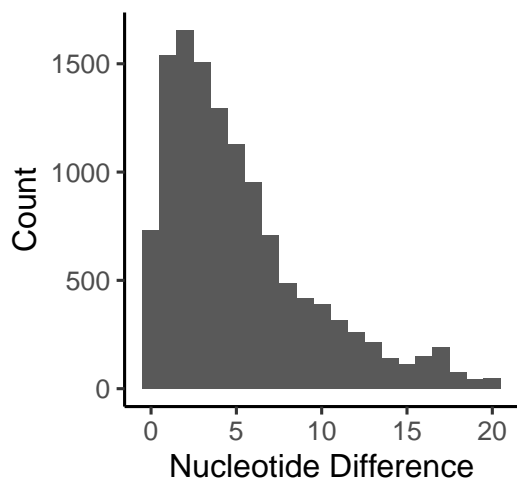


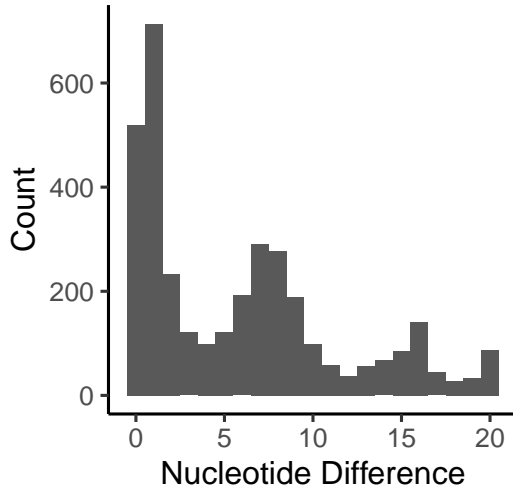
IGHV1-2*04

12570 sequences assigned
731 (5.8%) exact matches, in which:
598 unique CDR3
6 unique J



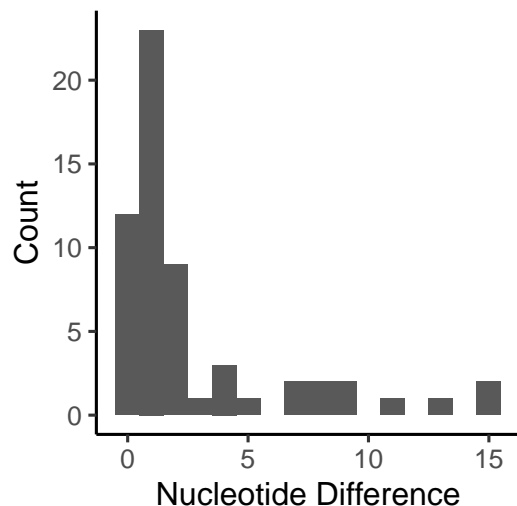
IGHV1-8*01

4012 sequences assigned
519 (12.9%) exact matches, in which:
418 unique CDR3
6 unique J



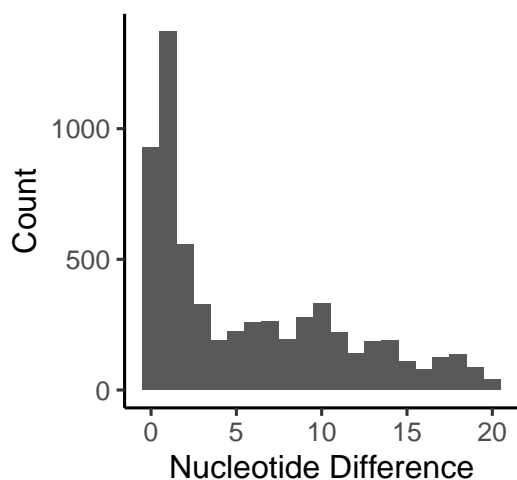
IGHV1-45*02

59 sequences assigned
12 (20.3%) exact matches, in which:
10 unique CDR3
3 unique J



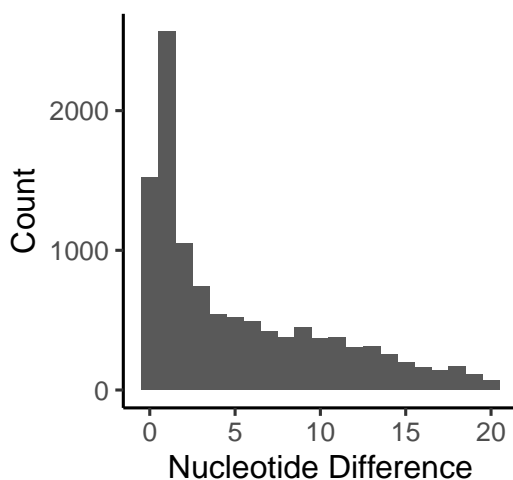
IGHV1-2*06

6536 sequences assigned
927 (14.2%) exact matches, in which:
692 unique CDR3
6 unique J



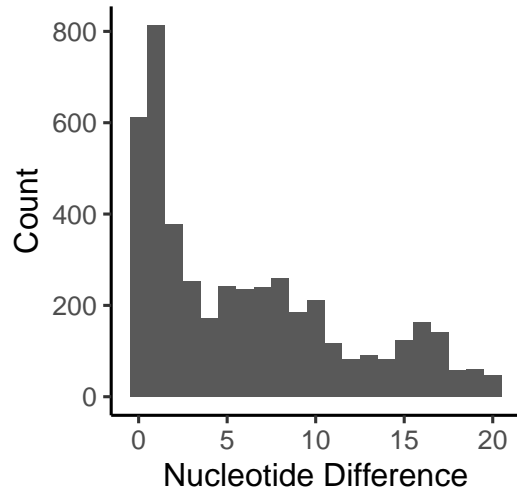
IGHV1-18*01

14354 sequences assigned
1521 (10.6%) exact matches, in which:
1142 unique CDR3
6 unique J



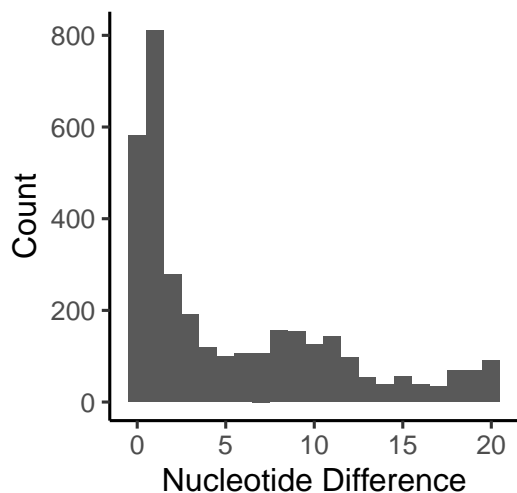
IGHV1-46*01

5078 sequences assigned
611 (12%) exact matches, in which:
502 unique CDR3
6 unique J



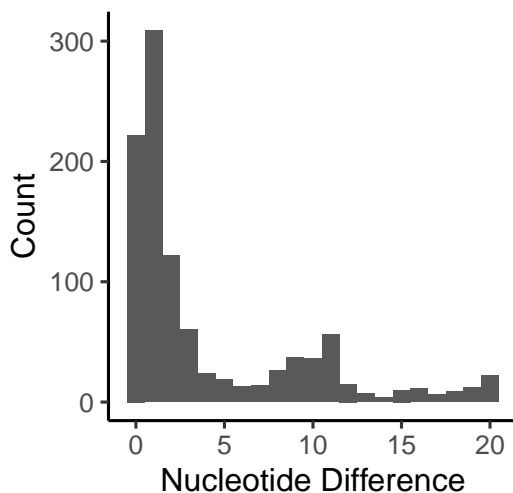
IGHV1-3*01_05

3621 sequences assigned
582 (16.1%) exact matches, in which:
425 unique CDR3
6 unique J



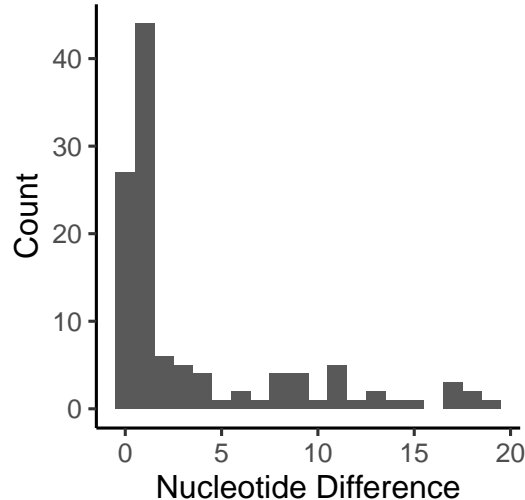
IGHV1-24*01

1084 sequences assigned
222 (20.5%) exact matches, in which:
162 unique CDR3
6 unique J



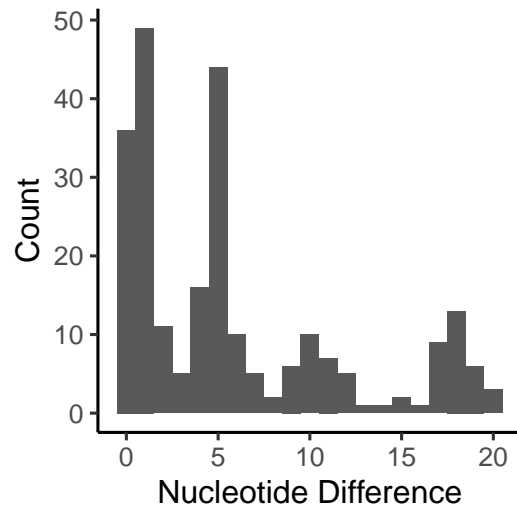
IGHV1-58*02

116 sequences assigned
27 (23.3%) exact matches, in which:
22 unique CDR3
3 unique J



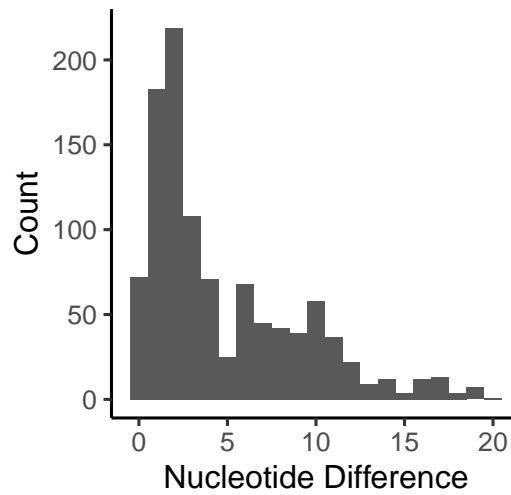
IGHV1-58*01_03

249 sequences assigned
36 (14.5%) exact matches, in which:
27 unique CDR3
5 unique J



