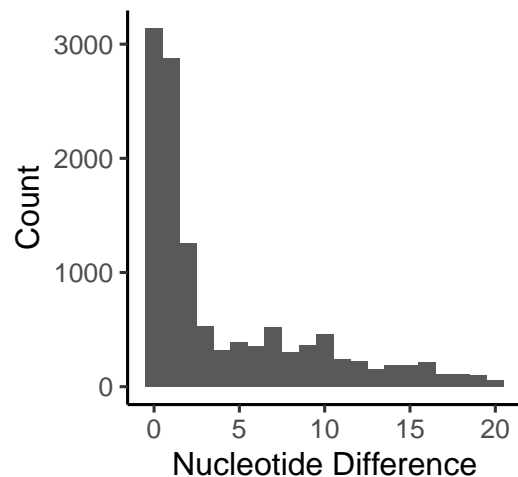


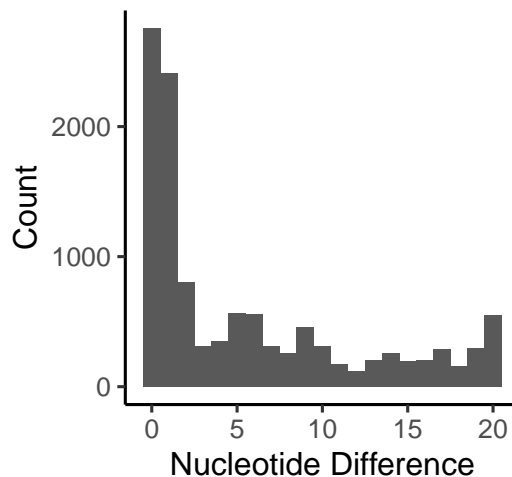
IGHV1-2*02

13791 sequences assigned
3138 (22.8%) exact matches, in which:
2712 unique CDR3
6 unique J



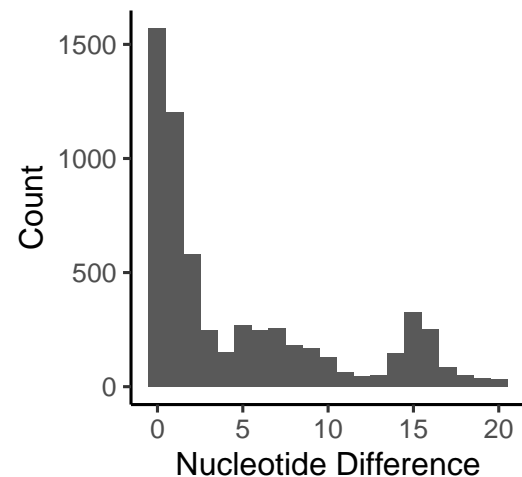
IGHV1-18*01

13226 sequences assigned
2755 (20.8%) exact matches, in which:
2381 unique CDR3
6 unique J



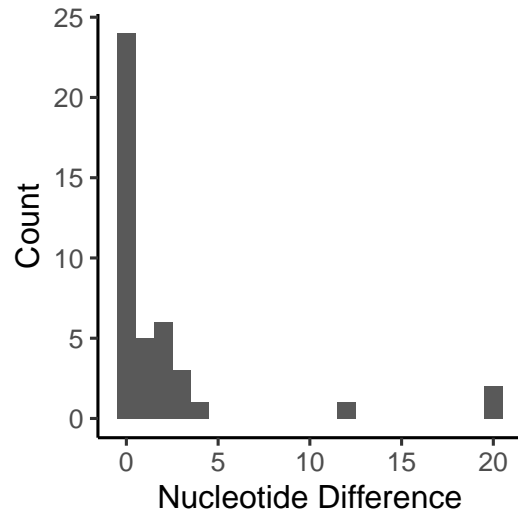
IGHV1-46*01

6287 sequences assigned
1570 (25%) exact matches, in which:
1408 unique CDR3
6 unique J



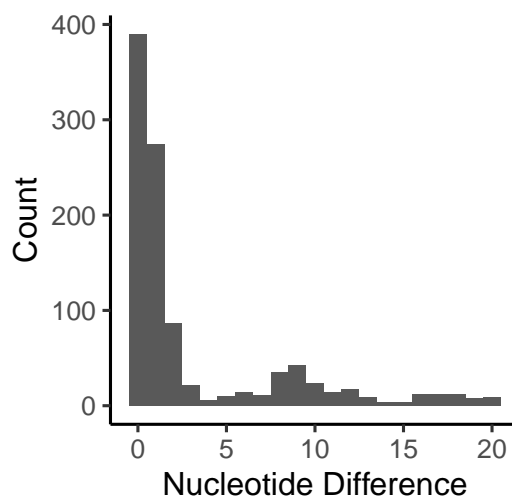
IGHV1-3*02

42 sequences assigned
24 (57.1%) exact matches, in which:
24 unique CDR3
4 unique J



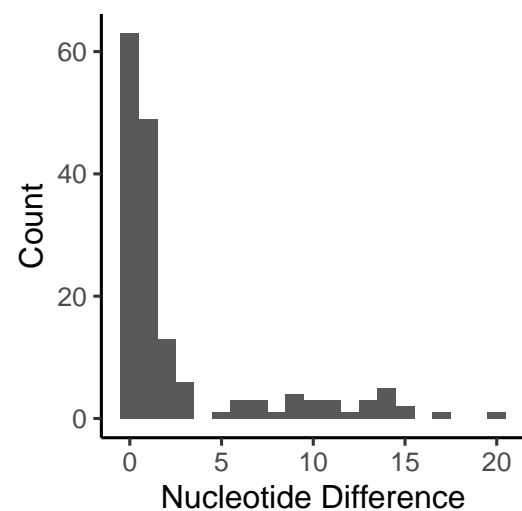
IGHV1-24*01

1066 sequences assigned
390 (36.6%) exact matches, in which:
352 unique CDR3
6 unique J



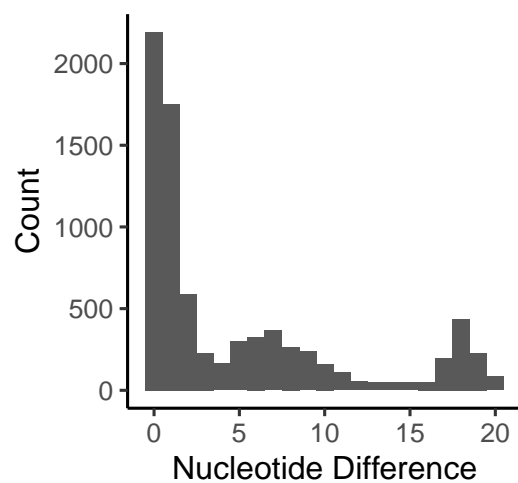
IGHV1-58*02

166 sequences assigned
63 (38%) exact matches, in which:
56 unique CDR3
5 unique J



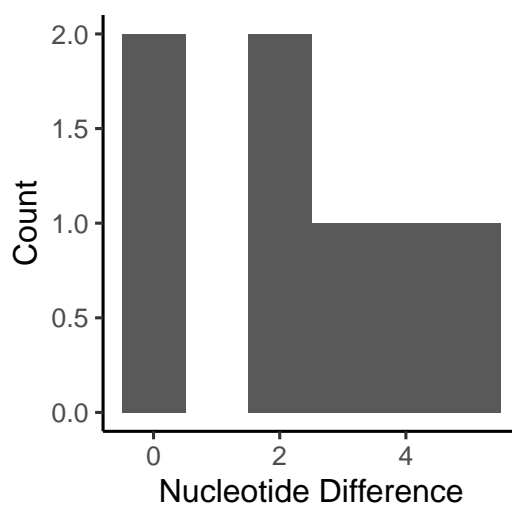
IGHV1-8*01

8414 sequences assigned
2193 (26.1%) exact matches, in which:
1943 unique CDR3
6 unique J



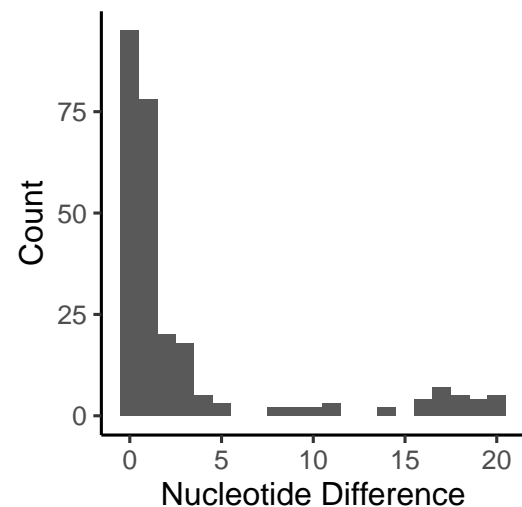
IGHV1-45*02

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
2 unique J



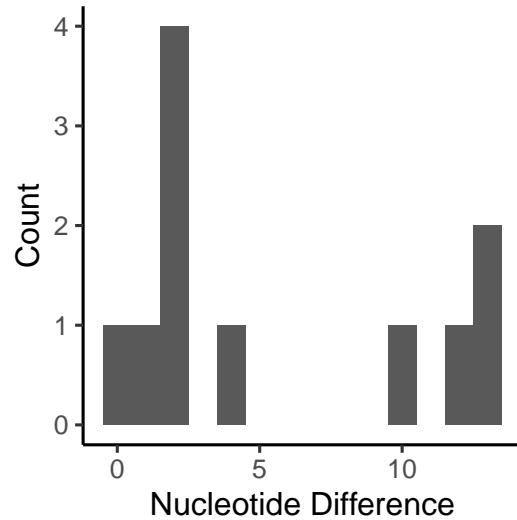
IGHV1-58*01_03

259 sequences assigned
95 (36.7%) exact matches, in which:
85 unique CDR3
5 unique J



