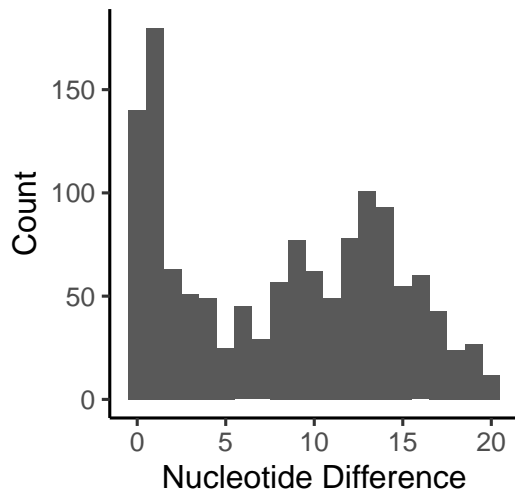


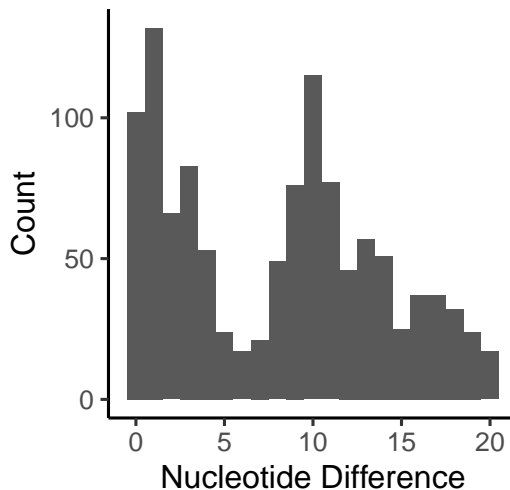
IGHV1-2*02

1747 sequences assigned
140 (8%) exact matches, in which:
110 unique CDR3
6 unique J



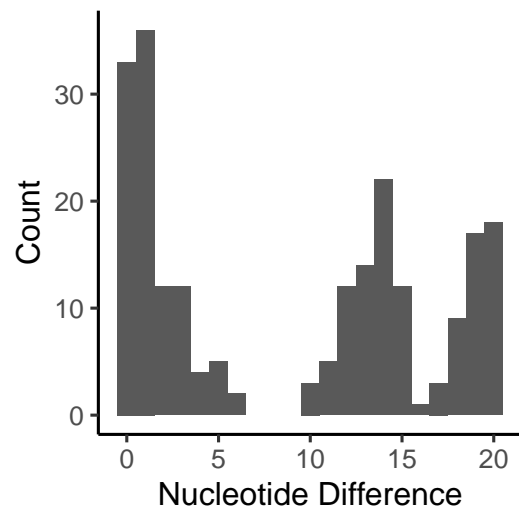
IGHV1-18*01

1433 sequences assigned
102 (7.1%) exact matches, in which:
80 unique CDR3
5 unique J



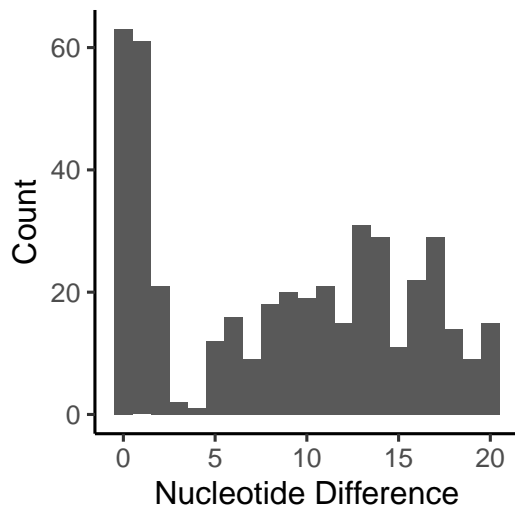
IGHV1-46*01

294 sequences assigned
33 (11.2%) exact matches, in which:
23 unique CDR3
5 unique J



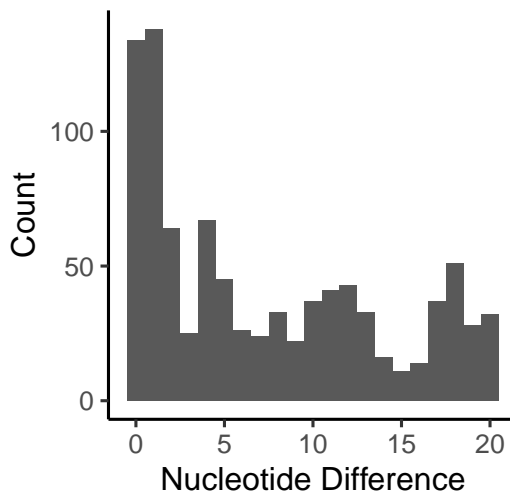
IGHV1-3*01

680 sequences assigned
63 (9.3%) exact matches, in which:
50 unique CDR3
6 unique J



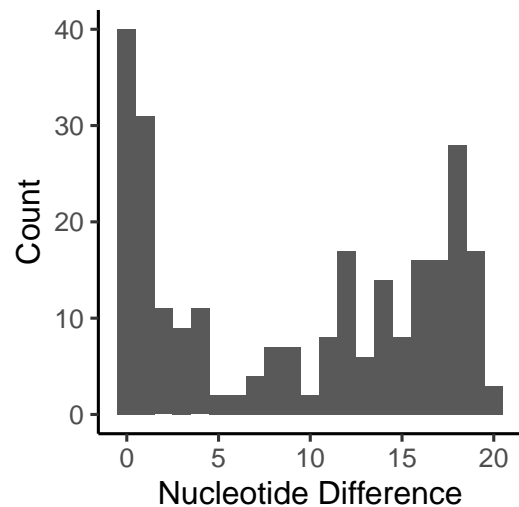
IGHV1-18*04

1184 sequences assigned
134 (11.3%) exact matches, in which:
101 unique CDR3
6 unique J



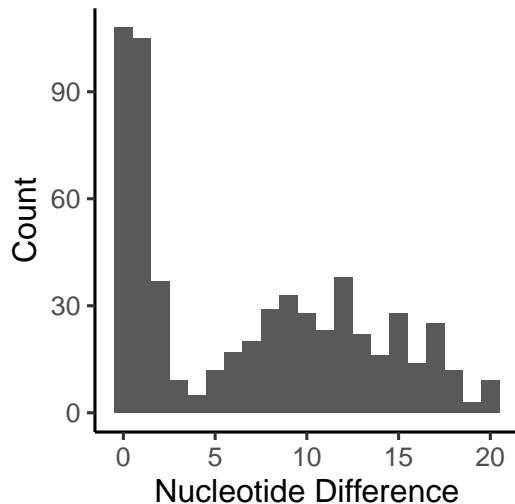
IGHV1-46*03

373 sequences assigned
40 (10.7%) exact matches, in which:
28 unique CDR3
5 unique J



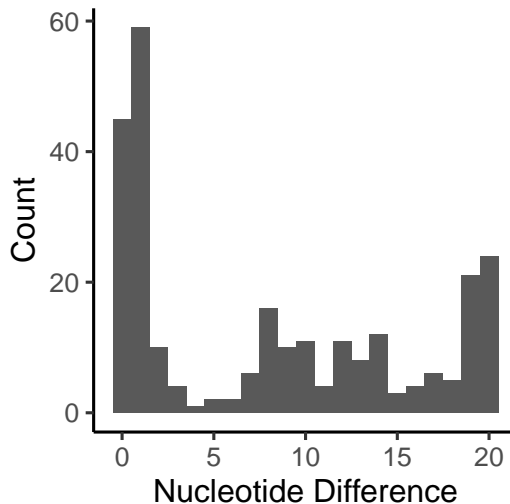
IGHV1-8*01

751 sequences assigned
108 (14.4%) exact matches, in which:
78 unique CDR3
6 unique J



