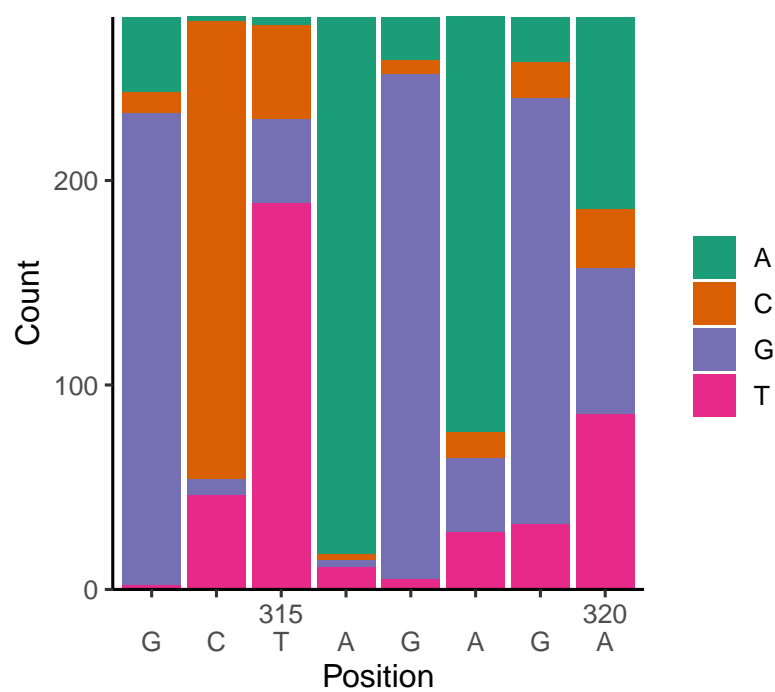
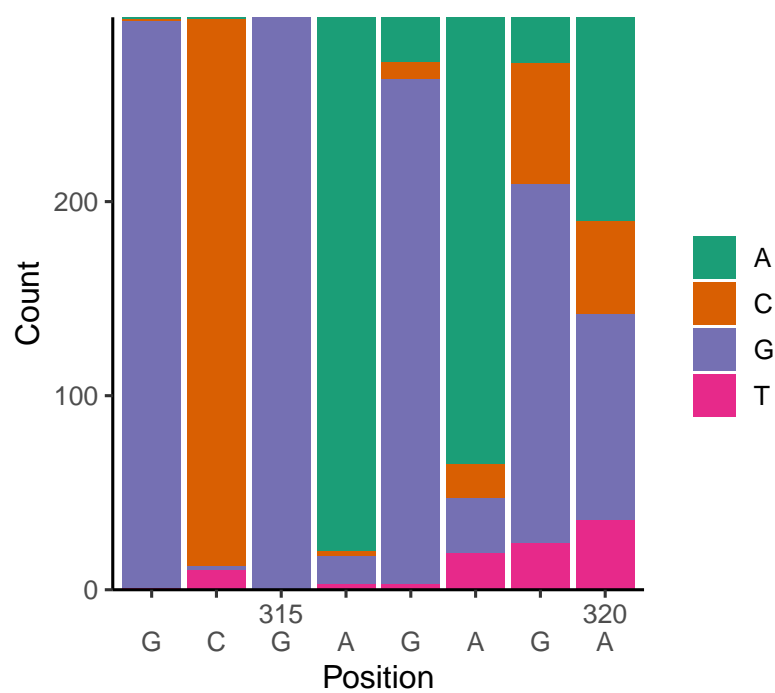


