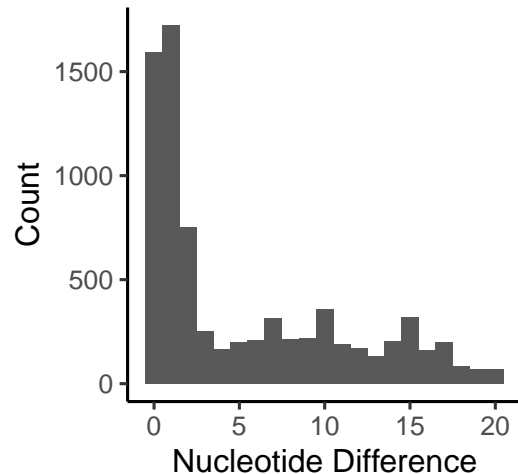


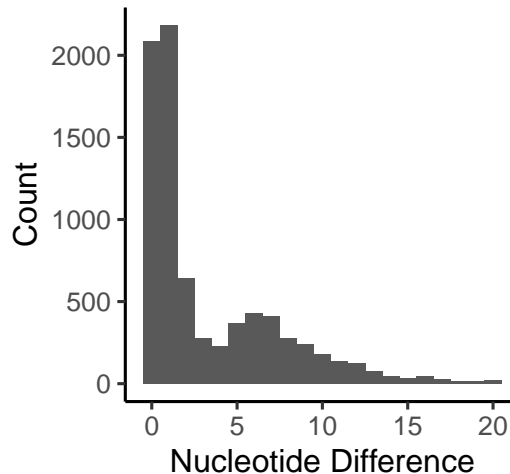
IGHV1-2*02

8549 sequences assigned
1592 (18.6%) exact matches, in which:
1308 unique CDR3
6 unique J



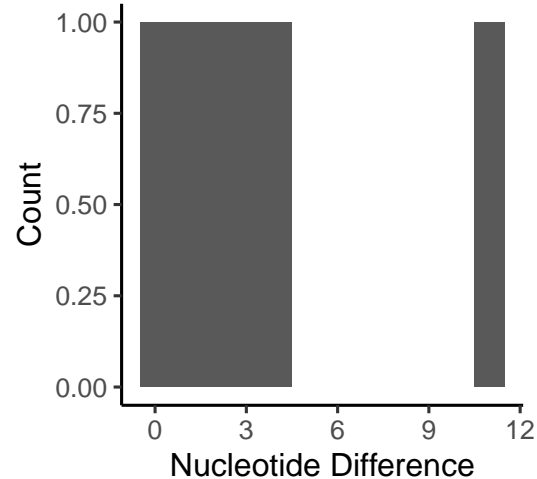
IGHV1-8*01

9050 sequences assigned
2086 (23%) exact matches, in which:
1764 unique CDR3
6 unique J



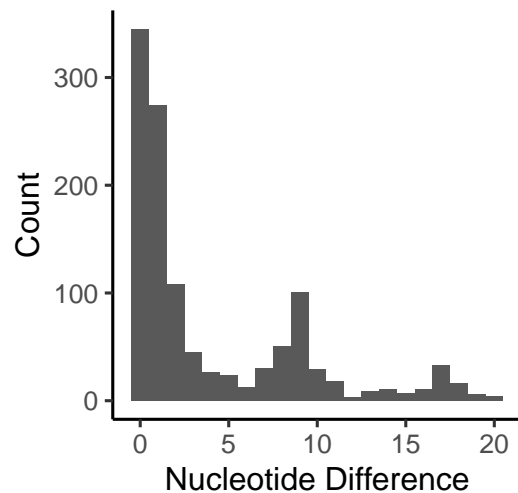
IGHV1-45*02

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



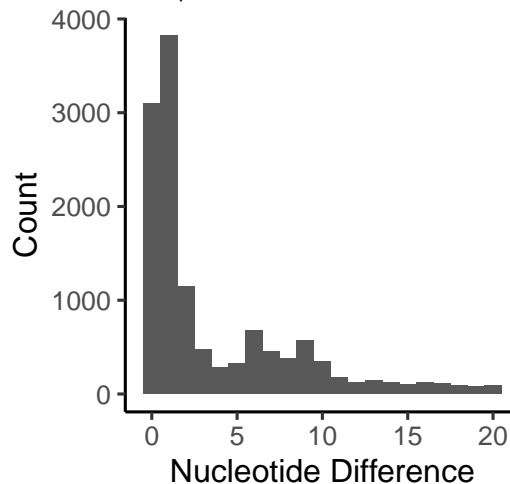
IGHV1-2*04

1169 sequences assigned
345 (29.5%) exact matches, in which:
292 unique CDR3
6 unique J



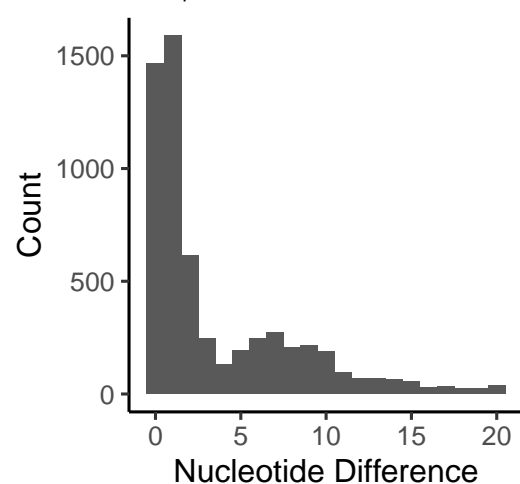
IGHV1-18*01

15557 sequences assigned
3097 (19.9%) exact matches, in which:
2531 unique CDR3
6 unique J



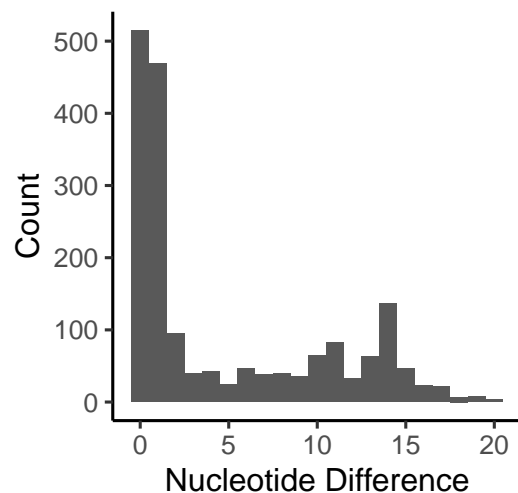
IGHV1-46*01

6431 sequences assigned
1468 (22.8%) exact matches, in which:
1264 unique CDR3
6 unique J



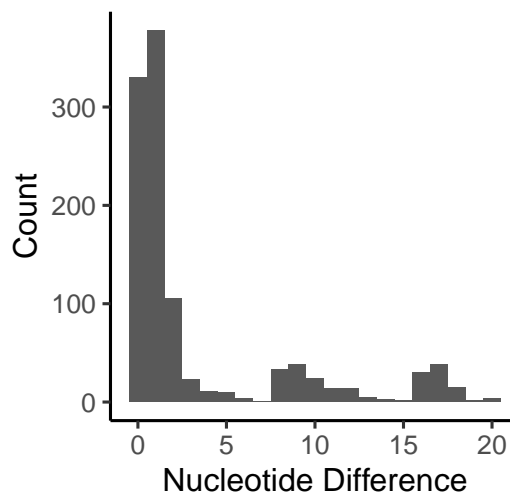
IGHV1-3*01_05

2109 sequences assigned
515 (24.4%) exact matches, in which:
422 unique CDR3
6 unique J



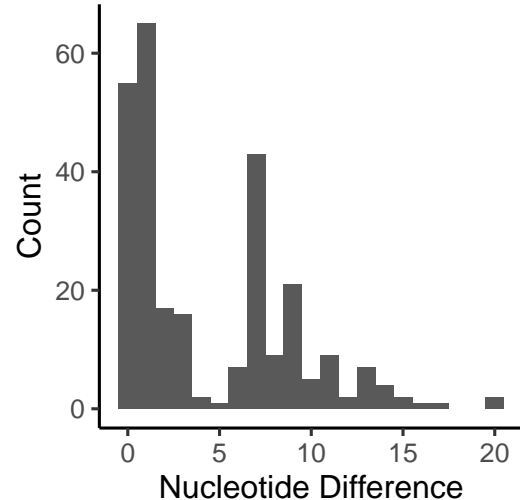
IGHV1-24*01

1129 sequences assigned
330 (29.2%) exact matches, in which:
273 unique CDR3
6 unique J



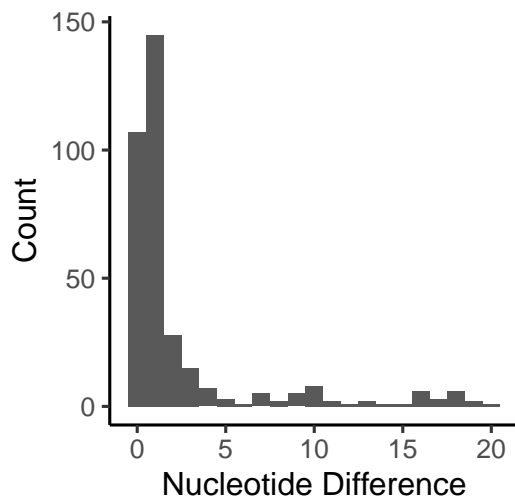
IGHV1-58*02

291 sequences assigned
55 (18.9%) exact matches, in which:
42 unique CDR3
5 unique J



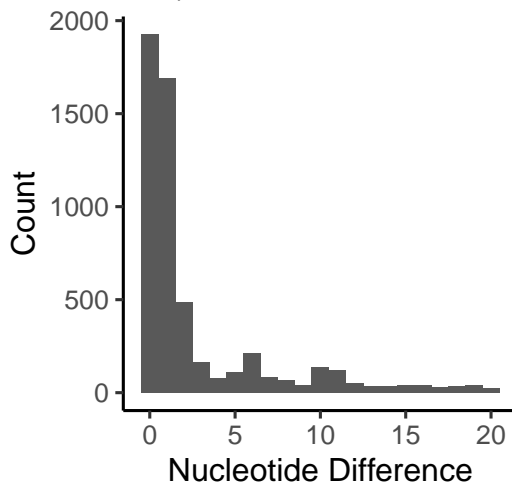
IGHV1–58*01_03

436 sequences assigned
107 (24.5%) exact matches, in which:
96 unique CDR3
5 unique J



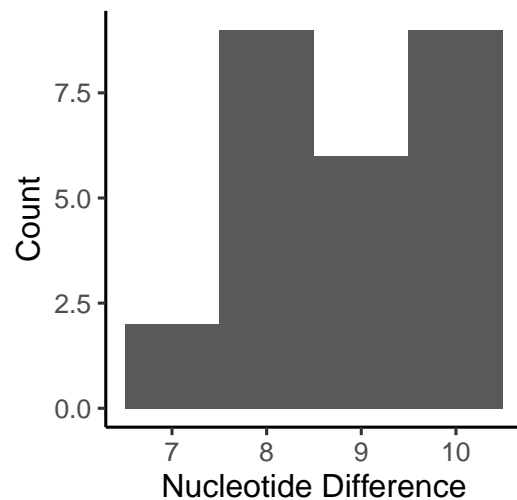
IGHV1–69*01_12_13

5585 sequences assigned
1926 (34.5%) exact matches, in which:
1672 unique CDR3
6 unique J



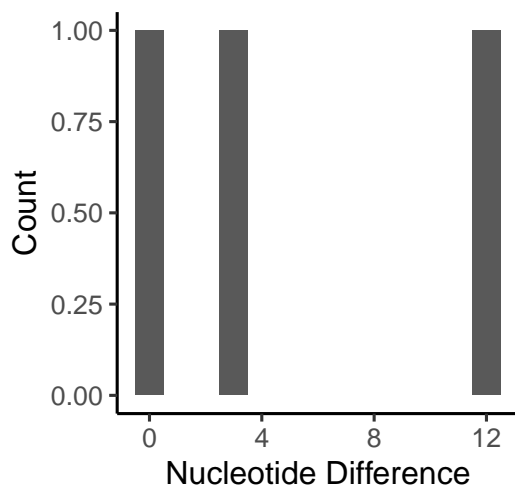
IGHV1–NL1*01

26 sequences assigned
No exact matches.



