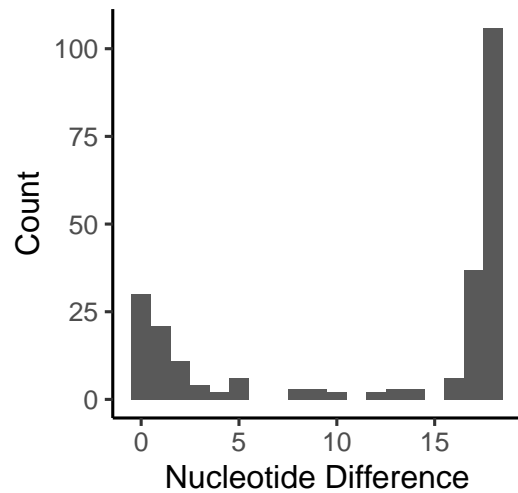


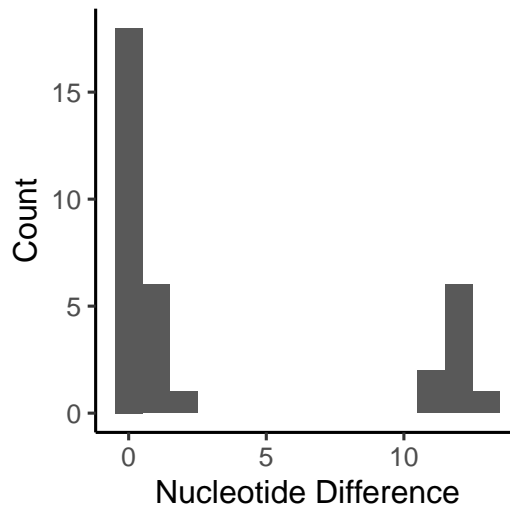
IGHV1-2*02

240 sequences assigned
30 (12.5%) exact matches, in which:
30 unique CDR3
5 unique J



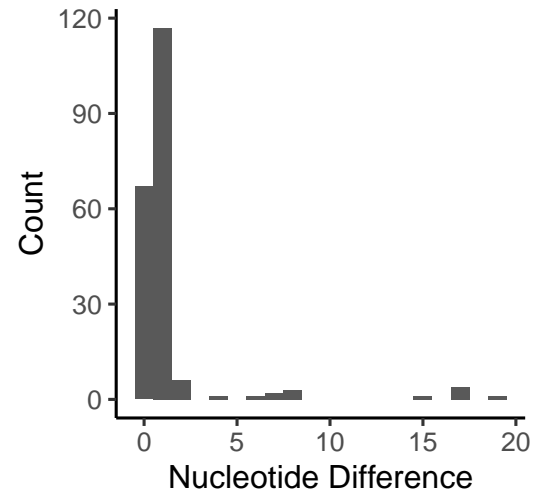
IGHV1-18*01

36 sequences assigned
18 (50%) exact matches, in which:
16 unique CDR3
6 unique J



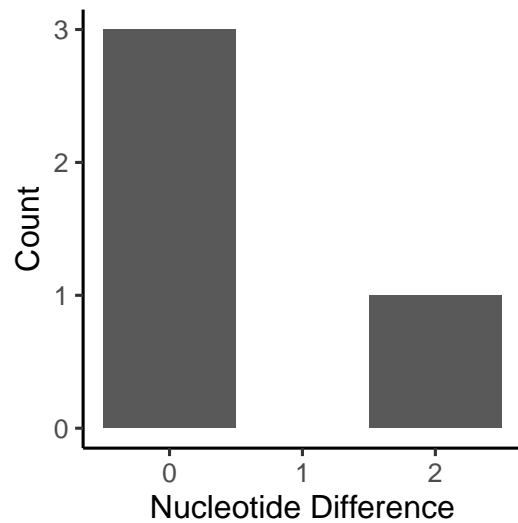
IGHV1-46*01

204 sequences assigned
67 (32.8%) exact matches, in which:
40 unique CDR3
5 unique J



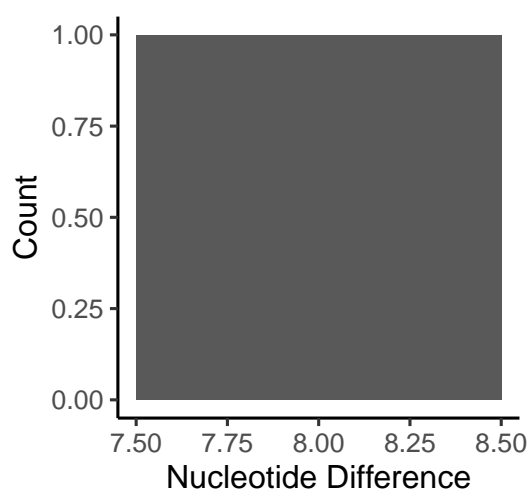
IGHV1-3*02

4 sequences assigned
3 (75%) exact matches, in which:
3 unique CDR3
2 unique J



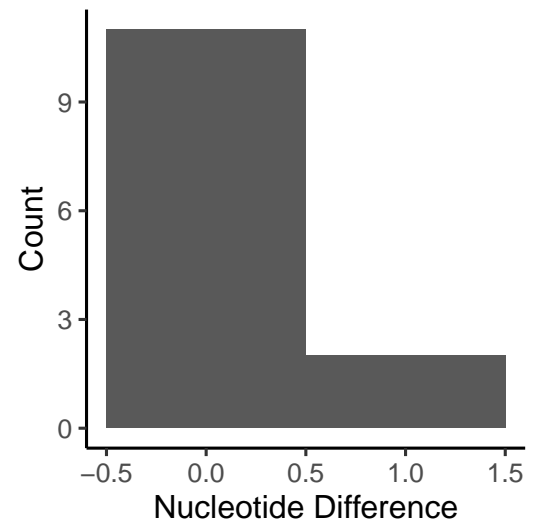
IGHV1-18*04

203 sequences assigned
No exact matches.



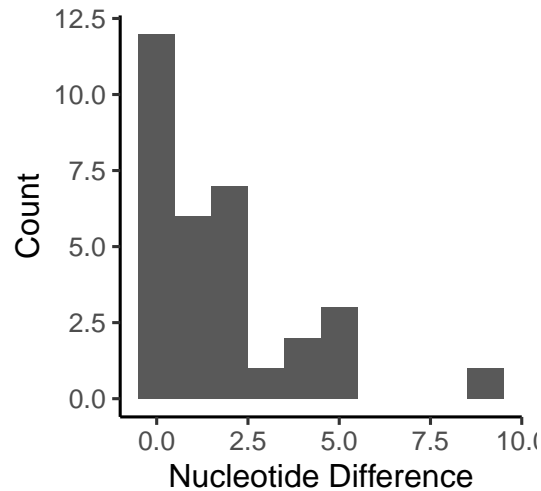
IGHV1-46*03

14 sequences assigned
11 (78.6%) exact matches, in which:
7 unique CDR3
3 unique J



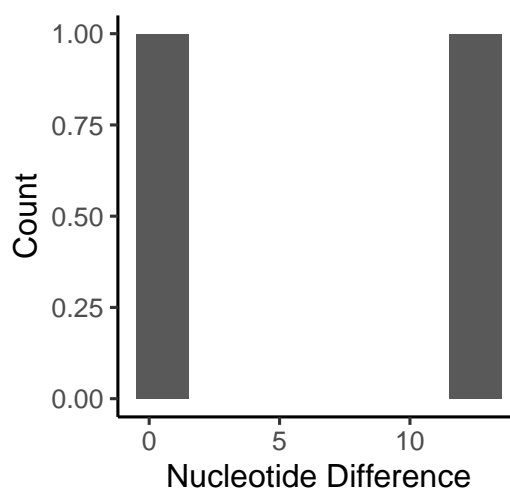
IGHV1-8*01

32 sequences assigned
12 (37.5%) exact matches, in which:
12 unique CDR3
3 unique J



