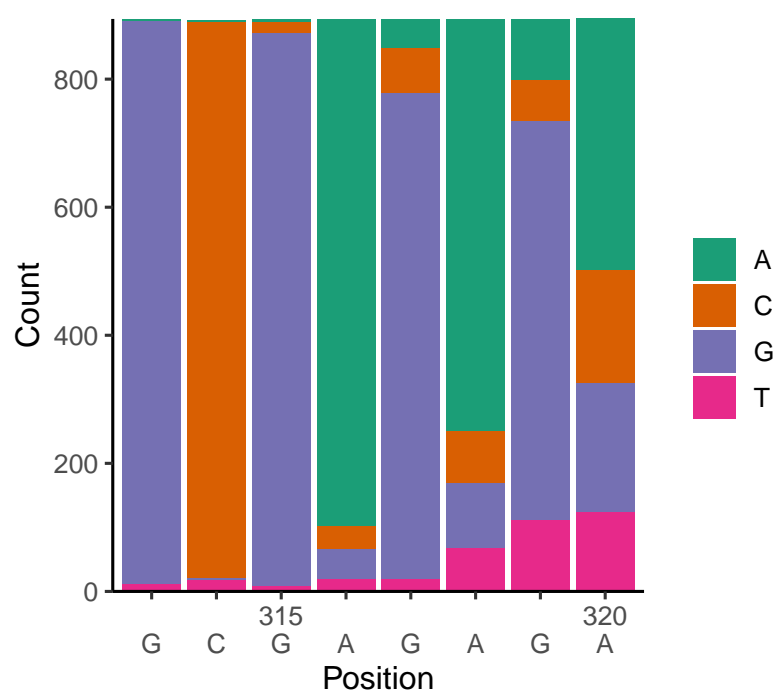
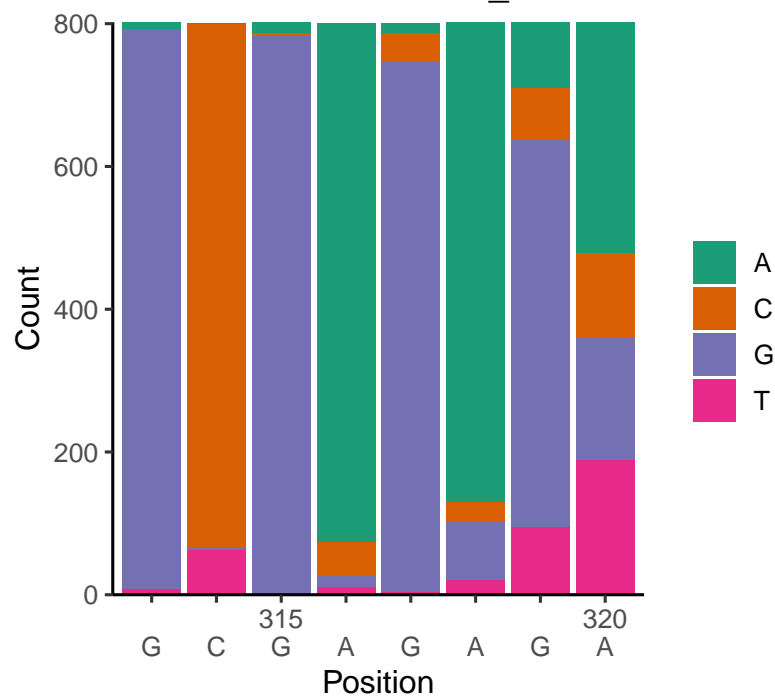