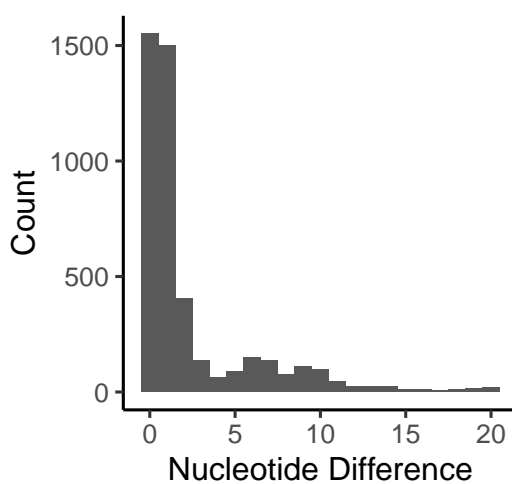
IGHV1–68*02_03

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



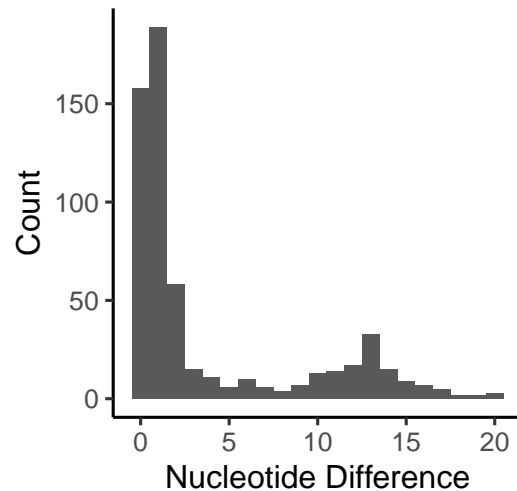
IGHV1–69*04_09

4869 sequences assigned
1551 (31.9%) exact matches, in which:
1363 unique CDR3
6 unique J



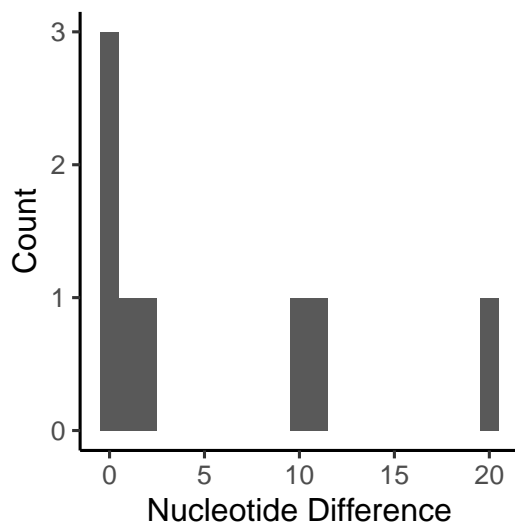
IGHV2–5*01

616 sequences assigned
158 (25.6%) exact matches, in which:
133 unique CDR3
4 unique J



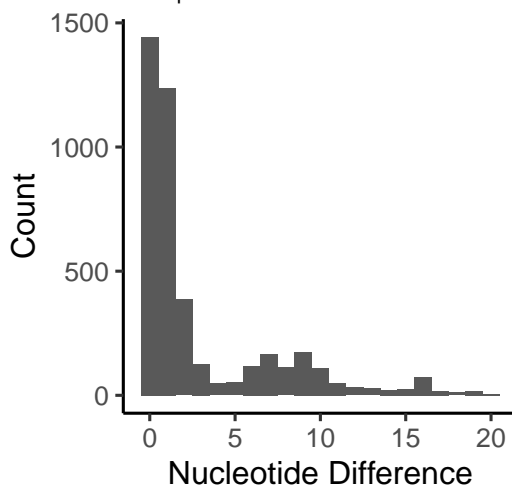
IGHV1–69–2*01

15 sequences assigned
3 (20%) exact matches, in which:
3 unique CDR3
2 unique J



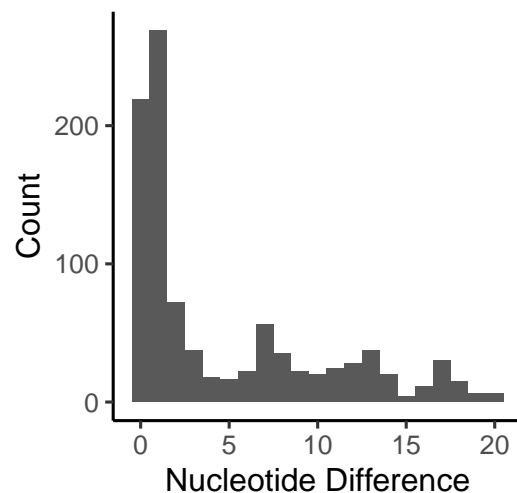
IGHV1–69*06_14

4696 sequences assigned
1443 (30.7%) exact matches, in which:
1282 unique CDR3
6 unique J



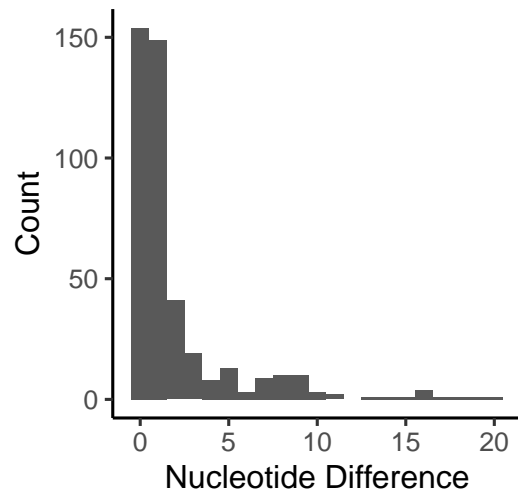
IGHV2–5*02

1031 sequences assigned
219 (21.2%) exact matches, in which:
193 unique CDR3
6 unique J



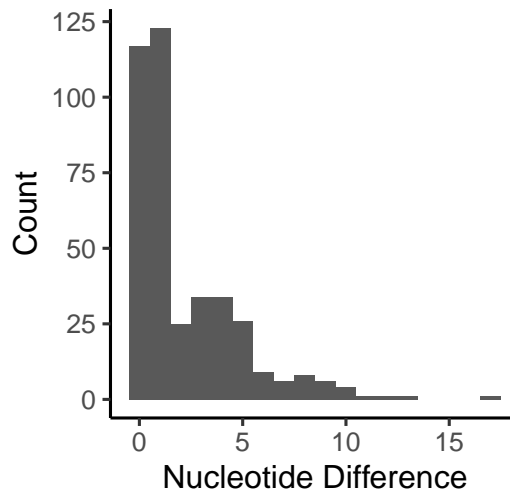
IGHV2-26*01

434 sequences assigned
154 (35.5%) exact matches, in which:
131 unique CDR3
5 unique J



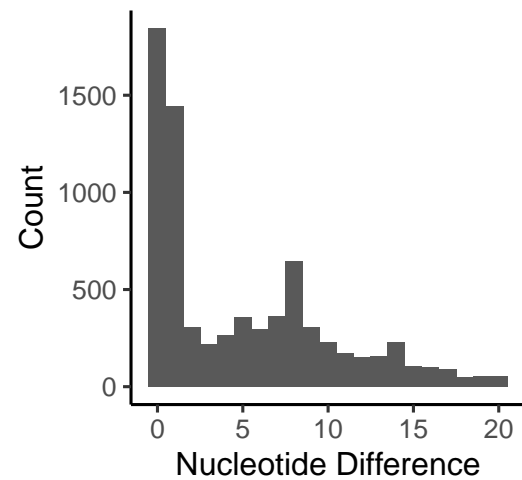
IGHV2-70*11_15

400 sequences assigned
117 (29.2%) exact matches, in which:
95 unique CDR3
4 unique J



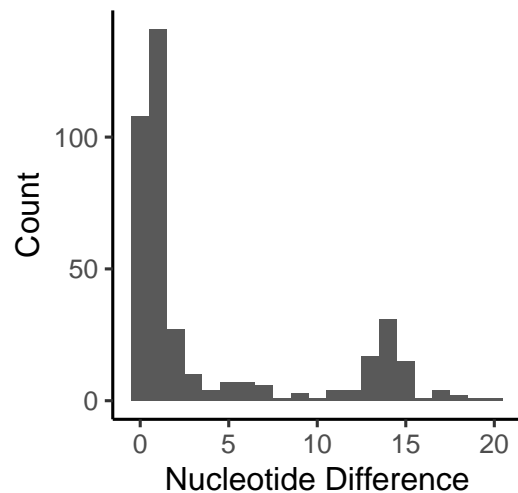
IGHV3-9*01

7624 sequences assigned
1844 (24.2%) exact matches, in which:
1071 unique CDR3
6 unique J



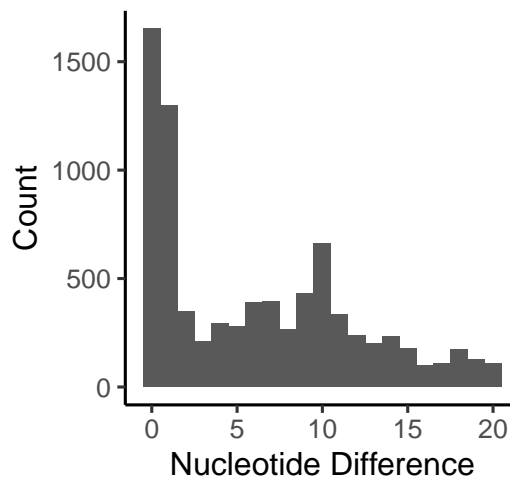
IGHV2-70*01

407 sequences assigned
108 (26.5%) exact matches, in which:
82 unique CDR3
4 unique J



