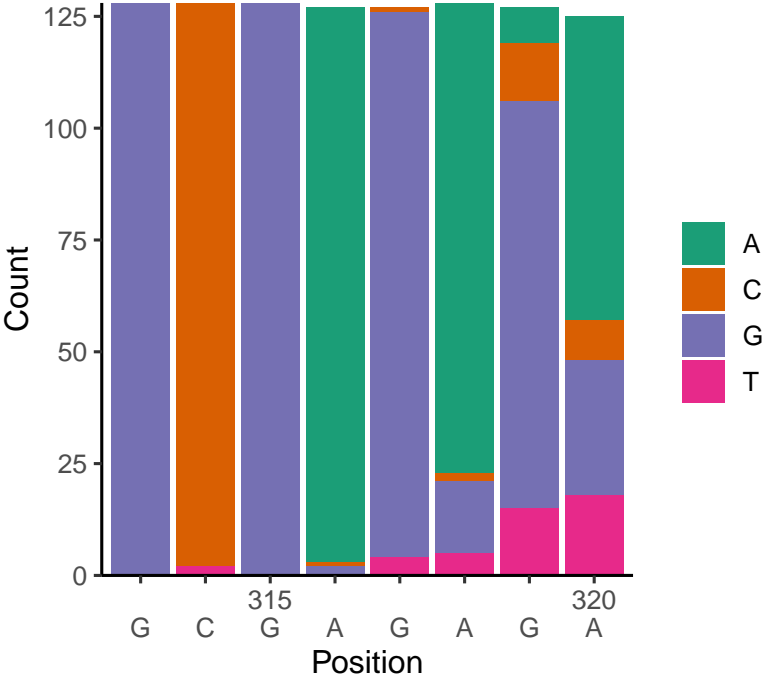
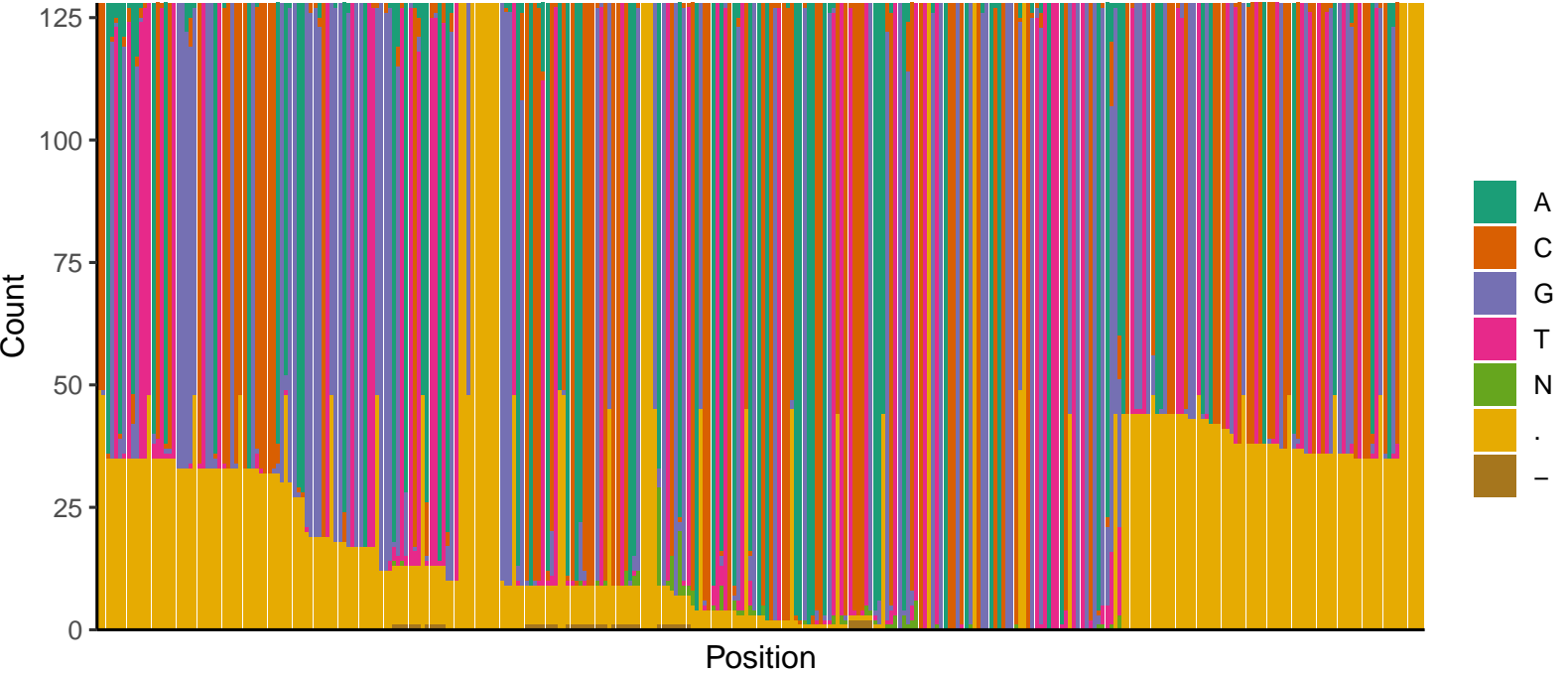


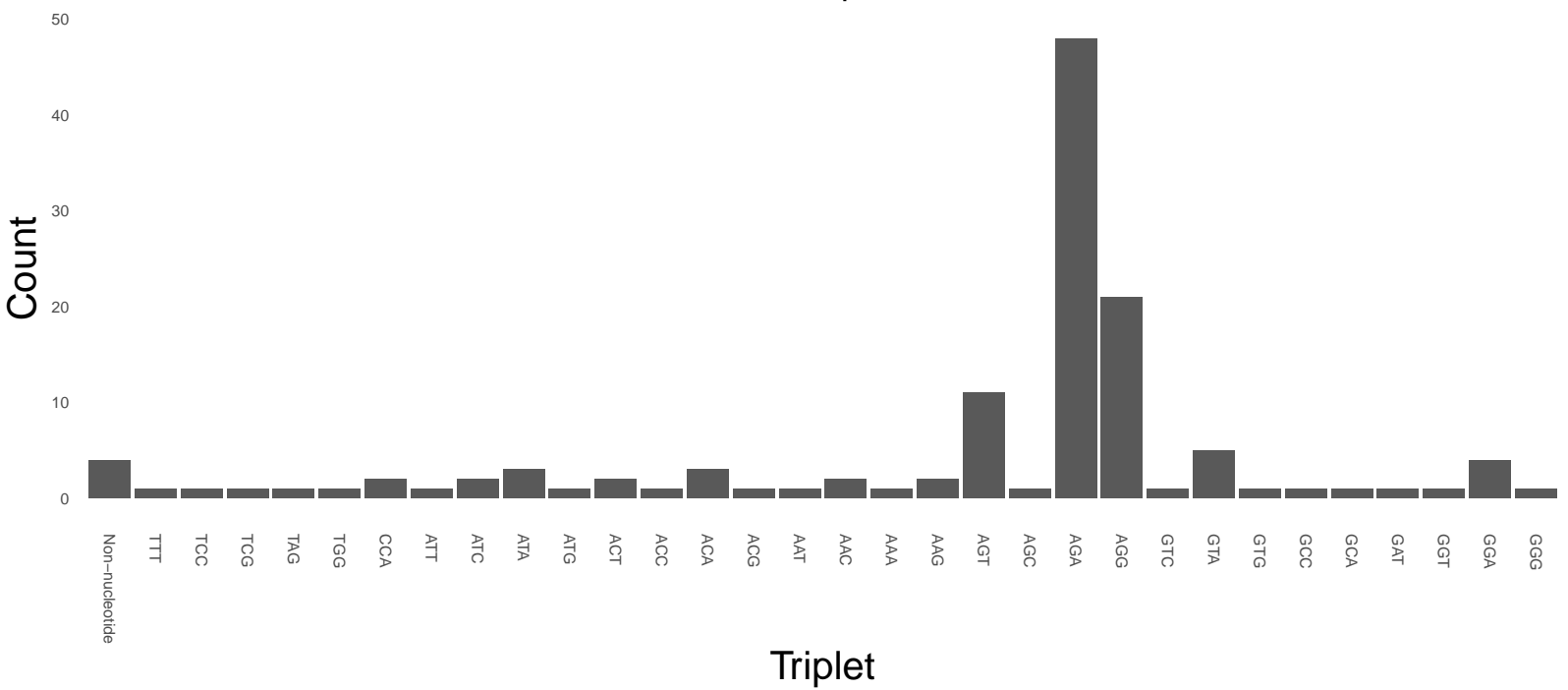
Gene IGHV4-39*07_C288A



Gene IGHV4-39*07_C288A

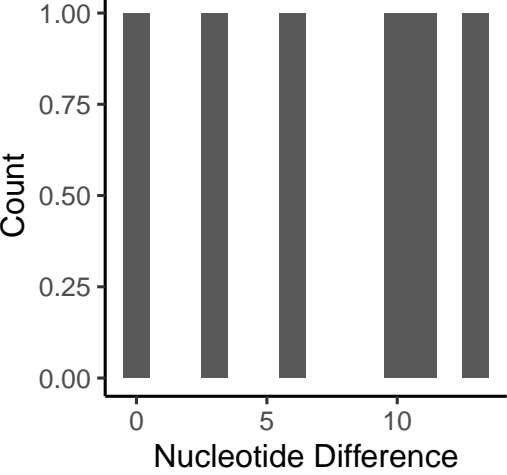


IGHV4-39*07_C288A- Final 3 nucleotides as a triplet



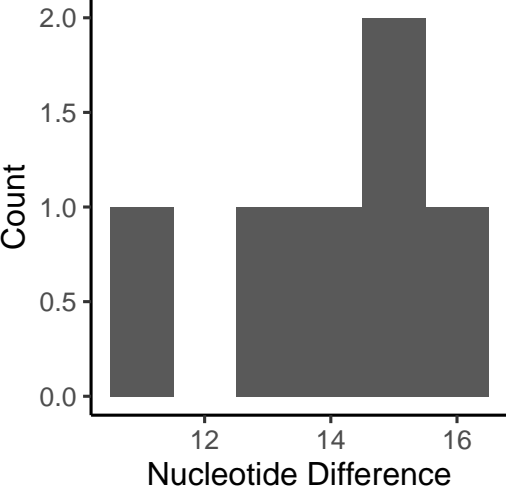
IGHV1-2*02

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



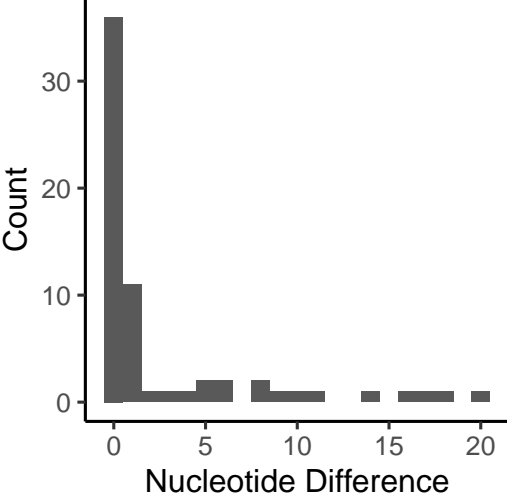
IGHV1-8*02

6 sequences assigned
No exact matches.



