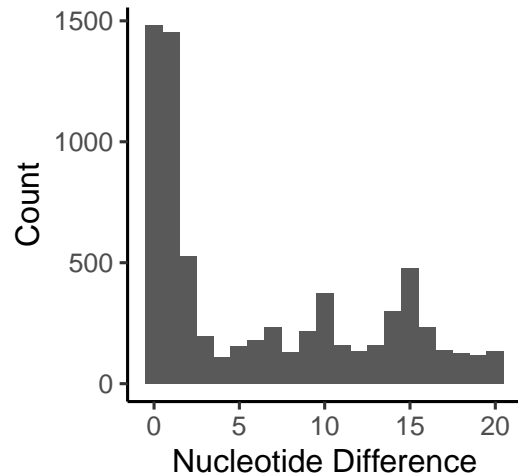


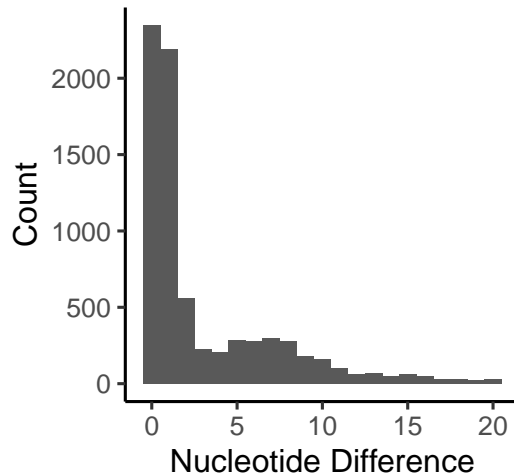
IGHV1-2*02

8302 sequences assigned
1481 (17.8%) exact matches, in which:
1253 unique CDR3
6 unique J



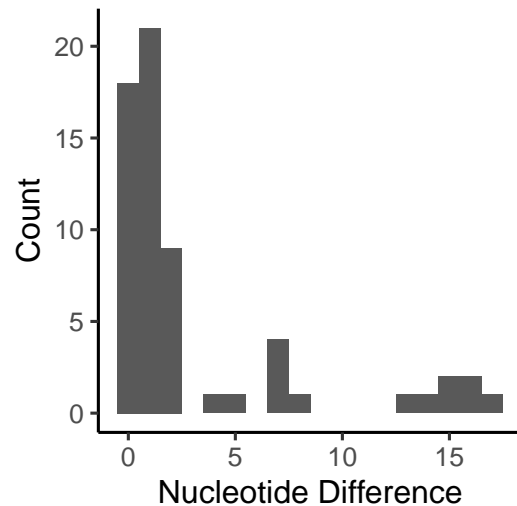
IGHV1-8*01

8057 sequences assigned
2346 (29.1%) exact matches, in which:
2041 unique CDR3
6 unique J



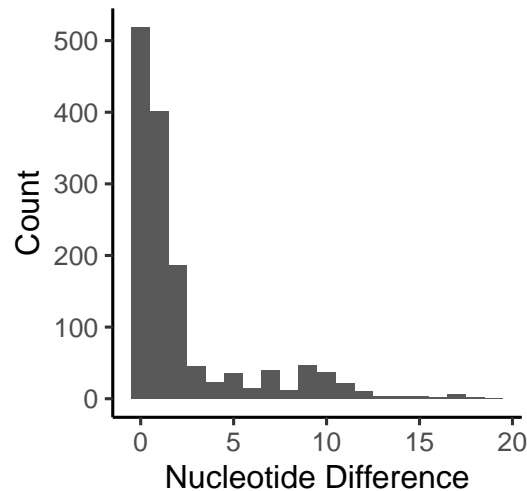
IGHV1-45*02

65 sequences assigned
18 (27.7%) exact matches, in which:
16 unique CDR3
3 unique J



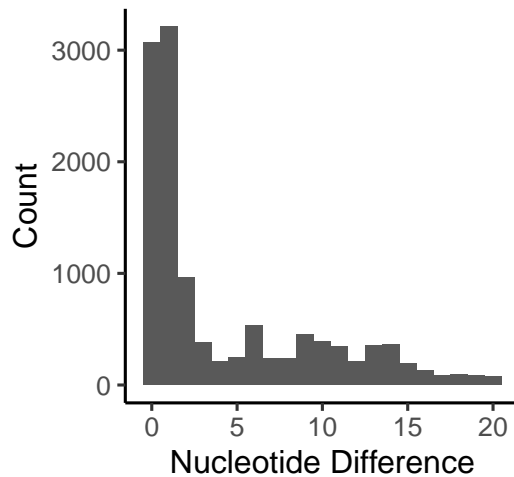
IGHV1-2*04

1416 sequences assigned
519 (36.7%) exact matches, in which:
461 unique CDR3
5 unique J



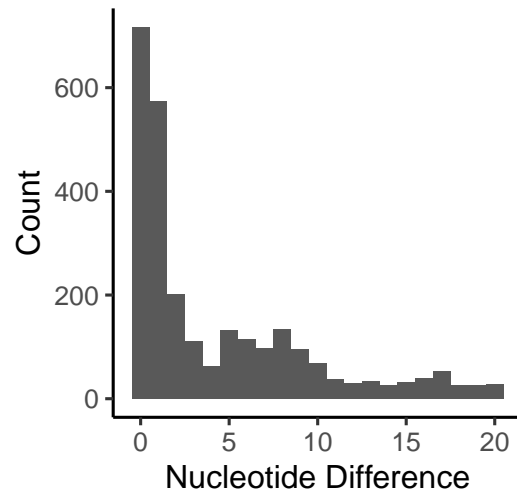
IGHV1-18*01

13599 sequences assigned
3073 (22.6%) exact matches, in which:
2635 unique CDR3
6 unique J



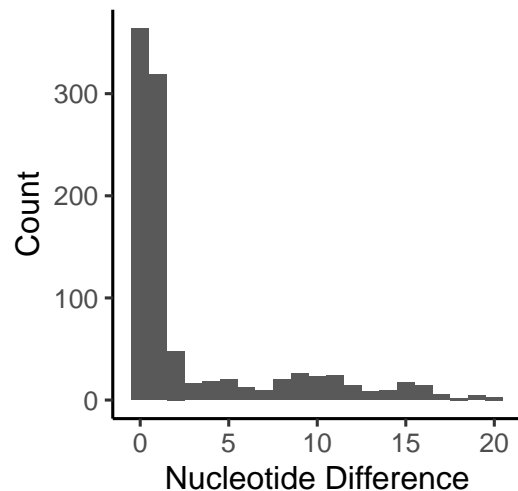
IGHV1-46*01

3449 sequences assigned
717 (20.8%) exact matches, in which:
624 unique CDR3
6 unique J



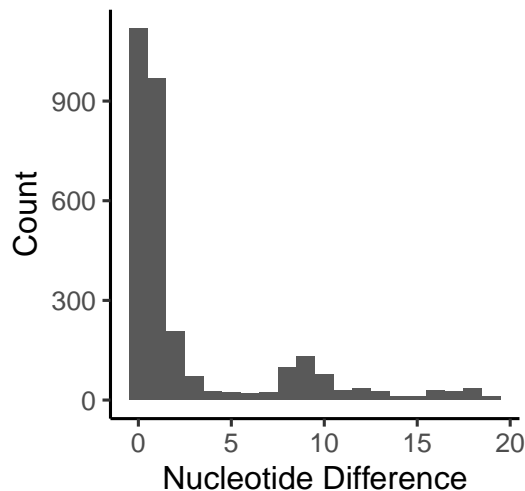
IGHV1-3*01_05

1067 sequences assigned
364 (34.1%) exact matches, in which:
313 unique CDR3
6 unique J



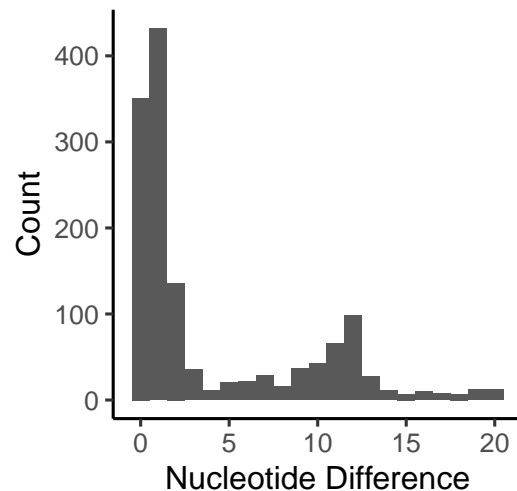
IGHV1-24*01

3026 sequences assigned
1119 (37%) exact matches, in which:
967 unique CDR3
6 unique J



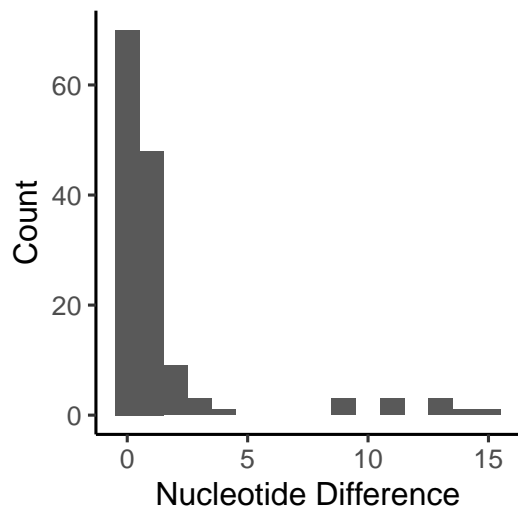
IGHV1-46*03

1461 sequences assigned
351 (24%) exact matches, in which:
288 unique CDR3
6 unique J



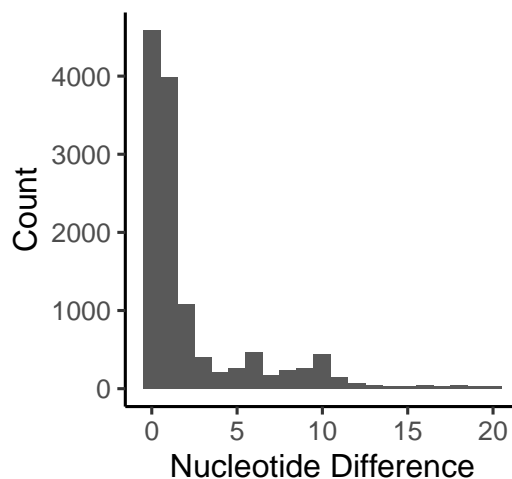
IGHV1-58*02

144 sequences assigned
70 (48.6%) exact matches, in which:
62 unique CDR3
5 unique J



