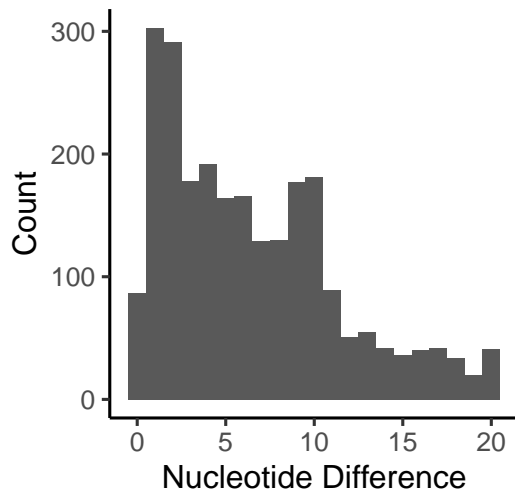


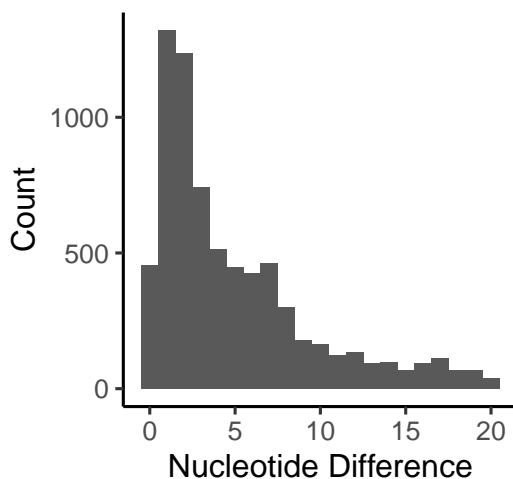
IGHV1-2*02

2716 sequences assigned
87 (3.2%) exact matches, in which:
66 unique CDR3
7 unique J



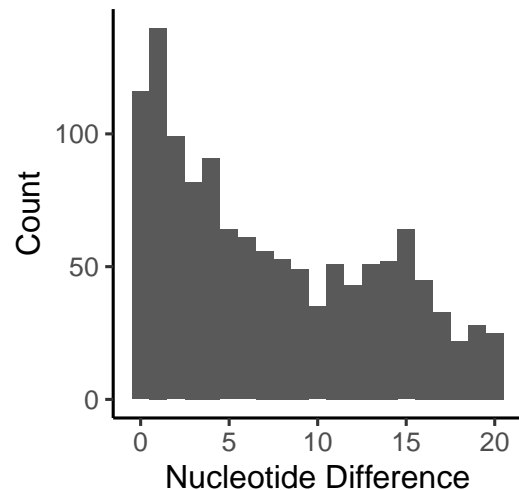
IGHV1-18*01

7627 sequences assigned
455 (6%) exact matches, in which:
309 unique CDR3
7 unique J



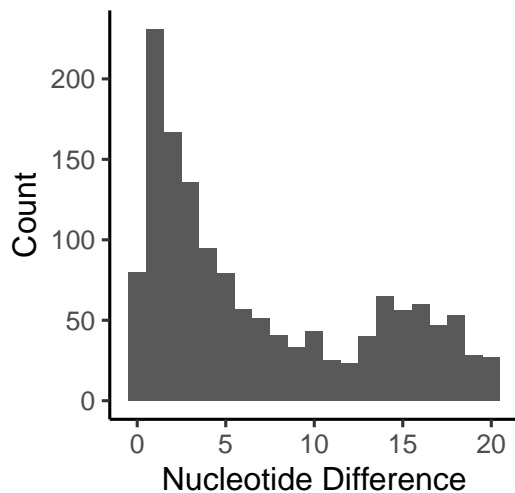
IGHV1-46*01

1534 sequences assigned
116 (7.6%) exact matches, in which:
98 unique CDR3
7 unique J



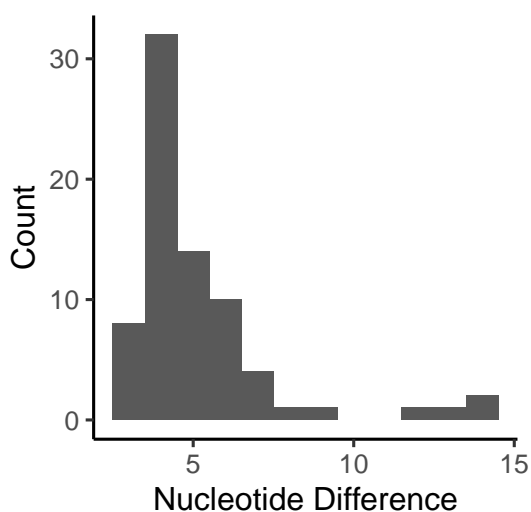
IGHV1-3*01_05

1614 sequences assigned
80 (5%) exact matches, in which:
54 unique CDR3
4 unique J



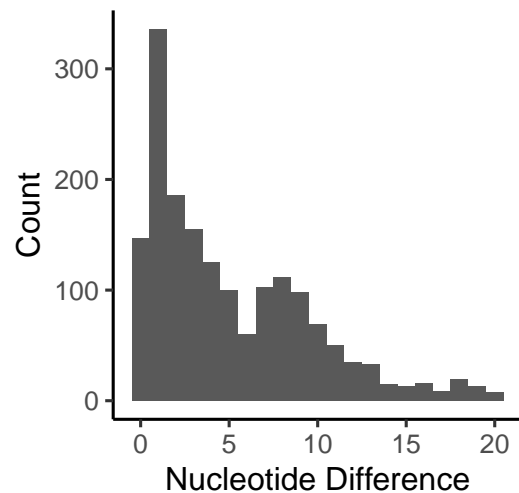
IGHV1-24*01

74 sequences assigned
No exact matches.



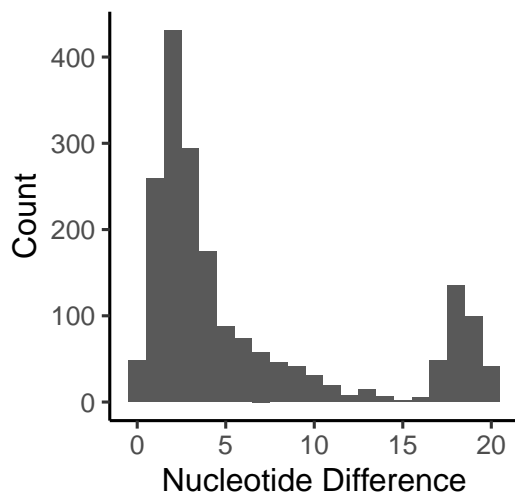
IGHV1-46*03

2051 sequences assigned
147 (7.2%) exact matches, in which:
83 unique CDR3
6 unique J



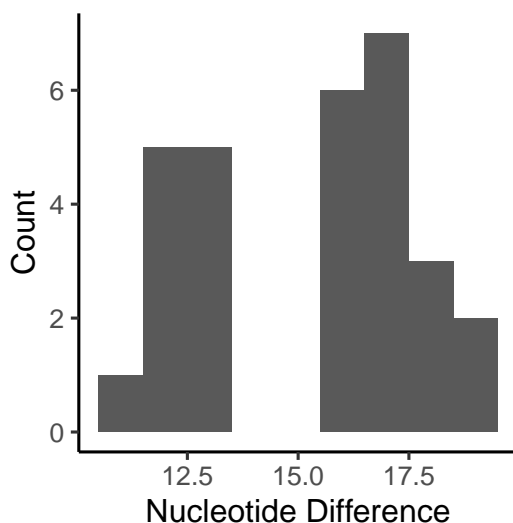
IGHV1-8*03

1989 sequences assigned
48 (2.4%) exact matches, in which:
28 unique CDR3
1 unique J



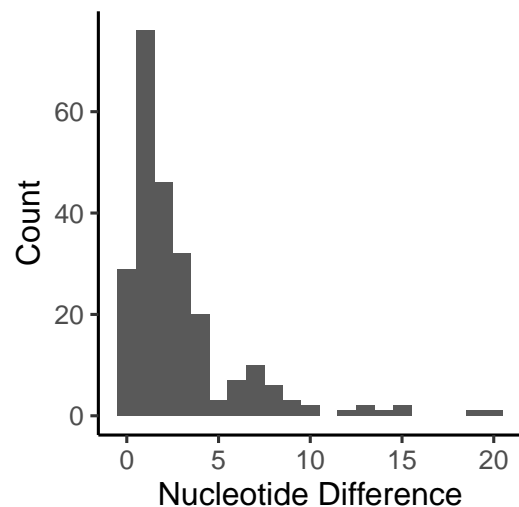
IGHV1-45*02

102 sequences assigned
No exact matches.



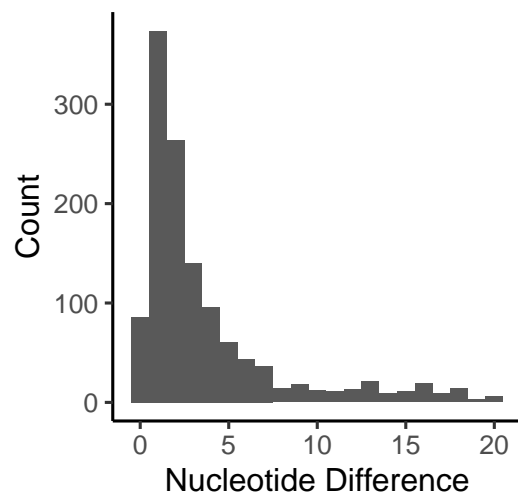
IGHV1-58*02

251 sequences assigned
29 (11.6%) exact matches, in which:
24 unique CDR3
5 unique J



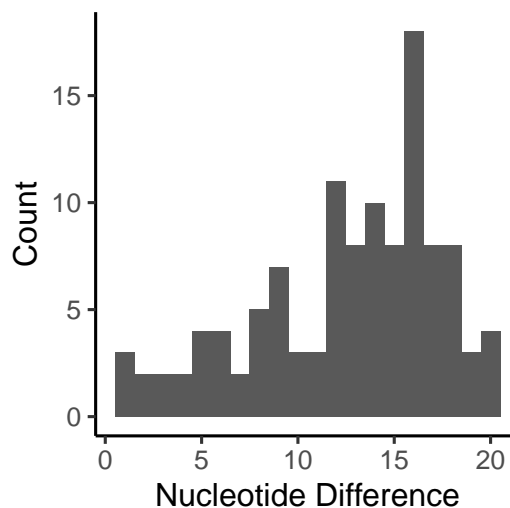
IGHV1-69-2*01

1426 sequences assigned
86 (6%) exact matches, in which:
46 unique CDR3
4 unique J



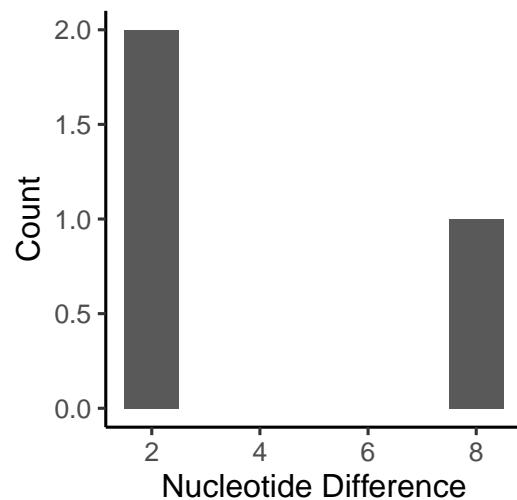
IGHV1-69*16

237 sequences assigned
No exact matches.