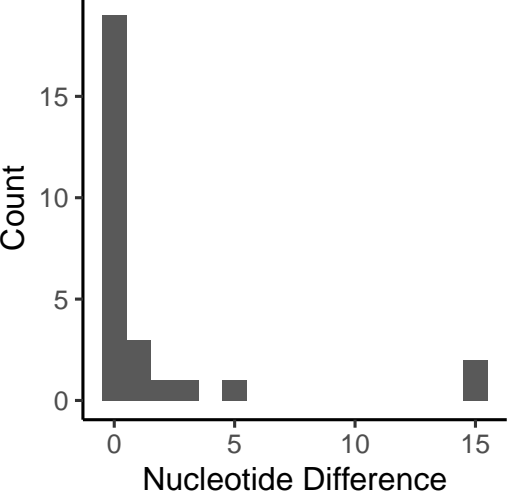
IGHV1-24*01

64 sequences assigned
36 (56.2%) exact matches, in which:
29 unique CDR3
4 unique J



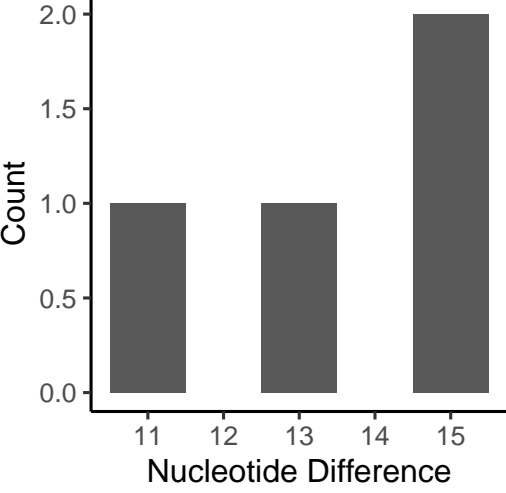
IGHV1-2*04

27 sequences assigned
19 (70.4%) exact matches, in which:
19 unique CDR3
5 unique J



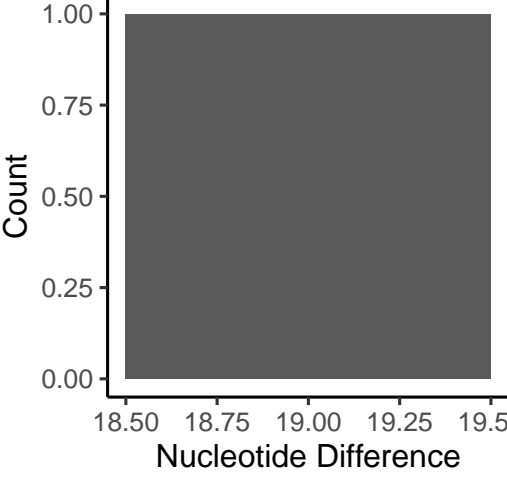
IGHV1-8*03

4 sequences assigned
No exact matches.



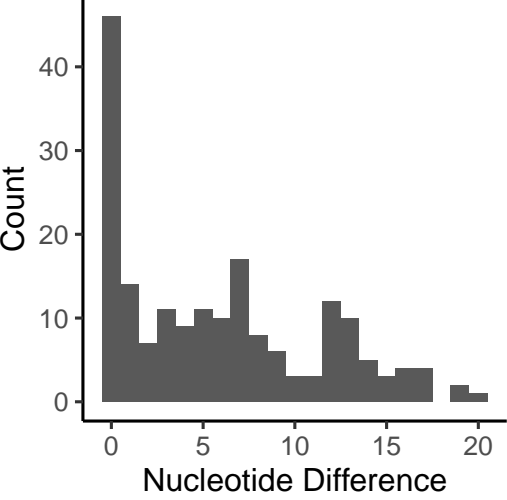
IGHV1-45*02

1 sequences assigned
No exact matches.



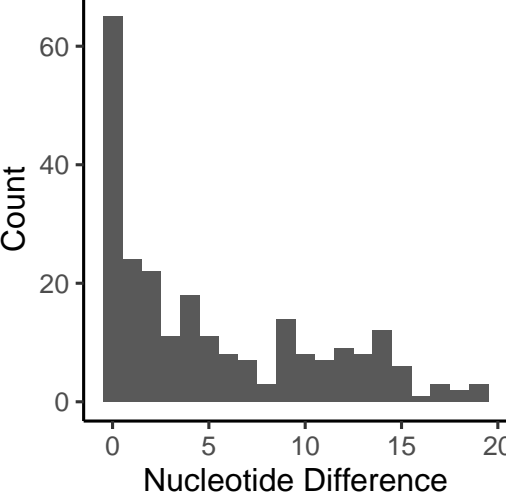
IGHV1-3*01

196 sequences assigned
46 (23.5%) exact matches, in which:
44 unique CDR3
4 unique J



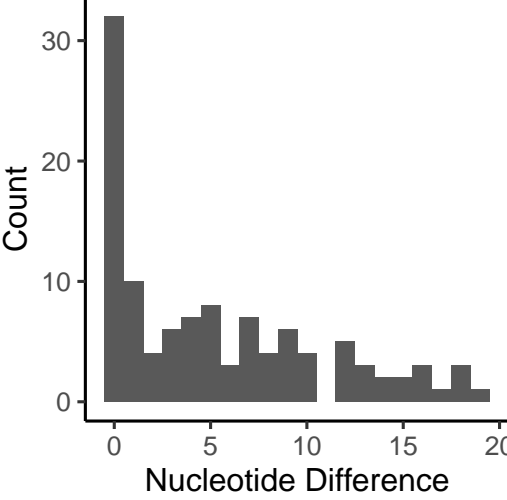
IGHV1-18*01

258 sequences assigned
65 (25.2%) exact matches, in which:
64 unique CDR3
5 unique J



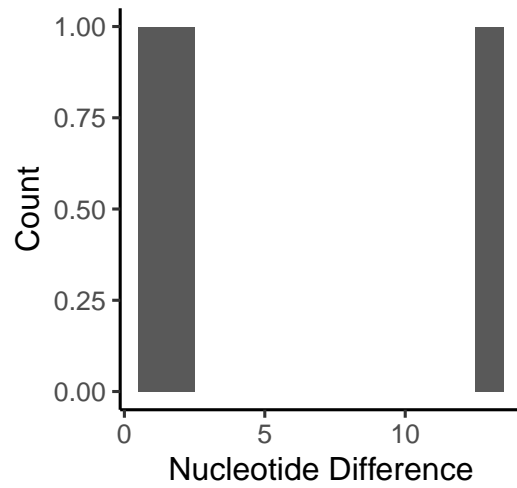
IGHV1-46*01

117 sequences assigned
32 (27.4%) exact matches, in which:
32 unique CDR3
5 unique J



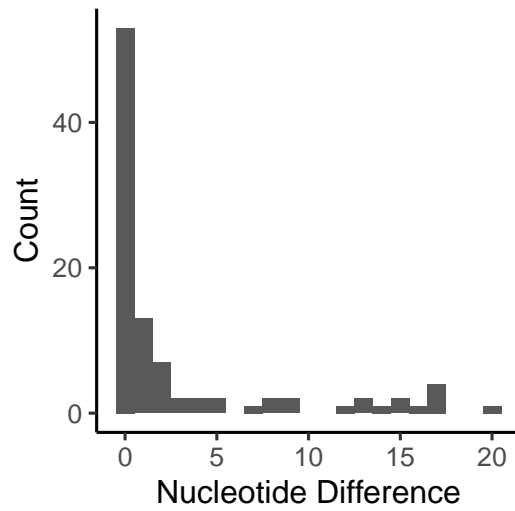
IGHV1-58*01

3 sequences assigned
No exact matches.



