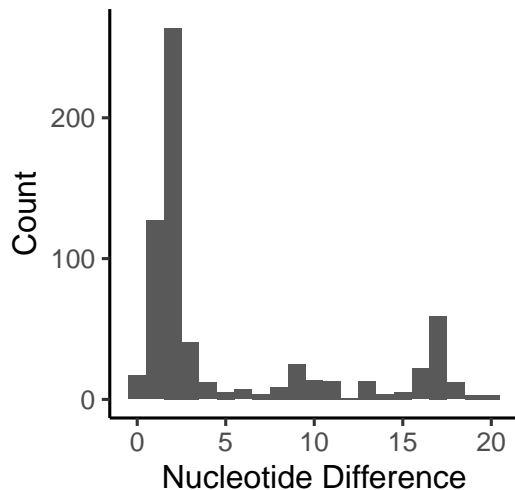


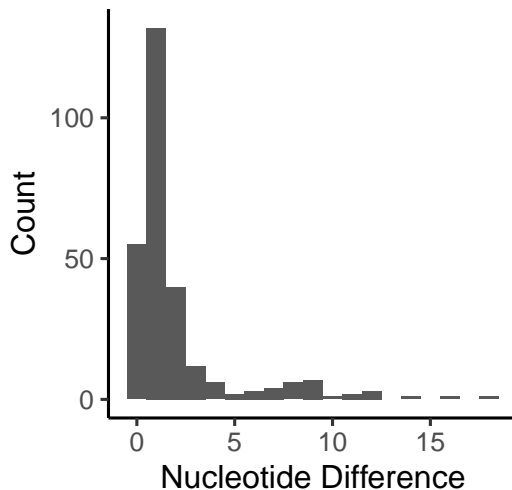
IGHV1-2*02

731 sequences assigned
17 (2.3%) exact matches, in which:
14 unique CDR3
3 unique J



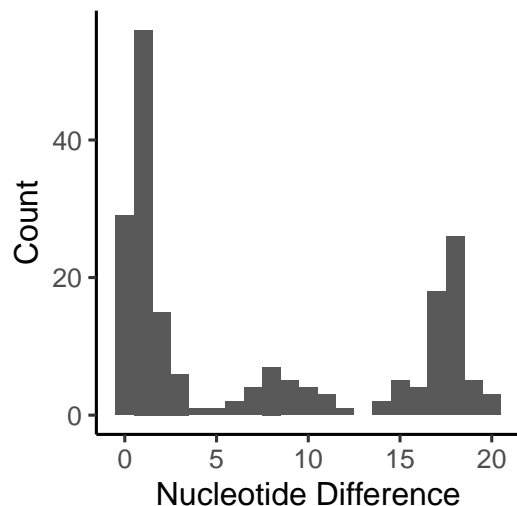
IGHV1-8*01

278 sequences assigned
55 (19.8%) exact matches, in which:
39 unique CDR3
4 unique J



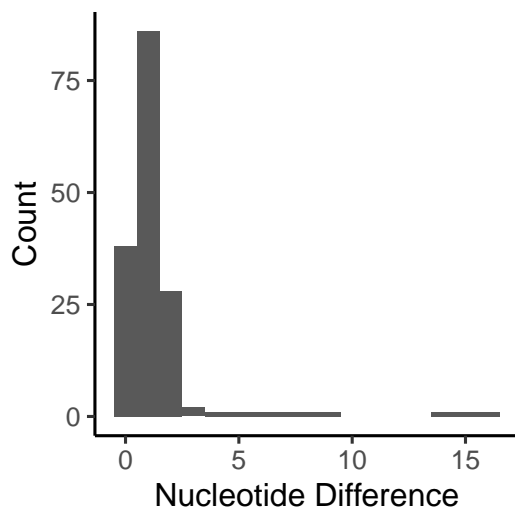
IGHV1-46*01

228 sequences assigned
29 (12.7%) exact matches, in which:
29 unique CDR3
4 unique J



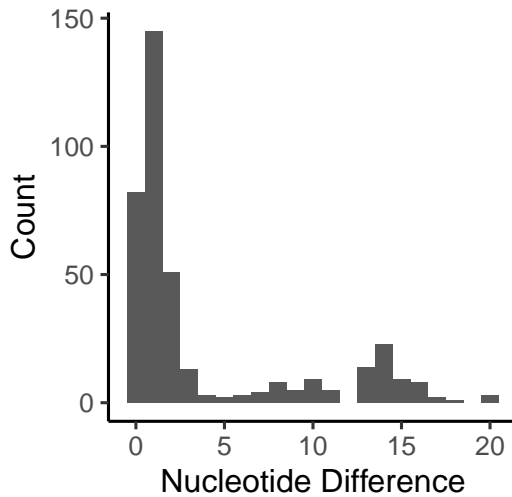
IGHV1-2*04

164 sequences assigned
38 (23.2%) exact matches, in which:
29 unique CDR3
4 unique J



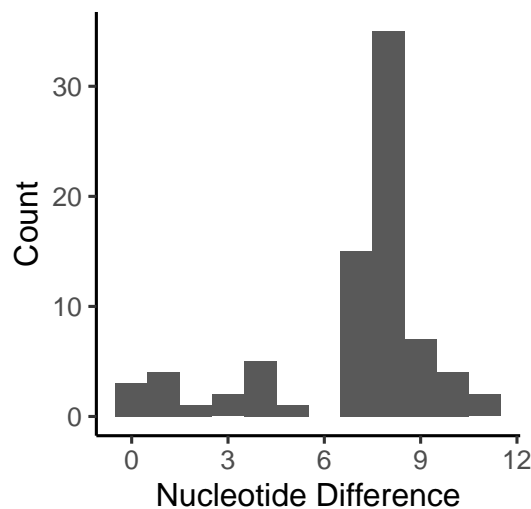
IGHV1-18*01

433 sequences assigned
82 (18.9%) exact matches, in which:
67 unique CDR3
4 unique J



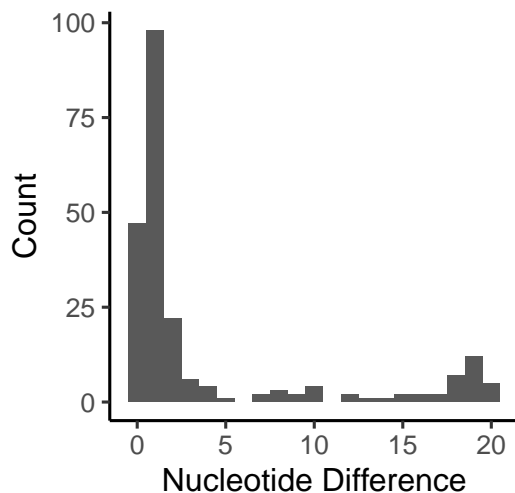
IGHV1-58*01_03

79 sequences assigned
3 (3.8%) exact matches, in which:
3 unique CDR3
2 unique J



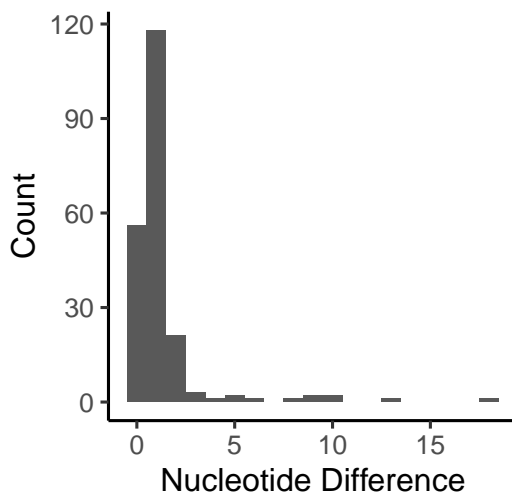
IGHV1-3*01_05

238 sequences assigned
47 (19.7%) exact matches, in which:
36 unique CDR3
4 unique J



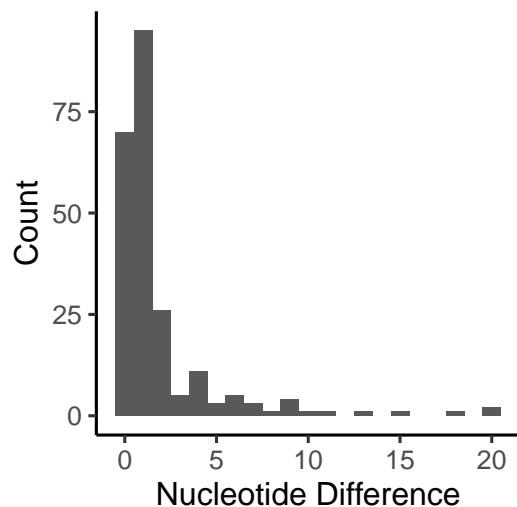
IGHV1-24*01

209 sequences assigned
56 (26.8%) exact matches, in which:
37 unique CDR3
4 unique J



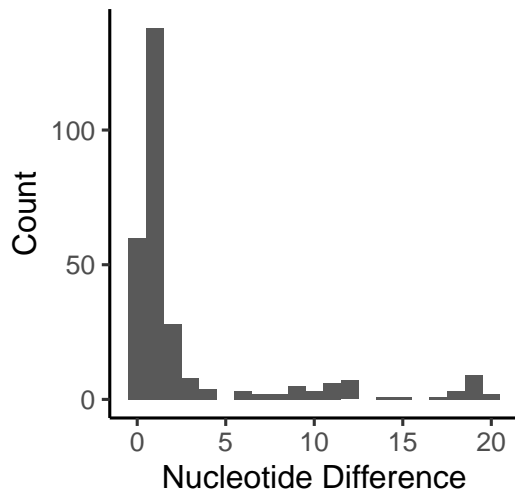
IGHV1-69*01_12_13

244 sequences assigned
70 (28.7%) exact matches, in which:
62 unique CDR3
5 unique J



