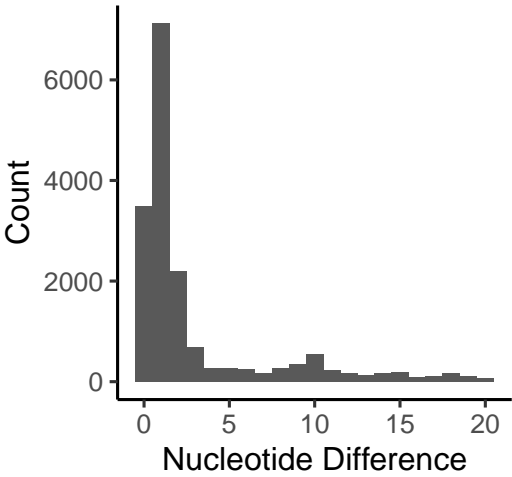


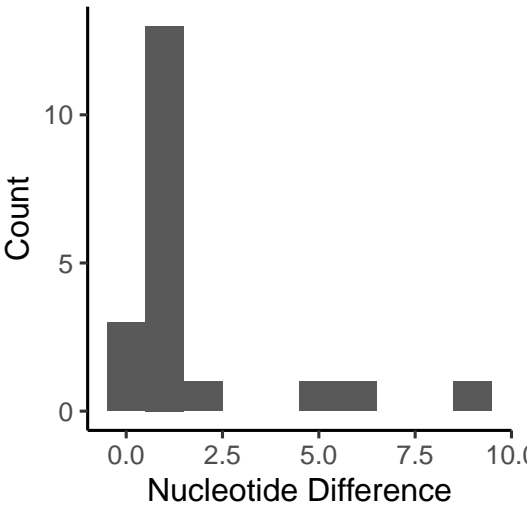
IGHV1-2*02

17123 sequences assigned
3495 (20.4%) exact matches, in which:
2328 unique CDR3
6 unique J



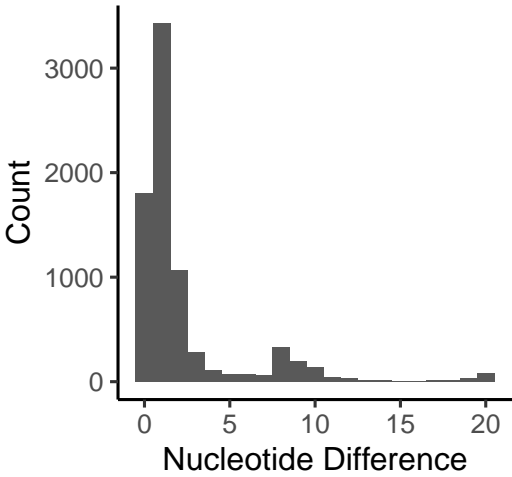
IGHV1-8*01

21 sequences assigned
3 (14.3%) exact matches, in which:
3 unique CDR3
1 unique J



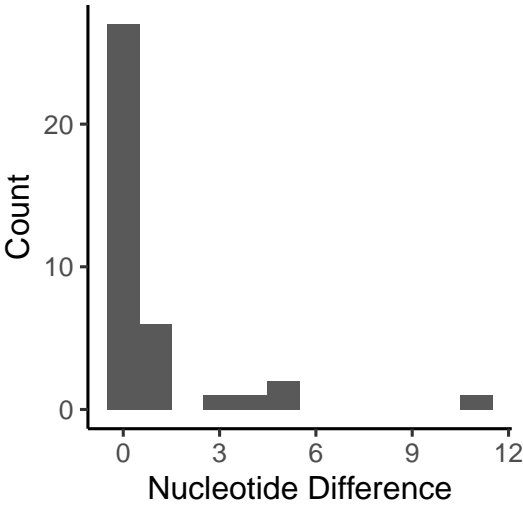
IGHV1-18*04

7861 sequences assigned
1801 (22.9%) exact matches, in which:
1260 unique CDR3
6 unique J



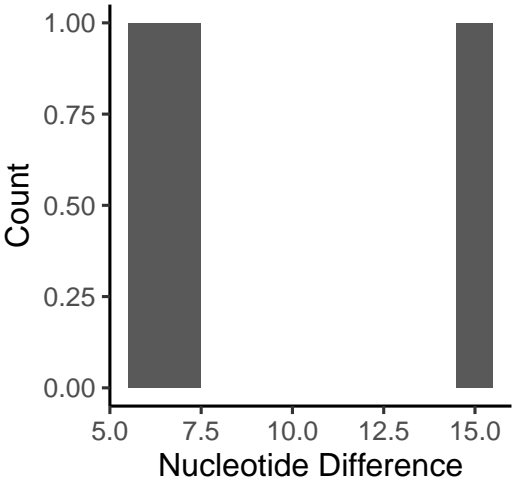
IGHV1-3*02

40 sequences assigned
27 (67.5%) exact matches, in which:
25 unique CDR3
4 unique J



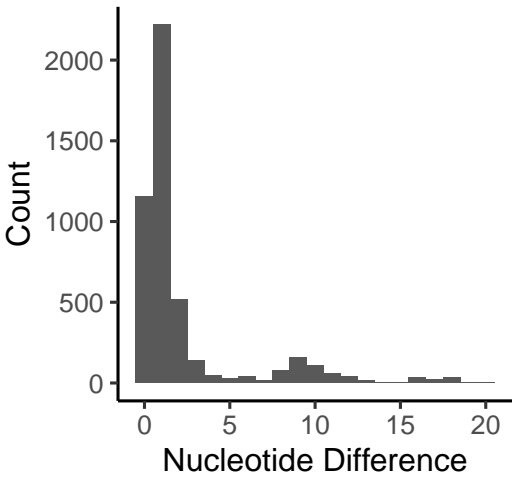
IGHV1-8*02

3 sequences assigned
No exact matches.



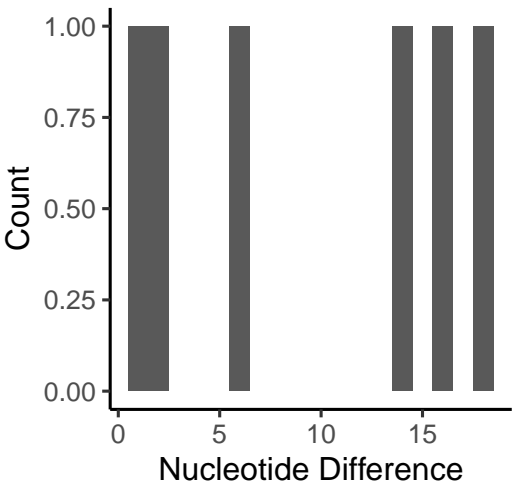
IGHV1-24*01

4731 sequences assigned
1155 (24.4%) exact matches, in which:
793 unique CDR3
6 unique J



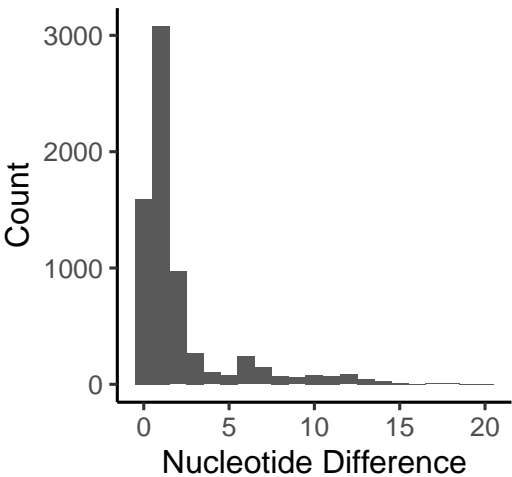
IGHV1-3*01_05

10 sequences assigned
No exact matches.



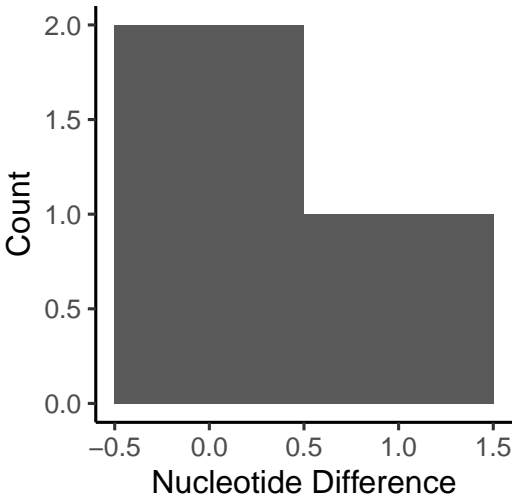
IGHV1-18*01

6993 sequences assigned
1591 (22.8%) exact matches, in which:
1164 unique CDR3
6 unique J



