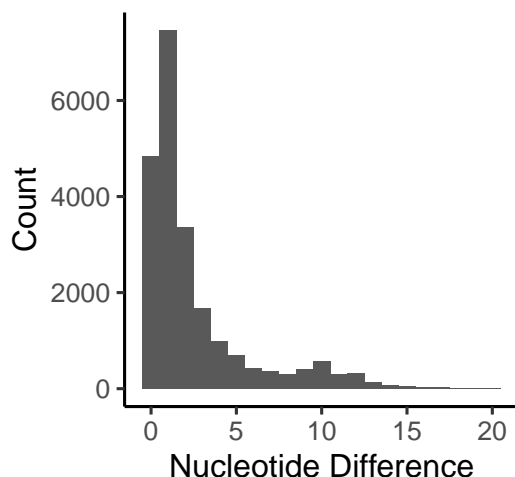


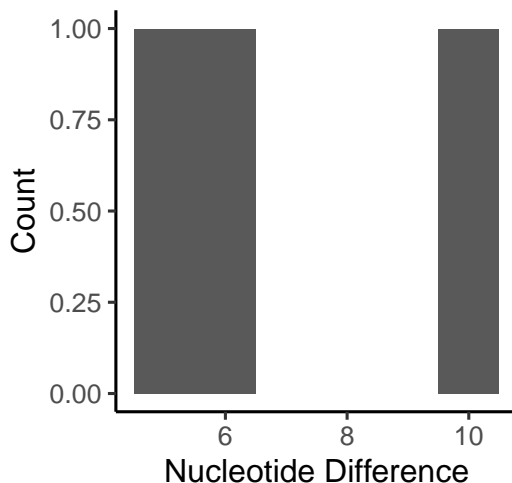
IGHV1-2*02

22130 sequences assigned
4848 (21.9%) exact matches, in which:
3745 unique CDR3
6 unique J



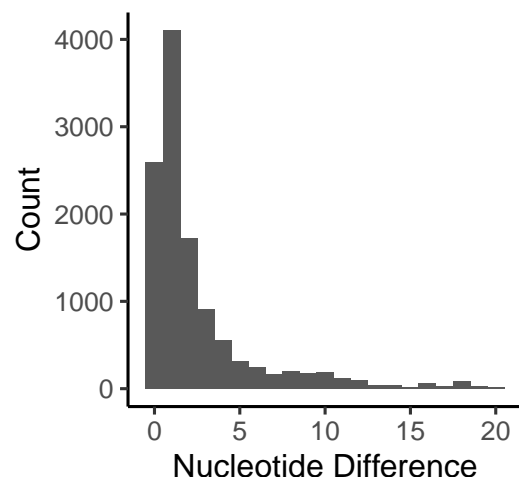
IGHV1-8*01

3 sequences assigned
No exact matches.



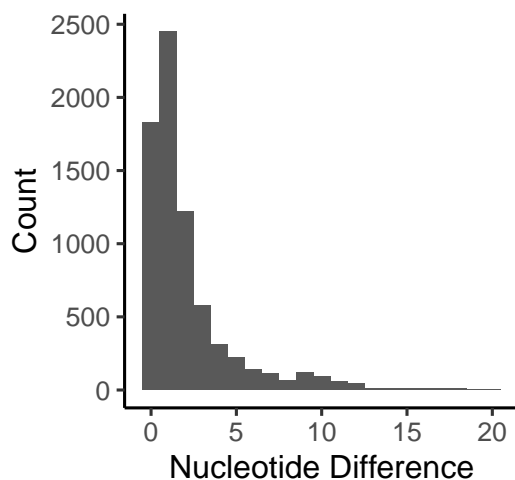
IGHV1-24*01

11757 sequences assigned
2592 (22%) exact matches, in which:
2009 unique CDR3
6 unique J



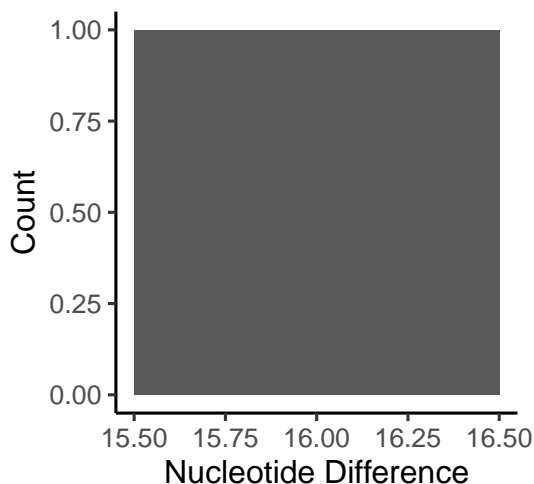
IGHV1-2*04

7333 sequences assigned
1829 (24.9%) exact matches, in which:
1478 unique CDR3
6 unique J



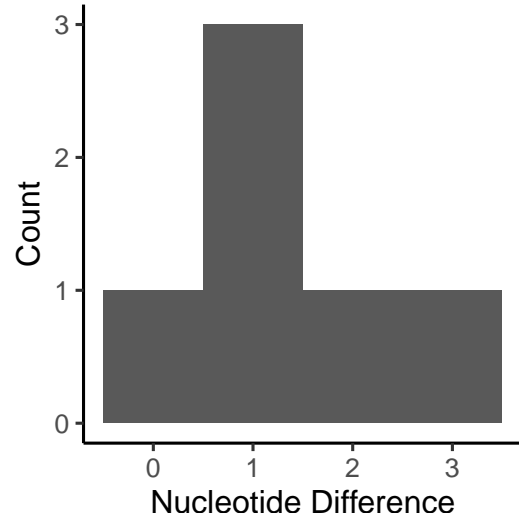
IGHV1-8*02

1 sequences assigned
No exact matches.



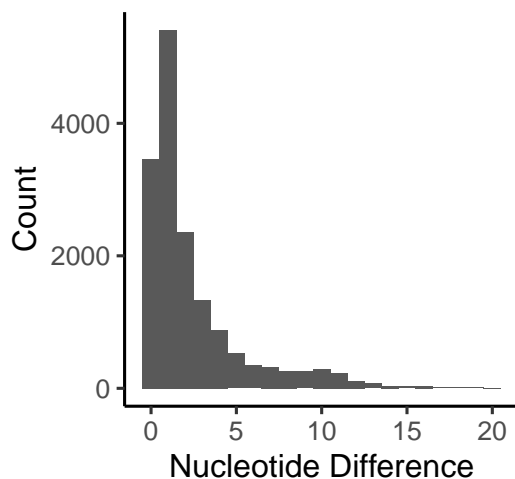
IGHV1-38-4*01

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



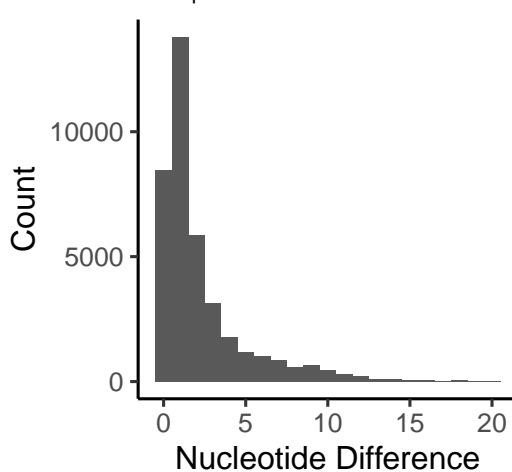
IGHV1-3*01_05

16041 sequences assigned
3464 (21.6%) exact matches, in which:
2652 unique CDR3
6 unique J



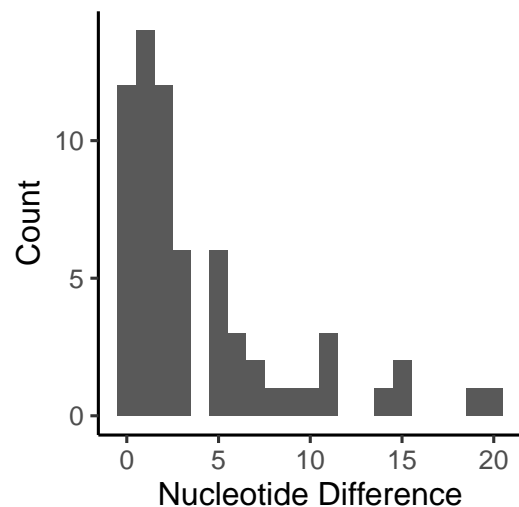
IGHV1-18*01

38796 sequences assigned
8451 (21.8%) exact matches, in which:
6472 unique CDR3
6 unique J



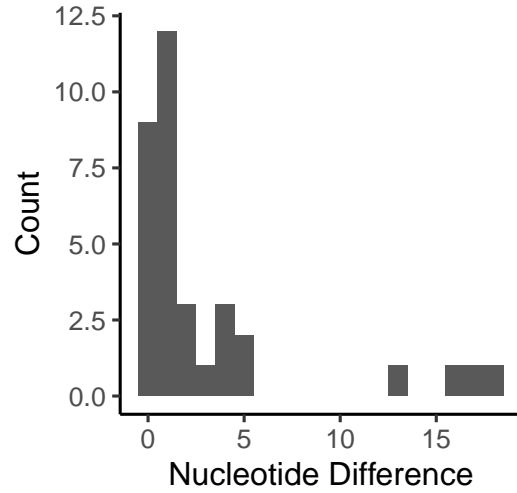
IGHV1-45*02

66 sequences assigned
12 (18.2%) exact matches, in which:
11 unique CDR3
4 unique J