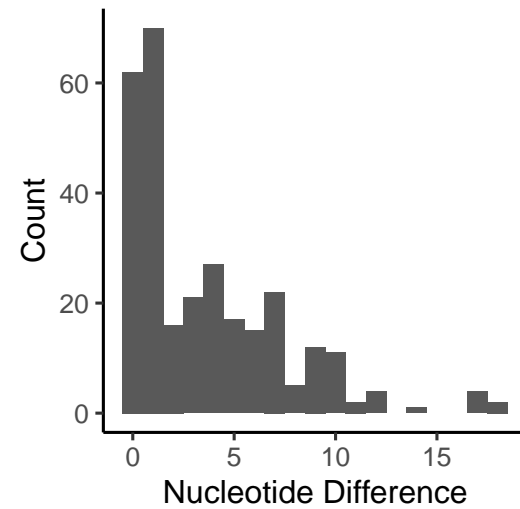
IGHV1-69*04_09

1176 sequences assigned
72 (6.1%) exact matches, in which:
68 unique CDR3
5 unique J



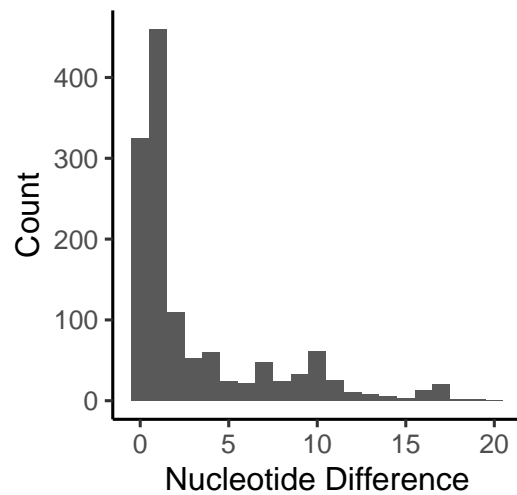
IGHV2-26*01

292 sequences assigned
62 (21.2%) exact matches, in which:
46 unique CDR3
4 unique J



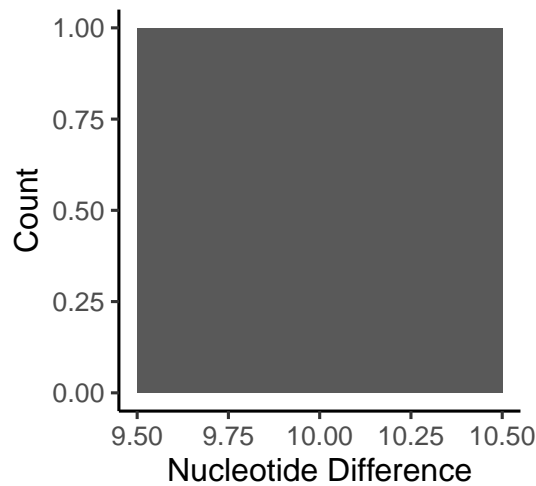
IGHV1-69*02

1409 sequences assigned
325 (23.1%) exact matches, in which:
258 unique CDR3
6 unique J



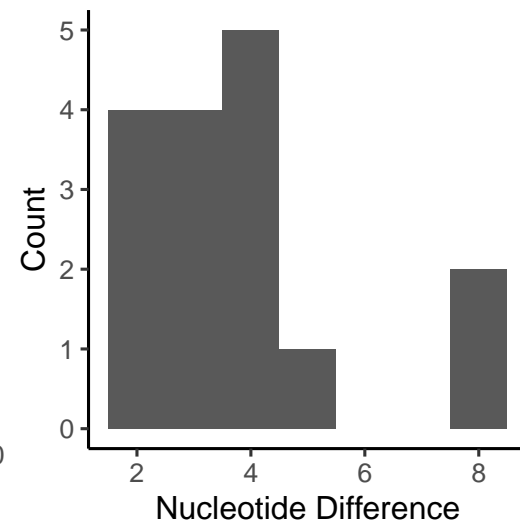
IGHV1-NL1*01

2 sequences assigned
No exact matches.



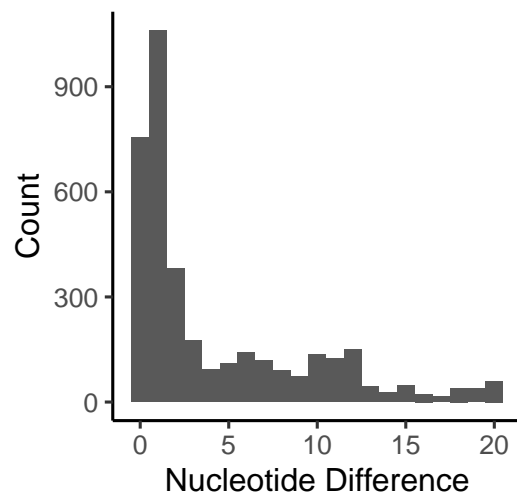
IGHV2-70*12

16 sequences assigned
No exact matches.



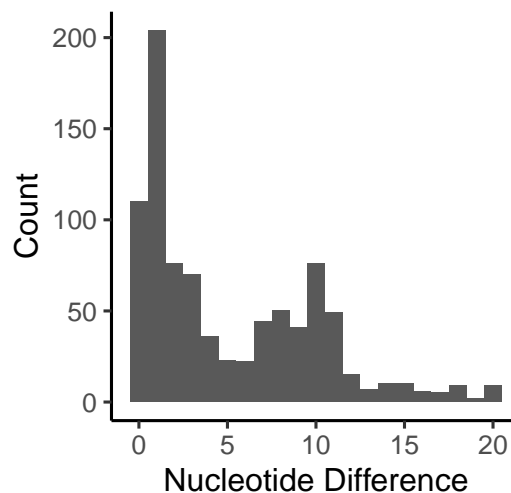
IGHV1-69*01_12_13

3861 sequences assigned
754 (19.5%) exact matches, in which:
614 unique CDR3
6 unique J



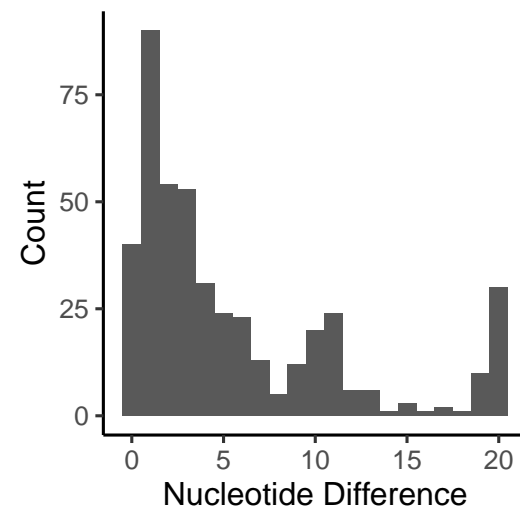
IGHV2-5*02

884 sequences assigned
110 (12.4%) exact matches, in which:
82 unique CDR3
5 unique J



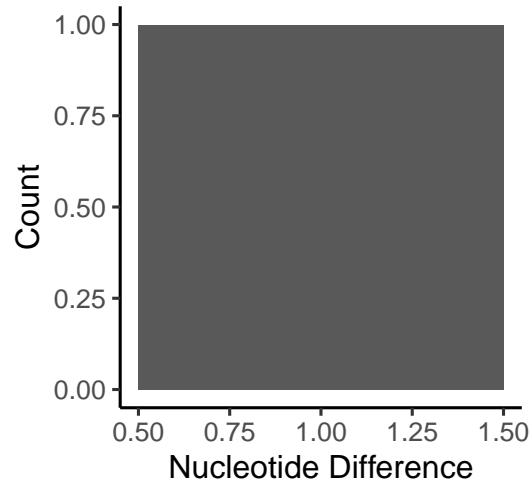
IGHV2-70*11_15

541 sequences assigned
40 (7.4%) exact matches, in which:
33 unique CDR3
4 unique J



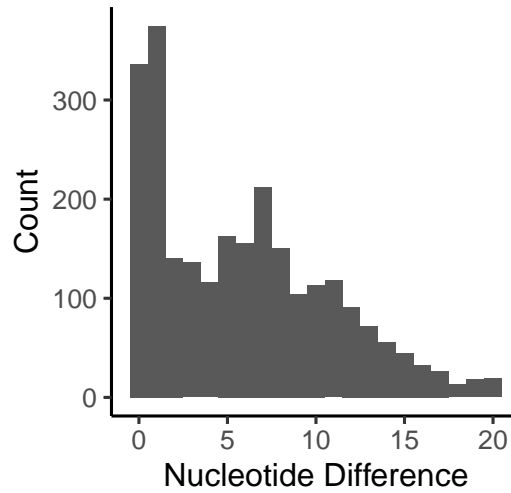
IGHV2-70D*04

1 sequences assigned
No exact matches.



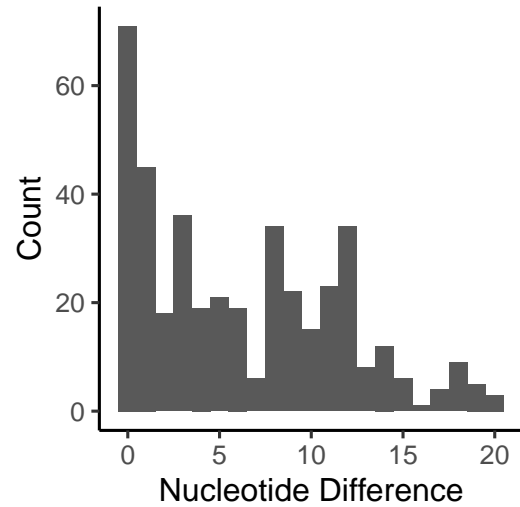
IGHV3-9*01

3094 sequences assigned
336 (10.9%) exact matches, in which:
198 unique CDR3
6 unique J



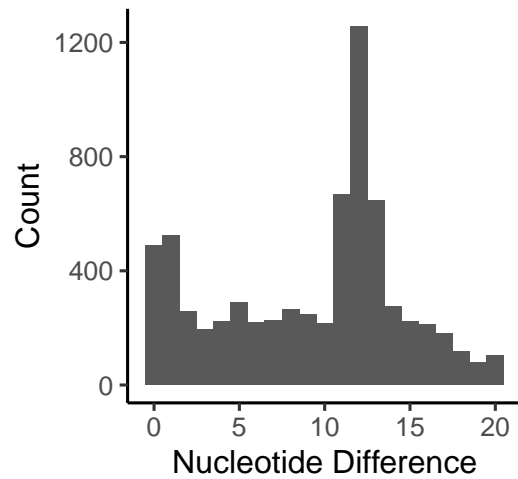
IGHV3-11*06

432 sequences assigned
71 (16.4%) exact matches, in which:
54 unique CDR3
4 unique J



