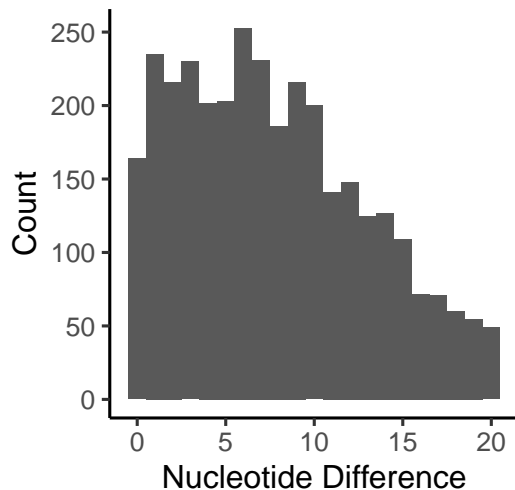


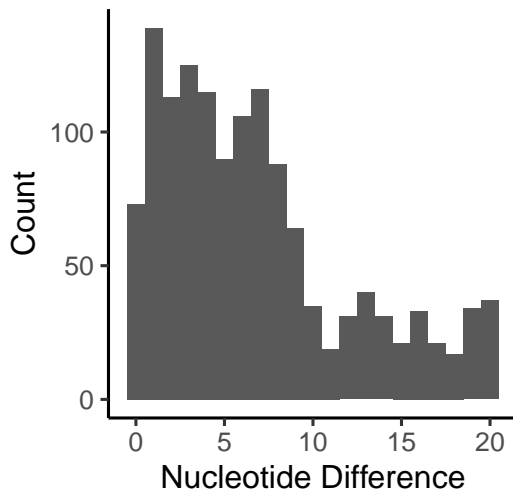
IGHV1-2*02

3597 sequences assigned
164 (4.6%) exact matches, in which:
145 unique CDR3
7 unique J



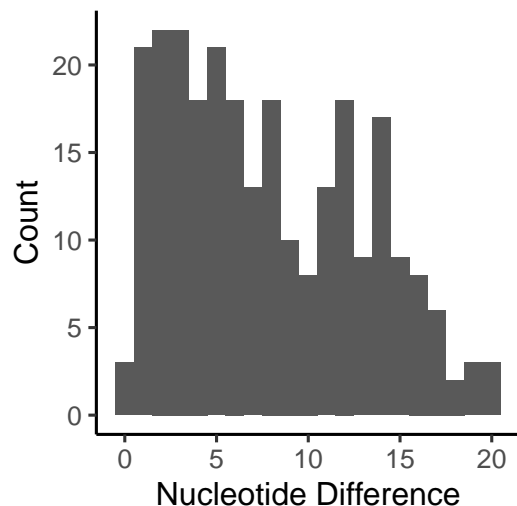
IGHV1-8*01

1383 sequences assigned
73 (5.3%) exact matches, in which:
70 unique CDR3
5 unique J



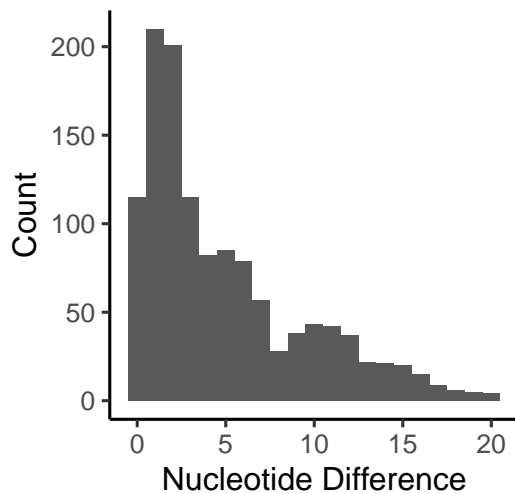
IGHV1-24*01

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



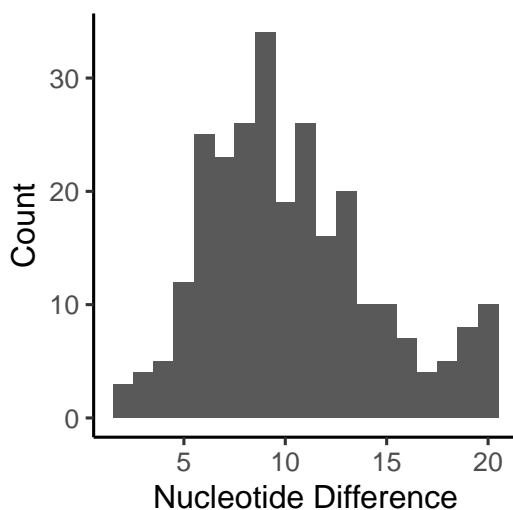
IGHV1-2*04

1239 sequences assigned
115 (9.3%) exact matches, in which:
101 unique CDR3
6 unique J



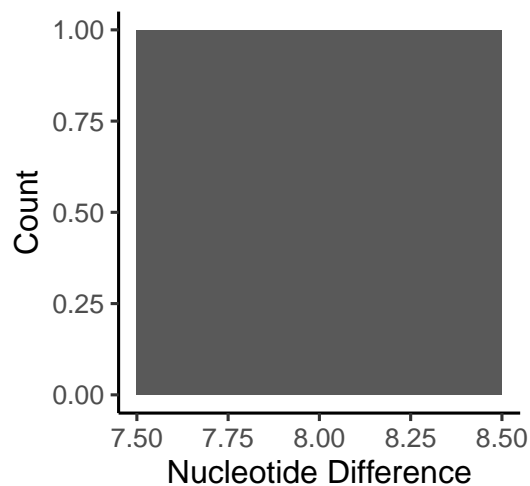
IGHV1-8*02

284 sequences assigned
No exact matches.



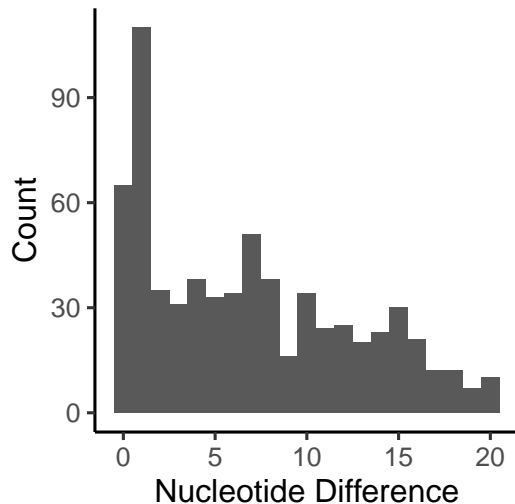
IGHV1-38-4*01

1 sequences assigned
No exact matches.



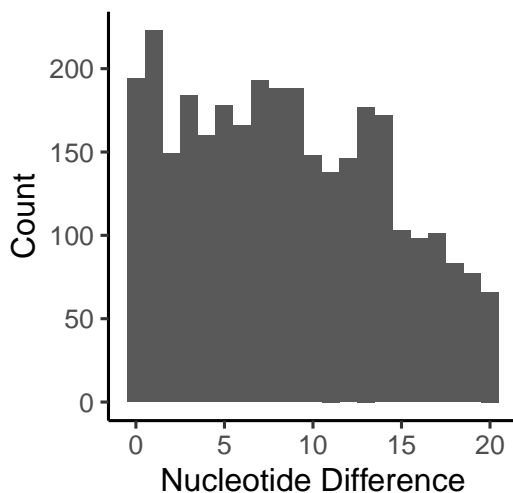
IGHV1-3*01_05

697 sequences assigned
65 (9.3%) exact matches, in which:
44 unique CDR3
4 unique J



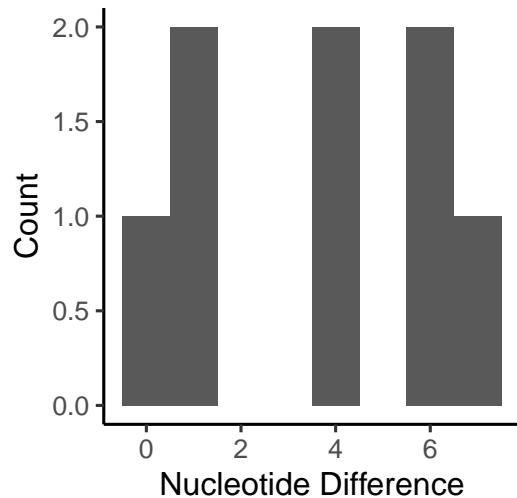
IGHV1-18*01

3455 sequences assigned
194 (5.6%) exact matches, in which:
160 unique CDR3
7 unique J



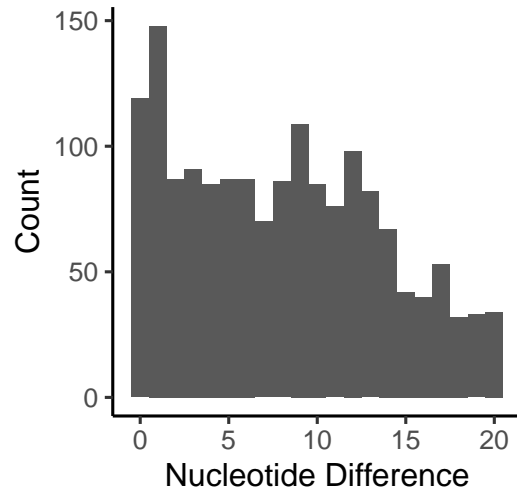
IGHV1-45*02

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



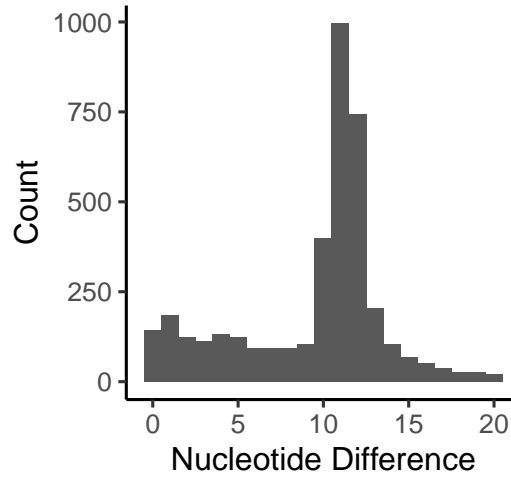
IGHV1-46*01

1815 sequences assigned
119 (6.6%) exact matches, in which:
108 unique CDR3
5 unique J



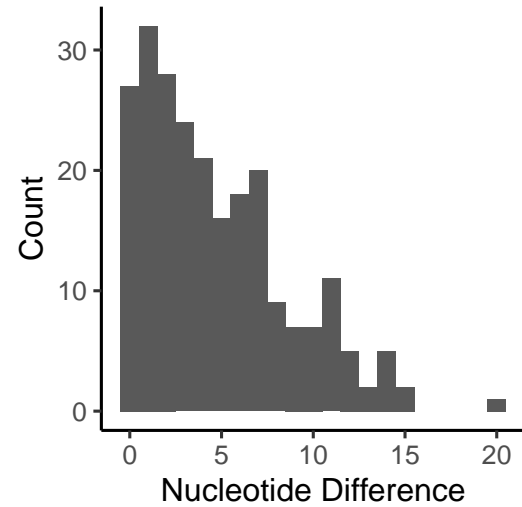
IGHV1-69*01_12_13

4011 sequences assigned
143 (3.6%) exact matches, in which:
123 unique CDR3
7 unique J