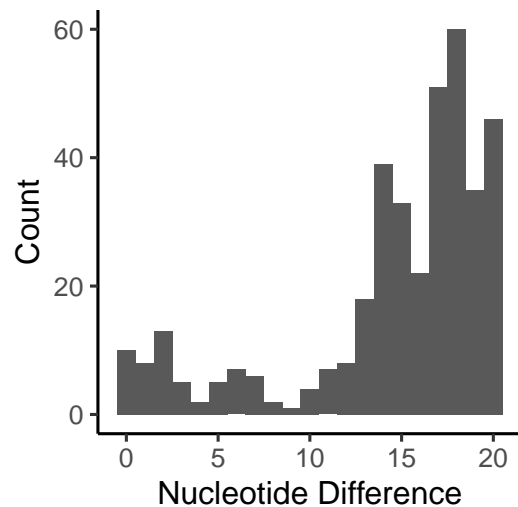
IGHV2-70*11_15

3 sequences assigned
No exact matches.



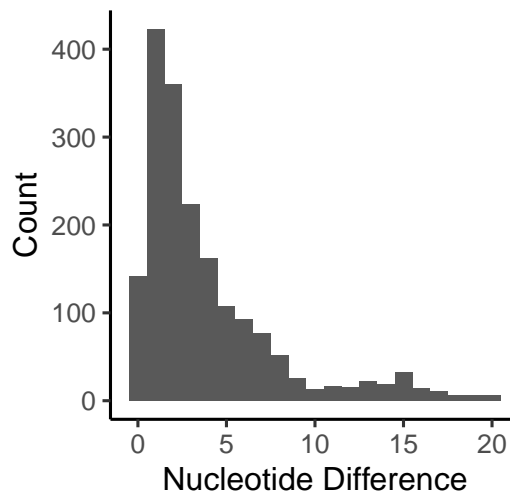
IGHV1-69*05

1632 sequences assigned
10 (0.6%) exact matches, in which:
10 unique CDR3
5 unique J



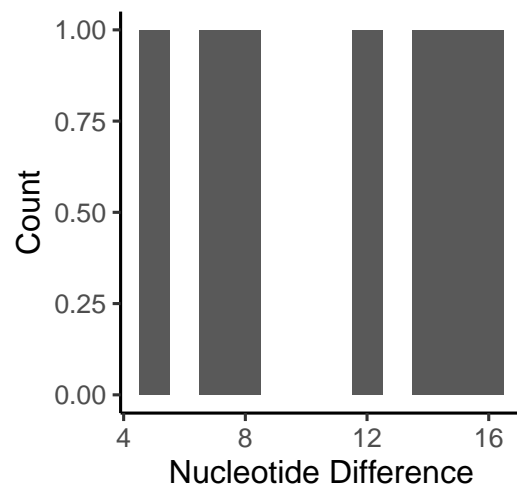
IGHV1-69*06_14

1870 sequences assigned
142 (7.6%) exact matches, in which:
102 unique CDR3
7 unique J



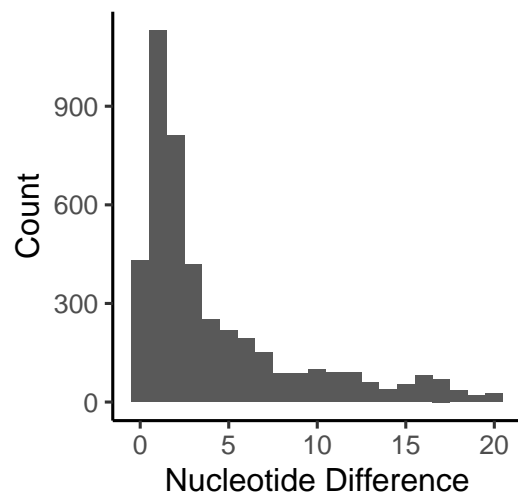
IGHV2-70*16_17

7 sequences assigned
No exact matches.



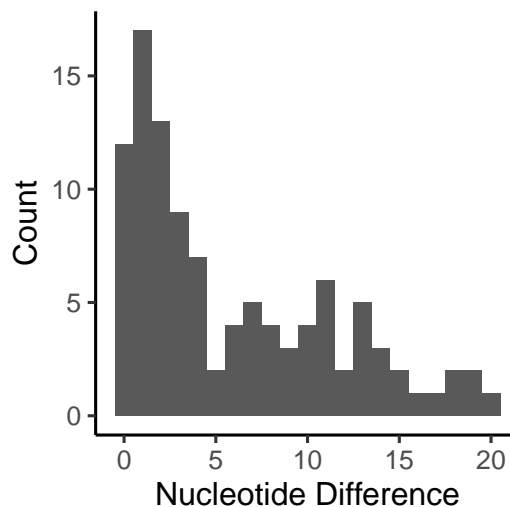
IGHV1-69*01_12_13

4817 sequences assigned
430 (8.9%) exact matches, in which:
281 unique CDR3
7 unique J



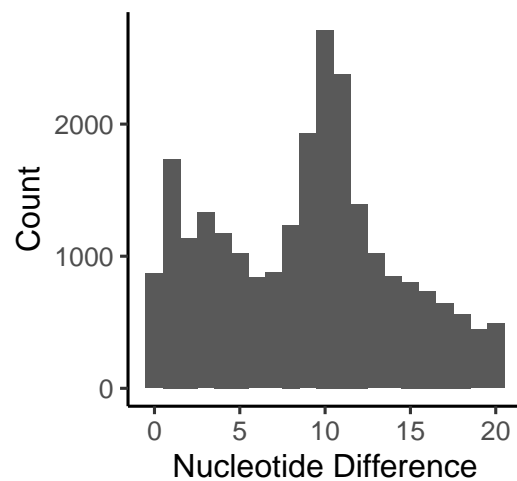
IGHV2-5*01

125 sequences assigned
12 (9.6%) exact matches, in which:
11 unique CDR3
4 unique J



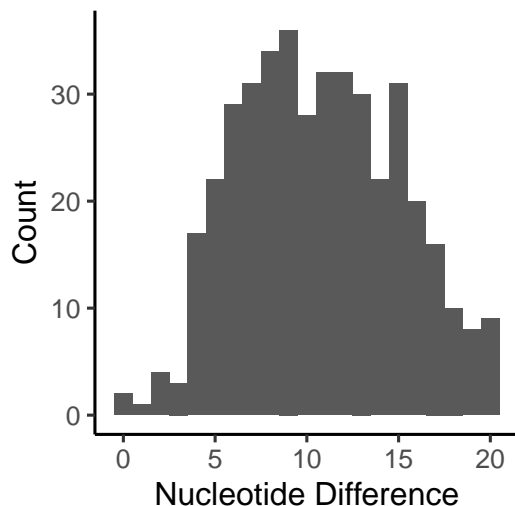
IGHV3-7*01

27391 sequences assigned
870 (3.2%) exact matches, in which:
564 unique CDR3
7 unique J



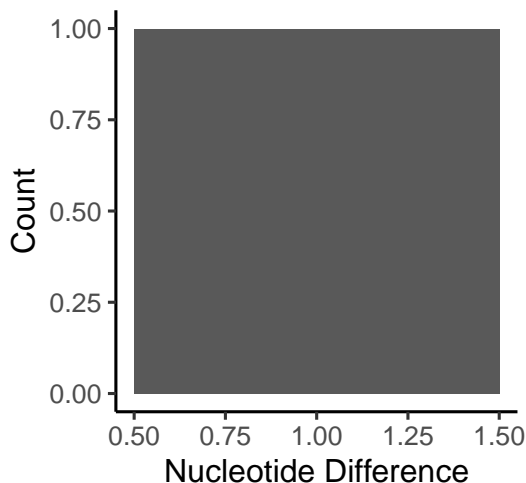
IGHV3-9*01

480 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
2 unique J



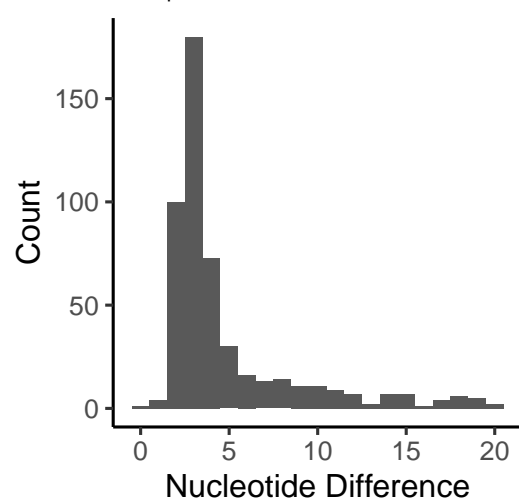
IGHV3-13*01

1 sequences assigned
No exact matches.



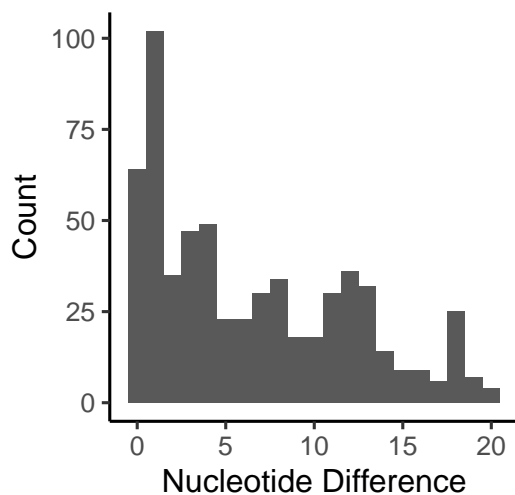
IGHV3-20*03_04

549 sequences assigned
1 (0.2%) exact matches, in which:
1 unique CDR3
1 unique J



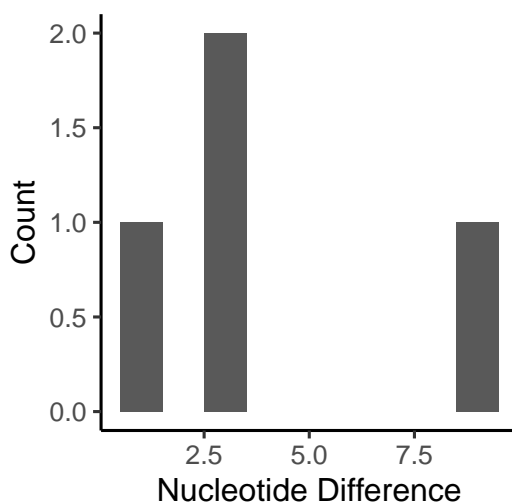
IGHV3-9*03

660 sequences assigned
64 (9.7%) exact matches, in which:
41 unique CDR3
4 unique J



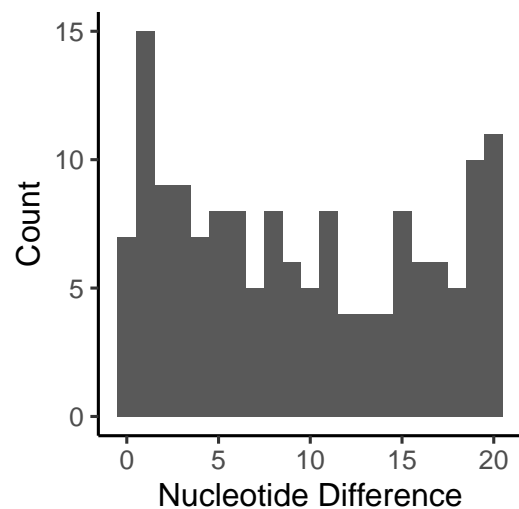
IGHV3-13*03

4 sequences assigned
No exact matches.



