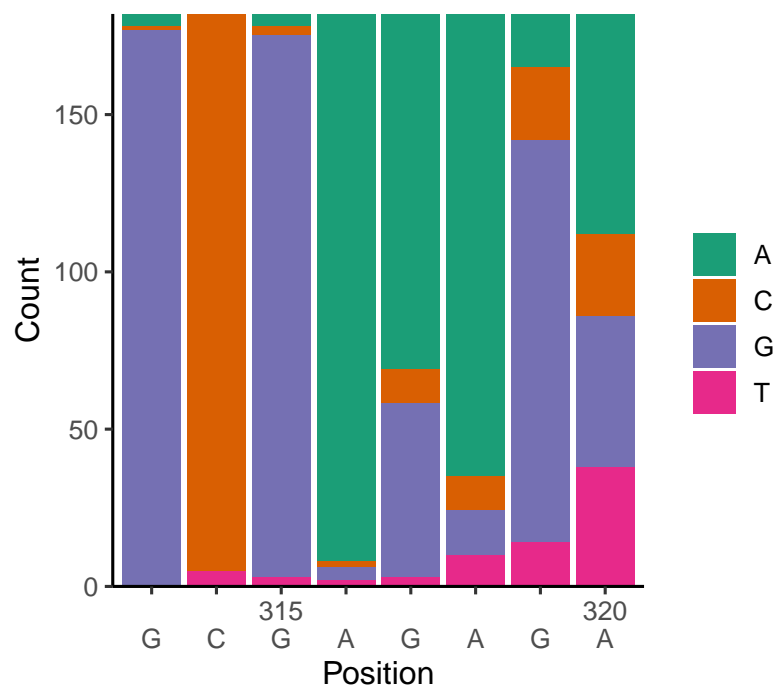
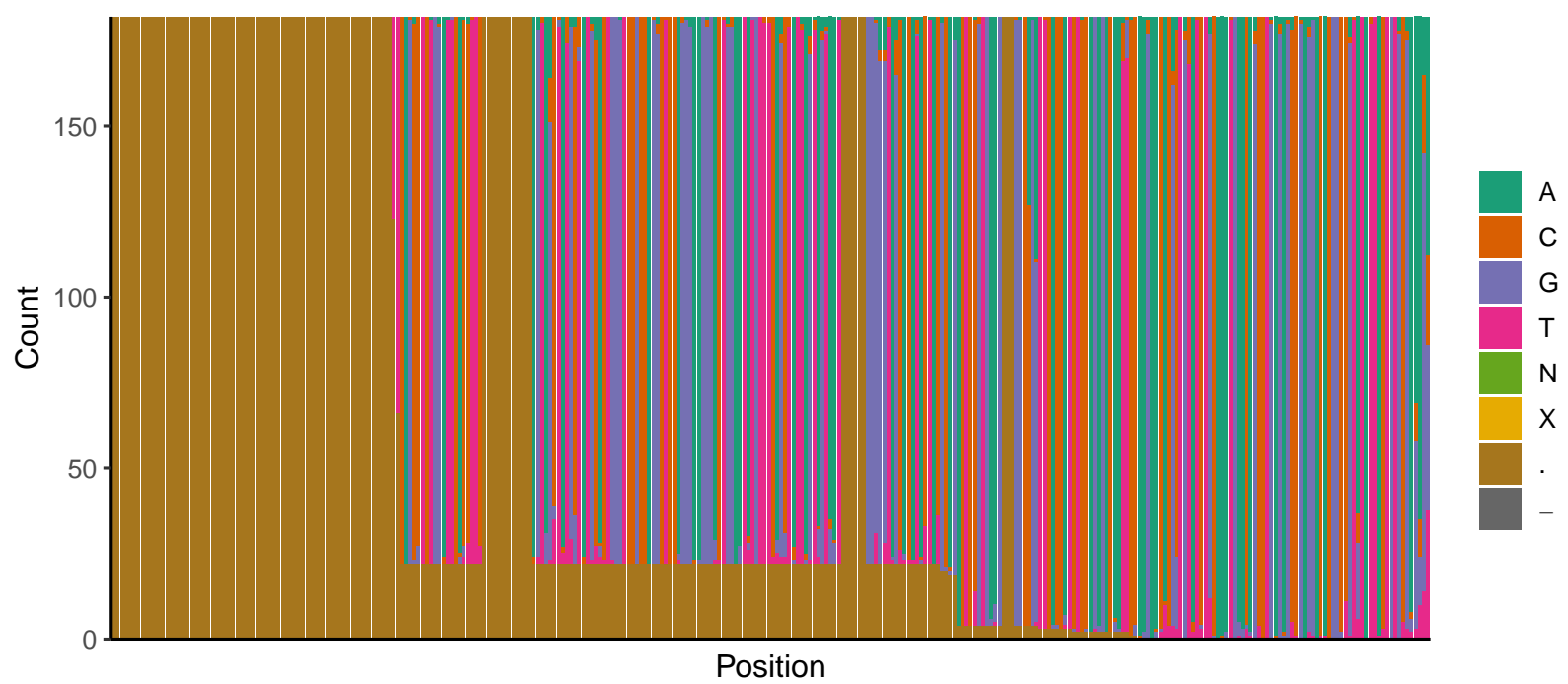


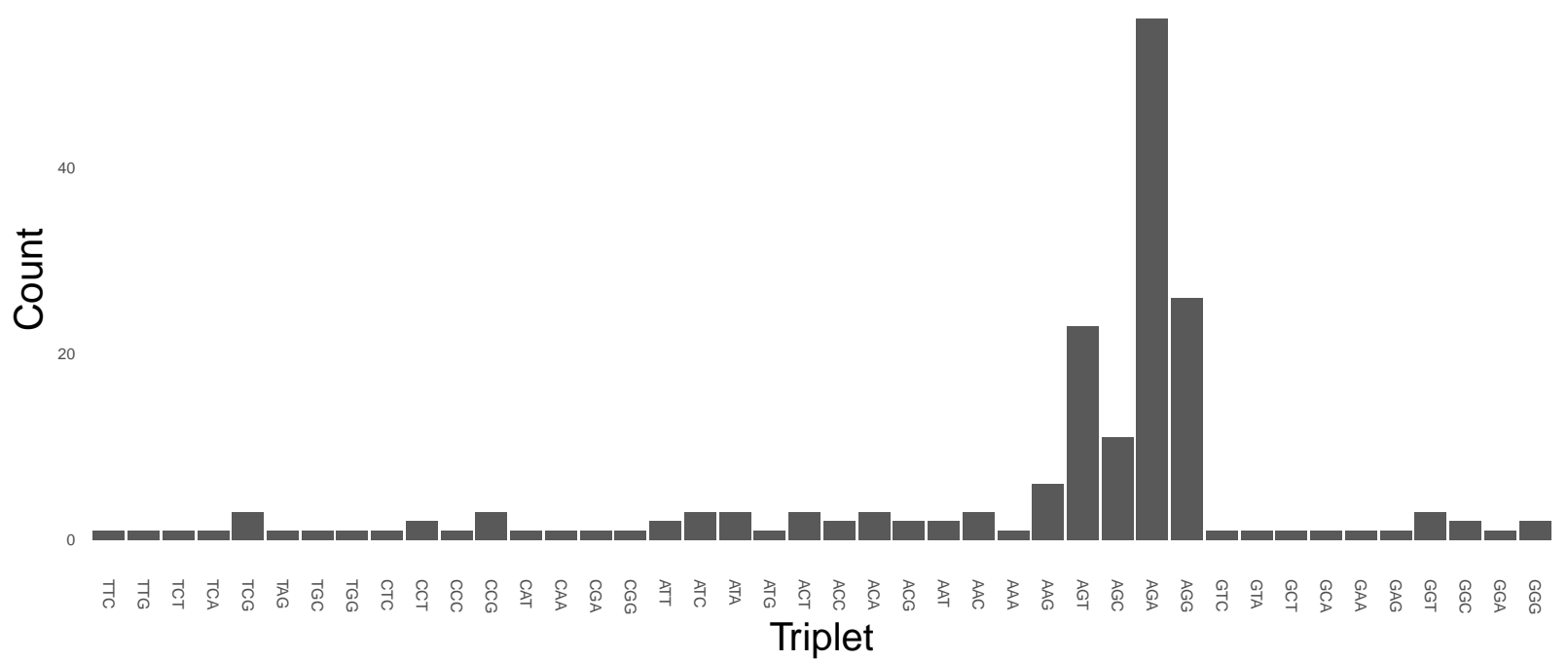
Gene IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A



Gene IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A

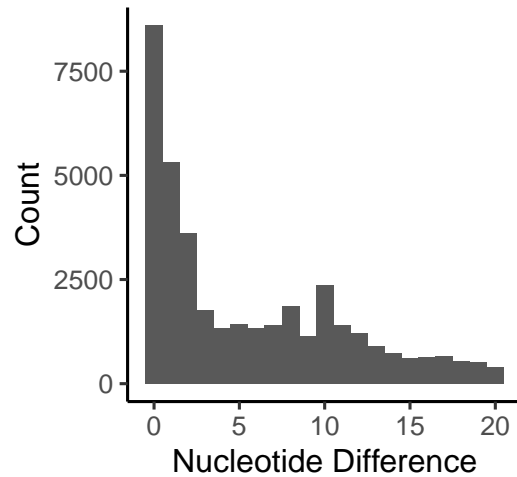


IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A- Final 3 nucleotides as a triplet



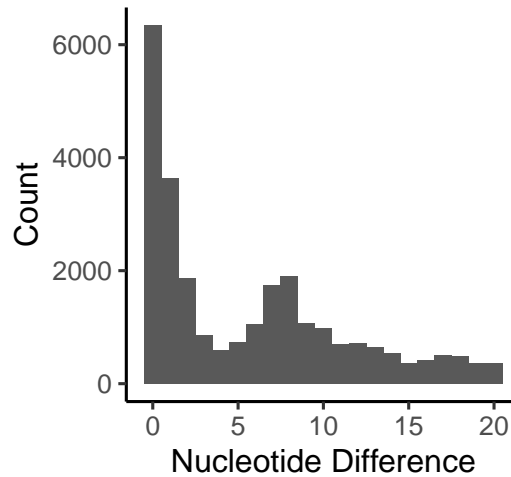
IGHV1-2*02

40688 sequences assigned
8600 (21.1%) exact matches, in which:
7860 unique CDR3
7 unique J



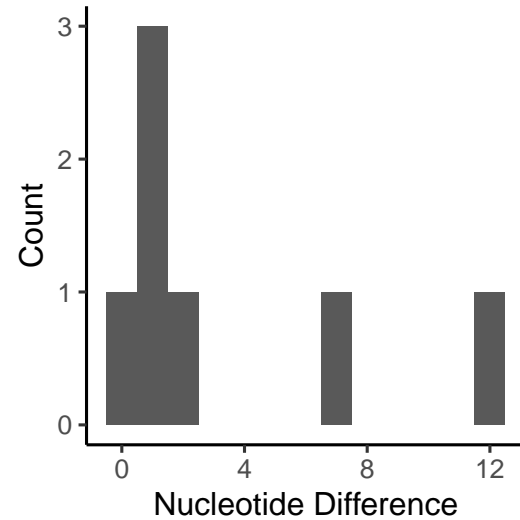
IGHV1-18*04

29002 sequences assigned
6341 (21.9%) exact matches, in which:
5738 unique CDR3
7 unique J



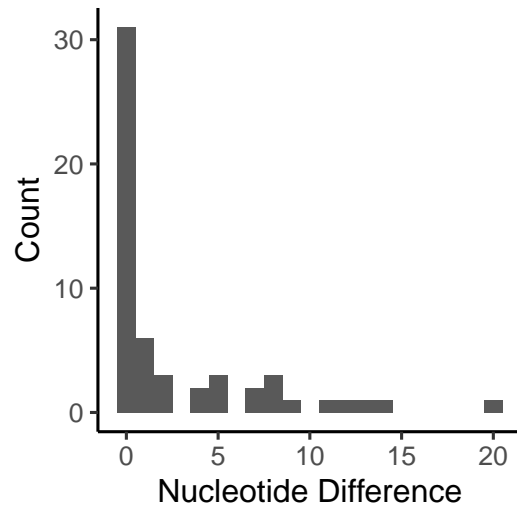
IGHV1-45*03

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



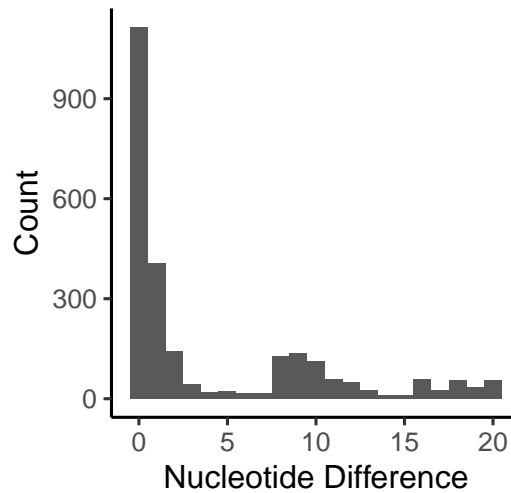
IGHV1-3*02

58 sequences assigned
31 (53.4%) exact matches, in which:
30 unique CDR3
4 unique J



