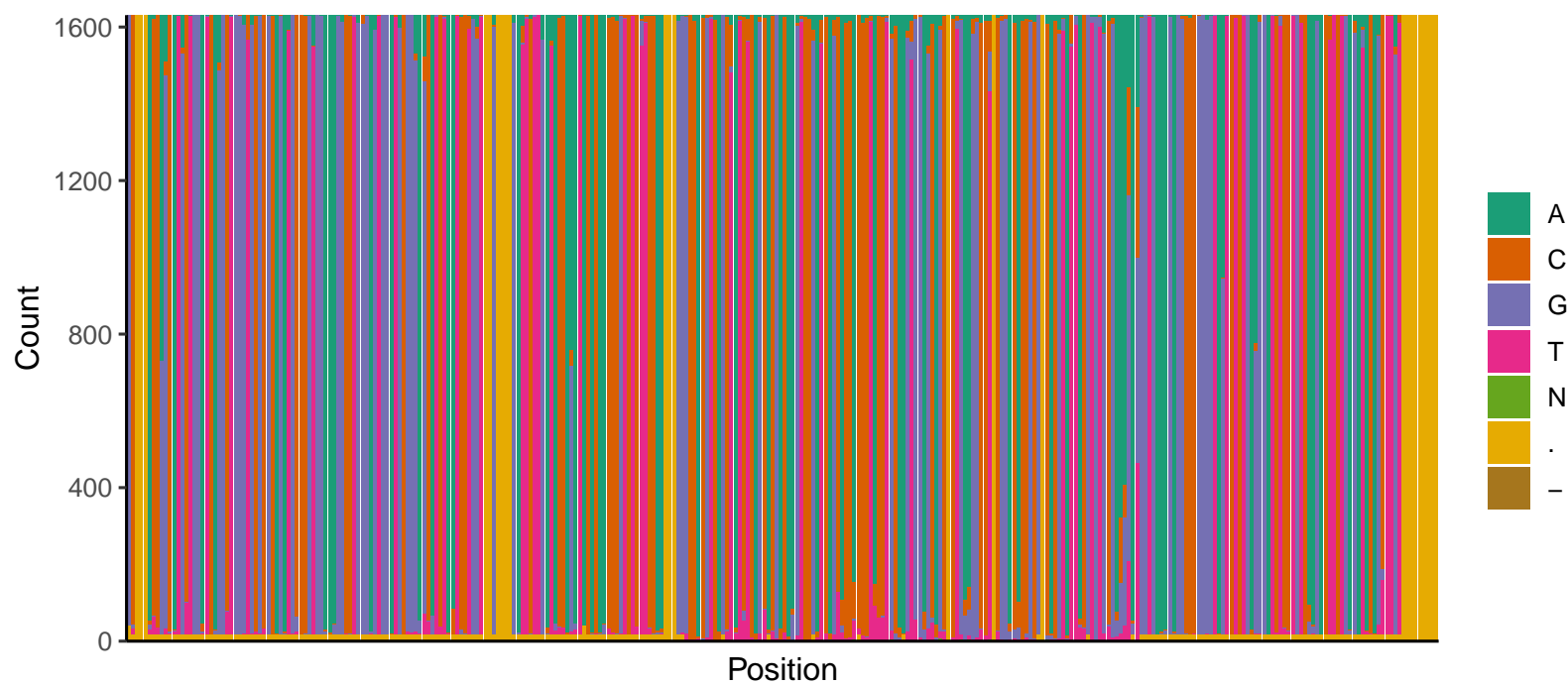
Gene IGHV4S13*01_T85A_C137G_G267A



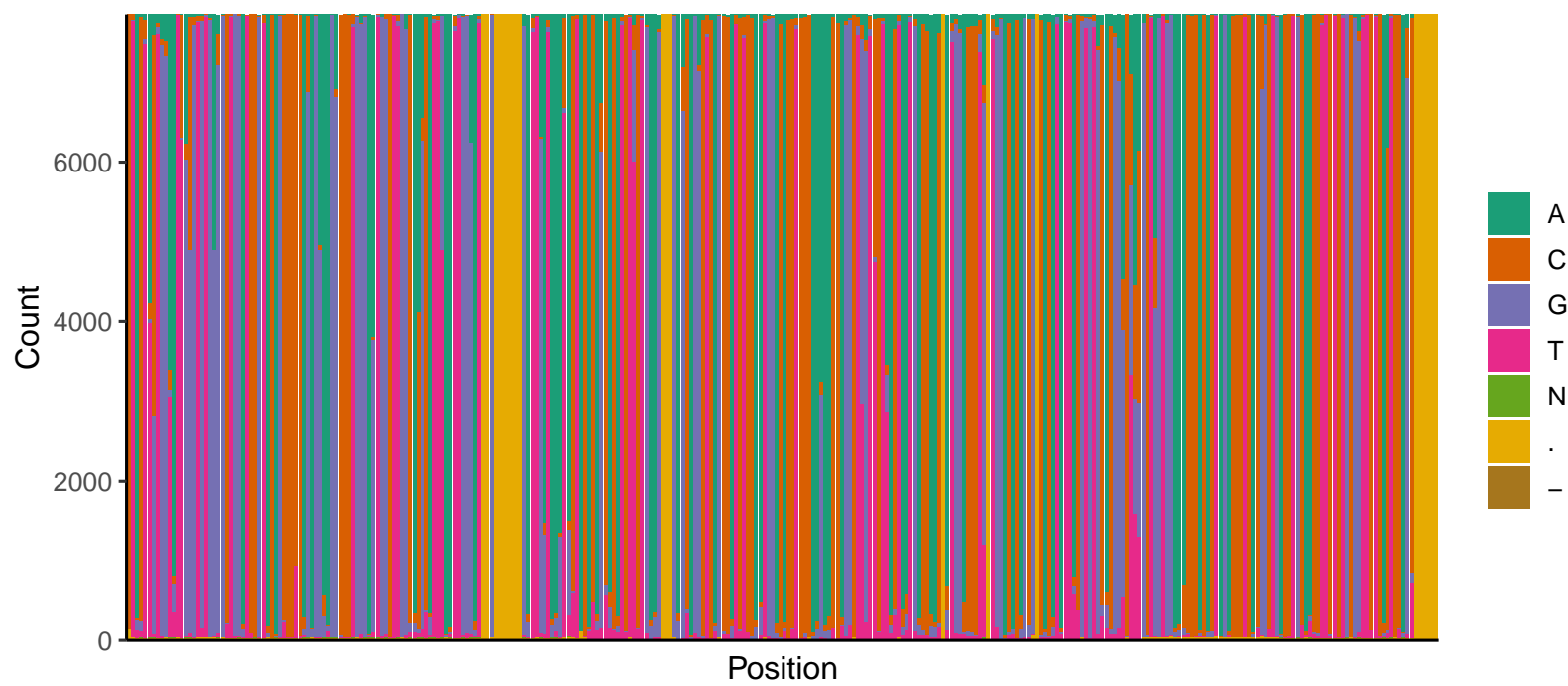
Gene IGHV5-20*02_A141G_C312T



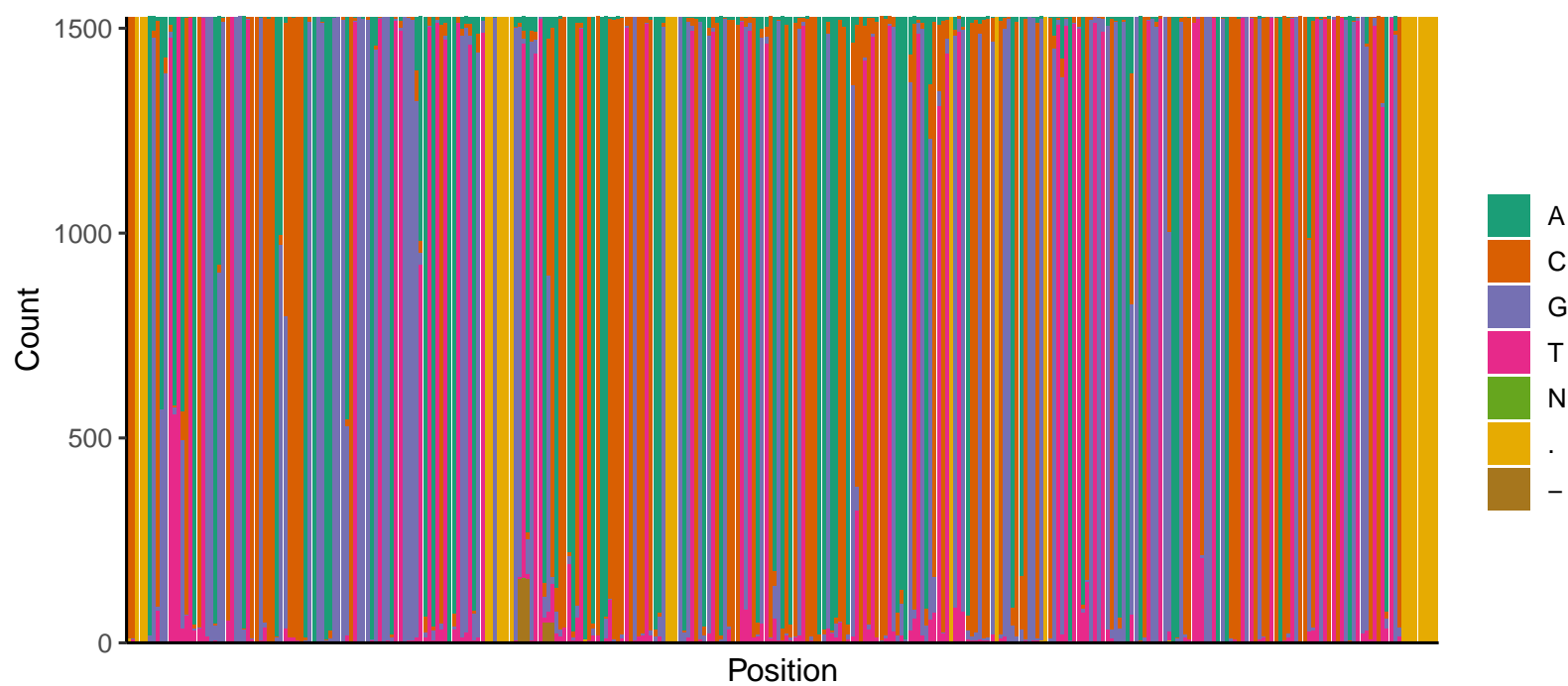
Gene IGHV5-43*01_A106G



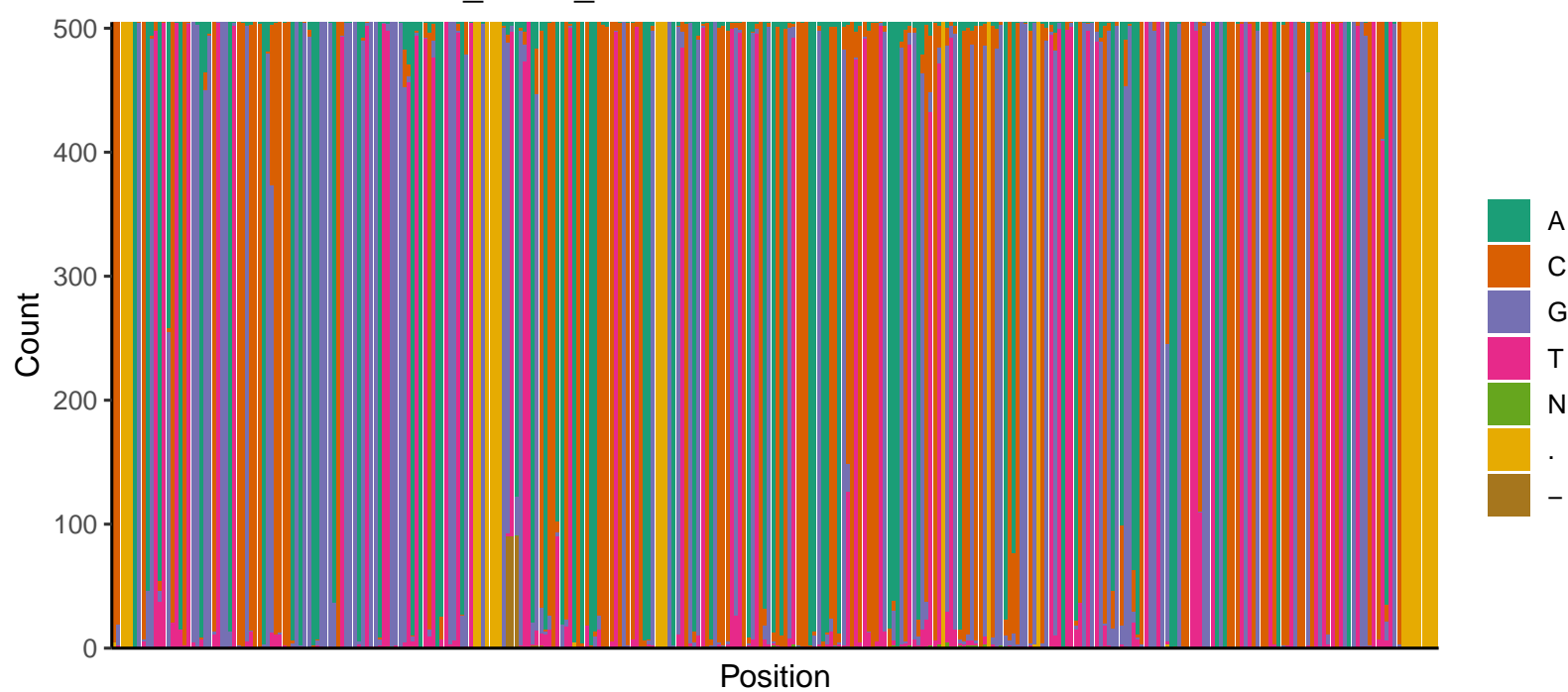
