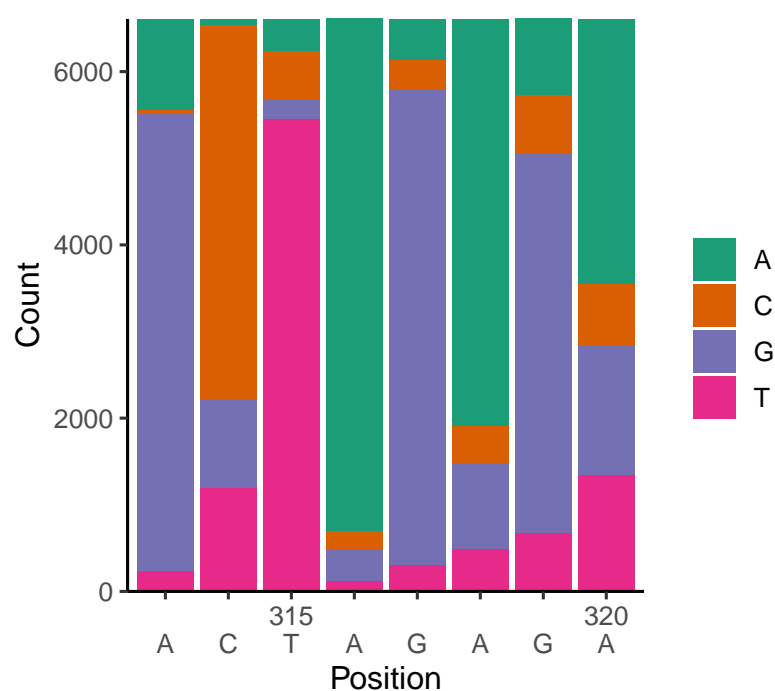
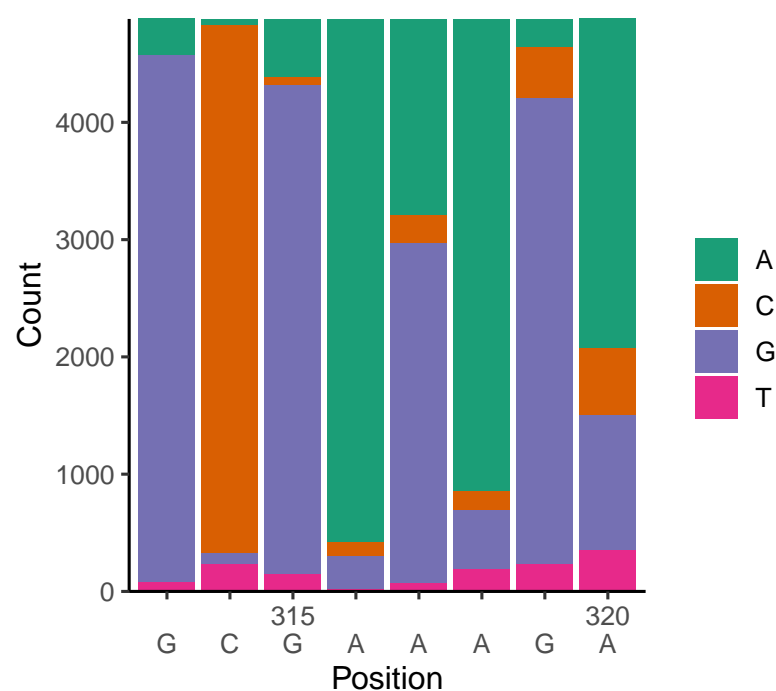