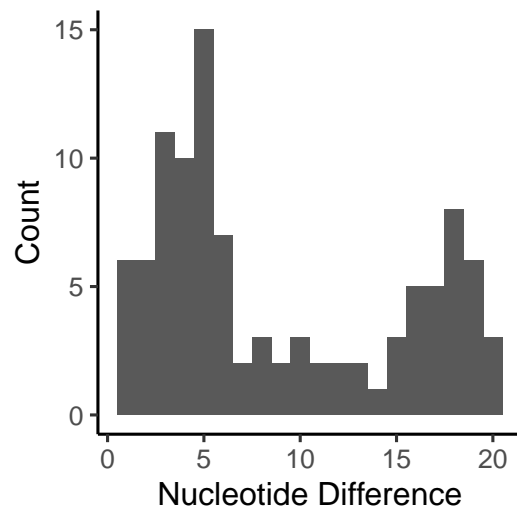
IGHV2-26*01

242 sequences assigned
27 (11.2%) exact matches, in which:
22 unique CDR3
4 unique J



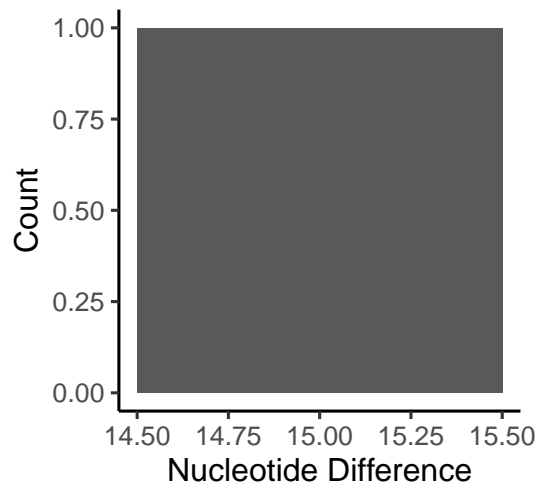
IGHV1-58*01_03

111 sequences assigned
No exact matches.



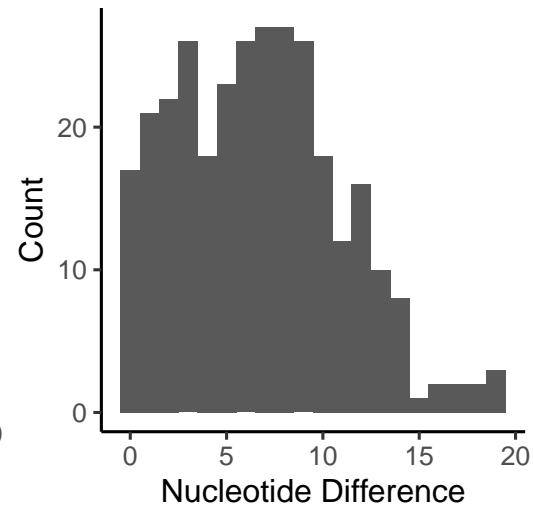
IGHV1-NL1*01

1 sequences assigned
No exact matches.



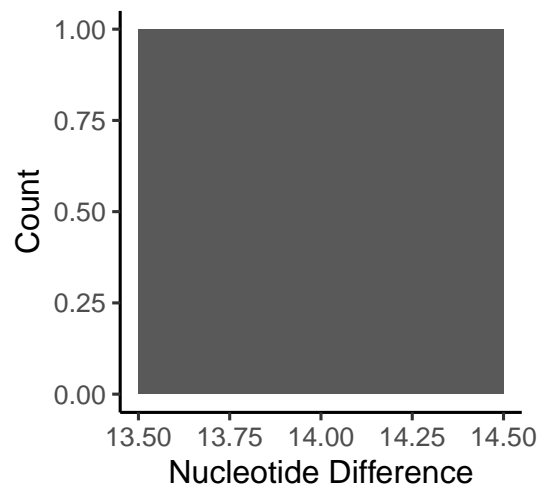
IGHV2-70*01

321 sequences assigned
17 (5.3%) exact matches, in which:
15 unique CDR3
4 unique J



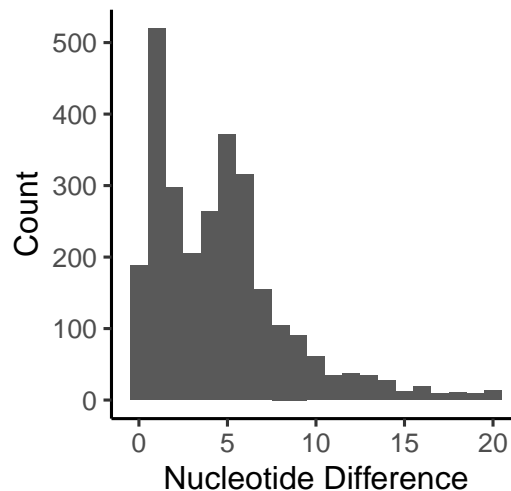
IGHV1-69-2*01

1 sequences assigned
No exact matches.



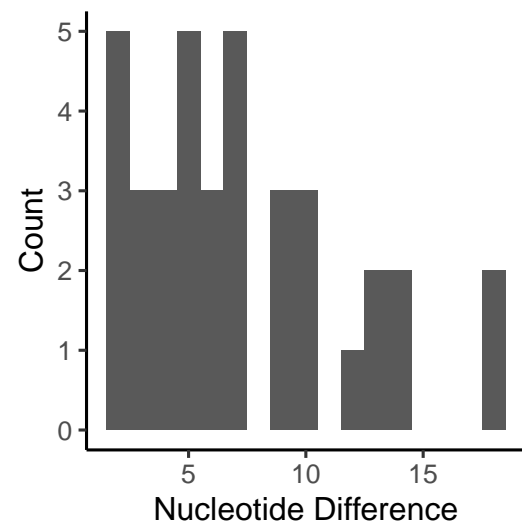
IGHV2-5*02

2797 sequences assigned
188 (6.7%) exact matches, in which:
120 unique CDR3
6 unique J



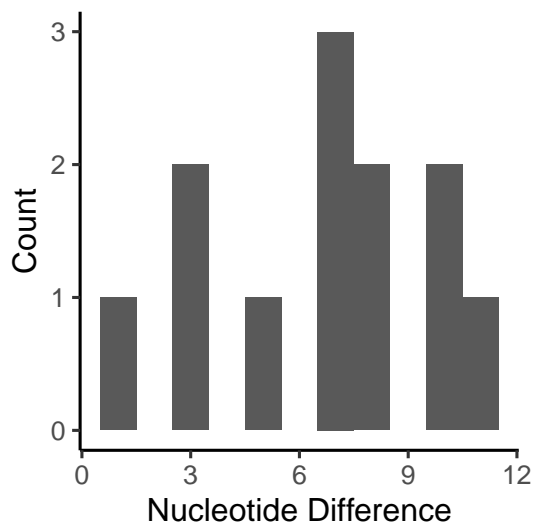
IGHV2-70*12

37 sequences assigned
No exact matches.



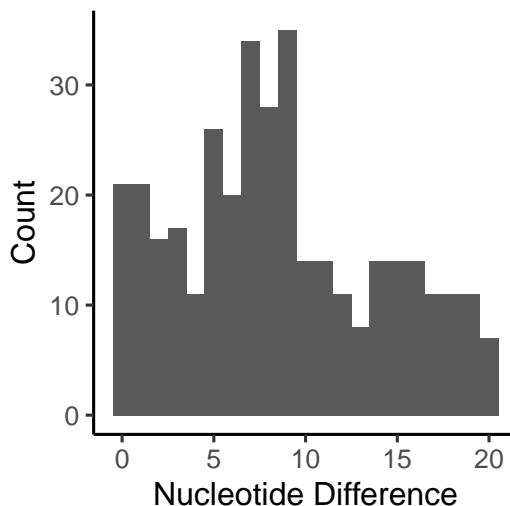
IGHV2-70D*04

12 sequences assigned
No exact matches.



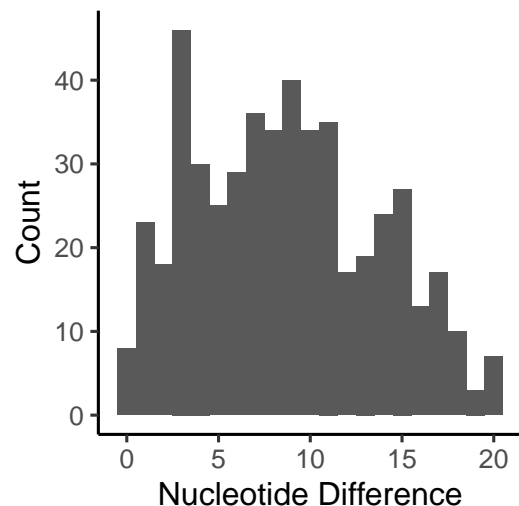
IGHV3-7*04

382 sequences assigned
21 (5.5%) exact matches, in which:
15 unique CDR3
6 unique J



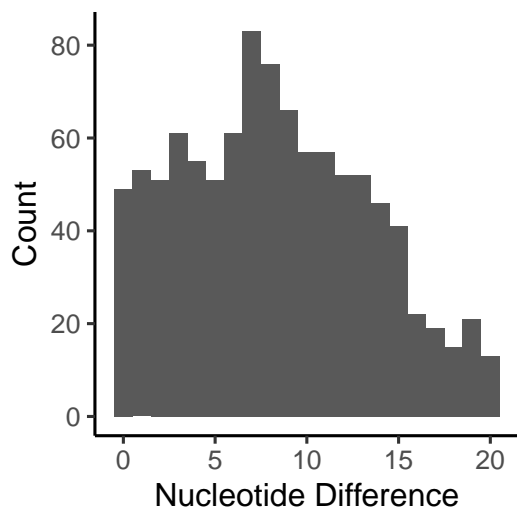
IGHV3-11*06

544 sequences assigned
8 (1.5%) exact matches, in which:
7 unique CDR3
3 unique J



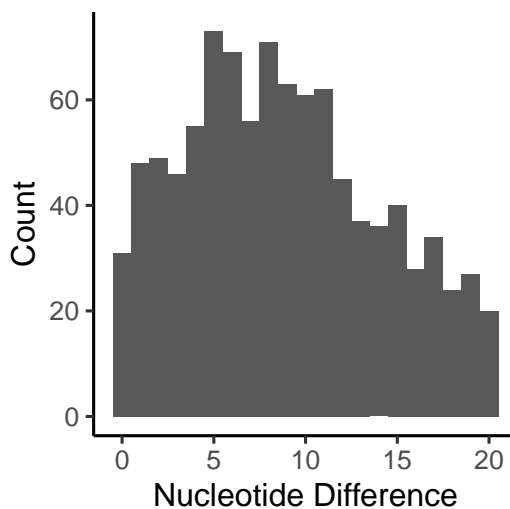
IGHV3-7*01

1063 sequences assigned
49 (4.6%) exact matches, in which:
44 unique CDR3
6 unique J