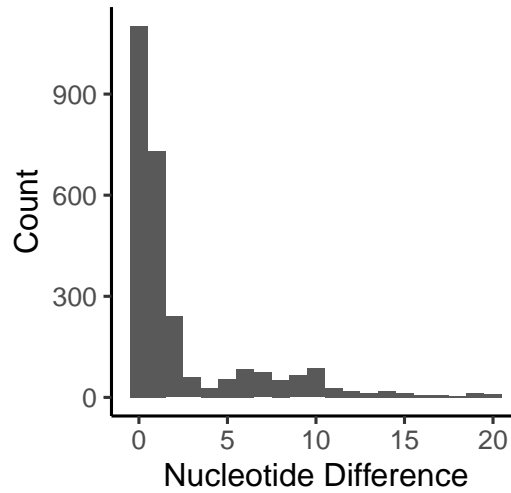
IGHV1-68*01

11 sequences assigned
1 (9.1%) exact matches, in which:
1 unique CDR3
1 unique J



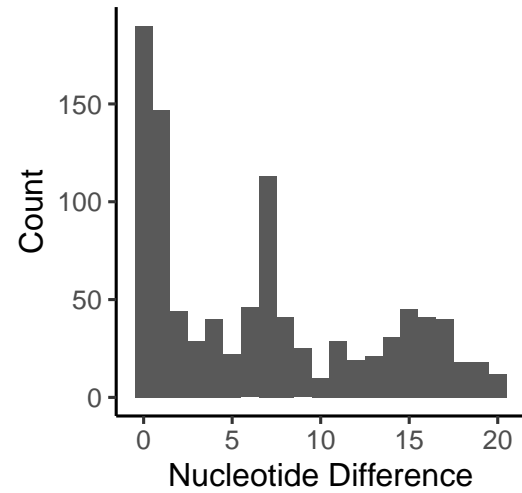
IGHV1-69*10

2776 sequences assigned
1103 (39.7%) exact matches, in which:
1014 unique CDR3
6 unique J



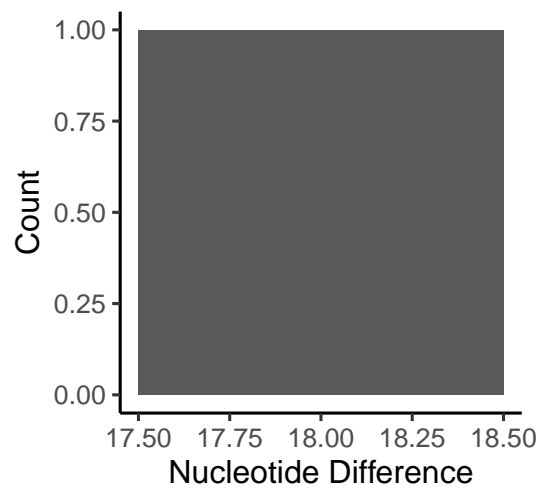
IGHV2-5*02

1084 sequences assigned
190 (17.5%) exact matches, in which:
167 unique CDR3
6 unique J



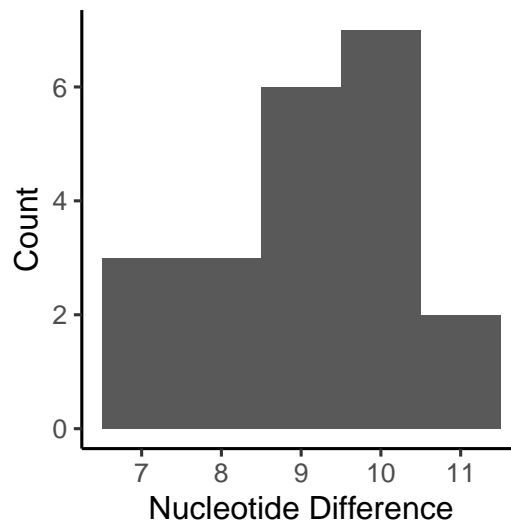
IGHV1-69-2*01

1 sequences assigned
No exact matches.



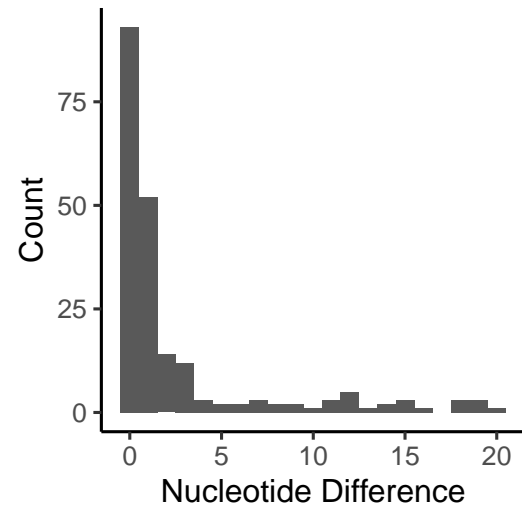
IGHV1-NL1*01

21 sequences assigned
No exact matches.



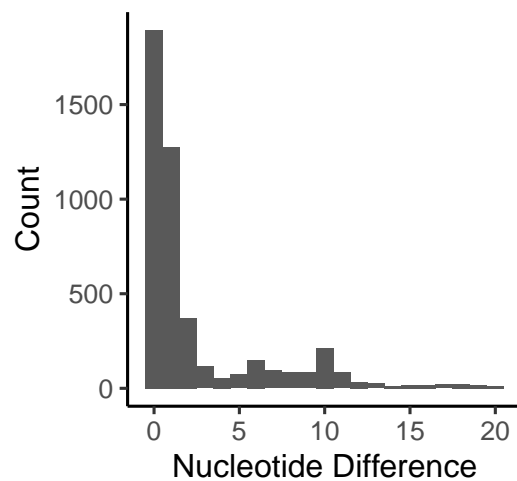
IGHV2-26*01

208 sequences assigned
93 (44.7%) exact matches, in which:
84 unique CDR3
5 unique J



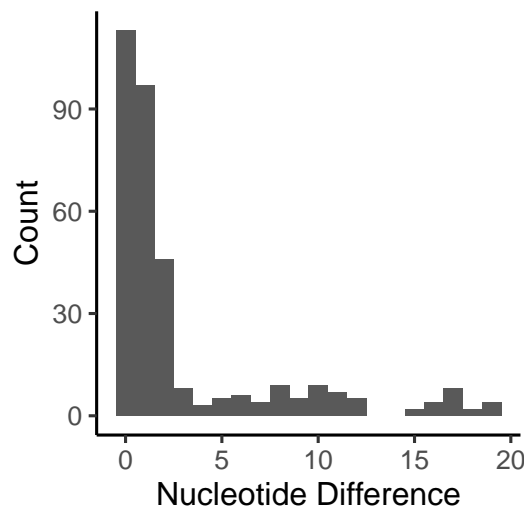
IGHV1-69*01_12_13

4884 sequences assigned
1894 (38.8%) exact matches, in which:
1744 unique CDR3
6 unique J



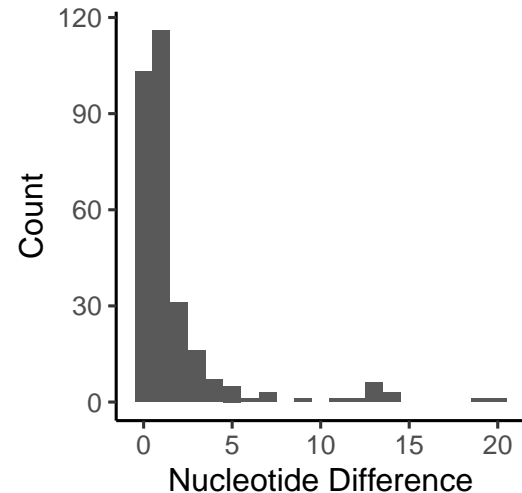
IGHV2-5*01

376 sequences assigned
113 (30.1%) exact matches, in which:
104 unique CDR3
6 unique J



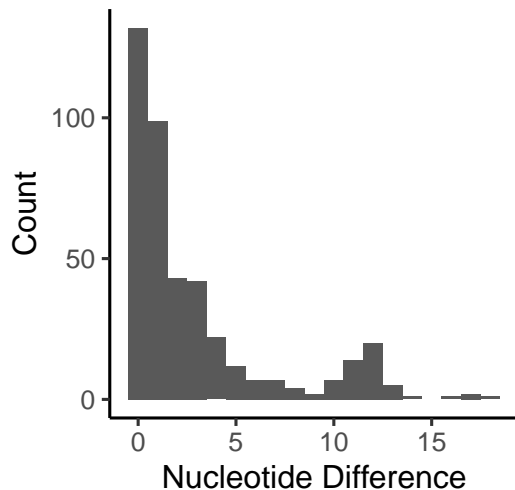
IGHV2-70*01

305 sequences assigned
103 (33.8%) exact matches, in which:
89 unique CDR3
5 unique J



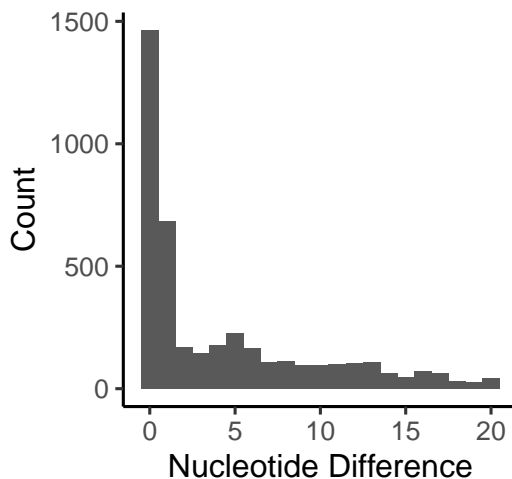
IGHV2-70*11_15

425 sequences assigned
132 (31.1%) exact matches, in which:
115 unique CDR3
5 unique J



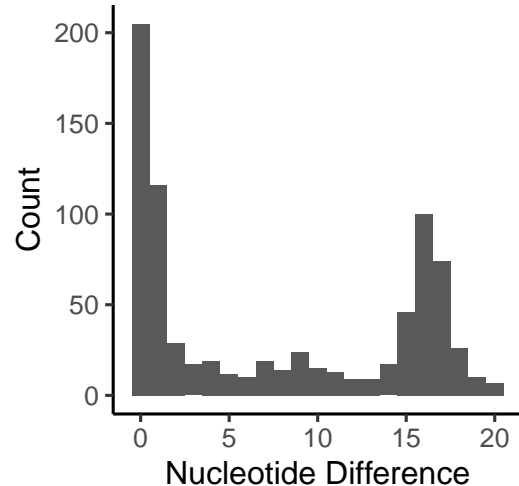
IGHV3-9*01

4555 sequences assigned
1463 (32.1%) exact matches, in which:
983 unique CDR3
6 unique J



