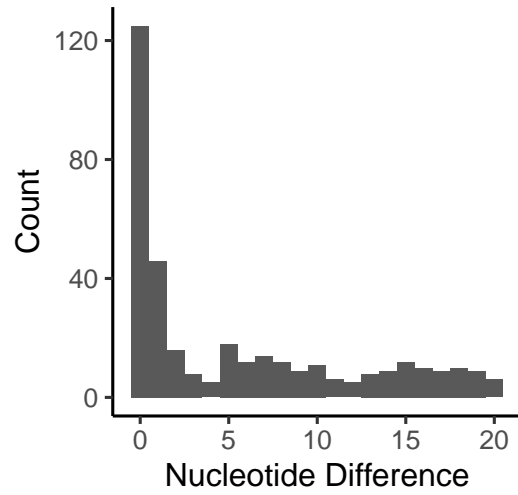


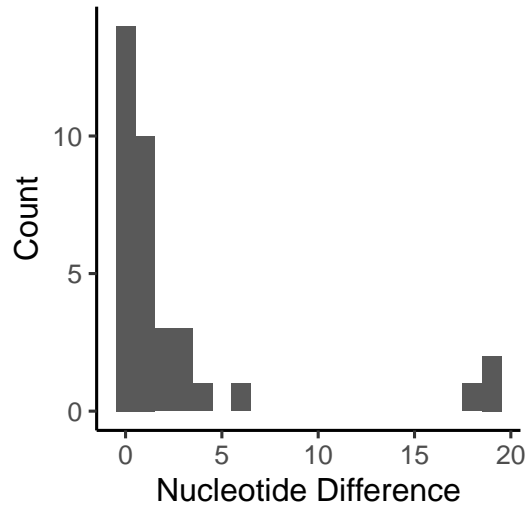
IGHV1-2*02

475 sequences assigned
125 (26.3%) exact matches, in which:
124 unique CDR3
7 unique J



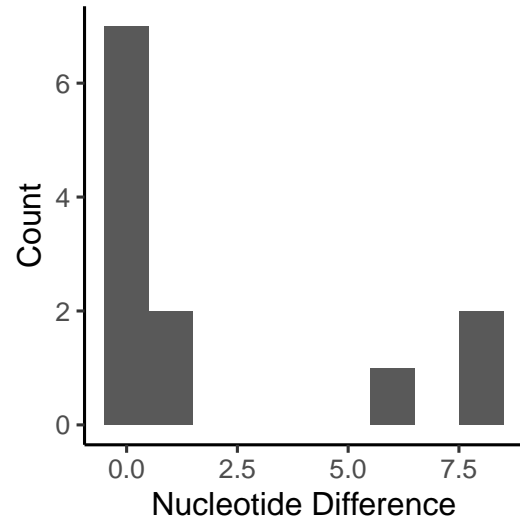
IGHV1-24*01

39 sequences assigned
14 (35.9%) exact matches, in which:
14 unique CDR3
6 unique J



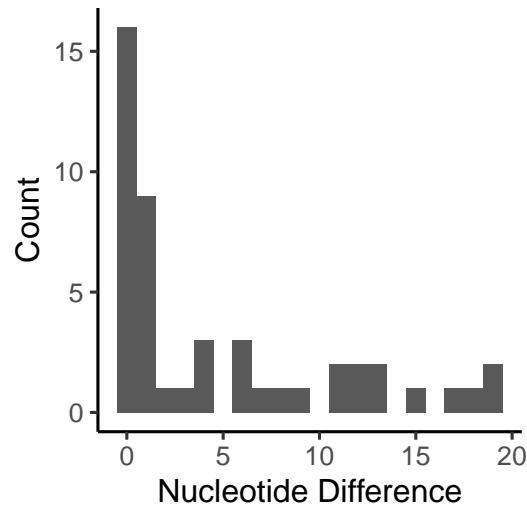
IGHV1-58*02

12 sequences assigned
7 (58.3%) exact matches, in which:
6 unique CDR3
4 unique J



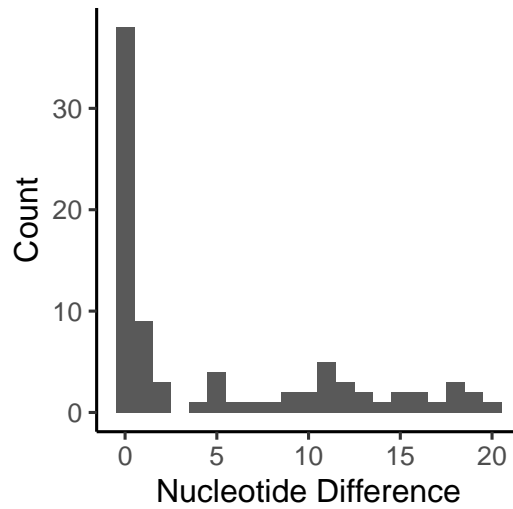
IGHV1-8*03

59 sequences assigned
16 (27.1%) exact matches, in which:
15 unique CDR3
4 unique J



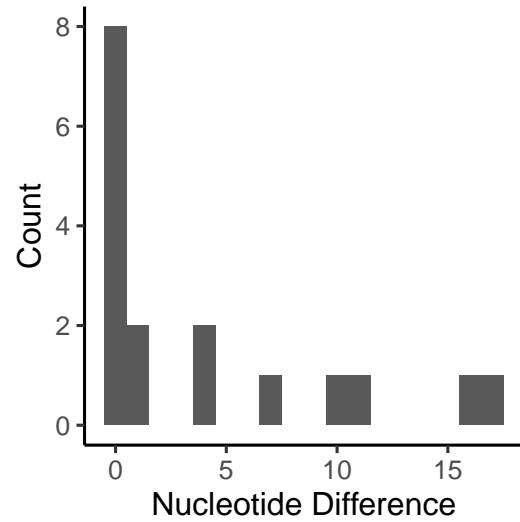
IGHV1-46*01

112 sequences assigned
38 (33.9%) exact matches, in which:
38 unique CDR3
4 unique J



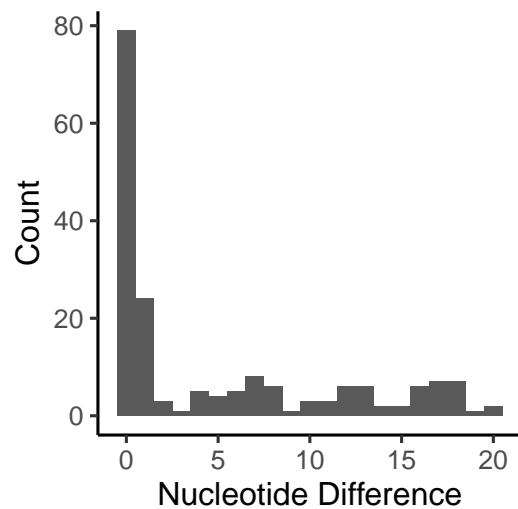
IGHV1-69-2*01

18 sequences assigned
8 (44.4%) exact matches, in which:
8 unique CDR3
4 unique J



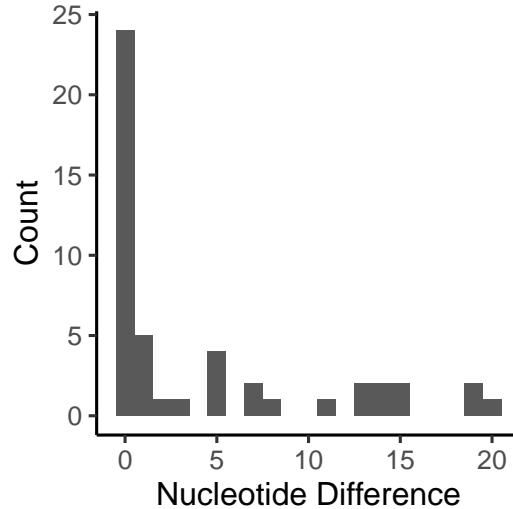
IGHV1-18*01

225 sequences assigned
79 (35.1%) exact matches, in which:
78 unique CDR3
6 unique J



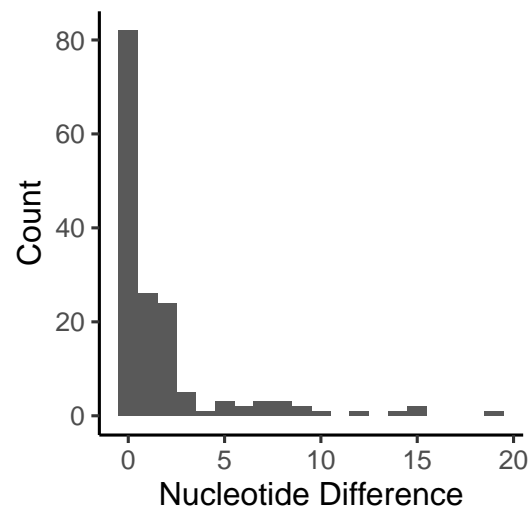
IGHV1-46*03

61 sequences assigned
24 (39.3%) exact matches, in which:
24 unique CDR3
6 unique J