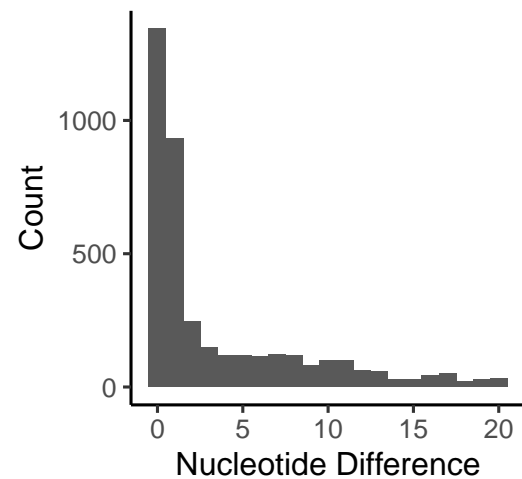
IGHV3-7*01

8723 sequences assigned
1652 (18.9%) exact matches, in which:
1092 unique CDR3
6 unique J



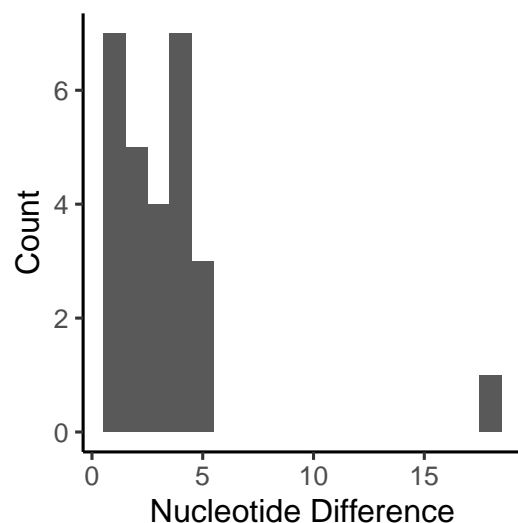
IGHV3-11*01

5047 sequences assigned
1344 (26.6%) exact matches, in which:
857 unique CDR3
6 unique J



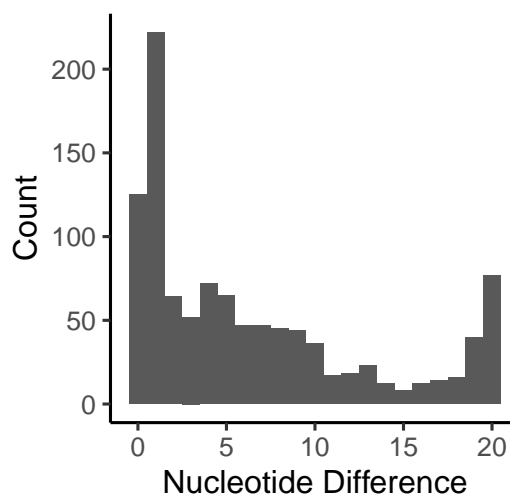
IGHV2-70*12

28 sequences assigned
No exact matches.



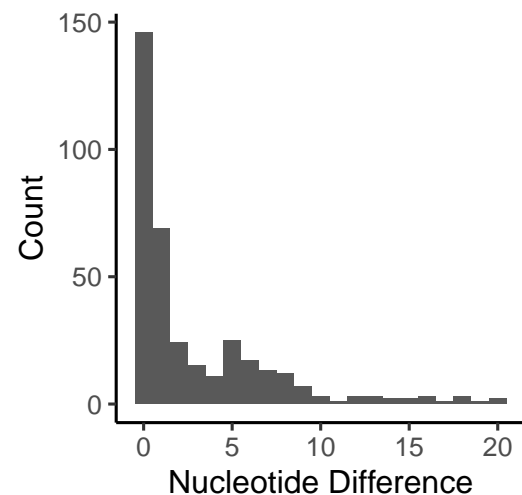
IGHV3-7*03

2052 sequences assigned
125 (6.1%) exact matches, in which:
107 unique CDR3
6 unique J



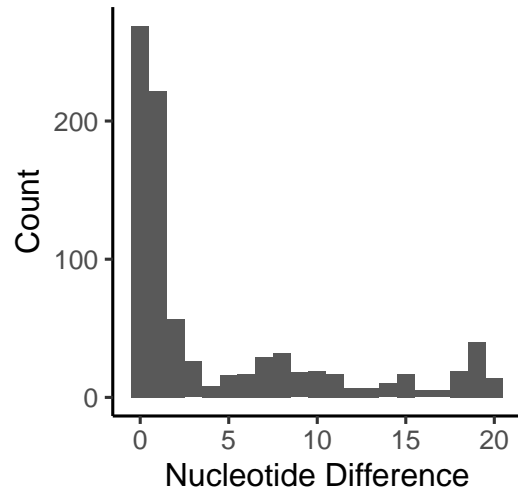
IGHV3-11*04

381 sequences assigned
146 (38.3%) exact matches, in which:
143 unique CDR3
5 unique J



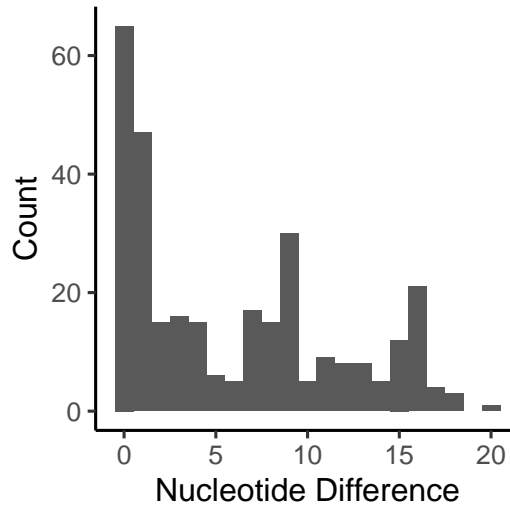
IGHV3-13*01

902 sequences assigned
269 (29.8%) exact matches, in which:
178 unique CDR3
5 unique J



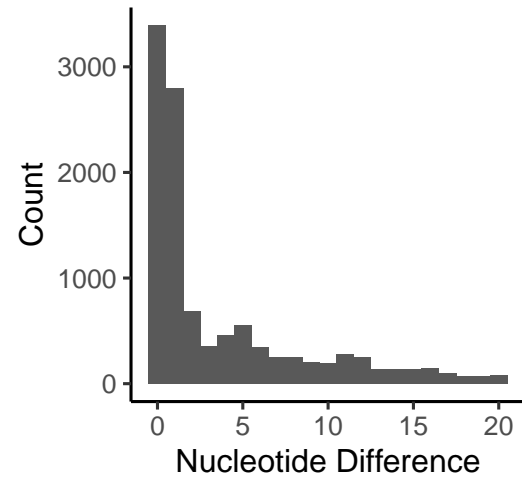
IGHV3-20*01_02

308 sequences assigned
65 (21.1%) exact matches, in which:
43 unique CDR3
5 unique J



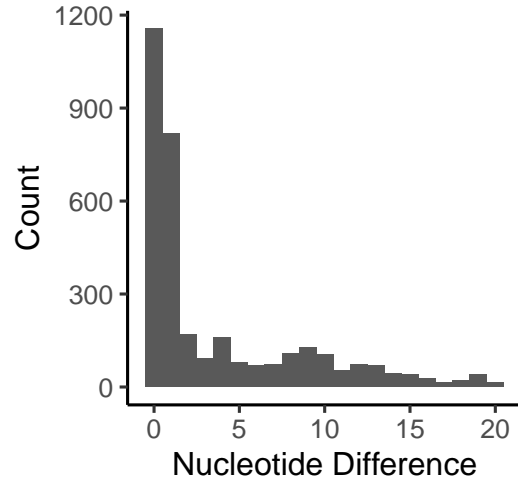
IGHV3-21*01_02

11948 sequences assigned
3392 (28.4%) exact matches, in which:
2079 unique CDR3
6 unique J



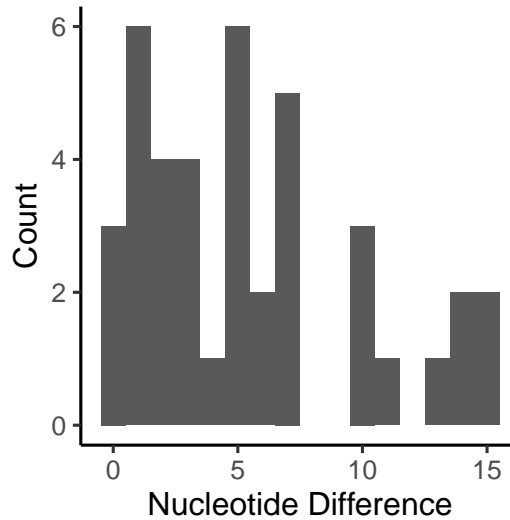
IGHV3-15*01_02

3618 sequences assigned
1156 (32%) exact matches, in which:
697 unique CDR3
6 unique J



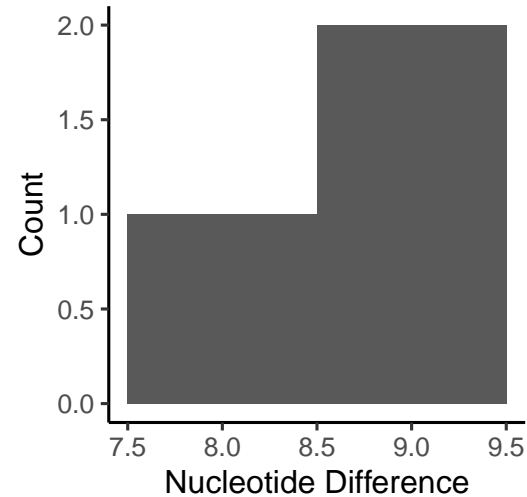
IGHV3-20*03_04

42 sequences assigned
3 (7.1%) exact matches, in which:
3 unique CDR3
2 unique J



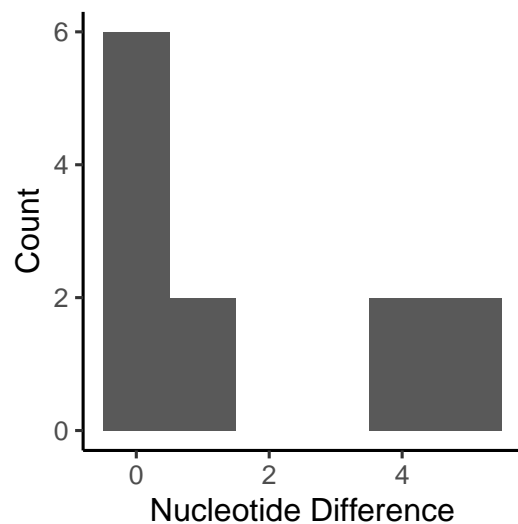
IGHV3-22*01_02

3 sequences assigned
No exact matches.



