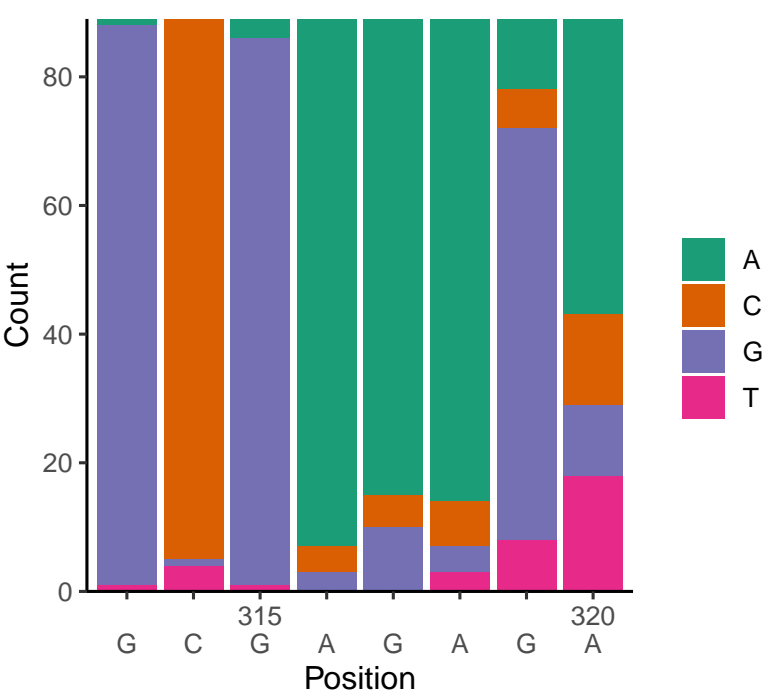
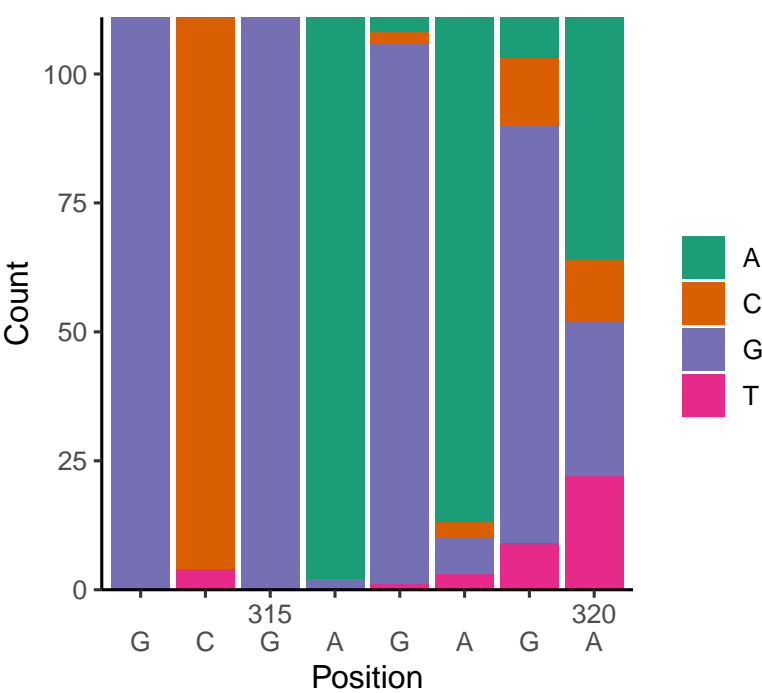


