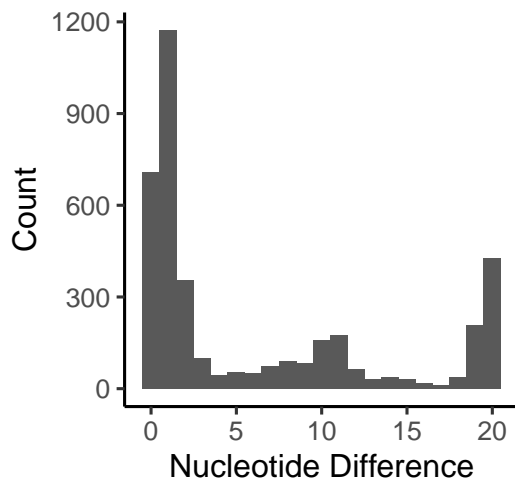


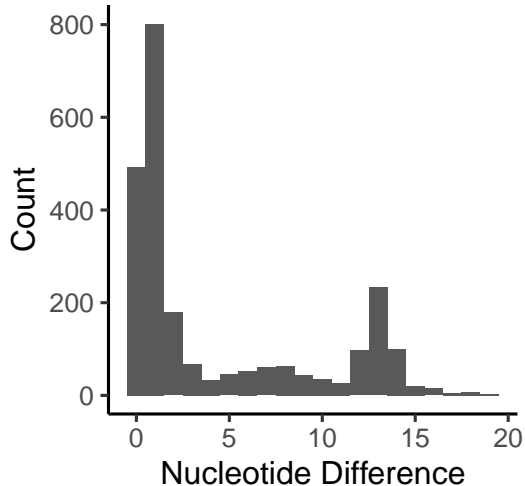
IGHV1-2*02

10147 sequences assigned
708 (7%) exact matches, in which:
524 unique CDR3
5 unique J



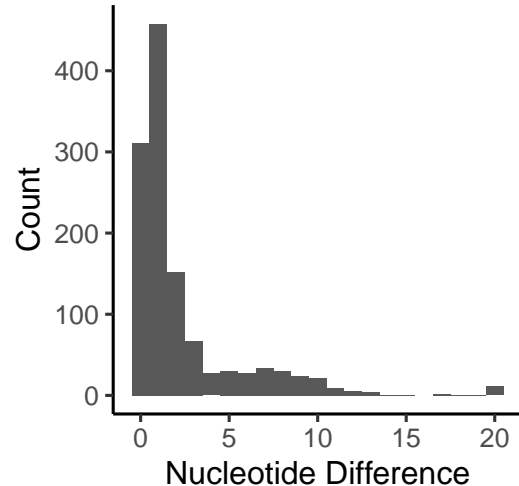
IGHV1-8*01

2390 sequences assigned
493 (20.6%) exact matches, in which:
377 unique CDR3
6 unique J



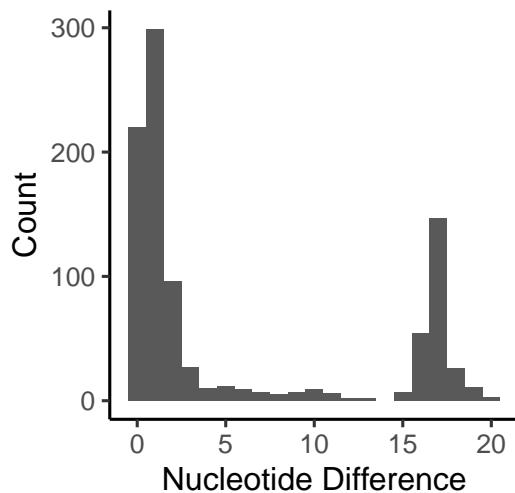
IGHV1-46*01

1244 sequences assigned
311 (25%) exact matches, in which:
245 unique CDR3
5 unique J



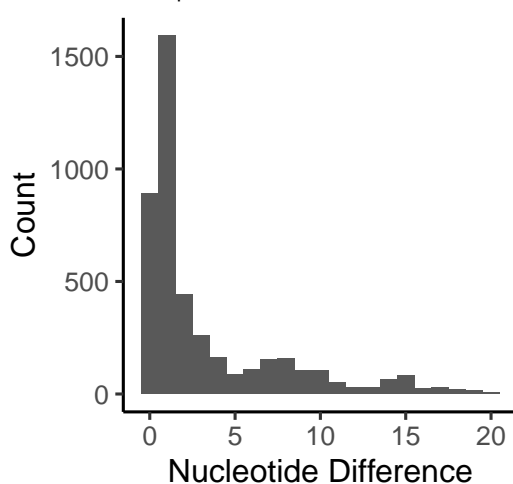
IGHV1-2*04

969 sequences assigned
220 (22.7%) exact matches, in which:
163 unique CDR3
6 unique J



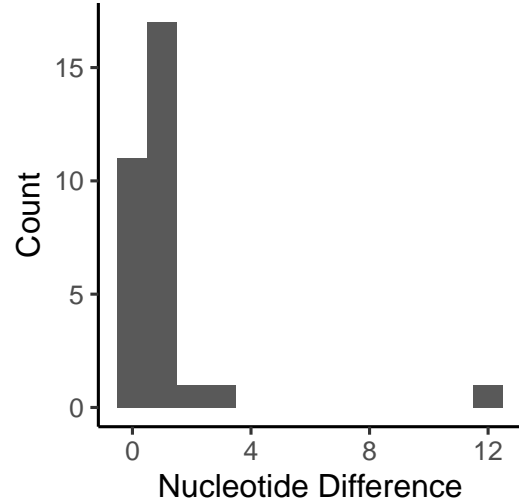
IGHV1-18*04

5450 sequences assigned
892 (16.4%) exact matches, in which:
652 unique CDR3
6 unique J



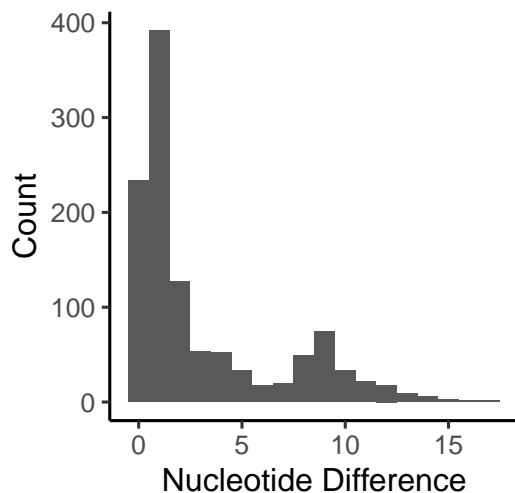
IGHV1-58*02

31 sequences assigned
11 (35.5%) exact matches, in which:
7 unique CDR3
4 unique J



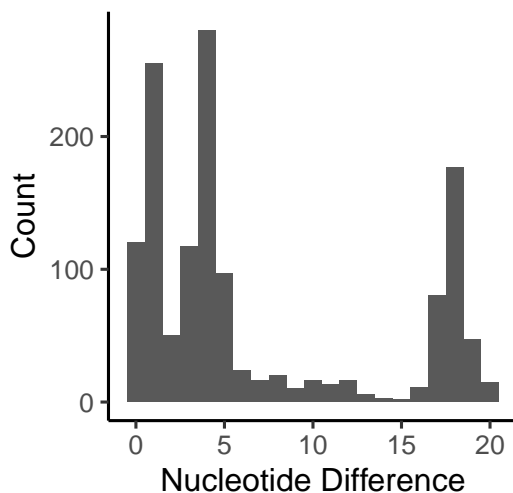
IGHV1-3*01_05

1148 sequences assigned
234 (20.4%) exact matches, in which:
180 unique CDR3
5 unique J



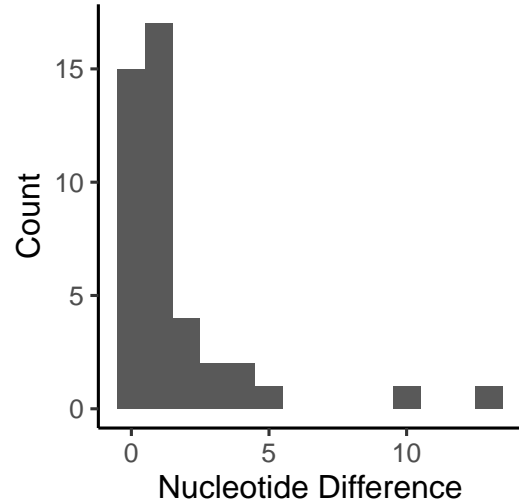
IGHV1-24*01

1403 sequences assigned
120 (8.6%) exact matches, in which:
80 unique CDR3
6 unique J



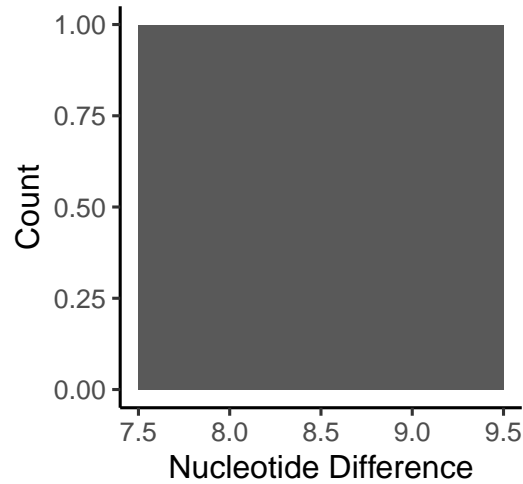
IGHV1-58*01_03

43 sequences assigned
15 (34.9%) exact matches, in which:
11 unique CDR3
4 unique J



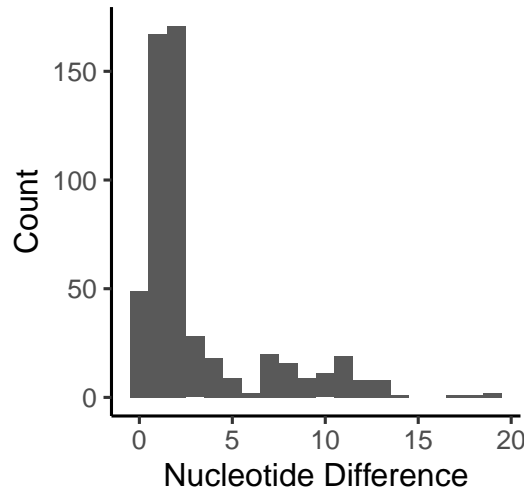
IGHV1-69-2*01

2 sequences assigned
No exact matches.



