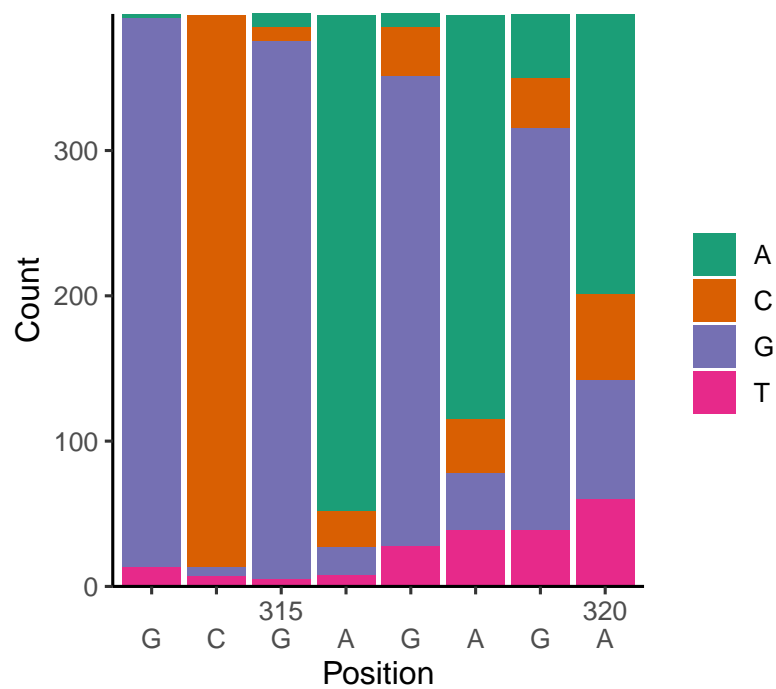
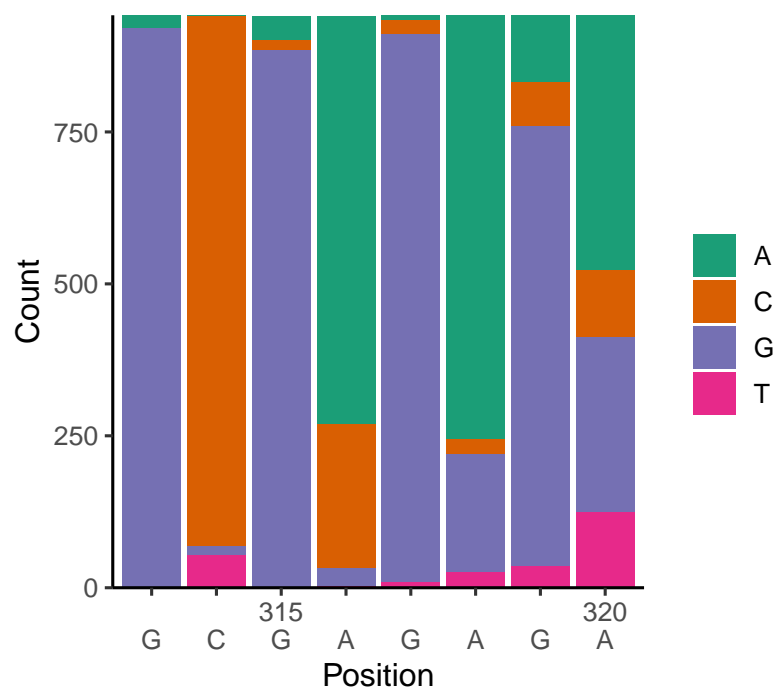