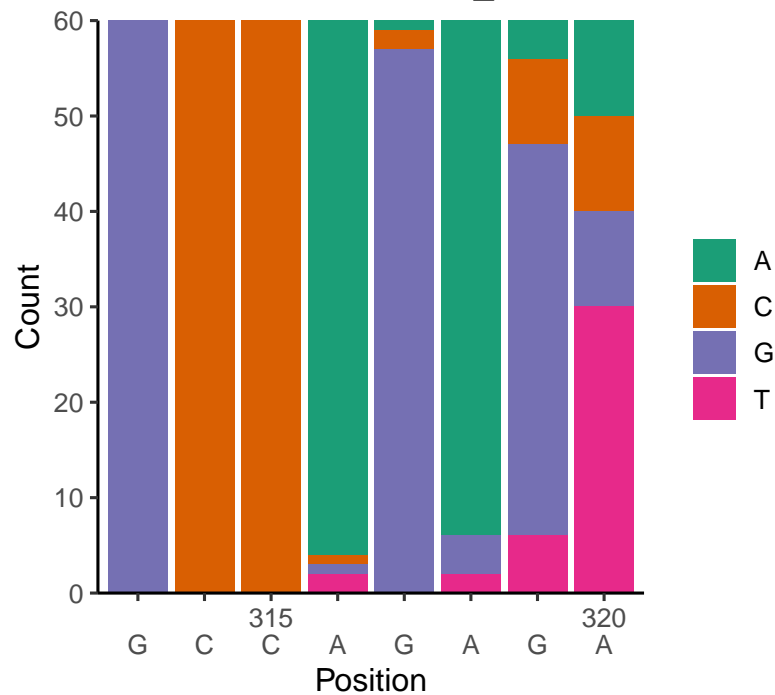
Gene IGHV1-69*08_C191T



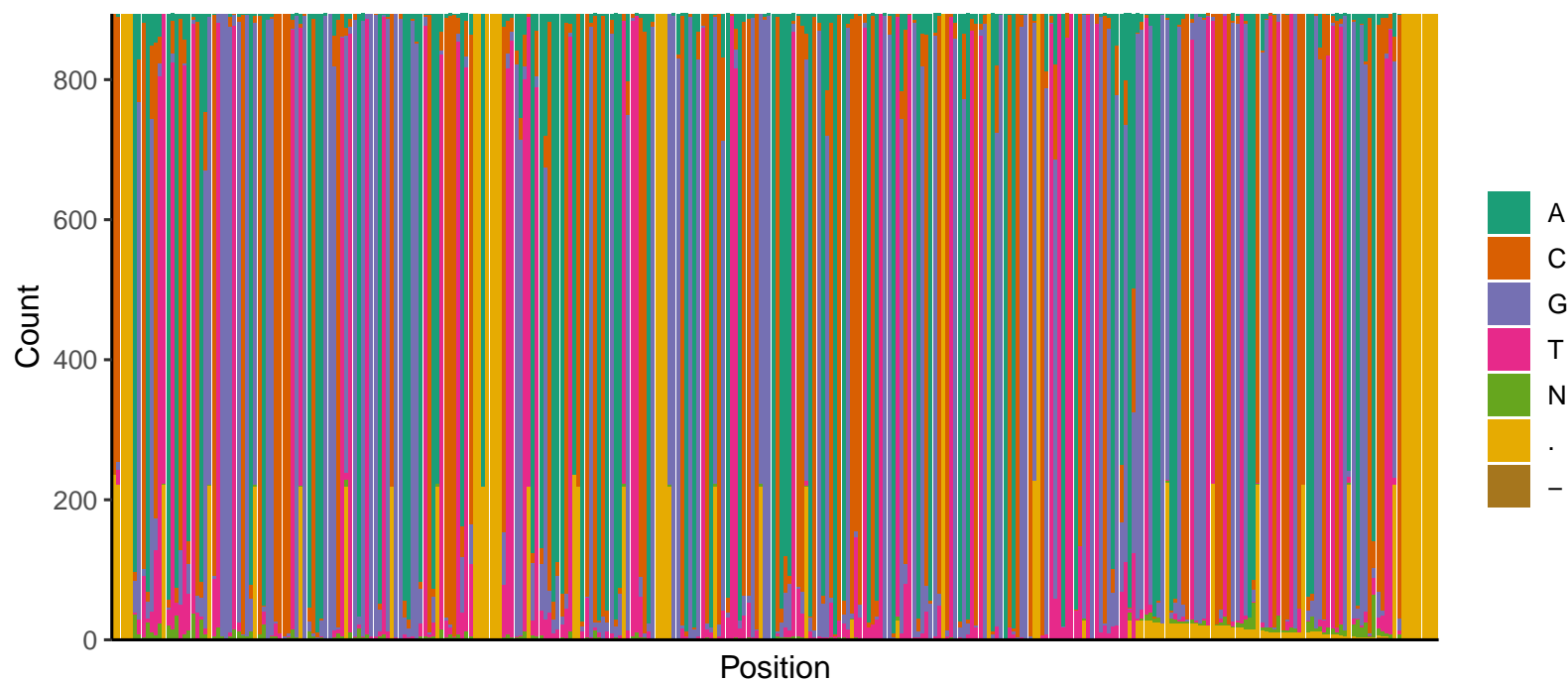
Gene IGHV4-38-2*02_A70G



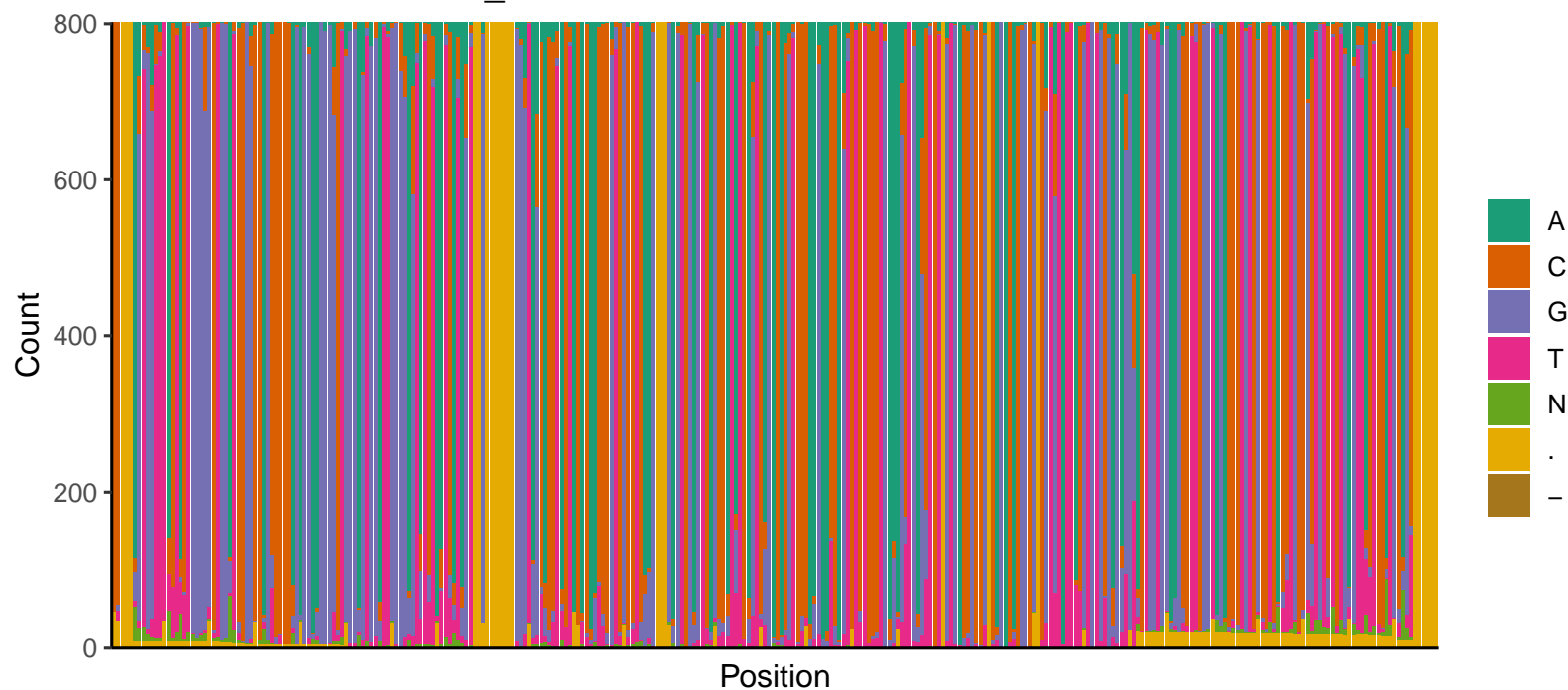
Gene IGHV4-30-2*01_G139C



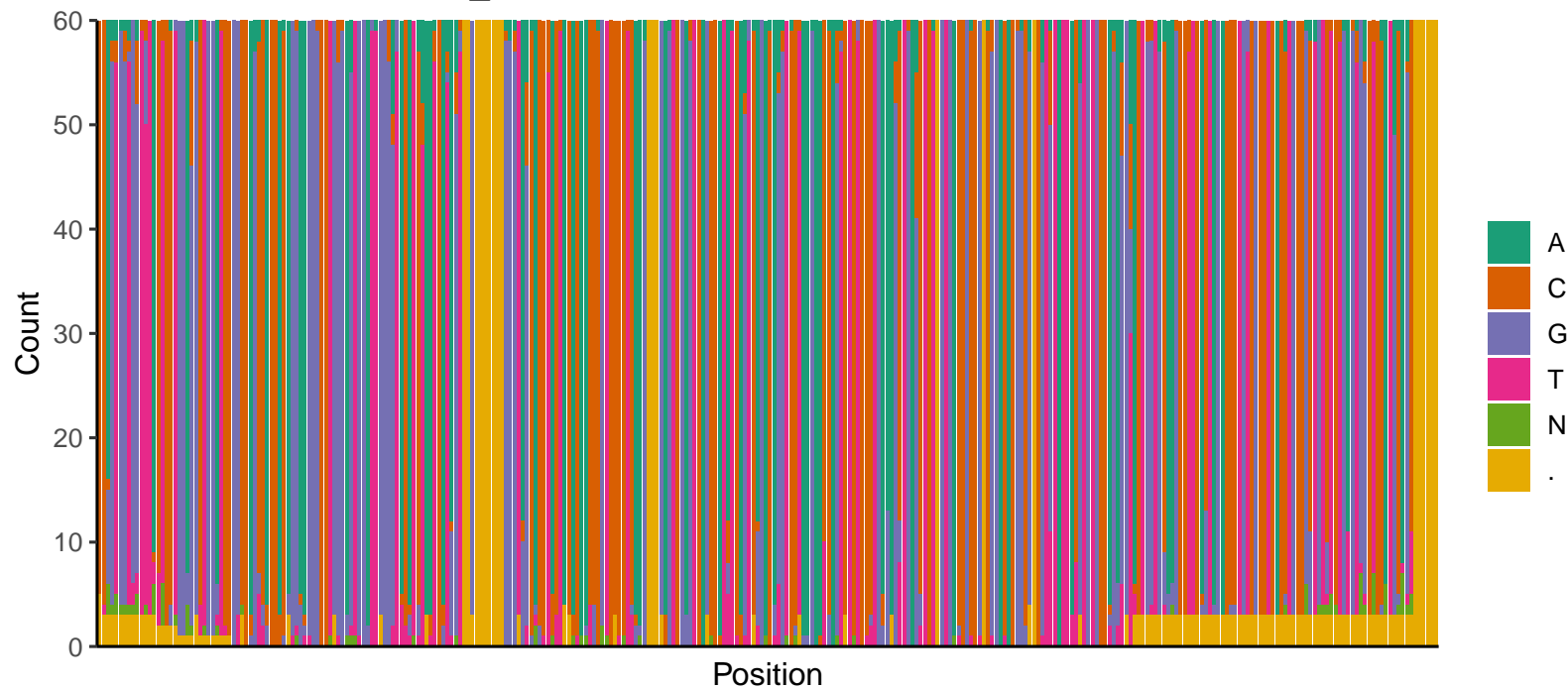
Gene IGHV1-69*08_C191T



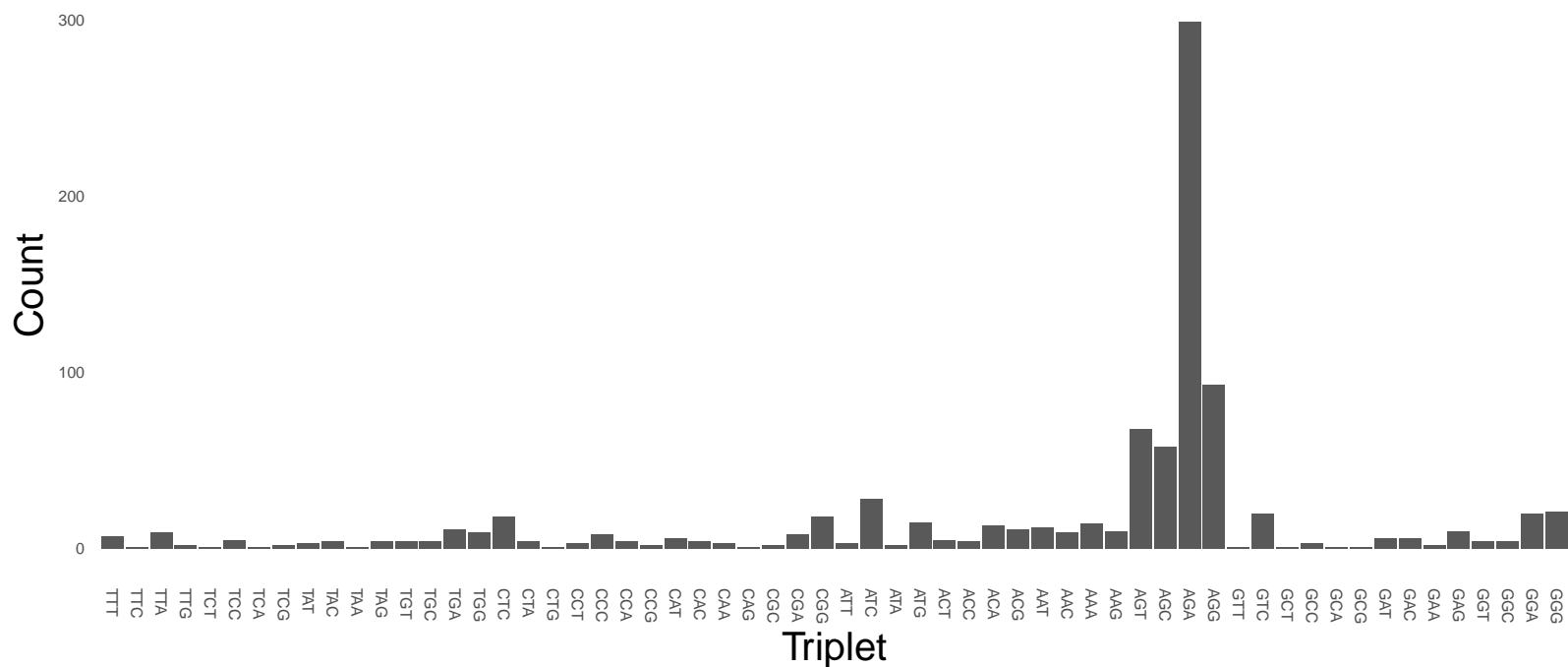
Gene IGHV4-38-2*02_A70G



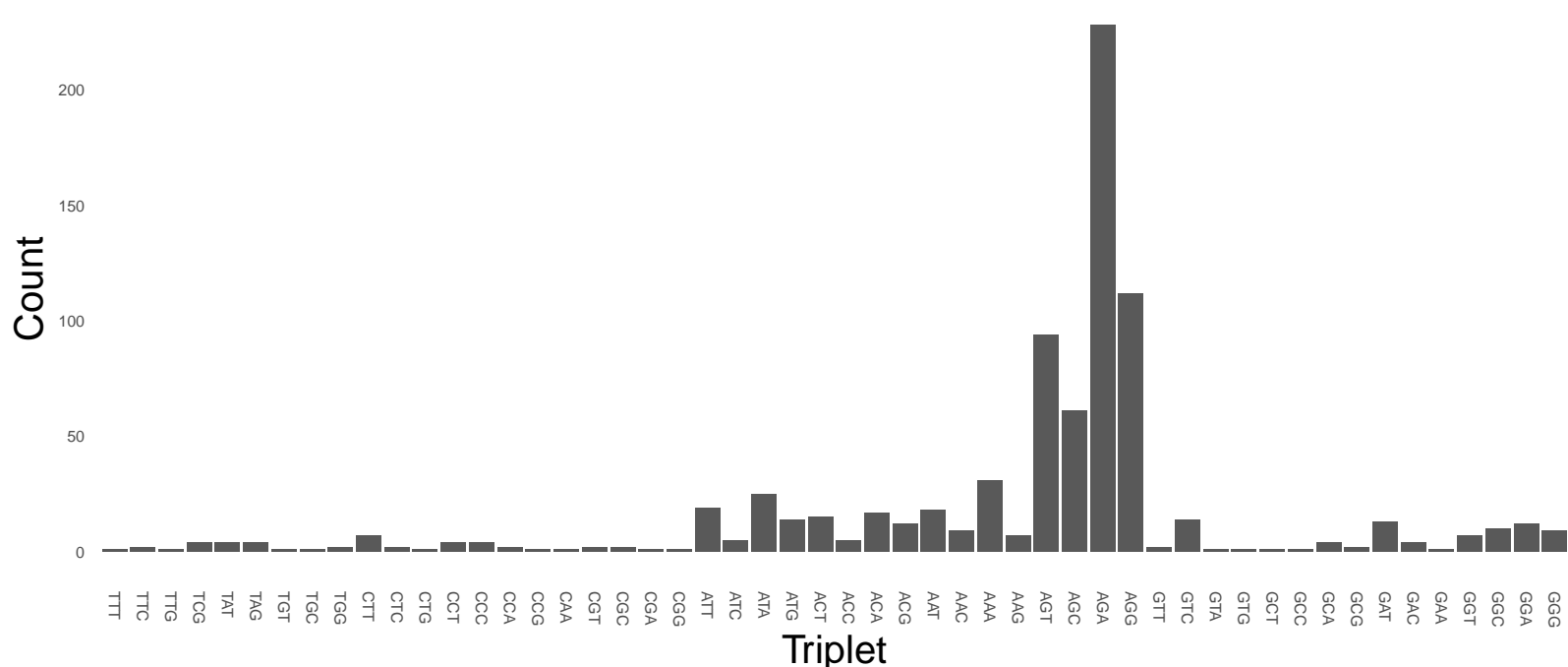
Gene IGHV4-30-2*01_G139C



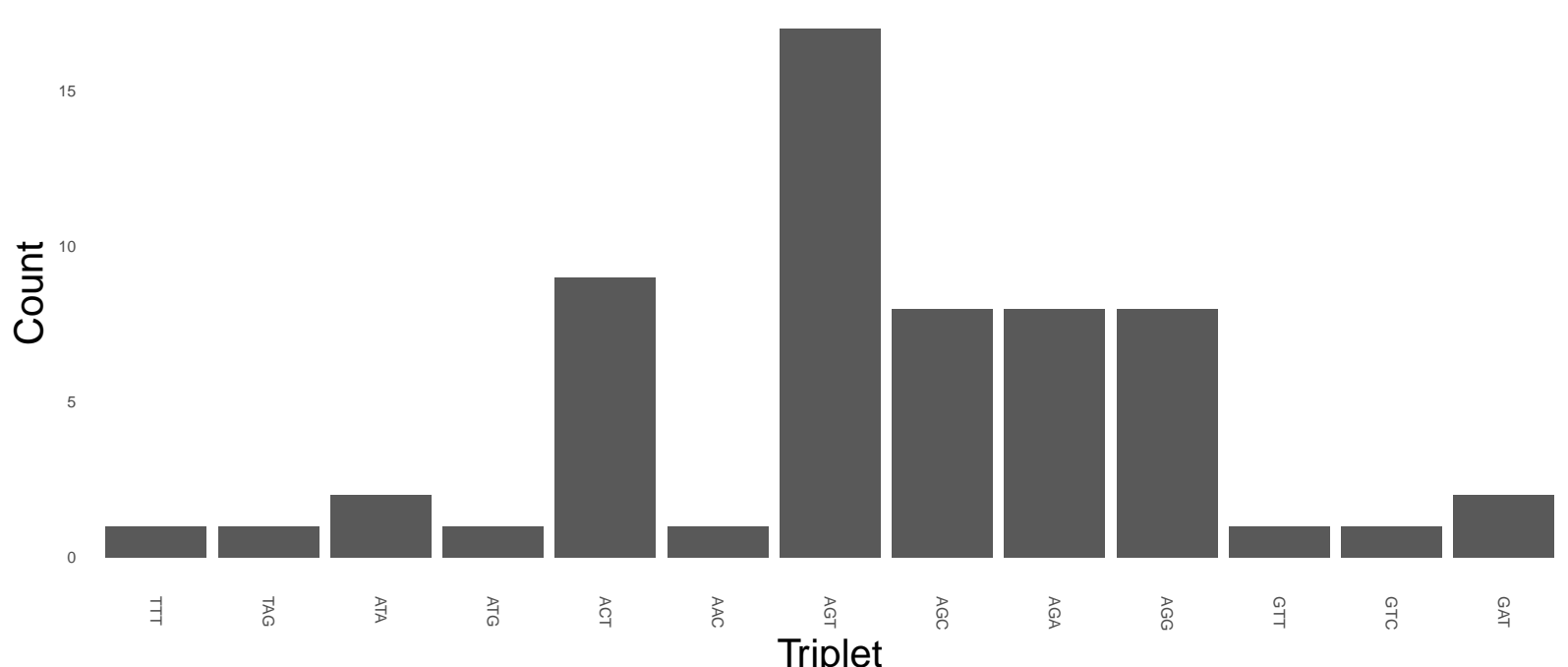
IGHV1-69*08_C191T- Final 3 nucleotides as a triplet