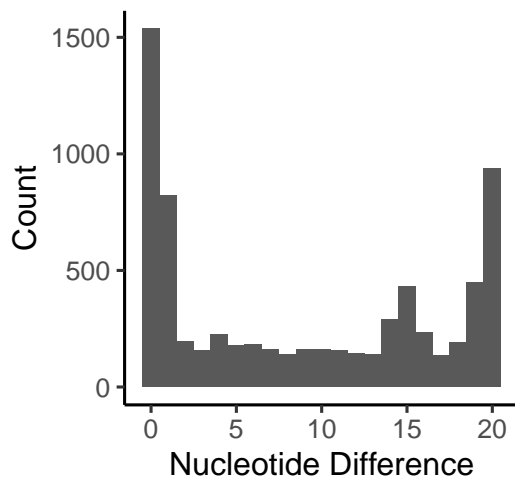
IGHV3-13*01

921 sequences assigned
205 (22.3%) exact matches, in which:
149 unique CDR3
5 unique J



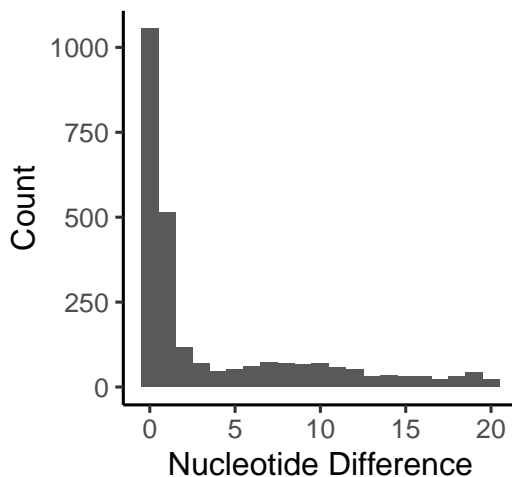
IGHV3-7*01

9279 sequences assigned
1537 (16.6%) exact matches, in which:
1067 unique CDR3
6 unique J



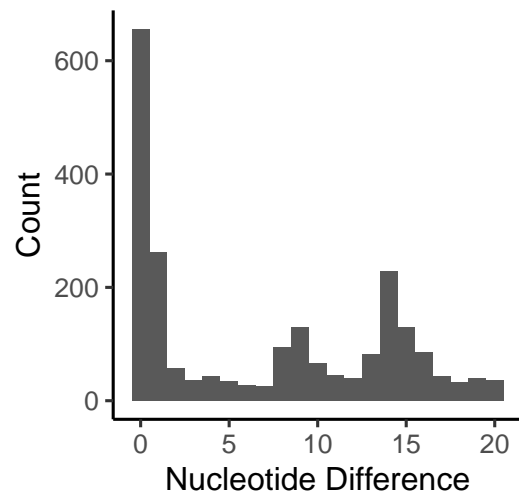
IGHV3-11*01

2655 sequences assigned
1055 (39.7%) exact matches, in which:
742 unique CDR3
6 unique J



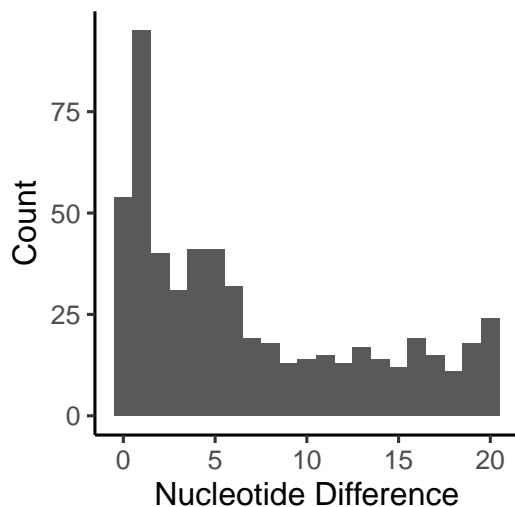
IGHV3-15*01_02

2560 sequences assigned
656 (25.6%) exact matches, in which:
454 unique CDR3
6 unique J



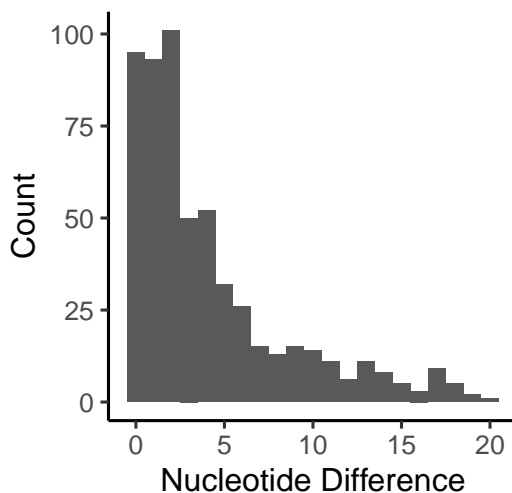
IGHV3-7*03

635 sequences assigned
54 (8.5%) exact matches, in which:
50 unique CDR3
4 unique J



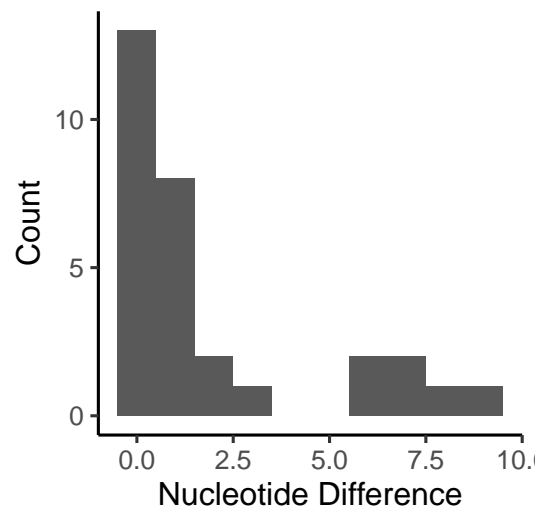
IGHV3-11*04

581 sequences assigned
95 (16.4%) exact matches, in which:
91 unique CDR3
5 unique J



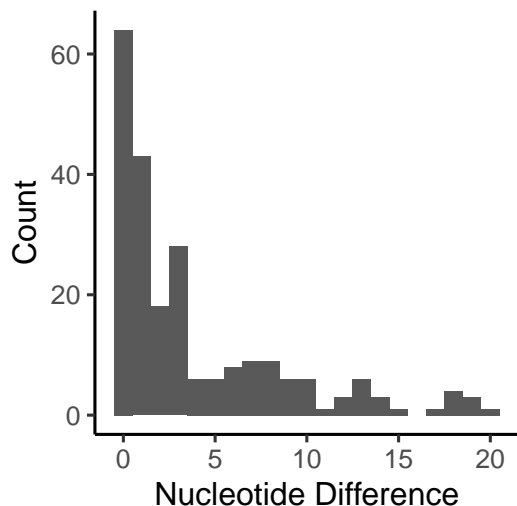
IGHV3-19*01

30 sequences assigned
13 (43.3%) exact matches, in which:
10 unique CDR3
2 unique J



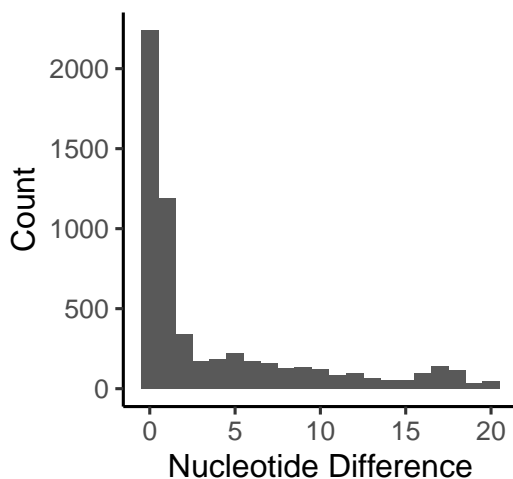
IGHV3-20*01_02

226 sequences assigned
64 (28.3%) exact matches, in which:
41 unique CDR3
4 unique J



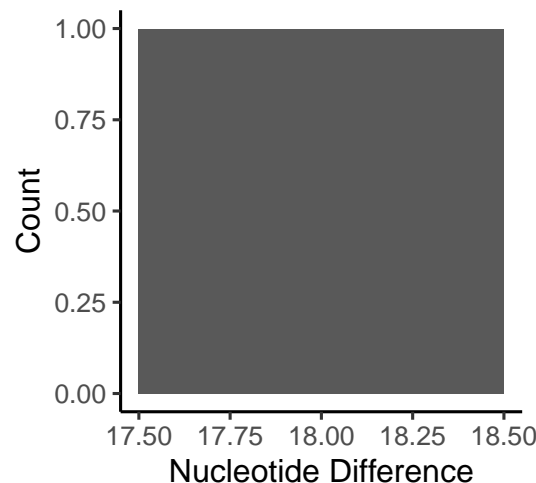
IGHV3-21*01_02

6282 sequences assigned
2239 (35.6%) exact matches, in which:
1487 unique CDR3
6 unique J



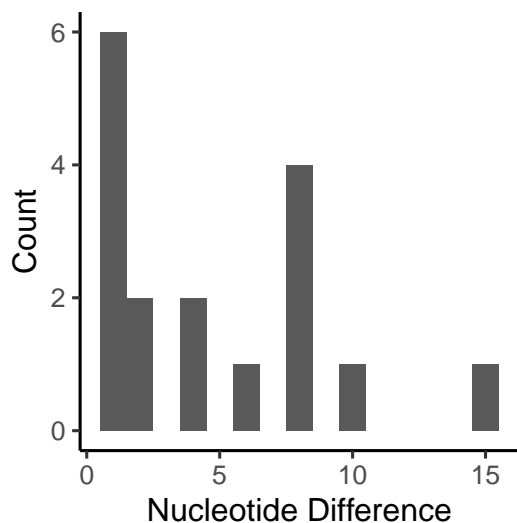
IGHV3-30-3*02

1 sequences assigned
No exact matches.



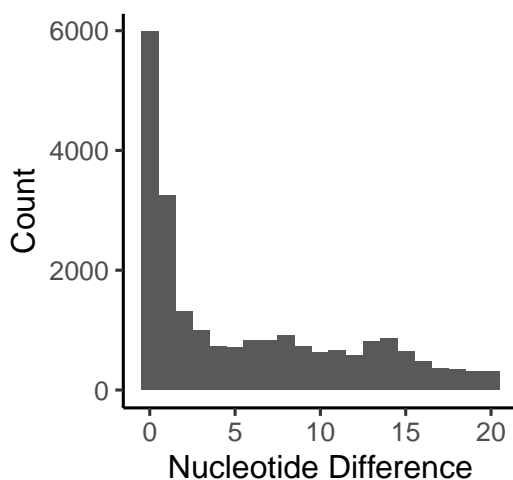
IGHV3-20*03_04

33 sequences assigned
No exact matches.