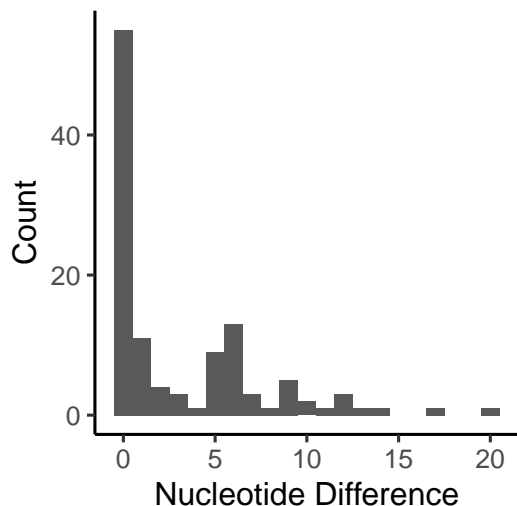
IGHV1-69*04

183 sequences assigned
82 (44.8%) exact matches, in which:
82 unique CDR3
6 unique J



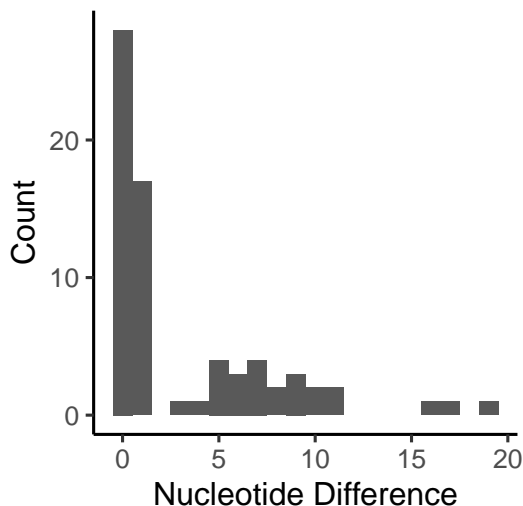
IGHV1-69*12

137 sequences assigned
55 (40.1%) exact matches, in which:
54 unique CDR3
5 unique J



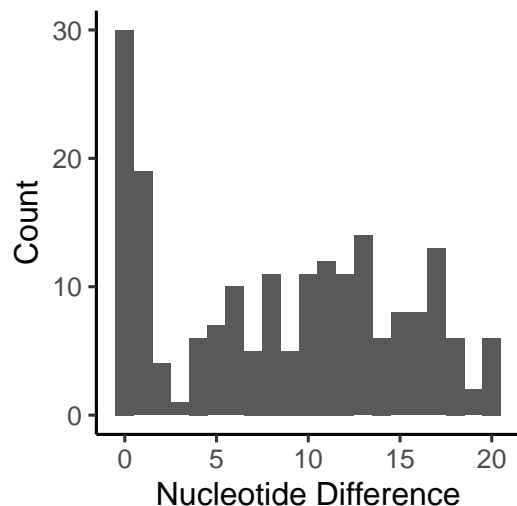
IGHV2-26*01

77 sequences assigned
28 (36.4%) exact matches, in which:
27 unique CDR3
5 unique J



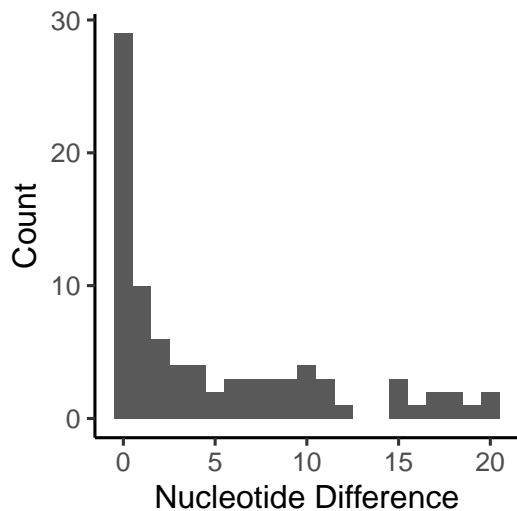
IGHV3-7*01

262 sequences assigned
30 (11.5%) exact matches, in which:
29 unique CDR3
5 unique J



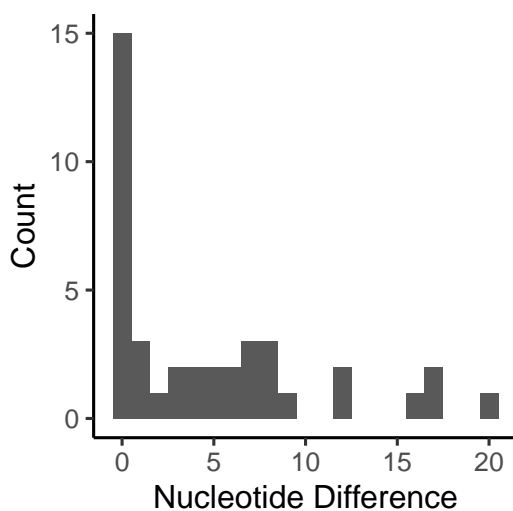
IGHV2-5*01

113 sequences assigned
29 (25.7%) exact matches, in which:
29 unique CDR3
5 unique J



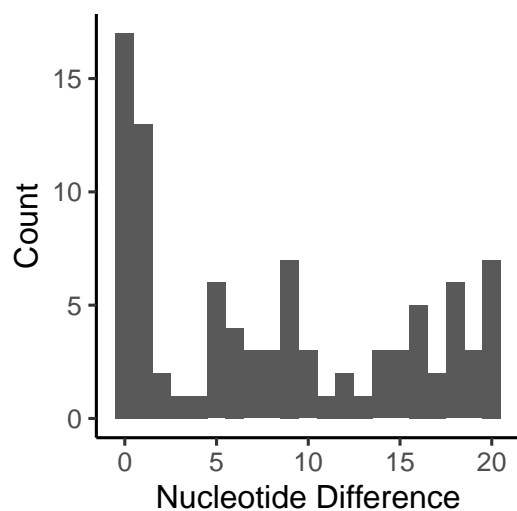
IGHV2-70*15

42 sequences assigned
15 (35.7%) exact matches, in which:
15 unique CDR3
3 unique J



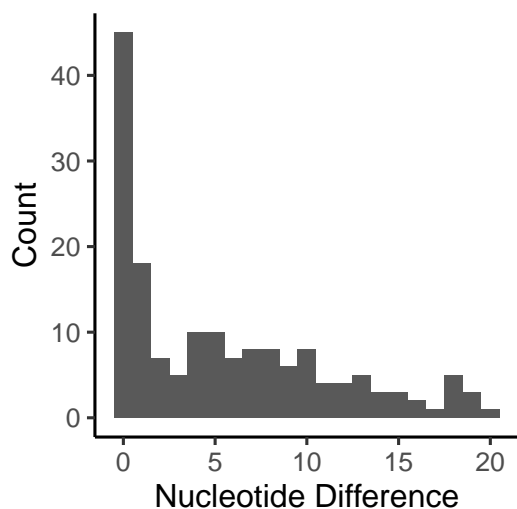
IGHV3-7*04

121 sequences assigned
17 (14%) exact matches, in which:
16 unique CDR3
4 unique J



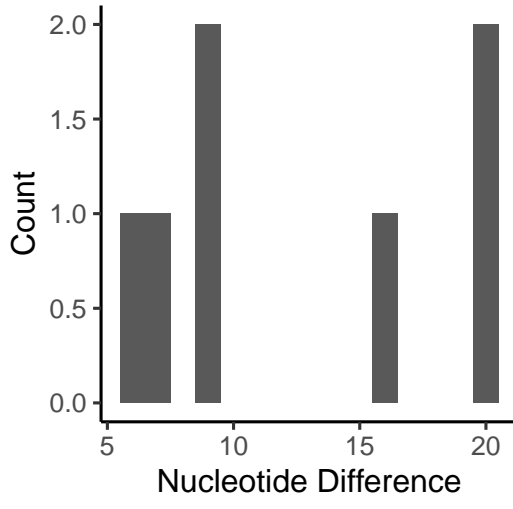
IGHV2-5*02

184 sequences assigned
45 (24.5%) exact matches, in which:
45 unique CDR3
5 unique J



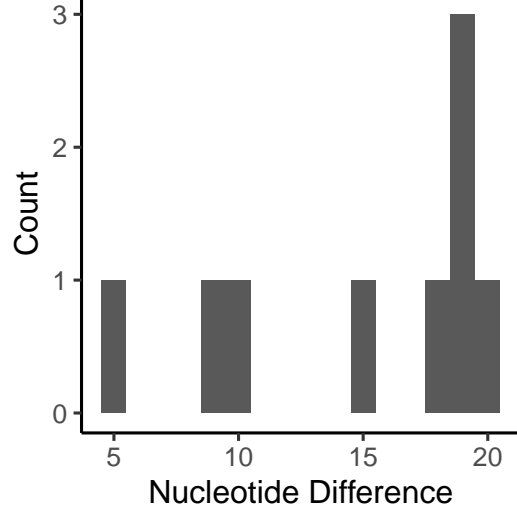
IGHV2-70*17

7 sequences assigned
No exact matches.



