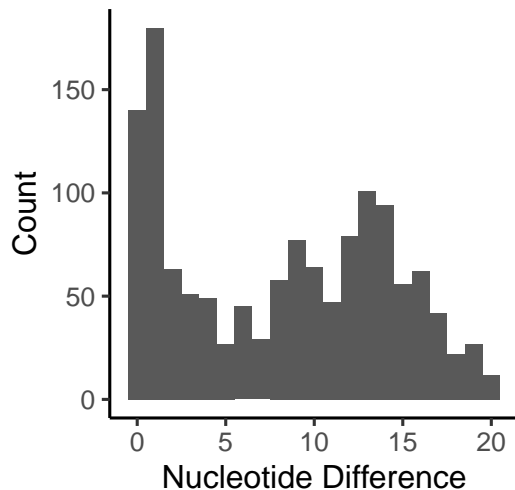


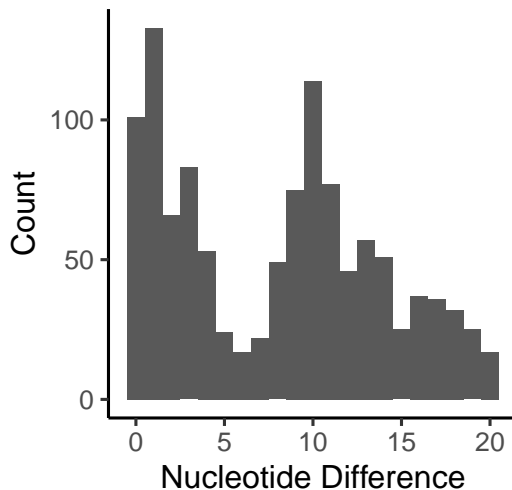
IGHV1-2*02

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



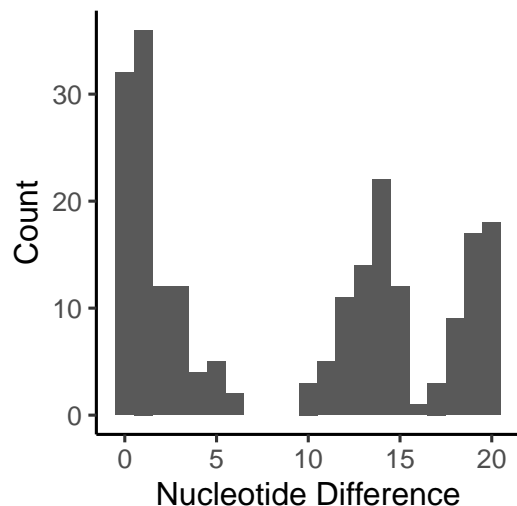
IGHV1-18*01

1432 sequences assigned
101 (7.1%) exact matches, in which:
80 unique CDR3
5 unique J



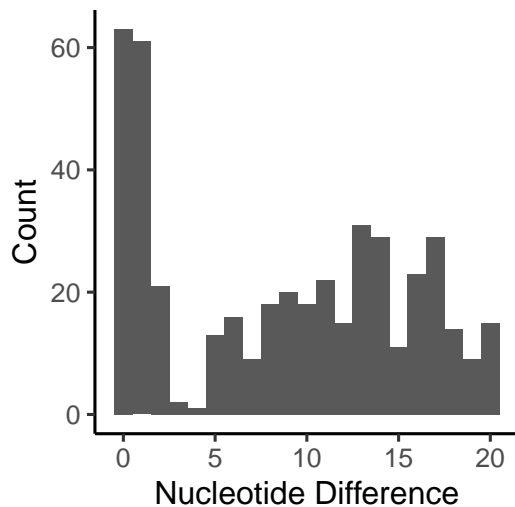
IGHV1-46*01

293 sequences assigned
32 (10.9%) exact matches, in which:
23 unique CDR3
5 unique J



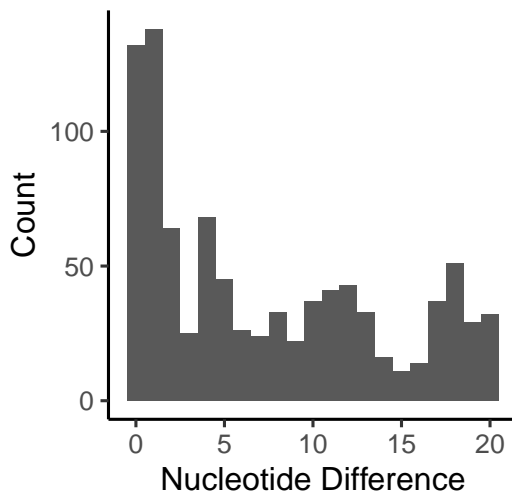
IGHV1-3*01

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



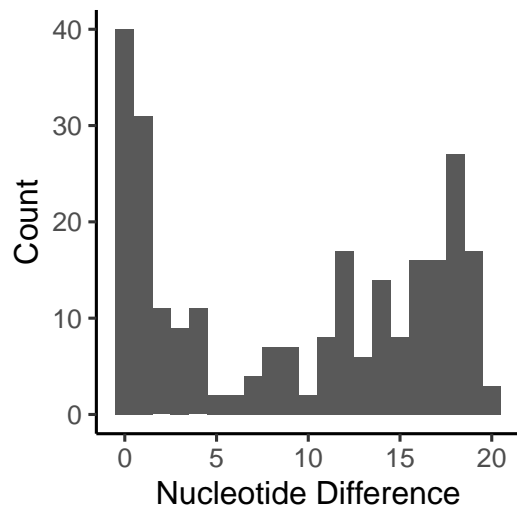
IGHV1-18*04

1184 sequences assigned
132 (11.1%) exact matches, in which:
100 unique CDR3
6 unique J



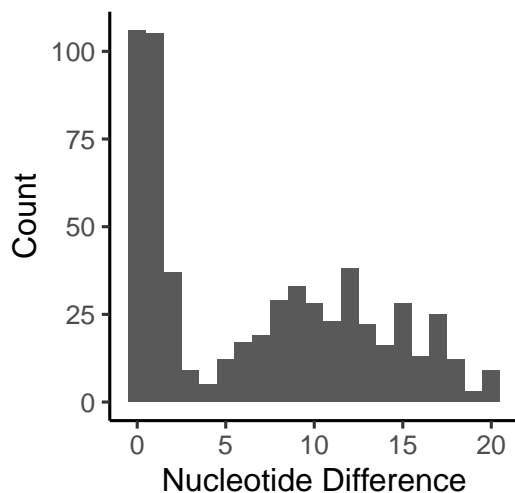
IGHV1-46*03

370 sequences assigned
40 (10.8%) exact matches, in which:
28 unique CDR3
5 unique J



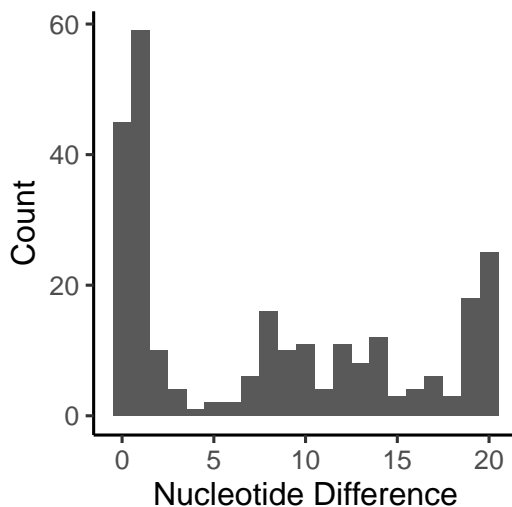
IGHV1-8*01

749 sequences assigned
106 (14.2%) exact matches, in which:
78 unique CDR3
6 unique J



