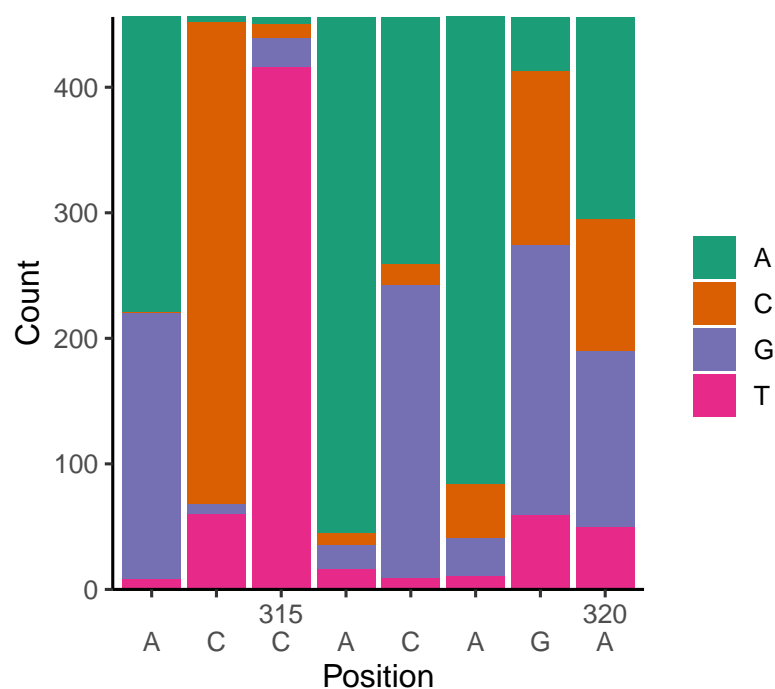
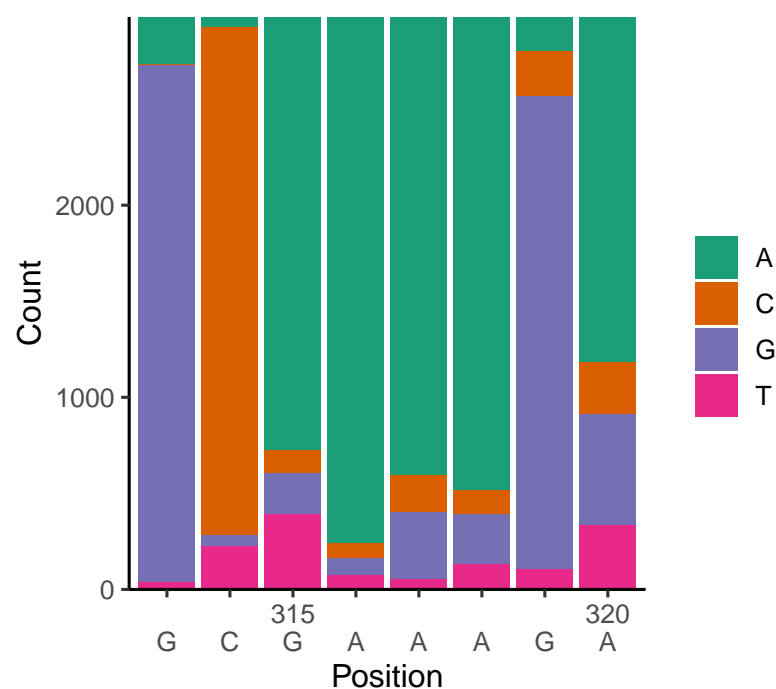


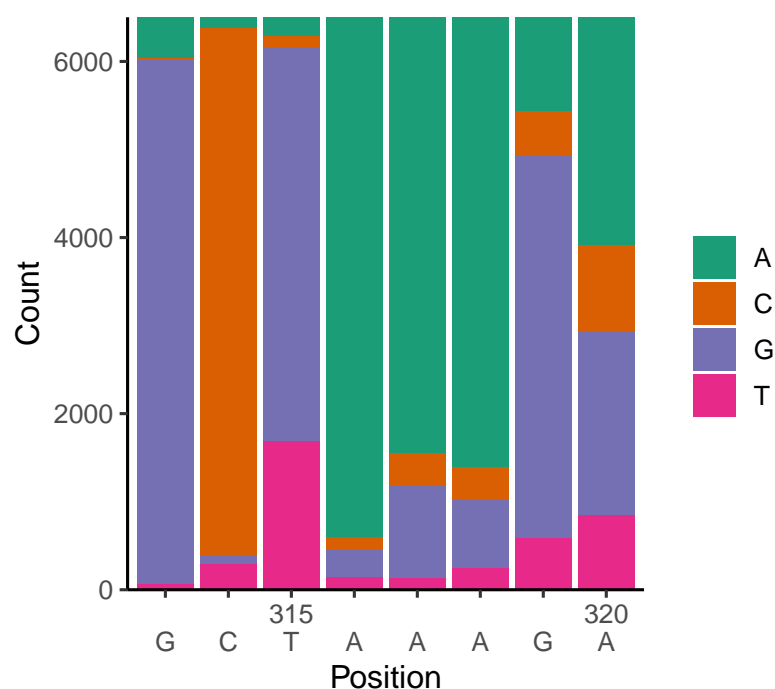
Gene IGHV3-118*01_C34T



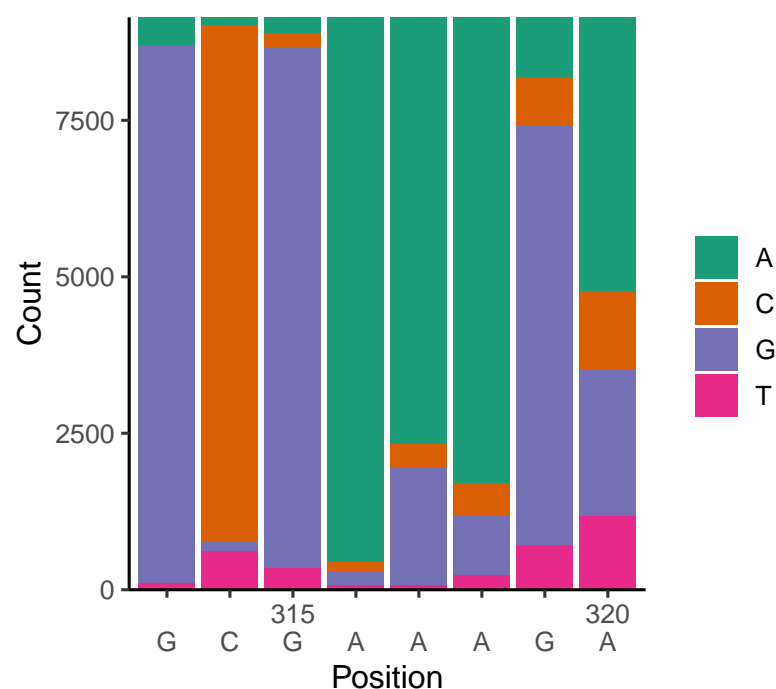
Gene IGHV3-103*01_G51A_A170G



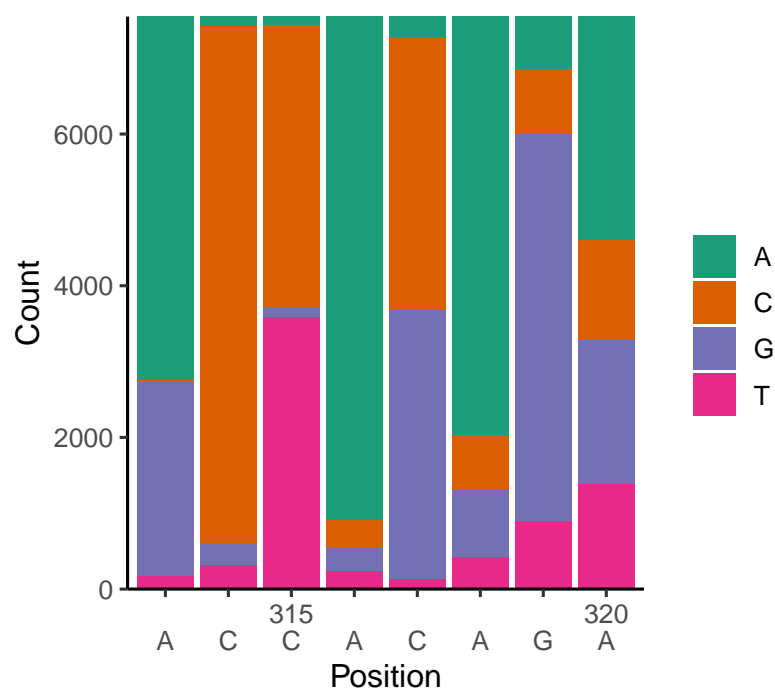
Gene IGHV3S42*01_T19A_G24A_C27A



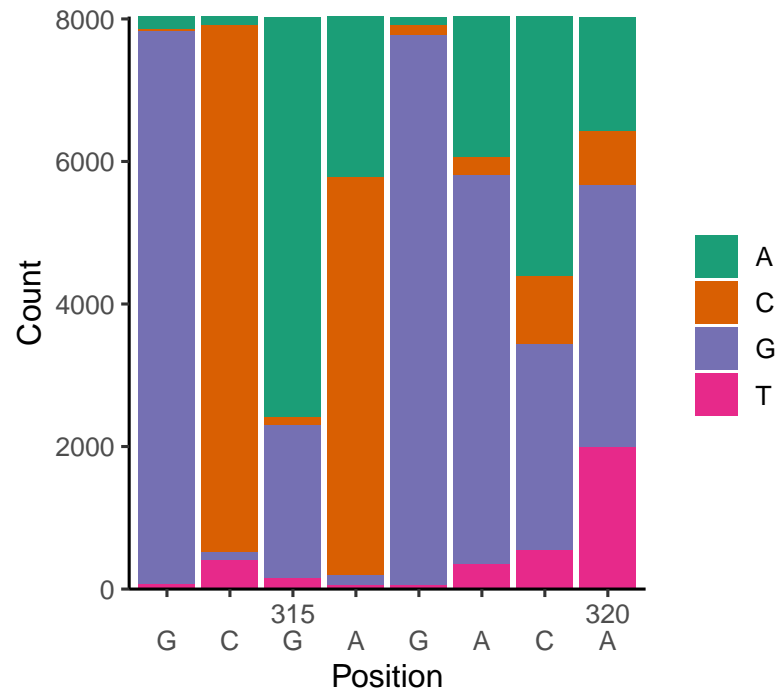
Gene IGHV3-103*01_T19A_G24C_C27A



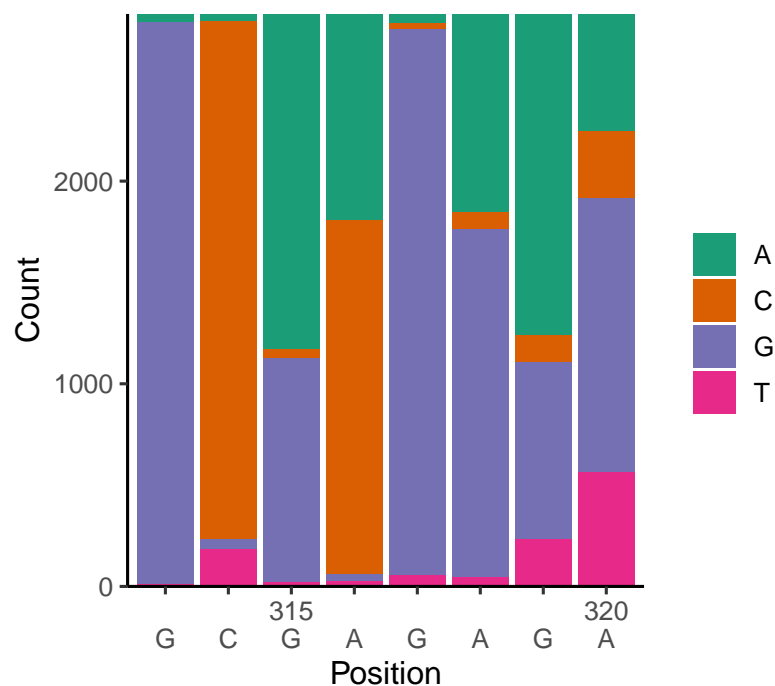
Gene IGHV3-30*02_C141G



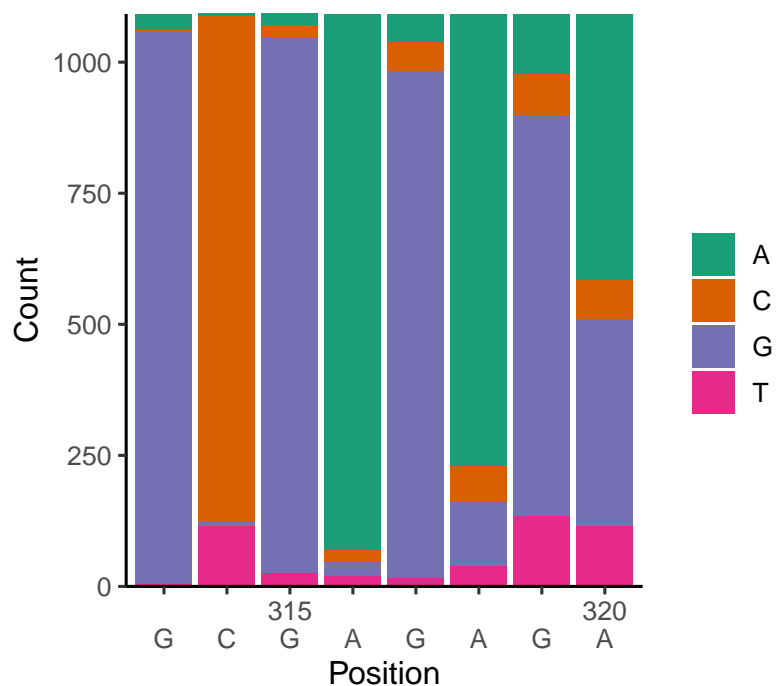
Gene IGHV4-65*02_A163T_G169A



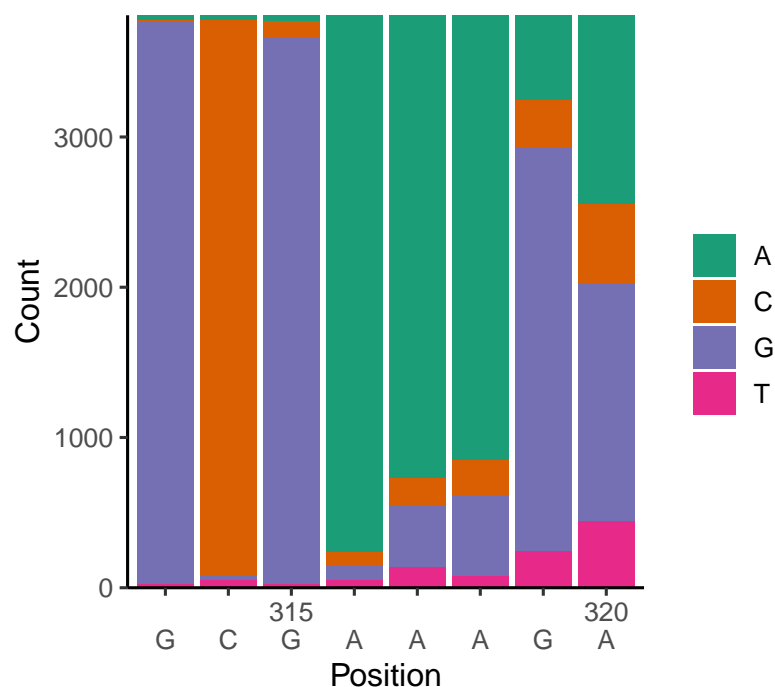
Gene IGHV4-122*02_C87T_G103A_C15



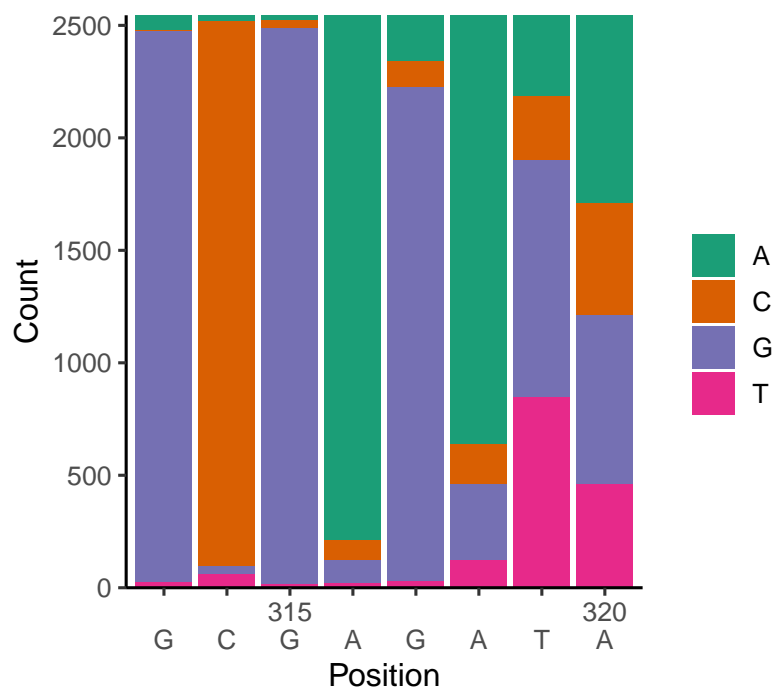
Gene IGHV4-73*01_C24T_C133G_G14



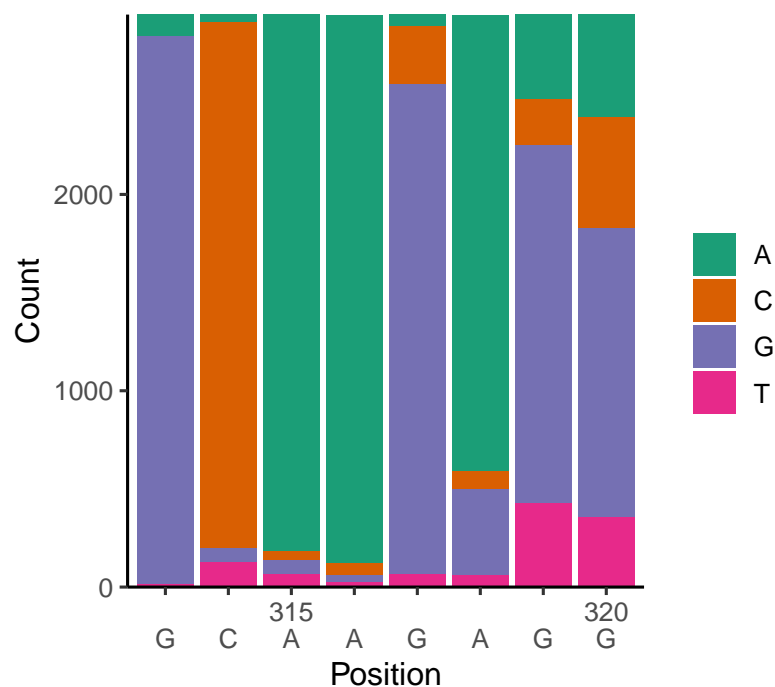
Gene IGHV5-20*02_A141G_A295T_C3'



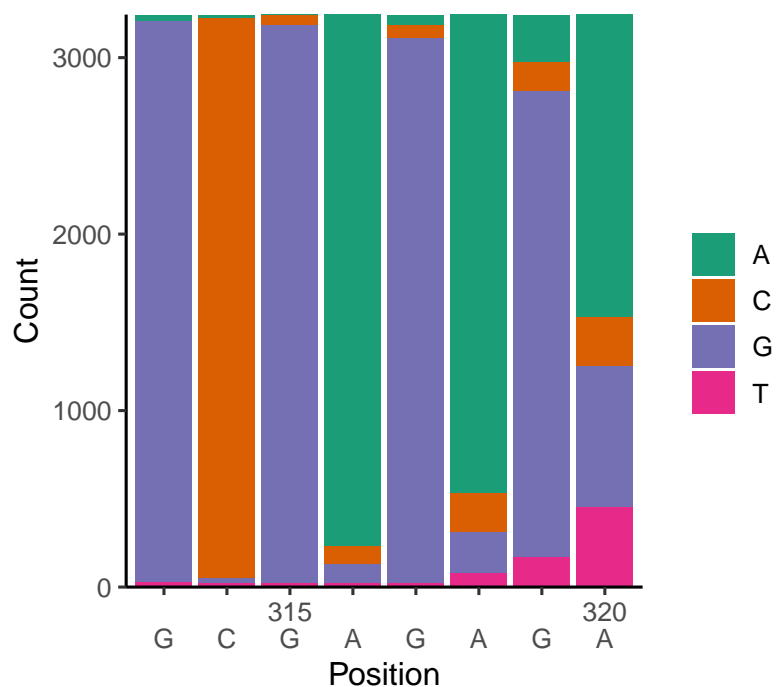
Gene IGHV4-80*01_C83G_A88T_T1050



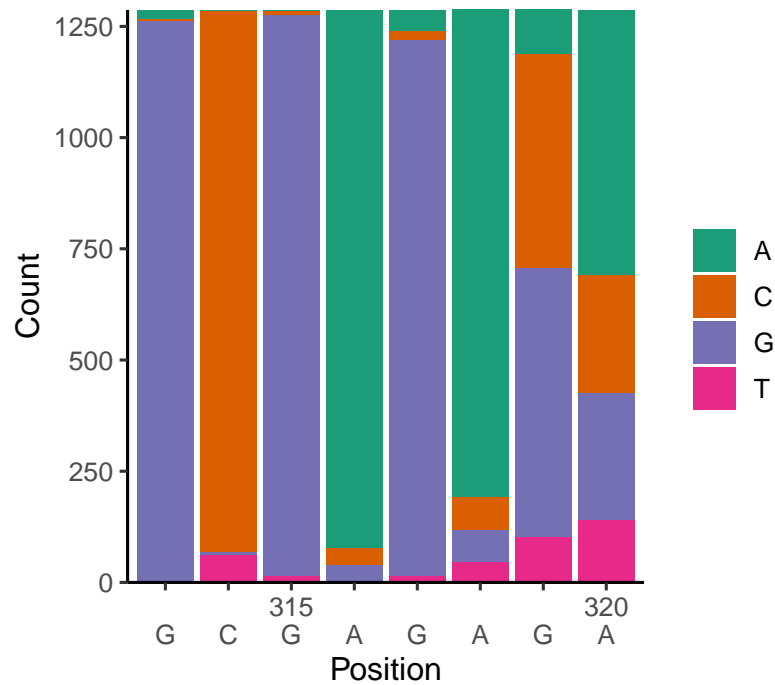
Gene IGHV1-200*01_G49A_G72A_C78'



