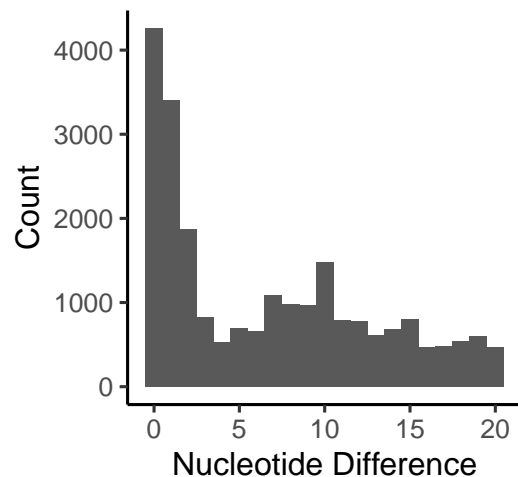


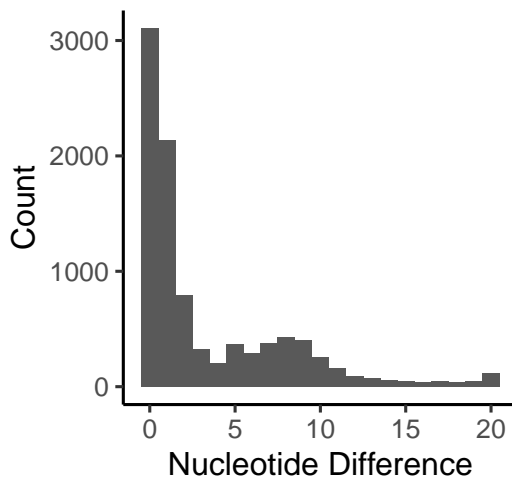
IGHV1-2*02

25766 sequences assigned
4258 (16.5%) exact matches, in which:
3744 unique CDR3
6 unique J



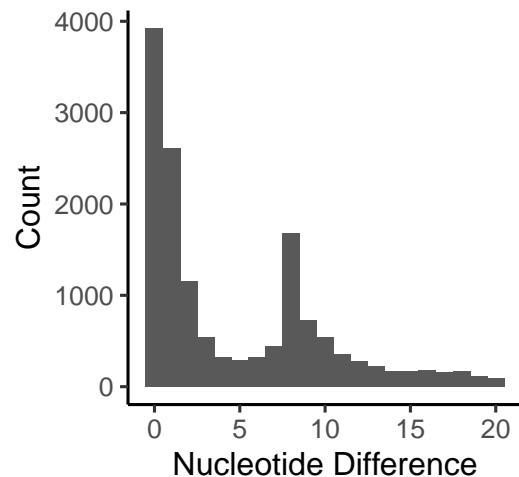
IGHV1-8*01

9811 sequences assigned
3105 (31.6%) exact matches, in which:
2779 unique CDR3
6 unique J



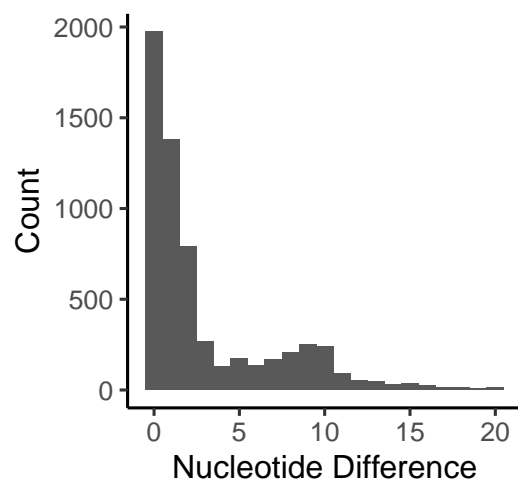
IGHV1-18*04

16183 sequences assigned
3922 (24.2%) exact matches, in which:
3531 unique CDR3
6 unique J



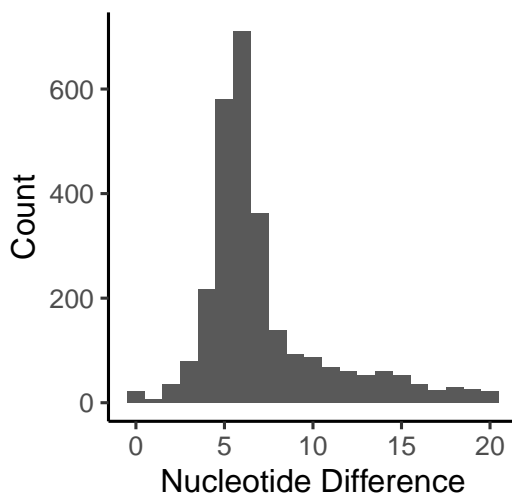
IGHV1-2*04

6196 sequences assigned
1974 (31.9%) exact matches, in which:
1778 unique CDR3
6 unique J



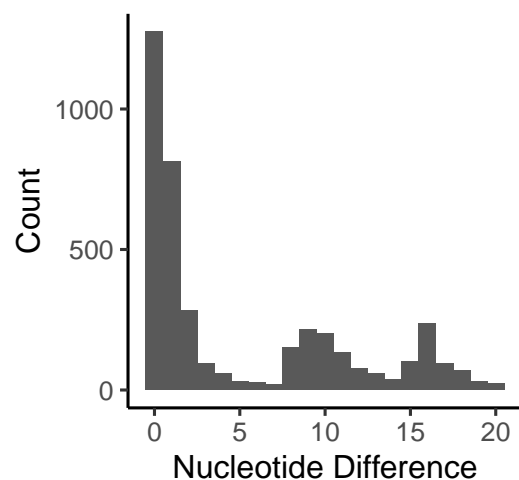
IGHV1-8*02

3186 sequences assigned
22 (0.7%) exact matches, in which:
22 unique CDR3
5 unique J



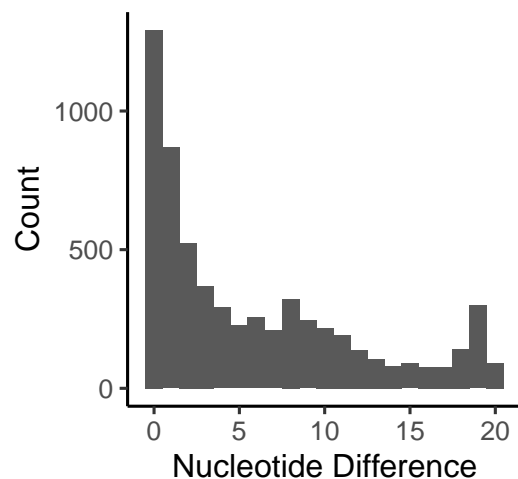
IGHV1-24*01

4121 sequences assigned
1275 (30.9%) exact matches, in which:
1162 unique CDR3
6 unique J



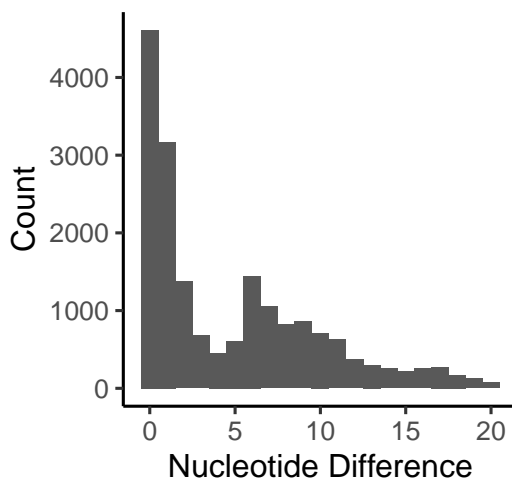
IGHV1-3*01_05

6684 sequences assigned
1292 (19.3%) exact matches, in which:
1141 unique CDR3
6 unique J



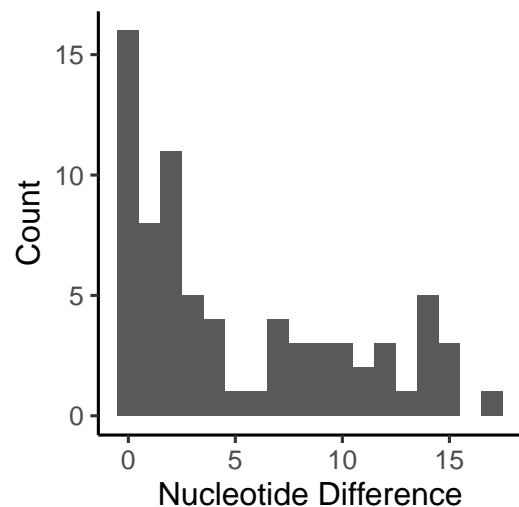
IGHV1-18*01

19425 sequences assigned
4610 (23.7%) exact matches, in which:
4124 unique CDR3
6 unique J



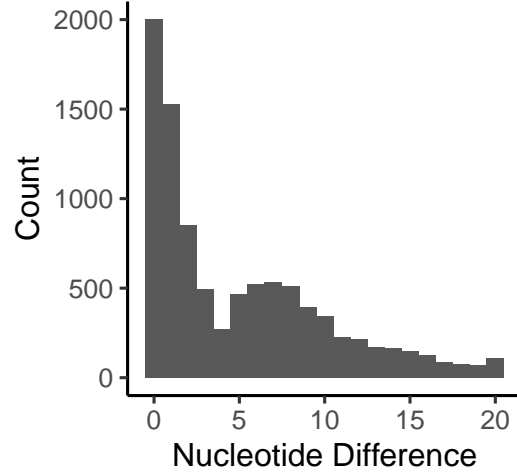
IGHV1-45*02

98 sequences assigned
16 (16.3%) exact matches, in which:
14 unique CDR3
4 unique J



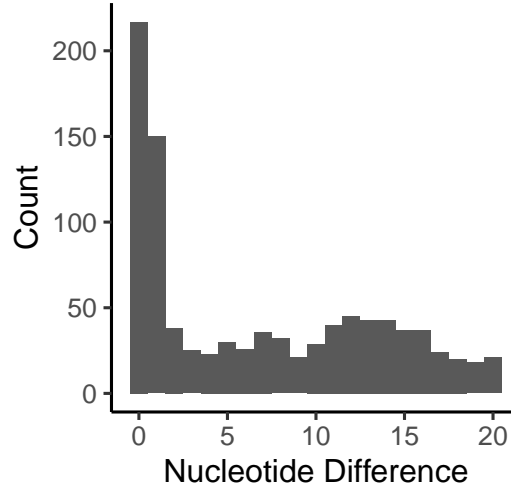
IGHV1-46*01

9768 sequences assigned
2001 (20.5%) exact matches, in which:
1843 unique CDR3
6 unique J



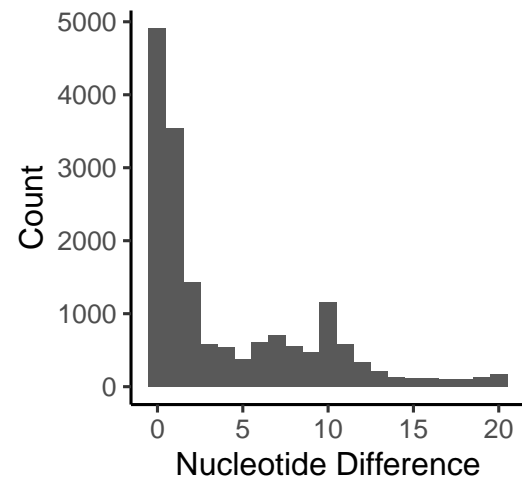
IGHV1-58*01_03

1099 sequences assigned
217 (19.7%) exact matches, in which:
199 unique CDR3
6 unique J