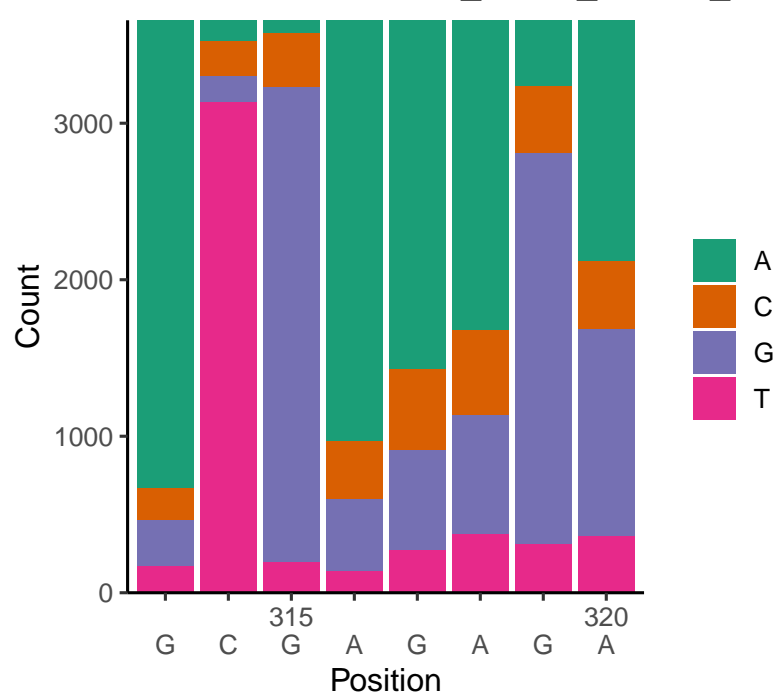
Gene IGHV3-16*01_A51T_T78C_A119C



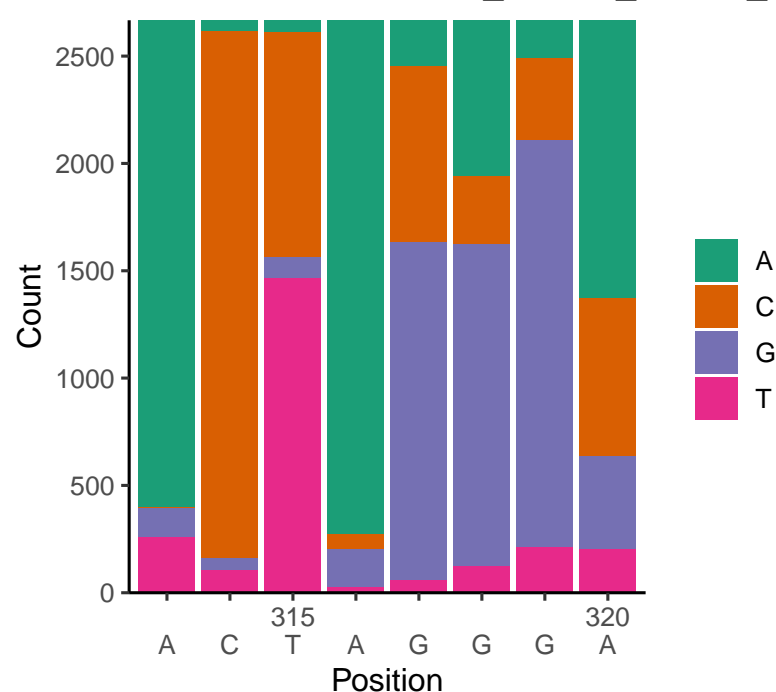
Gene IGHV3-119*01_C14T



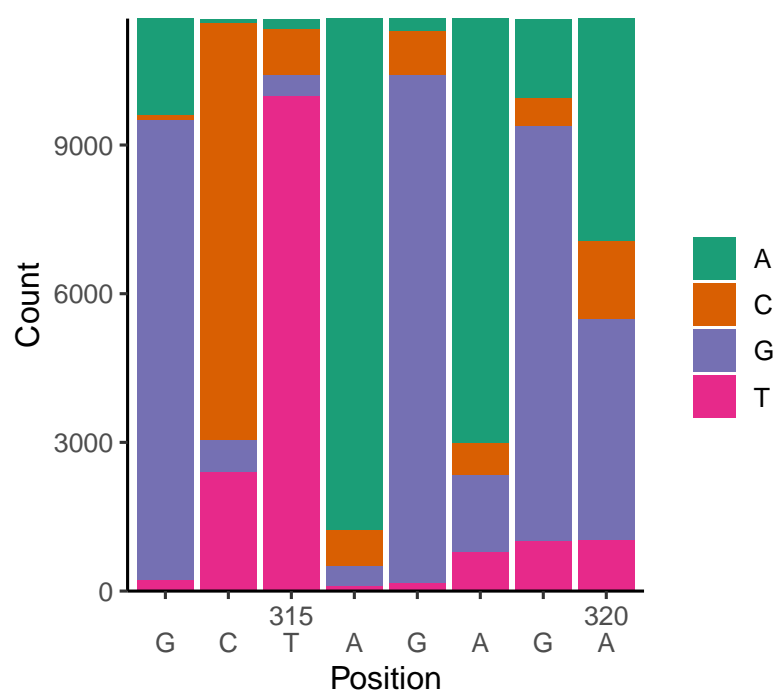
Gene IGHV3-54*02_G50A_T111C_T165



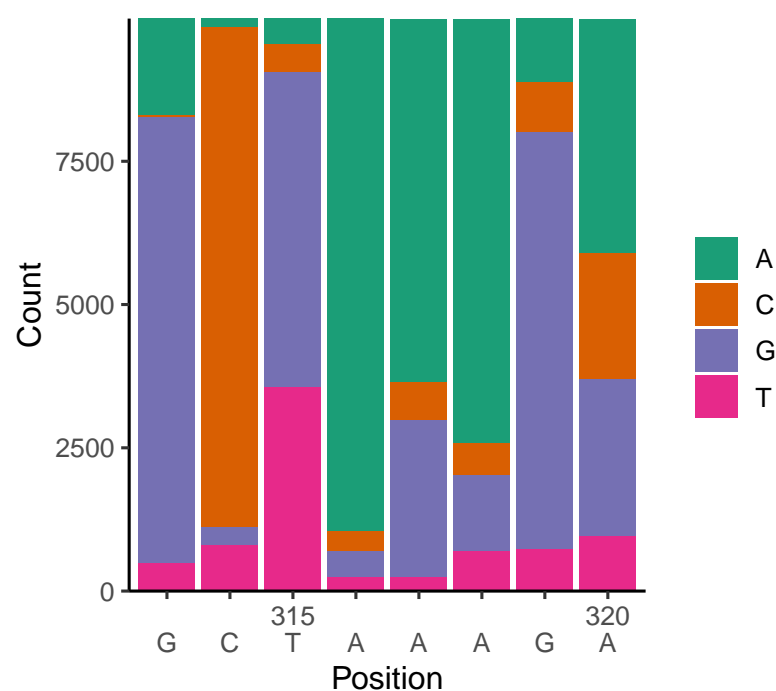
Gene IGHV3-184*01_T109C_T262A_A2



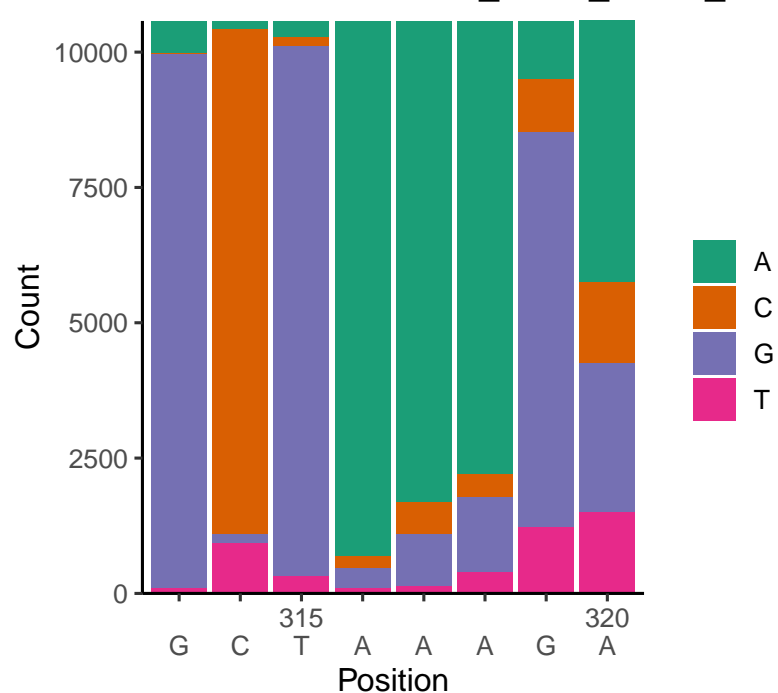
Gene IGHV3-116*02_G8A



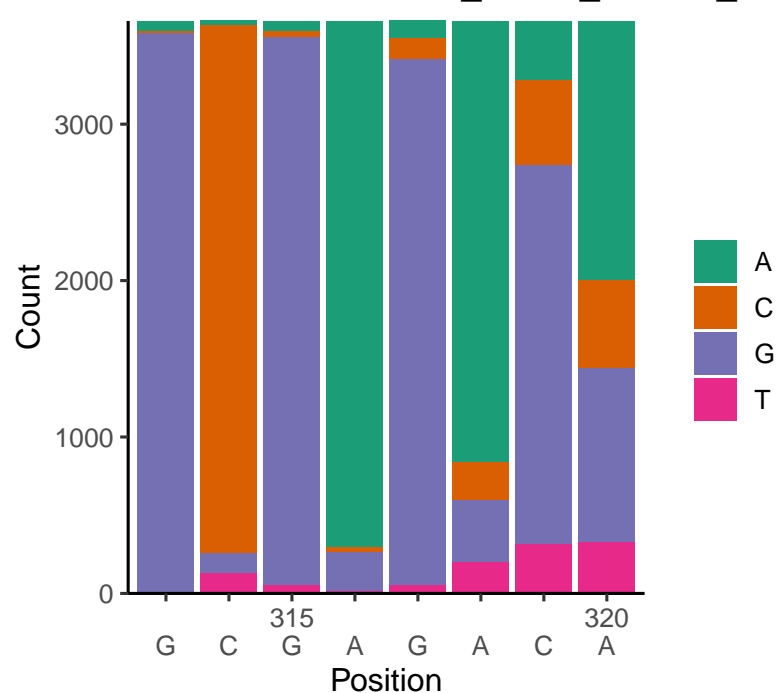
Gene IGHV3S42*01_C38T_A39C_A40C



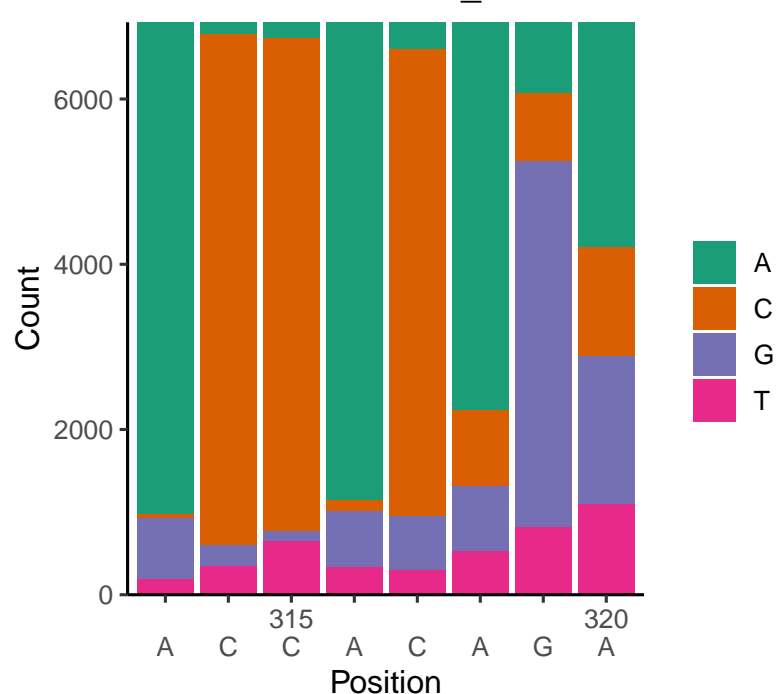
Gene IGHV3S42*01_T19A_G24A_C27A



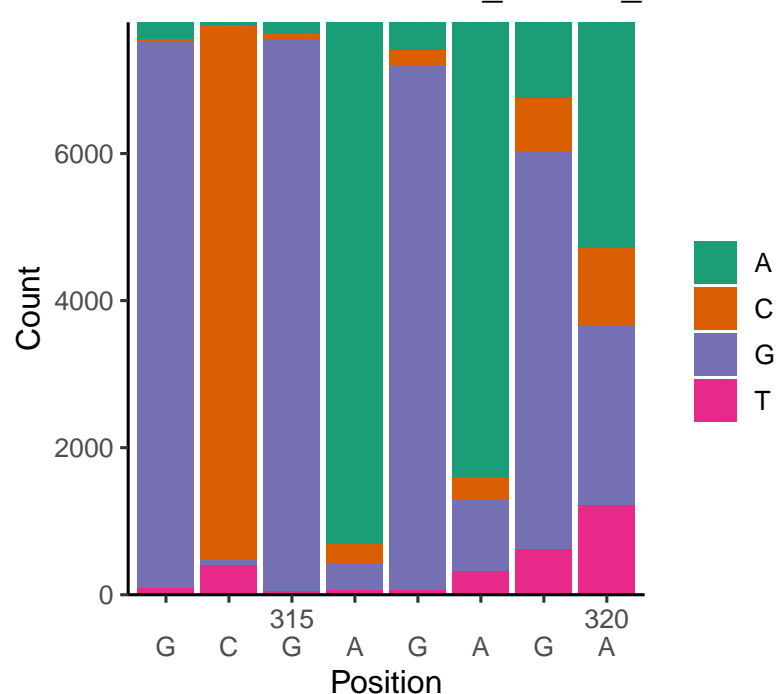
Gene IGHV4-76*01_C34G_A244G_C25



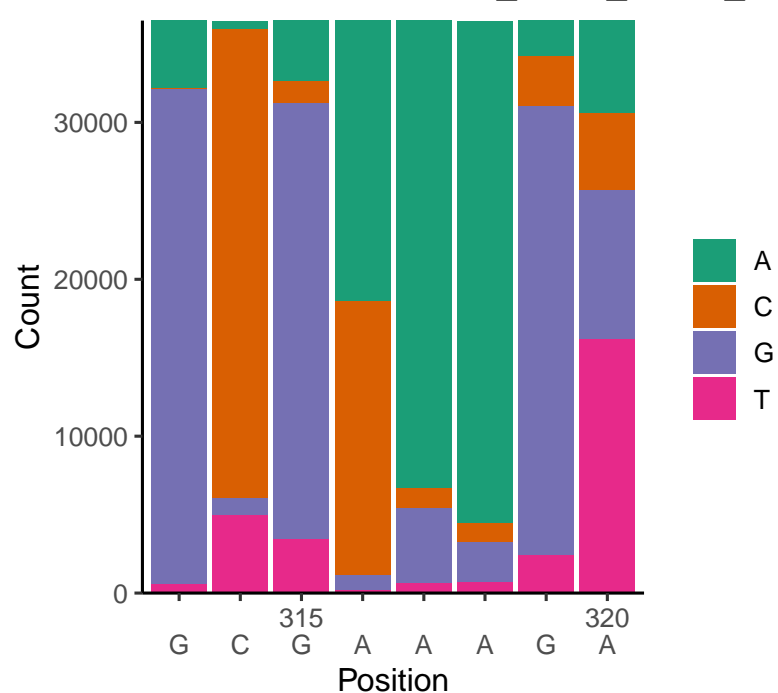
Gene IGHV3-30*02_C141G



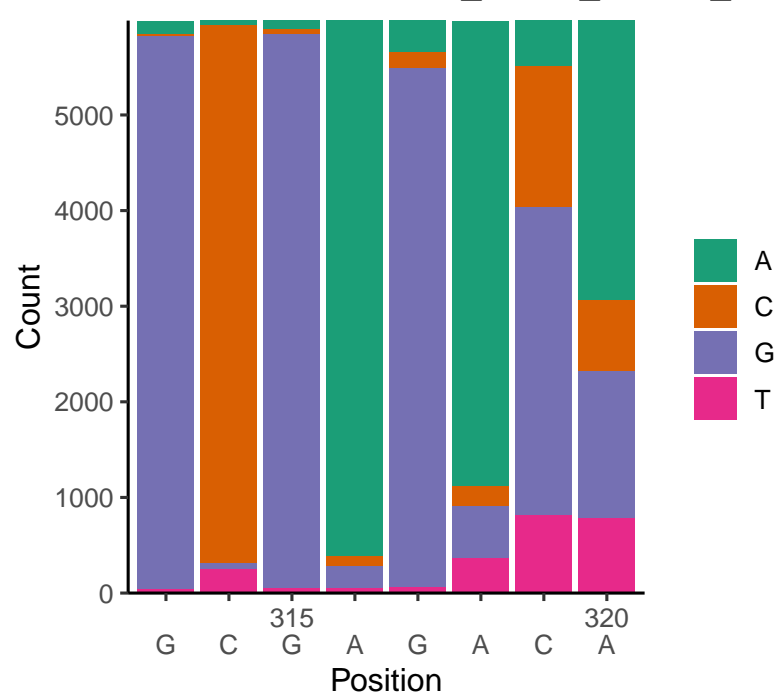
Gene IGHV4-160*01_C133G_G147A



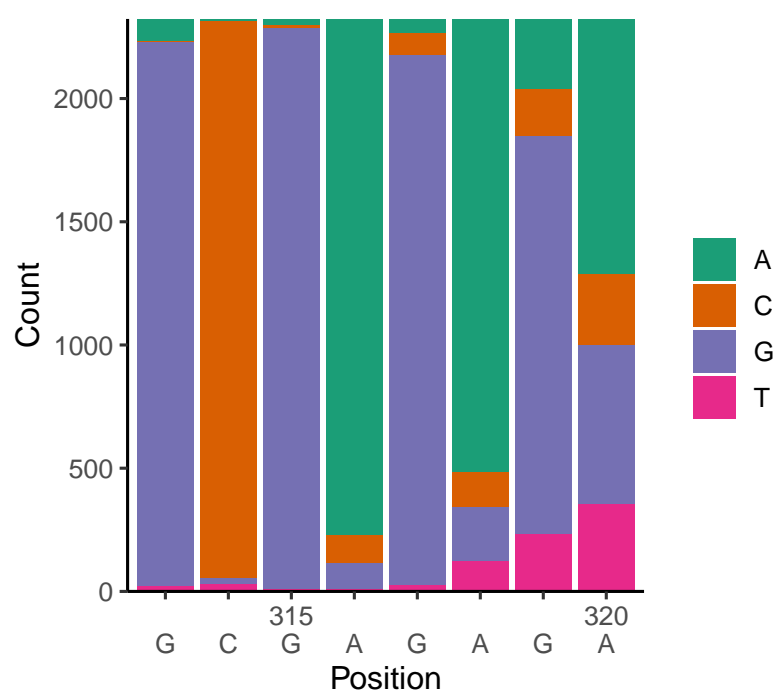
Gene IGHV3-103*01_T19A_G24C_C27



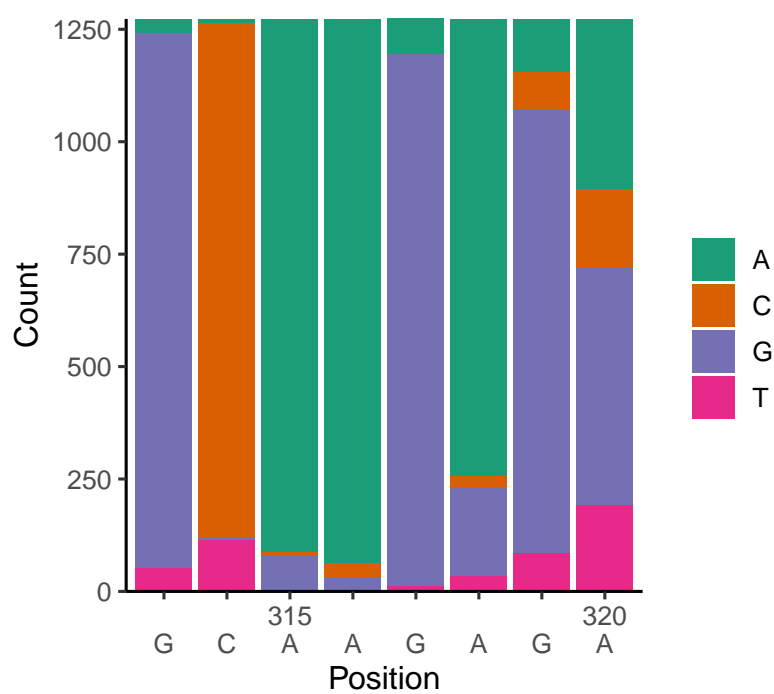
Gene IGHV4-65*02_C34G_A163T_G16



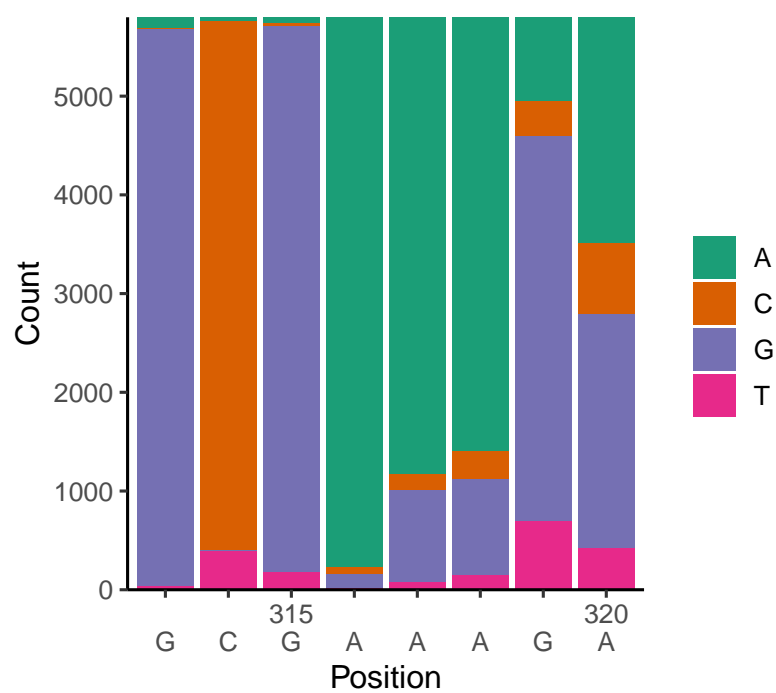
Gene IGHV4-122*02_G82T_G83A_A10I



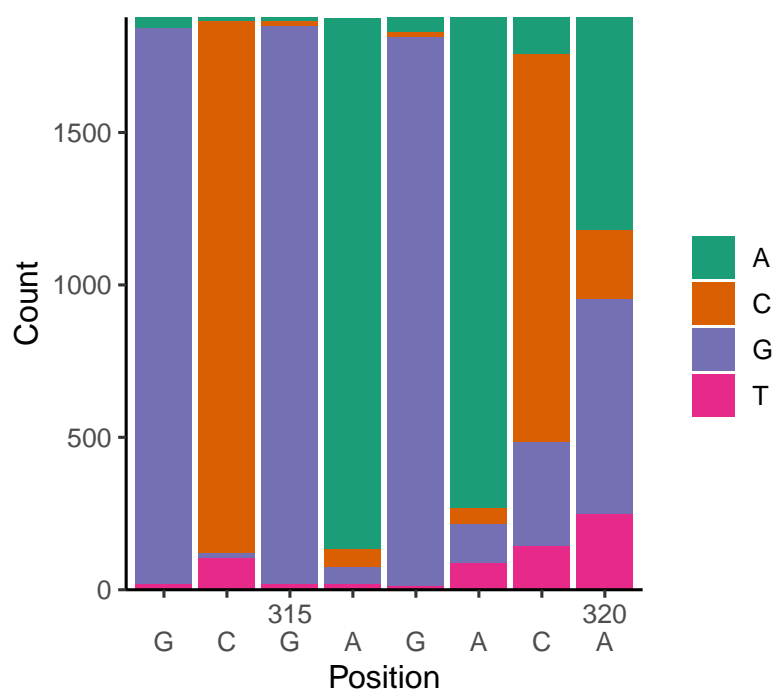
Gene IGHV6-1*01_G280T



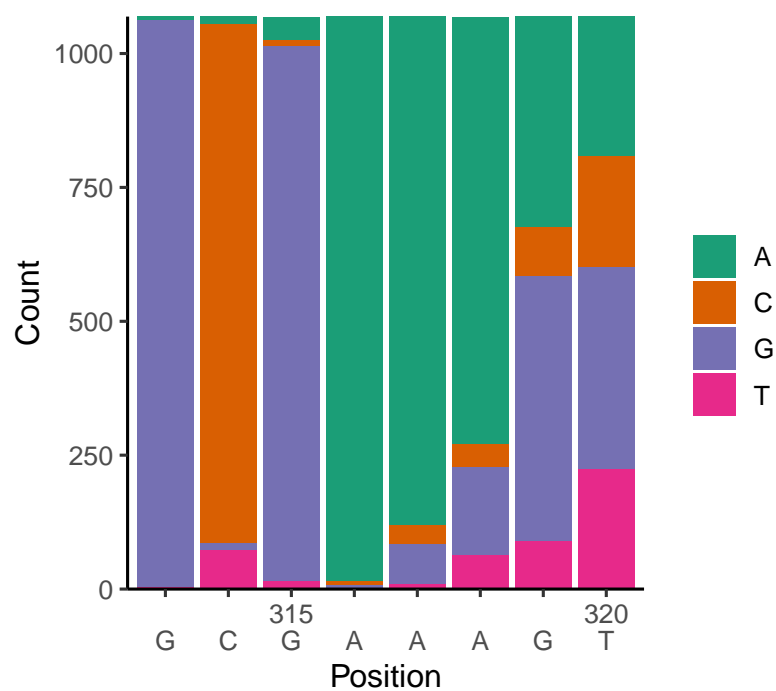
Gene IGHV5-20*02_A141G_A295T_C3'



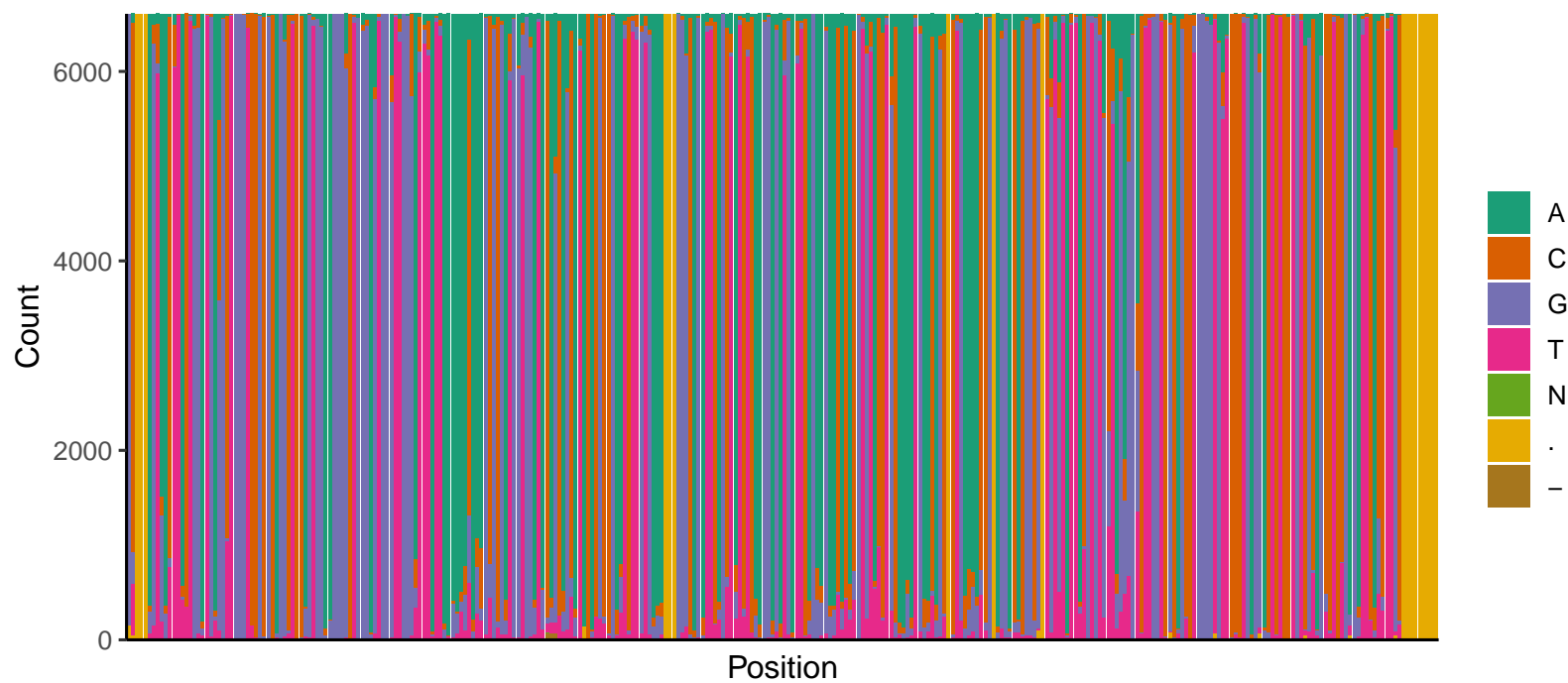
Gene IGHV4-93*02_C297G



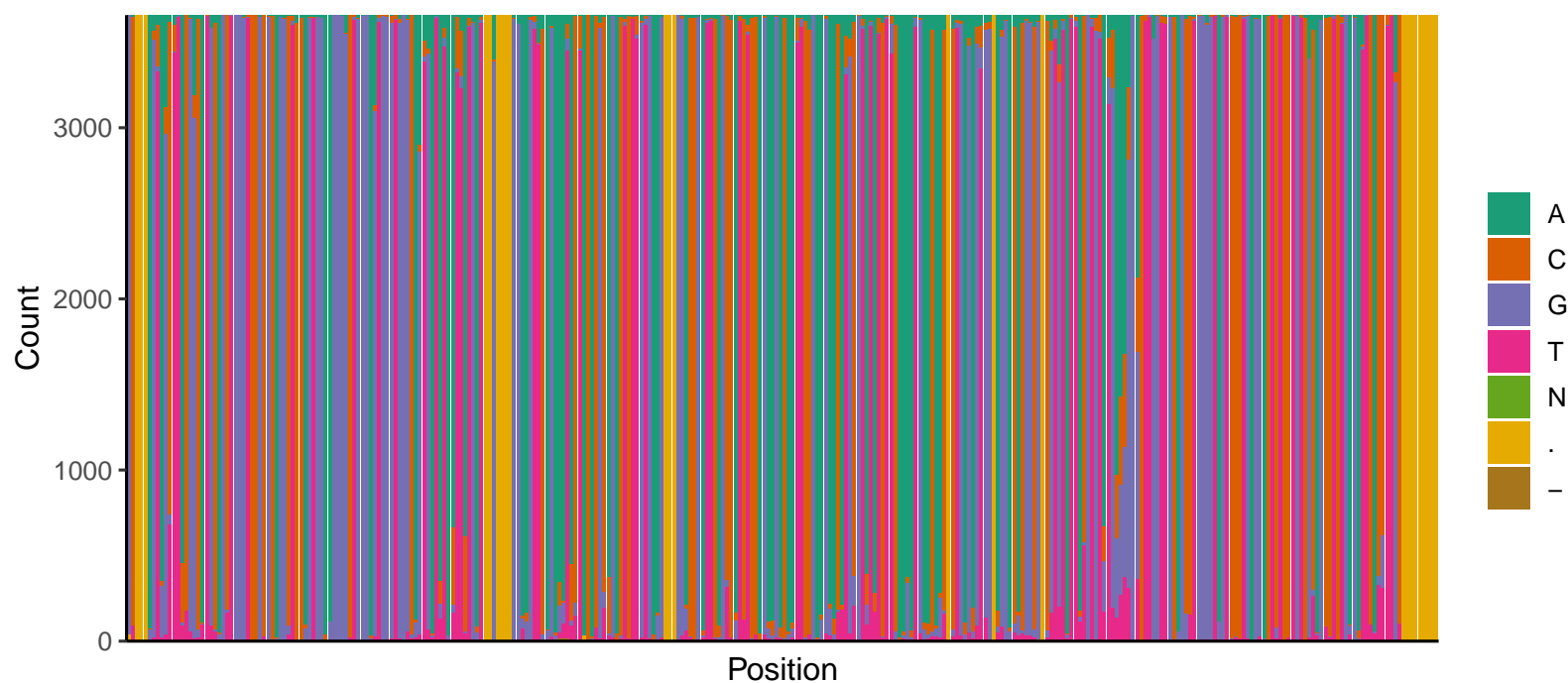
Gene IGHV5-43*01_A106G_C297T



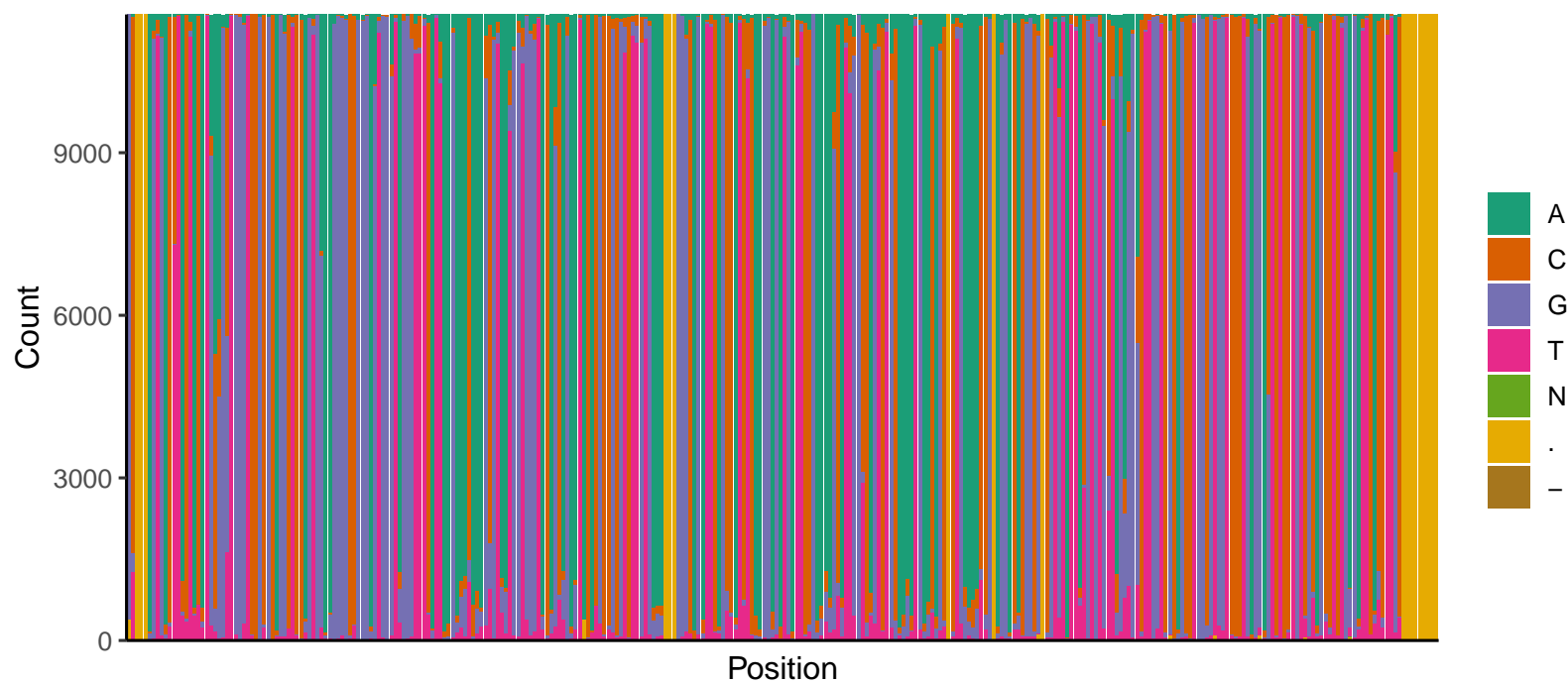
Gene IGHV3-16*01_A51T_T78C_A119G_C300T



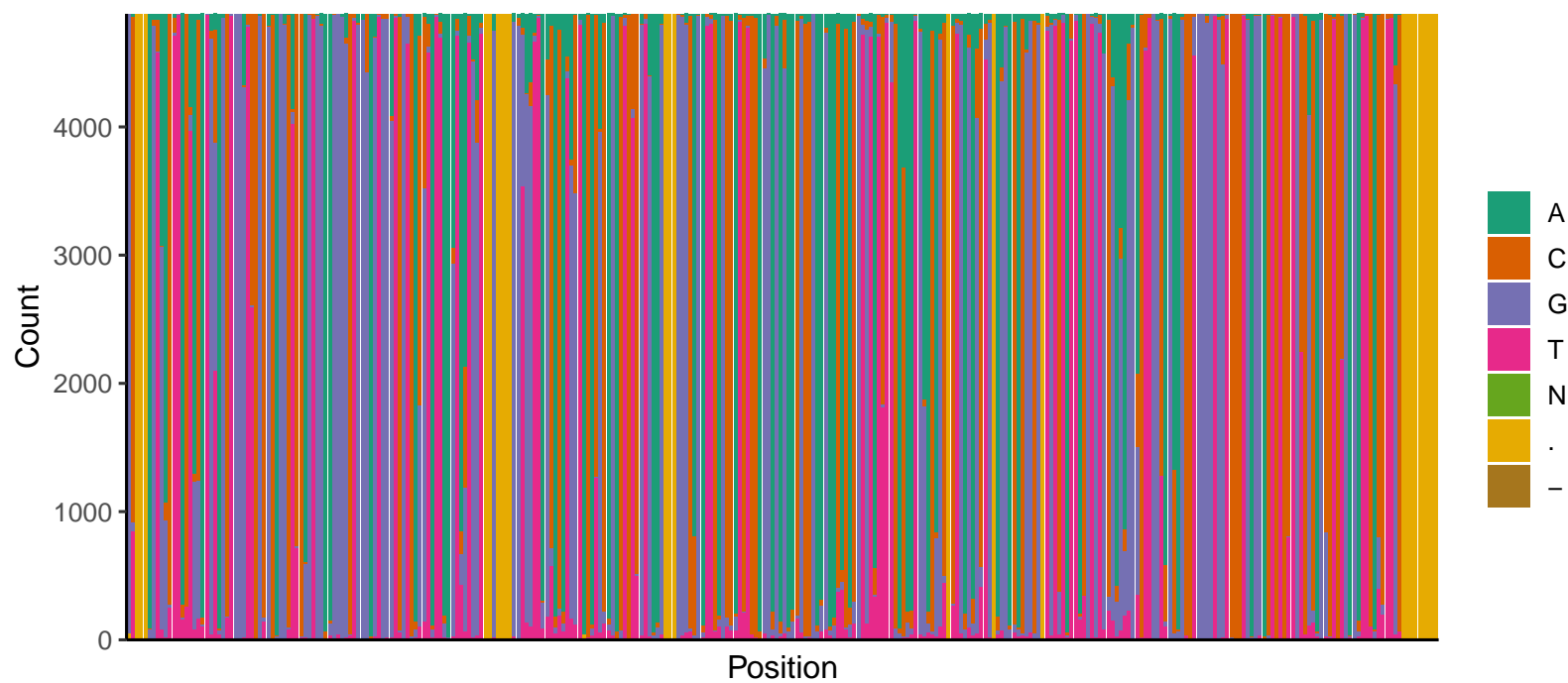
Gene IGHV3-54*02_G50A_T111C_T165G_G170A_G171T_A190C_A284G_T286G