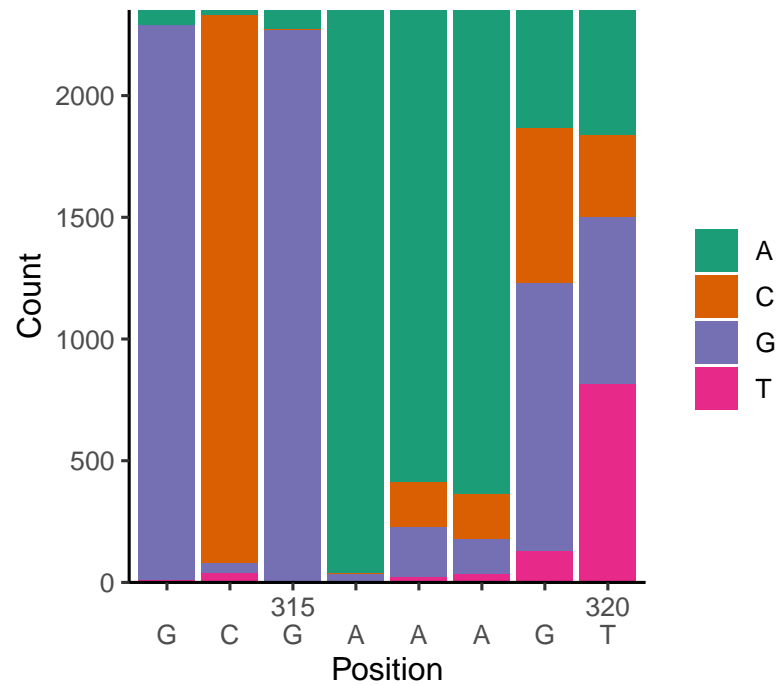
Gene IGHV4-127*01_C34G_T82G_A83



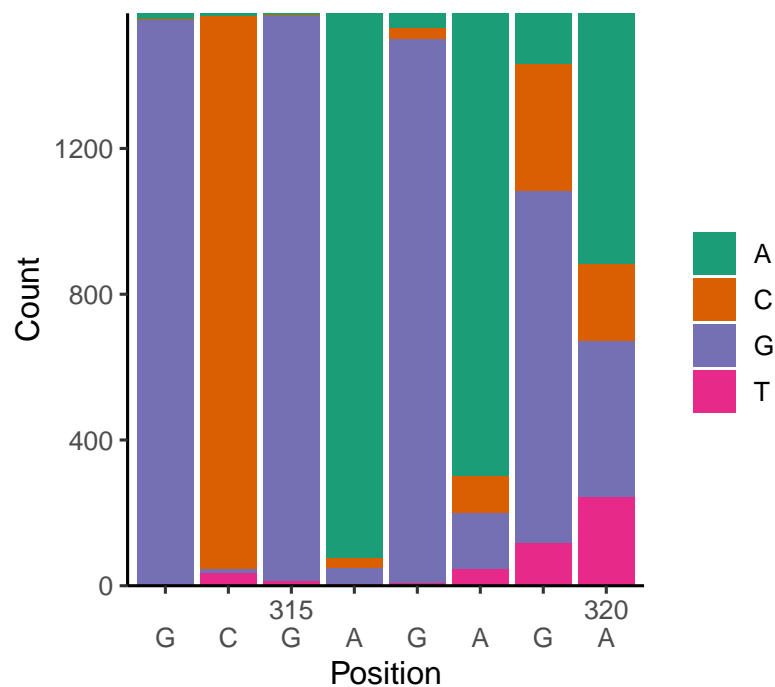
Gene IGHV4-165*01_G4C_C87T_A113T



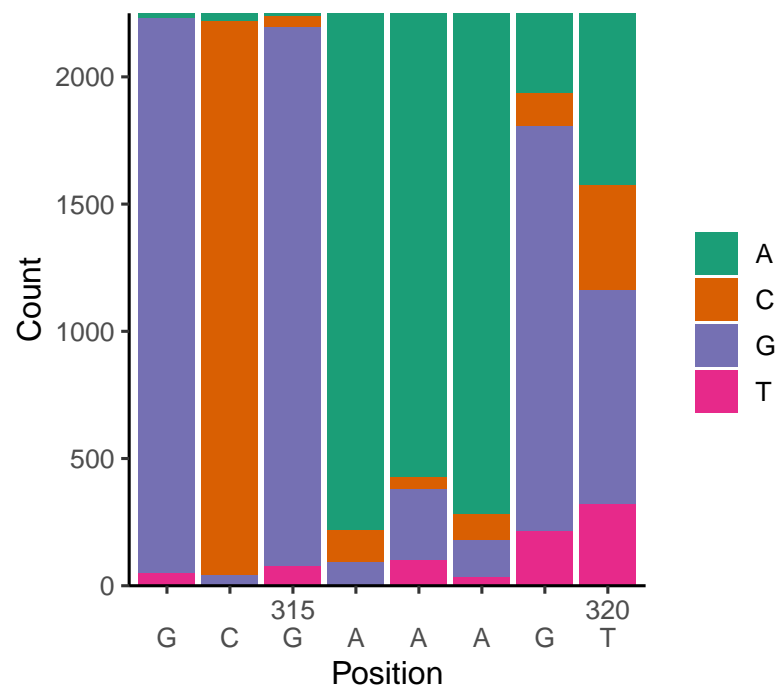
Gene IGHV5-43*01_A106G



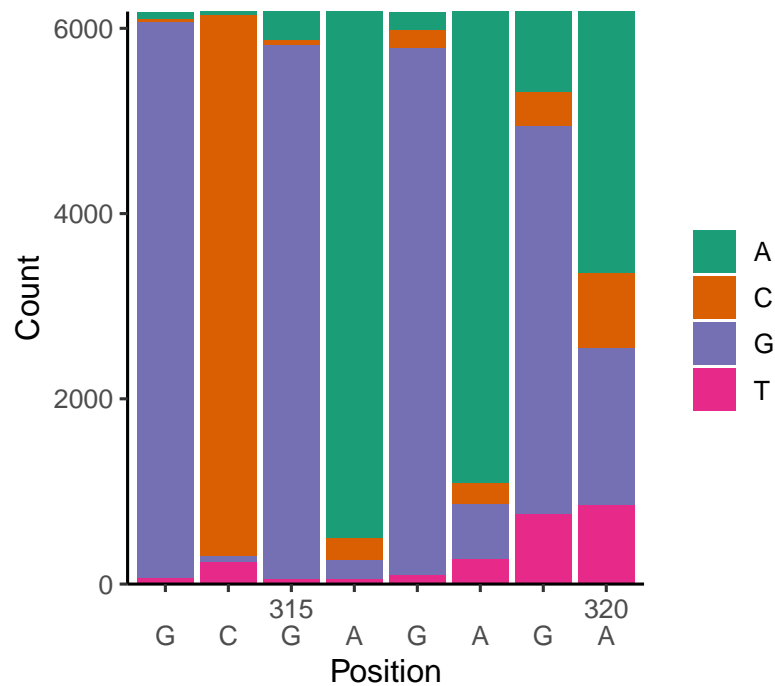
Gene IGHV4-165*01_G4C_C87T_A113T



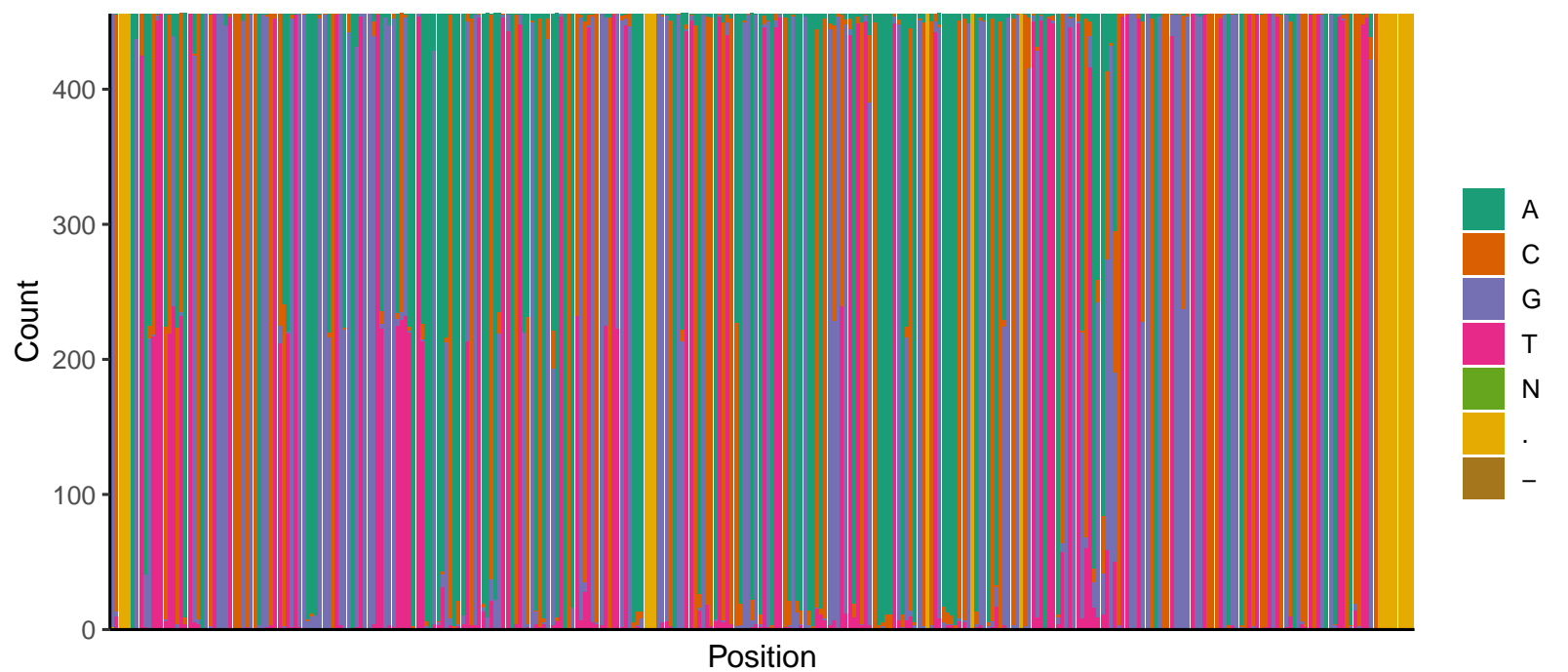
Gene IGHV5-43*01_A109T_G110A_G111A



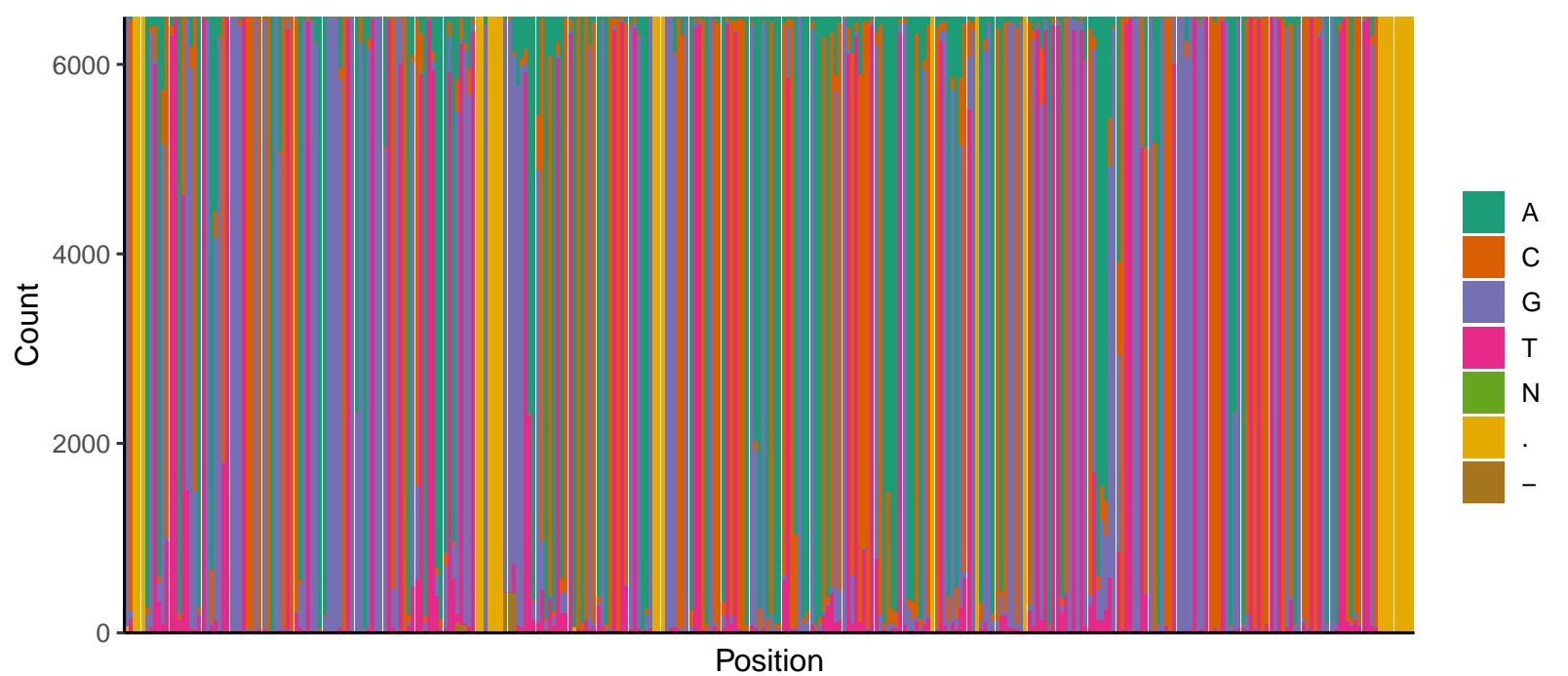
Gene IGHV4-173*01_C4G



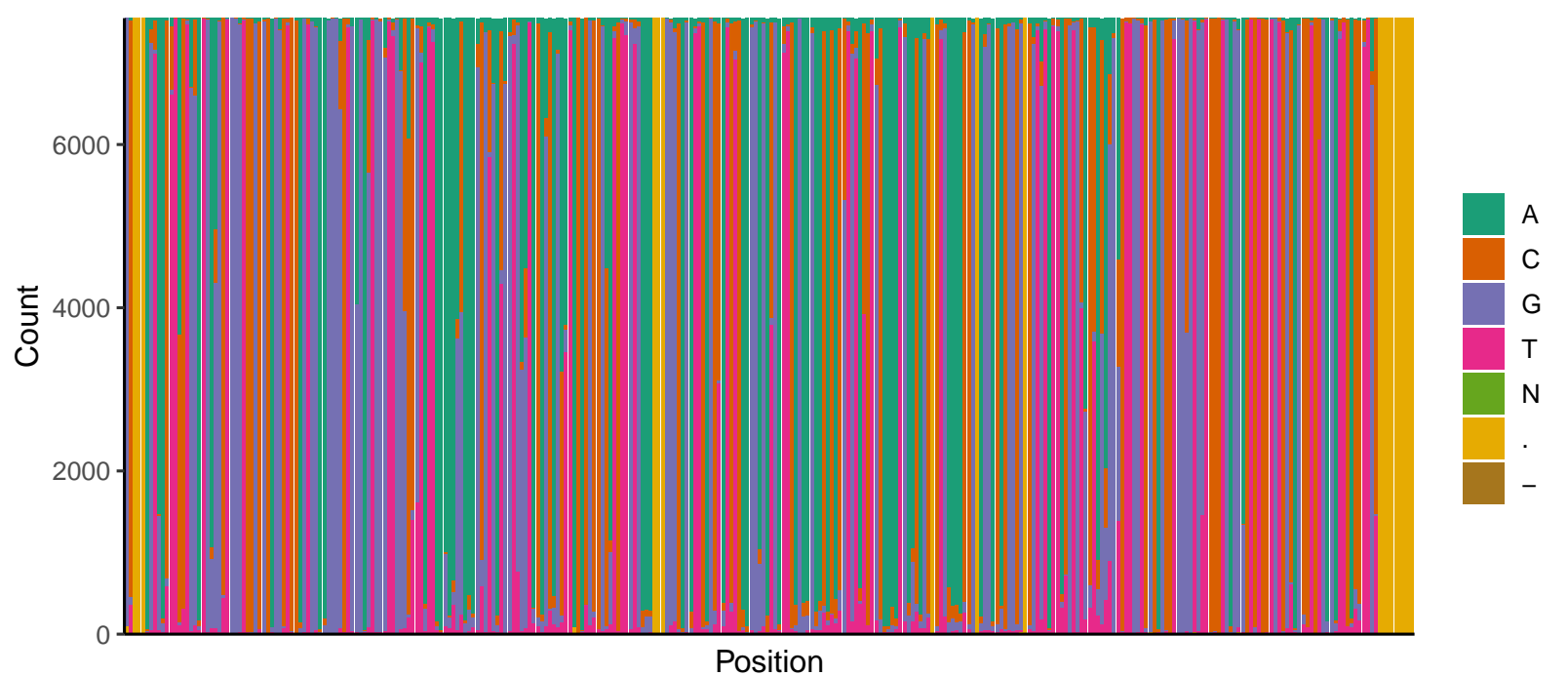
Gene IGHV3-118*01_C34T



Gene IGHV3S42*01_T19A_G24A_C27A_C38T_A39C_A40C_G59A_C111T_T112G_G113A