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

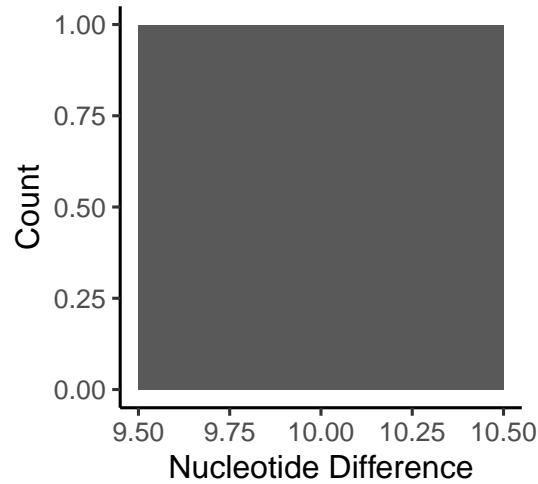


IGHV4-30-2*01_G139C- Final 3 nucleotides as a triplet



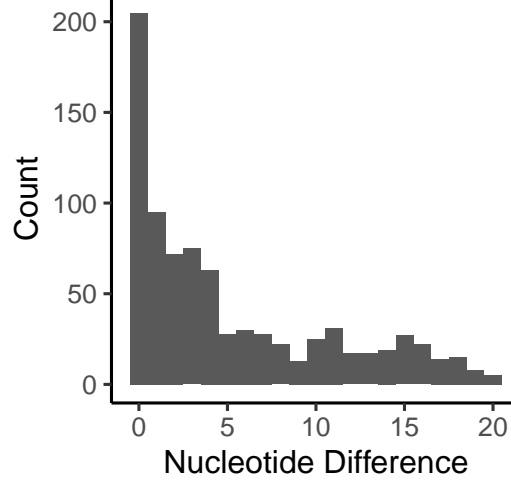
IGHV1/OR21-1*01

1 sequences assigned
No exact matches.



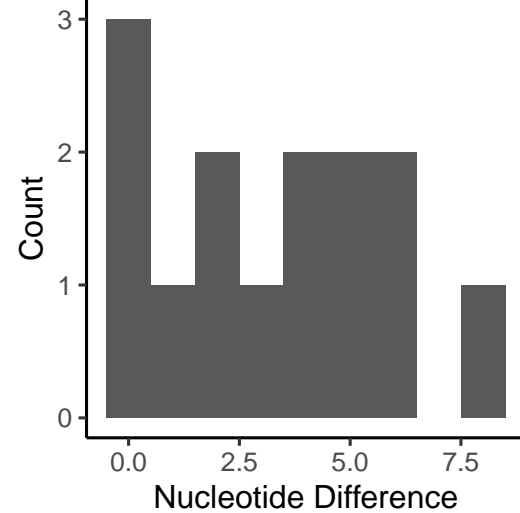
IGHV1-8*01

944 sequences assigned
205 (21.7%) exact matches, in which:
195 unique CDR3
6 unique J



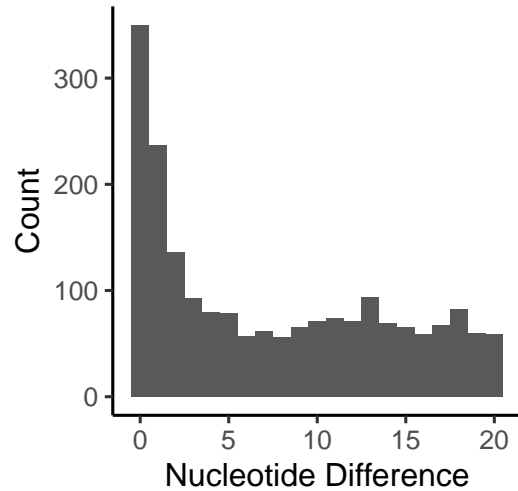
IGHV1-45*02

16 sequences assigned
3 (18.8%) exact matches, in which:
3 unique CDR3
2 unique J



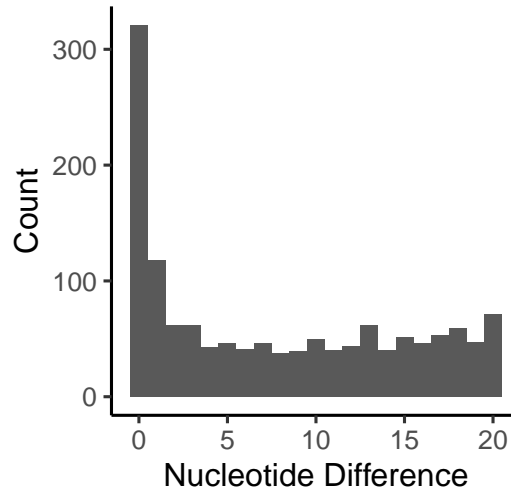
IGHV1-2*02

3166 sequences assigned
350 (11.1%) exact matches, in which:
341 unique CDR3
6 unique J



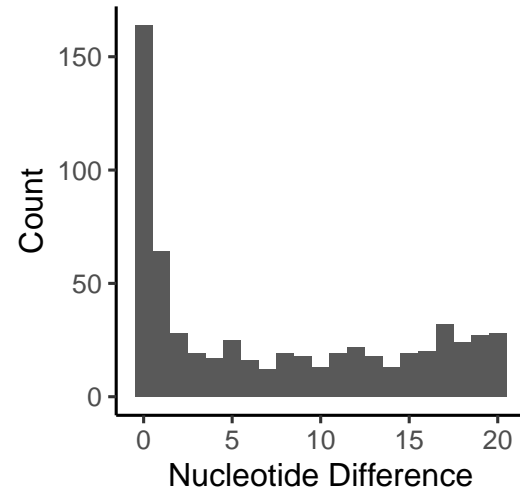
IGHV1-18*01

2222 sequences assigned
321 (14.4%) exact matches, in which:
312 unique CDR3
5 unique J



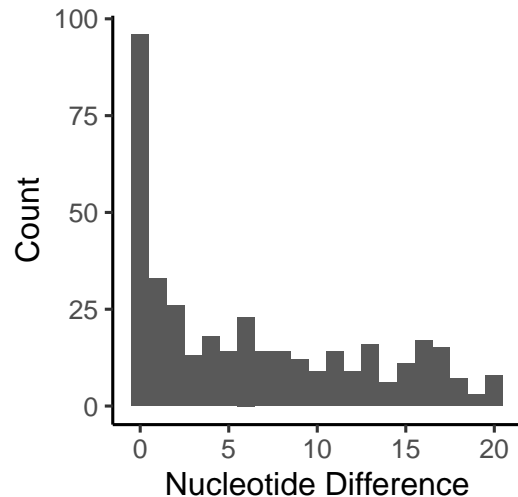
IGHV1-46*01

1079 sequences assigned
164 (15.2%) exact matches, in which:
161 unique CDR3
6 unique J



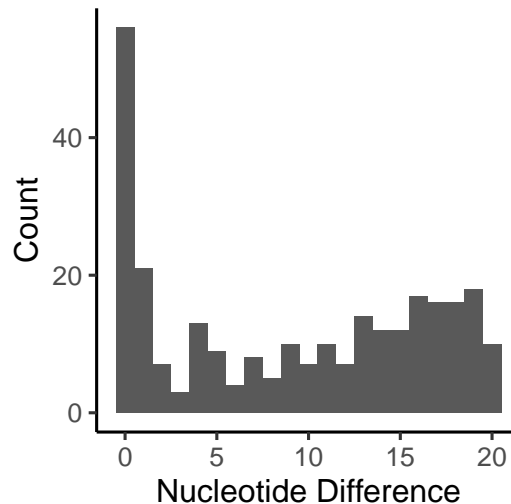
IGHV1-3*01

553 sequences assigned
96 (17.4%) exact matches, in which:
95 unique CDR3
6 unique J



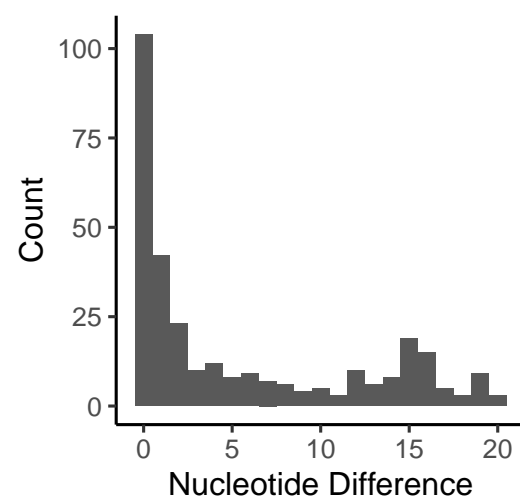
IGHV1-24*01

348 sequences assigned
56 (16.1%) exact matches, in which:
55 unique CDR3
6 unique J



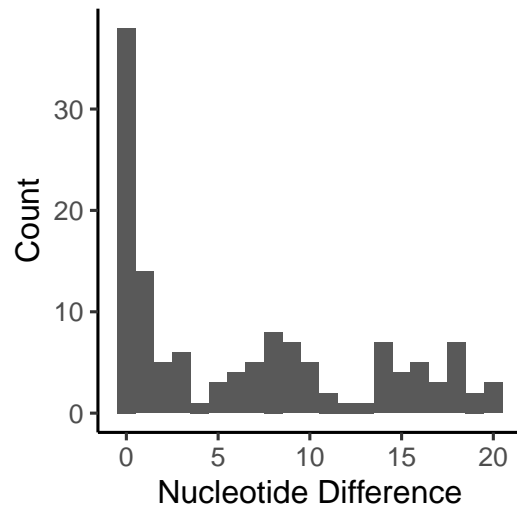
IGHV1-46*03

476 sequences assigned
104 (21.8%) exact matches, in which:
102 unique CDR3
5 unique J