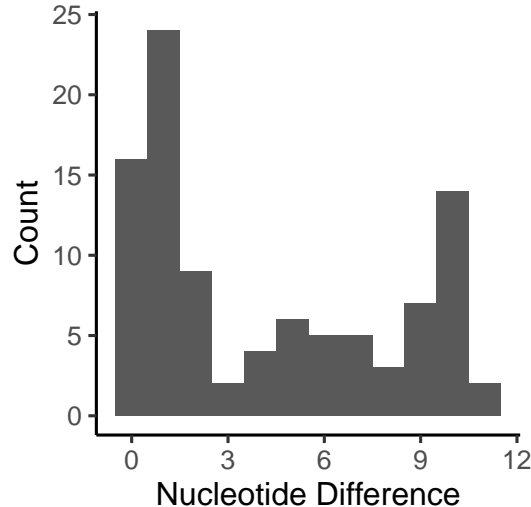
IGHV1-24*01

362 sequences assigned
45 (12.4%) exact matches, in which:
38 unique CDR3
6 unique J



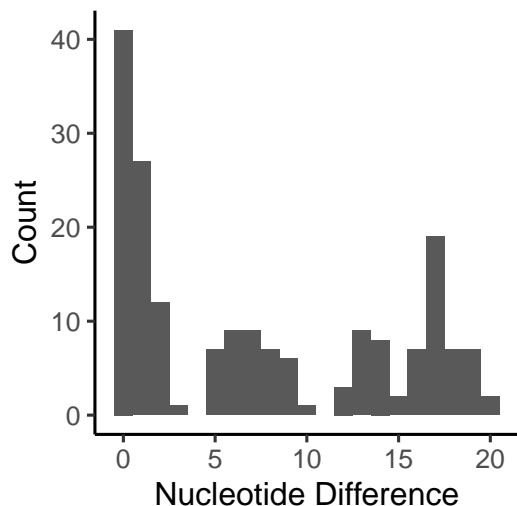
IGHV1-58*02

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



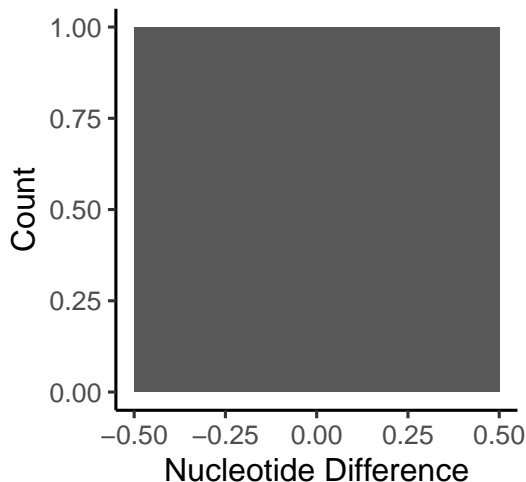
IGHV1-69*02

230 sequences assigned
41 (17.8%) exact matches, in which:
35 unique CDR3
6 unique J



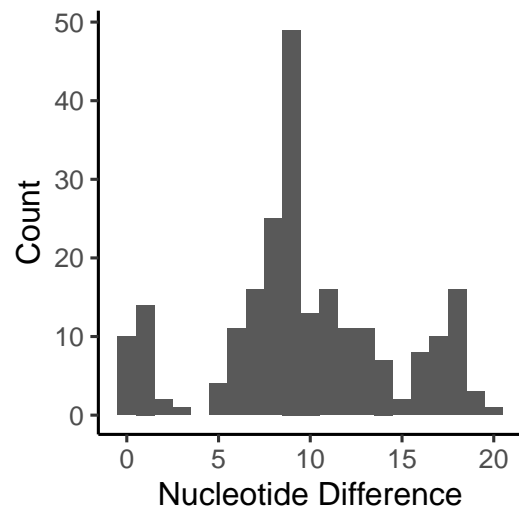
IGHV1-69D*01

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



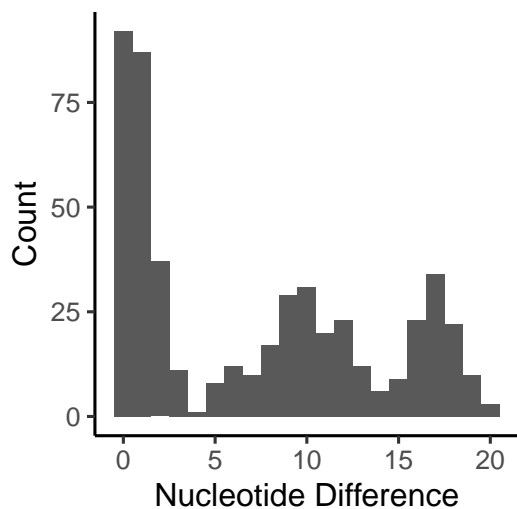
IGHV2-70*15

233 sequences assigned
10 (4.3%) exact matches, in which:
10 unique CDR3
4 unique J



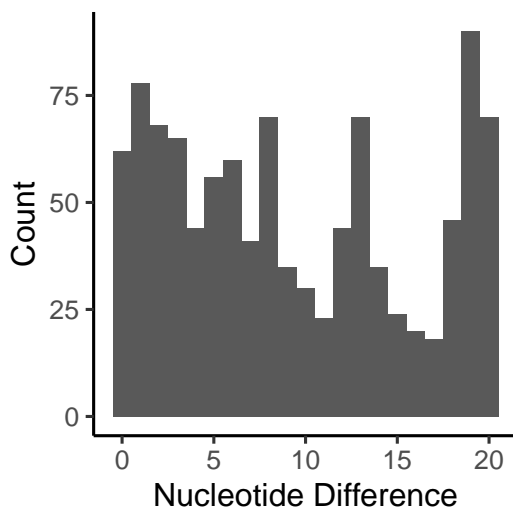
IGHV1-69*04

743 sequences assigned
92 (12.4%) exact matches, in which:
78 unique CDR3
5 unique J



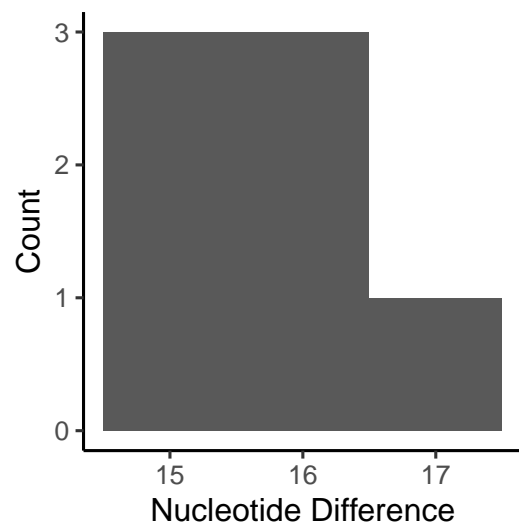
IGHV2-5*02

1164 sequences assigned
62 (5.3%) exact matches, in which:
51 unique CDR3
5 unique J



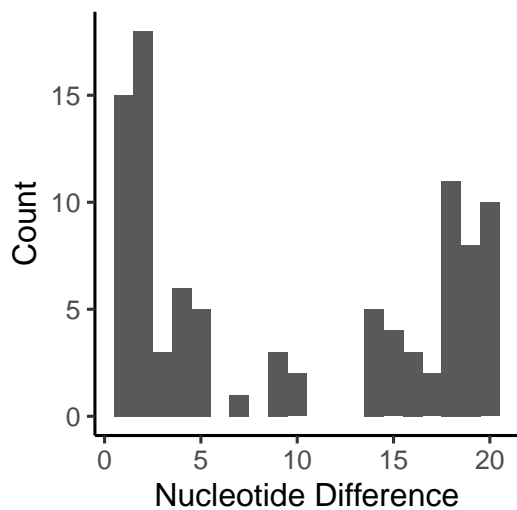
IGHV2-70D*04

7 sequences assigned
No exact matches.