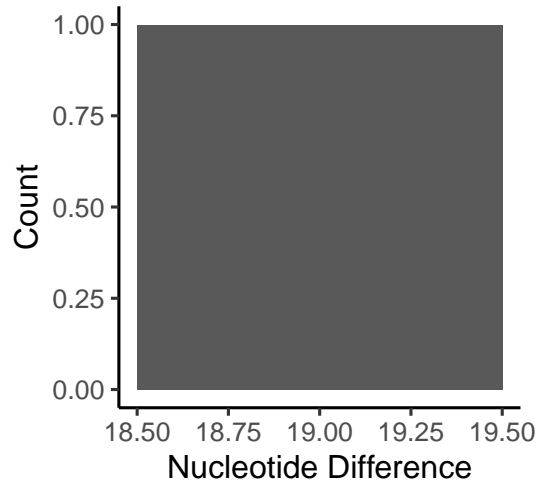
IGHV1-45*03

34 sequences assigned
9 (26.5%) exact matches, in which:
8 unique CDR3
3 unique J



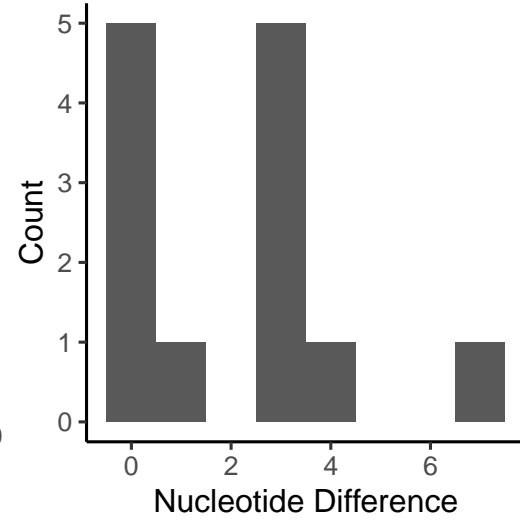
IGHV1-69-2*01

1 sequences assigned
No exact matches.



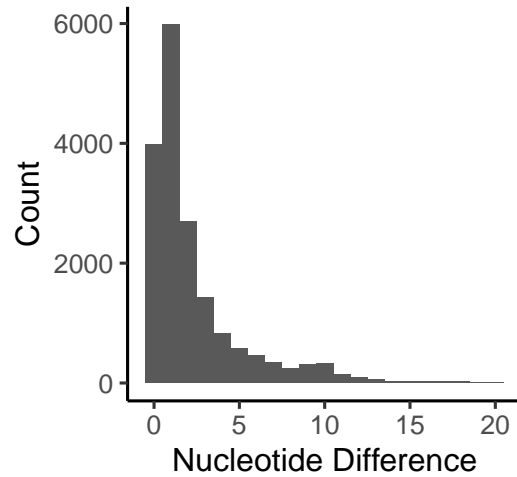
IGHV1-69D*01

13 sequences assigned
5 (38.5%) exact matches, in which:
5 unique CDR3
3 unique J



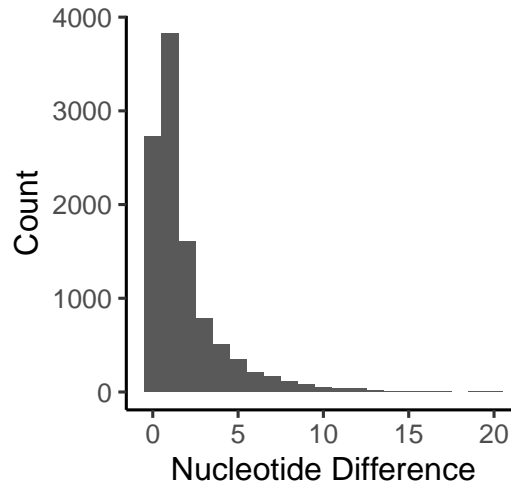
IGHV1-46*01

17658 sequences assigned
3979 (22.5%) exact matches, in which:
3091 unique CDR3
6 unique J



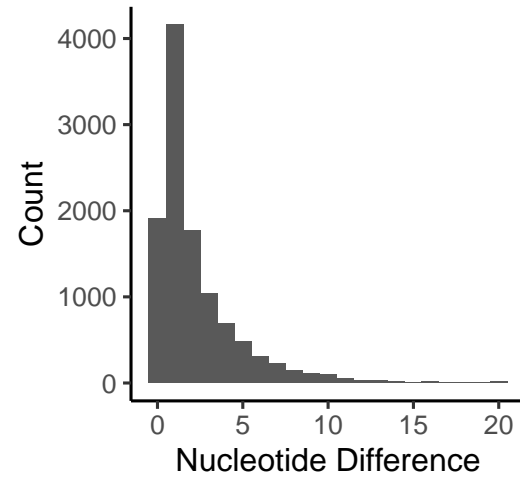
IGHV1-69*02

10543 sequences assigned
2730 (25.9%) exact matches, in which:
2158 unique CDR3
6 unique J



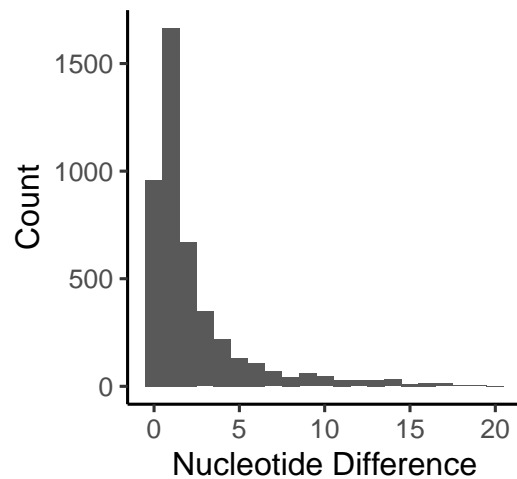
IGHV2-5*02

11238 sequences assigned
1907 (17%) exact matches, in which:
1376 unique CDR3
6 unique J



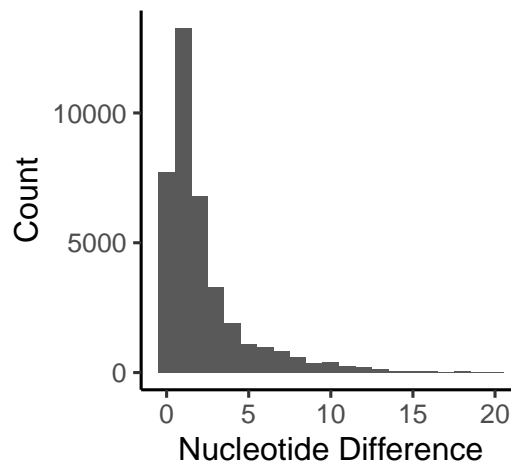
IGHV1-58*02

4499 sequences assigned
960 (21.3%) exact matches, in which:
738 unique CDR3
6 unique J



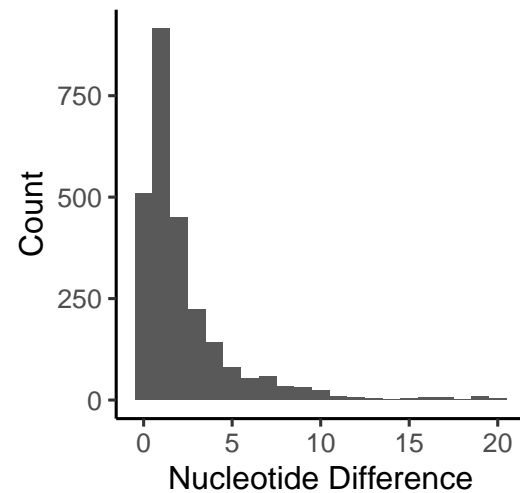
IGHV1-69*04_09

38199 sequences assigned
7735 (20.2%) exact matches, in which:
5899 unique CDR3
6 unique J



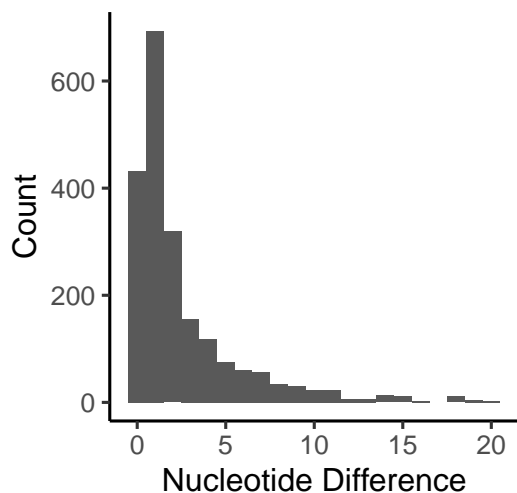
IGHV2-26*01

2602 sequences assigned
509 (19.6%) exact matches, in which:
392 unique CDR3
6 unique J



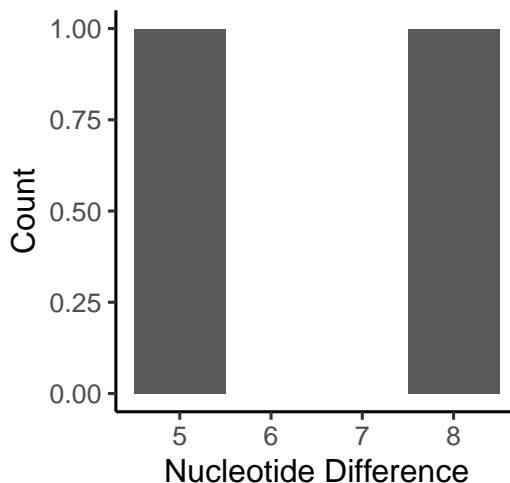
IGHV2-70*11_15

2113 sequences assigned
432 (20.4%) exact matches, in which:
323 unique CDR3
6 unique J



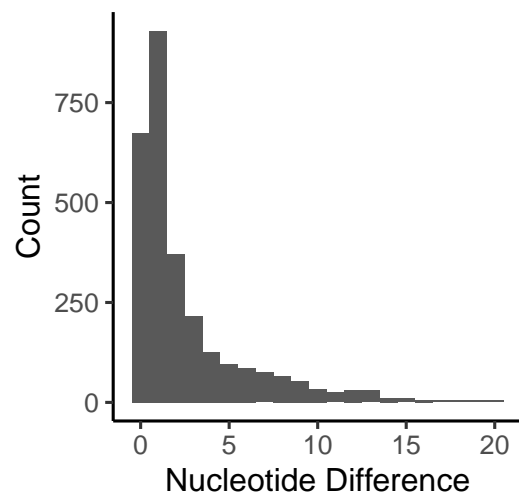
IGHV3-9*01

2 sequences assigned
No exact matches.