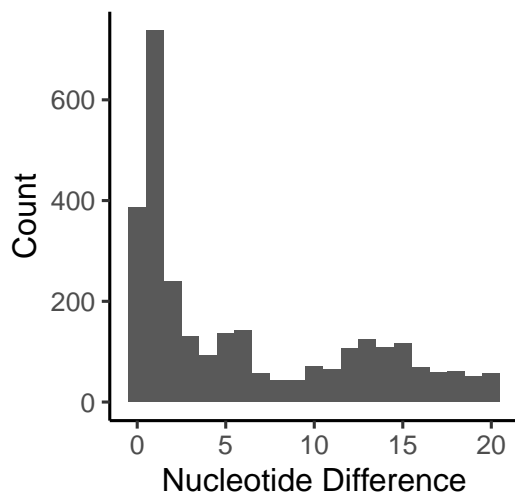
IGHV3-21*04

207 sequences assigned
7 (3.4%) exact matches, in which:
6 unique CDR3
3 unique J



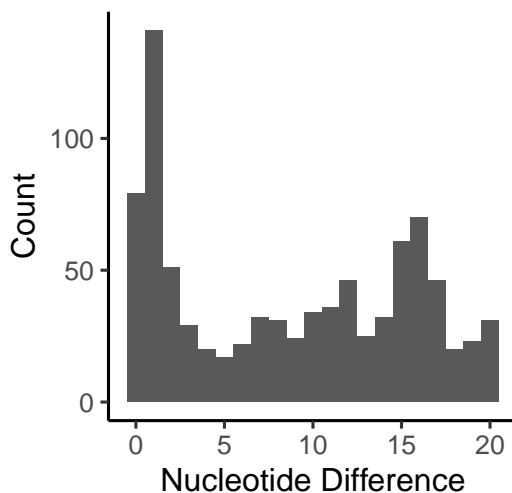
IGHV3-11*04

3796 sequences assigned
387 (10.2%) exact matches, in which:
241 unique CDR3
7 unique J



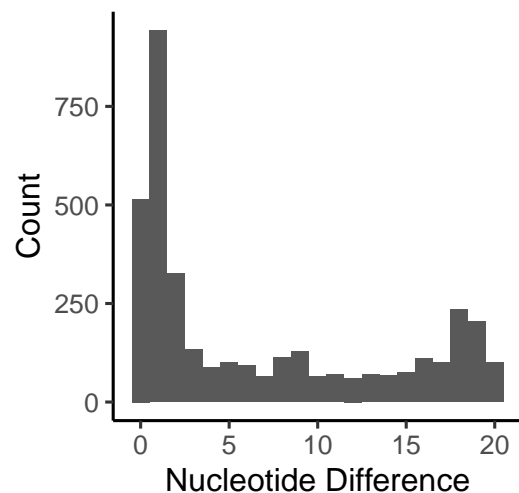
IGHV3-15*01_02

1173 sequences assigned
79 (6.7%) exact matches, in which:
55 unique CDR3
4 unique J



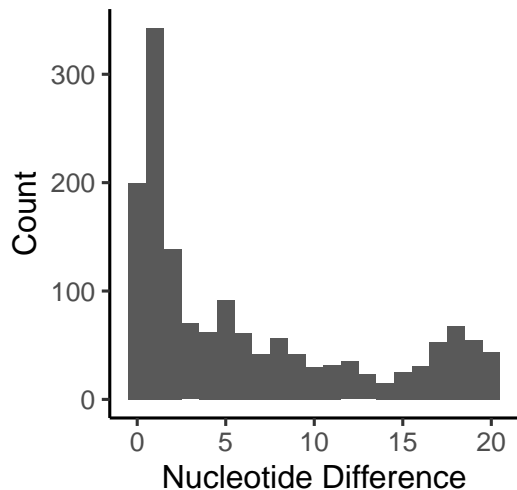
IGHV3-21*01_02

3946 sequences assigned
515 (13.1%) exact matches, in which:
311 unique CDR3
7 unique J



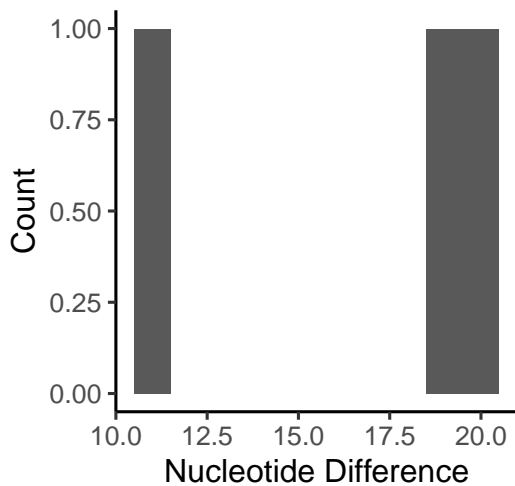
IGHV3-23*03

2032 sequences assigned
200 (9.8%) exact matches, in which:
122 unique CDR3
7 unique J



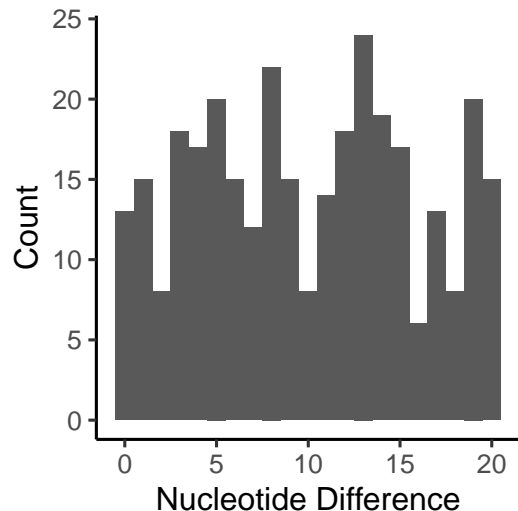
IGHV3-30-3*02

5 sequences assigned
No exact matches.



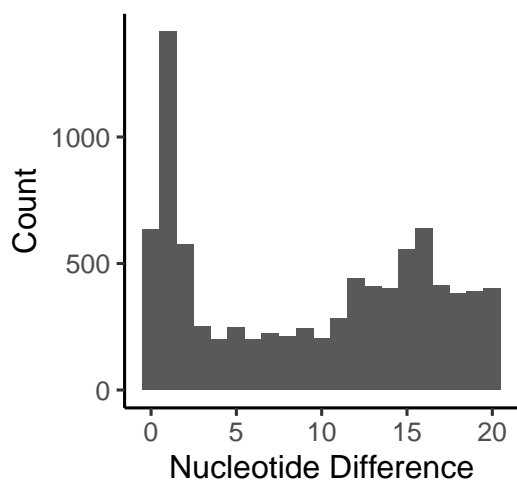
IGHV3-33*08

376 sequences assigned
13 (3.5%) exact matches, in which:
13 unique CDR3
6 unique J



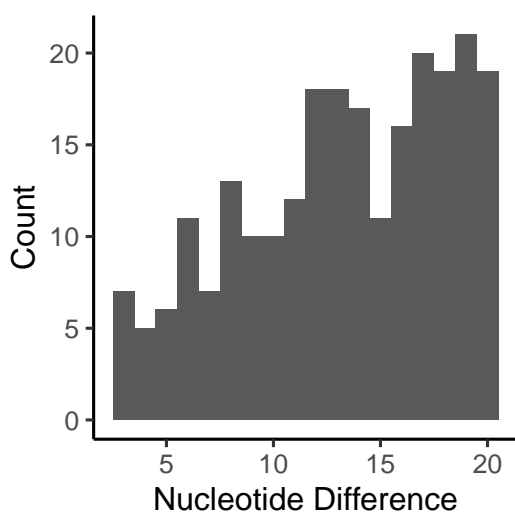
IGHV3-23*01_04

12029 sequences assigned
636 (5.3%) exact matches, in which:
353 unique CDR3
7 unique J



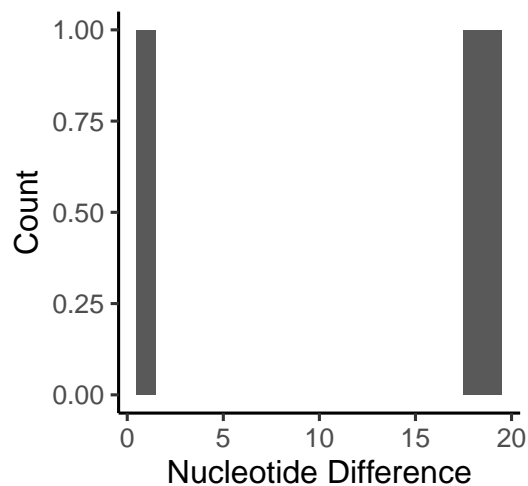
IGHV3-33*01

350 sequences assigned
No exact matches.



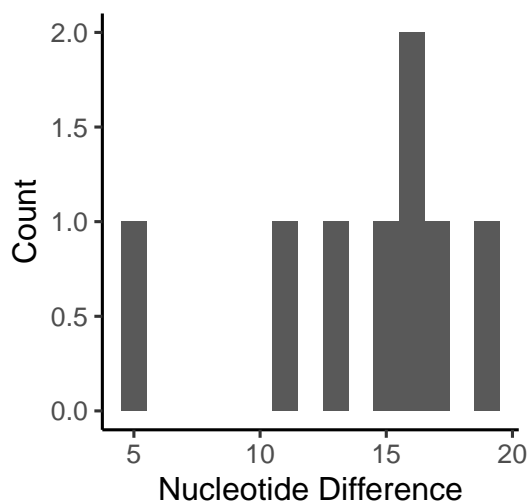
IGHV3-38-3*01

14 sequences assigned
No exact matches.



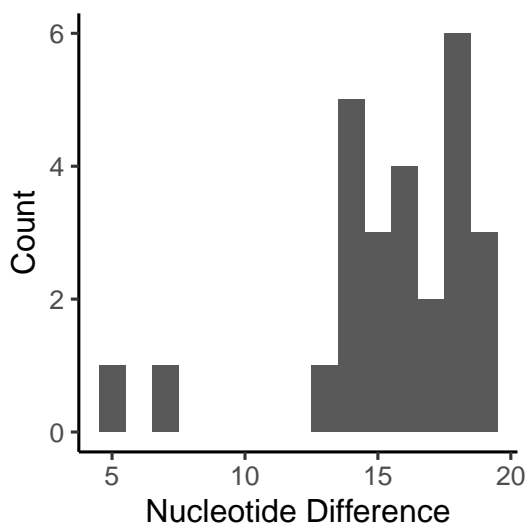
IGHV3-30-3*01

24 sequences assigned
No exact matches.