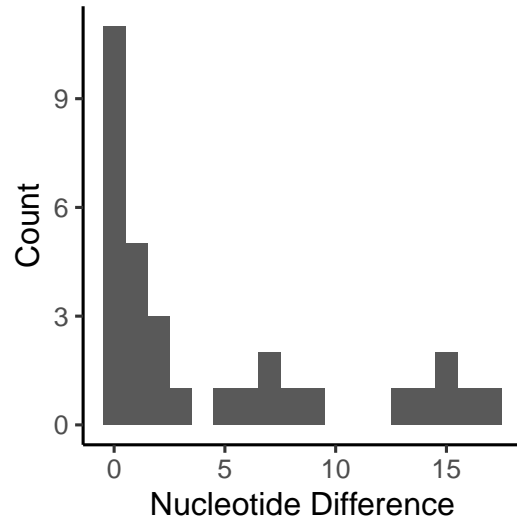
IGHV3-9*01

15 sequences assigned
No exact matches.



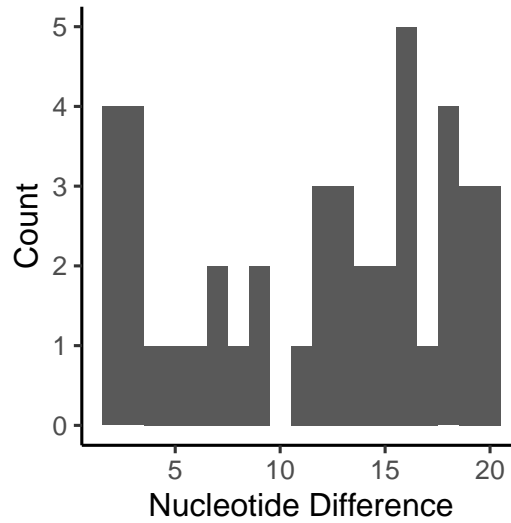
IGHV3-9*03

33 sequences assigned
11 (33.3%) exact matches, in which:
11 unique CDR3
3 unique J



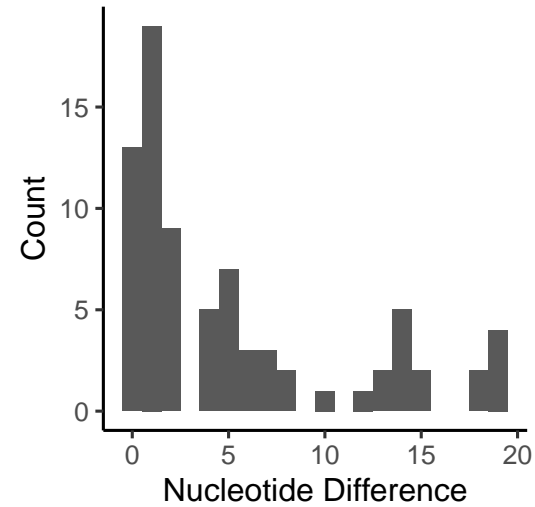
IGHV3-13*01

63 sequences assigned
No exact matches.



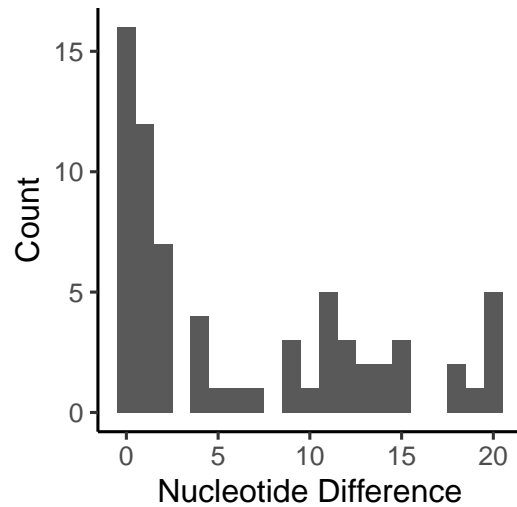
IGHV3-20*04

87 sequences assigned
13 (14.9%) exact matches, in which:
13 unique CDR3
4 unique J



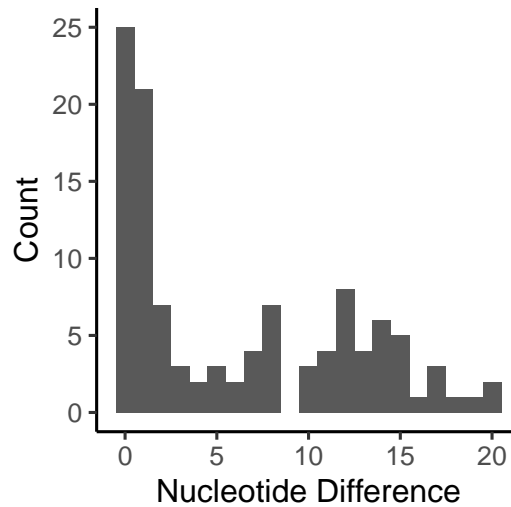
IGHV3-11*04

98 sequences assigned
16 (16.3%) exact matches, in which:
16 unique CDR3
5 unique J



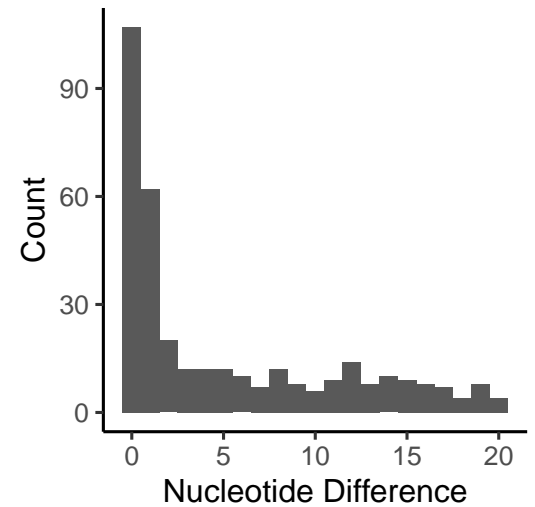
IGHV3-15*01

120 sequences assigned
25 (20.8%) exact matches, in which:
24 unique CDR3
5 unique J



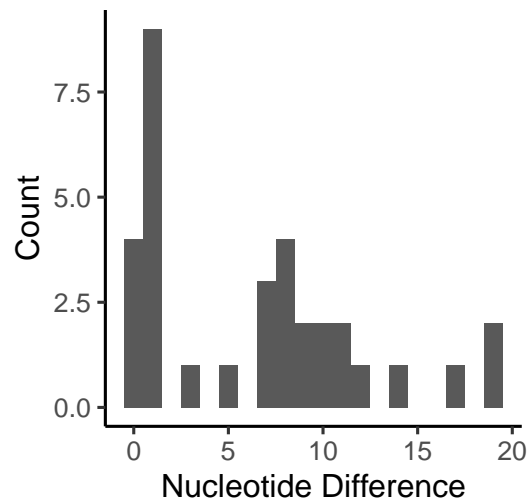
IGHV3-21*01

403 sequences assigned
107 (26.6%) exact matches, in which:
106 unique CDR3
7 unique J



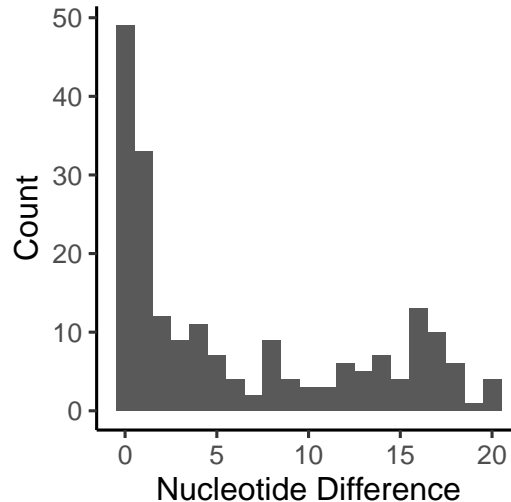
IGHV3-11*06

39 sequences assigned
4 (10.3%) exact matches, in which:
4 unique CDR3
3 unique J



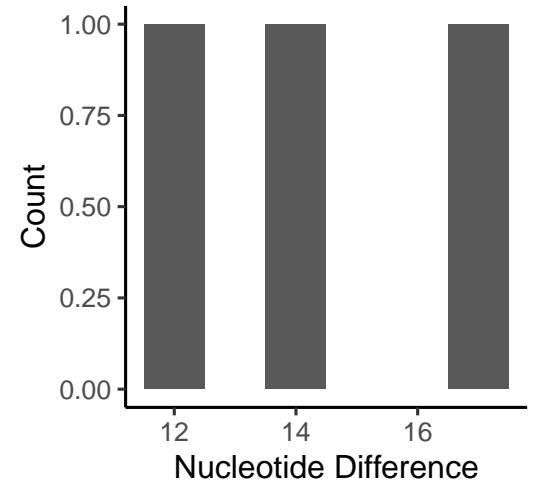
IGHV3-15*07

286 sequences assigned
49 (17.1%) exact matches, in which:
49 unique CDR3
5 unique J



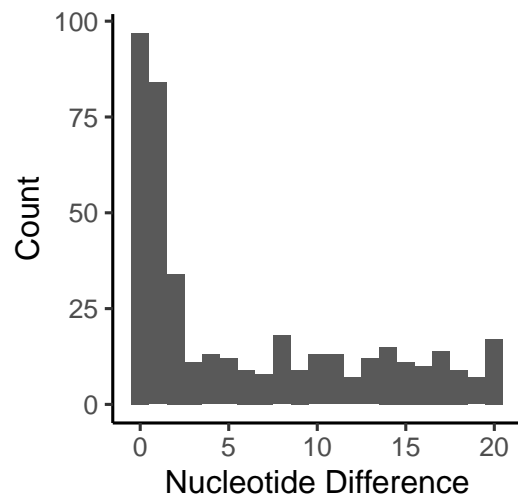
IGHV3-30-3*01

3 sequences assigned
No exact matches.



