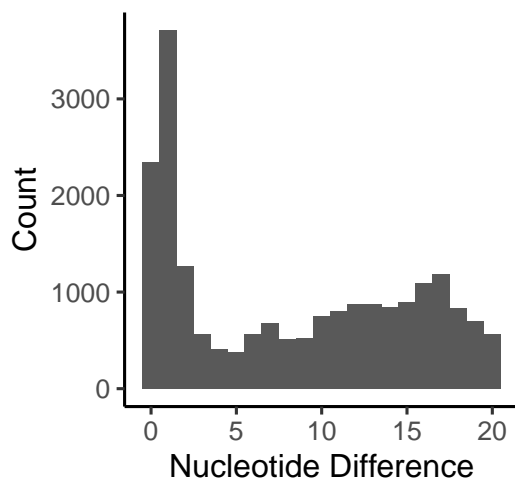


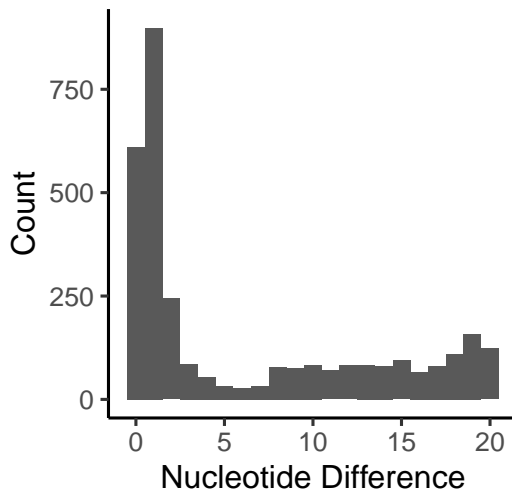
IGHV1-2*02

24999 sequences assigned
2341 (9.4%) exact matches, in which:
1605 unique CDR3
7 unique J



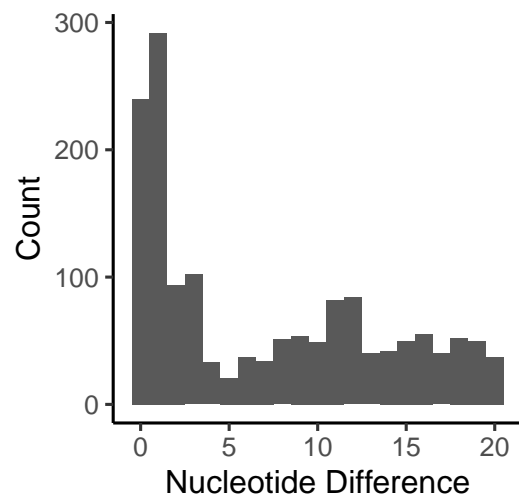
IGHV1-3*01_05_C134A

3781 sequences assigned
610 (16.1%) exact matches, in which:
416 unique CDR3
7 unique J



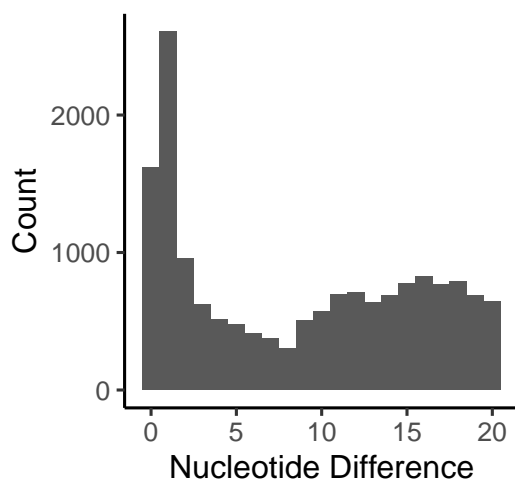
IGHV1-24*01

1658 sequences assigned
240 (14.5%) exact matches, in which:
183 unique CDR3
7 unique J



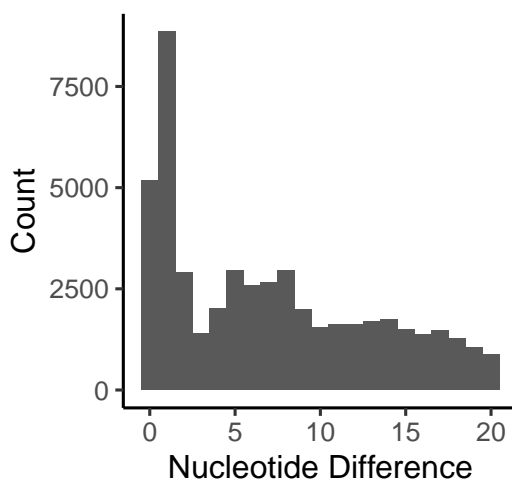
IGHV1-2*06

19808 sequences assigned
1620 (8.2%) exact matches, in which:
1087 unique CDR3
7 unique J



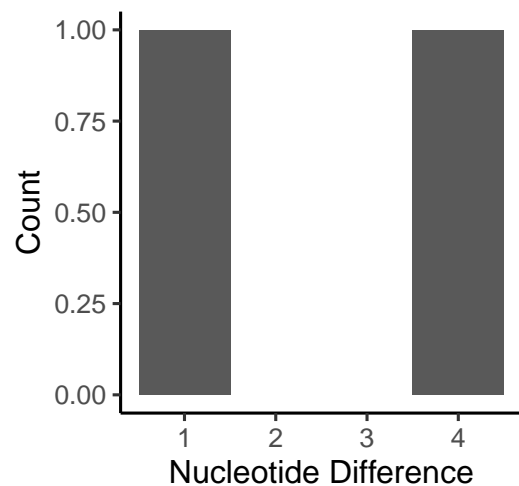
IGHV1-8*01

53364 sequences assigned
5183 (9.7%) exact matches, in which:
3349 unique CDR3
7 unique J



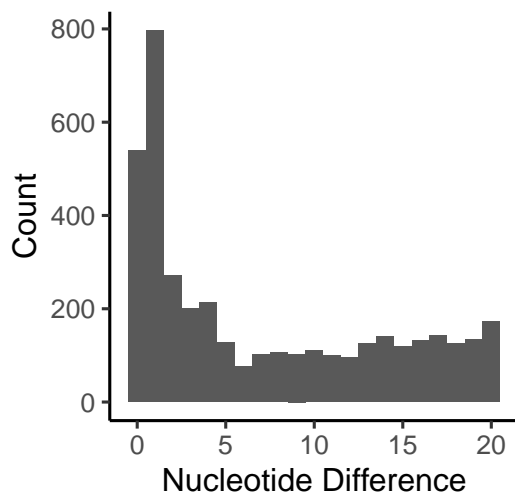
IGHV1-38-4*01

2 sequences assigned
No exact matches.



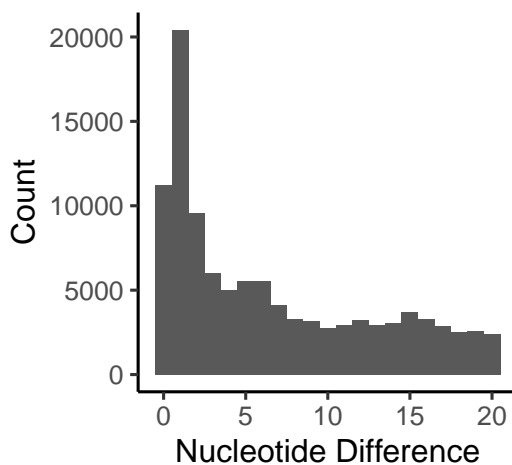
IGHV1-3*01_05

5033 sequences assigned
540 (10.7%) exact matches, in which:
398 unique CDR3
7 unique J



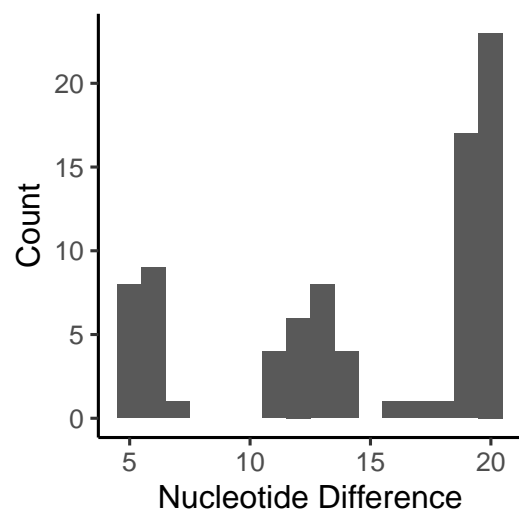
IGHV1-18*01

118874 sequences assigned
11204 (9.4%) exact matches, in which:
7234 unique CDR3
7 unique J



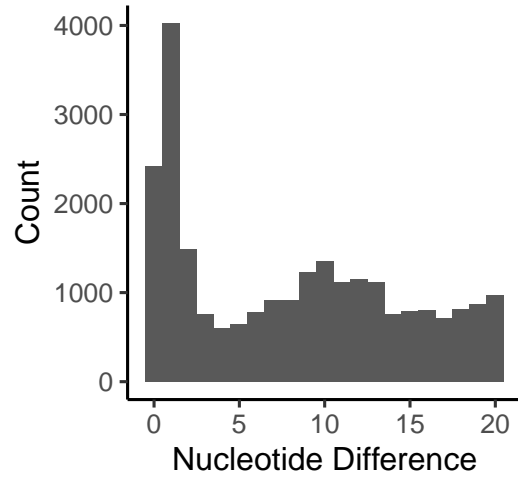
IGHV1-45*02

114 sequences assigned
No exact matches.



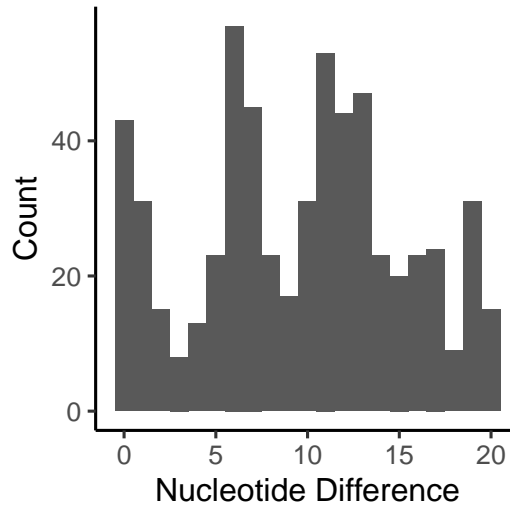
IGHV1-46*01

30418 sequences assigned
2415 (7.9%) exact matches, in which:
1660 unique CDR3
7 unique J



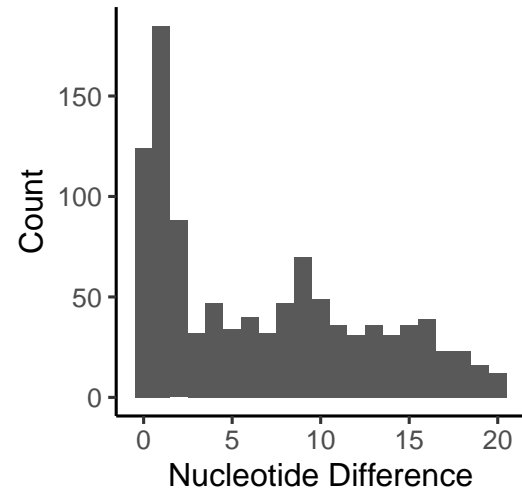
IGHV1-69-2*01

752 sequences assigned
43 (5.7%) exact matches, in which:
33 unique CDR3
5 unique J



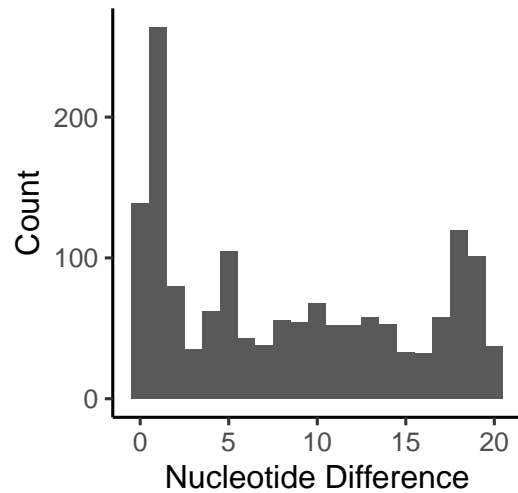
IGHV2-5*01

1084 sequences assigned
124 (11.4%) exact matches, in which:
99 unique CDR3
7 unique J