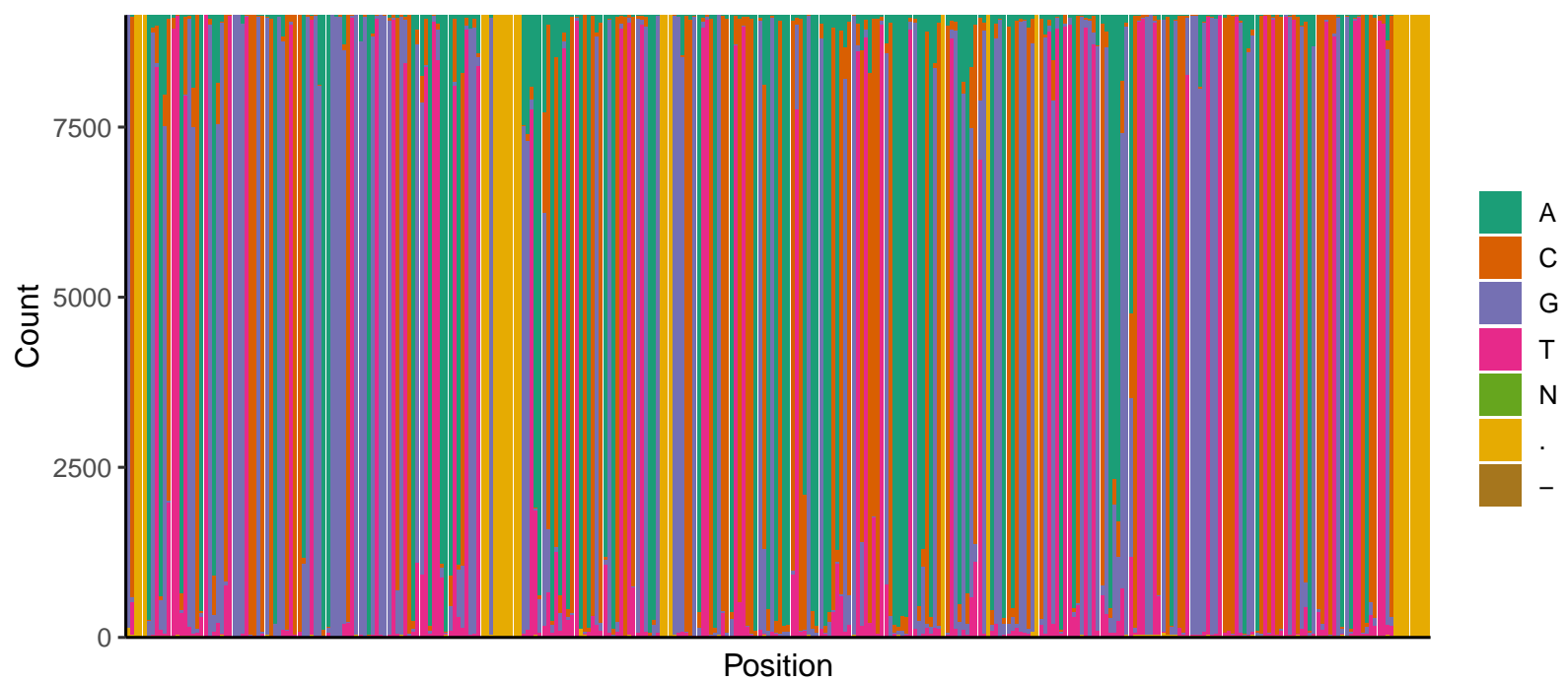
Gene IGHV3-30*02_C141G



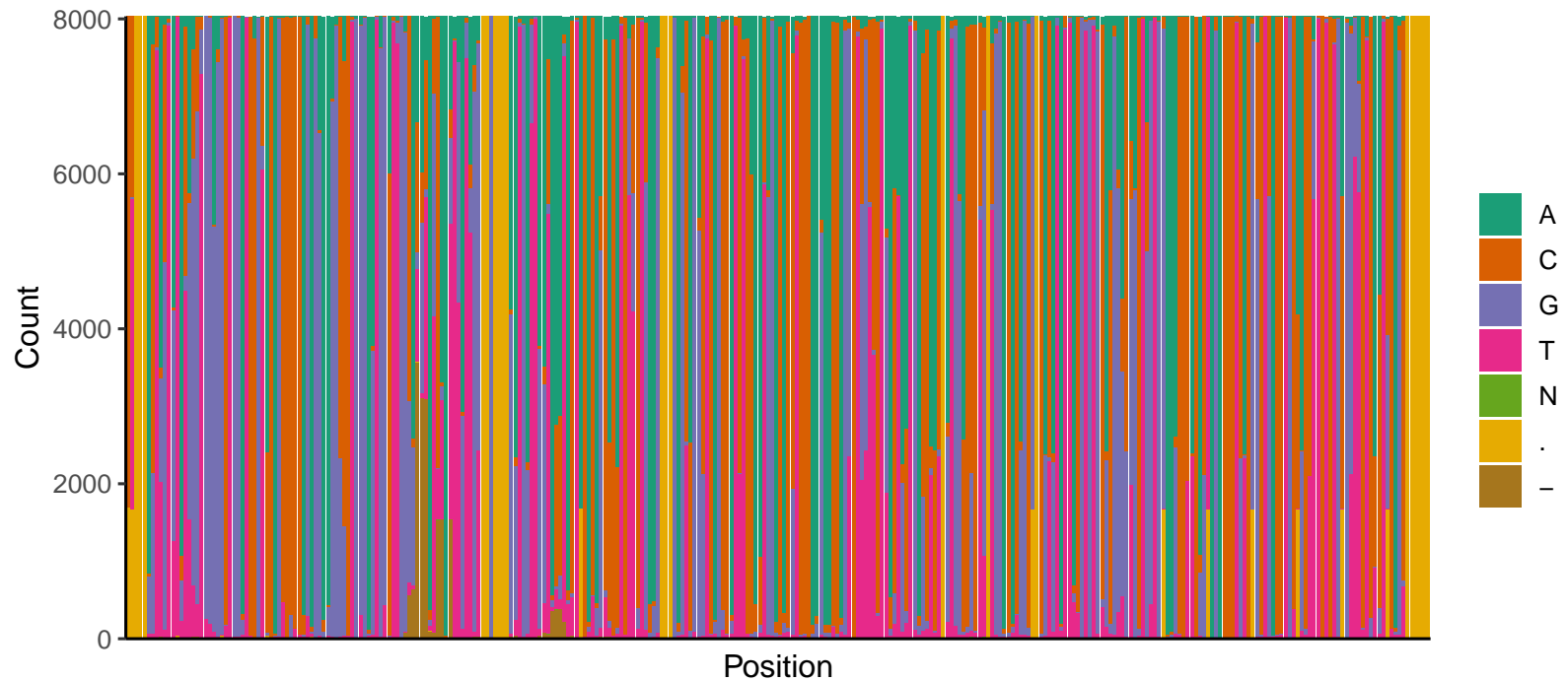
Gene IGHV3-103*01_G51A_A170G



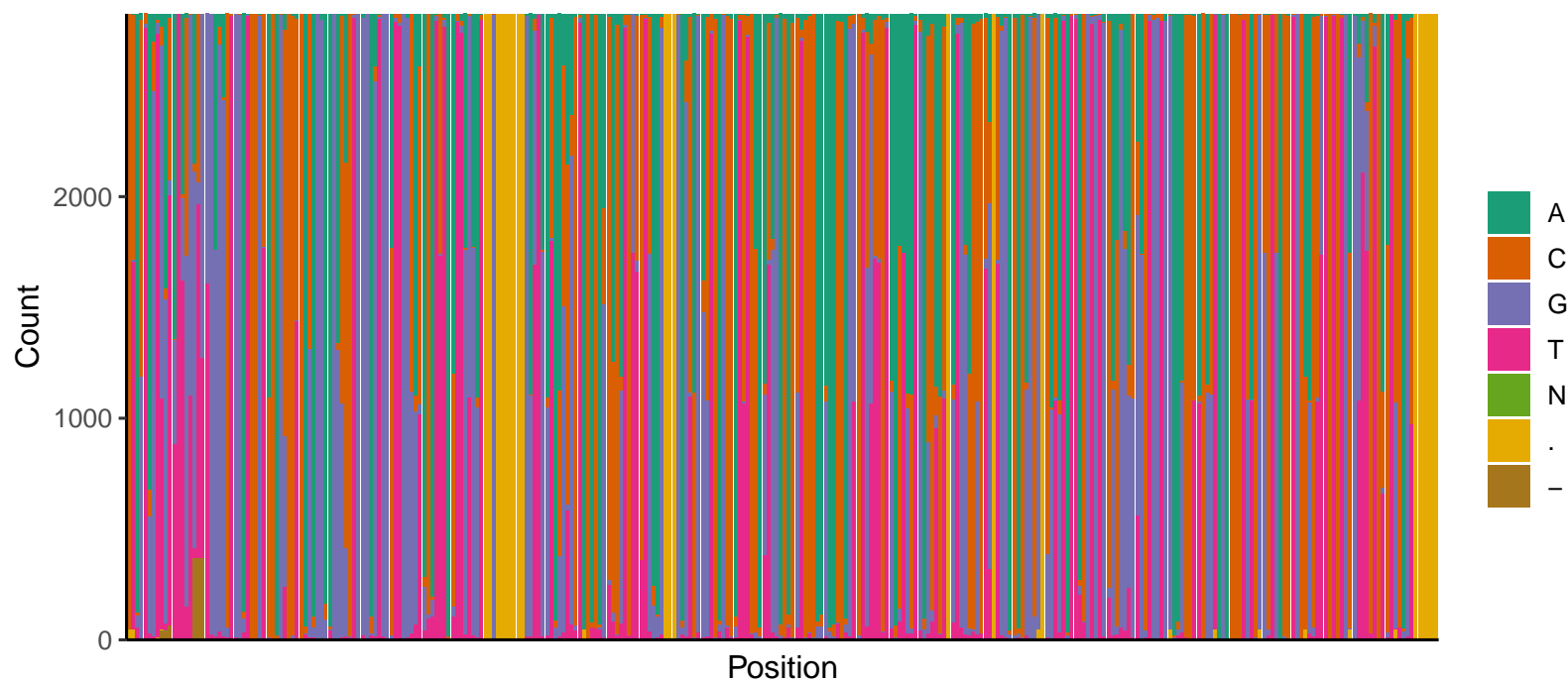
Gene IGHV3-103*01_T19A_G24C_C27A_C38T_A39C_A40C_C113G_T114C_C118A_A



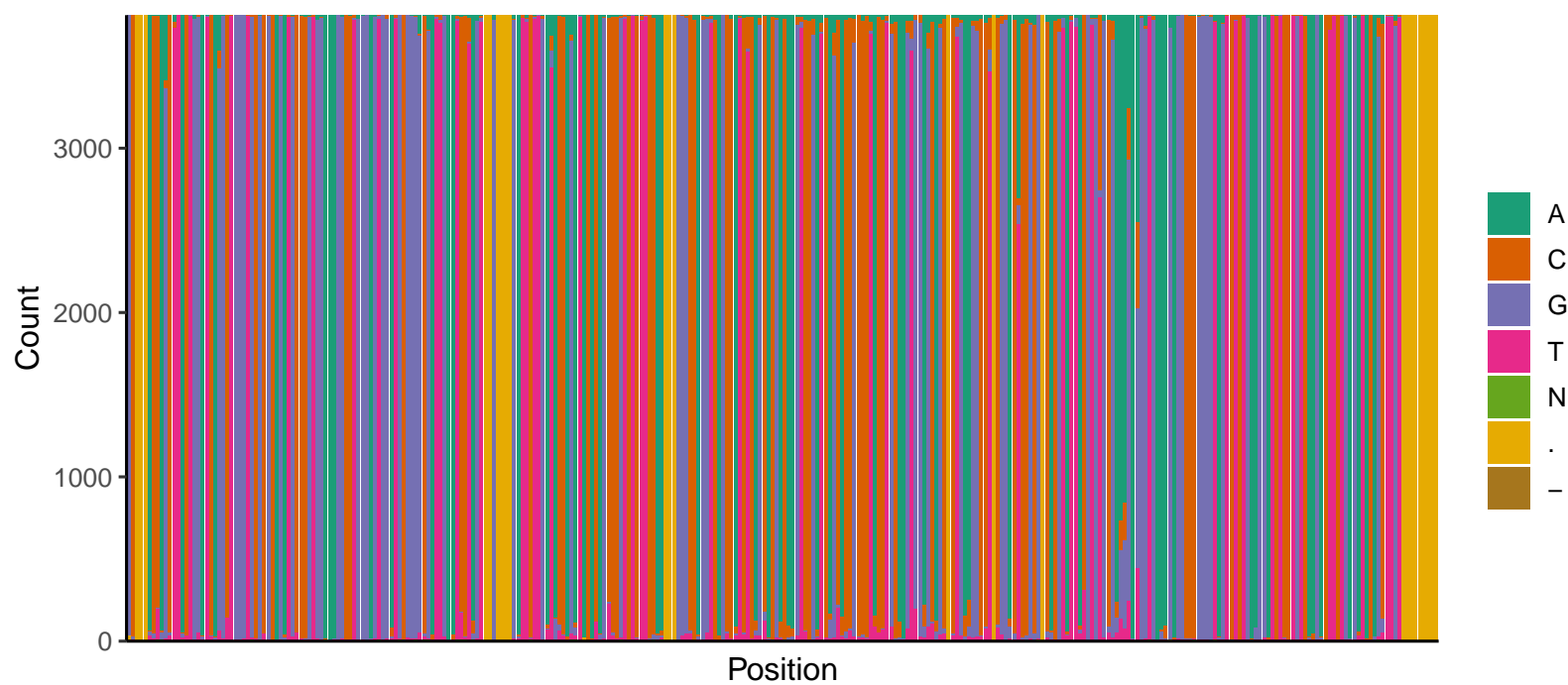
Gene IGHV4-65*02_A163T_G169A



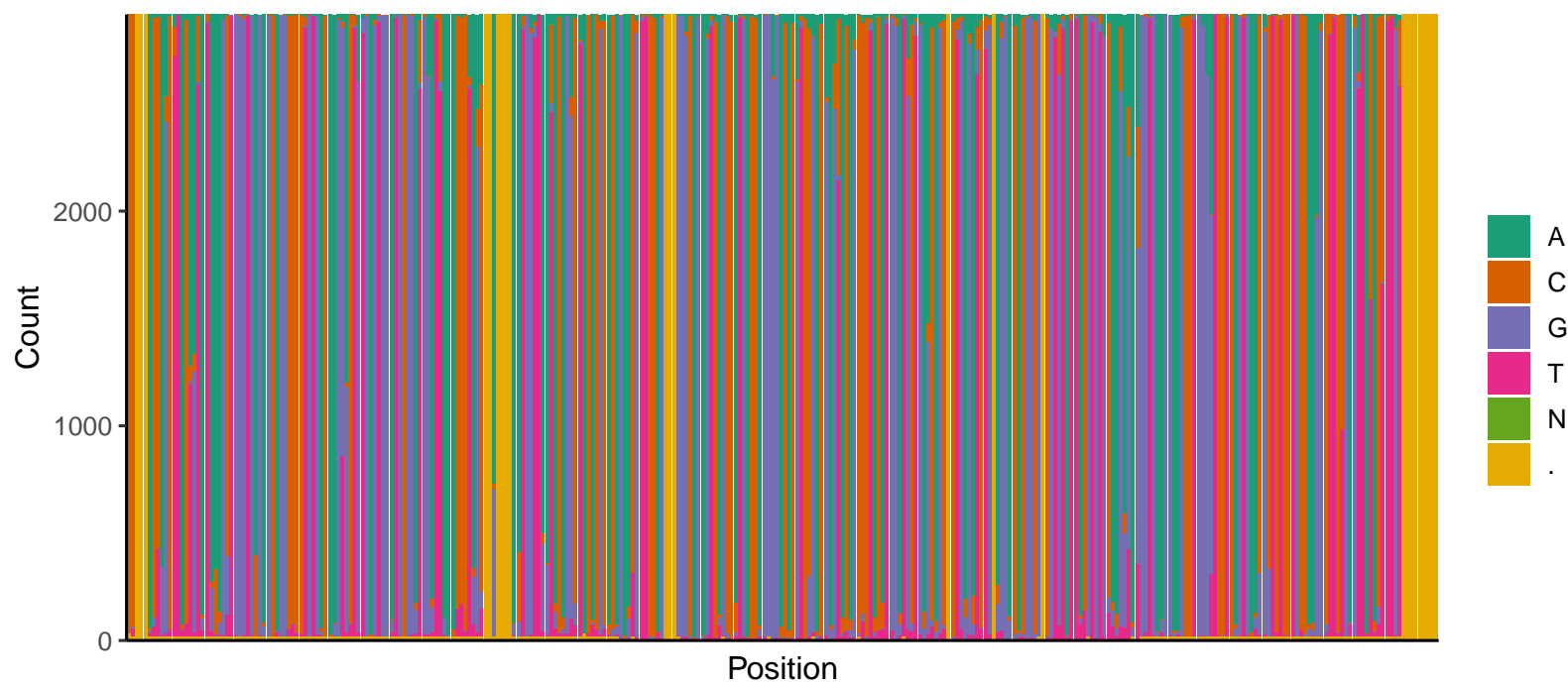
Gene IGHV4-122*02_C87T_G103A_C133G_A169T



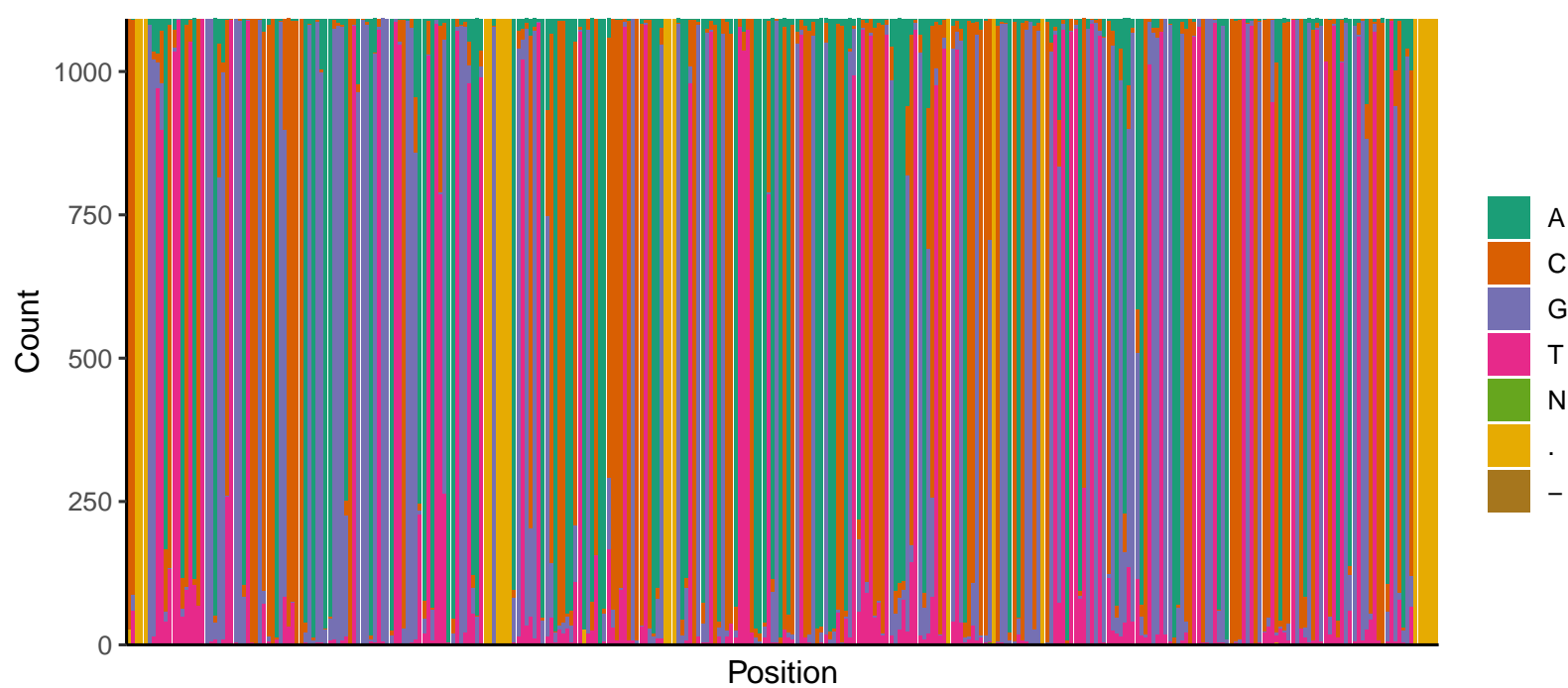
Gene IGHV5-20*02_A141G_A295T_C312T



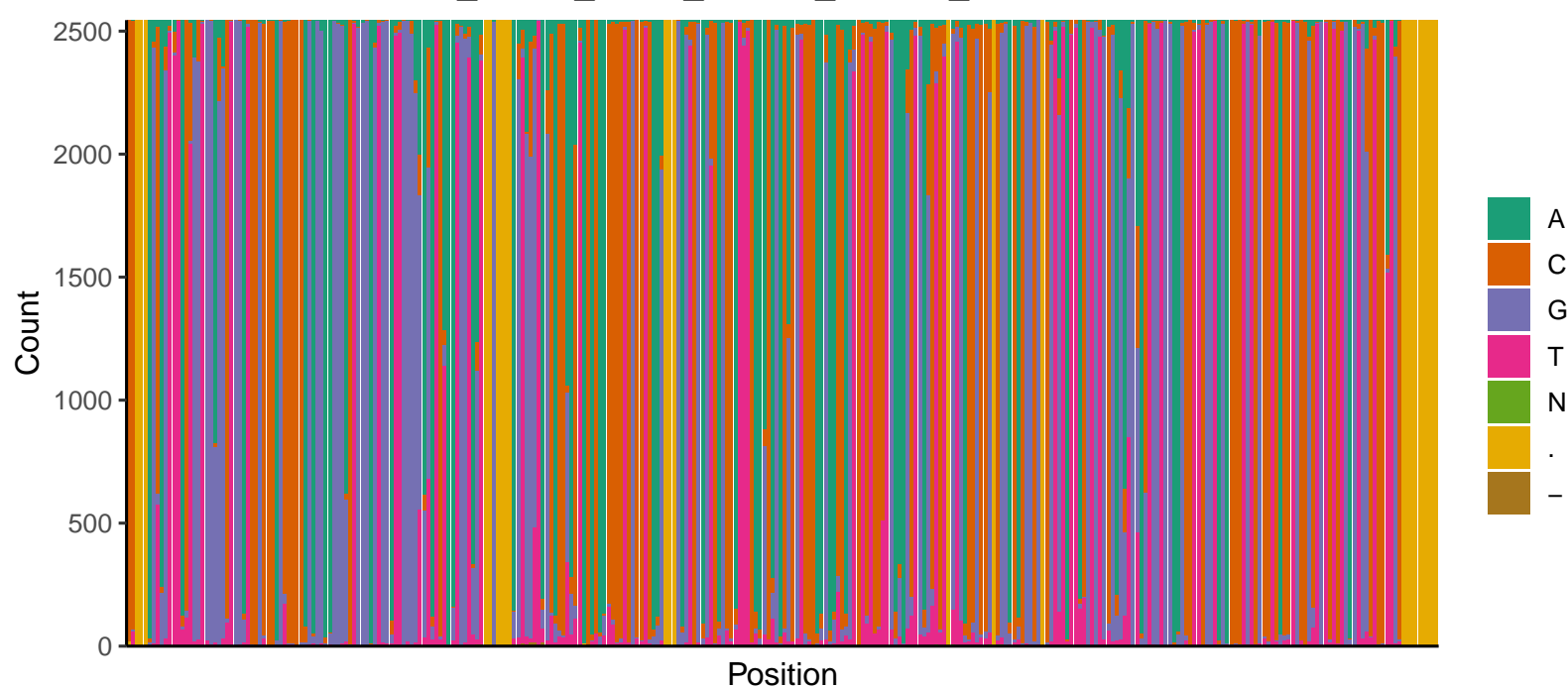
Gene IGHV1-200*01_G49A_G72A_C78T_T84C_G146T_A147G_C153G



