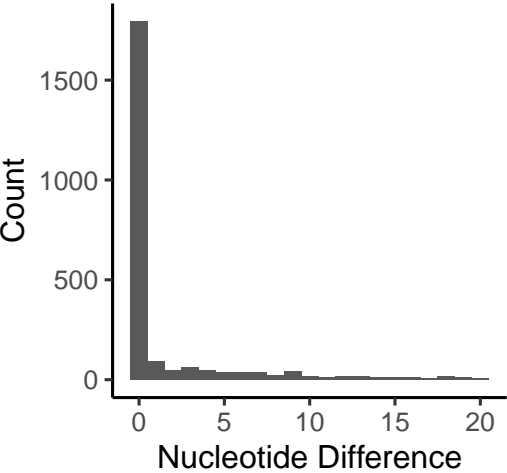


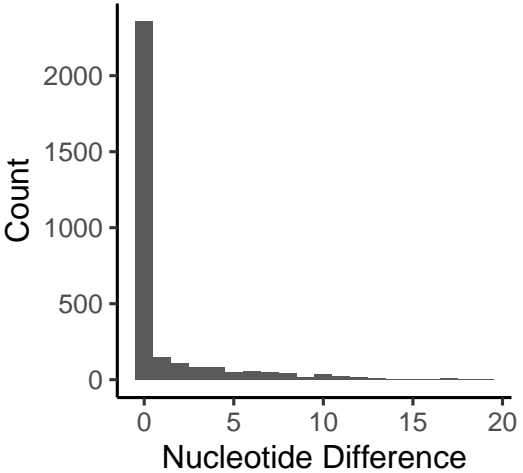
IGHV1-2*02

2400 sequences assigned
1794 (74.8%) exact matches, in which:
1791 unique CDR3
6 unique J



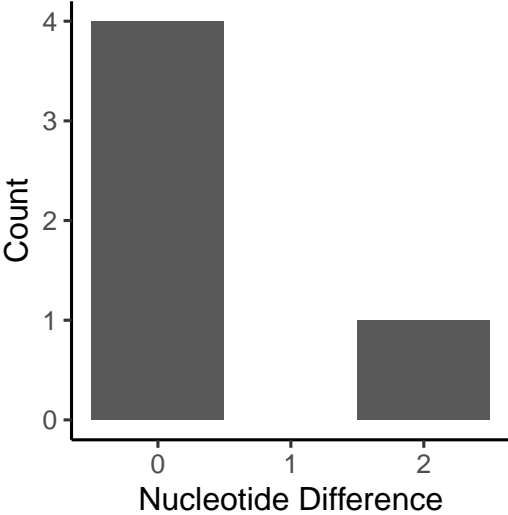
IGHV1-8*01

3108 sequences assigned
2357 (75.8%) exact matches, in which:
2351 unique CDR3
6 unique J



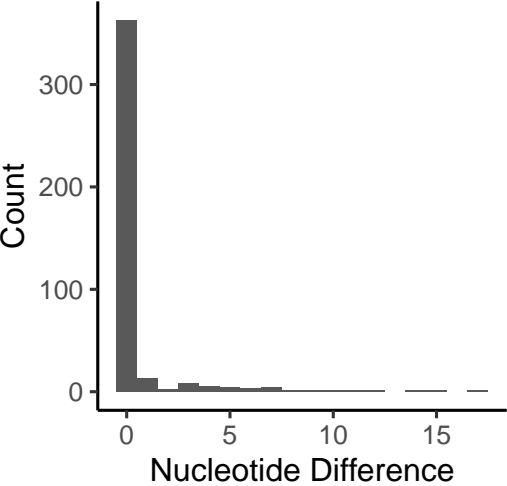
IGHV1-45*02

9 sequences assigned
4 (44.4%) exact matches, in which:
4 unique CDR3
3 unique J



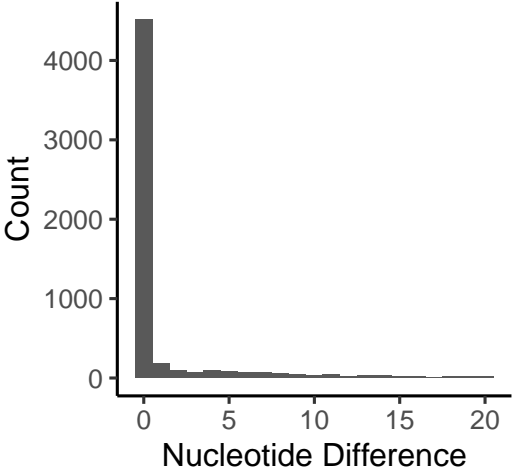
IGHV1-2*04

411 sequences assigned
363 (88.3%) exact matches, in which:
363 unique CDR3
6 unique J



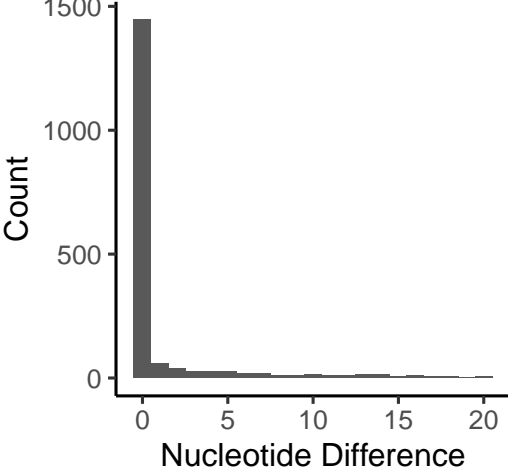
IGHV1-18*01

5580 sequences assigned
4513 (80.9%) exact matches, in which:
4509 unique CDR3
6 unique J



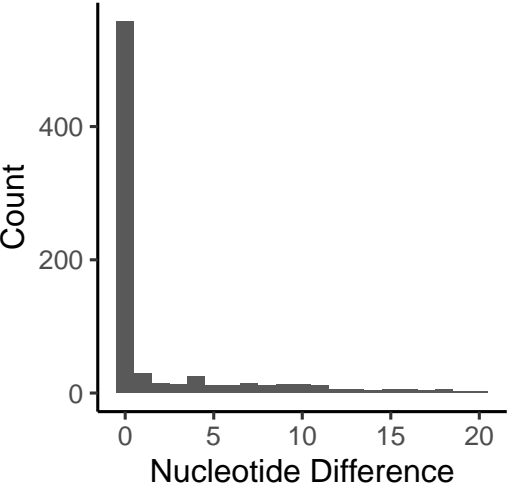
IGHV1-46*01

1795 sequences assigned
1446 (80.6%) exact matches, in which:
1446 unique CDR3
6 unique J



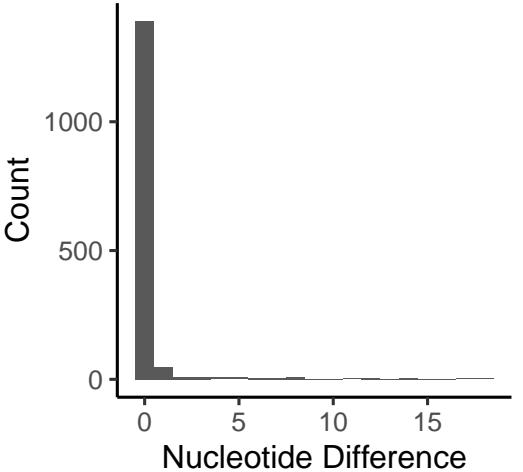
IGHV1-3*01_05

775 sequences assigned
558 (72%) exact matches, in which:
558 unique CDR3
6 unique J