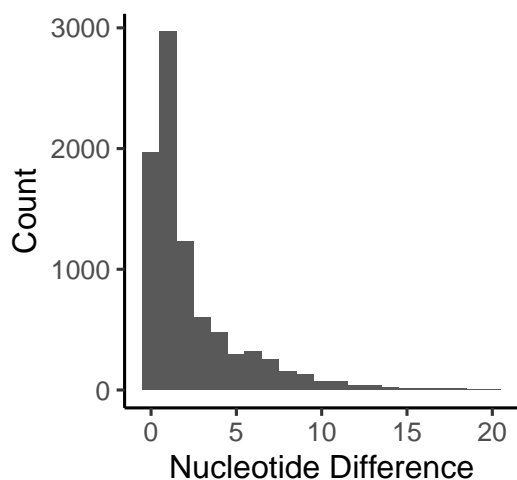
IGHV3-13*04

2876 sequences assigned
674 (23.4%) exact matches, in which:
526 unique CDR3
6 unique J



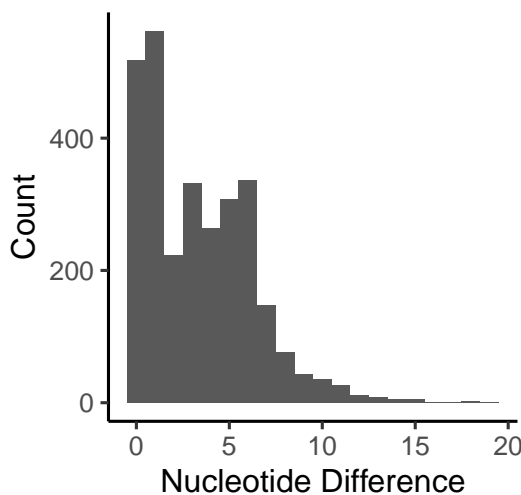
IGHV3-7*03

8709 sequences assigned
1971 (22.6%) exact matches, in which:
1591 unique CDR3
6 unique J



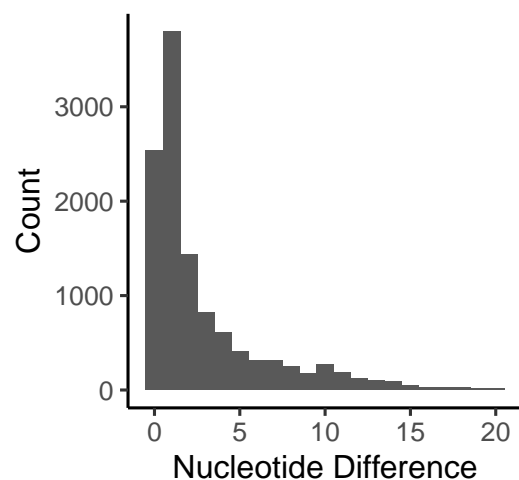
IGHV3-11*06

2920 sequences assigned
518 (17.7%) exact matches, in which:
510 unique CDR3
6 unique J



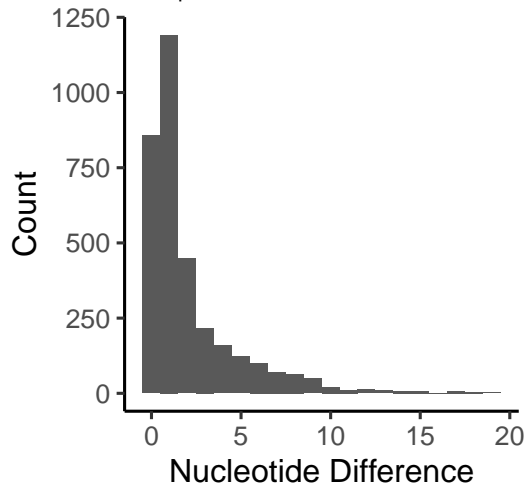
IGHV3-15*01_02

11631 sequences assigned
2540 (21.8%) exact matches, in which:
1935 unique CDR3
6 unique J



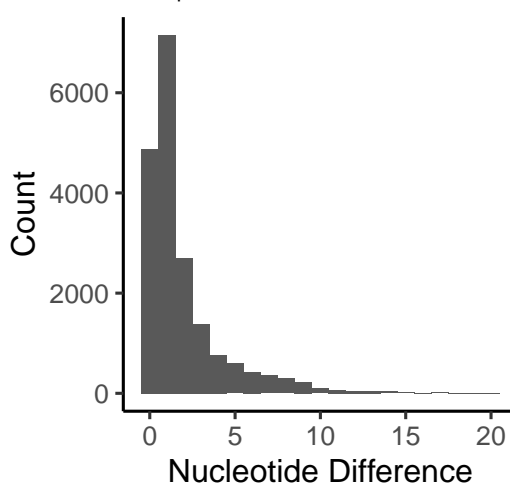
IGHV3-7*04

3369 sequences assigned
857 (25.4%) exact matches, in which:
701 unique CDR3
6 unique J



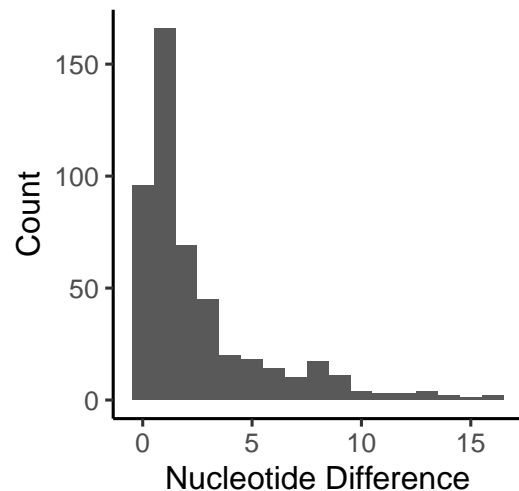
IGHV3-11*03_05

19155 sequences assigned
4879 (25.5%) exact matches, in which:
3802 unique CDR3
6 unique J



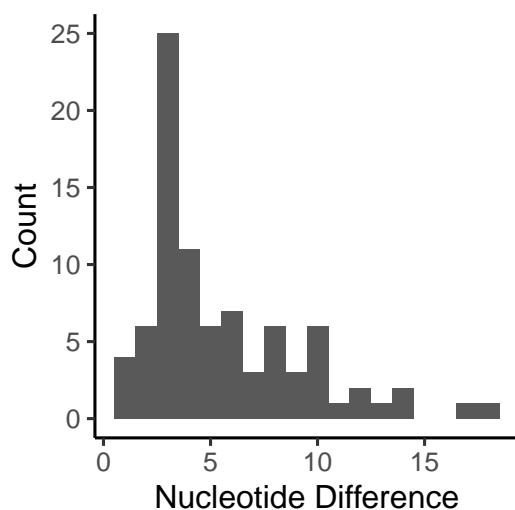
IGHV3-20*01_02

487 sequences assigned
96 (19.7%) exact matches, in which:
78 unique CDR3
5 unique J



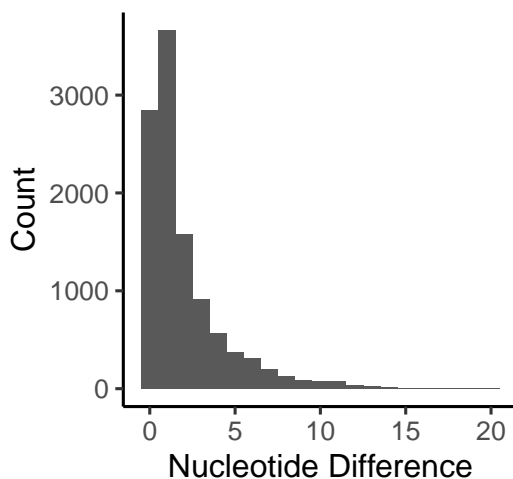
IGHV3-20*03_04

86 sequences assigned
No exact matches.



