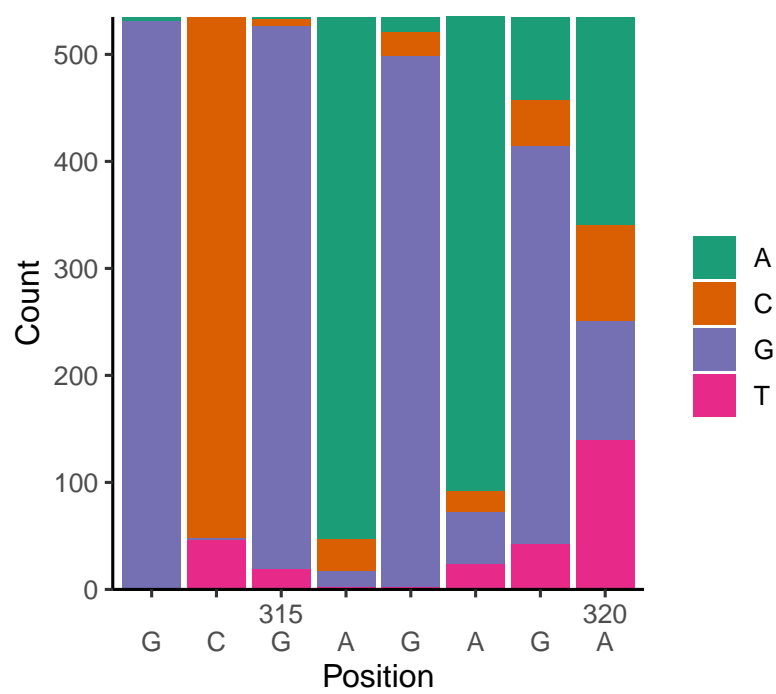
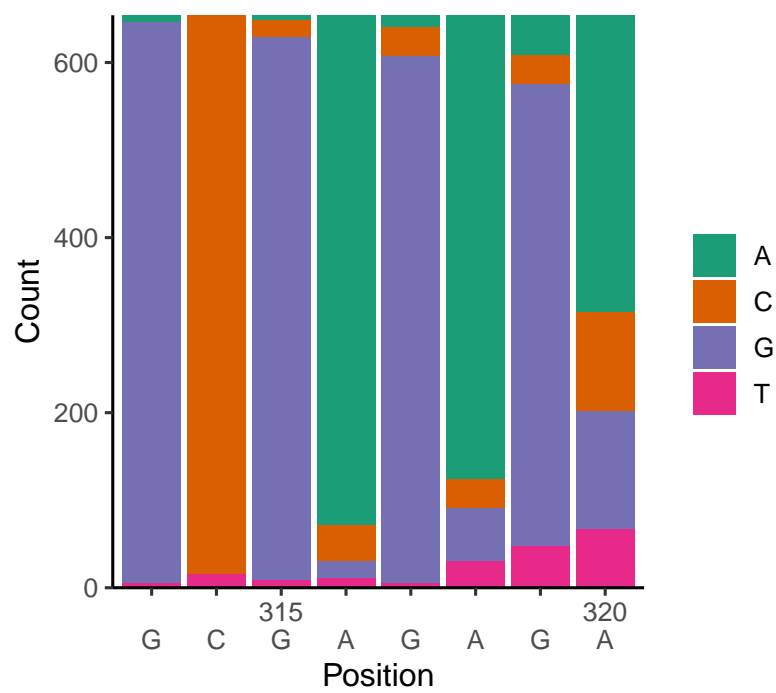