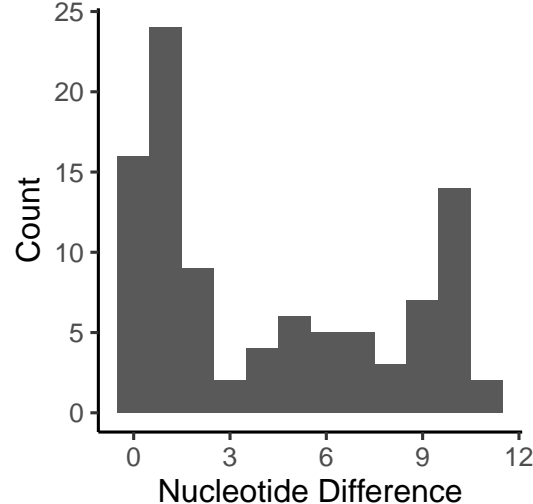
IGHV1-24*01

366 sequences assigned
45 (12.3%) exact matches, in which:
38 unique CDR3
6 unique J



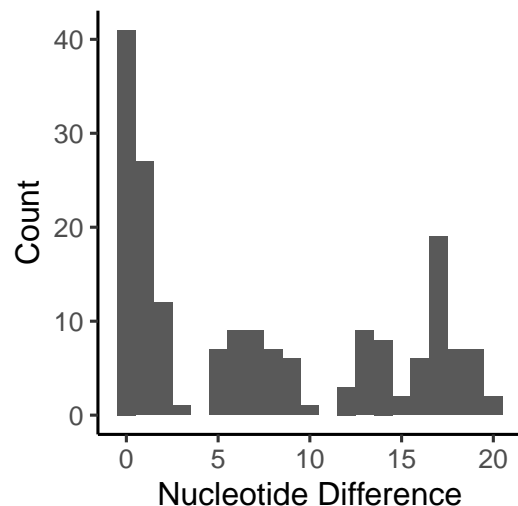
IGHV1-58*02

103 sequences assigned
16 (15.5%) exact matches, in which:
8 unique CDR3
2 unique J



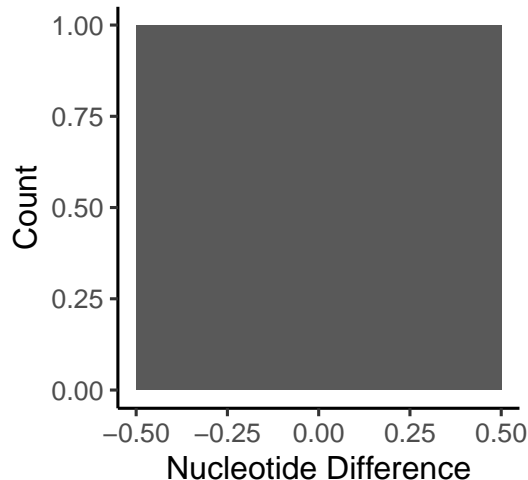
IGHV1-69*02

229 sequences assigned
41 (17.9%) exact matches, in which:
35 unique CDR3
6 unique J



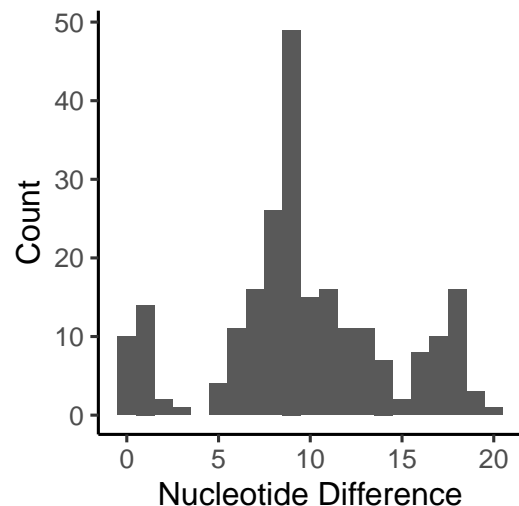
IGHV1-69D*01

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



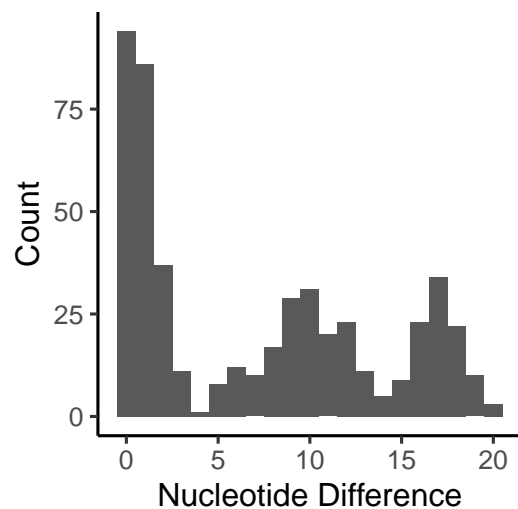
IGHV2-70*15

236 sequences assigned
10 (4.2%) exact matches, in which:
10 unique CDR3
4 unique J



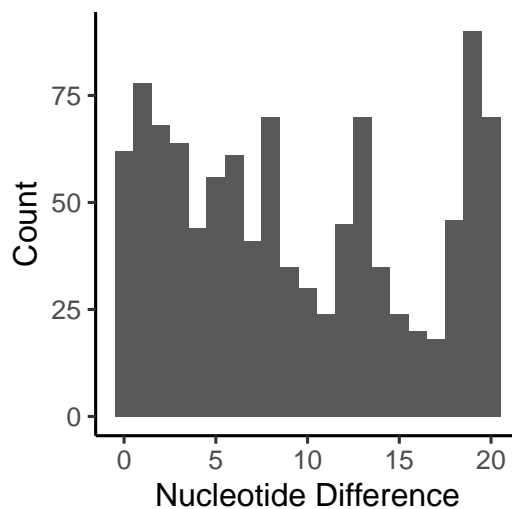
IGHV1-69*04

749 sequences assigned
94 (12.6%) exact matches, in which:
80 unique CDR3
5 unique J



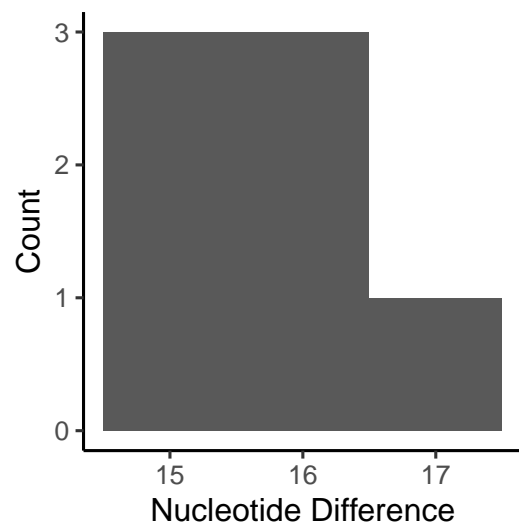
IGHV2-5*02

1188 sequences assigned
62 (5.2%) exact matches, in which:
51 unique CDR3
5 unique J



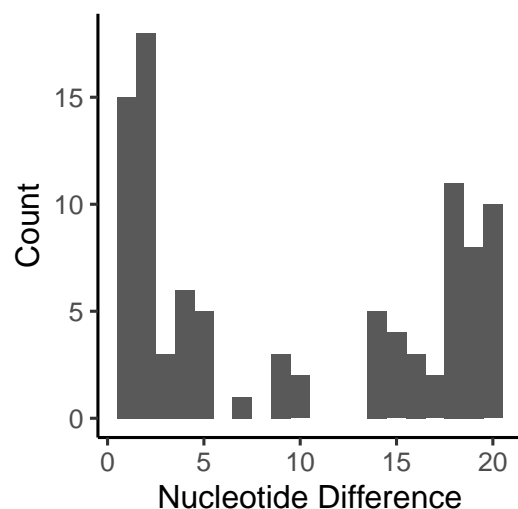
IGHV2-70D*04

7 sequences assigned
No exact matches.