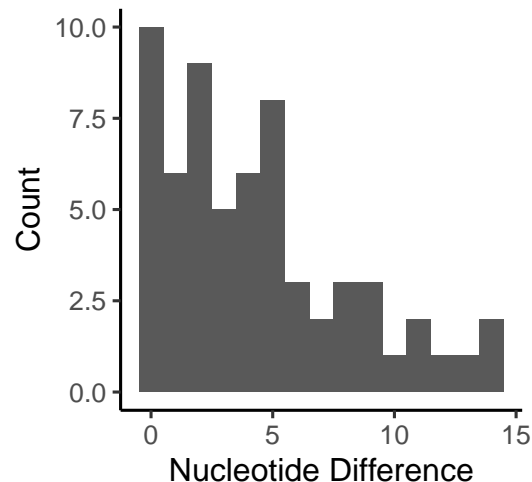
IGHV3-30-3*01

10946 sequences assigned
2851 (26%) exact matches, in which:
2366 unique CDR3
6 unique J



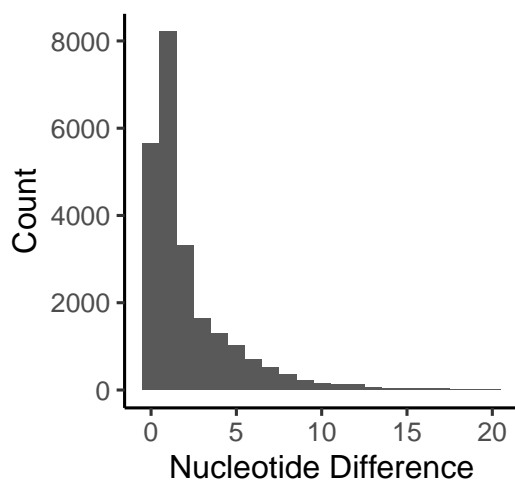
IGHV3-33*05

63 sequences assigned
10 (15.9%) exact matches, in which:
10 unique CDR3
4 unique J



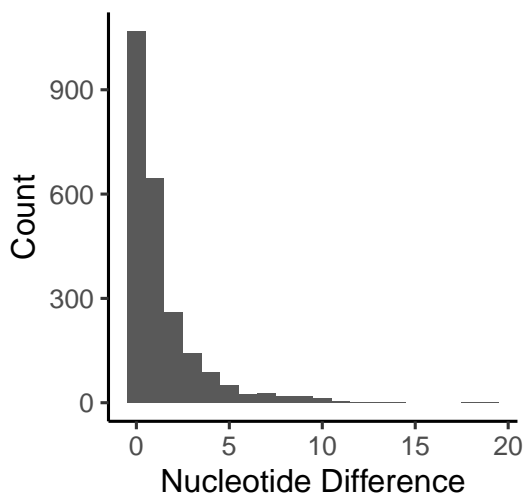
IGHV3-21*01_02

23558 sequences assigned
5649 (24%) exact matches, in which:
4440 unique CDR3
6 unique J



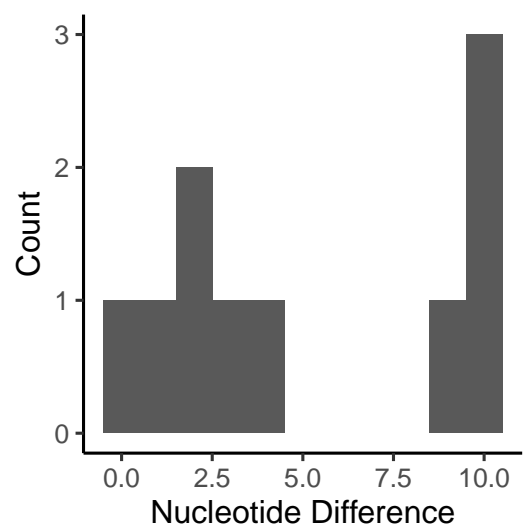
IGHV3-30*03

2370 sequences assigned
1069 (45.1%) exact matches, in which:
1031 unique CDR3
6 unique J



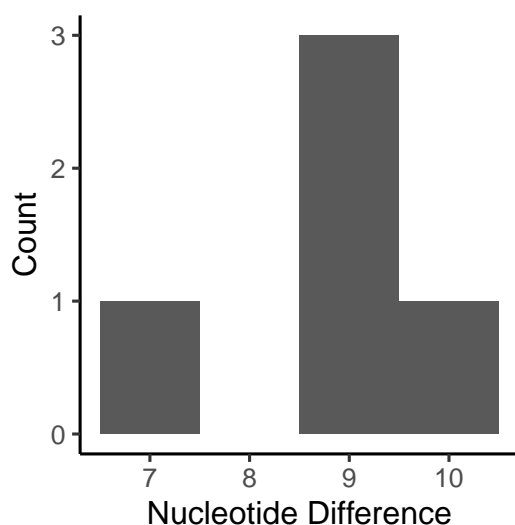
IGHV3-35*01

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



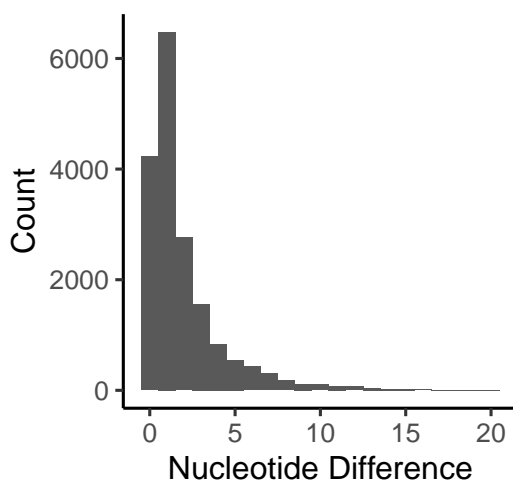
IGHV3-22*01_02

6 sequences assigned
No exact matches.



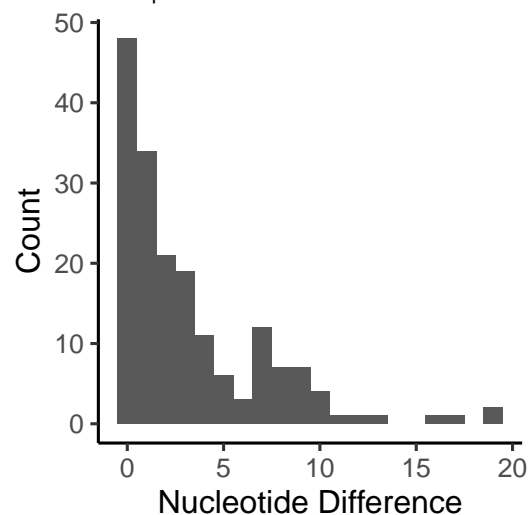
IGHV3-33*01

17840 sequences assigned
4228 (23.7%) exact matches, in which:
3463 unique CDR3
6 unique J



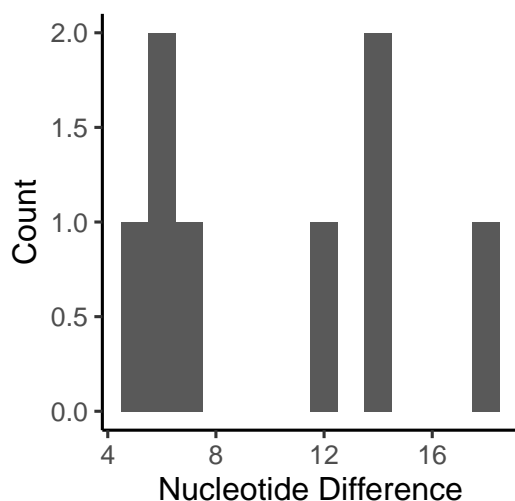
IGHV3-38-3*01

179 sequences assigned
48 (26.8%) exact matches, in which:
45 unique CDR3
4 unique J



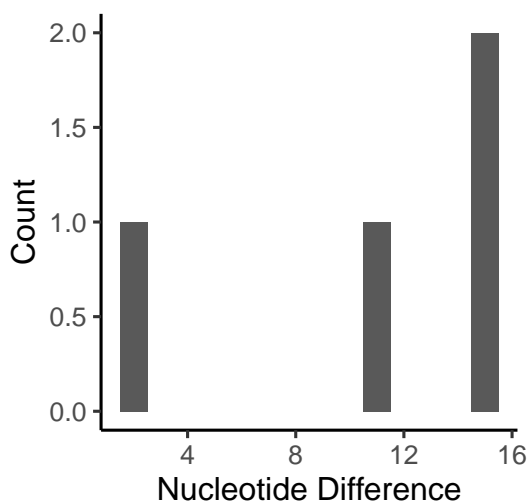
IGHV3-38*03

9 sequences assigned
No exact matches.



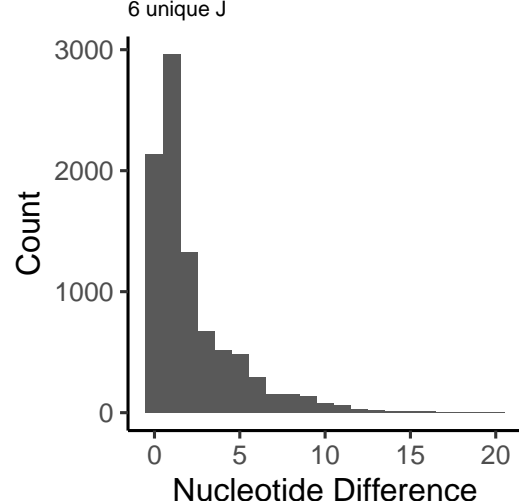
IGHV3-47*01

4 sequences assigned
No exact matches.



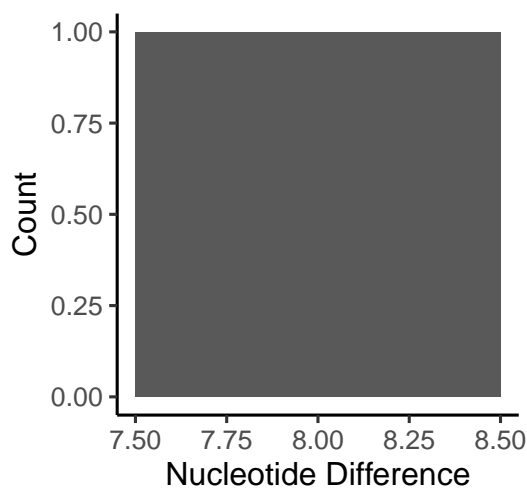
IGHV3-48*04

9103 sequences assigned
2137 (23.5%) exact matches, in which:
1720 unique CDR3
6 unique J



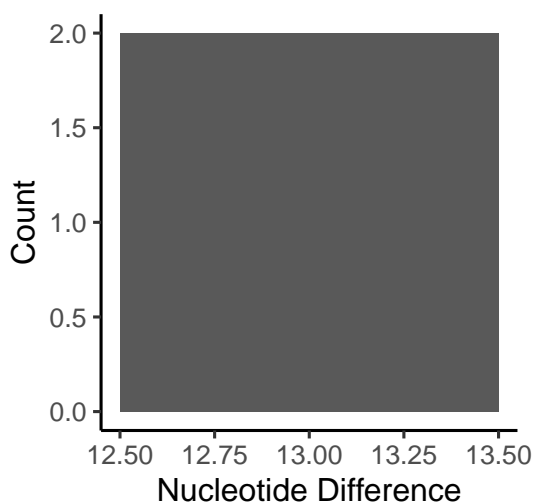
IGHV3-41*02

1 sequences assigned
No exact matches.