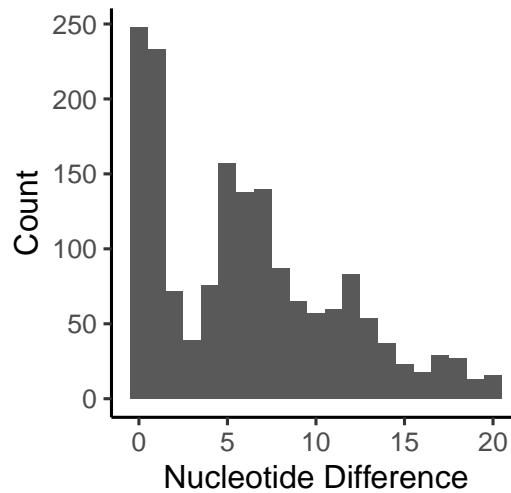
IGHV3-7*01

9003 sequences assigned
489 (5.4%) exact matches, in which:
357 unique CDR3
6 unique J



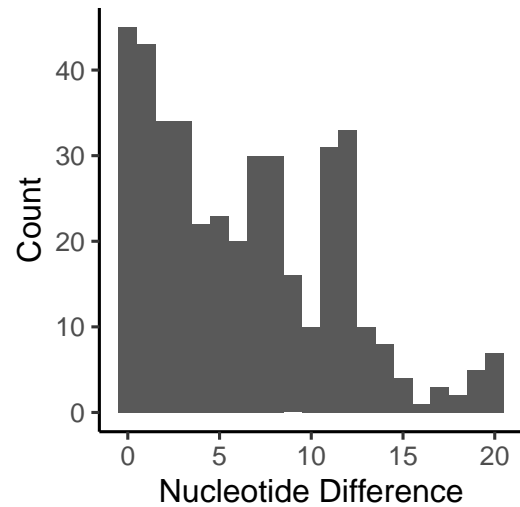
IGHV3-11*01

1848 sequences assigned
248 (13.4%) exact matches, in which:
168 unique CDR3
6 unique J



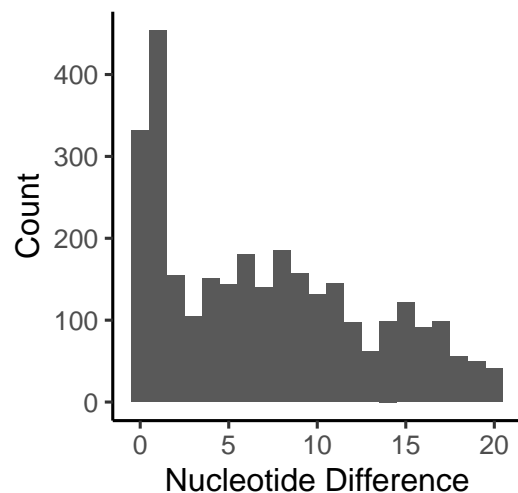
IGHV3-13*01

474 sequences assigned
45 (9.5%) exact matches, in which:
30 unique CDR3
5 unique J



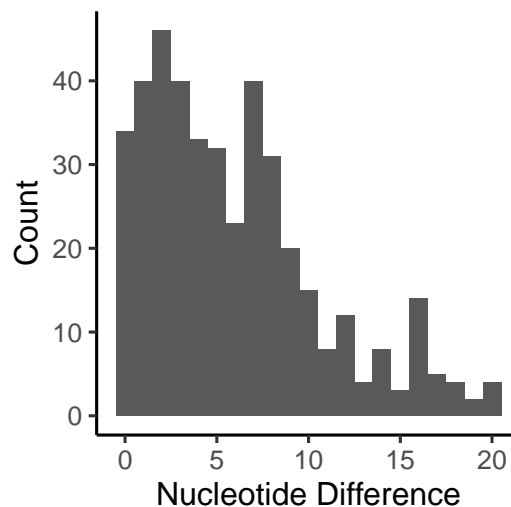
IGHV3-7*03

3441 sequences assigned
332 (9.6%) exact matches, in which:
218 unique CDR3
6 unique J



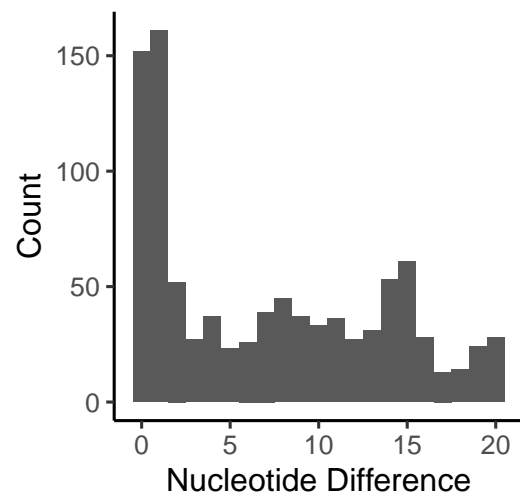
IGHV3-11*04

422 sequences assigned
34 (8.1%) exact matches, in which:
33 unique CDR3
5 unique J



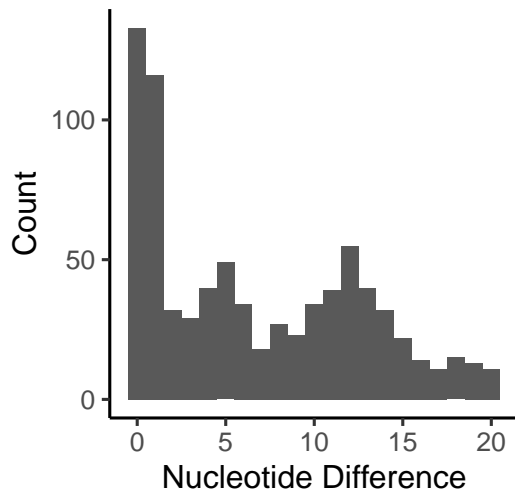
IGHV3-15*07

1094 sequences assigned
152 (13.9%) exact matches, in which:
91 unique CDR3
6 unique J



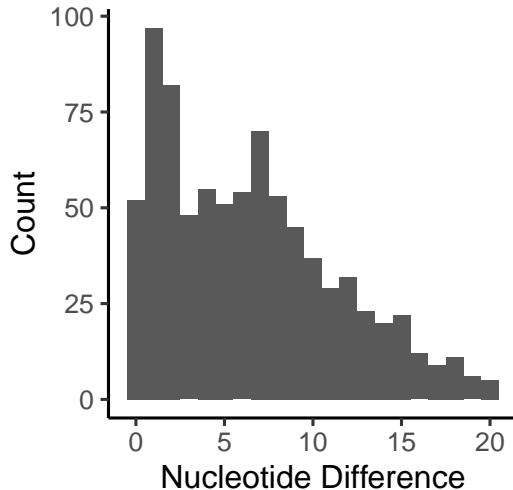
IGHV3–15*01_02

959 sequences assigned
133 (13.9%) exact matches, in which:
83 unique CDR3
5 unique J



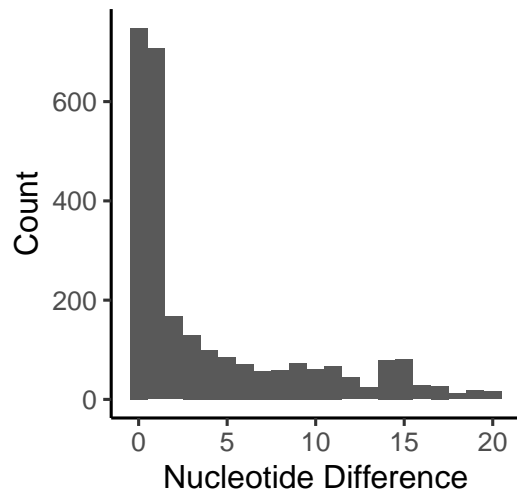
IGHV3–21*04

876 sequences assigned
52 (5.9%) exact matches, in which:
49 unique CDR3
5 unique J



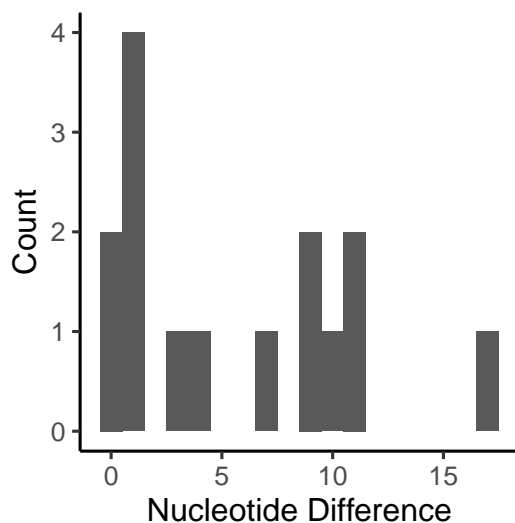
IGHV3–30*01

2715 sequences assigned
749 (27.6%) exact matches, in which:
491 unique CDR3
6 unique J



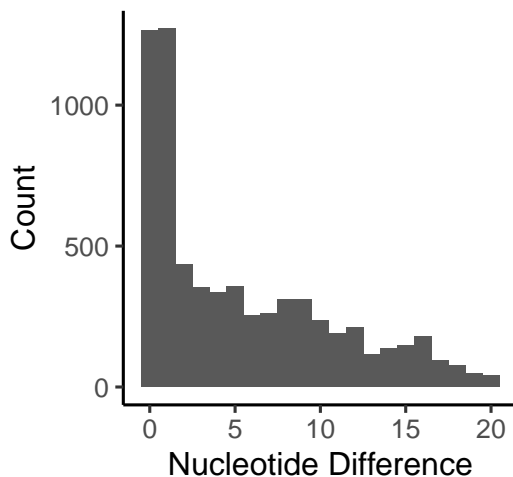
IGHV3–19*01

15 sequences assigned
2 (13.3%) exact matches, in which:
1 unique CDR3
1 unique J



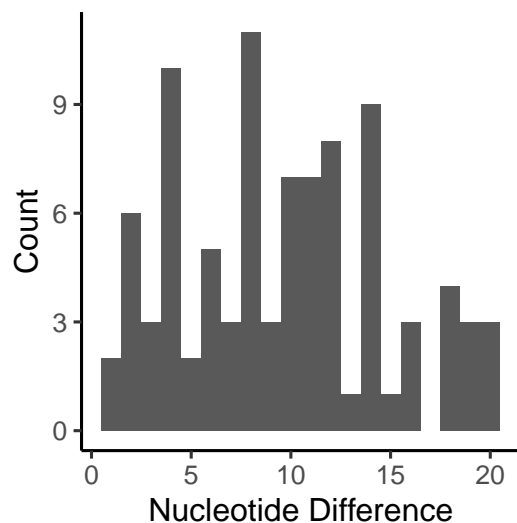
IGHV3–21*01_02

6897 sequences assigned
1266 (18.4%) exact matches, in which:
799 unique CDR3
6 unique J



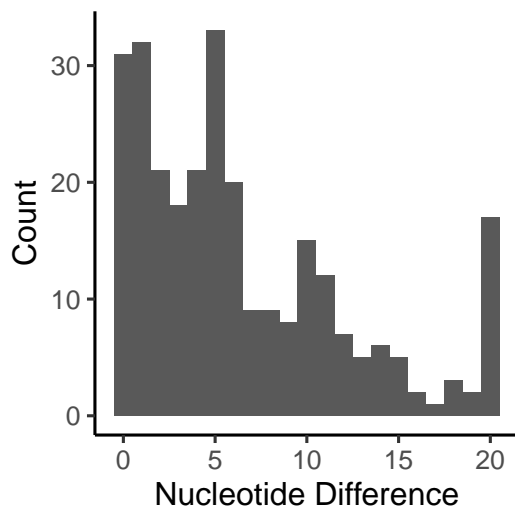
IGHV3–30–5*01

134 sequences assigned
No exact matches.