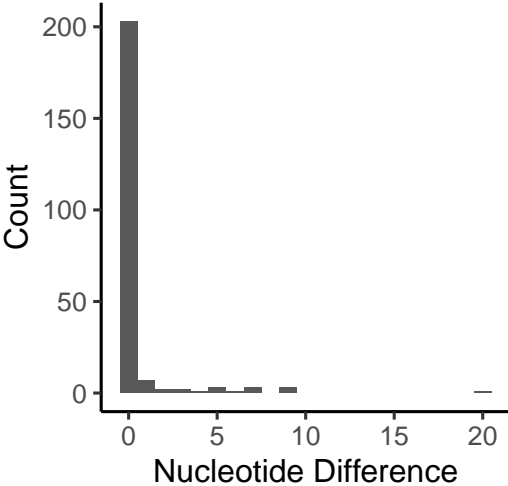
IGHV1-24*01

1516 sequences assigned
1391 (91.8%) exact matches, in which:
1389 unique CDR3
6 unique J



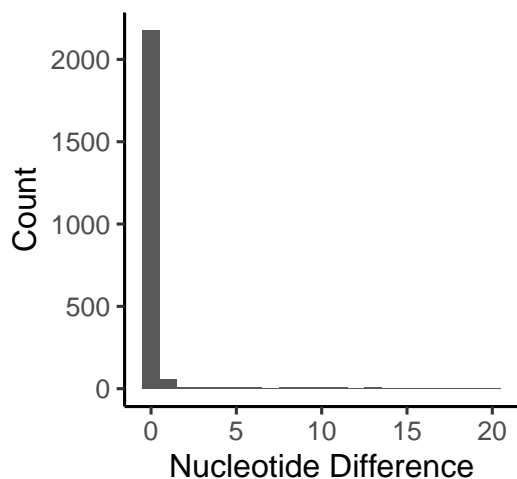
IGHV1-58*02

226 sequences assigned
203 (89.8%) exact matches, in which:
203 unique CDR3
5 unique J



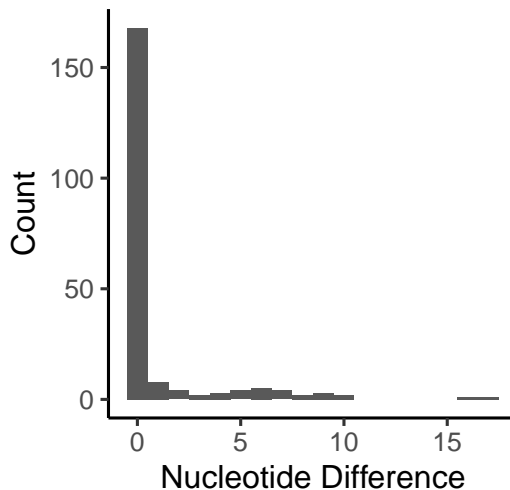
IGHV1-69*04_09

2360 sequences assigned
2176 (92.2%) exact matches, in which:
2176 unique CDR3
6 unique J



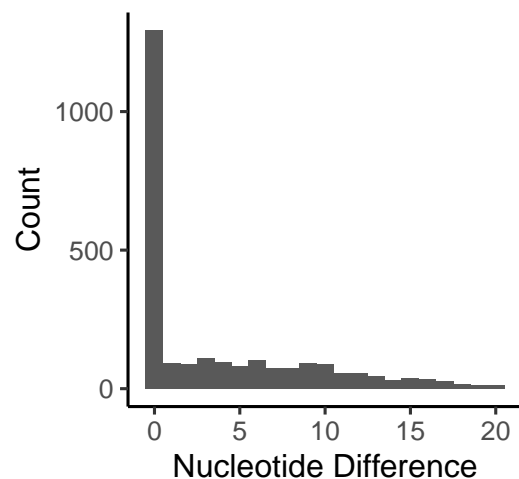
IGHV2-26*01

207 sequences assigned
168 (81.2%) exact matches, in which:
168 unique CDR3
5 unique J



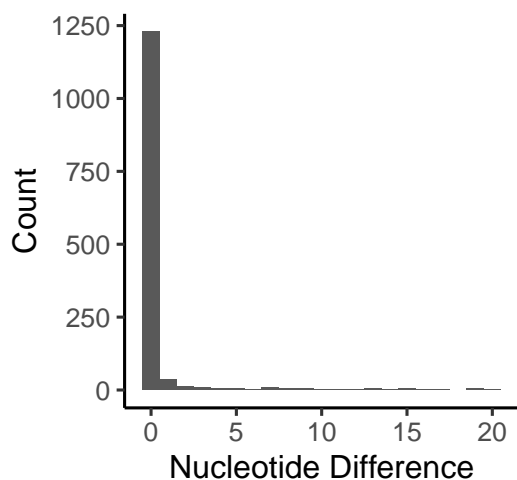
IGHV3-7*01

2553 sequences assigned
1293 (50.6%) exact matches, in which:
1248 unique CDR3
6 unique J



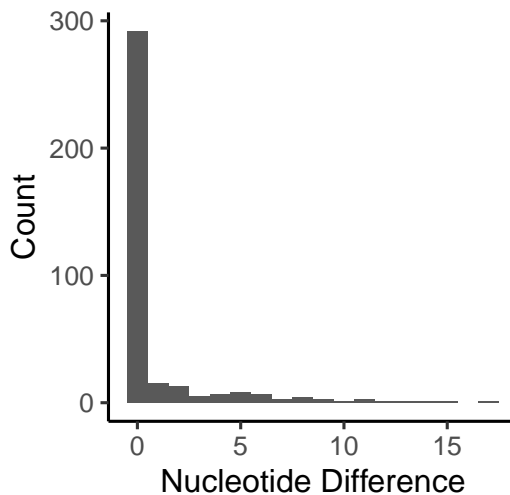
IGHV1-69*04_09_G112.

1357 sequences assigned
1229 (90.6%) exact matches, in which:
1228 unique CDR3
6 unique J



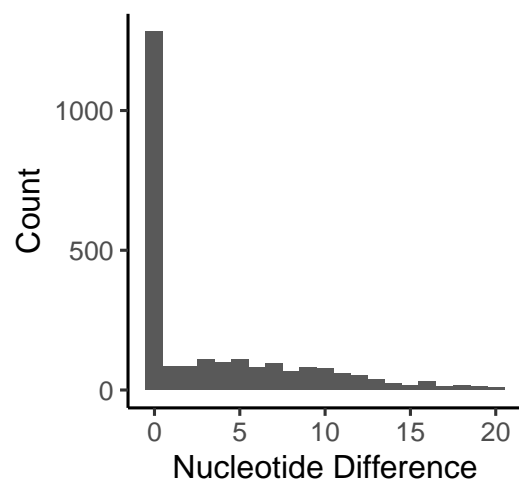
IGHV2-70*11_15

367 sequences assigned
292 (79.6%) exact matches, in which:
291 unique CDR3
4 unique J



