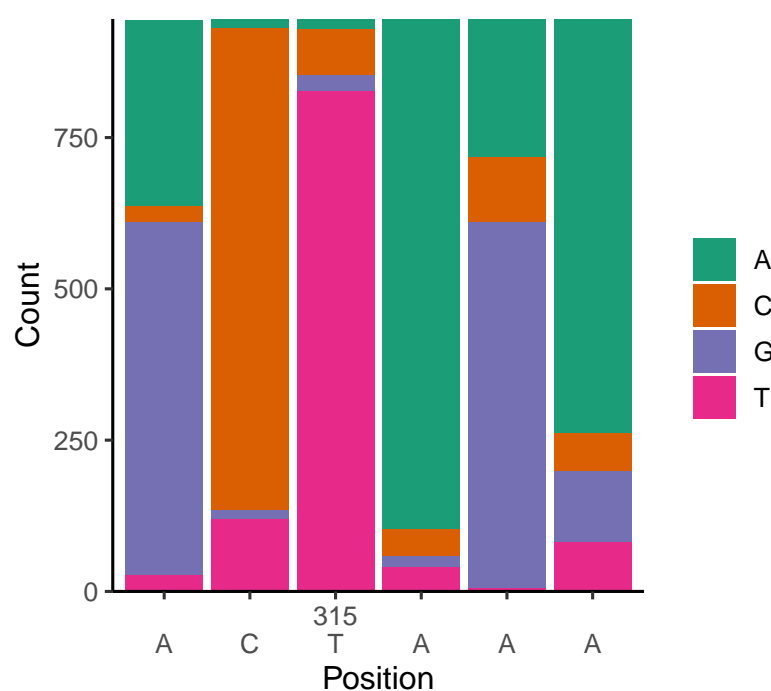
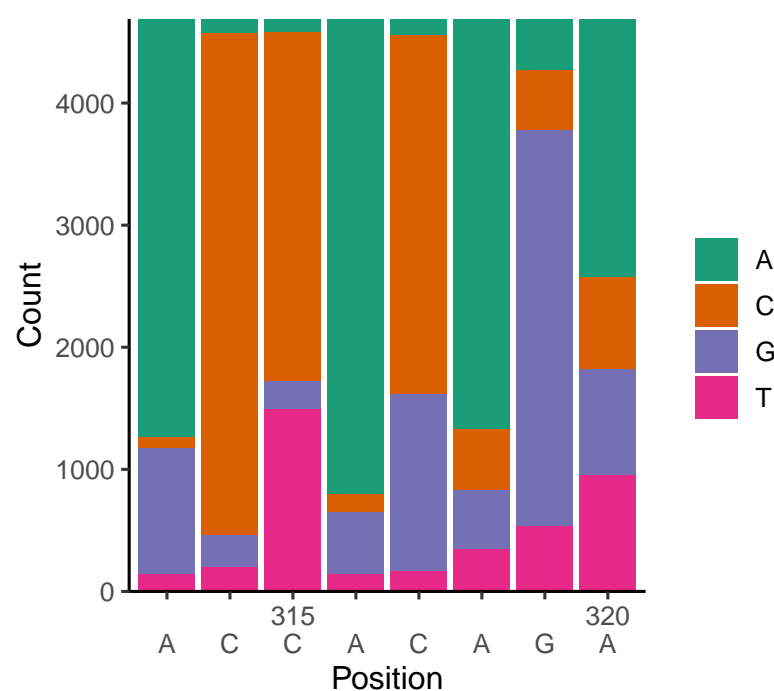


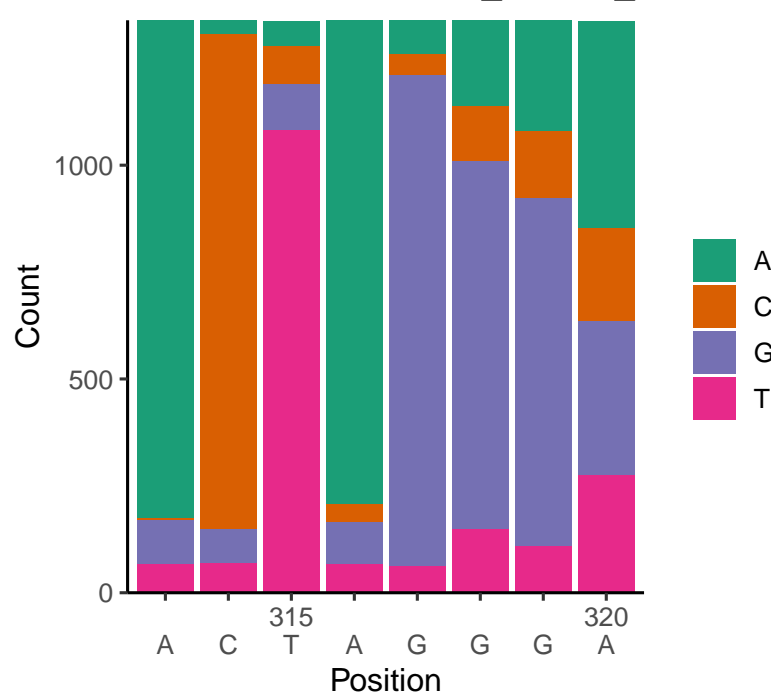
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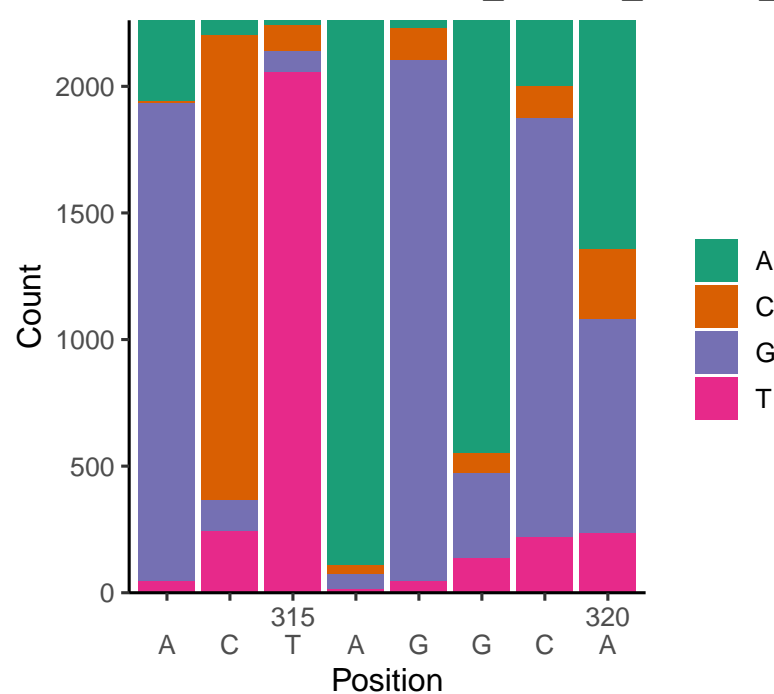
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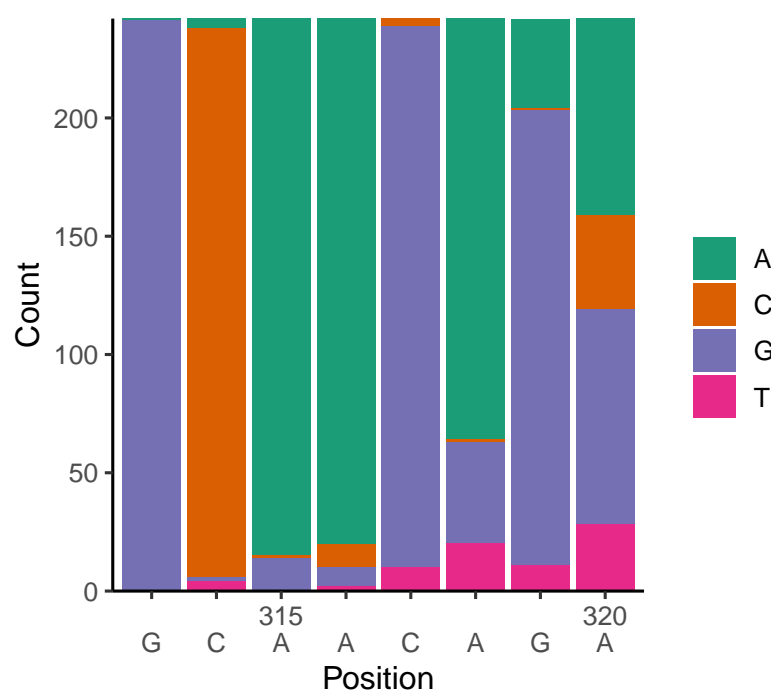
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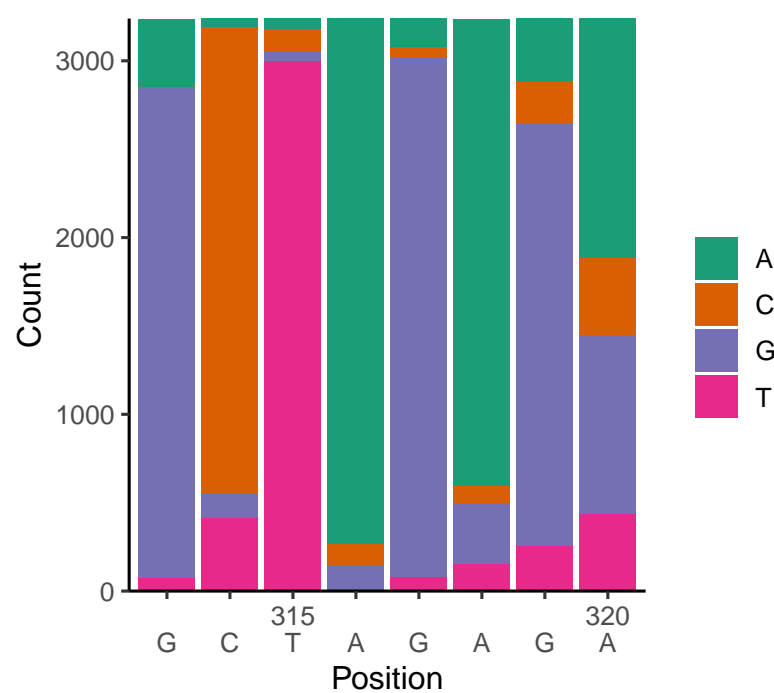
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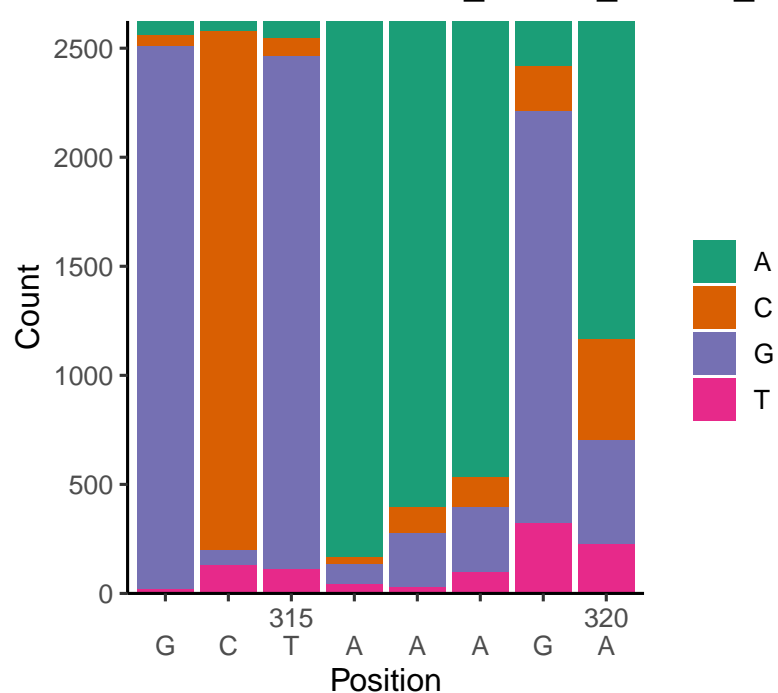
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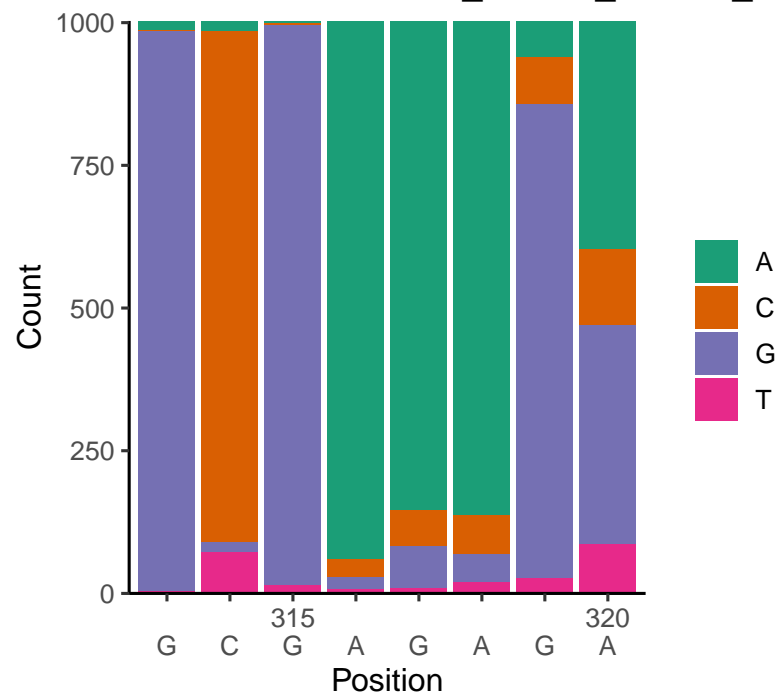
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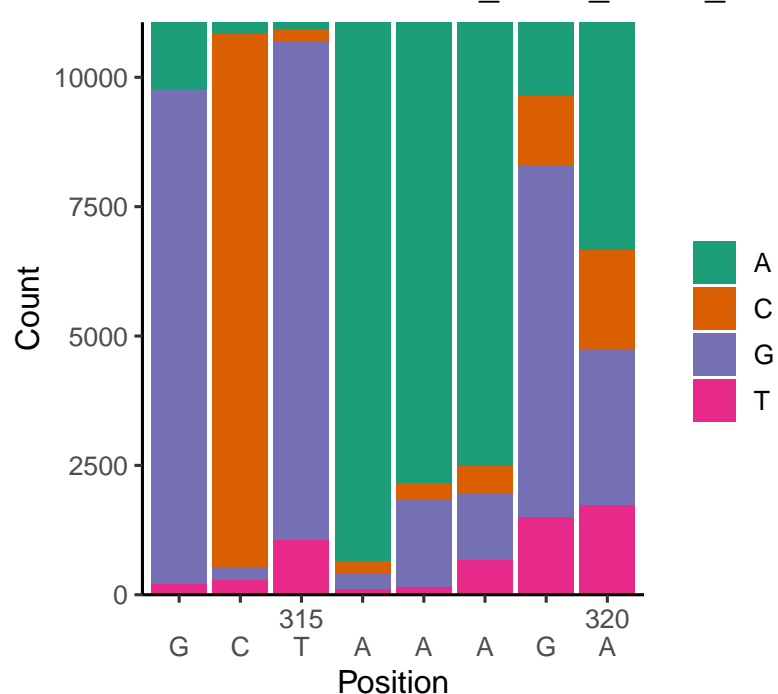
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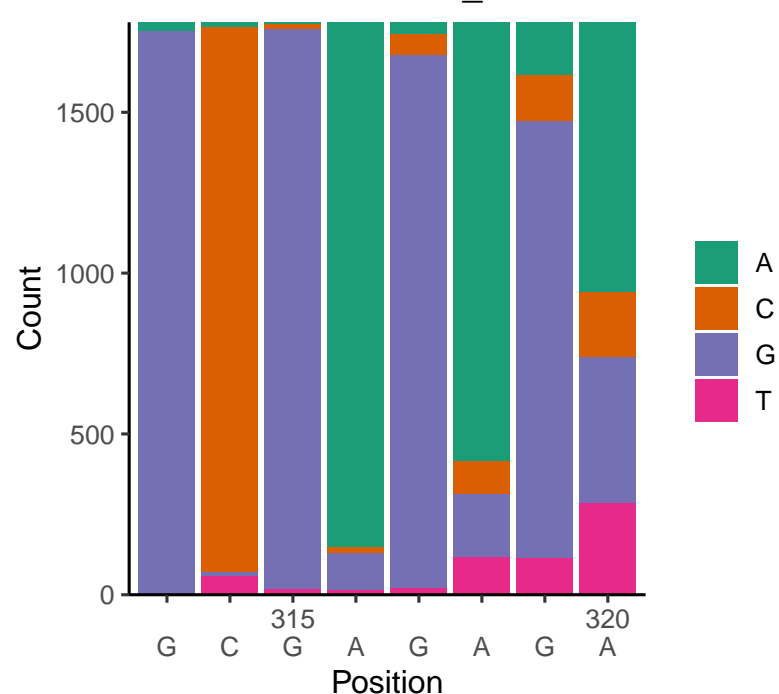
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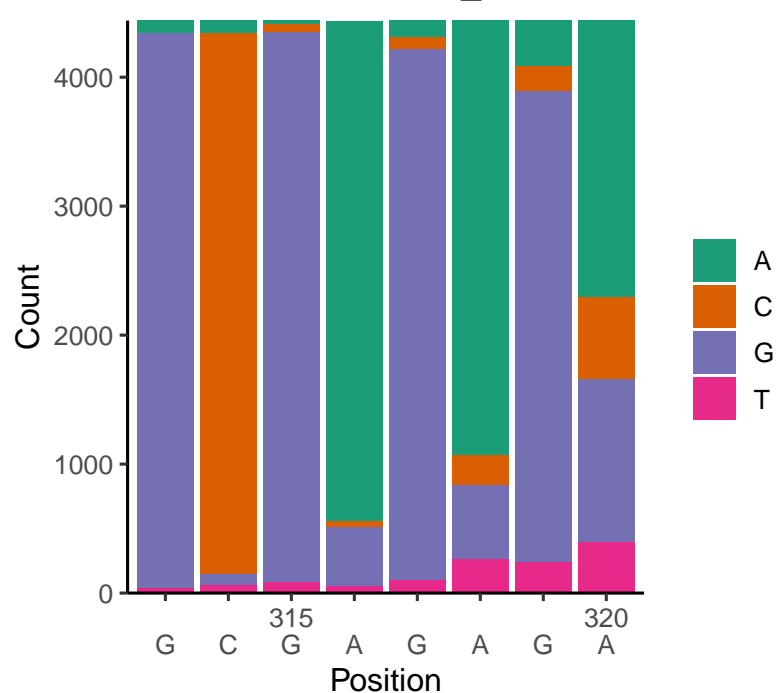
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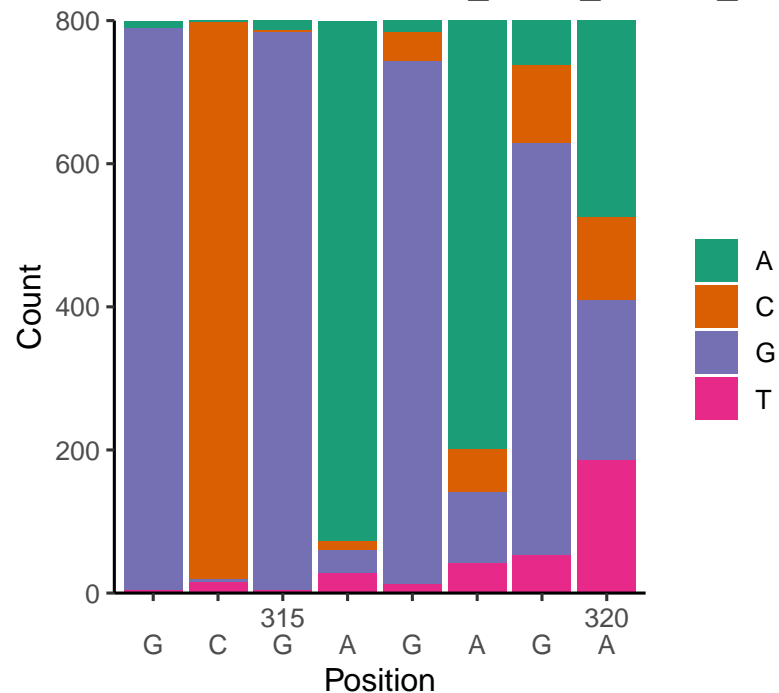
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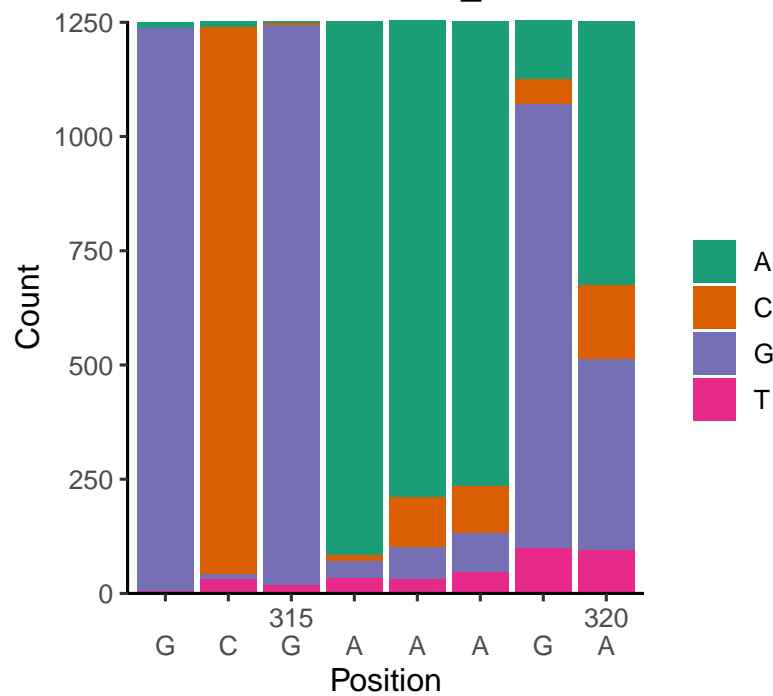
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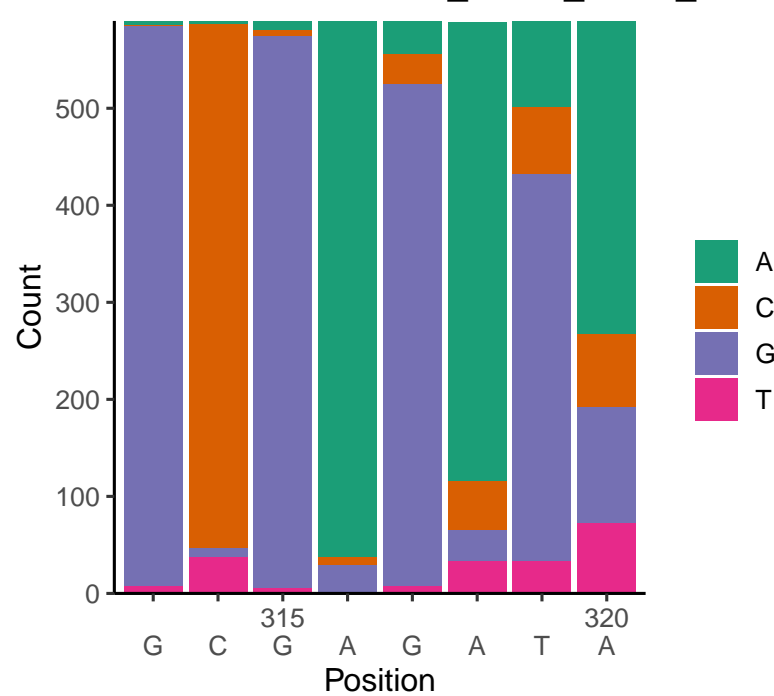
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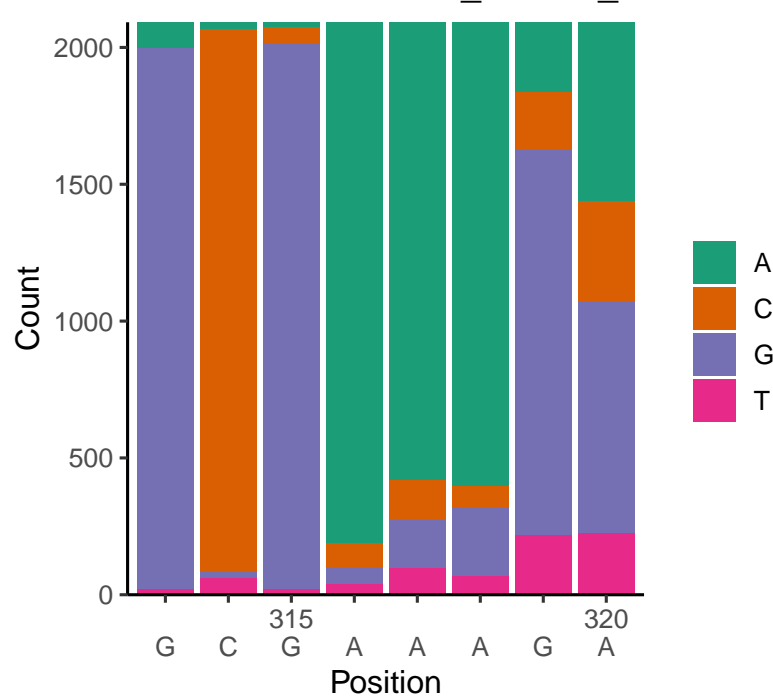
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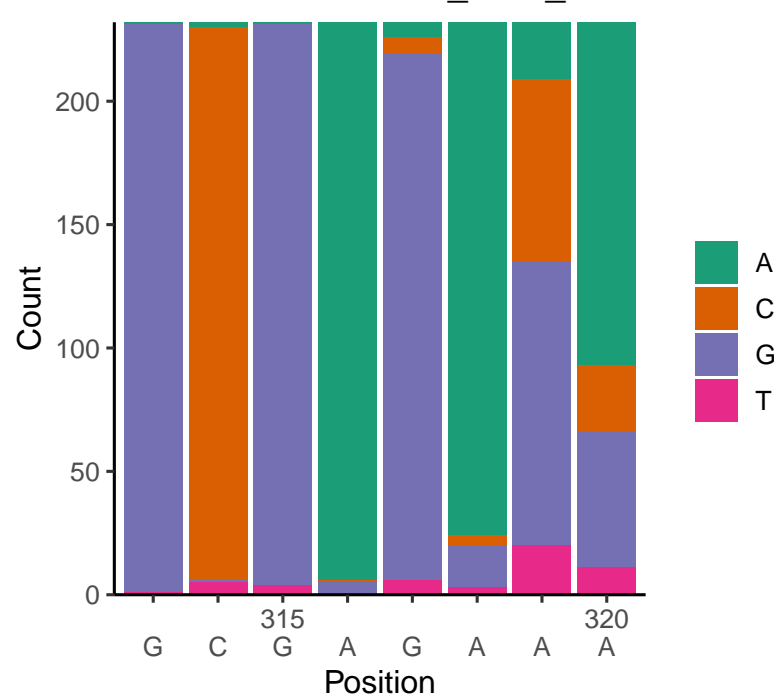
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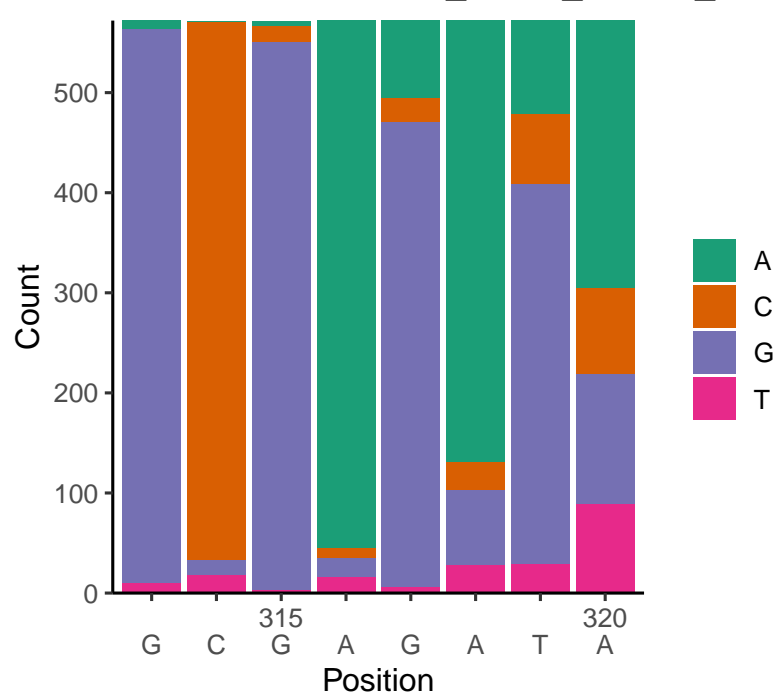
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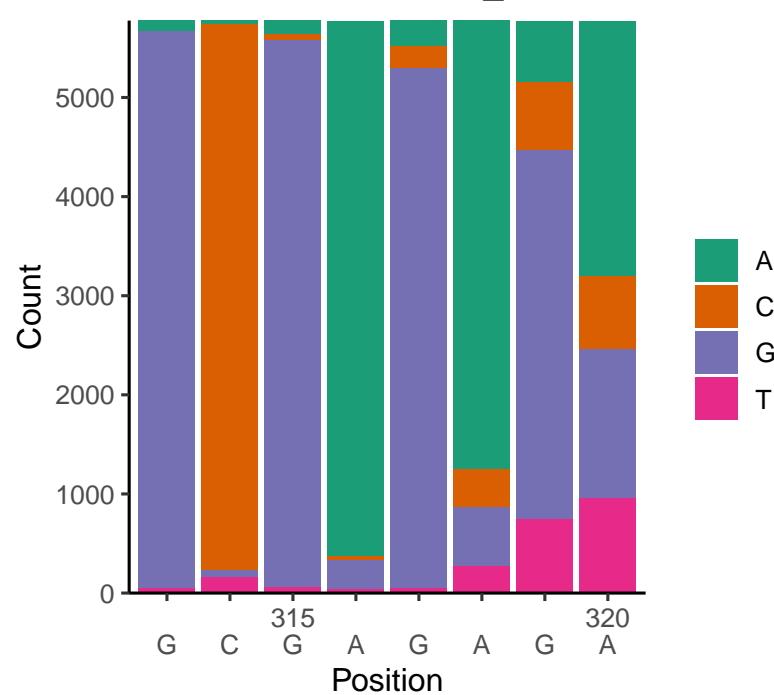
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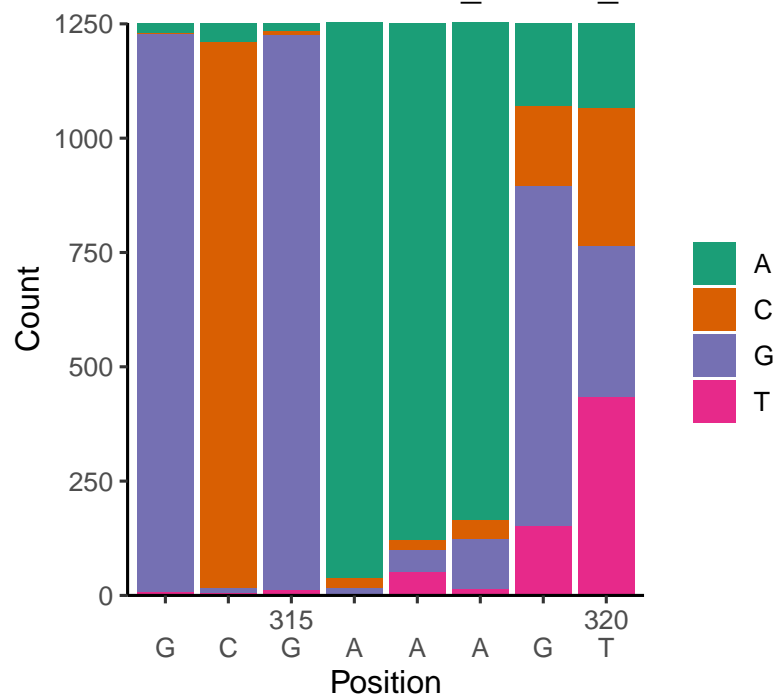
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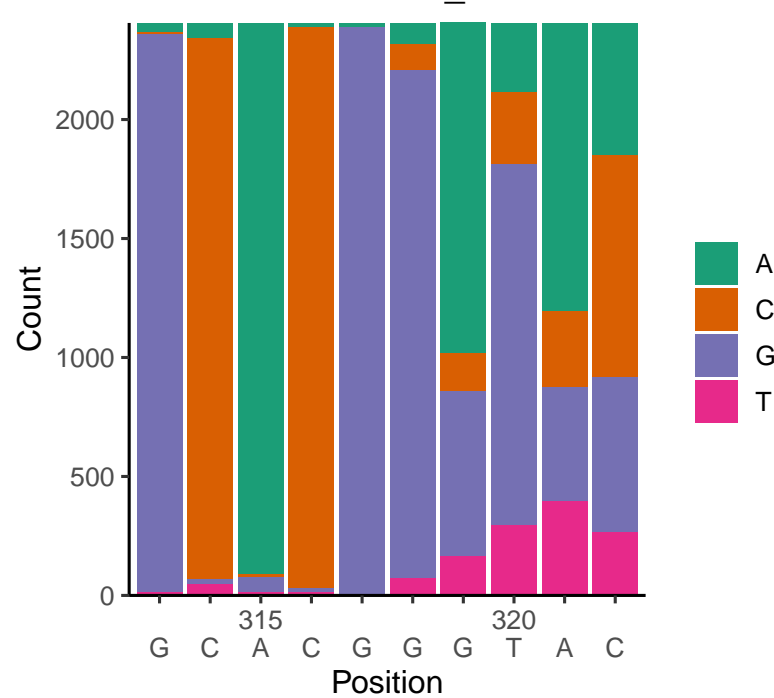
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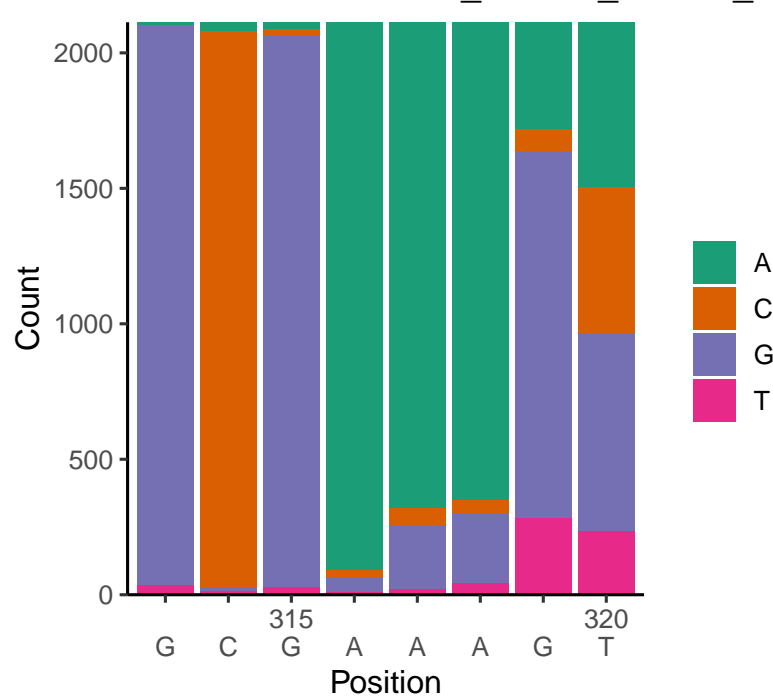
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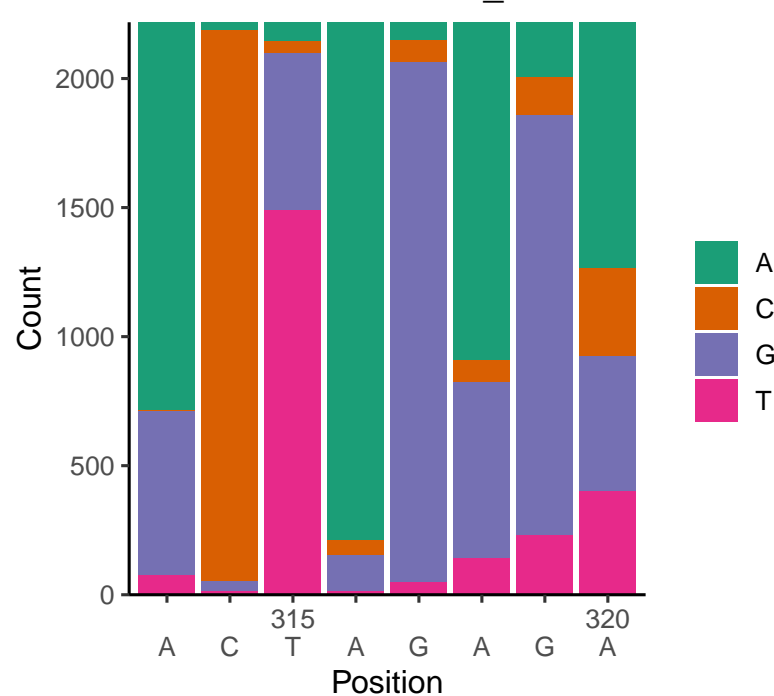
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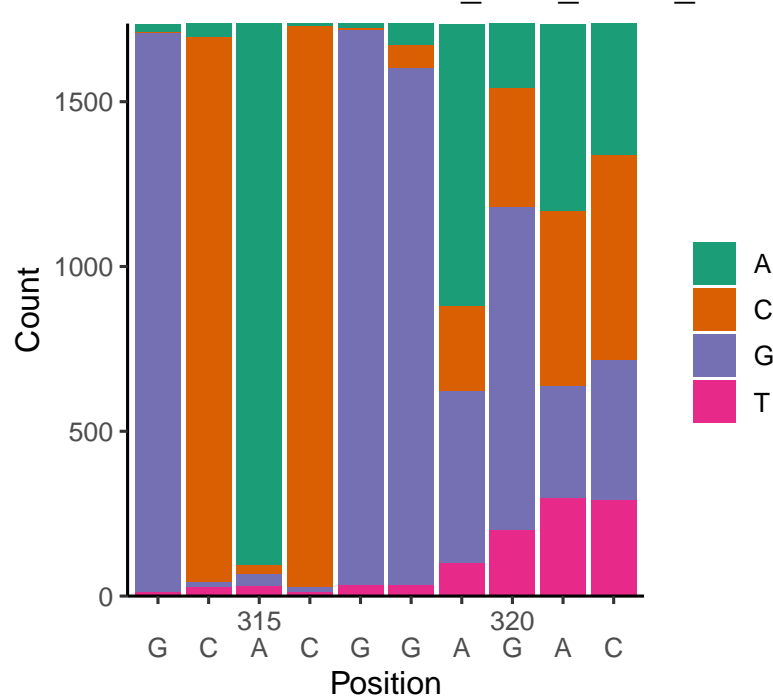
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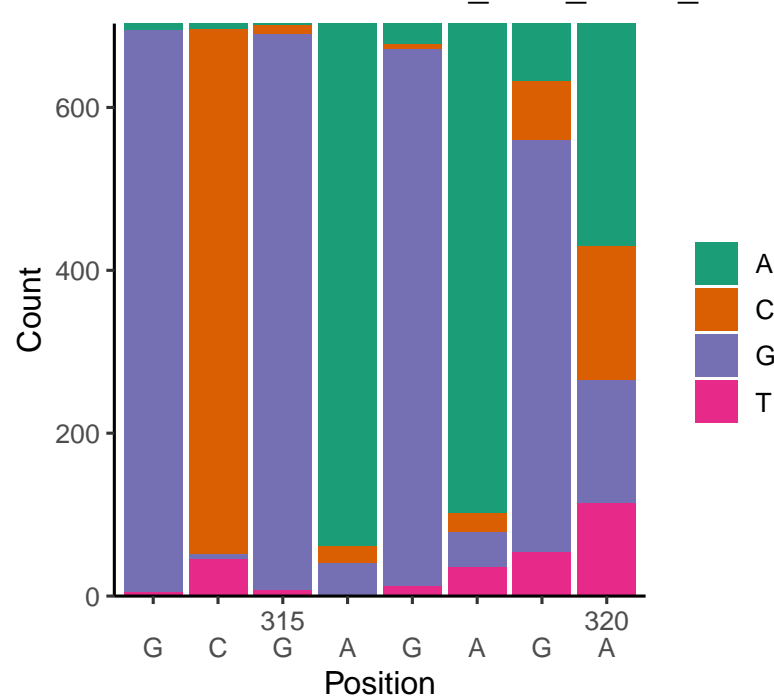
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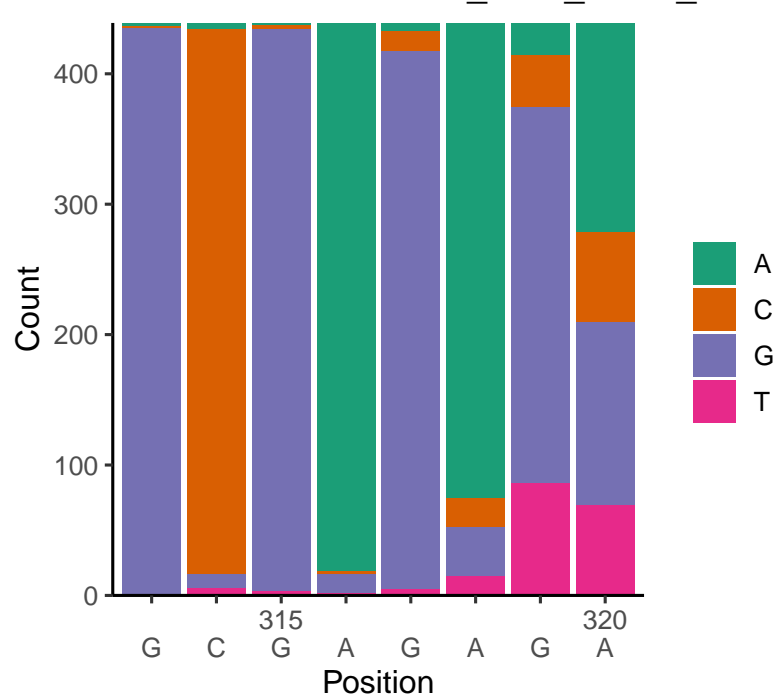
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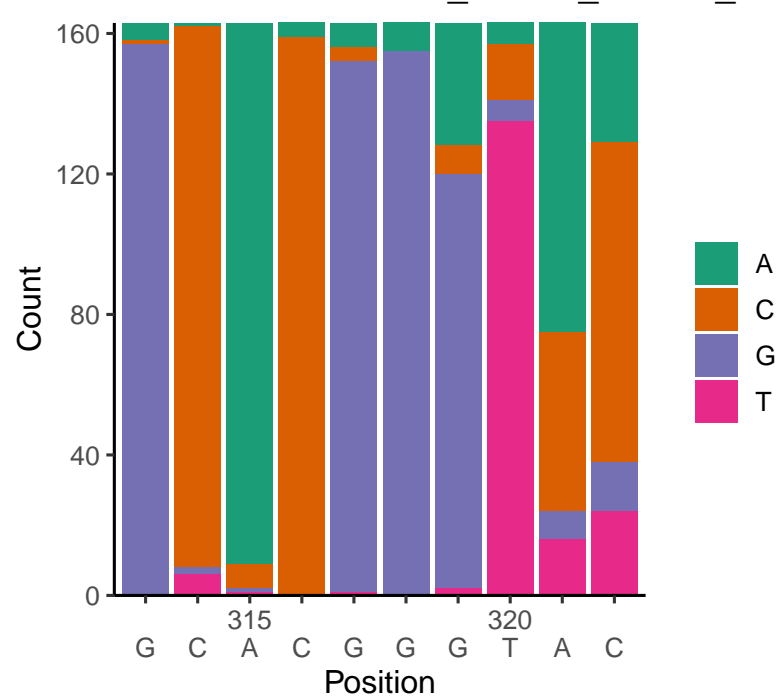
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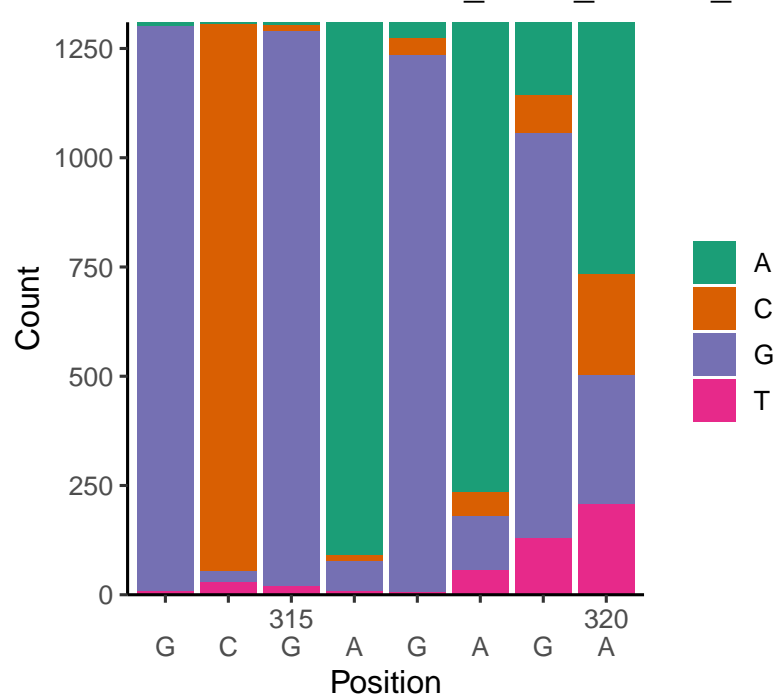
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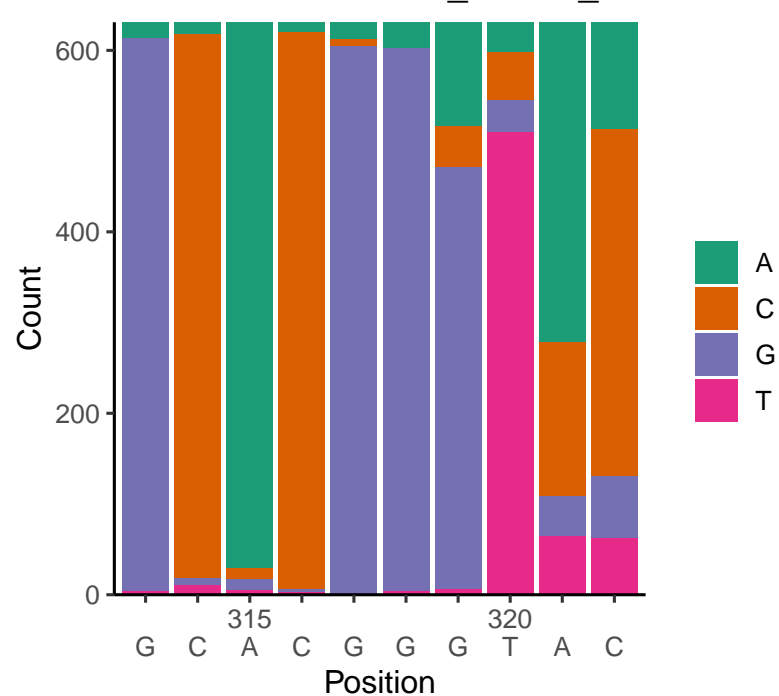
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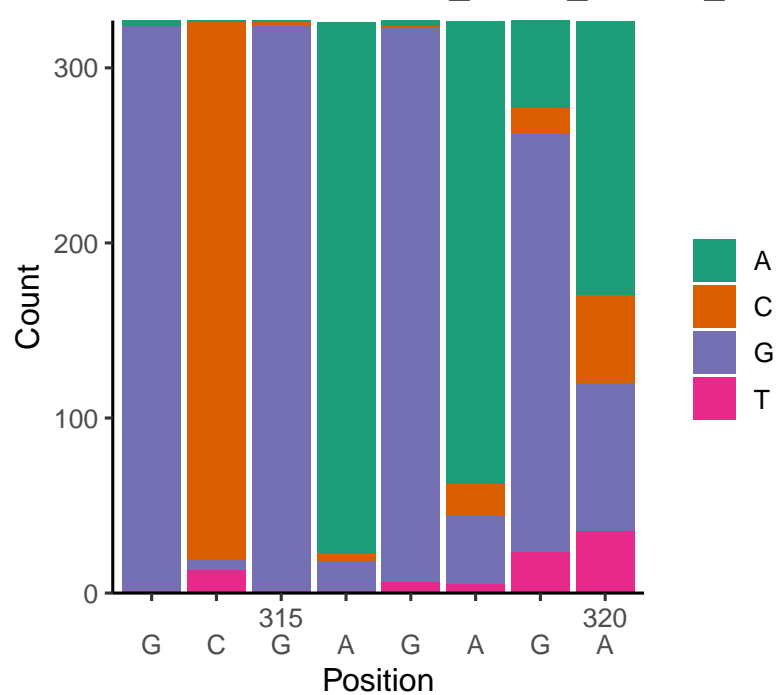
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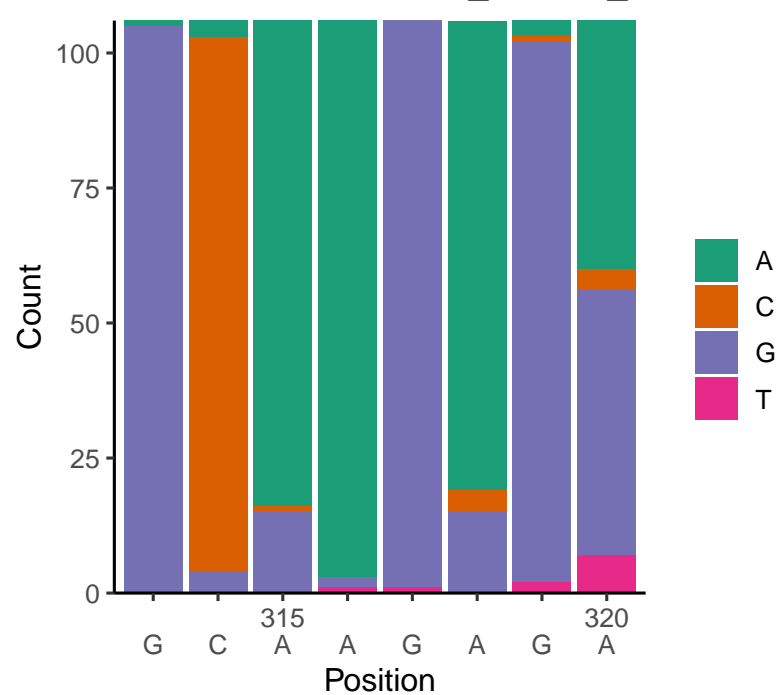
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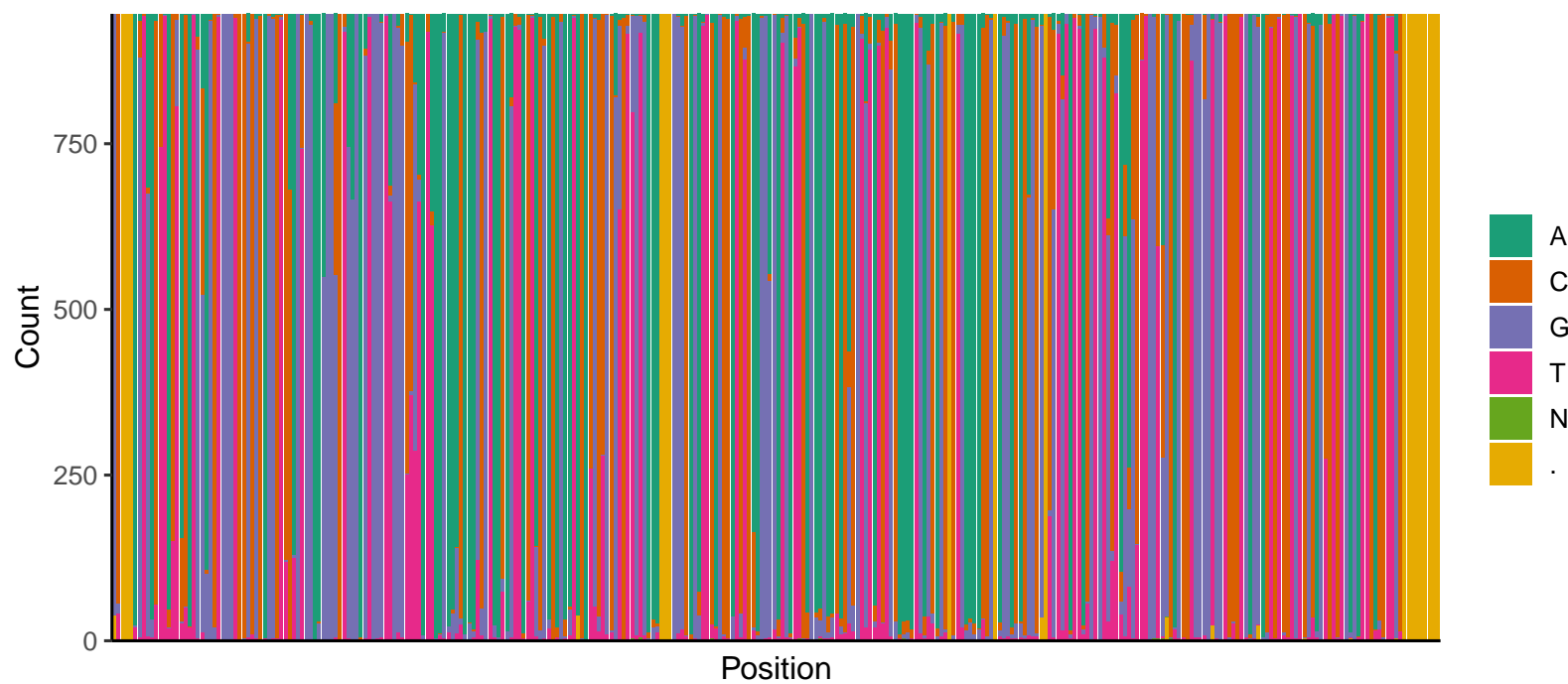
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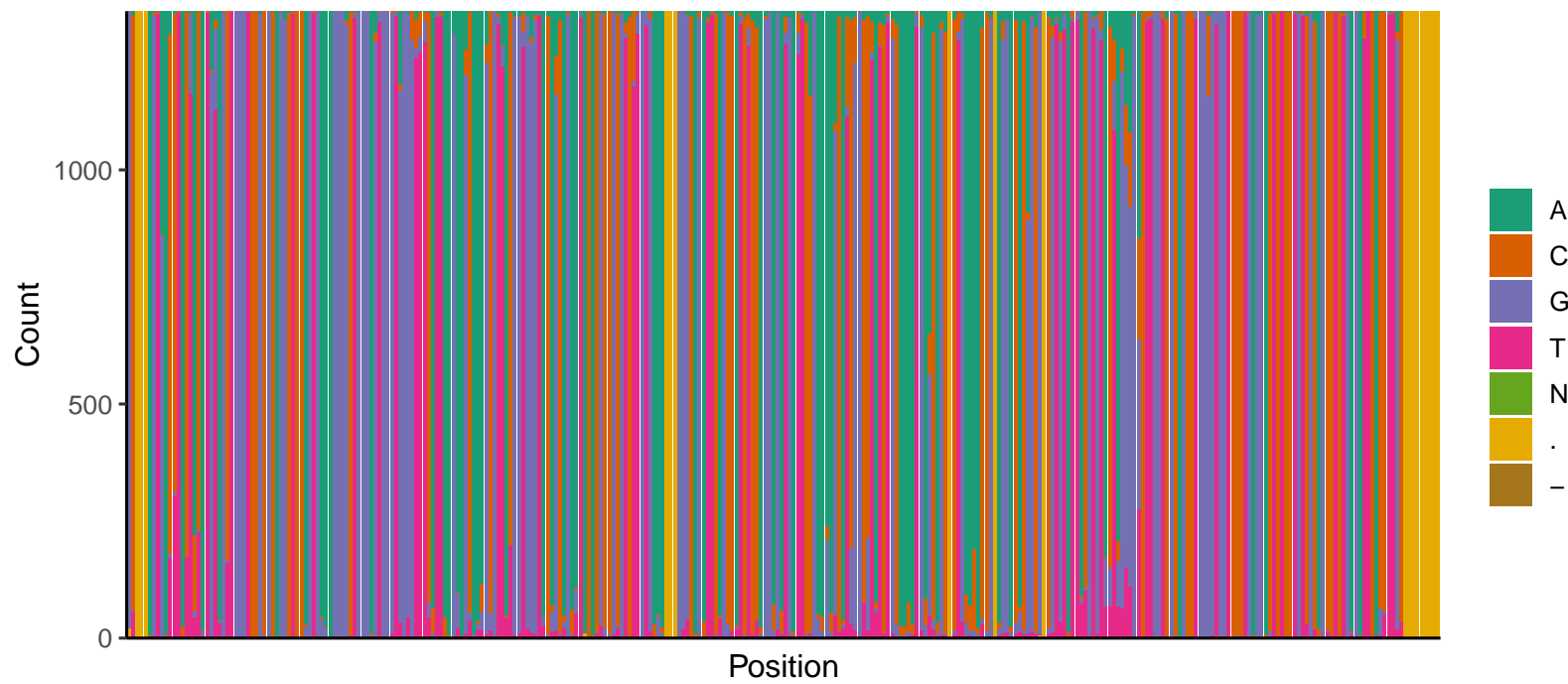
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Gene IGHV3-13*01_C33T