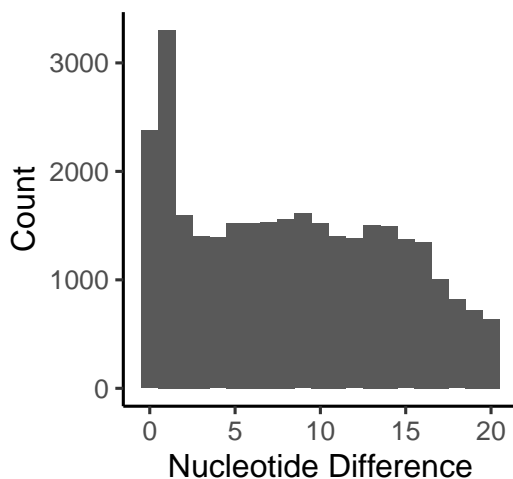
IGHV3–20*03_04

321 sequences assigned
31 (9.7%) exact matches, in which:
19 unique CDR3
3 unique J



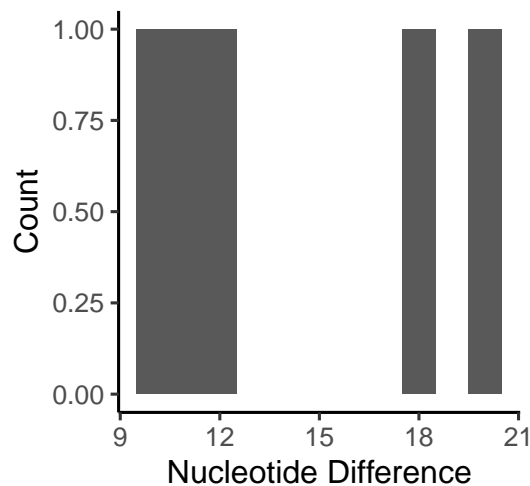
IGHV3–23*01_04

35416 sequences assigned
2377 (6.7%) exact matches, in which:
1386 unique CDR3
6 unique J



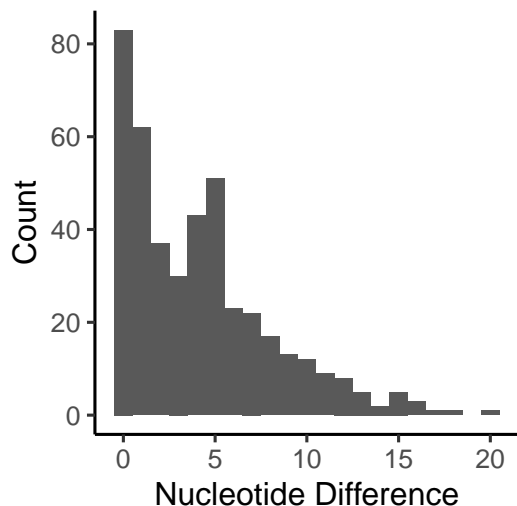
IGHV3–30–5*02

12 sequences assigned
No exact matches.



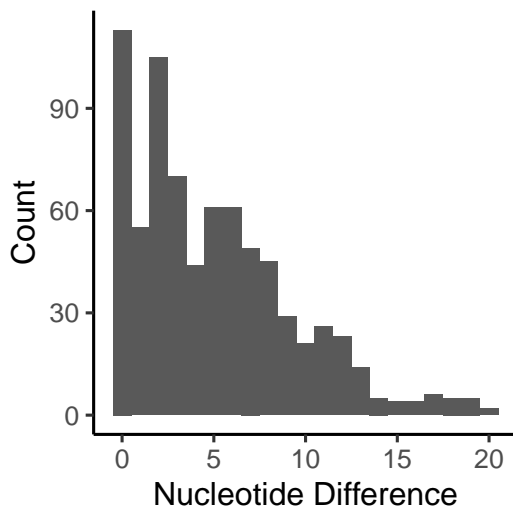
IGHV3-30*07

433 sequences assigned
83 (19.2%) exact matches, in which:
78 unique CDR3
5 unique J



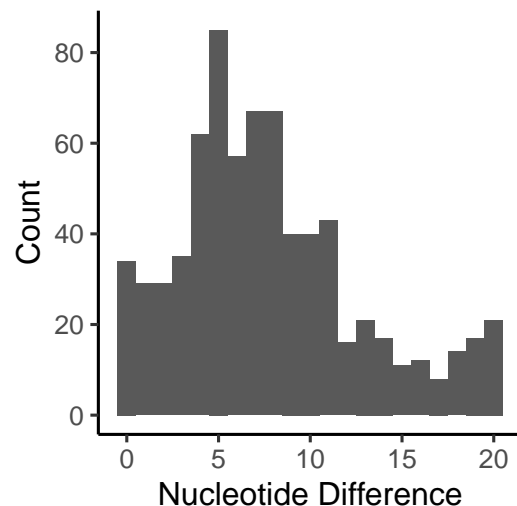
IGHV3-33*08

781 sequences assigned
113 (14.5%) exact matches, in which:
83 unique CDR3
5 unique J



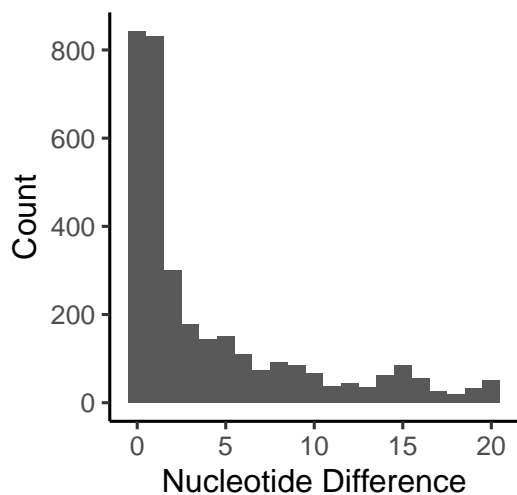
IGHV3-48*01

768 sequences assigned
34 (4.4%) exact matches, in which:
34 unique CDR3
5 unique J



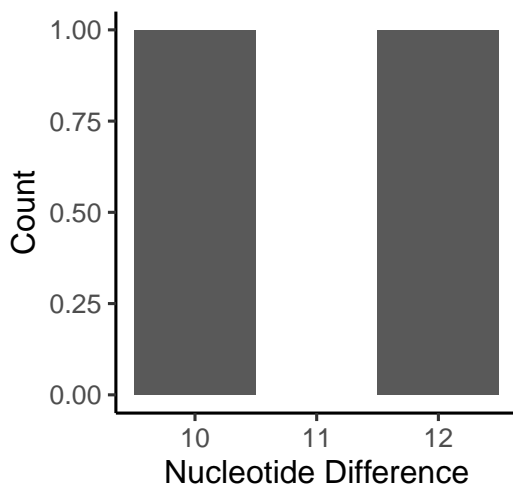
IGHV3-33*01

3520 sequences assigned
843 (23.9%) exact matches, in which:
530 unique CDR3
6 unique J



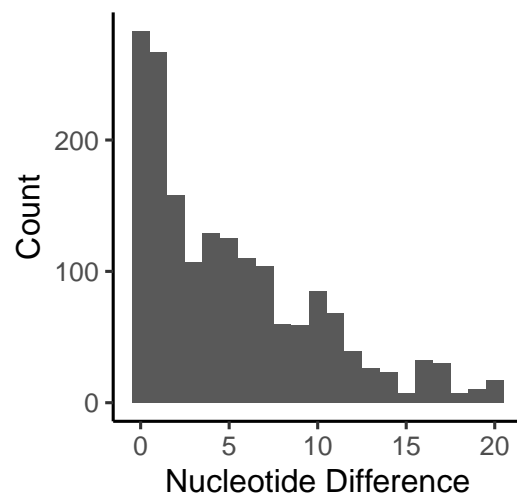
IGHV3-35*01

2 sequences assigned
No exact matches.



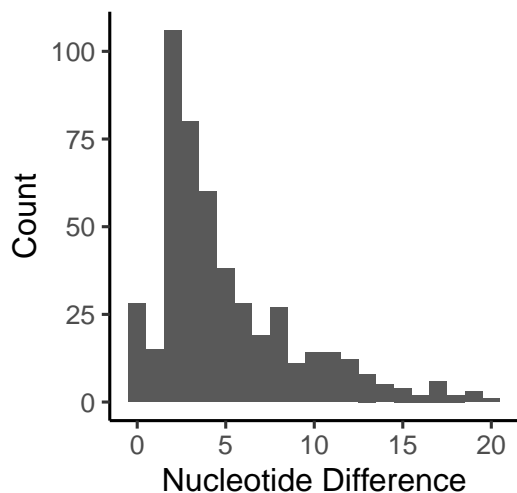
IGHV3-48*02

1887 sequences assigned
283 (15%) exact matches, in which:
175 unique CDR3
5 unique J



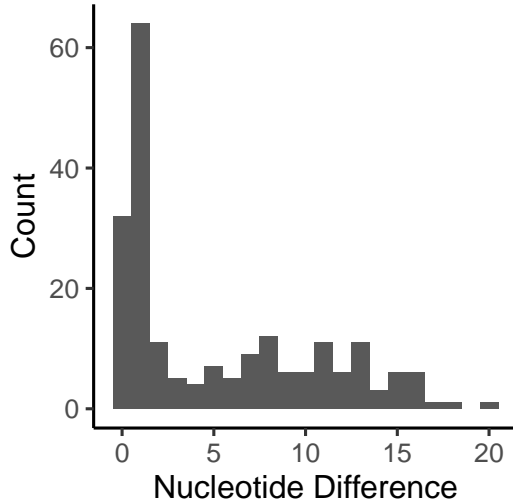
IGHV3-33*06

525 sequences assigned
28 (5.3%) exact matches, in which:
26 unique CDR3
4 unique J



