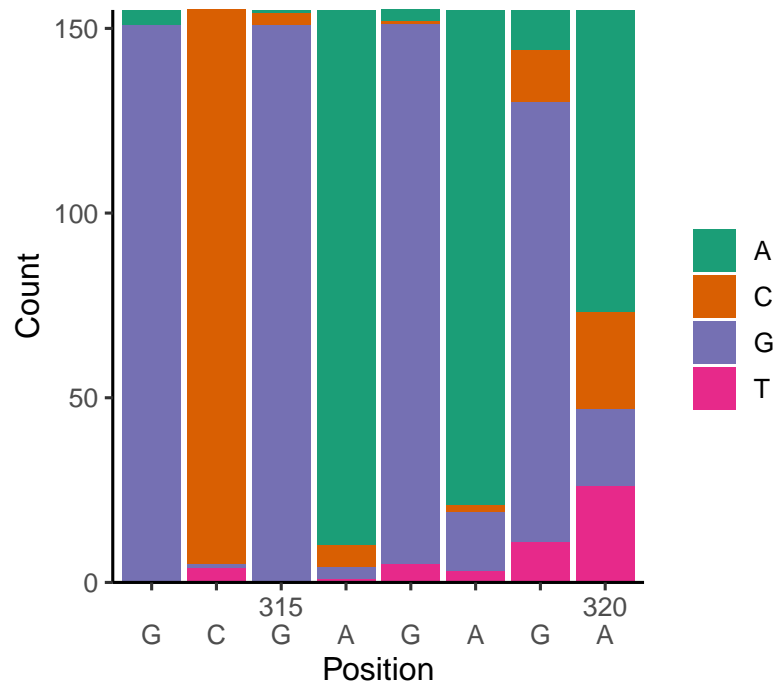
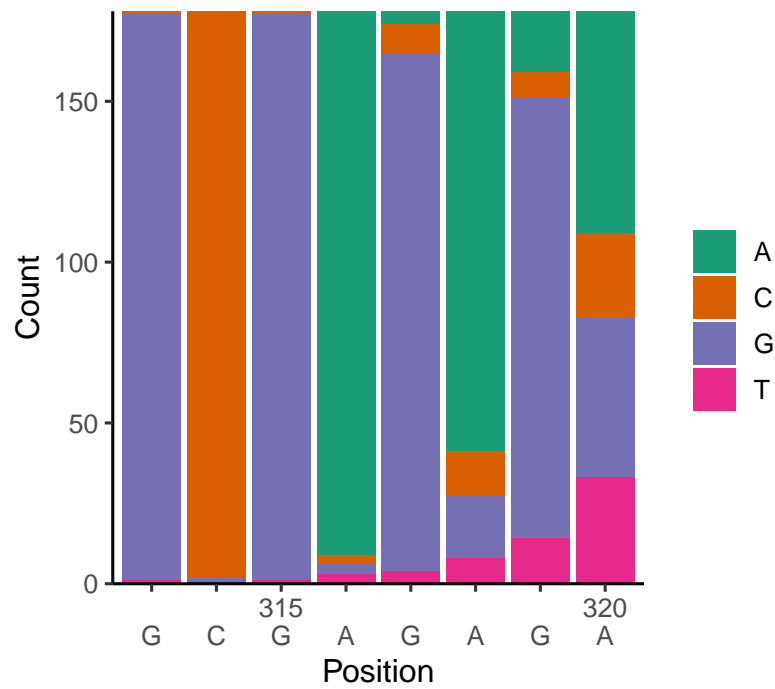