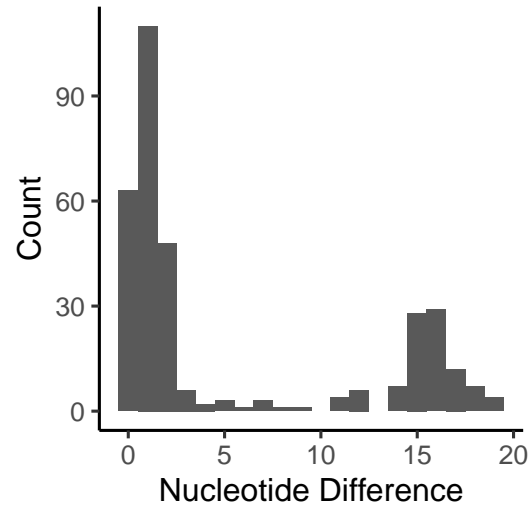
IGHV1-69*04_09

545 sequences assigned
49 (9%) exact matches, in which:
47 unique CDR3
5 unique J



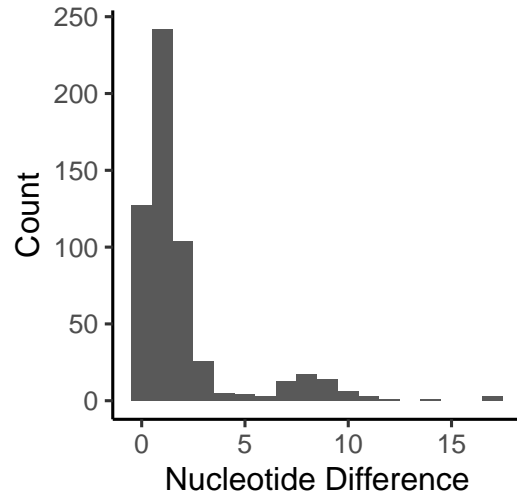
IGHV2-5*01

1030 sequences assigned
63 (6.1%) exact matches, in which:
46 unique CDR3
4 unique J



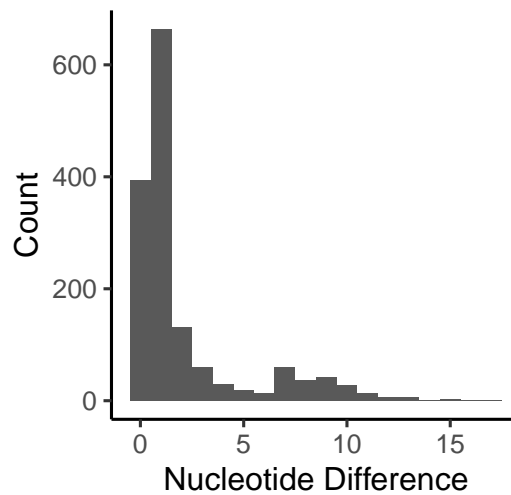
IGHV1-69*02

573 sequences assigned
127 (22.2%) exact matches, in which:
108 unique CDR3
5 unique J



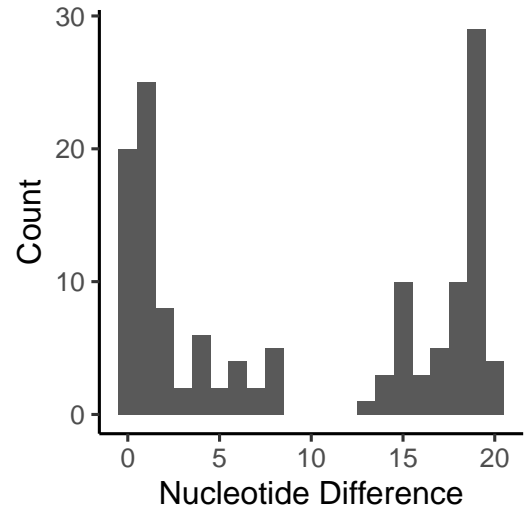
IGHV1-69*06_14

1581 sequences assigned
393 (24.9%) exact matches, in which:
326 unique CDR3
5 unique J



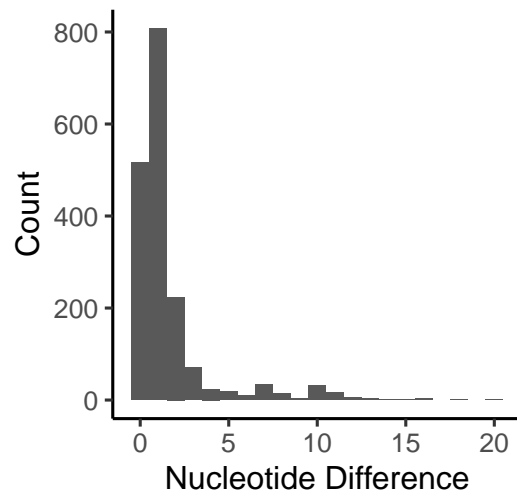
IGHV2-5*02

1138 sequences assigned
20 (1.8%) exact matches, in which:
15 unique CDR3
4 unique J



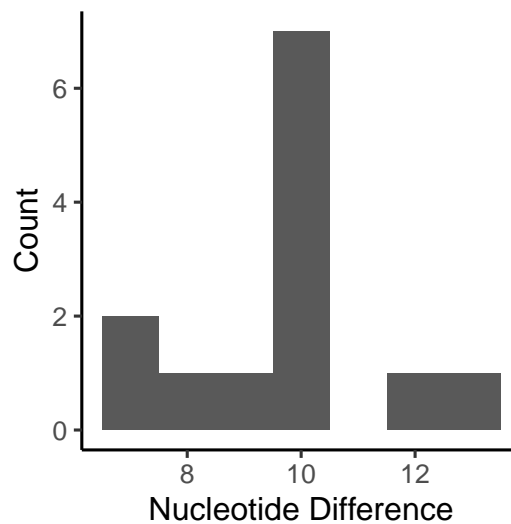
IGHV1-69*01_12_13

1831 sequences assigned
517 (28.2%) exact matches, in which:
419 unique CDR3
6 unique J



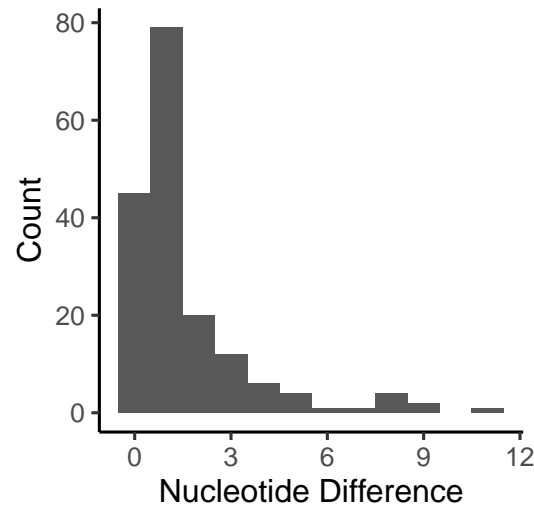
IGHV1-NL1*01

13 sequences assigned
No exact matches.



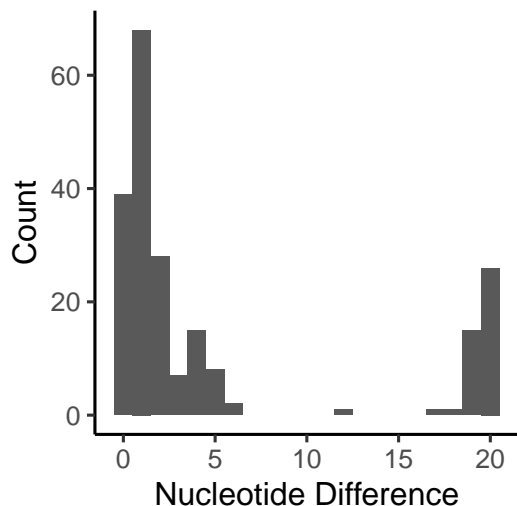
IGHV2-26*01

175 sequences assigned
45 (25.7%) exact matches, in which:
33 unique CDR3
5 unique J



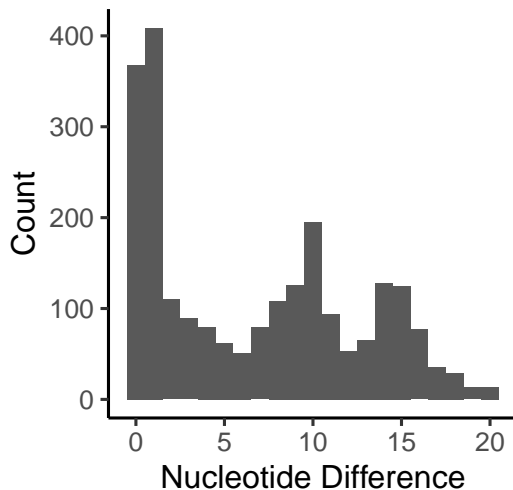
IGHV2-70*01

223 sequences assigned
39 (17.5%) exact matches, in which:
31 unique CDR3
4 unique J



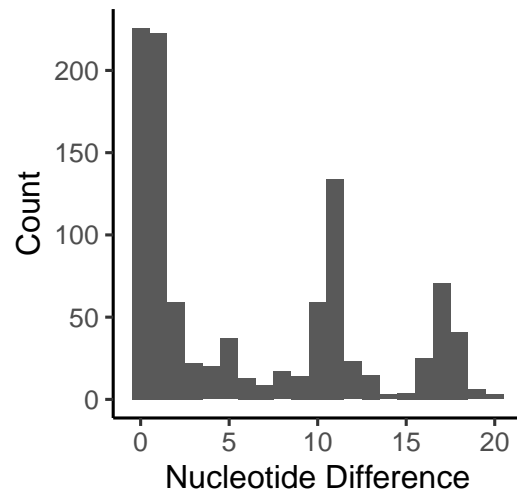
IGHV3-7*01

2434 sequences assigned
368 (15.1%) exact matches, in which:
231 unique CDR3
6 unique J



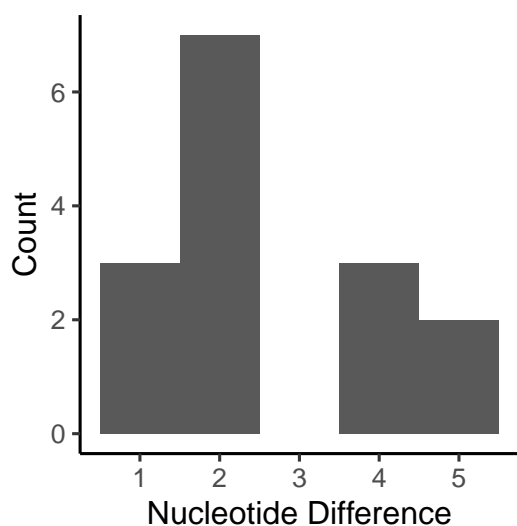
IGHV3-11*01

1045 sequences assigned
226 (21.6%) exact matches, in which:
147 unique CDR3
5 unique J



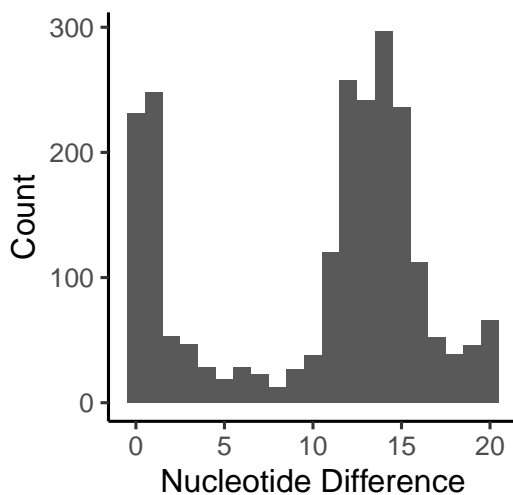
IGHV2-70*12

15 sequences assigned
No exact matches.