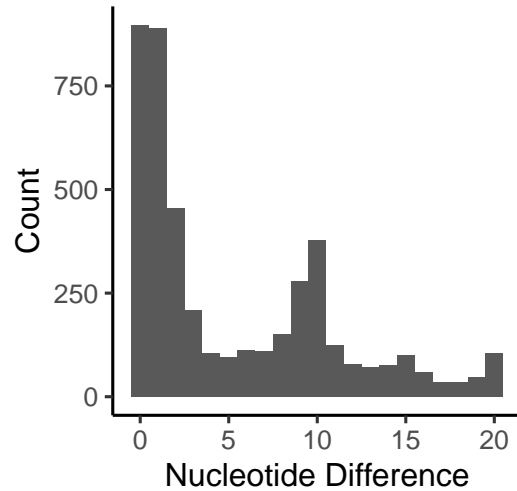
IGHV1-69*01_12_13

18808 sequences assigned
4909 (26.1%) exact matches, in which:
4519 unique CDR3
6 unique J



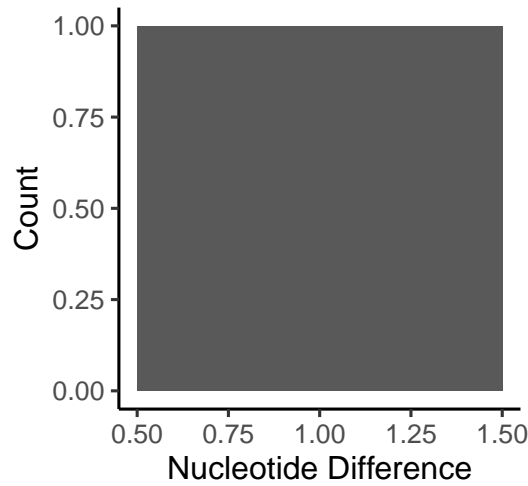
IGHV1-46*03

5318 sequences assigned
897 (16.9%) exact matches, in which:
741 unique CDR3
6 unique J



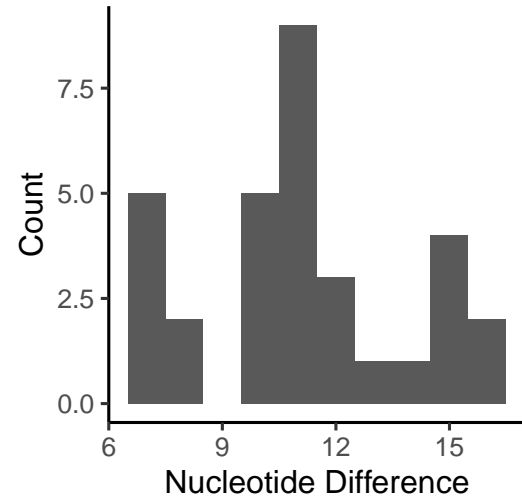
IGHV1-68*01

1 sequences assigned
No exact matches.



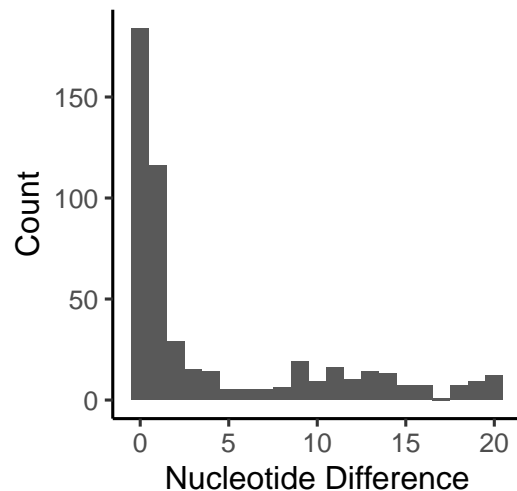
IGHV1-NL1*01

33 sequences assigned
No exact matches.



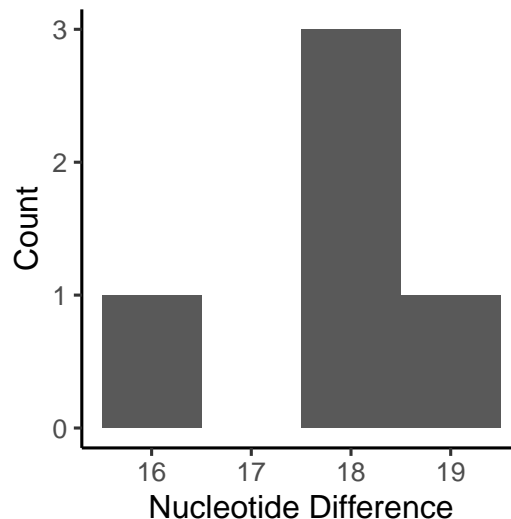
IGHV1-58*02

526 sequences assigned
184 (35%) exact matches, in which:
165 unique CDR3
6 unique J



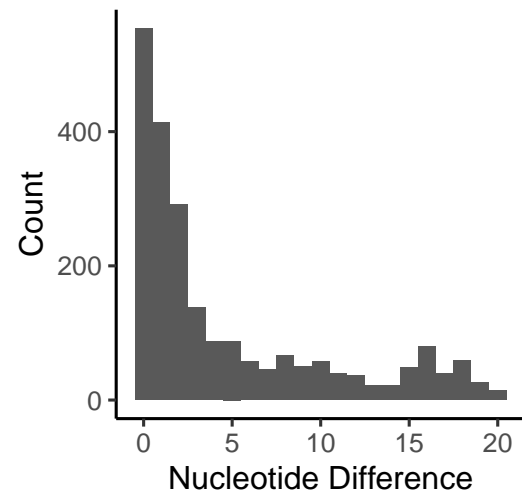
IGHV1-69-2*01

6 sequences assigned
No exact matches.



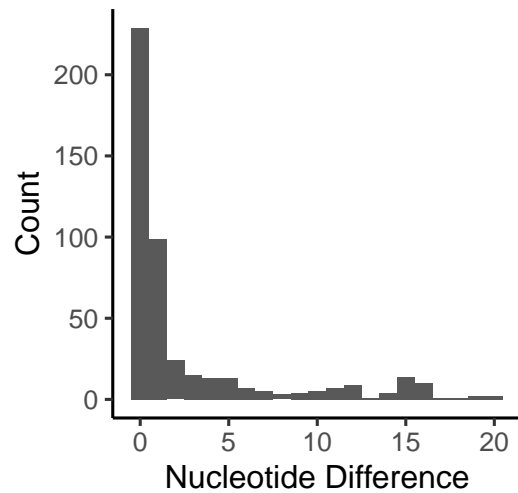
IGHV2-5*01

2391 sequences assigned
554 (23.2%) exact matches, in which:
492 unique CDR3
6 unique J



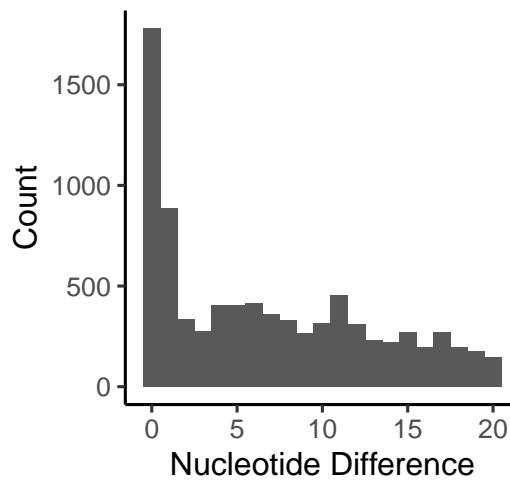
IGHV2-26*01

488 sequences assigned
229 (46.9%) exact matches, in which:
210 unique CDR3
6 unique J



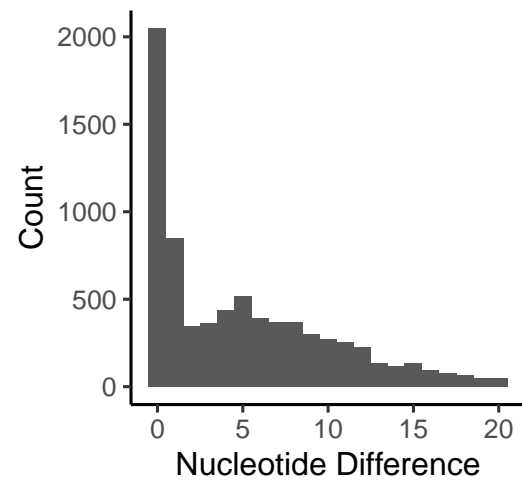
IGHV3-7*01

9681 sequences assigned
1780 (18.4%) exact matches, in which:
1313 unique CDR3
6 unique J



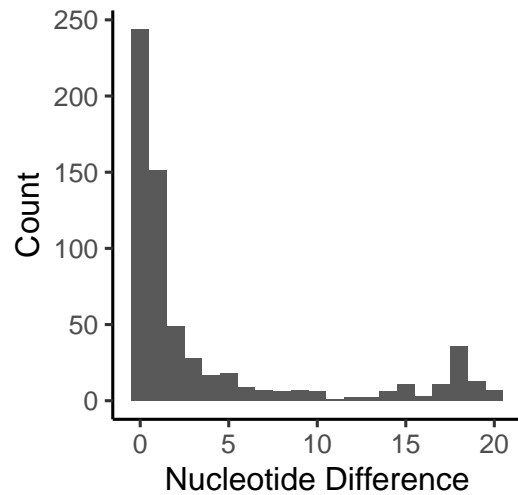
IGHV3-9*01

8160 sequences assigned
2048 (25.1%) exact matches, in which:
1349 unique CDR3
6 unique J



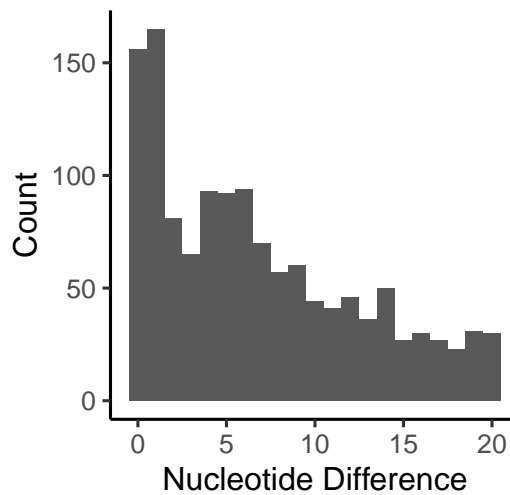
IGHV2-70*01

652 sequences assigned
244 (37.4%) exact matches, in which:
213 unique CDR3
5 unique J



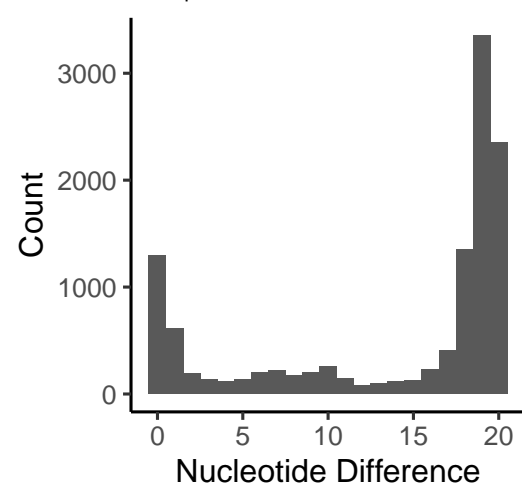
IGHV3-7*03

1726 sequences assigned
156 (9%) exact matches, in which:
139 unique CDR3
5 unique J



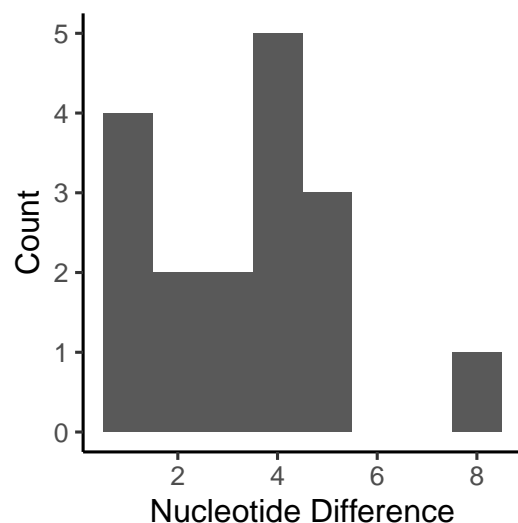
IGHV3-11*01

13366 sequences assigned
1297 (9.7%) exact matches, in which:
915 unique CDR3
6 unique J



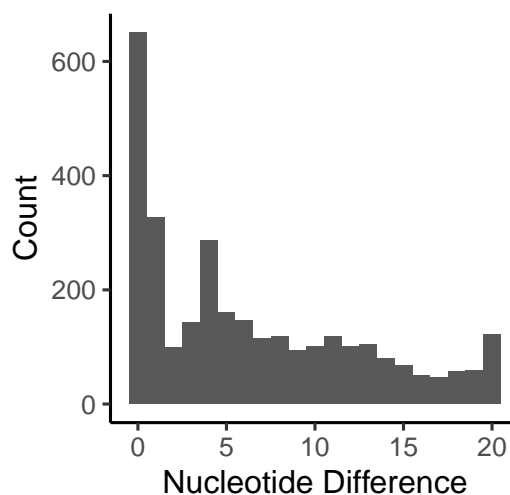
IGHV2-70D*04

17 sequences assigned
No exact matches.