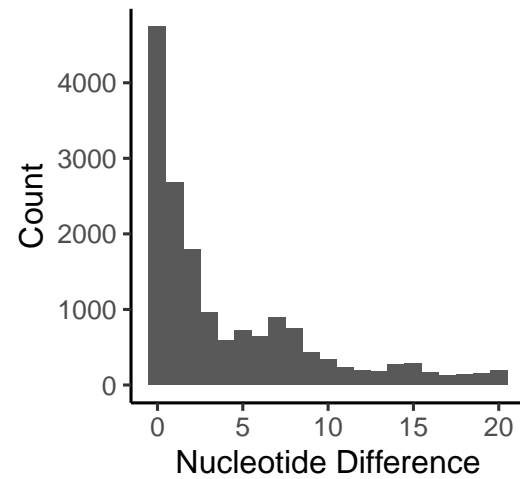
IGHV1-24*01

2710 sequences assigned
1115 (41.1%) exact matches, in which:
1059 unique CDR3
7 unique J



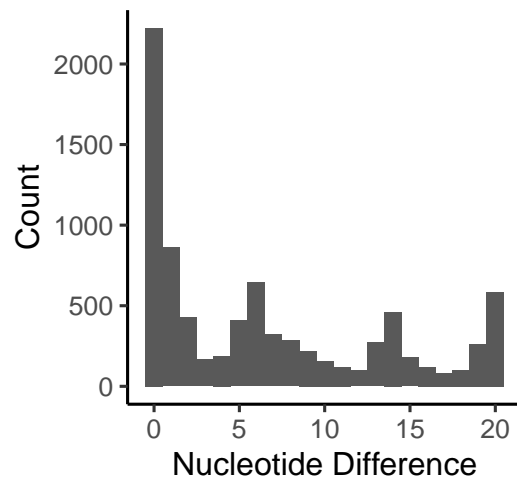
IGHV1-46*01

18592 sequences assigned
4742 (25.5%) exact matches, in which:
4448 unique CDR3
7 unique J



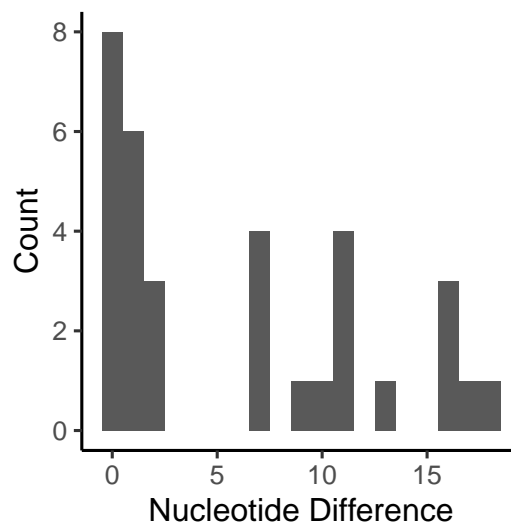
IGHV1-8*03

8980 sequences assigned
2223 (24.8%) exact matches, in which:
2100 unique CDR3
7 unique J



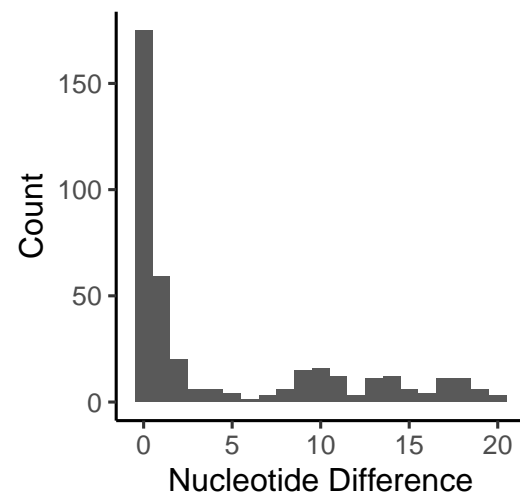
IGHV1-45*02

33 sequences assigned
8 (24.2%) exact matches, in which:
7 unique CDR3
3 unique J



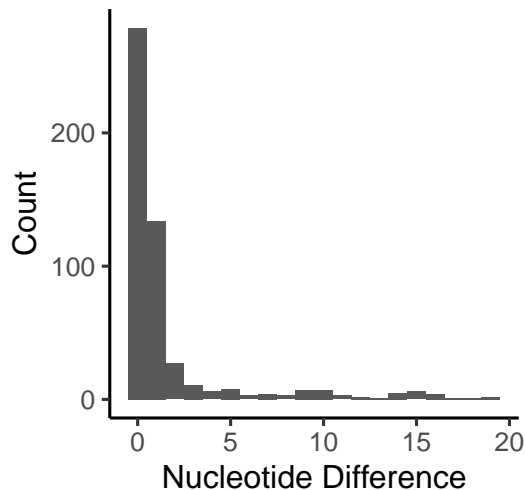
IGHV1-58*02

420 sequences assigned
175 (41.7%) exact matches, in which:
161 unique CDR3
7 unique J



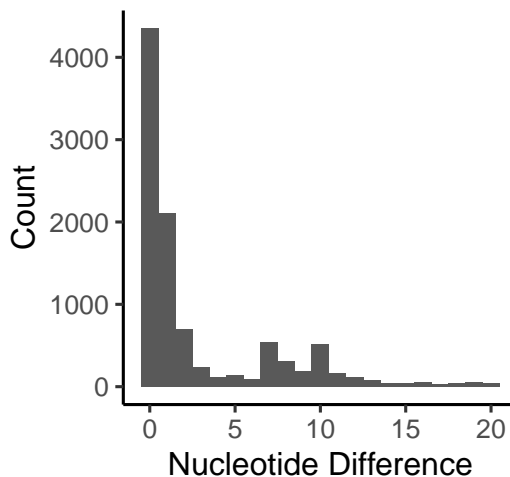
IGHV1-58*01_03

914 sequences assigned
279 (30.5%) exact matches, in which:
256 unique CDR3
7 unique J



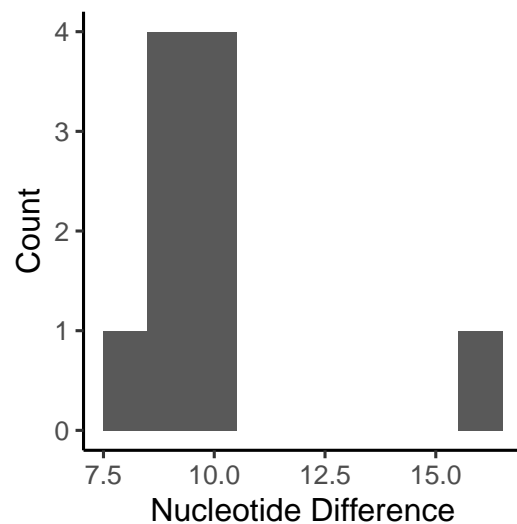
IGHV1-69*10

10343 sequences assigned
4351 (42.1%) exact matches, in which:
4163 unique CDR3
7 unique J



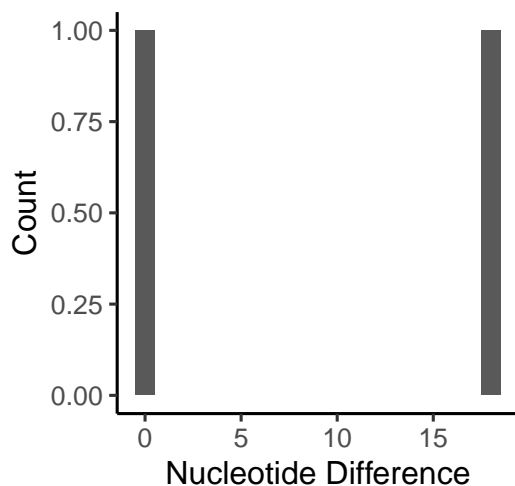
IGHV1-NL1*01

10 sequences assigned
No exact matches.



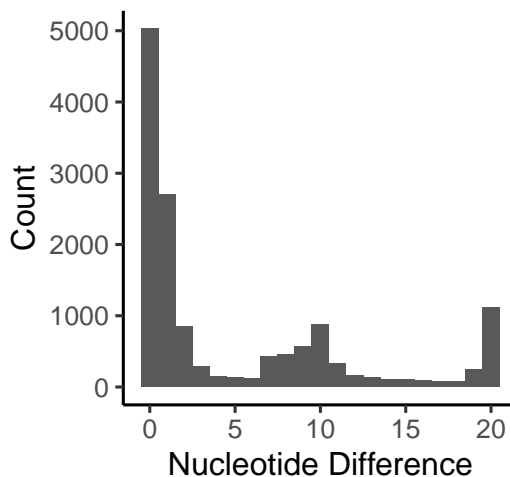
IGHV1-68*01

2 sequences assigned
1 (50%) exact matches, in which:
1 unique CDR3
1 unique J



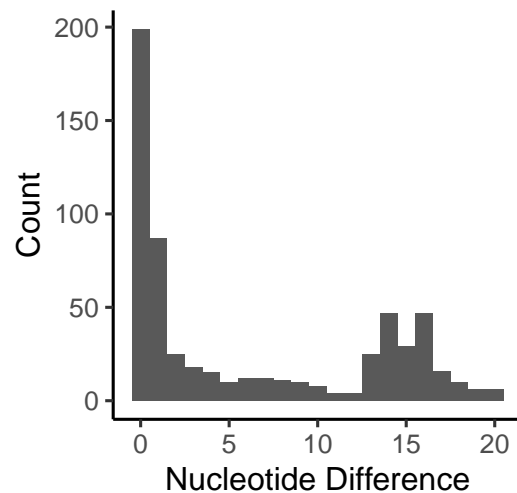
IGHV1-69*01_12_13

18247 sequences assigned
5028 (27.6%) exact matches, in which:
4796 unique CDR3
7 unique J



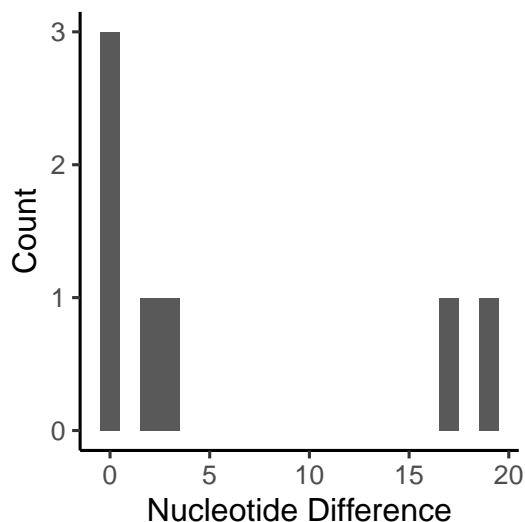
IGHV2-5*01

627 sequences assigned
199 (31.7%) exact matches, in which:
190 unique CDR3
7 unique J



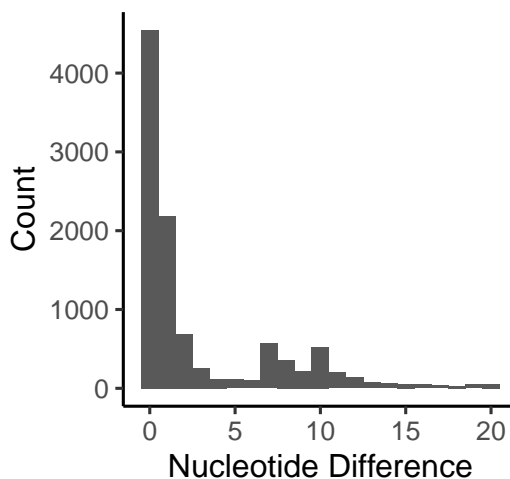
IGHV1-69-2*01

16 sequences assigned
3 (18.8%) exact matches, in which:
3 unique CDR3
2 unique J



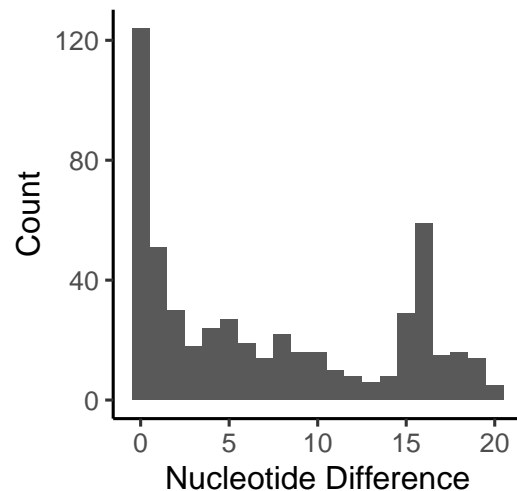
IGHV1-69*04_09

10669 sequences assigned
4546 (42.6%) exact matches, in which:
4336 unique CDR3
7 unique J



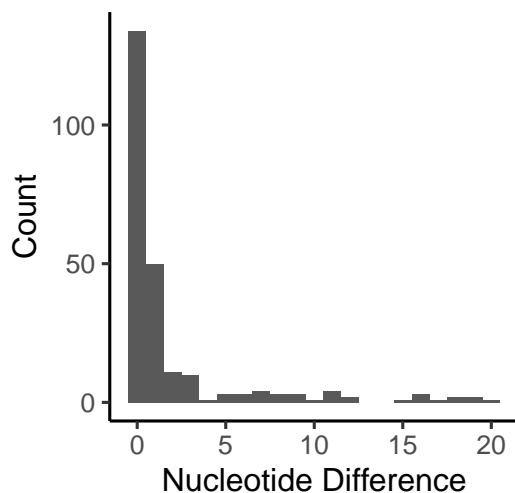
IGHV2-5*02

803 sequences assigned
124 (15.4%) exact matches, in which:
116 unique CDR3
7 unique J