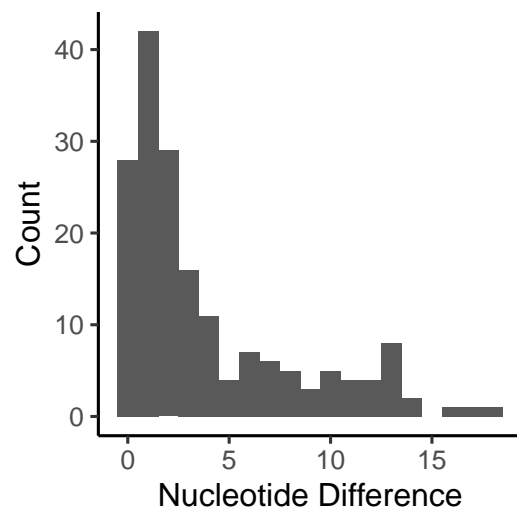
IGHV3-7*03

2468 sequences assigned
231 (9.4%) exact matches, in which:
148 unique CDR3
6 unique J



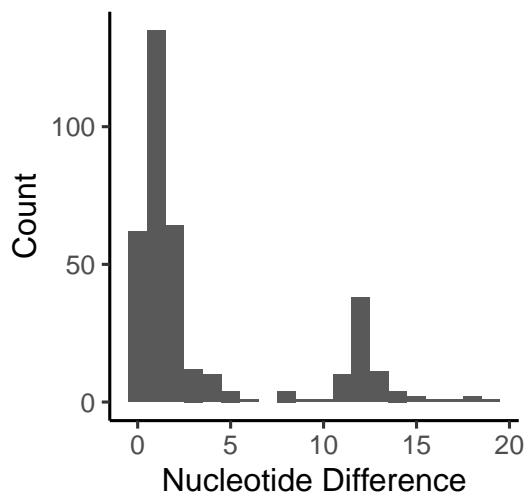
IGHV3-11*04

178 sequences assigned
28 (15.7%) exact matches, in which:
26 unique CDR3
4 unique J



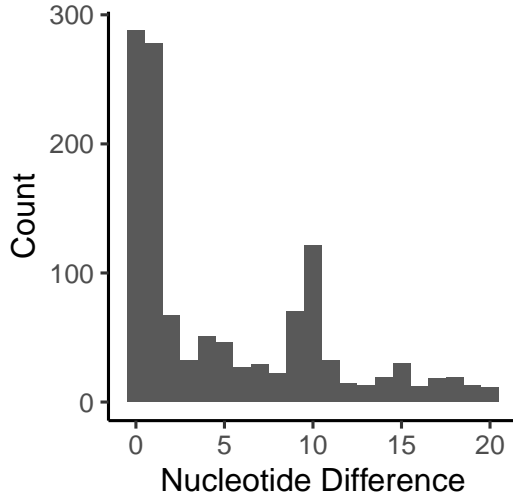
IGHV2-70*11_15

364 sequences assigned
62 (17%) exact matches, in which:
44 unique CDR3
4 unique J



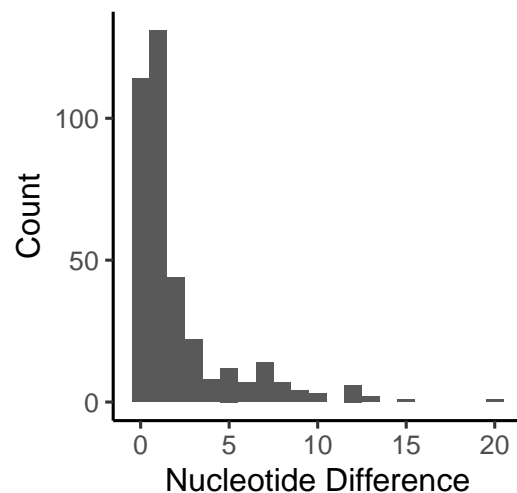
IGHV3-9*01

1251 sequences assigned
288 (23%) exact matches, in which:
168 unique CDR3
6 unique J



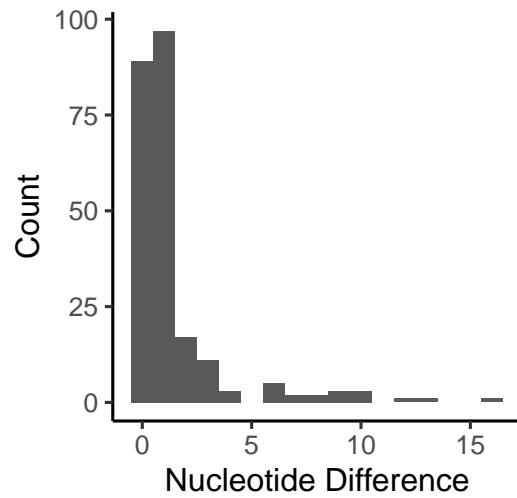
IGHV3-11*06

676 sequences assigned
114 (16.9%) exact matches, in which:
73 unique CDR3
6 unique J



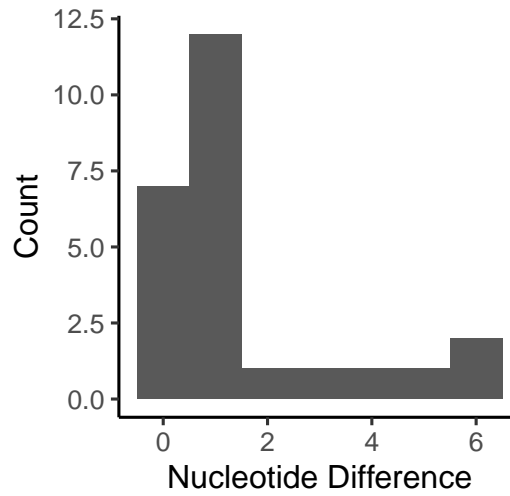
IGHV3-13*01

235 sequences assigned
89 (37.9%) exact matches, in which:
52 unique CDR3
6 unique J



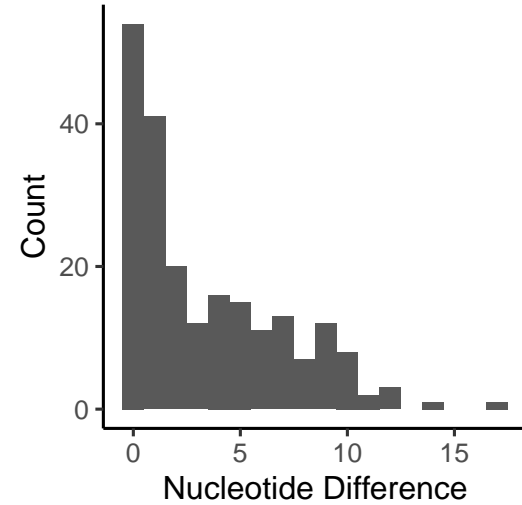
IGHV3-19*01

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



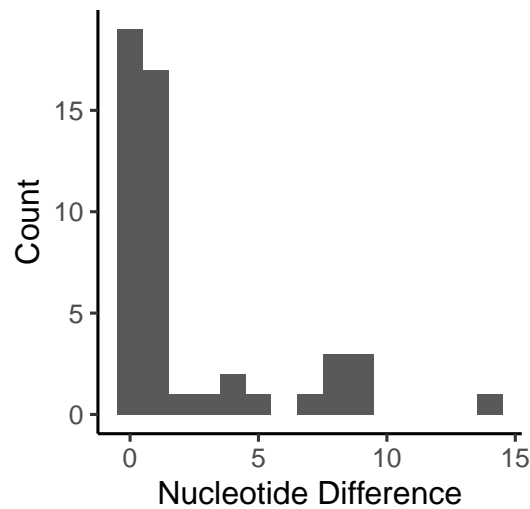
IGHV3-21*04

216 sequences assigned
54 (25%) exact matches, in which:
51 unique CDR3
4 unique J



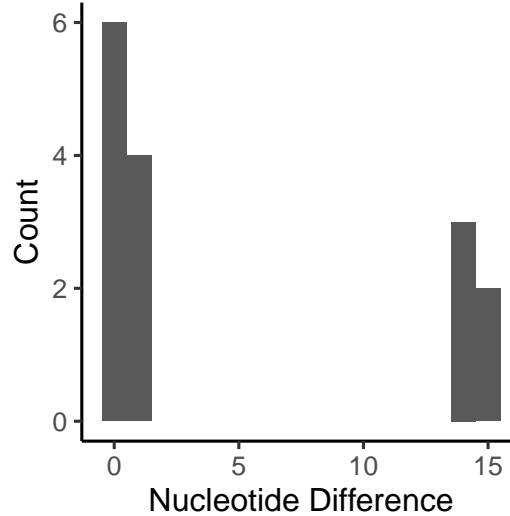
IGHV3-13*05

50 sequences assigned
19 (38%) exact matches, in which:
10 unique CDR3
4 unique J



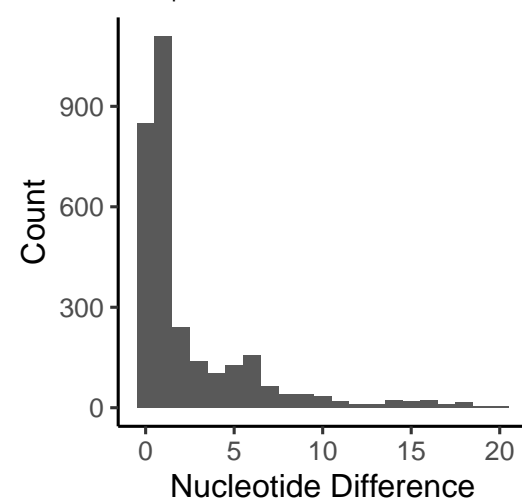
IGHV3-20*01_02

15 sequences assigned
6 (40%) exact matches, in which:
5 unique CDR3
2 unique J



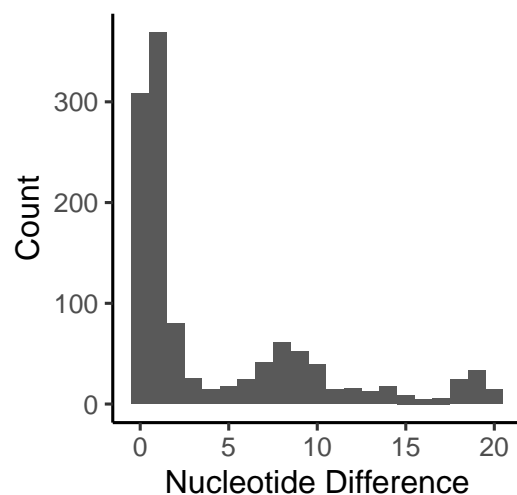
IGHV3-21*01_02

3054 sequences assigned
851 (27.9%) exact matches, in which:
488 unique CDR3
6 unique J