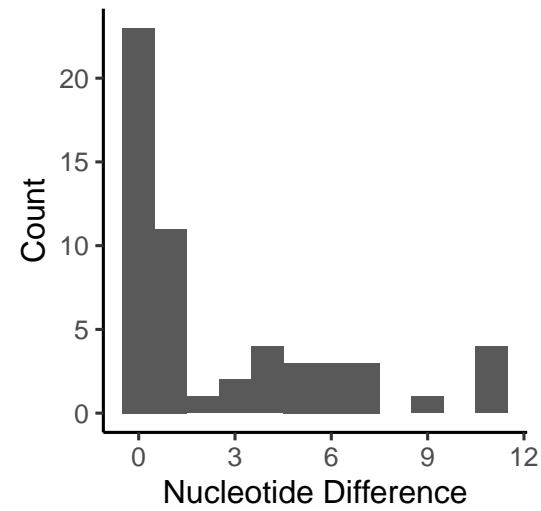
IGHV1-69*04

103 sequences assigned
53 (51.5%) exact matches, in which:
51 unique CDR3
4 unique J



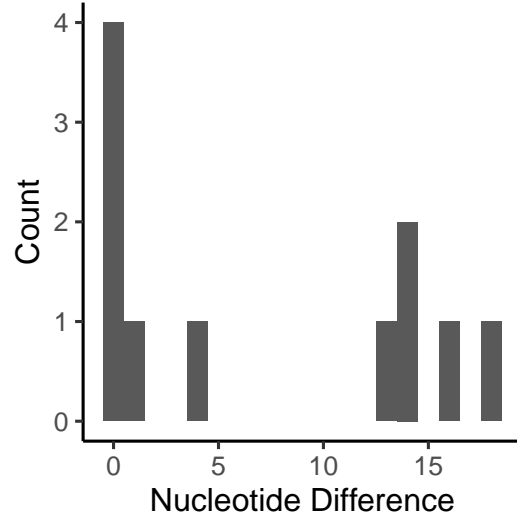
IGHV2-5*02

56 sequences assigned
23 (41.1%) exact matches, in which:
22 unique CDR3
4 unique J



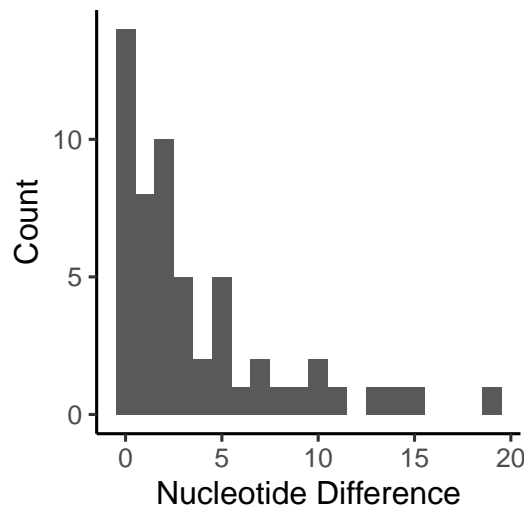
IGHV1-58*02

11 sequences assigned
4 (36.4%) exact matches, in which:
4 unique CDR3
3 unique J



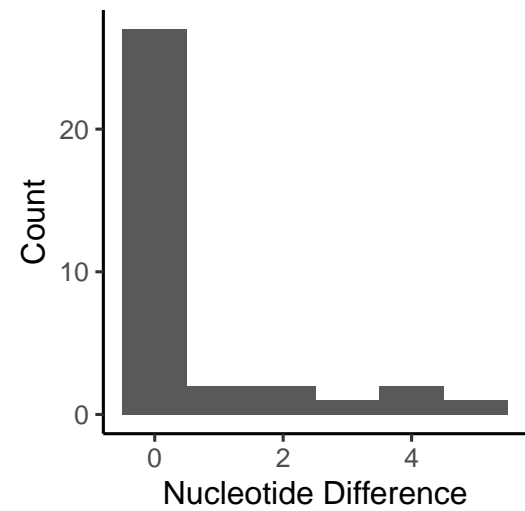
IGHV1-69*06

61 sequences assigned
14 (23%) exact matches, in which:
14 unique CDR3
3 unique J



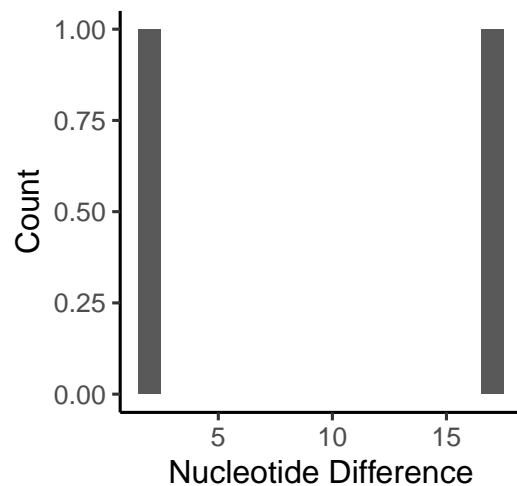
IGHV2-26*01

35 sequences assigned
27 (77.1%) exact matches, in which:
26 unique CDR3
5 unique J



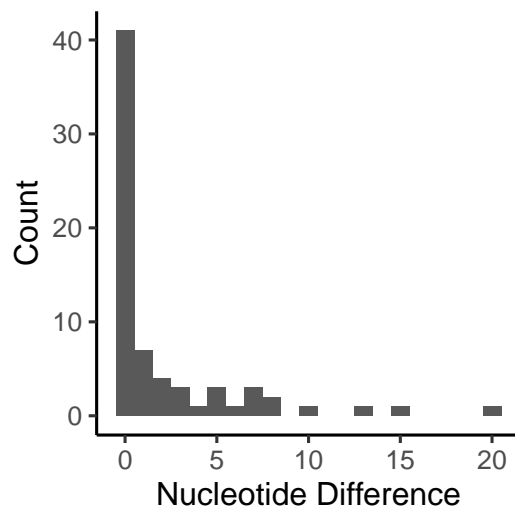
IGHV1-68*02

2 sequences assigned
No exact matches.



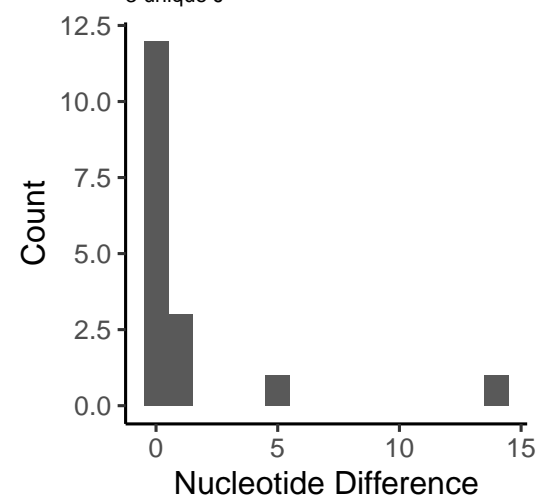
IGHV2-5*01

71 sequences assigned
41 (57.7%) exact matches, in which:
41 unique CDR3
5 unique J



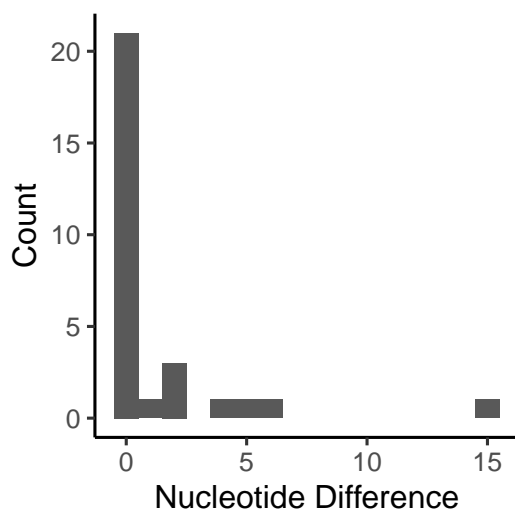
IGHV2-70*01

19 sequences assigned
12 (63.2%) exact matches, in which:
11 unique CDR3
3 unique J



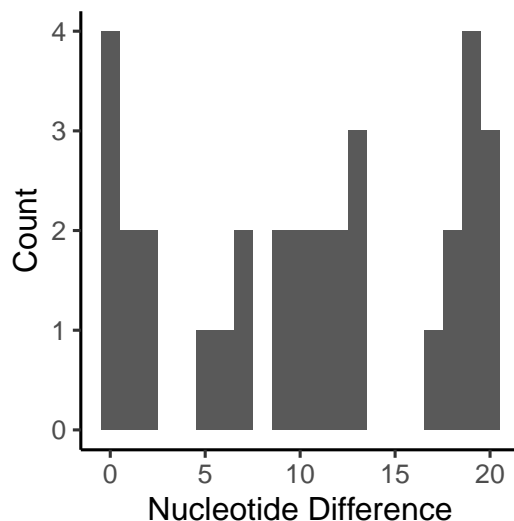
IGHV2-70*15

29 sequences assigned
21 (72.4%) exact matches, in which:
21 unique CDR3
4 unique J



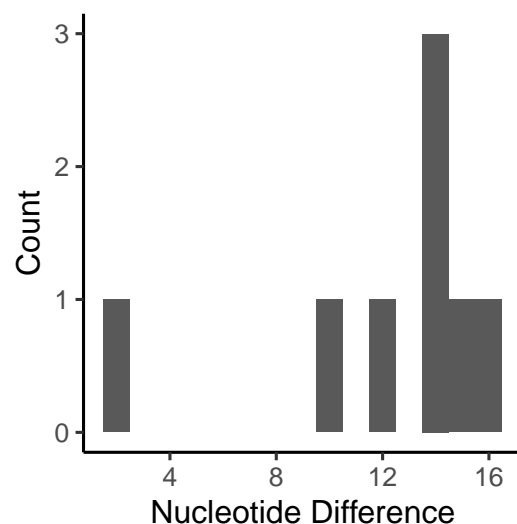
IGHV3-7*05

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



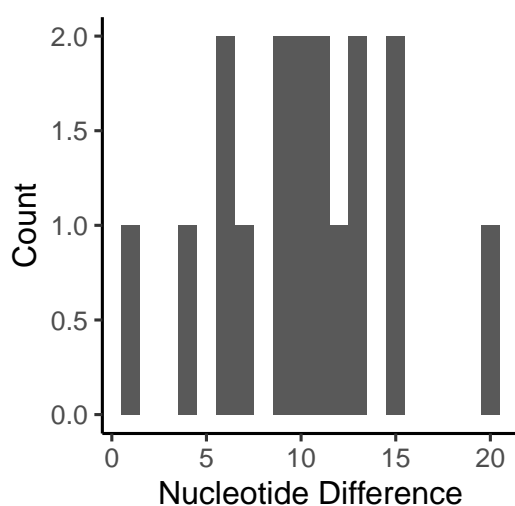
IGHV3-13*01

8 sequences assigned
No exact matches.