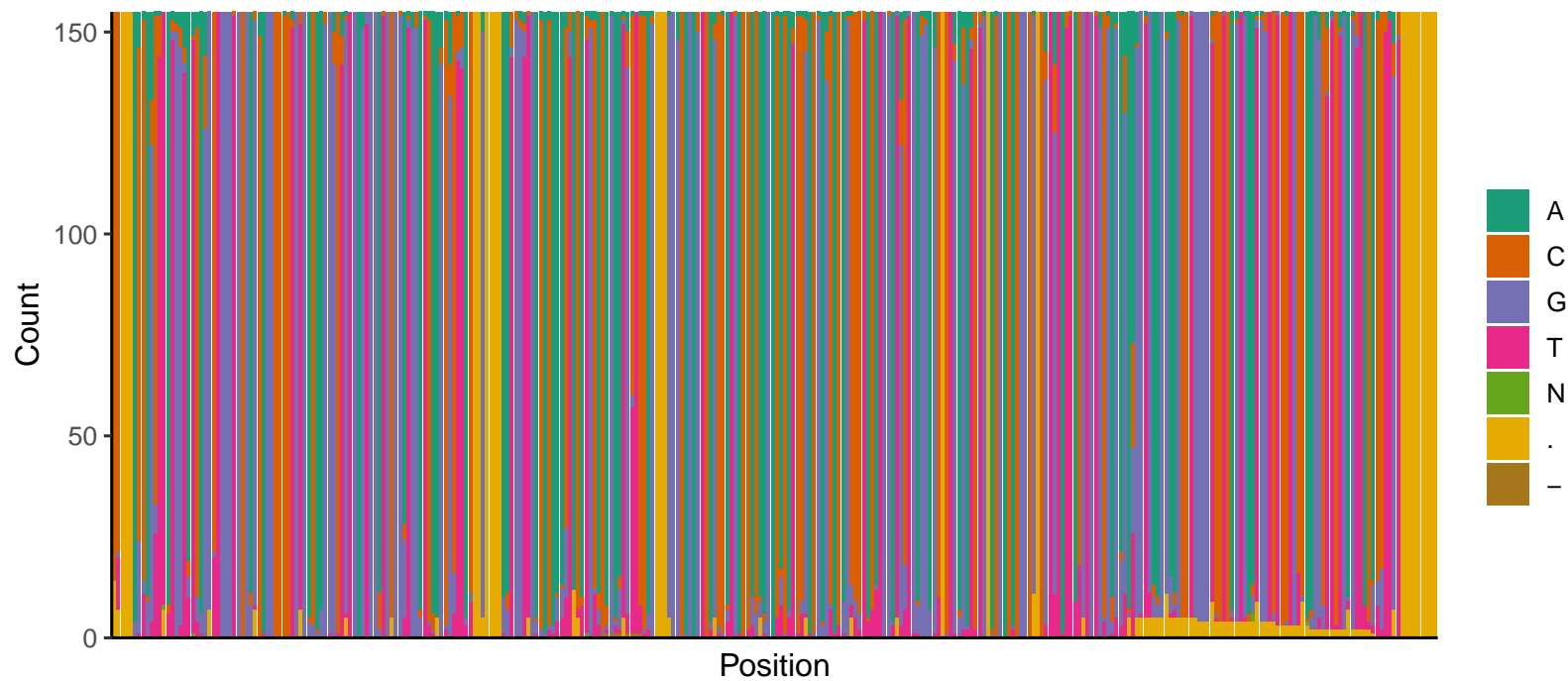
Gene IGHV1-18*01_A190G



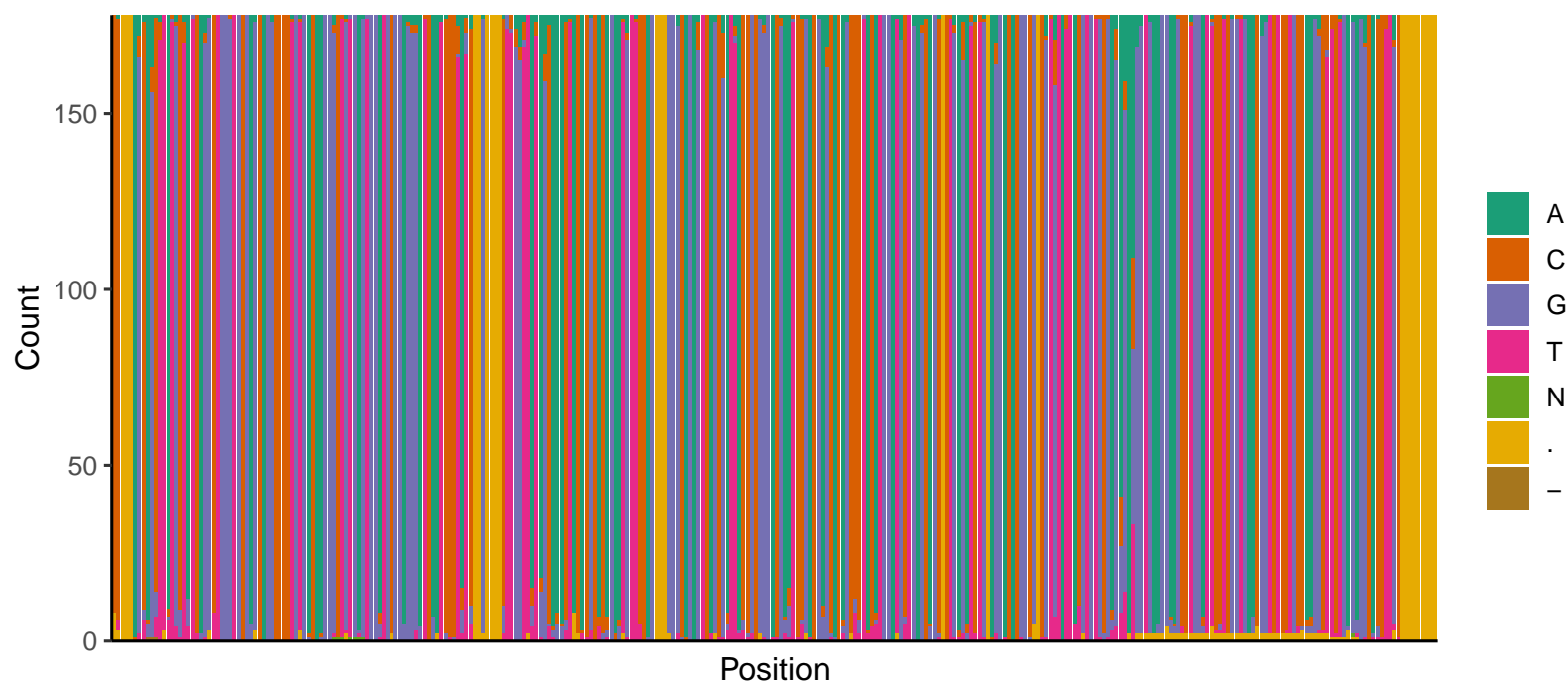
Gene IGHV1-69*04_G48A_A163G_A244G



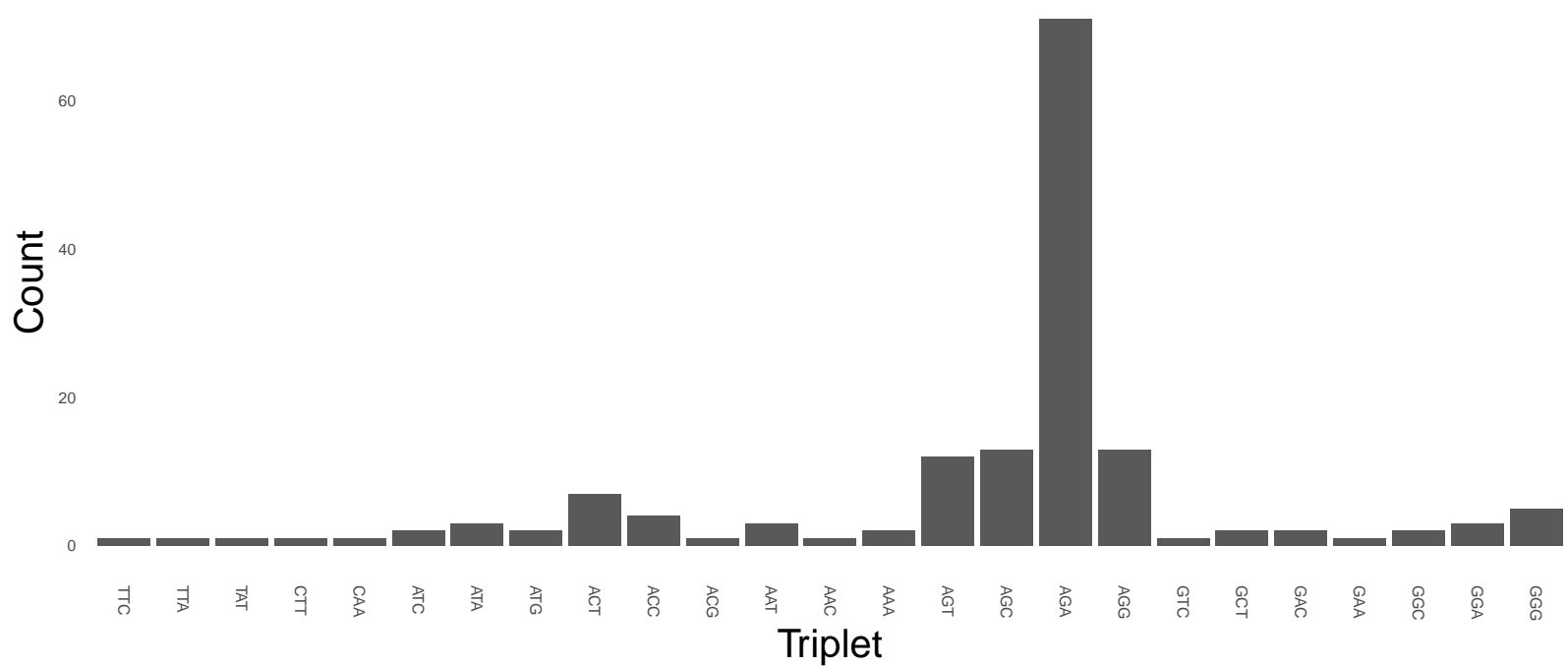
Gene IGHV1-18*01_A190G



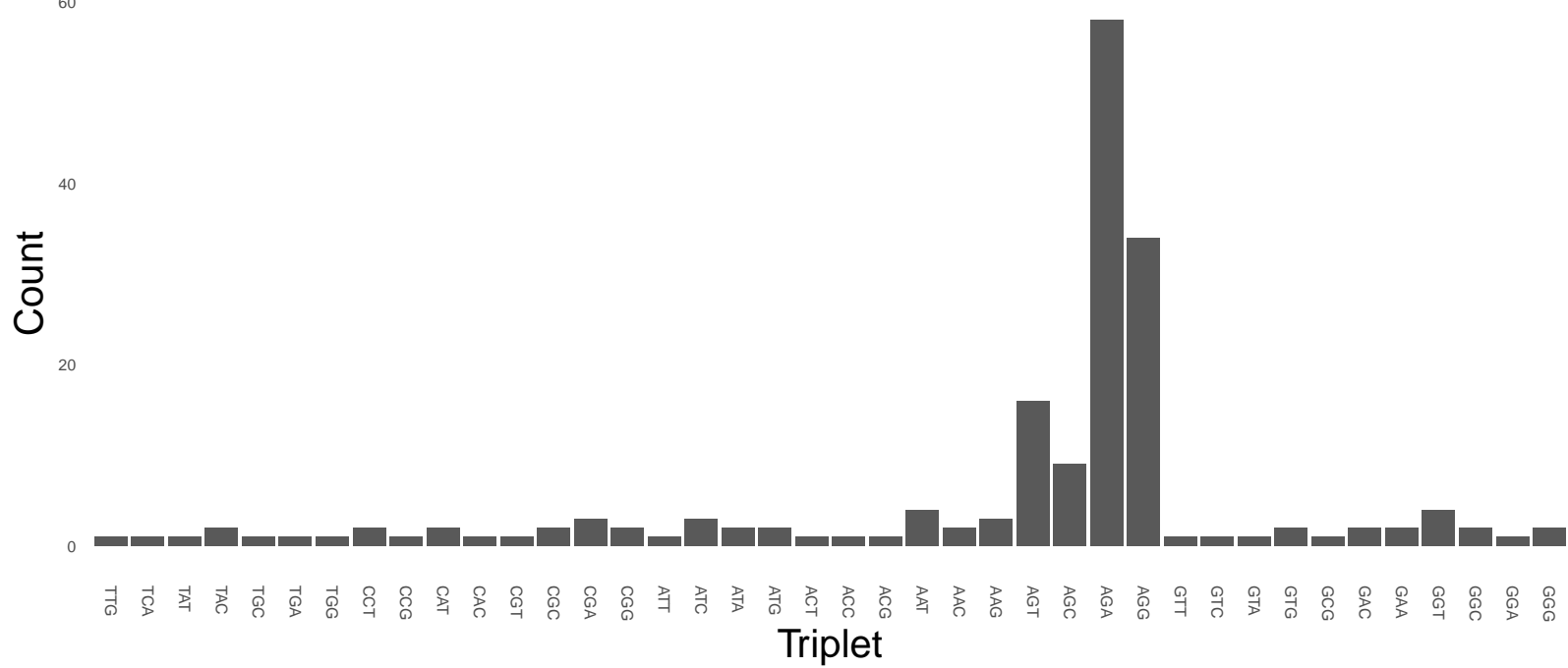
Gene IGHV1-69*04_G48A_A163G_A244G



IGHV1-18*01_A190G- Final 3 nucleotides as a triplet

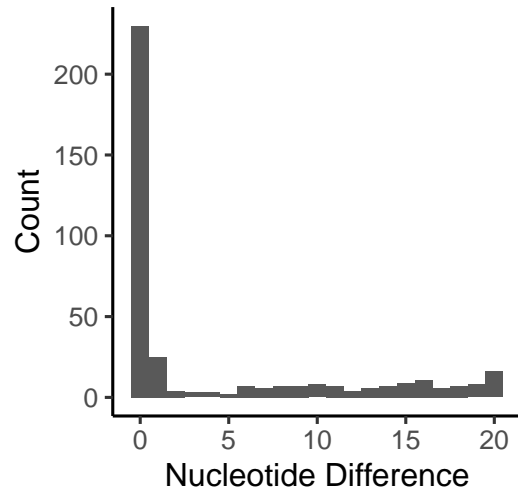


IGHV1-69*04_G48A_A163G_A244G- Final 3 nucleotides as a triplet



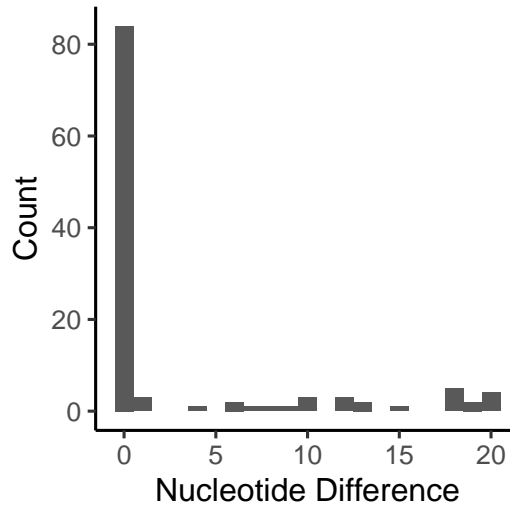
IGHV1-2*02

479 sequences assigned
230 (48%) exact matches, in which:
230 unique CDR3
6 unique J