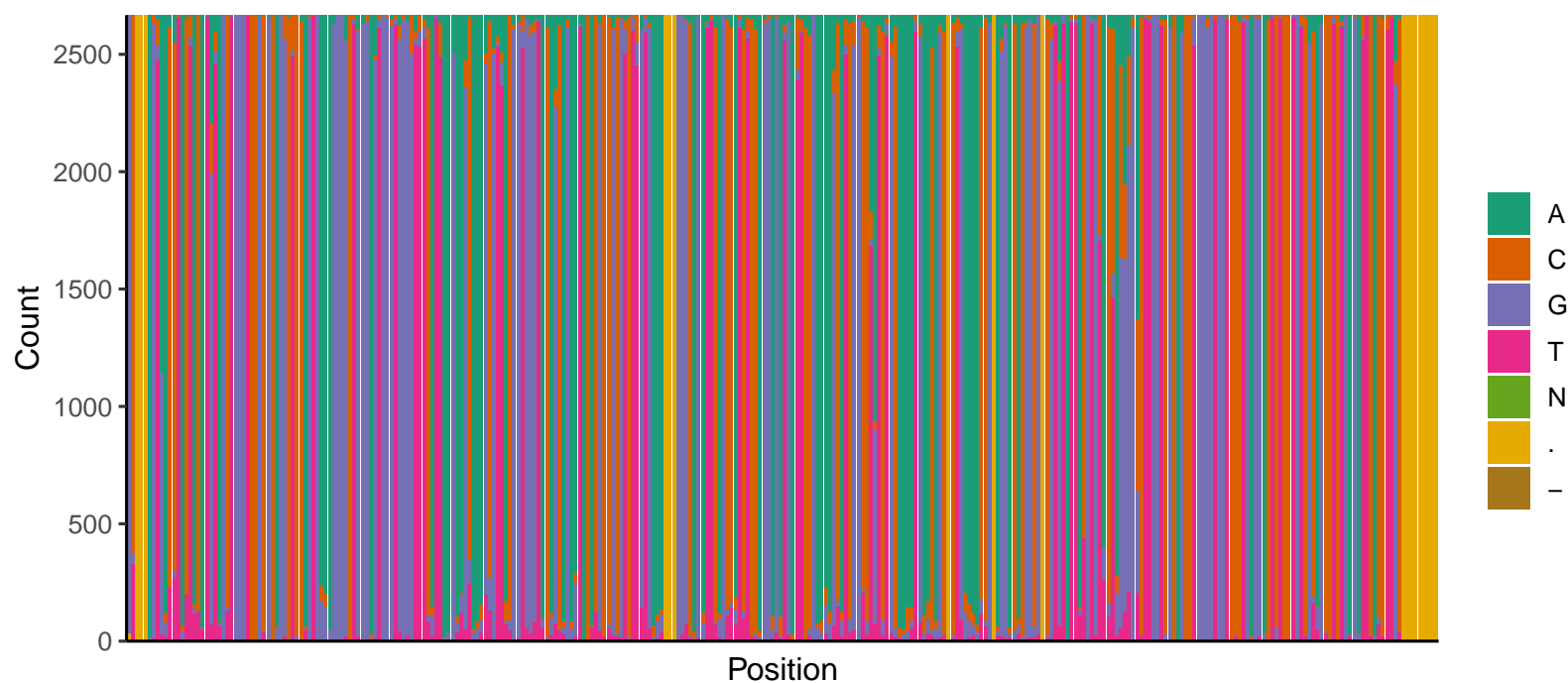
Gene IGHV3-116*02_G8A



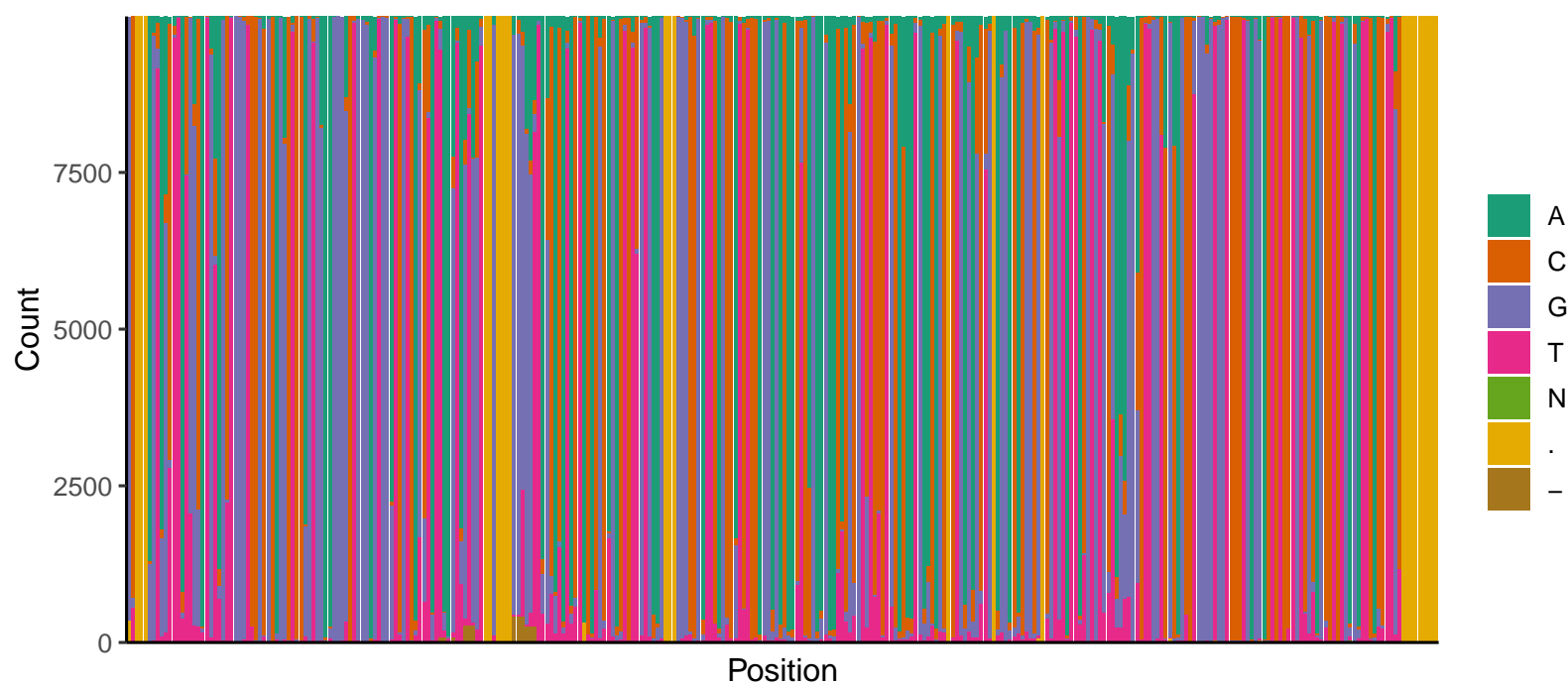
Gene IGHV3-119*01_C14T



Gene IGHV3-184*01_T109C_T262A_A263G_G275A



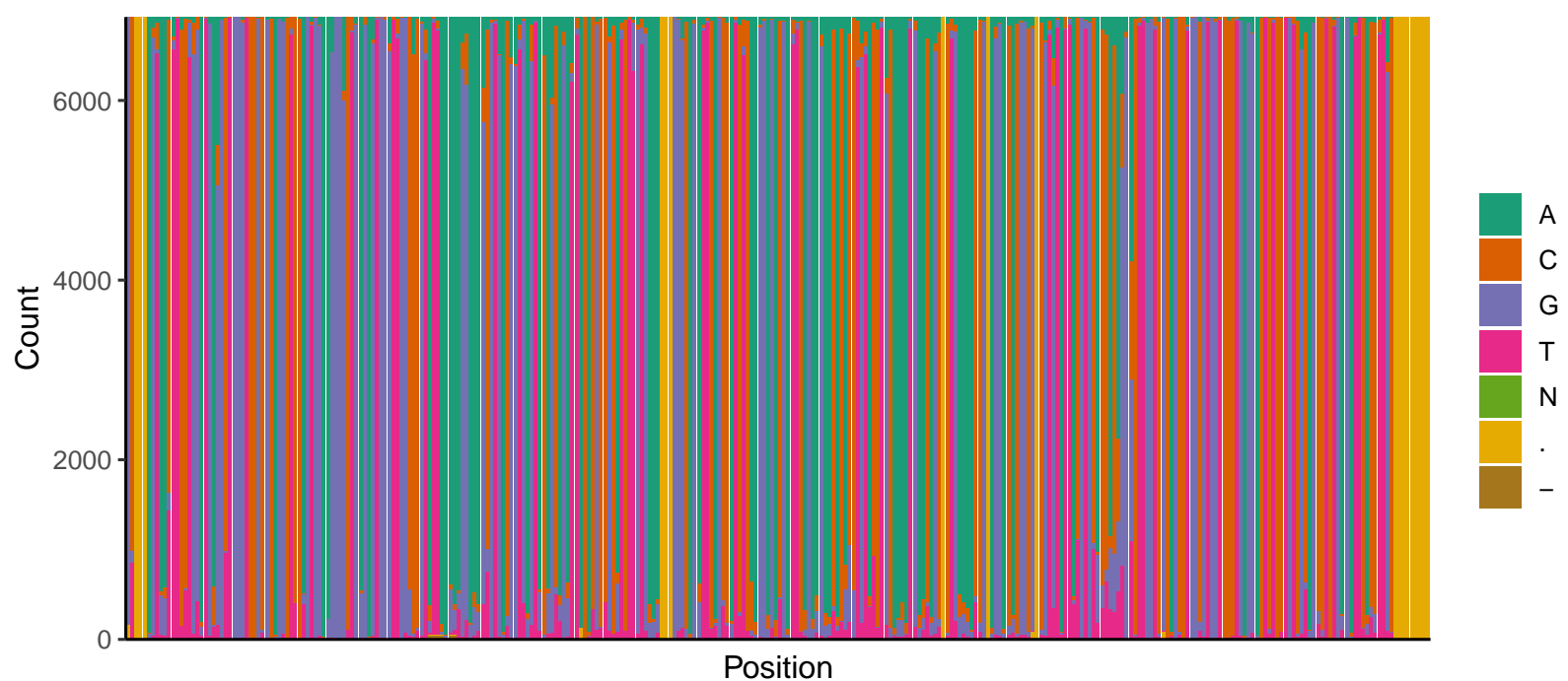
Gene IGHV3S42*01_C38T_A39C_A40C_C111T_T112G_G114C_A118T_T120C_A133G