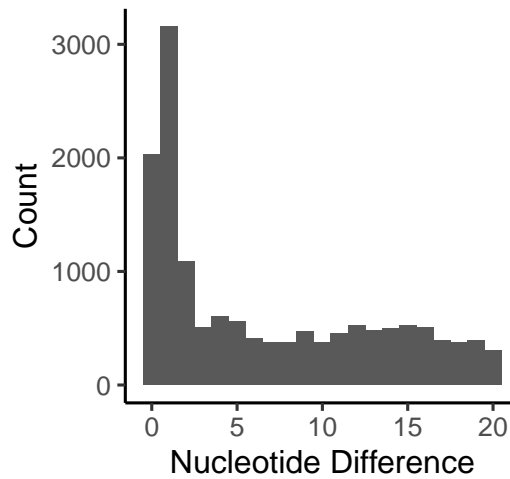
IGHV1-58*02

2244 sequences assigned
139 (6.2%) exact matches, in which:
86 unique CDR3
6 unique J



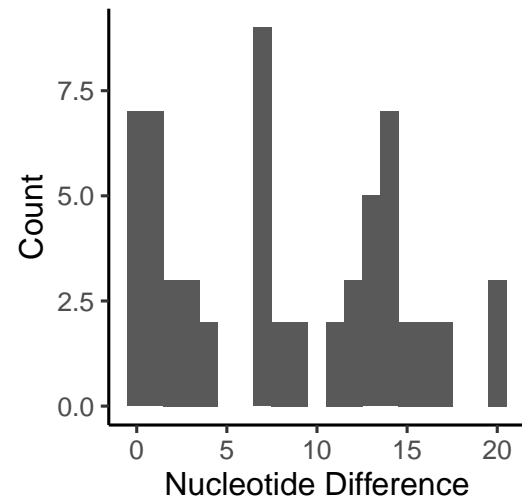
IGHV1-69*05

17556 sequences assigned
2034 (11.6%) exact matches, in which:
1385 unique CDR3
7 unique J



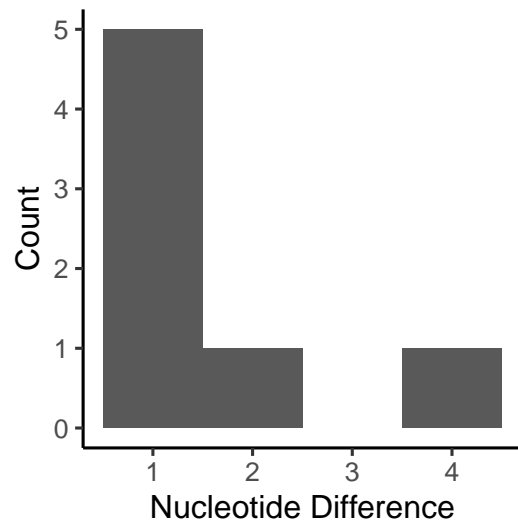
IGHV2-26*01

70 sequences assigned
7 (10%) exact matches, in which:
5 unique CDR3
3 unique J



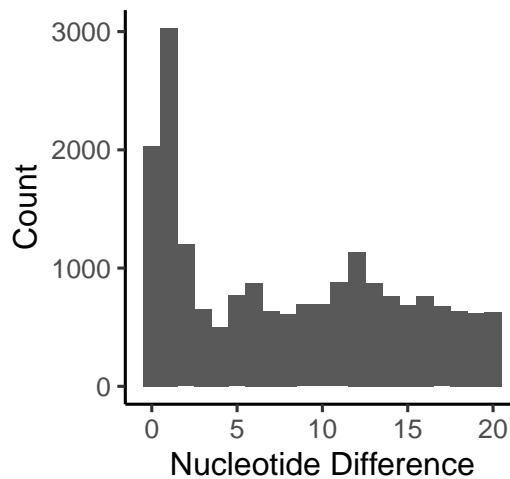
IGHV1-68*02_03

7 sequences assigned
No exact matches.



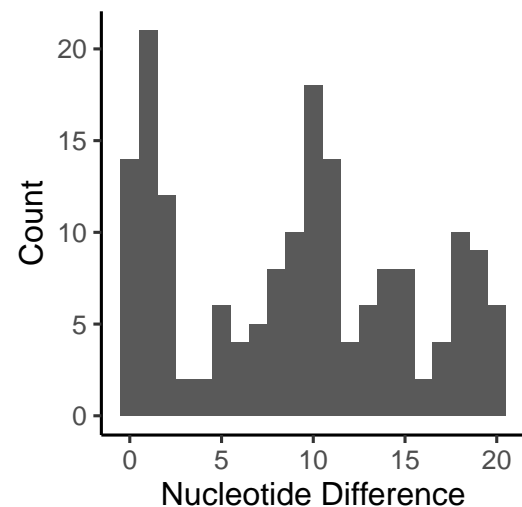
IGHV1-69*01_12_13

24734 sequences assigned
2030 (8.2%) exact matches, in which:
1400 unique CDR3
7 unique J



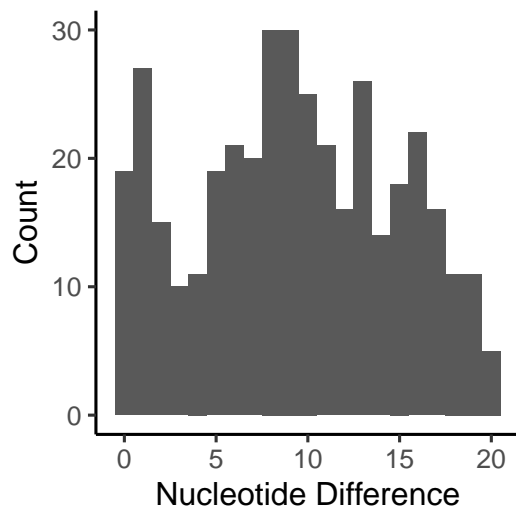
IGHV2-70*20

190 sequences assigned
14 (7.4%) exact matches, in which:
12 unique CDR3
3 unique J



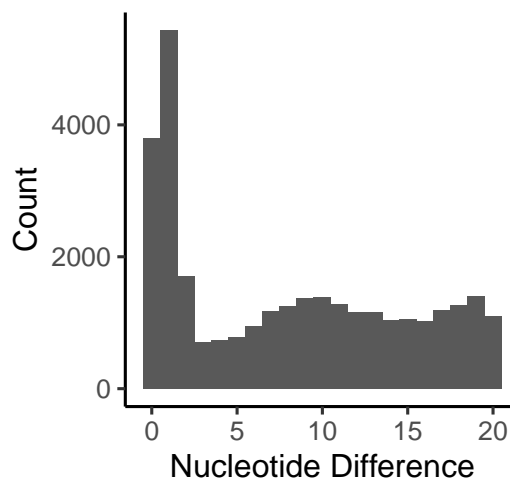
IGHV2-70*11_15

422 sequences assigned
19 (4.5%) exact matches, in which:
13 unique CDR3
3 unique J



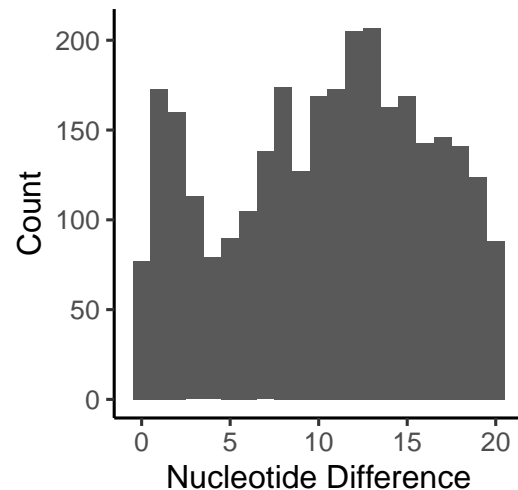
IGHV3-7*01

35367 sequences assigned
3803 (10.8%) exact matches, in which:
2517 unique CDR3
7 unique J



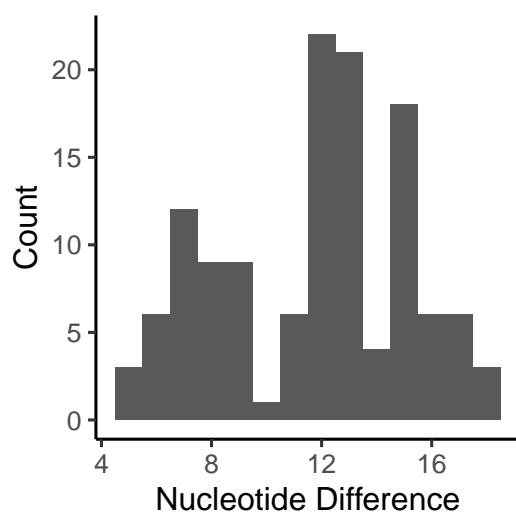
IGHV3-11*04

3441 sequences assigned
77 (2.2%) exact matches, in which:
77 unique CDR3
7 unique J



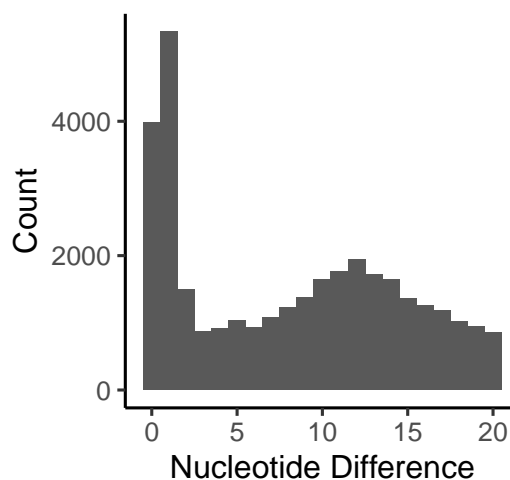
IGHV2-70*16_17

128 sequences assigned
No exact matches.



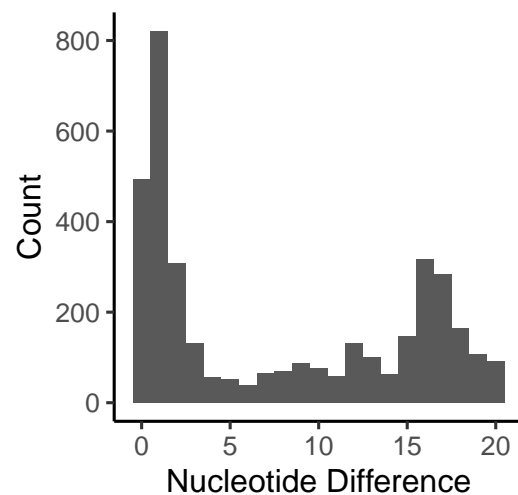
IGHV3-9*01

38466 sequences assigned
3976 (10.3%) exact matches, in which:
2653 unique CDR3
7 unique J



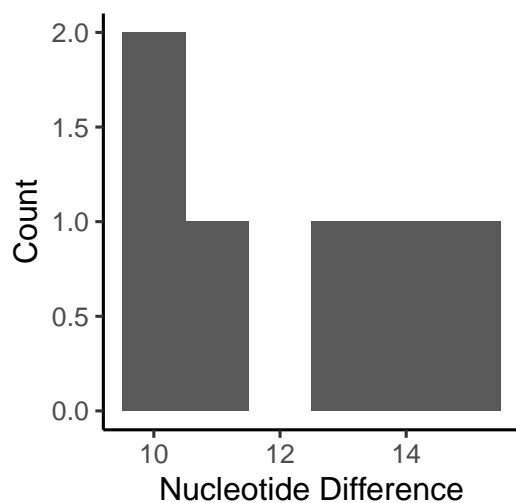
IGHV3-13*01

3940 sequences assigned
494 (12.5%) exact matches, in which:
310 unique CDR3
7 unique J



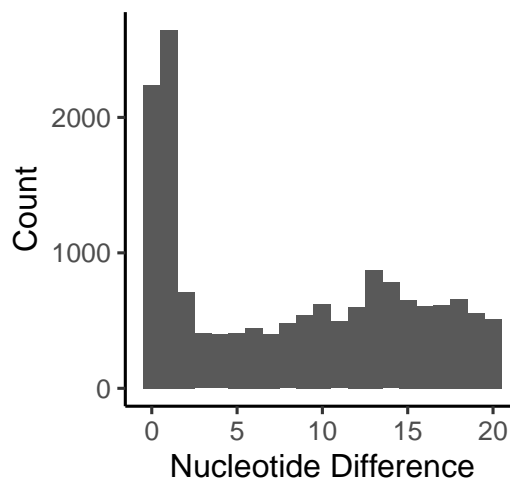
IGHV2-70D*04

8 sequences assigned
No exact matches.