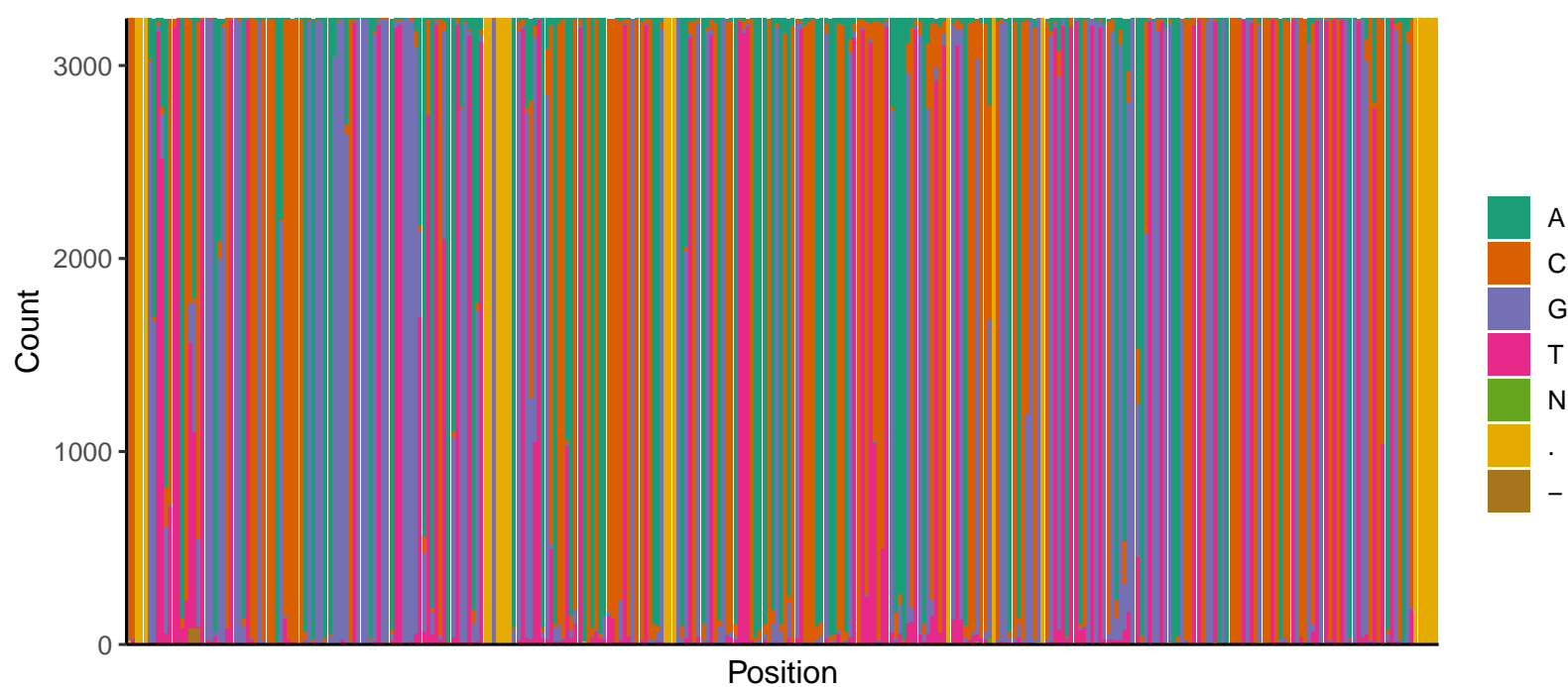
Gene IGHV4-73*01_C24T_C133G_G147A_T163A_C168T_T169G



Gene IGHV4-80*01_C83G_A88T_T105C_T189G_T196A



Gene IGHV4-127*01_C34G_T82G_A83G_C87T_A103G_G106T_G107A_T108C_T111C



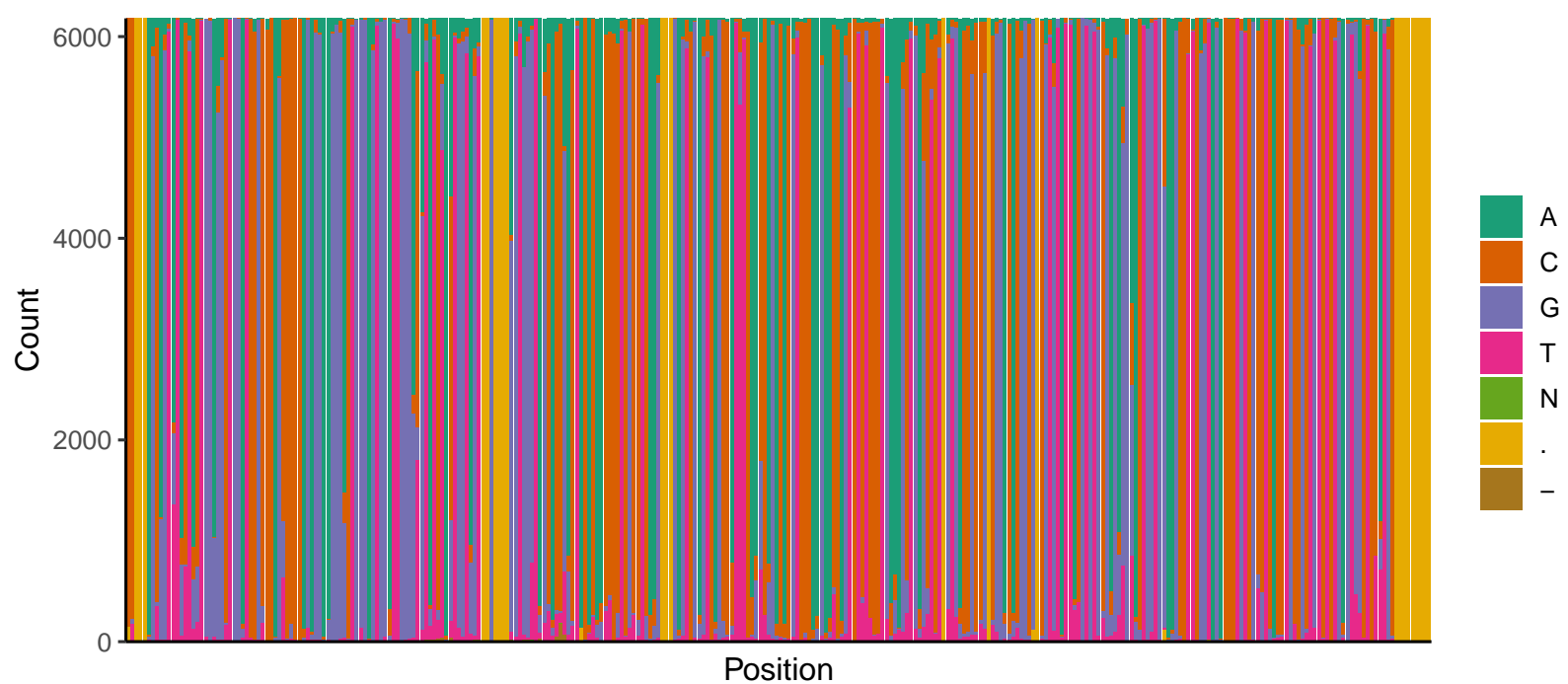
Gene IGHV4-165*01_G4C_C87T_A113G_C114G_A132G_T163C_A164G_G173A_A232



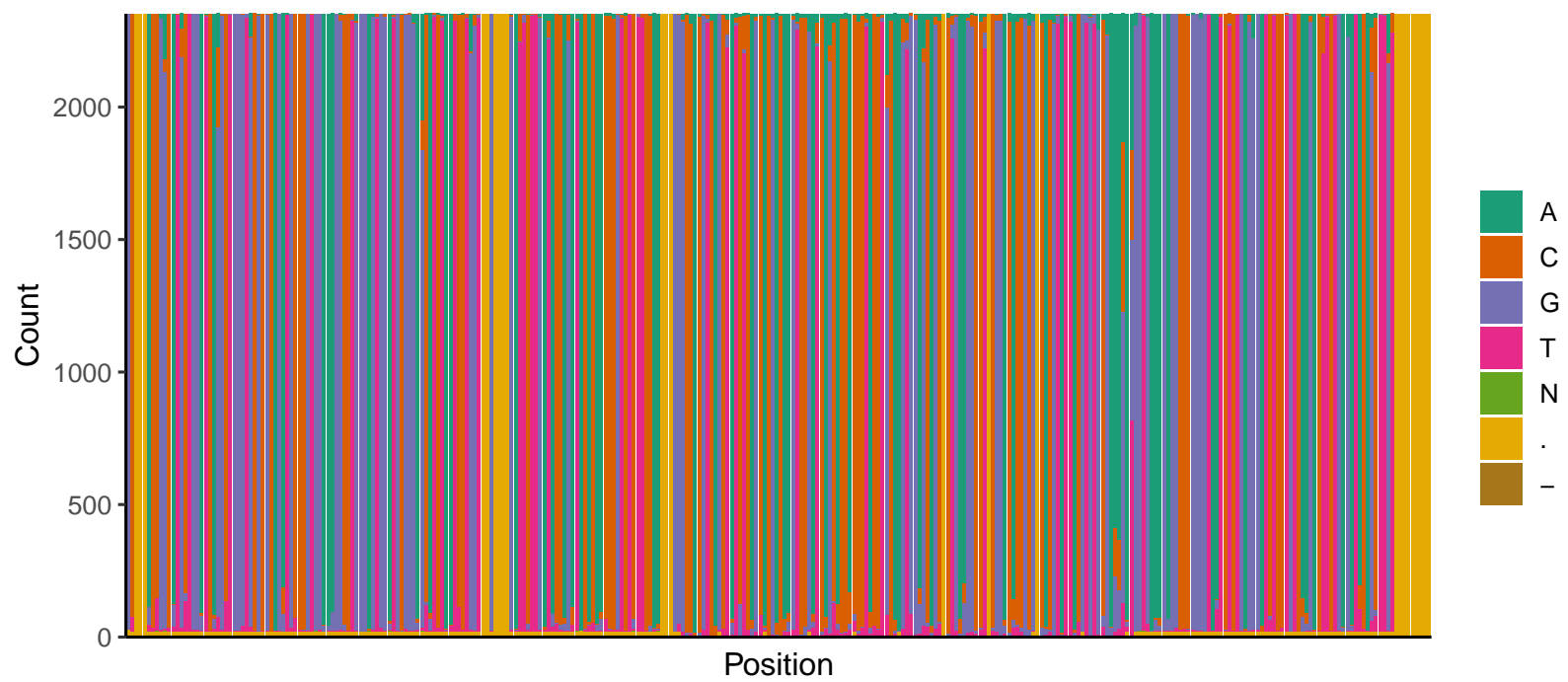
Gene IGHV4-165*01_G4C_C87T_A113G_C114G_A132G_T163C_A164G_G173A_A232



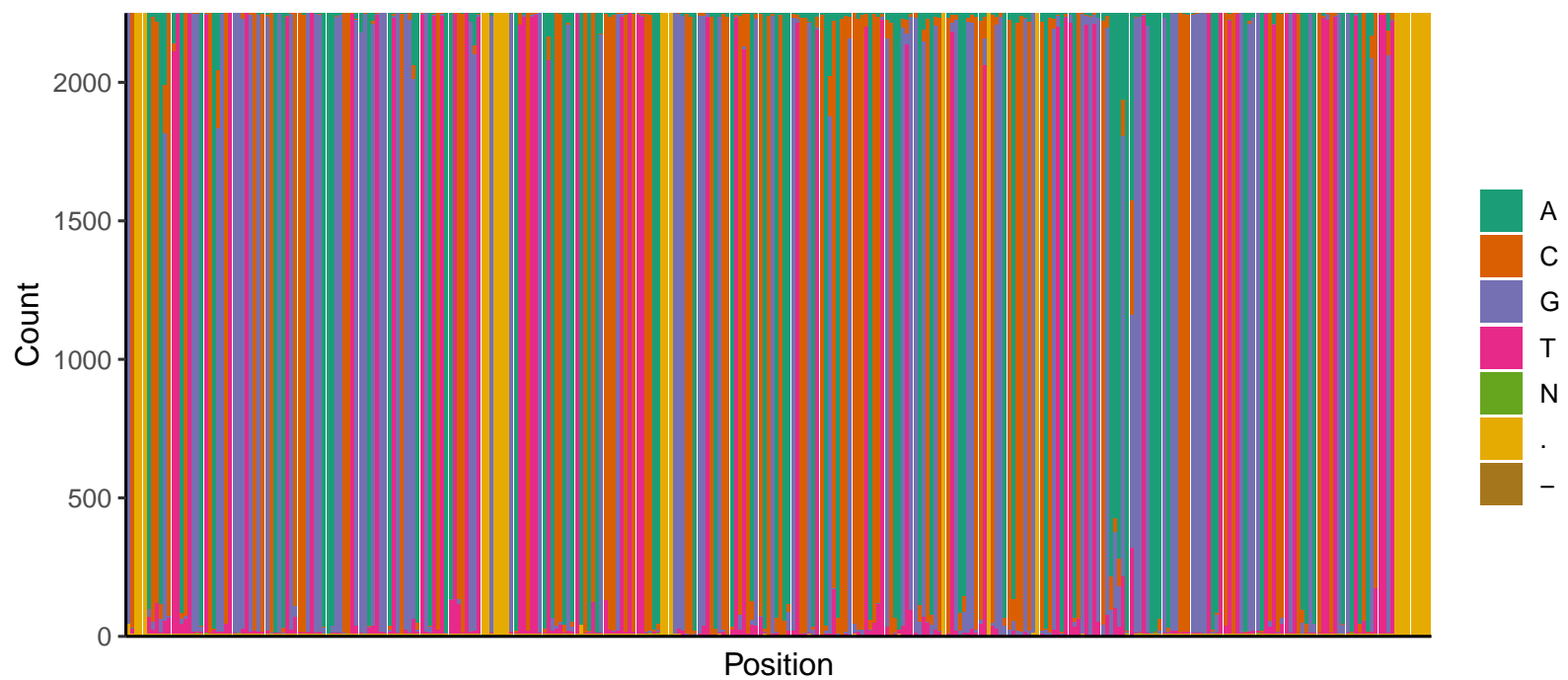
Gene IGHV4-173*01_C4G



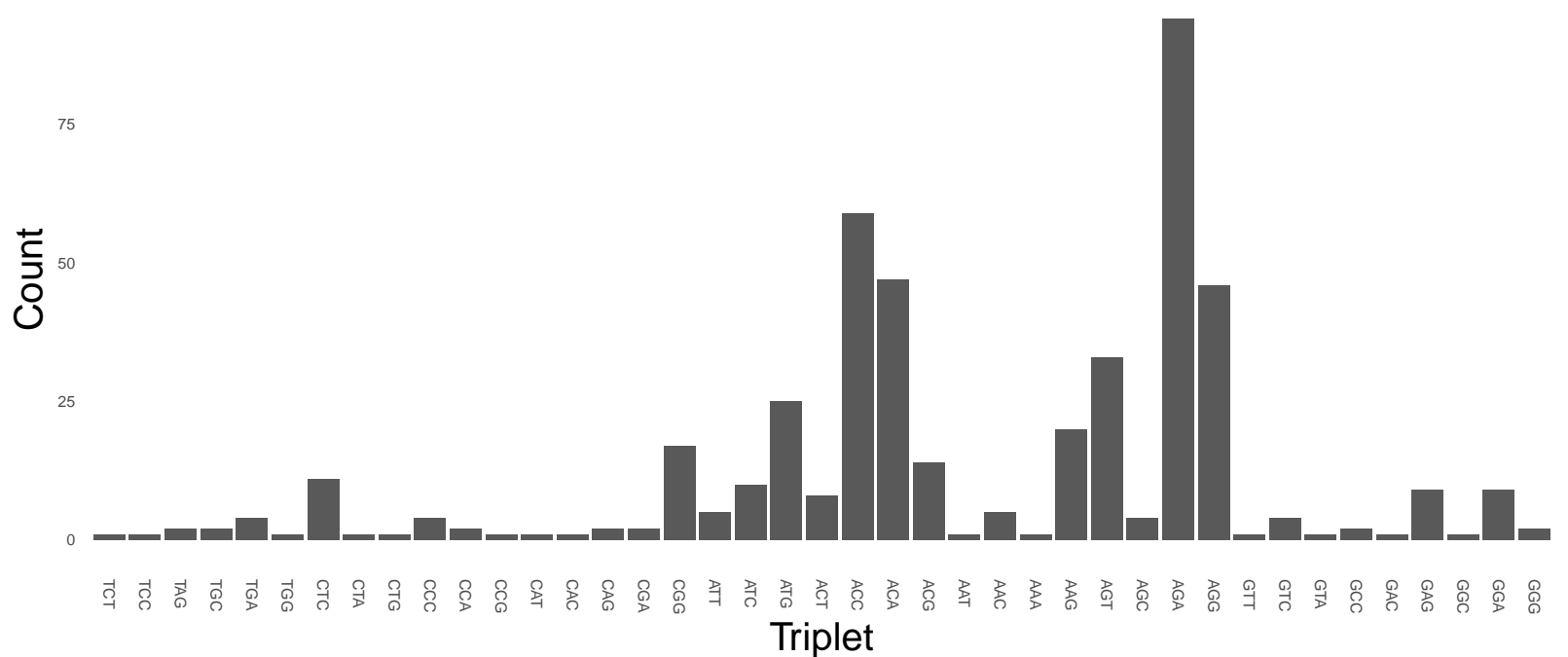
Gene IGHV5-43*01_A106G



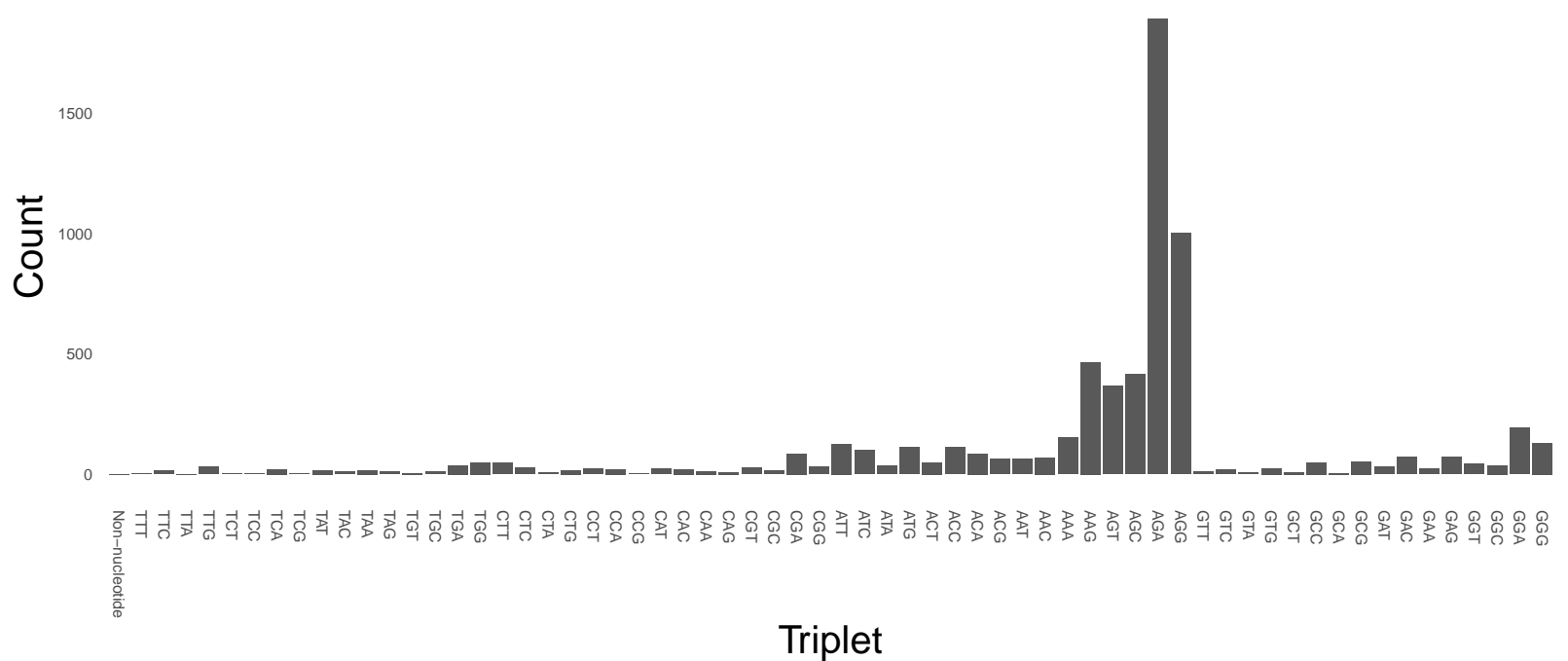
Gene IGHV5-43*01_A109T_G110A_G164T_C165G_A203G_C225G_T231C_A259G



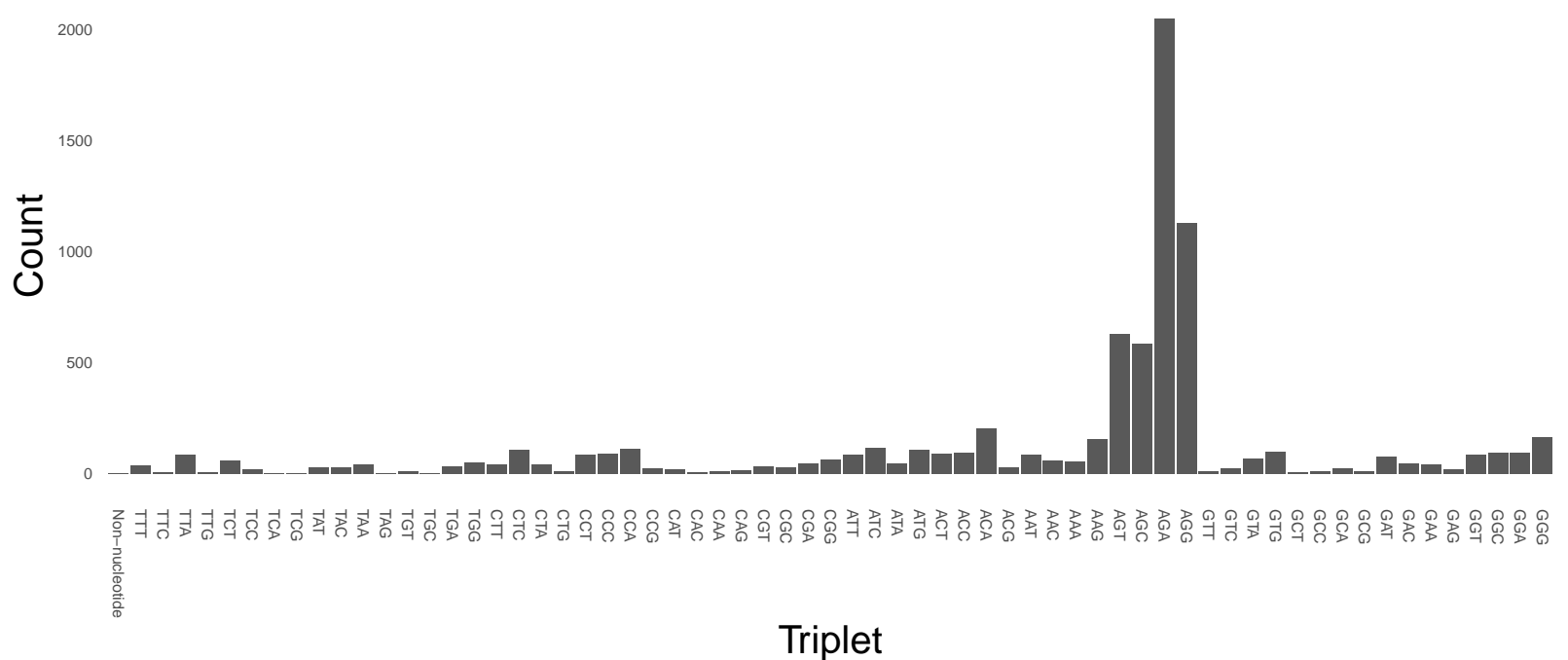
IGHV3-118*01_C34T- Final 3 nucleotides as a triplet



