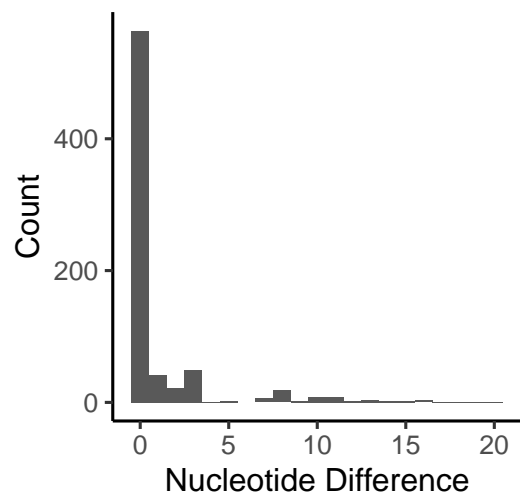


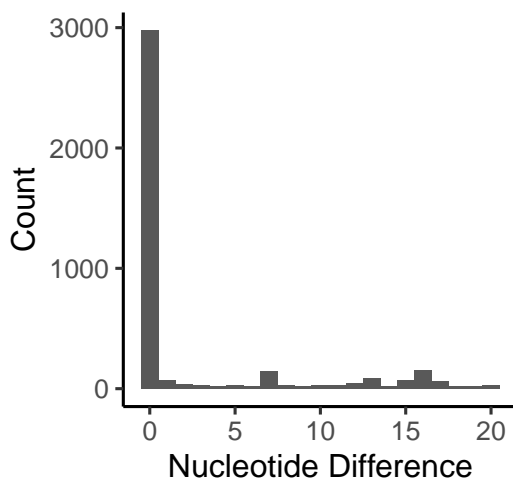
IGHV1-2*04

984 sequences assigned
564 (57.3%) exact matches, in which:
554 unique CDR3
6 unique J



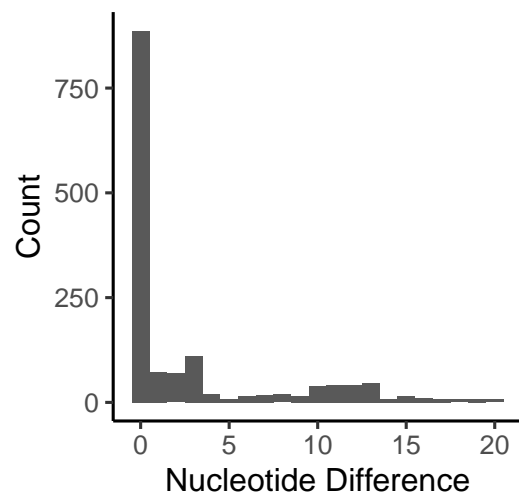
IGHV1-18*04

4280 sequences assigned
2977 (69.6%) exact matches, in which:
2943 unique CDR3
6 unique J



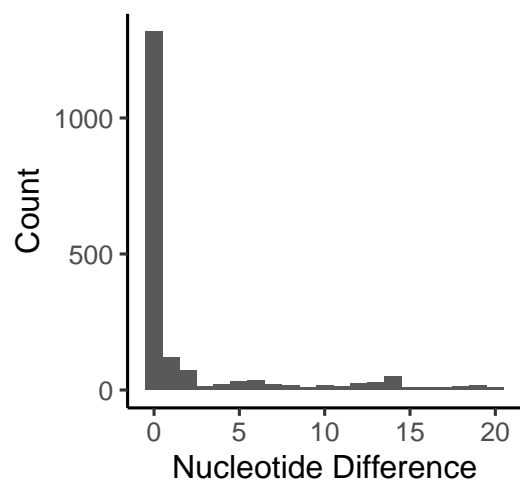
IGHV1-46*01

1570 sequences assigned
887 (56.5%) exact matches, in which:
874 unique CDR3
6 unique J



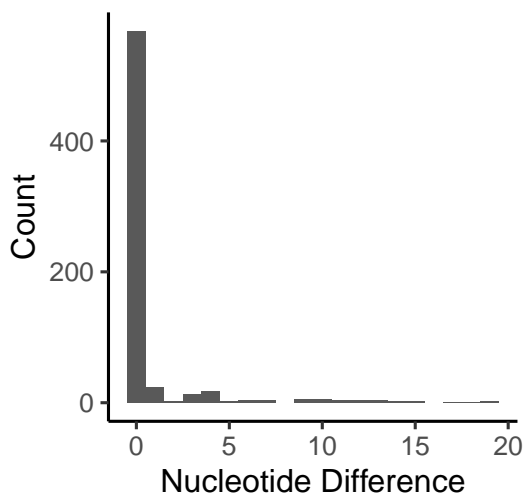
IGHV1-3*01_05

1912 sequences assigned
1317 (68.9%) exact matches, in which:
1296 unique CDR3
6 unique J



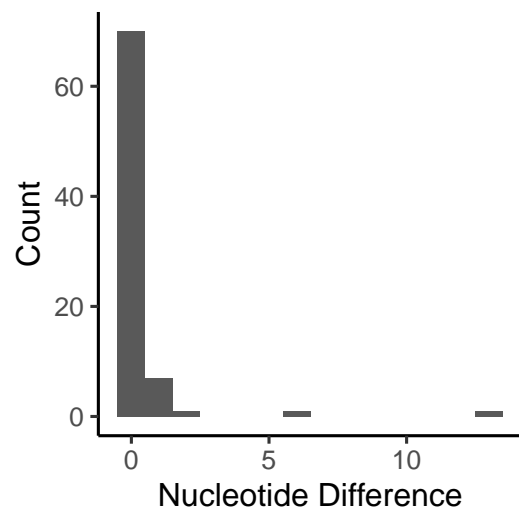
IGHV1-24*01

686 sequences assigned
568 (82.8%) exact matches, in which:
566 unique CDR3
6 unique J



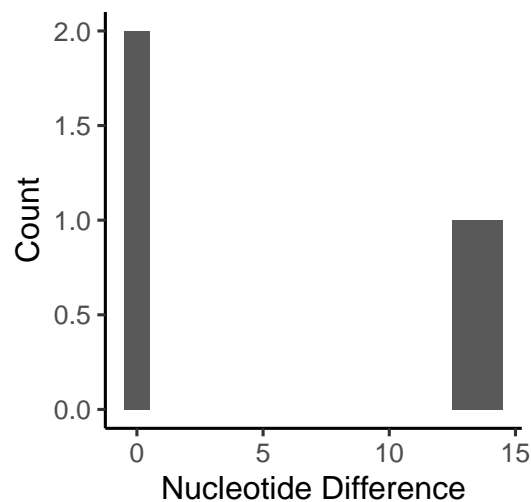
IGHV1-58*02

82 sequences assigned
70 (85.4%) exact matches, in which:
69 unique CDR3
6 unique J