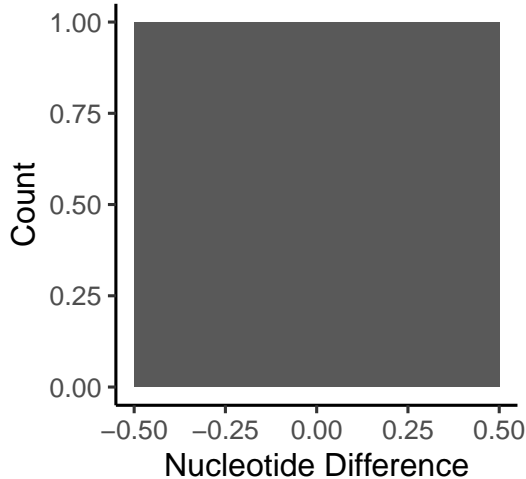
IGHV3-33*01

520 sequences assigned
97 (18.7%) exact matches, in which:
96 unique CDR3
5 unique J



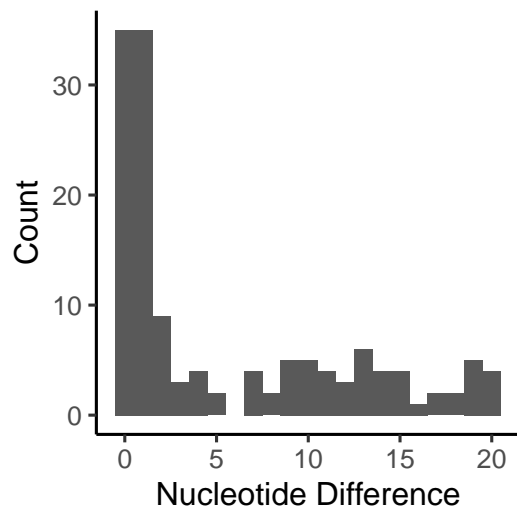
IGHV3-47*02

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



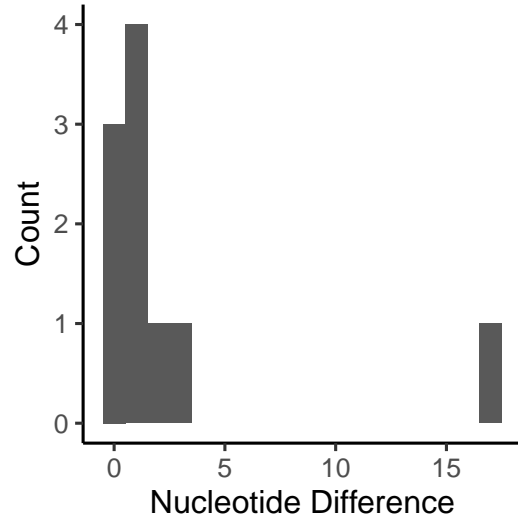
IGHV3-49*04

164 sequences assigned
35 (21.3%) exact matches, in which:
35 unique CDR3
6 unique J



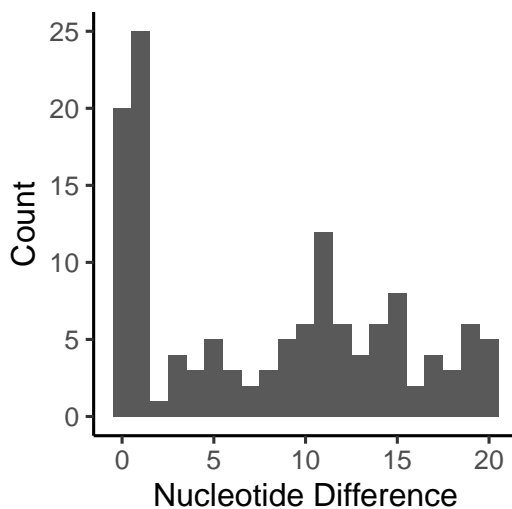
IGHV3-43*01

13 sequences assigned
3 (23.1%) exact matches, in which:
3 unique CDR3
2 unique J



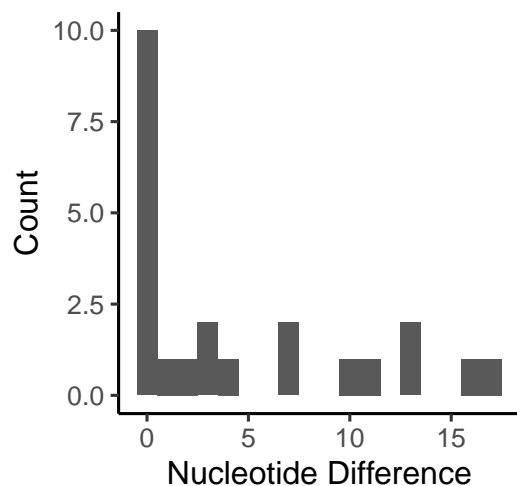
IGHV3-48*01

168 sequences assigned
20 (11.9%) exact matches, in which:
20 unique CDR3
4 unique J



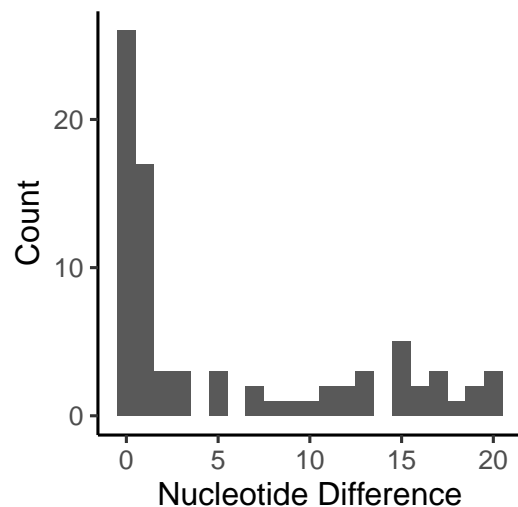
IGHV3-53*04

25 sequences assigned
10 (40%) exact matches, in which:
10 unique CDR3
4 unique J



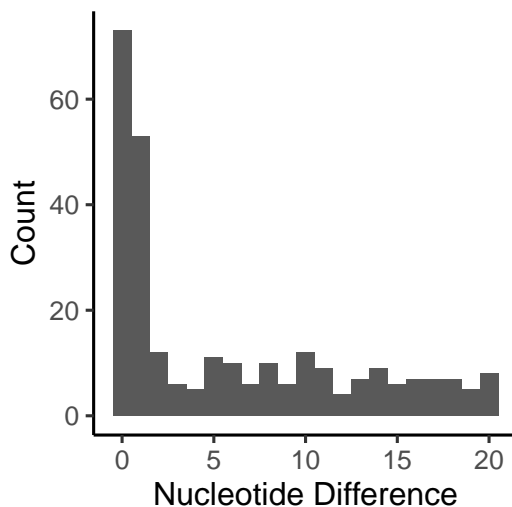
IGHV3-43*02

96 sequences assigned
26 (27.1%) exact matches, in which:
26 unique CDR3
4 unique J



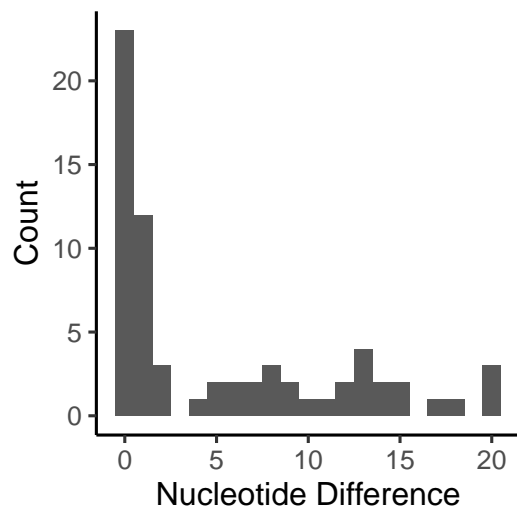
IGHV3-48*03

320 sequences assigned
73 (22.8%) exact matches, in which:
73 unique CDR3
5 unique J