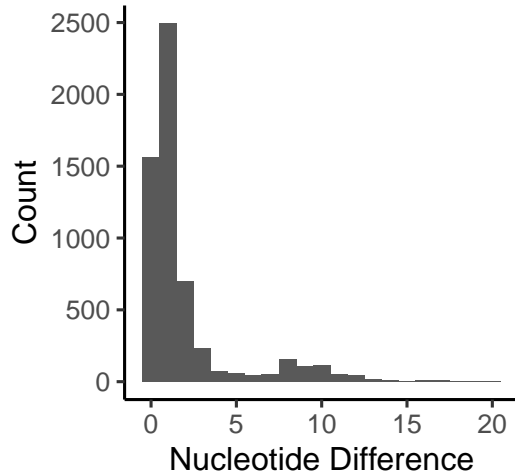
IGHV1-45*02

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
1 unique J



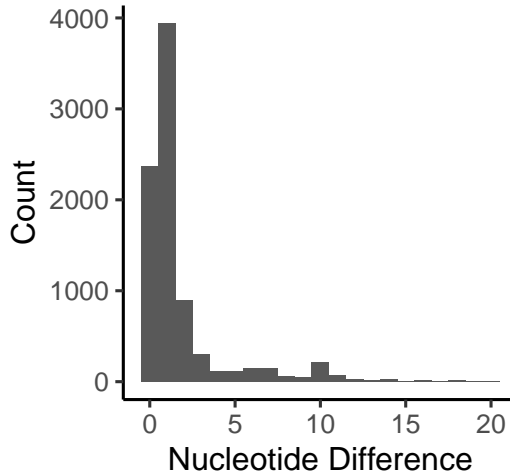
IGHV1-46*01

5786 sequences assigned
1566 (27.1%) exact matches, in which:
1150 unique CDR3
6 unique J



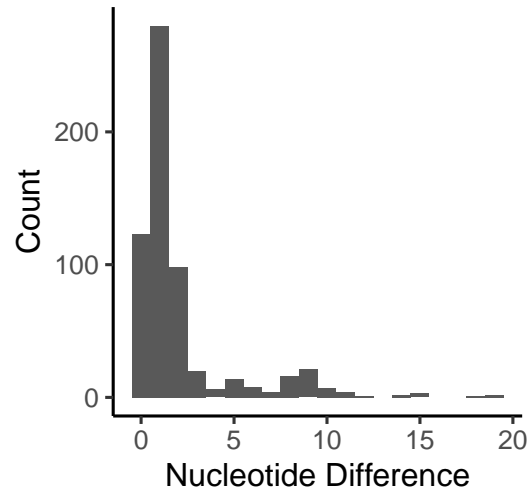
IGHV1-69*01_12_13

8630 sequences assigned
2365 (27.4%) exact matches, in which:
1731 unique CDR3
6 unique J



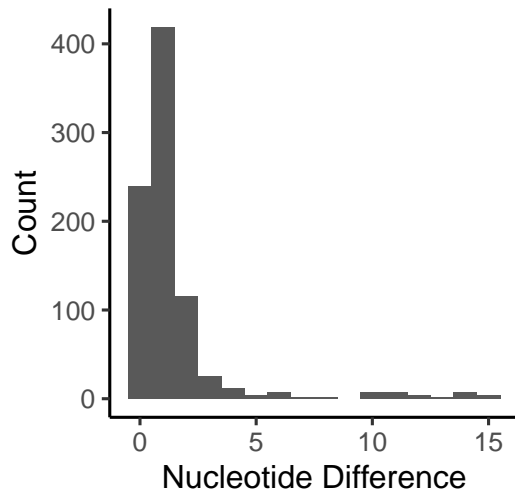
IGHV2-5*02

611 sequences assigned
123 (20.1%) exact matches, in which:
90 unique CDR3
5 unique J



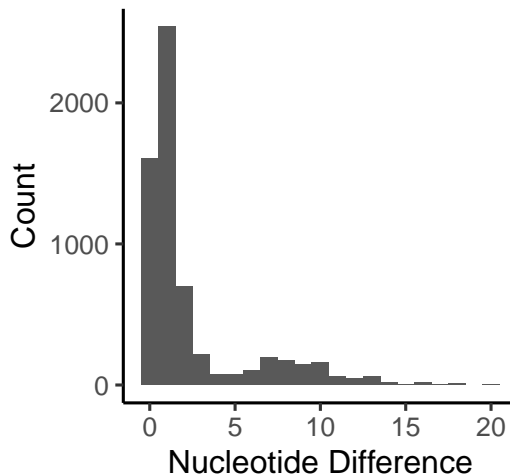
IGHV1-58*01_03

862 sequences assigned
240 (27.8%) exact matches, in which:
172 unique CDR3
5 unique J



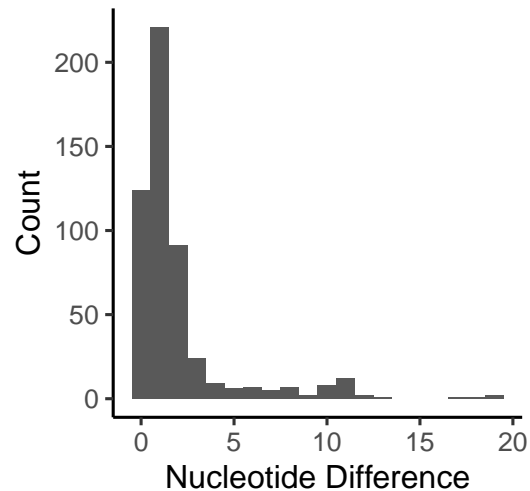
IGHV1-69*06_14

6222 sequences assigned
1603 (25.8%) exact matches, in which:
1185 unique CDR3
6 unique J



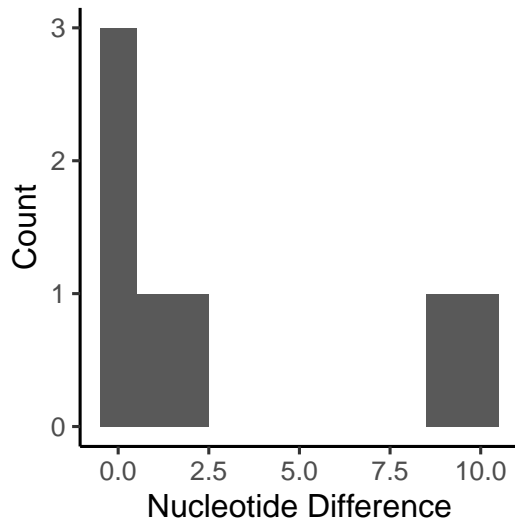
IGHV2-26*01

524 sequences assigned
124 (23.7%) exact matches, in which:
88 unique CDR3
5 unique J



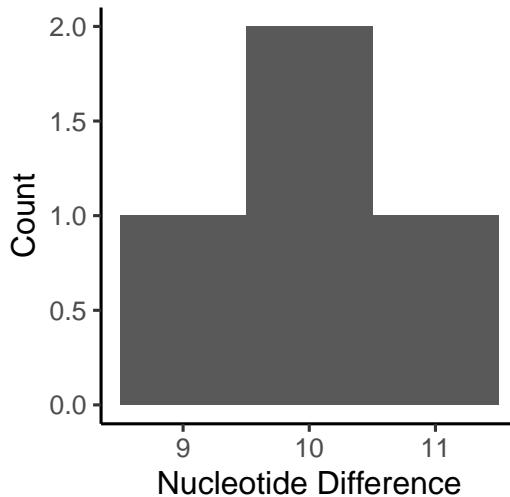
IGHV1-69-2*01

7 sequences assigned
3 (42.9%) exact matches, in which:
3 unique CDR3
3 unique J



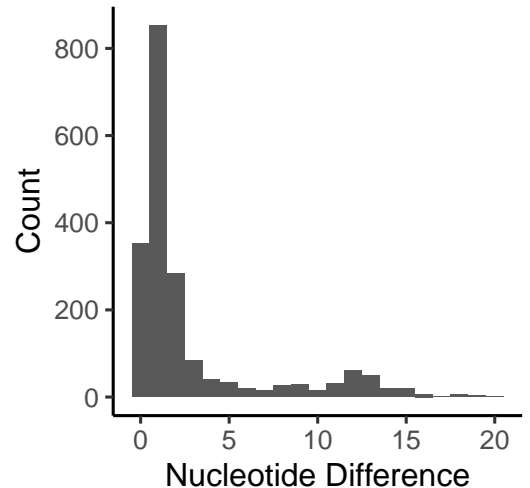
IGHV1-NL1*01

4 sequences assigned
No exact matches.



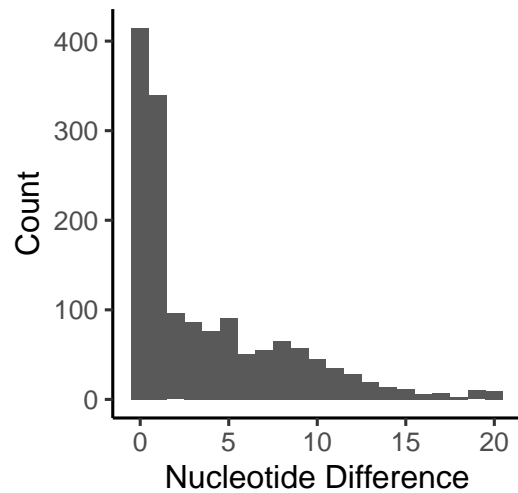
IGHV2-70*01

1992 sequences assigned
352 (17.7%) exact matches, in which:
200 unique CDR3
5 unique J



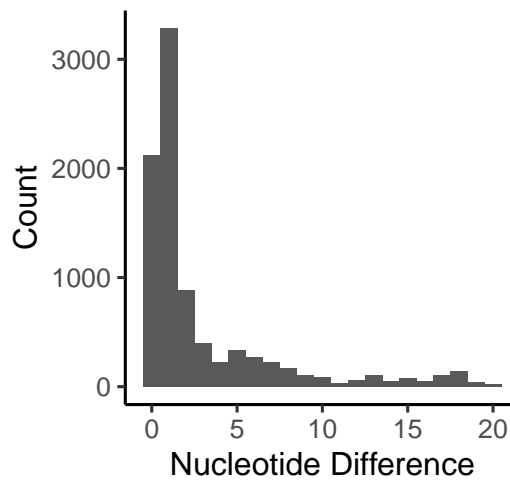
IGHV3-7*01

1532 sequences assigned
415 (27.1%) exact matches, in which:
336 unique CDR3
6 unique J



