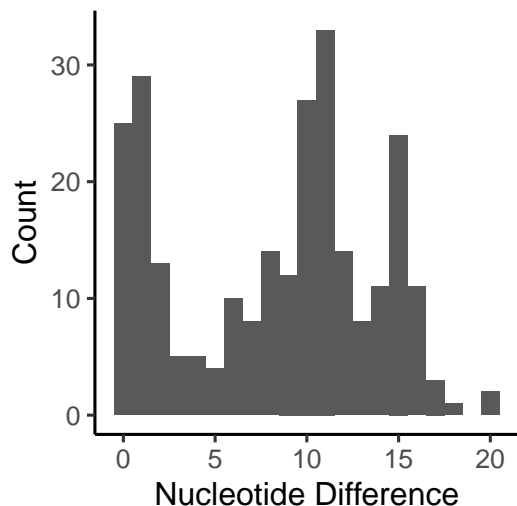


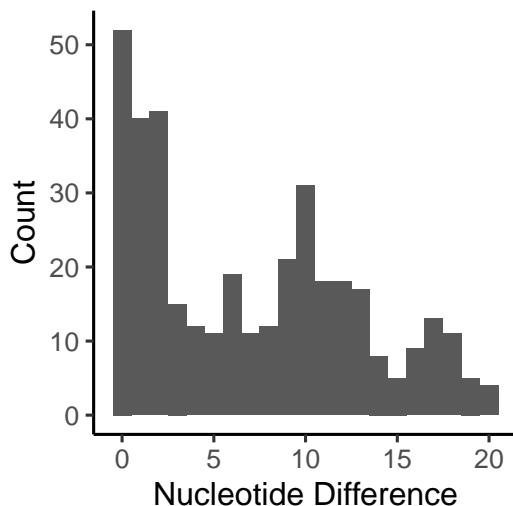
IGHV1-2*04

262 sequences assigned
25 (9.5%) exact matches, in which:
22 unique CDR3
5 unique J



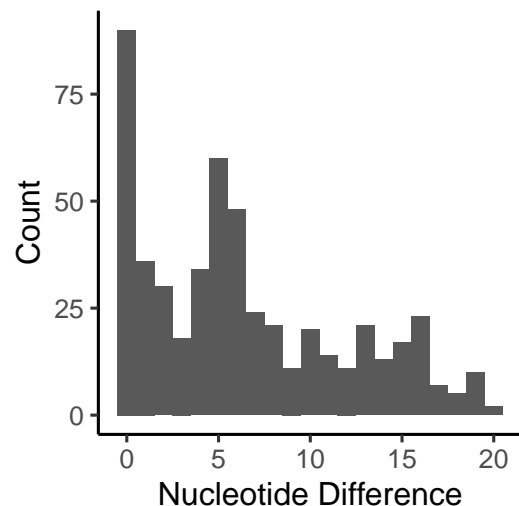
IGHV1-8*01

380 sequences assigned
52 (13.7%) exact matches, in which:
49 unique CDR3
6 unique J



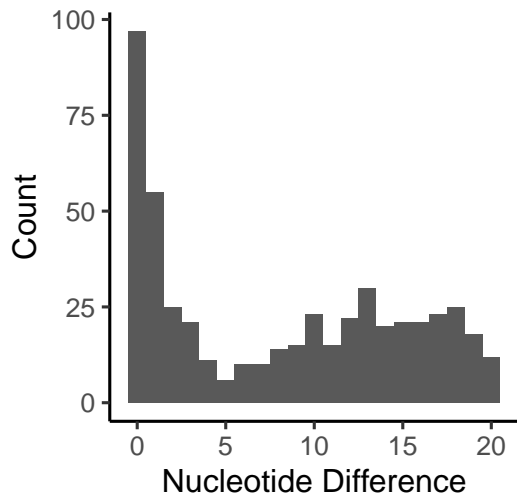
IGHV1-46*01

613 sequences assigned
90 (14.7%) exact matches, in which:
85 unique CDR3
6 unique J



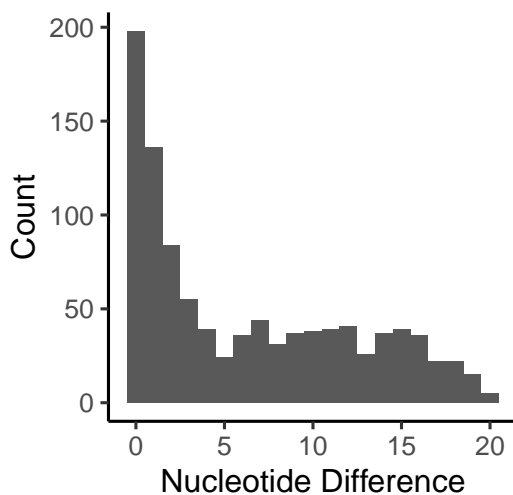
IGHV1-3*01

582 sequences assigned
97 (16.7%) exact matches, in which:
92 unique CDR3
6 unique J



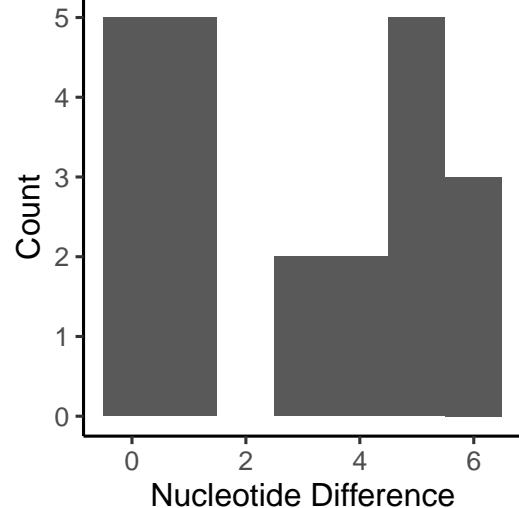
IGHV1-18*01

1054 sequences assigned
198 (18.8%) exact matches, in which:
189 unique CDR3
7 unique J



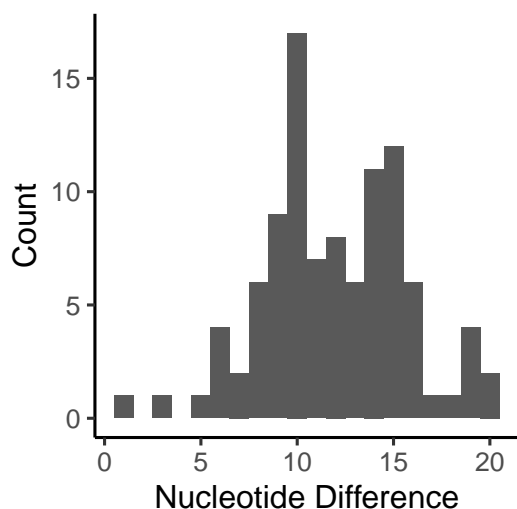
IGHV1-58*01

22 sequences assigned
5 (22.7%) exact matches, in which:
5 unique CDR3
3 unique J



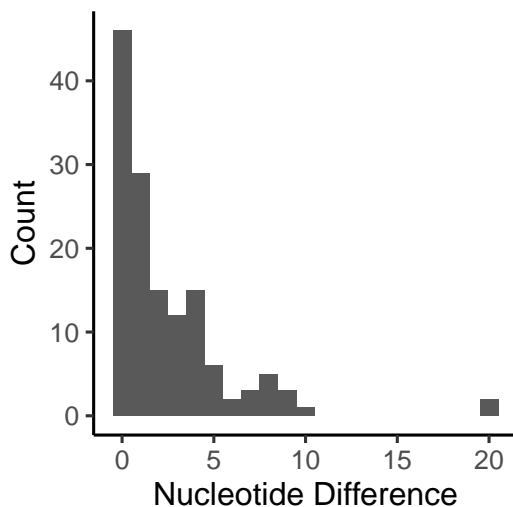
IGHV1-3*04

156 sequences assigned
No exact matches.