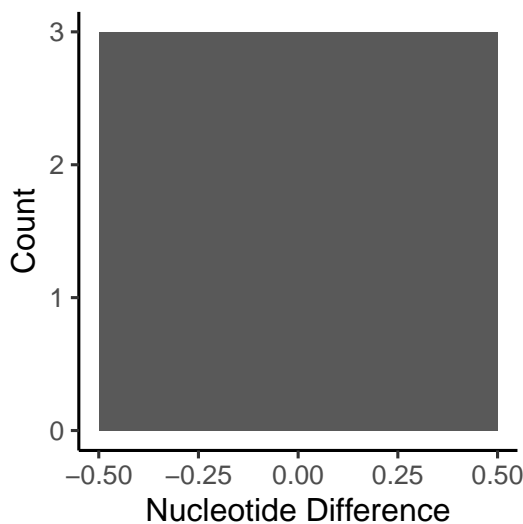
IGHV1-8*01

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



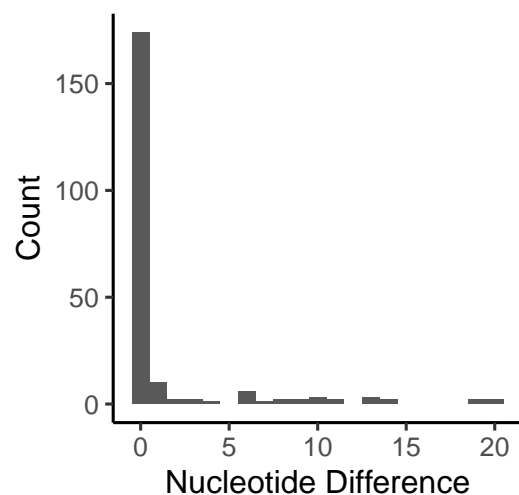
IGHV1-45*02

3 sequences assigned
3 (100%) exact matches, in which:
3 unique CDR3
2 unique J



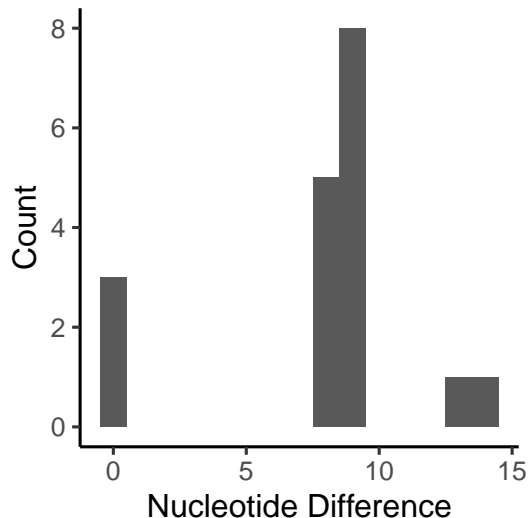
IGHV1-58*01_03

221 sequences assigned
174 (78.7%) exact matches, in which:
173 unique CDR3
6 unique J



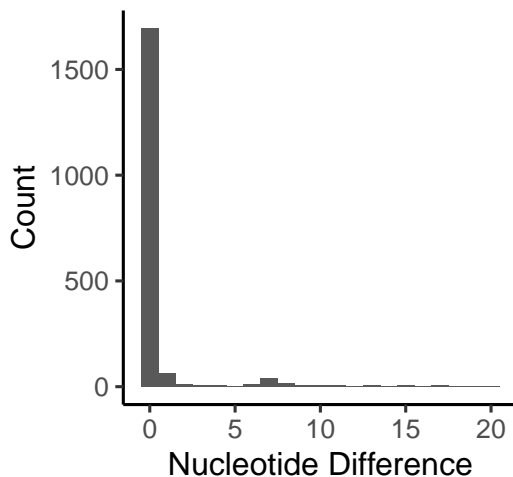
IGHV1-69-2*01

19 sequences assigned
3 (15.8%) exact matches, in which:
3 unique CDR3
2 unique J



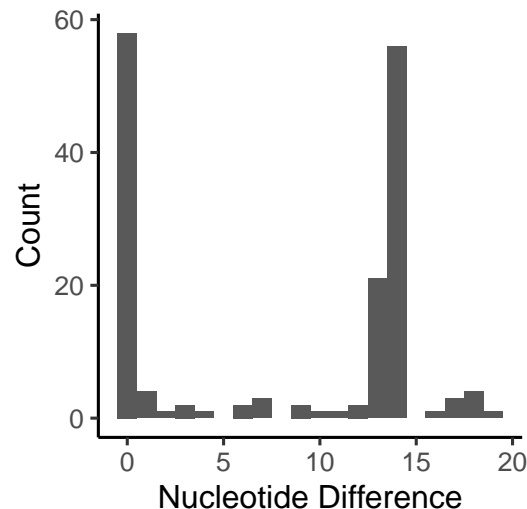
IGHV1-69*06_14

2008 sequences assigned
1694 (84.4%) exact matches, in which:
1686 unique CDR3
6 unique J



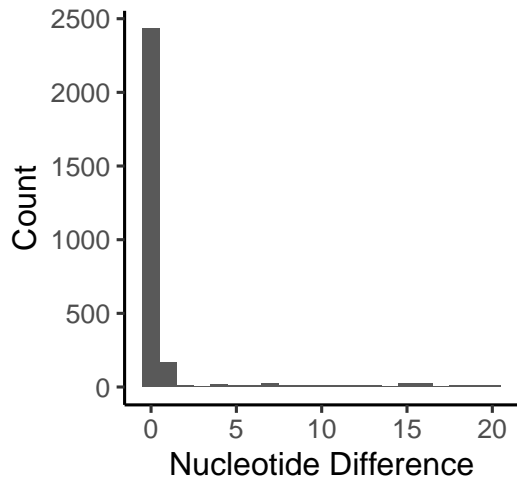
IGHV2-26*01

163 sequences assigned
58 (35.6%) exact matches, in which:
56 unique CDR3
4 unique J



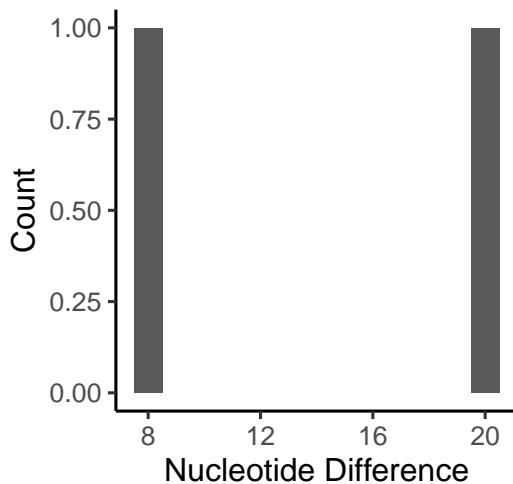
IGHV1-69*01_12_13

2835 sequences assigned
2432 (85.8%) exact matches, in which:
2412 unique CDR3
6 unique J



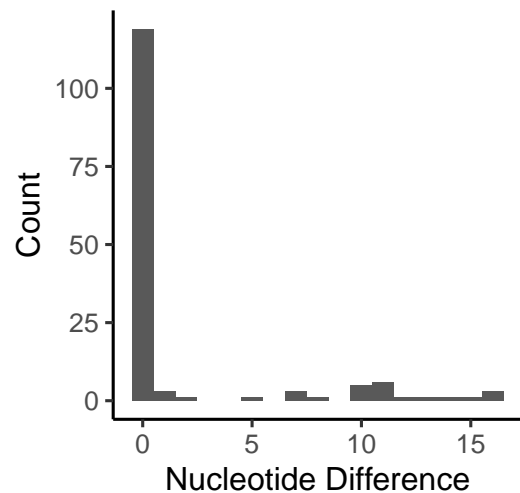
IGHV1-NL1*01

2 sequences assigned
No exact matches.