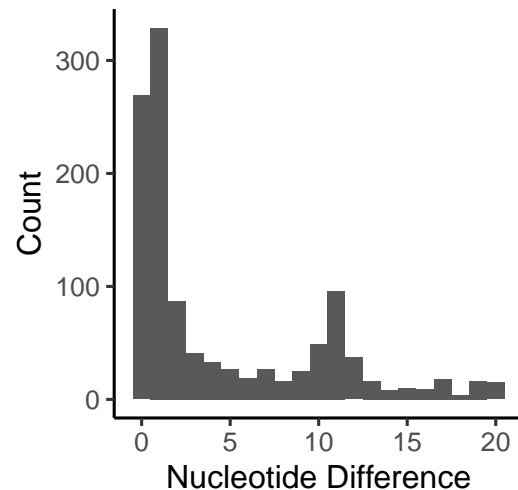
IGHV1-69*01_12_13

13450 sequences assigned
4585 (34.1%) exact matches, in which:
4039 unique CDR3
6 unique J



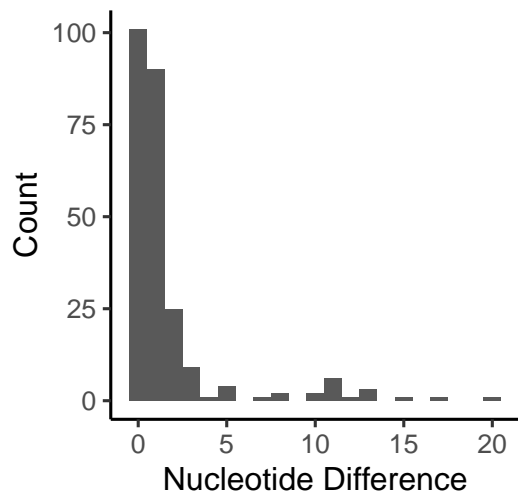
IGHV2-5*02

1209 sequences assigned
269 (22.2%) exact matches, in which:
226 unique CDR3
5 unique J



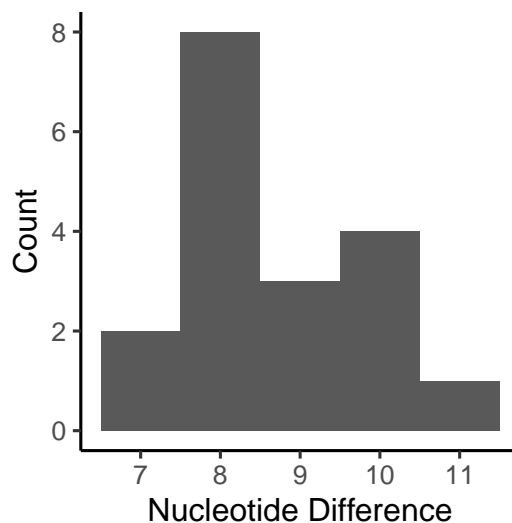
IGHV1-58*01_03

254 sequences assigned
101 (39.8%) exact matches, in which:
88 unique CDR3
5 unique J



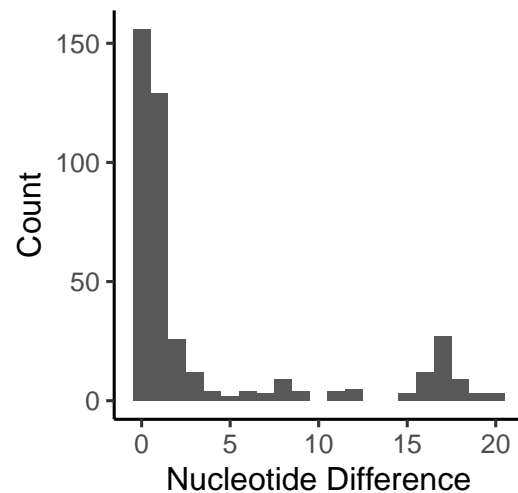
IGHV1-NL1*01

18 sequences assigned
No exact matches.



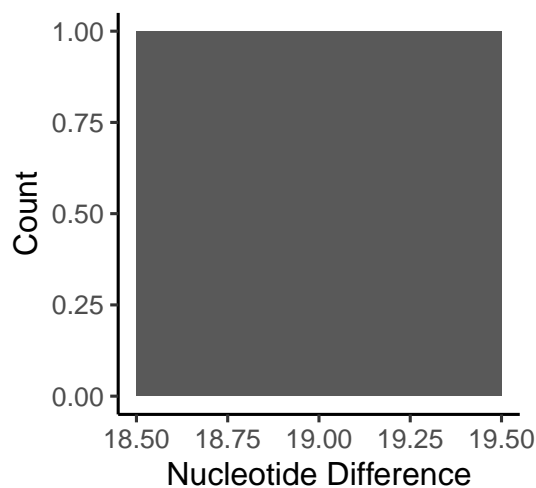
IGHV2-26*01

418 sequences assigned
156 (37.3%) exact matches, in which:
133 unique CDR3
5 unique J



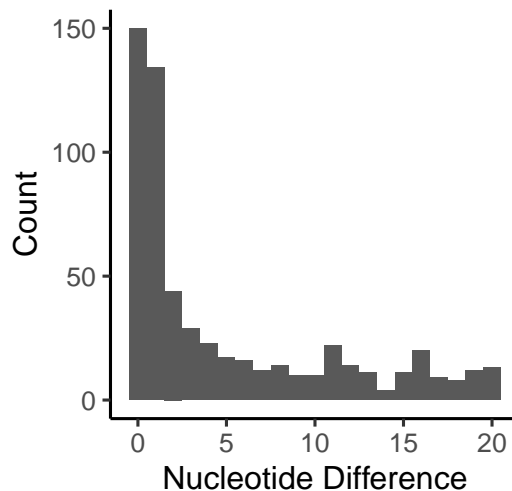
IGHV1-69-2*01

1 sequences assigned
No exact matches.



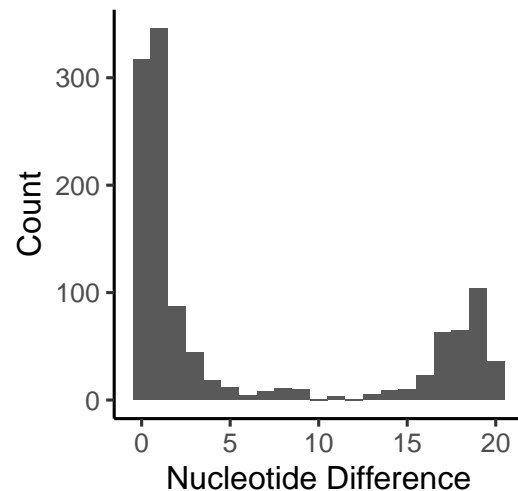
IGHV2-5*01

628 sequences assigned
150 (23.9%) exact matches, in which:
122 unique CDR3
5 unique J



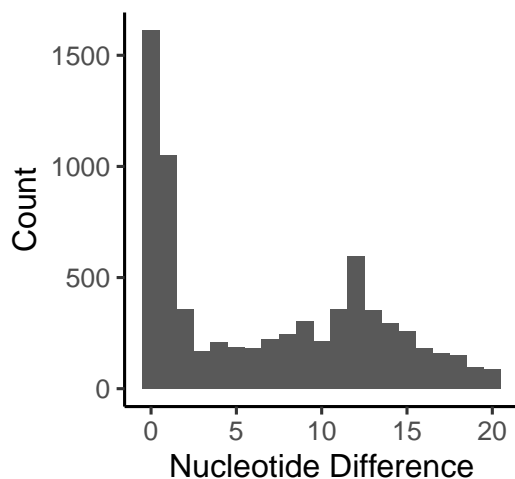
IGHV2-70*01

1434 sequences assigned
317 (22.1%) exact matches, in which:
259 unique CDR3
5 unique J



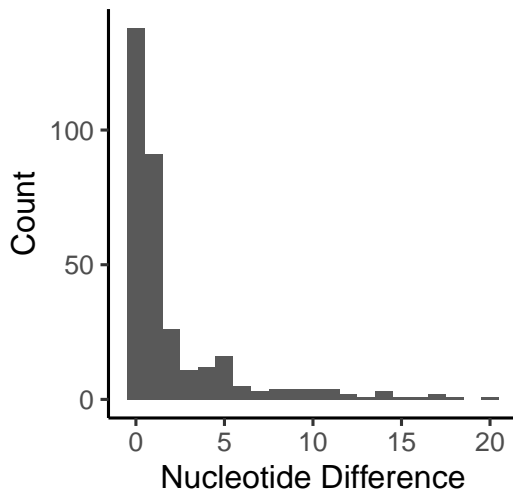
IGHV3-7*01

9167 sequences assigned
1612 (17.6%) exact matches, in which:
1059 unique CDR3
6 unique J



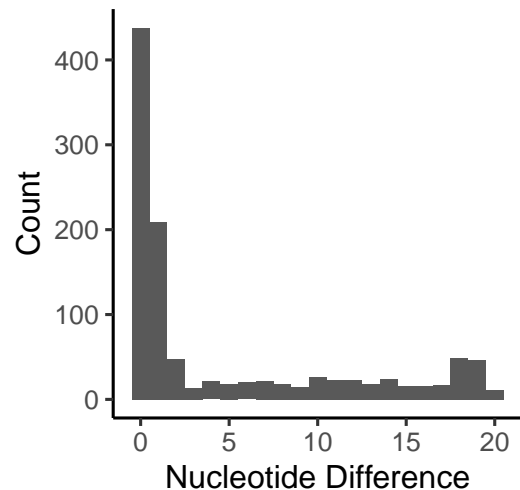
IGHV3-11*04

339 sequences assigned
138 (40.7%) exact matches, in which:
133 unique CDR3
6 unique J



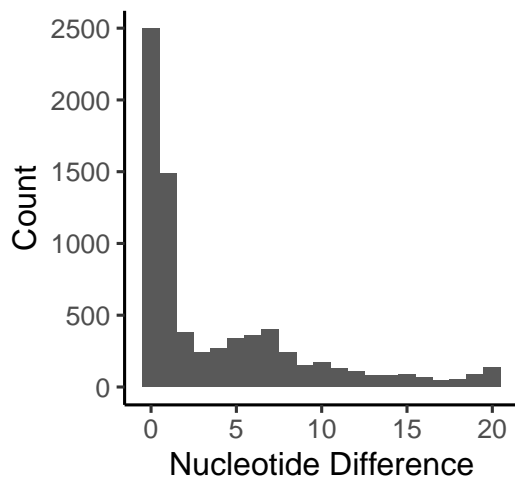
IGHV3-15*01_02

1276 sequences assigned
438 (34.3%) exact matches, in which:
286 unique CDR3
6 unique J