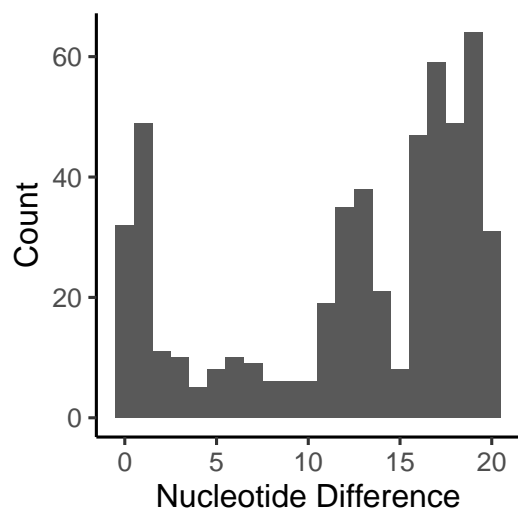
IGHV3-33*03

67 sequences assigned
No exact matches.



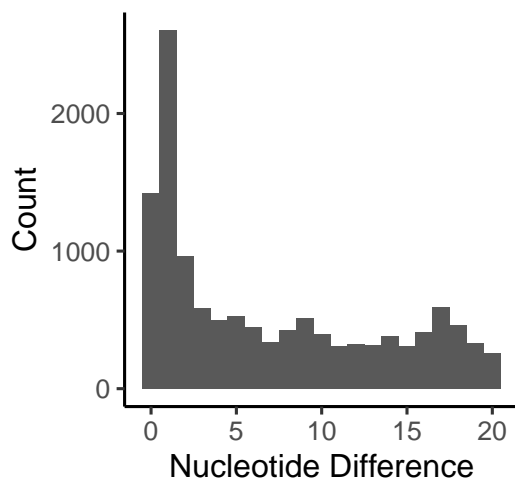
IGHV3-43*01

1034 sequences assigned
32 (3.1%) exact matches, in which:
18 unique CDR3
3 unique J



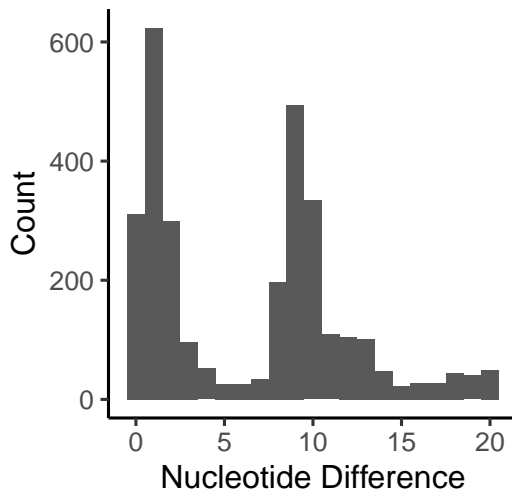
IGHV3-48*01

14177 sequences assigned
1418 (10%) exact matches, in which:
843 unique CDR3
7 unique J



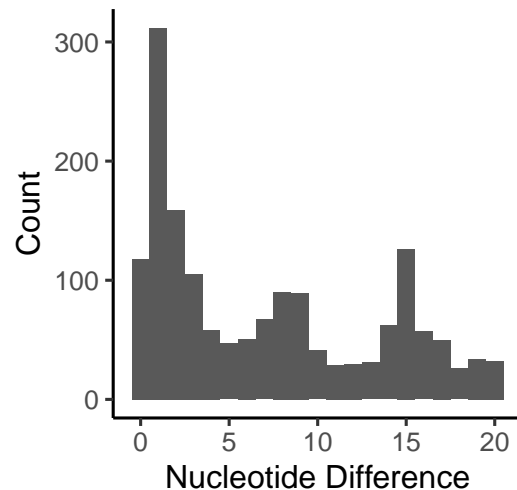
IGHV3-49*03_05

3622 sequences assigned
311 (8.6%) exact matches, in which:
215 unique CDR3
7 unique J



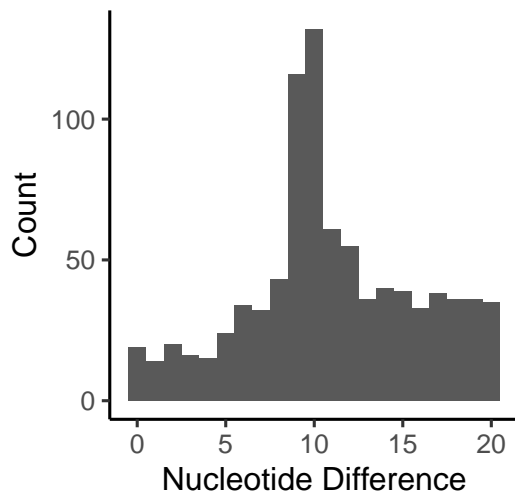
IGHV3-53*01_02

1802 sequences assigned
118 (6.5%) exact matches, in which:
68 unique CDR3
2 unique J



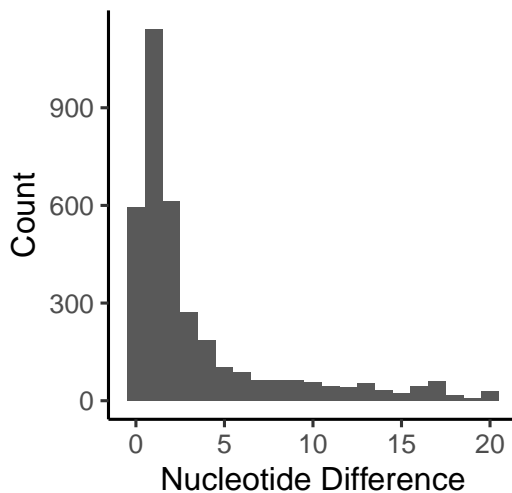
IGHV3-48*04

1194 sequences assigned
19 (1.6%) exact matches, in which:
17 unique CDR3
5 unique J



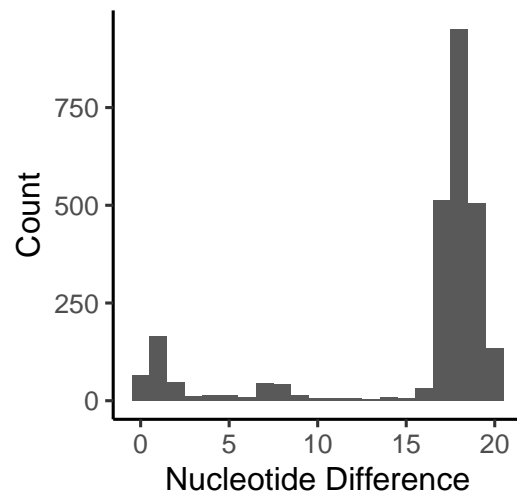
IGHV3-53*04

3671 sequences assigned
594 (16.2%) exact matches, in which:
377 unique CDR3
7 unique J



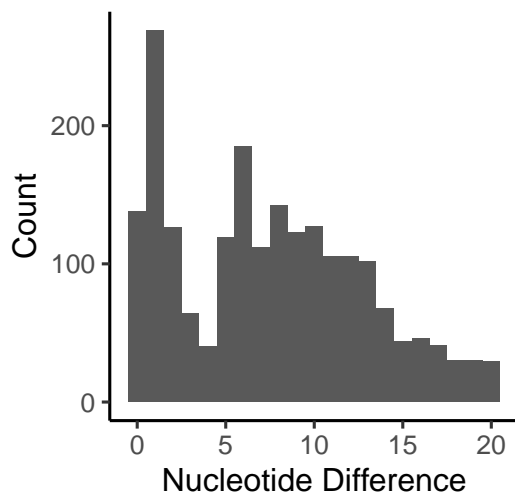
IGHV3-64*01

2838 sequences assigned
66 (2.3%) exact matches, in which:
50 unique CDR3
4 unique J



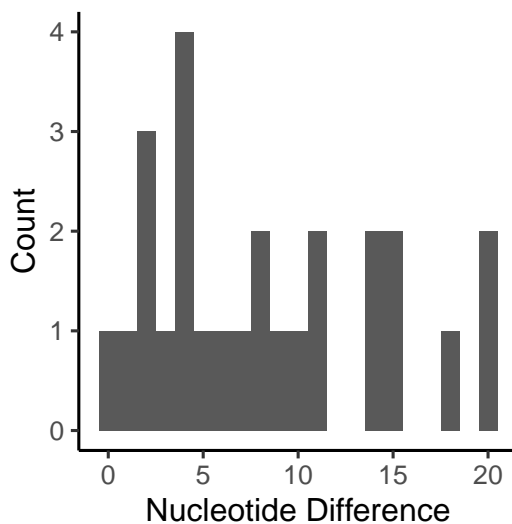
IGHV3-49*04

2226 sequences assigned
138 (6.2%) exact matches, in which:
91 unique CDR3
5 unique J



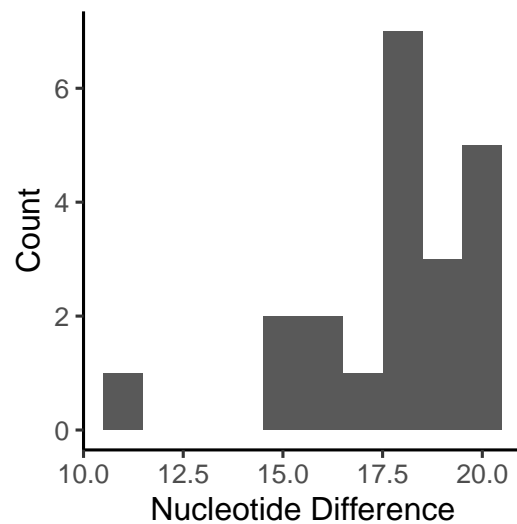
IGHV3-53*05

43 sequences assigned
1 (2.3%) exact matches, in which:
1 unique CDR3
0 unique J



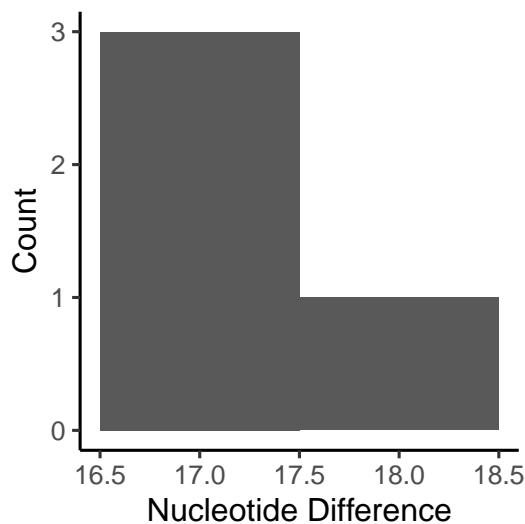
IGHV3-64*04

27 sequences assigned
No exact matches.



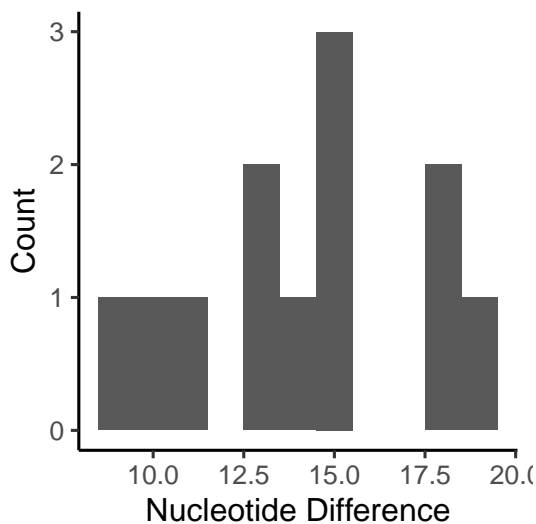
IGHV3-64*02_07

51 sequences assigned
No exact matches.