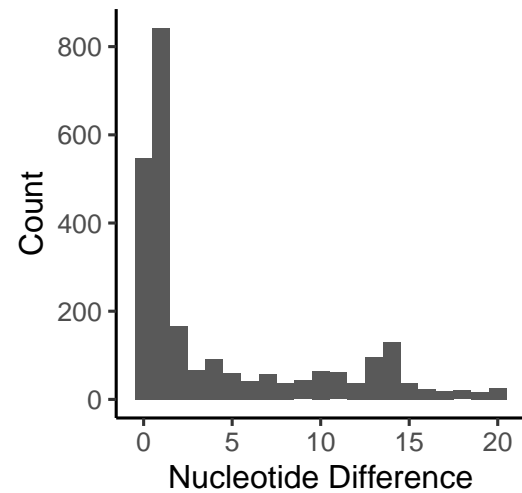
IGHV3-11*06

8832 sequences assigned
2123 (24%) exact matches, in which:
1249 unique CDR3
6 unique J



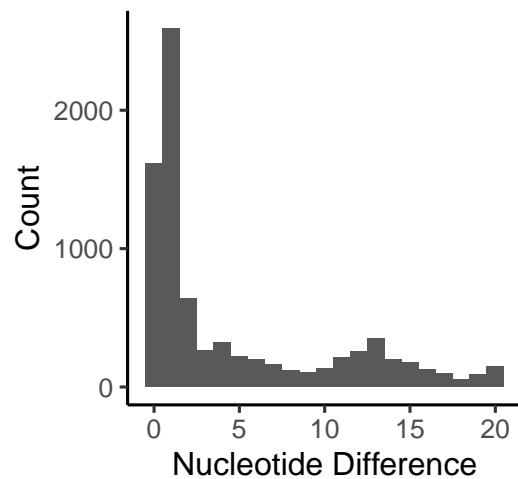
IGHV3-15*01_02

2630 sequences assigned
548 (20.8%) exact matches, in which:
301 unique CDR3
6 unique J



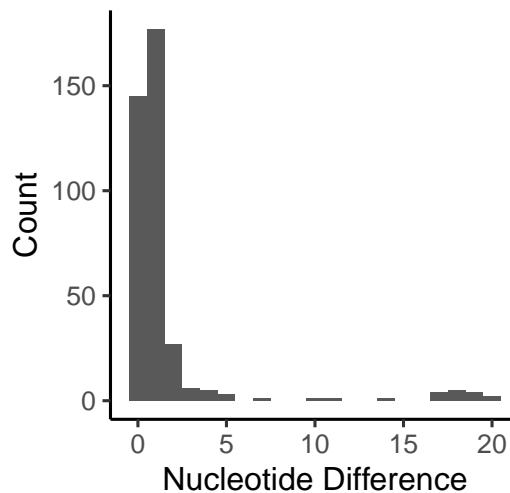
IGHV3-7*03

8668 sequences assigned
1618 (18.7%) exact matches, in which:
1025 unique CDR3
6 unique J



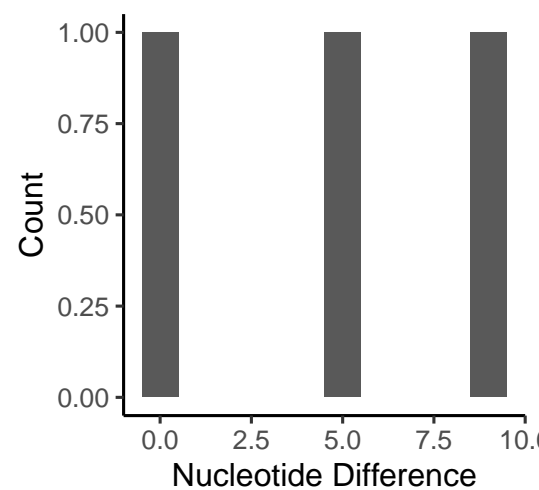
IGHV3-13*05

382 sequences assigned
145 (38%) exact matches, in which:
98 unique CDR3
6 unique J



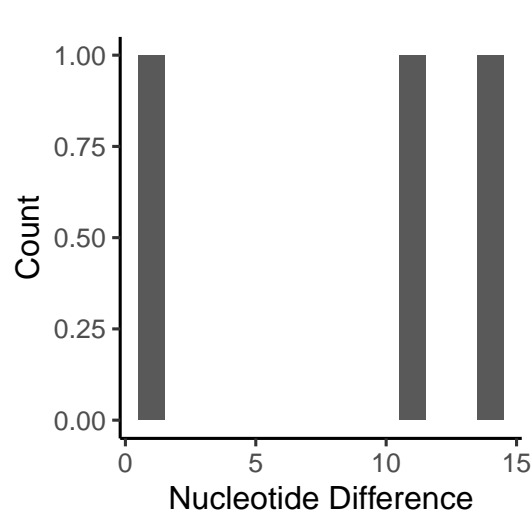
IGHV3-19*01

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



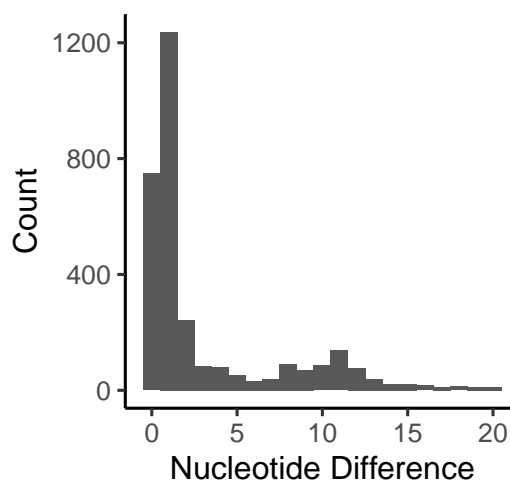
IGHV3-9*01

6 sequences assigned
No exact matches.



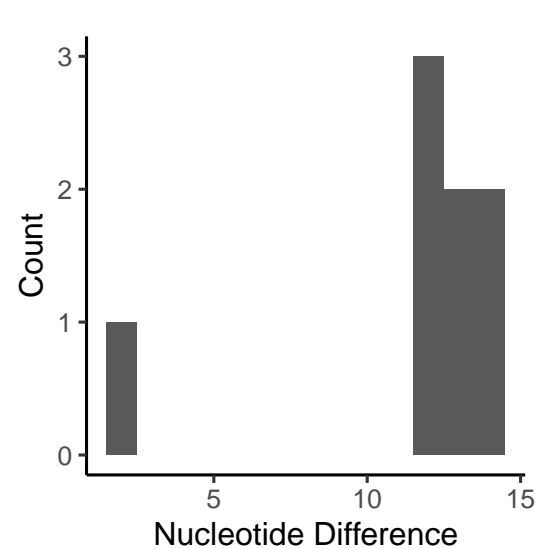
IGHV3-15*07

3222 sequences assigned
749 (23.2%) exact matches, in which:
405 unique CDR3
6 unique J



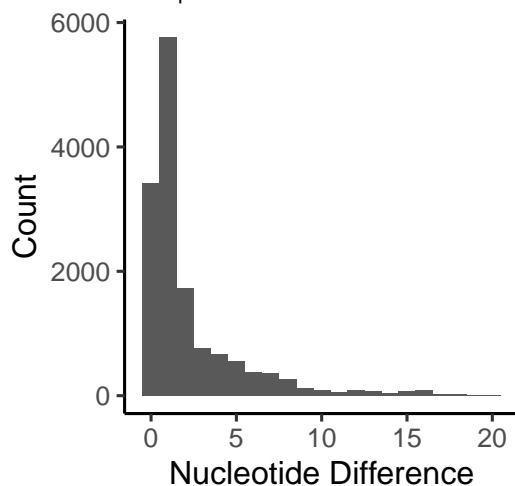
IGHV3-20*03_04

9 sequences assigned
No exact matches.



