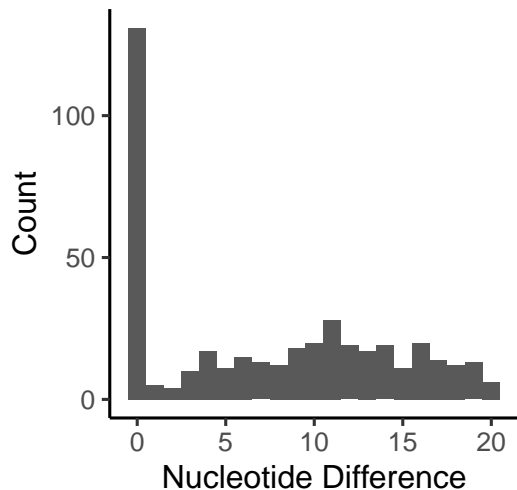


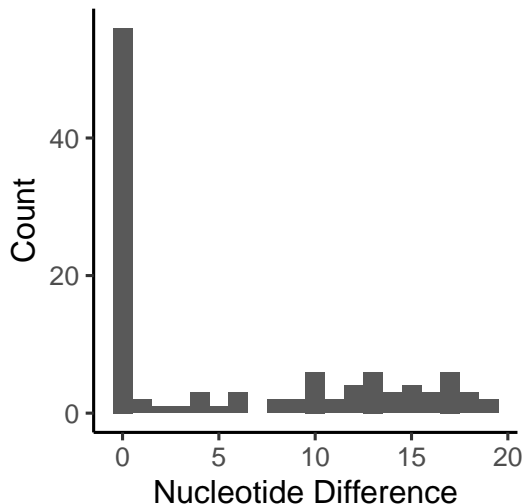
IGHV1-2*02

453 sequences assigned
131 (28.9%) exact matches, in which:
131 unique CDR3
6 unique J



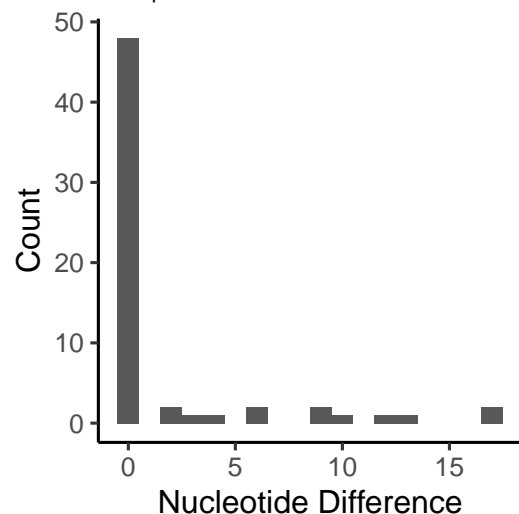
IGHV1-8*03

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



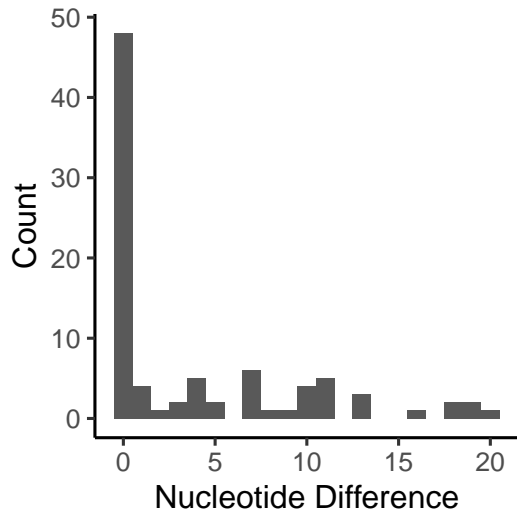
IGHV1-24*01

66 sequences assigned
48 (72.7%) exact matches, in which:
48 unique CDR3
5 unique J



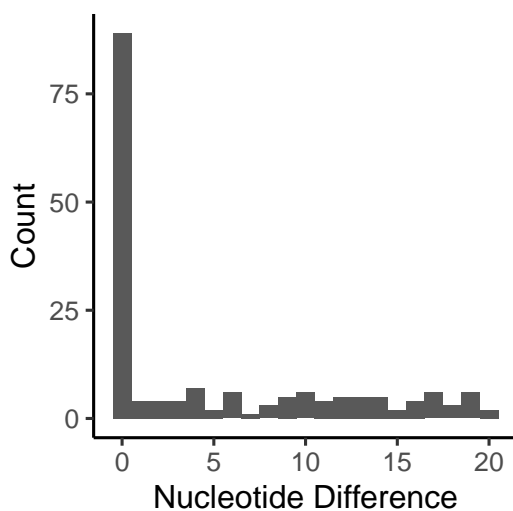
IGHV1-2*04

88 sequences assigned
48 (54.5%) exact matches, in which:
48 unique CDR3
5 unique J



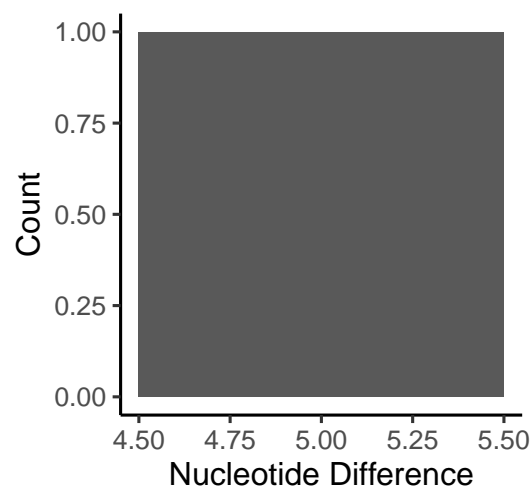
IGHV1-18*01

197 sequences assigned
89 (45.2%) exact matches, in which:
89 unique CDR3
5 unique J



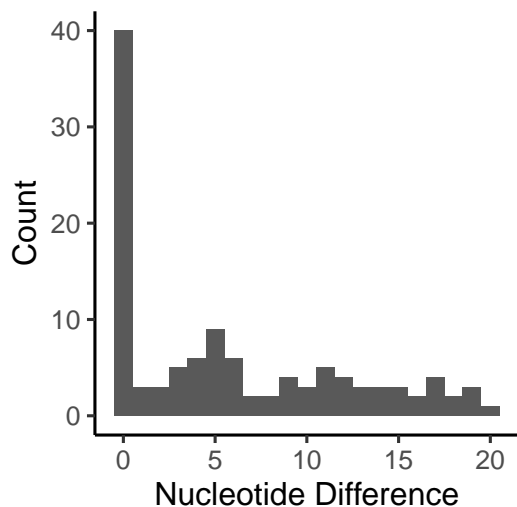
IGHV1-45*02

1 sequences assigned
No exact matches.