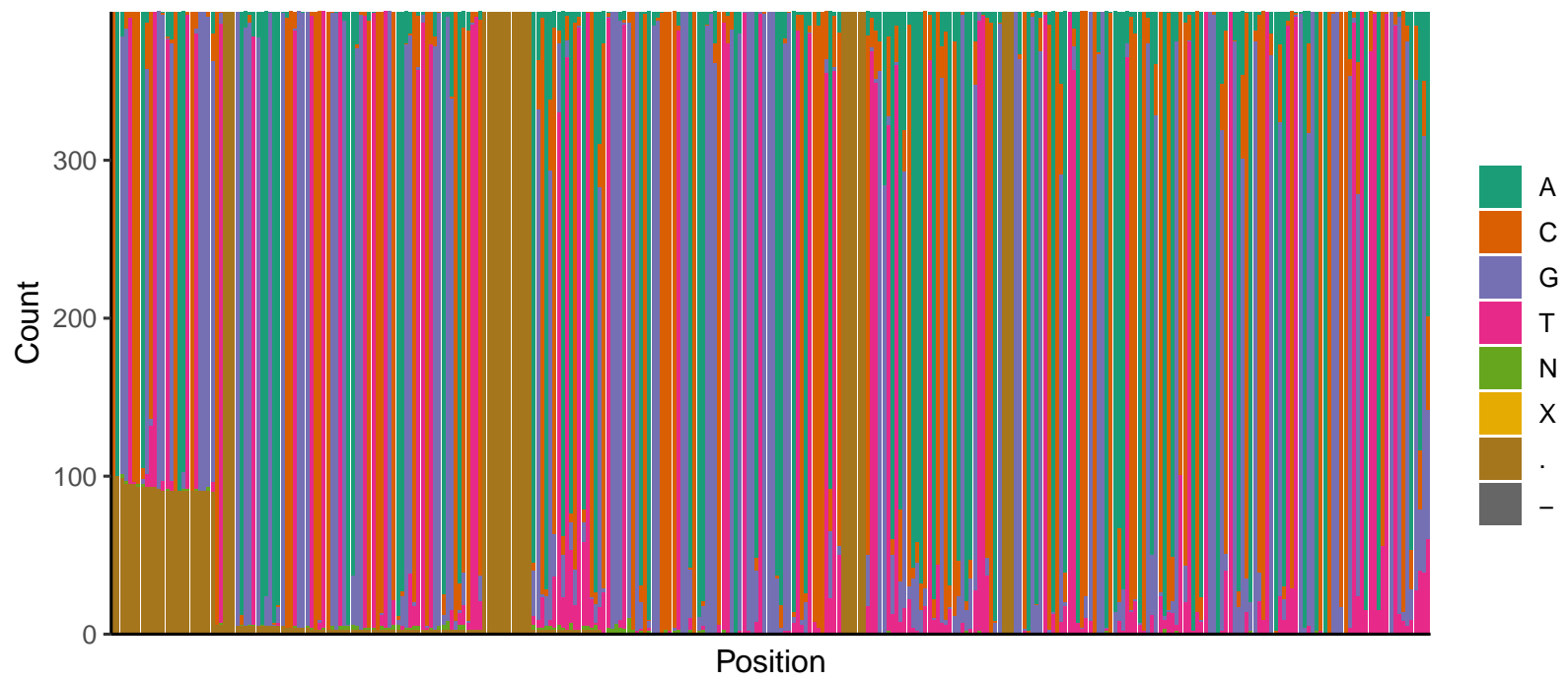
Gene IGHV1-69*08_C191T



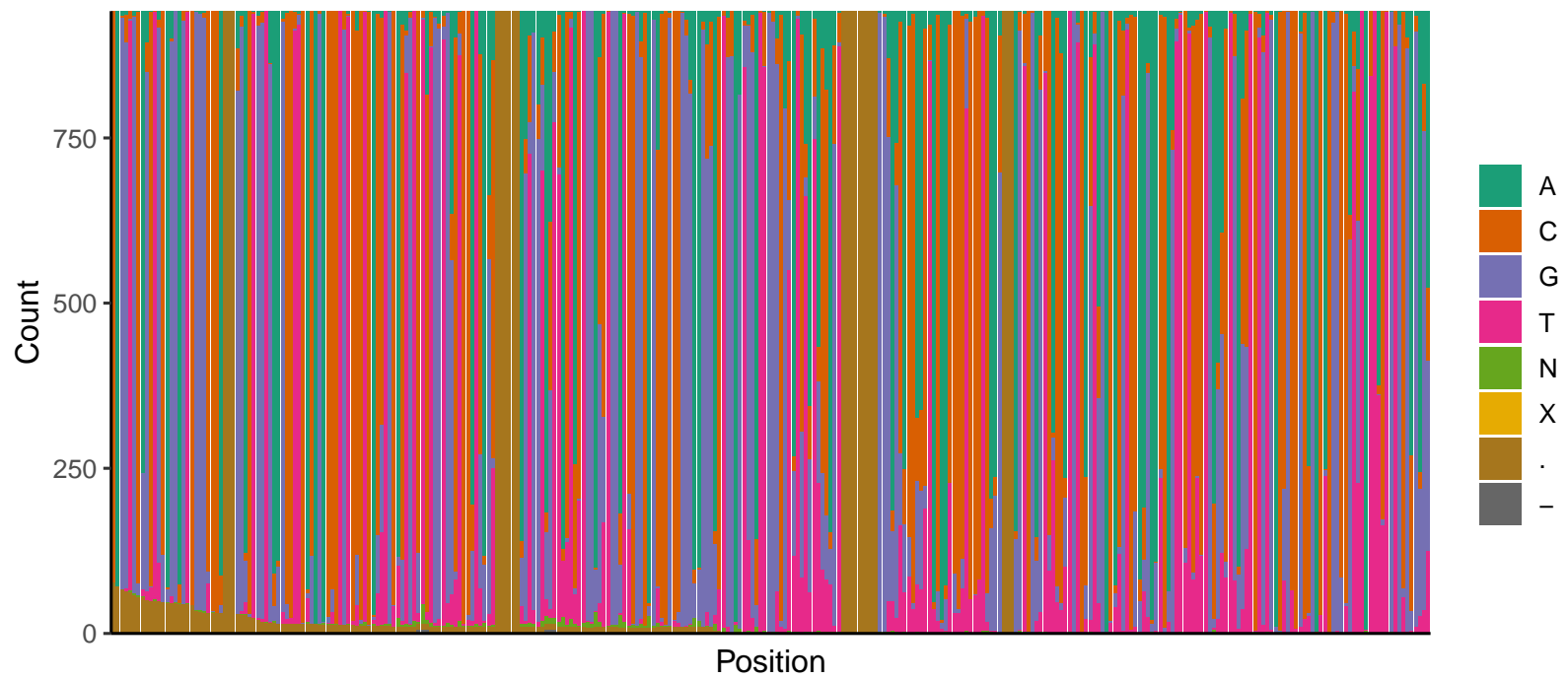
Gene IGHV4-61*02_A234G



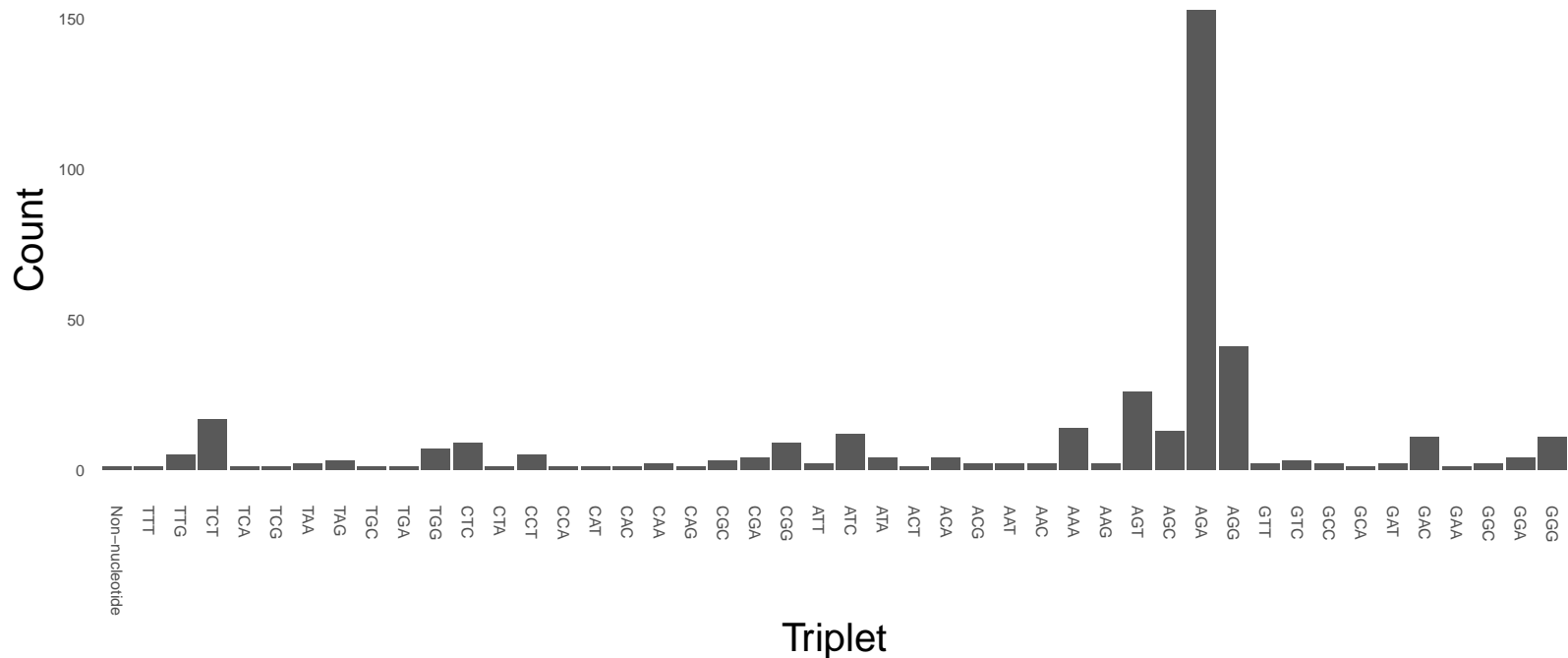
Gene IGHV1-69*08_C191T



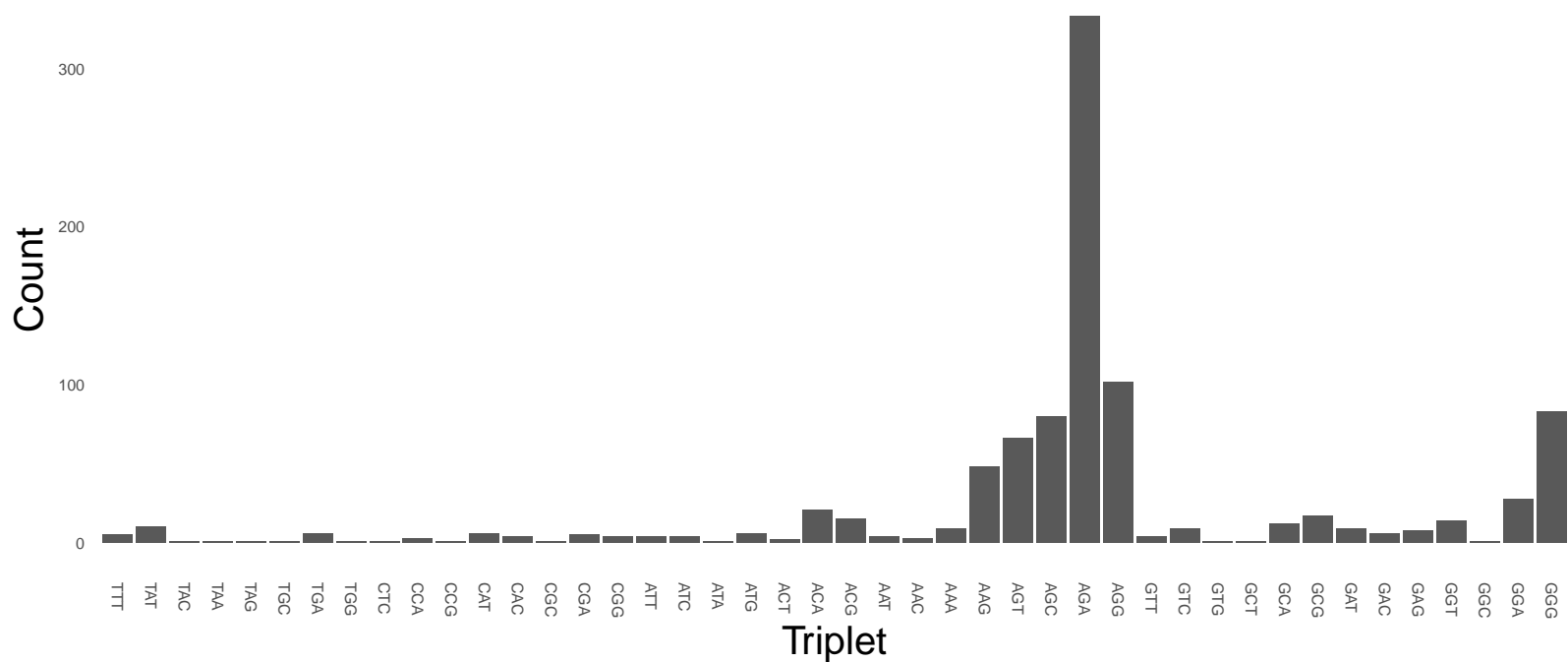
Gene IGHV4-61*02_A234G



IGHV1-69*08_C191T- Final 3 nucleotides as a triplet

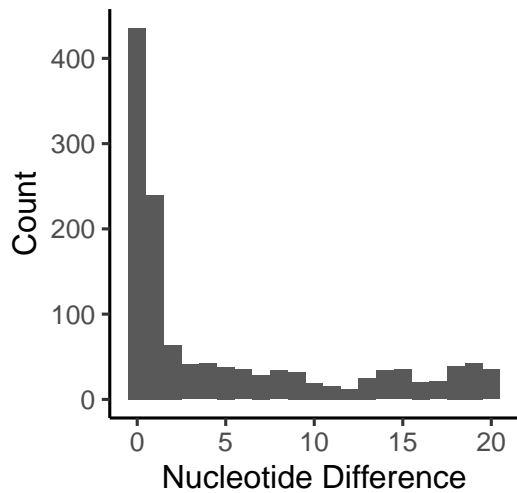


IGHV4-61*02_A234G- Final 3 nucleotides as a triplet



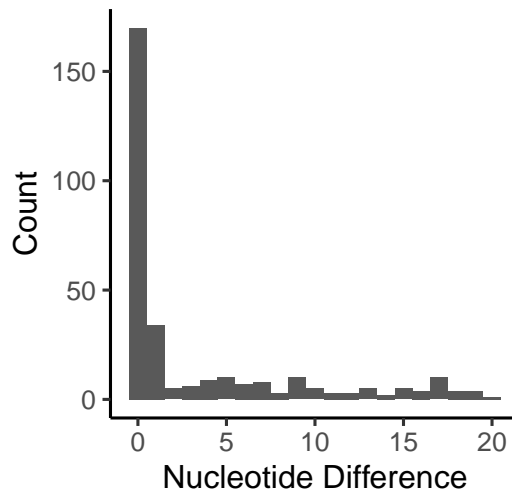
IGHV1-2*02

1758 sequences assigned
436 (24.8%) exact matches, in which:
428 unique CDR3
7 unique J



