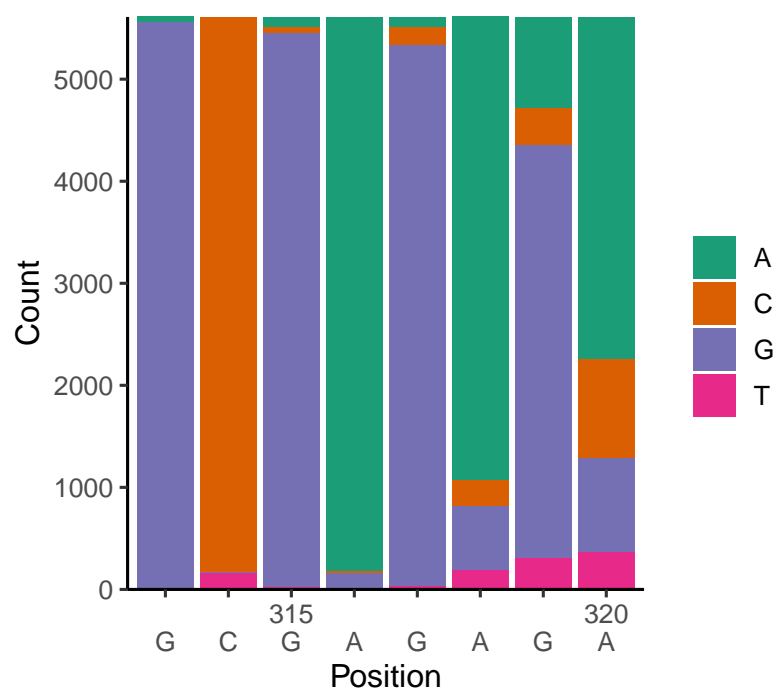
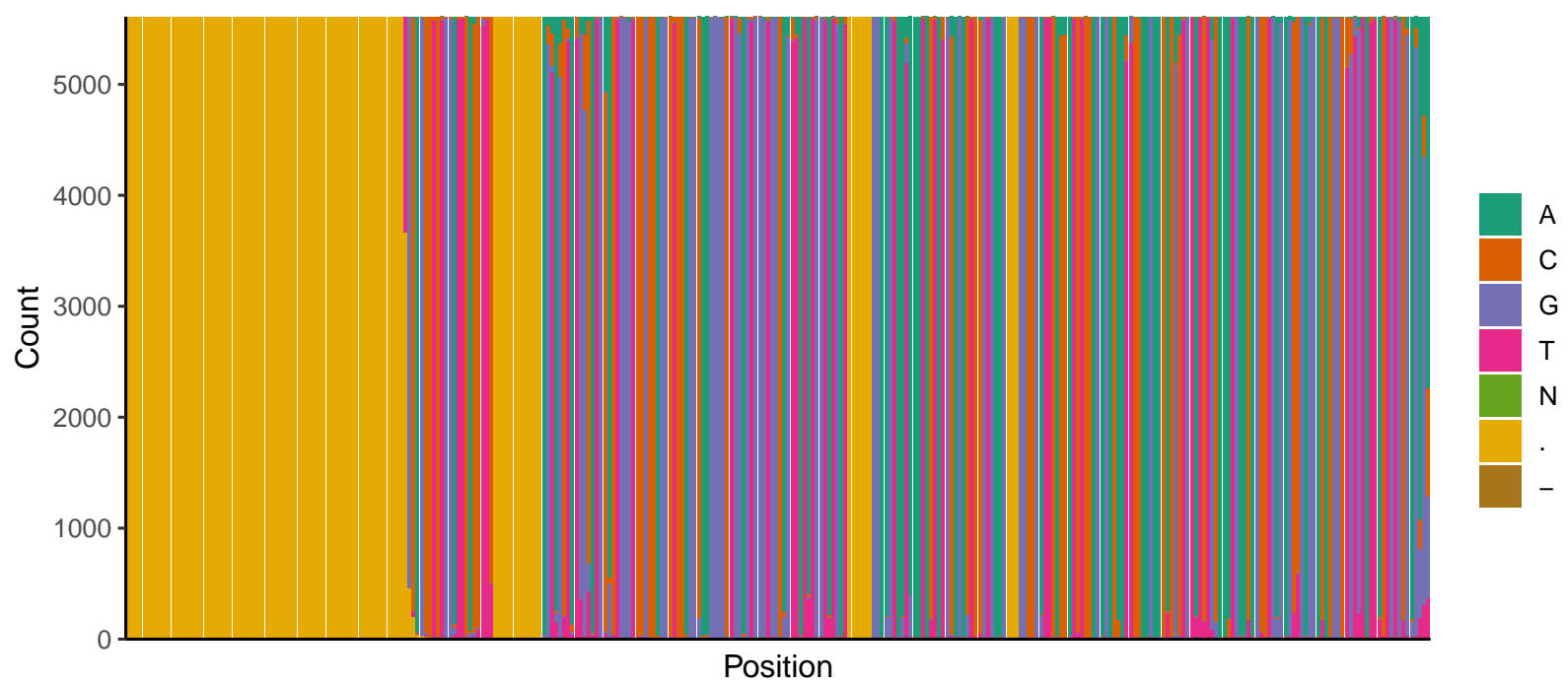


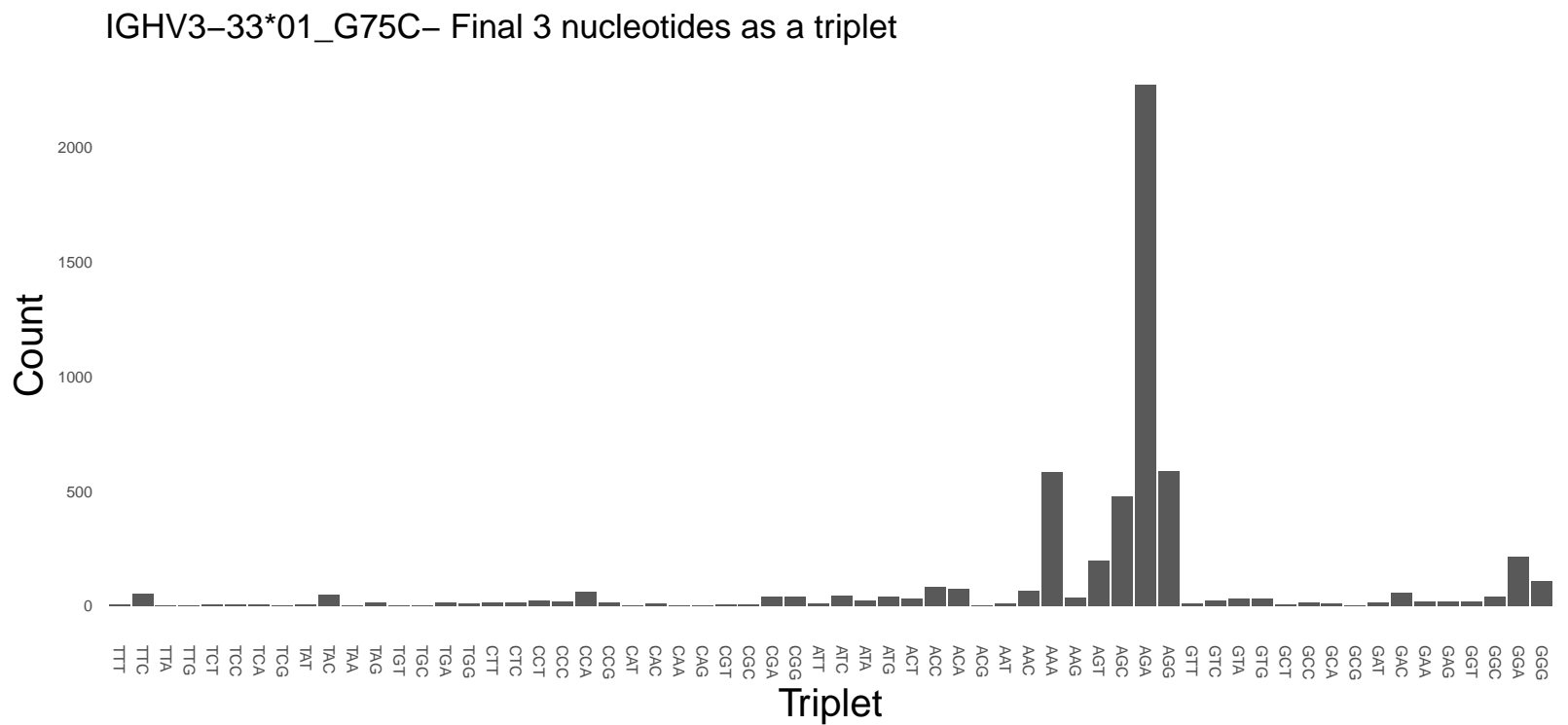
Gene IGHV3-33*01_G75C



Gene IGHV3-33*01_G75C

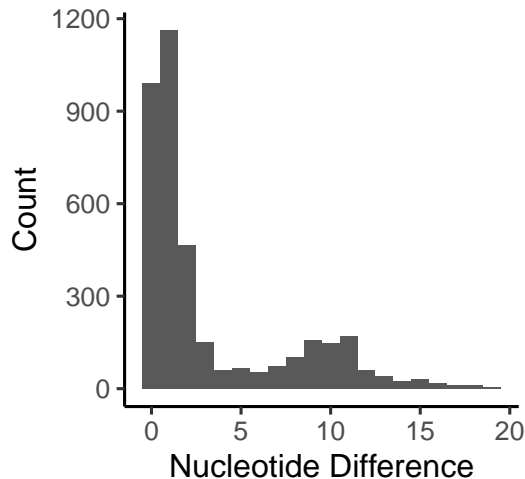


IGHV3-33*01_G75C- Final 3 nucleotides as a triplet



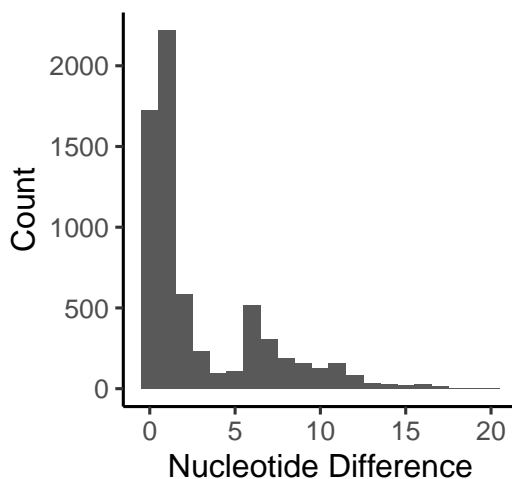
IGHV1-2*04

3803 sequences assigned
991 (26.1%) exact matches, in which:
819 unique CDR3
6 unique J