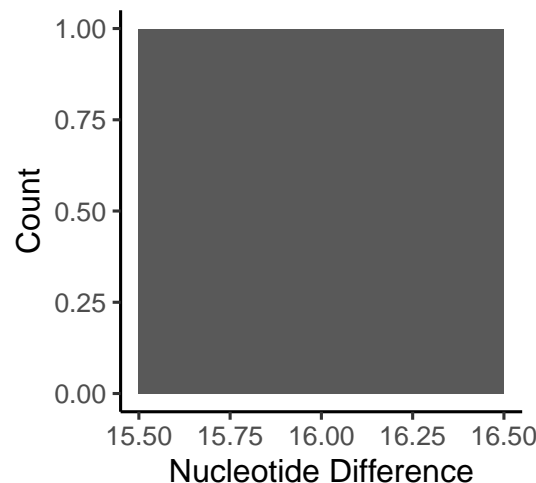
IGHV3-66*03

13 sequences assigned
No exact matches.



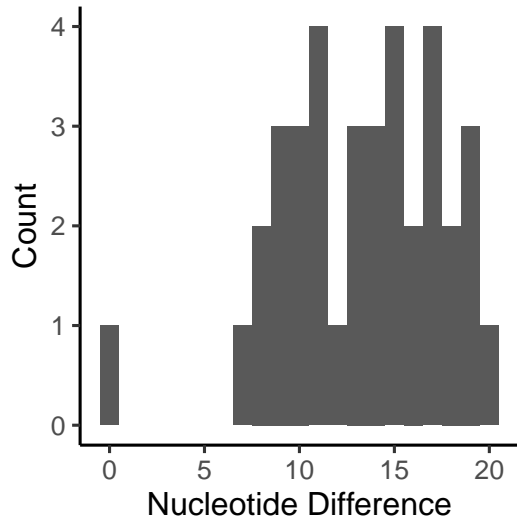
IGHV3-71*01_04

5 sequences assigned
No exact matches.



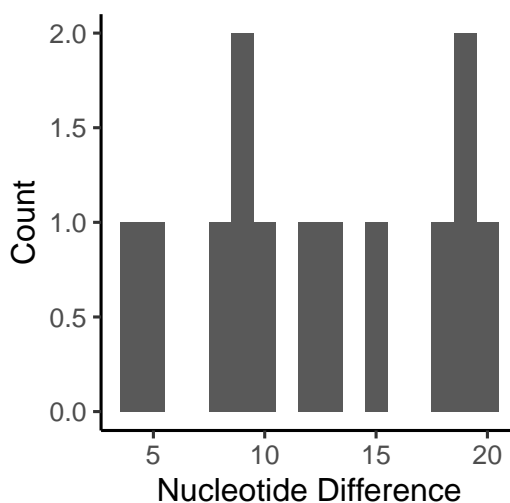
IGHV3-66*01

47 sequences assigned
1 (2.1%) exact matches, in which:
1 unique CDR3
1 unique J



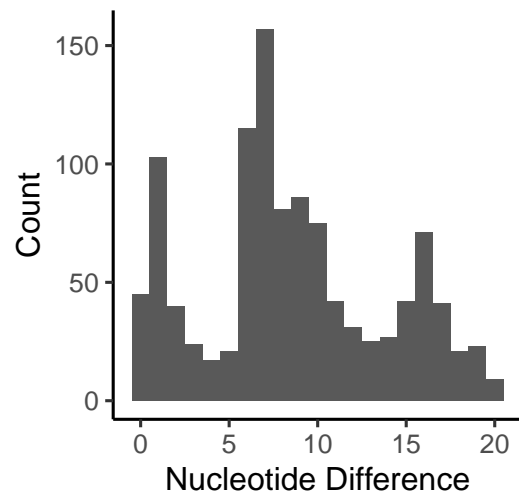
IGHV3-69-1*01

21 sequences assigned
No exact matches.



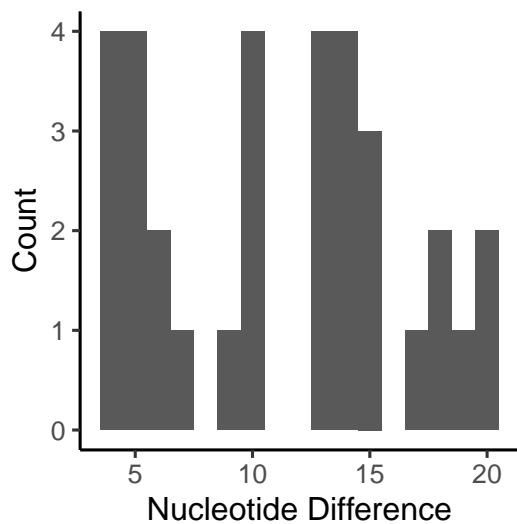
IGHV3-72*01

1277 sequences assigned
45 (3.5%) exact matches, in which:
30 unique CDR3
5 unique J



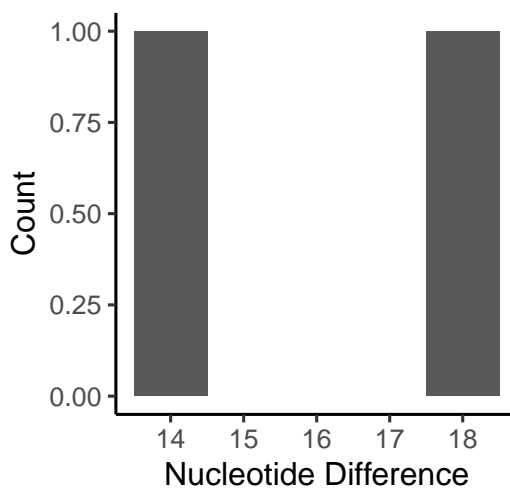
IGHV3-66*02

34 sequences assigned
No exact matches.



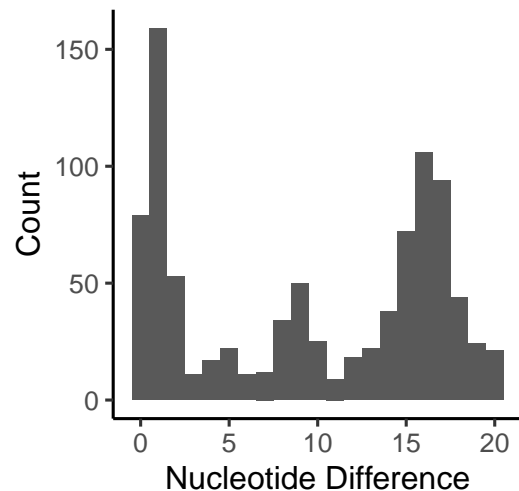
IGHV3-69-1*02

38 sequences assigned
No exact matches.



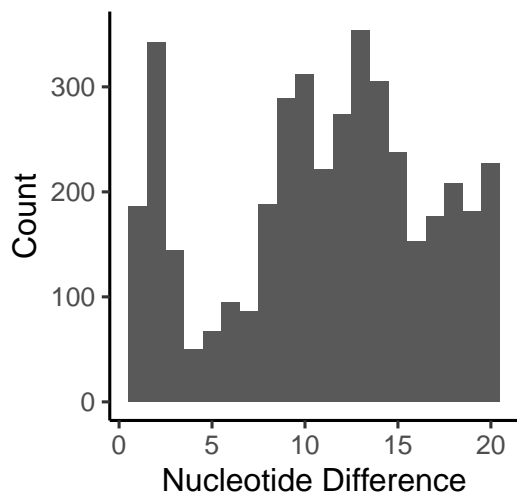
IGHV3-73*01_02

1108 sequences assigned
79 (7.1%) exact matches, in which:
52 unique CDR3
5 unique J



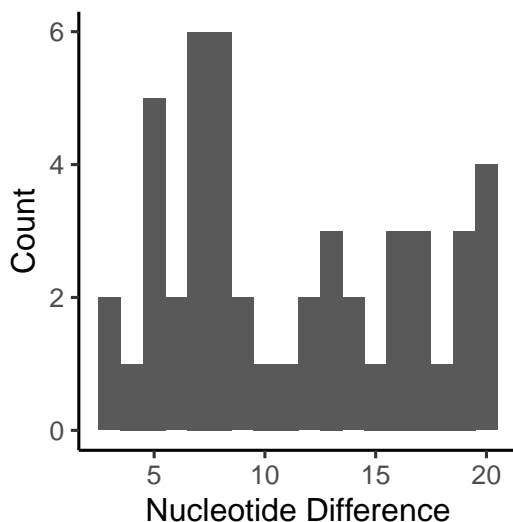
IGHV3-74*03

4956 sequences assigned
No exact matches.



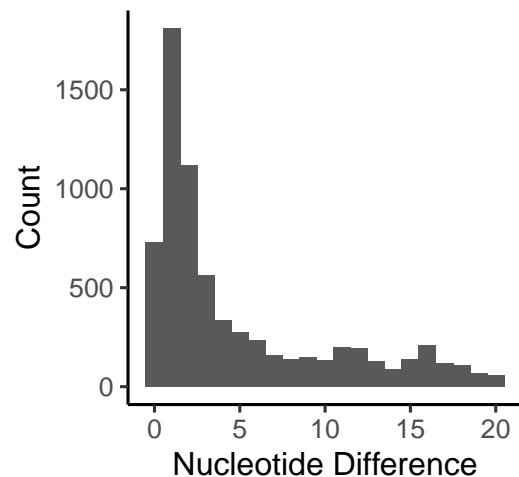
IGHV3-NL1*01

81 sequences assigned
No exact matches.



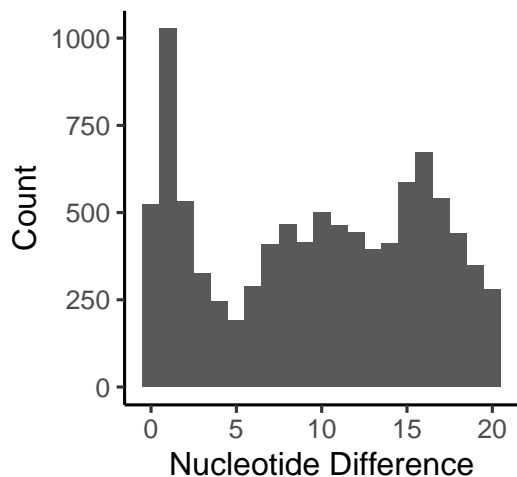
IGHV4-4*02_03

7525 sequences assigned
730 (9.7%) exact matches, in which:
439 unique CDR3
7 unique J



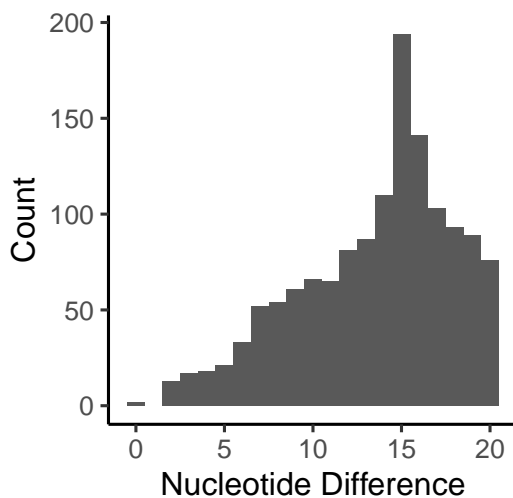
IGHV3-74*01_02

10631 sequences assigned
522 (4.9%) exact matches, in which:
327 unique CDR3
6 unique J