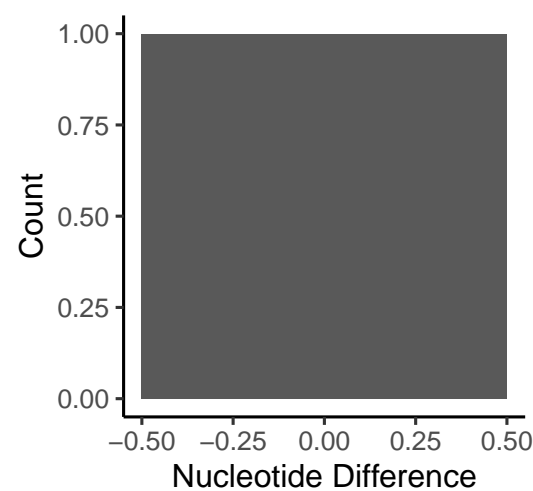
IGHV1-24*01

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



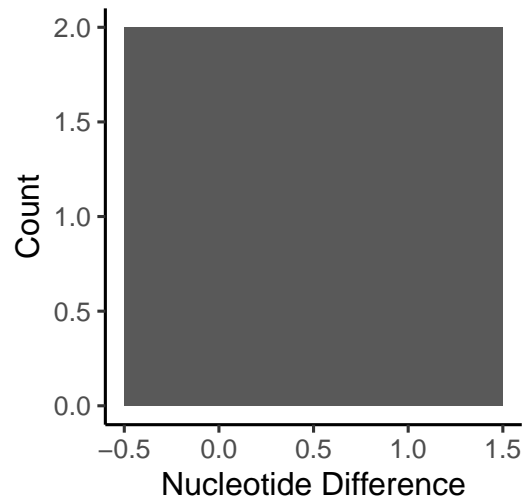
IGHV1-58*02

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



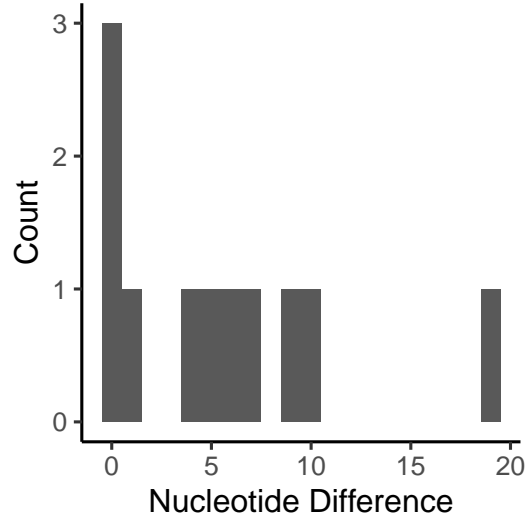
IGHV1-58*01_03

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



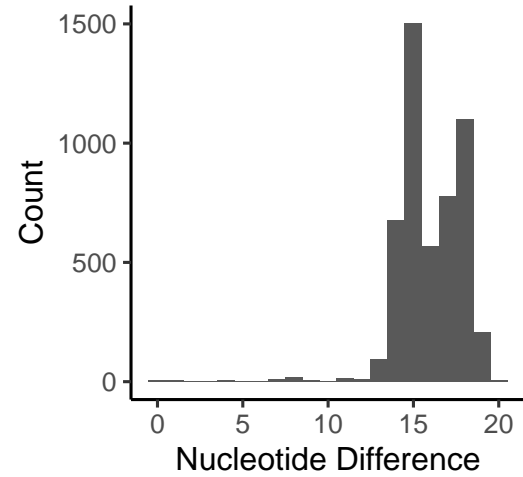
IGHV2-5*02

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



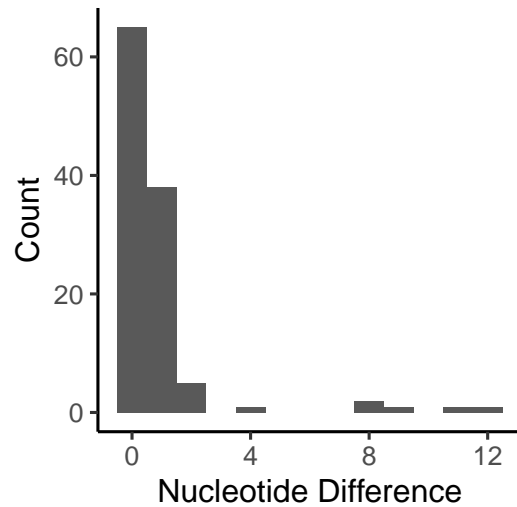
IGHV3-7*01

5032 sequences assigned
7 (0.1%) exact matches, in which:
4 unique CDR3
3 unique J



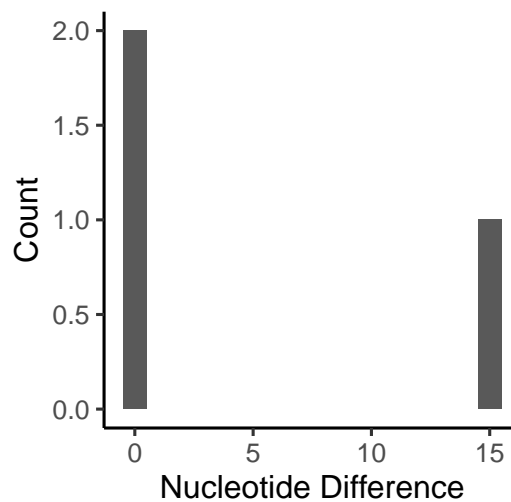
IGHV1-69*01_12_13

115 sequences assigned
65 (56.5%) exact matches, in which:
57 unique CDR3
6 unique J



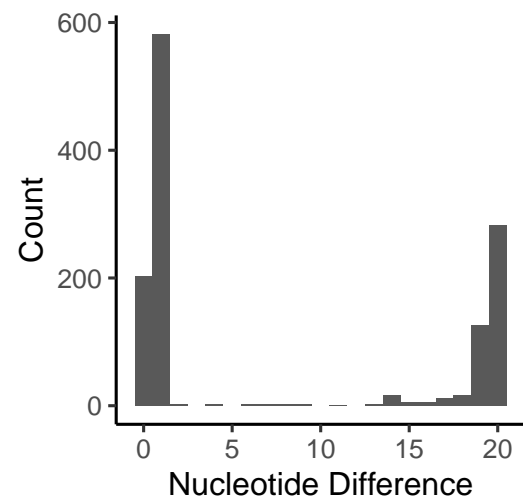
IGHV2-70*01

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
1 unique J



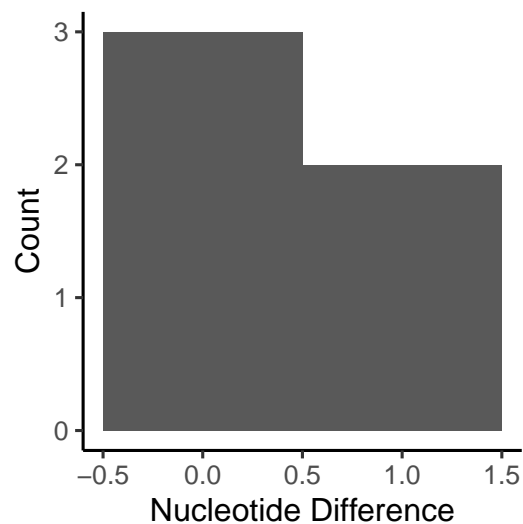
IGHV3-7*03

2324 sequences assigned
203 (8.7%) exact matches, in which:
79 unique CDR3
2 unique J