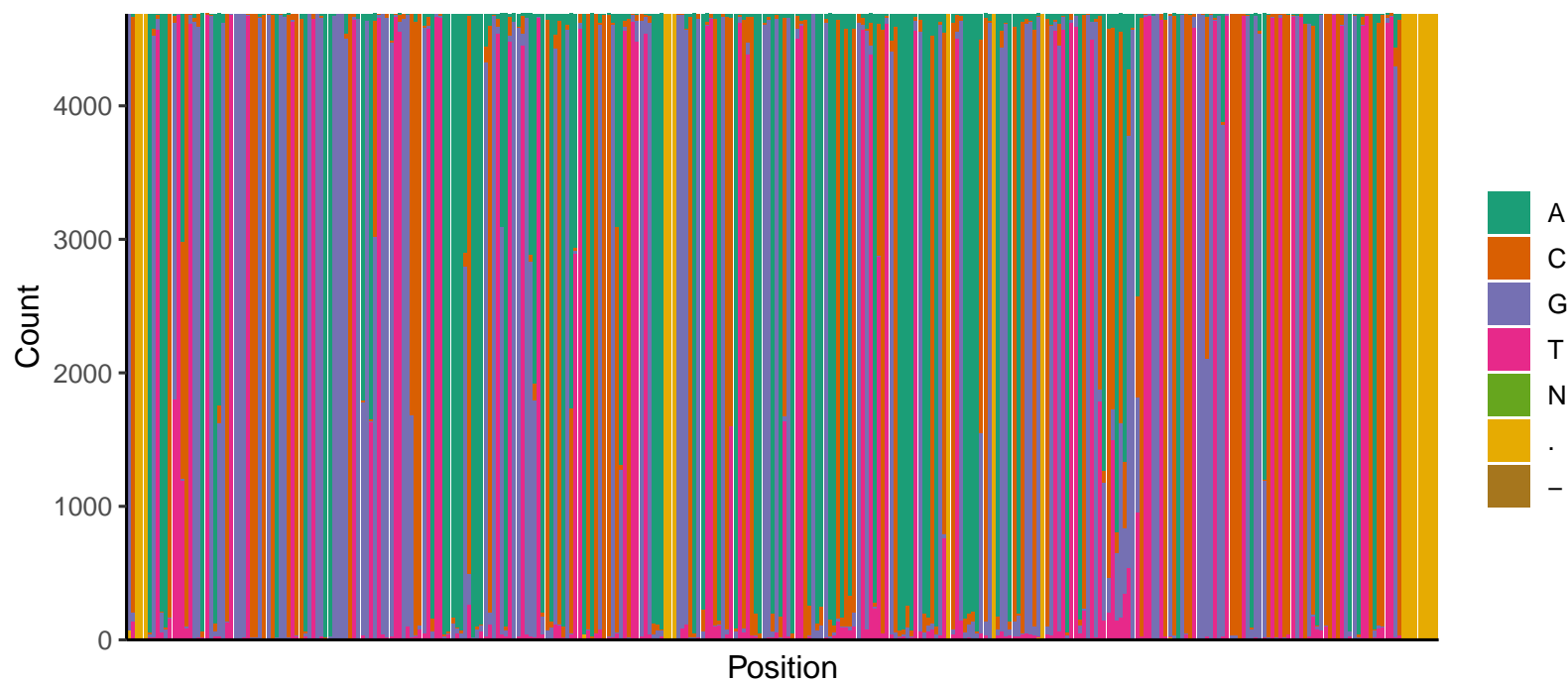
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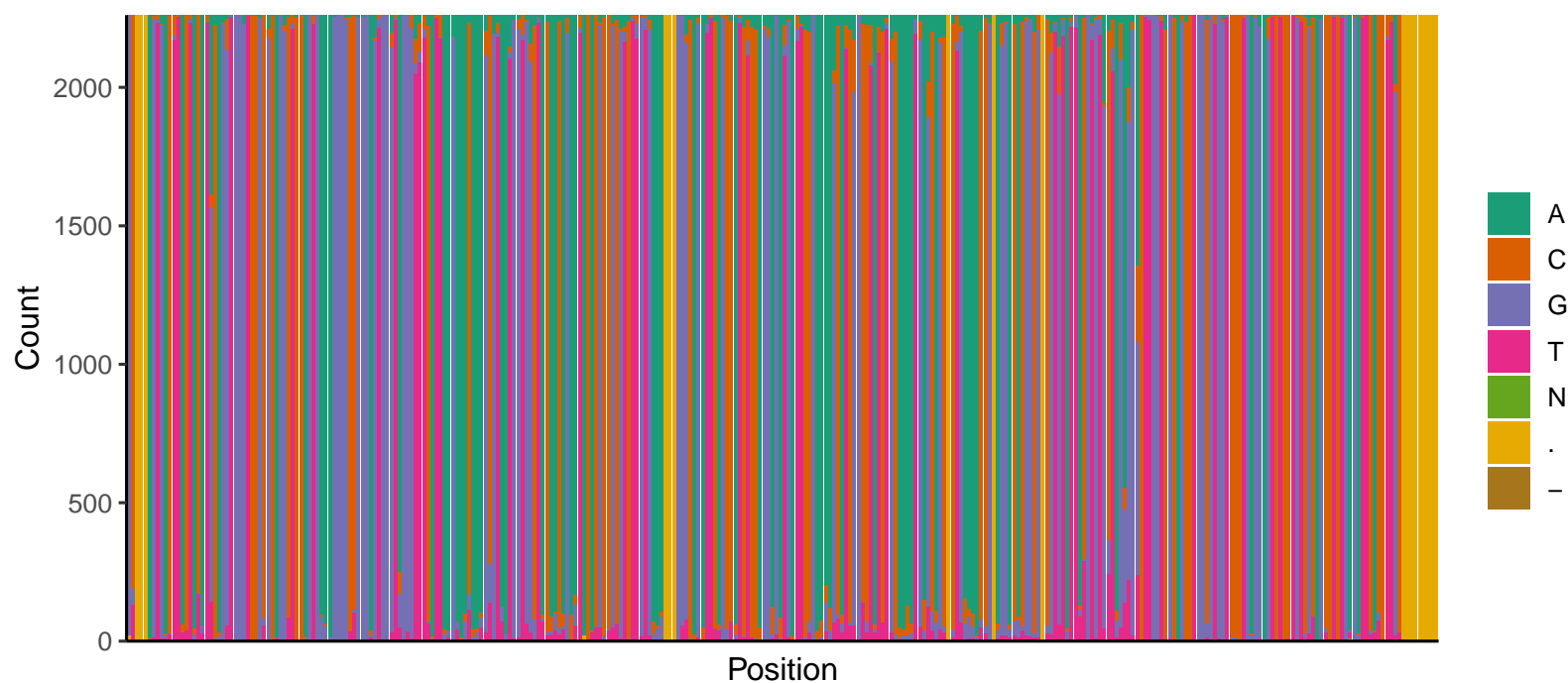
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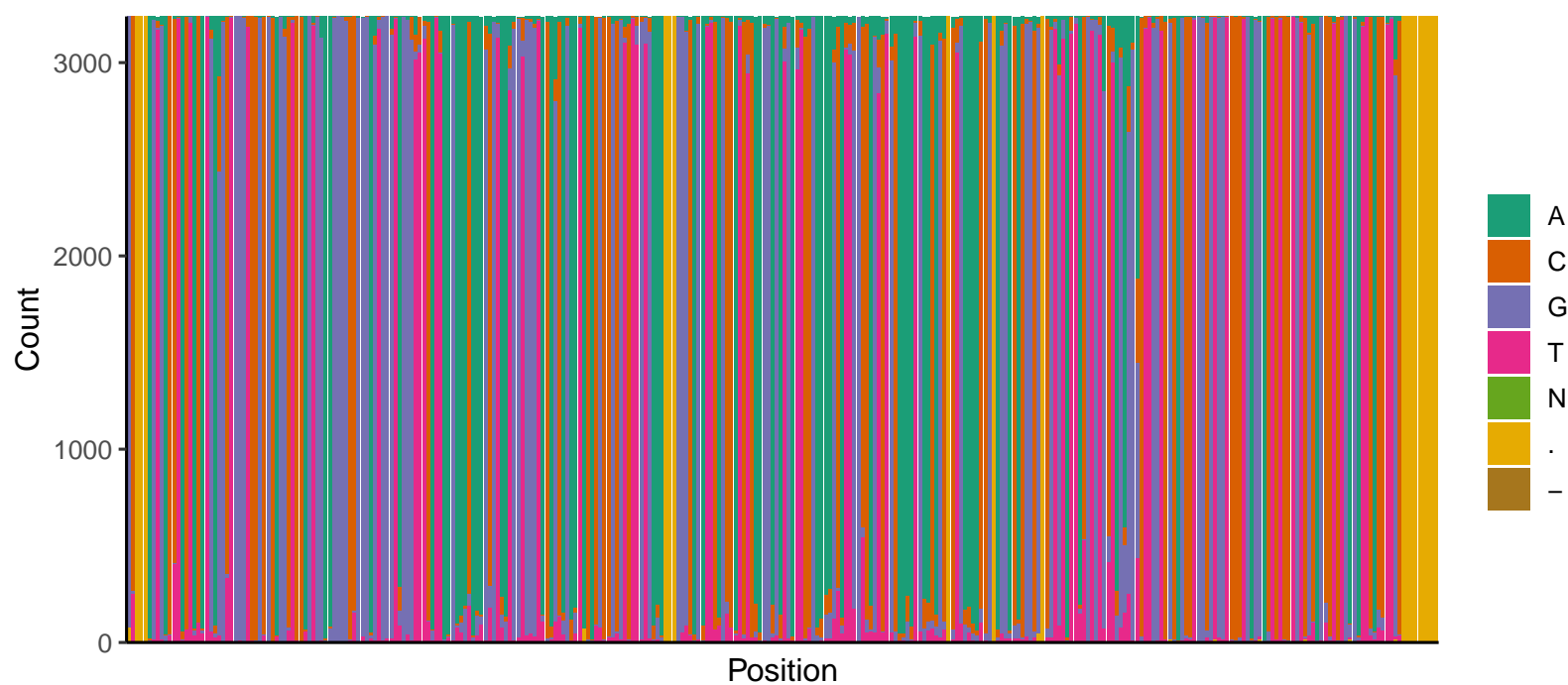
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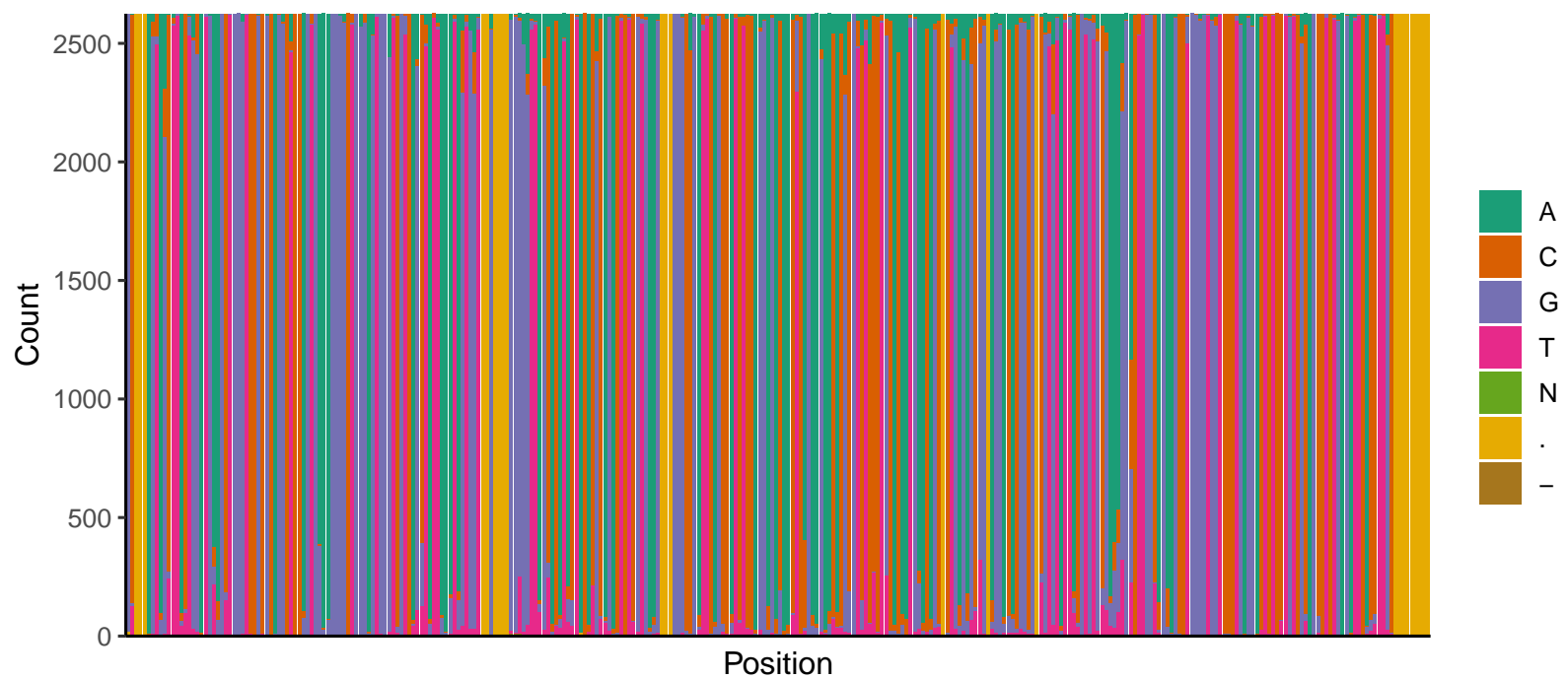
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Gene IGHV3-116*02_G8A_T109C



