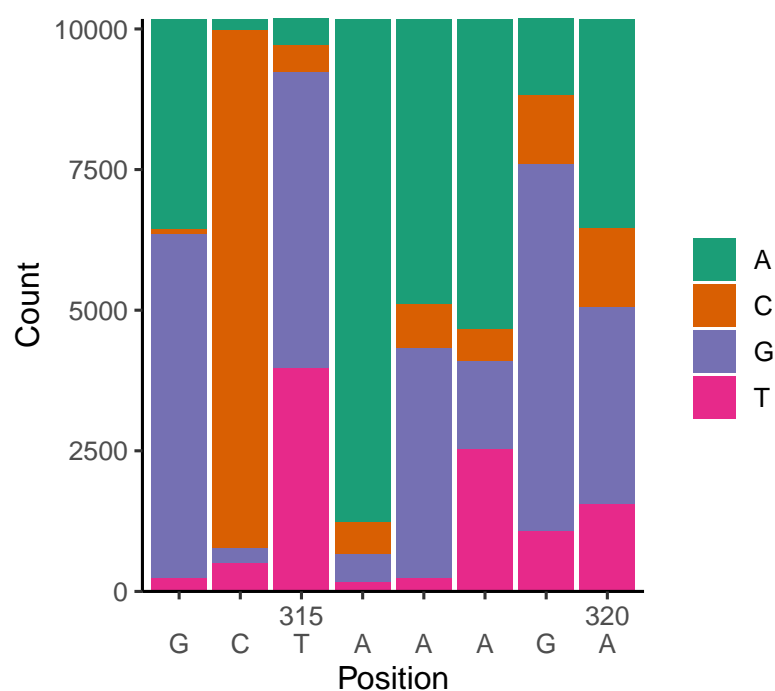
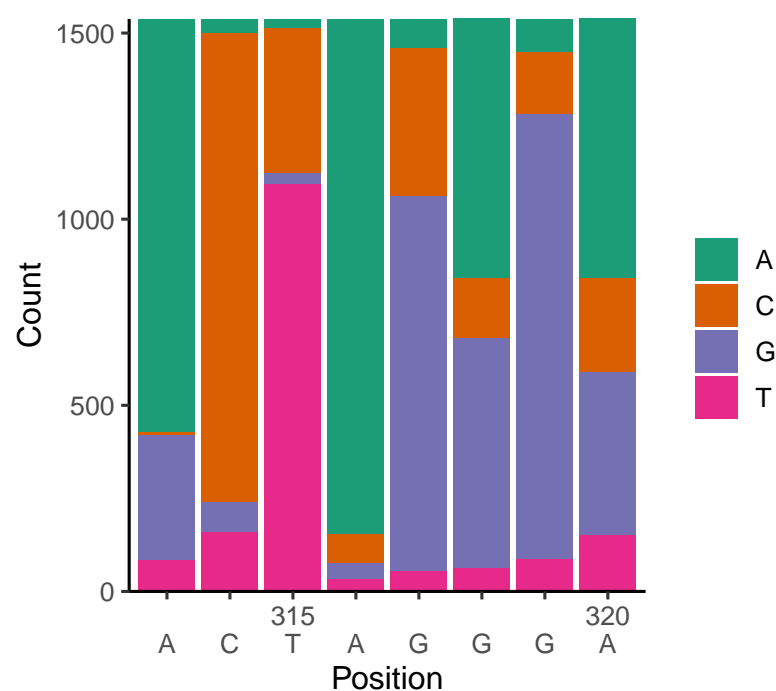


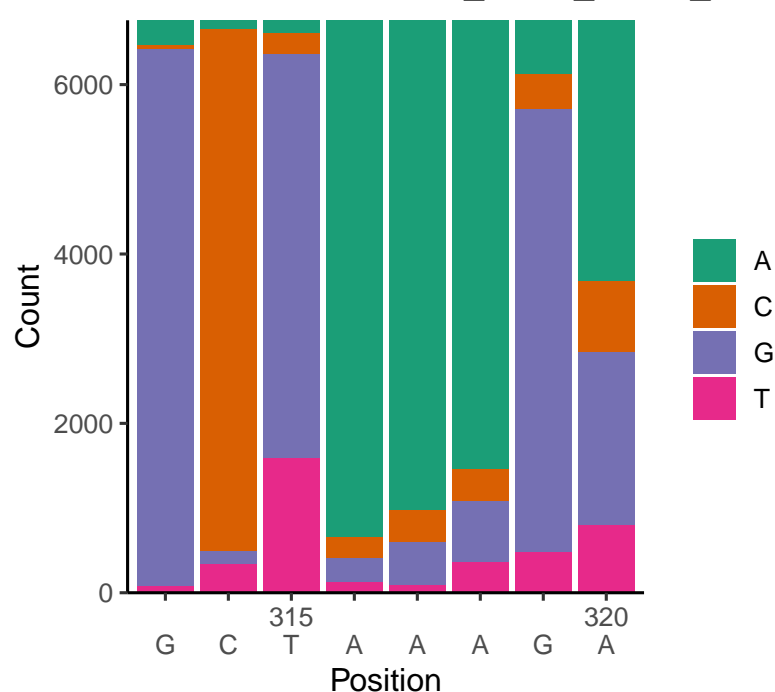
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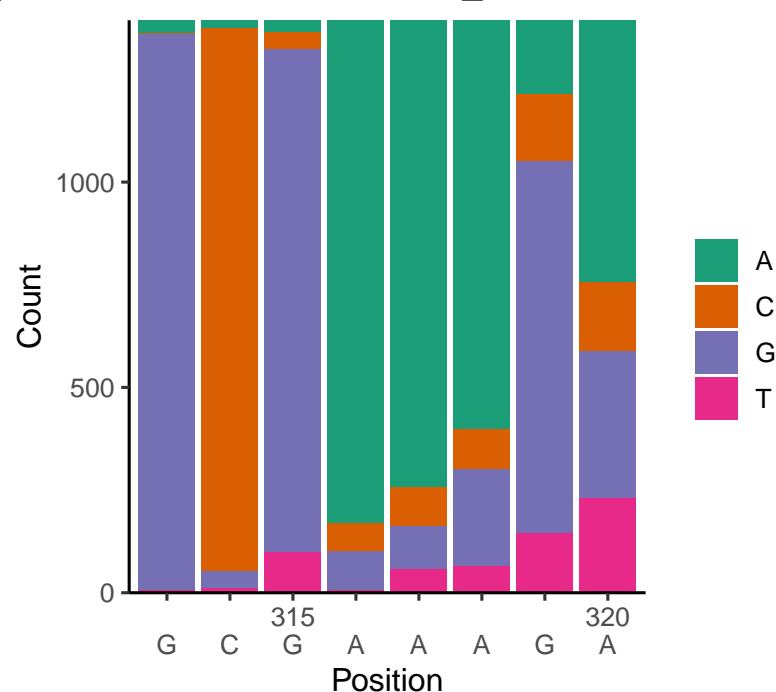
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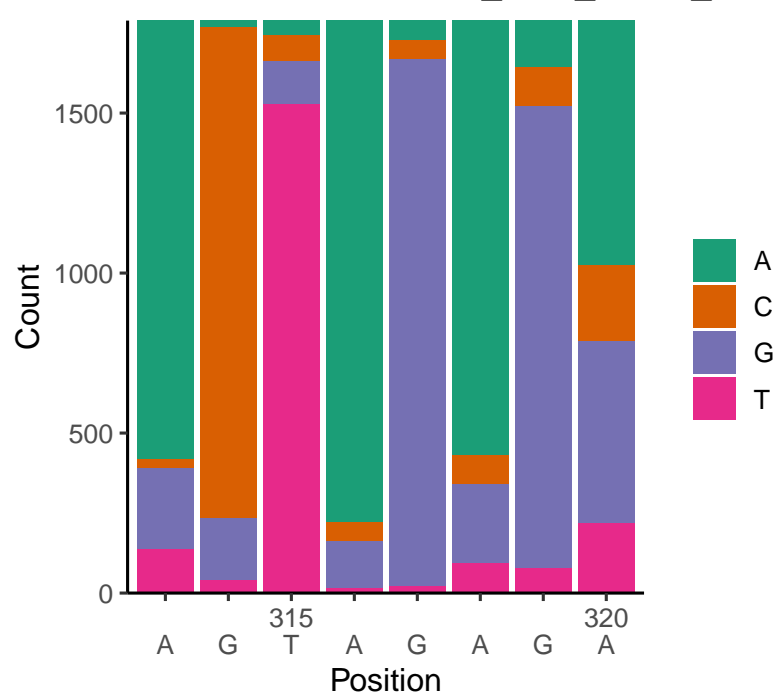
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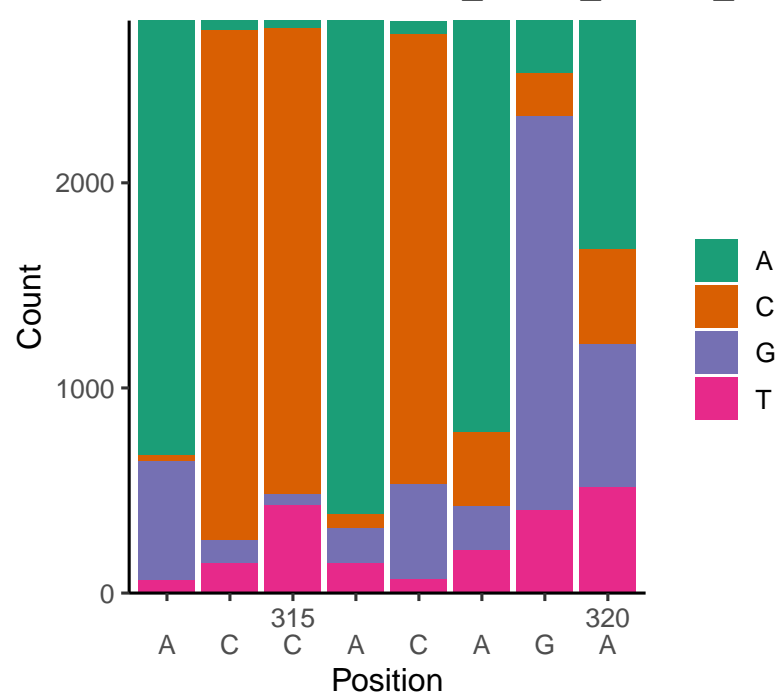
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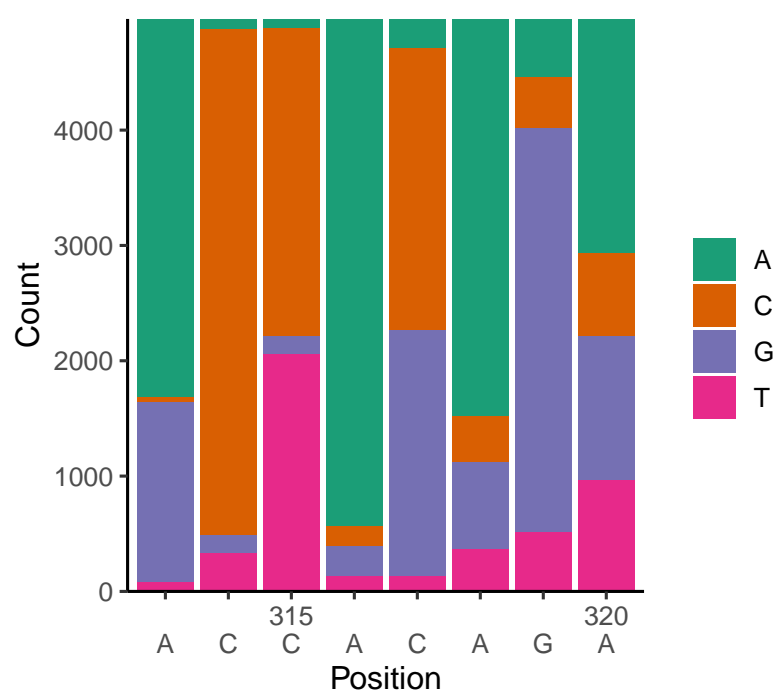
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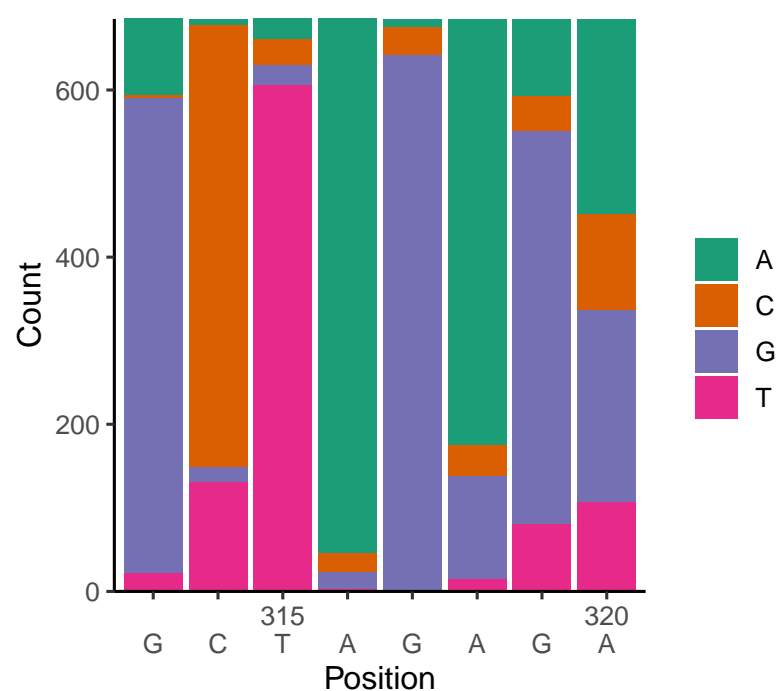
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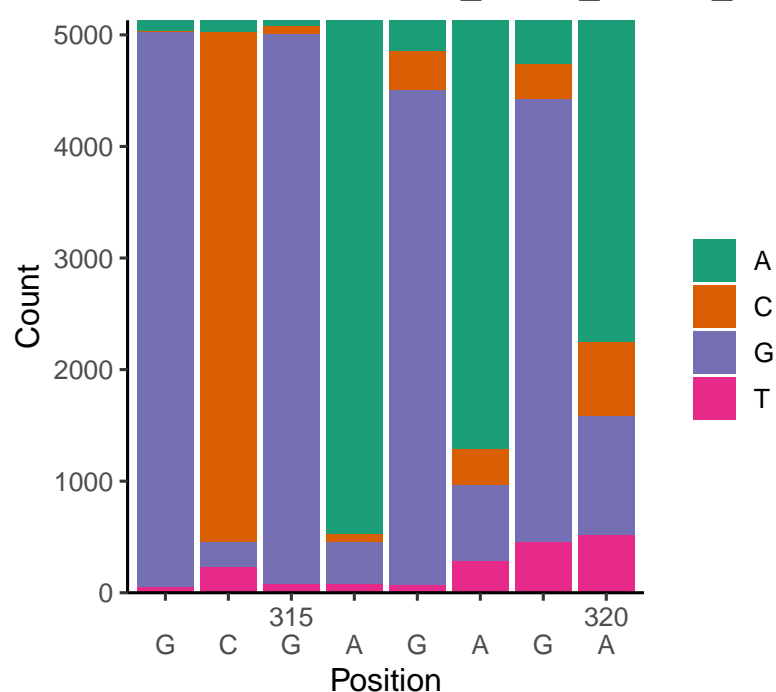
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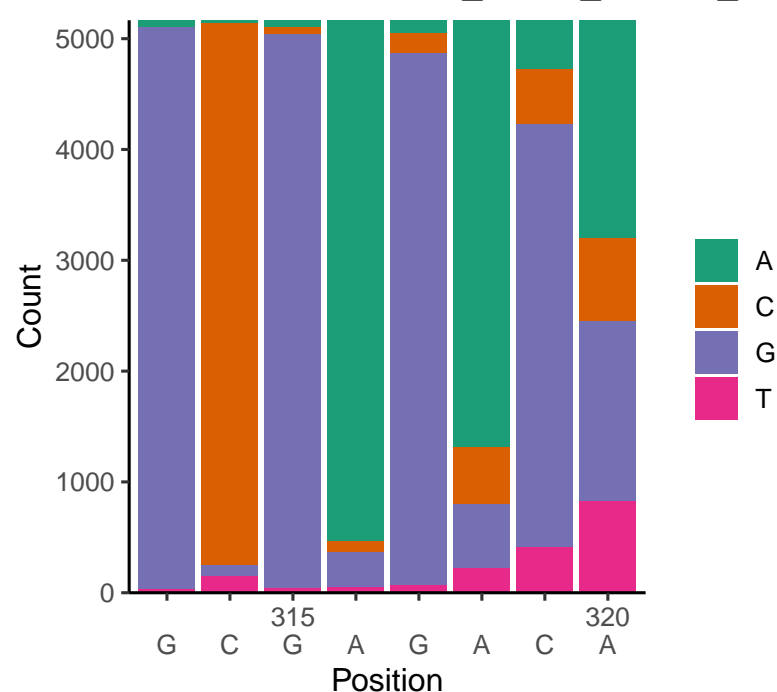
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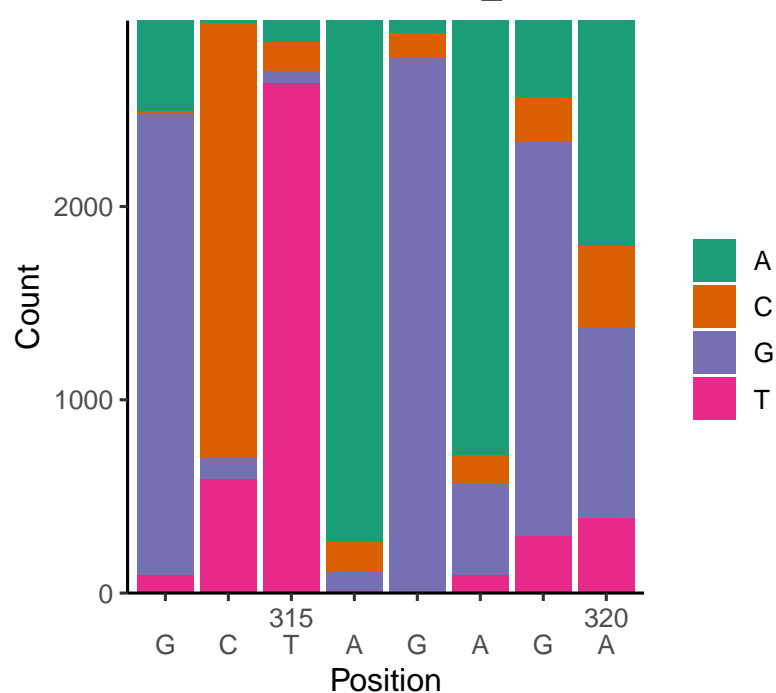
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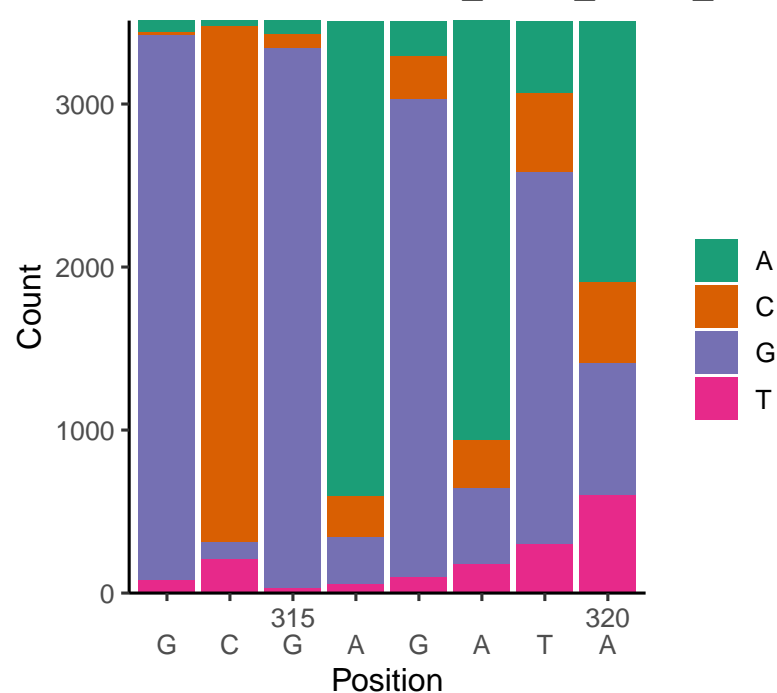
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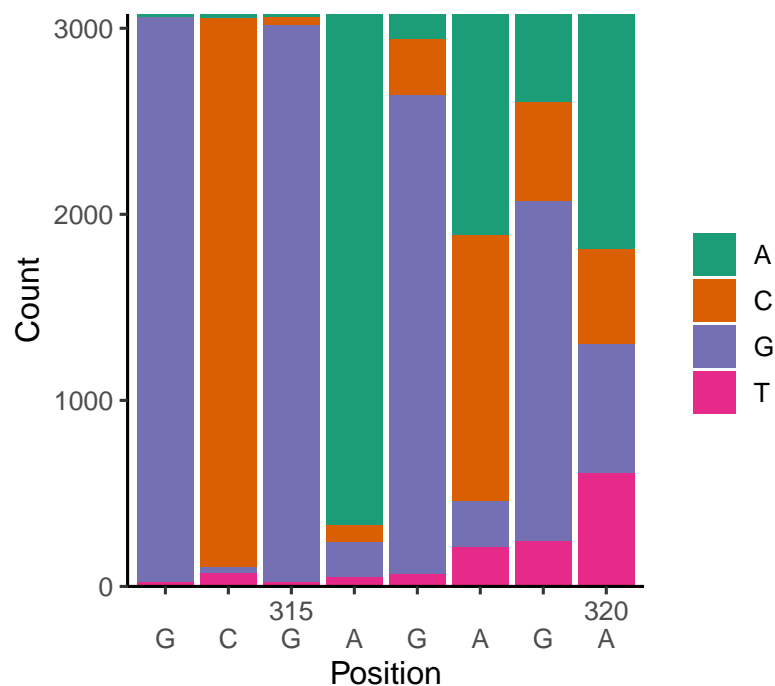
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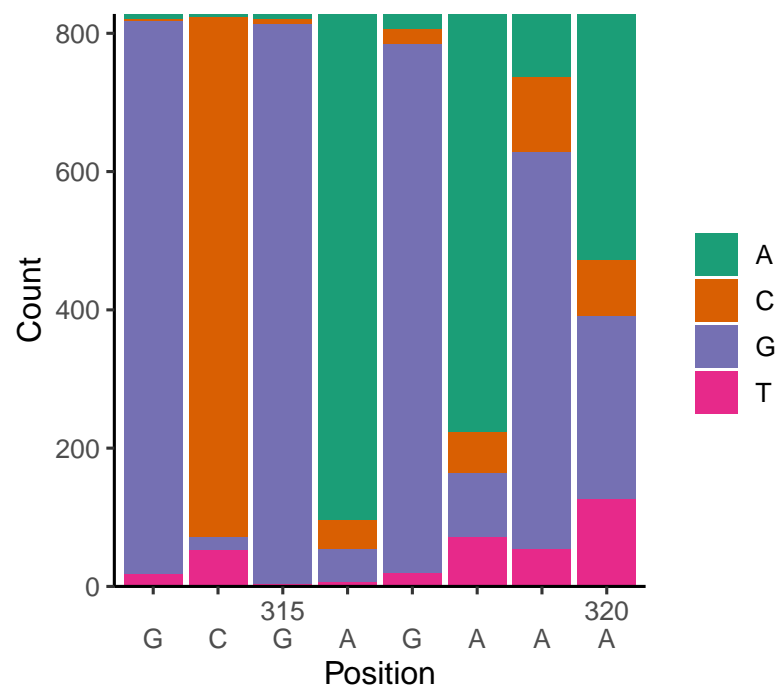
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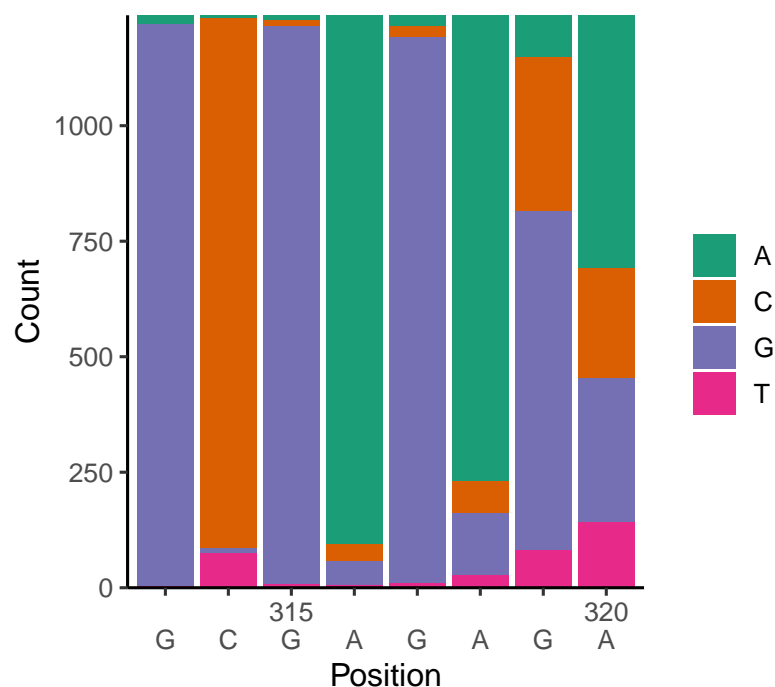
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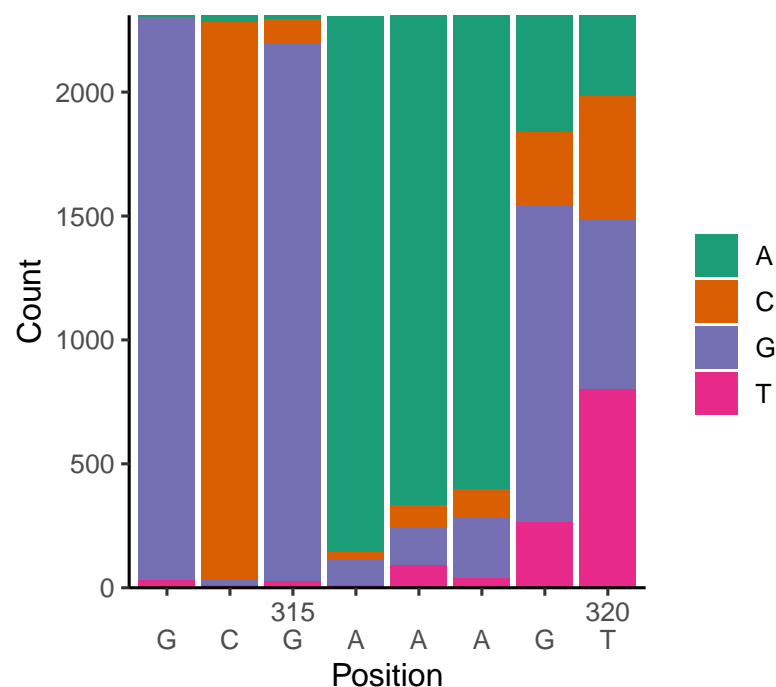
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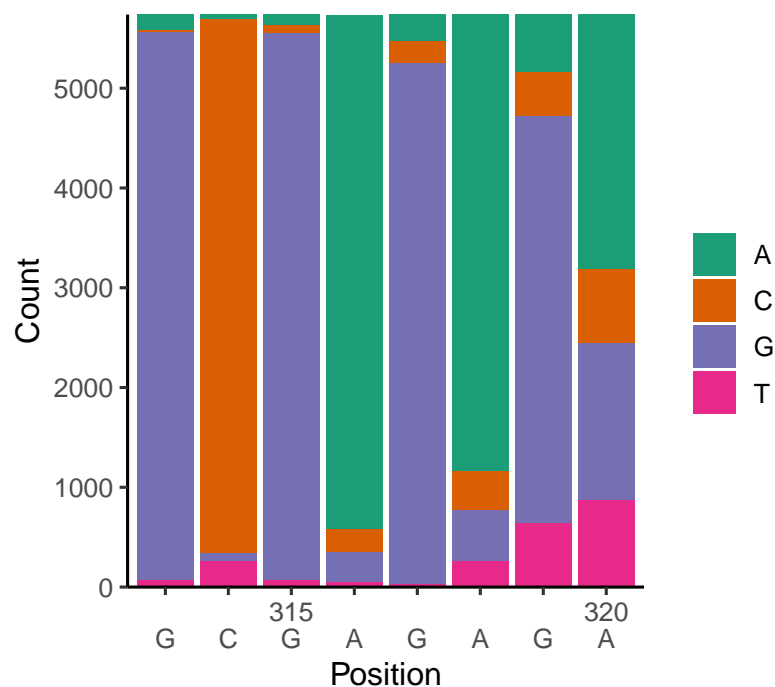
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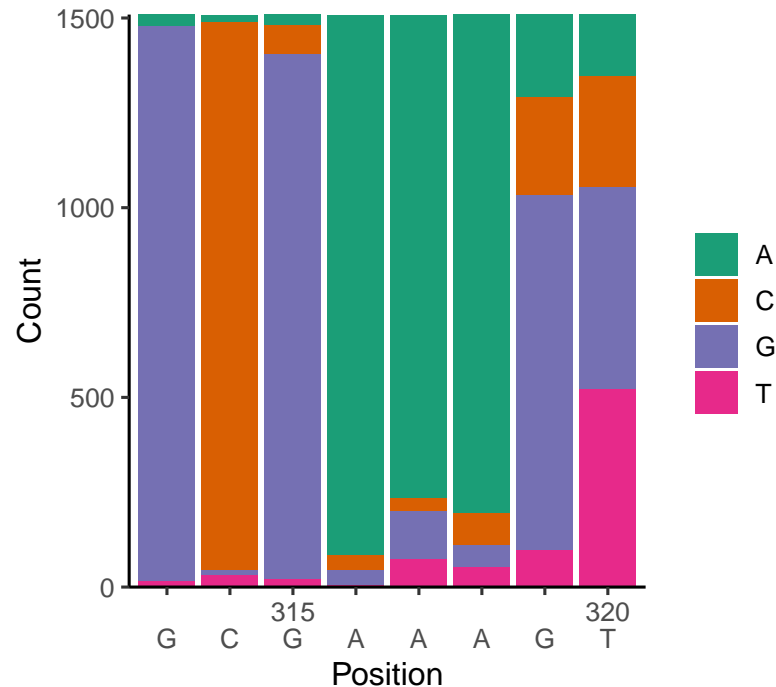
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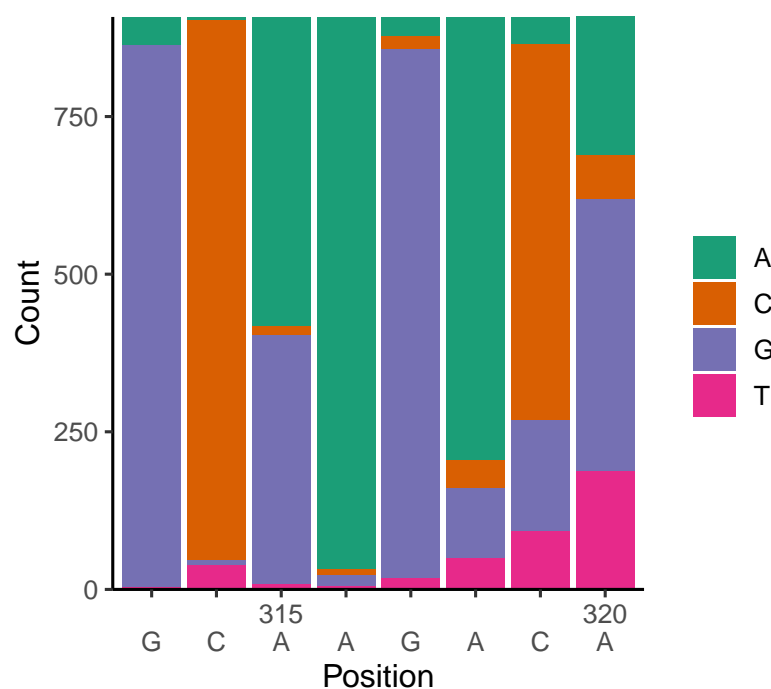
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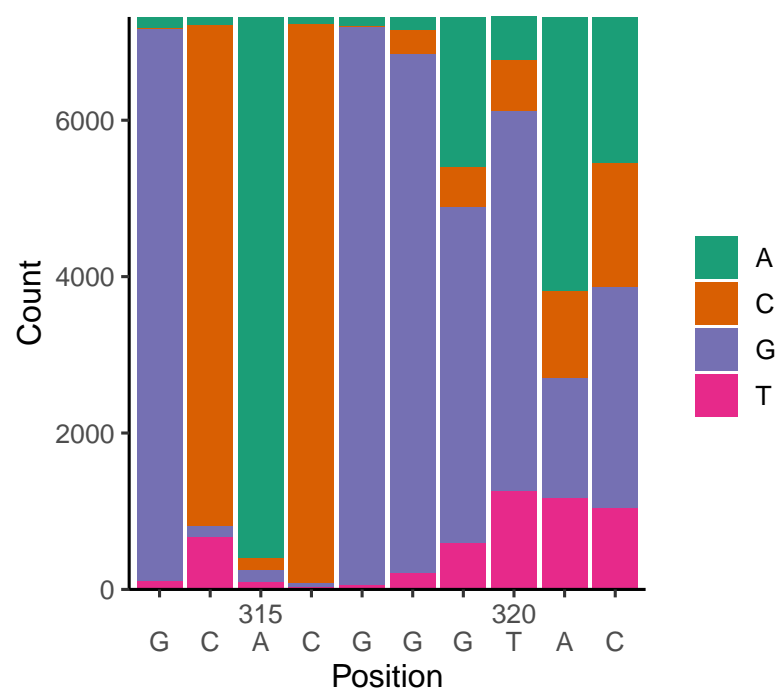
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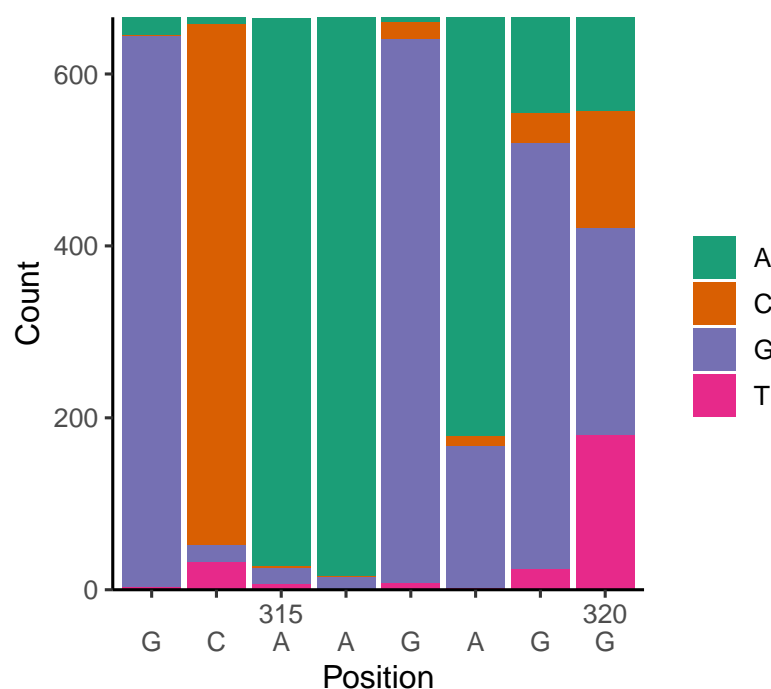
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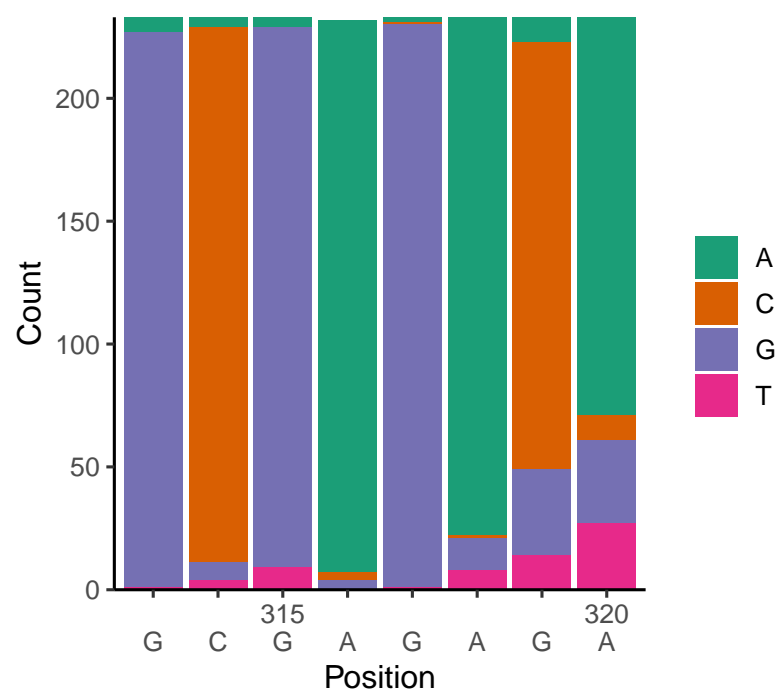
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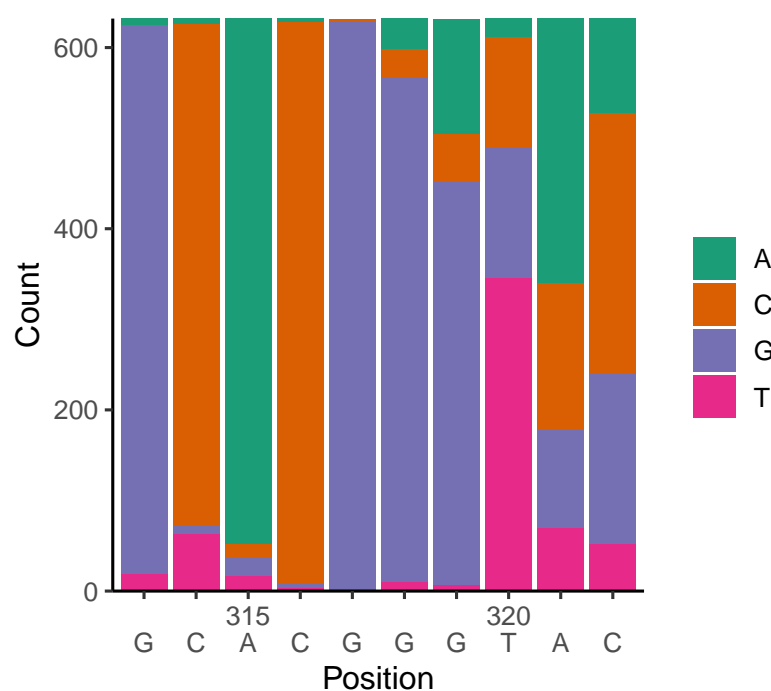
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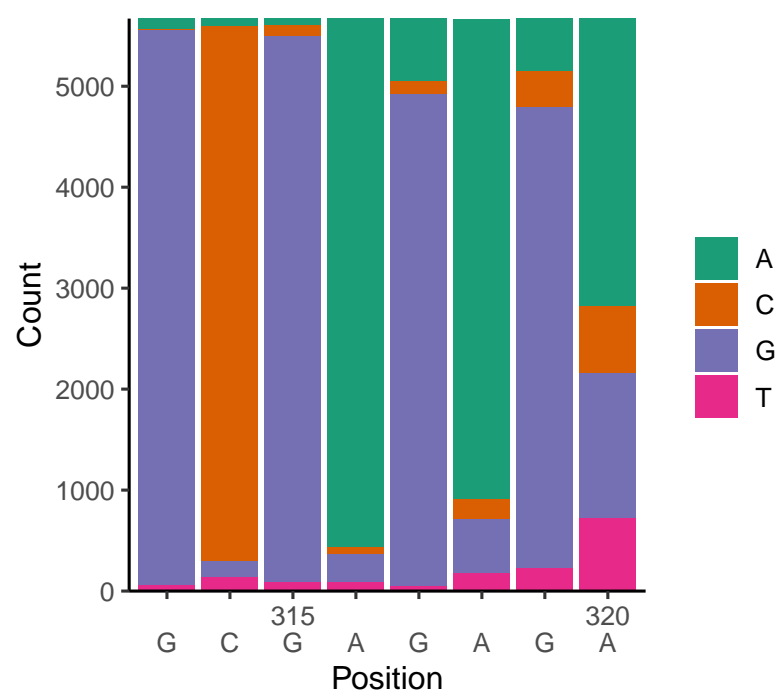
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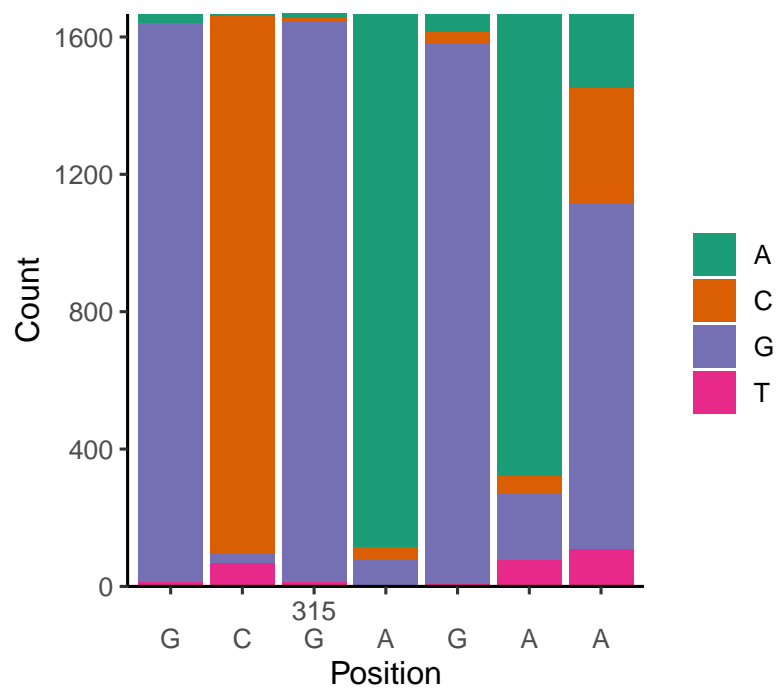
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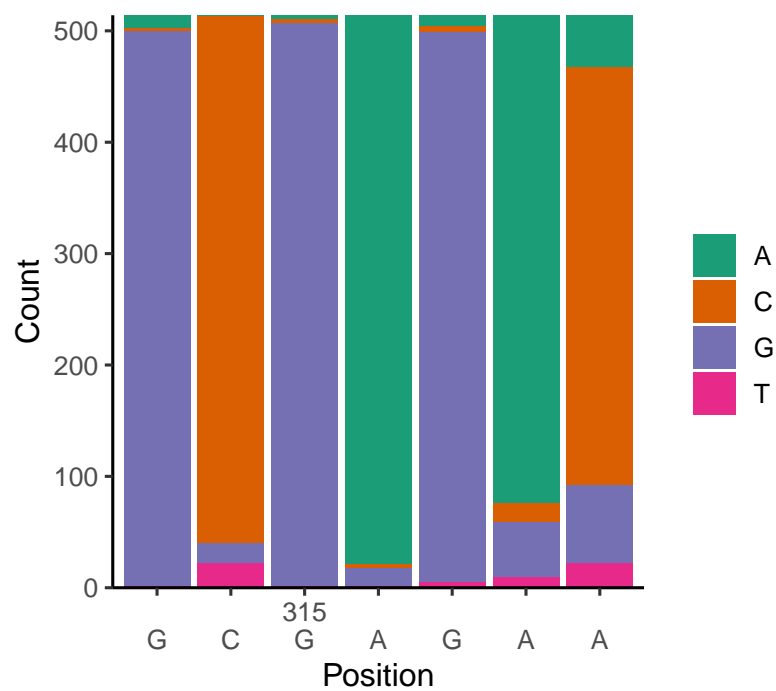
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Gene IGHV4-169*01_C4G_T60C_G61C_T163C_A164G_T169G_G172A_T189G_A196T