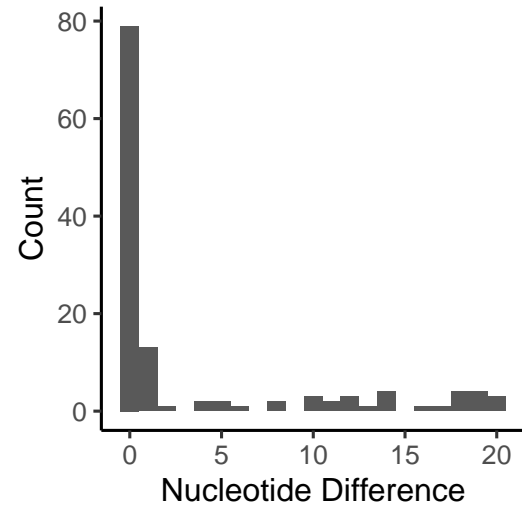
IGHV1-18*01

137 sequences assigned
84 (61.3%) exact matches, in which:
83 unique CDR3
6 unique J



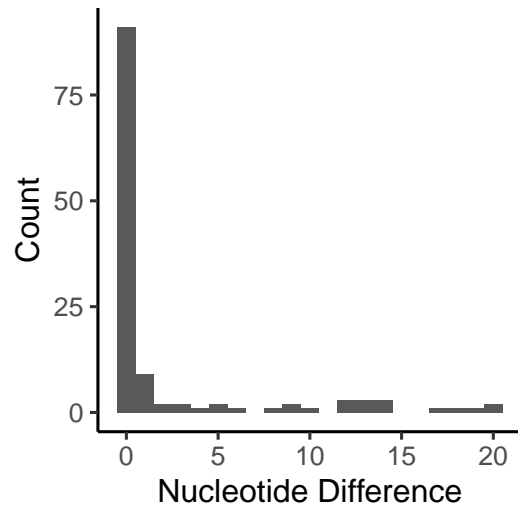
IGHV1-46*01

177 sequences assigned
79 (44.6%) exact matches, in which:
79 unique CDR3
7 unique J



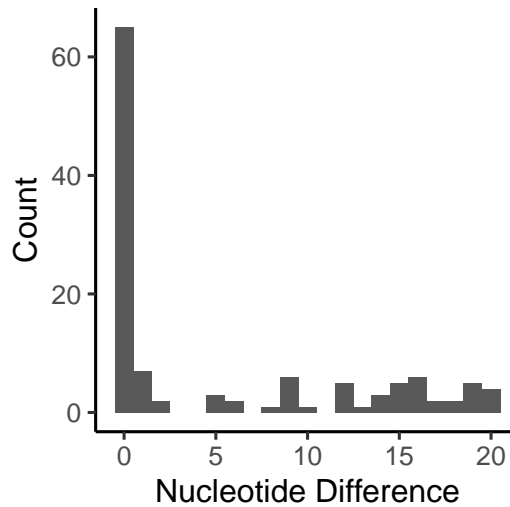
IGHV1-8*01

138 sequences assigned
91 (65.9%) exact matches, in which:
89 unique CDR3
7 unique J



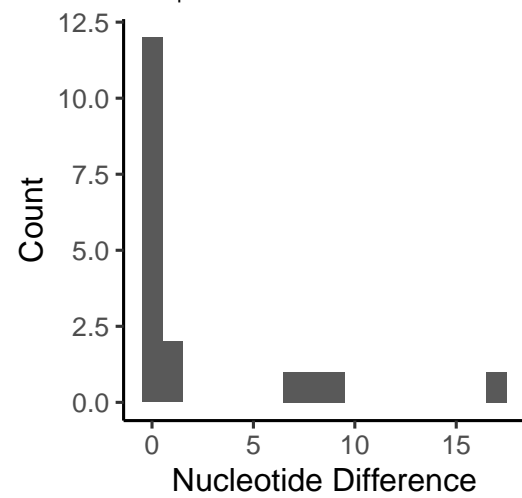
IGHV1-18*01_A190G

155 sequences assigned
65 (41.9%) exact matches, in which:
65 unique CDR3
5 unique J



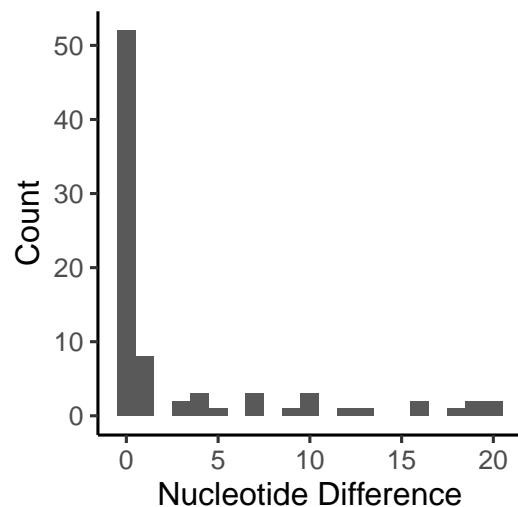
IGHV1-58*02

25 sequences assigned
12 (48%) exact matches, in which:
12 unique CDR3
5 unique J



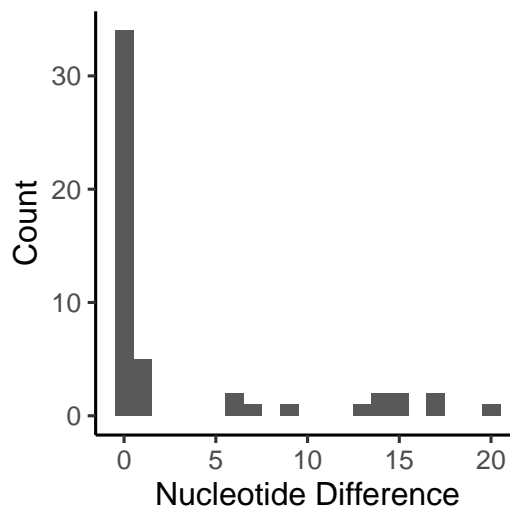
IGHV1-8*02

99 sequences assigned
52 (52.5%) exact matches, in which:
52 unique CDR3
6 unique J



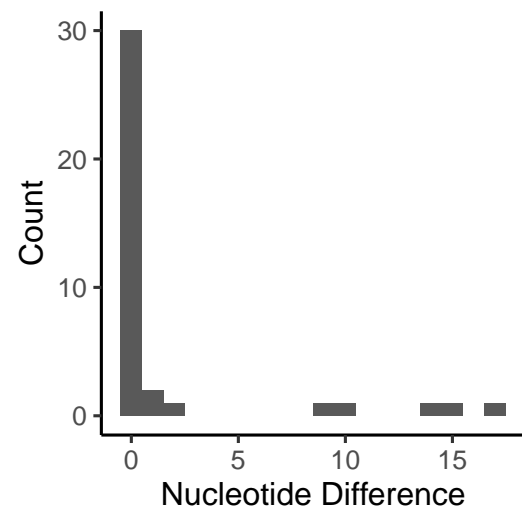
IGHV1-24*01

56 sequences assigned
34 (60.7%) exact matches, in which:
34 unique CDR3
6 unique J



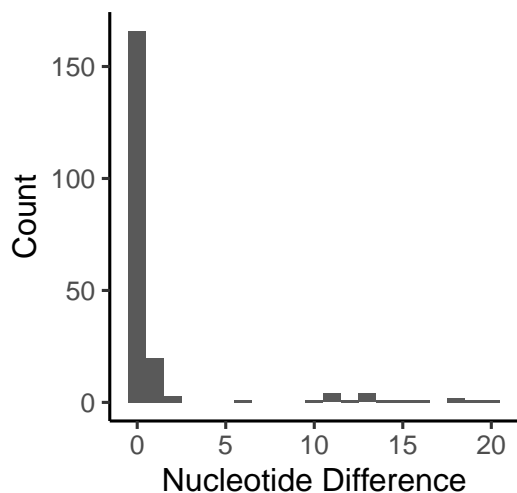
IGHV1-69-2*01

43 sequences assigned
30 (69.8%) exact matches, in which:
30 unique CDR3
5 unique J



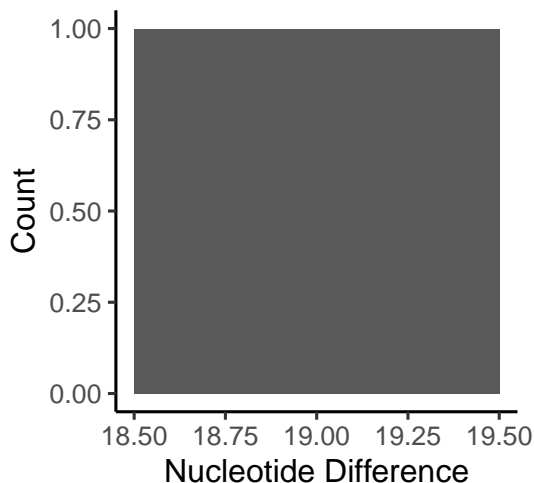
IGHV1–69*04

245 sequences assigned
166 (67.8%) exact matches, in which:
164 unique CDR3
6 unique J



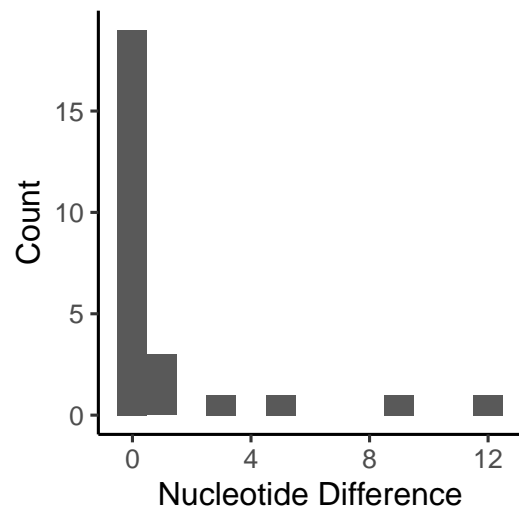
IGHV1–NL1*01

1 sequences assigned
No exact matches.



