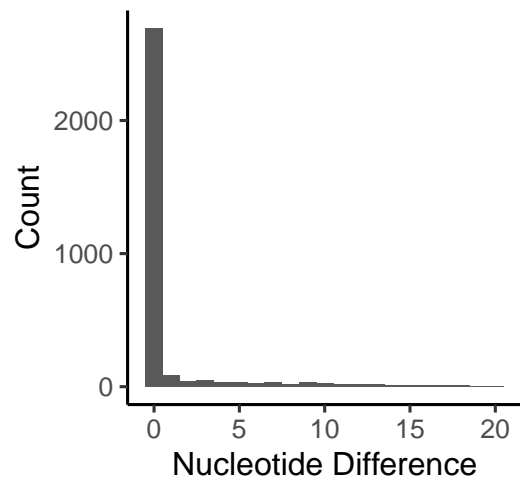


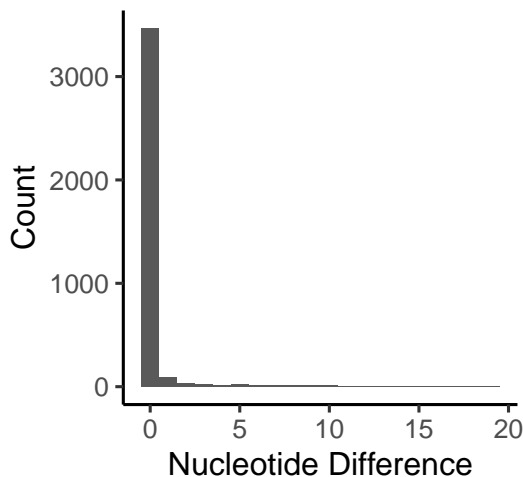
IGHV1-2*02

3206 sequences assigned
2692 (84%) exact matches, in which:
2639 unique CDR3
6 unique J



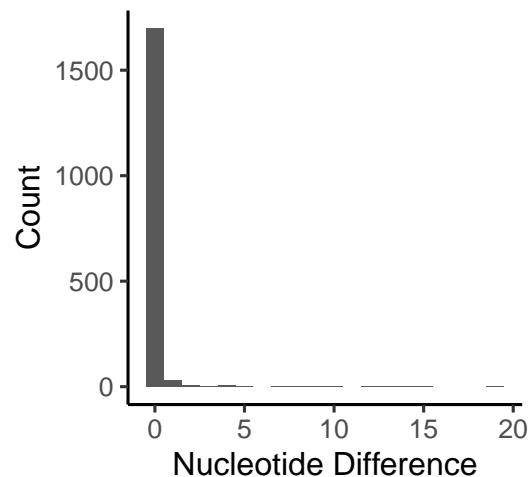
IGHV1-8*01

3759 sequences assigned
3466 (92.2%) exact matches, in which:
3395 unique CDR3
6 unique J



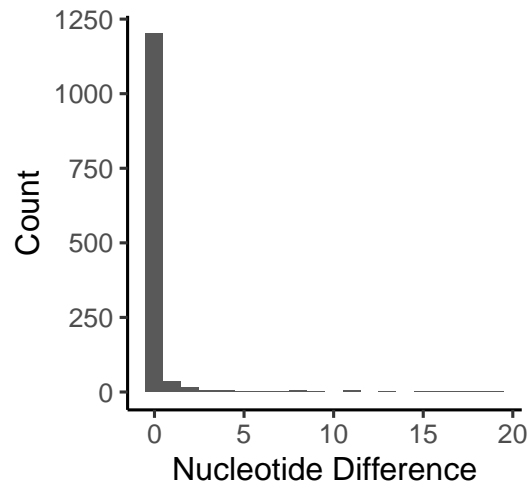
IGHV1-24*01

1761 sequences assigned
1698 (96.4%) exact matches, in which:
1677 unique CDR3
6 unique J



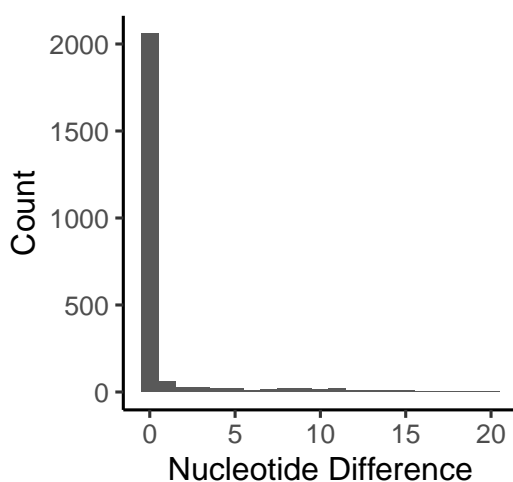
IGHV1-2*04

1293 sequences assigned
1201 (92.9%) exact matches, in which:
1185 unique CDR3
6 unique J



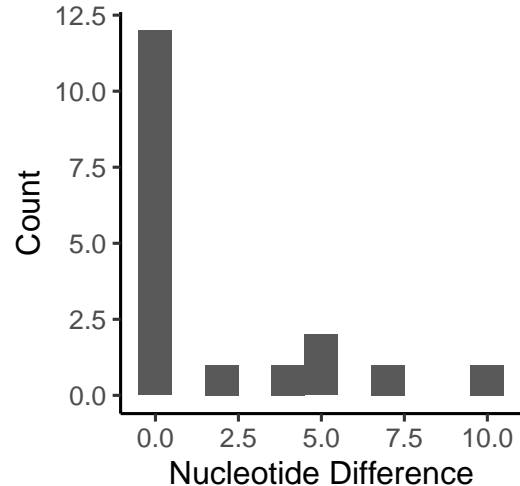
IGHV1-18*01

2368 sequences assigned
2059 (87%) exact matches, in which:
2018 unique CDR3
6 unique J



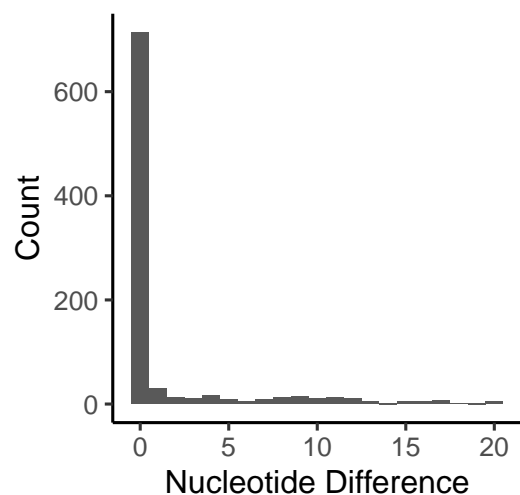
IGHV1-45*02

18 sequences assigned
12 (66.7%) exact matches, in which:
12 unique CDR3
3 unique J