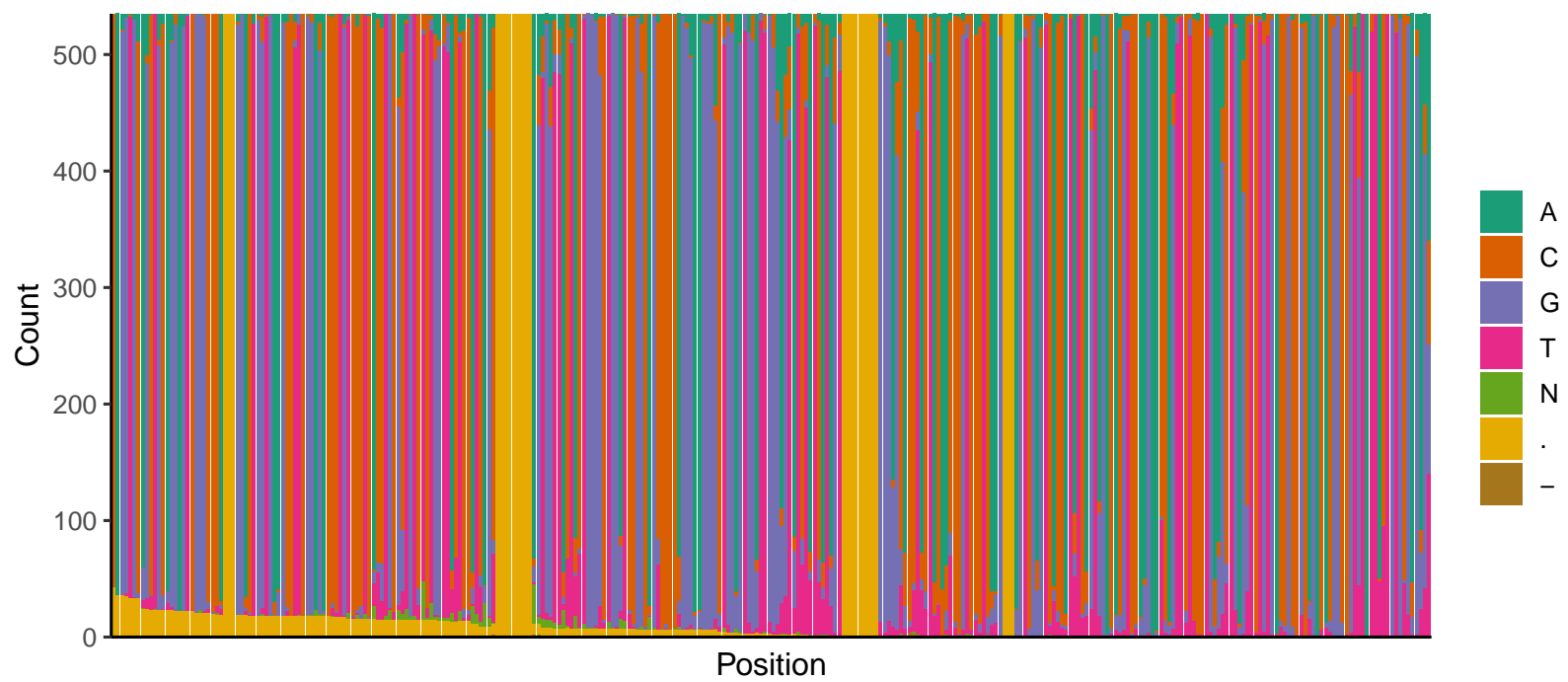
Gene IGHV4-38-2*02_A70G



Gene IGHV4-61*02_A291G



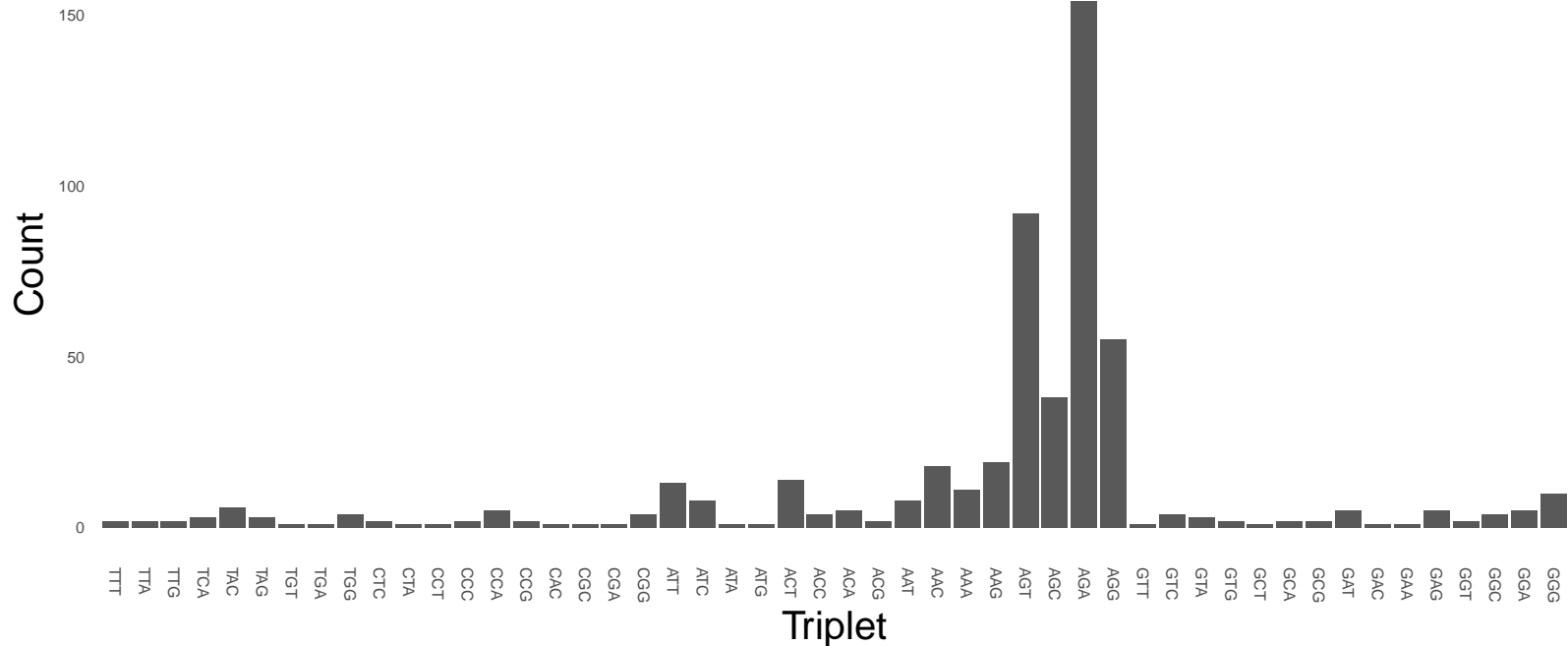
Gene IGHV4-38-2*02_A70G



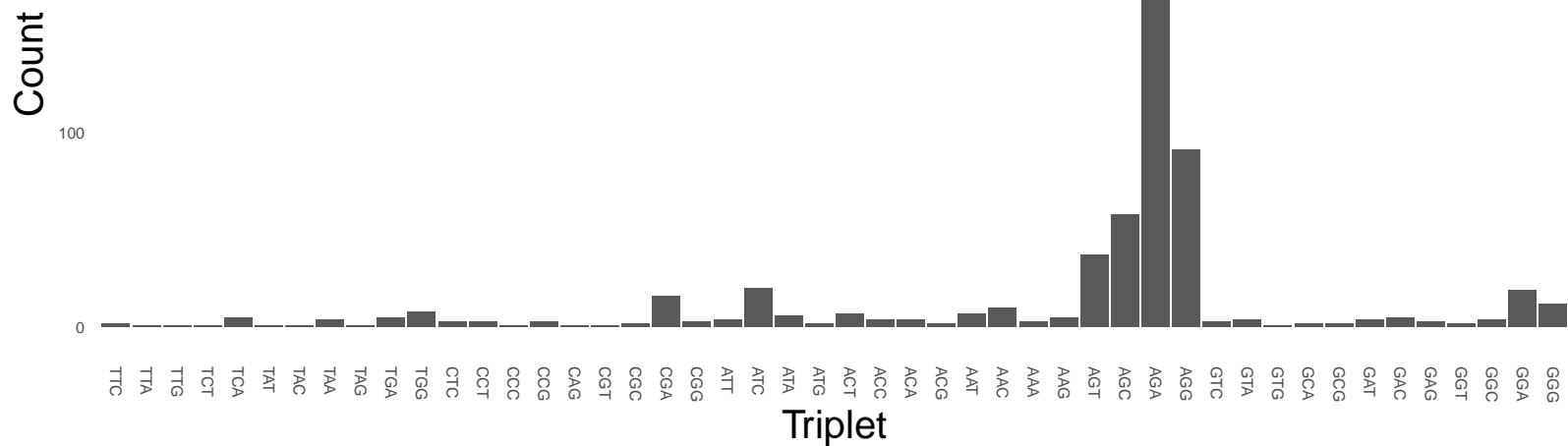
Gene IGHV4-61*02_A291G



IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet

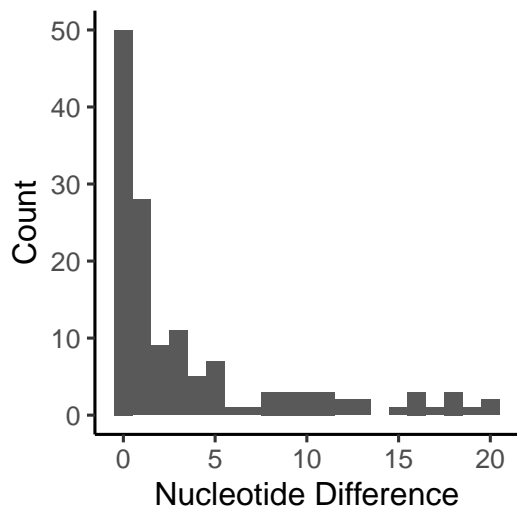


IGHV4-61*02_A291G- Final 3 nucleotides as a triplet



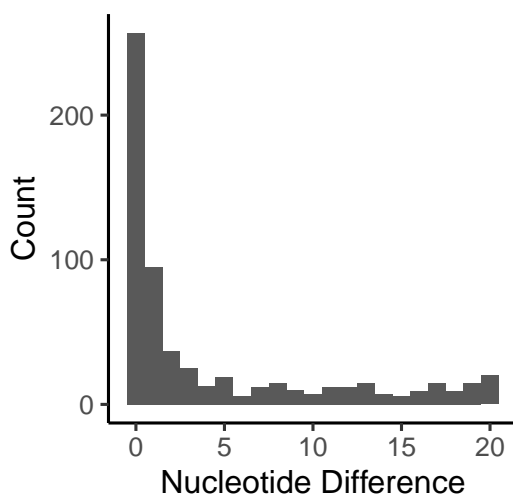
IGHV1-2*04

207 sequences assigned
50 (24.2%) exact matches, in which:
50 unique CDR3
6 unique J



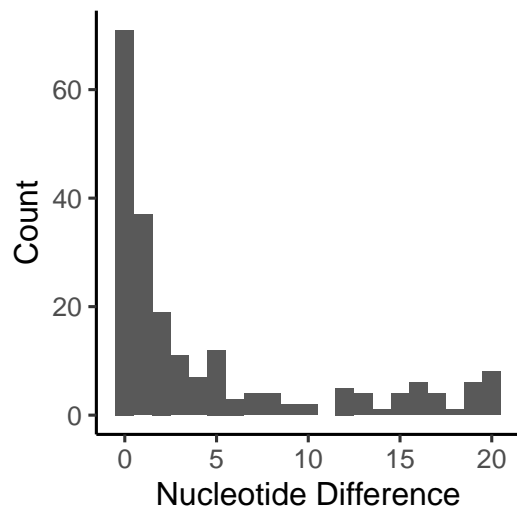
IGHV1-18*01

880 sequences assigned
257 (29.2%) exact matches, in which:
254 unique CDR3
6 unique J



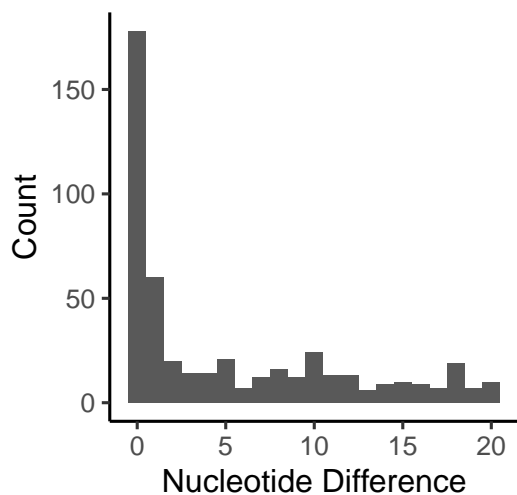
IGHV1-46*01

300 sequences assigned
71 (23.7%) exact matches, in which:
71 unique CDR3
5 unique J



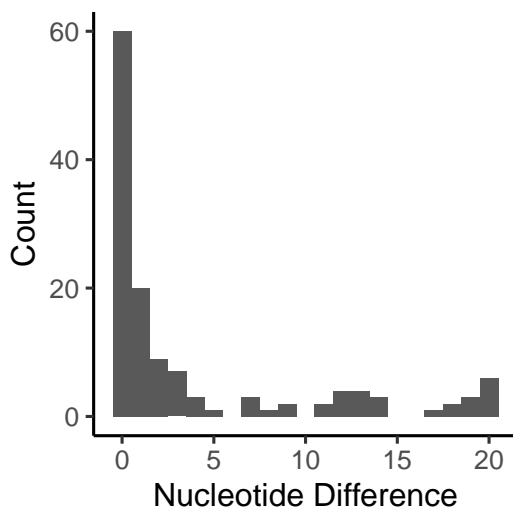
IGHV1-3*01

747 sequences assigned
178 (23.8%) exact matches, in which:
178 unique CDR3
7 unique J



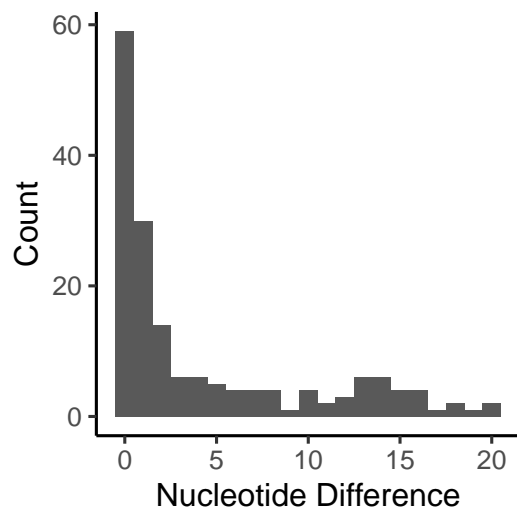
IGHV1-24*01

172 sequences assigned
60 (34.9%) exact matches, in which:
59 unique CDR3
7 unique J



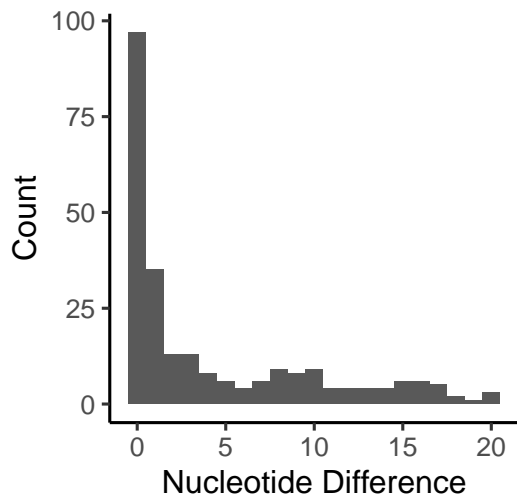
IGHV1-46*03

246 sequences assigned
59 (24%) exact matches, in which:
59 unique CDR3
5 unique J