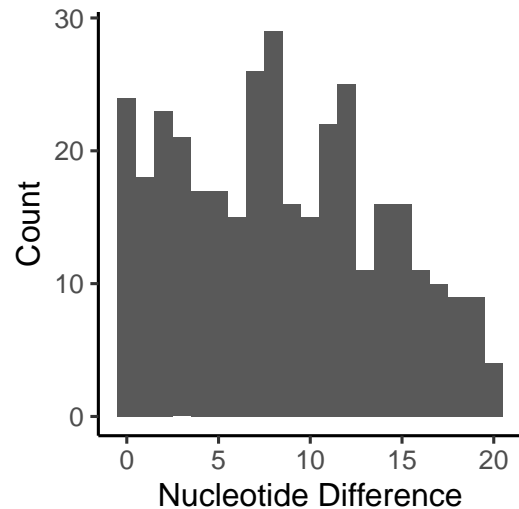
IGHV3-9*01

1055 sequences assigned
31 (2.9%) exact matches, in which:
25 unique CDR3
5 unique J



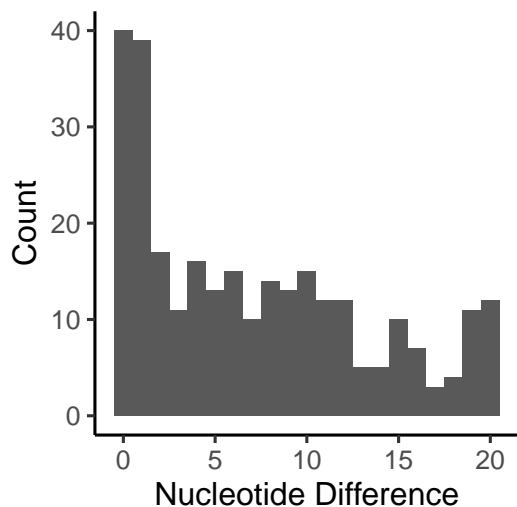
IGHV3-11*03_05

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



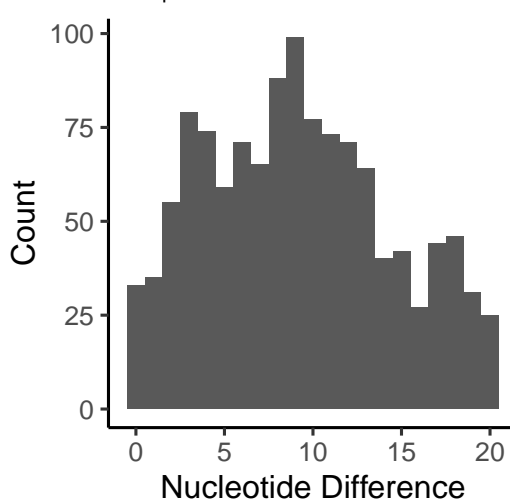
IGHV3-7*03

346 sequences assigned
40 (11.6%) exact matches, in which:
25 unique CDR3
3 unique J



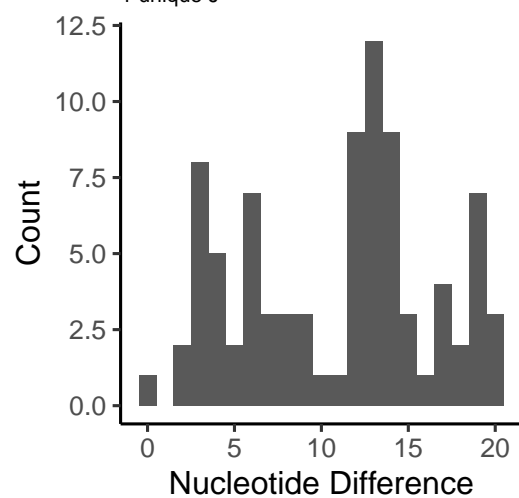
IGHV3-11*04

1308 sequences assigned
33 (2.5%) exact matches, in which:
20 unique CDR3
6 unique J



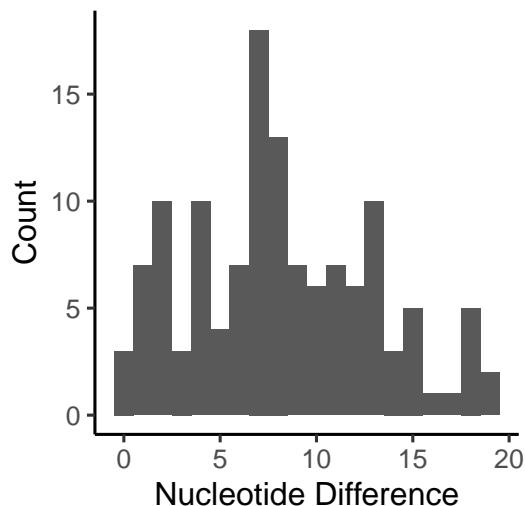
IGHV3-13*01

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



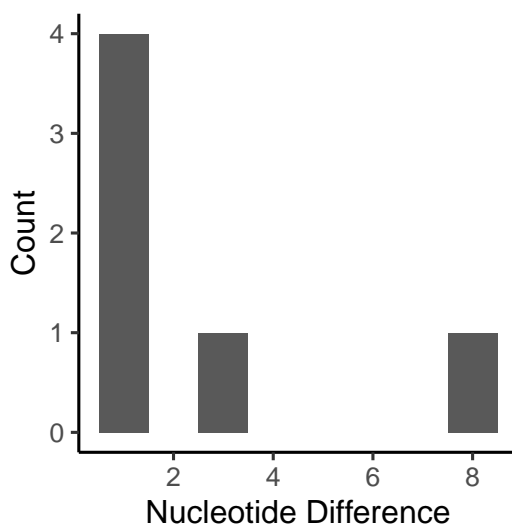
IGHV3-13*04

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



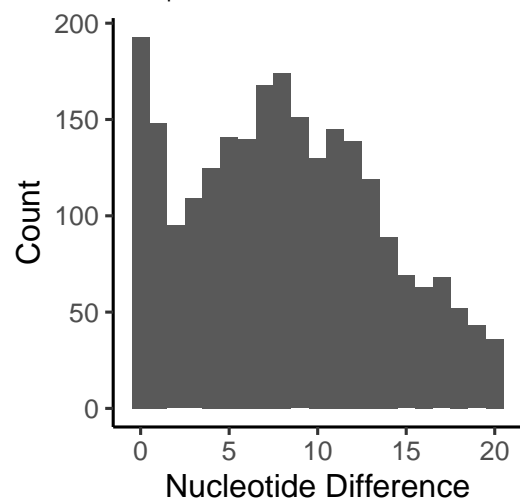
IGHV3-19*01

6 sequences assigned
No exact matches.



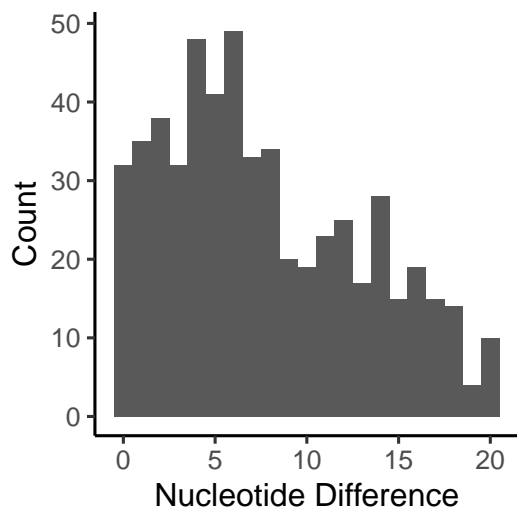
IGHV3-21*01_02

2601 sequences assigned
193 (7.4%) exact matches, in which:
135 unique CDR3
7 unique J



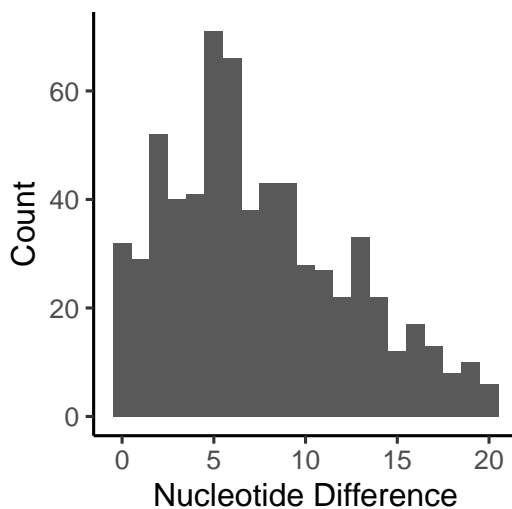
IGHV3-15*07

574 sequences assigned
32 (5.6%) exact matches, in which:
24 unique CDR3
5 unique J



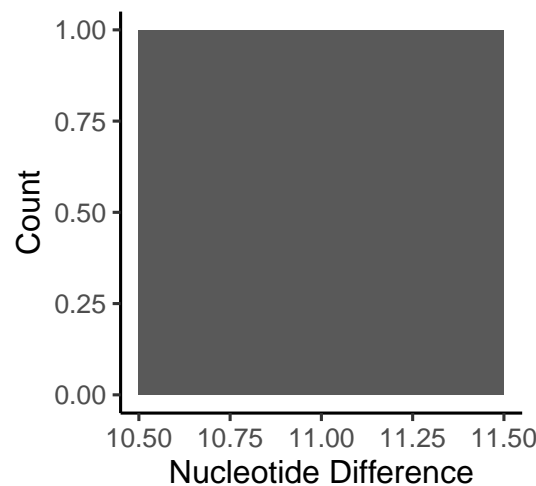
IGHV3-20*03_04

678 sequences assigned
32 (4.7%) exact matches, in which:
17 unique CDR3
4 unique J



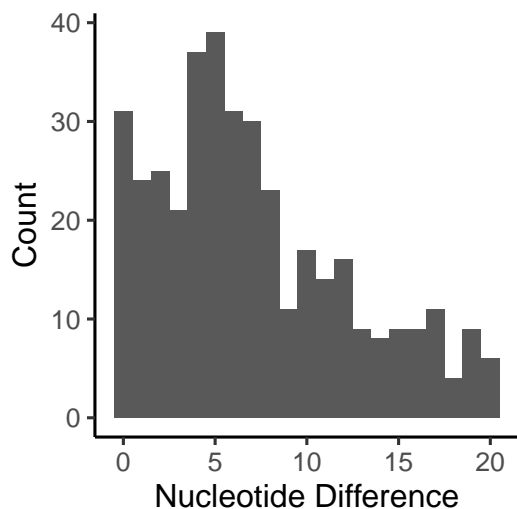
IGHV3-22*01_02

1 sequences assigned
No exact matches.