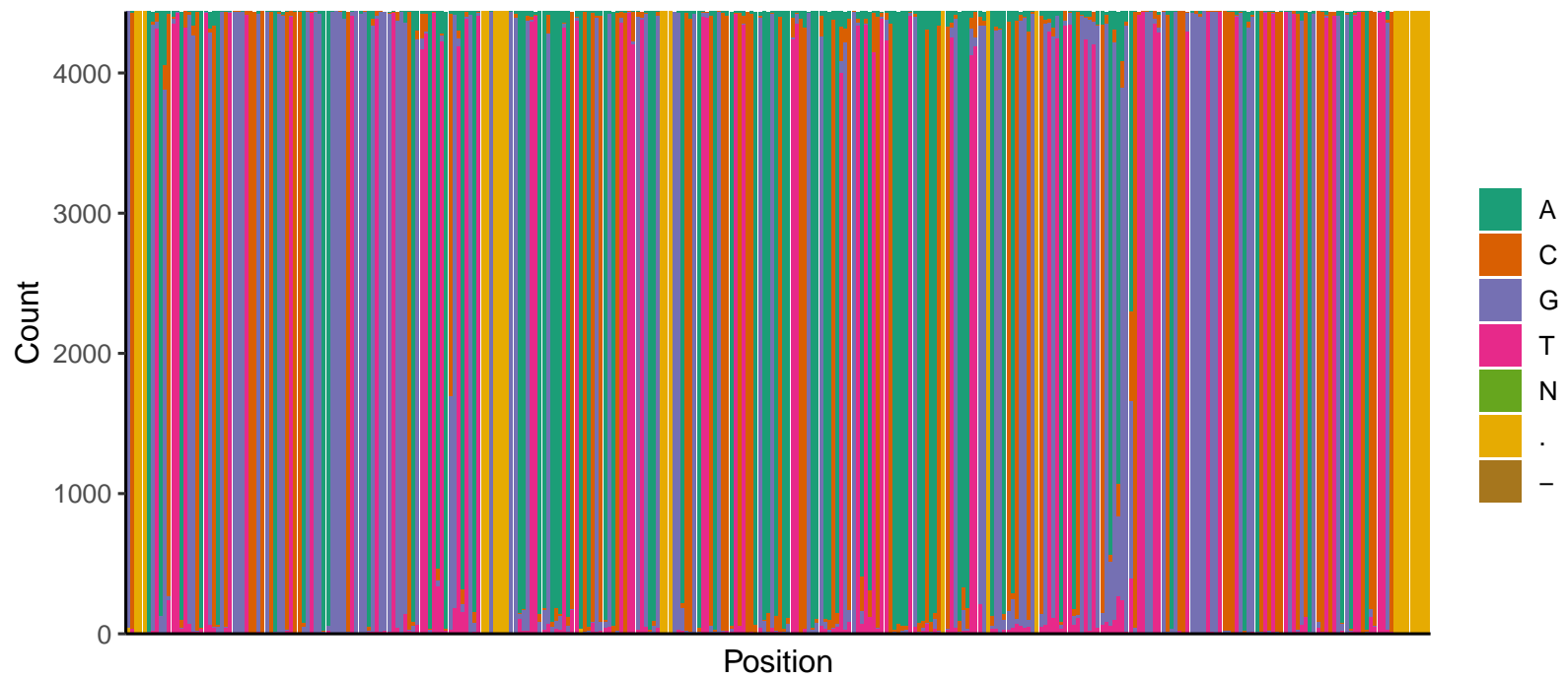
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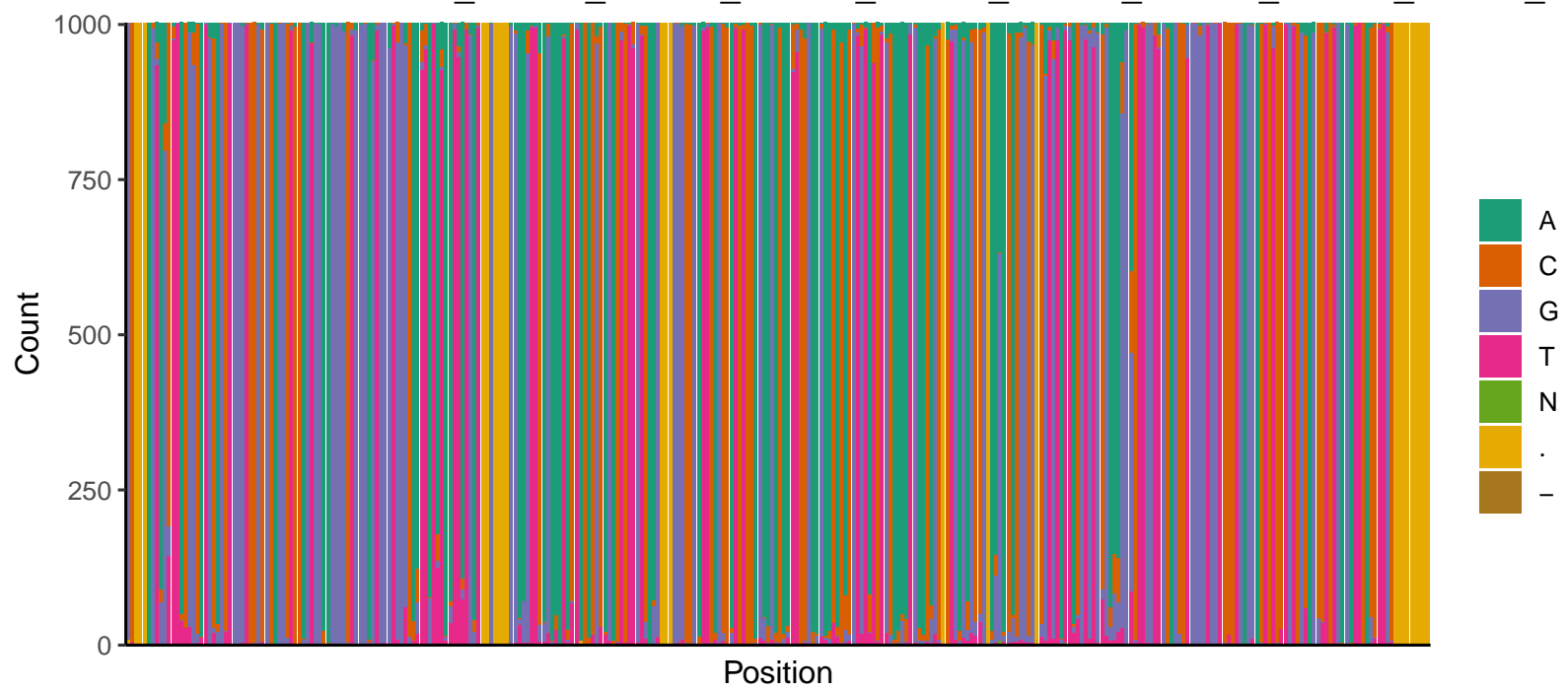
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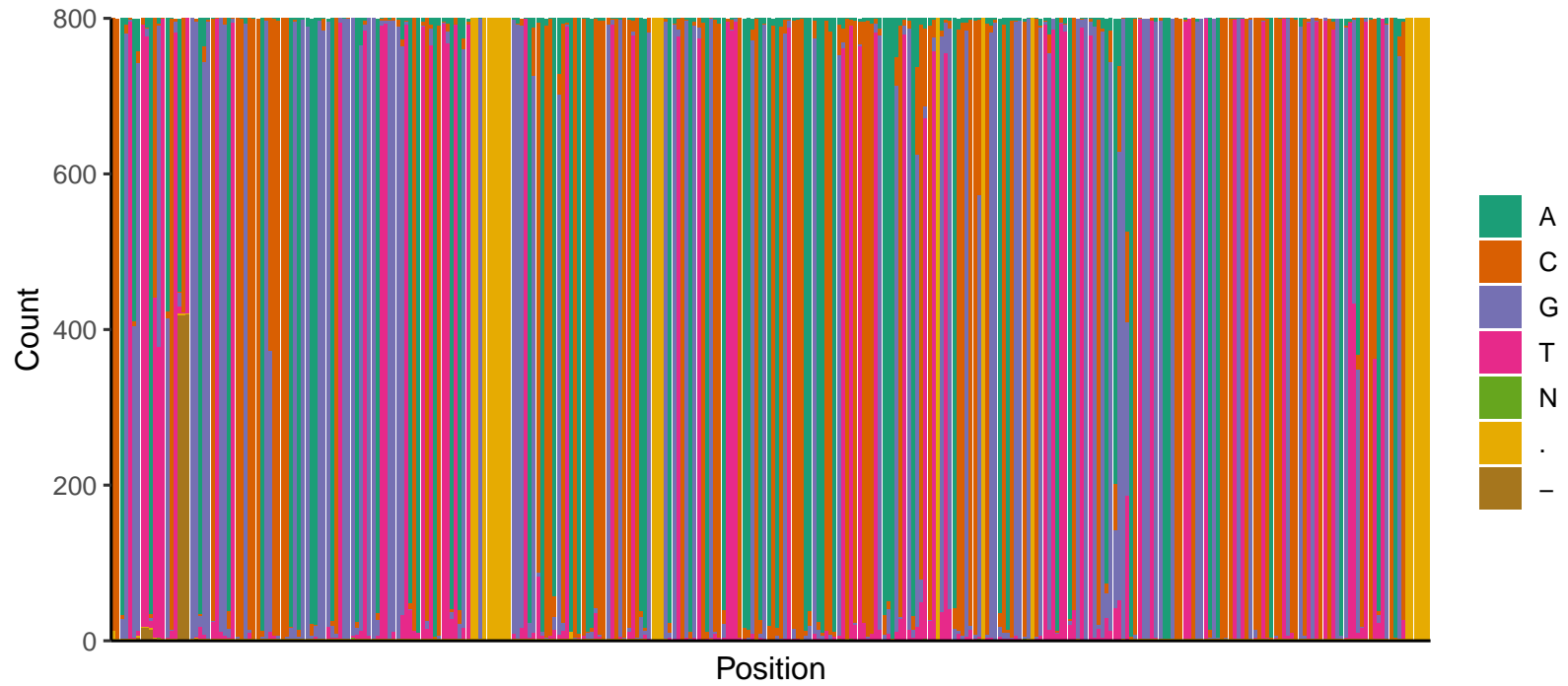
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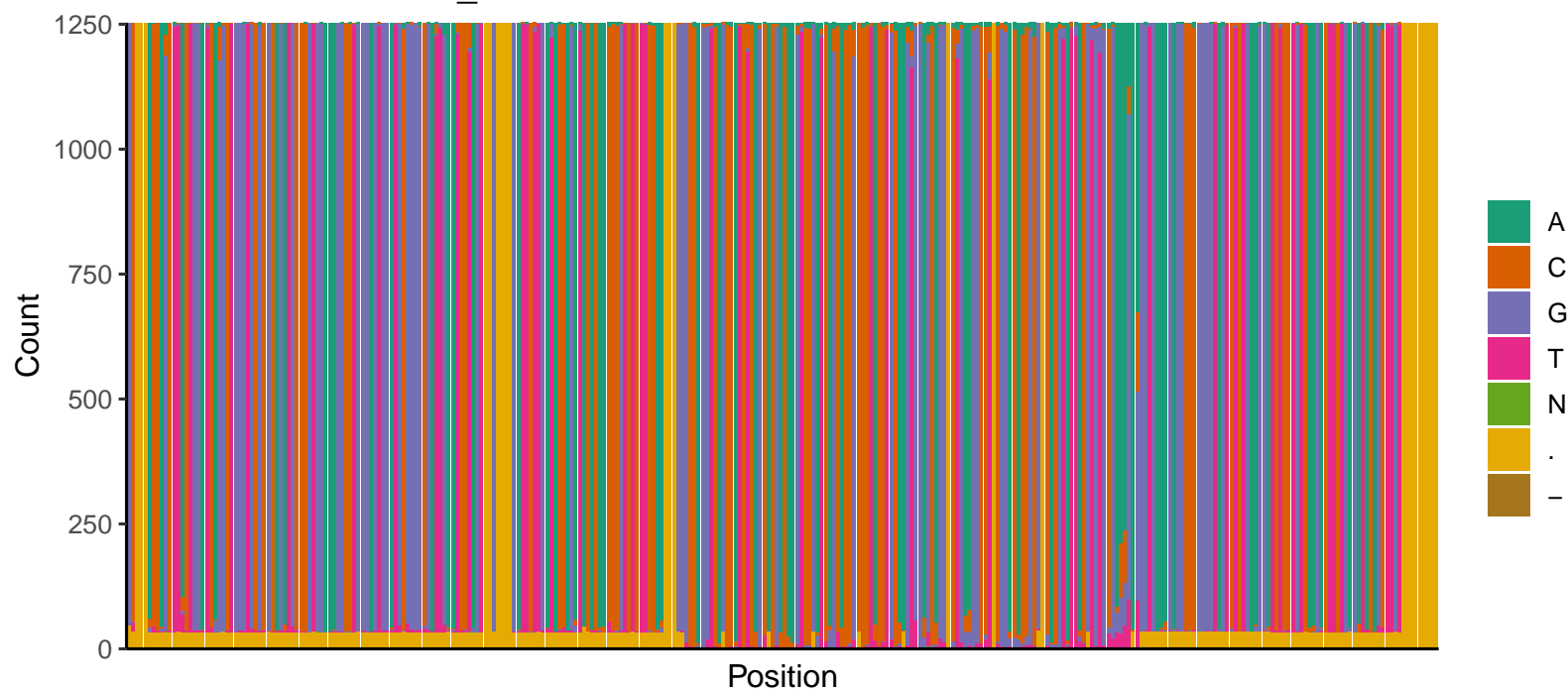
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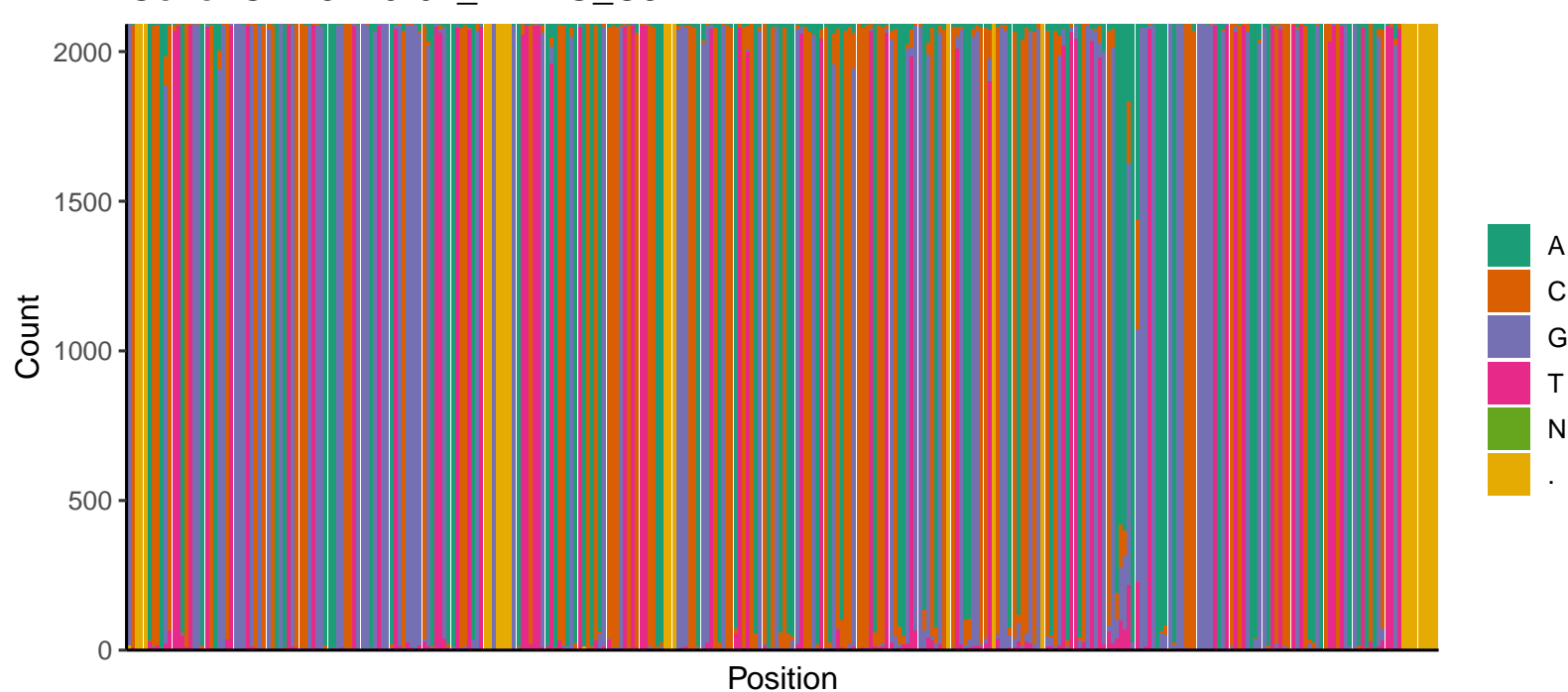
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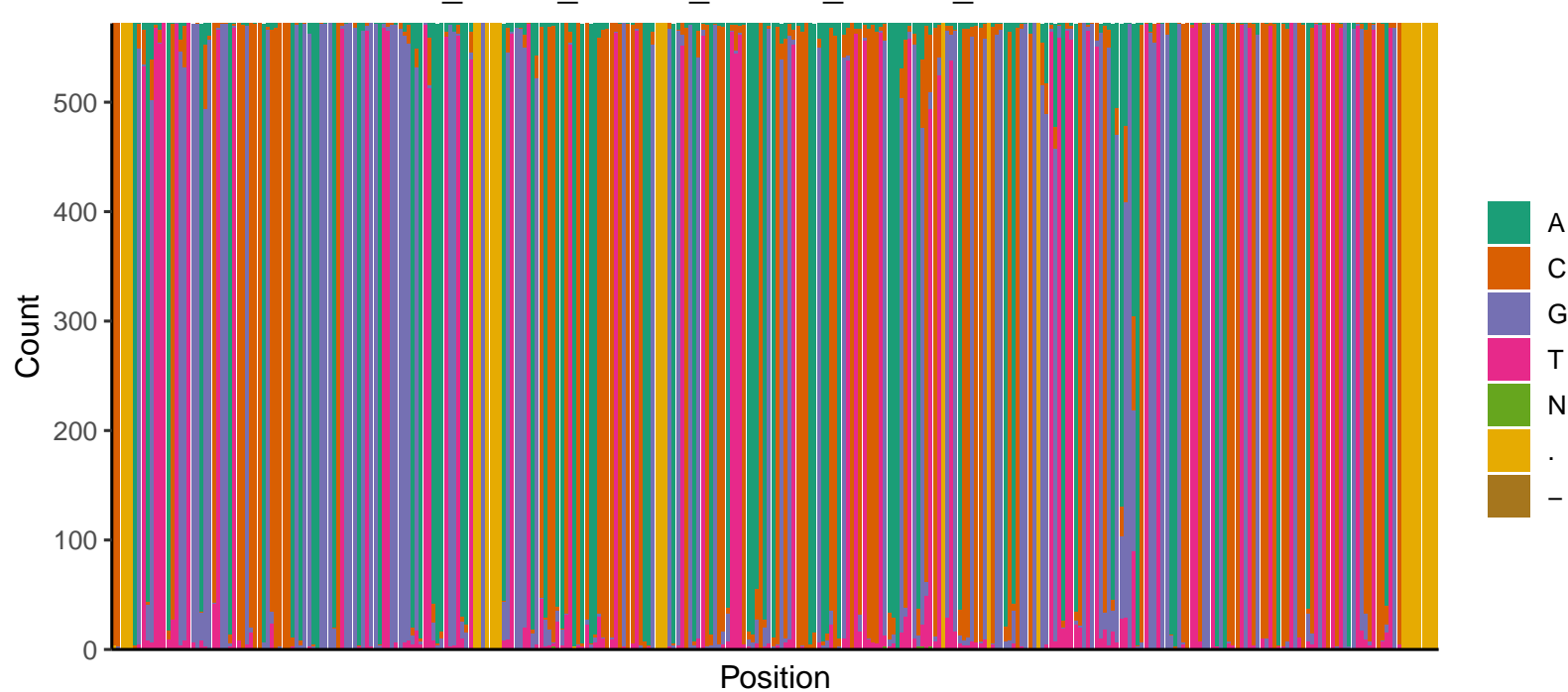
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Gene IGHV5-20*02_A141G_C312T



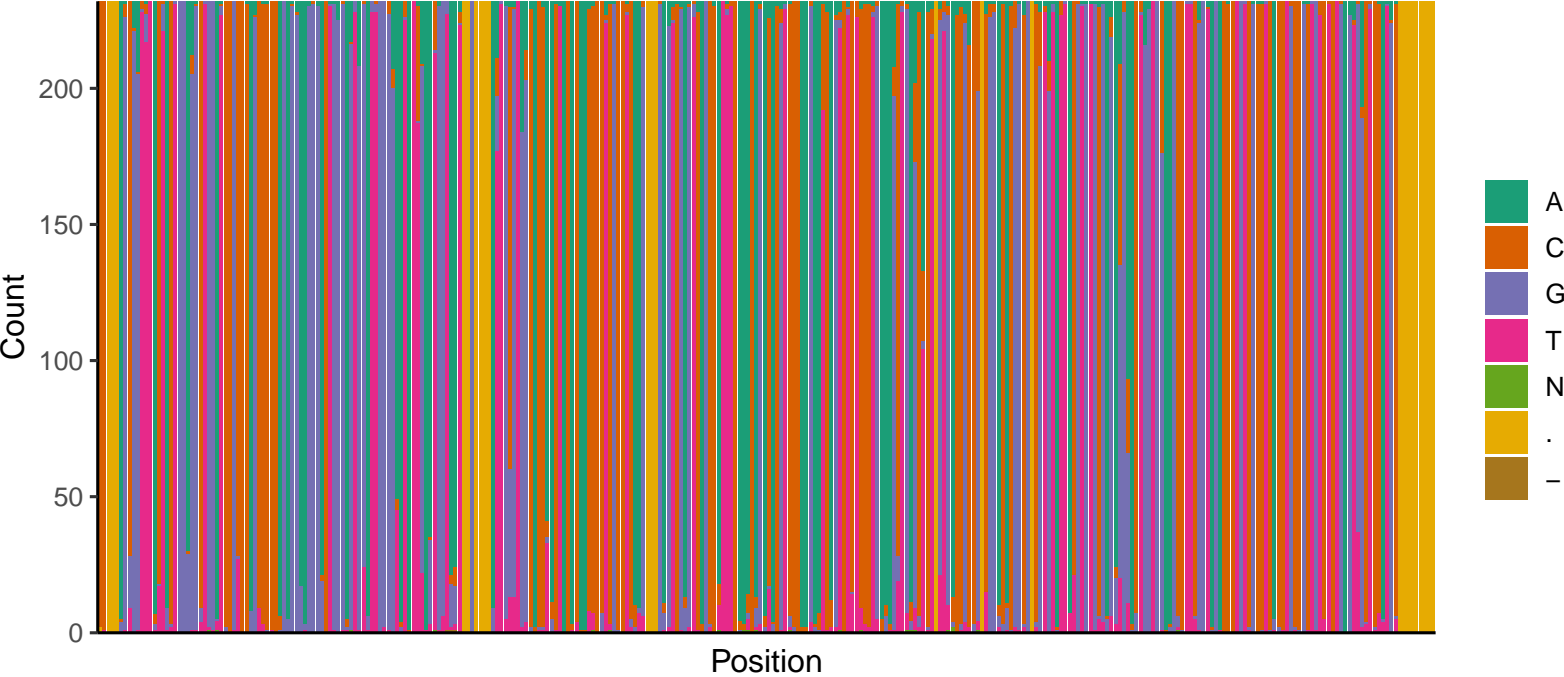
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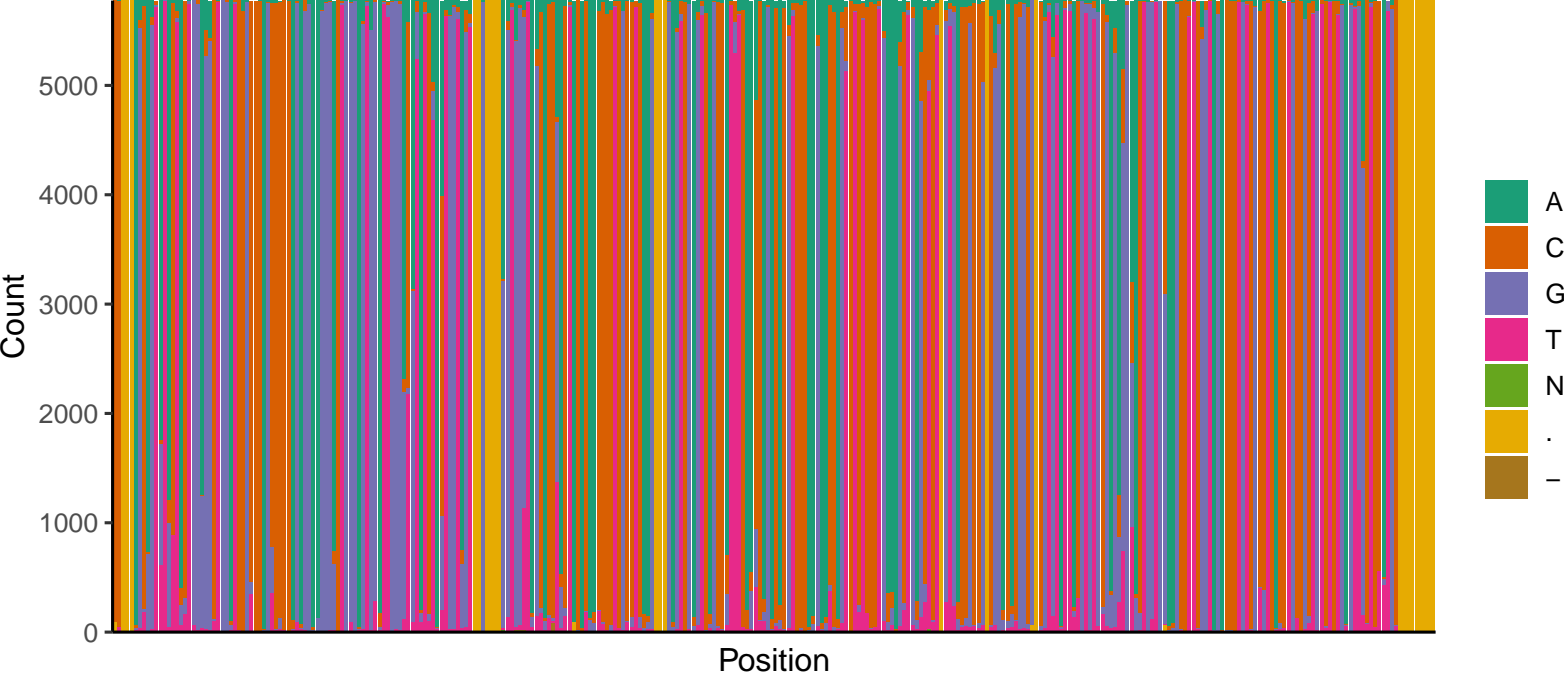
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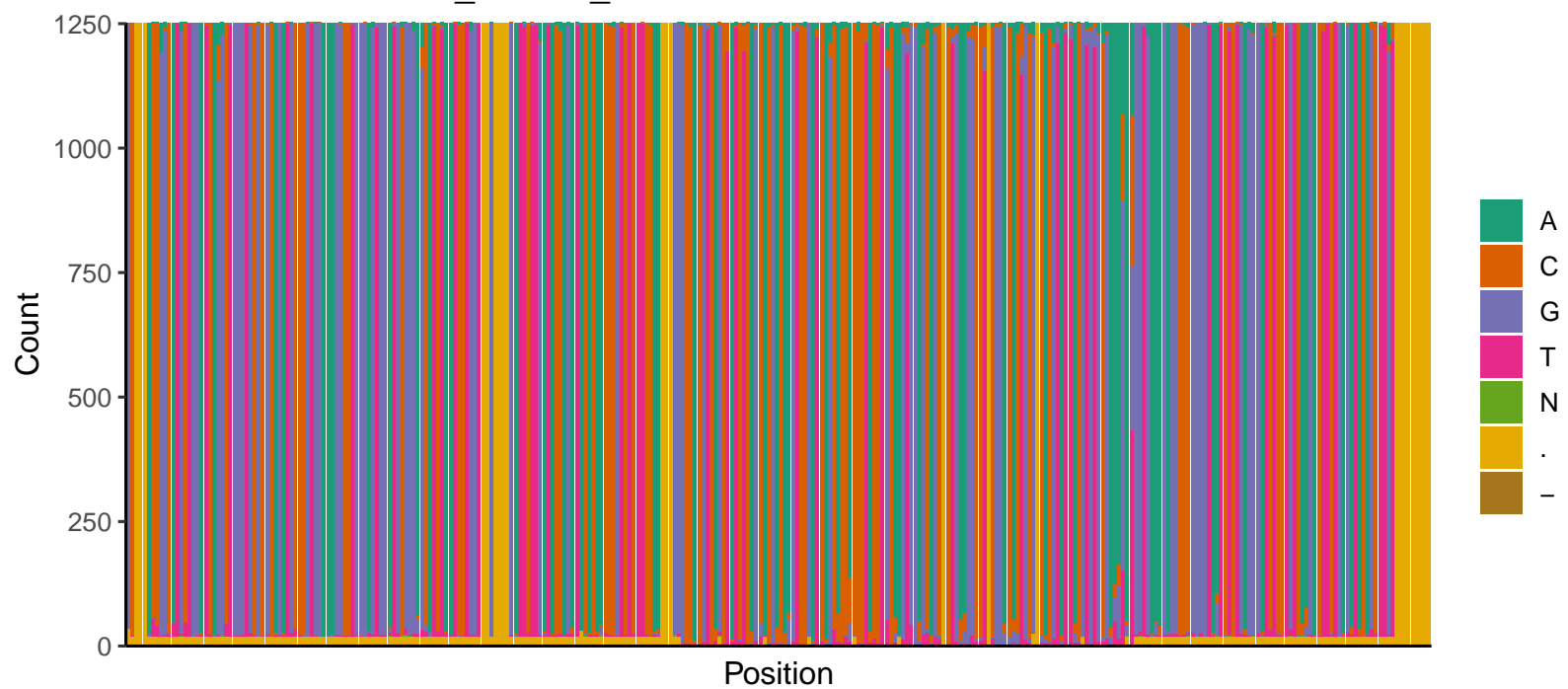
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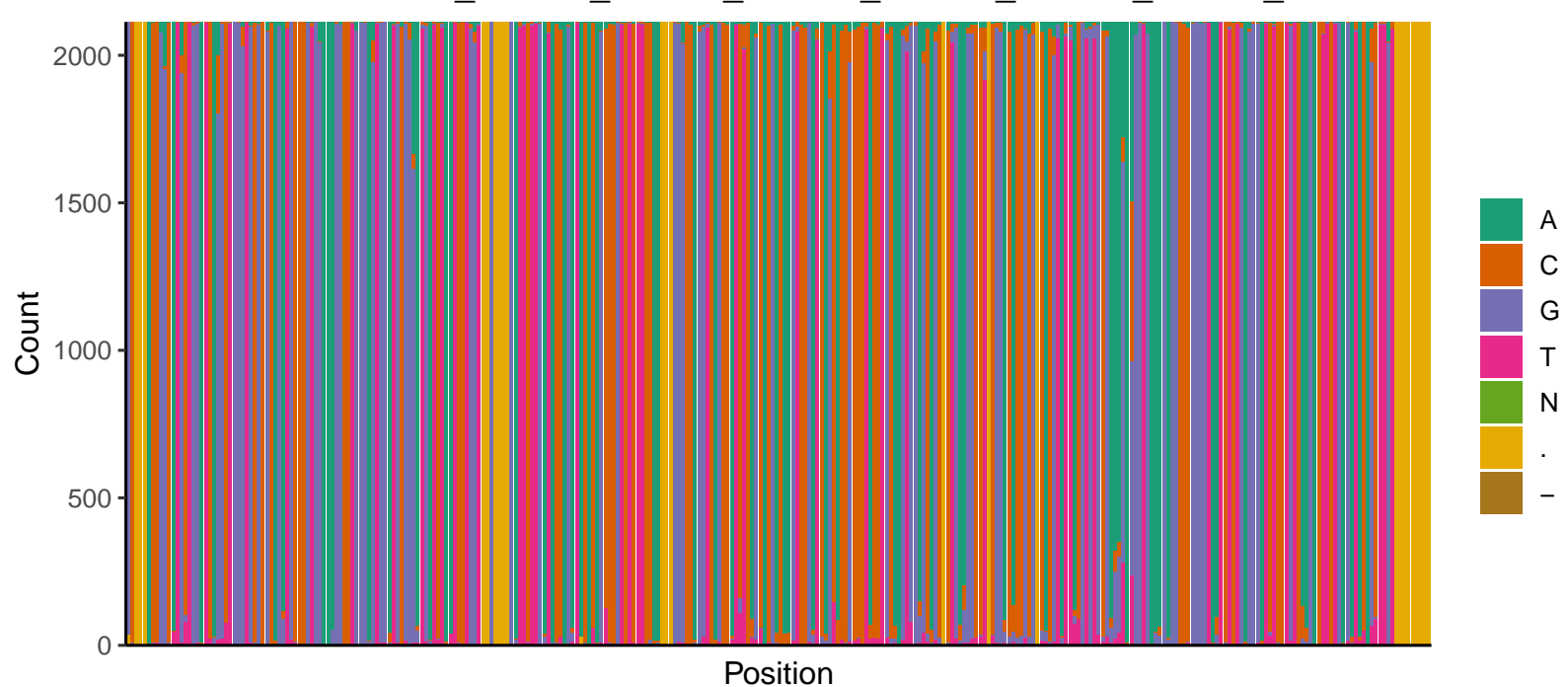
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Gene IGHV5-43*01_A106G_C297T