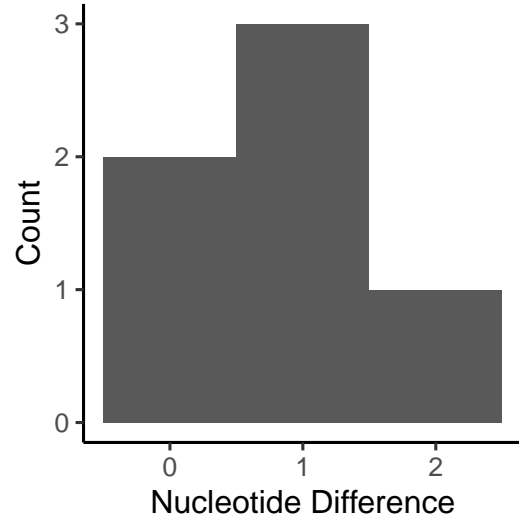
IGHV1-24*01

139 sequences assigned
46 (33.1%) exact matches, in which:
45 unique CDR3
7 unique J



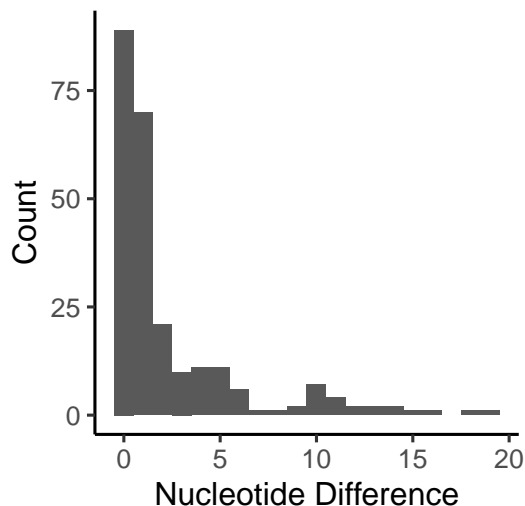
IGHV1-69-2*01

6 sequences assigned
2 (33.3%) exact matches, in which:
2 unique CDR3
2 unique J



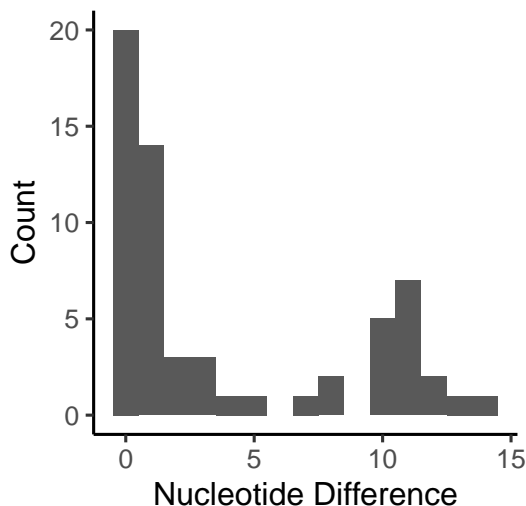
IGHV1-69*04

244 sequences assigned
89 (36.5%) exact matches, in which:
87 unique CDR3
6 unique J



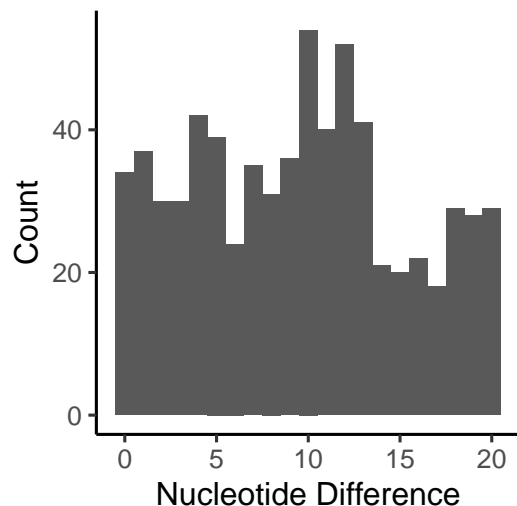
IGHV2-26*01

61 sequences assigned
20 (32.8%) exact matches, in which:
19 unique CDR3
6 unique J



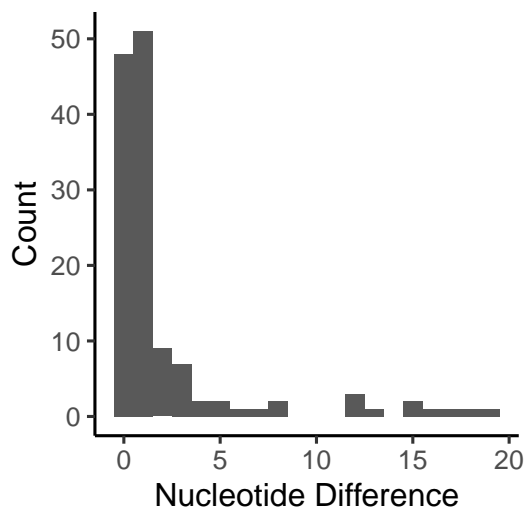
IGHV3-7*01

759 sequences assigned
34 (4.5%) exact matches, in which:
33 unique CDR3
5 unique J



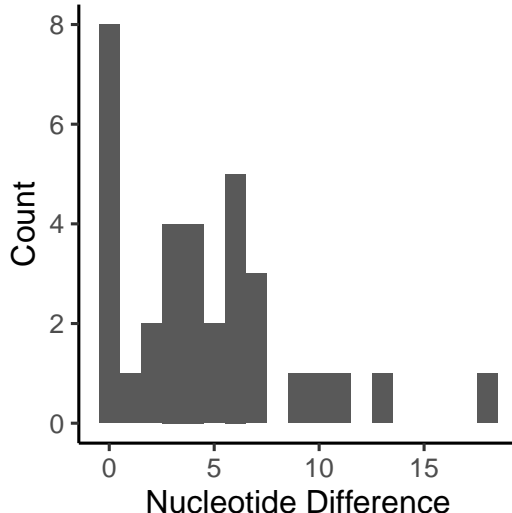
IGHV1-69*06

143 sequences assigned
48 (33.6%) exact matches, in which:
40 unique CDR3
4 unique J



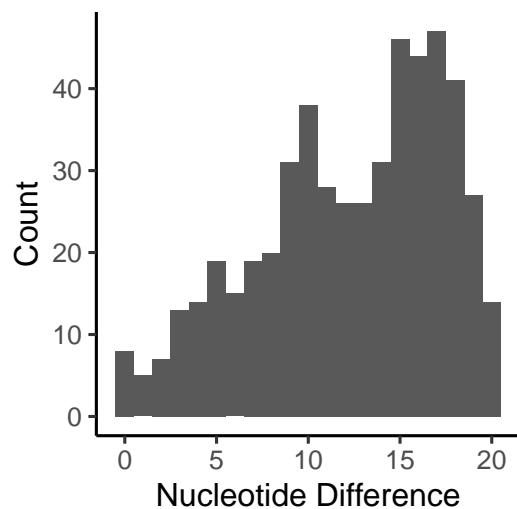
IGHV2-70*01

36 sequences assigned
8 (22.2%) exact matches, in which:
8 unique CDR3
3 unique J



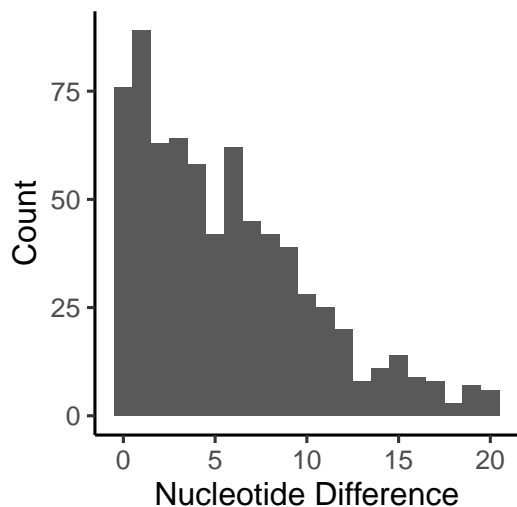
IGHV3-7*04

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



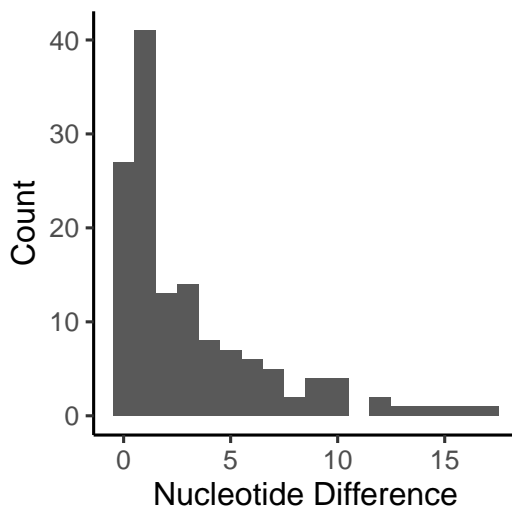
IGHV2-5*02

746 sequences assigned
76 (10.2%) exact matches, in which:
73 unique CDR3
5 unique J