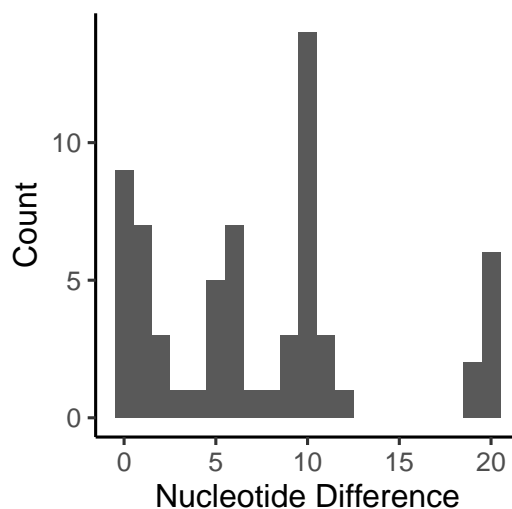
IGHV1-69*08

226 sequences assigned
No exact matches.



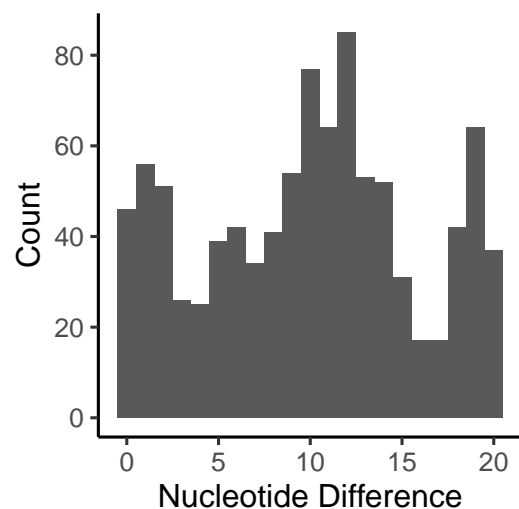
IGHV2-26*01

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



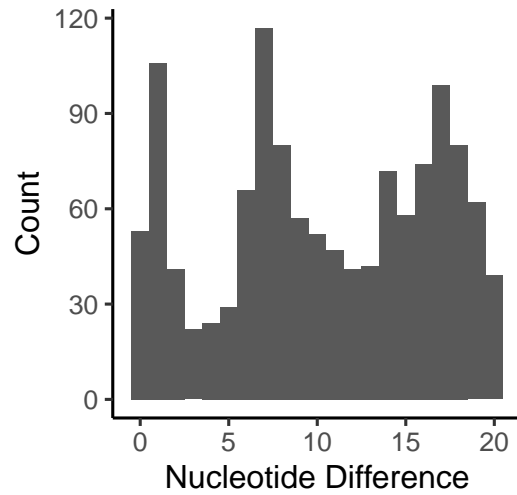
IGHV3-7*01

1188 sequences assigned
46 (3.9%) exact matches, in which:
39 unique CDR3
6 unique J



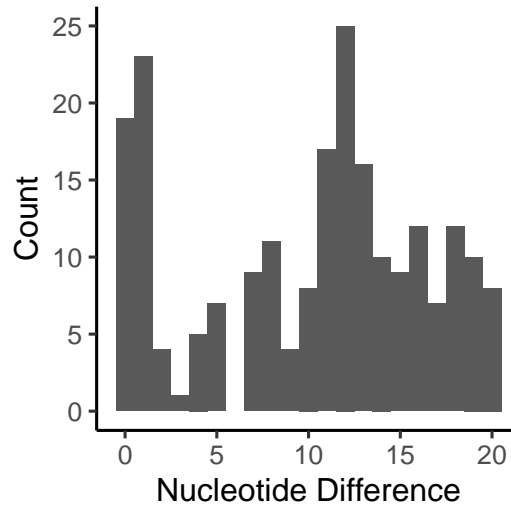
IGHV3-7*03

1615 sequences assigned
53 (3.3%) exact matches, in which:
39 unique CDR3
5 unique J



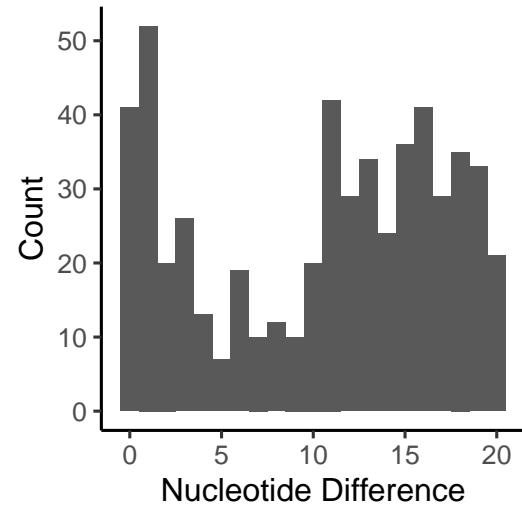
IGHV3-11*06

269 sequences assigned
19 (7.1%) exact matches, in which:
18 unique CDR3
5 unique J



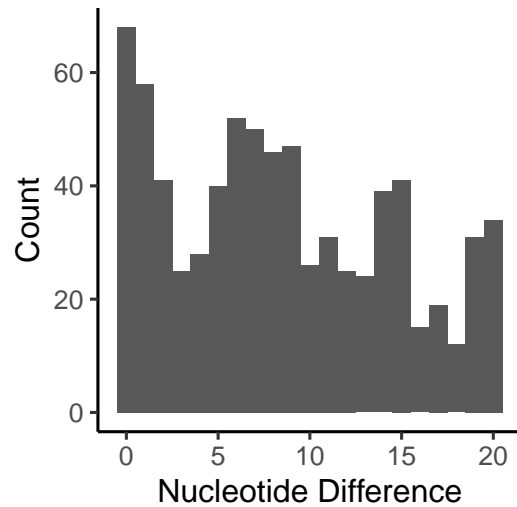
IGHV3-15*01

768 sequences assigned
41 (5.3%) exact matches, in which:
39 unique CDR3
4 unique J



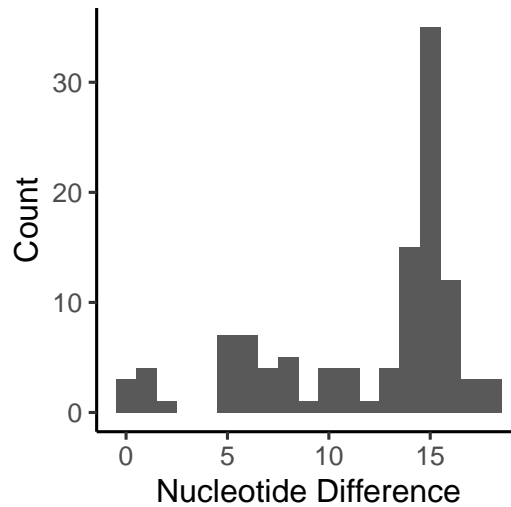
IGHV3-9*01

862 sequences assigned
68 (7.9%) exact matches, in which:
61 unique CDR3
5 unique J