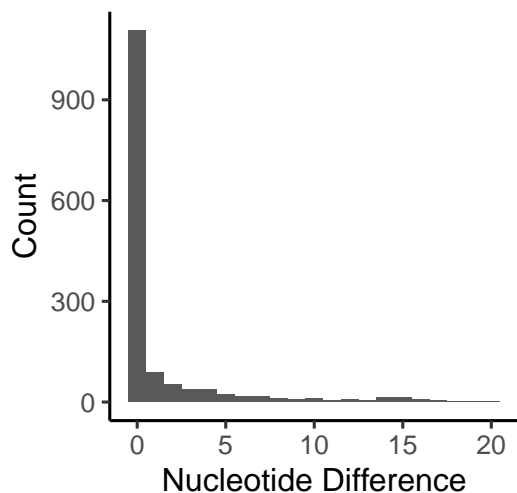
IGHV3-7*03

2453 sequences assigned
1282 (52.3%) exact matches, in which:
1236 unique CDR3
6 unique J



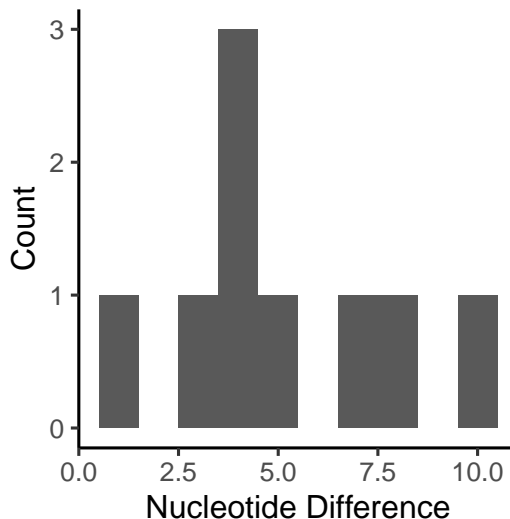
IGHV2-5*02

1482 sequences assigned
1107 (74.7%) exact matches, in which:
1102 unique CDR3
6 unique J



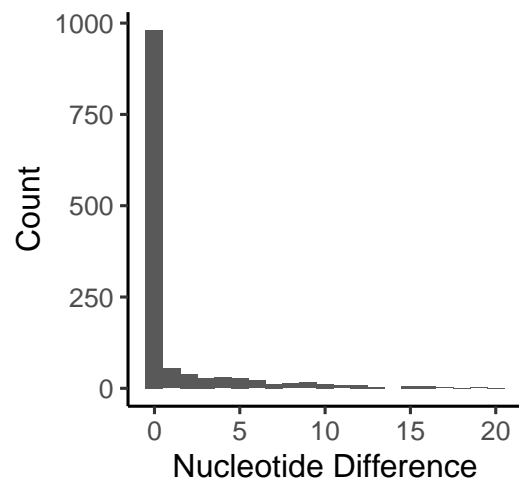
IGHV2-70D*04

9 sequences assigned
No exact matches.



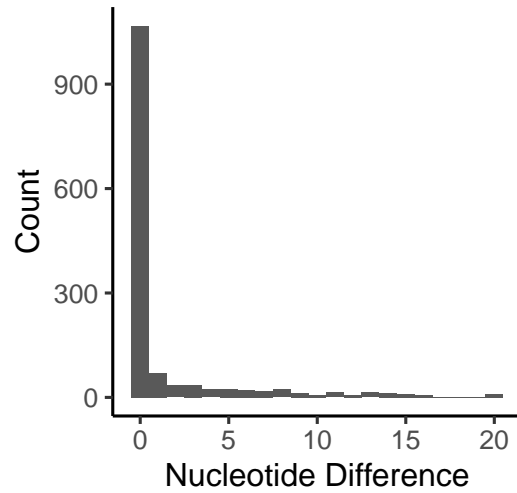
IGHV3-9*01

1289 sequences assigned
981 (76.1%) exact matches, in which:
967 unique CDR3
6 unique J



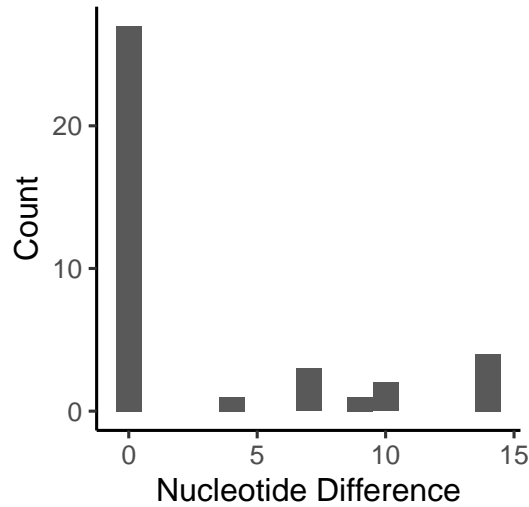
IGHV3-11*01

1434 sequences assigned
1068 (74.5%) exact matches, in which:
1042 unique CDR3
6 unique J



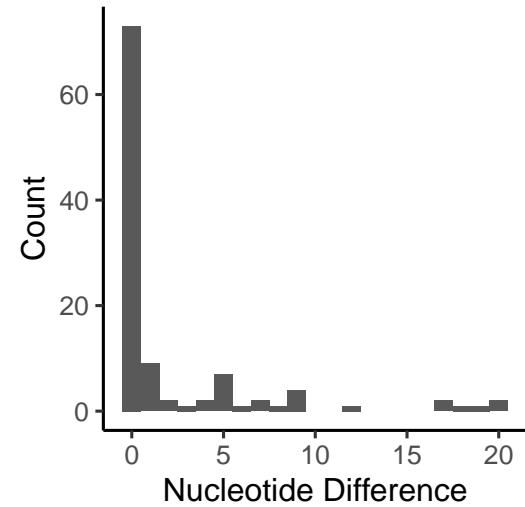
IGHV3-13*05

38 sequences assigned
27 (71.1%) exact matches, in which:
27 unique CDR3
5 unique J



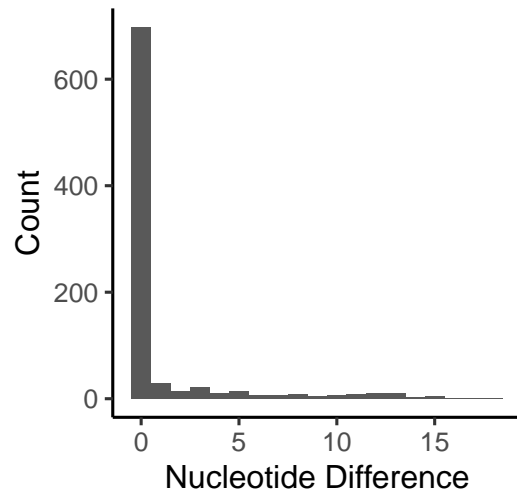
IGHV3-20*01_02

110 sequences assigned
73 (66.4%) exact matches, in which:
68 unique CDR3
5 unique J



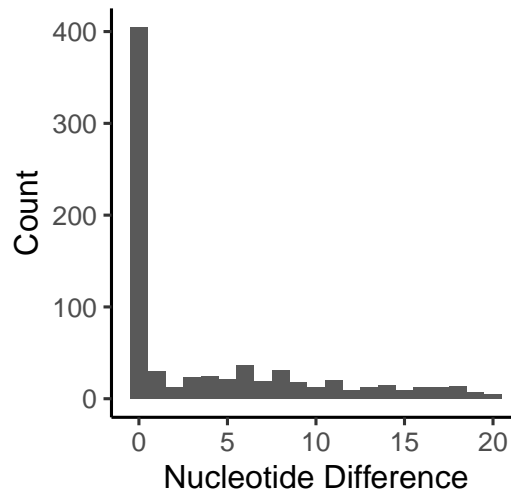
IGHV3-11*06

862 sequences assigned
698 (81%) exact matches, in which:
676 unique CDR3
6 unique J