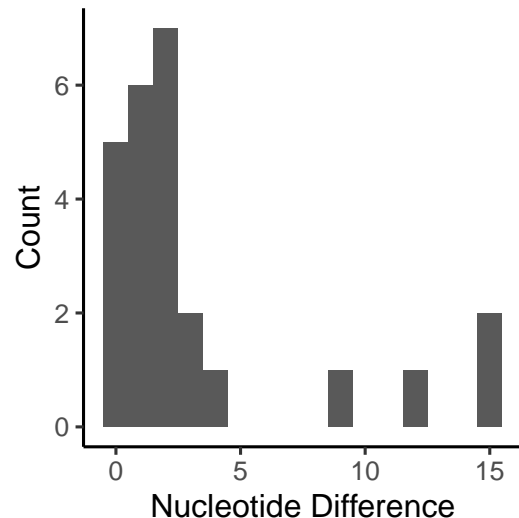
IGHV1-18*01

6649 sequences assigned
1728 (26%) exact matches, in which:
1379 unique CDR3
6 unique J



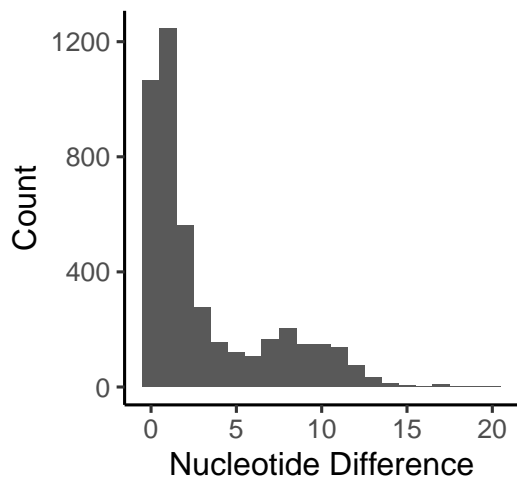
IGHV1-45*02

25 sequences assigned
5 (20%) exact matches, in which:
5 unique CDR3
3 unique J



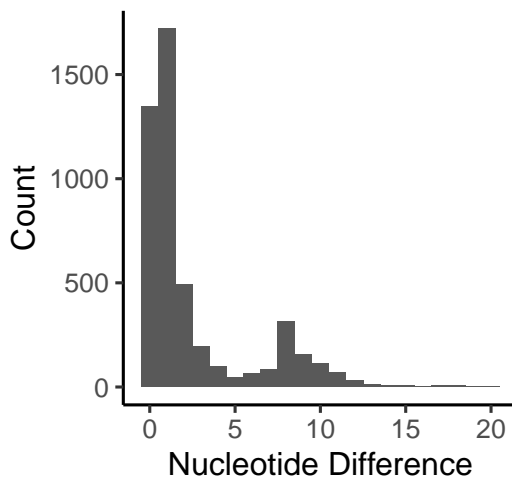
IGHV1-3*01_05

4471 sequences assigned
1066 (23.8%) exact matches, in which:
834 unique CDR3
6 unique J



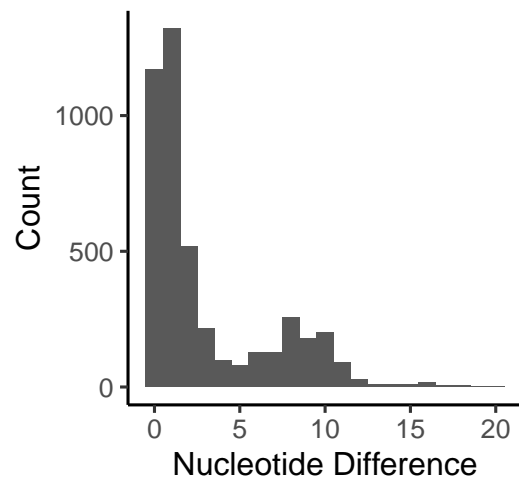
IGHV1-18*04

4781 sequences assigned
1347 (28.2%) exact matches, in which:
1101 unique CDR3
6 unique J



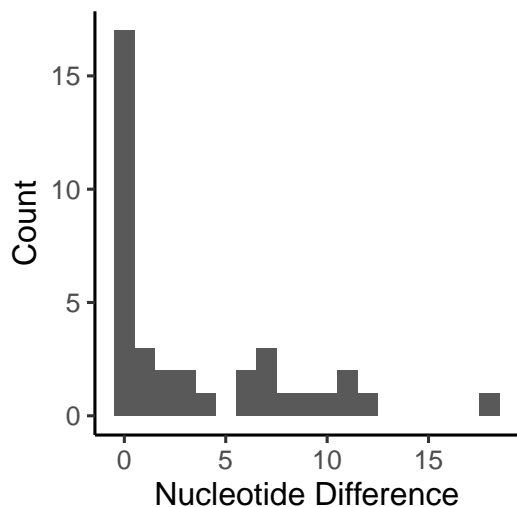
IGHV1-46*01

4481 sequences assigned
1168 (26.1%) exact matches, in which:
968 unique CDR3
6 unique J



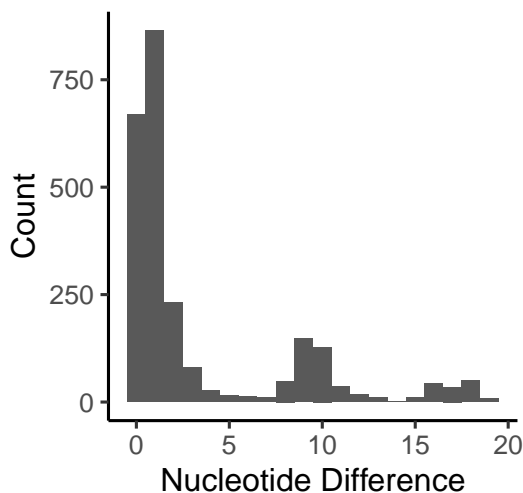
IGHV1-8*01

38 sequences assigned
17 (44.7%) exact matches, in which:
17 unique CDR3
4 unique J



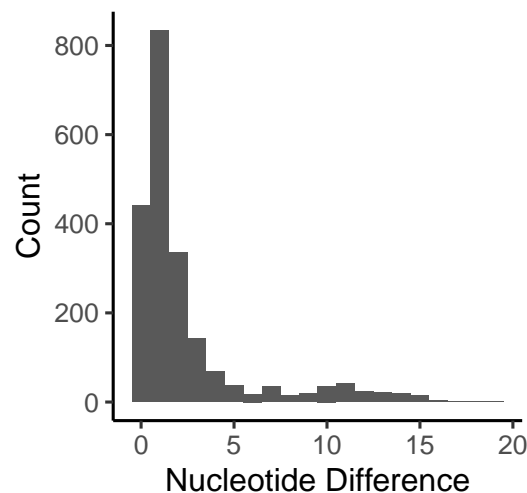
IGHV1-24*01

2453 sequences assigned
669 (27.3%) exact matches, in which:
542 unique CDR3
6 unique J



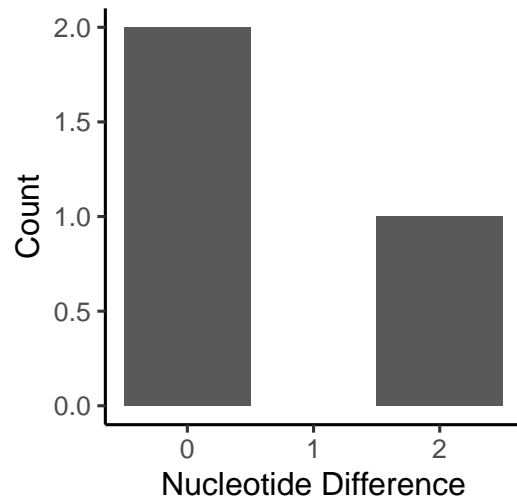
IGHV1-58*01_03

2109 sequences assigned
440 (20.9%) exact matches, in which:
325 unique CDR3
6 unique J



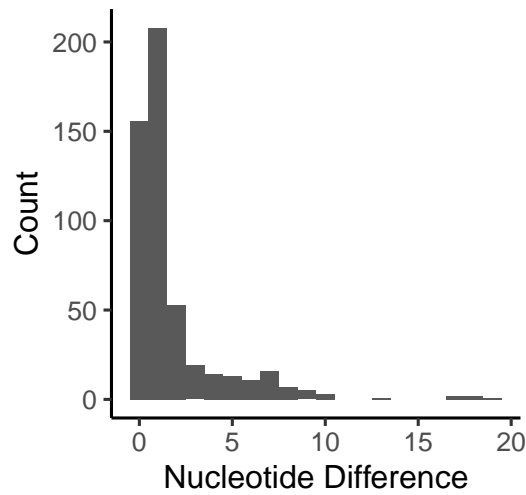
IGHV1-68*01

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



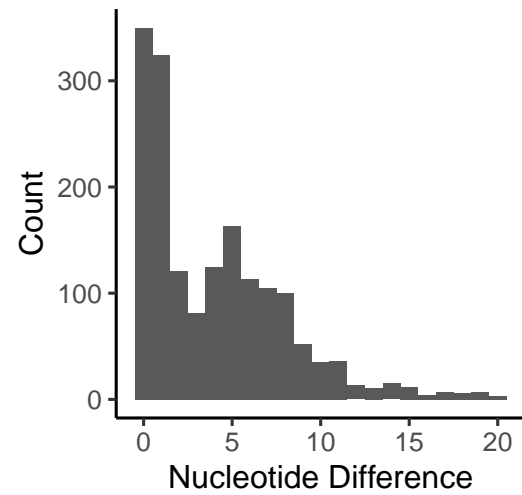
IGHV2-5*02

532 sequences assigned
156 (29.3%) exact matches, in which:
101 unique CDR3
5 unique J



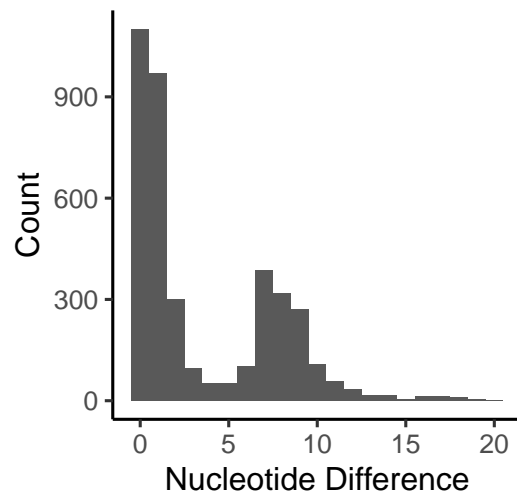
IGHV3-7*01

1702 sequences assigned
350 (20.6%) exact matches, in which:
310 unique CDR3
6 unique J