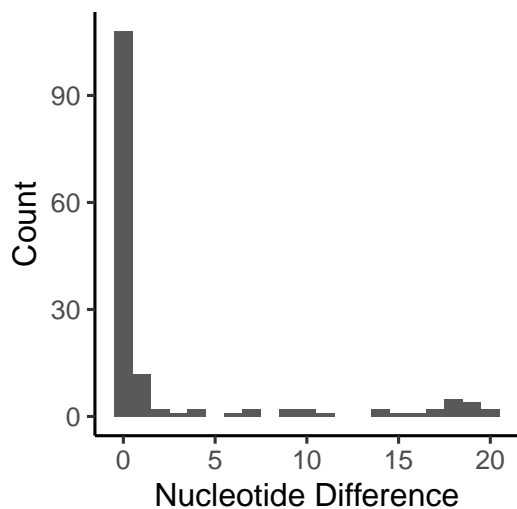
IGHV2–26*01

34 sequences assigned
19 (55.9%) exact matches, in which:
19 unique CDR3
6 unique J



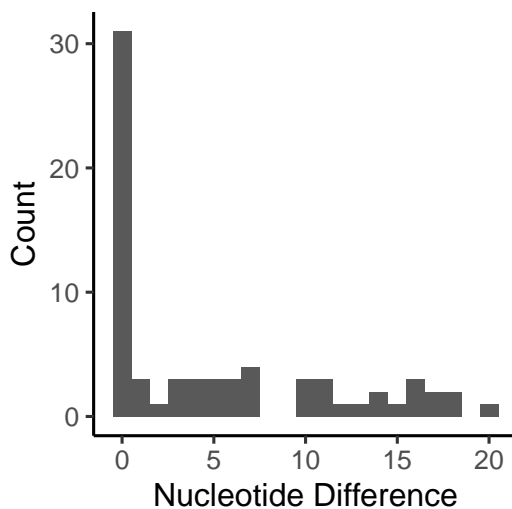
IGHV1–69*10

174 sequences assigned
108 (62.1%) exact matches, in which:
104 unique CDR3
6 unique J



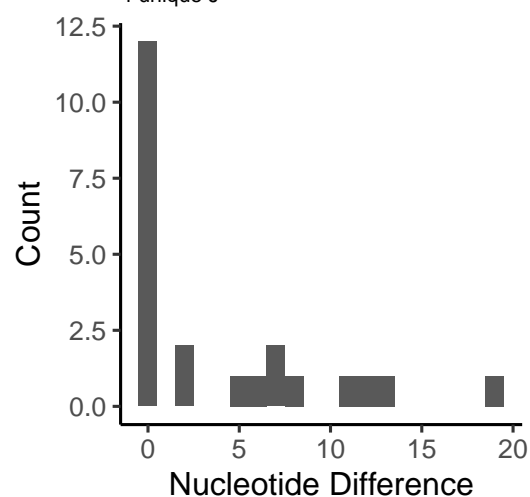
IGHV2–5*02

83 sequences assigned
31 (37.3%) exact matches, in which:
31 unique CDR3
4 unique J



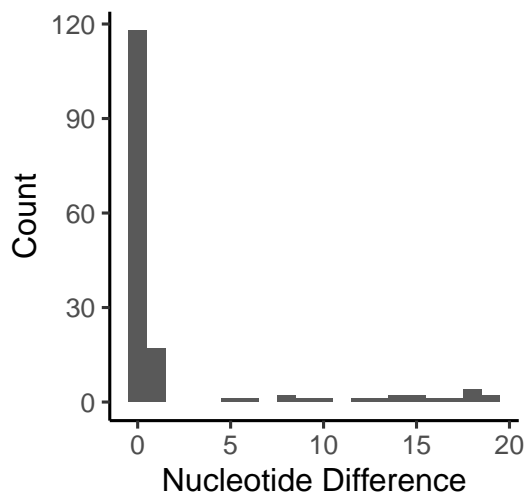
IGHV2–70*15

25 sequences assigned
12 (48%) exact matches, in which:
12 unique CDR3
4 unique J



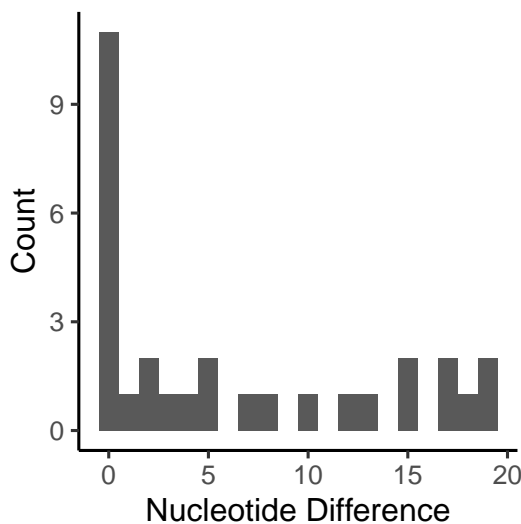
IGHV1–69*04_G48A_A16

178 sequences assigned
118 (66.3%) exact matches, in which:
118 unique CDR3
6 unique J



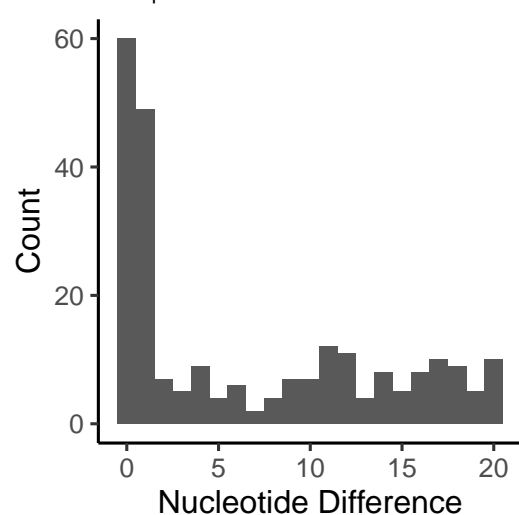
IGHV2–5*05

39 sequences assigned
11 (28.2%) exact matches, in which:
11 unique CDR3
4 unique J



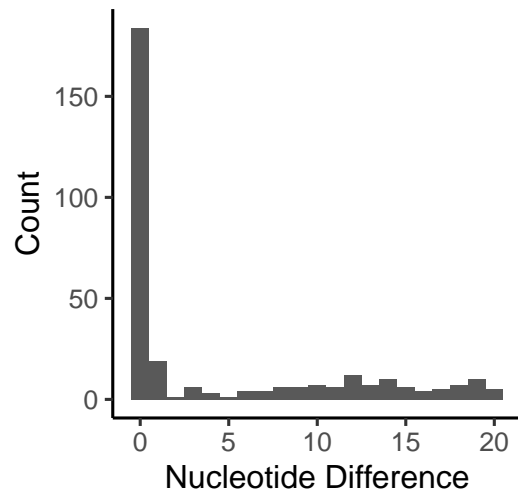
IGHV3–7*01

294 sequences assigned
60 (20.4%) exact matches, in which:
60 unique CDR3
6 unique J



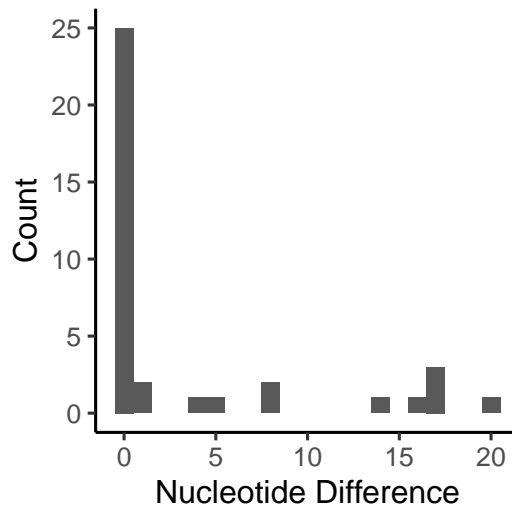
IGHV3-9*01

362 sequences assigned
184 (50.8%) exact matches, in which:
182 unique CDR3
7 unique J



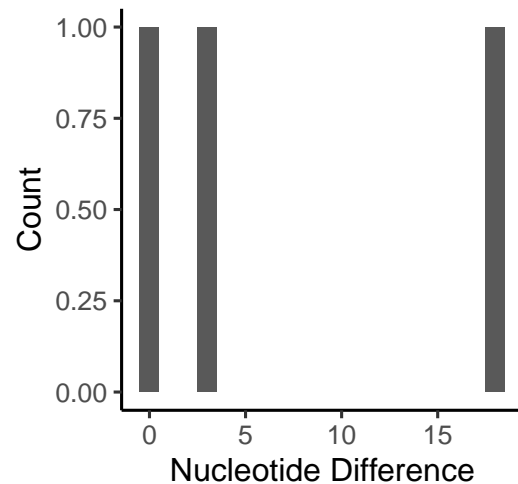
IGHV3-13*01

44 sequences assigned
25 (56.8%) exact matches, in which:
25 unique CDR3
6 unique J