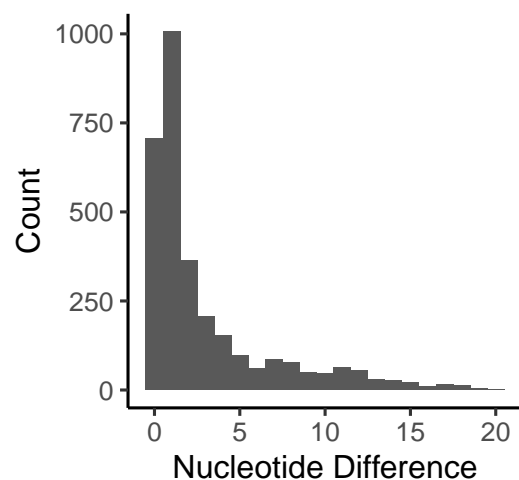
IGHV3-47*02

2 sequences assigned
No exact matches.



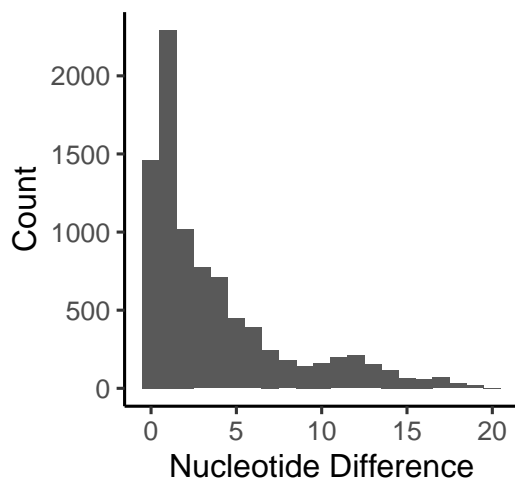
IGHV3-49*04

3097 sequences assigned
706 (22.8%) exact matches, in which:
568 unique CDR3
6 unique J



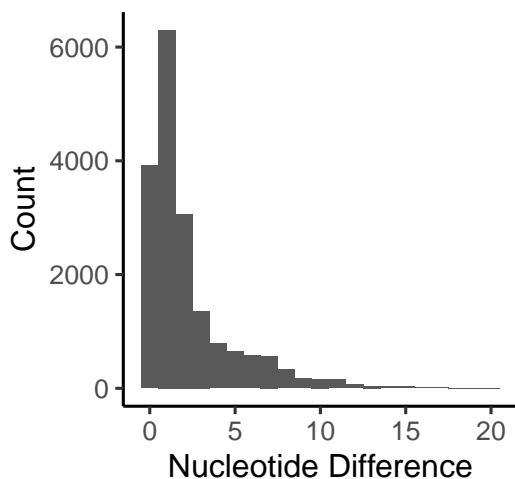
IGHV3-43*02

8786 sequences assigned
1461 (16.6%) exact matches, in which:
1168 unique CDR3
6 unique J



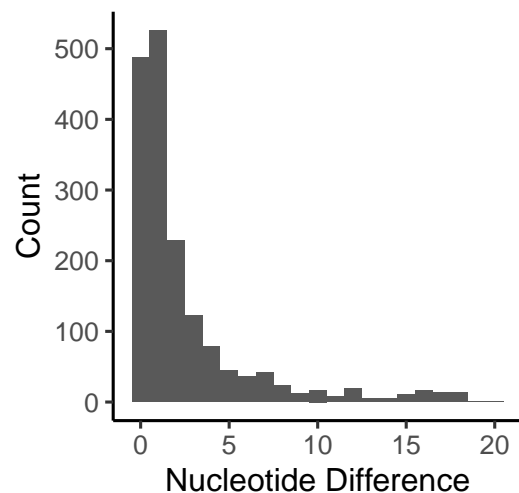
IGHV3-48*03

18306 sequences assigned
3916 (21.4%) exact matches, in which:
3074 unique CDR3
6 unique J



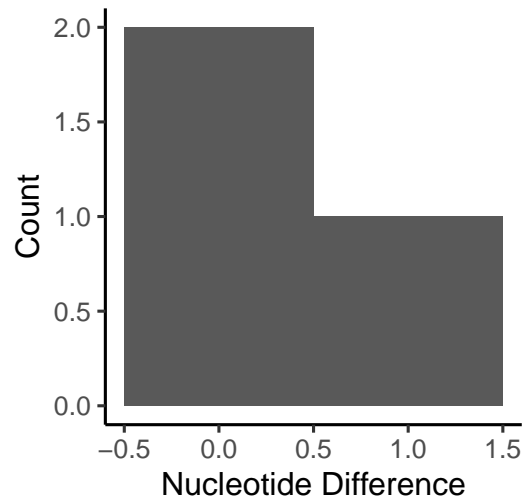
IGHV3-49*03_05

1721 sequences assigned
488 (28.4%) exact matches, in which:
409 unique CDR3
6 unique J



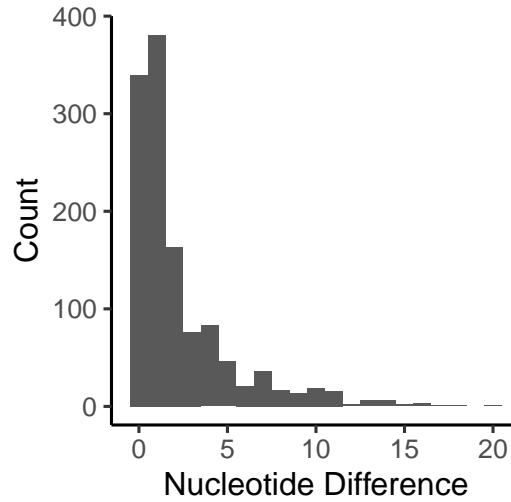
IGHV3-52*01_03

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



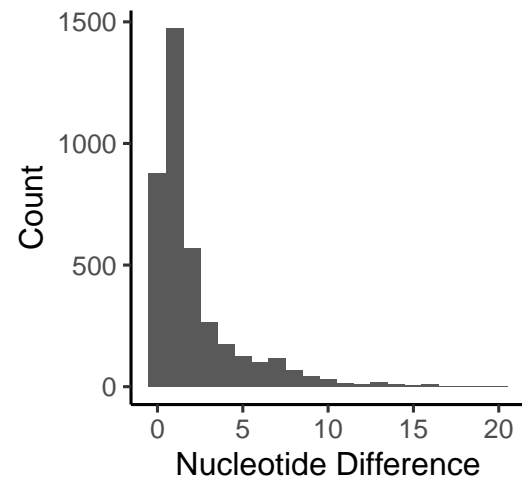
IGHV3-64*01

1239 sequences assigned
340 (27.4%) exact matches, in which:
283 unique CDR3
6 unique J



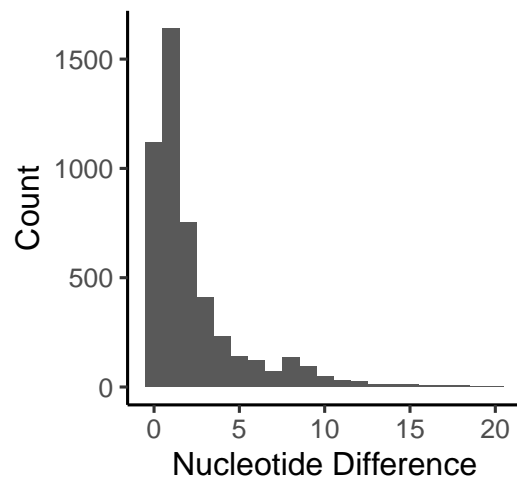
IGHV3-66*02

3938 sequences assigned
877 (22.3%) exact matches, in which:
678 unique CDR3
6 unique J



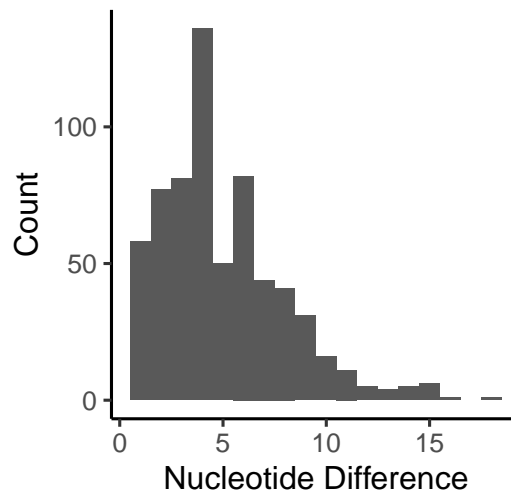
IGHV3-53*04

4884 sequences assigned
1118 (22.9%) exact matches, in which:
891 unique CDR3
6 unique J



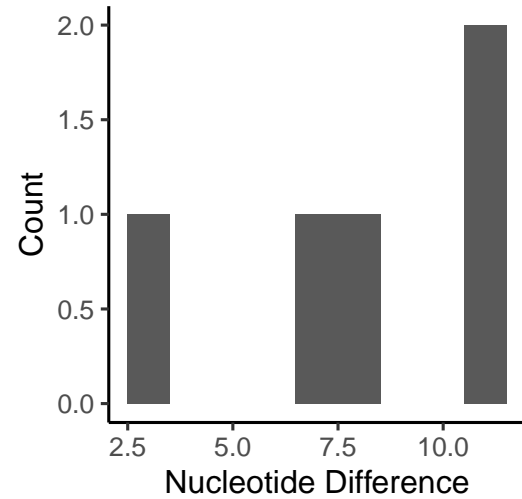
IGHV3-64*04

650 sequences assigned
No exact matches.