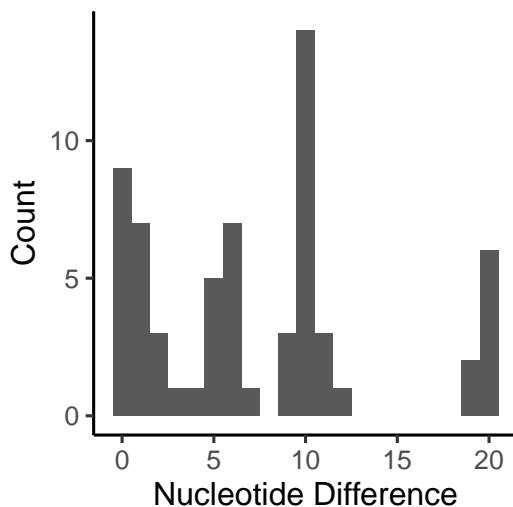
IGHV1-69*08

219 sequences assigned
No exact matches.



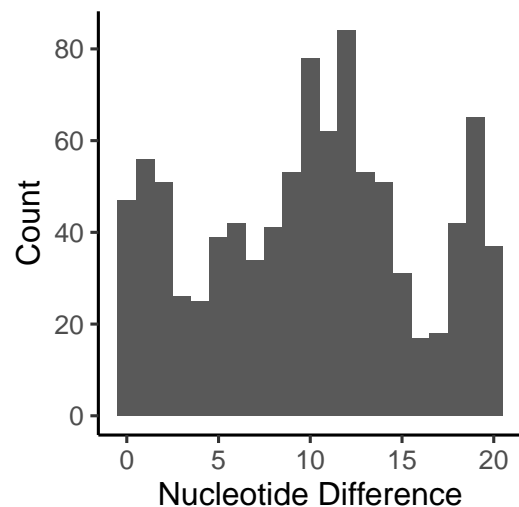
IGHV2-26*01

66 sequences assigned
9 (13.6%) exact matches, in which:
7 unique CDR3
3 unique J



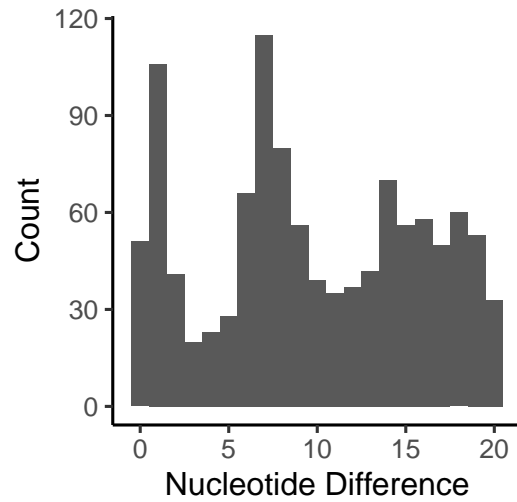
IGHV3-7*01

1189 sequences assigned
47 (4%) exact matches, in which:
40 unique CDR3
6 unique J



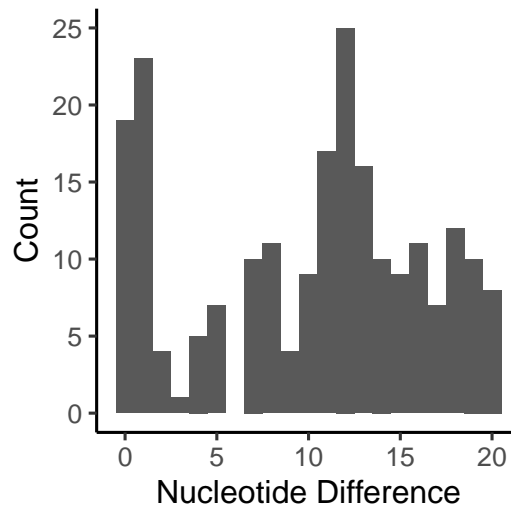
IGHV3-7*03

1438 sequences assigned
51 (3.5%) exact matches, in which:
39 unique CDR3
5 unique J



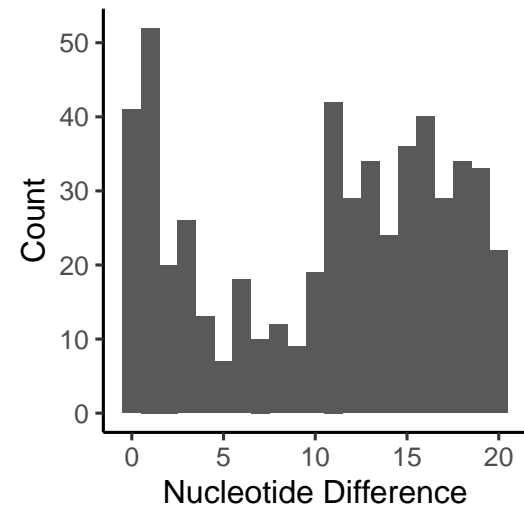
IGHV3-11*06

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



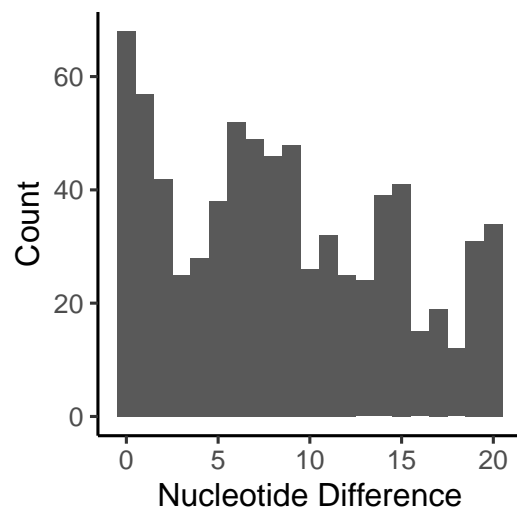
IGHV3-15*01

764 sequences assigned
41 (5.4%) exact matches, in which:
39 unique CDR3
4 unique J



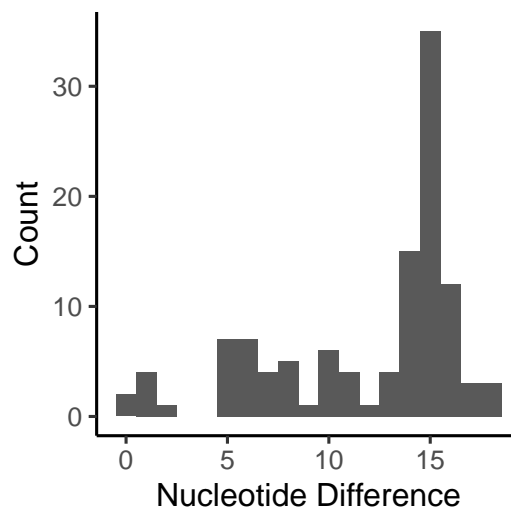
IGHV3-9*01

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



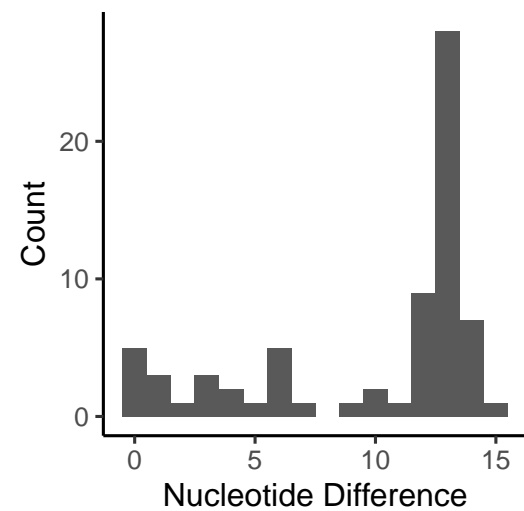
IGHV3-13*01

132 sequences assigned
2 (1.5%) exact matches, in which:
2 unique CDR3
2 unique J