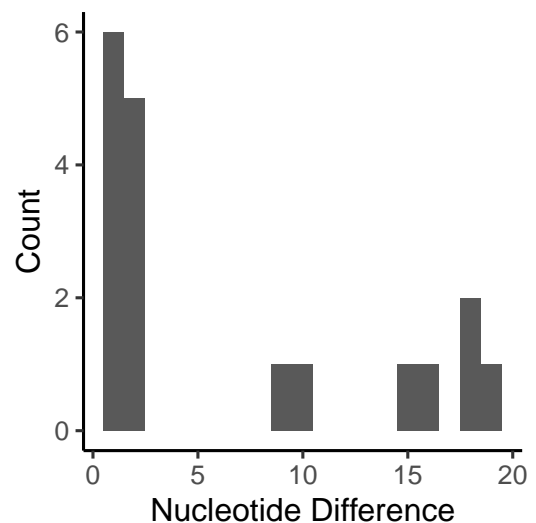
IGHV3-23*01_04

27862 sequences assigned
5982 (21.5%) exact matches, in which:
3733 unique CDR3
6 unique J



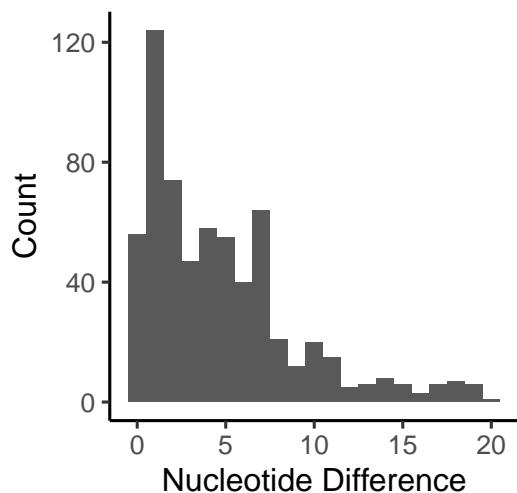
IGHV3-30-3*03

29 sequences assigned
No exact matches.



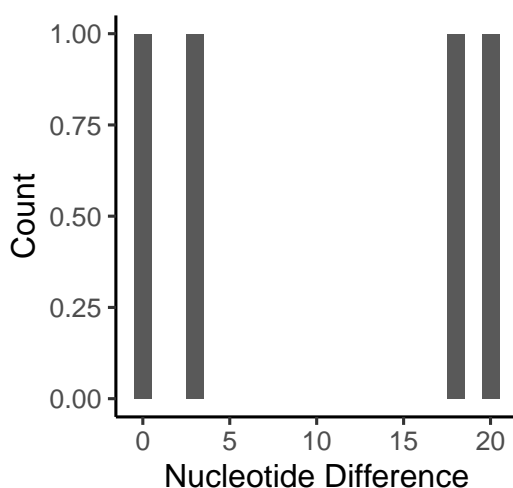
IGHV3-21*04

656 sequences assigned
56 (8.5%) exact matches, in which:
55 unique CDR3
5 unique J



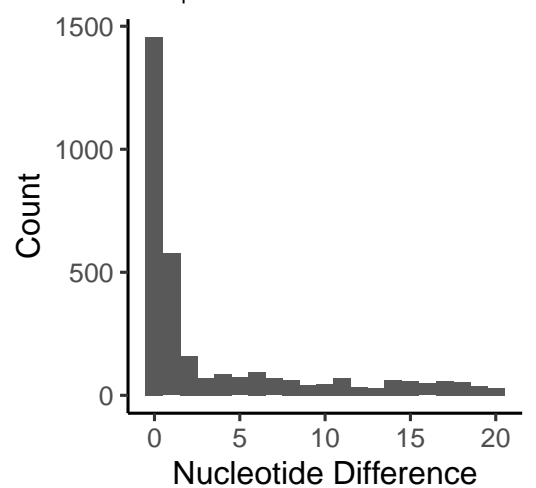
IGHV3-30-3*01

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



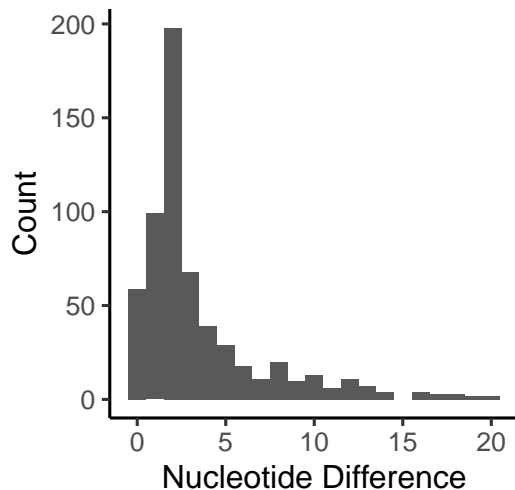
IGHV3-33*01

3413 sequences assigned
1456 (42.7%) exact matches, in which:
1040 unique CDR3
6 unique J



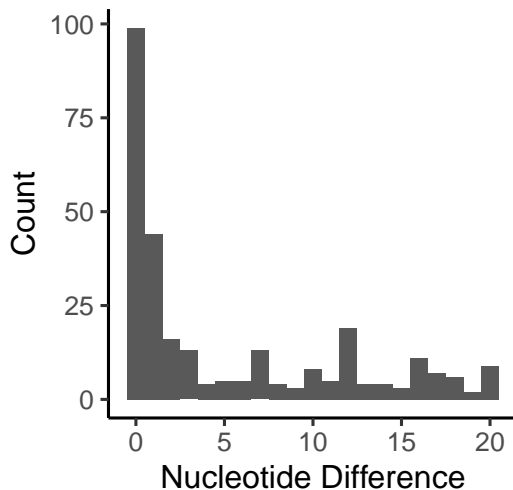
IGHV3–33*06

634 sequences assigned
59 (9.3%) exact matches, in which:
55 unique CDR3
5 unique J



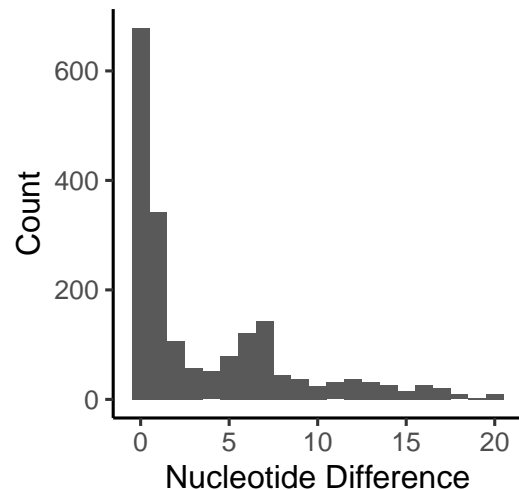
IGHV3–43*01

319 sequences assigned
99 (31%) exact matches, in which:
69 unique CDR3
4 unique J



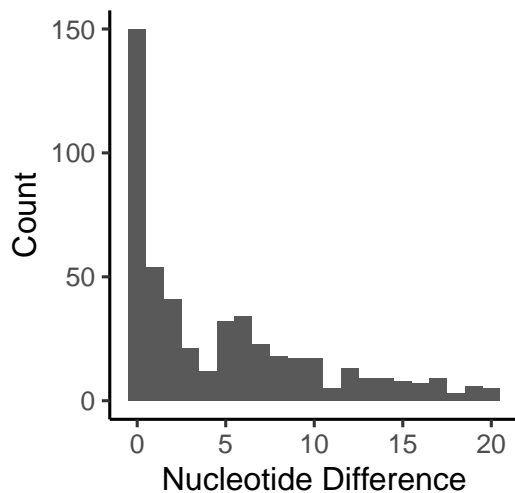
IGHV3–48*02

2757 sequences assigned
679 (24.6%) exact matches, in which:
461 unique CDR3
6 unique J



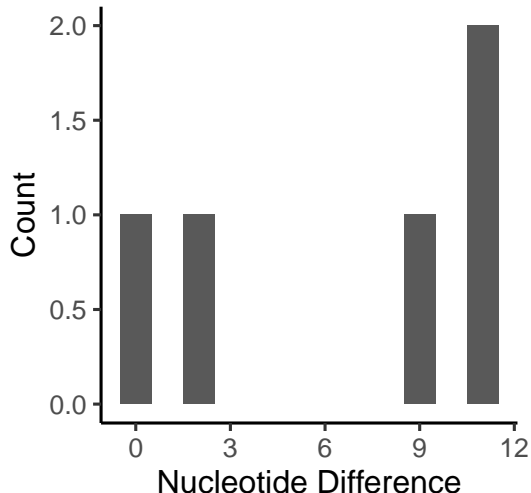
IGHV3–33*08

611 sequences assigned
150 (24.5%) exact matches, in which:
138 unique CDR3
5 unique J



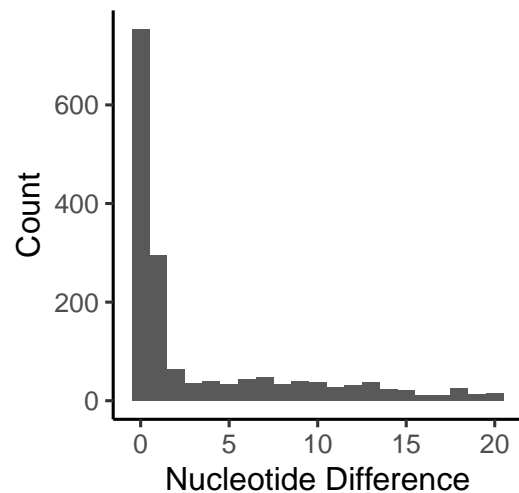
IGHV3–47*02

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



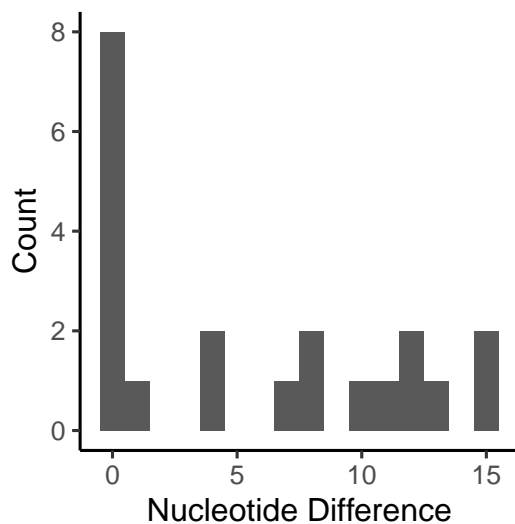
IGHV3–48*03

1824 sequences assigned
754 (41.3%) exact matches, in which:
507 unique CDR3
5 unique J