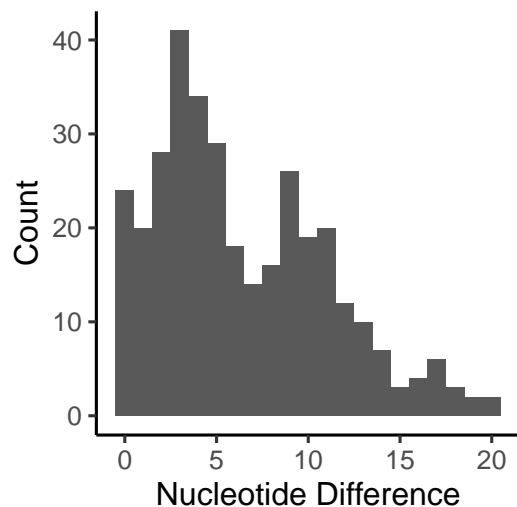
IGHV2-70*15

138 sequences assigned
27 (19.6%) exact matches, in which:
16 unique CDR3
3 unique J



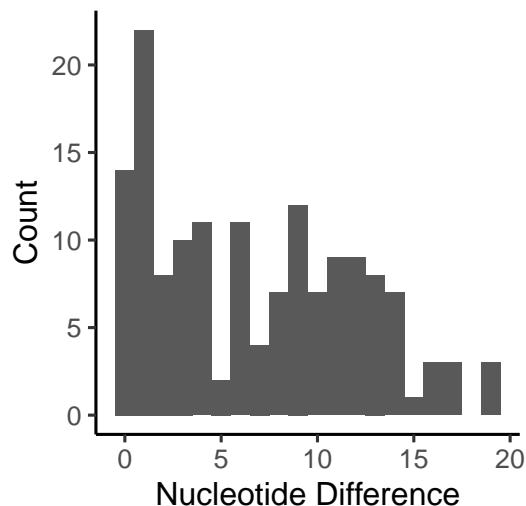
IGHV3-9*01

372 sequences assigned
24 (6.5%) exact matches, in which:
23 unique CDR3
5 unique J



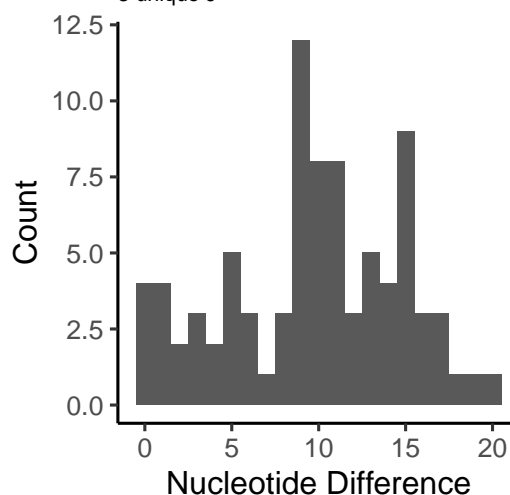
IGHV3-11*01

164 sequences assigned
14 (8.5%) exact matches, in which:
14 unique CDR3
4 unique J



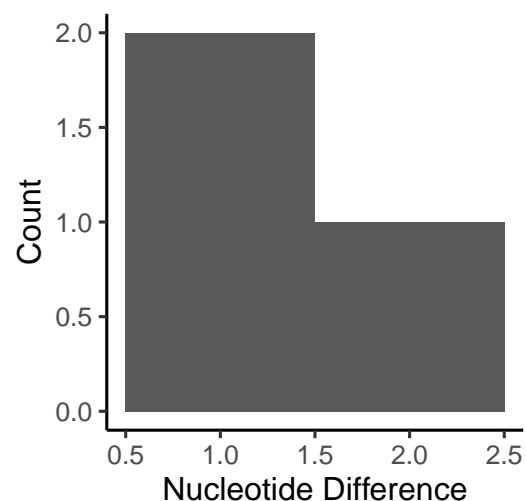
IGHV3-15*01

102 sequences assigned
4 (3.9%) exact matches, in which:
4 unique CDR3
3 unique J



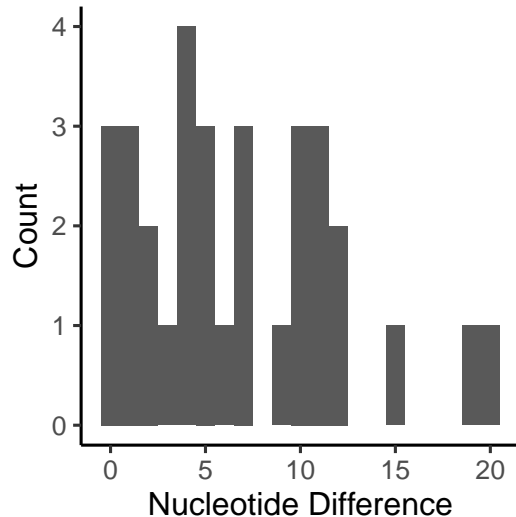
IGHV3-20*04

3 sequences assigned
No exact matches.



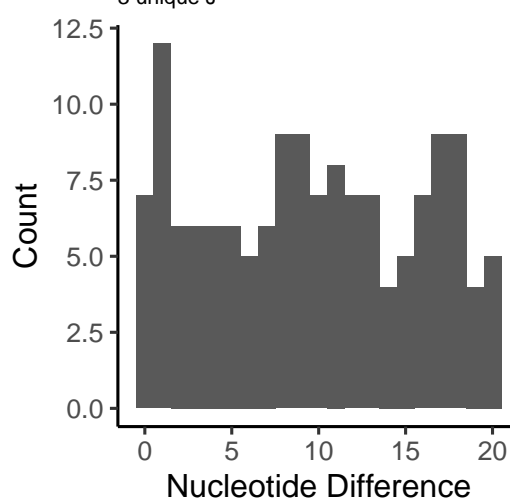
IGHV3-11*06

33 sequences assigned
3 (9.1%) exact matches, in which:
3 unique CDR3
2 unique J



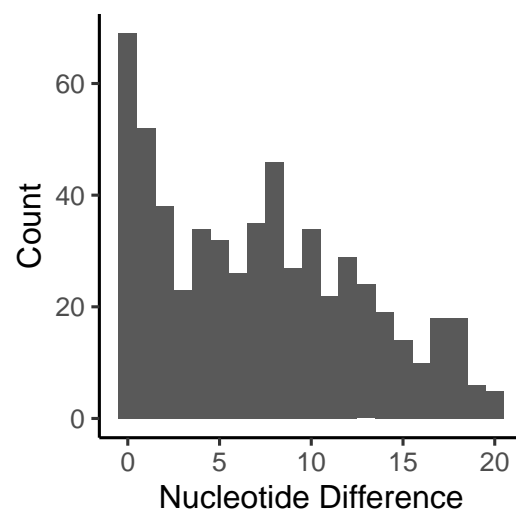
IGHV3-15*07

182 sequences assigned
7 (3.8%) exact matches, in which:
6 unique CDR3
3 unique J



