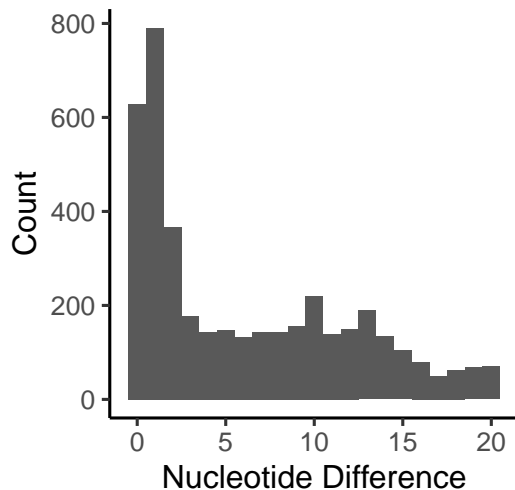


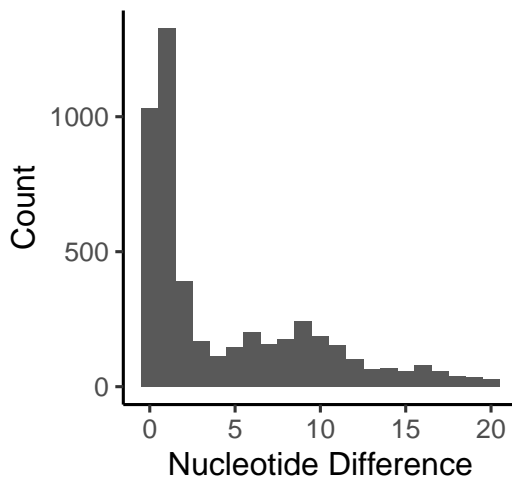
IGHV1-2*02

4581 sequences assigned
628 (13.7%) exact matches, in which:
490 unique CDR3
6 unique J



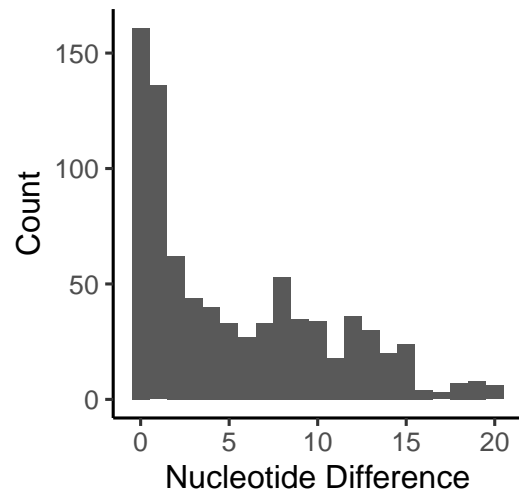
IGHV1-18*01

5138 sequences assigned
1033 (20.1%) exact matches, in which:
803 unique CDR3
6 unique J



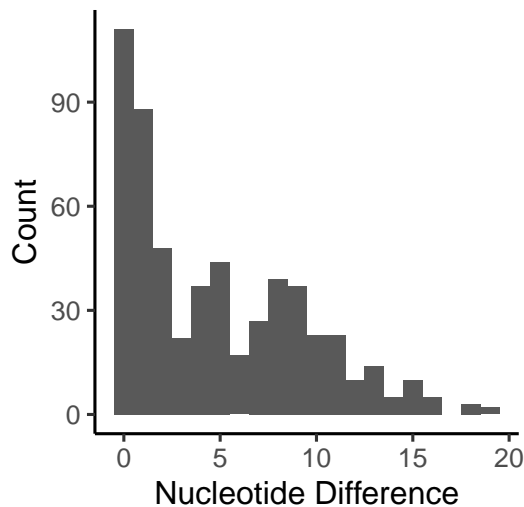
IGHV1-46*01

857 sequences assigned
161 (18.8%) exact matches, in which:
138 unique CDR3
6 unique J



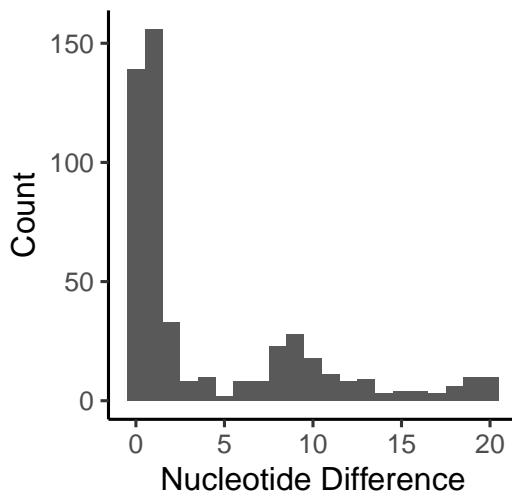
IGHV1-3*01_05

606 sequences assigned
111 (18.3%) exact matches, in which:
88 unique CDR3
5 unique J



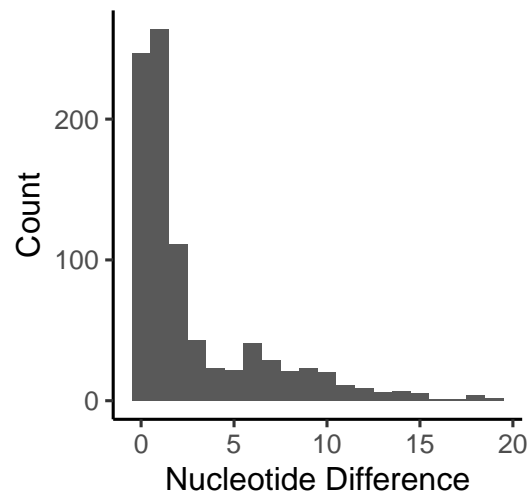
IGHV1-24*01

539 sequences assigned
139 (25.8%) exact matches, in which:
114 unique CDR3
6 unique J



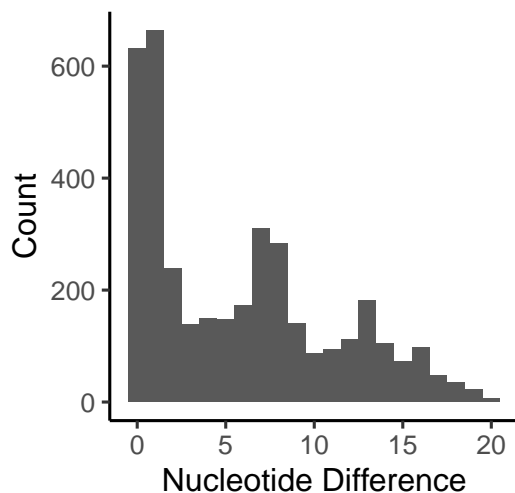
IGHV1-46*04

898 sequences assigned
247 (27.5%) exact matches, in which:
205 unique CDR3
6 unique J



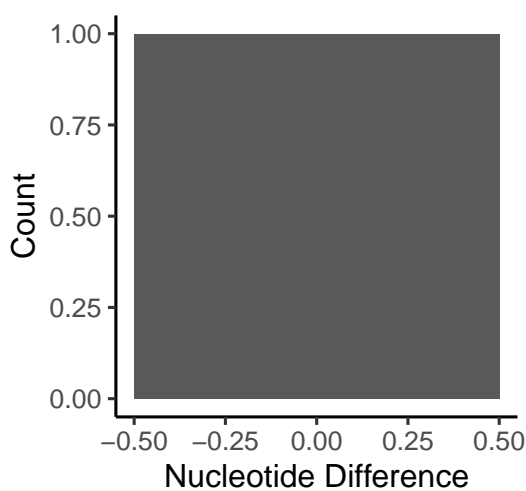
IGHV1-8*01

3772 sequences assigned
632 (16.8%) exact matches, in which:
501 unique CDR3
6 unique J



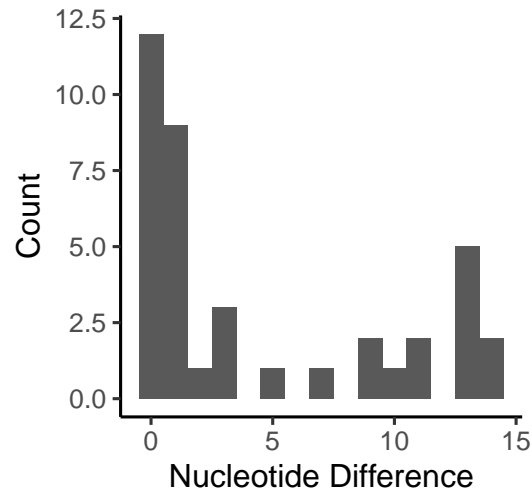
IGHV1-45*02

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



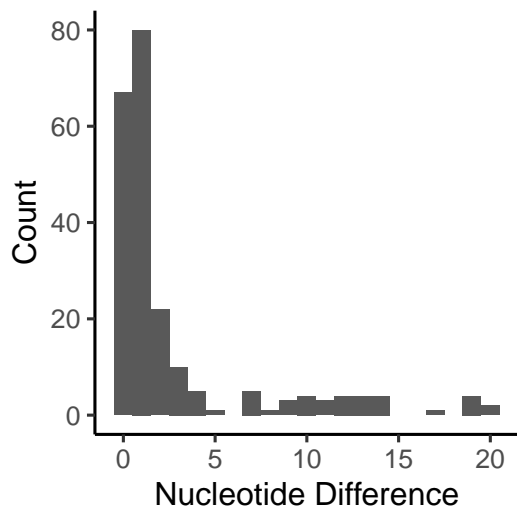
IGHV1-58*02

39 sequences assigned
12 (30.8%) exact matches, in which:
11 unique CDR3
4 unique J



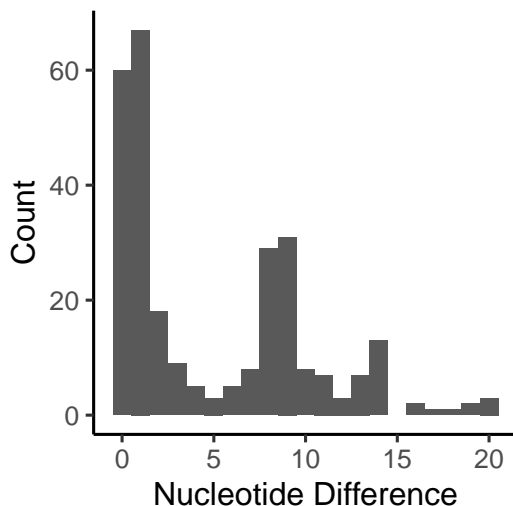
IGHV1-58*01_03

220 sequences assigned
67 (30.5%) exact matches, in which:
53 unique CDR3
4 unique J