Gene IGHV3S42*01_T19A_G24A_C27A_C38T_A39C_A40C_G59A_C111T_T112G_G1



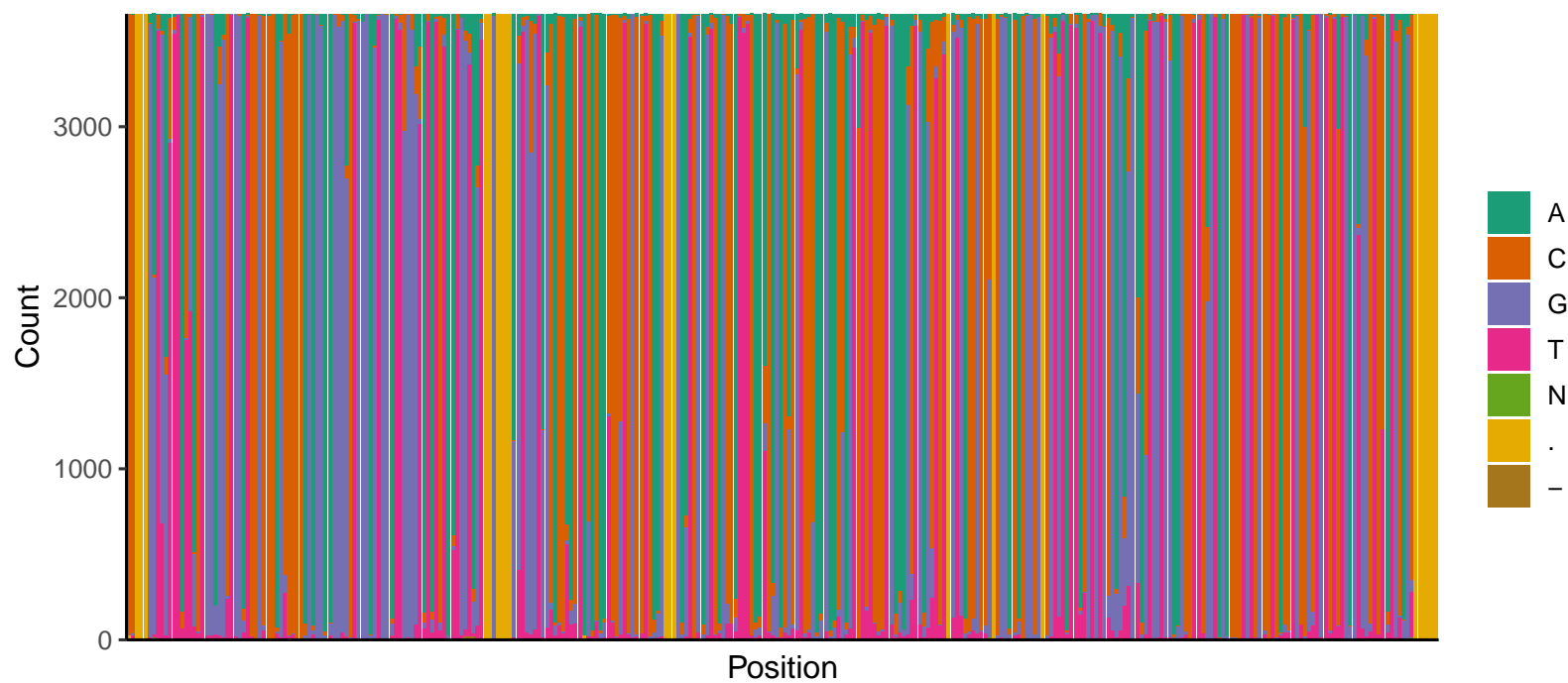
Gene IGHV3-30*02_C141G



Gene IGHV3-103*01_T19A_G24C_C27A_C38T_A39C_A40C_C113G_T114C_C118A_



Gene IGHV4-76*01_C34G_A244G_C256G



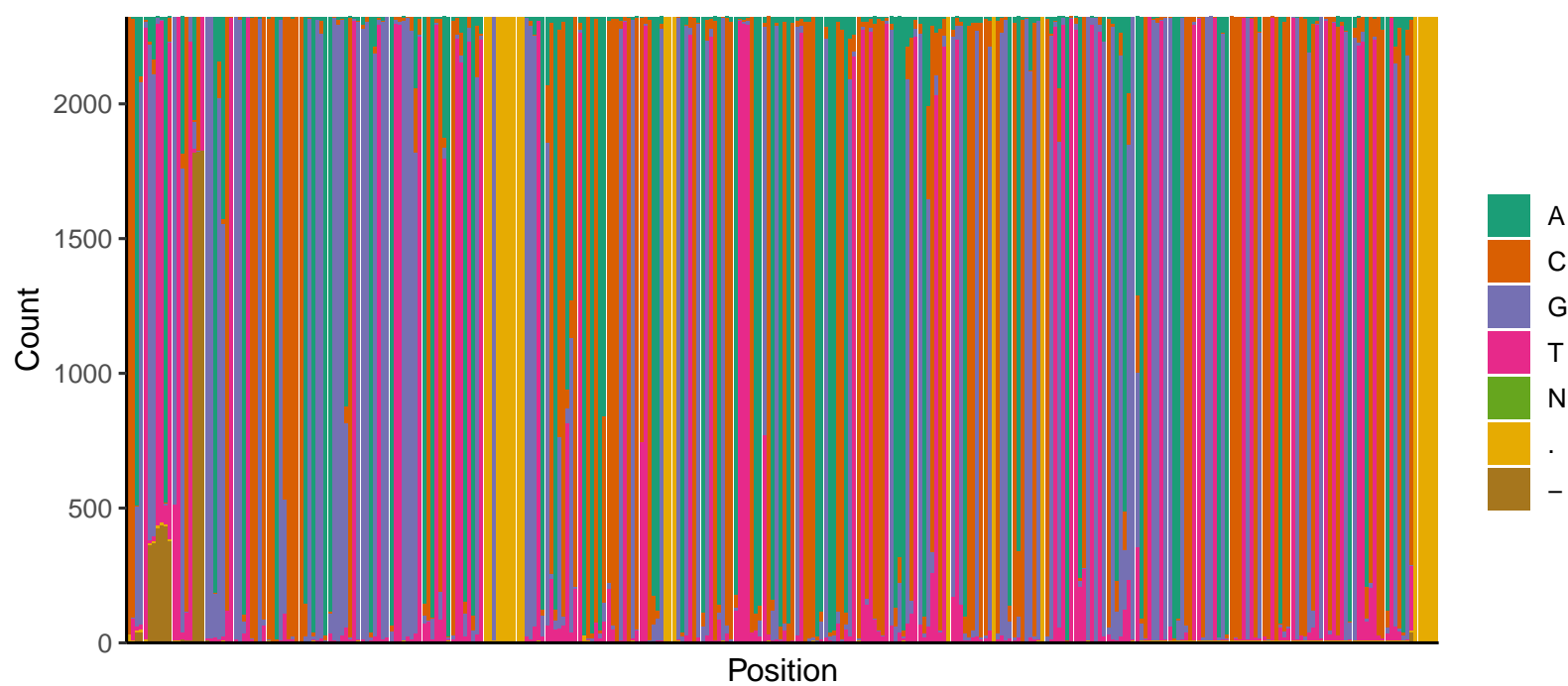
Gene IGHV4-160*01_C133G_G147A



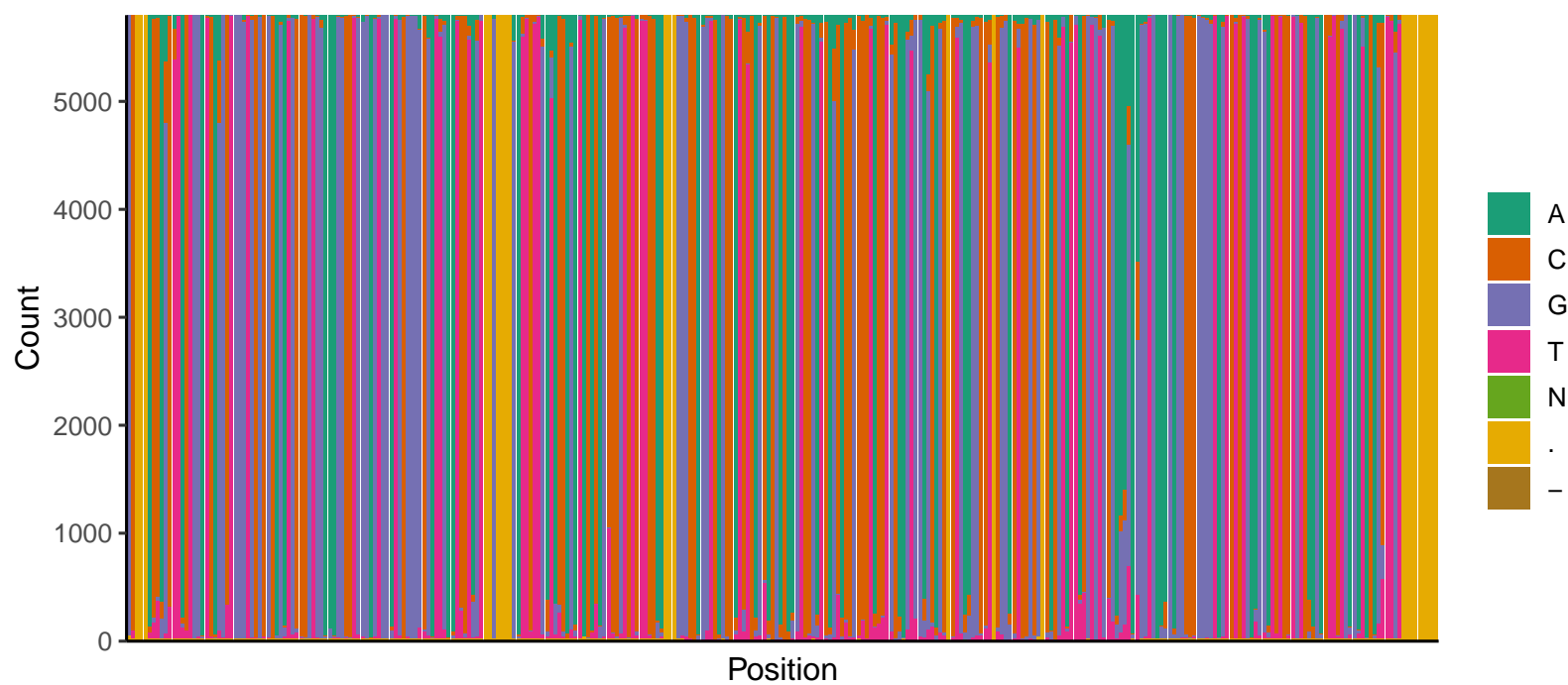
Gene IGHV4-65*02_C34G_A163T_G169A



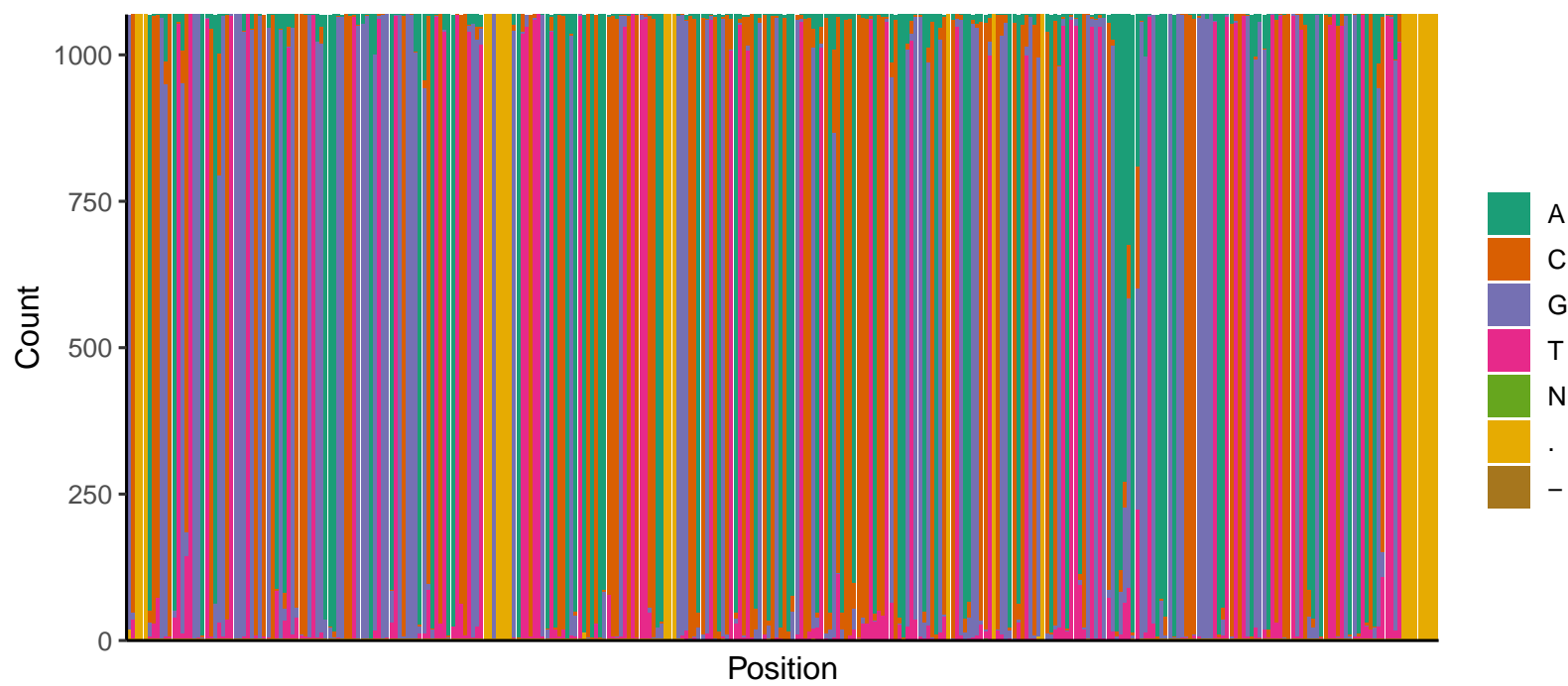
Gene IGHV4-122*02_G82T_G83A_A100G_C133G



Gene IGHV5-20*02_A141G_A295T_C312T



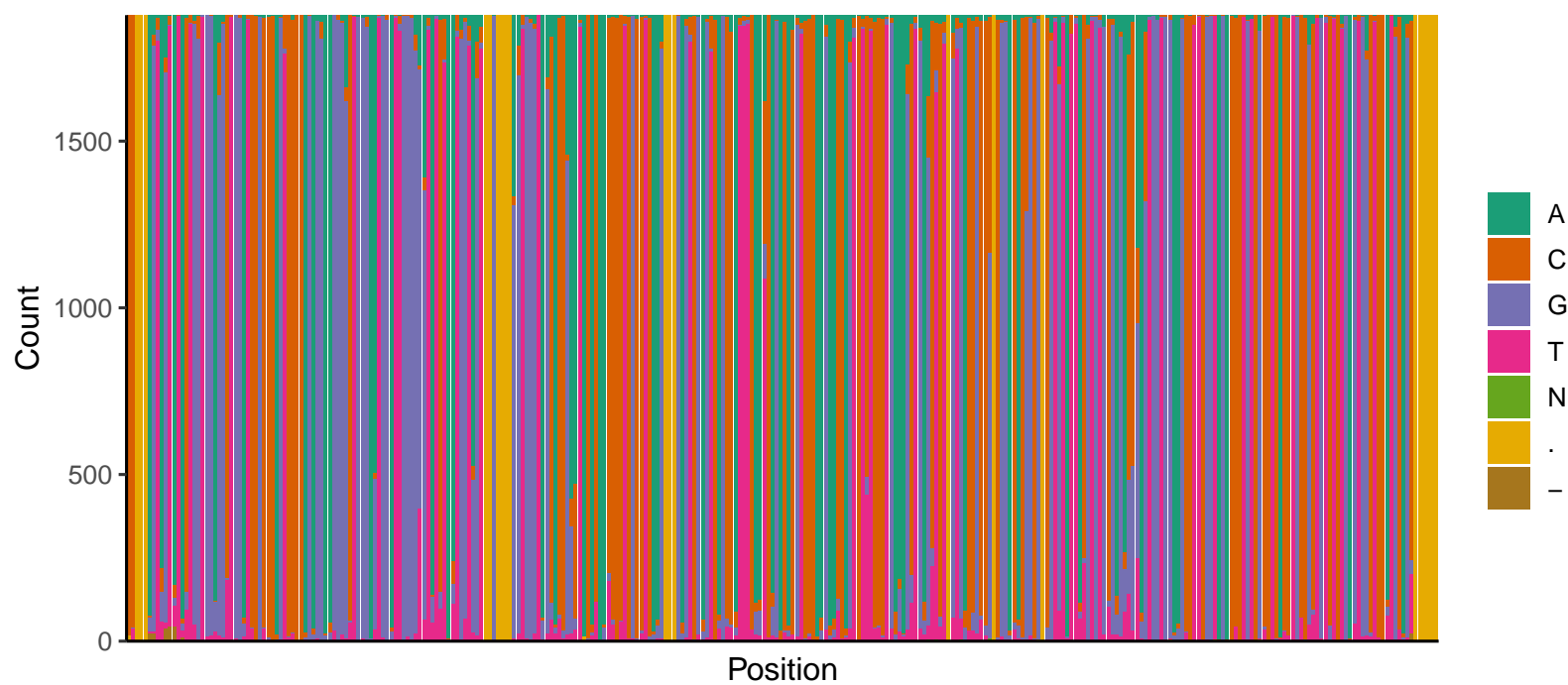
Gene IGHV5-43*01_A106G_C297T



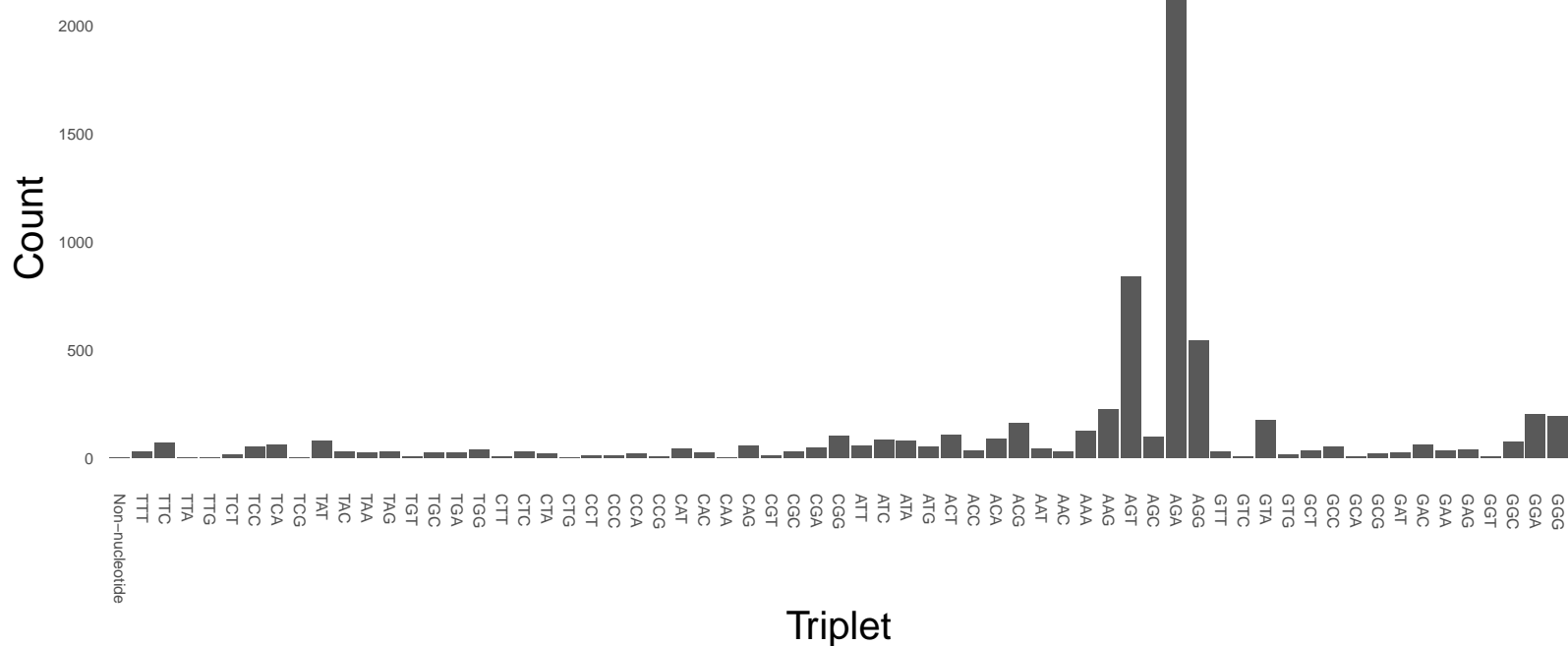
Gene IGHV6-1*01_G280T



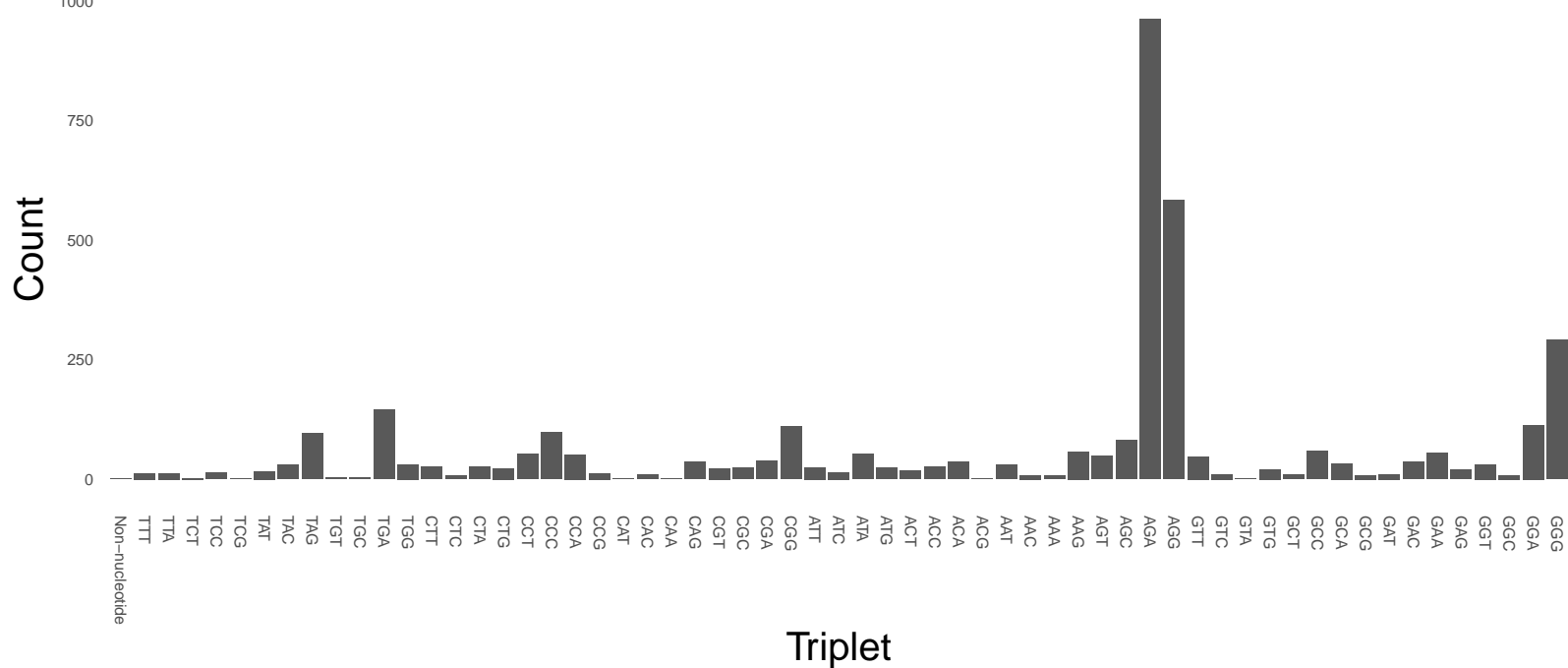
Gene IGHV4-93*02_C297G



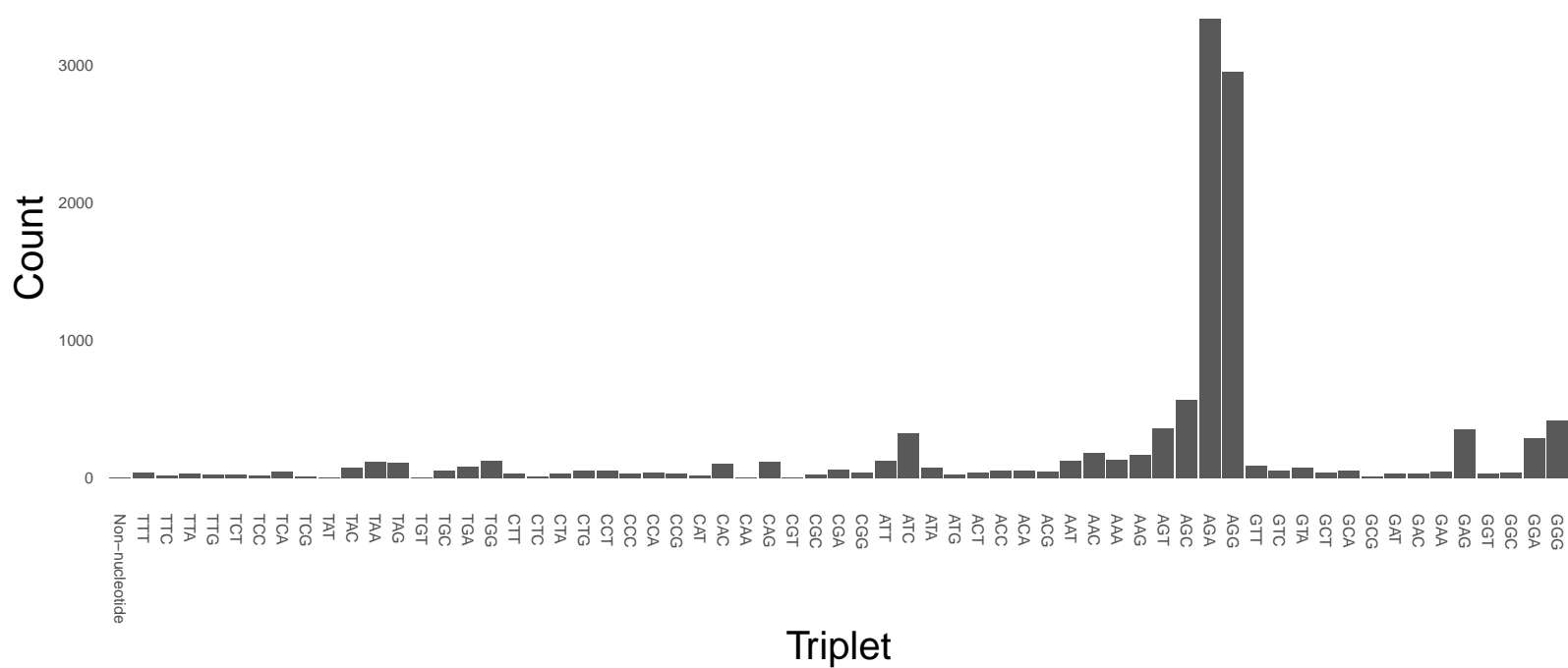
IGHV3-16*01_A51T_T78C_A119G_C300T- Final 3 nucleotides as a triplet



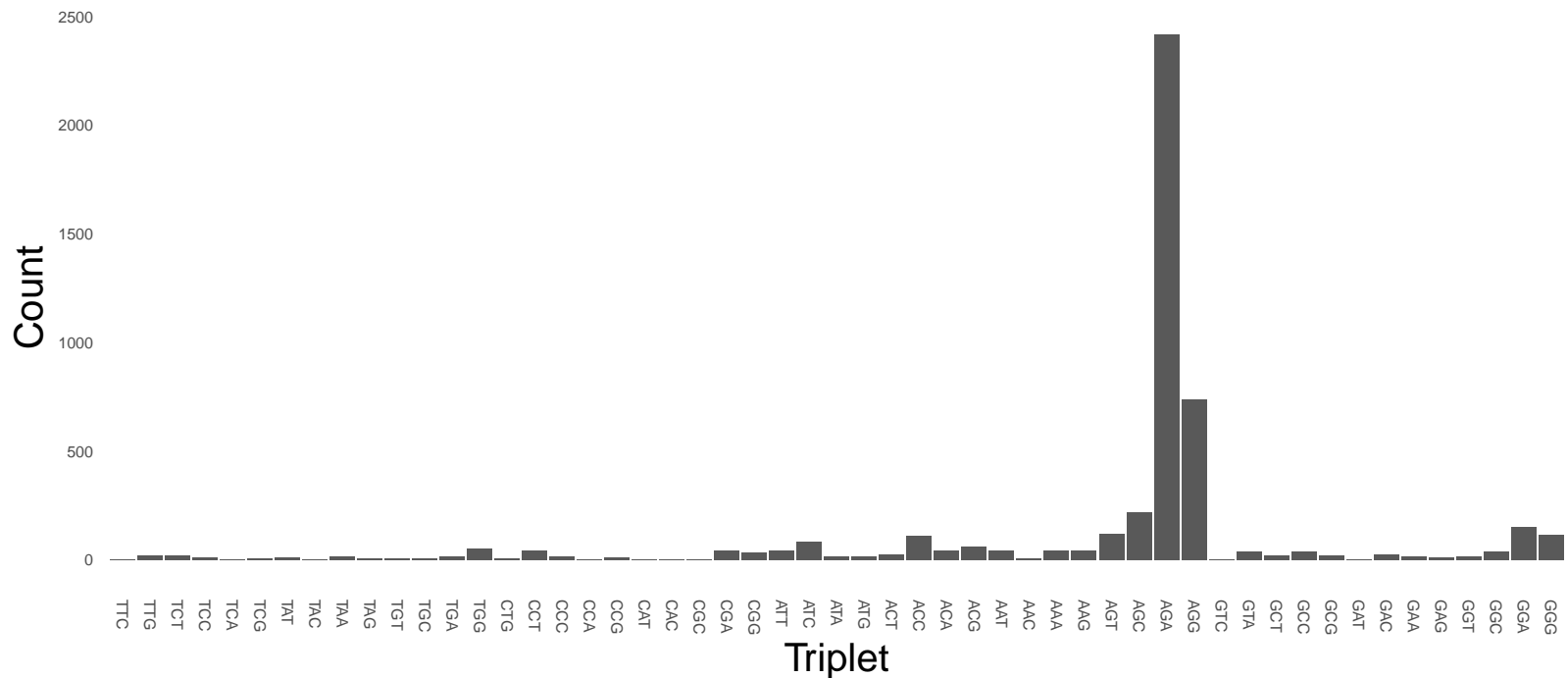
IGHV3-54*02_G50A_T111C_T165G_G170A_G171T_A190C_A284G_T286G- Final 3 nucleotide