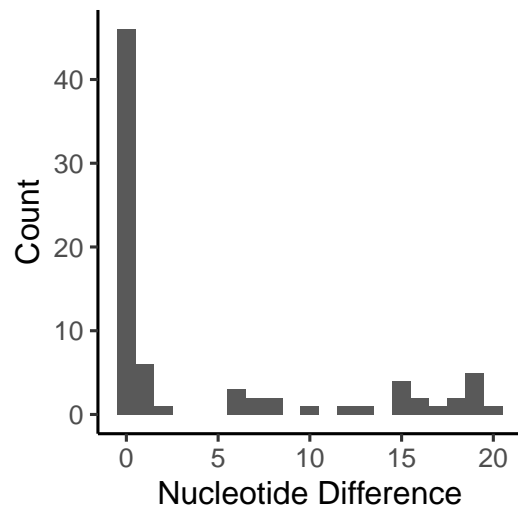
IGHV3-20*04

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



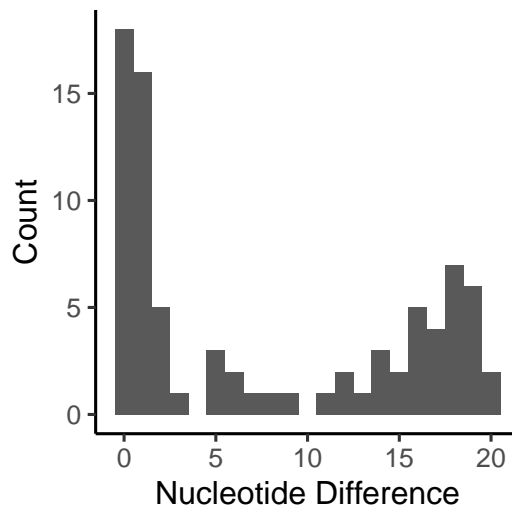
IGHV3-11*01

92 sequences assigned
46 (50%) exact matches, in which:
46 unique CDR3
5 unique J



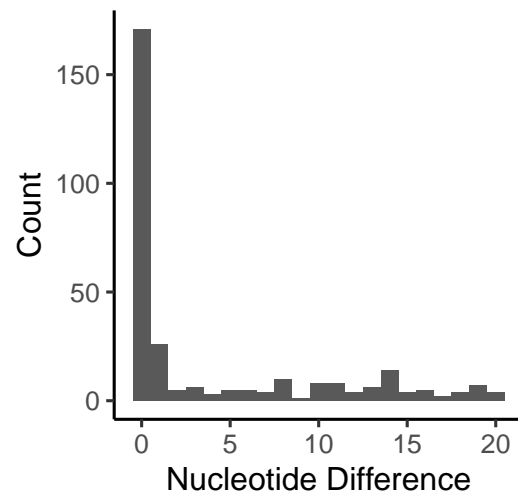
IGHV3-15*01

134 sequences assigned
18 (13.4%) exact matches, in which:
18 unique CDR3
3 unique J



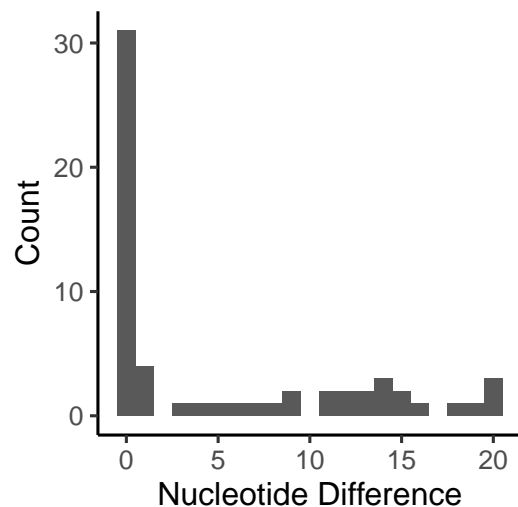
IGHV3-21*01

356 sequences assigned
171 (48%) exact matches, in which:
171 unique CDR3
7 unique J



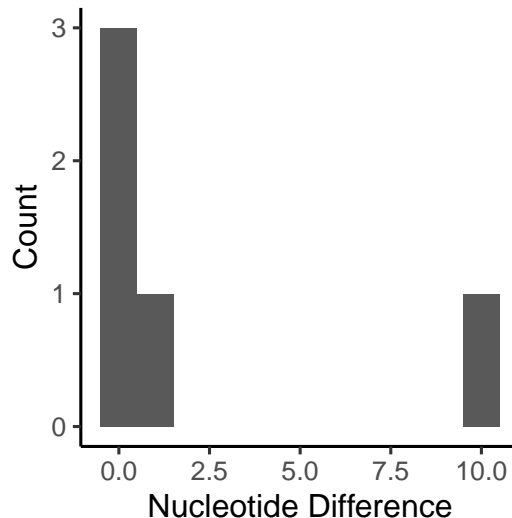
IGHV3-11*04

69 sequences assigned
31 (44.9%) exact matches, in which:
31 unique CDR3
5 unique J



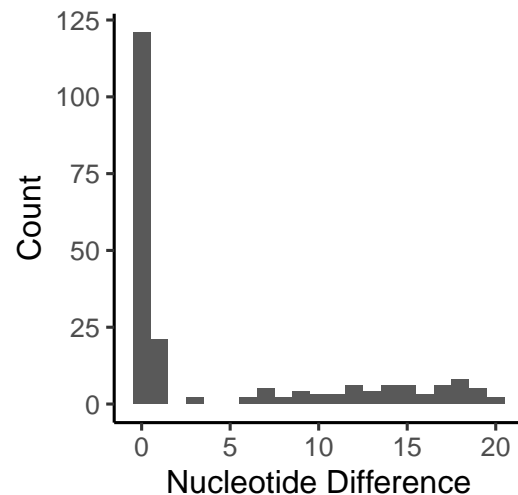
IGHV3-20*01

5 sequences assigned
3 (60%) exact matches, in which:
3 unique CDR3
2 unique J



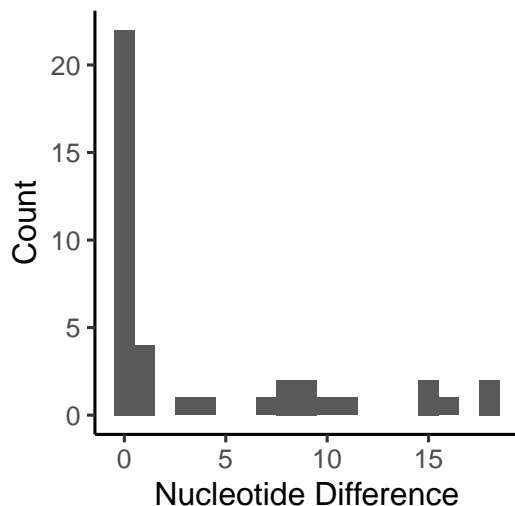
IGHV3-33*06

248 sequences assigned
121 (48.8%) exact matches, in which:
121 unique CDR3
7 unique J



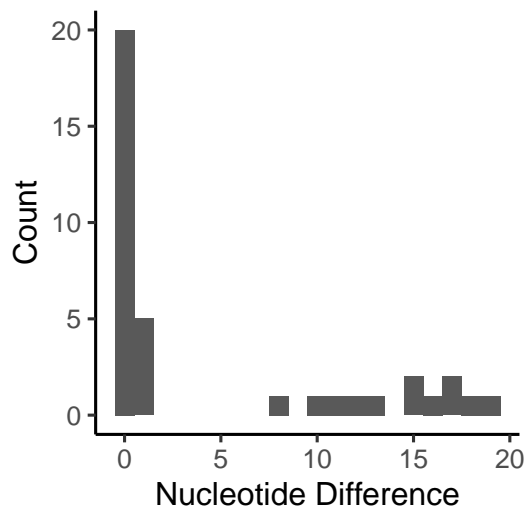
IGHV3-43*01

48 sequences assigned
22 (45.8%) exact matches, in which:
21 unique CDR3
5 unique J



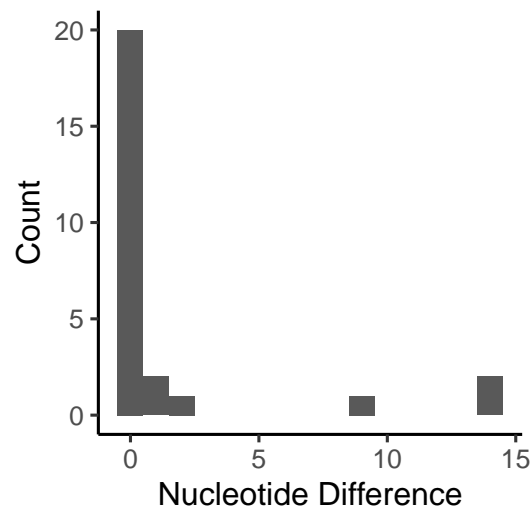
IGHV3-49*03

41 sequences assigned
20 (48.8%) exact matches, in which:
20 unique CDR3
4 unique J



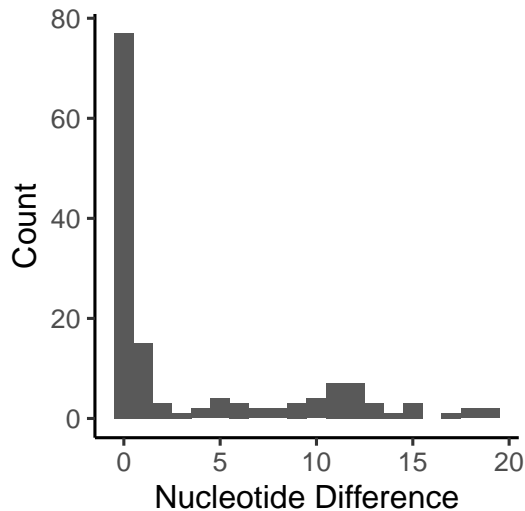
IGHV3-53*04

32 sequences assigned
20 (62.5%) exact matches, in which:
20 unique CDR3
5 unique J



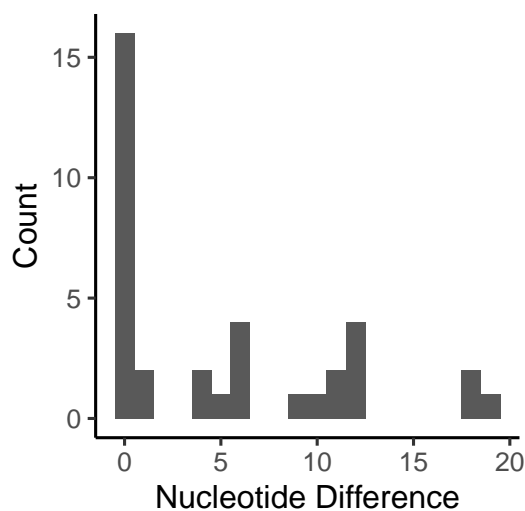
IGHV3-48*03

182 sequences assigned
77 (42.3%) exact matches, in which:
76 unique CDR3
6 unique J