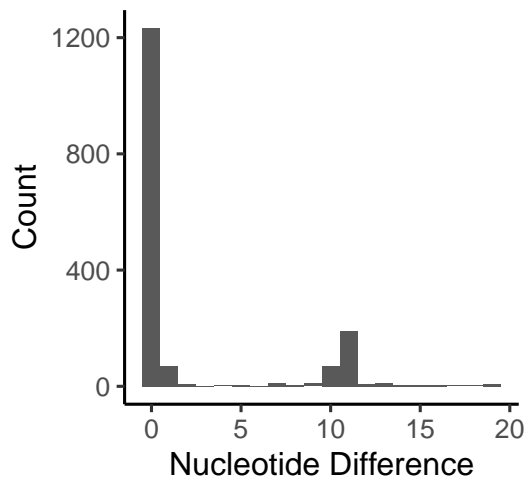
IGHV2-70*01

147 sequences assigned
119 (81%) exact matches, in which:
116 unique CDR3
5 unique J



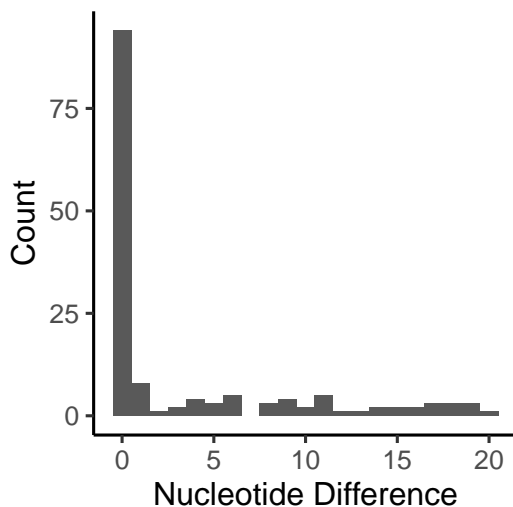
IGHV1-69*04_09

1680 sequences assigned
1233 (73.4%) exact matches, in which:
1227 unique CDR3
6 unique J



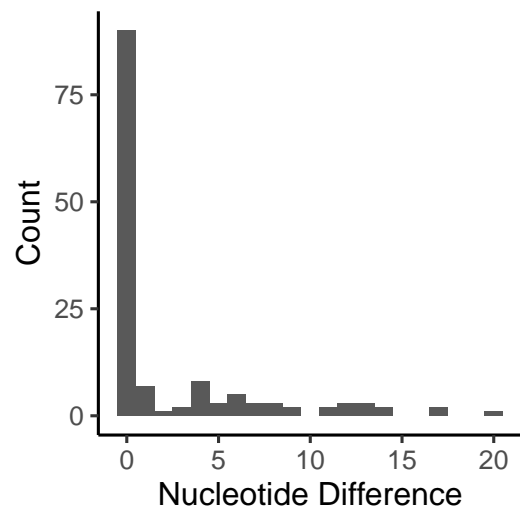
IGHV2-5*02

163 sequences assigned
94 (57.7%) exact matches, in which:
93 unique CDR3
6 unique J



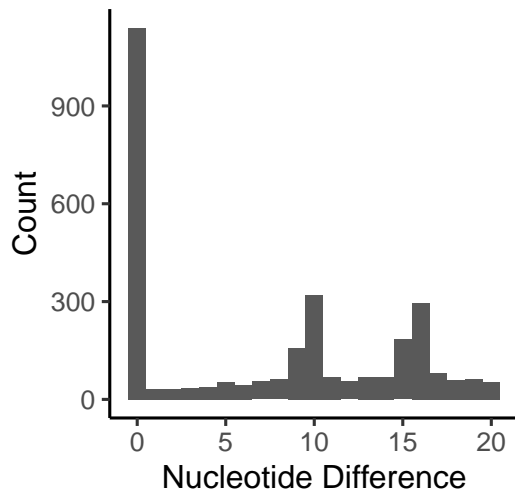
IGHV2-70*11_15

147 sequences assigned
90 (61.2%) exact matches, in which:
89 unique CDR3
5 unique J



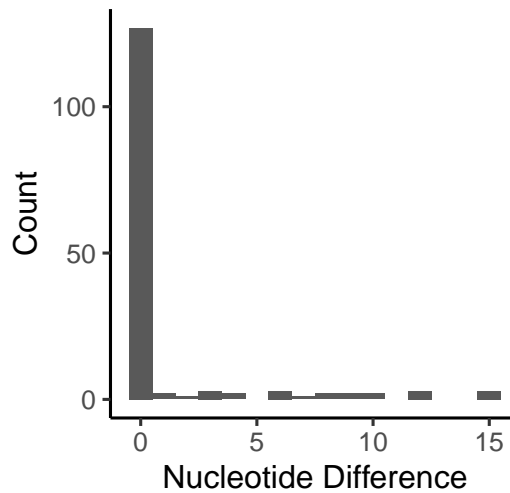
IGHV3-7*03

3717 sequences assigned
1140 (30.7%) exact matches, in which:
909 unique CDR3
6 unique J



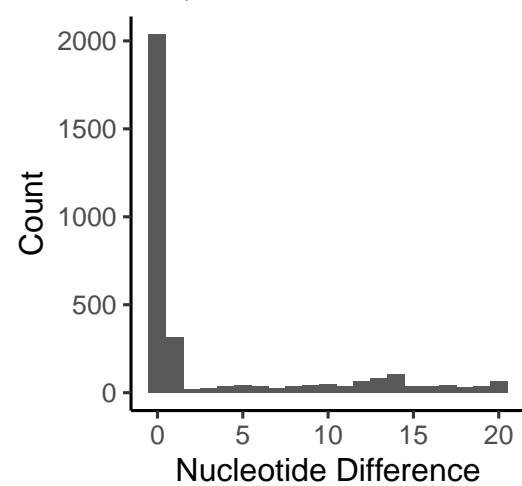
IGHV3-13*05

159 sequences assigned
127 (79.9%) exact matches, in which:
99 unique CDR3
5 unique J



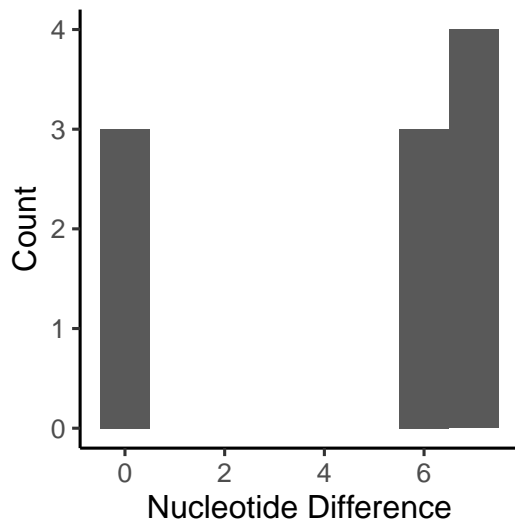
IGHV3-21*01_02

4522 sequences assigned
2037 (45%) exact matches, in which:
1568 unique CDR3
6 unique J



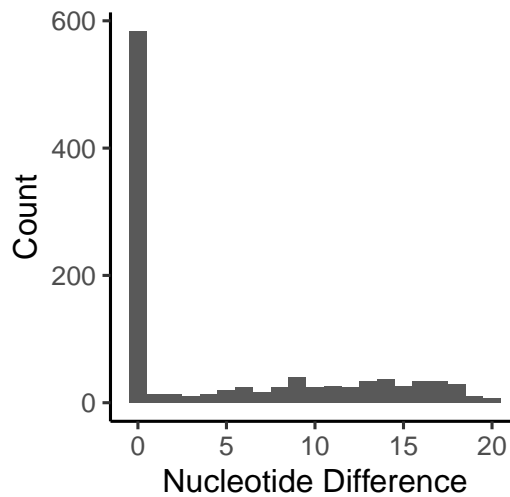
IGHV3-9*01

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



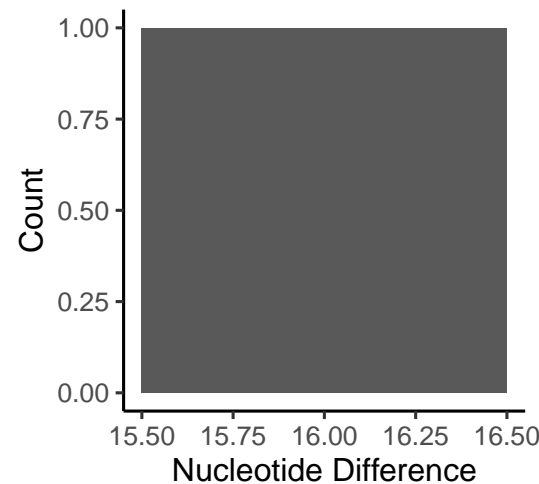
IGHV3-15*01_02

1158 sequences assigned
584 (50.4%) exact matches, in which:
500 unique CDR3
5 unique J



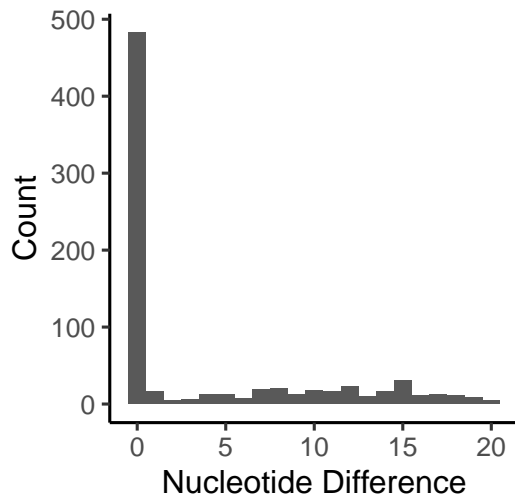
IGHV3-22*01_02

1 sequences assigned
No exact matches.