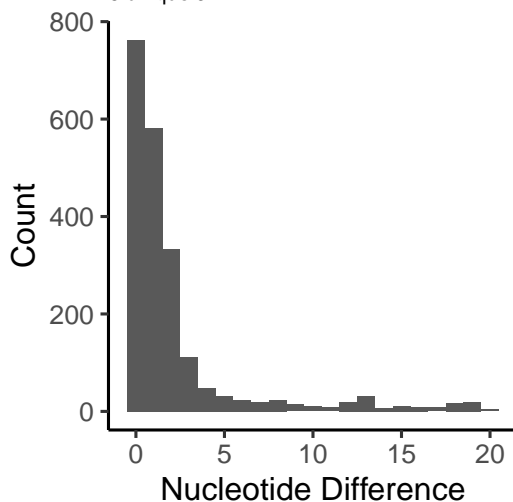
IGHV3-21*01_02

14764 sequences assigned
3419 (23.2%) exact matches, in which:
1938 unique CDR3
6 unique J



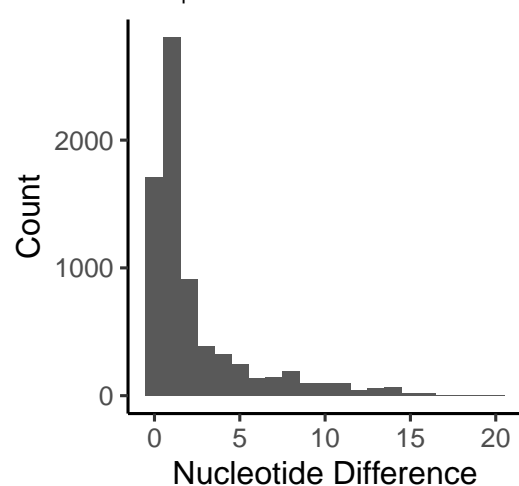
IGHV3-30*03

2119 sequences assigned
763 (36%) exact matches, in which:
572 unique CDR3
6 unique J



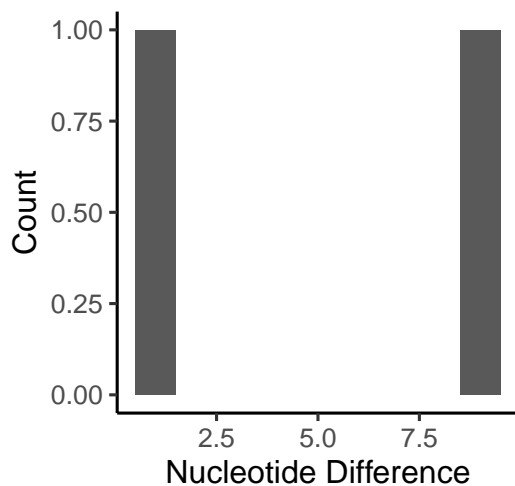
IGHV3-48*01

7424 sequences assigned
1712 (23.1%) exact matches, in which:
1017 unique CDR3
6 unique J



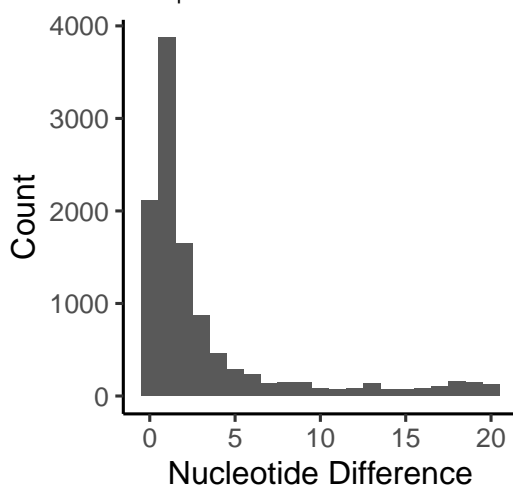
IGHV3-22*01_02

2 sequences assigned
No exact matches.



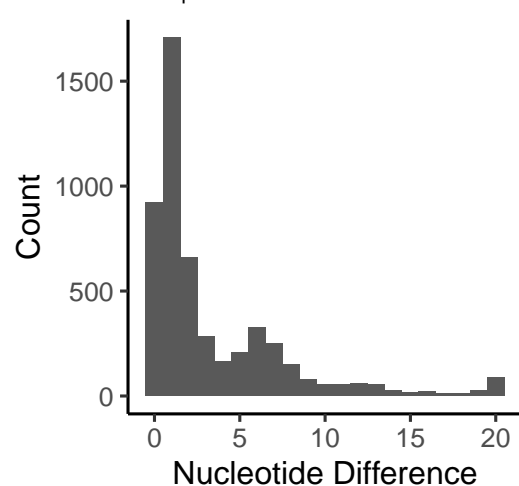
IGHV3-33*01

11361 sequences assigned
2108 (18.6%) exact matches, in which:
1319 unique CDR3
6 unique J



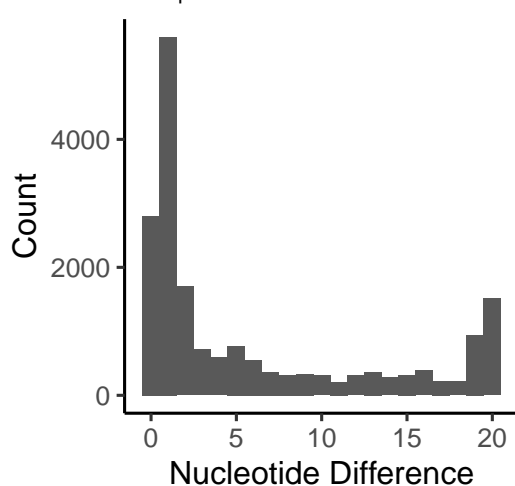
IGHV3-48*03

8210 sequences assigned
923 (11.2%) exact matches, in which:
517 unique CDR3
6 unique J



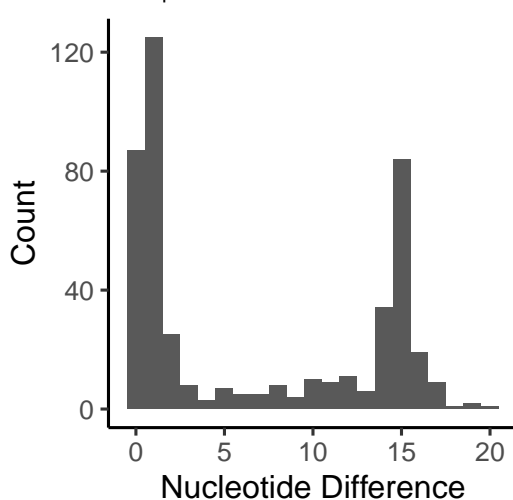
IGHV3-23*01_04

21671 sequences assigned
2800 (12.9%) exact matches, in which:
1554 unique CDR3
6 unique J



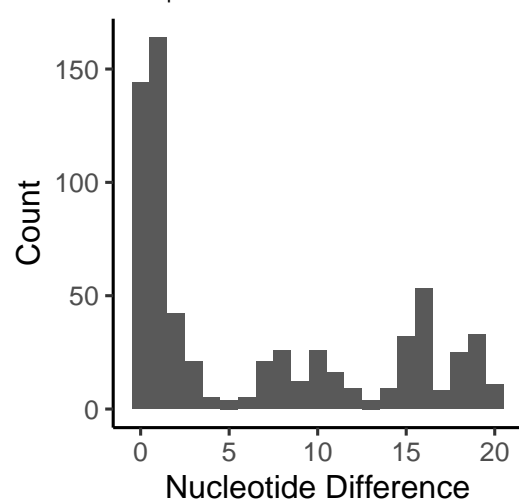
IGHV3-43*01

468 sequences assigned
87 (18.6%) exact matches, in which:
48 unique CDR3
3 unique J



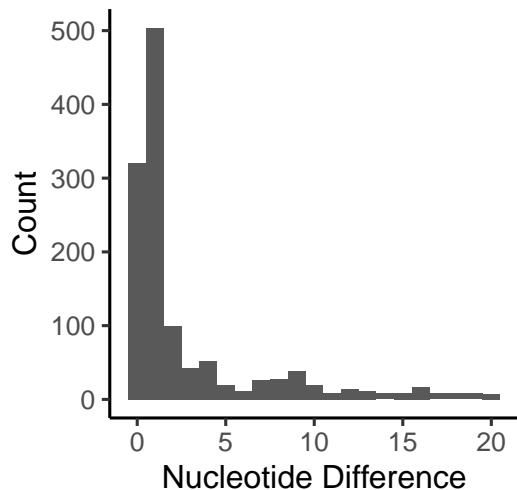
IGHV3-49*04

926 sequences assigned
144 (15.6%) exact matches, in which:
87 unique CDR3
5 unique J



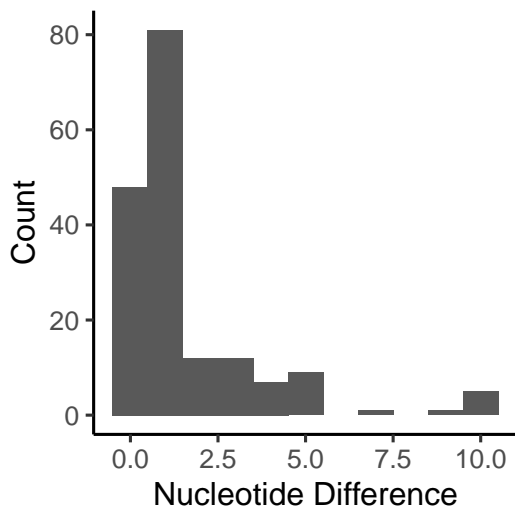
IGHV3-49*03_05

1295 sequences assigned
320 (24.7%) exact matches, in which:
176 unique CDR3
4 unique J



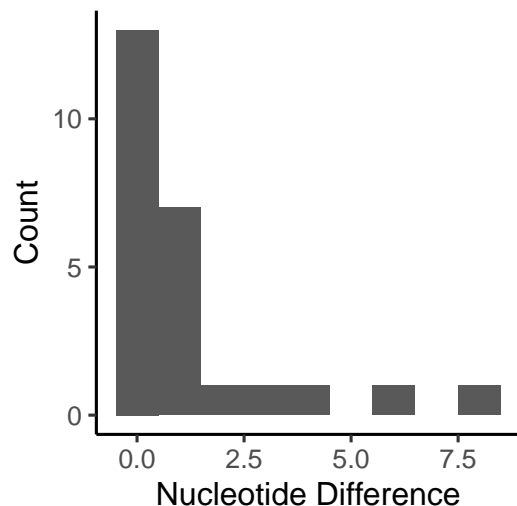
IGHV3-64*02_07

178 sequences assigned
48 (27%) exact matches, in which:
25 unique CDR3
3 unique J