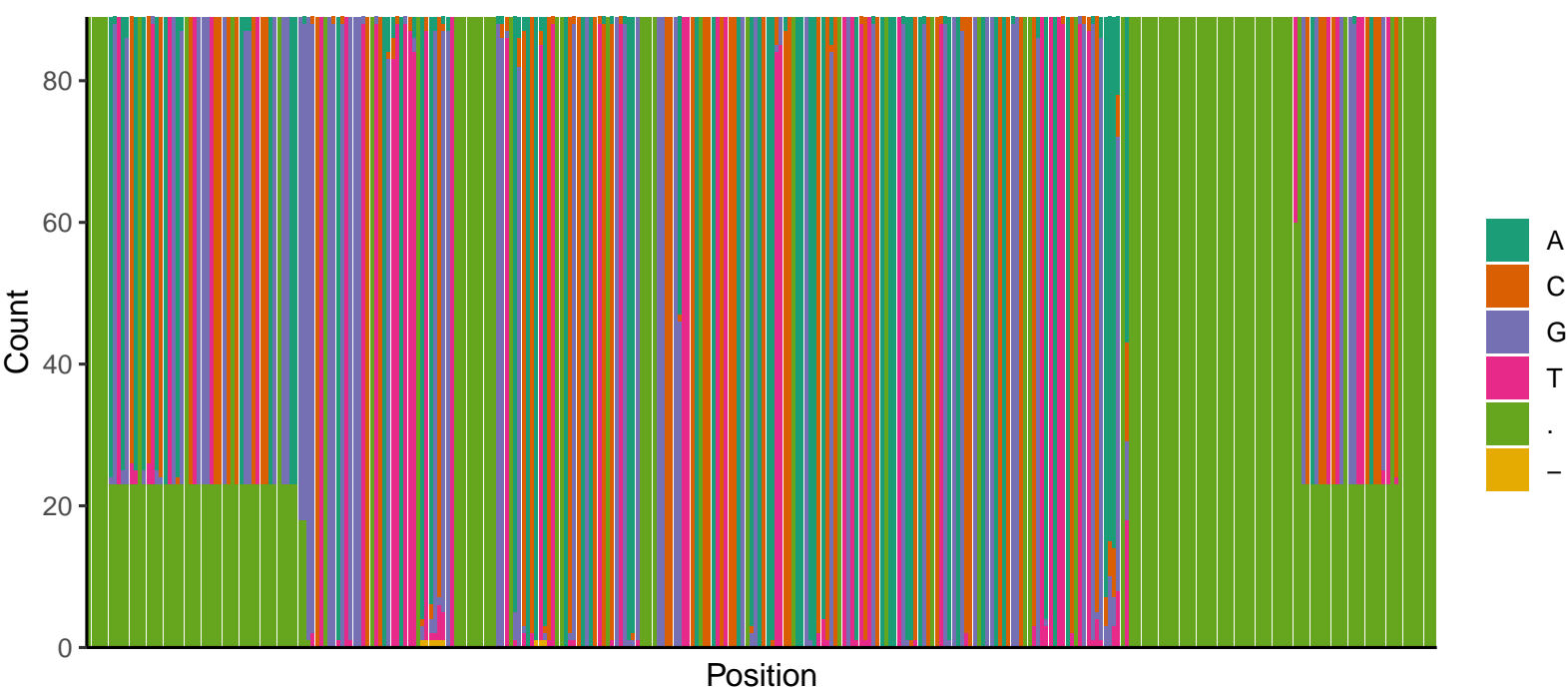
Gene IGHV3-53*01_02_A225G_T267G_G303A



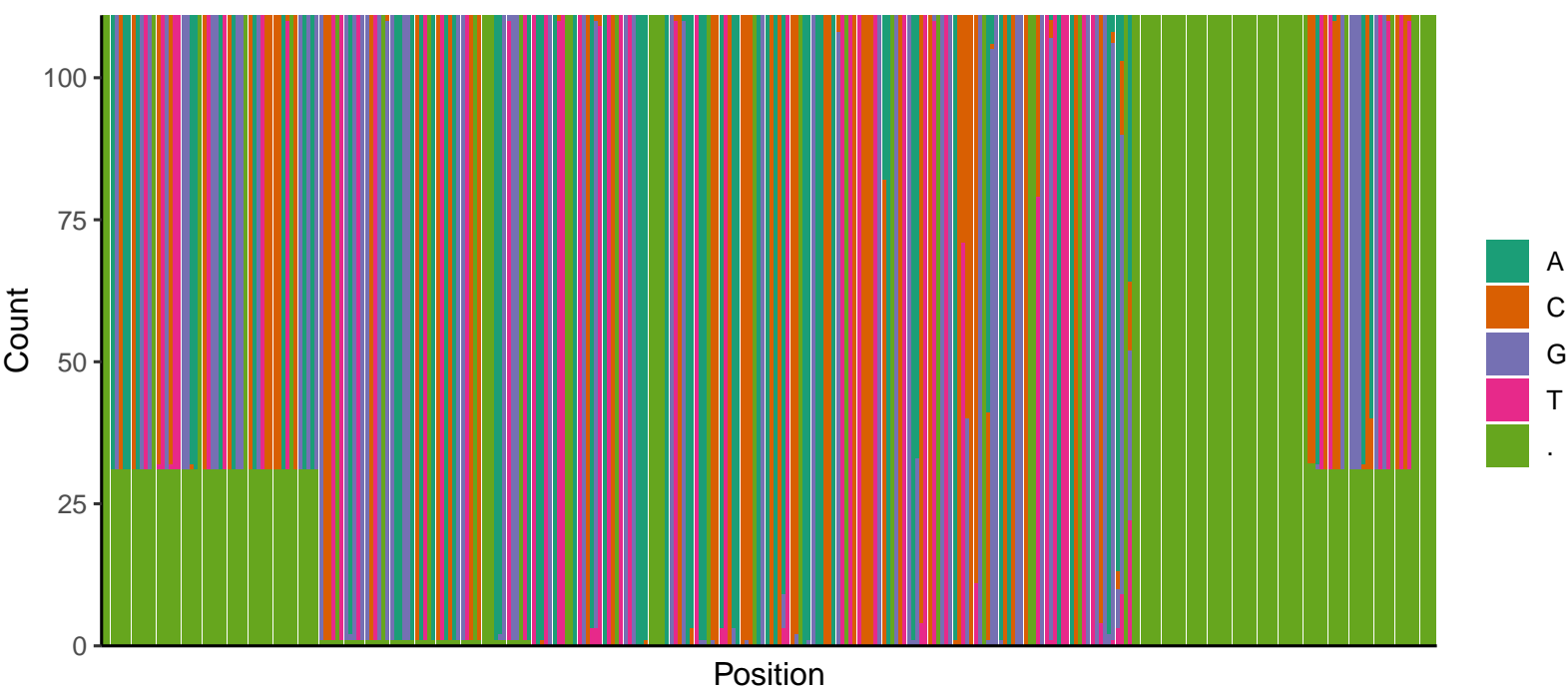
Gene IGHV6-1*01_02_A315G



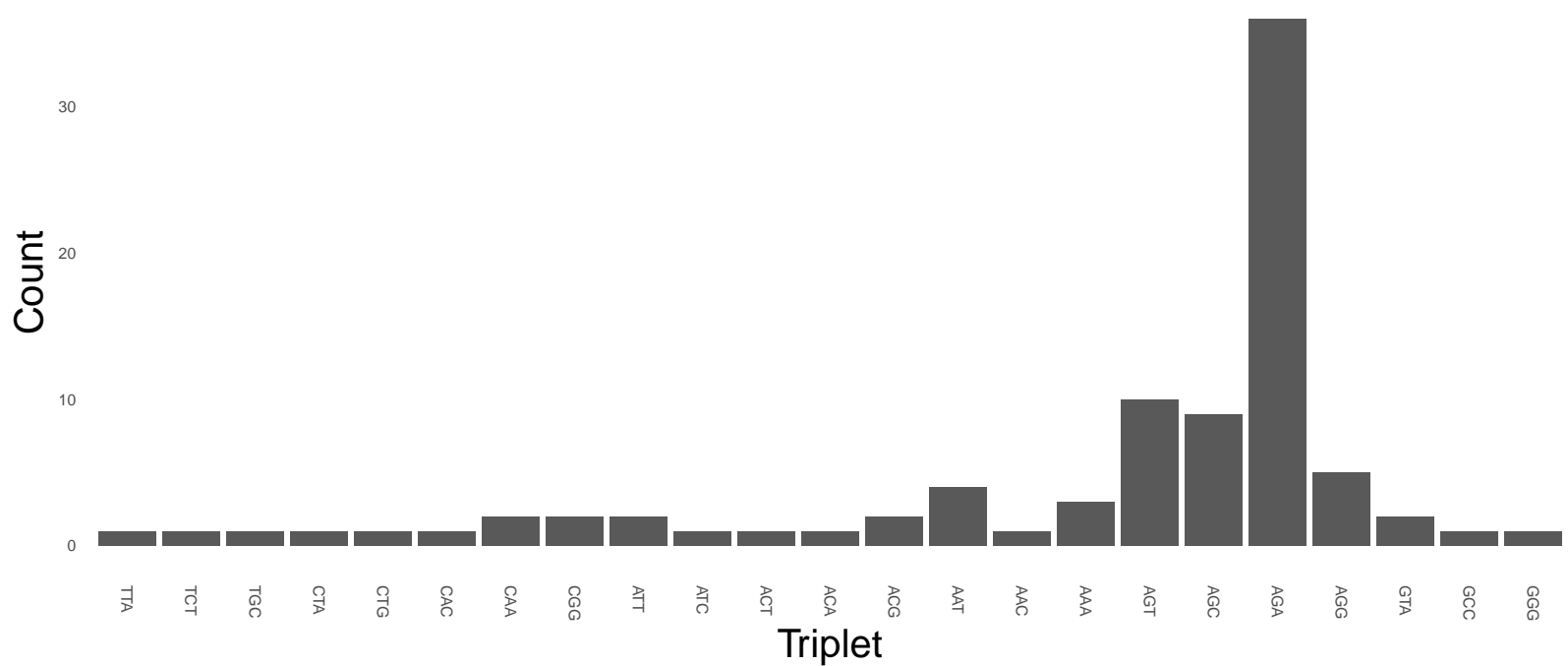
Gene IGHV3-53*01_02_A225G_T267G_G303A



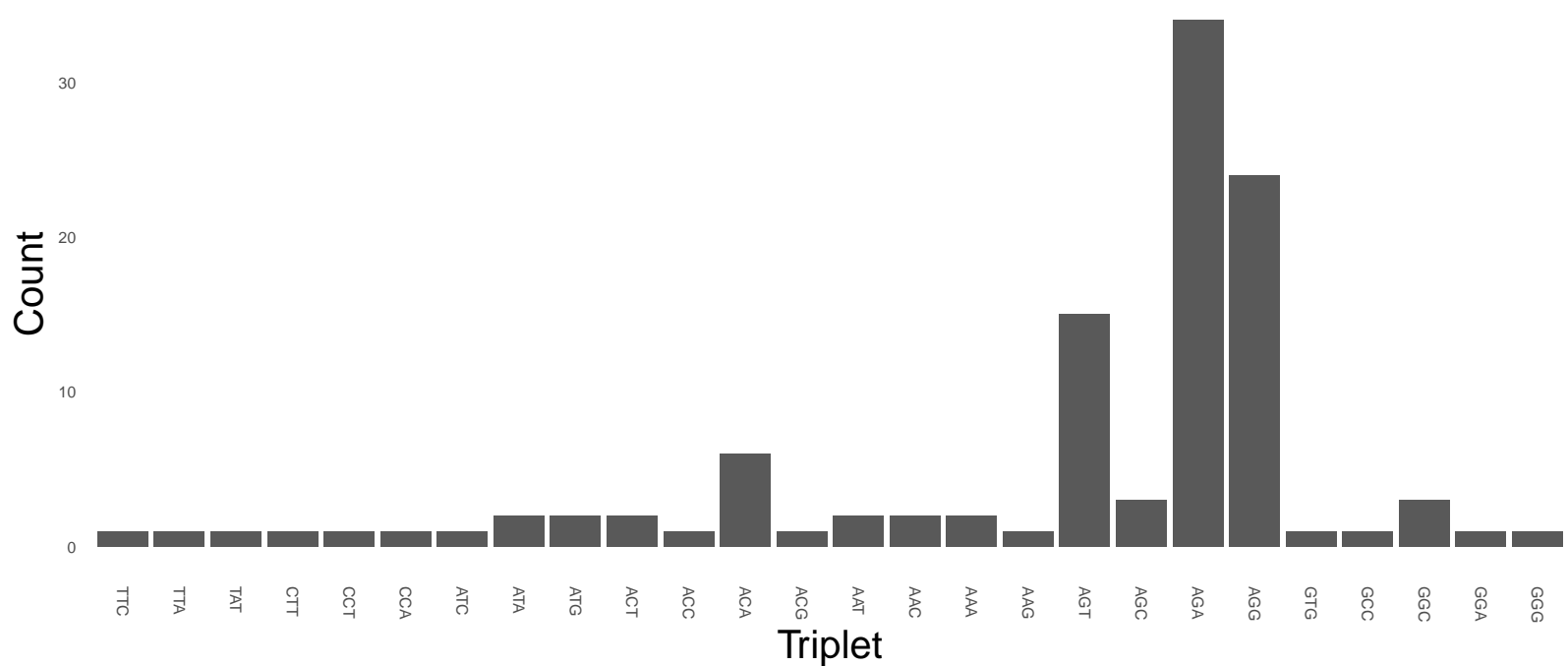
Gene IGHV6-1*01_02_A315G



IGHV3-53*01_02_A225G_T267G_G303A- Final 3 nucleotides as a triplet

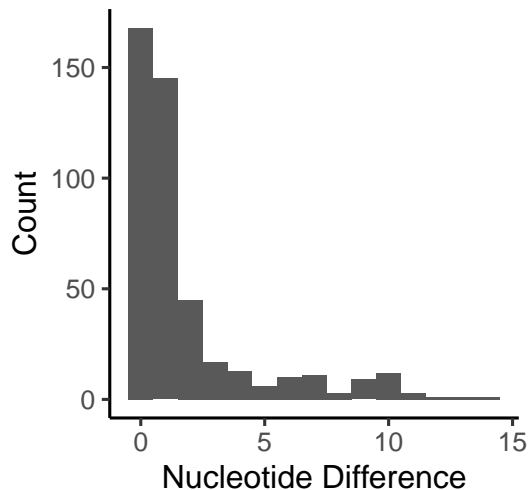


IGHV6-1*01_02_A315G- Final 3 nucleotides as a triplet



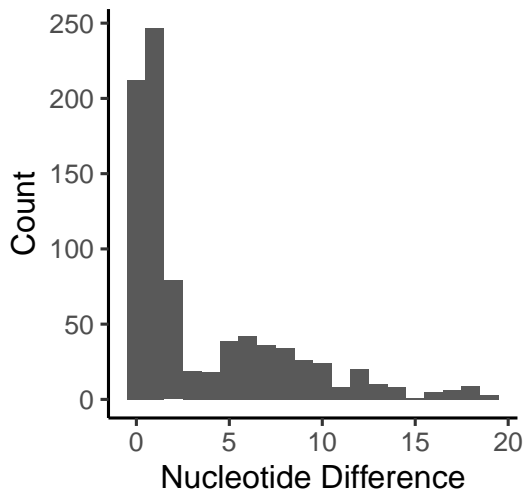
IGHV1-2*04

446 sequences assigned
168 (37.7%) exact matches, in which:
153 unique CDR3
5 unique J



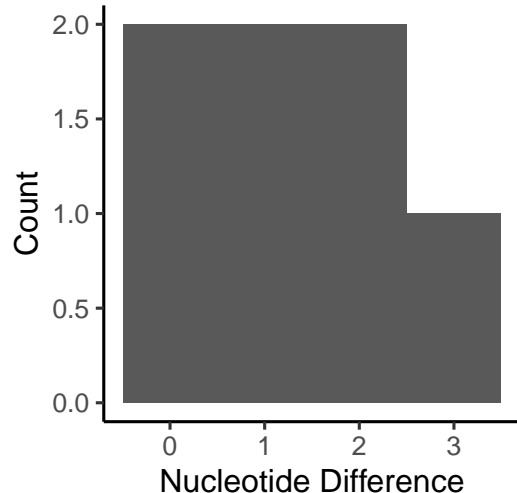
IGHV1-8*01

850 sequences assigned
212 (24.9%) exact matches, in which:
204 unique CDR3
6 unique J



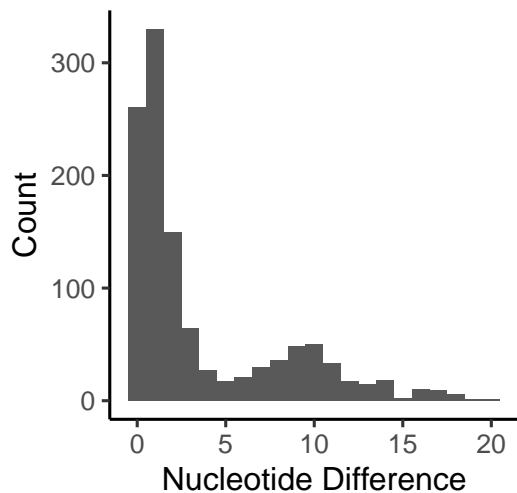
IGHV1-38-4*01

7 sequences assigned
2 (28.6%) exact matches, in which:
1 unique CDR3
1 unique J



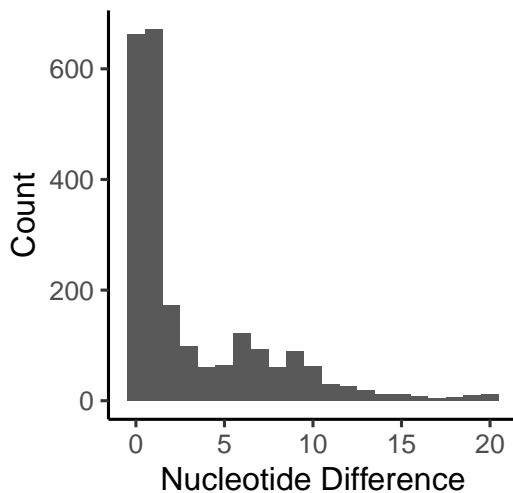
IGHV1-2*06

1169 sequences assigned
261 (22.3%) exact matches, in which:
240 unique CDR3
6 unique J



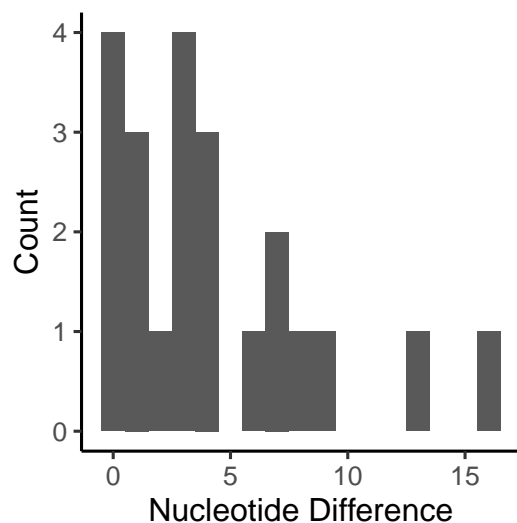
IGHV1-18*01

2347 sequences assigned
663 (28.2%) exact matches, in which:
595 unique CDR3
6 unique J



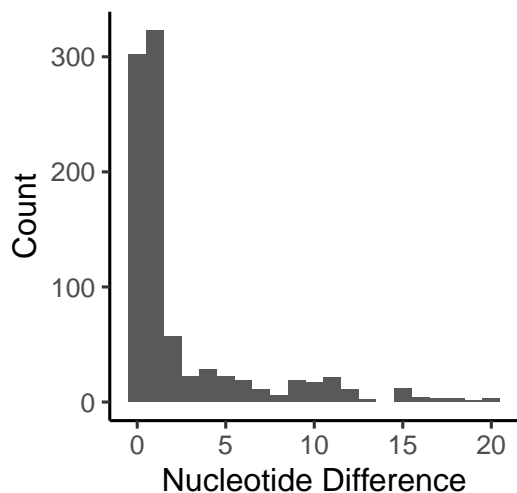
IGHV1-45*02

22 sequences assigned
4 (18.2%) exact matches, in which:
3 unique CDR3
1 unique J



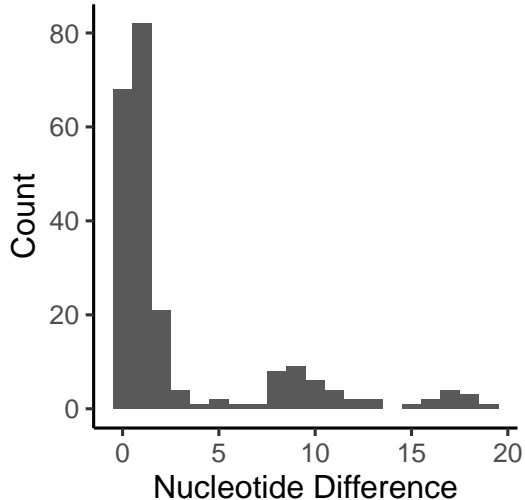
IGHV1-3*01_05

898 sequences assigned
302 (33.6%) exact matches, in which:
268 unique CDR3
6 unique J



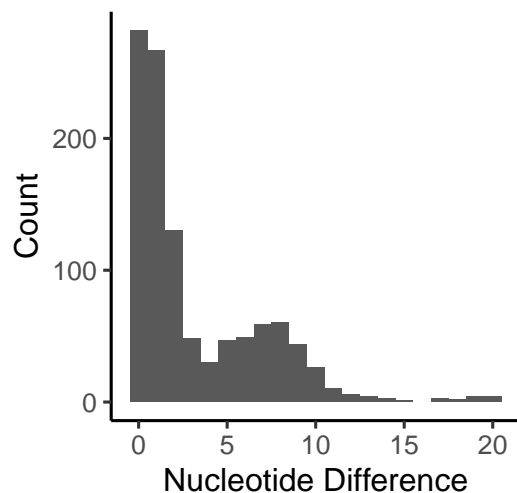
IGHV1-24*01

223 sequences assigned
68 (30.5%) exact matches, in which:
67 unique CDR3
4 unique J