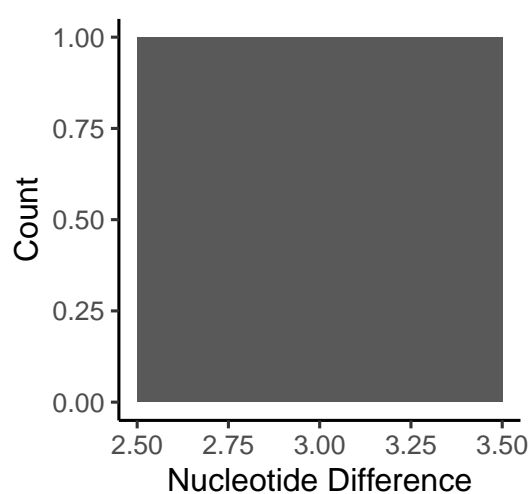
IGHV2-5*01

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



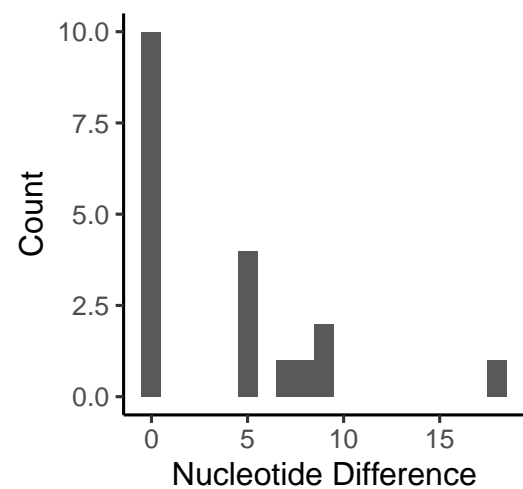
IGHV2-70*20

1 sequences assigned
No exact matches.



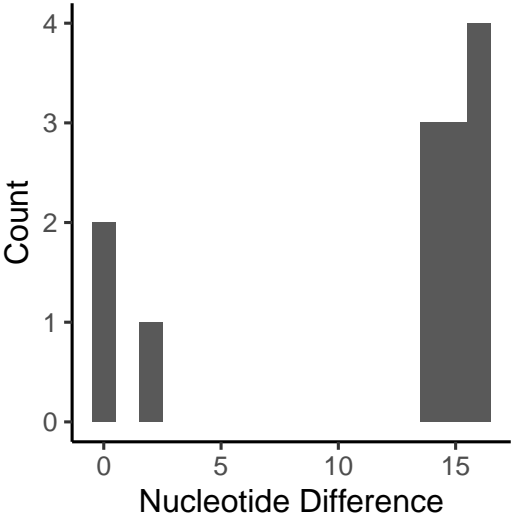
IGHV3-9*01

19 sequences assigned
10 (52.6%) exact matches, in which:
5 unique CDR3
4 unique J



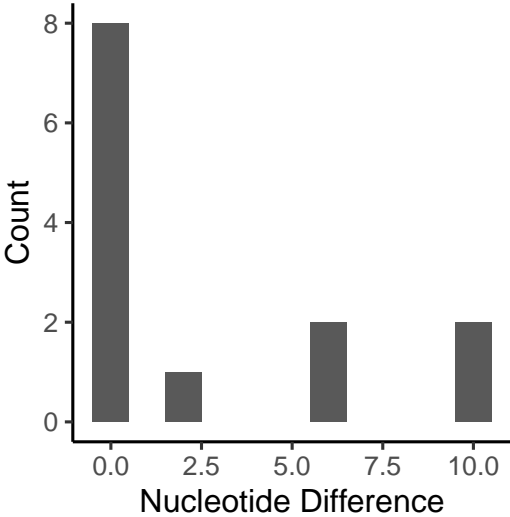
IGHV3-11*01

13 sequences assigned
2 (15.4%) exact matches, in which:
1 unique CDR3
0 unique J



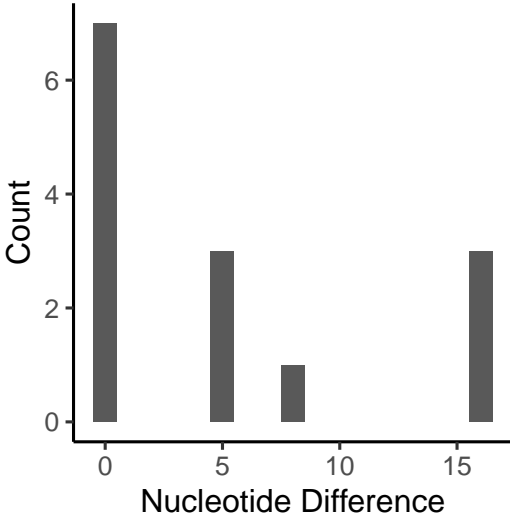
IGHV3-13*04

13 sequences assigned
8 (61.5%) exact matches, in which:
5 unique CDR3
4 unique J



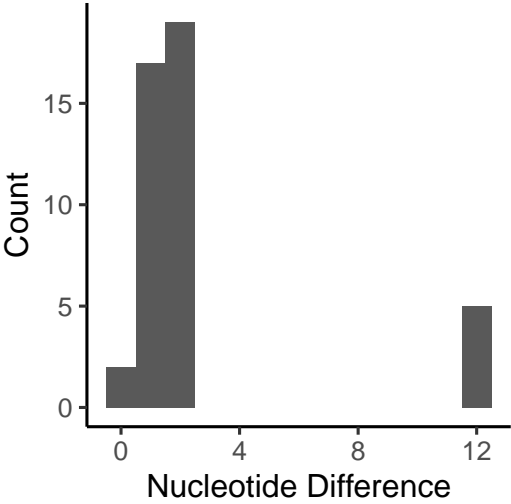
IGHV3-20*03_04

14 sequences assigned
7 (50%) exact matches, in which:
3 unique CDR3
1 unique J



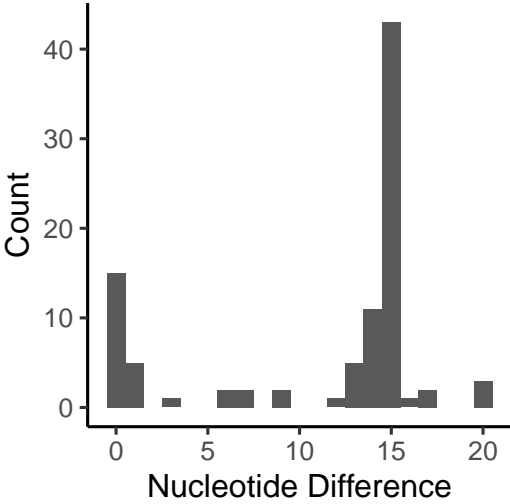
IGHV3-11*06

43 sequences assigned
2 (4.7%) exact matches, in which:
2 unique CDR3
1 unique J



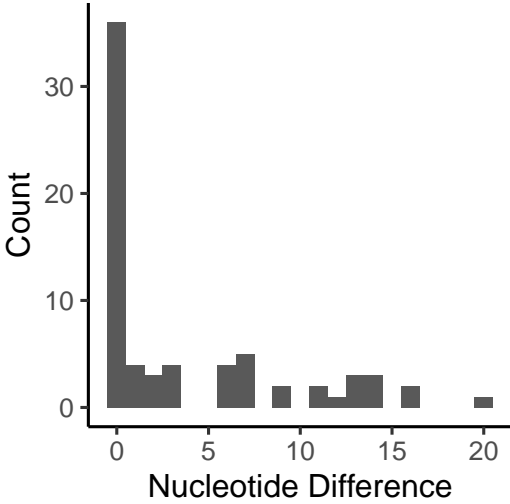
IGHV3-15*01_02

510 sequences assigned
15 (2.9%) exact matches, in which:
9 unique CDR3
4 unique J