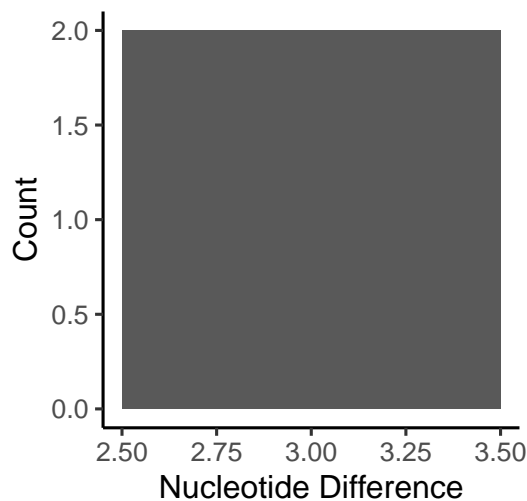
IGHV3-11*06

803 sequences assigned
483 (60.1%) exact matches, in which:
393 unique CDR3
6 unique J



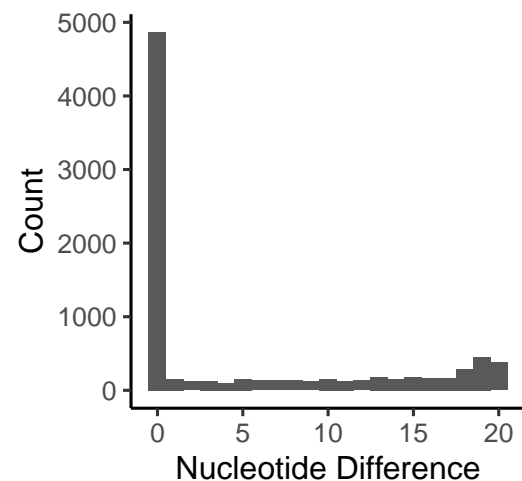
IGHV3-19*01

2 sequences assigned
No exact matches.



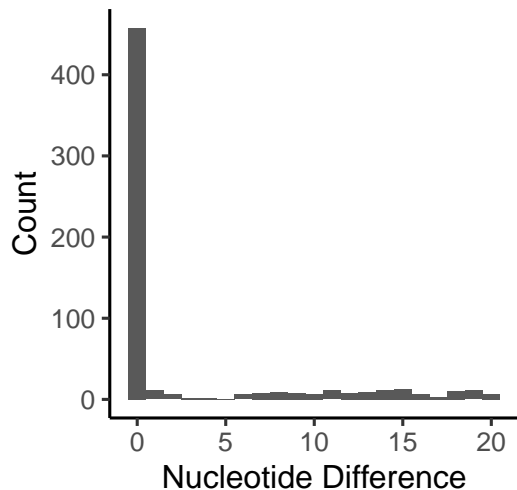
IGHV3-23*01_04

9481 sequences assigned
4868 (51.3%) exact matches, in which:
3782 unique CDR3
6 unique J



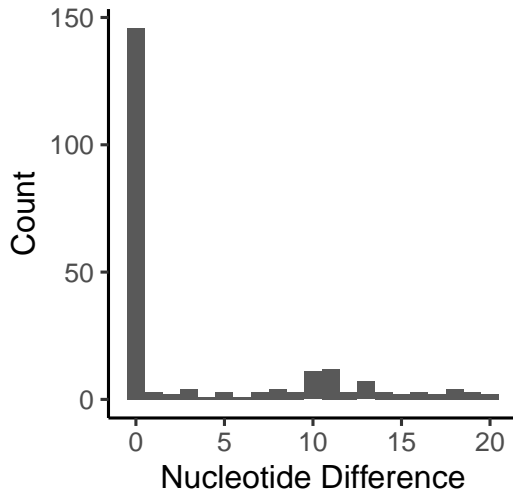
IGHV3–30–3*01

702 sequences assigned
458 (65.2%) exact matches, in which:
385 unique CDR3
6 unique J



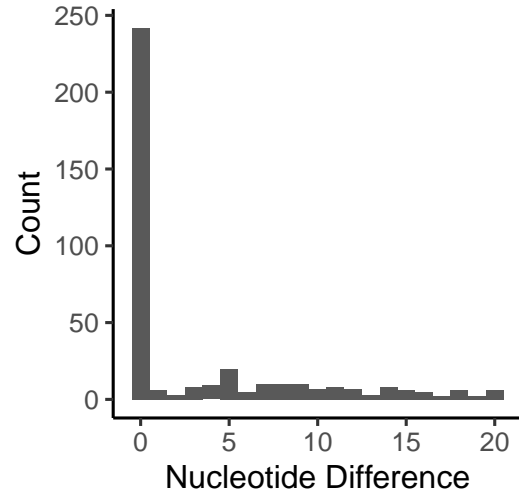
IGHV3–43*02

238 sequences assigned
146 (61.3%) exact matches, in which:
125 unique CDR3
5 unique J



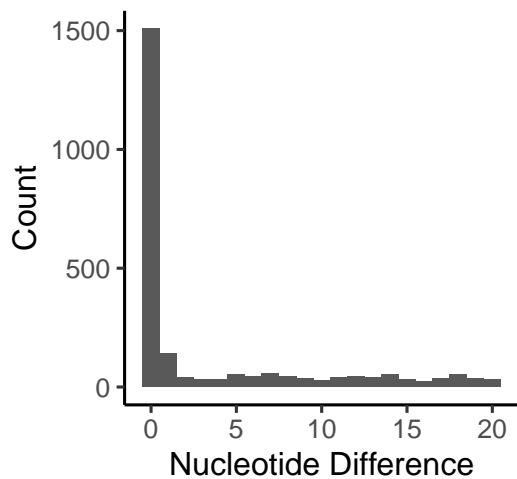
IGHV3–49*04

410 sequences assigned
242 (59%) exact matches, in which:
202 unique CDR3
6 unique J



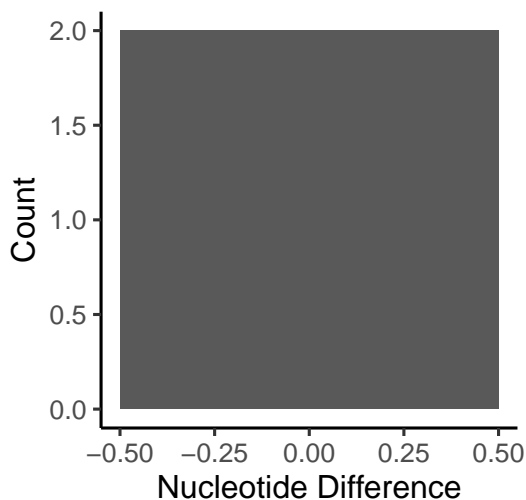
IGHV3–33*01

2527 sequences assigned
1508 (59.7%) exact matches, in which:
1237 unique CDR3
6 unique J