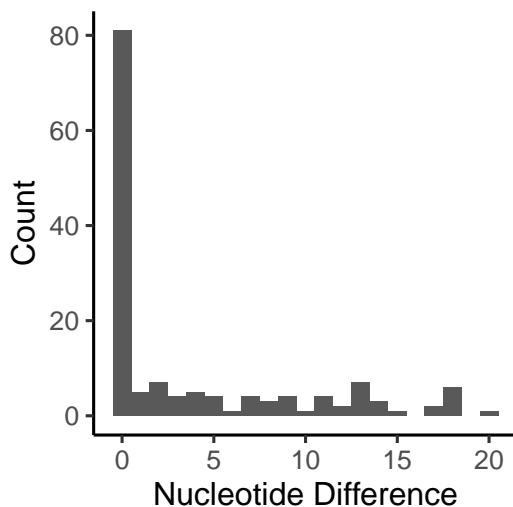
IGHV1-3*01_05

125 sequences assigned
40 (32%) exact matches, in which:
40 unique CDR3
5 unique J



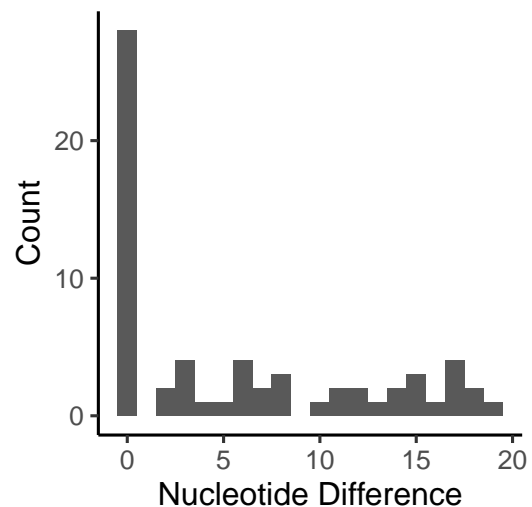
IGHV1-18*04

158 sequences assigned
81 (51.3%) exact matches, in which:
81 unique CDR3
4 unique J



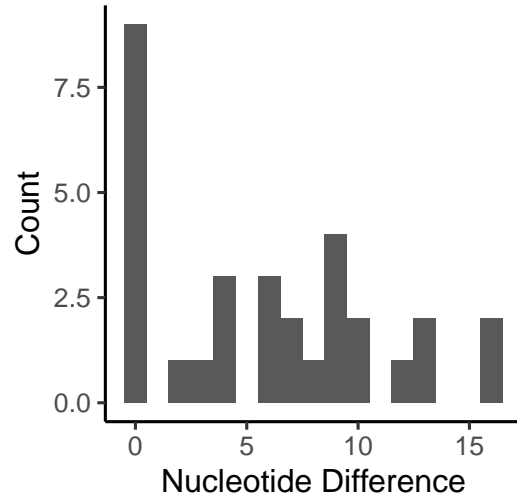
IGHV1-46*01

73 sequences assigned
28 (38.4%) exact matches, in which:
28 unique CDR3
4 unique J



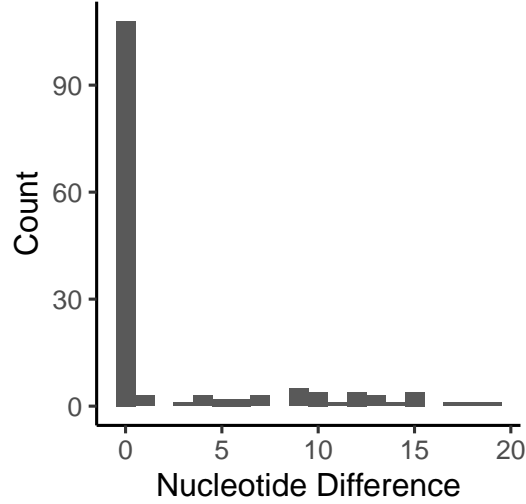
IGHV1-46*03

34 sequences assigned
9 (26.5%) exact matches, in which:
9 unique CDR3
5 unique J



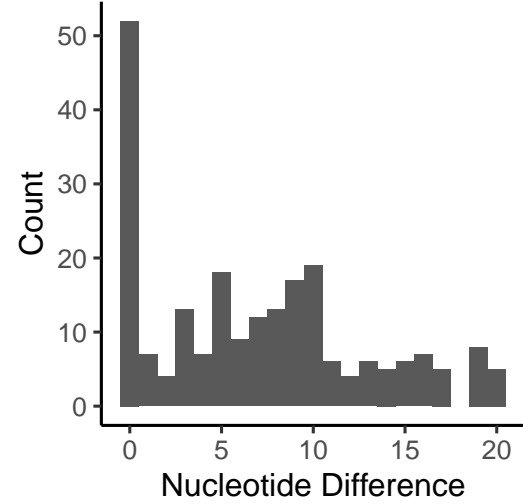
IGHV1-69*01_12_13

167 sequences assigned
108 (64.7%) exact matches, in which:
108 unique CDR3
6 unique J



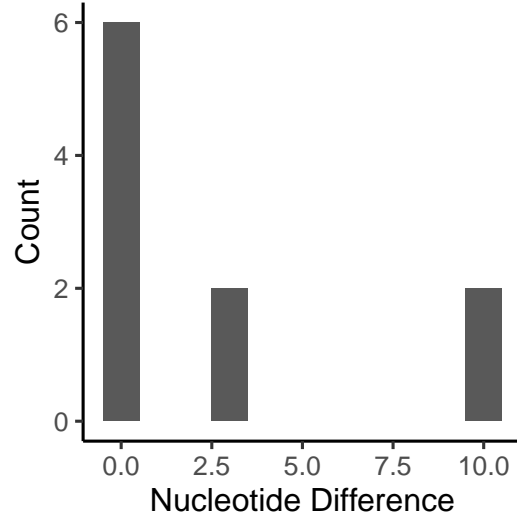
IGHV2-5*02

257 sequences assigned
52 (20.2%) exact matches, in which:
52 unique CDR3
5 unique J



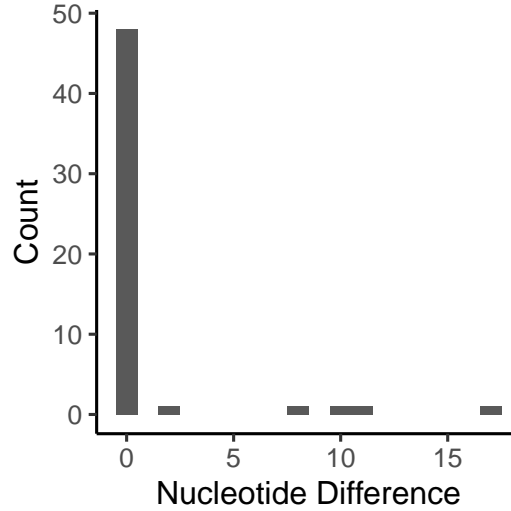
IGHV1-58*02

10 sequences assigned
6 (60%) exact matches, in which:
6 unique CDR3
3 unique J



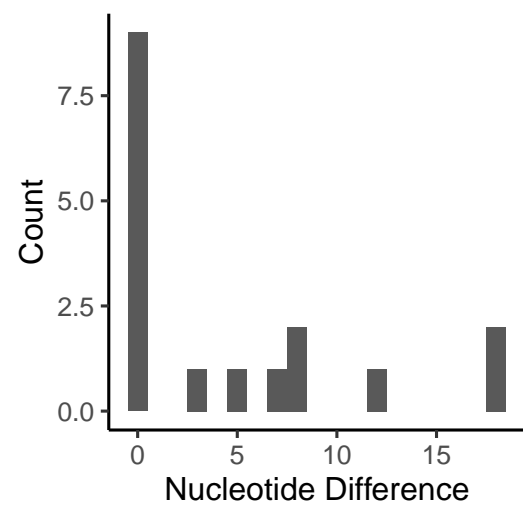
IGHV1-69*04_09_G112A

58 sequences assigned
48 (82.8%) exact matches, in which:
47 unique CDR3
5 unique J



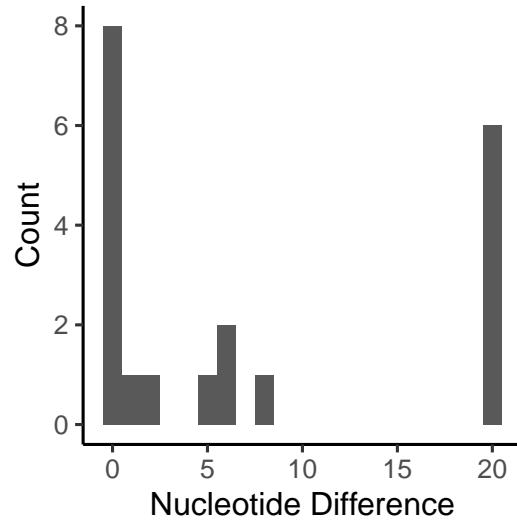
IGHV2-26*01

17 sequences assigned
9 (52.9%) exact matches, in which:
9 unique CDR3
3 unique J