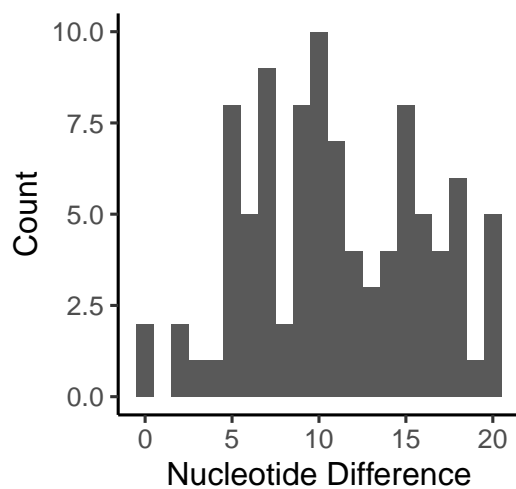
IGHV3-21*01

735 sequences assigned
69 (9.4%) exact matches, in which:
54 unique CDR3
7 unique J



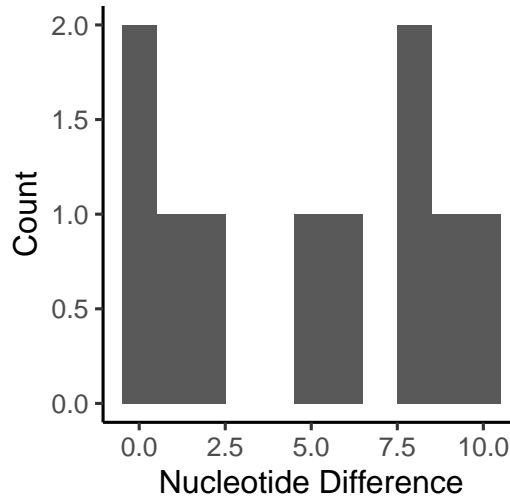
IGHV3-13*01

152 sequences assigned
2 (1.3%) exact matches, in which:
2 unique CDR3
2 unique J



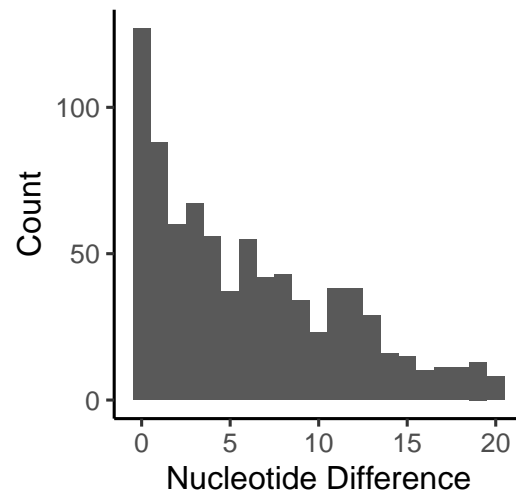
IGHV3-20*01

10 sequences assigned
2 (20%) exact matches, in which:
2 unique CDR3
2 unique J



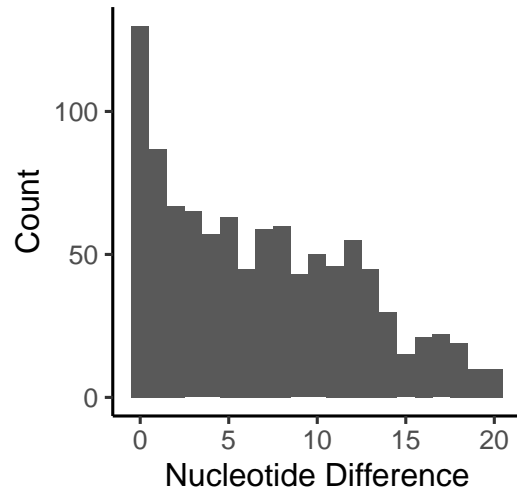
IGHV3-30-3*01

840 sequences assigned
127 (15.1%) exact matches, in which:
118 unique CDR3
7 unique J



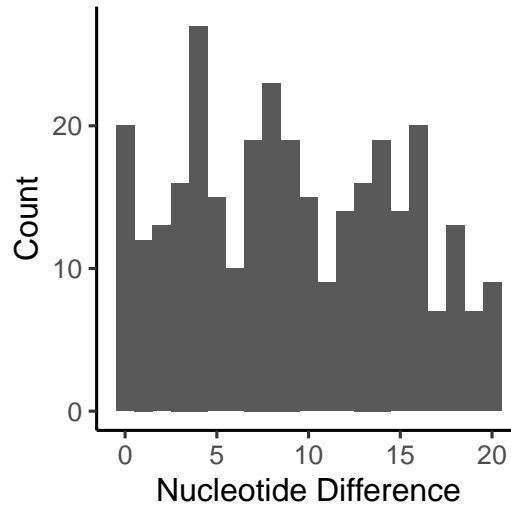
IGHV3–33*01

1056 sequences assigned
130 (12.3%) exact matches, in which:
122 unique CDR3
6 unique J



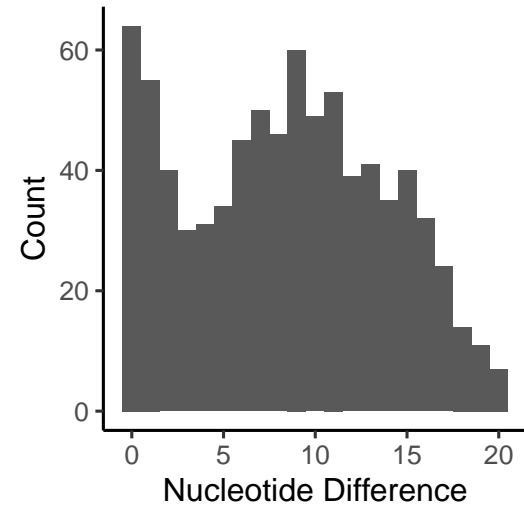
IGHV3–48*02

341 sequences assigned
20 (5.9%) exact matches, in which:
15 unique CDR3
4 unique J



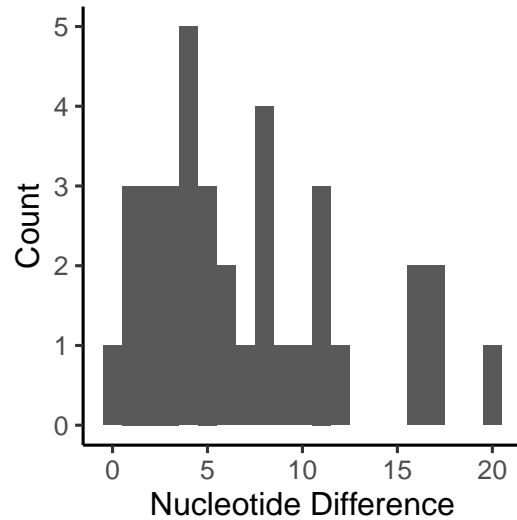
IGHV3–53*01

873 sequences assigned
64 (7.3%) exact matches, in which:
62 unique CDR3
6 unique J



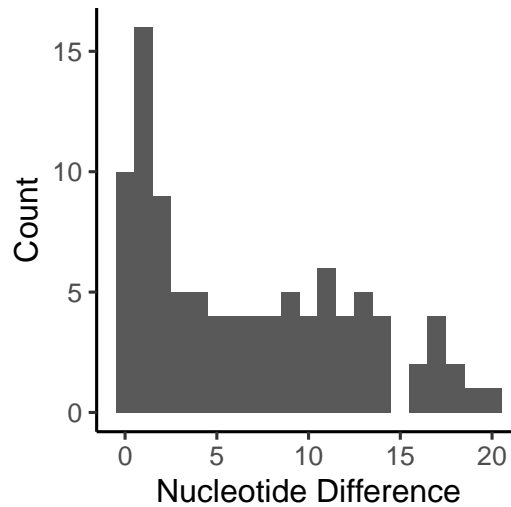
IGHV3–43*01

36 sequences assigned
1 (2.8%) exact matches, in which:
1 unique CDR3
1 unique J



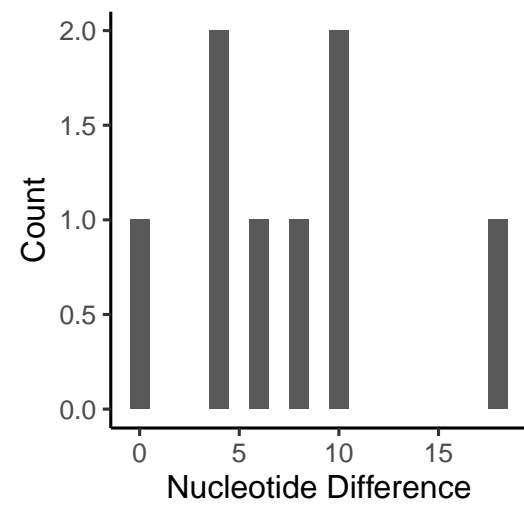
IGHV3–49*03

109 sequences assigned
10 (9.2%) exact matches, in which:
9 unique CDR3
4 unique J