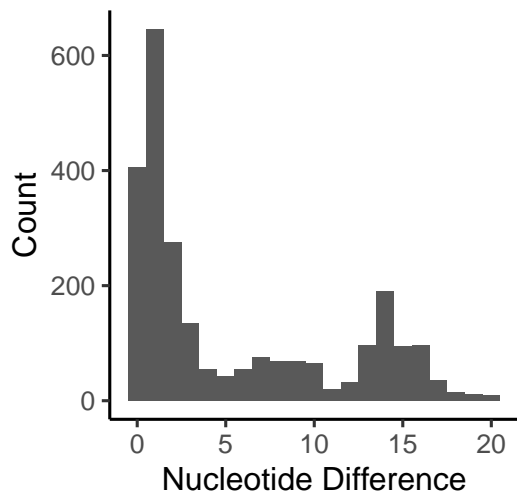
IGHV3-66*03

25 sequences assigned
13 (52%) exact matches, in which:
12 unique CDR3
3 unique J



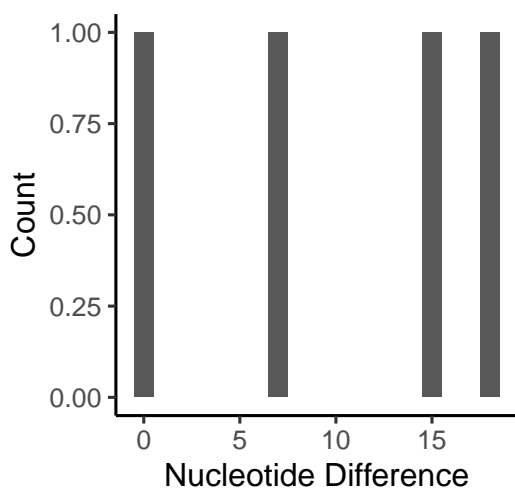
IGHV3-53*01_02

2583 sequences assigned
405 (15.7%) exact matches, in which:
263 unique CDR3
6 unique J



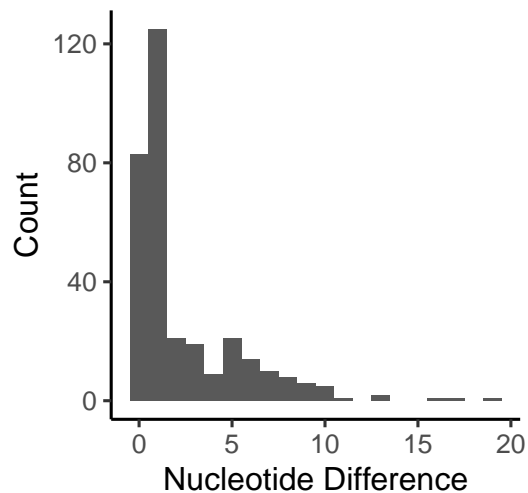
IGHV3-66*01

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



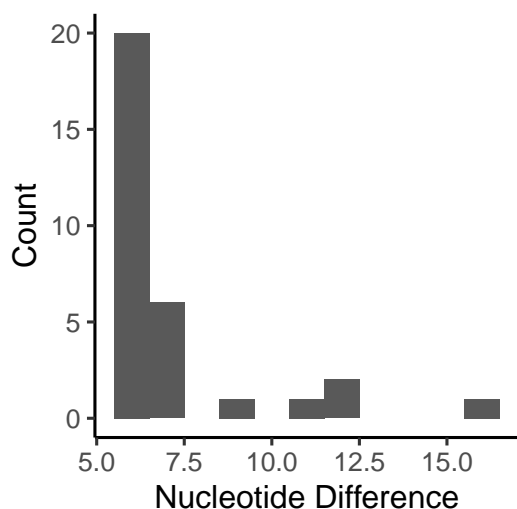
IGHV3-69-1*01

329 sequences assigned
83 (25.2%) exact matches, in which:
63 unique CDR3
5 unique J



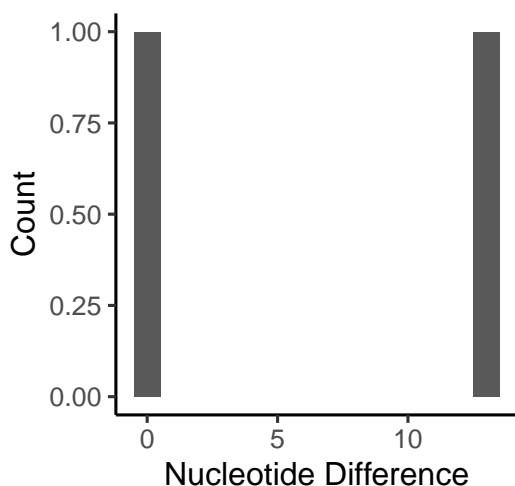
IGHV3-64*04

31 sequences assigned
No exact matches.



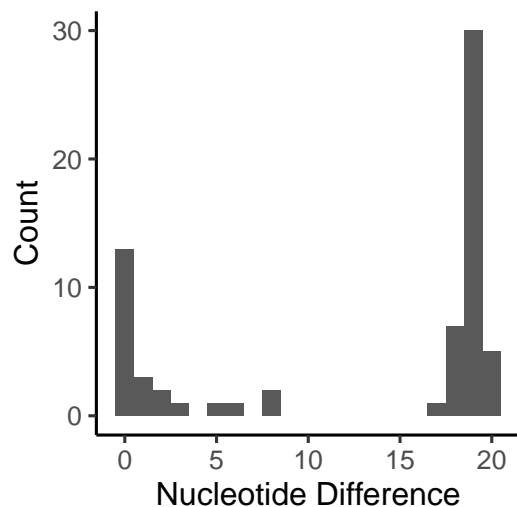
IGHV3-66*02

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



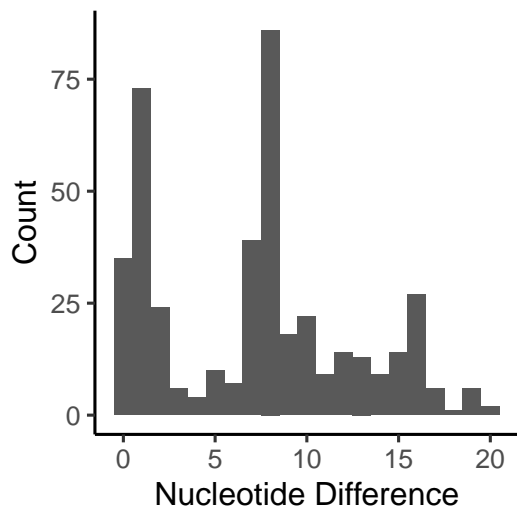
IGHV3-69-1*02

69 sequences assigned
13 (18.8%) exact matches, in which:
13 unique CDR3
4 unique J



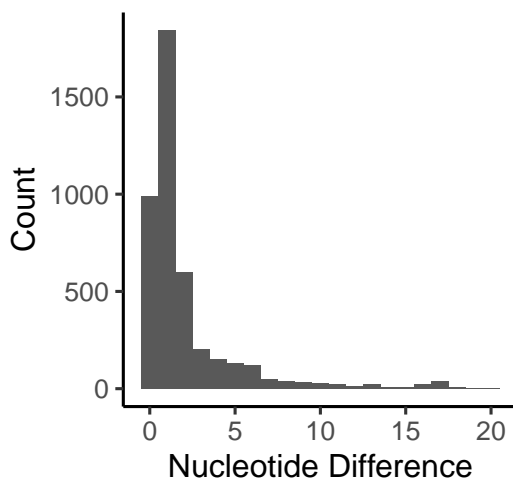
IGHV3-72*01

696 sequences assigned
35 (5%) exact matches, in which:
18 unique CDR3
3 unique J



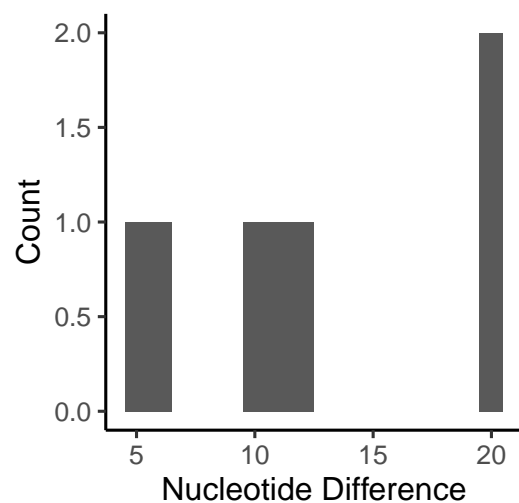
IGHV3-74*01_02

4351 sequences assigned
992 (22.8%) exact matches, in which:
603 unique CDR3
6 unique J



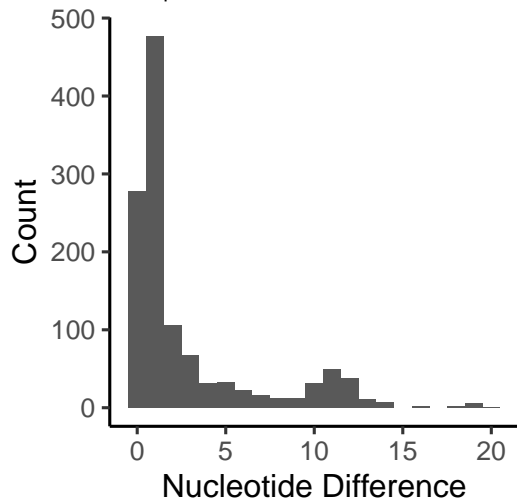
IGHV3-NL1*01

8 sequences assigned
No exact matches.