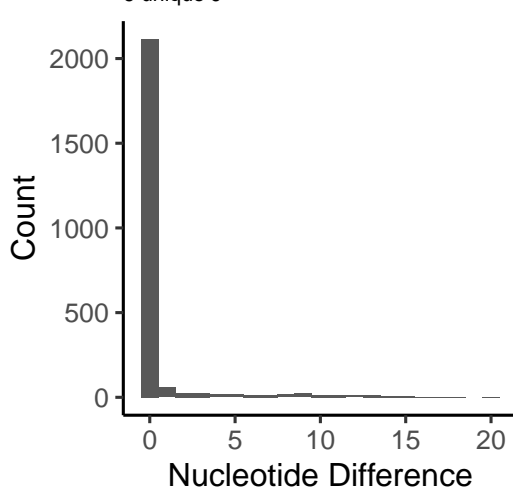
IGHV1-3*01_05

895 sequences assigned
714 (79.8%) exact matches, in which:
709 unique CDR3
6 unique J



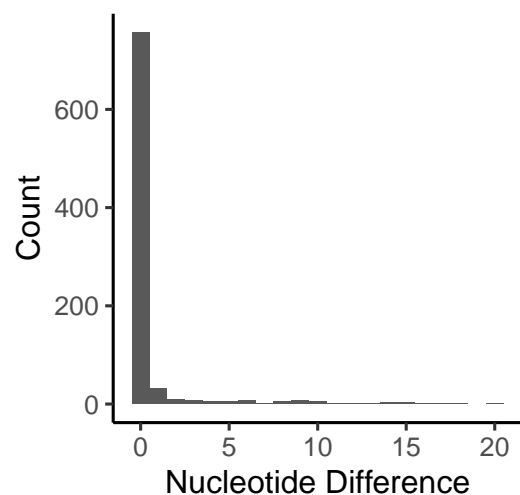
IGHV1-18*04

2401 sequences assigned
2115 (88.1%) exact matches, in which:
2071 unique CDR3
6 unique J



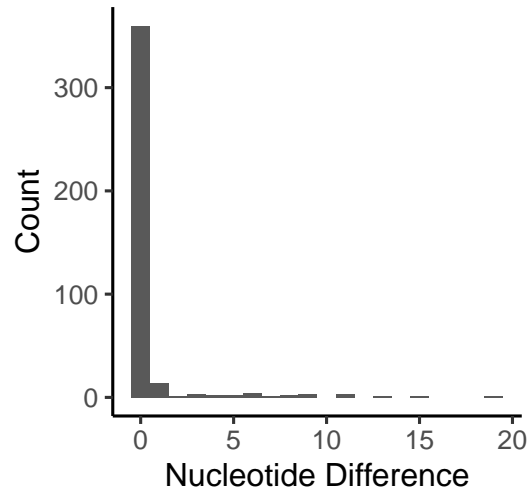
IGHV1-46*01

864 sequences assigned
757 (87.6%) exact matches, in which:
752 unique CDR3
6 unique J



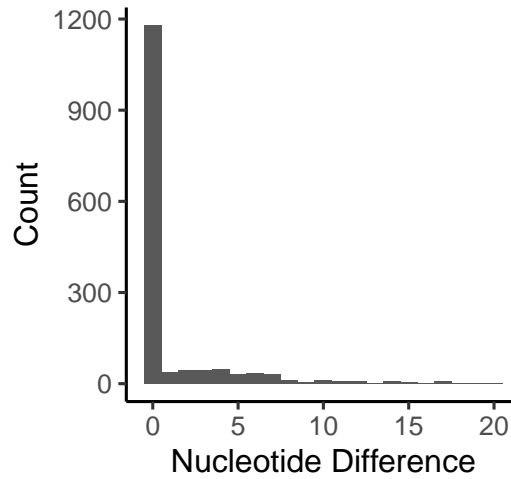
IGHV1–46*03

399 sequences assigned
360 (90.2%) exact matches, in which:
353 unique CDR3
6 unique J



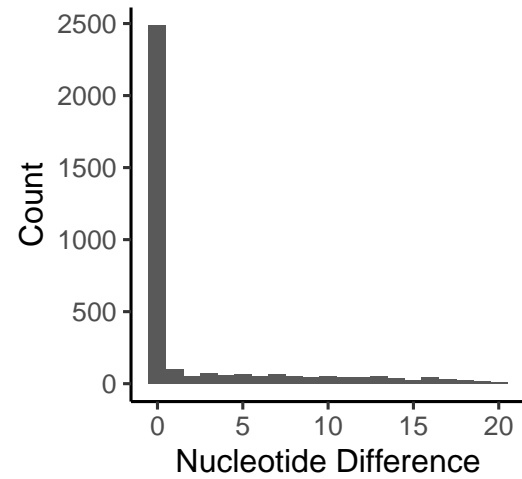
IGHV2–5*01

1532 sequences assigned
1179 (77%) exact matches, in which:
1164 unique CDR3
6 unique J



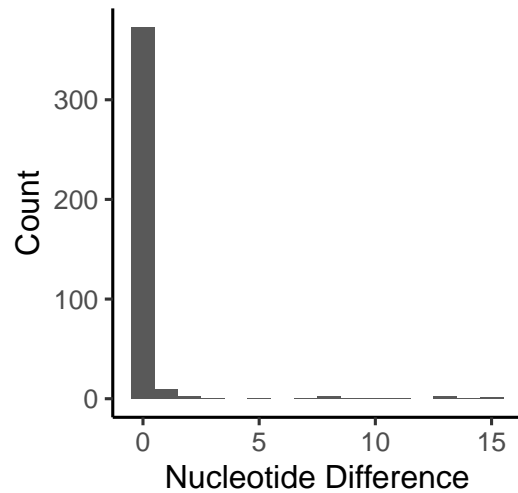
IGHV3–7*01

3473 sequences assigned
2487 (71.6%) exact matches, in which:
2326 unique CDR3
6 unique J



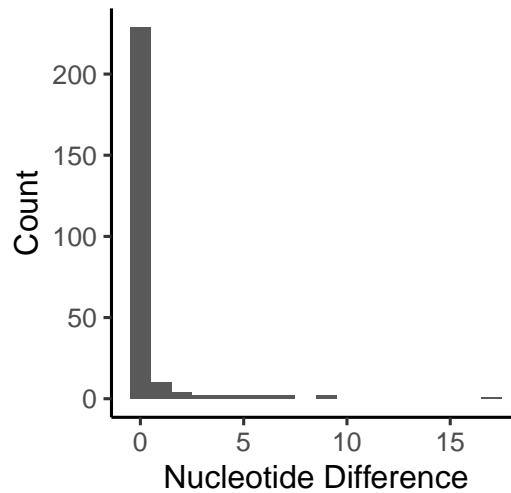
IGHV1–58*01_03

401 sequences assigned
373 (93%) exact matches, in which:
365 unique CDR3
6 unique J