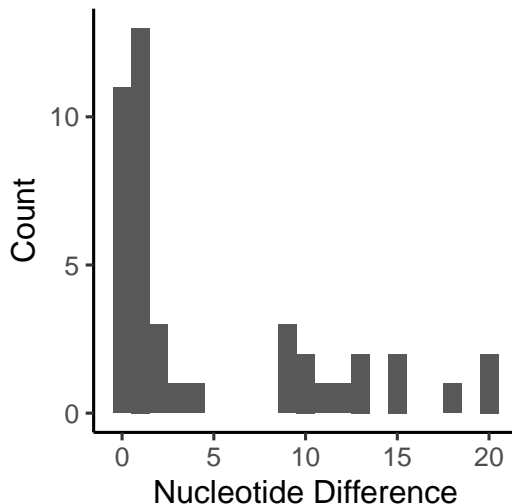
IGHV1-69*04_09

292 sequences assigned
60 (20.5%) exact matches, in which:
44 unique CDR3
4 unique J



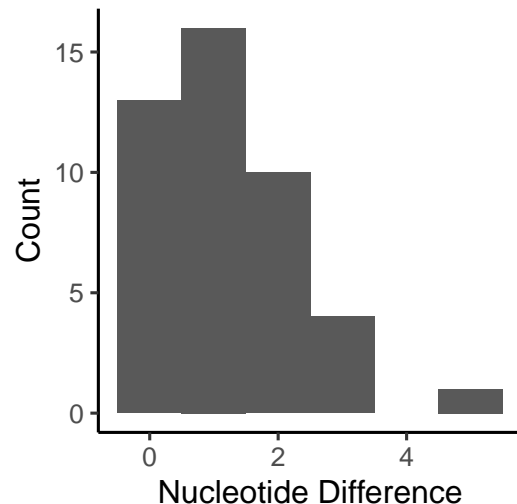
IGHV2-5*02

44 sequences assigned
11 (25%) exact matches, in which:
11 unique CDR3
4 unique J



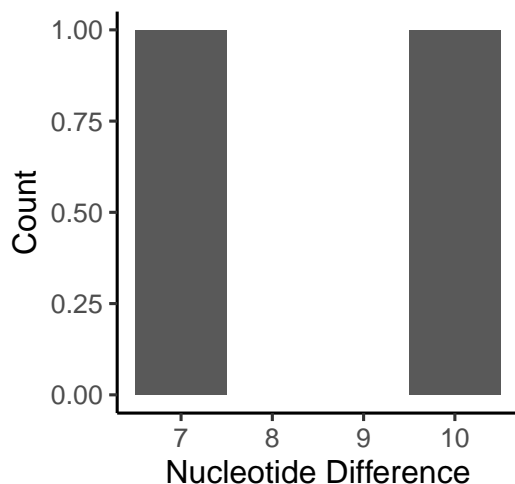
IGHV2-70*11_15

44 sequences assigned
13 (29.5%) exact matches, in which:
11 unique CDR3
3 unique J



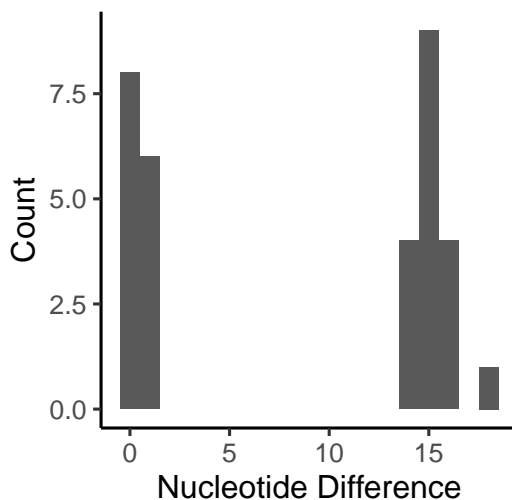
IGHV1-NL1*01

2 sequences assigned
No exact matches.



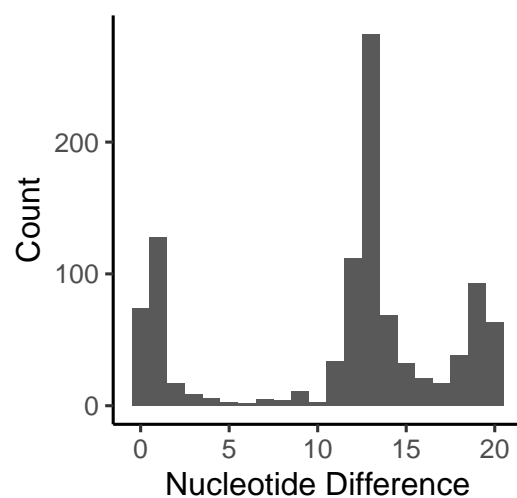
IGHV2-26*01

33 sequences assigned
8 (24.2%) exact matches, in which:
7 unique CDR3
3 unique J



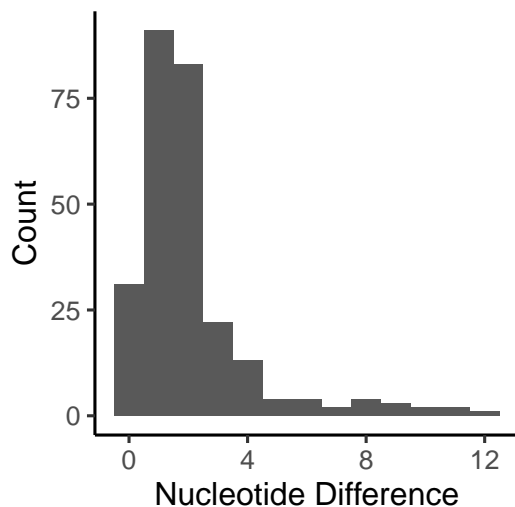
IGHV3-7*01

1071 sequences assigned
74 (6.9%) exact matches, in which:
44 unique CDR3
4 unique J



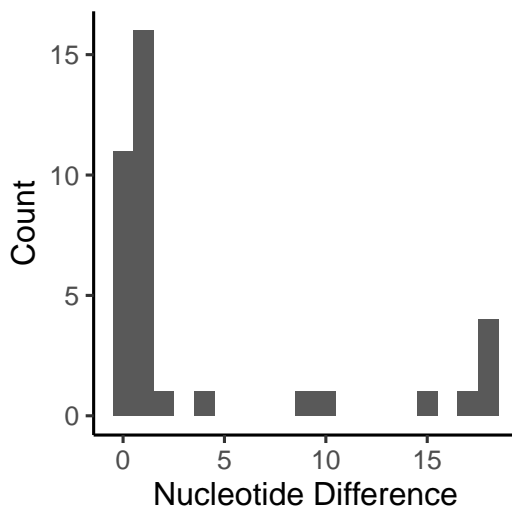
IGHV2-5*01

267 sequences assigned
31 (11.6%) exact matches, in which:
22 unique CDR3
3 unique J



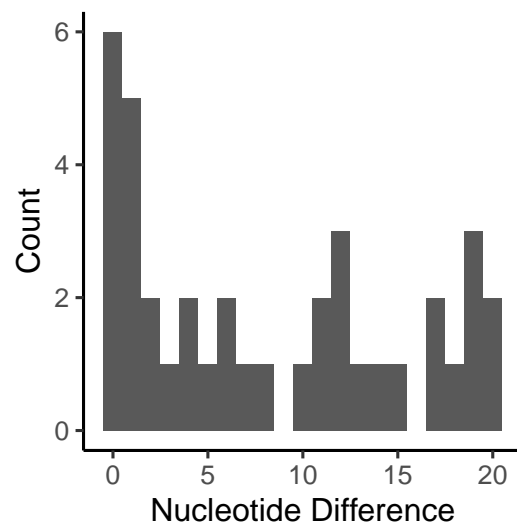
IGHV2-70*01

47 sequences assigned
11 (23.4%) exact matches, in which:
8 unique CDR3
3 unique J



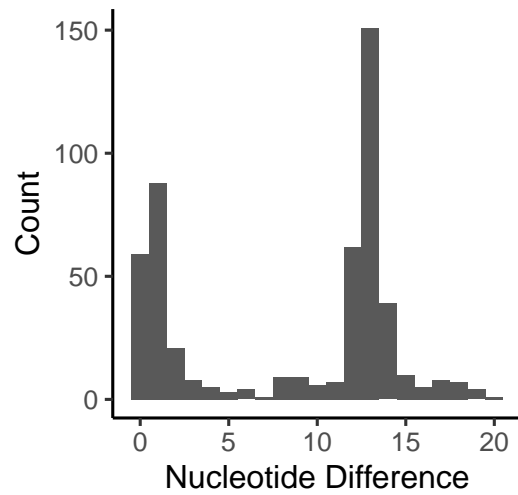
IGHV3-7*03

216 sequences assigned
6 (2.8%) exact matches, in which:
4 unique CDR3
2 unique J