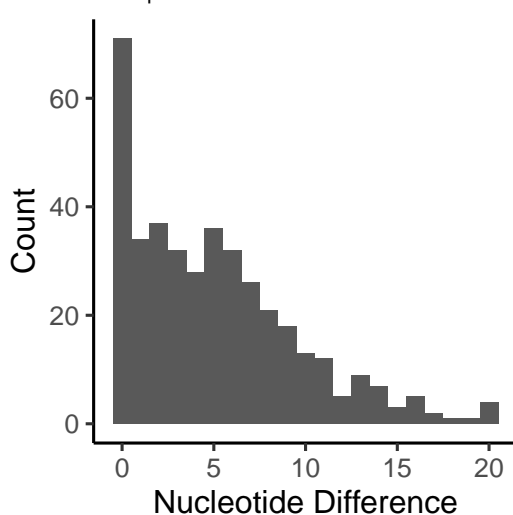
IGHV3–35*01

21 sequences assigned
8 (38.1%) exact matches, in which:
7 unique CDR3
2 unique J



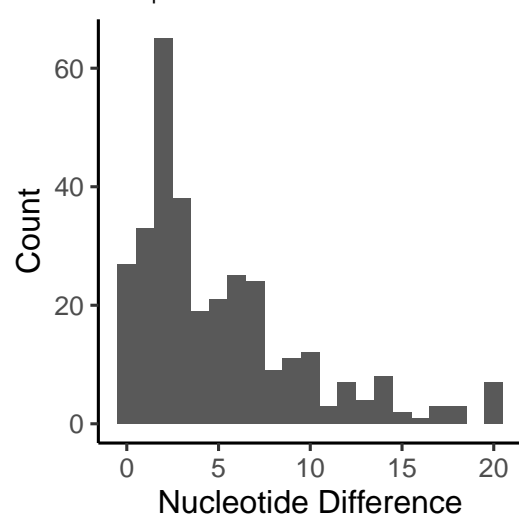
IGHV3–48*01

424 sequences assigned
71 (16.7%) exact matches, in which:
69 unique CDR3
5 unique J



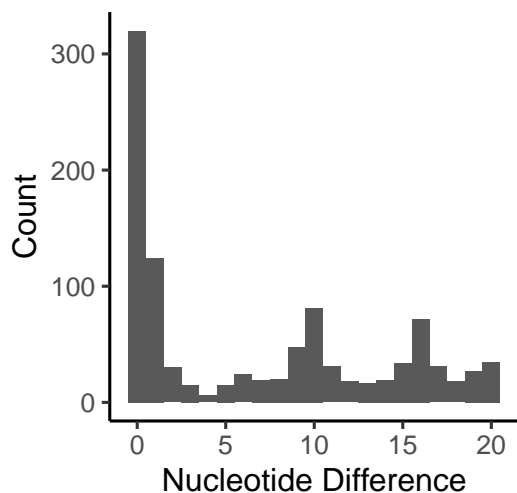
IGHV3–48*04

351 sequences assigned
27 (7.7%) exact matches, in which:
27 unique CDR3
4 unique J



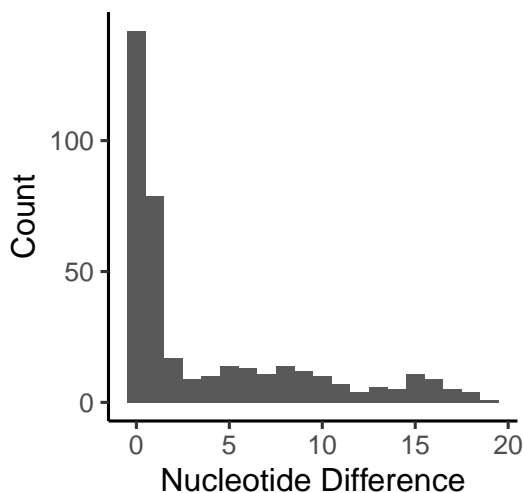
IGHV3-49*03_05

1169 sequences assigned
320 (27.4%) exact matches, in which:
212 unique CDR3
6 unique J



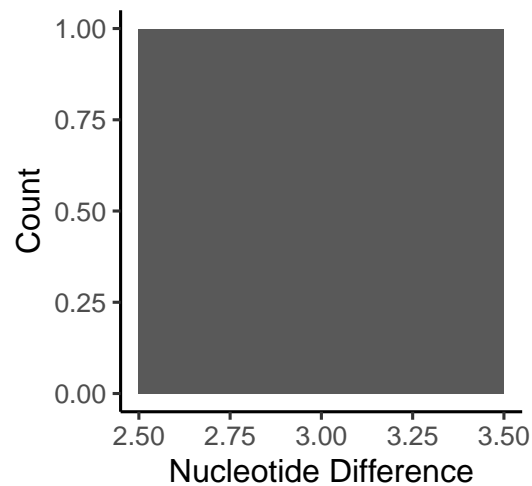
IGHV3-64*01

431 sequences assigned
142 (32.9%) exact matches, in which:
99 unique CDR3
6 unique J



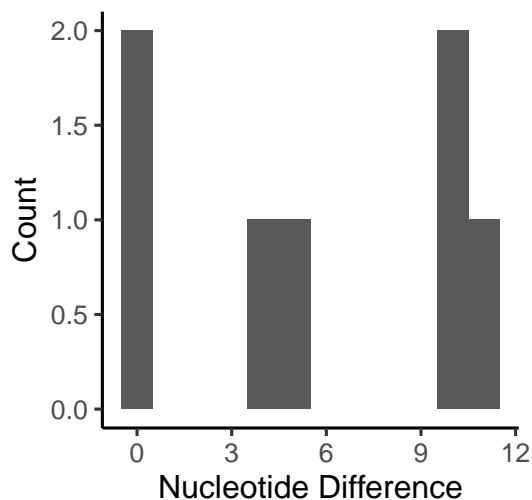
IGHV3-69-1*02

35 sequences assigned
No exact matches.



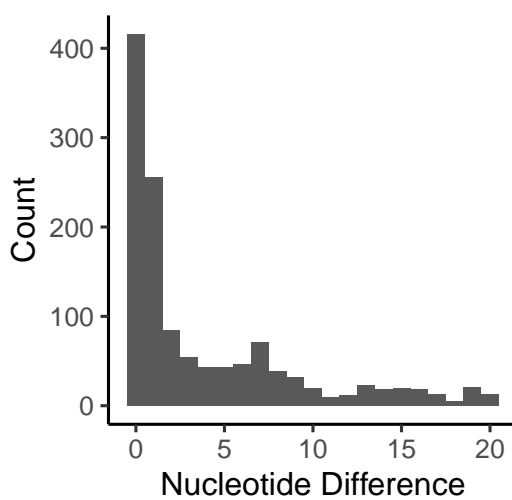
IGHV3-52*01_03

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
1 unique J



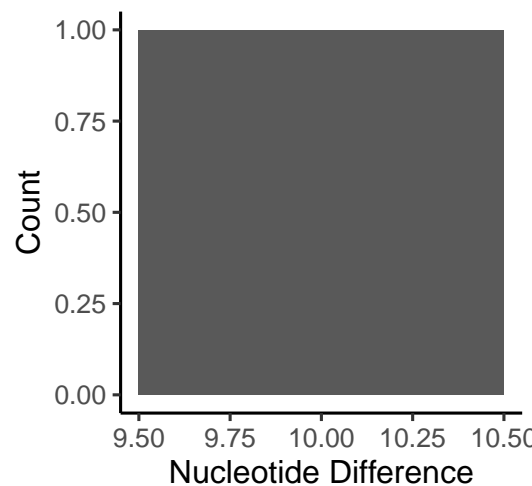
IGHV3-66*01

1426 sequences assigned
416 (29.2%) exact matches, in which:
295 unique CDR3
6 unique J



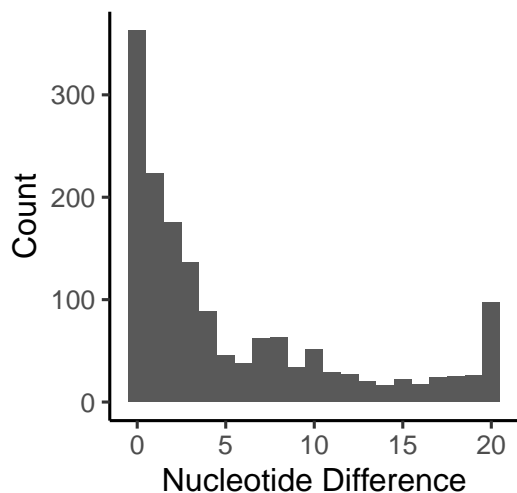
IGHV3-71*01_04

1 sequences assigned
No exact matches.



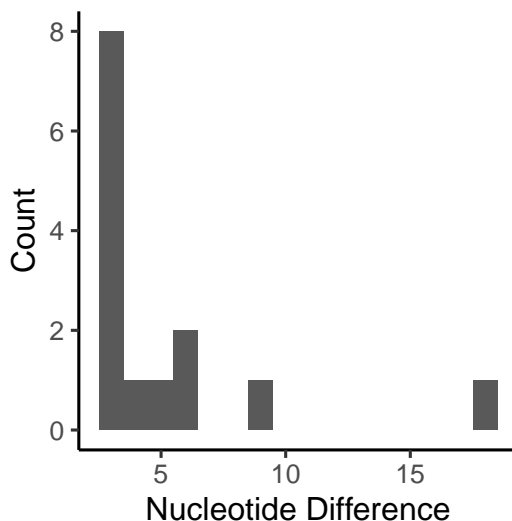
IGHV3-53*01_02

2129 sequences assigned
363 (17.1%) exact matches, in which:
251 unique CDR3
6 unique J



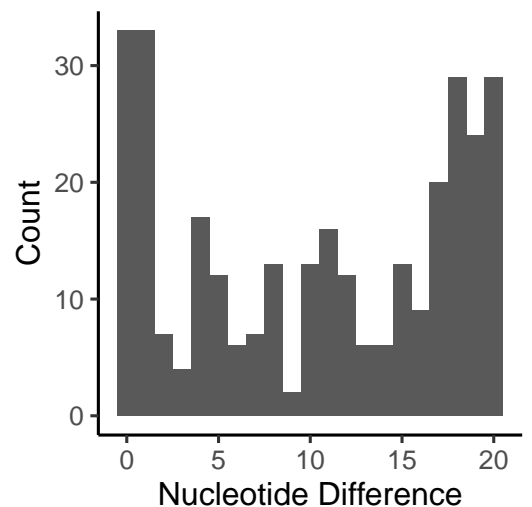
IGHV3-69-1*01

18 sequences assigned
No exact matches.