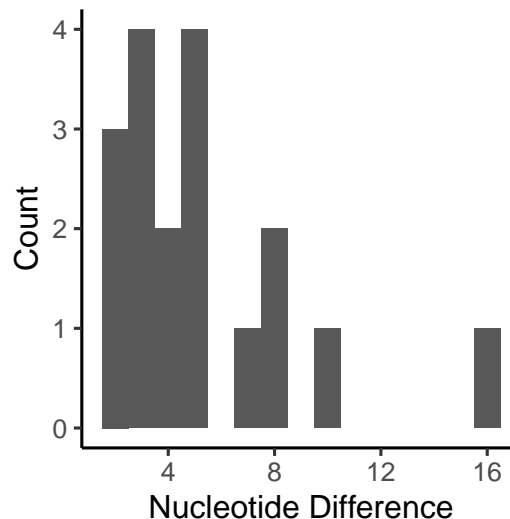
IGHV3-15*01_02

1364 sequences assigned
308 (22.6%) exact matches, in which:
169 unique CDR3
4 unique J



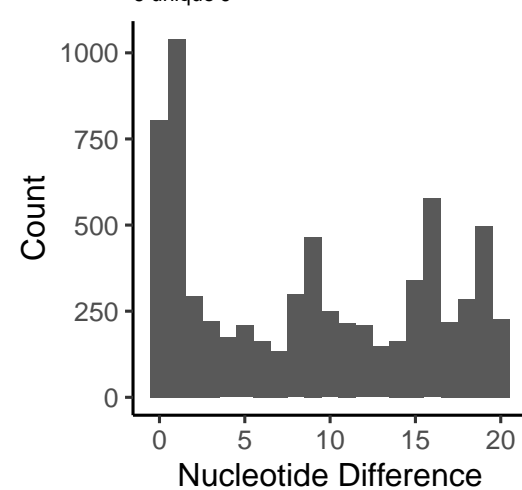
IGHV3-20*03_04

18 sequences assigned
No exact matches.



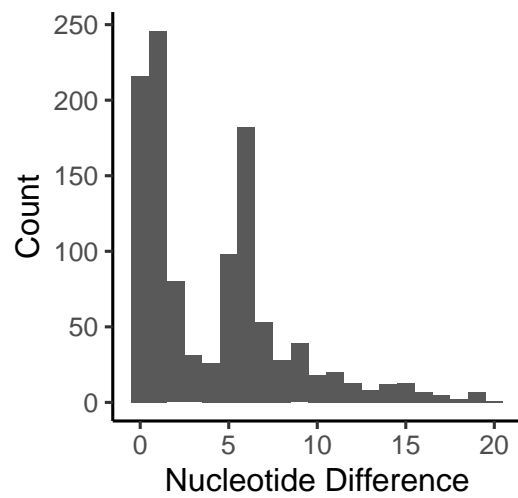
IGHV3-23*01_04

8069 sequences assigned
805 (10%) exact matches, in which:
442 unique CDR3
6 unique J



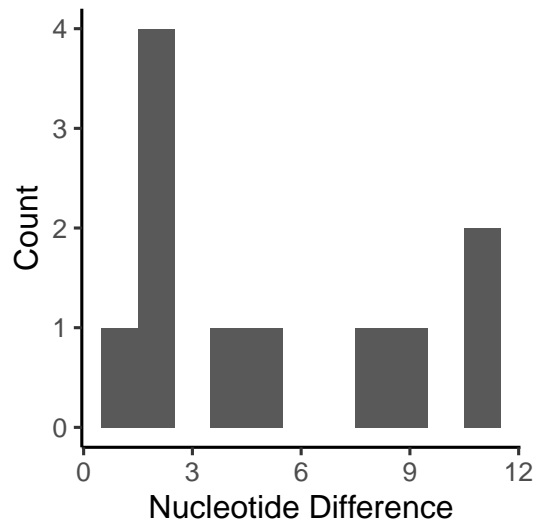
IGHV3-33*01

1193 sequences assigned
216 (18.1%) exact matches, in which:
140 unique CDR3
4 unique J



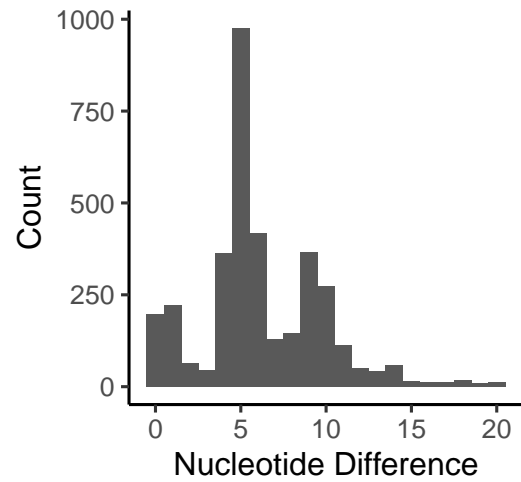
IGHV3-38-3*01

11 sequences assigned
No exact matches.



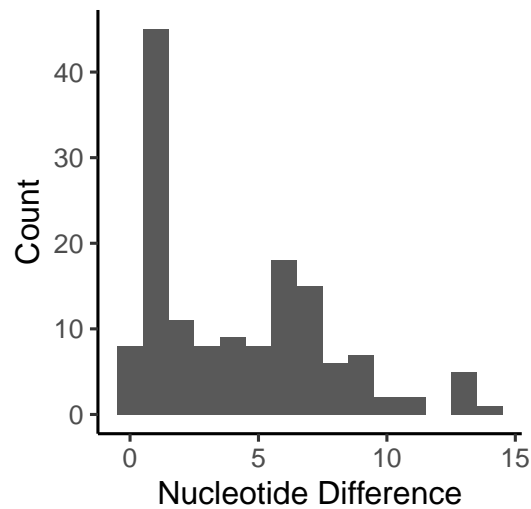
IGHV3-48*02

3792 sequences assigned
197 (5.2%) exact matches, in which:
126 unique CDR3
6 unique J



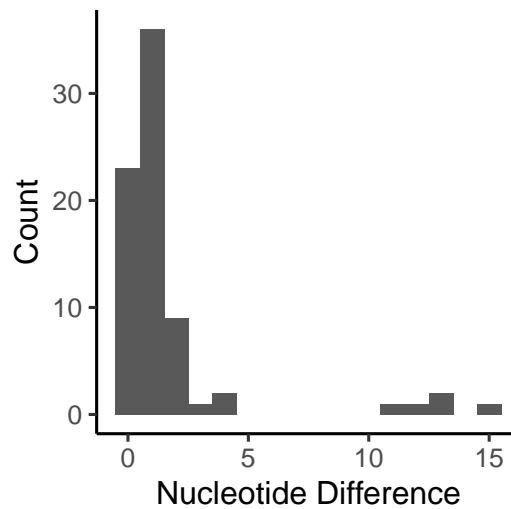
IGHV3-33*06

145 sequences assigned
8 (5.5%) exact matches, in which:
7 unique CDR3
2 unique J



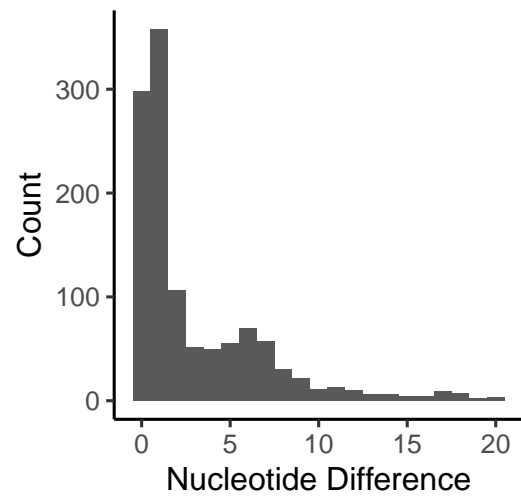
IGHV3-43*01

108 sequences assigned
23 (21.3%) exact matches, in which:
12 unique CDR3
3 unique J



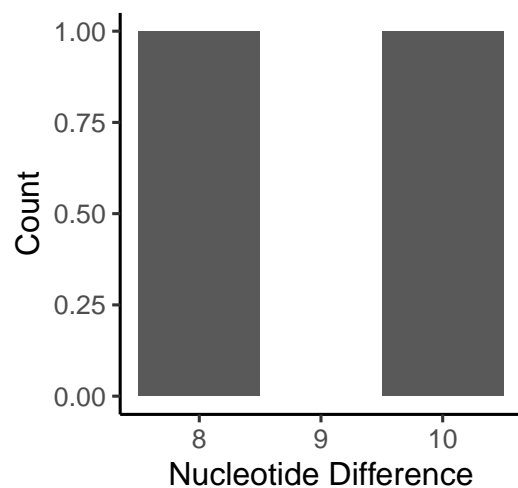
IGHV3-48*03

1184 sequences assigned
298 (25.2%) exact matches, in which:
175 unique CDR3
5 unique J



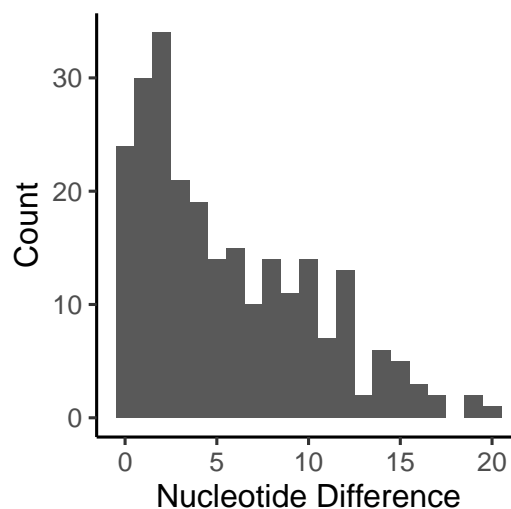
IGHV3-35*01

2 sequences assigned
No exact matches.