Gene IGHV3-72*01_T186C



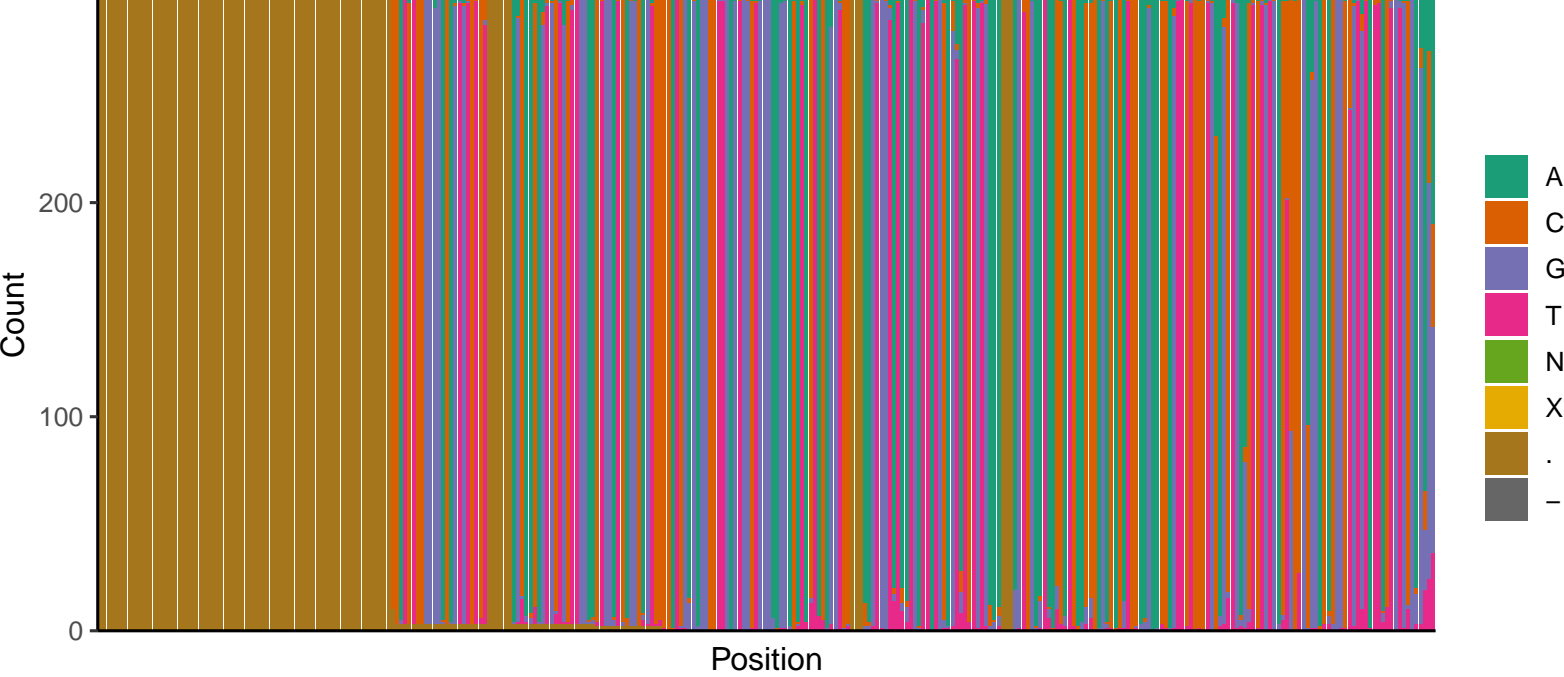
Gene IGHV6-1*01_02_A315G



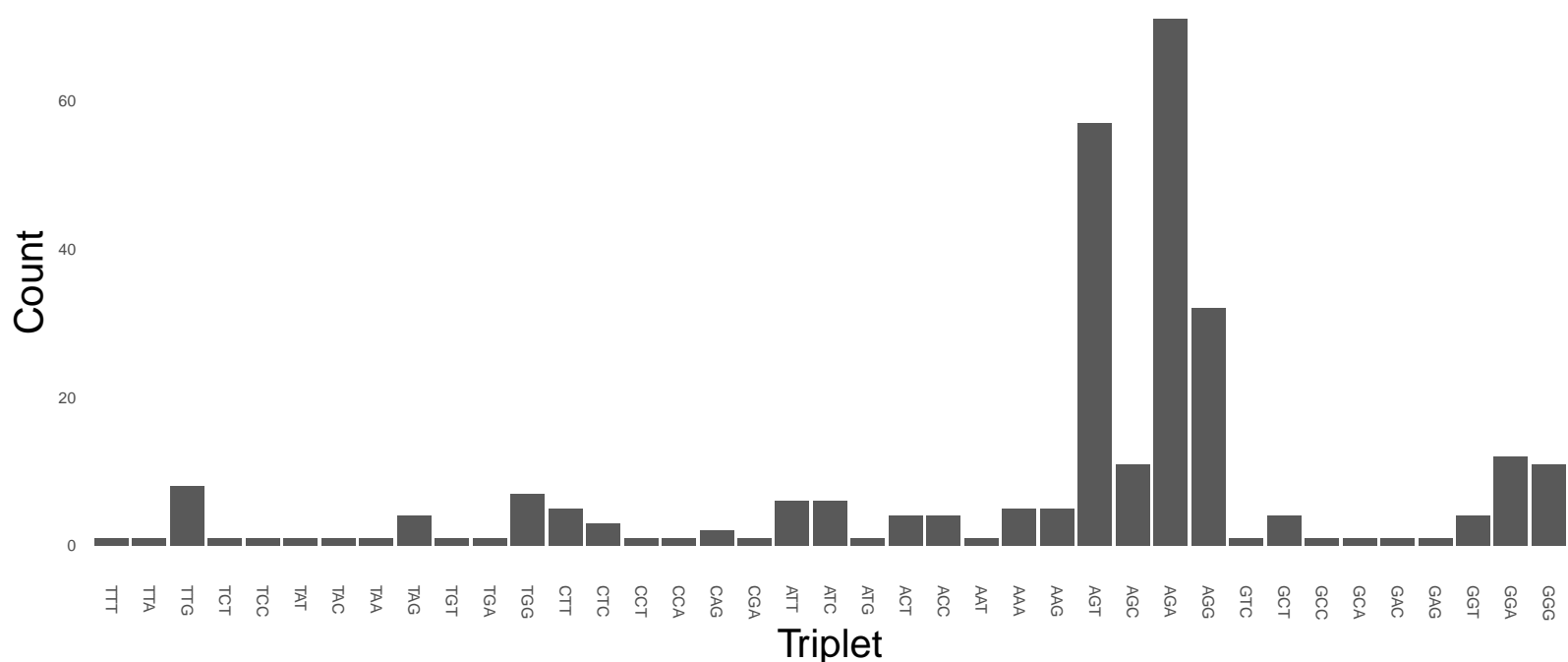
Gene IGHV3-72*01_T186C



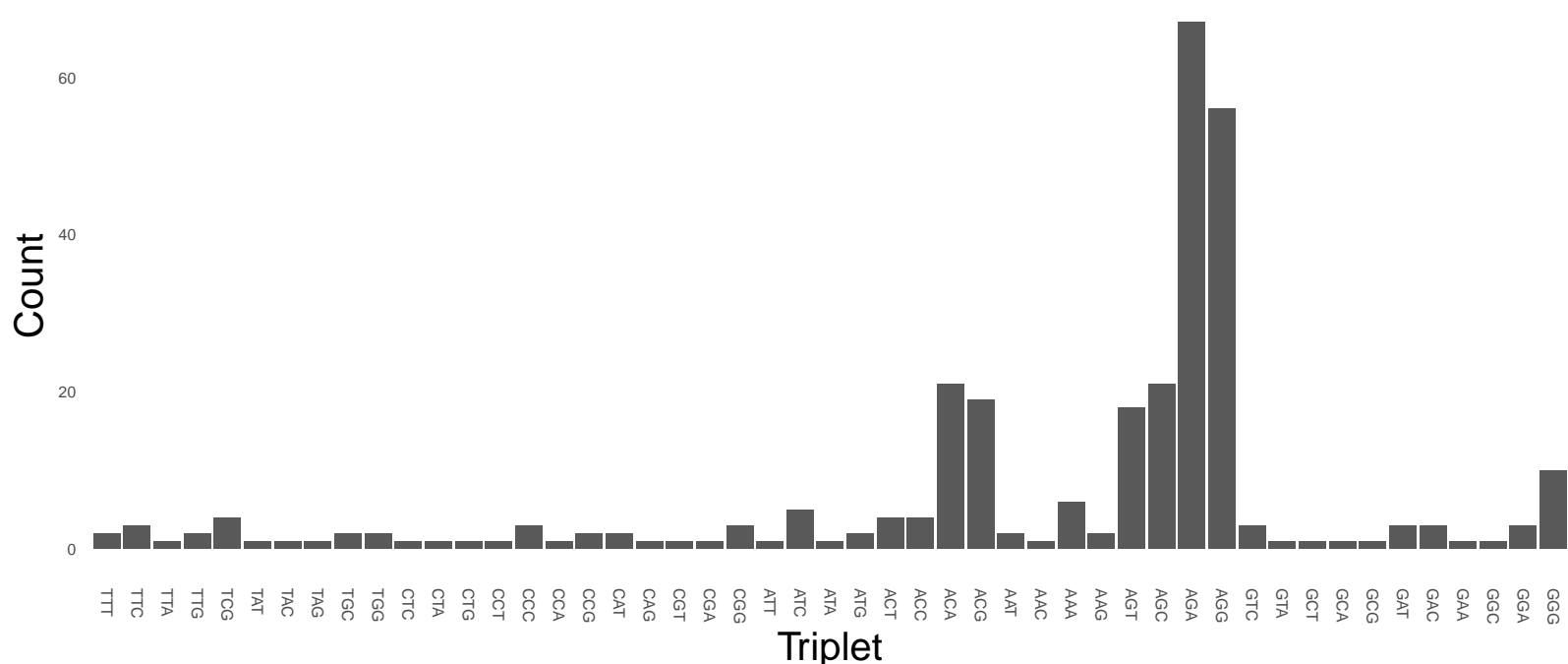
Gene IGHV6-1*01_02_A315G



IGHV3–72*01_T186C– Final 3 nucleotides as a triplet

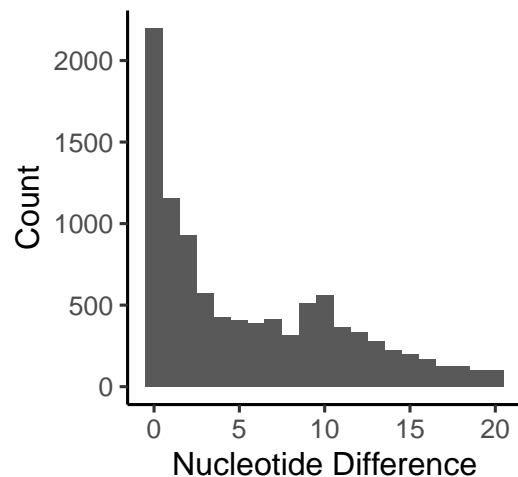


IGHV6–1*01_02_A315G– Final 3 nucleotides as a triplet



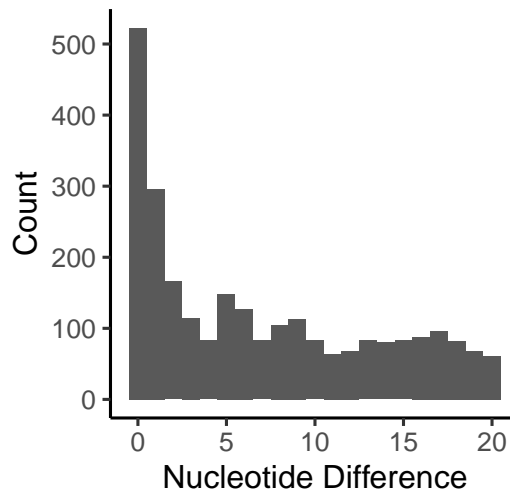
IGHV1-2*02

10270 sequences assigned
2197 (21.4%) exact matches, in which:
2078 unique CDR3
6 unique J



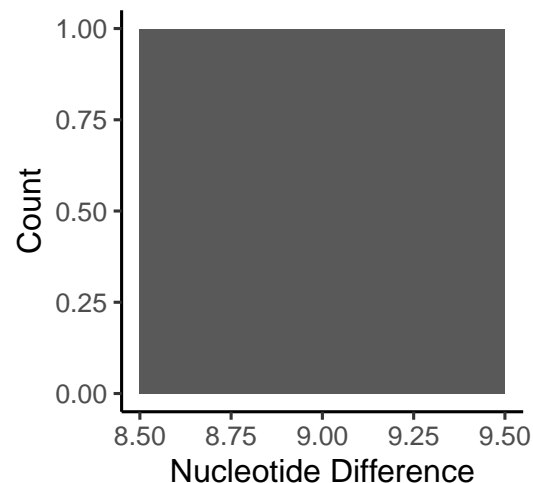
IGHV1-8*03

2851 sequences assigned
523 (18.3%) exact matches, in which:
497 unique CDR3
6 unique J



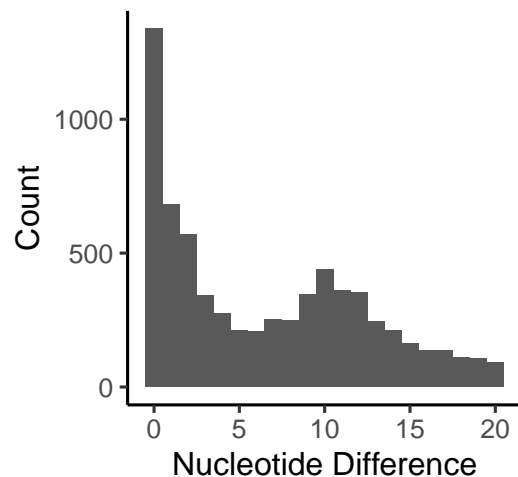
IGHV1-38-4*01

1 sequences assigned
No exact matches.



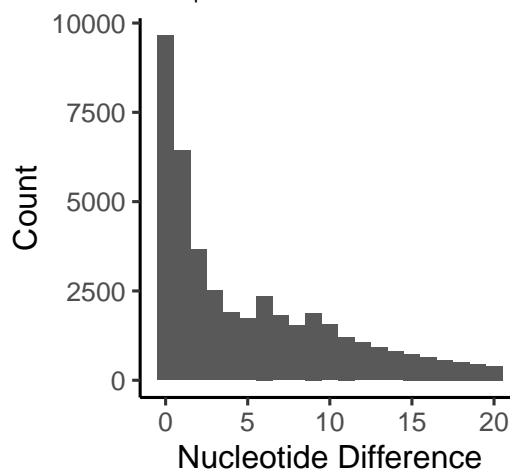
IGHV1-2*06

7203 sequences assigned
1338 (18.6%) exact matches, in which:
1293 unique CDR3
6 unique J



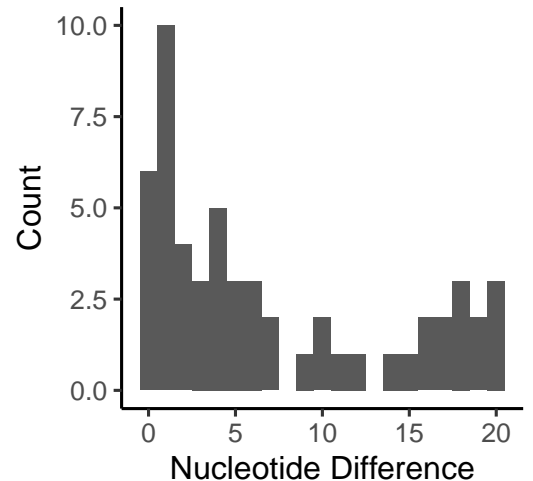
IGHV1-18*01

44850 sequences assigned
9652 (21.5%) exact matches, in which:
8645 unique CDR3
6 unique J



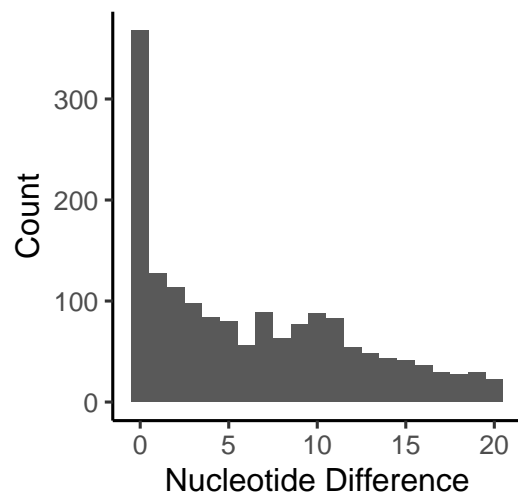
IGHV1-45*02

62 sequences assigned
6 (9.7%) exact matches, in which:
6 unique CDR3
3 unique J



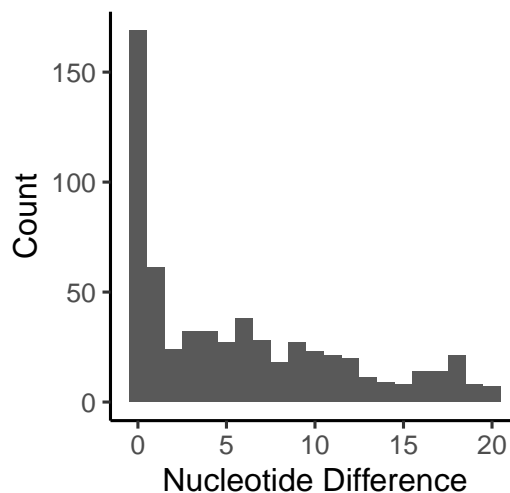
IGHV1-3*01_05

1825 sequences assigned
368 (20.2%) exact matches, in which:
360 unique CDR3
6 unique J



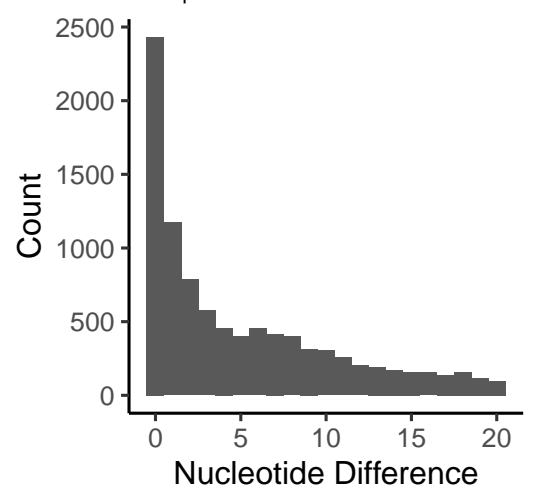
IGHV1-24*01

625 sequences assigned
169 (27%) exact matches, in which:
161 unique CDR3
6 unique J



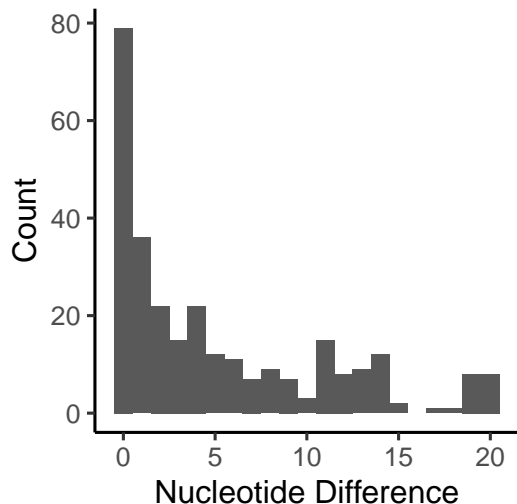
IGHV1-46*01

9900 sequences assigned
2432 (24.6%) exact matches, in which:
2300 unique CDR3
6 unique J



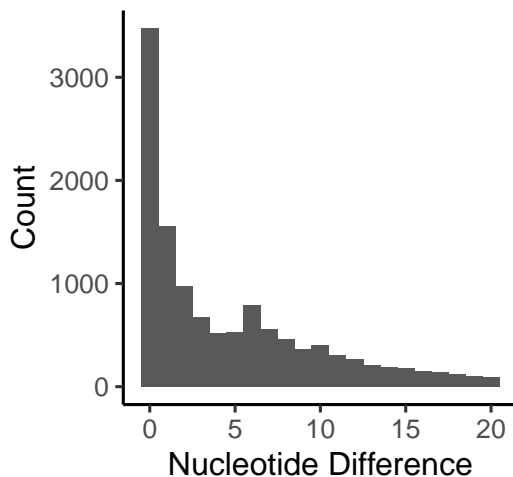
IGHV1-58*02

325 sequences assigned
79 (24.3%) exact matches, in which:
77 unique CDR3
5 unique J



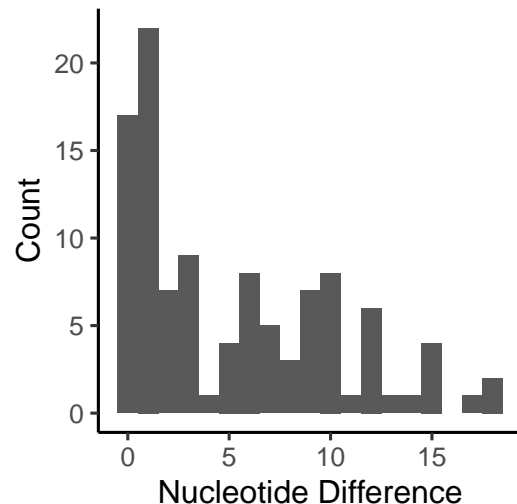
IGHV1-69*05

12632 sequences assigned
3474 (27.5%) exact matches, in which:
3323 unique CDR3
6 unique J



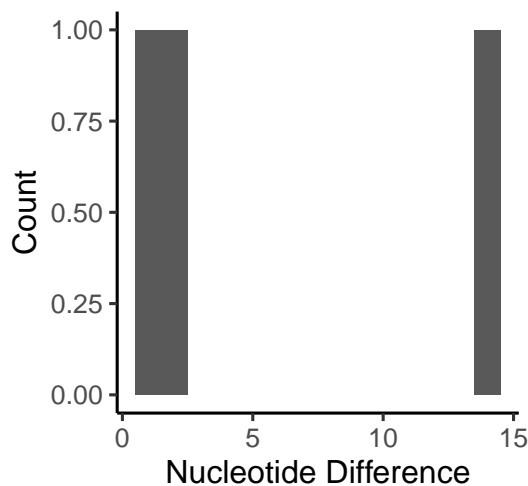
IGHV2-5*01

110 sequences assigned
17 (15.5%) exact matches, in which:
17 unique CDR3
6 unique J



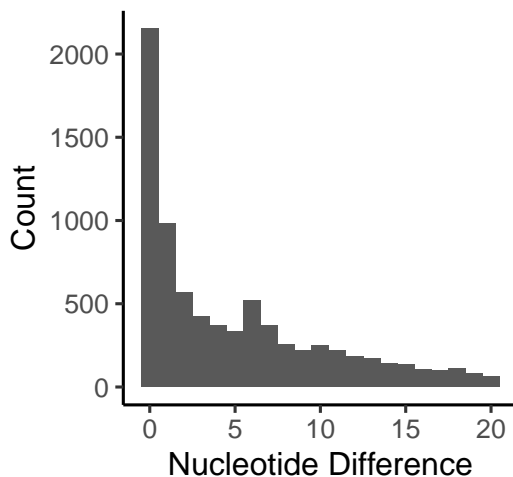
IGHV1-68*02_03

3 sequences assigned
No exact matches.



