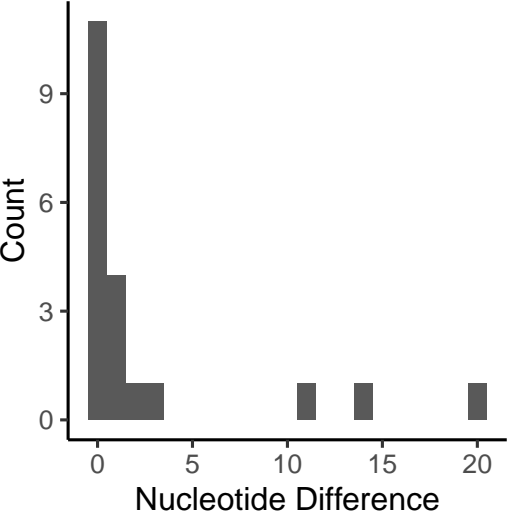


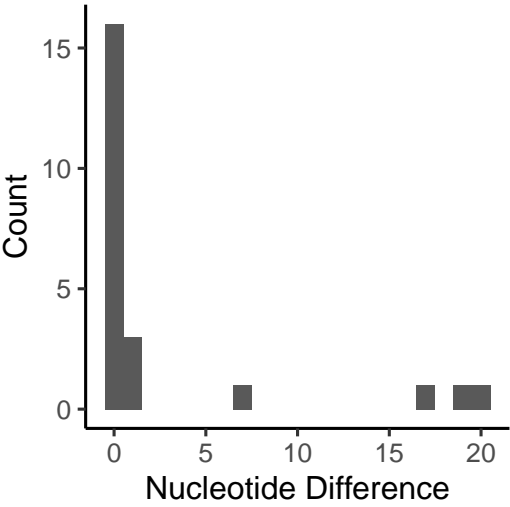
IGHV1-2*04

34 sequences assigned
11 (32.4%) exact matches, in which:
11 unique CDR3
4 unique J



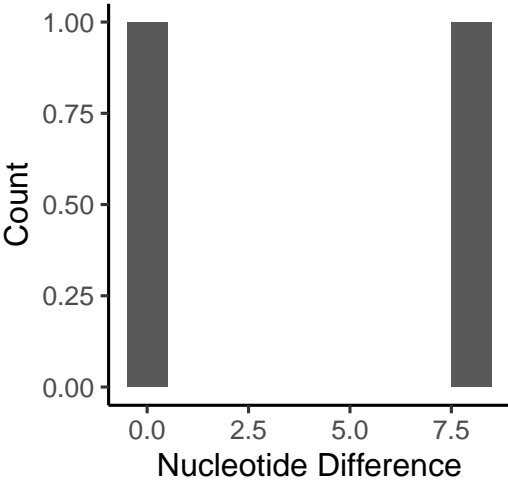
IGHV1-8*01

27 sequences assigned
16 (59.3%) exact matches, in which:
16 unique CDR3
3 unique J



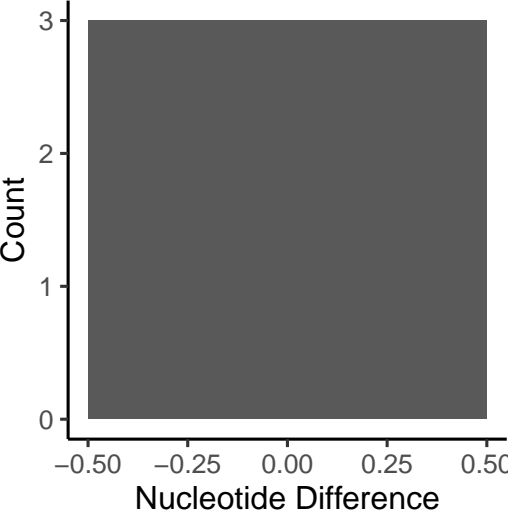
IGHV1-45*02

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



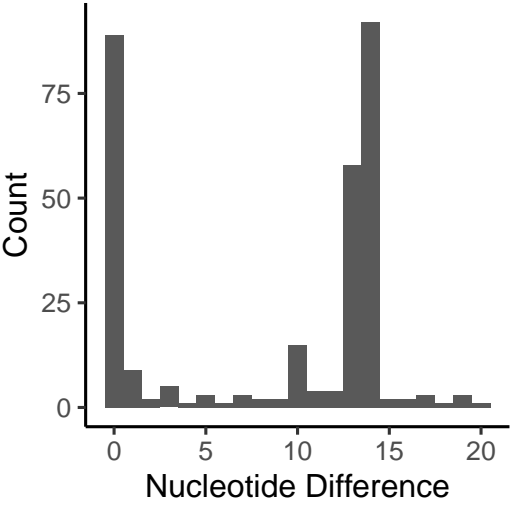
IGHV1-2*05

3 sequences assigned
3 (100%) exact matches, in which:
3 unique CDR3
2 unique J



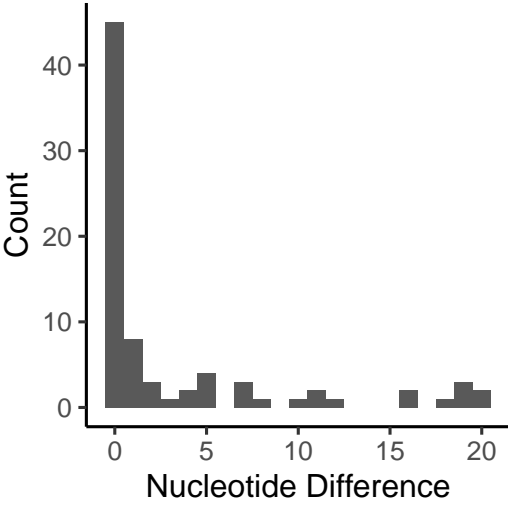
IGHV1-18*01

332 sequences assigned
89 (26.8%) exact matches, in which:
89 unique CDR3
6 unique J



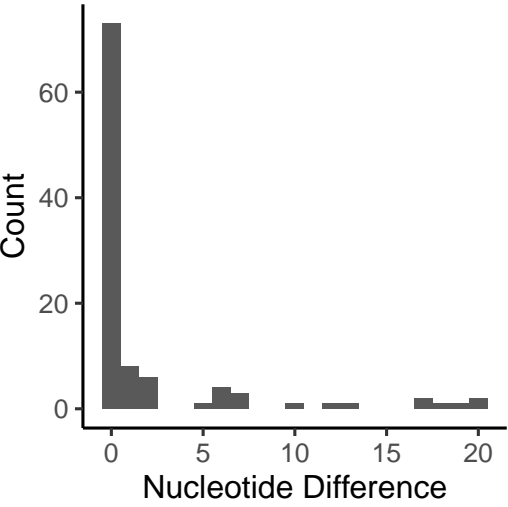
IGHV1-46*01

97 sequences assigned
45 (46.4%) exact matches, in which:
45 unique CDR3
6 unique J



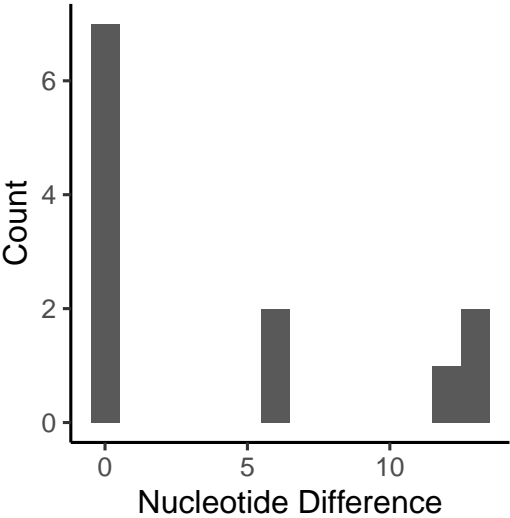
IGHV1-3*01_05

130 sequences assigned
73 (56.2%) exact matches, in which:
71 unique CDR3
7 unique J



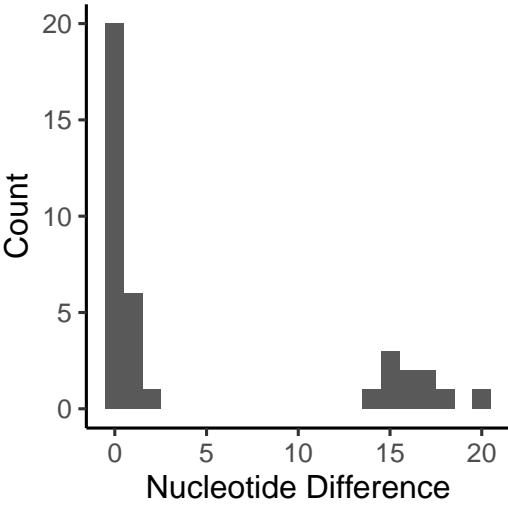
IGHV1-24*01

16 sequences assigned
7 (43.8%) exact matches, in which:
7 unique CDR3
4 unique J