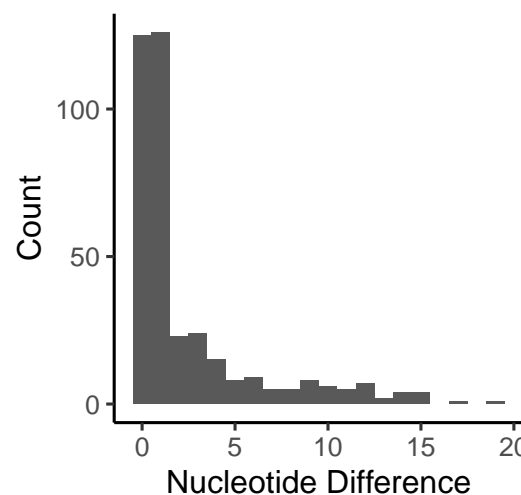
IGHV3-48*01

257 sequences assigned
24 (9.3%) exact matches, in which:
24 unique CDR3
5 unique J



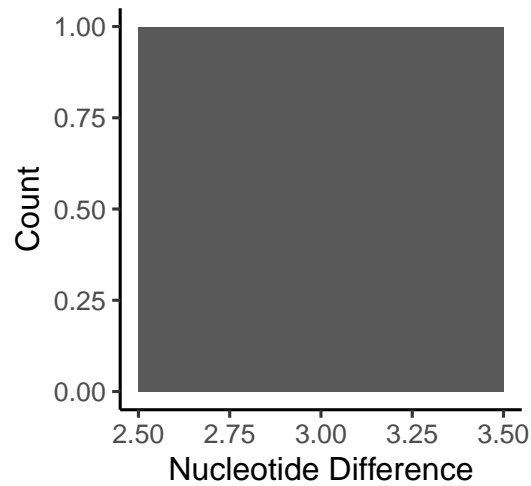
IGHV3-49*04

385 sequences assigned
125 (32.5%) exact matches, in which:
74 unique CDR3
4 unique J



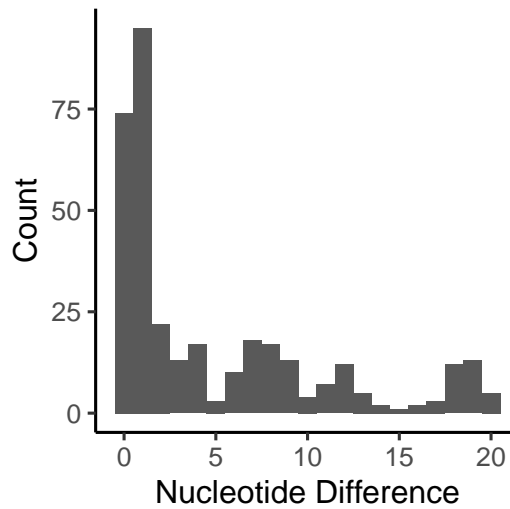
IGHV3-52*01_03

1 sequences assigned
No exact matches.



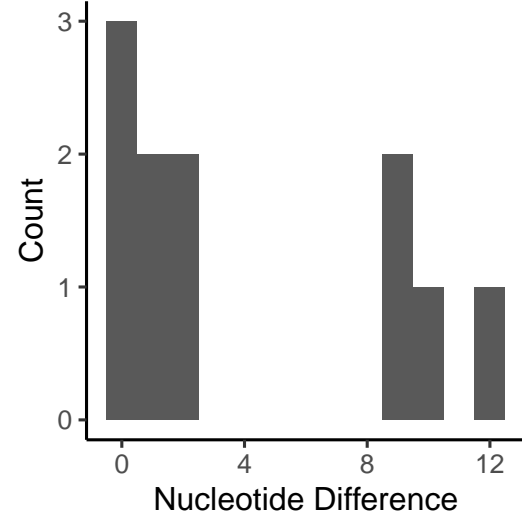
IGHV3-53*01_02

420 sequences assigned
74 (17.6%) exact matches, in which:
49 unique CDR3
5 unique J



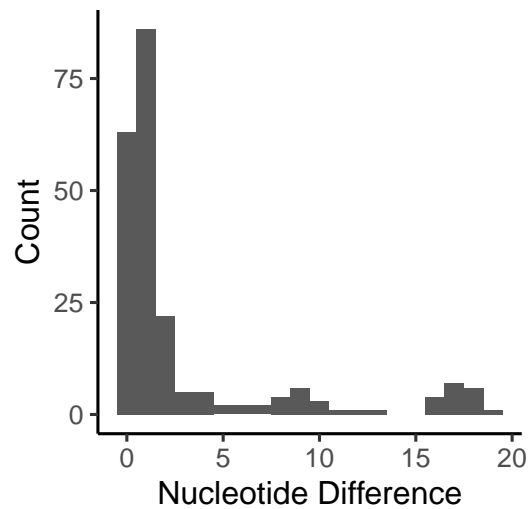
IGHV3-66*03

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



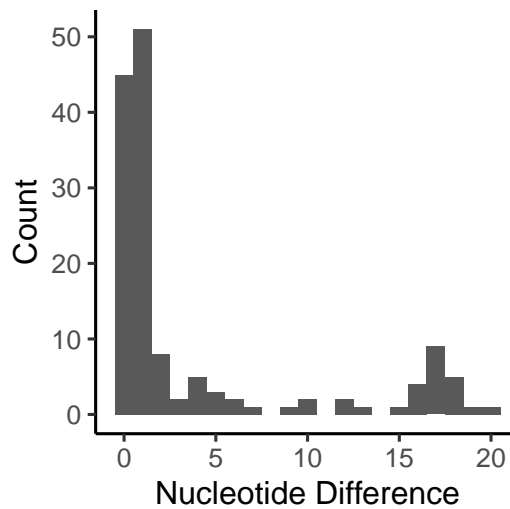
IGHV3-53*04

442 sequences assigned
63 (14.3%) exact matches, in which:
42 unique CDR3
5 unique J



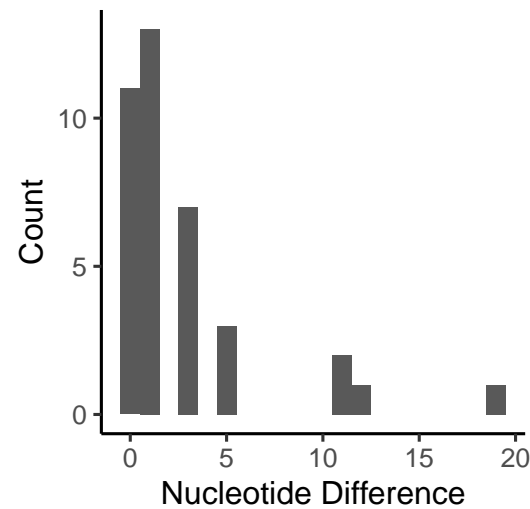
IGHV3-64*01

149 sequences assigned
45 (30.2%) exact matches, in which:
30 unique CDR3
4 unique J



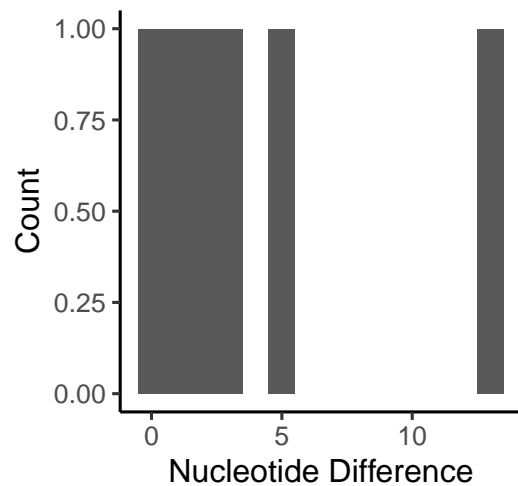
IGHV3-69-1*01

39 sequences assigned
11 (28.2%) exact matches, in which:
9 unique CDR3
3 unique J



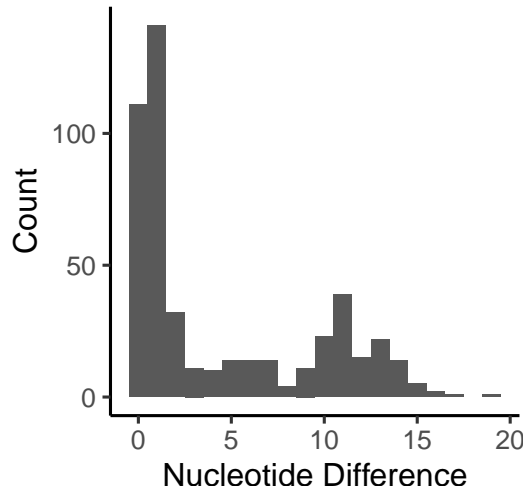
IGHV3-53*05

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



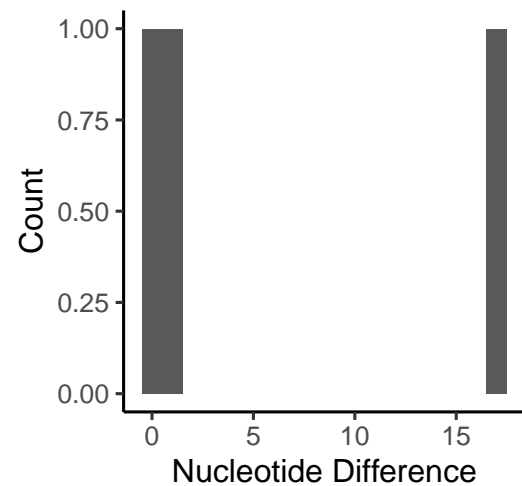
IGHV3-66*01

487 sequences assigned
111 (22.8%) exact matches, in which:
69 unique CDR3
4 unique J



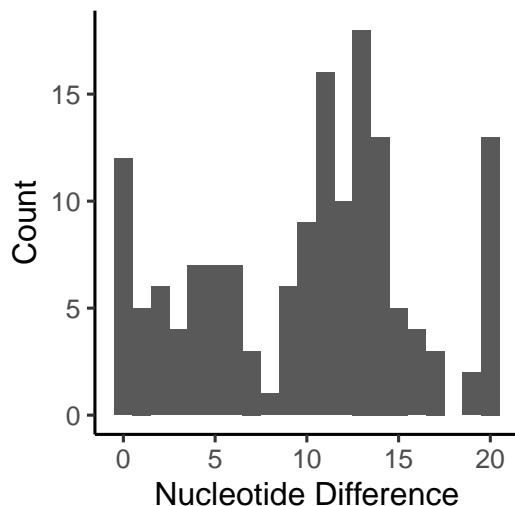
IGHV3-69-1*02

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



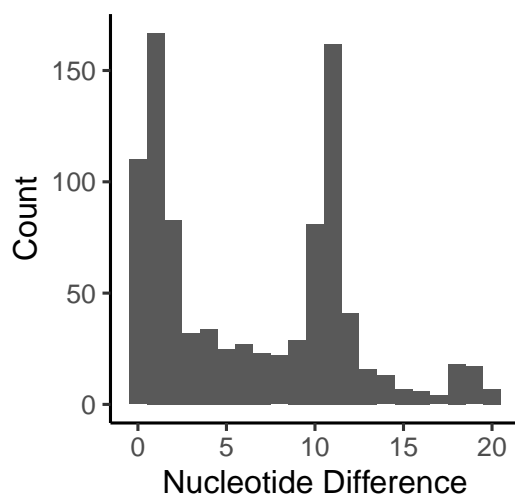
IGHV3-72*01

187 sequences assigned
12 (6.4%) exact matches, in which:
10 unique CDR3
3 unique J