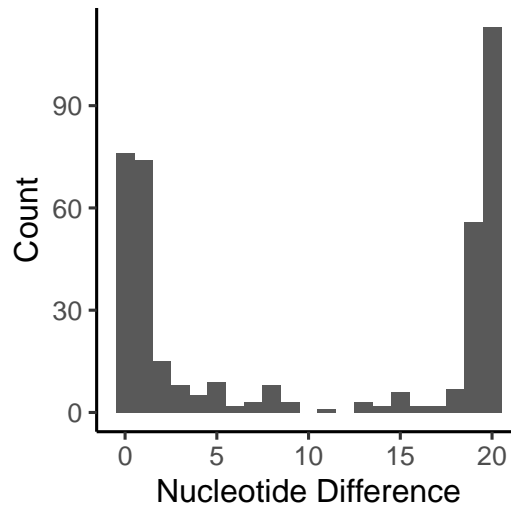
IGHV1-69*06_14

3939 sequences assigned
1101 (28%) exact matches, in which:
960 unique CDR3
6 unique J



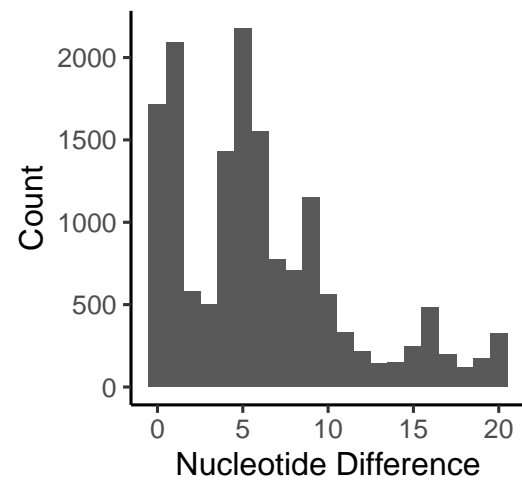
IGHV2-26*01

436 sequences assigned
76 (17.4%) exact matches, in which:
57 unique CDR3
5 unique J



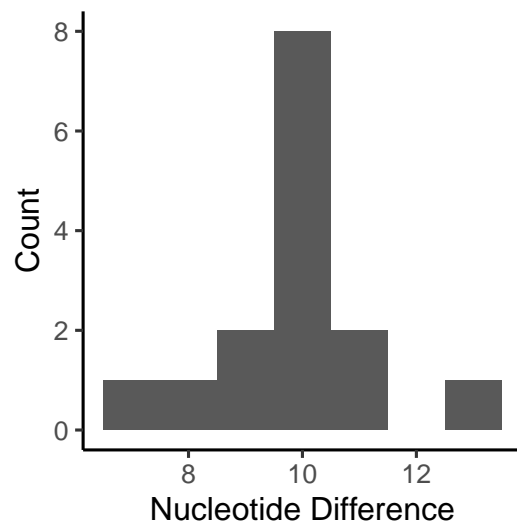
IGHV3-7*03

17020 sequences assigned
1713 (10.1%) exact matches, in which:
1071 unique CDR3
6 unique J



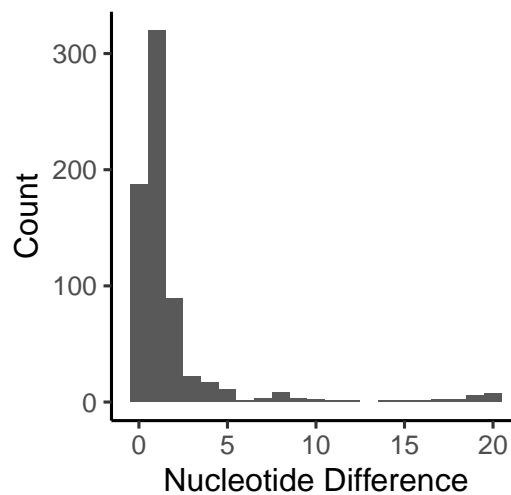
IGHV1-NL1*01

15 sequences assigned
No exact matches.



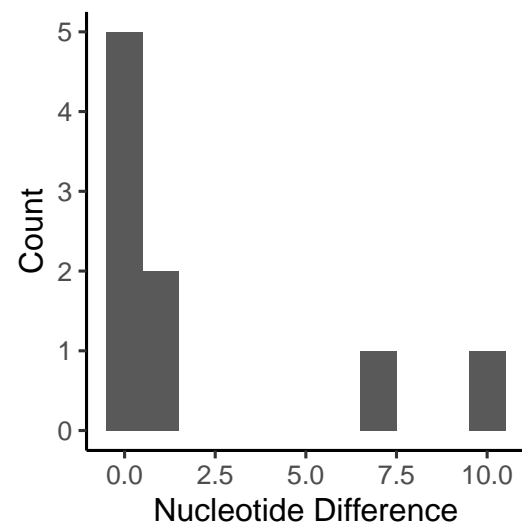
IGHV2-70*01

693 sequences assigned
187 (27%) exact matches, in which:
132 unique CDR3
5 unique J



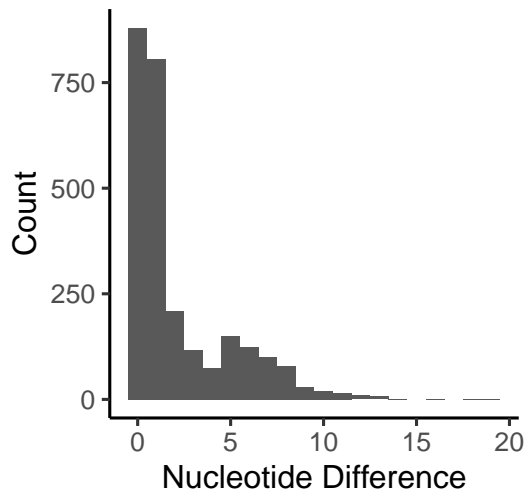
IGHV3-9*01

9 sequences assigned
5 (55.6%) exact matches, in which:
5 unique CDR3
3 unique J



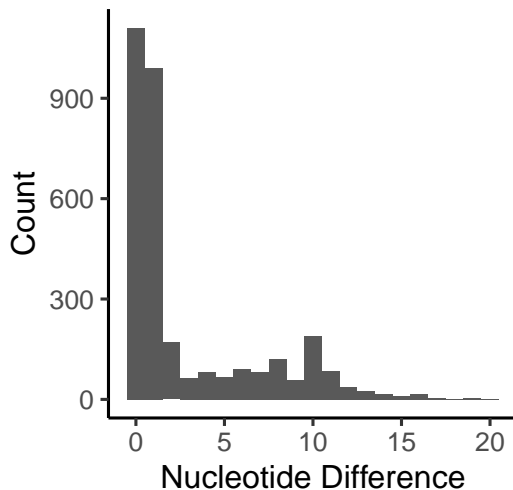
IGHV3-11*06

2622 sequences assigned
880 (33.6%) exact matches, in which:
598 unique CDR3
5 unique J



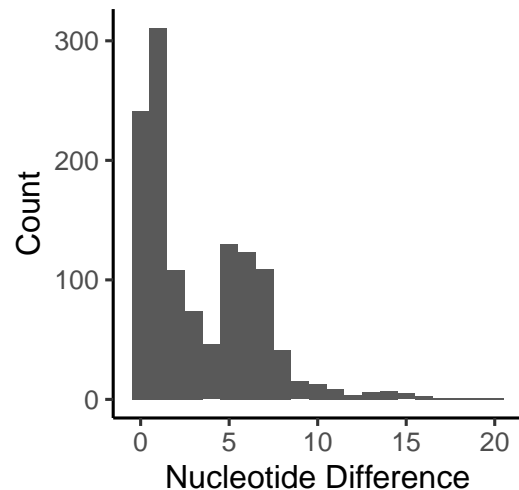
IGHV3-15*01_02

3336 sequences assigned
1111 (33.3%) exact matches, in which:
637 unique CDR3
6 unique J



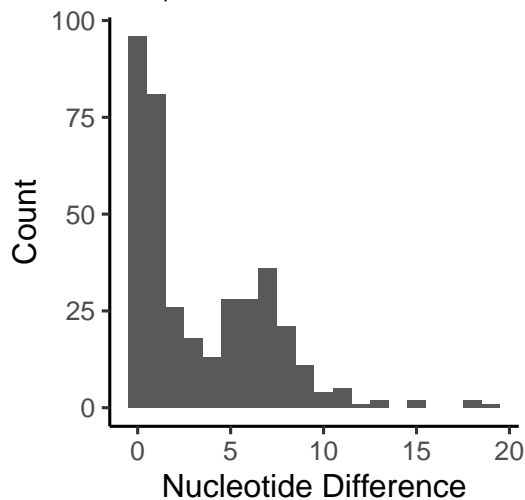
IGHV3-21*04

1264 sequences assigned
241 (19.1%) exact matches, in which:
209 unique CDR3
6 unique J



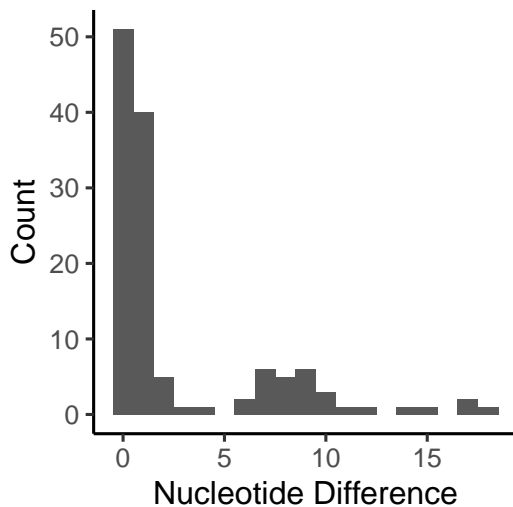
IGHV3-11*03_05

377 sequences assigned
96 (25.5%) exact matches, in which:
88 unique CDR3
6 unique J