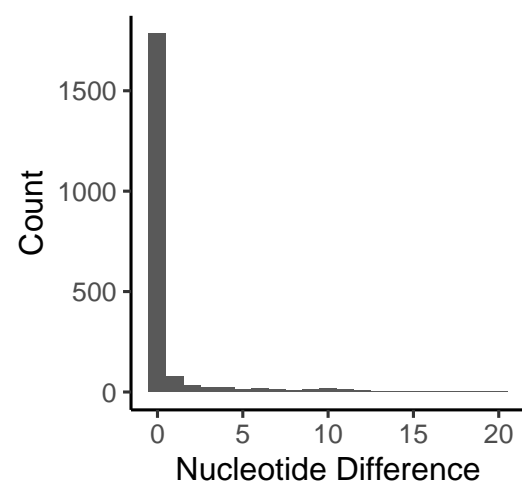
IGHV2–26*01

256 sequences assigned
229 (89.5%) exact matches, in which:
226 unique CDR3
6 unique J



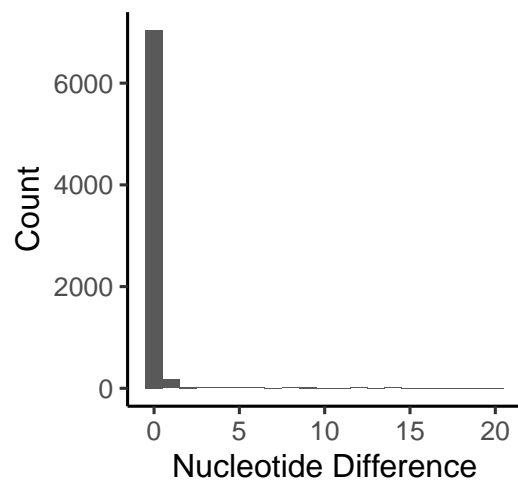
IGHV3–9*01

2057 sequences assigned
1784 (86.7%) exact matches, in which:
1713 unique CDR3
6 unique J



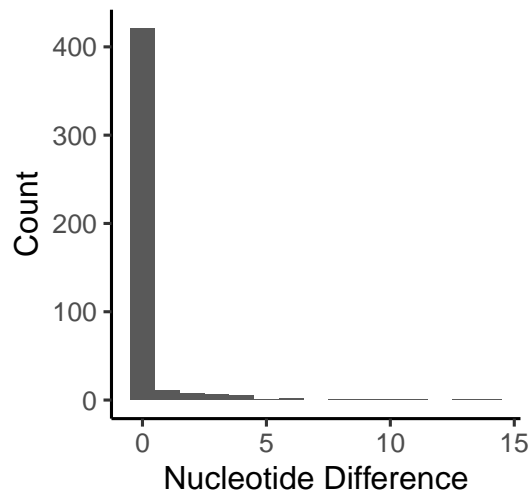
IGHV1–69*01_12_13

7474 sequences assigned
7044 (94.2%) exact matches, in which:
6973 unique CDR3
6 unique J



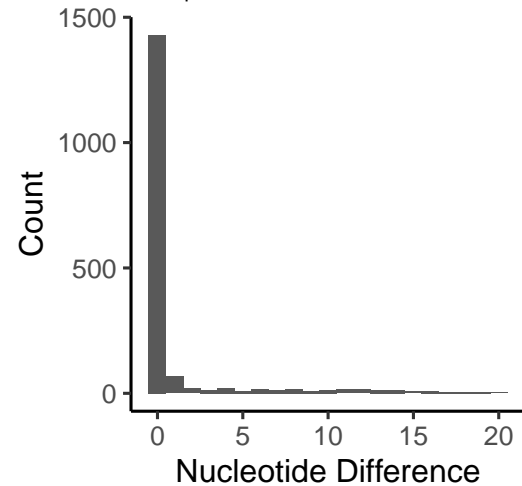
IGHV2–70*01

459 sequences assigned
421 (91.7%) exact matches, in which:
417 unique CDR3
5 unique J



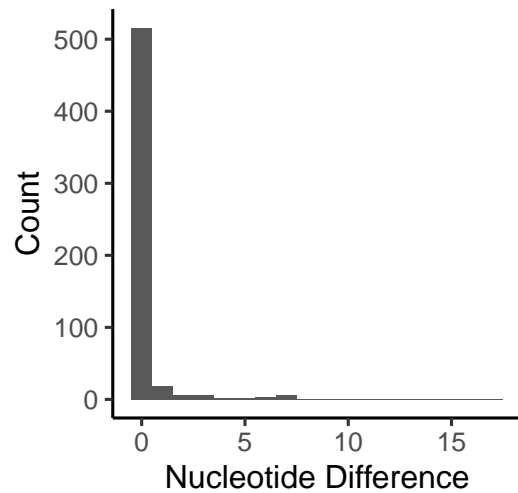
IGHV3–11*01

1736 sequences assigned
1429 (82.3%) exact matches, in which:
1358 unique CDR3
6 unique J



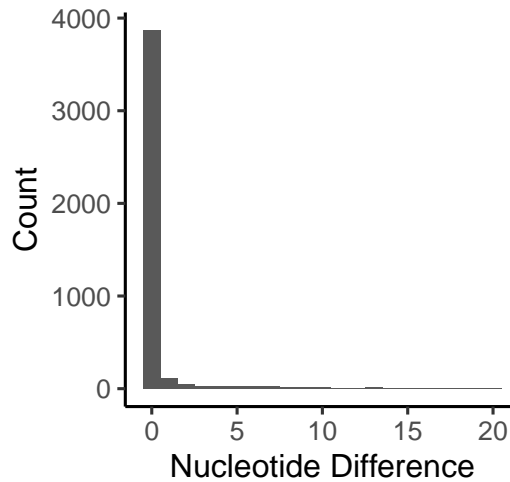
IGHV3-13*01

571 sequences assigned
516 (90.4%) exact matches, in which:
478 unique CDR3
5 unique J