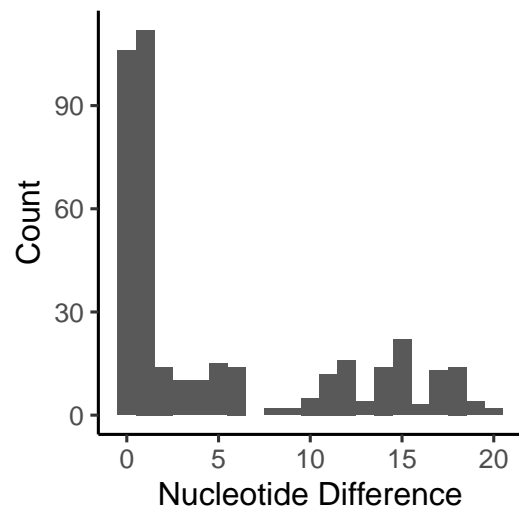
IGHV3-74*01_02

1018 sequences assigned
110 (10.8%) exact matches, in which:
66 unique CDR3
5 unique J



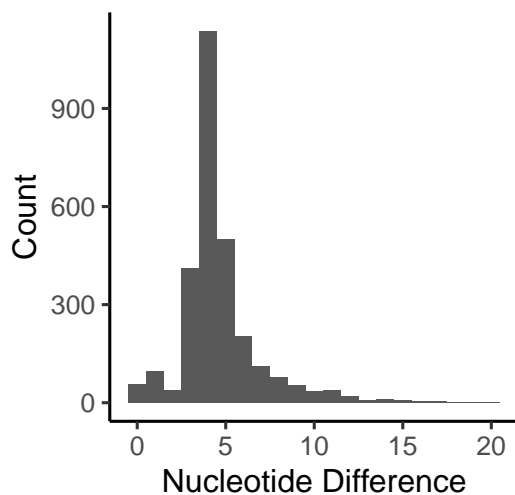
IGHV3-64D*06

502 sequences assigned
106 (21.1%) exact matches, in which:
65 unique CDR3
6 unique J



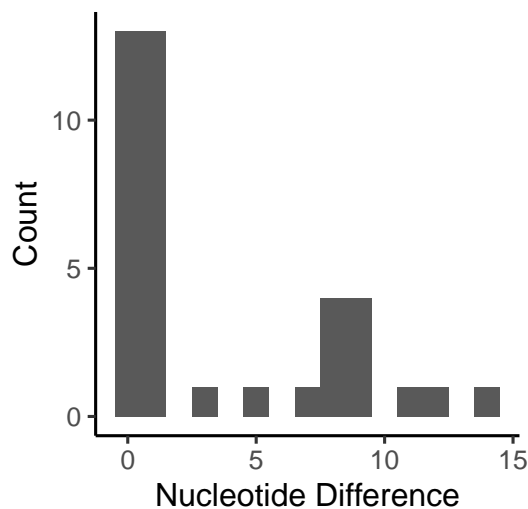
IGHV3-73*01_02

2868 sequences assigned
56 (2%) exact matches, in which:
32 unique CDR3
5 unique J



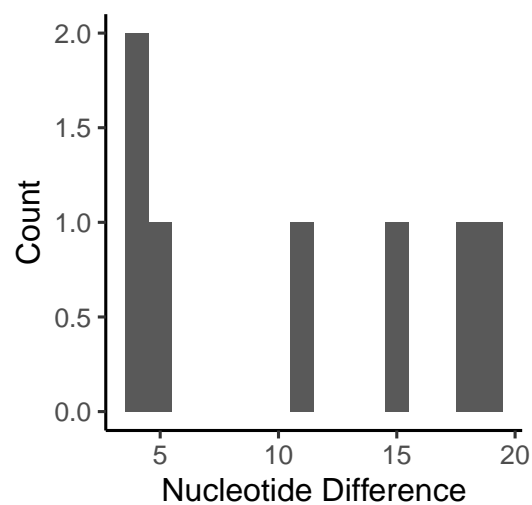
IGHV3-43D*03

40 sequences assigned
13 (32.5%) exact matches, in which:
5 unique CDR3
3 unique J



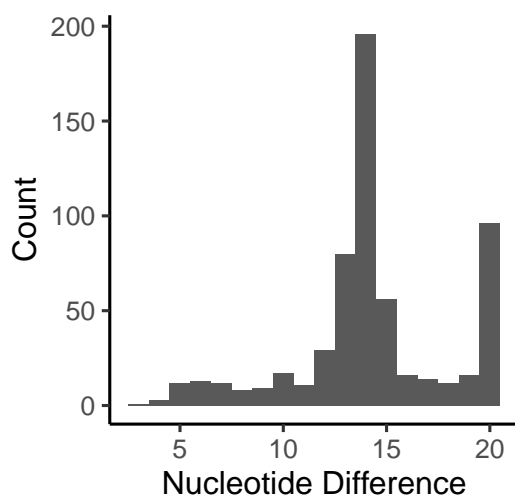
IGHV3-NL1*01

8 sequences assigned
No exact matches.



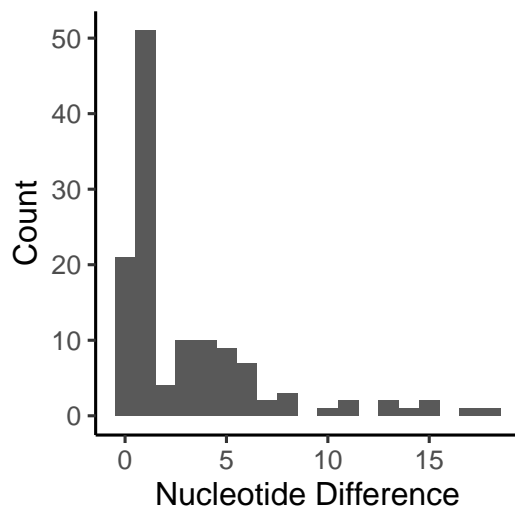
IGHV3-74*03

928 sequences assigned
No exact matches.



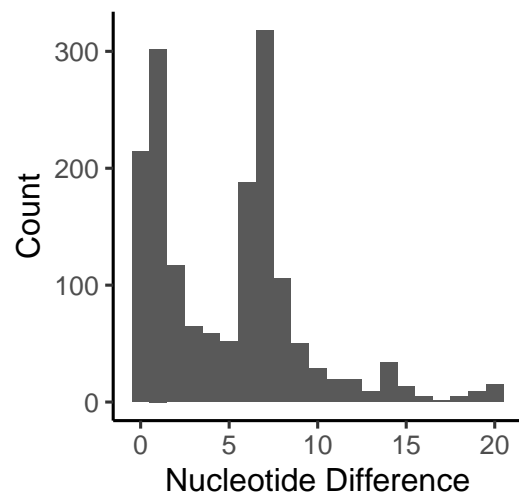
IGHV3-43D*04

127 sequences assigned
21 (16.5%) exact matches, in which:
11 unique CDR3
2 unique J



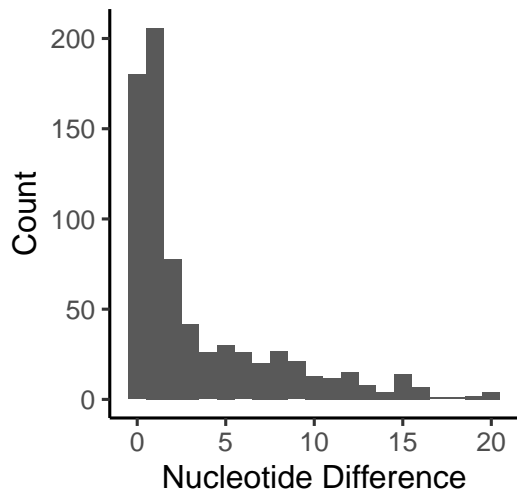
IGHV4-4*07

1863 sequences assigned
214 (11.5%) exact matches, in which:
165 unique CDR3
6 unique J



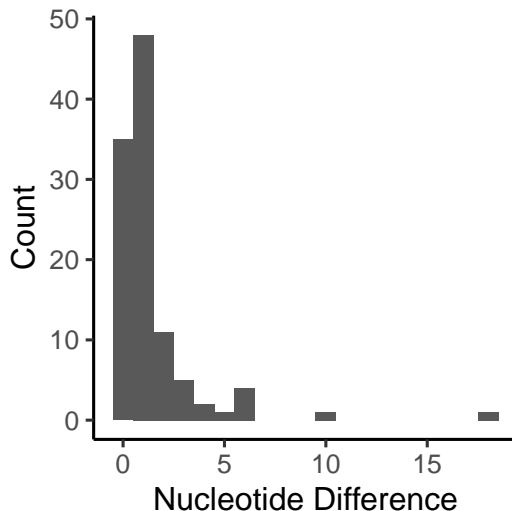
IGHV4-4*02_03

817 sequences assigned
180 (22%) exact matches, in which:
130 unique CDR3
6 unique J



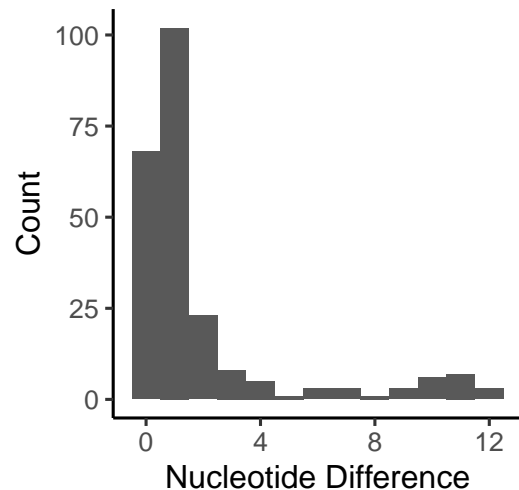
IGHV4-30-2*01

108 sequences assigned
35 (32.4%) exact matches, in which:
18 unique CDR3
4 unique J