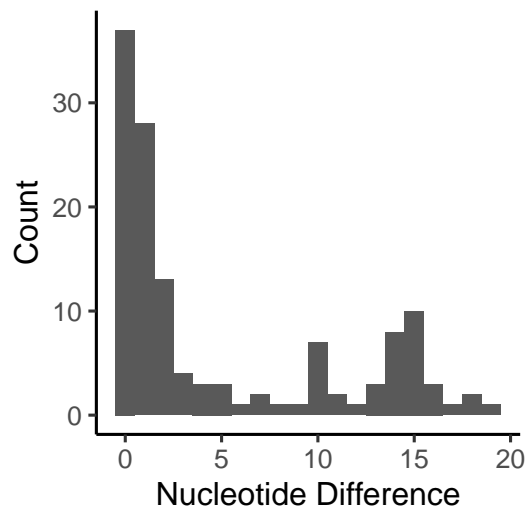
IGHV2-5*01

305 sequences assigned
60 (19.7%) exact matches, in which:
44 unique CDR3
4 unique J



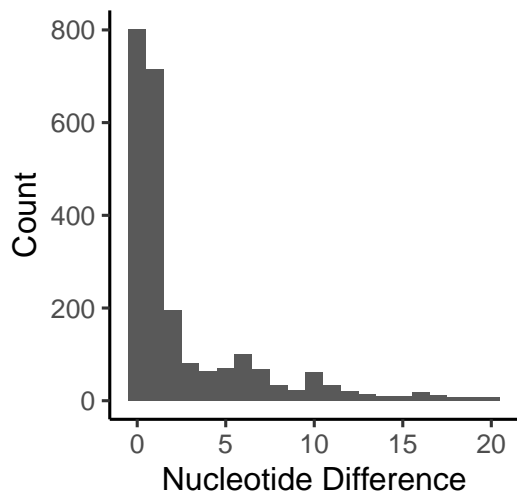
IGHV2-70*01

142 sequences assigned
37 (26.1%) exact matches, in which:
33 unique CDR3
5 unique J



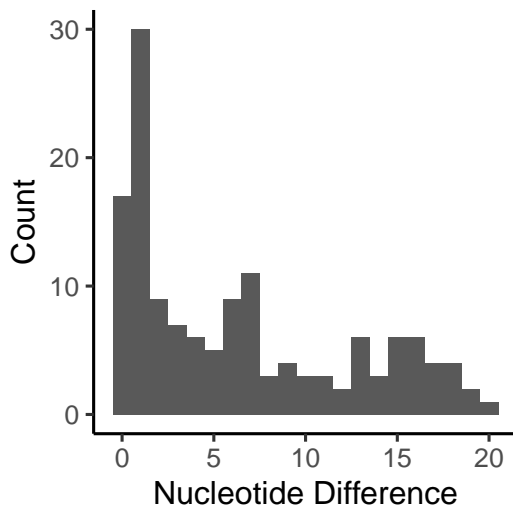
IGHV1-69*01_12_13

2434 sequences assigned
802 (32.9%) exact matches, in which:
693 unique CDR3
6 unique J



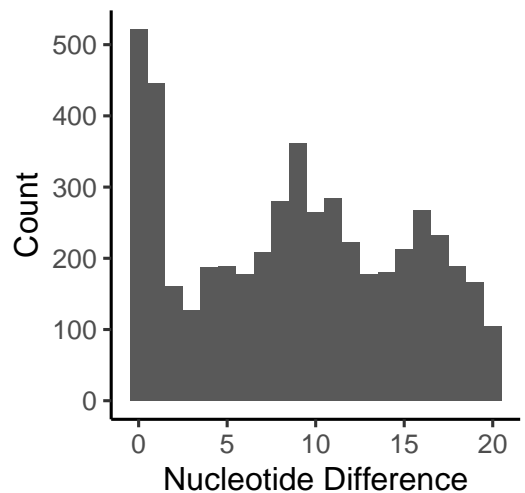
IGHV2-5*02

165 sequences assigned
17 (10.3%) exact matches, in which:
12 unique CDR3
5 unique J



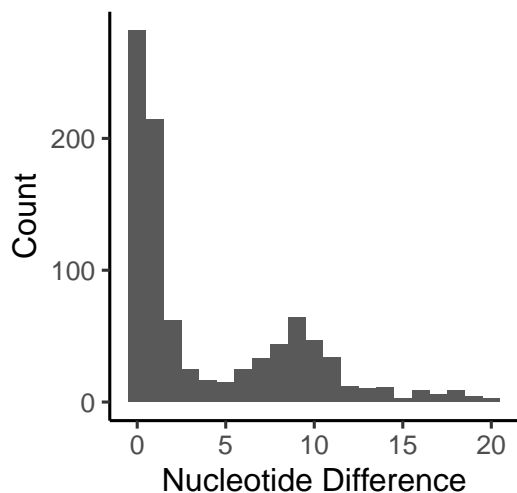
IGHV3-7*01

6107 sequences assigned
522 (8.5%) exact matches, in which:
352 unique CDR3
6 unique J



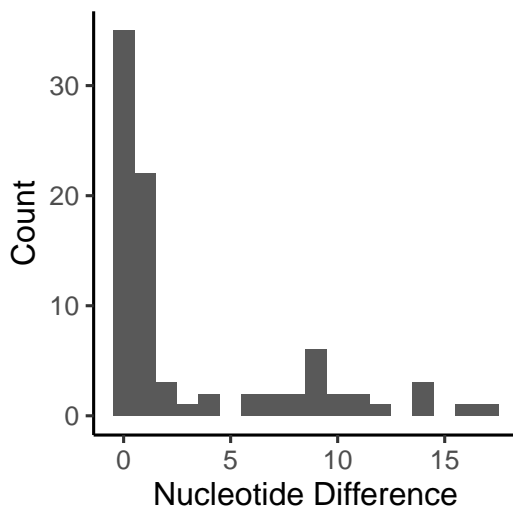
IGHV1-69*06_14

985 sequences assigned
282 (28.6%) exact matches, in which:
248 unique CDR3
6 unique J



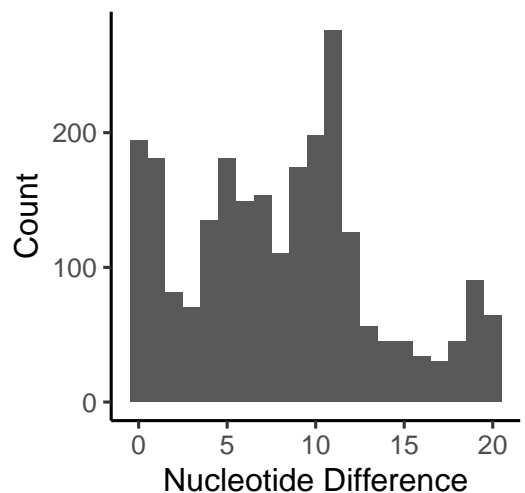
IGHV2-26*01

87 sequences assigned
35 (40.2%) exact matches, in which:
30 unique CDR3
5 unique J



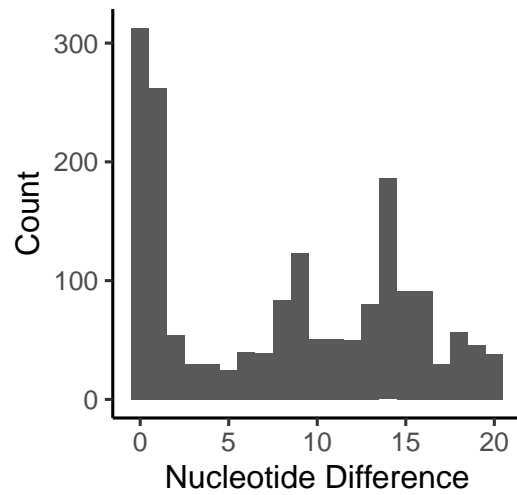
IGHV3-7*03

2579 sequences assigned
194 (7.5%) exact matches, in which:
135 unique CDR3
5 unique J



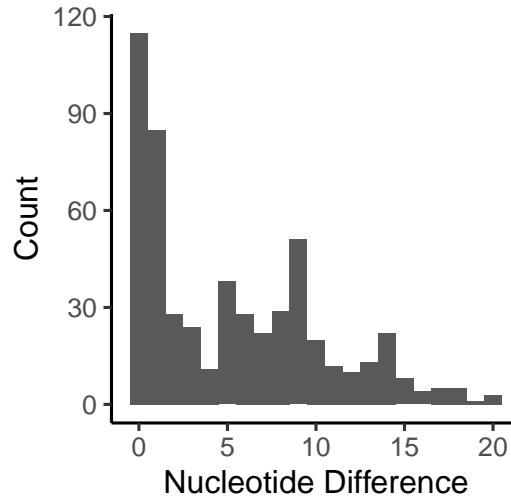
IGHV3-9*01

2065 sequences assigned
313 (15.2%) exact matches, in which:
189 unique CDR3
6 unique J



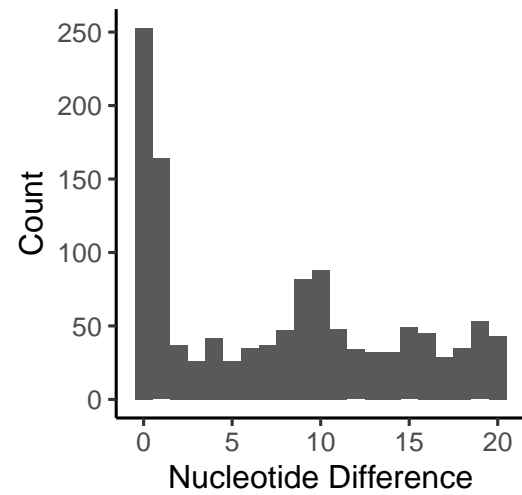
IGHV3-11*06

544 sequences assigned
115 (21.1%) exact matches, in which:
86 unique CDR3
5 unique J