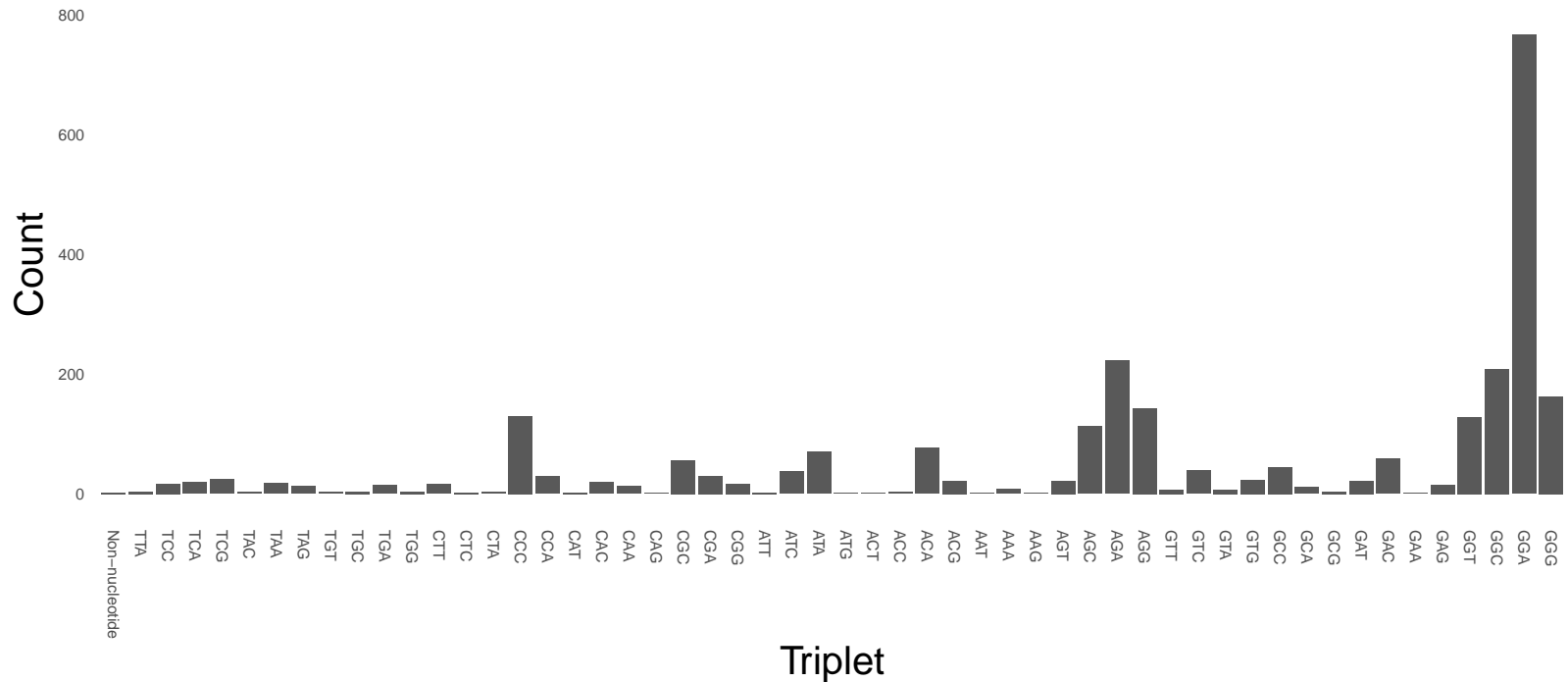
IGHV3-116*02_G8A- Final 3 nucleotides as a triplet



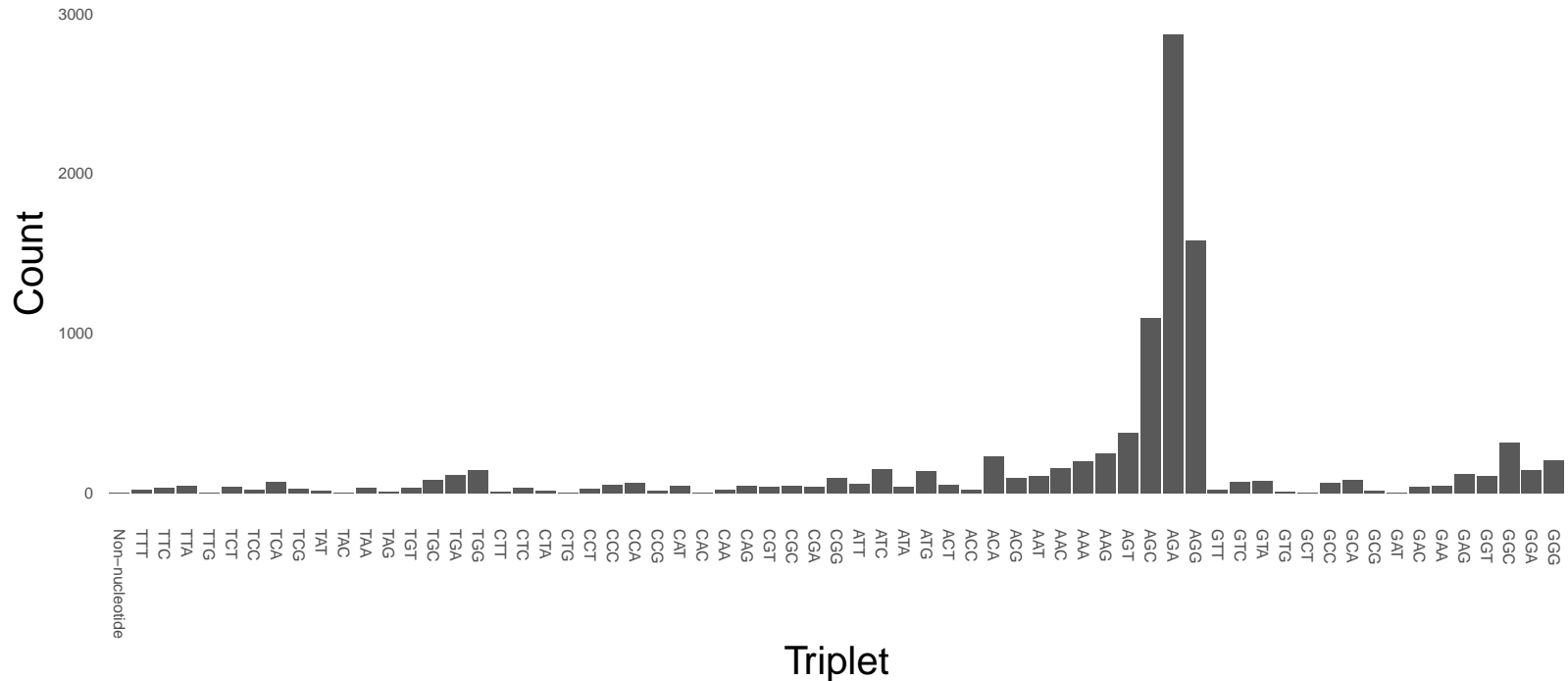
IGHV3-119*01_C14T- Final 3 nucleotides as a triplet



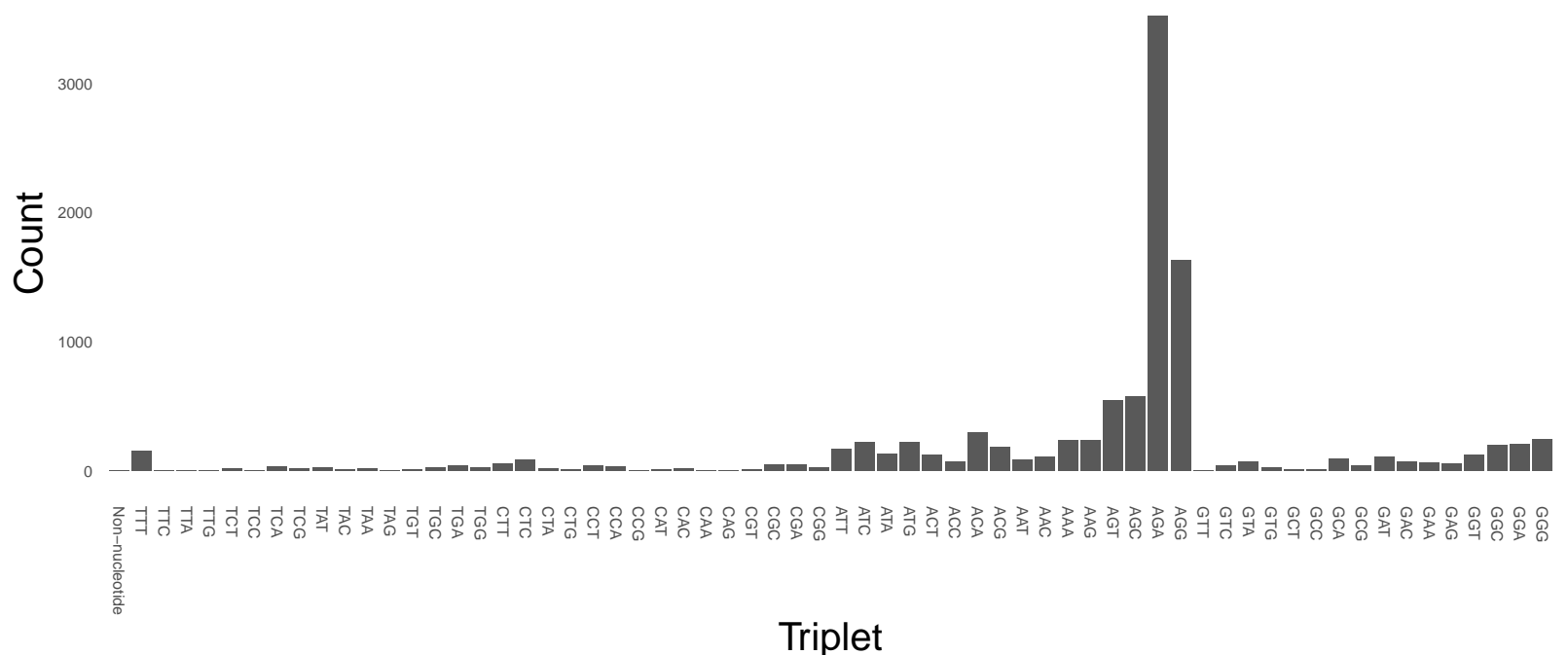
IGHV3-184*01_T109C_T262A_A263G_G275A- Final 3 nucleotides as a triplet



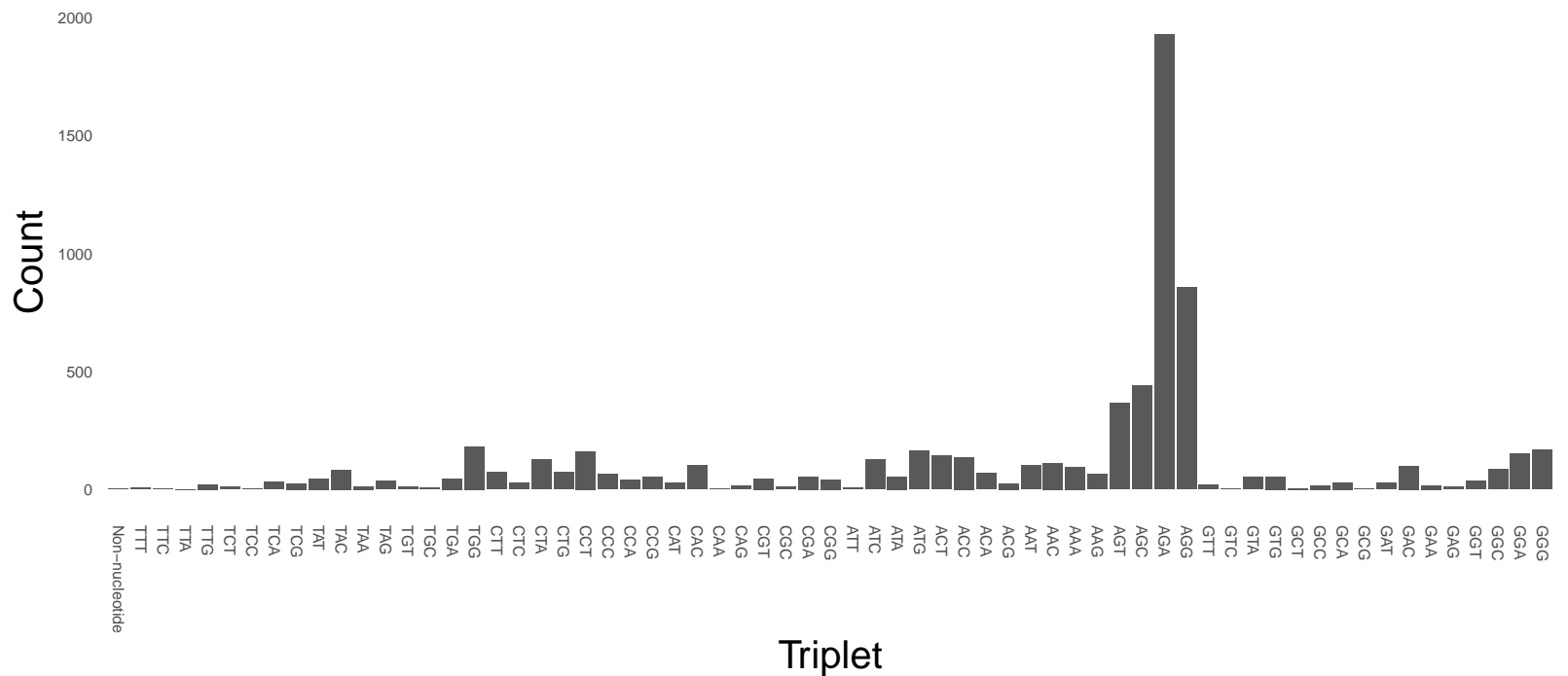
IGHV3S42*01_C38T_A39C_A40C_C111T_T112G_G114C_A118T_T120C_A133G_A170G_C210G- Final 3 nucleotides as a triplet



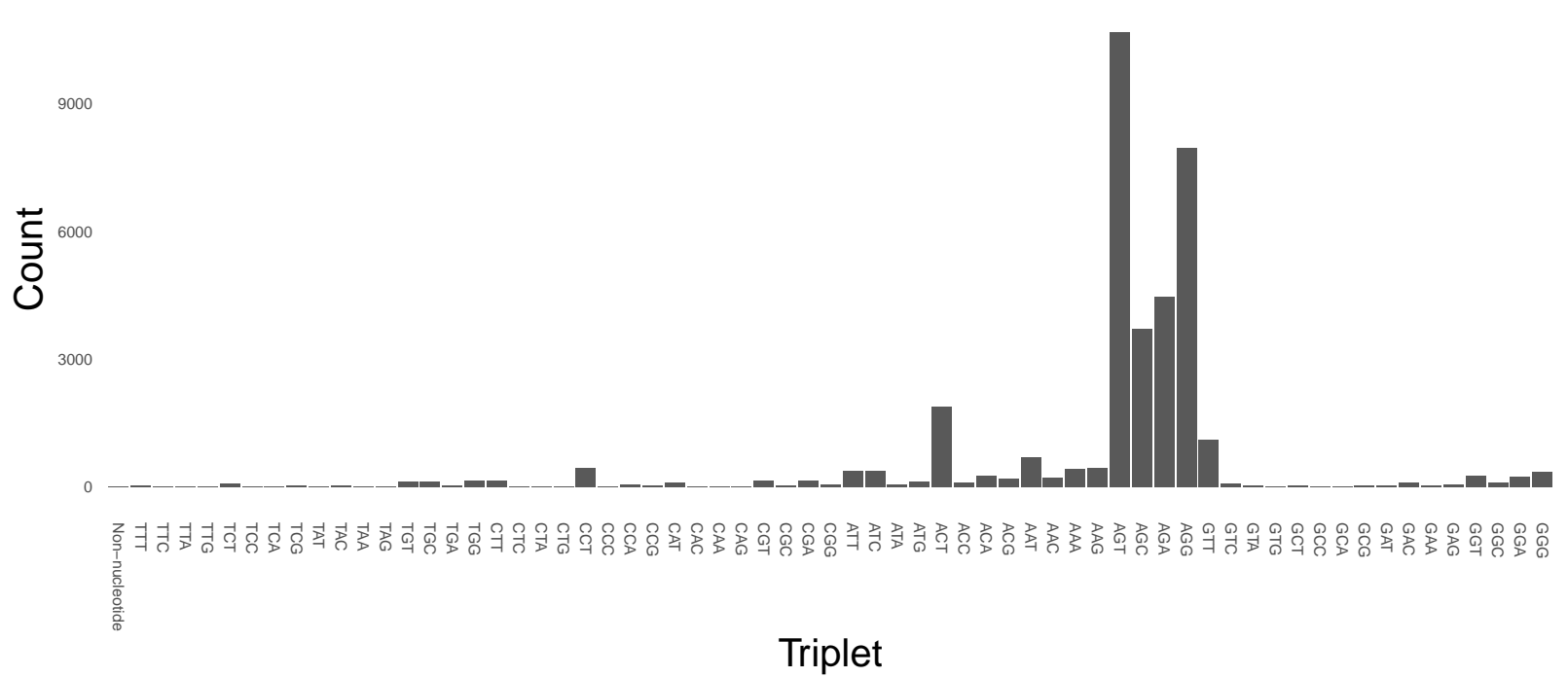
IGHV3S42*01_T19A_G24A_C27A_C38T_A39C_A40C_G59A_C111T_T112G_G114C_A119G_T



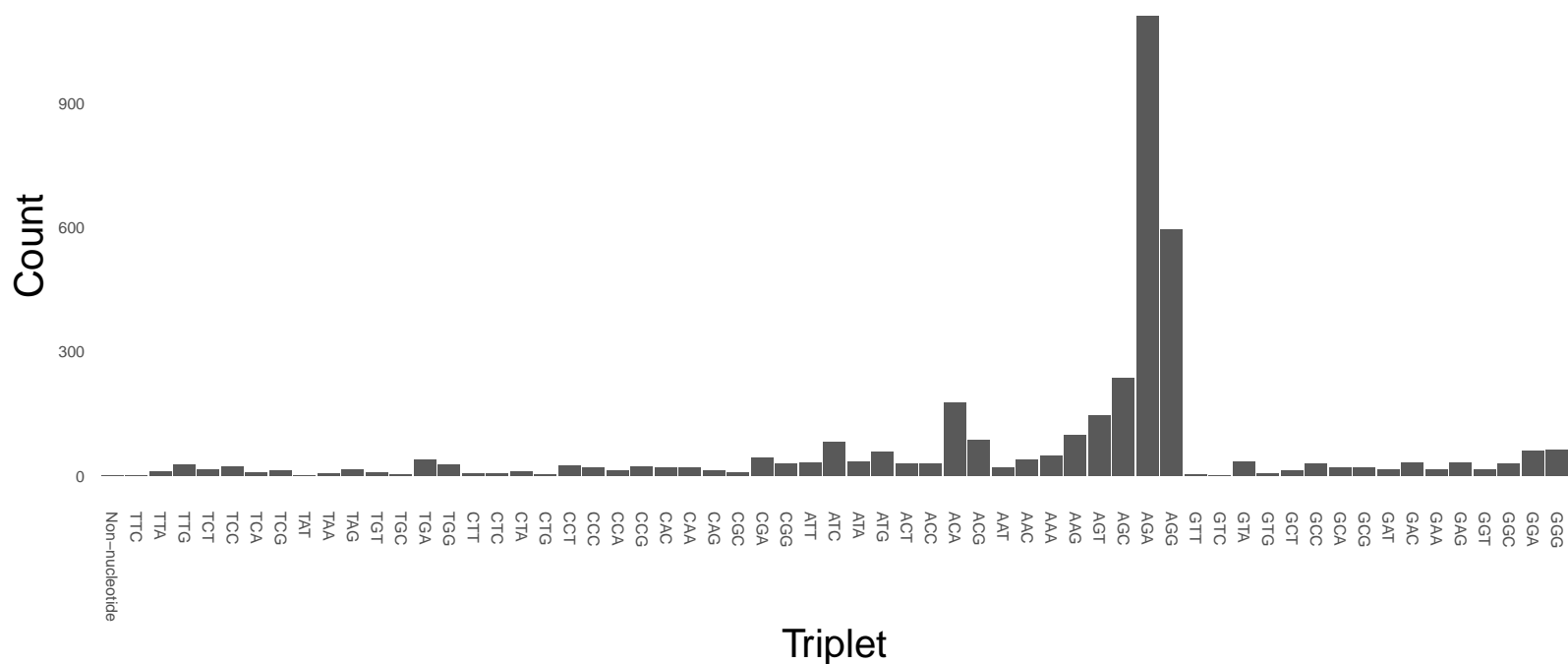
IGHV3-30*02_C141G- Final 3 nucleotides as a triplet



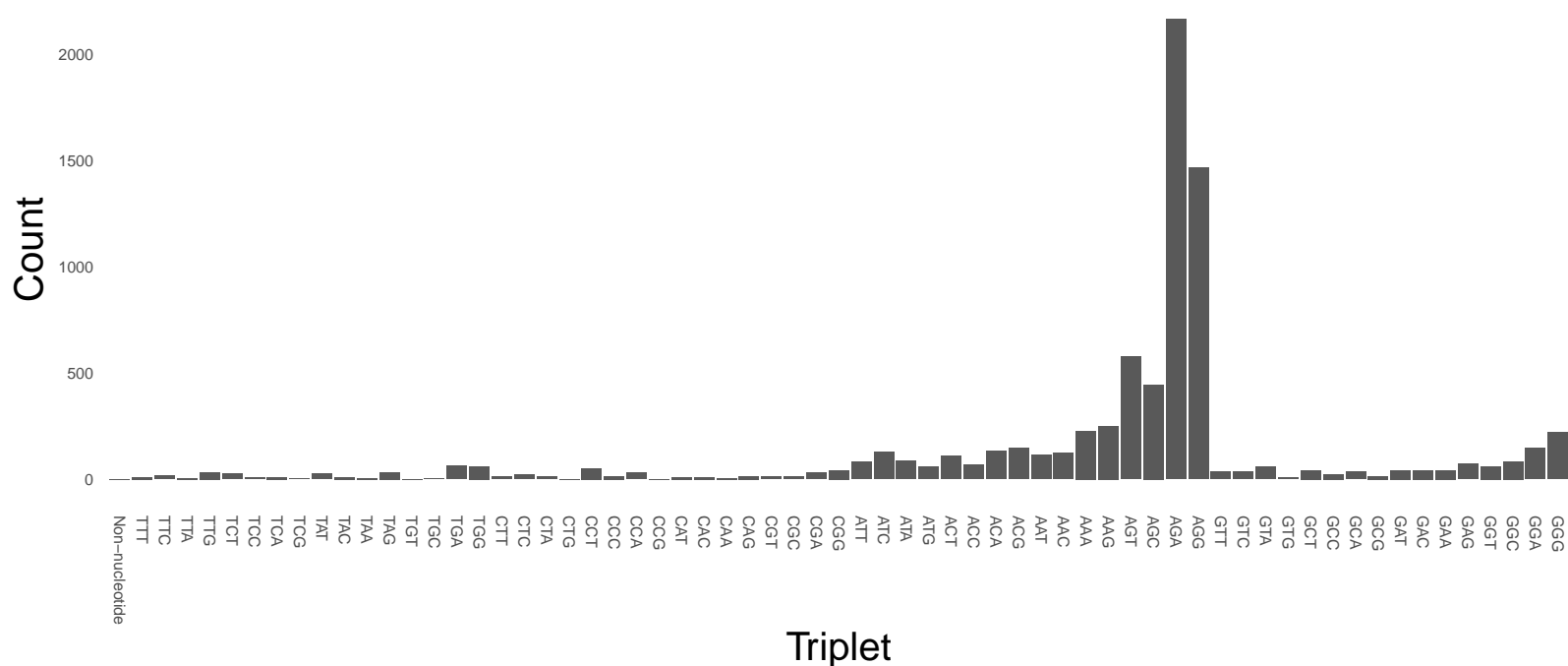
IGHV3-103*01_T19A_G24C_C27A_C38T_A39C_A40C_C113G_T114C_C118A_A119G_C164G



