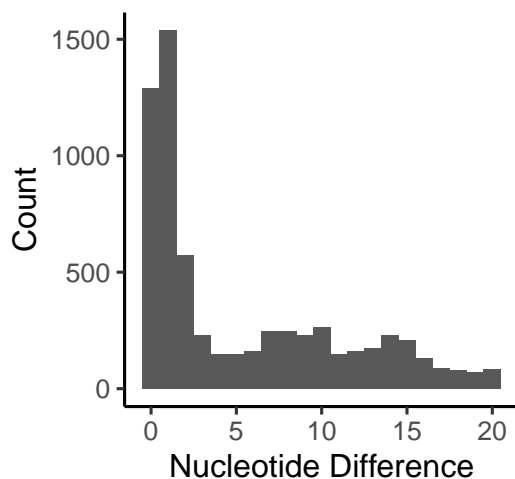


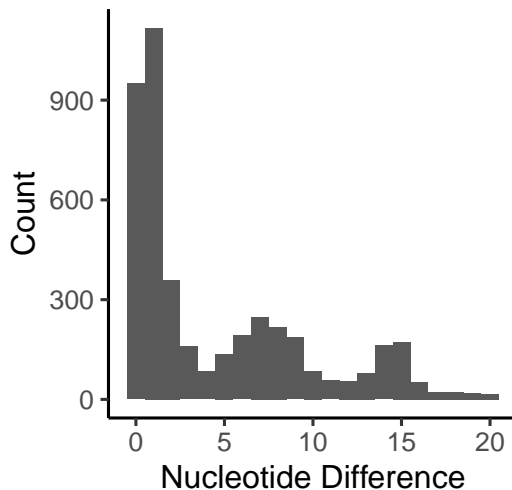
IGHV1-2*02

7239 sequences assigned
1290 (17.8%) exact matches, in which:
1063 unique CDR3
7 unique J



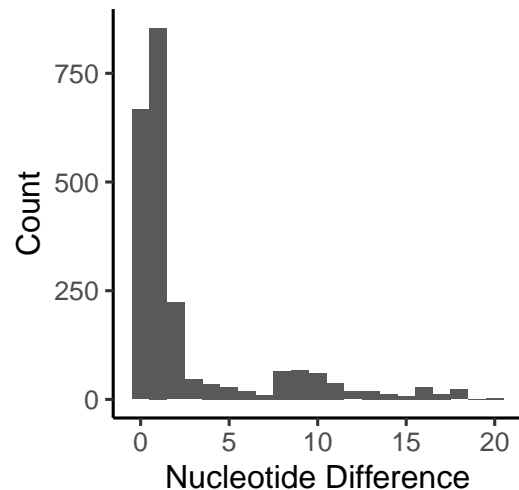
IGHV1-8*01

6023 sequences assigned
950 (15.8%) exact matches, in which:
794 unique CDR3
7 unique J



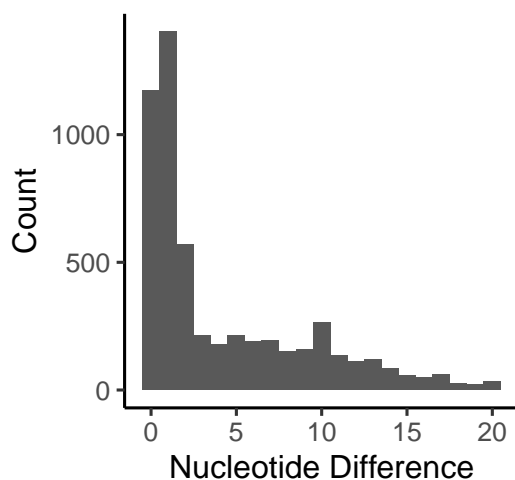
IGHV1-24*01

2362 sequences assigned
667 (28.2%) exact matches, in which:
540 unique CDR3
7 unique J