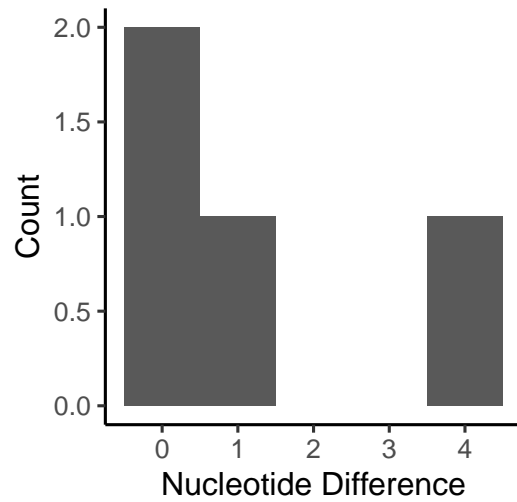
IGHV1-46*03

39 sequences assigned
20 (51.3%) exact matches, in which:
20 unique CDR3
5 unique J



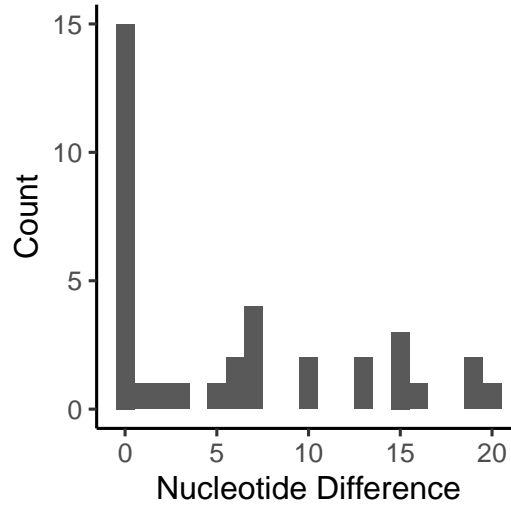
IGHV1-58*01_03

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



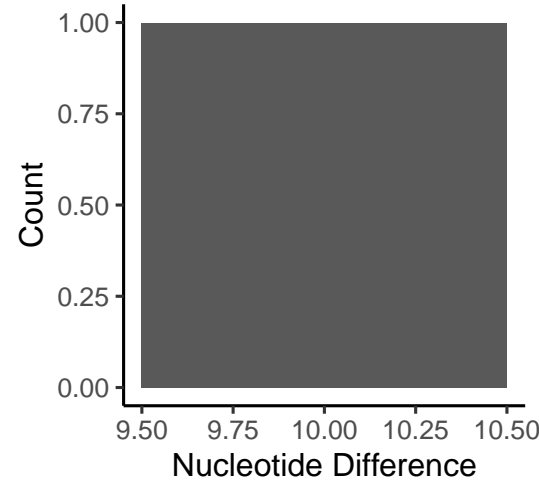
IGHV2-5*02

52 sequences assigned
15 (28.8%) exact matches, in which:
14 unique CDR3
4 unique J



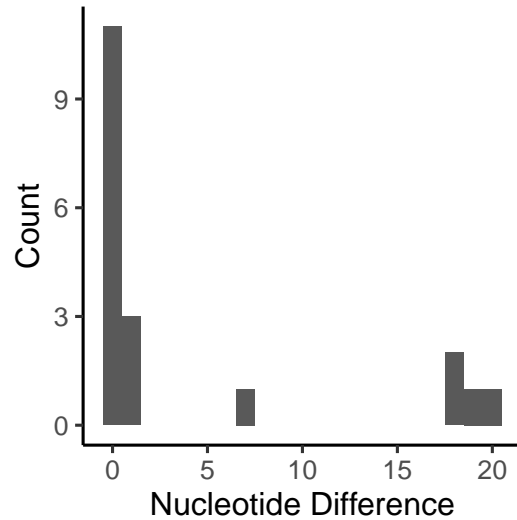
IGHV2-70D*04

1 sequences assigned
No exact matches.



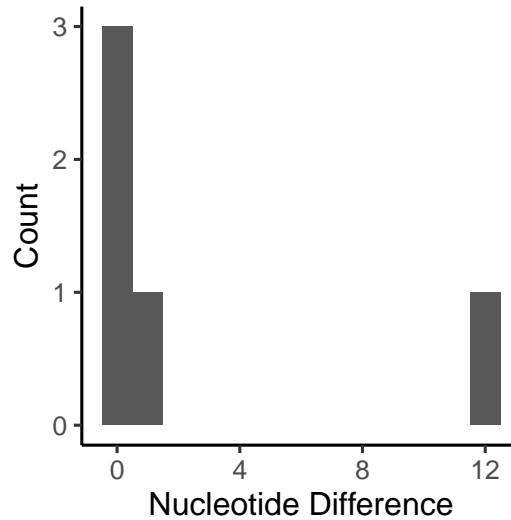
IGHV1-69*02

23 sequences assigned
11 (47.8%) exact matches, in which:
11 unique CDR3
5 unique J



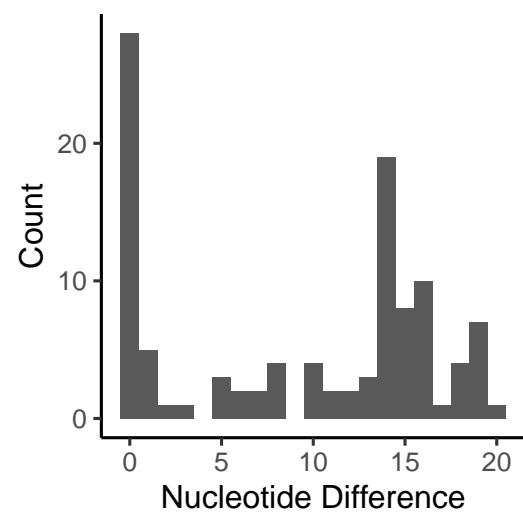
IGHV2-26*01

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



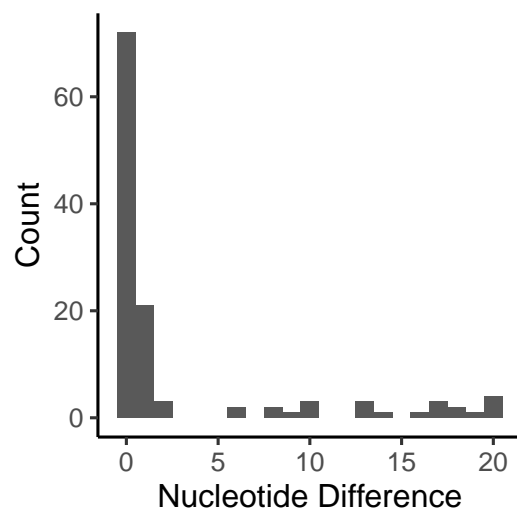
IGHV3-7*01

129 sequences assigned
28 (21.7%) exact matches, in which:
19 unique CDR3
5 unique J



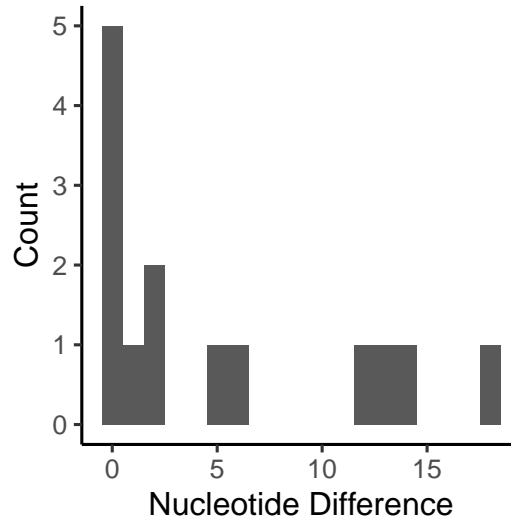
IGHV1-69*04_09

135 sequences assigned
72 (53.3%) exact matches, in which:
72 unique CDR3
7 unique J