Gene IGHV2S1*01_G289T



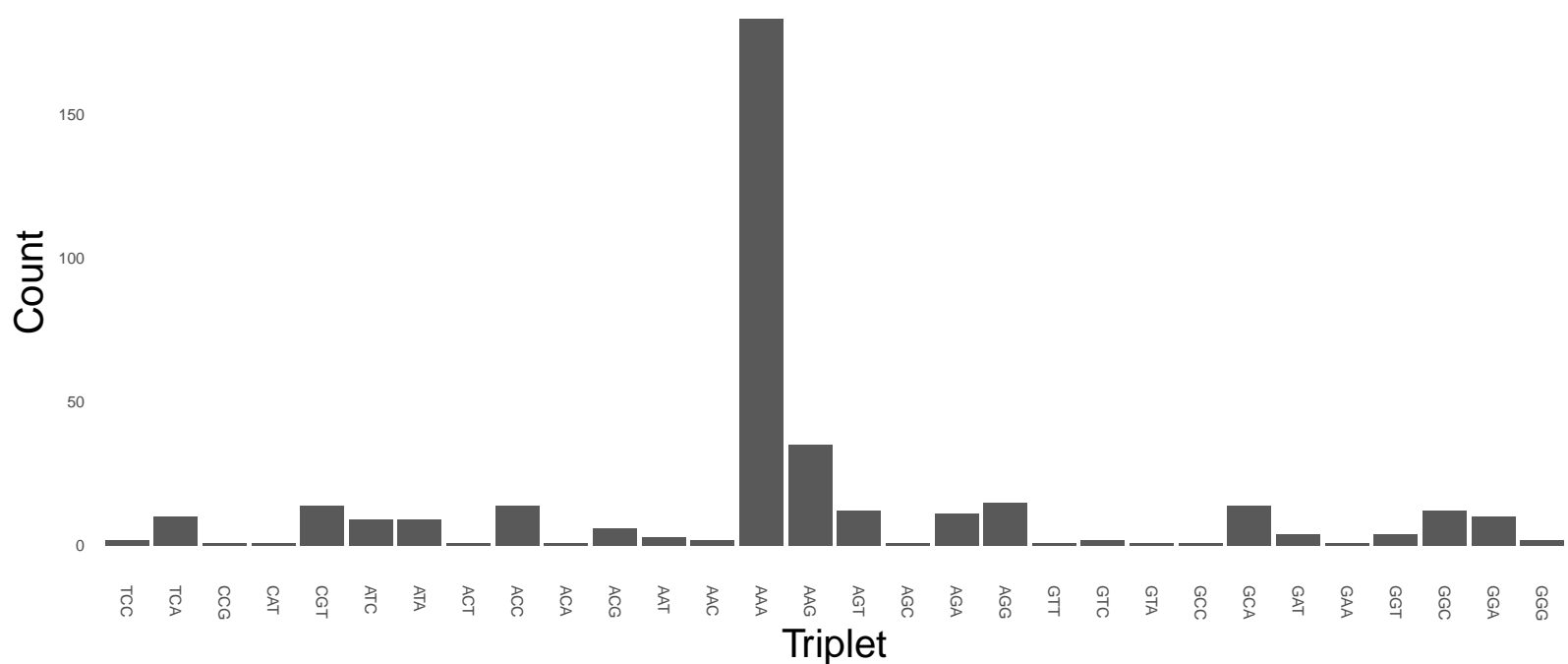
Gene IGHV4-169*01_T60C_G61C



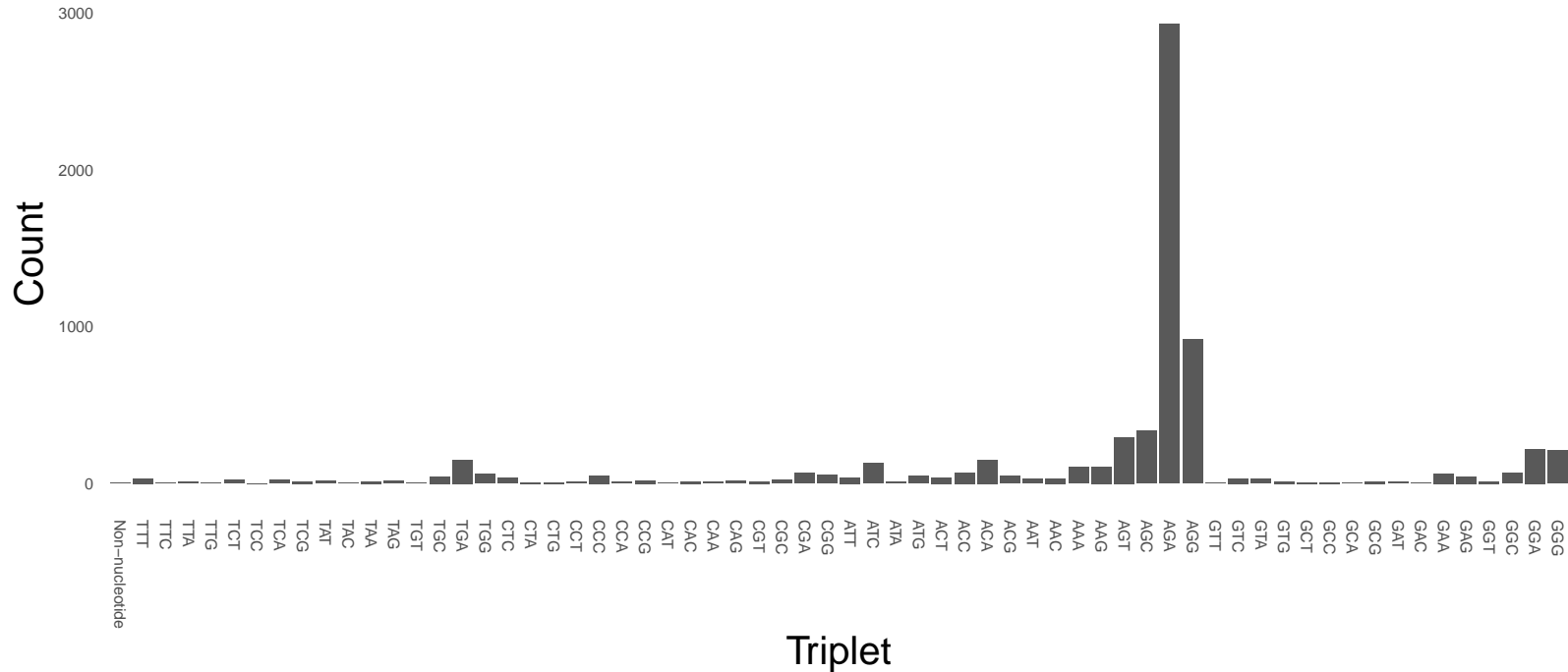
Gene IGHV4-169*02_T60C_G61C



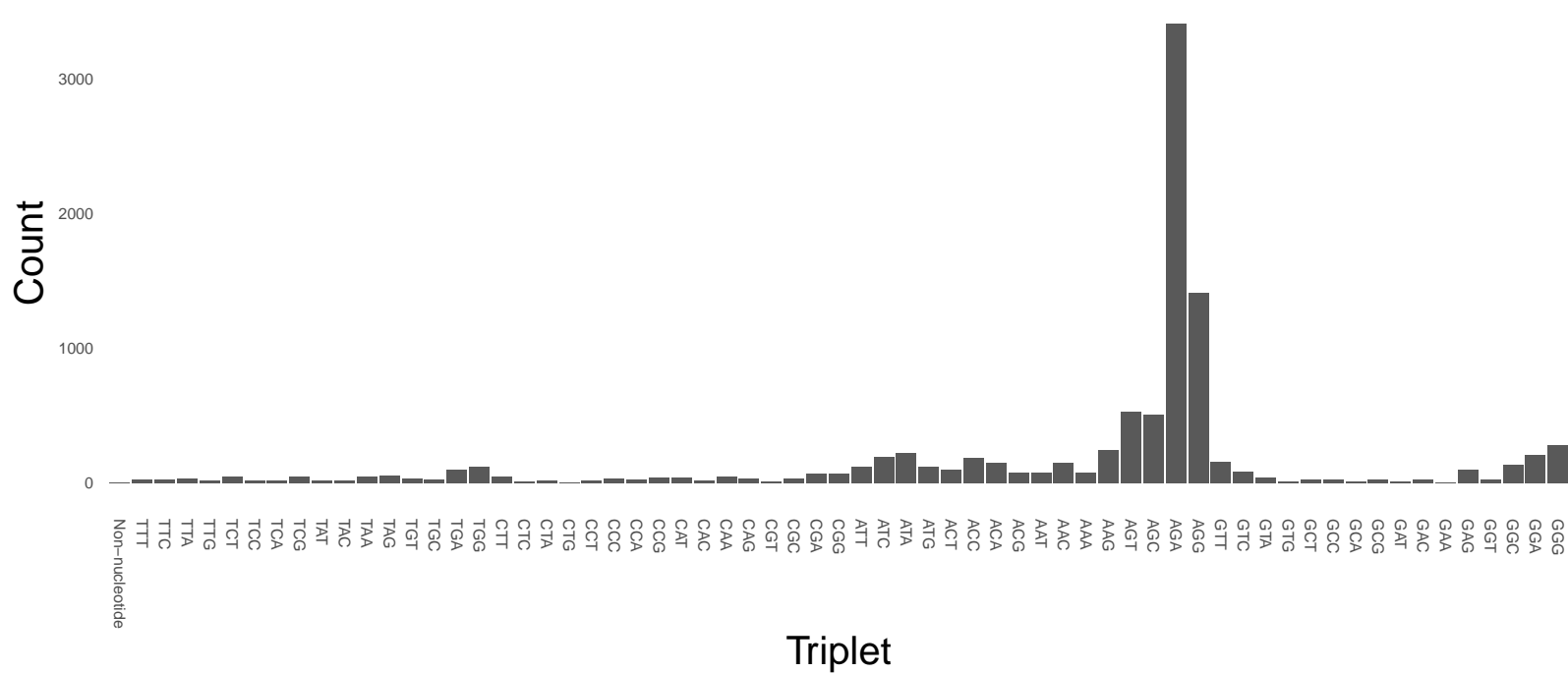
IGHV3-13*01_C301G- Final 3 nucleotides as a triplet