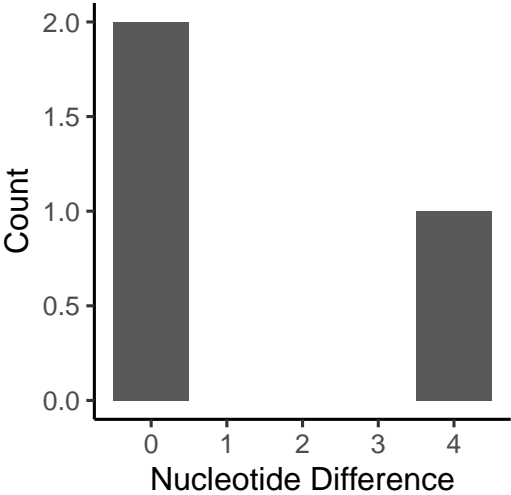
IGHV3-21*01_02

139 sequences assigned
36 (25.9%) exact matches, in which:
16 unique CDR3
4 unique J



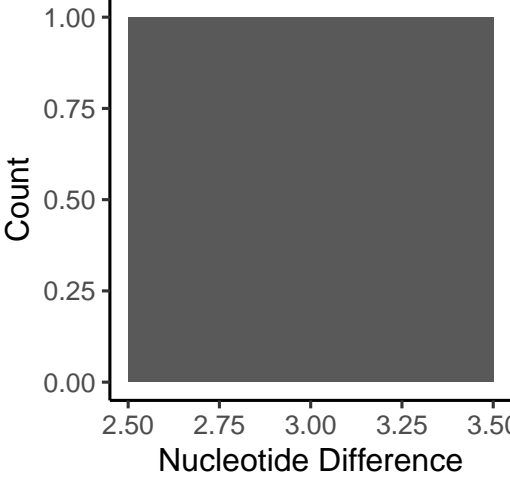
IGHV3-11*03_05

3 sequences assigned
2 (66.7%) exact matches, in which:
1 unique CDR3
1 unique J



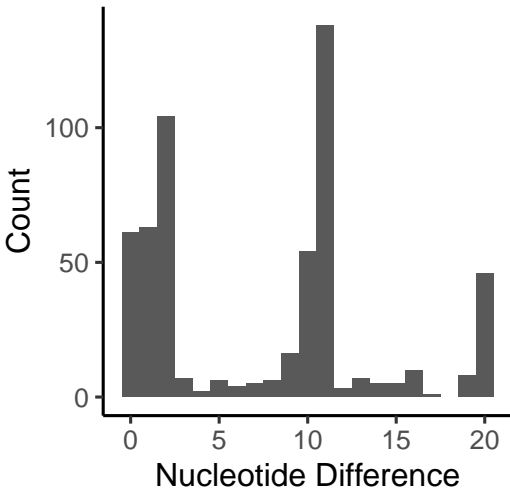
IGHV3-20*01_02

1 sequences assigned
No exact matches.



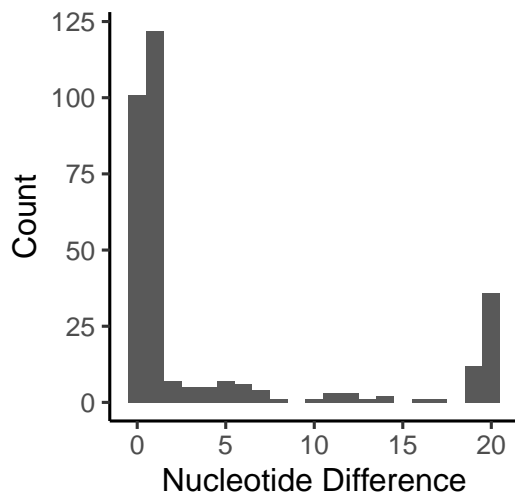
IGHV3-23*01_04

761 sequences assigned
61 (8%) exact matches, in which:
33 unique CDR3
6 unique J



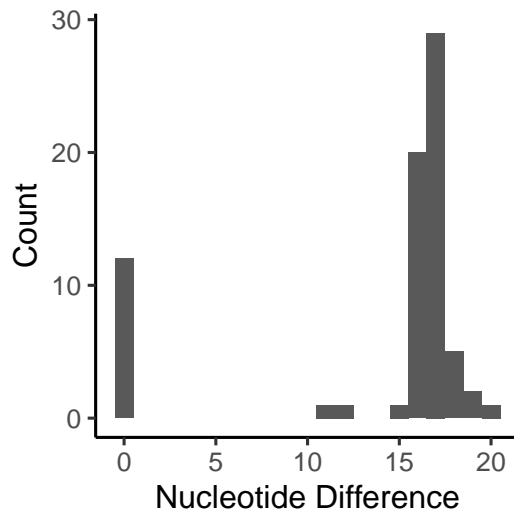
IGHV3–30–3*01

719 sequences assigned
101 (14%) exact matches, in which:
49 unique CDR3
3 unique J



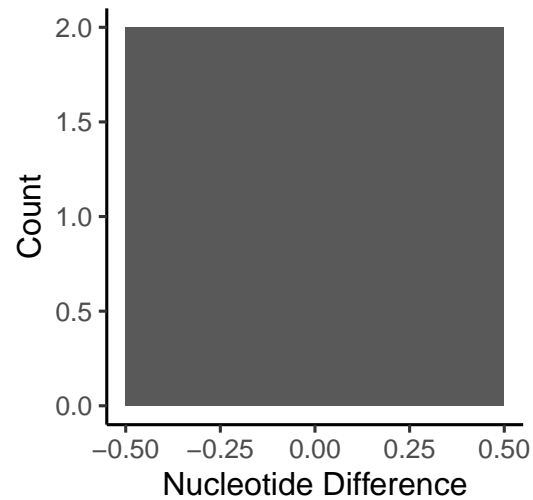
IGHV3–48*02

73 sequences assigned
12 (16.4%) exact matches, in which:
6 unique CDR3
4 unique J



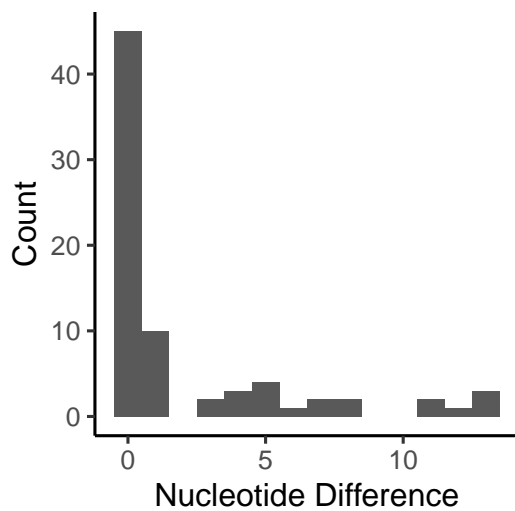
IGHV3–52*01_03

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



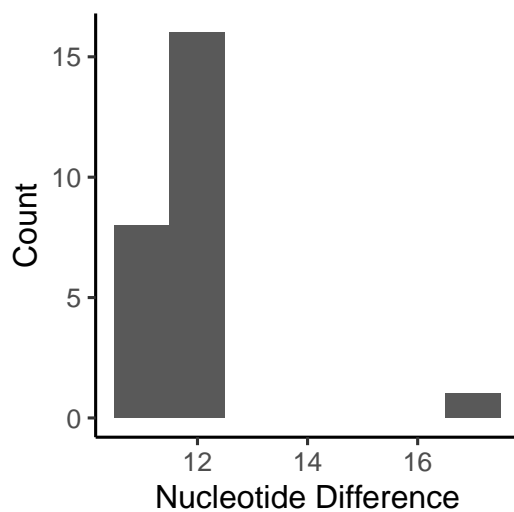
IGHV3–33*01

76 sequences assigned
45 (59.2%) exact matches, in which:
27 unique CDR3
4 unique J



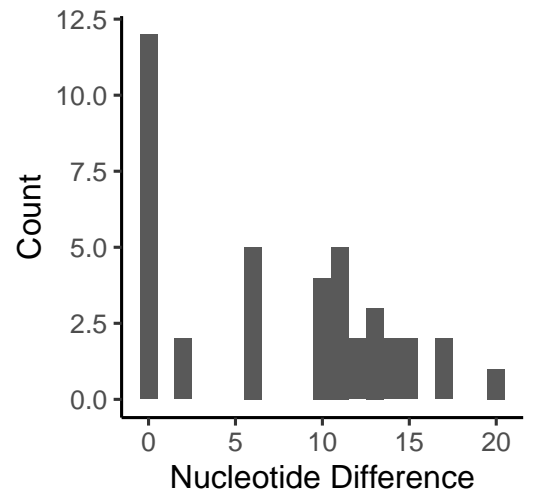
IGHV3–49*04

25 sequences assigned
No exact matches.