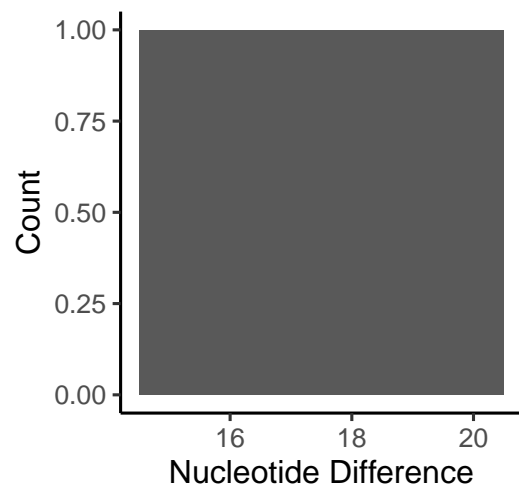
IGHV4-4*07

1950 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
1 unique J



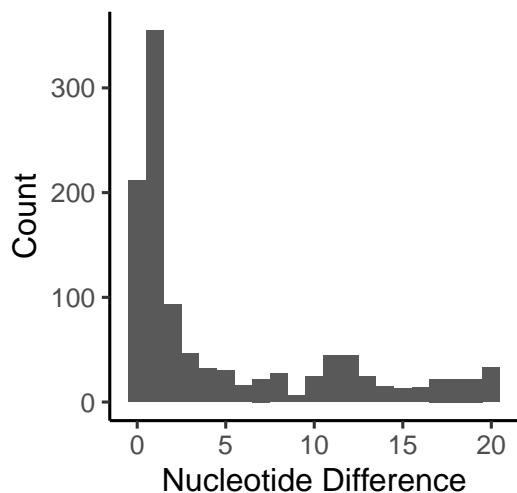
IGHV4-28*03

35 sequences assigned
No exact matches.



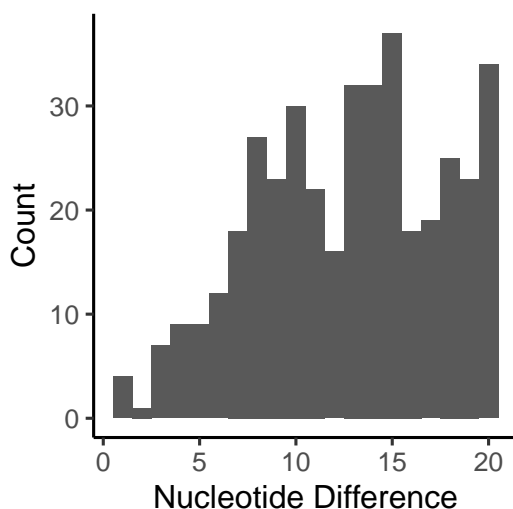
IGHV3-43D*04

1138 sequences assigned
212 (18.6%) exact matches, in which:
117 unique CDR3
3 unique J



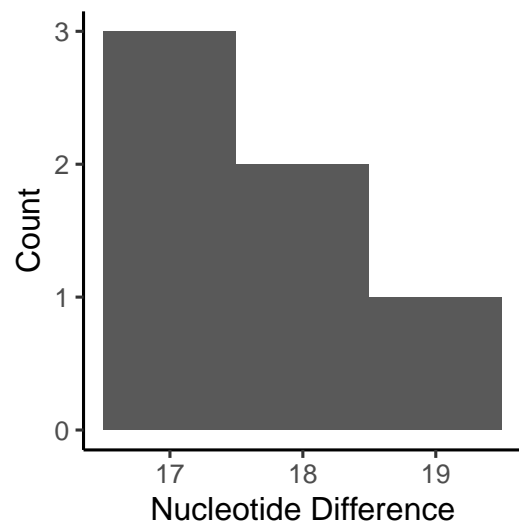
IGHV4-4*08

529 sequences assigned
No exact matches.



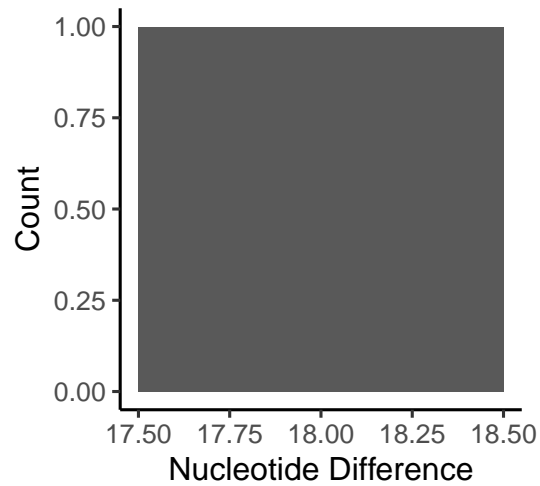
IGHV4-28*06

7 sequences assigned
No exact matches.



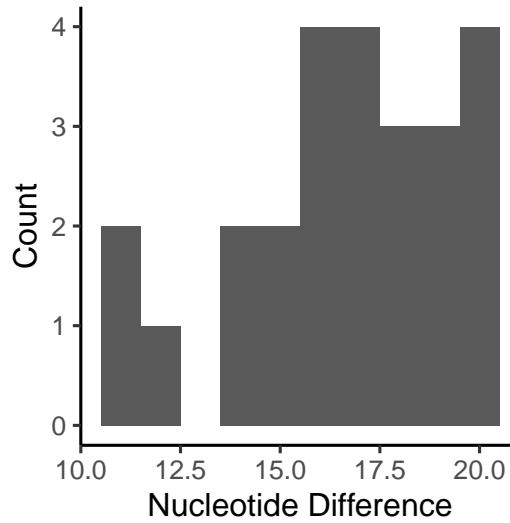
IGHV4-30-4*01

2 sequences assigned
No exact matches.



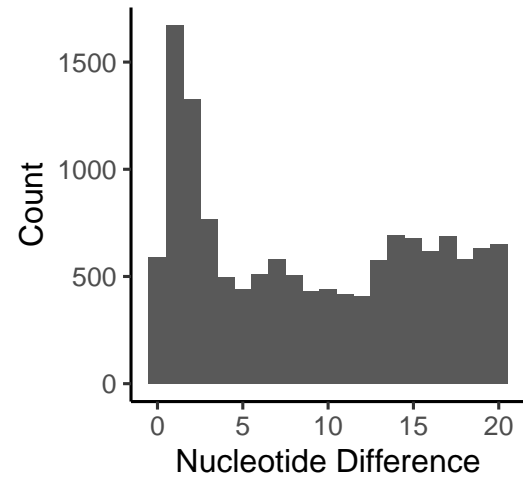
IGHV4-30-4*08

35 sequences assigned
No exact matches.



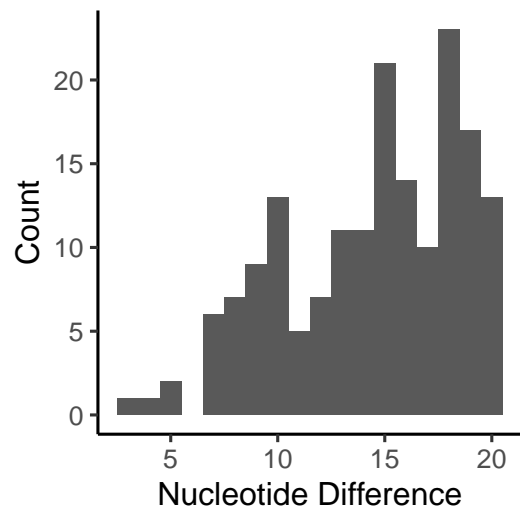
IGHV4-38-2*01

18616 sequences assigned
588 (3.2%) exact matches, in which:
354 unique CDR3
7 unique J



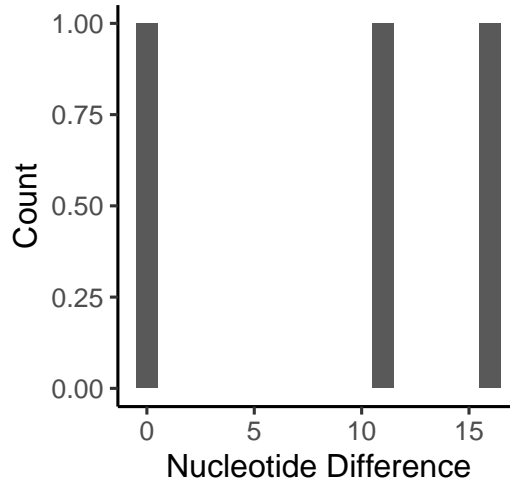
IGHV4-30-2*03

221 sequences assigned
No exact matches.



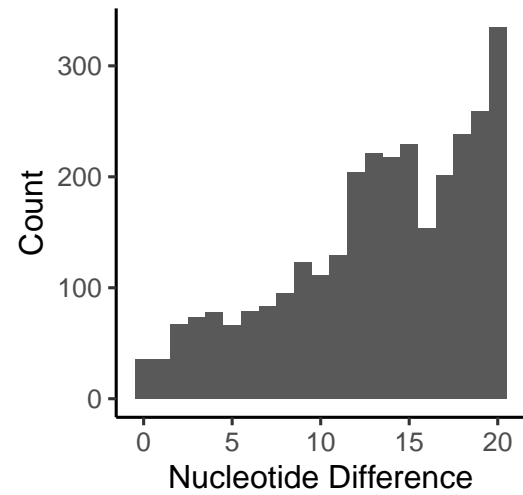
IGHV4-31*02

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



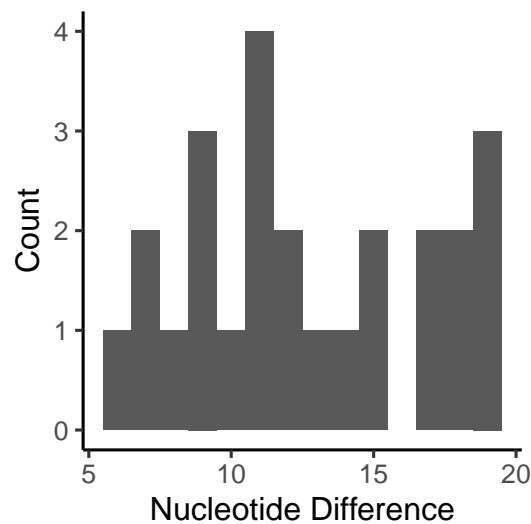
IGHV4-38-2*02

4950 sequences assigned
36 (0.7%) exact matches, in which:
28 unique CDR3
6 unique J



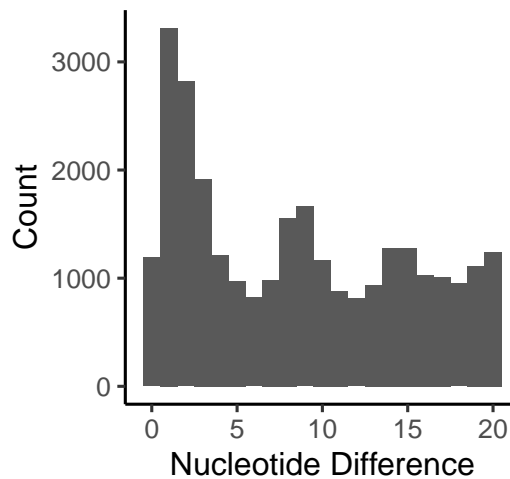
IGHV4-30-4*07

29 sequences assigned
No exact matches.