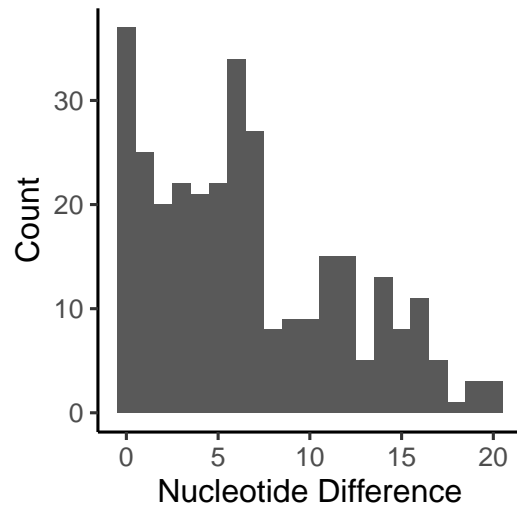
IGHV3–64*02

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



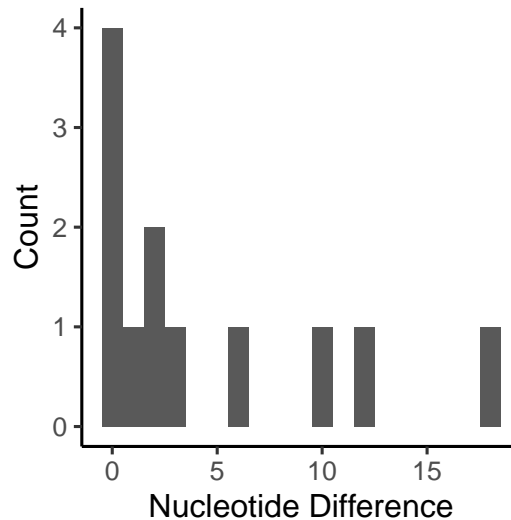
IGHV3–48*01

331 sequences assigned
37 (11.2%) exact matches, in which:
30 unique CDR3
4 unique J



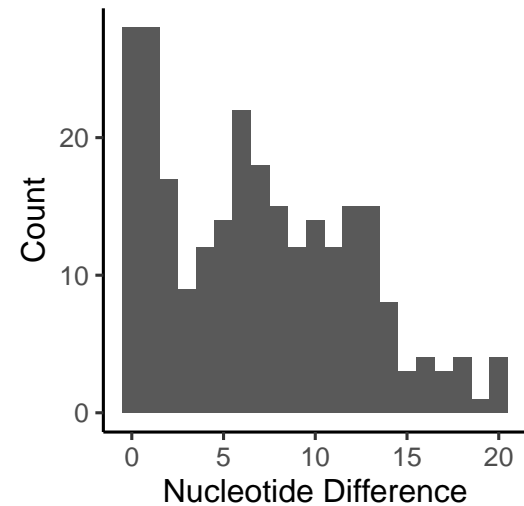
IGHV3–49*05

12 sequences assigned
4 (33.3%) exact matches, in which:
4 unique CDR3
2 unique J



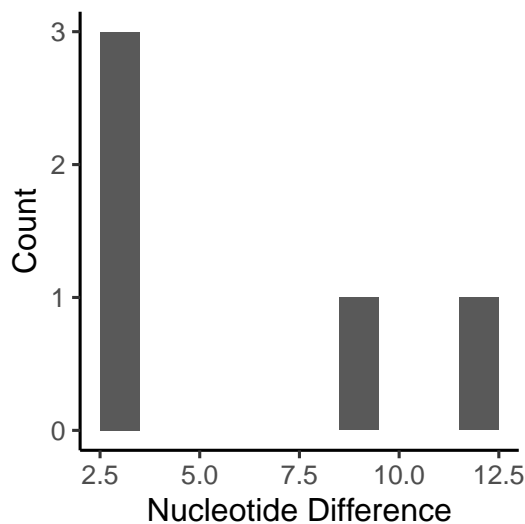
IGHV3–66*01

273 sequences assigned
28 (10.3%) exact matches, in which:
26 unique CDR3
3 unique J



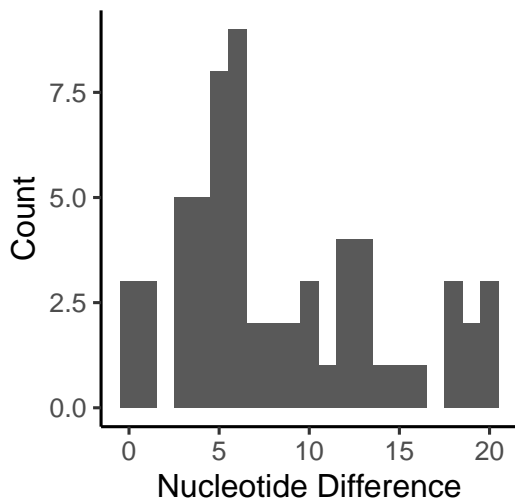
IGHV3-69-1*01

5 sequences assigned
No exact matches.



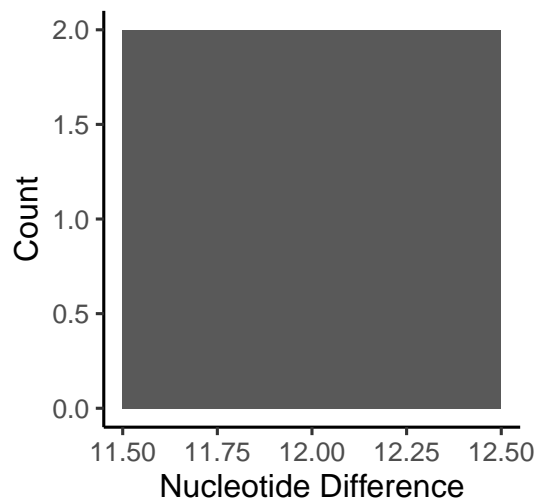
IGHV3-73*01

68 sequences assigned
3 (4.4%) exact matches, in which:
3 unique CDR3
3 unique J



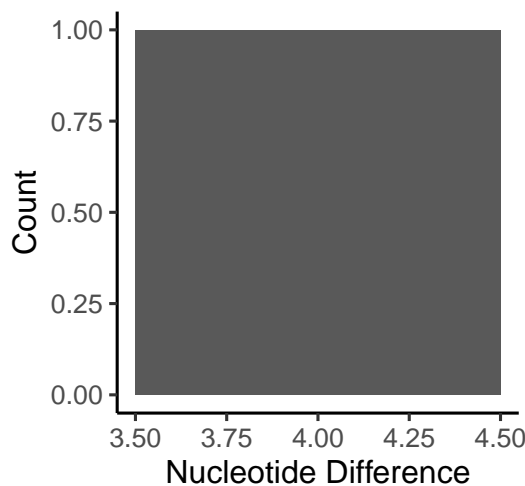
IGHV3-43D*04

2 sequences assigned
No exact matches.



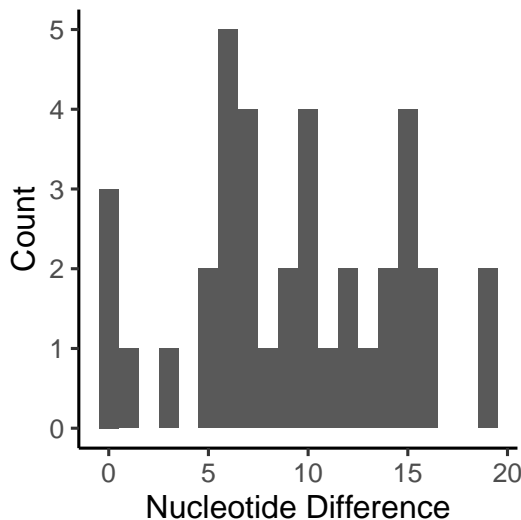
IGHV3-69-1*02

5 sequences assigned
No exact matches.