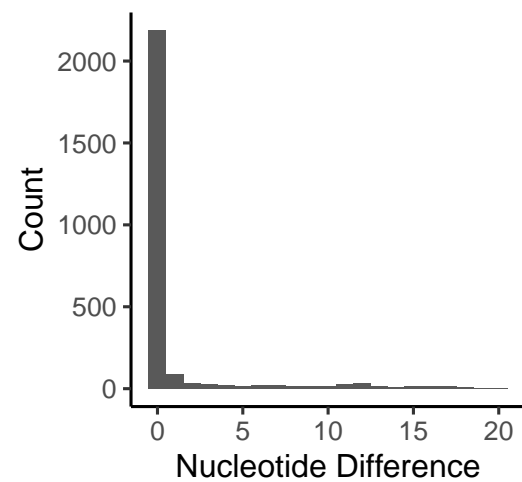
IGHV3-21*01_02

4283 sequences assigned
3867 (90.3%) exact matches, in which:
3573 unique CDR3
6 unique J



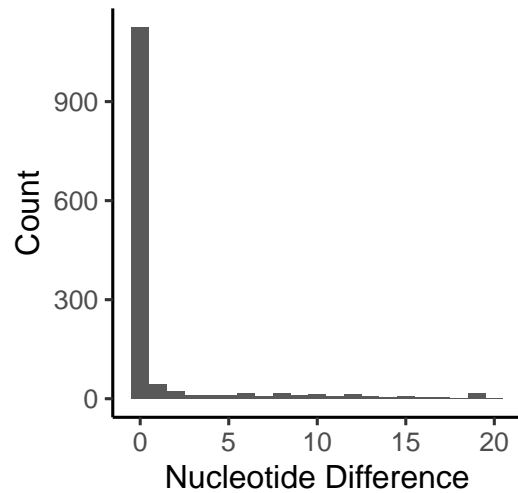
IGHV3-33*01

2613 sequences assigned
2187 (83.7%) exact matches, in which:
2092 unique CDR3
6 unique J



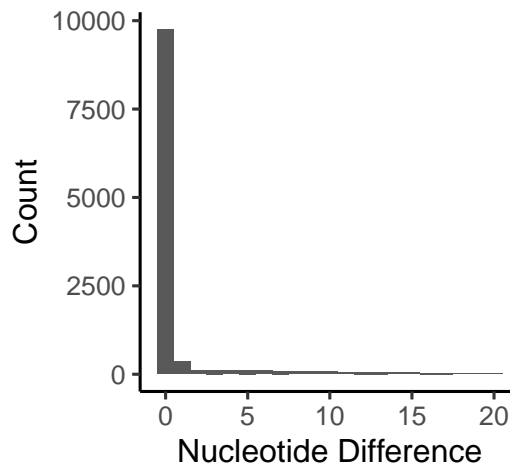
IGHV3-15*01_02

1379 sequences assigned
1126 (81.7%) exact matches, in which:
1066 unique CDR3
6 unique J



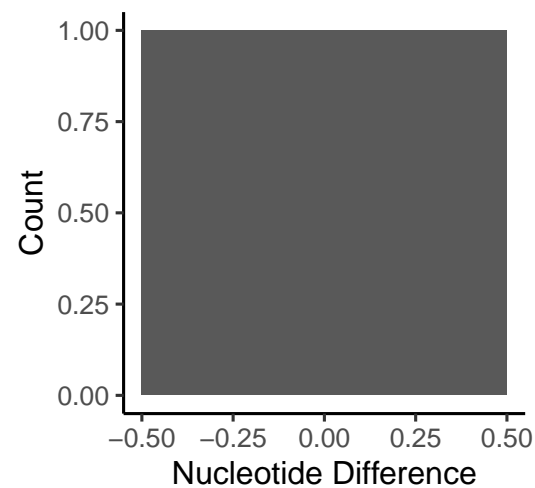
IGHV3-23*01_04

11474 sequences assigned
9751 (85%) exact matches, in which:
8998 unique CDR3
6 unique J



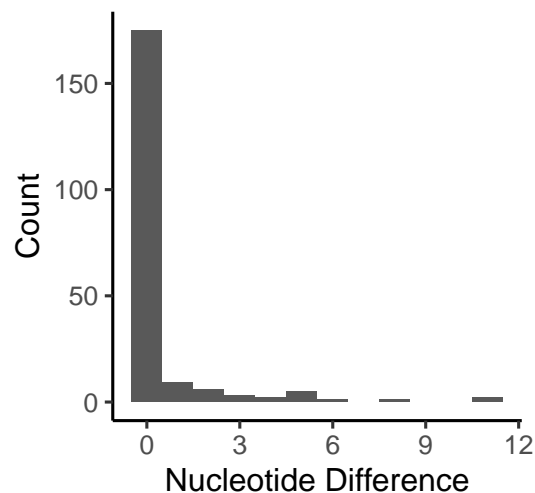
IGHV3-35*01

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



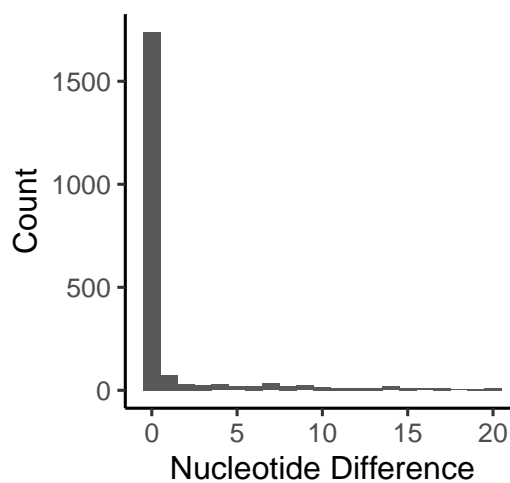
IGHV3-20*01_02

206 sequences assigned
175 (85%) exact matches, in which:
164 unique CDR3
5 unique J



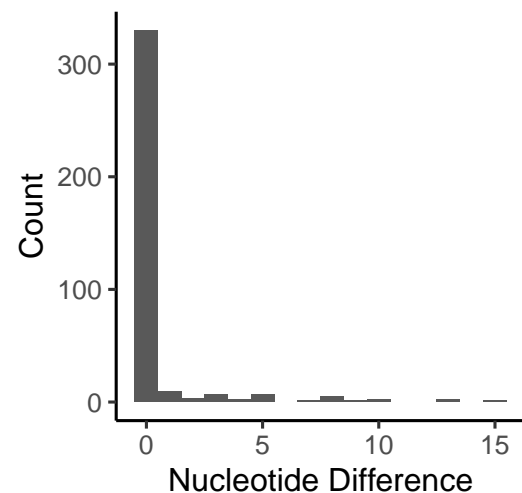
IGHV3-30-3*01

2159 sequences assigned
1739 (80.5%) exact matches, in which:
1667 unique CDR3
6 unique J