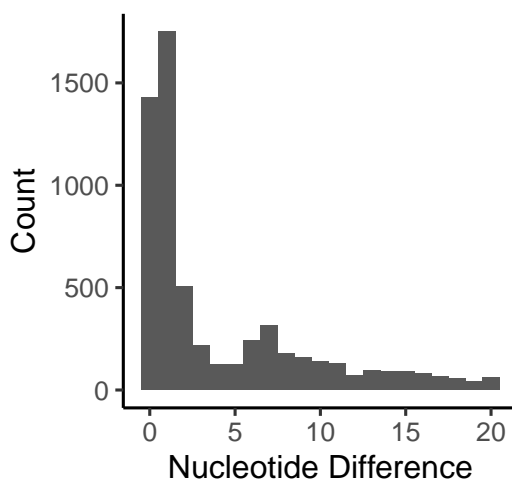
IGHV1-2*06

5745 sequences assigned
1174 (20.4%) exact matches, in which:
959 unique CDR3
7 unique J



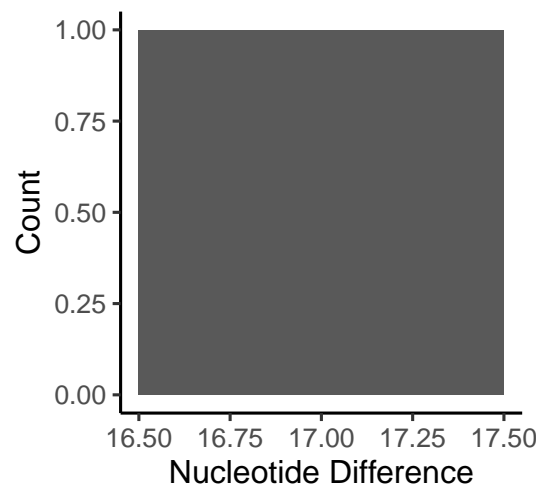
IGHV1-18*01

7420 sequences assigned
1431 (19.3%) exact matches, in which:
1155 unique CDR3
7 unique J



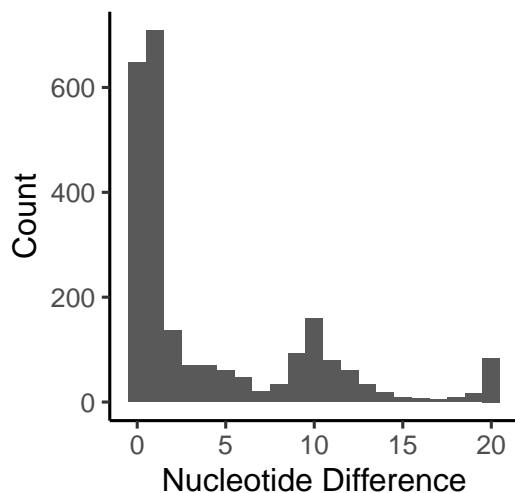
IGHV1-45*02

1 sequences assigned
No exact matches.



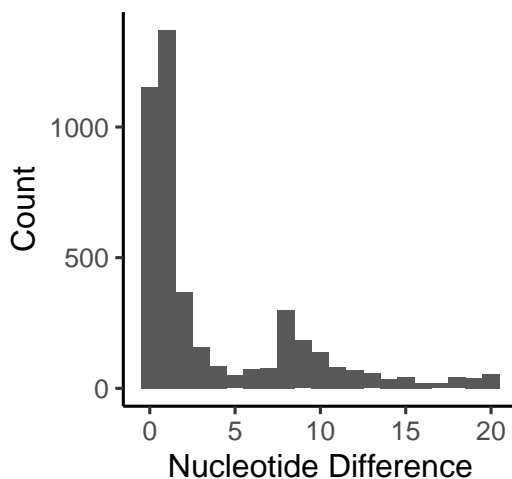
IGHV1-3*01_05

2900 sequences assigned
647 (22.3%) exact matches, in which:
513 unique CDR3
7 unique J