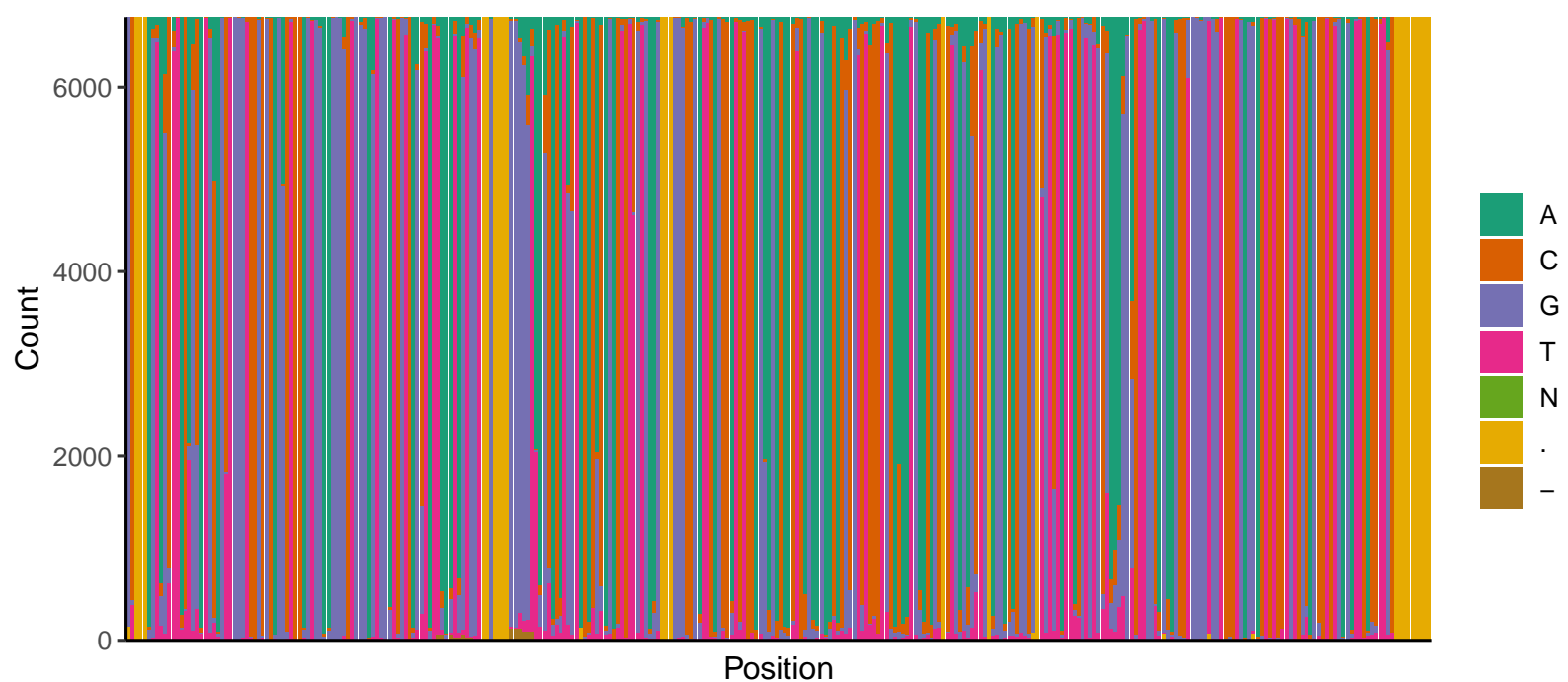
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Gene IGHV3S42*01_T19A_G24A_C27A_C38T_A39C_A40C_G59A_C111T_T112G_G1



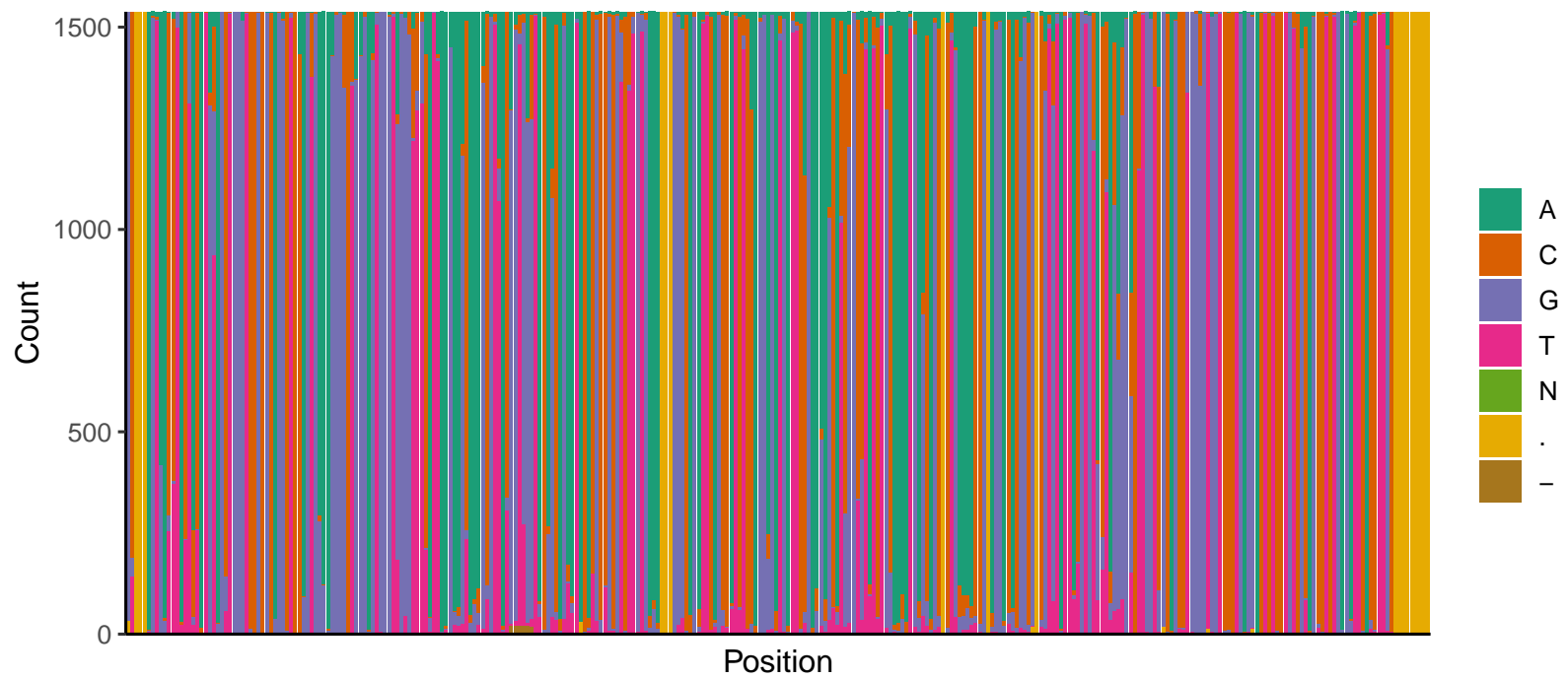
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Gene IGHV3-134*01_A3C_A81G_G175A_G184A_G191C_C194T_T198C_C210T_A256



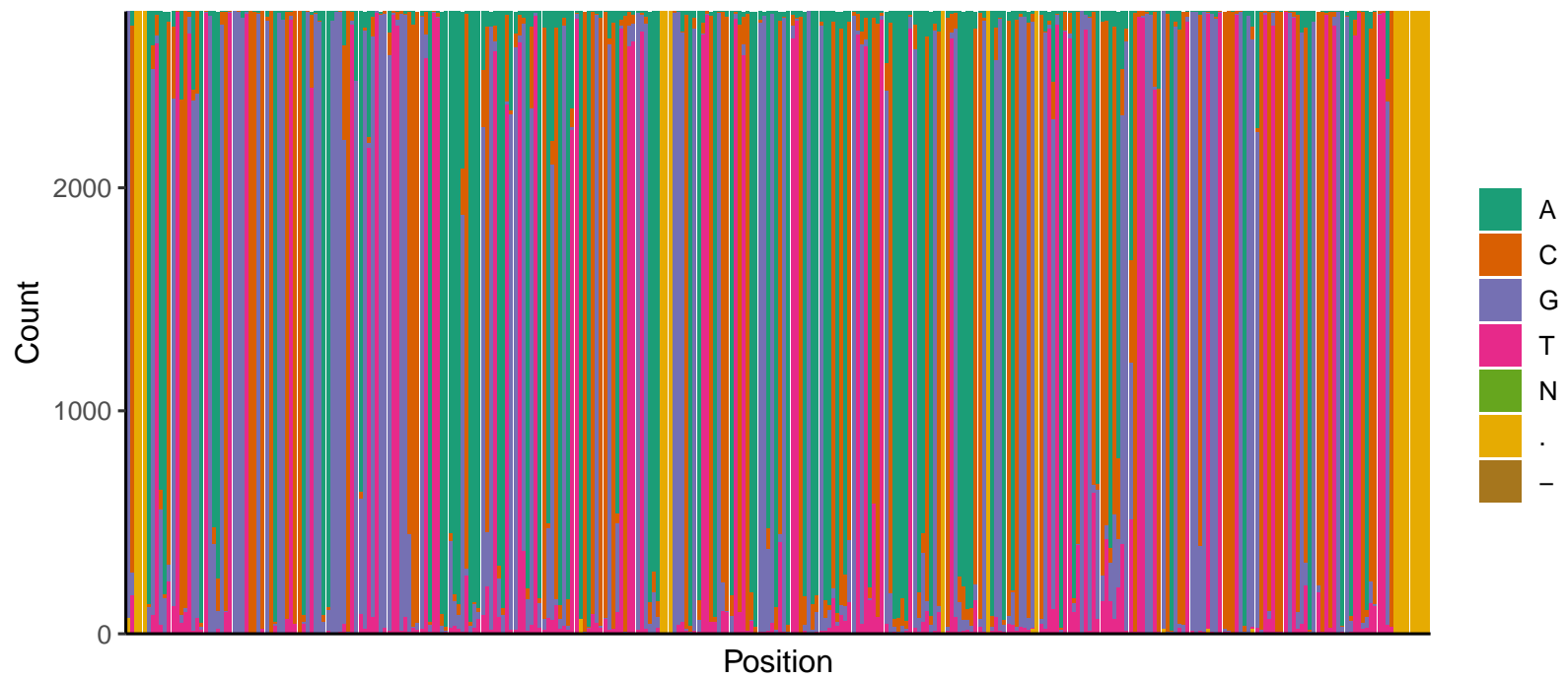
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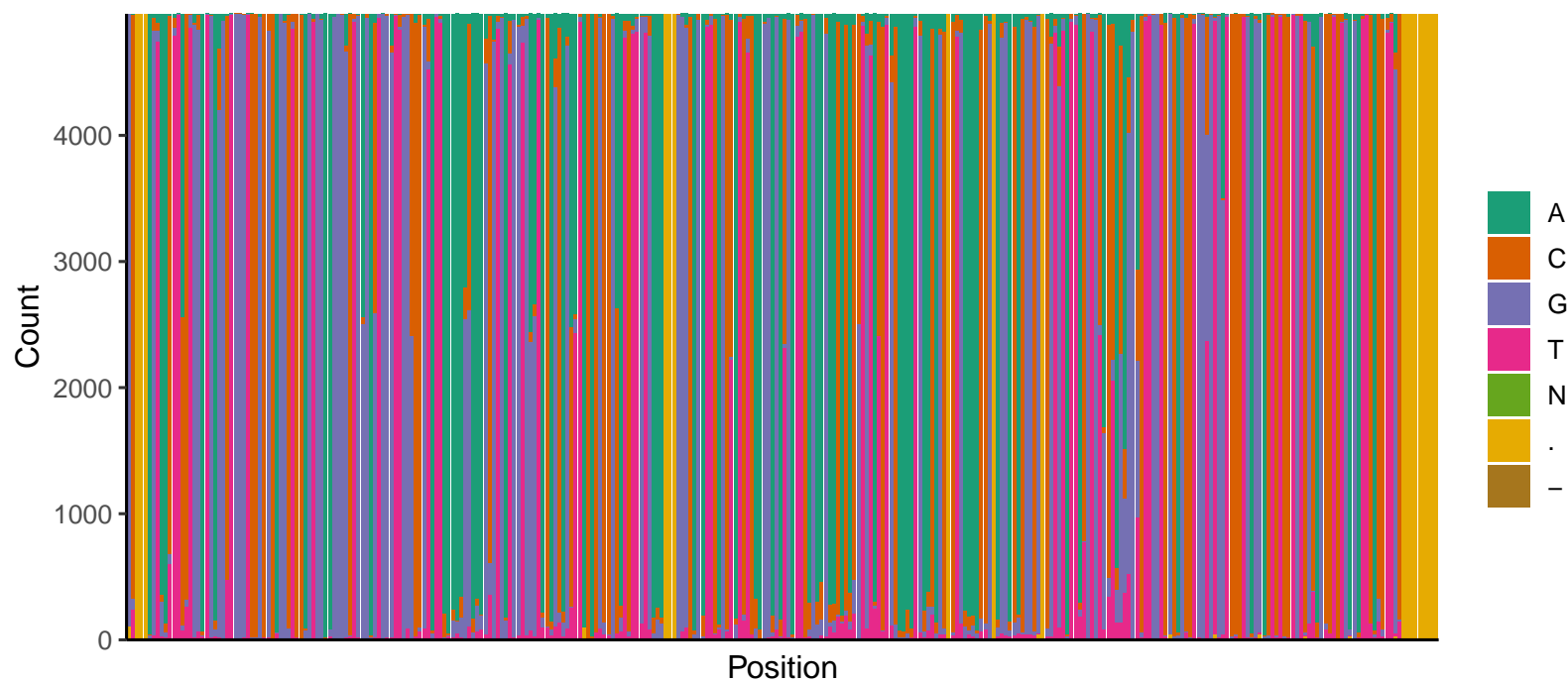
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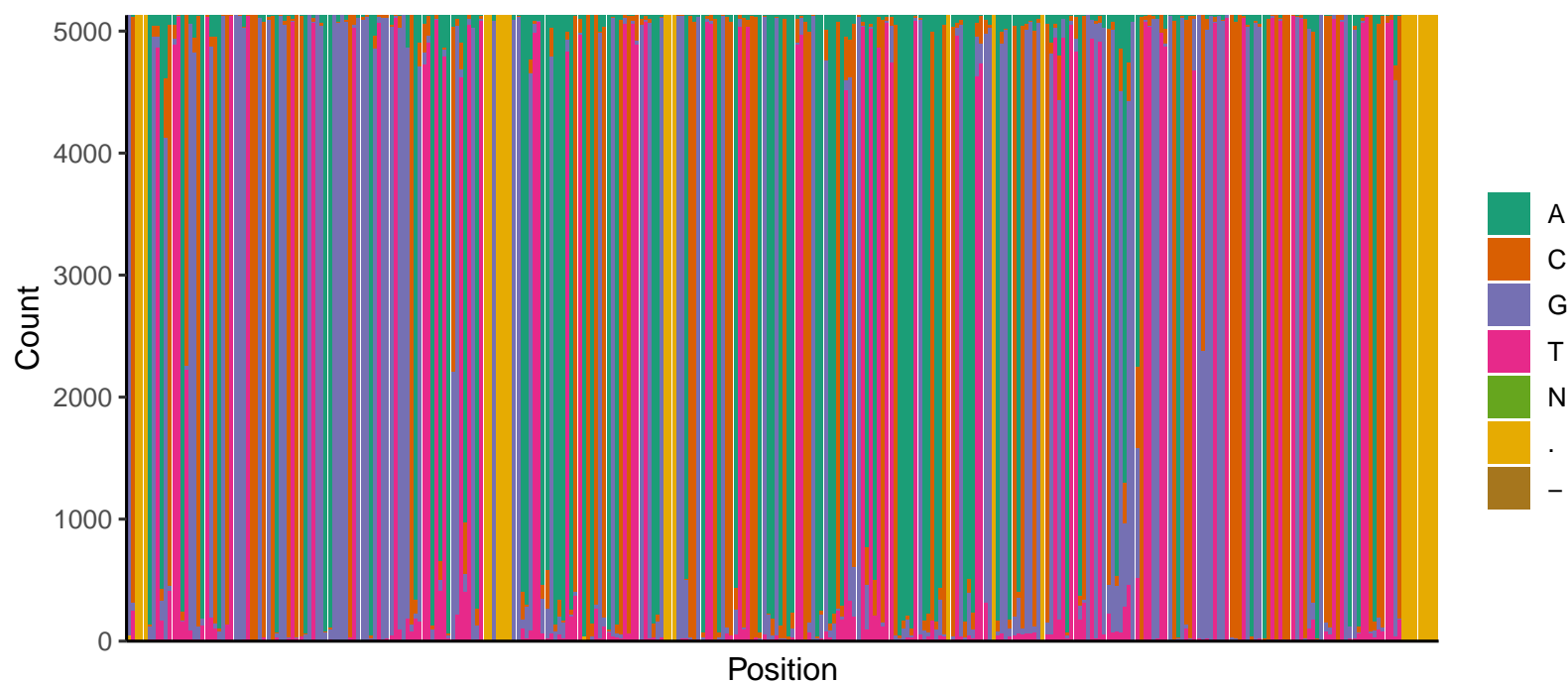
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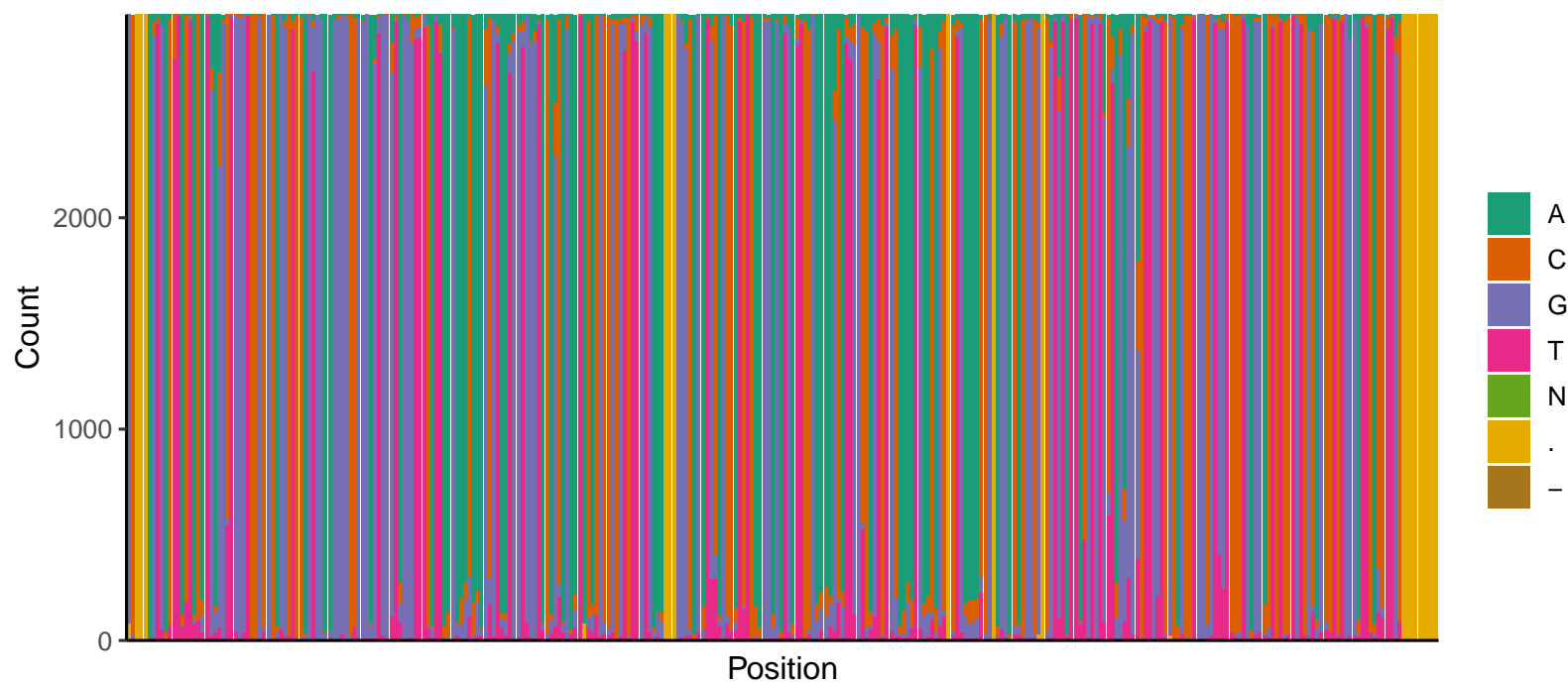
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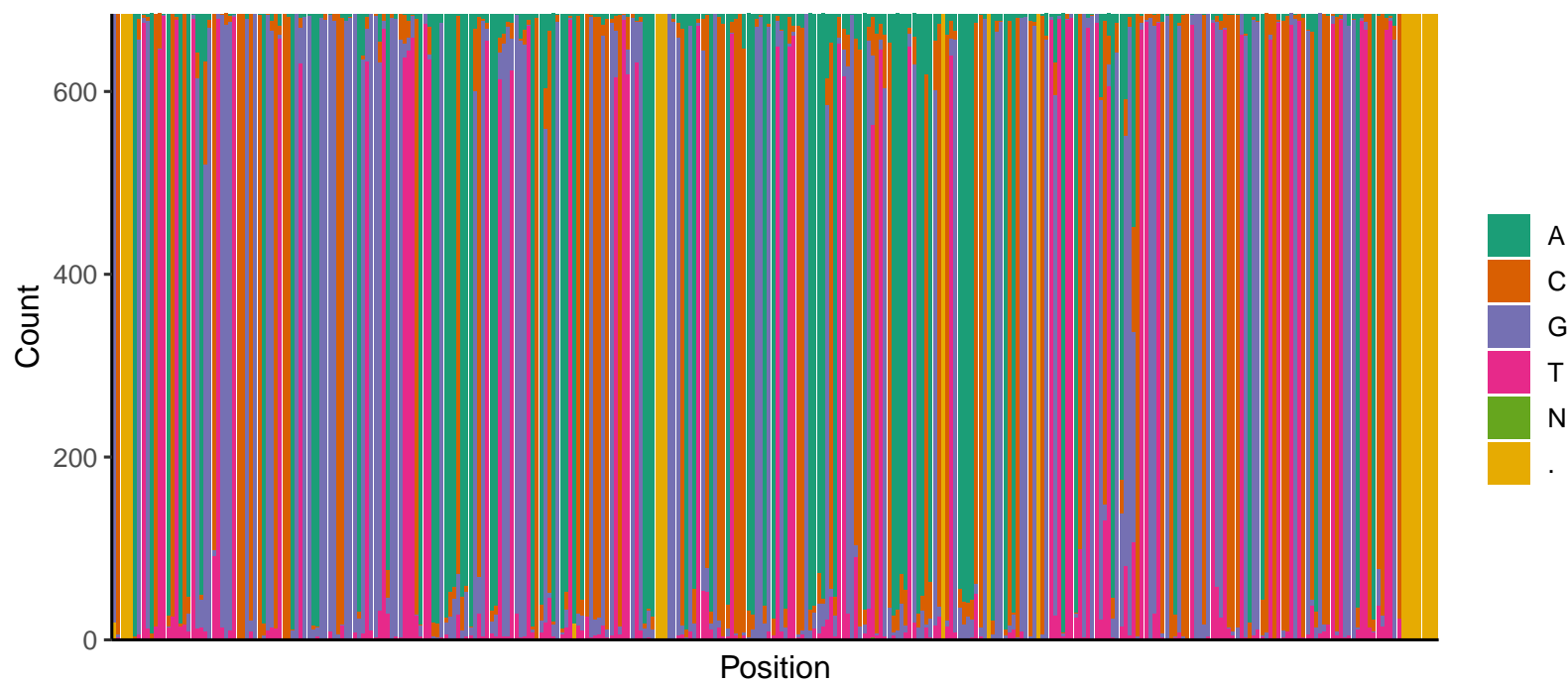
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Gene IGHV3-116*02_T227G