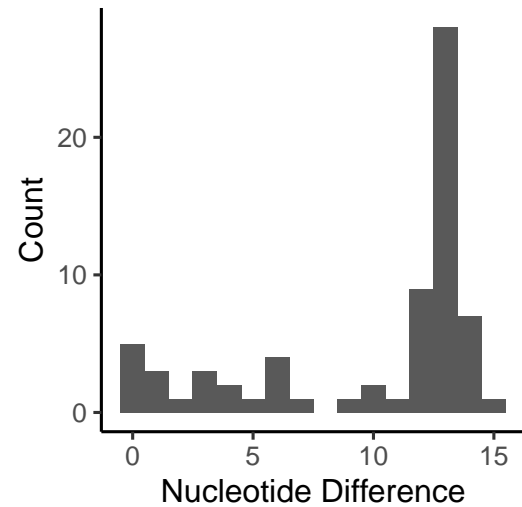
IGHV3-13*01

131 sequences assigned
3 (2.3%) exact matches, in which:
3 unique CDR3
3 unique J



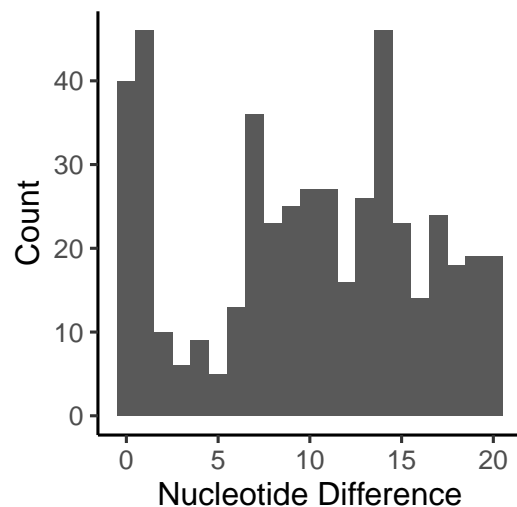
IGHV3-20*01

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



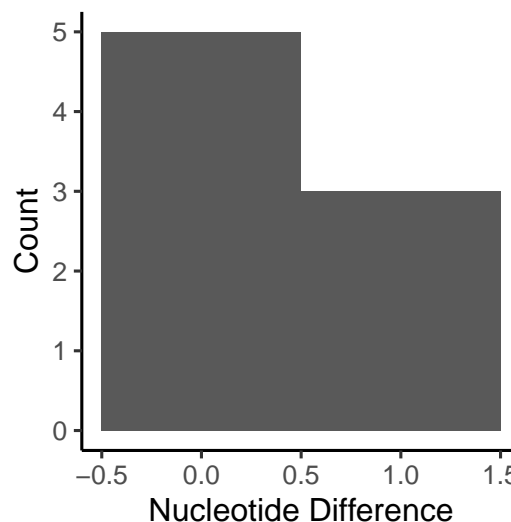
IGHV3-11*01

674 sequences assigned
40 (5.9%) exact matches, in which:
35 unique CDR3
4 unique J



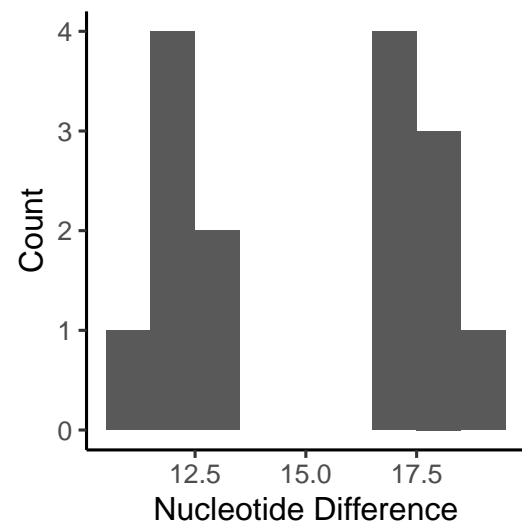
IGHV3-13*05

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



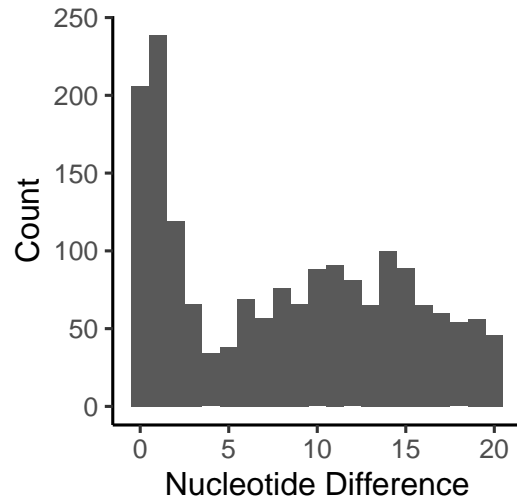
IGHV3-20*04

18 sequences assigned
No exact matches.



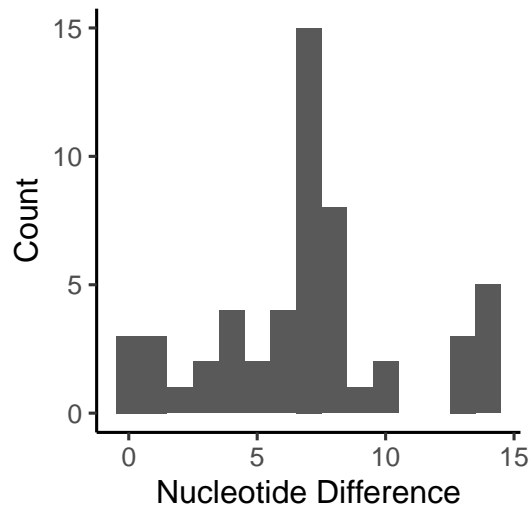
IGHV3-21*01

2372 sequences assigned
206 (8.7%) exact matches, in which:
164 unique CDR3
6 unique J



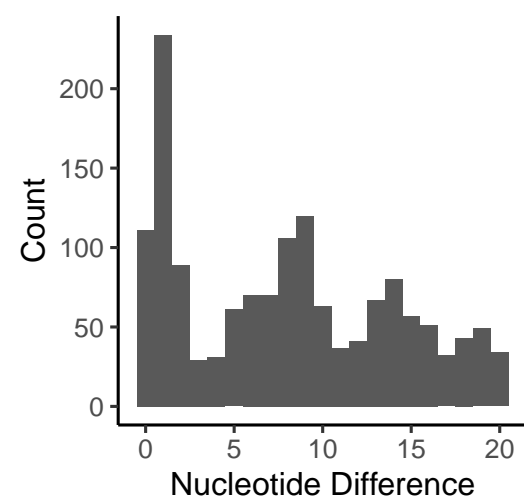
IGHV3-43*01

102 sequences assigned
3 (2.9%) exact matches, in which:
2 unique CDR3
2 unique J



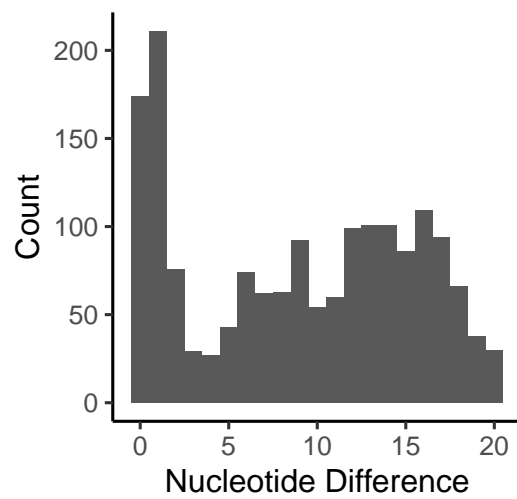
IGHV3-48*03

1709 sequences assigned
111 (6.5%) exact matches, in which:
81 unique CDR3
4 unique J