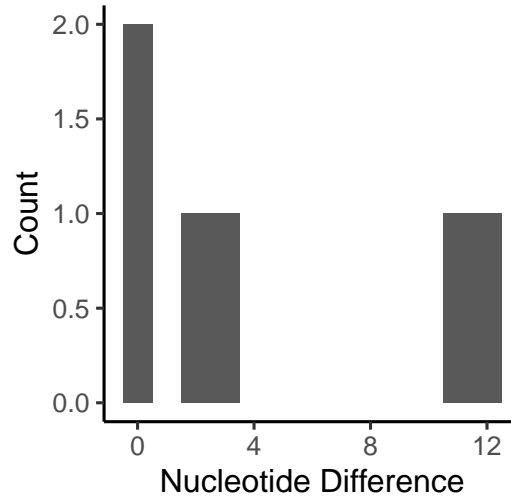
IGHV3-7*04

516 sequences assigned
59 (11.4%) exact matches, in which:
33 unique CDR3
5 unique J



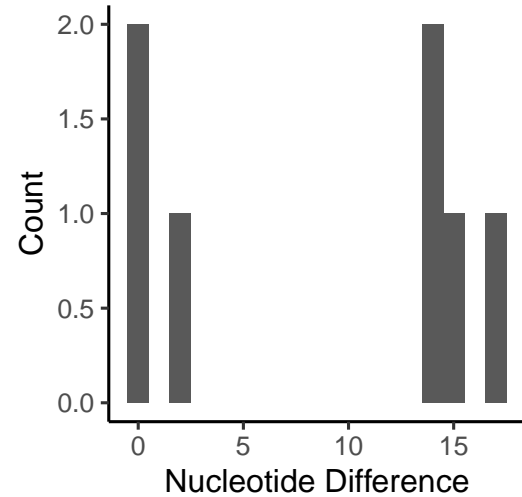
IGHV3-11*04

9 sequences assigned
2 (22.2%) exact matches, in which:
2 unique CDR3
1 unique J



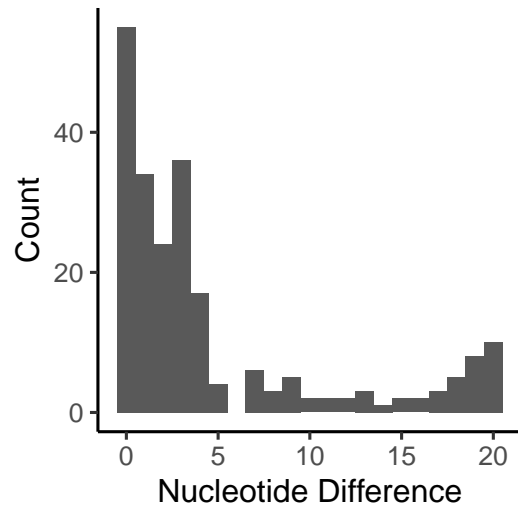
IGHV3-13*04

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



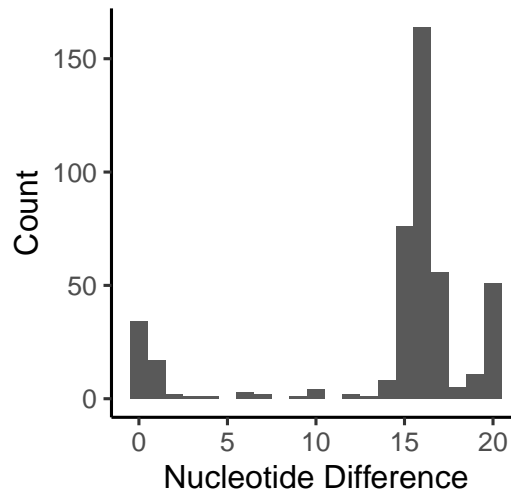
IGHV3-9*01

338 sequences assigned
55 (16.3%) exact matches, in which:
33 unique CDR3
4 unique J



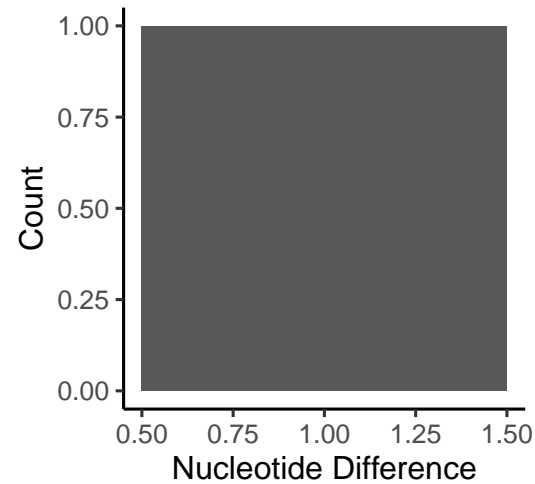
IGHV3-11*03_05

631 sequences assigned
34 (5.4%) exact matches, in which:
22 unique CDR3
5 unique J



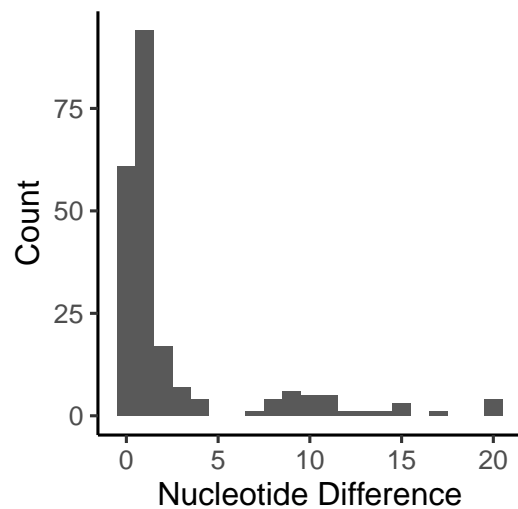
IGHV3-13*05

1 sequences assigned
No exact matches.



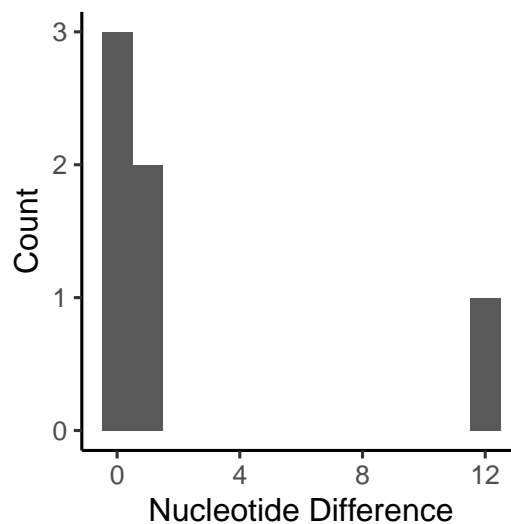
IGHV3-11*01

431 sequences assigned
61 (14.2%) exact matches, in which:
38 unique CDR3
3 unique J



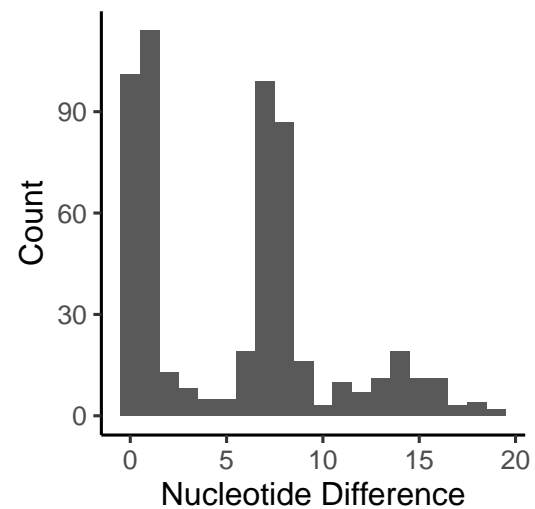
IGHV3-13*01

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



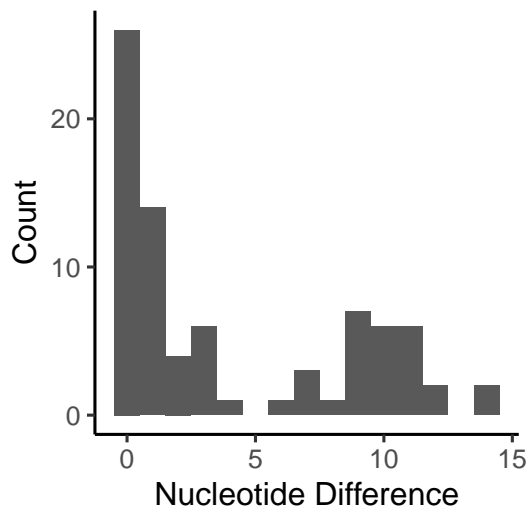
IGHV3-15*01_02

775 sequences assigned
101 (13%) exact matches, in which:
57 unique CDR3
5 unique J



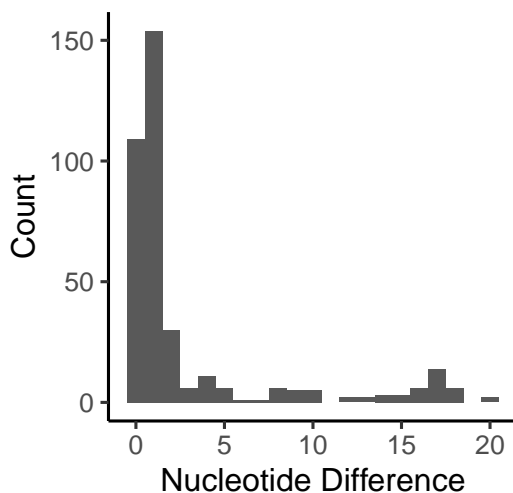
IGHV3-20*03_04

82 sequences assigned
26 (31.7%) exact matches, in which:
15 unique CDR3
3 unique J