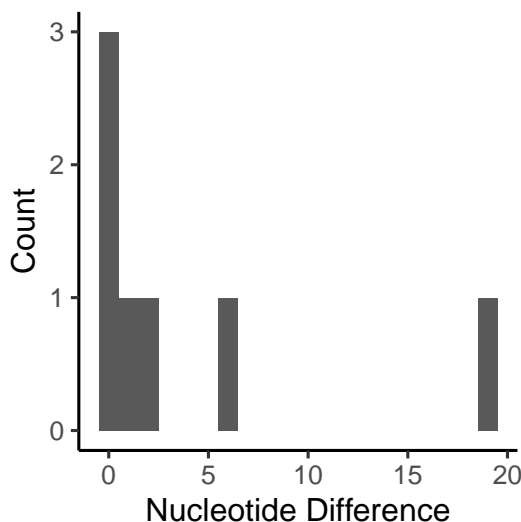
IGHV1-8*01

287 sequences assigned
97 (33.8%) exact matches, in which:
97 unique CDR3
6 unique J



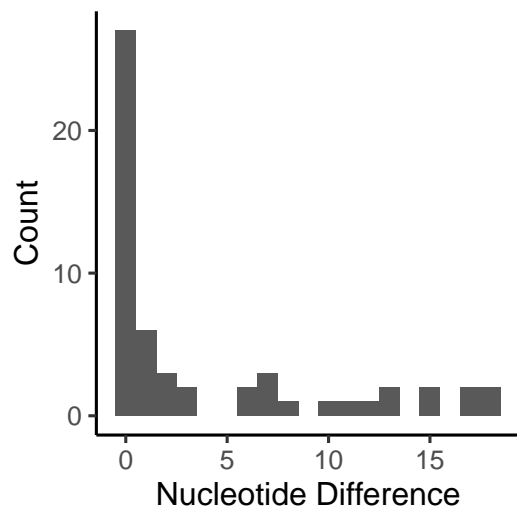
IGHV1-45*02

48 sequences assigned
3 (6.2%) exact matches, in which:
3 unique CDR3
2 unique J



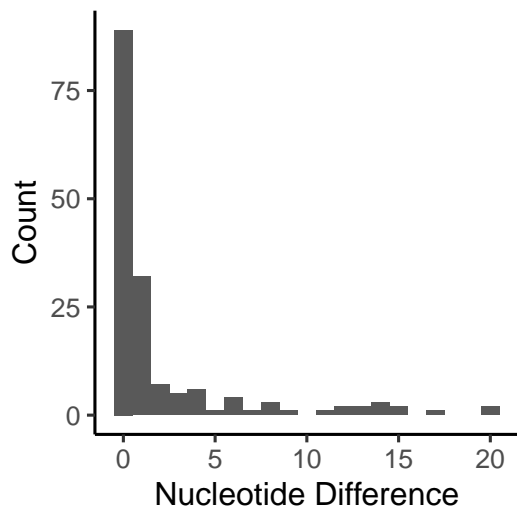
IGHV1-58*02

73 sequences assigned
27 (37%) exact matches, in which:
27 unique CDR3
7 unique J



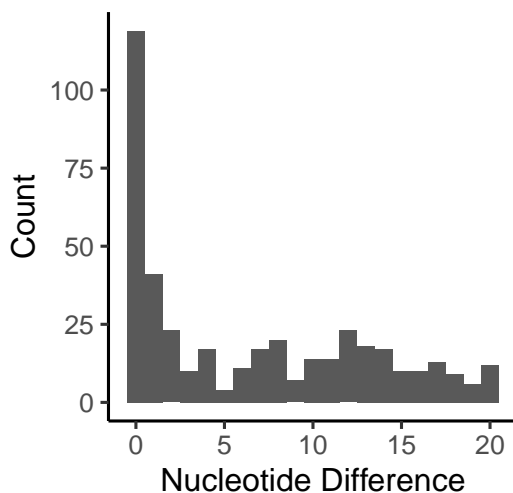
IGHV1-69*02

263 sequences assigned
89 (33.8%) exact matches, in which:
89 unique CDR3
4 unique J



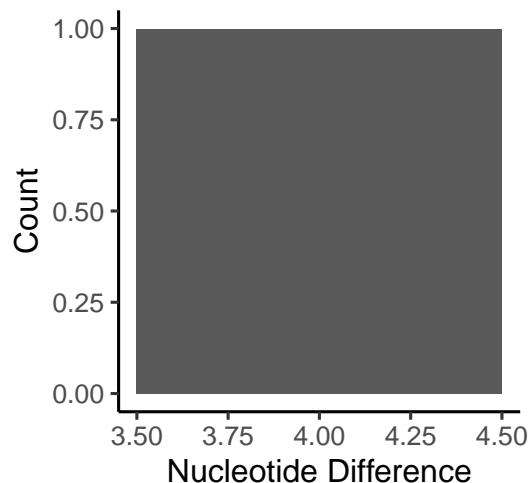
IGHV2-5*02

554 sequences assigned
119 (21.5%) exact matches, in which:
119 unique CDR3
6 unique J



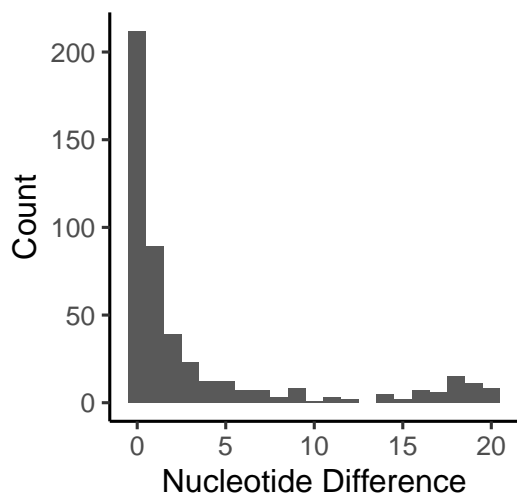
IGHV2-70D*04

1 sequences assigned
No exact matches.



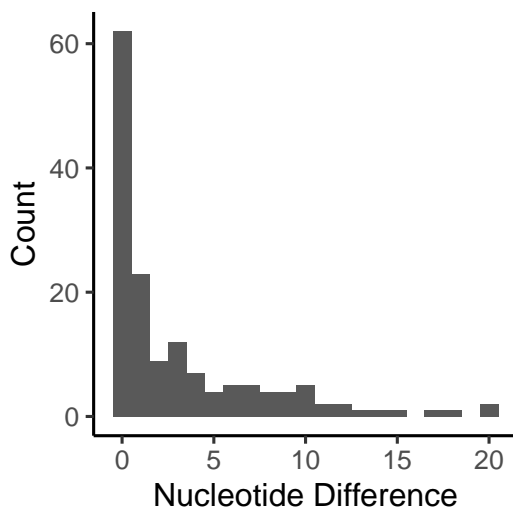
IGHV1-69*04

701 sequences assigned
212 (30.2%) exact matches, in which:
208 unique CDR3
7 unique J



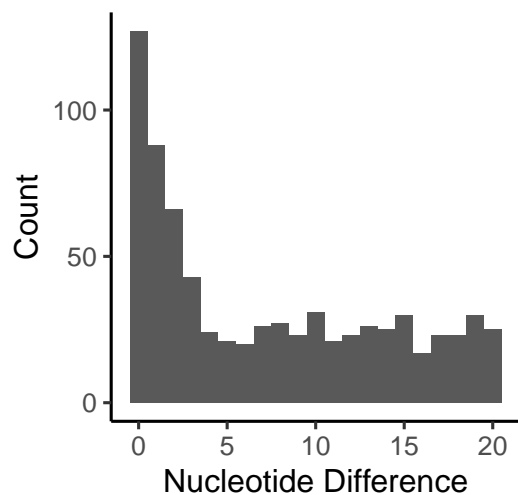
IGHV2-26*01

201 sequences assigned
62 (30.8%) exact matches, in which:
62 unique CDR3
6 unique J



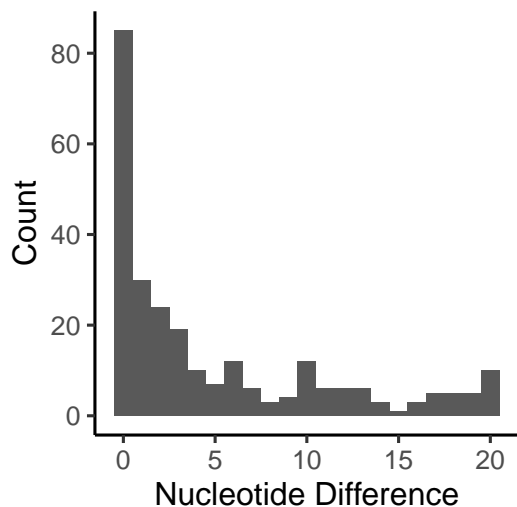
IGHV3-7*01

960 sequences assigned
127 (13.2%) exact matches, in which:
126 unique CDR3
7 unique J



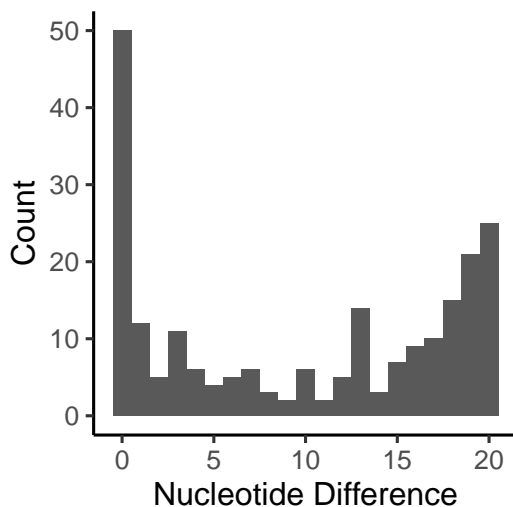
IGHV2-5*01

384 sequences assigned
85 (22.1%) exact matches, in which:
84 unique CDR3
6 unique J