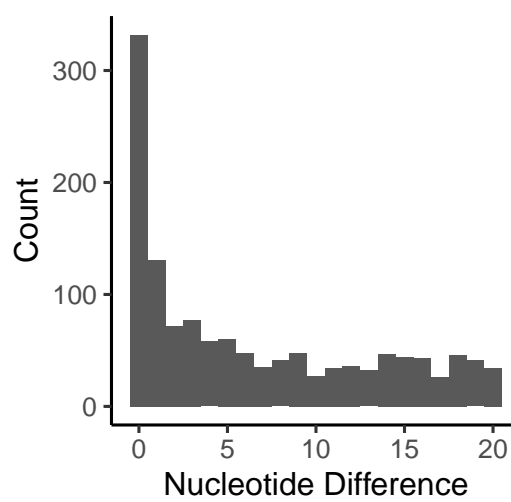
IGHV1-58*02

153 sequences assigned
38 (24.8%) exact matches, in which:
38 unique CDR3
5 unique J



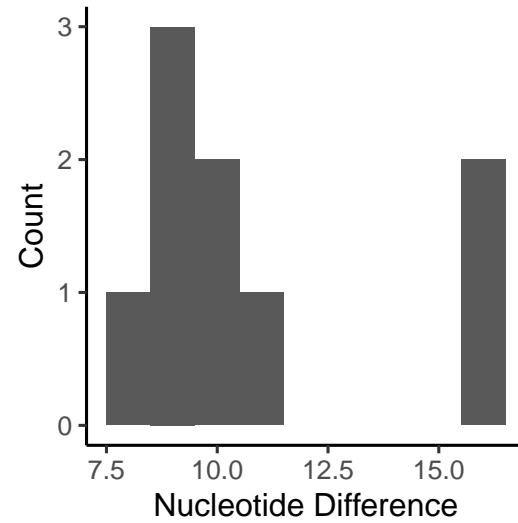
IGHV2-5*02

1602 sequences assigned
332 (20.7%) exact matches, in which:
326 unique CDR3
6 unique J



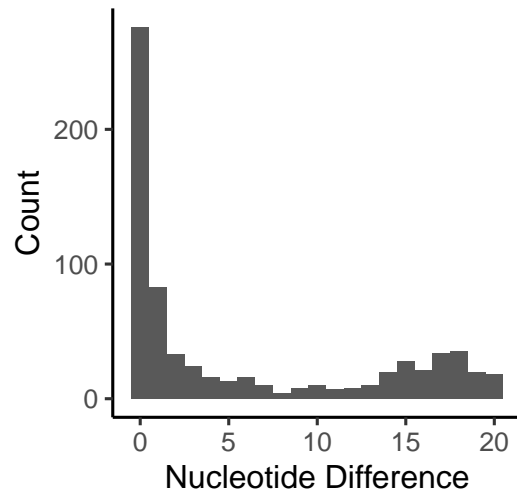
IGHV2-70D*04

11 sequences assigned
No exact matches.



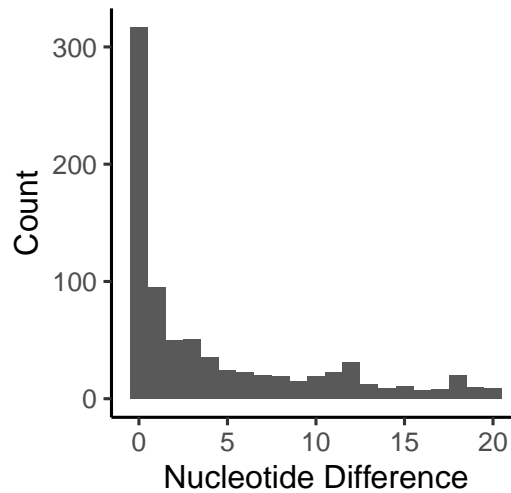
IGHV1-69*04

1208 sequences assigned
276 (22.8%) exact matches, in which:
261 unique CDR3
6 unique J



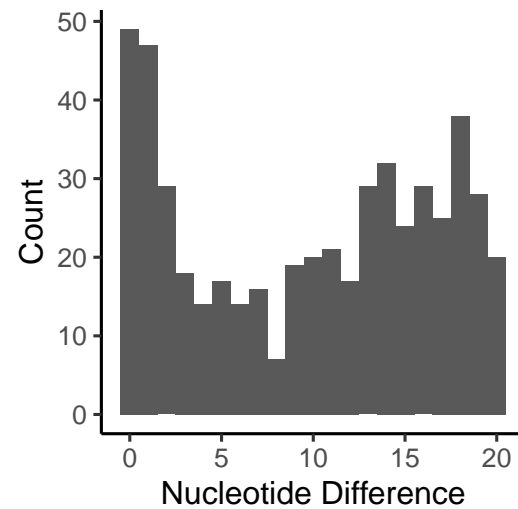
IGHV2-26*01

883 sequences assigned
317 (35.9%) exact matches, in which:
308 unique CDR3
6 unique J



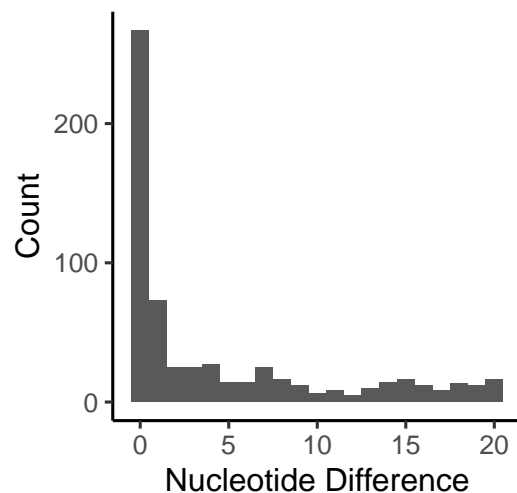
IGHV3-7*01

716 sequences assigned
49 (6.8%) exact matches, in which:
47 unique CDR3
5 unique J



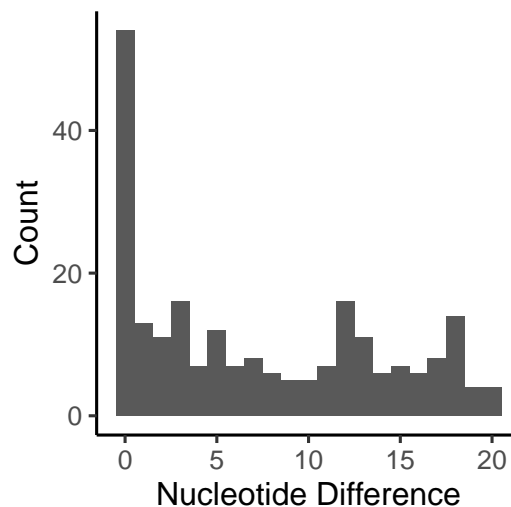
IGHV1-69*08_C191T

894 sequences assigned
267 (29.9%) exact matches, in which:
263 unique CDR3
6 unique J



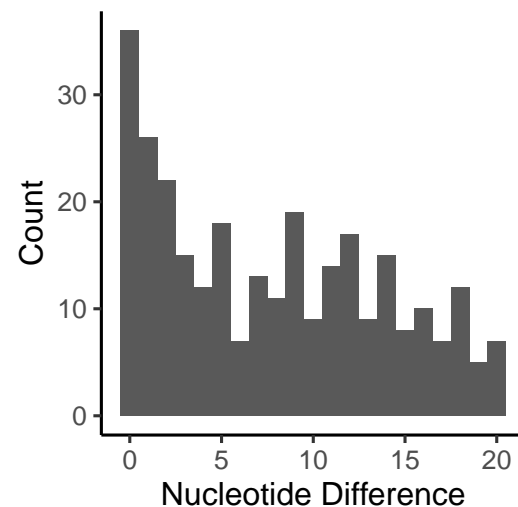
IGHV2-70*15

338 sequences assigned
54 (16%) exact matches, in which:
50 unique CDR3
4 unique J



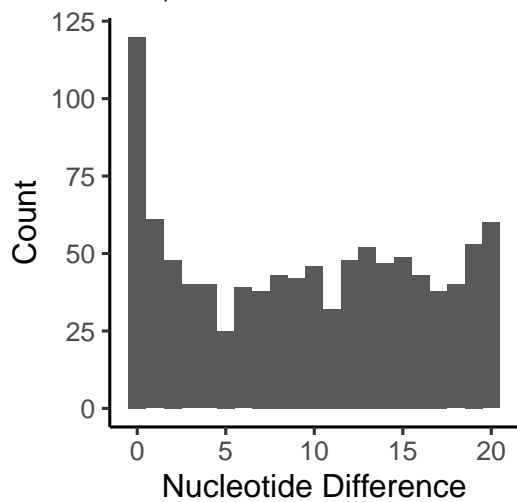
IGHV3-7*04

364 sequences assigned
36 (9.9%) exact matches, in which:
36 unique CDR3
4 unique J



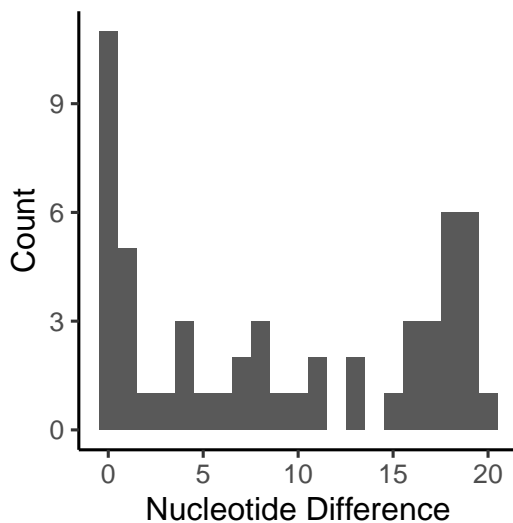
IGHV3-9*01

1573 sequences assigned
120 (7.6%) exact matches, in which:
117 unique CDR3
6 unique J



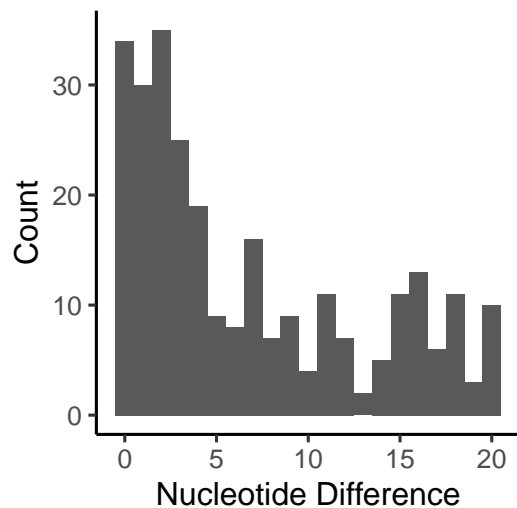
IGHV3-13*05

65 sequences assigned
11 (16.9%) exact matches, in which:
11 unique CDR3
3 unique J



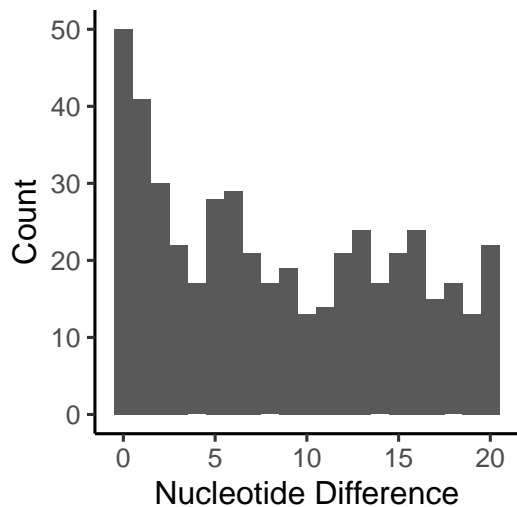
IGHV3-20*04

379 sequences assigned
34 (9%) exact matches, in which:
33 unique CDR3
5 unique J