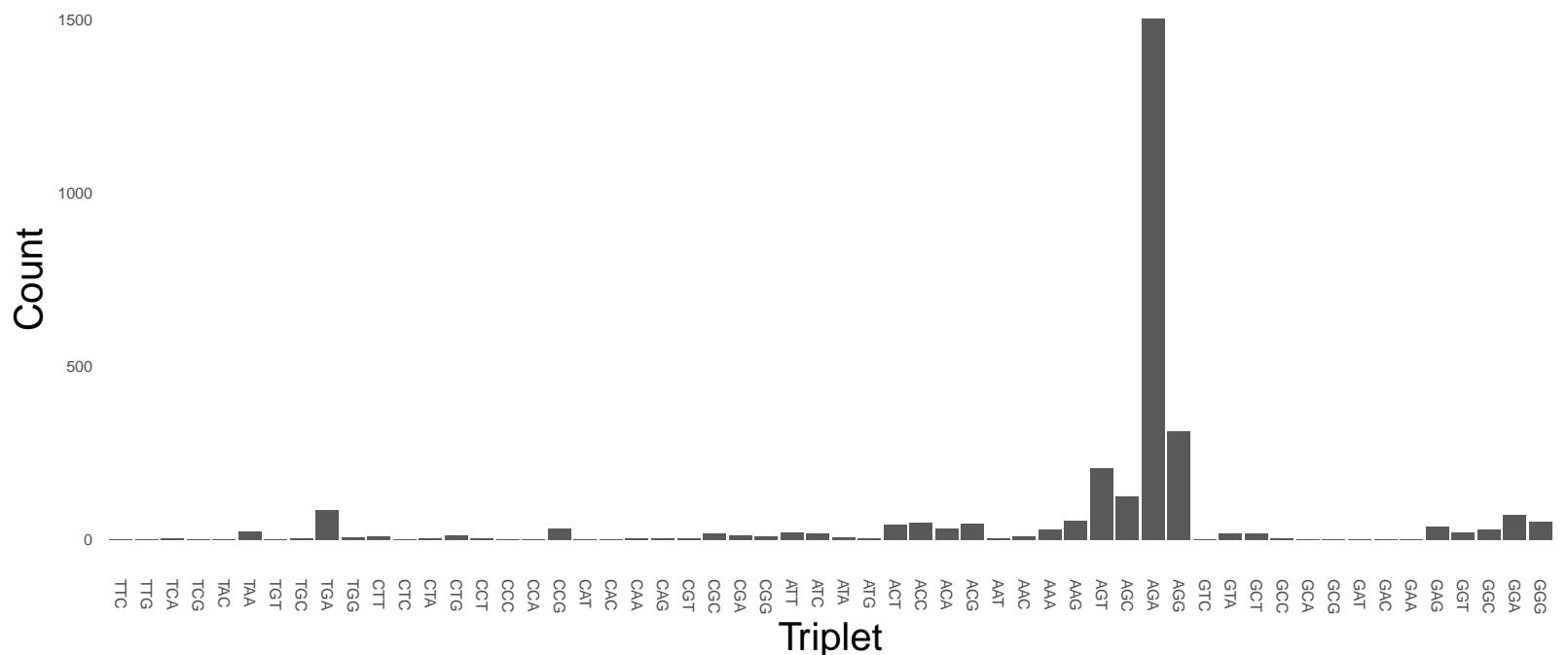
IGHV3S42*01_T19A_G24A_C27A_C38T_A39C_A40C_G59A_C111T_T112G_G114C_A119G_T



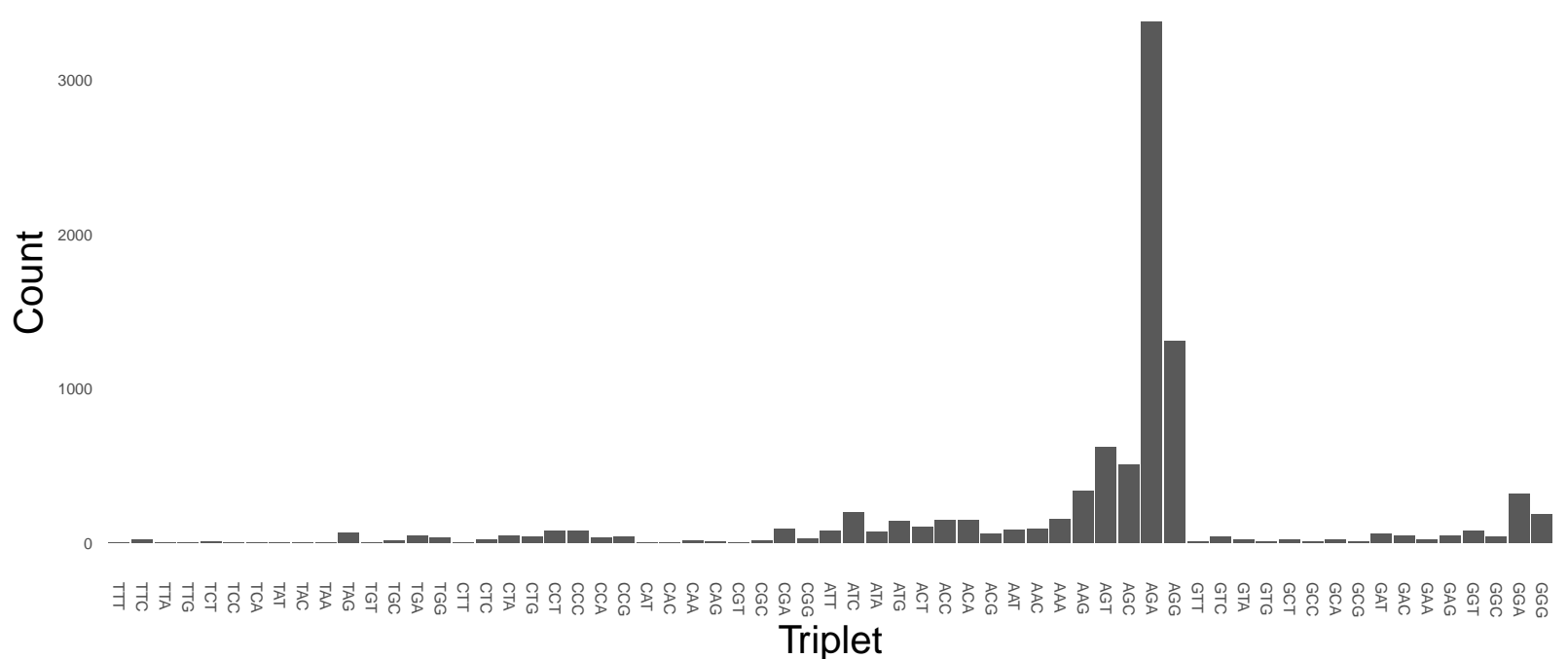
IGHV3-30*02_C141G- Final 3 nucleotides as a triplet



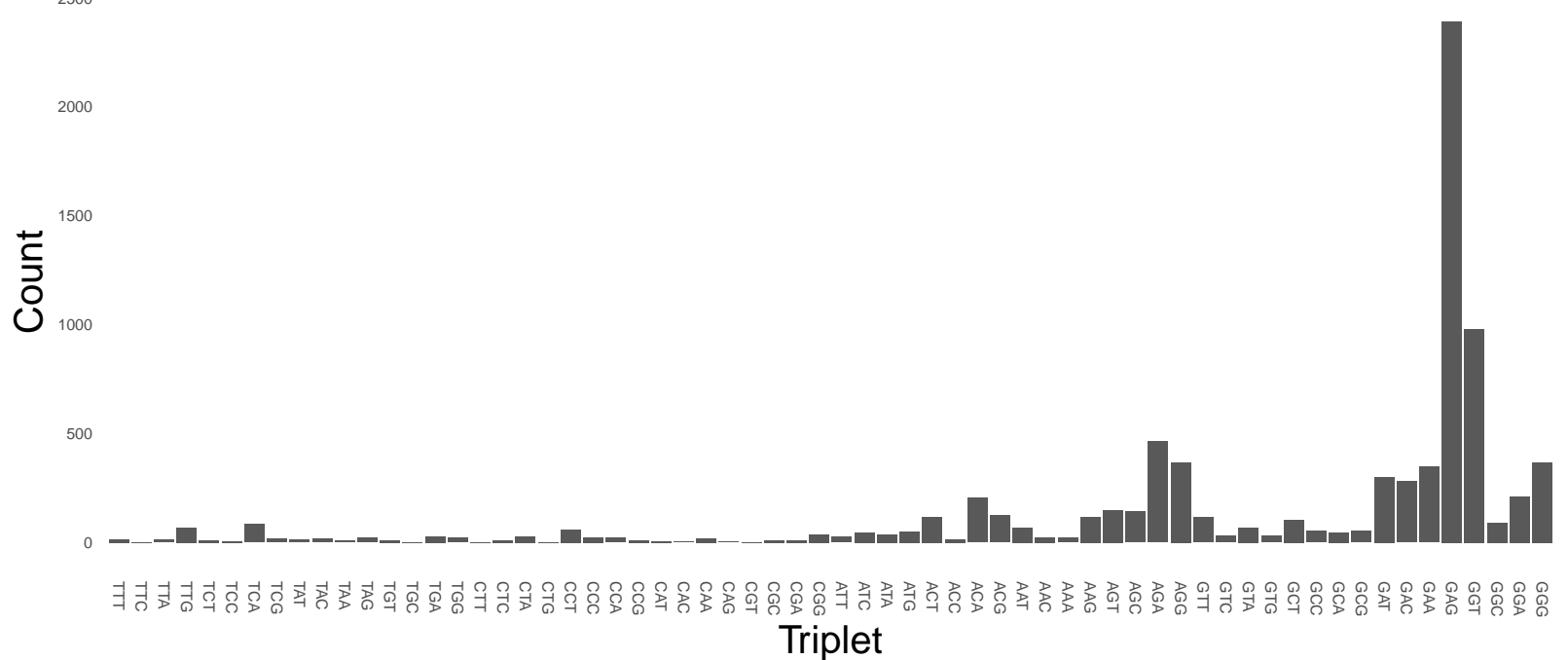
IGHV3-103*01_G51A_A170G- Final 3 nucleotides as a triplet



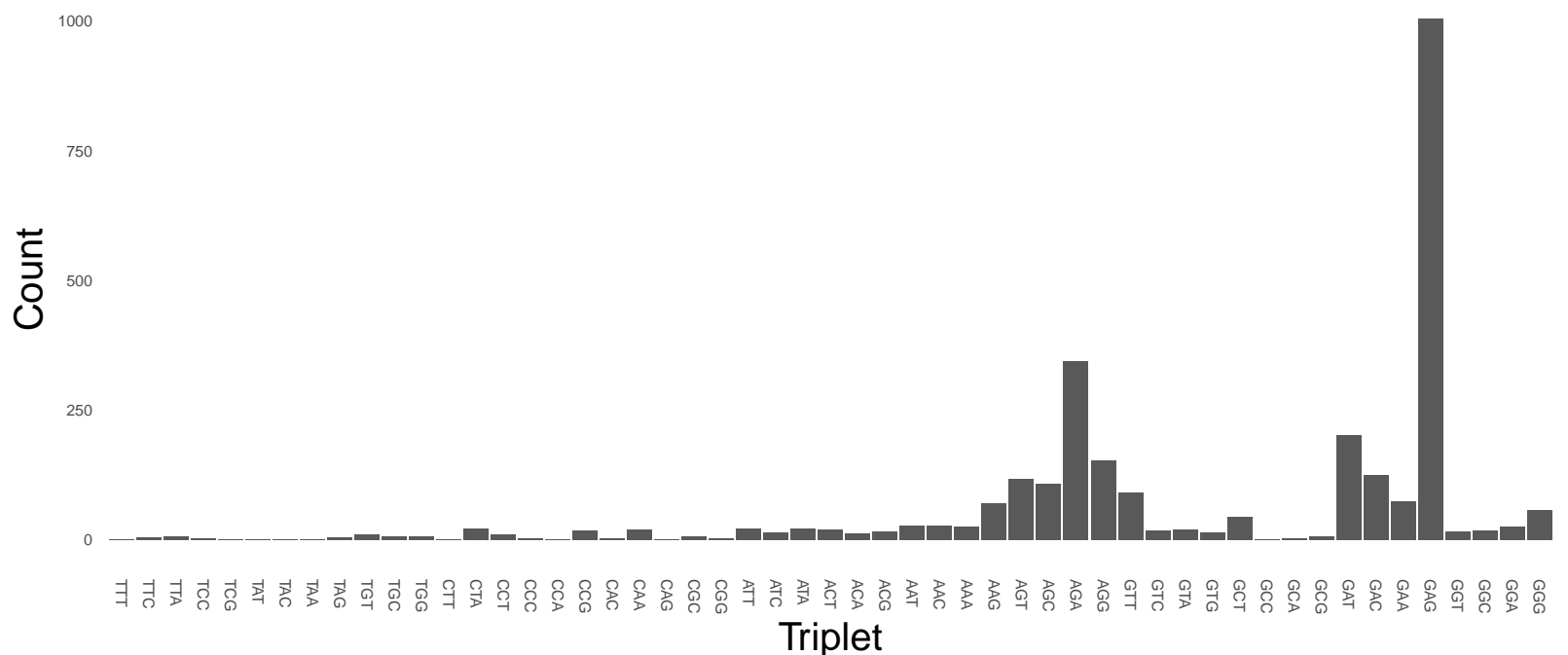
IGHV3-103*01_T19A_G24C_C27A_C38T_A39C_A40C_C113G_T114C_C118A_A119G_C164G



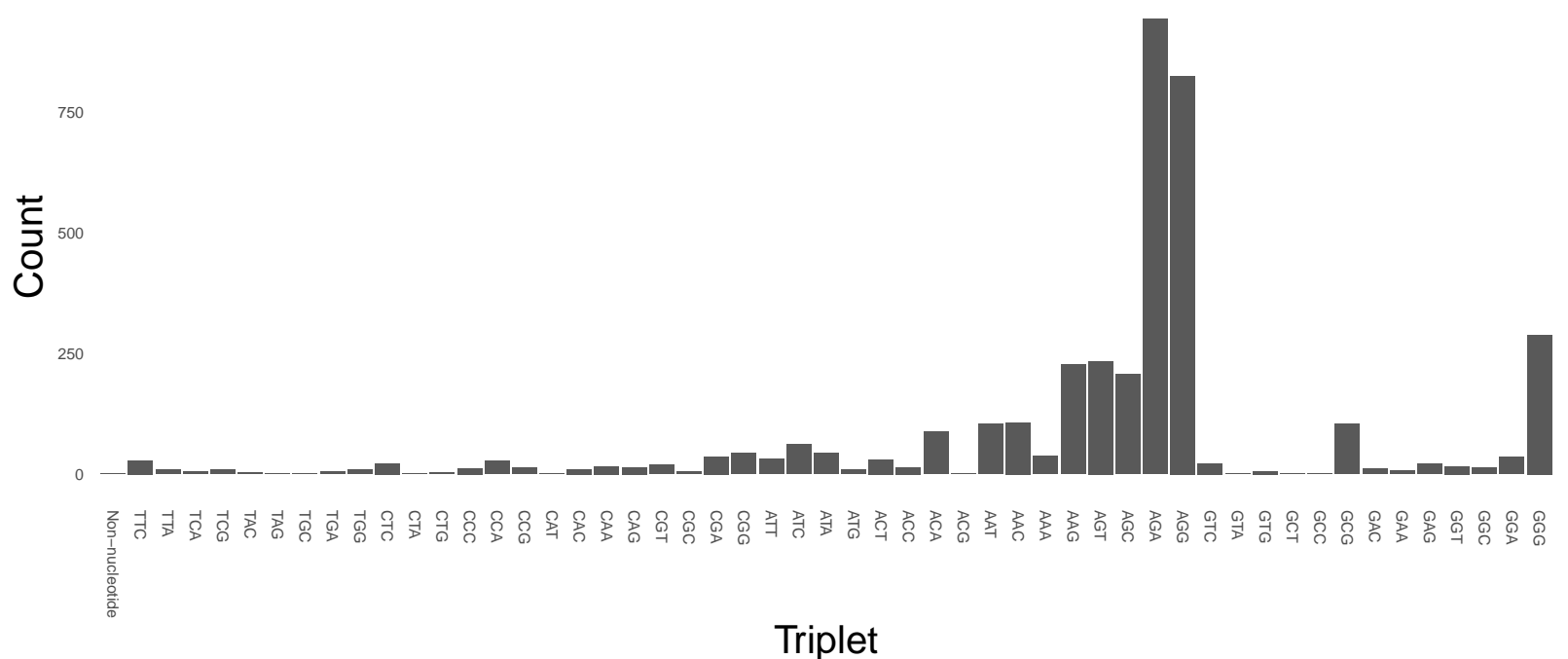
IGHV4-65*02_A163T_G169A- Final 3 nucleotides as a triplet



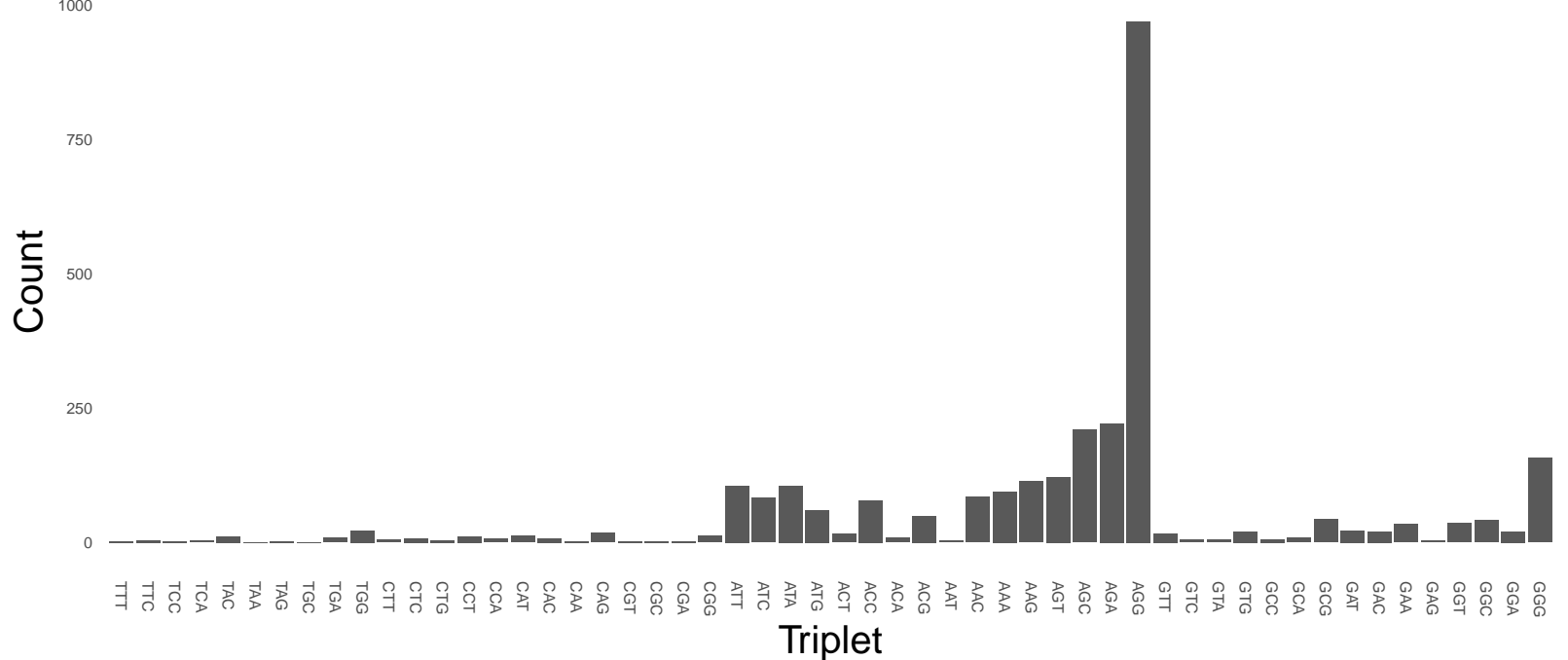
IGHV4-122*02_C87T_G103A_C133G_A169T- Final 3 nucleotides as a triplet