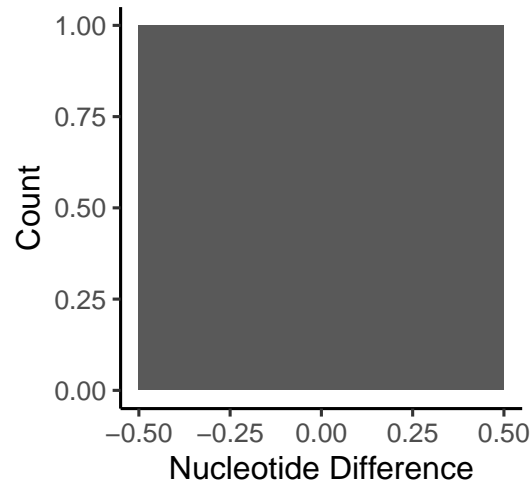
IGHV3–47*01

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



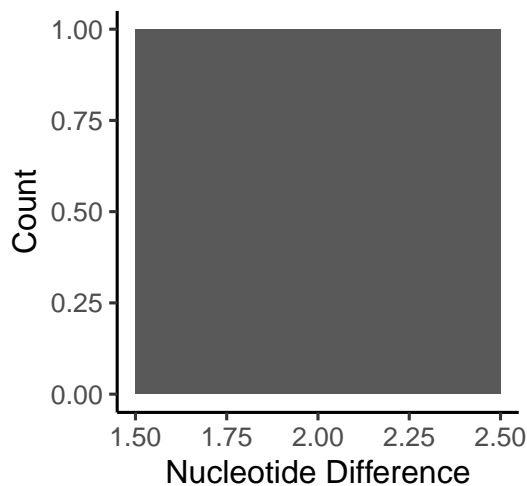
IGHV3–52*01_03

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



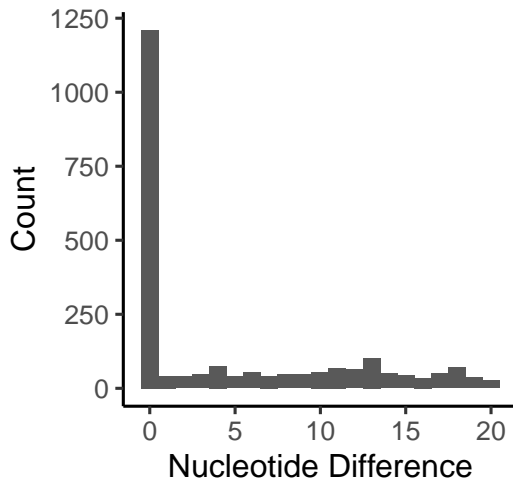
IGHV3–35*01

1 sequences assigned
No exact matches.



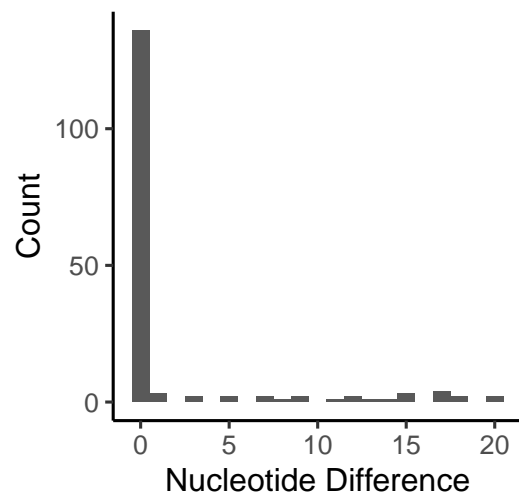
IGHV3–48*03

2589 sequences assigned
1210 (46.7%) exact matches, in which:
1001 unique CDR3
6 unique J



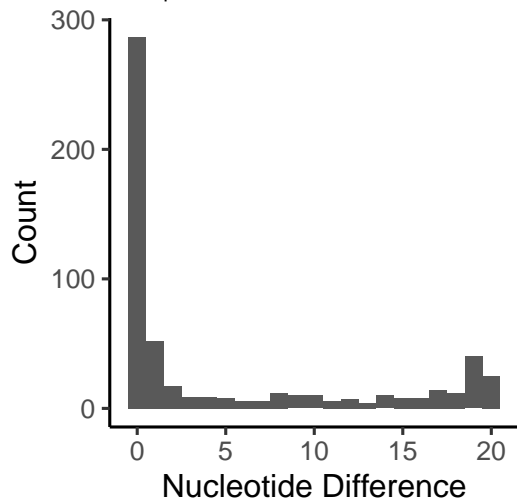
IGHV3–53*04

170 sequences assigned
136 (80%) exact matches, in which:
119 unique CDR3
5 unique J



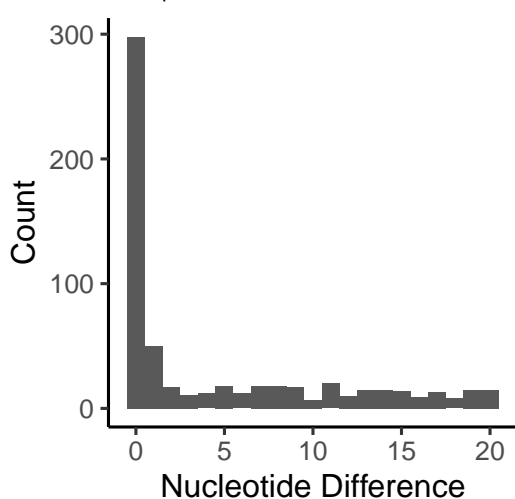
IGHV3-53*01_02

603 sequences assigned
287 (47.6%) exact matches, in which:
229 unique CDR3
5 unique J



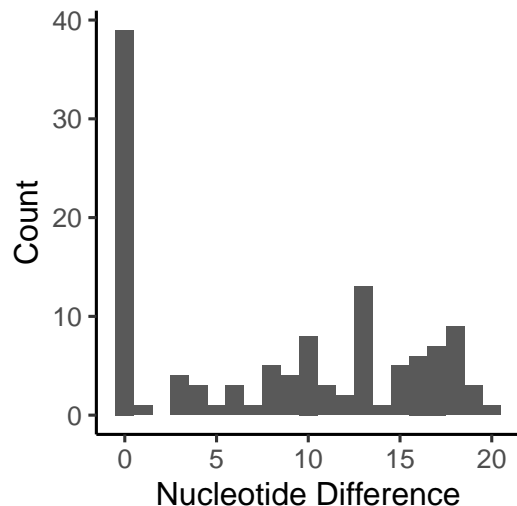
IGHV3-66*01

651 sequences assigned
298 (45.8%) exact matches, in which:
244 unique CDR3
6 unique J



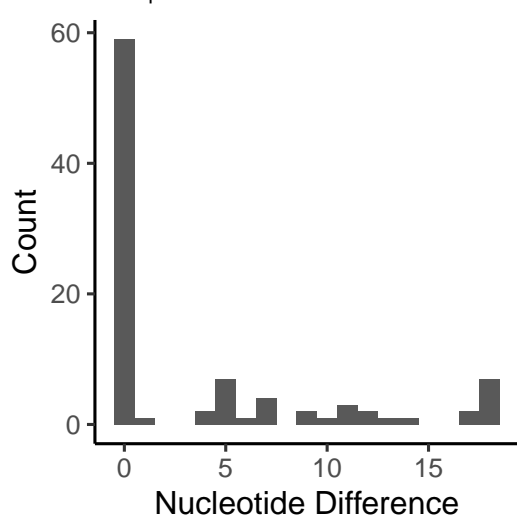
IGHV3-72*01

227 sequences assigned
39 (17.2%) exact matches, in which:
34 unique CDR3
4 unique J