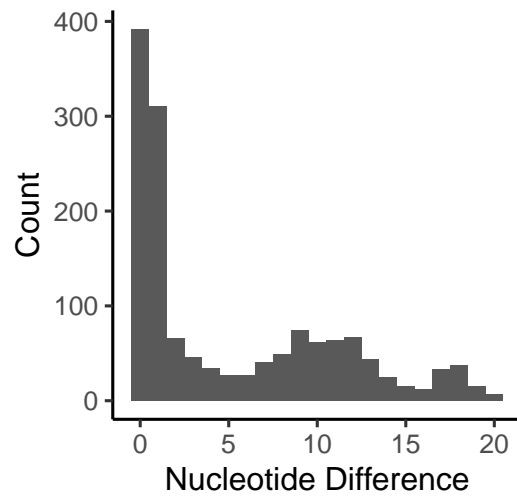
IGHV3-15*01_02

1427 sequences assigned
253 (17.7%) exact matches, in which:
153 unique CDR3
5 unique J



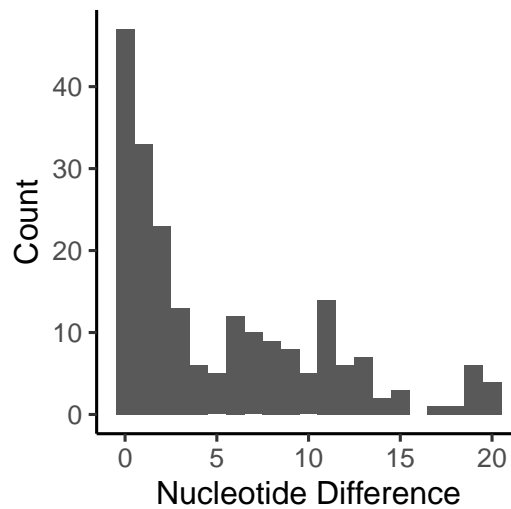
IGHV3-11*01

1489 sequences assigned
392 (26.3%) exact matches, in which:
237 unique CDR3
5 unique J



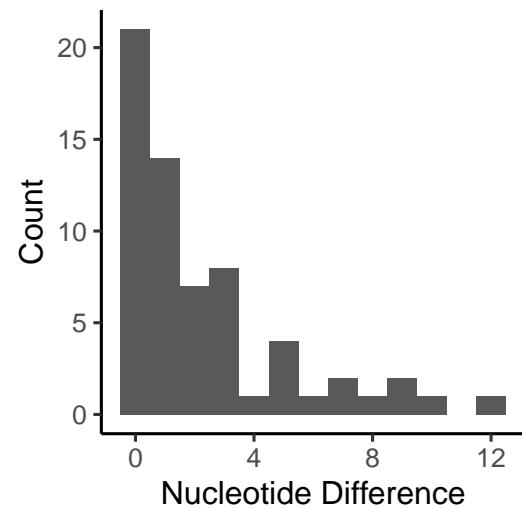
IGHV3-13*01

331 sequences assigned
47 (14.2%) exact matches, in which:
31 unique CDR3
5 unique J



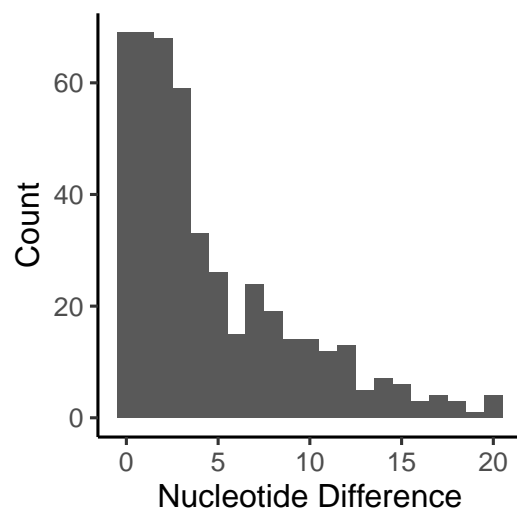
IGHV3-20*01_02

79 sequences assigned
21 (26.6%) exact matches, in which:
11 unique CDR3
4 unique J



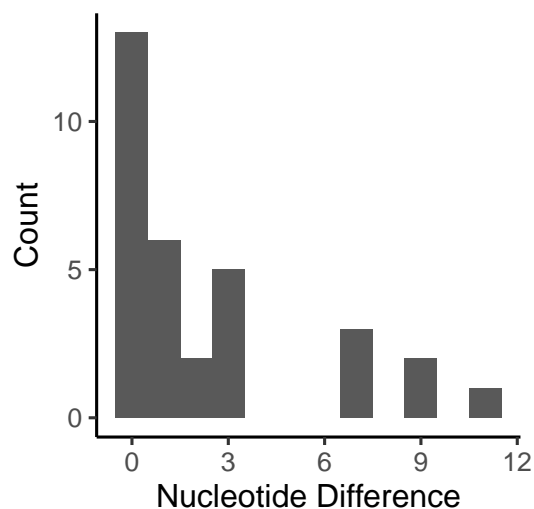
IGHV3-11*04

472 sequences assigned
69 (14.6%) exact matches, in which:
67 unique CDR3
6 unique J



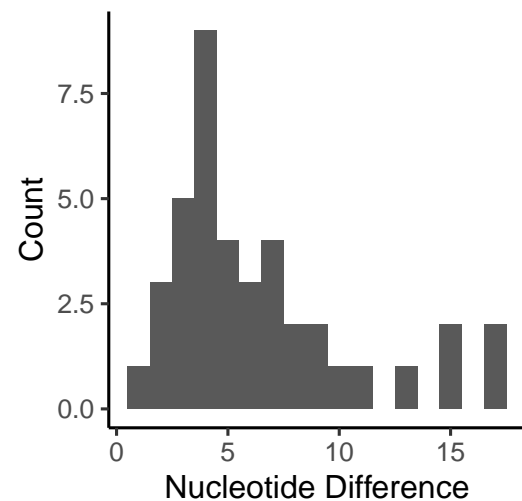
IGHV3-13*05

32 sequences assigned
13 (40.6%) exact matches, in which:
8 unique CDR3
5 unique J



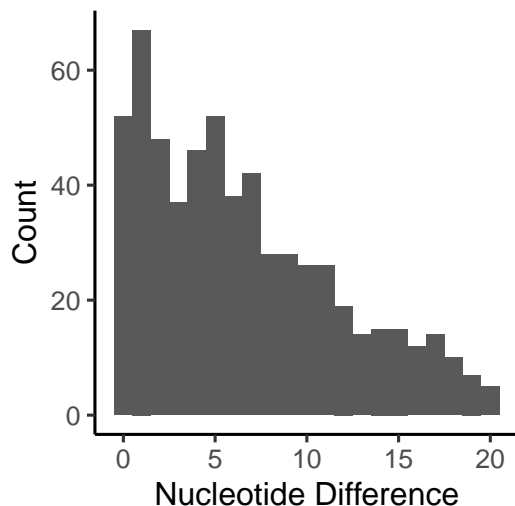
IGHV3-20*03_04

50 sequences assigned
No exact matches.



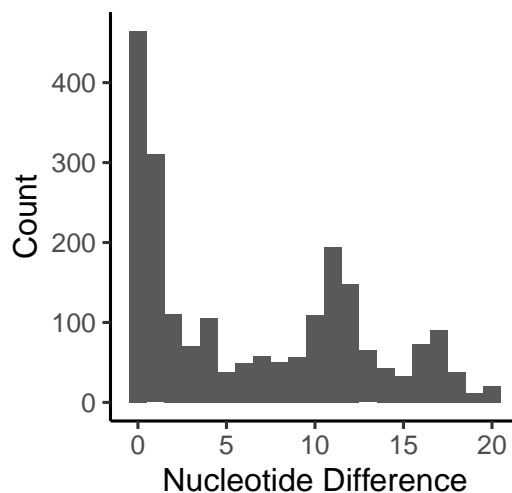
IGHV3-21*04

631 sequences assigned
52 (8.2%) exact matches, in which:
46 unique CDR3
4 unique J



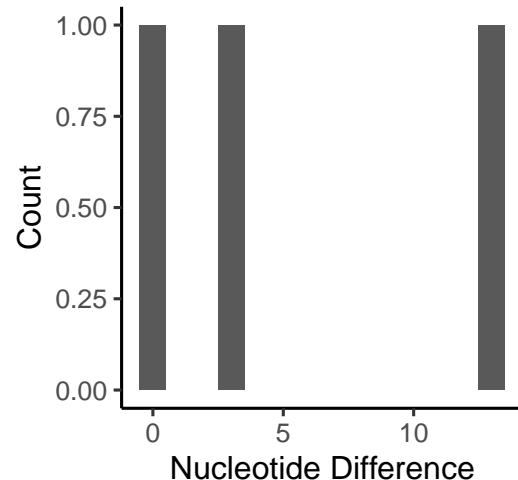
IGHV3-30*01

2209 sequences assigned
465 (21.1%) exact matches, in which:
298 unique CDR3
6 unique J



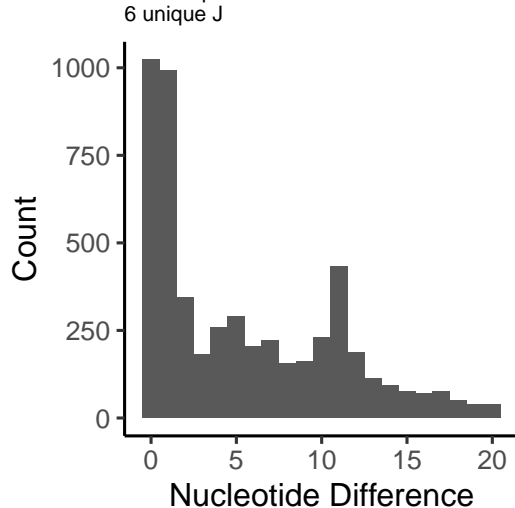
IGHV3-30-5*02

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



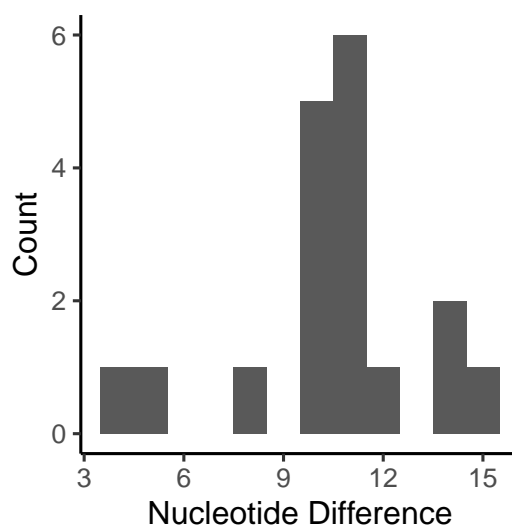
IGHV3-21*01_02

5435 sequences assigned
1023 (18.8%) exact matches, in which:
632 unique CDR3
6 unique J



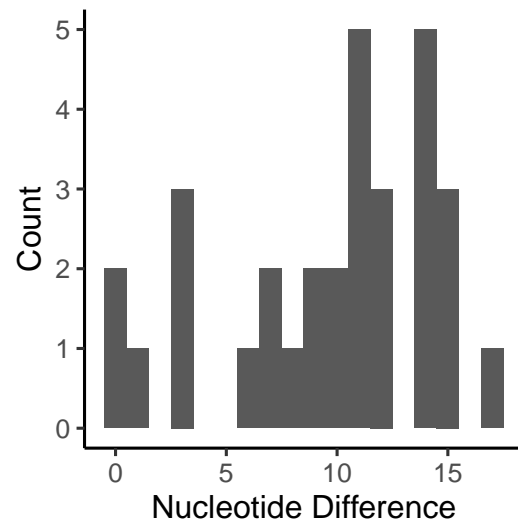
IGHV3-30-5*01

43 sequences assigned
No exact matches.