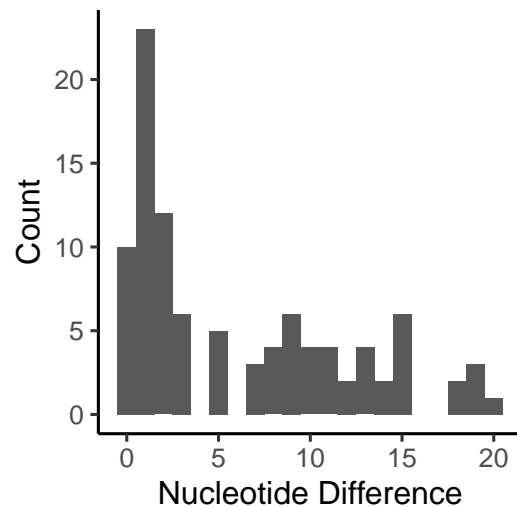
IGHV1-69*01_12_13

8155 sequences assigned
2152 (26.4%) exact matches, in which:
2065 unique CDR3
6 unique J



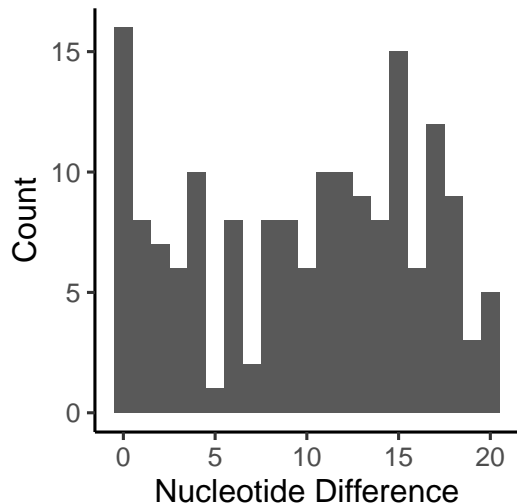
IGHV2-5*02

97 sequences assigned
10 (10.3%) exact matches, in which:
10 unique CDR3
4 unique J



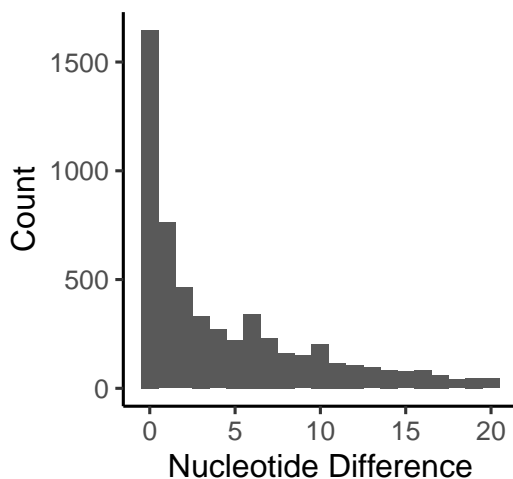
IGHV1-69-2*01

197 sequences assigned
16 (8.1%) exact matches, in which:
16 unique CDR3
4 unique J



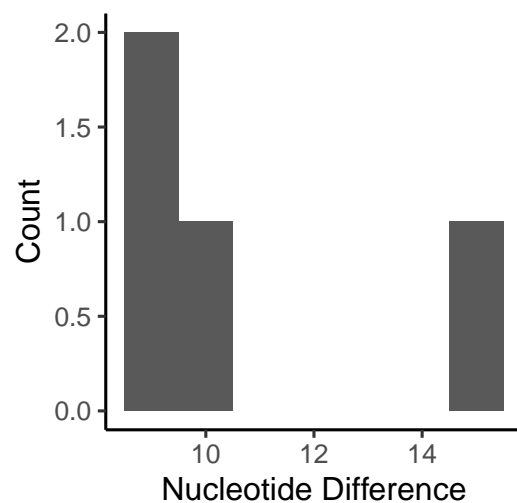
IGHV1-69*15_18

5800 sequences assigned
1647 (28.4%) exact matches, in which:
1588 unique CDR3
6 unique J



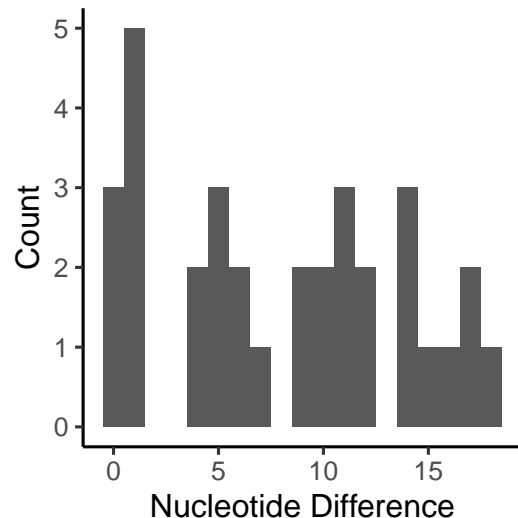
IGHV2-26*01

5 sequences assigned
No exact matches.



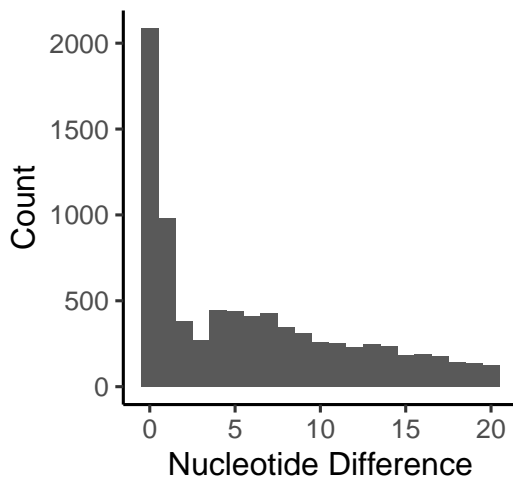
IGHV2-70*04

38 sequences assigned
3 (7.9%) exact matches, in which:
3 unique CDR3
2 unique J



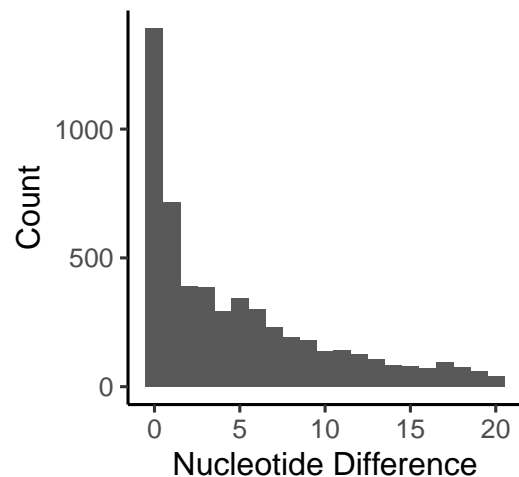
IGHV3-7*03

8723 sequences assigned
2086 (23.9%) exact matches, in which:
1993 unique CDR3
6 unique J



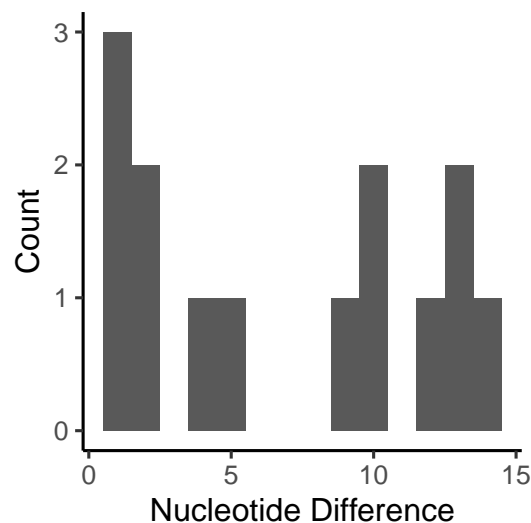
IGHV3-11*06

5690 sequences assigned
1391 (24.4%) exact matches, in which:
1323 unique CDR3
6 unique J



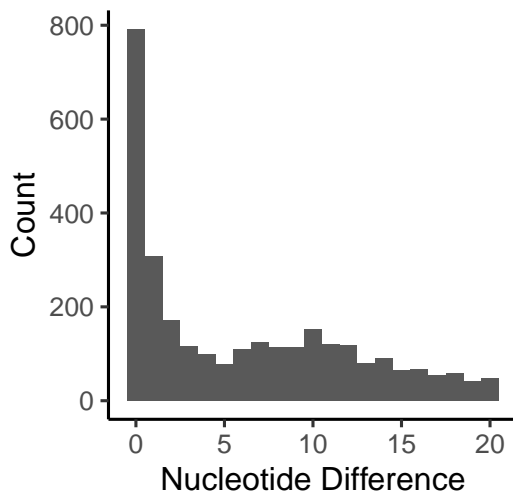
IGHV2-70*20

14 sequences assigned
No exact matches.



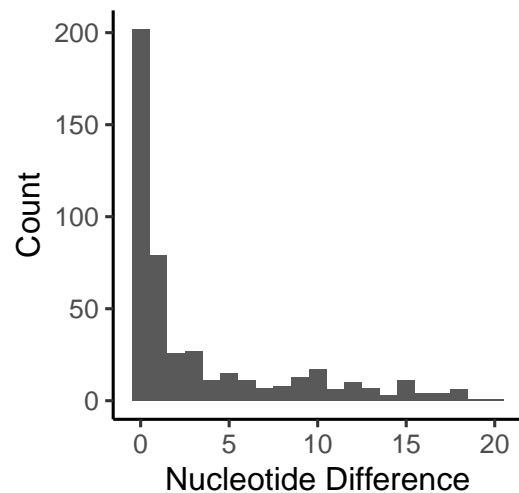
IGHV3-9*03

3046 sequences assigned
792 (26%) exact matches, in which:
741 unique CDR3
6 unique J



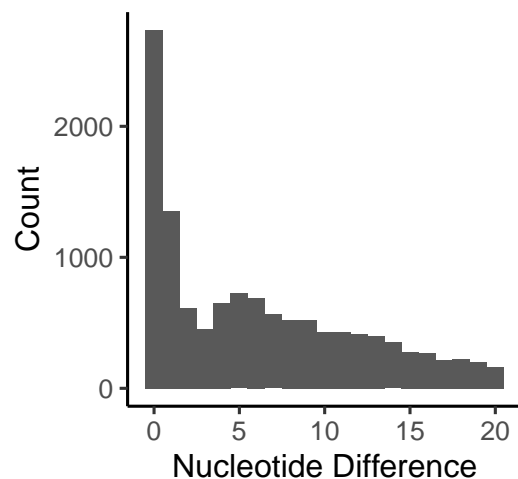
IGHV3-13*05

484 sequences assigned
202 (41.7%) exact matches, in which:
187 unique CDR3
5 unique J



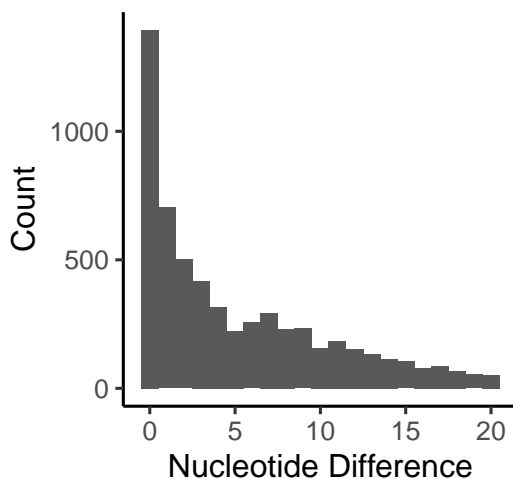
IGHV3-7*01

12860 sequences assigned
2735 (21.3%) exact matches, in which:
2614 unique CDR3
6 unique J