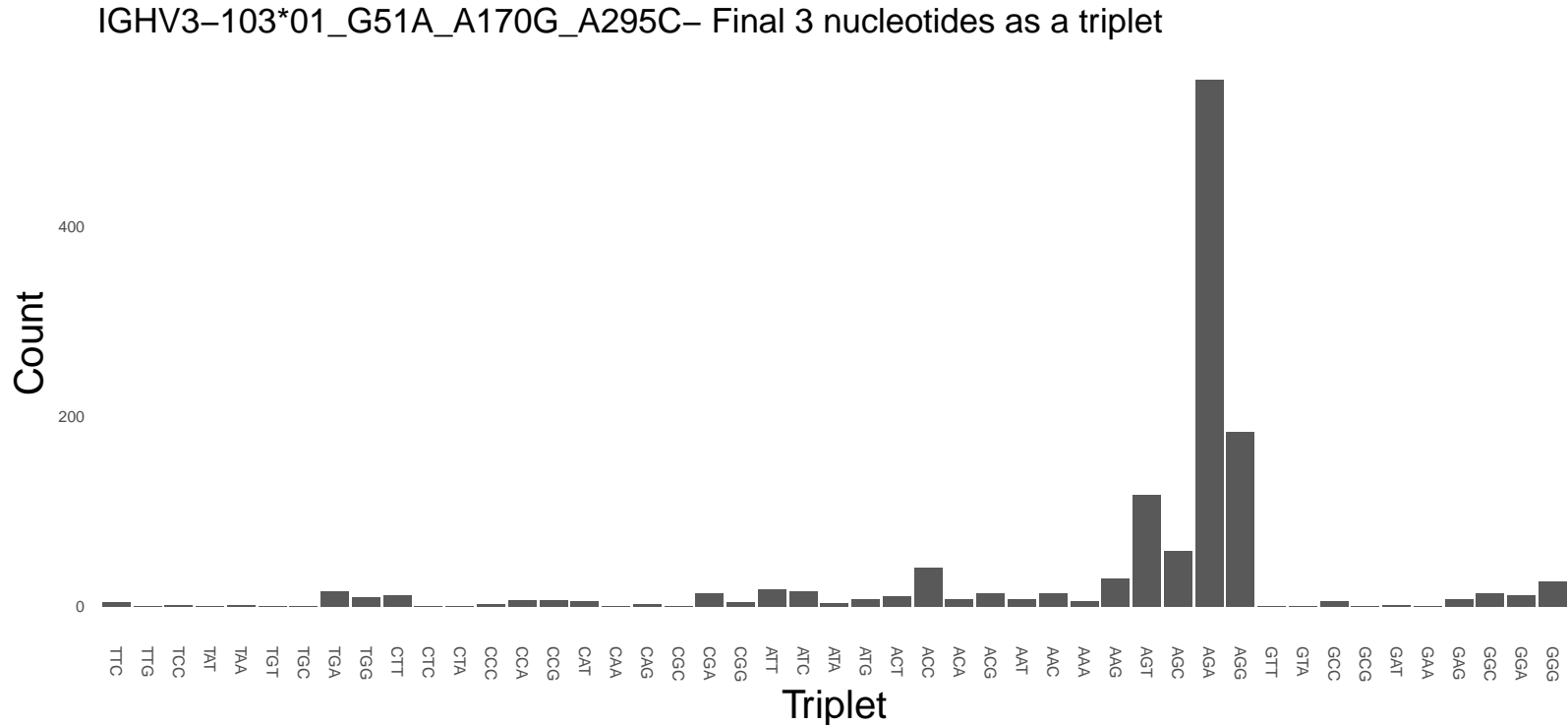
IGHV3-54*02_G170C- Final 3 nucleotides as a triplet



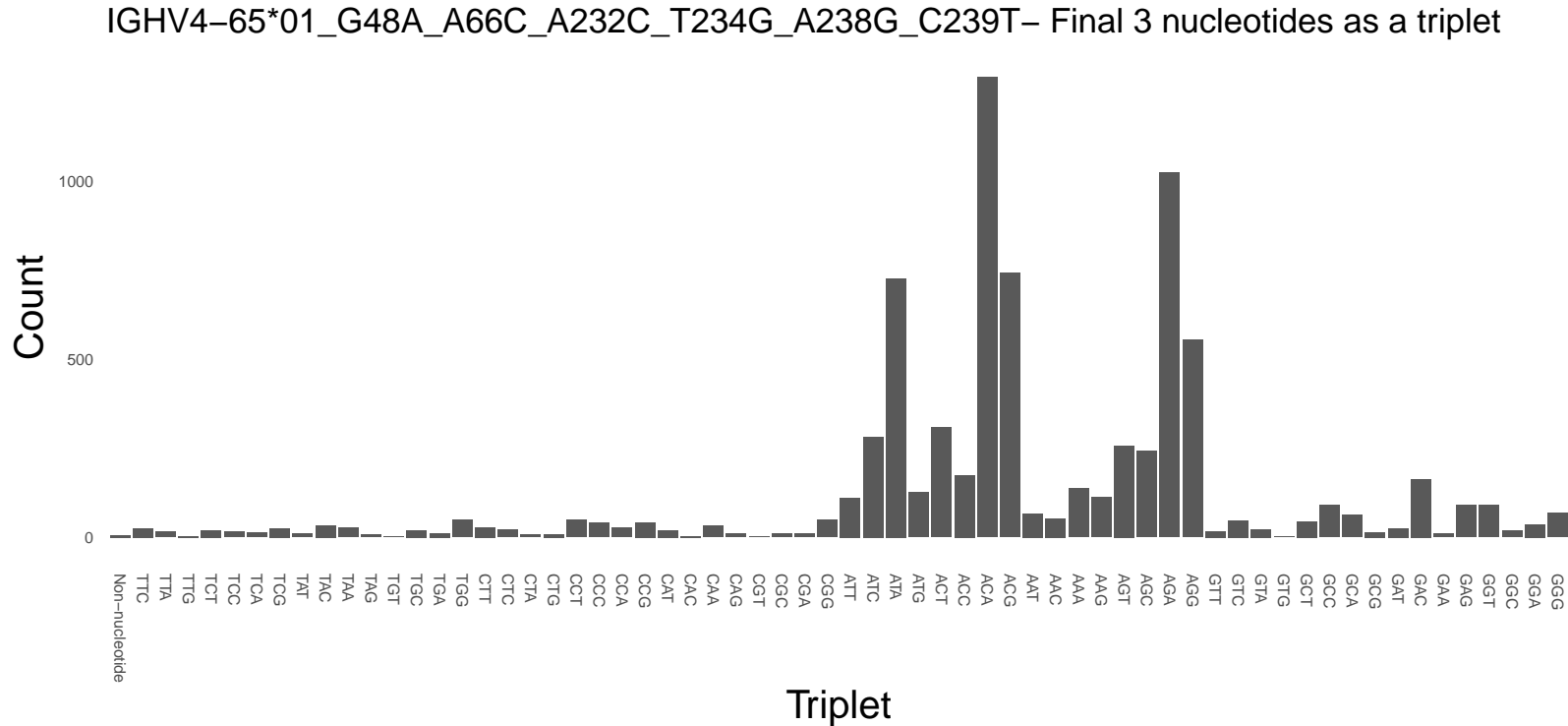
IGHV3-103*01_G51A_A170G- Final 3 nucleotides as a triplet



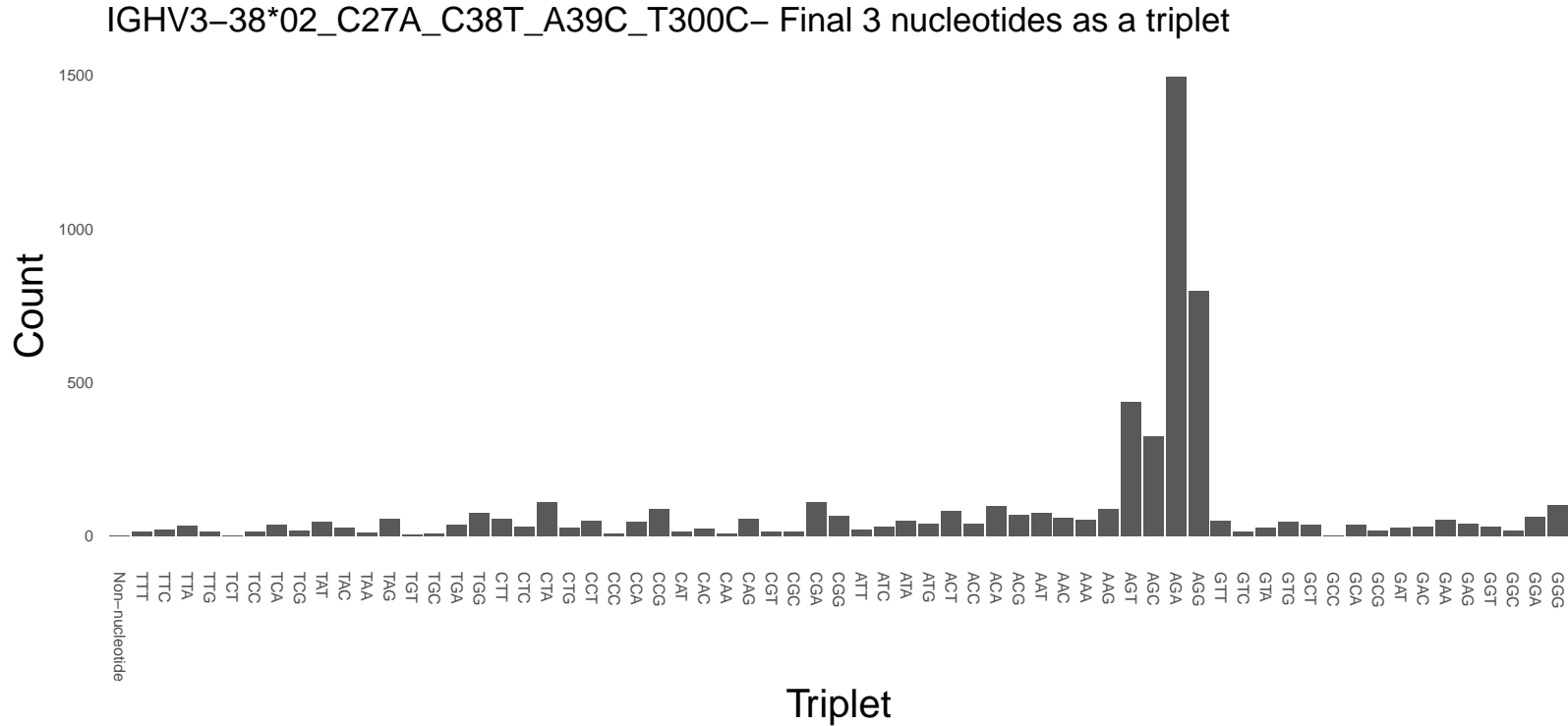
IGHV3-103*01_G51A_A170G_A295C- Final 3 nucleotides as a triplet



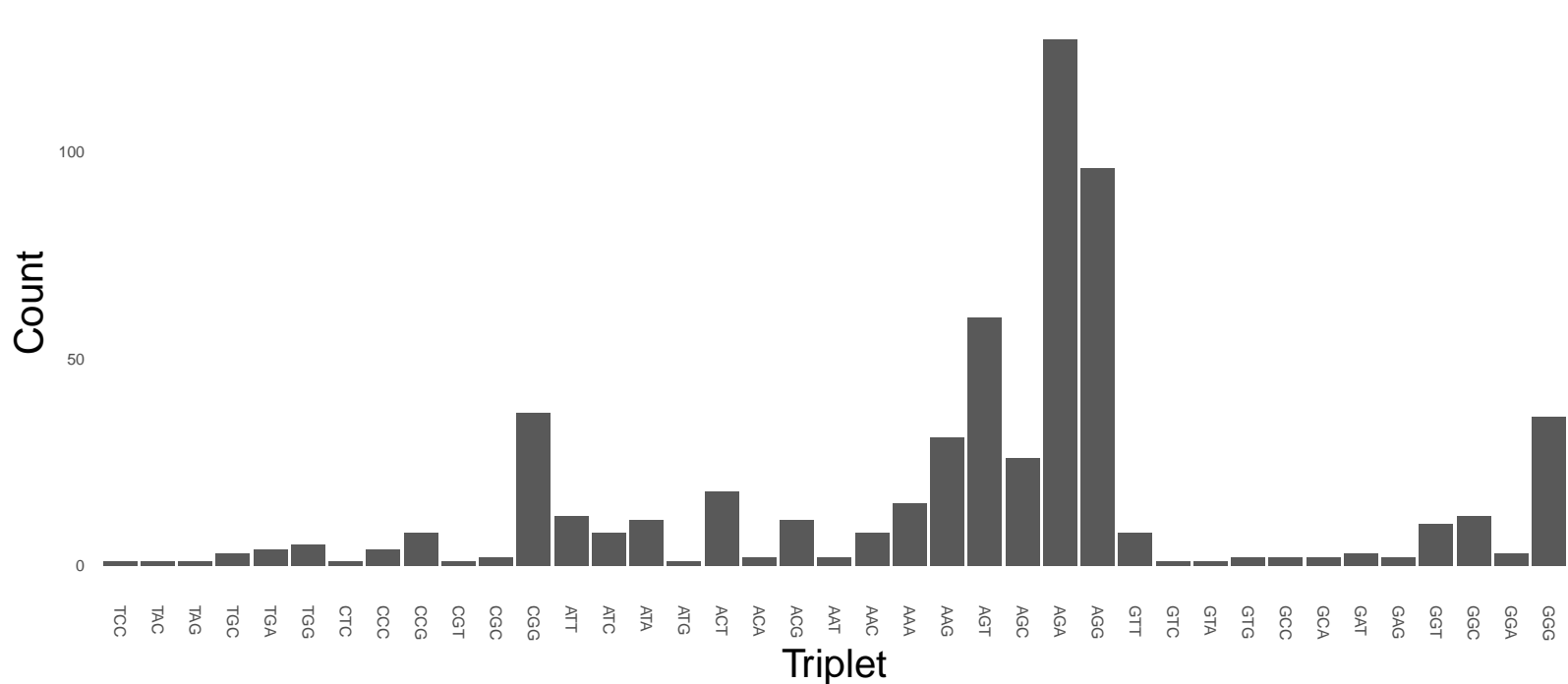
IGHV4-65*01_G48A_A66C_A232C_T234G_A238G_C239T- Final 3 nucleotides as a triplet