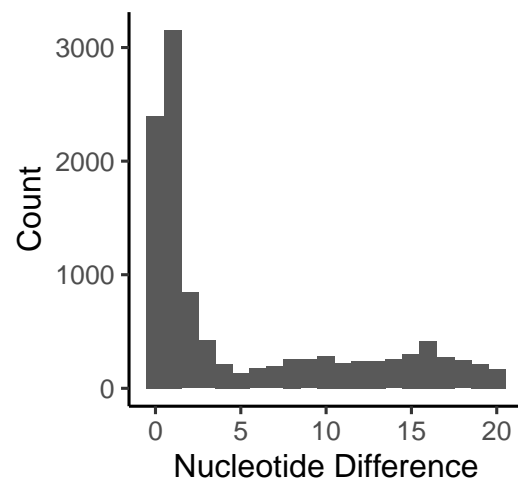
IGHV3-11*01

18094 sequences assigned
2241 (12.4%) exact matches, in which:
1557 unique CDR3
7 unique J



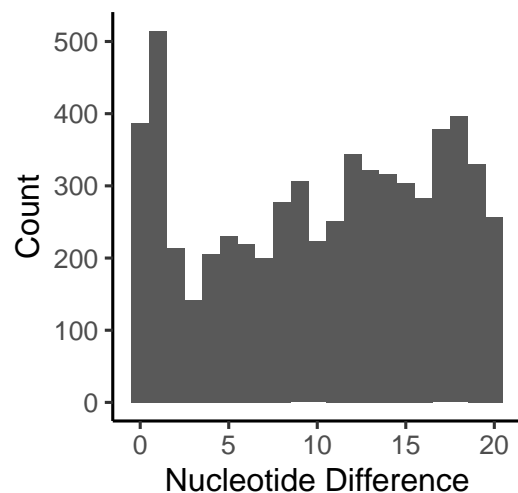
IGHV3-15*01_02

12291 sequences assigned
2396 (19.5%) exact matches, in which:
1628 unique CDR3
7 unique J



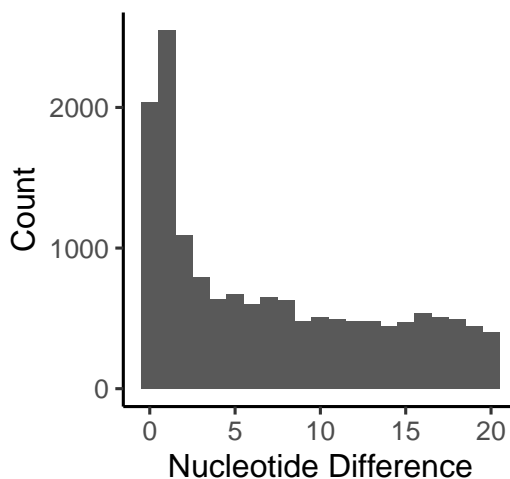
IGHV3-20*03_04

7136 sequences assigned
387 (5.4%) exact matches, in which:
259 unique CDR3
7 unique J



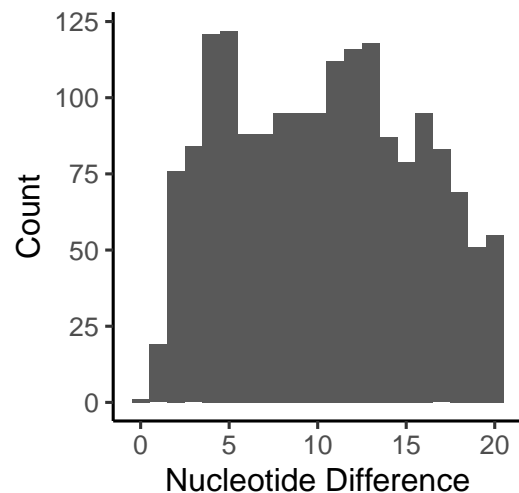
IGHV3-21*01_02

17278 sequences assigned
2037 (11.8%) exact matches, in which:
1436 unique CDR3
7 unique J



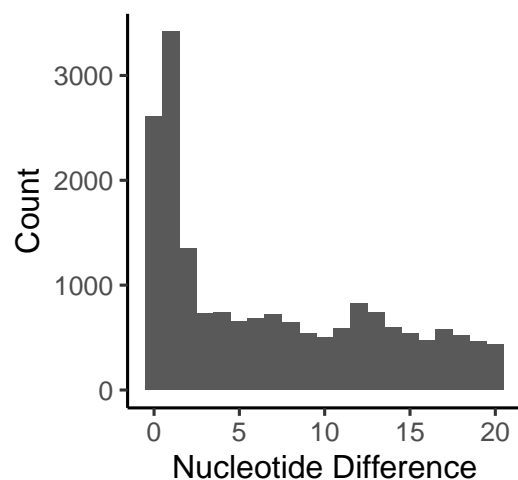
IGHV3-30-5*01

2304 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



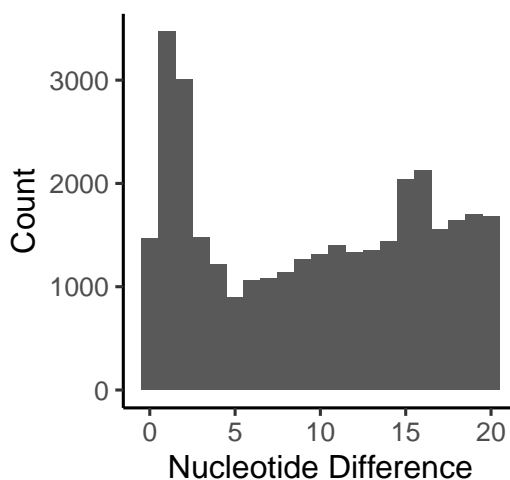
IGHV3-21*03

20169 sequences assigned
2612 (13%) exact matches, in which:
1687 unique CDR3
7 unique J



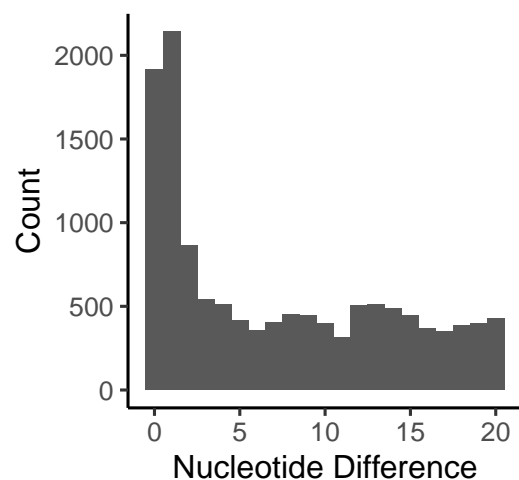
IGHV3-23*03

42732 sequences assigned
1468 (3.4%) exact matches, in which:
1025 unique CDR3
7 unique J



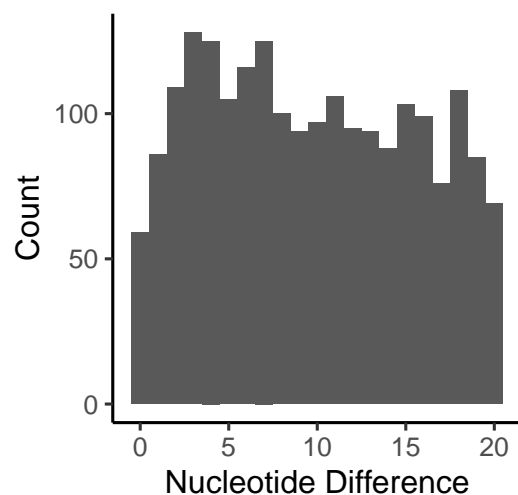
IGHV3-33*01

13761 sequences assigned
1914 (13.9%) exact matches, in which:
1312 unique CDR3
7 unique J



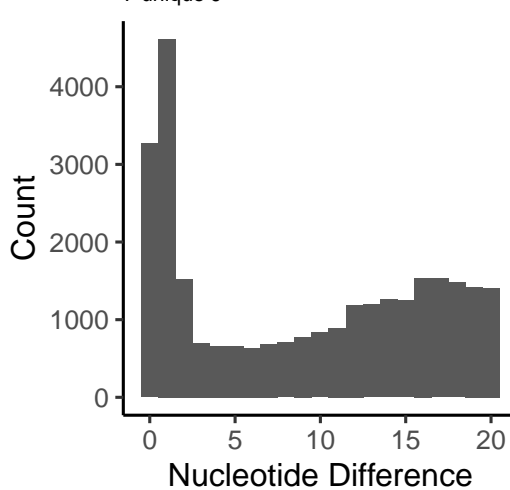
IGHV3-21*04

2554 sequences assigned
59 (2.3%) exact matches, in which:
59 unique CDR3
6 unique J



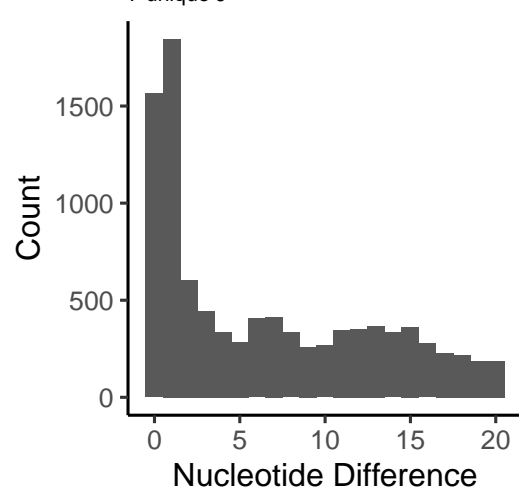
IGHV3-23*01_04

34669 sequences assigned
3270 (9.4%) exact matches, in which:
2111 unique CDR3
7 unique J



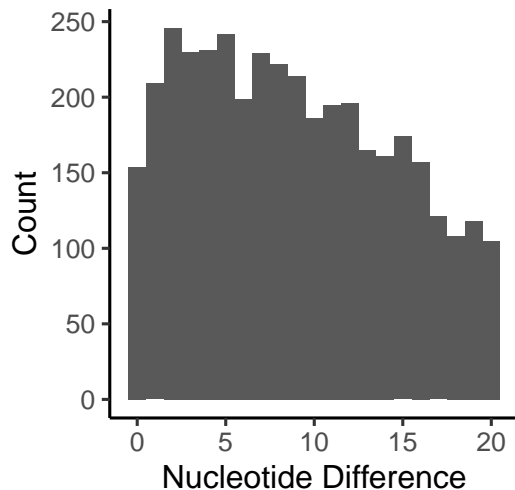
IGHV3-33*06

10423 sequences assigned
1564 (15%) exact matches, in which:
913 unique CDR3
7 unique J



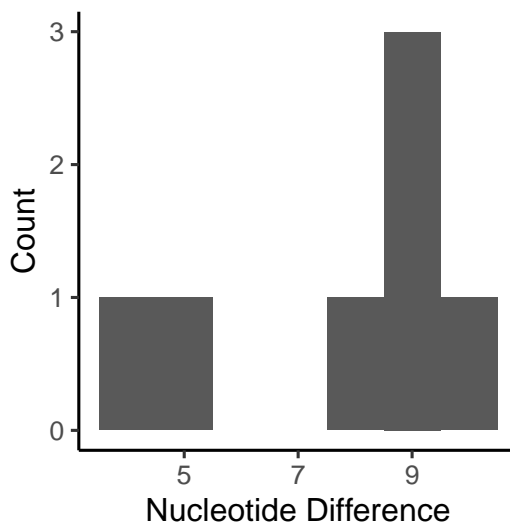
IGHV3–33*08

4307 sequences assigned
154 (3.6%) exact matches, in which:
144 unique CDR3
7 unique J



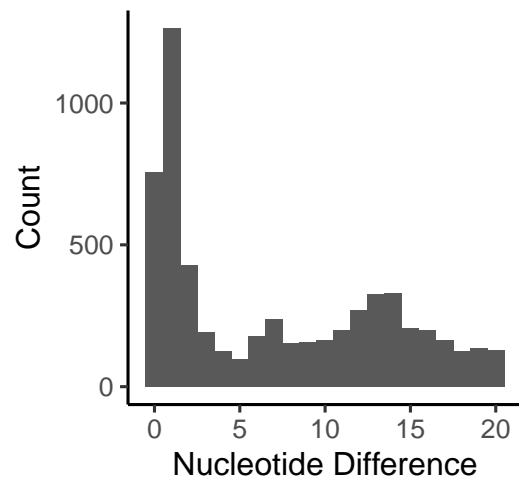
IGHV3–38*03

8 sequences assigned
No exact matches.