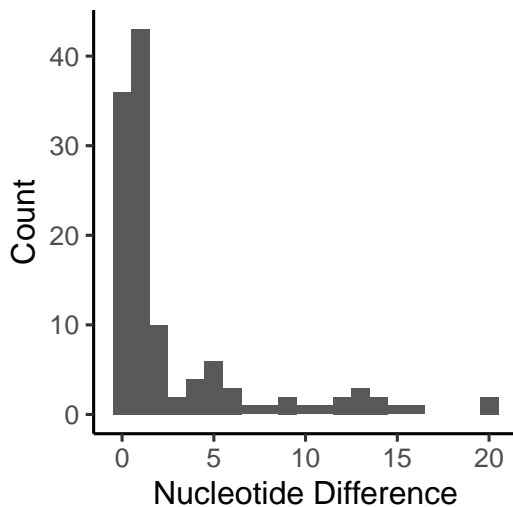
IGHV3-73*01_02

1205 sequences assigned
278 (23.1%) exact matches, in which:
160 unique CDR3
6 unique J



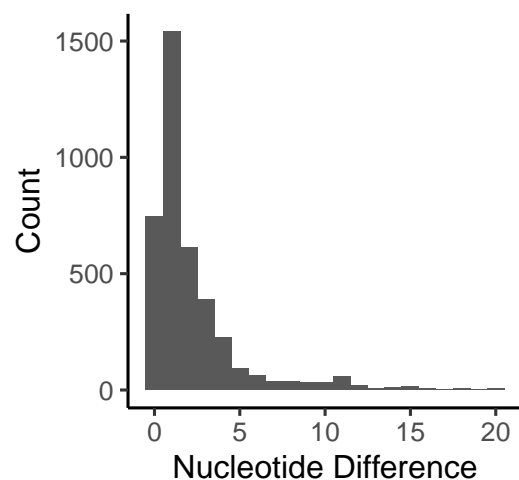
IGHV3-43D*04

148 sequences assigned
36 (24.3%) exact matches, in which:
24 unique CDR3
2 unique J



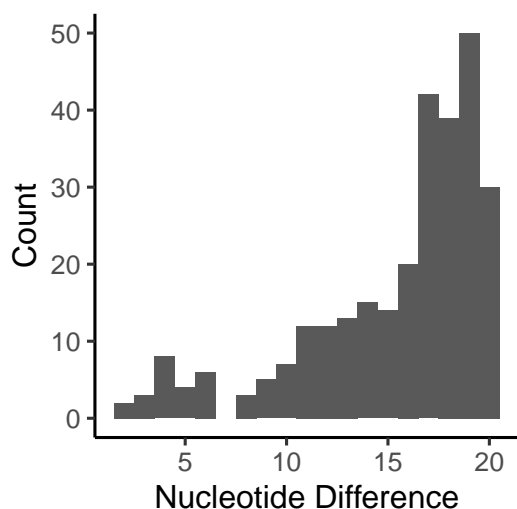
IGHV4-4*07

4039 sequences assigned
744 (18.4%) exact matches, in which:
515 unique CDR3
6 unique J



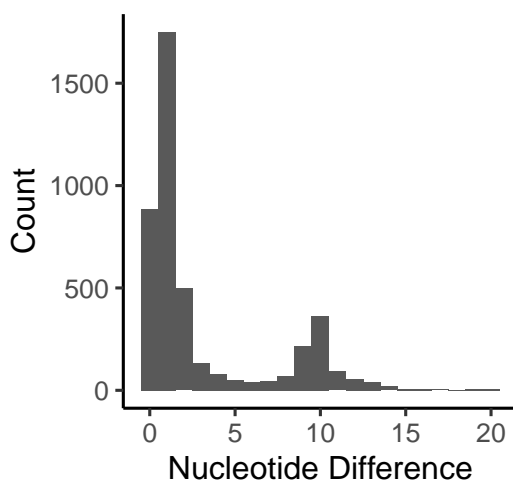
IGHV3-74*03

3358 sequences assigned
No exact matches.



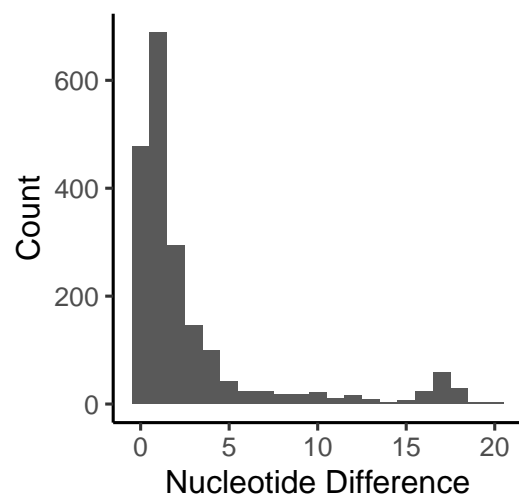
IGHV3-64D*06

4468 sequences assigned
885 (19.8%) exact matches, in which:
441 unique CDR3
6 unique J



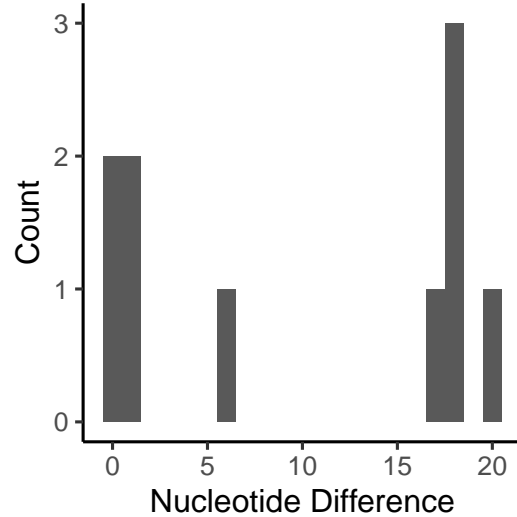
IGHV4-4*02_03

2025 sequences assigned
478 (23.6%) exact matches, in which:
333 unique CDR3
6 unique J



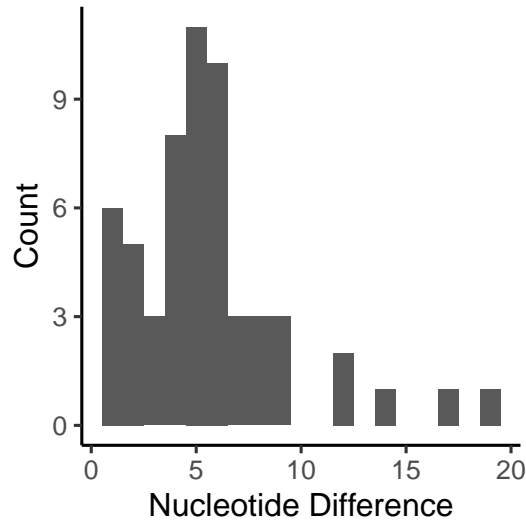
IGHV4-28*03

10 sequences assigned
2 (20%) exact matches, in which:
1 unique CDR3
1 unique J



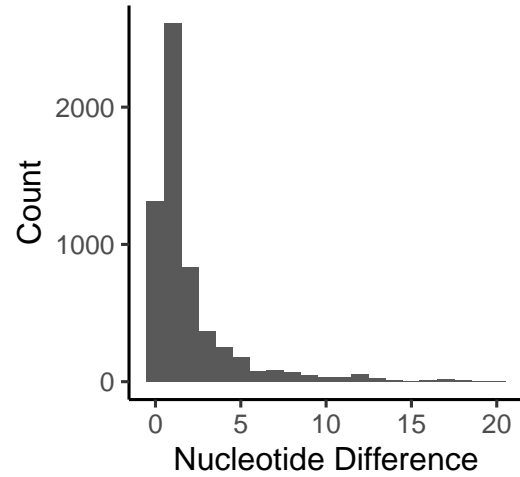
IGHV4-30-2*03

57 sequences assigned
No exact matches.