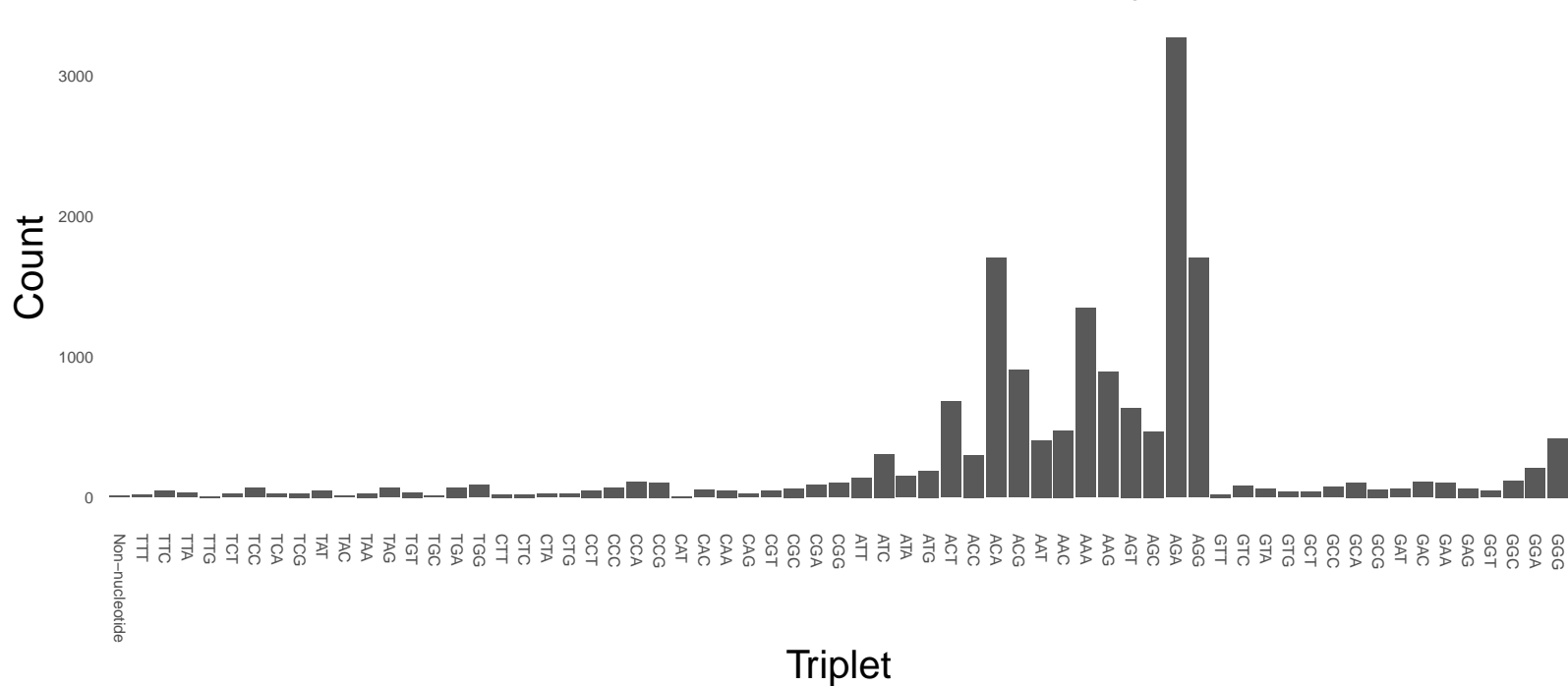
IGHV3-38*02_C27A_C38T_A39C_T300C- Final 3 nucleotides as a triplet



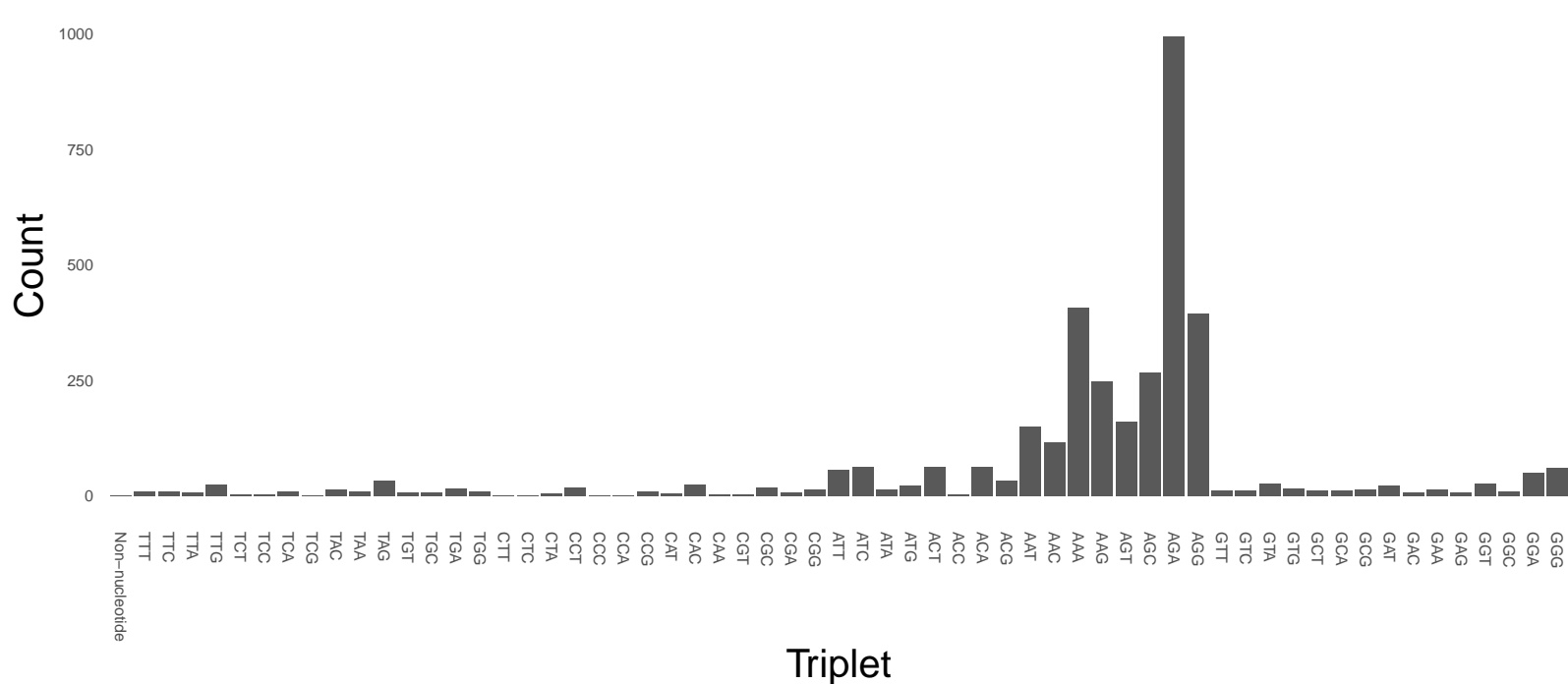
IGHV4-73*01_C84T_G147A_T163A_C168T_T169G- Final 3 nucleotides as a triplet



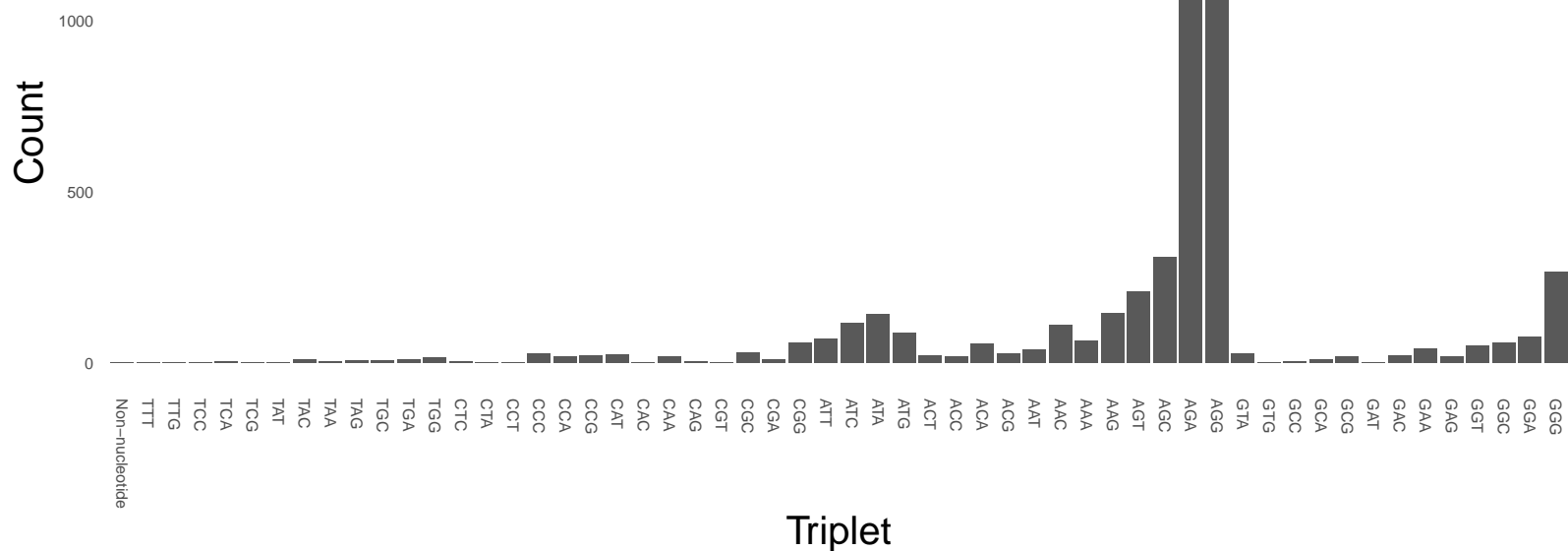
IGHV4-160*01_A106G_A109T_G147A- Final 3 nucleotides as a triplet