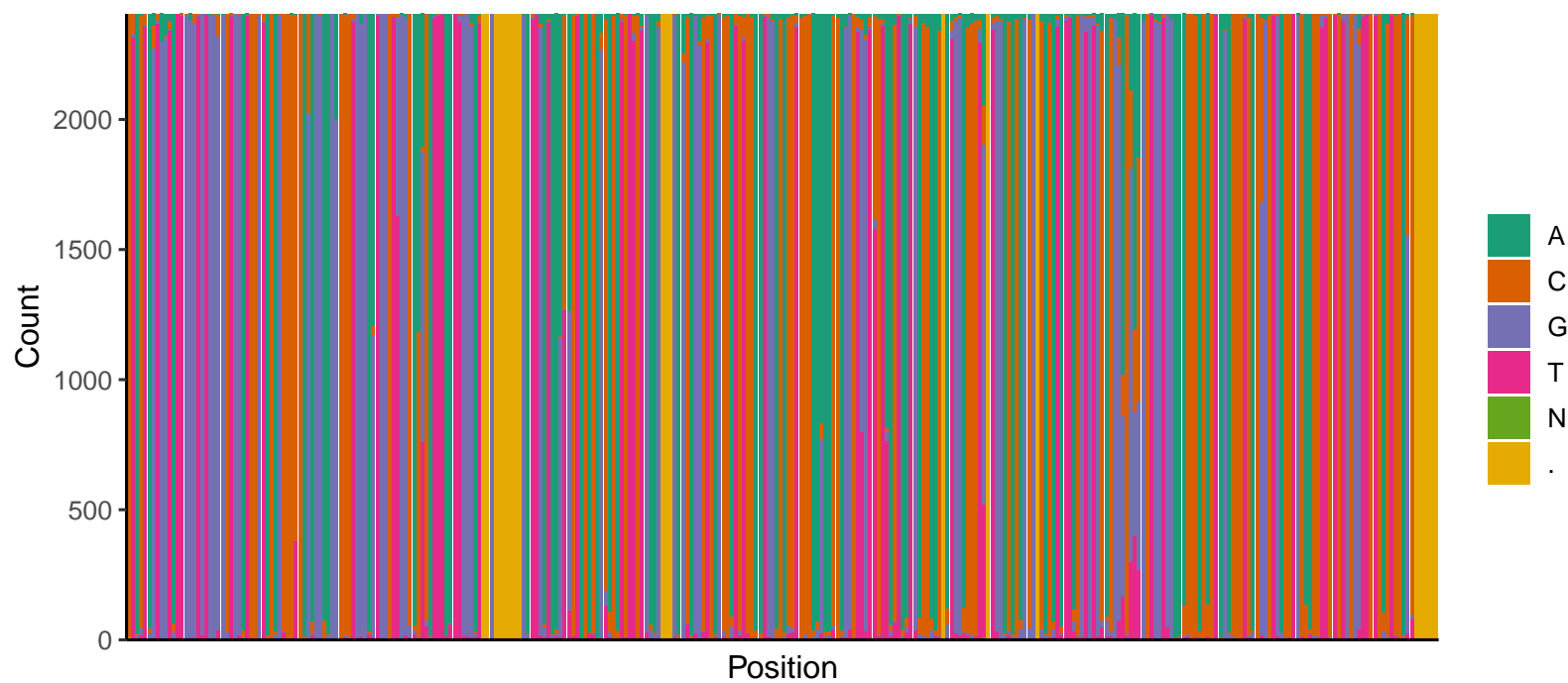
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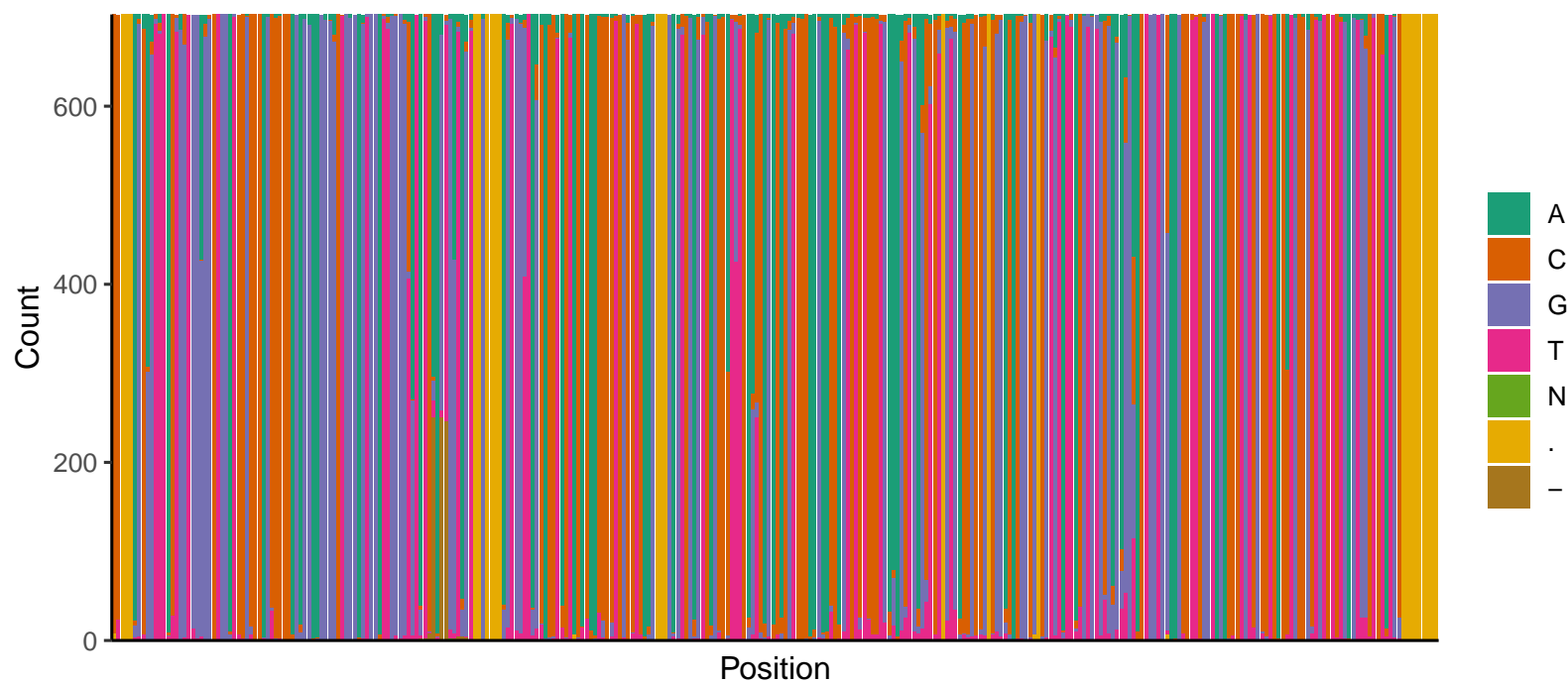
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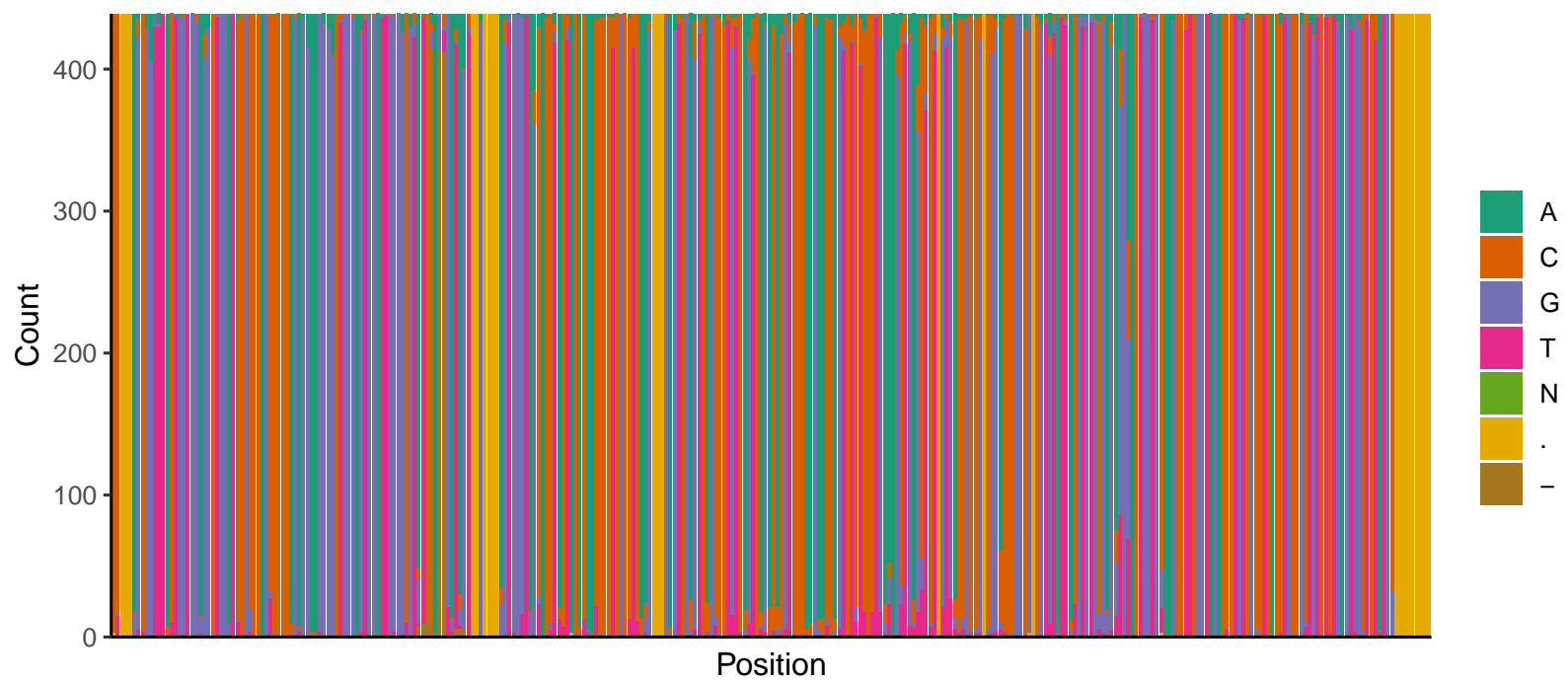
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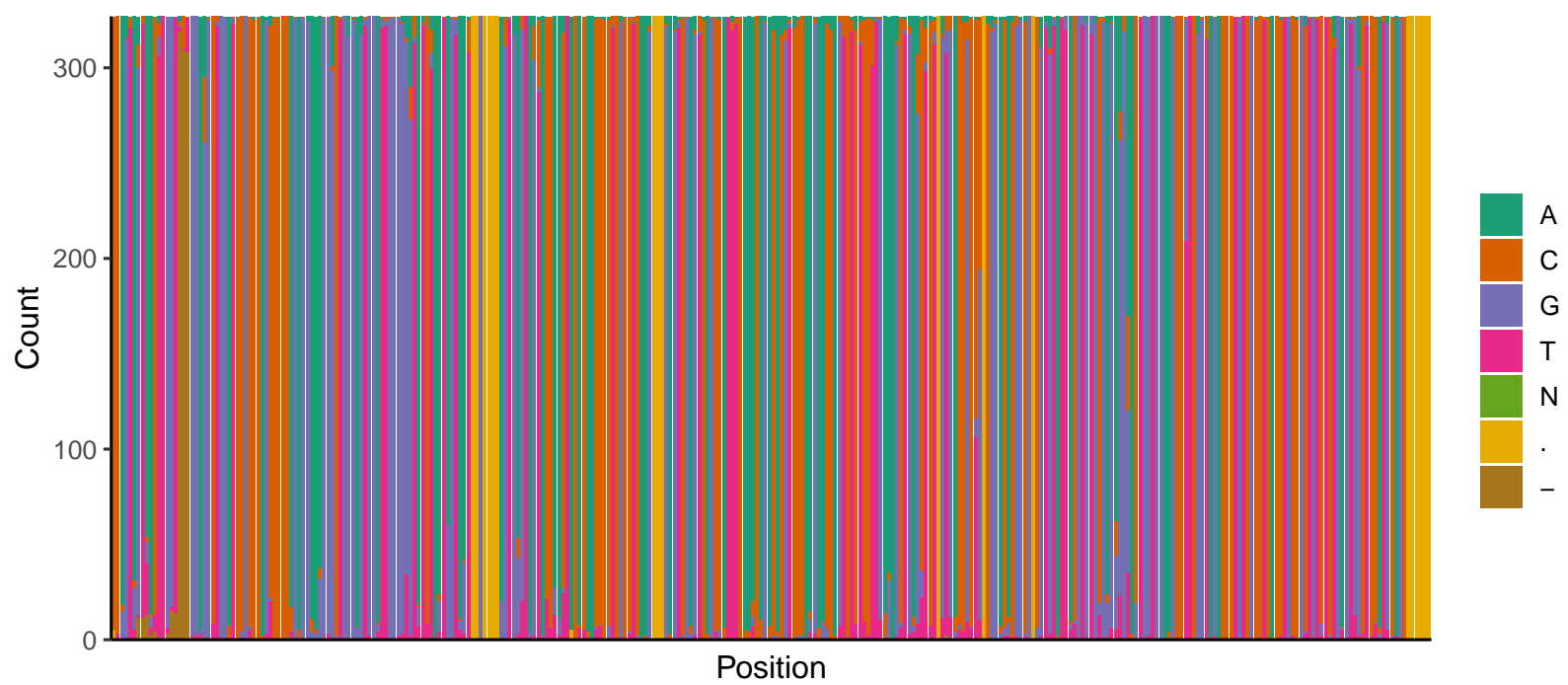
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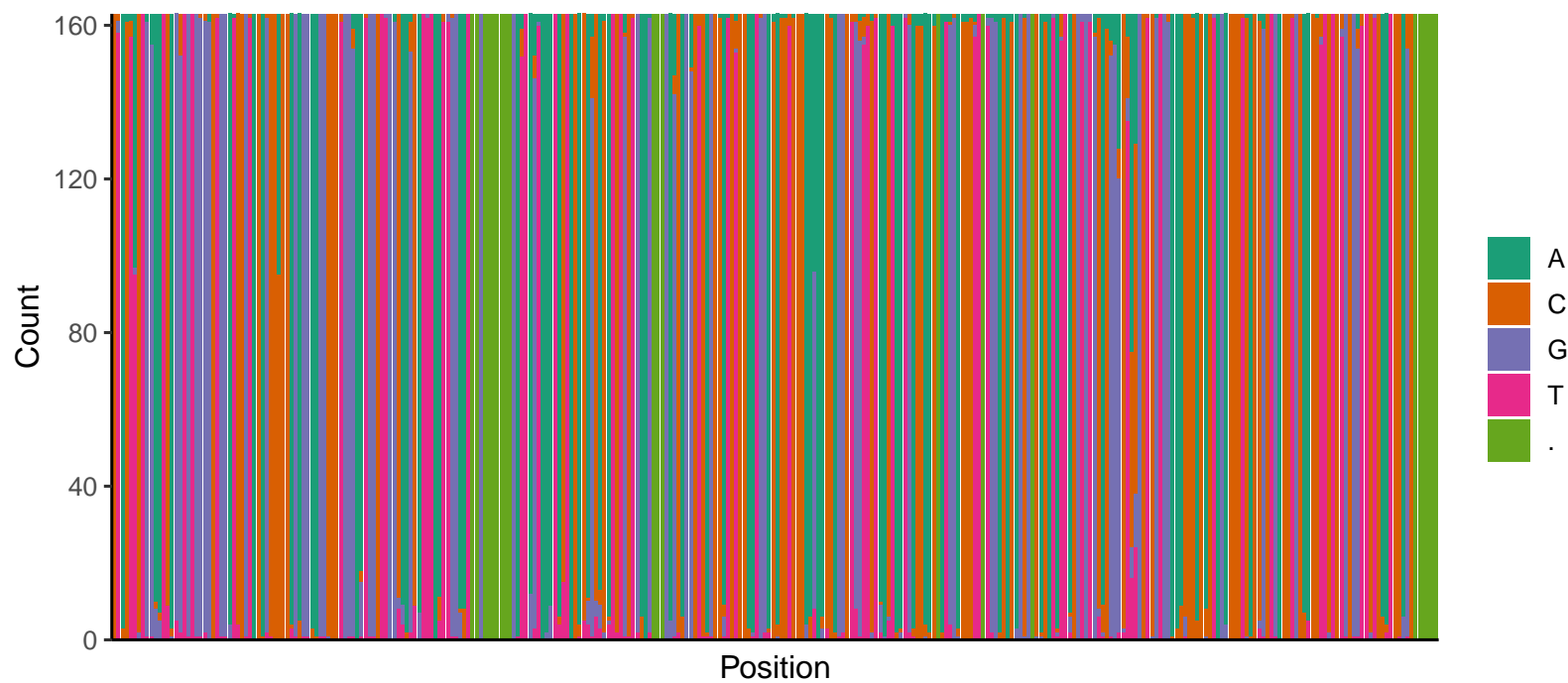
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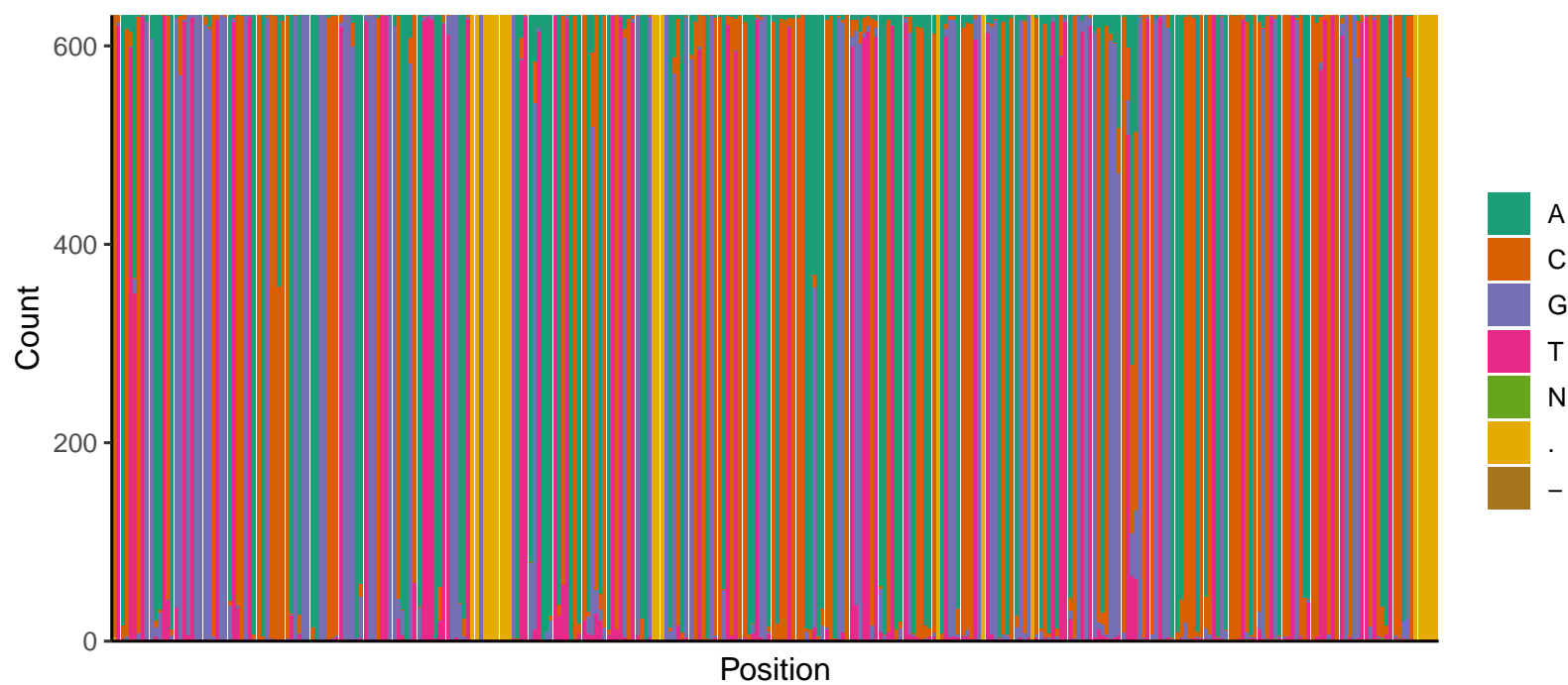
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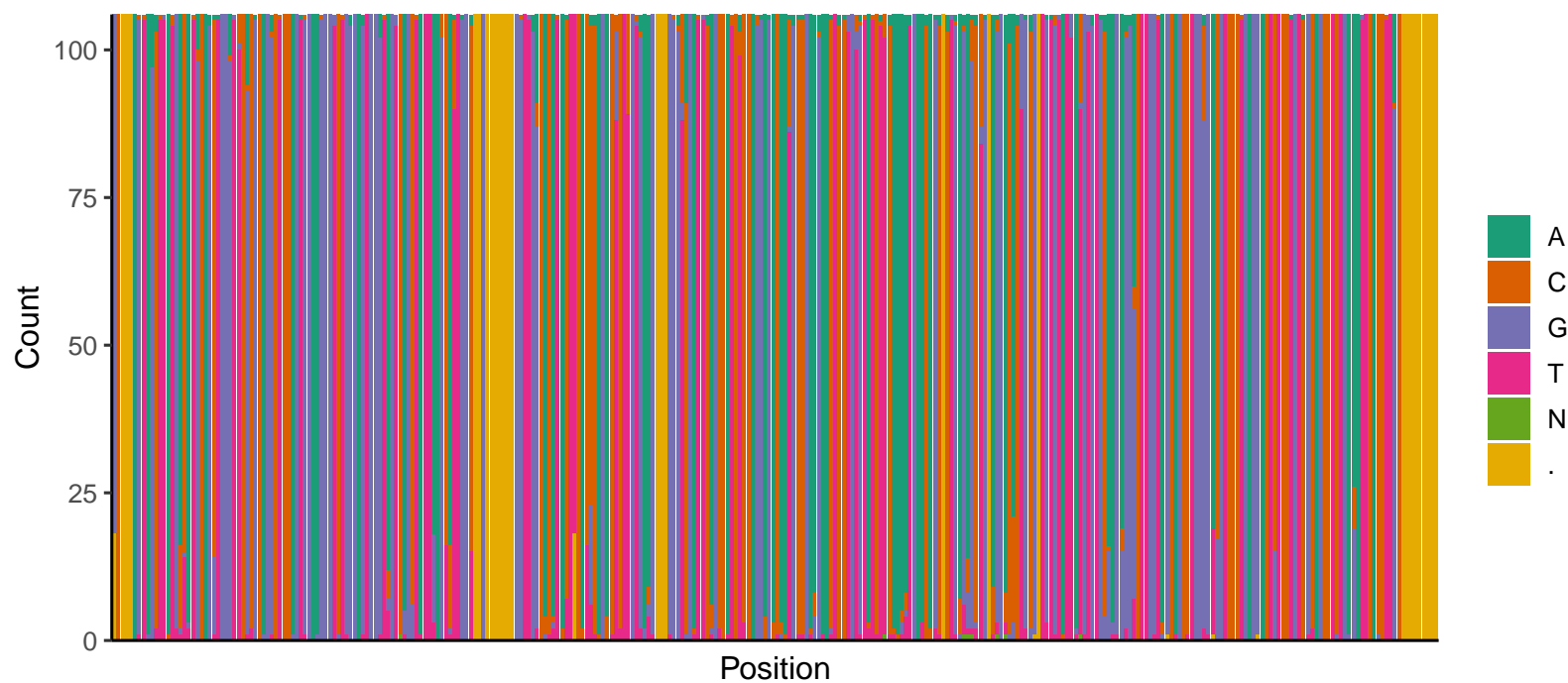
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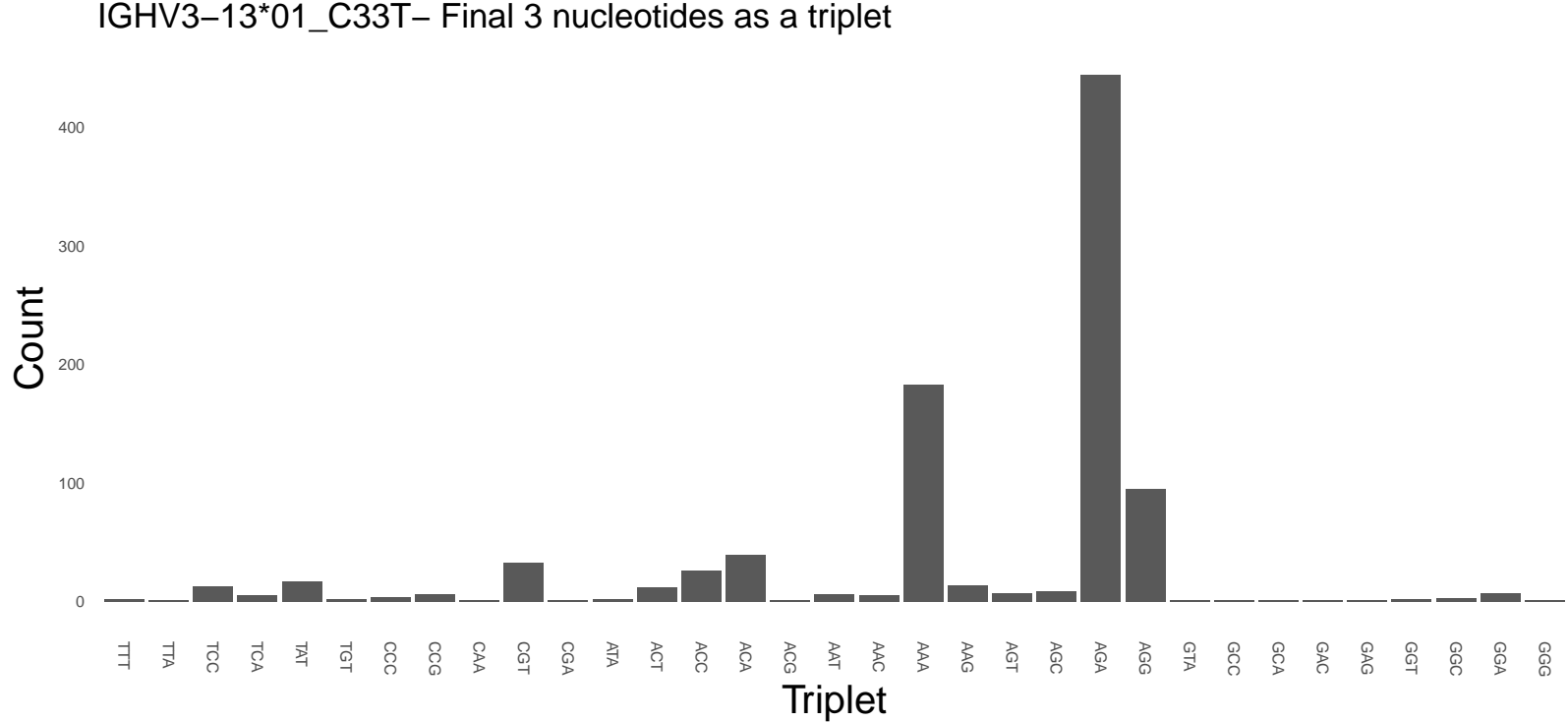
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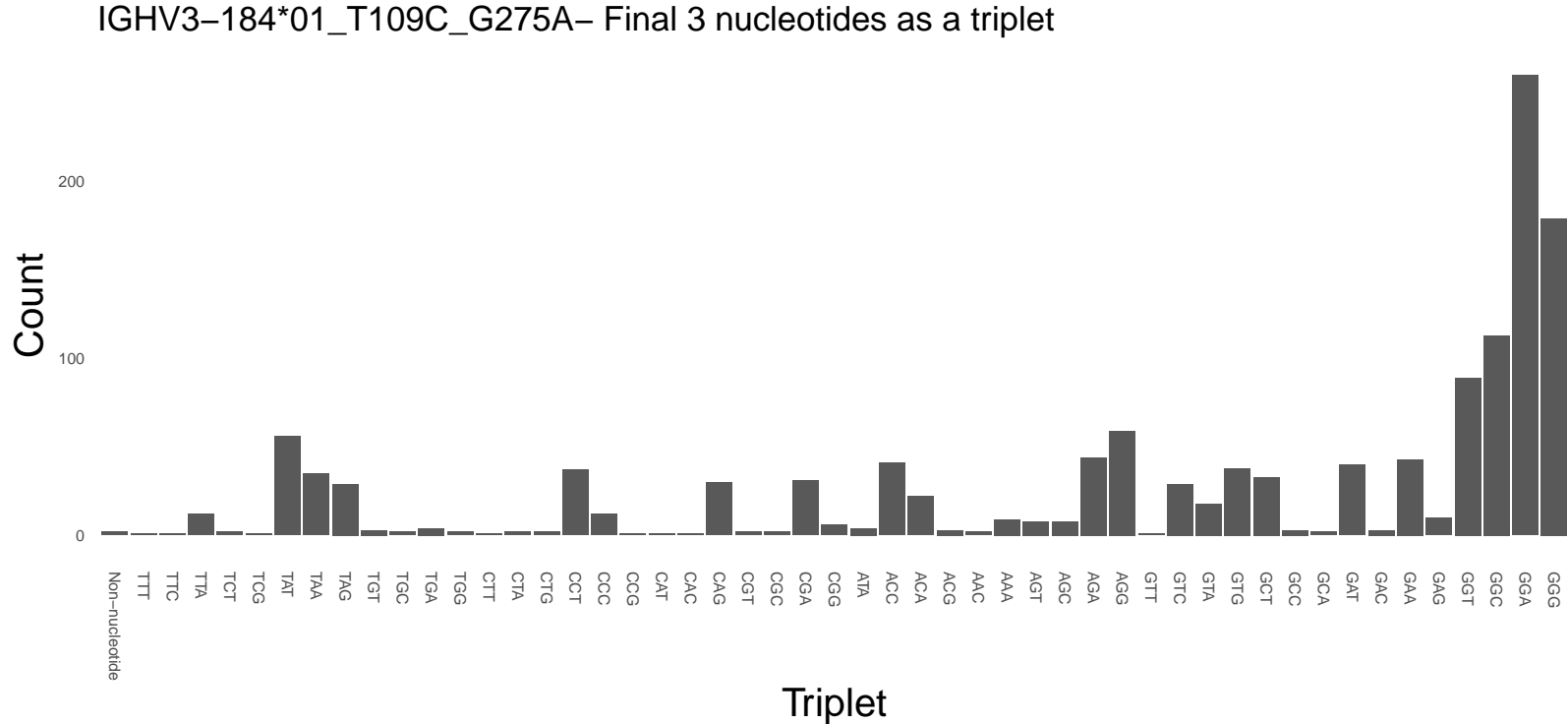
Gene IGHV3-132*01_G164C_A295C



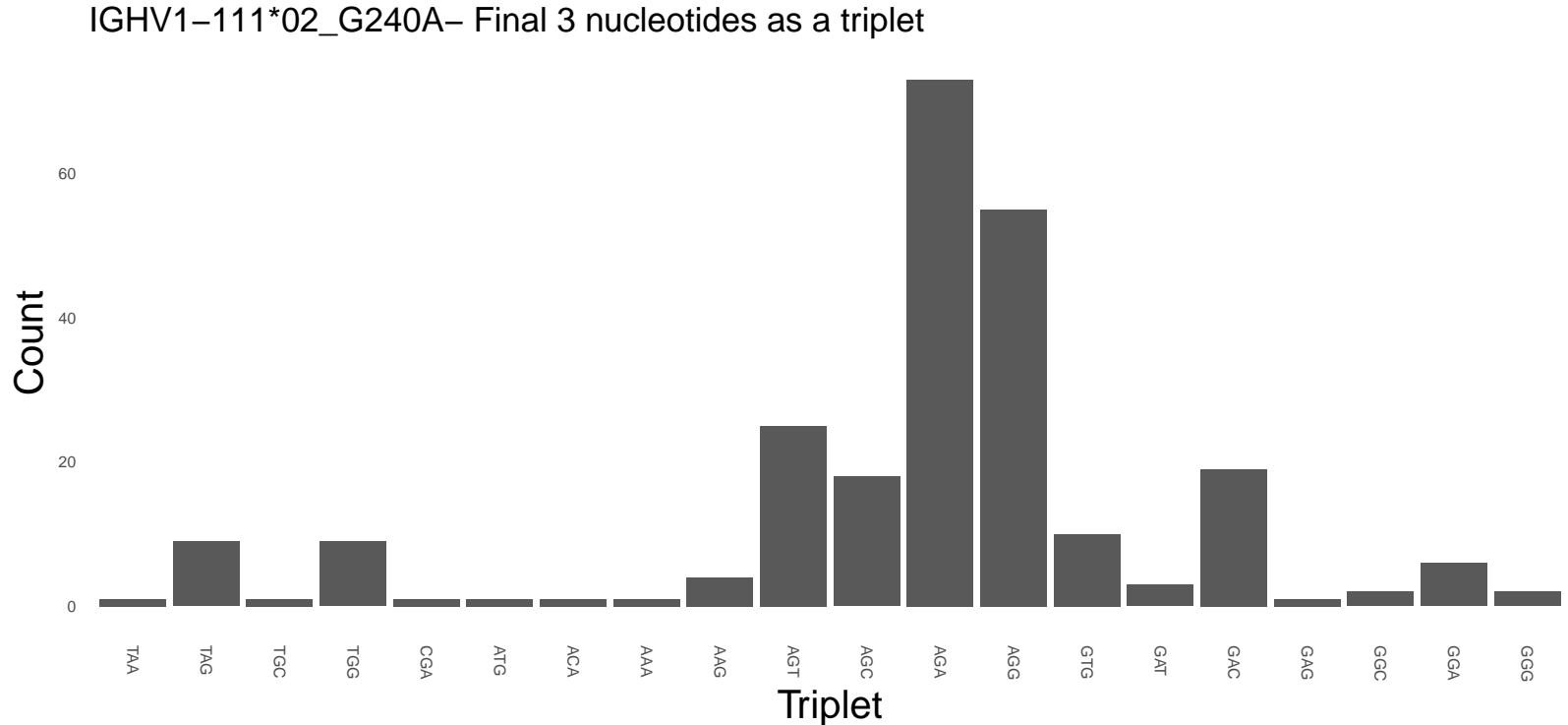
IGHV3-13*01_C33T- Final 3 nucleotides as a triplet



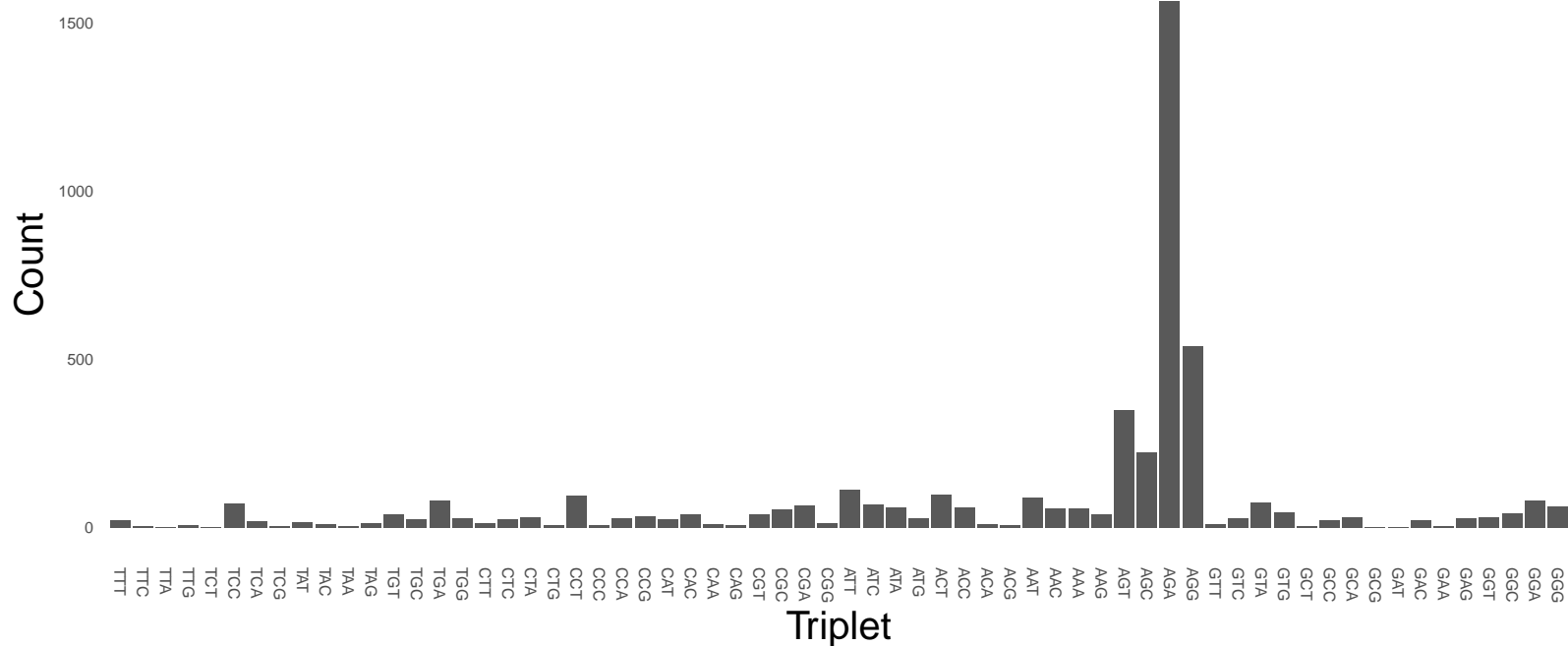
IGHV3-184*01_T109C_G275A- Final 3 nucleotides as a triplet



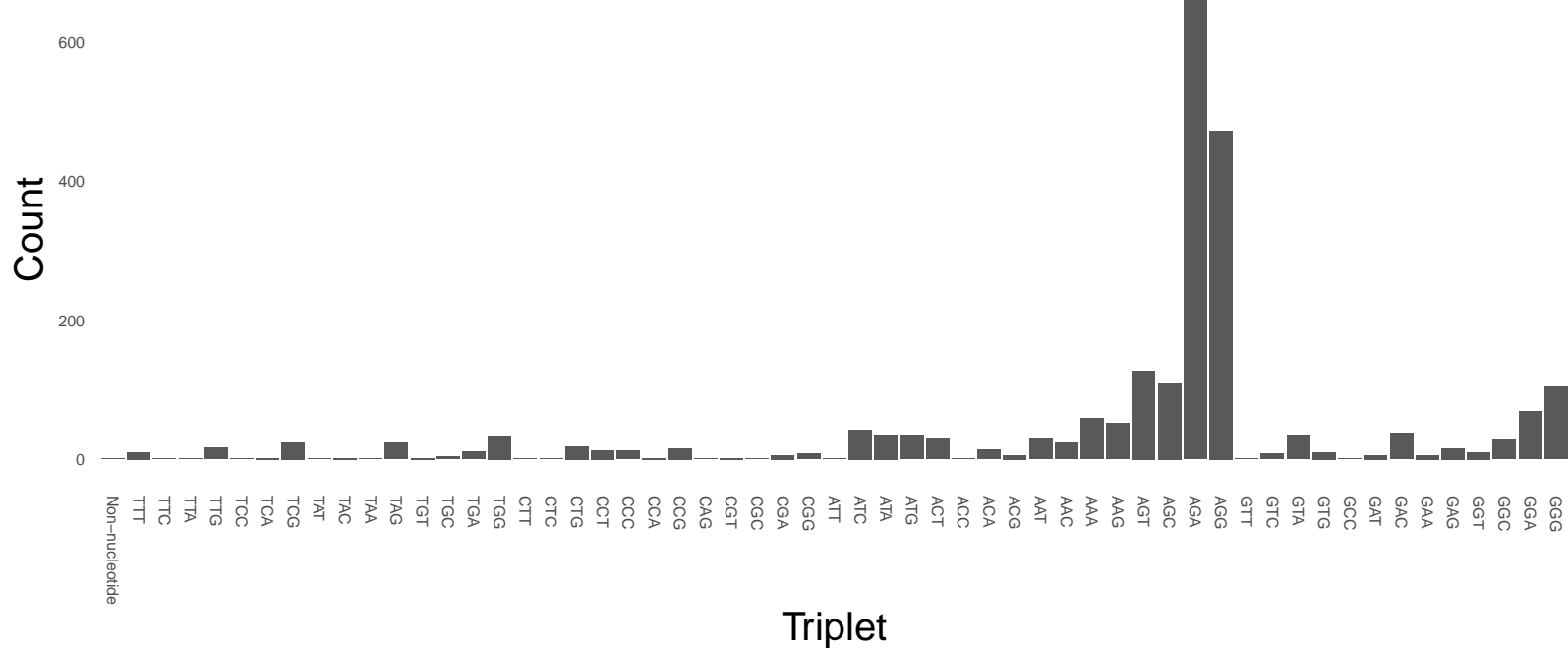
IGHV1-111*02_G240A- Final 3 nucleotides as a triplet