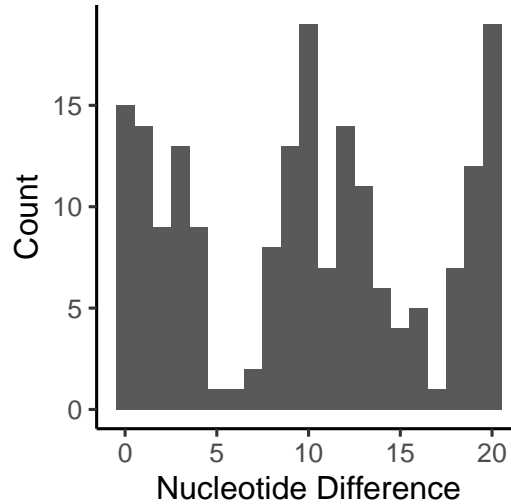
IGHV3-30-3*01

2163 sequences assigned
174 (8%) exact matches, in which:
146 unique CDR3
6 unique J



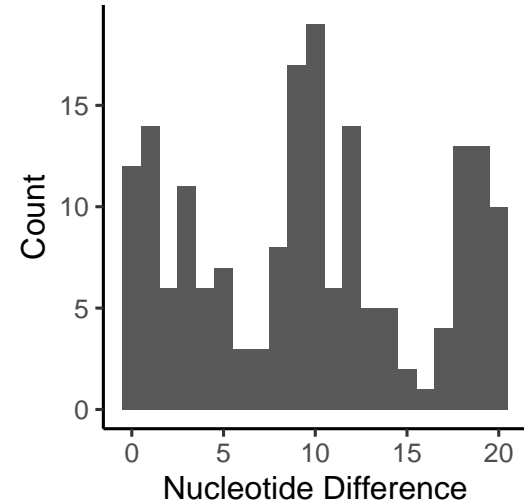
IGHV3-43*02

234 sequences assigned
15 (6.4%) exact matches, in which:
14 unique CDR3
3 unique J



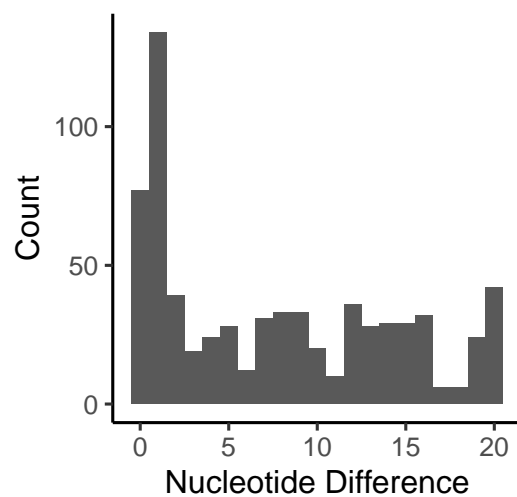
IGHV3-49*03

340 sequences assigned
12 (3.5%) exact matches, in which:
12 unique CDR3
3 unique J



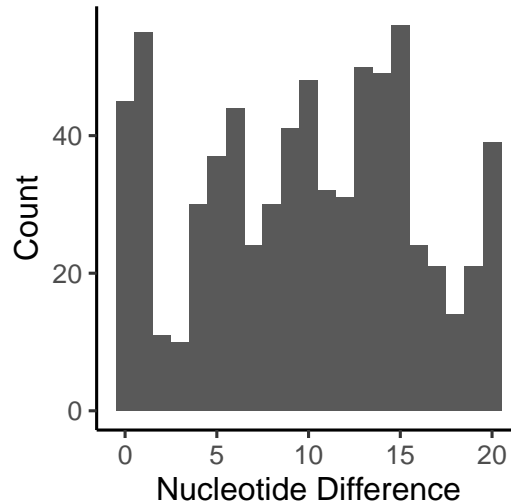
IGHV3-33*01

856 sequences assigned
77 (9%) exact matches, in which:
53 unique CDR3
4 unique J



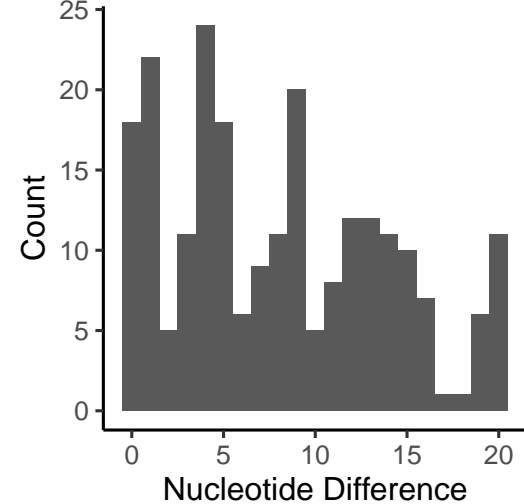
IGHV3-48*01

897 sequences assigned
45 (5%) exact matches, in which:
33 unique CDR3
4 unique J



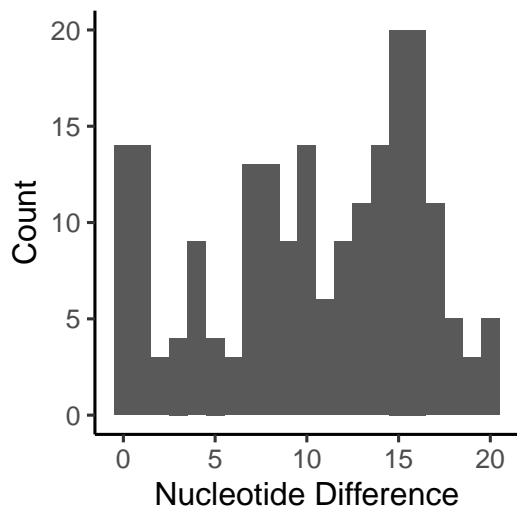
IGHV3-49*04

304 sequences assigned
18 (5.9%) exact matches, in which:
17 unique CDR3
5 unique J



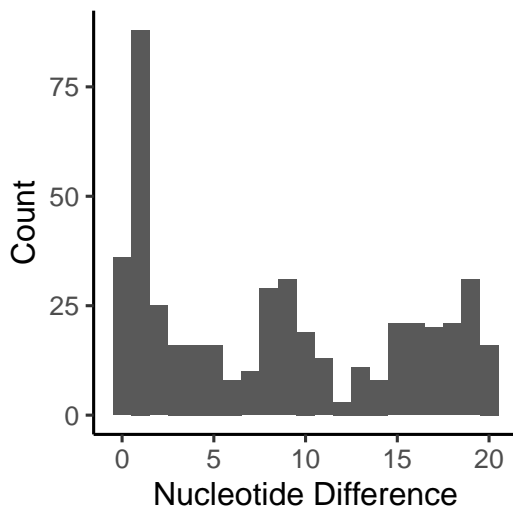
IGHV3-53*02

418 sequences assigned
14 (3.3%) exact matches, in which:
13 unique CDR3
5 unique J



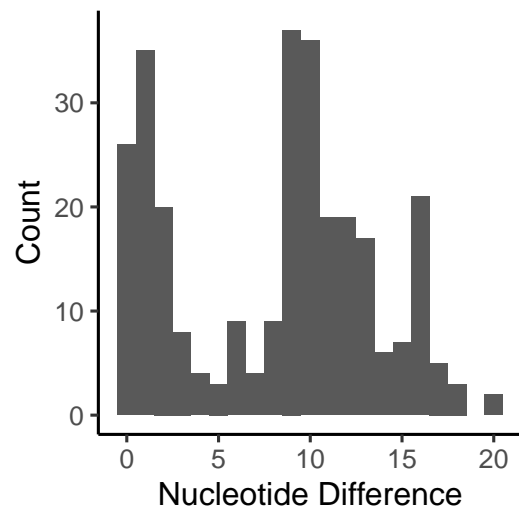
IGHV3-66*01

547 sequences assigned
36 (6.6%) exact matches, in which:
27 unique CDR3
5 unique J