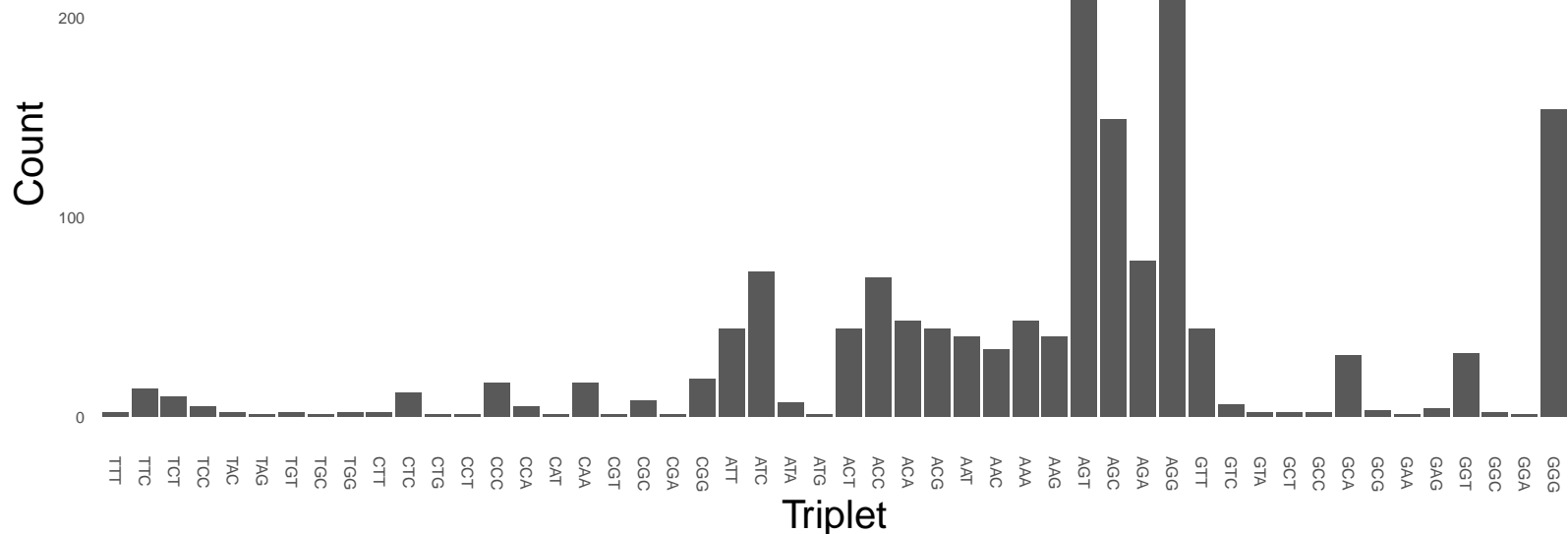
IGHV4S13*01_T85A_C137G_G267A- Final 3 nucleotides as a triplet



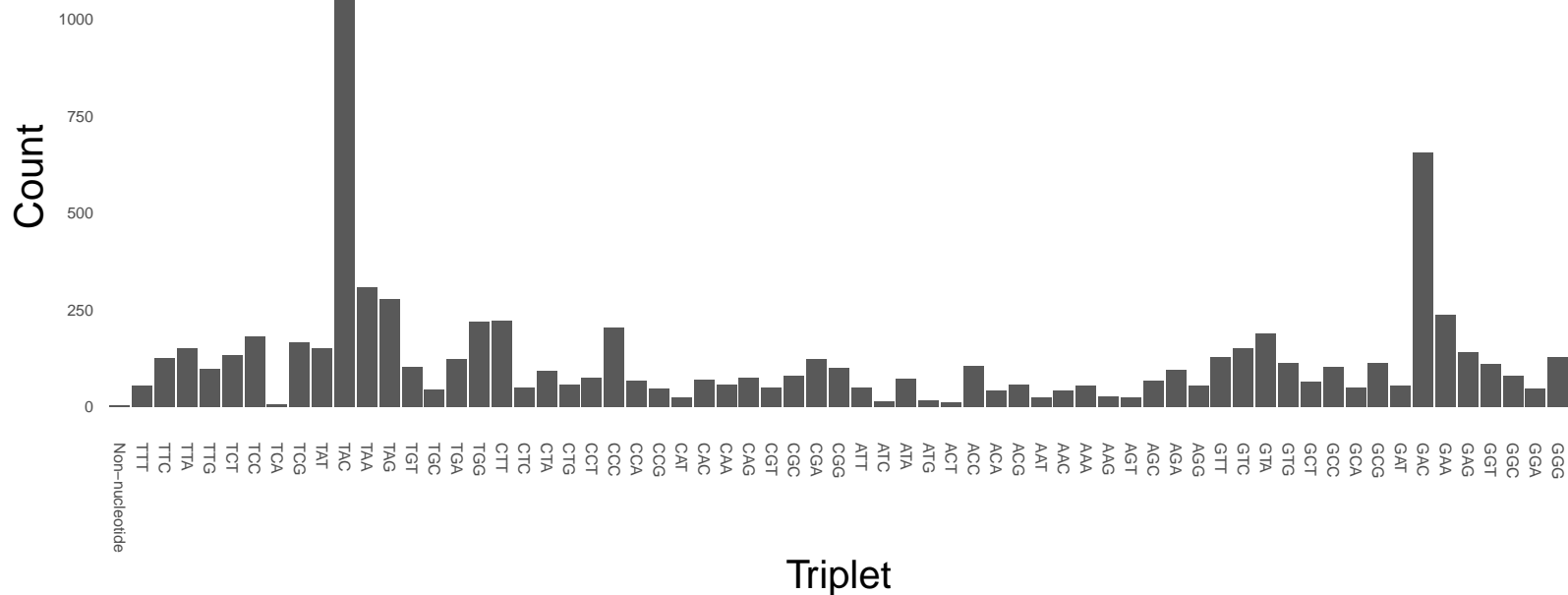
IGHV5-20*02_A141G_C312T- Final 3 nucleotides as a triplet



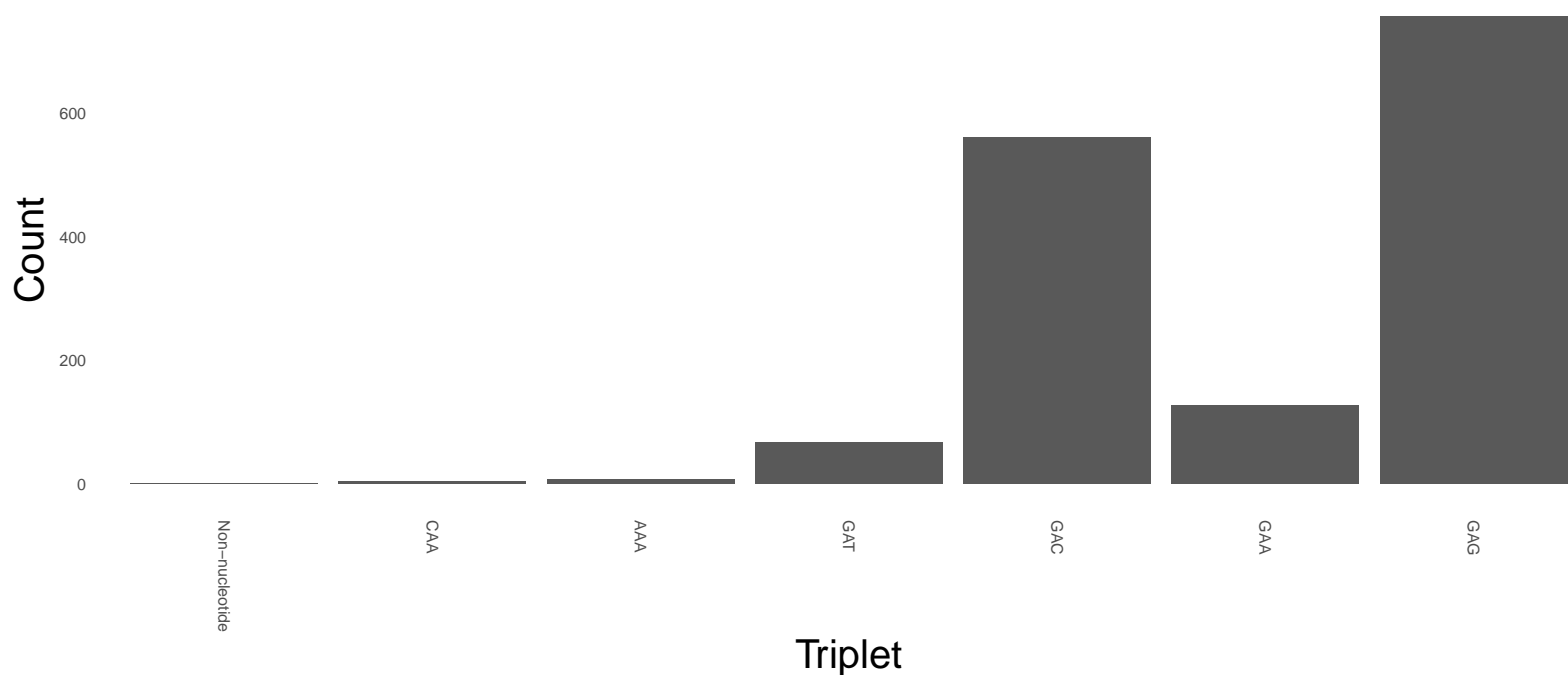
IGHV5-43*01_A106G- Final 3 nucleotides as a triplet



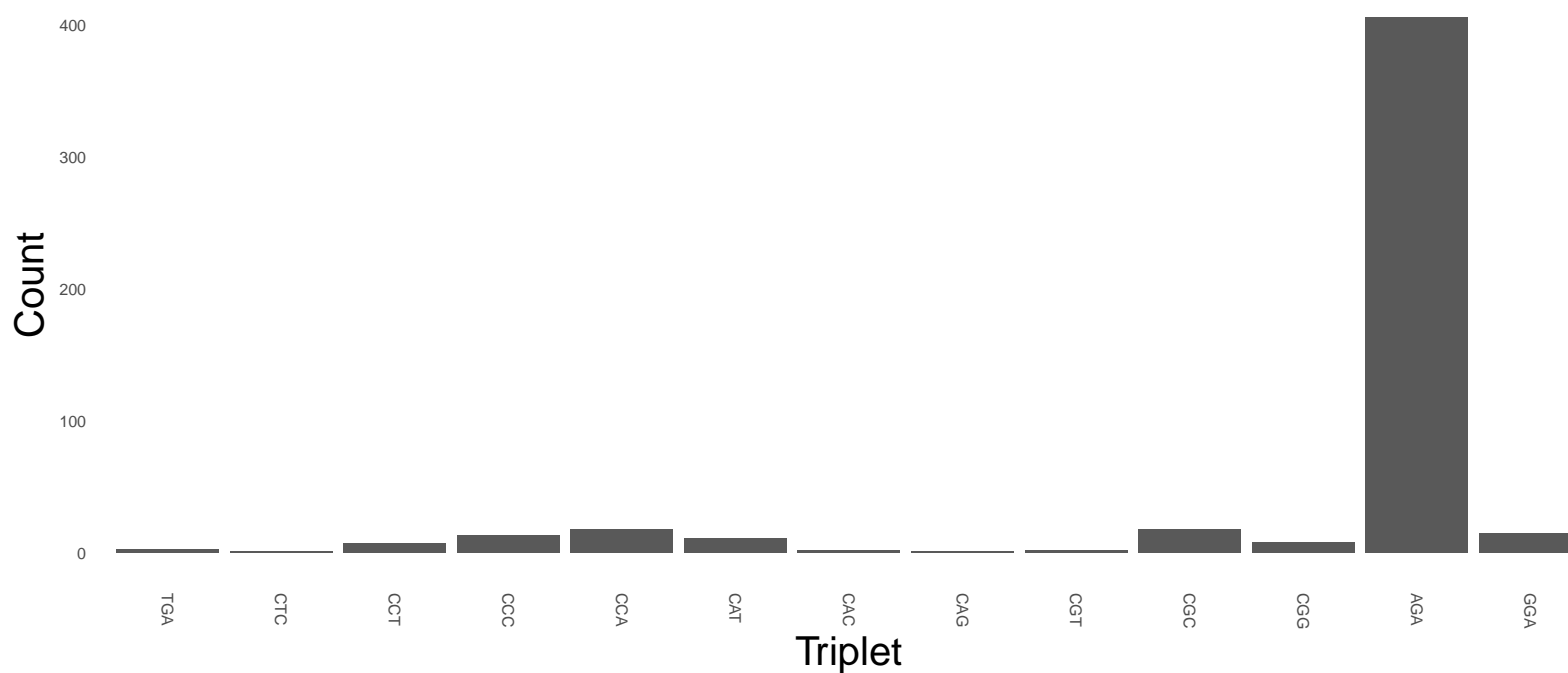
IGHV2S1*01_G289T- Final 3 nucleotides as a triplet