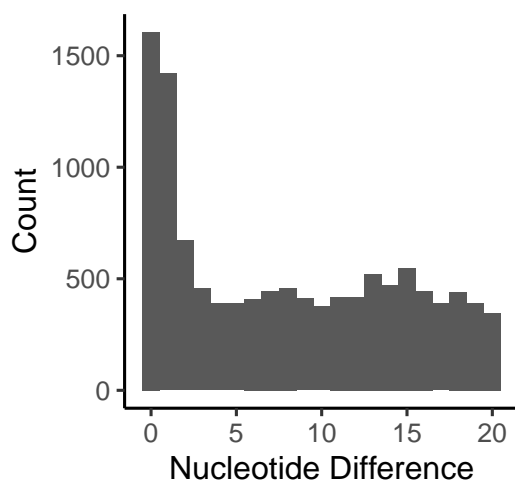
IGHV3-30-3*03

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



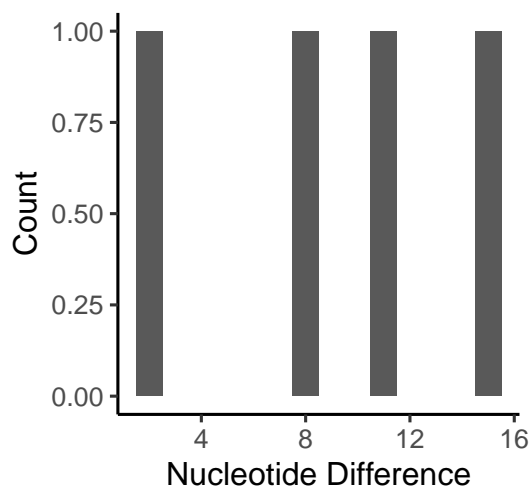
IGHV3-23*01_04

15159 sequences assigned
1606 (10.6%) exact matches, in which:
908 unique CDR3
6 unique J



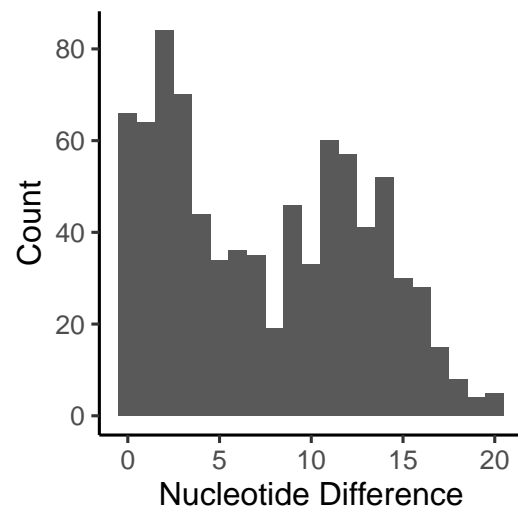
IGHV3-30-3*01

19 sequences assigned
No exact matches.



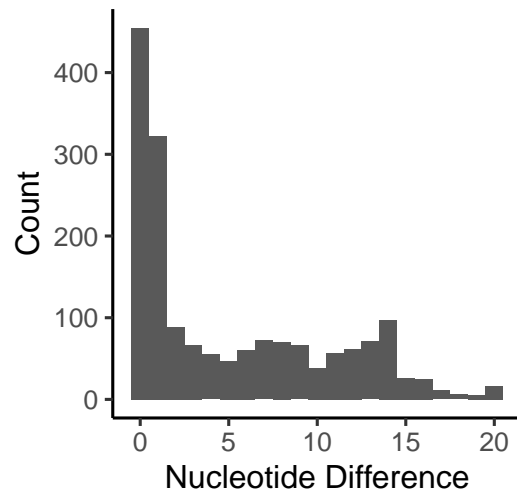
IGHV3-30*07

871 sequences assigned
66 (7.6%) exact matches, in which:
64 unique CDR3
6 unique J



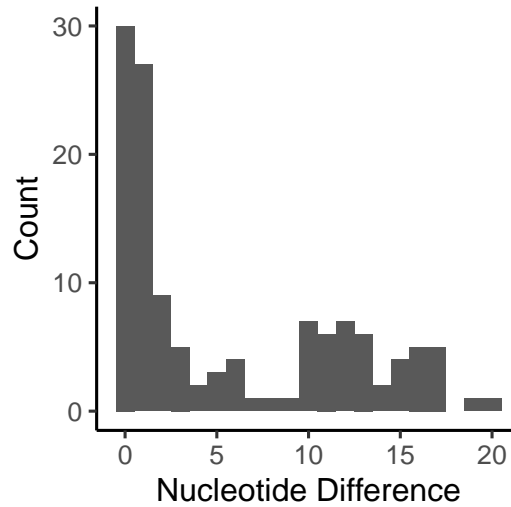
IGHV3-33*01

1833 sequences assigned
455 (24.8%) exact matches, in which:
289 unique CDR3
6 unique J



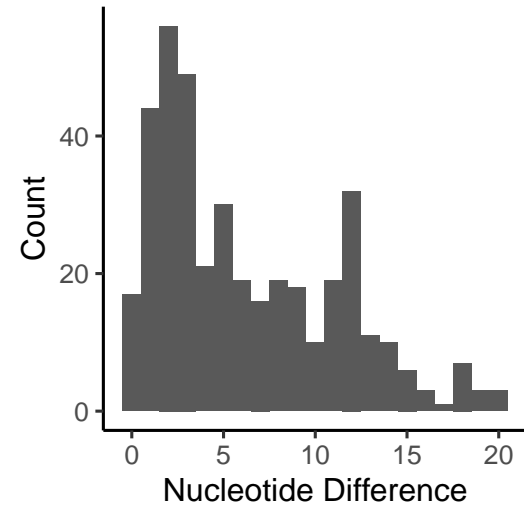
IGHV3-43*01

140 sequences assigned
30 (21.4%) exact matches, in which:
16 unique CDR3
3 unique J



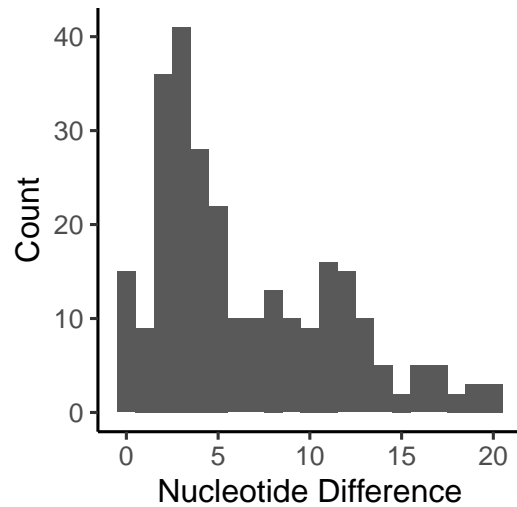
IGHV3-48*04

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



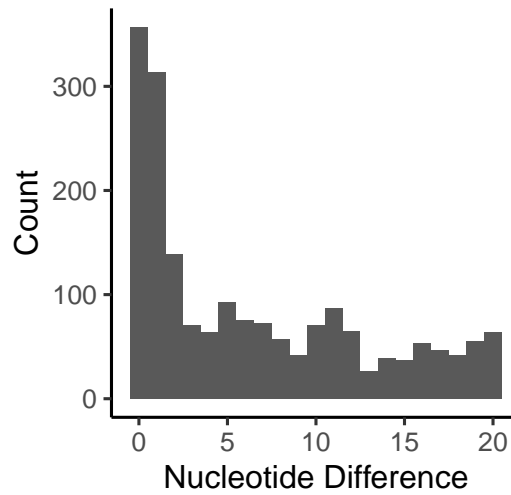
IGHV3-33*06

280 sequences assigned
15 (5.4%) exact matches, in which:
15 unique CDR3
3 unique J



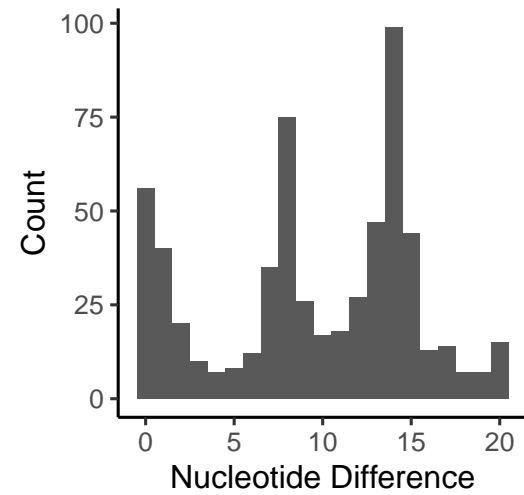
IGHV3-48*01

2094 sequences assigned
357 (17%) exact matches, in which:
228 unique CDR3
6 unique J