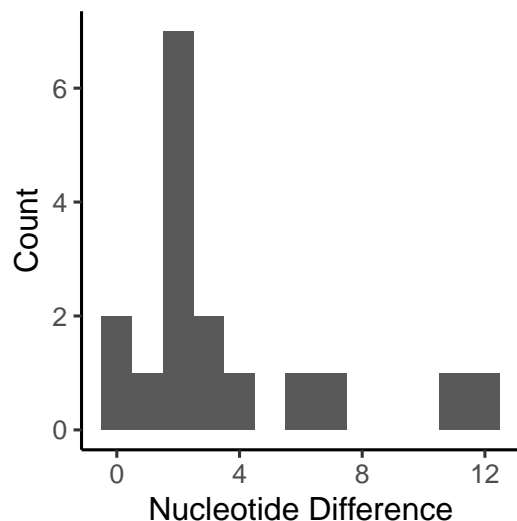
IGHV3-30*01

383 sequences assigned
109 (28.5%) exact matches, in which:
57 unique CDR3
4 unique J



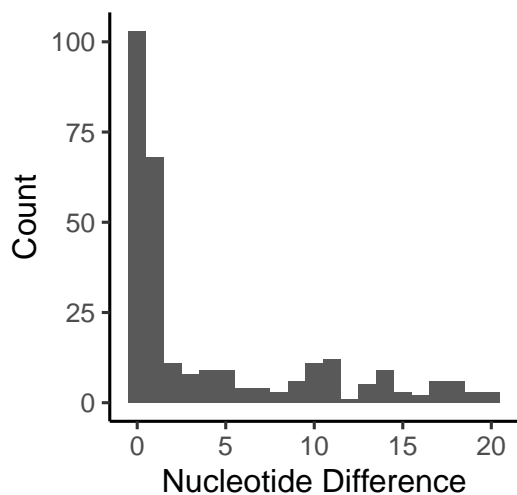
IGHV3-30*07

17 sequences assigned
2 (11.8%) exact matches, in which:
2 unique CDR3
1 unique J



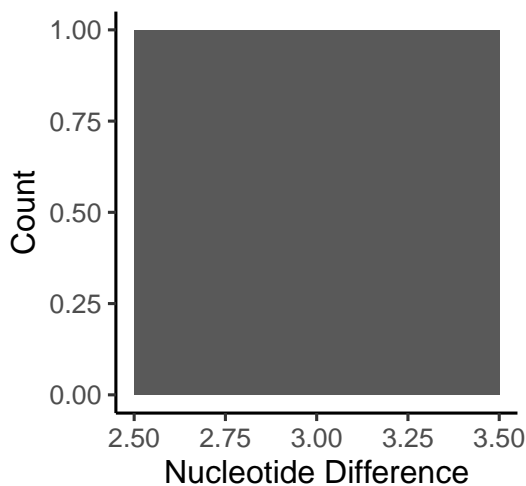
IGHV3-21*01_02

301 sequences assigned
103 (34.2%) exact matches, in which:
63 unique CDR3
5 unique J



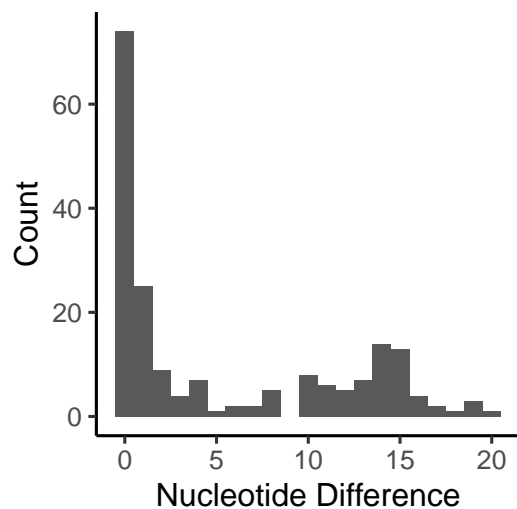
IGHV3-30-3*01

2 sequences assigned
No exact matches.



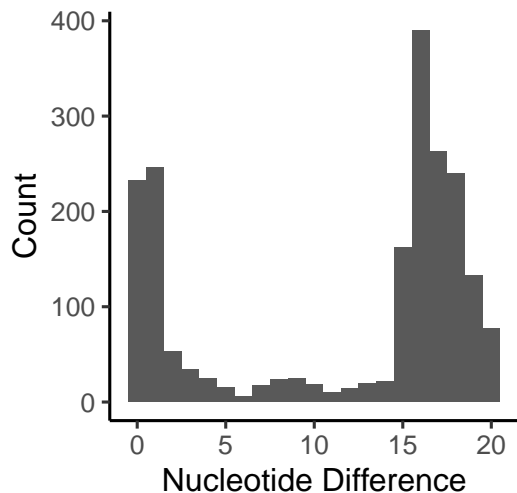
IGHV3-33*01

317 sequences assigned
74 (23.3%) exact matches, in which:
52 unique CDR3
5 unique J



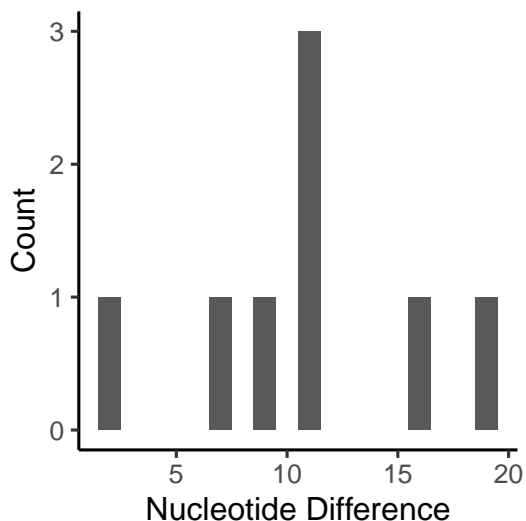
IGHV3-23*01_04

2883 sequences assigned
232 (8%) exact matches, in which:
133 unique CDR3
5 unique J



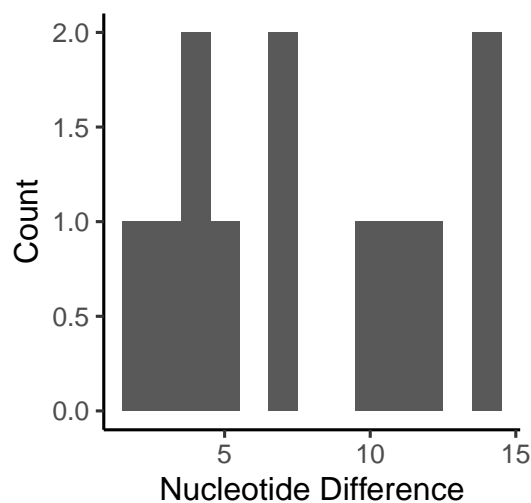
IGHV3-30-3*03

9 sequences assigned
No exact matches.



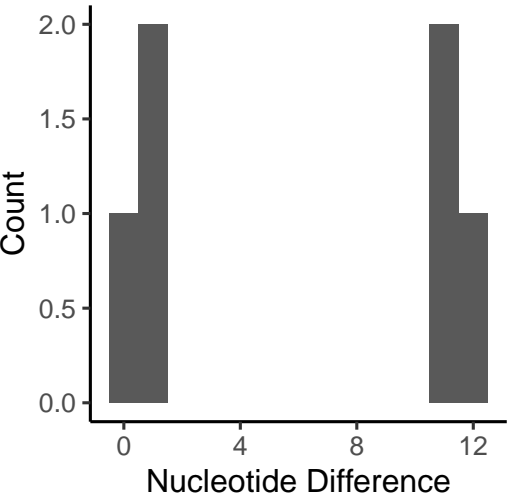
IGHV3-33*05

12 sequences assigned
No exact matches.