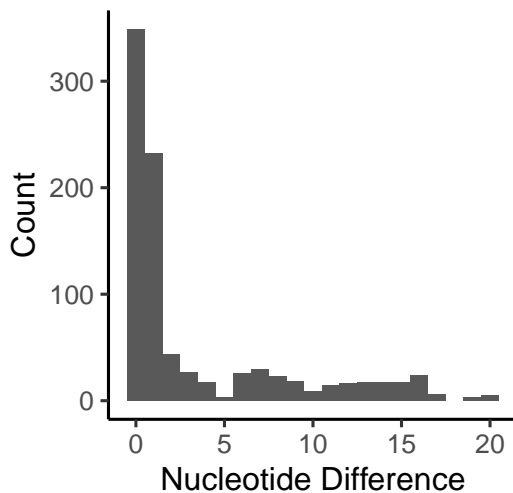
IGHV3-9*01

8610 sequences assigned
2496 (29%) exact matches, in which:
1451 unique CDR3
6 unique J



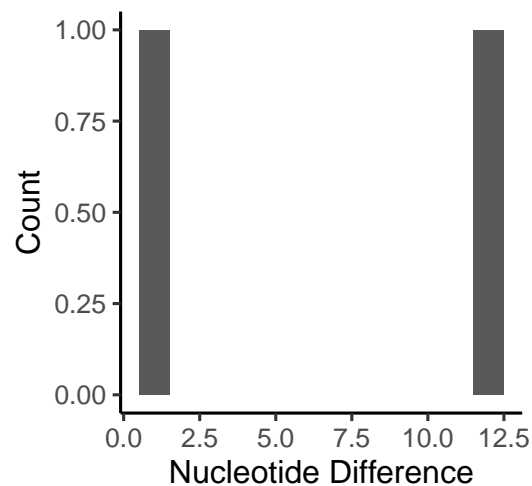
IGHV3-13*01

906 sequences assigned
349 (38.5%) exact matches, in which:
211 unique CDR3
5 unique J



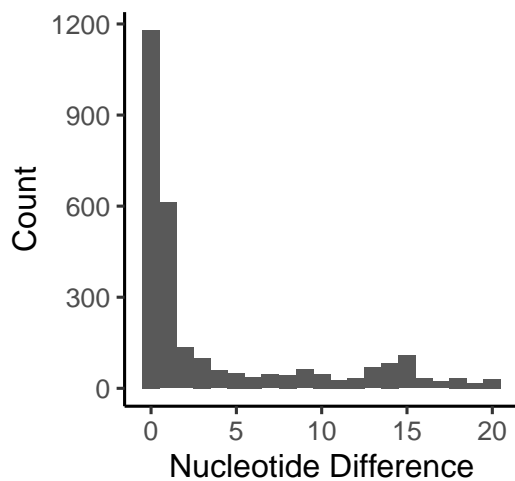
IGHV3-19*01

2 sequences assigned
No exact matches.



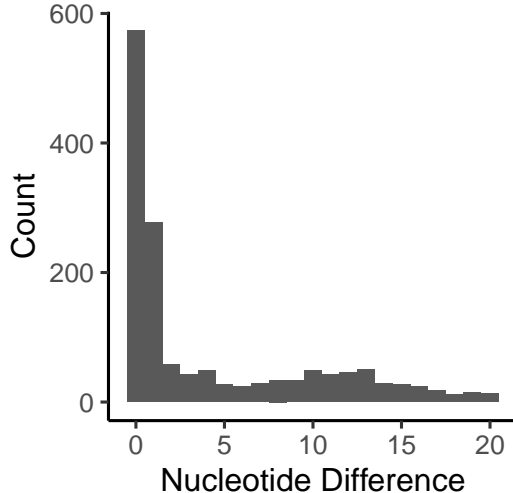
IGHV3-11*01

3377 sequences assigned
1180 (34.9%) exact matches, in which:
756 unique CDR3
6 unique J



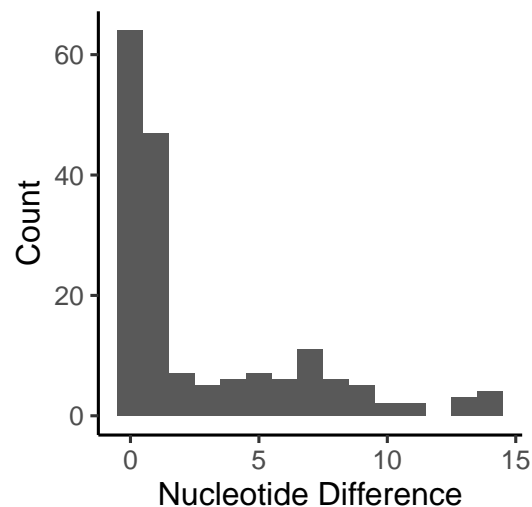
IGHV3-15*07

2317 sequences assigned
574 (24.8%) exact matches, in which:
383 unique CDR3
5 unique J



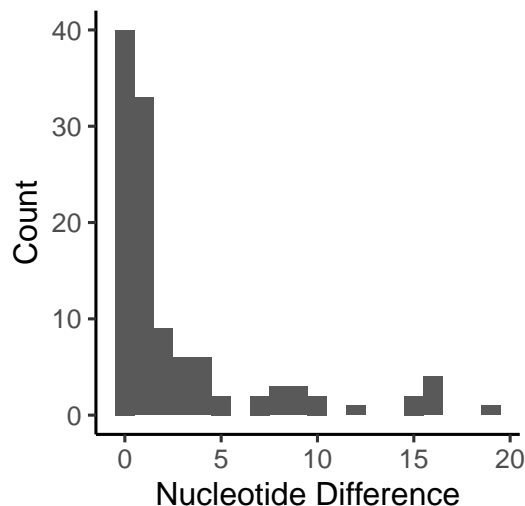
IGHV3-20*01_02

175 sequences assigned
64 (36.6%) exact matches, in which:
39 unique CDR3
5 unique J



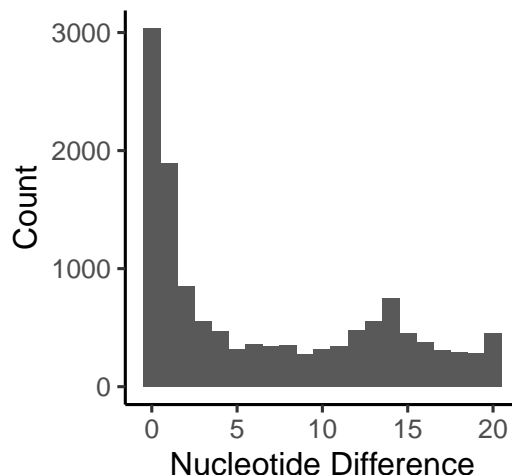
IGHV3-20*03_04

126 sequences assigned
40 (31.7%) exact matches, in which:
25 unique CDR3
4 unique J



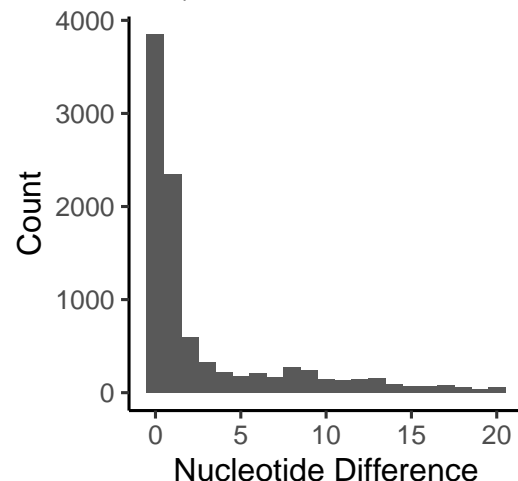
IGHV3-23*01_04

17506 sequences assigned
3035 (17.3%) exact matches, in which:
1778 unique CDR3
6 unique J



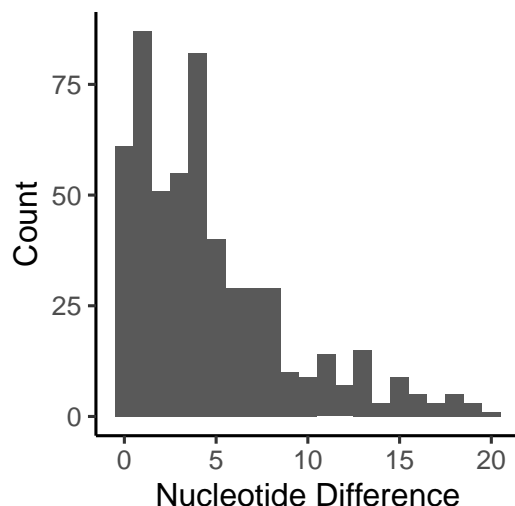
IGHV3-33*01

9932 sequences assigned
3849 (38.8%) exact matches, in which:
2447 unique CDR3
6 unique J



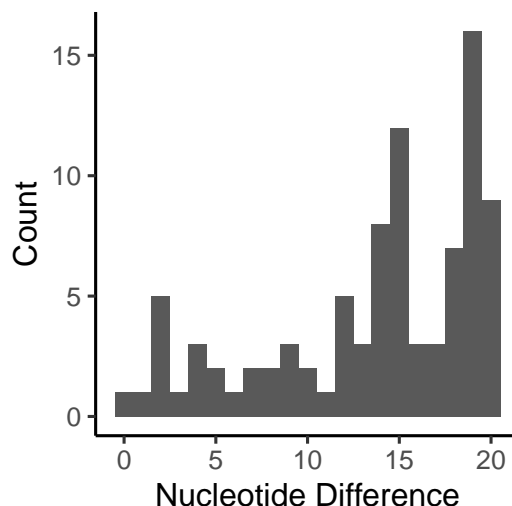
IGHV3-21*04

579 sequences assigned
61 (10.5%) exact matches, in which:
61 unique CDR3
6 unique J



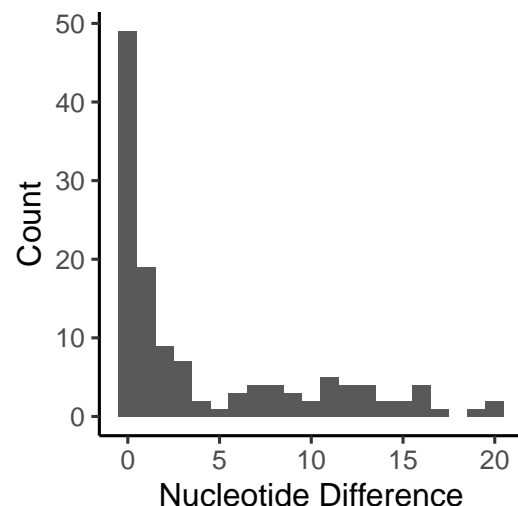
IGHV3-30-5*01

158 sequences assigned
1 (0.6%) exact matches, in which:
1 unique CDR3
1 unique J