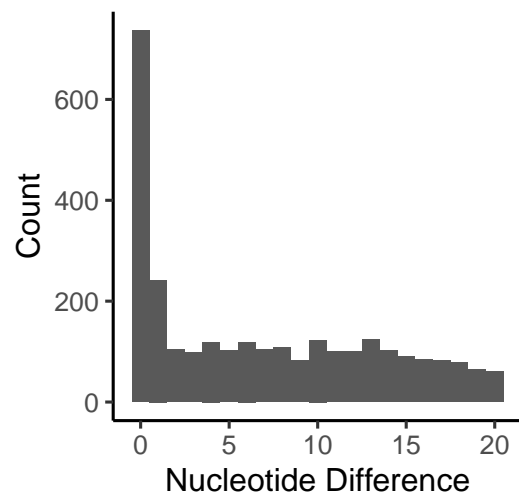
IGHV3-11*04

5957 sequences assigned
1394 (23.4%) exact matches, in which:
1325 unique CDR3
6 unique J



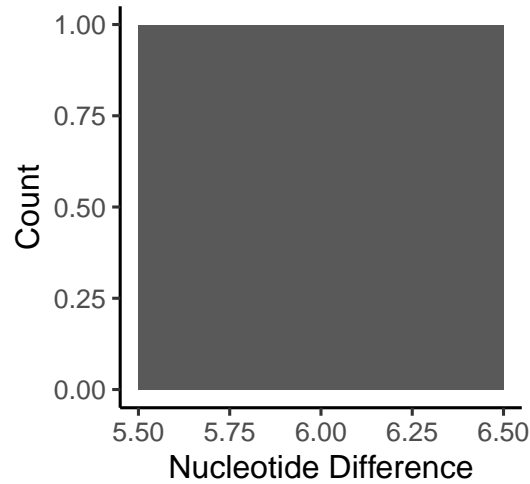
IGHV3-15*01_02

3268 sequences assigned
737 (22.6%) exact matches, in which:
720 unique CDR3
6 unique J



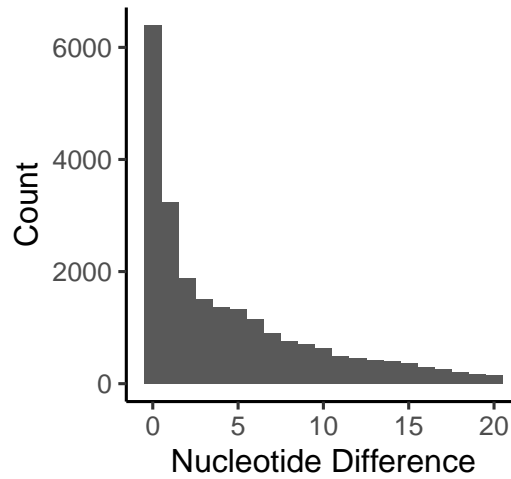
IGHV3-19*01

1 sequences assigned
No exact matches.



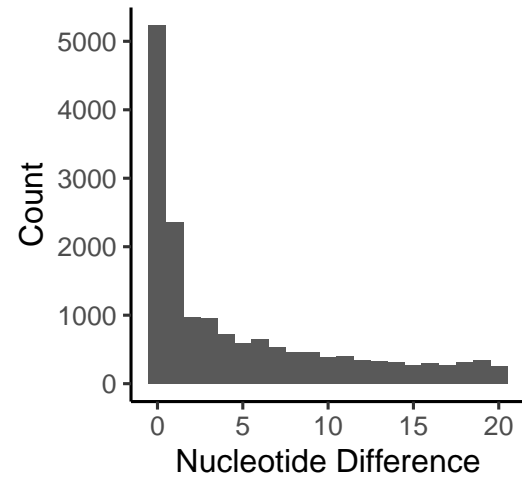
IGHV3-21*01_02

23711 sequences assigned
6392 (27%) exact matches, in which:
5986 unique CDR3
6 unique J



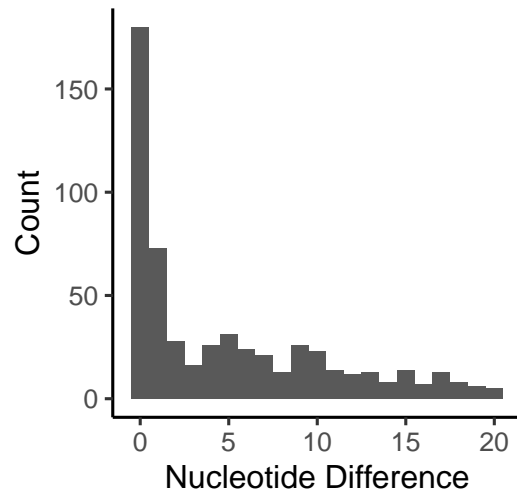
IGHV3-30*02

17473 sequences assigned
5232 (29.9%) exact matches, in which:
4753 unique CDR3
6 unique J



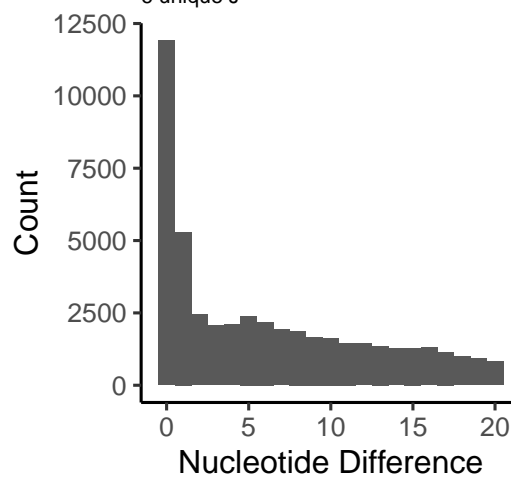
IGHV3-20*01_02

569 sequences assigned
180 (31.6%) exact matches, in which:
163 unique CDR3
6 unique J



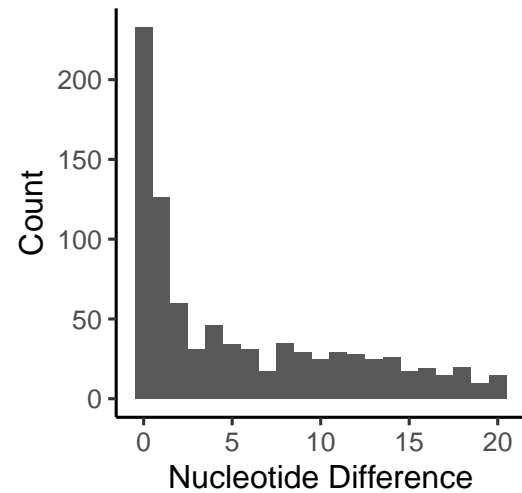
IGHV3-23*01_04

52285 sequences assigned
11914 (22.8%) exact matches, in which:
11181 unique CDR3
6 unique J



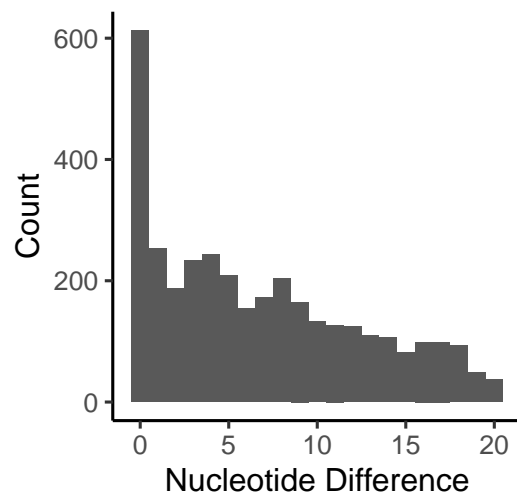
IGHV3-30*03

950 sequences assigned
233 (24.5%) exact matches, in which:
231 unique CDR3
6 unique J



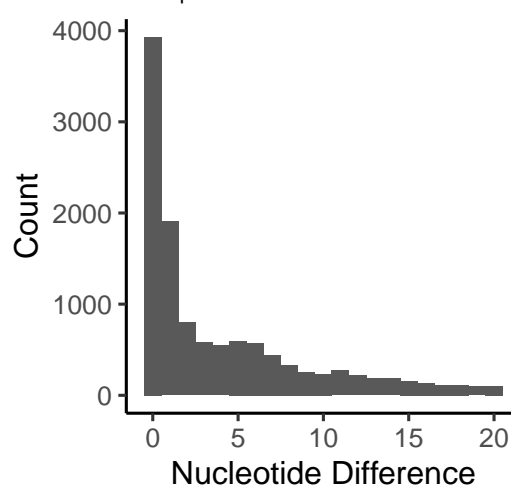
IGHV3-20*03_04

3605 sequences assigned
613 (17%) exact matches, in which:
584 unique CDR3
6 unique J



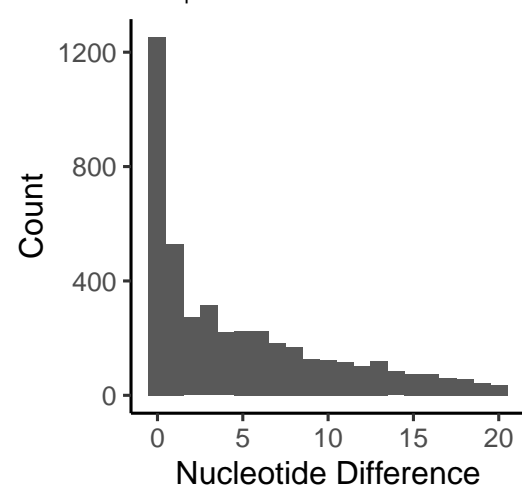
IGHV3-30-3*01

12257 sequences assigned
3930 (32.1%) exact matches, in which:
3749 unique CDR3
6 unique J



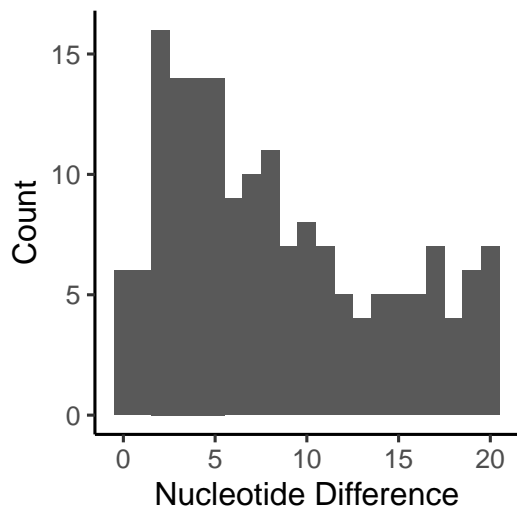
IGHV3-30*18

4539 sequences assigned
1253 (27.6%) exact matches, in which:
1204 unique CDR3
6 unique J



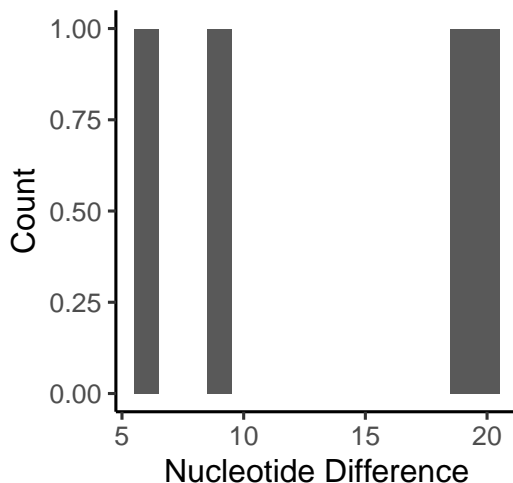
IGHV3-33*05

184 sequences assigned
6 (3.3%) exact matches, in which:
6 unique CDR3
3 unique J



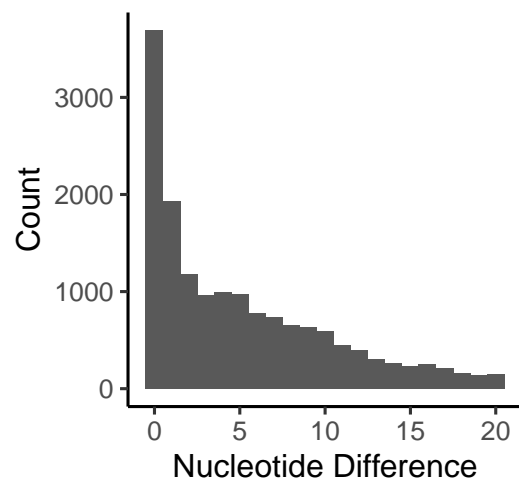
IGHV3-38*03

5 sequences assigned
No exact matches.