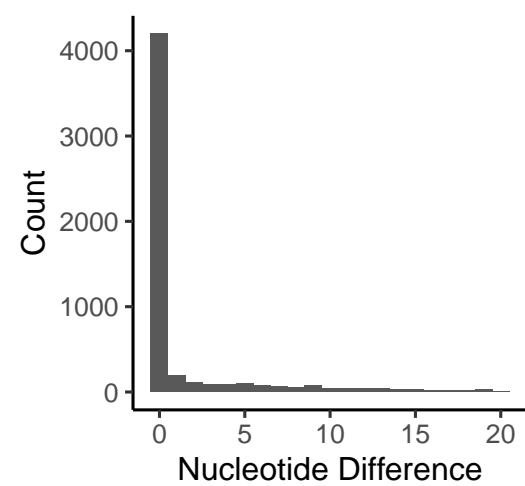
IGHV3-15*01_02

766 sequences assigned
405 (52.9%) exact matches, in which:
395 unique CDR3
6 unique J



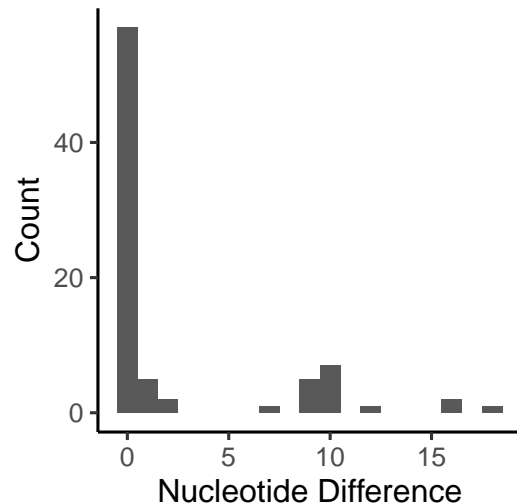
IGHV3-21*01_02

5455 sequences assigned
4199 (77%) exact matches, in which:
4041 unique CDR3
6 unique J



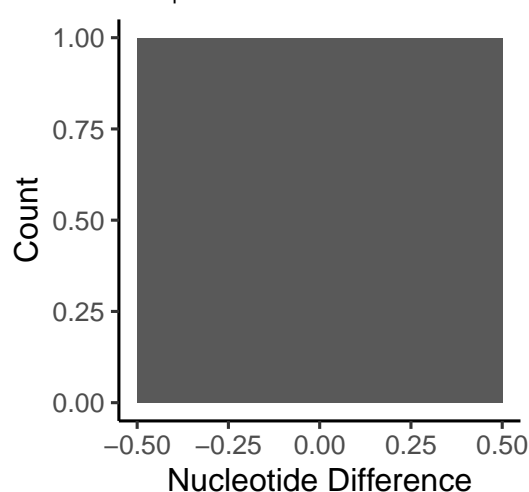
IGHV3-13*01

82 sequences assigned
57 (69.5%) exact matches, in which:
54 unique CDR3
5 unique J



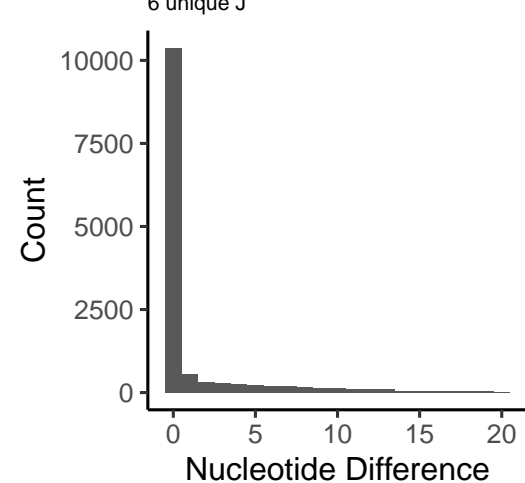
IGHV3-19*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



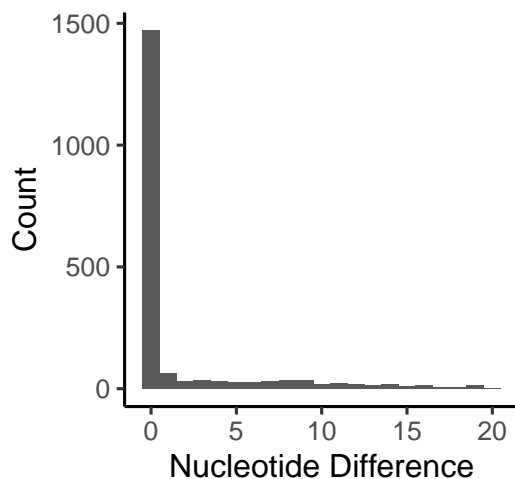
IGHV3-23*01_04

13680 sequences assigned
10379 (75.9%) exact matches, in which:
10022 unique CDR3
6 unique J



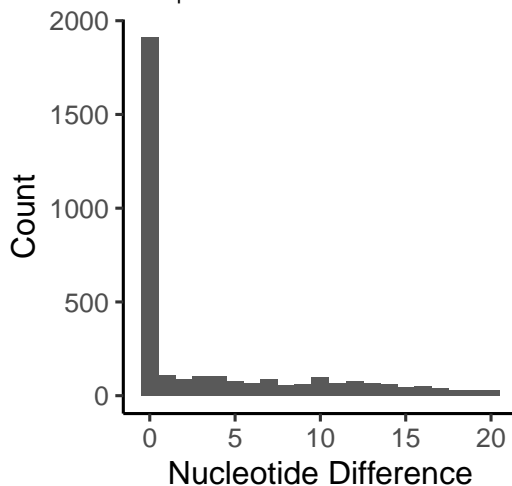
IGHV3-30-3*01

1948 sequences assigned
1471 (75.5%) exact matches, in which:
1446 unique CDR3
6 unique J



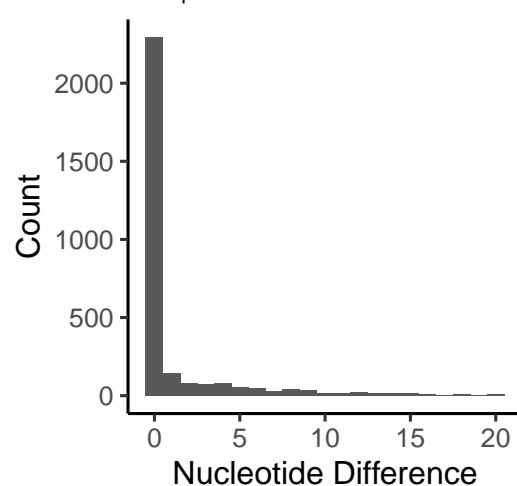
IGHV3-48*02

3362 sequences assigned
1911 (56.8%) exact matches, in which:
1823 unique CDR3
6 unique J



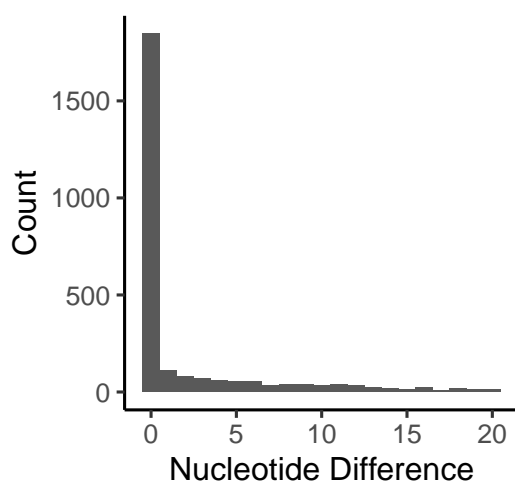
IGHV3-53*01_02

3027 sequences assigned
2293 (75.8%) exact matches, in which:
2209 unique CDR3
6 unique J