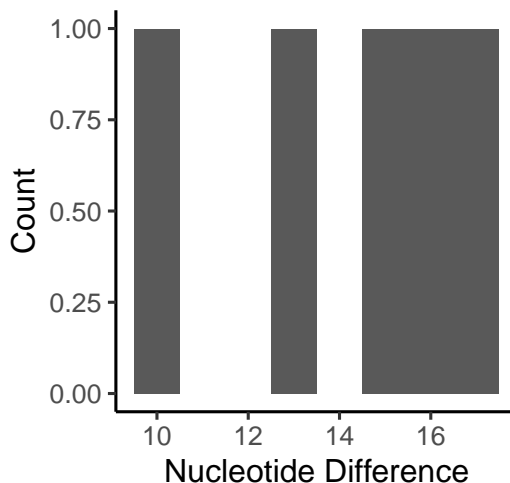
IGHV2-26*01

448 sequences assigned
134 (29.9%) exact matches, in which:
128 unique CDR3
6 unique J



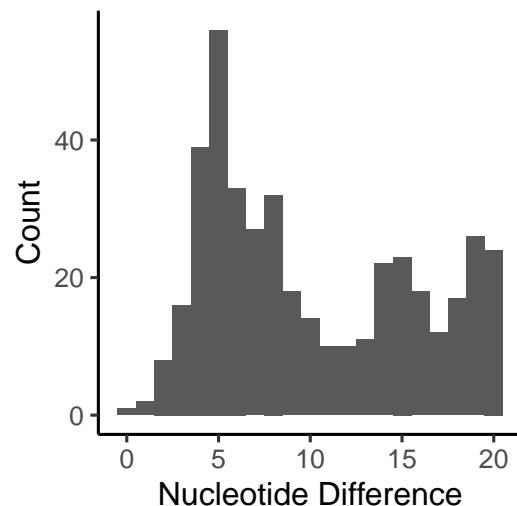
IGHV2-70D*14

5 sequences assigned
No exact matches.



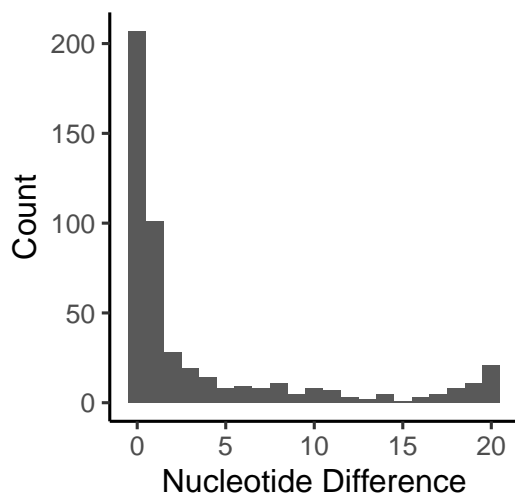
IGHV3-9*01

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



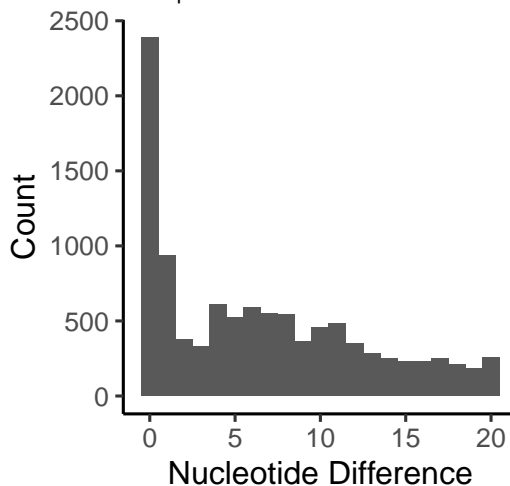
IGHV2-70*01

570 sequences assigned
207 (36.3%) exact matches, in which:
194 unique CDR3
6 unique J



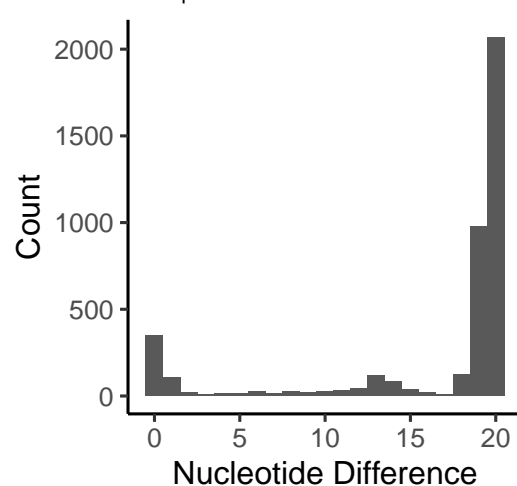
IGHV3-7*01

12310 sequences assigned
2387 (19.4%) exact matches, in which:
1896 unique CDR3
7 unique J



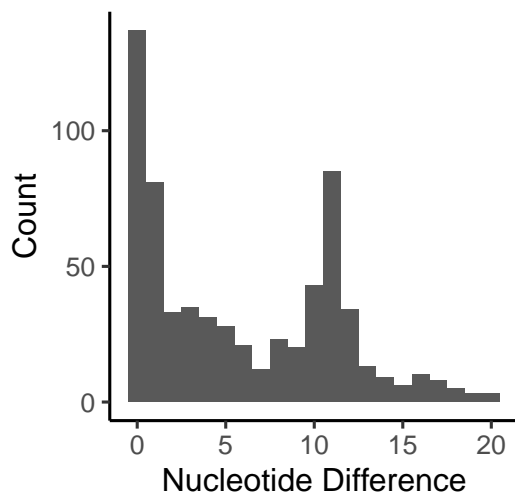
IGHV3-9*03

6139 sequences assigned
348 (5.7%) exact matches, in which:
265 unique CDR3
6 unique J



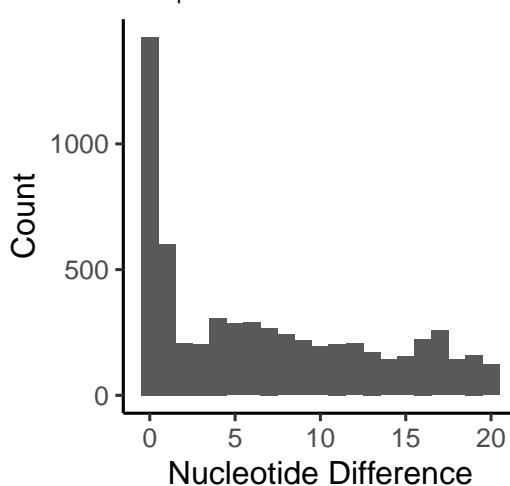
IGHV2-70*04

769 sequences assigned
137 (17.8%) exact matches, in which:
123 unique CDR3
4 unique J



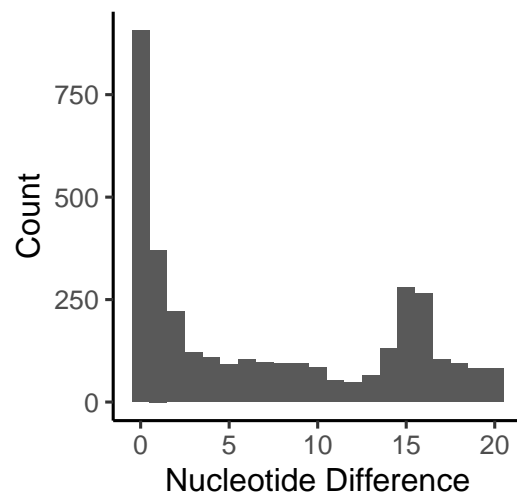
IGHV3-7*03

8025 sequences assigned
1425 (17.8%) exact matches, in which:
1104 unique CDR3
7 unique J



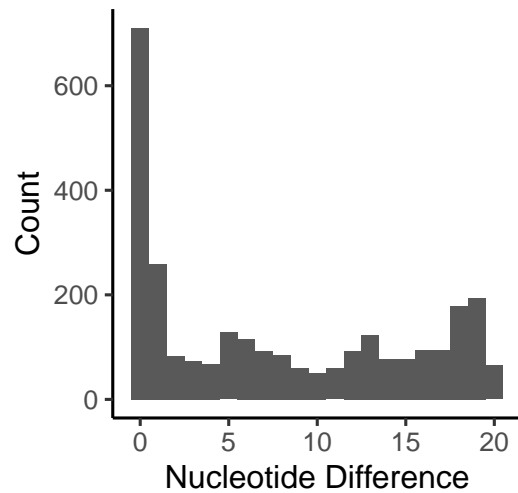
IGHV3-11*04

5939 sequences assigned
907 (15.3%) exact matches, in which:
750 unique CDR3
7 unique J



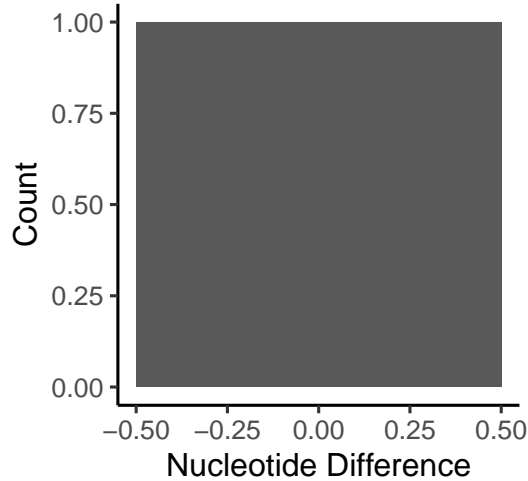
IGHV3-11*06

3571 sequences assigned
711 (19.9%) exact matches, in which:
572 unique CDR3
7 unique J



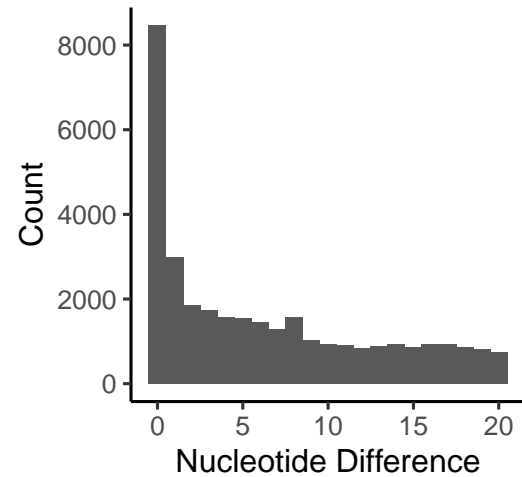
IGHV3-19*01

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



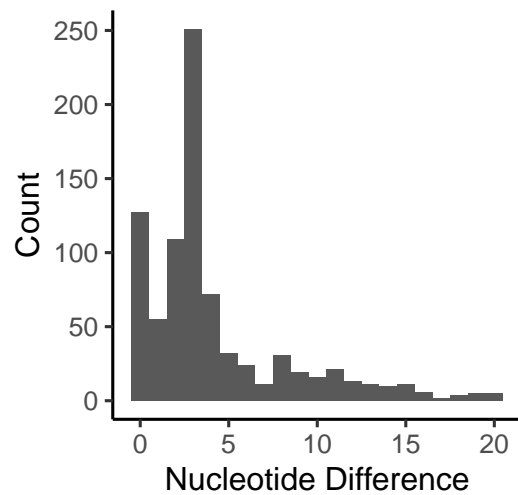
IGHV3-23*01_04

45023 sequences assigned
8465 (18.8%) exact matches, in which:
6079 unique CDR3
7 unique J



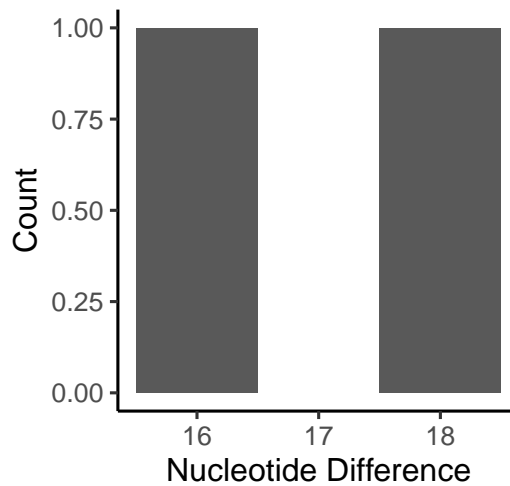
IGHV3-13*05

865 sequences assigned
127 (14.7%) exact matches, in which:
91 unique CDR3
7 unique J



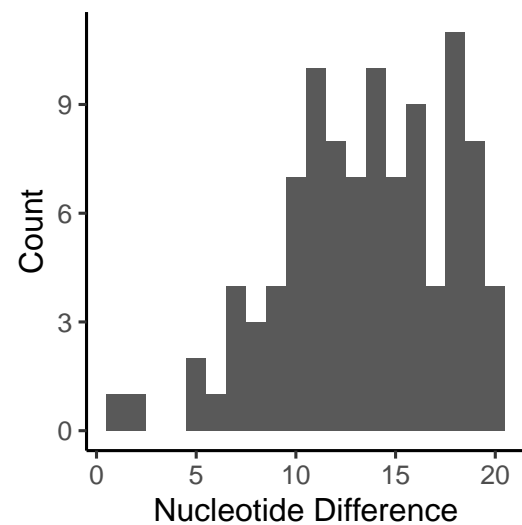
IGHV3-20*03_04

14 sequences assigned
No exact matches.