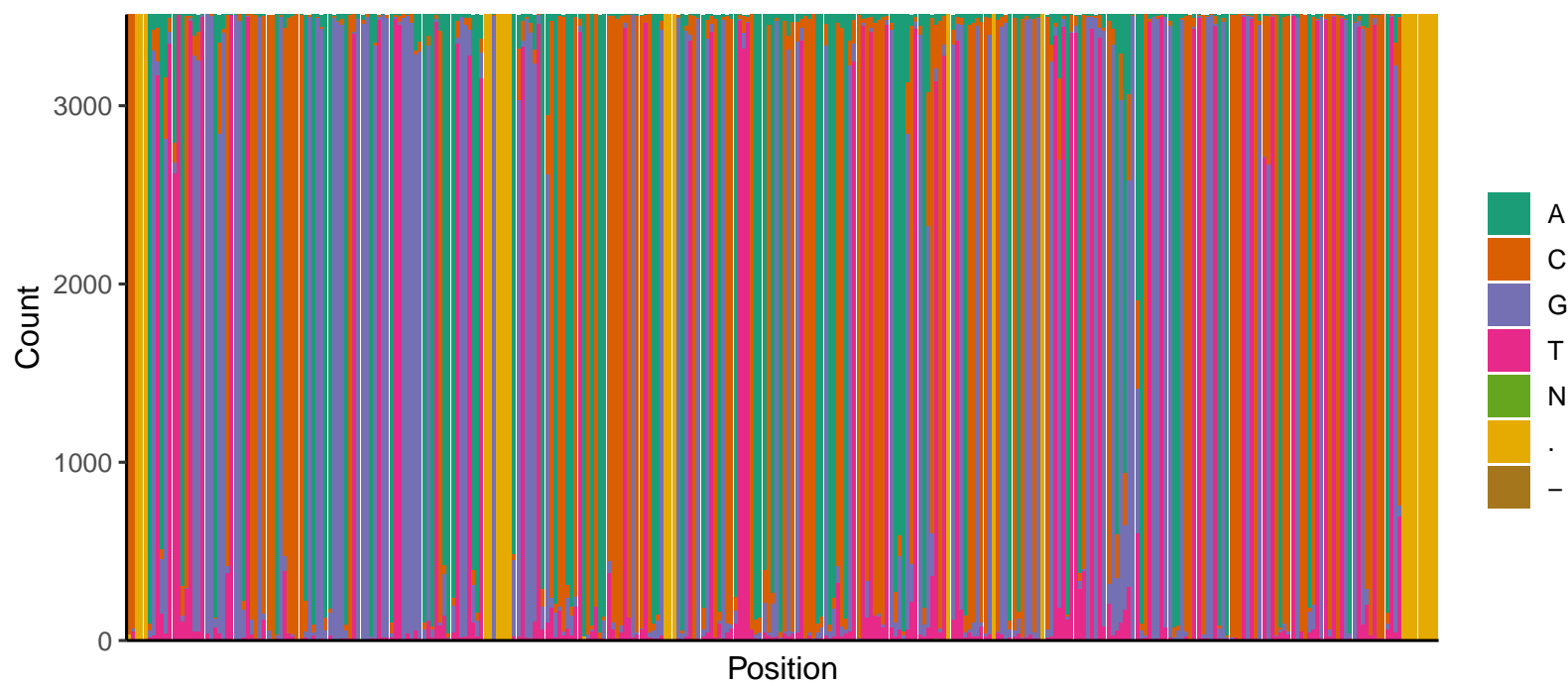
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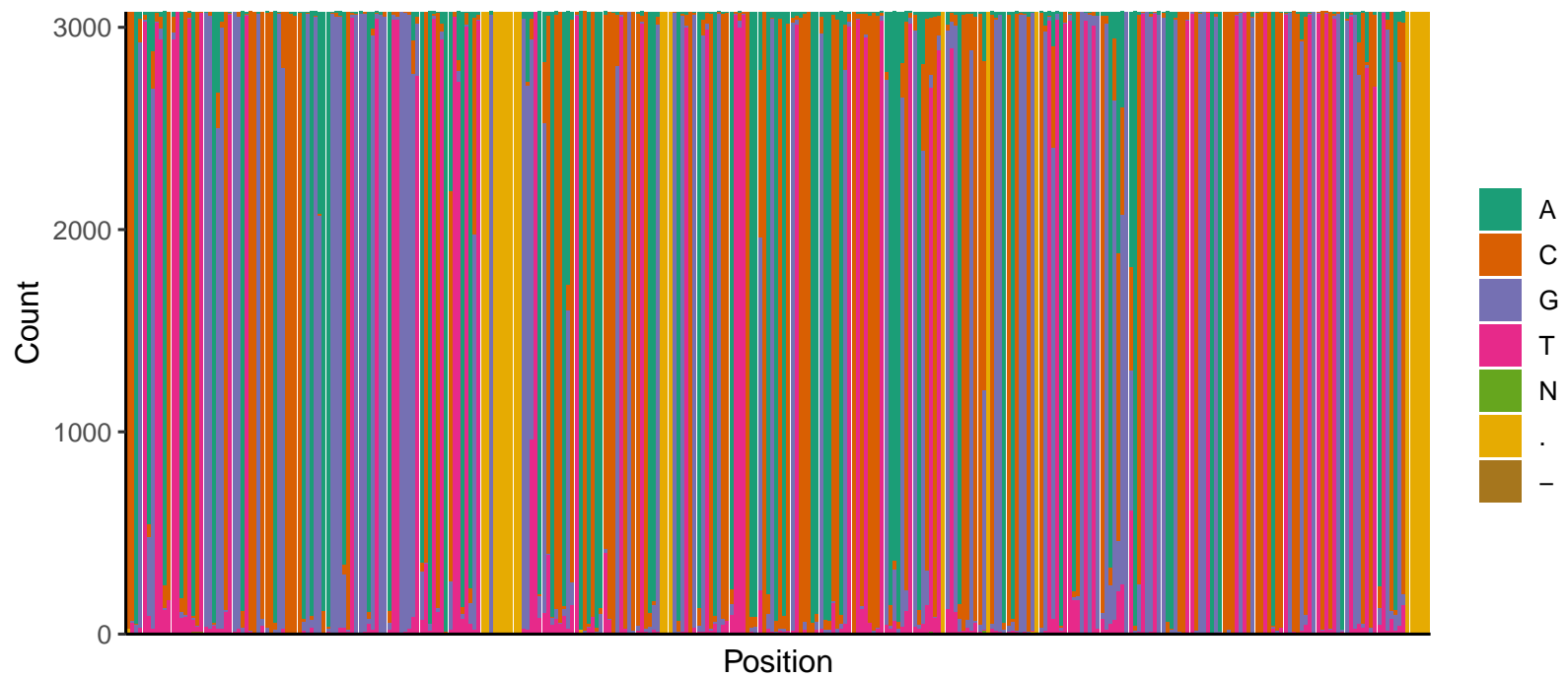
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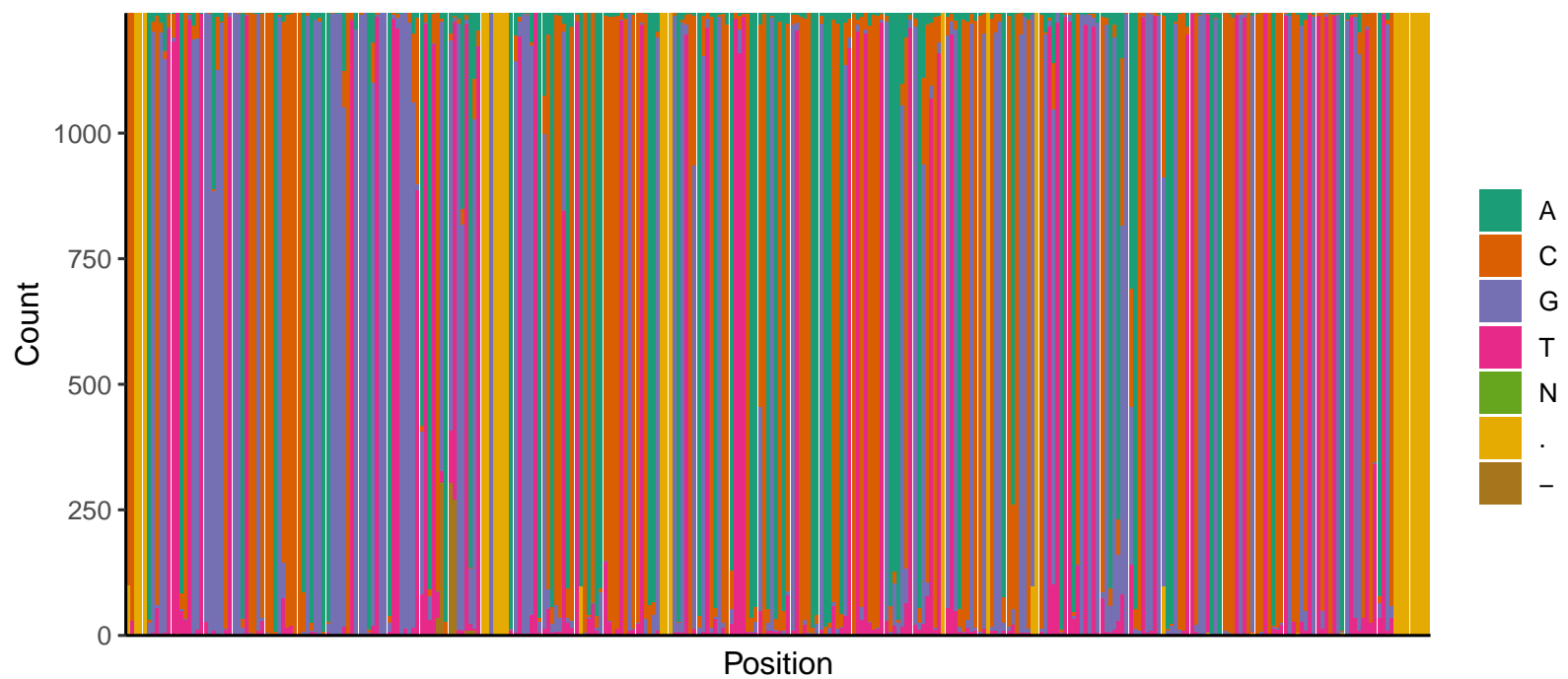
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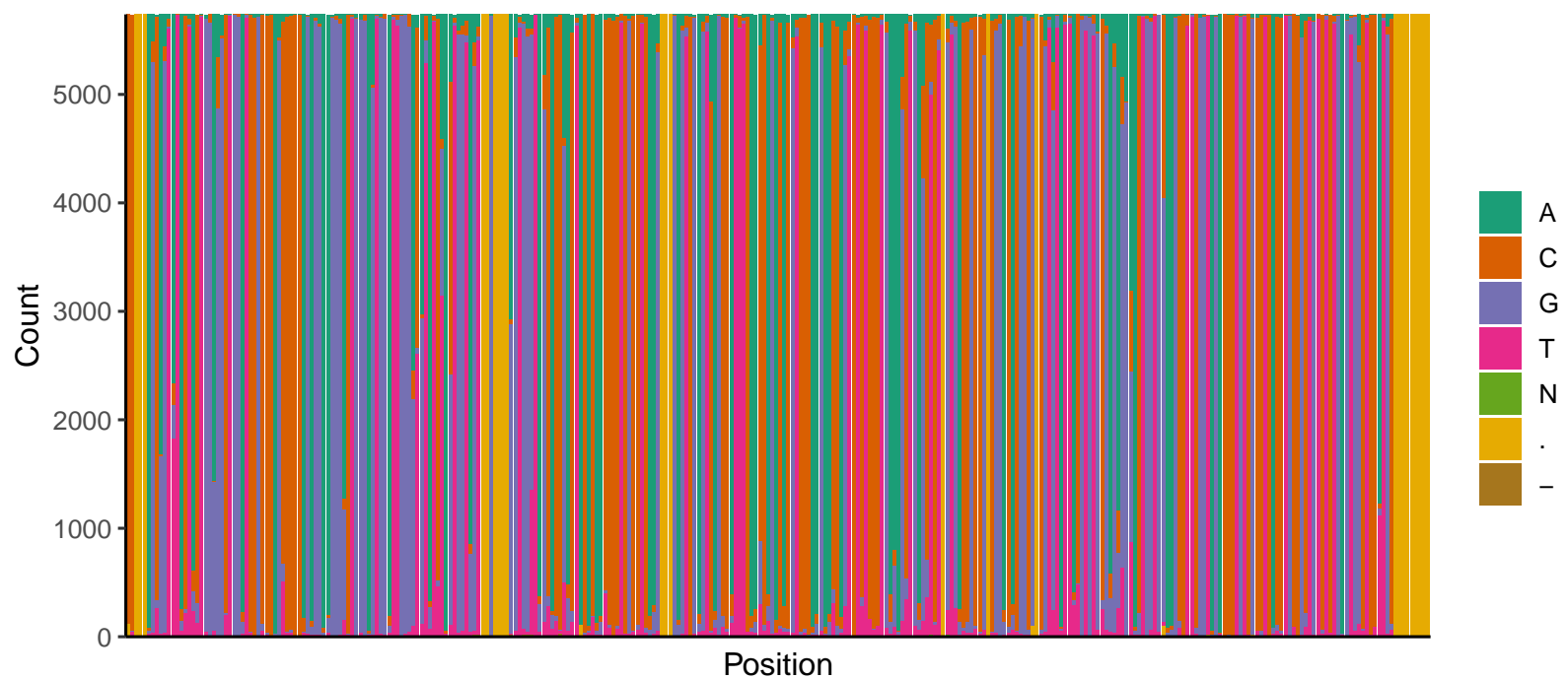
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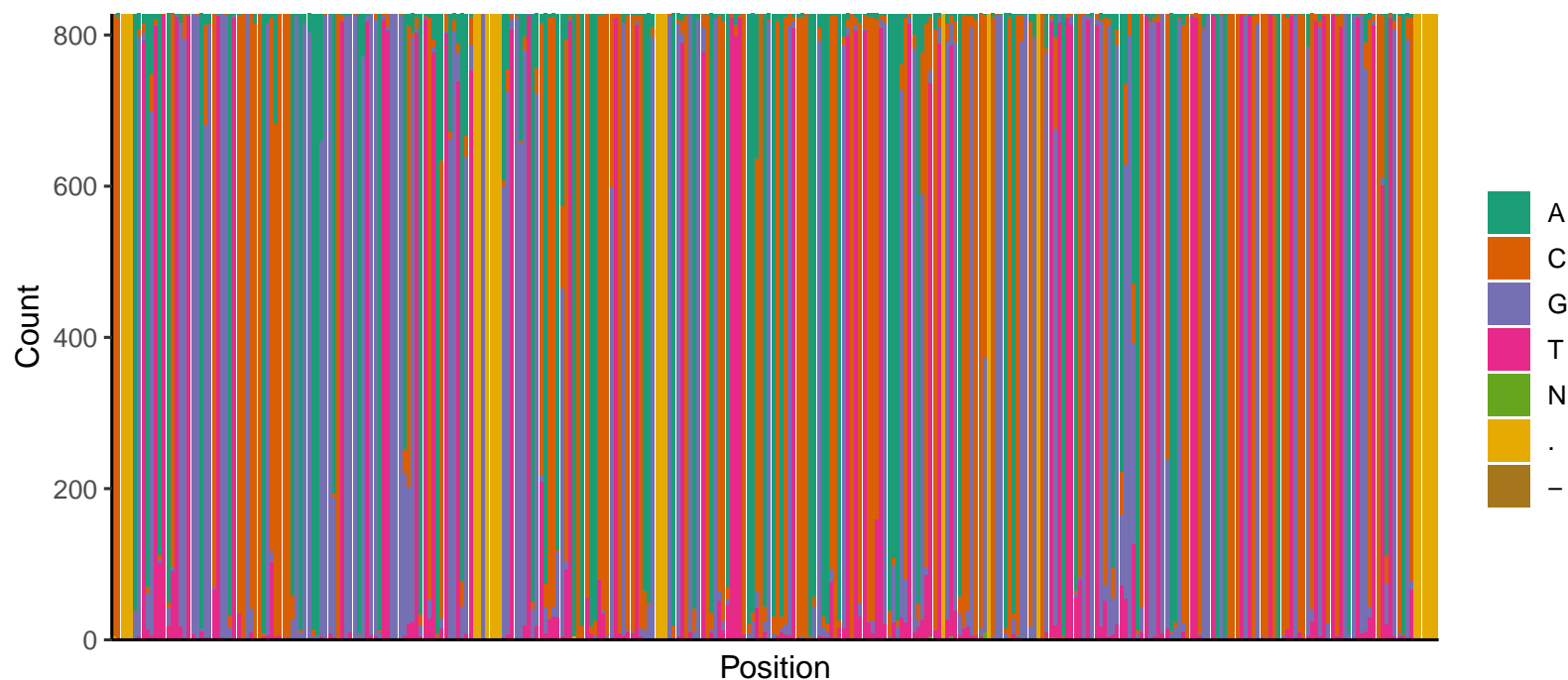
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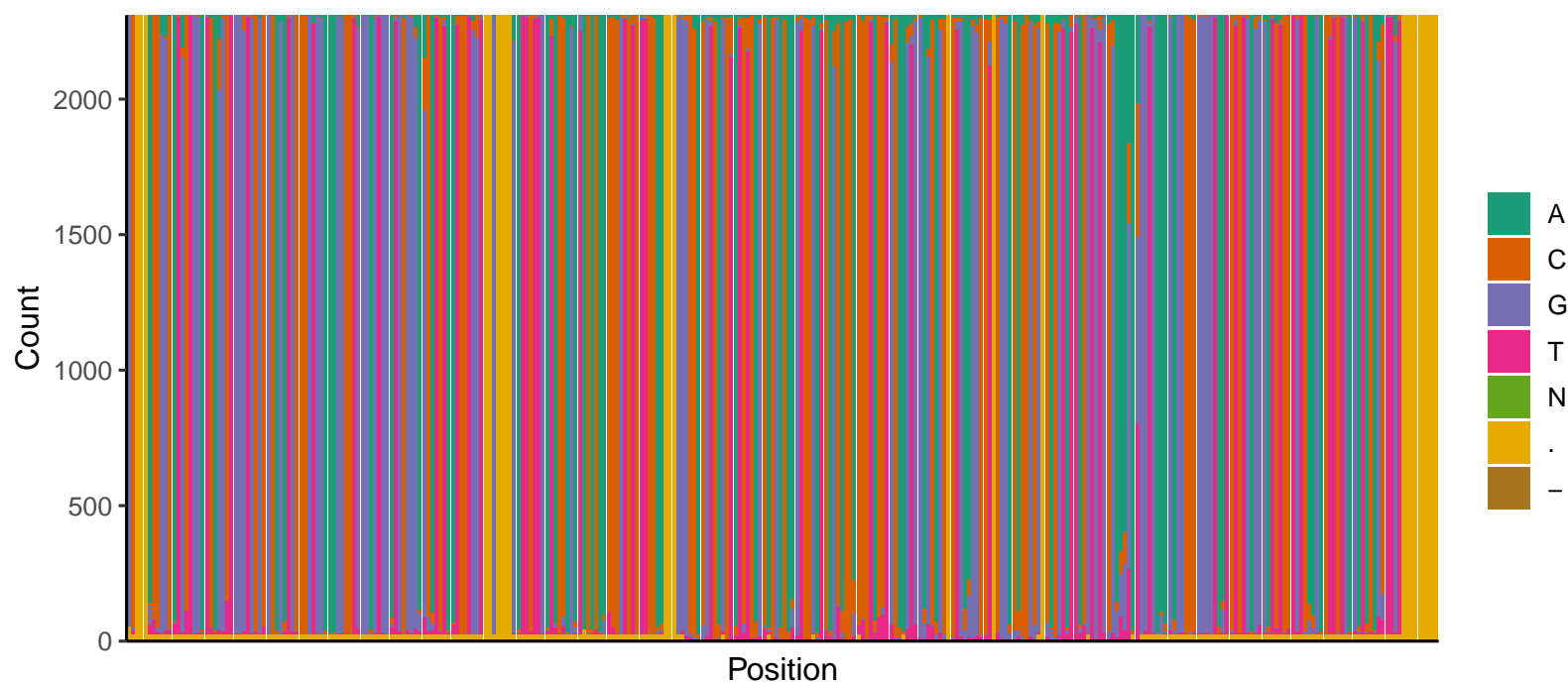
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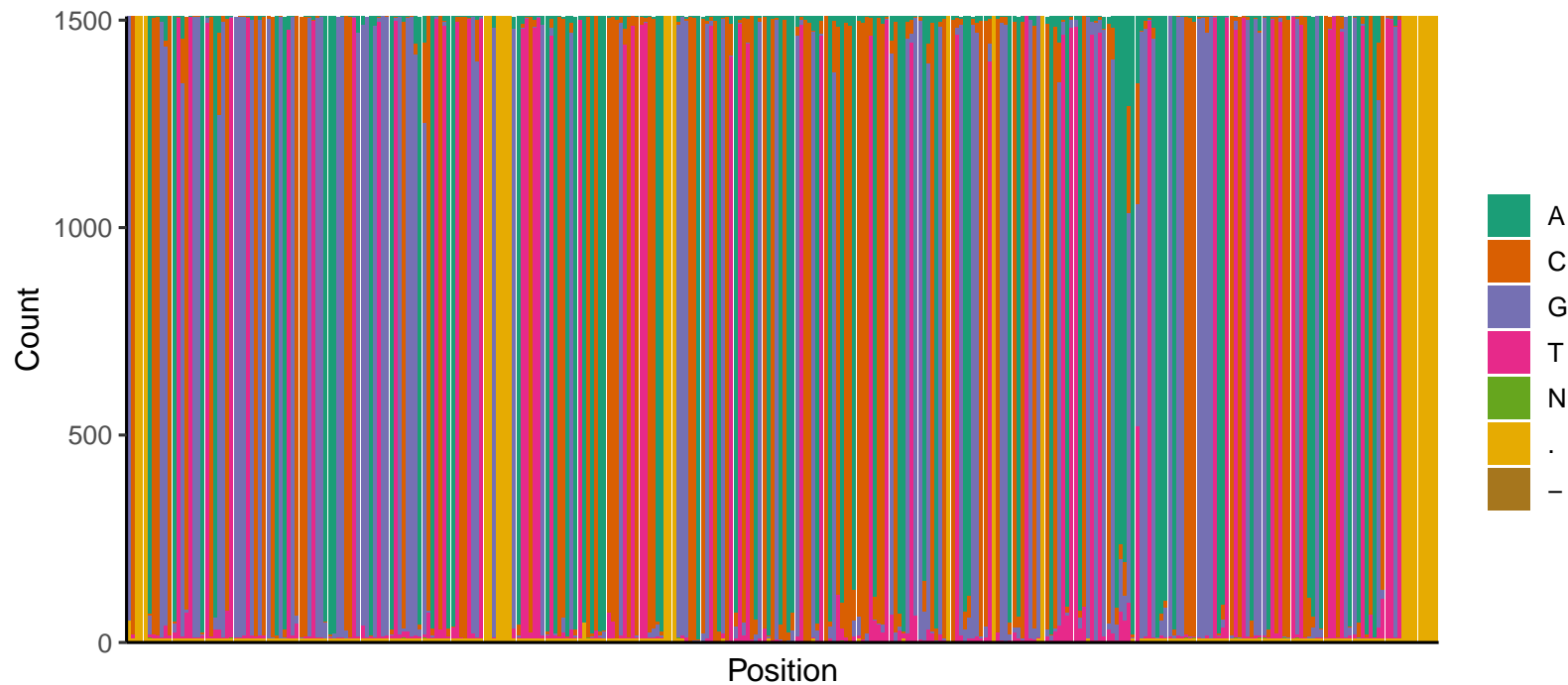
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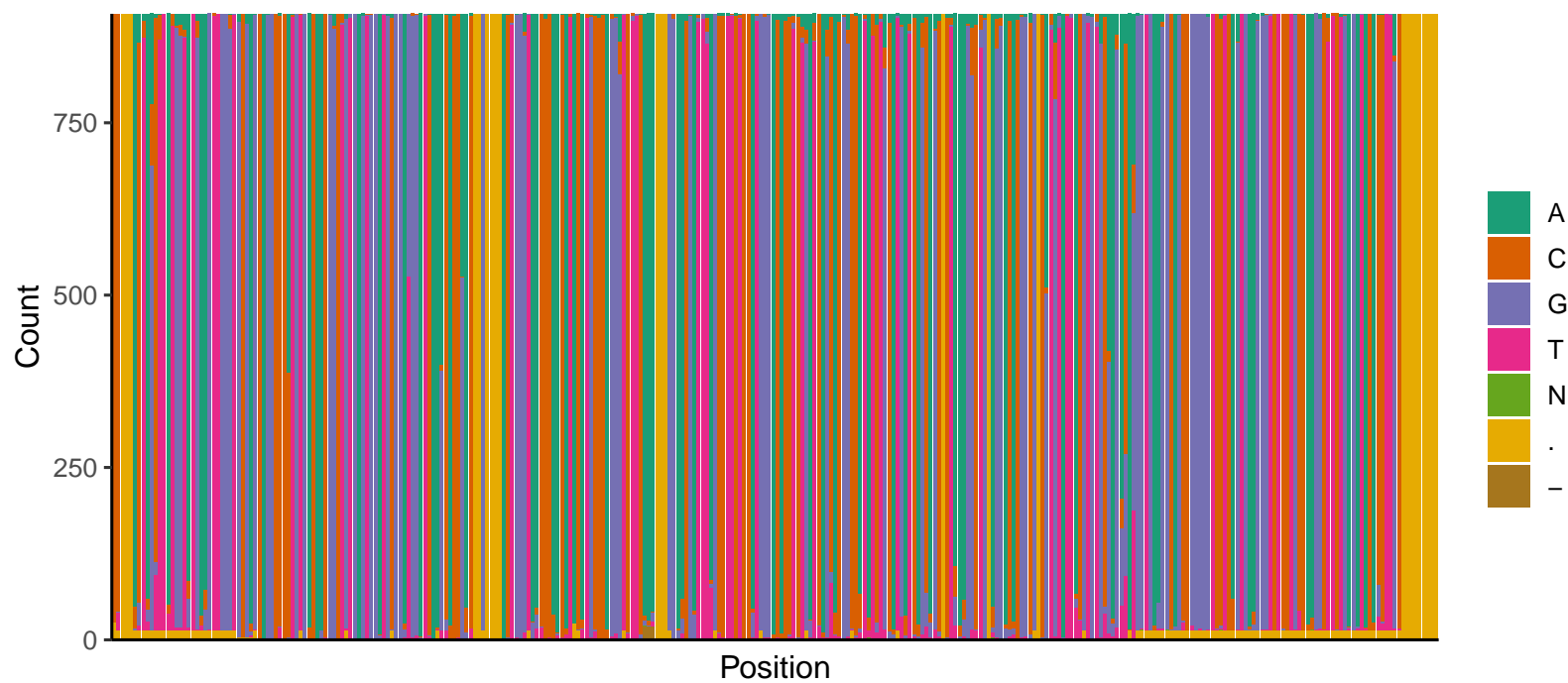
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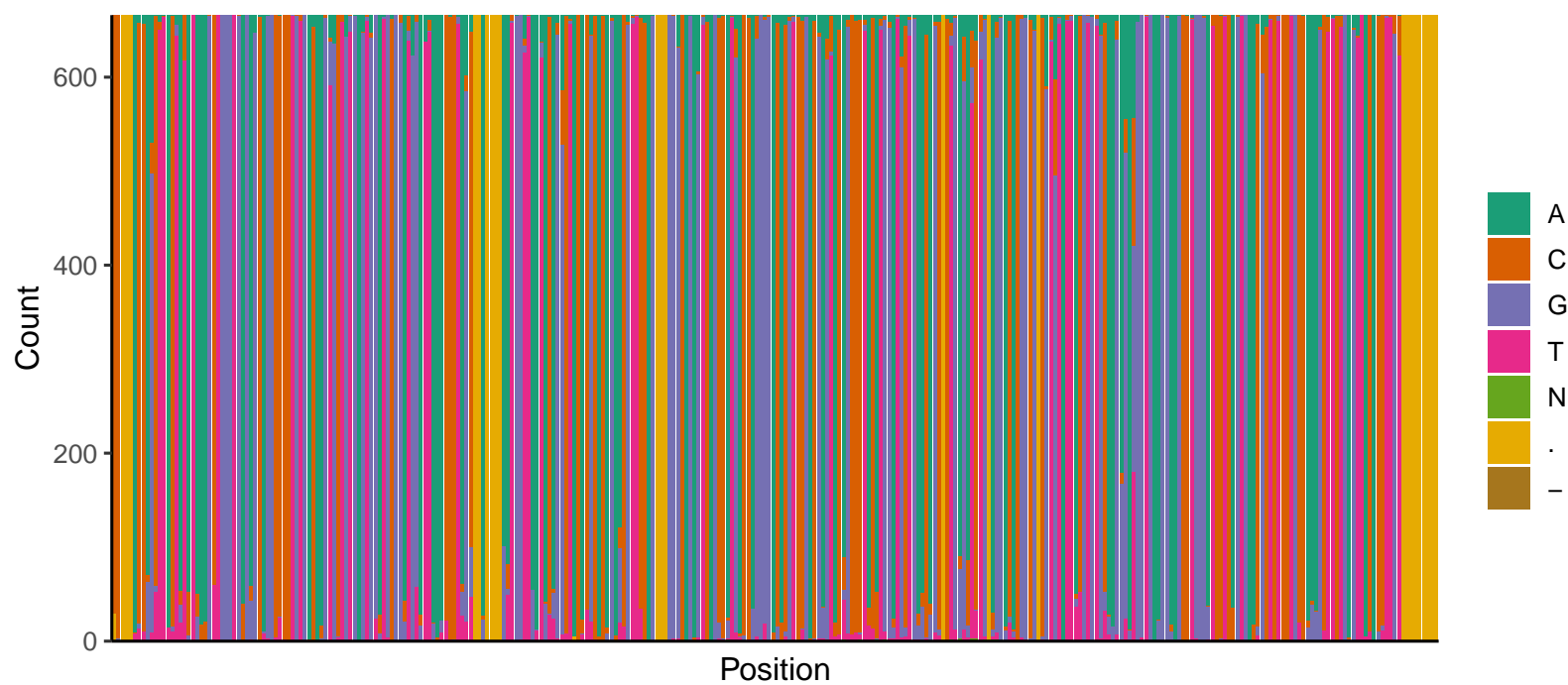
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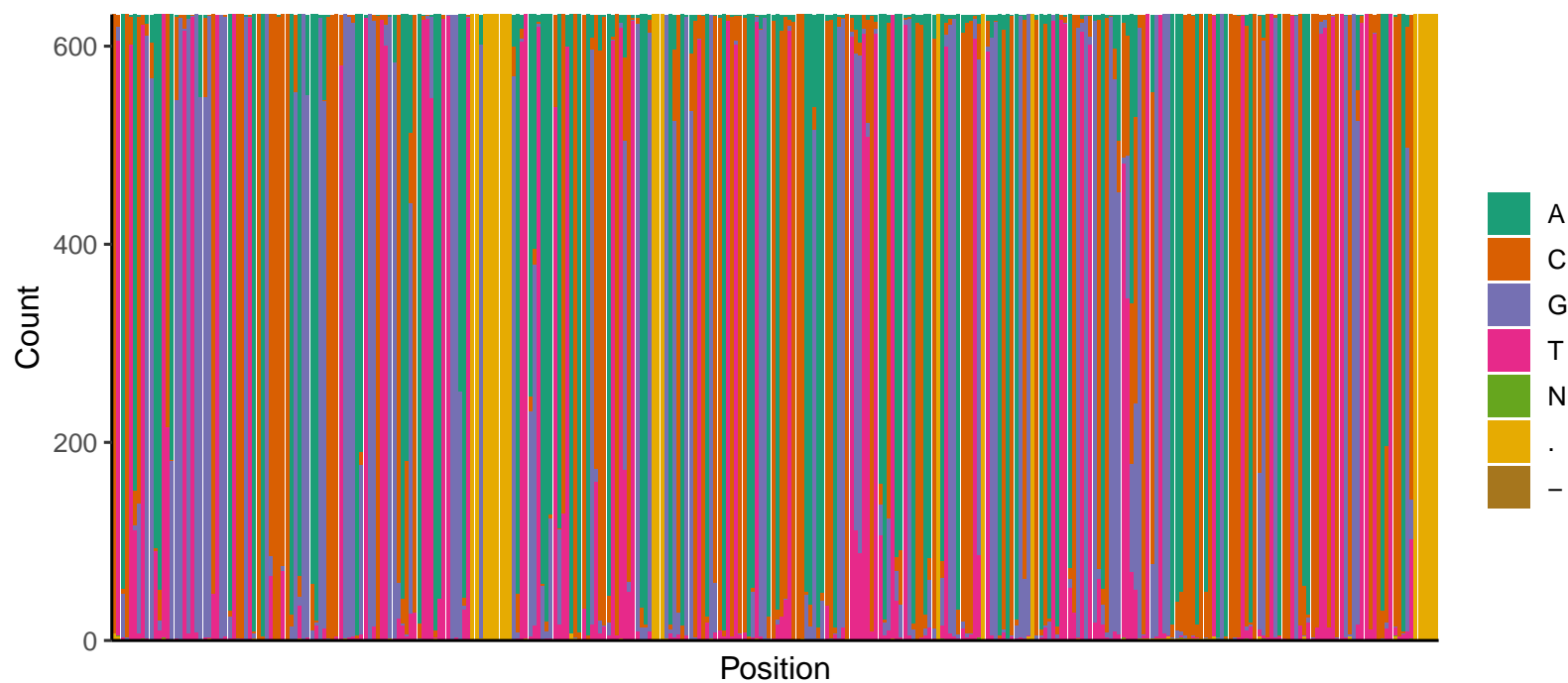
Gene IGHV7-114*01_T81A