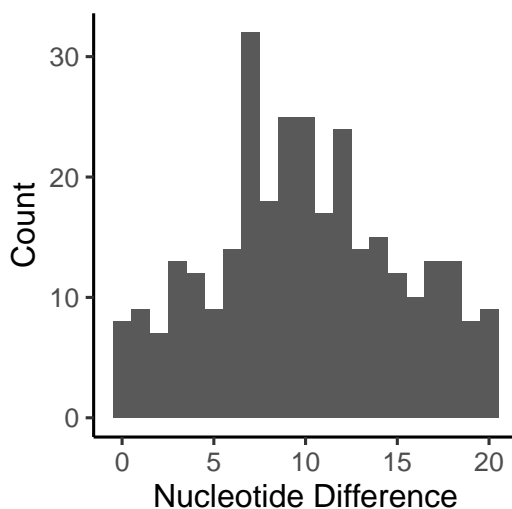
IGHV3-15*01_02

401 sequences assigned
31 (7.7%) exact matches, in which:
23 unique CDR3
6 unique J



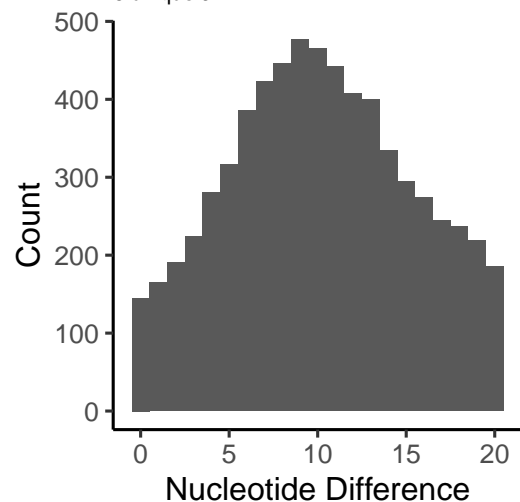
IGHV3-21*04

327 sequences assigned
8 (2.4%) exact matches, in which:
7 unique CDR3
4 unique J



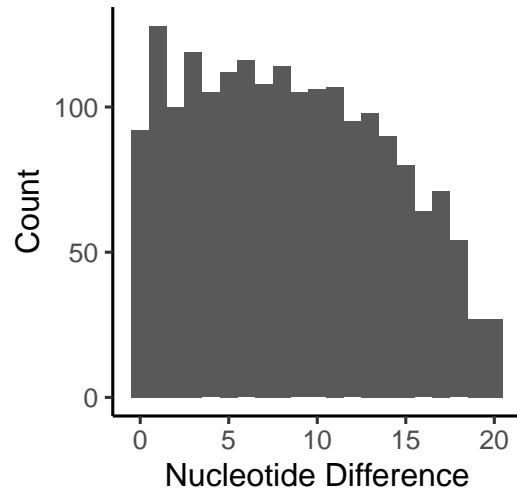
IGHV3-23*01_04

7505 sequences assigned
145 (1.9%) exact matches, in which:
110 unique CDR3
6 unique J



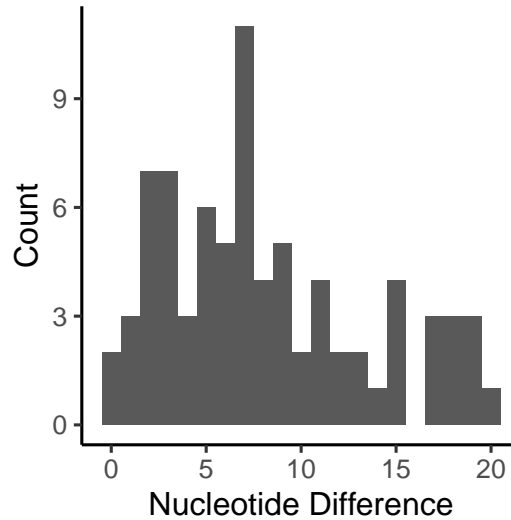
IGHV3-30-3*01

2062 sequences assigned
92 (4.5%) exact matches, in which:
65 unique CDR3
6 unique J



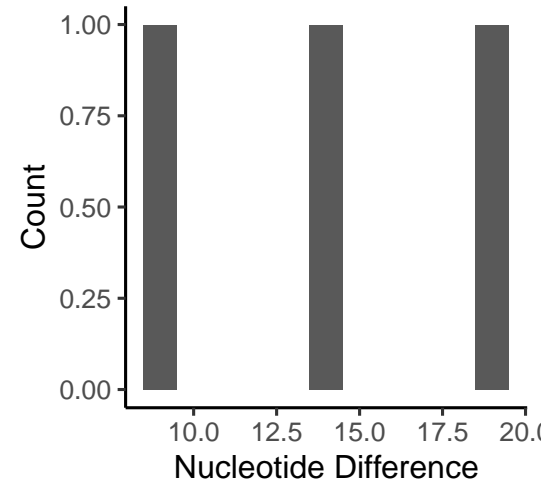
IGHV3-33*05

80 sequences assigned
2 (2.5%) exact matches, in which:
2 unique CDR3
2 unique J



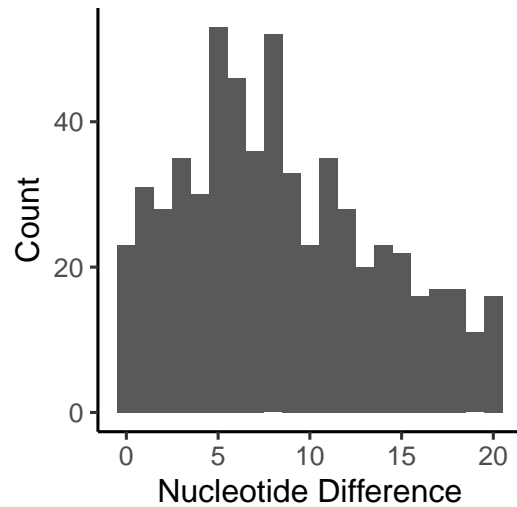
IGHV3-38-3*01

3 sequences assigned
No exact matches.



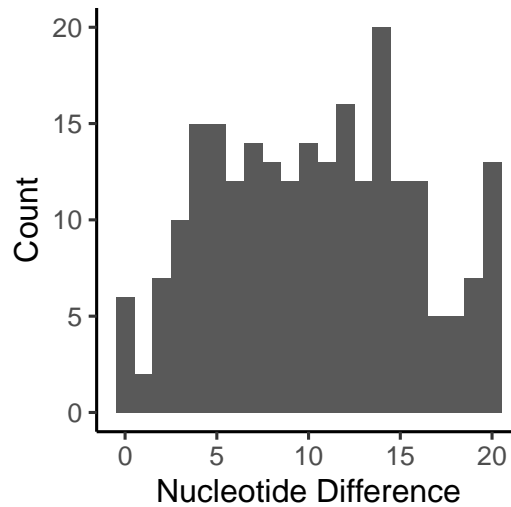
IGHV3-30*03

740 sequences assigned
23 (3.1%) exact matches, in which:
23 unique CDR3
7 unique J



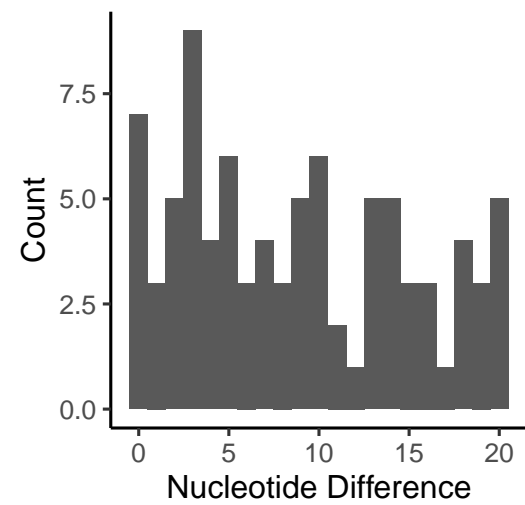
IGHV3-33*08

244 sequences assigned
6 (2.5%) exact matches, in which:
6 unique CDR3
3 unique J



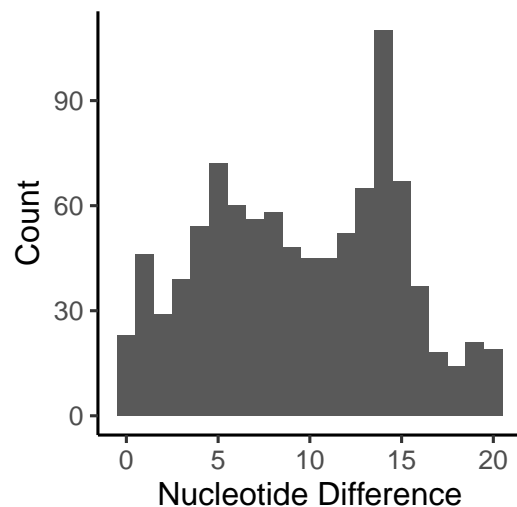
IGHV3-43*01

102 sequences assigned
7 (6.9%) exact matches, in which:
5 unique CDR3
2 unique J



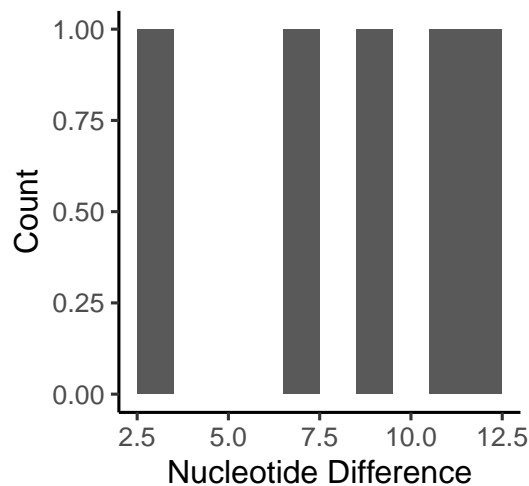
IGHV3-33*01

1018 sequences assigned
23 (2.3%) exact matches, in which:
16 unique CDR3
5 unique J



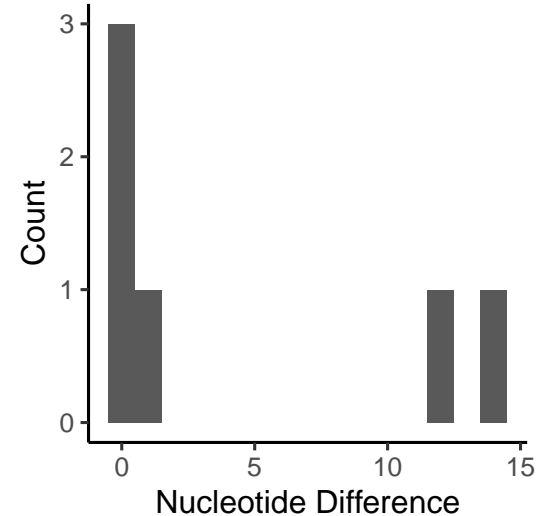
IGHV3-35*01

5 sequences assigned
No exact matches.