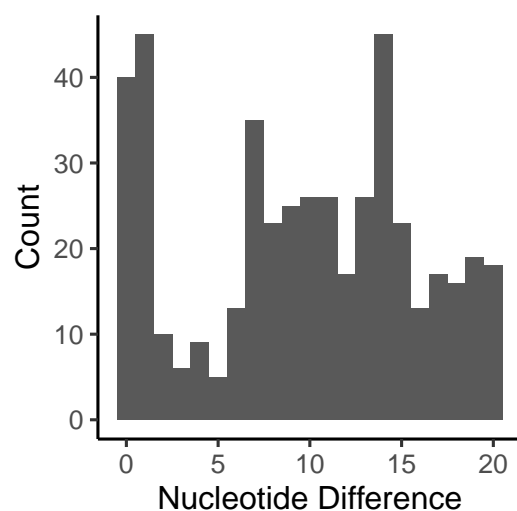
IGHV3-20*01

72 sequences assigned
5 (6.9%) exact matches, in which:
5 unique CDR3
3 unique J



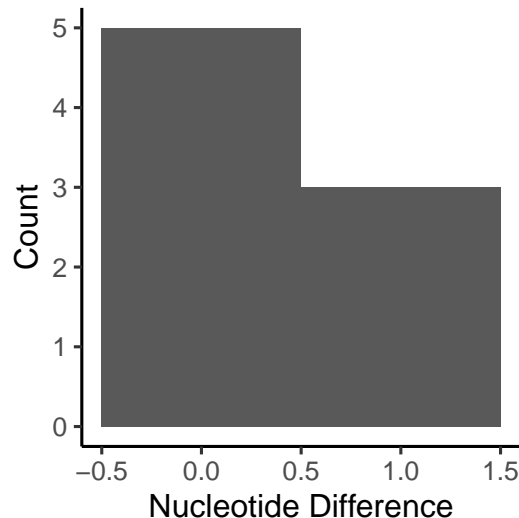
IGHV3-11*01

661 sequences assigned
40 (6.1%) exact matches, in which:
35 unique CDR3
4 unique J



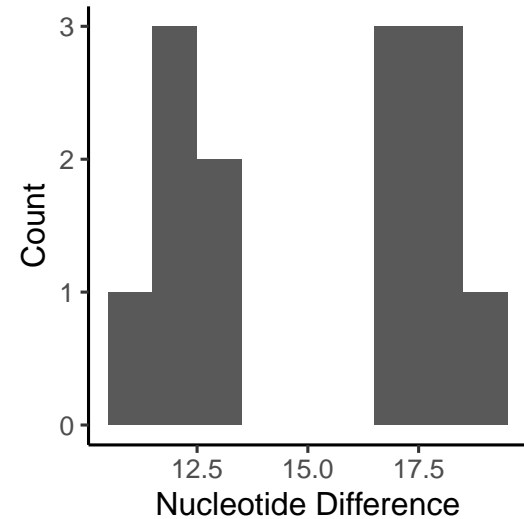
IGHV3-13*05

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



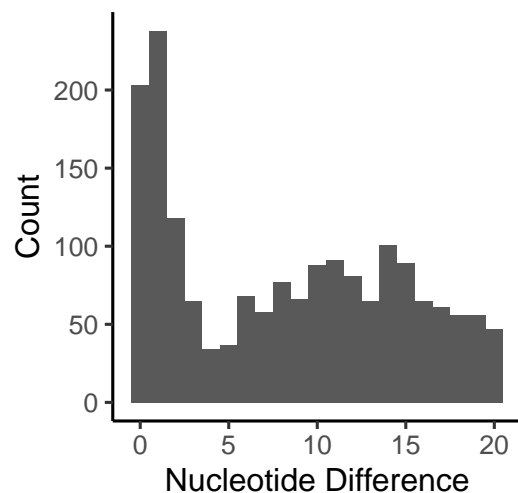
IGHV3-20*04

16 sequences assigned
No exact matches.



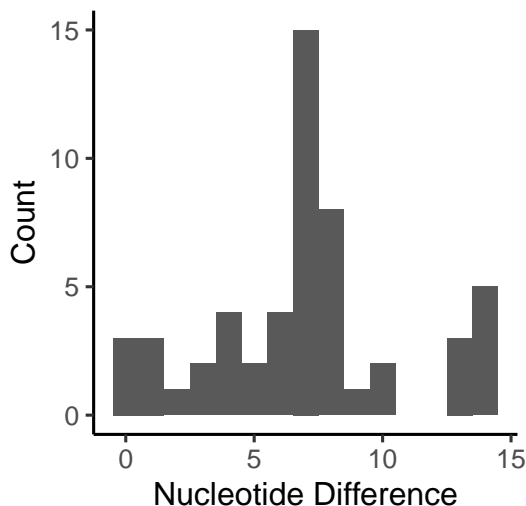
IGHV3-21*01

2373 sequences assigned
203 (8.6%) exact matches, in which:
162 unique CDR3
6 unique J



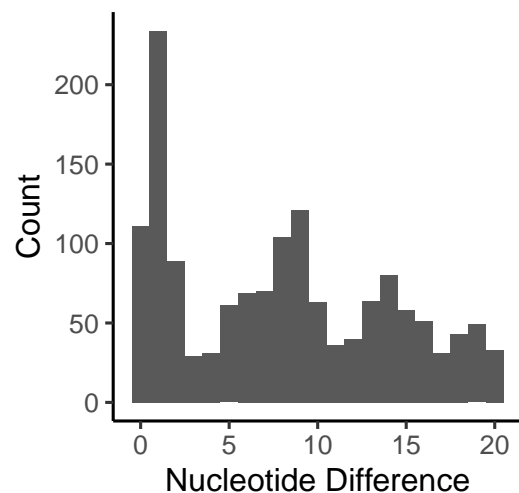
IGHV3-43*01

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



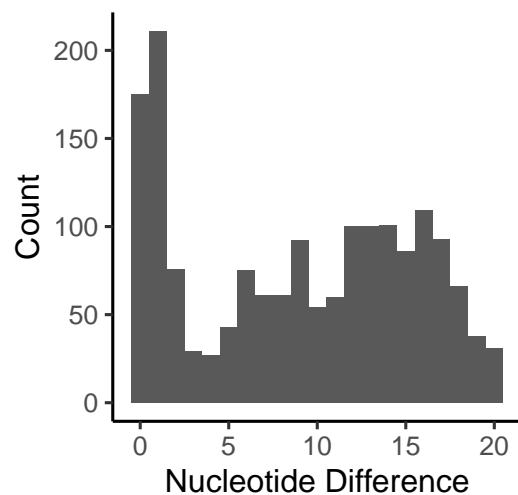
IGHV3-48*03

1703 sequences assigned
111 (6.5%) exact matches, in which:
81 unique CDR3
4 unique J