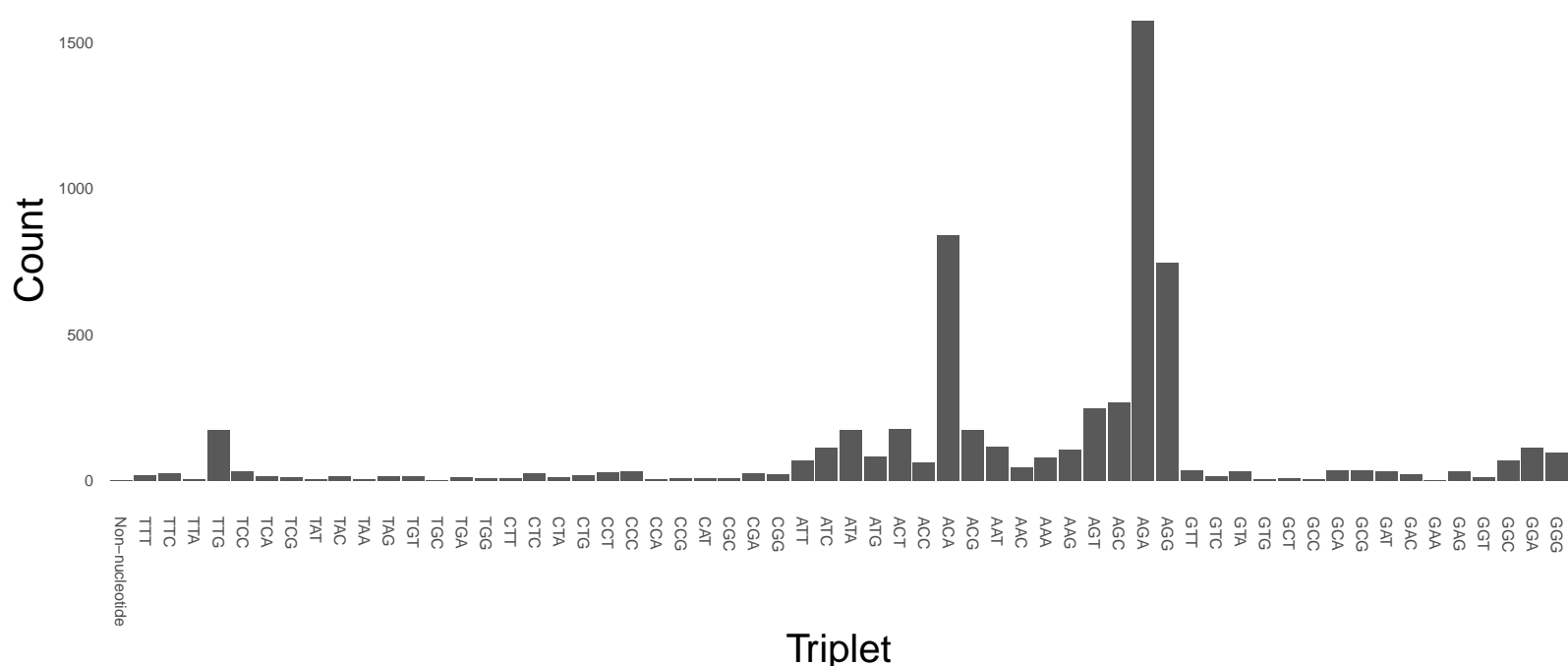
IGHV4-76*01_C34G_A244G_C256G- Final 3 nucleotides as a triplet



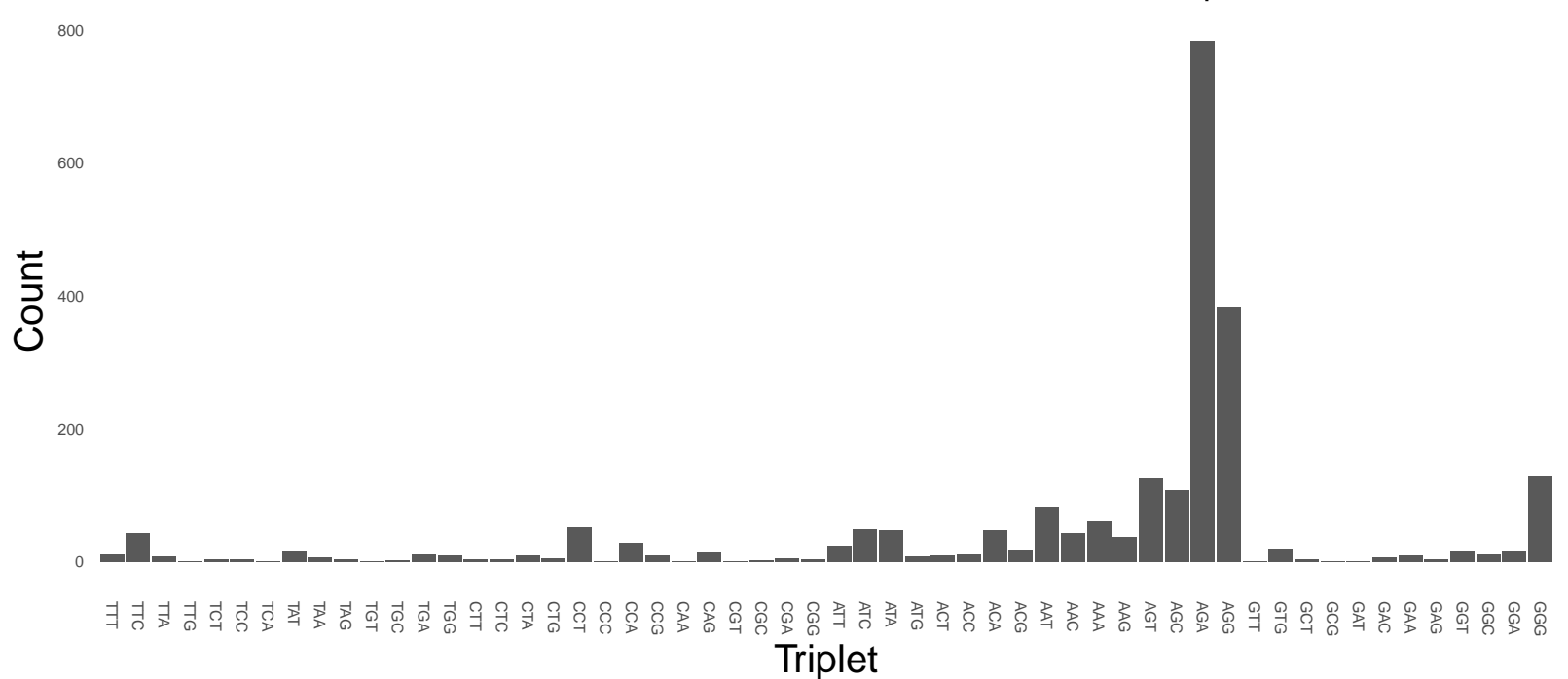
IGHV4-160*01_C133G_G147A- Final 3 nucleotides as a triplet



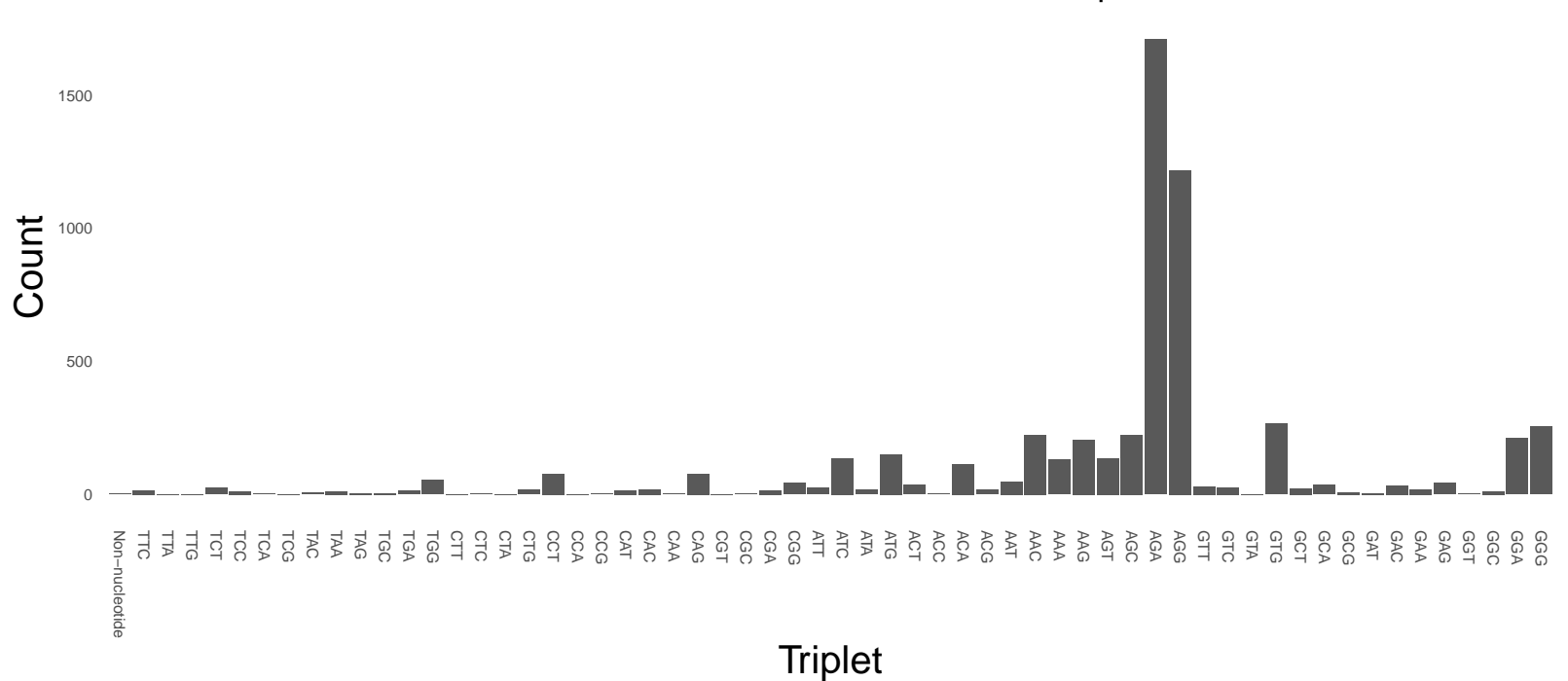
IGHV4-65*02_C34G_A163T_G169A- Final 3 nucleotides as a triplet



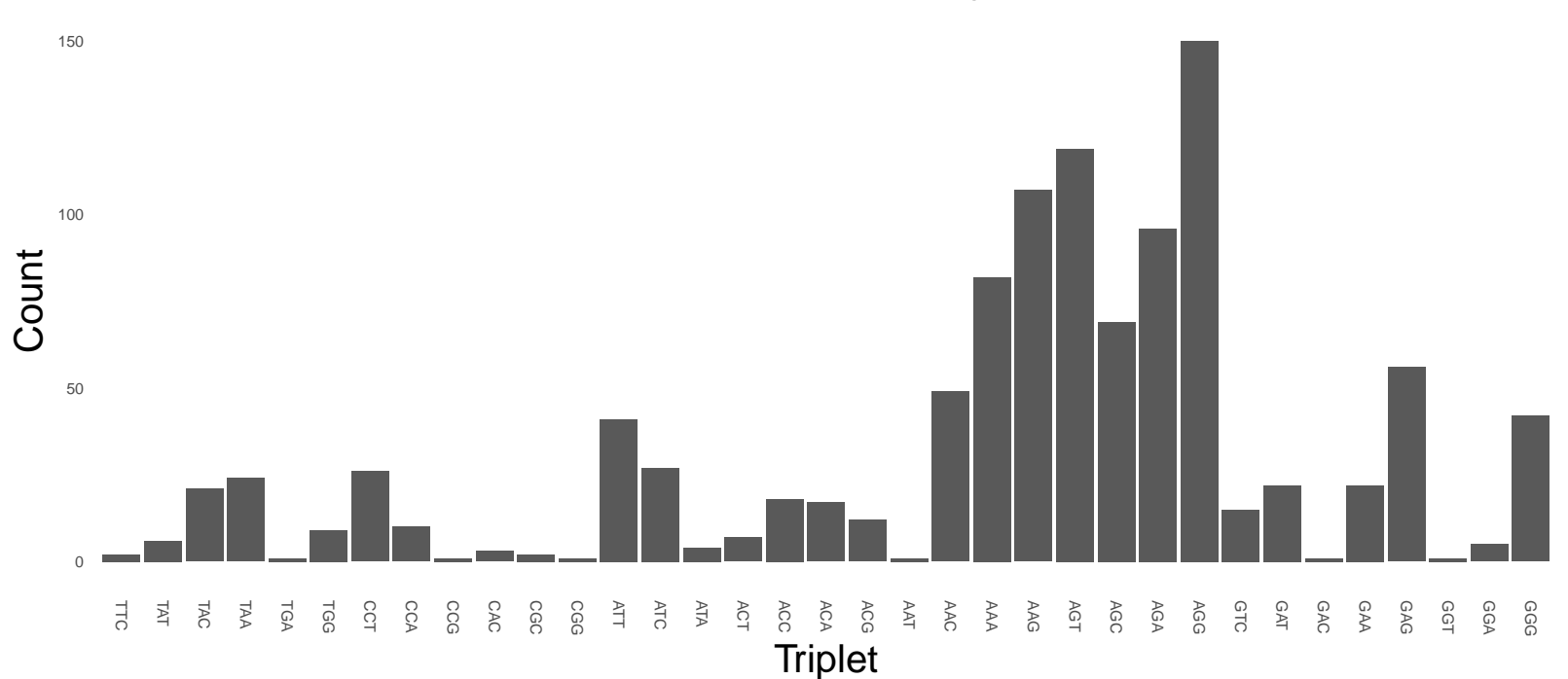
IGHV4-122*02_G82T_G83A_A100G_C133G- Final 3 nucleotides as a triplet



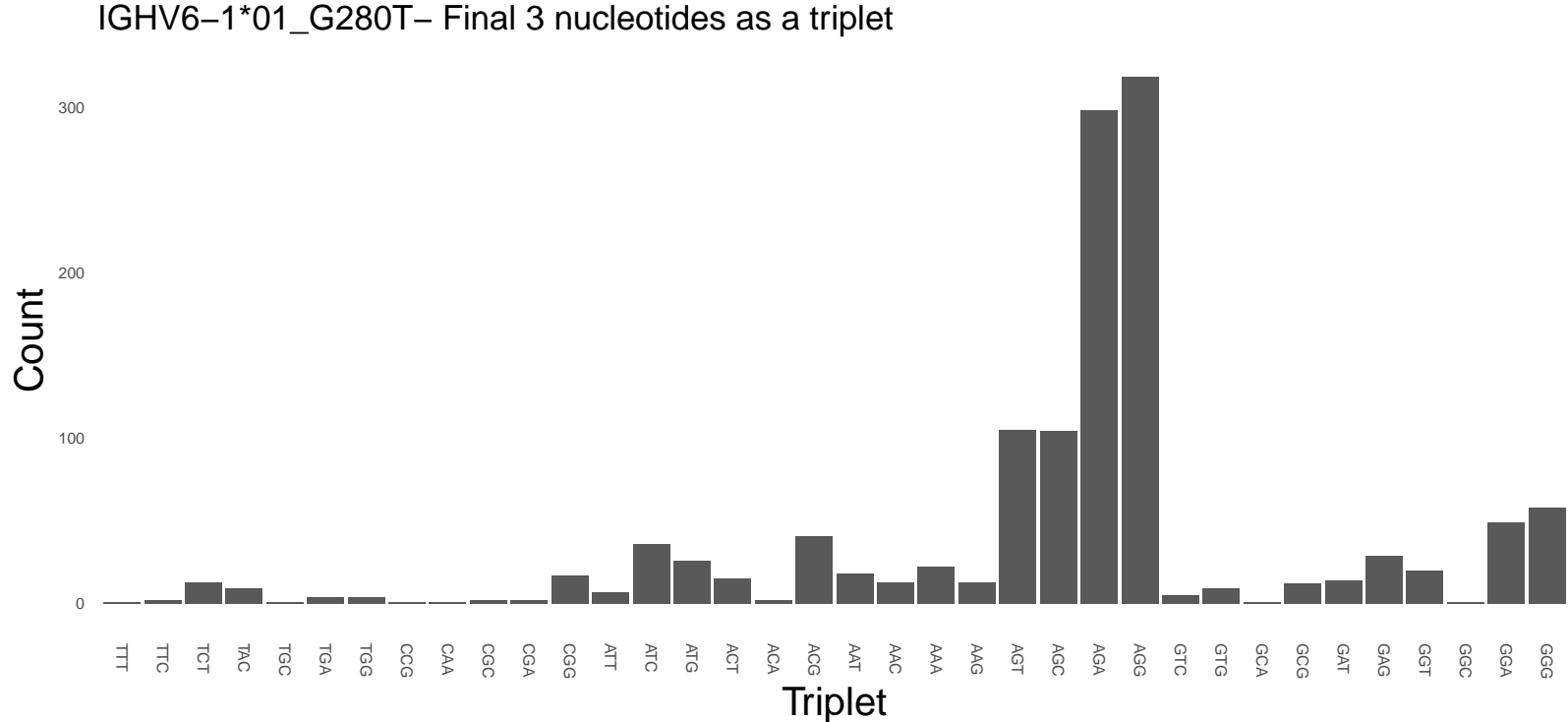
IGHV5-20*02_A141G_A295T_C312T- Final 3 nucleotides as a triplet



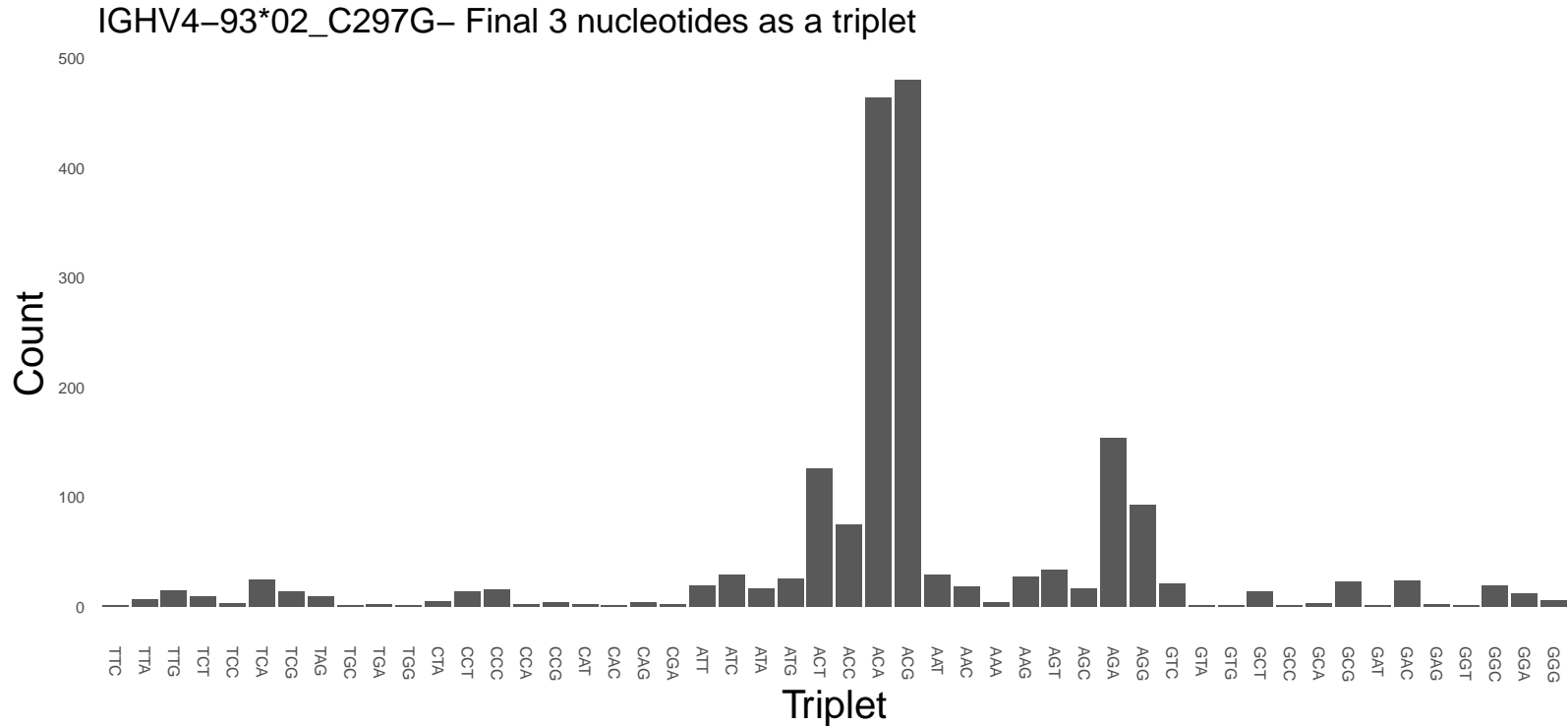
IGHV5-43*01_A106G_C297T- Final 3 nucleotides as a triplet



IGHV6-1*01_G280T- Final 3 nucleotides as a triplet

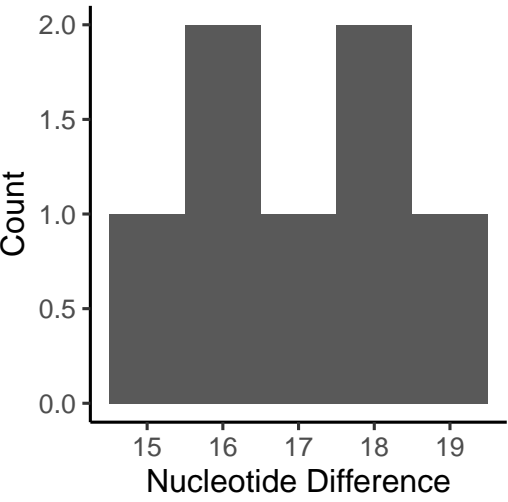


IGHV4-93*02_C297G- Final 3 nucleotides as a triplet



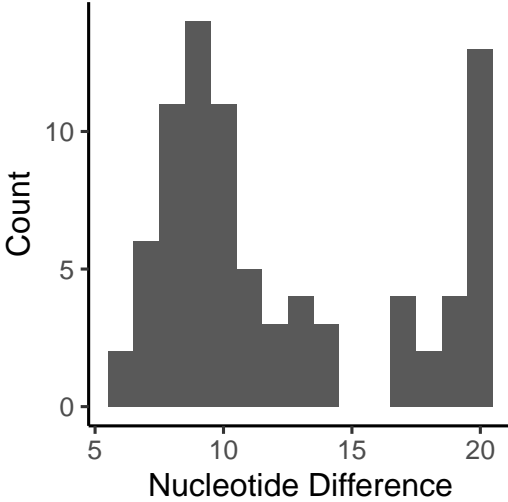
IGHV1S2*01

53 sequences assigned
No exact matches.