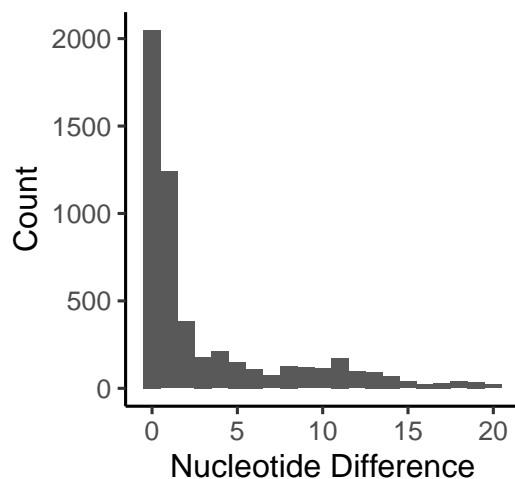
IGHV3-43*01

156 sequences assigned
49 (31.4%) exact matches, in which:
31 unique CDR3
4 unique J



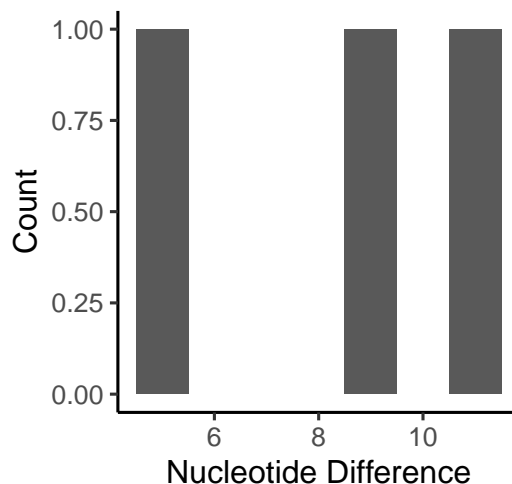
IGHV3-21*01_02

6568 sequences assigned
2049 (31.2%) exact matches, in which:
1293 unique CDR3
6 unique J



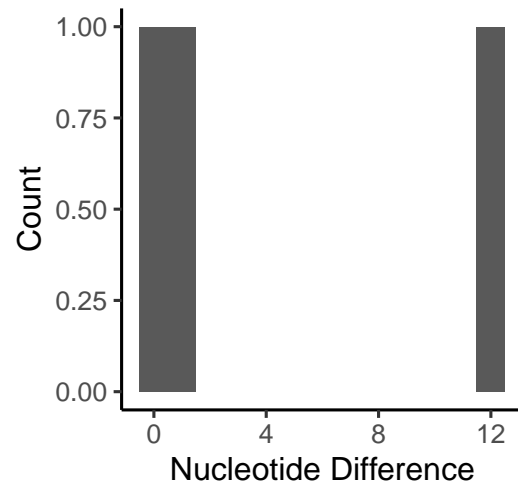
IGHV3-30-5*02

5 sequences assigned
No exact matches.



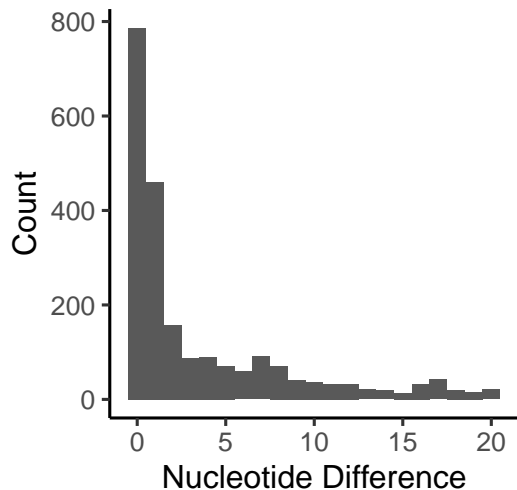
IGHV3-47*02

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



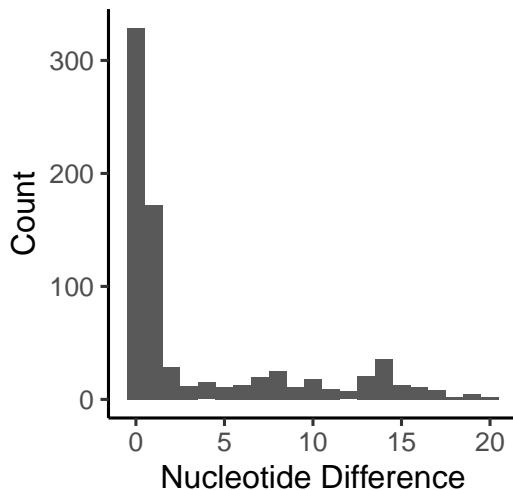
IGHV3-48*01

2322 sequences assigned
787 (33.9%) exact matches, in which:
525 unique CDR3
6 unique J



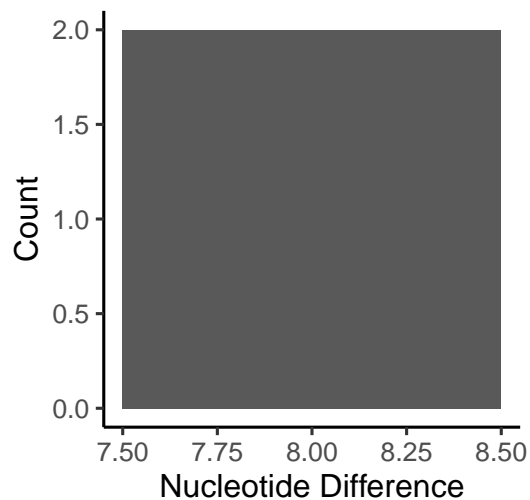
IGHV3-49*04

824 sequences assigned
329 (39.9%) exact matches, in which:
204 unique CDR3
6 unique J



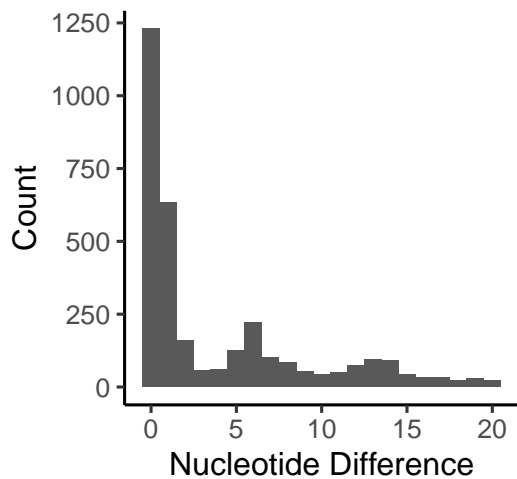
IGHV3-52*01_03

2 sequences assigned
No exact matches.



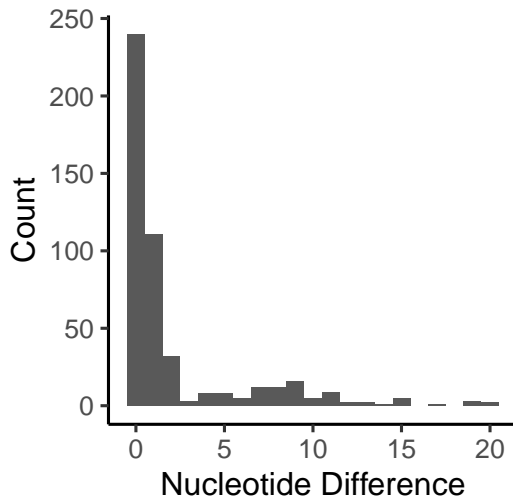
IGHV3-48*03

3452 sequences assigned
1230 (35.6%) exact matches, in which:
753 unique CDR3
6 unique J



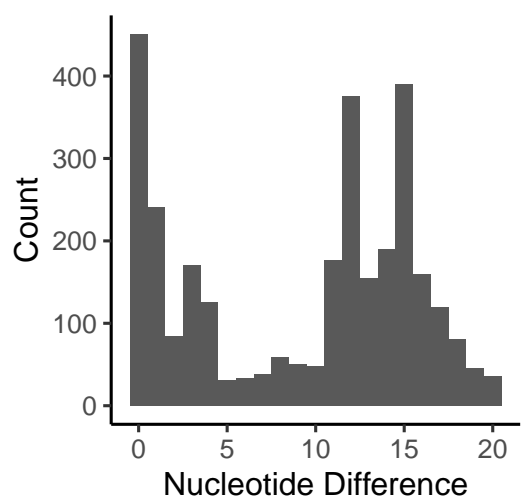
IGHV3-49*03_05

517 sequences assigned
240 (46.4%) exact matches, in which:
152 unique CDR3
6 unique J



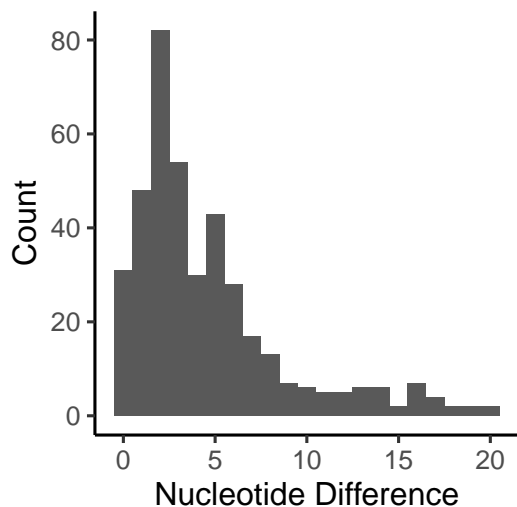
IGHV3-53*01_02

3269 sequences assigned
451 (13.8%) exact matches, in which:
272 unique CDR3
6 unique J



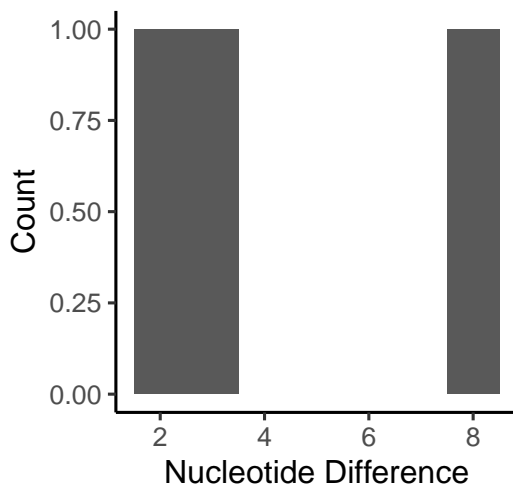
IGHV3-48*04

503 sequences assigned
31 (6.2%) exact matches, in which:
31 unique CDR3
4 unique J



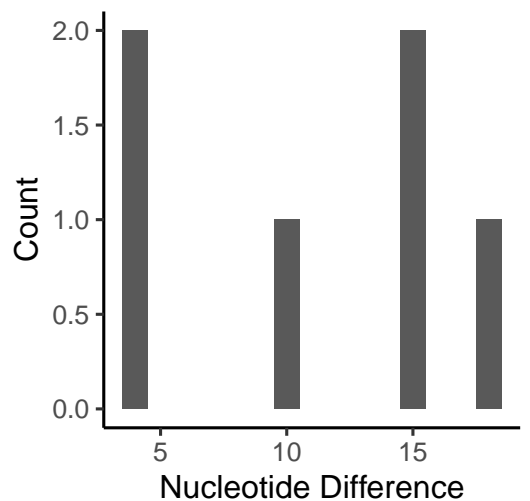
IGHV3-52*02

3 sequences assigned
No exact matches.