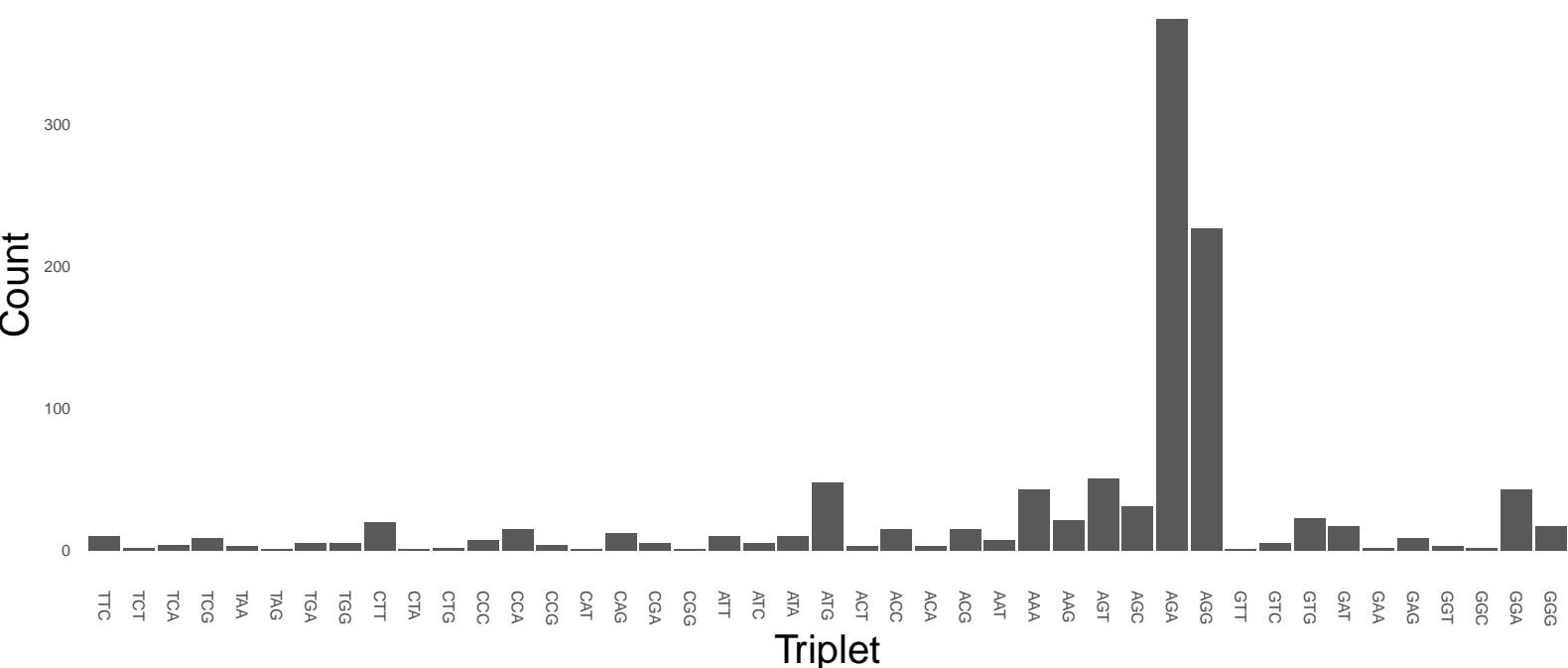
IGHV5-20*02_A141G_A295T_C312T- Final 3 nucleotides as a triplet



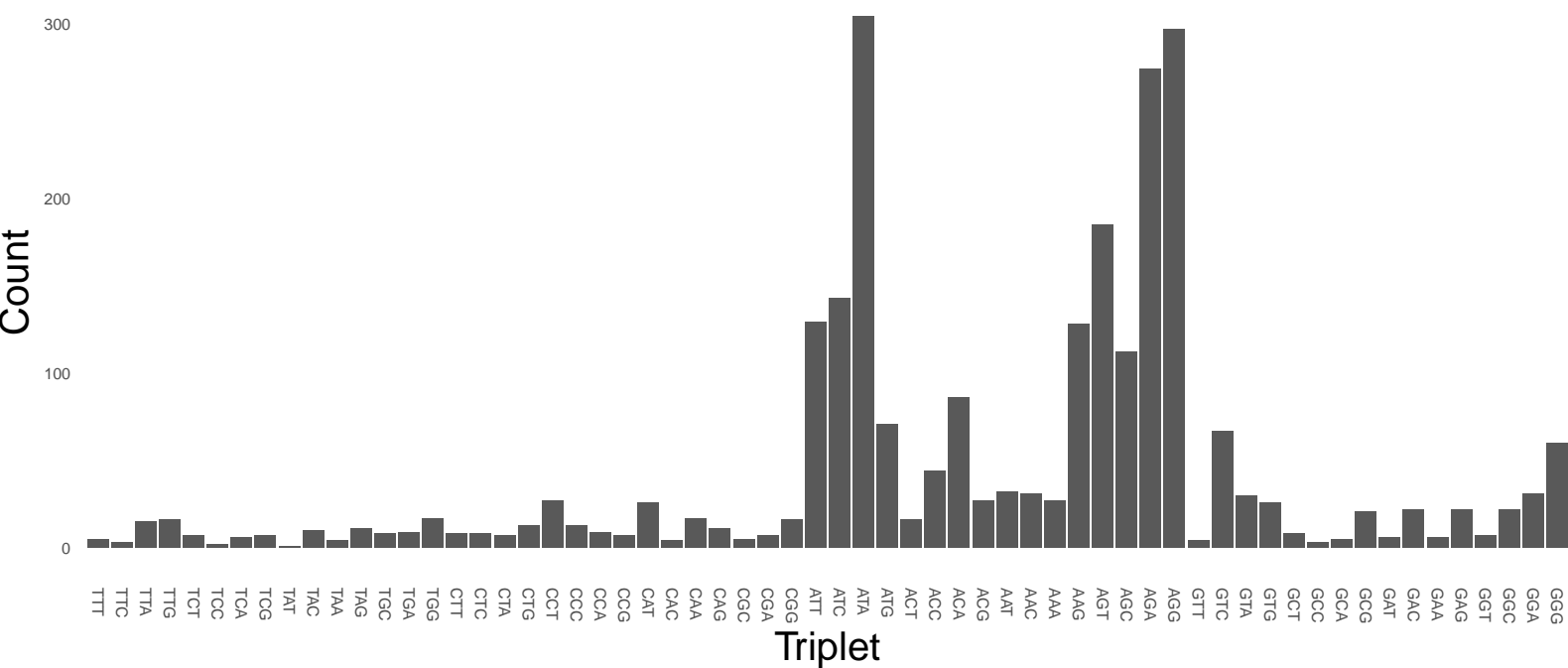
IGHV1-200*01_G49A_G72A_C78T_T84C_G146T_A147G_C153G- Final 3 nucleotides as a triplet



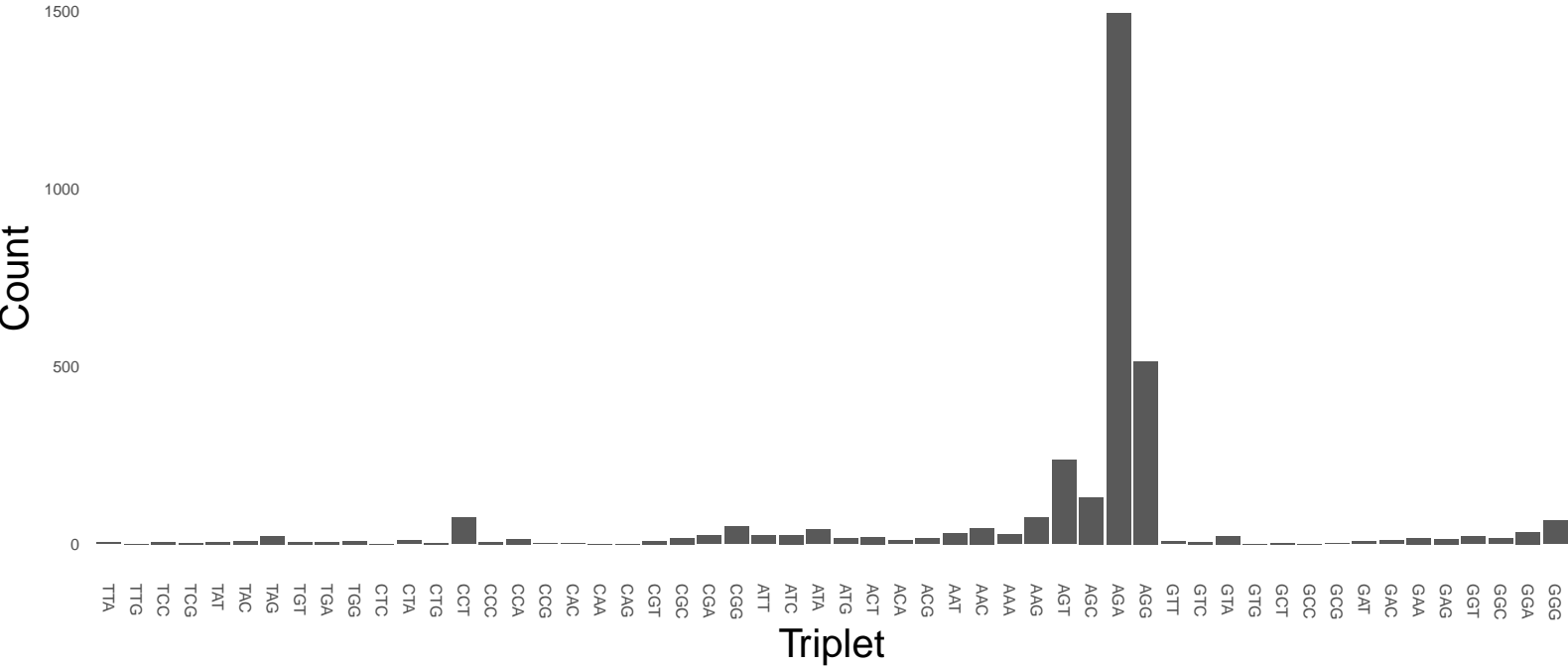
IGHV4-73*01_C24T_C133G_G147A_T163A_C168T_T169G- Final 3 nucleotides as a triplet



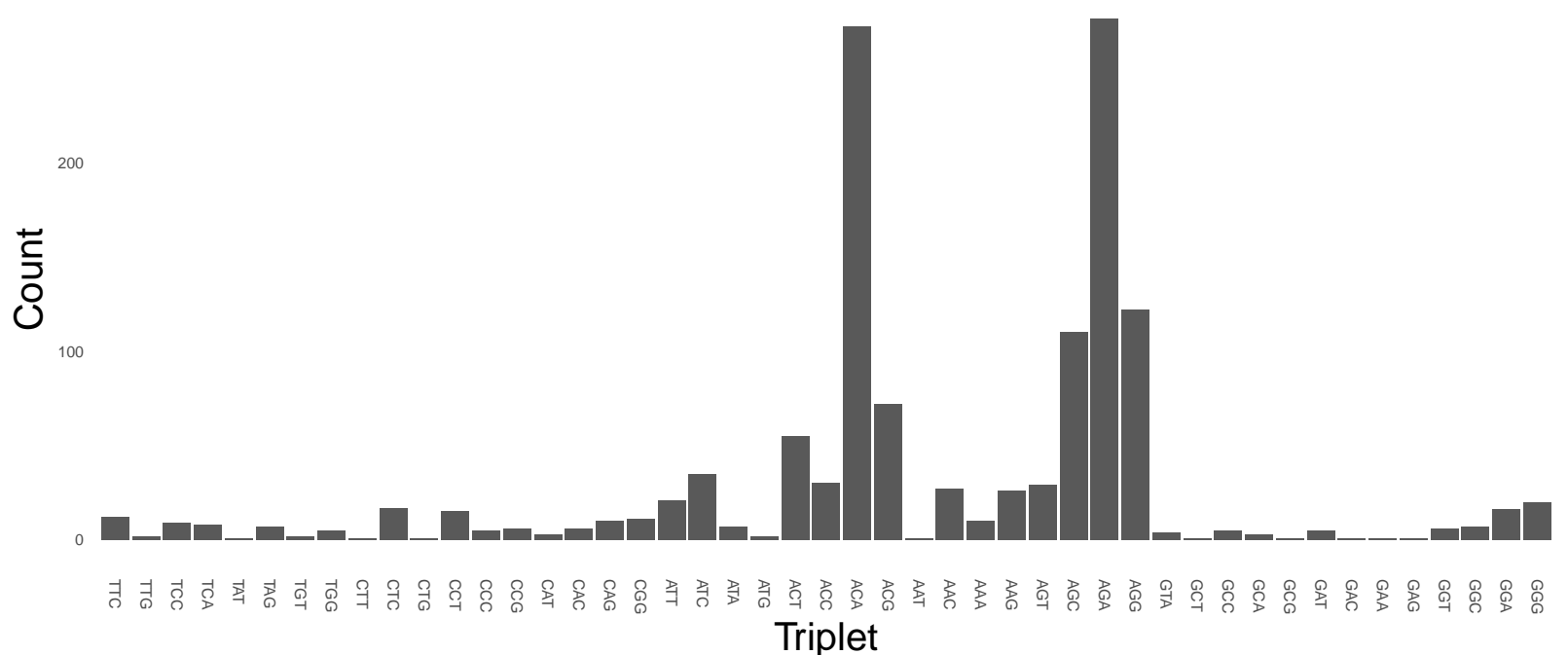
IGHV4-80*01_C83G_A88T_T105C_T189G_T196A- Final 3 nucleotides as a triplet



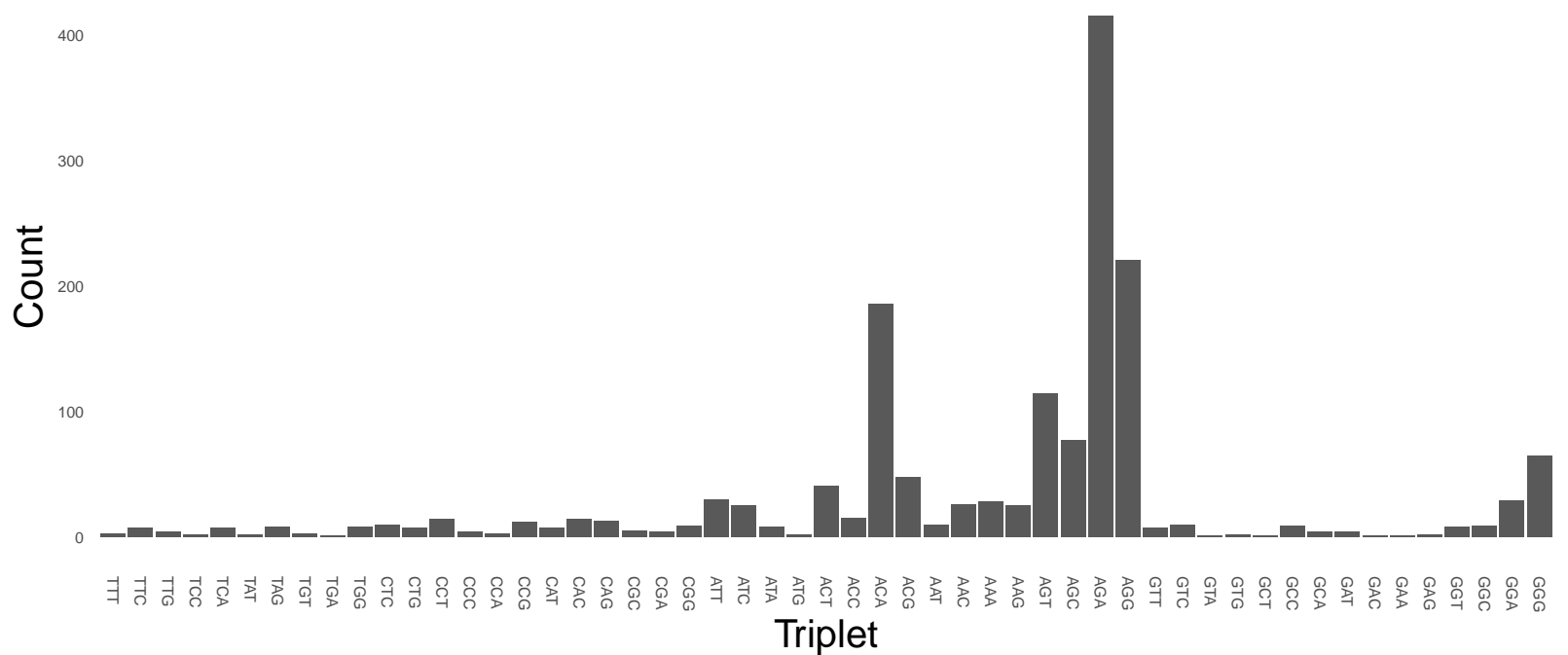
IGHV4-127*01_C34G_T82G_A83G_C87T_A103G_G106T_G107A_T108C_T111C_G112C_G113A- Final 3 nucleotides as a triplet



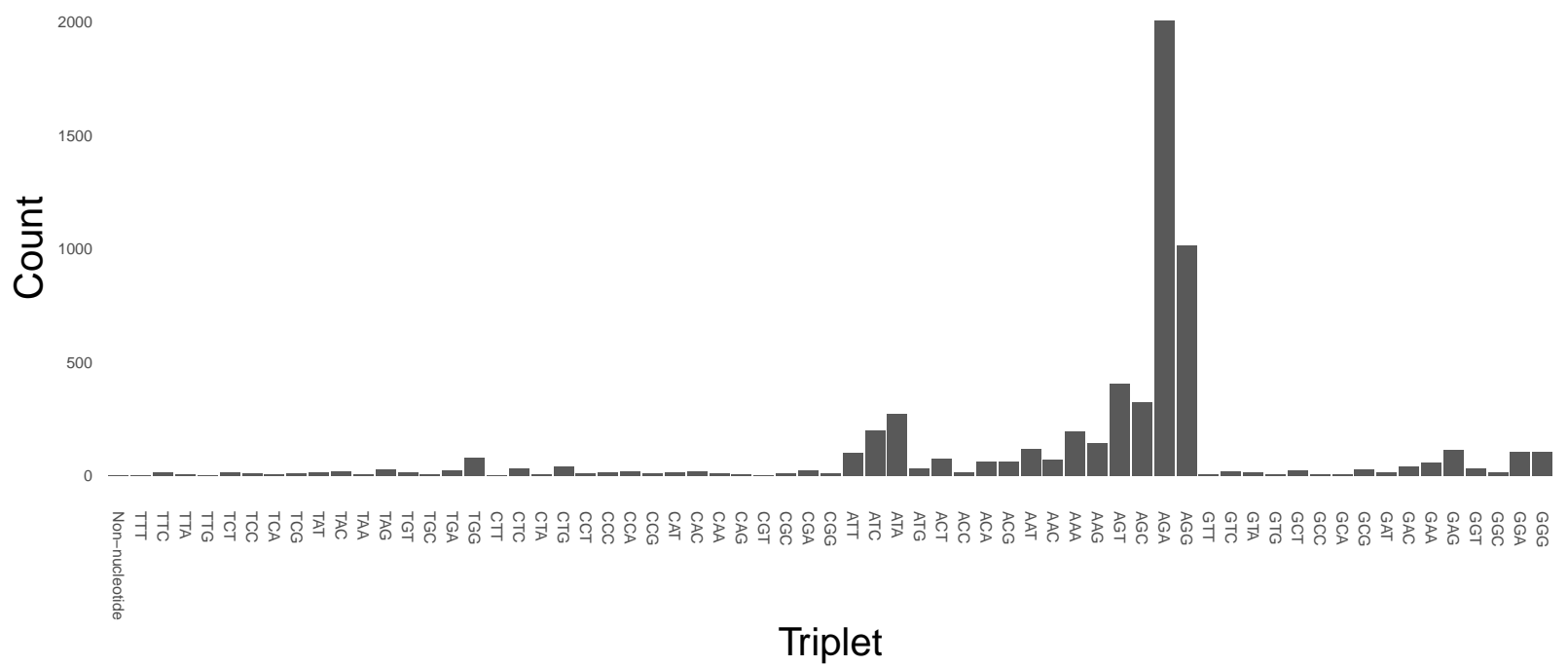
IGHV4-165*01_G4C_C87T_A113G_C114G_A132G_T163C_A164G_G173A_A232C_T234G_A234G



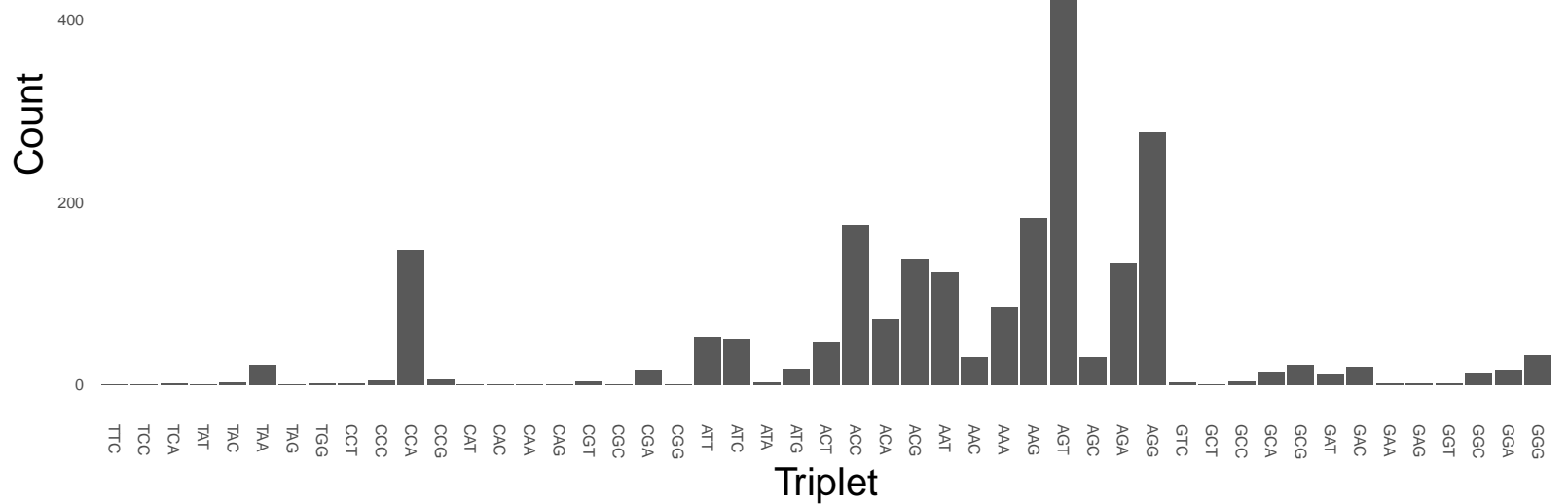
IGHV4-165*01_G4C_C87T_A113G_C114G_A132G_T163C_A164G_G173A_A232C_T234G_A234G