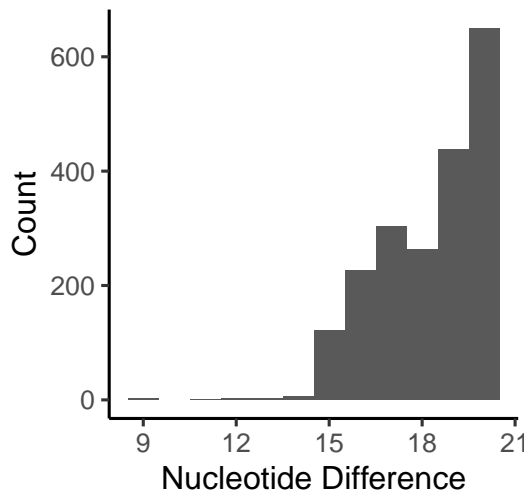
IGHV3S43*01

147 sequences assigned
No exact matches.



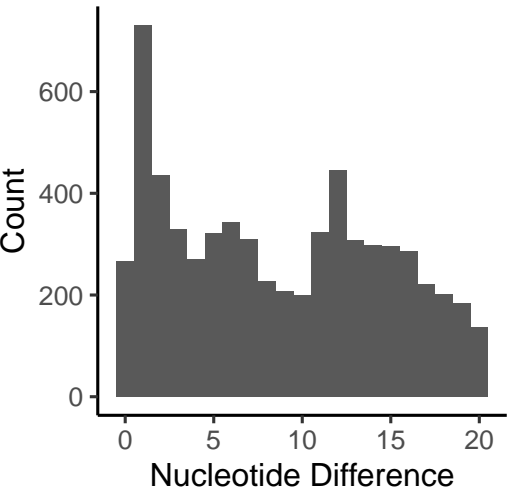
IGHV2-152*01

6283 sequences assigned
No exact matches.



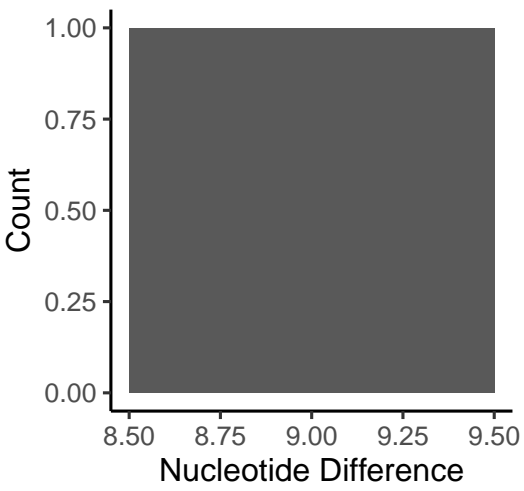
IGHV3S42*01_C38T_A39G

9990 sequences assigned
266 (2.7%) exact matches, in which:
228 unique CDR3
4 unique J



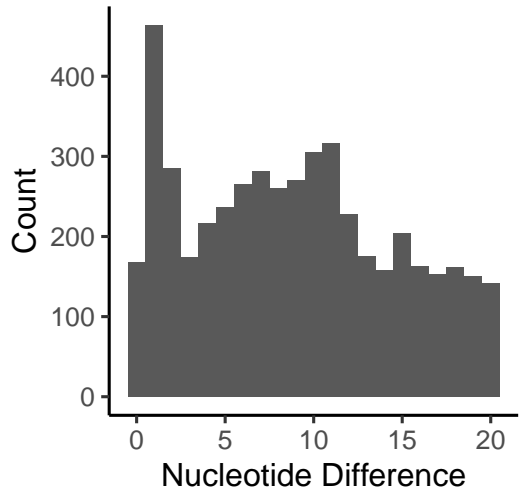
IGHV1-151*01

2 sequences assigned
No exact matches.



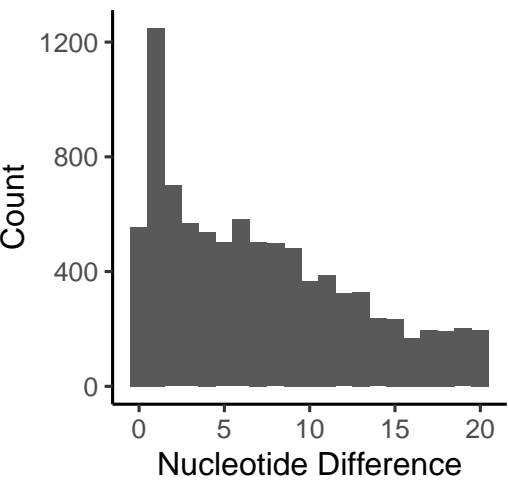
IGHV3-16*01_A51T_T78C

6608 sequences assigned
168 (2.5%) exact matches, in which:
145 unique CDR3
4 unique J



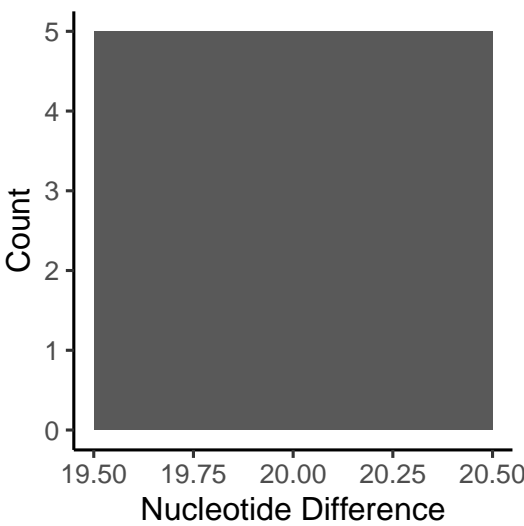
IGHV3S42*01_T19A_G2

10576 sequences assigned
555 (5.2%) exact matches, in which:
468 unique CDR3
4 unique J



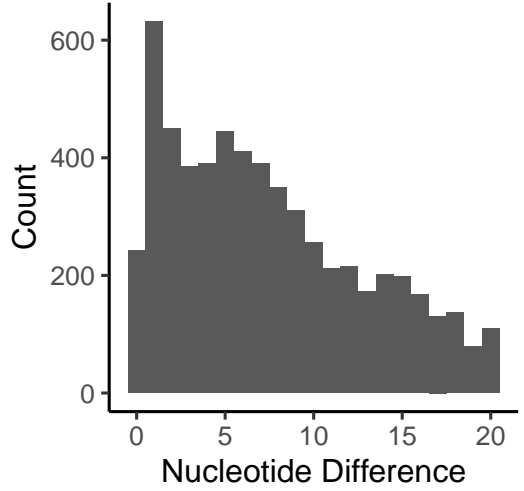
IGHV1-156D*01

232 sequences assigned
No exact matches.



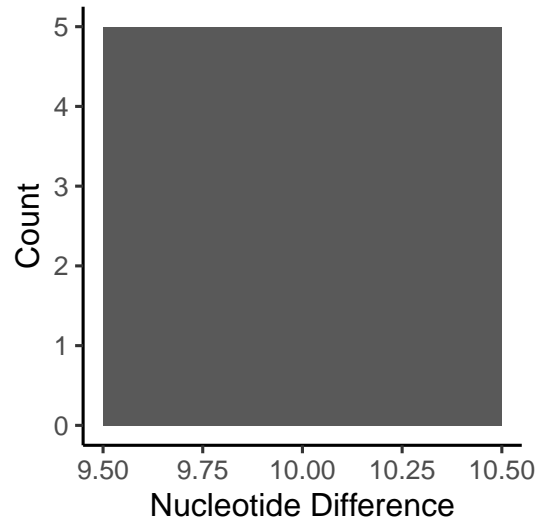
IGHV3-30*02_C141G

6929 sequences assigned
243 (3.5%) exact matches, in which:
197 unique CDR3
3 unique J



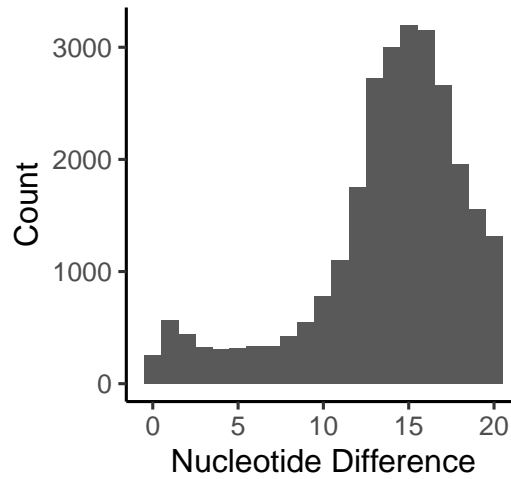
IGHV3-34*01

14 sequences assigned
No exact matches.



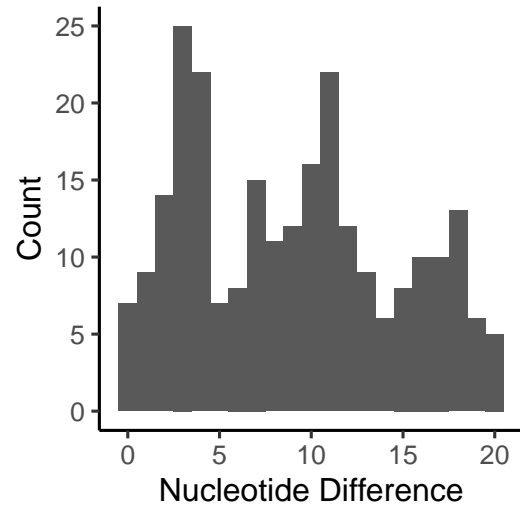
IGHV3-103*01_T19A_G

36492 sequences assigned
254 (0.7%) exact matches, in which:
219 unique CDR3
4 unique J



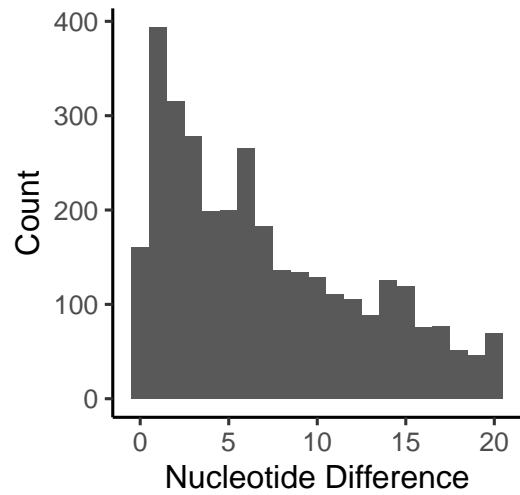
IGHV3-119*01_C14T

4882 sequences assigned
7 (0.1%) exact matches, in which:
7 unique CDR3
3 unique J



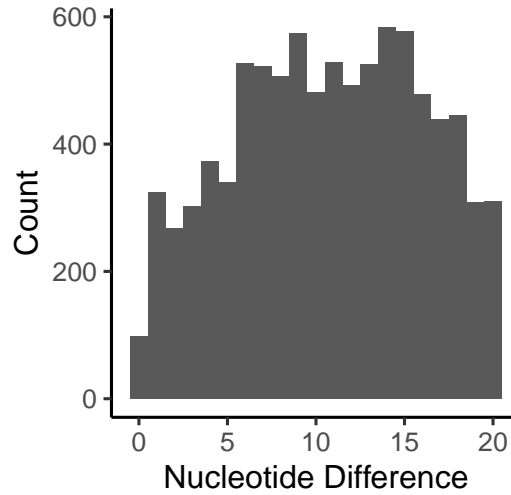
IGHV3-54*02_G50A_T11

3658 sequences assigned
161 (4.4%) exact matches, in which:
139 unique CDR3
3 unique J



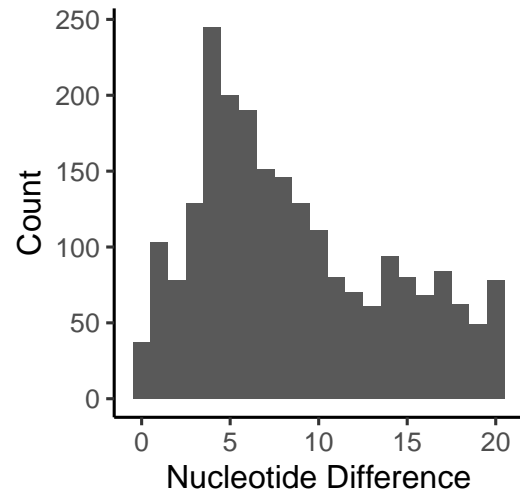
IGHV3-116*02_G8A

11551 sequences assigned
98 (0.8%) exact matches, in which:
80 unique CDR3
4 unique J



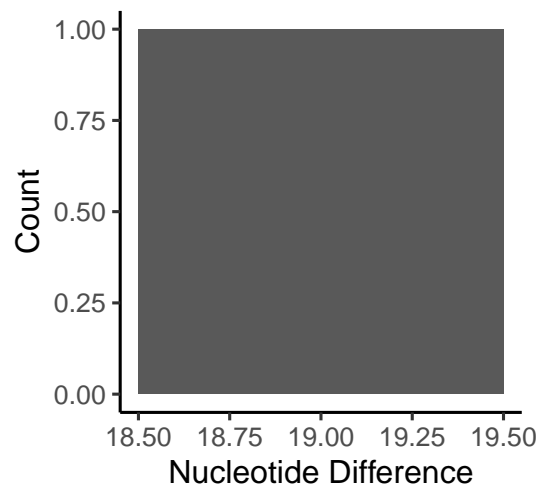
IGHV3-184*01_T109C_T

2667 sequences assigned
37 (1.4%) exact matches, in which:
35 unique CDR3
2 unique J



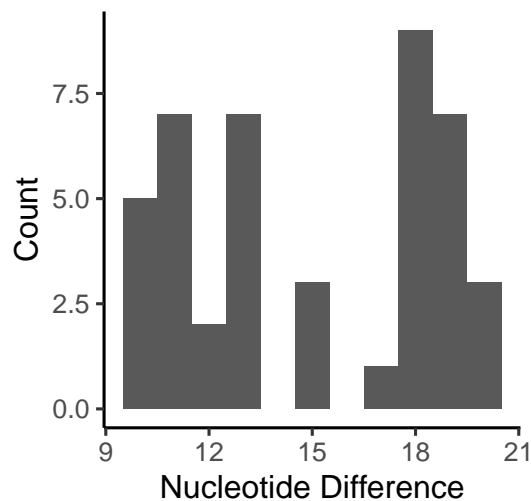
IGHV3-67*01

1044 sequences assigned
No exact matches.



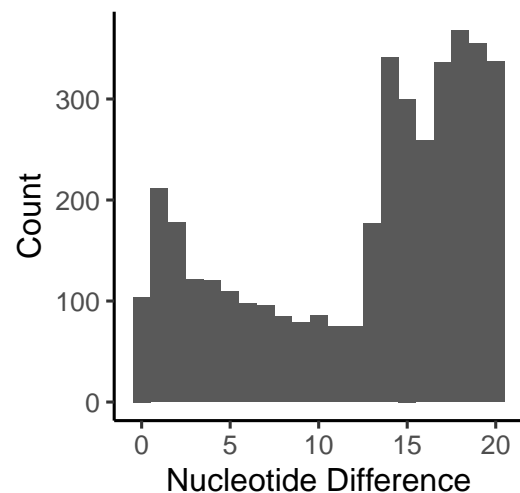
IGHV3-117*01

1847 sequences assigned
No exact matches.



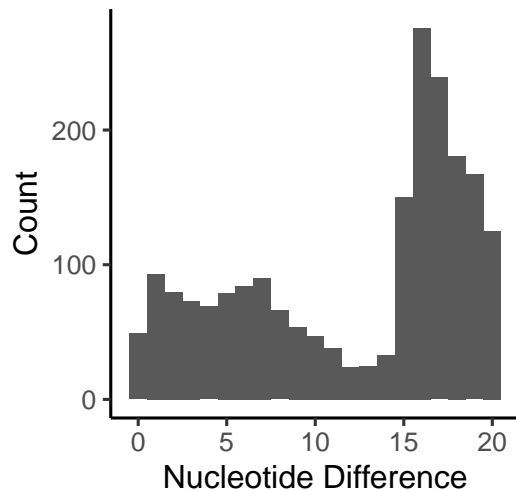
IGHV4-65*02_C34G_A10

5987 sequences assigned
104 (1.7%) exact matches, in which:
99 unique CDR3
4 unique J



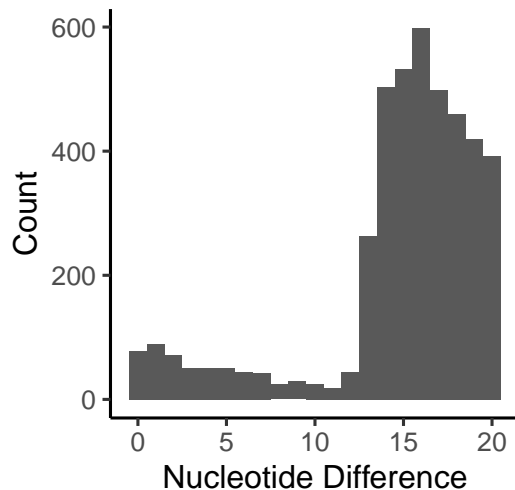
IGHV4-76*01_C34G_A24

3660 sequences assigned
49 (1.3%) exact matches, in which:
46 unique CDR3
4 unique J



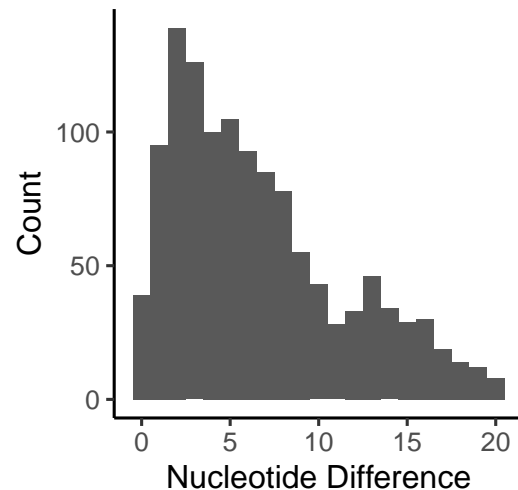
IGHV4-160*01_C133G_C

7785 sequences assigned
78 (1%) exact matches, in which:
78 unique CDR3
4 unique J



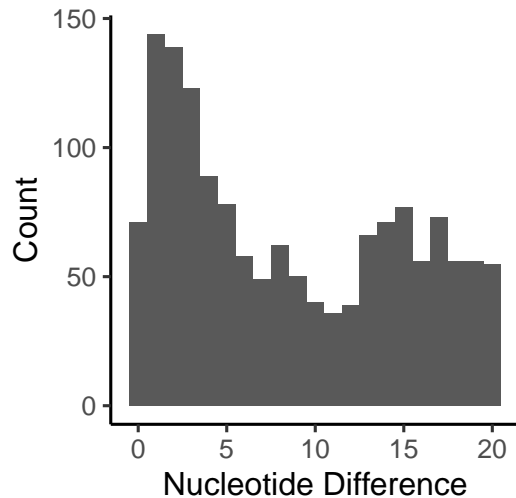
IGHV6-1*01_G280T

1273 sequences assigned
39 (3.1%) exact matches, in which:
34 unique CDR3
4 unique J