IGHV4–169*01_T60C_G61C– Final 3 nucleotides as a triplet

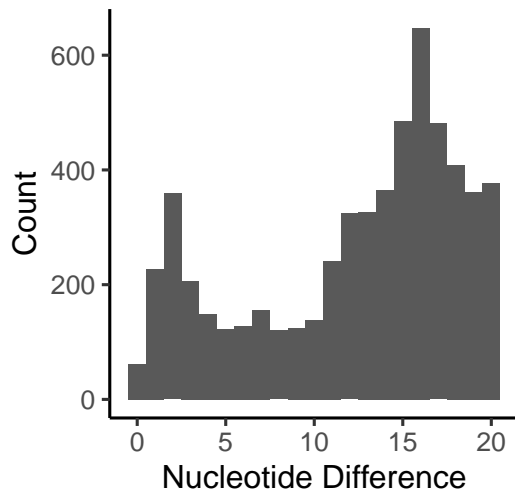


IGHV4–169*02_T60C_G61C– Final 3 nucleotides as a triplet



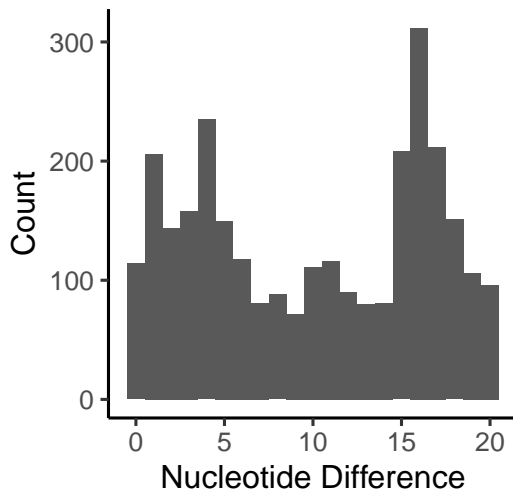
IGHV2S1*01_G289T

7852 sequences assigned
62 (0.8%) exact matches, in which:
61 unique CDR3
5 unique J



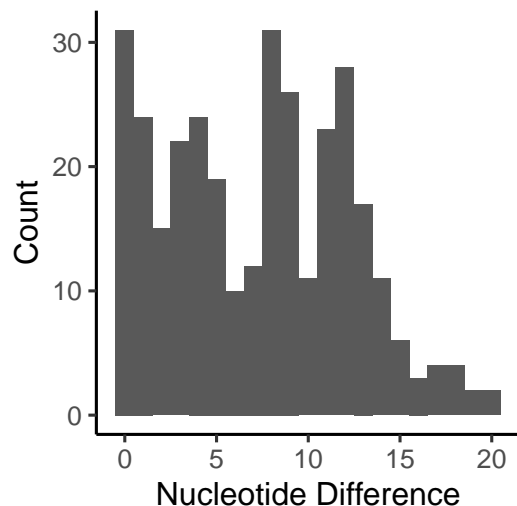
IGHV4S13*01_T85A_C13

3635 sequences assigned
114 (3.1%) exact matches, in which:
102 unique CDR3
4 unique J



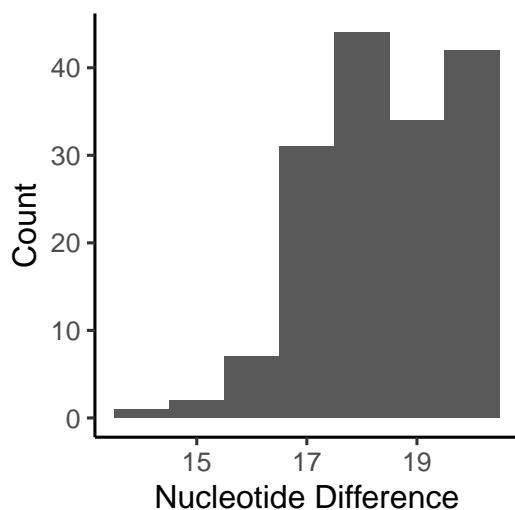
IGHV3-13*01_C301G

382 sequences assigned
31 (8.1%) exact matches, in which:
28 unique CDR3
4 unique J



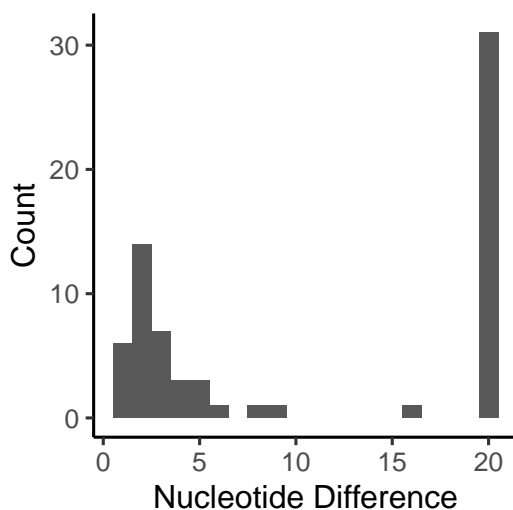
IGHV3S3*01

1557 sequences assigned
No exact matches.



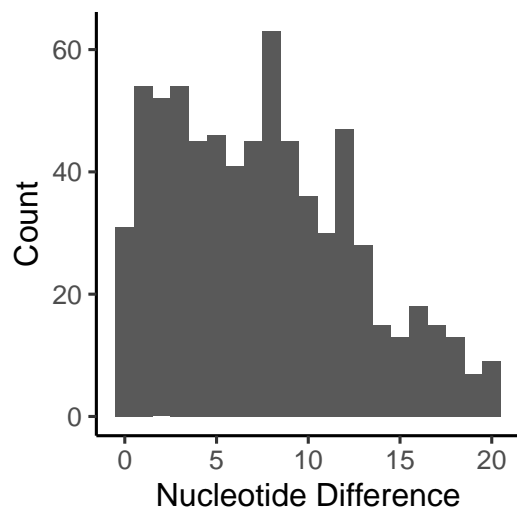
IGHV1-156D*01

455 sequences assigned
No exact matches.



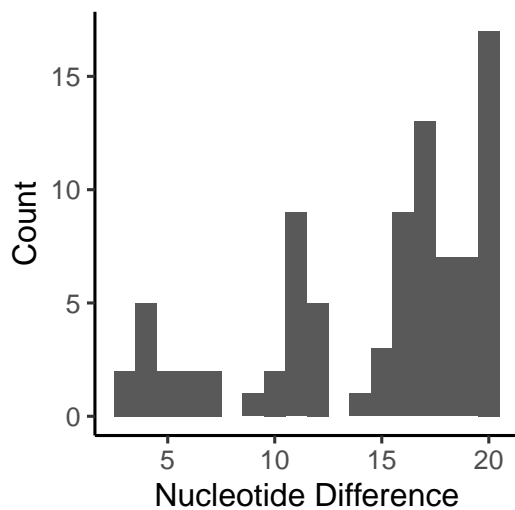
IGHV3-38*02_C27A_C38

5507 sequences assigned
31 (0.6%) exact matches, in which:
28 unique CDR3
3 unique J



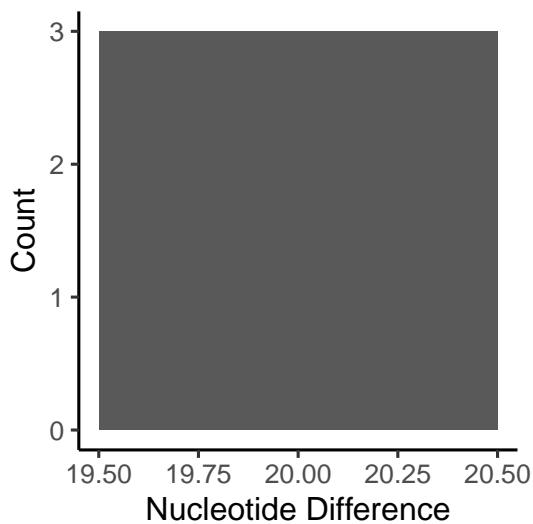
IGHV3S43*01

369 sequences assigned
No exact matches.



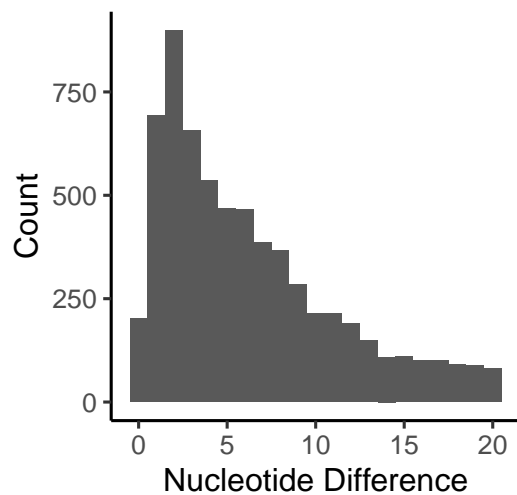
IGHV3-12*01

2398 sequences assigned
No exact matches.



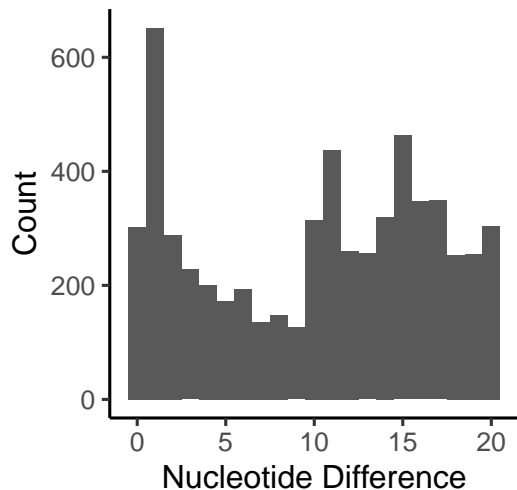
IGHV3-54*02_G170C

6844 sequences assigned
201 (2.9%) exact matches, in which:
172 unique CDR3
4 unique J



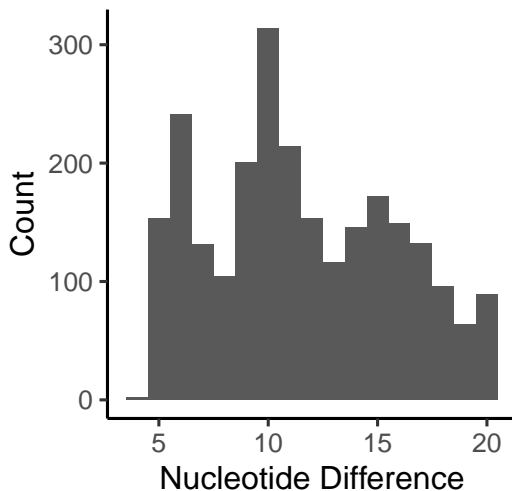
IGHV3-103*01_G51A_A1

9879 sequences assigned
303 (3.1%) exact matches, in which:
261 unique CDR3
4 unique J



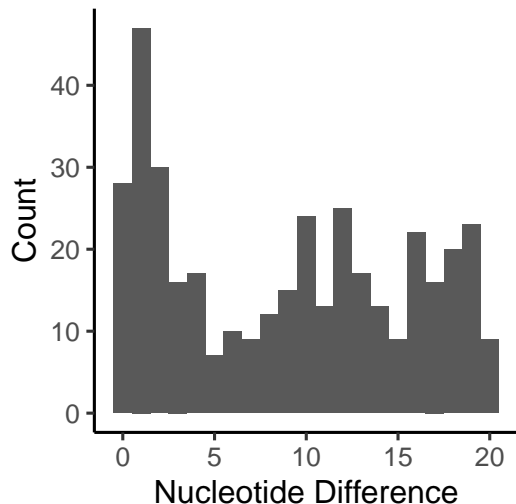
IGHV3-124*01

3989 sequences assigned
No exact matches.