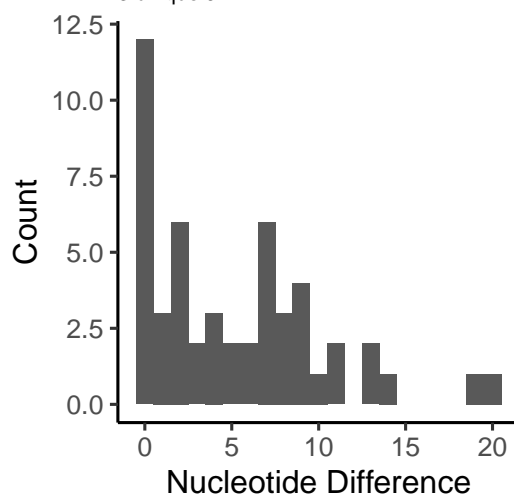
IGHV3-7*01

17 sequences assigned
No exact matches.



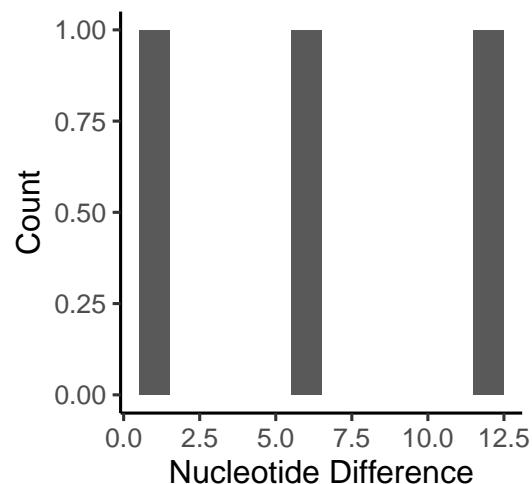
IGHV3-11*05

51 sequences assigned
12 (23.5%) exact matches, in which:
12 unique CDR3
3 unique J



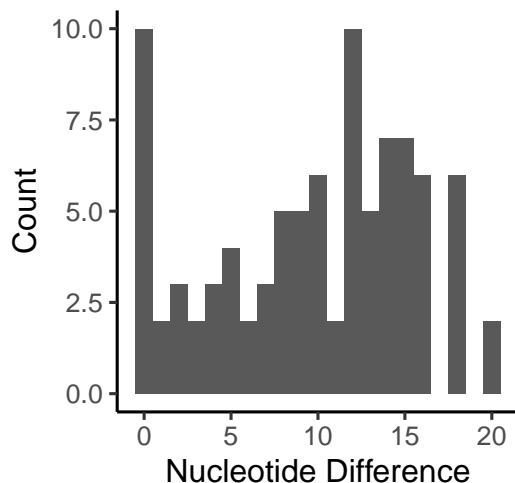
IGHV3-13*04

3 sequences assigned
No exact matches.



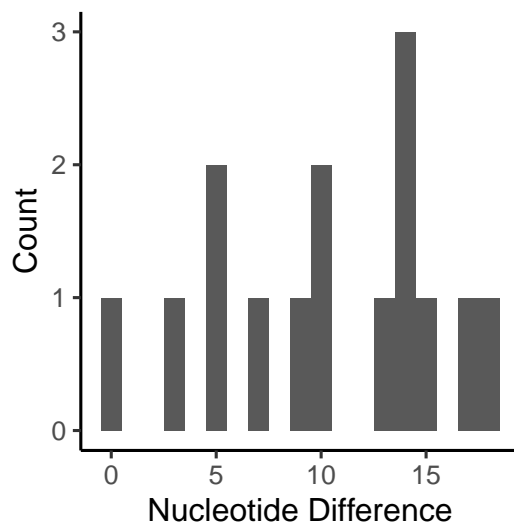
IGHV3-7*03

101 sequences assigned
10 (9.9%) exact matches, in which:
10 unique CDR3
4 unique J



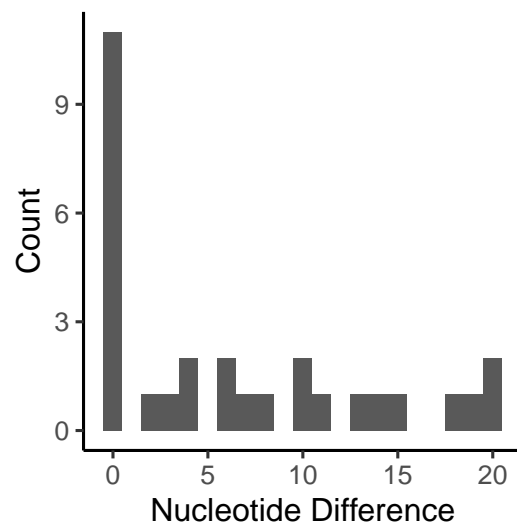
IGHV3-11*06

16 sequences assigned
1 (6.2%) exact matches, in which:
1 unique CDR3
1 unique J



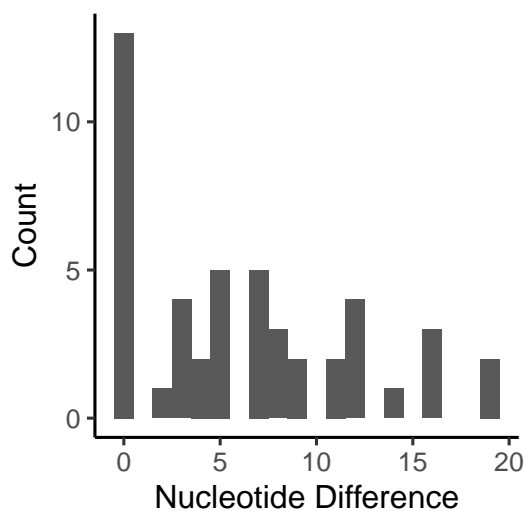
IGHV3-15*01

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



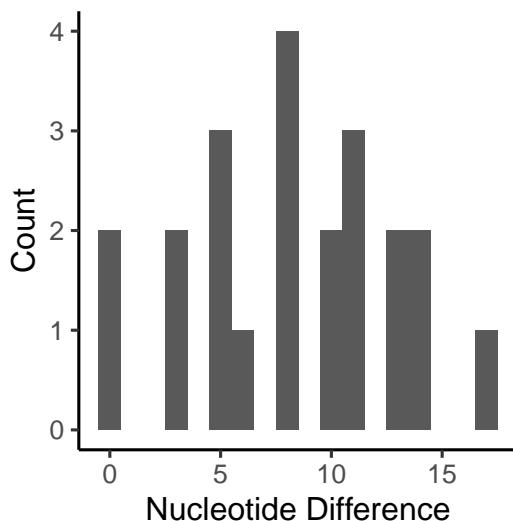
IGHV3-15*07

49 sequences assigned
13 (26.5%) exact matches, in which:
13 unique CDR3
4 unique J



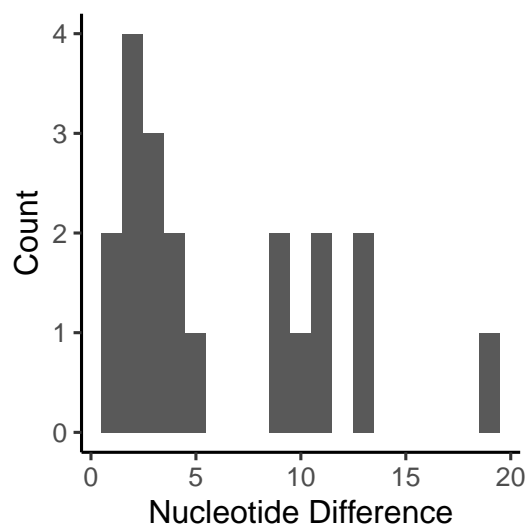
IGHV3-21*04

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



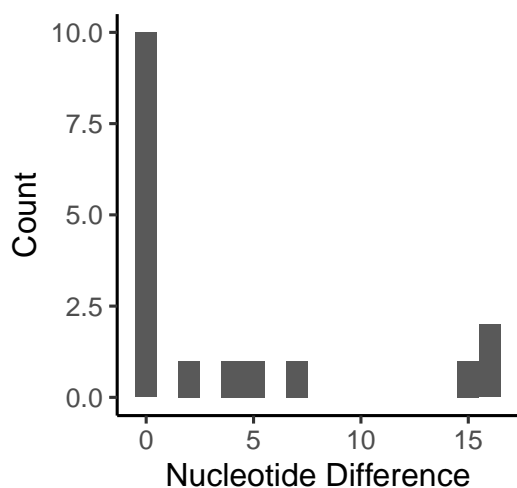
IGHV3-33*05

20 sequences assigned
No exact matches.



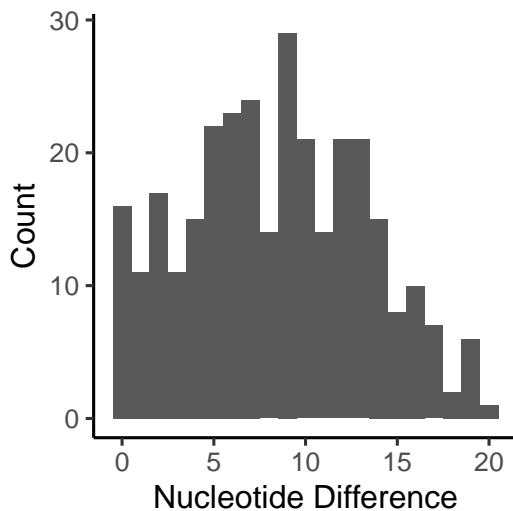
IGHV3-20*04

18 sequences assigned
10 (55.6%) exact matches, in which:
10 unique CDR3
3 unique J



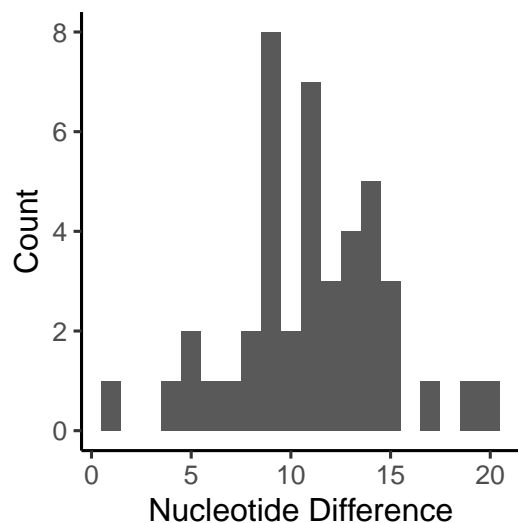
IGHV3-23*04

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



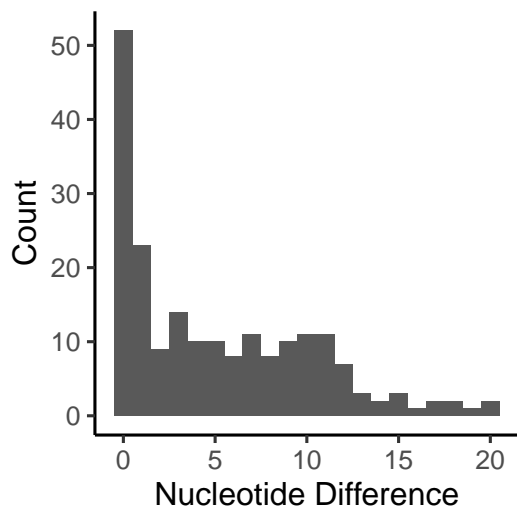
IGHV3-33*08

44 sequences assigned
No exact matches.