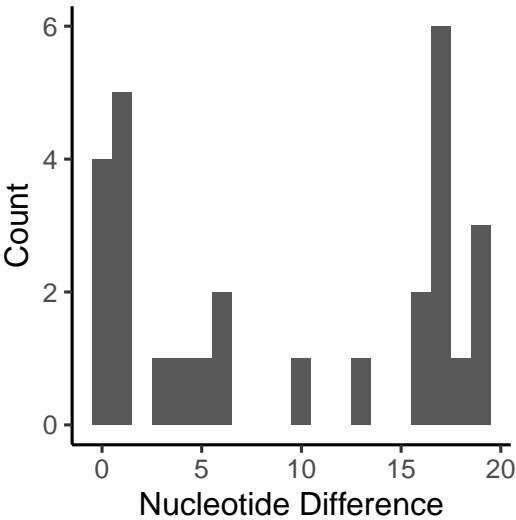
IGHV3-64*04

8 sequences assigned
No exact matches.



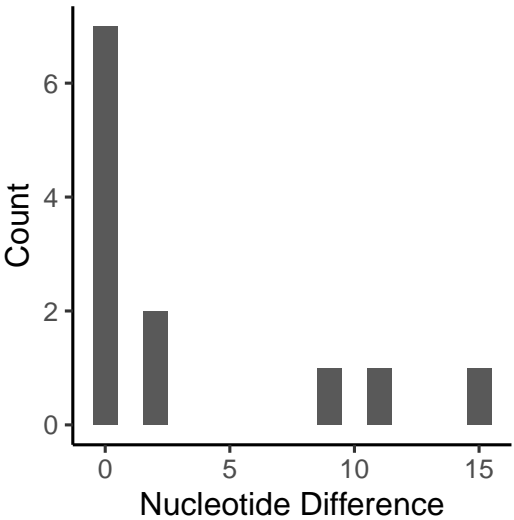
IGHV3-64*02_07

28 sequences assigned
4 (14.3%) exact matches, in which:
2 unique CDR3
1 unique J



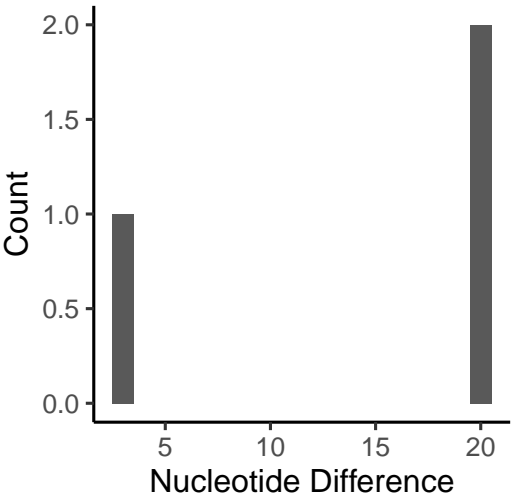
IGHV3-66*03

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



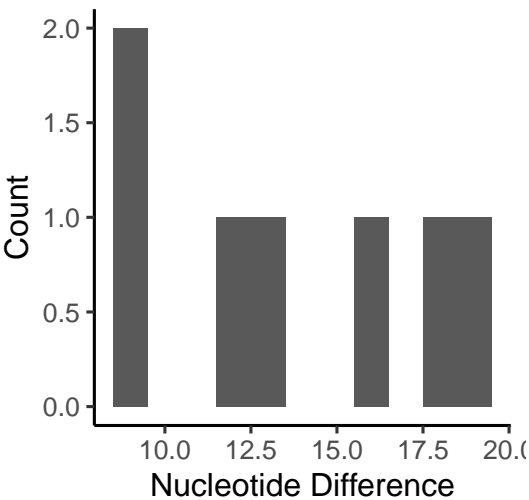
IGHV3-69-1*02

27 sequences assigned
No exact matches.



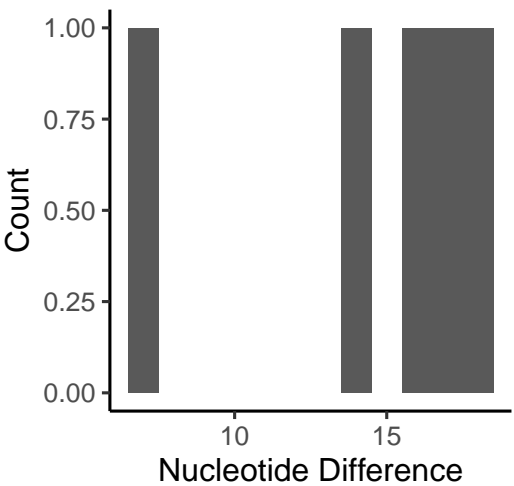
IGHV3-66*01

10 sequences assigned
No exact matches.



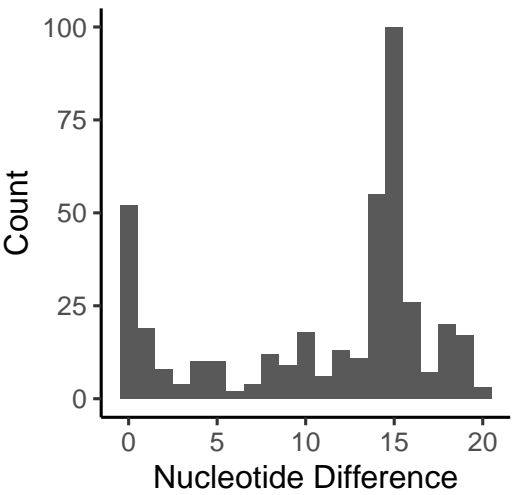
IGHV3-66*04

8 sequences assigned
No exact matches.



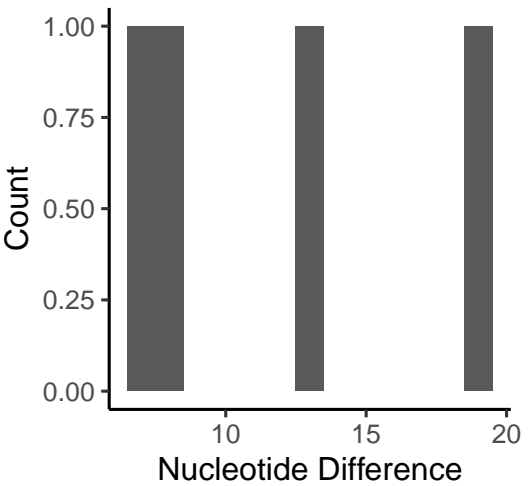
IGHV3-72*01

443 sequences assigned
52 (11.7%) exact matches, in which:
36 unique CDR3
3 unique J



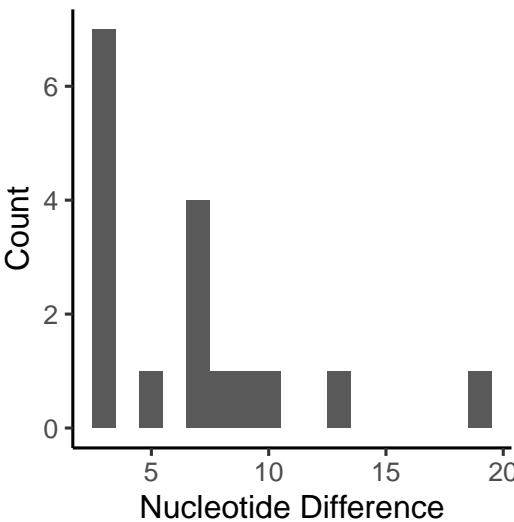
IGHV3-66*02

5 sequences assigned
No exact matches.



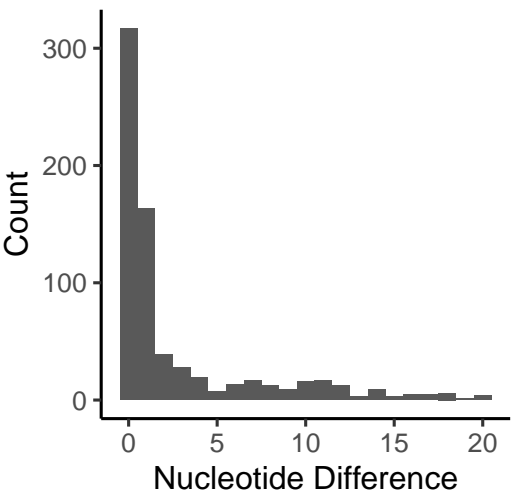
IGHV3-69-1*01

28 sequences assigned
No exact matches.