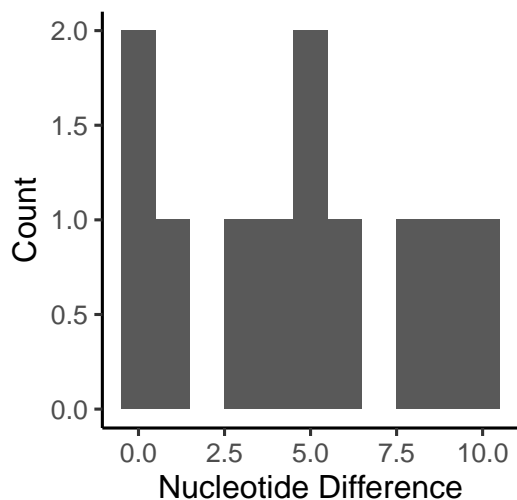
IGHV3-48*01

16362 sequences assigned
3690 (22.6%) exact matches, in which:
3513 unique CDR3
6 unique J



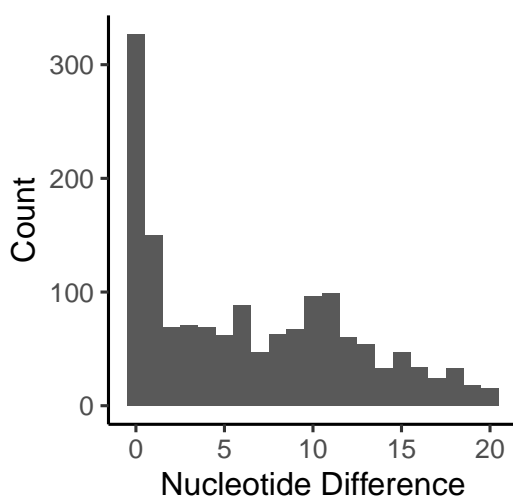
IGHV3-35*01

11 sequences assigned
2 (18.2%) exact matches, in which:
2 unique CDR3
1 unique J



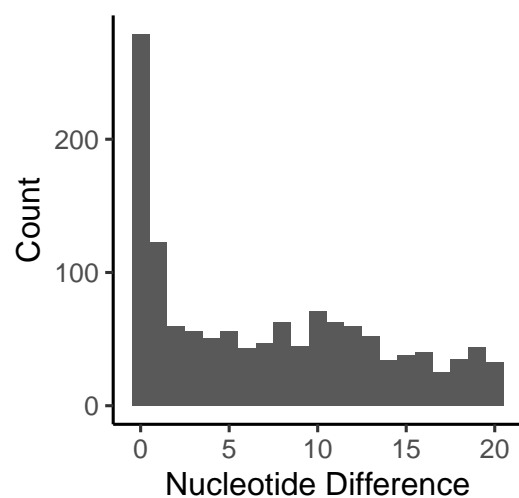
IGHV3-43*01

1622 sequences assigned
327 (20.2%) exact matches, in which:
313 unique CDR3
6 unique J



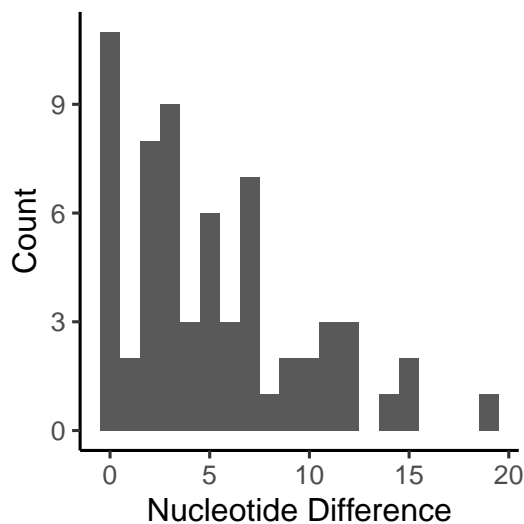
IGHV3-49*04

1452 sequences assigned
279 (19.2%) exact matches, in which:
266 unique CDR3
6 unique J



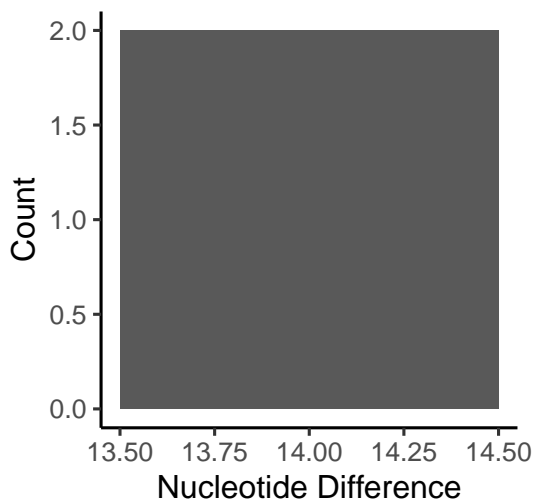
IGHV3-38-3*01

65 sequences assigned
11 (16.9%) exact matches, in which:
11 unique CDR3
4 unique J



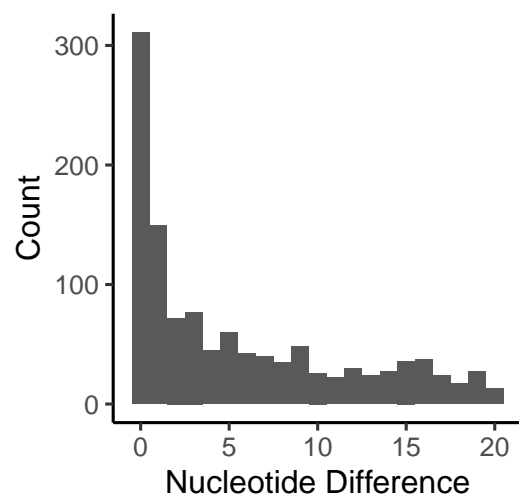
IGHV3-47*02

2 sequences assigned
No exact matches.



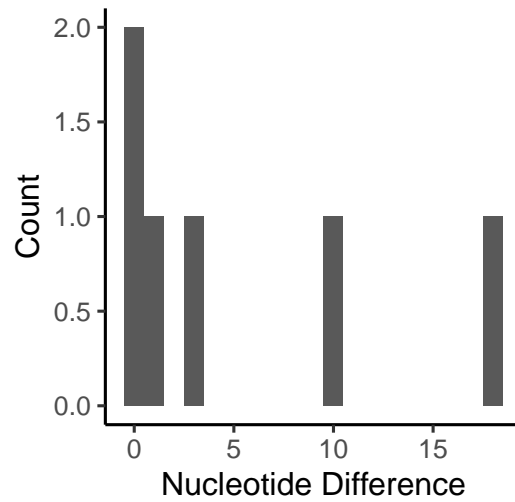
IGHV3-49*03_05

1222 sequences assigned
311 (25.5%) exact matches, in which:
305 unique CDR3
6 unique J



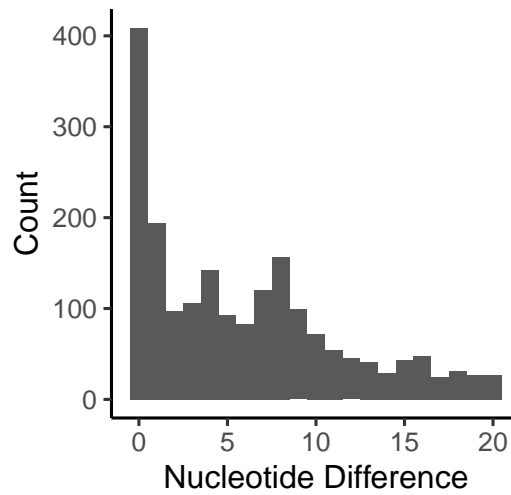
IGHV3-52*01_03

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
2 unique J



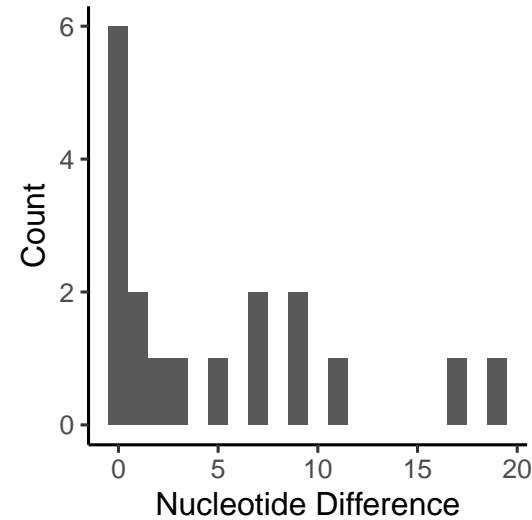
IGHV3-64*01

2063 sequences assigned
409 (19.8%) exact matches, in which:
388 unique CDR3
6 unique J



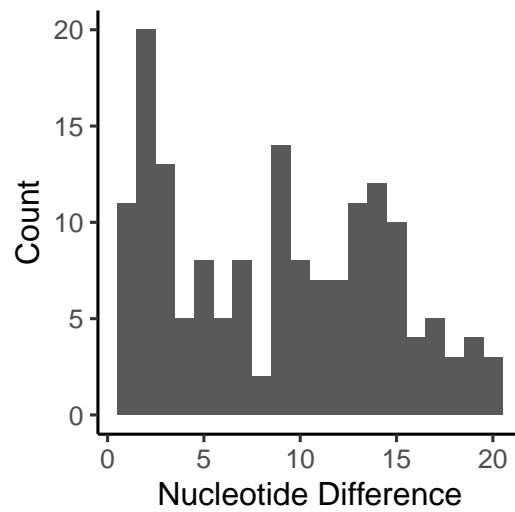
IGHV3-69-1*02

25 sequences assigned
6 (24%) exact matches, in which:
5 unique CDR3
2 unique J



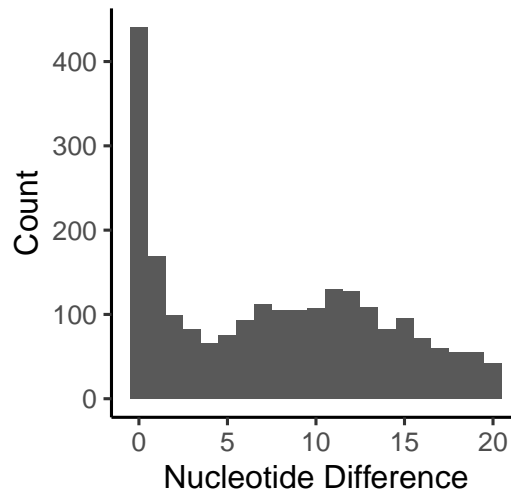
IGHV3-53*05

178 sequences assigned
No exact matches.



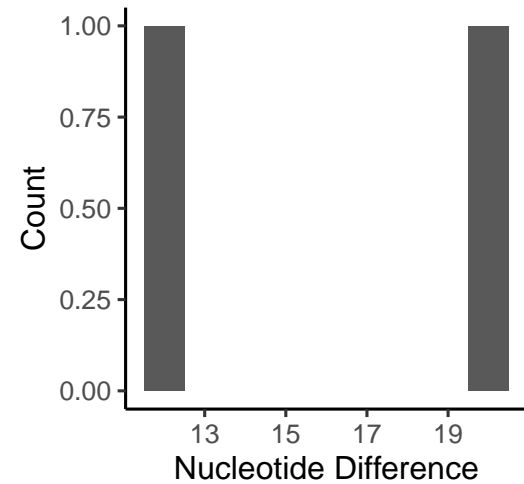
IGHV3-66*02

2529 sequences assigned
441 (17.4%) exact matches, in which:
423 unique CDR3
6 unique J



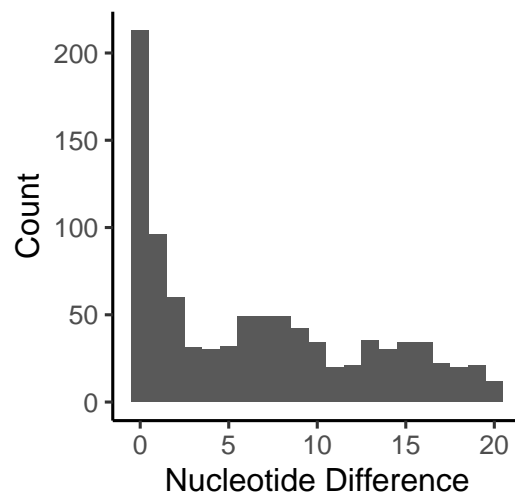
IGHV3-71*01_04

5 sequences assigned
No exact matches.