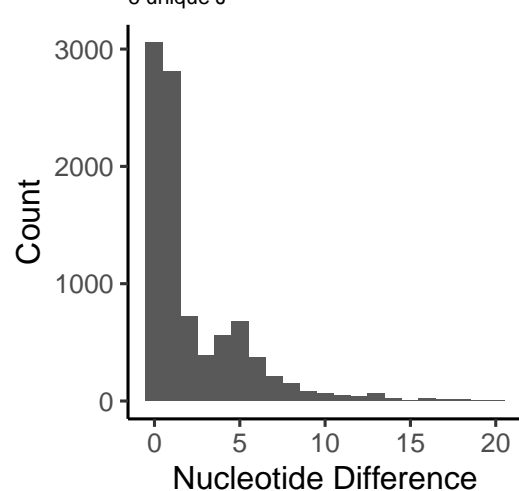
IGHV3-20*01_02

127 sequences assigned
51 (40.2%) exact matches, in which:
28 unique CDR3
4 unique J



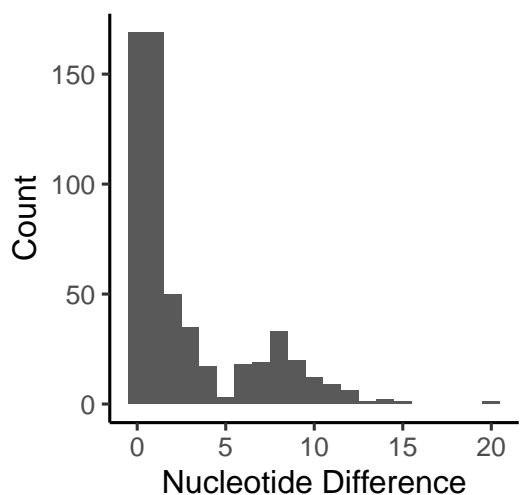
IGHV3-21*01_02

9373 sequences assigned
3054 (32.6%) exact matches, in which:
1889 unique CDR3
6 unique J



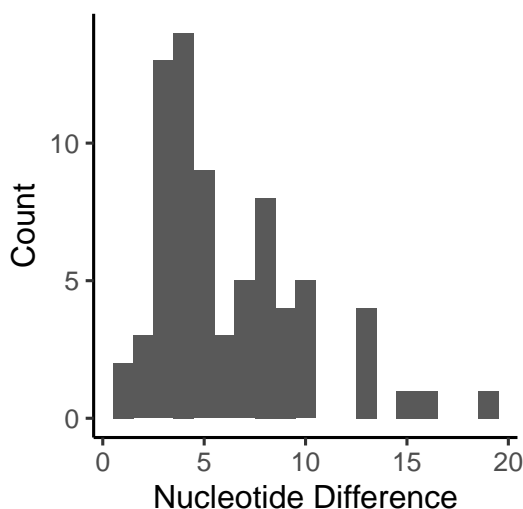
IGHV3-13*05

616 sequences assigned
169 (27.4%) exact matches, in which:
120 unique CDR3
6 unique J



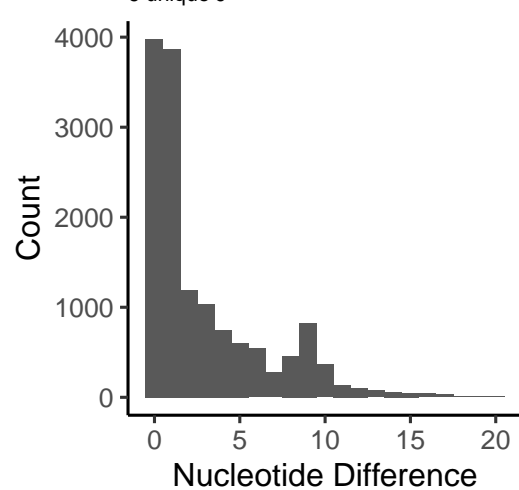
IGHV3-20*03_04

73 sequences assigned
No exact matches.



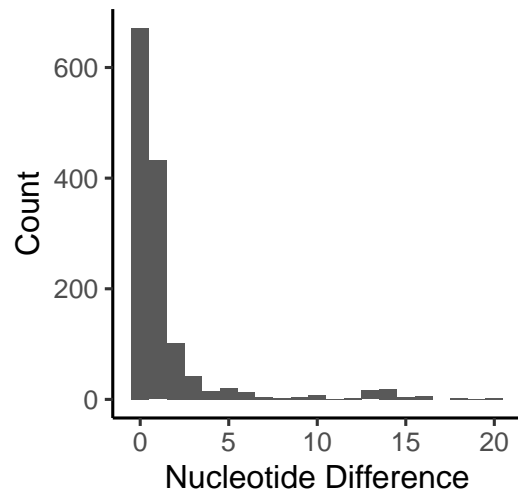
IGHV3-30-3*01

14510 sequences assigned
3979 (27.4%) exact matches, in which:
2513 unique CDR3
6 unique J



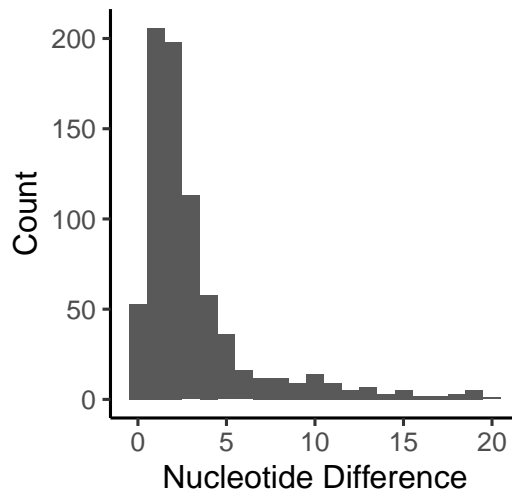
IGHV3–30*03

1392 sequences assigned
672 (48.3%) exact matches, in which:
580 unique CDR3
6 unique J



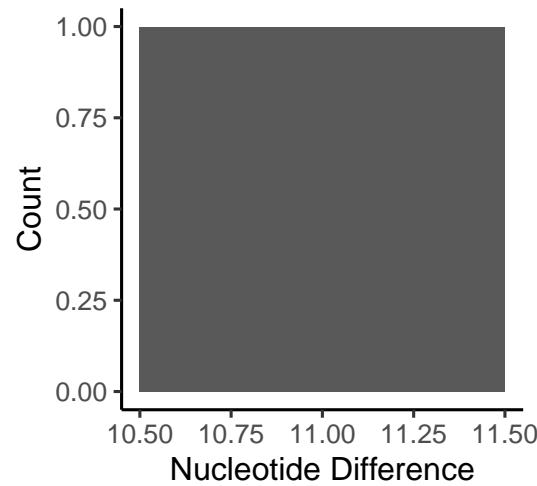
IGHV3–33*06

794 sequences assigned
53 (6.7%) exact matches, in which:
51 unique CDR3
4 unique J



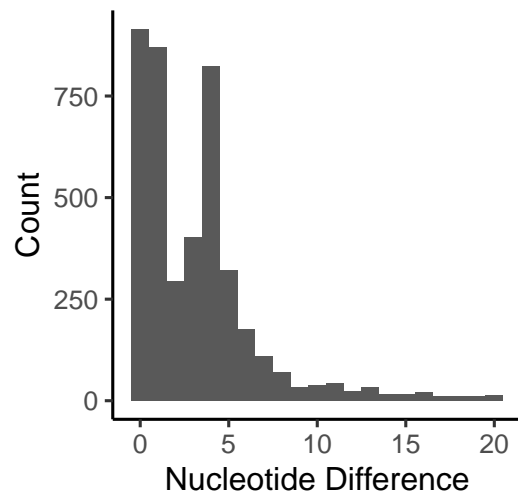
IGHV3–43*01

1 sequences assigned
No exact matches.



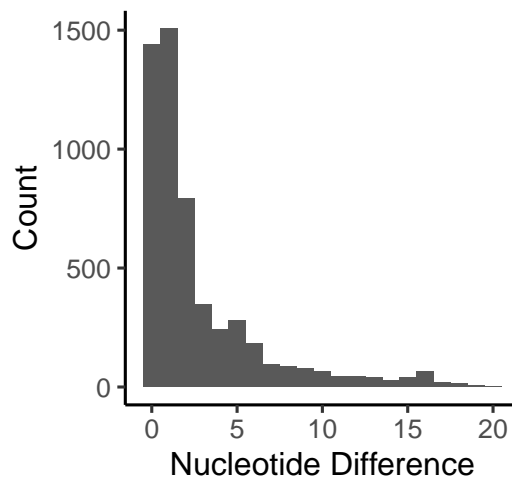
IGHV3–33*01

6702 sequences assigned
915 (13.7%) exact matches, in which:
620 unique CDR3
6 unique J



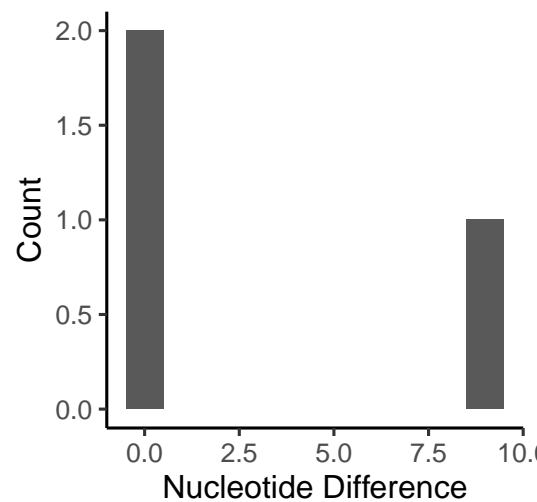
IGHV3–33*01_G75C

5610 sequences assigned
1440 (25.7%) exact matches, in which:
923 unique CDR3
6 unique J



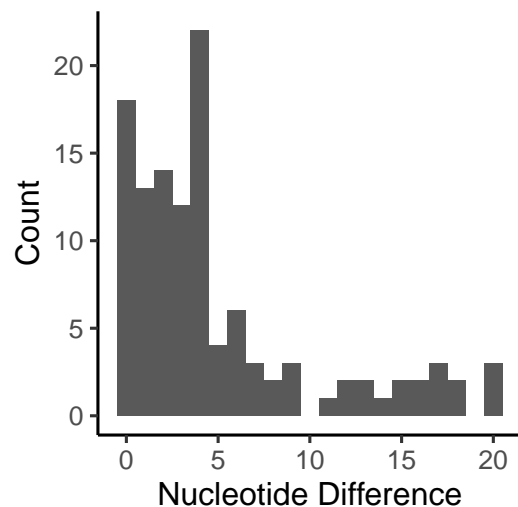
IGHV3–47*02

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



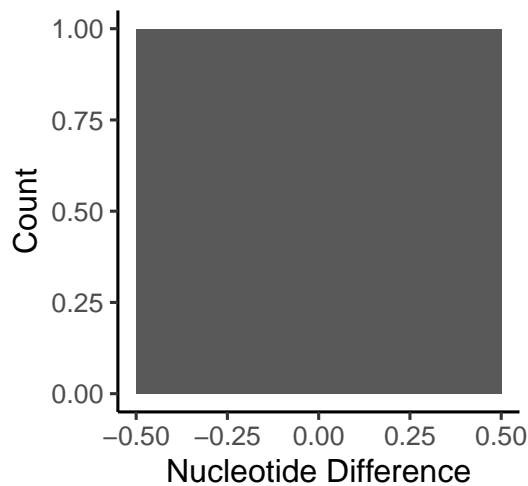
IGHV3–33*05

141 sequences assigned
18 (12.8%) exact matches, in which:
18 unique CDR3
4 unique J