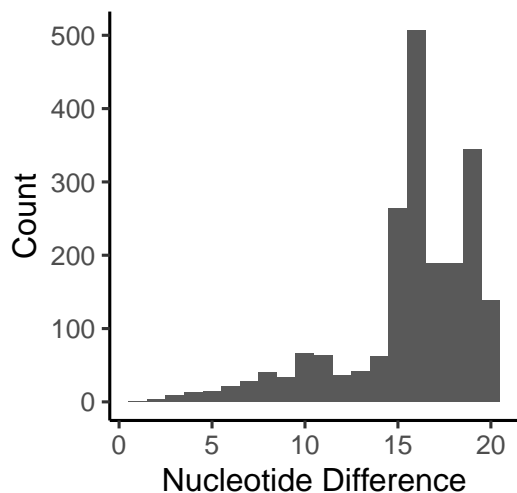
IGHV3-73*01_02

747 sequences assigned
317 (42.4%) exact matches, in which:
201 unique CDR3
6 unique J



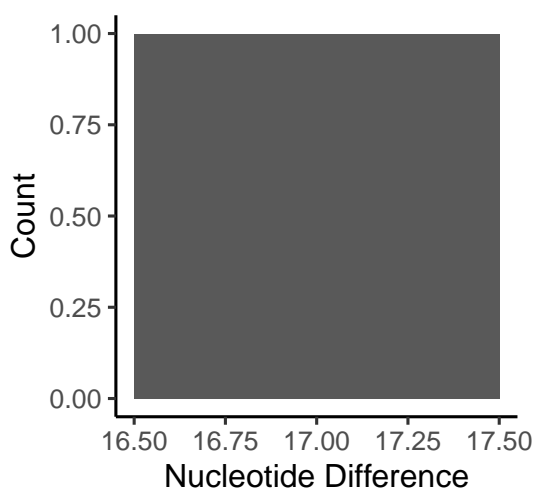
IGHV3-74*03

2650 sequences assigned
No exact matches.



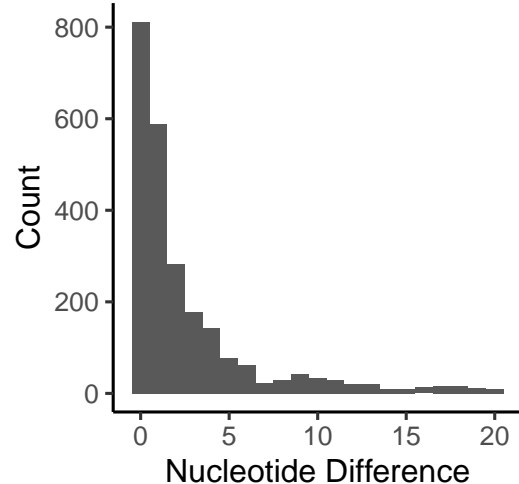
IGHV3-64D*06

86 sequences assigned
No exact matches.



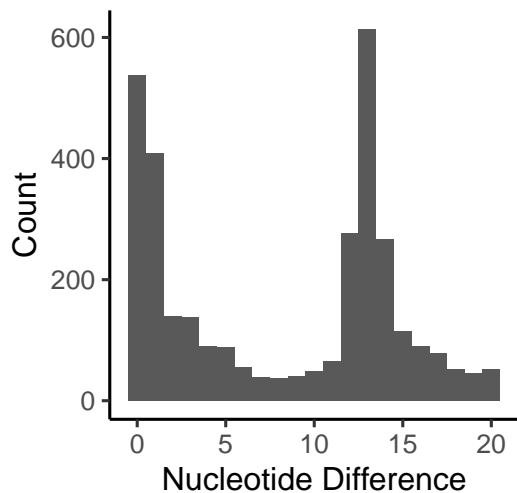
IGHV4-4*02_03

3971 sequences assigned
812 (20.4%) exact matches, in which:
679 unique CDR3
6 unique J



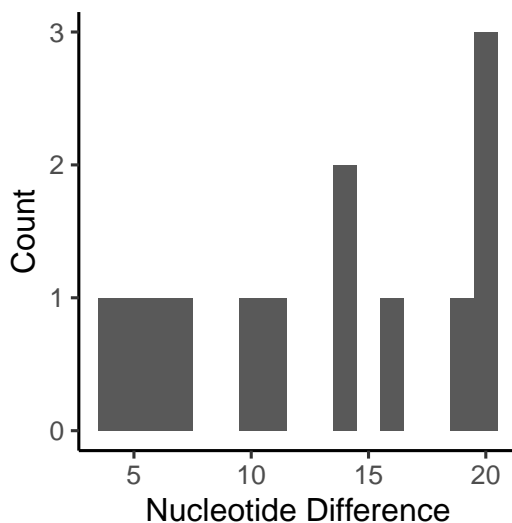
IGHV3-74*01_02

3526 sequences assigned
537 (15.2%) exact matches, in which:
333 unique CDR3
5 unique J



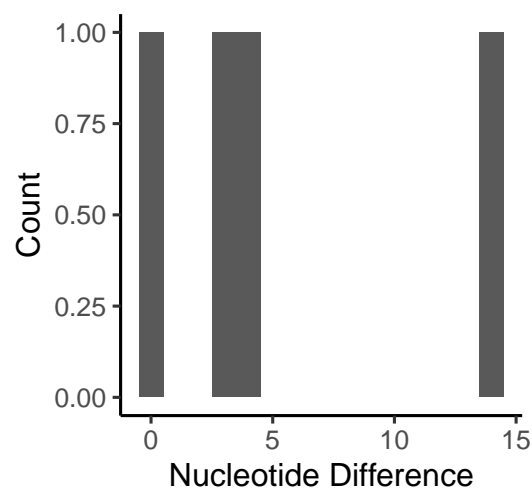
IGHV3-NL1*01

19 sequences assigned
No exact matches.



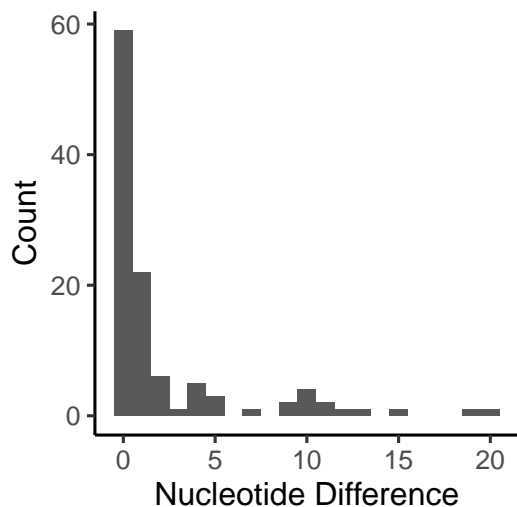
IGHV4-28*03

8 sequences assigned
1 (12.5%) exact matches, in which:
1 unique CDR3
1 unique J



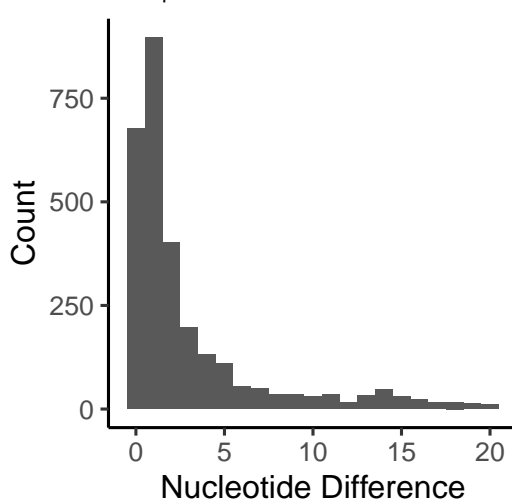
IGHV3-43D*04

112 sequences assigned
59 (52.7%) exact matches, in which:
35 unique CDR3
2 unique J



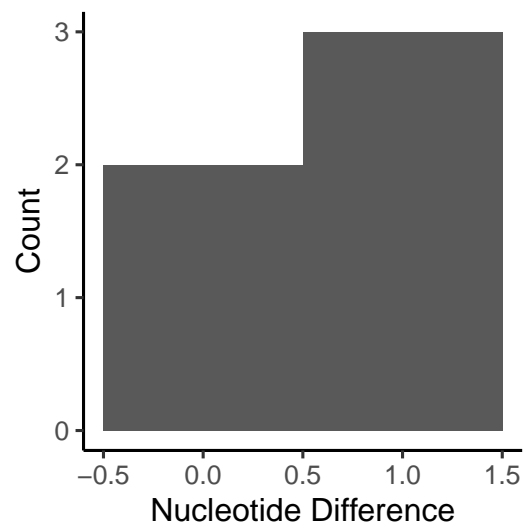
IGHV4-4*07

3226 sequences assigned
676 (21%) exact matches, in which:
590 unique CDR3
6 unique J



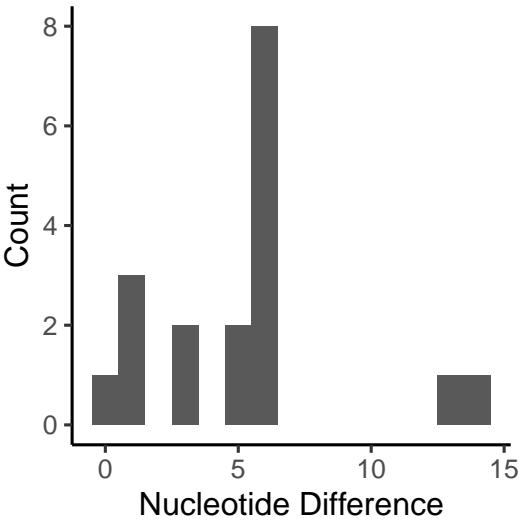
IGHV4-28*01_07

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



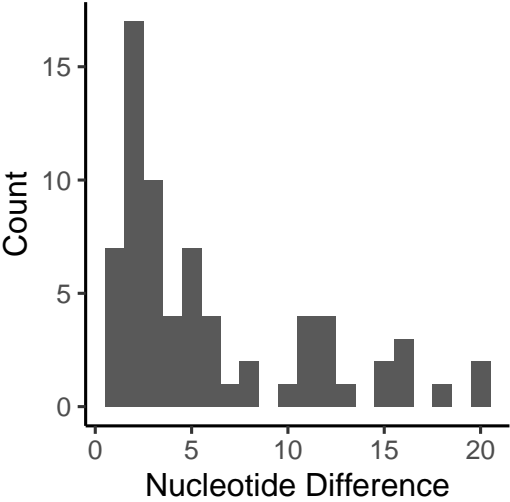
IGHV4-28*02_05

18 sequences assigned
1 (5.6%) exact matches, in which:
1 unique CDR3
1 unique J



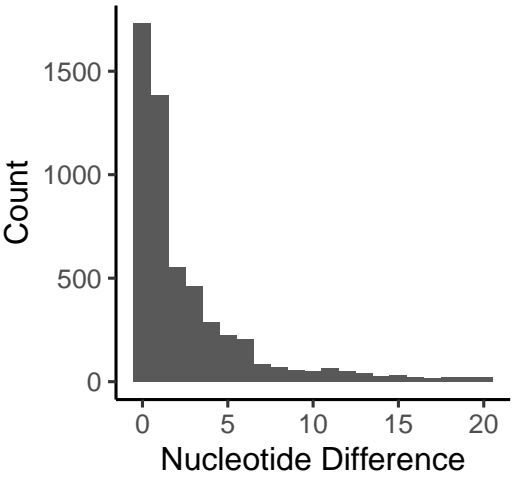
IGHV4-30-2*03

76 sequences assigned
No exact matches.