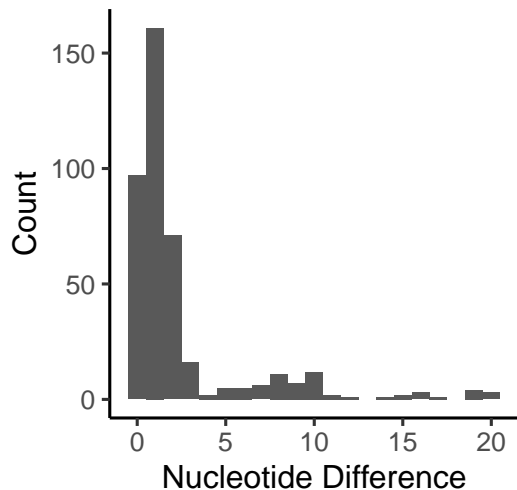
IGHV1-46*01

1086 sequences assigned
282 (26%) exact matches, in which:
260 unique CDR3
6 unique J



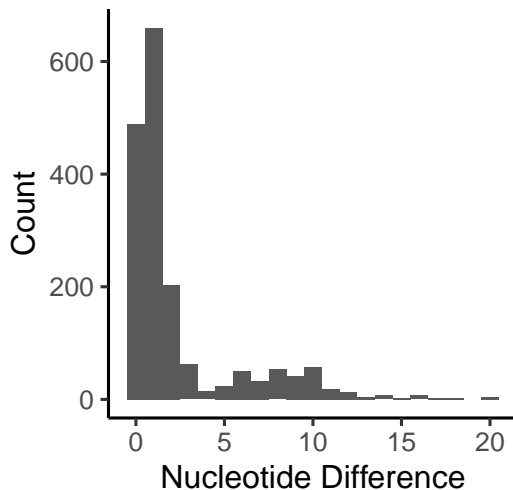
IGHV1-46*03

411 sequences assigned
97 (23.6%) exact matches, in which:
85 unique CDR3
4 unique J



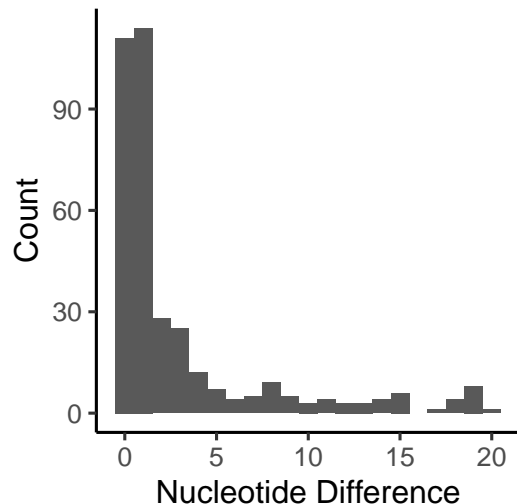
IGHV1-69*01_12_13

1777 sequences assigned
489 (27.5%) exact matches, in which:
457 unique CDR3
6 unique J



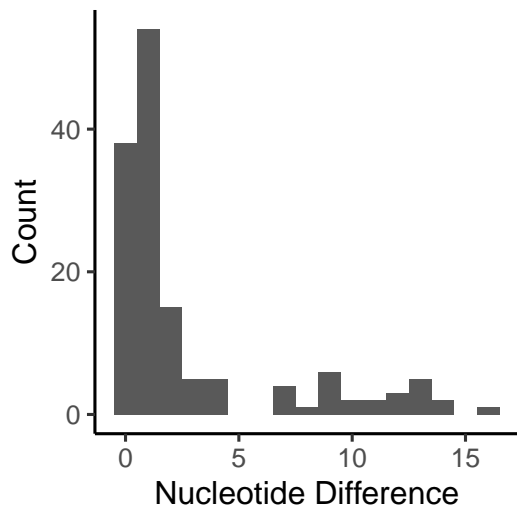
IGHV2-5*02

362 sequences assigned
111 (30.7%) exact matches, in which:
92 unique CDR3
6 unique J



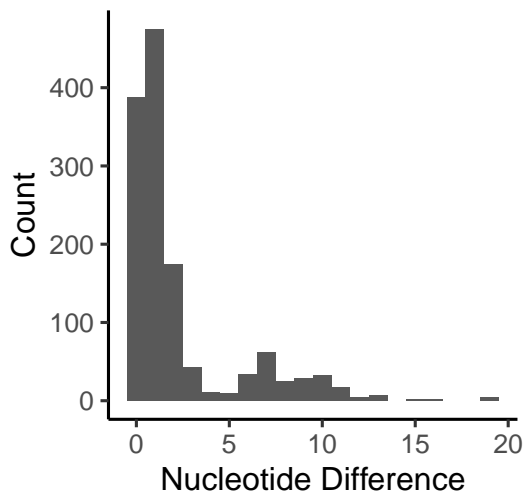
IGHV1-58*02

144 sequences assigned
38 (26.4%) exact matches, in which:
36 unique CDR3
4 unique J



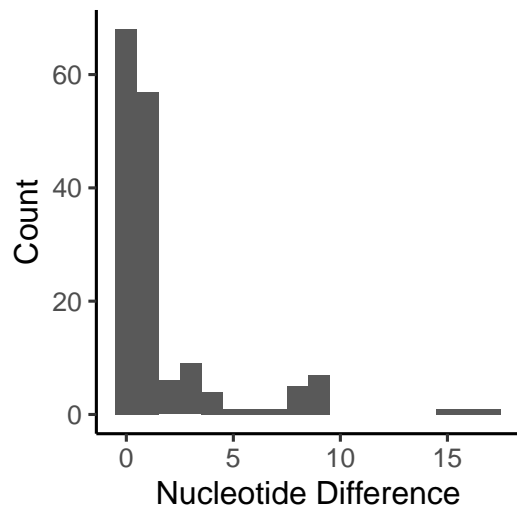
IGHV1-69*10

1328 sequences assigned
388 (29.2%) exact matches, in which:
368 unique CDR3
6 unique J



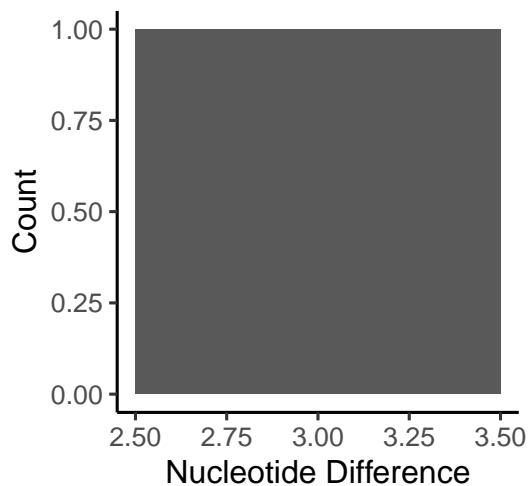
IGHV2-26*01

164 sequences assigned
68 (41.5%) exact matches, in which:
54 unique CDR3
4 unique J



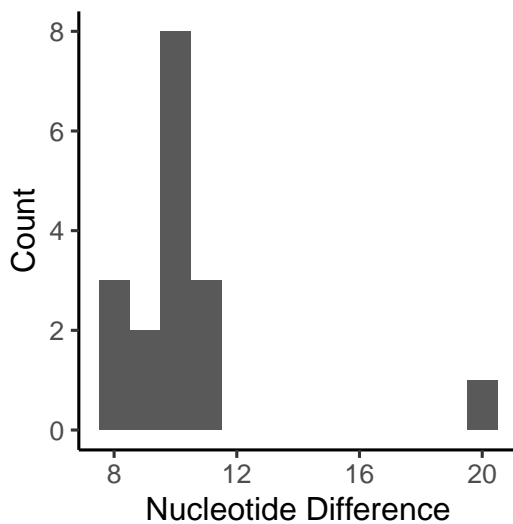
IGHV1-68*01

1 sequences assigned
No exact matches.



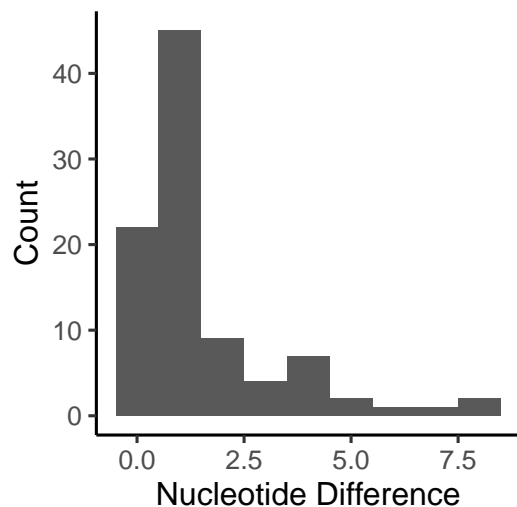
IGHV1-NL1*01

17 sequences assigned
No exact matches.



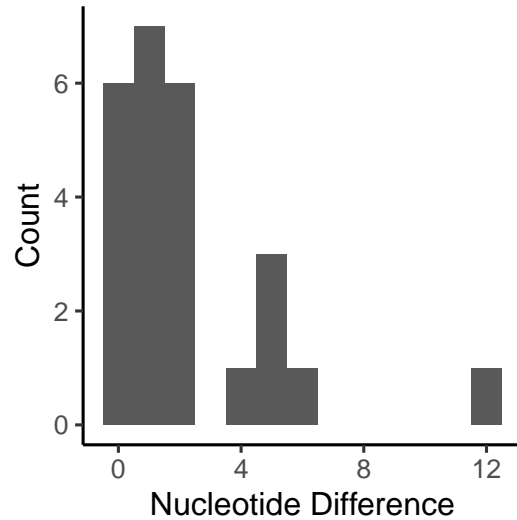
IGHV2-70*01

93 sequences assigned
22 (23.7%) exact matches, in which:
19 unique CDR3
3 unique J



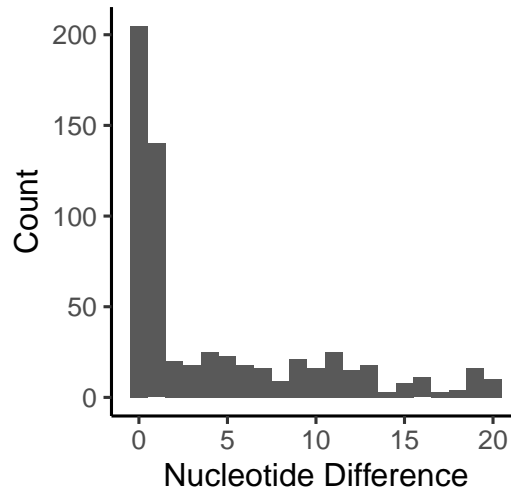
IGHV2-70*12

25 sequences assigned
6 (24%) exact matches, in which:
6 unique CDR3
3 unique J



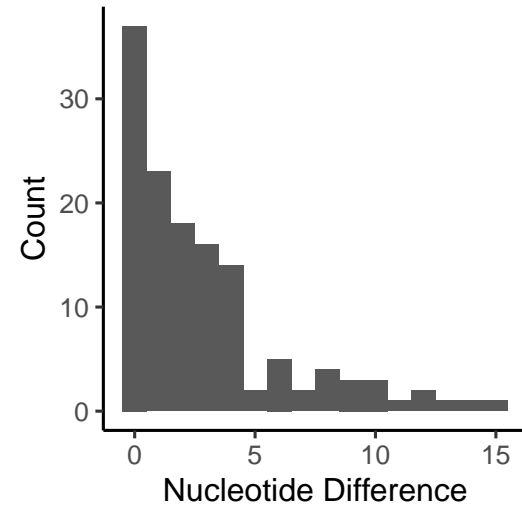
IGHV3-7*03

699 sequences assigned
205 (29.3%) exact matches, in which:
148 unique CDR3
5 unique J



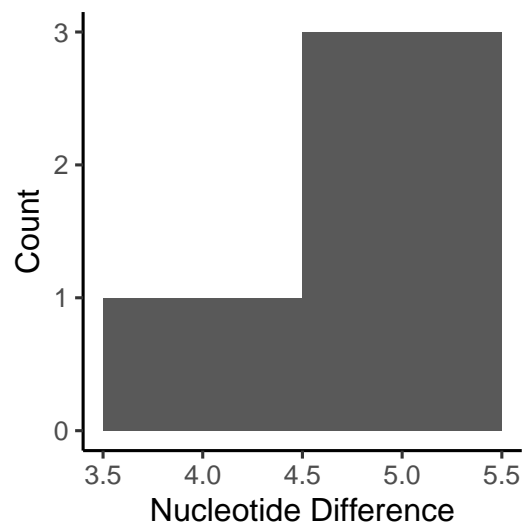
IGHV3-11*04

134 sequences assigned
37 (27.6%) exact matches, in which:
36 unique CDR3
5 unique J



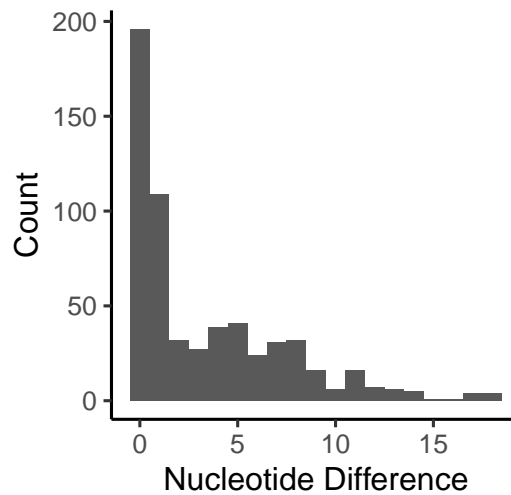
IGHV2-70D*04

4 sequences assigned
No exact matches.