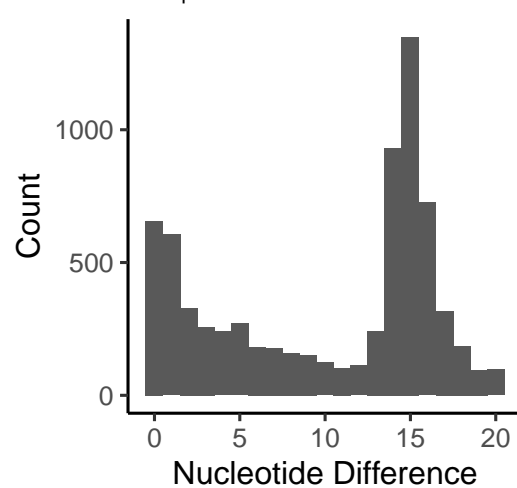
IGHV3-43*01

219 sequences assigned
32 (14.6%) exact matches, in which:
20 unique CDR3
3 unique J



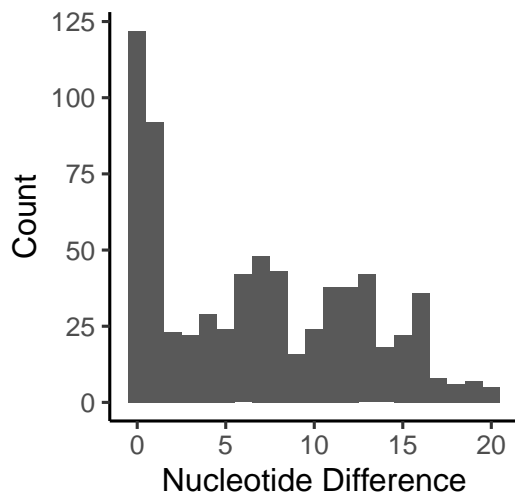
IGHV3-48*04

7655 sequences assigned
656 (8.6%) exact matches, in which:
434 unique CDR3
5 unique J



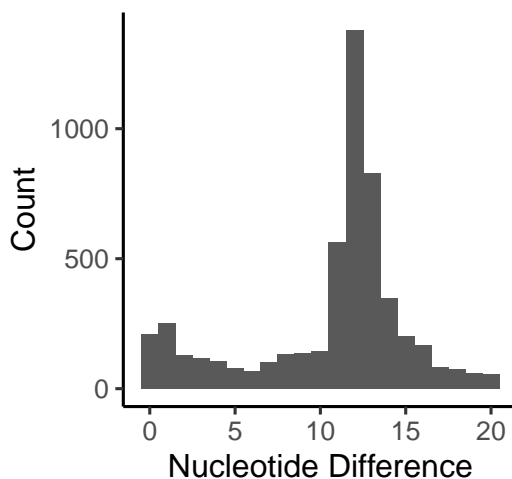
IGHV3-49*03_05

729 sequences assigned
122 (16.7%) exact matches, in which:
68 unique CDR3
4 unique J



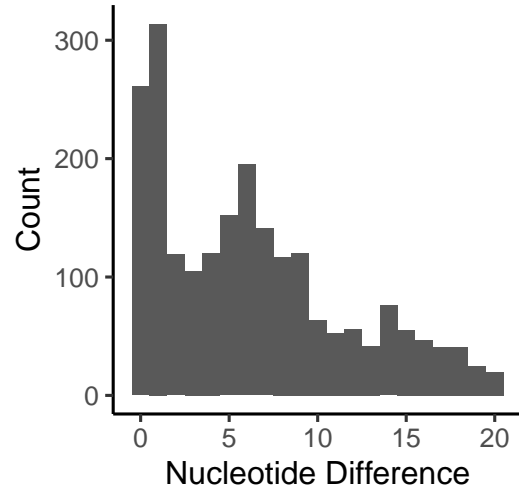
IGHV3-53*01_02

5626 sequences assigned
210 (3.7%) exact matches, in which:
137 unique CDR3
4 unique J



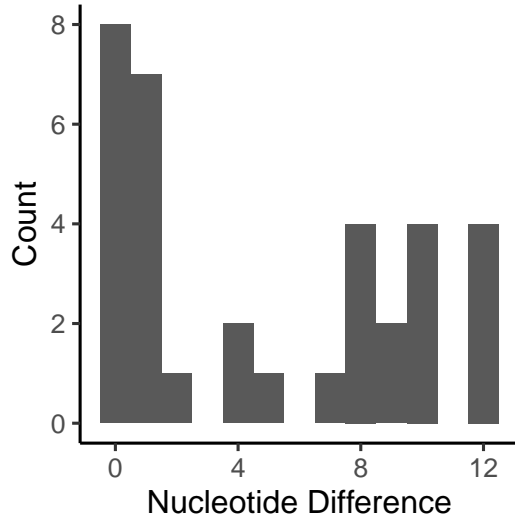
IGHV3-66*01

2290 sequences assigned
261 (11.4%) exact matches, in which:
162 unique CDR3
6 unique J



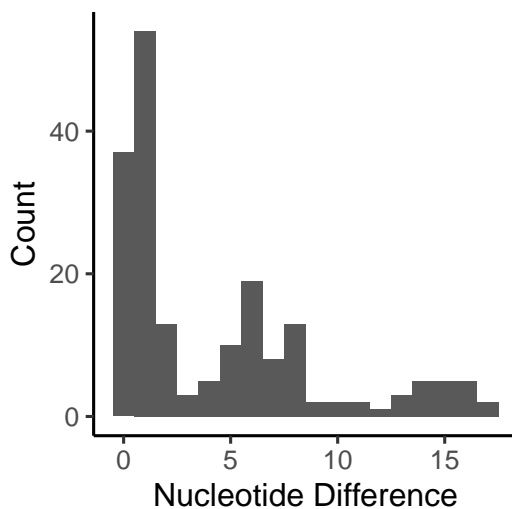
IGHV3-52*01_03

34 sequences assigned
8 (23.5%) exact matches, in which:
6 unique CDR3
3 unique J



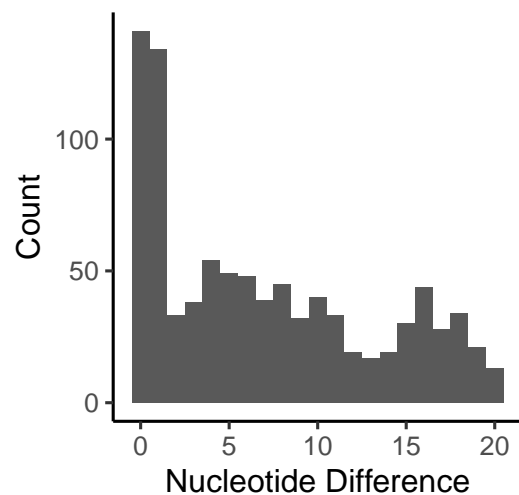
IGHV3-64*01

201 sequences assigned
37 (18.4%) exact matches, in which:
24 unique CDR3
4 unique J



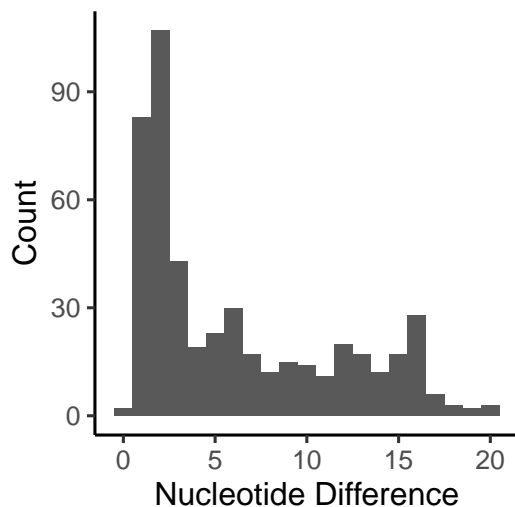
IGHV3-66*02

1074 sequences assigned
141 (13.1%) exact matches, in which:
100 unique CDR3
6 unique J



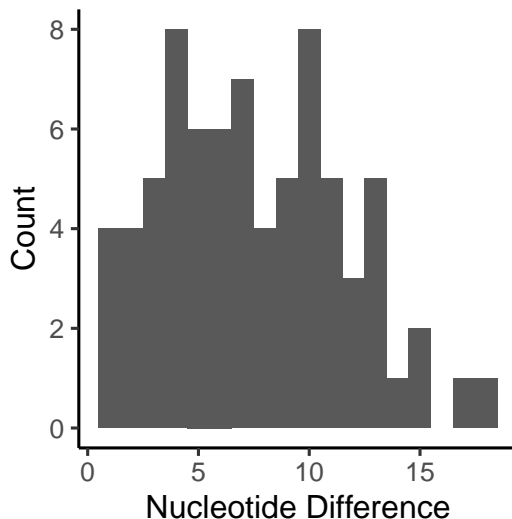
IGHV3-53*05

507 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
2 unique J



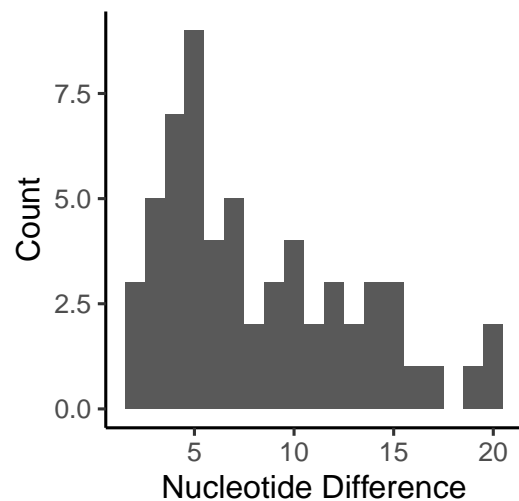
IGHV3-64*04

80 sequences assigned
No exact matches.



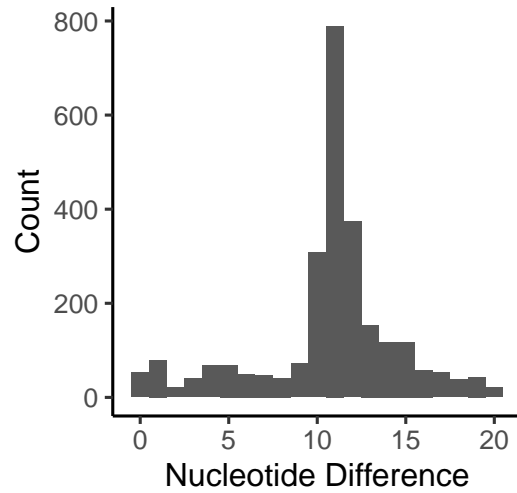
IGHV3-69-1*01

75 sequences assigned
No exact matches.