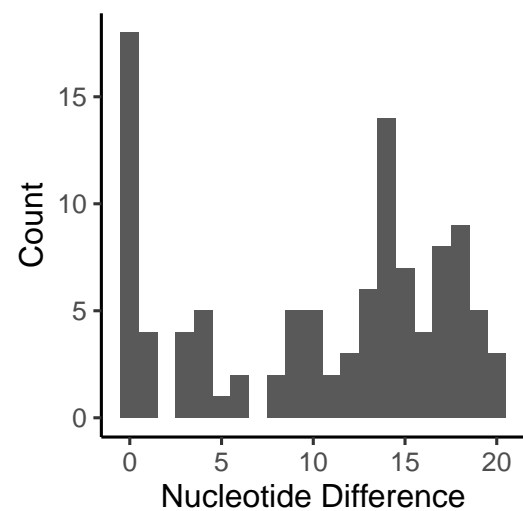
IGHV2-70*11_15

14 sequences assigned
5 (35.7%) exact matches, in which:
4 unique CDR3
4 unique J



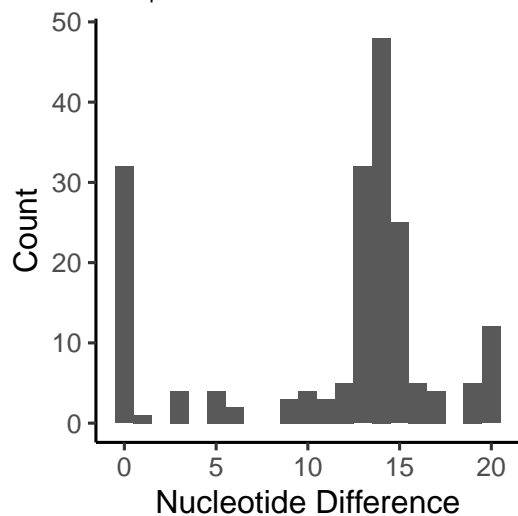
IGHV3-7*03

163 sequences assigned
18 (11%) exact matches, in which:
10 unique CDR3
3 unique J



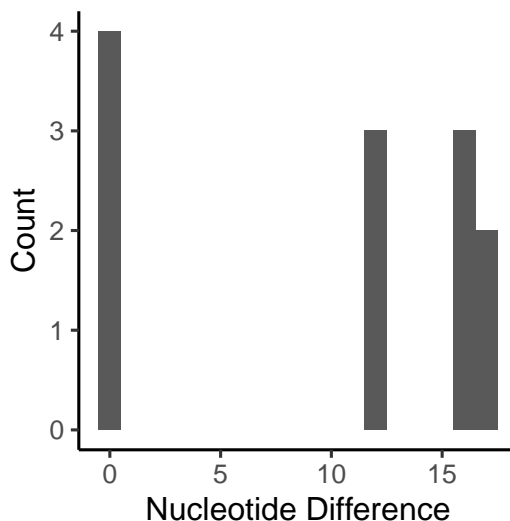
IGHV3-9*01

223 sequences assigned
32 (14.3%) exact matches, in which:
20 unique CDR3
5 unique J



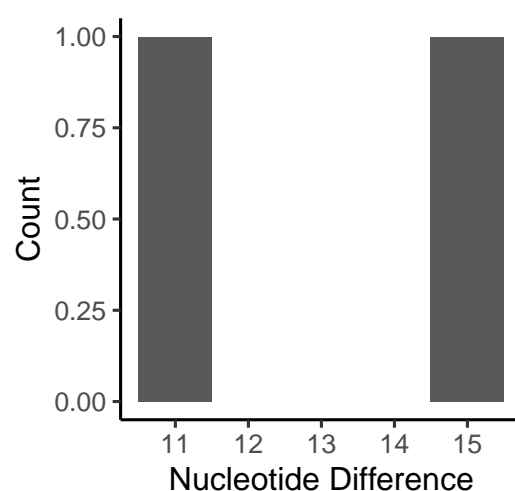
IGHV3-13*01

17 sequences assigned
4 (23.5%) exact matches, in which:
2 unique CDR3
2 unique J



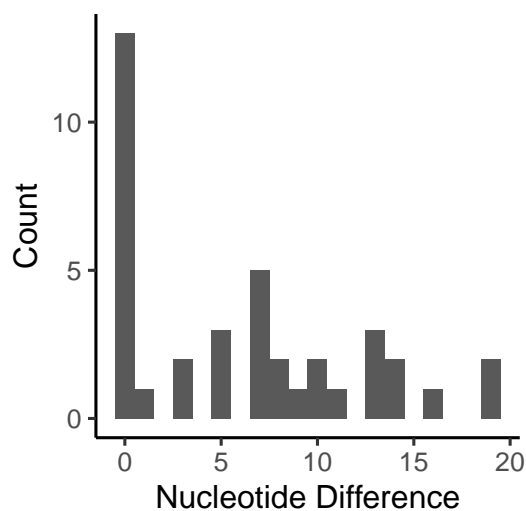
IGHV3-21*04

4 sequences assigned
No exact matches.



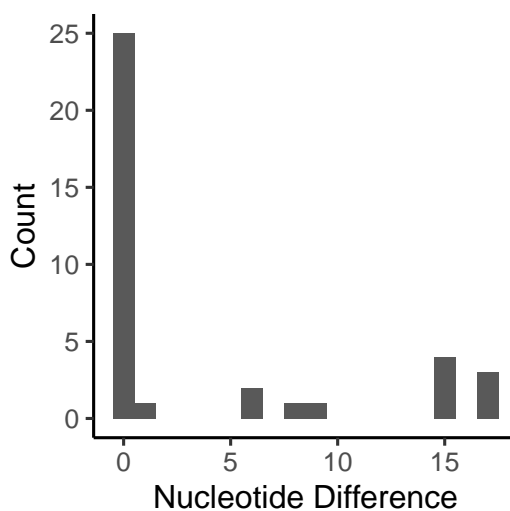
IGHV3-11*01

53 sequences assigned
13 (24.5%) exact matches, in which:
9 unique CDR3
4 unique J



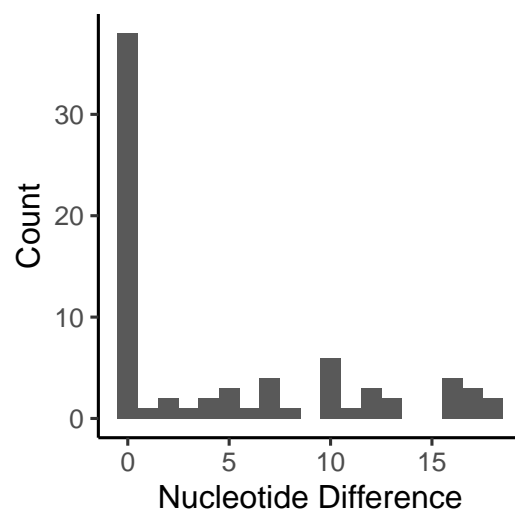
IGHV3-15*01_02

58 sequences assigned
25 (43.1%) exact matches, in which:
16 unique CDR3
5 unique J



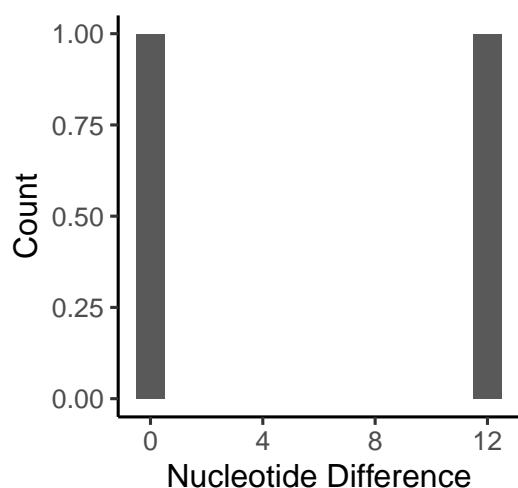
IGHV3-21*01_02

85 sequences assigned
38 (44.7%) exact matches, in which:
22 unique CDR3
5 unique J