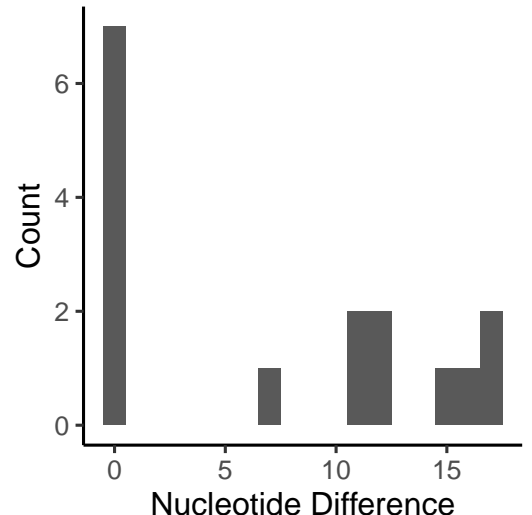
IGHV3-49*04

52 sequences assigned
16 (30.8%) exact matches, in which:
16 unique CDR3
4 unique J



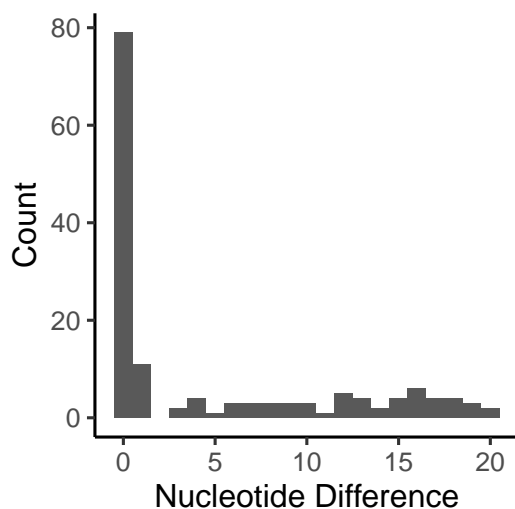
IGHV3-64*01

20 sequences assigned
7 (35%) exact matches, in which:
7 unique CDR3
5 unique J



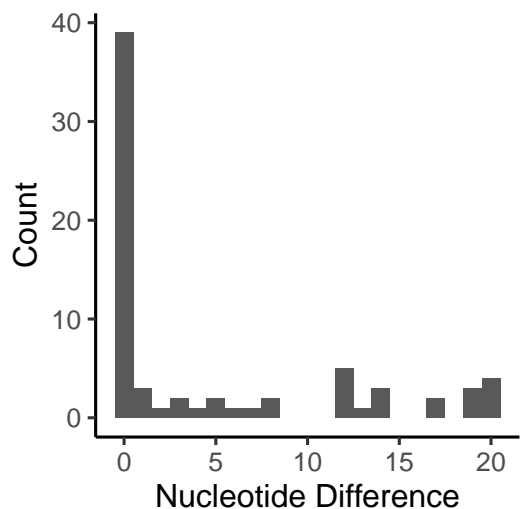
IGHV3-48*04

172 sequences assigned
79 (45.9%) exact matches, in which:
77 unique CDR3
6 unique J



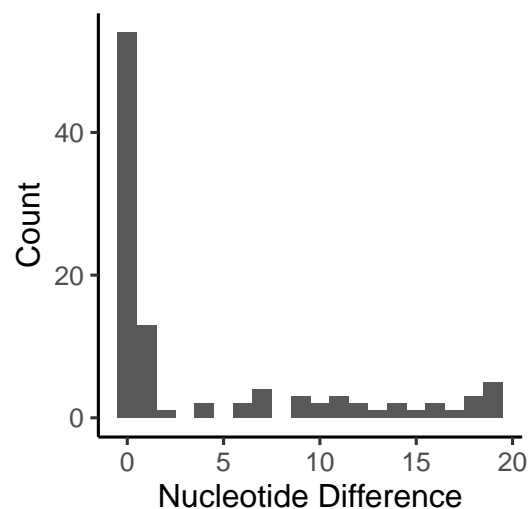
IGHV3-53*01

81 sequences assigned
39 (48.1%) exact matches, in which:
39 unique CDR3
5 unique J



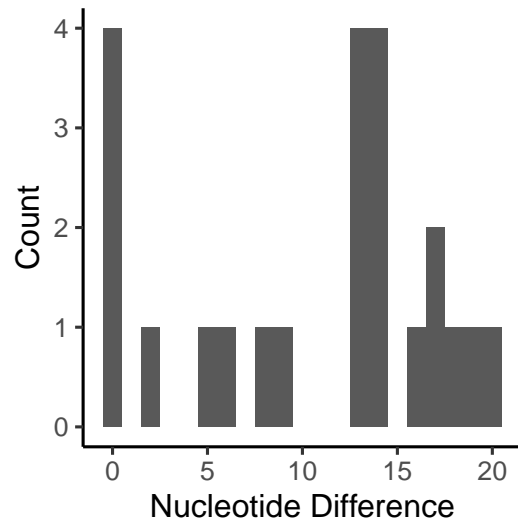
IGHV3-66*01

118 sequences assigned
54 (45.8%) exact matches, in which:
54 unique CDR3
4 unique J



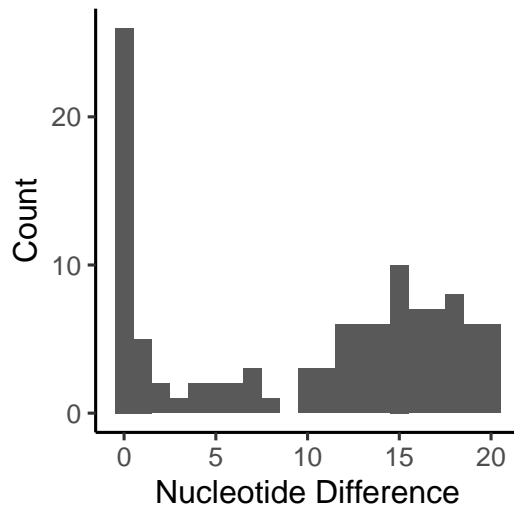
IGHV3-72*01

32 sequences assigned
4 (12.5%) exact matches, in which:
4 unique CDR3
3 unique J



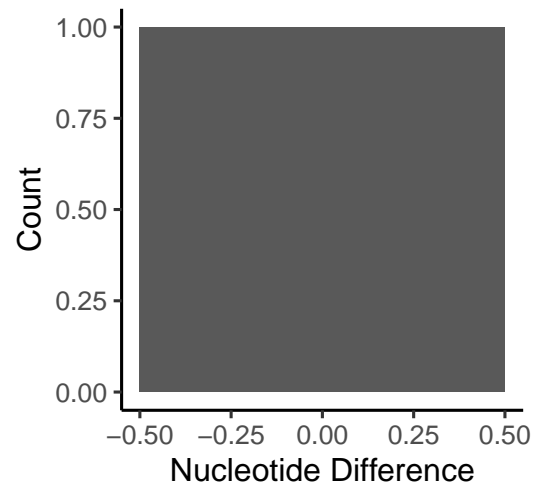
IGHV3-74*01

157 sequences assigned
26 (16.6%) exact matches, in which:
26 unique CDR3
4 unique J



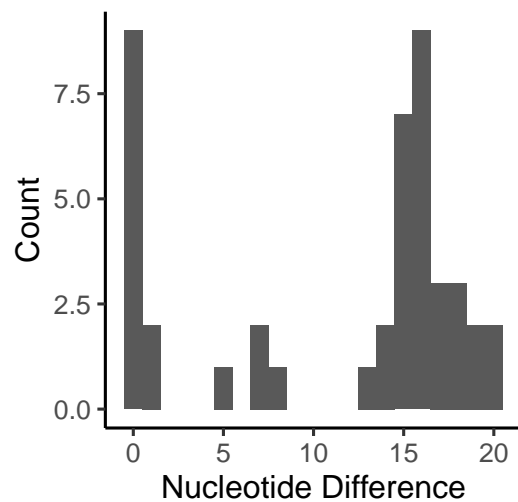
IGHV4-28*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



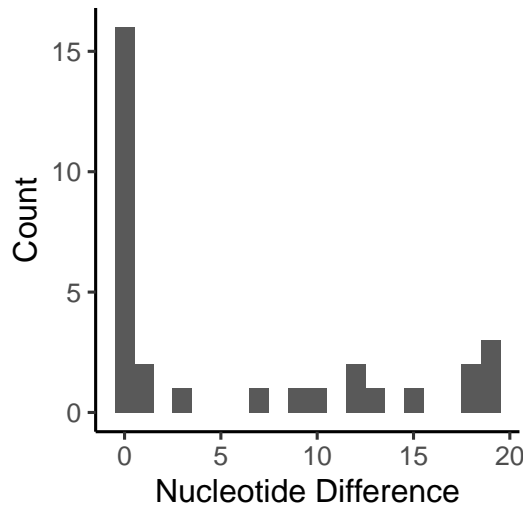
IGHV3-73*01

67 sequences assigned
9 (13.4%) exact matches, in which:
9 unique CDR3
2 unique J



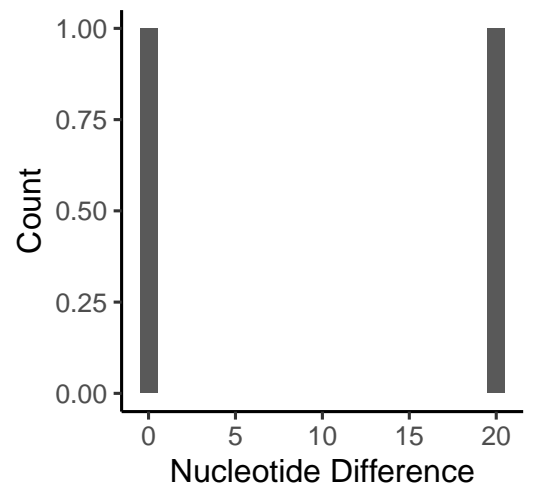
IGHV3-43D*03

32 sequences assigned
16 (50%) exact matches, in which:
16 unique CDR3
4 unique J