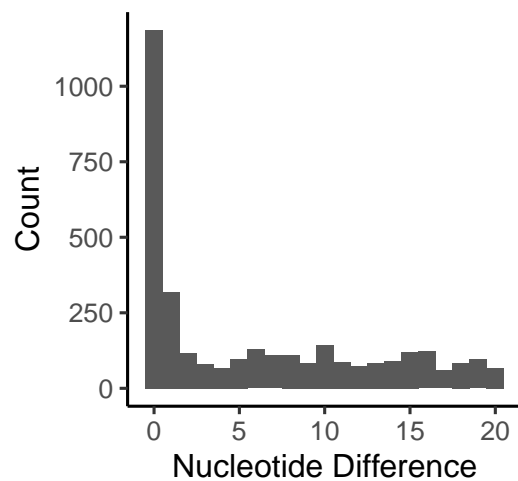
IGHV3-30-3*01

323 sequences assigned
No exact matches.



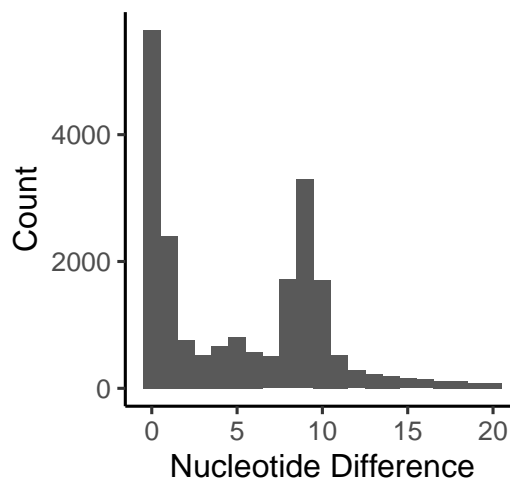
IGHV3-15*01_02

4417 sequences assigned
1186 (26.9%) exact matches, in which:
942 unique CDR3
7 unique J



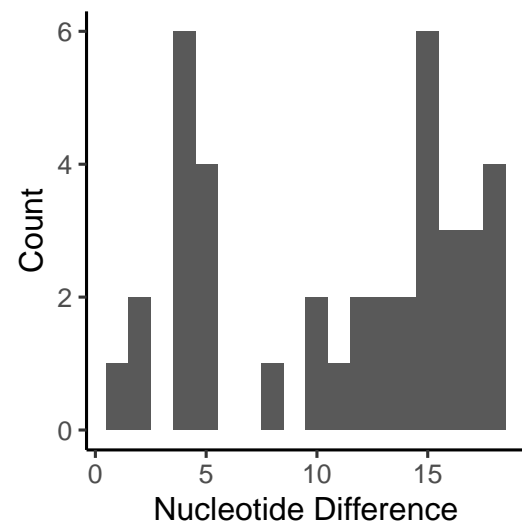
IGHV3-21*01_02

22045 sequences assigned
5650 (25.6%) exact matches, in which:
4185 unique CDR3
7 unique J



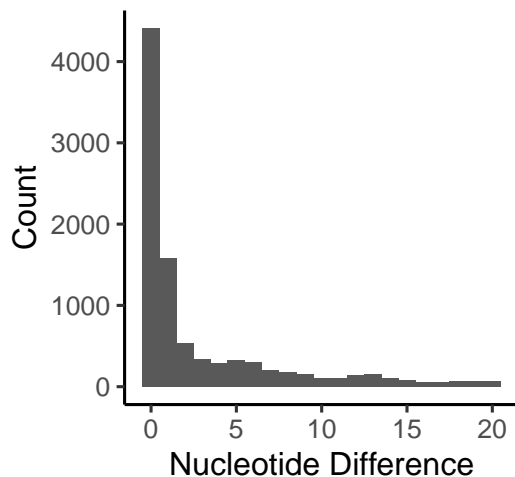
IGHV3-30-3*02

64 sequences assigned
No exact matches.



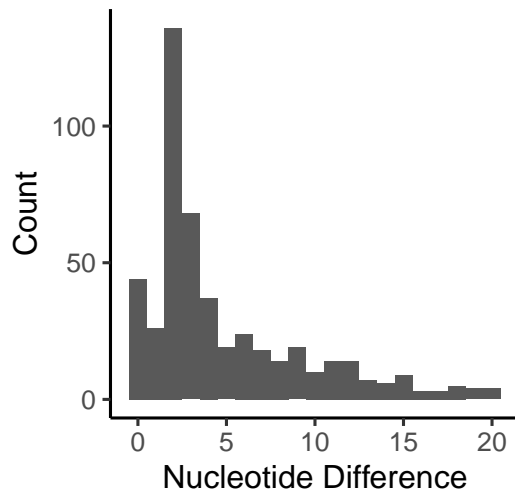
IGHV3-30*04

10790 sequences assigned
4408 (40.9%) exact matches, in which:
3443 unique CDR3
7 unique J



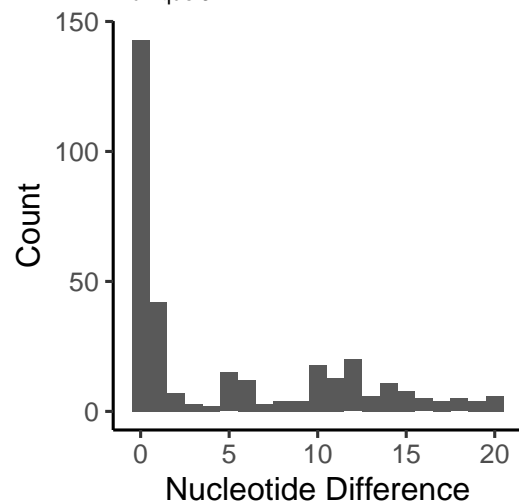
IGHV3-33*06

629 sequences assigned
44 (7%) exact matches, in which:
42 unique CDR3
5 unique J



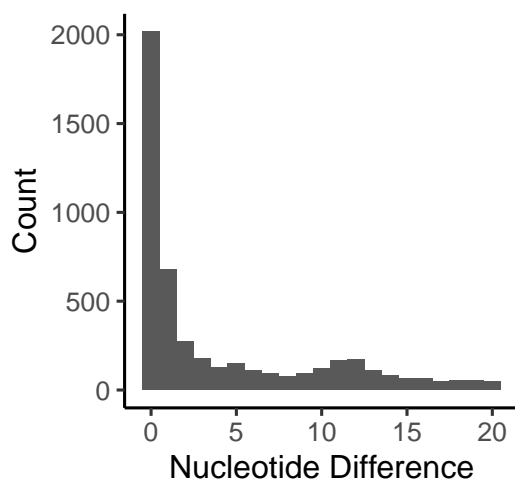
IGHV3-43*01

383 sequences assigned
143 (37.3%) exact matches, in which:
115 unique CDR3
7 unique J



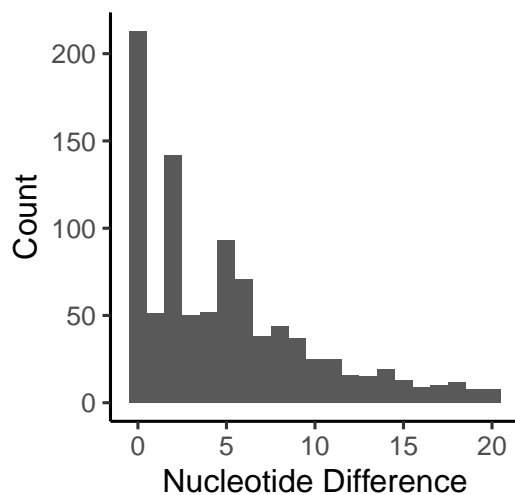
IGHV3-30*18

5681 sequences assigned
2017 (35.5%) exact matches, in which:
1610 unique CDR3
7 unique J



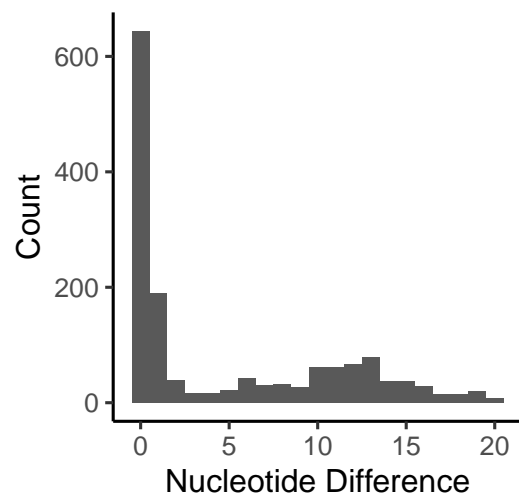
IGHV3-33*08

1184 sequences assigned
213 (18%) exact matches, in which:
202 unique CDR3
7 unique J



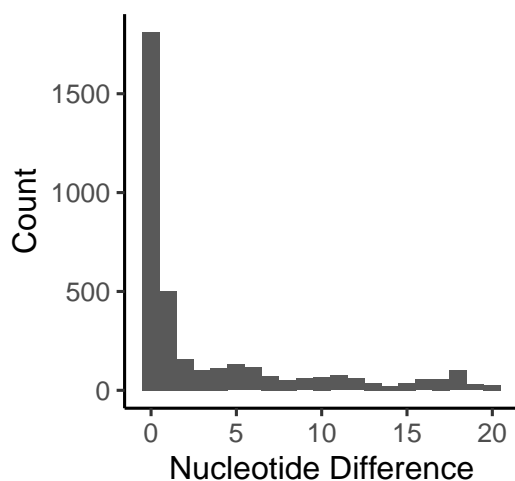
IGHV3-43*02

2029 sequences assigned
644 (31.7%) exact matches, in which:
471 unique CDR3
6 unique J



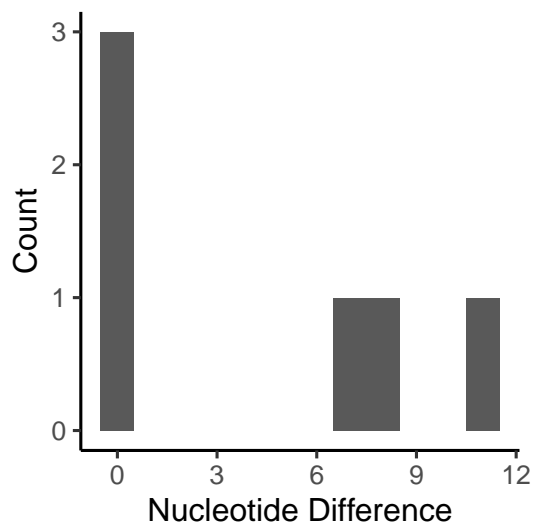
IGHV3-33*01

3889 sequences assigned
1812 (46.6%) exact matches, in which:
1460 unique CDR3
7 unique J



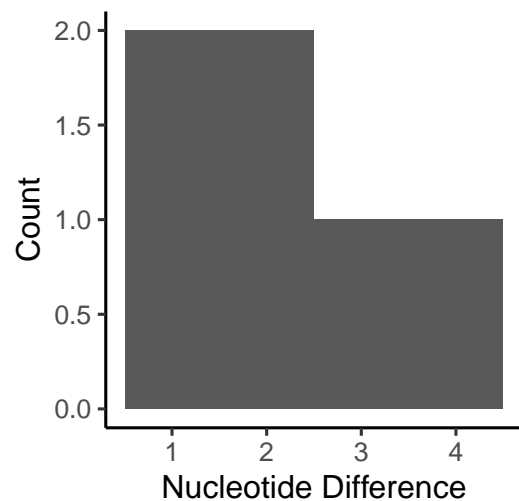
IGHV3-35*01

6 sequences assigned
3 (50%) exact matches, in which:
2 unique CDR3
1 unique J



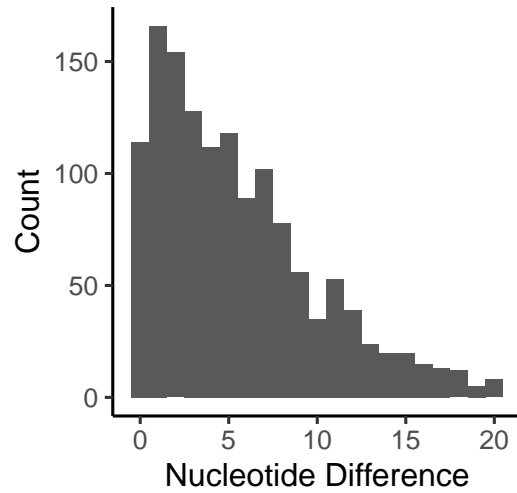
IGHV3-47*02

8 sequences assigned
No exact matches.