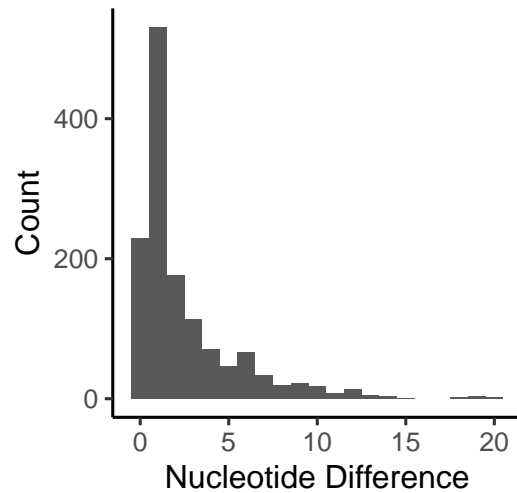
IGHV4-31*02

6095 sequences assigned
1317 (21.6%) exact matches, in which:
895 unique CDR3
6 unique J



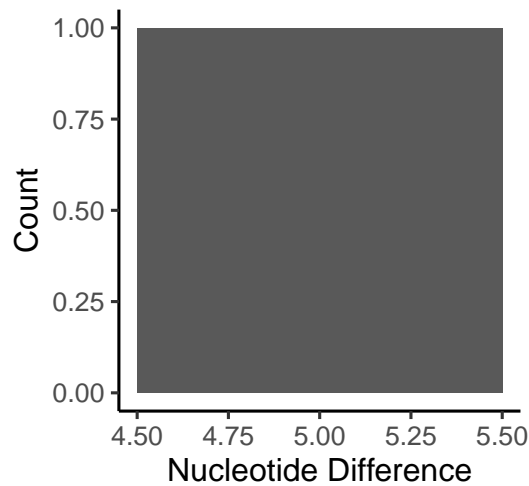
IGHV4-30-2*01

1437 sequences assigned
229 (15.9%) exact matches, in which:
127 unique CDR3
6 unique J



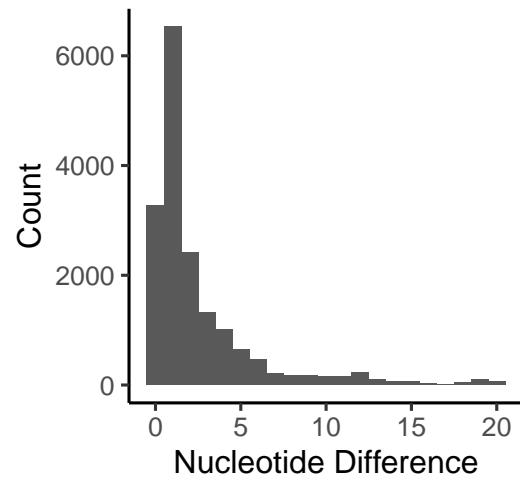
IGHV4-30-2*04

1 sequences assigned
No exact matches.



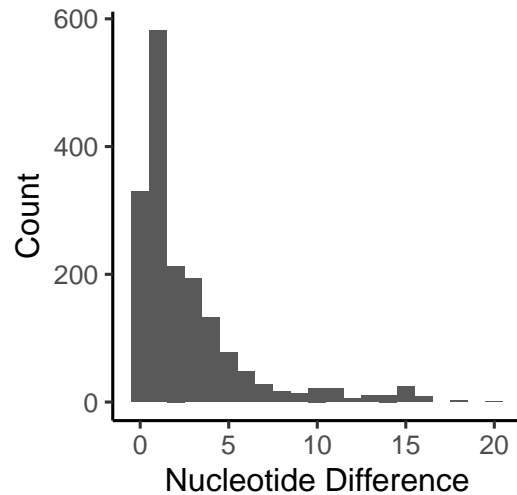
IGHV4-34*01_02

17501 sequences assigned
3277 (18.7%) exact matches, in which:
2108 unique CDR3
6 unique J



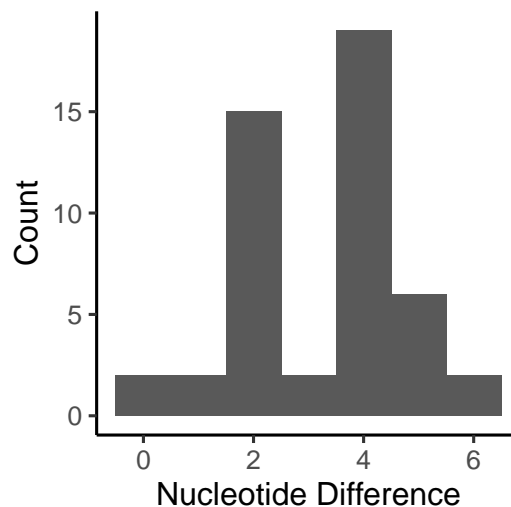
IGHV4-30-4*01

1757 sequences assigned
329 (18.7%) exact matches, in which:
236 unique CDR3
6 unique J



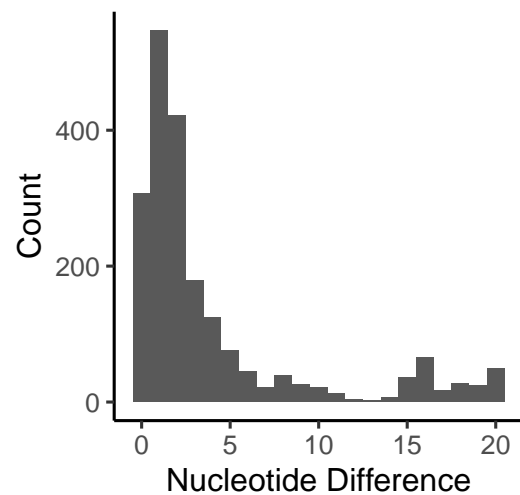
IGHV4-30-2*05

48 sequences assigned
2 (4.2%) exact matches, in which:
2 unique CDR3
2 unique J



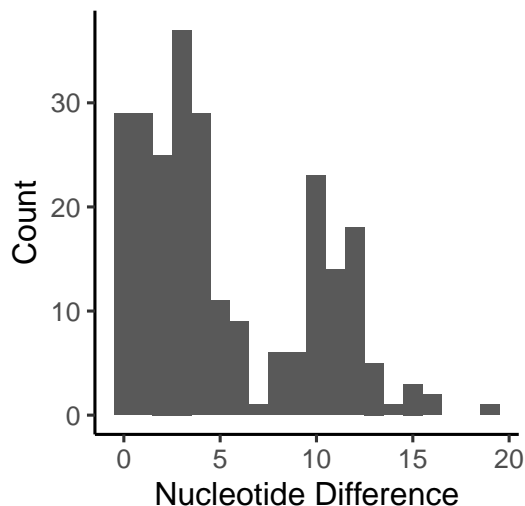
IGHV4-38-2*01

2101 sequences assigned
307 (14.6%) exact matches, in which:
249 unique CDR3
6 unique J



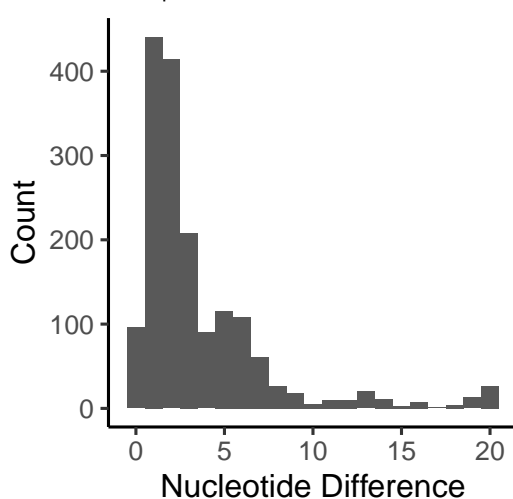
IGHV4-38-2*02

278 sequences assigned
29 (10.4%) exact matches, in which:
23 unique CDR3
6 unique J



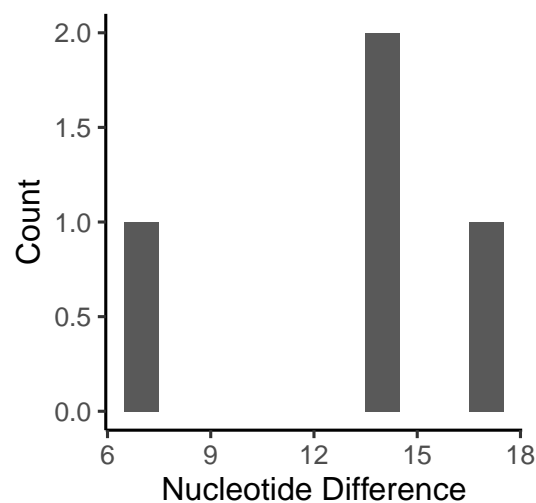
IGHV4-59*12

2442 sequences assigned
96 (3.9%) exact matches, in which:
93 unique CDR3
6 unique J



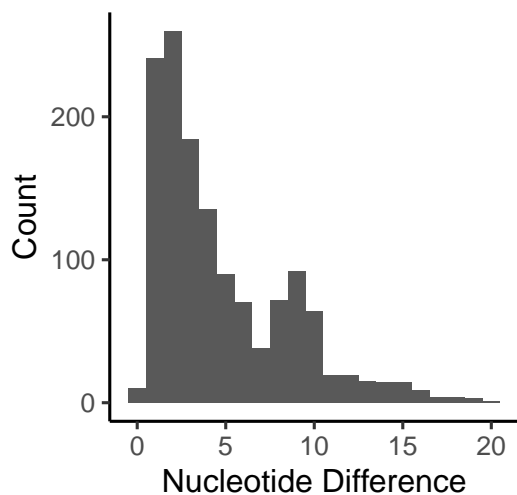
IGHV4/OR15-8*01

4 sequences assigned
No exact matches.