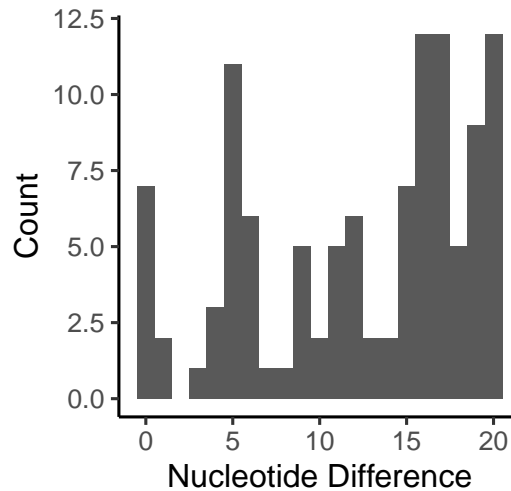
IGHV3-53*01_02

975 sequences assigned
213 (21.8%) exact matches, in which:
203 unique CDR3
6 unique J



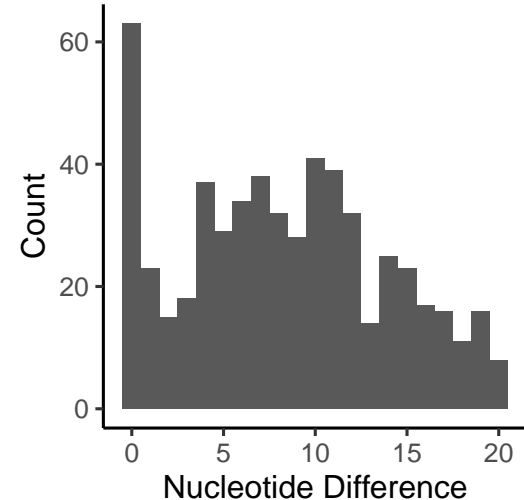
IGHV3-69-1*01

135 sequences assigned
7 (5.2%) exact matches, in which:
7 unique CDR3
3 unique J



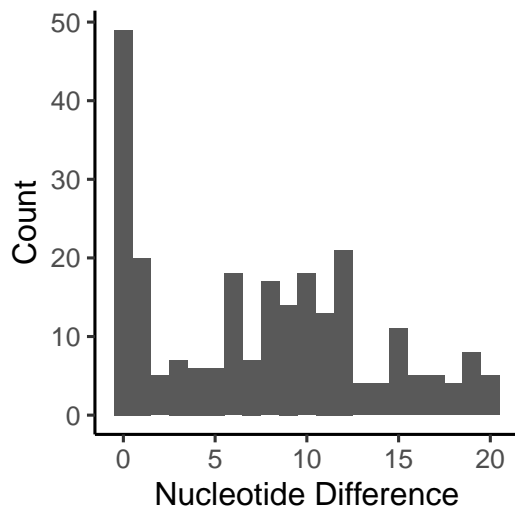
IGHV3-72*01

635 sequences assigned
63 (9.9%) exact matches, in which:
58 unique CDR3
4 unique J



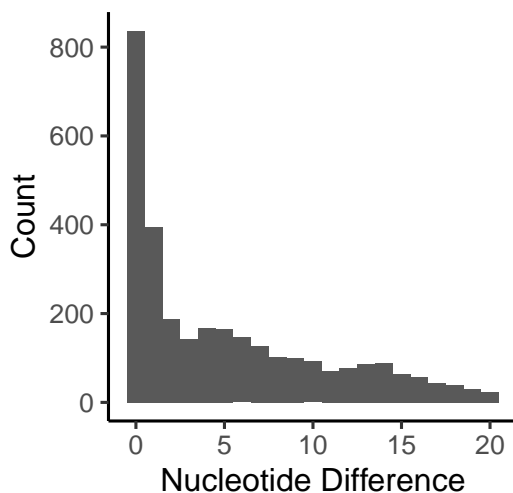
IGHV3-72*01_T186C

280 sequences assigned
49 (17.5%) exact matches, in which:
47 unique CDR3
5 unique J



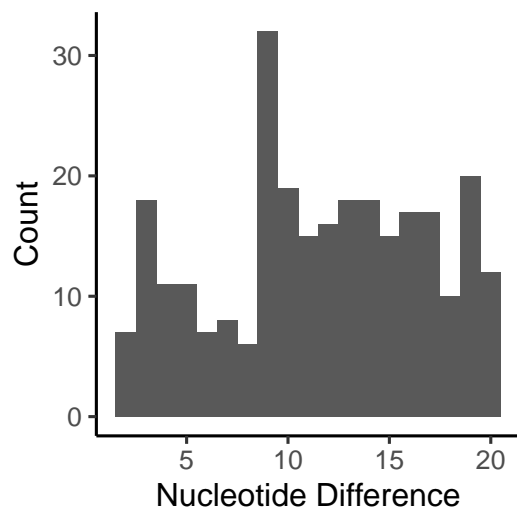
IGHV3-74*01_02

3126 sequences assigned
837 (26.8%) exact matches, in which:
767 unique CDR3
6 unique J



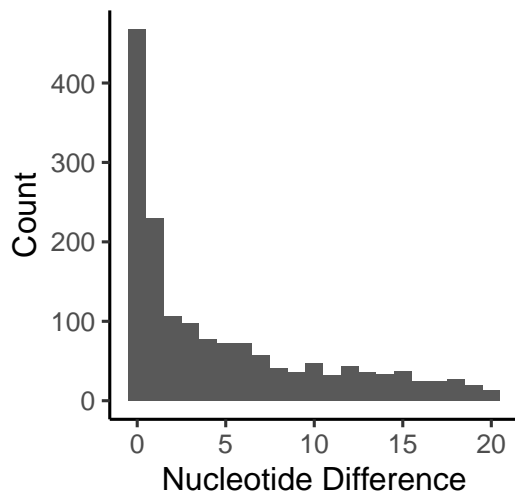
IGHV3-NL1*01

345 sequences assigned
No exact matches.



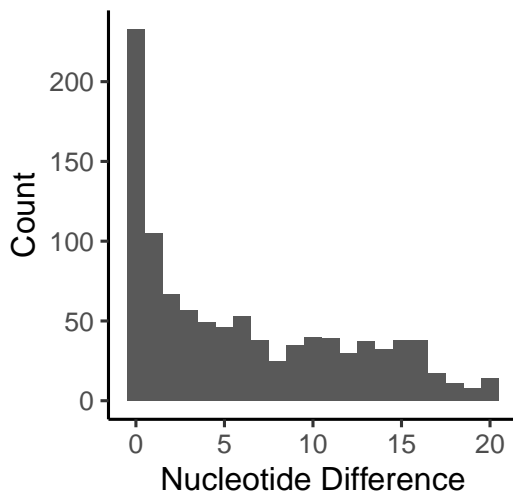
IGHV3-73*01_02

1707 sequences assigned
468 (27.4%) exact matches, in which:
446 unique CDR3
6 unique J



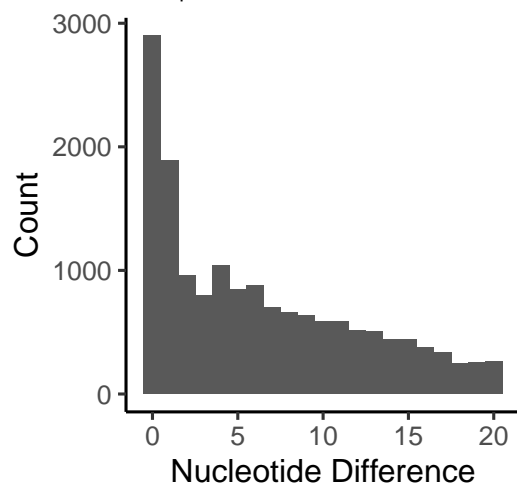
IGHV3-43D*03

1071 sequences assigned
233 (21.8%) exact matches, in which:
219 unique CDR3
6 unique J



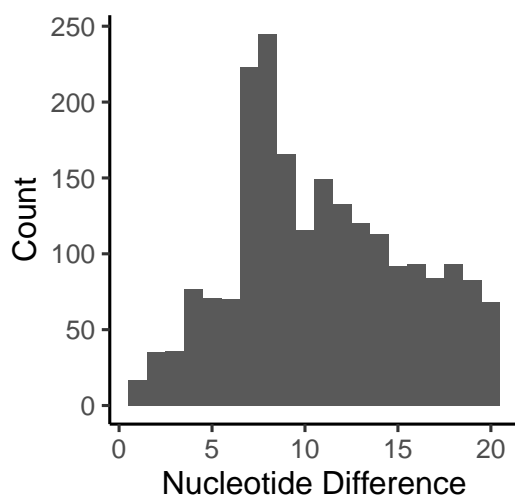
IGHV4-4*09

16853 sequences assigned
2899 (17.2%) exact matches, in which:
2517 unique CDR3
6 unique J



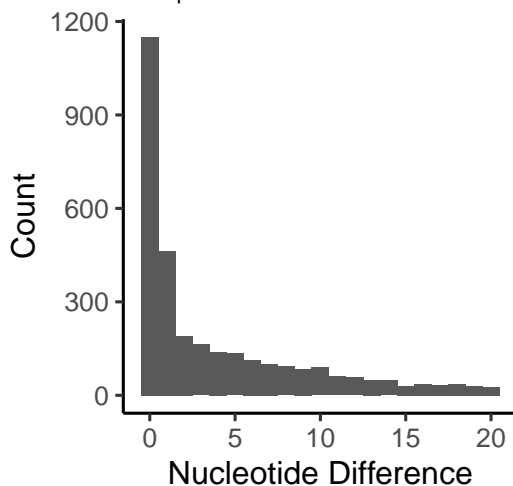
IGHV3-74*03

2391 sequences assigned
No exact matches.



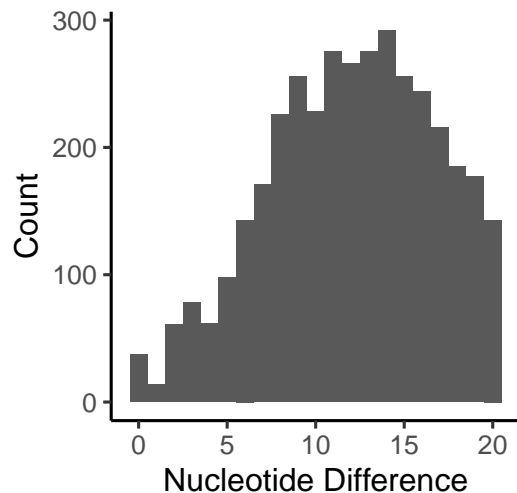
IGHV3-64D*06

3298 sequences assigned
1150 (34.9%) exact matches, in which:
1037 unique CDR3
6 unique J



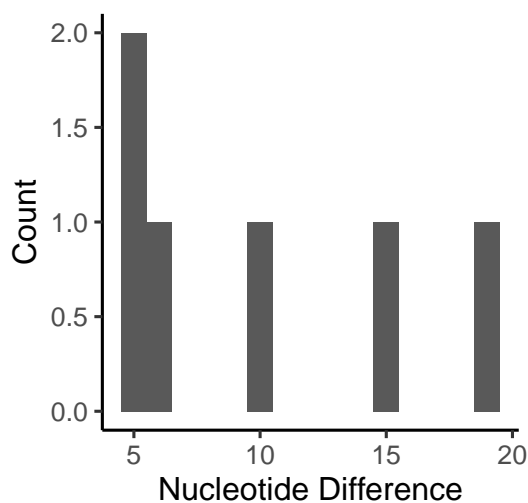
IGHV4-4*02_03

4501 sequences assigned
37 (0.8%) exact matches, in which:
36 unique CDR3
4 unique J



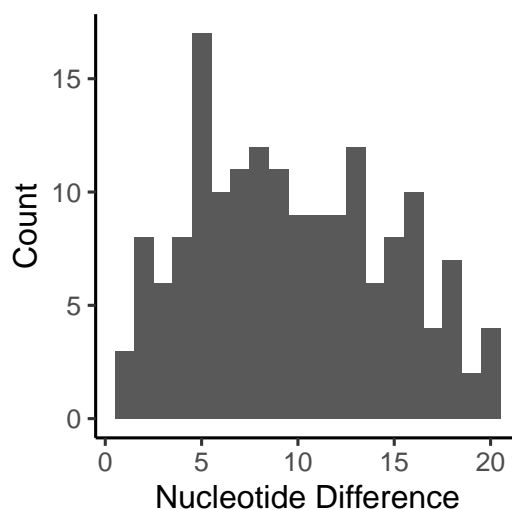
IGHV4-28*03

10 sequences assigned
No exact matches.



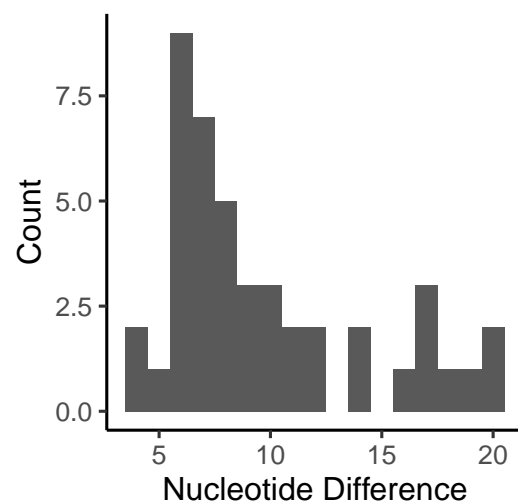
IGHV4-30-2*03

194 sequences assigned
No exact matches.



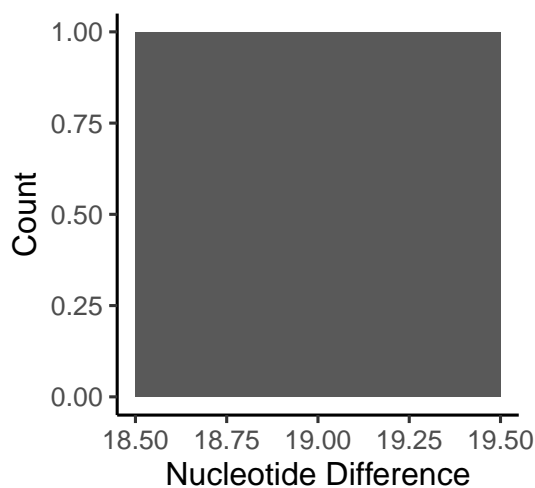
IGHV4-31*11

49 sequences assigned
No exact matches.