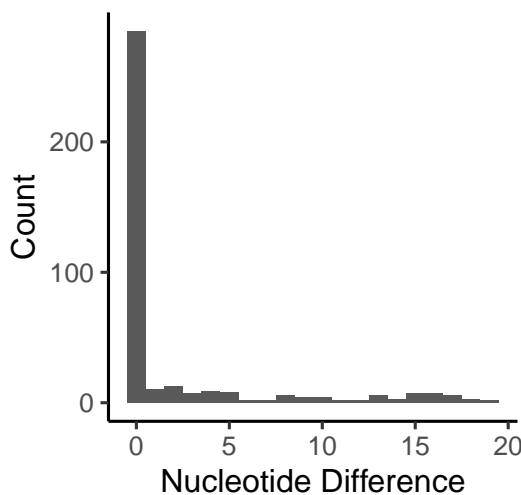
IGHV3-33*01

2651 sequences assigned
1846 (69.6%) exact matches, in which:
1805 unique CDR3
6 unique J



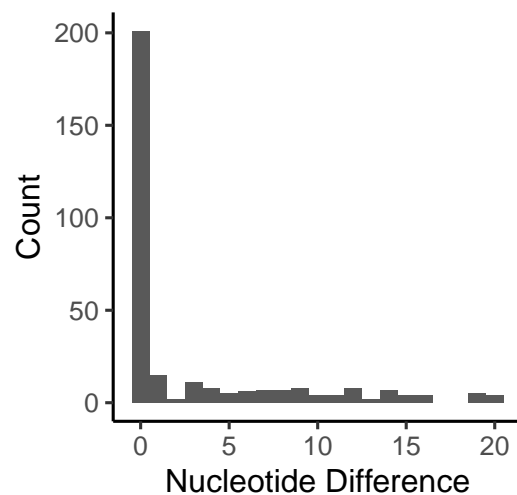
IGHV3-49*03_05

391 sequences assigned
285 (72.9%) exact matches, in which:
281 unique CDR3
5 unique J



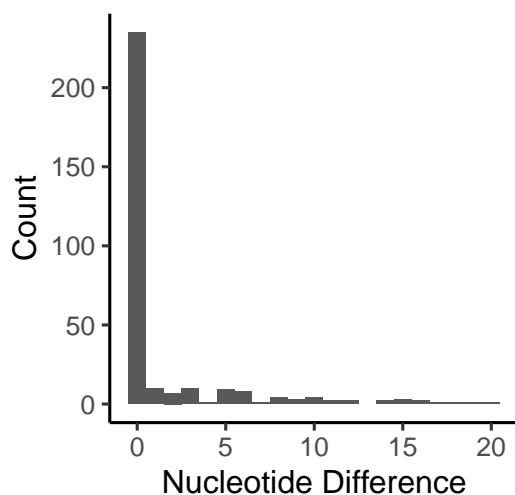
IGHV3-64*01

323 sequences assigned
201 (62.2%) exact matches, in which:
192 unique CDR3
5 unique J



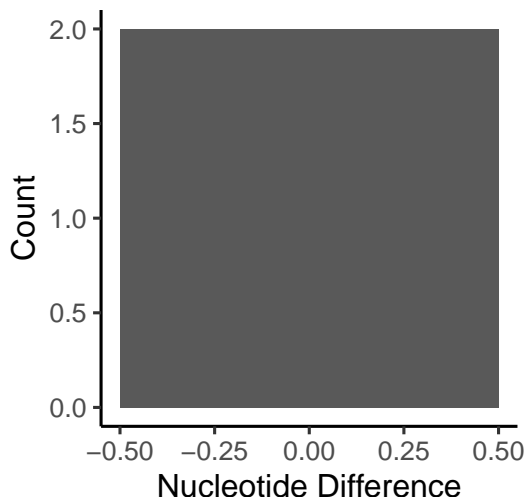
IGHV3-43*01

342 sequences assigned
235 (68.7%) exact matches, in which:
228 unique CDR3
6 unique J



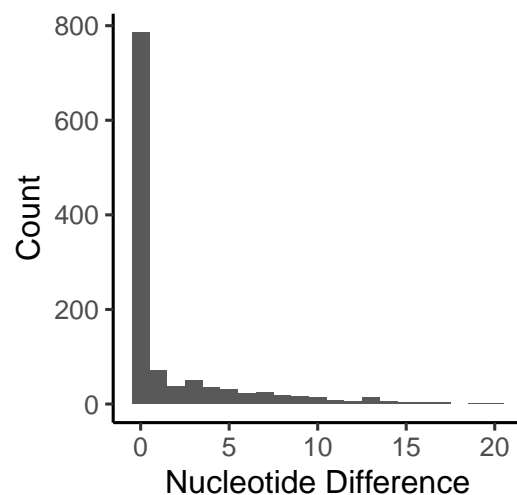
IGHV3-52*01_03

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
1 unique J



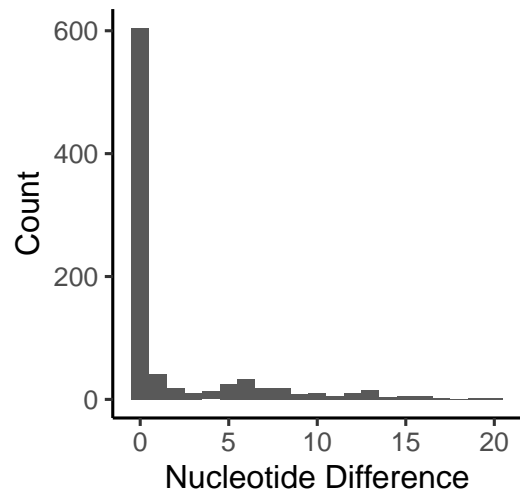
IGHV3-66*01

1155 sequences assigned
786 (68.1%) exact matches, in which:
753 unique CDR3
6 unique J



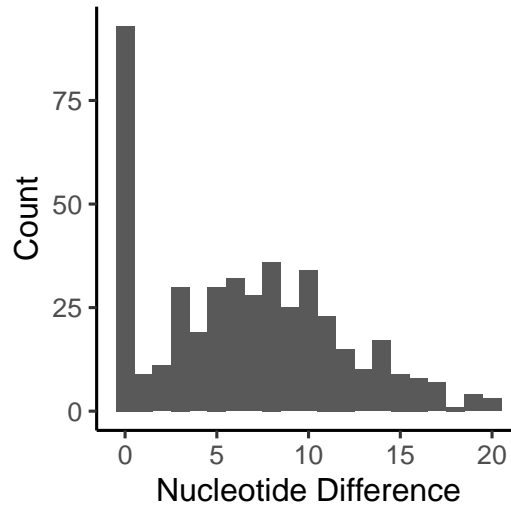
IGHV3-66*02

876 sequences assigned
605 (69.1%) exact matches, in which:
587 unique CDR3
6 unique J