Gene IGHV1-200*01_G49A_G72A_C78T_T84C_G146T_A147G_C153G



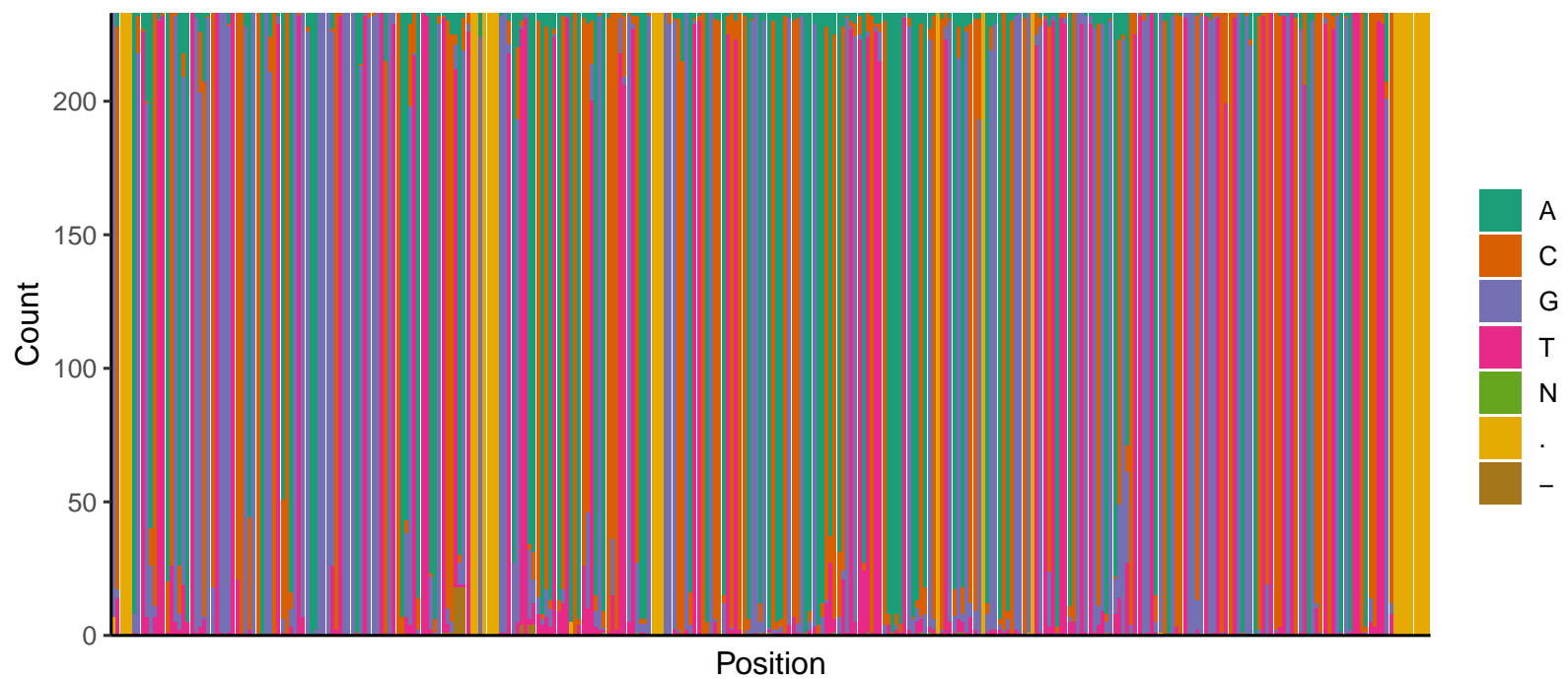
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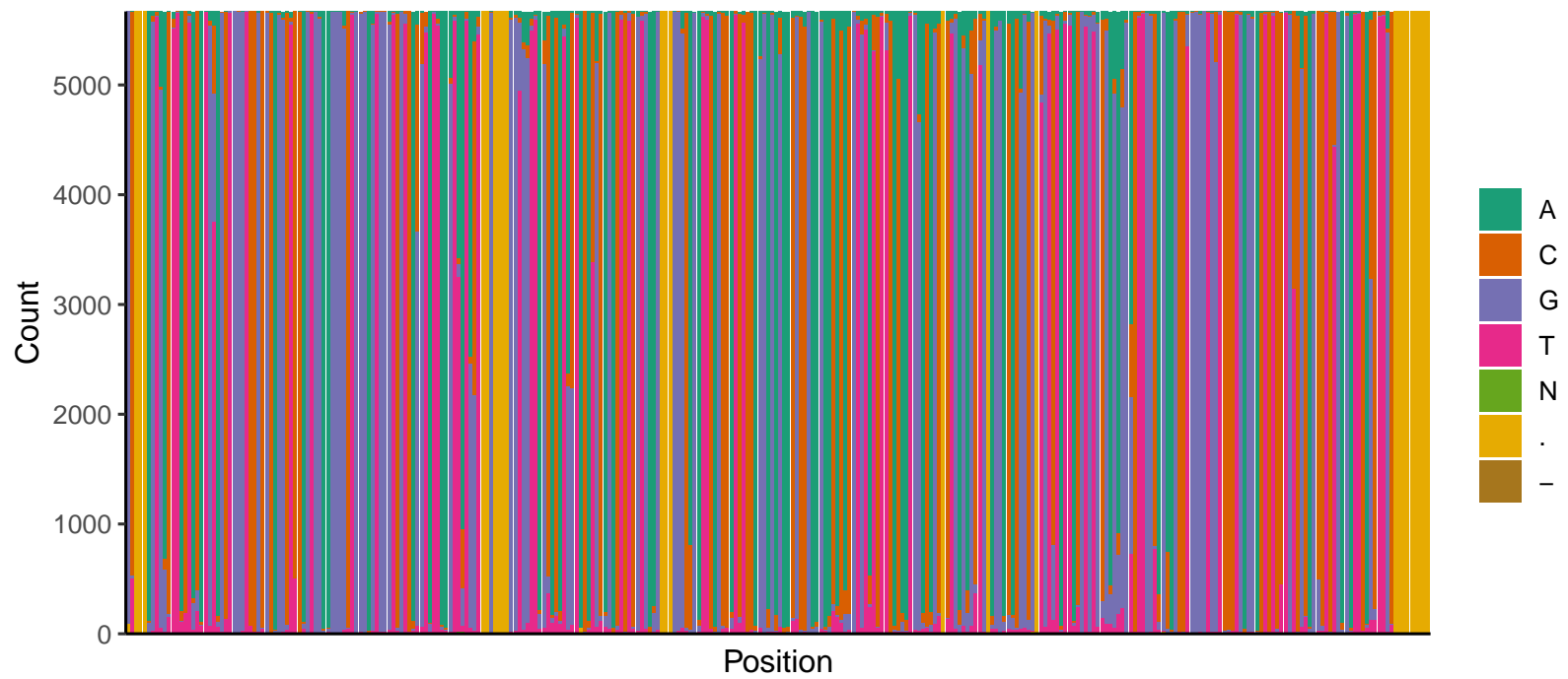
Gene IGHV2-95*01_A252G_A267G_G289T



Gene IGHV3-37*01_C39A_C54T_T112G_G113A_C114G_A119C_C129A_T136A_G172C



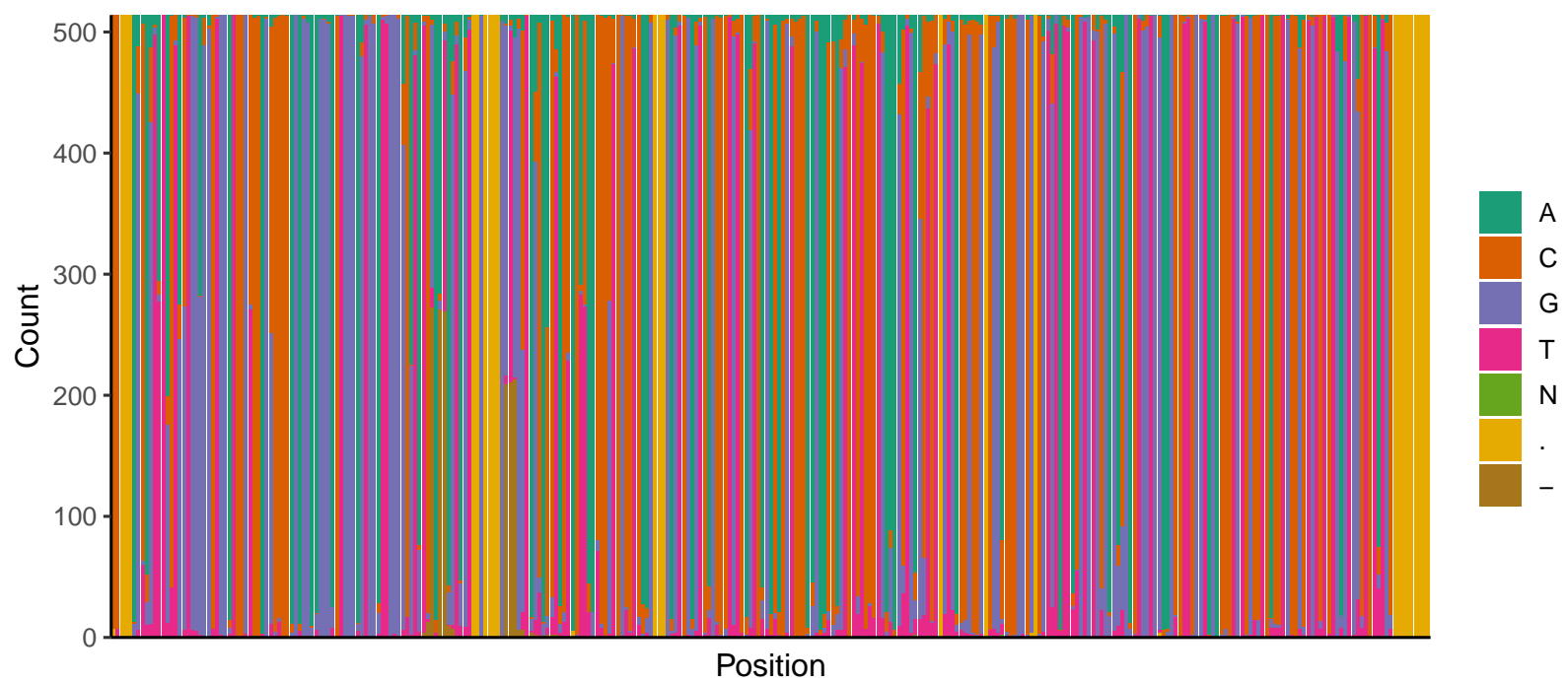
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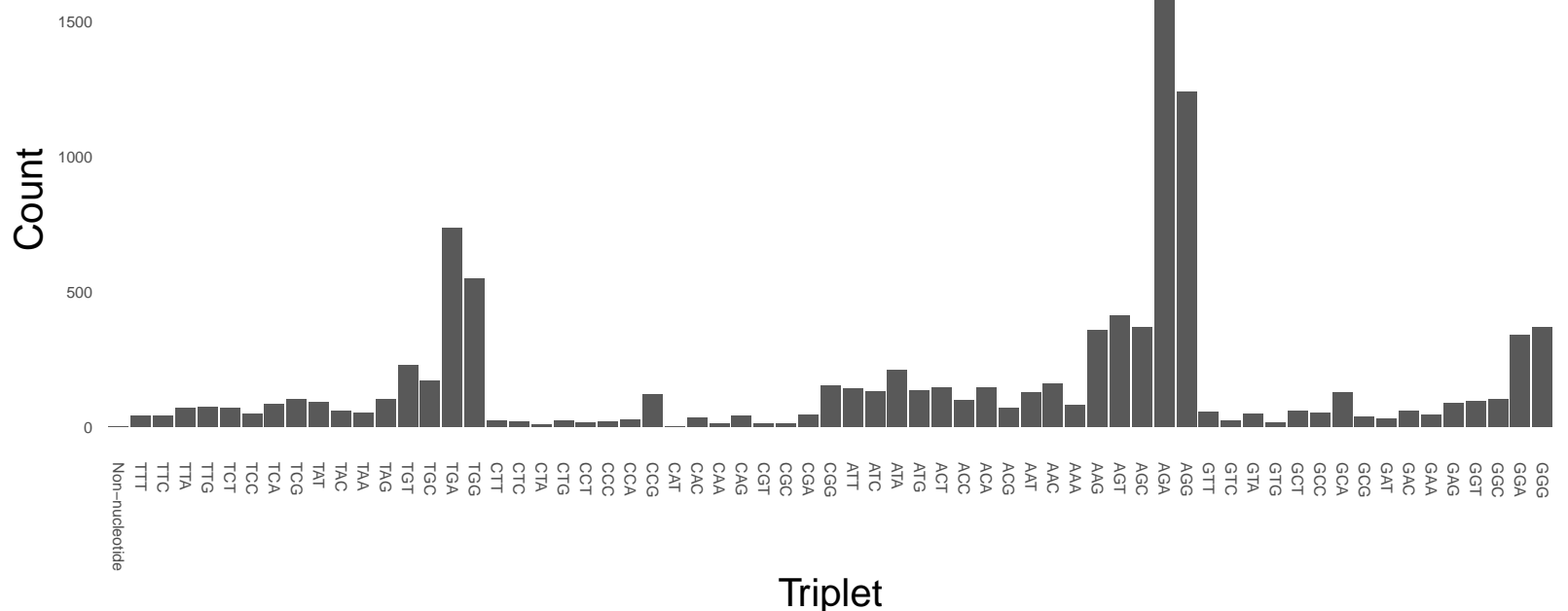
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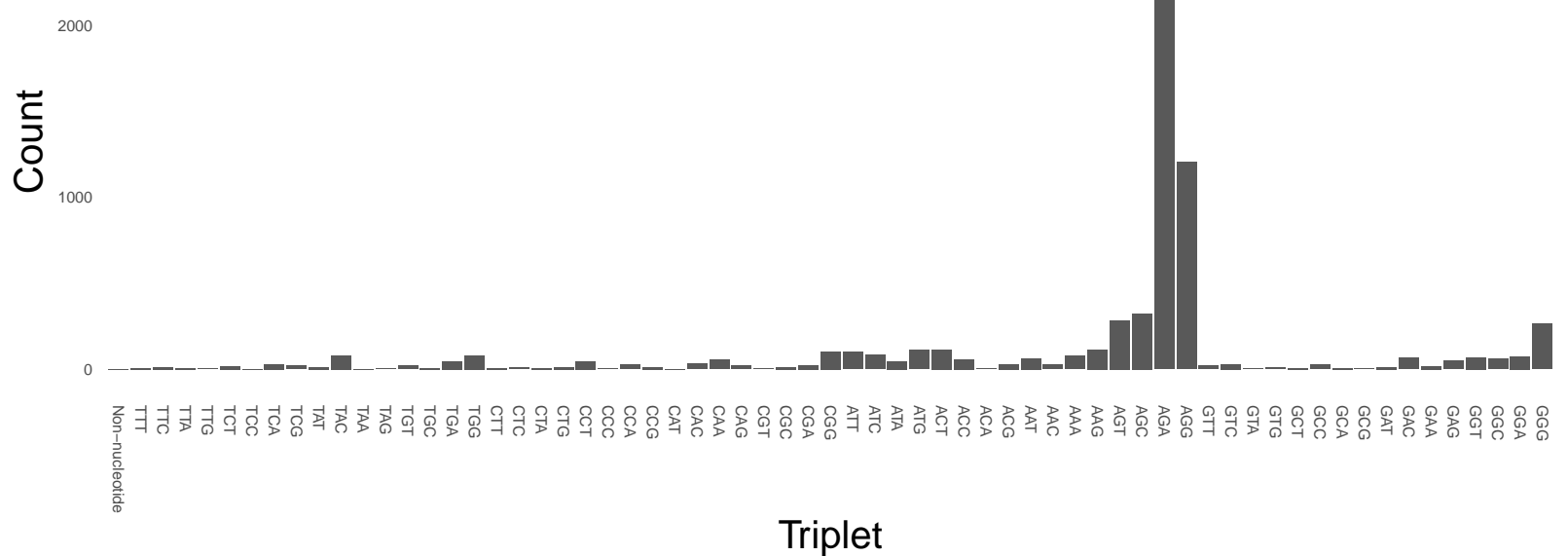
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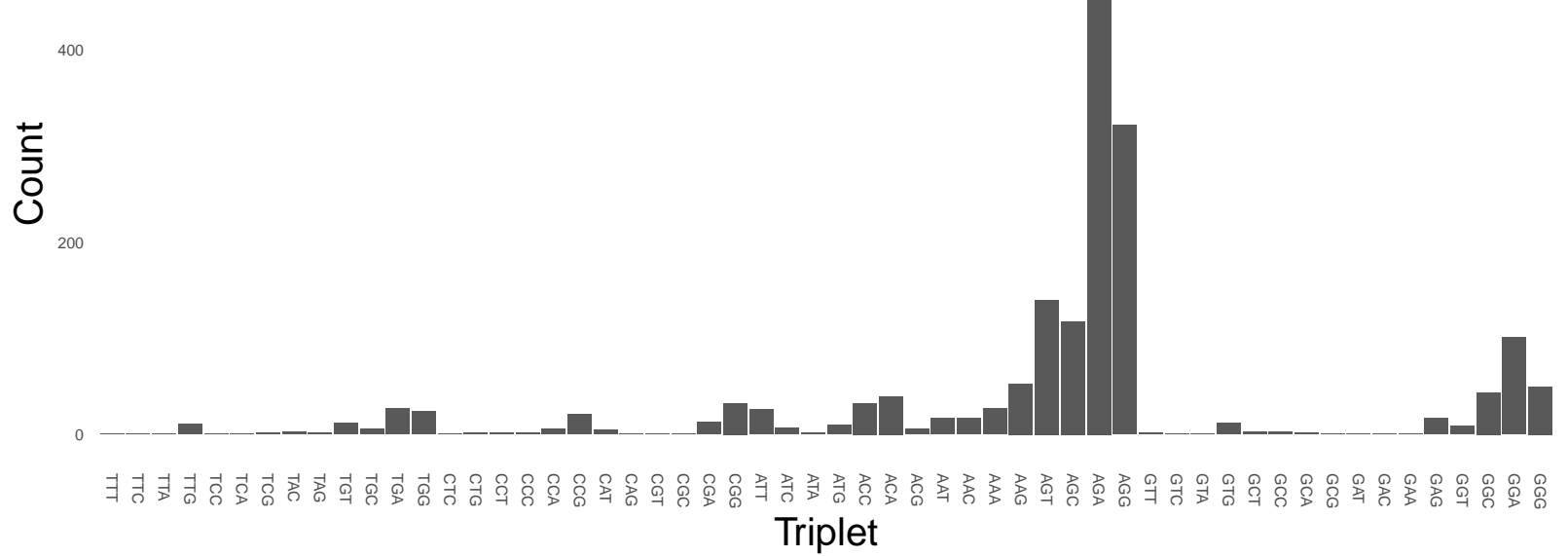
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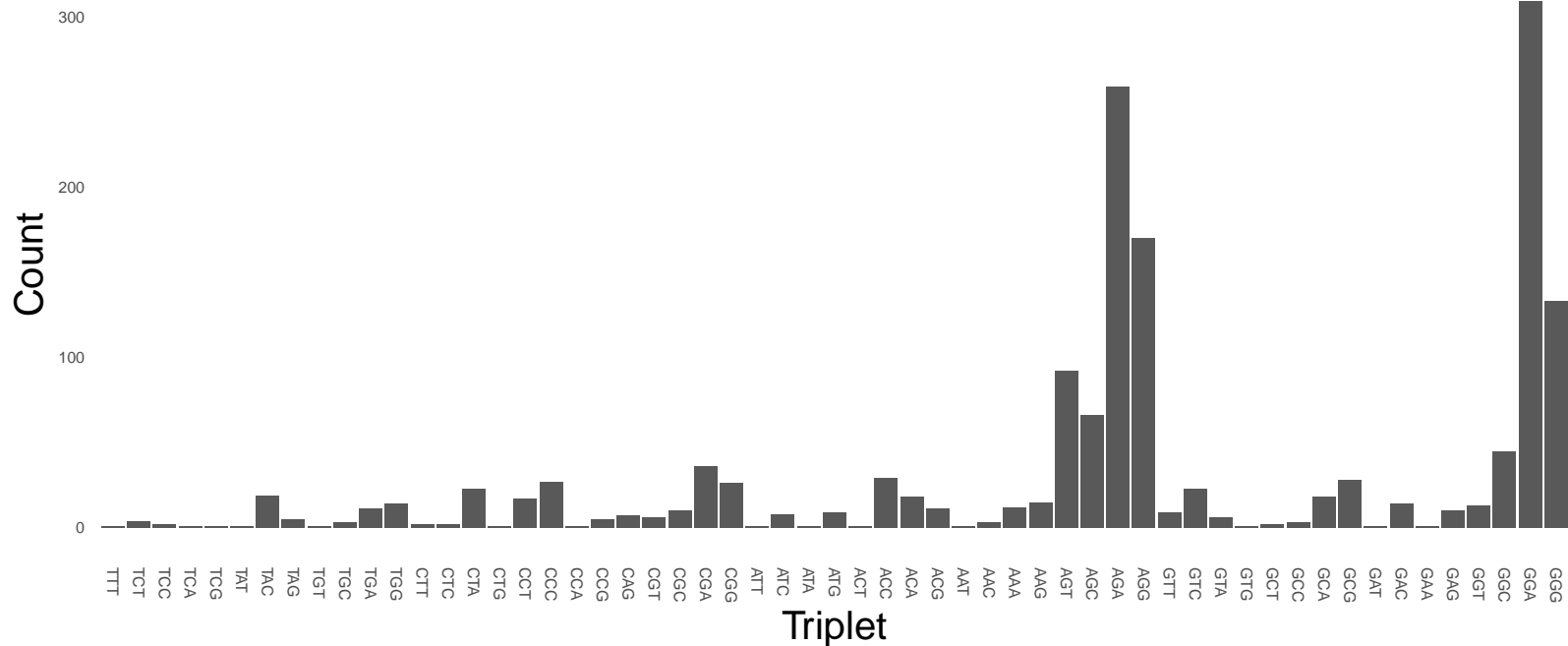
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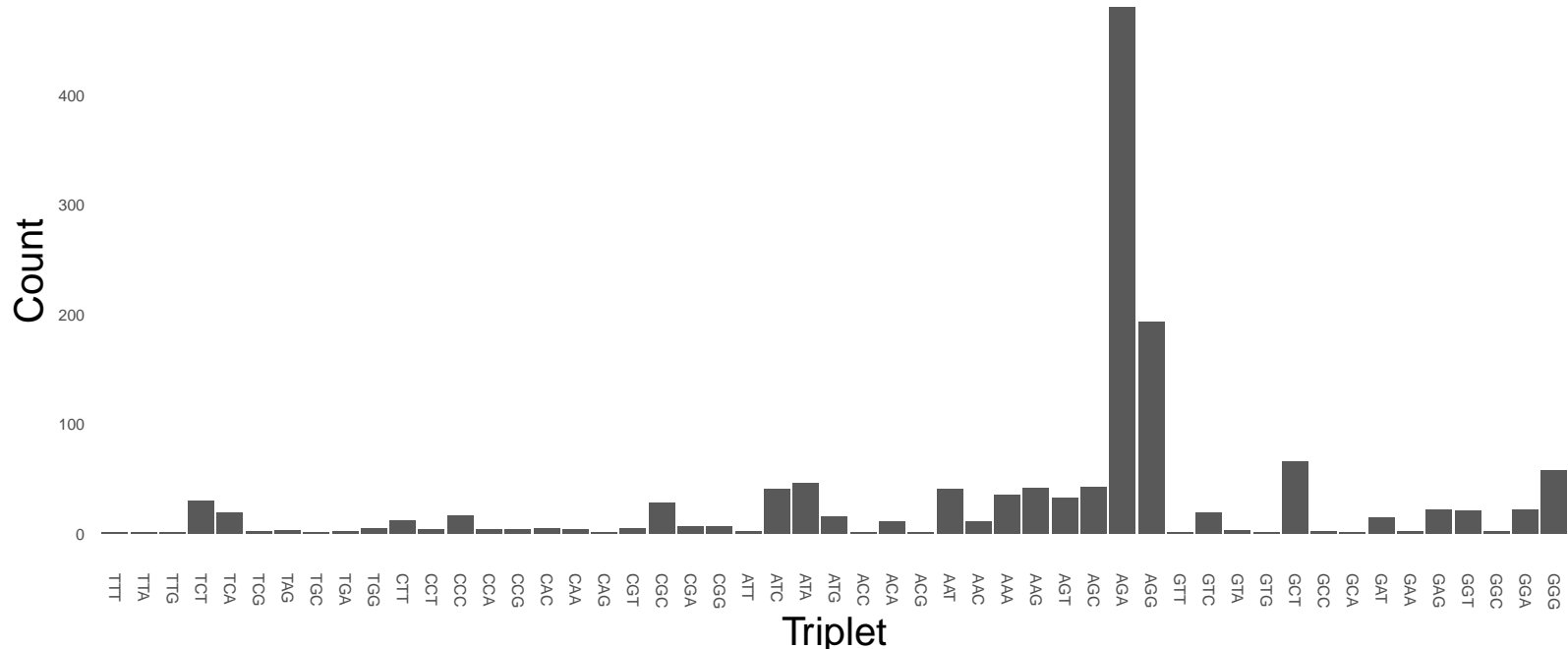
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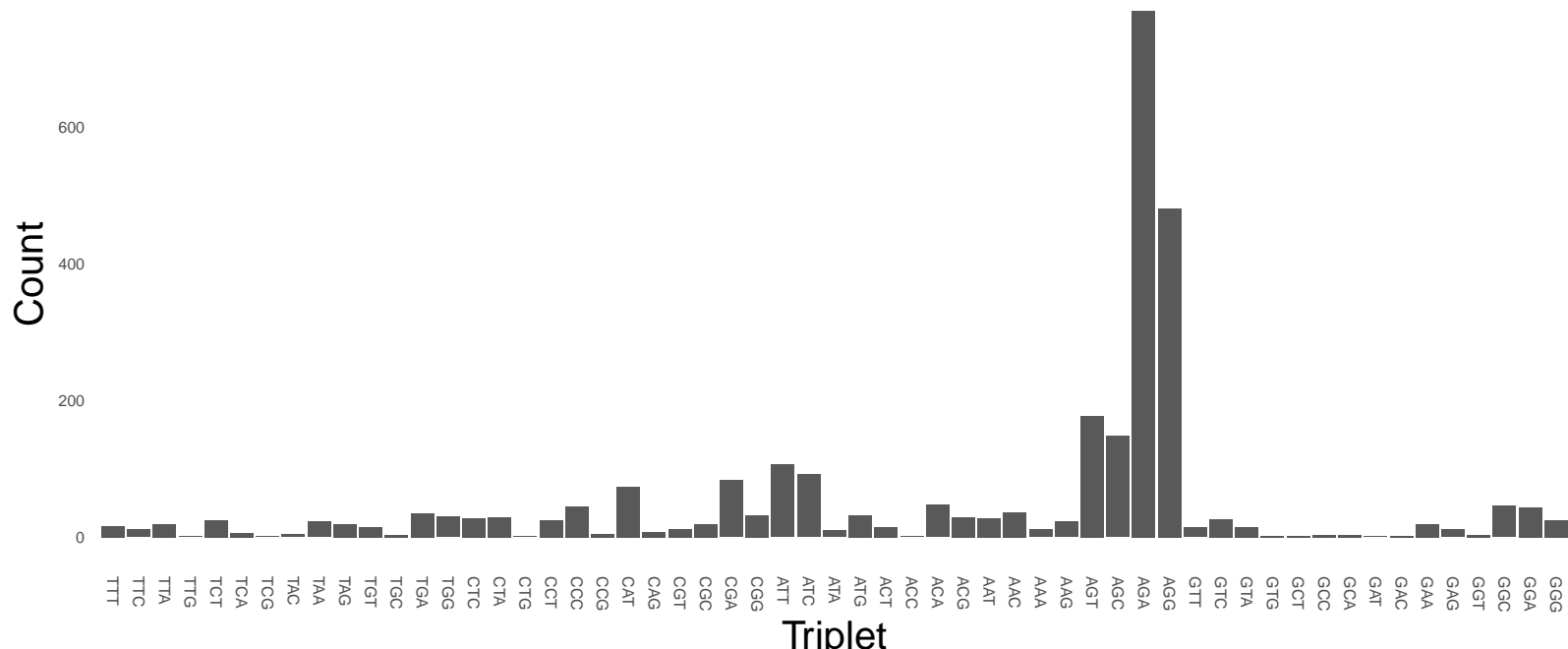
IGHV3-184*01_T34C_G106A_T109C_T312C- Final 3 nucleotides as a triplet