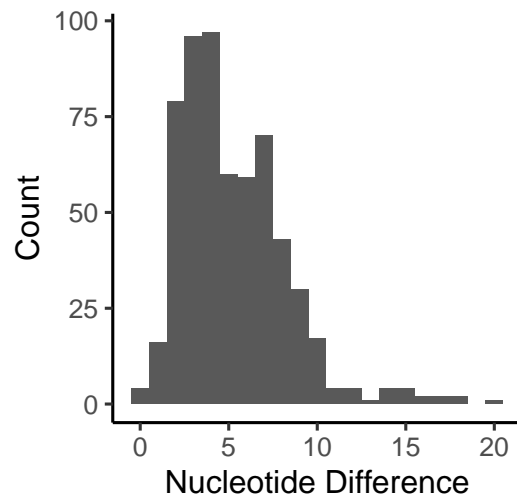
IGHV3-69-1*01

5 sequences assigned
No exact matches.



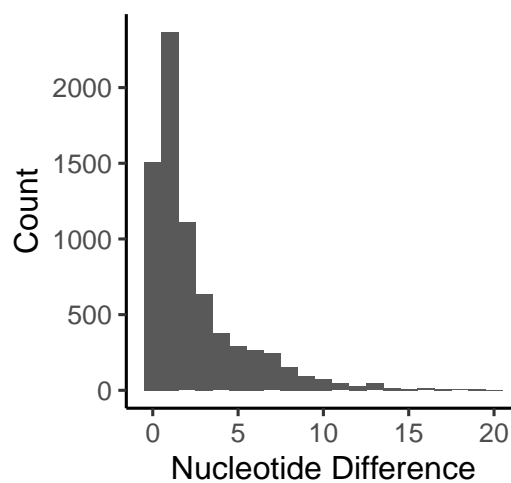
IGHV3-53*01_02

599 sequences assigned
4 (0.7%) exact matches, in which:
4 unique CDR3
3 unique J



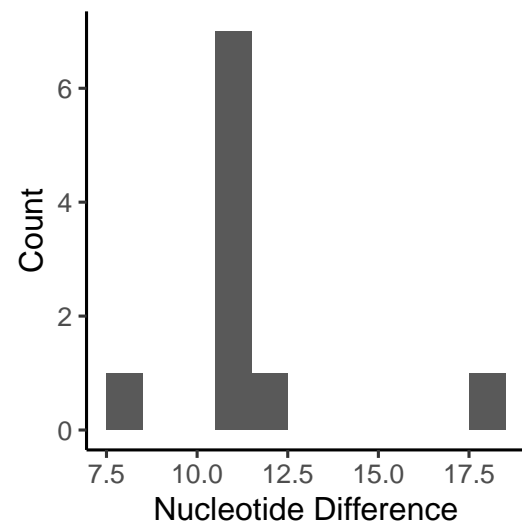
IGHV3-66*01

7334 sequences assigned
1509 (20.6%) exact matches, in which:
1171 unique CDR3
6 unique J



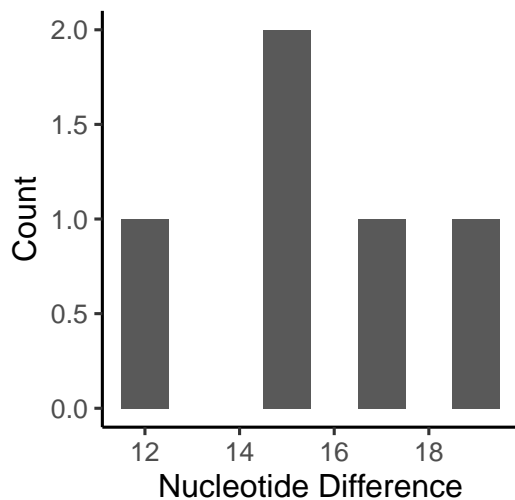
IGHV3-69-1*02

12 sequences assigned
No exact matches.



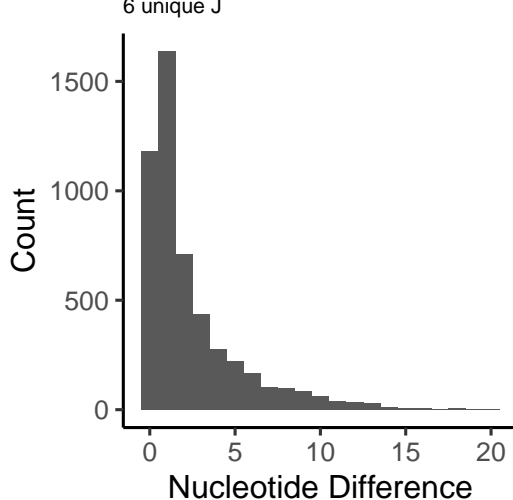
IGHV3-71*01_04

5 sequences assigned
No exact matches.



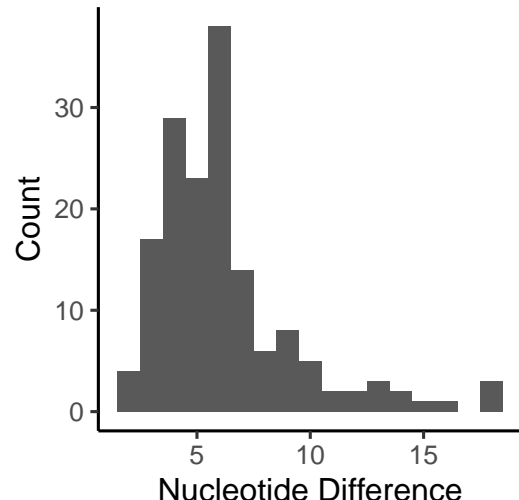
IGHV3-74*01_02

5134 sequences assigned
1179 (23%) exact matches, in which:
962 unique CDR3
6 unique J



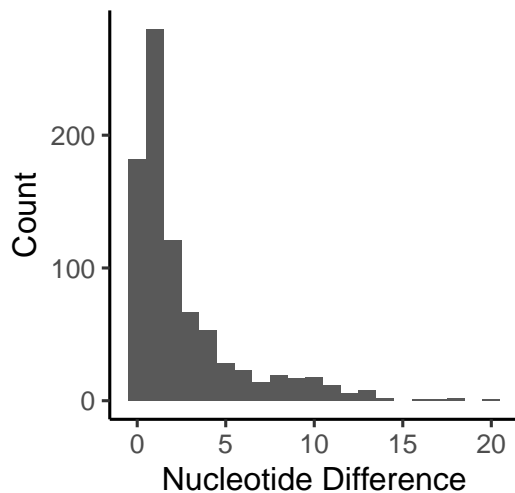
IGHV3-NL1*01

158 sequences assigned
No exact matches.



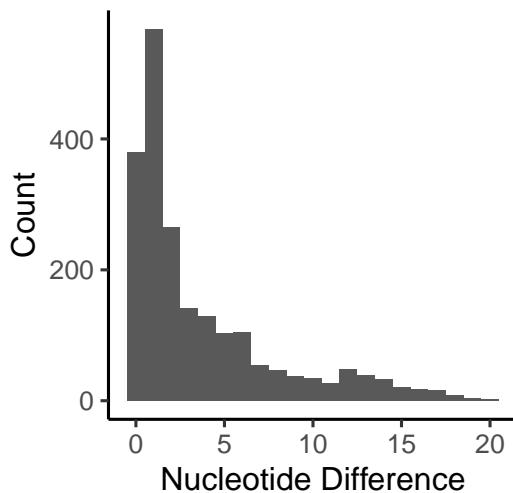
IGHV3-72*01

859 sequences assigned
182 (21.2%) exact matches, in which:
128 unique CDR3
5 unique J



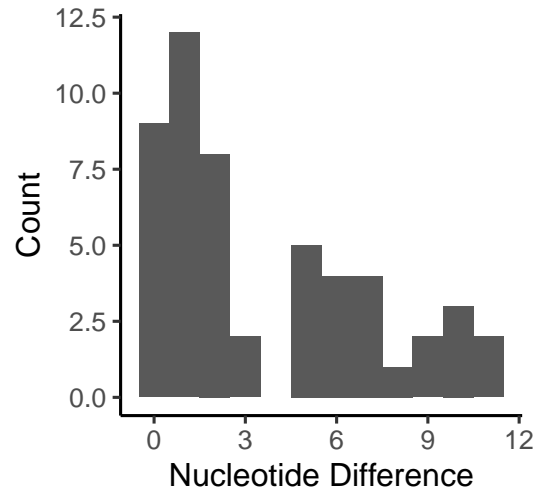
IGHV3-43D*03

2087 sequences assigned
379 (18.2%) exact matches, in which:
300 unique CDR3
6 unique J



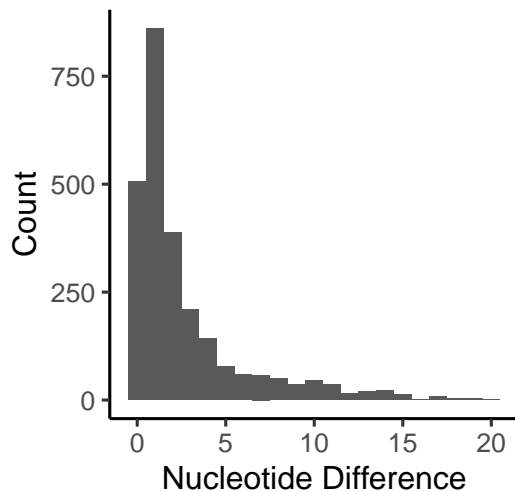
IGHV4-28*03

52 sequences assigned
9 (17.3%) exact matches, in which:
8 unique CDR3
4 unique J