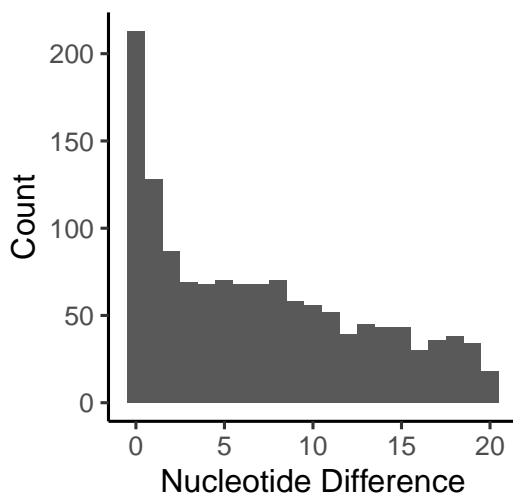
IGHV3-11*04

705 sequences assigned
50 (7.1%) exact matches, in which:
50 unique CDR3
6 unique J



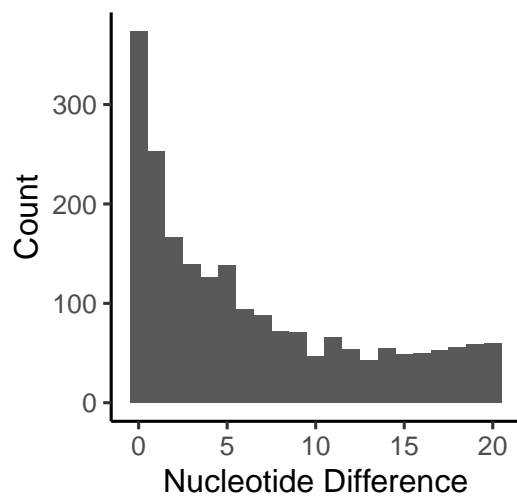
IGHV3-15*01

1701 sequences assigned
213 (12.5%) exact matches, in which:
210 unique CDR3
6 unique J



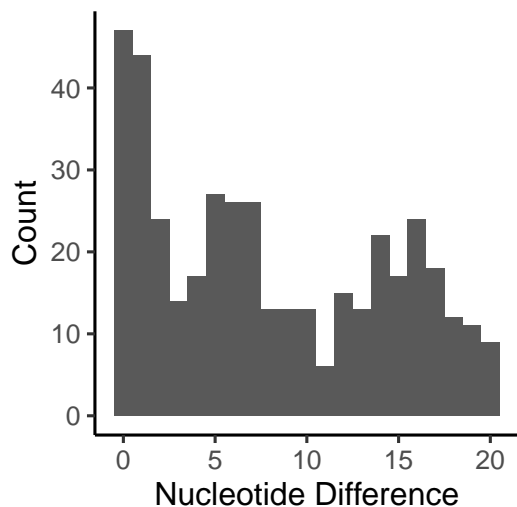
IGHV3-21*01

2673 sequences assigned
374 (14%) exact matches, in which:
359 unique CDR3
6 unique J



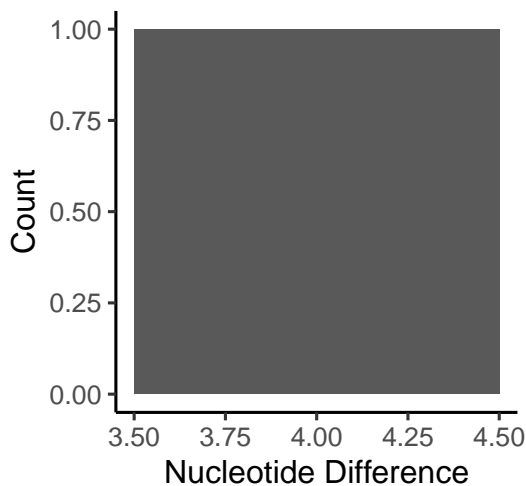
IGHV3-11*06

579 sequences assigned
47 (8.1%) exact matches, in which:
47 unique CDR3
4 unique J



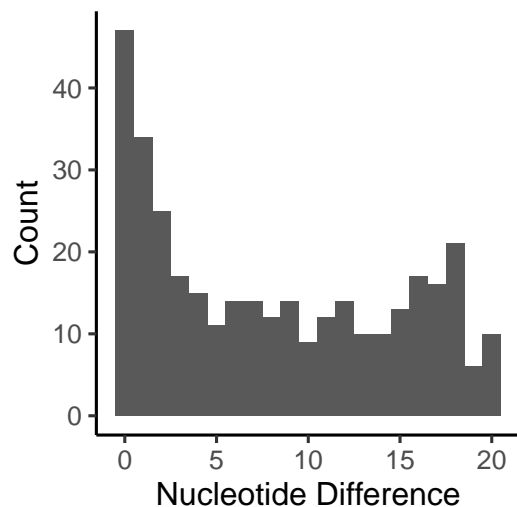
IGHV3-19*01

1 sequences assigned
No exact matches.



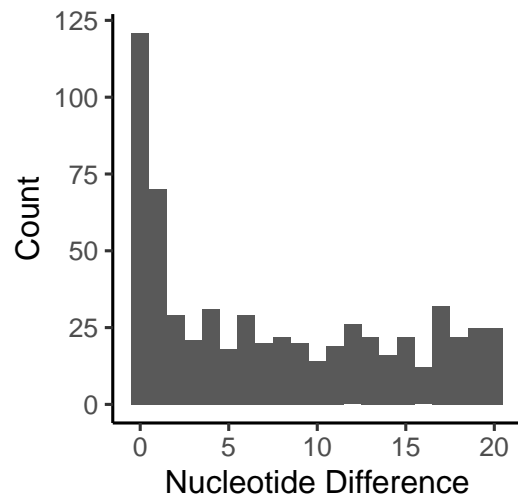
IGHV3-23*03

578 sequences assigned
47 (8.1%) exact matches, in which:
47 unique CDR3
6 unique J



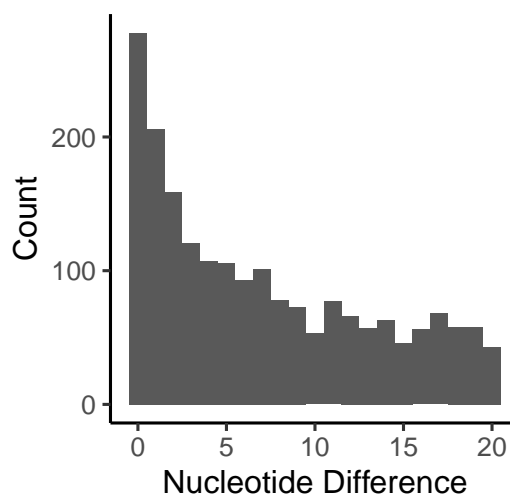
IGHV3-23*04

968 sequences assigned
121 (12.5%) exact matches, in which:
120 unique CDR3
6 unique J



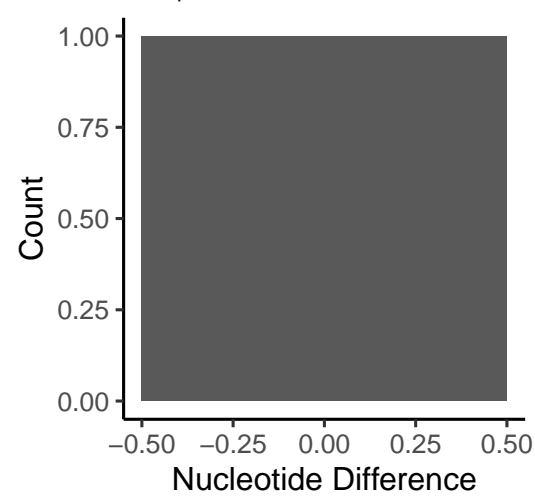
IGHV3-33*01

2570 sequences assigned
278 (10.8%) exact matches, in which:
273 unique CDR3
6 unique J



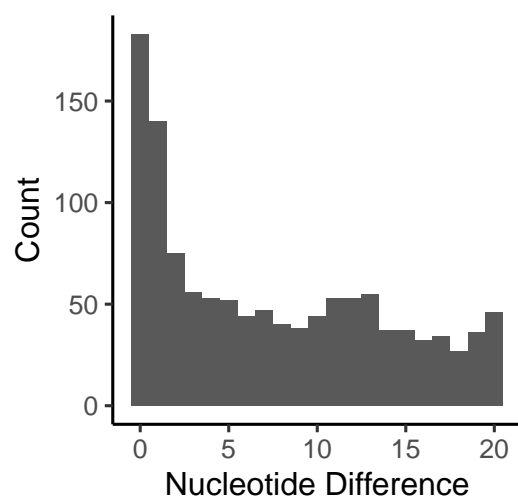
IGHV3-47*02

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



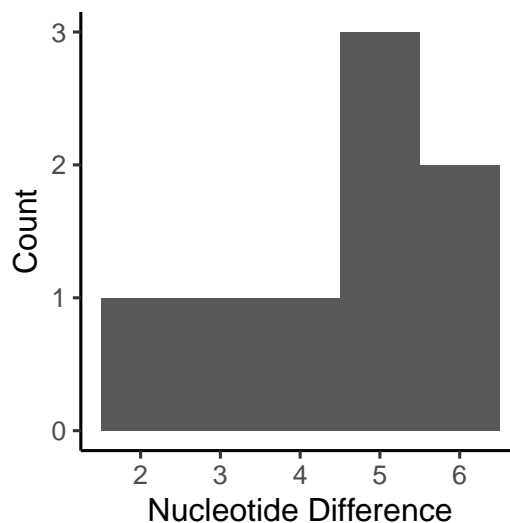
IGHV3-30-3*01

1696 sequences assigned
183 (10.8%) exact matches, in which:
181 unique CDR3
6 unique J



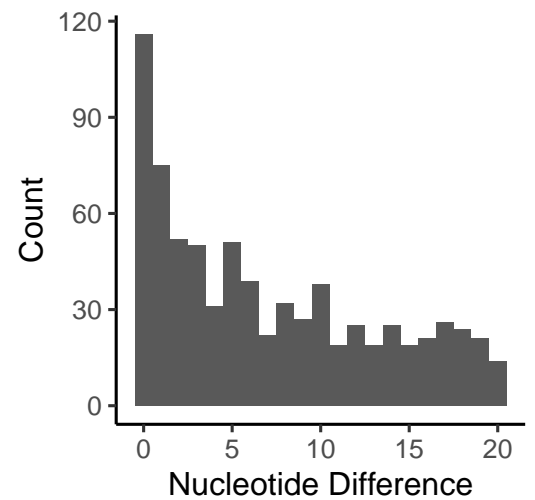
IGHV3-35*01

8 sequences assigned
No exact matches.



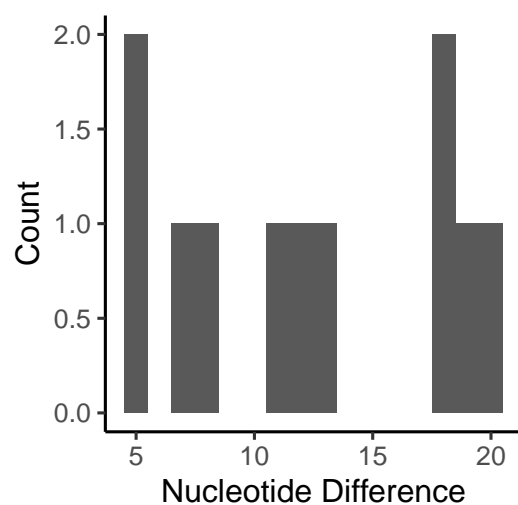
IGHV3-48*01

976 sequences assigned
116 (11.9%) exact matches, in which:
108 unique CDR3
5 unique J



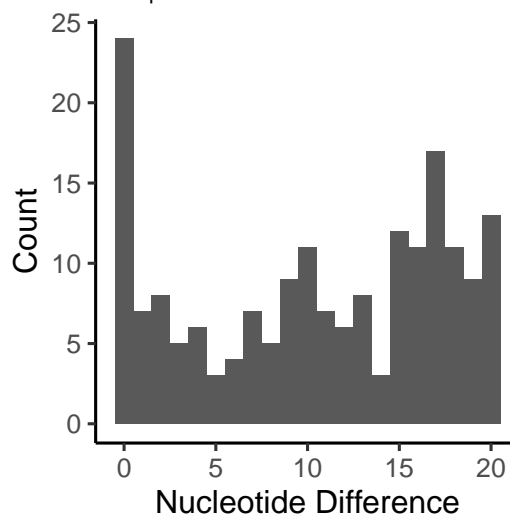
IGHV3-30-3*02

35 sequences assigned
No exact matches.