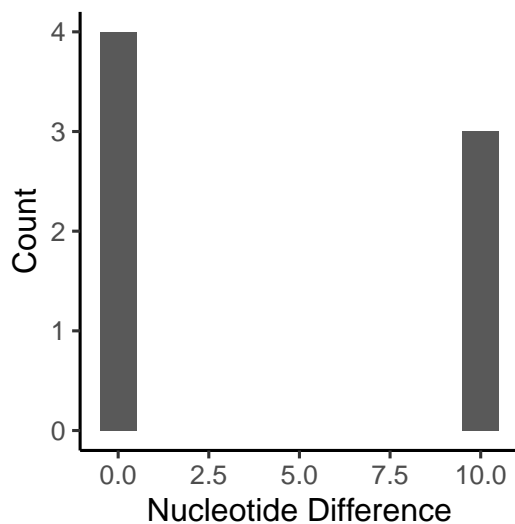
IGHV3–53*01_02

46 sequences assigned
12 (26.1%) exact matches, in which:
5 unique CDR3
2 unique J



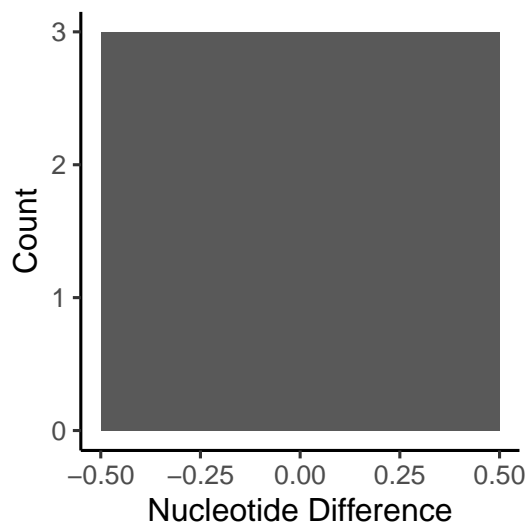
IGHV3–48*01

98 sequences assigned
4 (4.1%) exact matches, in which:
2 unique CDR3
1 unique J



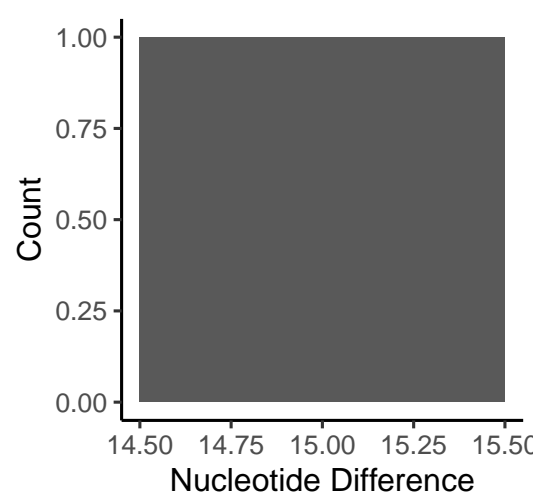
IGHV3–49*03_05

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



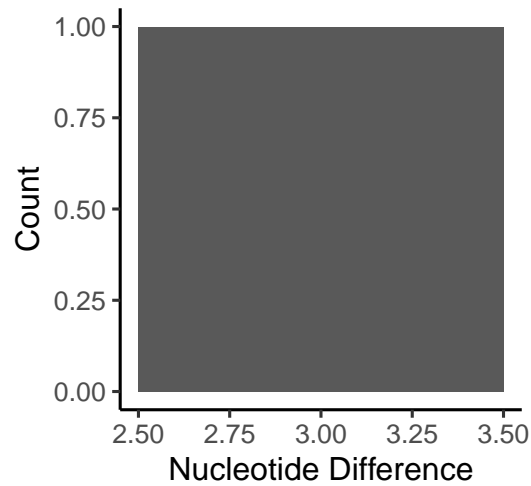
IGHV3–64*04

1 sequences assigned
No exact matches.



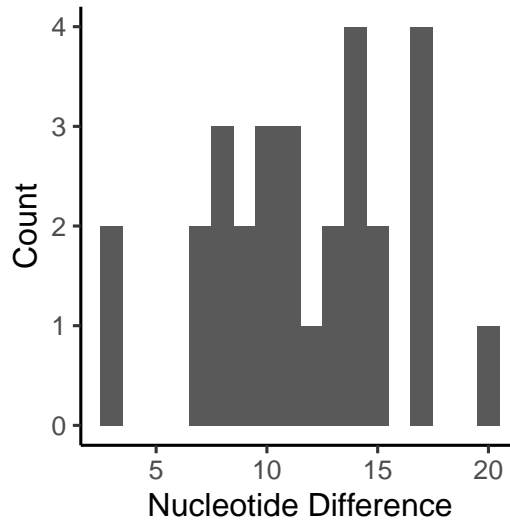
IGHV3-69-1*01

8 sequences assigned
No exact matches.



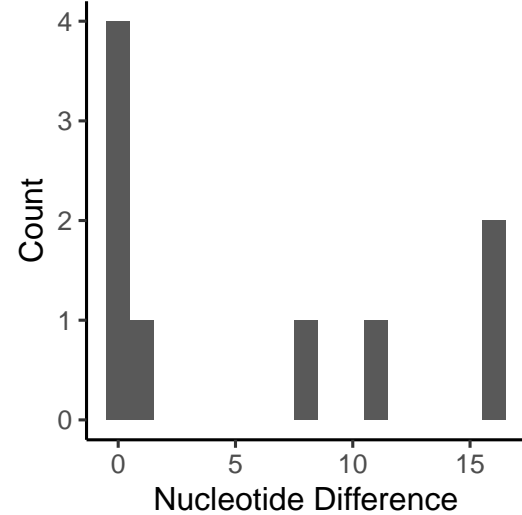
IGHV3-74*03

41 sequences assigned
No exact matches.