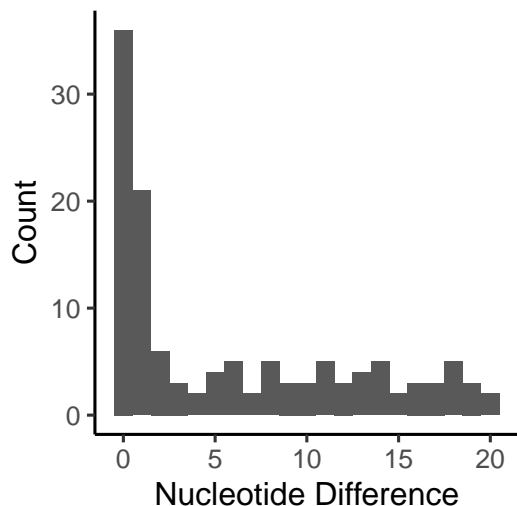
IGHV3-64*01

74 sequences assigned
23 (31.1%) exact matches, in which:
23 unique CDR3
5 unique J



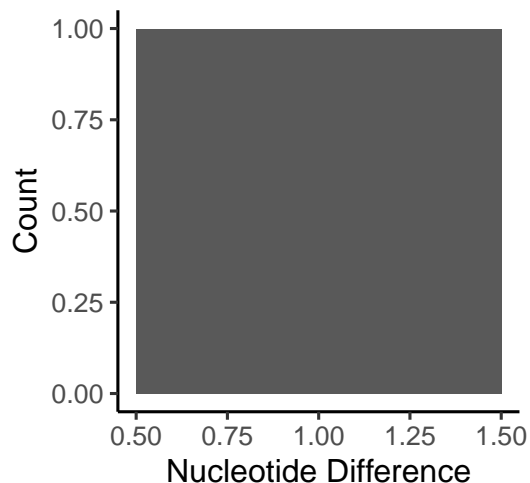
IGHV3-66*01

184 sequences assigned
36 (19.6%) exact matches, in which:
33 unique CDR3
5 unique J



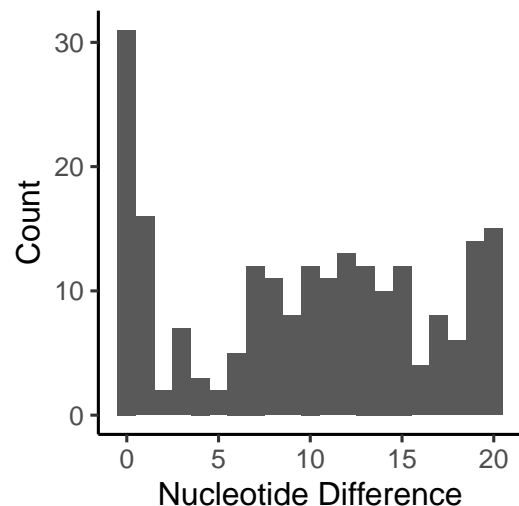
IGHV3-71*02

1 sequences assigned
No exact matches.



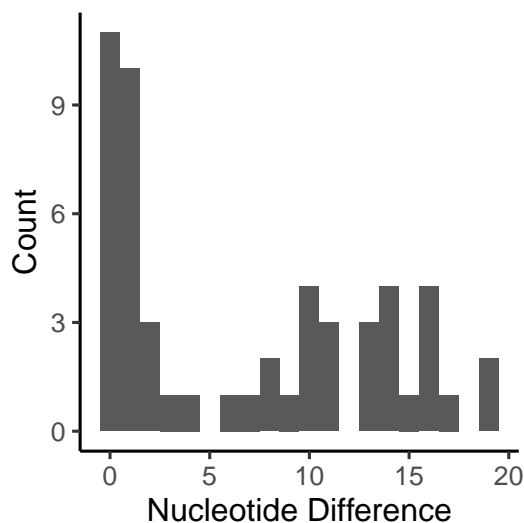
IGHV3-74*01

311 sequences assigned
31 (10%) exact matches, in which:
31 unique CDR3
5 unique J



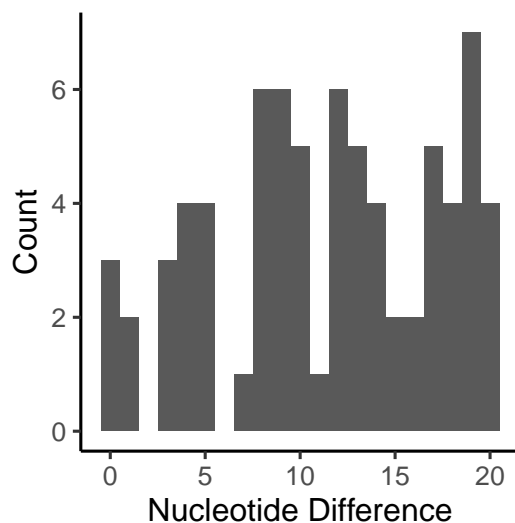
IGHV3-66*02

82 sequences assigned
11 (13.4%) exact matches, in which:
10 unique CDR3
5 unique J



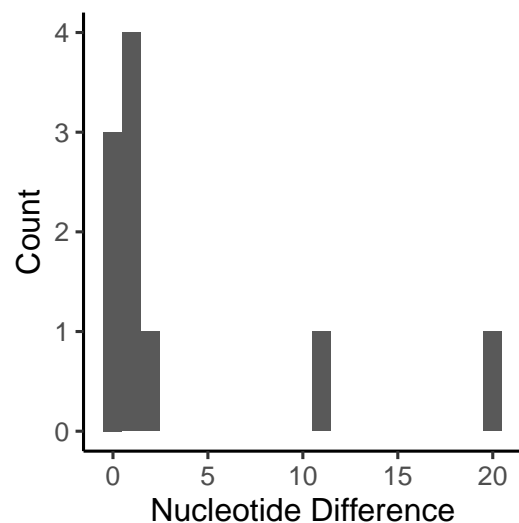
IGHV3-72*01

93 sequences assigned
3 (3.2%) exact matches, in which:
3 unique CDR3
1 unique J



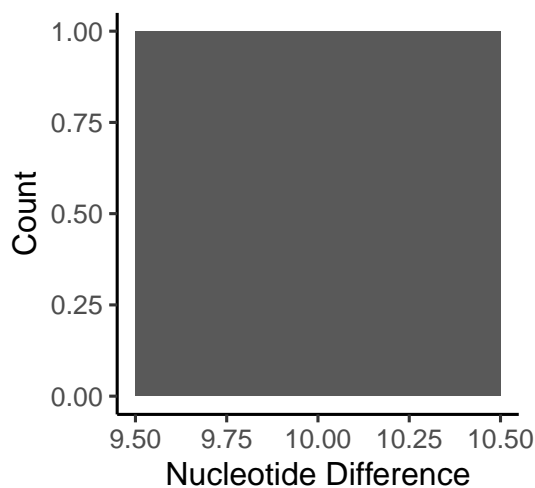
IGHV3-43D*03

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



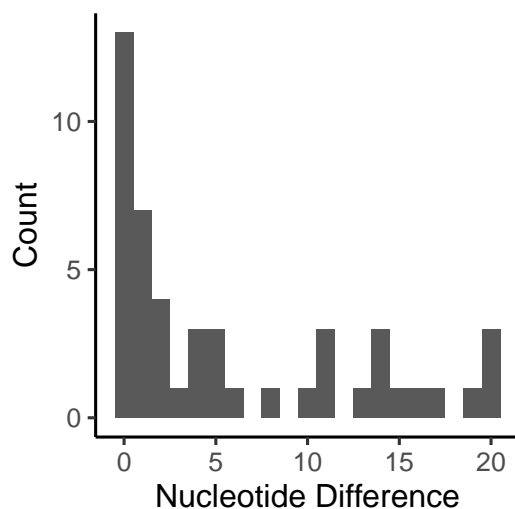
IGHV3-69-1*01

1 sequences assigned
No exact matches.