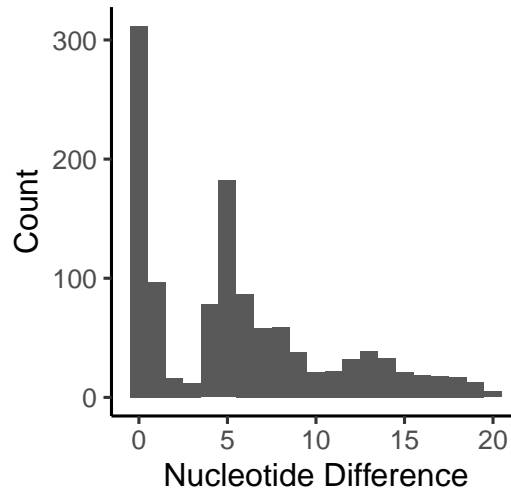
IGHV3-48*01

1473 sequences assigned
114 (7.7%) exact matches, in which:
113 unique CDR3
7 unique J



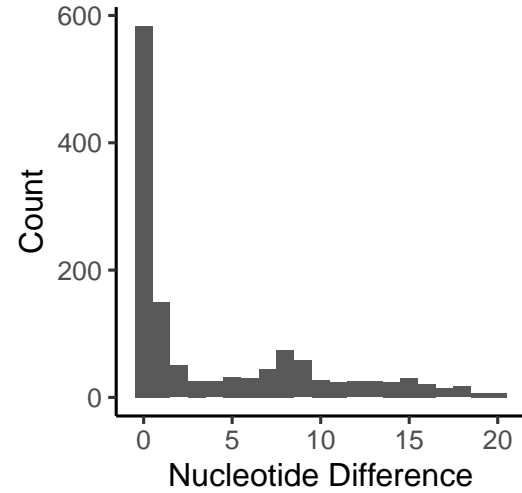
IGHV3-49*04

1413 sequences assigned
312 (22.1%) exact matches, in which:
265 unique CDR3
7 unique J



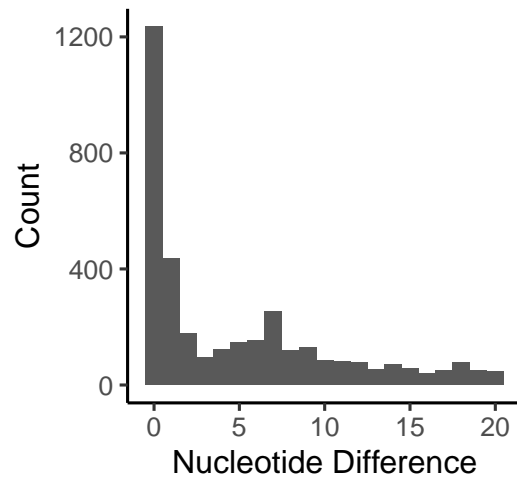
IGHV3-53*04

1492 sequences assigned
584 (39.1%) exact matches, in which:
449 unique CDR3
7 unique J



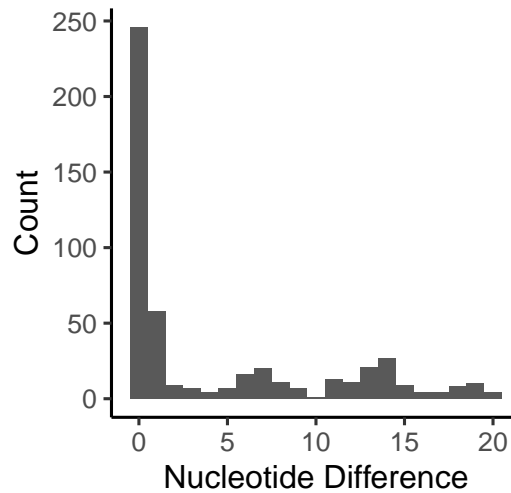
IGHV3-48*02

3990 sequences assigned
1235 (31%) exact matches, in which:
947 unique CDR3
7 unique J



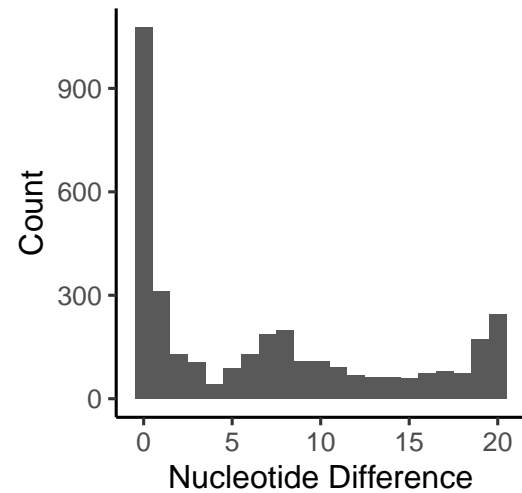
IGHV3-49*03_05

506 sequences assigned
246 (48.6%) exact matches, in which:
208 unique CDR3
7 unique J



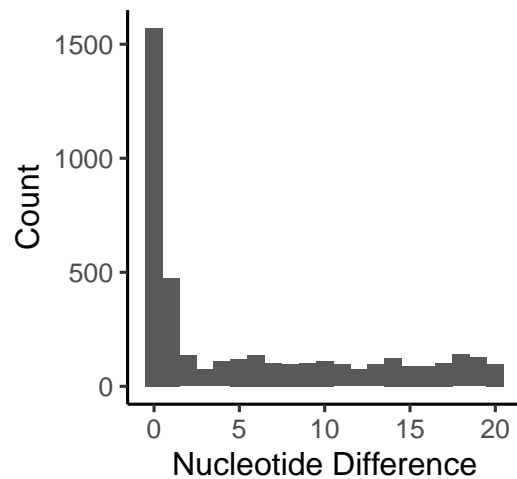
IGHV3-53*01_02

5278 sequences assigned
1078 (20.4%) exact matches, in which:
861 unique CDR3
7 unique J



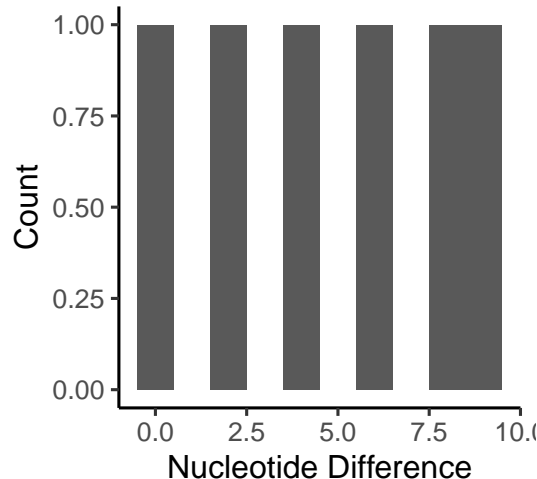
IGHV3-48*03

4686 sequences assigned
1571 (33.5%) exact matches, in which:
1204 unique CDR3
7 unique J



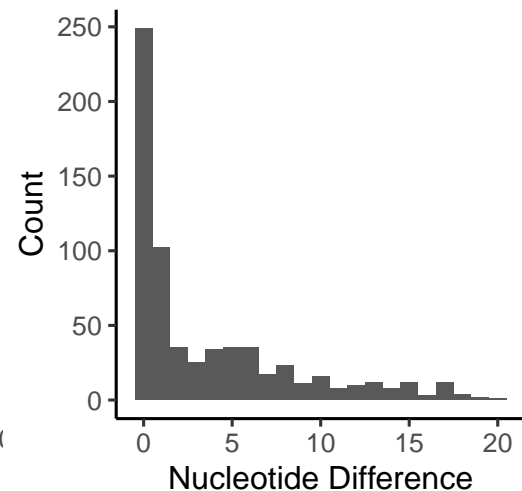
IGHV3-52*01_03

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



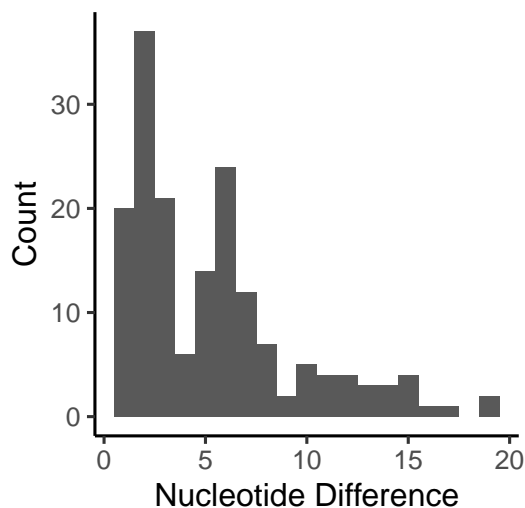
IGHV3-64*01

789 sequences assigned
249 (31.6%) exact matches, in which:
186 unique CDR3
7 unique J



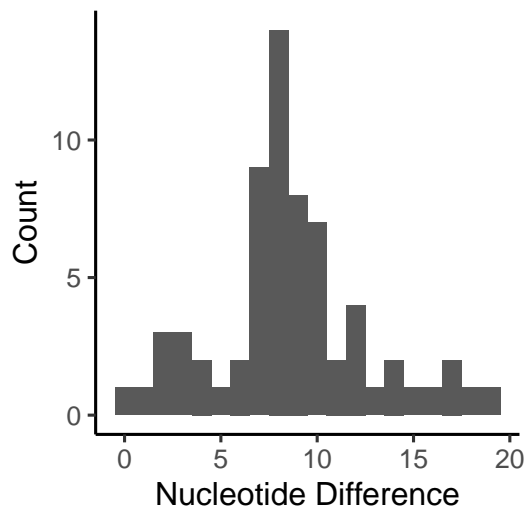
IGHV3-64*04

175 sequences assigned
No exact matches.



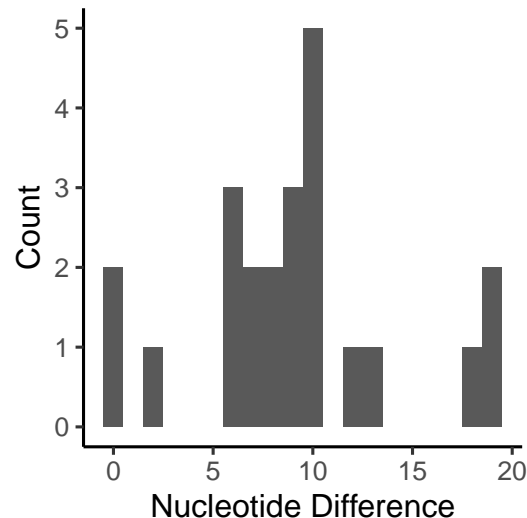
IGHV3-66*02

140 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



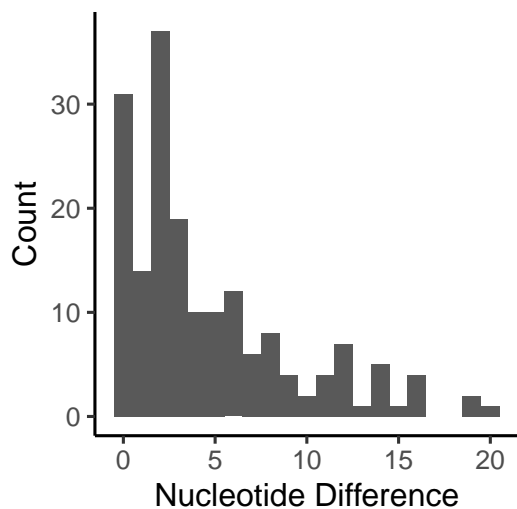
IGHV3-69-1*02

134 sequences assigned
2 (1.5%) exact matches, in which:
1 unique CDR3
1 unique J



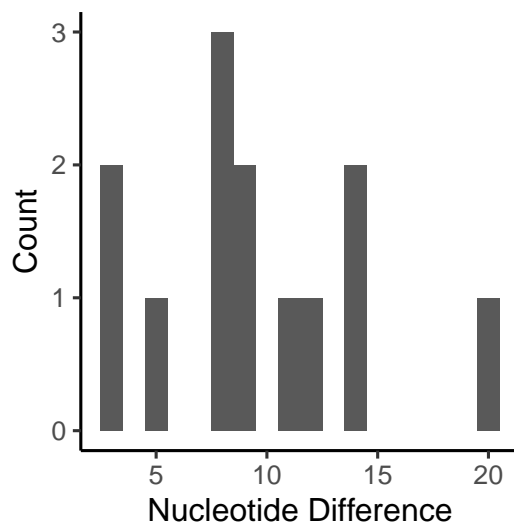
IGHV3-64*04_A210C_A210D

182 sequences assigned
31 (17%) exact matches, in which:
31 unique CDR3
4 unique J



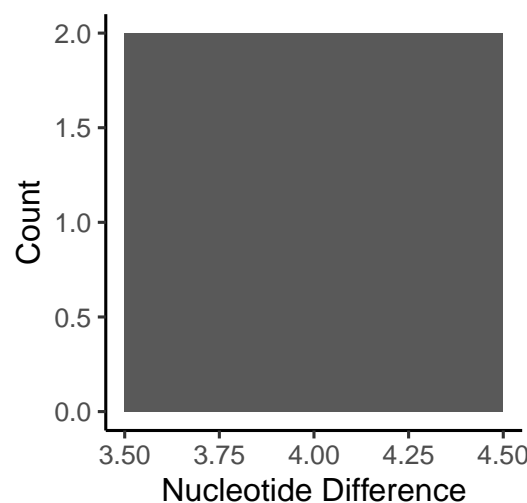
IGHV3-66*04

25 sequences assigned
No exact matches.