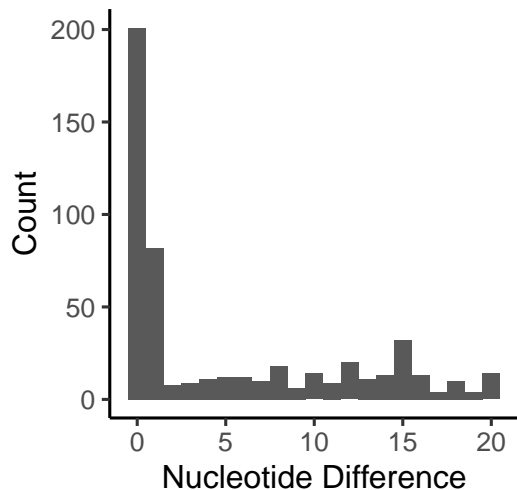
IGHV3-72*01

421 sequences assigned
33 (7.8%) exact matches, in which:
23 unique CDR3
4 unique J



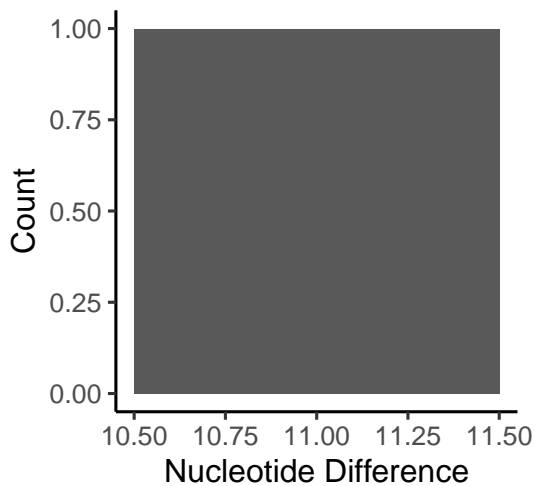
IGHV3–73*01_02

732 sequences assigned
201 (27.5%) exact matches, in which:
142 unique CDR3
5 unique J



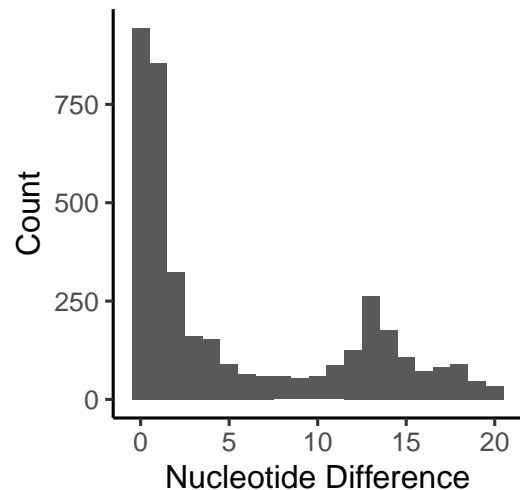
IGHV3–64D*06

12 sequences assigned
No exact matches.



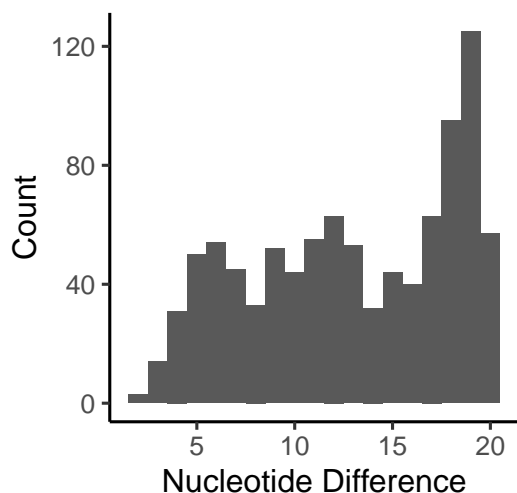
IGHV4–4*07

4436 sequences assigned
945 (21.3%) exact matches, in which:
863 unique CDR3
6 unique J



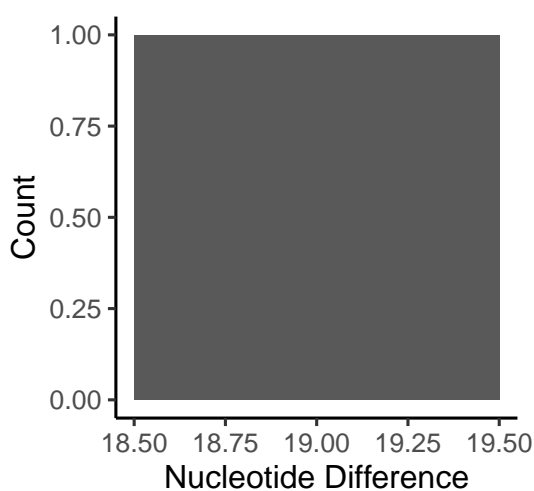
IGHV3–74*03

11913 sequences assigned
No exact matches.



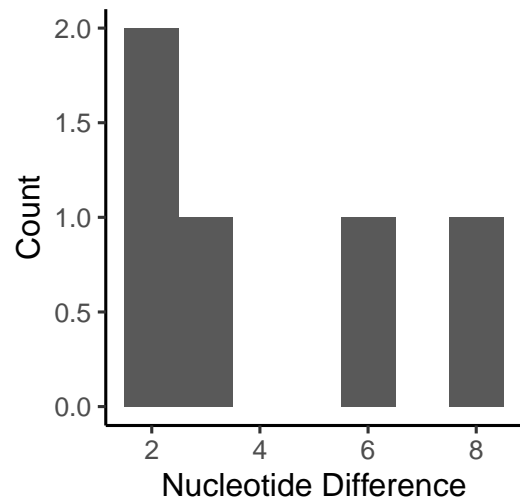
IGHV3–64D*09

1 sequences assigned
No exact matches.



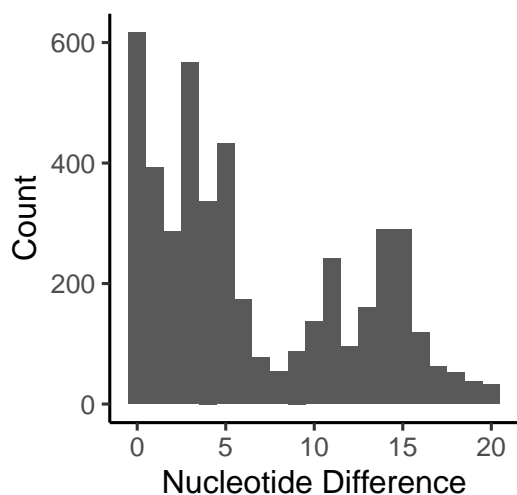
IGHV4–28*03

6 sequences assigned
No exact matches.



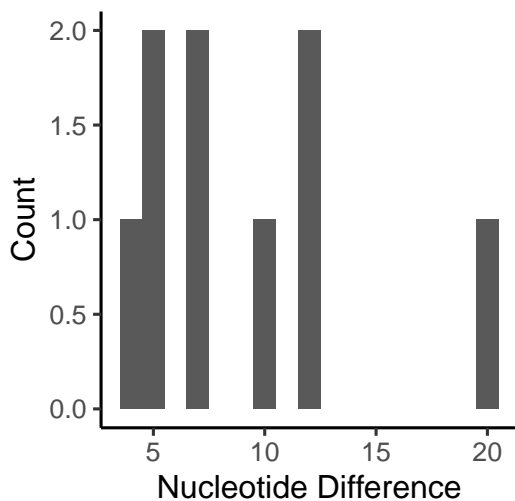
IGHV3–74*01_02

6033 sequences assigned
617 (10.2%) exact matches, in which:
417 unique CDR3
6 unique J



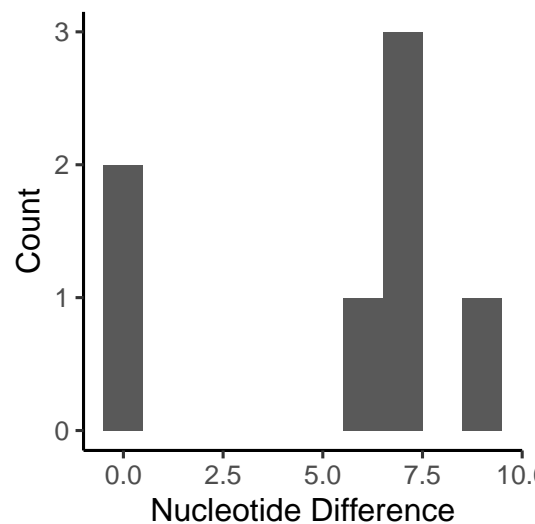
IGHV3–NL1*01

12 sequences assigned
No exact matches.