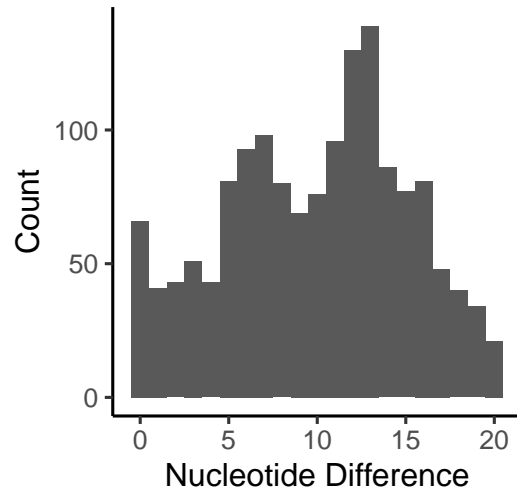
IGHV3-47*02

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



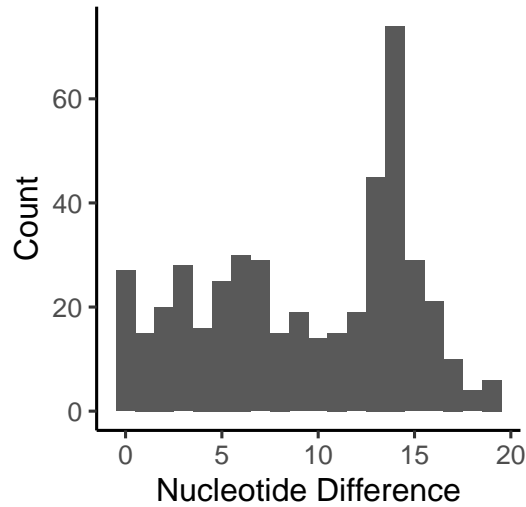
IGHV3-48*01

1572 sequences assigned
66 (4.2%) exact matches, in which:
50 unique CDR3
7 unique J



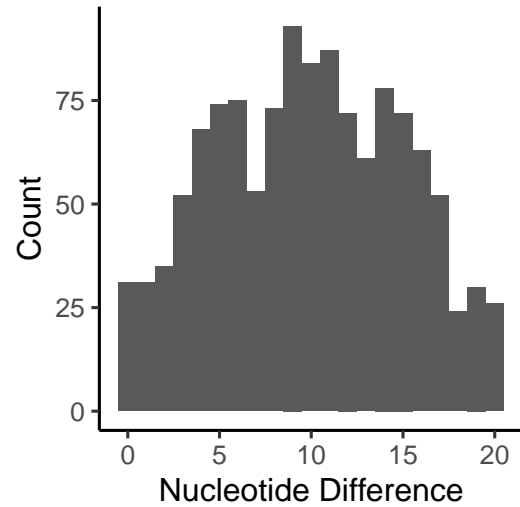
IGHV3-49*03_05

483 sequences assigned
27 (5.6%) exact matches, in which:
19 unique CDR3
4 unique J



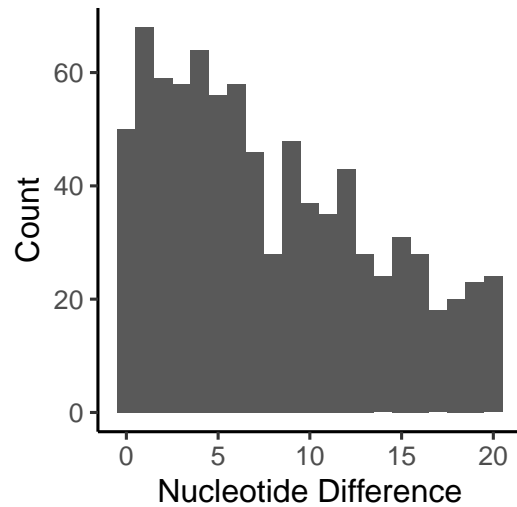
IGHV3-53*01_02

1365 sequences assigned
31 (2.3%) exact matches, in which:
22 unique CDR3
5 unique J



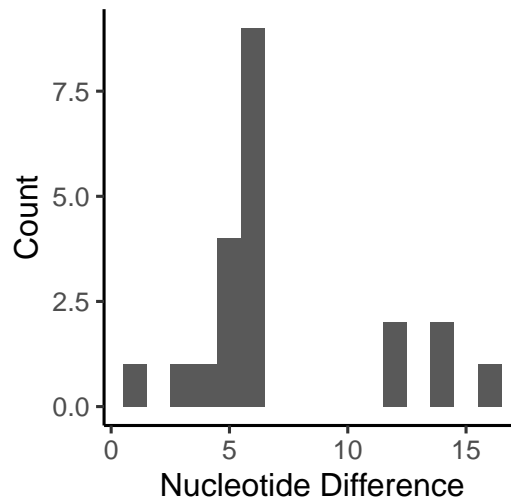
IGHV3-48*02

893 sequences assigned
50 (5.6%) exact matches, in which:
36 unique CDR3
4 unique J



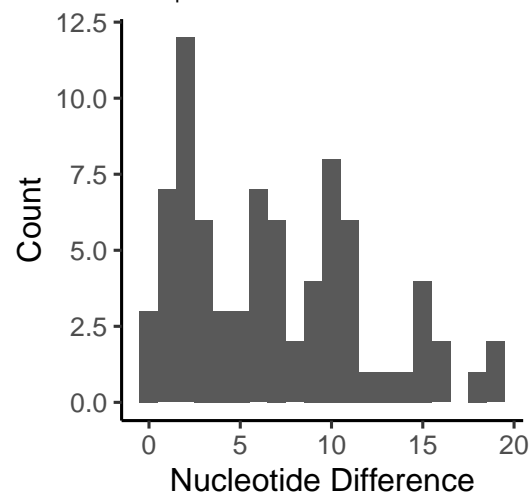
IGHV3-52*01_03

21 sequences assigned
No exact matches.



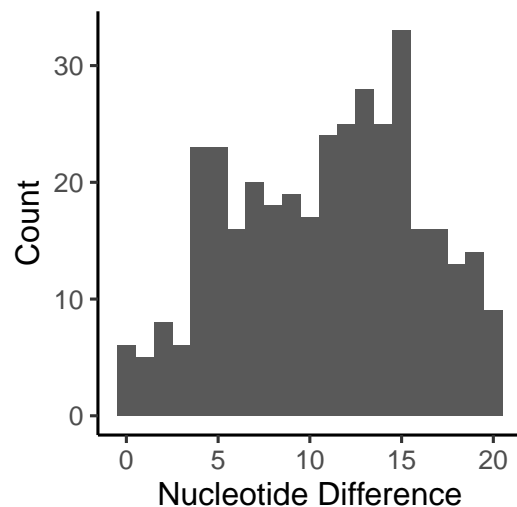
IGHV3-64*01

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



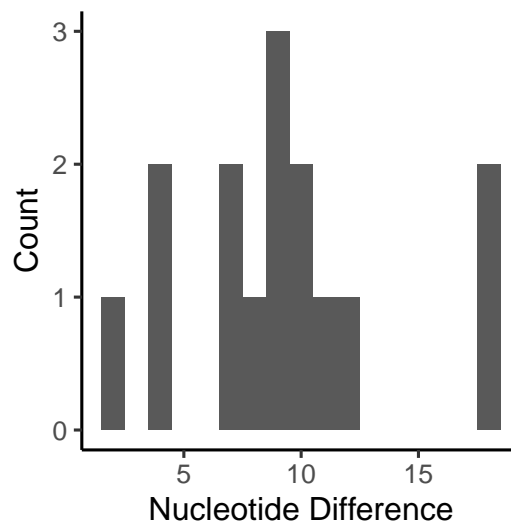
IGHV3-48*04

407 sequences assigned
6 (1.5%) exact matches, in which:
6 unique CDR3
4 unique J



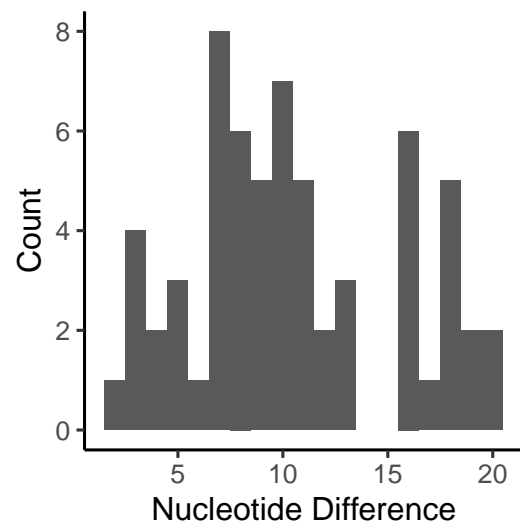
IGHV3-53*05

16 sequences assigned
No exact matches.



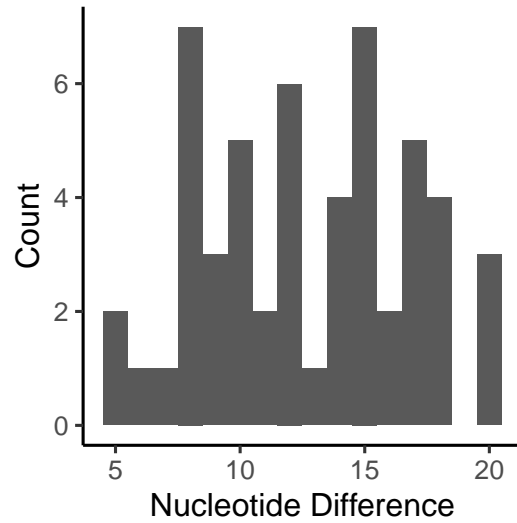
IGHV3-64*04

80 sequences assigned
No exact matches.



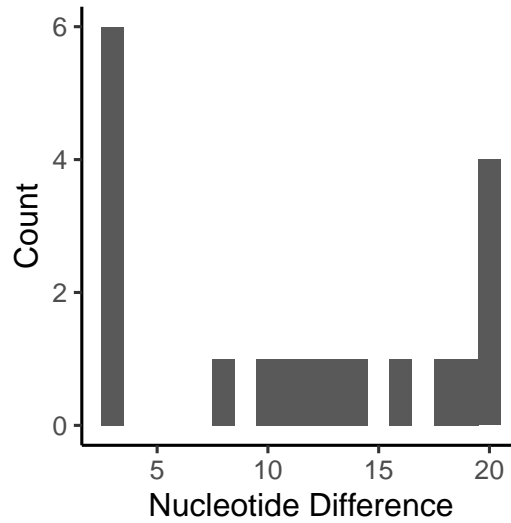
IGHV3-66*01

60 sequences assigned
No exact matches.



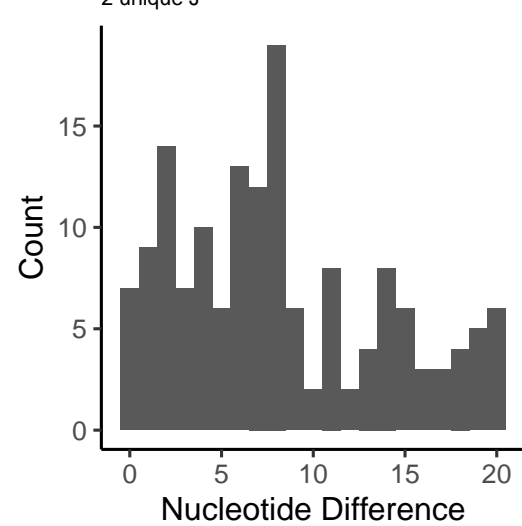
IGHV3-69-1*01

38 sequences assigned
No exact matches.