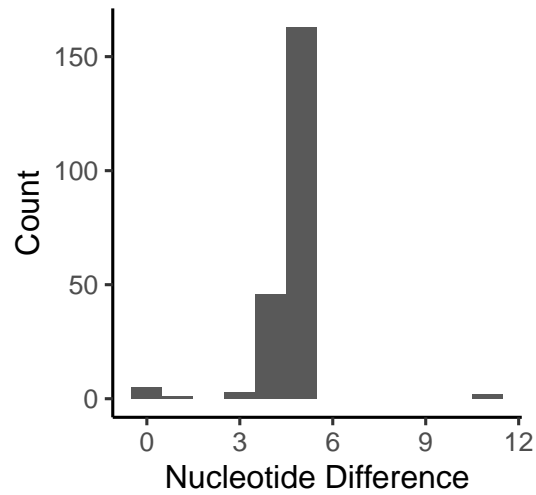
IGHV4-4*07

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



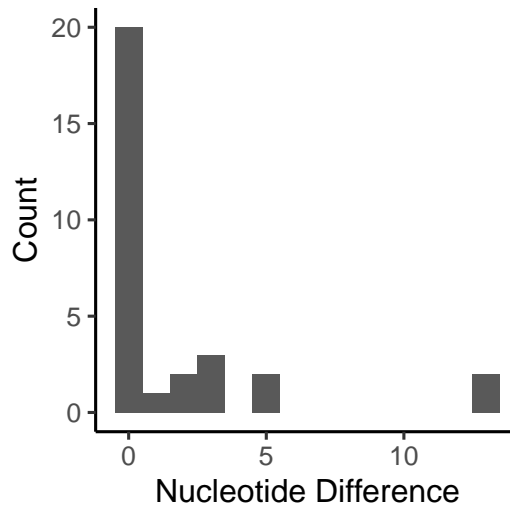
IGHV3-72*01

221 sequences assigned
5 (2.3%) exact matches, in which:
3 unique CDR3
2 unique J



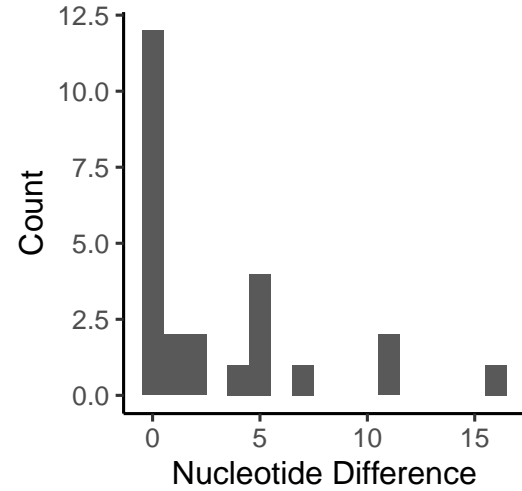
IGHV3-74*01_02

32 sequences assigned
20 (62.5%) exact matches, in which:
10 unique CDR3
4 unique J



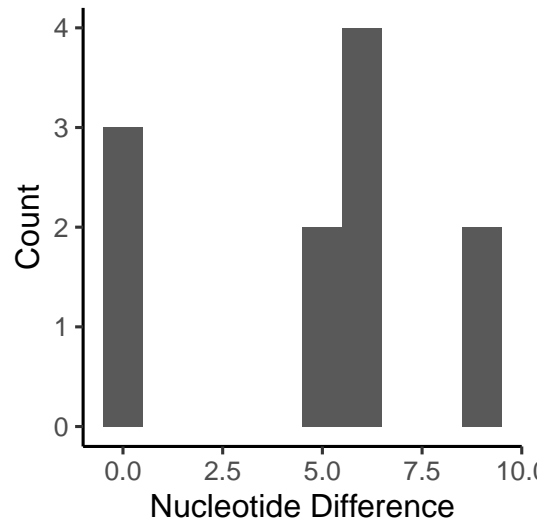
IGHV4-4*02_03

25 sequences assigned
12 (48%) exact matches, in which:
9 unique CDR3
6 unique J



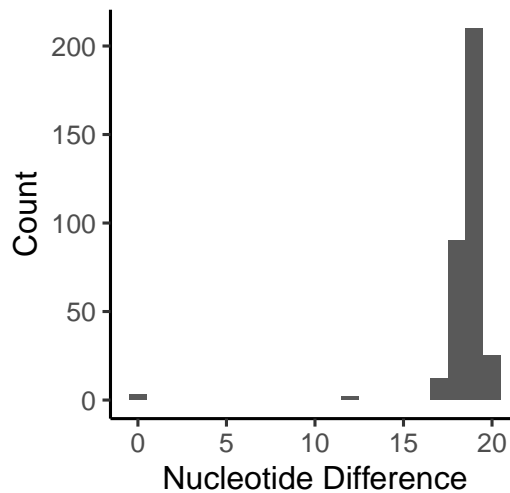
IGHV3-73*01_02

53 sequences assigned
3 (5.7%) exact matches, in which:
2 unique CDR3
2 unique J



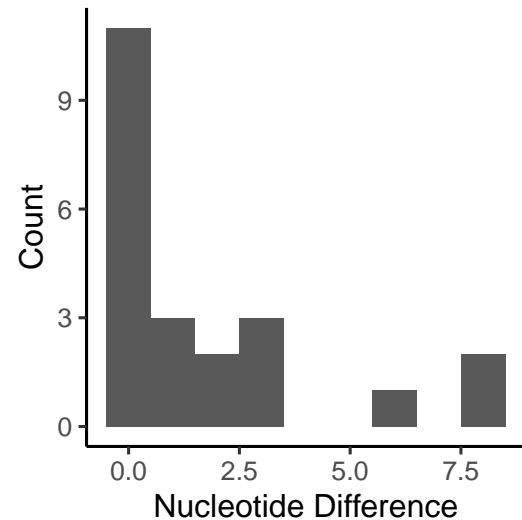
IGHV3-64D*06

510 sequences assigned
3 (0.6%) exact matches, in which:
2 unique CDR3
1 unique J



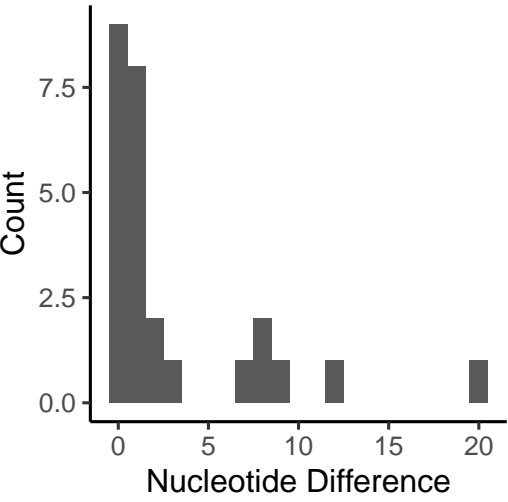
IGHV4-30-2*01

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



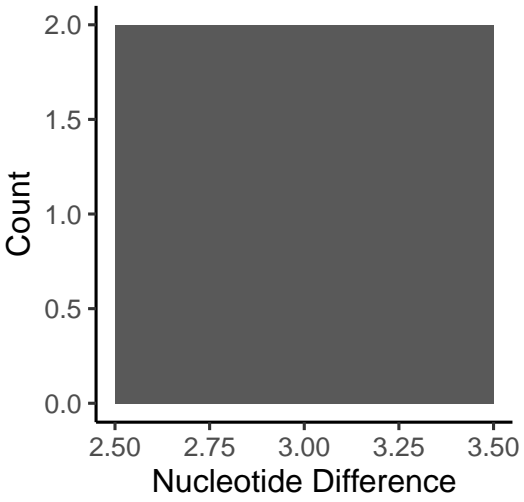
IGHV4-30-4*01

27 sequences assigned
9 (33.3%) exact matches, in which:
7 unique CDR3
3 unique J



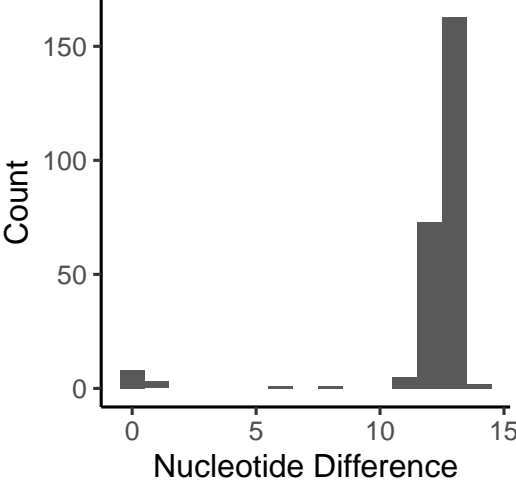
IGHV4-38-2*02

4 sequences assigned
No exact matches.