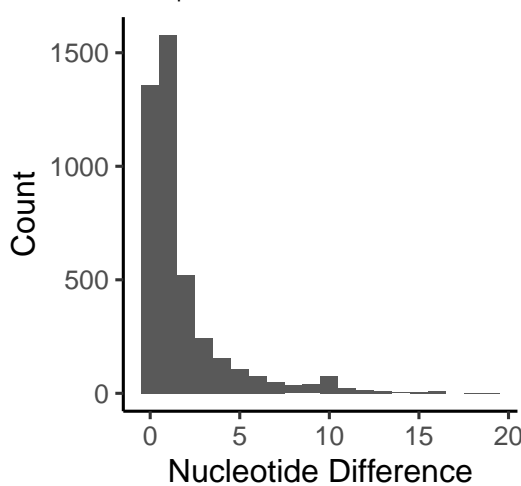
IGHV3-73*01_02

2560 sequences assigned
506 (19.8%) exact matches, in which:
393 unique CDR3
6 unique J



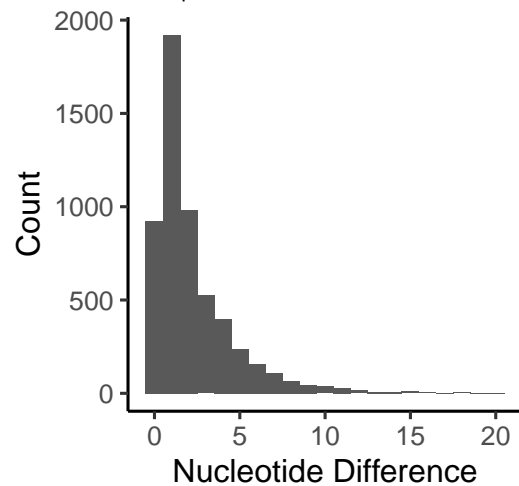
IGHV3-64D*06

4325 sequences assigned
1359 (31.4%) exact matches, in which:
1025 unique CDR3
6 unique J



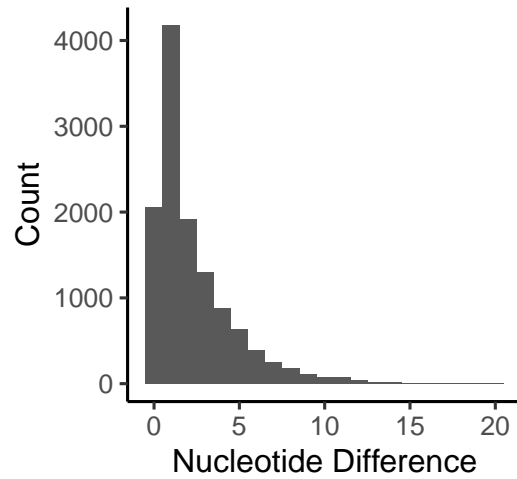
IGHV4-30-2*01

5497 sequences assigned
924 (16.8%) exact matches, in which:
669 unique CDR3
6 unique J



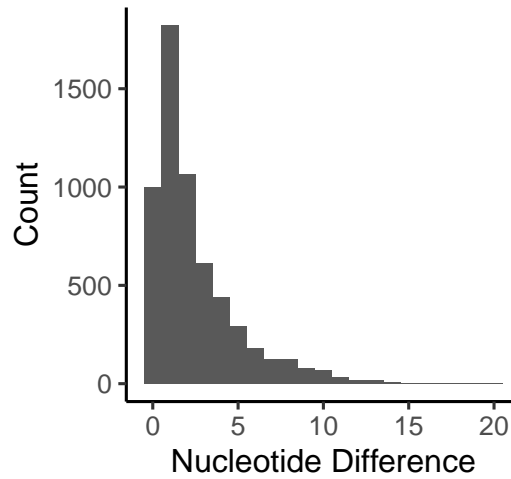
IGHV4-30-4*01

12157 sequences assigned
2059 (16.9%) exact matches, in which:
1532 unique CDR3
6 unique J



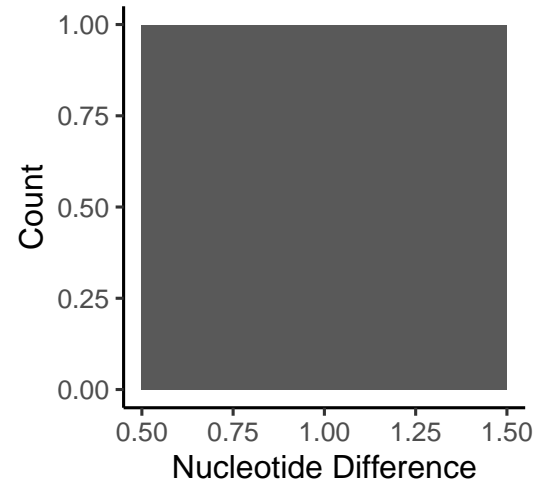
IGHV4-38-2*02

5908 sequences assigned
997 (16.9%) exact matches, in which:
790 unique CDR3
6 unique J



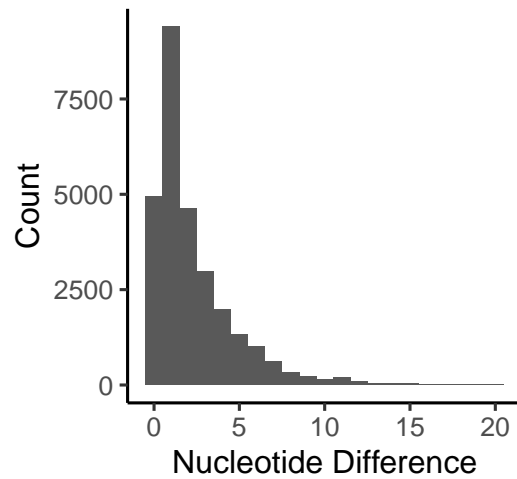
IGHV4-55*02_04_08

1 sequences assigned
No exact matches.



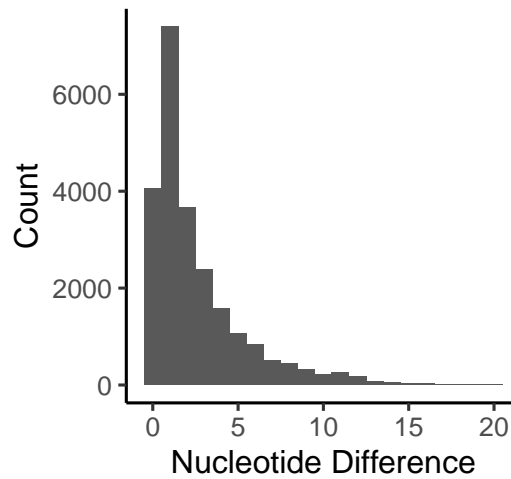
IGHV4-31*03_04

28081 sequences assigned
4940 (17.6%) exact matches, in which:
3658 unique CDR3
6 unique J



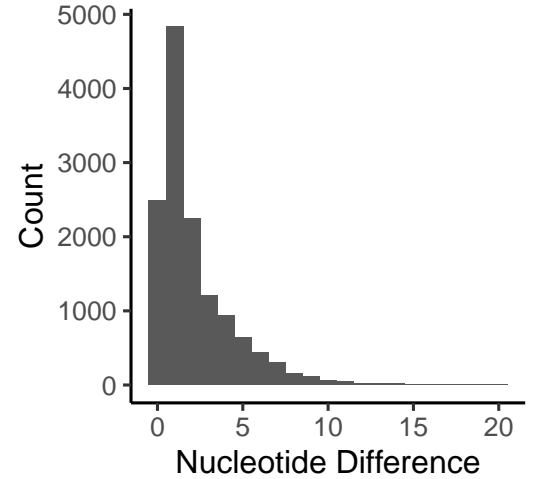
IGHV4-39*07

23214 sequences assigned
4052 (17.5%) exact matches, in which:
3055 unique CDR3
6 unique J



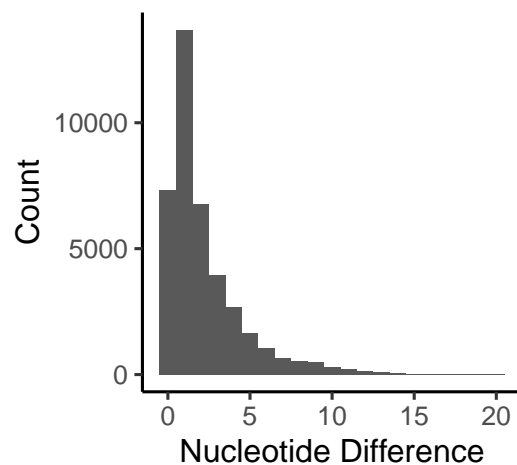
IGHV4-59*08

13608 sequences assigned
2488 (18.3%) exact matches, in which:
1849 unique CDR3
6 unique J



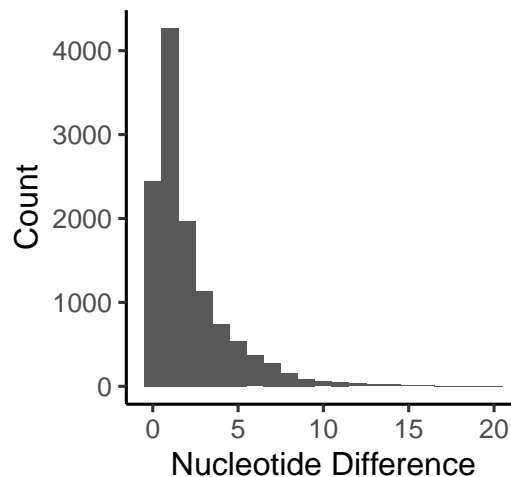
IGHV4-34*01_02

39767 sequences assigned
7326 (18.4%) exact matches, in which:
5425 unique CDR3
6 unique J