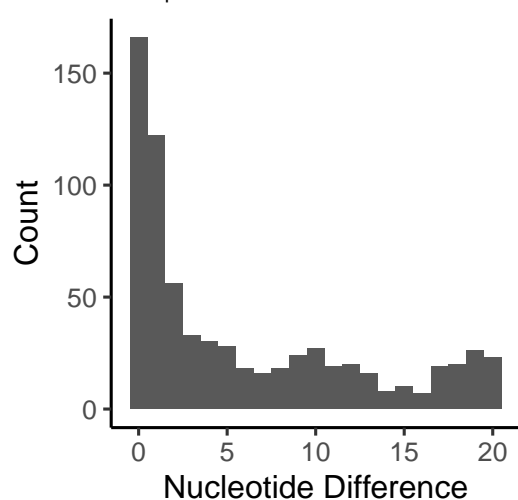
IGHV2-70*15

373 sequences assigned
50 (13.4%) exact matches, in which:
50 unique CDR3
5 unique J



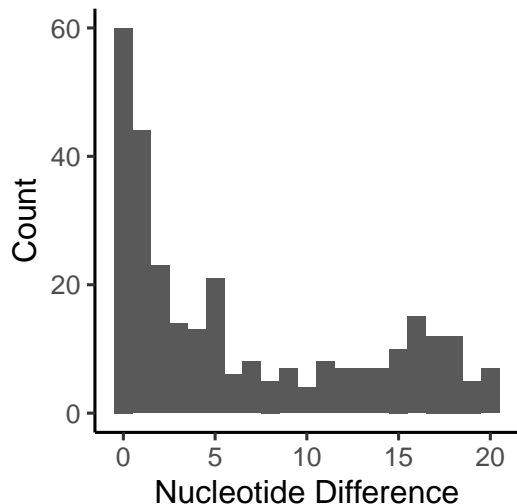
IGHV3-9*01

1080 sequences assigned
166 (15.4%) exact matches, in which:
166 unique CDR3
6 unique J



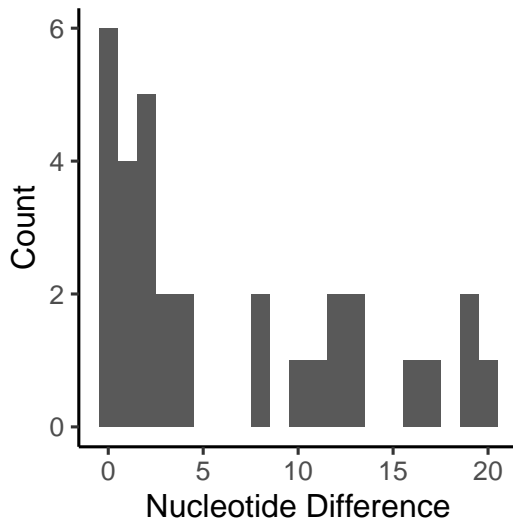
IGHV3-11*01

817 sequences assigned
60 (7.3%) exact matches, in which:
58 unique CDR3
6 unique J



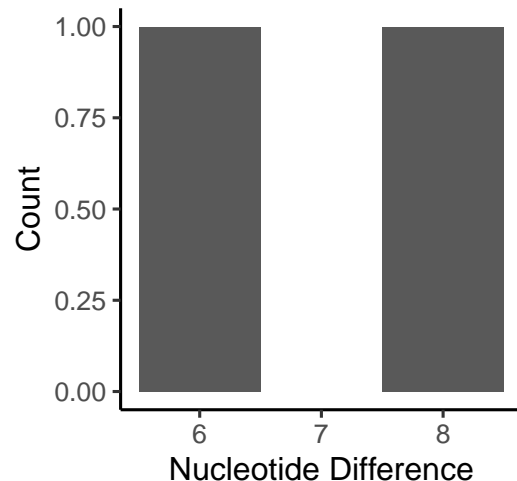
IGHV3-13*05

34 sequences assigned
6 (17.6%) exact matches, in which:
6 unique CDR3
3 unique J



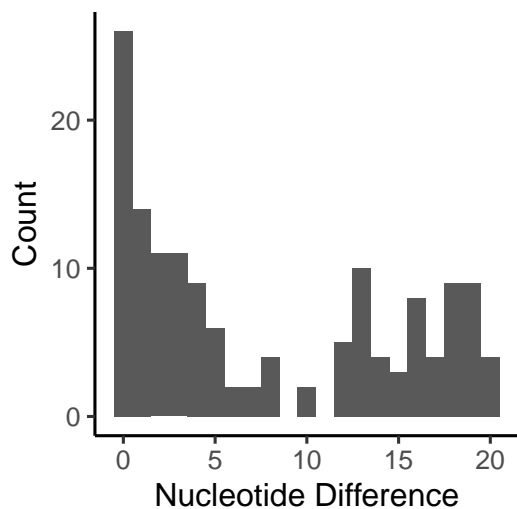
IGHV3-20*04

19 sequences assigned
No exact matches.



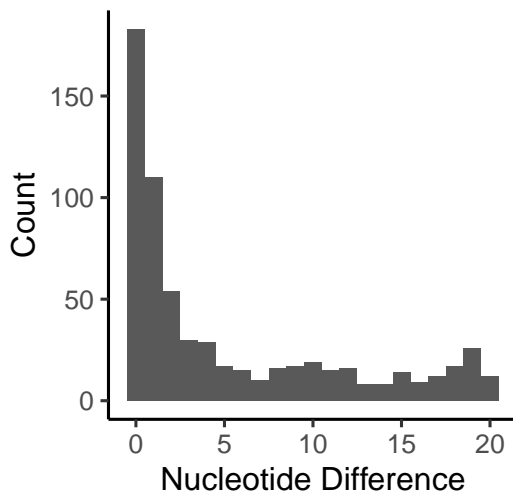
IGHV3-11*06

205 sequences assigned
26 (12.7%) exact matches, in which:
26 unique CDR3
4 unique J



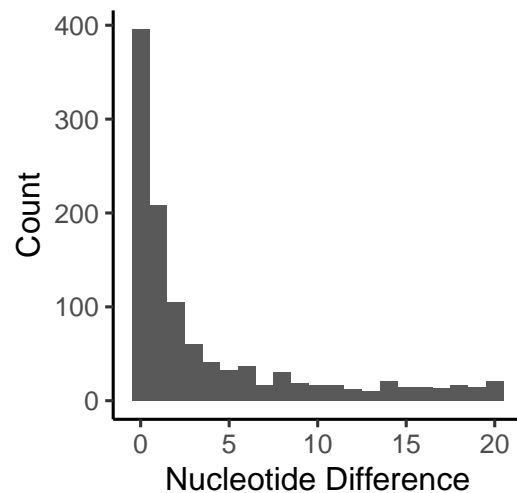
IGHV3-15*01

873 sequences assigned
183 (21%) exact matches, in which:
180 unique CDR3
7 unique J



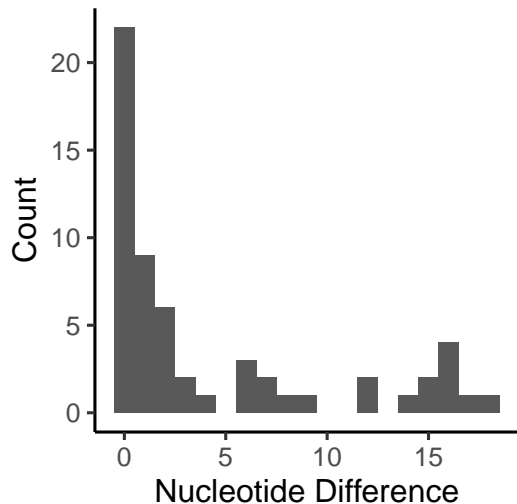
IGHV3-21*01

1369 sequences assigned
396 (28.9%) exact matches, in which:
395 unique CDR3
7 unique J



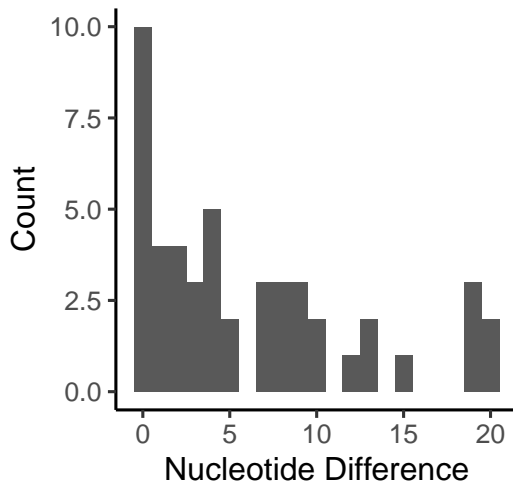
IGHV3-13*01

84 sequences assigned
22 (26.2%) exact matches, in which:
22 unique CDR3
4 unique J



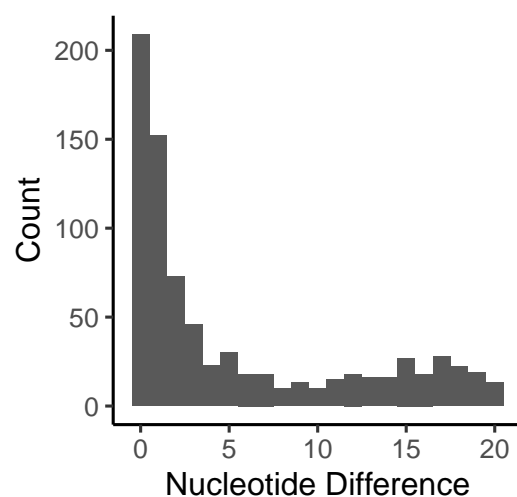
IGHV3-20*01

58 sequences assigned
10 (17.2%) exact matches, in which:
10 unique CDR3
5 unique J