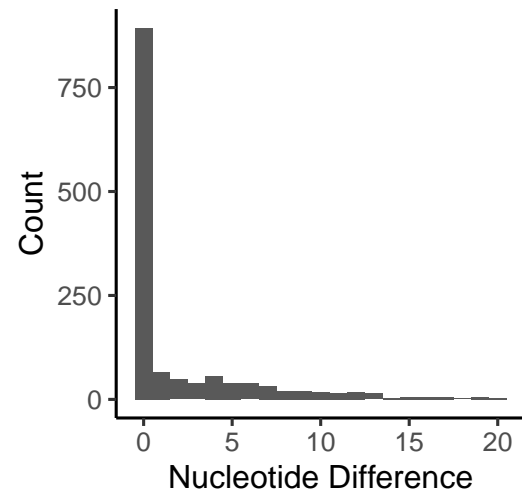
IGHV3-72*01

455 sequences assigned
93 (20.4%) exact matches, in which:
89 unique CDR3
6 unique J



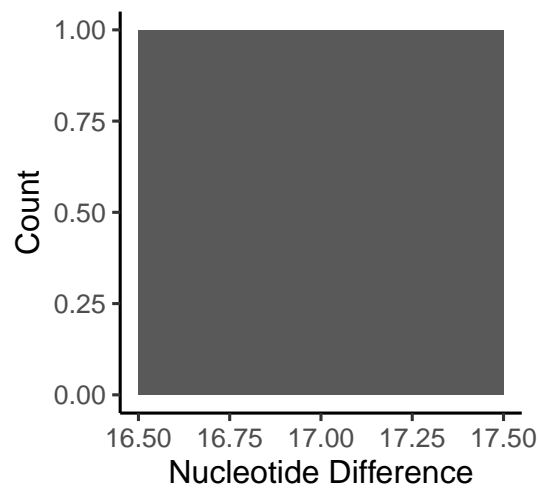
IGHV3-74*01_02

1359 sequences assigned
894 (65.8%) exact matches, in which:
865 unique CDR3
6 unique J



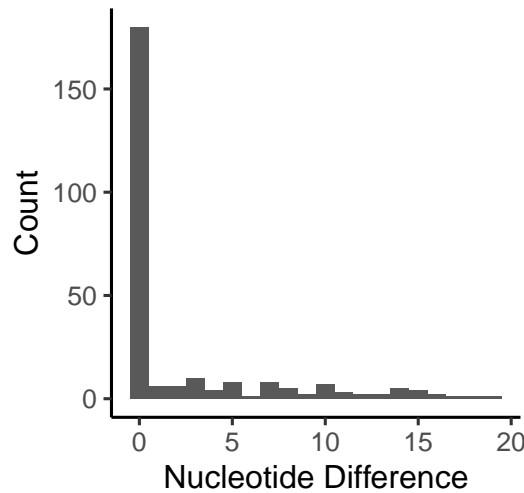
IGHV3-69-1*01

1 sequences assigned
No exact matches.



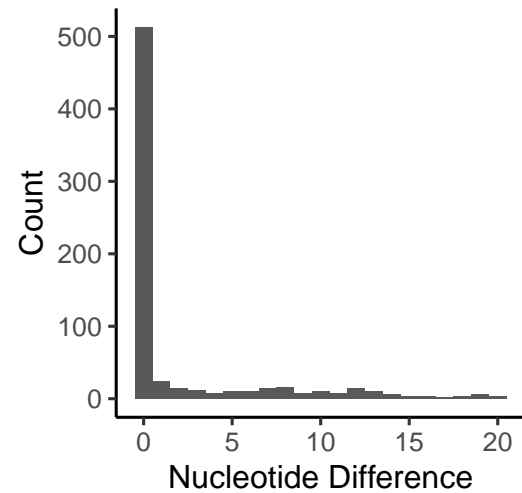
IGHV3-73*01_02

260 sequences assigned
180 (69.2%) exact matches, in which:
165 unique CDR3
5 unique J



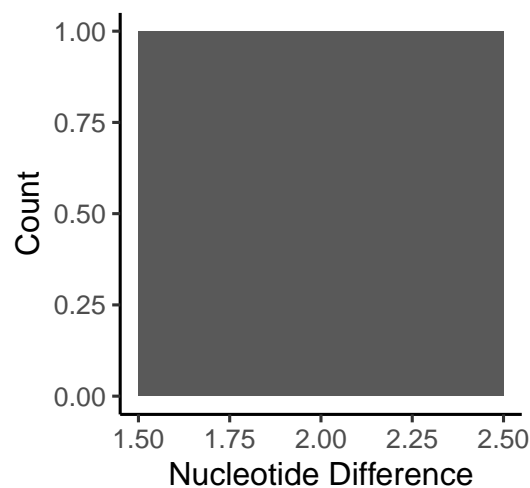
IGHV3-64D*09

711 sequences assigned
513 (72.2%) exact matches, in which:
503 unique CDR3
6 unique J



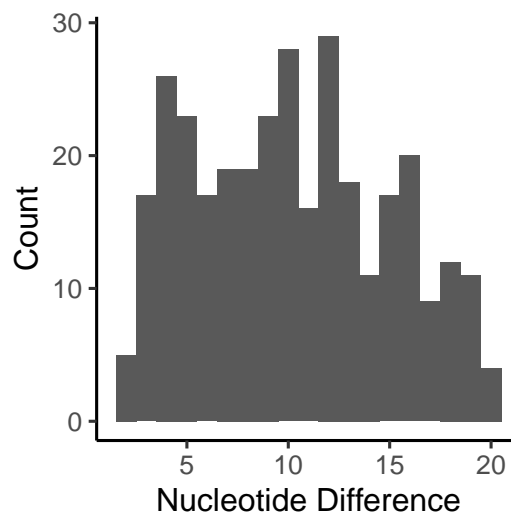
IGHV3-69-1*02

3 sequences assigned
No exact matches.



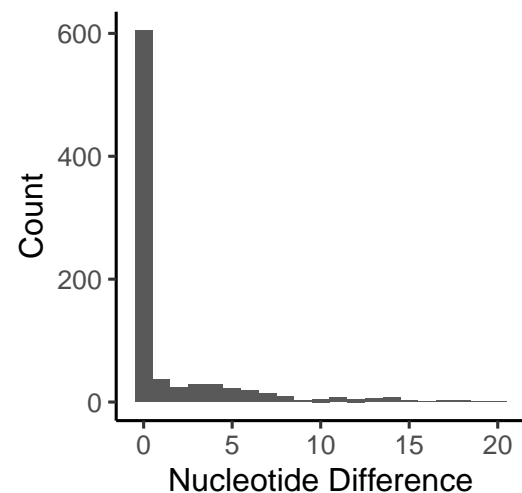
IGHV3-74*03

340 sequences assigned
No exact matches.