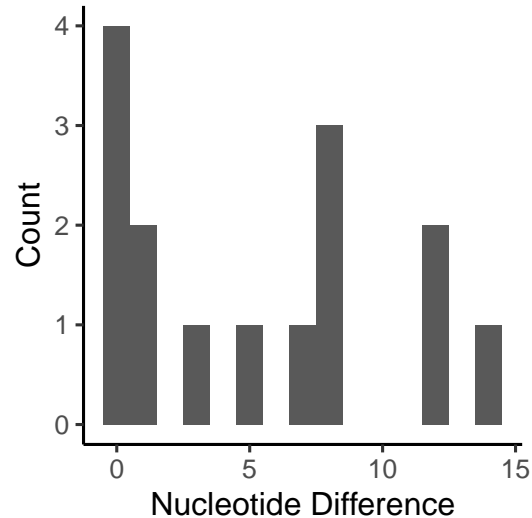
IGHV3-73*01

60 sequences assigned
13 (21.7%) exact matches, in which:
13 unique CDR3
4 unique J



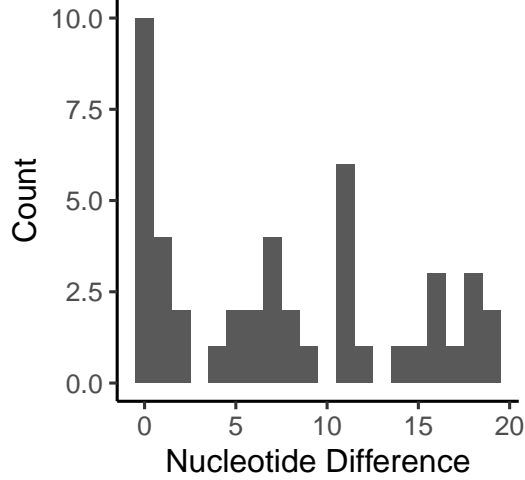
IGHV3-43D*04

19 sequences assigned
4 (21.1%) exact matches, in which:
4 unique CDR3
3 unique J



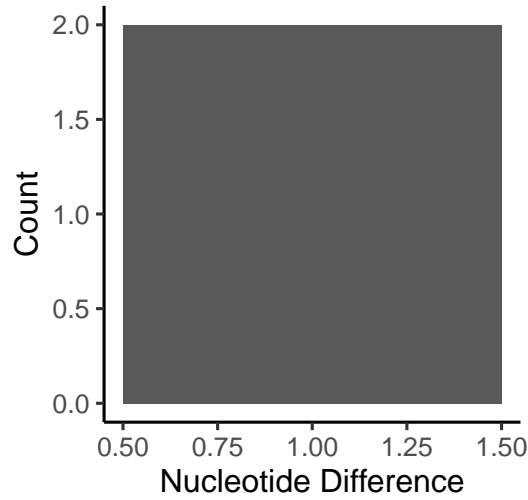
IGHV3–64D*06

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



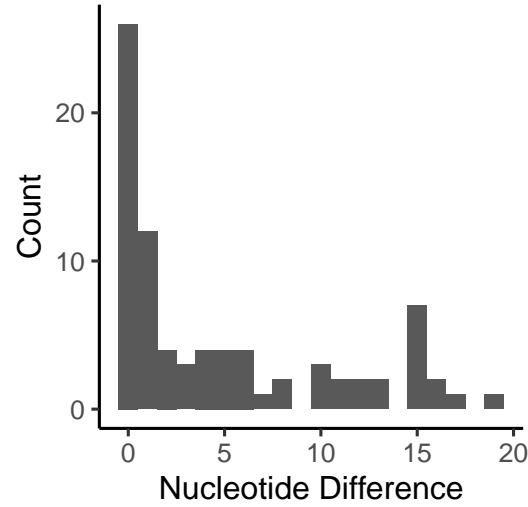
IGHV4–28*04

2 sequences assigned
No exact matches.



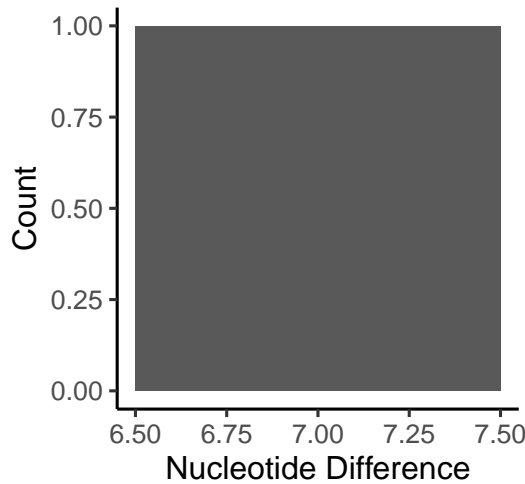
IGHV4–31*03

101 sequences assigned
26 (25.7%) exact matches, in which:
26 unique CDR3
6 unique J



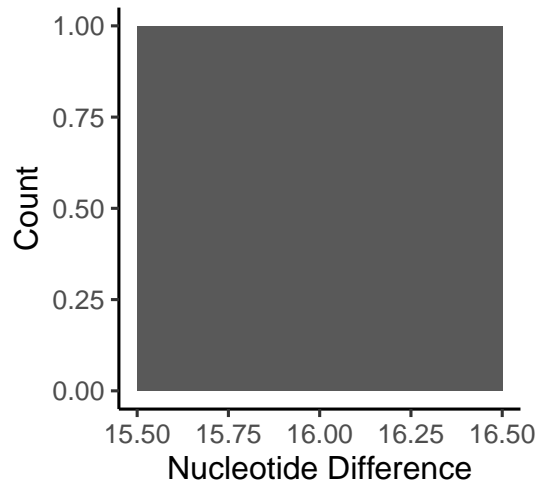
IGHV3–NL1*01

1 sequences assigned
No exact matches.



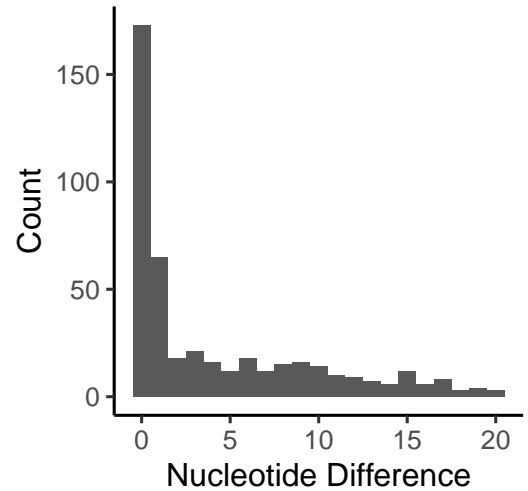
IGHV4–30–2*05

2 sequences assigned
No exact matches.



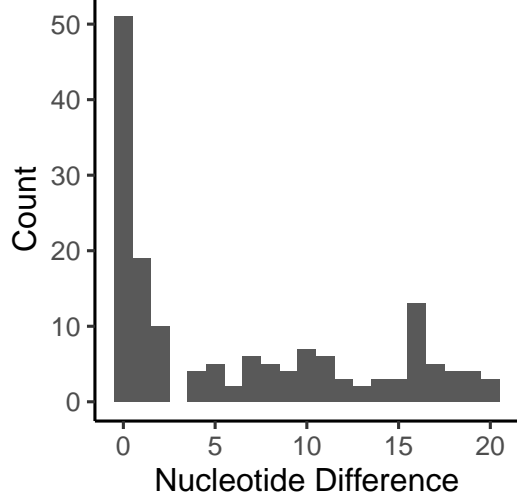
IGHV4–34*01

536 sequences assigned
173 (32.3%) exact matches, in which:
172 unique CDR3
7 unique J



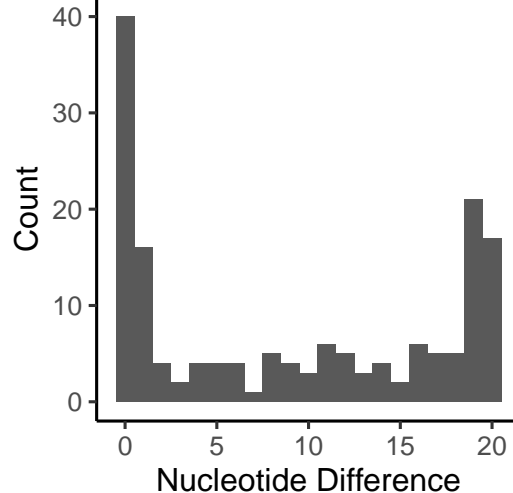
IGHV4–4*07

466 sequences assigned
51 (10.9%) exact matches, in which:
51 unique CDR3
7 unique J



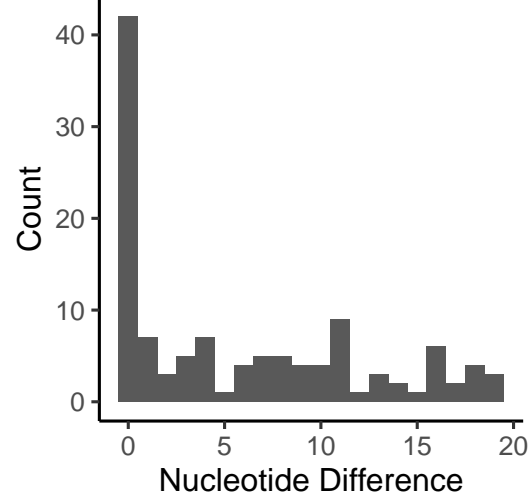
IGHV4–30–4*08

357 sequences assigned
40 (11.2%) exact matches, in which:
40 unique CDR3
4 unique J