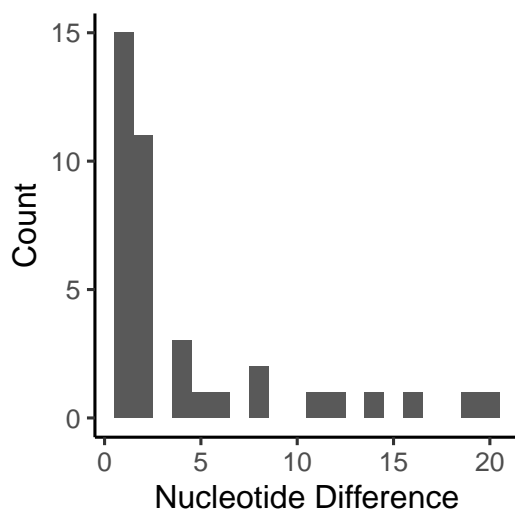
IGHV3–49*04

6984 sequences assigned
756 (10.8%) exact matches, in which:
460 unique CDR3
7 unique J



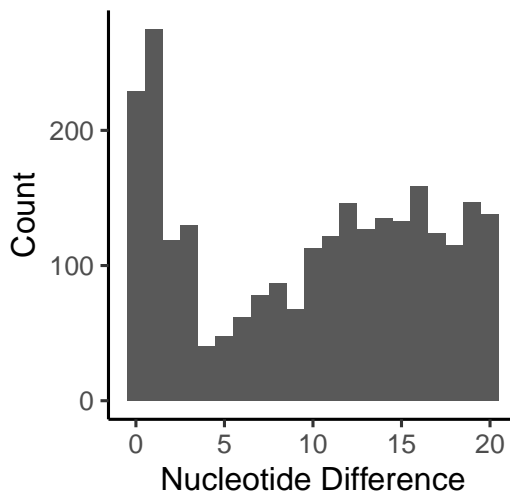
IGHV3–35*02

41 sequences assigned
No exact matches.



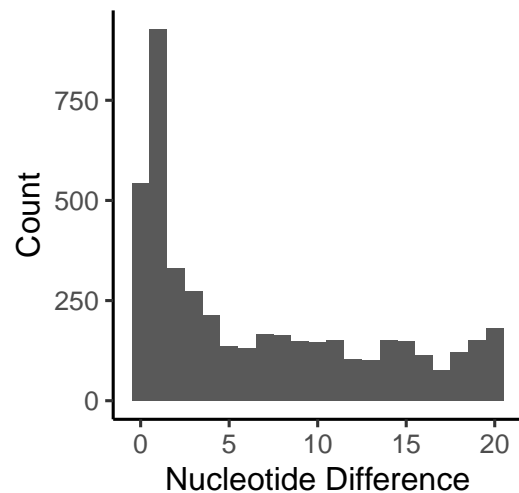
IGHV3–43*01

3285 sequences assigned
229 (7%) exact matches, in which:
176 unique CDR3
6 unique J



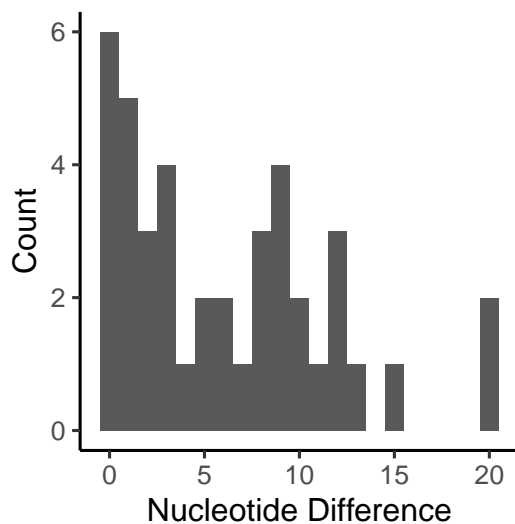
IGHV3–49*03_05

5134 sequences assigned
543 (10.6%) exact matches, in which:
347 unique CDR3
7 unique J



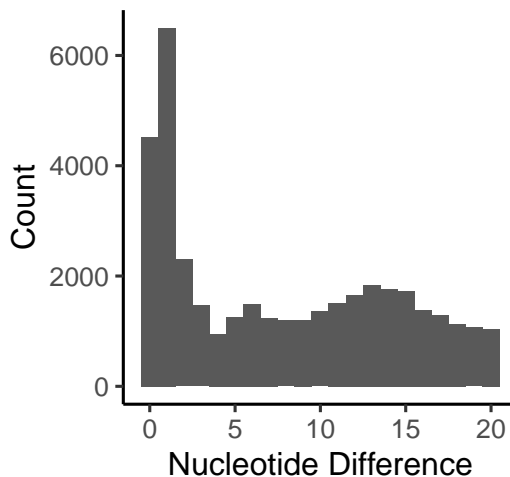
IGHV3–38–3*01

41 sequences assigned
6 (14.6%) exact matches, in which:
6 unique CDR3
3 unique J



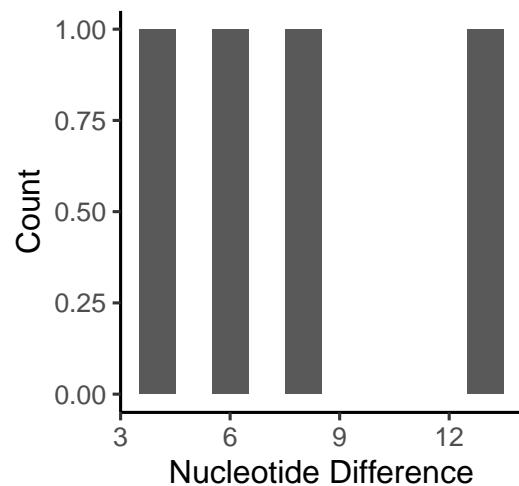
IGHV3–48*03

42959 sequences assigned
4522 (10.5%) exact matches, in which:
2922 unique CDR3
7 unique J



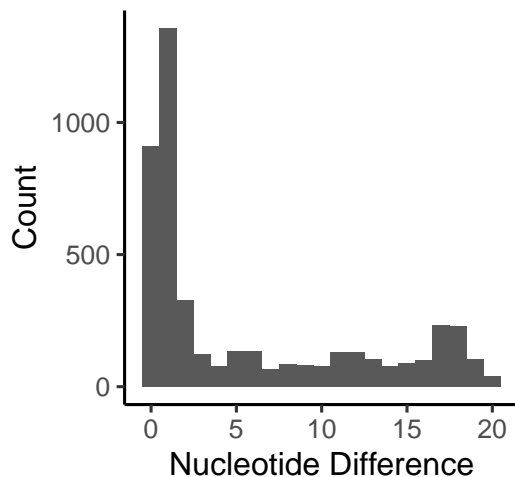
IGHV3–52*01_03

4 sequences assigned
No exact matches.



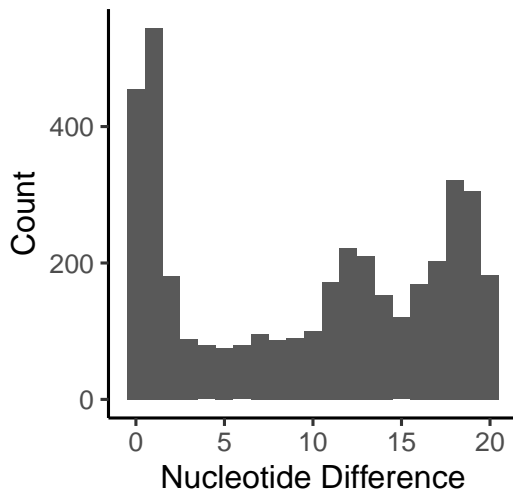
IGHV3-53*04

5054 sequences assigned
909 (18%) exact matches, in which:
570 unique CDR3
7 unique J



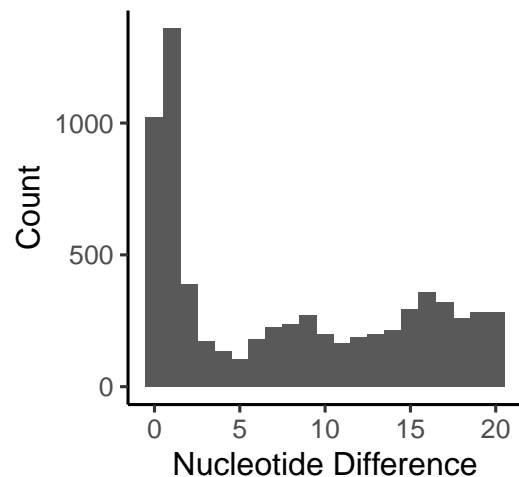
IGHV3-64*01

4644 sequences assigned
455 (9.8%) exact matches, in which:
313 unique CDR3
7 unique J



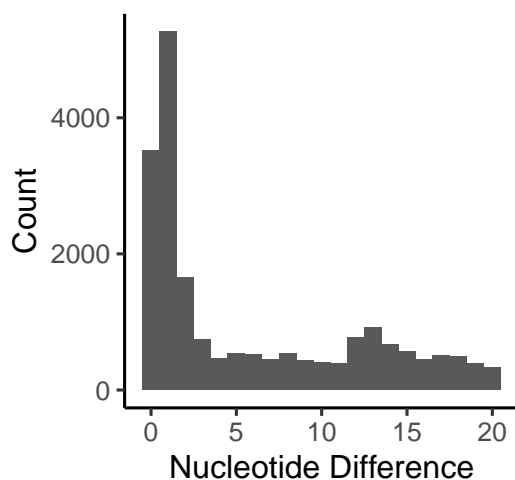
IGHV3-66*02

8415 sequences assigned
1023 (12.2%) exact matches, in which:
674 unique CDR3
7 unique J



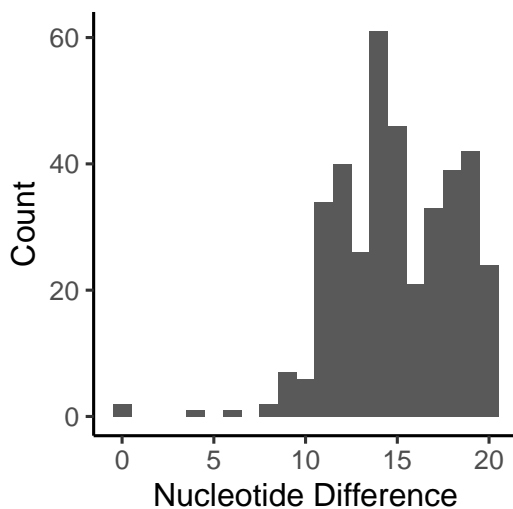
IGHV3-53*05

22547 sequences assigned
3526 (15.6%) exact matches, in which:
2257 unique CDR3
7 unique J