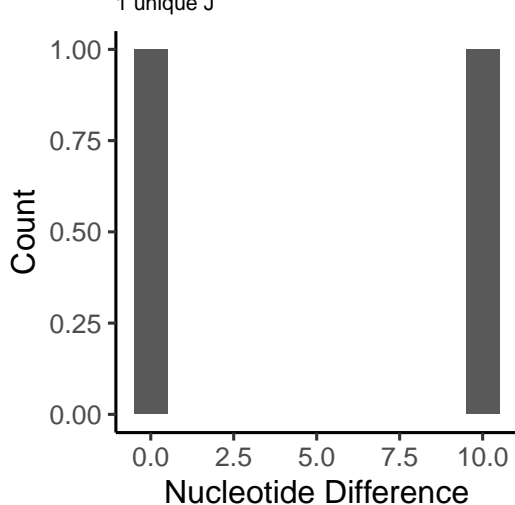
IGHV3-64*01

97 sequences assigned
59 (60.8%) exact matches, in which:
45 unique CDR3
4 unique J



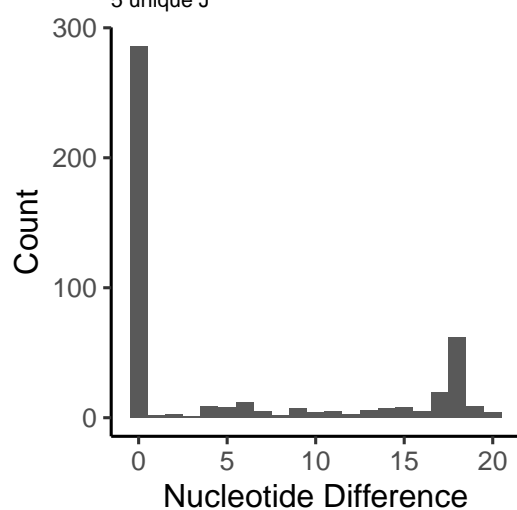
IGHV3-69-1*01

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



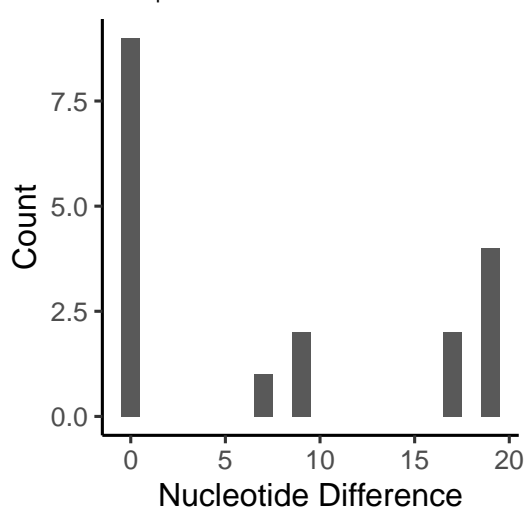
IGHV3-73*01_02

588 sequences assigned
286 (48.6%) exact matches, in which:
226 unique CDR3
5 unique J



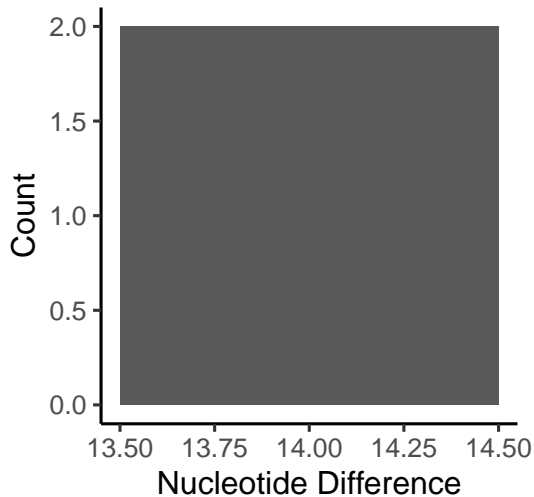
IGHV3-64*02_07

23 sequences assigned
9 (39.1%) exact matches, in which:
8 unique CDR3
3 unique J



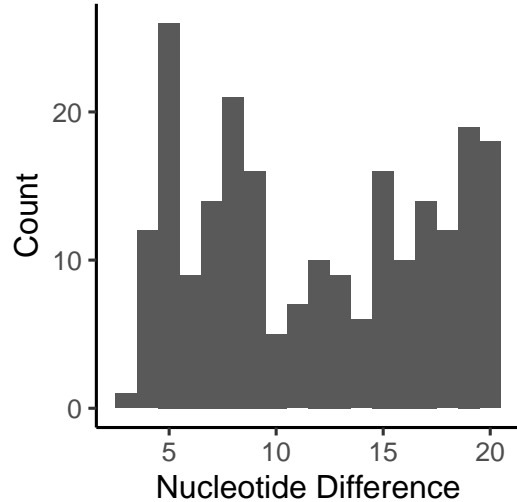
IGHV3-69-1*02

3 sequences assigned
No exact matches.



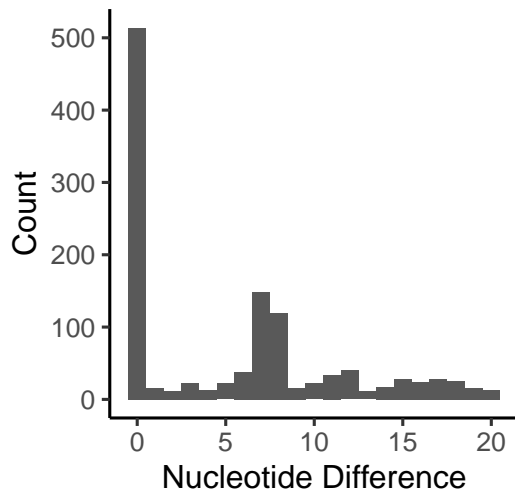
IGHV3-74*03

408 sequences assigned
No exact matches.



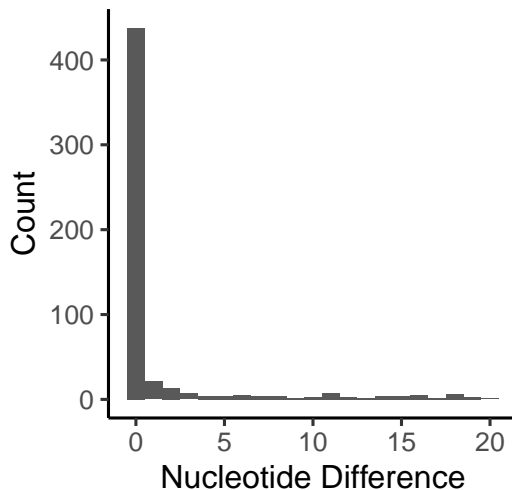
IGHV3-74*01_02

1232 sequences assigned
514 (41.7%) exact matches, in which:
377 unique CDR3
6 unique J



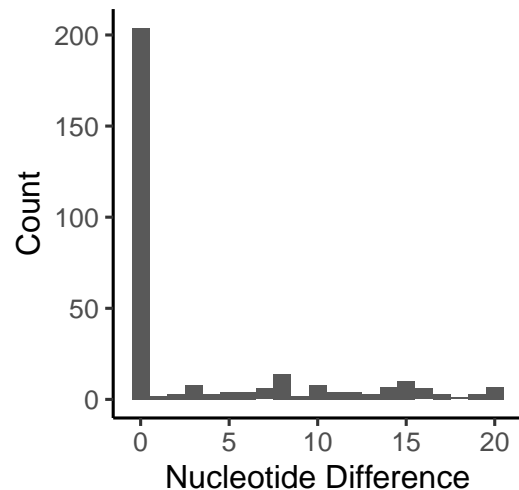
IGHV4-4*02_03

585 sequences assigned
438 (74.9%) exact matches, in which:
434 unique CDR3
6 unique J