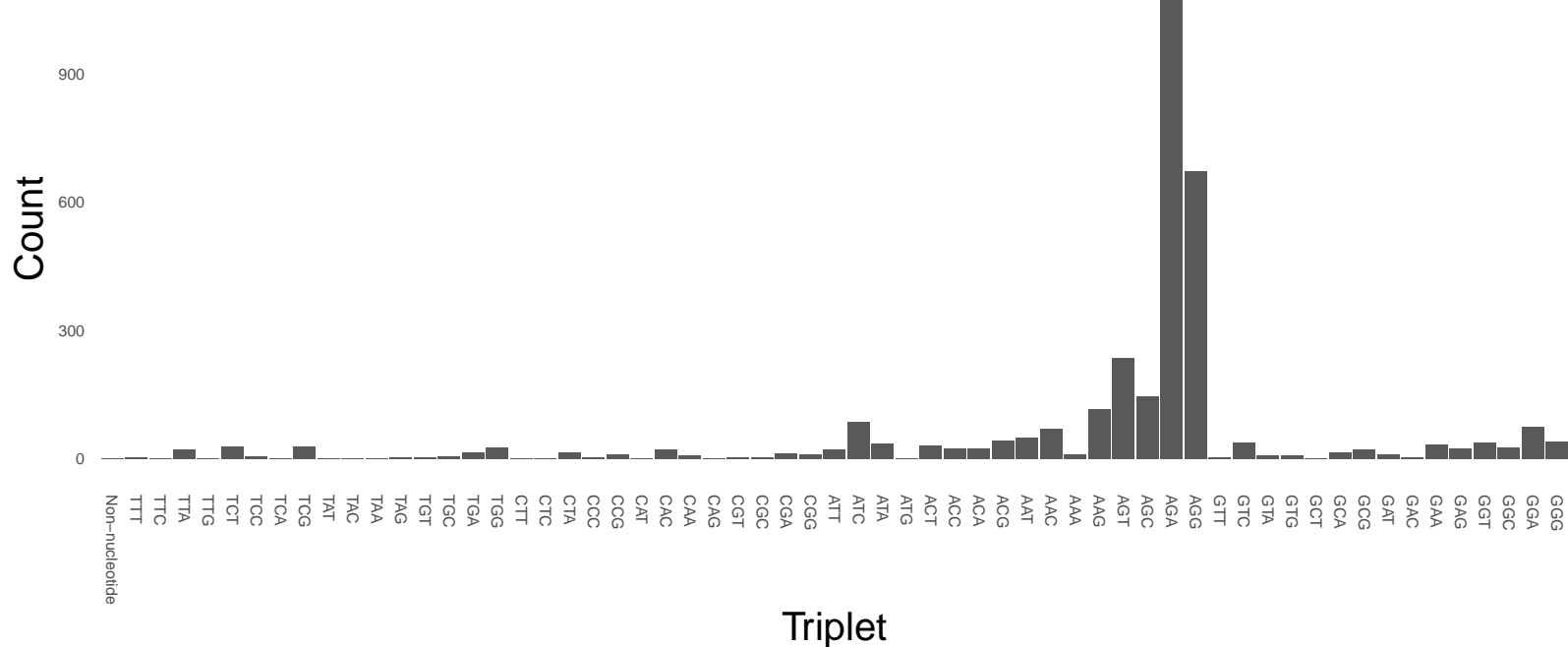
IGHV3-30*01_G174C_A188G_G189A_C264T- Final 3 nucleotides as a triplet



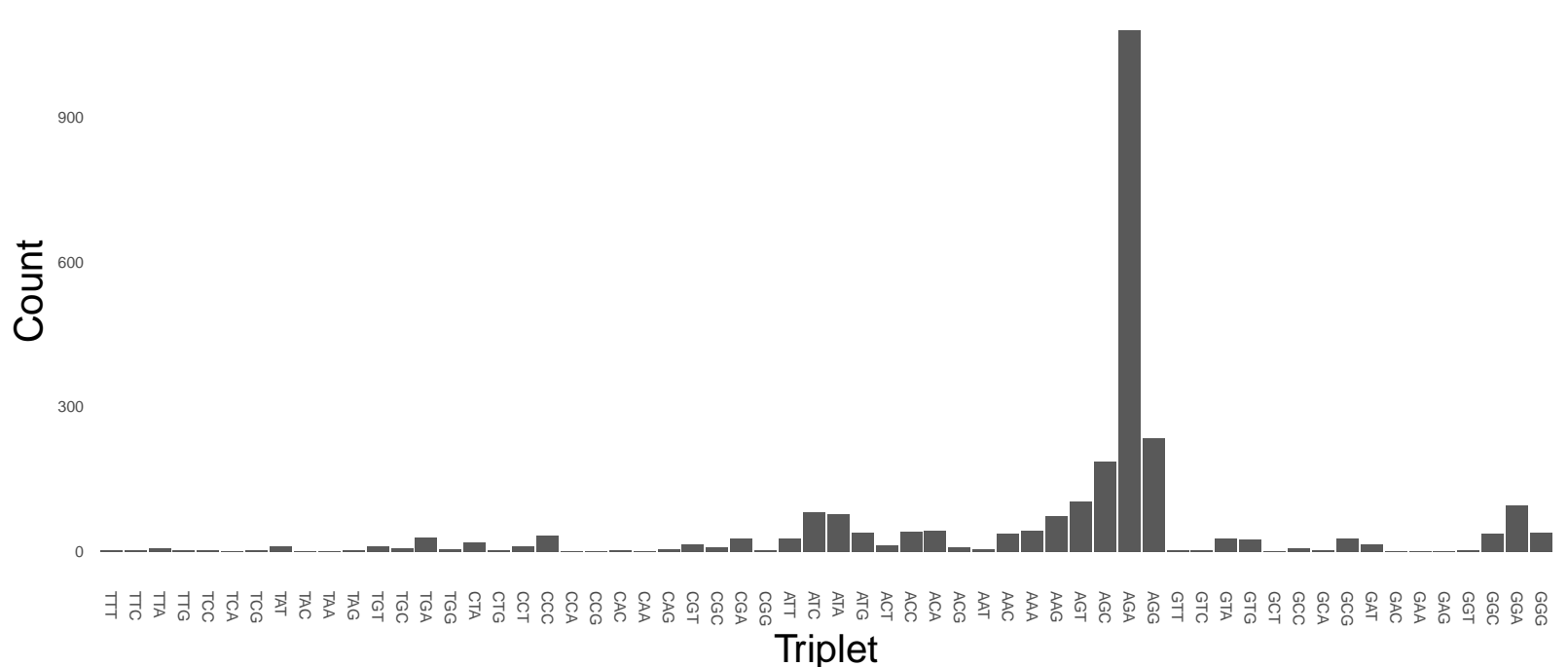
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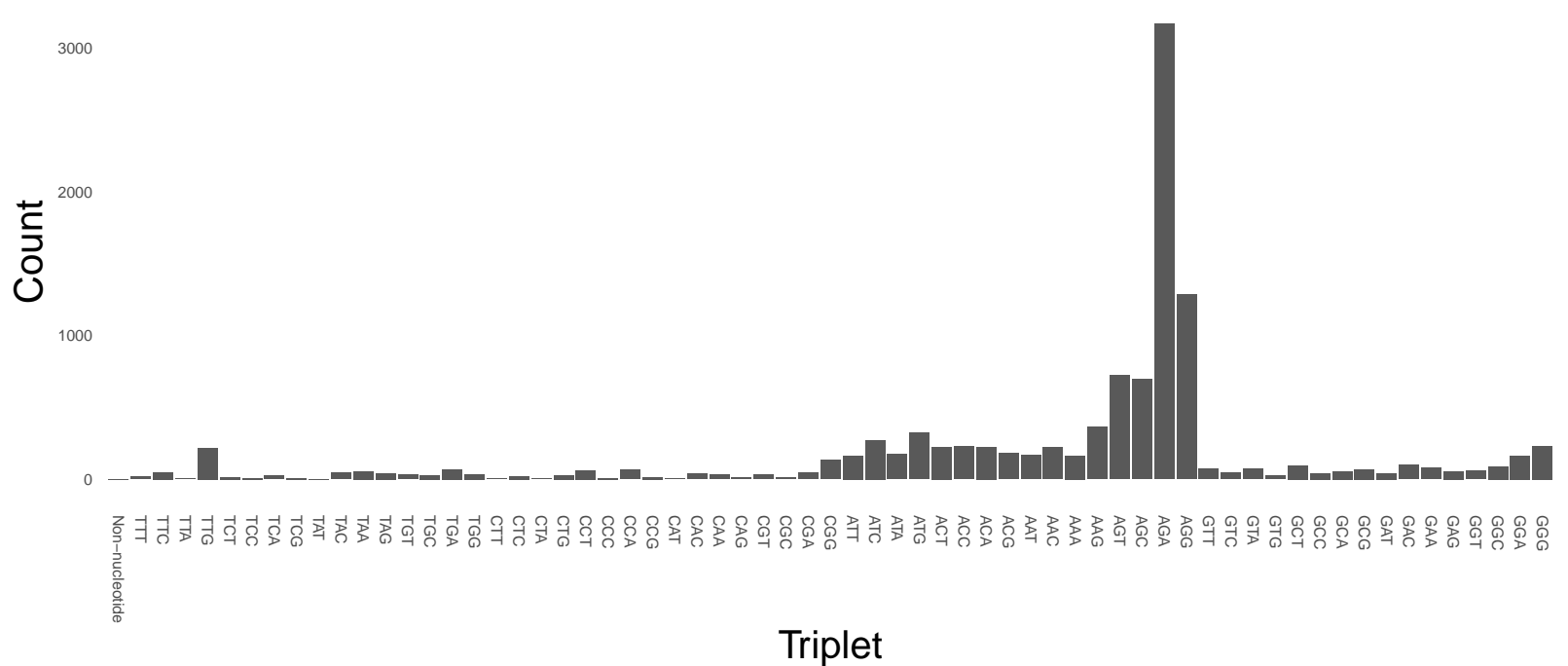
IGHV3-116*02_G8A_T109C- Final 3 nucleotides as a triplet



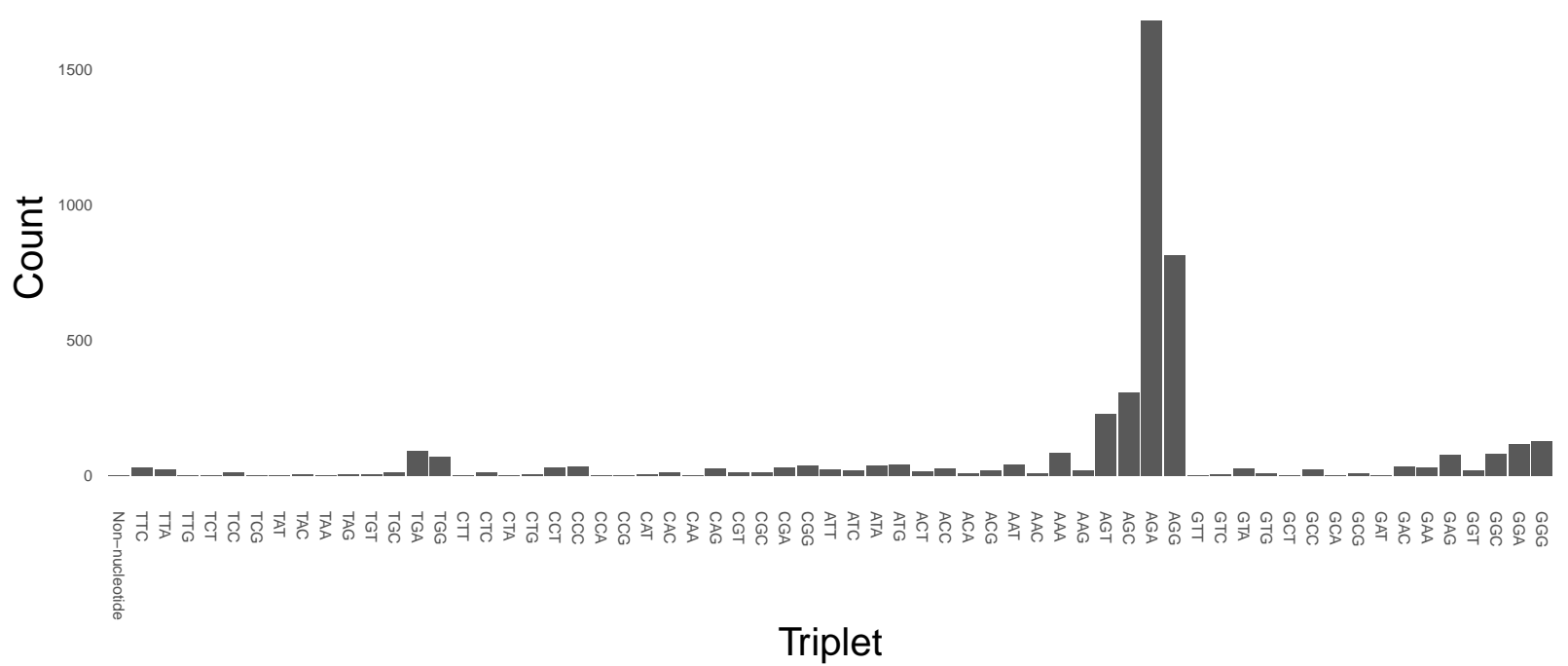
IGHV3S42*01_T120C_A133G_G141A_A157G_T288G– Final 3 nucleotides as a triplet



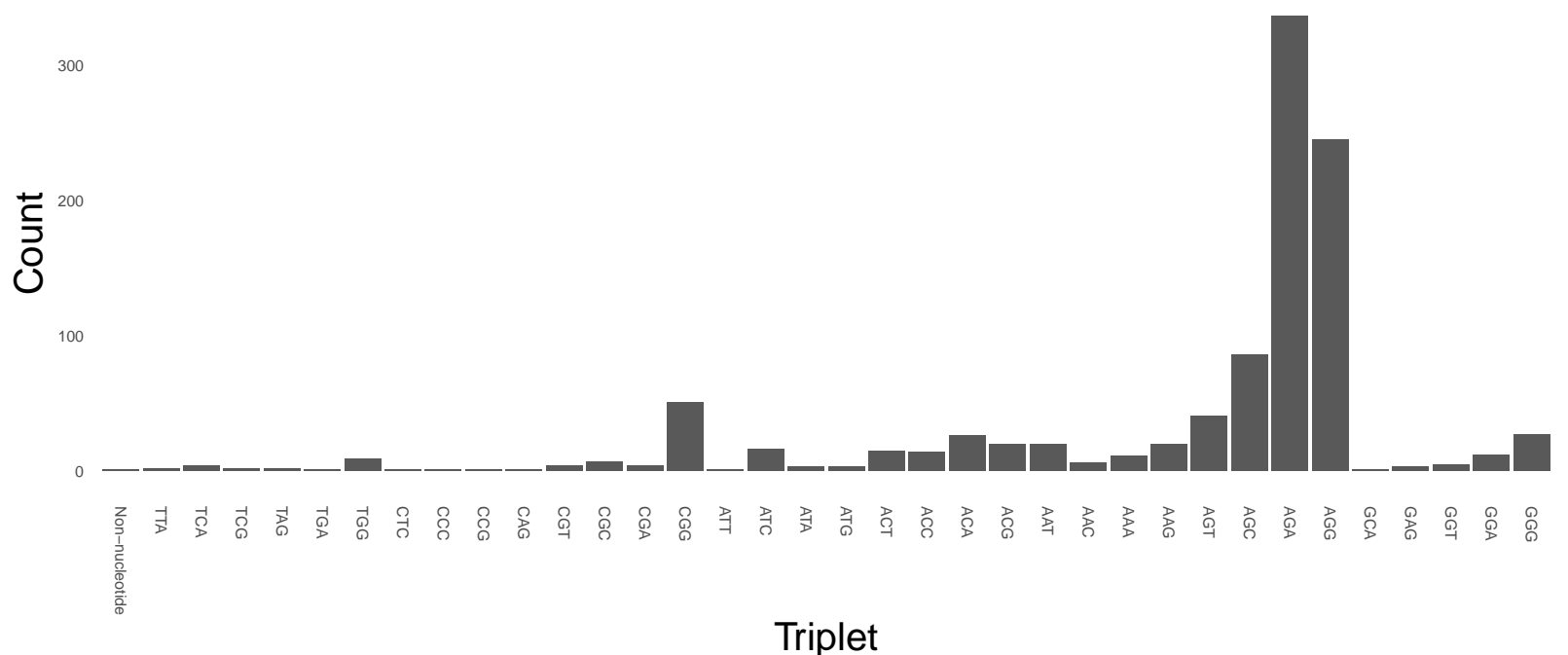
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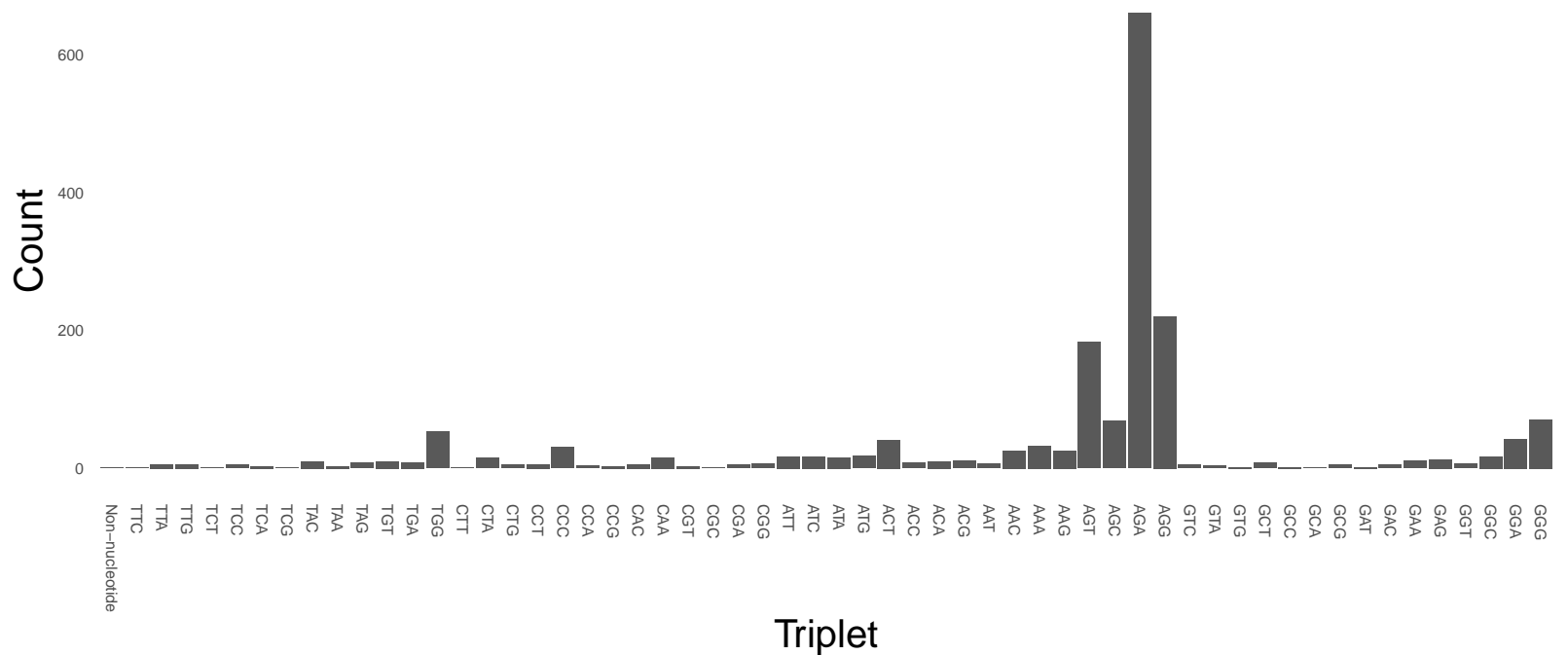
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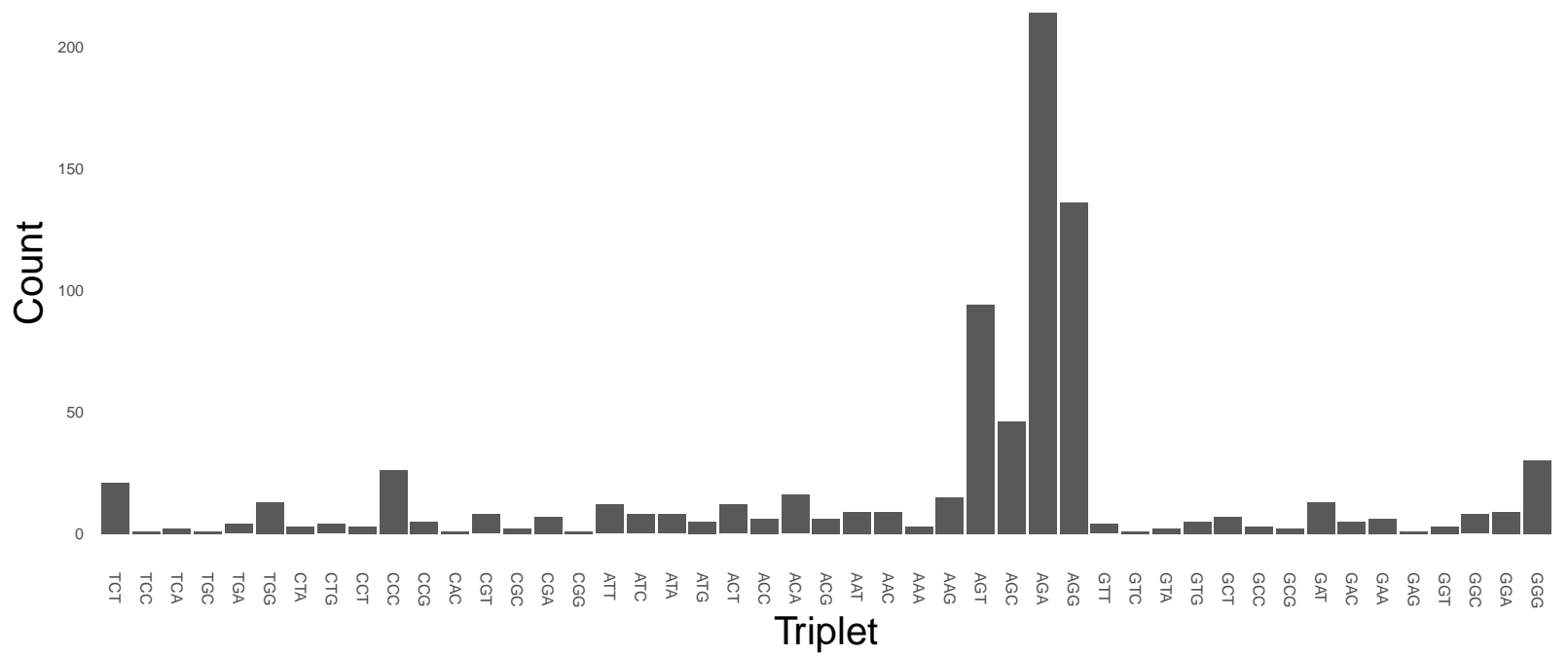
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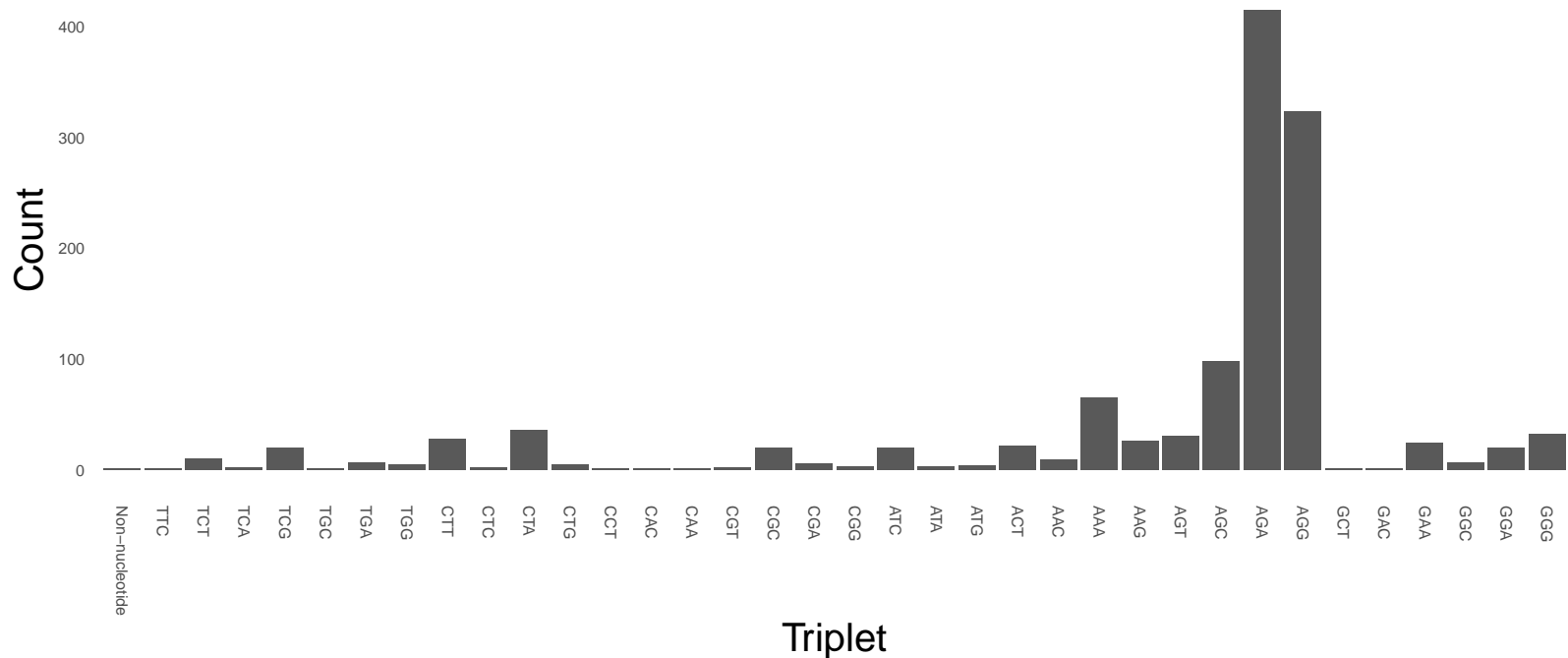
IGHV4-73*01_G147A- Final 3 nucleotides as a triplet



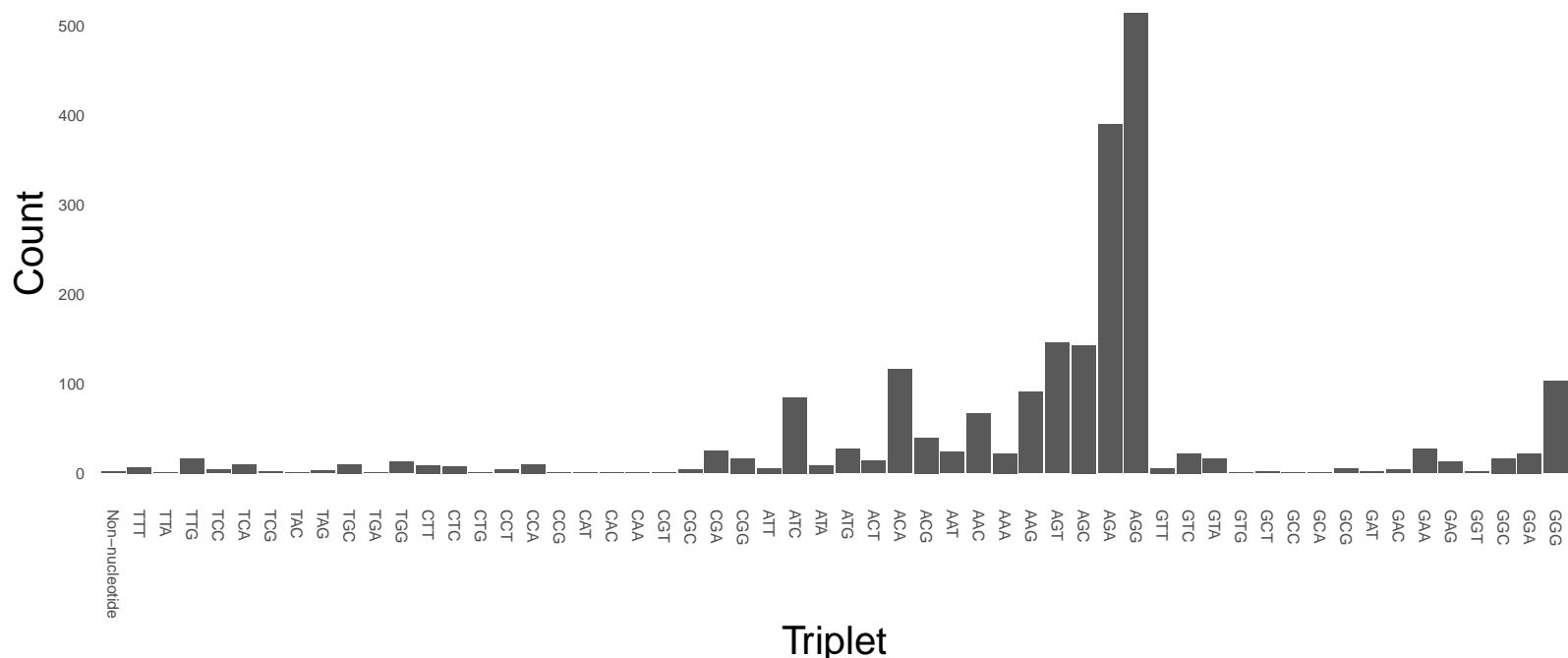
IGHV4-122*02_C87T_G103A_C133G_A169T- Final 3 nucleotides as a triplet



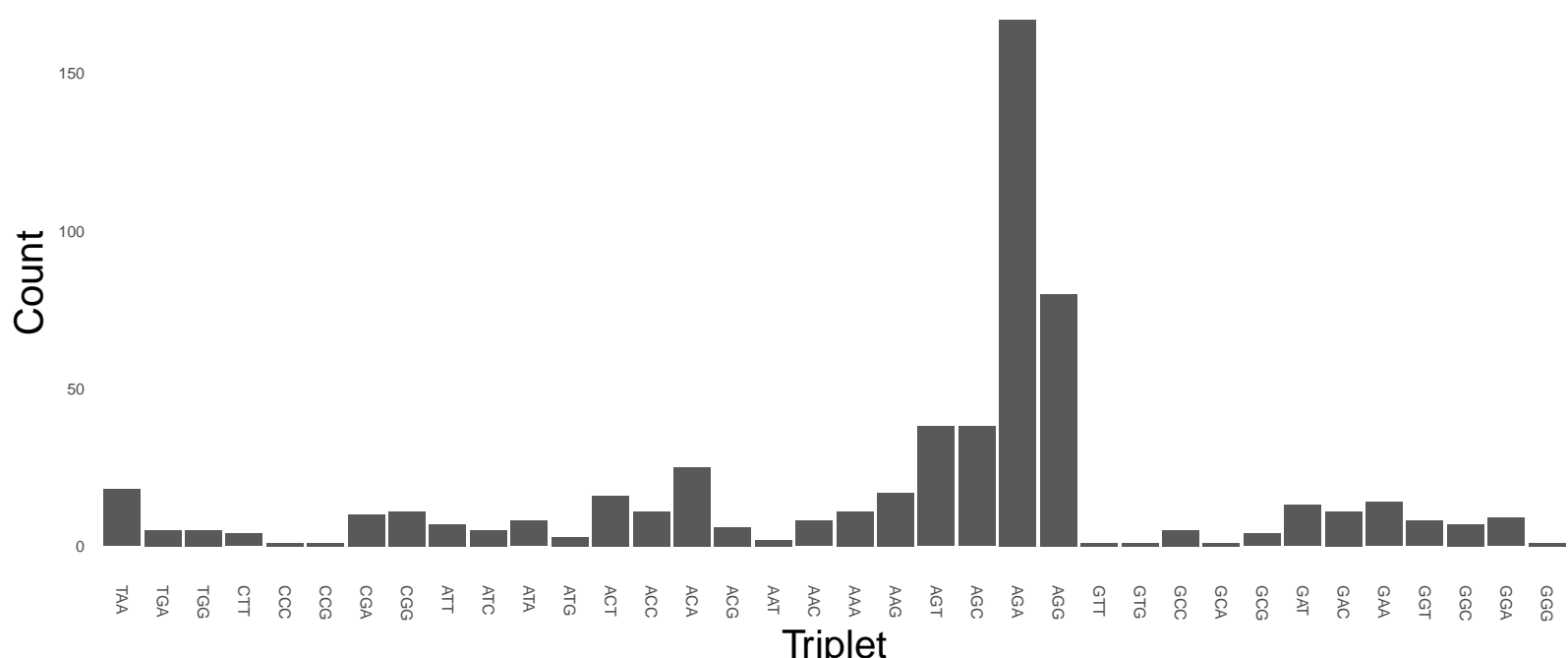
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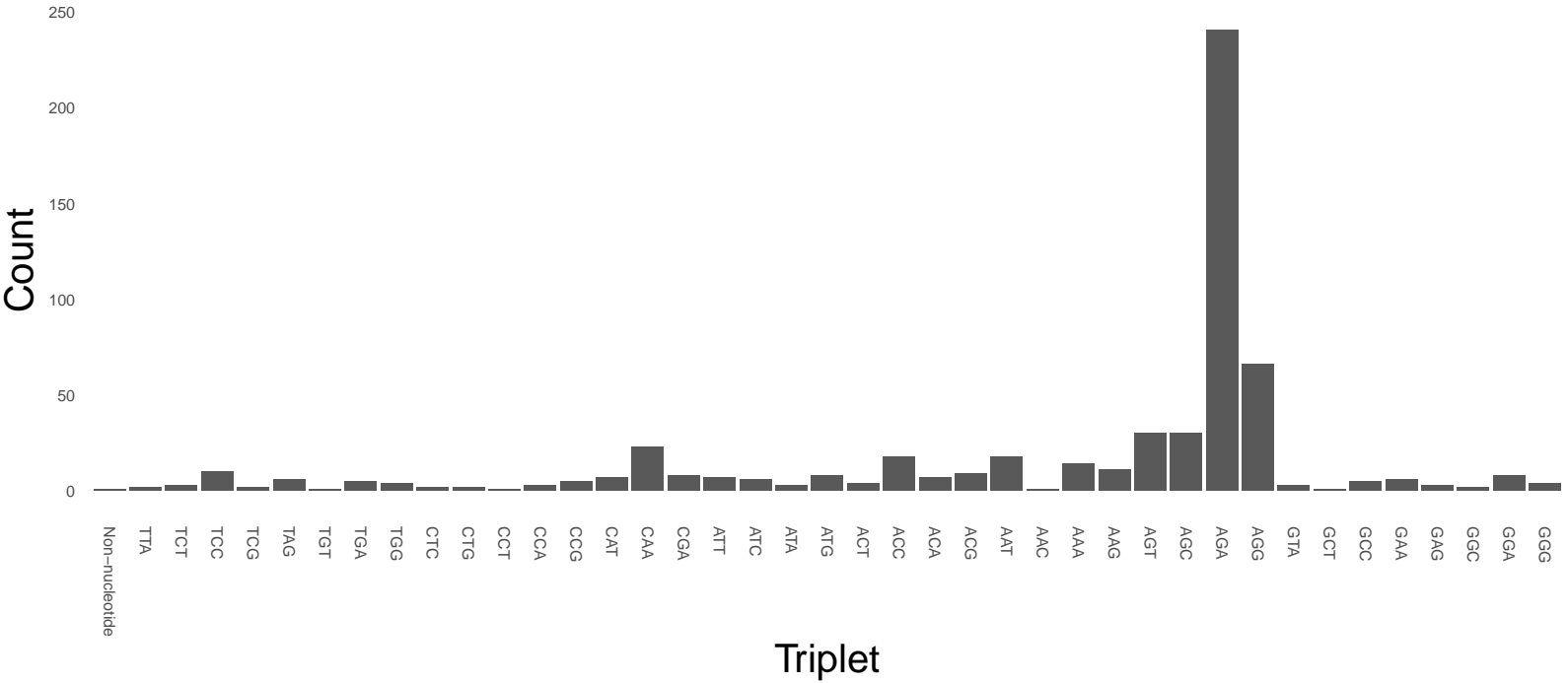
IGHV5–20*02_A141G_C312T– Final 3 nucleotides as a triplet