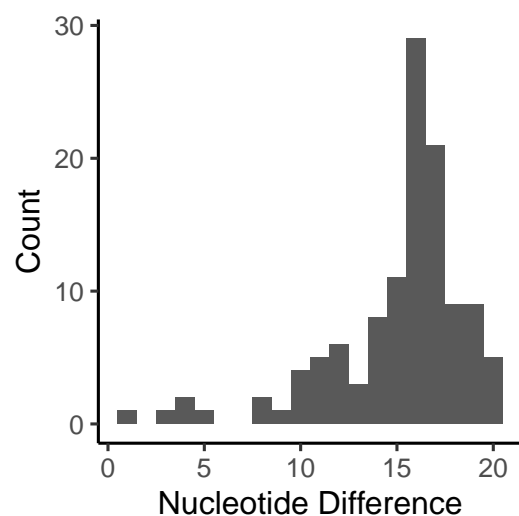
IGHV3-64*02_07

622 sequences assigned
2 (0.3%) exact matches, in which:
2 unique CDR3
1 unique J



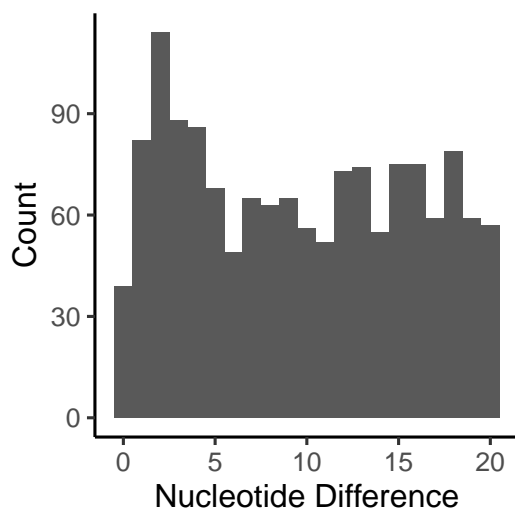
IGHV3-69-1*01

185 sequences assigned
No exact matches.



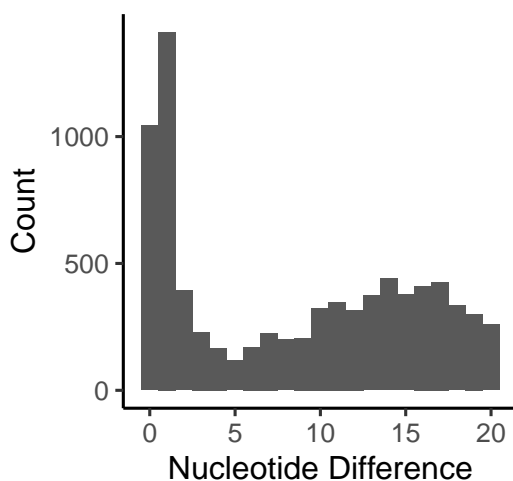
IGHV3-53*01_02

1870 sequences assigned
39 (2.1%) exact matches, in which:
38 unique CDR3
5 unique J



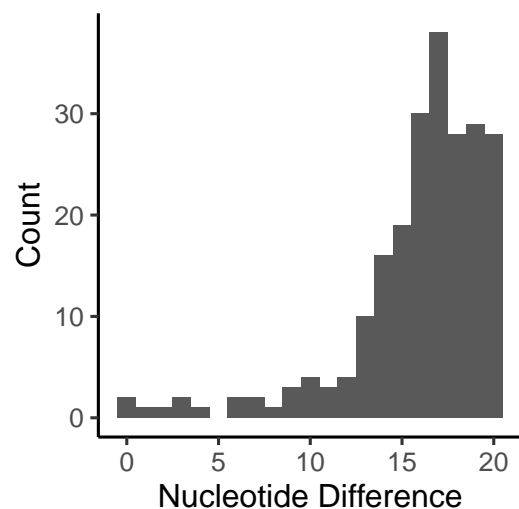
IGHV3-66*01

10177 sequences assigned
1044 (10.3%) exact matches, in which:
697 unique CDR3
7 unique J



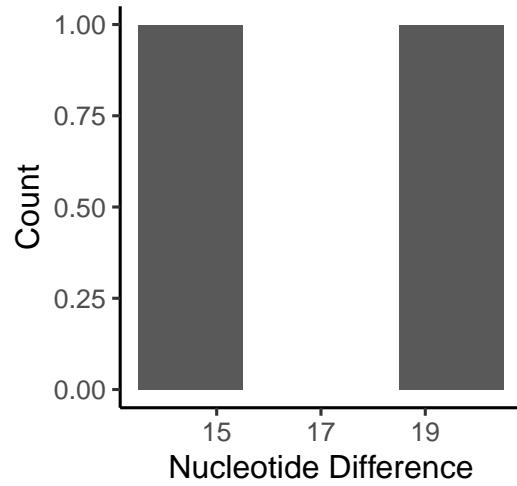
IGHV3-69-1*02

376 sequences assigned
2 (0.5%) exact matches, in which:
2 unique CDR3
1 unique J



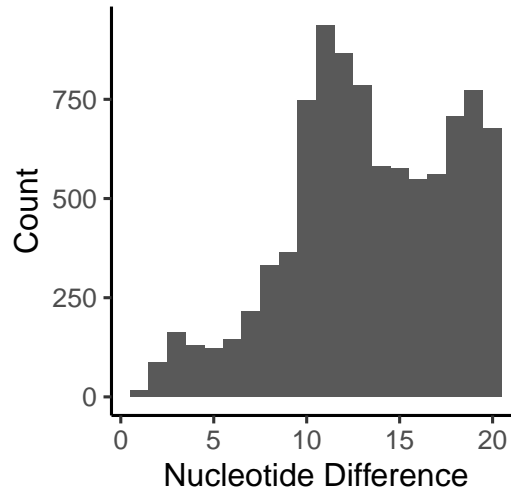
IGHV3-71*01_04

23 sequences assigned
No exact matches.



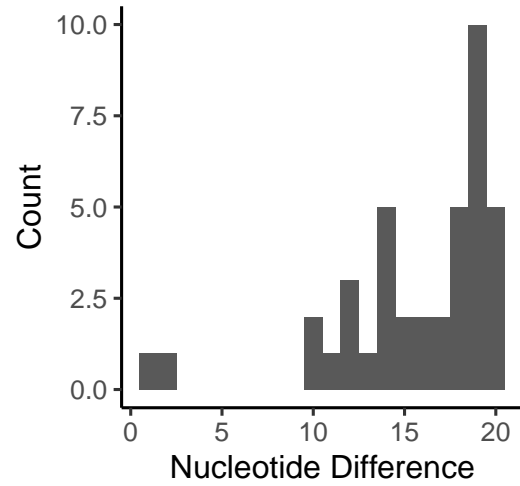
IGHV3-74*03

12883 sequences assigned
No exact matches.



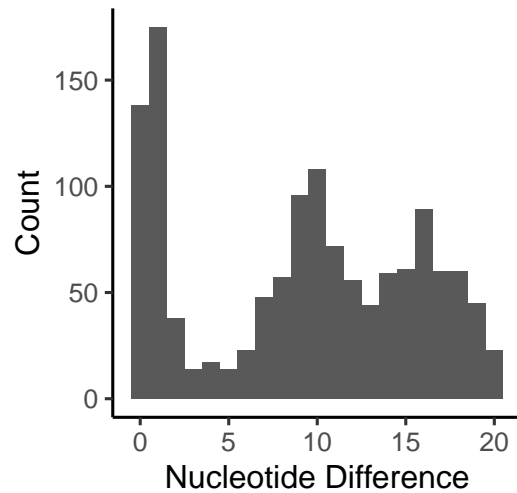
IGHV3-43D*04

89 sequences assigned
No exact matches.



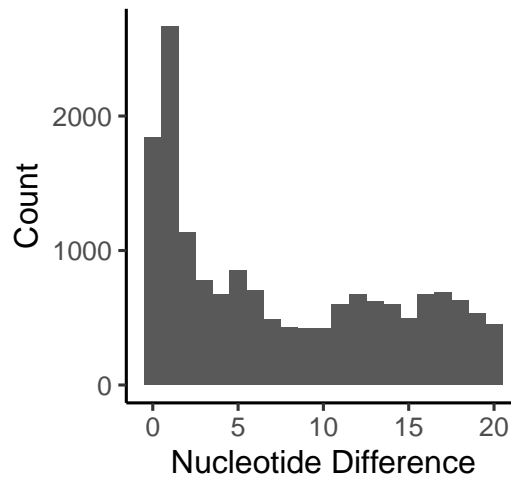
IGHV3-72*01

1921 sequences assigned
138 (7.2%) exact matches, in which:
101 unique CDR3
4 unique J



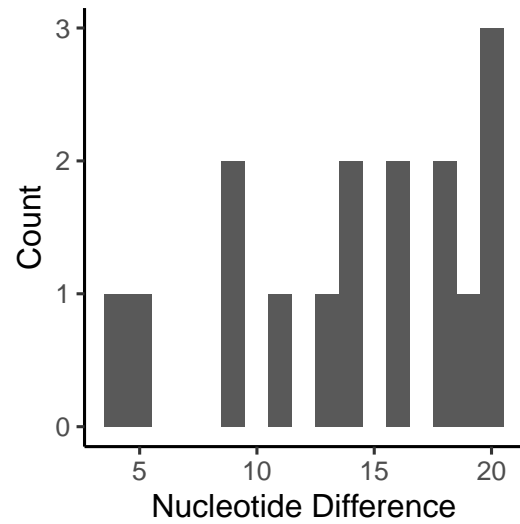
IGHV3-74*01_02

19118 sequences assigned
1837 (9.6%) exact matches, in which:
1199 unique CDR3
7 unique J



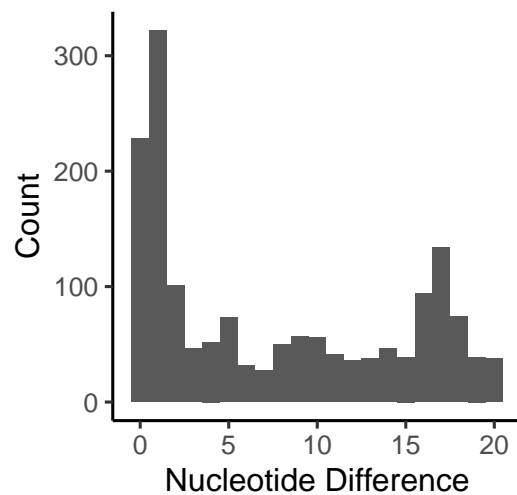
IGHV3-64D*06

19 sequences assigned
No exact matches.



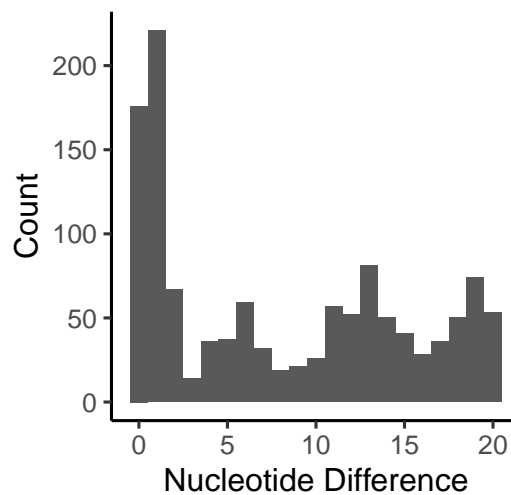
IGHV3-73*01_02

1942 sequences assigned
228 (11.7%) exact matches, in which:
155 unique CDR3
6 unique J



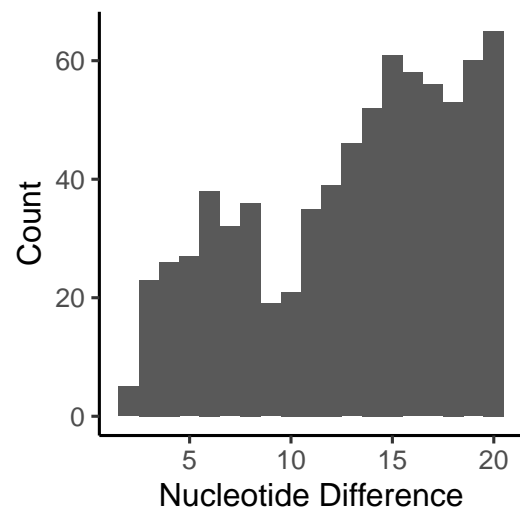
IGHV3-43D*03

1371 sequences assigned
176 (12.8%) exact matches, in which:
124 unique CDR3
7 unique J



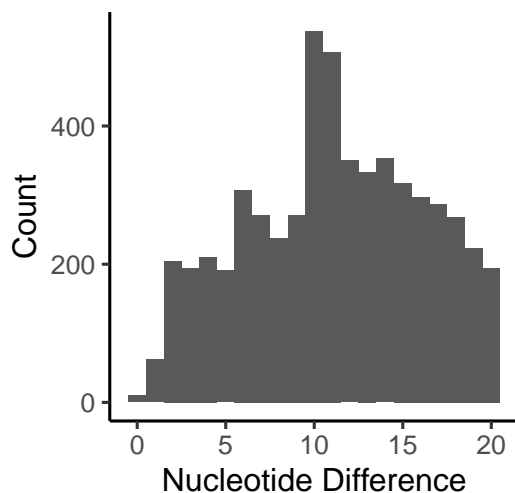
IGHV3-NL1*01

1076 sequences assigned
No exact matches.