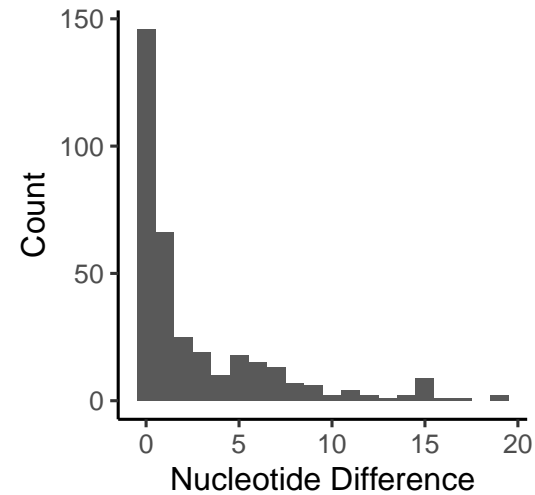
IGHV3-9*01

606 sequences assigned
196 (32.3%) exact matches, in which:
129 unique CDR3
4 unique J



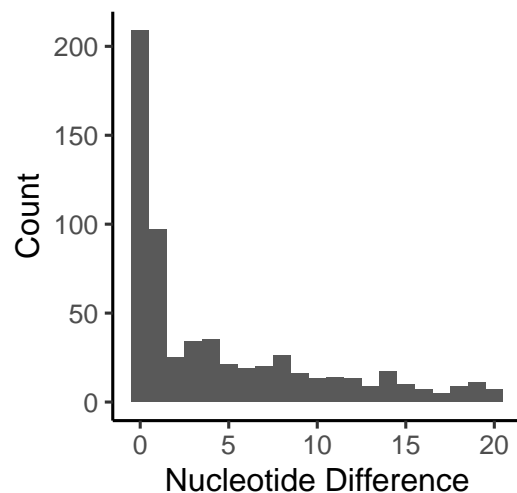
IGHV3-11*06

353 sequences assigned
146 (41.4%) exact matches, in which:
104 unique CDR3
5 unique J



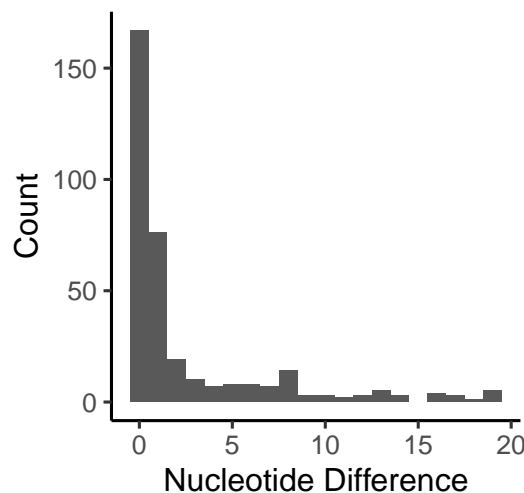
IGHV3-7*01

657 sequences assigned
209 (31.8%) exact matches, in which:
167 unique CDR3
5 unique J



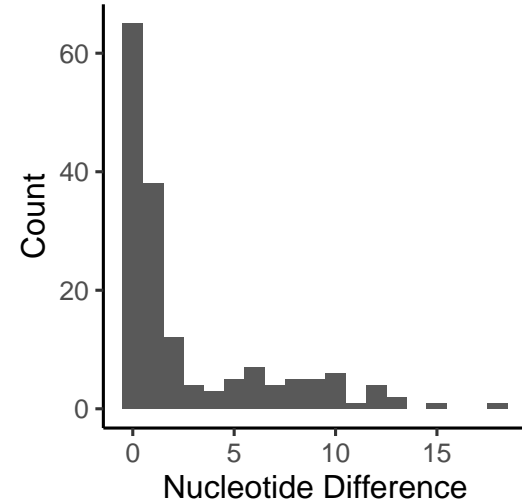
IGHV3-11*01

355 sequences assigned
167 (47%) exact matches, in which:
125 unique CDR3
6 unique J



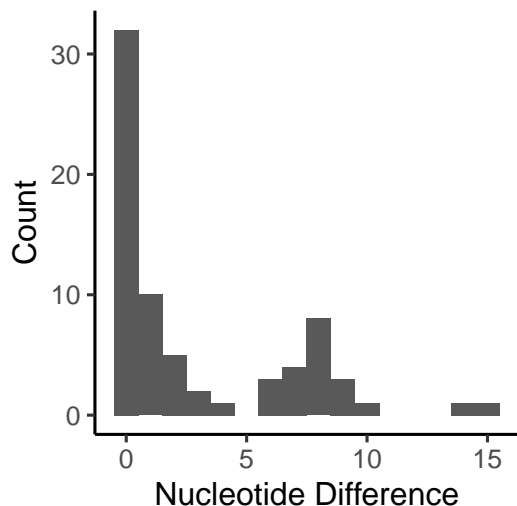
IGHV3-13*01

163 sequences assigned
65 (39.9%) exact matches, in which:
50 unique CDR3
5 unique J



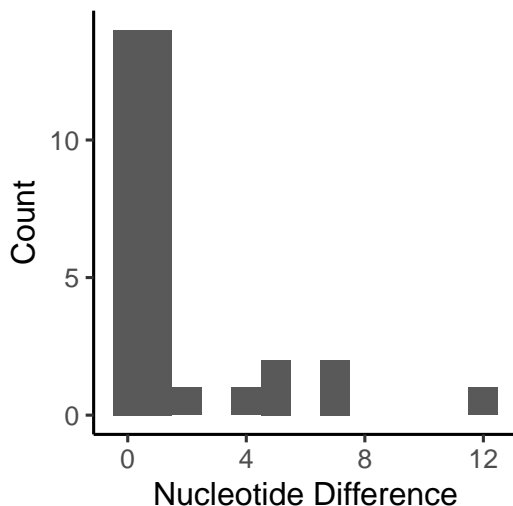
IGHV3-13*05

71 sequences assigned
32 (45.1%) exact matches, in which:
30 unique CDR3
6 unique J



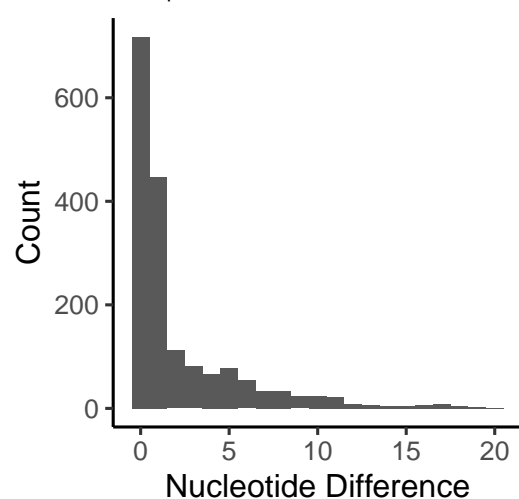
IGHV3-20*01_02

35 sequences assigned
14 (40%) exact matches, in which:
11 unique CDR3
4 unique J



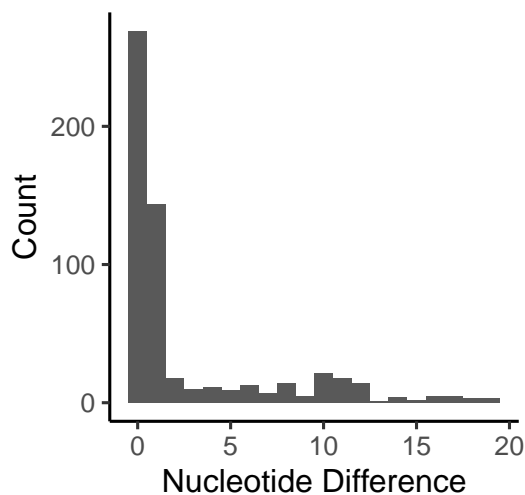
IGHV3-21*01_02

1750 sequences assigned
718 (41%) exact matches, in which:
470 unique CDR3
6 unique J



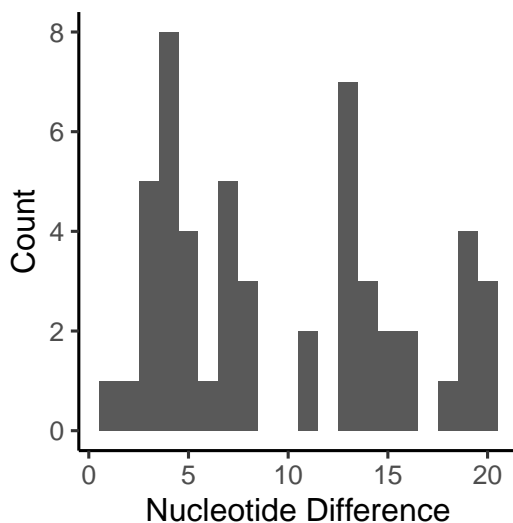
IGHV3-15*01_02

616 sequences assigned
269 (43.7%) exact matches, in which:
168 unique CDR3
6 unique J



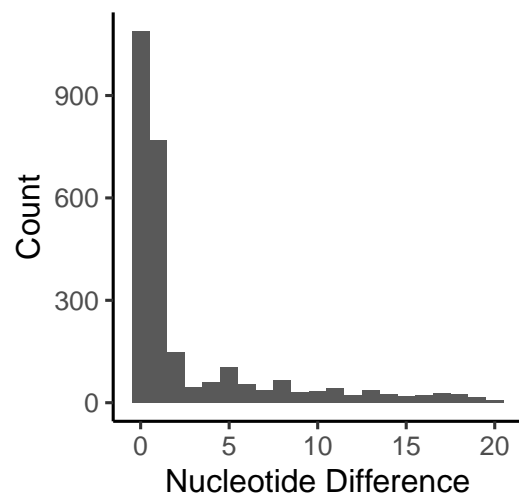
IGHV3-20*03_04

55 sequences assigned
No exact matches.



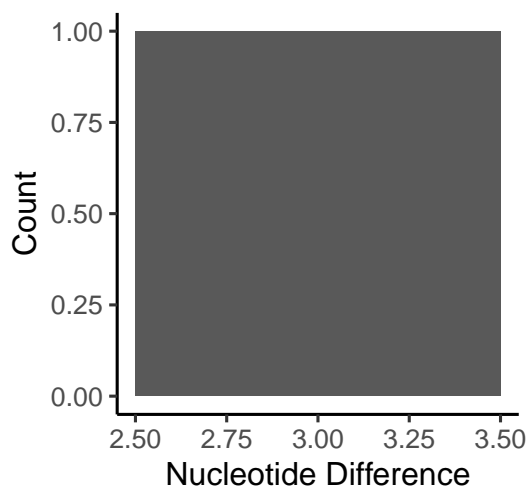
IGHV3-23*01_04

2723 sequences assigned
1089 (40%) exact matches, in which:
673 unique CDR3
6 unique J



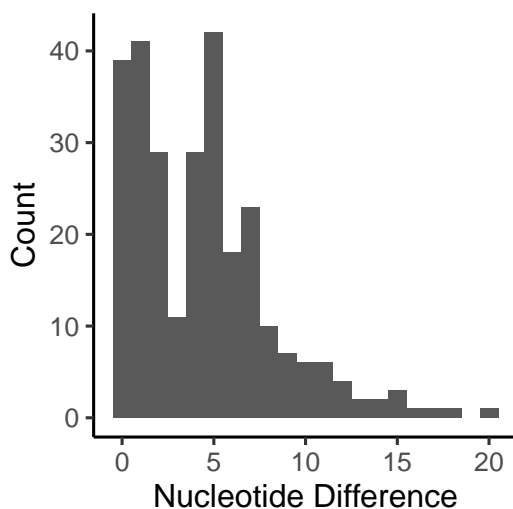
IGHV3-19*01

1 sequences assigned
No exact matches.