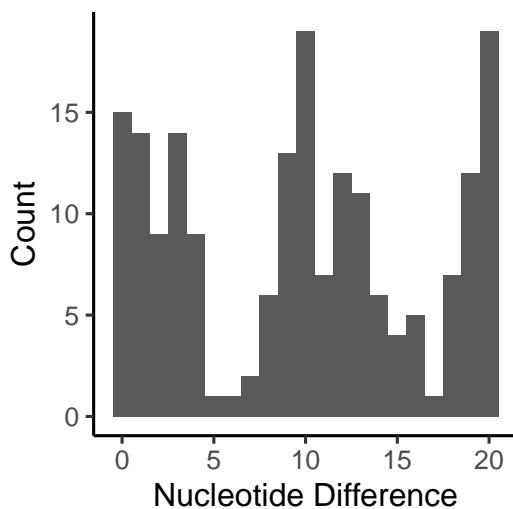
IGHV3-30-3*01

2164 sequences assigned
175 (8.1%) exact matches, in which:
148 unique CDR3
6 unique J



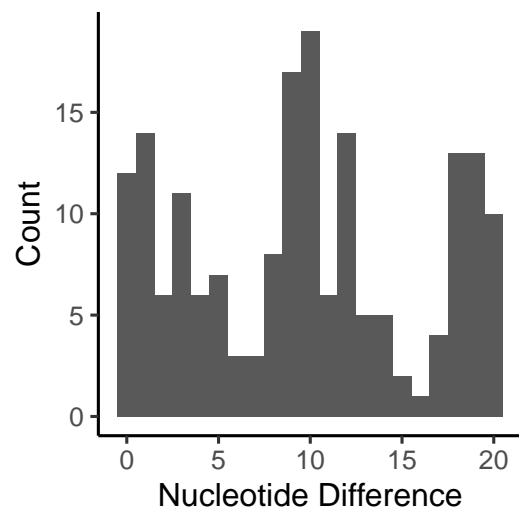
IGHV3-43*02

231 sequences assigned
15 (6.5%) exact matches, in which:
14 unique CDR3
3 unique J



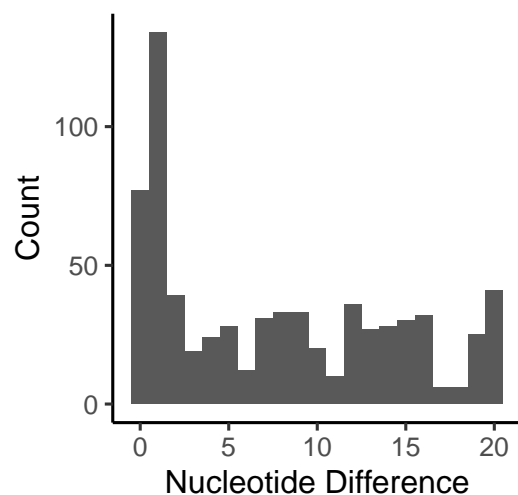
IGHV3-49*03

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



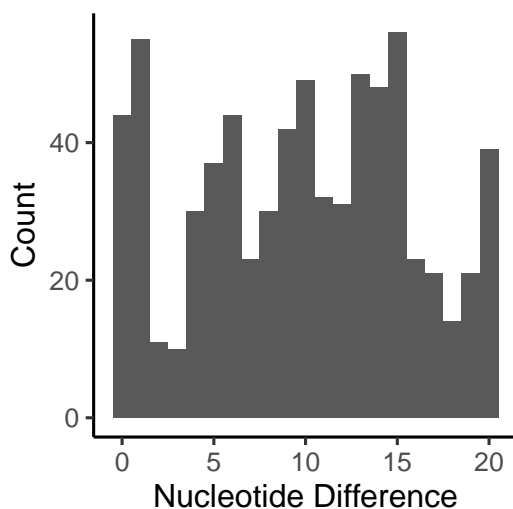
IGHV3-33*01

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



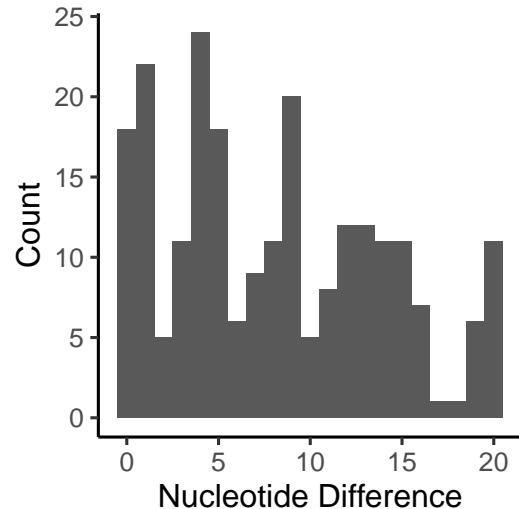
IGHV3-48*01

893 sequences assigned
44 (4.9%) exact matches, in which:
33 unique CDR3
4 unique J



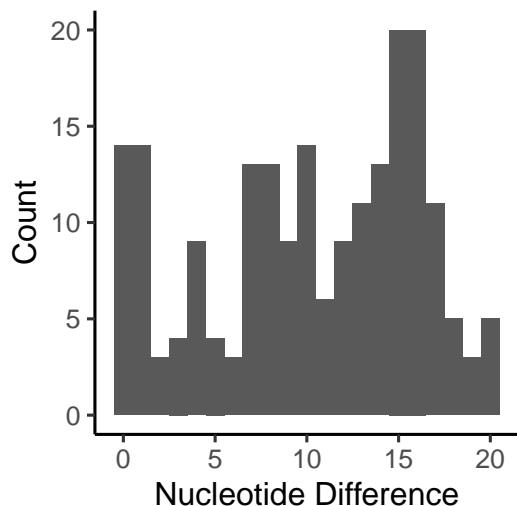
IGHV3-49*04

299 sequences assigned
18 (6%) exact matches, in which:
17 unique CDR3
5 unique J



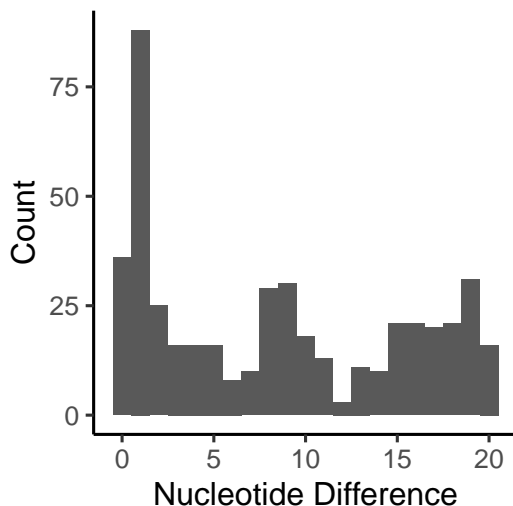
IGHV3-53*02

416 sequences assigned
14 (3.4%) exact matches, in which:
13 unique CDR3
5 unique J