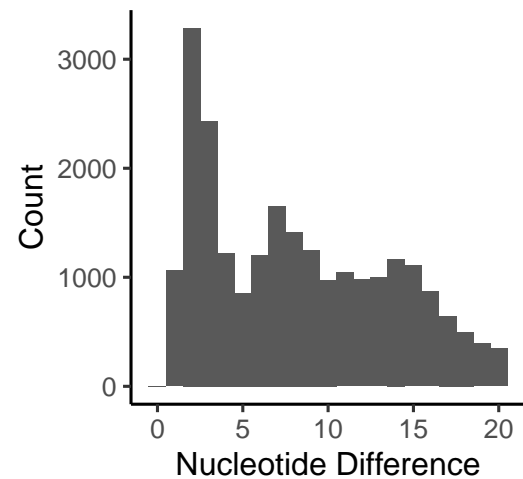
IGHV4-34*01_02

34315 sequences assigned
1192 (3.5%) exact matches, in which:
671 unique CDR3
7 unique J



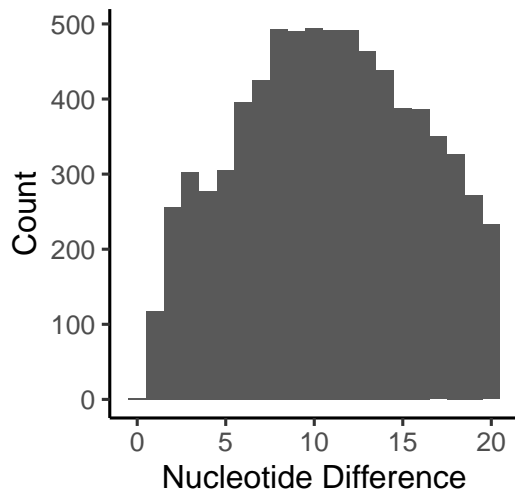
IGHV4-39*02

25342 sequences assigned
3 (0%) exact matches, in which:
3 unique CDR3
3 unique J



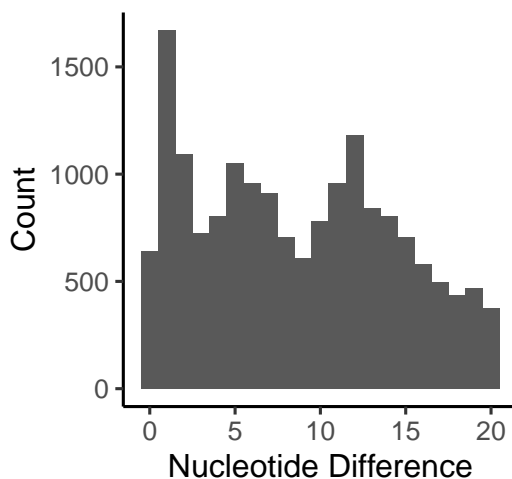
IGHV4-39*07

8604 sequences assigned
2 (0%) exact matches, in which:
2 unique CDR3
1 unique J



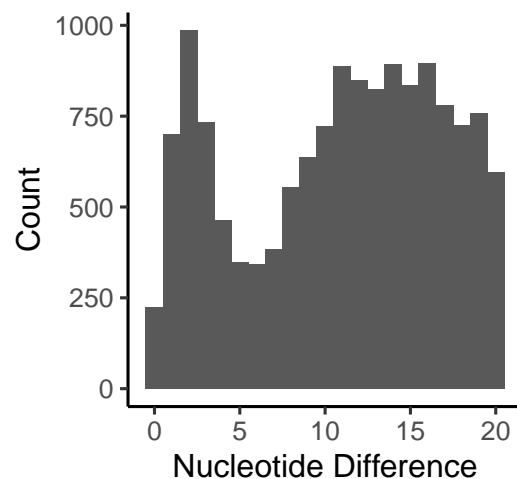
IGHV4-59*08

18947 sequences assigned
640 (3.4%) exact matches, in which:
410 unique CDR3
7 unique J



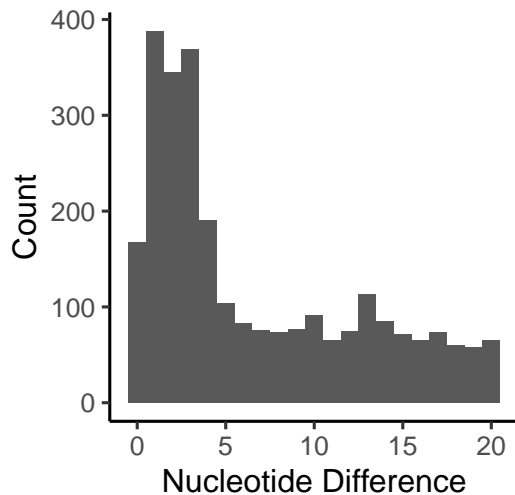
IGHV4-61*02

15312 sequences assigned
223 (1.5%) exact matches, in which:
142 unique CDR3
7 unique J



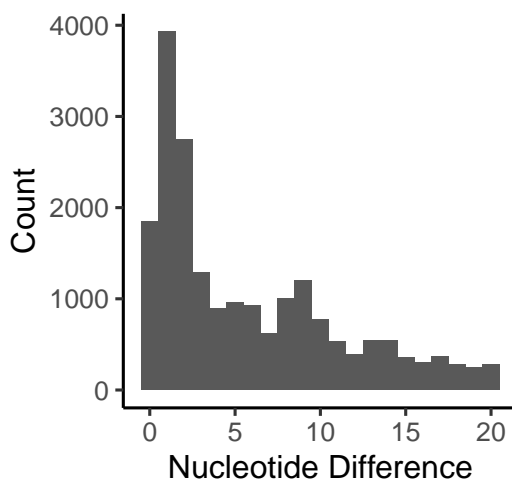
IGHV4-39*01_05

3329 sequences assigned
168 (5%) exact matches, in which:
109 unique CDR3
7 unique J



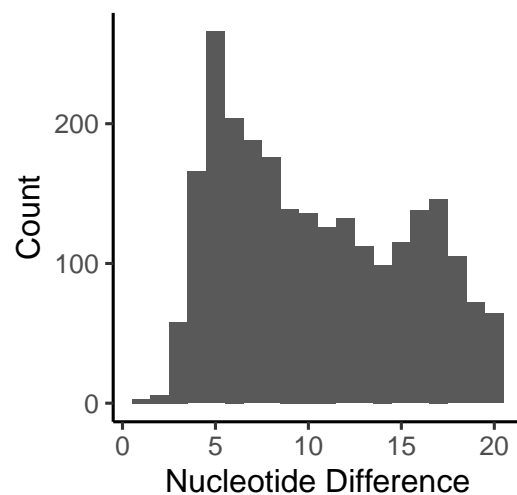
IGHV4-59*01_07

20930 sequences assigned
1850 (8.8%) exact matches, in which:
953 unique CDR3
7 unique J



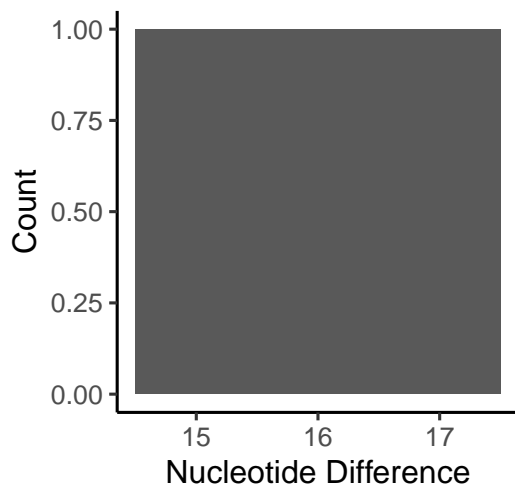
IGHV4-61*09

2749 sequences assigned
No exact matches.



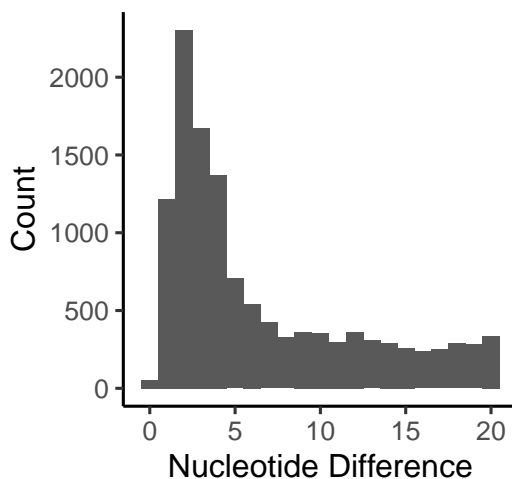
IGHV4-55*09

6 sequences assigned
No exact matches.



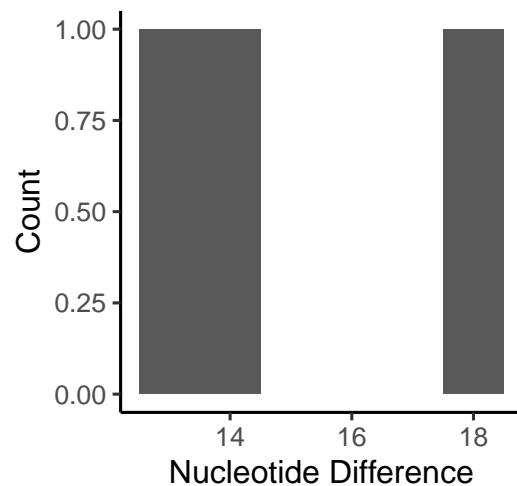
IGHV4-59*12

13737 sequences assigned
52 (0.4%) exact matches, in which:
40 unique CDR3
6 unique J



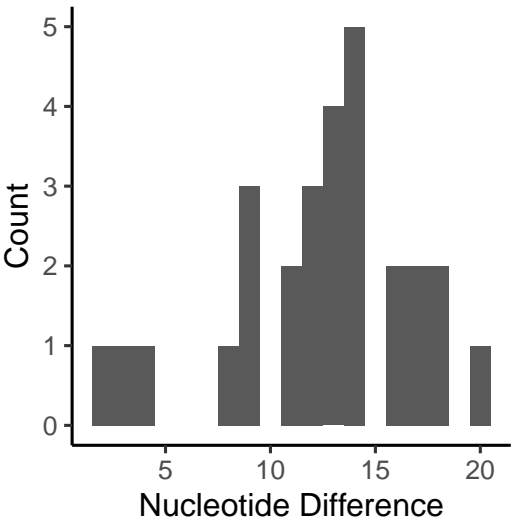
IGHV1/OR15-3*02

4 sequences assigned
No exact matches.



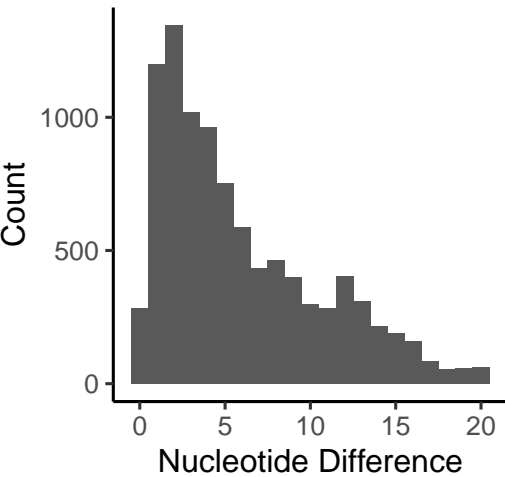
IGHV4/OR15–8*01

50 sequences assigned
No exact matches.