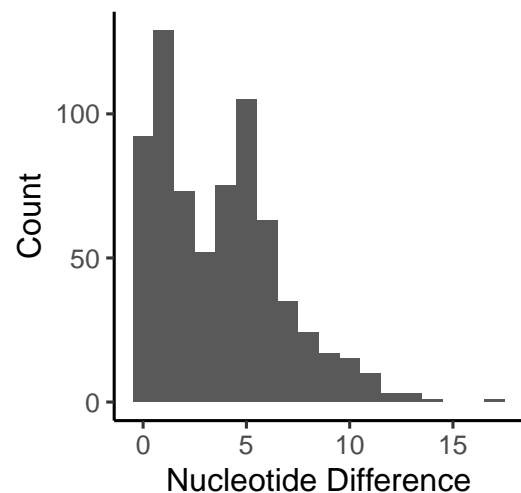
IGHV3–35*01

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



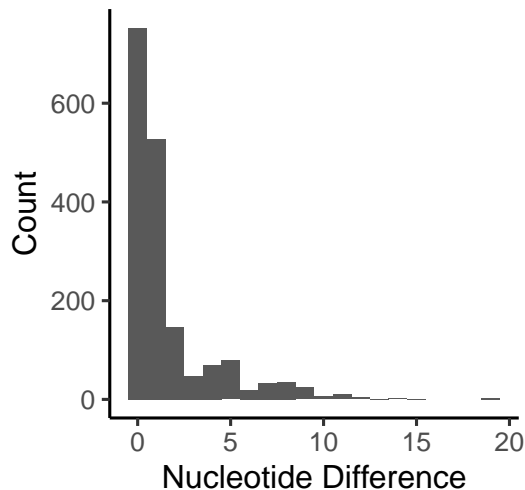
IGHV3–48*01

699 sequences assigned
92 (13.2%) exact matches, in which:
91 unique CDR3
5 unique J



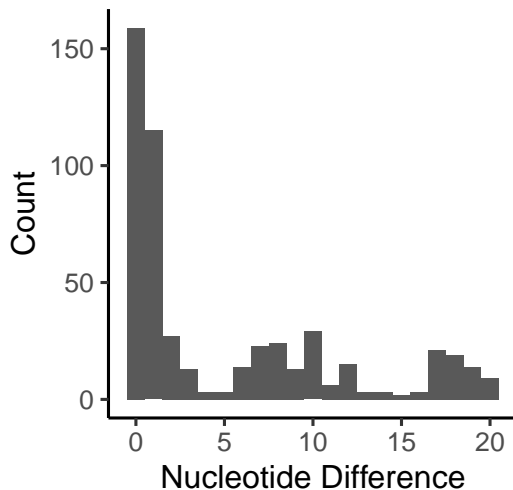
IGHV3-48*02

1764 sequences assigned
753 (42.7%) exact matches, in which:
475 unique CDR3
6 unique J



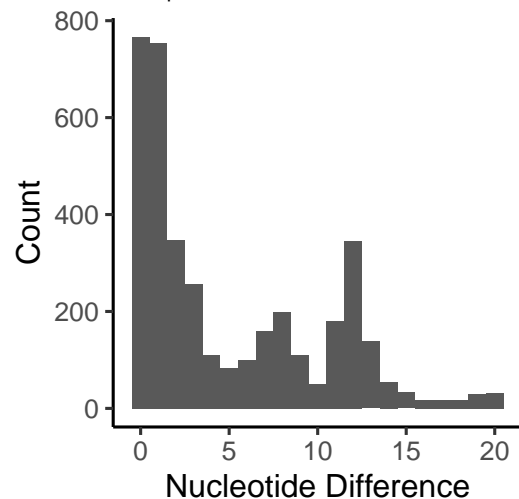
IGHV3-49*04

535 sequences assigned
159 (29.7%) exact matches, in which:
98 unique CDR3
6 unique J



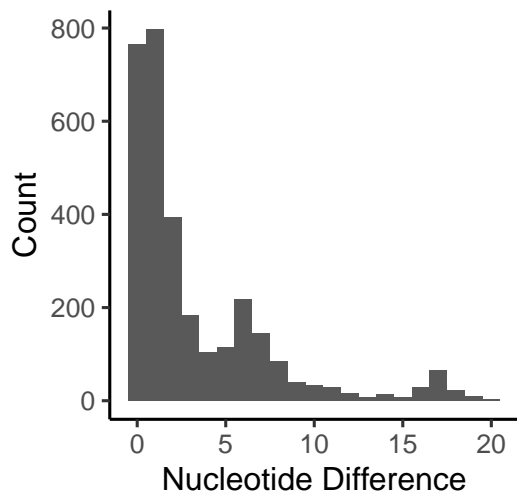
IGHV3-53*01_02

6480 sequences assigned
767 (11.8%) exact matches, in which:
524 unique CDR3
6 unique J



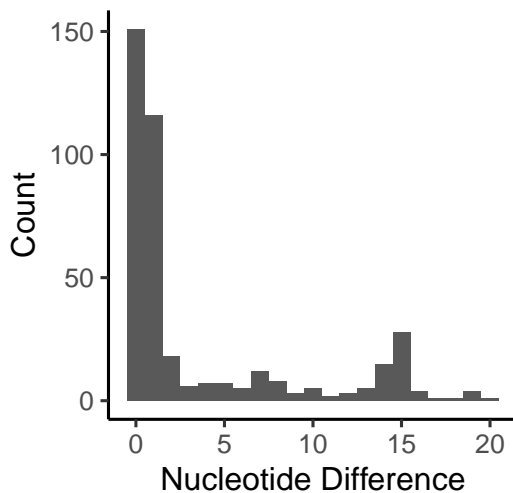
IGHV3-48*03

3394 sequences assigned
765 (22.5%) exact matches, in which:
469 unique CDR3
6 unique J



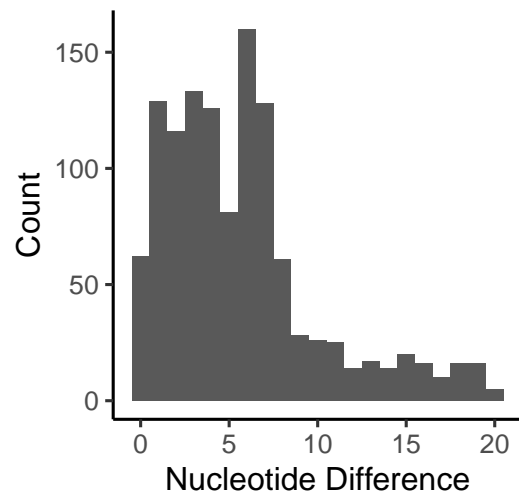
IGHV3-49*03_05

403 sequences assigned
151 (37.5%) exact matches, in which:
103 unique CDR3
5 unique J



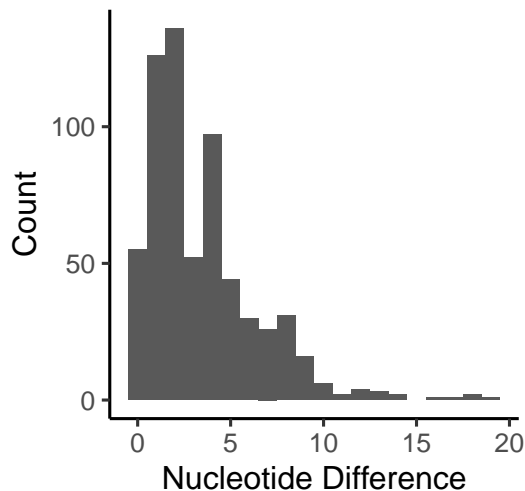
IGHV3-64*04

1216 sequences assigned
62 (5.1%) exact matches, in which:
60 unique CDR3
6 unique J



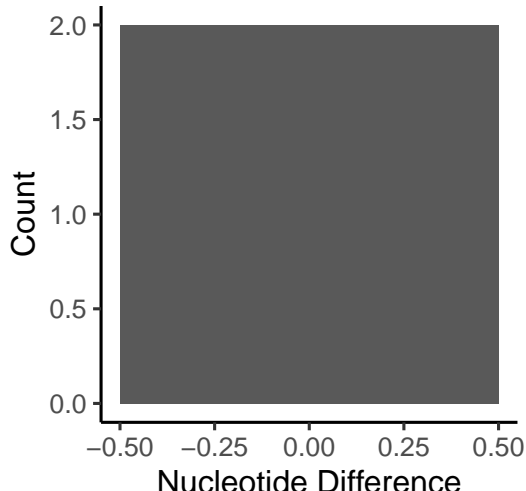
IGHV3-48*04

646 sequences assigned
55 (8.5%) exact matches, in which:
54 unique CDR3
6 unique J



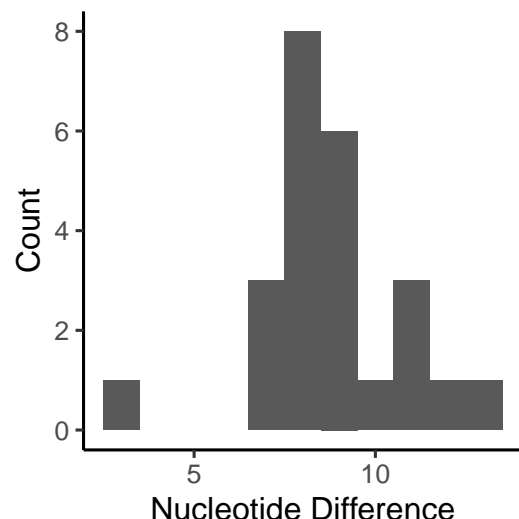
IGHV3-52*01_03

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



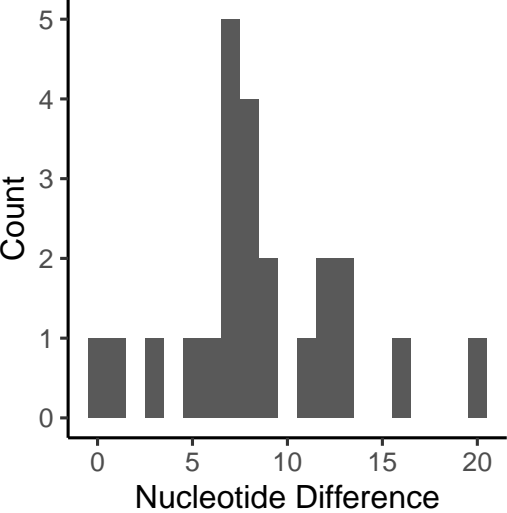
IGHV3-66*01

39 sequences assigned
No exact matches.