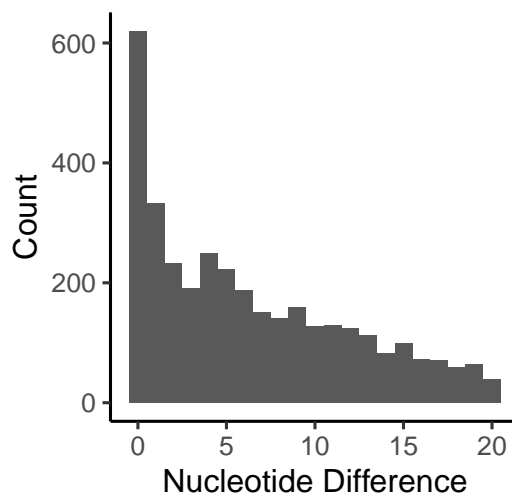
IGHV4-28*01_07

3 sequences assigned
No exact matches.



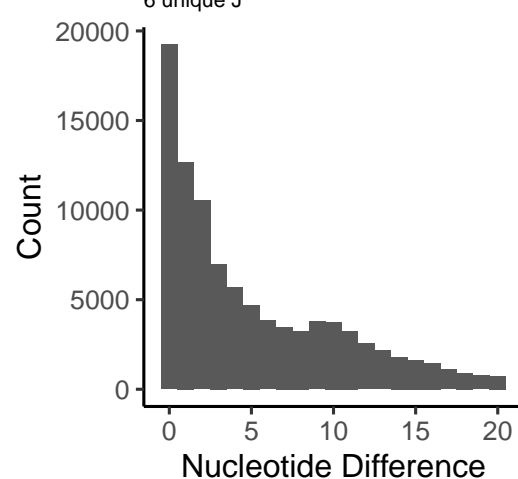
IGHV4-30-4*08

3724 sequences assigned
620 (16.6%) exact matches, in which:
548 unique CDR3
6 unique J



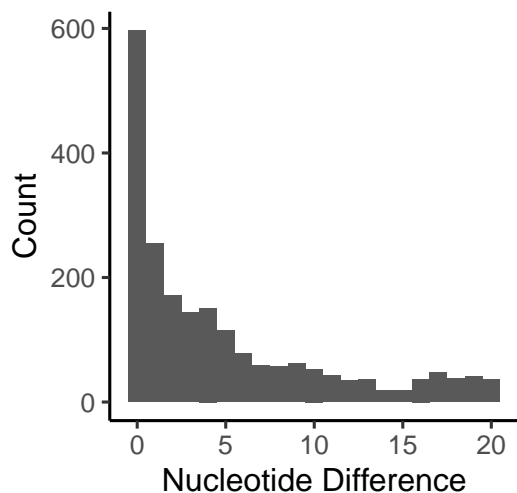
IGHV4-34*01_02

98656 sequences assigned
19244 (19.5%) exact matches, in which:
16199 unique CDR3
6 unique J



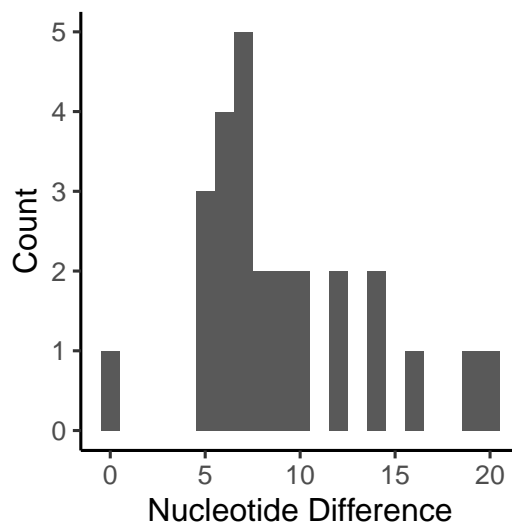
IGHV4-30-2*01

2172 sequences assigned
597 (27.5%) exact matches, in which:
514 unique CDR3
6 unique J



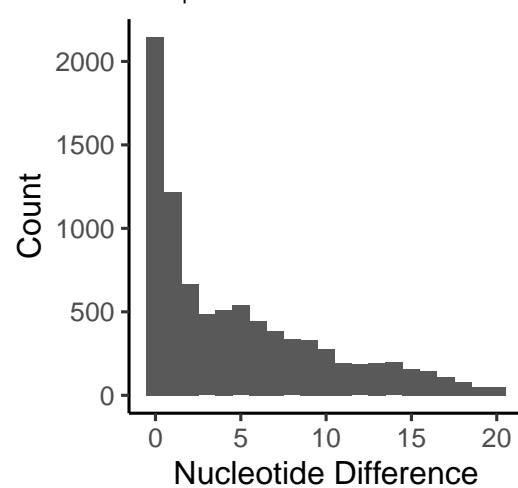
IGHV4-31*02

29 sequences assigned
1 (3.4%) exact matches, in which:
1 unique CDR3
1 unique J



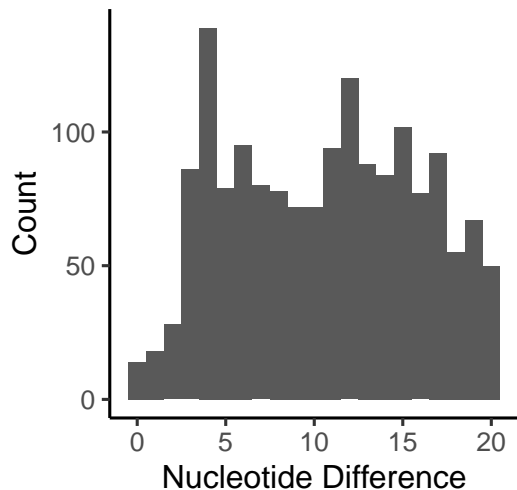
IGHV4-38-2*02

8994 sequences assigned
2146 (23.9%) exact matches, in which:
1879 unique CDR3
6 unique J



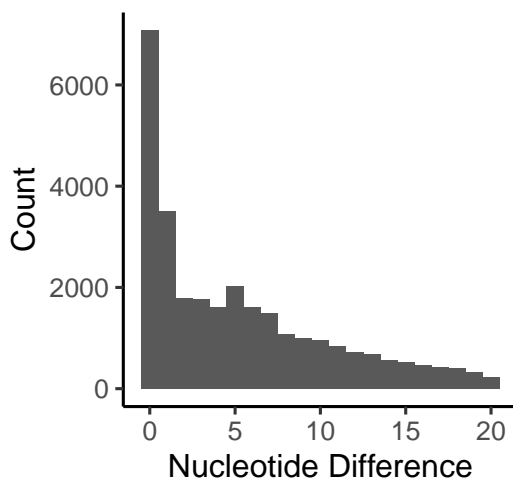
IGHV4-39*02

1835 sequences assigned
14 (0.8%) exact matches, in which:
11 unique CDR3
5 unique J



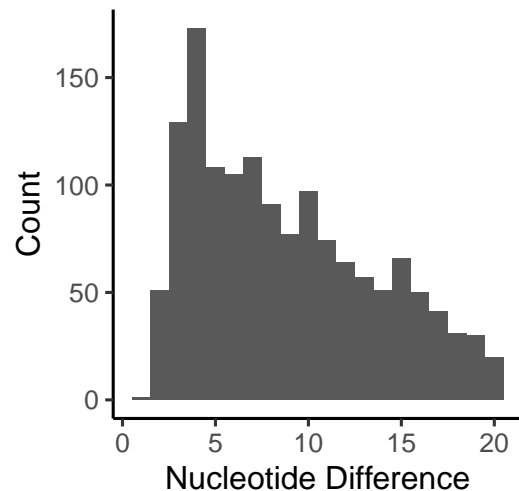
IGHV4-59*11

30337 sequences assigned
7077 (23.3%) exact matches, in which:
6055 unique CDR3
6 unique J



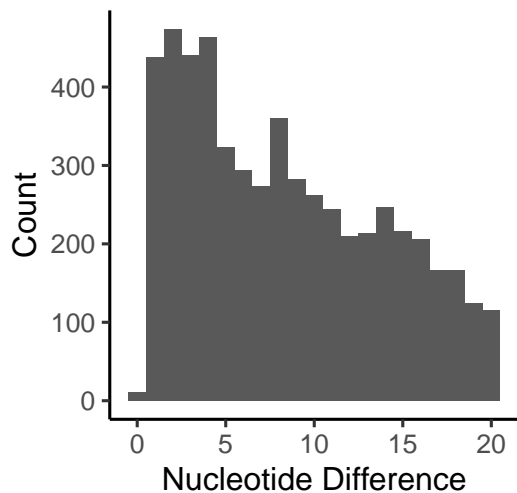
IGHV4-61*05

1506 sequences assigned
No exact matches.



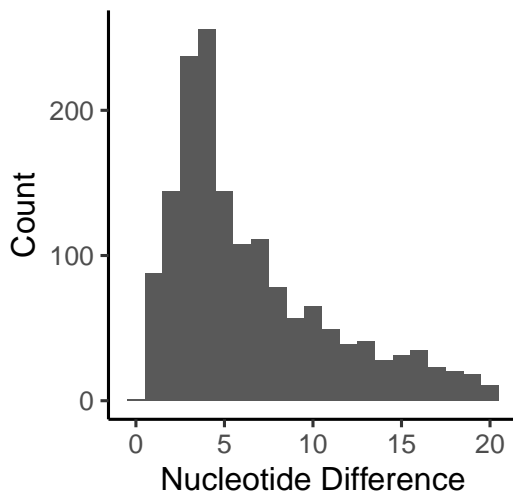
IGHV4-39*07

5913 sequences assigned
11 (0.2%) exact matches, in which:
11 unique CDR3
2 unique J



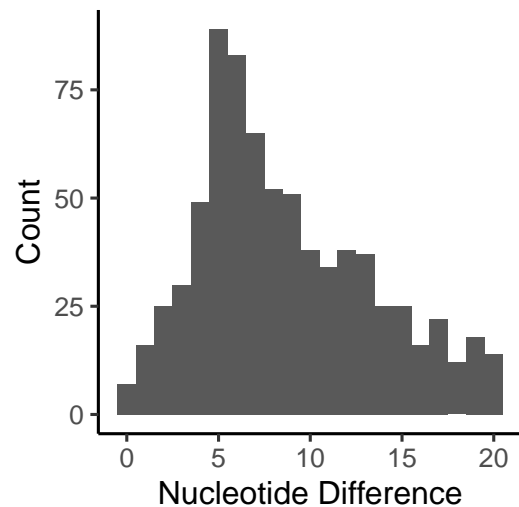
IGHV4-61*01

1636 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



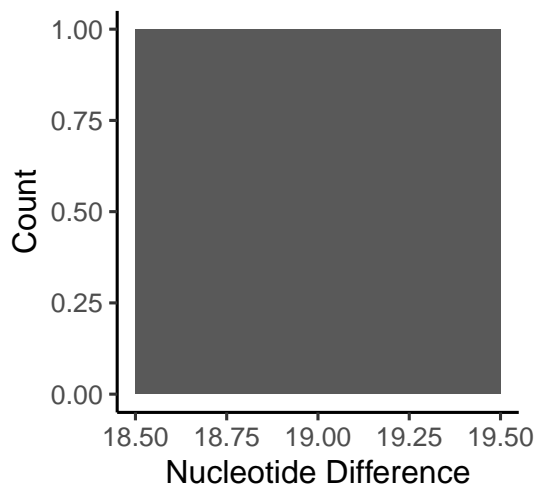
IGHV4-61*09

803 sequences assigned
7 (0.9%) exact matches, in which:
6 unique CDR3
3 unique J



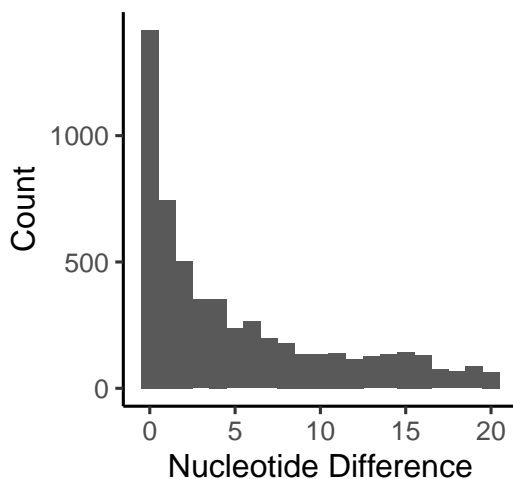
IGHV4-55*09

2 sequences assigned
No exact matches.