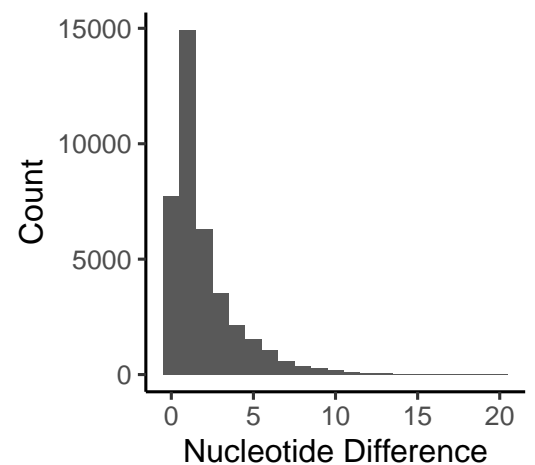
IGHV4-39*01_05

12225 sequences assigned
2446 (20%) exact matches, in which:
1896 unique CDR3
6 unique J



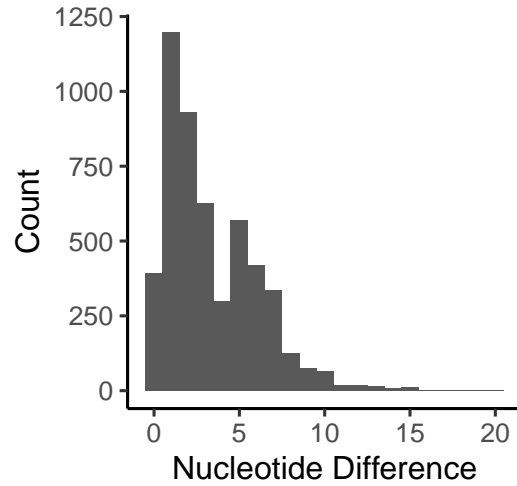
IGHV4-59*01_07

39112 sequences assigned
7715 (19.7%) exact matches, in which:
5665 unique CDR3
6 unique J



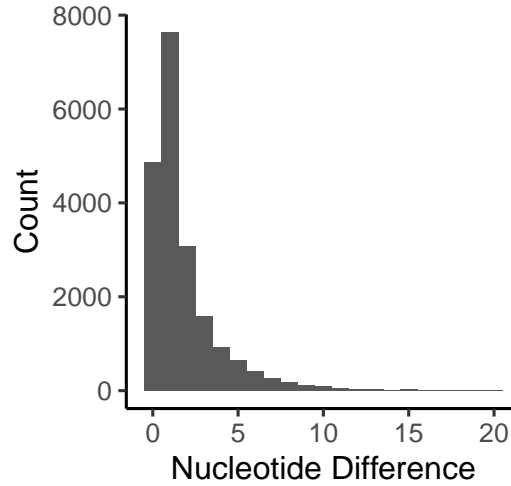
IGHV4-59*12

5156 sequences assigned
392 (7.6%) exact matches, in which:
386 unique CDR3
6 unique J



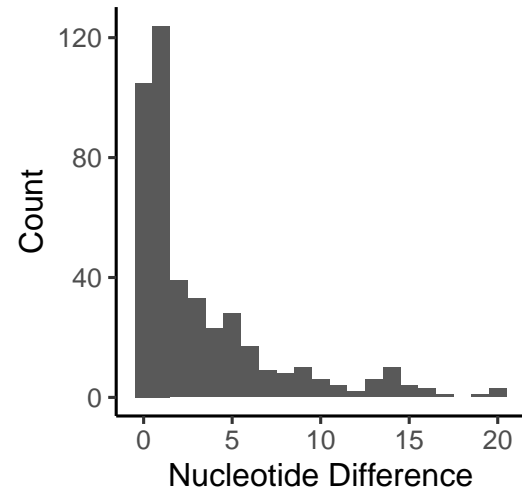
IGHV5-10-1*01_03

20088 sequences assigned
4859 (24.2%) exact matches, in which:
3707 unique CDR3
6 unique J



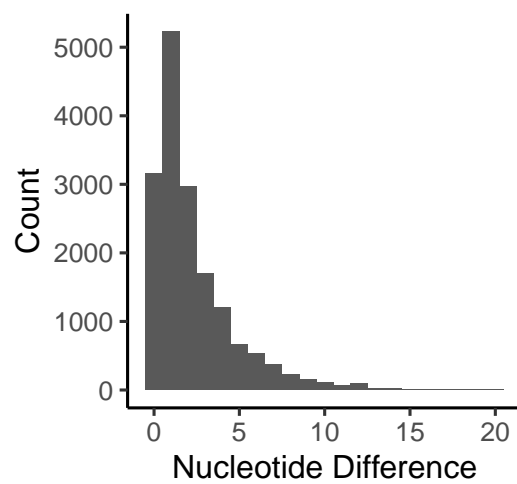
IGHV7-4-1*01

440 sequences assigned
105 (23.9%) exact matches, in which:
94 unique CDR3
6 unique J



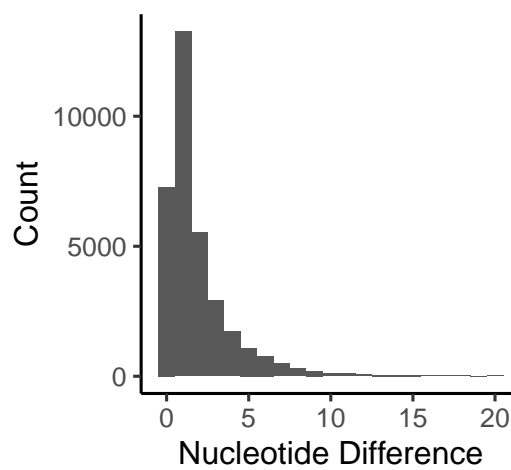
IGHV4-61*02

16590 sequences assigned
3154 (19%) exact matches, in which:
2431 unique CDR3
6 unique J



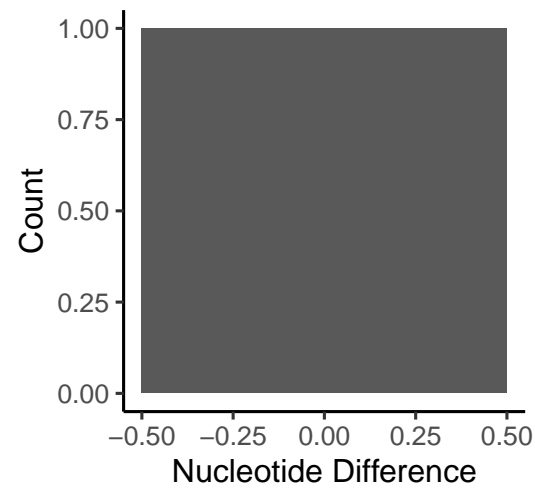
IGHV5-51*01_03

34209 sequences assigned
7279 (21.3%) exact matches, in which:
5242 unique CDR3
6 unique J



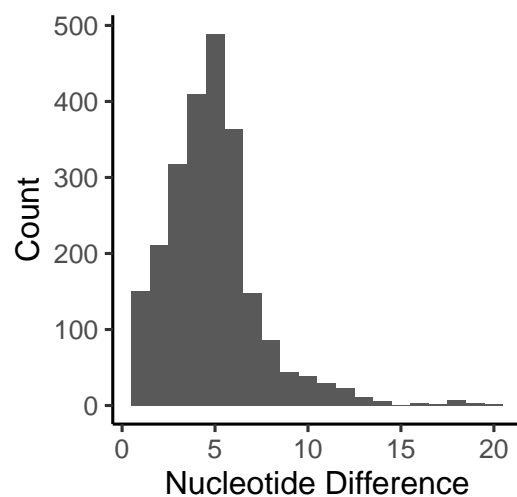
IGHV7-4-1*02

57 sequences assigned
1 (1.8%) exact matches, in which:
1 unique CDR3
1 unique J



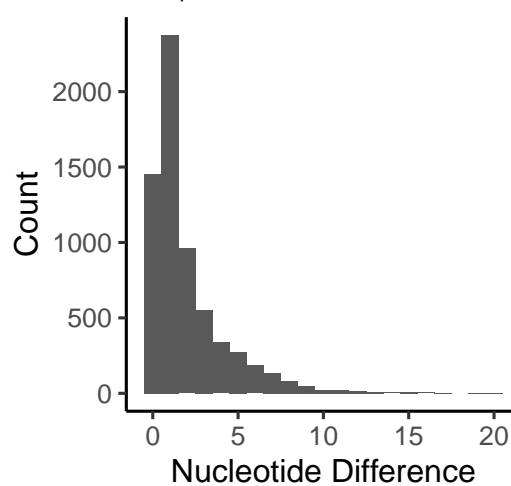
IGHV4-61*08

2354 sequences assigned
No exact matches.



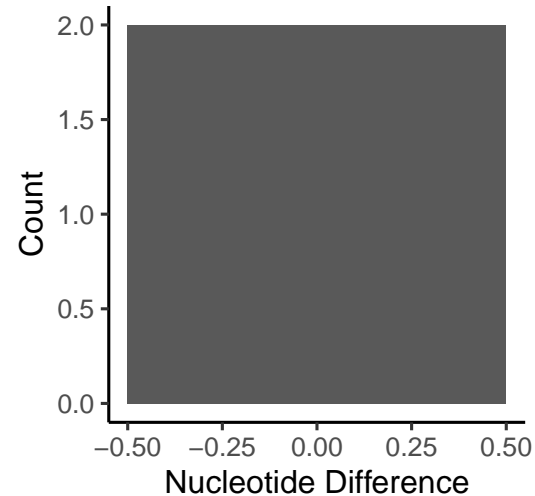
IGHV6-1*01_02

6510 sequences assigned
1454 (22.3%) exact matches, in which:
1080 unique CDR3
6 unique J



IGHV7-81*01

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





Novel sequence(s)IGHV1-69*08_C191TIGHV3-11*06_T300CIGHV4-59*02_G88AIGHV5-51*07_A128G are not listed in the genotype and will be ignored.