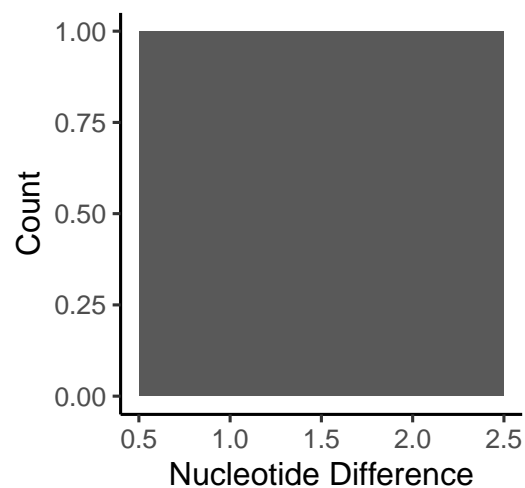
IGHV1-18*04

4740 sequences assigned
1154 (24.3%) exact matches, in which:
991 unique CDR3
7 unique J



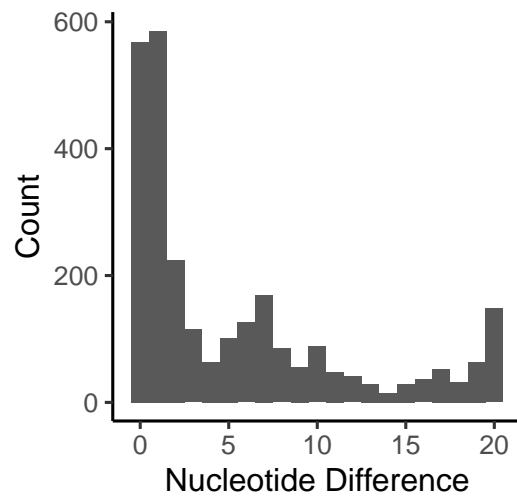
IGHV1-45*03

2 sequences assigned
No exact matches.



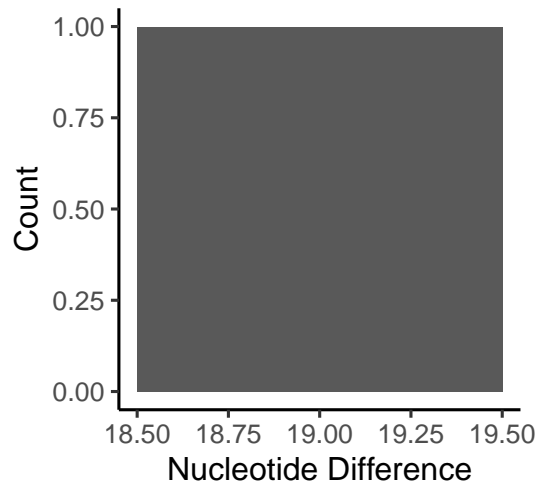
IGHV1-46*01

2943 sequences assigned
568 (19.3%) exact matches, in which:
474 unique CDR3
7 unique J



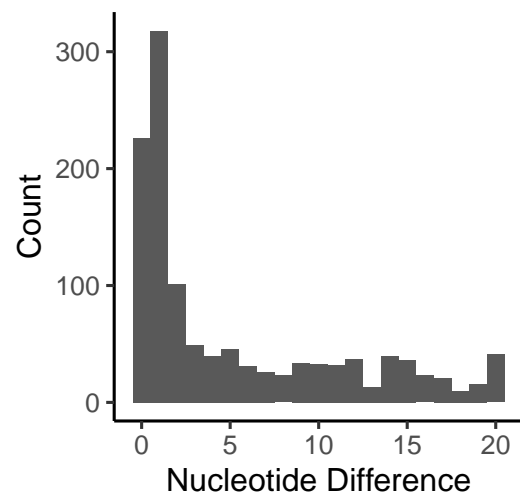
IGHV1-69-2*01

9 sequences assigned
No exact matches.



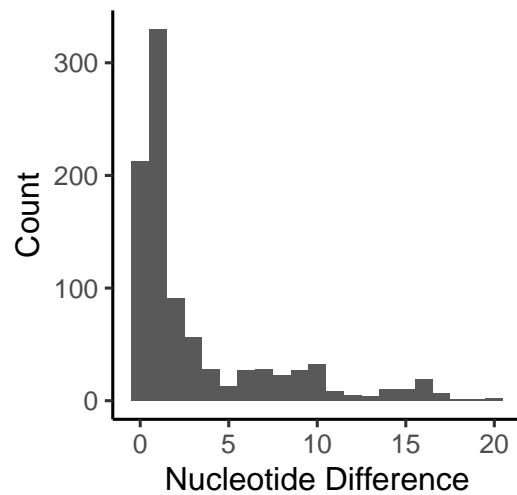
IGHV2-5*02

2192 sequences assigned
226 (10.3%) exact matches, in which:
184 unique CDR3
7 unique J