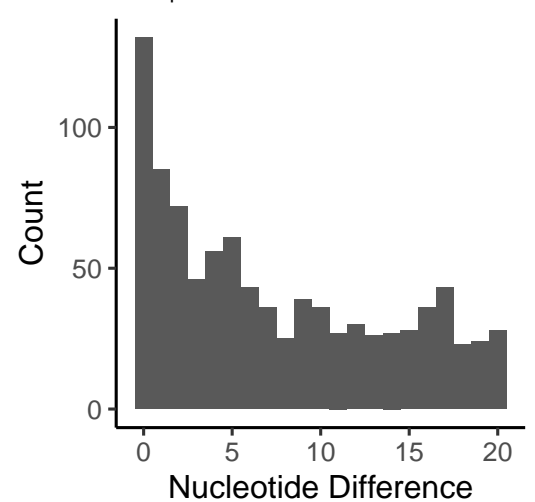
IGHV3-43*01

320 sequences assigned
24 (7.5%) exact matches, in which:
24 unique CDR3
4 unique J



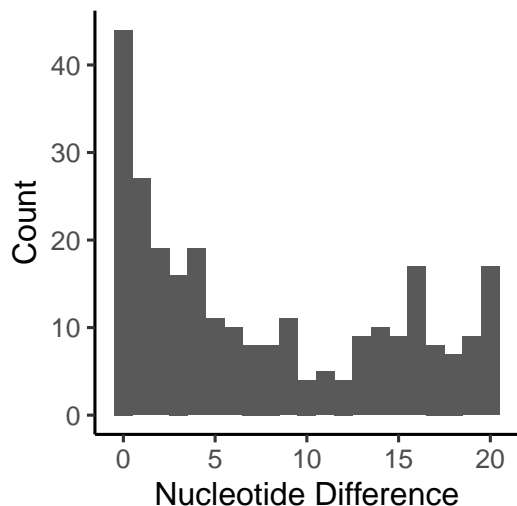
IGHV3-48*03

1258 sequences assigned
132 (10.5%) exact matches, in which:
127 unique CDR3
6 unique J



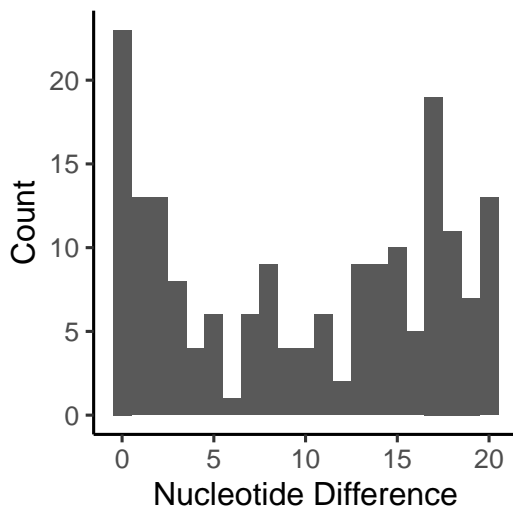
IGHV3-49*03

468 sequences assigned
44 (9.4%) exact matches, in which:
44 unique CDR3
4 unique J



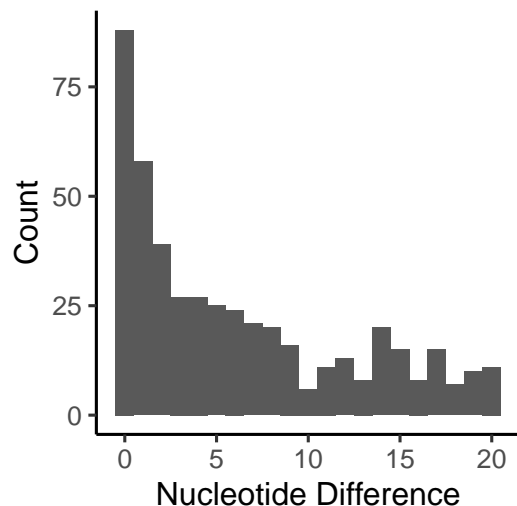
IGHV3-53*02

311 sequences assigned
23 (7.4%) exact matches, in which:
23 unique CDR3
4 unique J



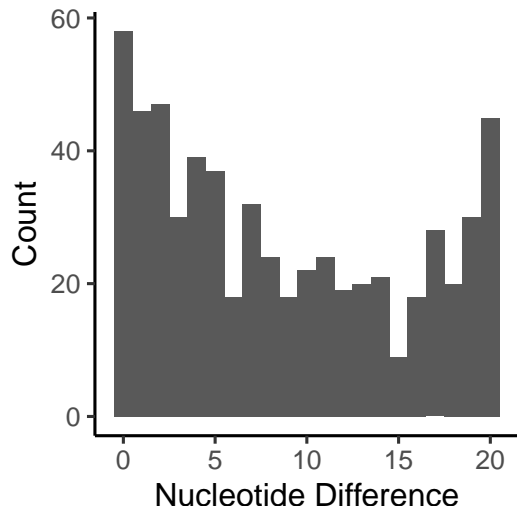
IGHV3-66*02

660 sequences assigned
88 (13.3%) exact matches, in which:
86 unique CDR3
5 unique J



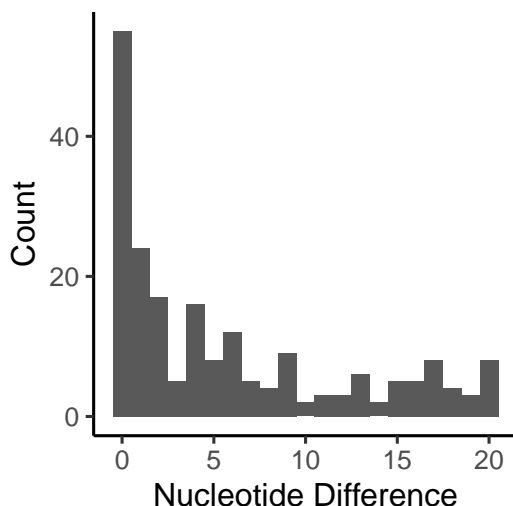
IGHV3-49*04

921 sequences assigned
58 (6.3%) exact matches, in which:
53 unique CDR3
6 unique J



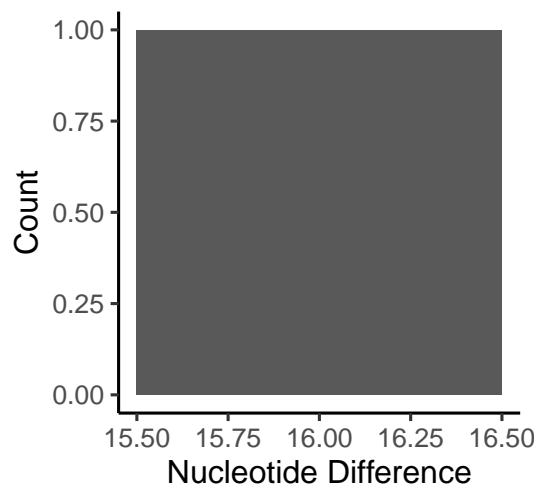
IGHV3-64*01

286 sequences assigned
55 (19.2%) exact matches, in which:
54 unique CDR3
6 unique J



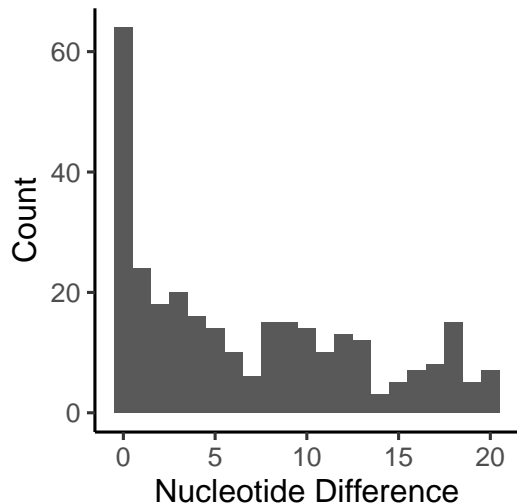
IGHV3-69-1*02

1 sequences assigned
No exact matches.



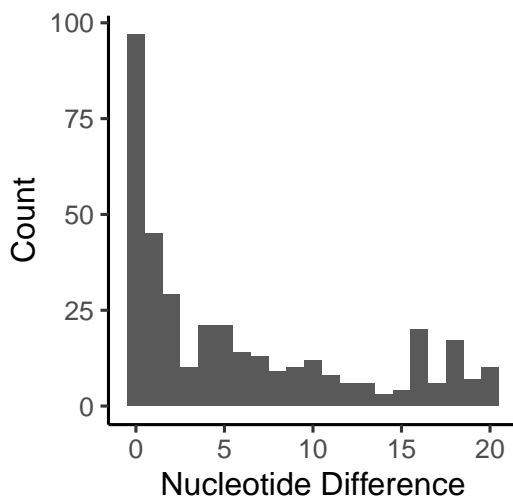
IGHV3-53*01

493 sequences assigned
64 (13%) exact matches, in which:
64 unique CDR3
6 unique J



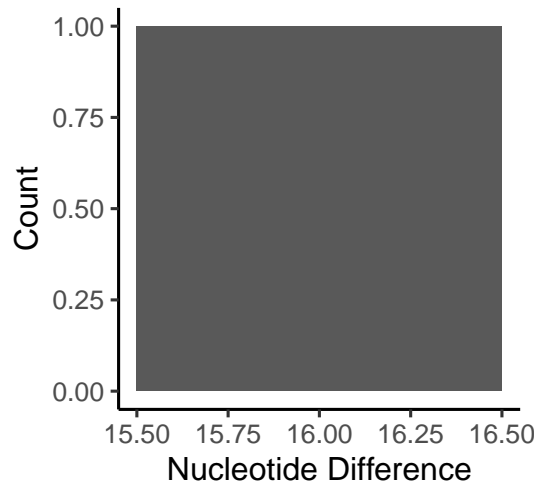
IGHV3-66*01

547 sequences assigned
97 (17.7%) exact matches, in which:
95 unique CDR3
6 unique J



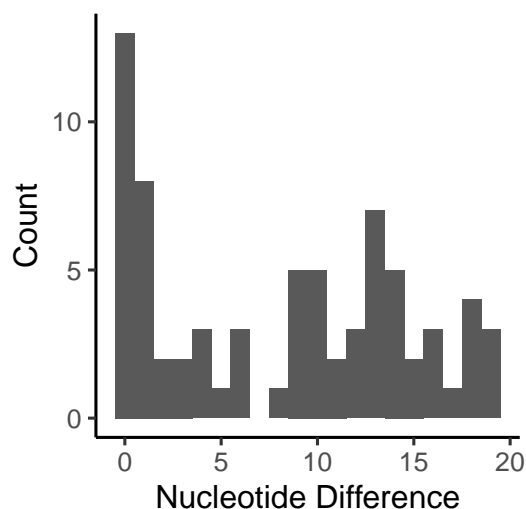
IGHV3-71*03

1 sequences assigned
No exact matches.