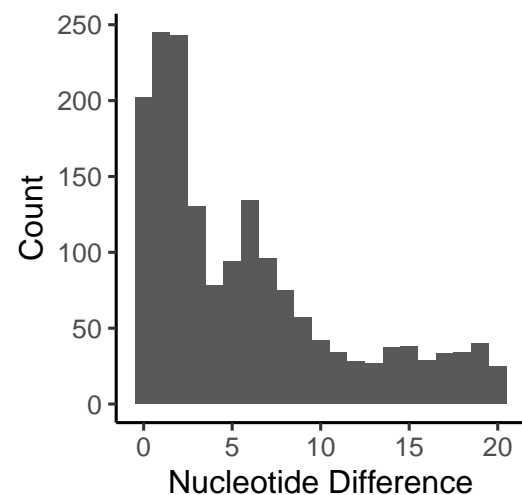
IGHV3-7*05

4068 sequences assigned
651 (16%) exact matches, in which:
449 unique CDR3
6 unique J



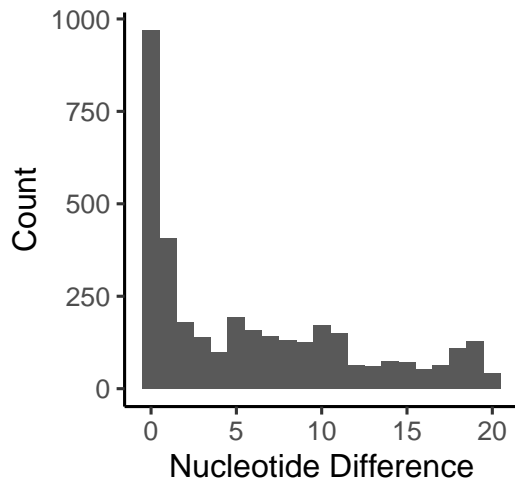
IGHV3-11*04

1851 sequences assigned
202 (10.9%) exact matches, in which:
196 unique CDR3
6 unique J



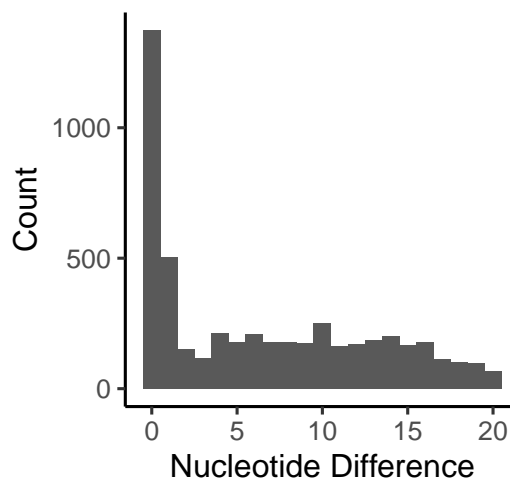
IGHV3-11*06

4166 sequences assigned
969 (23.3%) exact matches, in which:
722 unique CDR3
6 unique J



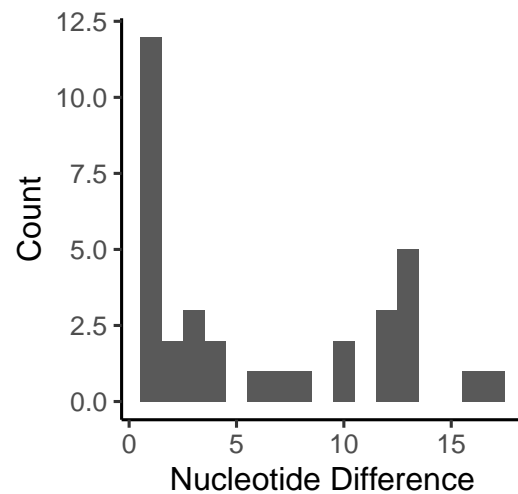
IGHV3-15*01_02

6123 sequences assigned
1373 (22.4%) exact matches, in which:
957 unique CDR3
6 unique J



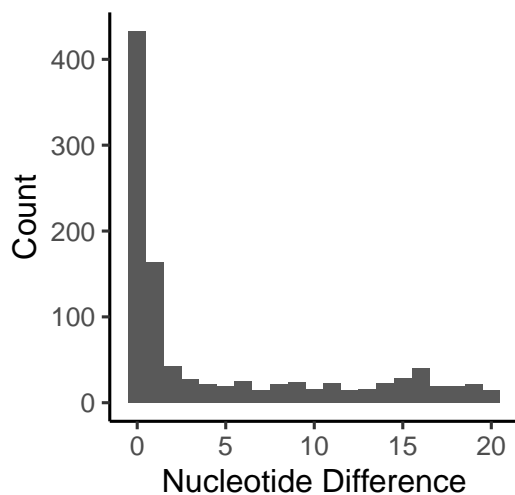
IGHV3-20*03_04

55 sequences assigned
No exact matches.



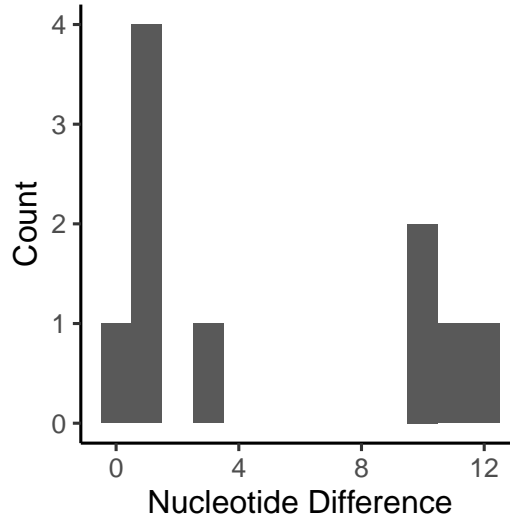
IGHV3-13*01

1155 sequences assigned
433 (37.5%) exact matches, in which:
296 unique CDR3
6 unique J



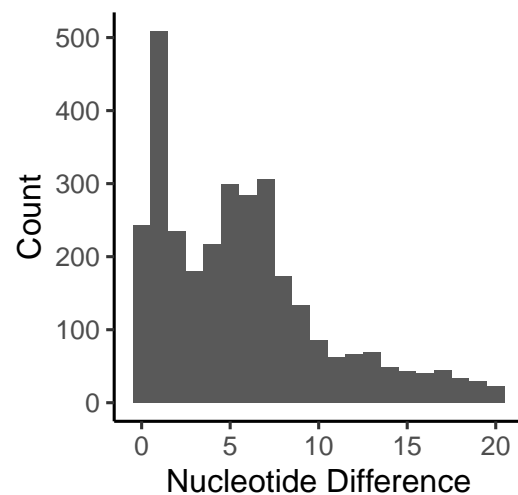
IGHV3-19*01

10 sequences assigned
1 (10%) exact matches, in which:
1 unique CDR3
1 unique J



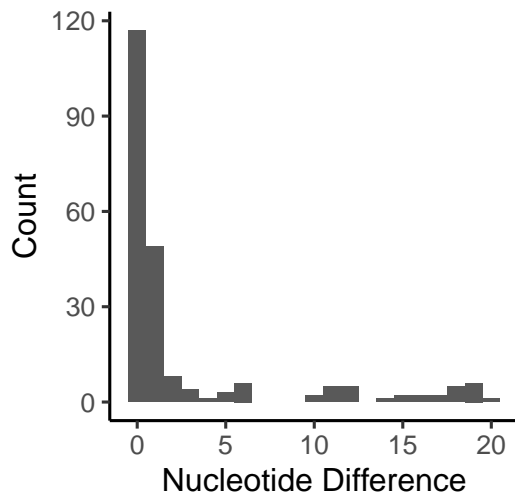
IGHV3-21*04

3320 sequences assigned
243 (7.3%) exact matches, in which:
228 unique CDR3
5 unique J



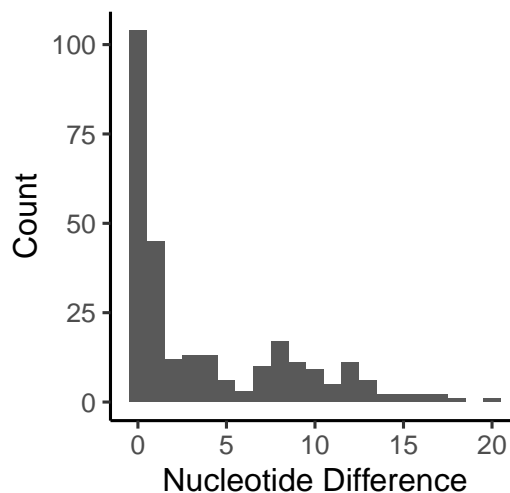
IGHV3-13*05

227 sequences assigned
117 (51.5%) exact matches, in which:
87 unique CDR3
6 unique J



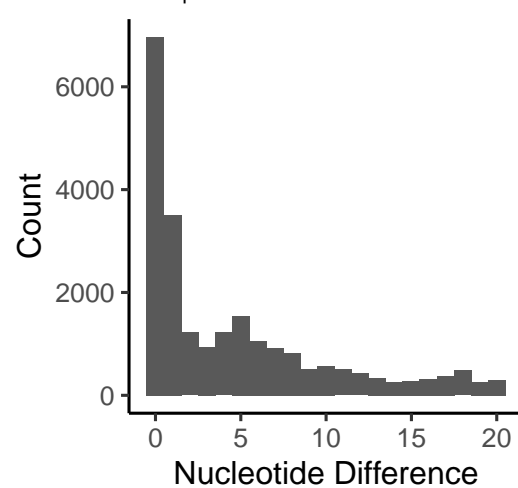
IGHV3-20*01_02

283 sequences assigned
104 (36.7%) exact matches, in which:
73 unique CDR3
5 unique J



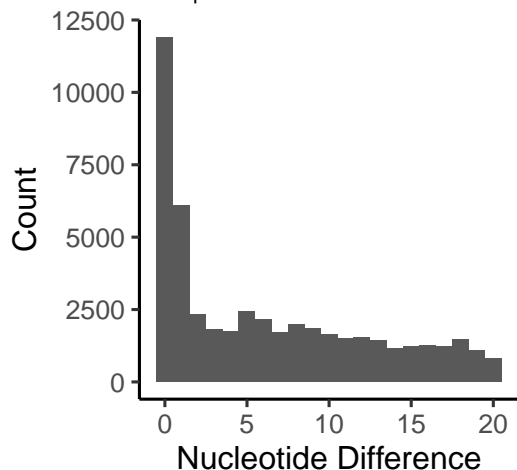
IGHV3-21*01_02

25092 sequences assigned
6967 (27.8%) exact matches, in which:
4756 unique CDR3
6 unique J