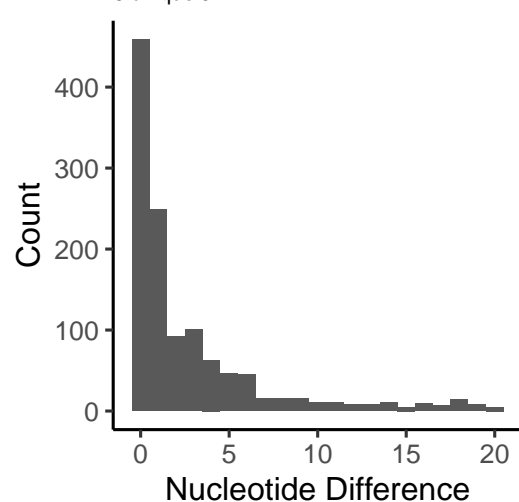
IGHV3-21*04

276 sequences assigned
39 (14.1%) exact matches, in which:
39 unique CDR3
5 unique J



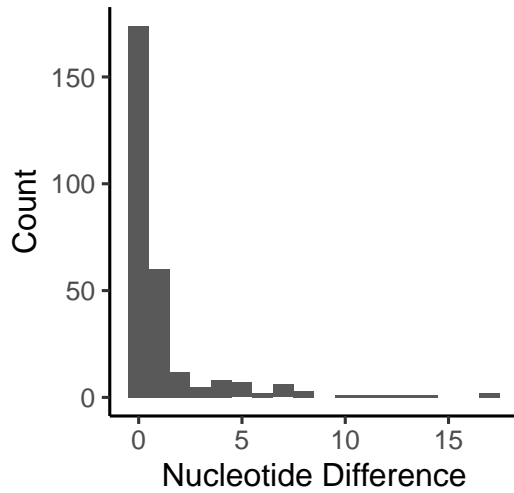
IGHV3-30-3*01

1224 sequences assigned
459 (37.5%) exact matches, in which:
319 unique CDR3
6 unique J



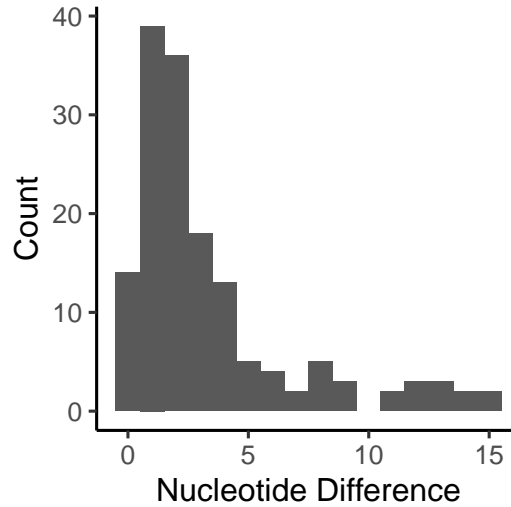
IGHV3–30*03

289 sequences assigned
174 (60.2%) exact matches, in which:
165 unique CDR3
6 unique J



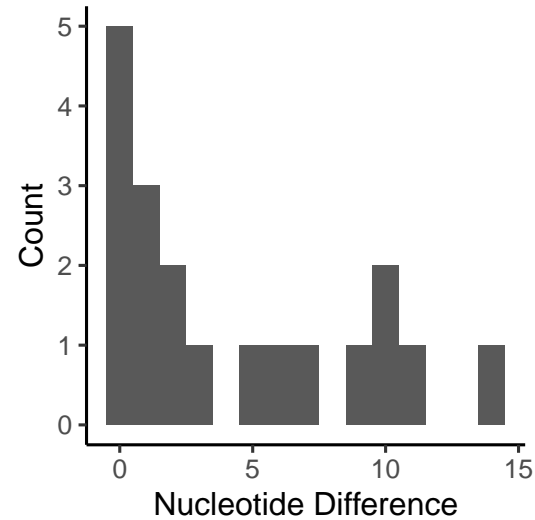
IGHV3–33*06

151 sequences assigned
14 (9.3%) exact matches, in which:
13 unique CDR3
3 unique J



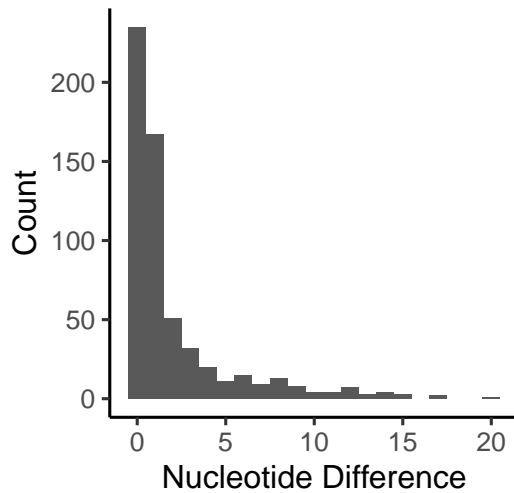
IGHV3–38–3*01

19 sequences assigned
5 (26.3%) exact matches, in which:
5 unique CDR3
3 unique J



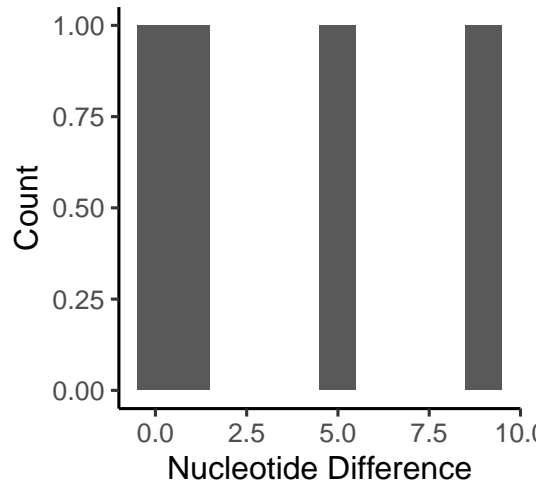
IGHV3–33*01

590 sequences assigned
235 (39.8%) exact matches, in which:
173 unique CDR3
6 unique J



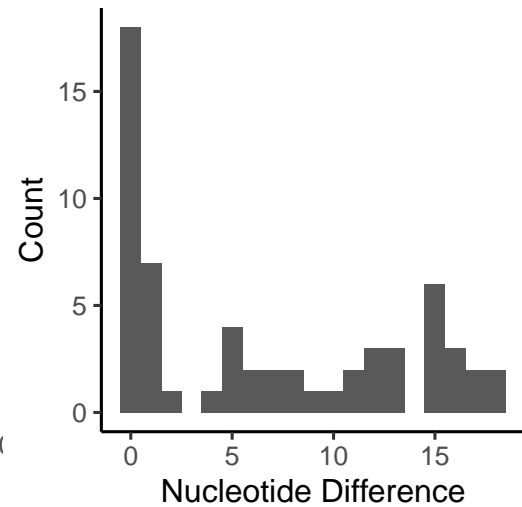
IGHV3–35*01

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
0 unique J



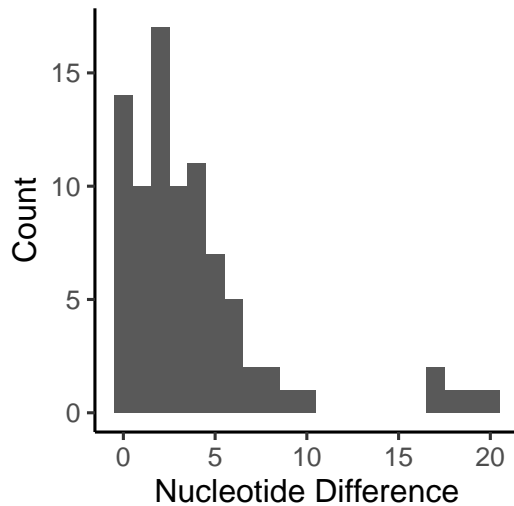
IGHV3–43*01

63 sequences assigned
18 (28.6%) exact matches, in which:
12 unique CDR3
3 unique J



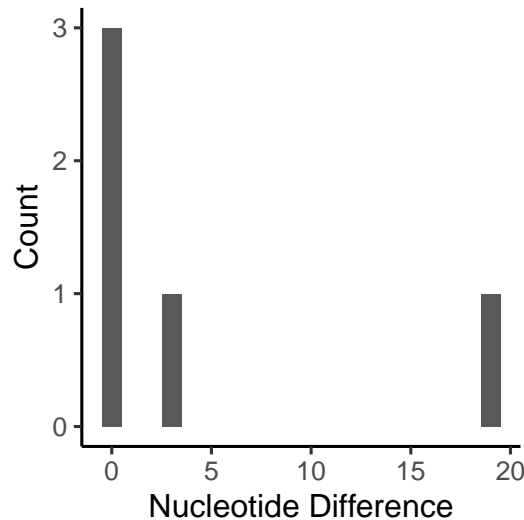
IGHV3–33*05

85 sequences assigned
14 (16.5%) exact matches, in which:
13 unique CDR3
2 unique J



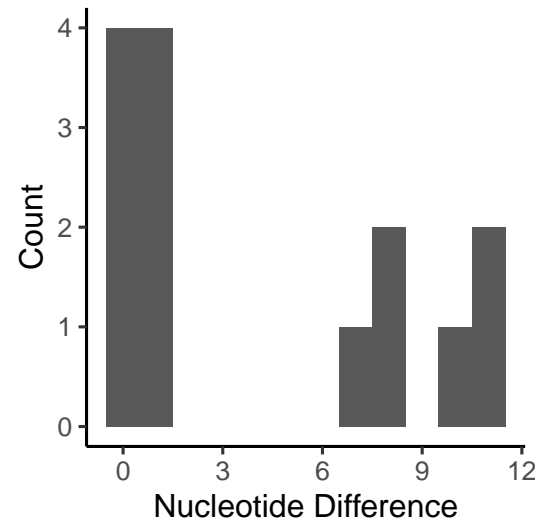
IGHV3–35*02

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



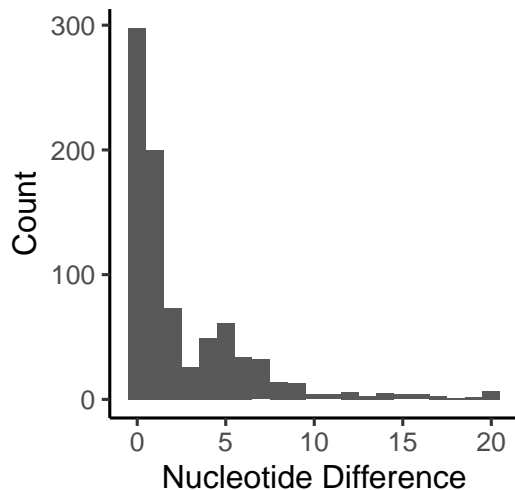
IGHV3–47*02

14 sequences assigned
4 (28.6%) exact matches, in which:
3 unique CDR3
2 unique J



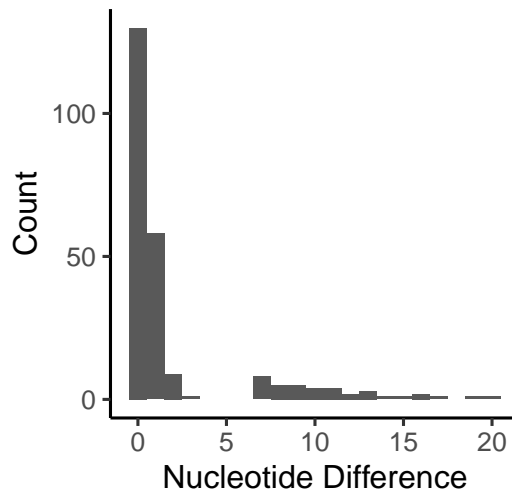
IGHV3-48*01

863 sequences assigned
298 (34.5%) exact matches, in which:
219 unique CDR3
5 unique J



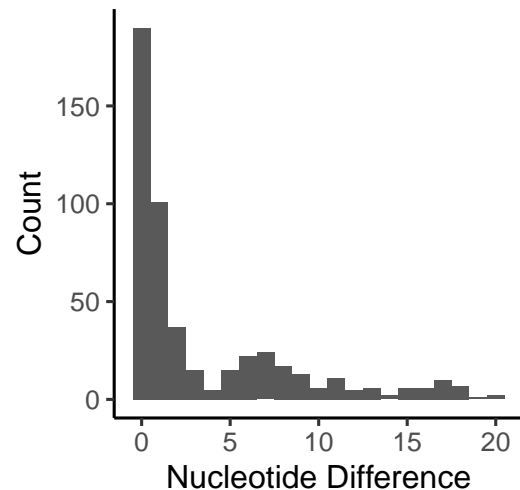
IGHV3-49*03_05

245 sequences assigned
130 (53.1%) exact matches, in which:
86 unique CDR3
6 unique J



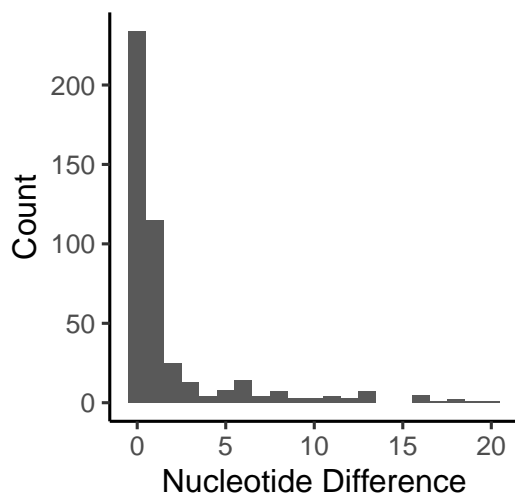
IGHV3-53*01_02

521 sequences assigned
190 (36.5%) exact matches, in which:
141 unique CDR3
6 unique J