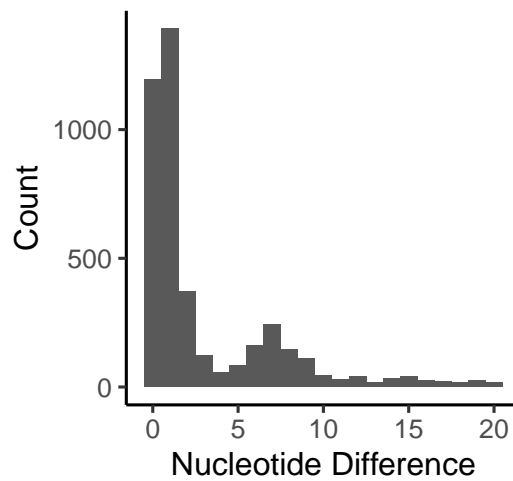
IGHV1-46*03

954 sequences assigned
213 (22.3%) exact matches, in which:
155 unique CDR3
5 unique J



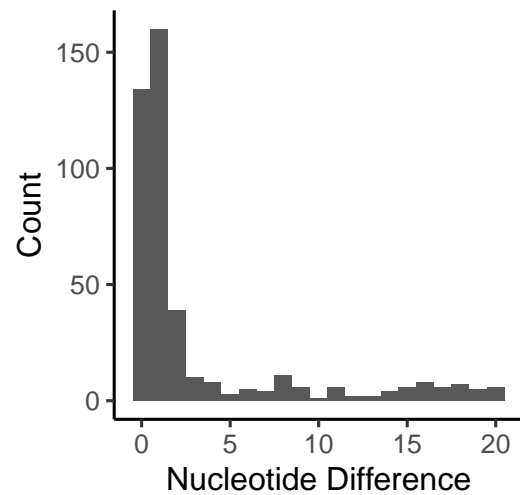
IGHV1-69*04_09

4966 sequences assigned
1195 (24.1%) exact matches, in which:
1017 unique CDR3
7 unique J



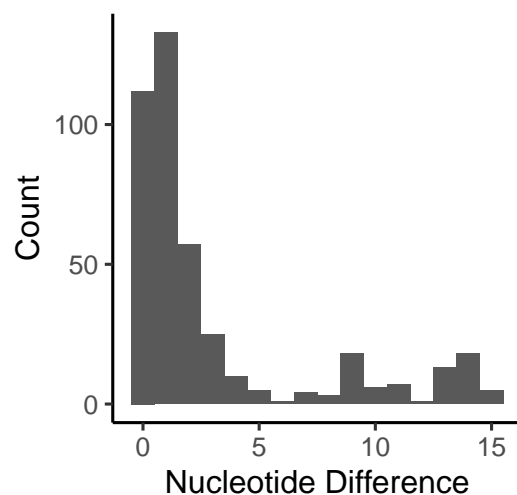
IGHV2-26*01

444 sequences assigned
134 (30.2%) exact matches, in which:
108 unique CDR3
7 unique J



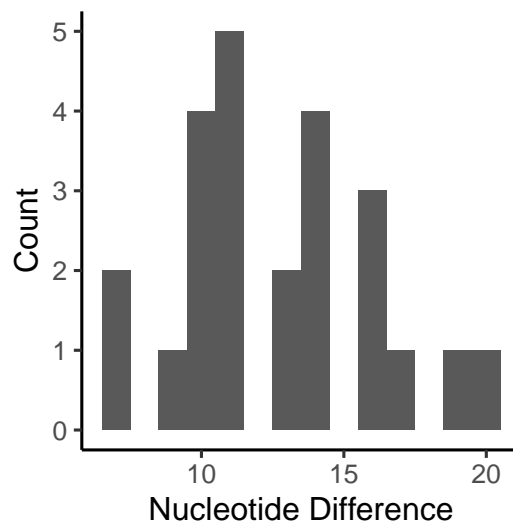
IGHV1-58*02

445 sequences assigned
112 (25.2%) exact matches, in which:
99 unique CDR3
6 unique J