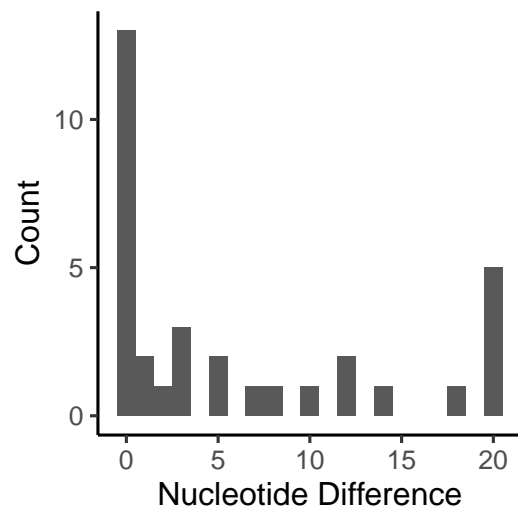
IGHV4-28*05

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



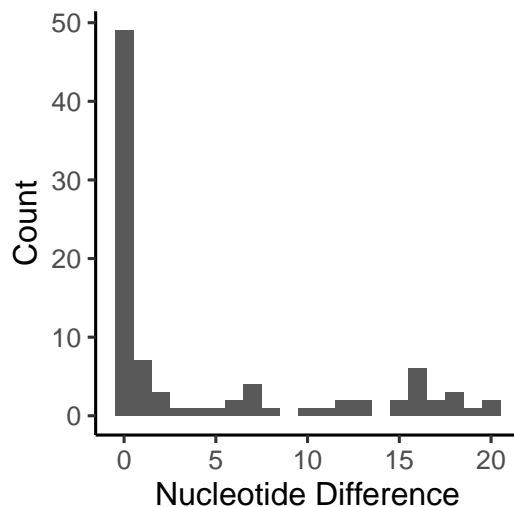
IGHV3-73*02

41 sequences assigned
13 (31.7%) exact matches, in which:
13 unique CDR3
3 unique J



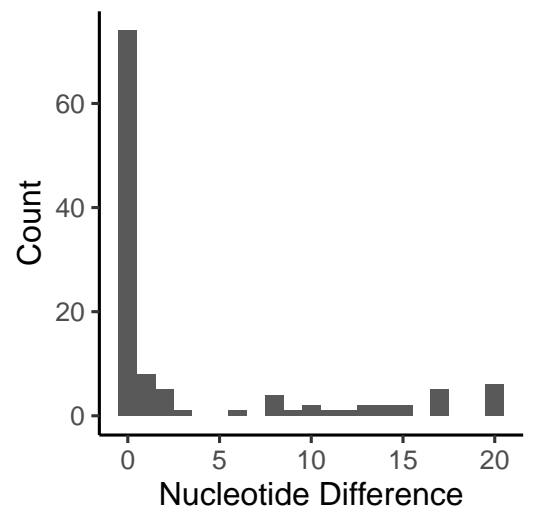
IGHV4-4*07

123 sequences assigned
49 (39.8%) exact matches, in which:
47 unique CDR3
6 unique J



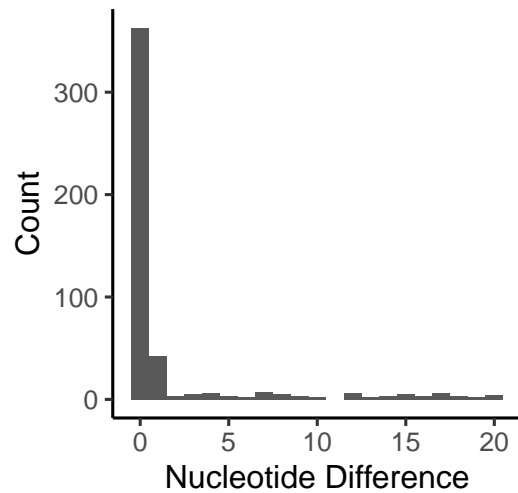
IGHV4-31*03

152 sequences assigned
74 (48.7%) exact matches, in which:
74 unique CDR3
6 unique J



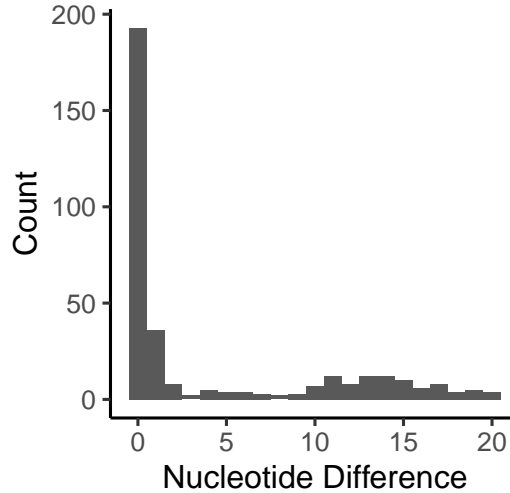
IGHV4-34*01

558 sequences assigned
363 (65.1%) exact matches, in which:
361 unique CDR3
7 unique J



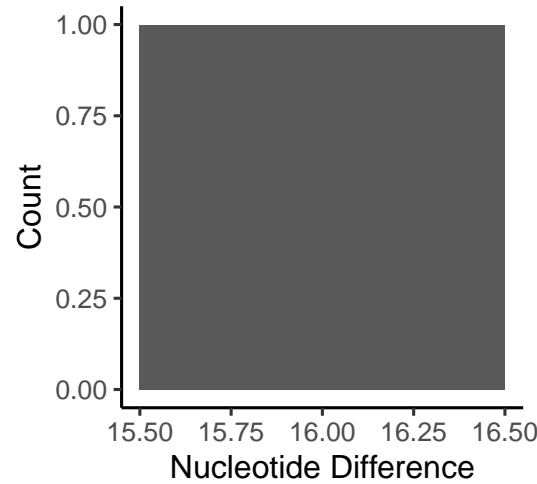
IGHV4-39*07

464 sequences assigned
193 (41.6%) exact matches, in which:
192 unique CDR3
6 unique J



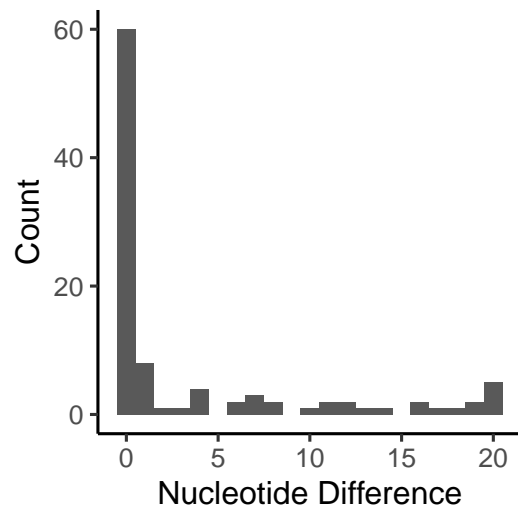
IGHV4-61*01

1 sequences assigned
No exact matches.



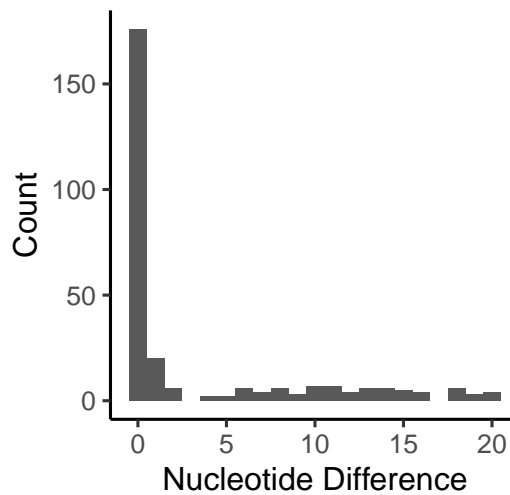
IGHV4-38-2*02

128 sequences assigned
60 (46.9%) exact matches, in which:
60 unique CDR3
6 unique J



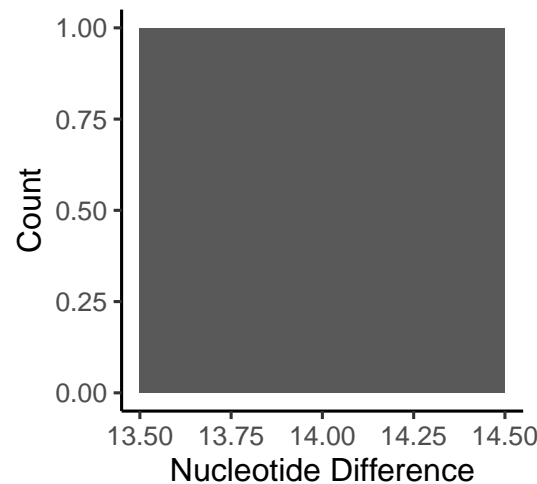
IGHV4-59*01

321 sequences assigned
176 (54.8%) exact matches, in which:
174 unique CDR3
7 unique J



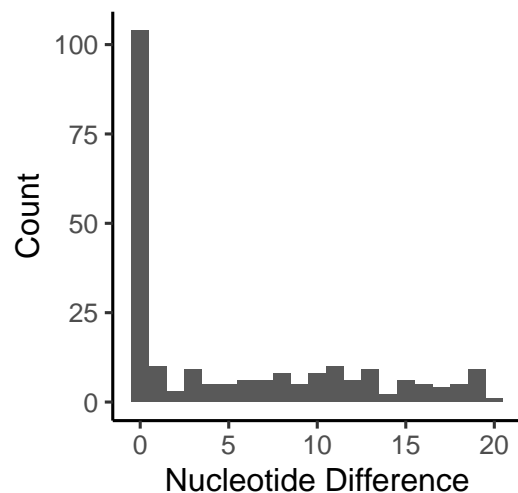
IGHV4-61*02

2 sequences assigned
No exact matches.