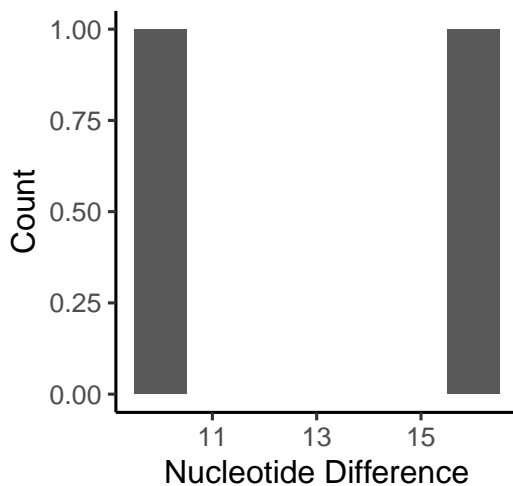
IGHV3-21*01

203 sequences assigned
52 (25.6%) exact matches, in which:
50 unique CDR3
5 unique J



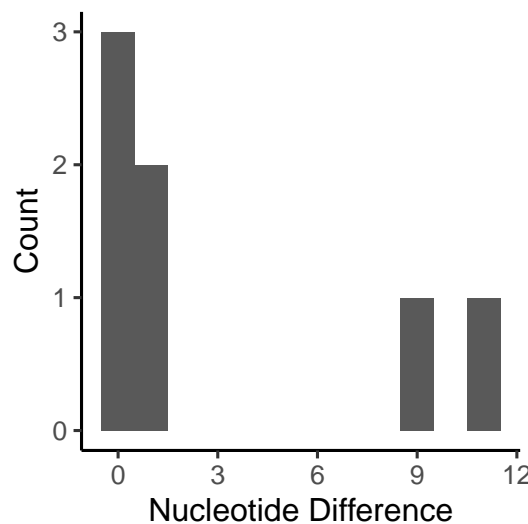
IGHV3-33*01

2 sequences assigned
No exact matches.



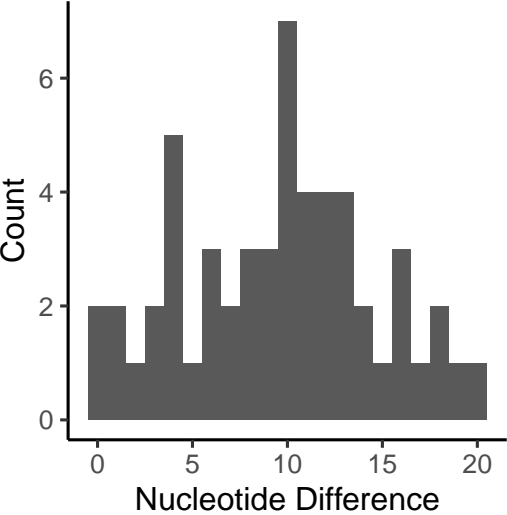
IGHV3-43*01

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



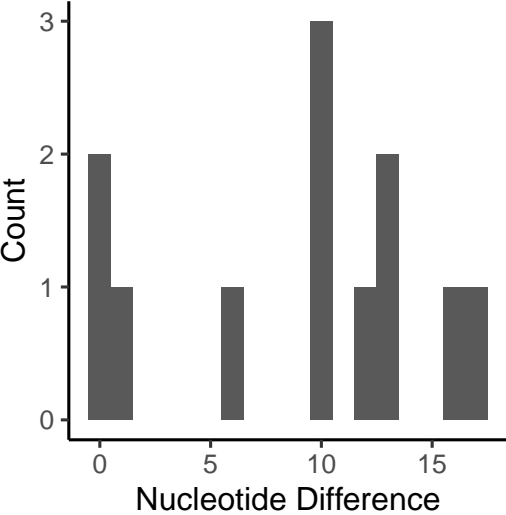
IGHV3-48*01

58 sequences assigned
2 (3.4%) exact matches, in which:
2 unique CDR3
2 unique J



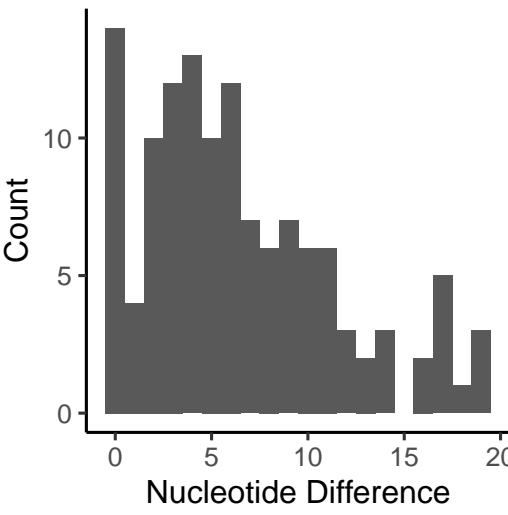
IGHV3-49*03

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



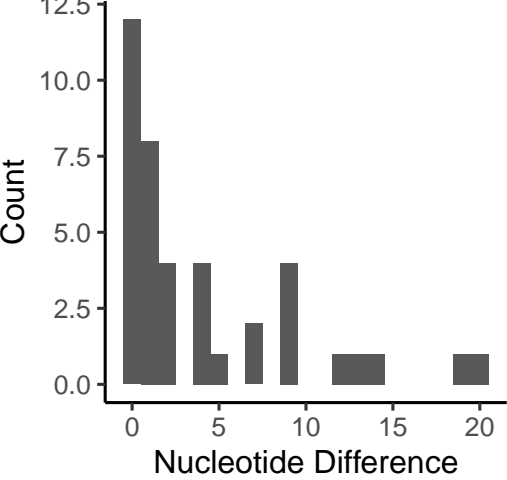
IGHV3-53*01

137 sequences assigned
14 (10.2%) exact matches, in which:
13 unique CDR3
3 unique J



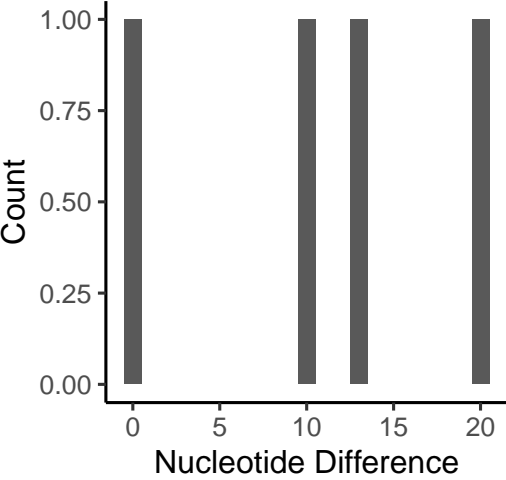
IGHV3-48*02

42 sequences assigned
12 (28.6%) exact matches, in which:
11 unique CDR3
3 unique J



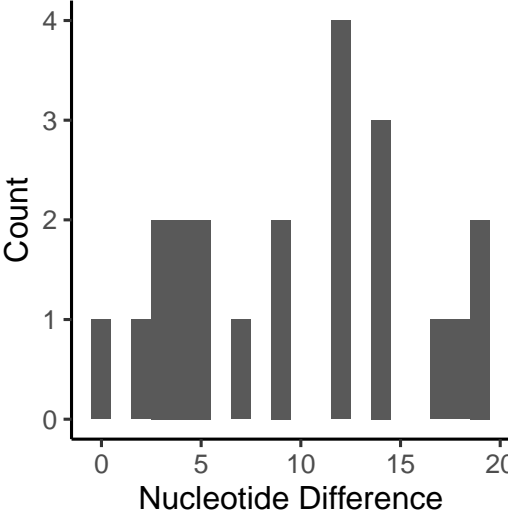
IGHV3-49*05

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



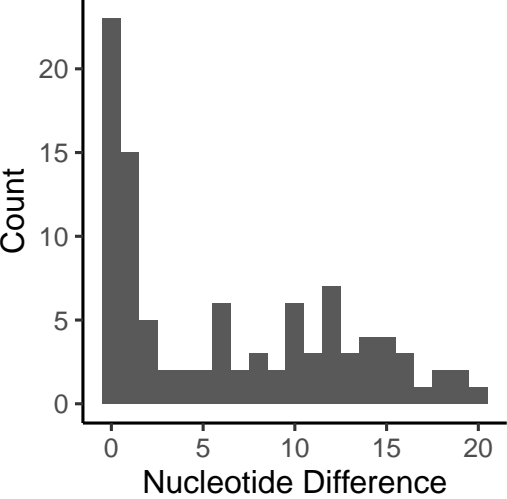
IGHV3-64*04

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



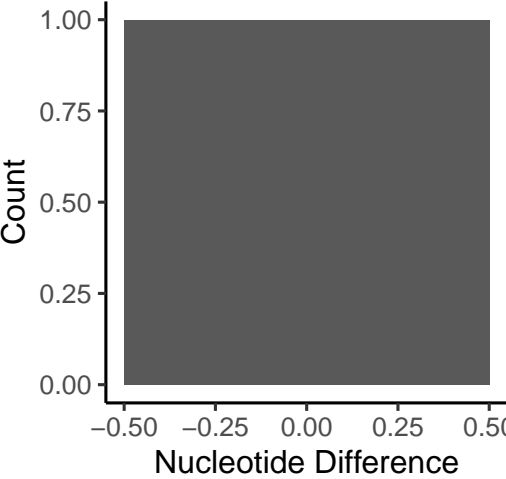
IGHV3-48*04

100 sequences assigned
23 (23%) exact matches, in which:
23 unique CDR3
4 unique J