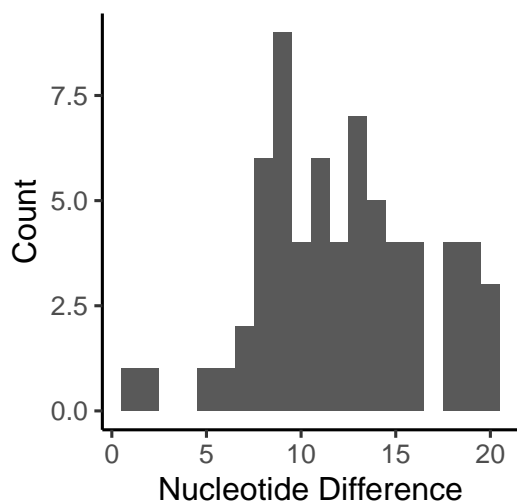
IGHV3-71*03

2 sequences assigned
No exact matches.



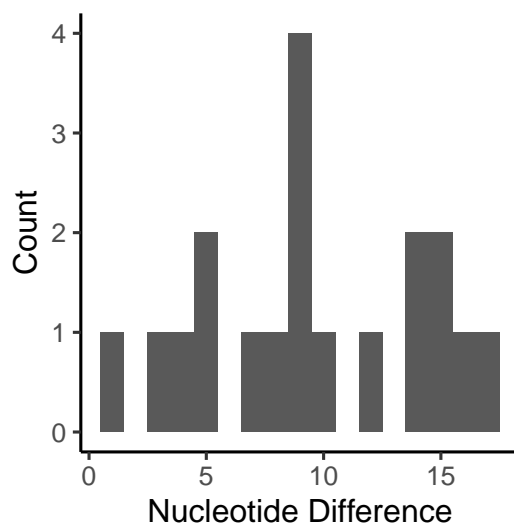
IGHV3-66*01

83 sequences assigned
No exact matches.



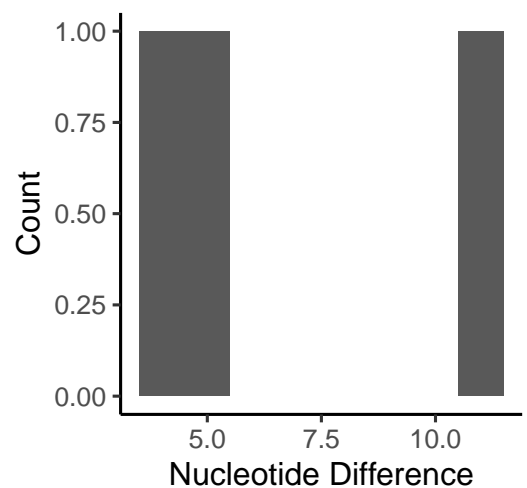
IGHV3-69-1*01

33 sequences assigned
No exact matches.



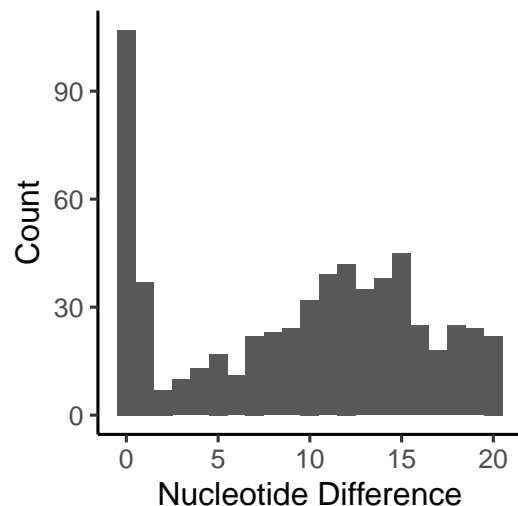
IGHV3-71*01_04

5 sequences assigned
No exact matches.



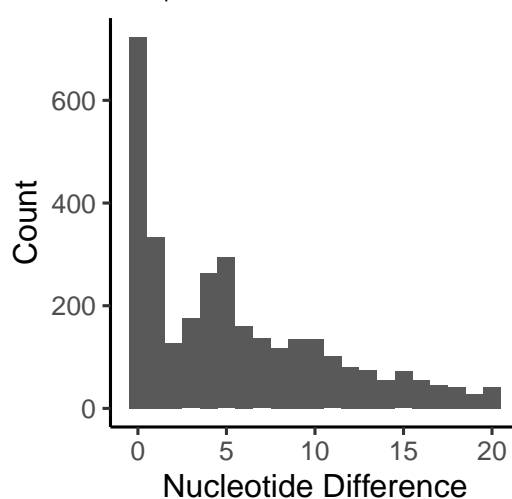
IGHV3-72*01

720 sequences assigned
107 (14.9%) exact matches, in which:
80 unique CDR3
6 unique J



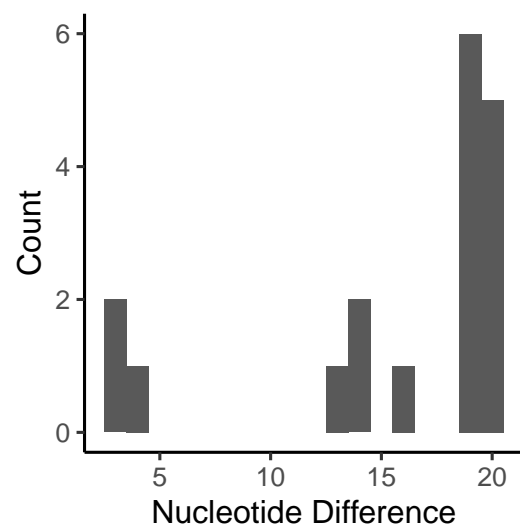
IGHV3-74*01_02

3620 sequences assigned
724 (20%) exact matches, in which:
564 unique CDR3
7 unique J



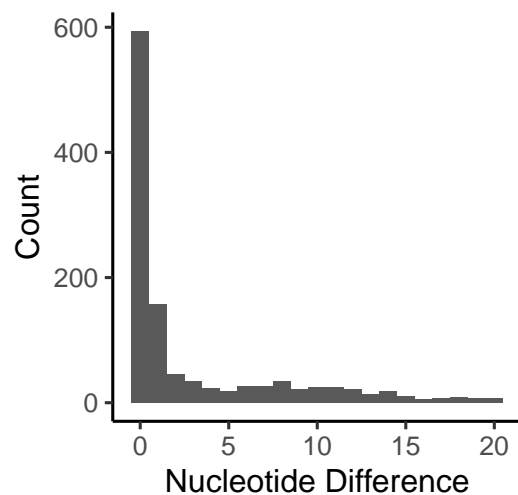
IGHV3-64D*08

26 sequences assigned
No exact matches.



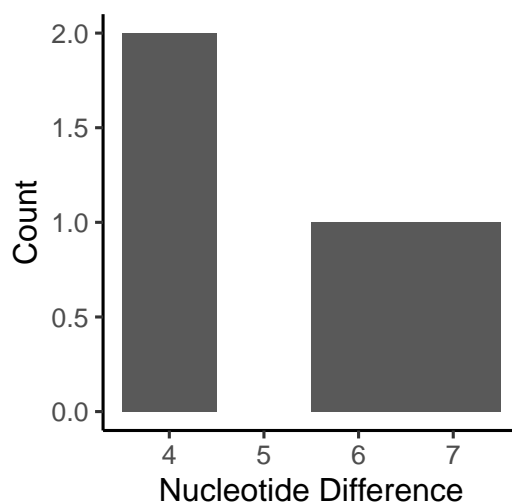
IGHV3-73*01_02

1393 sequences assigned
594 (42.6%) exact matches, in which:
467 unique CDR3
7 unique J



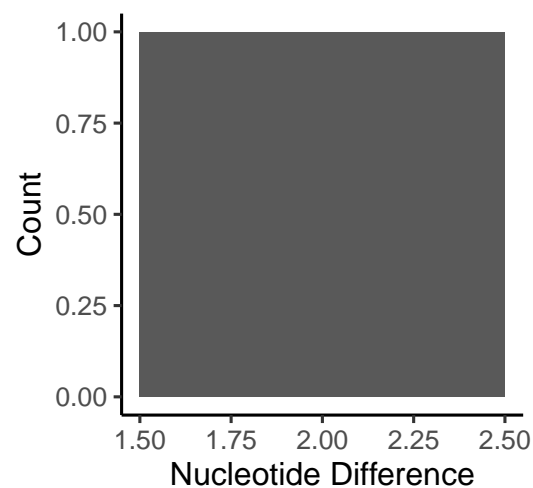
IGHV3-43D*04

4 sequences assigned
No exact matches.



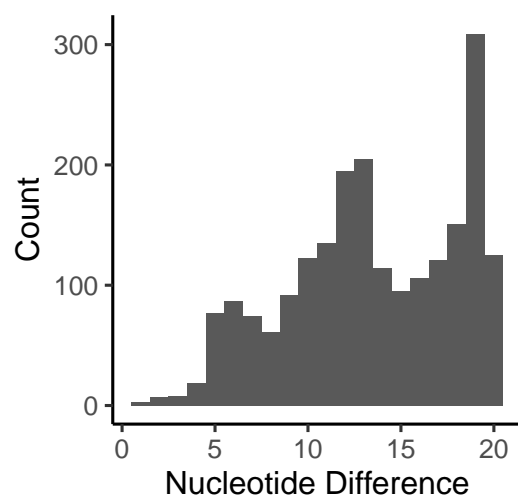
IGHV3-64D*09

6 sequences assigned
No exact matches.



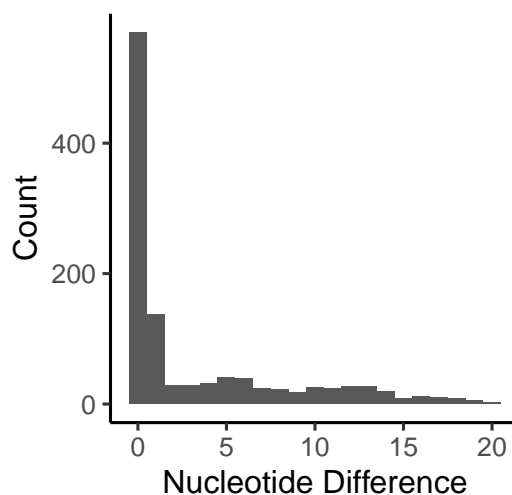
IGHV3-74*03

3907 sequences assigned
No exact matches.



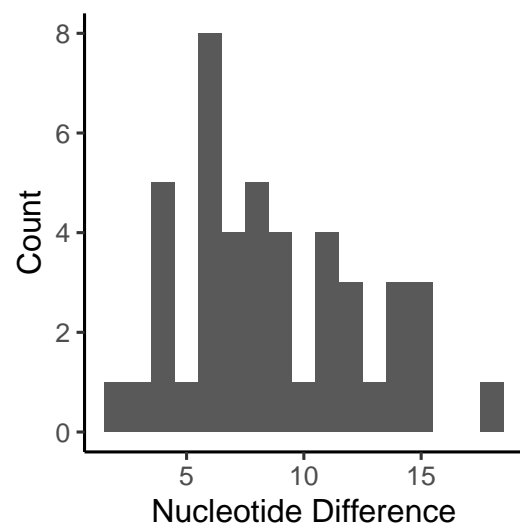
IGHV3-64D*06

1137 sequences assigned
570 (50.1%) exact matches, in which:
382 unique CDR3
7 unique J



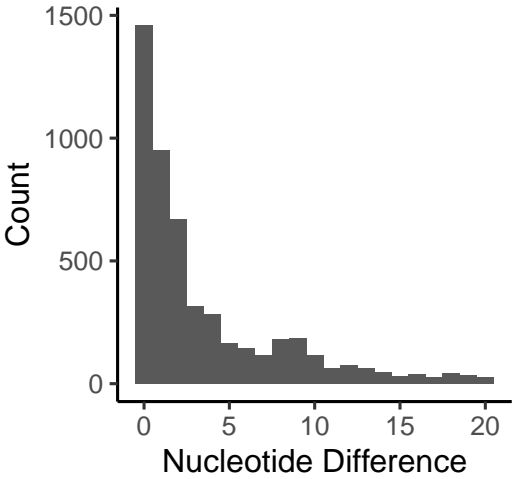
IGHV3-NL1*01

64 sequences assigned
No exact matches.



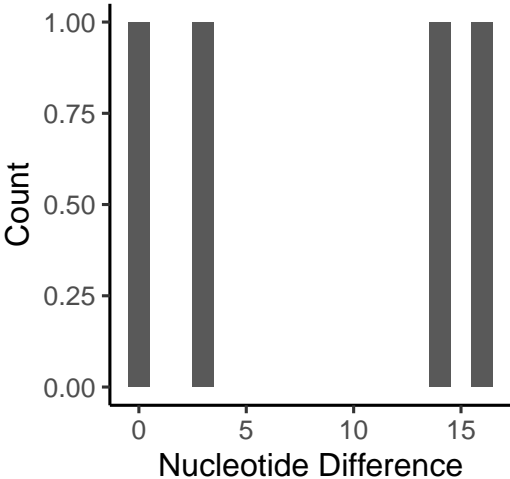
IGHV4-4*07

6788 sequences assigned
1459 (21.5%) exact matches, in which:
1380 unique CDR3
7 unique J



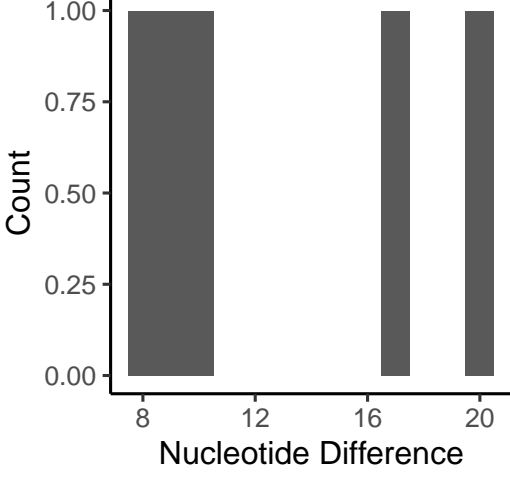
IGHV4-28*02_05

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



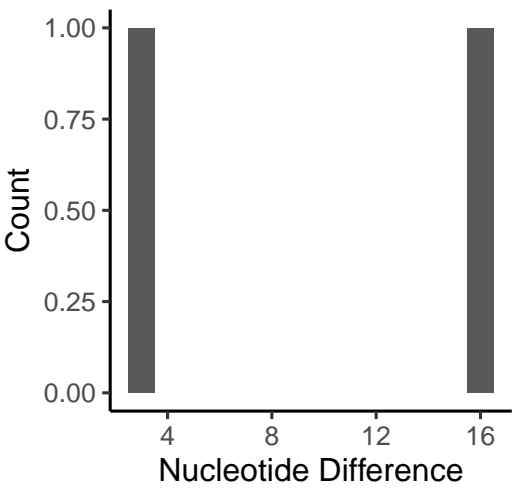
IGHV4-30-4*08

11 sequences assigned
No exact matches.