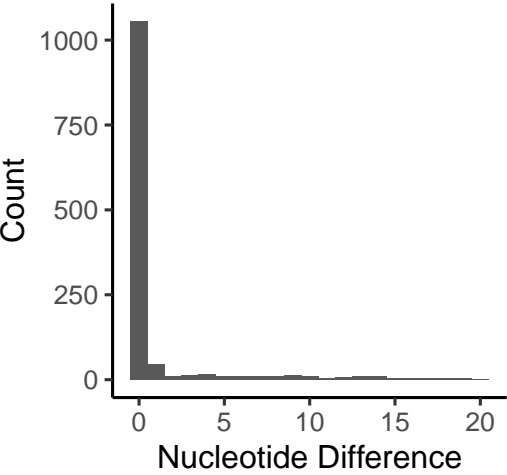
IGHV3-43*01

370 sequences assigned
330 (89.2%) exact matches, in which:
306 unique CDR3
6 unique J



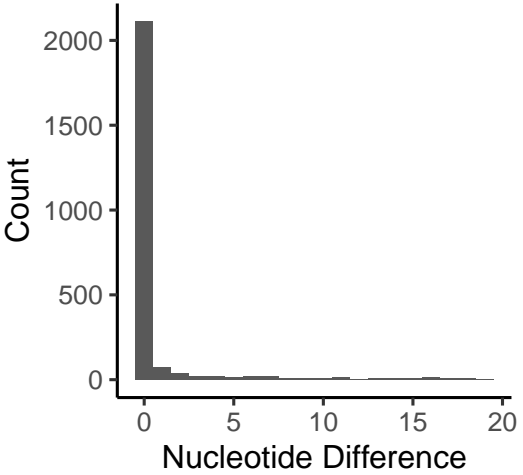
IGHV3-48*01

1268 sequences assigned
1055 (83.2%) exact matches, in which:
977 unique CDR3
6 unique J



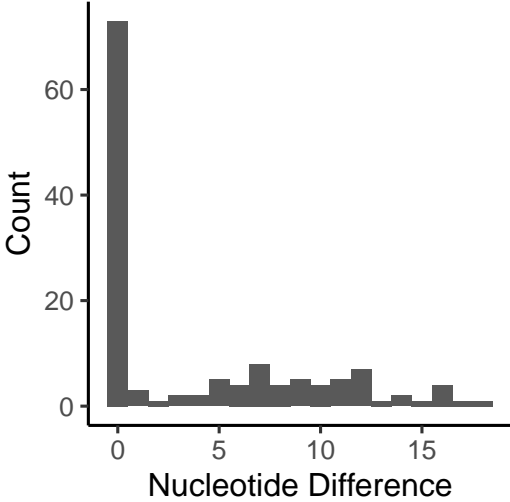
IGHV3-53*01_02

2425 sequences assigned
2112 (87.1%) exact matches, in which:
1942 unique CDR3
6 unique J



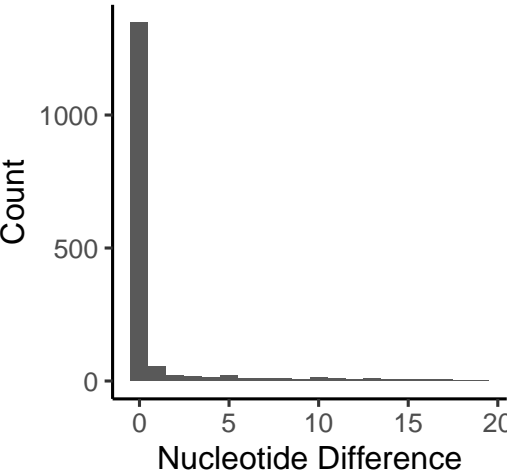
IGHV3-72*01

133 sequences assigned
73 (54.9%) exact matches, in which:
67 unique CDR3
6 unique J



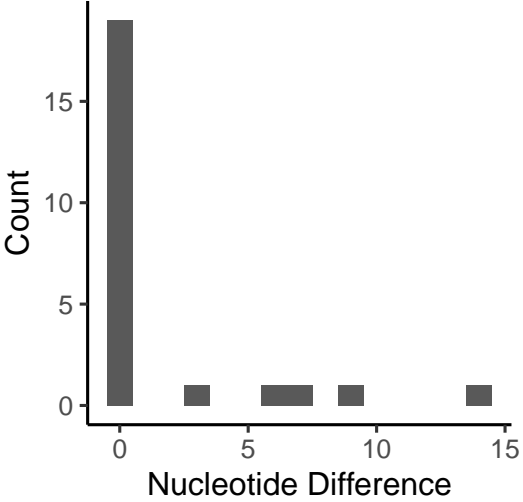
IGHV3-48*02

1582 sequences assigned
1347 (85.1%) exact matches, in which:
1243 unique CDR3
6 unique J



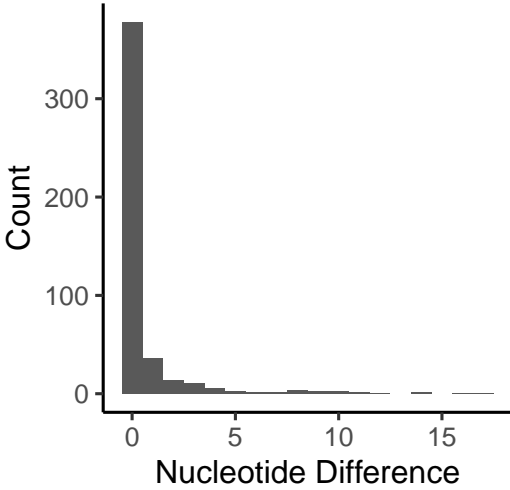
IGHV3-64*02_07

24 sequences assigned
19 (79.2%) exact matches, in which:
18 unique CDR3
5 unique J



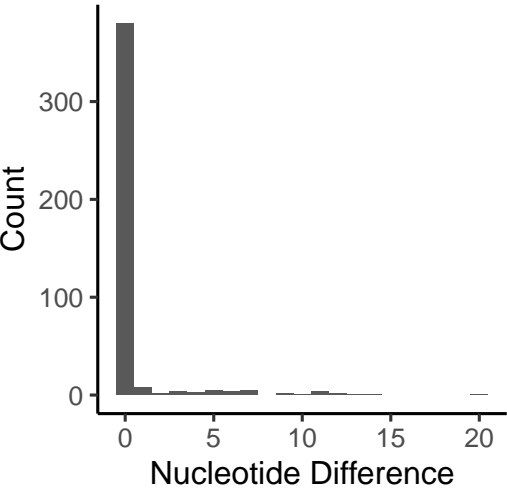
IGHV3-73*01_02

469 sequences assigned
378 (80.6%) exact matches, in which:
321 unique CDR3
6 unique J