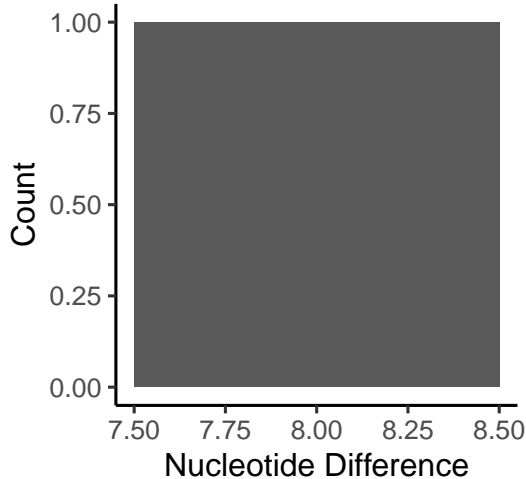
IGHV3-11*06

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



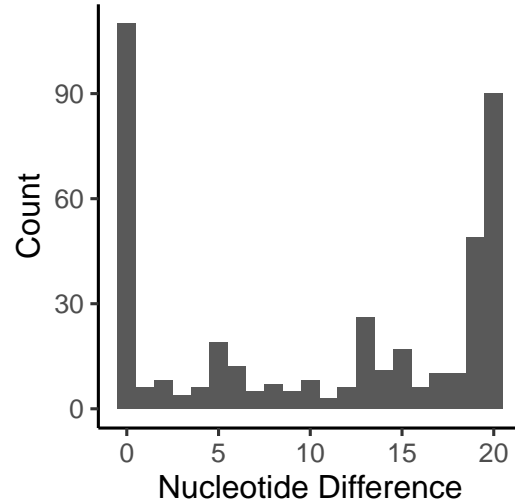
IGHV3-20*03_04

2 sequences assigned
No exact matches.



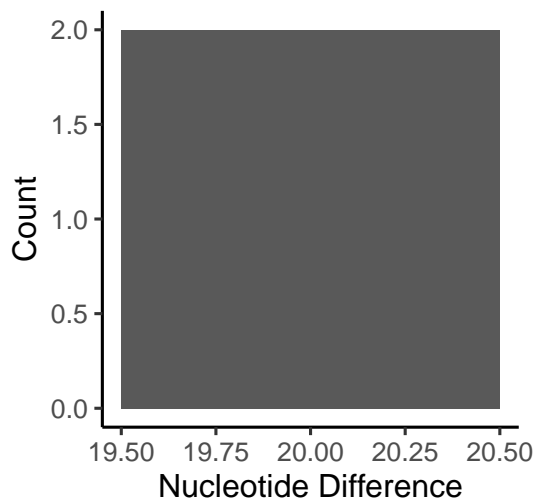
IGHV3-23*01_04

586 sequences assigned
110 (18.8%) exact matches, in which:
69 unique CDR3
6 unique J



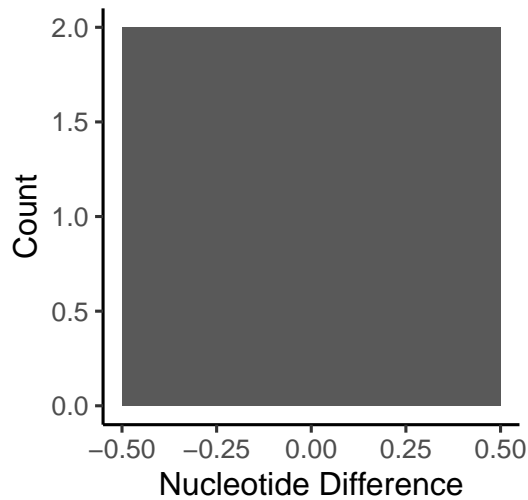
IGHV3-30-3*01

4 sequences assigned
No exact matches.



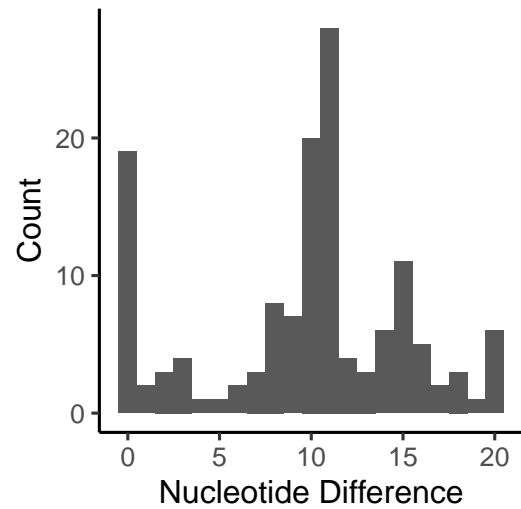
IGHV3-43*01

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



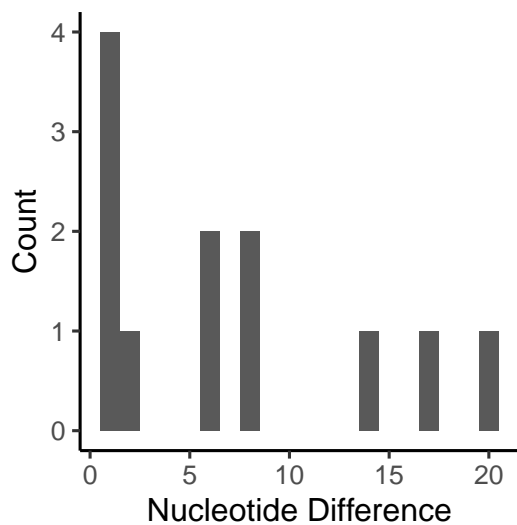
IGHV3-48*02

175 sequences assigned
19 (10.9%) exact matches, in which:
13 unique CDR3
4 unique J



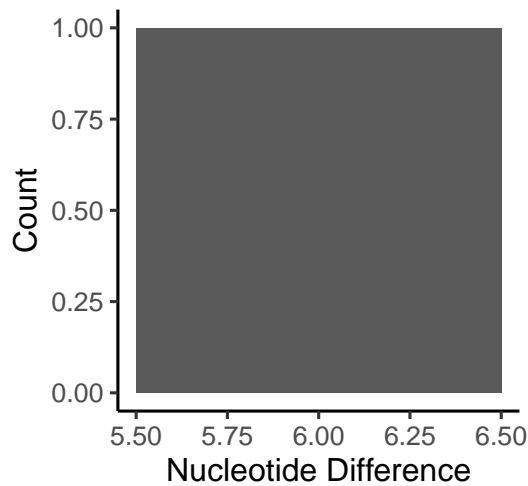
IGHV3-30*03

19 sequences assigned
No exact matches.



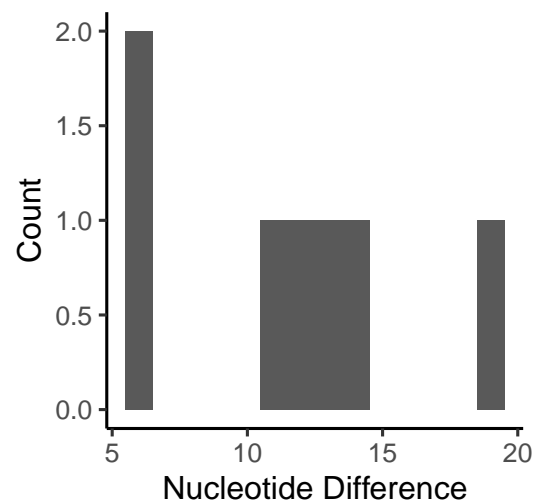
IGHV3-43*02

1 sequences assigned
No exact matches.



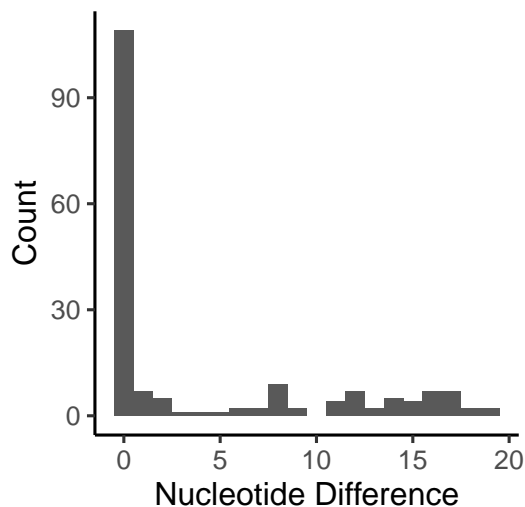
IGHV3-48*04

13 sequences assigned
No exact matches.