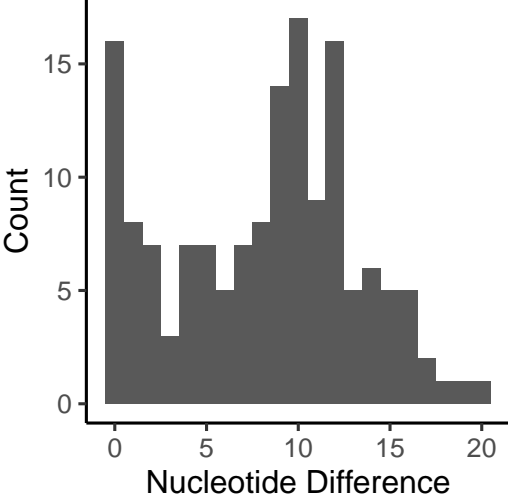
IGHV3-52*01

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



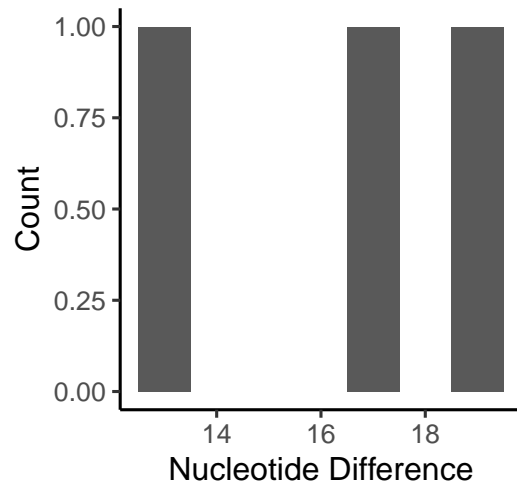
IGHV3-66*01

154 sequences assigned
16 (10.4%) exact matches, in which:
15 unique CDR3
4 unique J



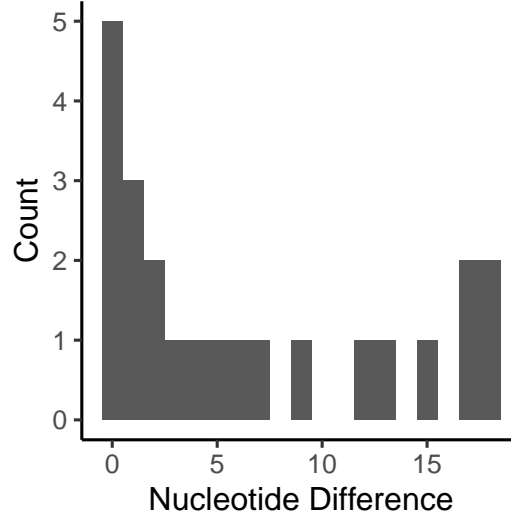
IGHV3-69-1*01

3 sequences assigned
No exact matches.



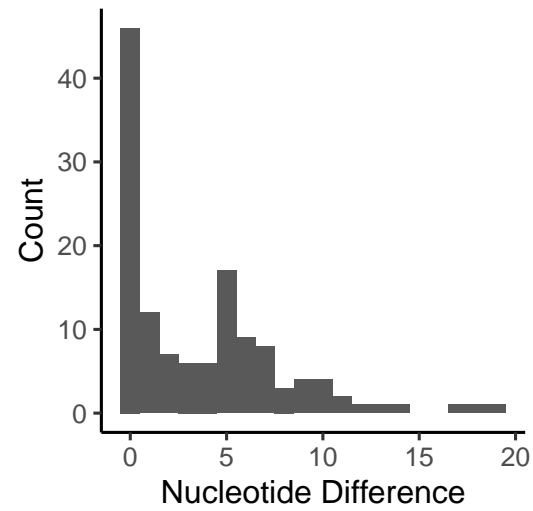
IGHV3-64D*06

23 sequences assigned
5 (21.7%) exact matches, in which:
4 unique CDR3
3 unique J



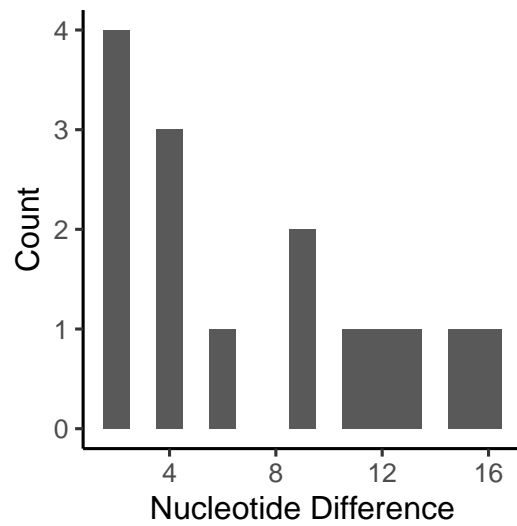
IGHV4-4*02

133 sequences assigned
46 (34.6%) exact matches, in which:
46 unique CDR3
5 unique J



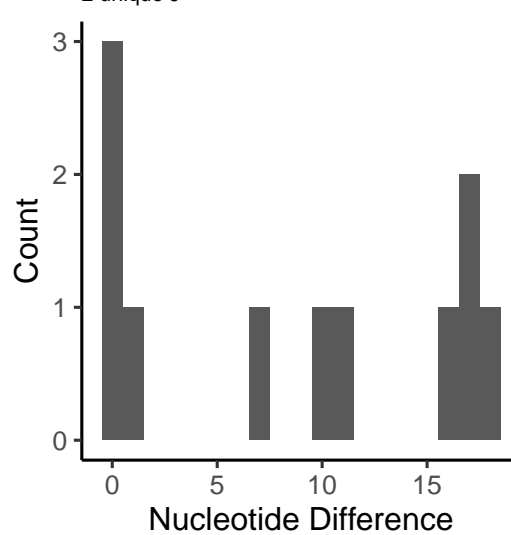
IGHV3-72*01

15 sequences assigned
No exact matches.



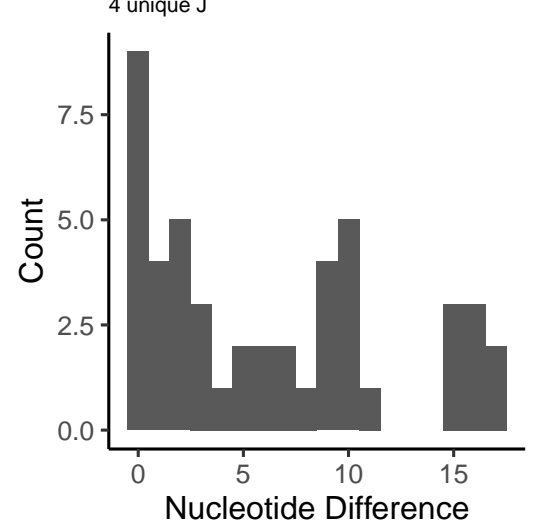
IGHV3-64D*09

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



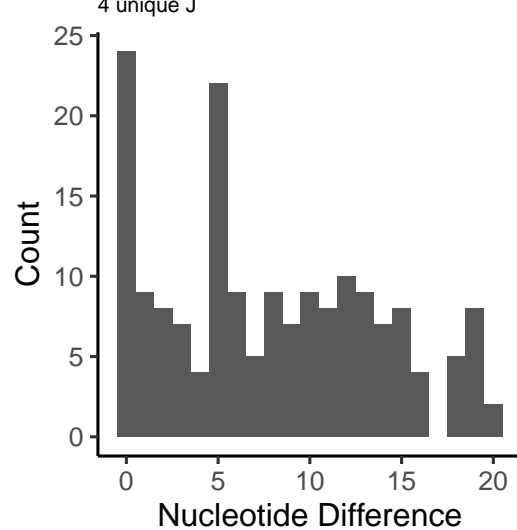
IGHV4-30-2*01

47 sequences assigned
9 (19.1%) exact matches, in which:
9 unique CDR3
4 unique J



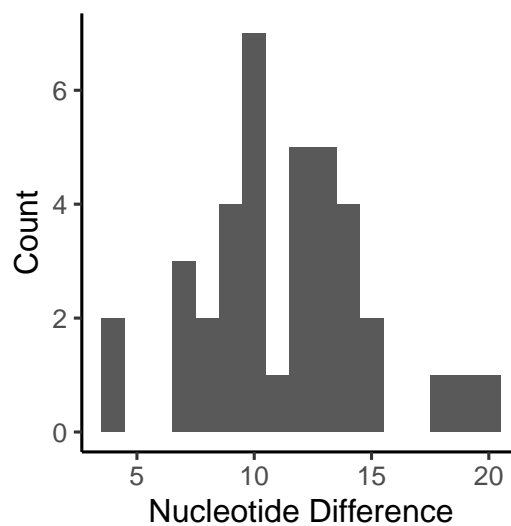
IGHV3-74*01

179 sequences assigned
24 (13.4%) exact matches, in which:
23 unique CDR3
4 unique J



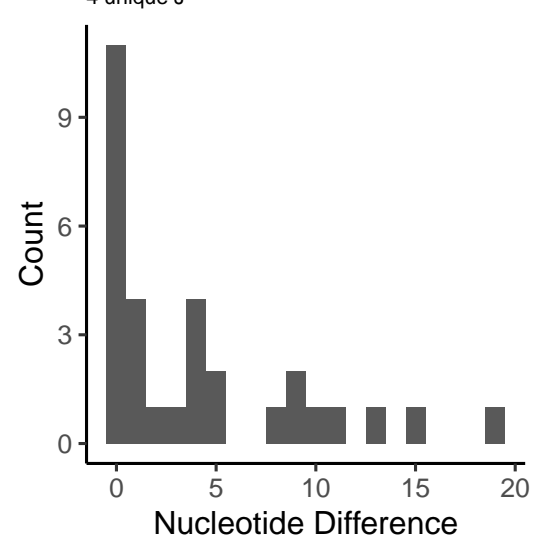
IGHV3-NL1*01

39 sequences assigned
No exact matches.