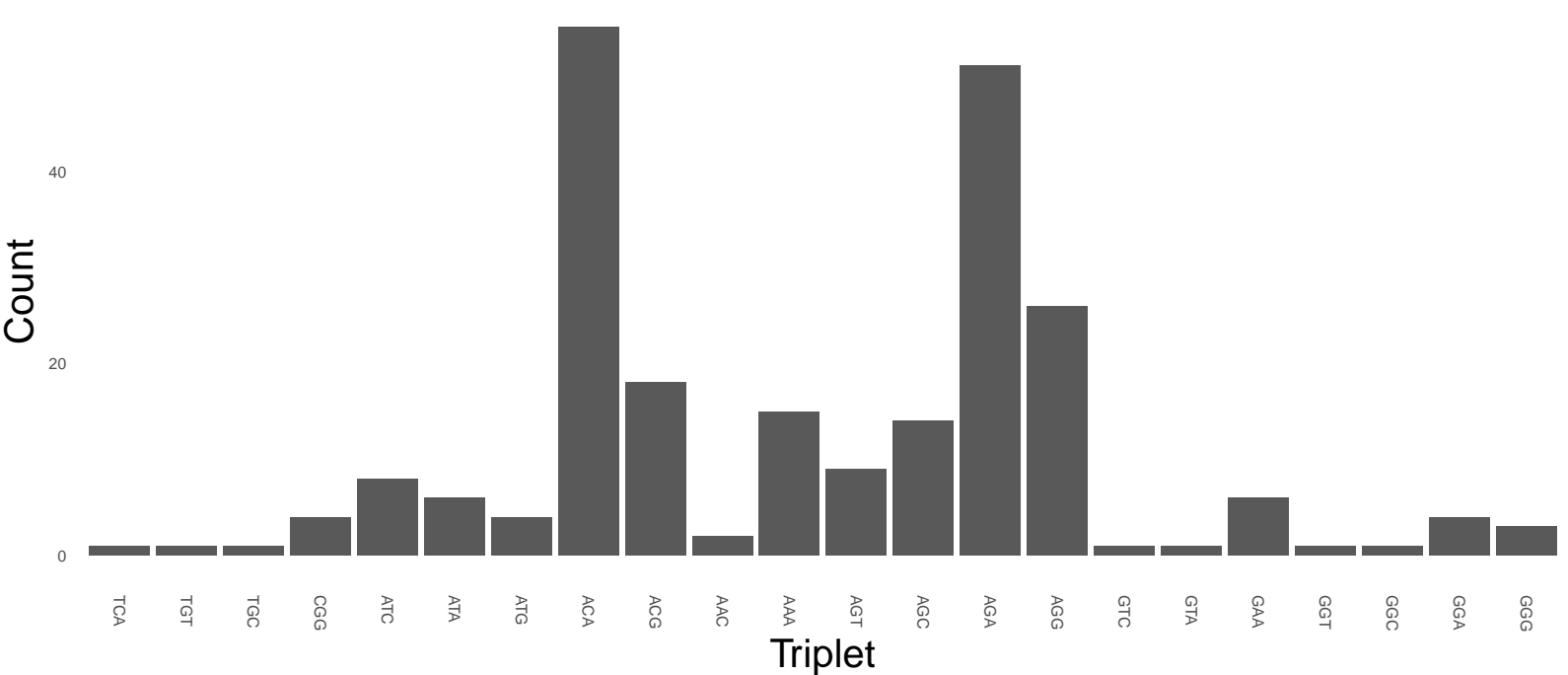
IGHV4–80*01_G70A_C168T_T189G_T196A_C300G– Final 3 nucleotides as a triplet



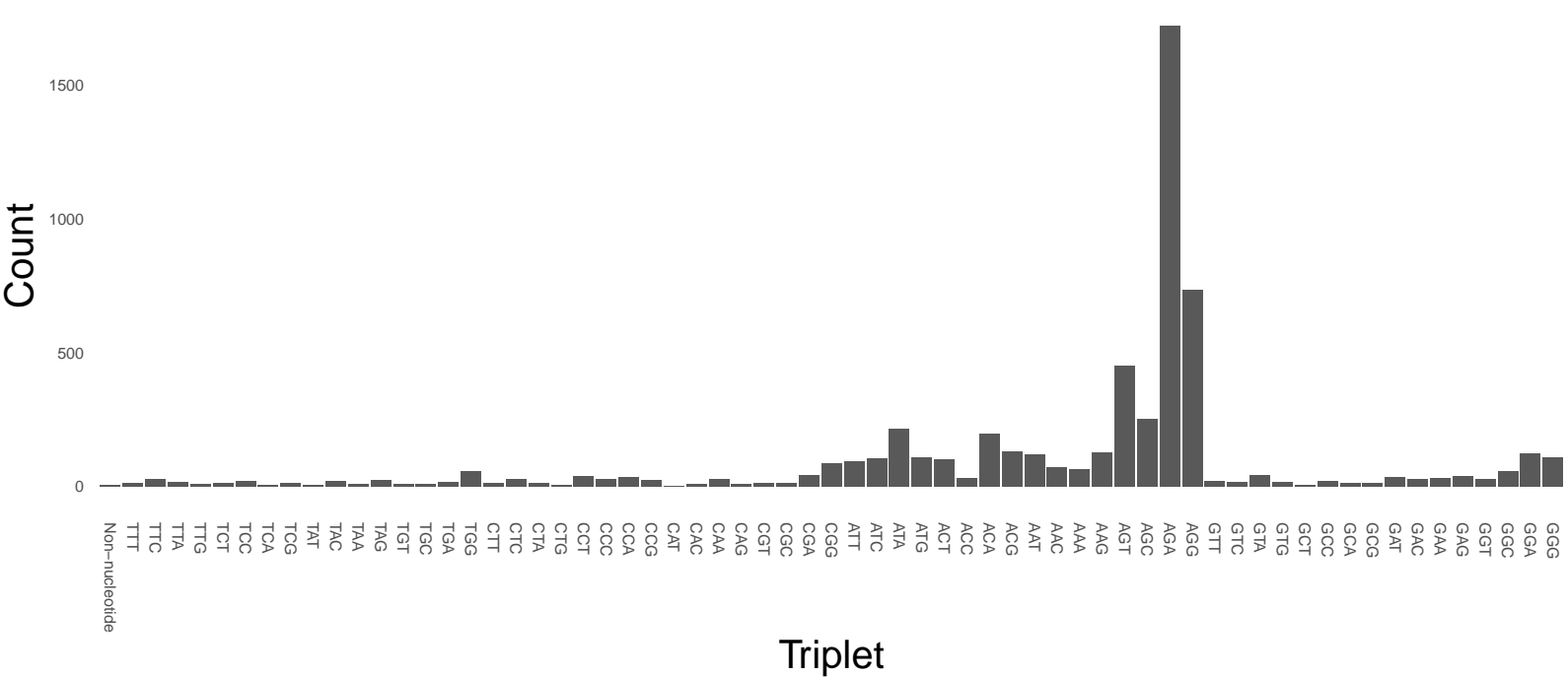
IGHV4-80*01_G70A_C90T_T109A_T189G_T196A_C263T- Final 3 nucleotides as a triplet



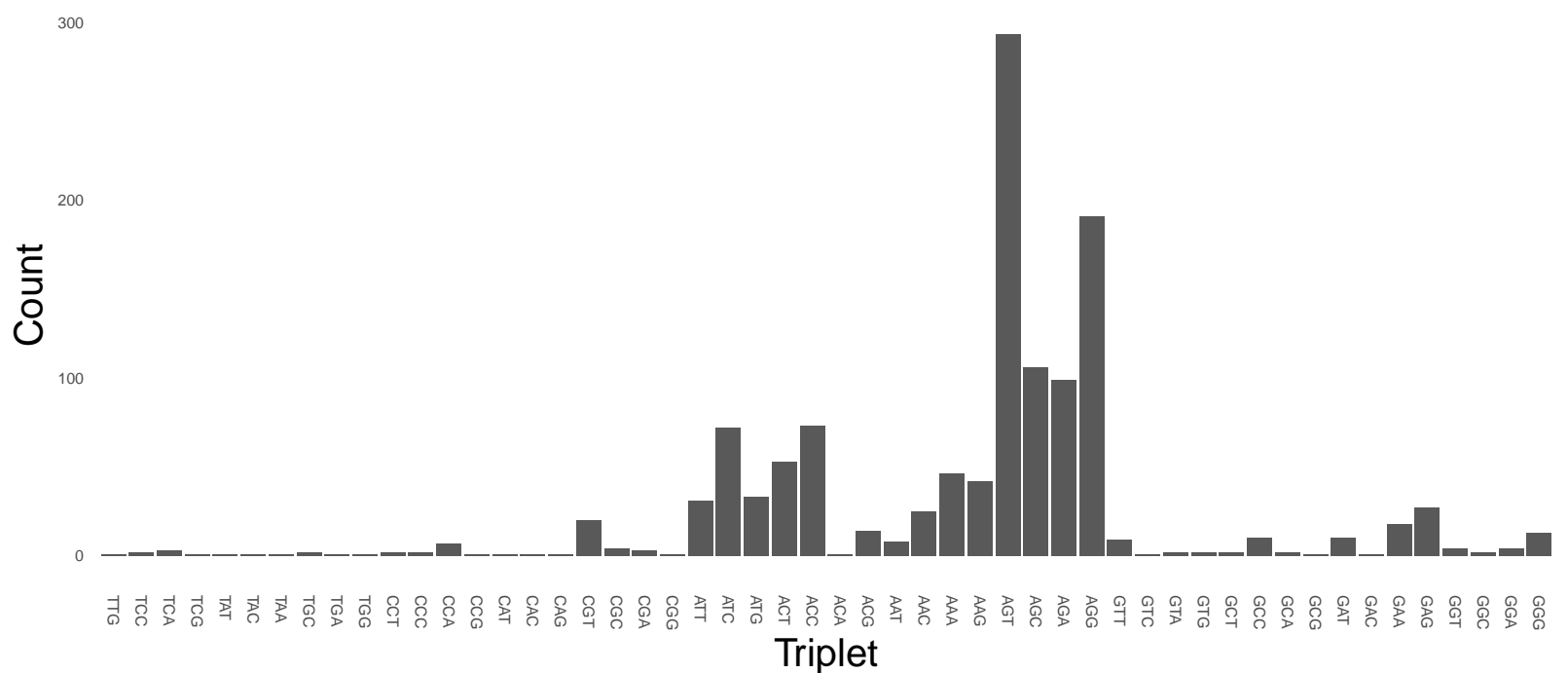
IGHV4-81*01_C4G_T277A- Final 3 nucleotides as a triplet



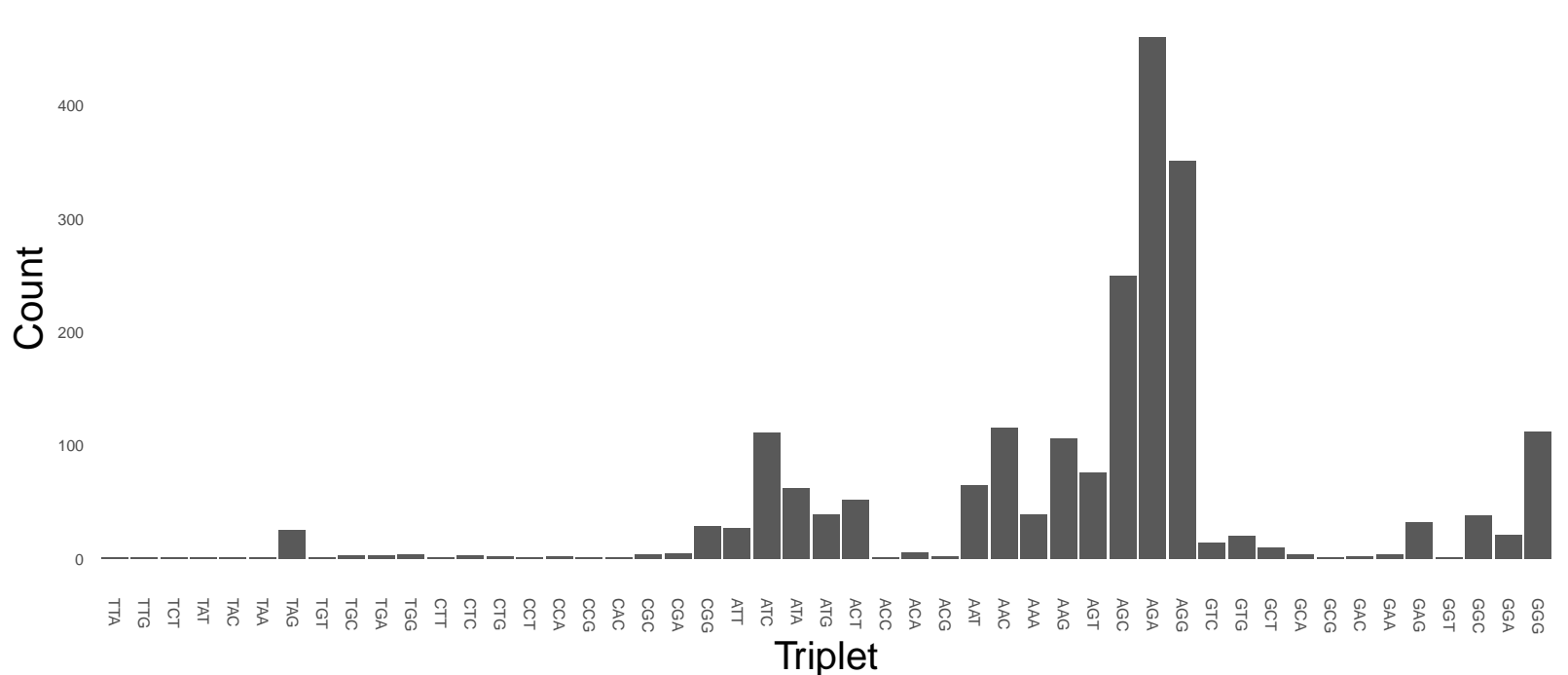
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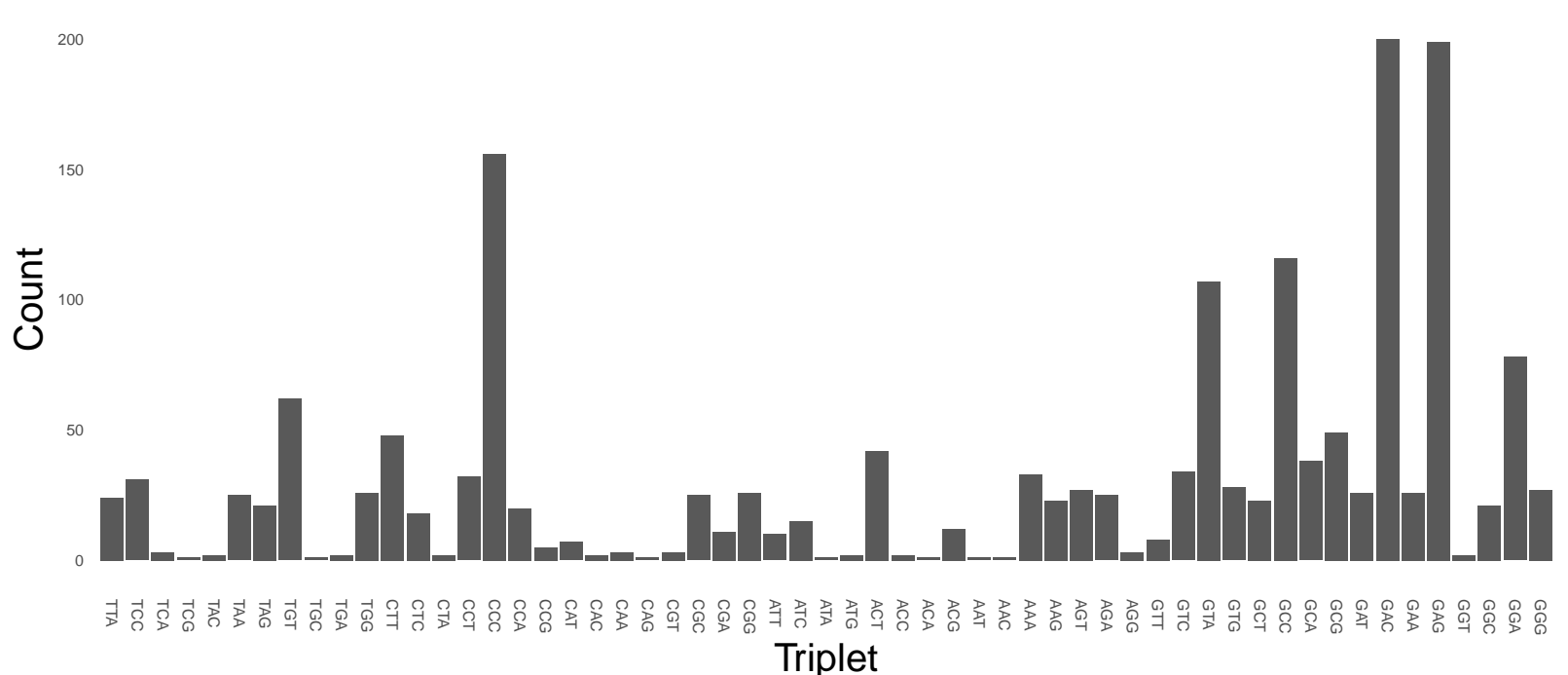
IGHV5-43*01_A106G_C297T- Final 3 nucleotides as a triplet



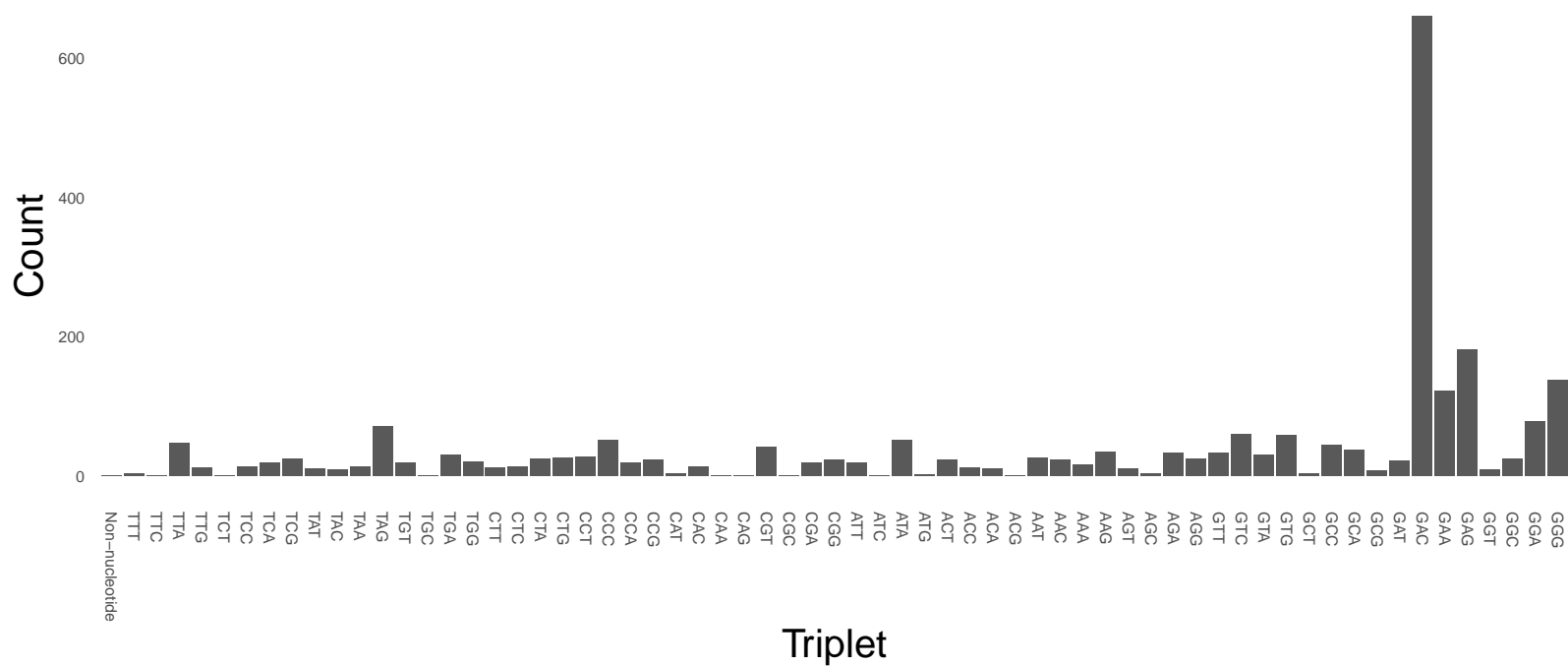
IGHV5-43*01_A106G_G164T_C165G_A203G_C225G_T231C_A259G- Final 3 nucleotides as a triplet



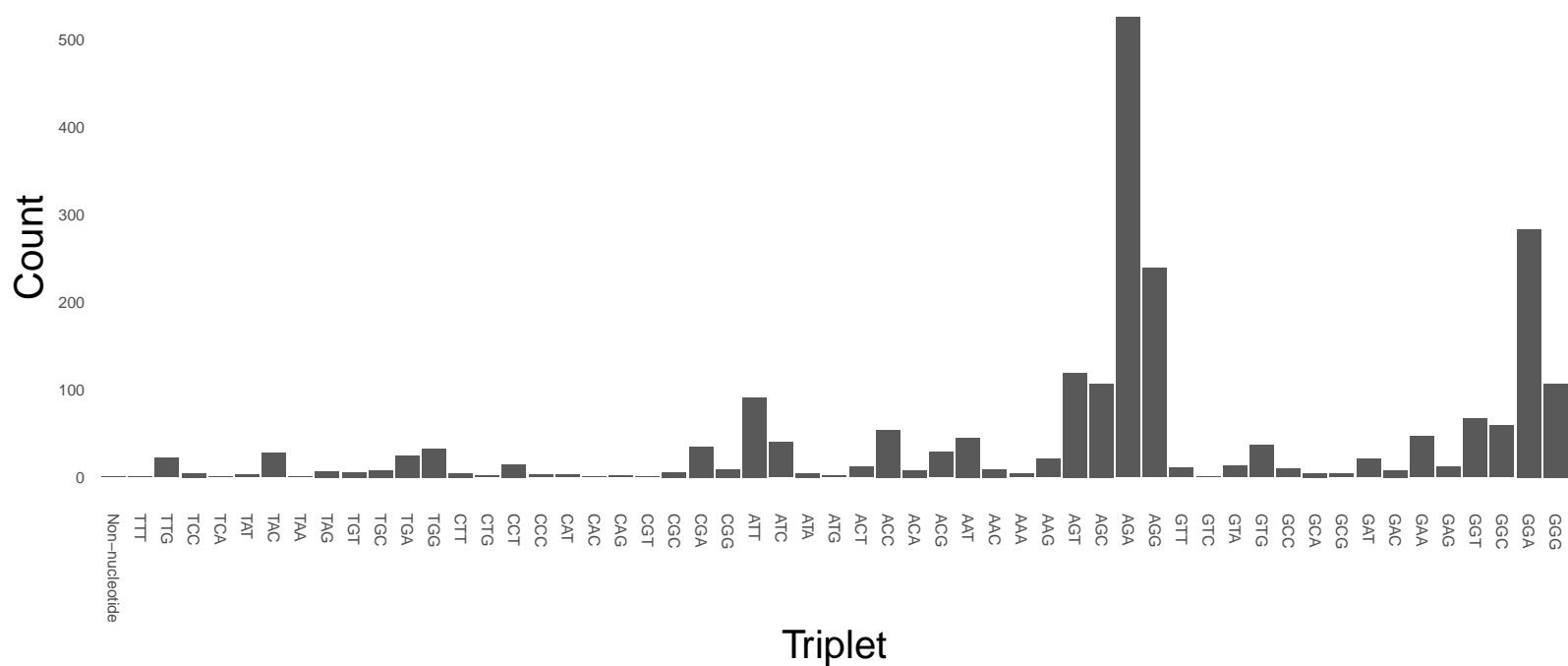
IGHV2-10*01_C6G_A23G_G112C_G118A_A119G_G121T_G141A_C205A_G210T- Final 3 nucleotides as a triplet



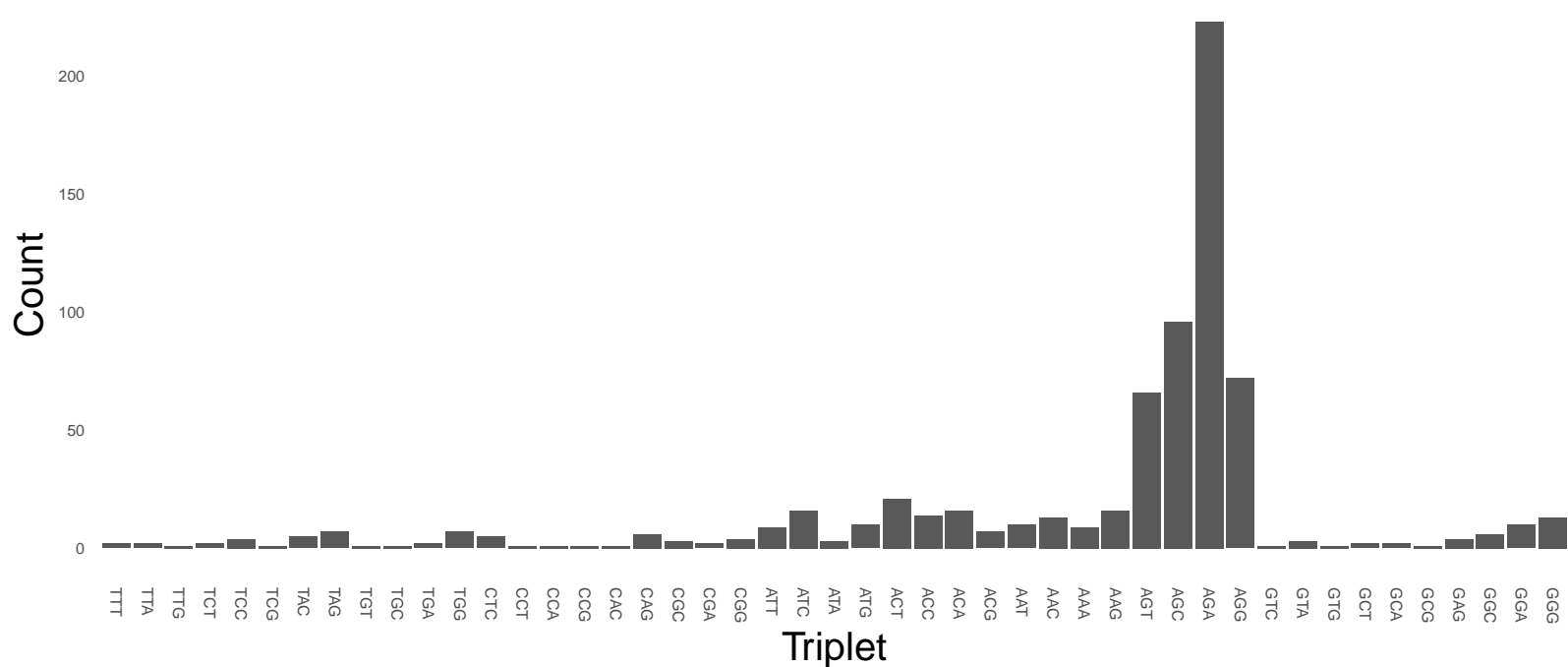
IGHV2S1*01_G289T– Final 3 nucleotides as a triplet



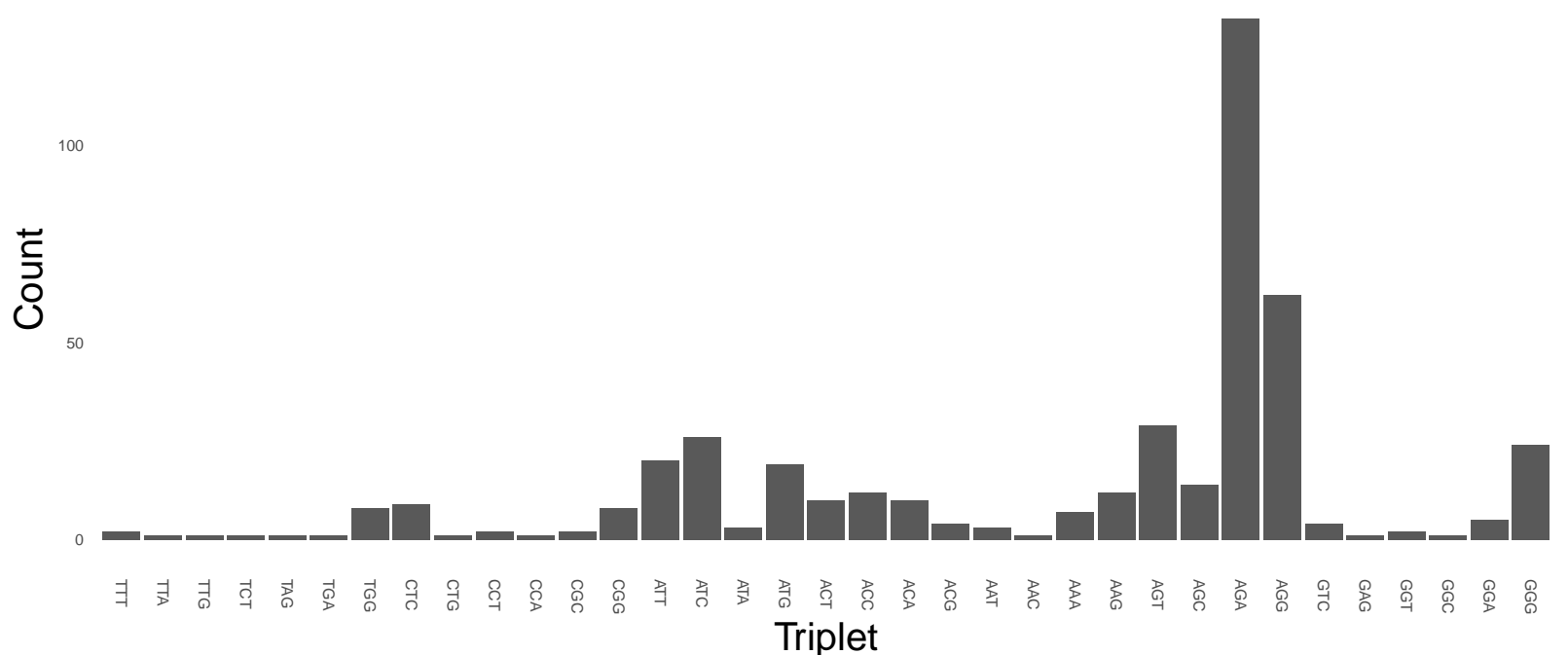
IGHV3-100*02_C3G– Final 3 nucleotides as a triplet



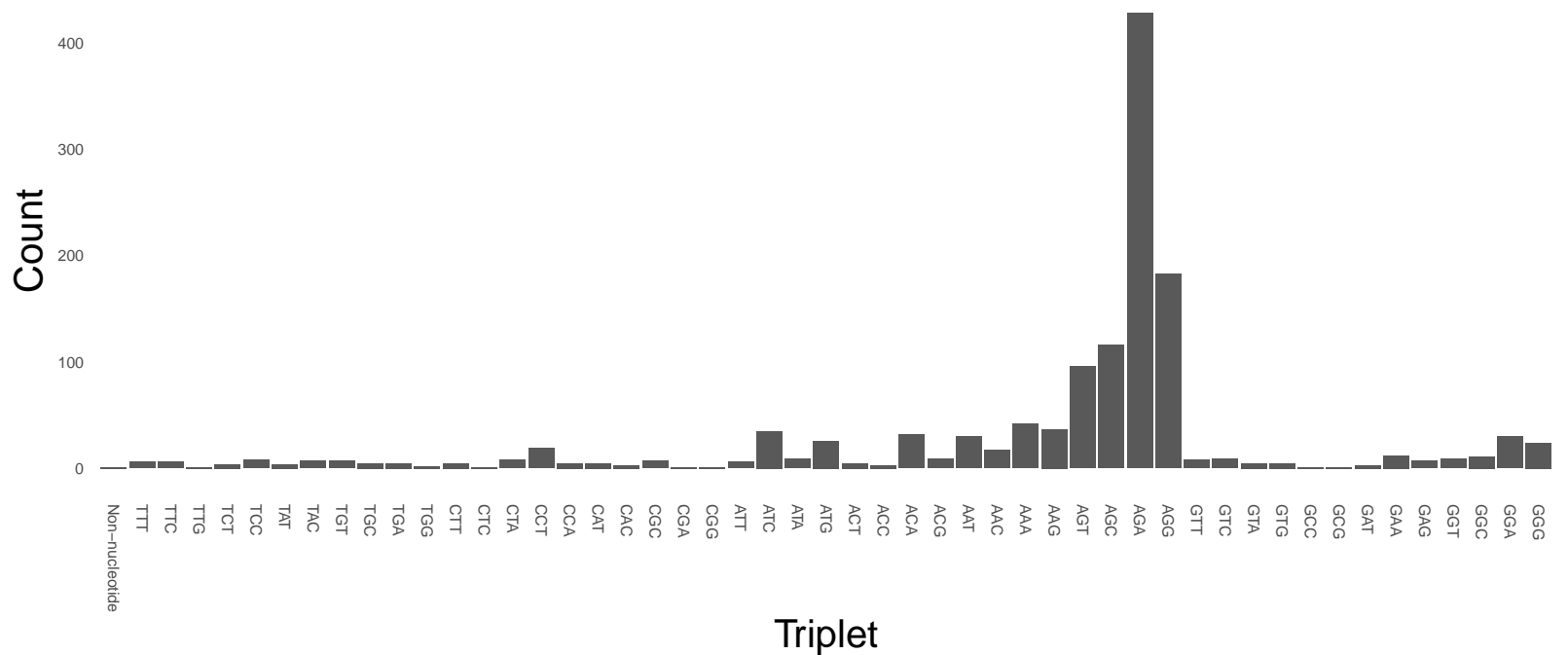
IGHV4-165*01_G4C_C87T_A113G_C114G_A132G_T163C_A164G_G173A_A232C_T234G_A235G



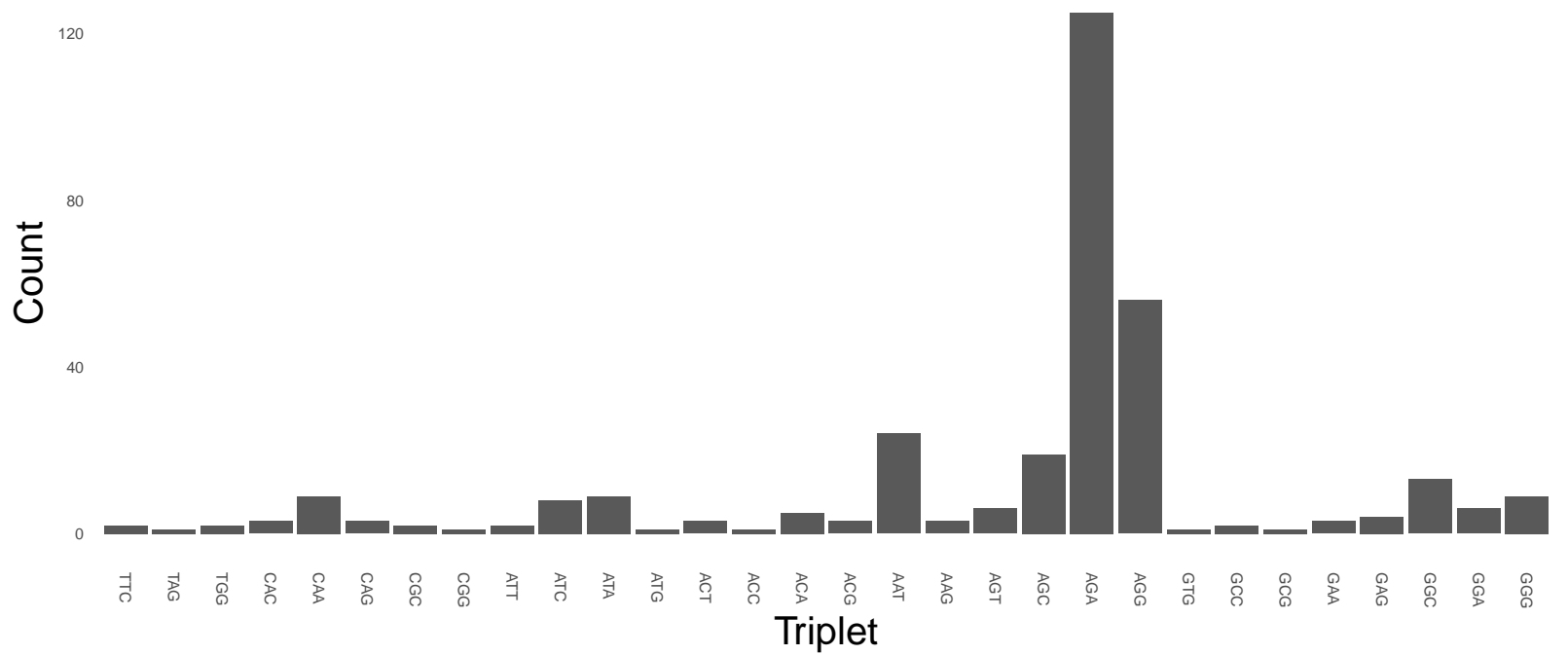
IGHV4-165*01_G4C_C87T_A113G_C114G_A132G_T163C_A164G_G173A_A232C_T234G_A235G



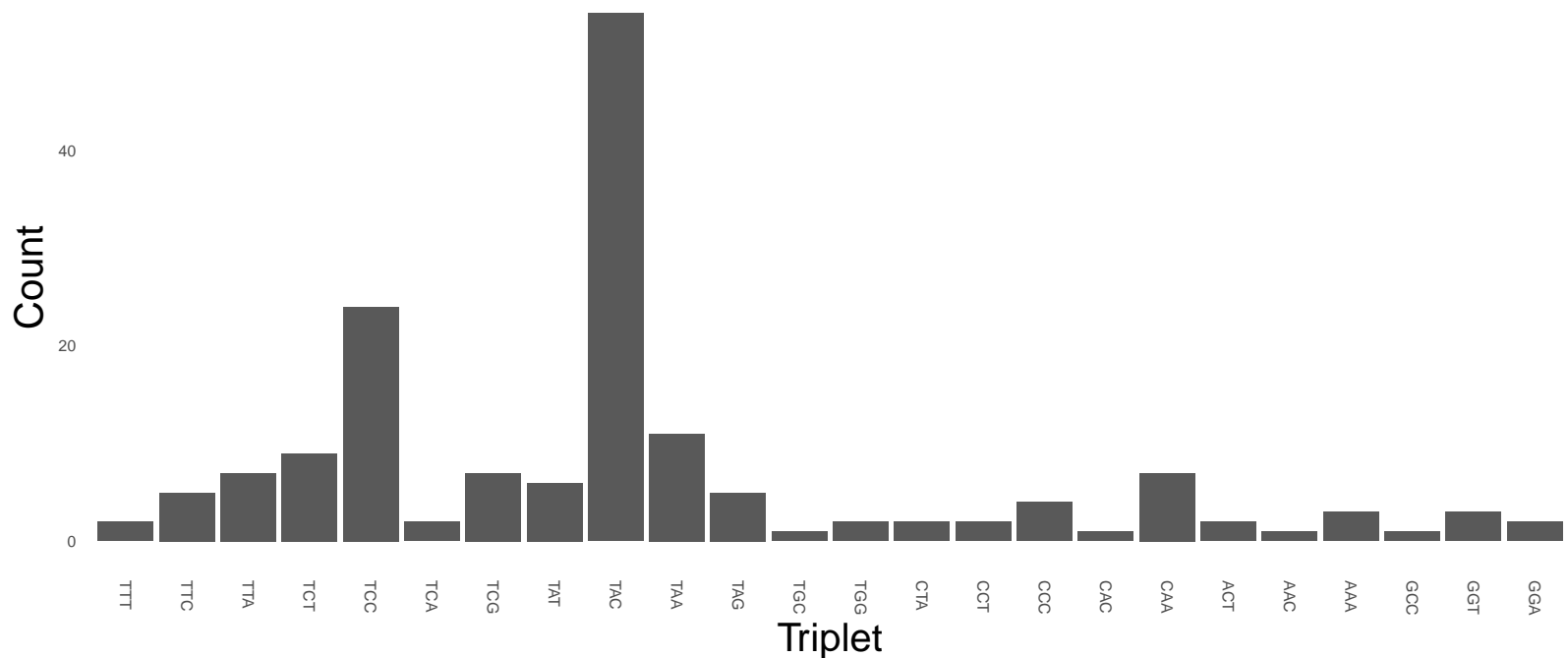
IGHV4S13*01_T85A_A110G_G267A_G289A- Final 3 nucleotides as a triplet