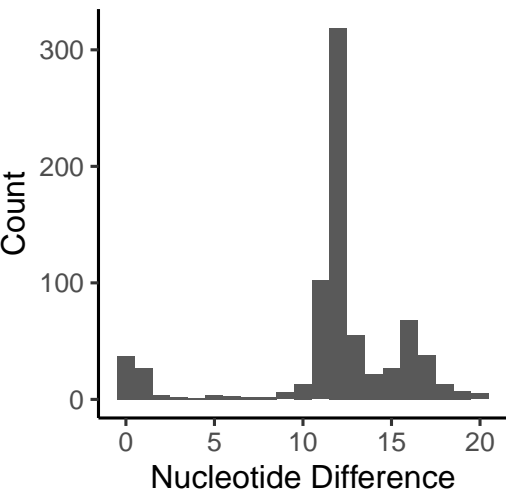
IGHV3-43*01

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



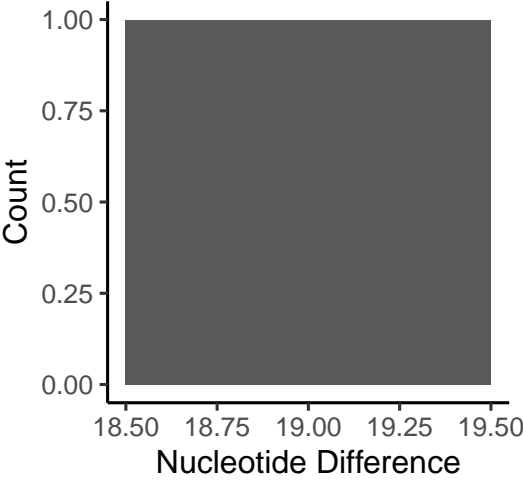
IGHV3-48*03

802 sequences assigned
37 (4.6%) exact matches, in which:
24 unique CDR3
4 unique J



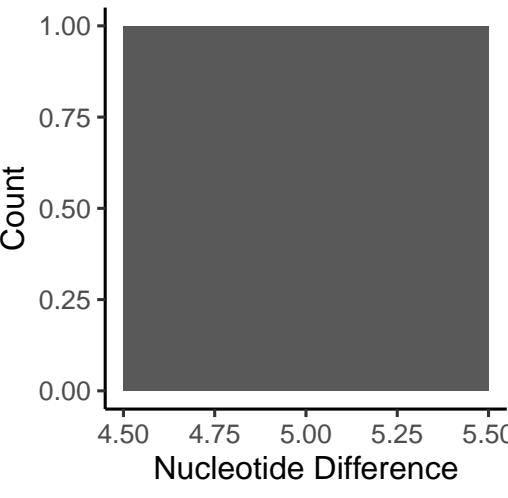
IGHV3-53*05

5 sequences assigned
No exact matches.



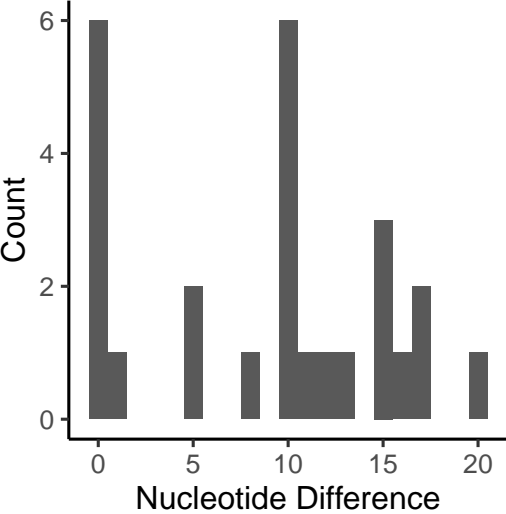
IGHV3-43*02

1 sequences assigned
No exact matches.



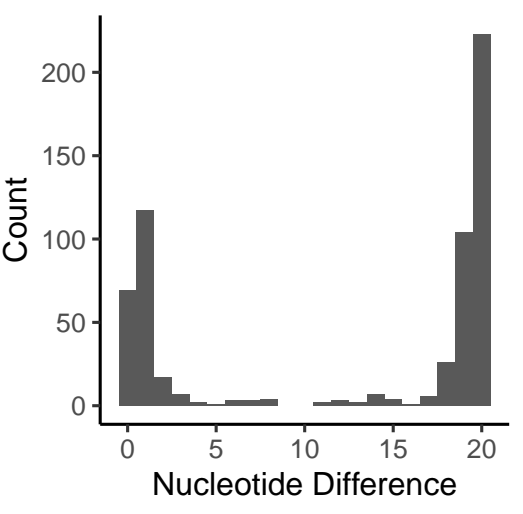
IGHV3-49*04

209 sequences assigned
6 (2.9%) exact matches, in which:
3 unique CDR3
2 unique J



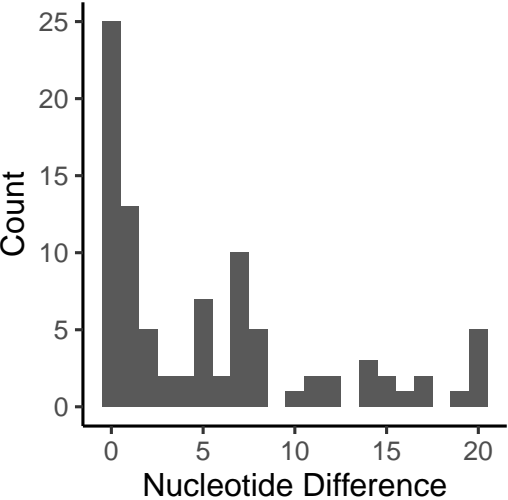
IGHV3-53*01_02

2507 sequences assigned
69 (2.8%) exact matches, in which:
38 unique CDR3
3 unique J



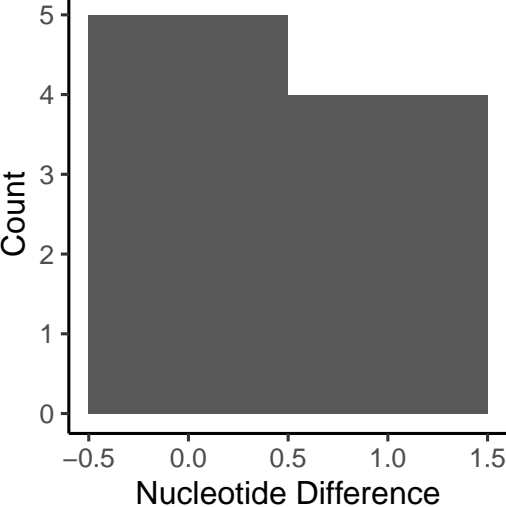
IGHV3-48*02

207 sequences assigned
25 (12.1%) exact matches, in which:
18 unique CDR3
4 unique J



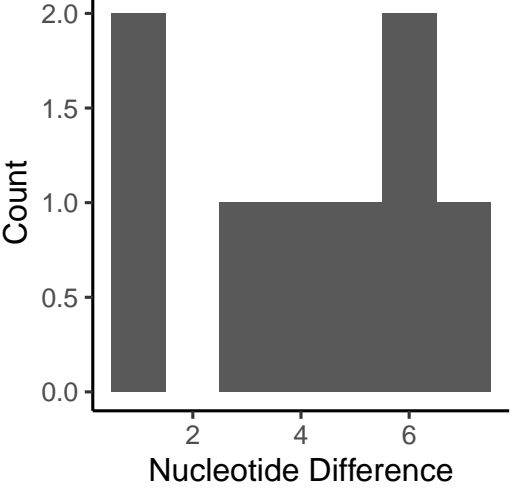
IGHV3-49*03_05

10 sequences assigned
5 (50%) exact matches, in which:
3 unique CDR3
2 unique J



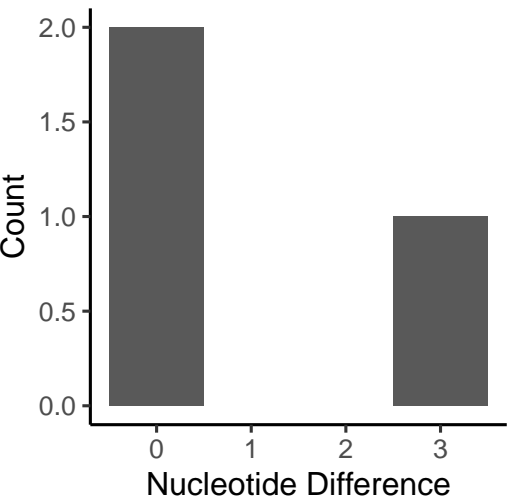
IGHV3-64*04

8 sequences assigned
No exact matches.



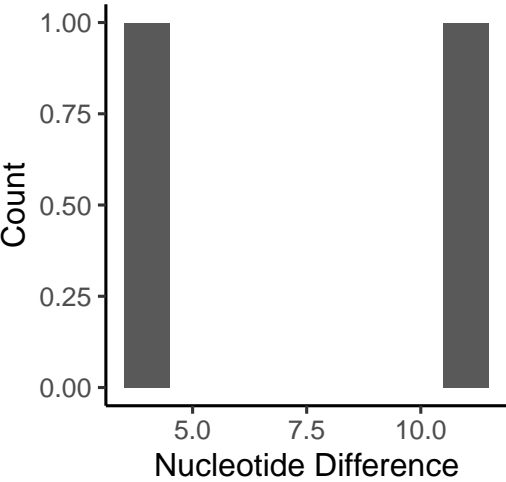
IGHV3-64*02_07

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



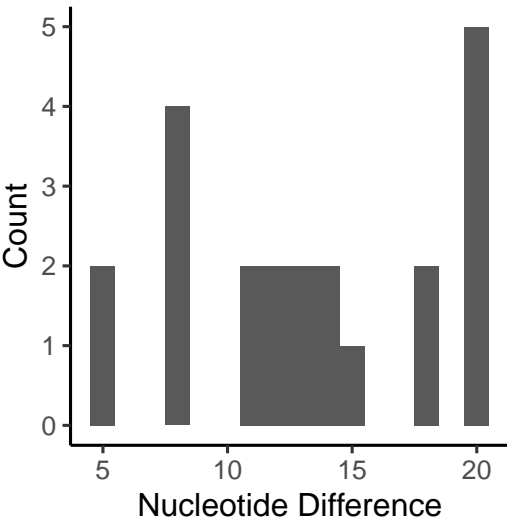
IGHV3-69-1*01

2 sequences assigned
No exact matches.