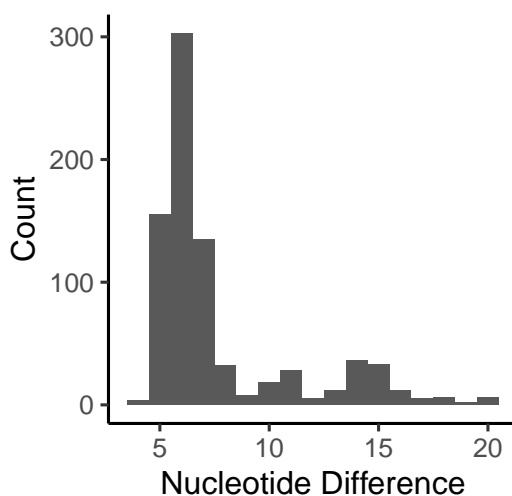
IGHV4-4*07

6437 sequences assigned
10 (0.2%) exact matches, in which:
10 unique CDR3
5 unique J



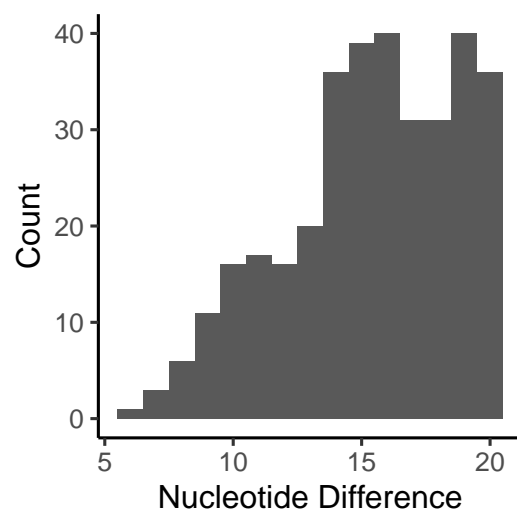
IGHV4-28*01_07

856 sequences assigned
No exact matches.



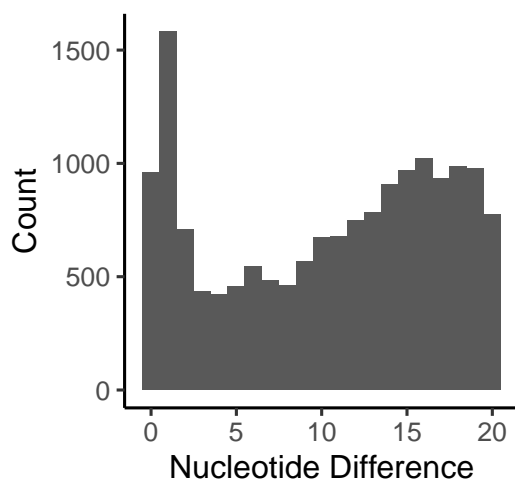
IGHV4-30-4*01

548 sequences assigned
No exact matches.



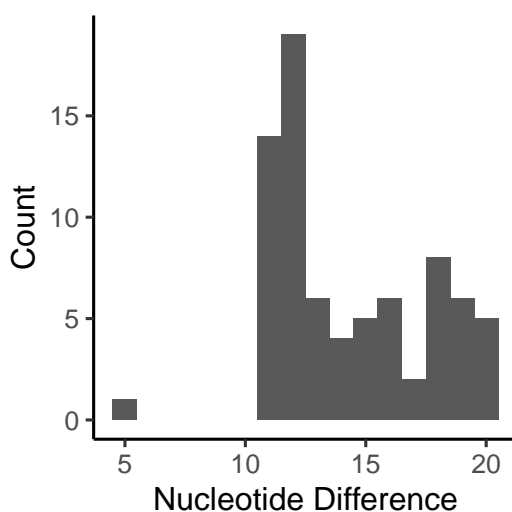
IGHV4-4*02_03

20011 sequences assigned
958 (4.8%) exact matches, in which:
607 unique CDR3
7 unique J



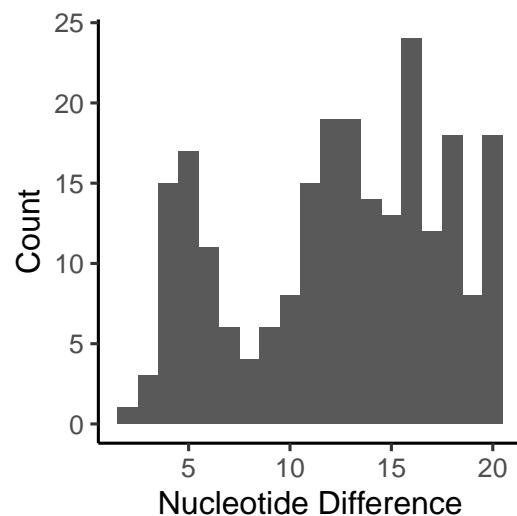
IGHV4-28*02_05

110 sequences assigned
No exact matches.



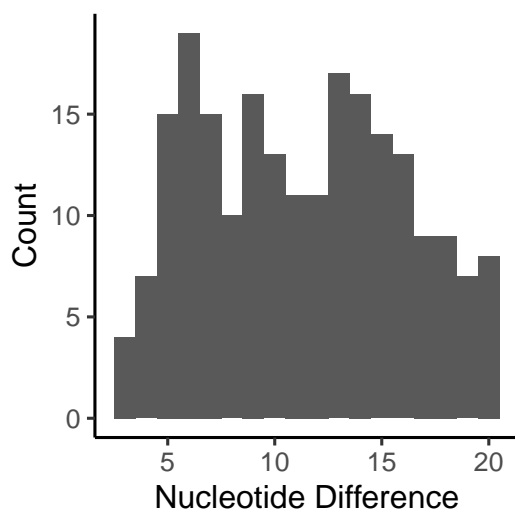
IGHV4-30-4*07

320 sequences assigned
No exact matches.



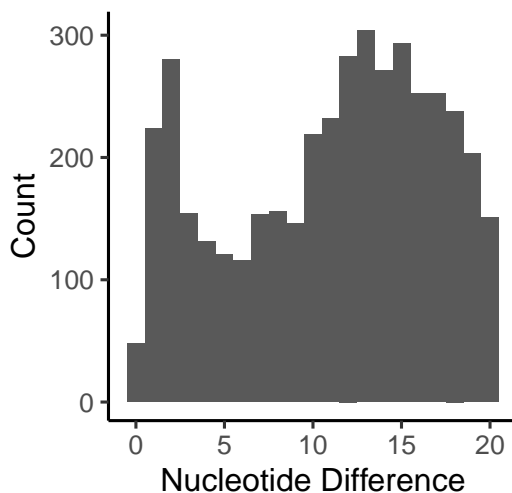
IGHV4-28*03

258 sequences assigned
No exact matches.



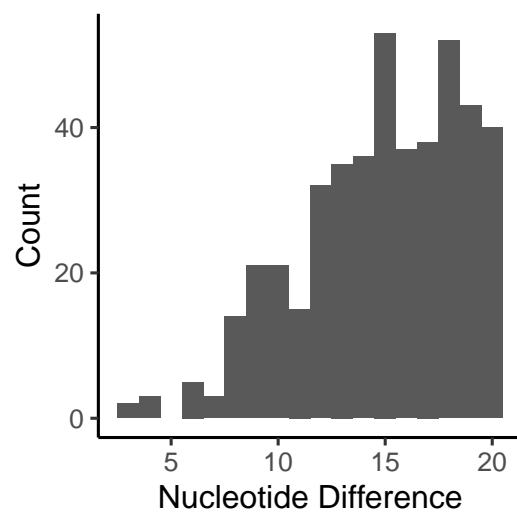
IGHV4-30-2*01

4742 sequences assigned
48 (1%) exact matches, in which:
48 unique CDR3
7 unique J



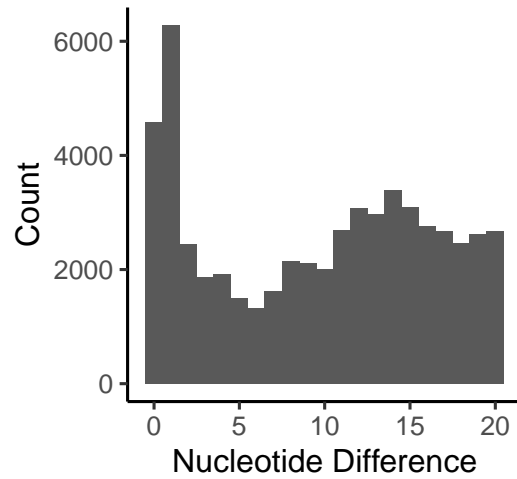
IGHV4-30-4*08

711 sequences assigned
No exact matches.



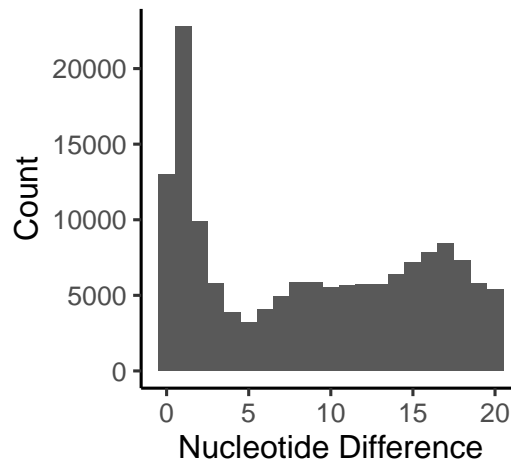
IGHV4-31*02

69445 sequences assigned
4585 (6.6%) exact matches, in which:
2922 unique CDR3
7 unique J



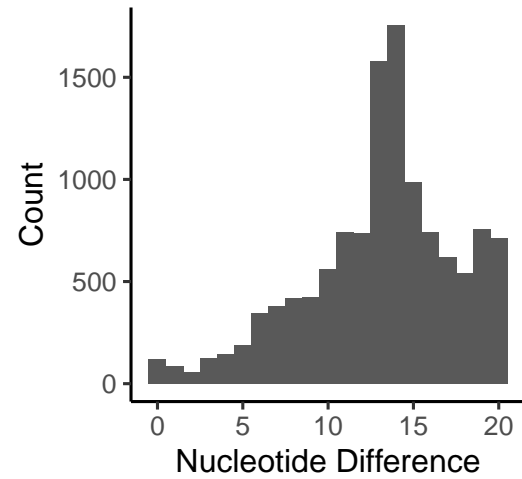
IGHV4-39*07

186692 sequences assigned
12987 (7%) exact matches, in which:
7873 unique CDR3
7 unique J