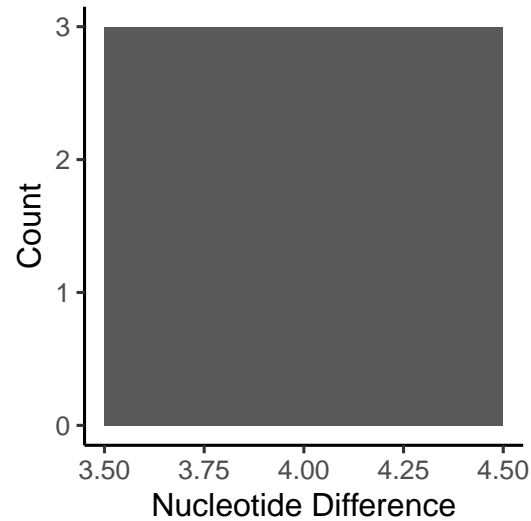
IGHV1-8*01

400 sequences assigned
170 (42.5%) exact matches, in which:
166 unique CDR3
7 unique J



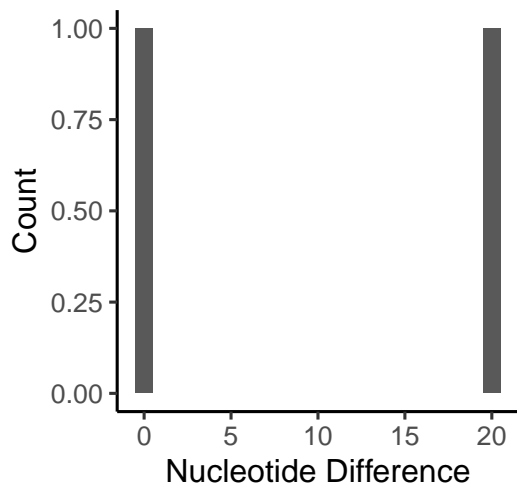
IGHV1-45*02

19 sequences assigned
No exact matches.



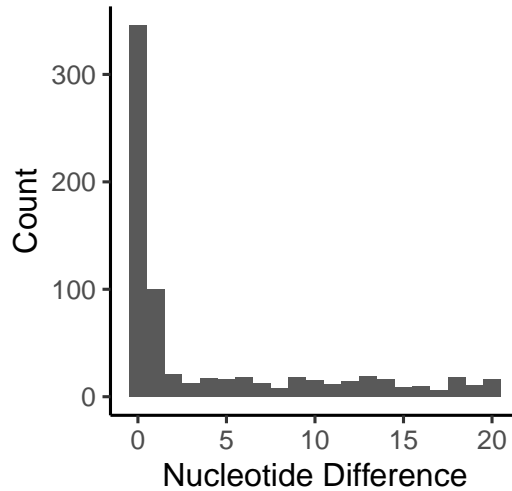
IGHV1-3*01

2 sequences assigned
1 (50%) exact matches, in which:
1 unique CDR3
1 unique J



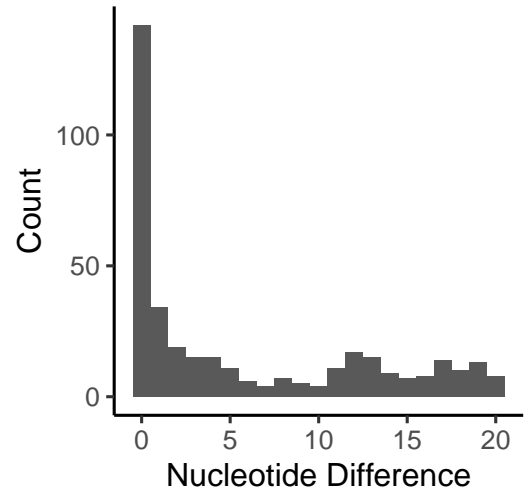
IGHV1-18*01

1060 sequences assigned
346 (32.6%) exact matches, in which:
339 unique CDR3
7 unique J



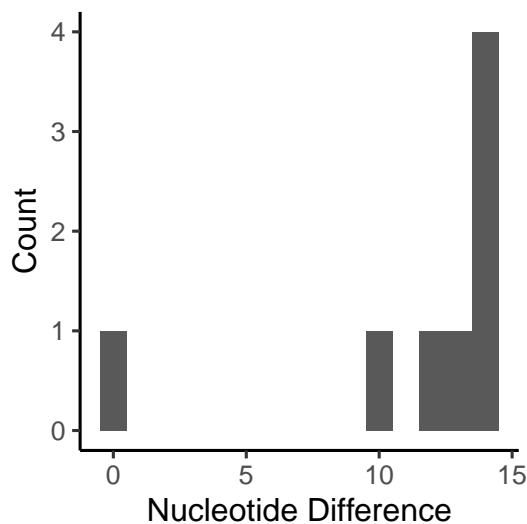
IGHV1-46*03

579 sequences assigned
142 (24.5%) exact matches, in which:
137 unique CDR3
7 unique J



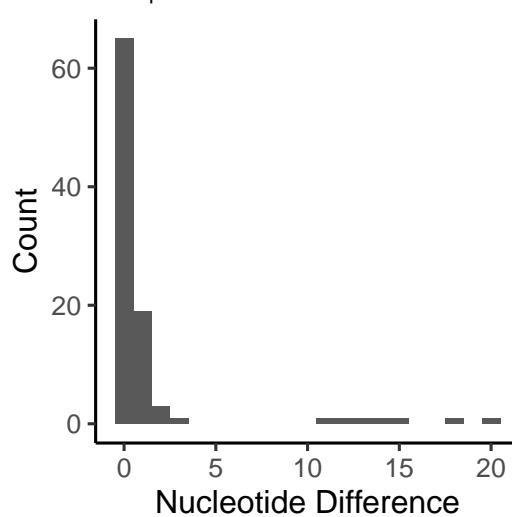
IGHV1-3*02

11 sequences assigned
1 (9.1%) exact matches, in which:
1 unique CDR3
1 unique J



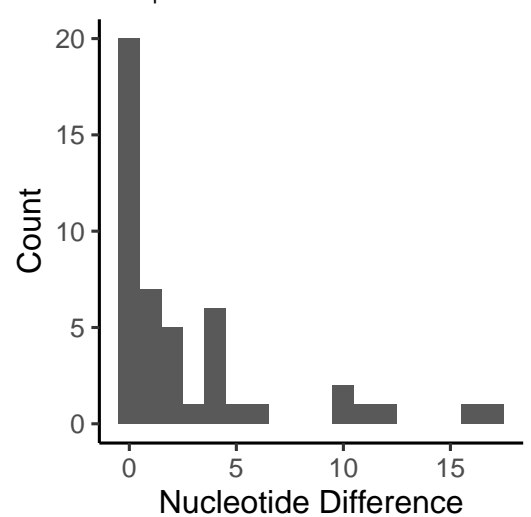
IGHV1-24*01

128 sequences assigned
65 (50.8%) exact matches, in which:
64 unique CDR3
7 unique J



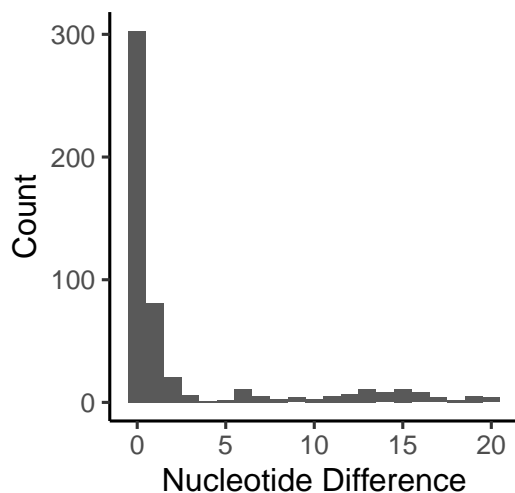
IGHV1-58*02

68 sequences assigned
20 (29.4%) exact matches, in which:
18 unique CDR3
5 unique J



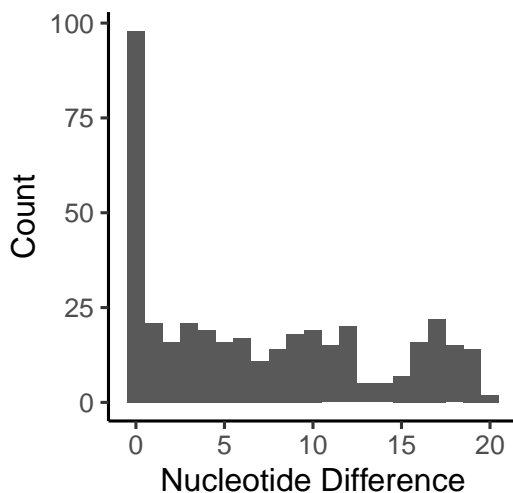
IGHV1-69*01

709 sequences assigned
303 (42.7%) exact matches, in which:
294 unique CDR3
7 unique J



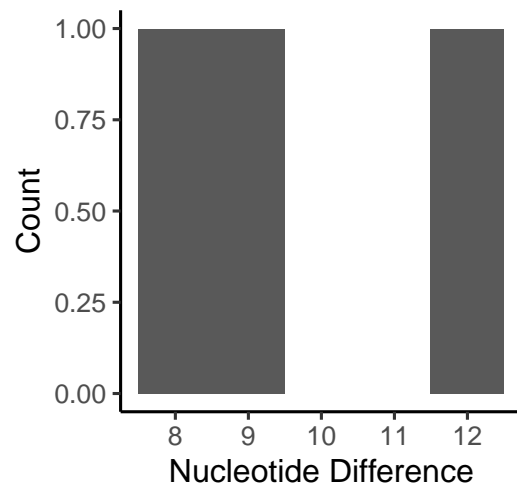
IGHV2-5*02

634 sequences assigned
98 (15.5%) exact matches, in which:
98 unique CDR3
5 unique J



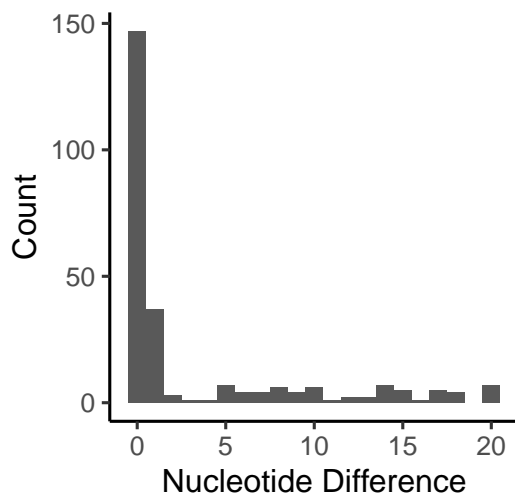
IGHV2-70D*14

3 sequences assigned
No exact matches.