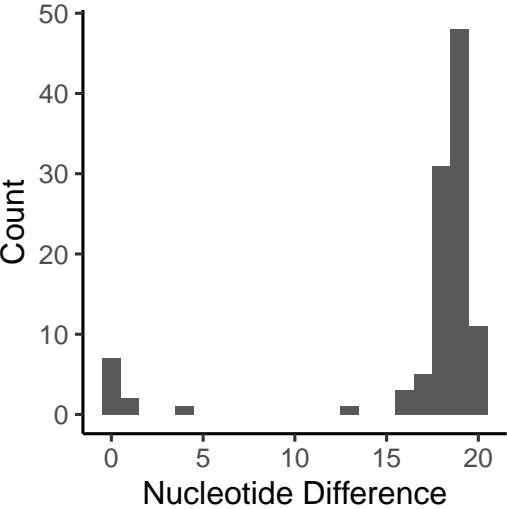
IGHV3-74*03

79 sequences assigned
No exact matches.



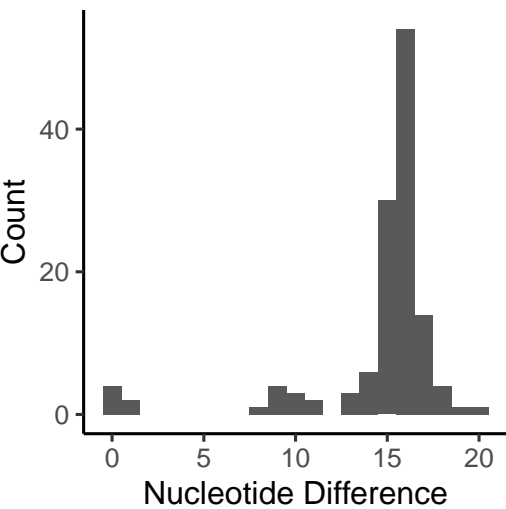
IGHV3-66*01

124 sequences assigned
7 (5.6%) exact matches, in which:
5 unique CDR3
2 unique J



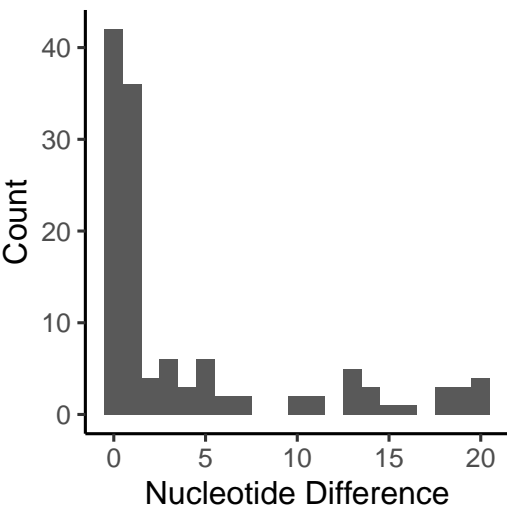
IGHV3-72*01

168 sequences assigned
4 (2.4%) exact matches, in which:
2 unique CDR3
1 unique J



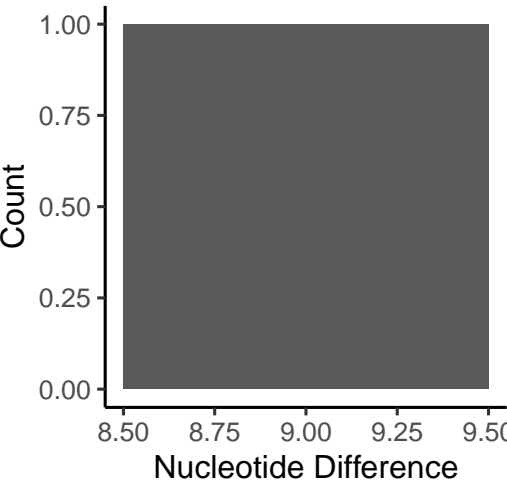
IGHV3-74*01_02

136 sequences assigned
42 (30.9%) exact matches, in which:
28 unique CDR3
6 unique J



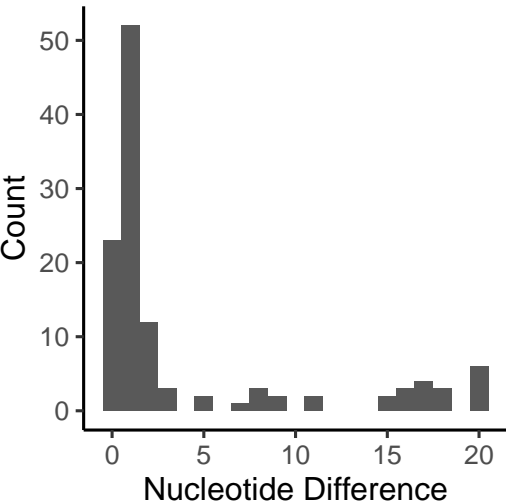
IGHV3-66*04

2 sequences assigned
No exact matches.



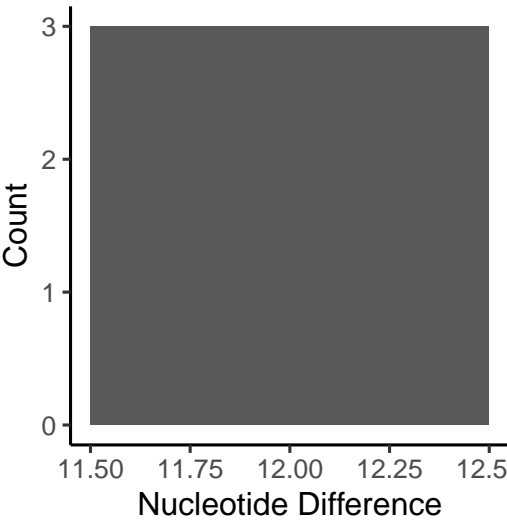
IGHV3-73*01_02

142 sequences assigned
23 (16.2%) exact matches, in which:
13 unique CDR3
2 unique J



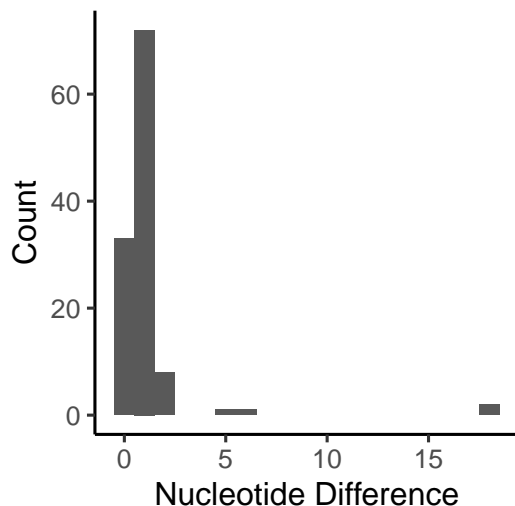
IGHV3-43D*04

3 sequences assigned
No exact matches.



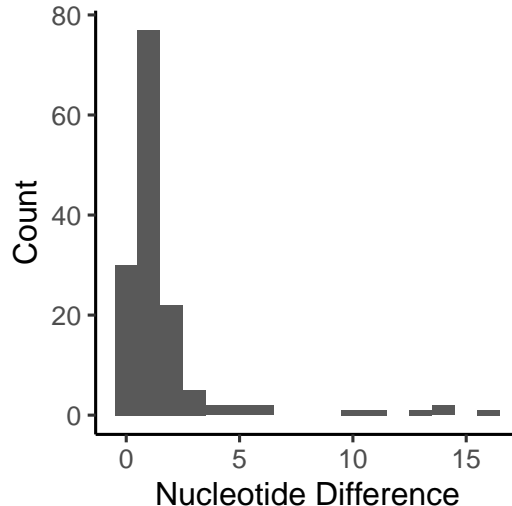
IGHV3-64D*06

120 sequences assigned
33 (27.5%) exact matches, in which:
15 unique CDR3
2 unique J



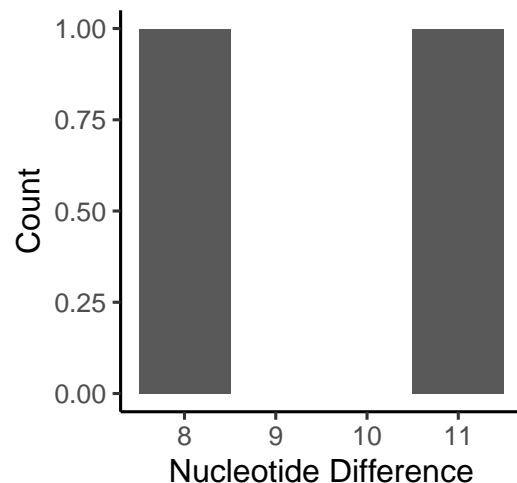
IGHV4-4*07

166 sequences assigned
30 (18.1%) exact matches, in which:
26 unique CDR3
5 unique J



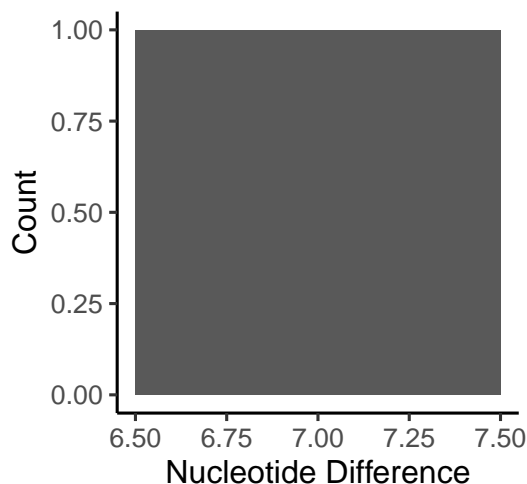
IGHV4-30-4*08

3 sequences assigned
No exact matches.