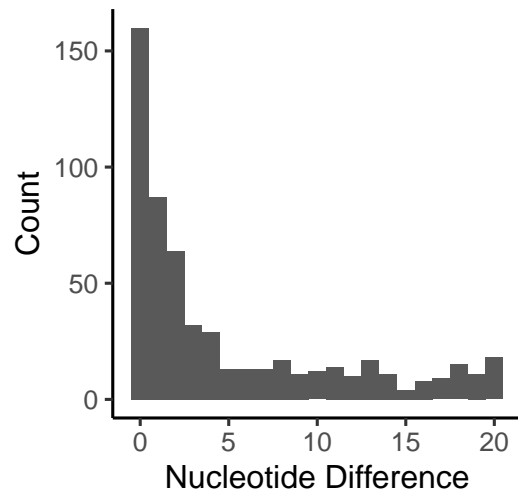
IGHV3-23*04

1128 sequences assigned
209 (18.5%) exact matches, in which:
208 unique CDR3
6 unique J



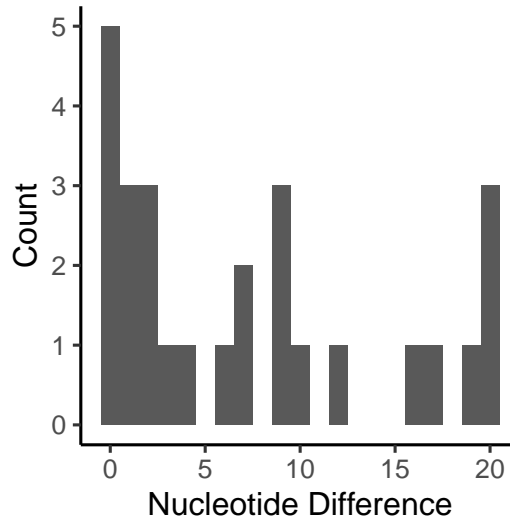
IGHV3-30*01

794 sequences assigned
160 (20.2%) exact matches, in which:
160 unique CDR3
6 unique J



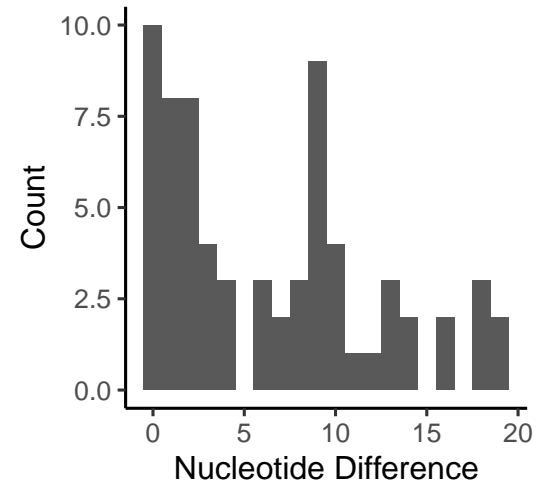
IGHV3-43*01

49 sequences assigned
5 (10.2%) exact matches, in which:
5 unique CDR3
2 unique J



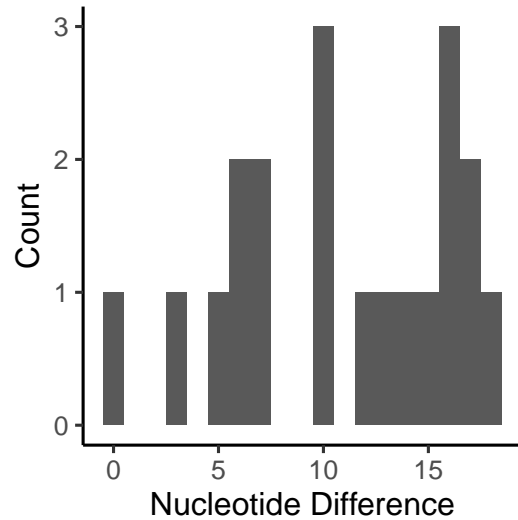
IGHV3-49*03

125 sequences assigned
10 (8%) exact matches, in which:
10 unique CDR3
4 unique J



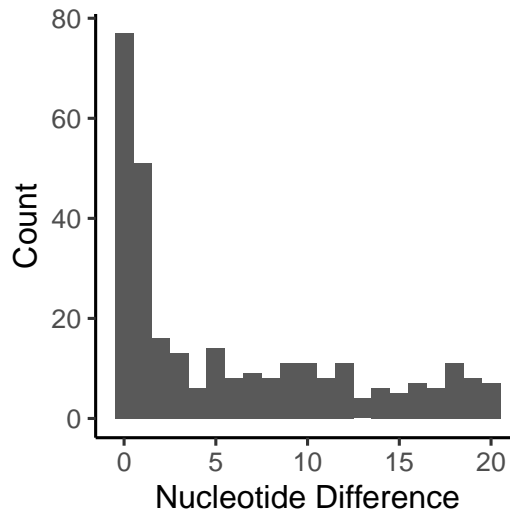
IGHV3-30-3*03

57 sequences assigned
1 (1.8%) exact matches, in which:
1 unique CDR3
1 unique J



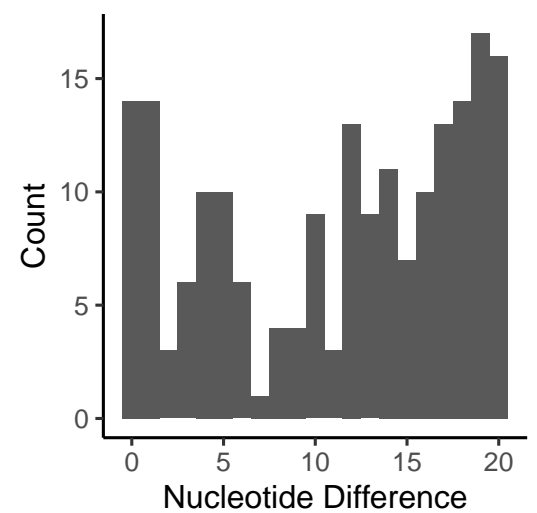
IGHV3-48*01

393 sequences assigned
77 (19.6%) exact matches, in which:
77 unique CDR3
6 unique J



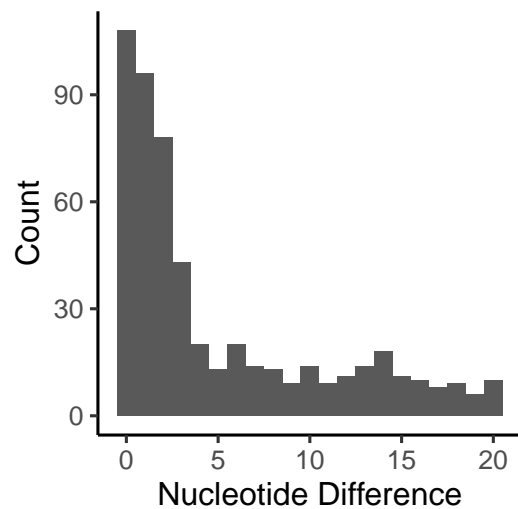
IGHV3-49*04

313 sequences assigned
14 (4.5%) exact matches, in which:
14 unique CDR3
4 unique J



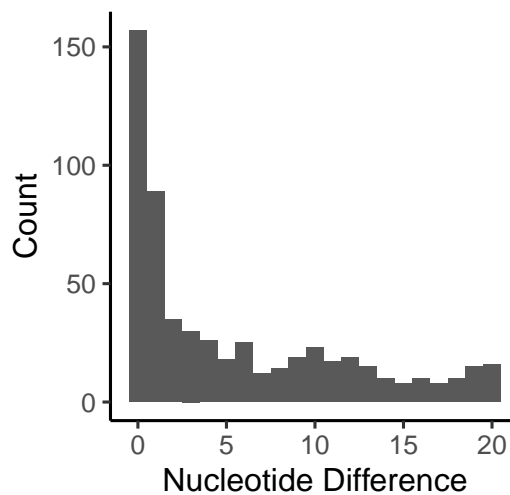
IGHV3-33*01

710 sequences assigned
108 (15.2%) exact matches, in which:
106 unique CDR3
6 unique J



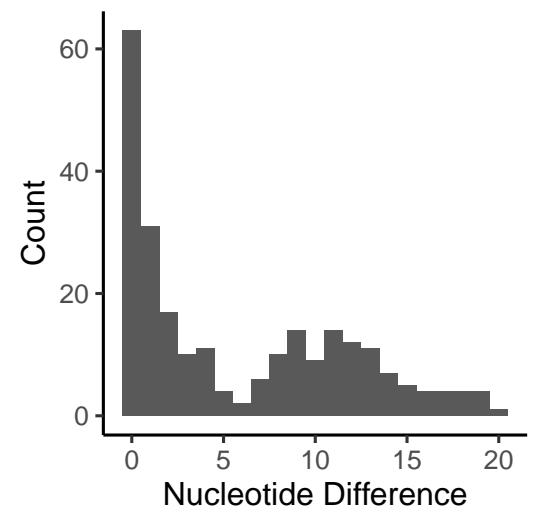
IGHV3-48*03

855 sequences assigned
157 (18.4%) exact matches, in which:
157 unique CDR3
7 unique J