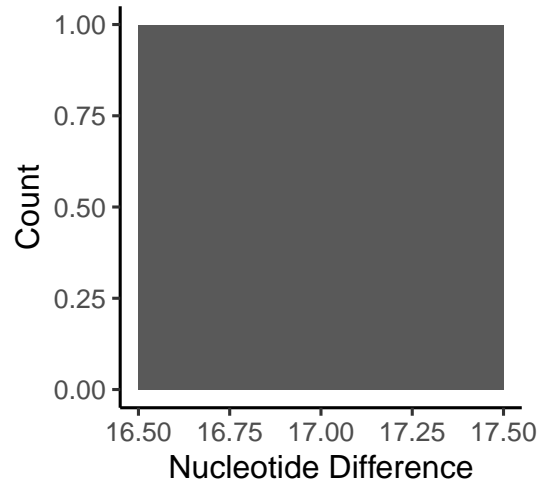
IGHV4–28*01_07

13 sequences assigned
2 (15.4%) exact matches, in which:
2 unique CDR3
1 unique J



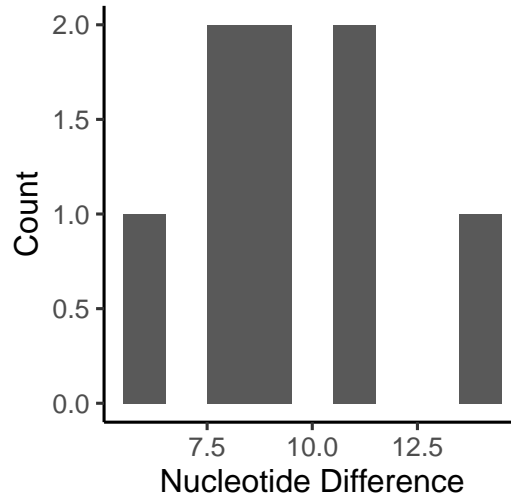
IGHV4-30-4*01

4 sequences assigned
No exact matches.



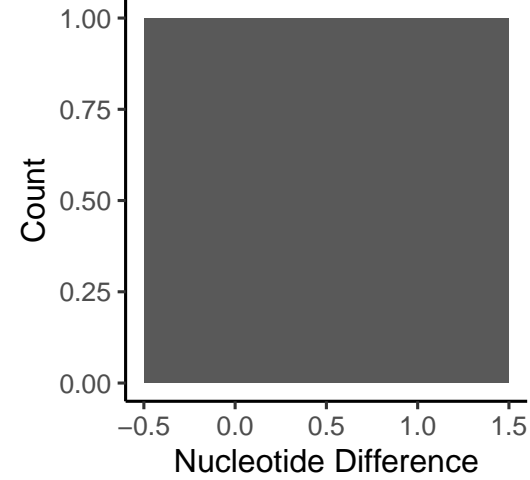
IGHV4-30-4*08

20 sequences assigned
No exact matches.



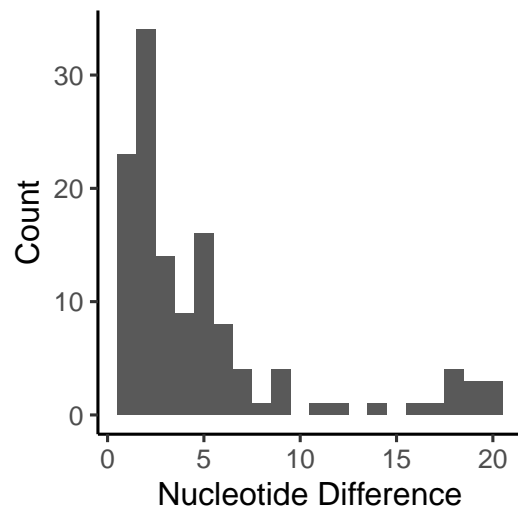
IGHV4-38-2*01

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



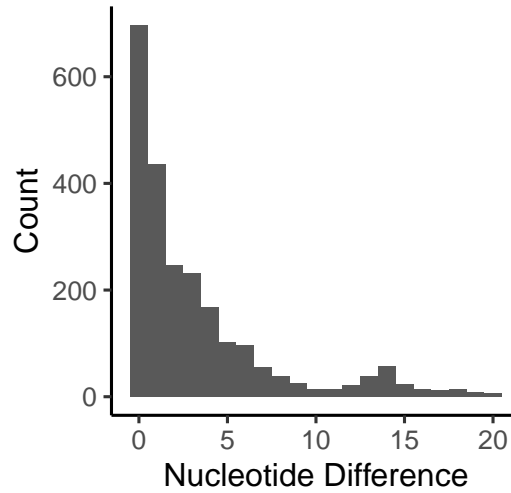
IGHV4-30-2*03

131 sequences assigned
No exact matches.



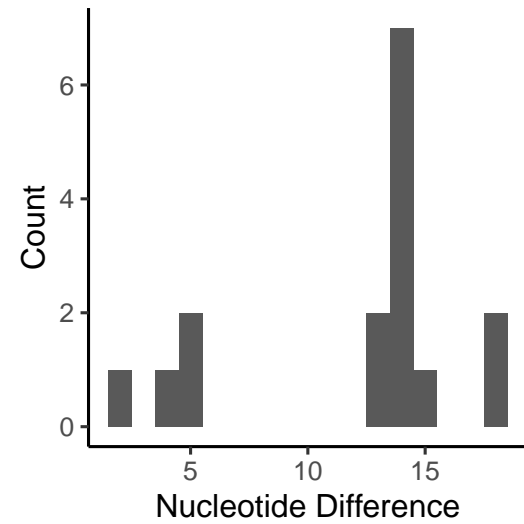
IGHV4-31*02

2933 sequences assigned
697 (23.8%) exact matches, in which:
643 unique CDR3
5 unique J



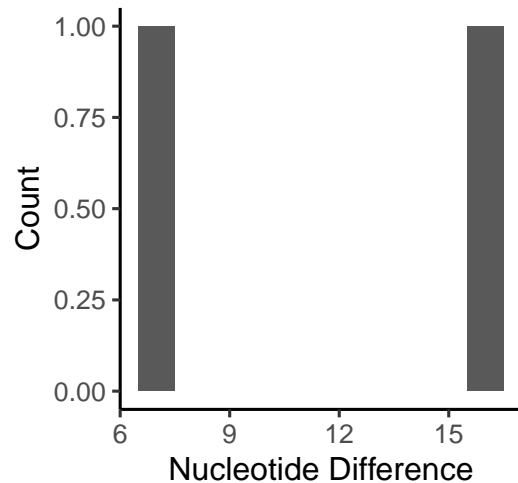
IGHV4-38-2*02

27 sequences assigned
No exact matches.



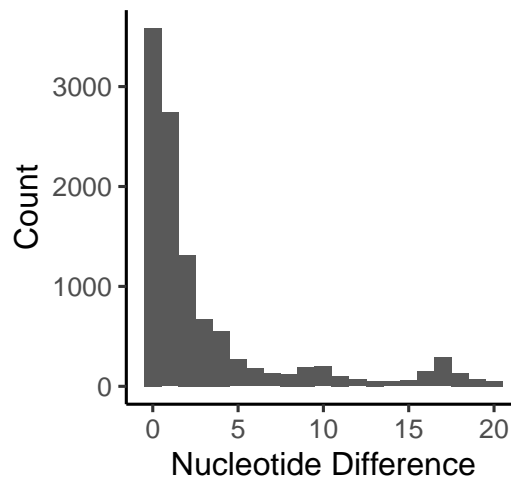
IGHV4-30-2*04

2 sequences assigned
No exact matches.



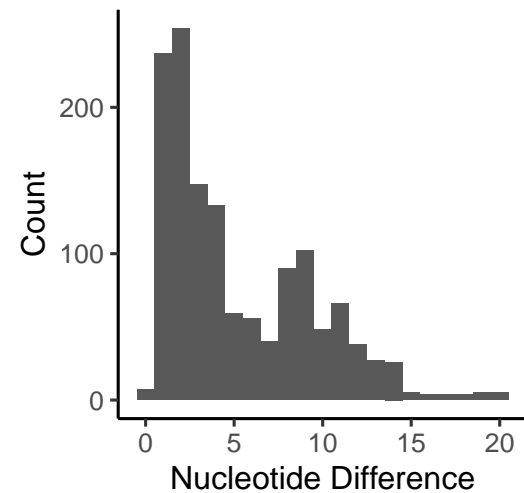
IGHV4-34*01_02

11865 sequences assigned
3586 (30.2%) exact matches, in which:
2810 unique CDR3
6 unique J



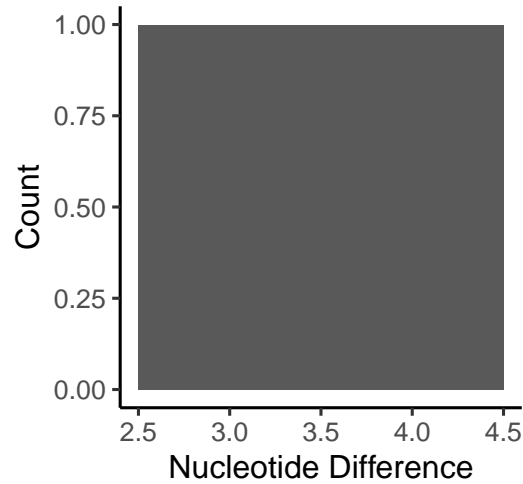
IGHV4-39*07

1405 sequences assigned
7 (0.5%) exact matches, in which:
7 unique CDR3
3 unique J



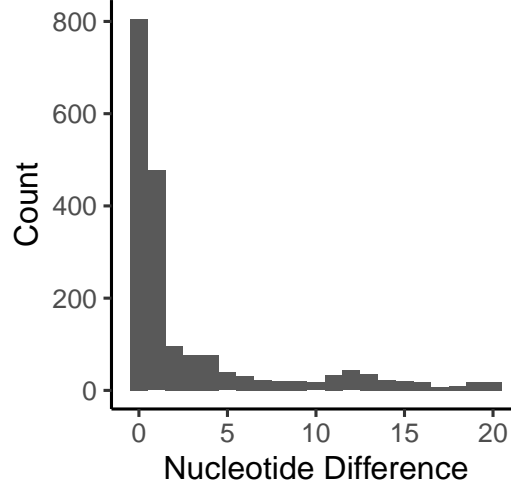
IGHV4-55*09

2 sequences assigned
No exact matches.