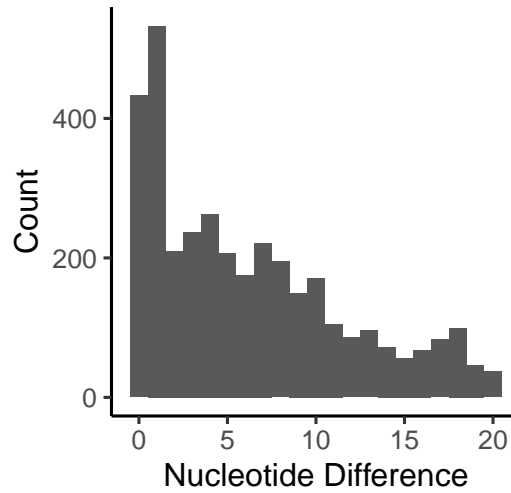
IGHV3-72*01

2730 sequences assigned
53 (1.9%) exact matches, in which:
32 unique CDR3
5 unique J



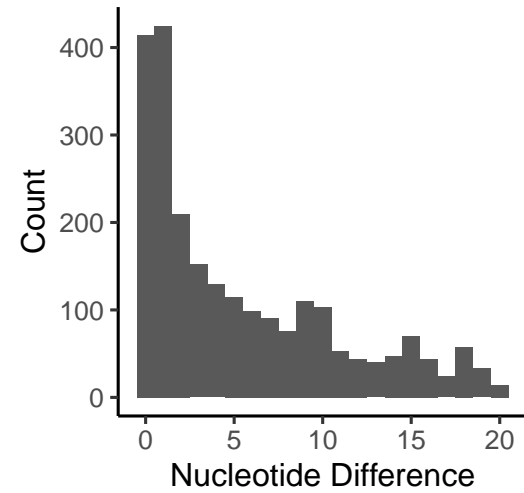
IGHV3-74*01_02

4021 sequences assigned
433 (10.8%) exact matches, in which:
290 unique CDR3
5 unique J



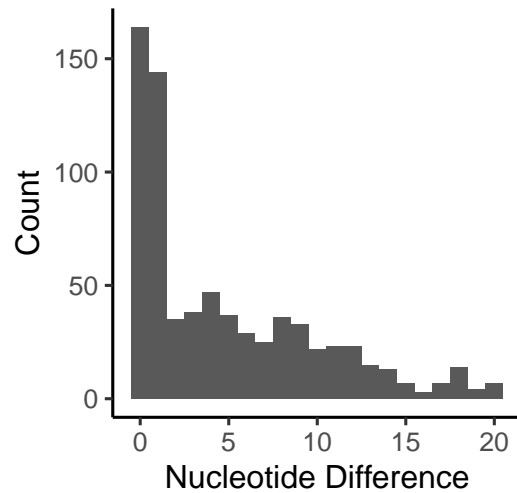
IGHV4-4*02_03

2478 sequences assigned
414 (16.7%) exact matches, in which:
311 unique CDR3
6 unique J



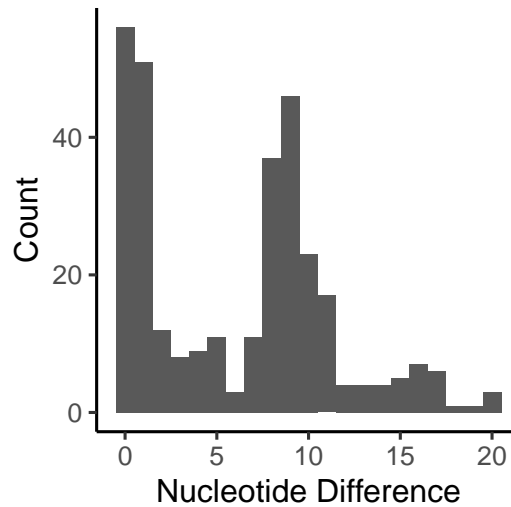
IGHV3-73*01_02

842 sequences assigned
164 (19.5%) exact matches, in which:
101 unique CDR3
6 unique J



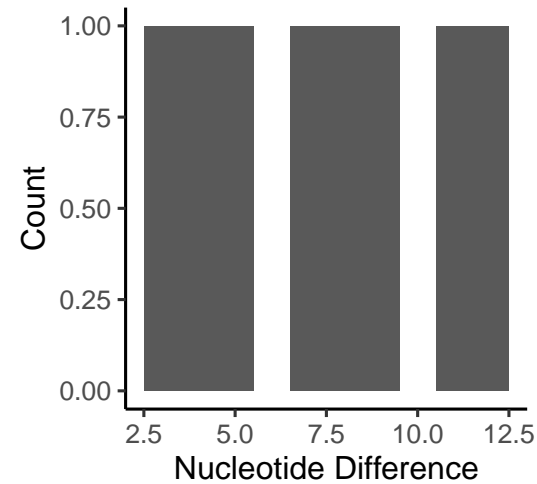
IGHV3-64D*06

347 sequences assigned
56 (16.1%) exact matches, in which:
35 unique CDR3
4 unique J



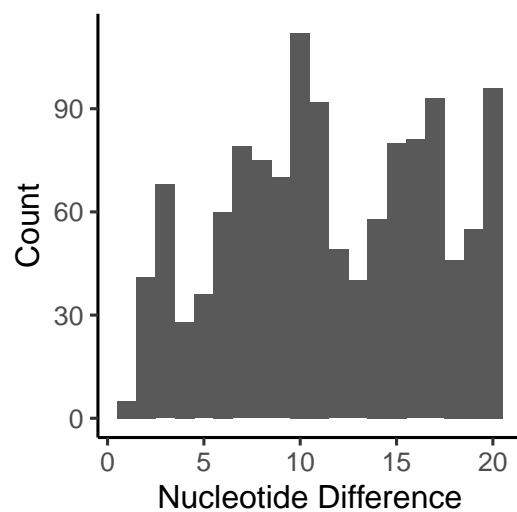
IGHV4-28*03

8 sequences assigned
No exact matches.



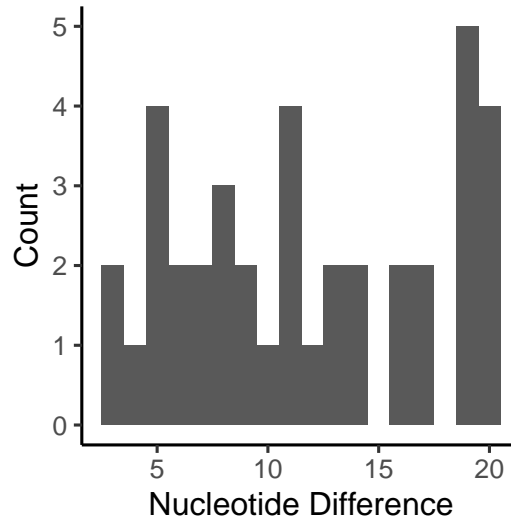
IGHV3-74*03

1651 sequences assigned
No exact matches.



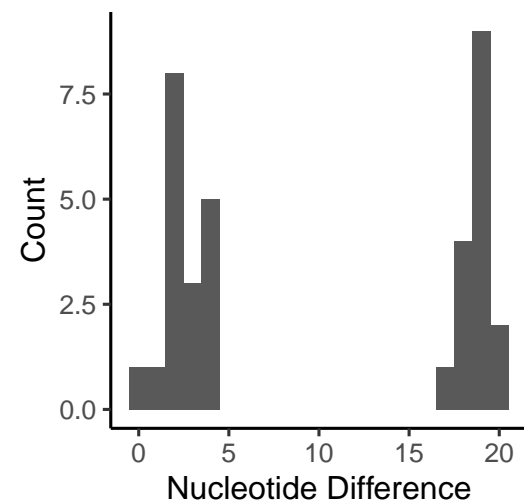
IGHV3-NL1*01

50 sequences assigned
No exact matches.



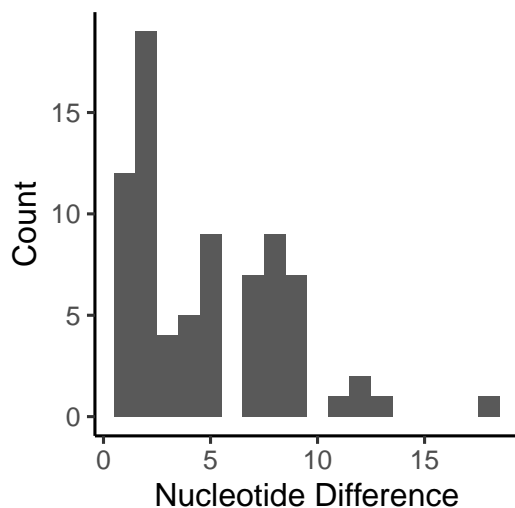
IGHV4-28*02_05

35 sequences assigned
1 (2.9%) exact matches, in which:
1 unique CDR3
1 unique J



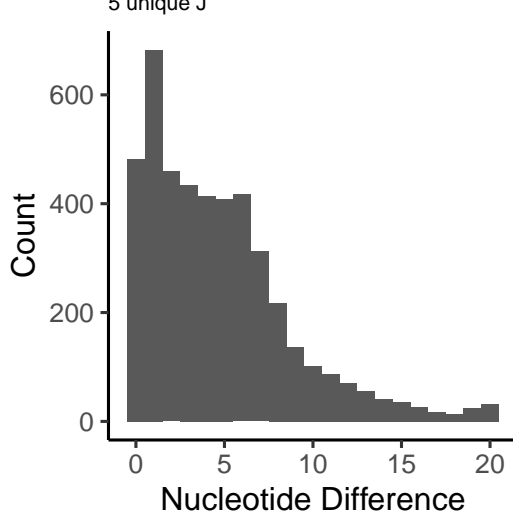
IGHV4-30-2*03

79 sequences assigned
No exact matches.



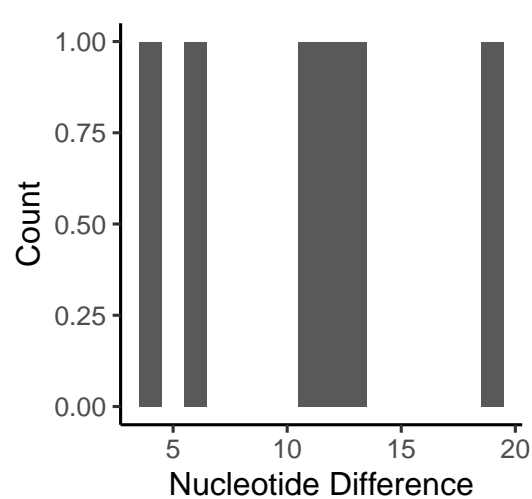
IGHV4-31*02

4875 sequences assigned
482 (9.9%) exact matches, in which:
389 unique CDR3
5 unique J



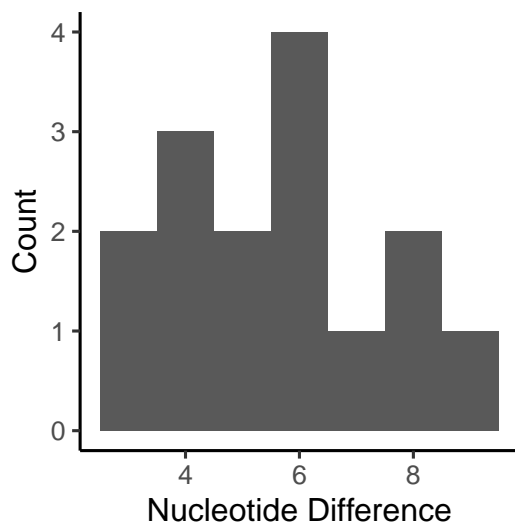
IGHV4-38-2*02

6 sequences assigned
No exact matches.