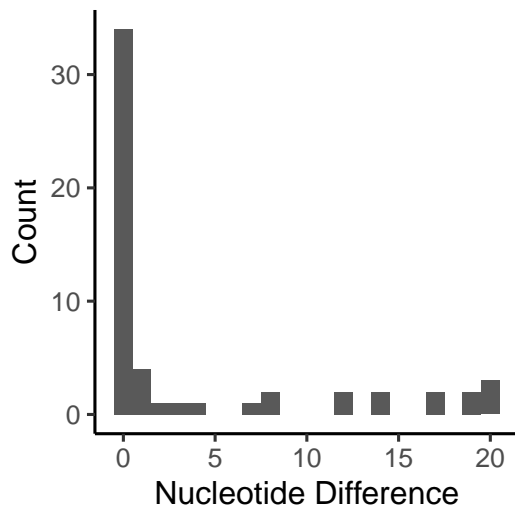
IGHV4-30-4*01

328 sequences assigned
204 (62.2%) exact matches, in which:
203 unique CDR3
5 unique J



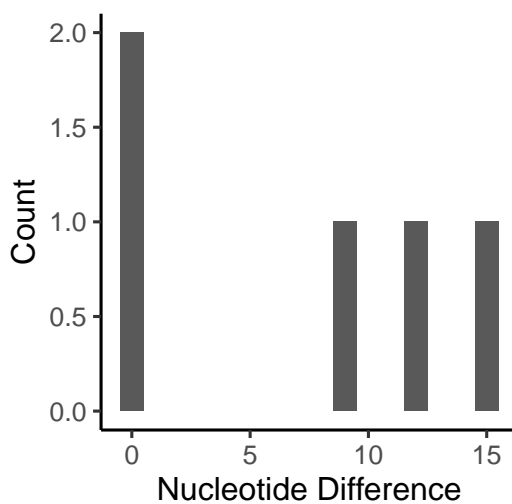
IGHV3-43D*04

59 sequences assigned
34 (57.6%) exact matches, in which:
27 unique CDR3
4 unique J



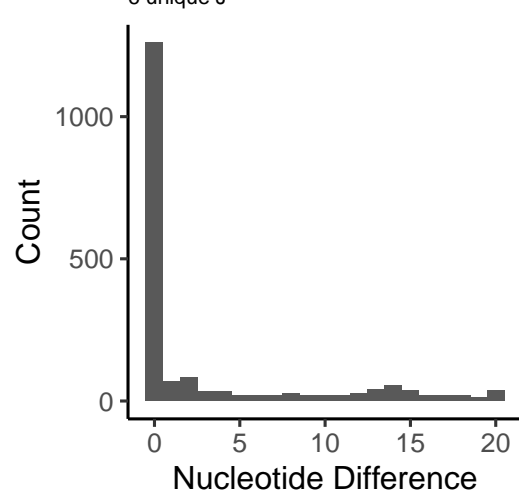
IGHV4-28*01_07

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



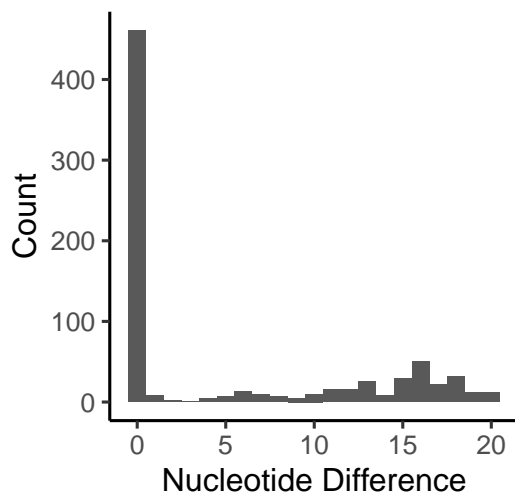
IGHV4-31*02

2124 sequences assigned
1260 (59.3%) exact matches, in which:
1246 unique CDR3
6 unique J



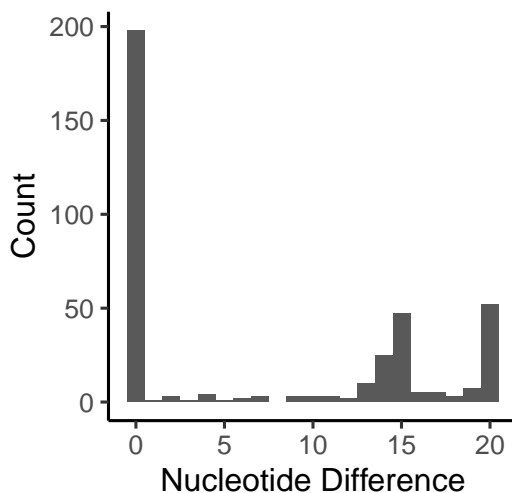
IGHV3-64D*06

920 sequences assigned
461 (50.1%) exact matches, in which:
358 unique CDR3
6 unique J



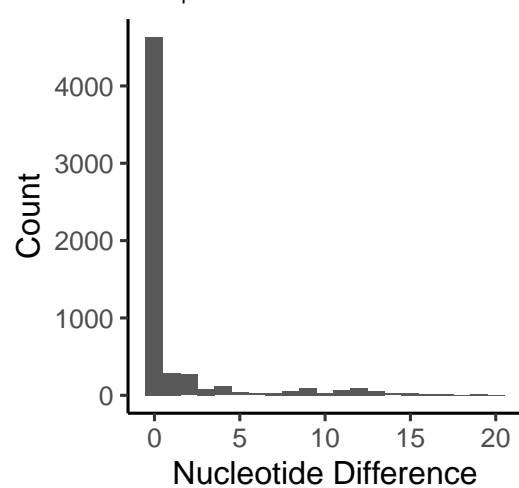
IGHV4-30-2*01

487 sequences assigned
198 (40.7%) exact matches, in which:
192 unique CDR3
6 unique J



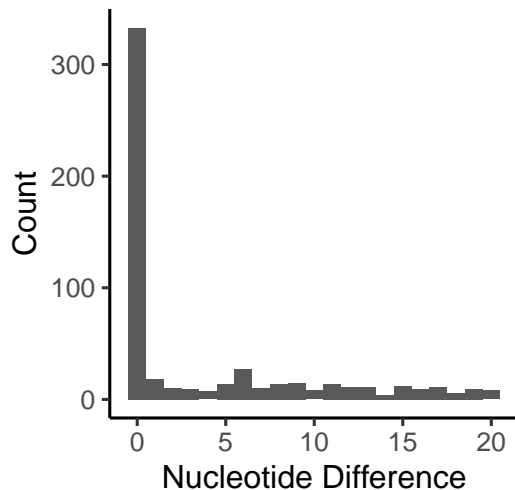
IGHV4-34*01_02

6079 sequences assigned
4632 (76.2%) exact matches, in which:
4551 unique CDR3
6 unique J



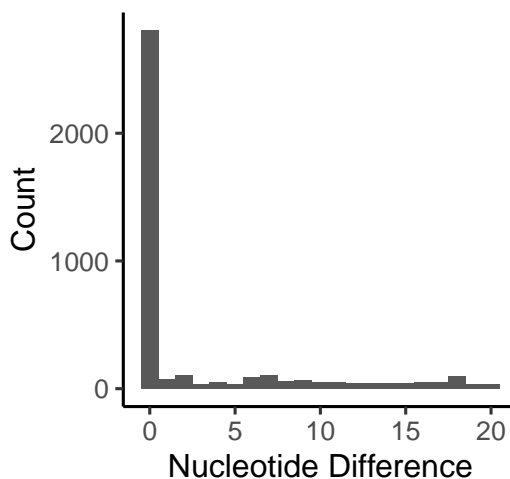
IGHV4-38-2*02_A70G

717 sequences assigned
333 (46.4%) exact matches, in which:
328 unique CDR3
6 unique J