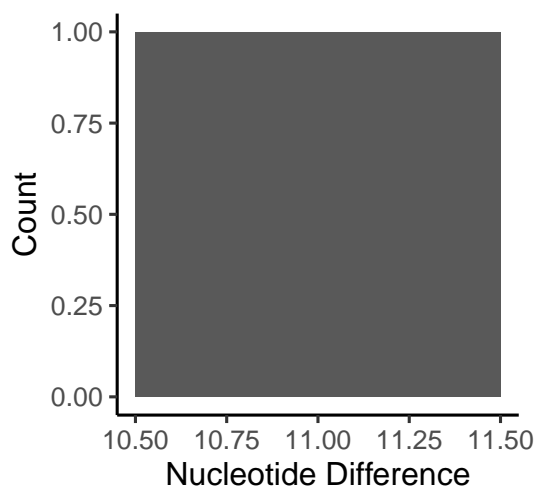
IGHV4-30-4*07

248 sequences assigned
68 (27.4%) exact matches, in which:
41 unique CDR3
6 unique J



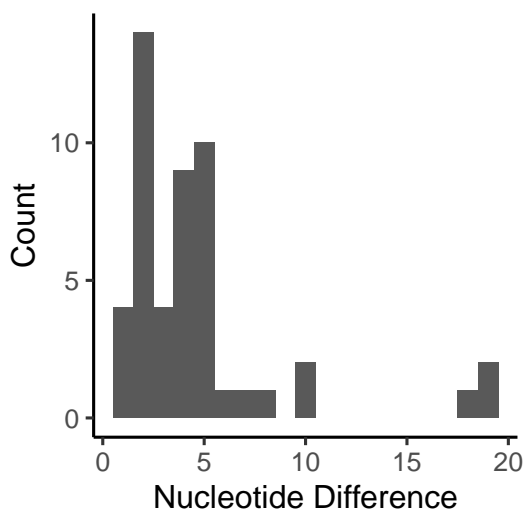
IGHV4-28*03

1 sequences assigned
No exact matches.



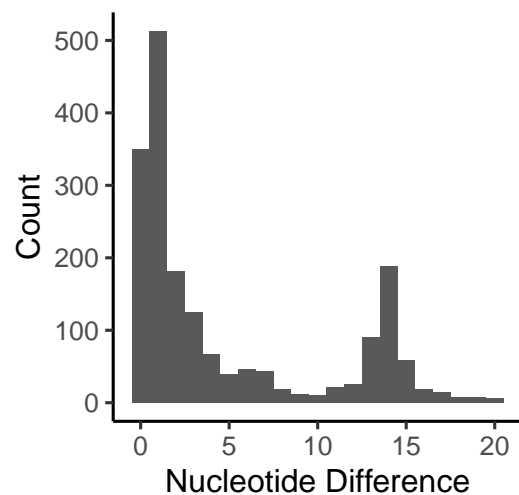
IGHV4-30-2*03

51 sequences assigned
No exact matches.



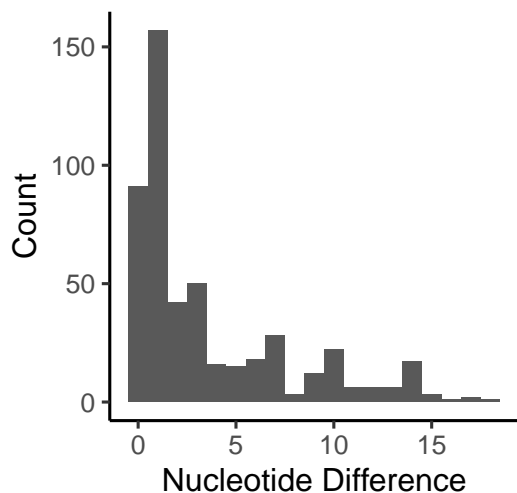
IGHV4-31*02

1921 sequences assigned
350 (18.2%) exact matches, in which:
283 unique CDR3
6 unique J



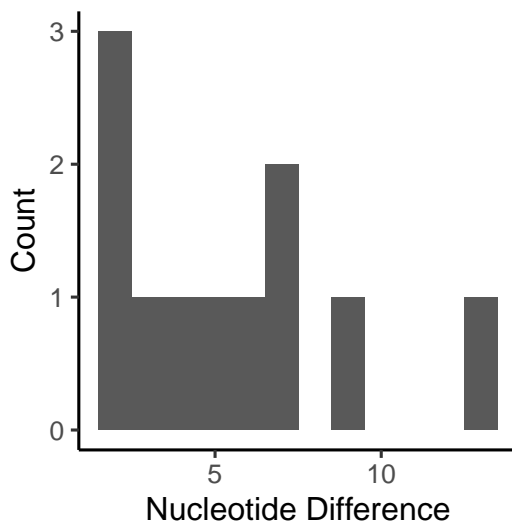
IGHV4-30-4*01

499 sequences assigned
91 (18.2%) exact matches, in which:
71 unique CDR3
4 unique J



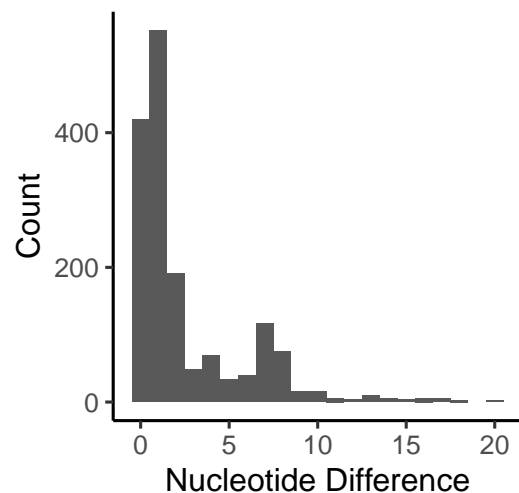
IGHV4-30-2*05

11 sequences assigned
No exact matches.



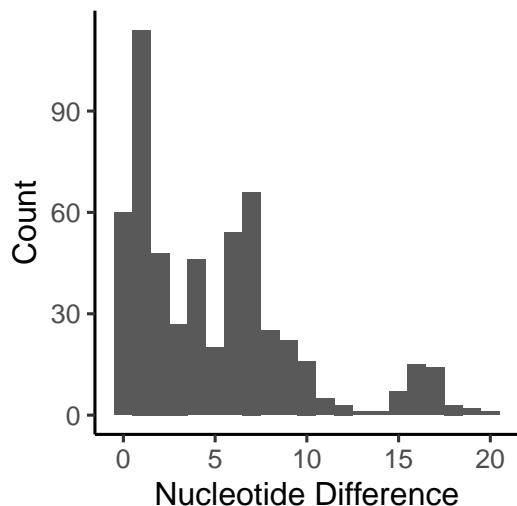
IGHV4-34*01_02

1746 sequences assigned
419 (24%) exact matches, in which:
267 unique CDR3
6 unique J



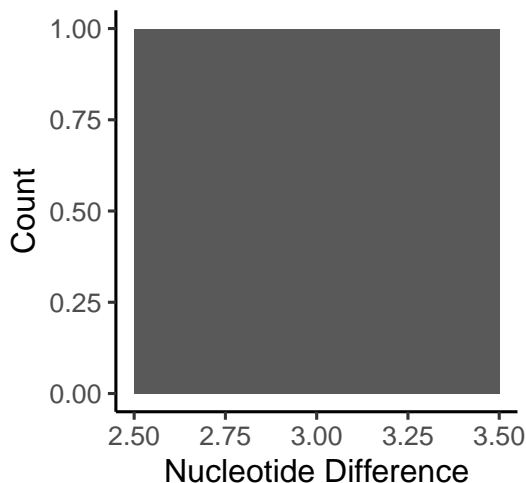
IGHV4-38-2*01

558 sequences assigned
60 (10.8%) exact matches, in which:
44 unique CDR3
6 unique J



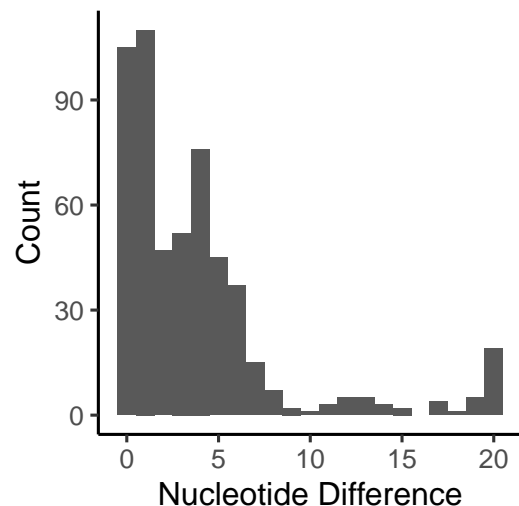
IGHV4-55*09

1 sequences assigned
No exact matches.



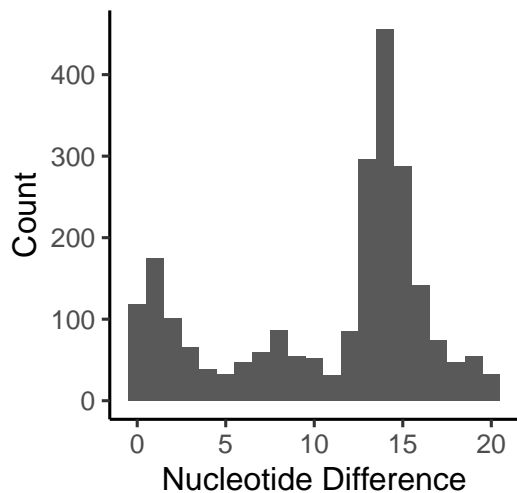
IGHV4-61*01

591 sequences assigned
105 (17.8%) exact matches, in which:
93 unique CDR3
4 unique J



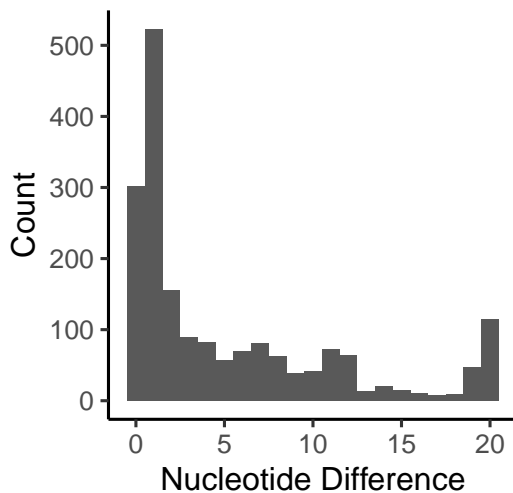
IGHV4-38-2*02

2381 sequences assigned
118 (5%) exact matches, in which:
94 unique CDR3
6 unique J