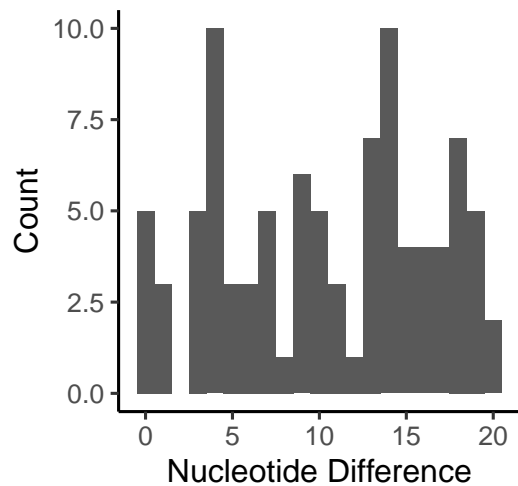
IGHV3-73*02

40 sequences assigned
3 (7.5%) exact matches, in which:
3 unique CDR3
2 unique J



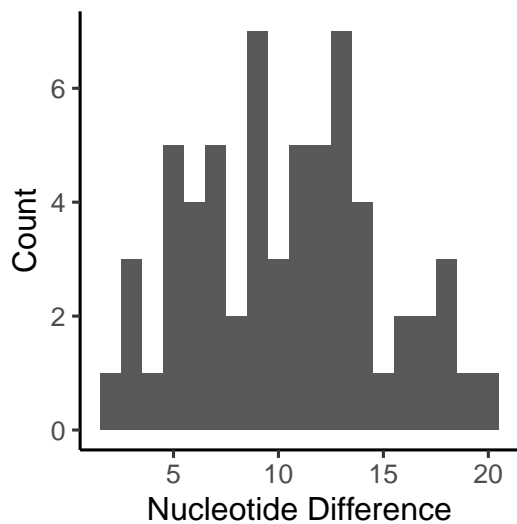
IGHV3-64D*06

97 sequences assigned
5 (5.2%) exact matches, in which:
5 unique CDR3
1 unique J



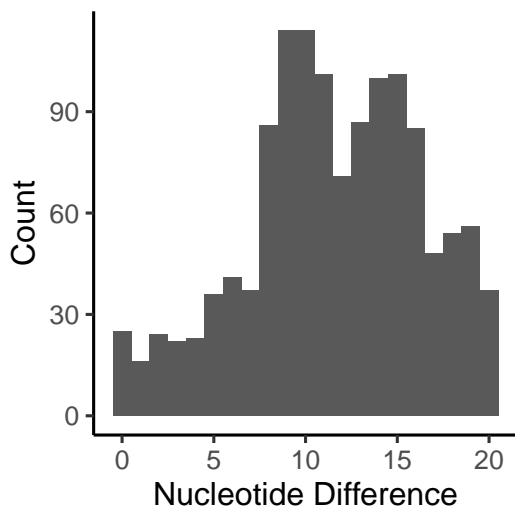
IGHV3-72*01

73 sequences assigned
No exact matches.



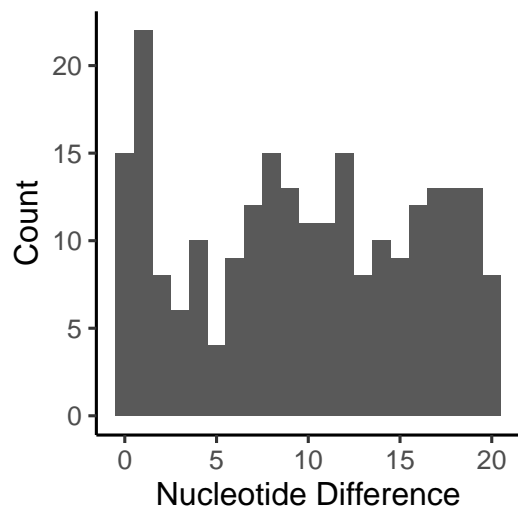
IGHV3-74*01

1641 sequences assigned
25 (1.5%) exact matches, in which:
20 unique CDR3
5 unique J



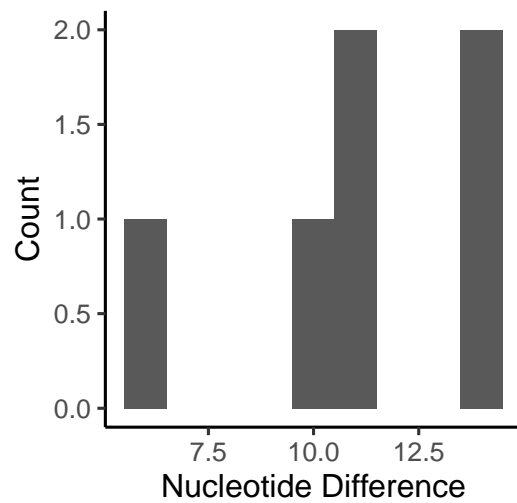
IGHV4-4*02

301 sequences assigned
15 (5%) exact matches, in which:
13 unique CDR3
6 unique J



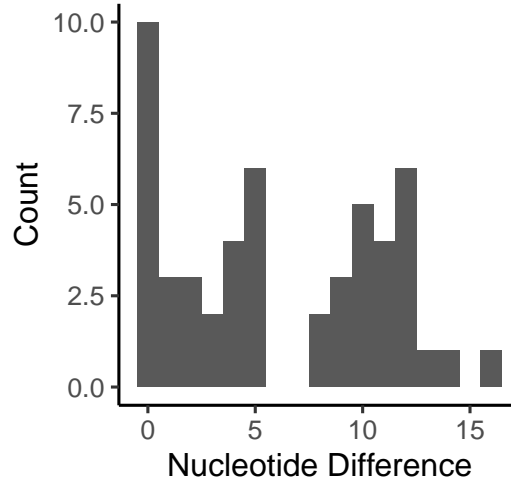
IGHV4-28*01

6 sequences assigned
No exact matches.



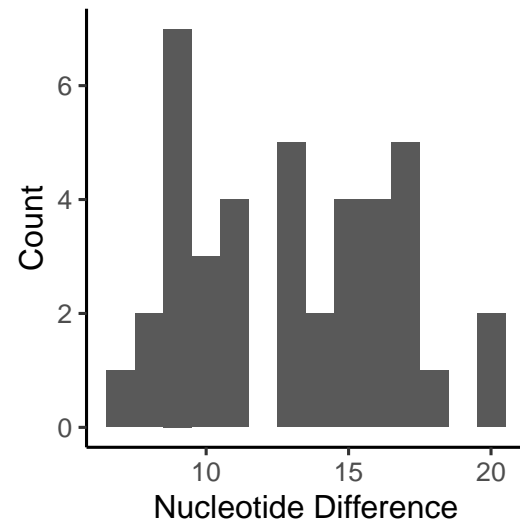
IGHV4-30-2*01

55 sequences assigned
10 (18.2%) exact matches, in which:
10 unique CDR3
5 unique J



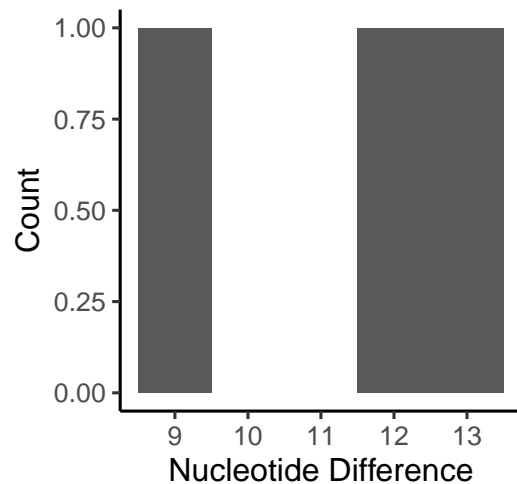
IGHV4-34*02

63 sequences assigned
No exact matches.