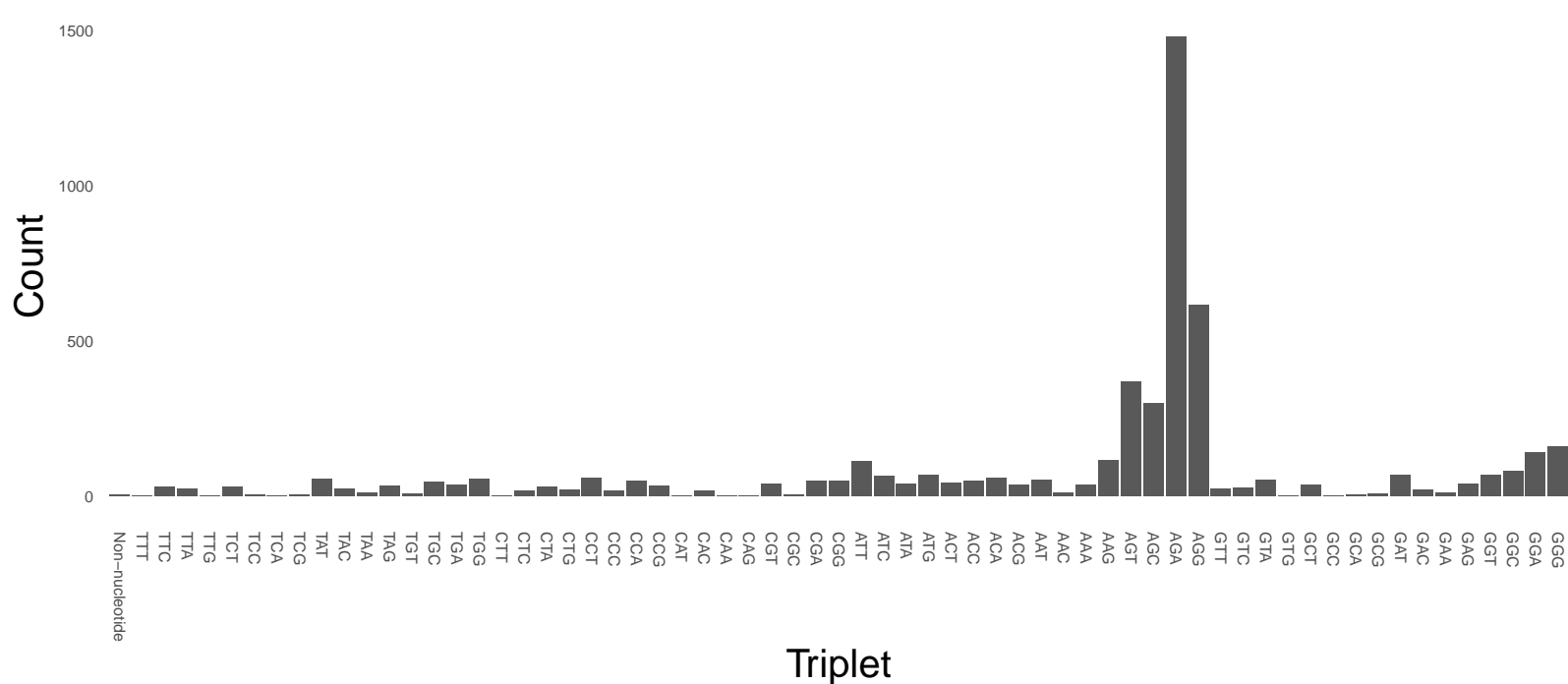
IGHV5-20*01_A141G- Final 3 nucleotides as a triplet



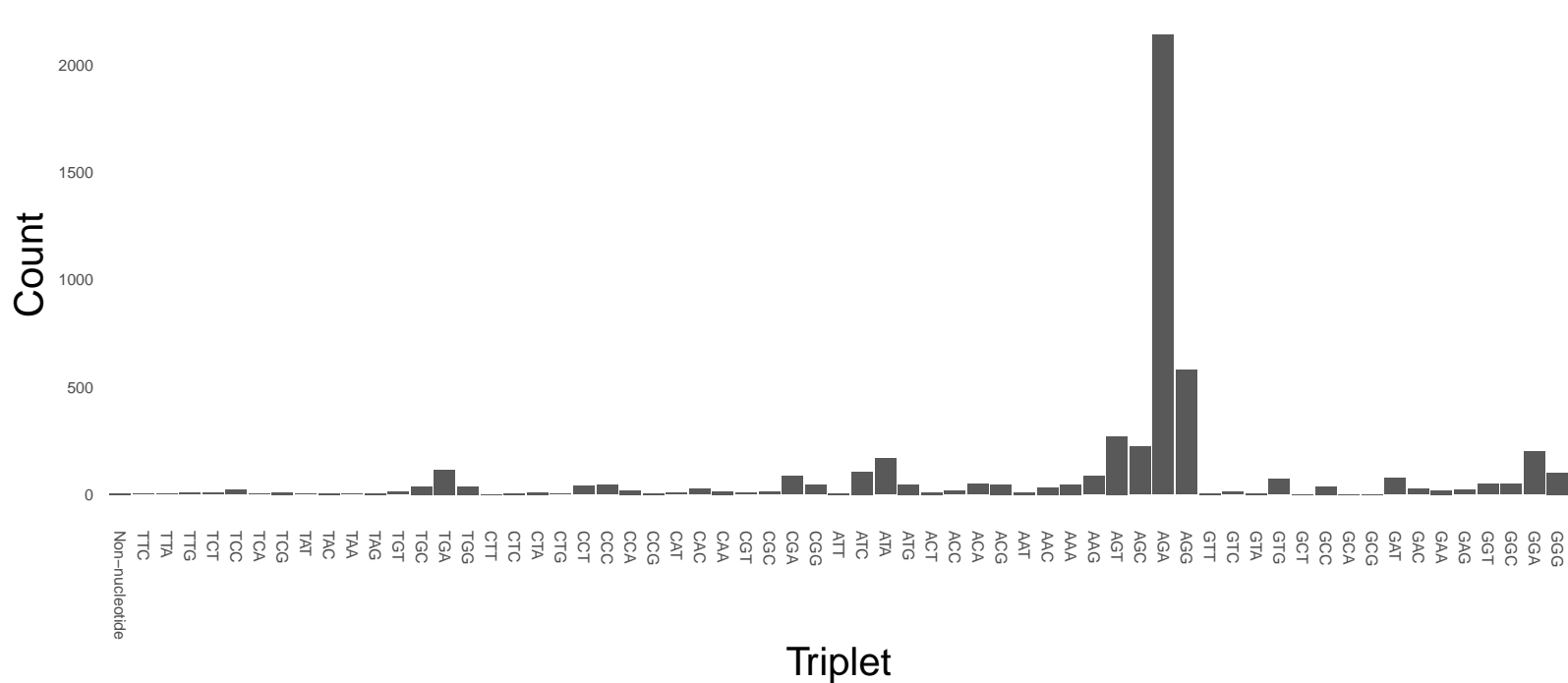
IGHV3-30*01_G48C_T110C_A152T_G174C_G181A_G207A- Final 3 nucleotides as a triplet



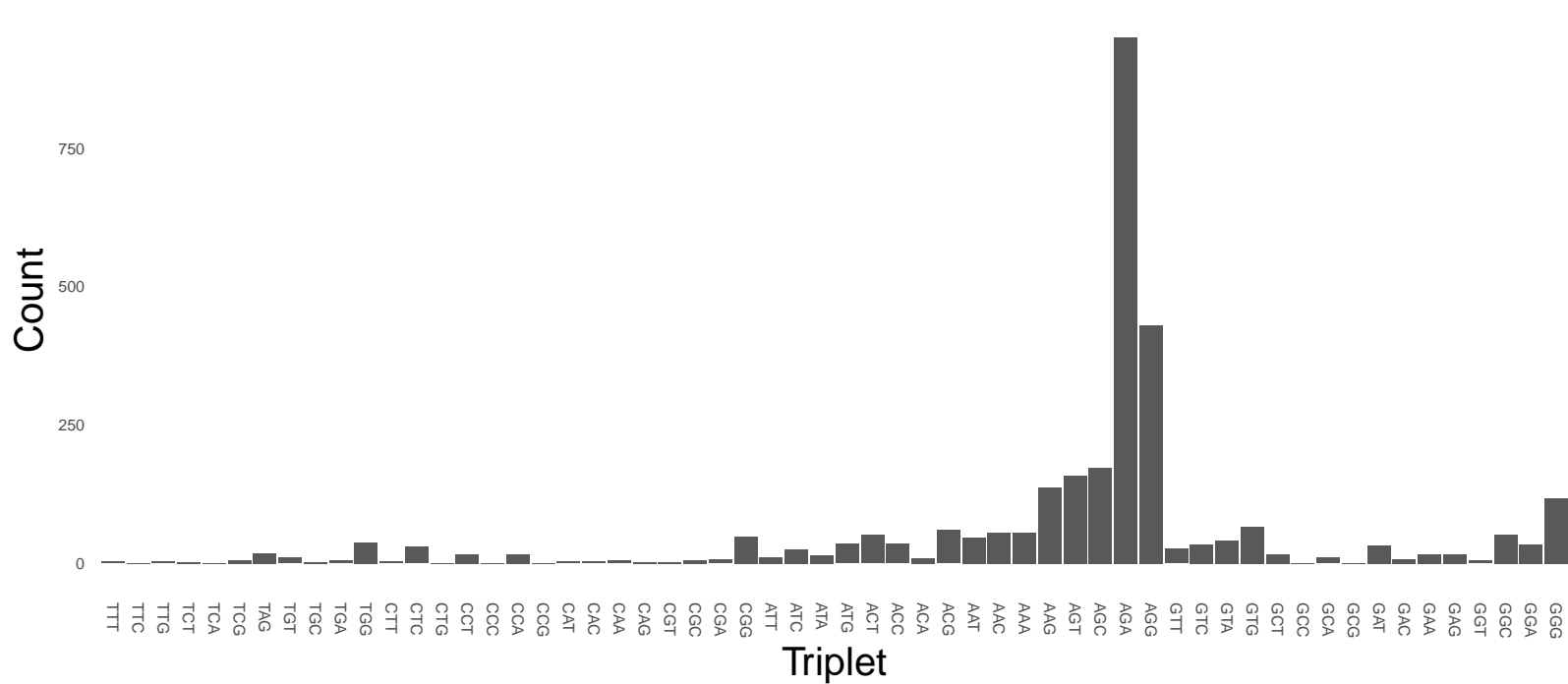
IGHV3-30*02_C48T_C141G_C183T- Final 3 nucleotides as a triplet



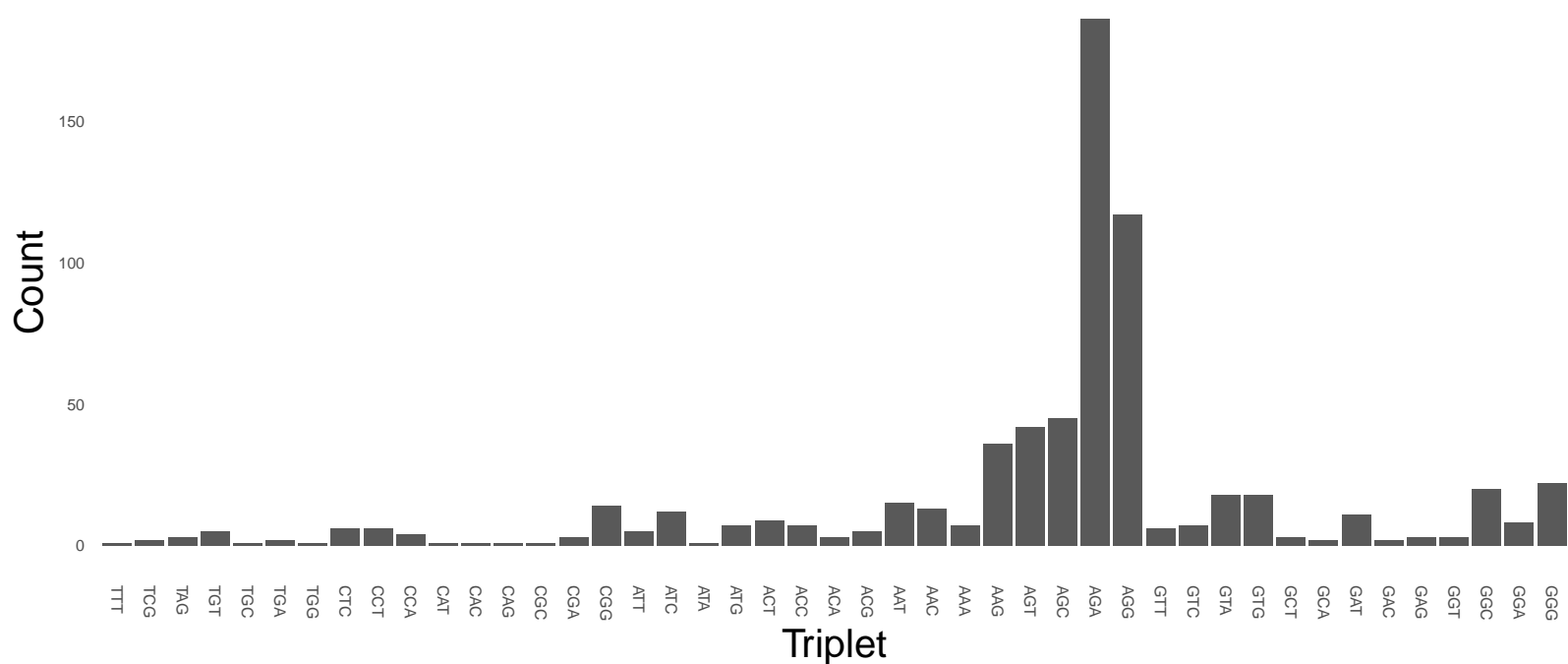
IGHV3-54*02_G47C_T111C_G170C- Final 3 nucleotides as a triplet



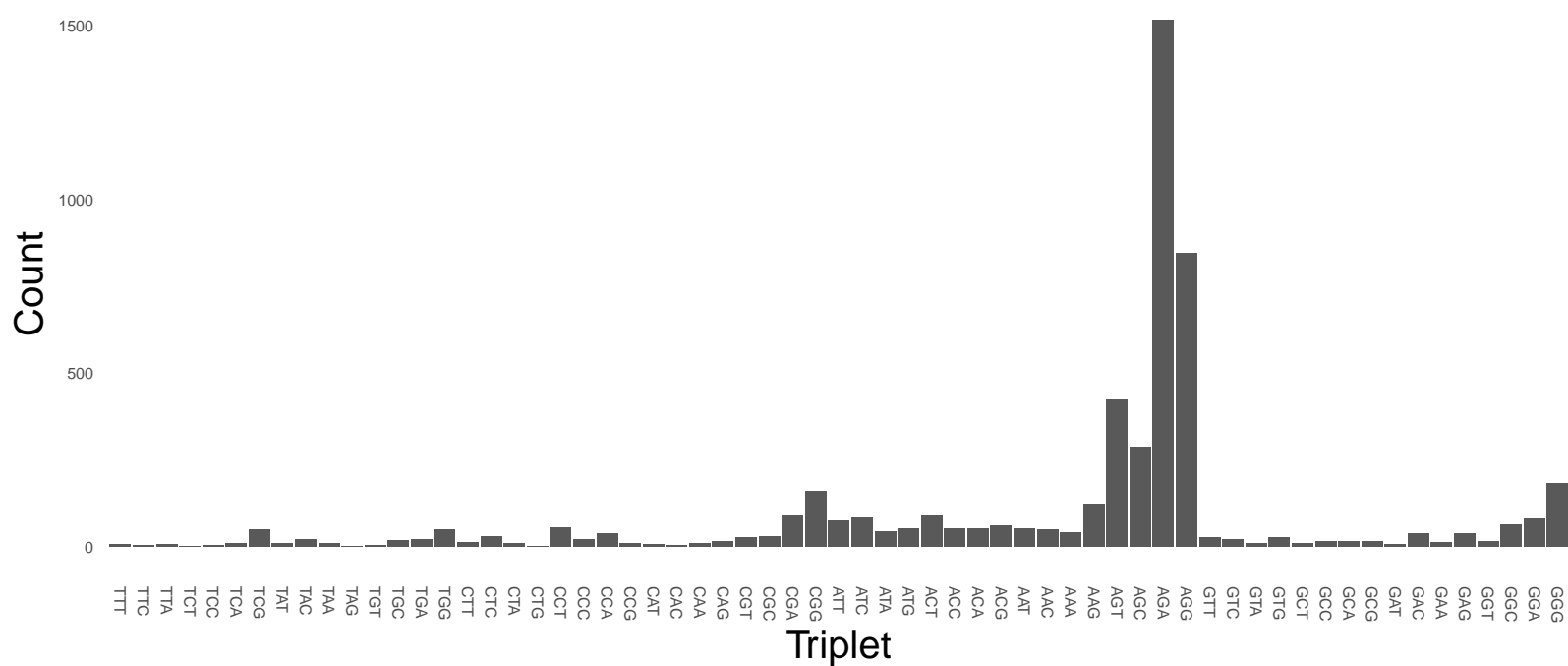
IGHV3-116*02_T227G- Final 3 nucleotides as a triplet



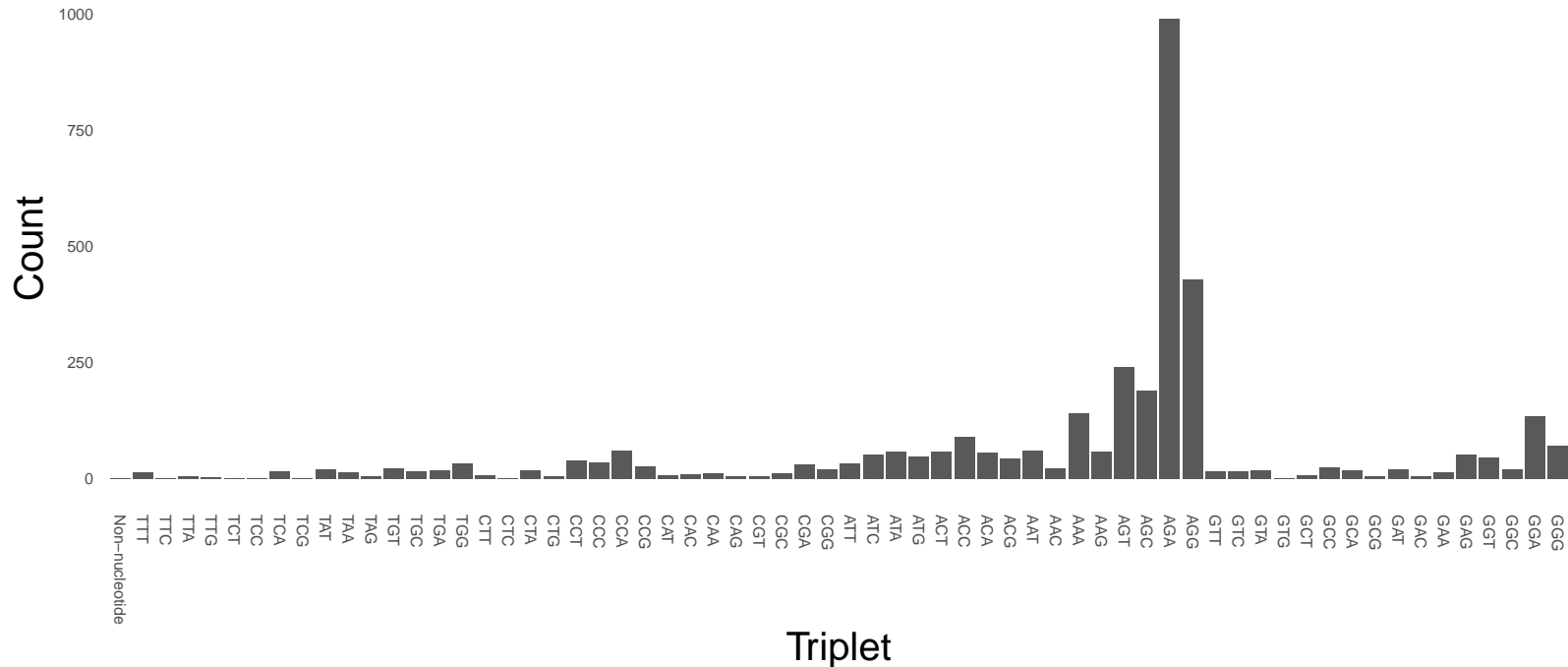
IGHV3–116*02_T227G_T235C– Final 3 nucleotides as a triplet



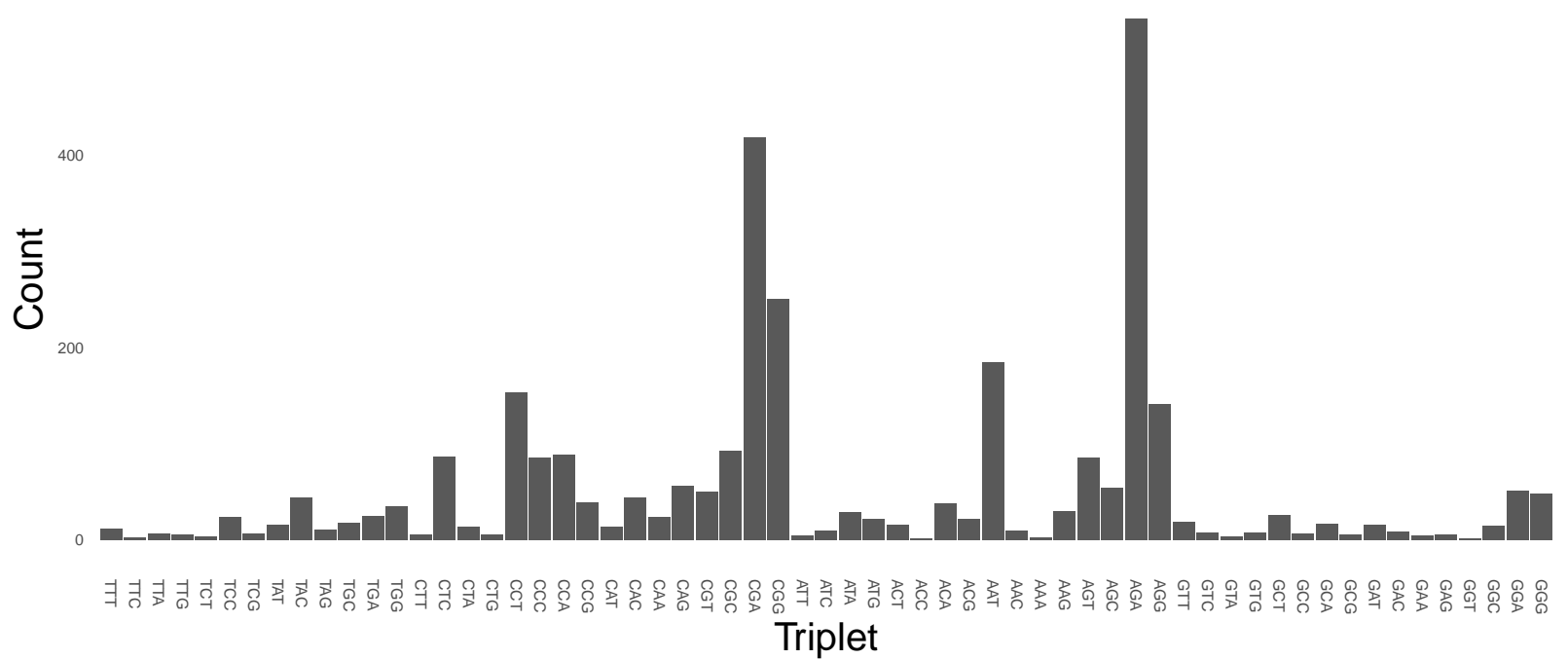
IGHV4–76*01_C34G_G103A_A244G– Final 3 nucleotides as a triplet



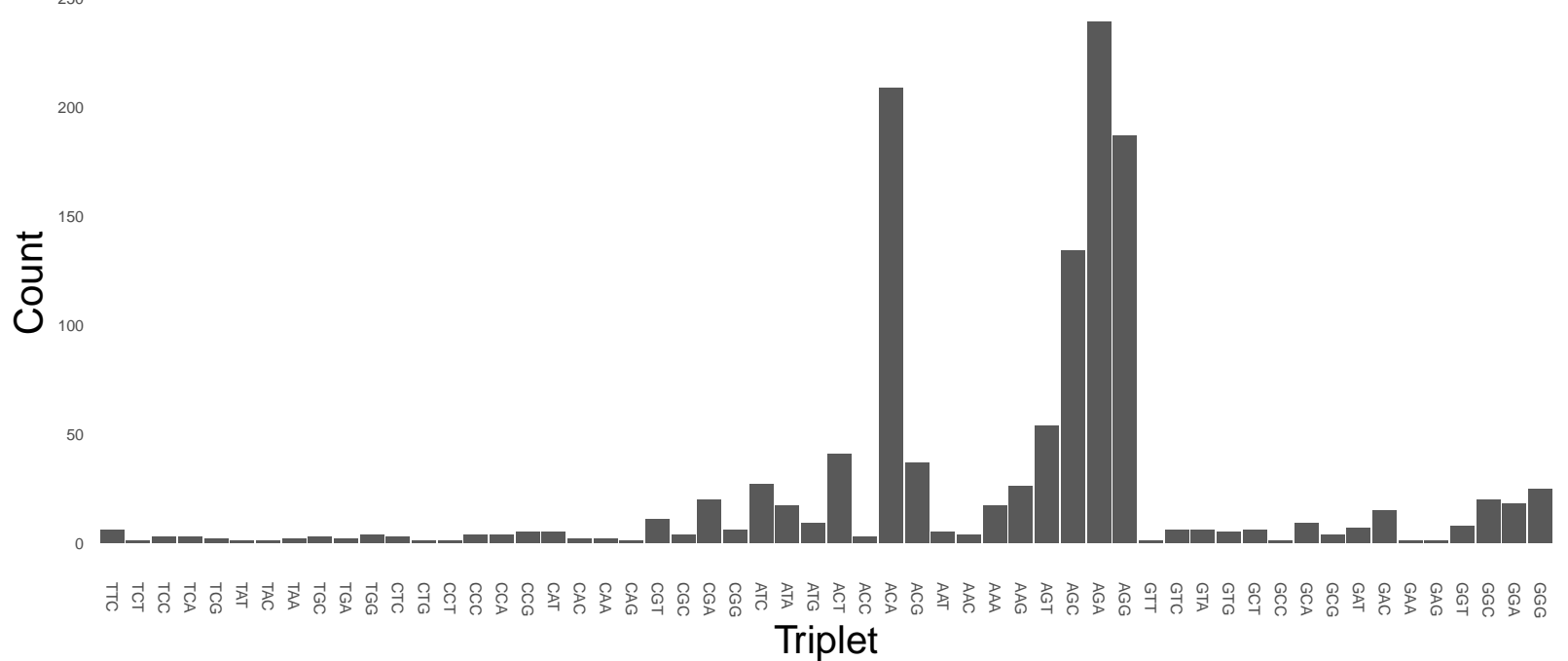
IGHV4–80*01_C60T_C61G_G70A_T189G_T196A– Final 3 nucleotides as a triplet