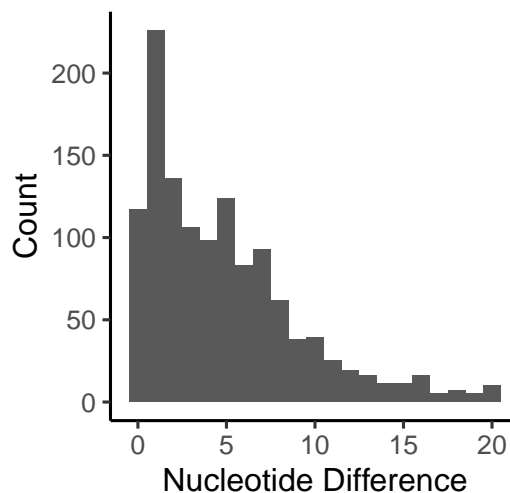
IGHV3-19*01

12 sequences assigned
6 (50%) exact matches, in which:
5 unique CDR3
2 unique J



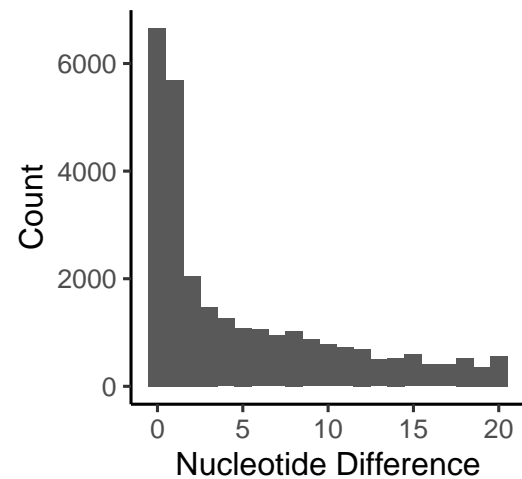
IGHV3-21*04

1336 sequences assigned
117 (8.8%) exact matches, in which:
106 unique CDR3
6 unique J



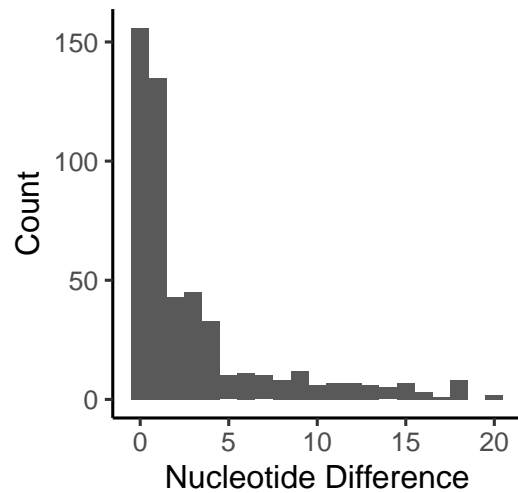
IGHV3-23*01_04

35462 sequences assigned
6659 (18.8%) exact matches, in which:
3818 unique CDR3
6 unique J



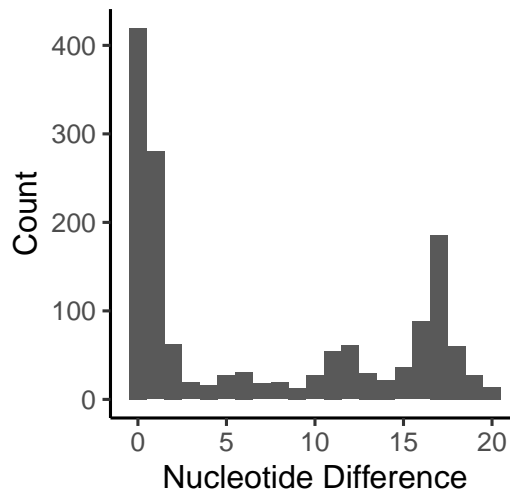
IGHV3-30*03

547 sequences assigned
156 (28.5%) exact matches, in which:
148 unique CDR3
6 unique J



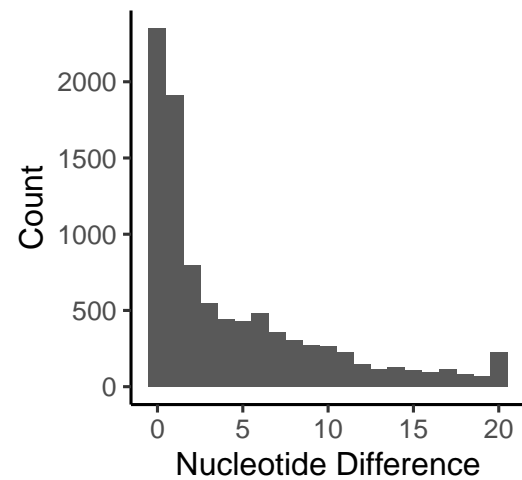
IGHV3-43*02

1592 sequences assigned
420 (26.4%) exact matches, in which:
242 unique CDR3
6 unique J



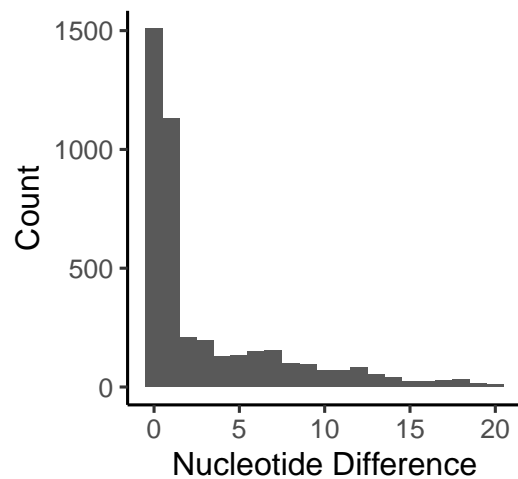
IGHV3-48*03

10932 sequences assigned
2350 (21.5%) exact matches, in which:
1415 unique CDR3
6 unique J



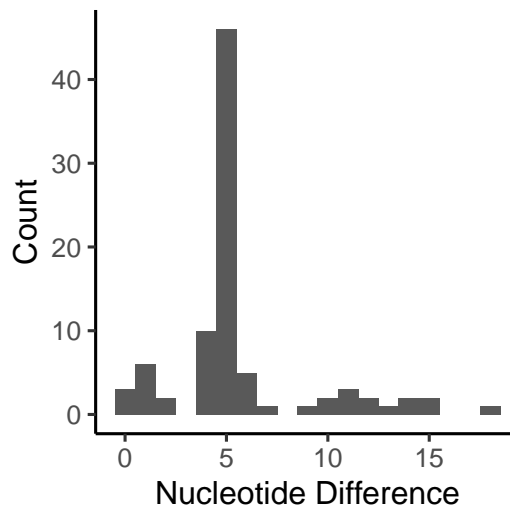
IGHV3-33*01

4355 sequences assigned
1508 (34.6%) exact matches, in which:
997 unique CDR3
6 unique J



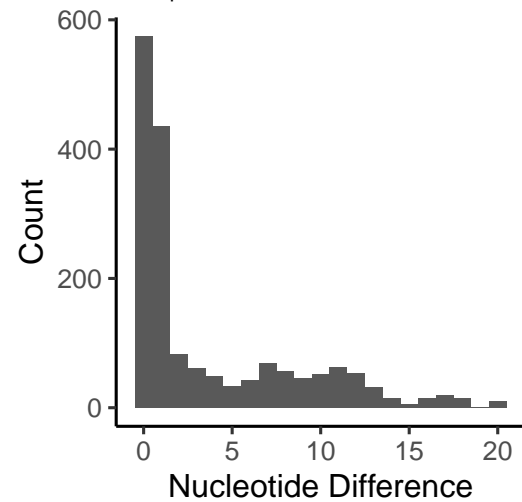
IGHV3-47*01

87 sequences assigned
3 (3.4%) exact matches, in which:
2 unique CDR3
1 unique J



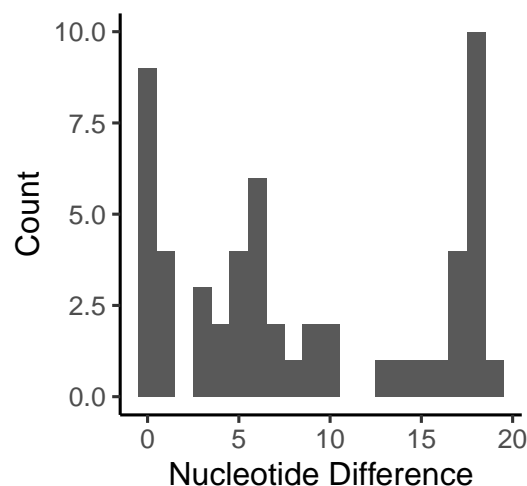
IGHV3-49*04

2108 sequences assigned
575 (27.3%) exact matches, in which:
352 unique CDR3
6 unique J



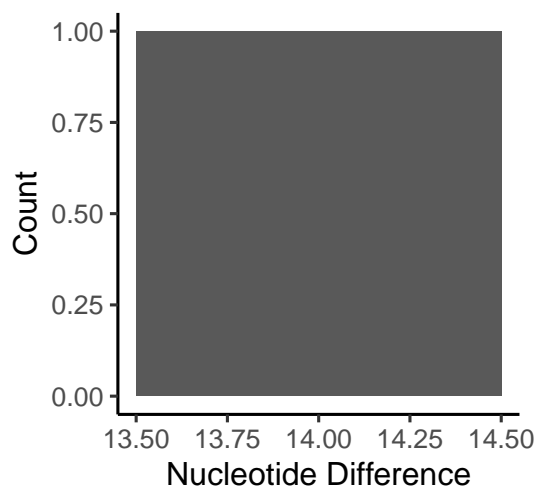
IGHV3-33*05

66 sequences assigned
9 (13.6%) exact matches, in which:
9 unique CDR3
2 unique J



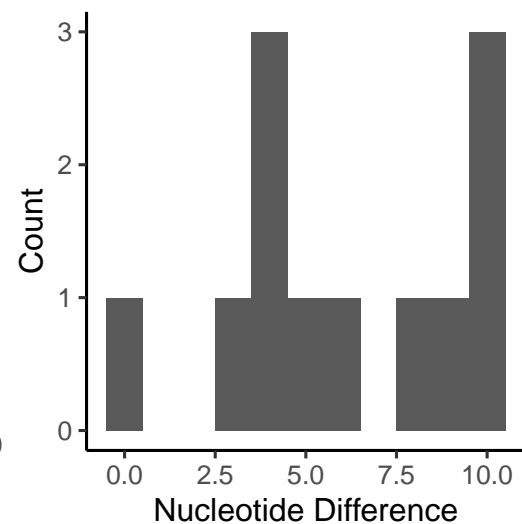
IGHV3-47*02

1 sequences assigned
No exact matches.