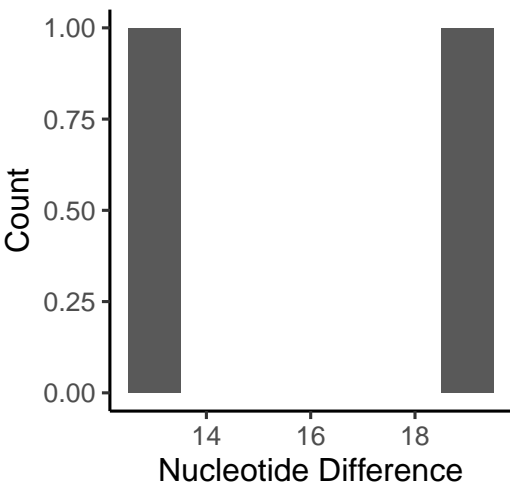
IGHV4-28*03

2 sequences assigned
No exact matches.



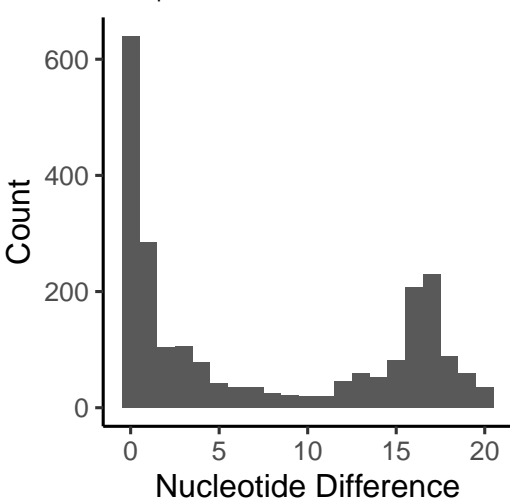
IGHV4-30-4*01

9 sequences assigned
No exact matches.



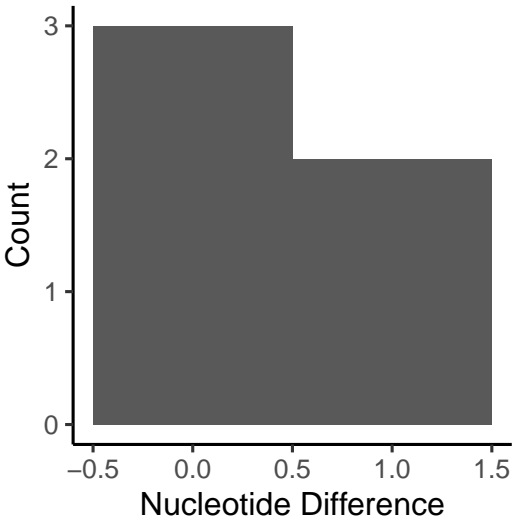
IGHV4-31*02

2546 sequences assigned
640 (25.1%) exact matches, in which:
616 unique CDR3
7 unique J



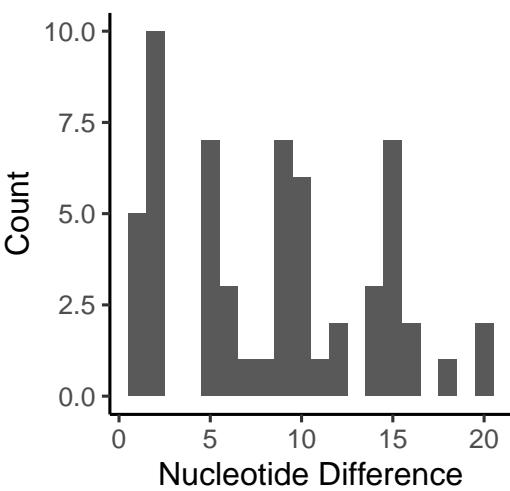
IGHV4-28*01_07

5 sequences assigned
3 (60%) exact matches, in which:
3 unique CDR3
3 unique J



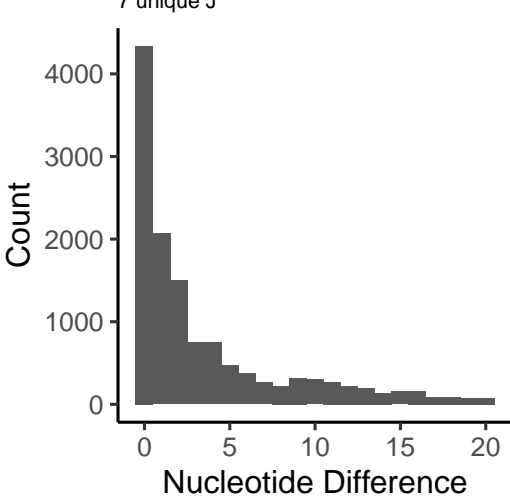
IGHV4-30-2*03

81 sequences assigned
No exact matches.



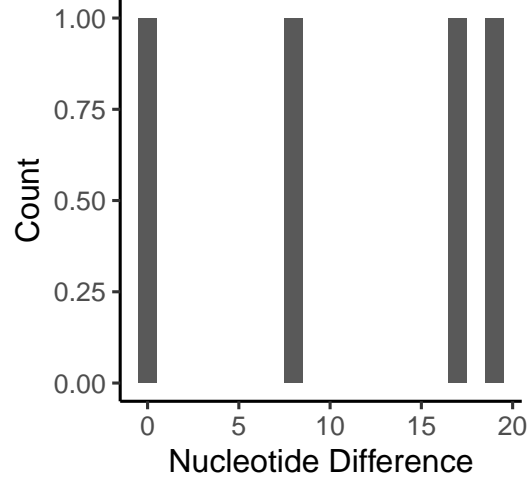
IGHV4-34*01_02

14784 sequences assigned
4337 (29.3%) exact matches, in which:
4082 unique CDR3
7 unique J



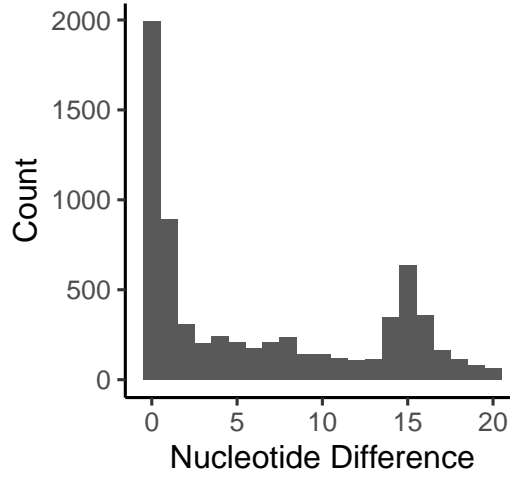
IGHV4-38-2*01

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



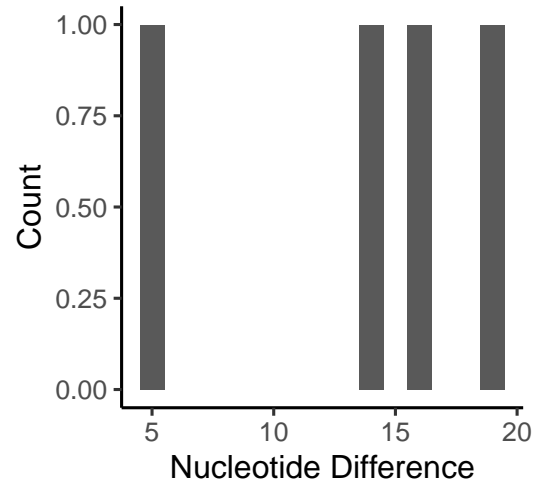
IGHV4-59*08

8043 sequences assigned
1992 (24.8%) exact matches, in which:
1855 unique CDR3
7 unique J



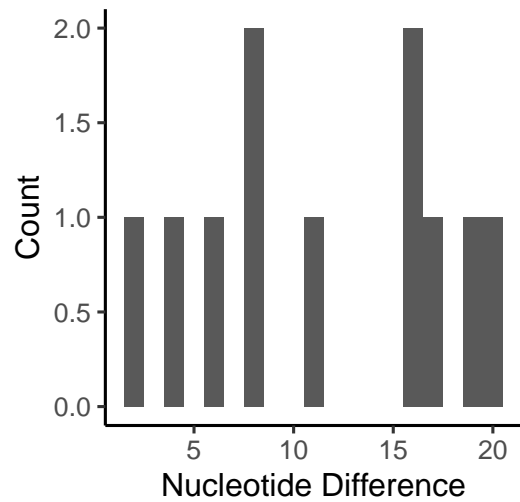
IGHV1/OR15-2*02_03

6 sequences assigned
No exact matches.



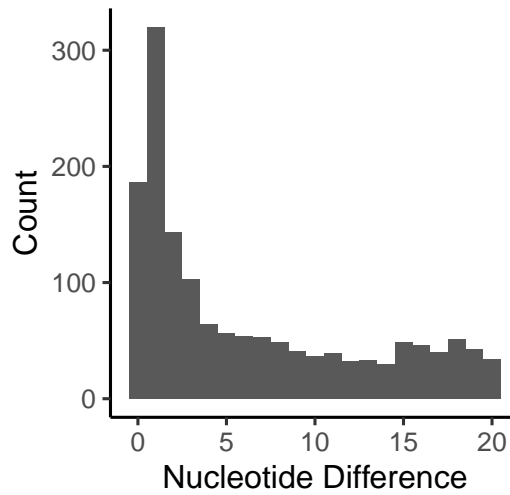
IGHV4-38-2*02

18 sequences assigned
No exact matches.



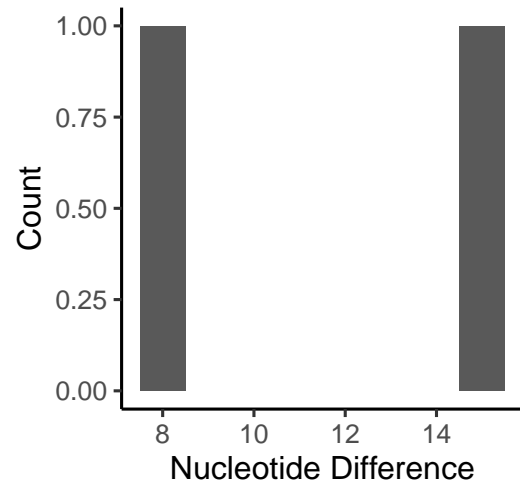
IGHV4-59*12

2076 sequences assigned
186 (9%) exact matches, in which:
186 unique CDR3
6 unique J



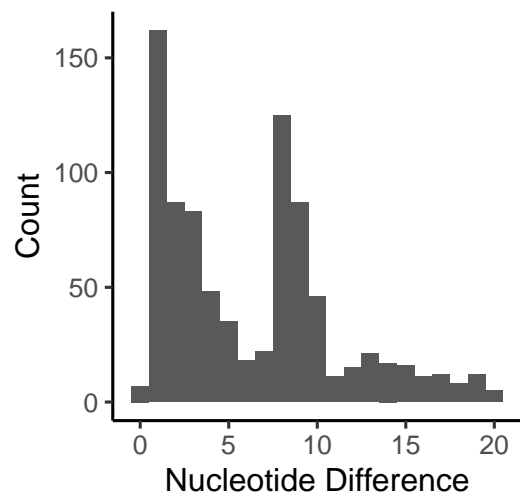
IGHV1/OR15-3*02

2 sequences assigned
No exact matches.