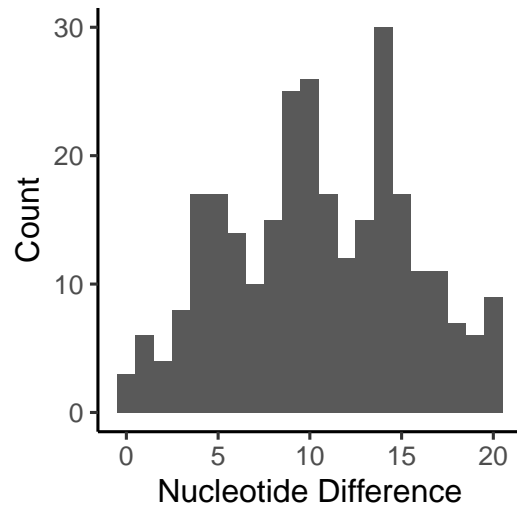
IGHV3-73*01_02

164 sequences assigned
7 (4.3%) exact matches, in which:
6 unique CDR3
2 unique J



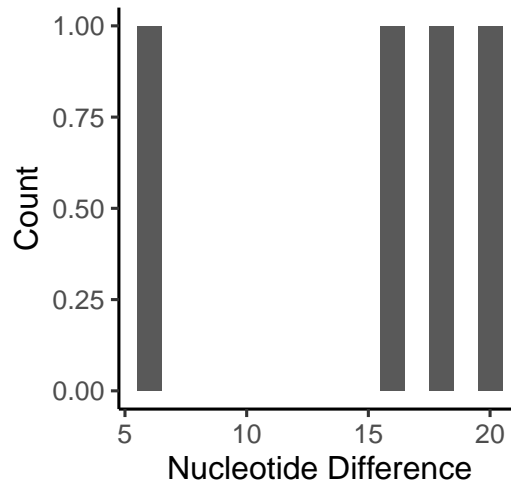
IGHV3-66*02

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



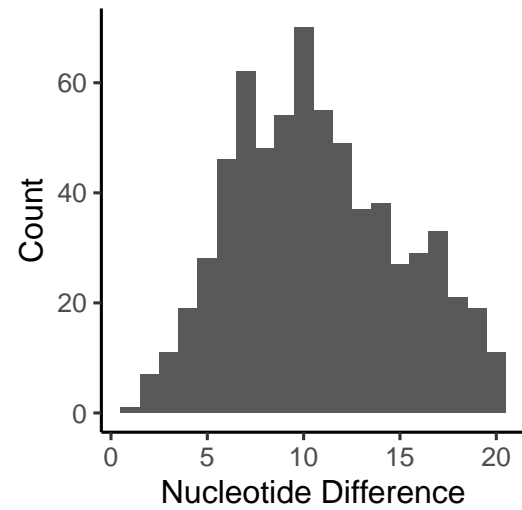
IGHV3-69-1*02

8 sequences assigned
No exact matches.



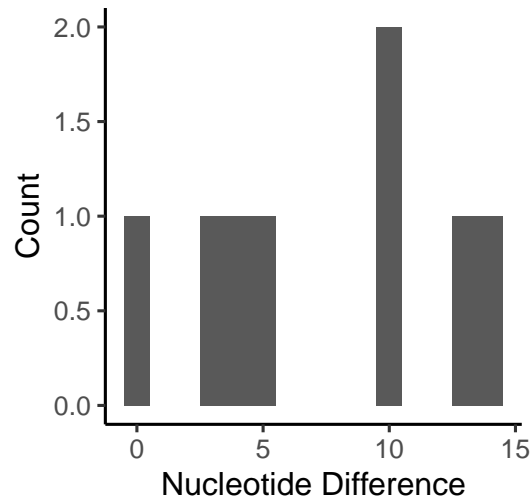
IGHV3-74*03

801 sequences assigned
No exact matches.



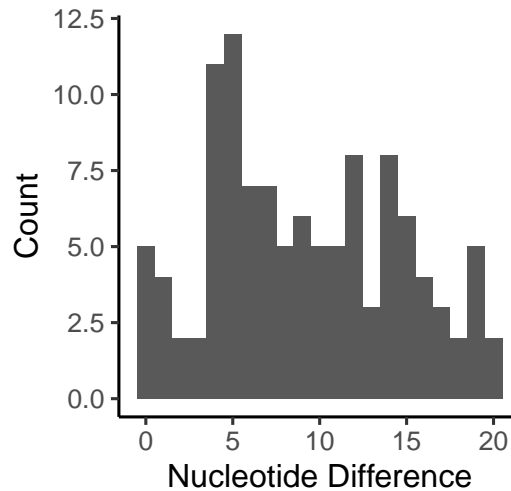
IGHV3-66*03

14 sequences assigned
1 (7.1%) exact matches, in which:
1 unique CDR3
1 unique J



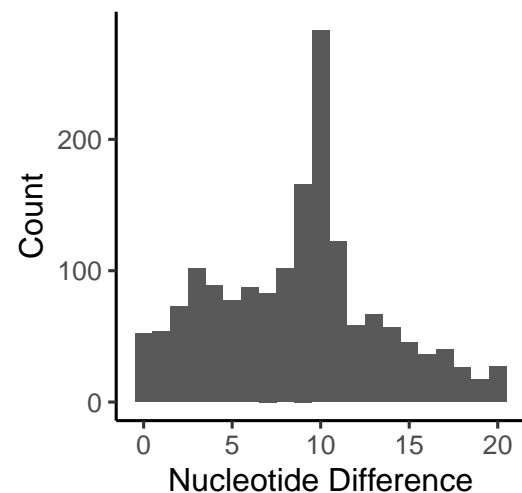
IGHV3-72*01

122 sequences assigned
5 (4.1%) exact matches, in which:
4 unique CDR3
3 unique J



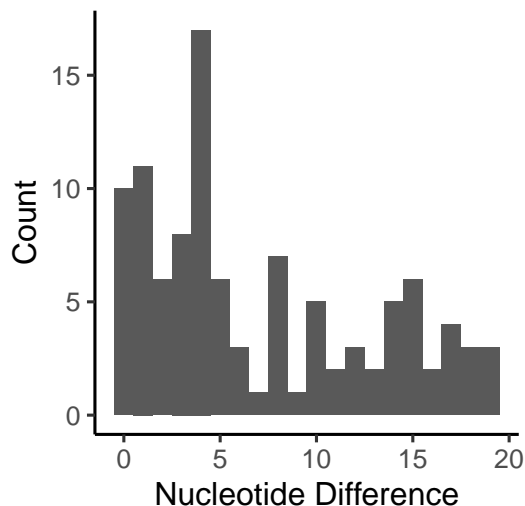
IGHV3-74*01_02

1751 sequences assigned
52 (3%) exact matches, in which:
37 unique CDR3
5 unique J



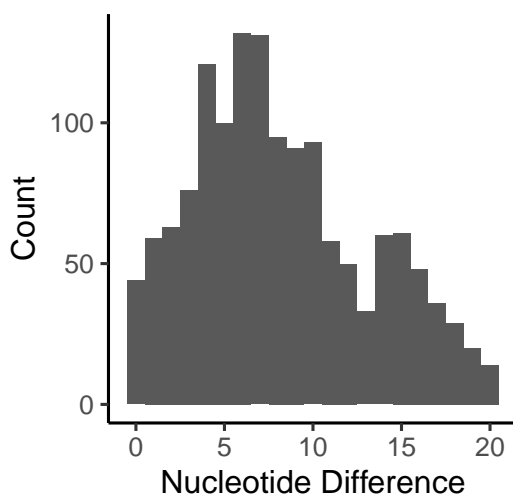
IGHV3-43D*03

126 sequences assigned
10 (7.9%) exact matches, in which:
7 unique CDR3
2 unique J



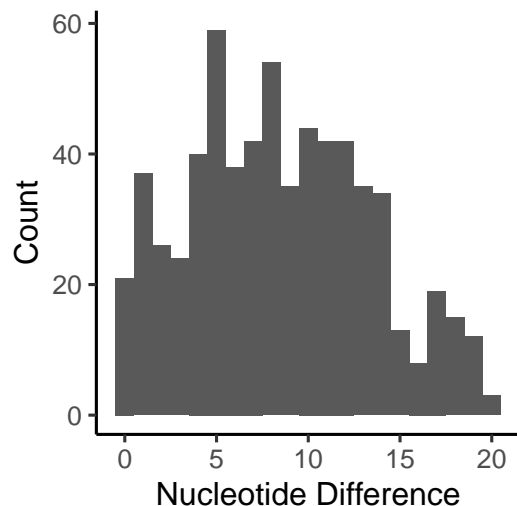
IGHV4-4*02_03

1488 sequences assigned
44 (3%) exact matches, in which:
34 unique CDR3
6 unique J



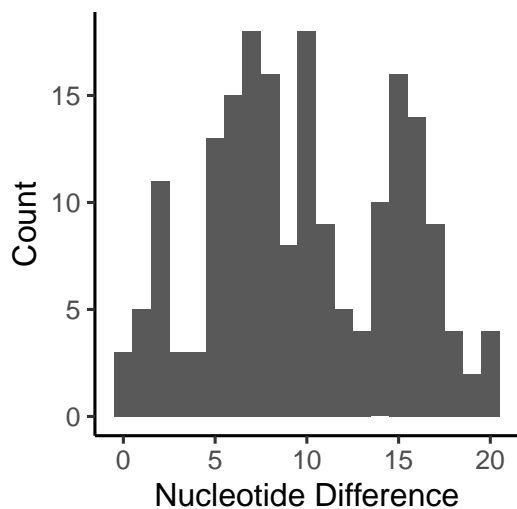
IGHV4-30-2*01

681 sequences assigned
21 (3.1%) exact matches, in which:
15 unique CDR3
6 unique J



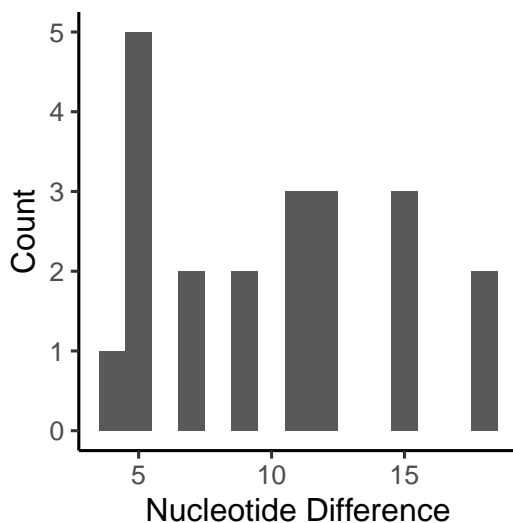
IGHV3-64D*06

261 sequences assigned
3 (1.1%) exact matches, in which:
3 unique CDR3
3 unique J



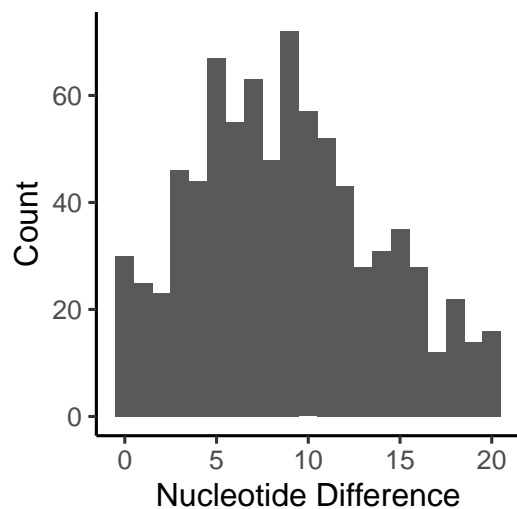
IGHV4-28*03

22 sequences assigned
No exact matches.