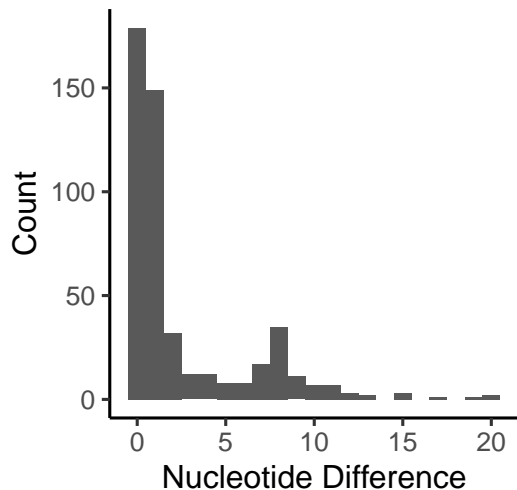
IGHV3-52*01_03

12 sequences assigned
1 (8.3%) exact matches, in which:
1 unique CDR3
1 unique J



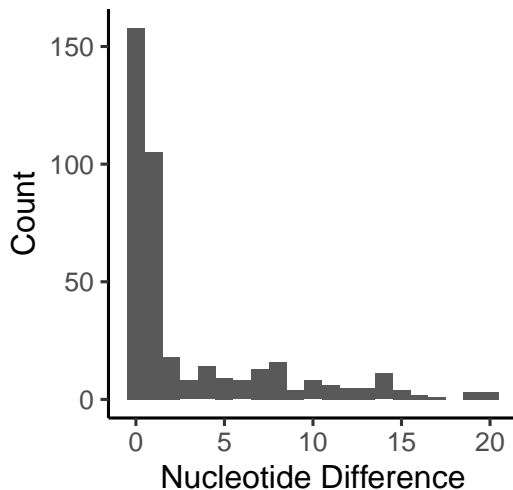
IGHV3-53*04

503 sequences assigned
179 (35.6%) exact matches, in which:
115 unique CDR3
6 unique J



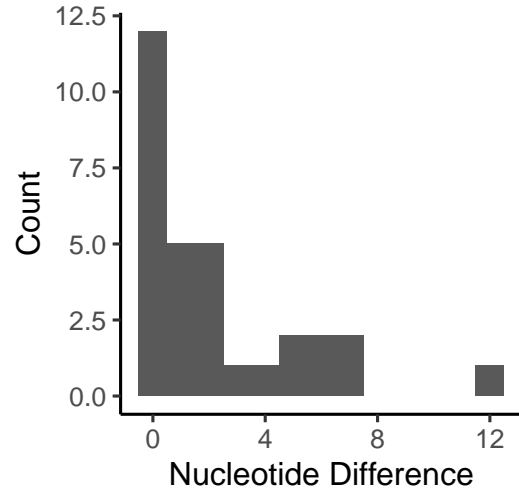
IGHV3-64*01

405 sequences assigned
158 (39%) exact matches, in which:
99 unique CDR3
5 unique J



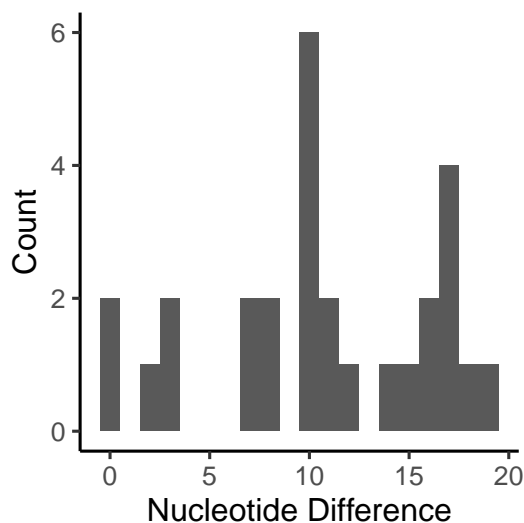
IGHV3-66*03

31 sequences assigned
12 (38.7%) exact matches, in which:
11 unique CDR3
3 unique J



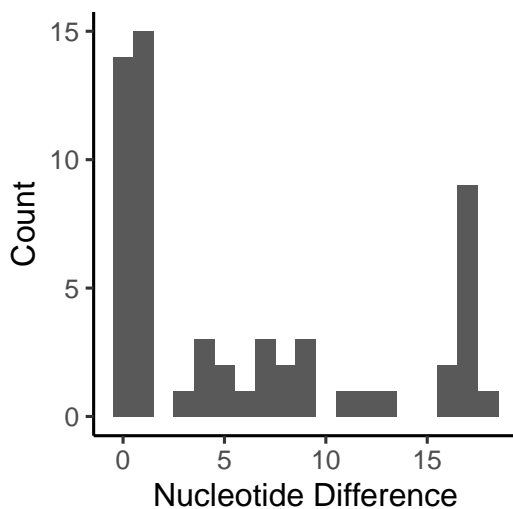
IGHV3-53*05

30 sequences assigned
2 (6.7%) exact matches, in which:
2 unique CDR3
2 unique J



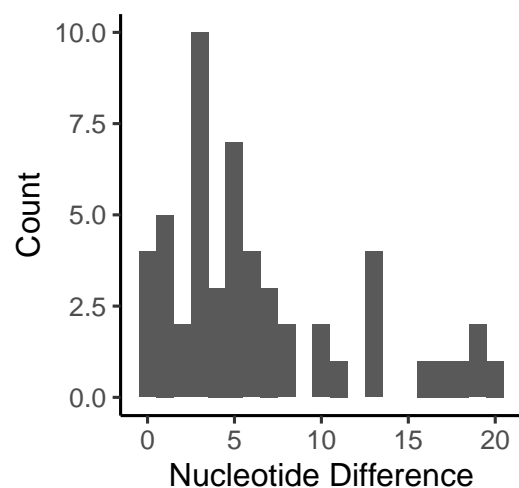
IGHV3-64*02_07

106 sequences assigned
14 (13.2%) exact matches, in which:
10 unique CDR3
2 unique J



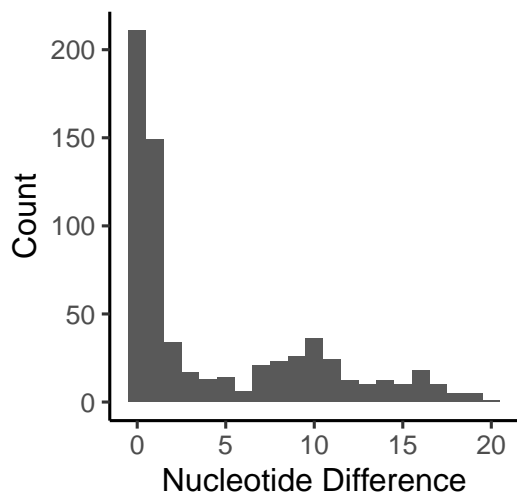
IGHV3-69-1*01

53 sequences assigned
4 (7.5%) exact matches, in which:
4 unique CDR3
2 unique J



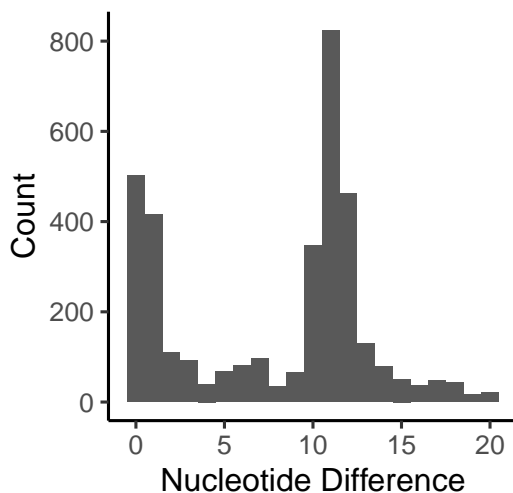
IGHV3-53*01_02

691 sequences assigned
211 (30.5%) exact matches, in which:
128 unique CDR3
6 unique J



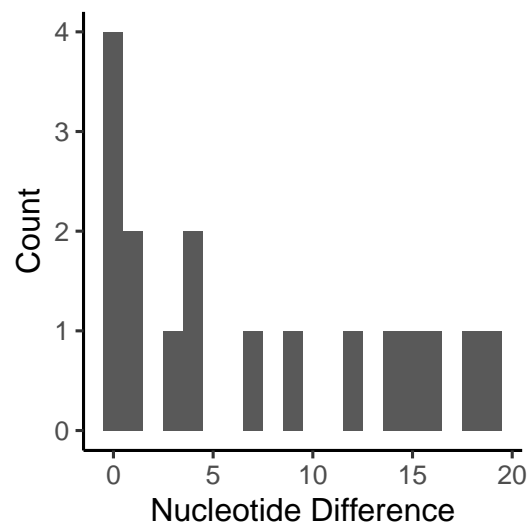
IGHV3-66*01

3709 sequences assigned
503 (13.6%) exact matches, in which:
319 unique CDR3
5 unique J



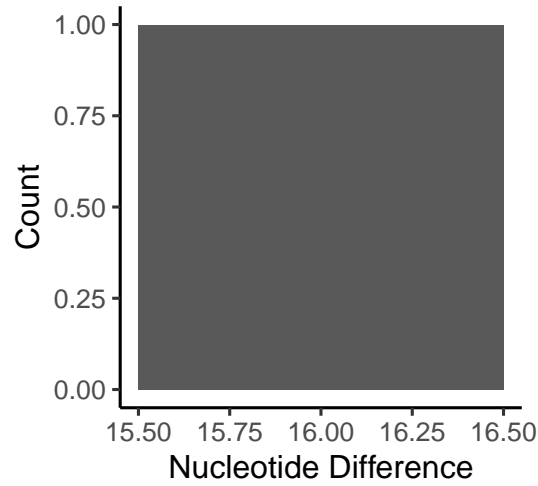
IGHV3-69-1*02

17 sequences assigned
4 (23.5%) exact matches, in which:
4 unique CDR3
2 unique J



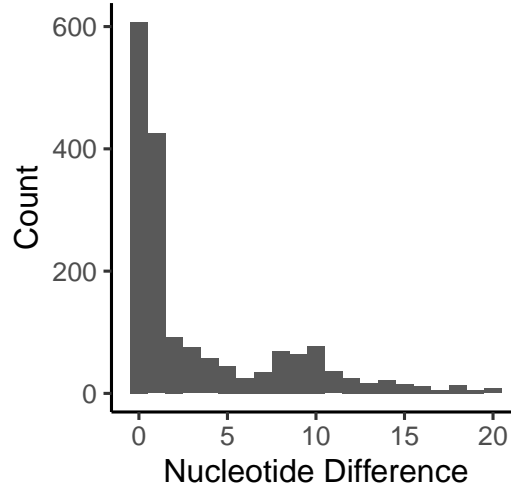
IGHV3-71*03

1 sequences assigned
No exact matches.