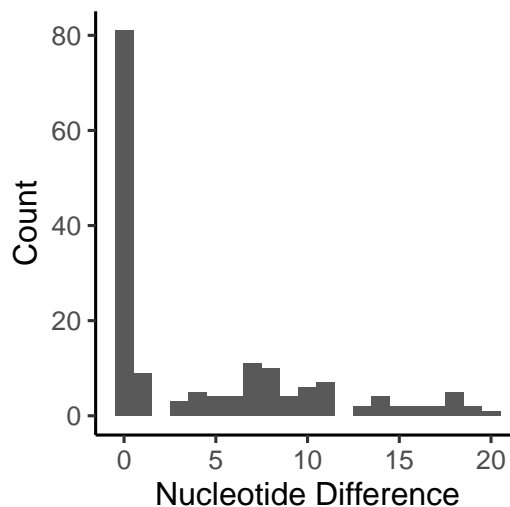
IGHV4-39*01

295 sequences assigned
104 (35.3%) exact matches, in which:
103 unique CDR3
6 unique J



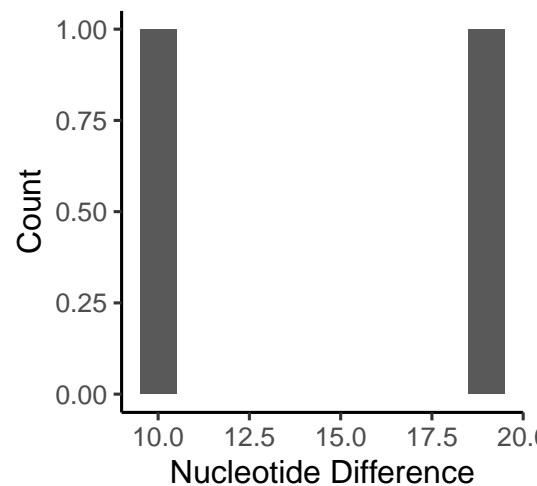
IGHV4-59*08

192 sequences assigned
81 (42.2%) exact matches, in which:
81 unique CDR3
6 unique J



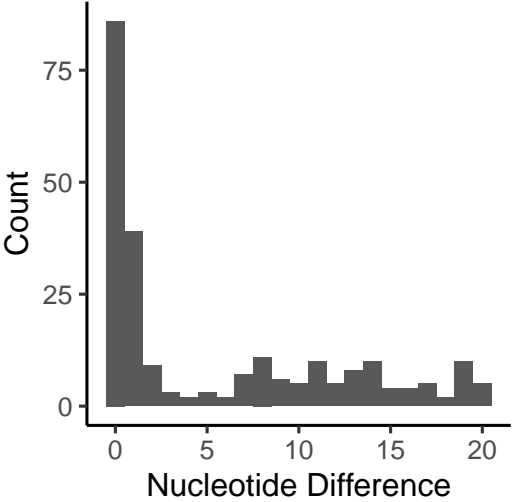
IGHV4-61*05

2 sequences assigned
No exact matches.



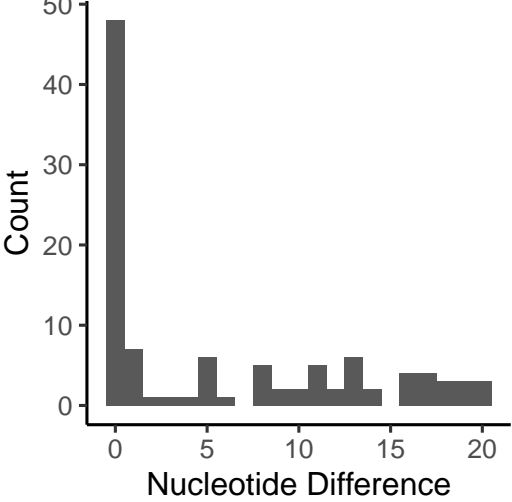
IGHV5-51*01

284 sequences assigned
86 (30.3%) exact matches, in which:
85 unique CDR3
6 unique J



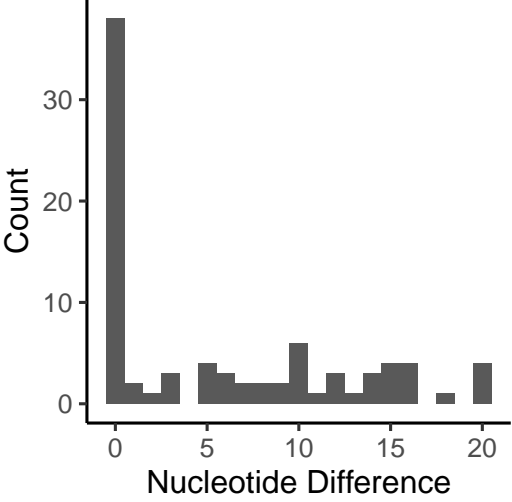
IGHV5-51*03

130 sequences assigned
48 (36.9%) exact matches, in which:
48 unique CDR3
5 unique J

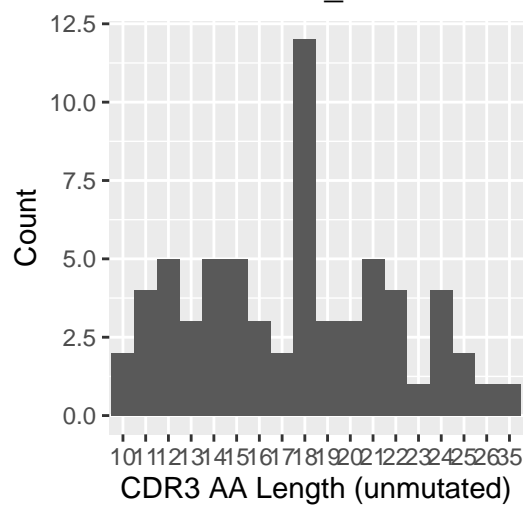


IGHV6-1*01

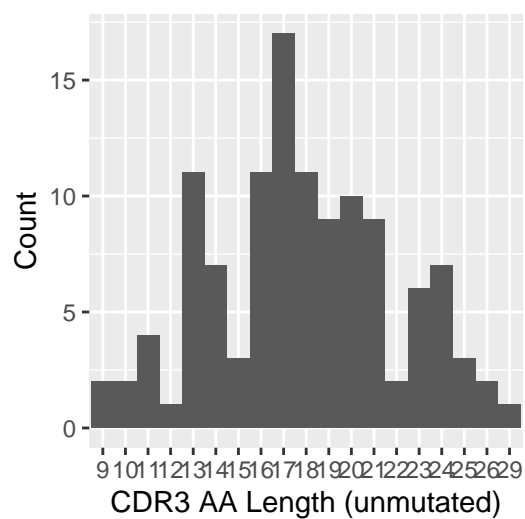
97 sequences assigned
38 (39.2%) exact matches, in which:
38 unique CDR3
6 unique J



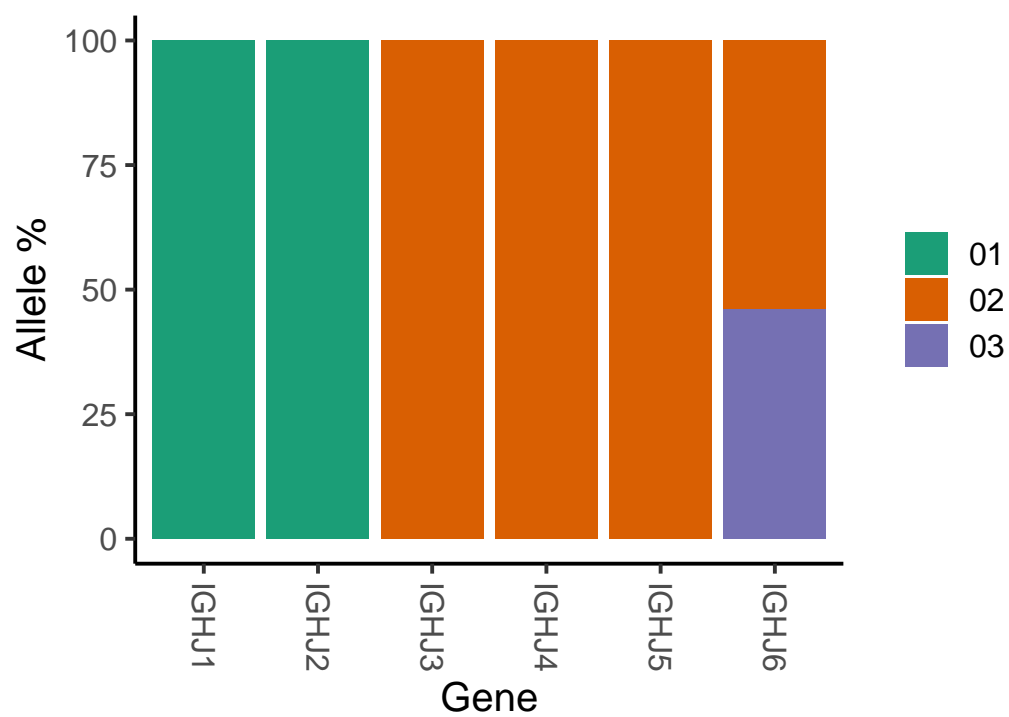
IGHV1-18*01_A190G



IGHV1-69*04_G48A_A163G_A244G



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]