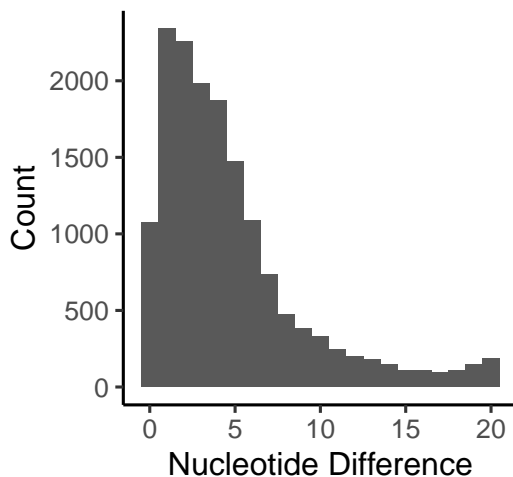
IGHV4-30-2*04

15 sequences assigned
No exact matches.



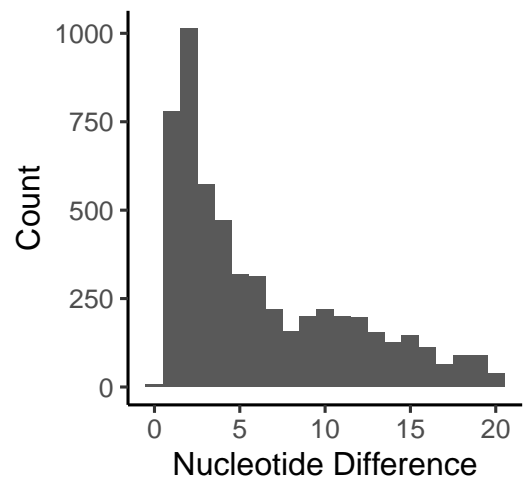
IGHV4-34*01_02

16171 sequences assigned
1076 (6.7%) exact matches, in which:
787 unique CDR3
6 unique J



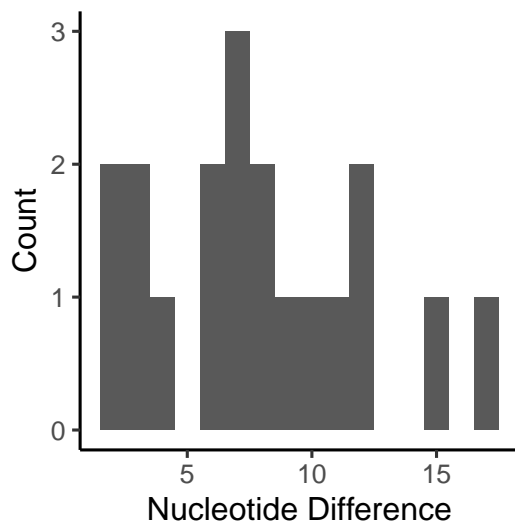
IGHV4-39*07

5968 sequences assigned
6 (0.1%) exact matches, in which:
6 unique CDR3
4 unique J



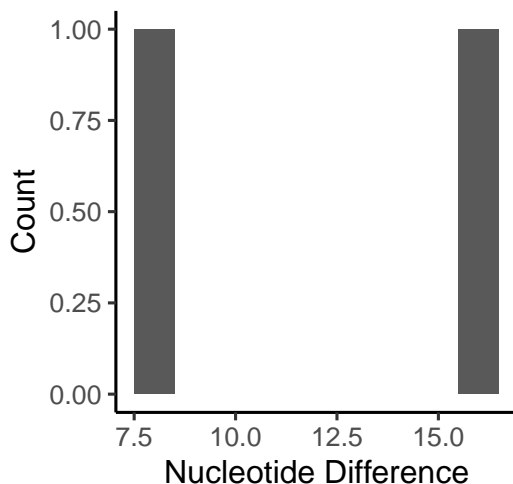
IGHV4-30-4*08

77 sequences assigned
No exact matches.



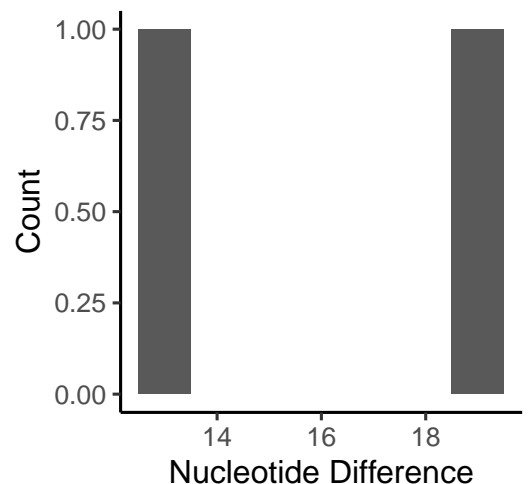
IGHV4-38-2*01

3 sequences assigned
No exact matches.



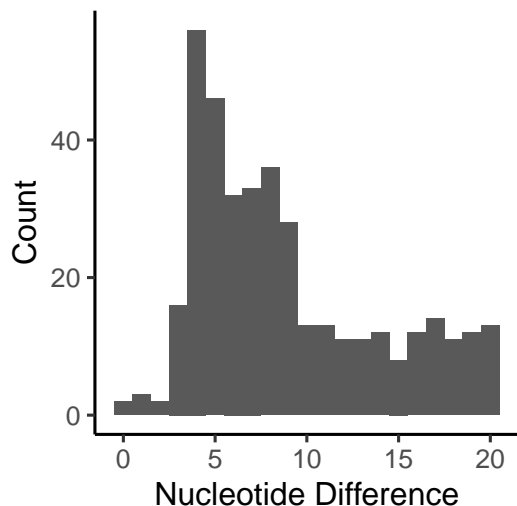
IGHV4-55*09

2 sequences assigned
No exact matches.



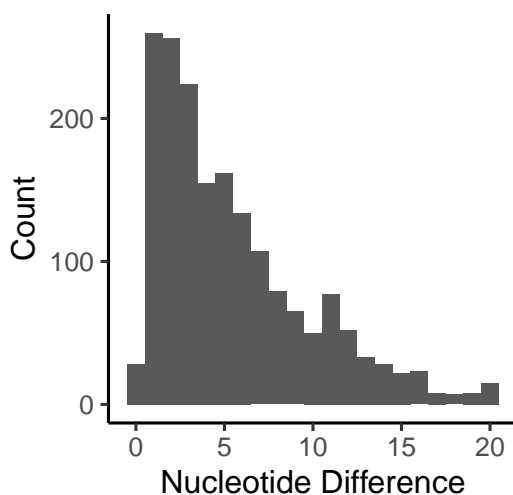
IGHV4-59*02

471 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
2 unique J



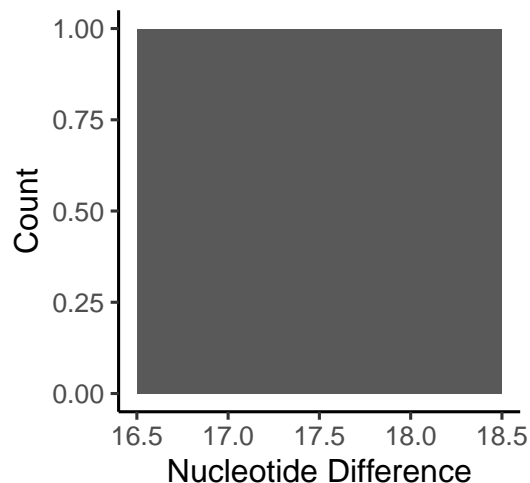
IGHV4-59*12

1813 sequences assigned
28 (1.5%) exact matches, in which:
28 unique CDR3
3 unique J



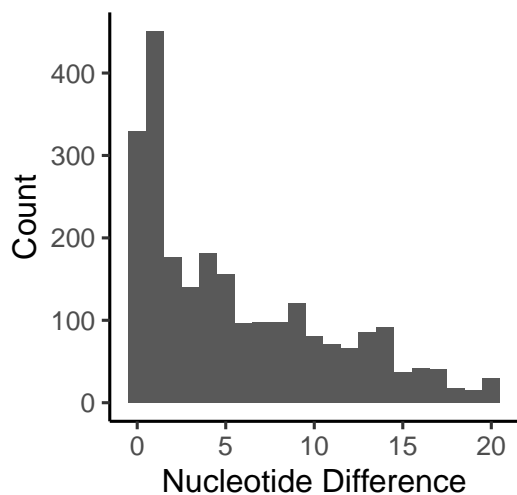
IGHV1/OR15-1*04

2 sequences assigned
No exact matches.



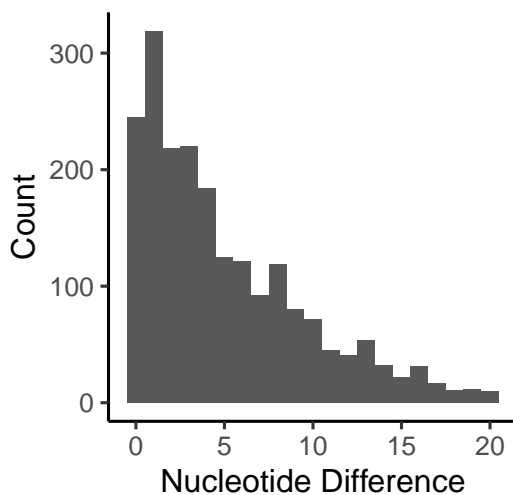
IGHV4-59*08

2564 sequences assigned
329 (12.8%) exact matches, in which:
247 unique CDR3
5 unique J



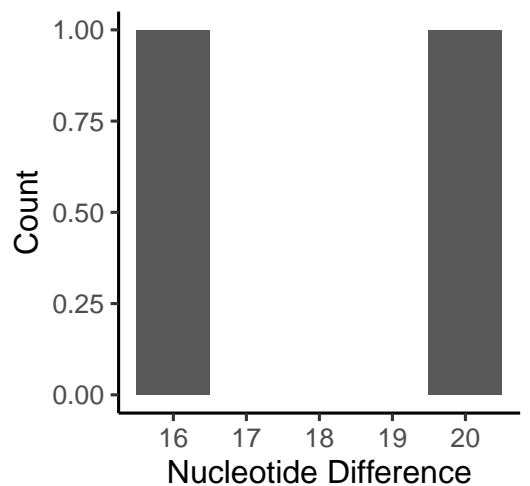
IGHV4-61*01

2124 sequences assigned
245 (11.5%) exact matches, in which:
193 unique CDR3
6 unique J



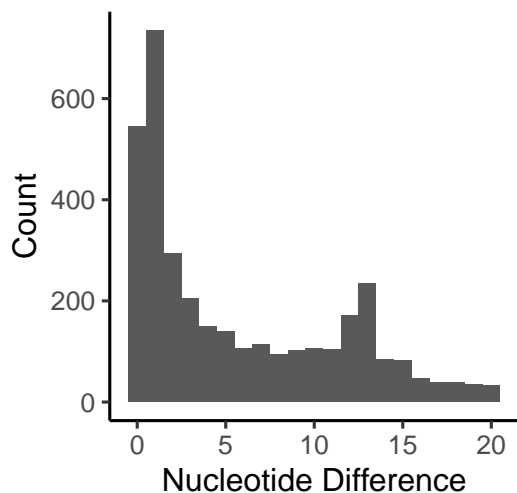
IGHV1/OR15-2*02_03

3 sequences assigned
No exact matches.