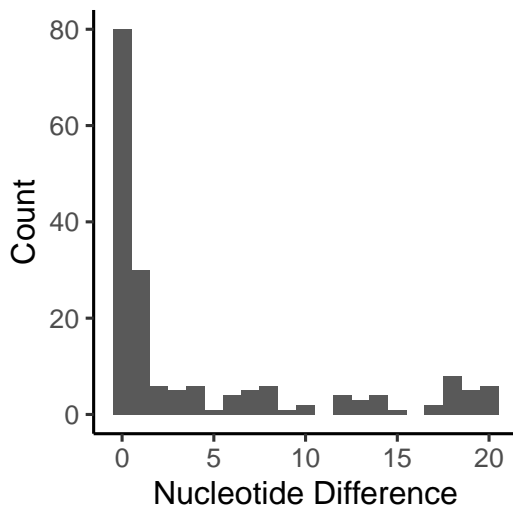
IGHV1-69*08_C191T

394 sequences assigned
147 (37.3%) exact matches, in which:
139 unique CDR3
6 unique J



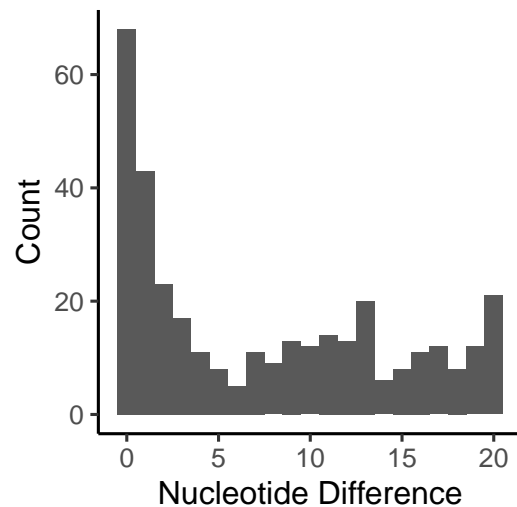
IGHV2-26*01

228 sequences assigned
80 (35.1%) exact matches, in which:
79 unique CDR3
6 unique J



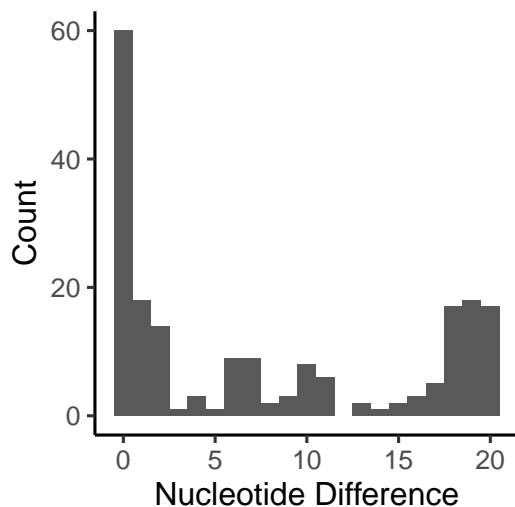
IGHV3-7*01

681 sequences assigned
68 (10%) exact matches, in which:
64 unique CDR3
5 unique J



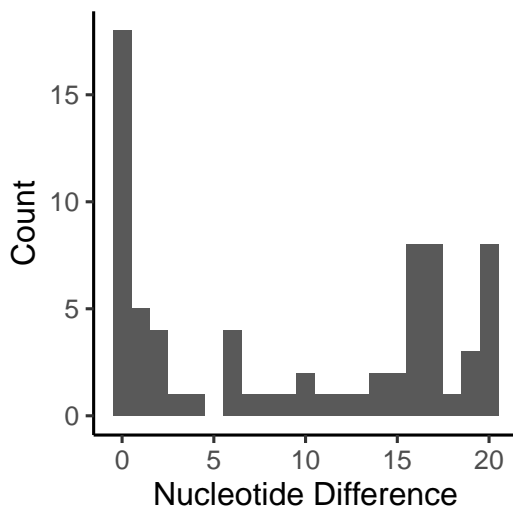
IGHV2-5*01

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



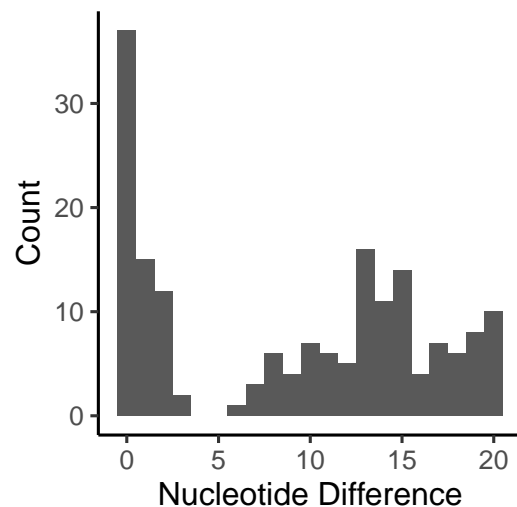
IGHV2-70*01

101 sequences assigned
18 (17.8%) exact matches, in which:
18 unique CDR3
4 unique J



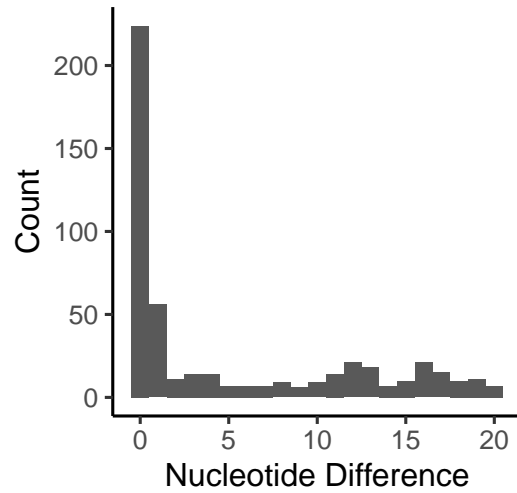
IGHV3-7*04

268 sequences assigned
37 (13.8%) exact matches, in which:
35 unique CDR3
6 unique J



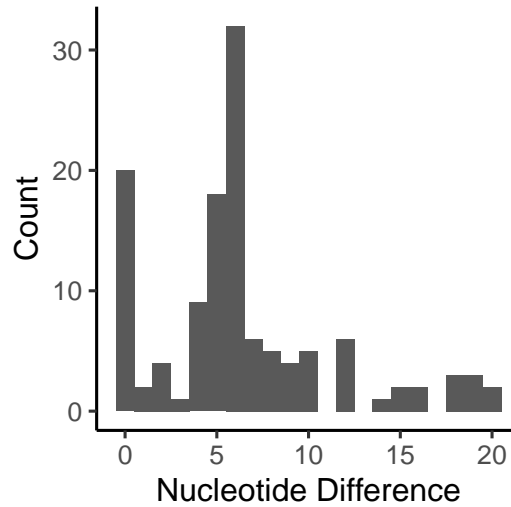
IGHV3-9*01

917 sequences assigned
224 (24.4%) exact matches, in which:
217 unique CDR3
7 unique J



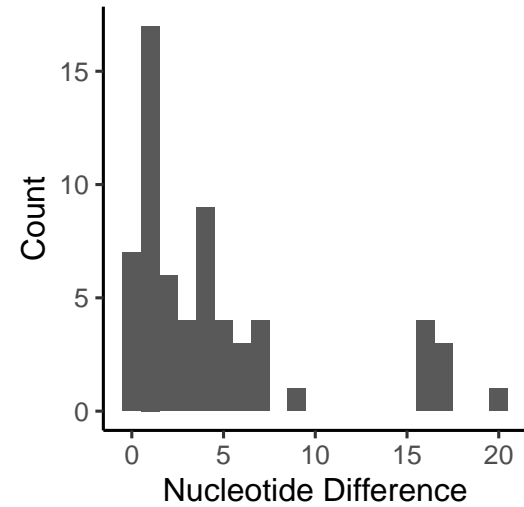
IGHV3-13*01

142 sequences assigned
20 (14.1%) exact matches, in which:
20 unique CDR3
4 unique J



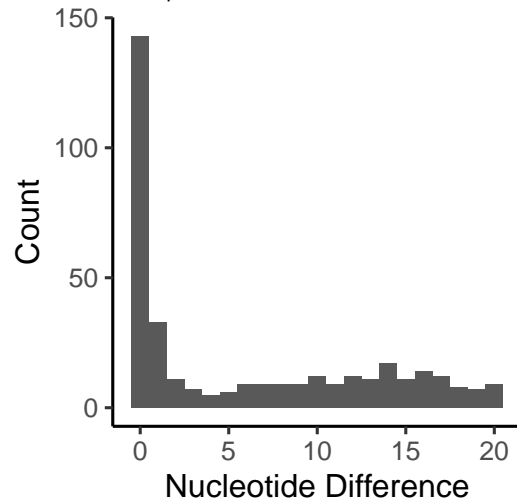
IGHV3-20*01

65 sequences assigned
7 (10.8%) exact matches, in which:
6 unique CDR3
4 unique J