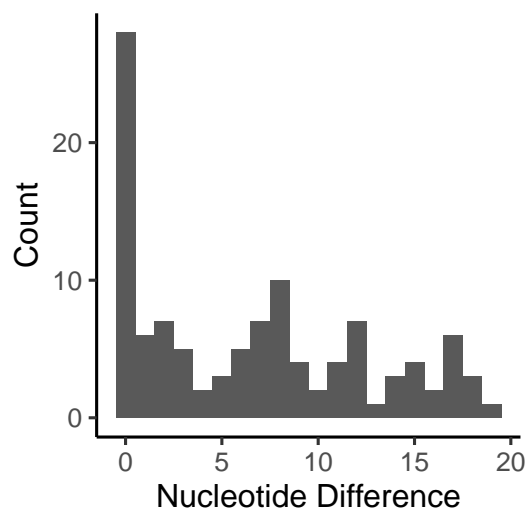
IGHV1-58*01_03

23 sequences assigned
8 (34.8%) exact matches, in which:
8 unique CDR3
3 unique J



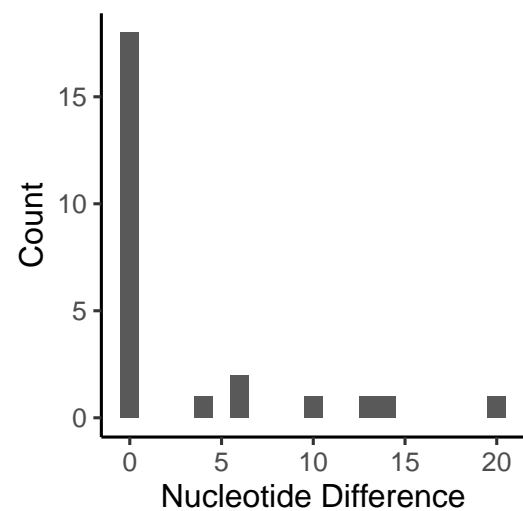
IGHV2-5*01

115 sequences assigned
28 (24.3%) exact matches, in which:
28 unique CDR3
4 unique J



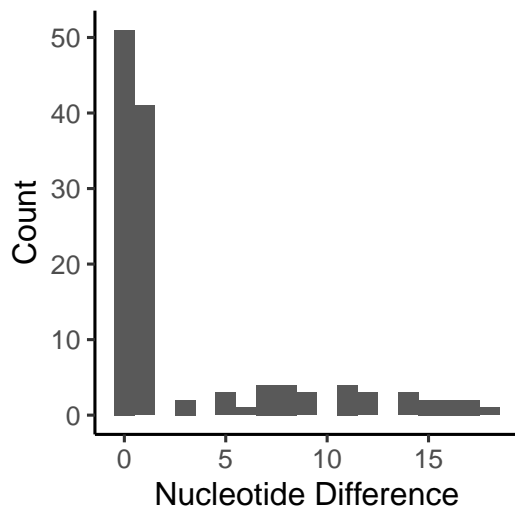
IGHV2-70*01

28 sequences assigned
18 (64.3%) exact matches, in which:
18 unique CDR3
4 unique J



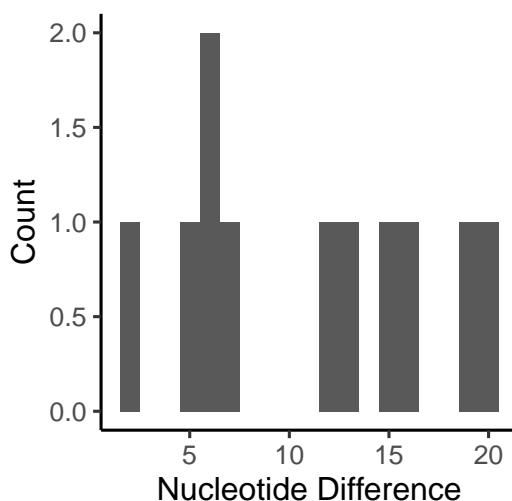
IGHV2-70*11_15

129 sequences assigned
51 (39.5%) exact matches, in which:
34 unique CDR3
3 unique J



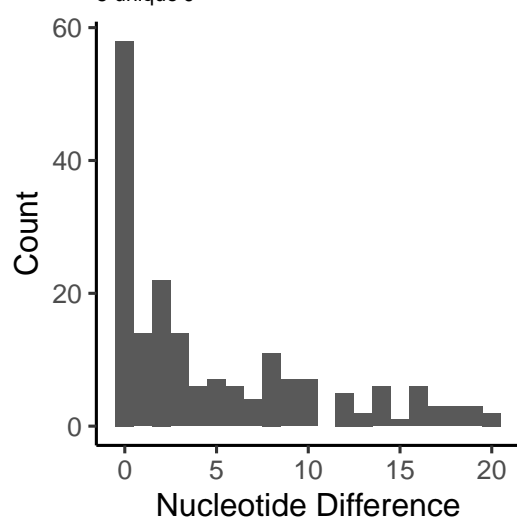
IGHV3-9*01

13 sequences assigned
No exact matches.



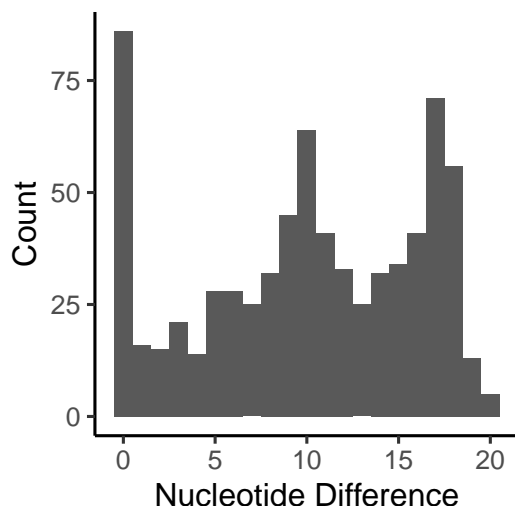
IGHV3-11*06_T300C

200 sequences assigned
58 (29%) exact matches, in which:
53 unique CDR3
5 unique J



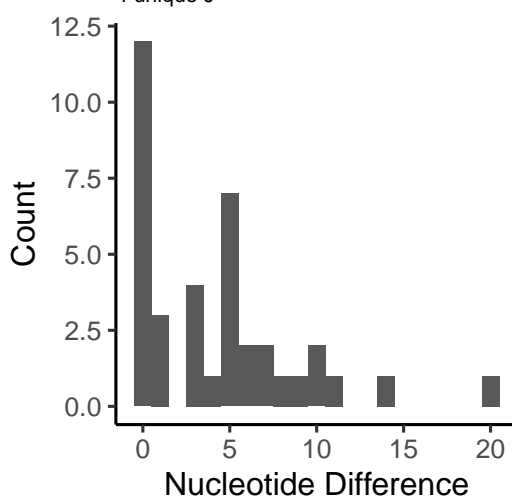
IGHV3-7*01

810 sequences assigned
86 (10.6%) exact matches, in which:
84 unique CDR3
6 unique J



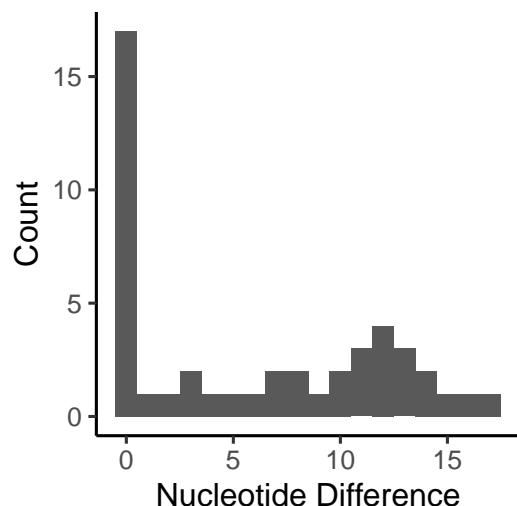
IGHV3-9*03

44 sequences assigned
12 (27.3%) exact matches, in which:
11 unique CDR3
4 unique J