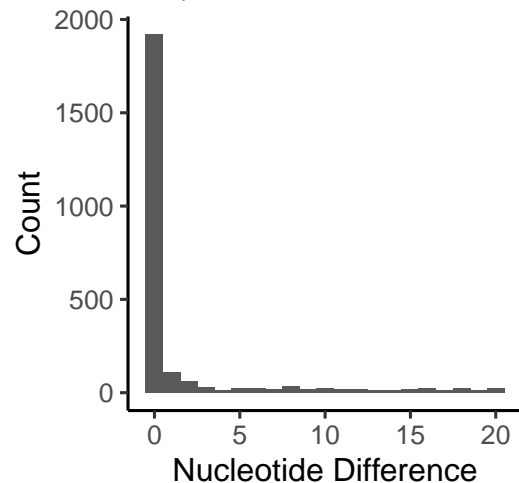
IGHV4-59*02_G88A

4948 sequences assigned
2805 (56.7%) exact matches, in which:
2783 unique CDR3
6 unique J



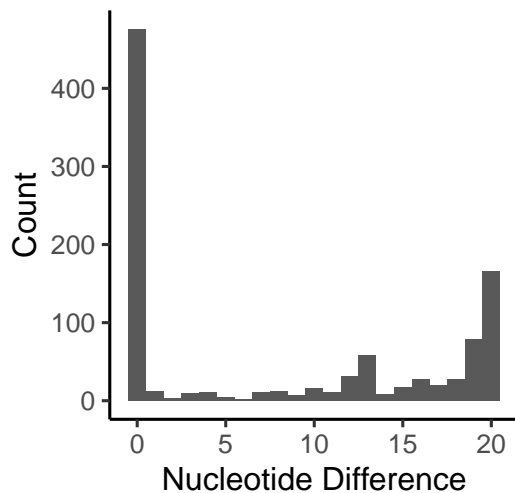
IGHV5-10-1*01_03

2713 sequences assigned
1920 (70.8%) exact matches, in which:
1845 unique CDR3
6 unique J



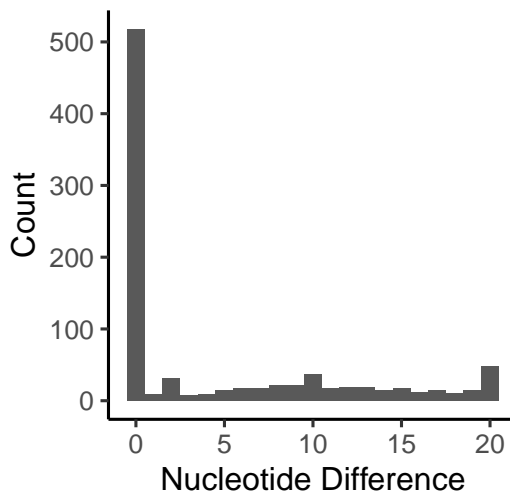
IGHV4-39*02_C258G

1214 sequences assigned
476 (39.2%) exact matches, in which:
471 unique CDR3
6 unique J



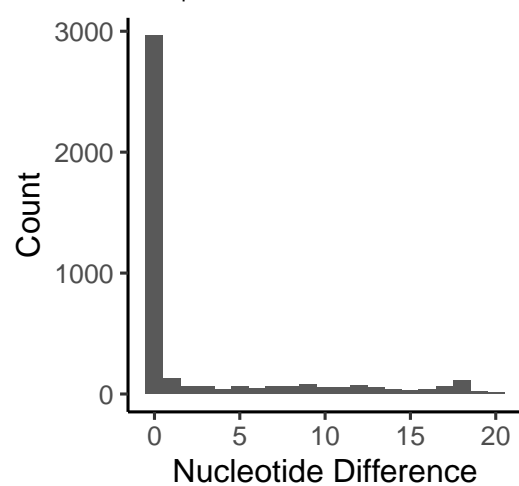
IGHV4-61*01

1098 sequences assigned
518 (47.2%) exact matches, in which:
517 unique CDR3
6 unique J



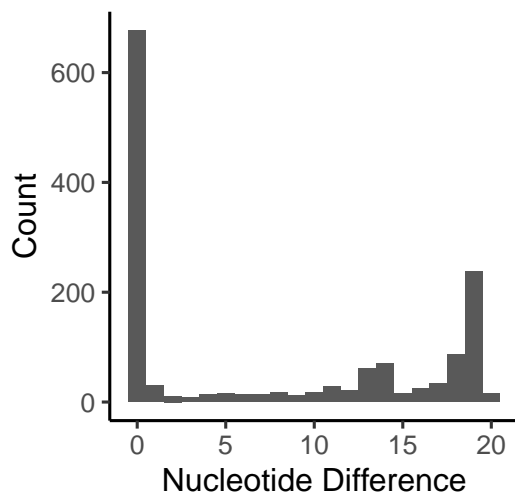
IGHV5-51*07_A128G

4192 sequences assigned
2963 (70.7%) exact matches, in which:
2873 unique CDR3
6 unique J



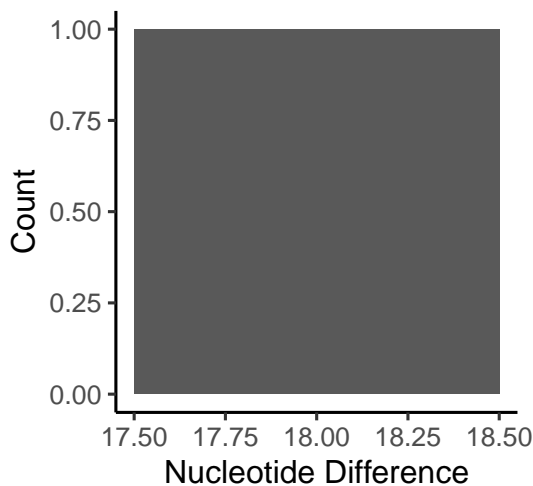
IGHV4-59*08

1506 sequences assigned
677 (45%) exact matches, in which:
672 unique CDR3
6 unique J



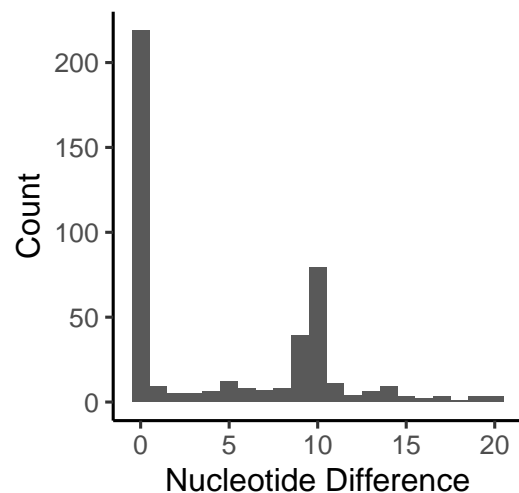
IGHV4/OR15-8*02

3 sequences assigned
No exact matches.



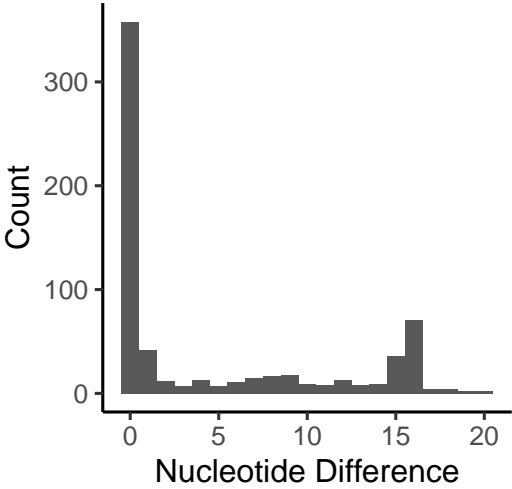
IGHV6-1*01_02

455 sequences assigned
219 (48.1%) exact matches, in which:
219 unique CDR3
6 unique J



IGHV7-4-1*02

696 sequences assigned
358 (51.4%) exact matches, in which:
350 unique CDR3
6 unique J





Warning – no inferred sequences found.