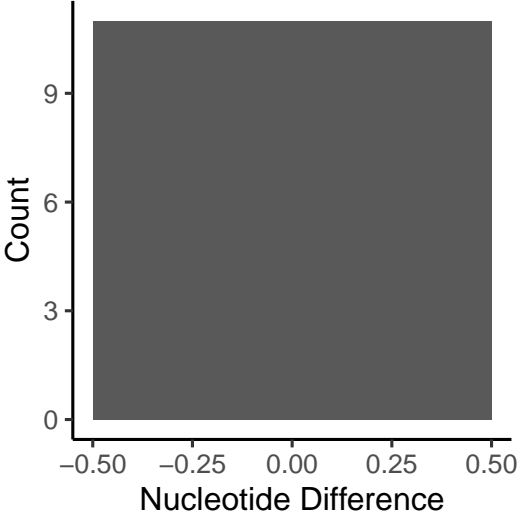
IGHV3-49*03_05

423 sequences assigned
380 (89.8%) exact matches, in which:
368 unique CDR3
6 unique J



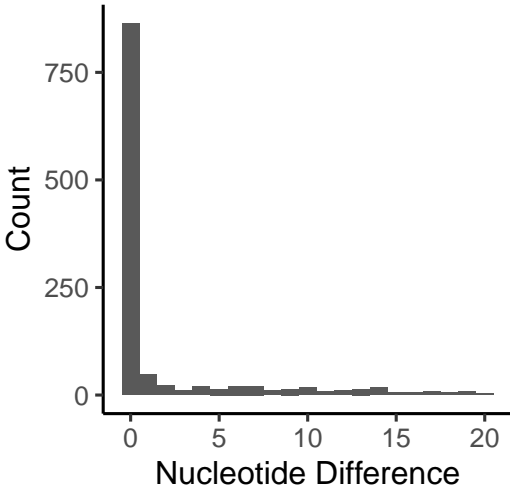
IGHV3-66*03

11 sequences assigned
11 (100%) exact matches, in which:
11 unique CDR3
2 unique J



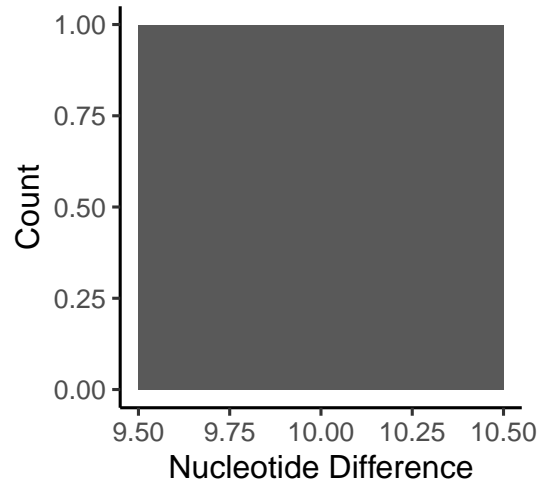
IGHV3-74*01_02

1164 sequences assigned
864 (74.2%) exact matches, in which:
812 unique CDR3
6 unique J



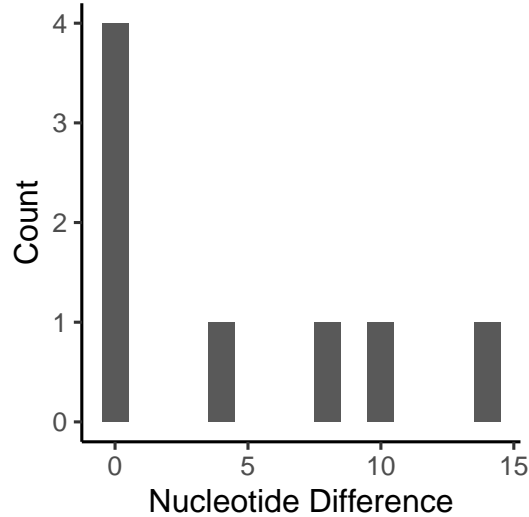
IGHV3–NL1*01

1 sequences assigned
No exact matches.



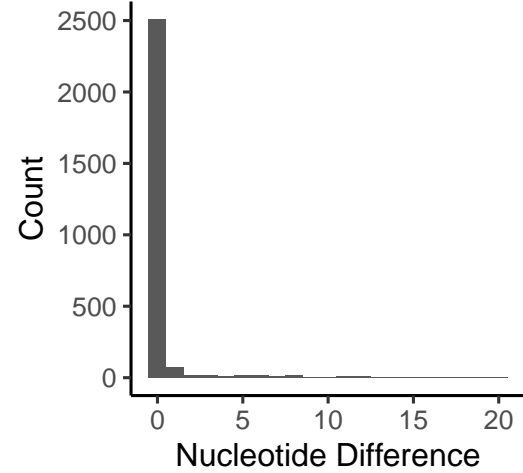
IGHV4–28*01_07

8 sequences assigned
4 (50%) exact matches, in which:
4 unique CDR3
2 unique J



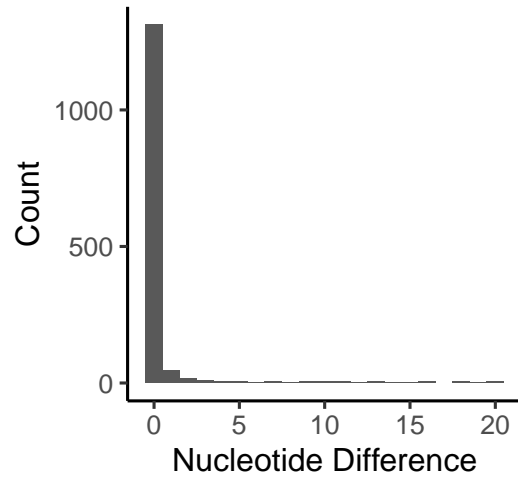
IGHV4–31*02

2764 sequences assigned
2508 (90.7%) exact matches, in which:
2413 unique CDR3
6 unique J