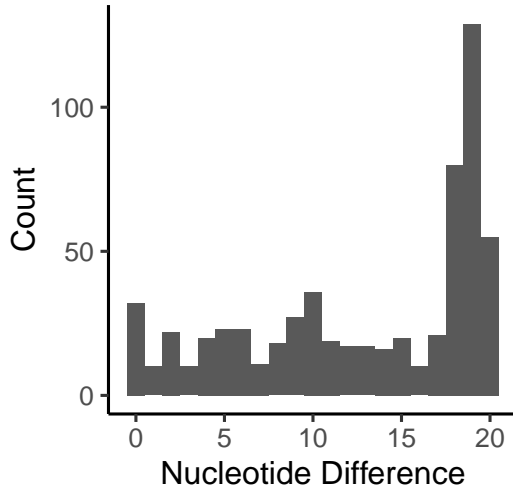
IGHV3-23*01_04

57467 sequences assigned
11907 (20.7%) exact matches, in which:
7404 unique CDR3
6 unique J



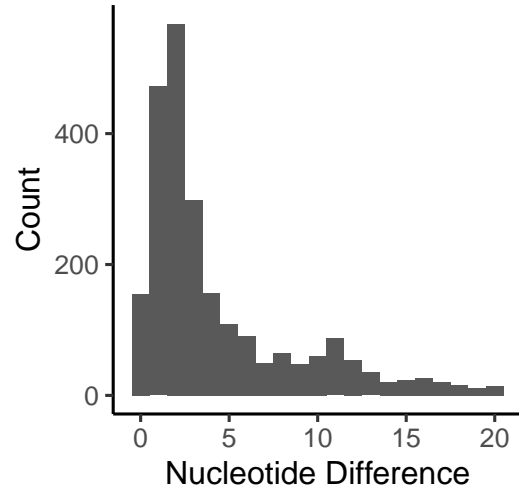
IGHV3-30*04

854 sequences assigned
32 (3.7%) exact matches, in which:
31 unique CDR3
5 unique J



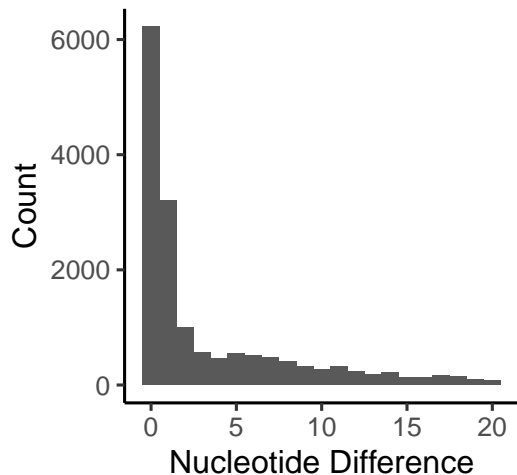
IGHV3-33*06

2529 sequences assigned
155 (6.1%) exact matches, in which:
154 unique CDR3
6 unique J



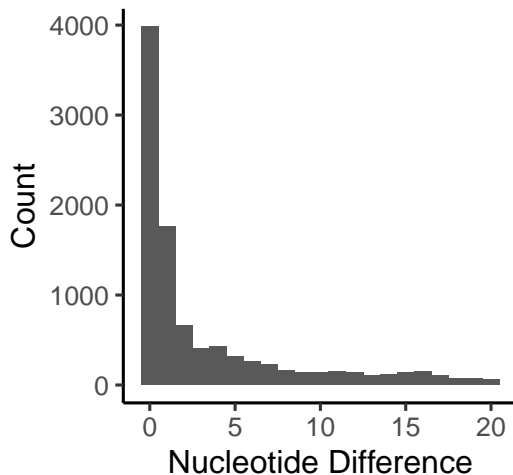
IGHV3-30-3*01

16871 sequences assigned
6223 (36.9%) exact matches, in which:
4166 unique CDR3
6 unique J



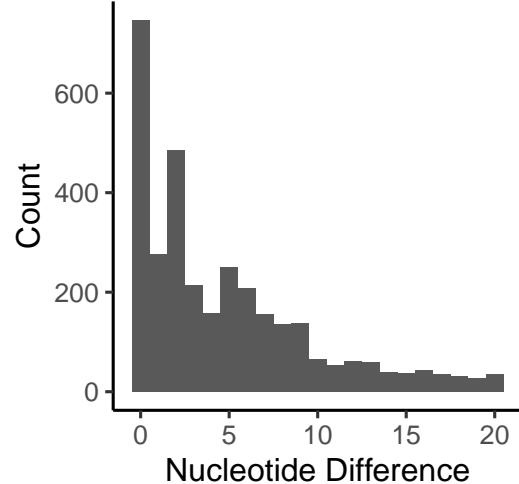
IGHV3-33*01

10091 sequences assigned
3982 (39.5%) exact matches, in which:
2829 unique CDR3
6 unique J



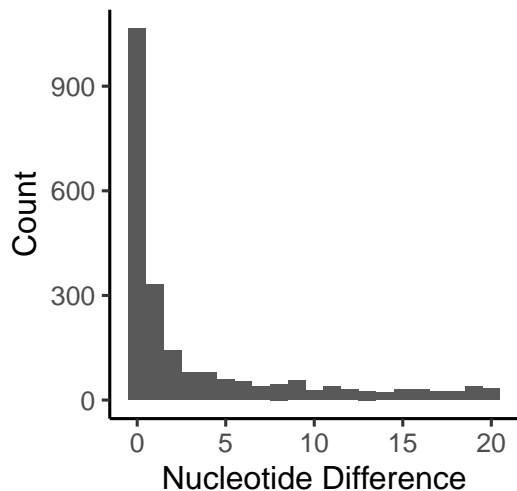
IGHV3-33*08

3424 sequences assigned
747 (21.8%) exact matches, in which:
671 unique CDR3
6 unique J



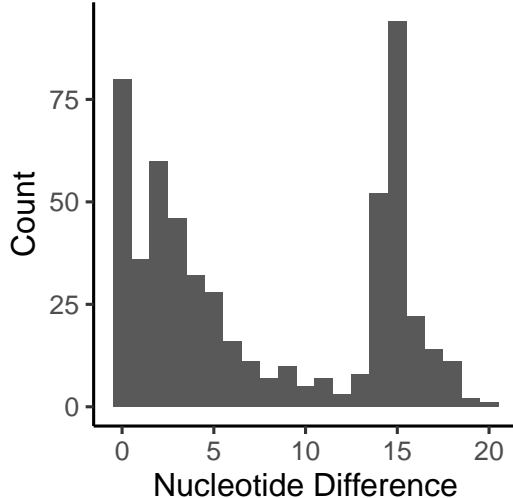
IGHV3-30*03

2457 sequences assigned
1066 (43.4%) exact matches, in which:
982 unique CDR3
6 unique J



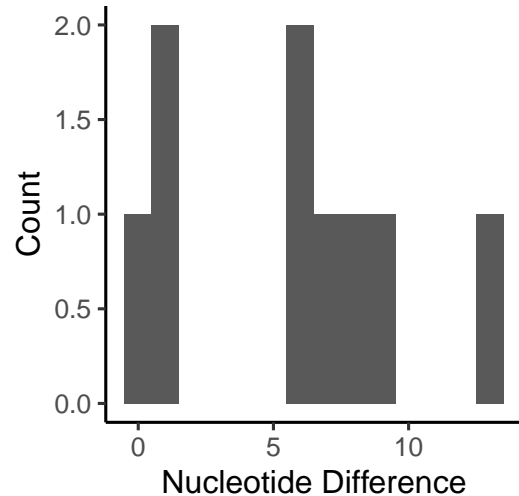
IGHV3-33*05

631 sequences assigned
80 (12.7%) exact matches, in which:
79 unique CDR3
5 unique J



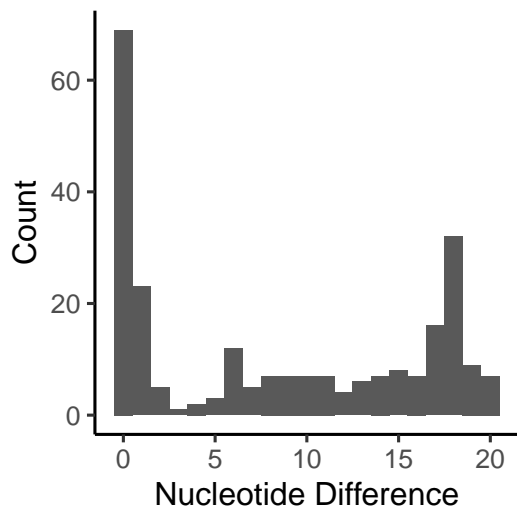
IGHV3-35*01

9 sequences assigned
1 (11.1%) exact matches, in which:
1 unique CDR3
1 unique J



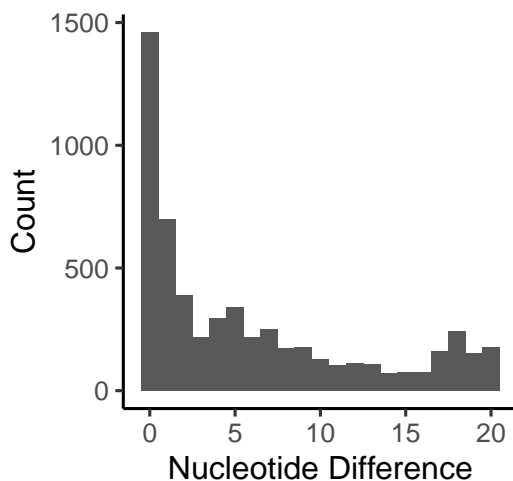
IGHV3-43*01

272 sequences assigned
69 (25.4%) exact matches, in which:
45 unique CDR3
4 unique J



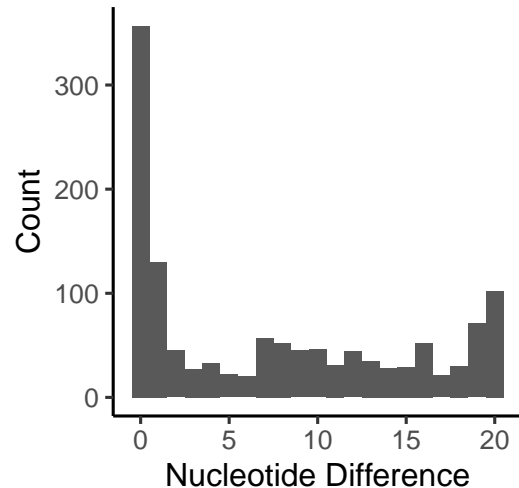
IGHV3-48*01

6554 sequences assigned
1460 (22.3%) exact matches, in which:
1036 unique CDR3
6 unique J



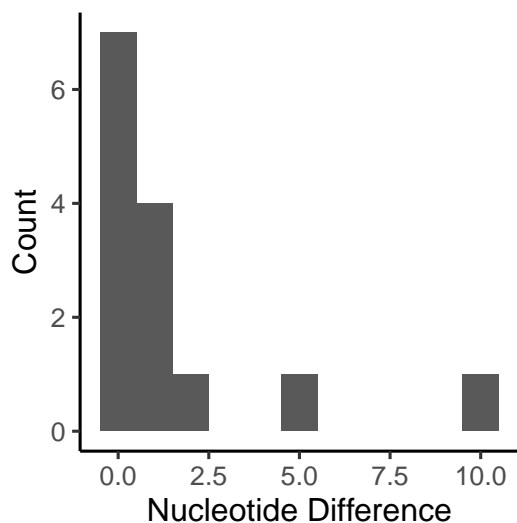
IGHV3-49*04

1585 sequences assigned
357 (22.5%) exact matches, in which:
251 unique CDR3
5 unique J