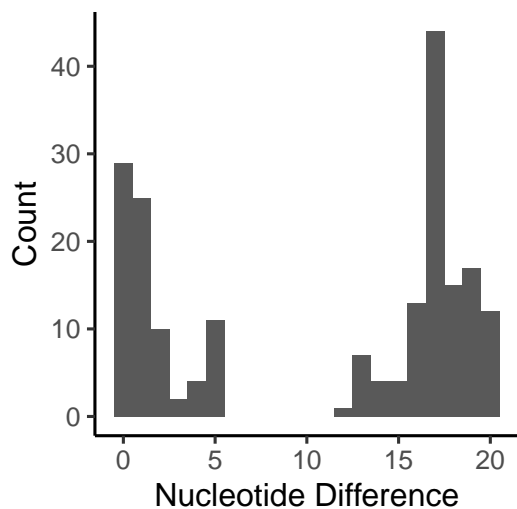
IGHV3-73*01

375 sequences assigned
26 (6.9%) exact matches, in which:
22 unique CDR3
4 unique J



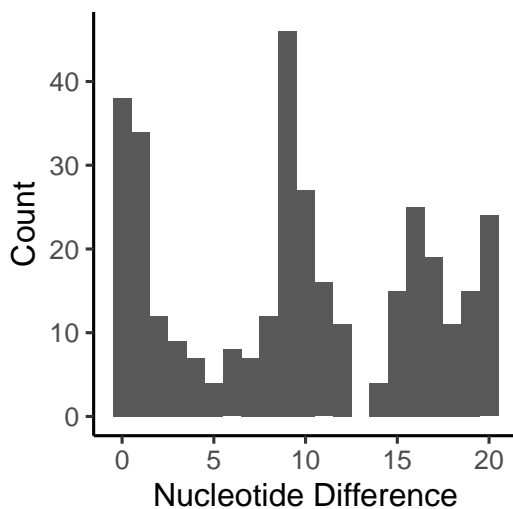
IGHV3-53*04

255 sequences assigned
29 (11.4%) exact matches, in which:
23 unique CDR3
4 unique J



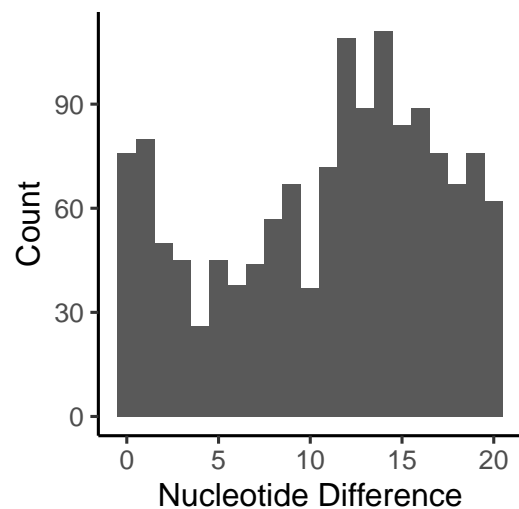
IGHV3-66*02

549 sequences assigned
38 (6.9%) exact matches, in which:
33 unique CDR3
4 unique J



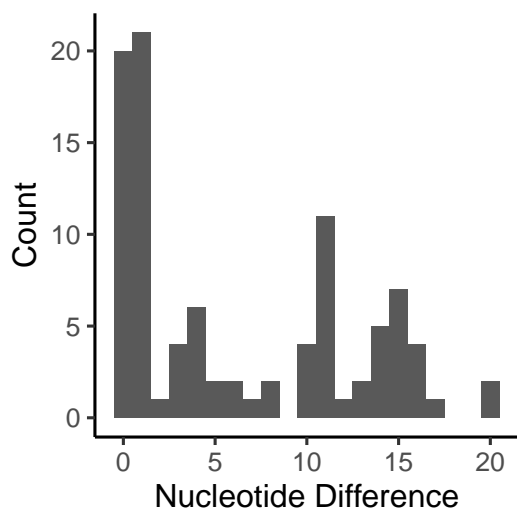
IGHV3-74*01

1885 sequences assigned
76 (4%) exact matches, in which:
64 unique CDR3
4 unique J



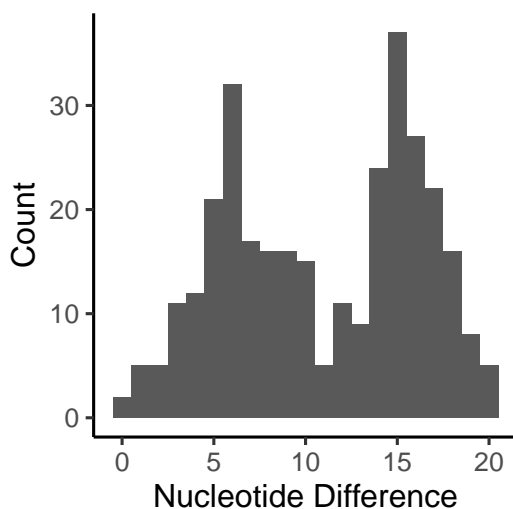
IGHV3-64*01

139 sequences assigned
20 (14.4%) exact matches, in which:
13 unique CDR3
3 unique J



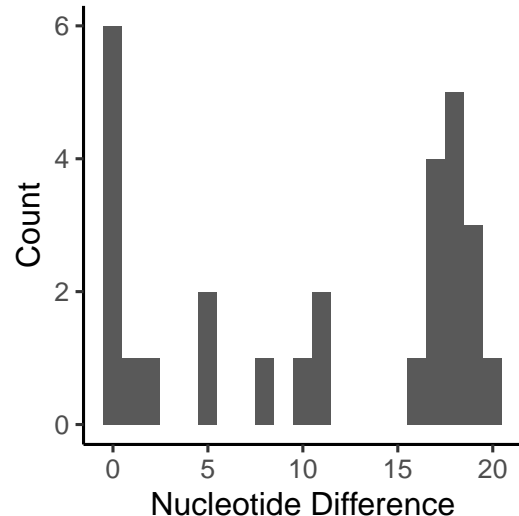
IGHV3-72*01

445 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
1 unique J



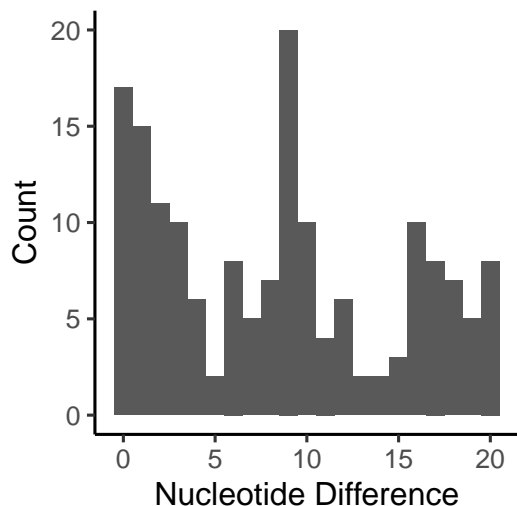
IGHV3-43D*03

30 sequences assigned
6 (20%) exact matches, in which:
6 unique CDR3
3 unique J



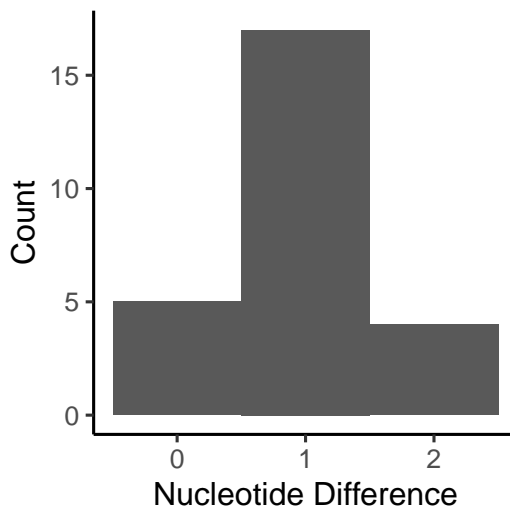
IGHV3-64D*06

247 sequences assigned
17 (6.9%) exact matches, in which:
17 unique CDR3
4 unique J