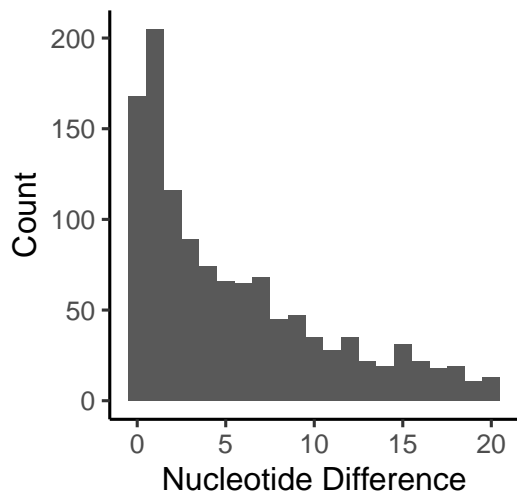
IGHV4-73*01_C84T_G14

578 sequences assigned
28 (4.8%) exact matches, in which:
27 unique CDR3
4 unique J



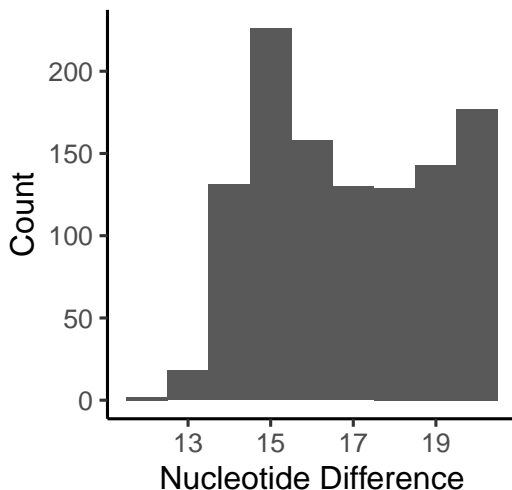
IGHV3-103*01_G51A_A1

1265 sequences assigned
168 (13.3%) exact matches, in which:
161 unique CDR3
4 unique J



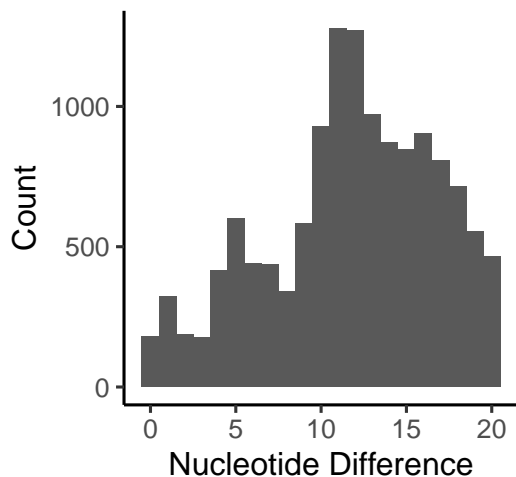
IGHV3-137*01

3306 sequences assigned
No exact matches.



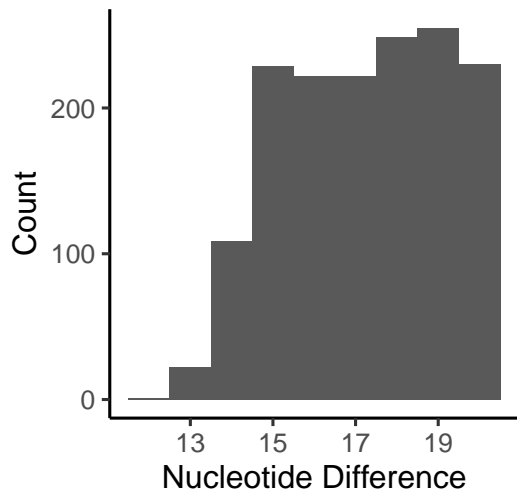
IGHV4-160*01_A106G_

16779 sequences assigned
179 (1.1%) exact matches, in which:
163 unique CDR3
4 unique J



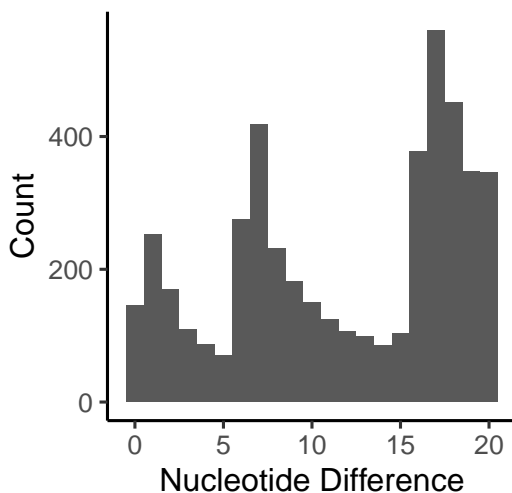
IGHV3-108*01

3526 sequences assigned
No exact matches.



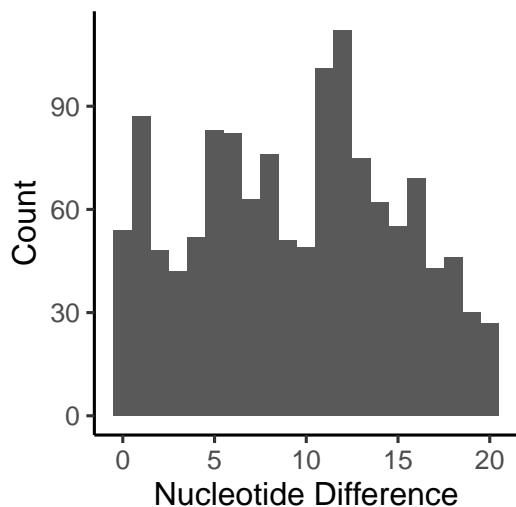
IGHV4-65*01_G48A_A66

7668 sequences assigned
146 (1.9%) exact matches, in which:
134 unique CDR3
4 unique J



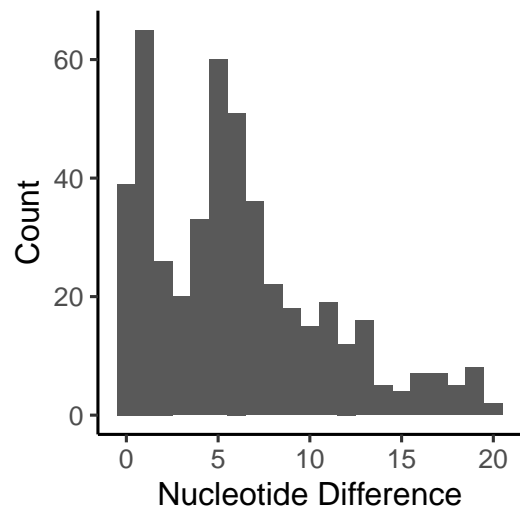
IGHV4-169*01_T60C_G6

1528 sequences assigned
54 (3.5%) exact matches, in which:
50 unique CDR3
4 unique J



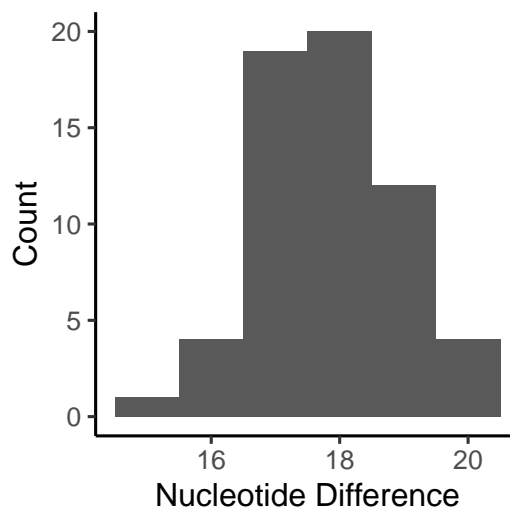
IGHV4-169*02_T60C_G6

505 sequences assigned
39 (7.7%) exact matches, in which:
36 unique CDR3
2 unique J



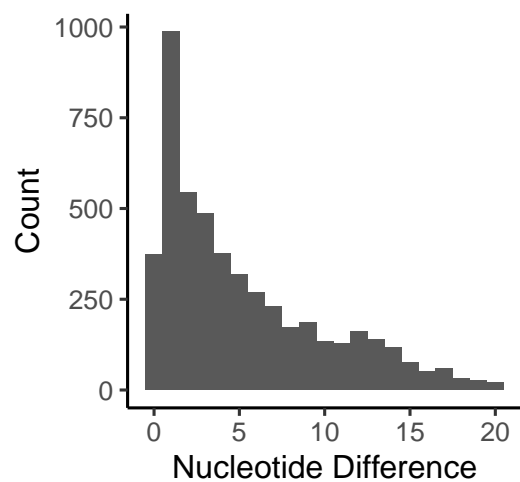
IGHV7-94*01

125 sequences assigned
No exact matches.



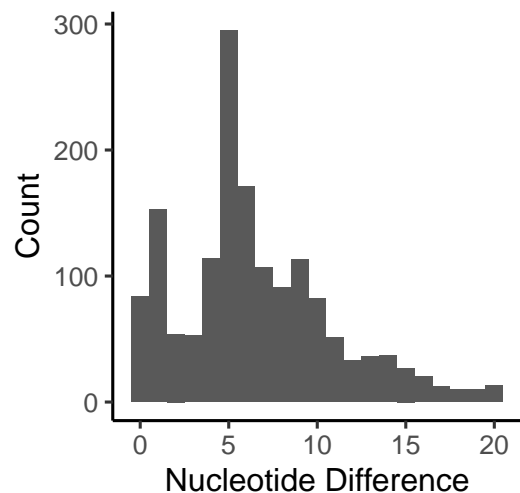
IGHV5-20*02_A141G_C312T

4946 sequences assigned
373 (7.5%) exact matches, in which:
305 unique CDR3
4 unique J

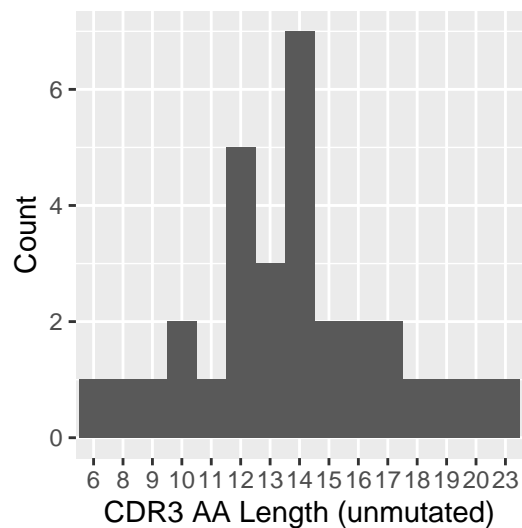


IGHV5-43*01_A106G

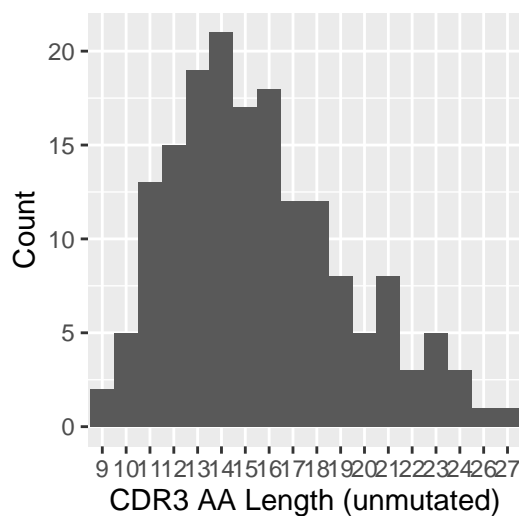
1631 sequences assigned
84 (5.2%) exact matches, in which:
70 unique CDR3
4 unique J