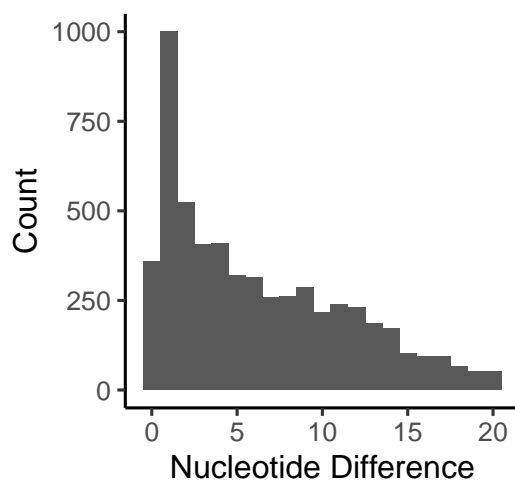
IGHV4-93*02_C297G

1878 sequences assigned
71 (3.8%) exact matches, in which:
66 unique CDR3
4 unique J



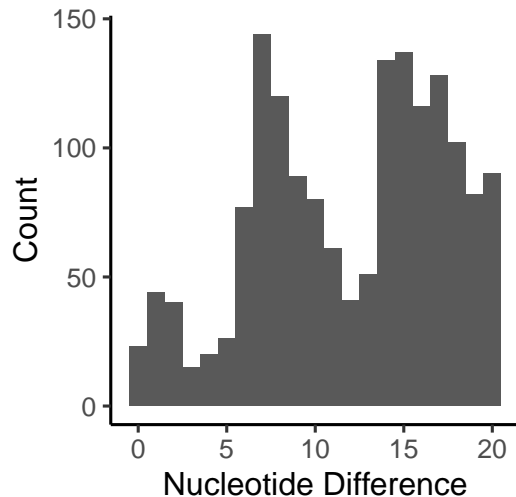
IGHV5-20*02_A141G_A295T_C312T

5799 sequences assigned
359 (6.2%) exact matches, in which:
300 unique CDR3
4 unique J



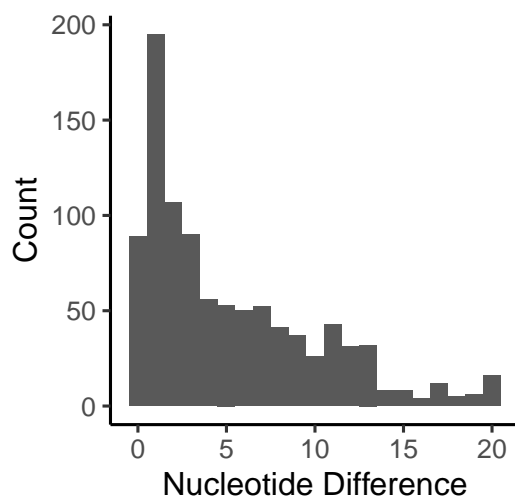
IGHV4-122*02_G82T_G8

2323 sequences assigned
23 (1%) exact matches, in which:
23 unique CDR3
4 unique J

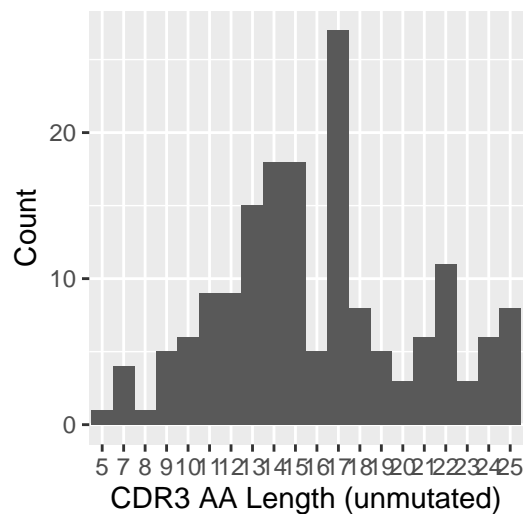


IGHV5-43*01_A106G_C297T

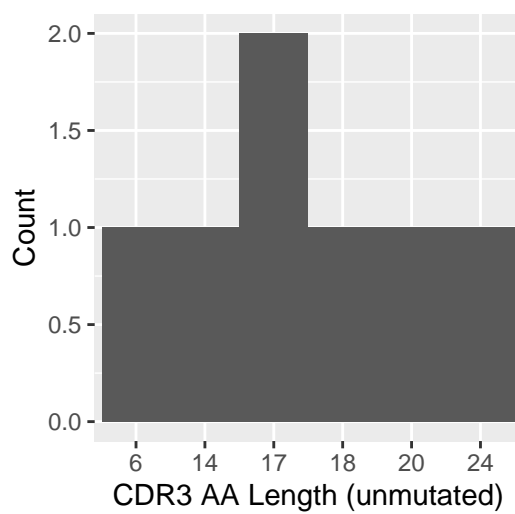
1069 sequences assigned
89 (8.3%) exact matches, in which:
67 unique CDR3
4 unique J



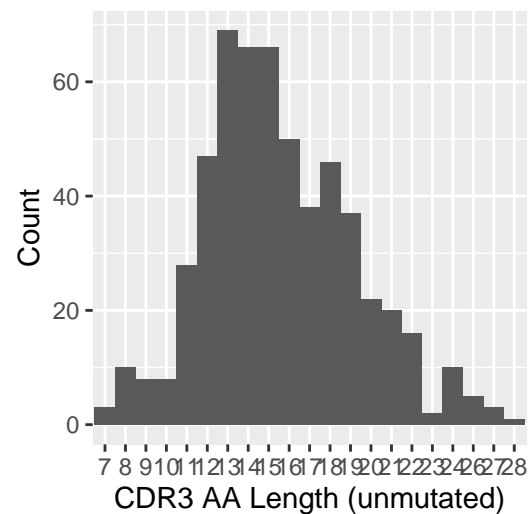
IGHV3-16*01_A51T_T78C_



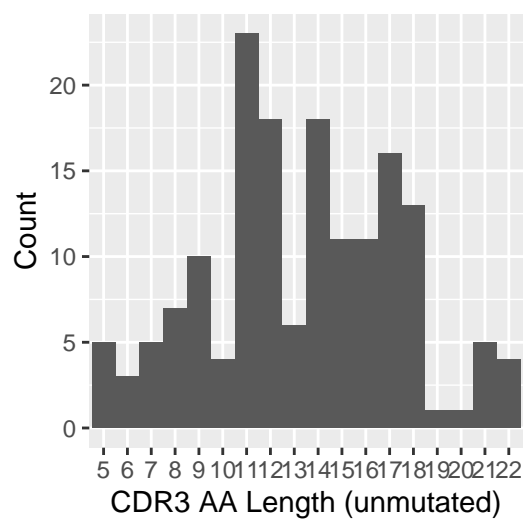
IGHV3-119*01_C14T



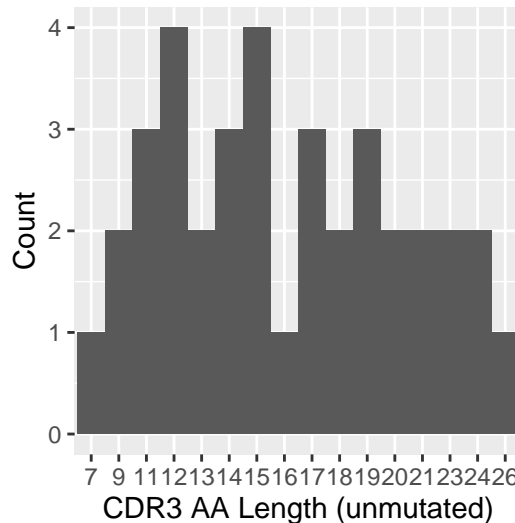
IGHV3S42*01_T19A_G24A_



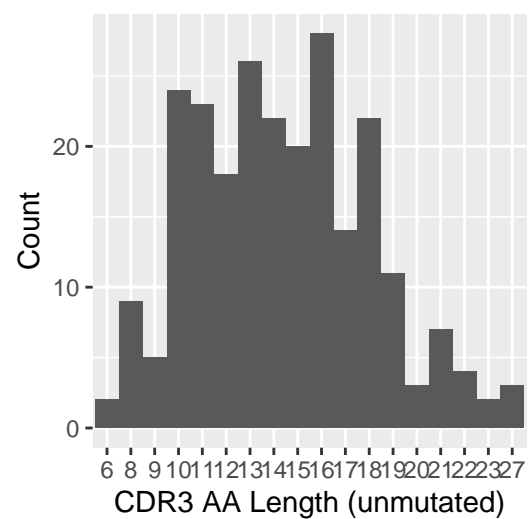
IGHV3-54*02_G50A_T111C_



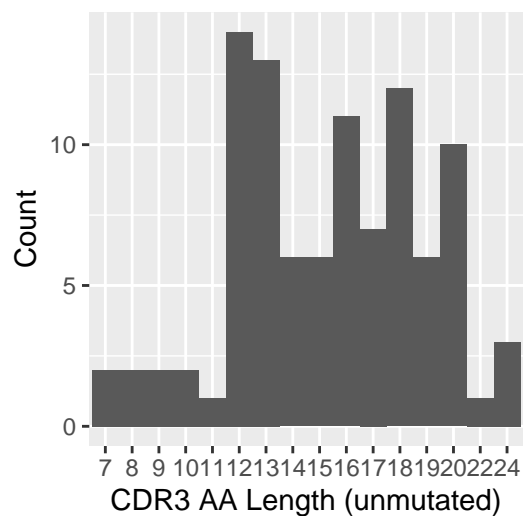
IGHV3-184*01_T109C_T262_



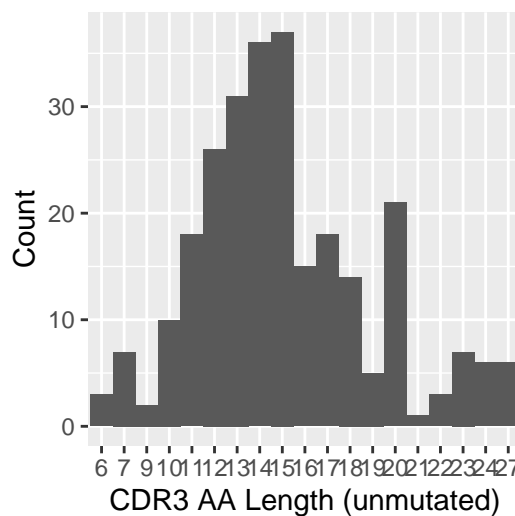
IGHV3-30*02_C141G



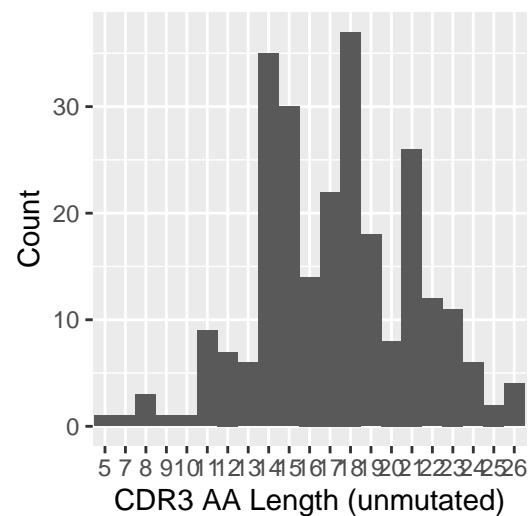
IGHV3-116*02_G8A



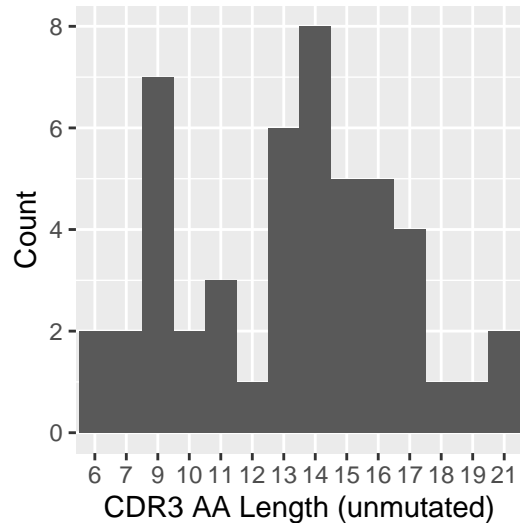
IGHV3S42*01_C38T_A39C_



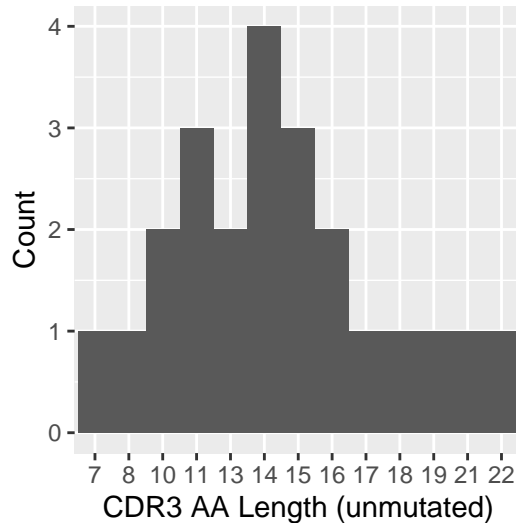
IGHV3-103*01_T19A_G24C



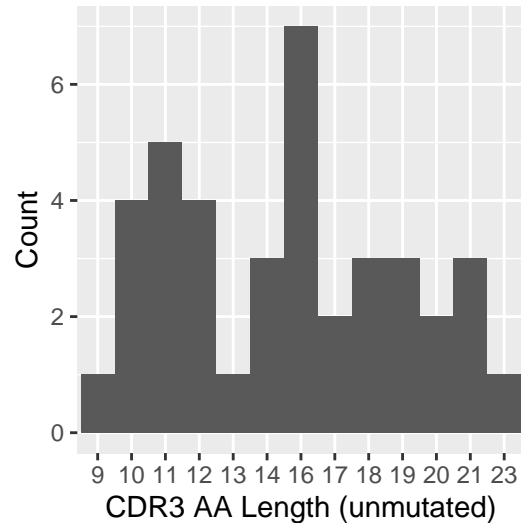
IGHV4-76*01_C34G_A244G_



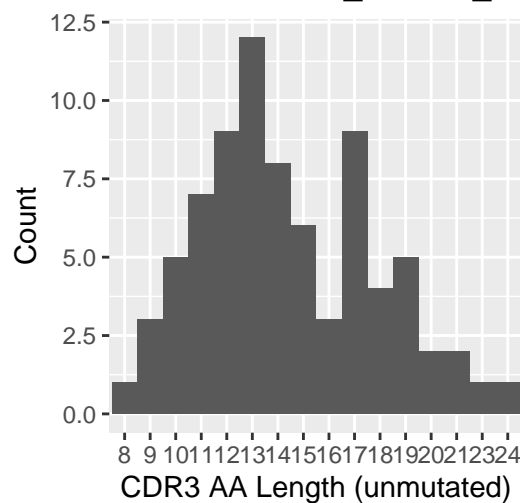
IGHV4-122*02_G82T_G83A_



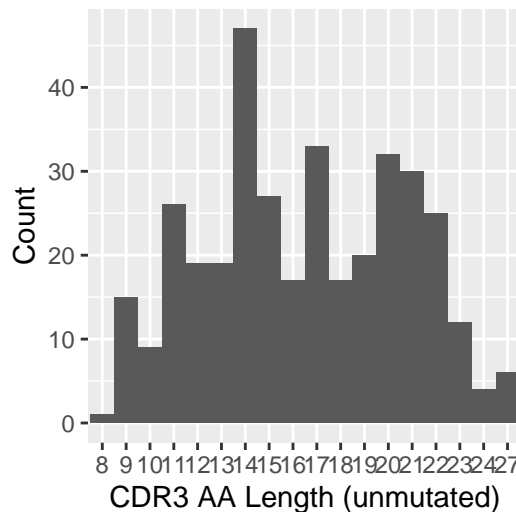
IGHV6-1*01_G280T



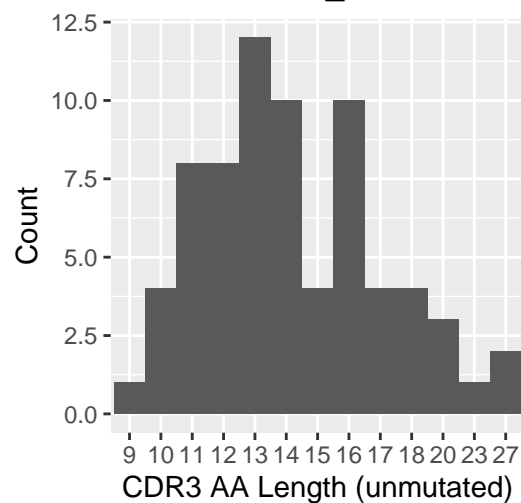
IGHV4-160*01_C133G_G1



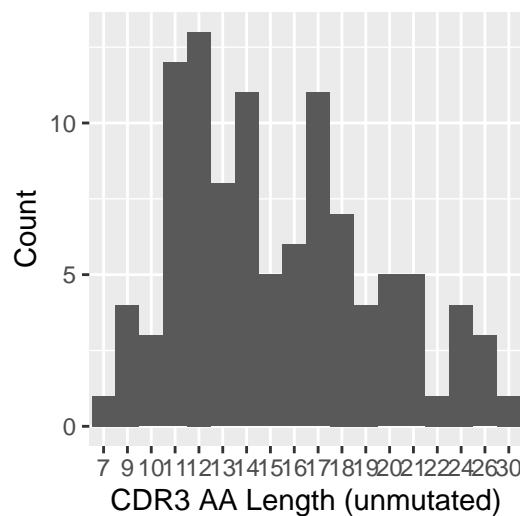
IGHV5-20*02_A141G_A295*



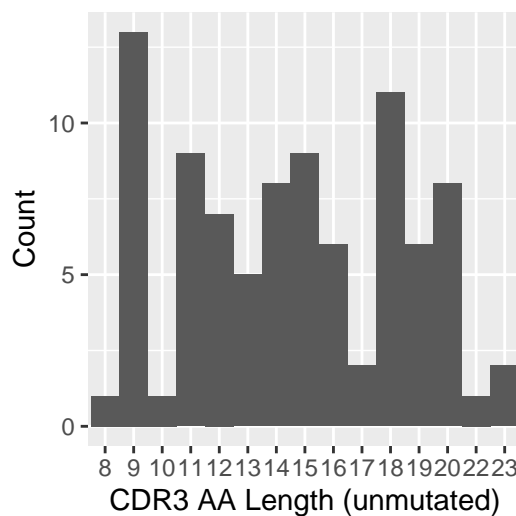
IGHV4-93*02_C297G

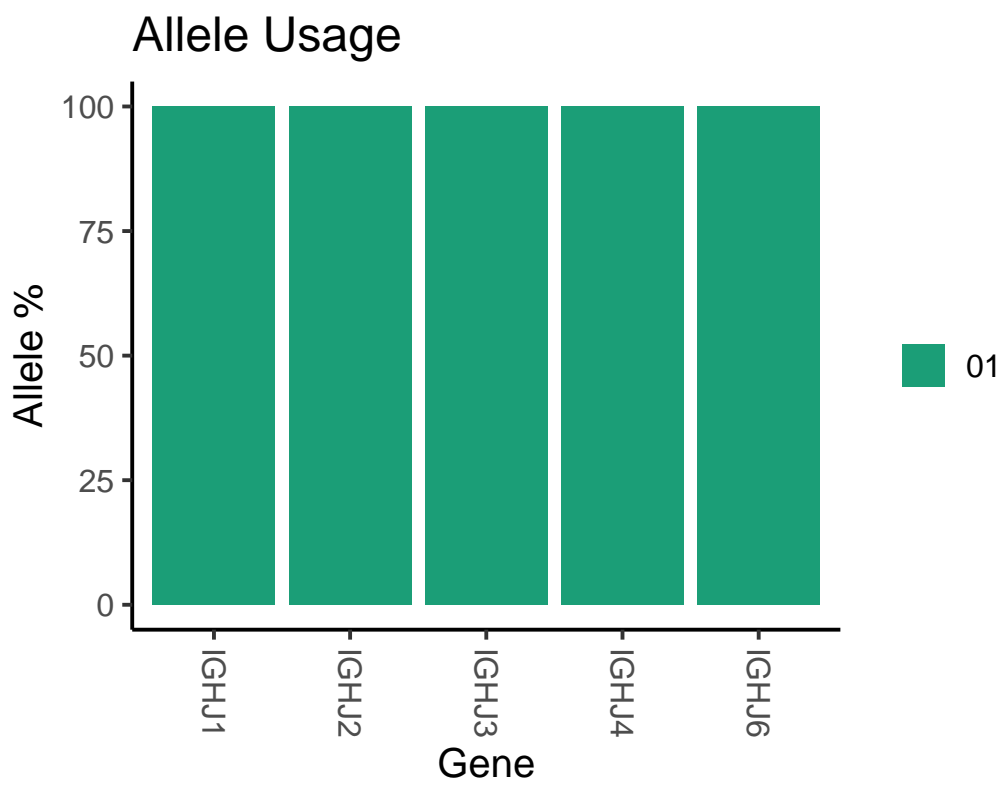


IGHV4-65*02_C34G_A163T_



IGHV5-43*01_A106G_C297T





Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.