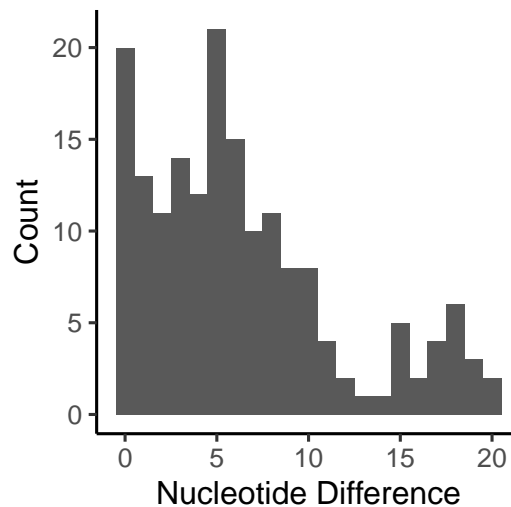
IGHV4-28*07

3 sequences assigned
No exact matches.



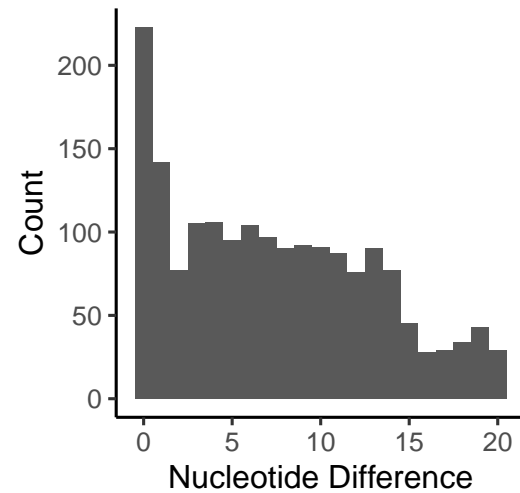
IGHV4-31*03

264 sequences assigned
20 (7.6%) exact matches, in which:
20 unique CDR3
6 unique J



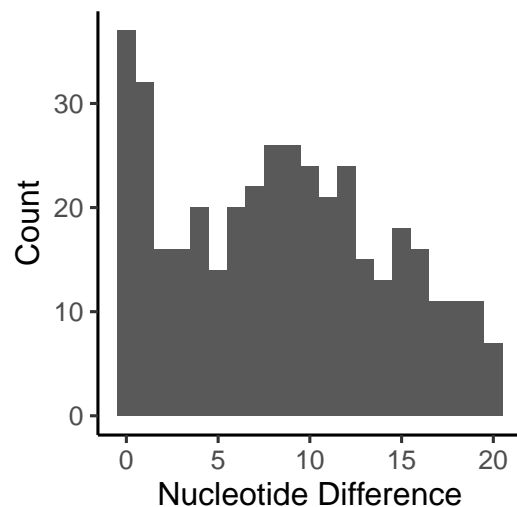
IGHV4-39*01

1965 sequences assigned
223 (11.3%) exact matches, in which:
199 unique CDR3
7 unique J



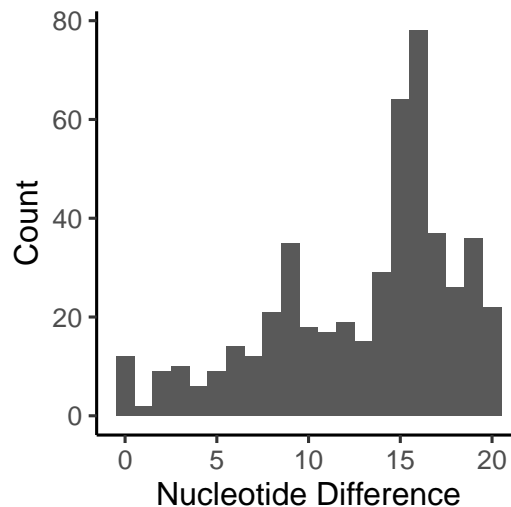
IGHV4-30-4*01

476 sequences assigned
37 (7.8%) exact matches, in which:
36 unique CDR3
6 unique J



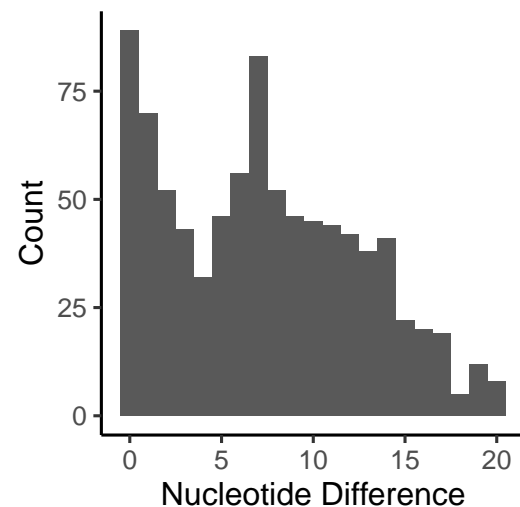
IGHV4-34*01

559 sequences assigned
12 (2.1%) exact matches, in which:
11 unique CDR3
5 unique J



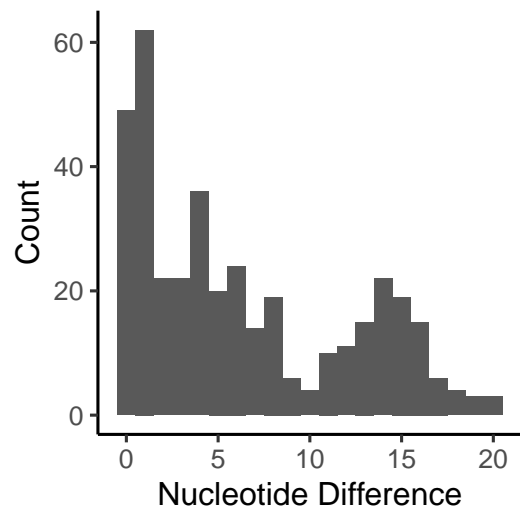
IGHV4-59*01

935 sequences assigned
89 (9.5%) exact matches, in which:
66 unique CDR3
7 unique J



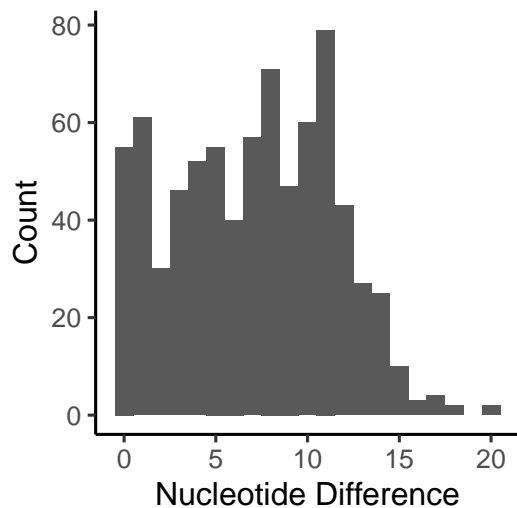
IGHV4-61*01

393 sequences assigned
49 (12.5%) exact matches, in which:
25 unique CDR3
6 unique J



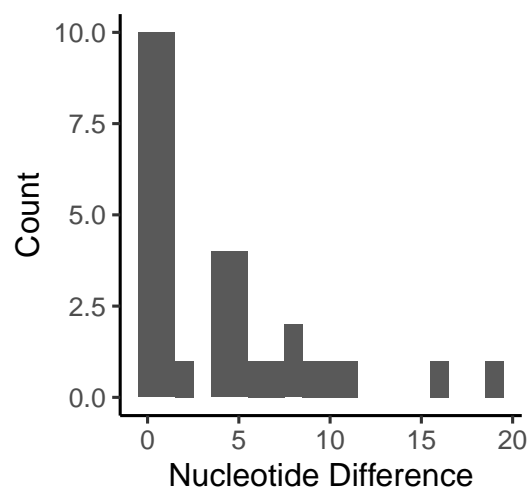
IGHV6-1*01

774 sequences assigned
55 (7.1%) exact matches, in which:
51 unique CDR3
5 unique J