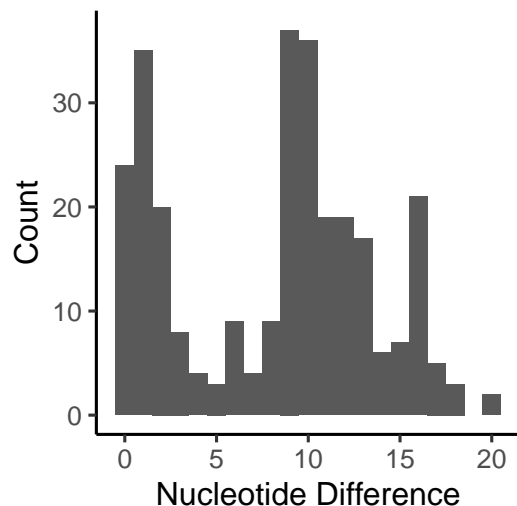
IGHV3-66*01

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



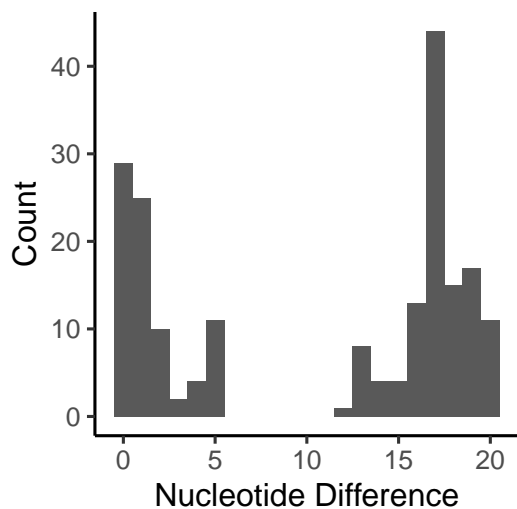
IGHV3-73*01

373 sequences assigned
24 (6.4%) exact matches, in which:
20 unique CDR3
4 unique J



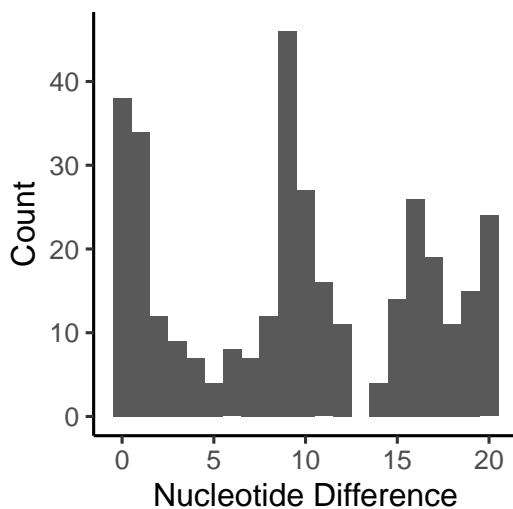
IGHV3-53*04

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



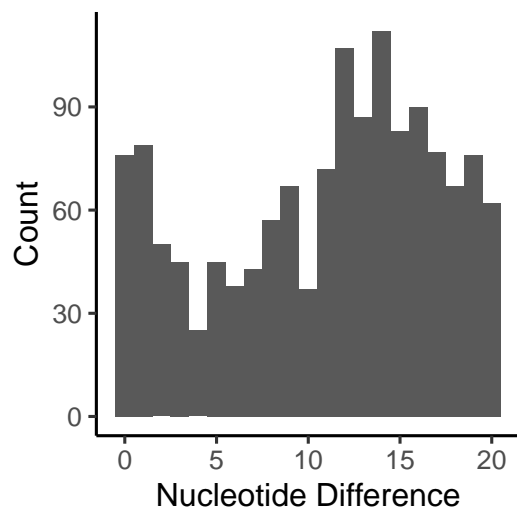
IGHV3-66*02

403 sequences assigned
38 (9.4%) exact matches, in which:
33 unique CDR3
4 unique J



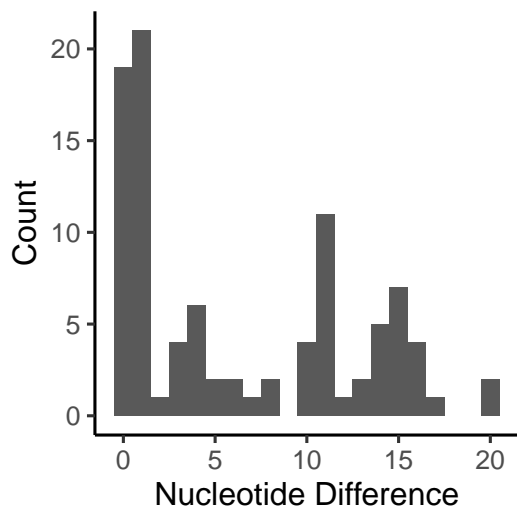
IGHV3-74*01

1882 sequences assigned
76 (4%) exact matches, in which:
64 unique CDR3
4 unique J



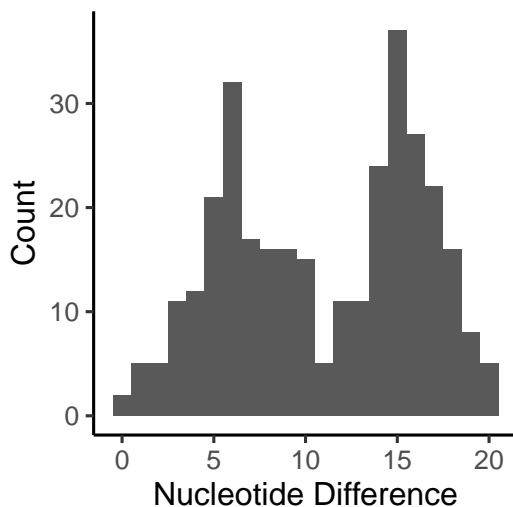
IGHV3-64*01

138 sequences assigned
19 (13.8%) exact matches, in which:
12 unique CDR3
3 unique J



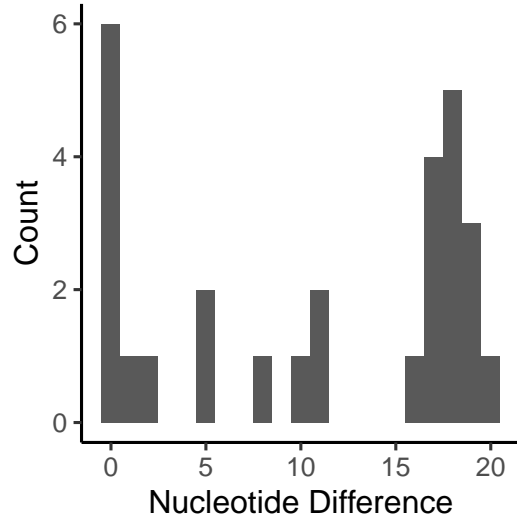
IGHV3-72*01

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



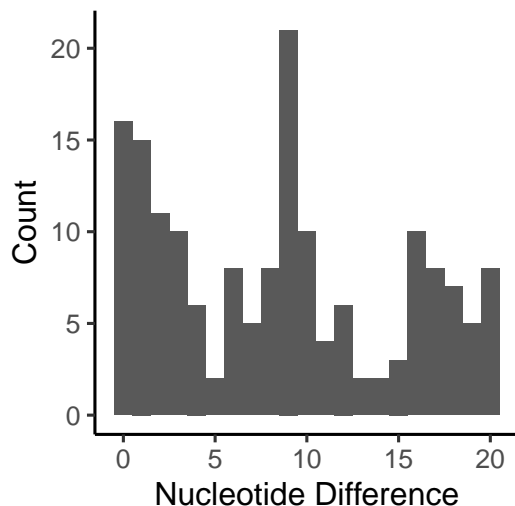
IGHV3-43D*03

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



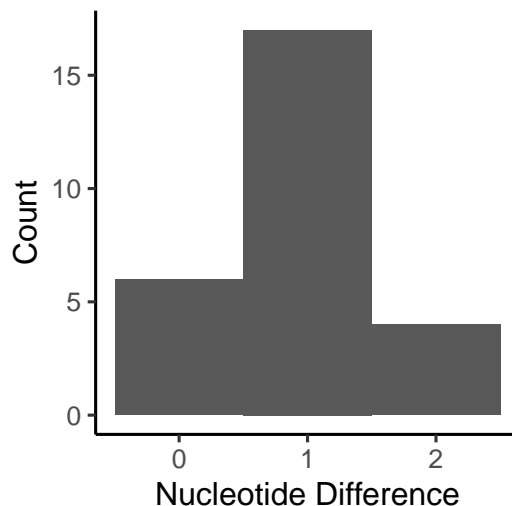
IGHV3-64D*06

248 sequences assigned
16 (6.5%) exact matches, in which:
16 unique CDR3
4 unique J