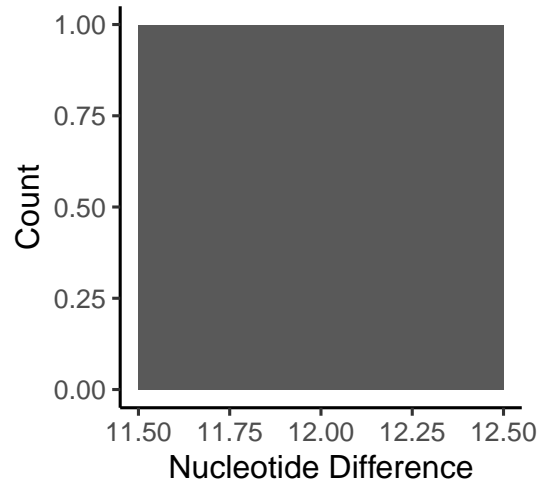
IGHV4-30-4*07

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



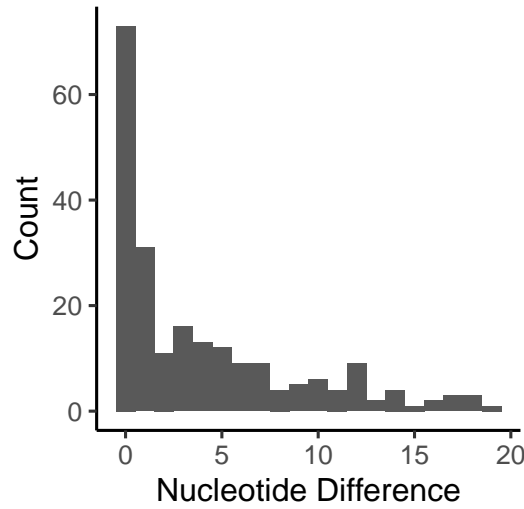
IGHV4-31*11

1 sequences assigned
No exact matches.



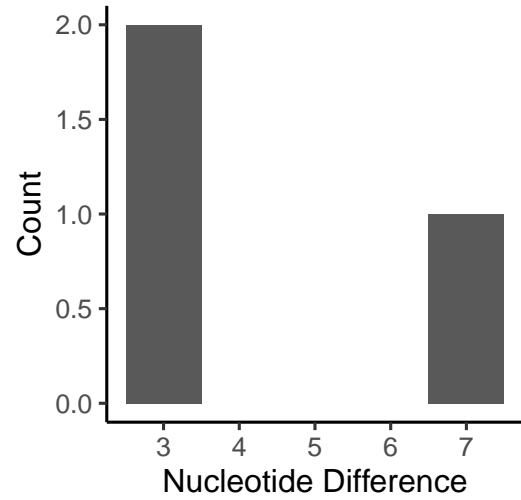
IGHV4-39*01

226 sequences assigned
73 (32.3%) exact matches, in which:
69 unique CDR3
4 unique J



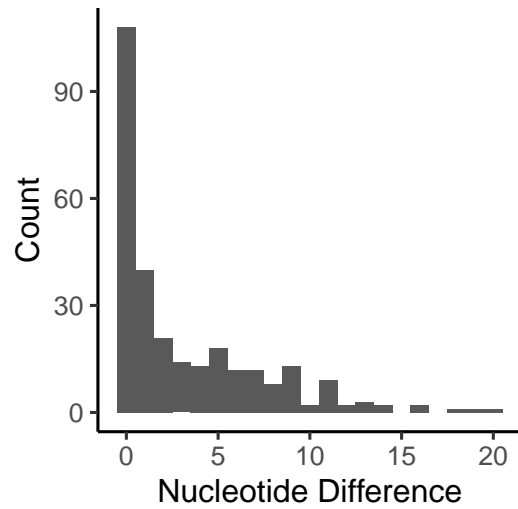
IGHV4-55*08

3 sequences assigned
No exact matches.



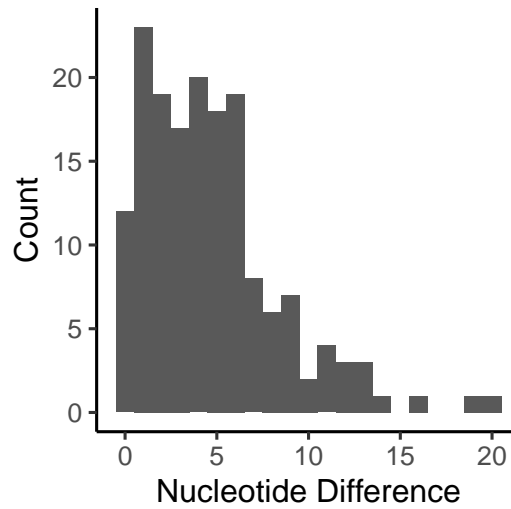
IGHV4-34*01

289 sequences assigned
108 (37.4%) exact matches, in which:
104 unique CDR3
5 unique J



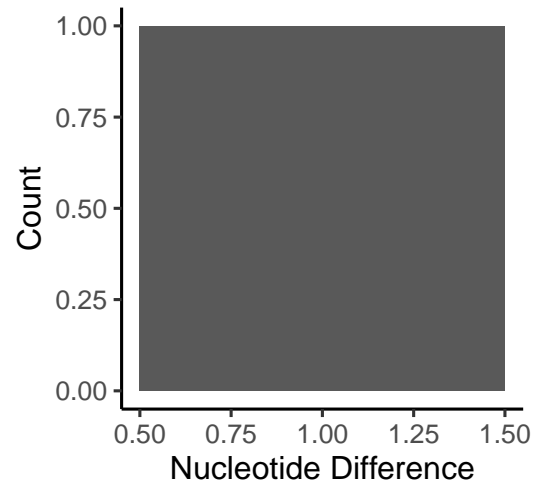
IGHV4-39*07

167 sequences assigned
12 (7.2%) exact matches, in which:
12 unique CDR3
3 unique J



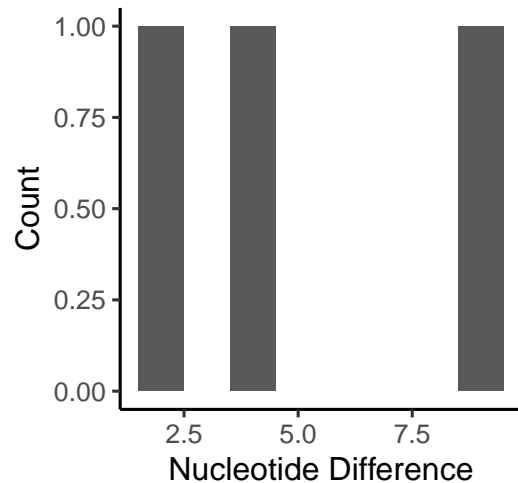
IGHV4-55*09

1 sequences assigned
No exact matches.



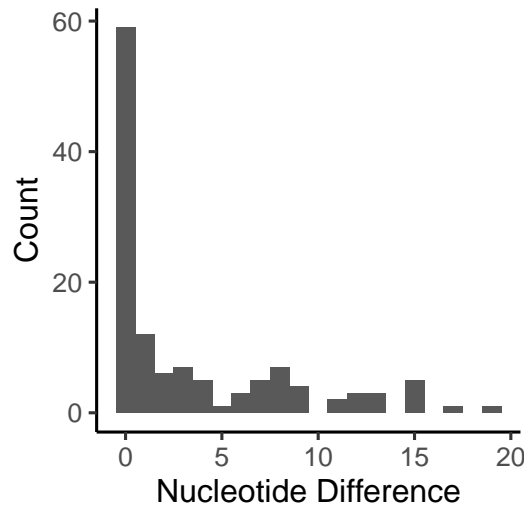
IGHV4-38-2*02

3 sequences assigned
No exact matches.



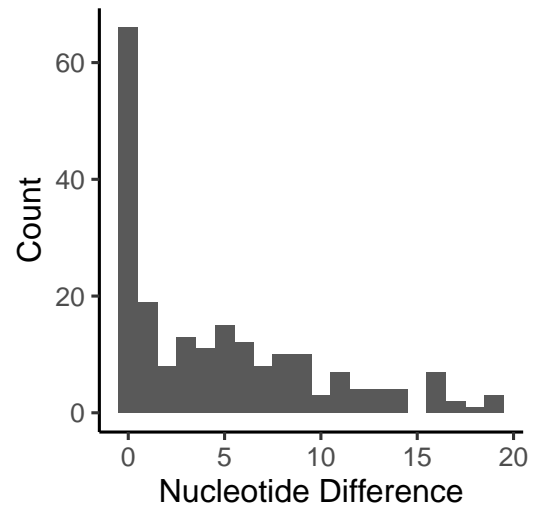
IGHV4-39*07_C288A

128 sequences assigned
59 (46.1%) exact matches, in which:
59 unique CDR3
4 unique J



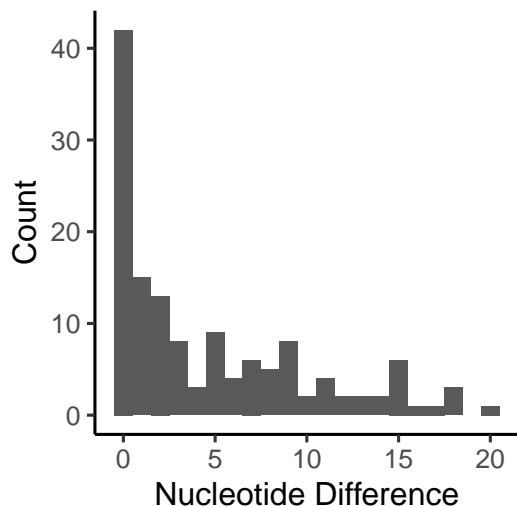
IGHV4-59*01

214 sequences assigned
66 (30.8%) exact matches, in which:
66 unique CDR3
6 unique J