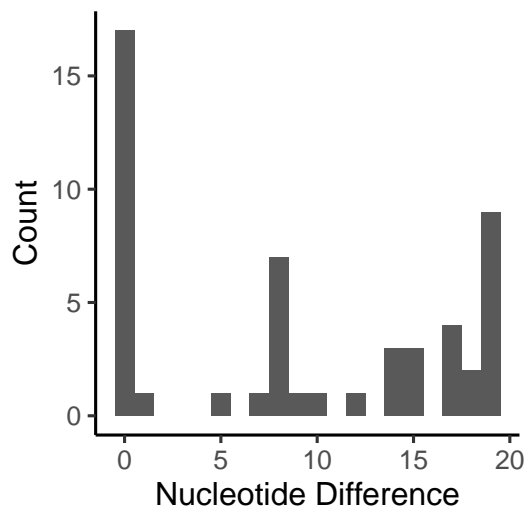
IGHV3-33*01

224 sequences assigned
109 (48.7%) exact matches, in which:
69 unique CDR3
7 unique J



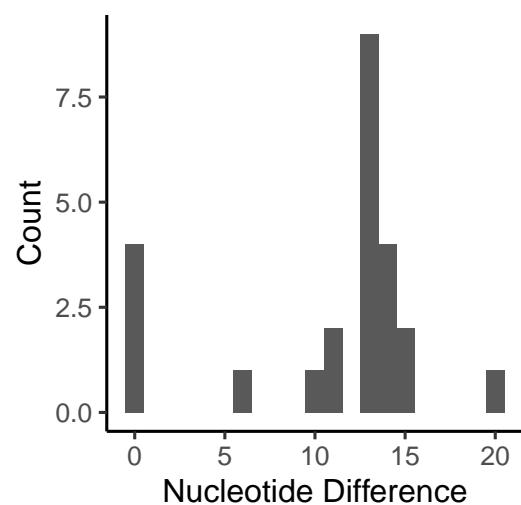
IGHV3-48*01

65 sequences assigned
17 (26.2%) exact matches, in which:
11 unique CDR3
5 unique J



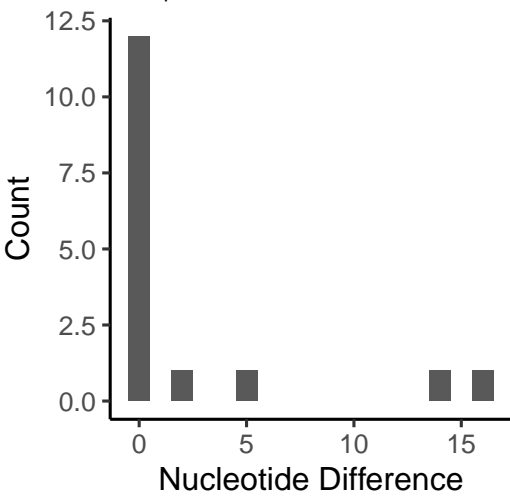
IGHV3-49*03_05

37 sequences assigned
4 (10.8%) exact matches, in which:
3 unique CDR3
2 unique J



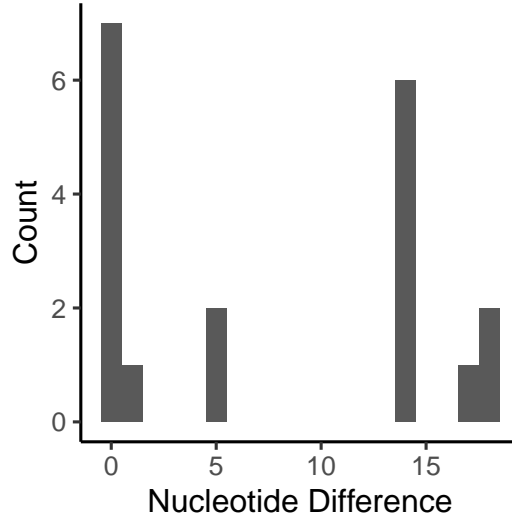
IGHV3-49*03_05_G301/

22 sequences assigned
12 (54.5%) exact matches, in which:
7 unique CDR3
3 unique J



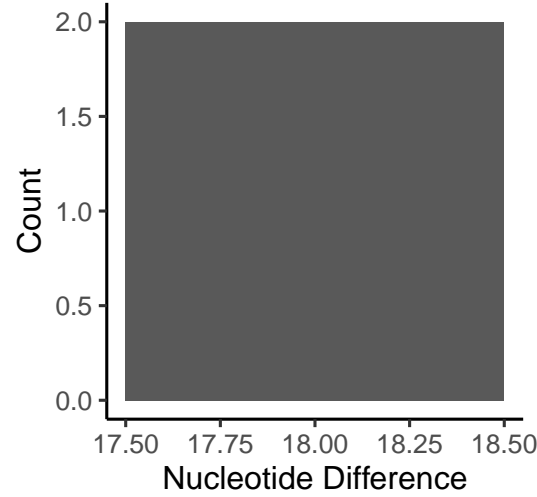
IGHV3-66*01

22 sequences assigned
7 (31.8%) exact matches, in which:
4 unique CDR3
2 unique J



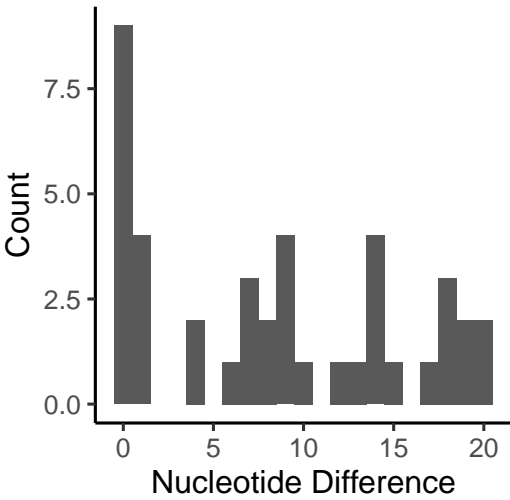
IGHV3-69-1*01

2 sequences assigned
No exact matches.



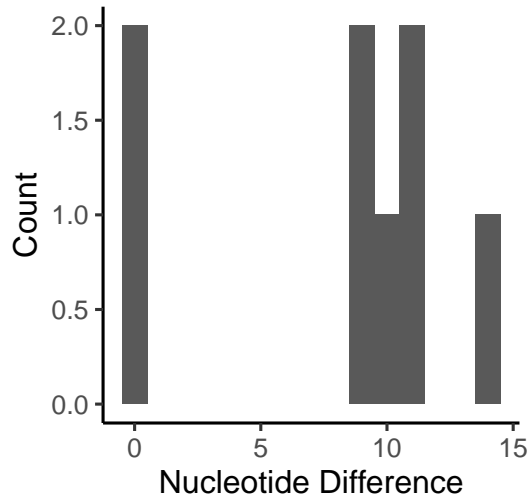
IGHV3-53*01_02

56 sequences assigned
9 (16.1%) exact matches, in which:
6 unique CDR3
2 unique J



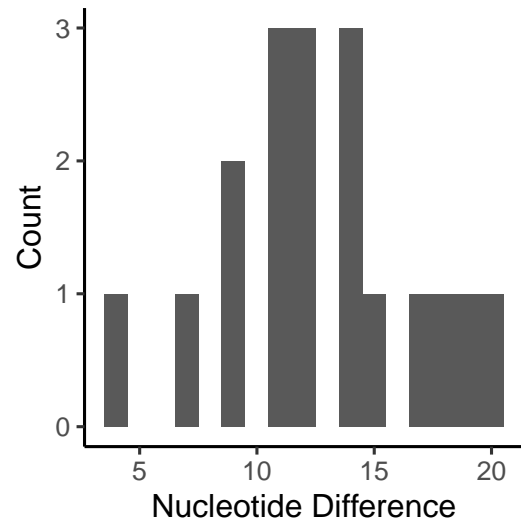
IGHV3-66*02

11 sequences assigned
2 (18.2%) exact matches, in which:
1 unique CDR3
1 unique J



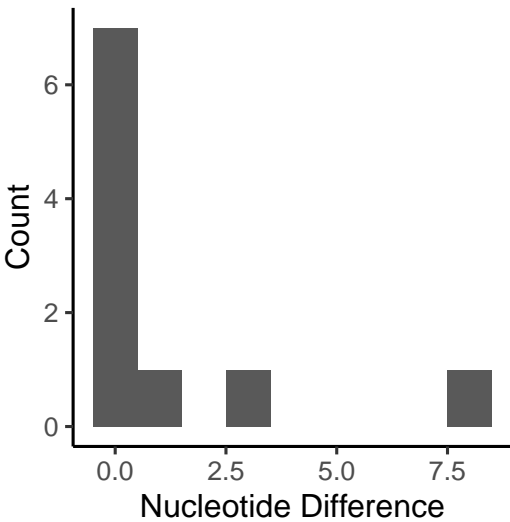
IGHV3-72*01

46 sequences assigned
No exact matches.