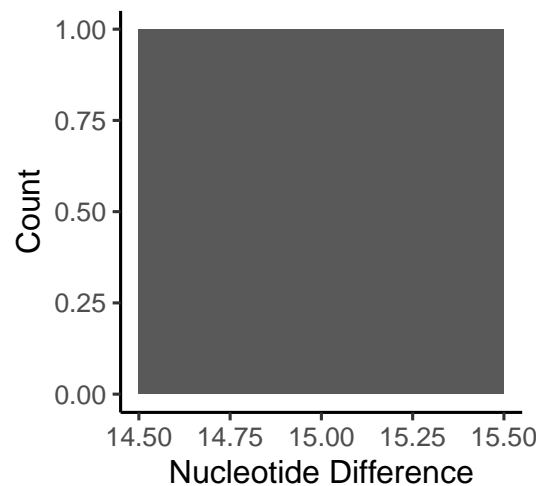
IGHV4-61*02

5834 sequences assigned
1418 (24.3%) exact matches, in which:
1240 unique CDR3
6 unique J



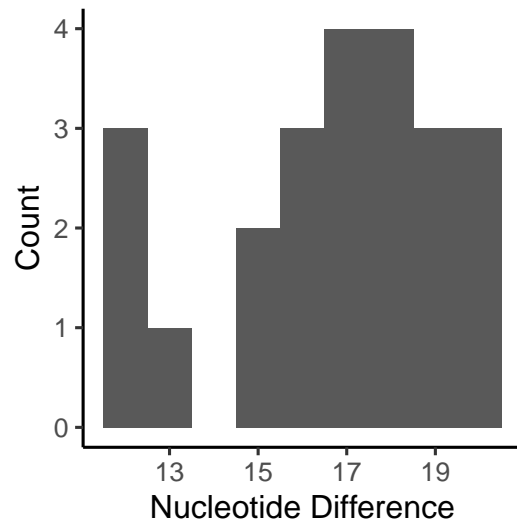
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



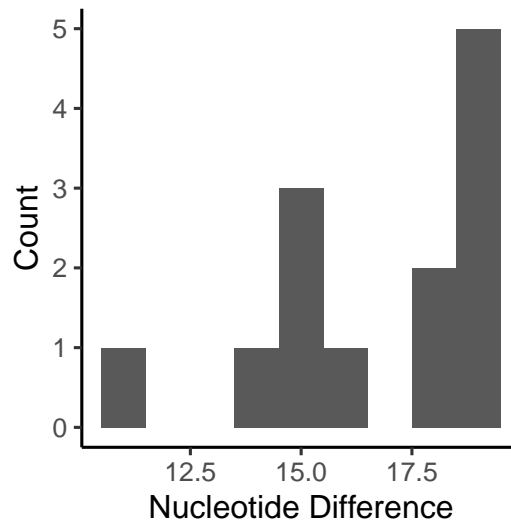
IGHV1/OR15-2*02_03

28 sequences assigned
No exact matches.



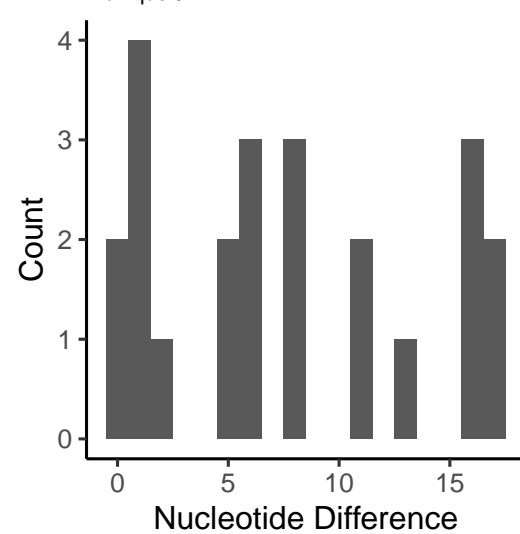
IGHV4/OR15-8*02

23 sequences assigned
No exact matches.



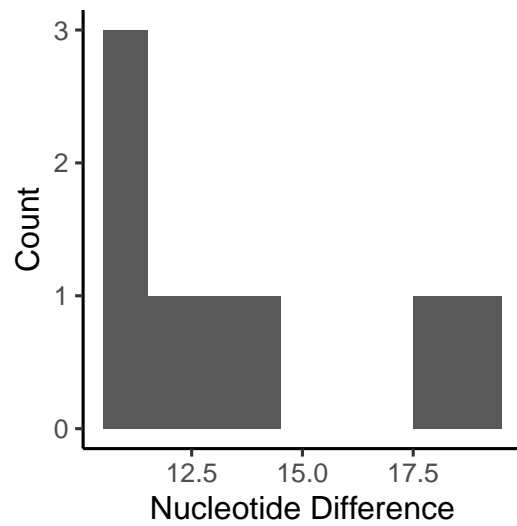
IGHV5-51*06

24 sequences assigned
2 (8.3%) exact matches, in which:
2 unique CDR3
2 unique J



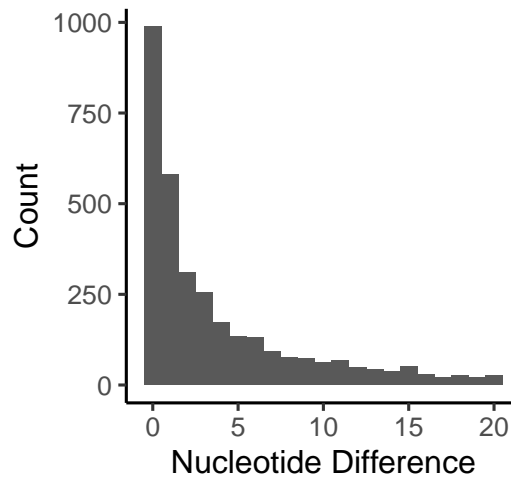
IGHV1/OR15-3*02

9 sequences assigned
No exact matches.



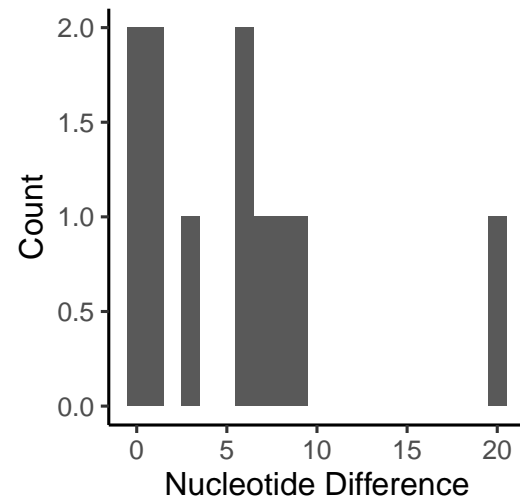
IGHV5-10-1*01_03

3302 sequences assigned
988 (29.9%) exact matches, in which:
948 unique CDR3
6 unique J



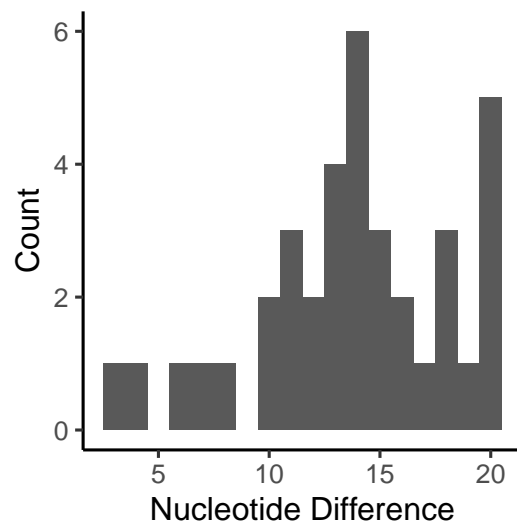
IGHV5-51*07

11 sequences assigned
2 (18.2%) exact matches, in which:
2 unique CDR3
1 unique J



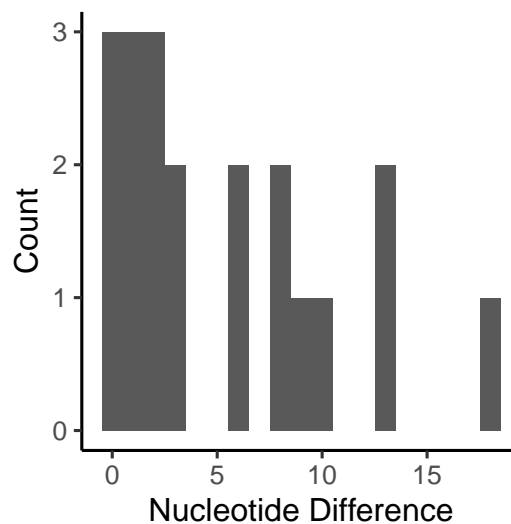
IGHV4/OR15-8*01

54 sequences assigned
No exact matches.



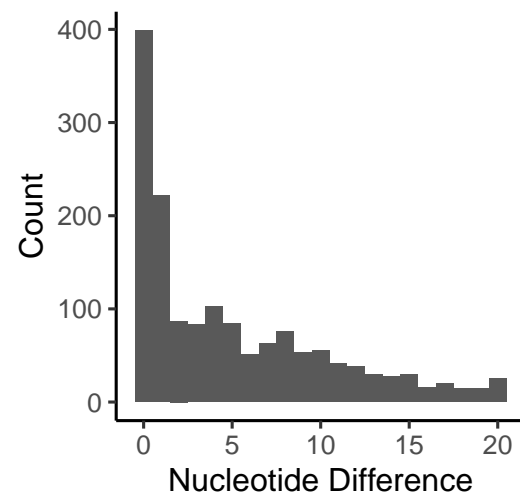
IGHV5-51*04

20 sequences assigned
3 (15%) exact matches, in which:
3 unique CDR3
1 unique J



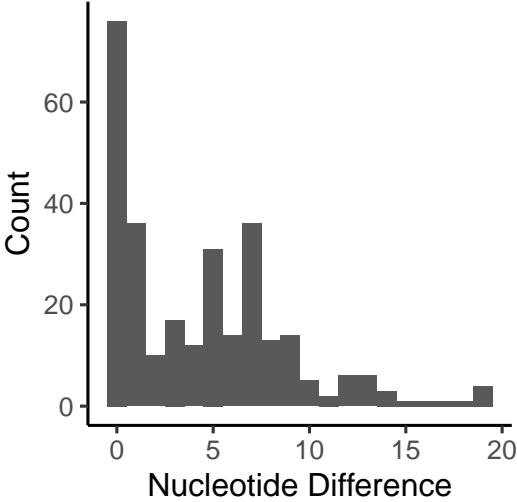
IGHV6-1*01_02

1553 sequences assigned
399 (25.7%) exact matches, in which:
361 unique CDR3
6 unique J



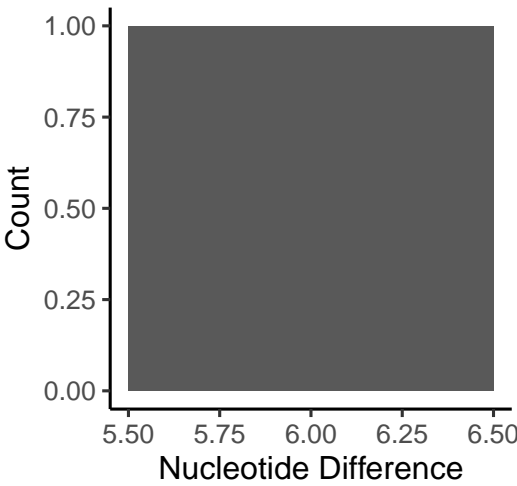
IGHV6-1*01_02_A315G

295 sequences assigned
76 (25.8%) exact matches, in which:
76 unique CDR3
6 unique J



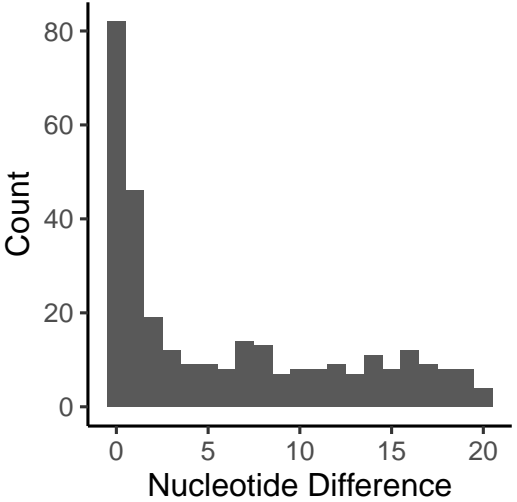
IGHV3/OR16-13*01

2 sequences assigned
No exact matches.

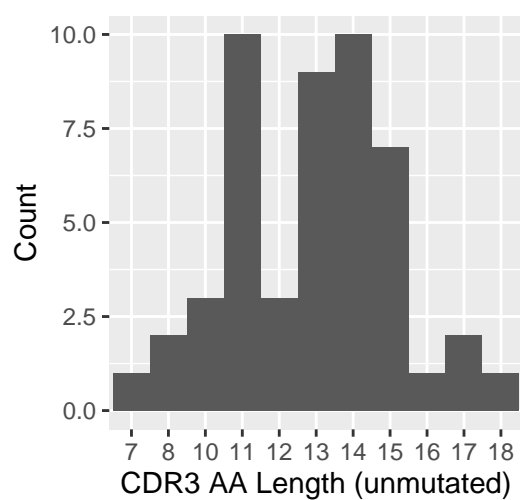


IGHV7-4-1*02

346 sequences assigned
82 (23.7%) exact matches, in which:
82 unique CDR3
5 unique J



IGHV3-72*01_T186C



IGHV6-1*01_02_A315G