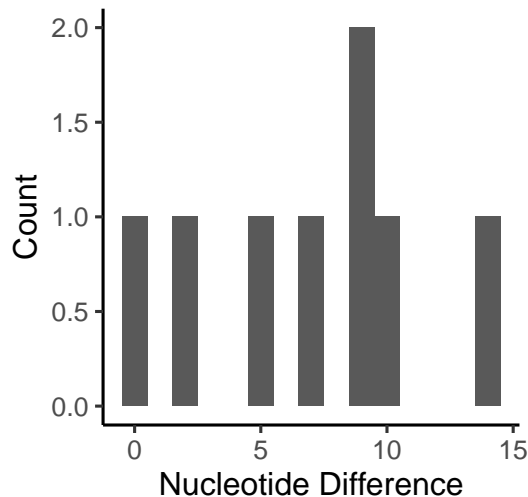
IGHV3-48*02

455 sequences assigned
234 (51.4%) exact matches, in which:
157 unique CDR3
5 unique J



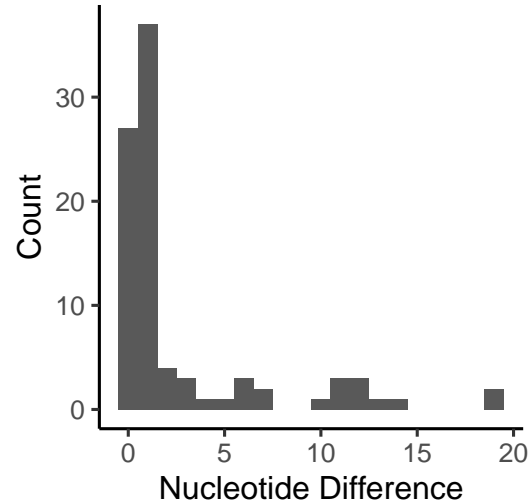
IGHV3-52*02

8 sequences assigned
1 (12.5%) exact matches, in which:
1 unique CDR3
1 unique J



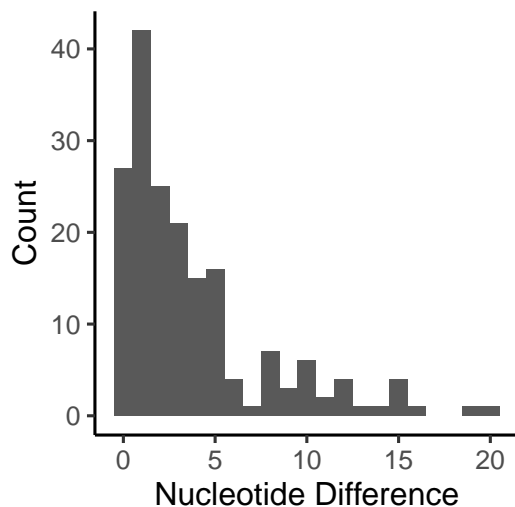
IGHV3-53*01_02_A225G

89 sequences assigned
27 (30.3%) exact matches, in which:
26 unique CDR3
5 unique J



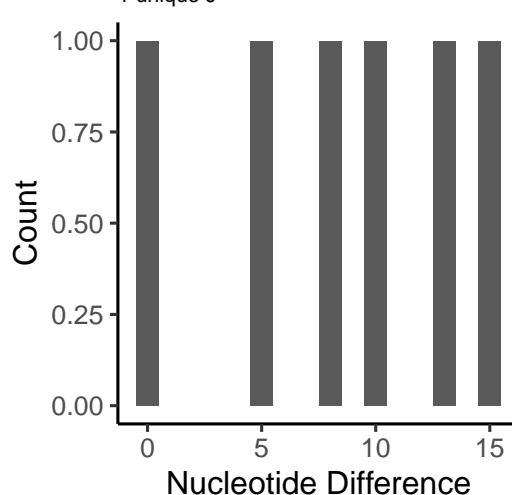
IGHV3-48*04

186 sequences assigned
27 (14.5%) exact matches, in which:
26 unique CDR3
3 unique J



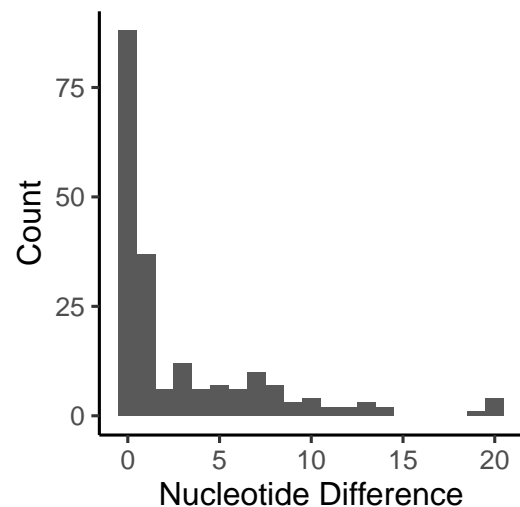
IGHV3-52*01_03

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



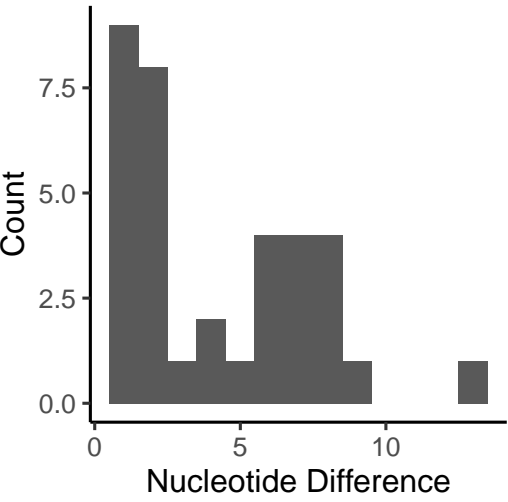
IGHV3-64*01

206 sequences assigned
88 (42.7%) exact matches, in which:
56 unique CDR3
4 unique J



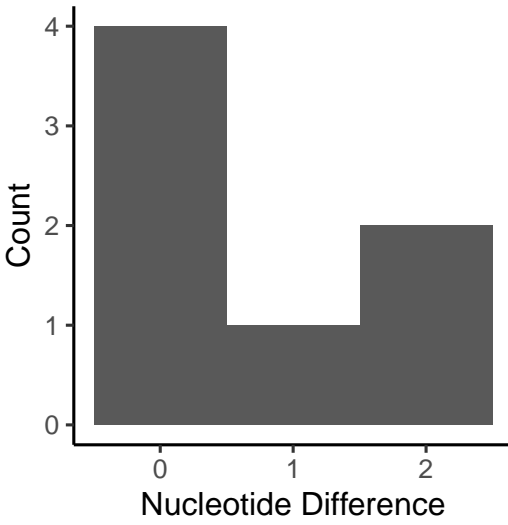
IGHV3-64*04

36 sequences assigned
No exact matches.



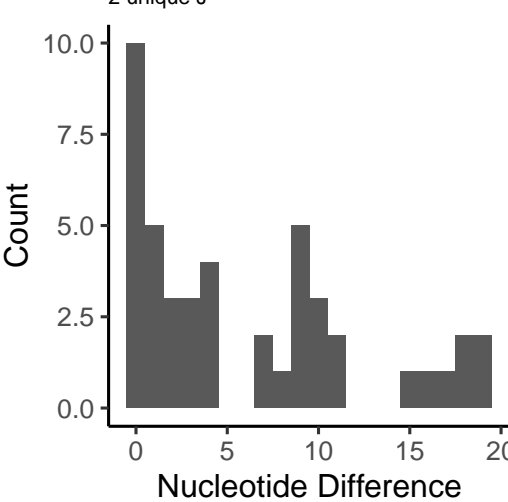
IGHV3-66*03

7 sequences assigned
4 (57.1%) exact matches, in which:
4 unique CDR3
3 unique J



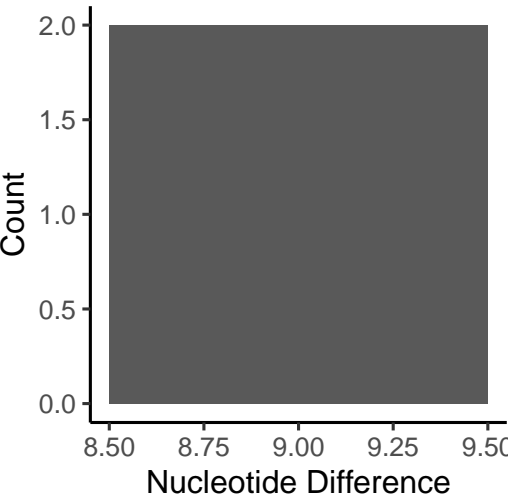
IGHV3-72*01

56 sequences assigned
10 (17.9%) exact matches, in which:
7 unique CDR3
2 unique J



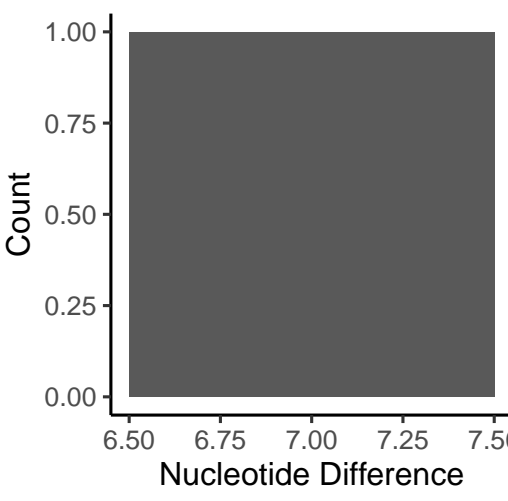
IGHV3-66*01

2 sequences assigned
No exact matches.



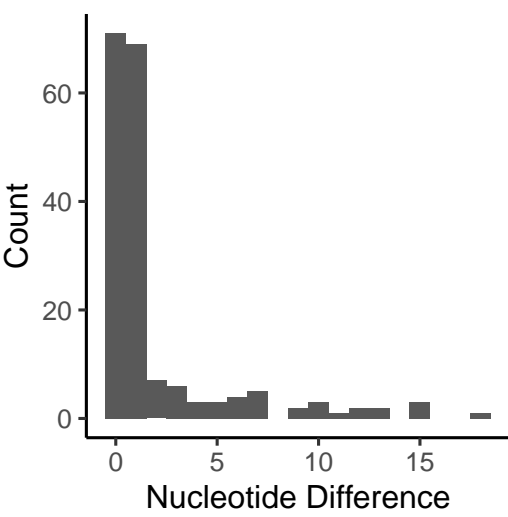
IGHV3-66*04

4 sequences assigned
No exact matches.



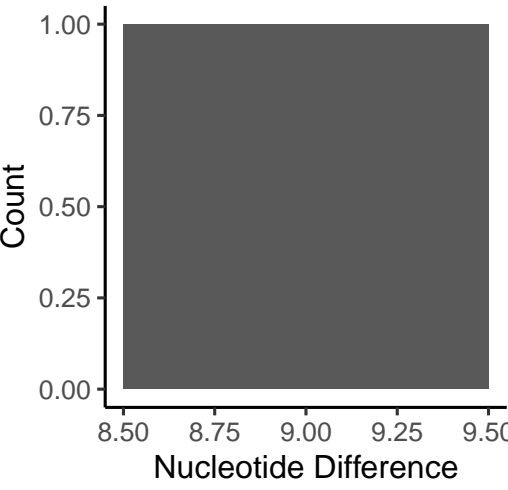
IGHV3-73*01_02

183 sequences assigned
71 (38.8%) exact matches, in which:
46 unique CDR3
5 unique J



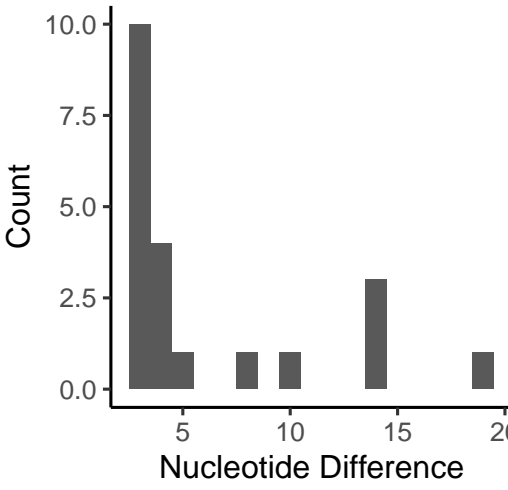
IGHV3-66*02

1 sequences assigned
No exact matches.