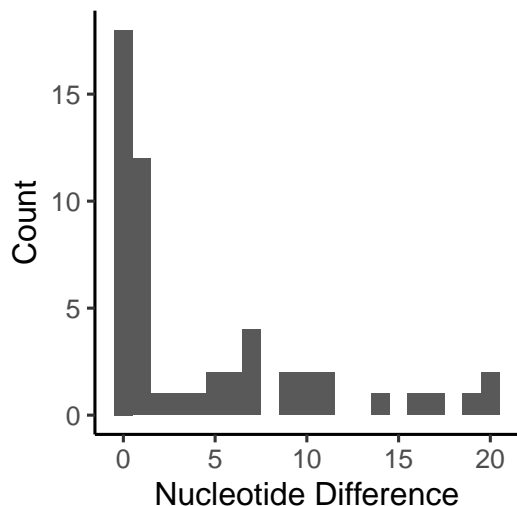
IGHV3-53*01

301 sequences assigned
63 (20.9%) exact matches, in which:
63 unique CDR3
6 unique J



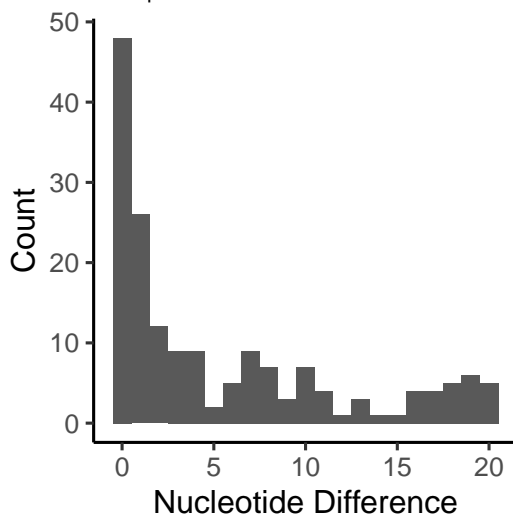
IGHV3-53*02

60 sequences assigned
18 (30%) exact matches, in which:
18 unique CDR3
5 unique J



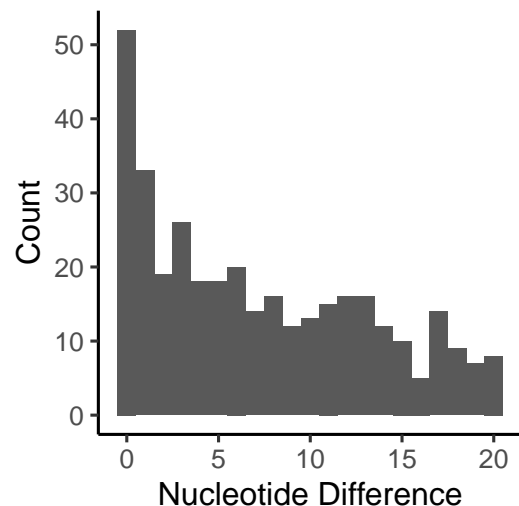
IGHV3-66*02

237 sequences assigned
48 (20.3%) exact matches, in which:
48 unique CDR3
5 unique J



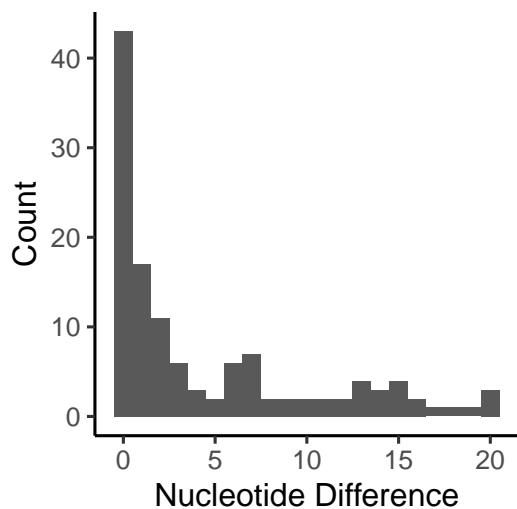
IGHV3-74*01

543 sequences assigned
52 (9.6%) exact matches, in which:
51 unique CDR3
5 unique J



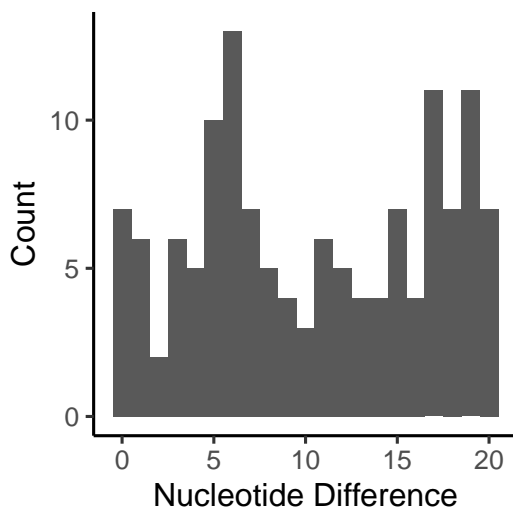
IGHV3-64*01

151 sequences assigned
43 (28.5%) exact matches, in which:
43 unique CDR3
7 unique J



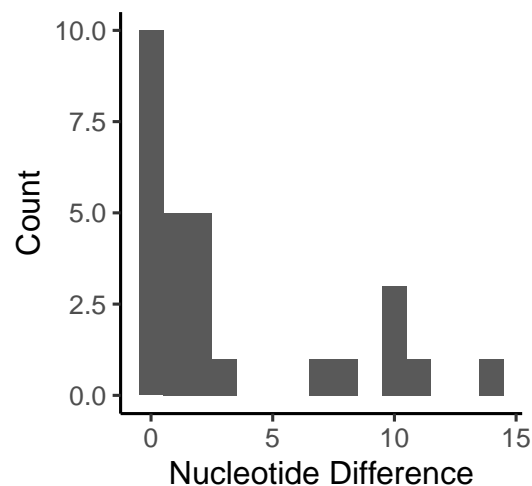
IGHV3-72*01

193 sequences assigned
7 (3.6%) exact matches, in which:
7 unique CDR3
3 unique J



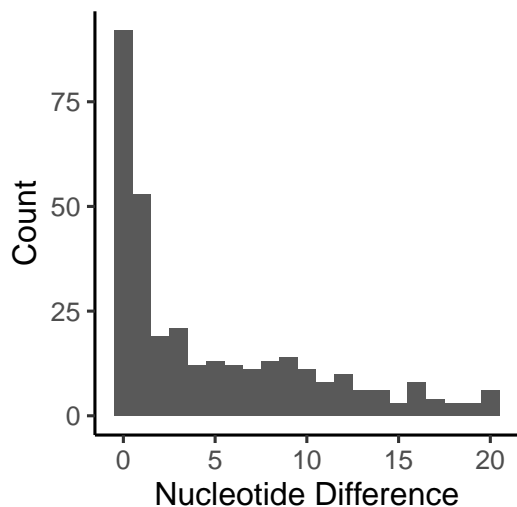
IGHV3-43D*04

43 sequences assigned
10 (23.3%) exact matches, in which:
8 unique CDR3
2 unique J



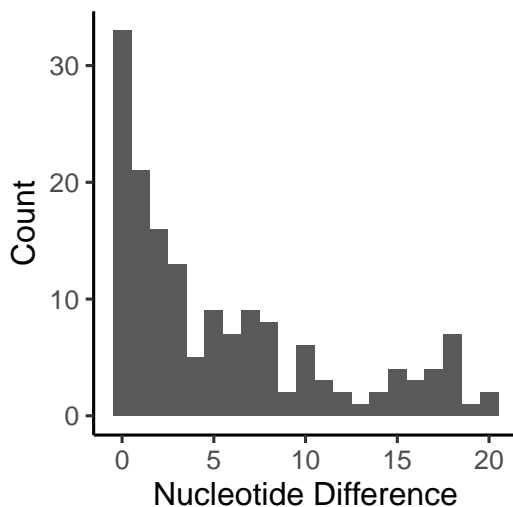
IGHV3-66*01

448 sequences assigned
92 (20.5%) exact matches, in which:
92 unique CDR3
6 unique J



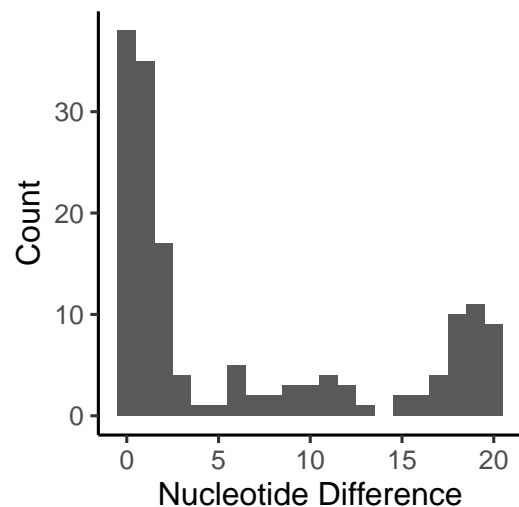
IGHV3-73*01

197 sequences assigned
33 (16.8%) exact matches, in which:
33 unique CDR3
6 unique J



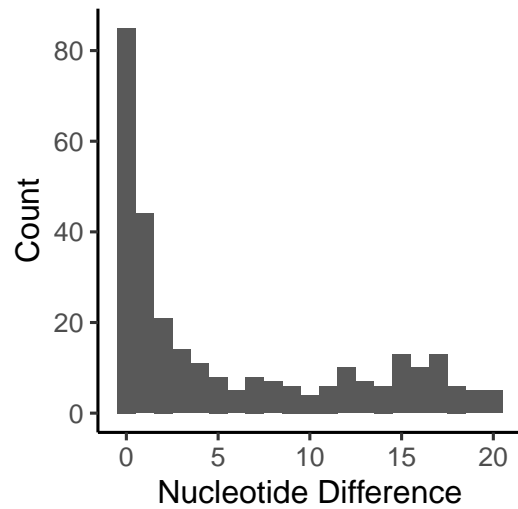
IGHV3-64D*06

252 sequences assigned
38 (15.1%) exact matches, in which:
36 unique CDR3
5 unique J