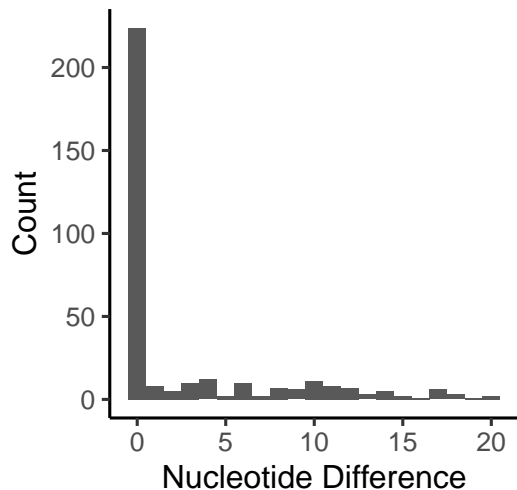
IGHV4-4*07

832 sequences assigned
605 (72.7%) exact matches, in which:
594 unique CDR3
6 unique J



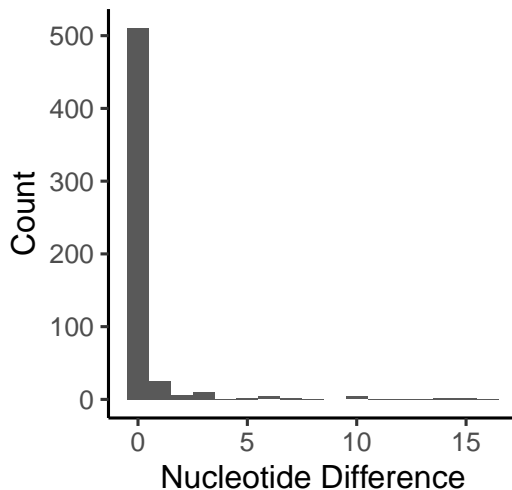
IGHV4-4*02_03

357 sequences assigned
224 (62.7%) exact matches, in which:
217 unique CDR3
6 unique J



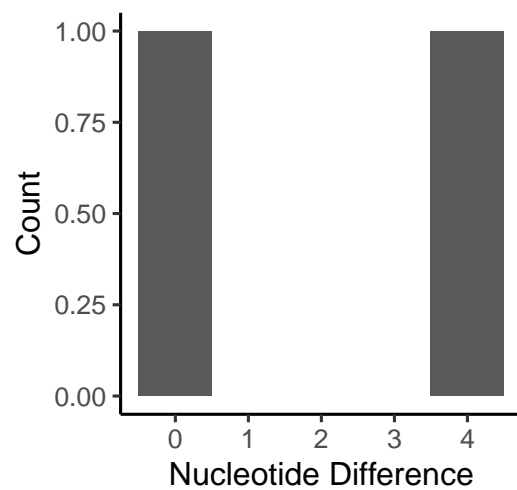
IGHV4-30-2*01

576 sequences assigned
511 (88.7%) exact matches, in which:
506 unique CDR3
6 unique J



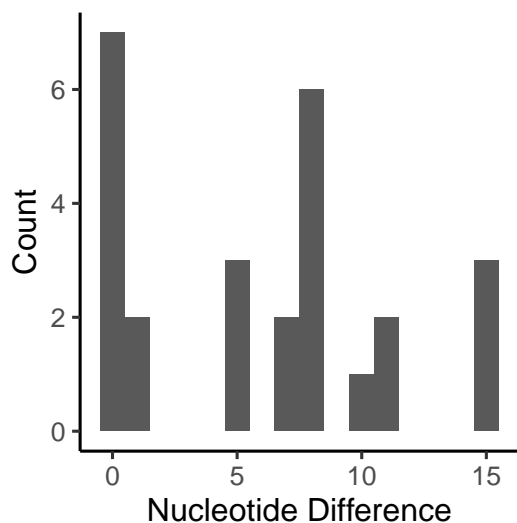
IGHV4-38-2*01

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



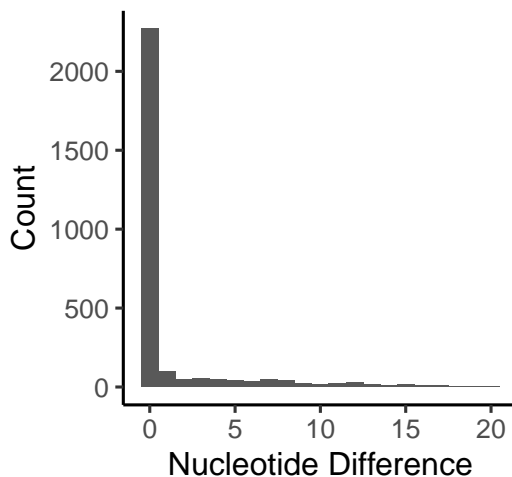
IGHV4-28*01_07

28 sequences assigned
7 (25%) exact matches, in which:
5 unique CDR3
2 unique J



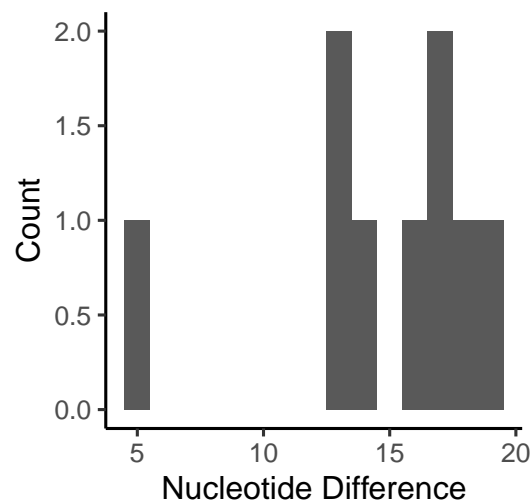
IGHV4-31*02

2850 sequences assigned
2270 (79.6%) exact matches, in which:
2241 unique CDR3
6 unique J



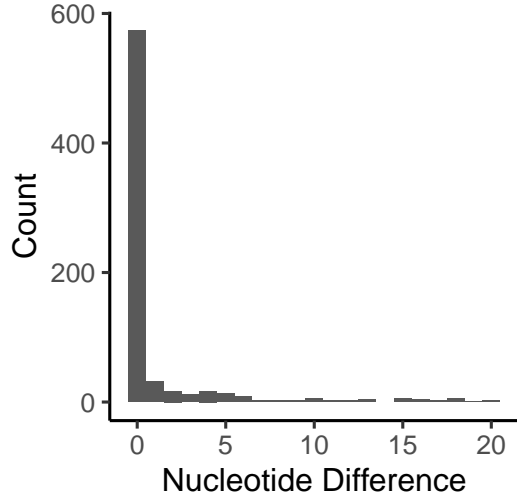
IGHV4-38-2*02

11 sequences assigned
No exact matches.



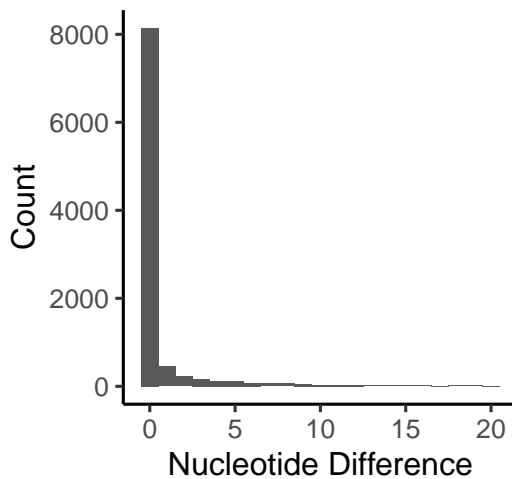
IGHV4-30-4*01

791 sequences assigned
574 (72.6%) exact matches, in which:
566 unique CDR3
6 unique J



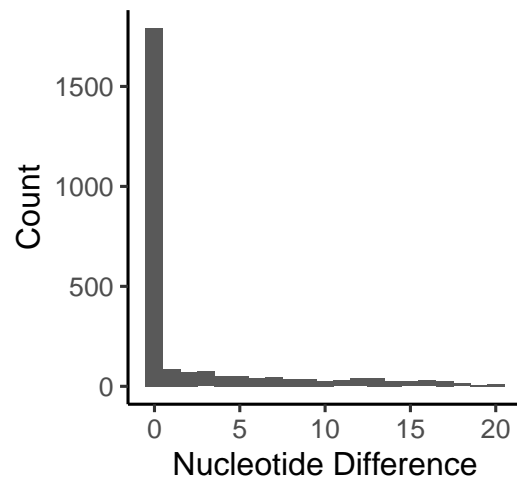
IGHV4-34*01_02

9737 sequences assigned
8143 (83.6%) exact matches, in which:
8028 unique CDR3
6 unique J