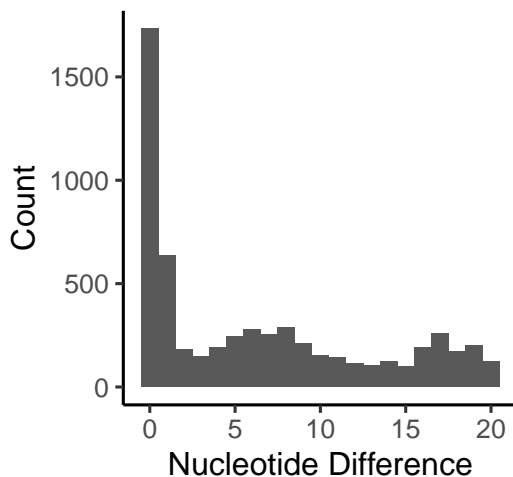
IGHV3-47*01

14 sequences assigned
7 (50%) exact matches, in which:
5 unique CDR3
2 unique J



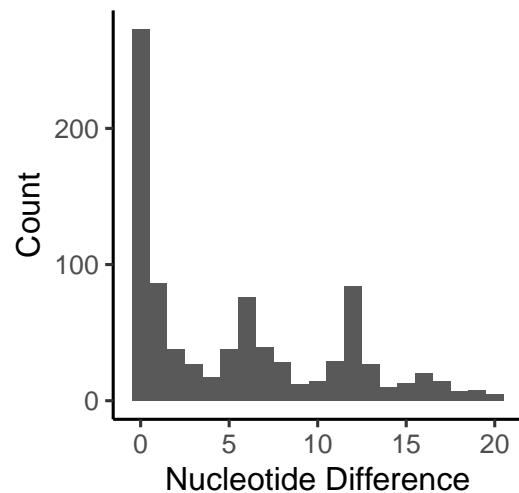
IGHV3-48*03

6929 sequences assigned
1733 (25%) exact matches, in which:
1163 unique CDR3
6 unique J



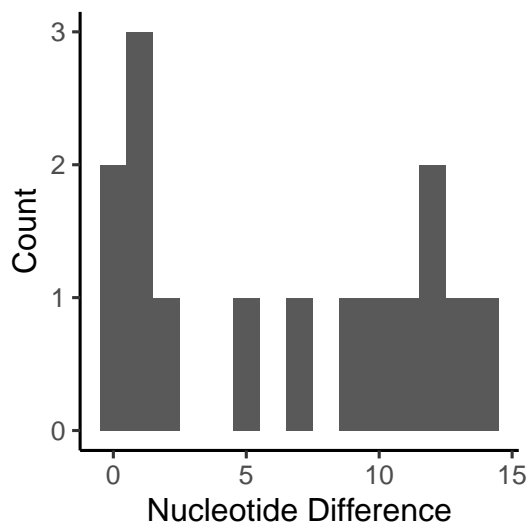
IGHV3-49*03_05

956 sequences assigned
273 (28.6%) exact matches, in which:
196 unique CDR3
5 unique J



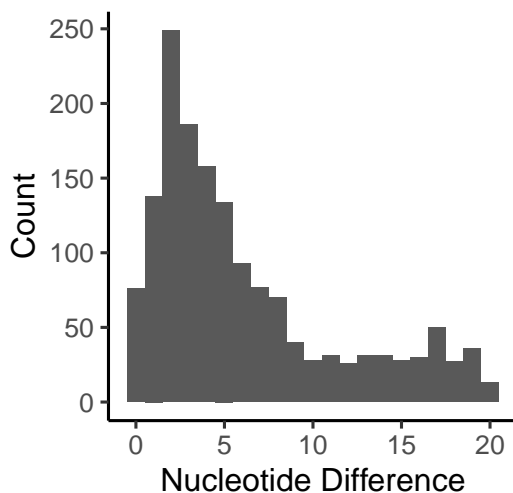
IGHV3-47*02

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



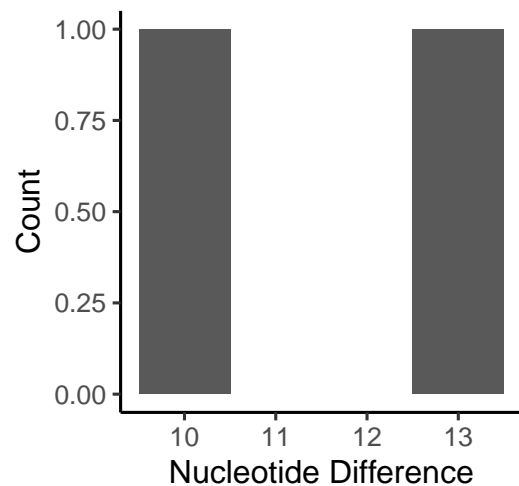
IGHV3-48*04

1687 sequences assigned
76 (4.5%) exact matches, in which:
76 unique CDR3
5 unique J



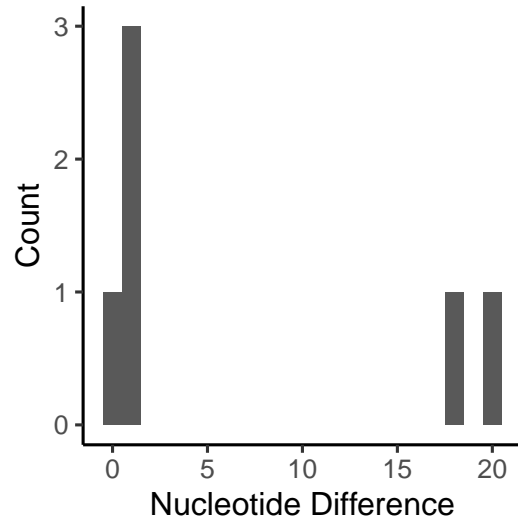
IGHV3-52*02

2 sequences assigned
No exact matches.



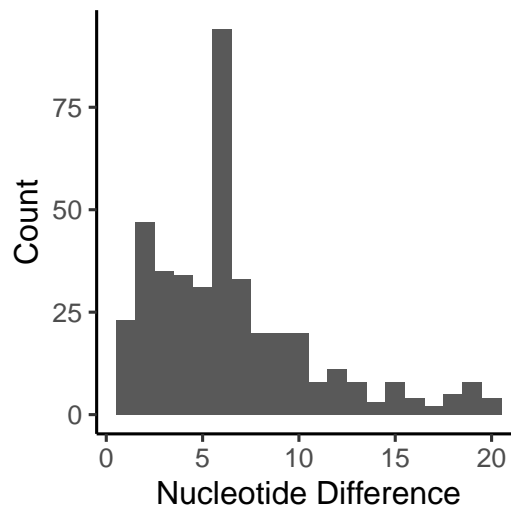
IGHV3-52*01_03

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



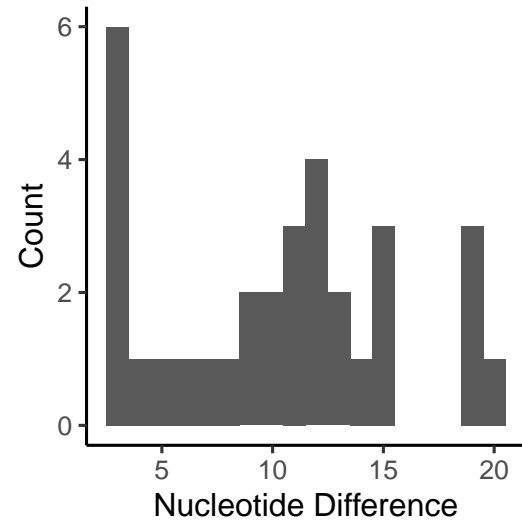
IGHV3-64*04

479 sequences assigned
No exact matches.



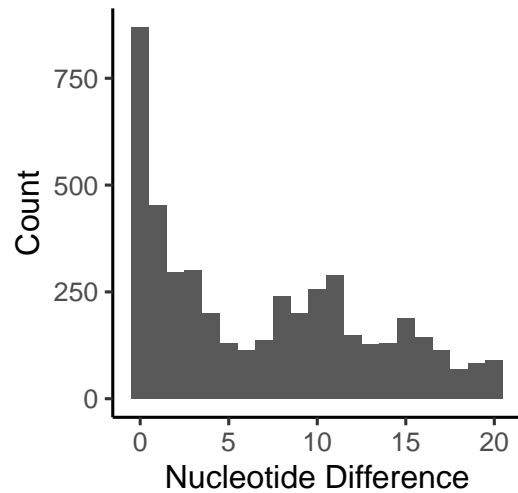
IGHV3-69-1*01

87 sequences assigned
No exact matches.



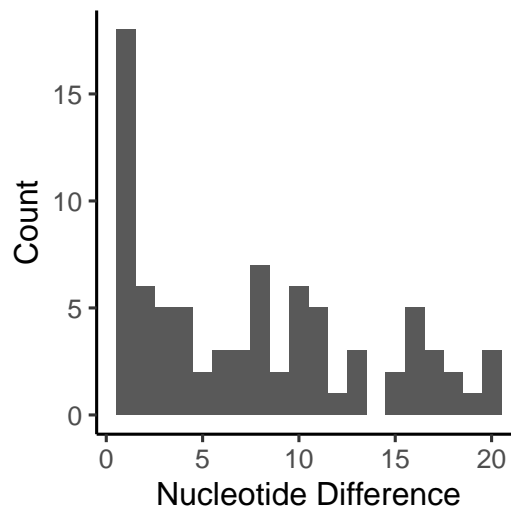
IGHV3-53*01_02

5201 sequences assigned
870 (16.7%) exact matches, in which:
623 unique CDR3
6 unique J



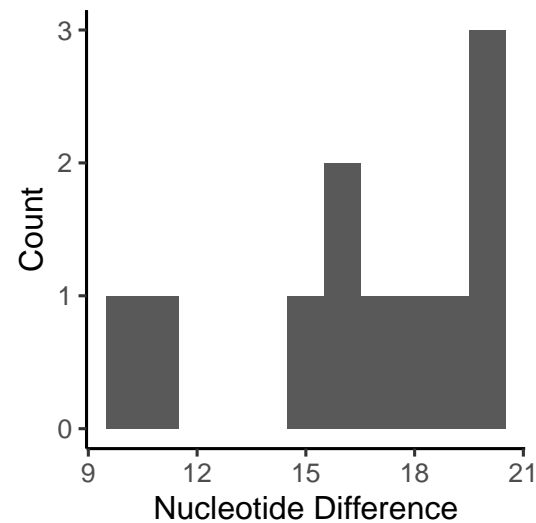
IGHV3-66*01

90 sequences assigned
No exact matches.



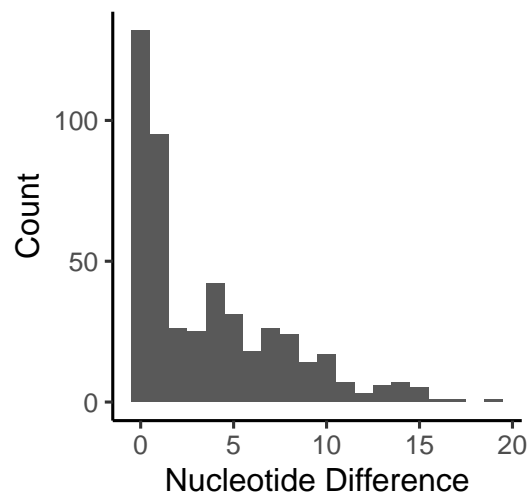
IGHV3-69-1*02

41 sequences assigned
No exact matches.