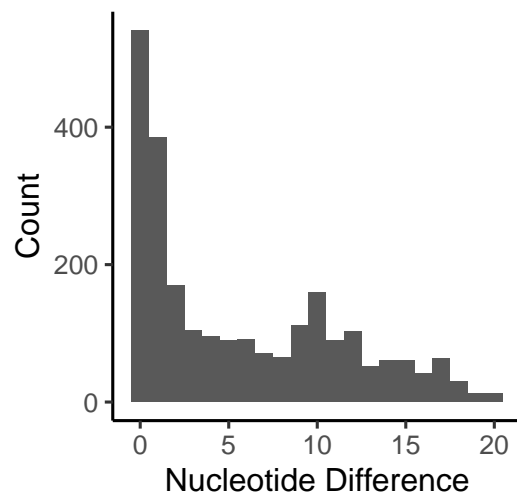
IGHV3-49*04

669 sequences assigned
56 (8.4%) exact matches, in which:
39 unique CDR3
6 unique J



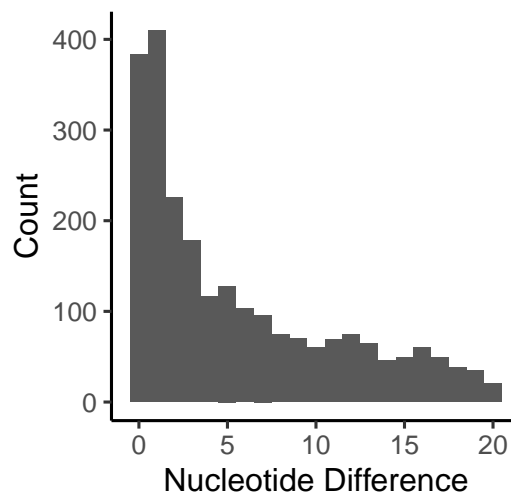
IGHV3-33*08

2482 sequences assigned
541 (21.8%) exact matches, in which:
355 unique CDR3
6 unique J



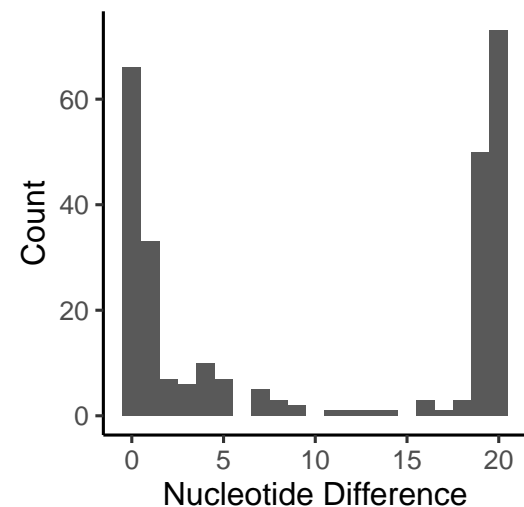
IGHV3-48*03

2470 sequences assigned
383 (15.5%) exact matches, in which:
245 unique CDR3
6 unique J



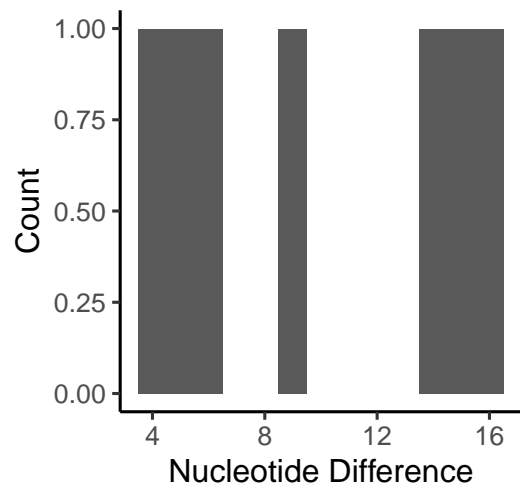
IGHV3-49*03_05

480 sequences assigned
66 (13.8%) exact matches, in which:
40 unique CDR3
4 unique J



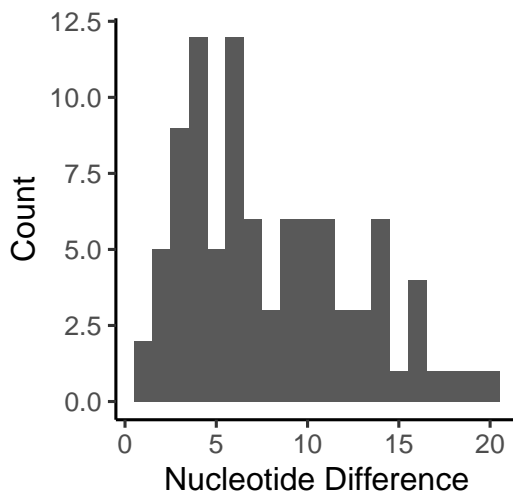
IGHV3-52*01_03

7 sequences assigned
No exact matches.



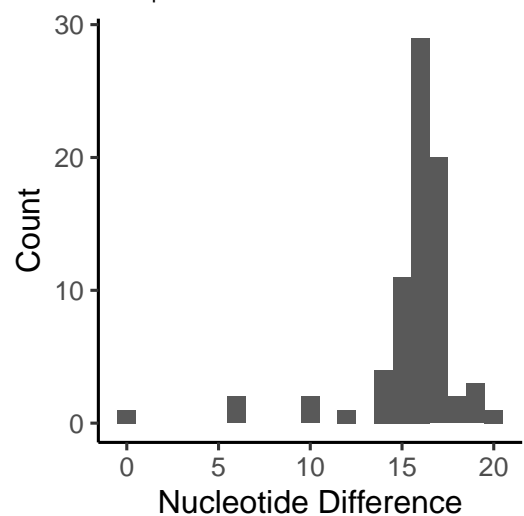
IGHV3-64*04

95 sequences assigned
No exact matches.



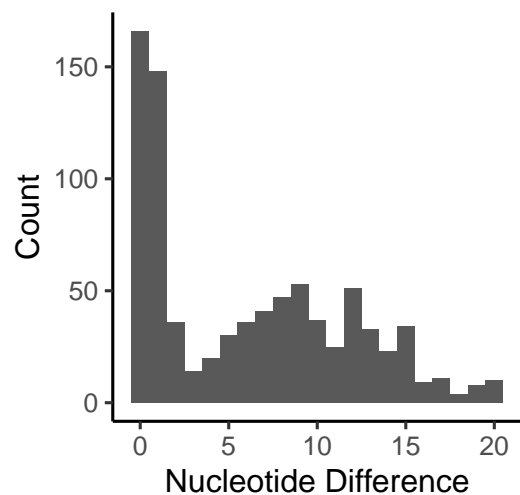
IGHV3-69-1*01

79 sequences assigned
1 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



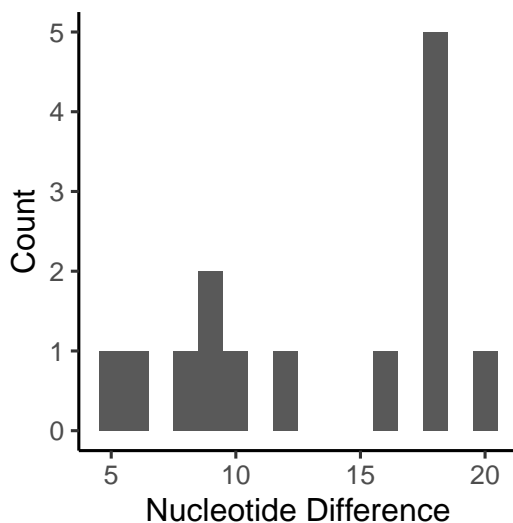
IGHV3-53*01_02

862 sequences assigned
166 (19.3%) exact matches, in which:
107 unique CDR3
5 unique J



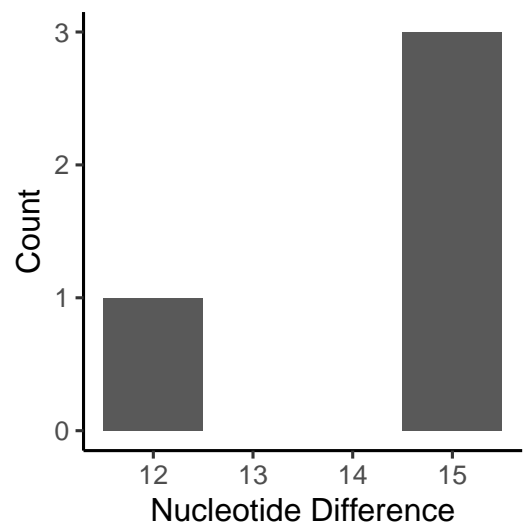
IGHV3-66*01

19 sequences assigned
No exact matches.



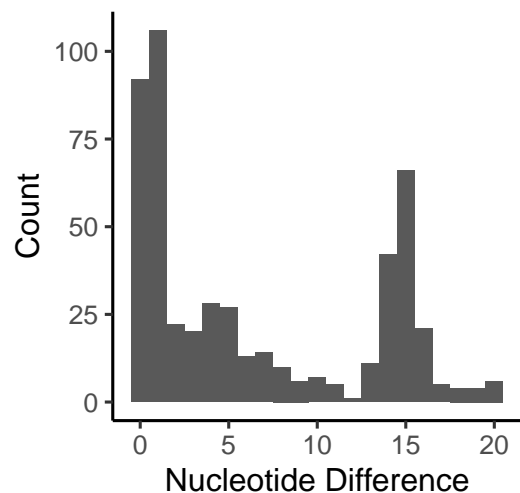
IGHV3-69-1*02

17 sequences assigned
No exact matches.



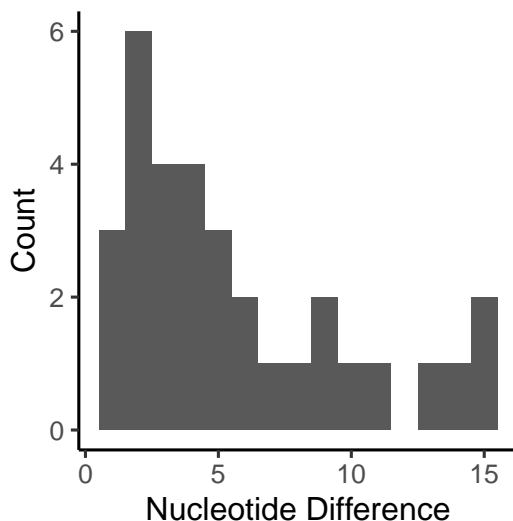
IGHV3-64*01

768 sequences assigned
92 (12%) exact matches, in which:
53 unique CDR3
5 unique J



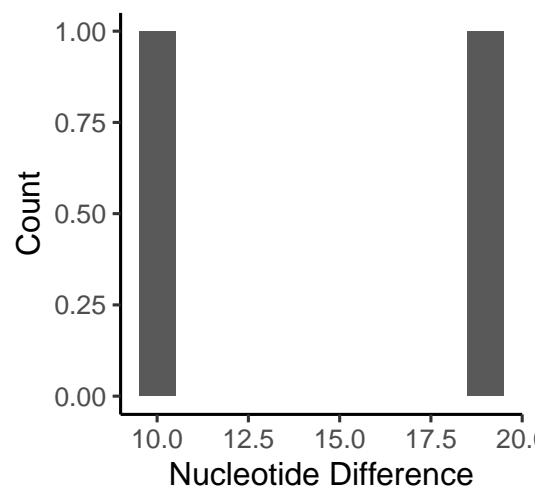
IGHV3-66*03

33 sequences assigned
No exact matches.