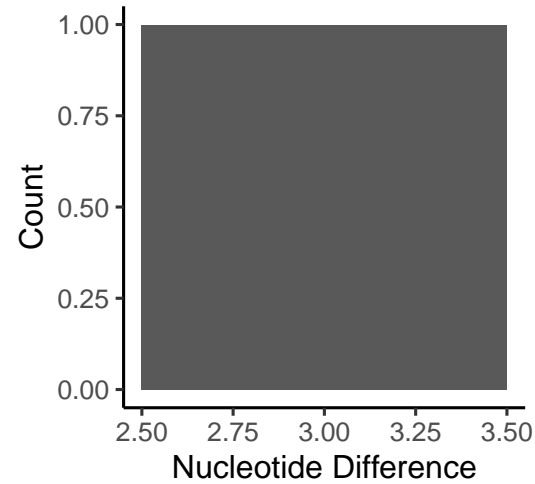
IGHV4-59*13

2550 sequences assigned
806 (31.6%) exact matches, in which:
745 unique CDR3
6 unique J



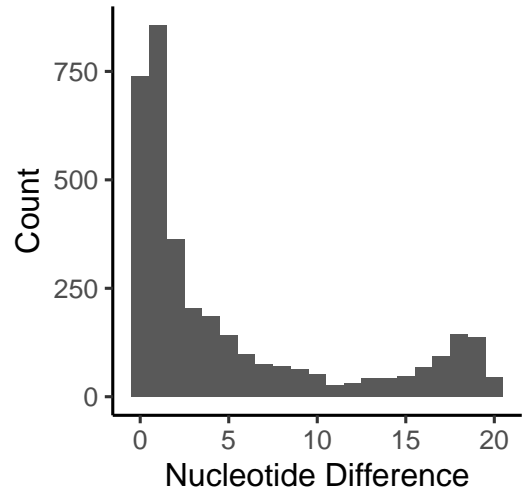
IGHV4/OR15-8*01

1 sequences assigned
No exact matches.



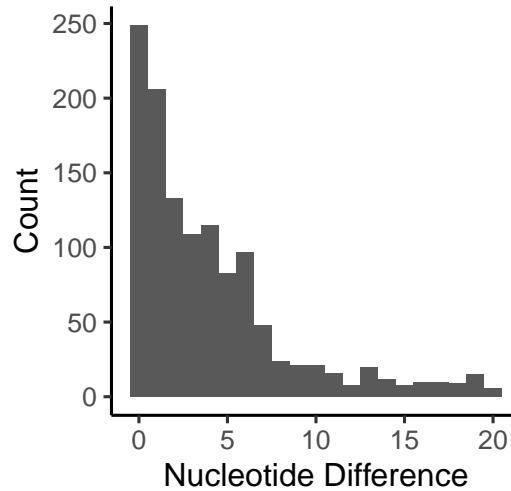
IGHV4-59*08

3720 sequences assigned
738 (19.8%) exact matches, in which:
632 unique CDR3
6 unique J



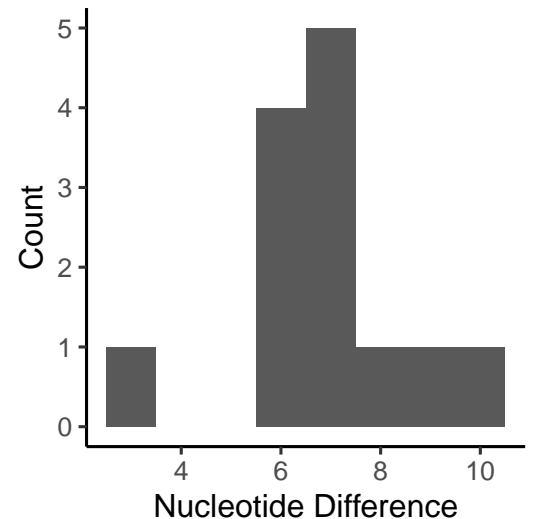
IGHV4-61*01

1375 sequences assigned
249 (18.1%) exact matches, in which:
233 unique CDR3
5 unique J



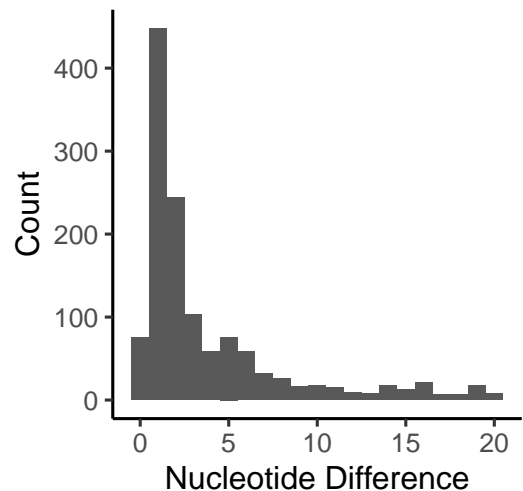
IGHV5-10-1*01_03

13 sequences assigned
No exact matches.



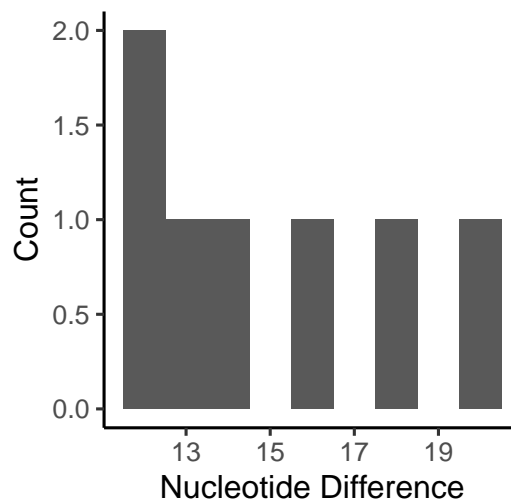
IGHV4-59*12

2054 sequences assigned
75 (3.7%) exact matches, in which:
75 unique CDR3
4 unique J



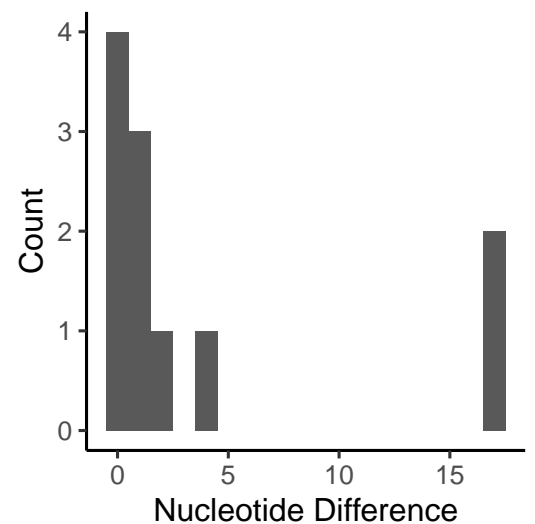
IGHV1/OR15-2*02_03

8 sequences assigned
No exact matches.



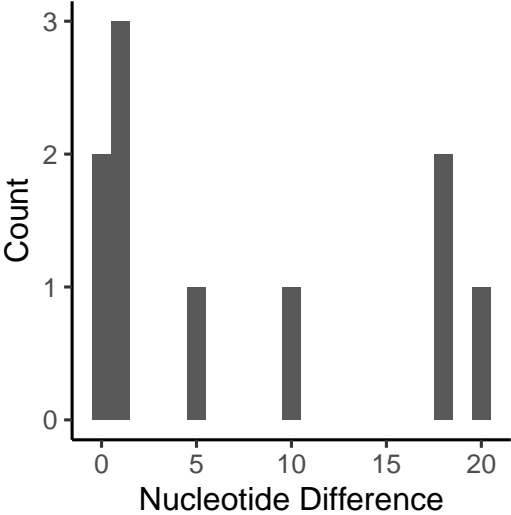
IGHV5-51*04

13 sequences assigned
4 (30.8%) exact matches, in which:
4 unique CDR3
2 unique J



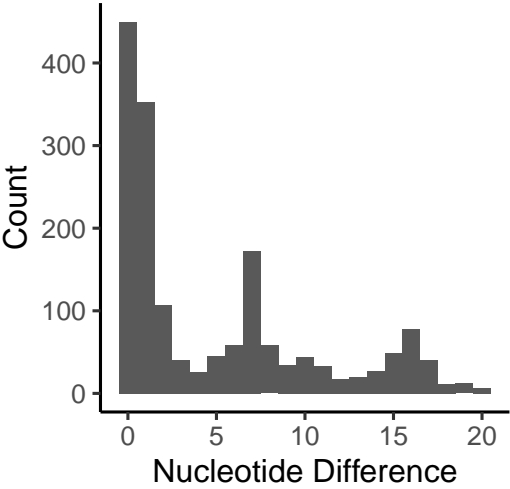
IGHV5-51*06

13 sequences assigned
2 (15.4%) exact matches, in which:
2 unique CDR3
2 unique J



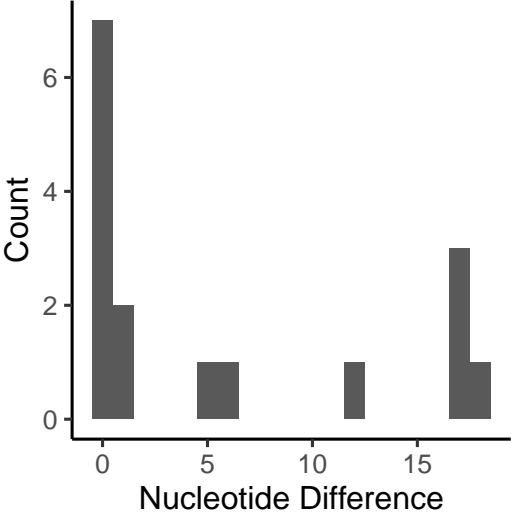
IGHV7-4-1*02

1741 sequences assigned
450 (25.8%) exact matches, in which:
397 unique CDR3
6 unique J



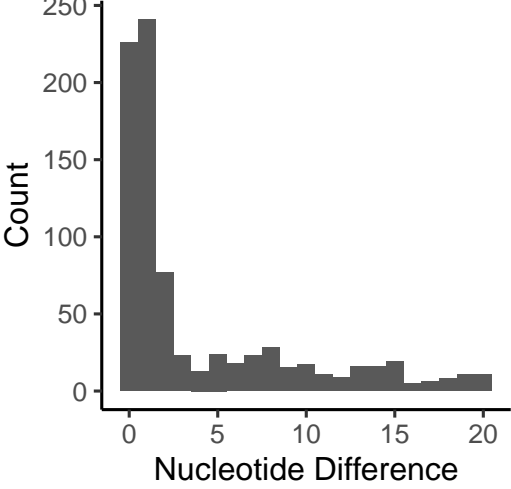
IGHV5-51*07

17 sequences assigned
7 (41.2%) exact matches, in which:
7 unique CDR3
4 unique J



IGHV6-1*01_02

947 sequences assigned
226 (23.9%) exact matches, in which:
202 unique CDR3
6 unique J





[illegible]