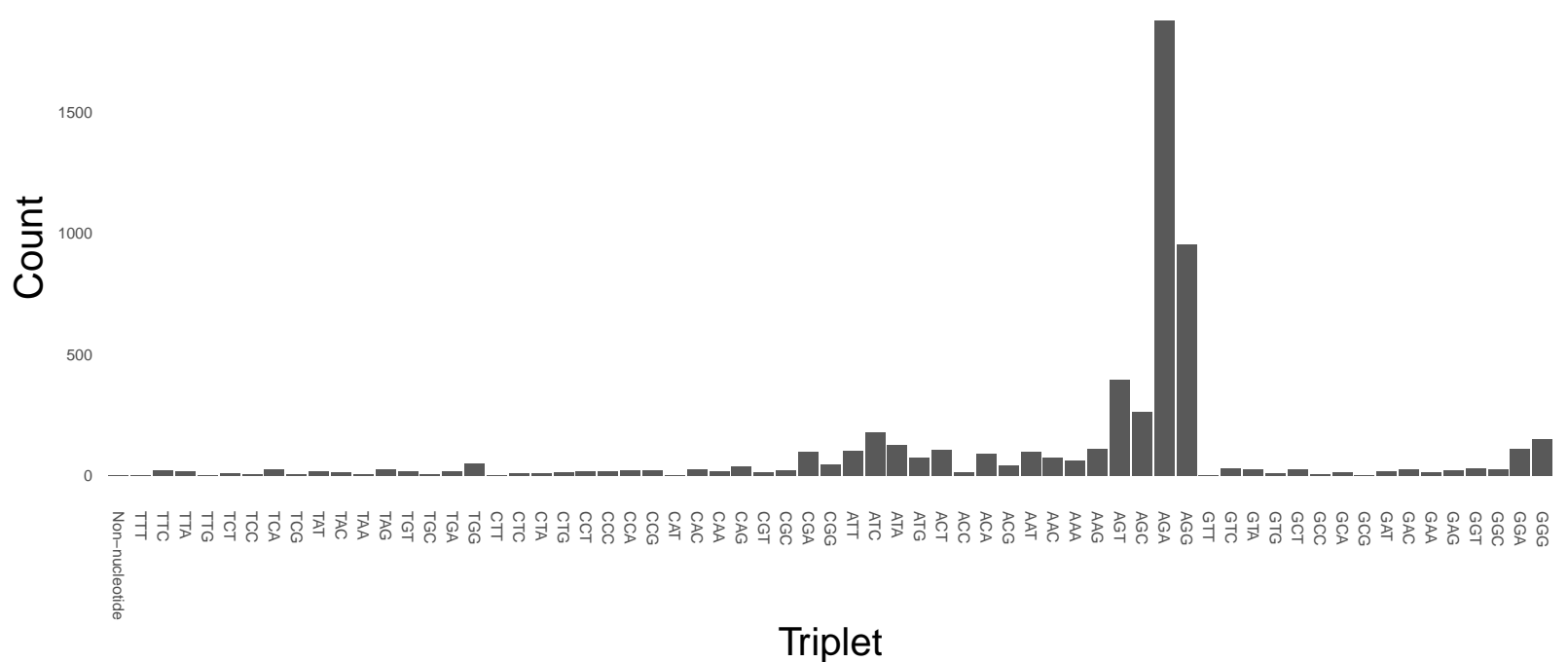
IGHV4-122*02_C87T_G103A_C133G_A169T- Final 3 nucleotides as a triplet



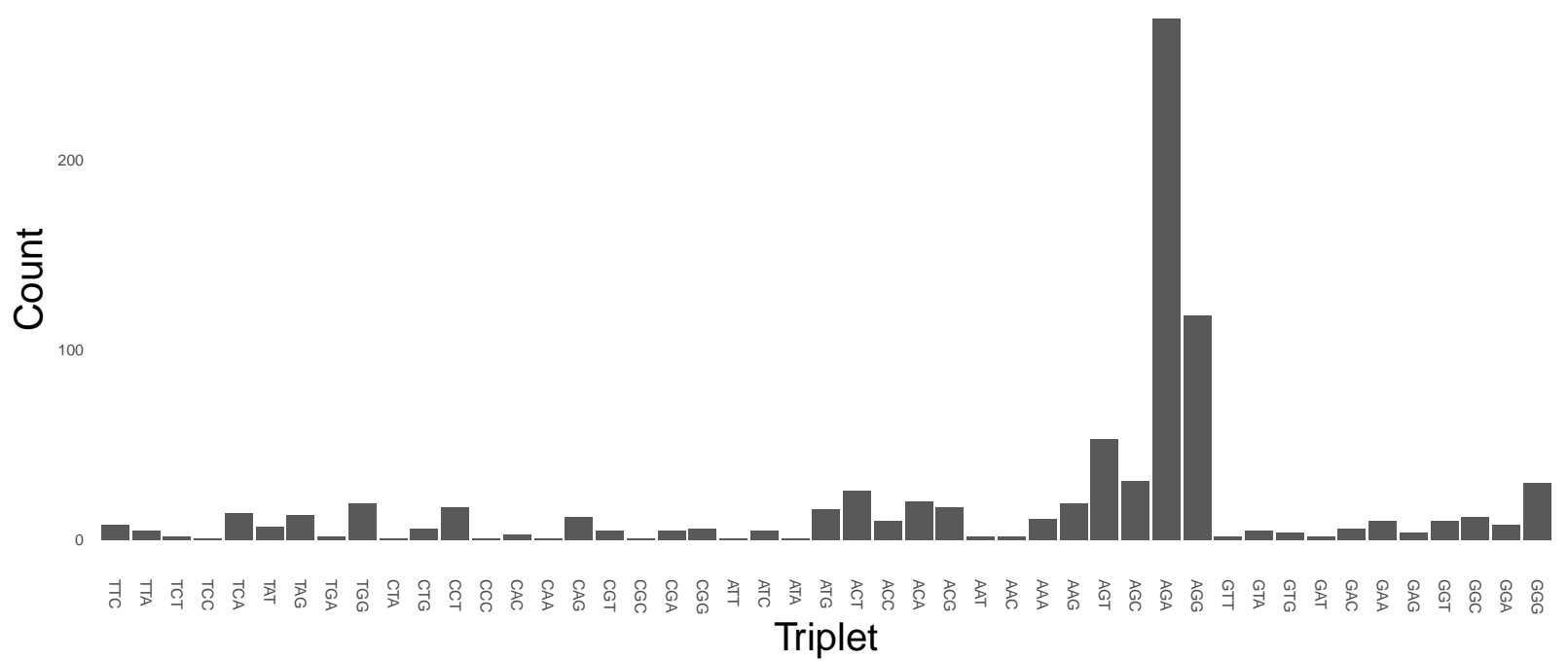
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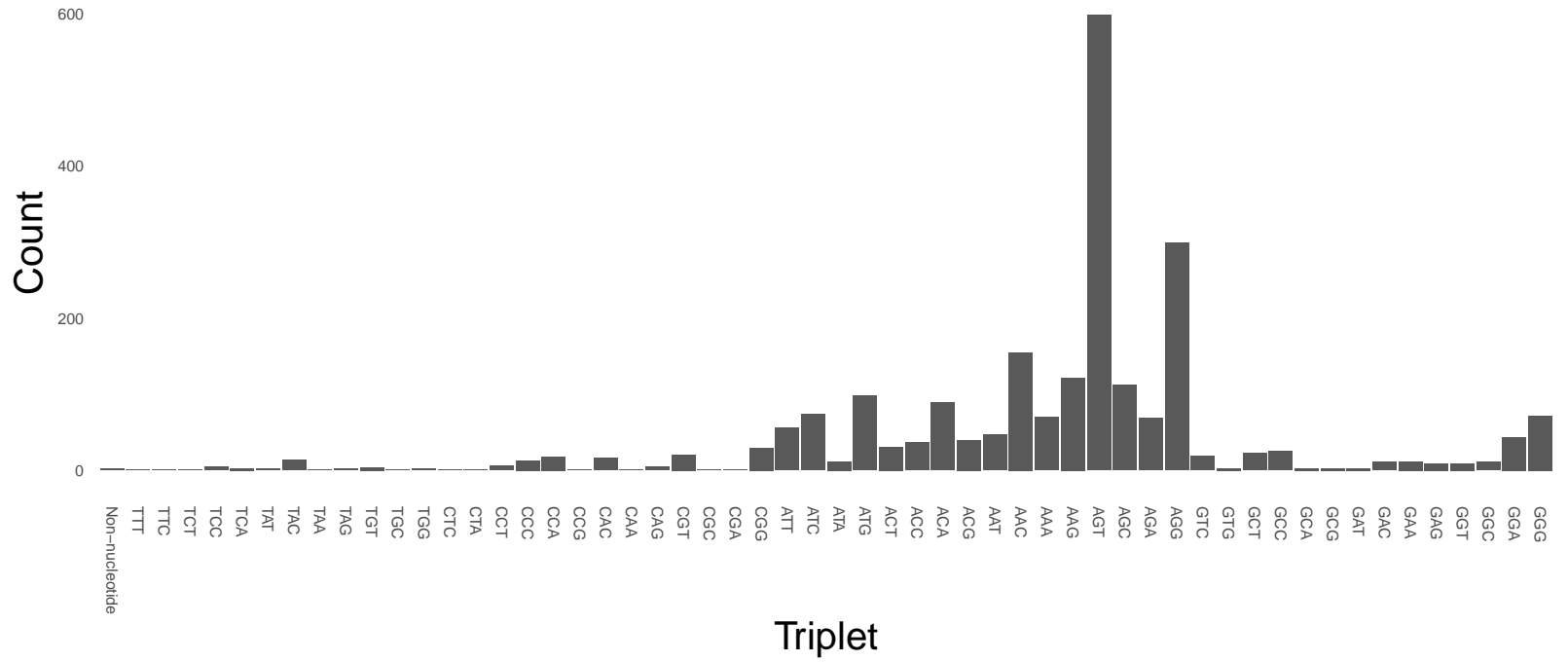
IGHV4-173*01_C4G- Final 3 nucleotides as a triplet



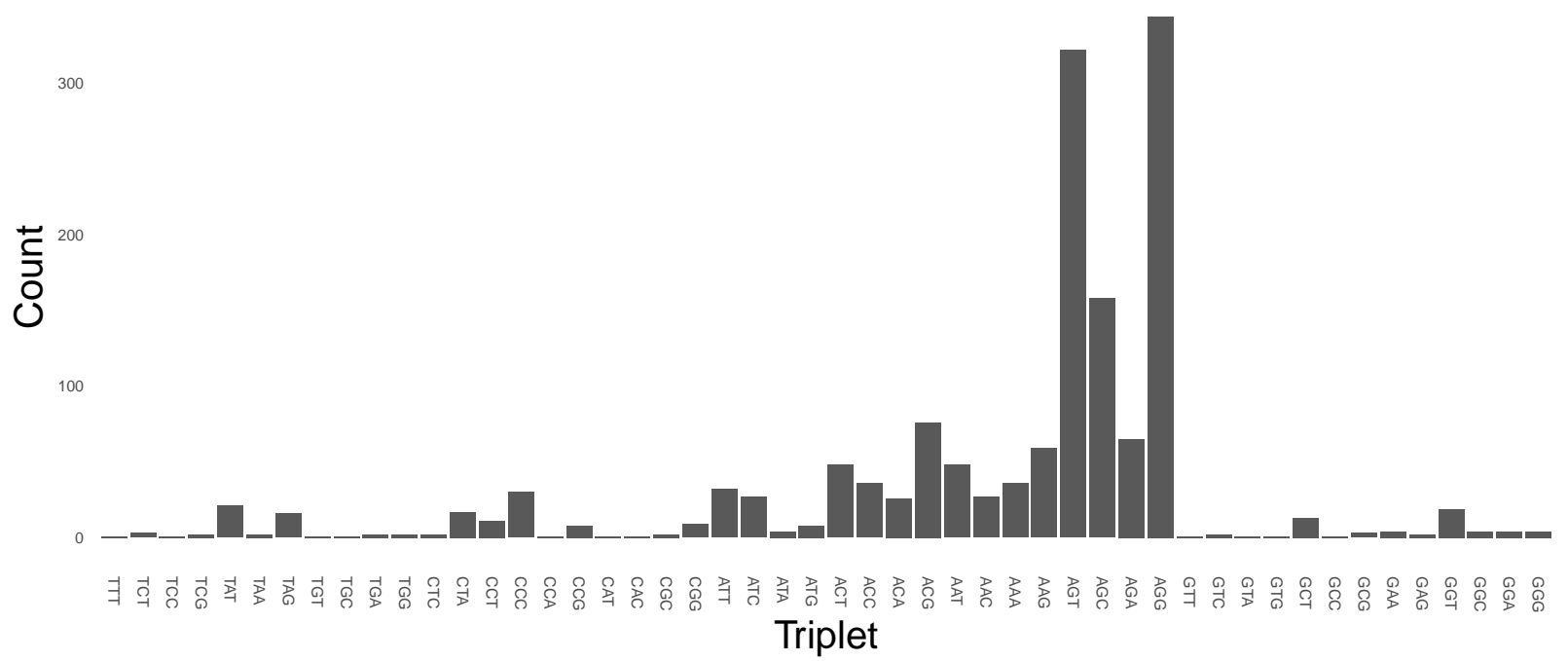
IGHV4–57*02_C87T_G199T_C207G_A239C_T255C– Final 3 nucleotides as a triplet



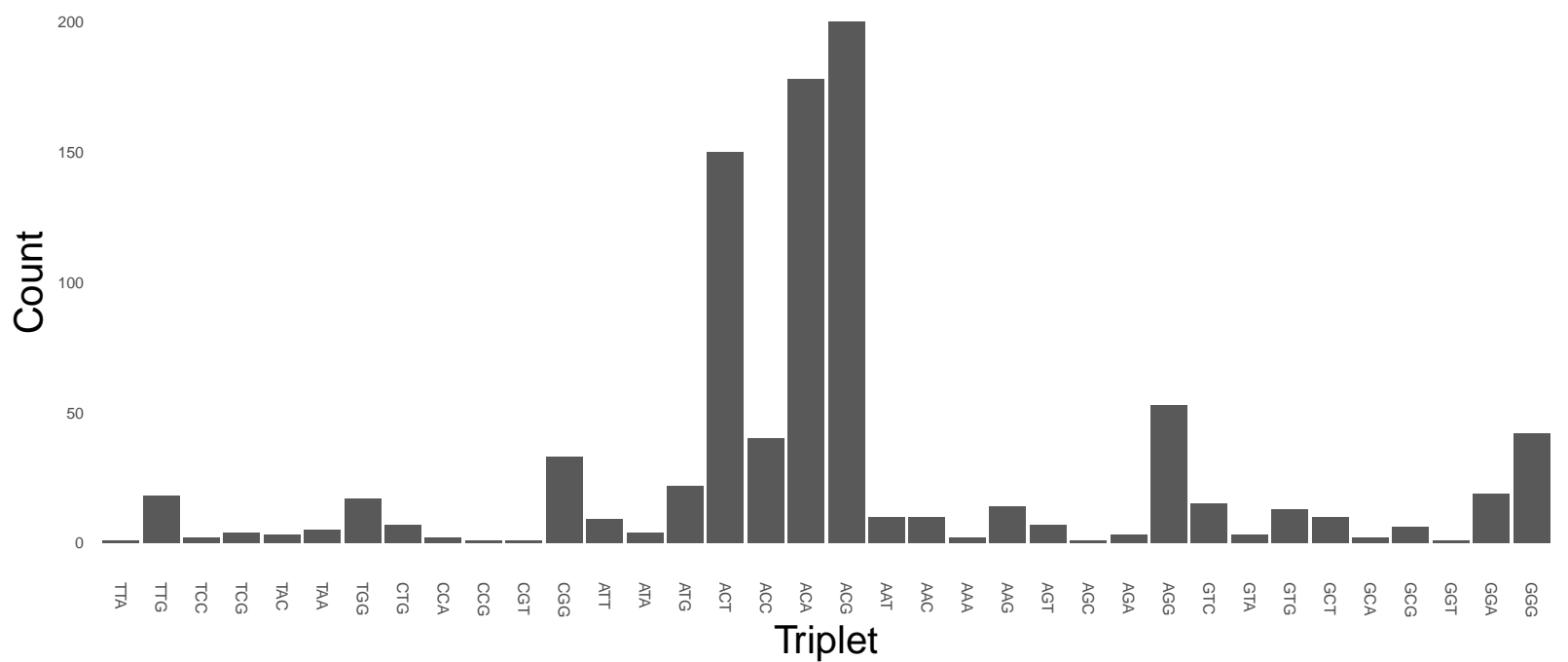
IGHV5–43*01_A106G– Final 3 nucleotides as a triplet



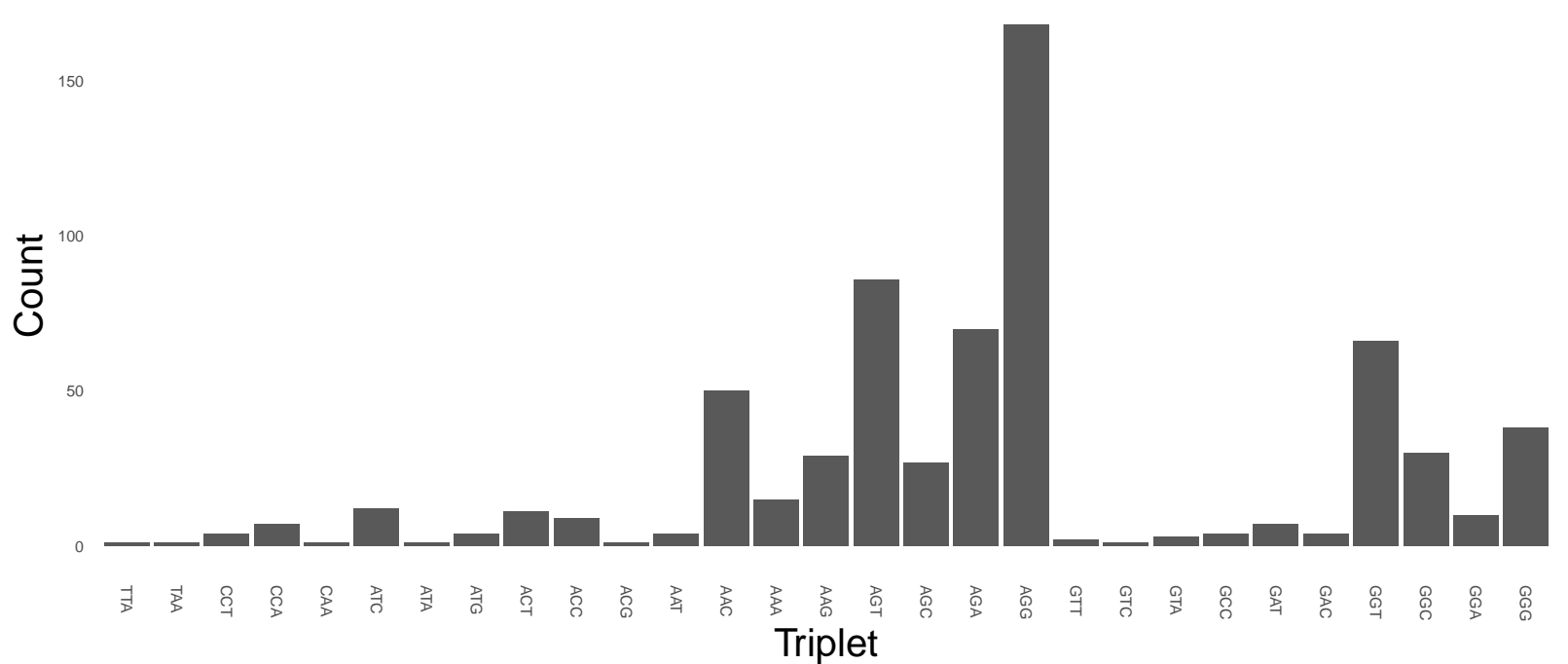
IGHV5–43*01_A106G_C297T– Final 3 nucleotides as a triplet



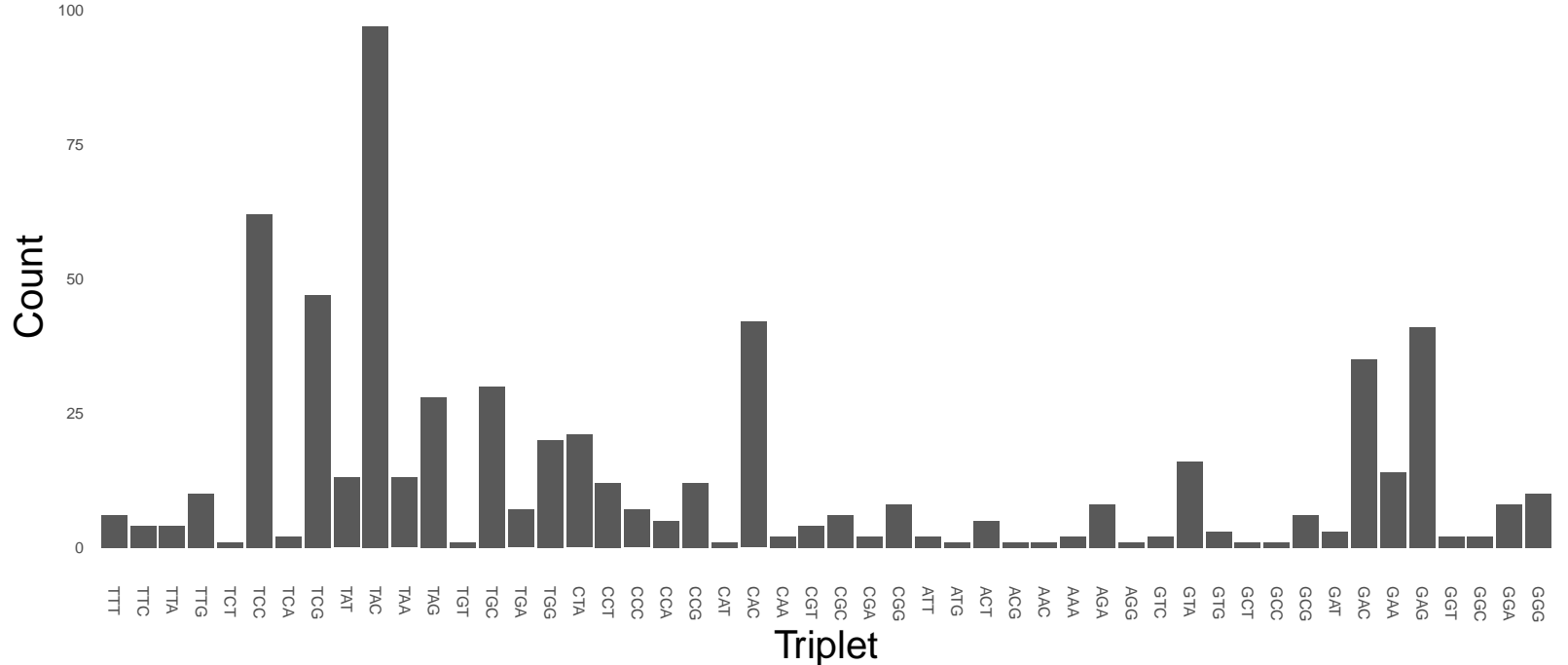
IGHV7-114*01_T81A- Final 3 nucleotides as a triplet



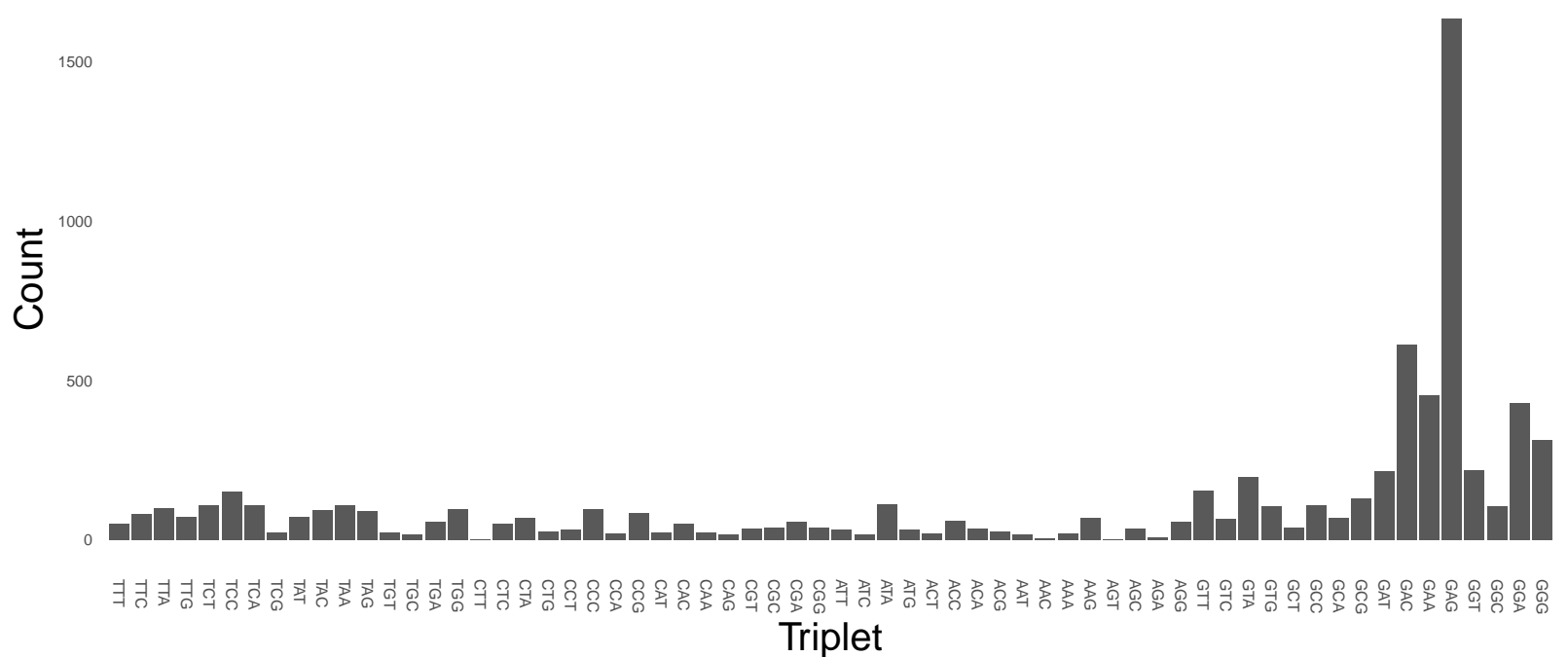
IGHV1-200*01_G49A_G72A_C78T_T84C_G146T_A147G_C153G- Final 3 nucleotides as a triplet



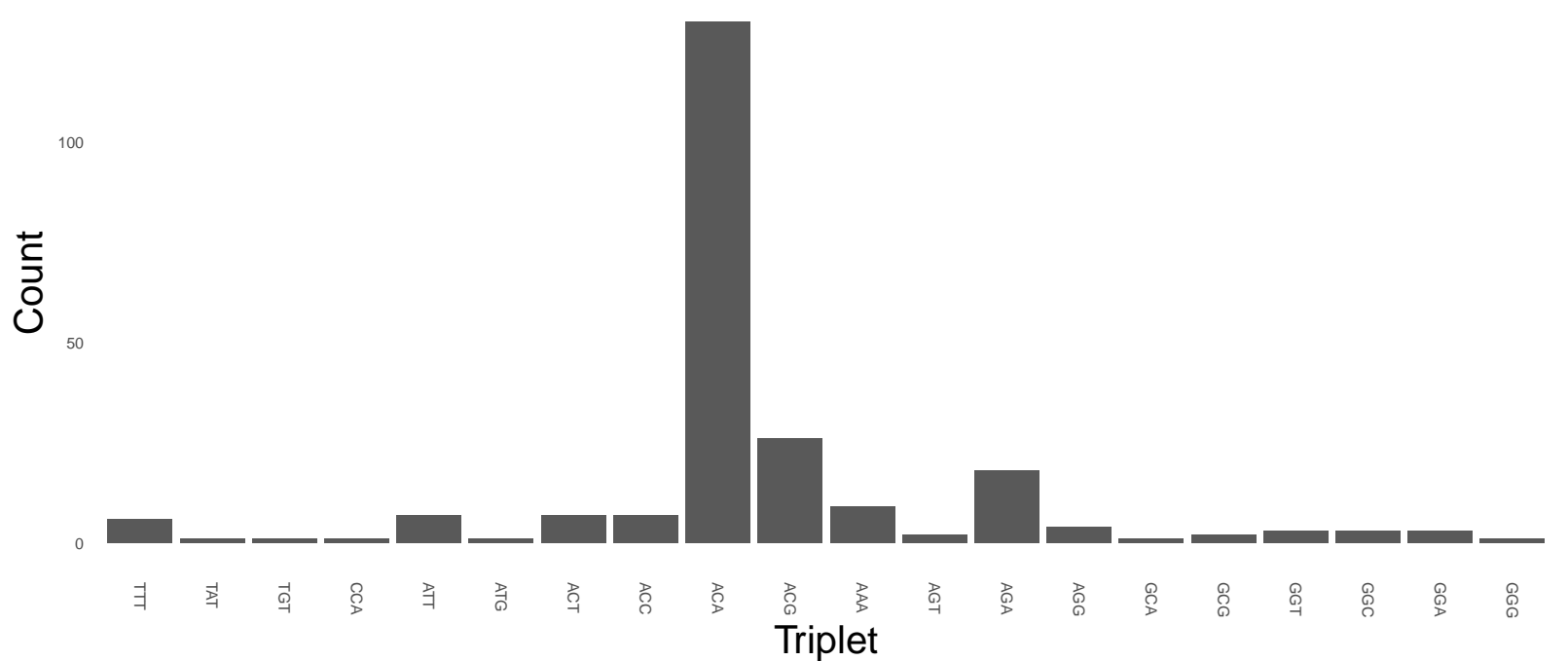
IGHV2-95*01_C32T_A205C_A252G- Final 3 nucleotides as a triplet



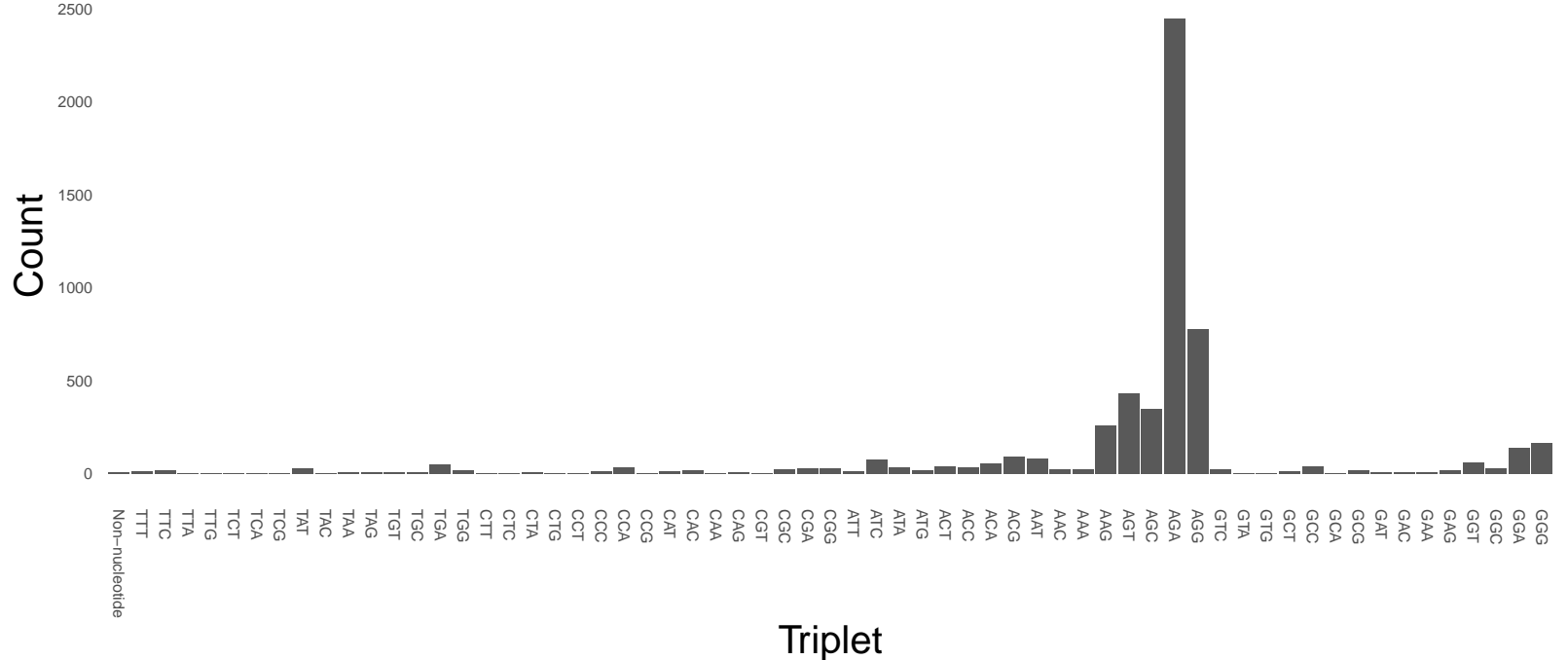
IGHV2-95*01_A252G_A267G_G289T- Final 3 nucleotides as a triplet