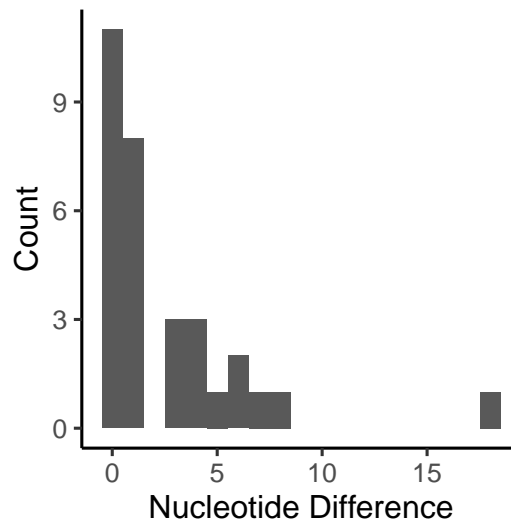
IGHV3-11*01

687 sequences assigned
143 (20.8%) exact matches, in which:
136 unique CDR3
6 unique J



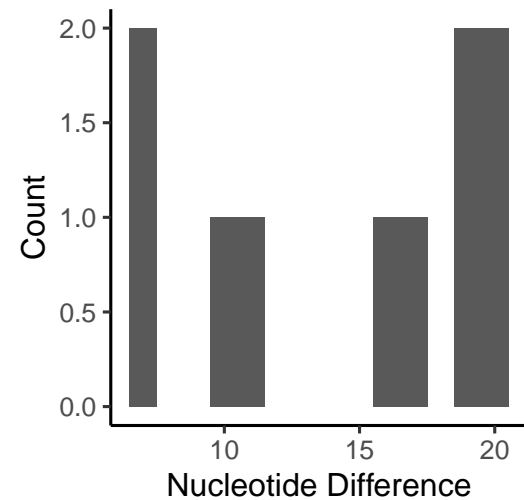
IGHV3-13*05

32 sequences assigned
11 (34.4%) exact matches, in which:
11 unique CDR3
4 unique J



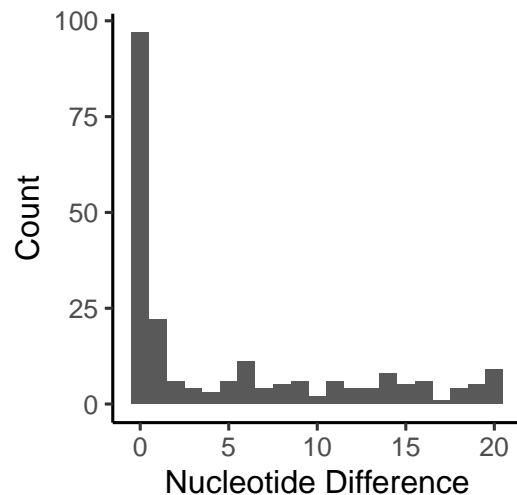
IGHV3-20*04

94 sequences assigned
No exact matches.



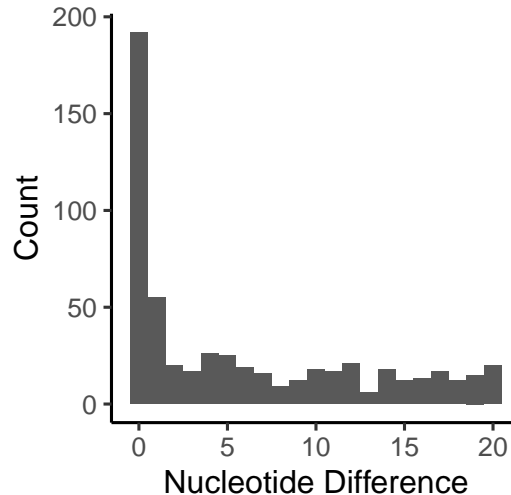
IGHV3-11*06

322 sequences assigned
97 (30.1%) exact matches, in which:
95 unique CDR3
5 unique J



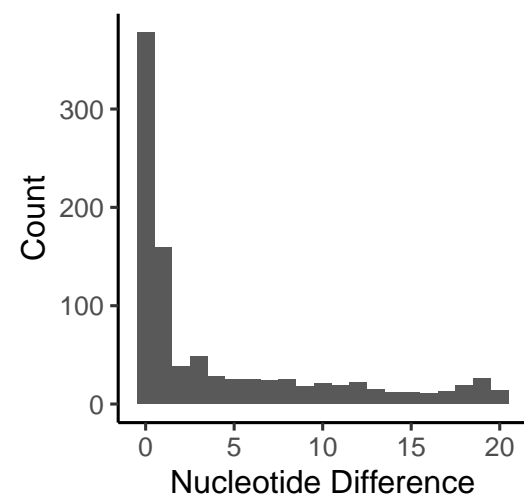
IGHV3-15*01

922 sequences assigned
192 (20.8%) exact matches, in which:
188 unique CDR3
6 unique J



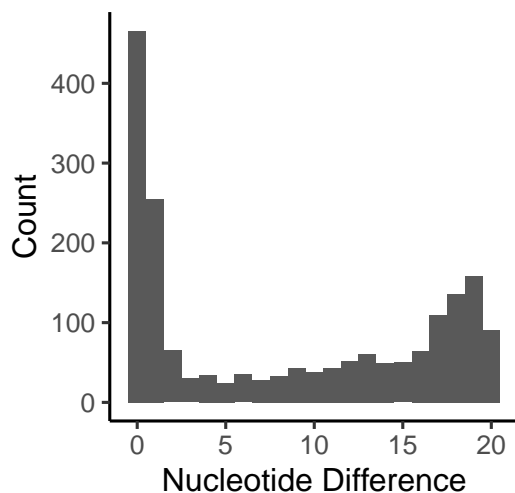
IGHV3-21*01

1381 sequences assigned
378 (27.4%) exact matches, in which:
372 unique CDR3
7 unique J



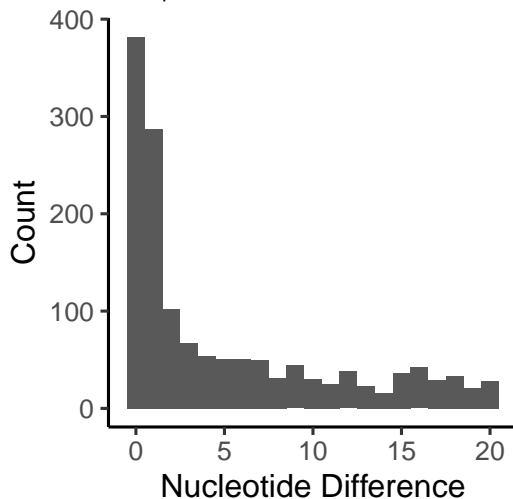
IGHV3-23*01

3262 sequences assigned
466 (14.3%) exact matches, in which:
461 unique CDR3
7 unique J



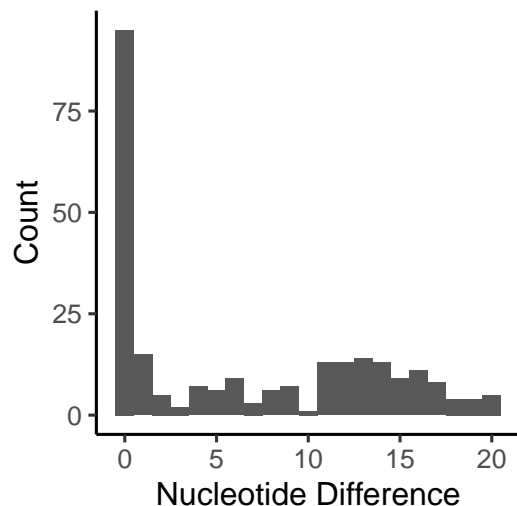
IGHV3-33*01

2934 sequences assigned
382 (13%) exact matches, in which:
373 unique CDR3
7 unique J



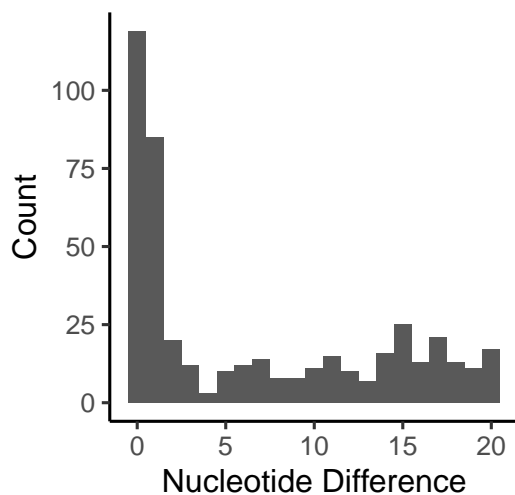
IGHV3-49*03

344 sequences assigned
95 (27.6%) exact matches, in which:
93 unique CDR3
7 unique J



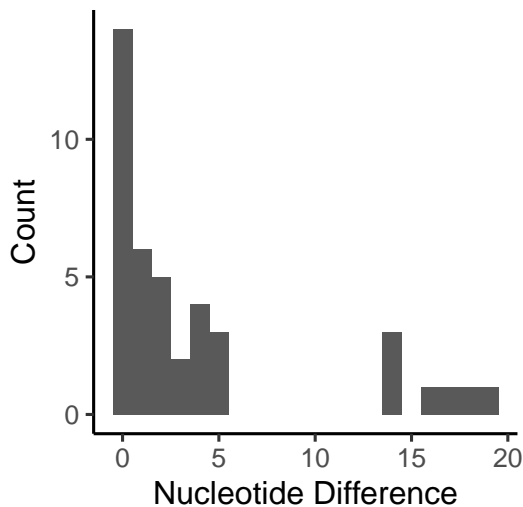
IGHV3-30-3*01

822 sequences assigned
119 (14.5%) exact matches, in which:
118 unique CDR3
5 unique J