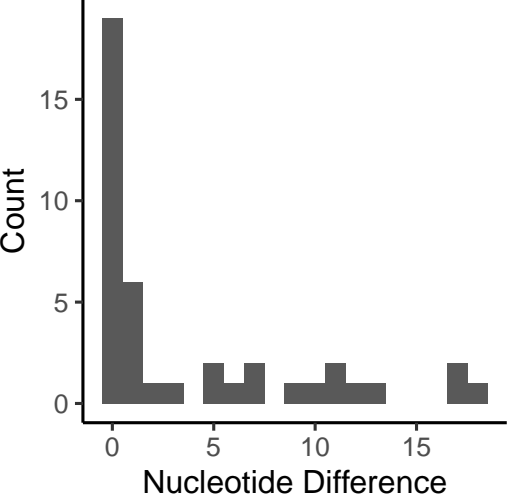
IGHV4-59*01_07

363 sequences assigned
8 (2.2%) exact matches, in which:
6 unique CDR3
5 unique J



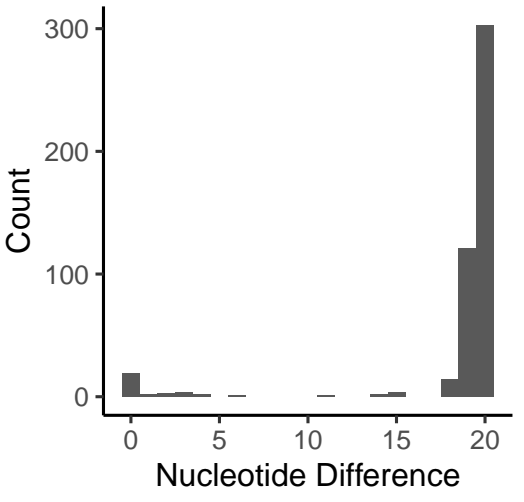
IGHV4-31*02

430 sequences assigned
19 (4.4%) exact matches, in which:
15 unique CDR3
4 unique J



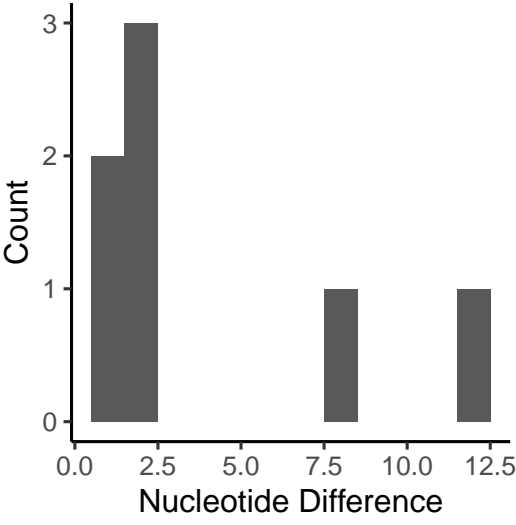
IGHV4-39*02_C258G

835 sequences assigned
19 (2.3%) exact matches, in which:
18 unique CDR3
4 unique J



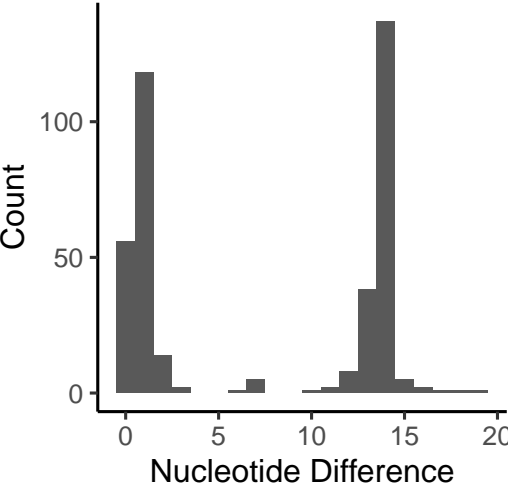
IGHV4-59*12

8 sequences assigned
No exact matches.



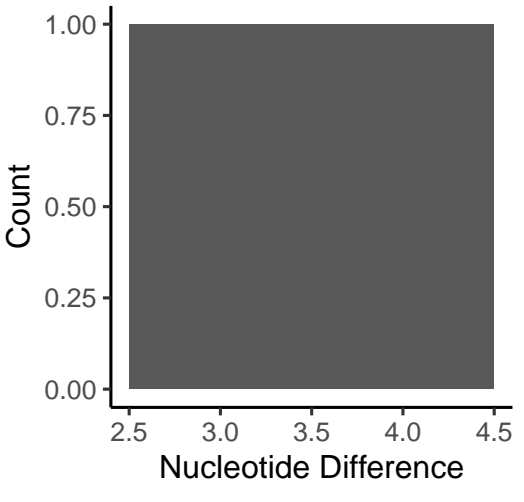
IGHV4-34*01_02

397 sequences assigned
56 (14.1%) exact matches, in which:
33 unique CDR3
5 unique J



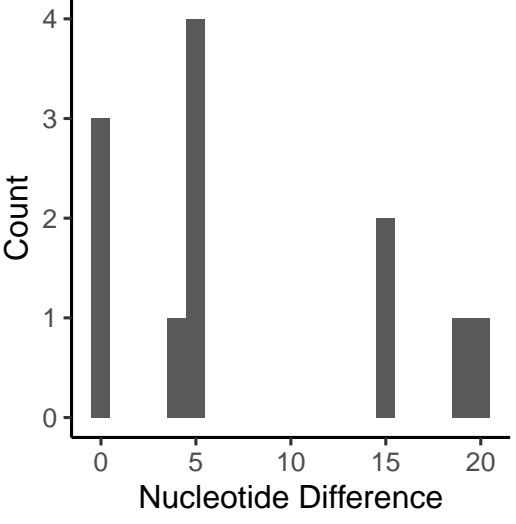
IGHV4-59*02

3 sequences assigned
No exact matches.



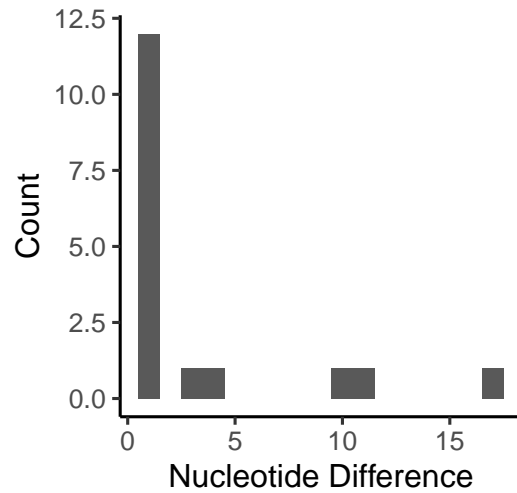
IGHV4-61*01

12 sequences assigned
3 (25%) exact matches, in which:
2 unique CDR3
1 unique J



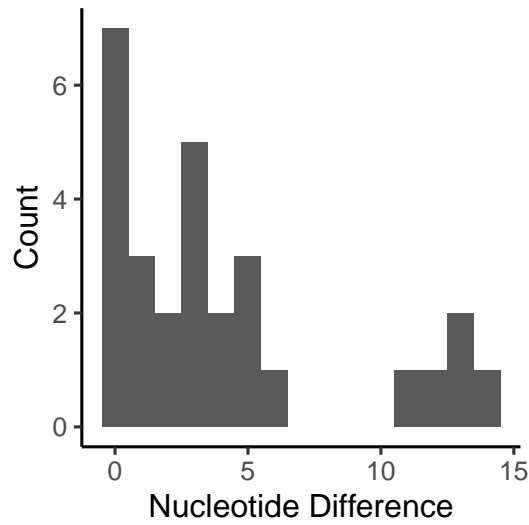
IGHV4-61*02

286 sequences assigned
No exact matches.