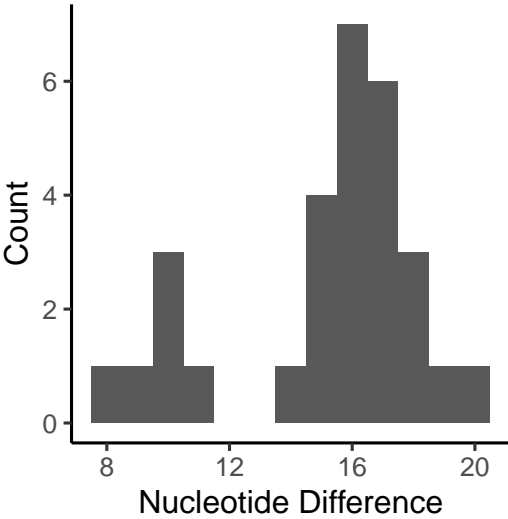
IGHV3-69-1*01

21 sequences assigned
No exact matches.



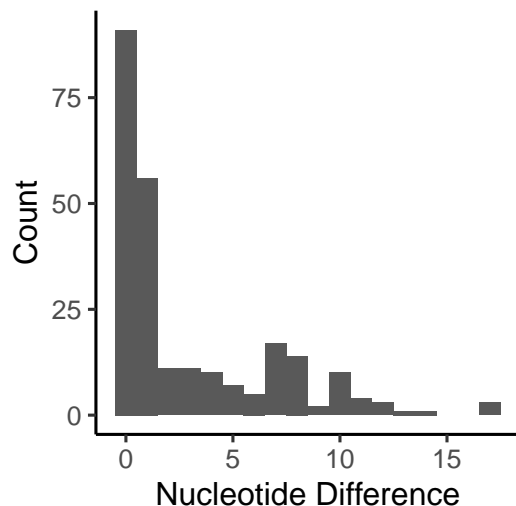
IGHV3-74*03

77 sequences assigned
No exact matches.



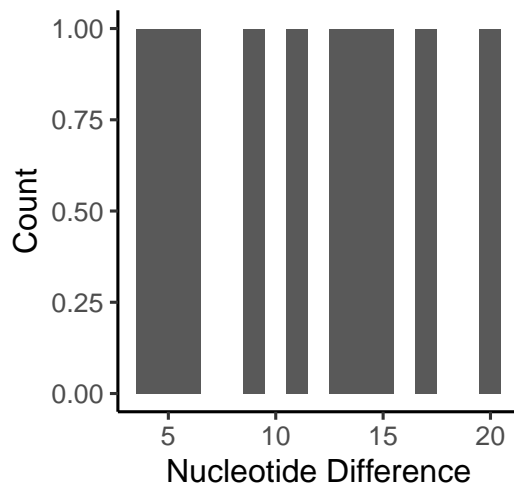
IGHV3-74*01_02

260 sequences assigned
91 (35%) exact matches, in which:
65 unique CDR3
5 unique J



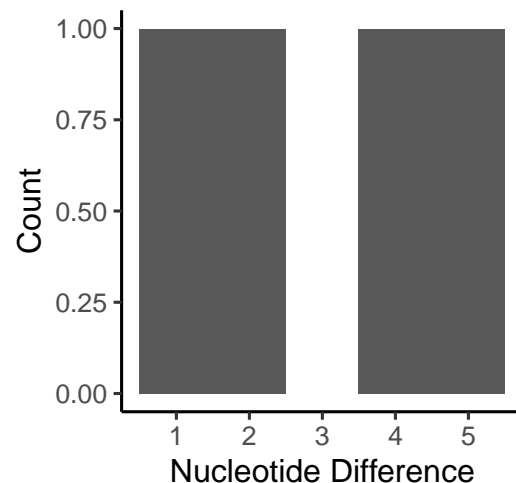
IGHV3-NL1*01

10 sequences assigned
No exact matches.



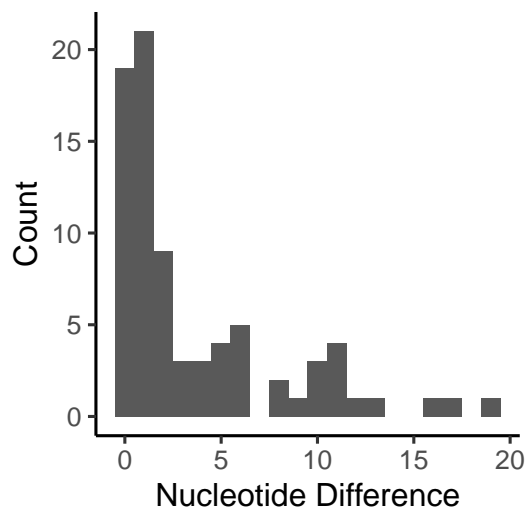
IGHV4-28*03

4 sequences assigned
No exact matches.



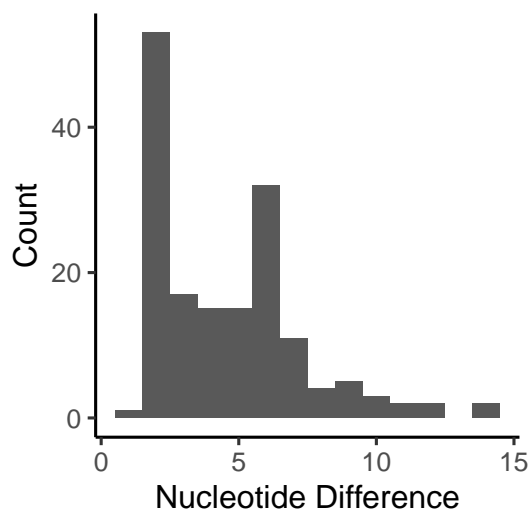
IGHV3-43D*03

90 sequences assigned
19 (21.1%) exact matches, in which:
13 unique CDR3
3 unique J



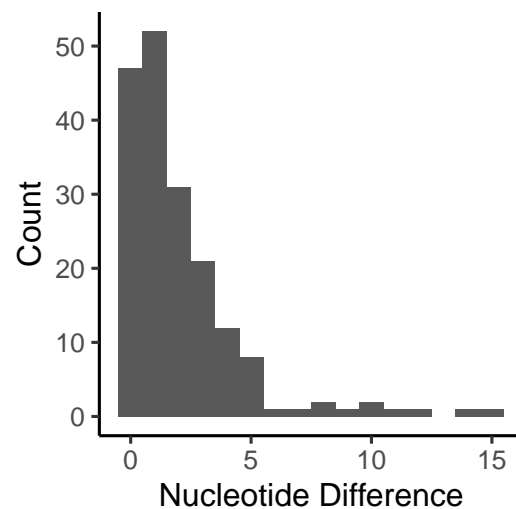
IGHV4-4*07

169 sequences assigned
No exact matches.



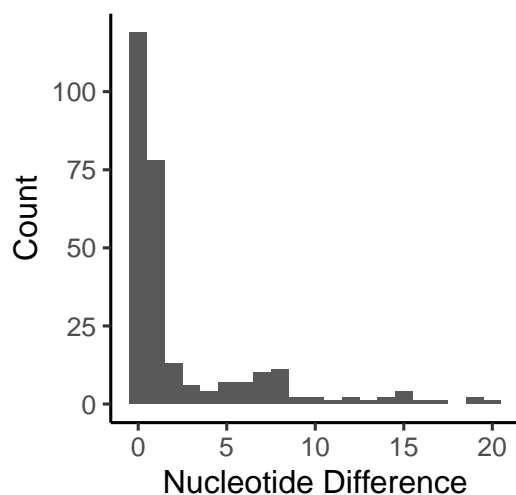
IGHV4-30-2*01

184 sequences assigned
47 (25.5%) exact matches, in which:
35 unique CDR3
4 unique J



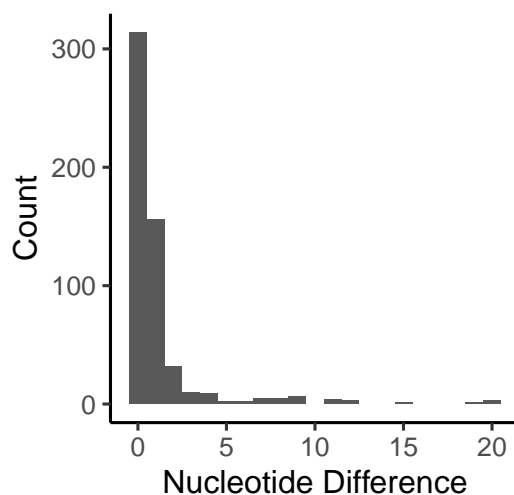
IGHV3-64D*06

303 sequences assigned
119 (39.3%) exact matches, in which:
68 unique CDR3
5 unique J



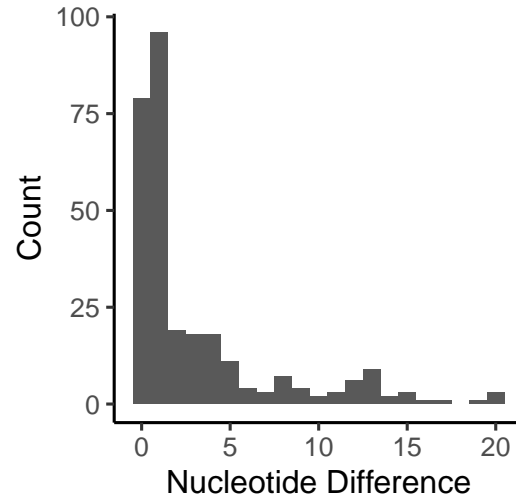
IGHV4-4*02_03

566 sequences assigned
314 (55.5%) exact matches, in which:
251 unique CDR3
6 unique J



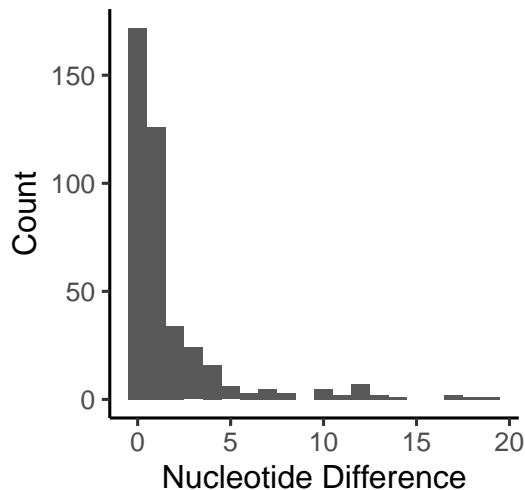
IGHV4-30-4*01

296 sequences assigned
79 (26.7%) exact matches, in which:
55 unique CDR3
5 unique J



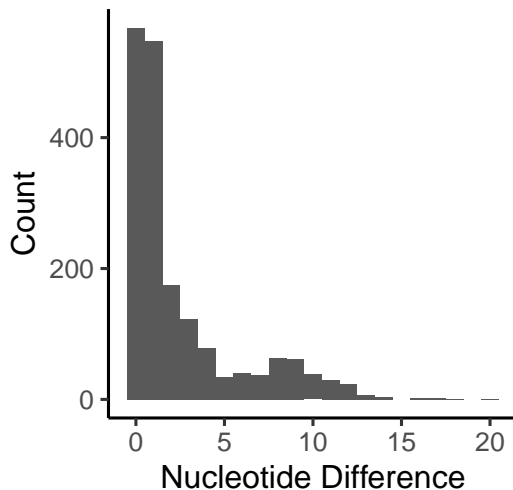
IGHV4-31*02

412 sequences assigned
172 (41.7%) exact matches, in which:
141 unique CDR3
6 unique J



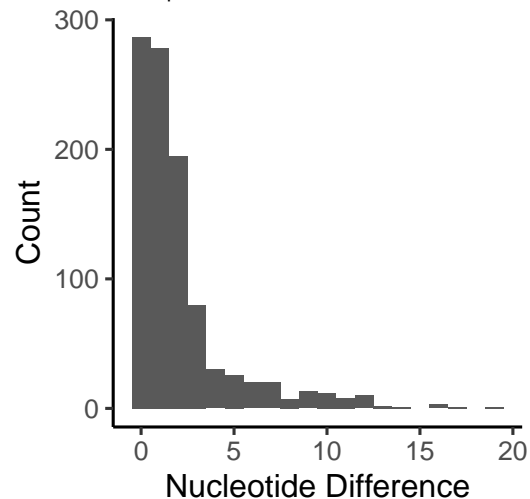
IGHV4-39*07

1861 sequences assigned
568 (30.5%) exact matches, in which:
478 unique CDR3
6 unique J



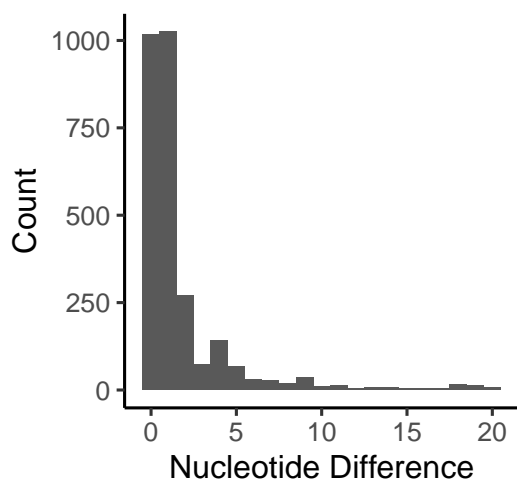
IGHV4-61*02

1014 sequences assigned
287 (28.3%) exact matches, in which:
264 unique CDR3
6 unique J