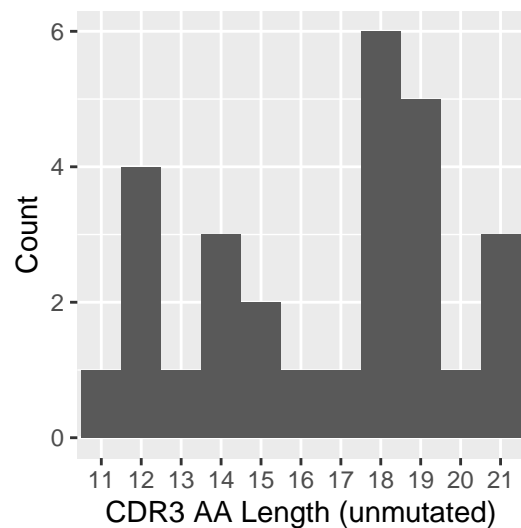
IGHV3-13*01_C301G



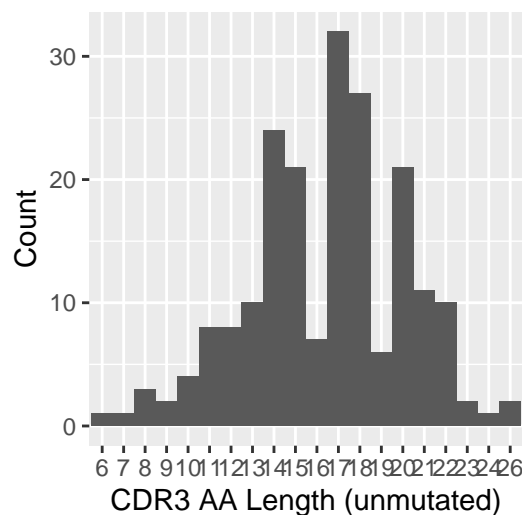
IGHV3-103*01_G51A_A170I



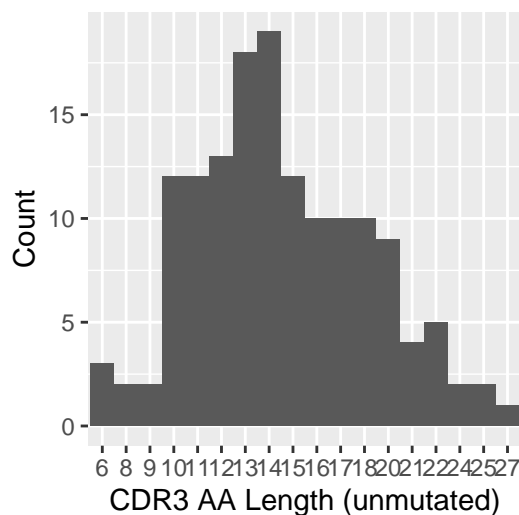
IGHV4-73*01_C84T_G147A_



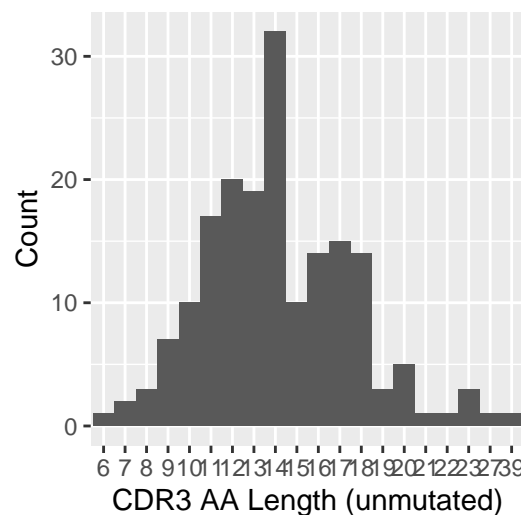
IGHV3-54*02_G170C



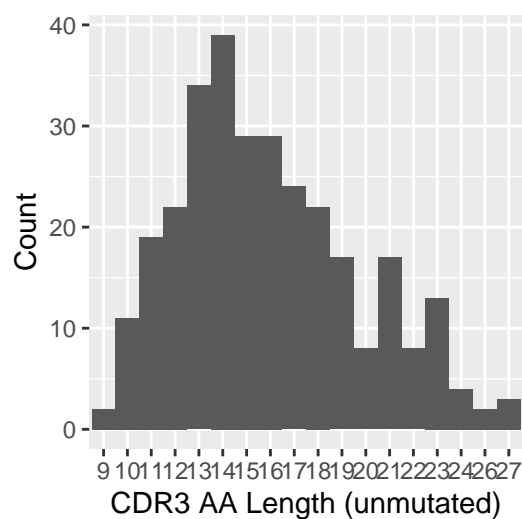
IGHV4-65*01_G48A_A66C_



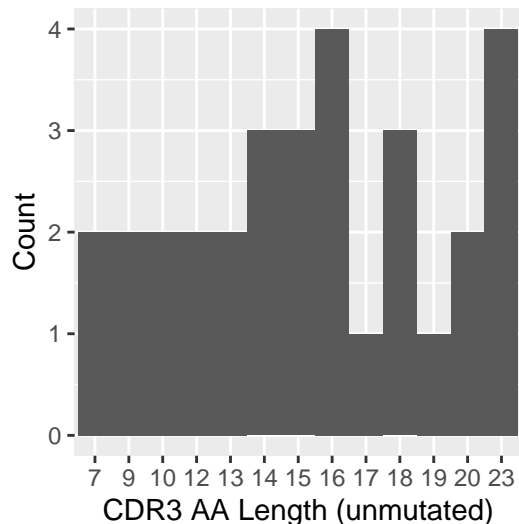
IGHV4-160*01_A106G_A10



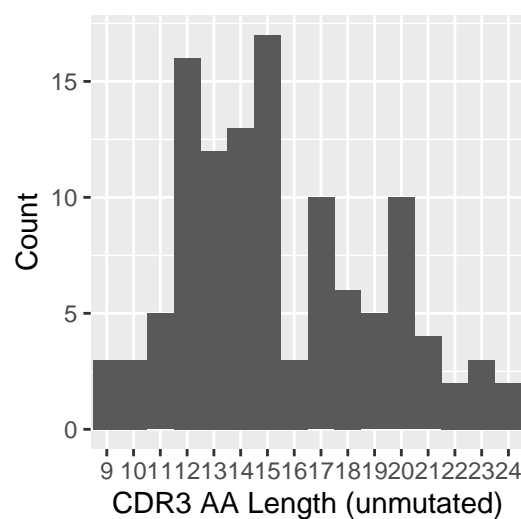
IGHV3-103*01_G51A_A170I



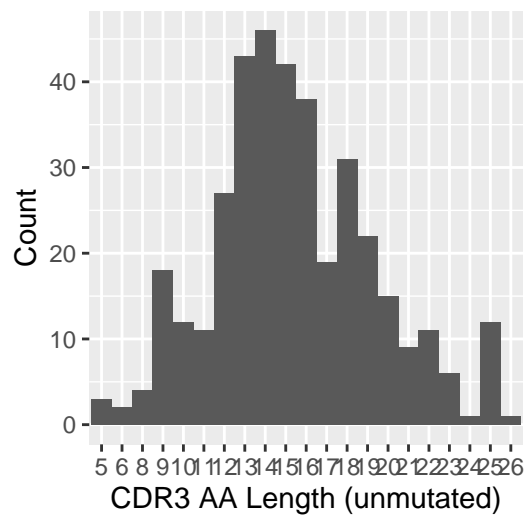
IGHV3-38*02_C27A_C38T_A



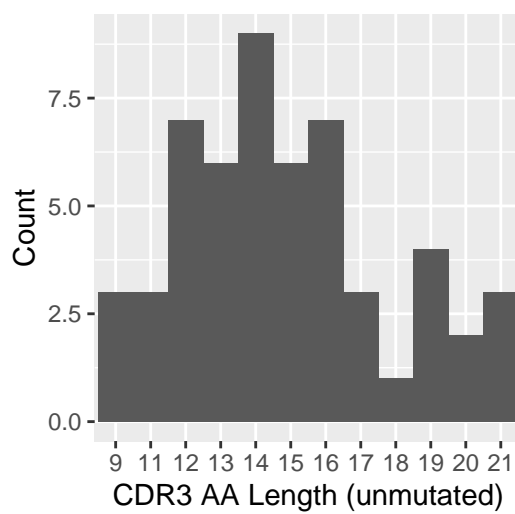
IGHV4S13*01_T85A_C137G



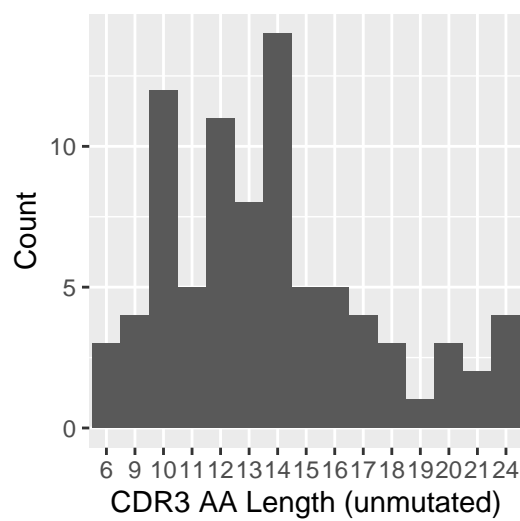
IGHV5-20*02_A141G_C312



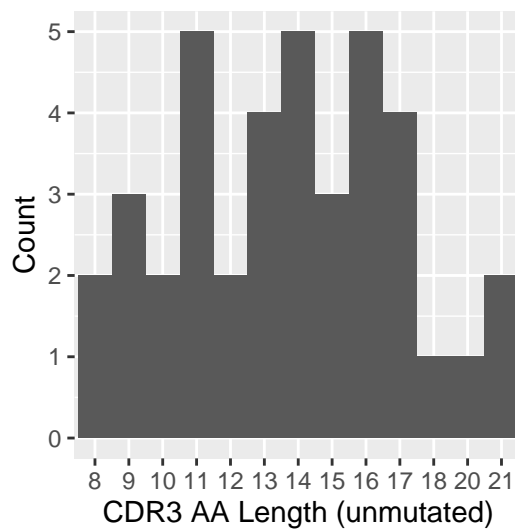
IGHV4-169*01_T60C_G61C



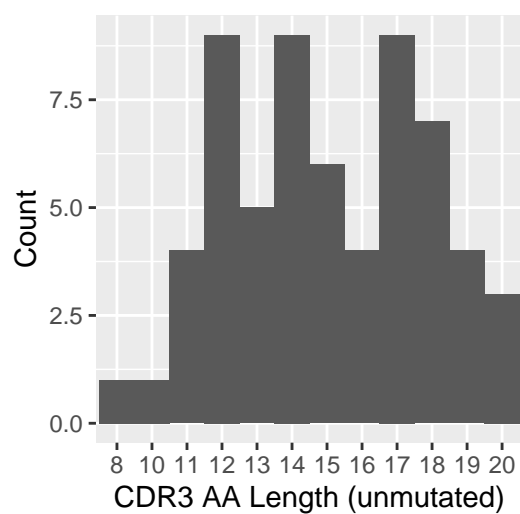
IGHV5-43*01_A106G

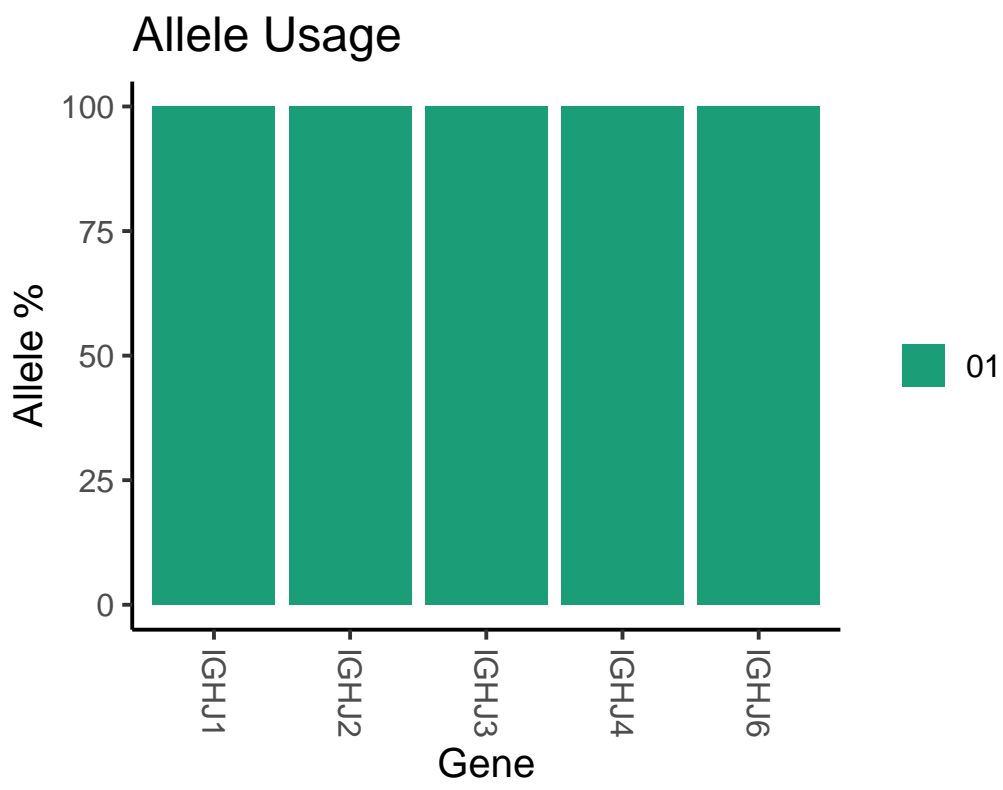


IGHV4-169*02_T60C_G61C



IGHV2S1*01_G289T





Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.