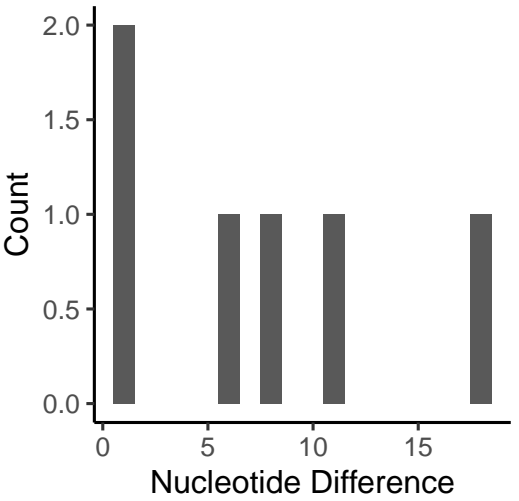
IGHV4-31*02

5657 sequences assigned
1731 (30.6%) exact matches, in which:
1525 unique CDR3
6 unique J



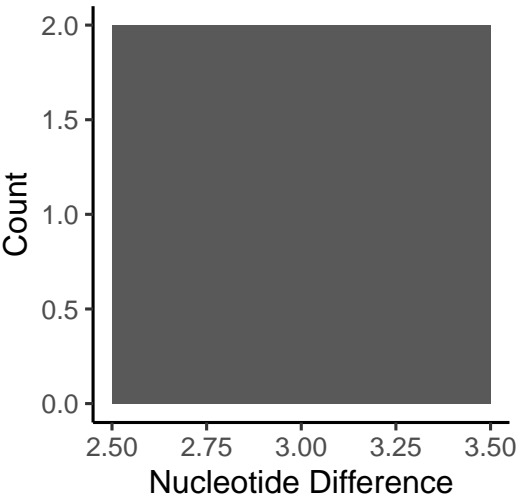
IGHV4-30-4*01

14 sequences assigned
No exact matches.



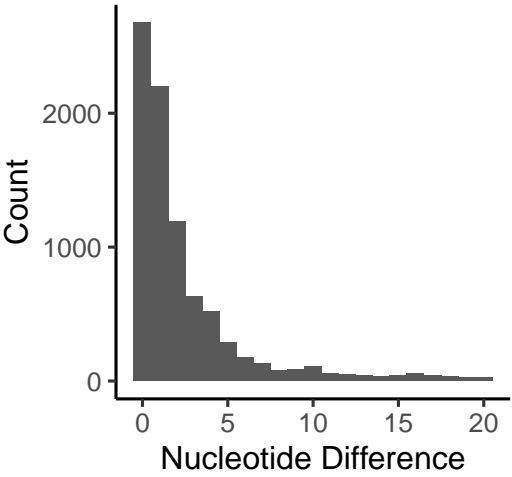
IGHV4-30-2*04

2 sequences assigned
No exact matches.



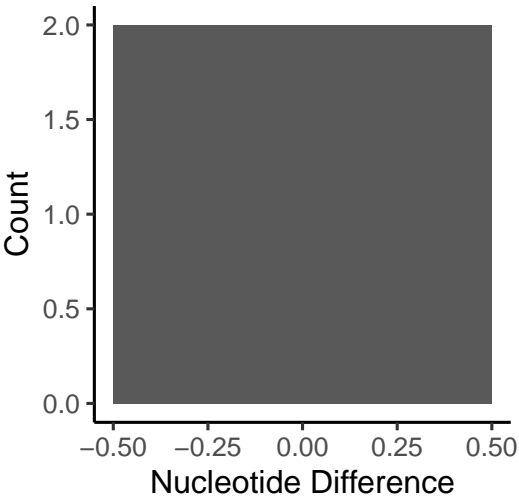
IGHV4-34*01_02

10701 sequences assigned
2676 (25%) exact matches, in which:
2181 unique CDR3
6 unique J



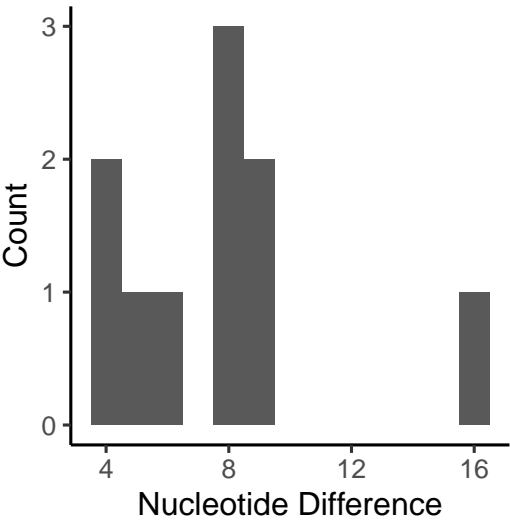
IGHV4-30-2*01

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



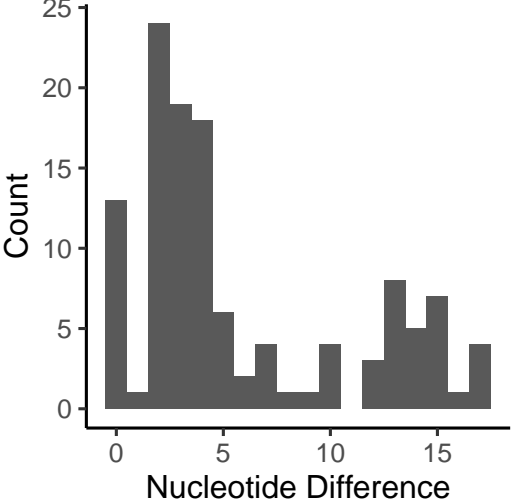
IGHV4-30-4*08

30 sequences assigned
No exact matches.



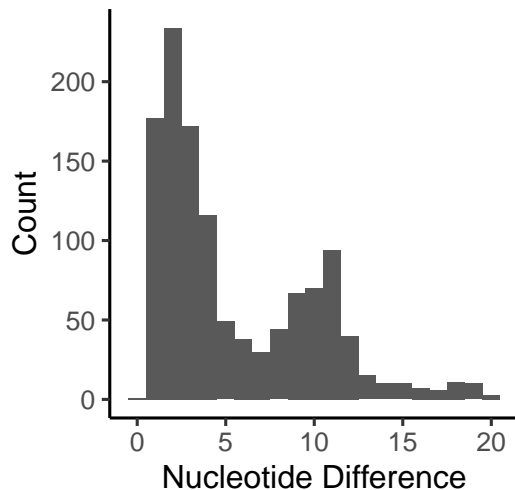
IGHV4-38-2*02

1689 sequences assigned
13 (0.8%) exact matches, in which:
13 unique CDR3
4 unique J



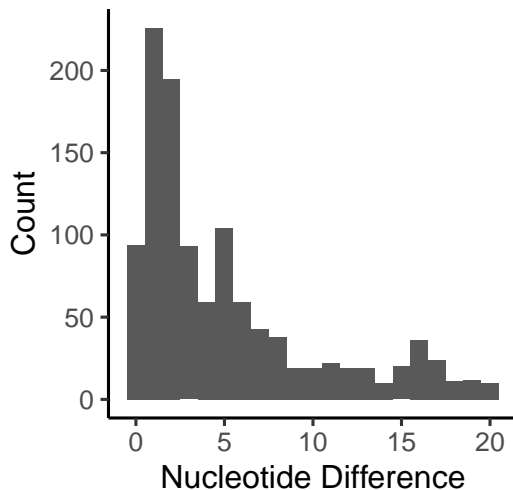
IGHV4–39*07

1319 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



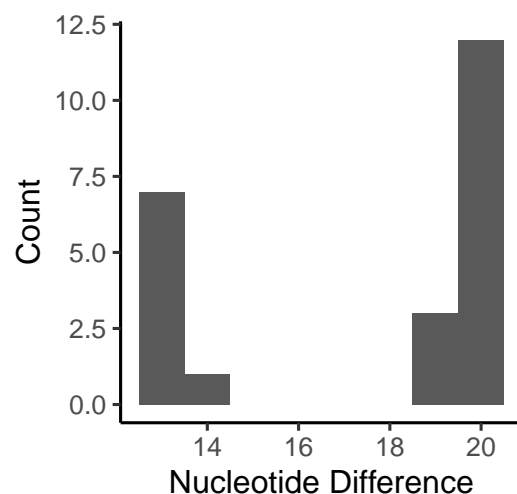
IGHV4–59*12

1274 sequences assigned
94 (7.4%) exact matches, in which:
93 unique CDR3
6 unique J



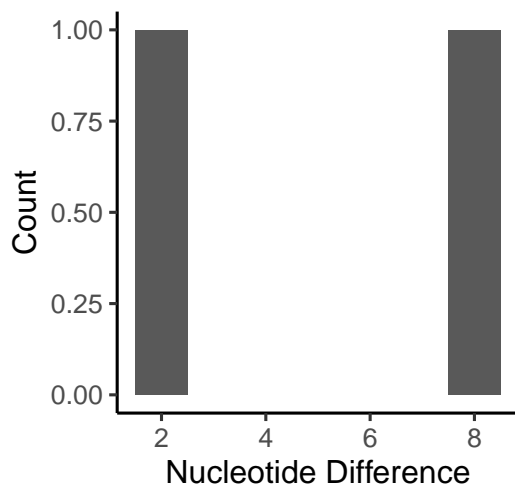
IGHV1/OR15–1*04

287 sequences assigned
No exact matches.



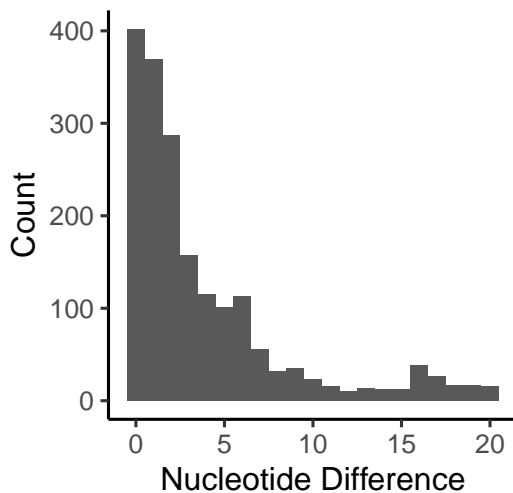
IGHV4–55*09

2 sequences assigned
No exact matches.