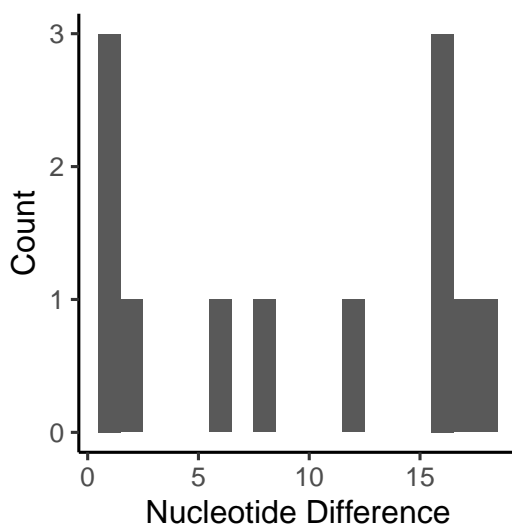
IGHV3-72*01

105 sequences assigned
13 (12.4%) exact matches, in which:
13 unique CDR3
4 unique J



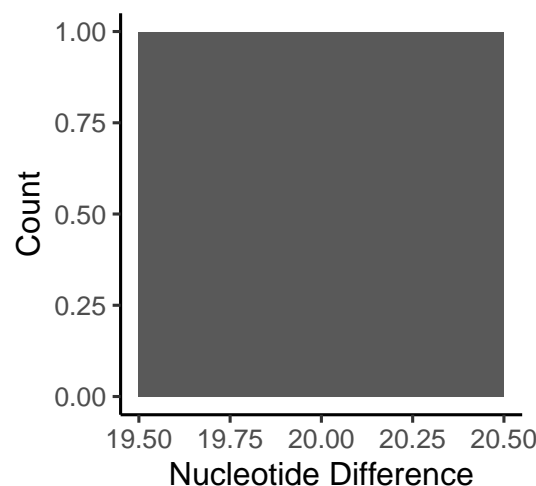
IGHV3-43D*04

18 sequences assigned
No exact matches.



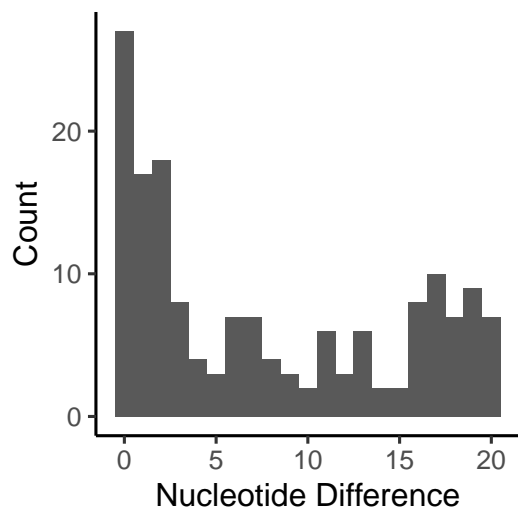
IGHV4-28*01

5 sequences assigned
No exact matches.



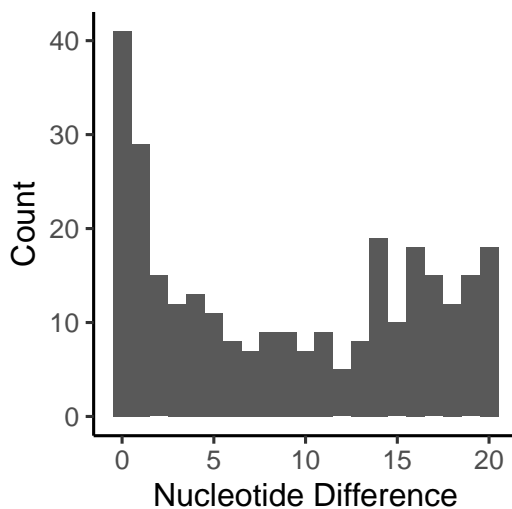
IGHV3-73*01

196 sequences assigned
27 (13.8%) exact matches, in which:
27 unique CDR3
5 unique J



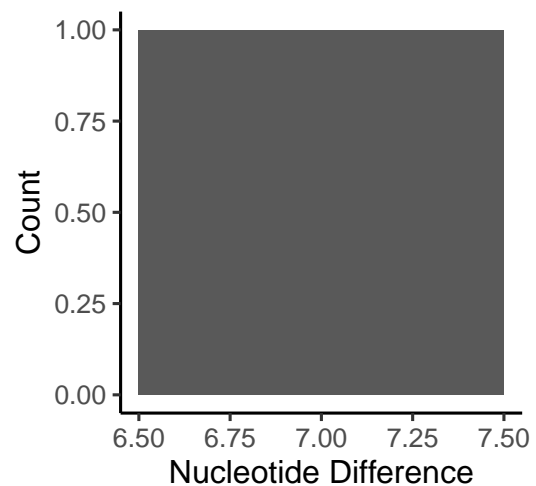
IGHV3-64D*06

465 sequences assigned
41 (8.8%) exact matches, in which:
41 unique CDR3
4 unique J



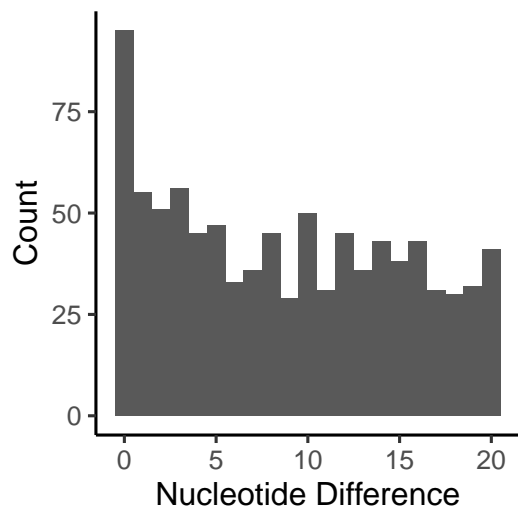
IGHV4-28*03

1 sequences assigned
No exact matches.



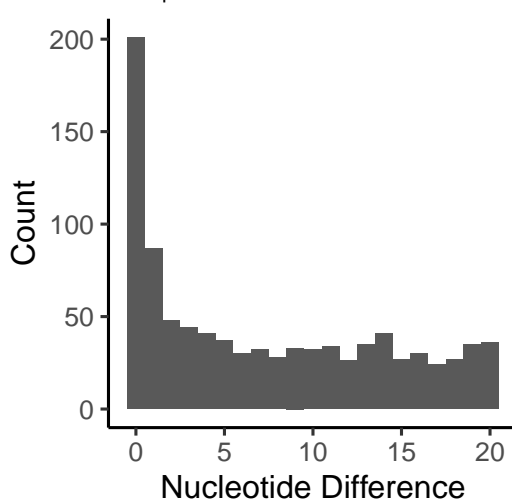
IGHV3-74*01

1356 sequences assigned
95 (7%) exact matches, in which:
94 unique CDR3
6 unique J



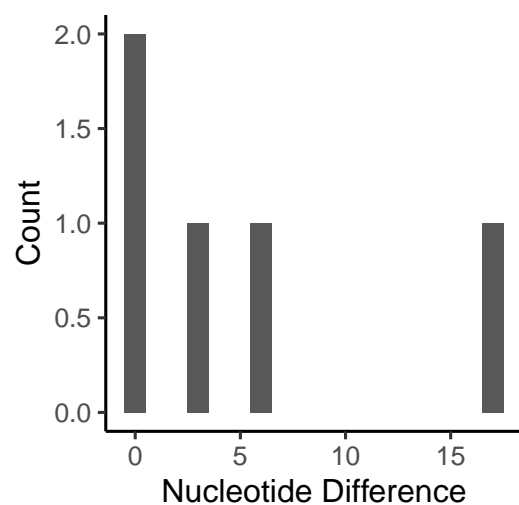
IGHV4-4*07

1393 sequences assigned
201 (14.4%) exact matches, in which:
196 unique CDR3
6 unique J



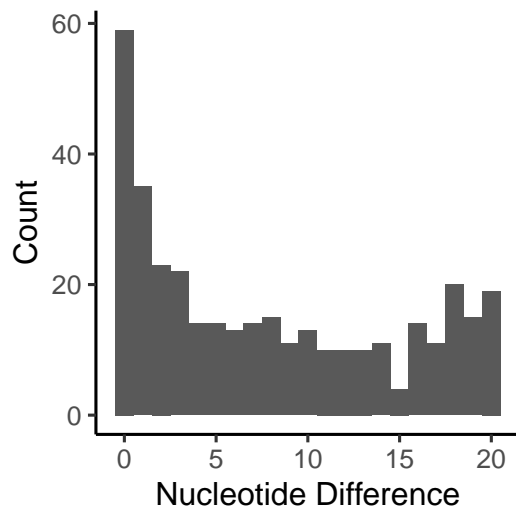
IGHV4-30-2*05

5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
1 unique J



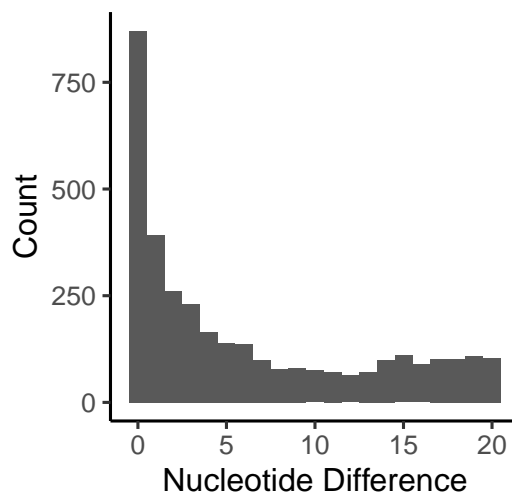
IGHV4-30-4*08

616 sequences assigned
59 (9.6%) exact matches, in which:
58 unique CDR3
5 unique J



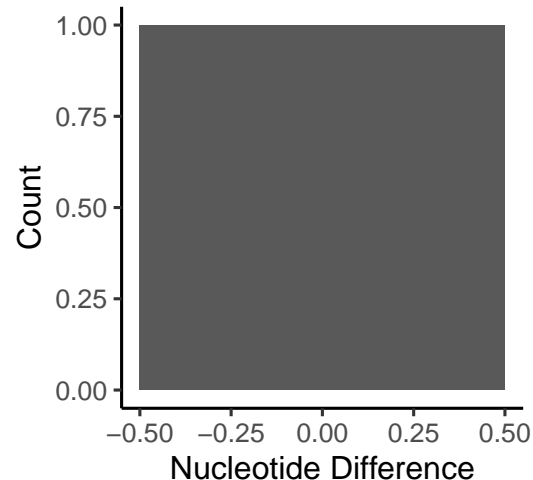
IGHV4-34*01

4531 sequences assigned
871 (19.2%) exact matches, in which:
811 unique CDR3
6 unique J



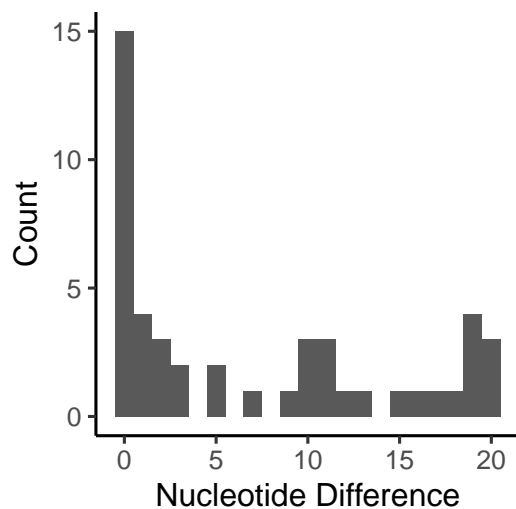
IGHV4-55*01

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



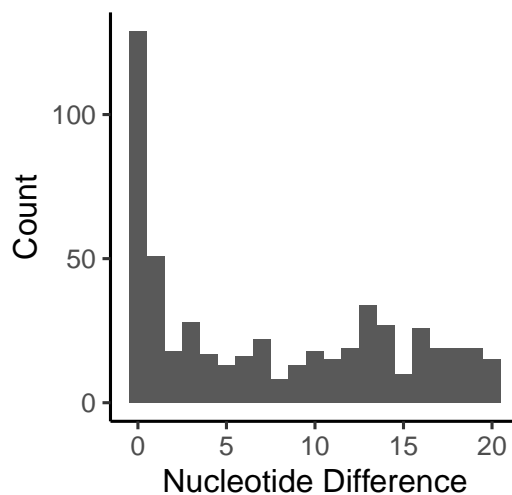
IGHV4-30-2*01_G139C

60 sequences assigned
15 (25%) exact matches, in which:
15 unique CDR3
5 unique J