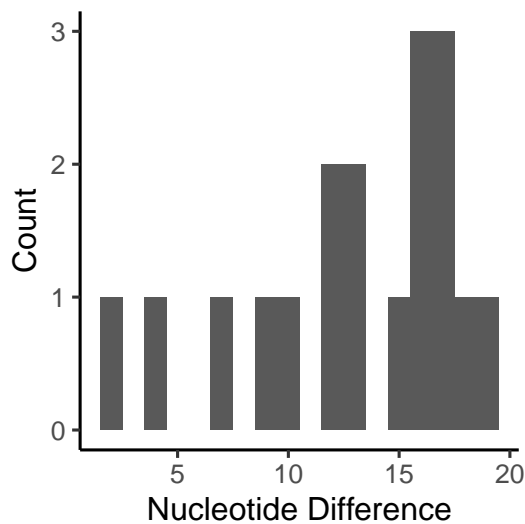
IGHV4-30-4*01

864 sequences assigned
30 (3.5%) exact matches, in which:
25 unique CDR3
6 unique J



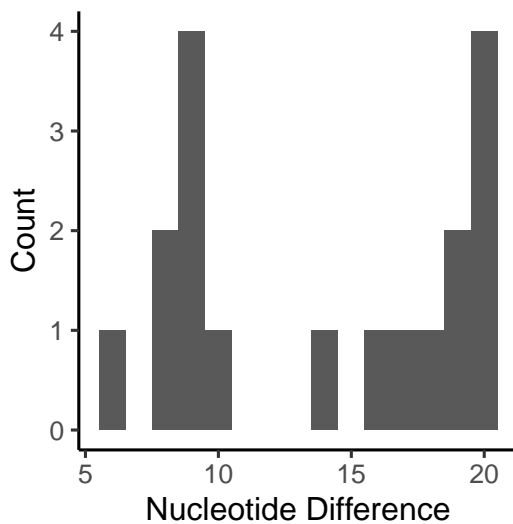
IGHV3-NL1*01

23 sequences assigned
No exact matches.



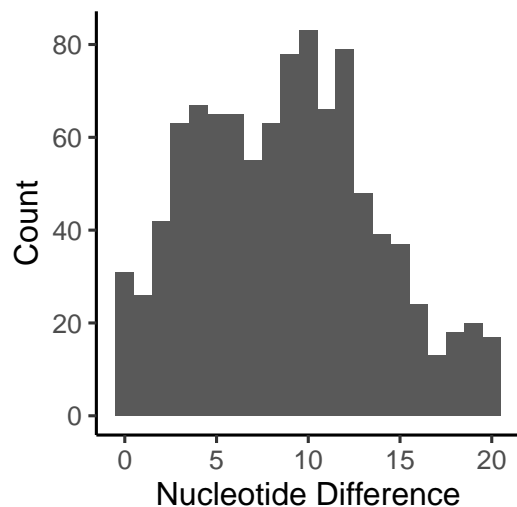
IGHV4-28*01_07

18 sequences assigned
No exact matches.



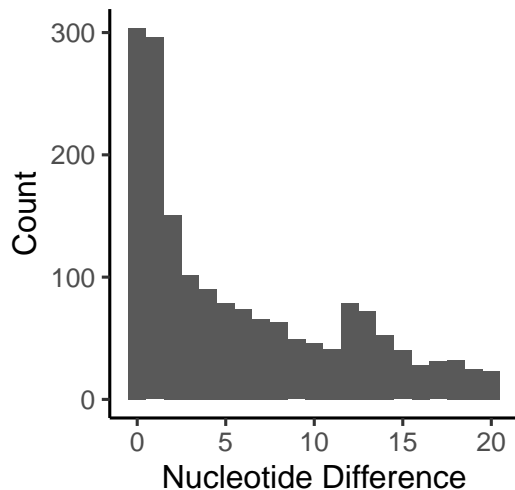
IGHV4-31*02

1163 sequences assigned
31 (2.7%) exact matches, in which:
25 unique CDR3
5 unique J



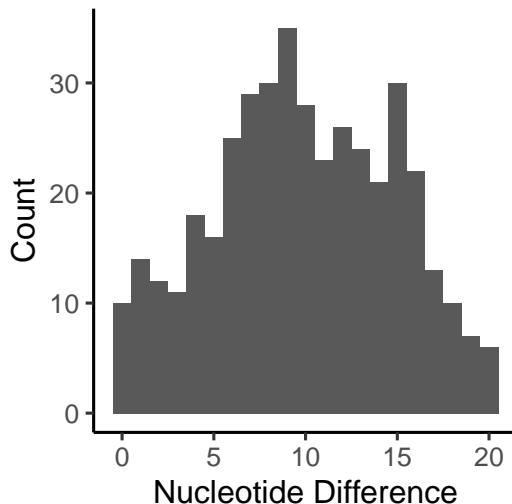
IGHV4-34*01_02

1837 sequences assigned
304 (16.5%) exact matches, in which:
233 unique CDR3
7 unique J



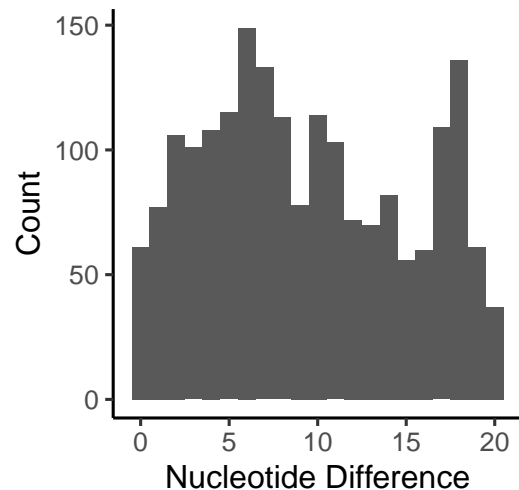
IGHV4-59*08

445 sequences assigned
10 (2.2%) exact matches, in which:
9 unique CDR3
4 unique J



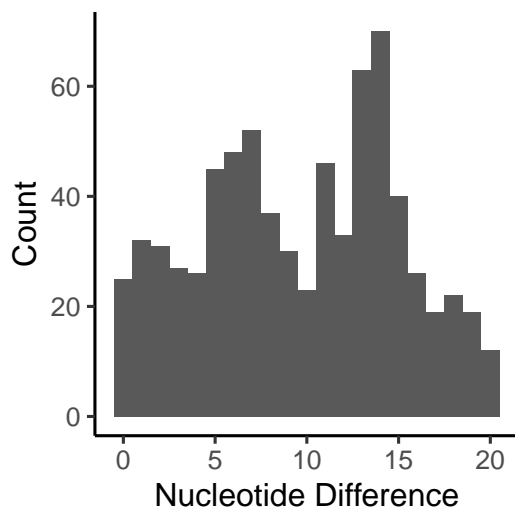
IGHV4-61*02

2048 sequences assigned
61 (3%) exact matches, in which:
51 unique CDR3
6 unique J



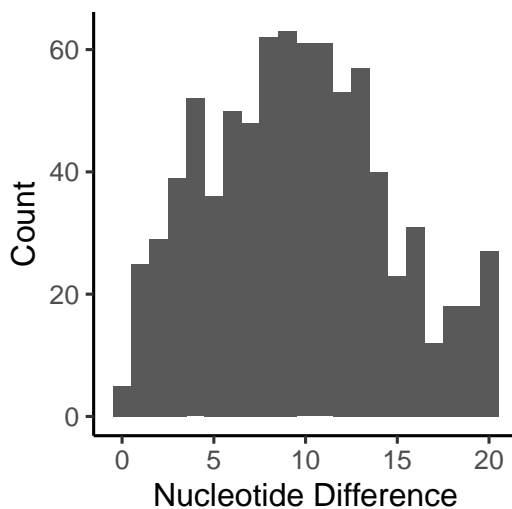
IGHV4-38-2*02

778 sequences assigned
25 (3.2%) exact matches, in which:
20 unique CDR3
5 unique J



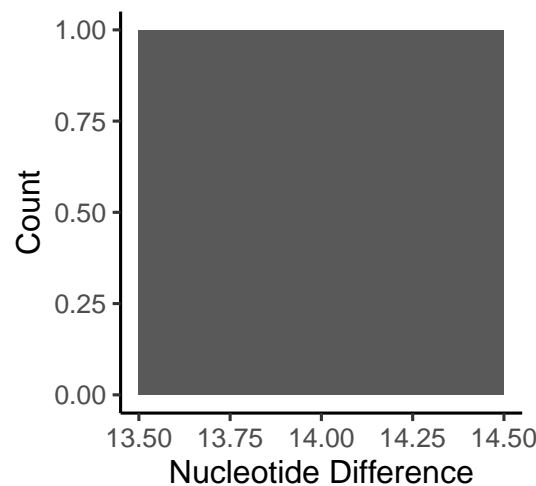
IGHV4-59*12

873 sequences assigned
5 (0.6%) exact matches, in which:
5 unique CDR3
4 unique J



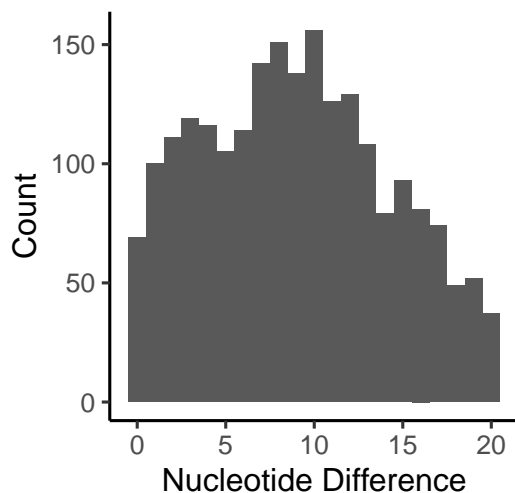
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



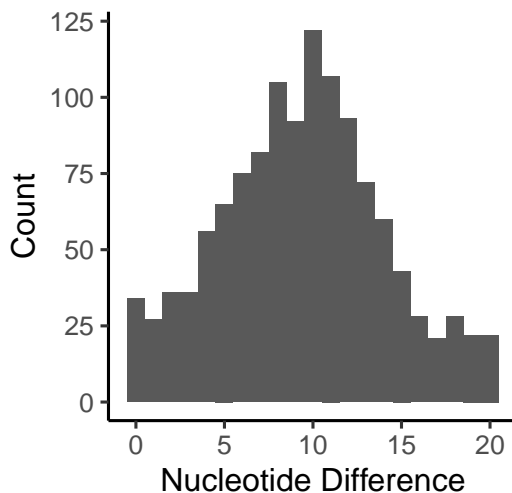
IGHV4-39*07

2645 sequences assigned
69 (2.6%) exact matches, in which:
55 unique CDR3
7 unique J



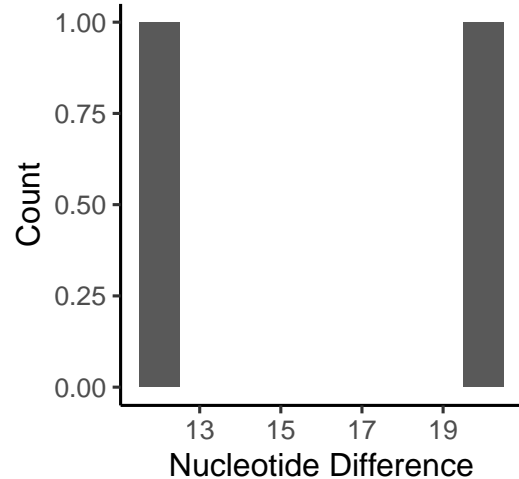
IGHV4-61*01

1309 sequences assigned
34 (2.6%) exact matches, in which:
31 unique CDR3
6 unique J



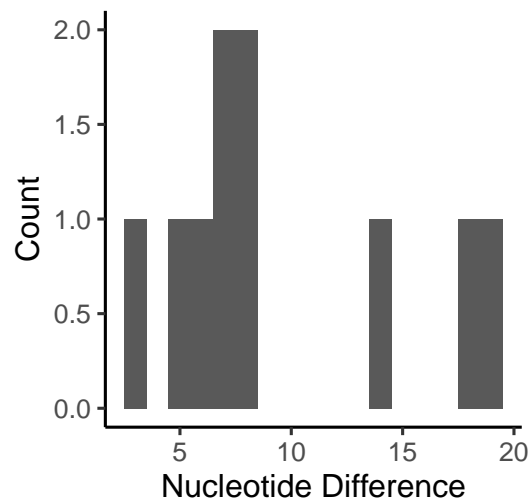
IGHV1/OR15-2*02_03

3 sequences assigned
No exact matches.