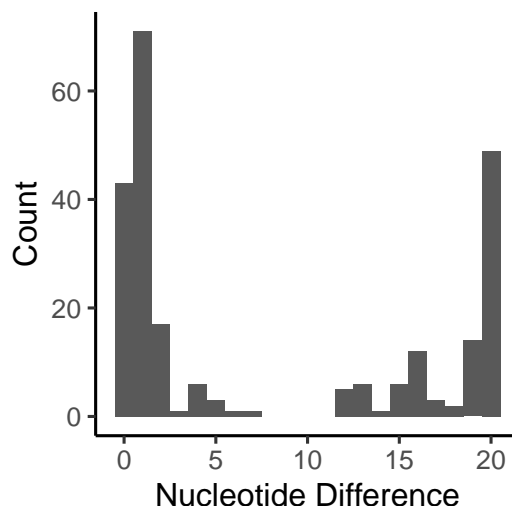
IGHV3-64D*08

1 sequences assigned
No exact matches.



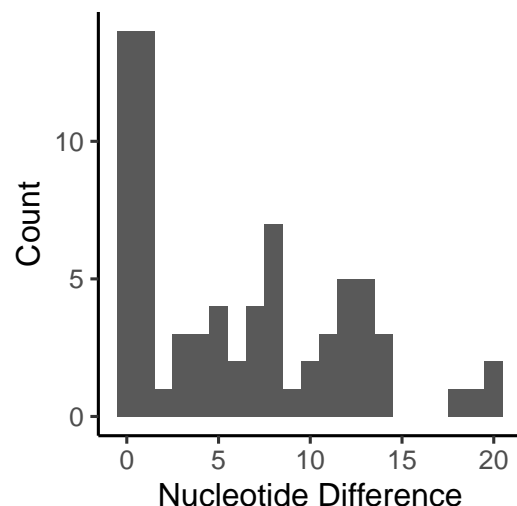
IGHV4-4*02_03

414 sequences assigned
43 (10.4%) exact matches, in which:
26 unique CDR3
3 unique J



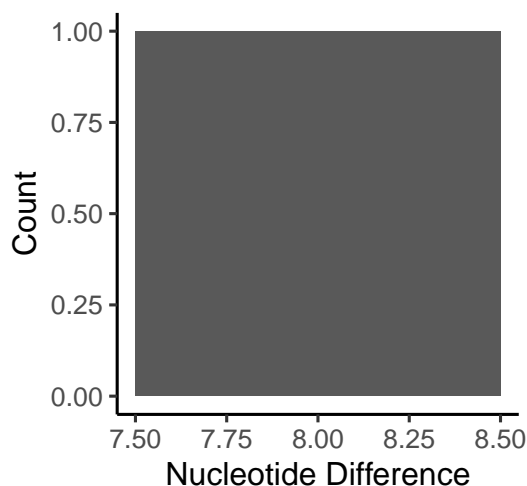
IGHV4-31*02

85 sequences assigned
14 (16.5%) exact matches, in which:
9 unique CDR3
3 unique J



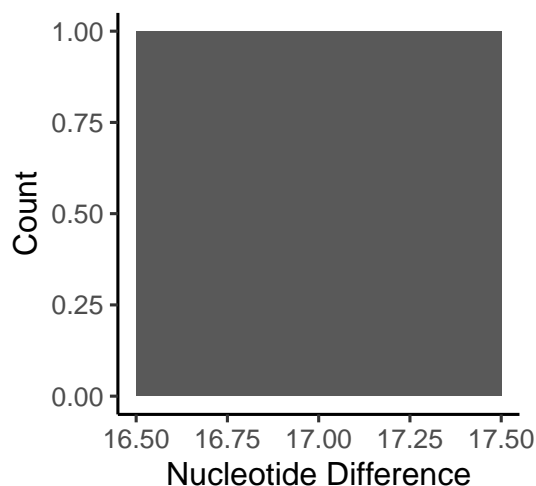
IGHV3-NL1*01

3 sequences assigned
No exact matches.



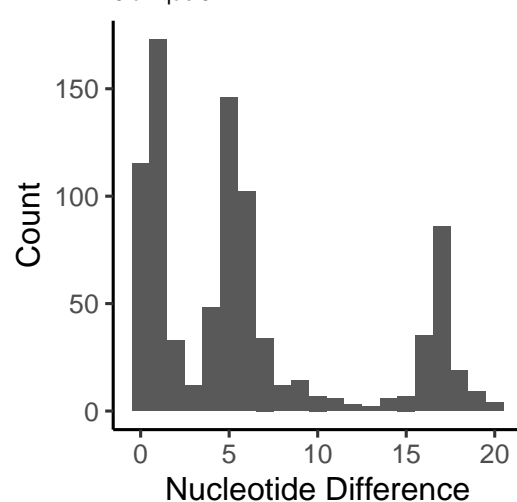
IGHV4-30-2*03

2 sequences assigned
No exact matches.



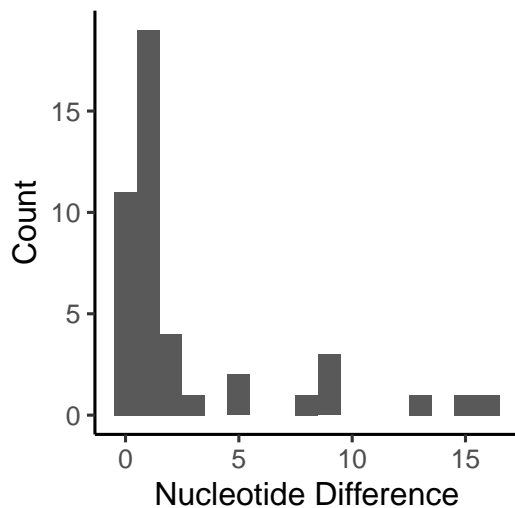
IGHV4-34*01_02

910 sequences assigned
115 (12.6%) exact matches, in which:
81 unique CDR3
6 unique J



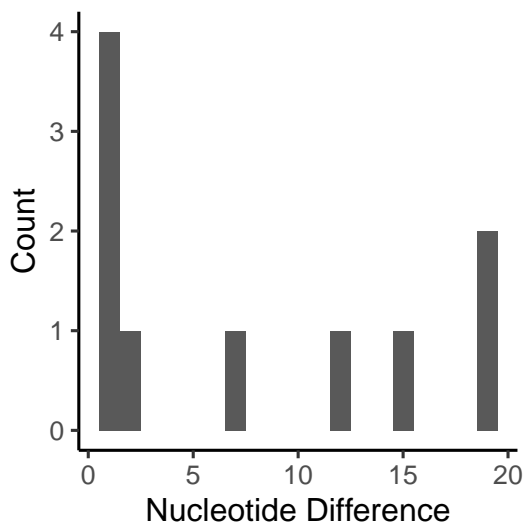
IGHV4-38-2*01

45 sequences assigned
11 (24.4%) exact matches, in which:
11 unique CDR3
3 unique J



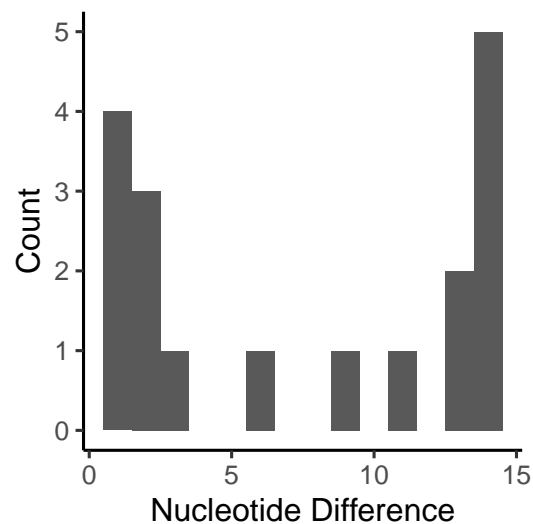
IGHV4-59*08

11 sequences assigned
No exact matches.



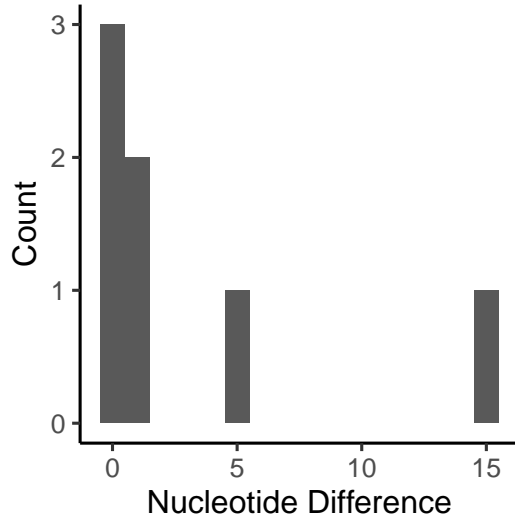
IGHV4-59*12

25 sequences assigned
No exact matches.