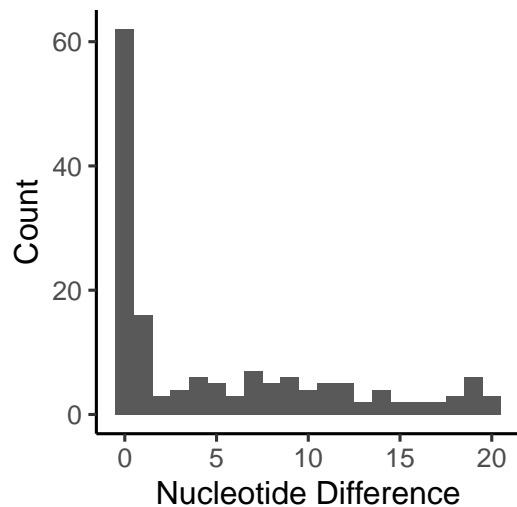
IGHV3-43*01

46 sequences assigned
14 (30.4%) exact matches, in which:
13 unique CDR3
3 unique J



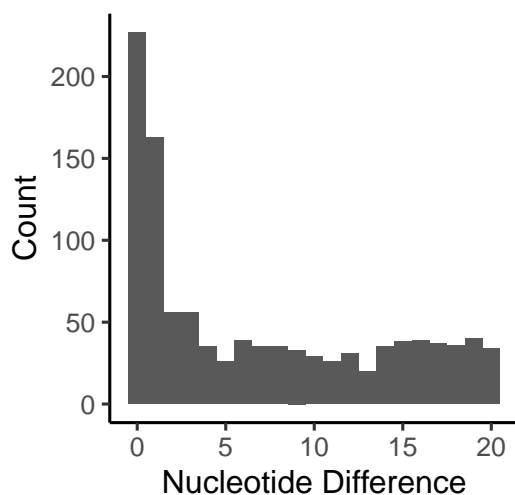
IGHV3-53*02

229 sequences assigned
62 (27.1%) exact matches, in which:
59 unique CDR3
6 unique J



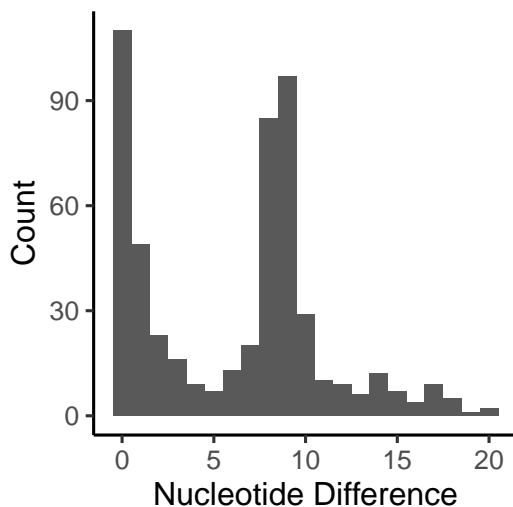
IGHV3-30*18

1978 sequences assigned
227 (11.5%) exact matches, in which:
220 unique CDR3
7 unique J



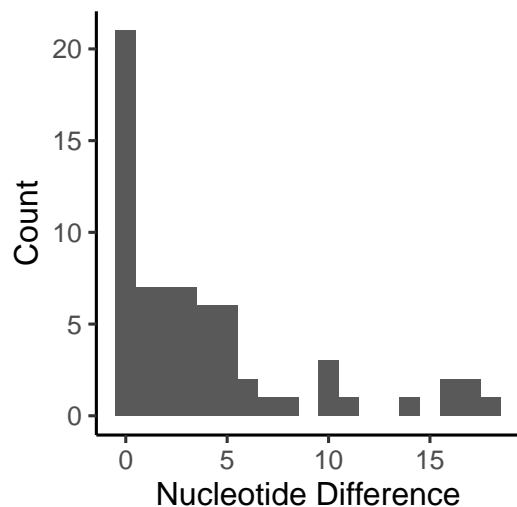
IGHV3-48*01

749 sequences assigned
110 (14.7%) exact matches, in which:
103 unique CDR3
7 unique J



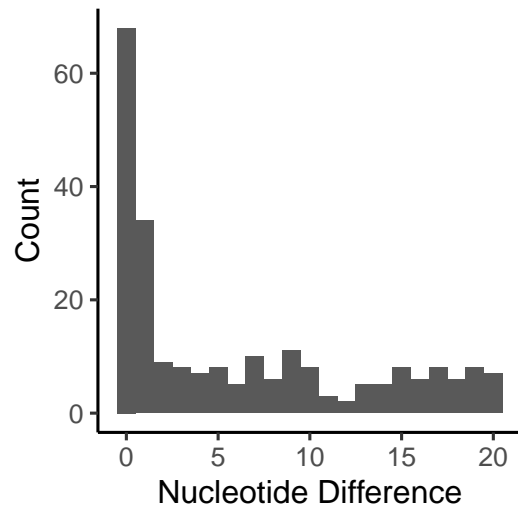
IGHV3-64*01

82 sequences assigned
21 (25.6%) exact matches, in which:
20 unique CDR3
3 unique J



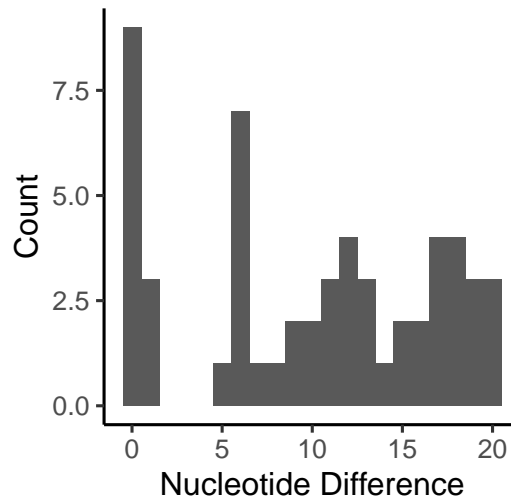
IGHV3-66*02

411 sequences assigned
68 (16.5%) exact matches, in which:
67 unique CDR3
6 unique J



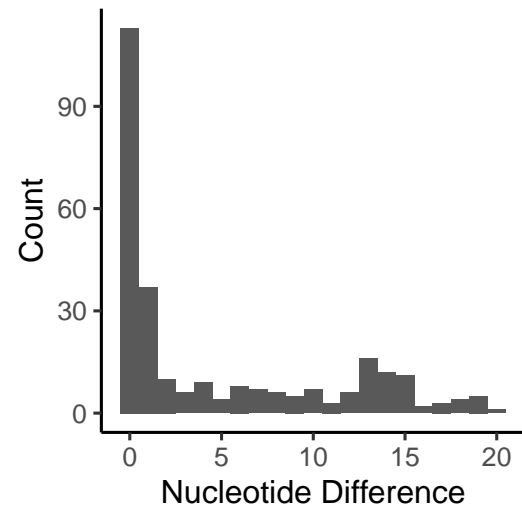
IGHV3-73*02

97 sequences assigned
9 (9.3%) exact matches, in which:
9 unique CDR3
2 unique J



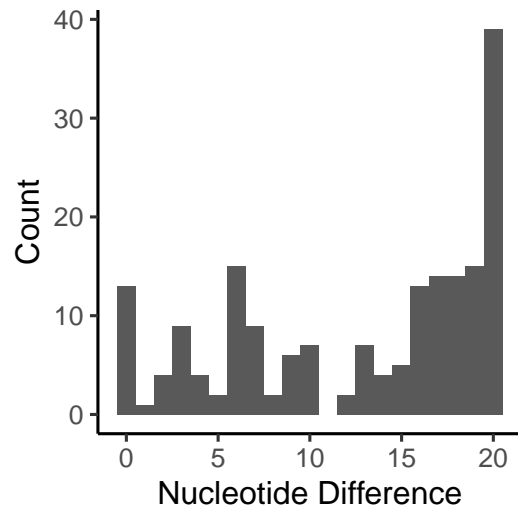
IGHV4-4*07

466 sequences assigned
113 (24.2%) exact matches, in which:
112 unique CDR3
7 unique J



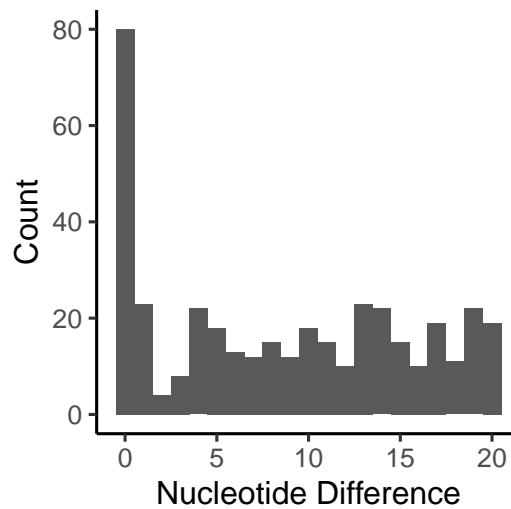
IGHV3-72*01

262 sequences assigned
13 (5%) exact matches, in which:
11 unique CDR3
3 unique J