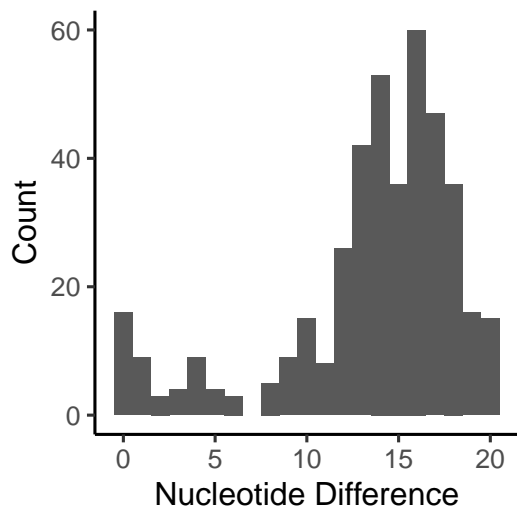
IGHV3-71*01_04

3 sequences assigned
No exact matches.



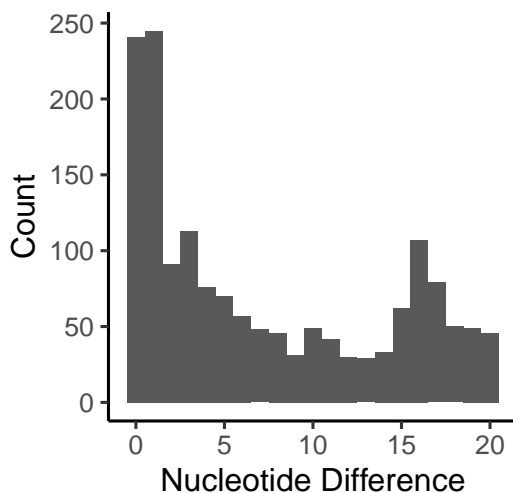
IGHV3-72*01

448 sequences assigned
16 (3.6%) exact matches, in which:
9 unique CDR3
3 unique J



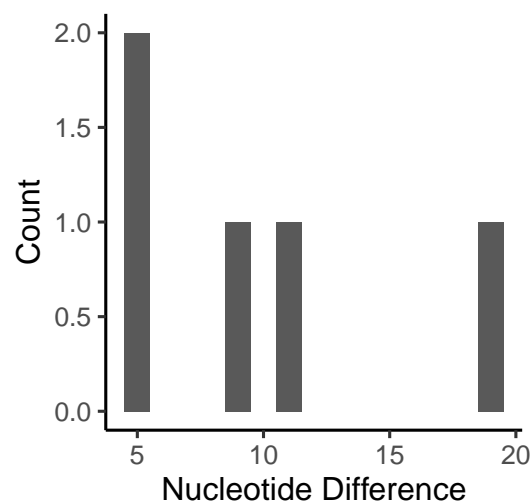
IGHV3-74*01_02

1737 sequences assigned
241 (13.9%) exact matches, in which:
158 unique CDR3
6 unique J



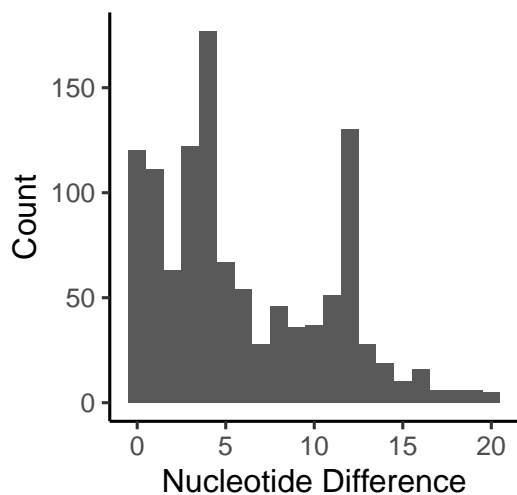
IGHV3-NL1*01

6 sequences assigned
No exact matches.



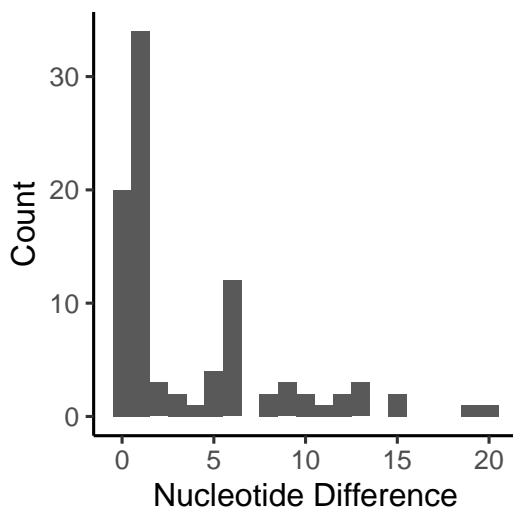
IGHV3-73*01_02

1150 sequences assigned
120 (10.4%) exact matches, in which:
75 unique CDR3
6 unique J



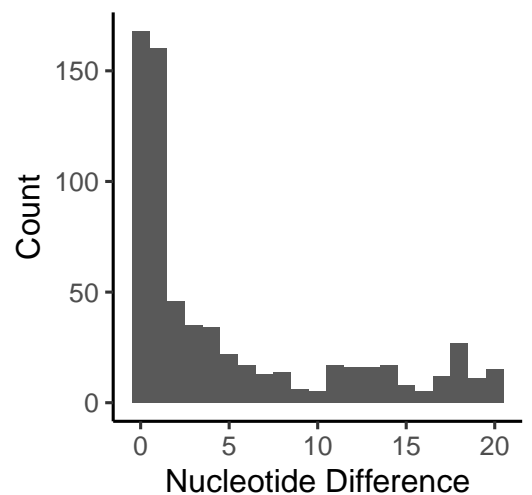
IGHV3-43D*04

93 sequences assigned
20 (21.5%) exact matches, in which:
12 unique CDR3
3 unique J



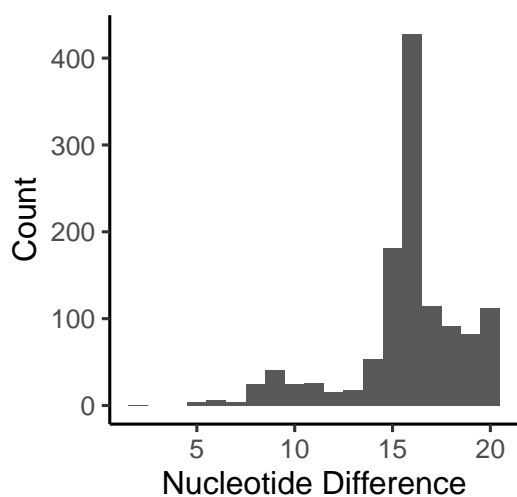
IGHV4-4*07

735 sequences assigned
168 (22.9%) exact matches, in which:
147 unique CDR3
6 unique J



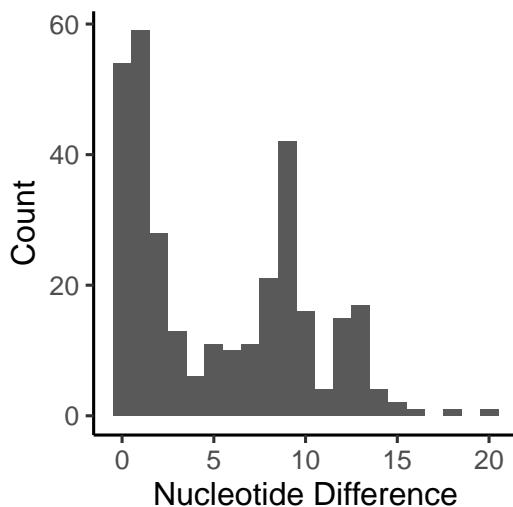
IGHV3-74*03

2840 sequences assigned
No exact matches.



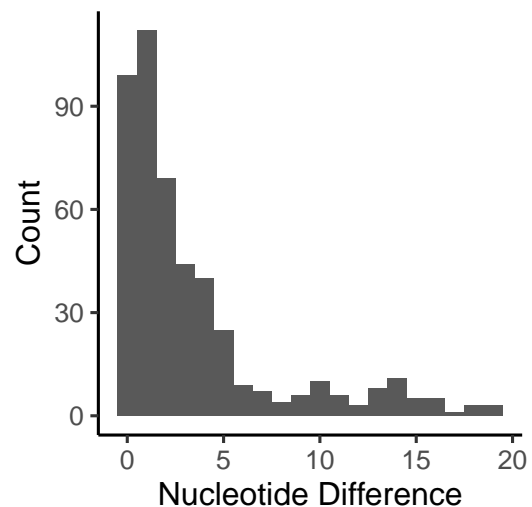
IGHV3-64D*06

322 sequences assigned
54 (16.8%) exact matches, in which:
27 unique CDR3
5 unique J



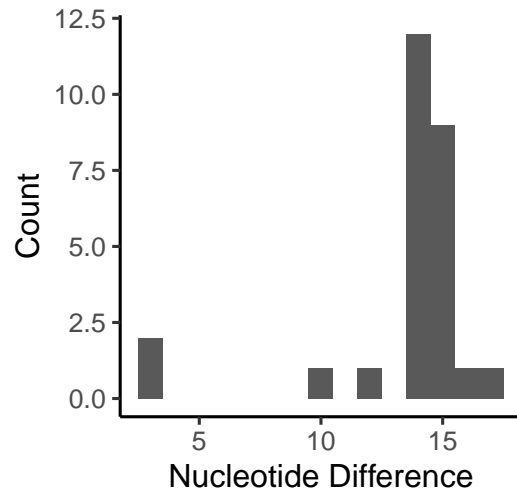
IGHV4-4*02_03

529 sequences assigned
99 (18.7%) exact matches, in which:
82 unique CDR3
6 unique J



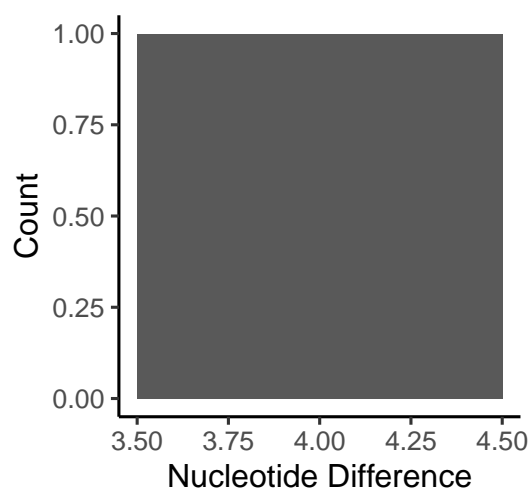
IGHV4-28*03

29 sequences assigned
No exact matches.