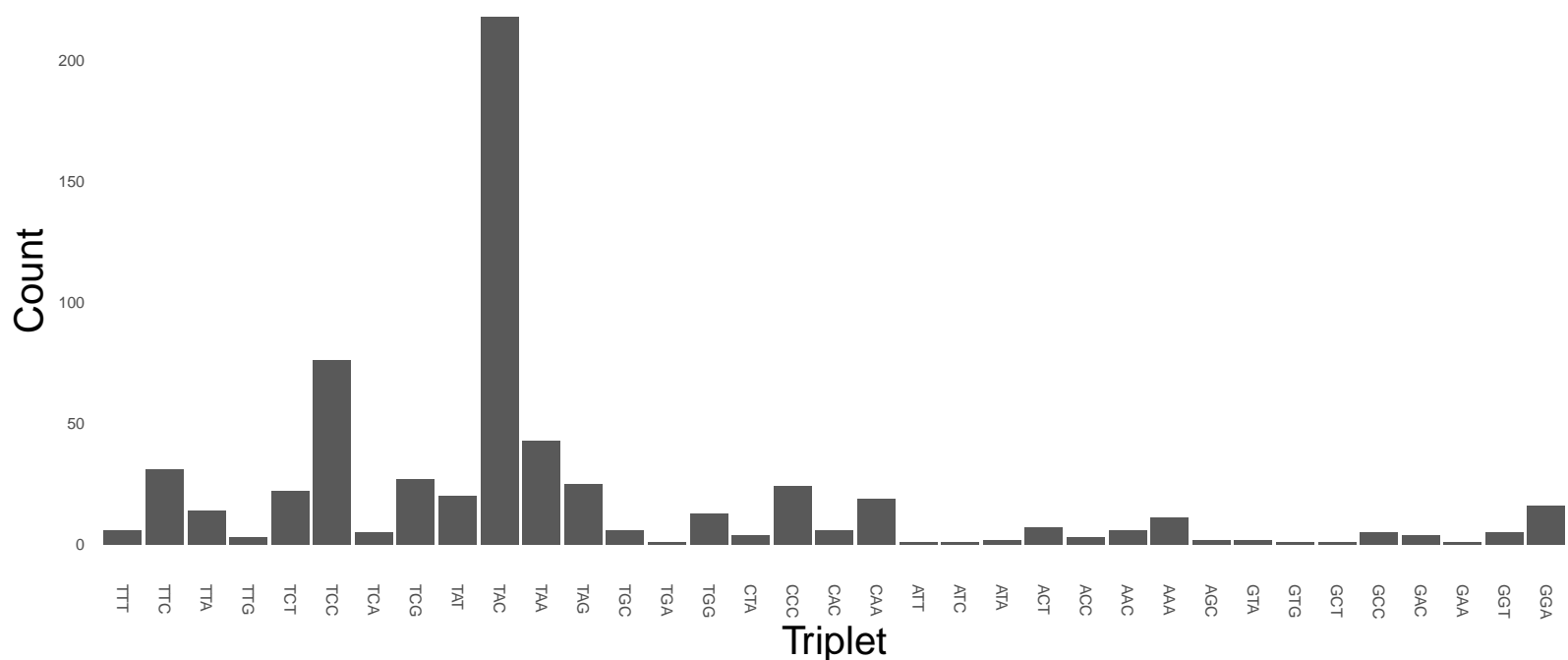
IGHV4S13*01_G34C_G103A_T106A_A110G_C111G_G144A_C265T- Final 3 nucleotides as a triplet



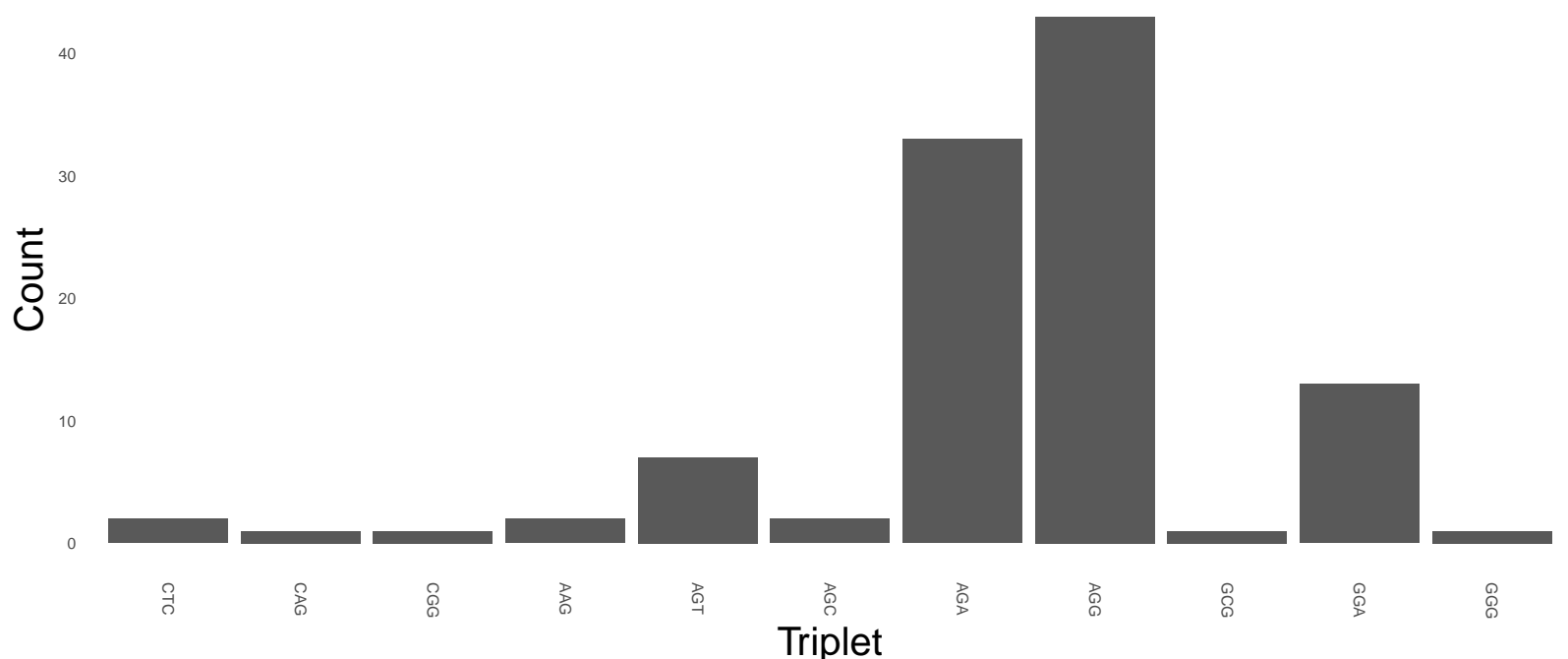
IGHV2-95*01_A103T_A252G_G289T- Final 3 nucleotides as a triplet



IGHV2-95*01_A103T_A252G- Final 3 nucleotides as a triplet

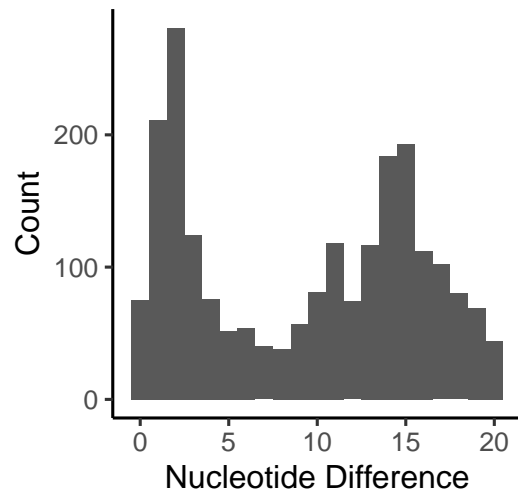


IGHV3-132*01_G164C_A295C- Final 3 nucleotides as a triplet



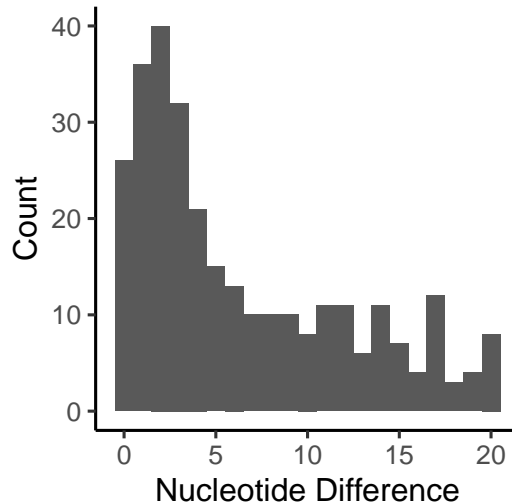
IGHV2S1*01_G289T

2406 sequences assigned
75 (3.1%) exact matches, in which:
67 unique CDR3
4 unique J



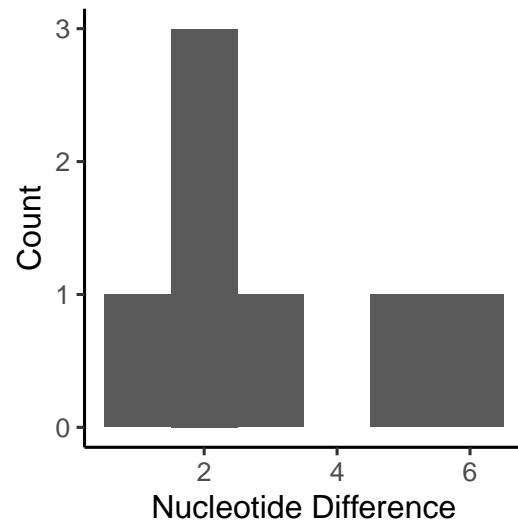
IGHV4S13*01_G34C_G10

327 sequences assigned
26 (8%) exact matches, in which:
25 unique CDR3
4 unique J



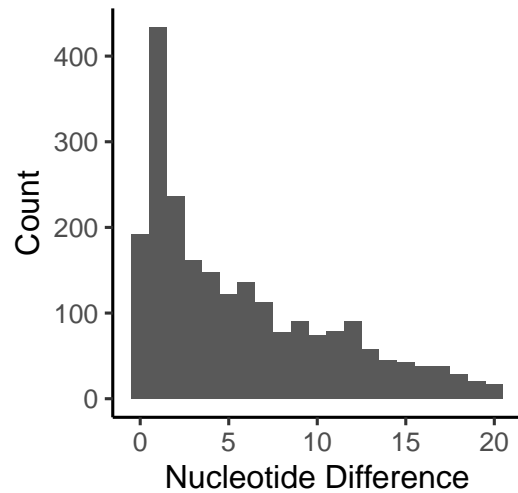
IGHV1-156D*01

24 sequences assigned
No exact matches.



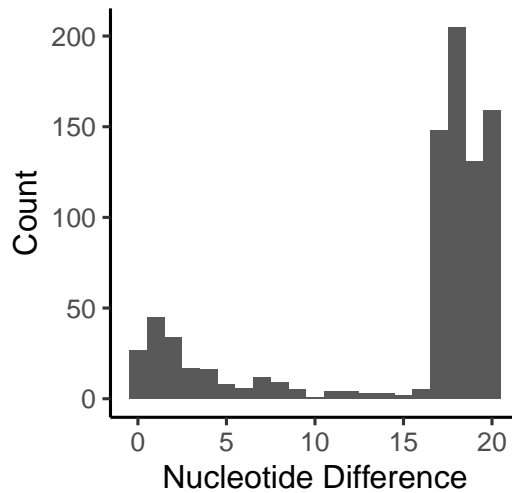
IGHV3S42*01_T120C_A1

2625 sequences assigned
192 (7.3%) exact matches, in which:
157 unique CDR3
5 unique J



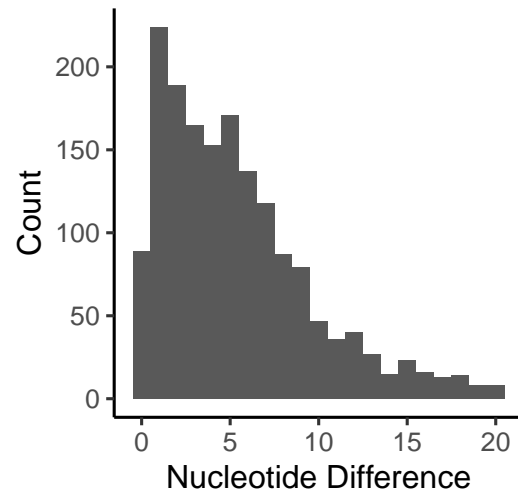
IGHV4S13*01_T85A_A11

1310 sequences assigned
27 (2.1%) exact matches, in which:
25 unique CDR3
4 unique J



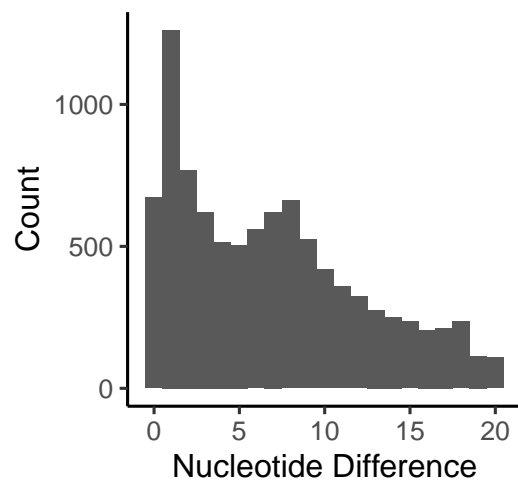
IGHV2-10*01_C6G_A230

1737 sequences assigned
89 (5.1%) exact matches, in which:
77 unique CDR3
3 unique J



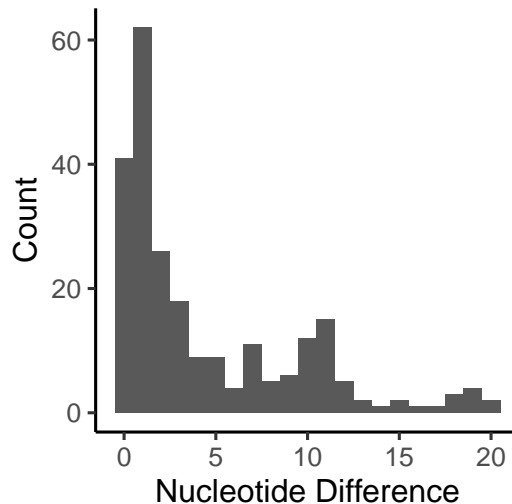
IGHV3S42*01_T19A_G2

11064 sequences assigned
672 (6.1%) exact matches, in which:
543 unique CDR3
5 unique J



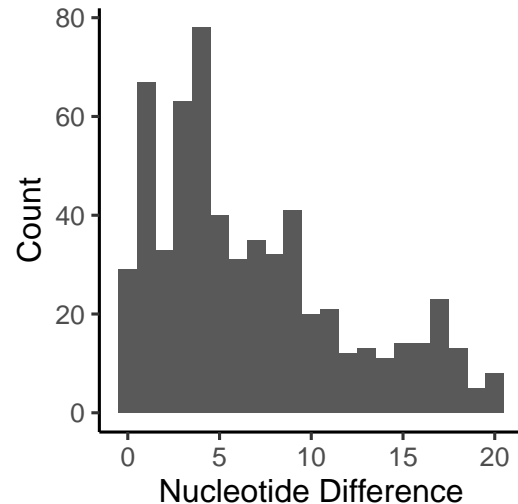
IGHV1-111*02_G240A

242 sequences assigned
41 (16.9%) exact matches, in which:
31 unique CDR3
3 unique J



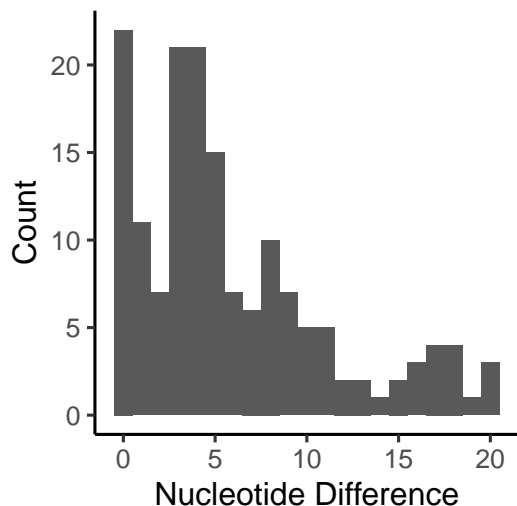
IGHV2-95*01_A103T_A25

631 sequences assigned
29 (4.6%) exact matches, in which:
23 unique CDR3
4 unique J



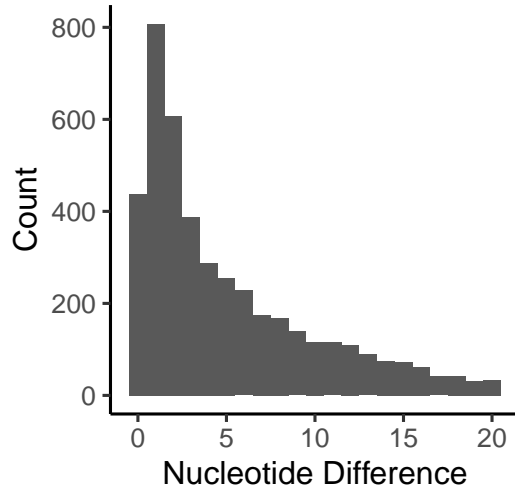
IGHV2-95*01_A103T_A25

163 sequences assigned
22 (13.5%) exact matches, in which:
20 unique CDR3
4 unique J



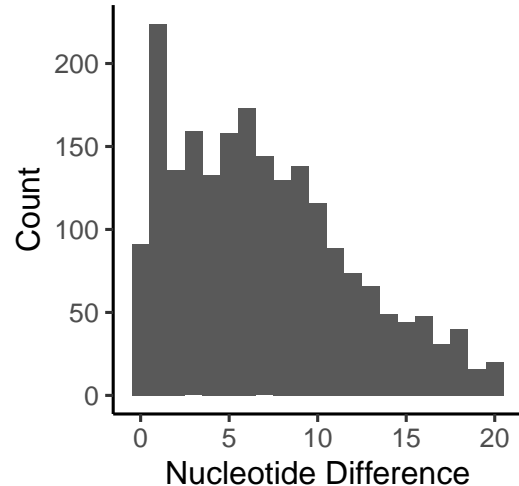
IGHV3-54*02_G170C

4439 sequences assigned
438 (9.9%) exact matches, in which:
349 unique CDR3
5 unique J



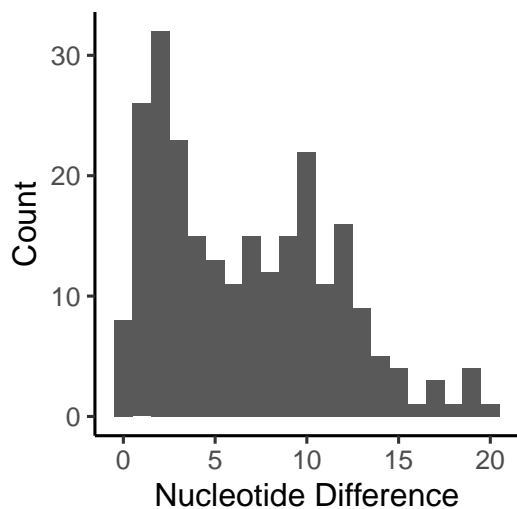
IGHV3-116*01_G189C_C

2261 sequences assigned
91 (4%) exact matches, in which:
71 unique CDR3
2 unique J



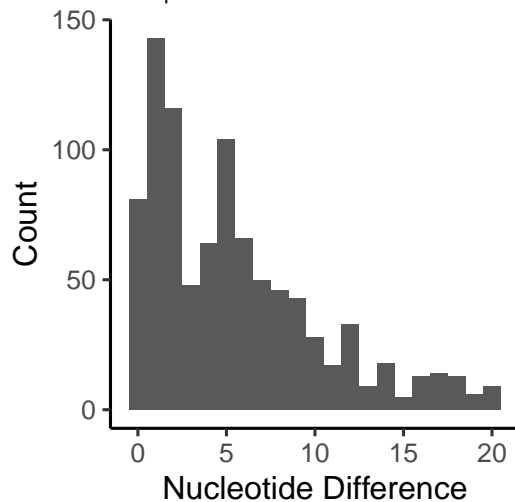
IGHV3-13*01_C33T

946 sequences assigned
8 (0.8%) exact matches, in which:
8 unique CDR3
3 unique J



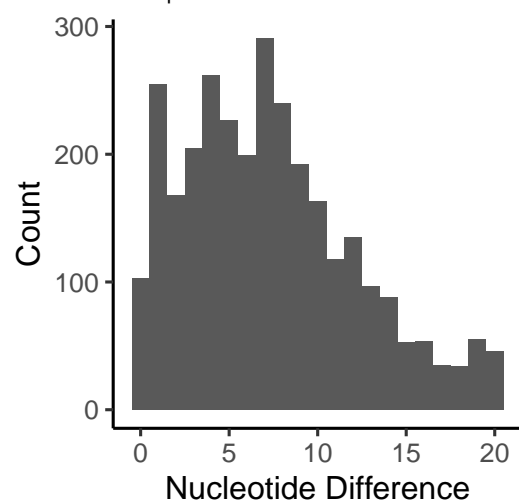
IGHV3-54*02_T111C_G1

1003 sequences assigned
81 (8.1%) exact matches, in which:
74 unique CDR3
3 unique J



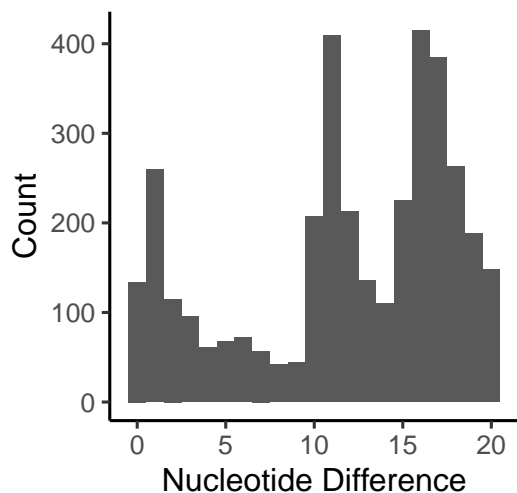
IGHV3-116*02_G8A_T10

3239 sequences assigned
103 (3.2%) exact matches, in which:
84 unique CDR3
4 unique J



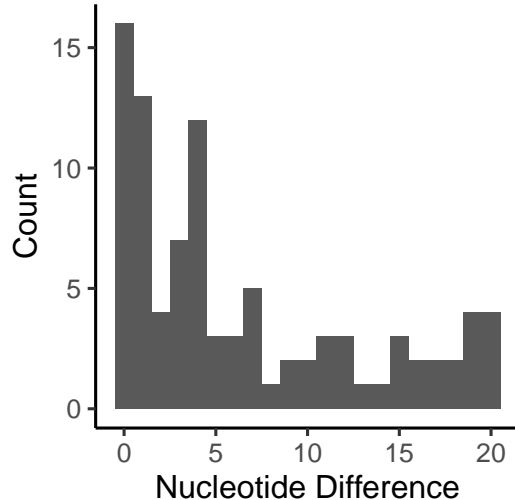
IGHV3-30*01_G174C_A'

4689 sequences assigned
134 (2.9%) exact matches, in which:
108 unique CDR3
4 unique J



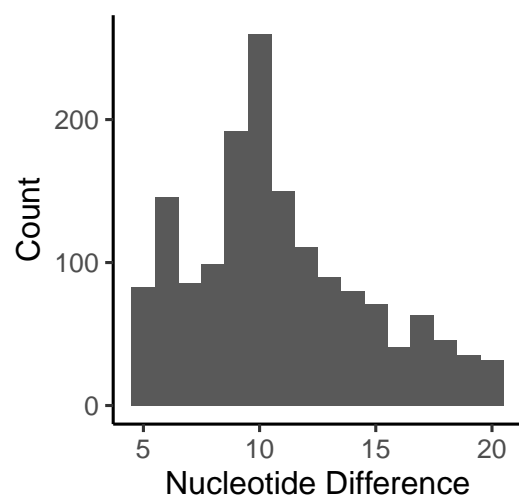
IGHV3-100*02_C3G

2218 sequences assigned
16 (0.7%) exact matches, in which:
16 unique CDR3
2 unique J



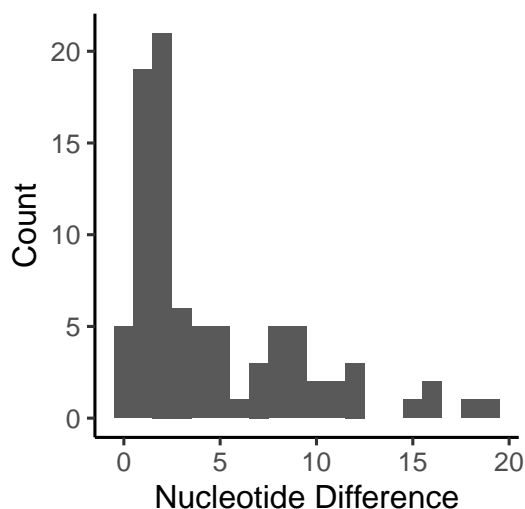
IGHV3-124*01

2130 sequences assigned
No exact matches.



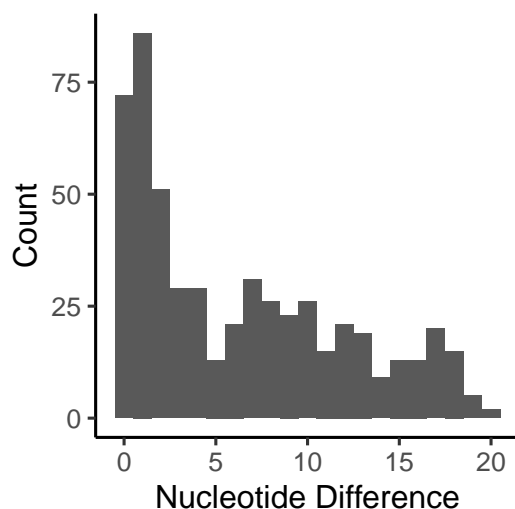
IGHV3-132*01_G164C_A

106 sequences assigned
5 (4.7%) exact matches, in which:
5 unique CDR3
2 unique J



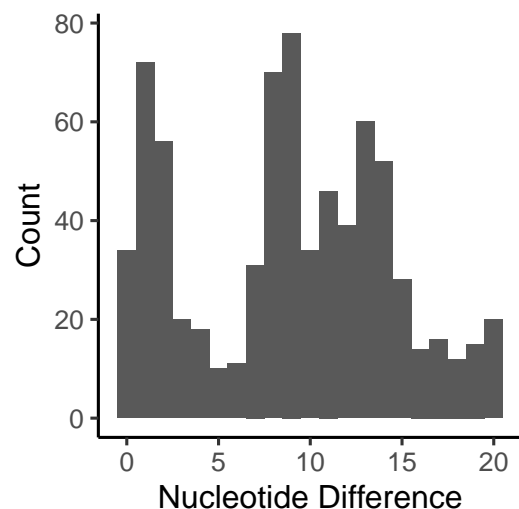
IGHV4-80*01_G70A_C16

572 sequences assigned
72 (12.6%) exact matches, in which:
68 unique CDR3
4 unique J



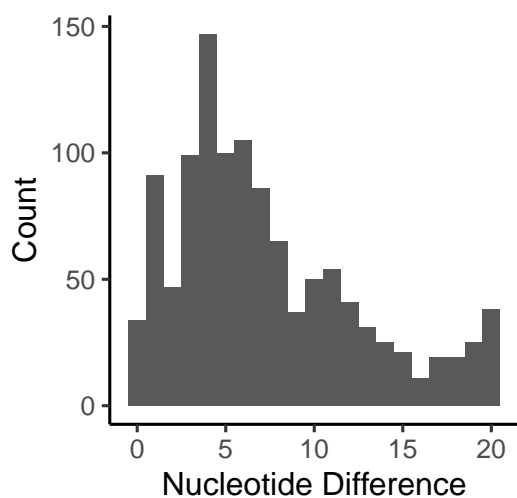
IGHV4-122*02_C87T_G1

800 sequences assigned
34 (4.2%) exact matches, in which:
33 unique CDR3
4 unique J



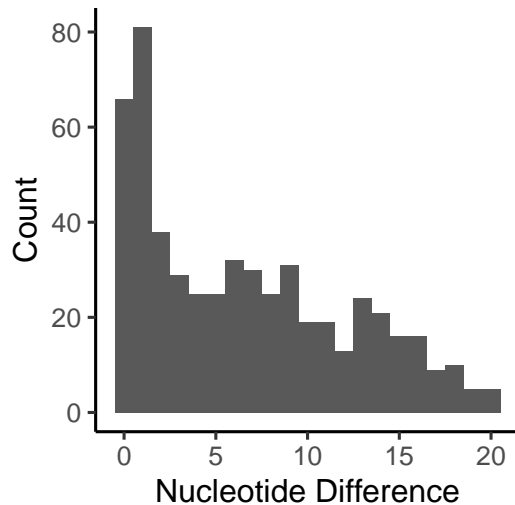
IGHV3-184*01_T109C_C

1339 sequences assigned
34 (2.5%) exact matches, in which:
26 unique CDR3
4 unique J



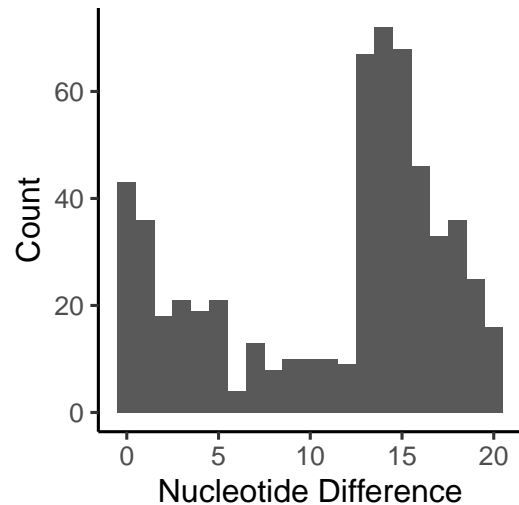
IGHV4-80*01_G70A_C90

590 sequences assigned
66 (11.2%) exact matches, in which:
62 unique CDR3
5 unique J



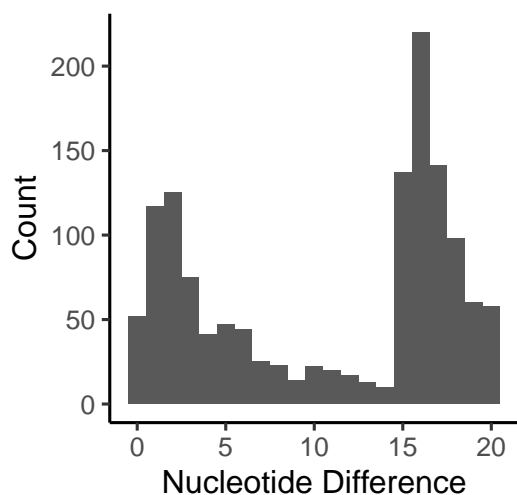
IGHV4-165*01_G4C_C87

703 sequences assigned
43 (6.1%) exact matches, in which:
42 unique CDR3
4 unique J



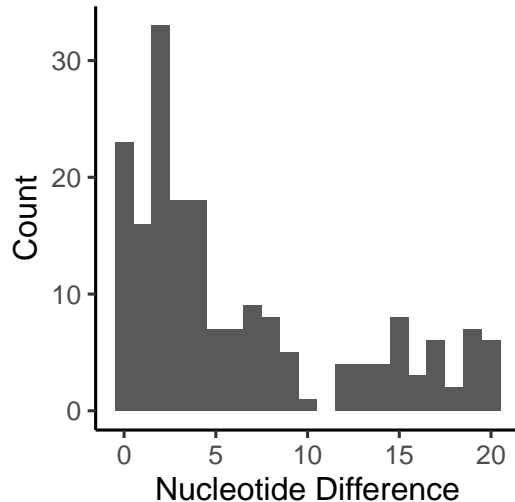
IGHV4-73*01_G147A

1780 sequences assigned
52 (2.9%) exact matches, in which:
51 unique CDR3
4 unique J



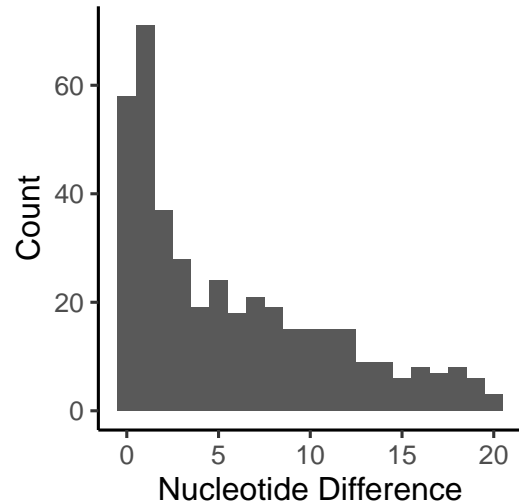
IGHV4-81*01_C4G_T277

232 sequences assigned
23 (9.9%) exact matches, in which:
23 unique CDR3
4 unique J



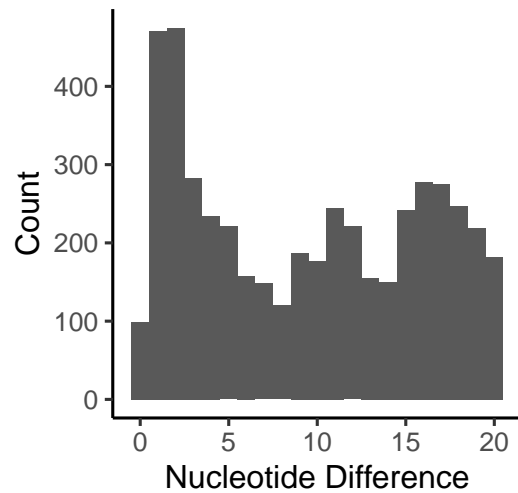
IGHV4-165*01_G4C_C87

439 sequences assigned
58 (13.2%) exact matches, in which:
56 unique CDR3
4 unique J