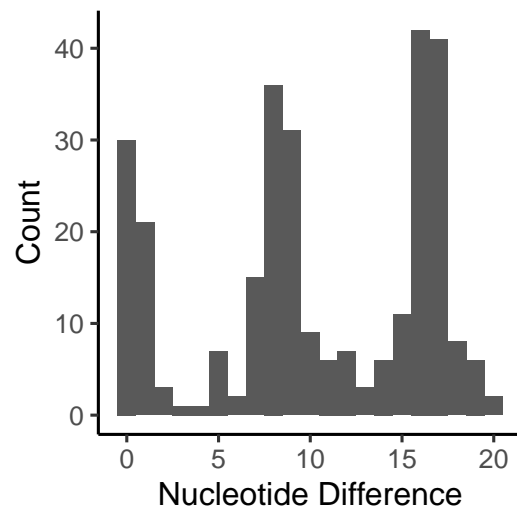
IGHV4-28*01

27 sequences assigned
6 (22.2%) exact matches, in which:
3 unique CDR3
1 unique J



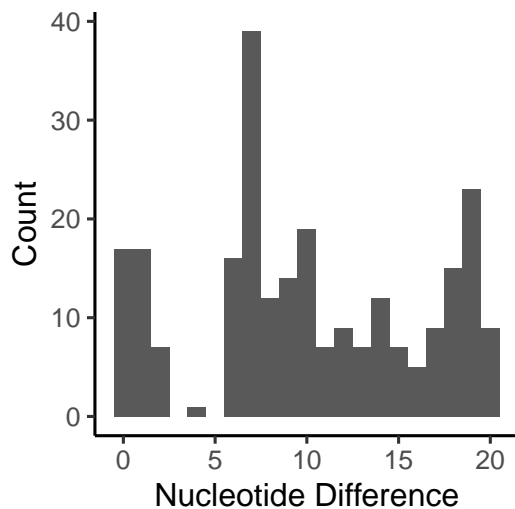
IGHV4-31*03

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



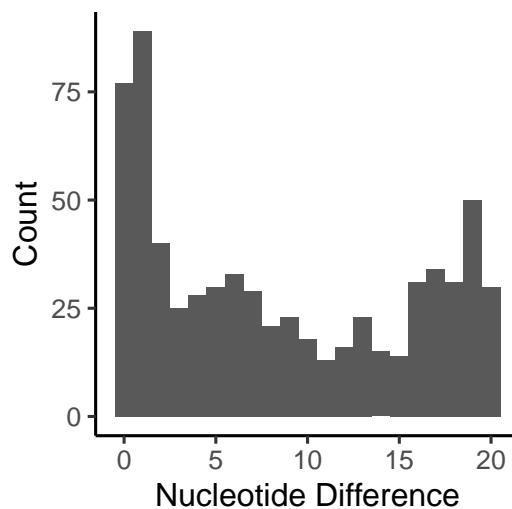
IGHV4-4*02

387 sequences assigned
17 (4.4%) exact matches, in which:
16 unique CDR3
4 unique J



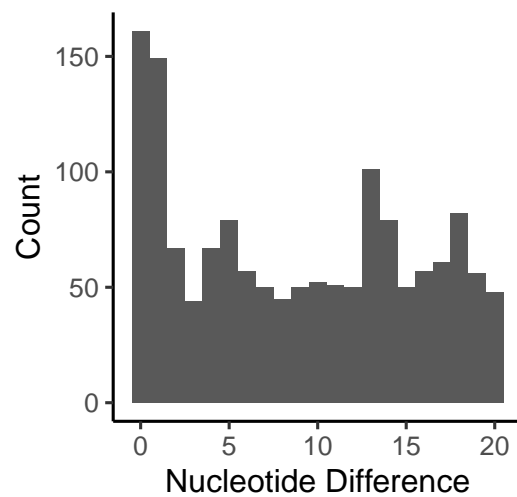
IGHV4-30-4*01

995 sequences assigned
77 (7.7%) exact matches, in which:
63 unique CDR3
4 unique J



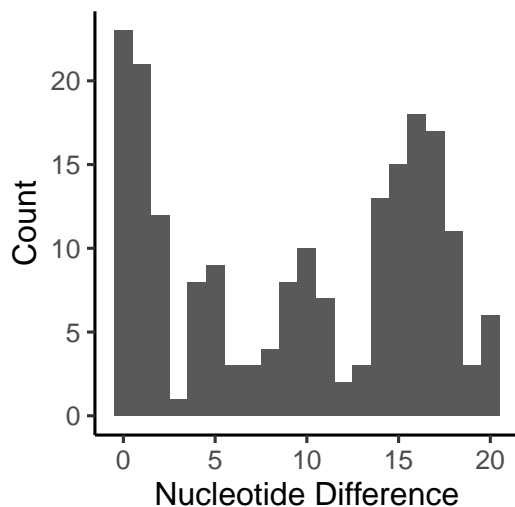
IGHV4-34*01

2014 sequences assigned
161 (8%) exact matches, in which:
144 unique CDR3
6 unique J



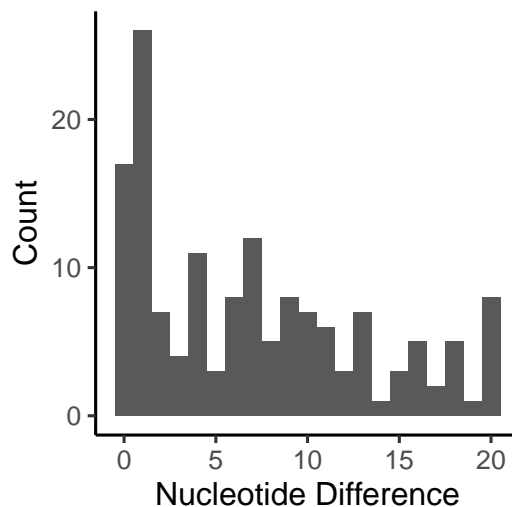
IGHV4-4*07

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



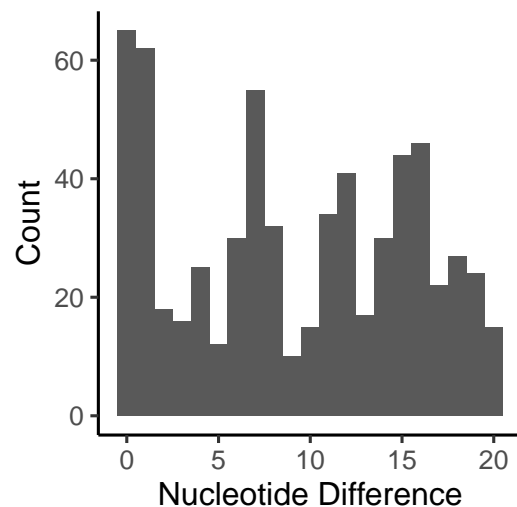
IGHV4-30-2*01

294 sequences assigned
17 (5.8%) exact matches, in which:
16 unique CDR3
5 unique J