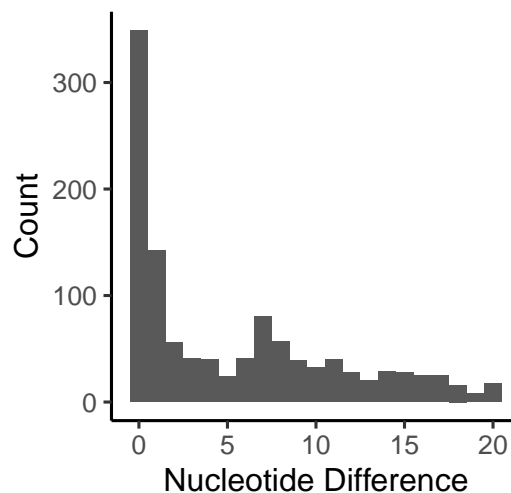
IGHV3-64*01

495 sequences assigned
132 (26.7%) exact matches, in which:
88 unique CDR3
5 unique J



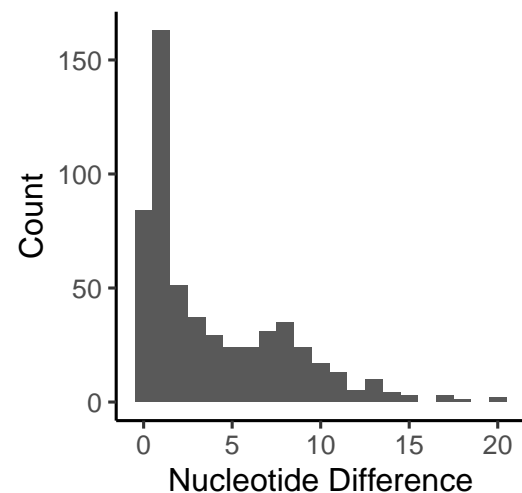
IGHV3-66*02

1240 sequences assigned
349 (28.1%) exact matches, in which:
257 unique CDR3
6 unique J



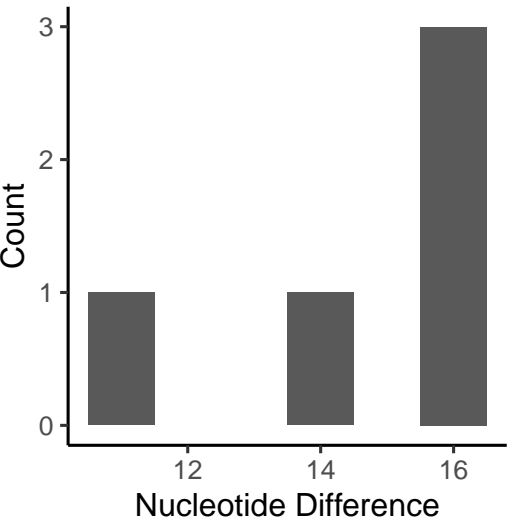
IGHV3-69-1*01_T112A_

565 sequences assigned
84 (14.9%) exact matches, in which:
44 unique CDR3
4 unique J



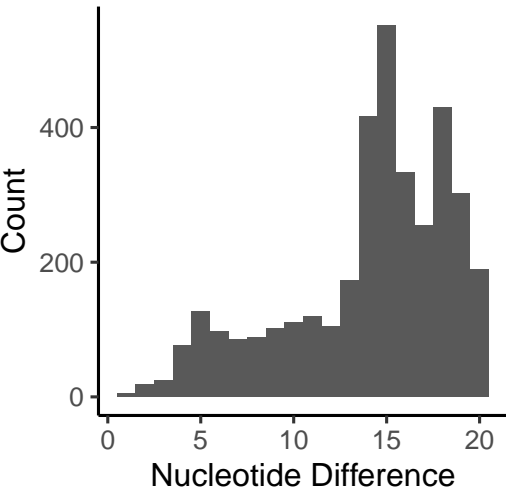
IGHV3-71*01_04

7 sequences assigned
No exact matches.



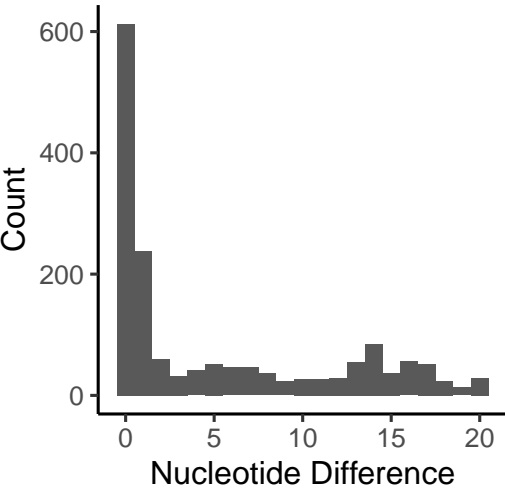
IGHV3-74*03

4394 sequences assigned
No exact matches.



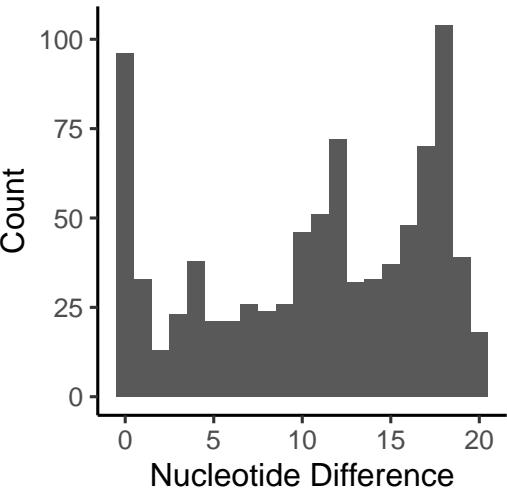
IGHV3-64D*08

2185 sequences assigned
613 (28.1%) exact matches, in which:
374 unique CDR3
6 unique J



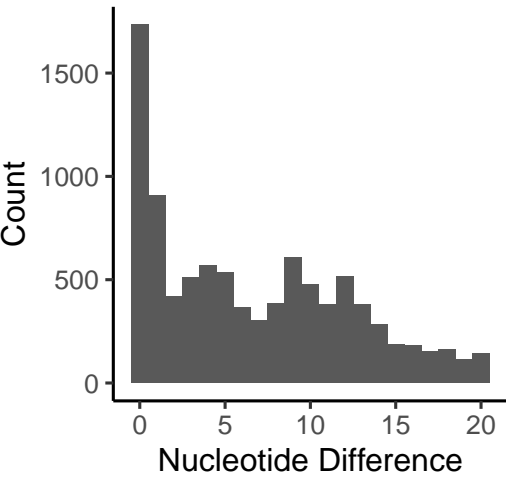
IGHV3-72*01

1141 sequences assigned
96 (8.4%) exact matches, in which:
69 unique CDR3
5 unique J



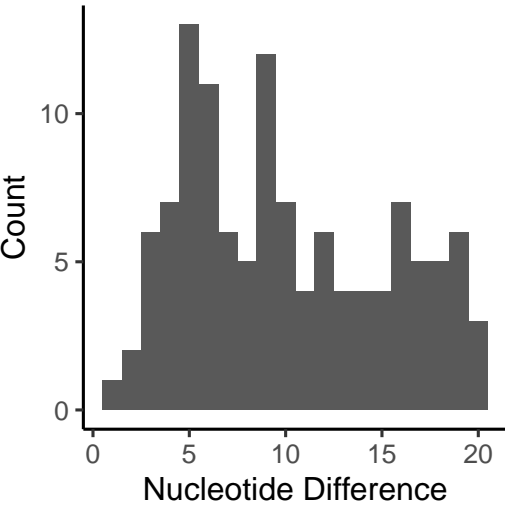
IGHV3-74*01_02

9958 sequences assigned
1734 (17.4%) exact matches, in which:
1167 unique CDR3
6 unique J



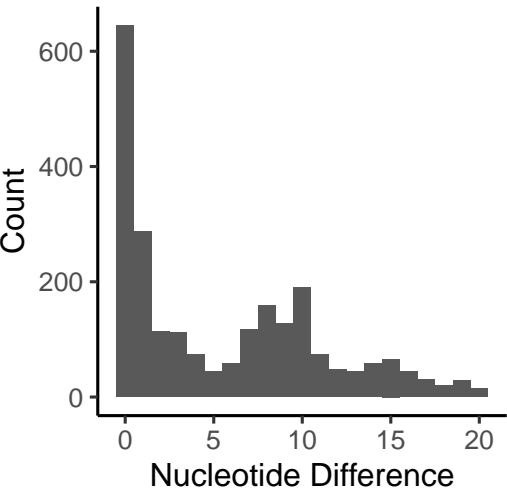
IGHV3-NL1*01

137 sequences assigned
No exact matches.



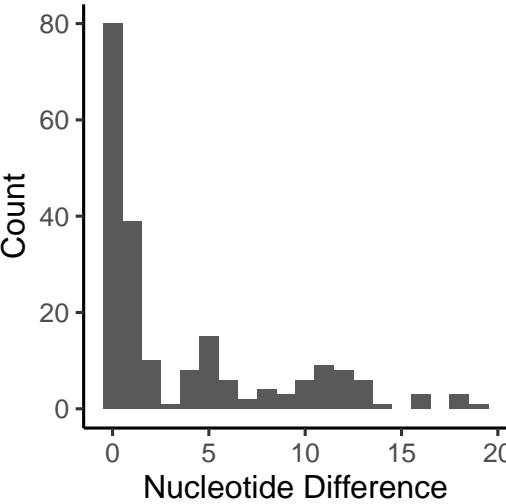
IGHV3-73*01_02

2566 sequences assigned
645 (25.1%) exact matches, in which:
436 unique CDR3
6 unique J



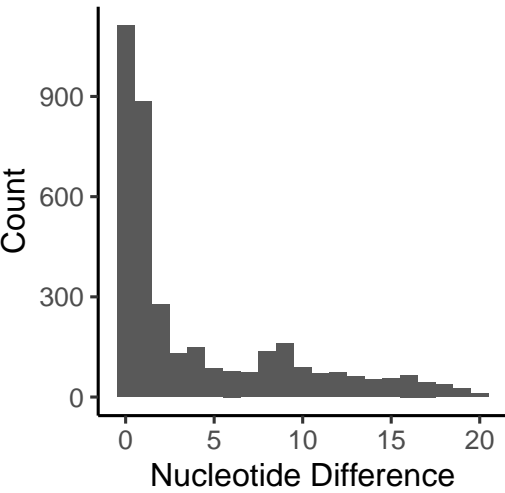
IGHV3-43D*04

215 sequences assigned
80 (37.2%) exact matches, in which:
50 unique CDR3
4 unique J



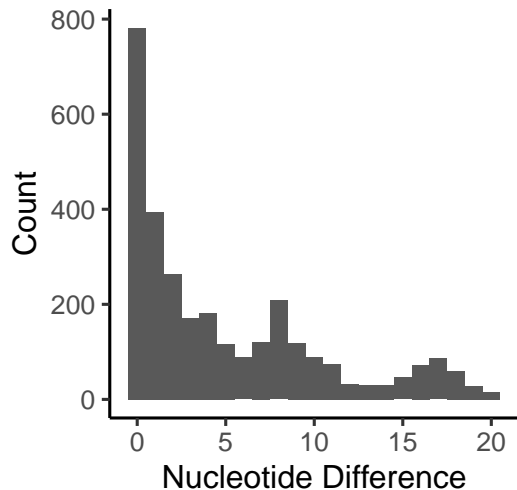
IGHV4-4*07

4197 sequences assigned
1113 (26.5%) exact matches, in which:
1005 unique CDR3
6 unique J



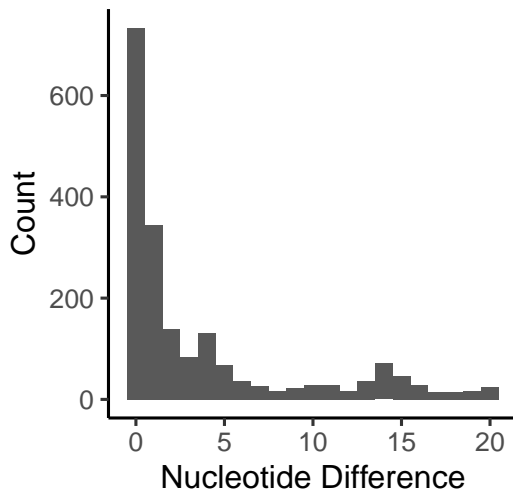
IGHV4-4*02_03

3158 sequences assigned
782 (24.8%) exact matches, in which:
716 unique CDR3
6 unique J