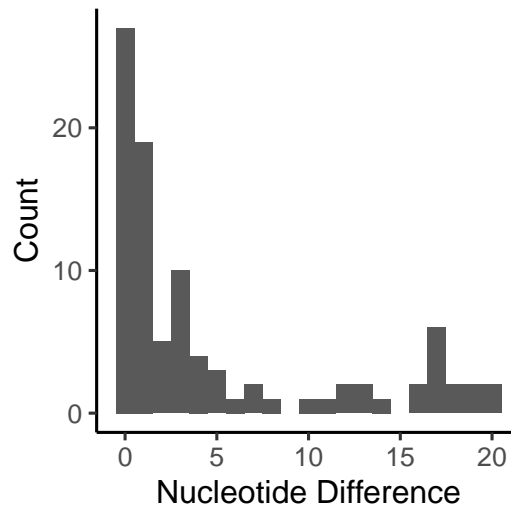
IGHV4-4*02

428 sequences assigned
85 (19.9%) exact matches, in which:
84 unique CDR3
6 unique J



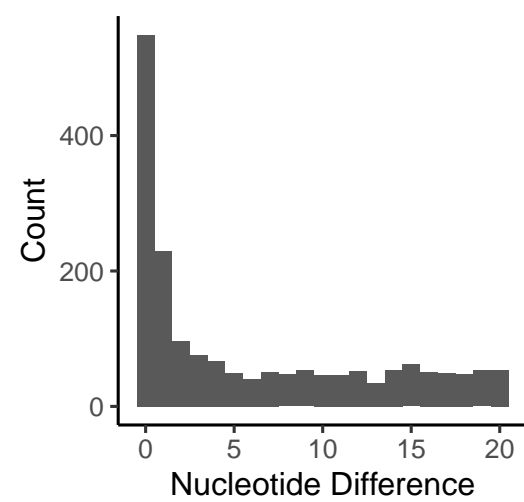
IGHV4-30-2*01

167 sequences assigned
27 (16.2%) exact matches, in which:
27 unique CDR3
5 unique J



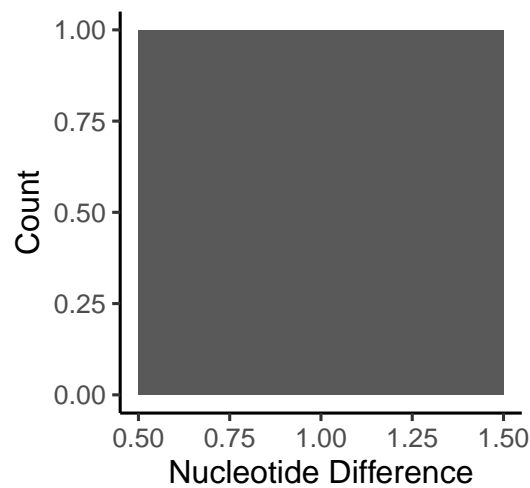
IGHV4-34*01

2834 sequences assigned
549 (19.4%) exact matches, in which:
546 unique CDR3
7 unique J



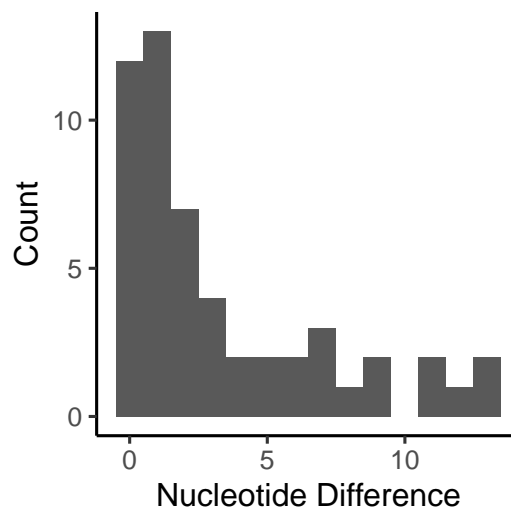
IGHV4-28*04

1 sequences assigned
No exact matches.



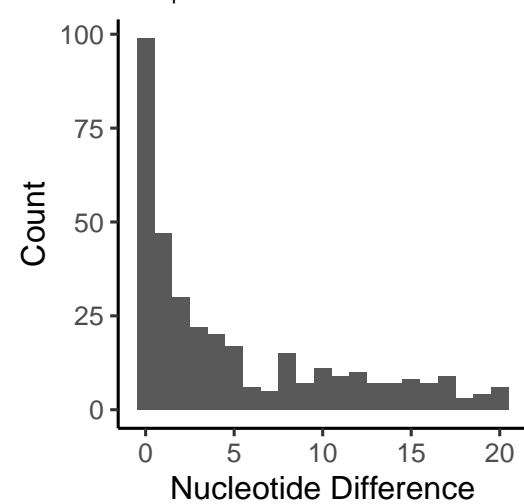
IGHV4-31*01

60 sequences assigned
12 (20%) exact matches, in which:
12 unique CDR3
5 unique J



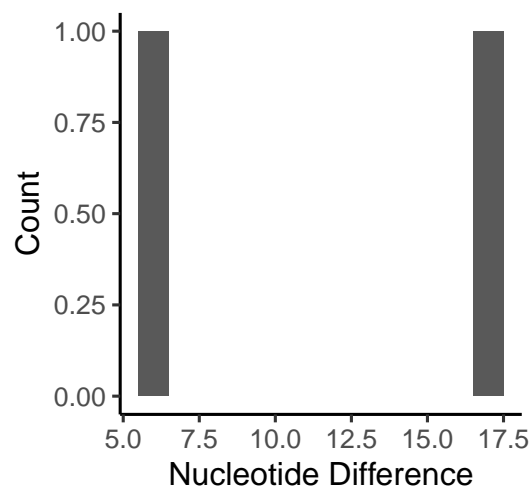
IGHV4-38-2*02_A70G

535 sequences assigned
99 (18.5%) exact matches, in which:
98 unique CDR3
5 unique J



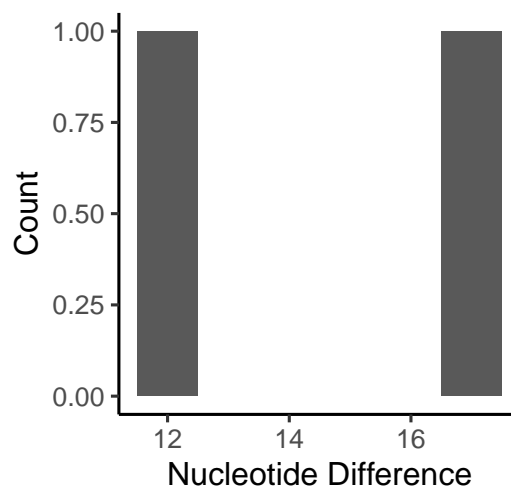
IGHV4-28*07

3 sequences assigned
No exact matches.



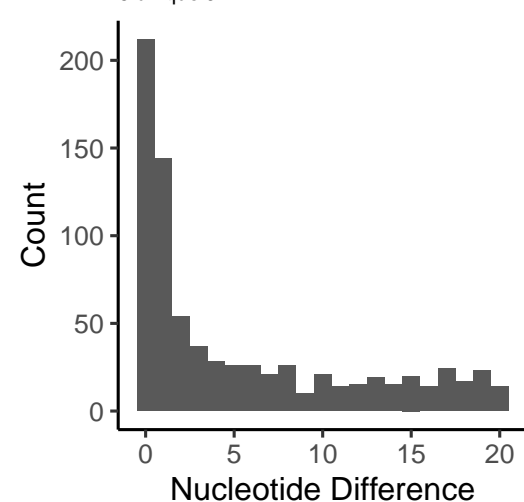
IGHV4-31*03

19 sequences assigned
No exact matches.



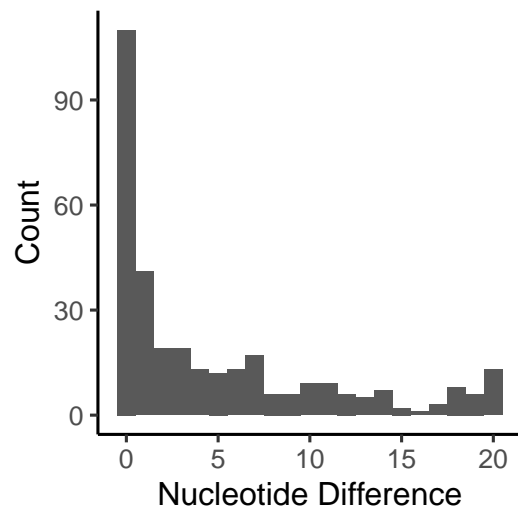
IGHV4-39*01

1242 sequences assigned
212 (17.1%) exact matches, in which:
212 unique CDR3
6 unique J



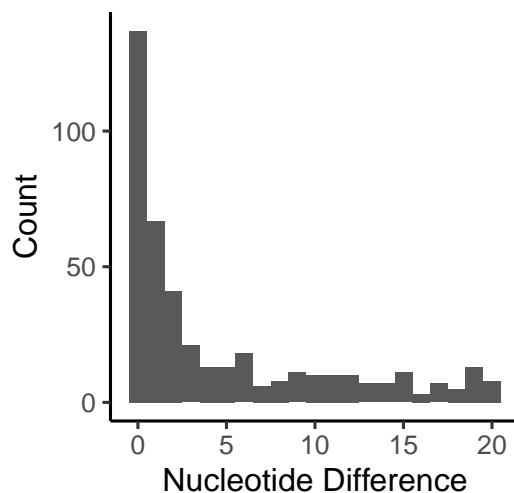
IGHV4-59*01

507 sequences assigned
110 (21.7%) exact matches, in which:
110 unique CDR3
5 unique J