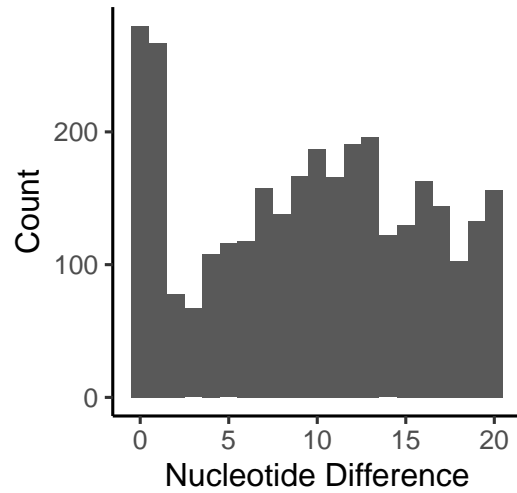
IGHV4-38-2*02

969 sequences assigned
65 (6.7%) exact matches, in which:
56 unique CDR3
6 unique J



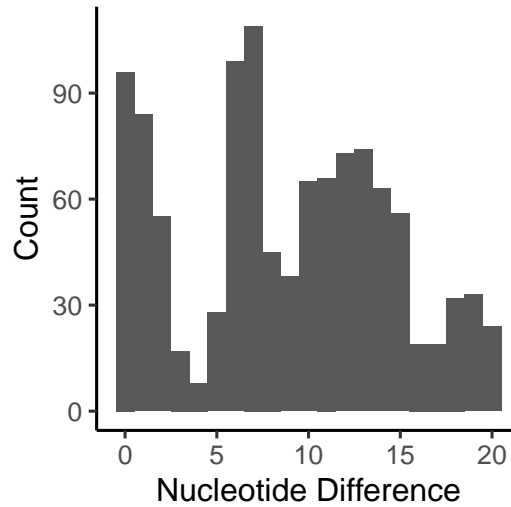
IGHV4–39*01

4634 sequences assigned
280 (6%) exact matches, in which:
262 unique CDR3
6 unique J



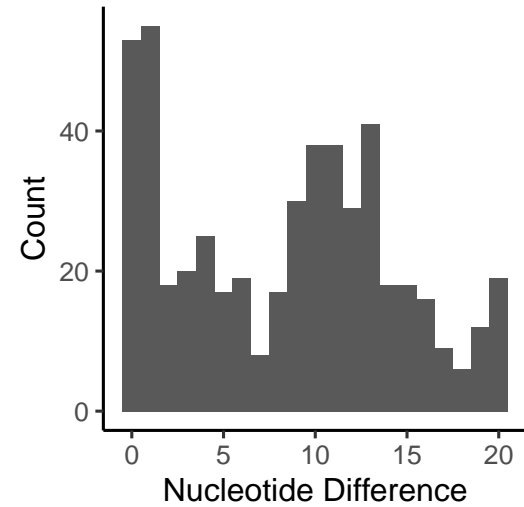
IGHV4–61*02

1471 sequences assigned
96 (6.5%) exact matches, in which:
69 unique CDR3
6 unique J



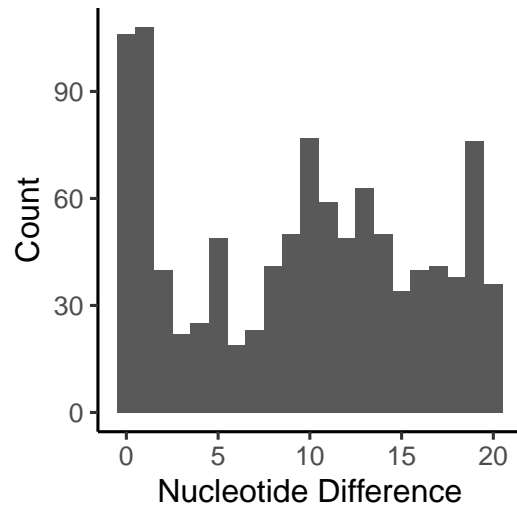
IGHV5–51*03

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



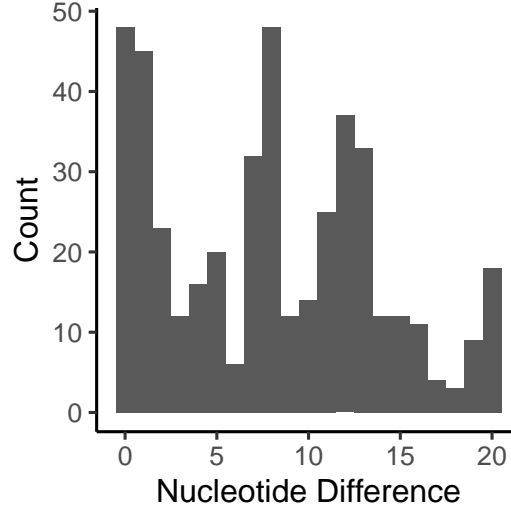
IGHV4–59*01

1252 sequences assigned
106 (8.5%) exact matches, in which:
87 unique CDR3
6 unique J



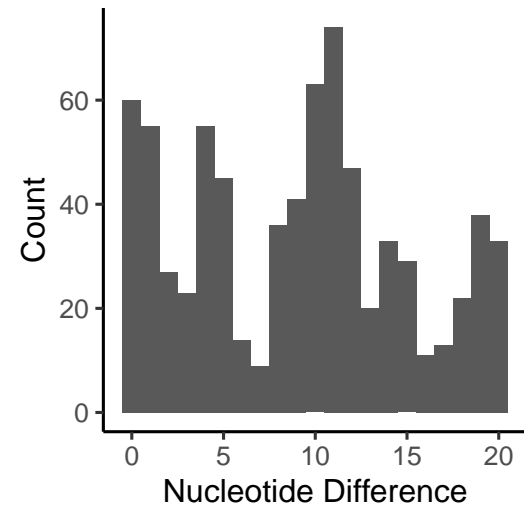
IGHV5–10–1*03

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



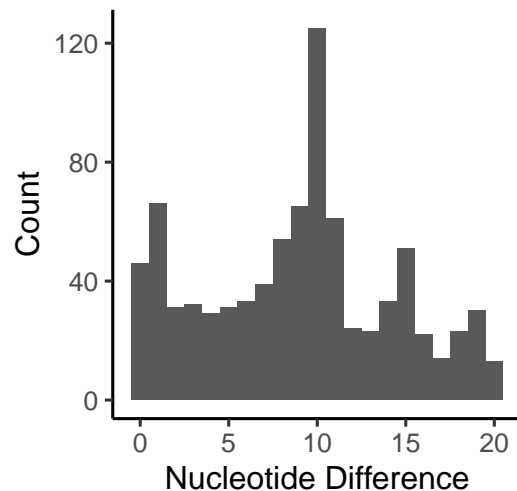
IGHV6–1*01

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



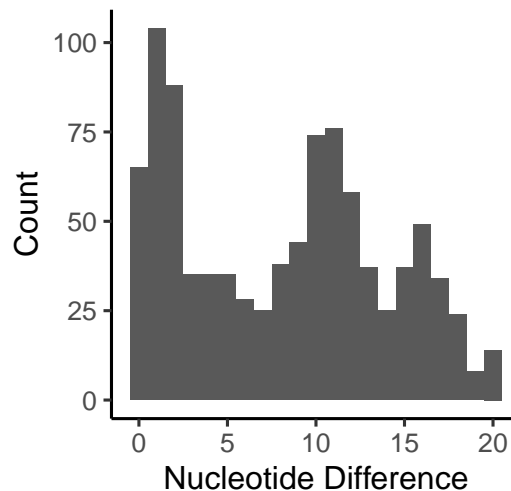
IGHV4–59*08

1042 sequences assigned
46 (4.4%) exact matches, in which:
35 unique CDR3
5 unique J



IGHV5–51*01

1179 sequences assigned
65 (5.5%) exact matches, in which:
57 unique CDR3
5 unique J





[illegible]