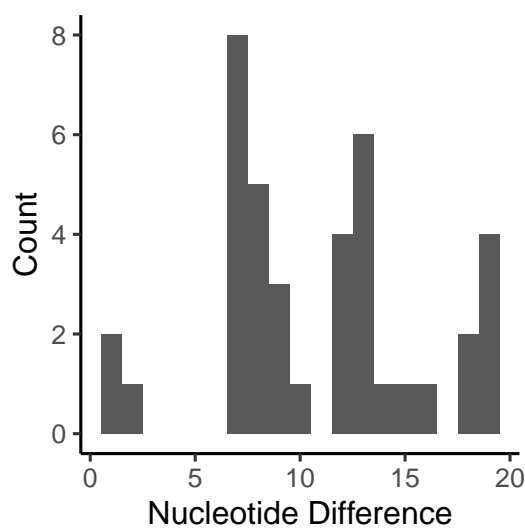
IGHV5-10-1*03

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



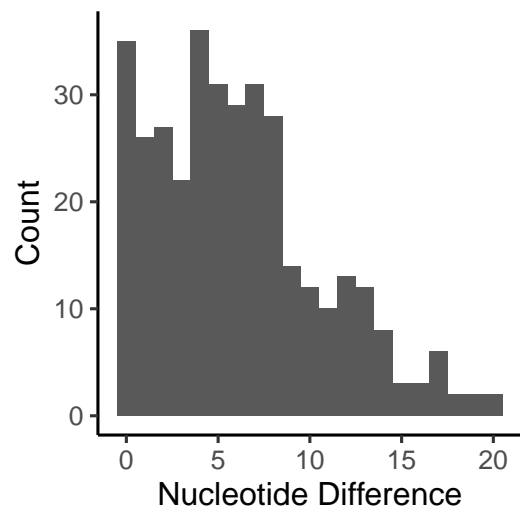
IGHV7-4-1*01

40 sequences assigned
No exact matches.

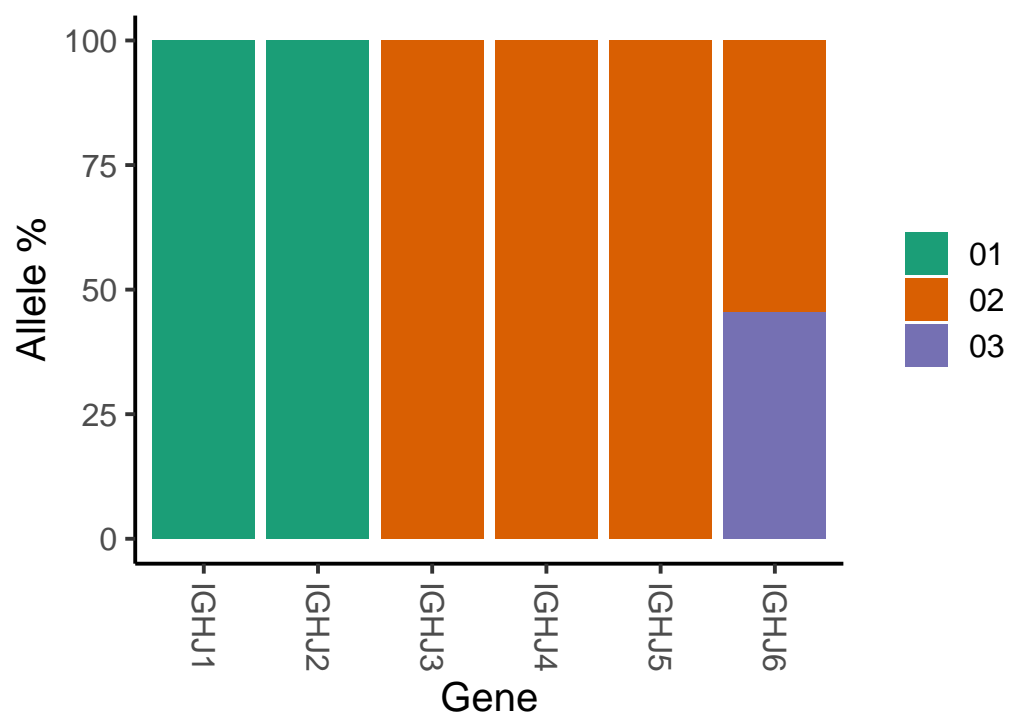


IGHV5-51*01

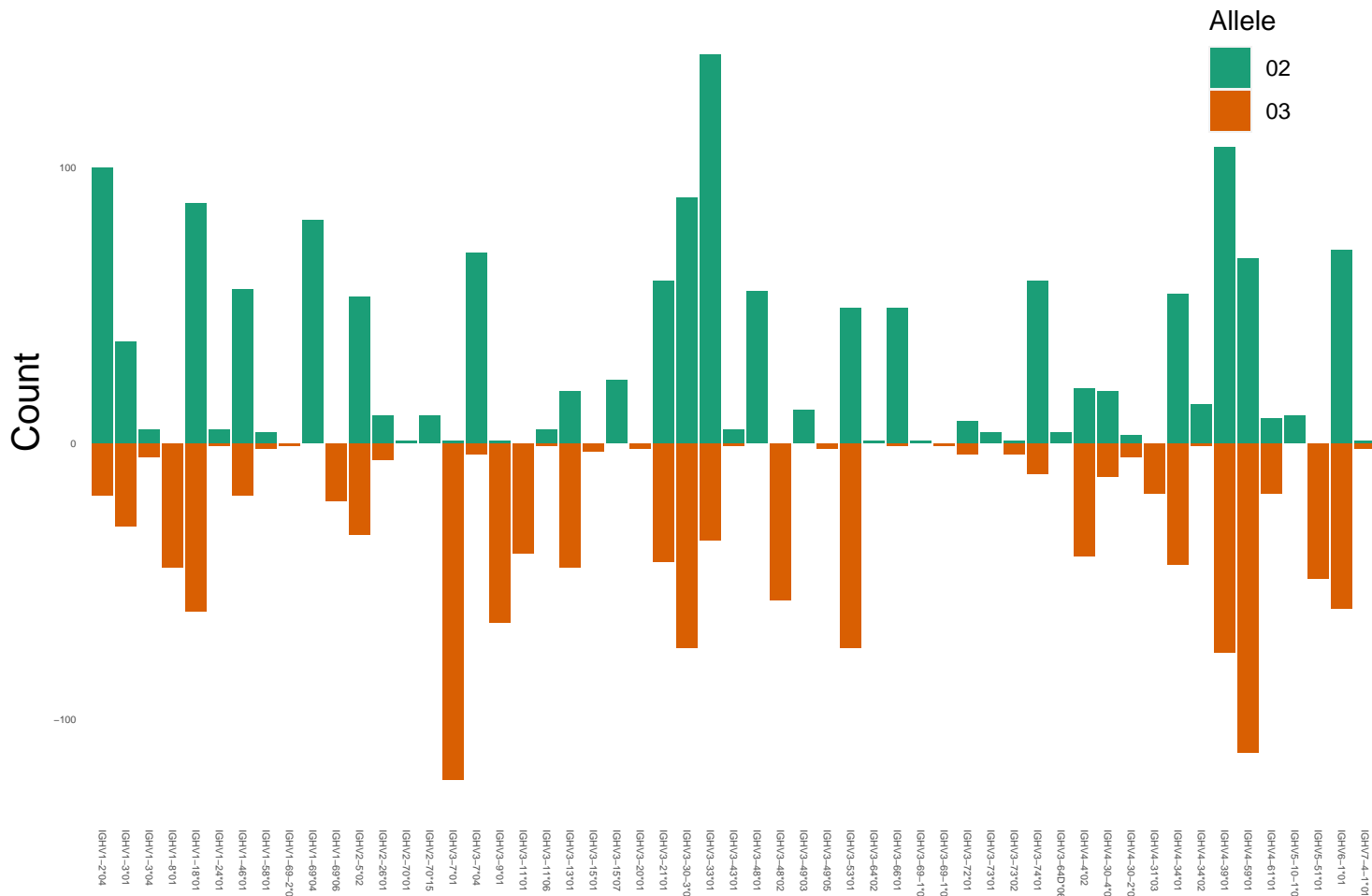
373 sequences assigned
35 (9.4%) exact matches, in which:
29 unique CDR3
5 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

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