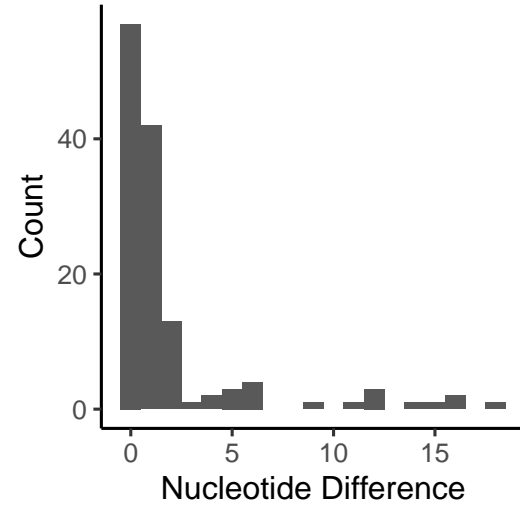
IGHV3-73*01_02

2210 sequences assigned
608 (27.5%) exact matches, in which:
364 unique CDR3
6 unique J



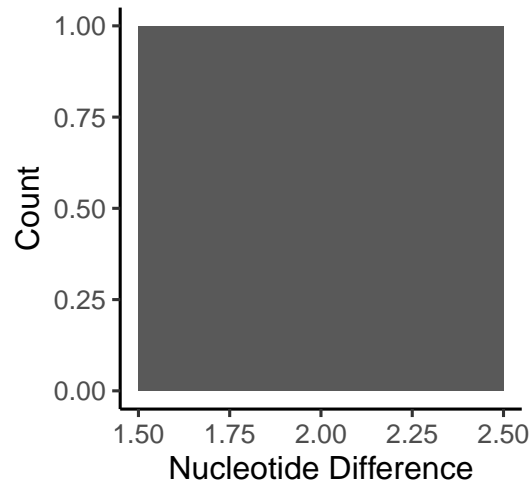
IGHV3-43D*04

135 sequences assigned
57 (42.2%) exact matches, in which:
33 unique CDR3
4 unique J



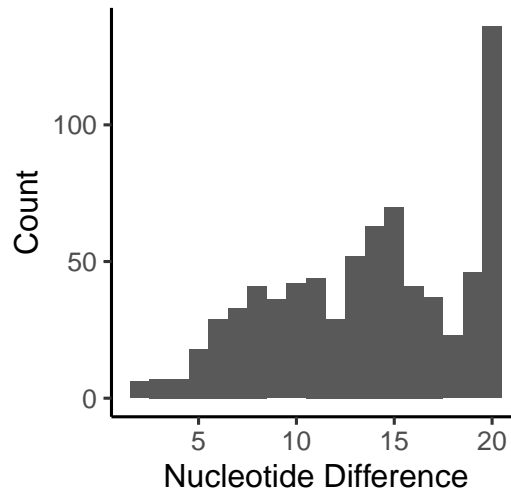
IGHV3-71*01_04

1 sequences assigned
No exact matches.



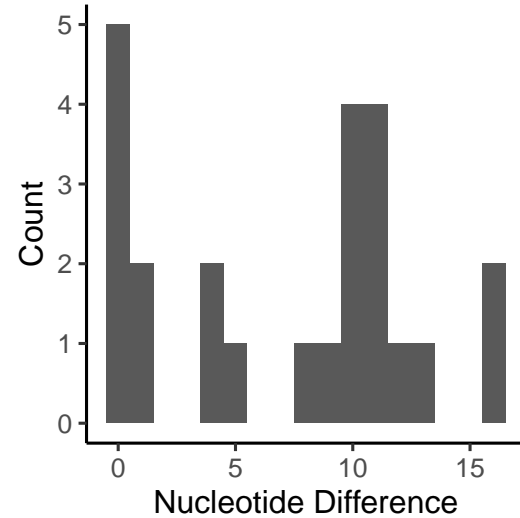
IGHV3-74*03

1333 sequences assigned
No exact matches.



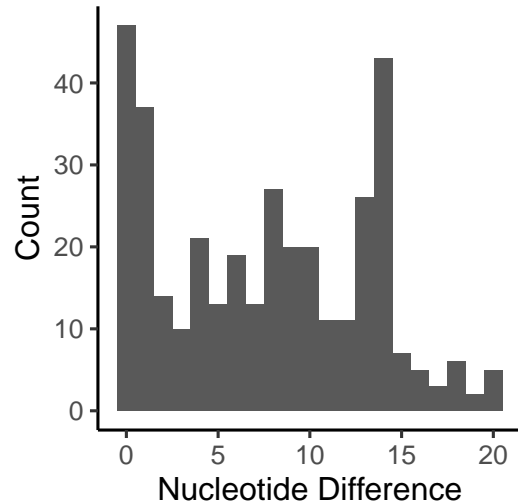
IGHV3-64D*06

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



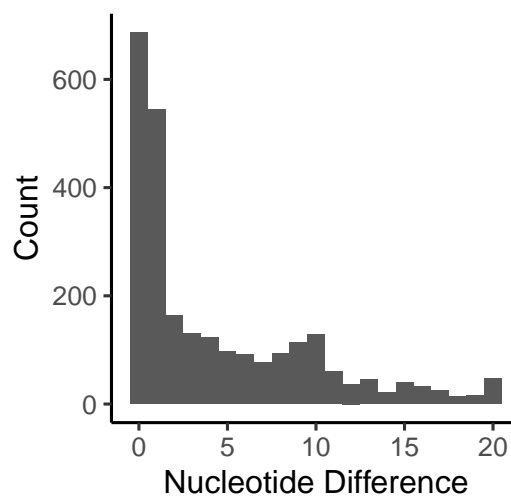
IGHV3-72*01

513 sequences assigned
47 (9.2%) exact matches, in which:
28 unique CDR3
4 unique J



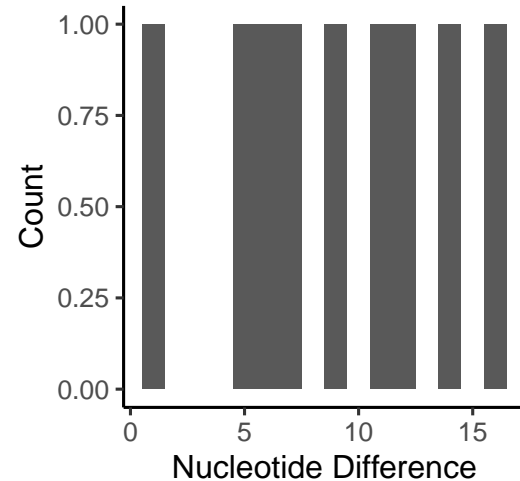
IGHV3-74*01_02

2792 sequences assigned
687 (24.6%) exact matches, in which:
424 unique CDR3
6 unique J



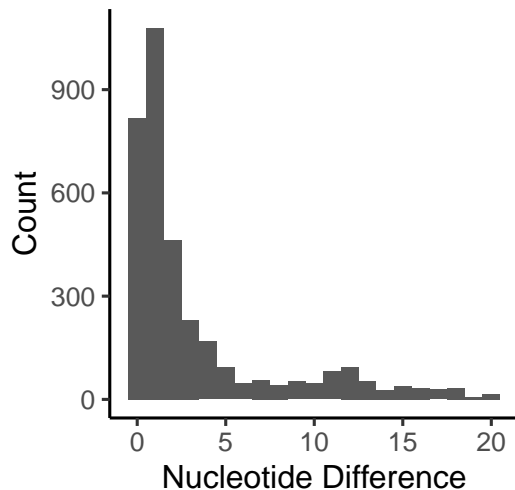
IGHV3-NL1*01

28 sequences assigned
No exact matches.



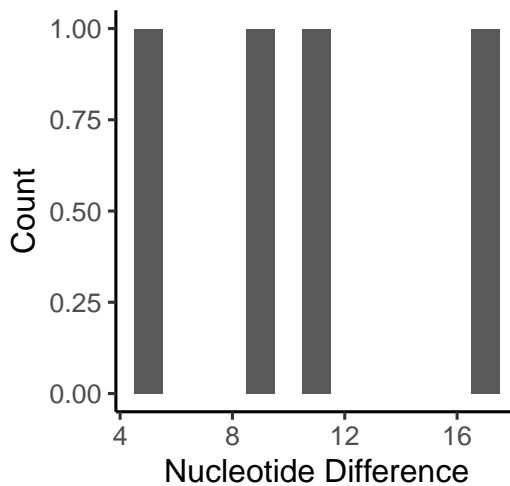
IGHV4-4*07

3665 sequences assigned
818 (22.3%) exact matches, in which:
695 unique CDR3
6 unique J



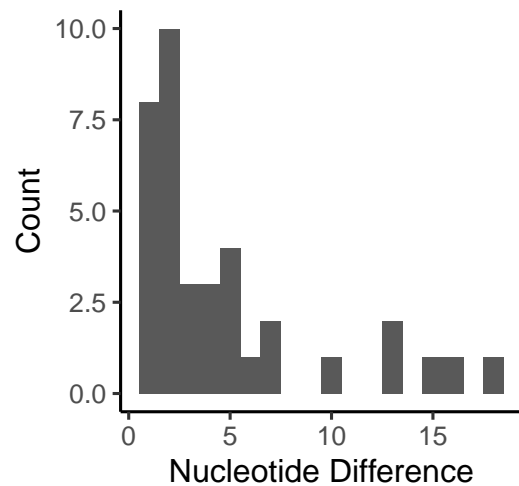
IGHV4-28*02_05

4 sequences assigned
No exact matches.



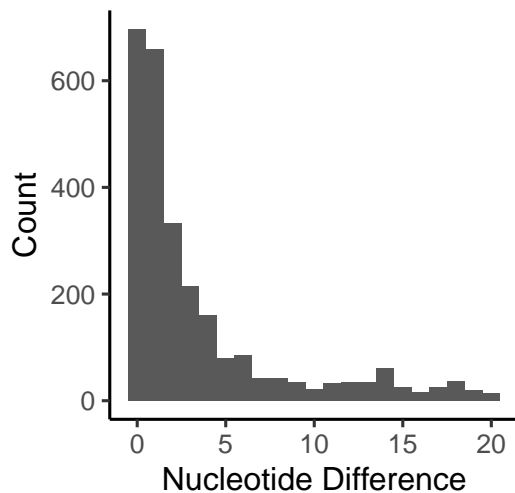
IGHV4-30-2*03

44 sequences assigned
No exact matches.



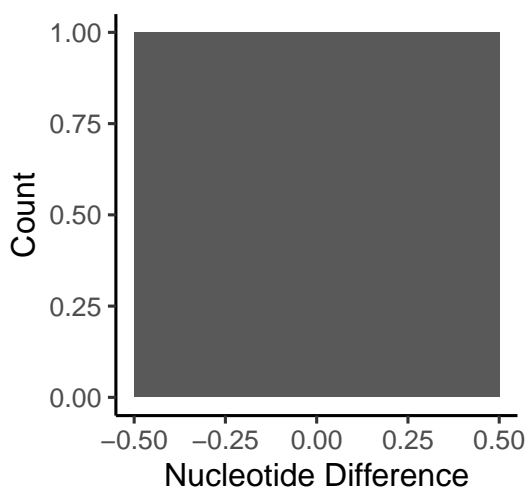
IGHV4-4*02_03

3322 sequences assigned
697 (21%) exact matches, in which:
573 unique CDR3
6 unique J



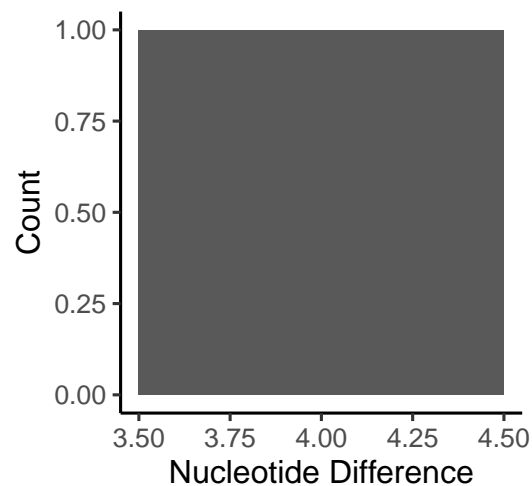
IGHV4-30-4*01

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



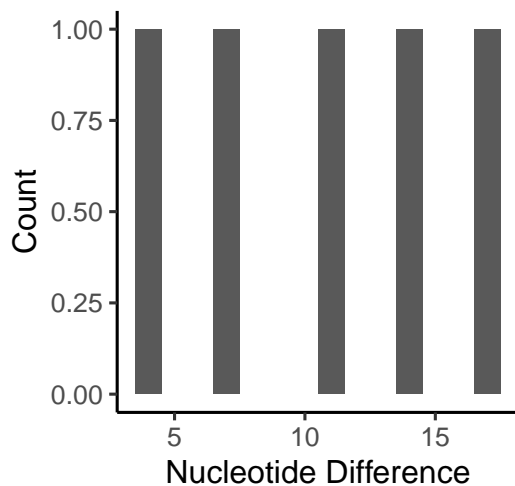
IGHV4-30-2*04

1 sequences assigned
No exact matches.