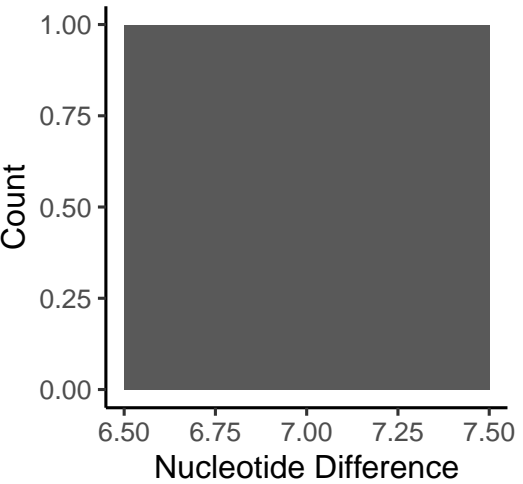
IGHV3-66*02

32 sequences assigned
1 (3.1%) exact matches, in which:
1 unique CDR3
1 unique J



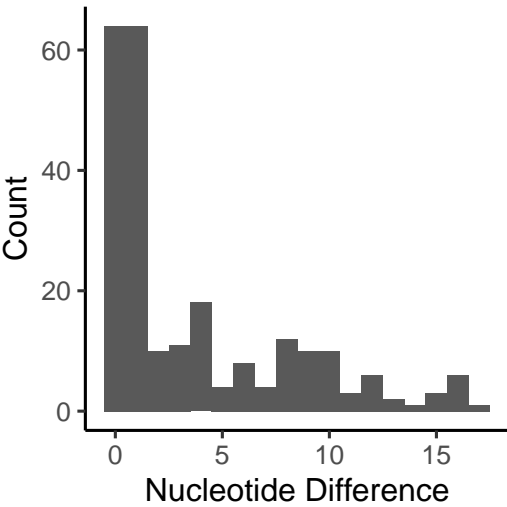
IGHV3-69-1*02

27 sequences assigned
No exact matches.



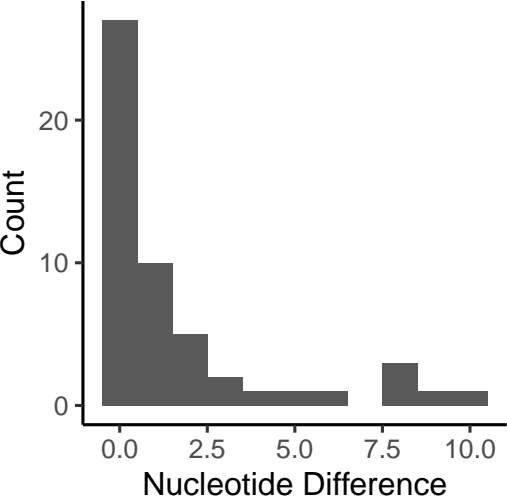
IGHV3-72*01

507 sequences assigned
64 (12.6%) exact matches, in which:
38 unique CDR3
5 unique J



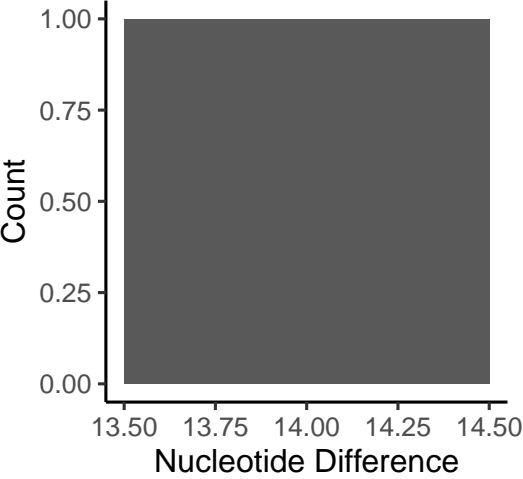
IGHV3-66*03

52 sequences assigned
27 (51.9%) exact matches, in which:
20 unique CDR3
4 unique J



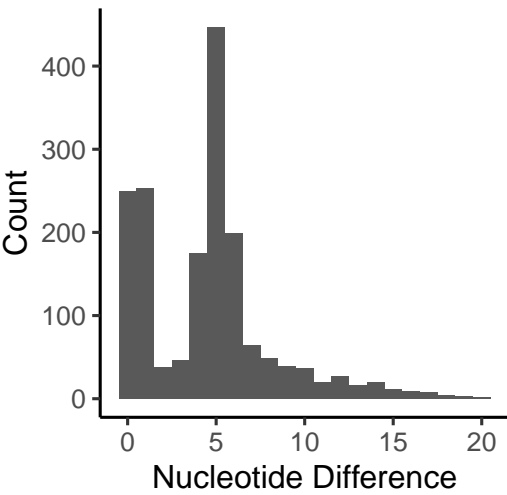
IGHV3-71*03

1 sequences assigned
No exact matches.



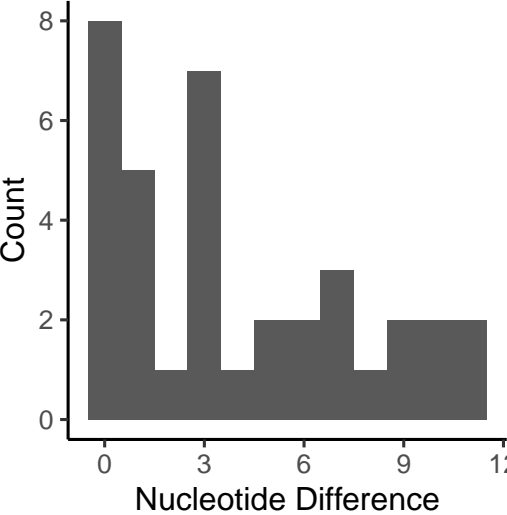
IGHV3-73*01_02

1720 sequences assigned
249 (14.5%) exact matches, in which:
159 unique CDR3
6 unique J



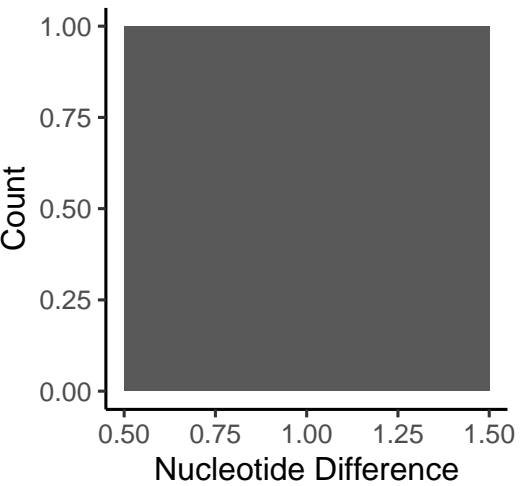
IGHV3-69-1*01

87 sequences assigned
8 (9.2%) exact matches, in which:
8 unique CDR3
4 unique J



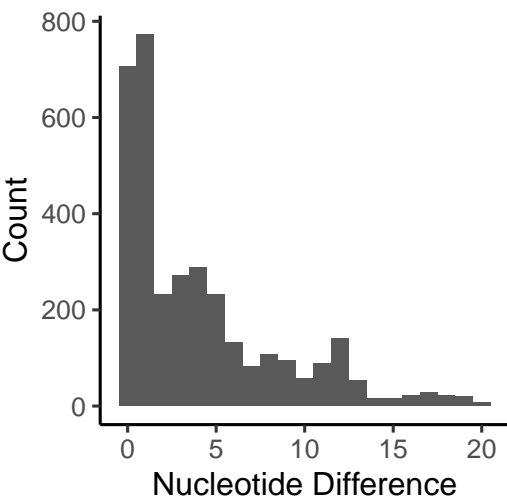
IGHV3-71*01_04

1 sequences assigned
No exact matches.



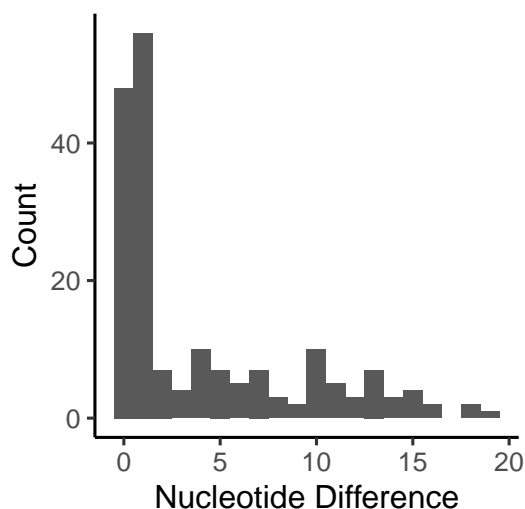
IGHV3-74*01_02

3415 sequences assigned
707 (20.7%) exact matches, in which:
473 unique CDR3
6 unique J



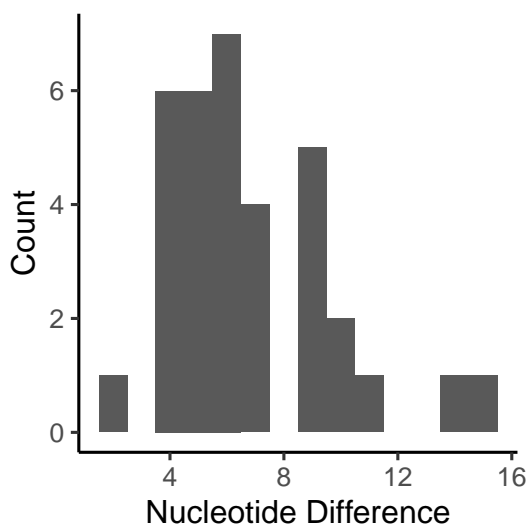
IGHV3-43D*04

186 sequences assigned
48 (25.8%) exact matches, in which:
27 unique CDR3
4 unique J



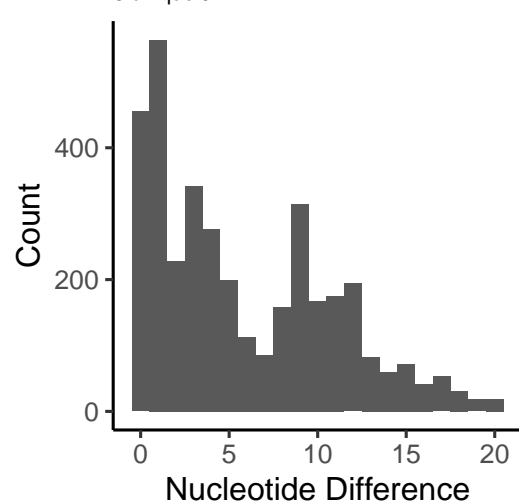
IGHV3-NL1*01

39 sequences assigned
No exact matches.