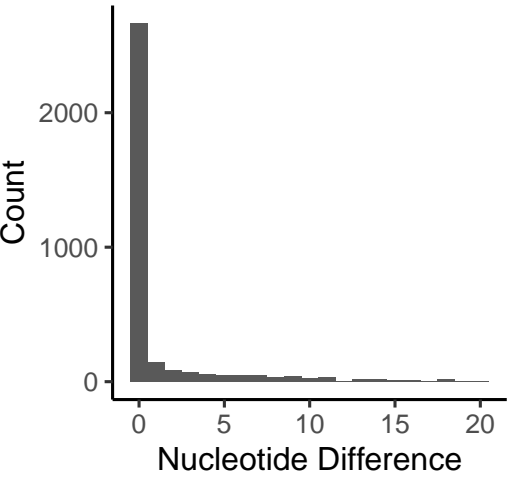
IGHV4-39*02_C258G

2669 sequences assigned
1792 (67.1%) exact matches, in which:
1753 unique CDR3
6 unique J



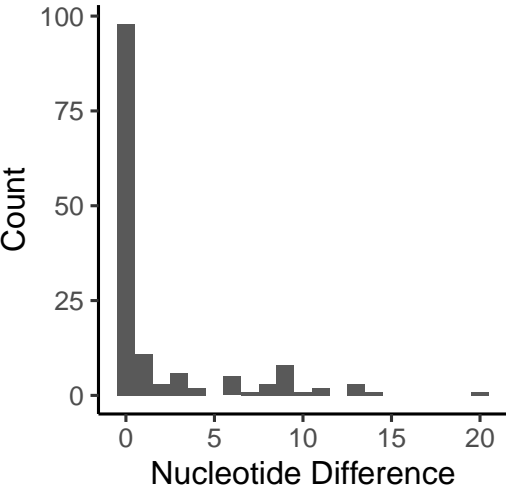
IGHV4-59*08

3409 sequences assigned
2664 (78.1%) exact matches, in which:
2585 unique CDR3
6 unique J



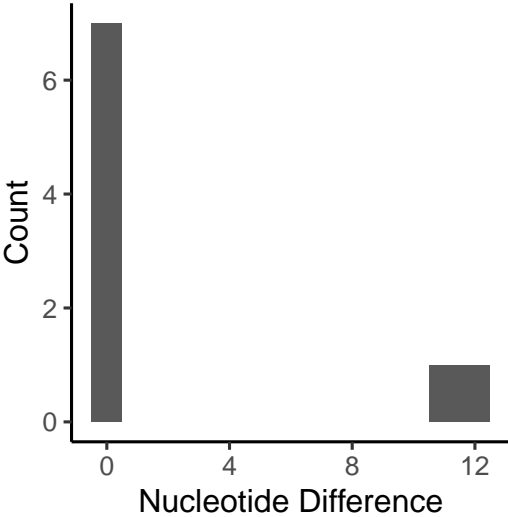
IGHV5-10-1*01_03

146 sequences assigned
98 (67.1%) exact matches, in which:
98 unique CDR3
5 unique J



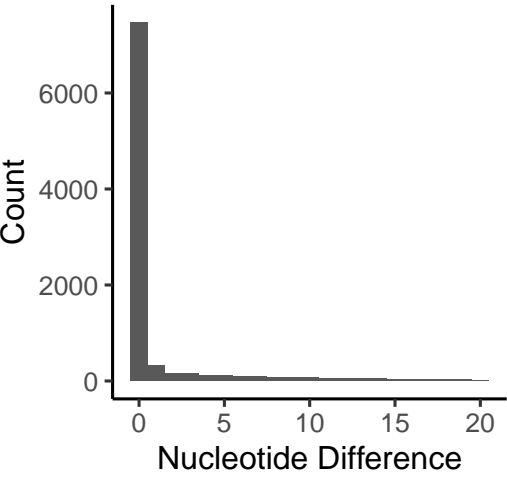
IGHV7-4-1*01

9 sequences assigned
7 (77.8%) exact matches, in which:
7 unique CDR3
3 unique J



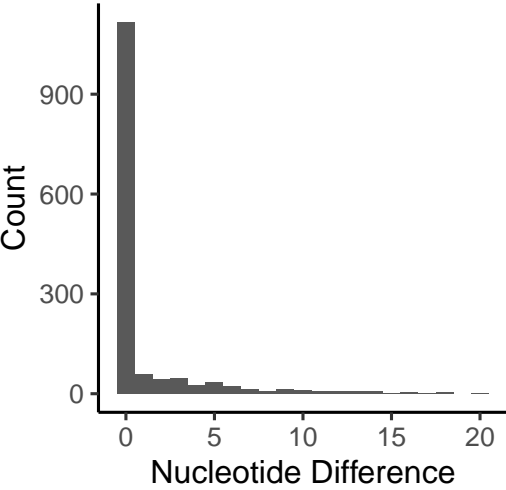
IGHV4-59*02_G88A

9146 sequences assigned
7464 (81.6%) exact matches, in which:
7336 unique CDR3
6 unique J



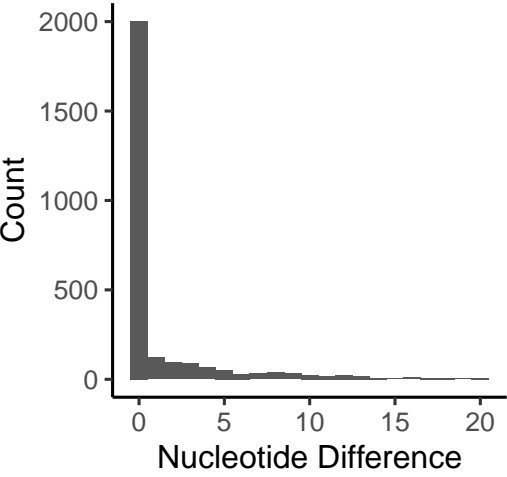
IGHV5-51*07_A128G

1449 sequences assigned
1117 (77.1%) exact matches, in which:
1115 unique CDR3
6 unique J



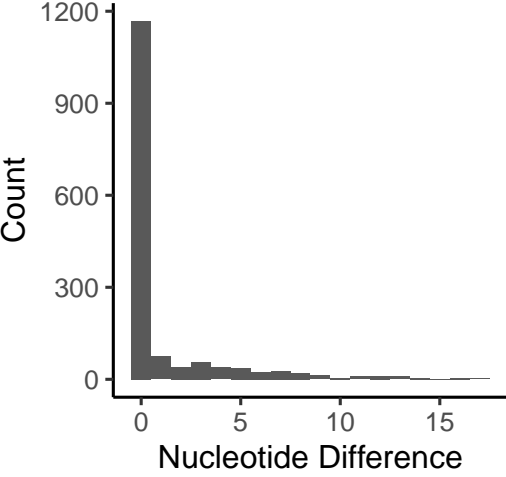
IGHV4-61*02

2719 sequences assigned
2003 (73.7%) exact matches, in which:
1964 unique CDR3
6 unique J



IGHV6-1*01_02

1548 sequences assigned
1168 (75.5%) exact matches, in which:
1166 unique CDR3
6 unique J





Warning – no inferred sequences found.