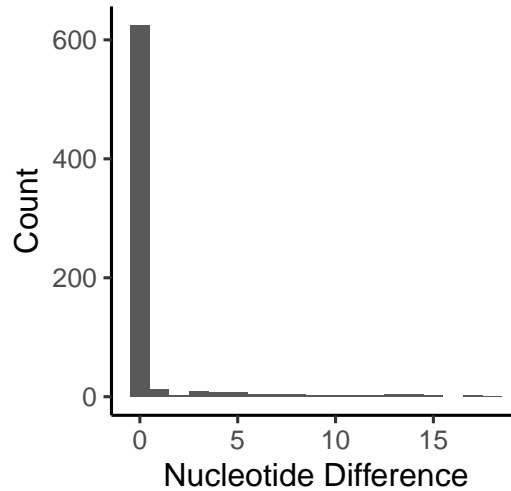
IGHV4–4*07

1450 sequences assigned
1312 (90.5%) exact matches, in which:
1219 unique CDR3
6 unique J



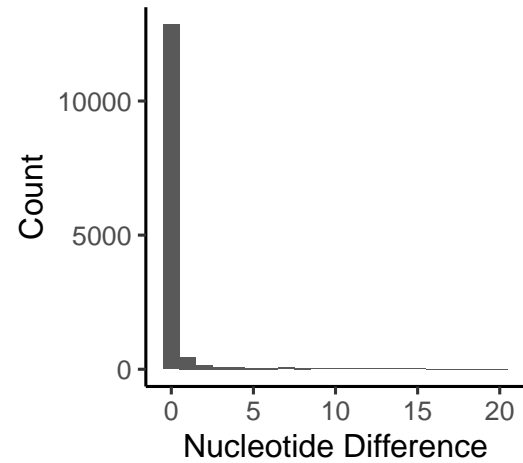
IGHV4–30–4*01

700 sequences assigned
625 (89.3%) exact matches, in which:
603 unique CDR3
6 unique J



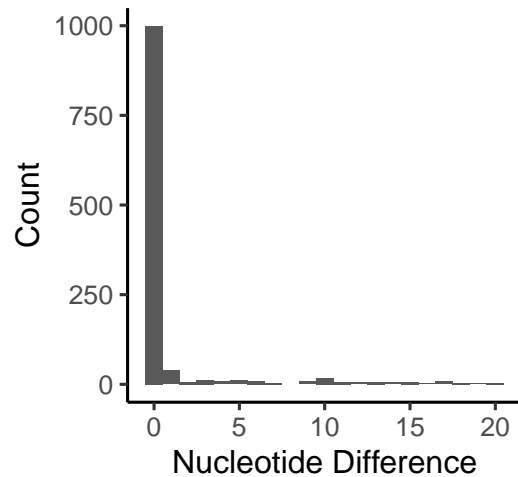
IGHV4–34*01_02

14089 sequences assigned
12853 (91.2%) exact matches, in which:
11791 unique CDR3
6 unique J



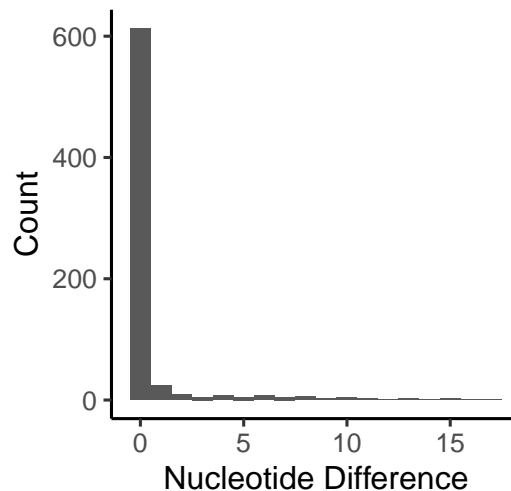
IGHV4–4*02_03

1174 sequences assigned
999 (85.1%) exact matches, in which:
948 unique CDR3
6 unique J



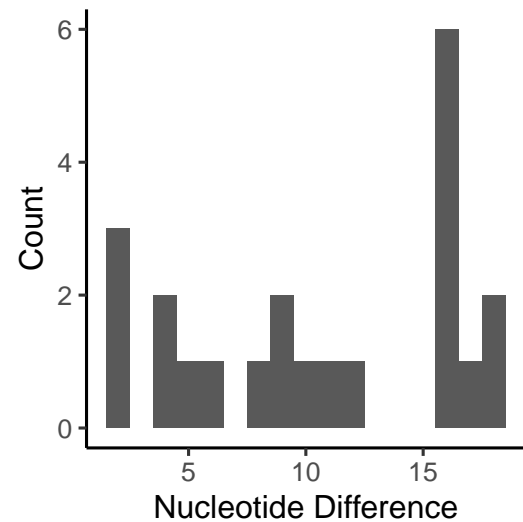
IGHV4–30–2*01

702 sequences assigned
613 (87.3%) exact matches, in which:
560 unique CDR3
6 unique J



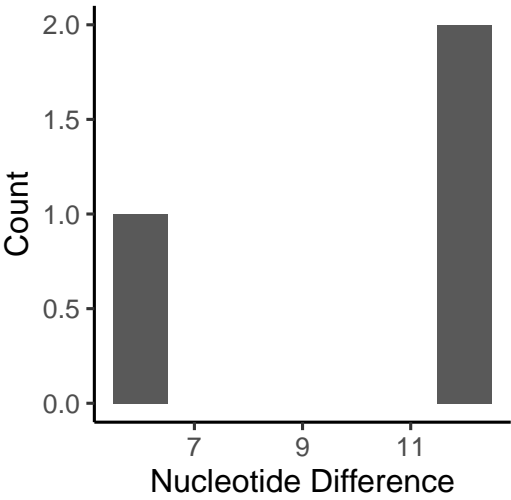
IGHV4–39*02

23 sequences assigned
No exact matches.



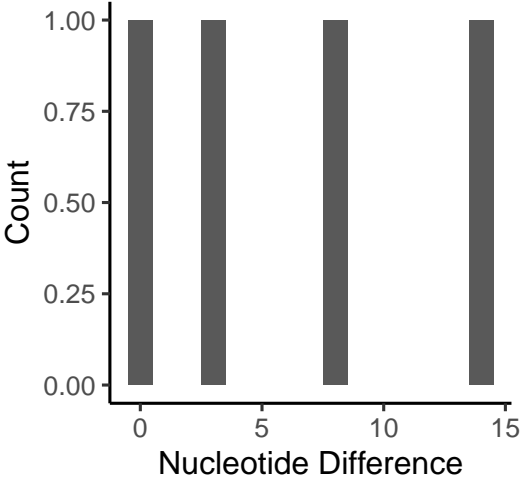
IGHV4-59*02

4 sequences assigned
No exact matches.