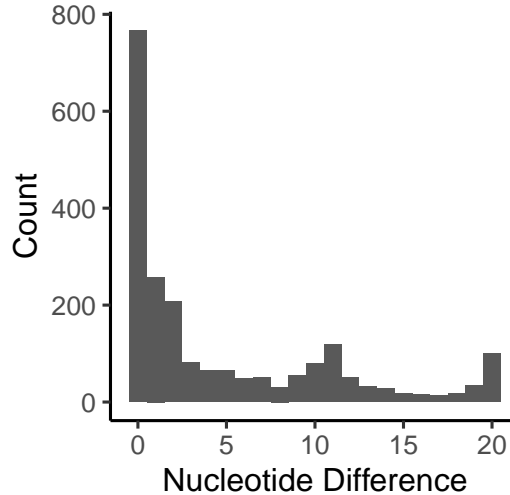
IGHV4-39*07

1439 sequences assigned
7 (0.5%) exact matches, in which:
7 unique CDR3
3 unique J



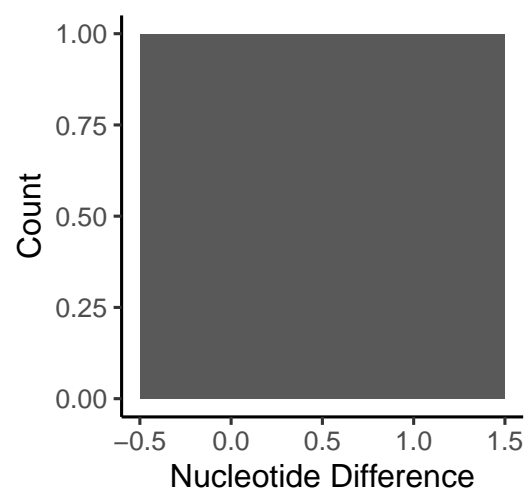
IGHV4-61*01

2650 sequences assigned
767 (28.9%) exact matches, in which:
743 unique CDR3
7 unique J



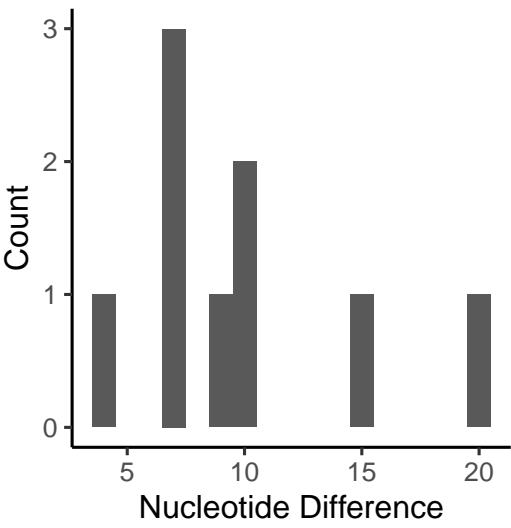
IGHV1/OR15-5*02

2 sequences assigned
1 (50%) exact matches, in which:
1 unique CDR3
1 unique J



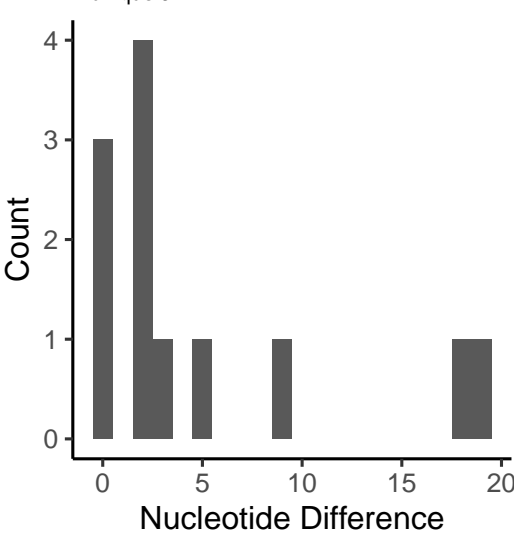
IGHV4/OR15-8*01

11 sequences assigned
No exact matches.



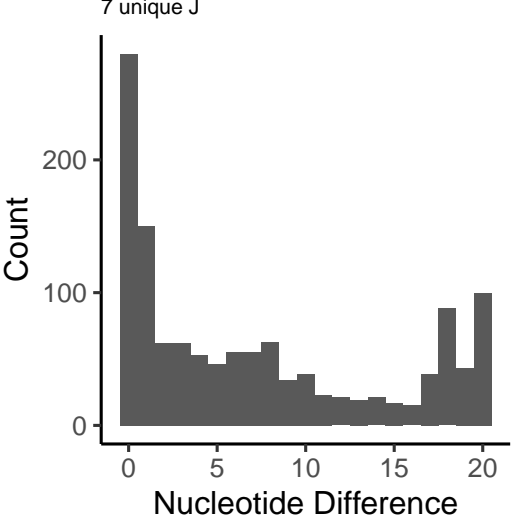
IGHV5-51*04

24 sequences assigned
3 (12.5%) exact matches, in which:
3 unique CDR3
2 unique J



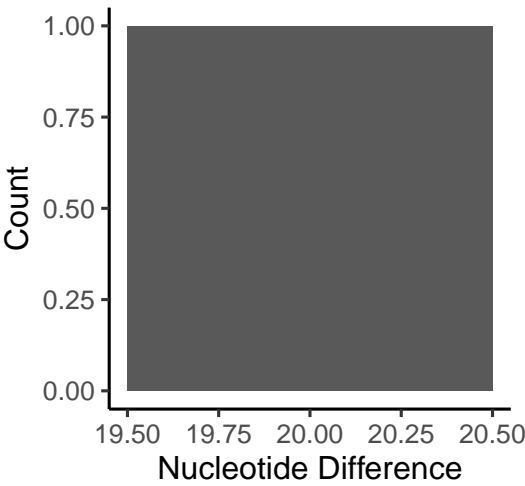
IGHV6-1*01_02

1739 sequences assigned
280 (16.1%) exact matches, in which:
269 unique CDR3
7 unique J



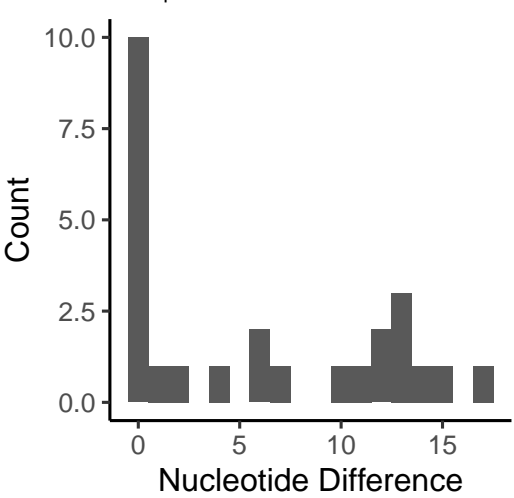
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



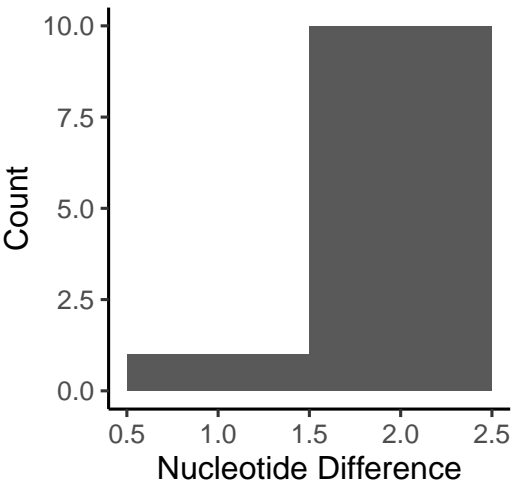
IGHV5-51*06

31 sequences assigned
10 (32.3%) exact matches, in which:
10 unique CDR3
6 unique J



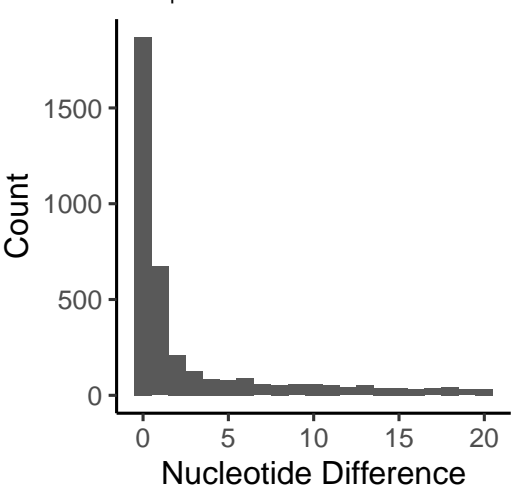
IGHV3/OR16-9*01

12 sequences assigned
No exact matches.



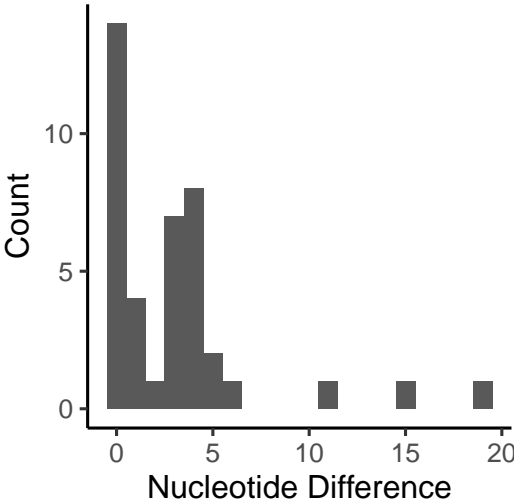
IGHV5-10-1*01_03

4059 sequences assigned
1870 (46.1%) exact matches, in which:
1513 unique CDR3
7 unique J



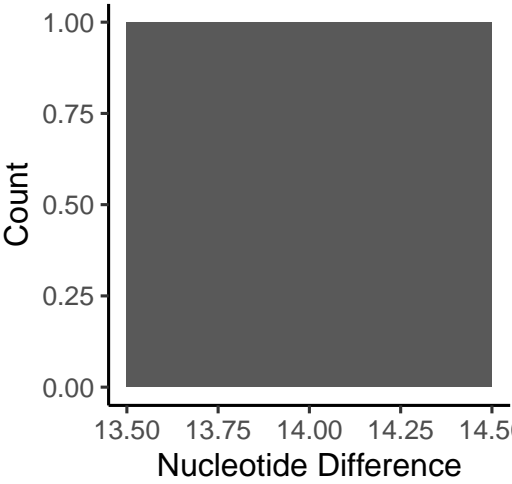
IGHV5-51*07

48 sequences assigned
14 (29.2%) exact matches, in which:
14 unique CDR3
4 unique J

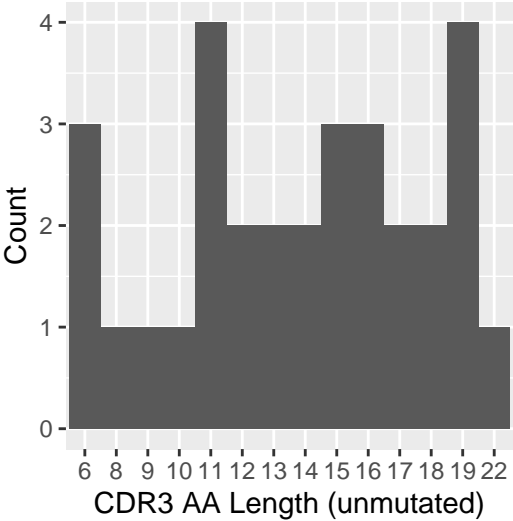


IGHV7-4-1*02

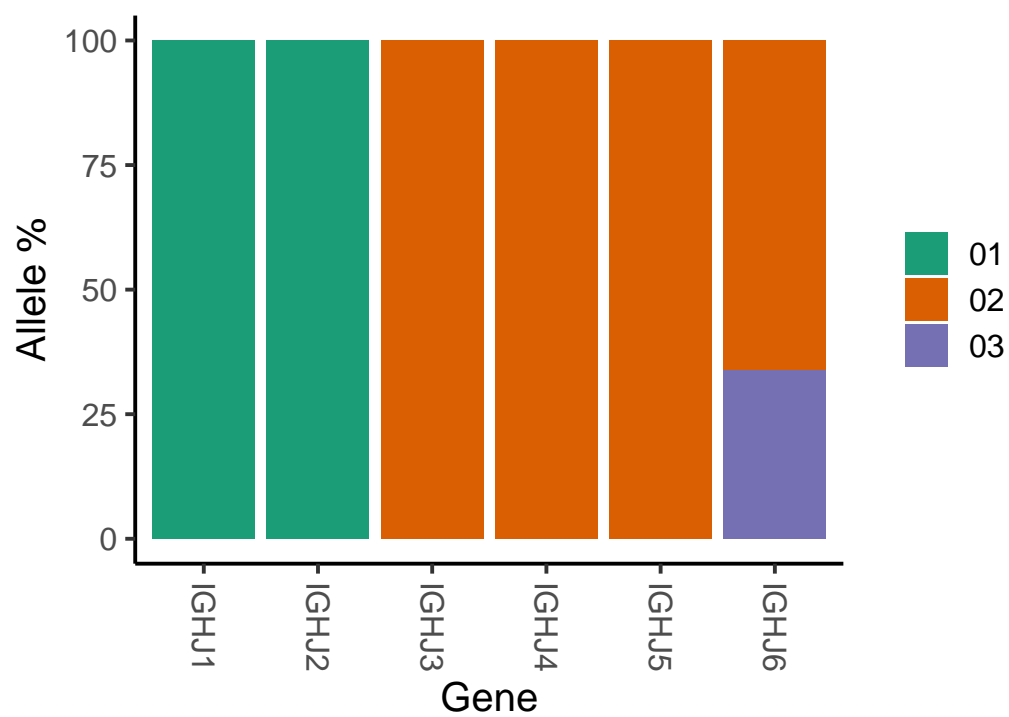
1 sequences assigned
No exact matches.



IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A



Allele Usage



Sequence Count by IGHJ6 allele usage