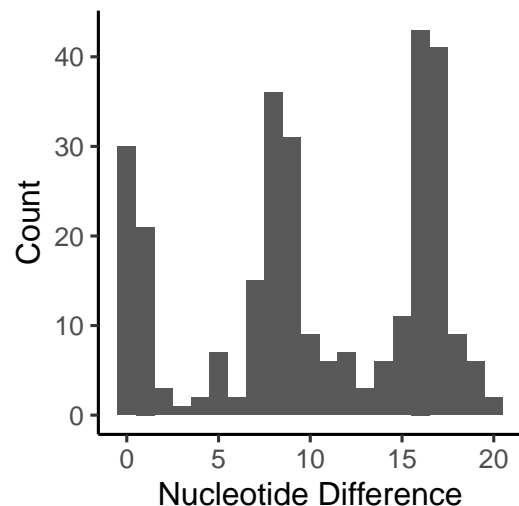
IGHV4-28*01

26 sequences assigned
5 (19.2%) exact matches, in which:
3 unique CDR3
1 unique J



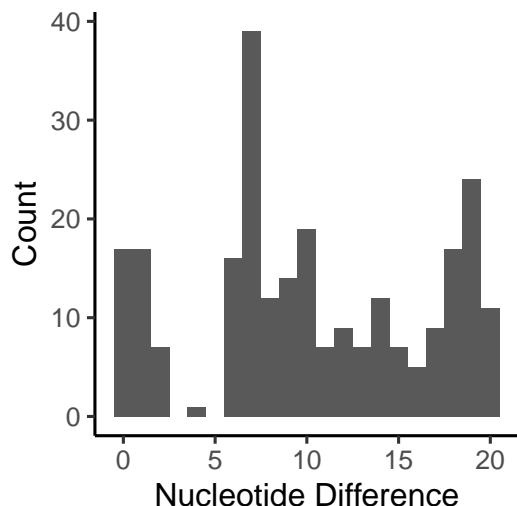
IGHV4-31*03

581 sequences assigned
30 (5.2%) exact matches, in which:
24 unique CDR3
6 unique J



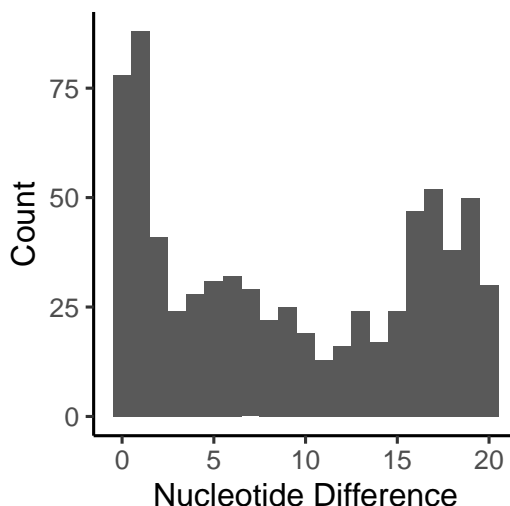
IGHV4-4*02

393 sequences assigned
17 (4.3%) exact matches, in which:
16 unique CDR3
4 unique J



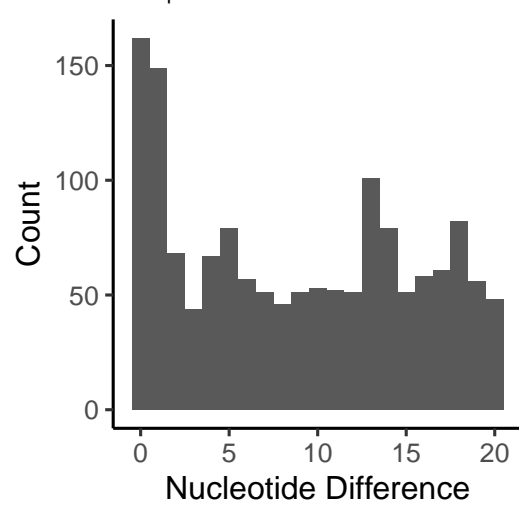
IGHV4-30-4*01

1067 sequences assigned
78 (7.3%) exact matches, in which:
64 unique CDR3
4 unique J



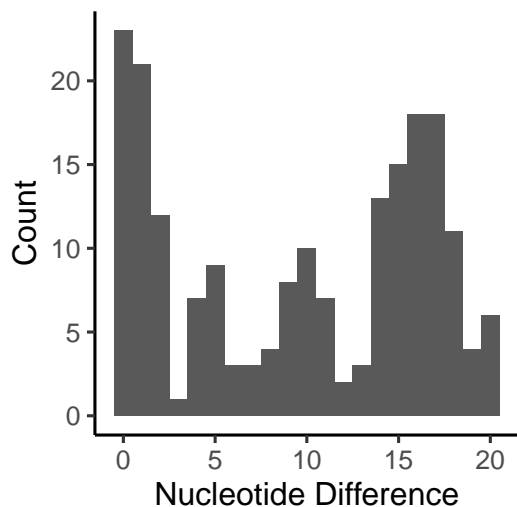
IGHV4-34*01

2025 sequences assigned
162 (8%) exact matches, in which:
145 unique CDR3
6 unique J



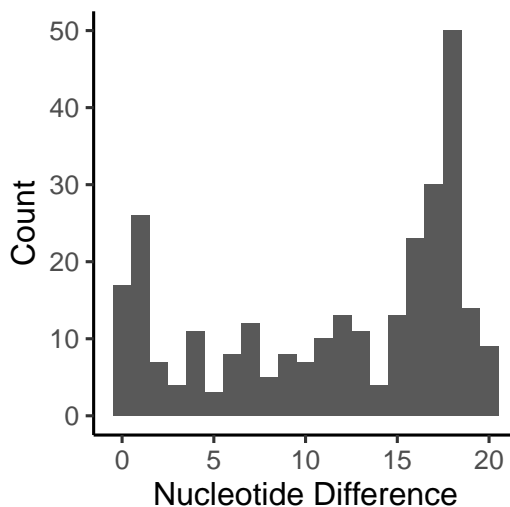
IGHV4-4*07

254 sequences assigned
23 (9.1%) exact matches, in which:
18 unique CDR3
4 unique J



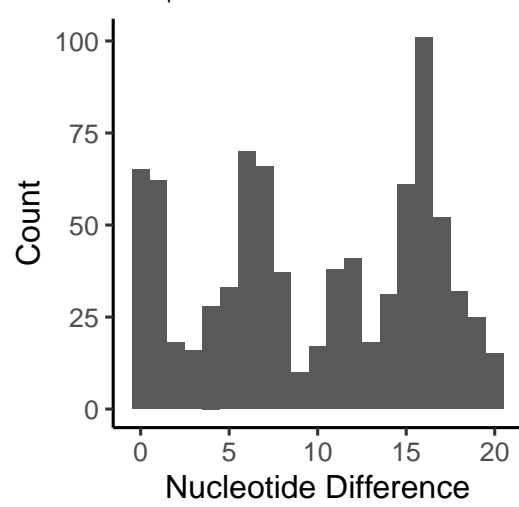
IGHV4-30-2*01

460 sequences assigned
17 (3.7%) exact matches, in which:
16 unique CDR3
5 unique J