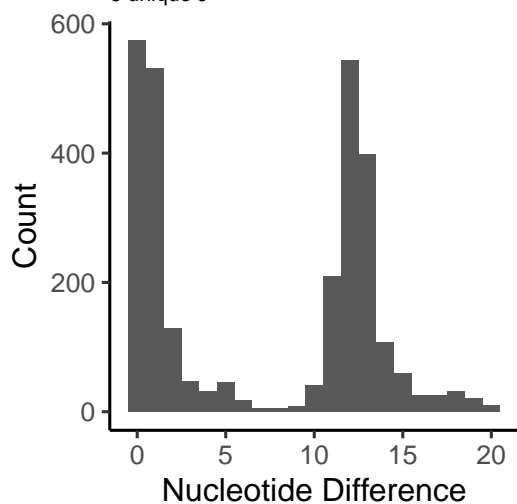
IGHV4-30-4*01

3694 sequences assigned
455 (12.3%) exact matches, in which:
359 unique CDR3
6 unique J



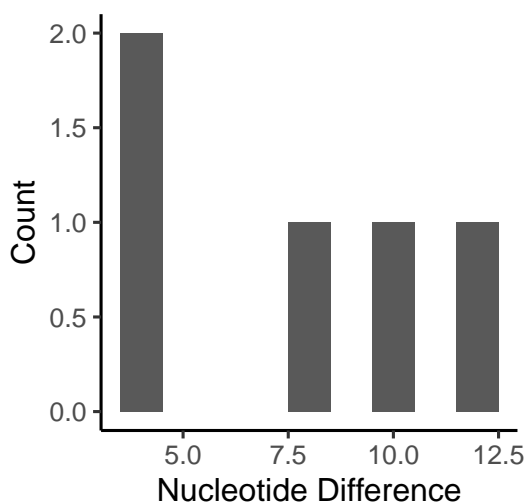
IGHV3-64D*06

2894 sequences assigned
575 (19.9%) exact matches, in which:
363 unique CDR3
6 unique J



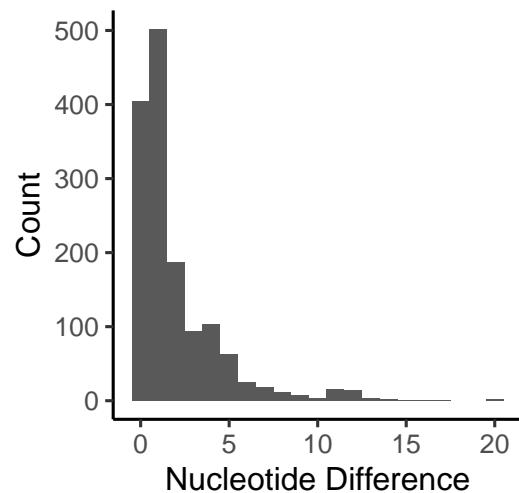
IGHV4-28*03

6 sequences assigned
No exact matches.



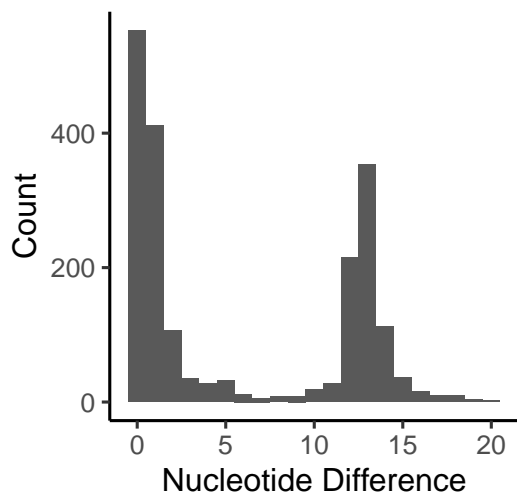
IGHV4-30-2*01

1459 sequences assigned
404 (27.7%) exact matches, in which:
279 unique CDR3
6 unique J



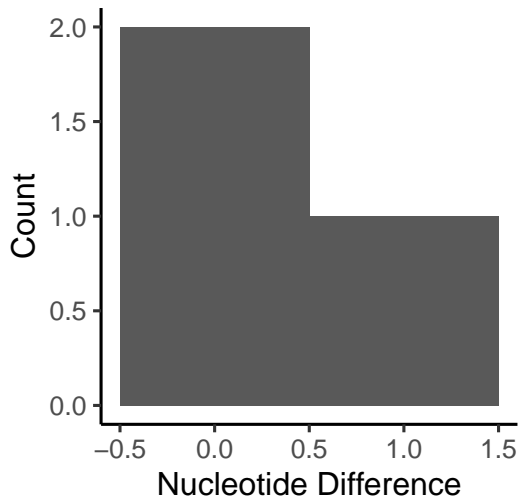
IGHV3-64D*09

2015 sequences assigned
553 (27.4%) exact matches, in which:
339 unique CDR3
6 unique J



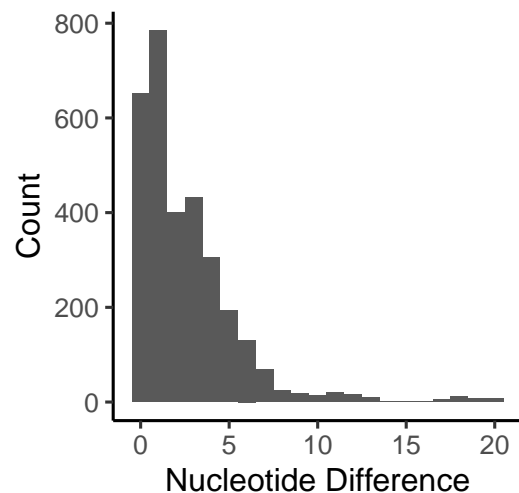
IGHV4-28*01_07

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



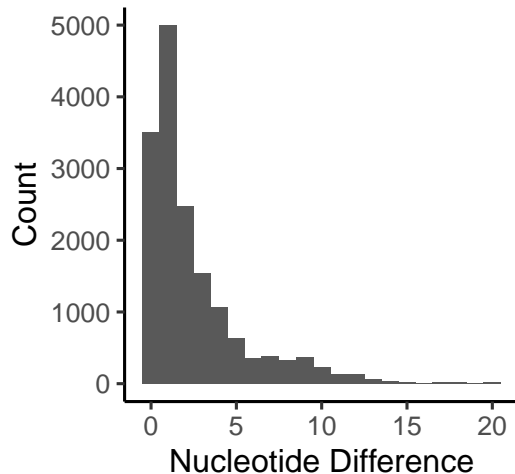
IGHV4-31*03_04

3459 sequences assigned
651 (18.8%) exact matches, in which:
494 unique CDR3
6 unique J



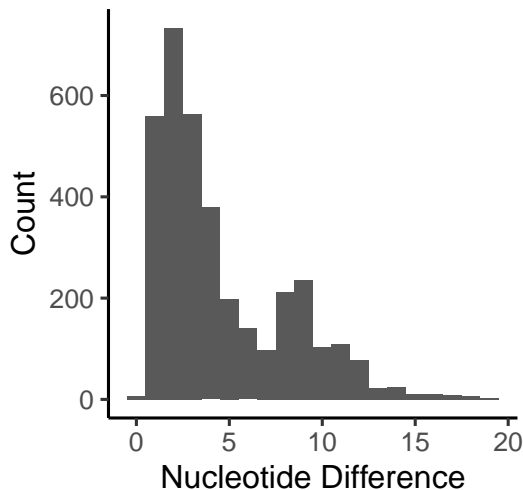
IGHV4-34*01_02

16514 sequences assigned
3506 (21.2%) exact matches, in which:
2263 unique CDR3
6 unique J



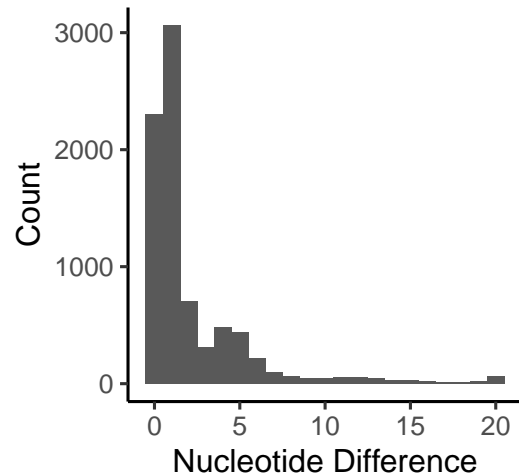
IGHV4-39*07

3541 sequences assigned
7 (0.2%) exact matches, in which:
6 unique CDR3
1 unique J



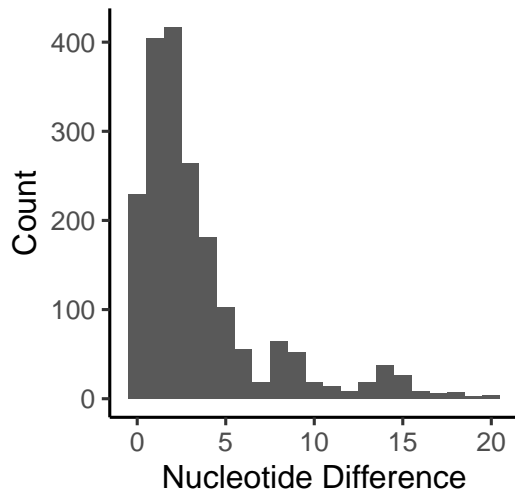
IGHV4-59*01_07

13234 sequences assigned
2301 (17.4%) exact matches, in which:
1748 unique CDR3
6 unique J