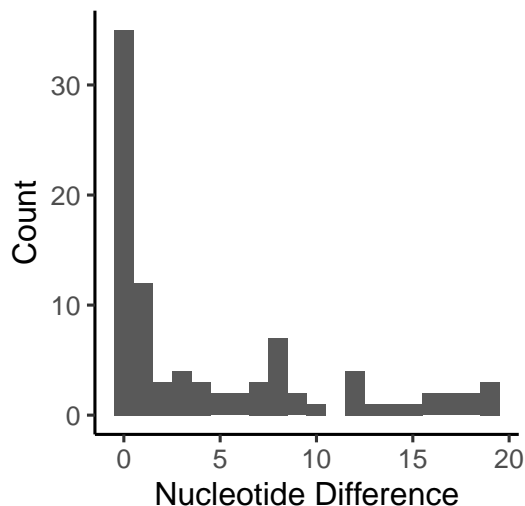
IGHV4–38–2*01

131 sequences assigned
42 (32.1%) exact matches, in which:
42 unique CDR3
6 unique J



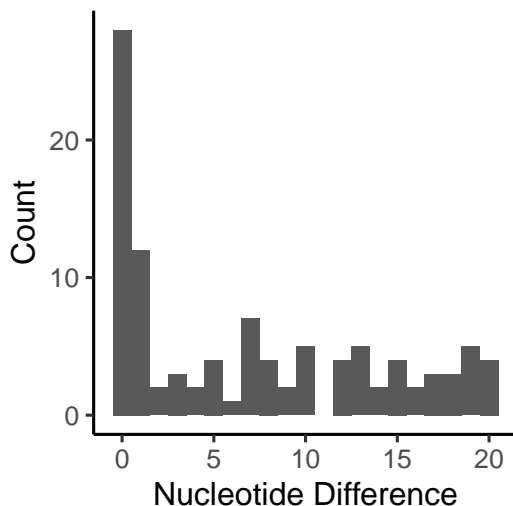
IGHV4-38-2*02

109 sequences assigned
35 (32.1%) exact matches, in which:
35 unique CDR3
5 unique J



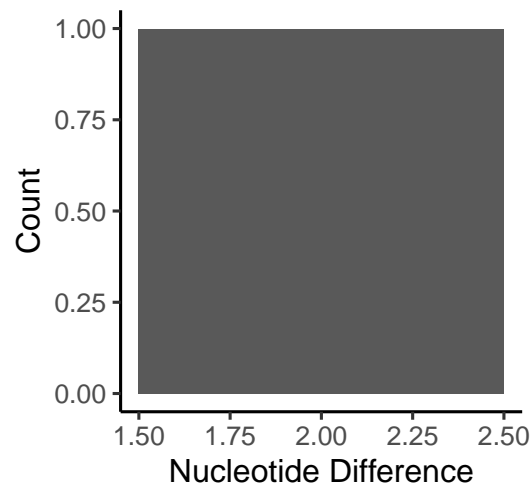
IGHV4-59*08

151 sequences assigned
28 (18.5%) exact matches, in which:
28 unique CDR3
5 unique J



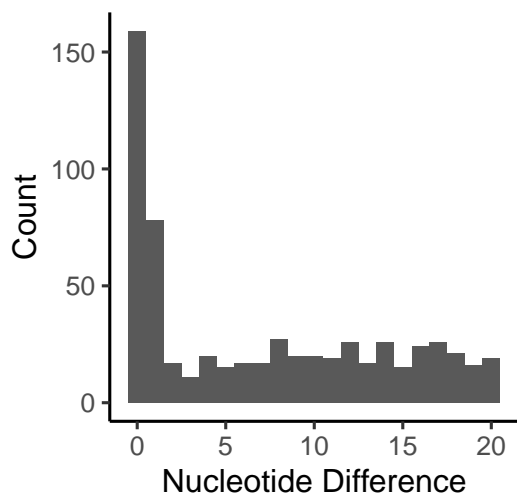
IGHV3/OR15-7*05

1 sequences assigned
No exact matches.



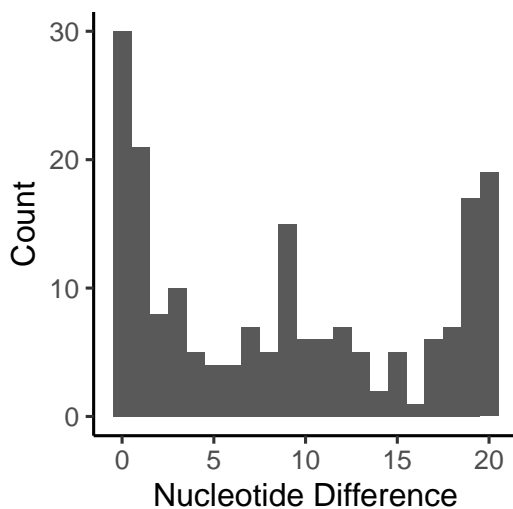
IGHV4-39*01

818 sequences assigned
159 (19.4%) exact matches, in which:
158 unique CDR3
7 unique J



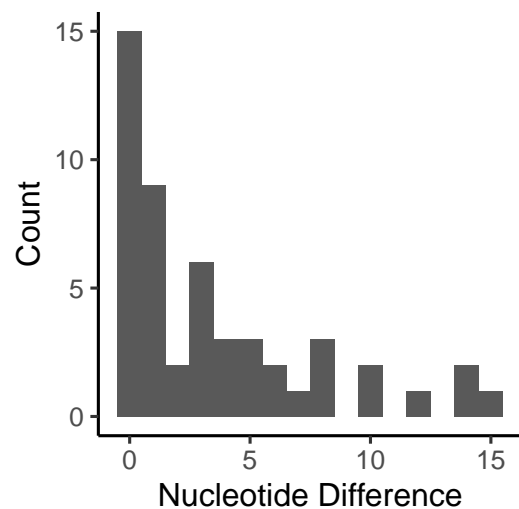
IGHV4-61*02

446 sequences assigned
30 (6.7%) exact matches, in which:
30 unique CDR3
5 unique J



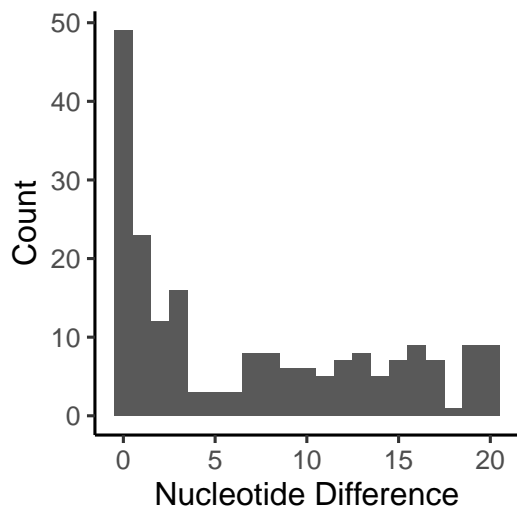
IGHV5-10-1*03

55 sequences assigned
15 (27.3%) exact matches, in which:
15 unique CDR3
3 unique J



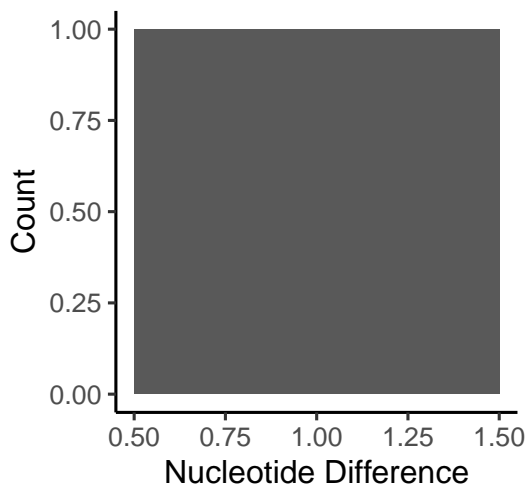
IGHV4-59*01

2483 sequences assigned
49 (2%) exact matches, in which:
49 unique CDR3
7 unique J



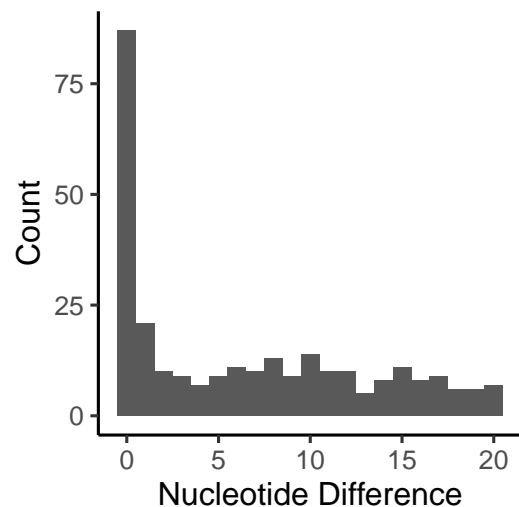
IGHV1/OR15-2*01

1 sequences assigned
No exact matches.