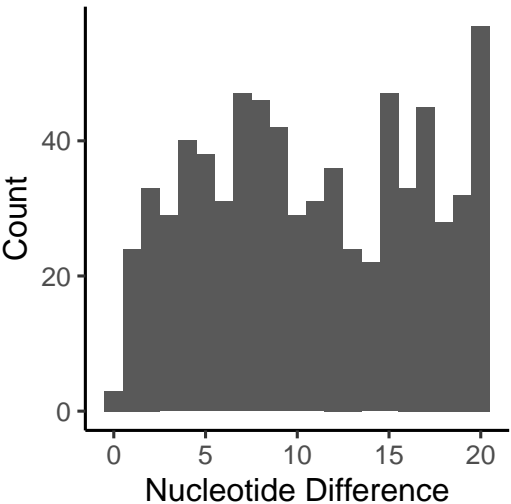
IGHV5–51*01_03

9918 sequences assigned
282 (2.8%) exact matches, in which:
162 unique CDR3
7 unique J



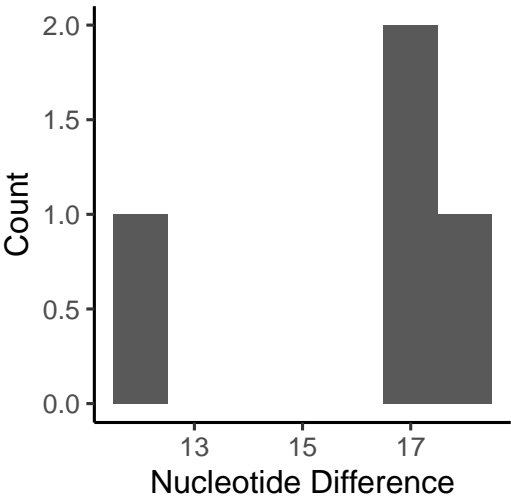
IGHV7–4–1*02

1841 sequences assigned
3 (0.2%) exact matches, in which:
3 unique CDR3
3 unique J



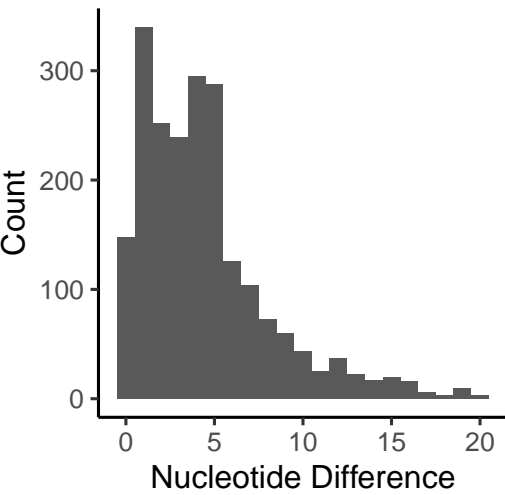
IGHV4/OR15–8*02

25 sequences assigned
No exact matches.



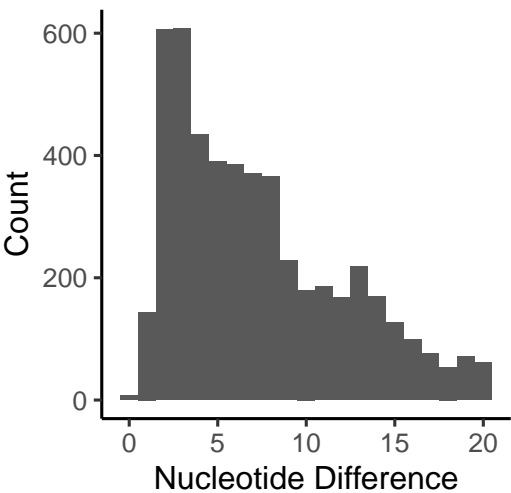
IGHV6–1*01_02

3081 sequences assigned
148 (4.8%) exact matches, in which:
97 unique CDR3
7 unique J



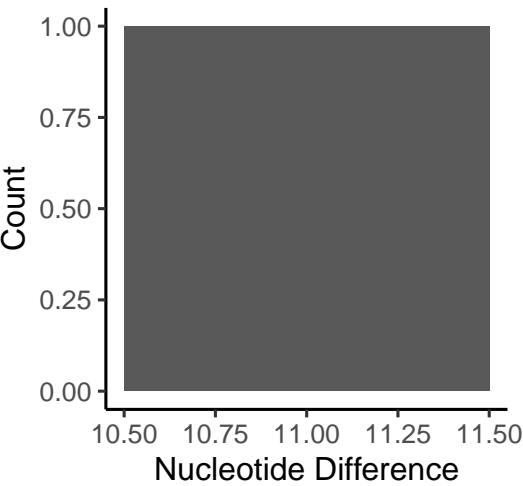
IGHV5–51*07

5335 sequences assigned
8 (0.1%) exact matches, in which:
7 unique CDR3
4 unique J

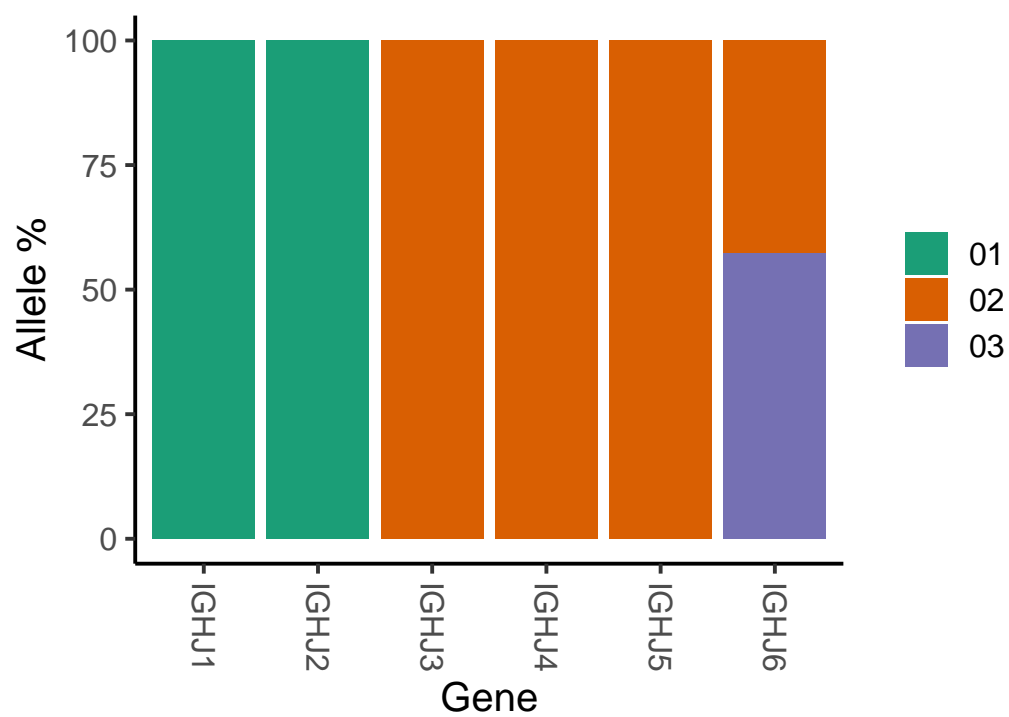


IGHV3/OR16–13*01

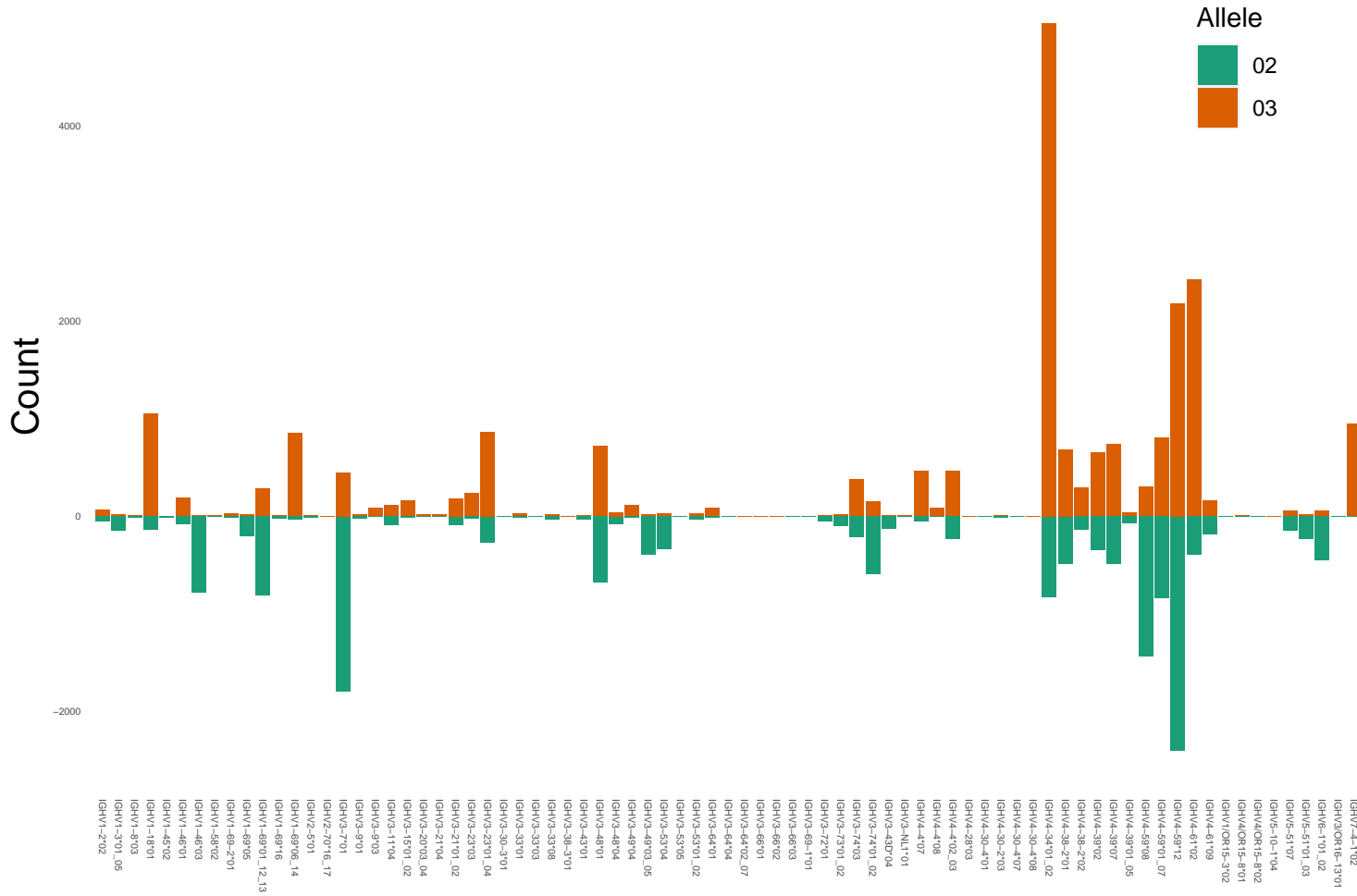
1 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]