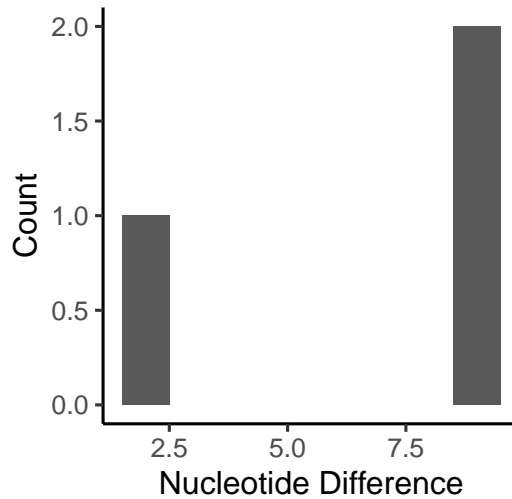
IGHV3-64*01

20 sequences assigned
7 (35%) exact matches, in which:
5 unique CDR3
3 unique J



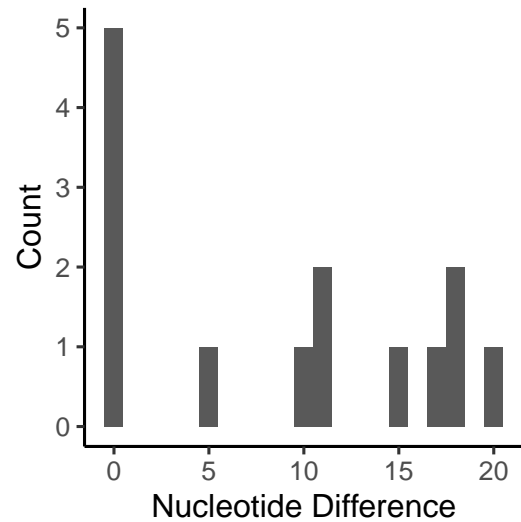
IGHV3-66*04

5 sequences assigned
No exact matches.



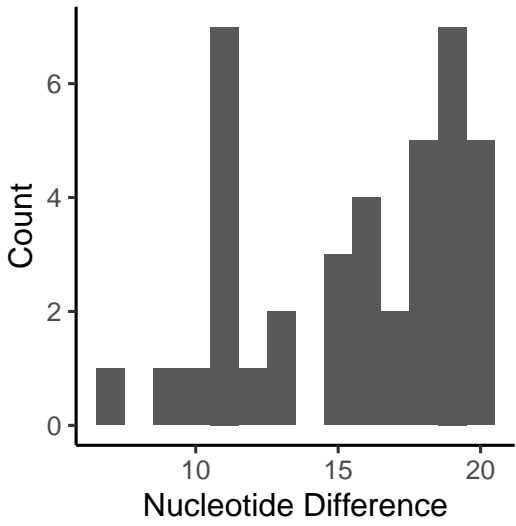
IGHV3-73*01_02

36 sequences assigned
5 (13.9%) exact matches, in which:
3 unique CDR3
3 unique J



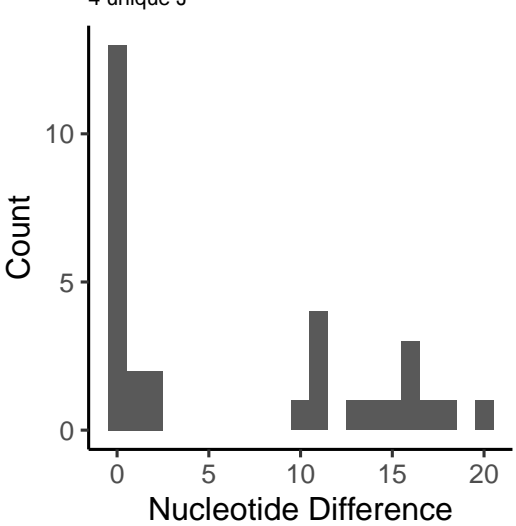
IGHV3-74*03

78 sequences assigned
No exact matches.



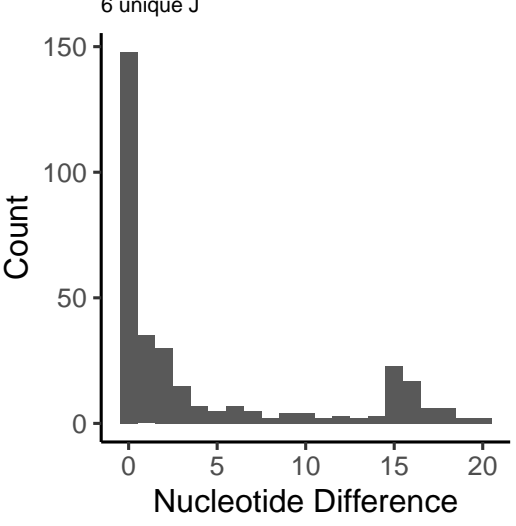
IGHV4-4*02_03

40 sequences assigned
13 (32.5%) exact matches, in which:
11 unique CDR3
4 unique J



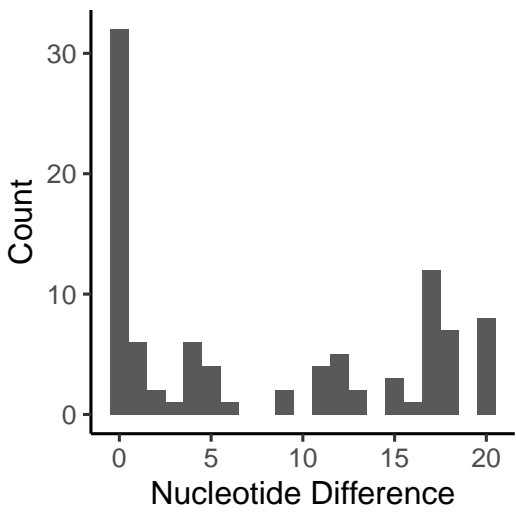
IGHV4-34*01_02

381 sequences assigned
148 (38.8%) exact matches, in which:
135 unique CDR3
6 unique J



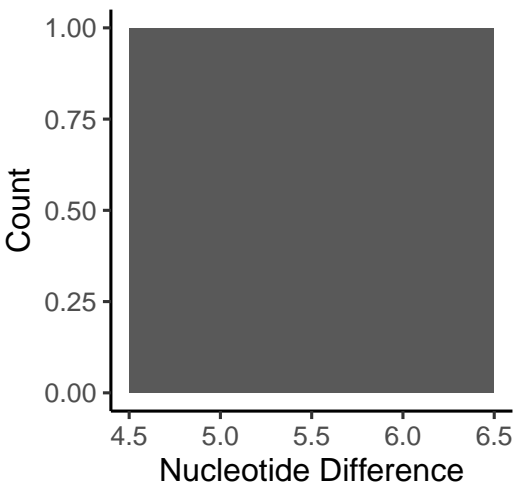
IGHV3-74*01_02

165 sequences assigned
32 (19.4%) exact matches, in which:
18 unique CDR3
7 unique J



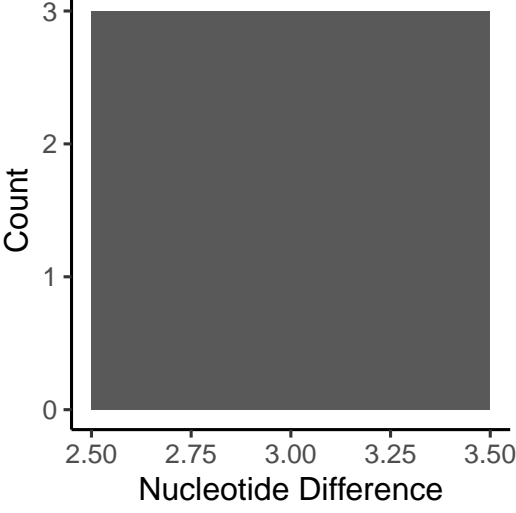
IGHV4-30-2*03

2 sequences assigned
No exact matches.