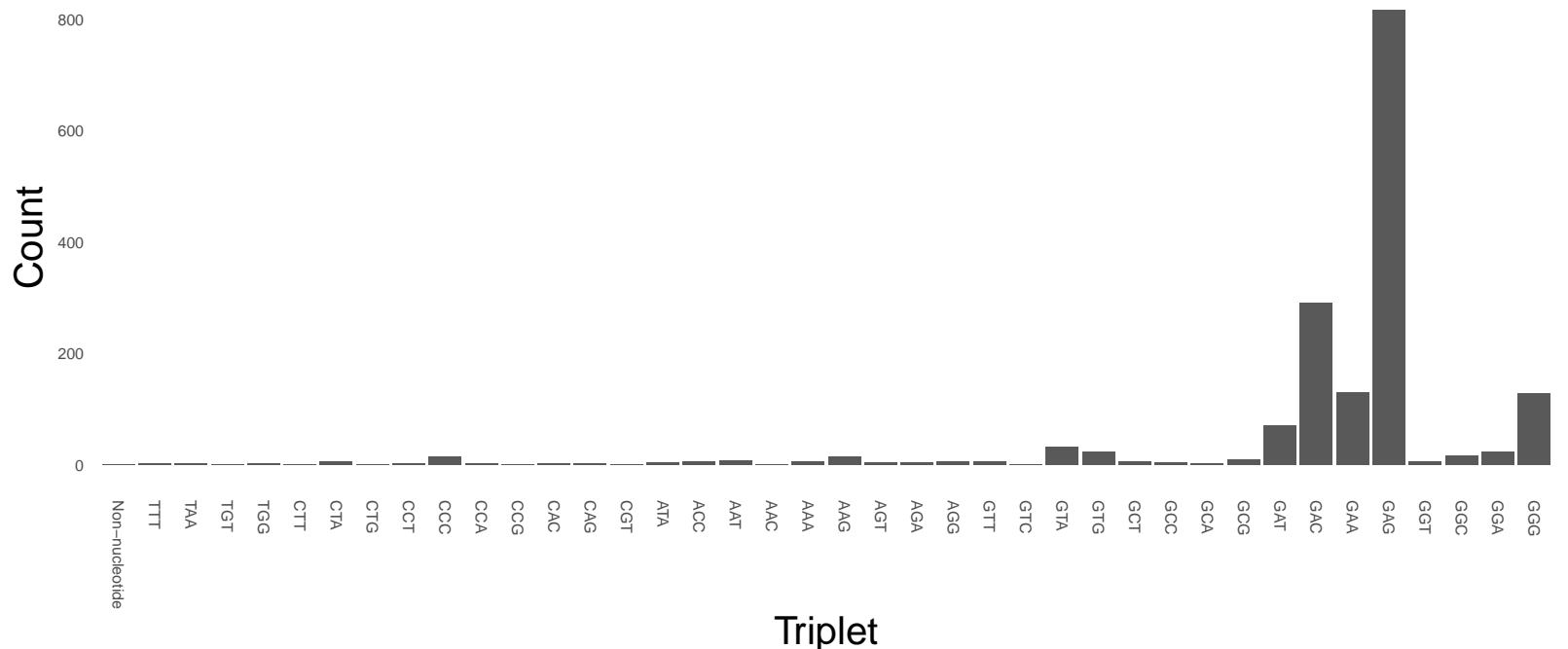
IGHV3-37*01_C39A_C54T_T112G_G113A_C114G_A119C_C129A_T136A_G172C_G173C_C174G



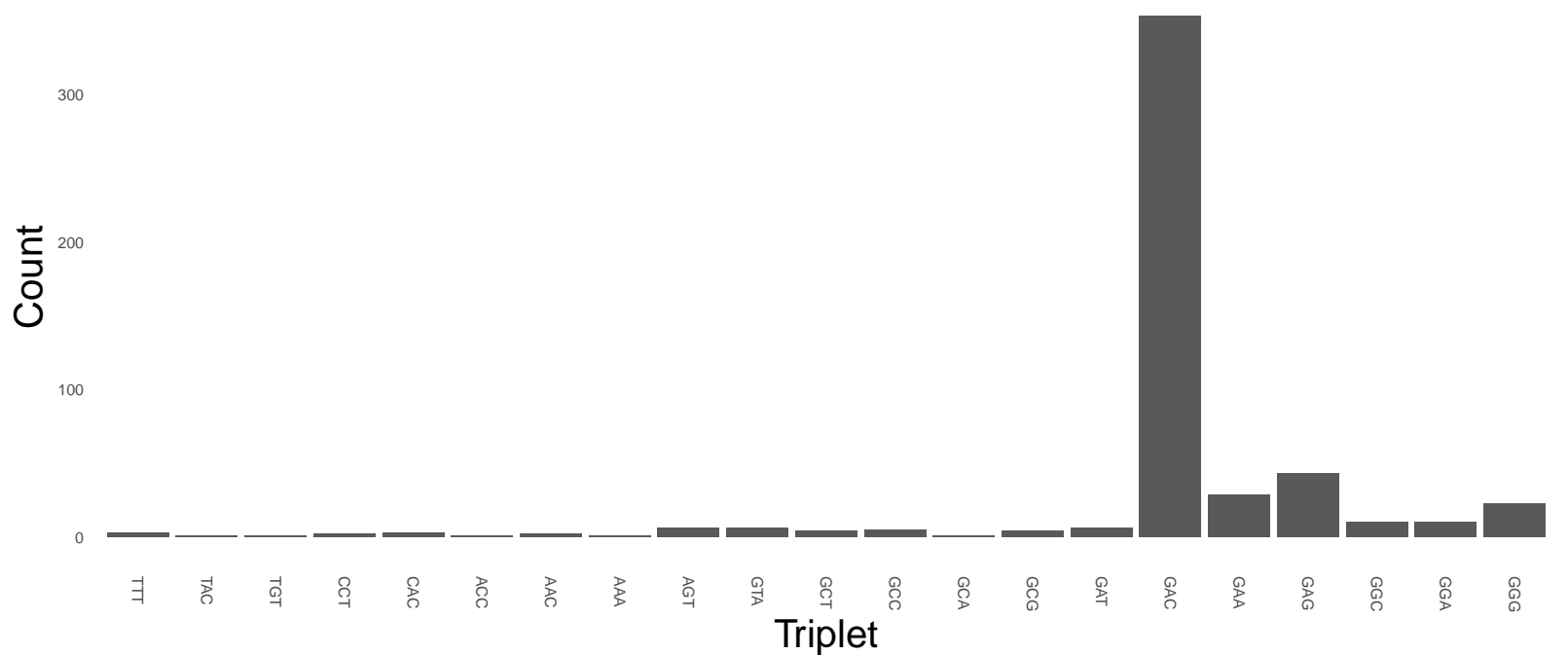
IGHV3-178*01_A274G_G297A_T300C_C303G- Final 3 nucleotides as a triplet



IGHV4-169*01_C4G_T60C_G61C_T163C_A164G_T169G_G172A_T189G_A196T_C259T- Final

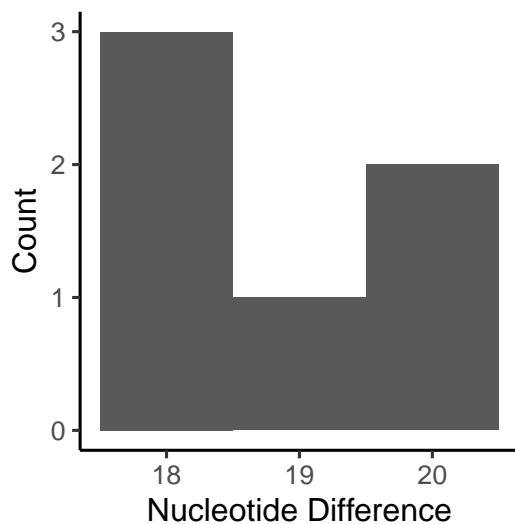


IGHV4-169*01_C4G_T60C_G61C_T163C_A164G_T169G_G172A_T189G_A196T_C259T_A295



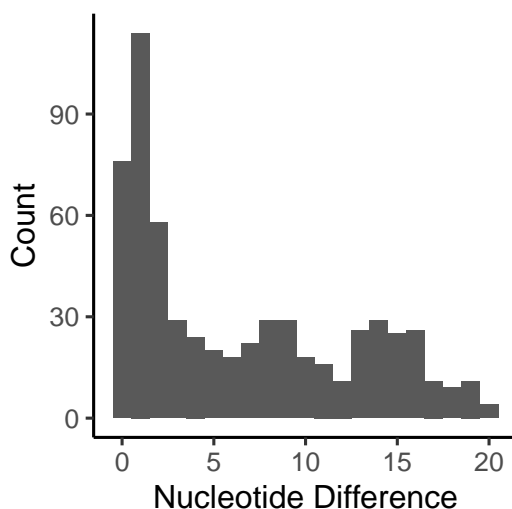
IGHV1S2*01

356 sequences assigned
No exact matches.



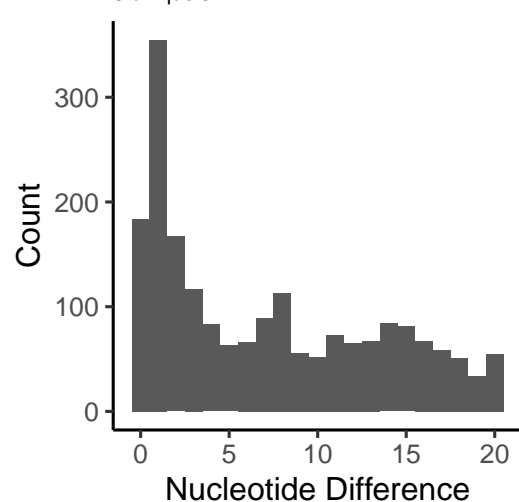
IGHV1-200*01_G49A_G7

666 sequences assigned
76 (11.4%) exact matches, in which:
69 unique CDR3
3 unique J



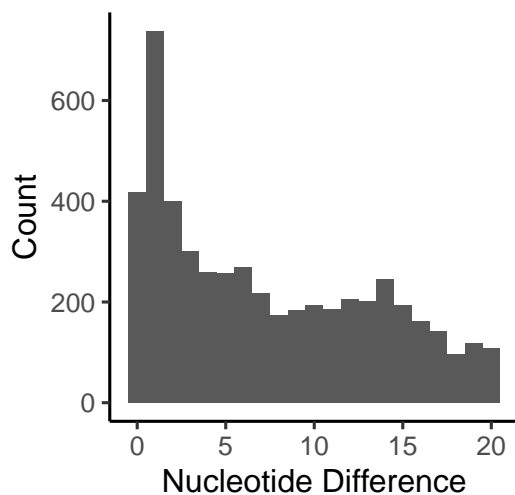
IGHV3-30*01_G48C_T11

2791 sequences assigned
184 (6.6%) exact matches, in which:
144 unique CDR3
3 unique J



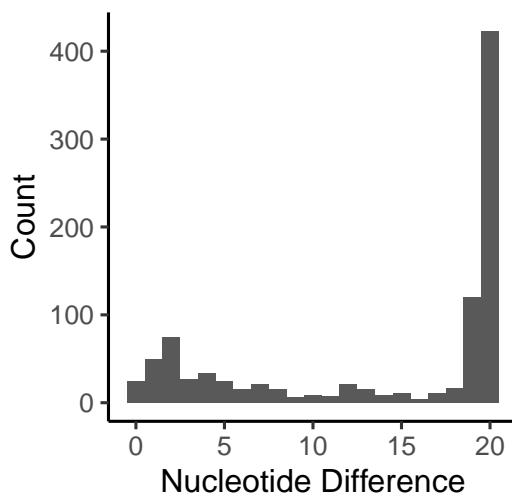
IGHV3S42*01_T19A_G24

10178 sequences assigned
417 (4.1%) exact matches, in which:
339 unique CDR3
4 unique J



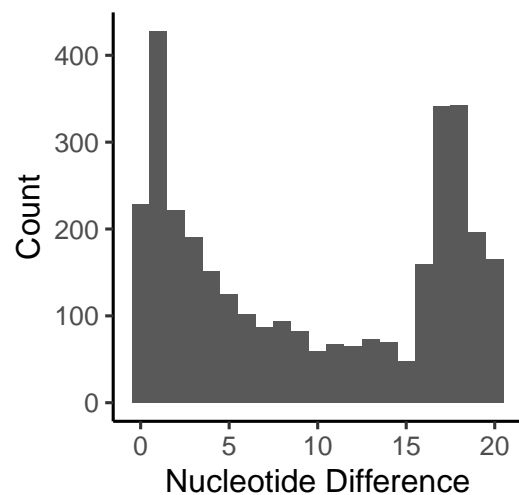
IGHV2-95*01_A252G_A2

7321 sequences assigned
24 (0.3%) exact matches, in which:
23 unique CDR3
2 unique J



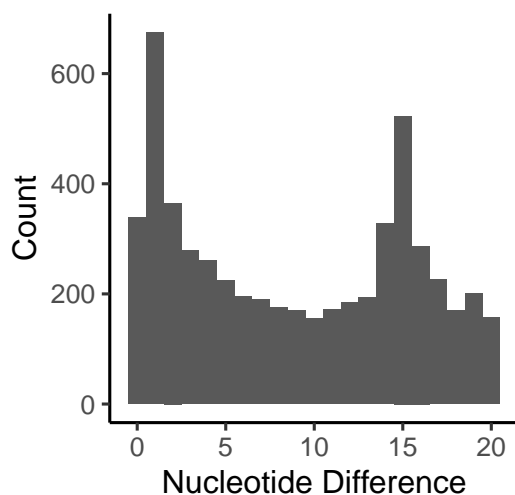
IGHV3-30*02_C48T_C14

4964 sequences assigned
229 (4.6%) exact matches, in which:
187 unique CDR3
4 unique J



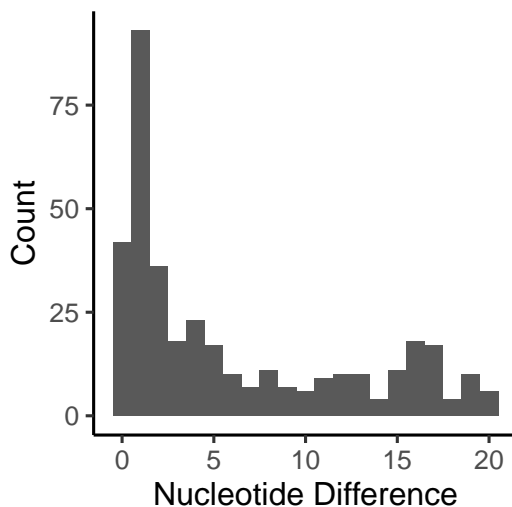
IGHV3S42*01_T19A_G24

6760 sequences assigned
339 (5%) exact matches, in which:
283 unique CDR3
4 unique J



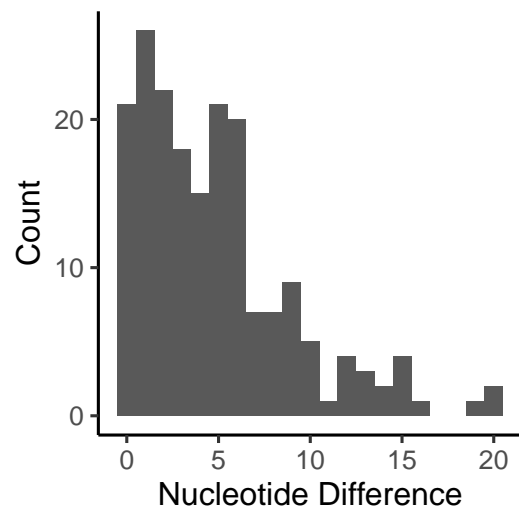
IGHV2-95*01_C32T_A205

632 sequences assigned
42 (6.6%) exact matches, in which:
36 unique CDR3
4 unique J



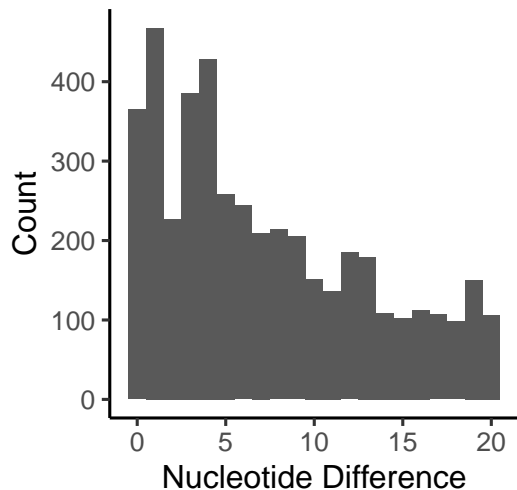
IGHV3-37*01_C39A_C54

233 sequences assigned
21 (9%) exact matches, in which:
20 unique CDR3
3 unique J



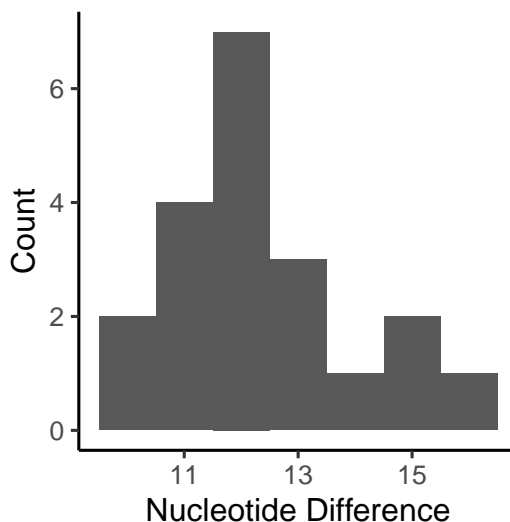
IGHV3-54*02_G47C_T11

5131 sequences assigned
365 (7.1%) exact matches, in which:
306 unique CDR3
4 unique J



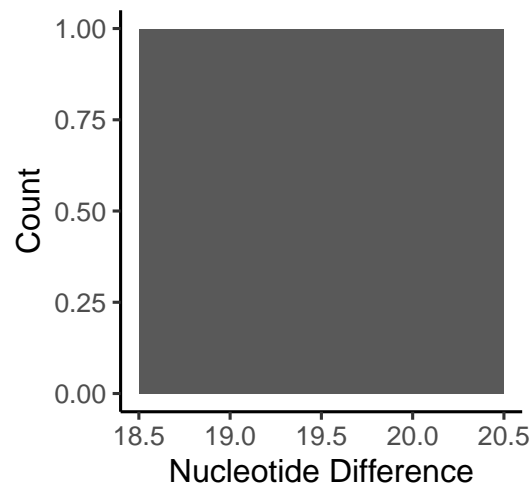
IGHV3-117*01

363 sequences assigned
No exact matches.



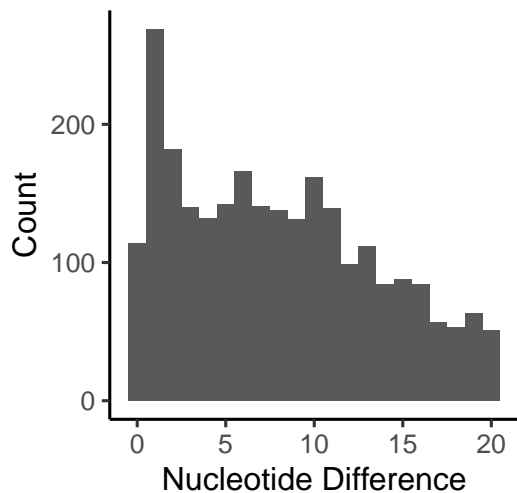
IGHV3-137*01

54 sequences assigned
No exact matches.



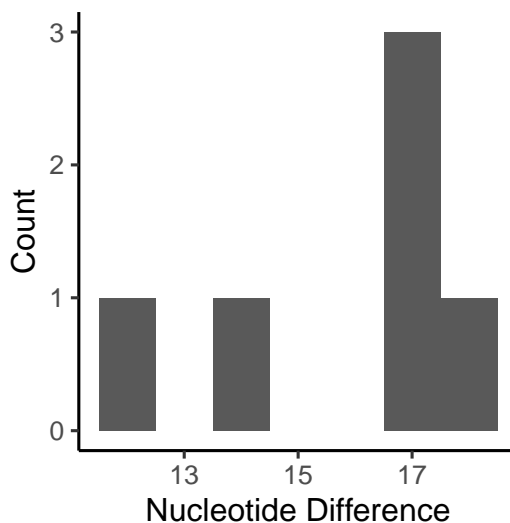
IGHV3-116*02_T227G

2962 sequences assigned
114 (3.8%) exact matches, in which:
96 unique CDR3
4 unique J



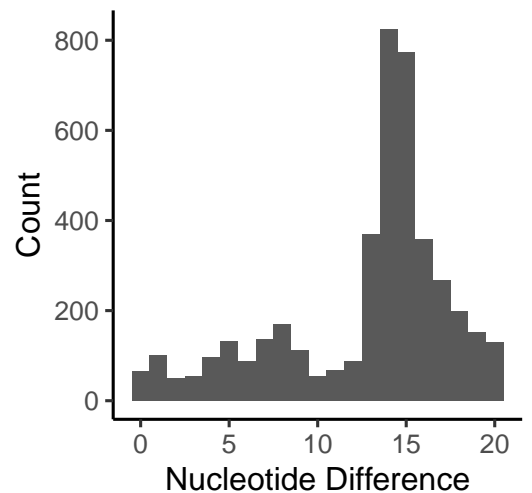
IGHV3-124*01

88 sequences assigned
No exact matches.



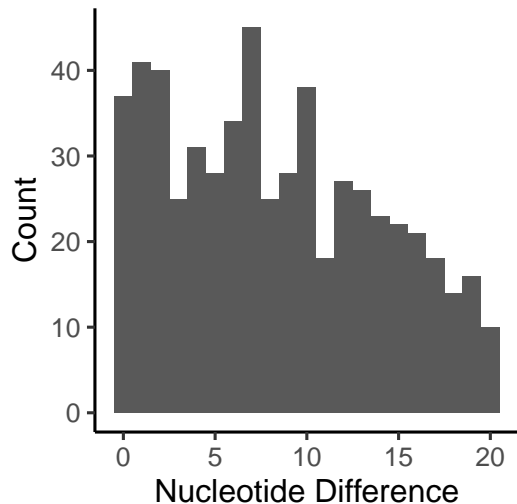
IGHV3-178*01_A274G_C

5670 sequences assigned
66 (1.2%) exact matches, in which:
54 unique CDR3
4 unique J



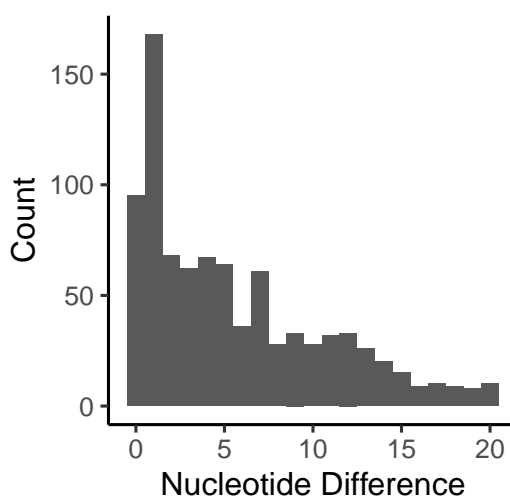
IGHV3-116*02_T227G_T2

685 sequences assigned
37 (5.4%) exact matches, in which:
37 unique CDR3
3 unique J



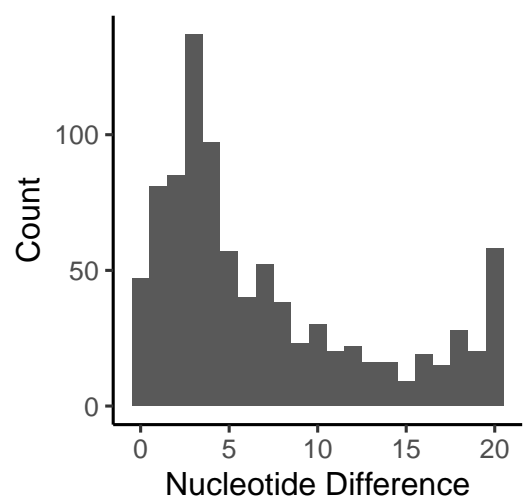
IGHV3-134*01_A3C_A81

1789 sequences assigned
95 (5.3%) exact matches, in which:
83 unique CDR3
4 unique J



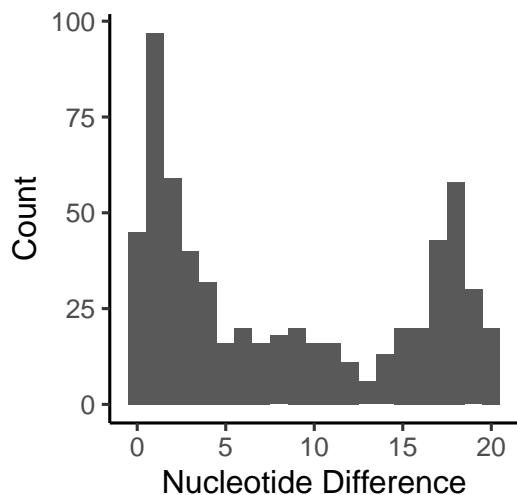
IGHV3-184*01_T34C_G1

1538 sequences assigned
47 (3.1%) exact matches, in which:
38 unique CDR3
2 unique J



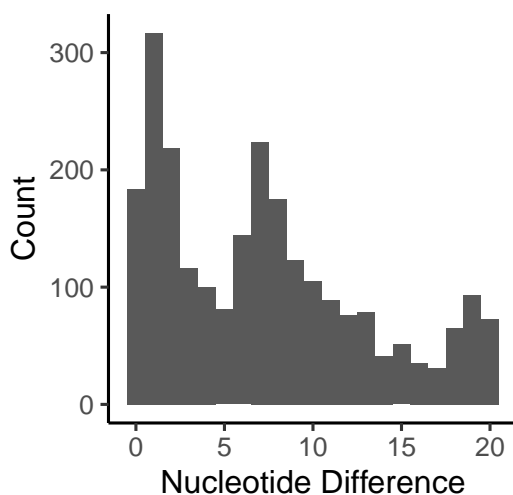
IGHV4-57*02_C87T_G1C

828 sequences assigned
45 (5.4%) exact matches, in which:
44 unique CDR3
4 unique J



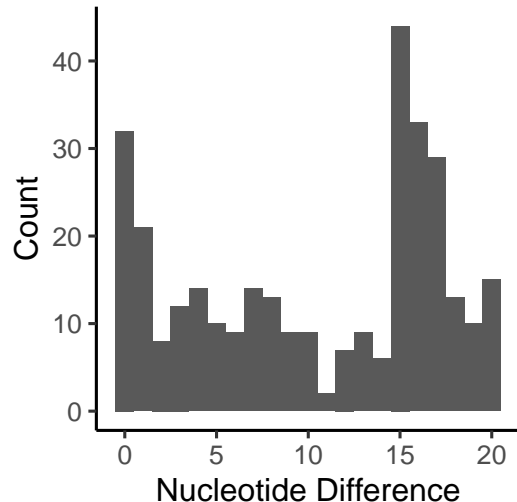
IGHV4-122*02_C87T_G1C

3077 sequences assigned
184 (6%) exact matches, in which:
178 unique CDR3
4 unique J



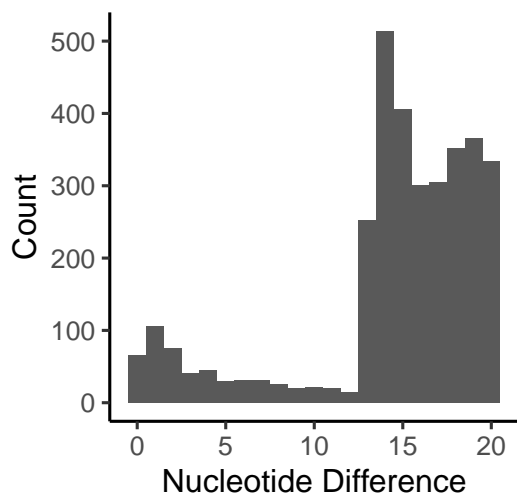
IGHV4-169*01_C4G_T6C

514 sequences assigned
32 (6.2%) exact matches, in which:
31 unique CDR3
4 unique J



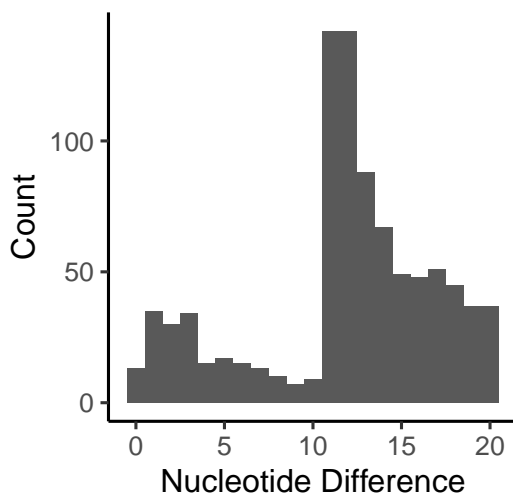
IGHV4-76*01_C34G_G1C

5166 sequences assigned
65 (1.3%) exact matches, in which:
62 unique CDR3
4 unique J



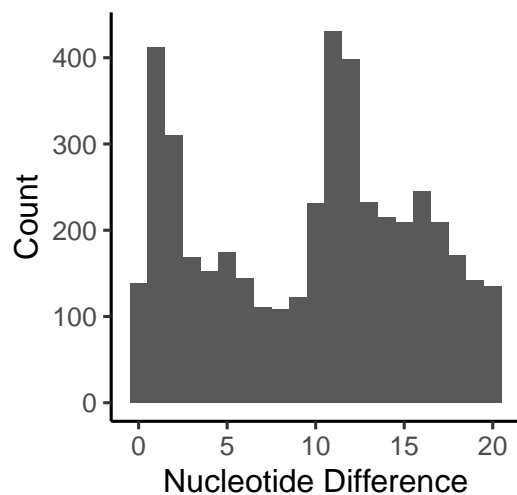
IGHV4-160*01_G4C_C87T

1239 sequences assigned
13 (1%) exact matches, in which:
13 unique CDR3
3 unique J



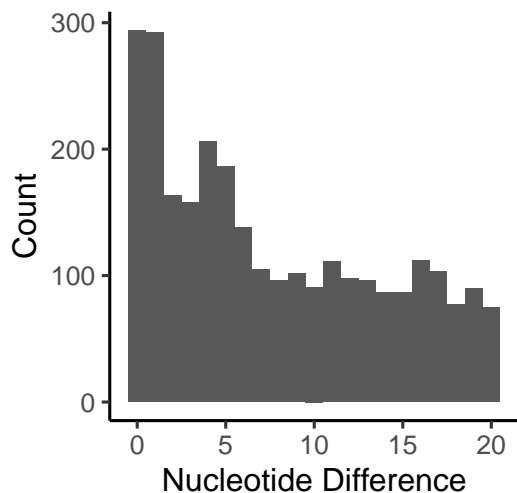
IGHV4-173*01_C4G

5738 sequences assigned
138 (2.4%) exact matches, in which:
128 unique CDR3
4 unique J



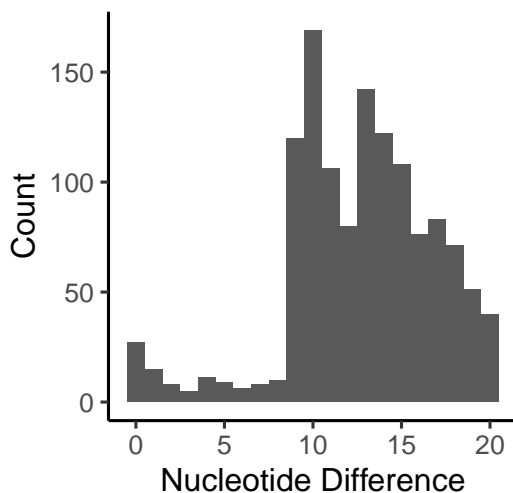
IGHV4-80*01_C60T_C61G

3512 sequences assigned
294 (8.4%) exact matches, in which:
272 unique CDR3
4 unique J