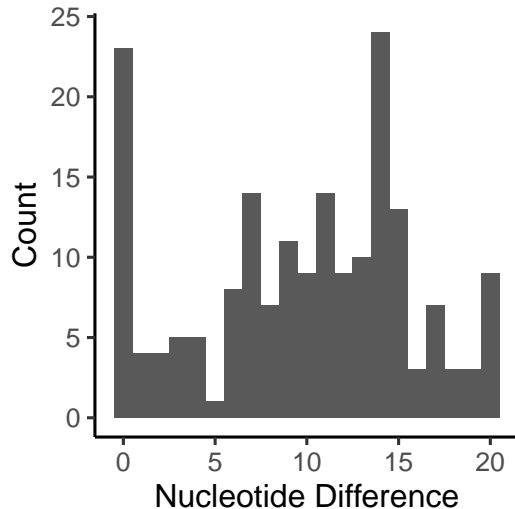
IGHV3-13*04

50 sequences assigned
17 (34%) exact matches, in which:
17 unique CDR3
4 unique J



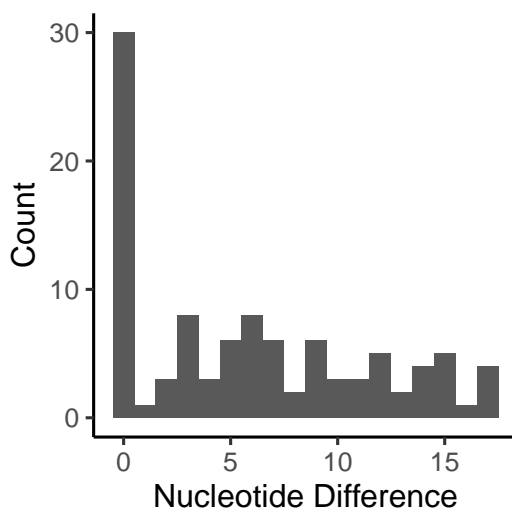
IGHV3-7*04

214 sequences assigned
23 (10.7%) exact matches, in which:
23 unique CDR3
3 unique J



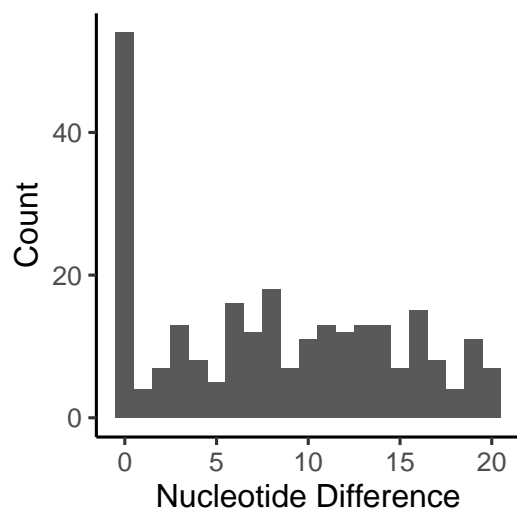
IGHV3-11*04

127 sequences assigned
30 (23.6%) exact matches, in which:
29 unique CDR3
5 unique J



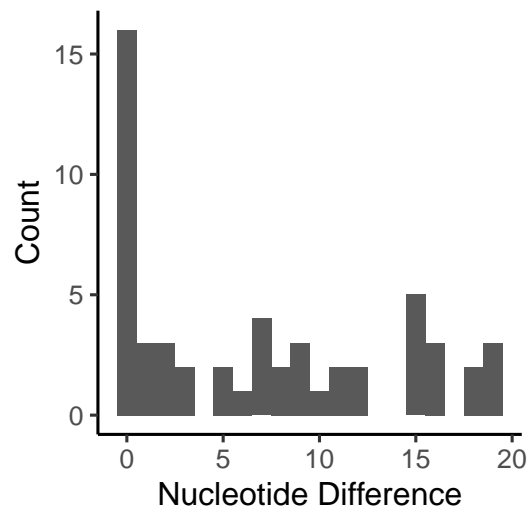
IGHV3-15*01_02

305 sequences assigned
54 (17.7%) exact matches, in which:
51 unique CDR3
6 unique J



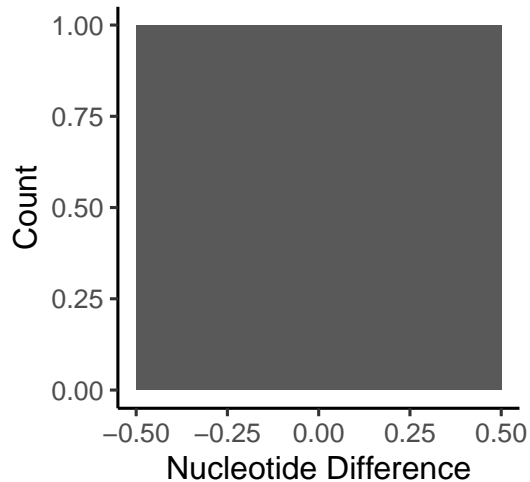
IGHV3-20*03_04

62 sequences assigned
16 (25.8%) exact matches, in which:
15 unique CDR3
4 unique J



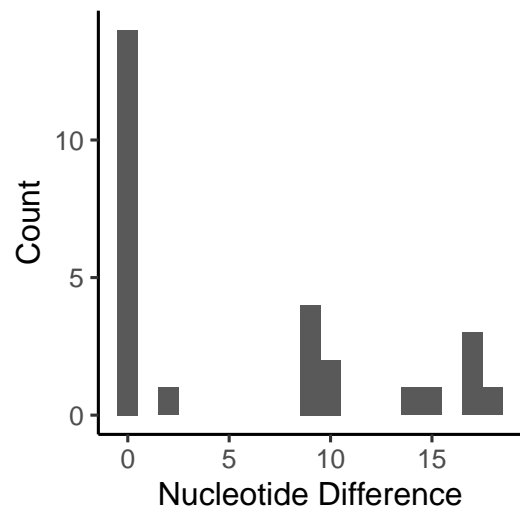
IGHV3-30-3*01

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



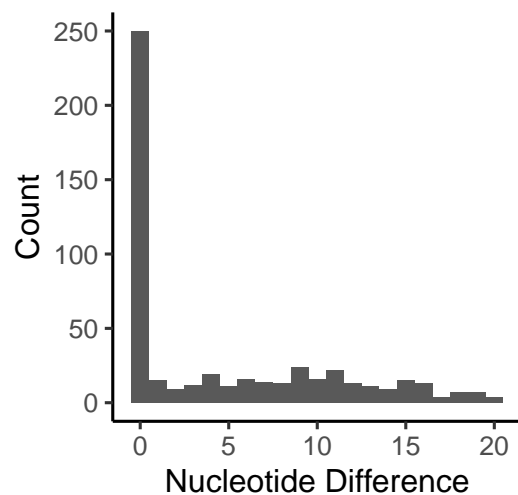
IGHV3-43*01

30 sequences assigned
14 (46.7%) exact matches, in which:
11 unique CDR3
2 unique J