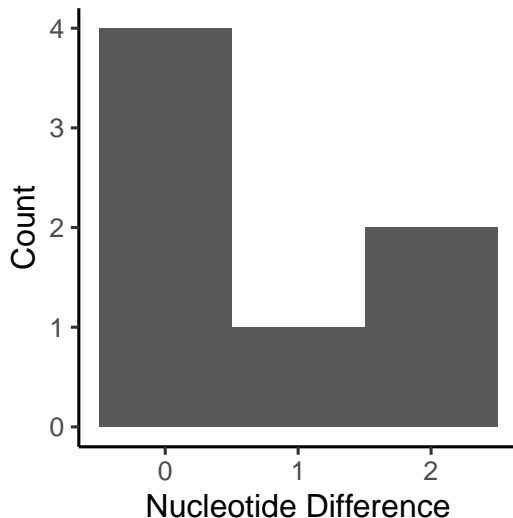
IGHV4-59*08

142 sequences assigned
42 (29.6%) exact matches, in which:
41 unique CDR3
6 unique J



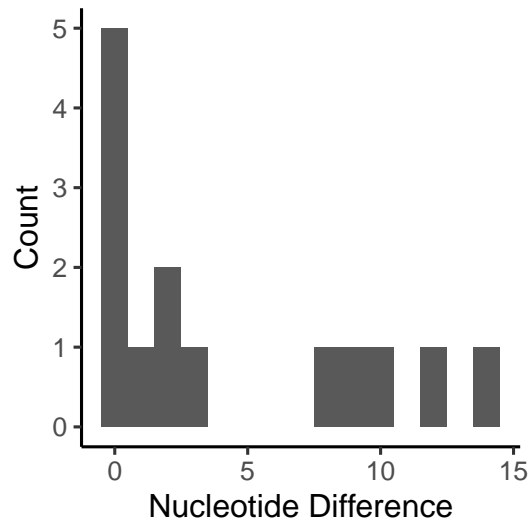
IGHV4-61*07

7 sequences assigned
4 (57.1%) exact matches, in which:
4 unique CDR3
2 unique J



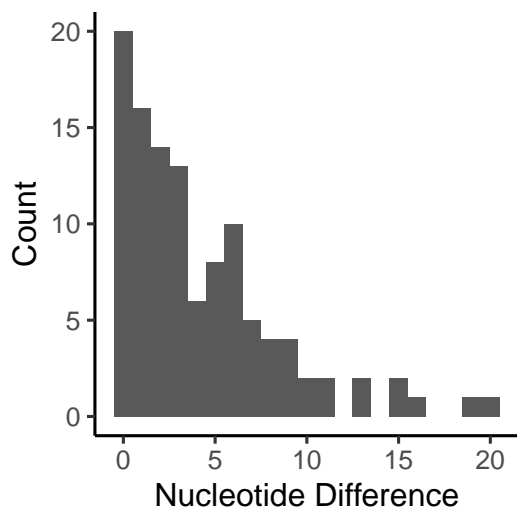
IGHV5-10-1*03

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



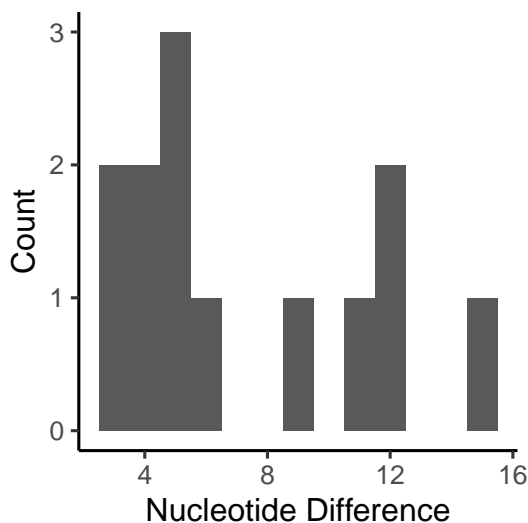
IGHV4-59*12

112 sequences assigned
20 (17.9%) exact matches, in which:
20 unique CDR3
4 unique J



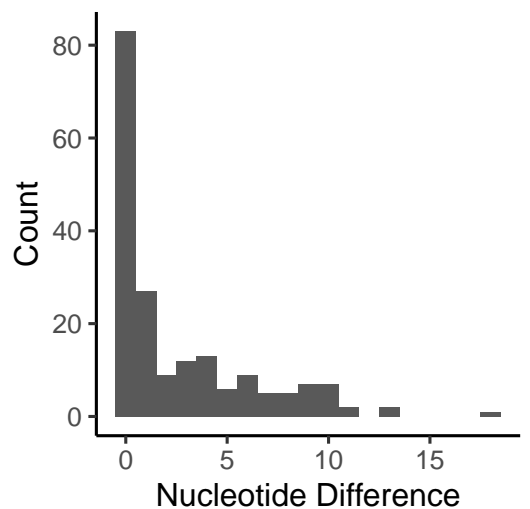
IGHV4-61*08

13 sequences assigned
No exact matches.



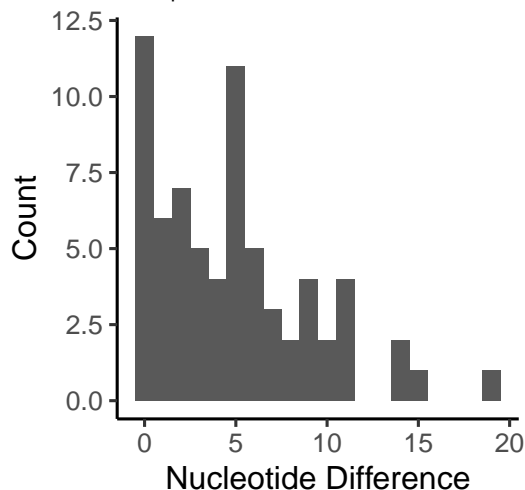
IGHV5-51*01

191 sequences assigned
83 (43.5%) exact matches, in which:
82 unique CDR3
6 unique J



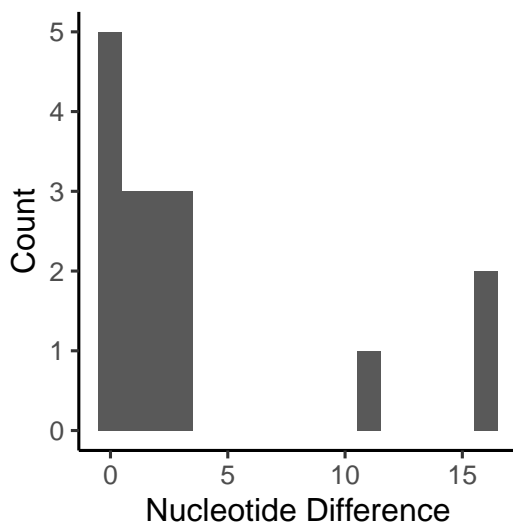
IGHV4-61*01

69 sequences assigned
12 (17.4%) exact matches, in which:
12 unique CDR3
4 unique J



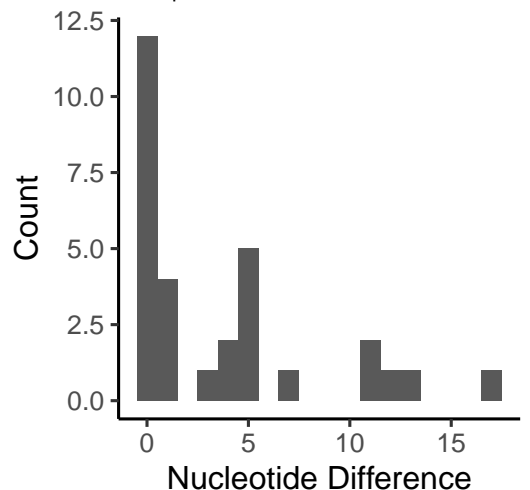
IGHV5-10-1*01

18 sequences assigned
5 (27.8%) exact matches, in which:
5 unique CDR3
2 unique J



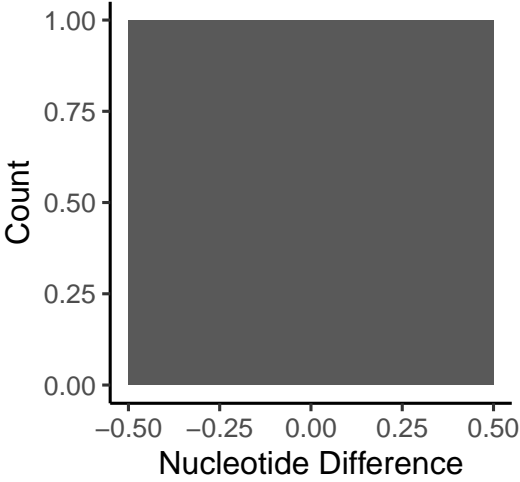
IGHV6-1*01

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

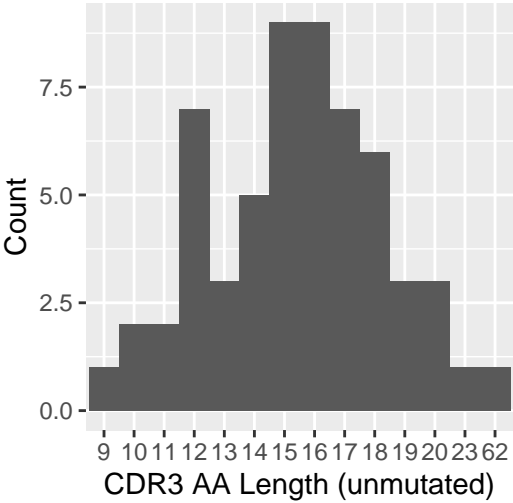


IGHV7-4-1*01

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



IGHV4-39*07_C288A





[illegible]