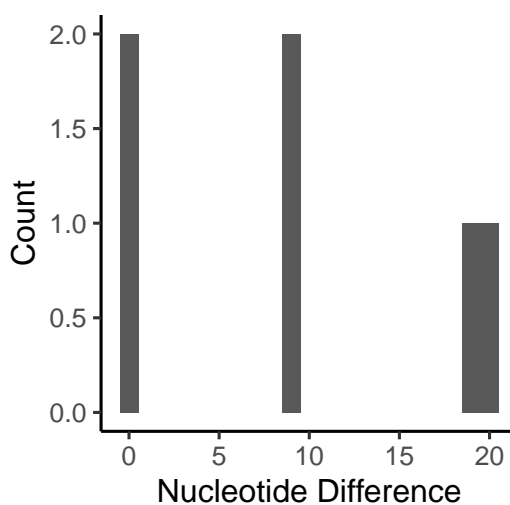
IGHV4-28*03

5 sequences assigned
No exact matches.



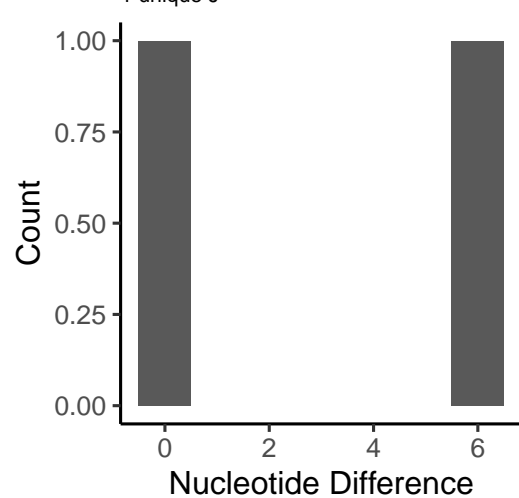
IGHV4-30-2*01

6 sequences assigned
2 (33.3%) exact matches, in which:
2 unique CDR3
2 unique J



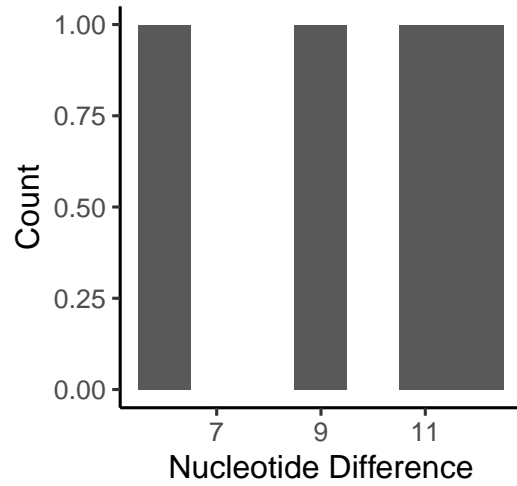
IGHV4-30-4*07

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



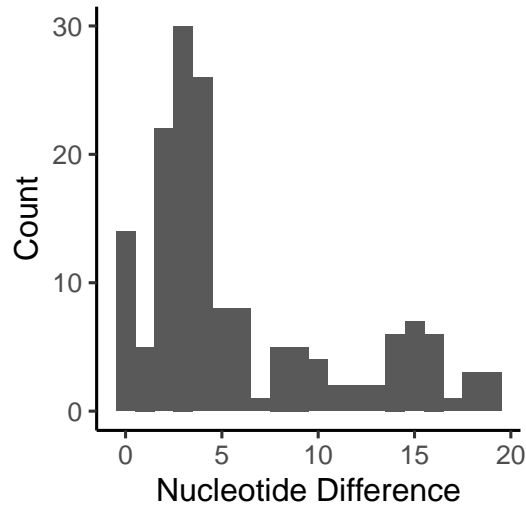
IGHV4-30-4*08

15 sequences assigned
No exact matches.



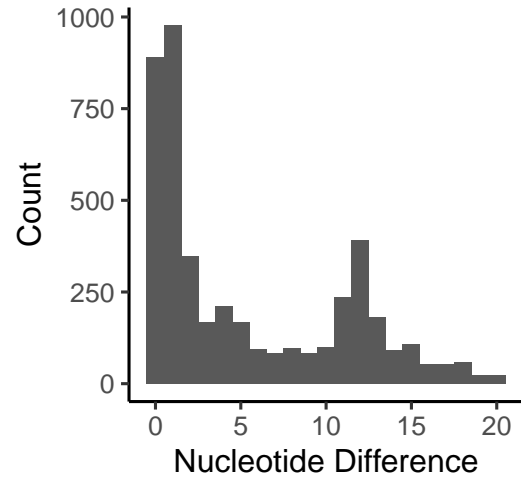
IGHV4-38-2*02

891 sequences assigned
14 (1.6%) exact matches, in which:
12 unique CDR3
3 unique J



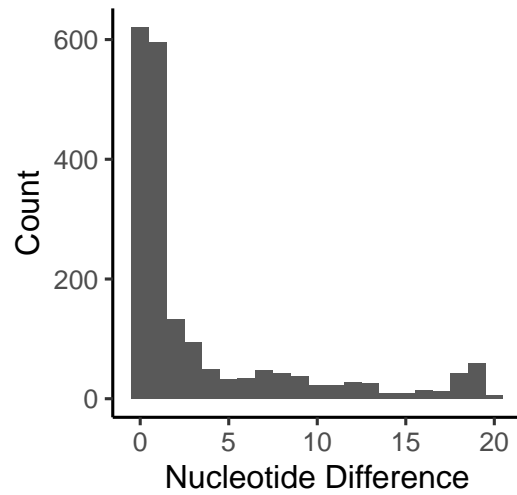
IGHV4-59*08

4609 sequences assigned
891 (19.3%) exact matches, in which:
723 unique CDR3
6 unique J



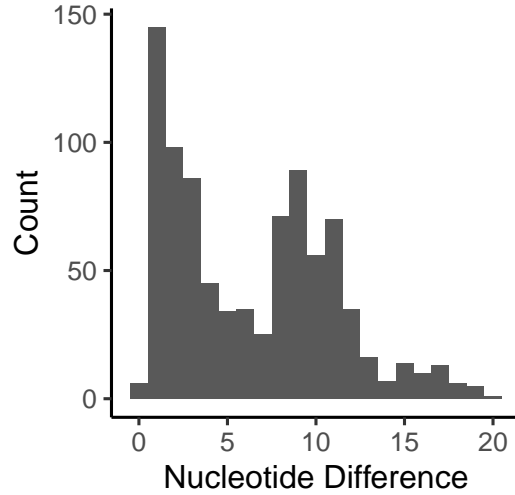
IGHV4-31*02

2483 sequences assigned
621 (25%) exact matches, in which:
537 unique CDR3
5 unique J



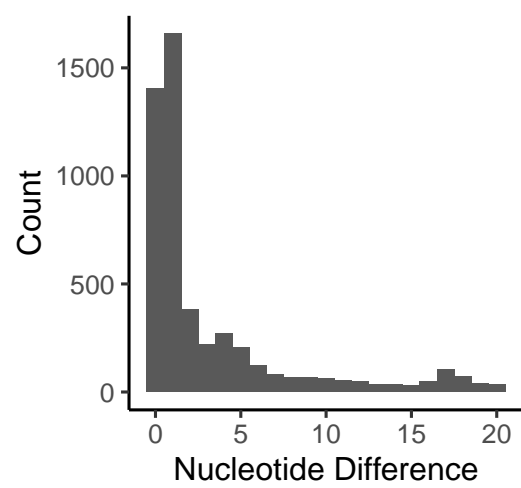
IGHV4-39*07

895 sequences assigned
6 (0.7%) exact matches, in which:
6 unique CDR3
4 unique J



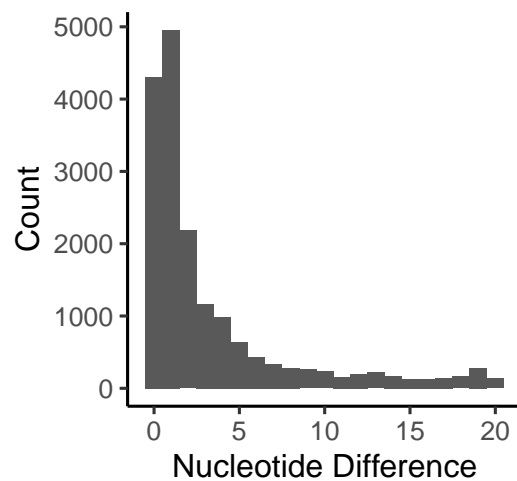
IGHV4-59*01_07

5309 sequences assigned
1403 (26.4%) exact matches, in which:
1169 unique CDR3
6 unique J



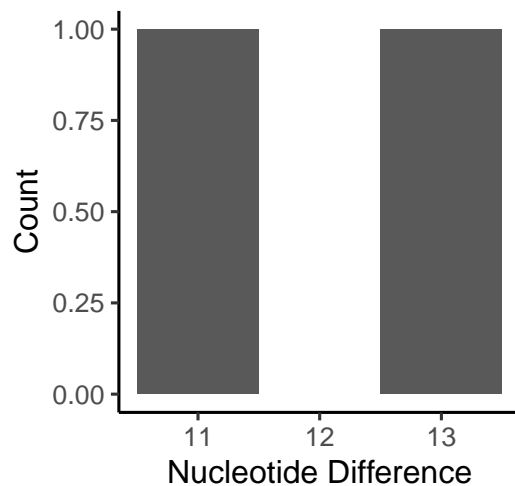
IGHV4-34*01_02

19412 sequences assigned
4308 (22.2%) exact matches, in which:
3254 unique CDR3
6 unique J



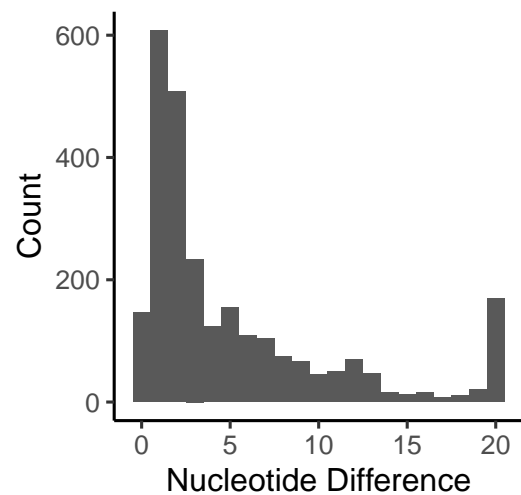
IGHV4-55*09

2 sequences assigned
No exact matches.