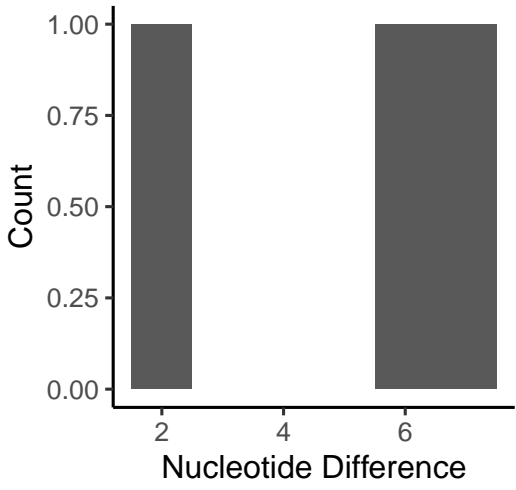
IGHV4-38-2*02

3 sequences assigned
No exact matches.



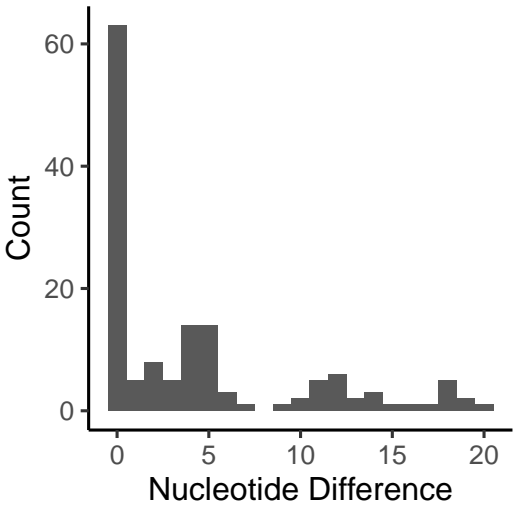
IGHV4-4*07

10 sequences assigned
No exact matches.



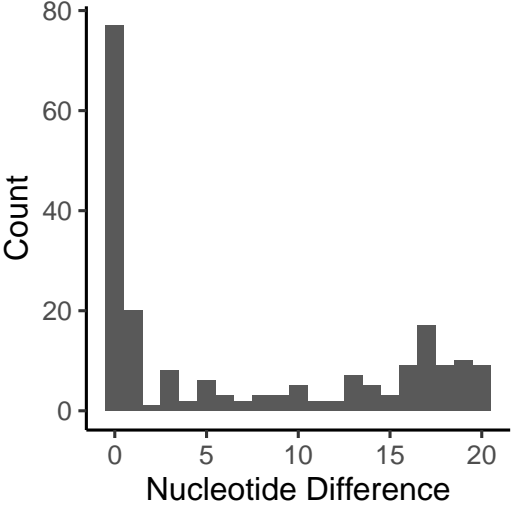
IGHV4-31*02

186 sequences assigned
63 (33.9%) exact matches, in which:
60 unique CDR3
6 unique J



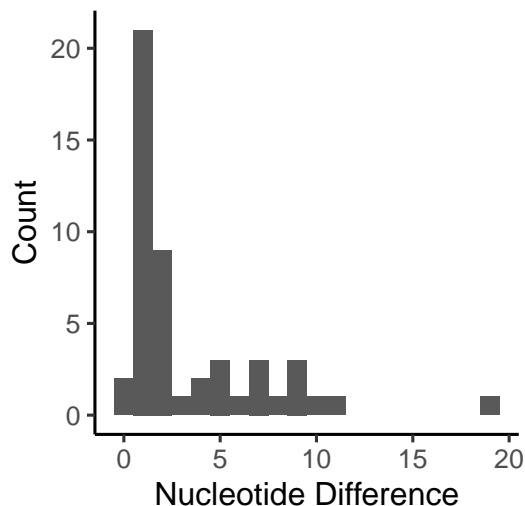
IGHV4-39*02_C258G

280 sequences assigned
77 (27.5%) exact matches, in which:
72 unique CDR3
6 unique J



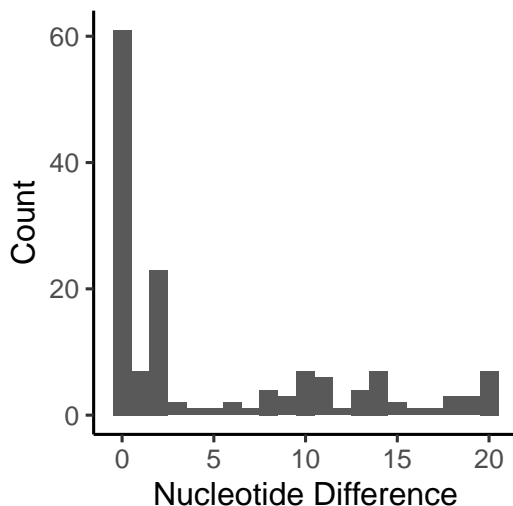
IGHV4-59*12

53 sequences assigned
2 (3.8%) exact matches, in which:
2 unique CDR3
1 unique J



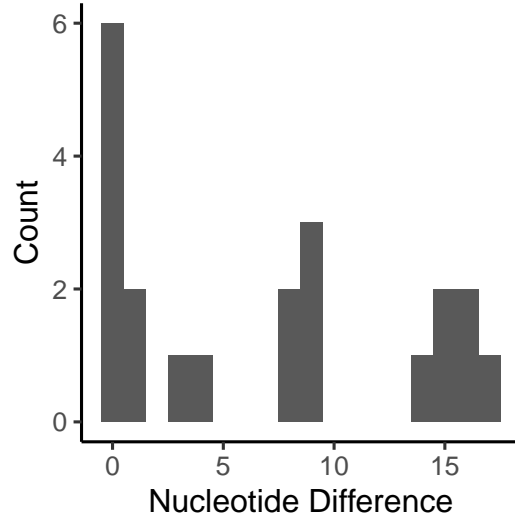
IGHV4-61*02

194 sequences assigned
61 (31.4%) exact matches, in which:
57 unique CDR3
6 unique J



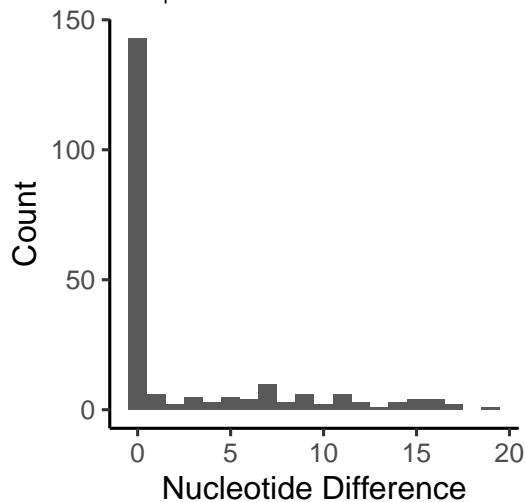
IGHV6-1*01_02

23 sequences assigned
6 (26.1%) exact matches, in which:
6 unique CDR3
3 unique J



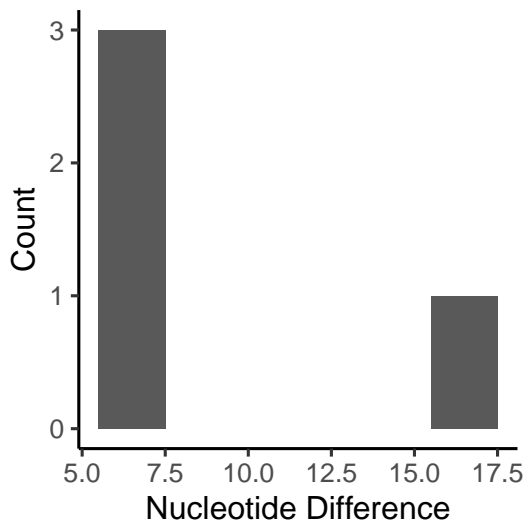
IGHV4-59*02_G88A

278 sequences assigned
143 (51.4%) exact matches, in which:
142 unique CDR3
6 unique J



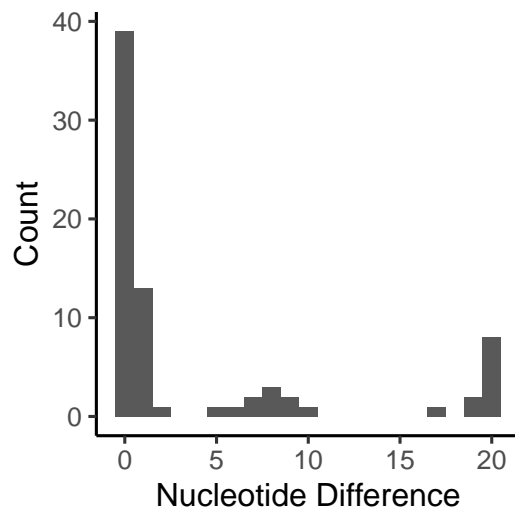
IGHV5-10-1*01_03

8 sequences assigned
No exact matches.