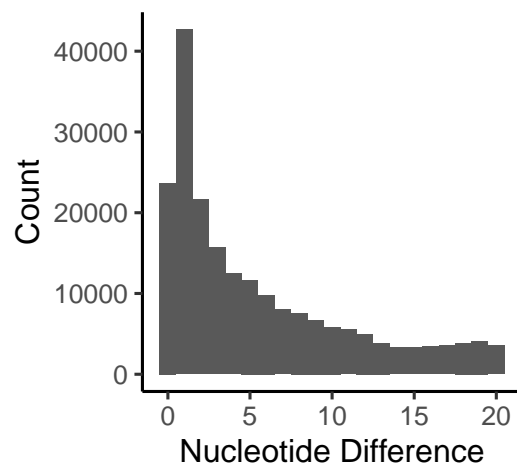
IGHV4-59*11

17898 sequences assigned
122 (0.7%) exact matches, in which:
106 unique CDR3
6 unique J



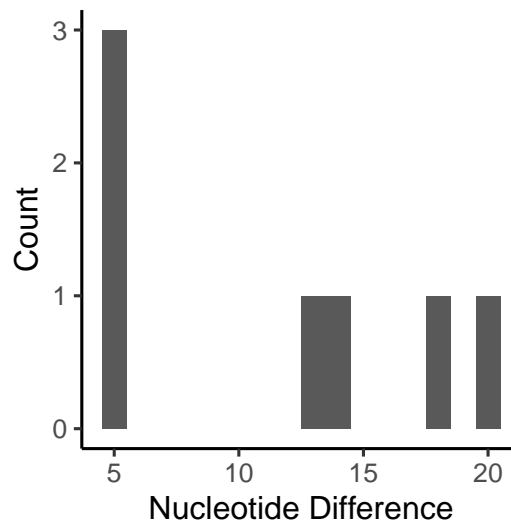
IGHV4-34*01_02

220510 sequences assigned
23668 (10.7%) exact matches, in which:
13900 unique CDR3
7 unique J



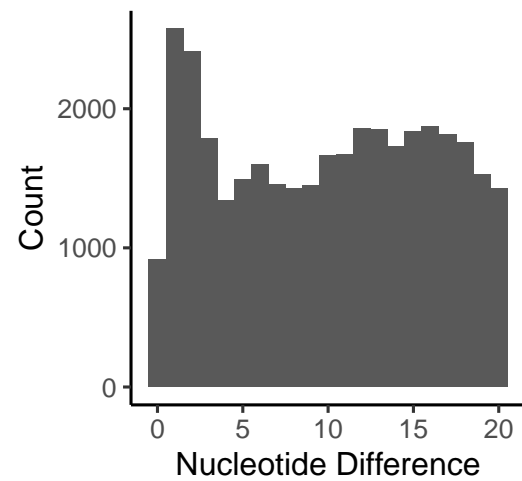
IGHV4-55*09

10 sequences assigned
No exact matches.



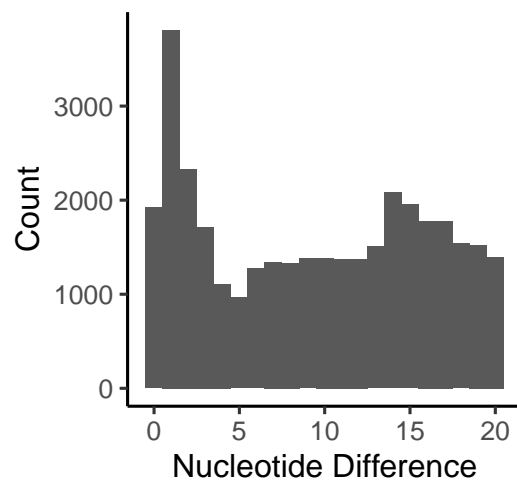
IGHV4-59*12

43198 sequences assigned
920 (2.1%) exact matches, in which:
768 unique CDR3
7 unique J



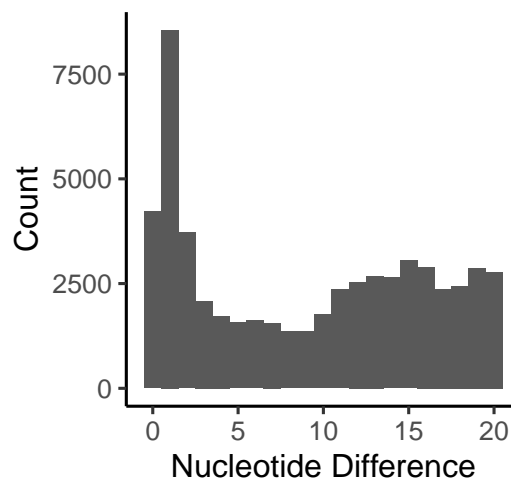
IGHV4-38-2*02

41641 sequences assigned
1921 (4.6%) exact matches, in which:
1242 unique CDR3
7 unique J



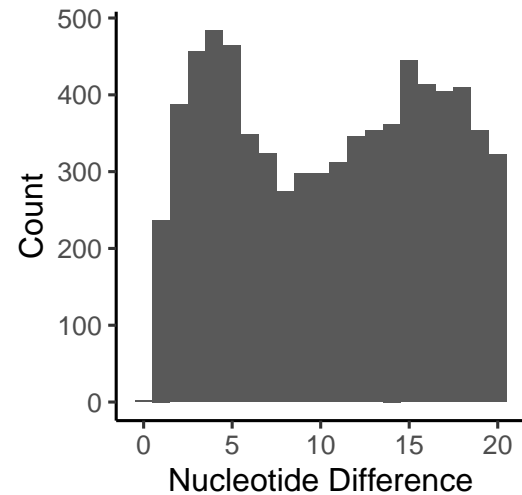
IGHV4-59*08

78729 sequences assigned
4221 (5.4%) exact matches, in which:
2521 unique CDR3
7 unique J



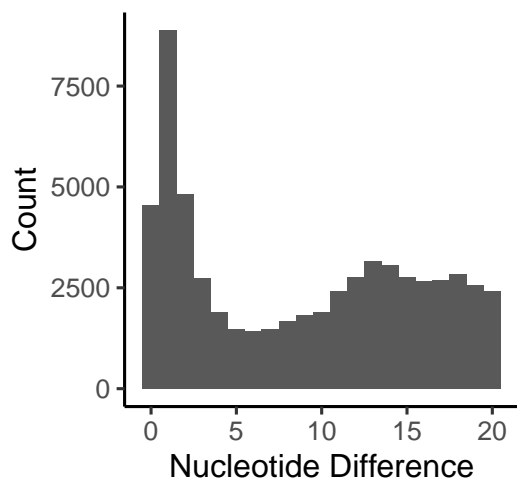
IGHV4-61*01

9145 sequences assigned
2 (0%) exact matches, in which:
1 unique CDR3
1 unique J



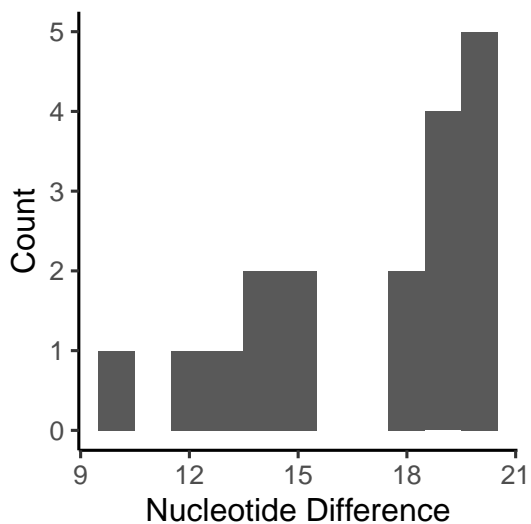
IGHV4-61*02

73130 sequences assigned
4542 (6.2%) exact matches, in which:
2835 unique CDR3
7 unique J



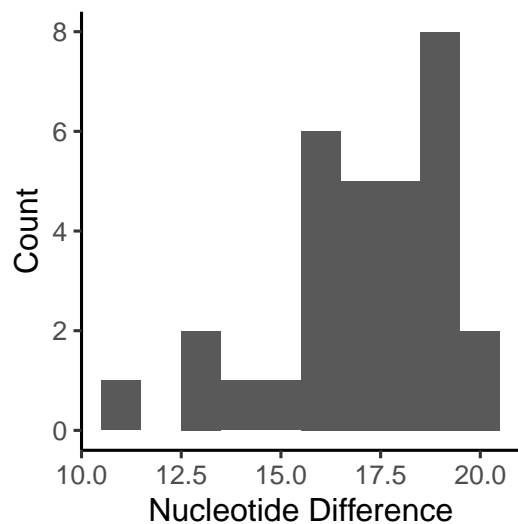
IGHV1/OR15-2*02_03

35 sequences assigned
No exact matches.



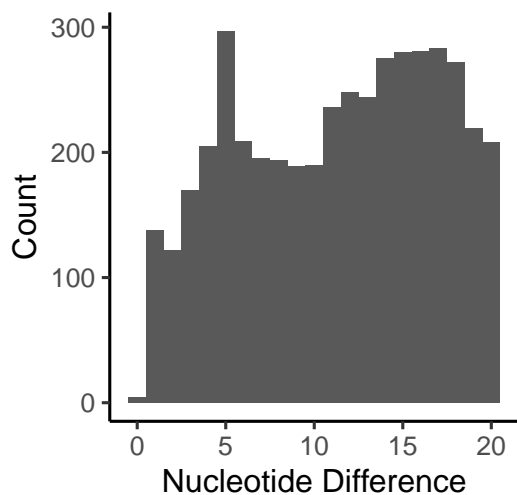
IGHV4/OR15-8*02

154 sequences assigned
No exact matches.



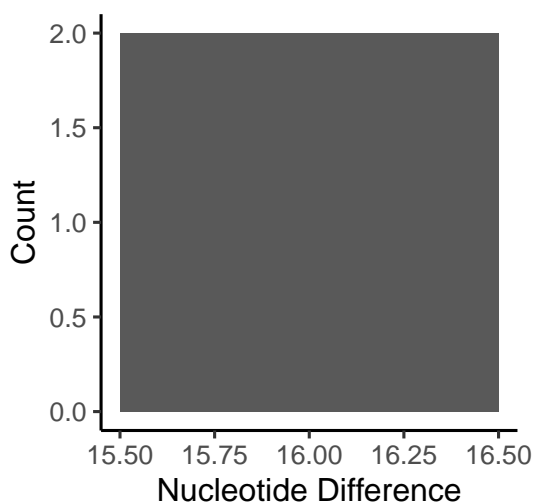
IGHV4-61*08

5656 sequences assigned
4 (0.1%) exact matches, in which:
4 unique CDR3
3 unique J



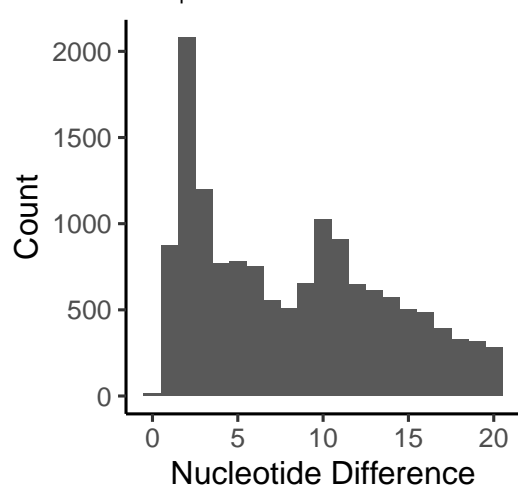
IGHV1/OR15-3*02

6 sequences assigned
No exact matches.