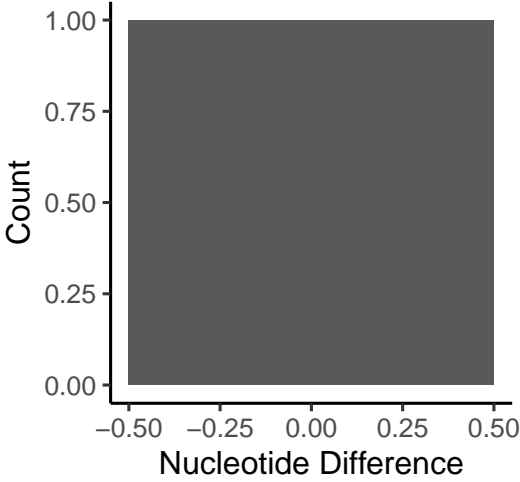
IGHV4-59*13

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



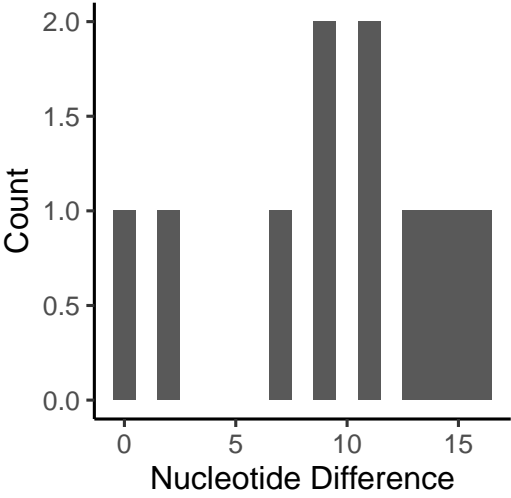
IGHV5-51*07

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



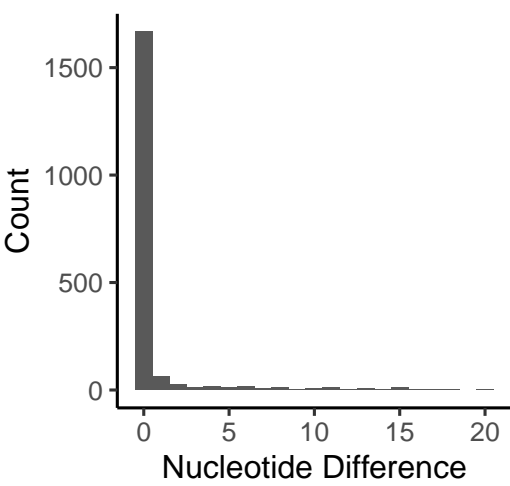
IGHV4-59*11

12 sequences assigned
1 (8.3%) exact matches, in which:
1 unique CDR3
1 unique J



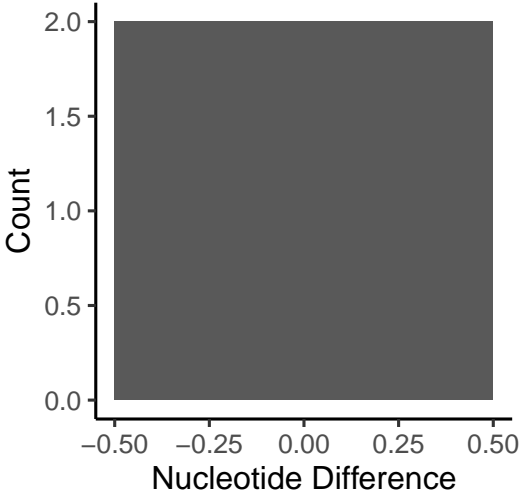
IGHV4-61*01

1882 sequences assigned
1667 (88.6%) exact matches, in which:
1566 unique CDR3
6 unique J



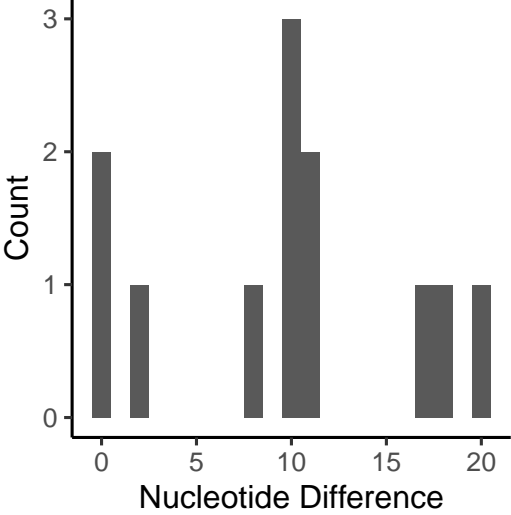
IGHV5-51*01_03

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



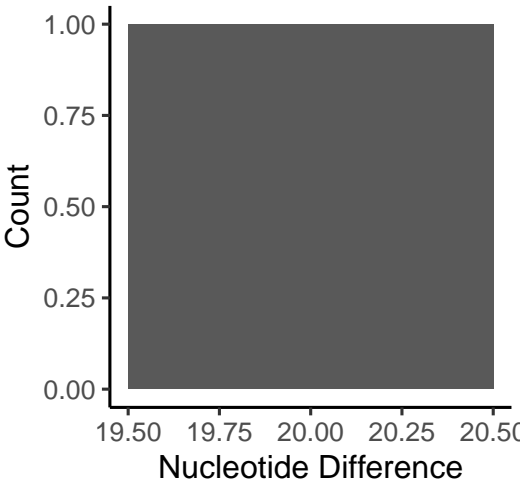
IGHV4-59*12

12 sequences assigned
2 (16.7%) exact matches, in which:
2 unique CDR3
2 unique J



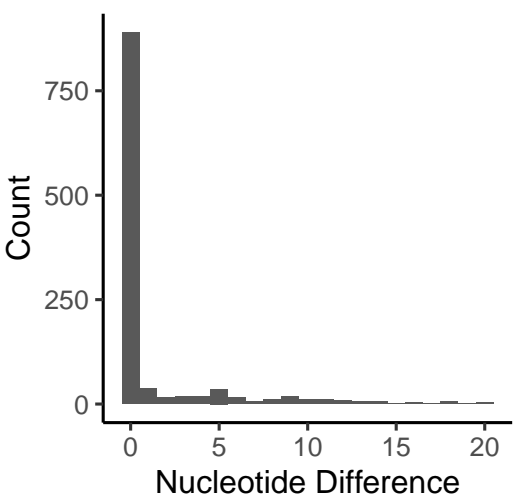
IGHV4/OR15-8*02

1 sequences assigned
No exact matches.



IGHV6-1*01_02

1130 sequences assigned
890 (78.8%) exact matches, in which:
859 unique CDR3
6 unique J



IGHV7-4-1*01

12 sequences assigned
12 (100%) exact matches, in which:
12 unique CDR3
4 unique J