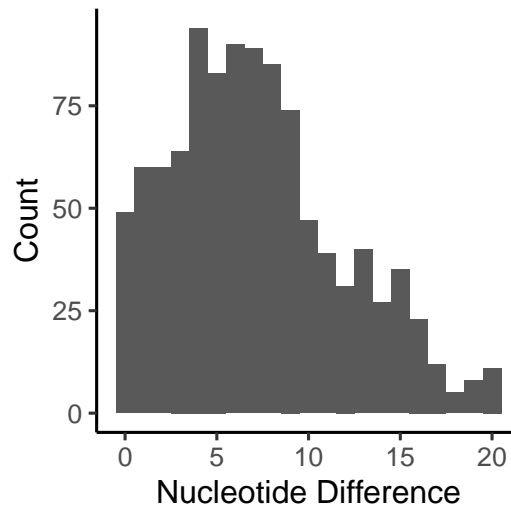
IGHV4/OR15–8*01

11 sequences assigned
No exact matches.



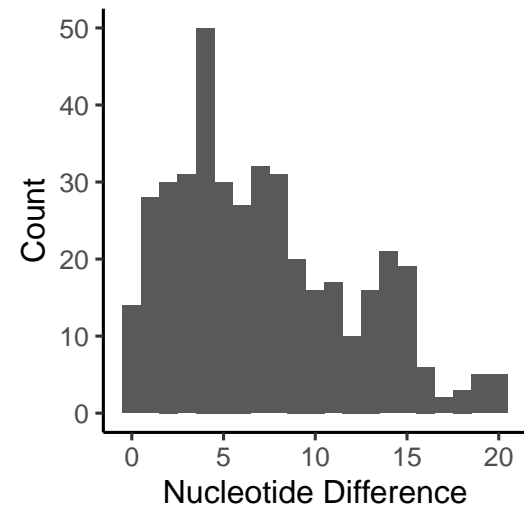
IGHV5–10–1*01_03

1053 sequences assigned
49 (4.7%) exact matches, in which:
35 unique CDR3
6 unique J



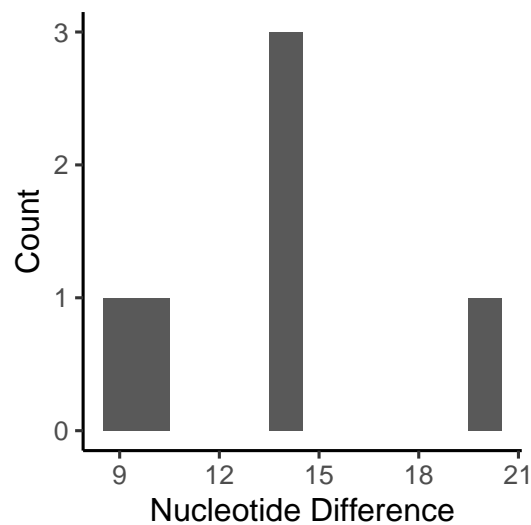
IGHV6–1*01_02

424 sequences assigned
14 (3.3%) exact matches, in which:
14 unique CDR3
4 unique J



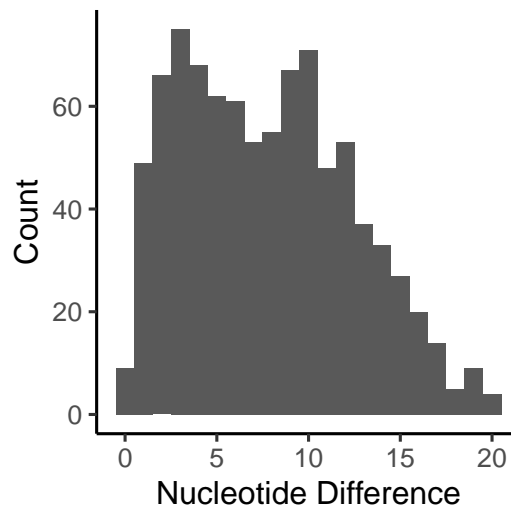
IGHV4/OR15–8*02

6 sequences assigned
No exact matches.



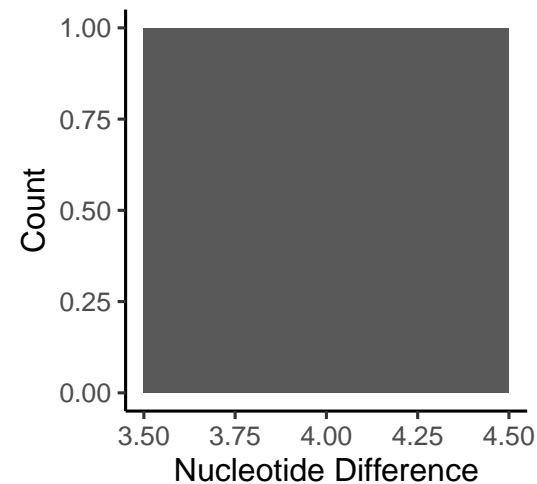
IGHV5–51*07

911 sequences assigned
9 (1%) exact matches, in which:
8 unique CDR3
3 unique J



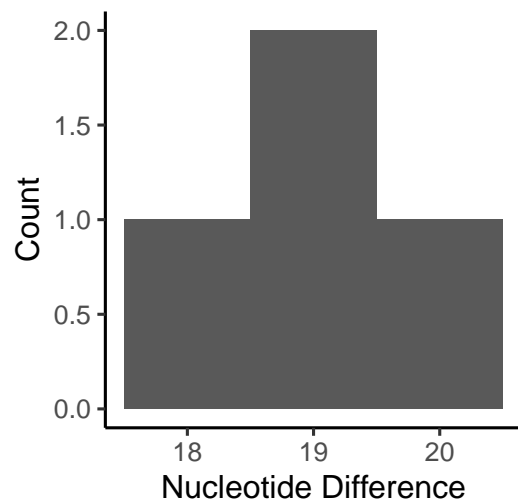
IGHV3/OR16–9*01

1 sequences assigned
No exact matches.



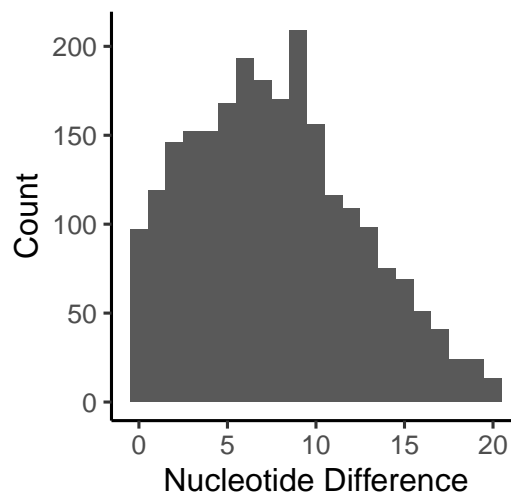
IGHV4/OR15–8*03

5 sequences assigned
No exact matches.



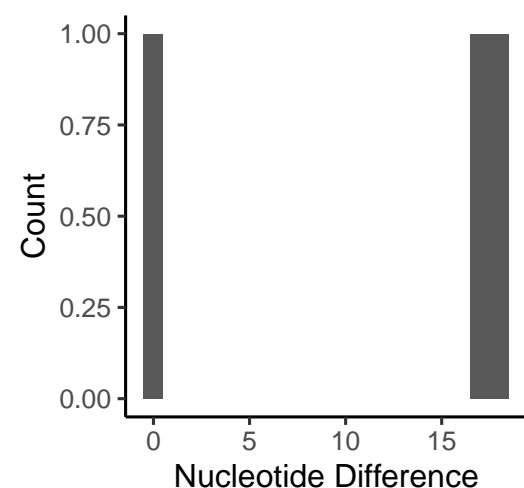
IGHV5–51*01_03

2575 sequences assigned
97 (3.8%) exact matches, in which:
70 unique CDR3
7 unique J

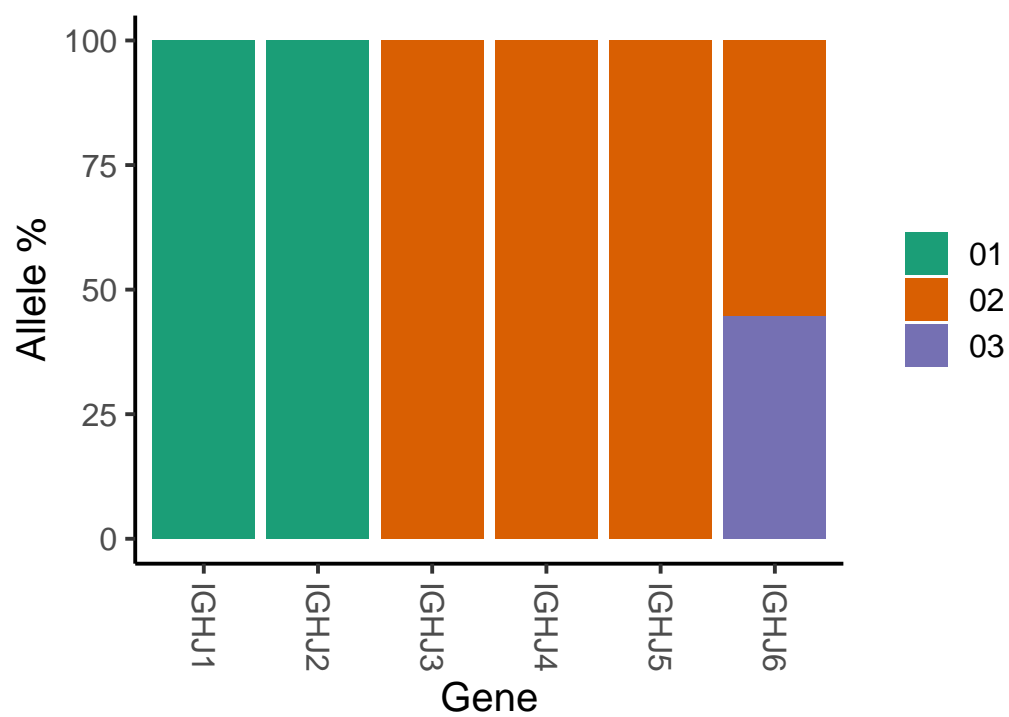


IGHV7–4–1*01

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



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]