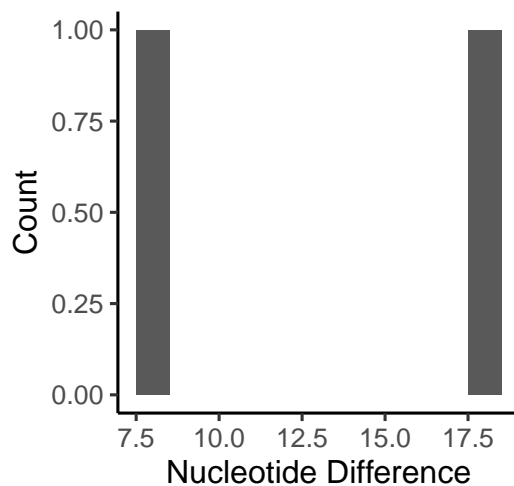
IGHV3-21*01_02

564 sequences assigned
250 (44.3%) exact matches, in which:
237 unique CDR3
6 unique J



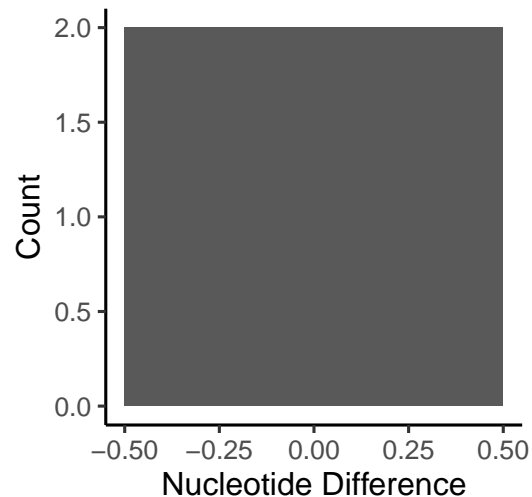
IGHV3-30-3*03

2 sequences assigned
No exact matches.



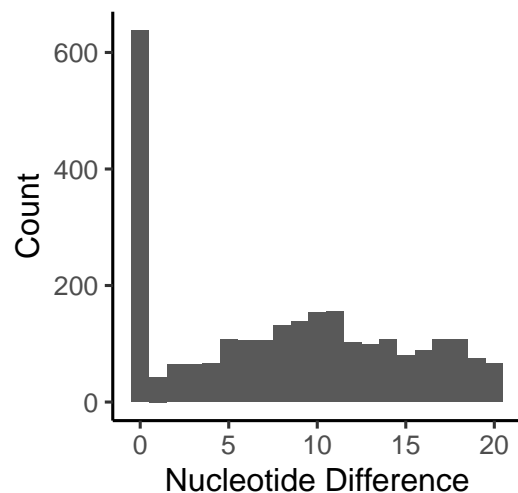
IGHV3-47*02

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
2 unique J



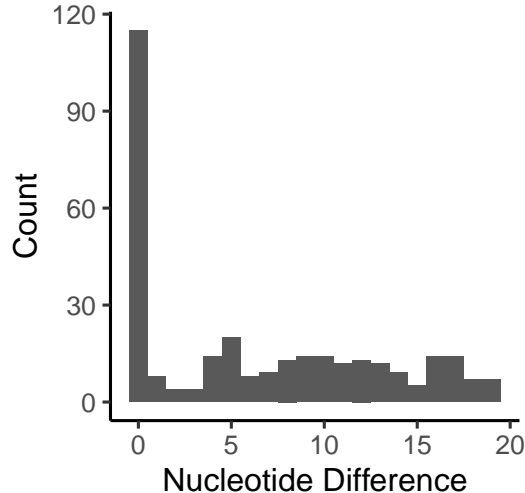
IGHV3-23*01_04

2960 sequences assigned
638 (21.6%) exact matches, in which:
600 unique CDR3
6 unique J



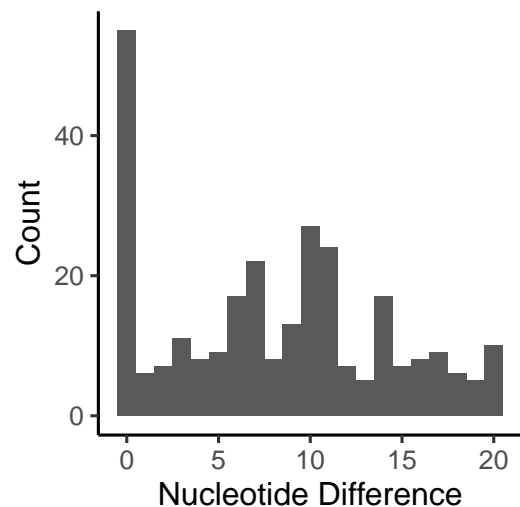
IGHV3-33*01

350 sequences assigned
115 (32.9%) exact matches, in which:
109 unique CDR3
6 unique J



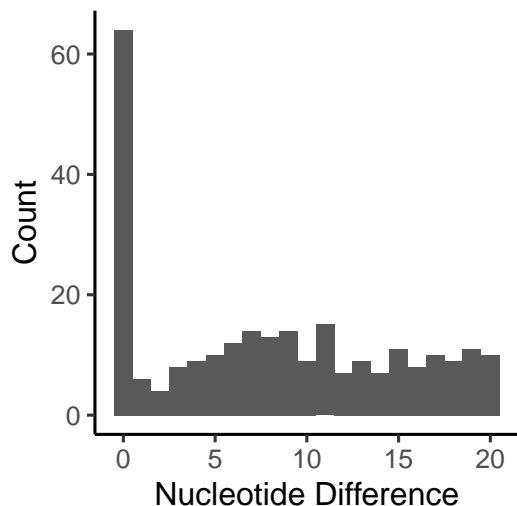
IGHV3-48*01

317 sequences assigned
55 (17.4%) exact matches, in which:
51 unique CDR3
4 unique J



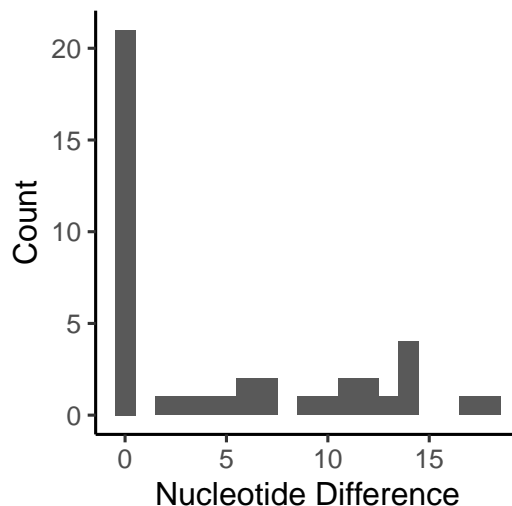
IGHV3-48*02

315 sequences assigned
64 (20.3%) exact matches, in which:
58 unique CDR3
6 unique J



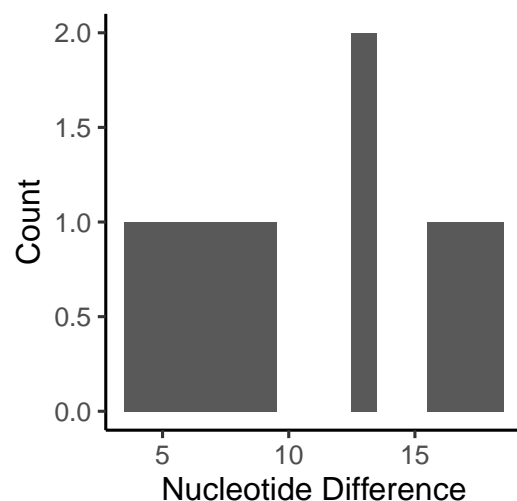
IGHV3-53*04

52 sequences assigned
21 (40.4%) exact matches, in which:
18 unique CDR3
3 unique J



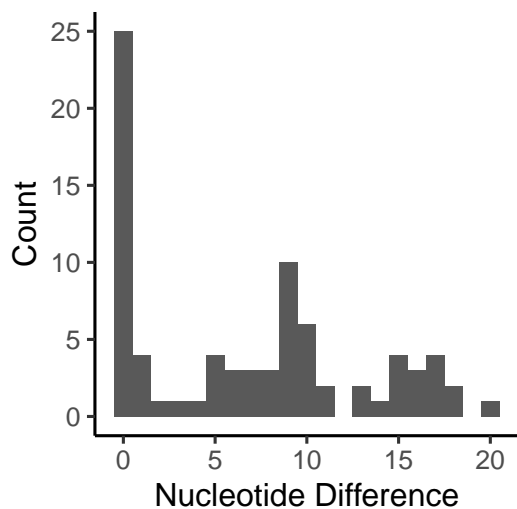
IGHV3-64*02_07

11 sequences assigned
No exact matches.