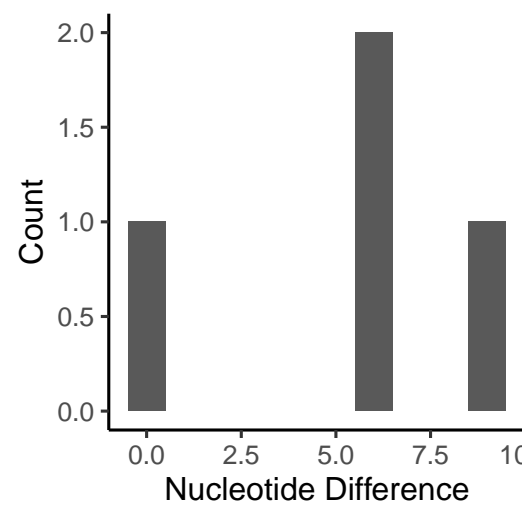
IGHV3-74*01

611 sequences assigned
80 (13.1%) exact matches, in which:
79 unique CDR3
6 unique J



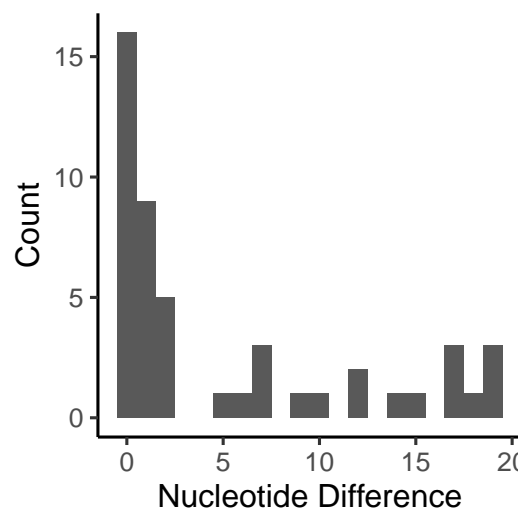
IGHV4-28*01

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



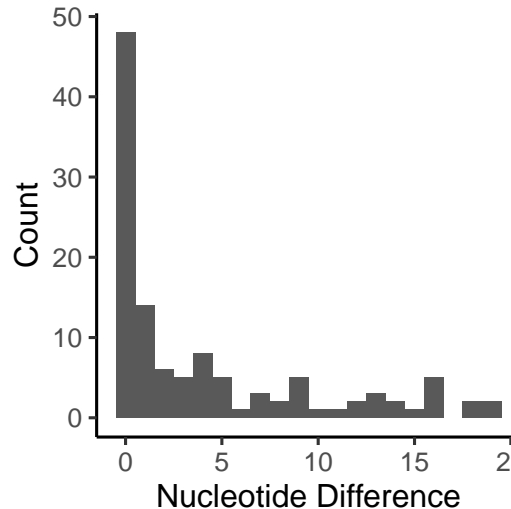
IGHV3-73*01

95 sequences assigned
16 (16.8%) exact matches, in which:
16 unique CDR3
4 unique J



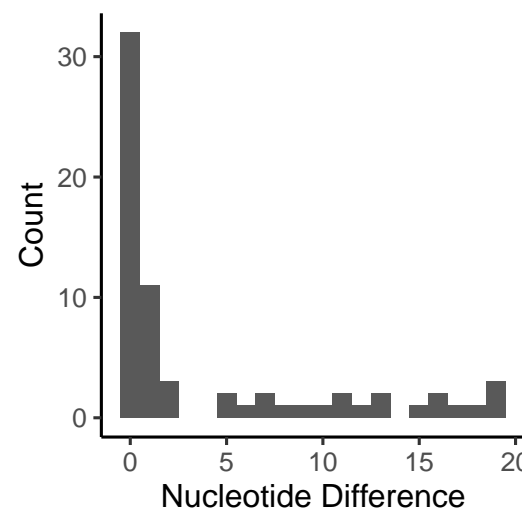
IGHV3-64D*06

246 sequences assigned
48 (19.5%) exact matches, in which:
47 unique CDR3
5 unique J



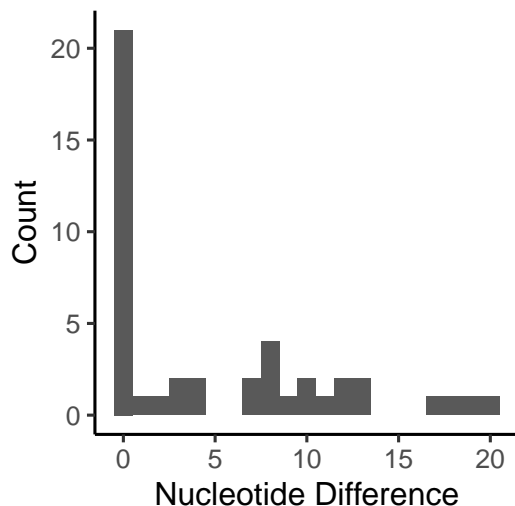
IGHV4-30-4*01

175 sequences assigned
32 (18.3%) exact matches, in which:
31 unique CDR3
6 unique J



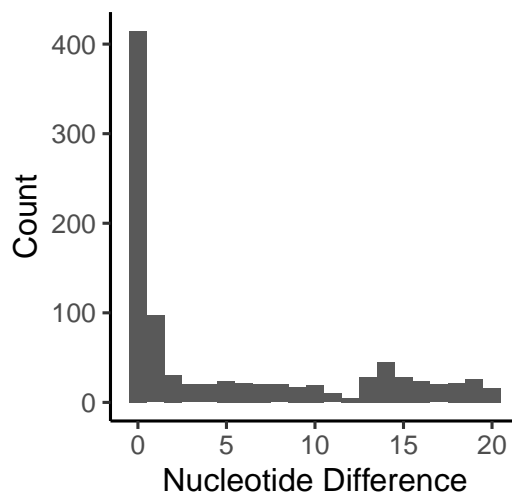
IGHV4-30-2*01

69 sequences assigned
21 (30.4%) exact matches, in which:
21 unique CDR3
5 unique J



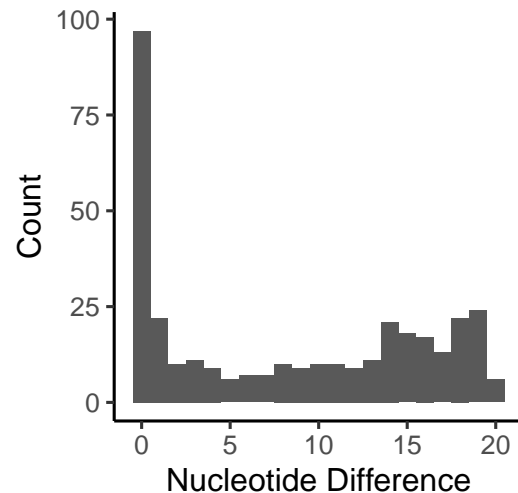
IGHV4-39*01

1647 sequences assigned
415 (25.2%) exact matches, in which:
402 unique CDR3
6 unique J



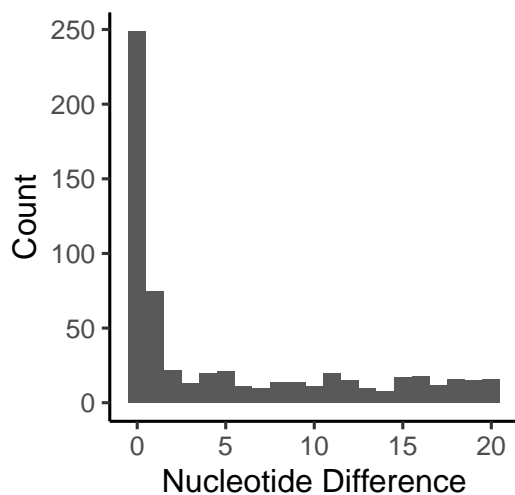
IGHV4-61*02_A234G

942 sequences assigned
97 (10.3%) exact matches, in which:
93 unique CDR3
5 unique J



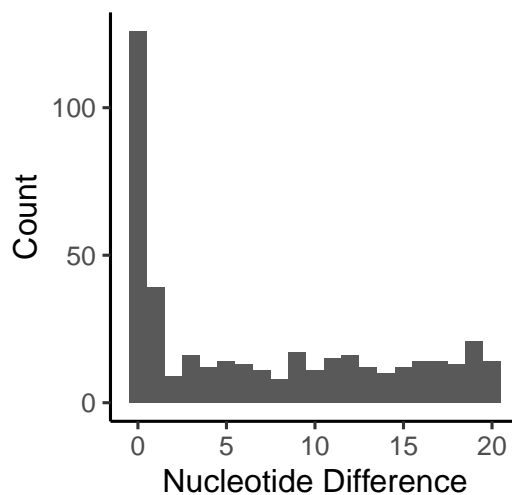
IGHV4-31*03

951 sequences assigned
249 (26.2%) exact matches, in which:
247 unique CDR3
7 unique J



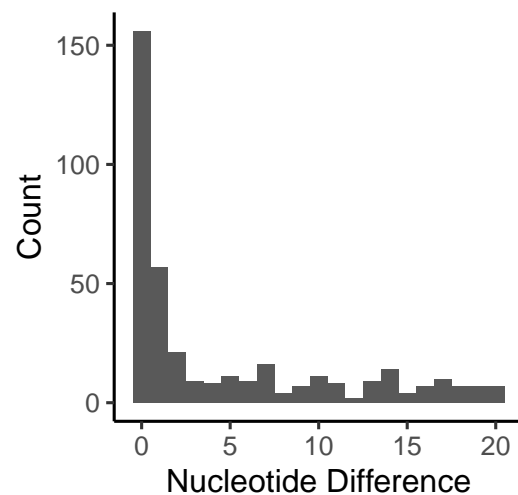
IGHV4-59*01

683 sequences assigned
126 (18.4%) exact matches, in which:
125 unique CDR3
6 unique J