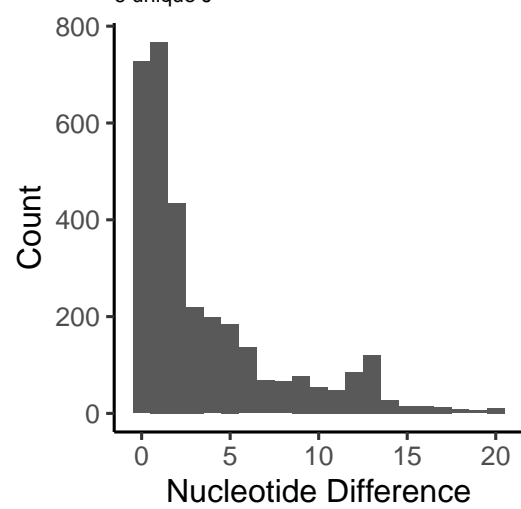
IGHV4-30-4*08

1 sequences assigned
No exact matches.



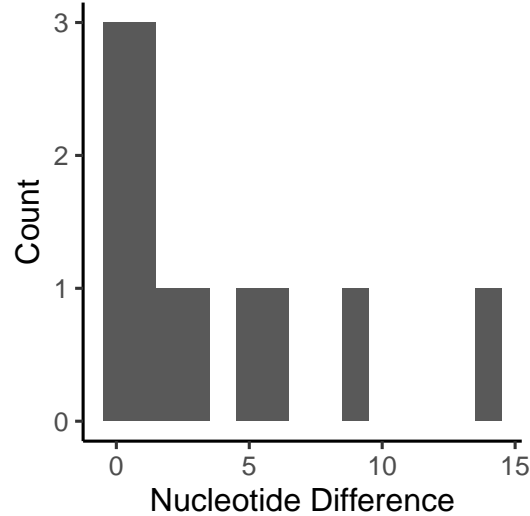
IGHV4-34*01_02

3477 sequences assigned
727 (20.9%) exact matches, in which:
594 unique CDR3
6 unique J



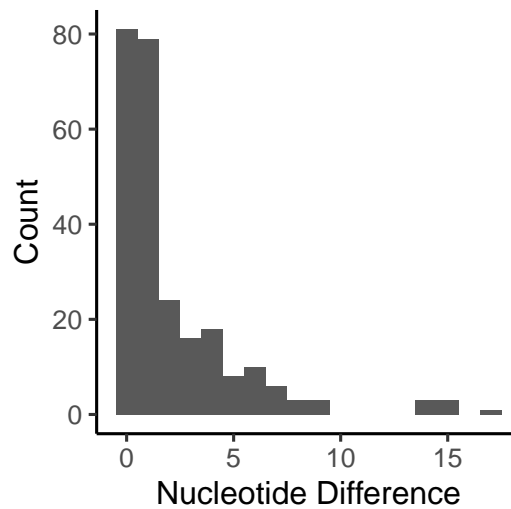
IGHV4-28*01_07

13 sequences assigned
3 (23.1%) exact matches, in which:
1 unique CDR3
1 unique J



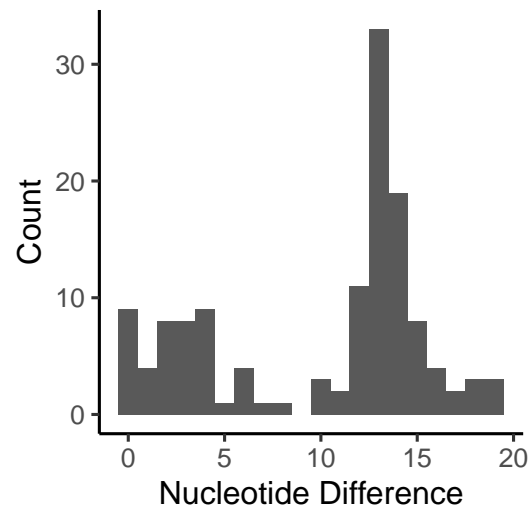
IGHV4-31*01

257 sequences assigned
81 (31.5%) exact matches, in which:
68 unique CDR3
6 unique J



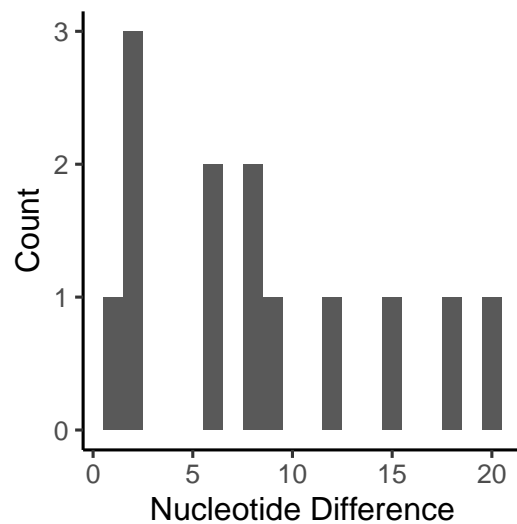
IGHV4-38-2*02

147 sequences assigned
9 (6.1%) exact matches, in which:
9 unique CDR3
2 unique J



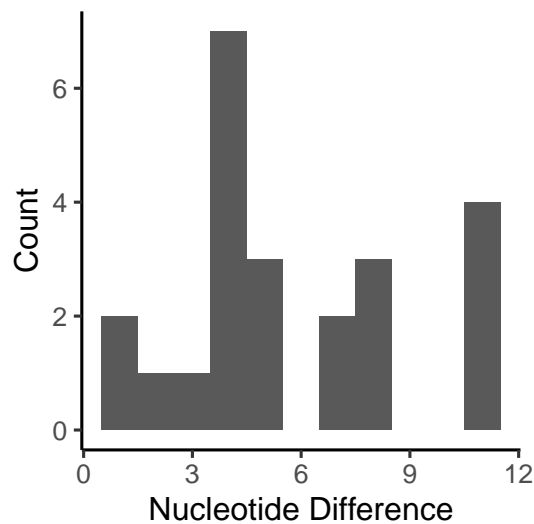
IGHV4-30-2*03

19 sequences assigned
No exact matches.



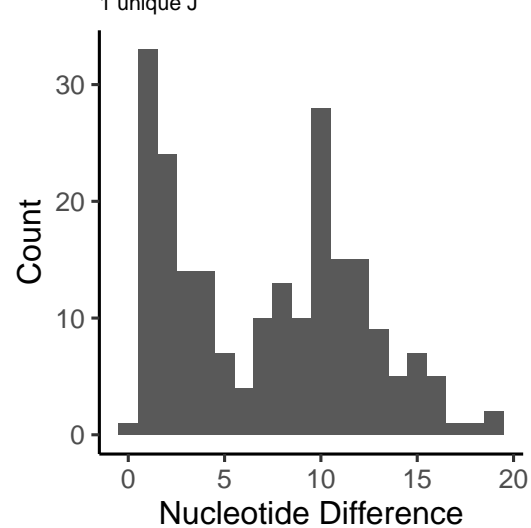
IGHV4-31*02

37 sequences assigned
No exact matches.



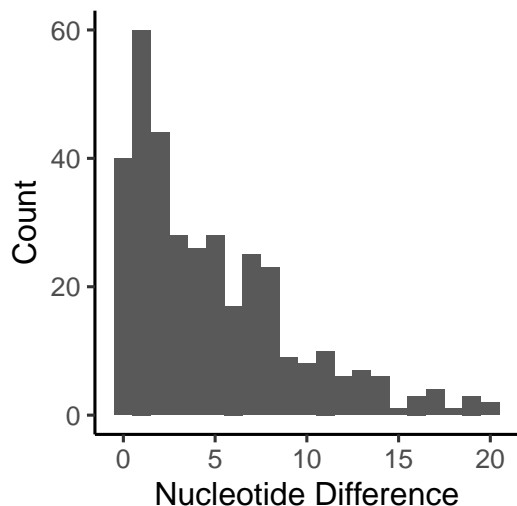
IGHV4-39*07

268 sequences assigned
1 (0.4%) exact matches, in which:
1 unique CDR3
1 unique J



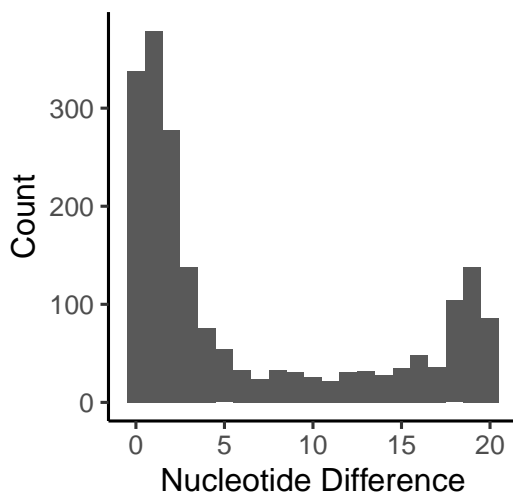
IGHV4–59*08

358 sequences assigned
40 (11.2%) exact matches, in which:
38 unique CDR3
6 unique J