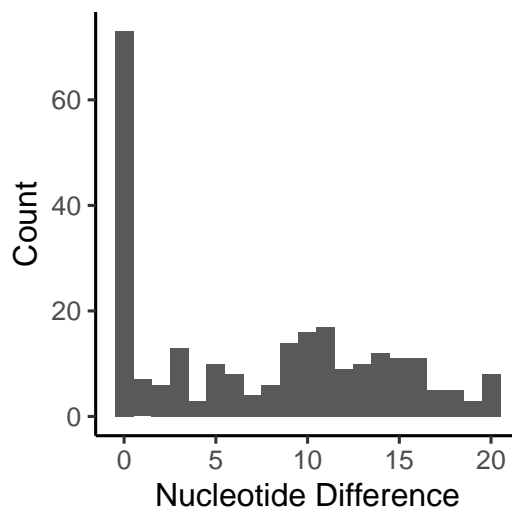
IGHV3-49*03_05

95 sequences assigned
25 (26.3%) exact matches, in which:
24 unique CDR3
4 unique J



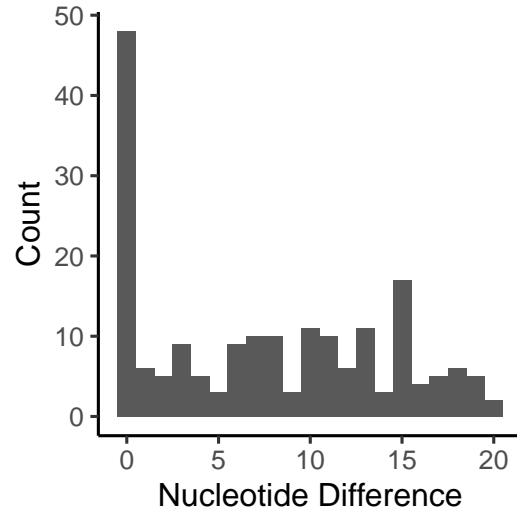
IGHV3-53*01_02

266 sequences assigned
73 (27.4%) exact matches, in which:
65 unique CDR3
5 unique J



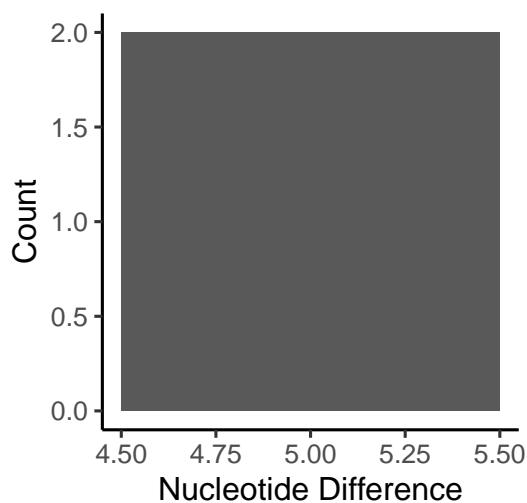
IGHV3-66*01

196 sequences assigned
48 (24.5%) exact matches, in which:
43 unique CDR3
6 unique J



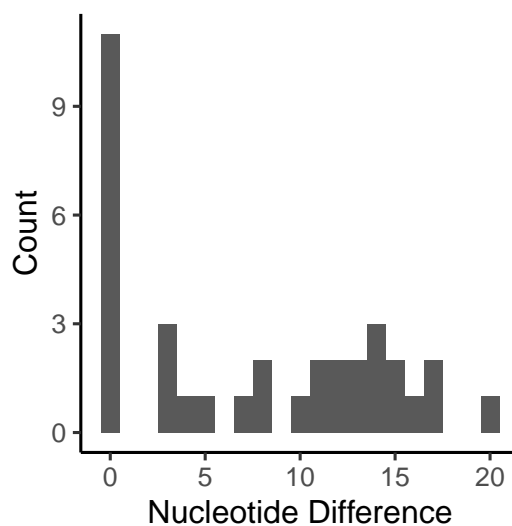
IGHV3-52*01_03

2 sequences assigned
No exact matches.



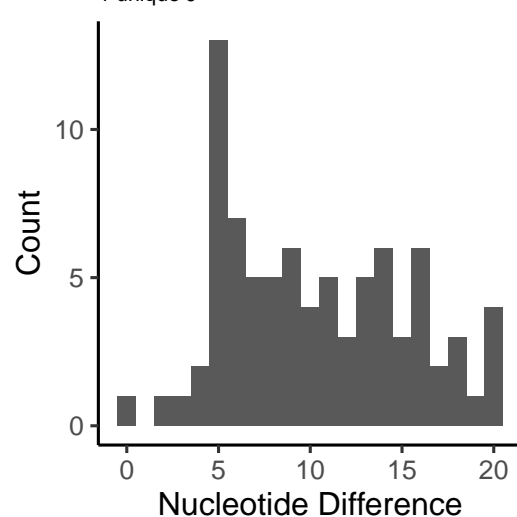
IGHV3-64*01

38 sequences assigned
11 (28.9%) exact matches, in which:
10 unique CDR3
3 unique J



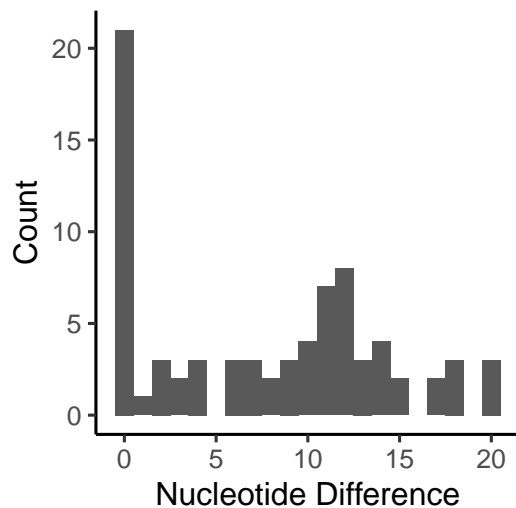
IGHV3-72*01

87 sequences assigned
1 (1.1%) exact matches, in which:
1 unique CDR3
1 unique J



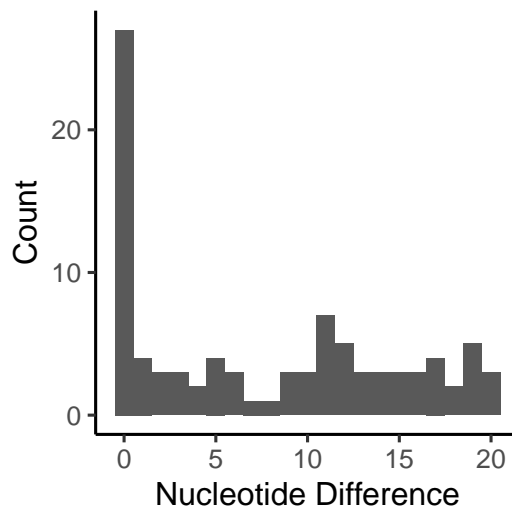
IGHV3-73*01_02

90 sequences assigned
21 (23.3%) exact matches, in which:
20 unique CDR3
4 unique J