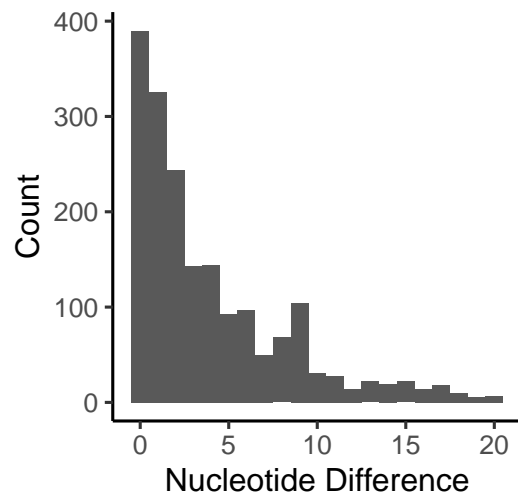
IGHV4-59*12

5037 sequences assigned
146 (2.9%) exact matches, in which:
143 unique CDR3
6 unique J



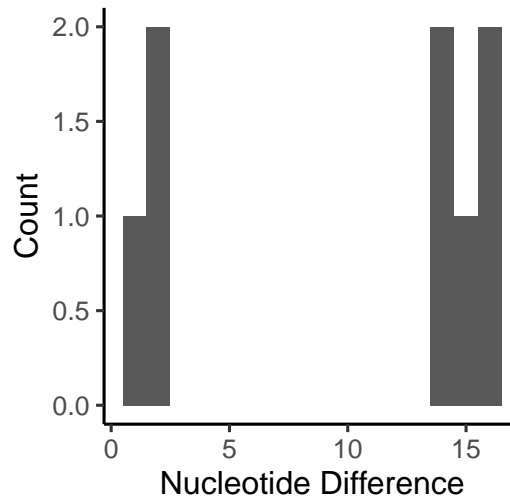
IGHV4–61*01

2005 sequences assigned
390 (19.5%) exact matches, in which:
336 unique CDR3
5 unique J



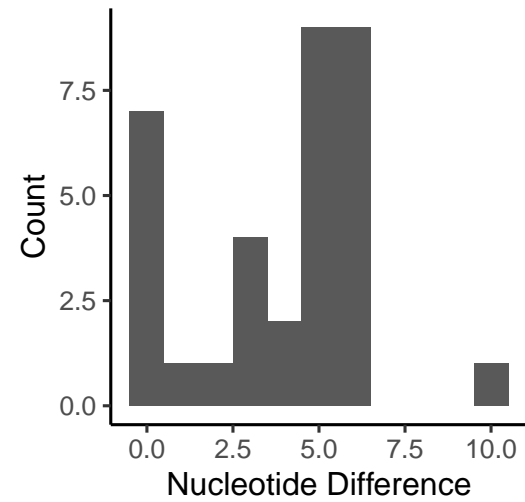
IGHV4/OR15–8*01

23 sequences assigned
No exact matches.



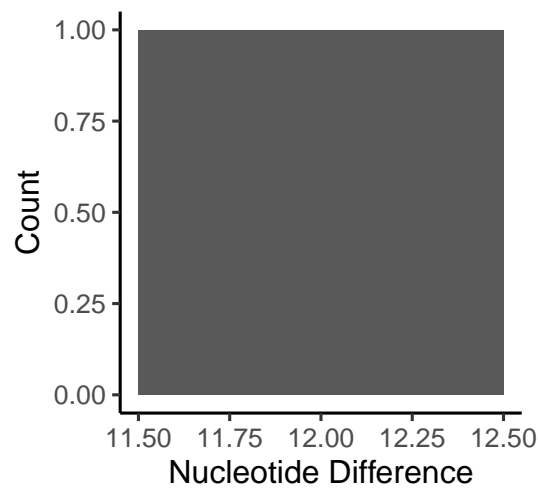
IGHV5–51*06

35 sequences assigned
7 (20%) exact matches, in which:
7 unique CDR3
3 unique J



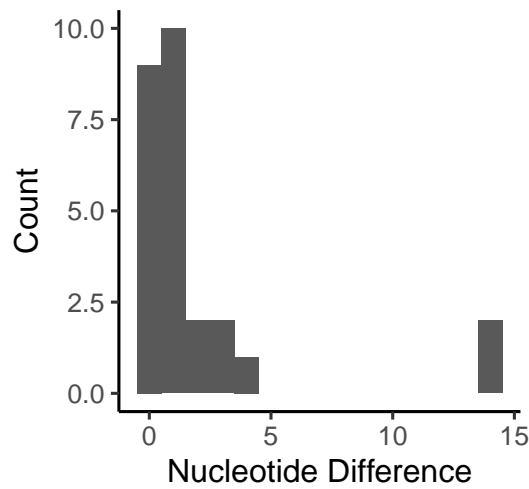
IGHV1/OR15–2*02_03

2 sequences assigned
No exact matches.



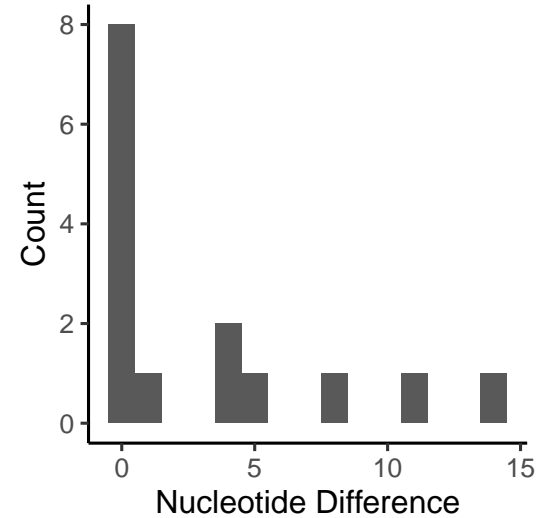
IGHV5–10–1*01_03

26 sequences assigned
9 (34.6%) exact matches, in which:
7 unique CDR3
4 unique J



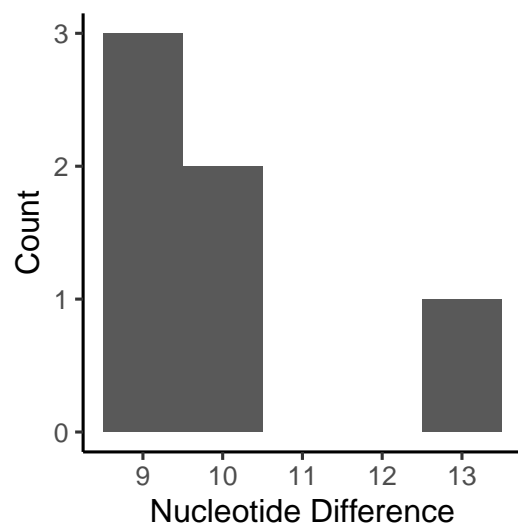
IGHV5–51*07

18 sequences assigned
8 (44.4%) exact matches, in which:
8 unique CDR3
4 unique J



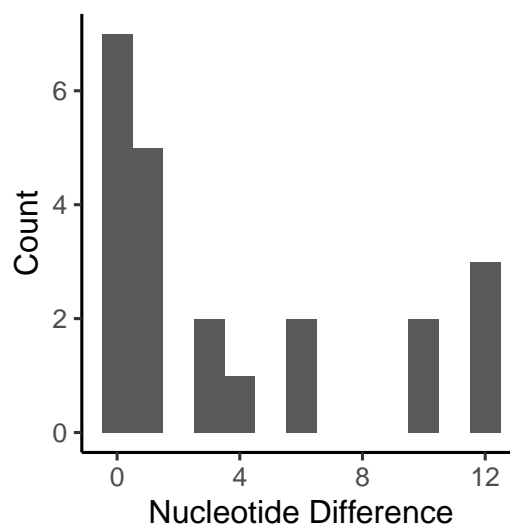
IGHV1/OR15–3*02

6 sequences assigned
No exact matches.



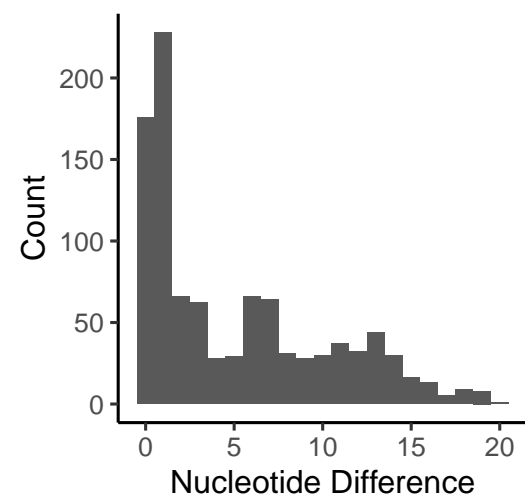
IGHV5–51*04

23 sequences assigned
7 (30.4%) exact matches, in which:
7 unique CDR3
3 unique J



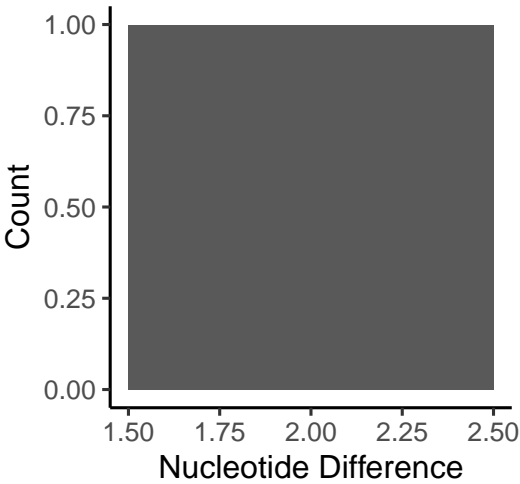
IGHV6–1*01_02

1076 sequences assigned
176 (16.4%) exact matches, in which:
143 unique CDR3
5 unique J



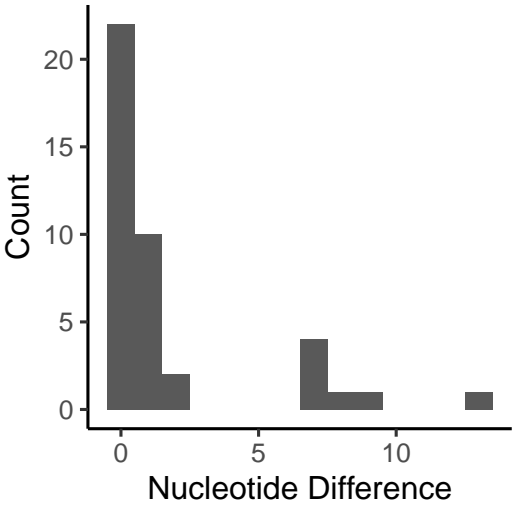
IGHV3/OR16-9*01

1 sequences assigned
No exact matches.



IGHV7-4-1*01

41 sequences assigned
22 (53.7%) exact matches, in which:
18 unique CDR3
5 unique J





[illegible]