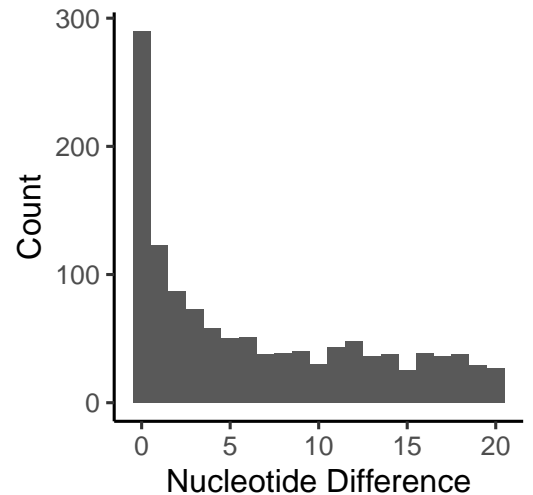
IGHV4-38-2*02_A70G

802 sequences assigned
129 (16.1%) exact matches, in which:
128 unique CDR3
6 unique J



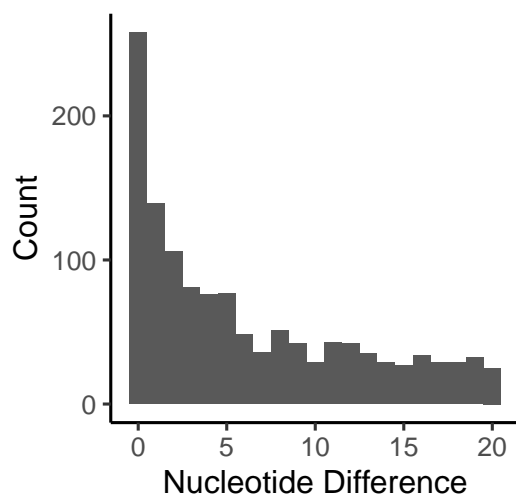
IGHV4-59*01

1801 sequences assigned
290 (16.1%) exact matches, in which:
284 unique CDR3
6 unique J



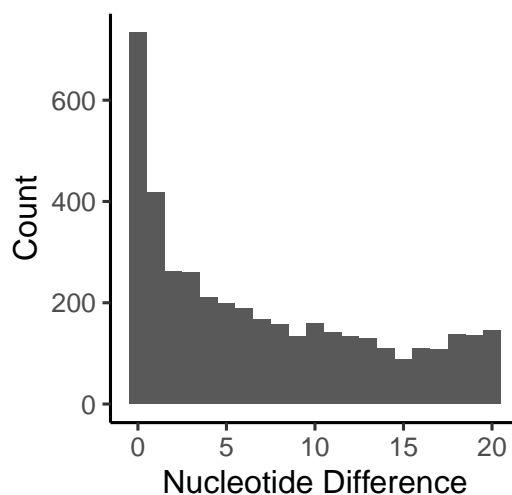
IGHV4-31*03

1684 sequences assigned
258 (15.3%) exact matches, in which:
249 unique CDR3
6 unique J



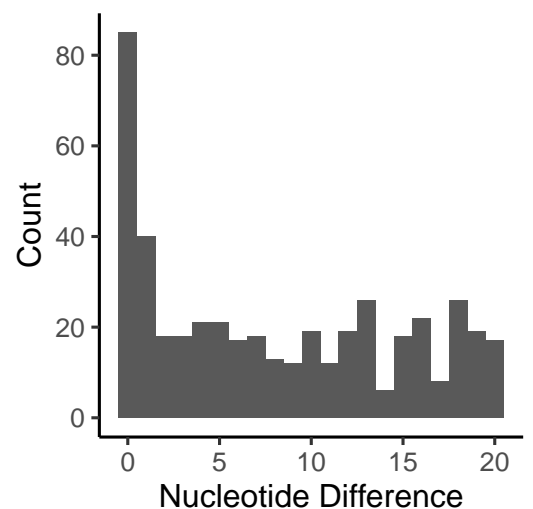
IGHV4-39*01

6199 sequences assigned
734 (11.8%) exact matches, in which:
712 unique CDR3
6 unique J



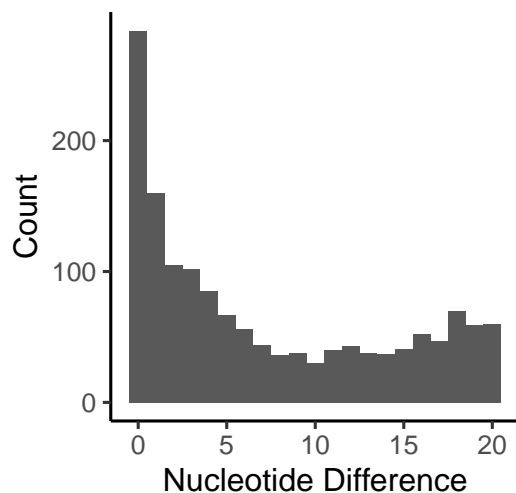
IGHV4-59*08

700 sequences assigned
85 (12.1%) exact matches, in which:
82 unique CDR3
6 unique J



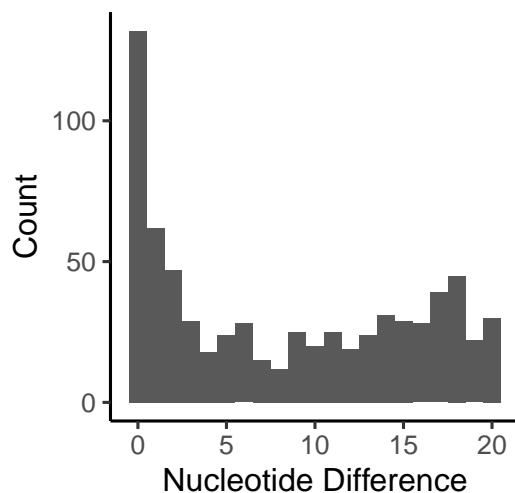
IGHV4–61*02

2203 sequences assigned
284 (12.9%) exact matches, in which:
281 unique CDR3
6 unique J



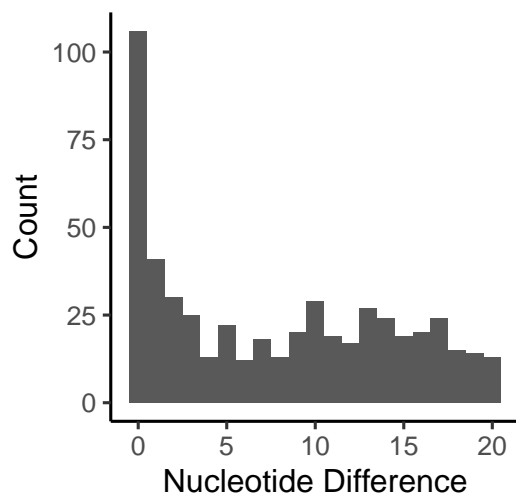
IGHV5–51*03

1058 sequences assigned
132 (12.5%) exact matches, in which:
130 unique CDR3
6 unique J



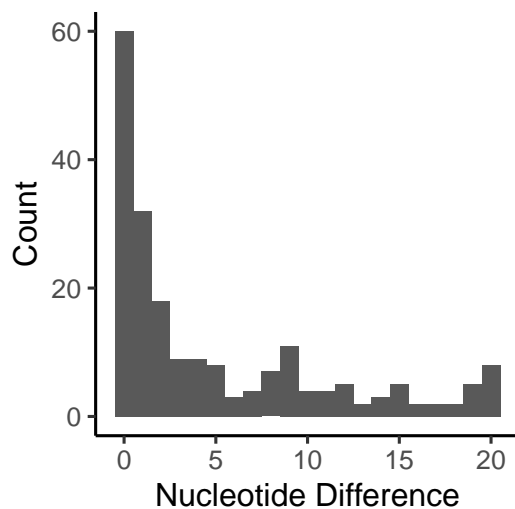
IGHV5–10–1*03

676 sequences assigned
106 (15.7%) exact matches, in which:
104 unique CDR3
5 unique J



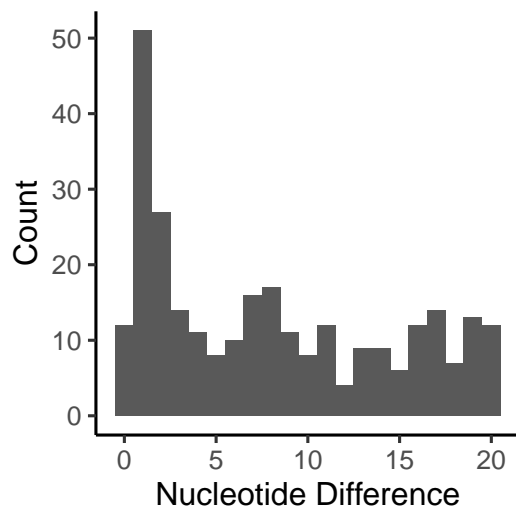
IGHV6–1*01

259 sequences assigned
60 (23.2%) exact matches, in which:
57 unique CDR3
6 unique J



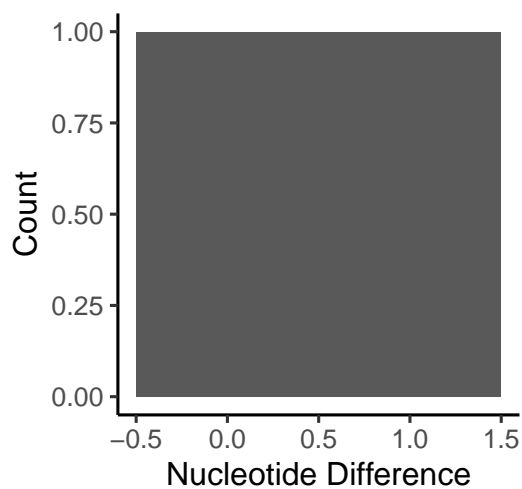
IGHV5–51*01

397 sequences assigned
12 (3%) exact matches, in which:
12 unique CDR3
4 unique J

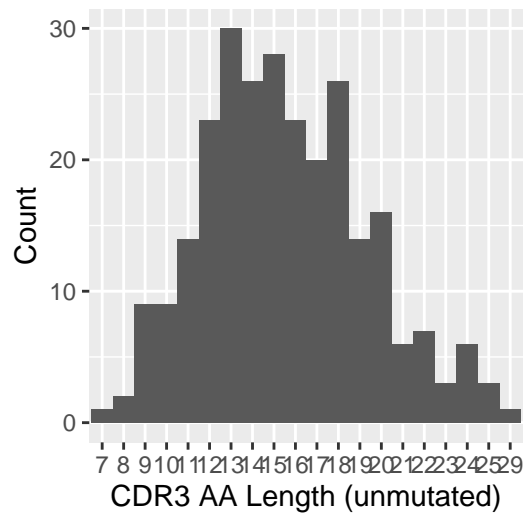


IGHV7–4–1*01

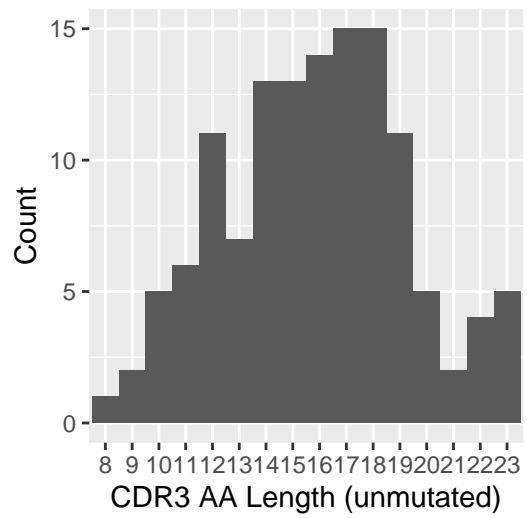
2 sequences assigned
1 (50%) exact matches, in which:
1 unique CDR3
1 unique J



IGHV1-69*08_C191T



IGHV4-38-2*02_A70G



IGHV4-30-2*01_G139C