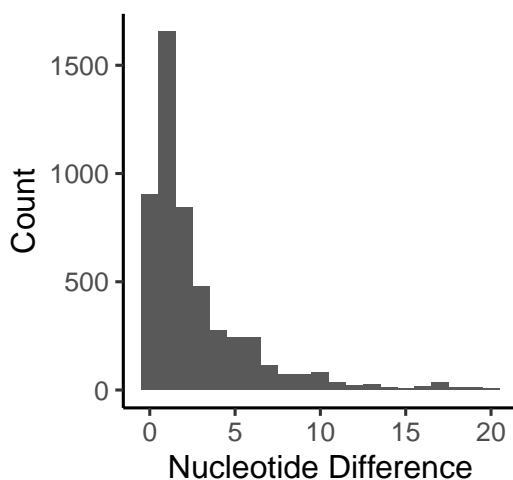
IGHV4-39*07

1370 sequences assigned
10 (0.7%) exact matches, in which:
10 unique CDR3
3 unique J



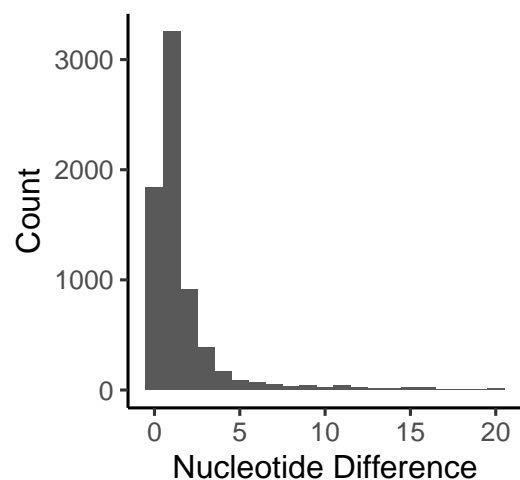
IGHV4-61*01

5256 sequences assigned
903 (17.2%) exact matches, in which:
698 unique CDR3
6 unique J



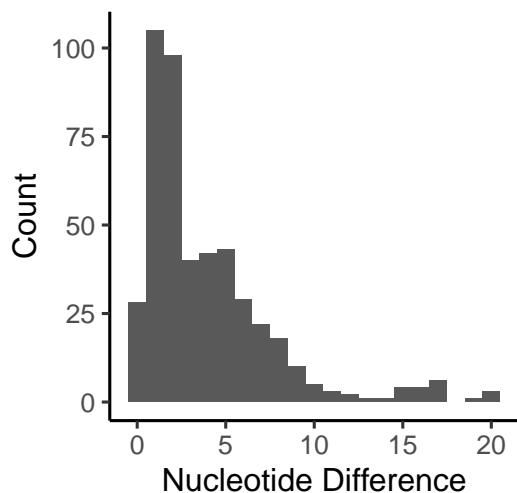
IGHV5-10-1*01_03

7067 sequences assigned
1842 (26.1%) exact matches, in which:
1024 unique CDR3
6 unique J



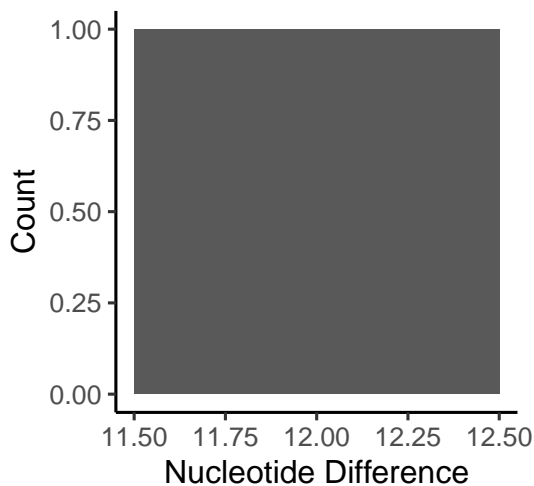
IGHV4-59*08

483 sequences assigned
28 (5.8%) exact matches, in which:
26 unique CDR3
5 unique J



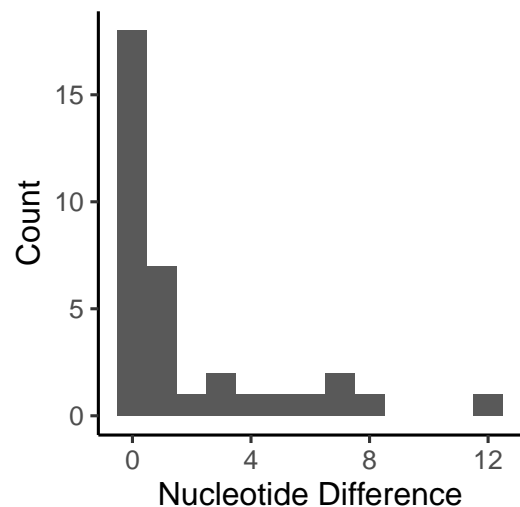
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



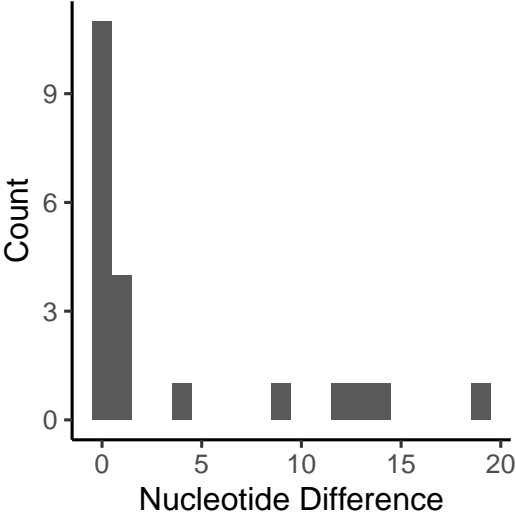
IGHV5-51*04

35 sequences assigned
18 (51.4%) exact matches, in which:
17 unique CDR3
5 unique J



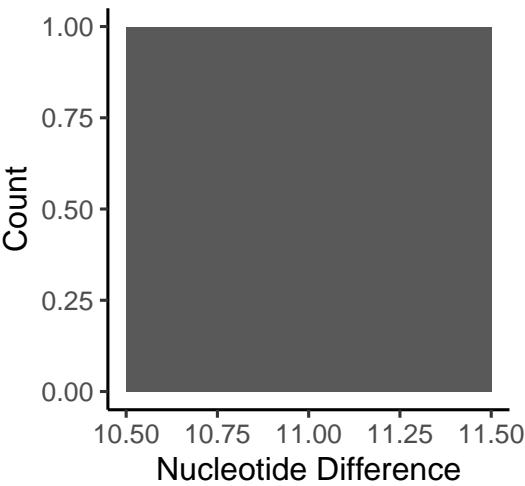
IGHV5-51*06

21 sequences assigned
11 (52.4%) exact matches, in which:
11 unique CDR3
3 unique J



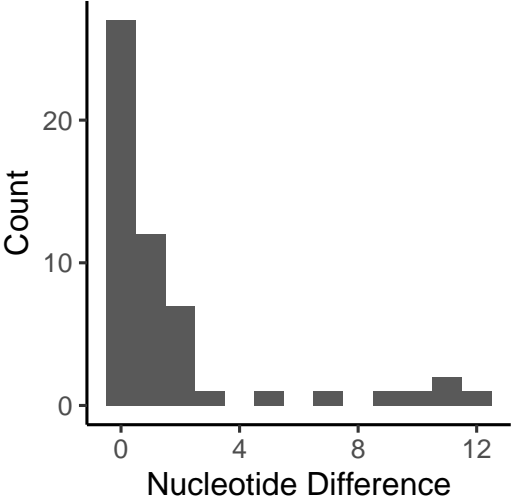
IGHV3/OR16-9*01

1 sequences assigned
No exact matches.



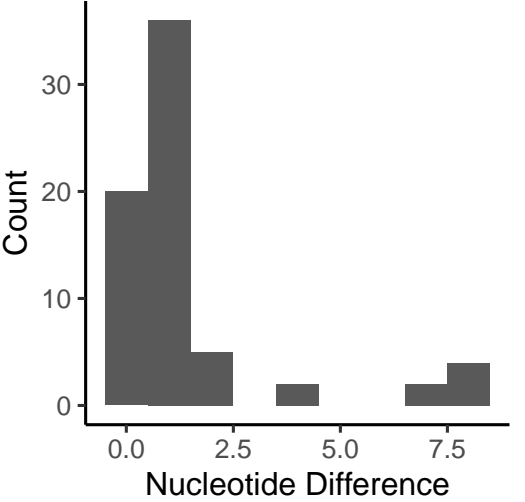
IGHV5-51*07

56 sequences assigned
27 (48.2%) exact matches, in which:
23 unique CDR3
4 unique J



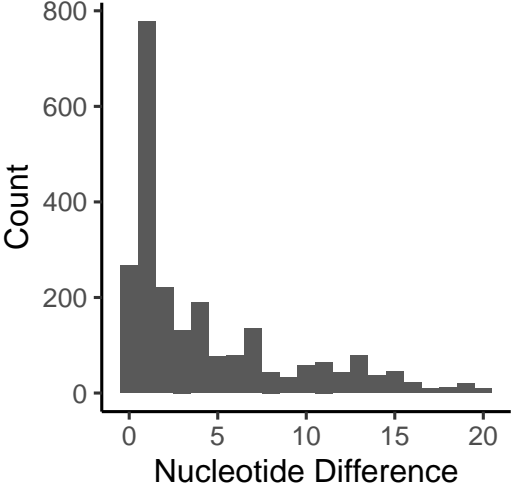
IGHV7-4-1*01

69 sequences assigned
20 (29%) exact matches, in which:
16 unique CDR3
4 unique J



IGHV6-1*01_02

2464 sequences assigned
267 (10.8%) exact matches, in which:
169 unique CDR3
5 unique J





[illegible]