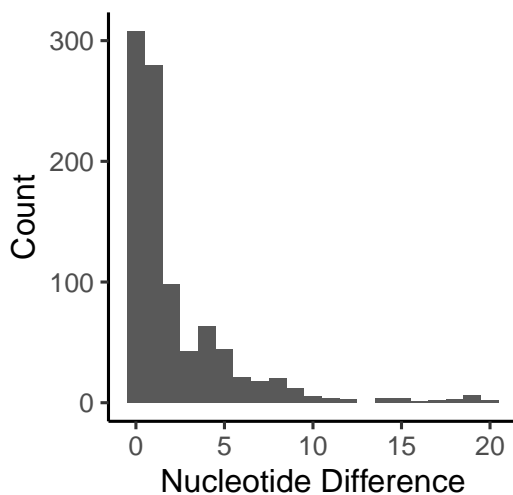
IGHV4-34*01_02

2807 sequences assigned
1018 (36.3%) exact matches, in which:
750 unique CDR3
6 unique J



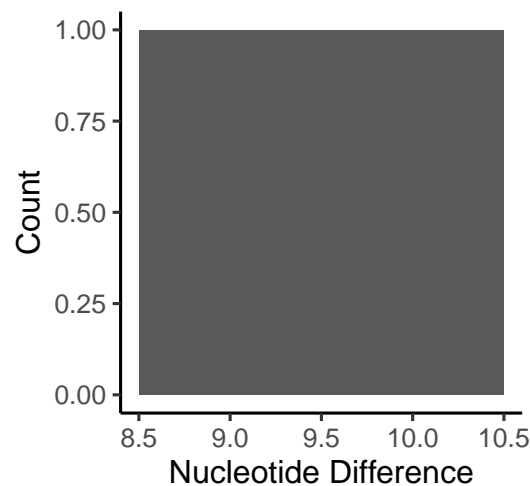
IGHV4-59*08

960 sequences assigned
308 (32.1%) exact matches, in which:
269 unique CDR3
6 unique J



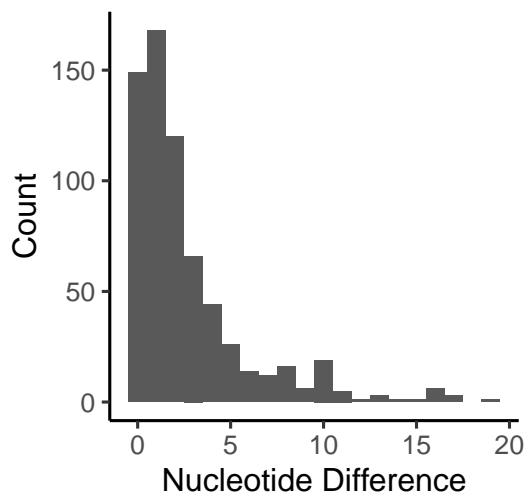
IGHV1/OR15-3*02

2 sequences assigned
No exact matches.



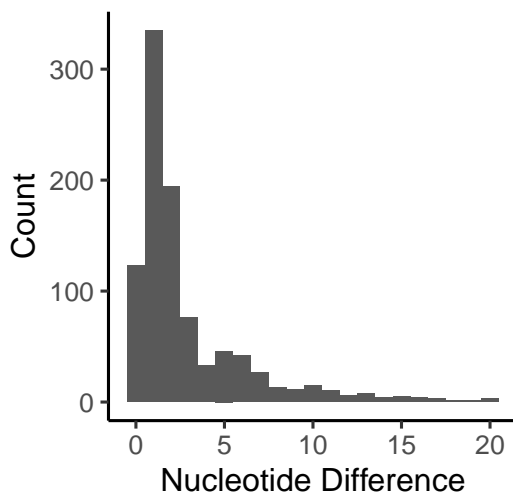
IGHV4-38-2*02

678 sequences assigned
149 (22%) exact matches, in which:
135 unique CDR3
6 unique J



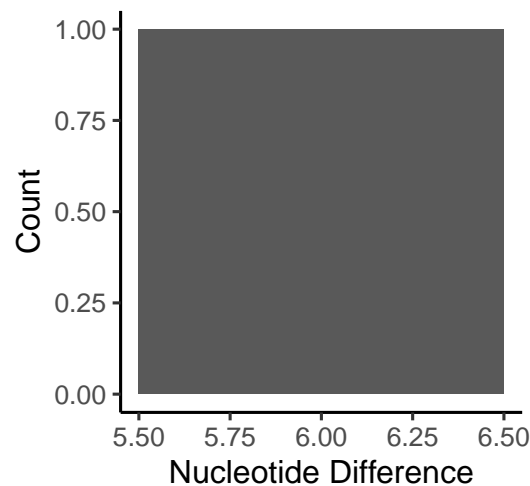
IGHV4-59*12

995 sequences assigned
123 (12.4%) exact matches, in which:
121 unique CDR3
6 unique J



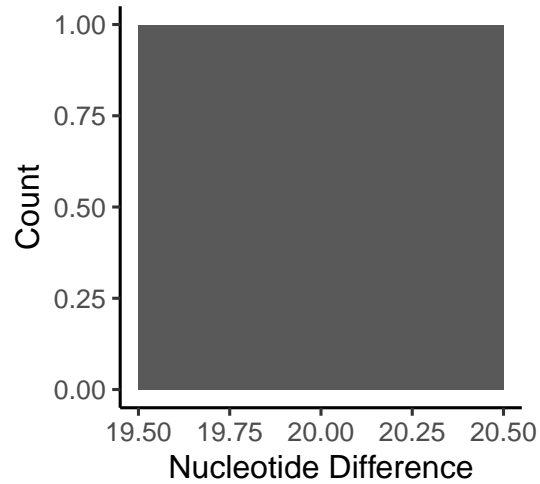
IGHV4/OR15-8*01

1 sequences assigned
No exact matches.



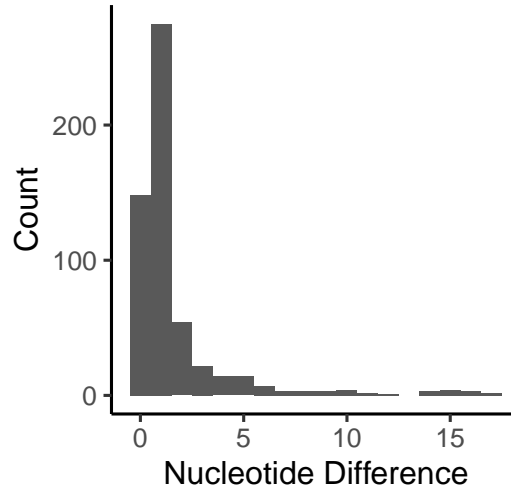
IGHV4/OR15-8*02

1 sequences assigned
No exact matches.



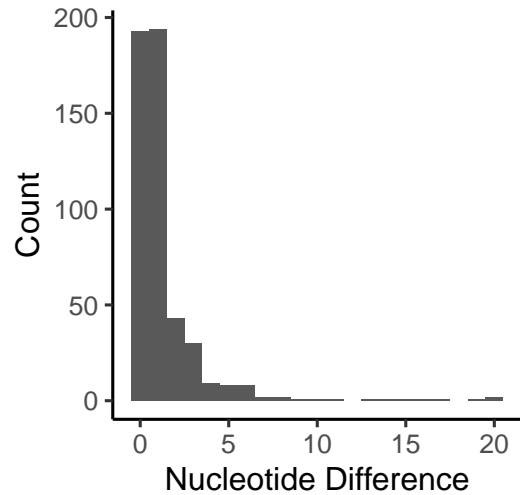
IGHV6-1*01_02

562 sequences assigned
148 (26.3%) exact matches, in which:
130 unique CDR3
5 unique J



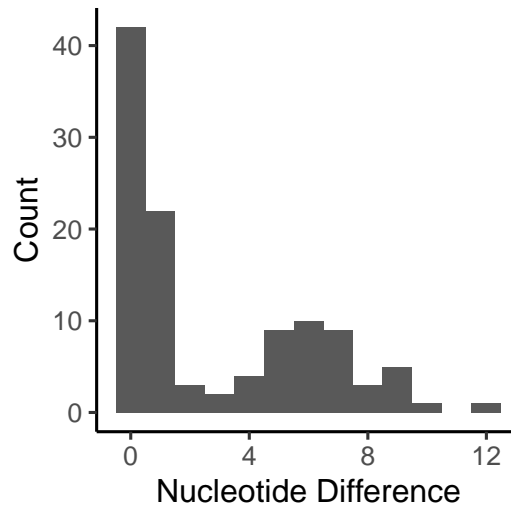
IGHV5-10-1*01_03

501 sequences assigned
193 (38.5%) exact matches, in which:
133 unique CDR3
5 unique J



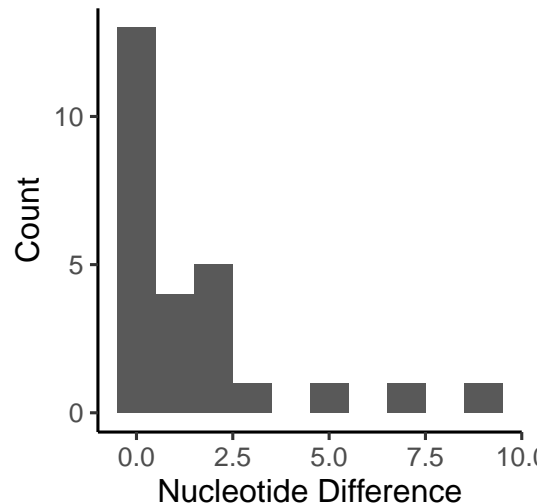
IGHV6-1*01_02_A315G

111 sequences assigned
42 (37.8%) exact matches, in which:
42 unique CDR3
4 unique J



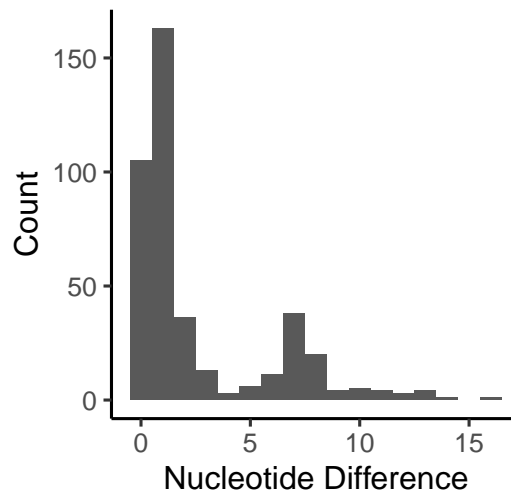
IGHV5-51*07

26 sequences assigned
13 (50%) exact matches, in which:
13 unique CDR3
3 unique J

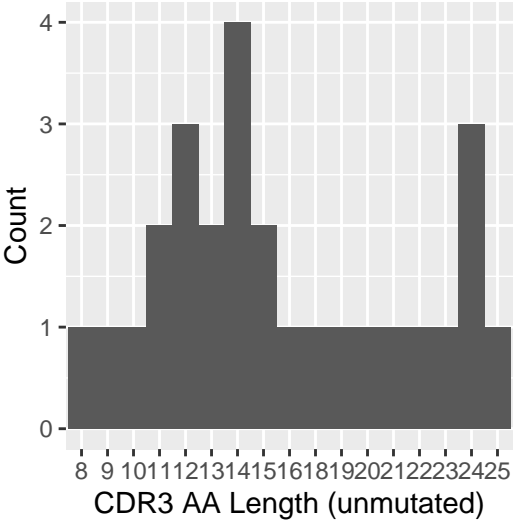


IGHV7-4-1*02

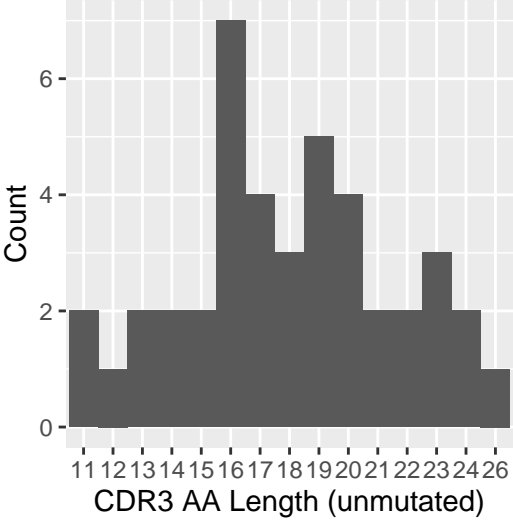
424 sequences assigned
105 (24.8%) exact matches, in which:
95 unique CDR3
6 unique J



IGHV3-53*01_02_A225G_T267G_G303A



IGHV6-1*01_02_A315G





[illegible]