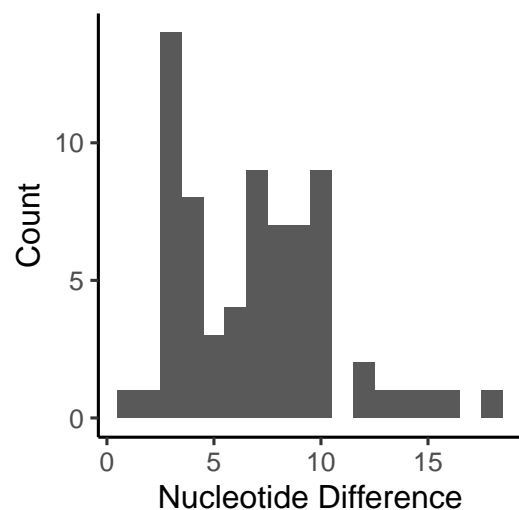
IGHV4-59*08

2273 sequences assigned
302 (13.3%) exact matches, in which:
221 unique CDR3
6 unique J



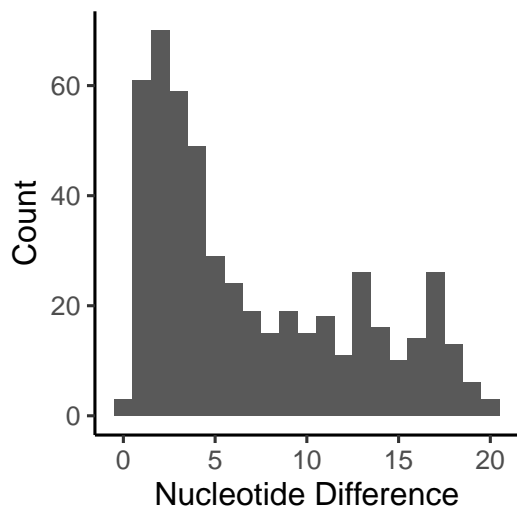
IGHV4-61*02

75 sequences assigned
No exact matches.



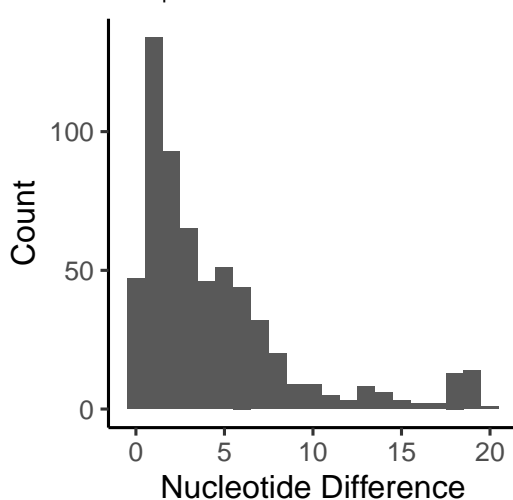
IGHV4-39*07

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



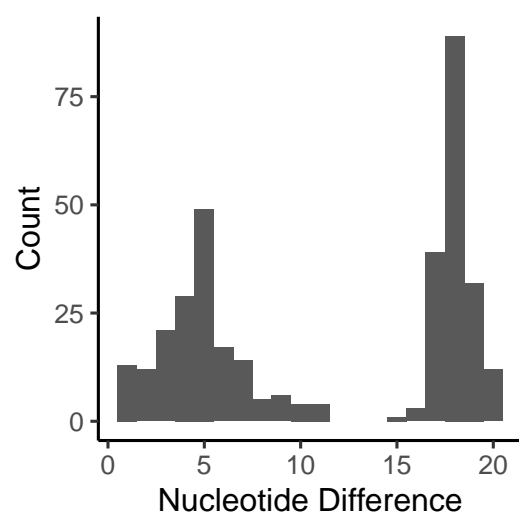
IGHV4-59*12

807 sequences assigned
47 (5.8%) exact matches, in which:
47 unique CDR3
6 unique J



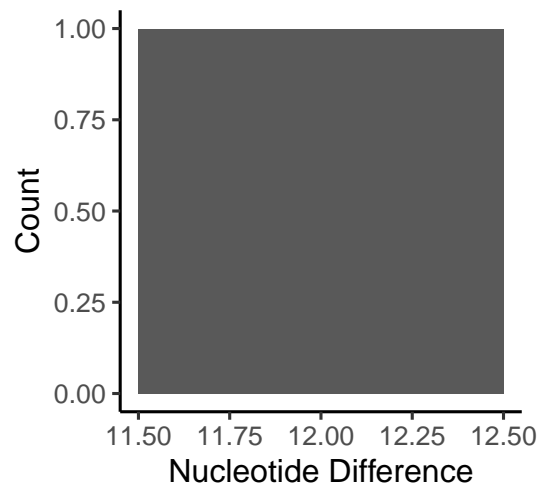
IGHV4-61*08

380 sequences assigned
No exact matches.



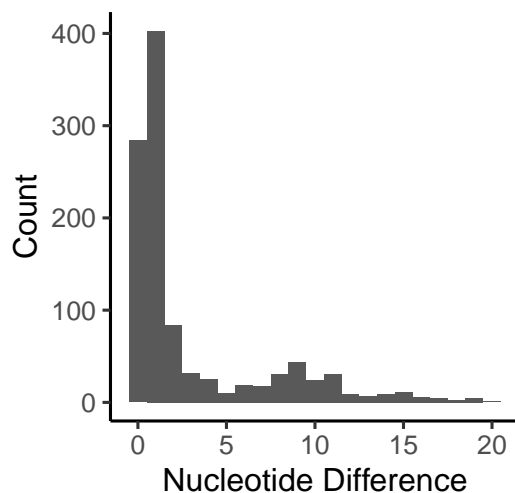
IGHV1/OR15-2*02_03

1 sequences assigned
No exact matches.



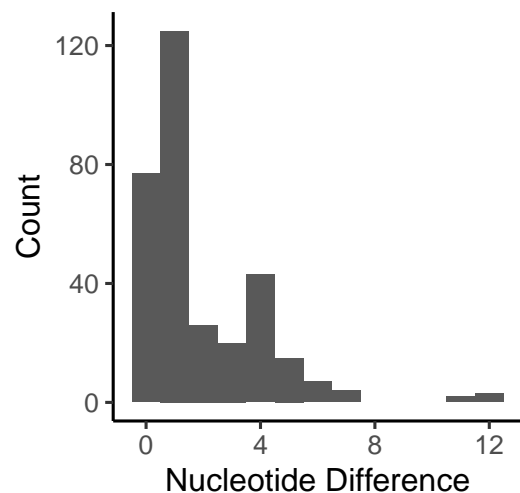
IGHV5-10-1*01_03

1104 sequences assigned
284 (25.7%) exact matches, in which:
174 unique CDR3
5 unique J



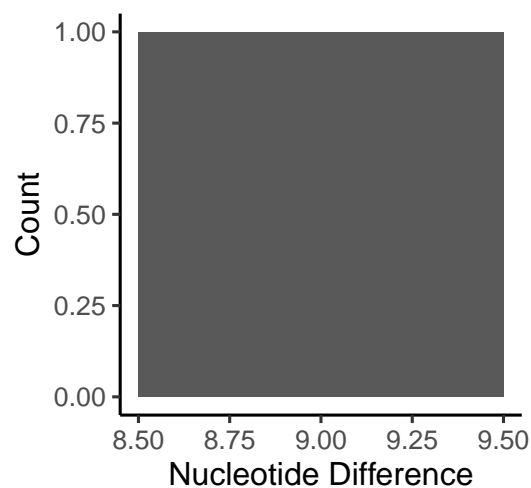
IGHV6-1*01_02

322 sequences assigned
77 (23.9%) exact matches, in which:
62 unique CDR3
4 unique J



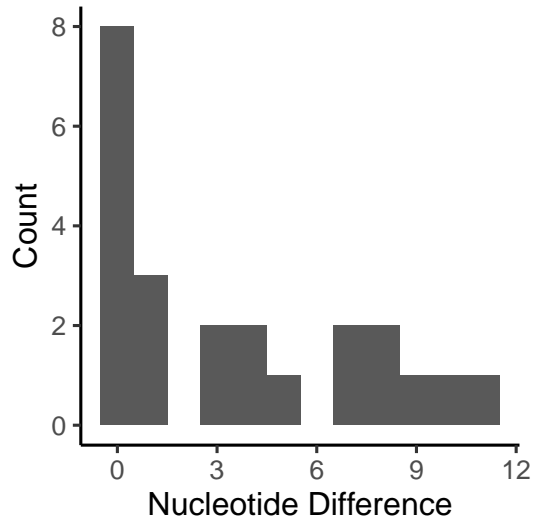
IGHV1/OR15-3*02

1 sequences assigned
No exact matches.



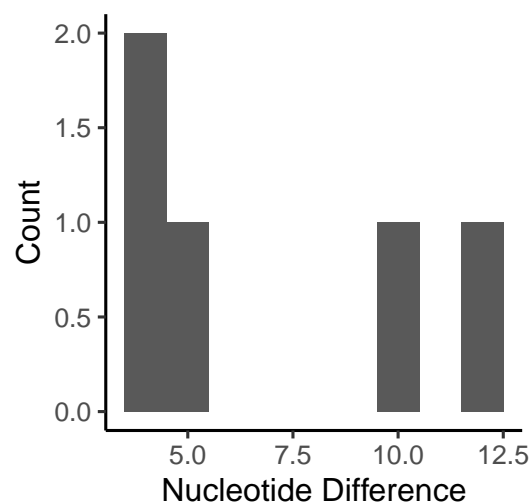
IGHV5-51*04

23 sequences assigned
8 (34.8%) exact matches, in which:
8 unique CDR3
4 unique J



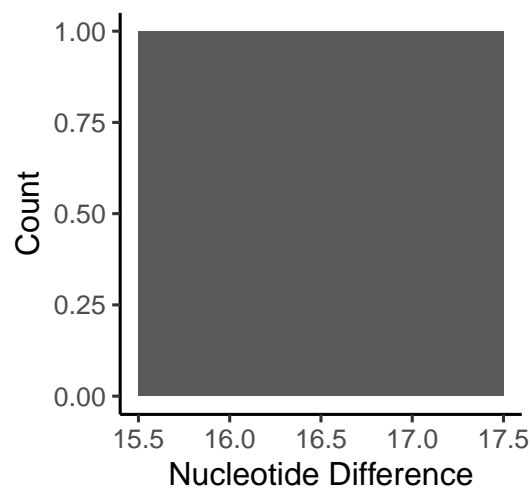
IGHV7-4-1*02

5 sequences assigned
No exact matches.



IGHV4/OR15-8*01

2 sequences assigned
No exact matches.



IGHV5-51*07

18 sequences assigned
3 (16.7%) exact matches, in which:
3 unique CDR3
1 unique J