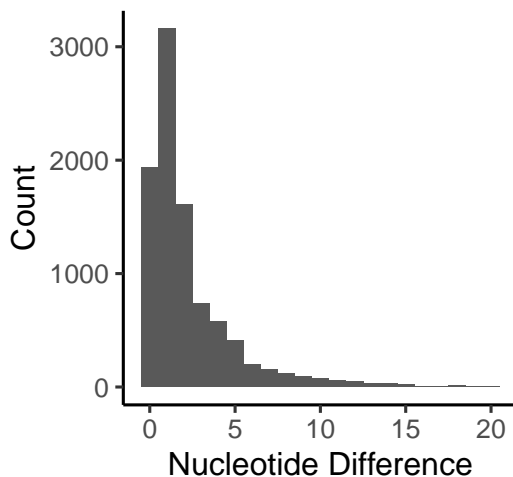
IGHV4-38-2*01

4605 sequences assigned
229 (5%) exact matches, in which:
196 unique CDR3
5 unique J



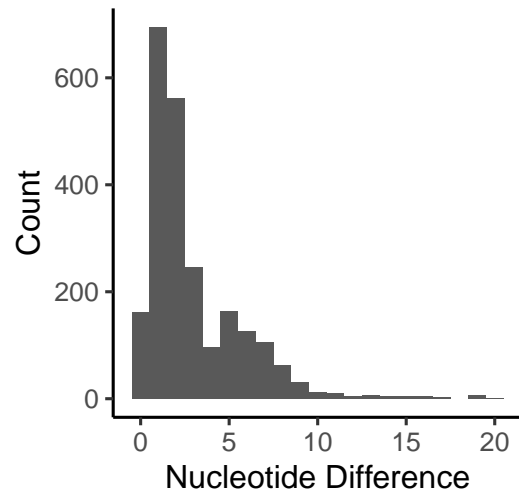
IGHV4-39*01_05

10220 sequences assigned
1938 (19%) exact matches, in which:
1355 unique CDR3
6 unique J



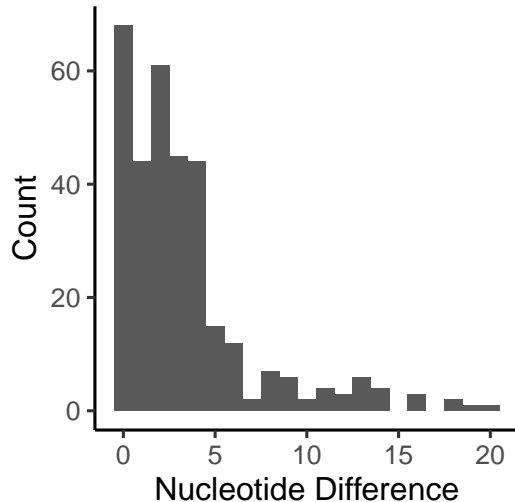
IGHV4-59*12

2312 sequences assigned
162 (7%) exact matches, in which:
154 unique CDR3
5 unique J



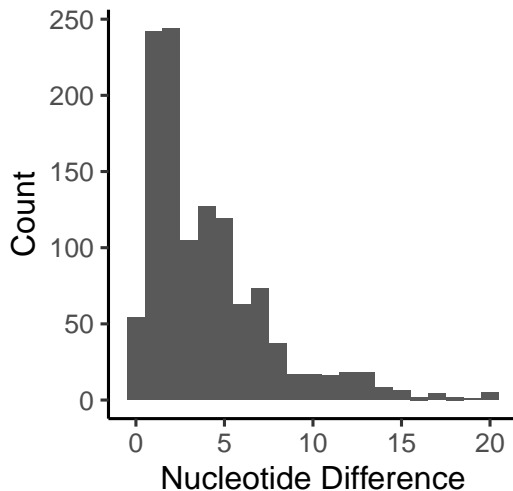
IGHV4-38-2*02

372 sequences assigned
68 (18.3%) exact matches, in which:
53 unique CDR3
5 unique J



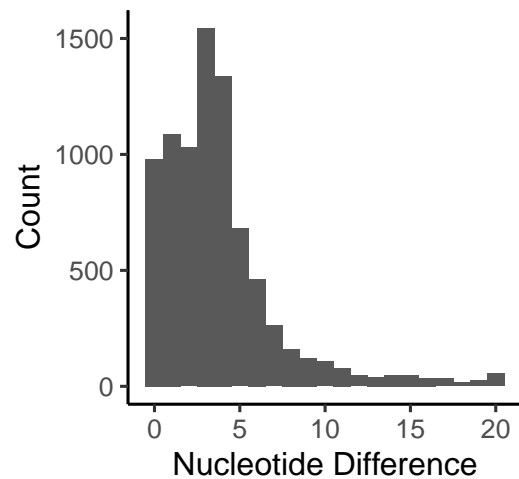
IGHV4-59*08

1236 sequences assigned
54 (4.4%) exact matches, in which:
50 unique CDR3
5 unique J



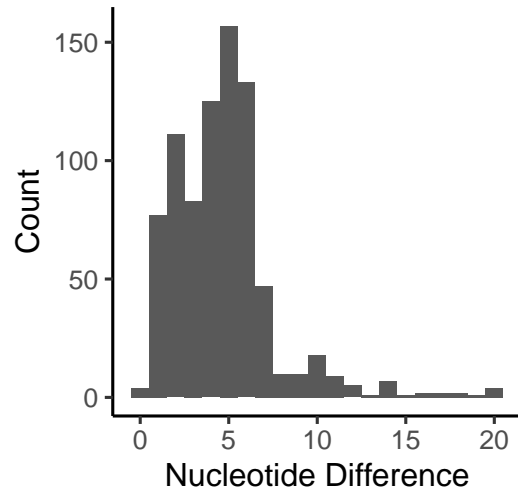
IGHV4-61*01

8456 sequences assigned
980 (11.6%) exact matches, in which:
782 unique CDR3
6 unique J



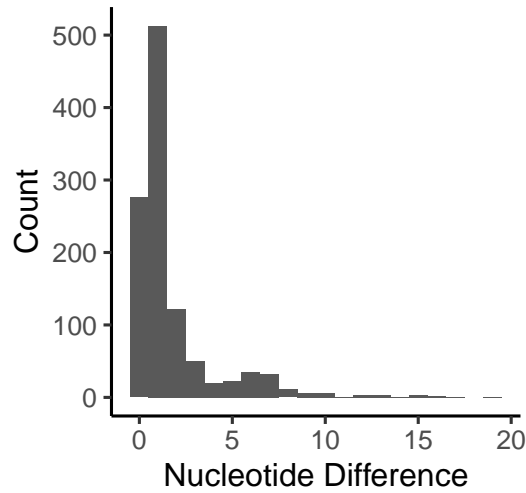
IGHV4-61*08

837 sequences assigned
4 (0.5%) exact matches, in which:
4 unique CDR3
2 unique J



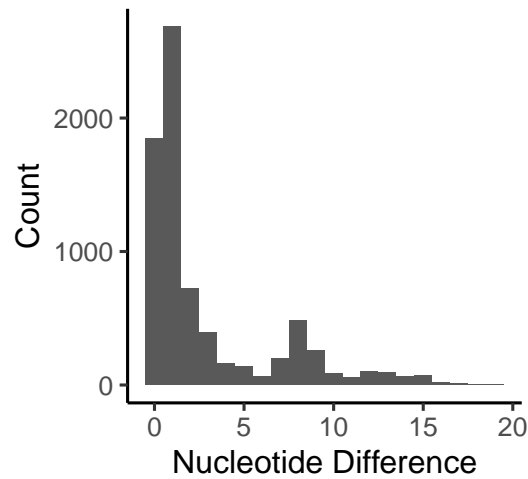
IGHV6-1*01_02

1210 sequences assigned
276 (22.8%) exact matches, in which:
225 unique CDR3
6 unique J



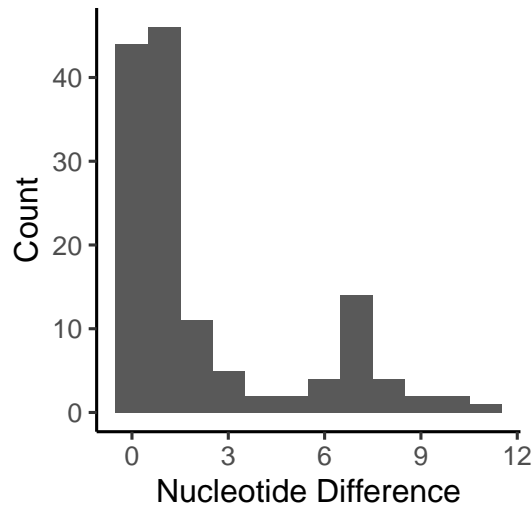
IGHV5-10-1*01_03

7485 sequences assigned
1846 (24.7%) exact matches, in which:
1071 unique CDR3
6 unique J



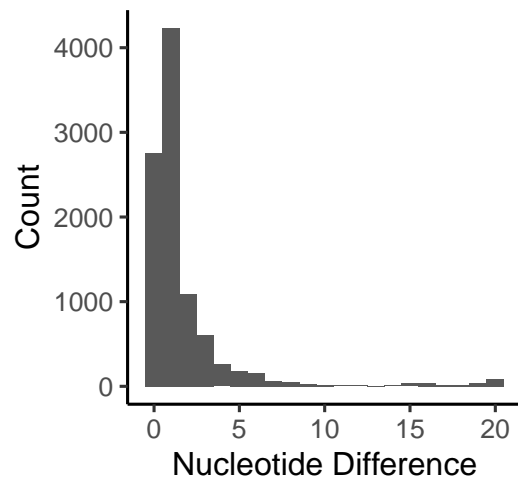
IGHV7-4-1*01

137 sequences assigned
44 (32.1%) exact matches, in which:
31 unique CDR3
4 unique J



IGHV5-51*01_03

10059 sequences assigned
2758 (27.4%) exact matches, in which:
1484 unique CDR3
6 unique J





Warning – no inferred sequences found.

Novel sequence(s) IGHV3–33*01_G75C IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3–33*01_G75C IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3–30*03_T288C IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s) IGHV1–69*04_09_G112A IGHV4–59*02_G88A IGHV5–10–1*01_03_T258C IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV1–69*08_C191T IGHV3–48*03_T303G IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s) IGHV3–30*03_T288C IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning: IGHV4–31*02, IGHV4–31*03_04 have identical germline sequences.

Novel sequence(s) IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV1–69*04_09_G112A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV1–69*08_C191T IGHV3–30*03_T288C IGHV3–30–3*02_G75C IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.