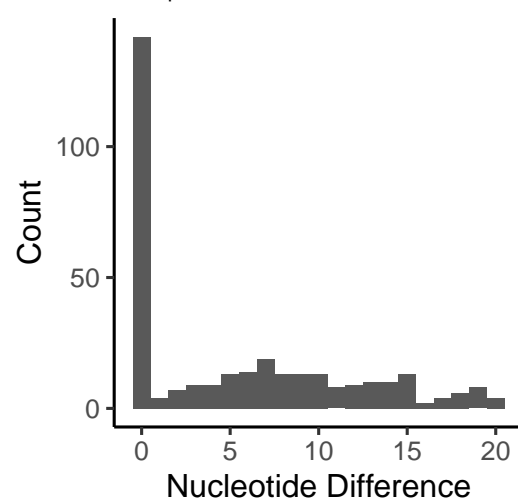
IGHV3-64D*06

109 sequences assigned
27 (24.8%) exact matches, in which:
26 unique CDR3
4 unique J



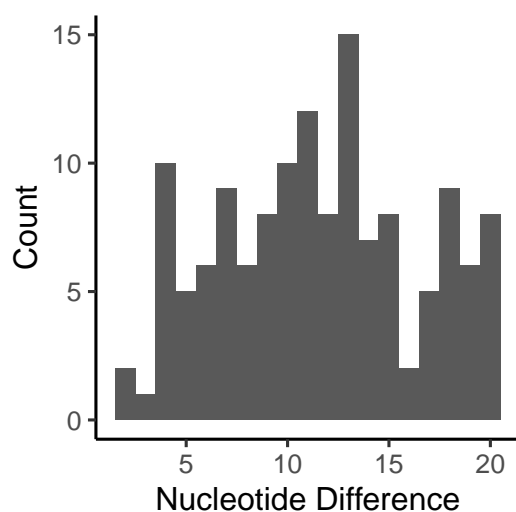
IGHV4-31*02

358 sequences assigned
142 (39.7%) exact matches, in which:
139 unique CDR3
6 unique J



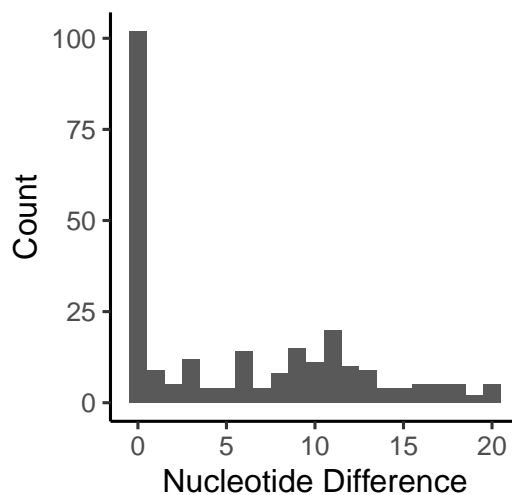
IGHV3-74*03

159 sequences assigned
No exact matches.



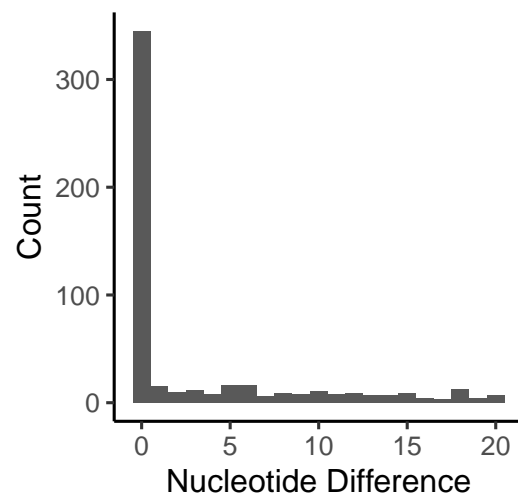
IGHV4-4*07

292 sequences assigned
102 (34.9%) exact matches, in which:
98 unique CDR3
5 unique J



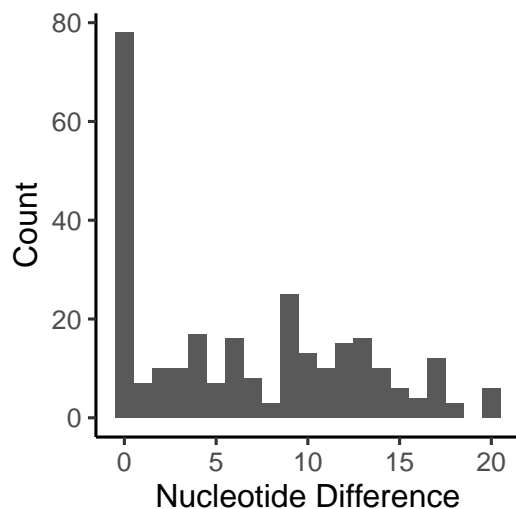
IGHV4-34*01_02

581 sequences assigned
345 (59.4%) exact matches, in which:
323 unique CDR3
6 unique J



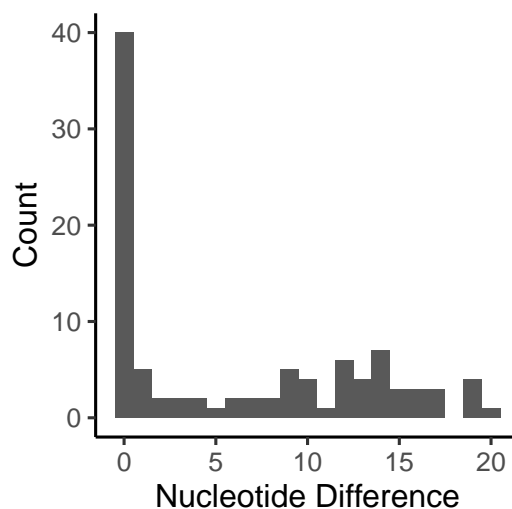
IGHV3-74*01_02

295 sequences assigned
78 (26.4%) exact matches, in which:
75 unique CDR3
5 unique J



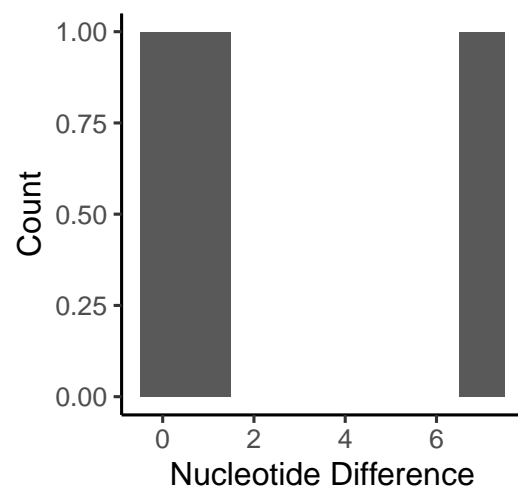
IGHV4-4*02_03

113 sequences assigned
40 (35.4%) exact matches, in which:
38 unique CDR3
6 unique J



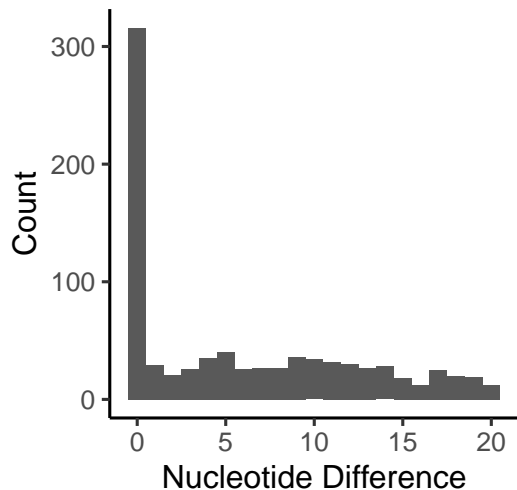
IGHV4-38-2*02

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



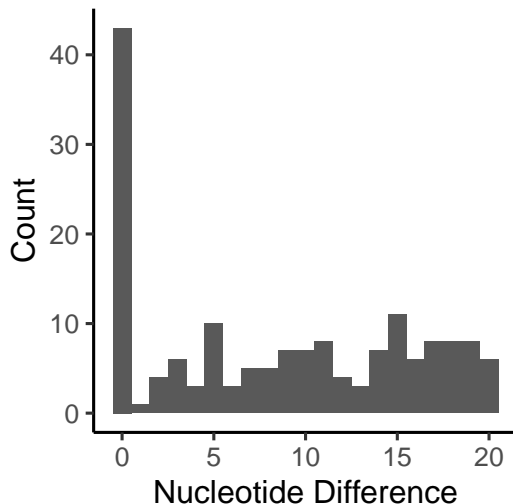
IGHV4-39*02_C258G

988 sequences assigned
316 (32%) exact matches, in which:
304 unique CDR3
6 unique J