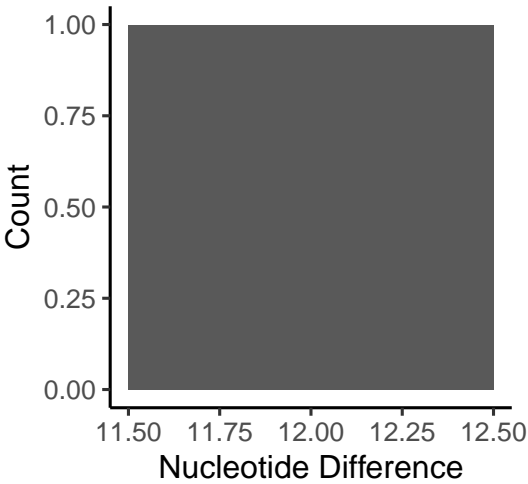
IGHV5-51*01

331 sequences assigned
87 (26.3%) exact matches, in which:
86 unique CDR3
7 unique J



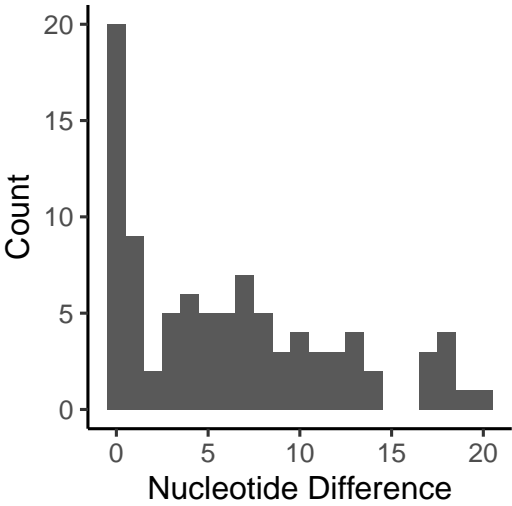
IGHV5-78*01

1 sequences assigned
No exact matches.



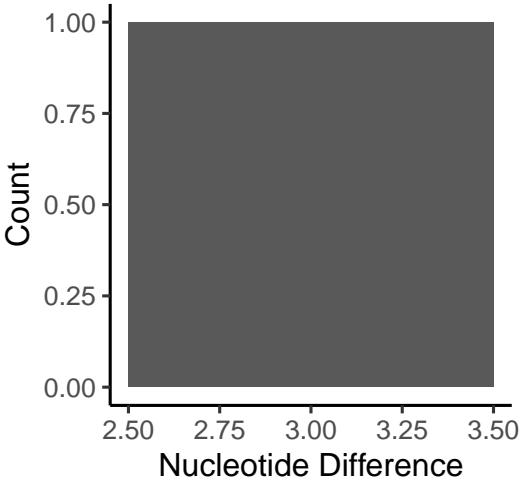
IGHV6-1*01

102 sequences assigned
20 (19.6%) exact matches, in which:
19 unique CDR3
6 unique J

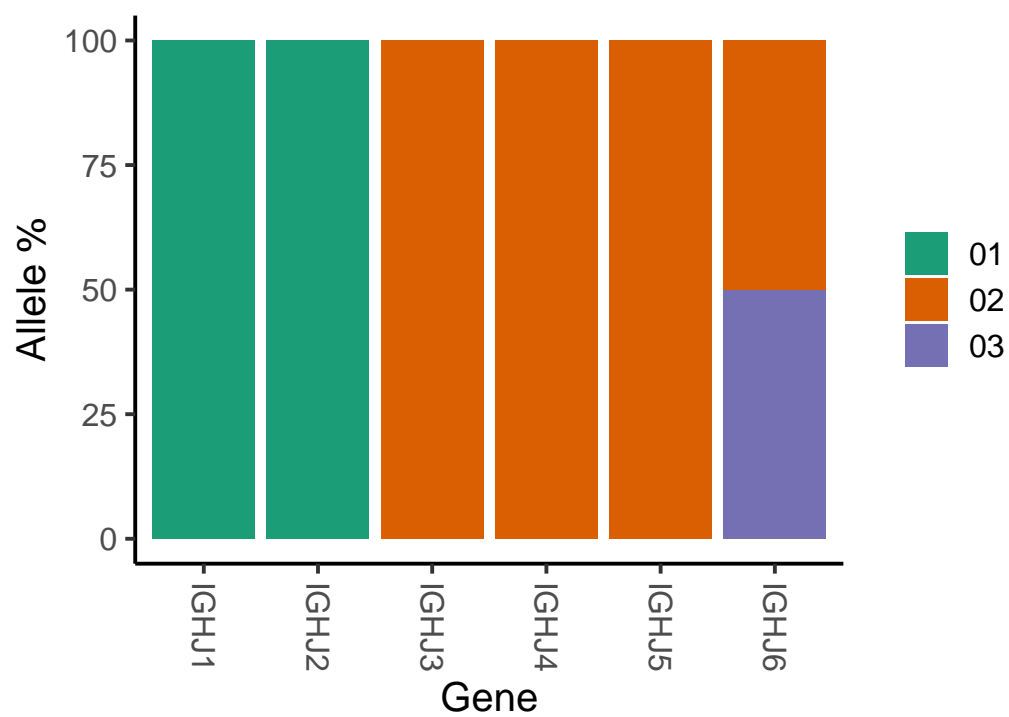


IGHV7-81*01

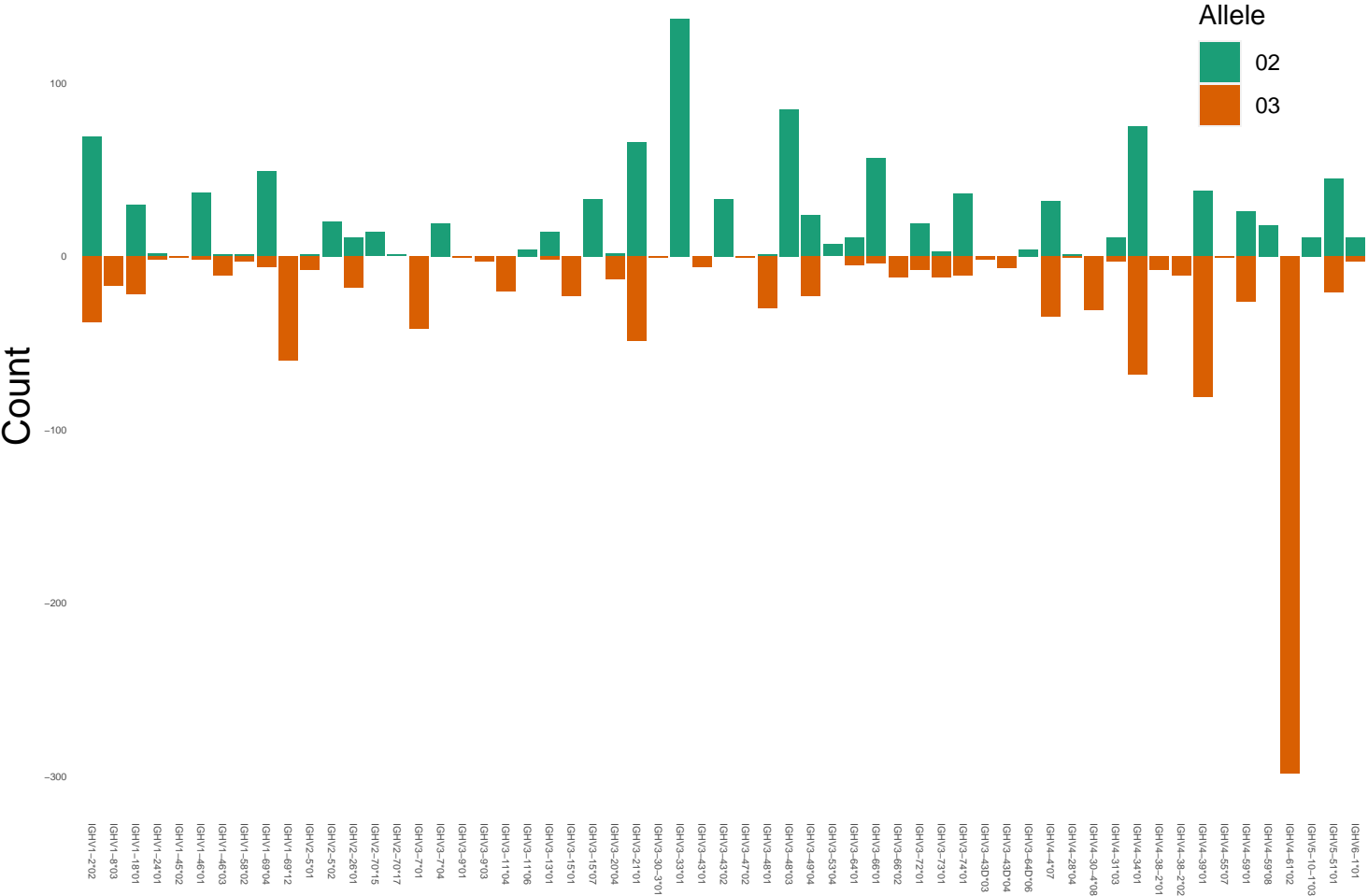
1 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]