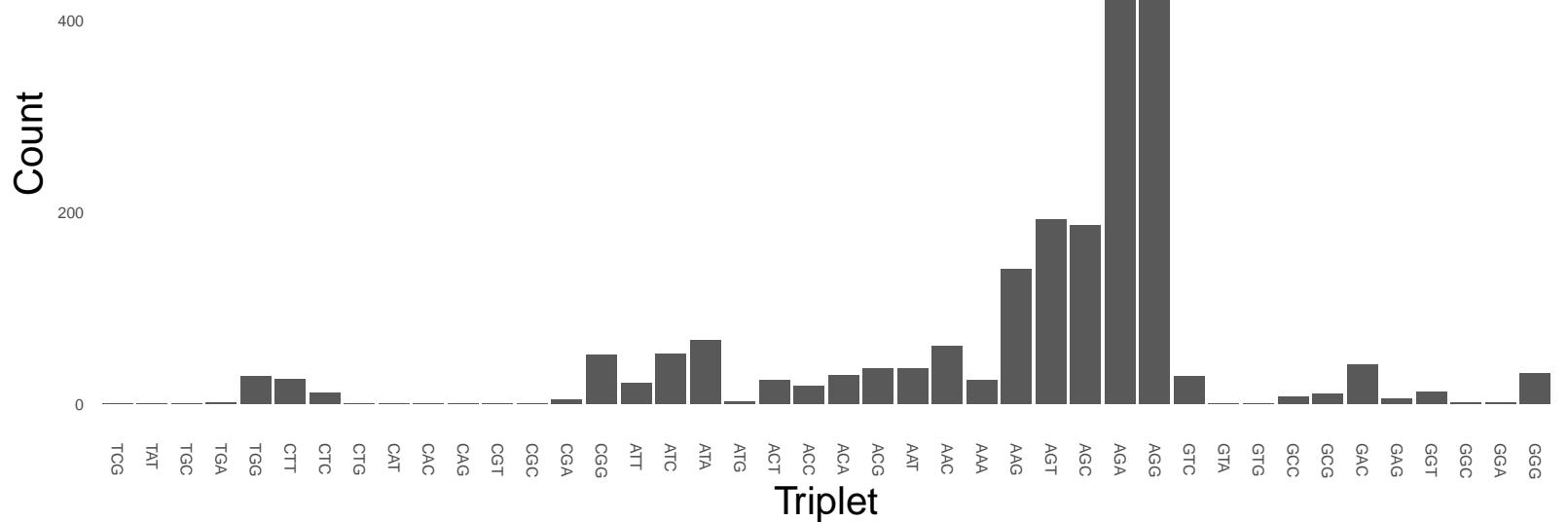
IGHV4-173*01_C4G- Final 3 nucleotides as a triplet



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

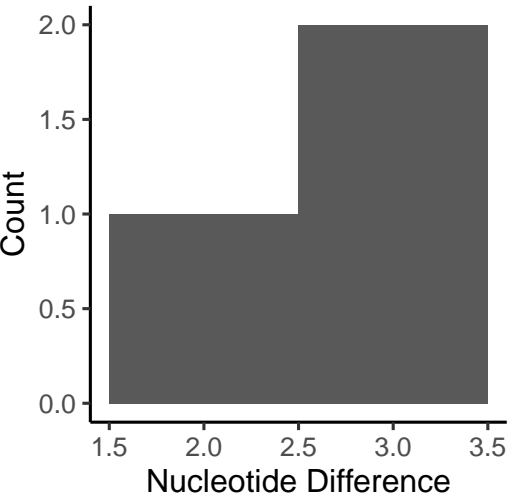


IGHV5–43*01_A109T_G110A_G164T_C165G_A203G_C225G_T231C_A259G– Final 3 nucleotides as a triplet



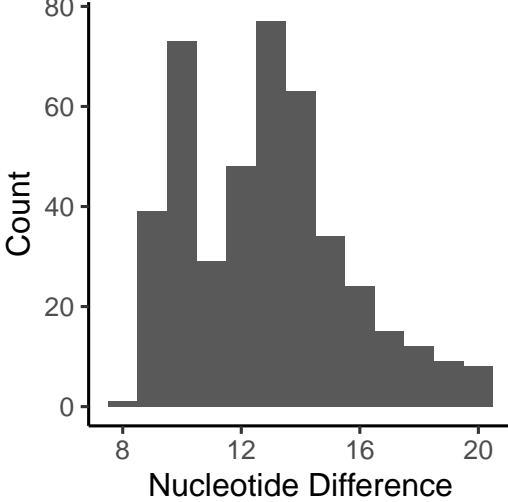
IGHV3S3*01

452 sequences assigned
No exact matches.



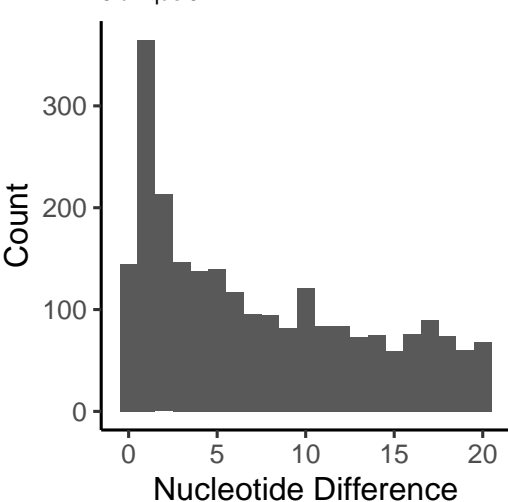
IGHV1-151*01

462 sequences assigned
No exact matches.



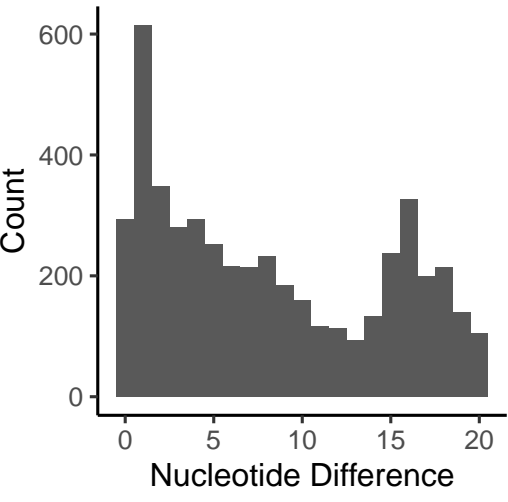
IGHV3-103*01_G51A_A1

2980 sequences assigned
145 (4.9%) exact matches, in which:
126 unique CDR3
5 unique J



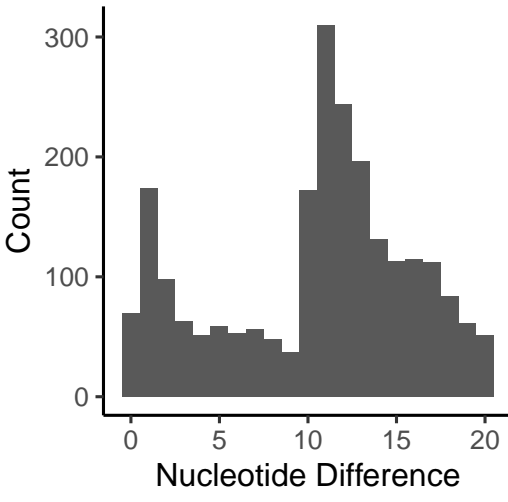
IGHV3S42*01_T19A_G24

6502 sequences assigned
294 (4.5%) exact matches, in which:
263 unique CDR3
5 unique J



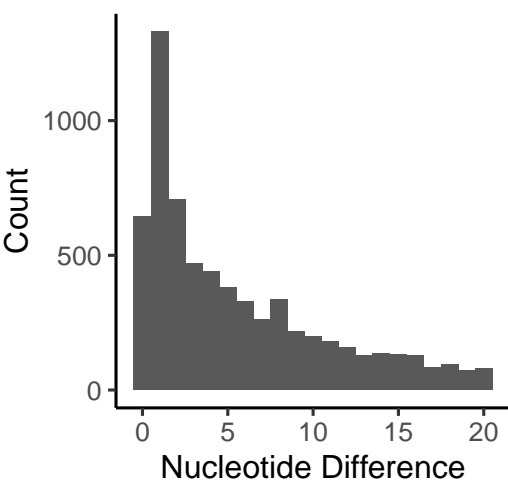
IGHV1-200*01_G49A_G1

2916 sequences assigned
70 (2.4%) exact matches, in which:
67 unique CDR3
4 unique J



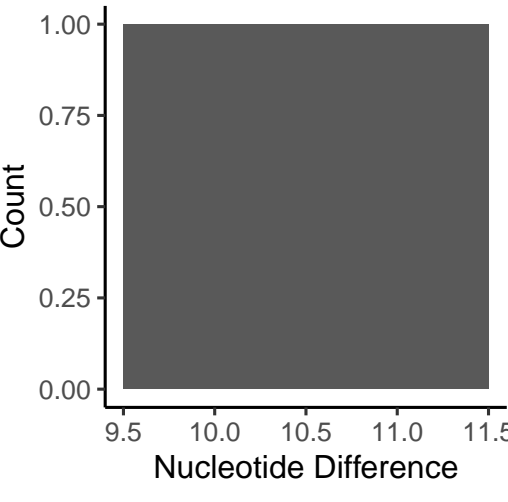
IGHV3-103*01_T19A_G1

9147 sequences assigned
645 (7.1%) exact matches, in which:
555 unique CDR3
4 unique J



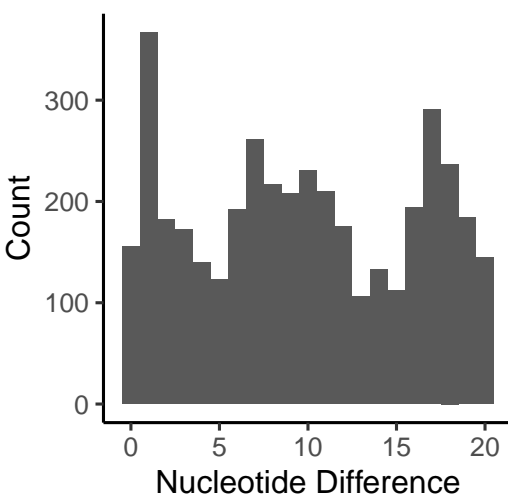
IGHV1-130*02

2 sequences assigned
No exact matches.



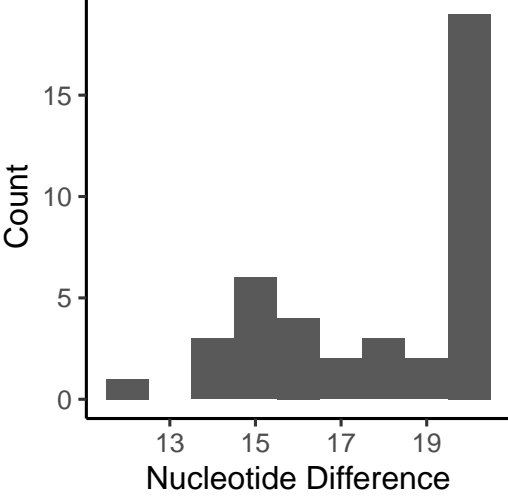
IGHV3-30*02_C141G

7549 sequences assigned
156 (2.1%) exact matches, in which:
129 unique CDR3
4 unique J



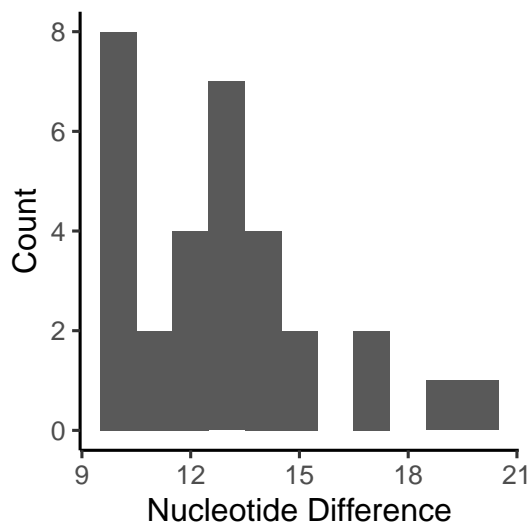
IGHV3-108*01

2264 sequences assigned
No exact matches.



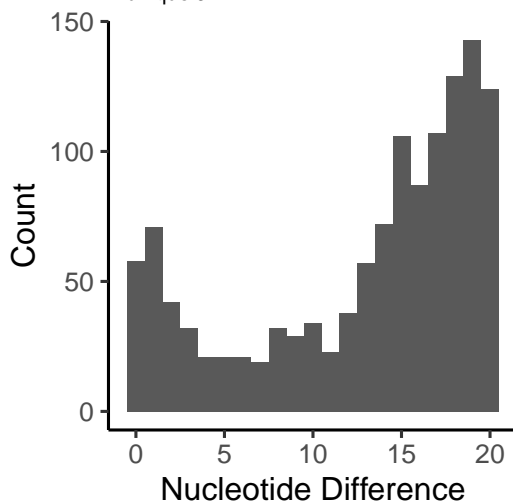
IGHV3-117*01

347 sequences assigned
No exact matches.



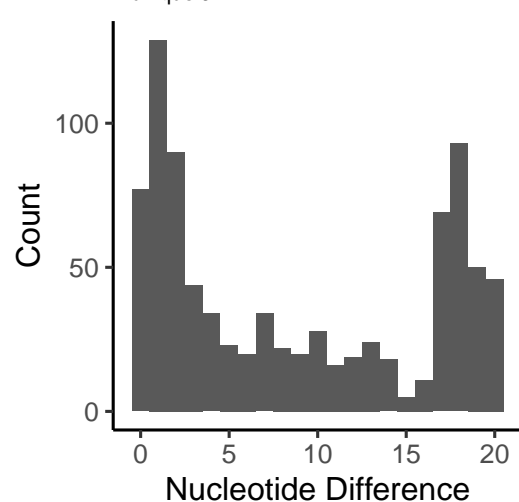
IGHV4-65*02_A163T_G1

8033 sequences assigned
58 (0.7%) exact matches, in which:
57 unique CDR3
4 unique J



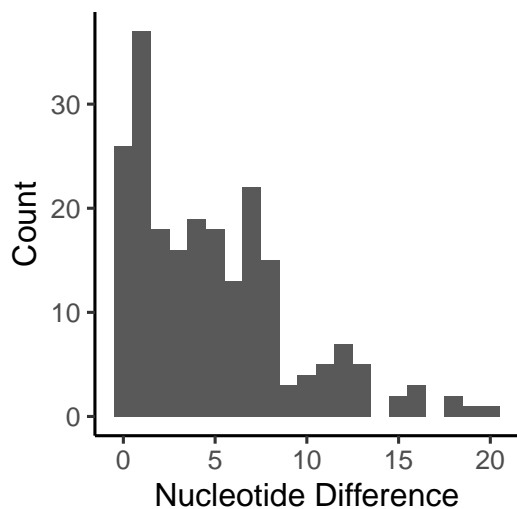
IGHV4-122*02_C87T_G1

2825 sequences assigned
77 (2.7%) exact matches, in which:
74 unique CDR3
4 unique J



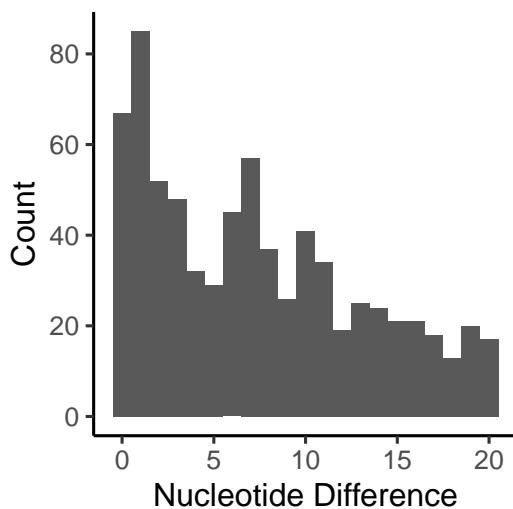
IGHV3-118*01_C34T

456 sequences assigned
26 (5.7%) exact matches, in which:
23 unique CDR3
4 unique J



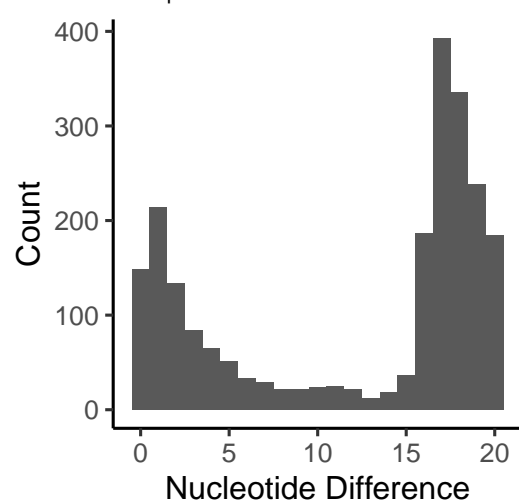
IGHV4-73*01_C24T_C133

1092 sequences assigned
67 (6.1%) exact matches, in which:
61 unique CDR3
4 unique J



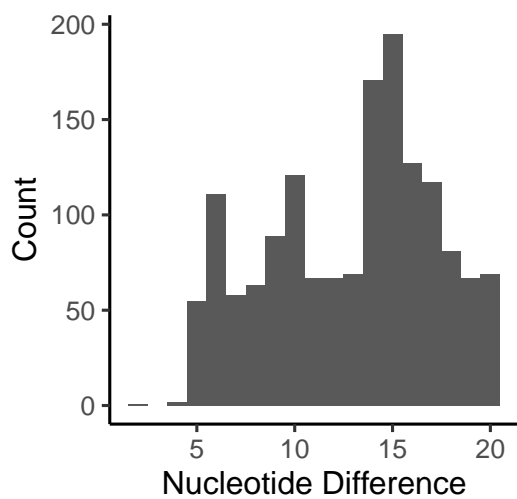
IGHV4-127*01_C34G_T8

3244 sequences assigned
149 (4.6%) exact matches, in which:
144 unique CDR3
4 unique J



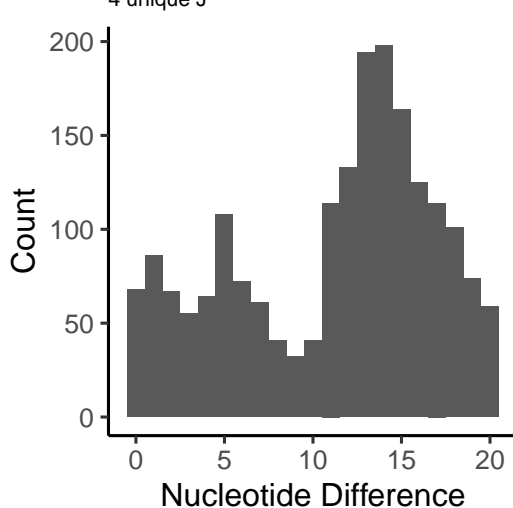
IGHV3-124*01

2437 sequences assigned
No exact matches.



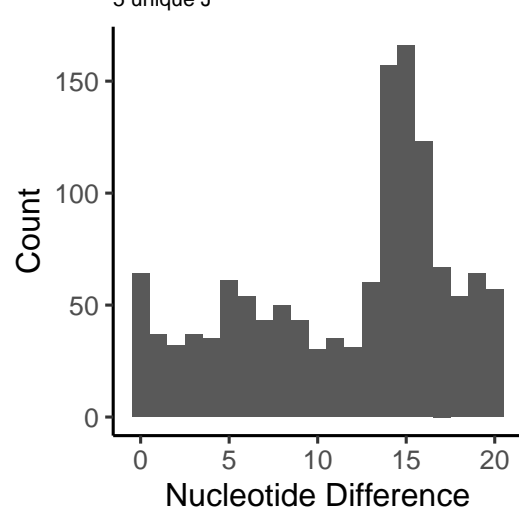
IGHV4-80*01_C83G_A88

2545 sequences assigned
68 (2.7%) exact matches, in which:
66 unique CDR3
4 unique J



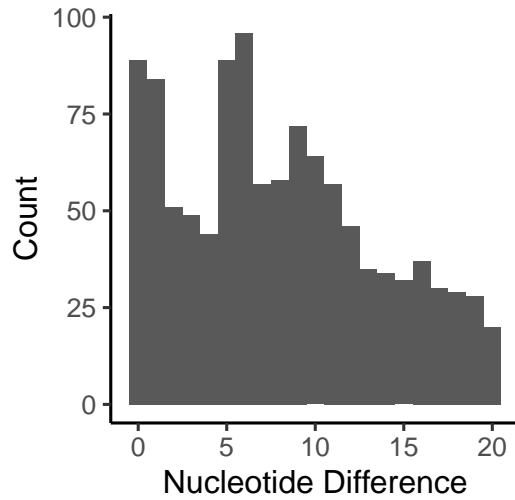
IGHV4-165*01_G4C_C88

1571 sequences assigned
64 (4.1%) exact matches, in which:
61 unique CDR3
5 unique J



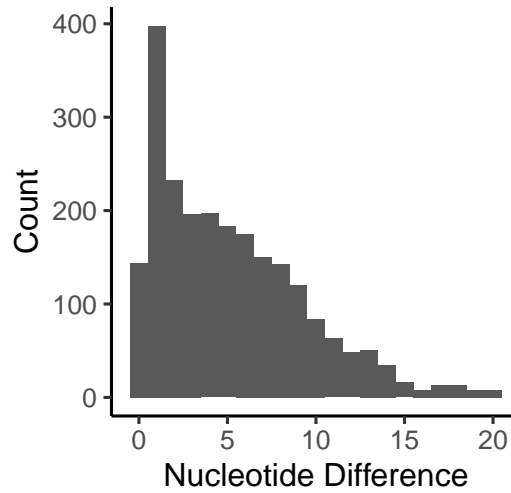
IGHV4-165*01_G4C_C8

1287 sequences assigned
89 (6.9%) exact matches, in which:
87 unique CDR3
5 unique J