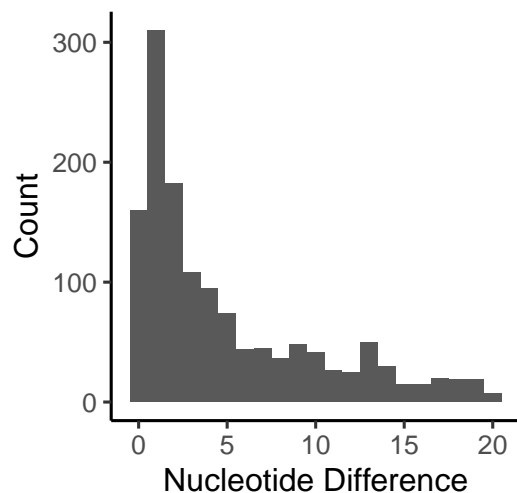
IGHV4-169*01_C4G_T6C

1667 sequences assigned
27 (1.6%) exact matches, in which:
27 unique CDR3
4 unique J



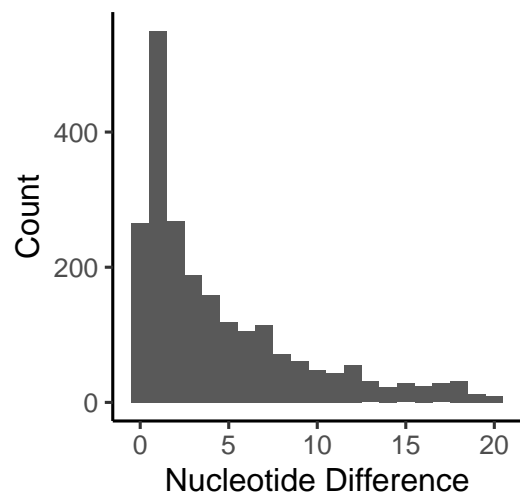
IGHV5-20*01_A141G

1394 sequences assigned
160 (11.5%) exact matches, in which:
124 unique CDR3
4 unique J



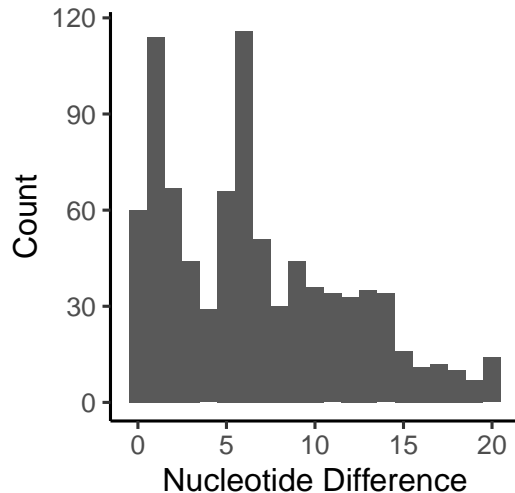
IGHV5-43*01_A106G

2310 sequences assigned
266 (11.5%) exact matches, in which:
201 unique CDR3
4 unique J



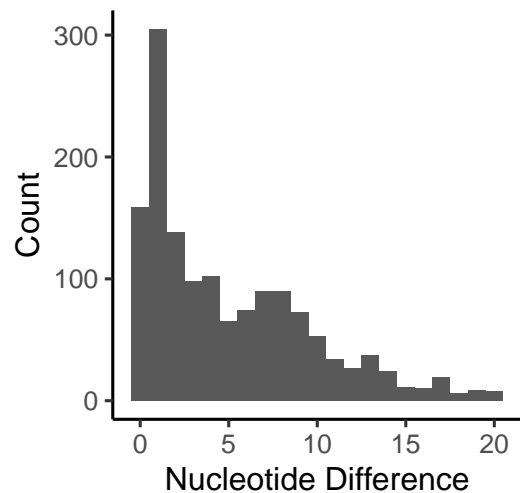
IGHV7-114*01_T81A

908 sequences assigned
60 (6.6%) exact matches, in which:
51 unique CDR3
3 unique J



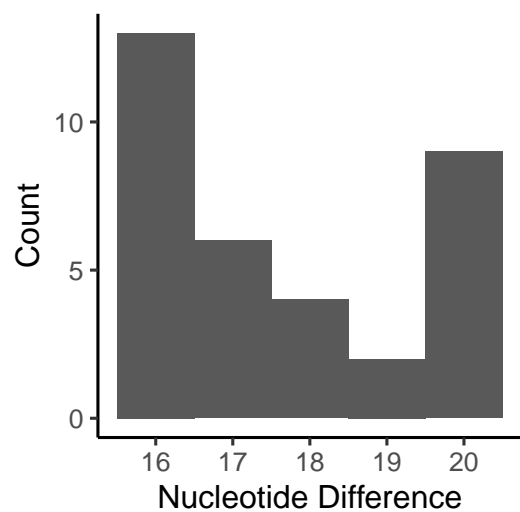
IGHV5-43*01_A106G_C297T

1509 sequences assigned
159 (10.5%) exact matches, in which:
122 unique CDR3
3 unique J

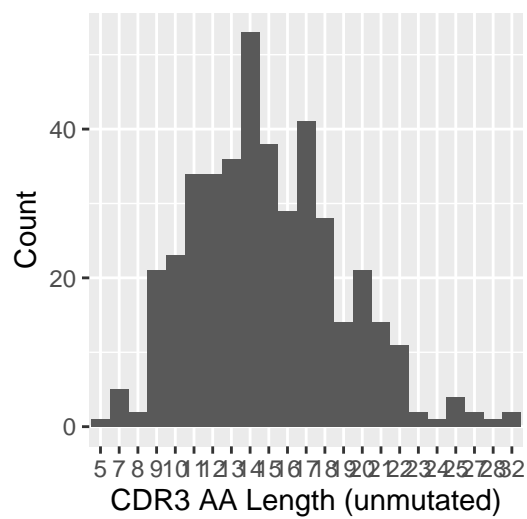


IGHV7-94*01

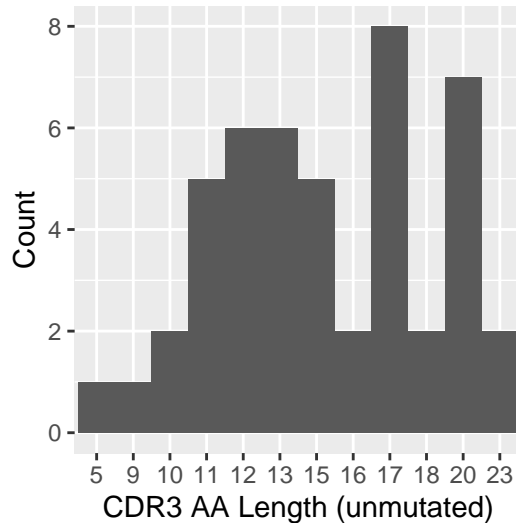
60 sequences assigned
No exact matches.



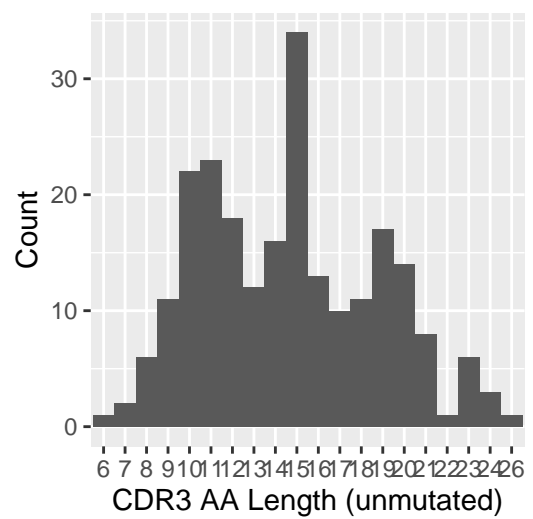
IGHV3S42*01_T19A_G24A_



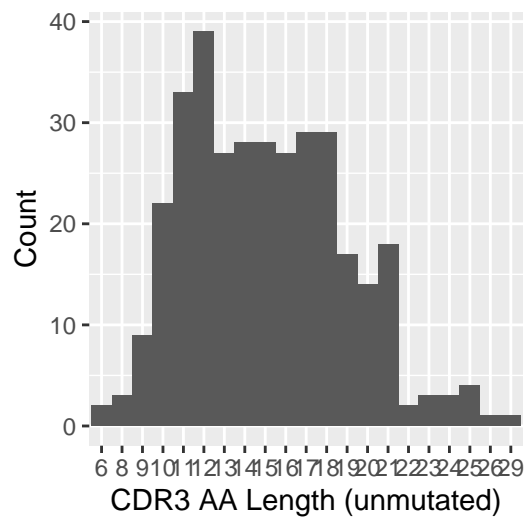
IGHV3-184*01_T34C_G106A



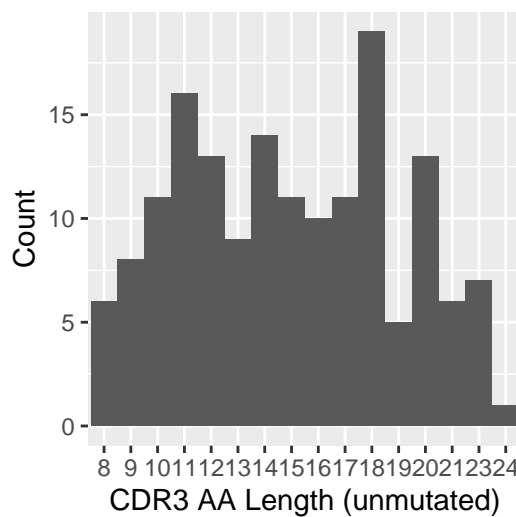
IGHV3-30*02_C48T_C141G



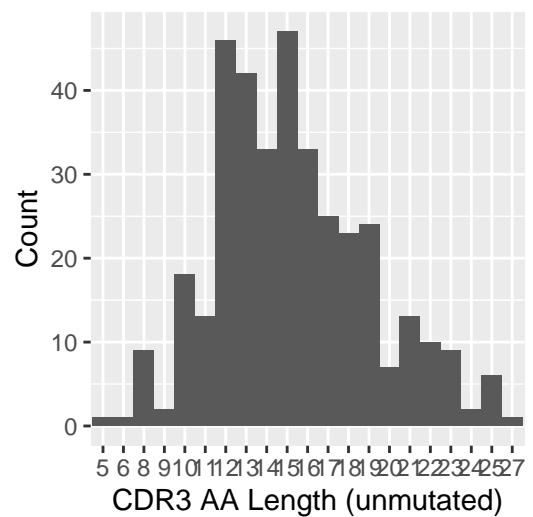
IGHV3S42*01_T19A_G24A_



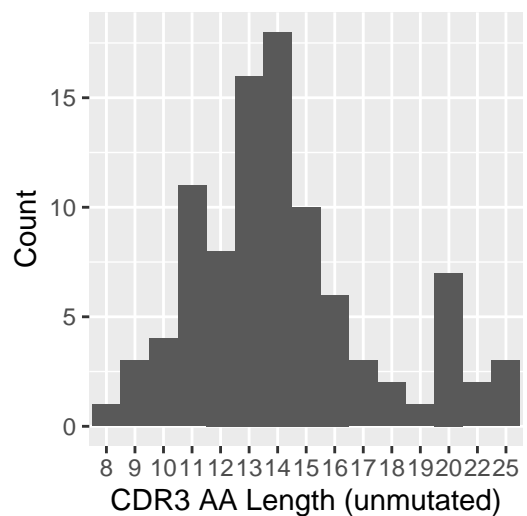
IGHV5-20*01_A141G



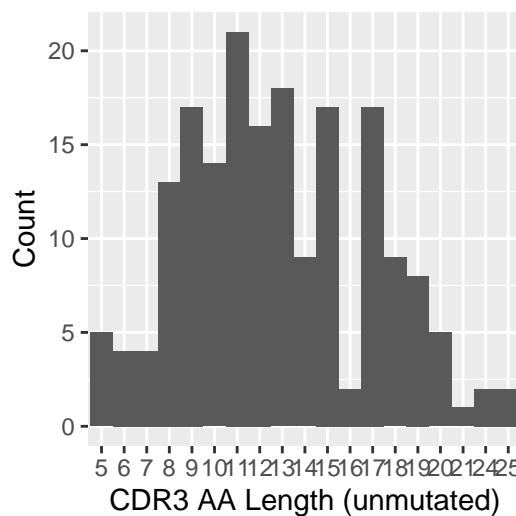
IGHV3-54*02_G47C_T111C



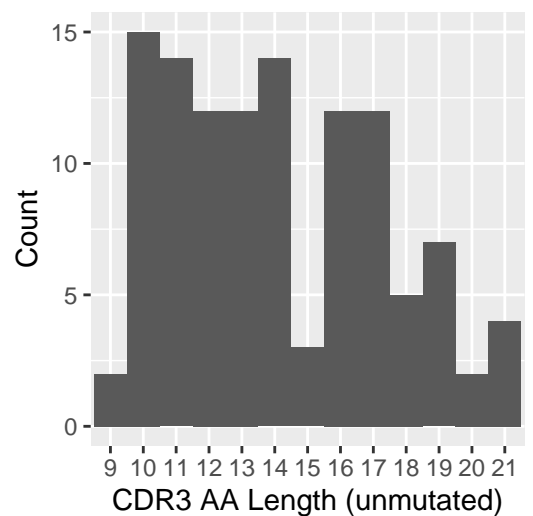
IGHV3-134*01_A3C_A81G_



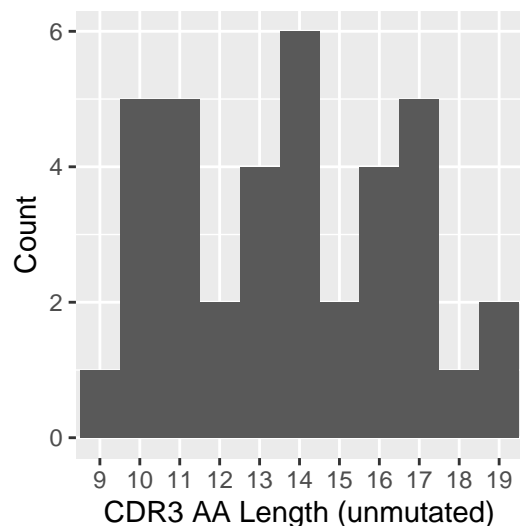
IGHV3-30*01_G48C_T110C



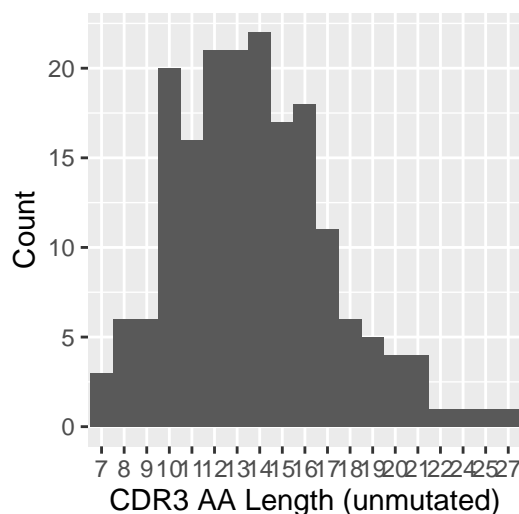
IGHV3-116*02_T227G



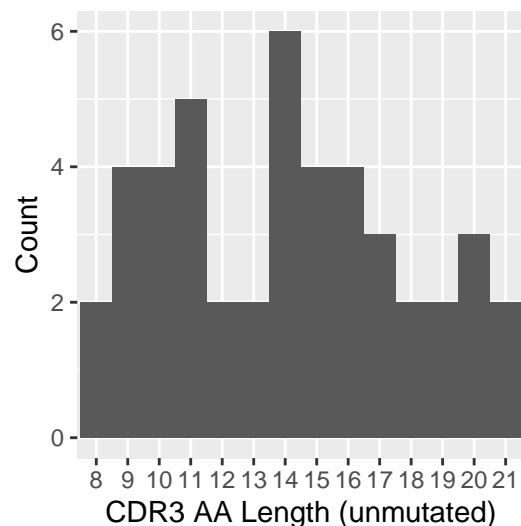
IGHV3-116*02_T227G_T235I



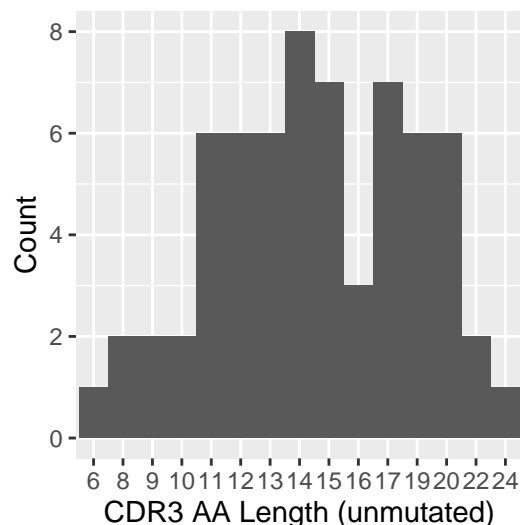
IGHV4-122*02_C87T_G103I



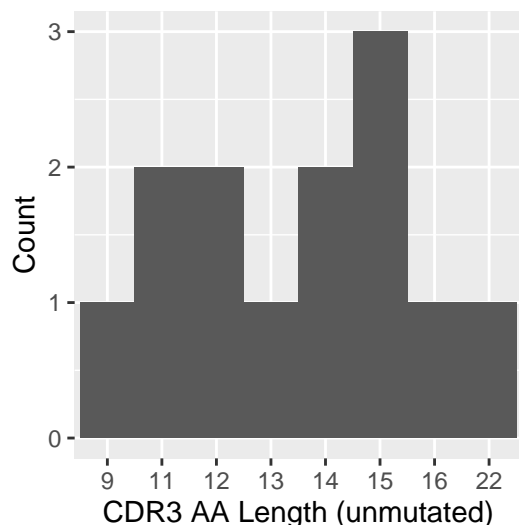
IGHV4-57*02_C87T_G199T_



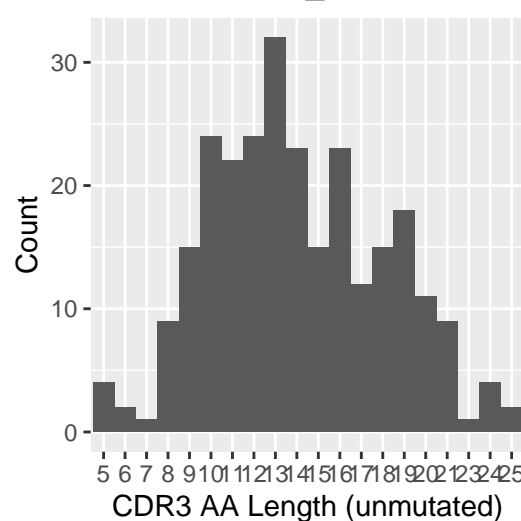
IGHV4-76*01_C34G_G103A_



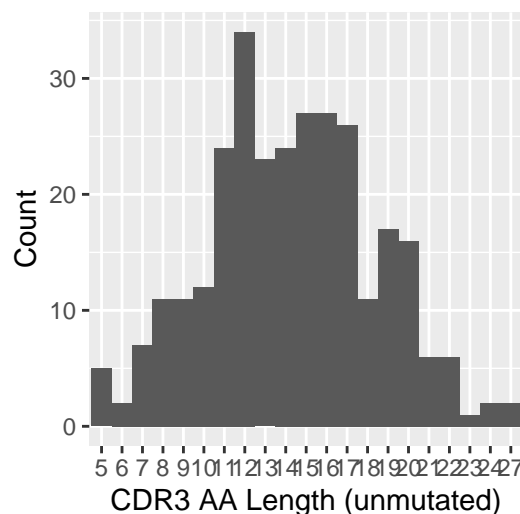
IGHV4-160*01_G4C_C87T_/_



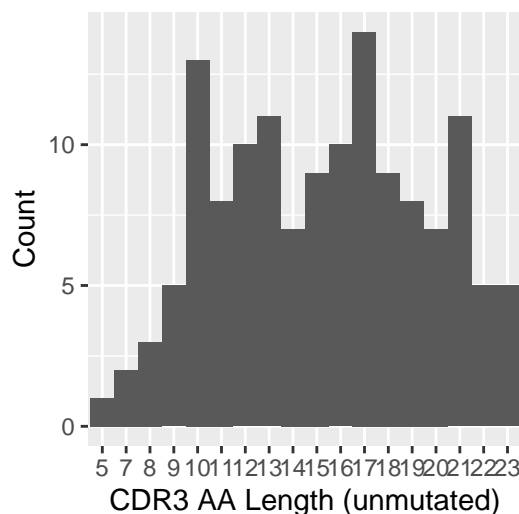
IGHV5-43*01_A106G



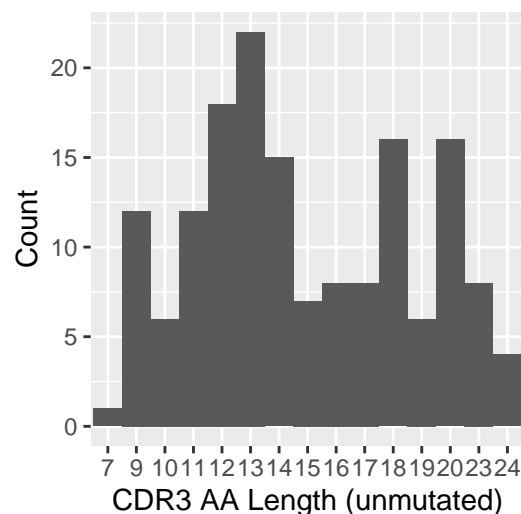
IGHV4-80*01_C60T_C61G_



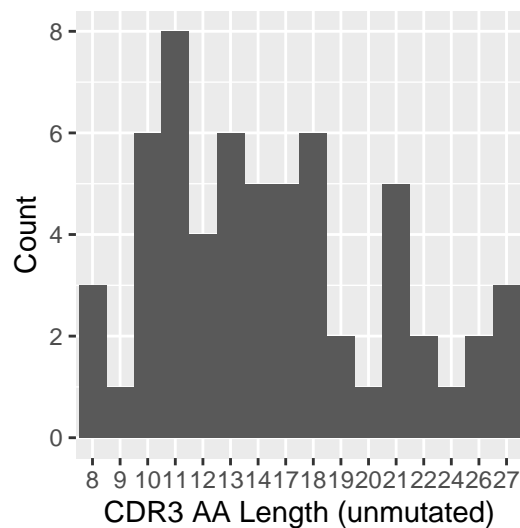
IGHV4-173*01_C4G



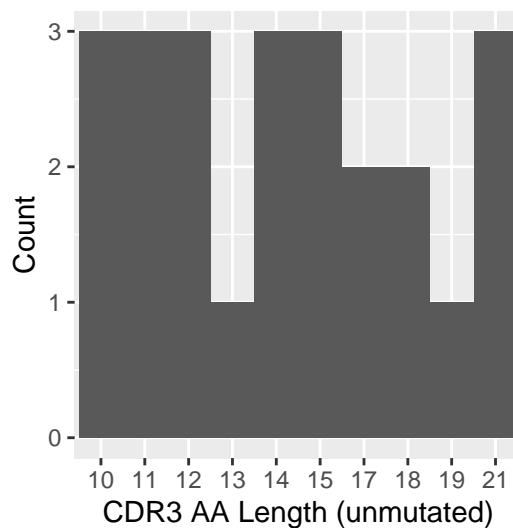
IGHV5-43*01_A106G_C297V



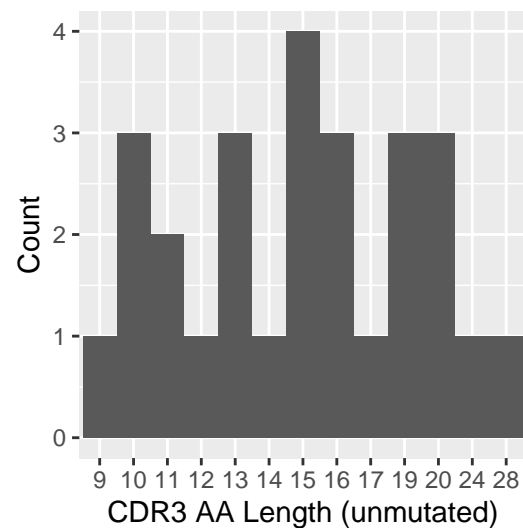
IGHV7-114*01_T81A



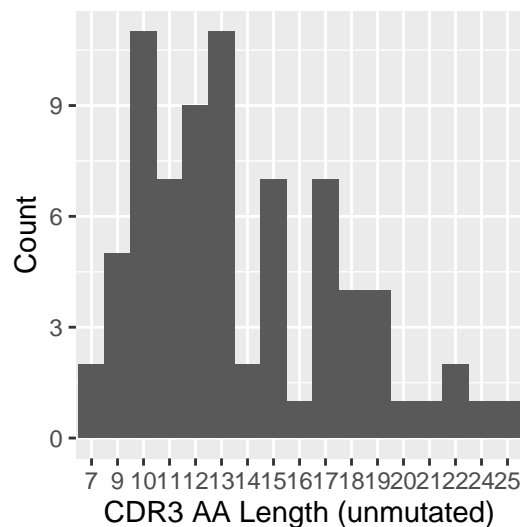
IGHV2-95*01_A252G_A267C



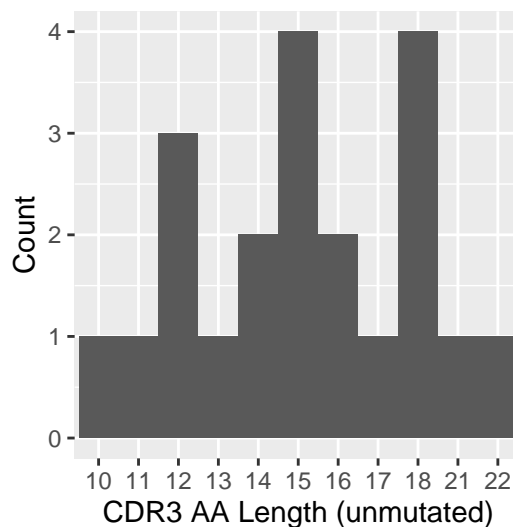
IGHV4-169*01_C4G_T60C_C



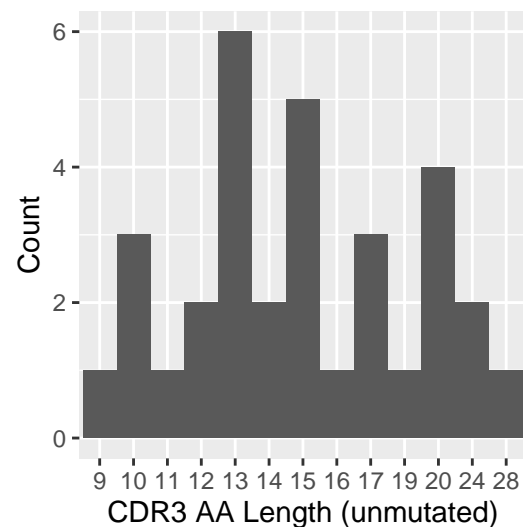
IGHV1-200*01_G49A_G72A_



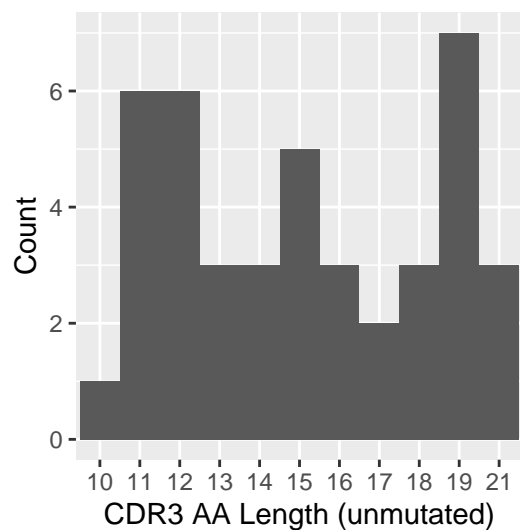
IGHV3-37*01_C39A_C54T_T



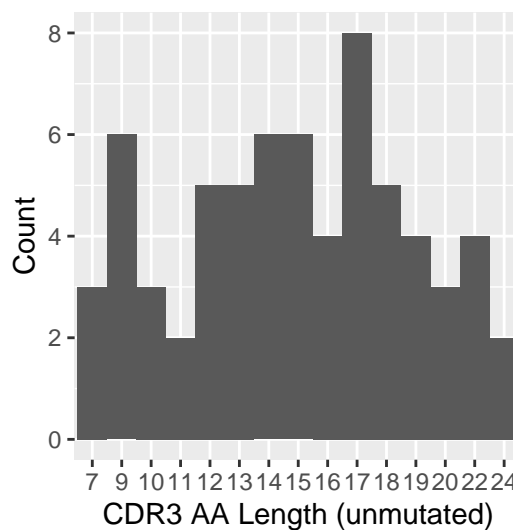
IGHV4-169*01_C4G_T60C_C

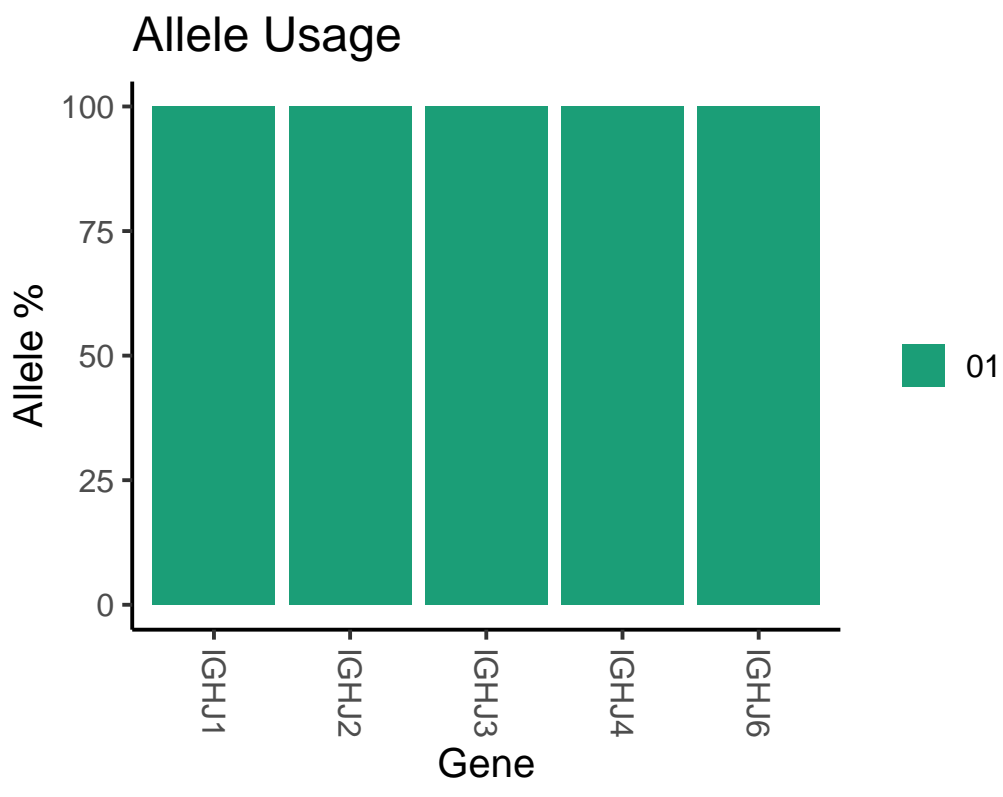


IGHV2-95*01_C32T_A205C_



IGHV3-178*01_A274G_G297A_T300C_C303G





Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.