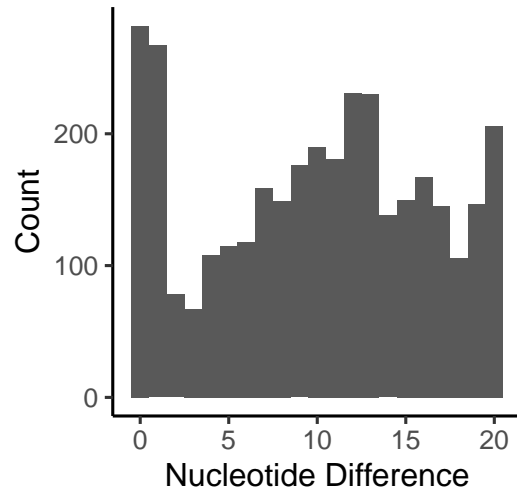
IGHV4-38-2*02

1261 sequences assigned
65 (5.2%) exact matches, in which:
56 unique CDR3
6 unique J



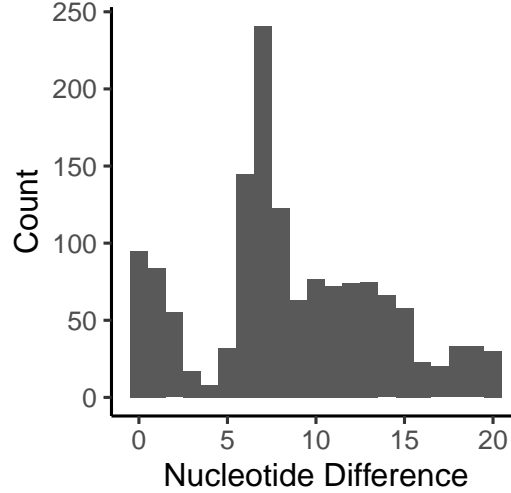
IGHV4–39*01

5159 sequences assigned
282 (5.5%) exact matches, in which:
263 unique CDR3
6 unique J



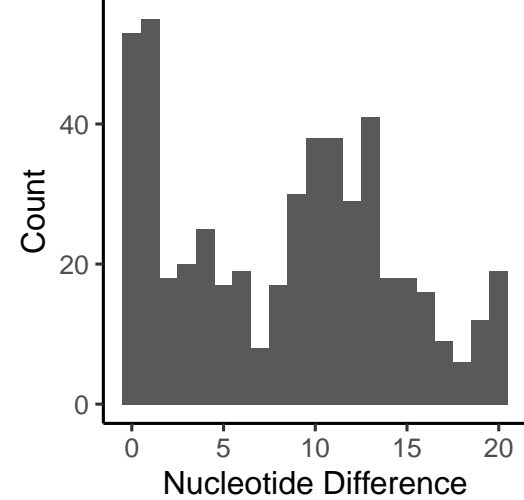
IGHV4–61*02

1812 sequences assigned
95 (5.2%) exact matches, in which:
69 unique CDR3
6 unique J



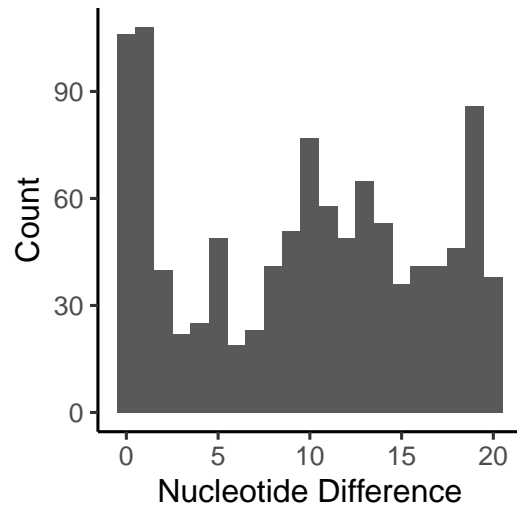
IGHV5–51*03

631 sequences assigned
53 (8.4%) exact matches, in which:
48 unique CDR3
5 unique J



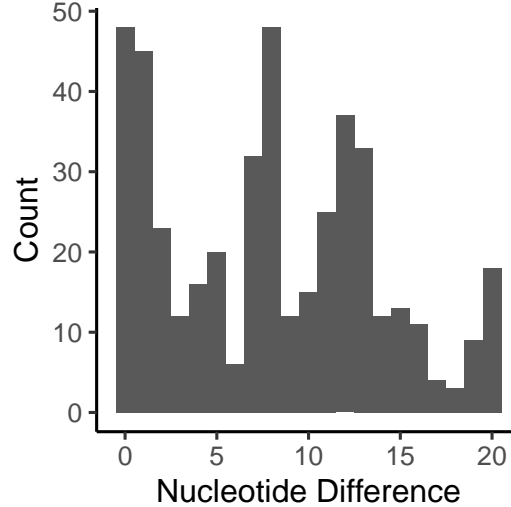
IGHV4–59*01

1285 sequences assigned
106 (8.2%) exact matches, in which:
88 unique CDR3
6 unique J



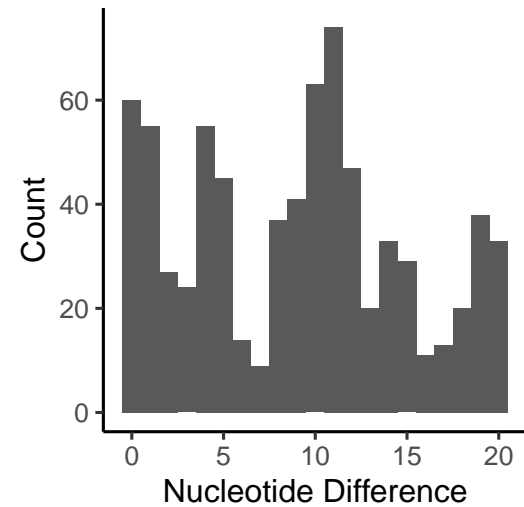
IGHV5–10–1*03

634 sequences assigned
48 (7.6%) exact matches, in which:
43 unique CDR3
5 unique J



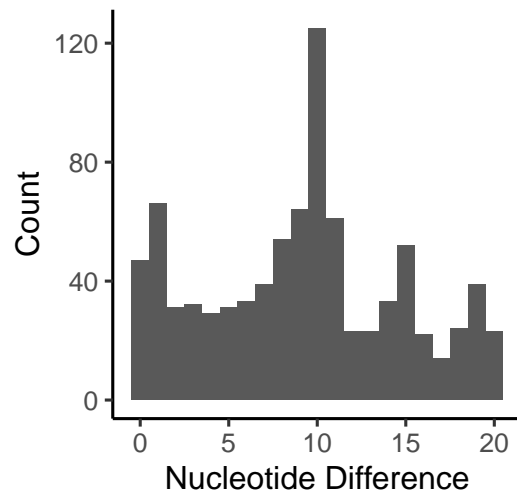
IGHV6–1*01

793 sequences assigned
60 (7.6%) exact matches, in which:
46 unique CDR3
6 unique J



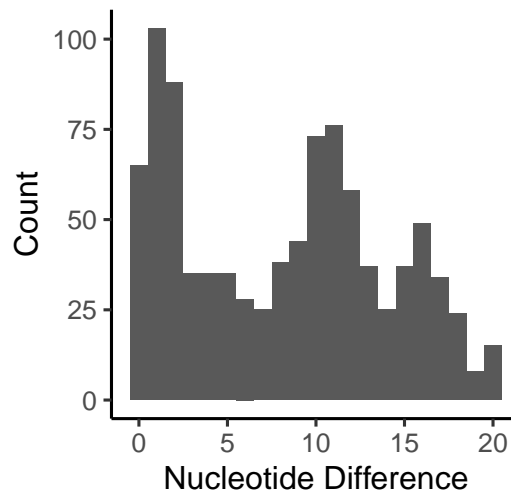
IGHV4–59*08

1065 sequences assigned
47 (4.4%) exact matches, in which:
35 unique CDR3
5 unique J



IGHV5–51*01

1178 sequences assigned
65 (5.5%) exact matches, in which:
57 unique CDR3
5 unique J





[illegible]