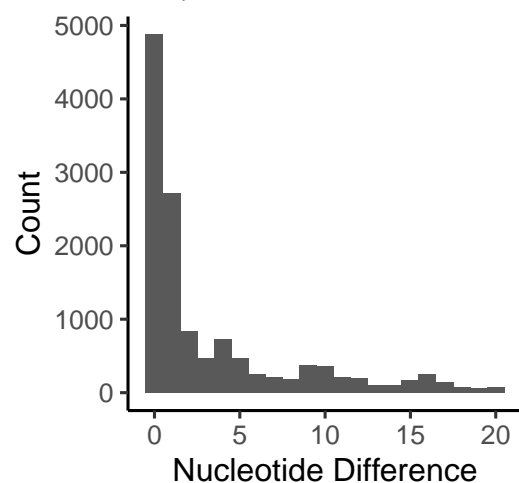
IGHV4-30-2*01

2097 sequences assigned
734 (35%) exact matches, in which:
582 unique CDR3
6 unique J



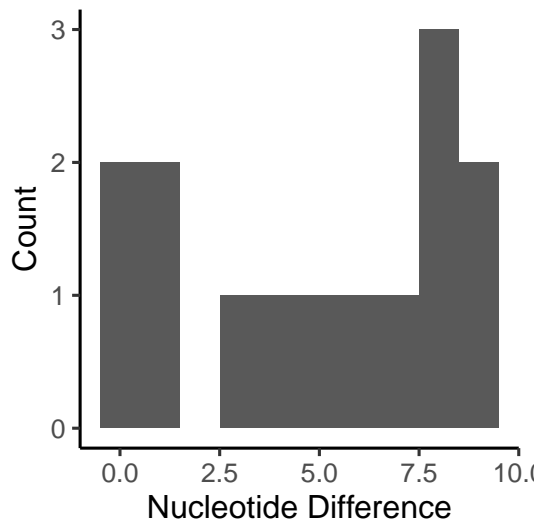
IGHV4-34*01_02

14426 sequences assigned
4878 (33.8%) exact matches, in which:
4300 unique CDR3
6 unique J



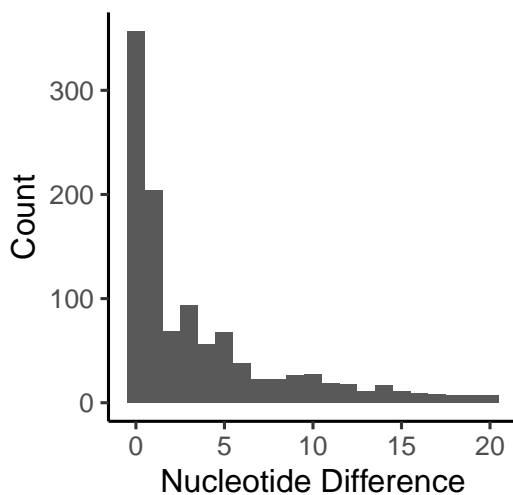
IGHV4-28*03

16 sequences assigned
2 (12.5%) exact matches, in which:
2 unique CDR3
1 unique J



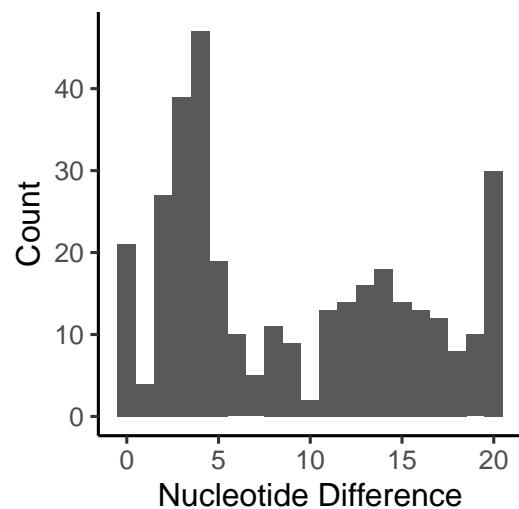
IGHV4-30-4*01

1368 sequences assigned
357 (26.1%) exact matches, in which:
328 unique CDR3
6 unique J



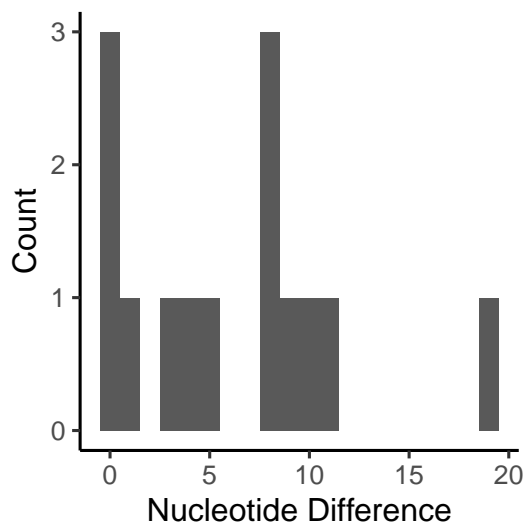
IGHV4-38-2*02

590 sequences assigned
21 (3.6%) exact matches, in which:
21 unique CDR3
4 unique J



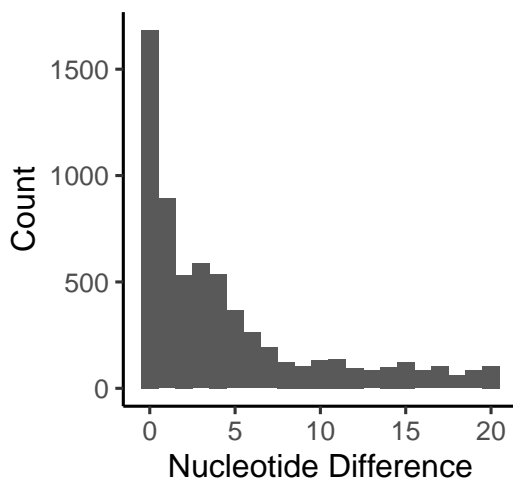
IGHV4-28*01_07

14 sequences assigned
3 (21.4%) exact matches, in which:
3 unique CDR3
2 unique J



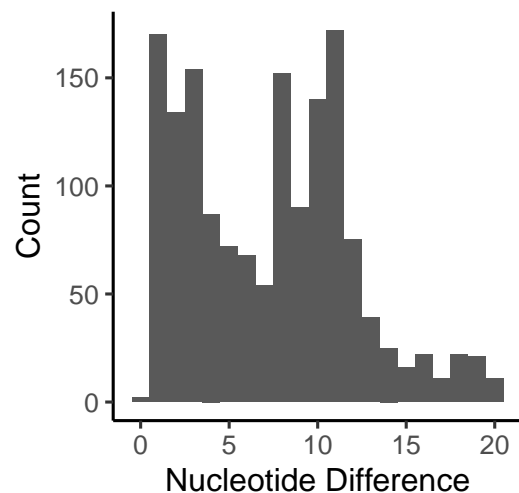
IGHV4-31*02

6672 sequences assigned
1684 (25.2%) exact matches, in which:
1550 unique CDR3
6 unique J



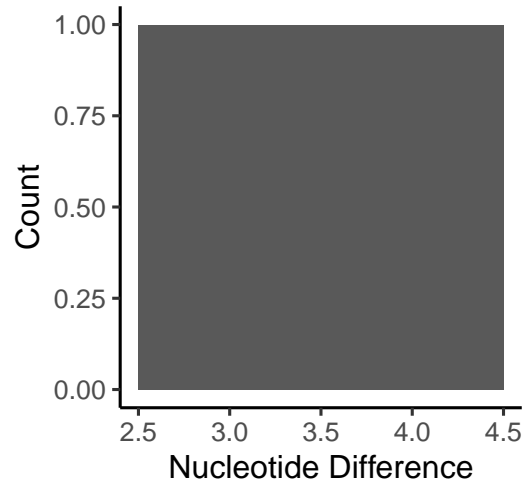
IGHV4-39*07

2068 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
1 unique J



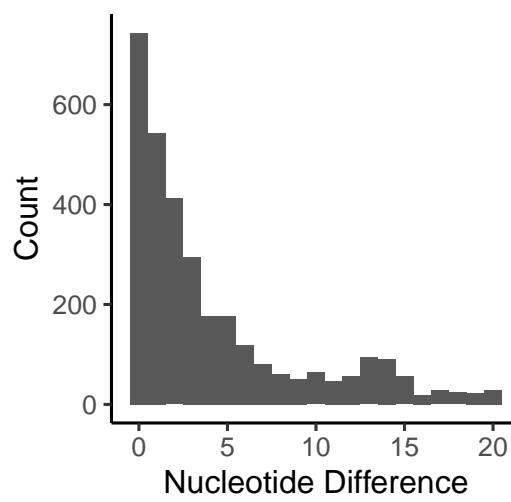
IGHV4-55*09

2 sequences assigned
No exact matches.



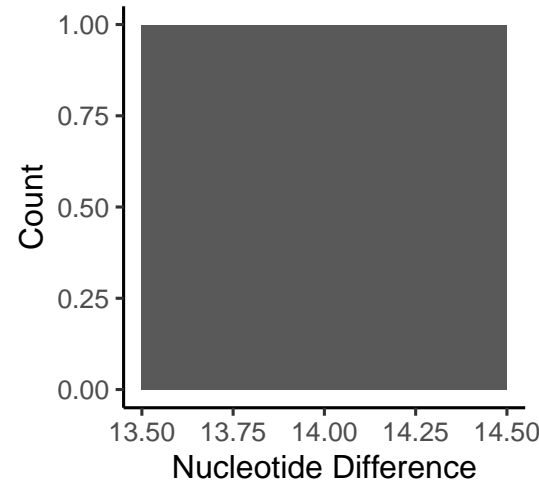
IGHV4-61*01

3306 sequences assigned
744 (22.5%) exact matches, in which:
696 unique CDR3
6 unique J



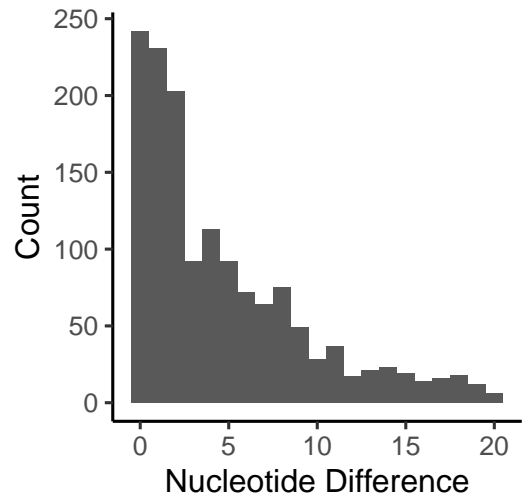
IGHV1/OR15-1*04

2 sequences assigned
No exact matches.



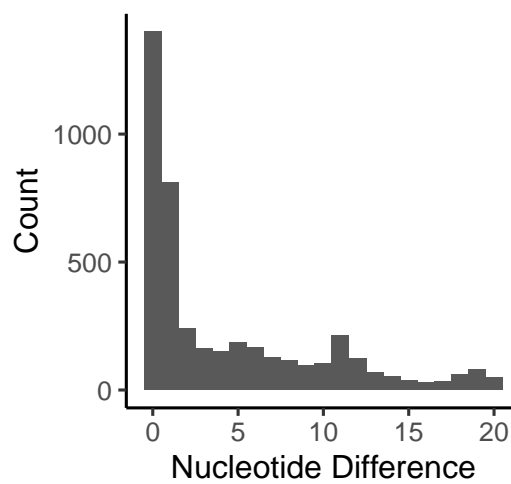
IGHV4-59*08

1520 sequences assigned
242 (15.9%) exact matches, in which:
241 unique CDR3
6 unique J



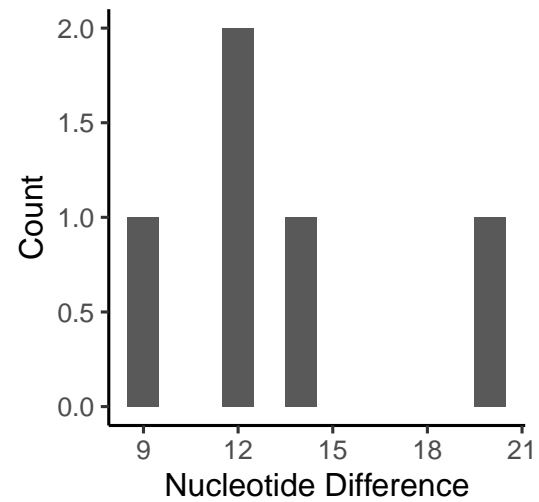
IGHV4-61*02

5281 sequences assigned
1400 (26.5%) exact matches, in which:
1318 unique CDR3
6 unique J



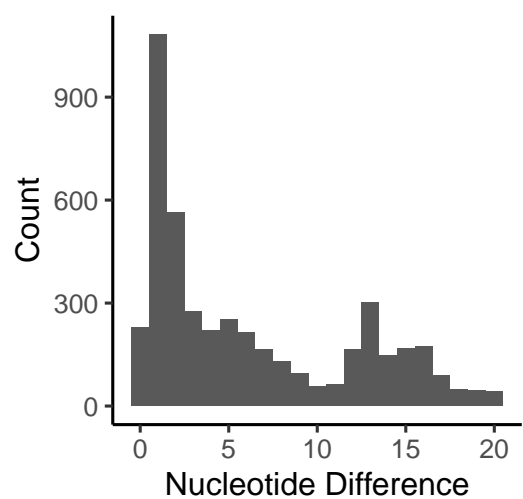
IGHV1/OR15-2*02_03

7 sequences assigned
No exact matches.