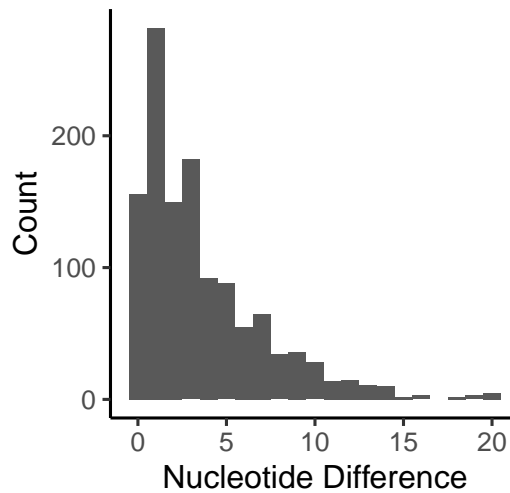
IGHV4-173*01_C4G

5776 sequences assigned
99 (1.7%) exact matches, in which:
91 unique CDR3
4 unique J



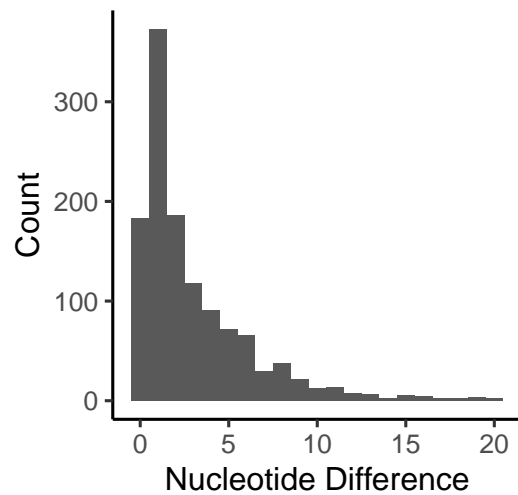
IGHV5-43*01_A106G_C297T

1252 sequences assigned
156 (12.5%) exact matches, in which:
127 unique CDR3
5 unique J



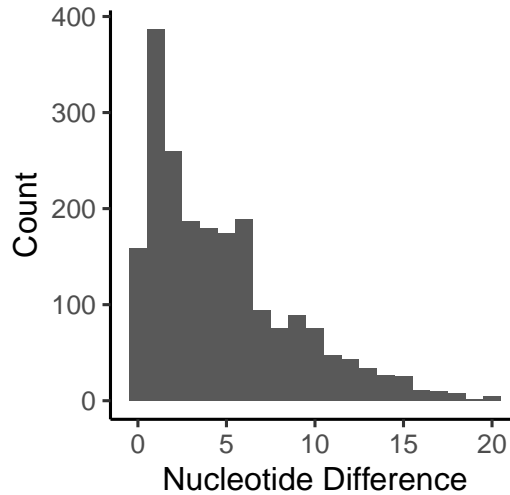
IGHV5-20*01_A141G

1253 sequences assigned
183 (14.6%) exact matches, in which:
134 unique CDR3
5 unique J



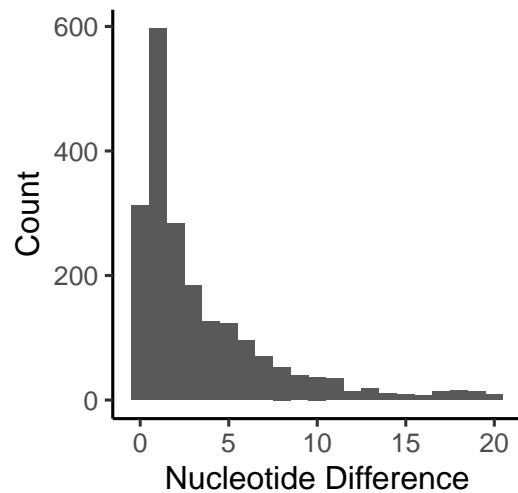
IGHV5-43*01_A106G_G164T_C165G_A203G_C225G_T

2113 sequences assigned
159 (7.5%) exact matches, in which:
127 unique CDR3
5 unique J



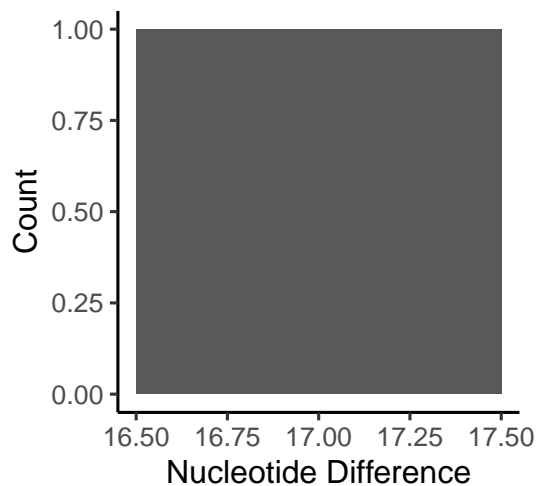
IGHV5-20*02_A141G_C3

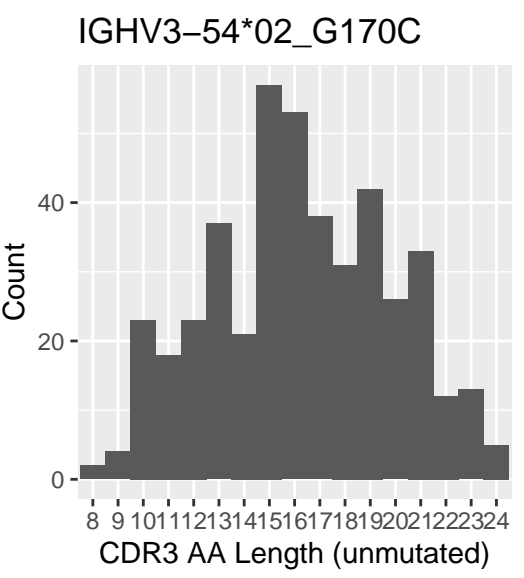
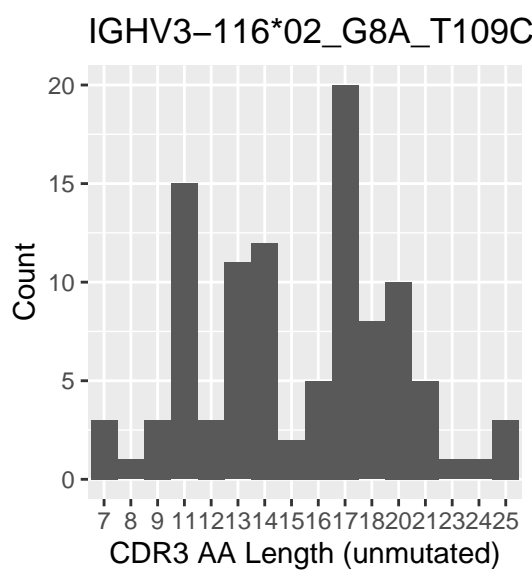
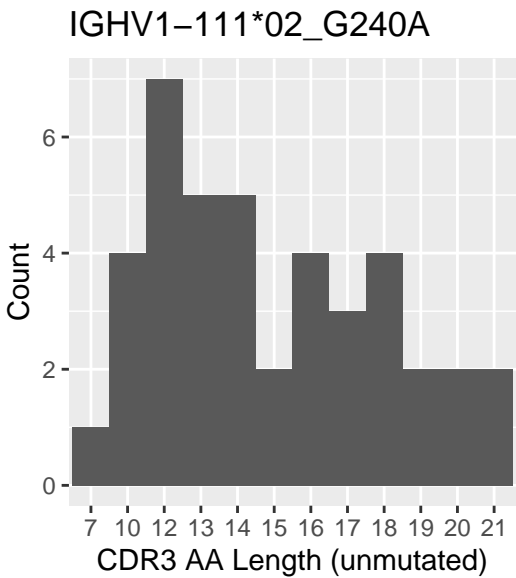
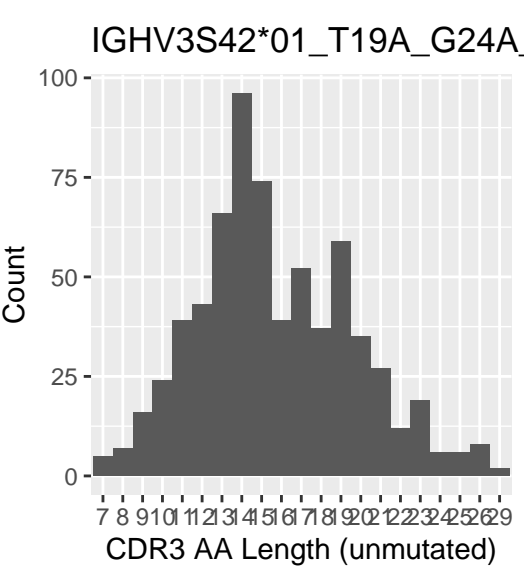
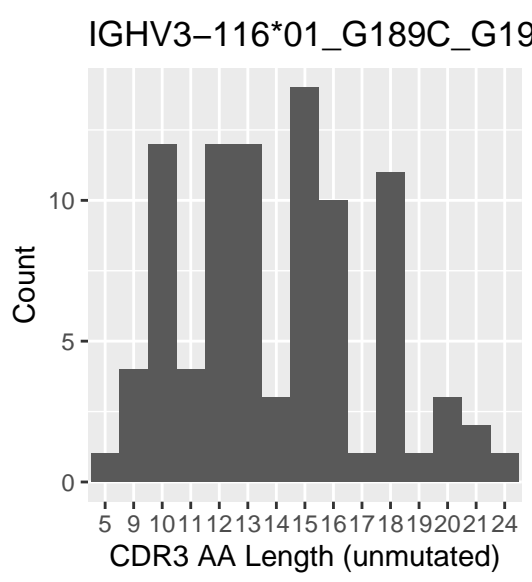
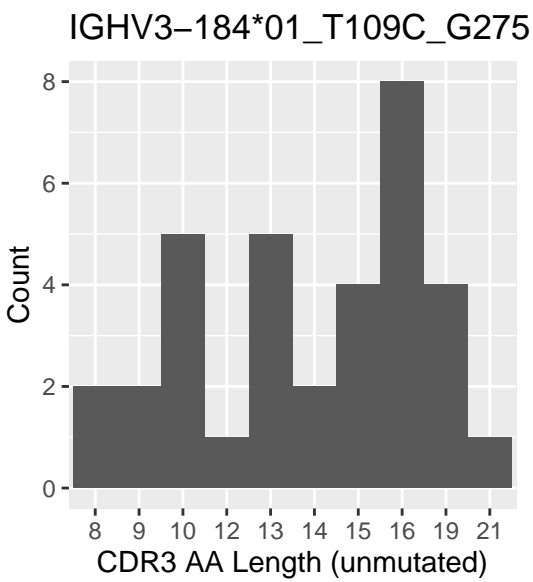
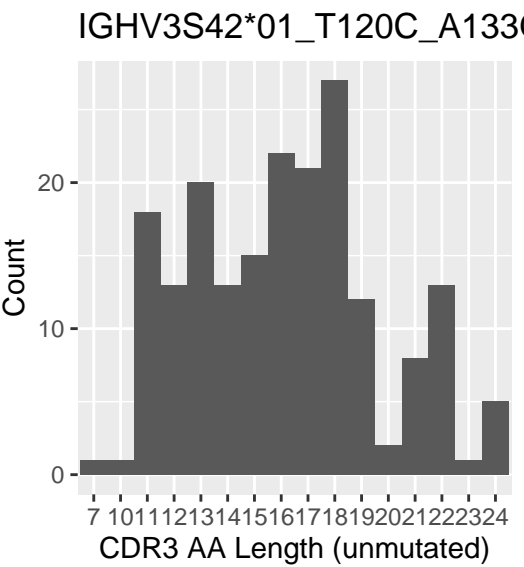
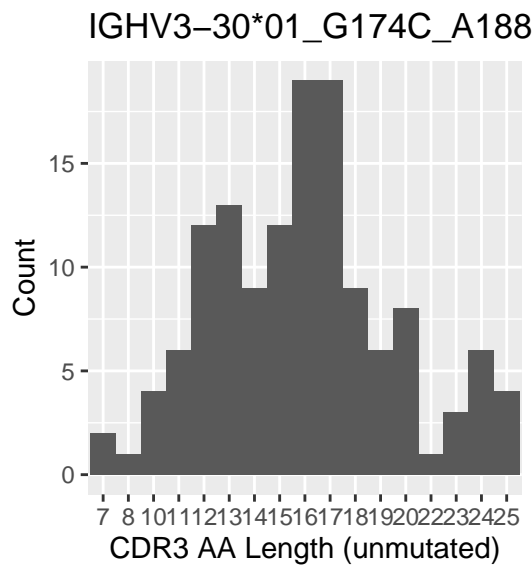
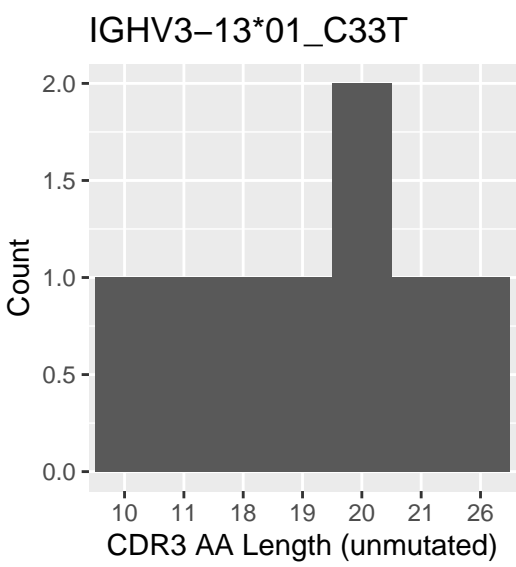
2092 sequences assigned
312 (14.9%) exact matches, in which:
251 unique CDR3
4 unique J

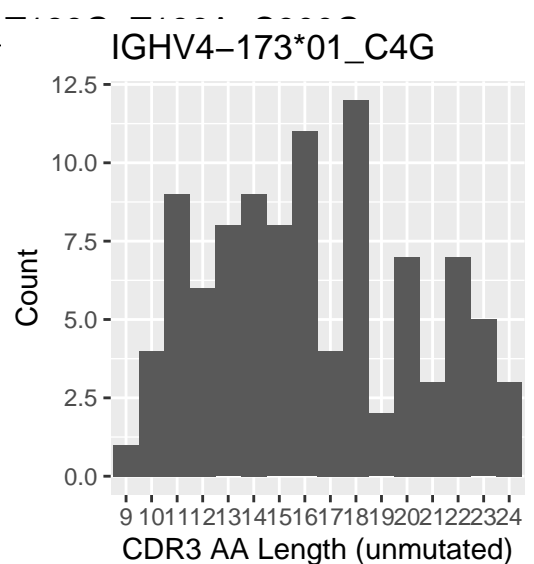
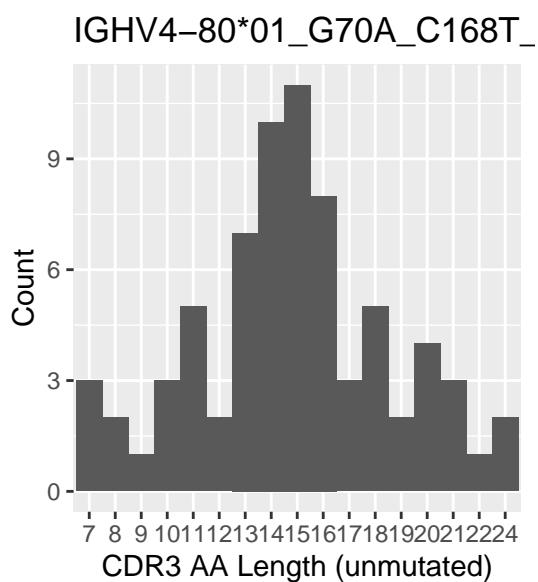
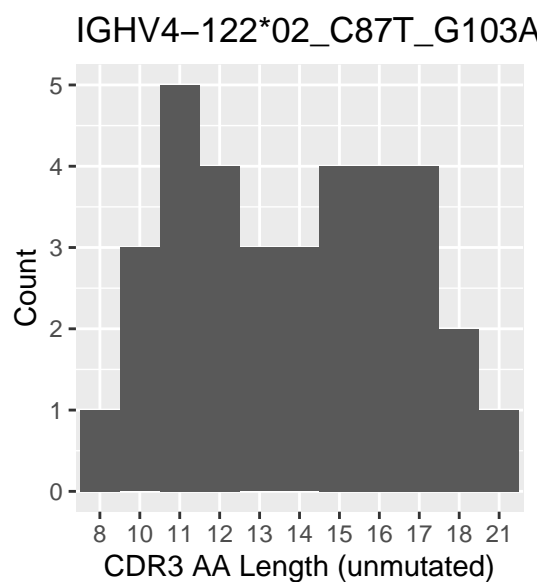
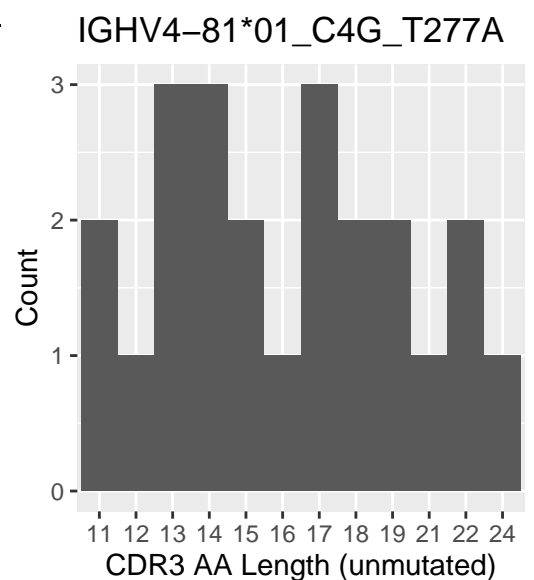
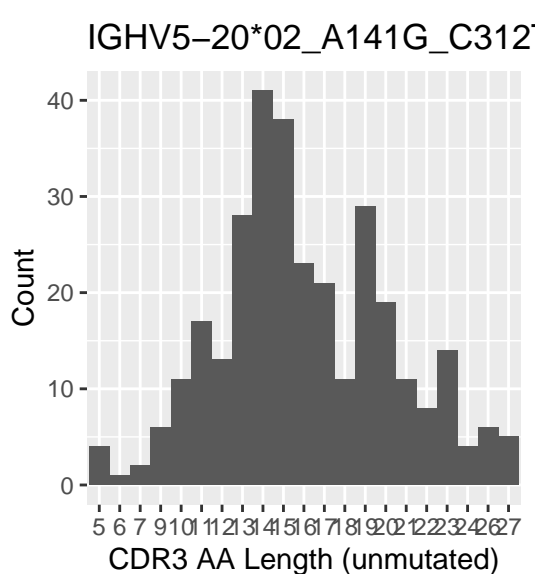
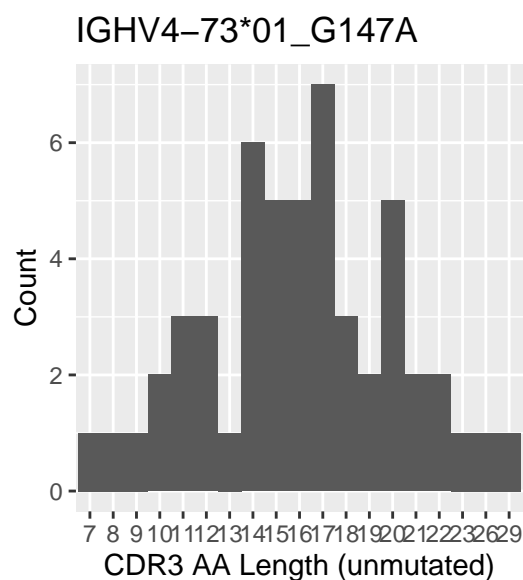
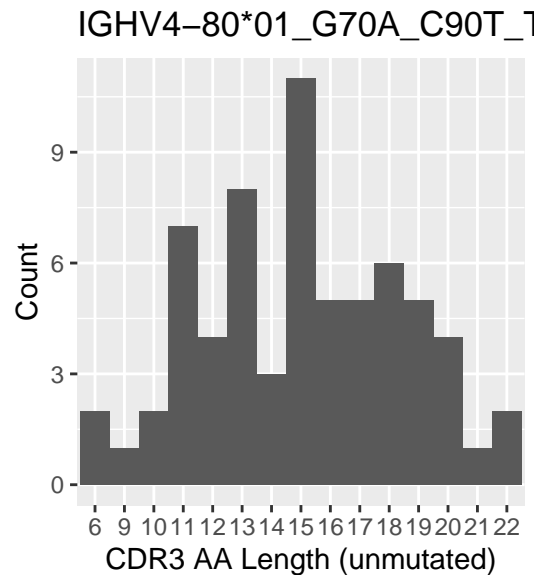
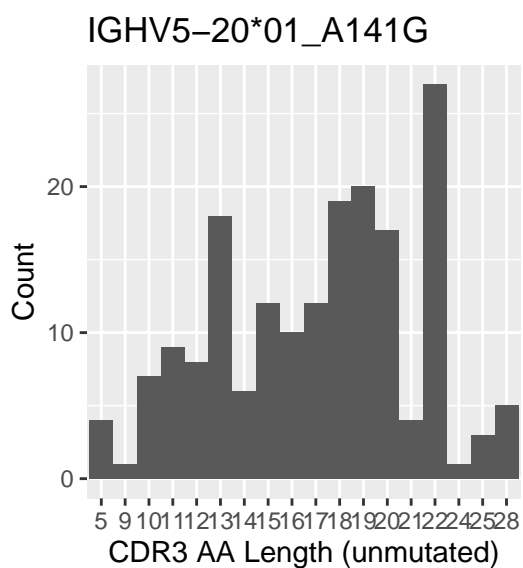
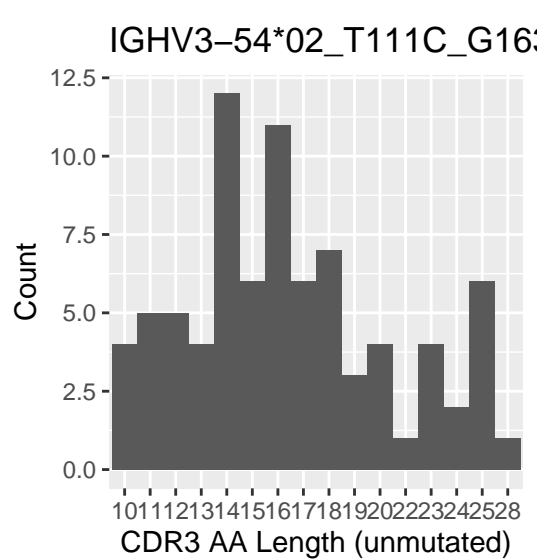


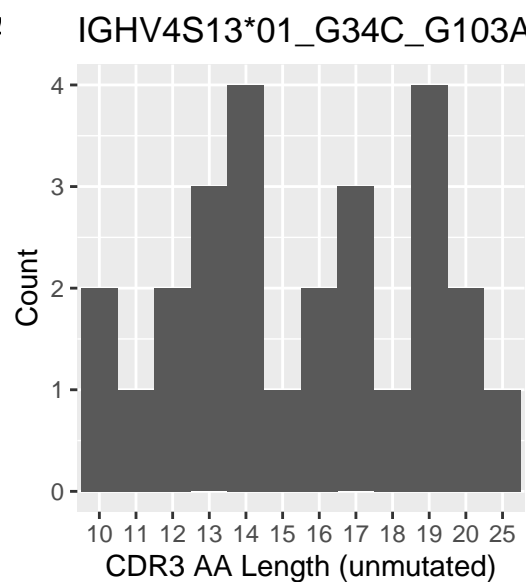
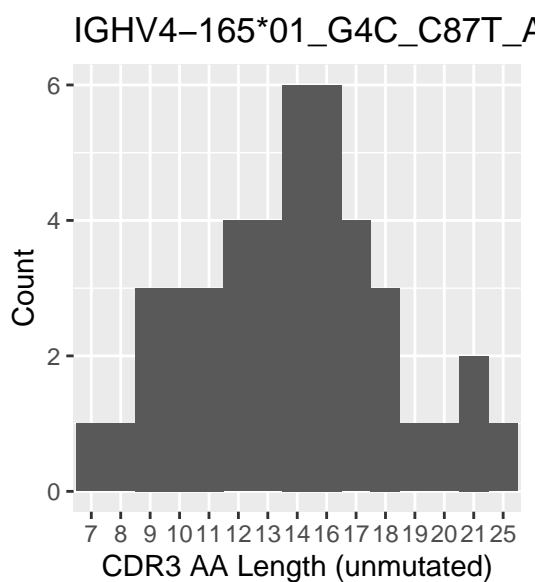
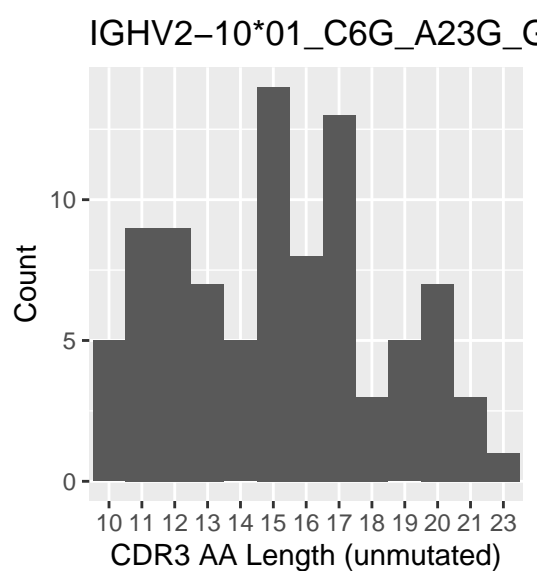
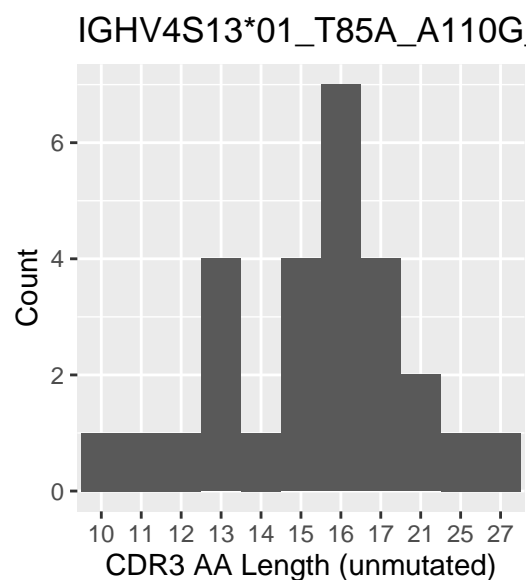
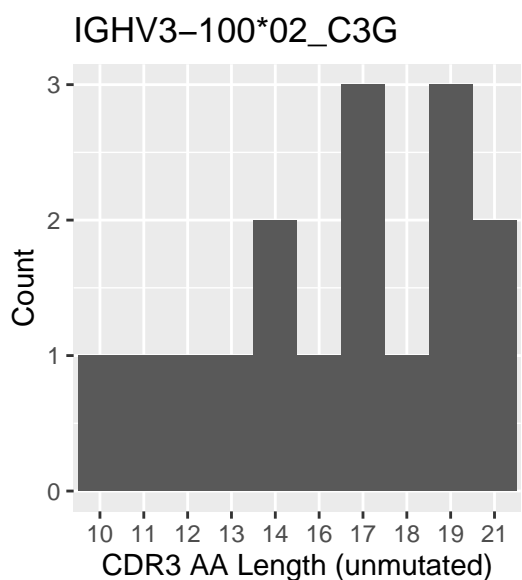
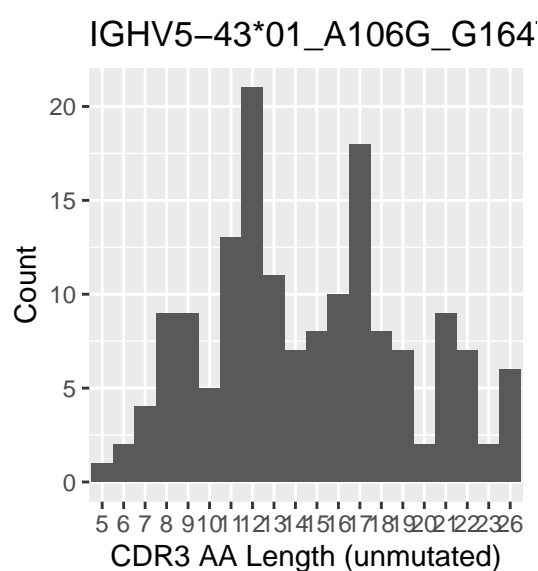
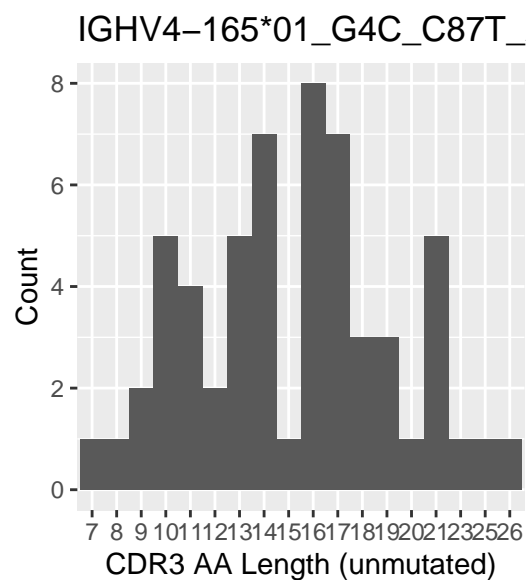
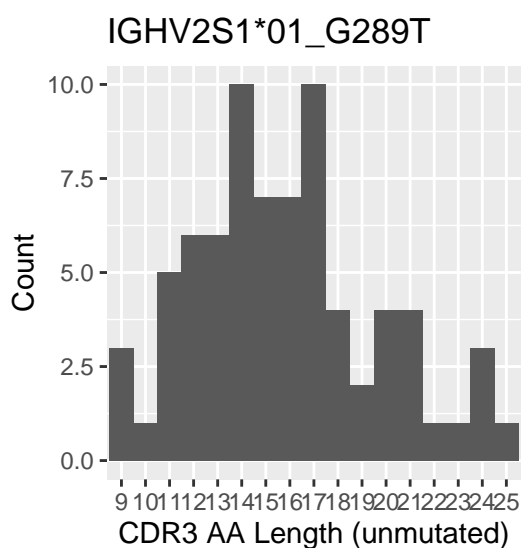
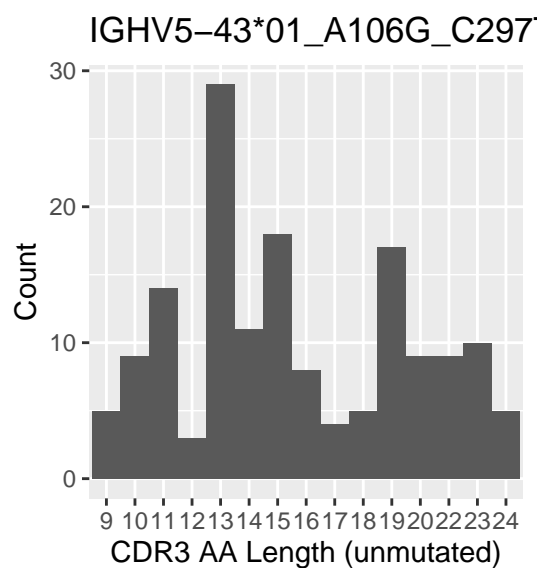
IGHV7-94*01

3 sequences assigned
No exact matches.

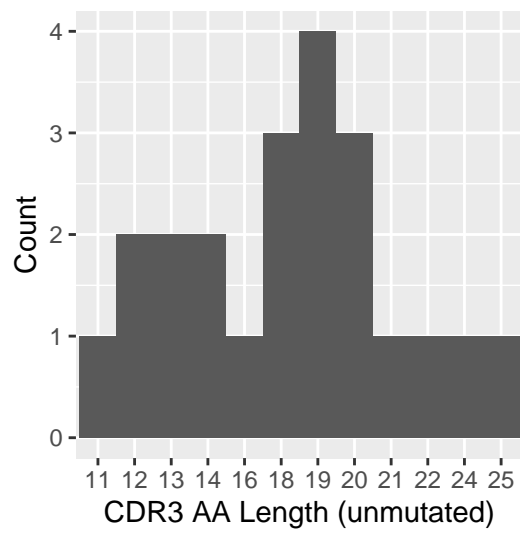




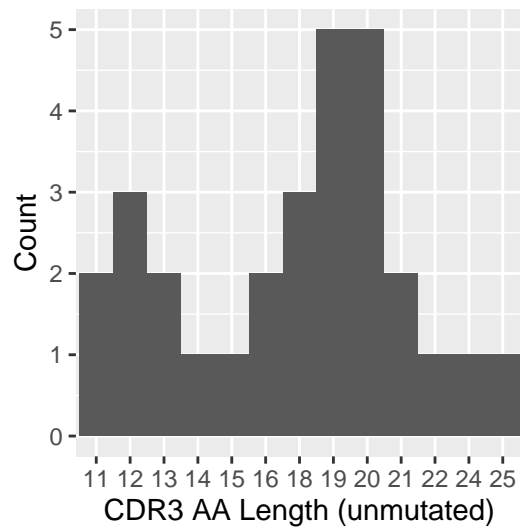




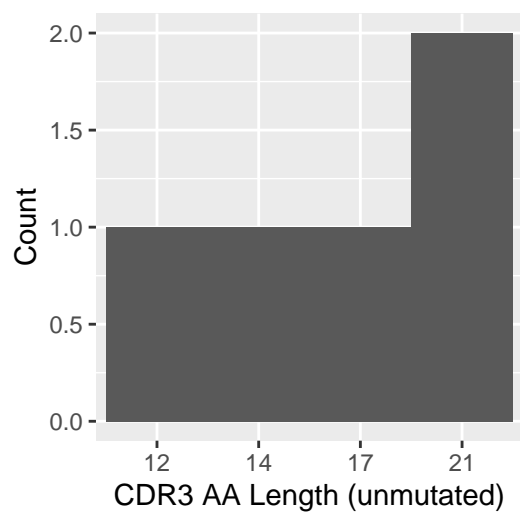
IGHV2-95*01_A103T_A252G_G289T

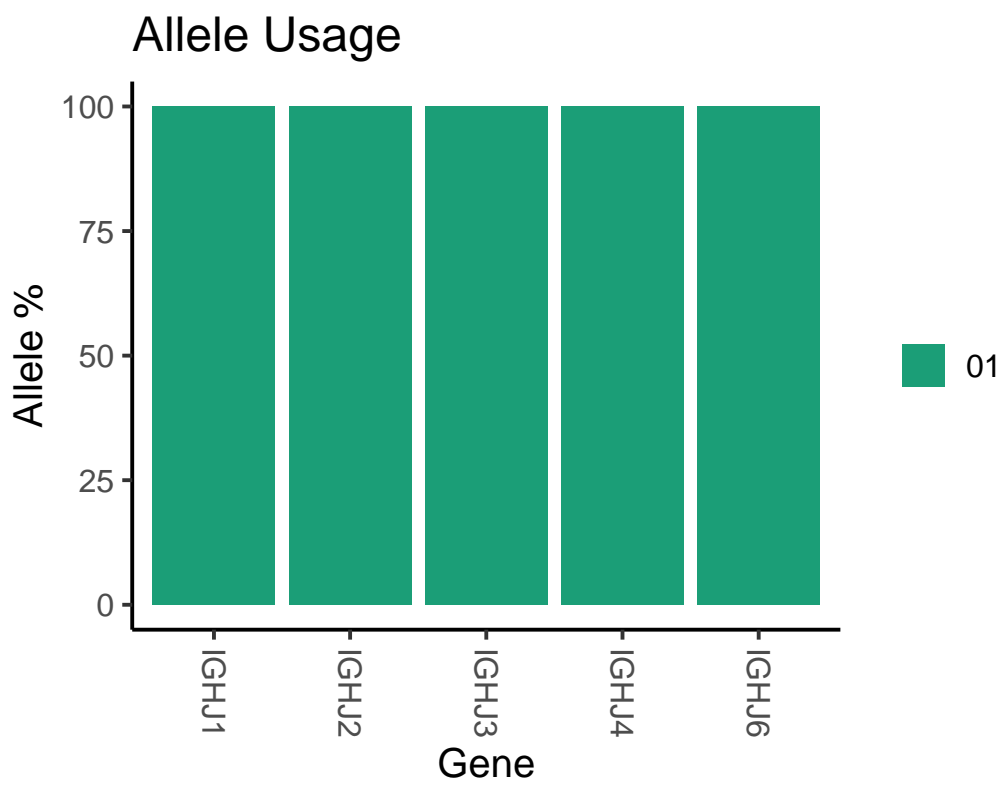


IGHV2-95*01_A103T_A252G



IGHV3-132*01_G164C_A295C





Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.