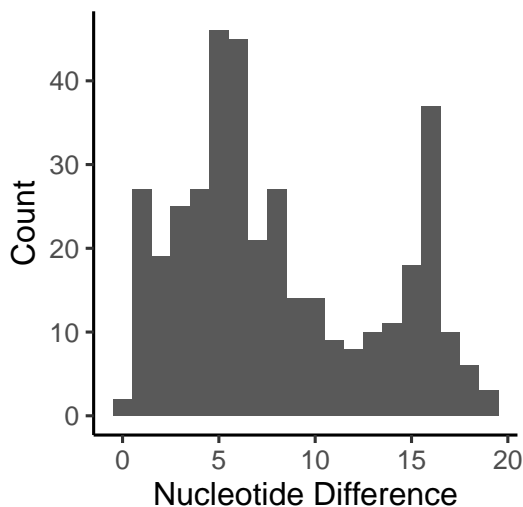
IGHV4-59*01_07

4461 sequences assigned
544 (12.2%) exact matches, in which:
421 unique CDR3
6 unique J



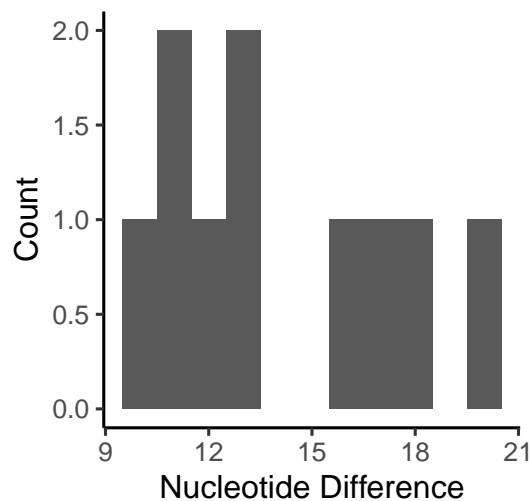
IGHV4-61*08

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



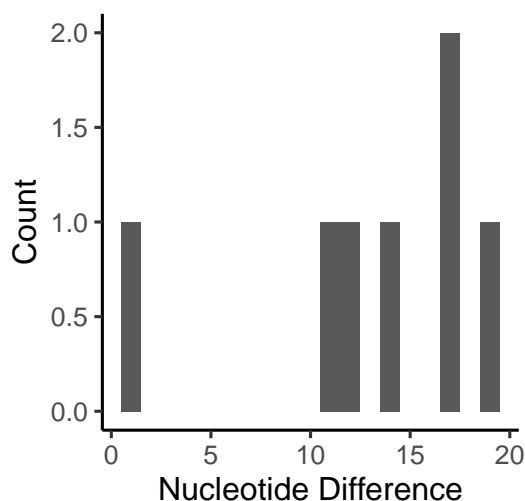
IGHV1/OR15-3*02

10 sequences assigned
No exact matches.



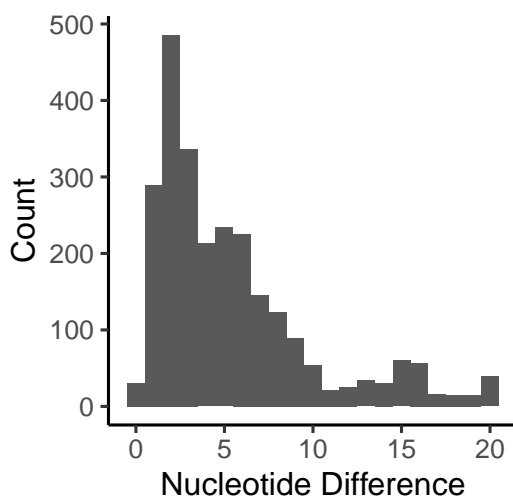
IGHV4/OR15–8*01

9 sequences assigned
No exact matches.



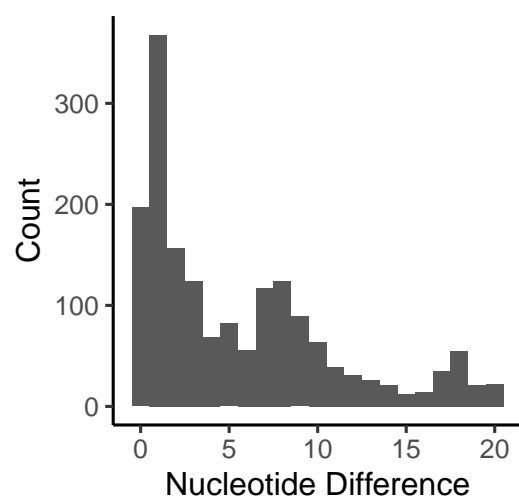
IGHV5–51*07

2807 sequences assigned
31 (1.1%) exact matches, in which:
21 unique CDR3
4 unique J



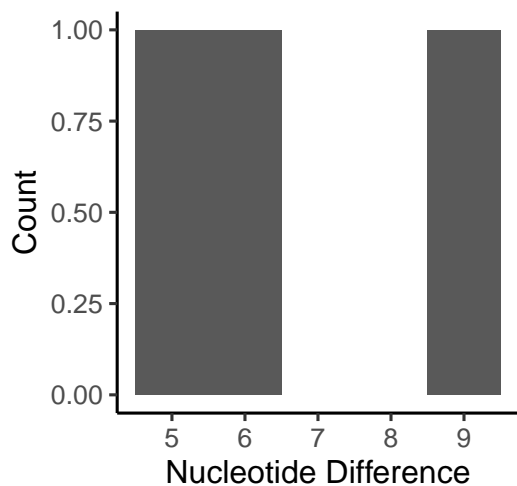
IGHV7–4–1*02

1799 sequences assigned
197 (11%) exact matches, in which:
151 unique CDR3
6 unique J



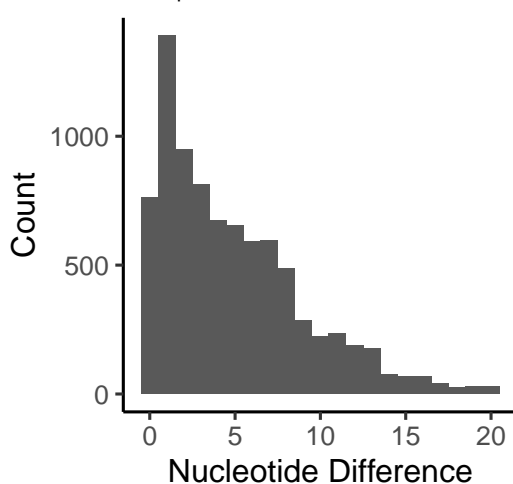
IGHV4/OR15–8*02

3 sequences assigned
No exact matches.



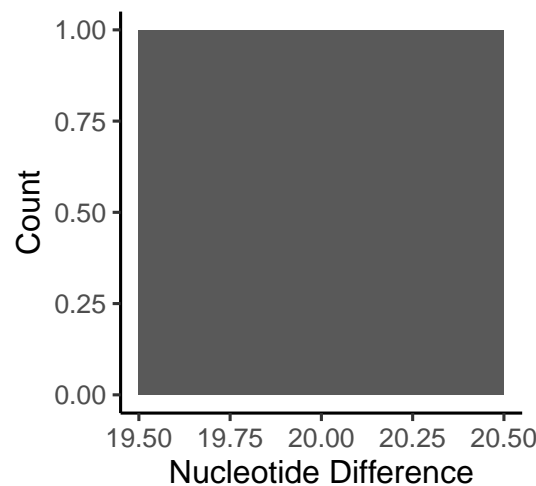
IGHV5–51*01_03

8863 sequences assigned
763 (8.6%) exact matches, in which:
424 unique CDR3
6 unique J



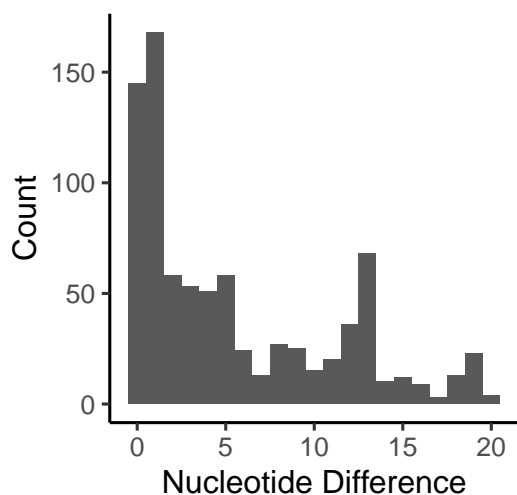
IGHV7–81*01

1 sequences assigned
No exact matches.



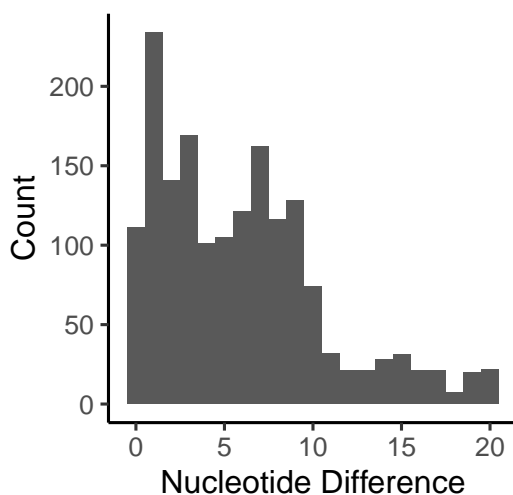
IGHV5–10–1*01_03

862 sequences assigned
145 (16.8%) exact matches, in which:
89 unique CDR3
5 unique J



IGHV6–1*01_02

1928 sequences assigned
111 (5.8%) exact matches, in which:
88 unique CDR3
5 unique J





[illegible]