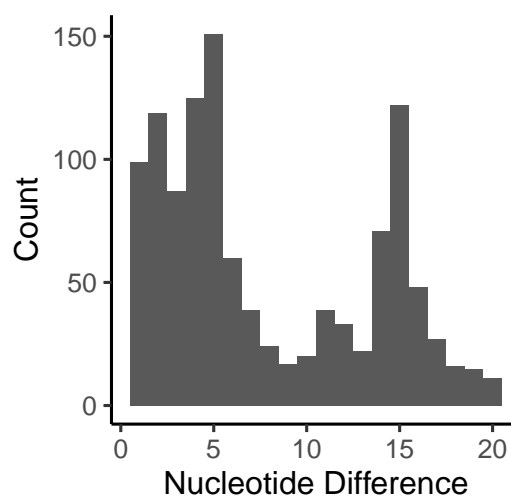
IGHV4-59*12

4800 sequences assigned
230 (4.8%) exact matches, in which:
227 unique CDR3
6 unique J



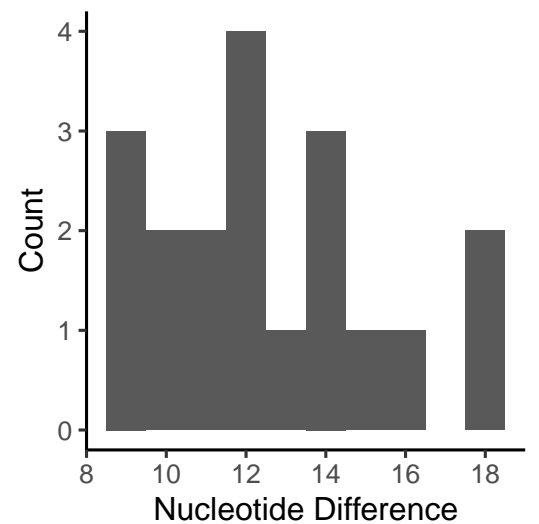
IGHV4-61*08

1203 sequences assigned
No exact matches.



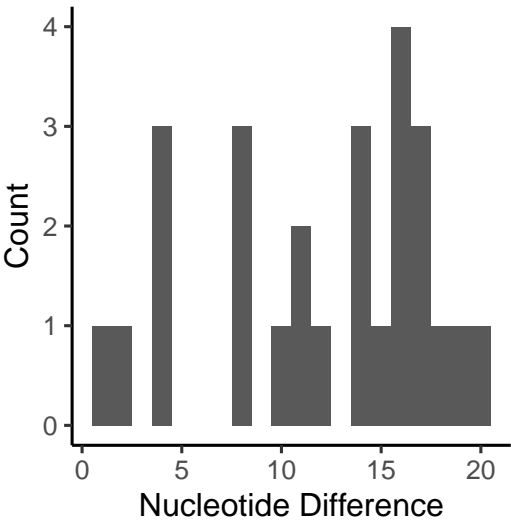
IGHV1/OR15-3*02

31 sequences assigned
No exact matches.



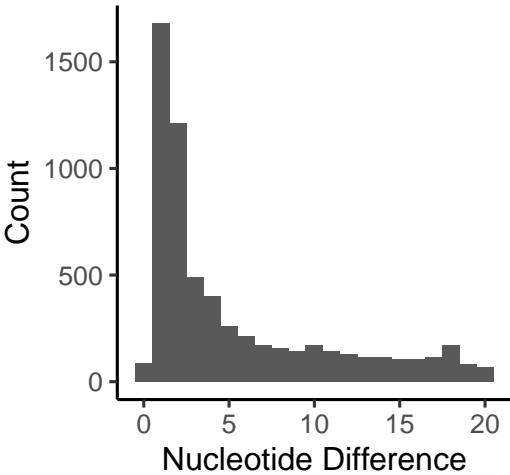
IGHV4/OR15–8*01

37 sequences assigned
No exact matches.



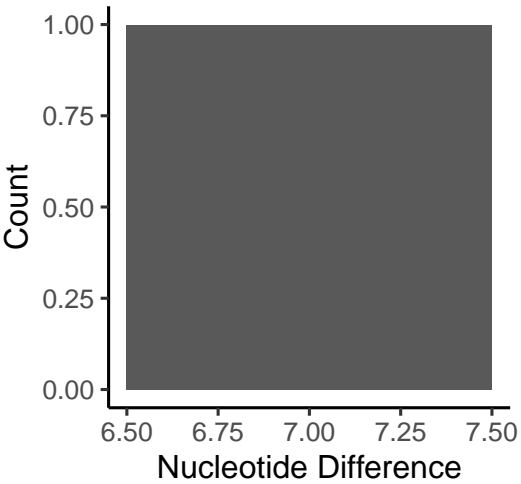
IGHV5–51*07

6531 sequences assigned
87 (1.3%) exact matches, in which:
79 unique CDR3
5 unique J



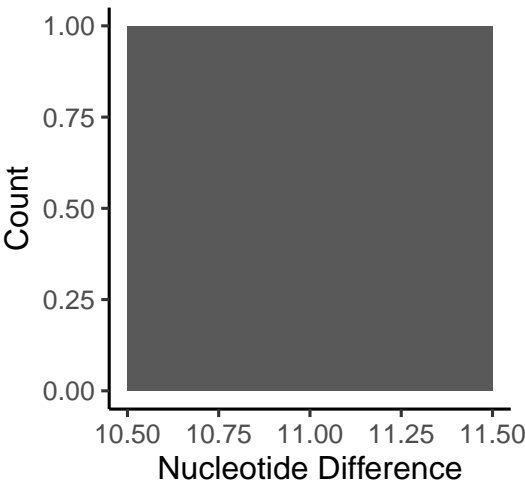
IGHV3/OR16–6*02

1 sequences assigned
No exact matches.



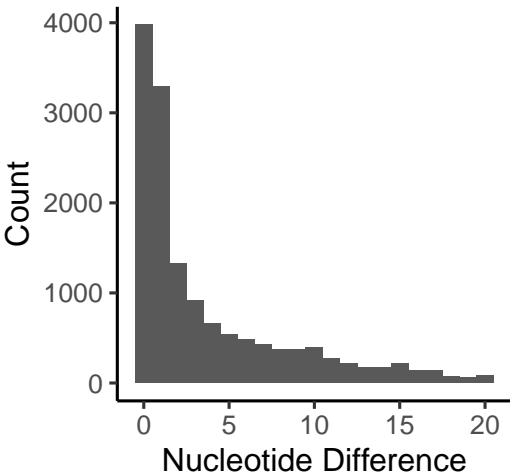
IGHV1/OR15–9*01

1 sequences assigned
No exact matches.



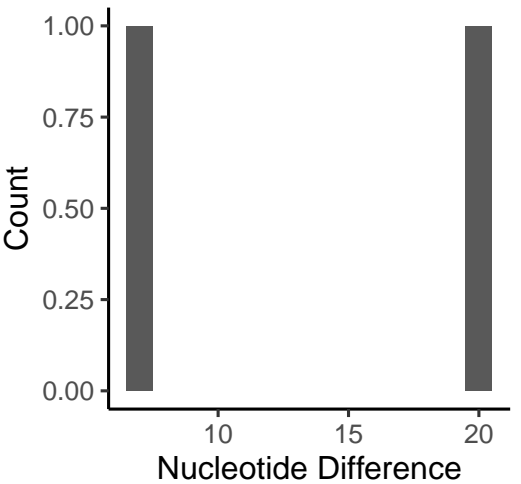
IGHV5–51*01_03

15016 sequences assigned
3978 (26.5%) exact matches, in which:
2507 unique CDR3
6 unique J



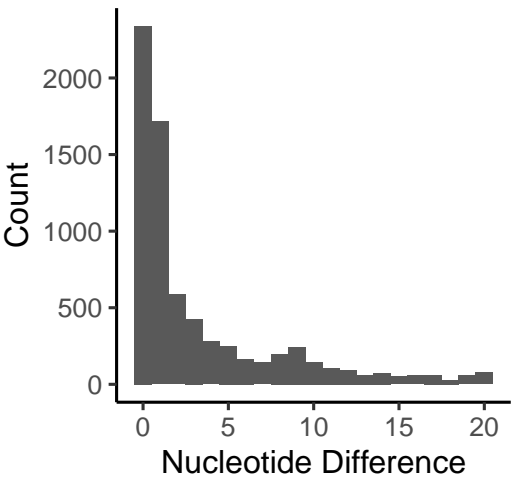
IGHV3/OR16–13*01

4 sequences assigned
No exact matches.



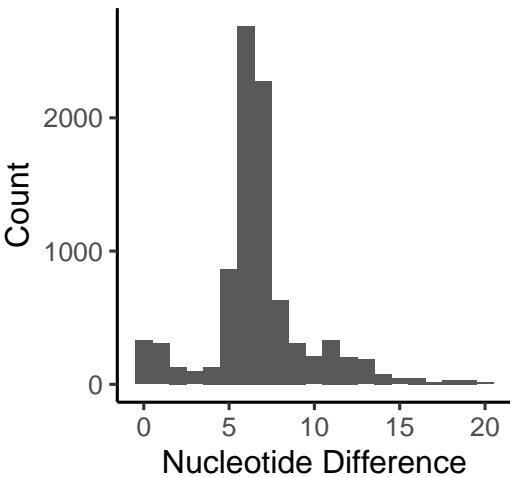
IGHV5–10–1*01_03

7370 sequences assigned
2339 (31.7%) exact matches, in which:
1608 unique CDR3
6 unique J



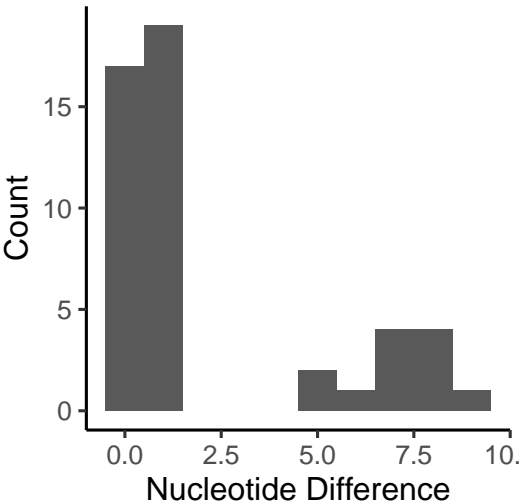
IGHV6–1*01_02

9199 sequences assigned
329 (3.6%) exact matches, in which:
293 unique CDR3
6 unique J



IGHV7–4–1*01

48 sequences assigned
17 (35.4%) exact matches, in which:
15 unique CDR3
4 unique J





Warning – no inferred sequences found.