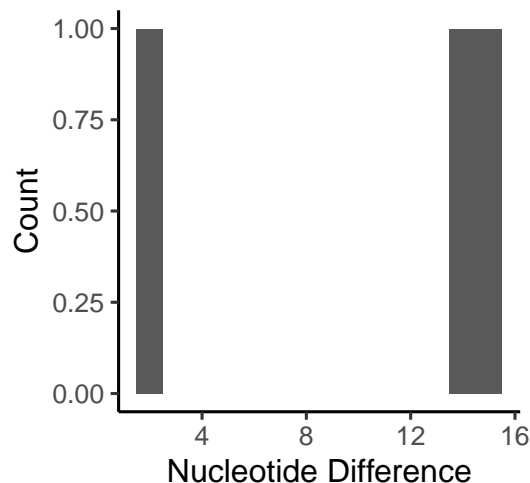
IGHV4–61*02

2446 sequences assigned
338 (13.8%) exact matches, in which:
292 unique CDR3
6 unique J



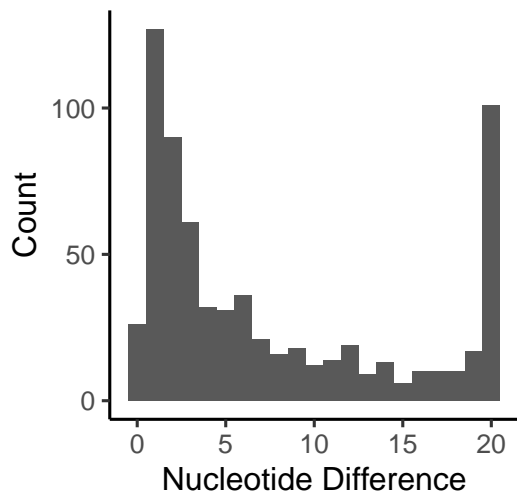
IGHV4/OR15–8*01

13 sequences assigned
No exact matches.



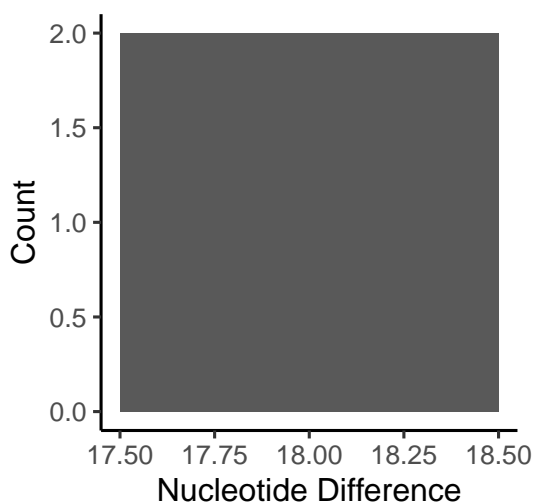
IGHV4–59*12

1896 sequences assigned
26 (1.4%) exact matches, in which:
26 unique CDR3
4 unique J



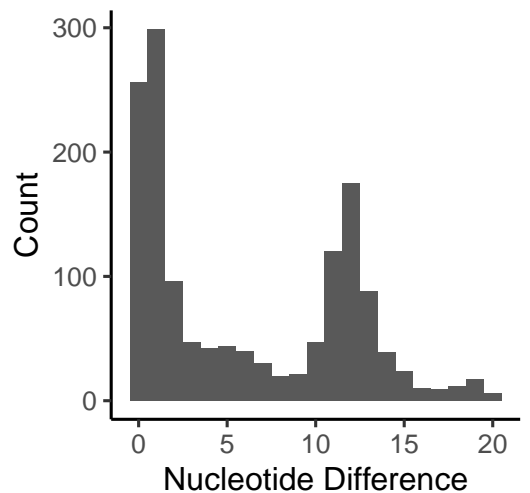
IGHV1/OR15–2*02_03

3 sequences assigned
No exact matches.



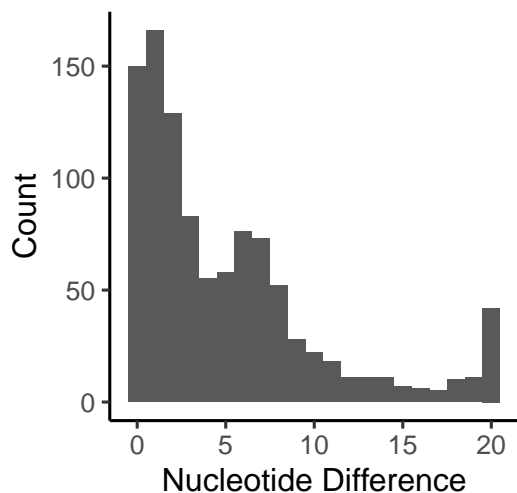
IGHV5–10–1*01_03

1462 sequences assigned
256 (17.5%) exact matches, in which:
170 unique CDR3
6 unique J



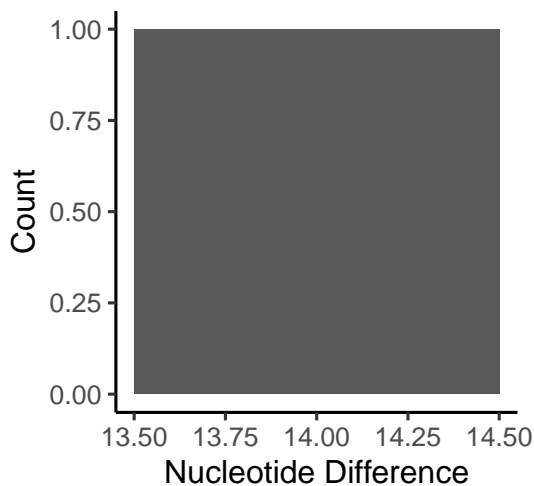
IGHV4–61*01

1553 sequences assigned
150 (9.7%) exact matches, in which:
129 unique CDR3
5 unique J



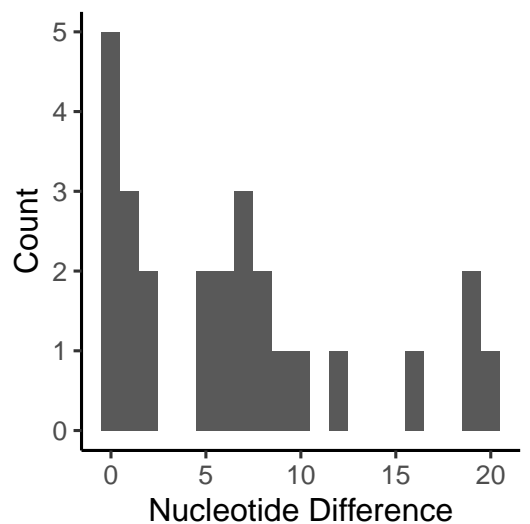
IGHV1/OR15–4*01

1 sequences assigned
No exact matches.



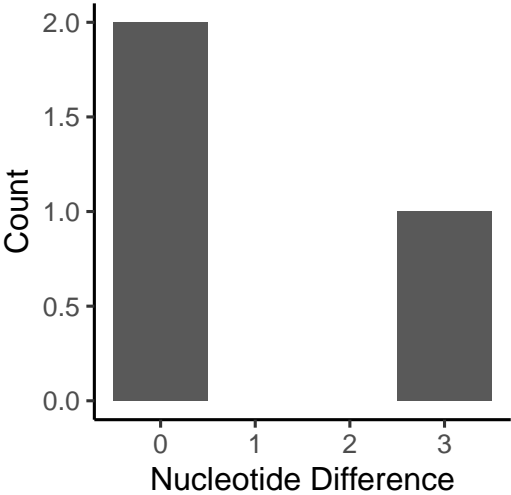
IGHV5–51*04

26 sequences assigned
5 (19.2%) exact matches, in which:
4 unique CDR3
3 unique J



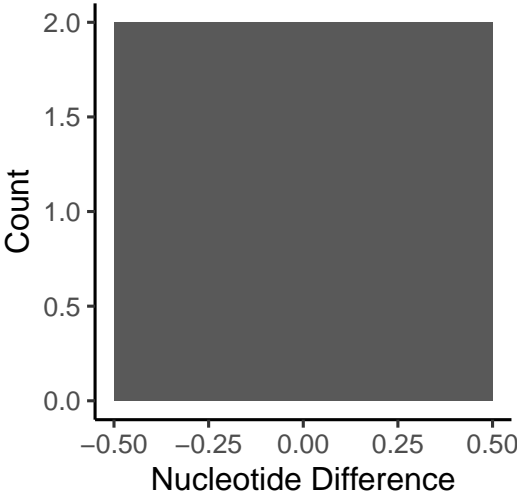
IGHV5-51*06

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



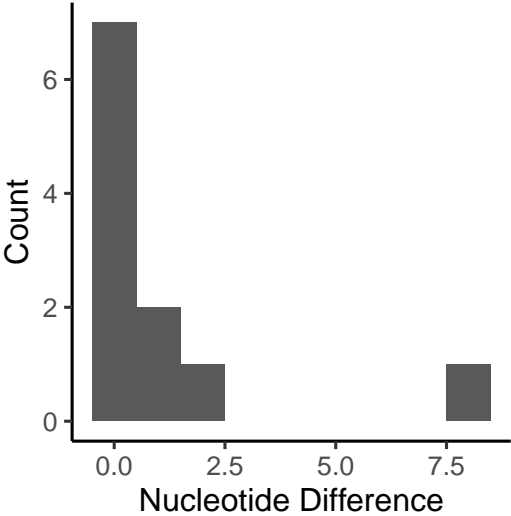
IGHV7-4-1*01

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
1 unique J



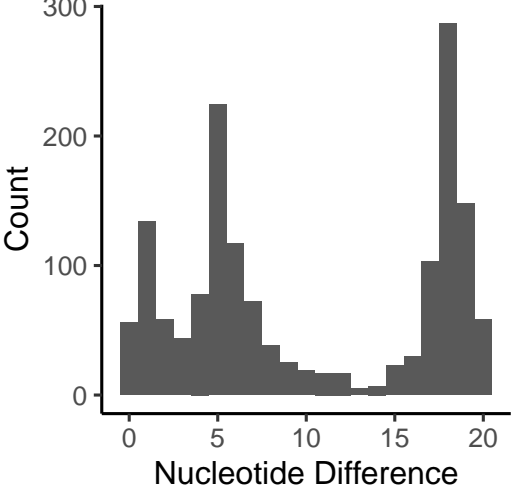
IGHV5-51*07

12 sequences assigned
7 (58.3%) exact matches, in which:
7 unique CDR3
4 unique J



IGHV6-1*01_02

1652 sequences assigned
56 (3.4%) exact matches, in which:
45 unique CDR3
5 unique J





[illegible]