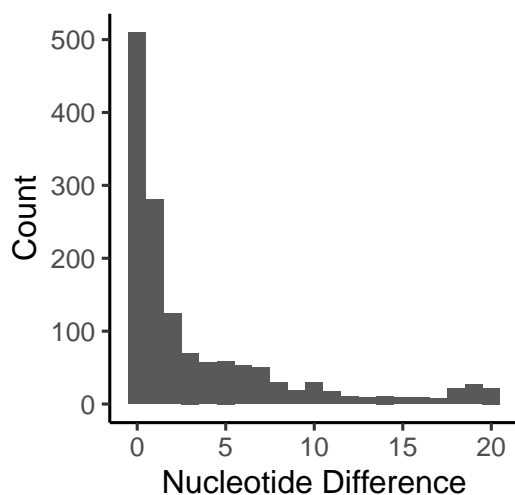
IGHV5-10-1*03

605 sequences assigned
156 (25.8%) exact matches, in which:
155 unique CDR3
6 unique J



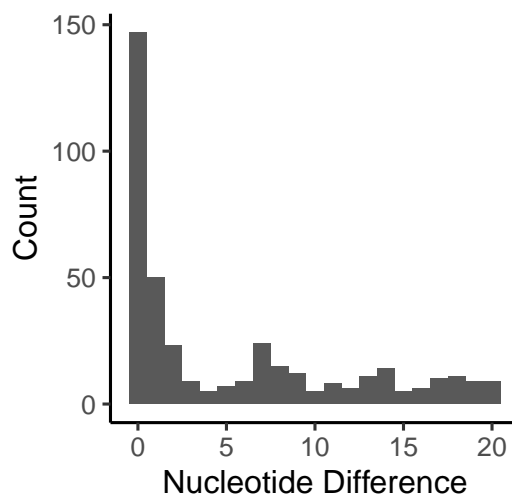
IGHV4-34*01

2006 sequences assigned
510 (25.4%) exact matches, in which:
475 unique CDR3
7 unique J



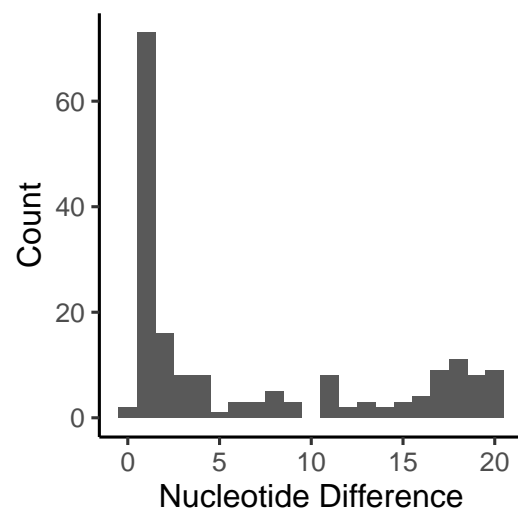
IGHV4-61*02

510 sequences assigned
147 (28.8%) exact matches, in which:
145 unique CDR3
6 unique J



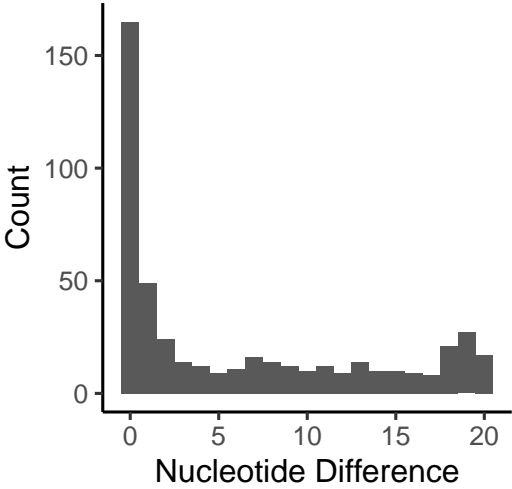
IGHV5-51*01

232 sequences assigned
2 (0.9%) exact matches, in which:
2 unique CDR3
2 unique J



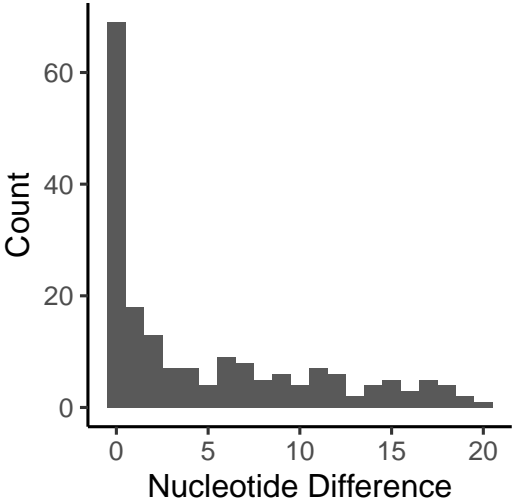
IGHV5-51*03

684 sequences assigned
165 (24.1%) exact matches, in which:
160 unique CDR3
7 unique J

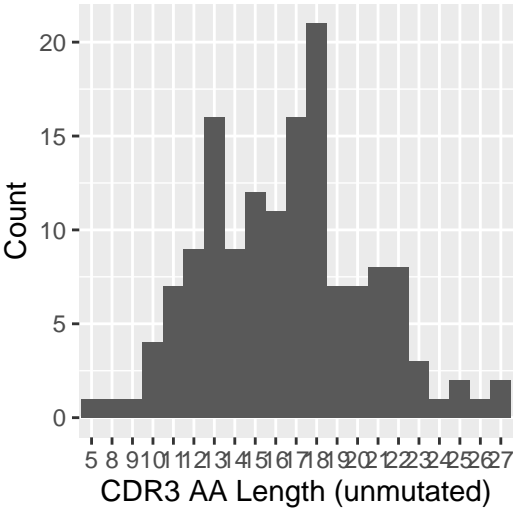


IGHV6-1*01

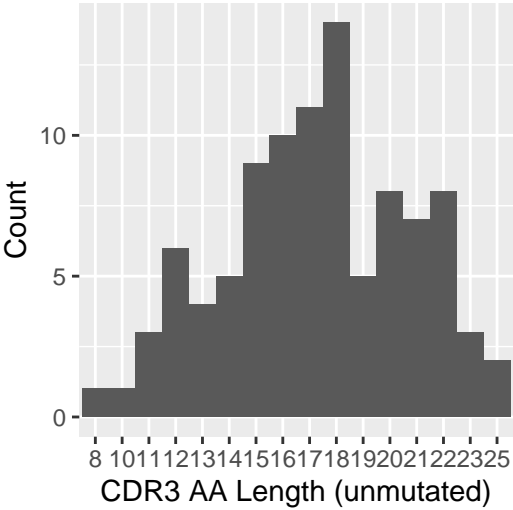
236 sequences assigned
69 (29.2%) exact matches, in which:
66 unique CDR3
6 unique J

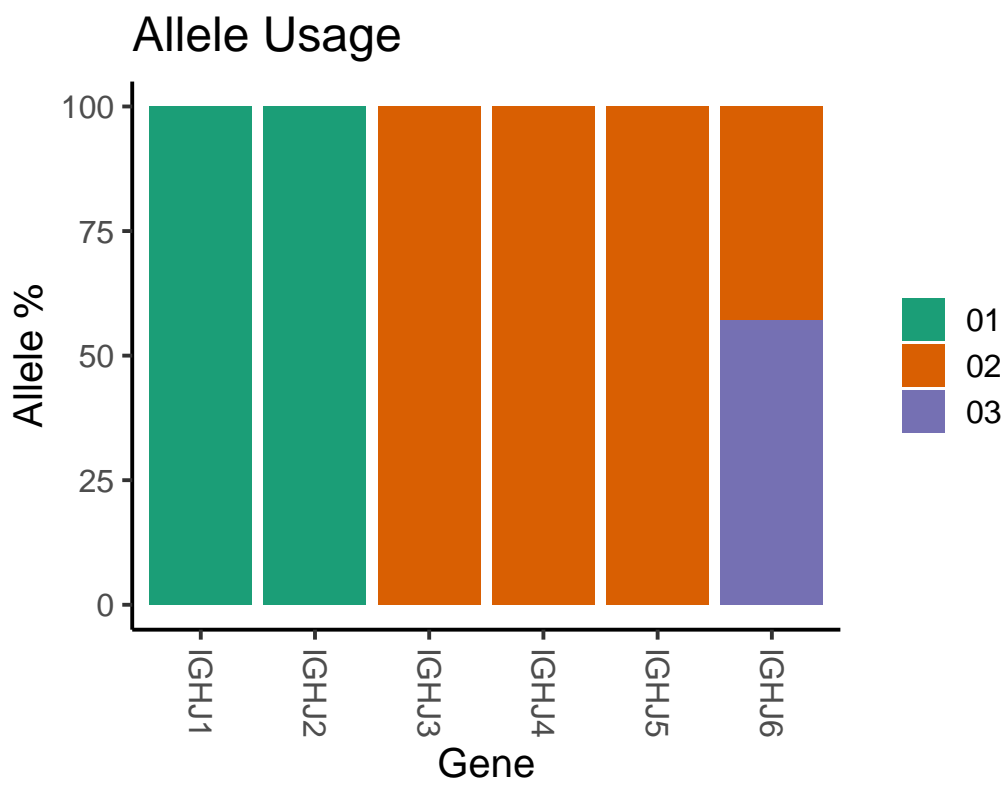


IGHV1-69*08_C191T



IGHV4-61*02_A234G





Sequence Count byIGHJ6 allele usage