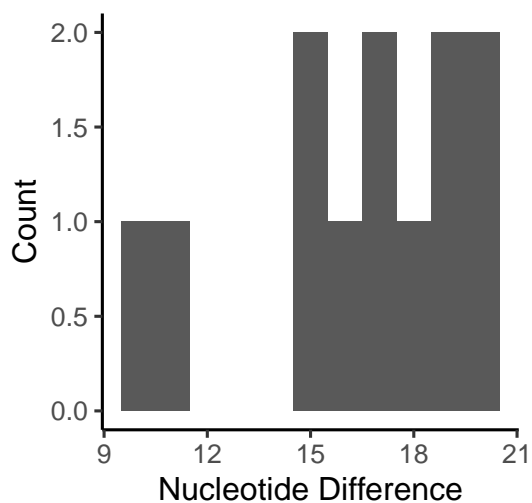
IGHV5-51*07

15688 sequences assigned
16 (0.1%) exact matches, in which:
16 unique CDR3
4 unique J



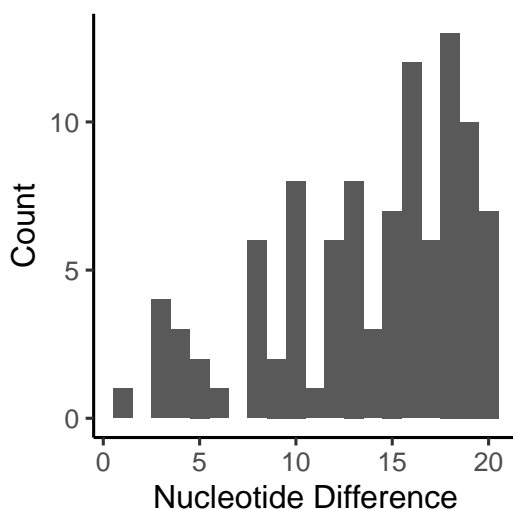
IGHV1/OR15-1*04

14 sequences assigned
No exact matches.



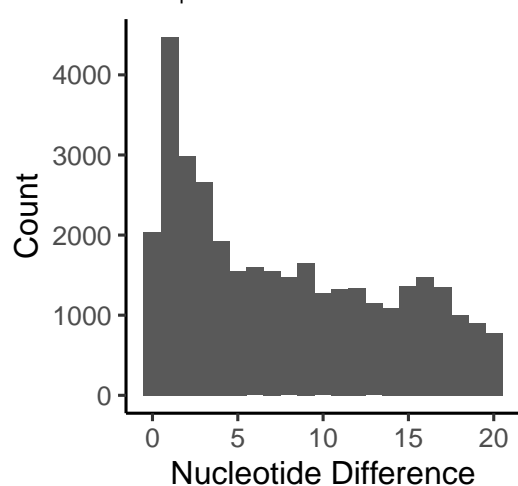
IGHV4/OR15-8*01

188 sequences assigned
No exact matches.



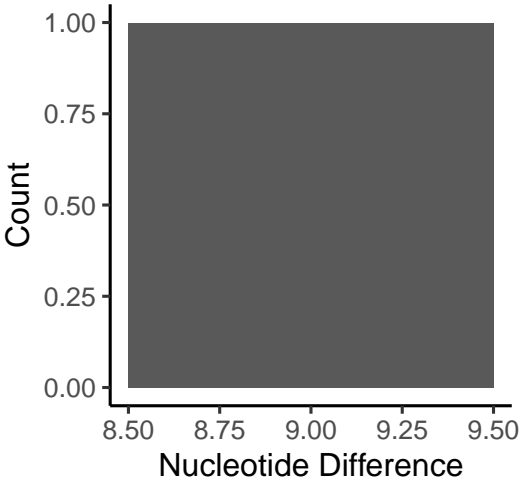
IGHV5-51*01_03

41397 sequences assigned
2041 (4.9%) exact matches, in which:
1334 unique CDR3
7 unique J



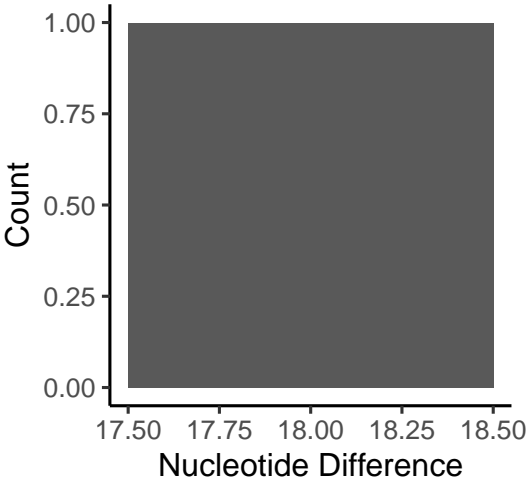
IGHV5-78*01

1 sequences assigned
No exact matches.



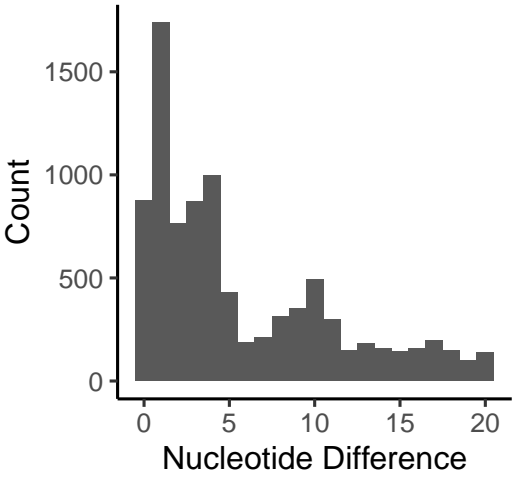
IGHV7-81*01

48 sequences assigned
No exact matches.



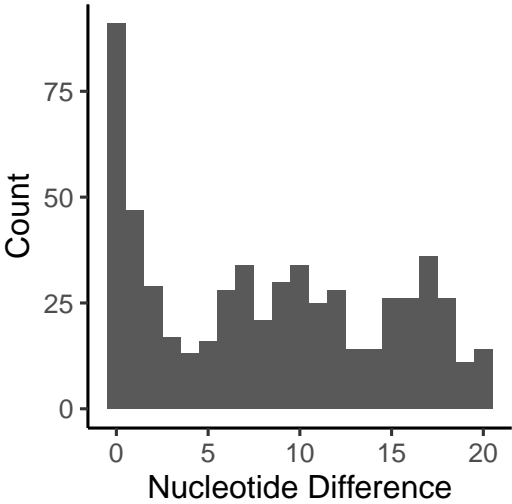
IGHV6-1*01_02

9496 sequences assigned
876 (9.2%) exact matches, in which:
546 unique CDR3
7 unique J

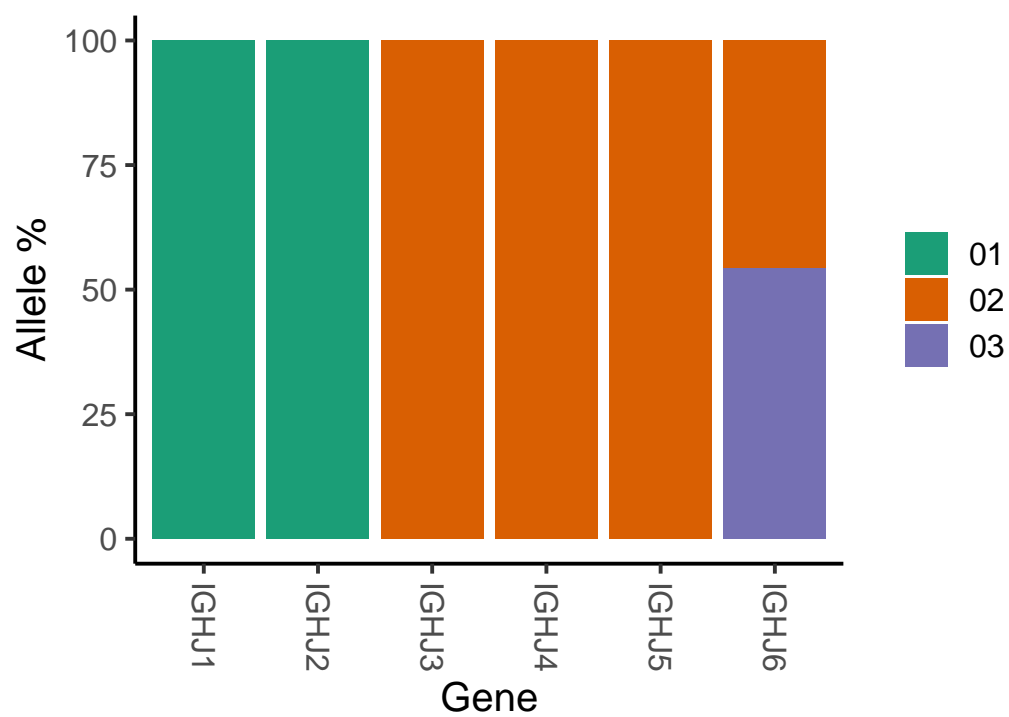


IGHV7-4-1*02

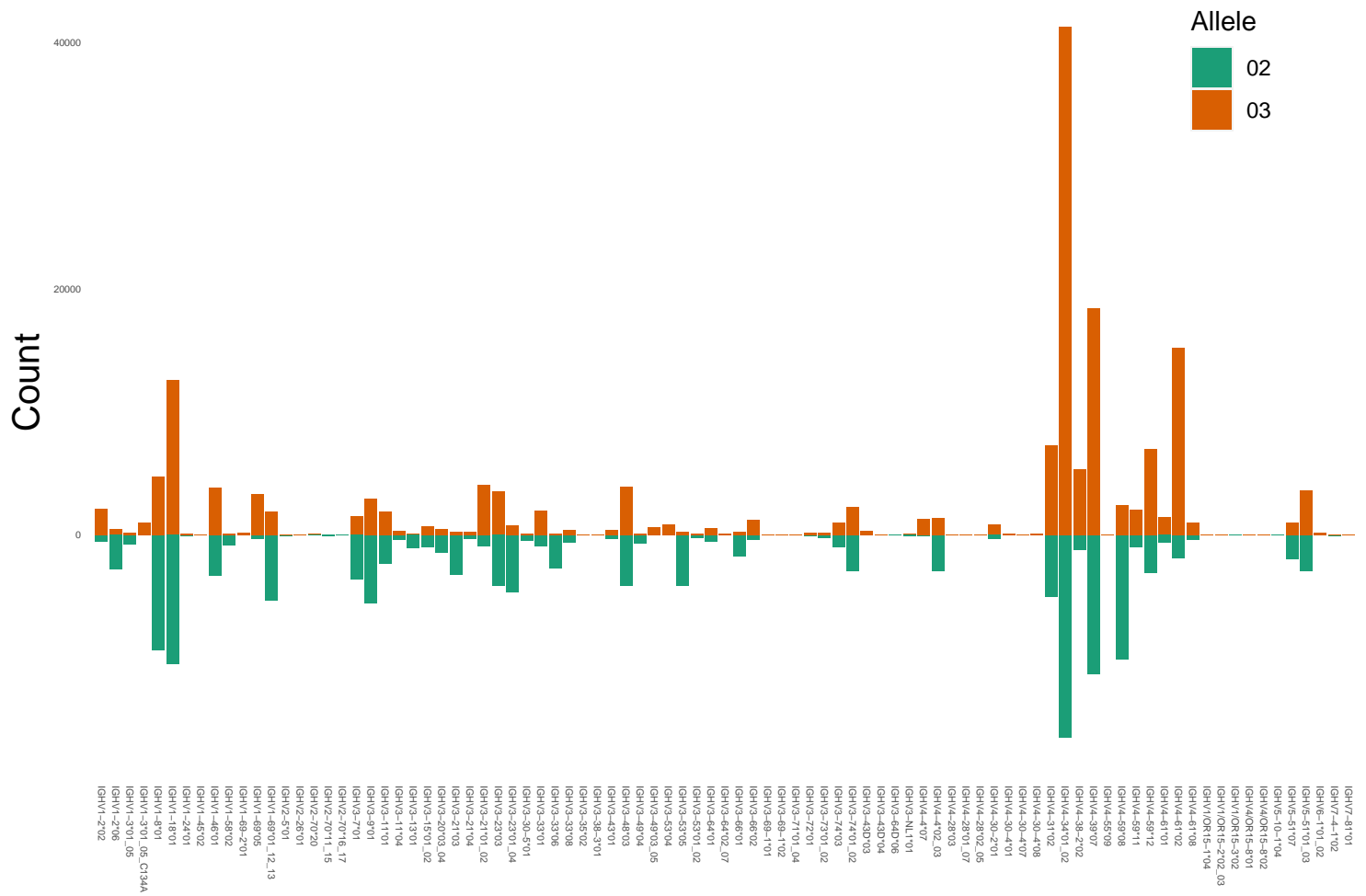
790 sequences assigned
91 (11.5%) exact matches, in which:
83 unique CDR3
5 unique J



Allele Usage



Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.