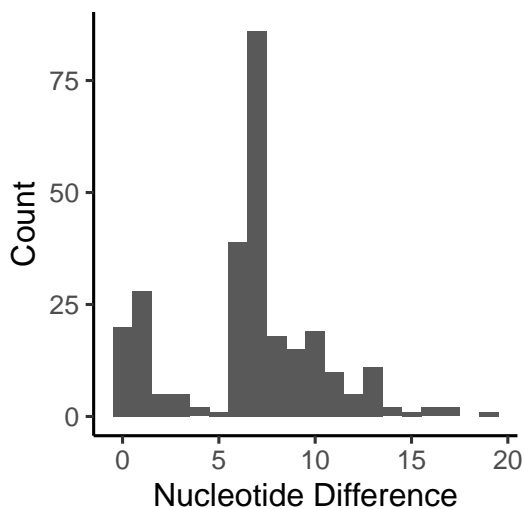
IGHV4-38-2*02

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



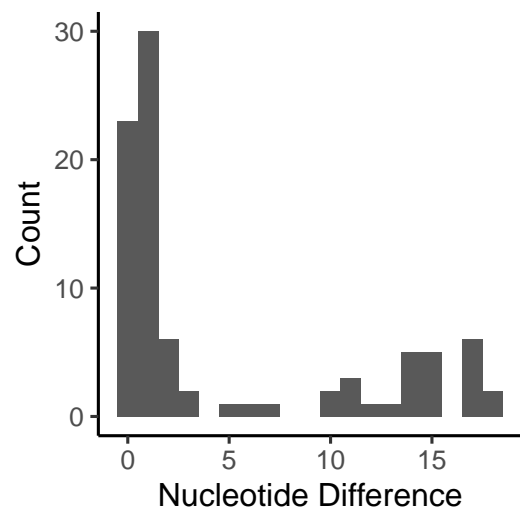
IGHV4-59*01_07

308 sequences assigned
20 (6.5%) exact matches, in which:
17 unique CDR3
3 unique J



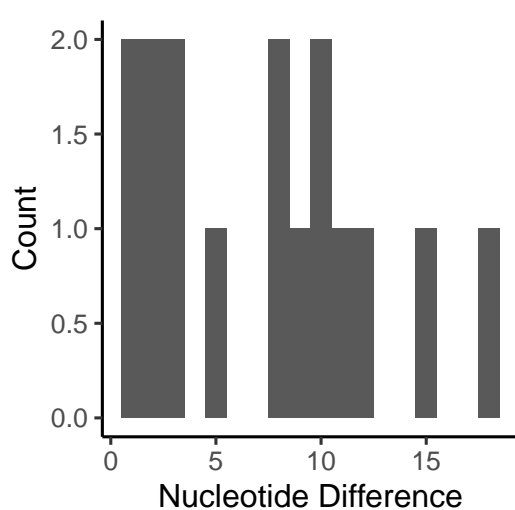
IGHV4-61*01

91 sequences assigned
23 (25.3%) exact matches, in which:
20 unique CDR3
4 unique J



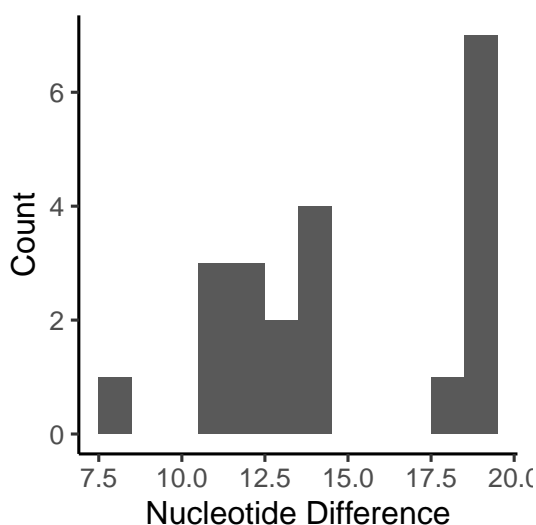
IGHV4-39*07

17 sequences assigned
No exact matches.



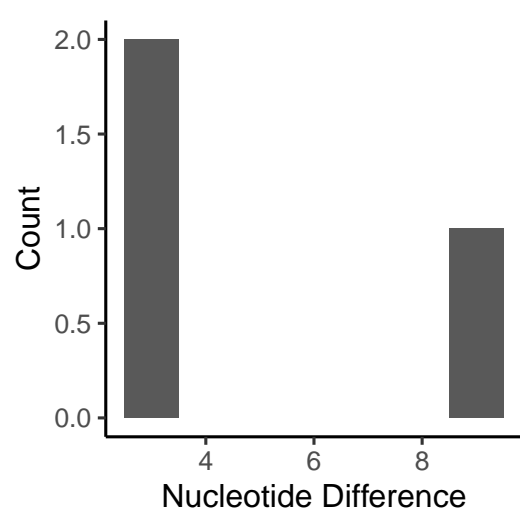
IGHV4-59*11

24 sequences assigned
No exact matches.



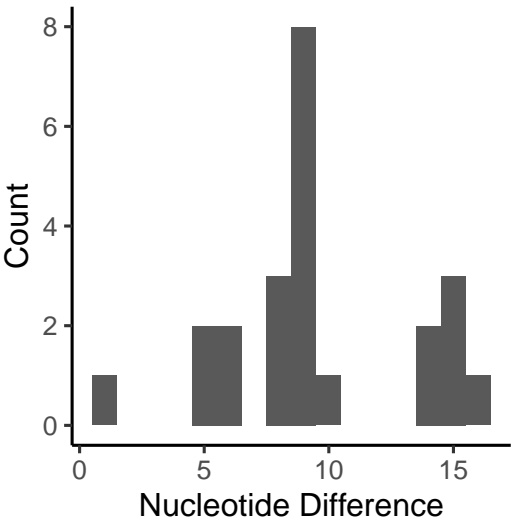
IGHV4-61*02

5 sequences assigned
No exact matches.



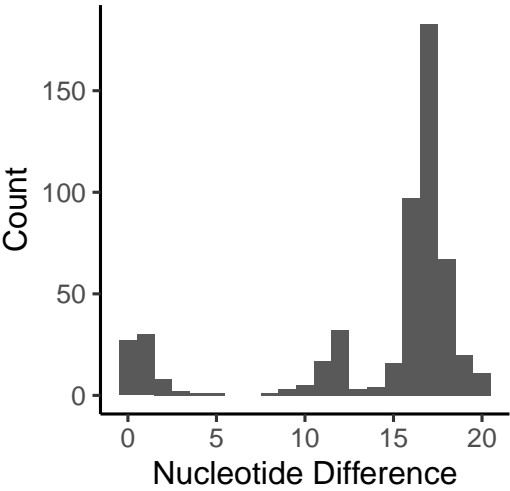
IGHV4-61*08

31 sequences assigned
No exact matches.



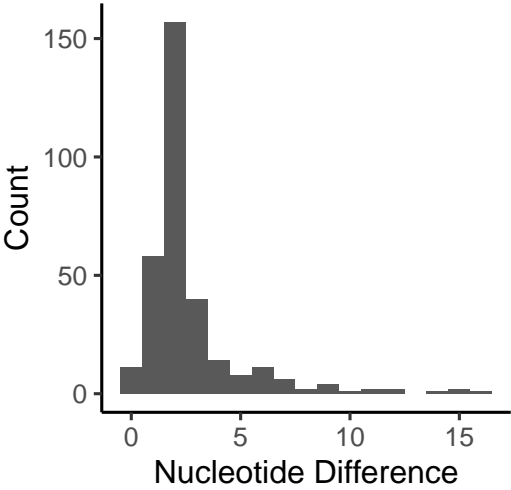
IGHV5-51*01_03

559 sequences assigned
27 (4.8%) exact matches, in which:
17 unique CDR3
3 unique J



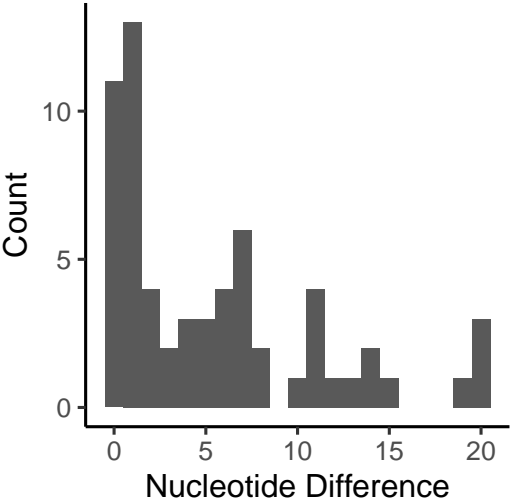
IGHV5-10-1*01_03

328 sequences assigned
11 (3.4%) exact matches, in which:
8 unique CDR3
3 unique J



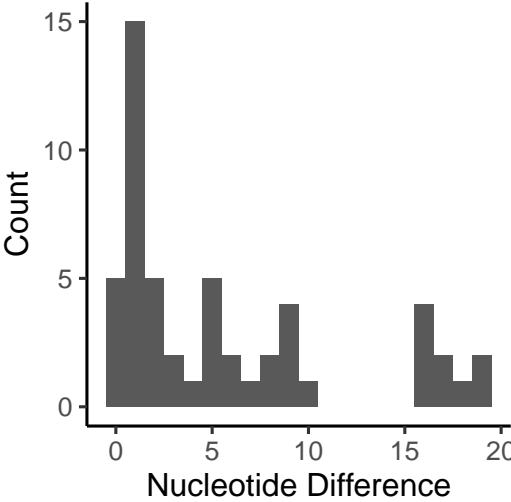
IGHV6-1*01_02

63 sequences assigned
11 (17.5%) exact matches, in which:
8 unique CDR3
5 unique J



IGHV5-51*07

55 sequences assigned
5 (9.1%) exact matches, in which:
4 unique CDR3
2 unique J





[illegible]