IGHV5-43*01_A106G

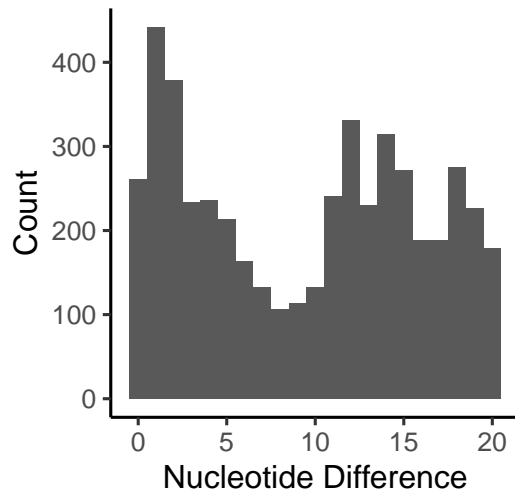
2352 sequences assigned
144 (6.1%) exact matches, in which:
119 unique CDR3
4 unique J



3C_A164G_G173A_A232C_T23

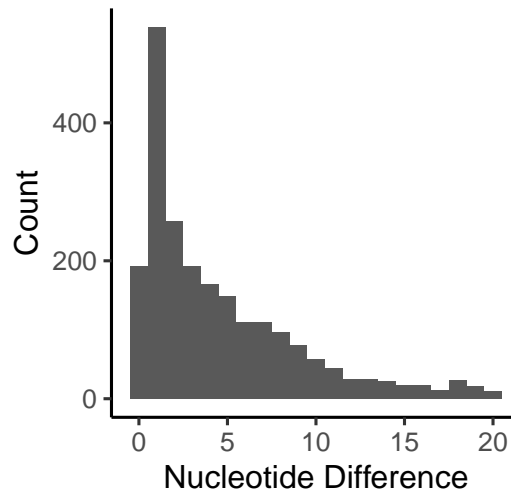
IGHV4-173*01_C4G

6181 sequences assigned
261 (4.2%) exact matches, in which:
248 unique CDR3
5 unique J



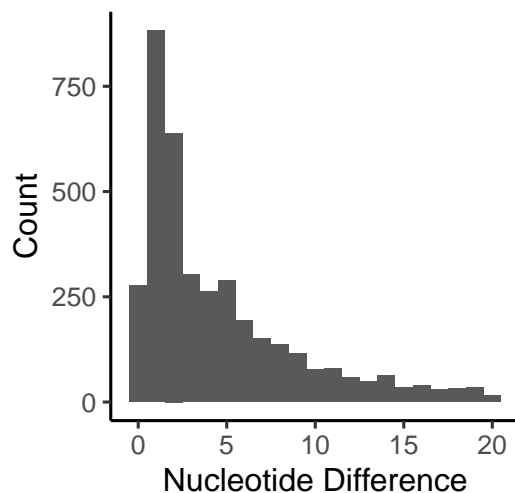
IGHV5-43*01_A109T_G110A_G164T_C165G_A203G_C

2250 sequences assigned
192 (8.5%) exact matches, in which:
170 unique CDR3
4 unique J



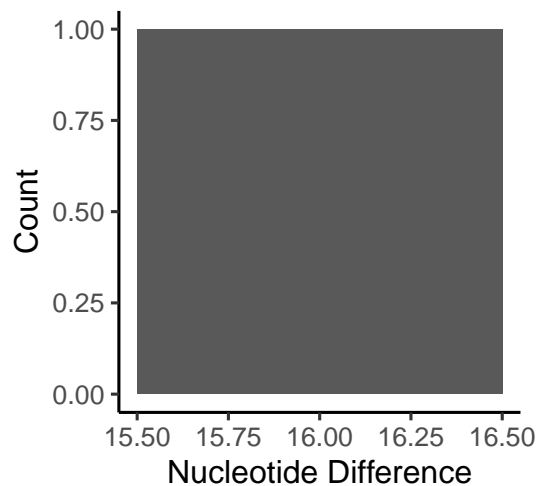
IGHV5-20*02_A141G_A2

3810 sequences assigned
277 (7.3%) exact matches, in which:
227 unique CDR3
4 unique J

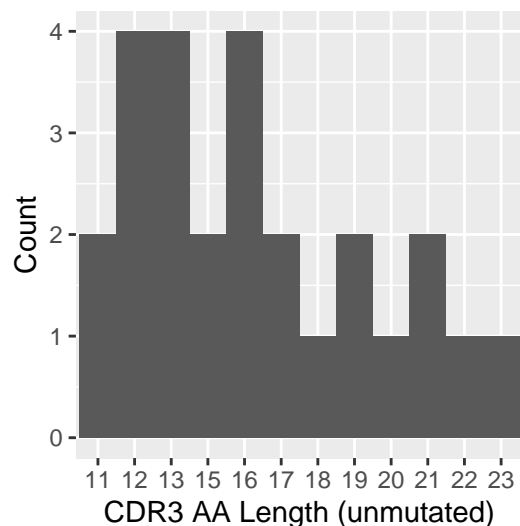


IGHV7-94*01

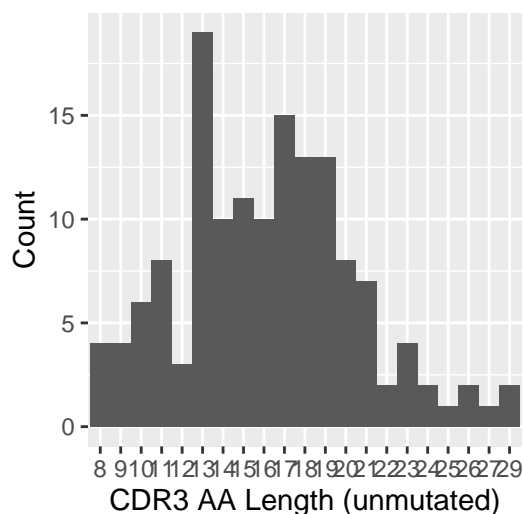
19 sequences assigned
No exact matches.



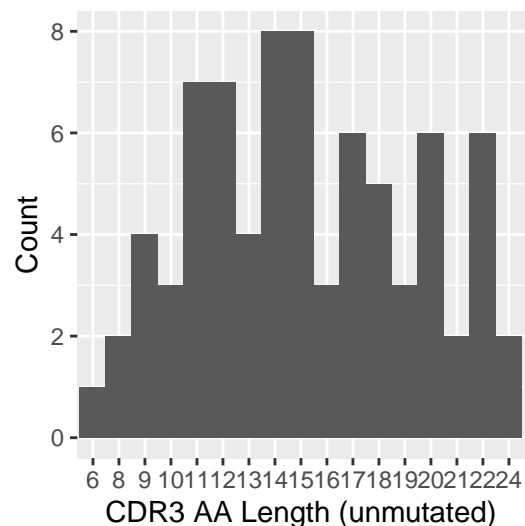
IGHV3-118*01_C34T



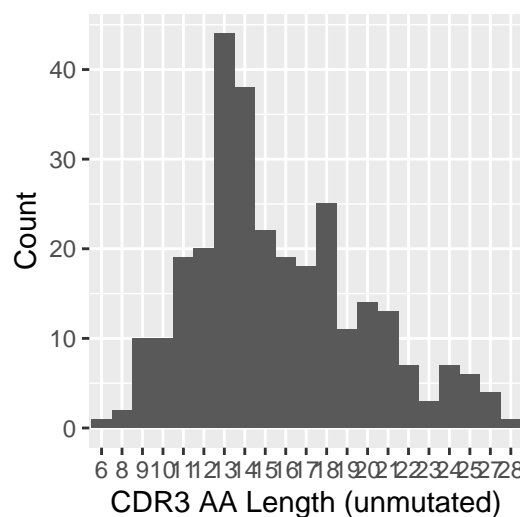
IGHV3-103*01_G51A_A170A



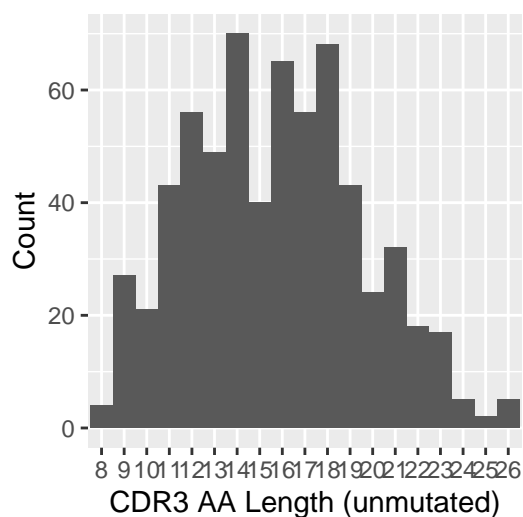
IGHV4-122*02_C87T_G103A



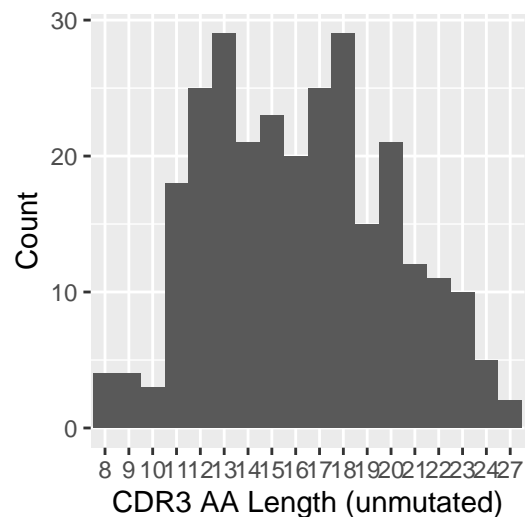
IGHV3S42*01_T19A_G24A_



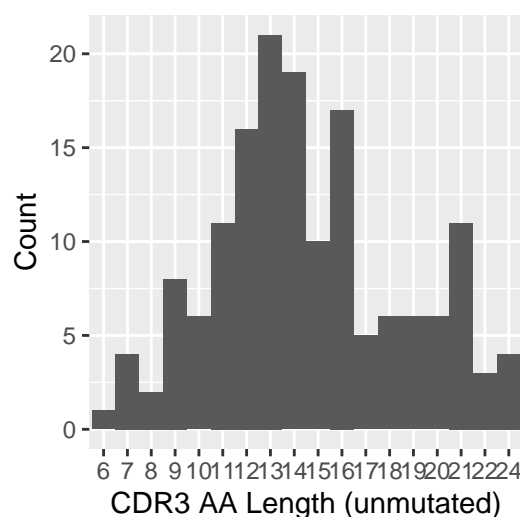
IGHV3-103*01_T19A_G24C_



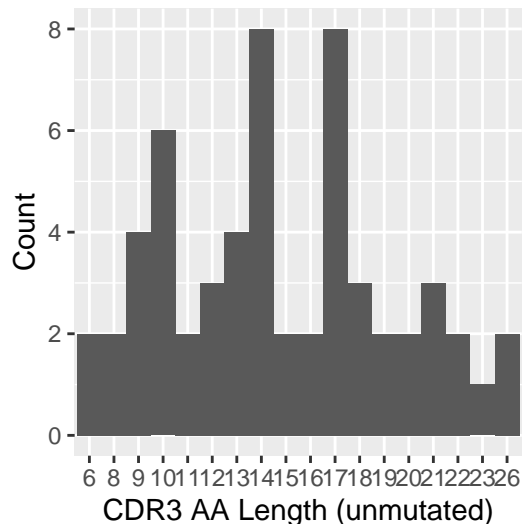
IGHV5-20*02_A141G_A295



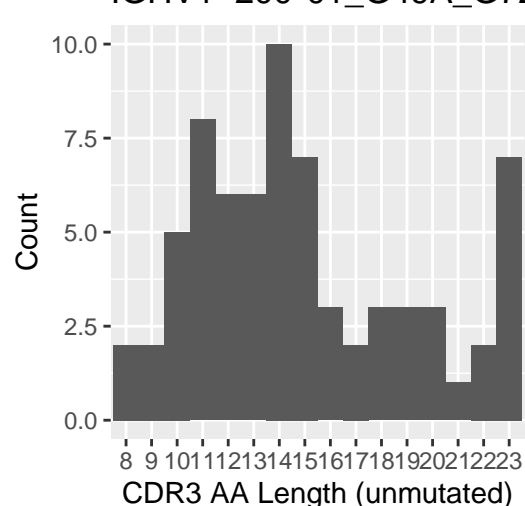
IGHV3-30*02_C141G



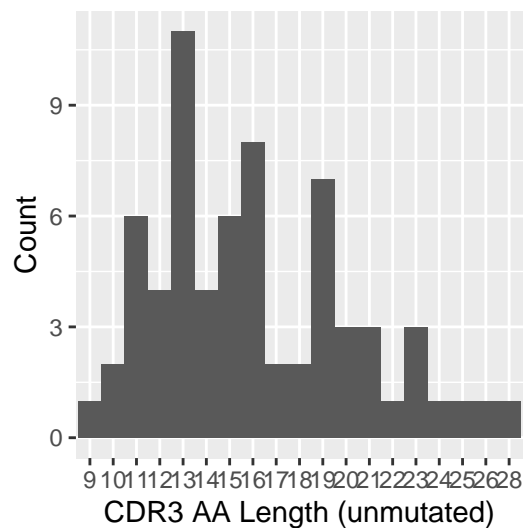
IGHV4-65*02_A163T_G169A



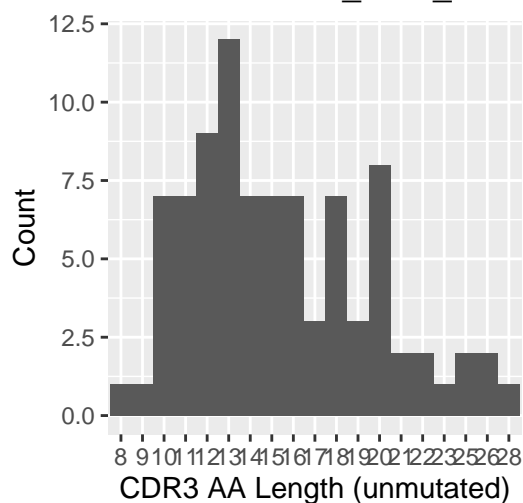
IGHV1-200*01_G49A_G72



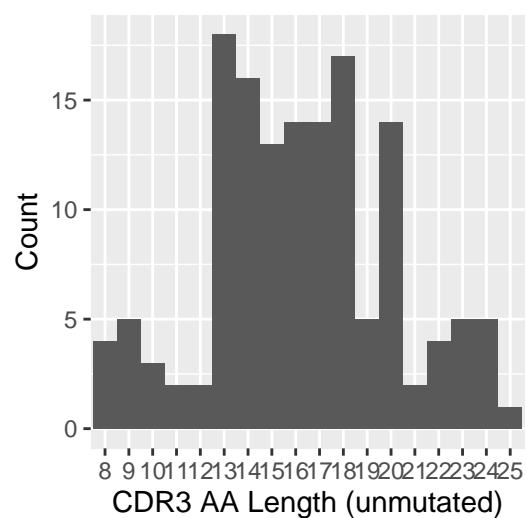
IGHV4-73*01_C24T_C133G_



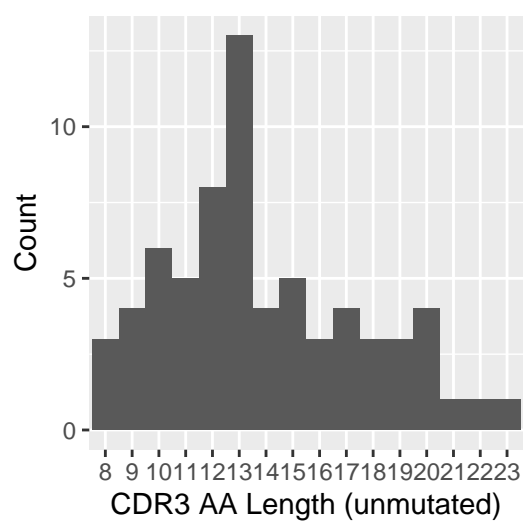
IGHV4-165*01_G4C_C87T



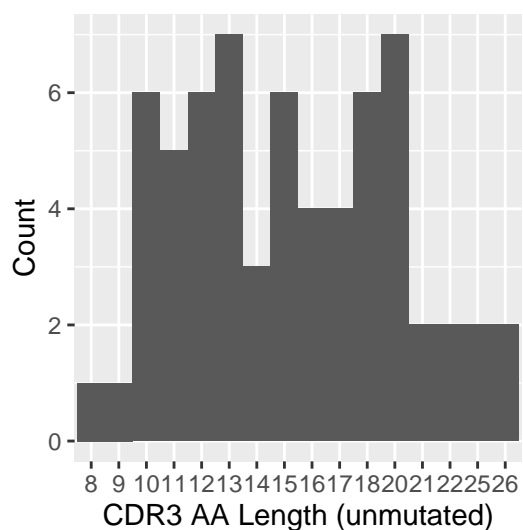
IGHV5-43*01_A106G



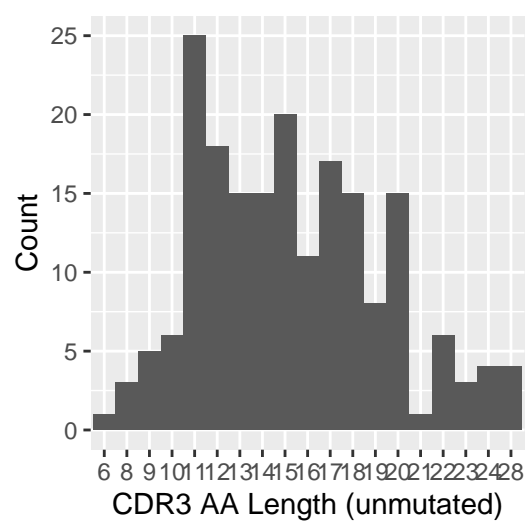
IGHV4-80*01_C83G_A88T_



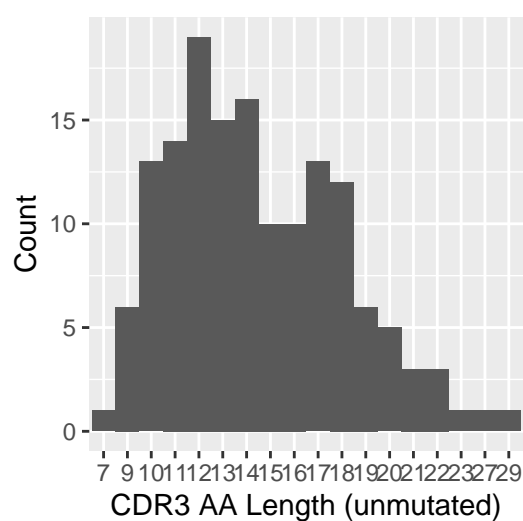
IGHV4-165*01_G4C_C87T_



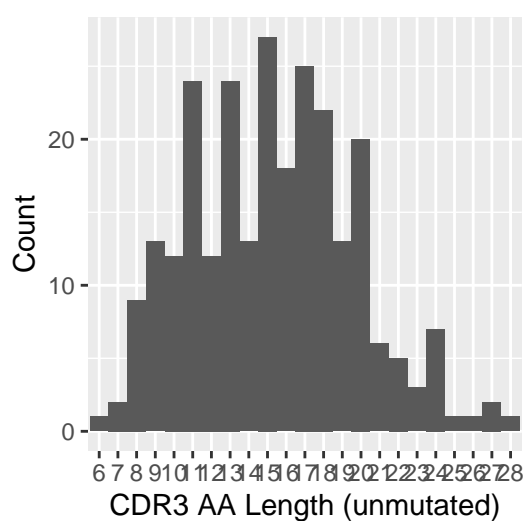
IGHV5-43*01_A109T_G110A_



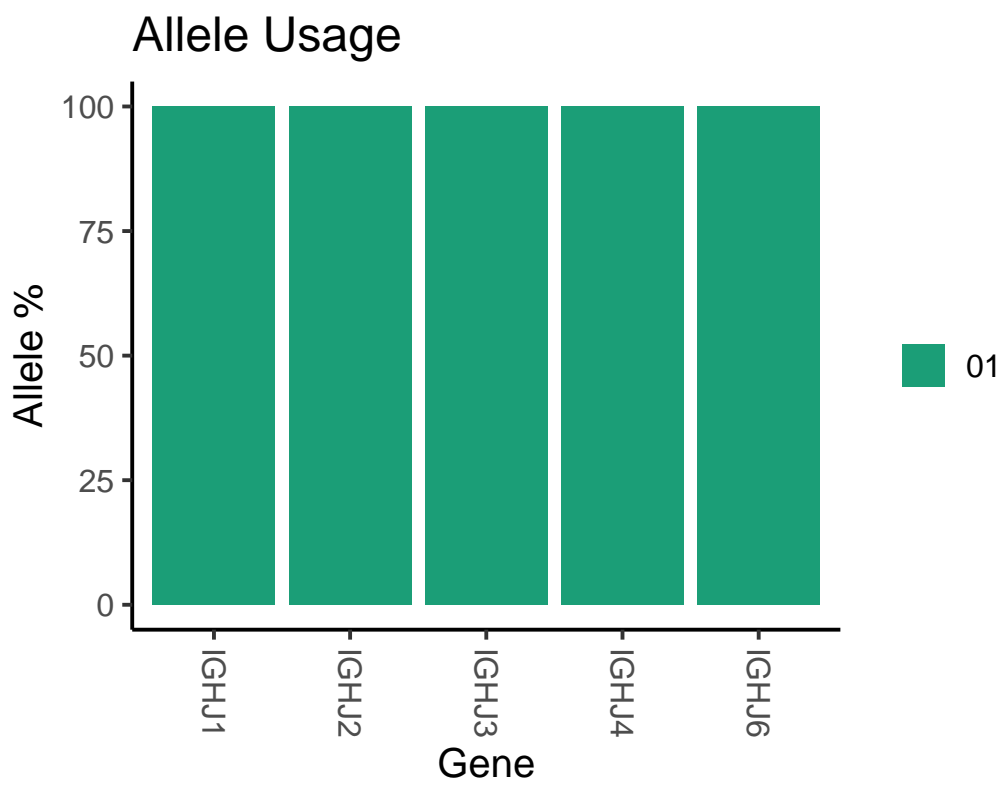
IGHV4-127*01_C34G_T82G



IGHV4-173*01_C4G



IGHV5-43*01_A109T_G110A_



Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.