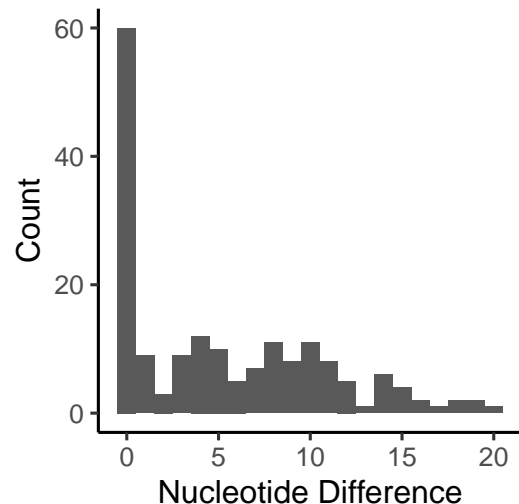
IGHV4-61*01

194 sequences assigned
43 (22.2%) exact matches, in which:
42 unique CDR3
5 unique J



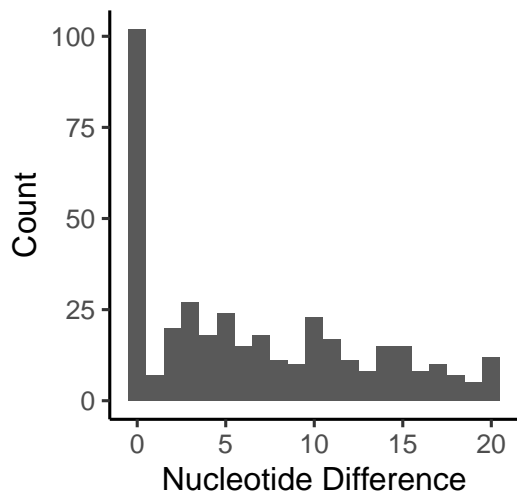
IGHV5-51*01_03

192 sequences assigned
60 (31.2%) exact matches, in which:
60 unique CDR3
5 unique J



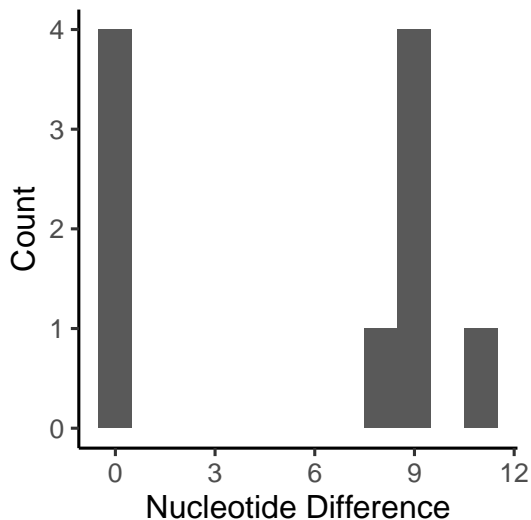
IGHV4-59*08

415 sequences assigned
102 (24.6%) exact matches, in which:
97 unique CDR3
5 unique J



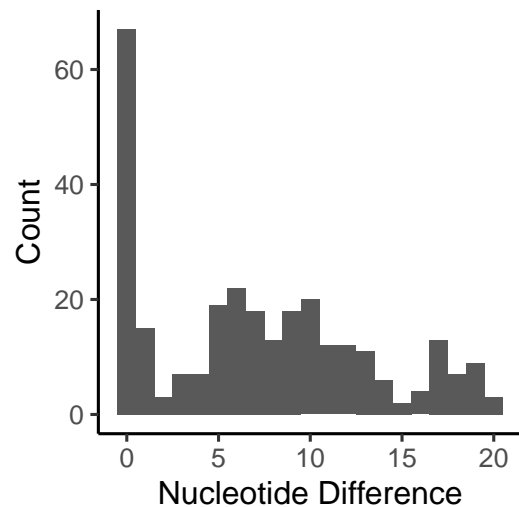
IGHV5-10-1*01_03

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



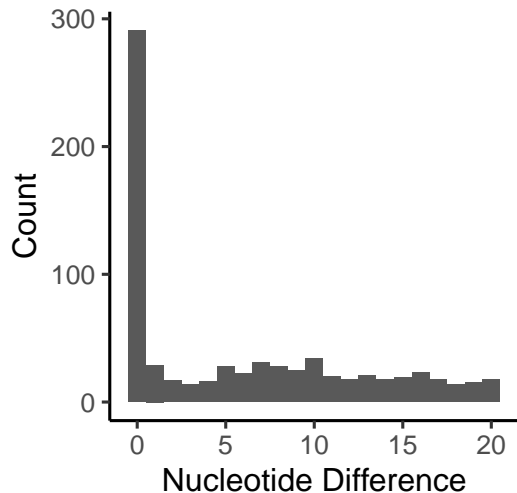
IGHV6-1*01_02

291 sequences assigned
67 (23%) exact matches, in which:
64 unique CDR3
5 unique J



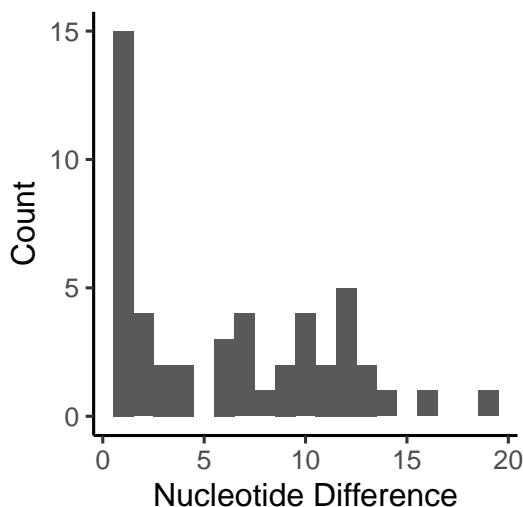
IGHV4-59*02_G88A

814 sequences assigned
291 (35.7%) exact matches, in which:
261 unique CDR3
6 unique J



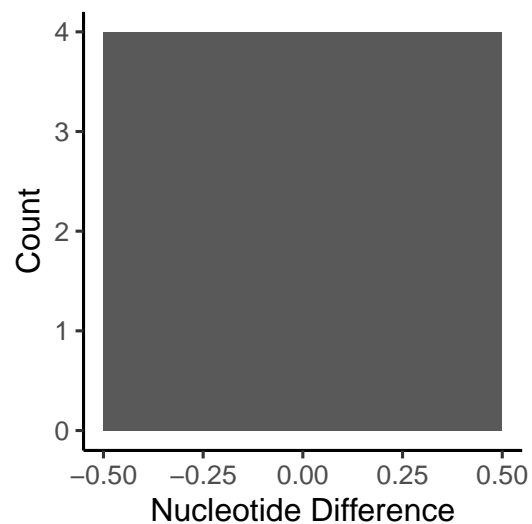
IGHV5-51*07

52 sequences assigned
No exact matches.



IGHV7-4-1*01

4 sequences assigned
4 (100%) exact matches, in which:
4 unique CDR3
2 unique J





Warning – no inferred sequences found.