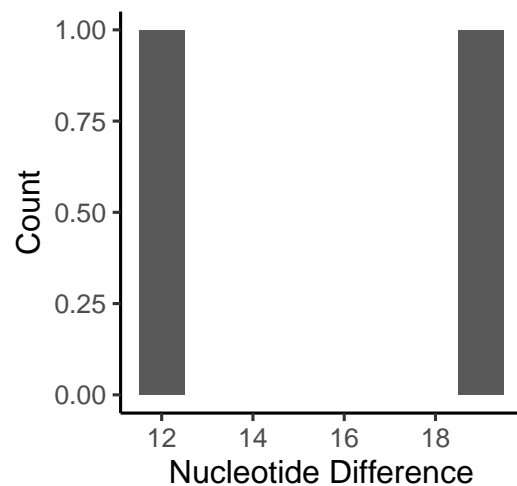
IGHV4–61*01

2864 sequences assigned
402 (14%) exact matches, in which:
365 unique CDR3
6 unique J



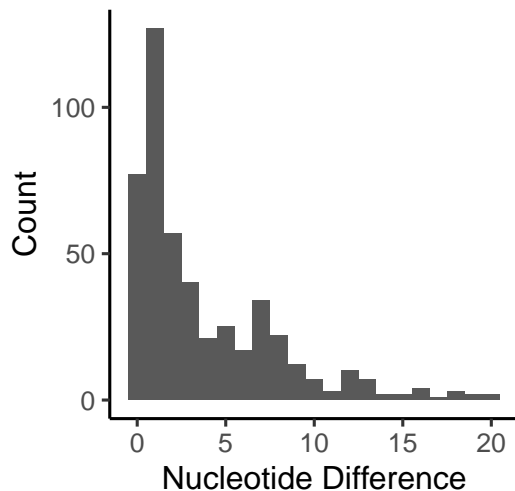
IGHV4/OR15–8*01

35 sequences assigned
No exact matches.



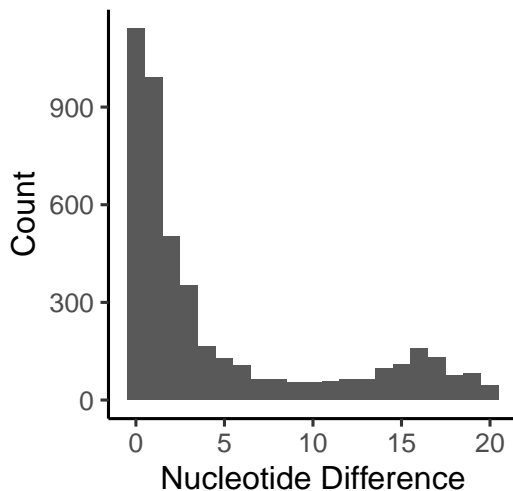
IGHV4–59*08

504 sequences assigned
77 (15.3%) exact matches, in which:
76 unique CDR3
5 unique J



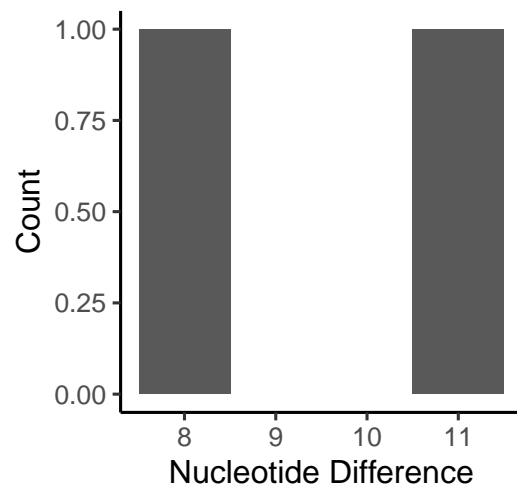
IGHV4–61*02_A234G

5108 sequences assigned
1142 (22.4%) exact matches, in which:
1015 unique CDR3
6 unique J



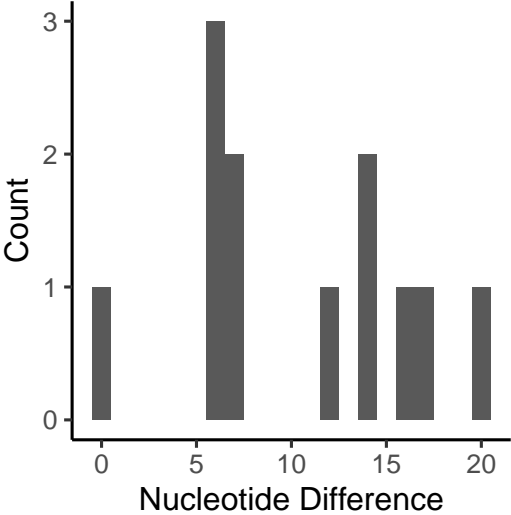
IGHV4/OR15–8*02

7 sequences assigned
No exact matches.



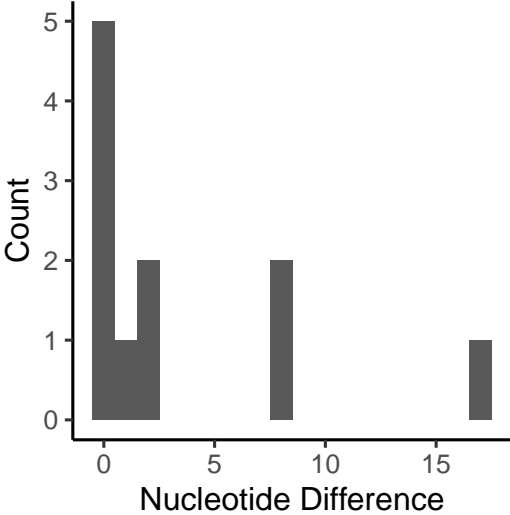
IGHV5-10-1*01_03

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



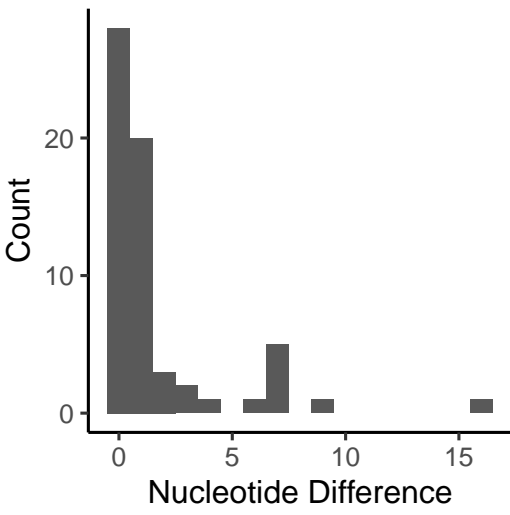
IGHV5-51*07

16 sequences assigned
5 (31.2%) exact matches, in which:
5 unique CDR3
3 unique J



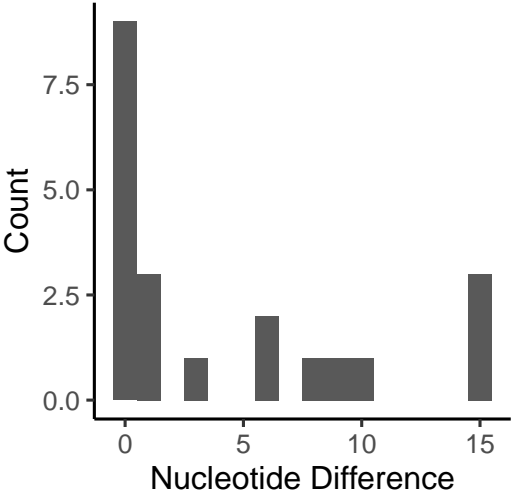
IGHV7-4-1*01

62 sequences assigned
28 (45.2%) exact matches, in which:
24 unique CDR3
3 unique J



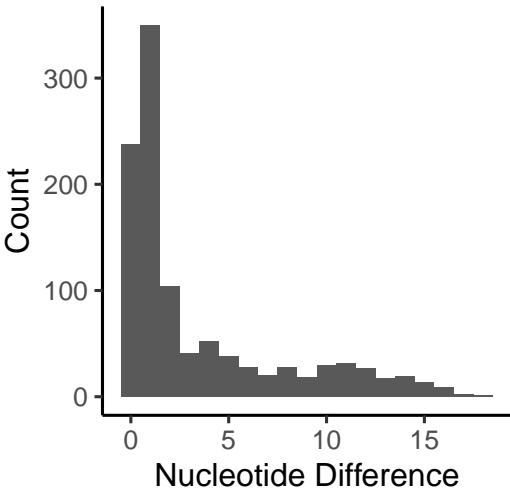
IGHV5-51*04

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



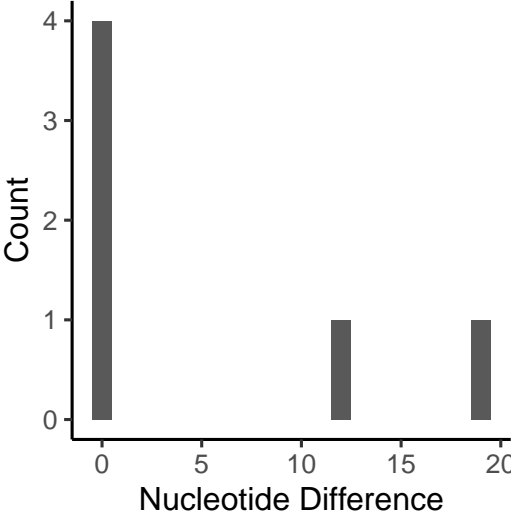
IGHV6-1*01_02

1155 sequences assigned
238 (20.6%) exact matches, in which:
207 unique CDR3
5 unique J



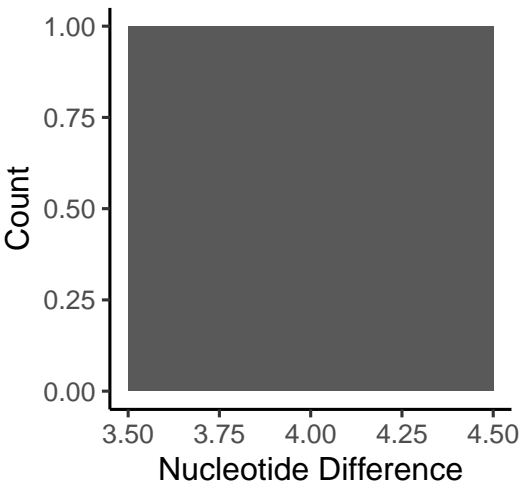
IGHV5-51*06

38 sequences assigned
4 (10.5%) exact matches, in which:
4 unique CDR3
3 unique J



IGHV3/OR16-10*01_03

1 sequences assigned
No exact matches.





Warning – no inferred sequences found.