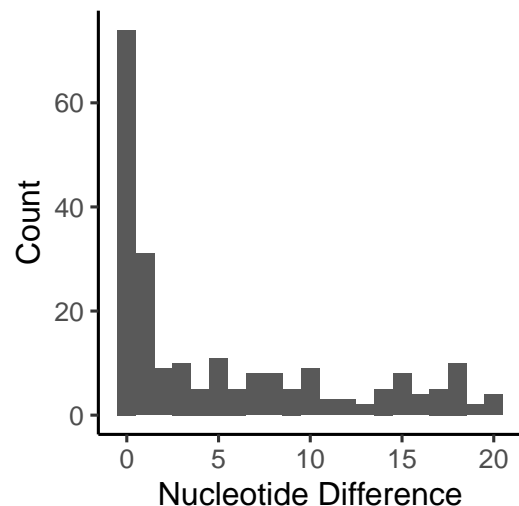
IGHV4-61*02_A291G

654 sequences assigned
137 (20.9%) exact matches, in which:
137 unique CDR3
5 unique J



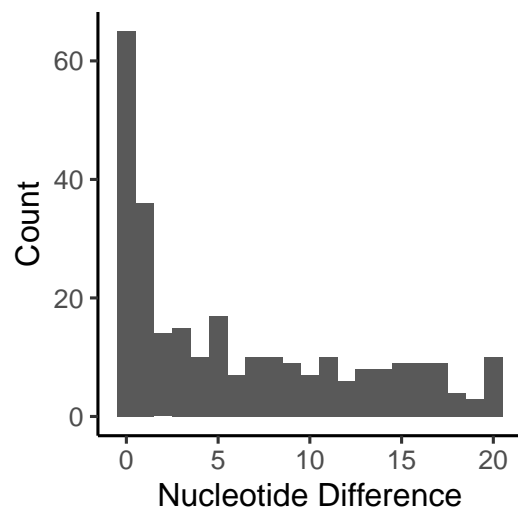
IGHV5-51*03

325 sequences assigned
74 (22.8%) exact matches, in which:
73 unique CDR3
5 unique J



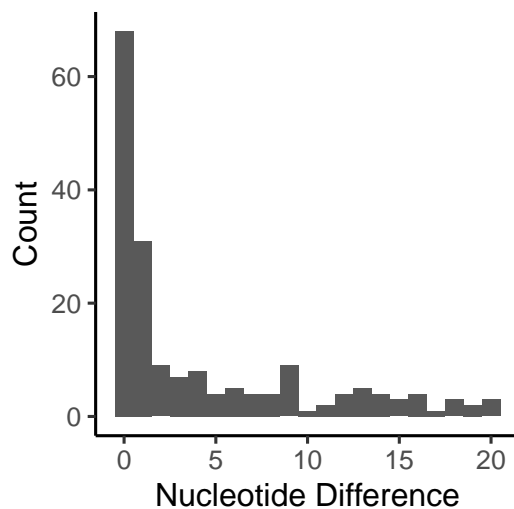
IGHV4-59*08

380 sequences assigned
65 (17.1%) exact matches, in which:
65 unique CDR3
6 unique J



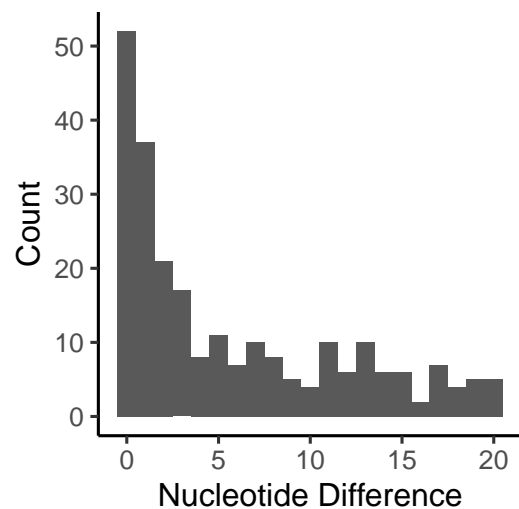
IGHV5-10-1*03

289 sequences assigned
68 (23.5%) exact matches, in which:
68 unique CDR3
5 unique J



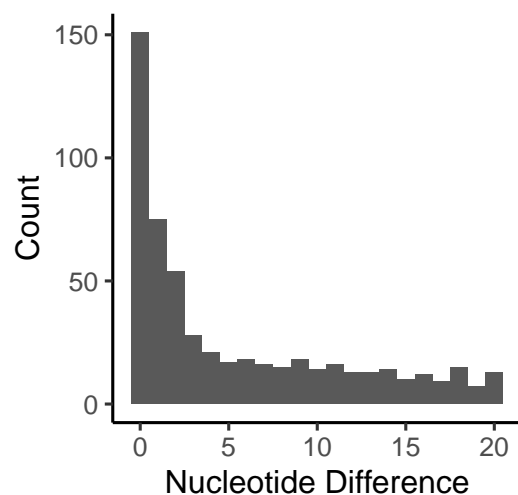
IGHV6-1*01

328 sequences assigned
52 (15.9%) exact matches, in which:
50 unique CDR3
5 unique J



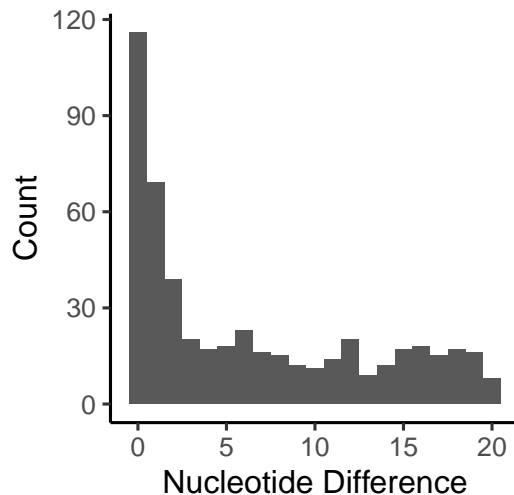
IGHV4-61*02

801 sequences assigned
151 (18.9%) exact matches, in which:
151 unique CDR3
6 unique J



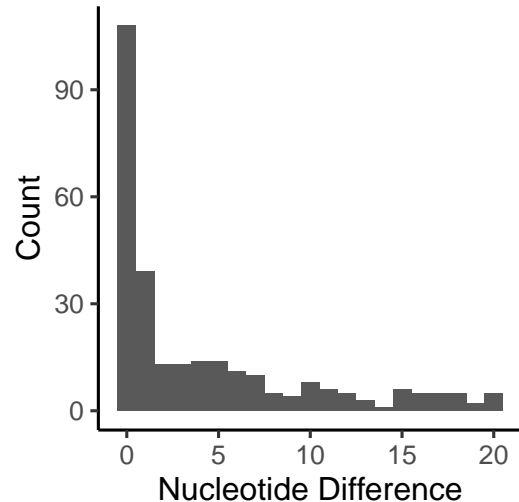
IGHV5-51*01

716 sequences assigned
116 (16.2%) exact matches, in which:
116 unique CDR3
7 unique J

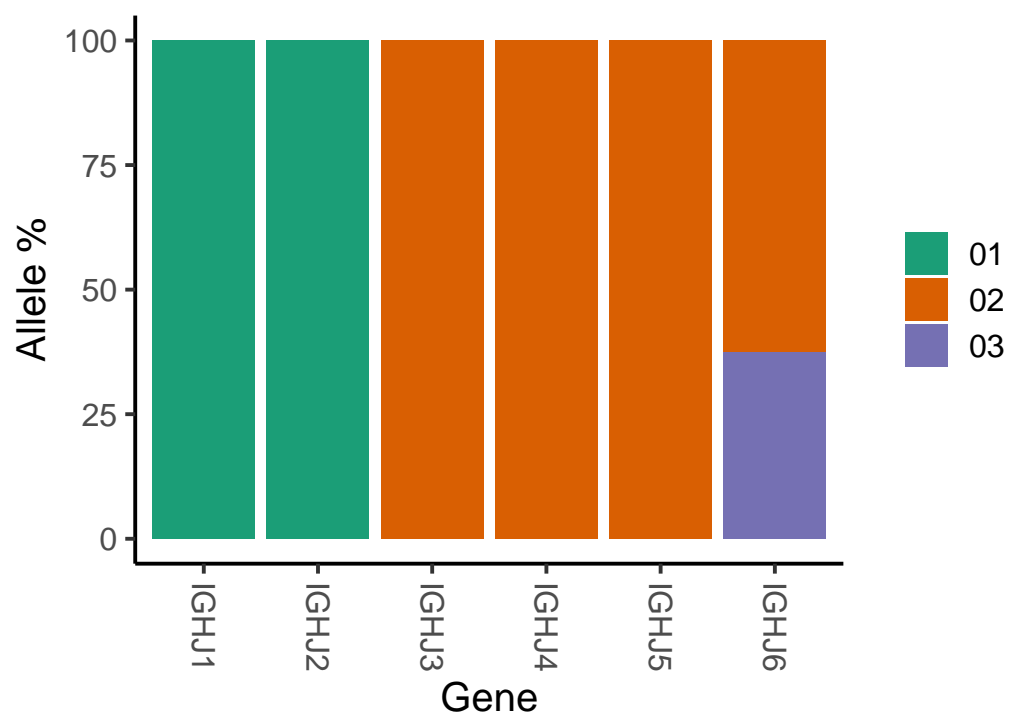


IGHV7-4-1*02

363 sequences assigned
108 (29.8%) exact matches, in which:
108 unique CDR3
6 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage