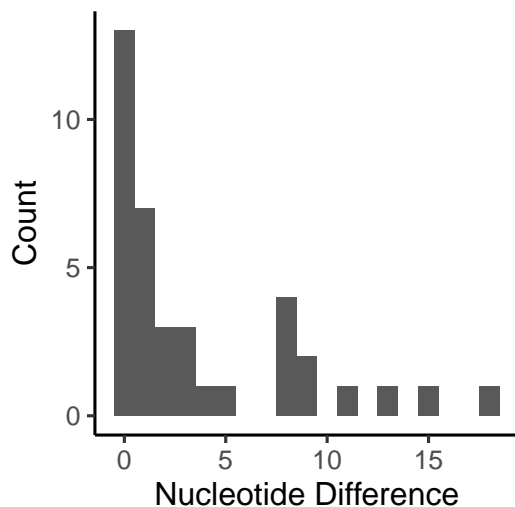
IGHV7-4-1*02

139 sequences assigned
39 (28.1%) exact matches, in which:
39 unique CDR3
5 unique J



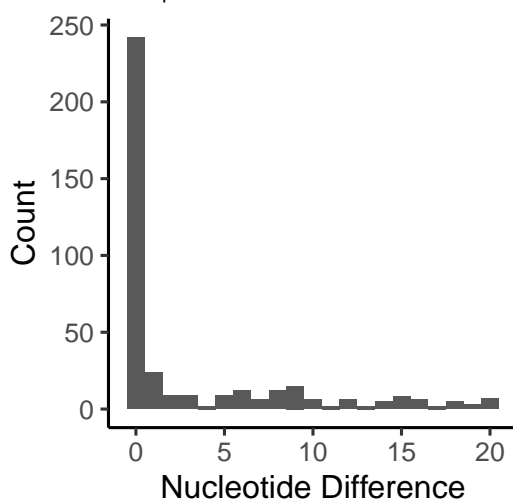
IGHV4-61*01

66 sequences assigned
13 (19.7%) exact matches, in which:
13 unique CDR3
4 unique J

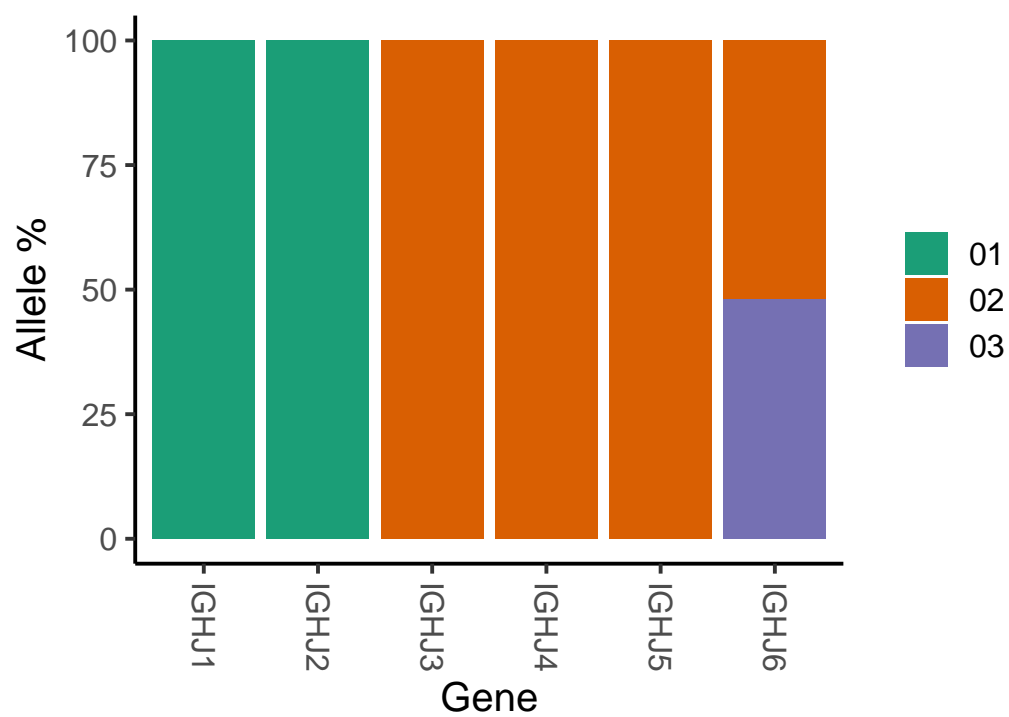


IGHV5-51*07_A128G

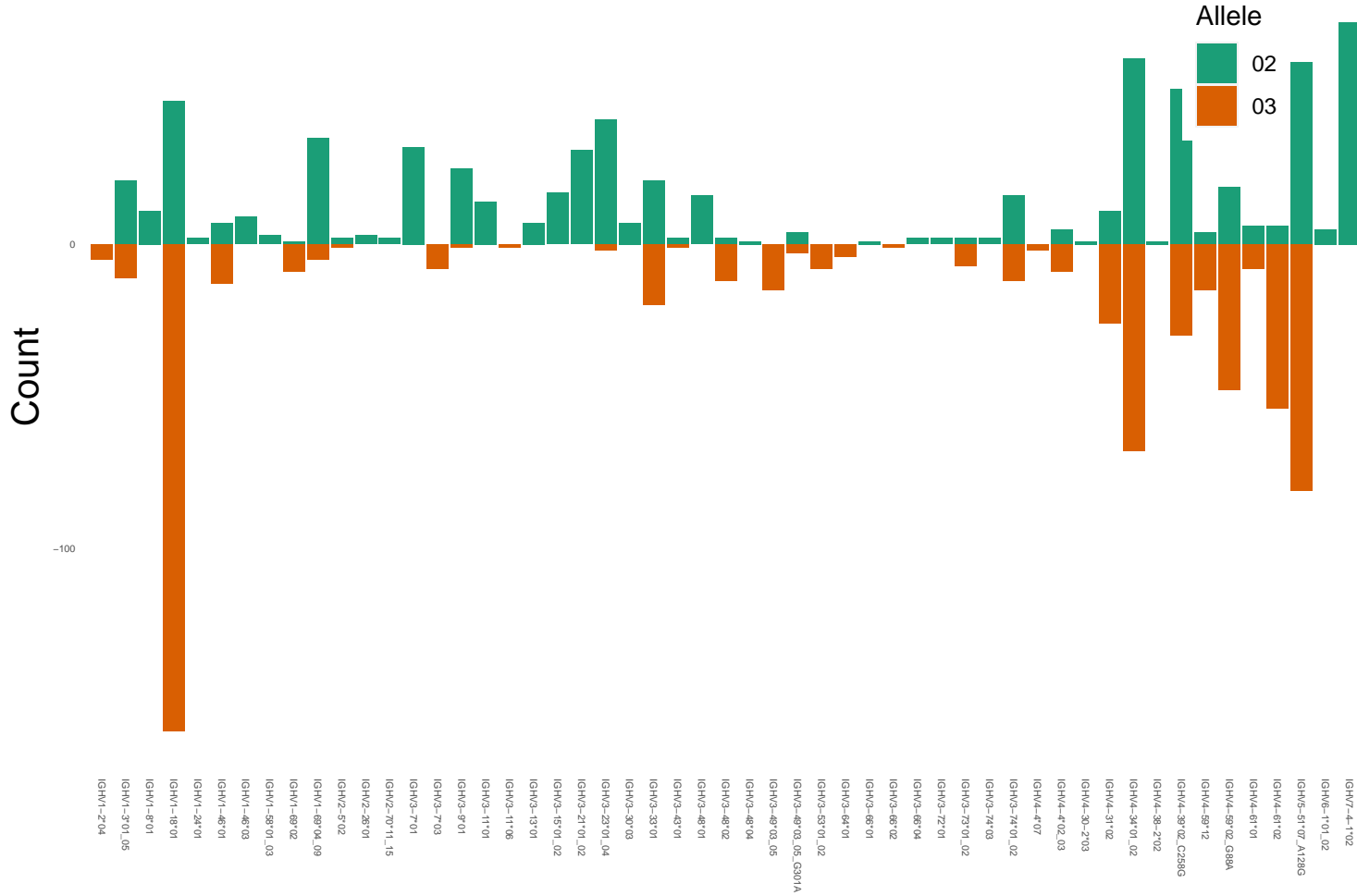
460 sequences assigned
242 (52.6%) exact matches, in which:
213 unique CDR3
7 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.