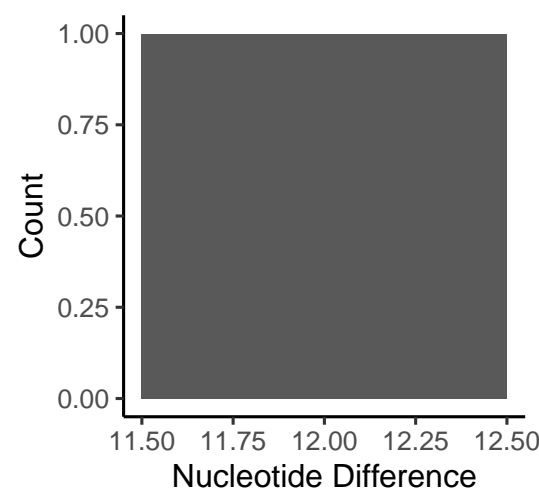
IGHV5-51*07

28 sequences assigned
7 (25%) exact matches, in which:
6 unique CDR3
4 unique J



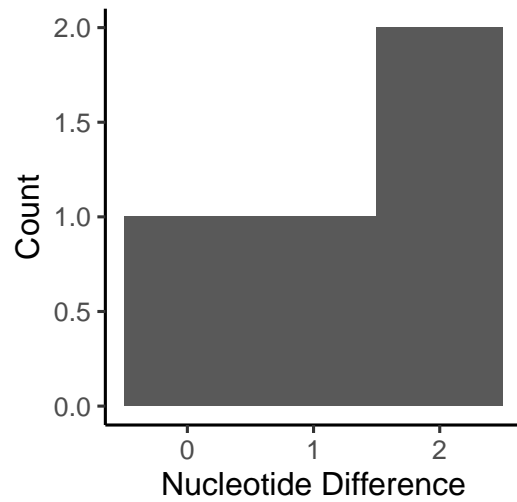
IGHV7-4-1*02

1 sequences assigned
No exact matches.



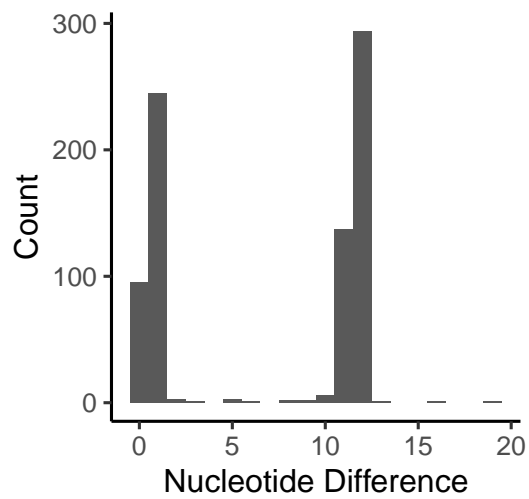
IGHV4-61*06

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



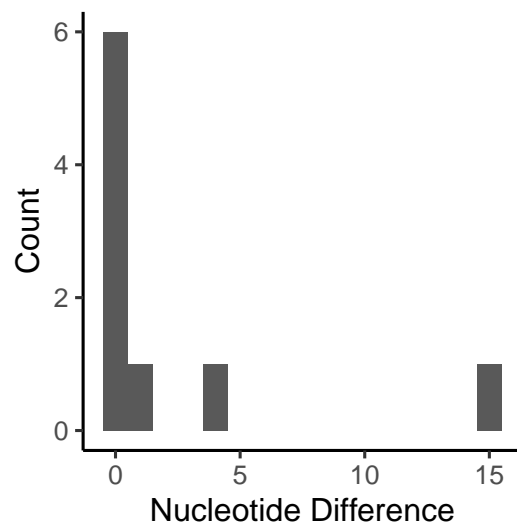
IGHV5-51*01_03

929 sequences assigned
95 (10.2%) exact matches, in which:
32 unique CDR3
6 unique J



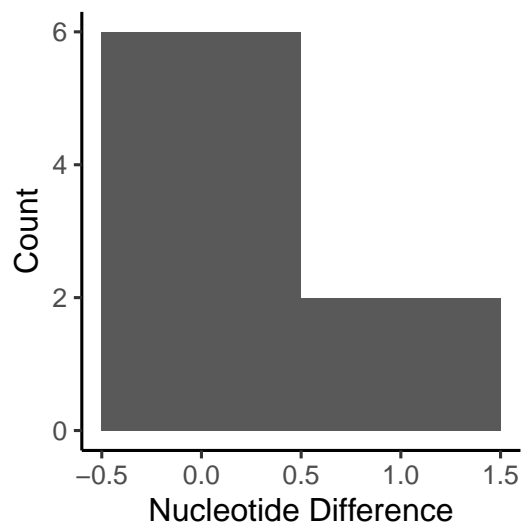
IGHV5-10-1*01_03

9 sequences assigned
6 (66.7%) exact matches, in which:
5 unique CDR3
2 unique J

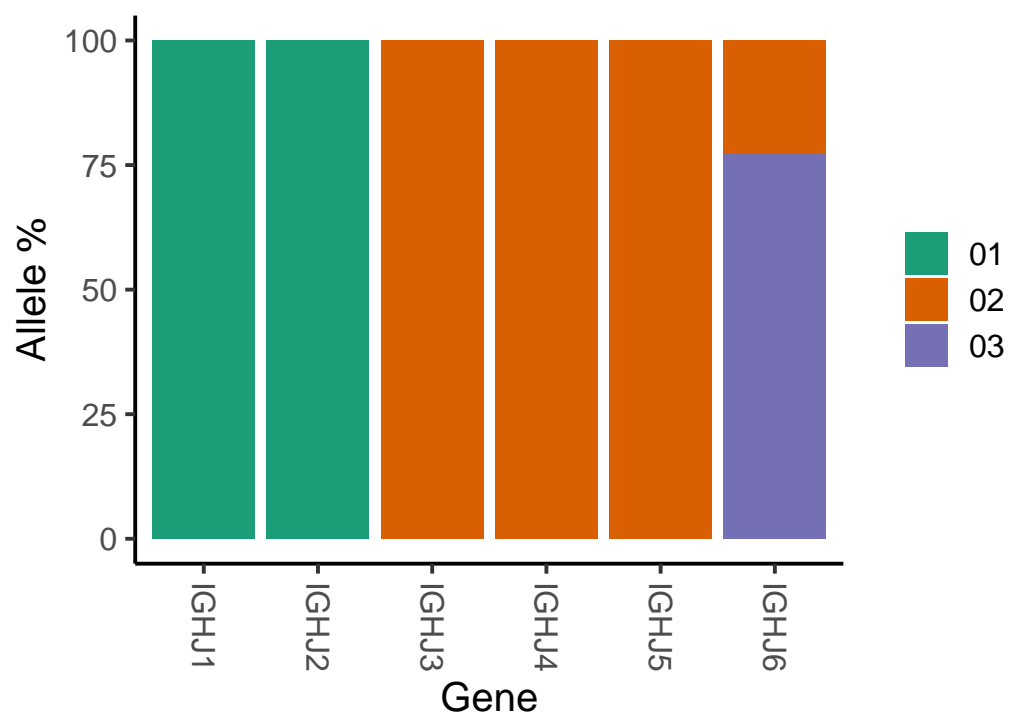


IGHV6-1*01_02

11 sequences assigned
6 (54.5%) exact matches, in which:
6 unique CDR3
4 unique J



Allele Usage



Warning – no inferred sequences found.