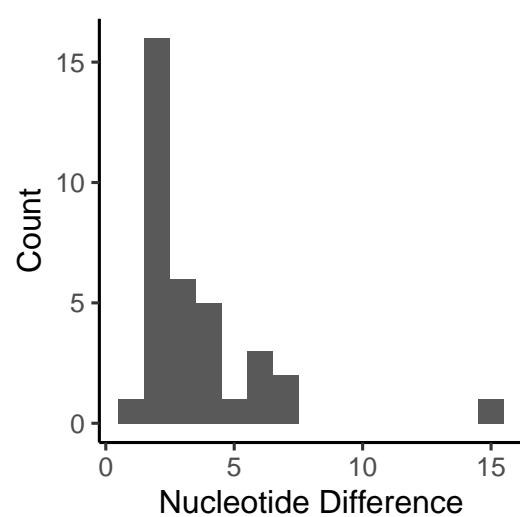
IGHV1-NL1*01

24 sequences assigned
No exact matches.



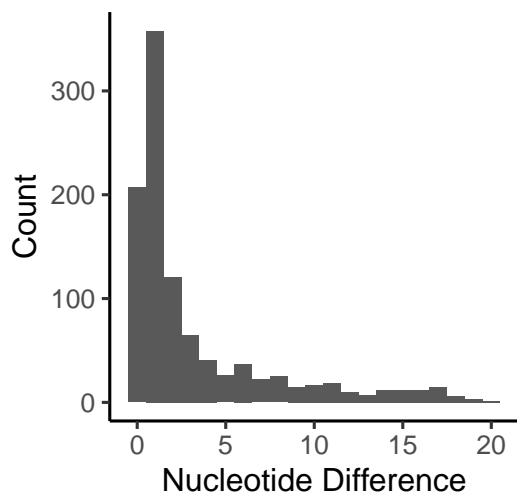
IGHV2-70*12

35 sequences assigned
No exact matches.



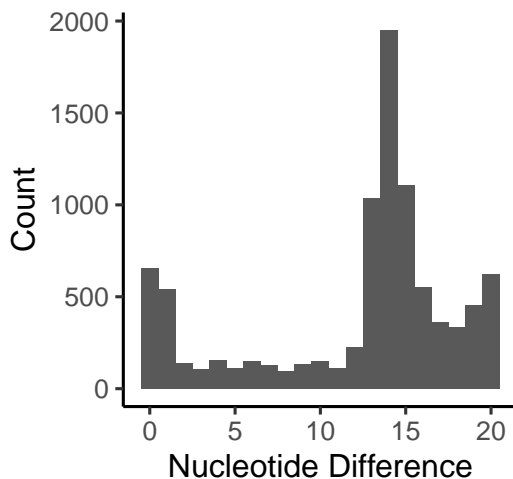
IGHV2-70*11_15

1040 sequences assigned
207 (19.9%) exact matches, in which:
148 unique CDR3
6 unique J



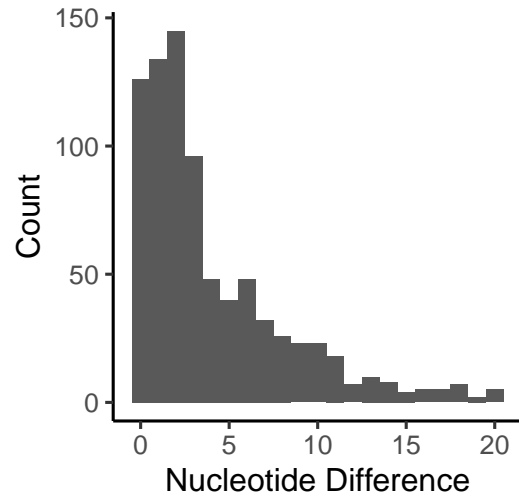
IGHV3-7*03

11059 sequences assigned
657 (5.9%) exact matches, in which:
436 unique CDR3
7 unique J



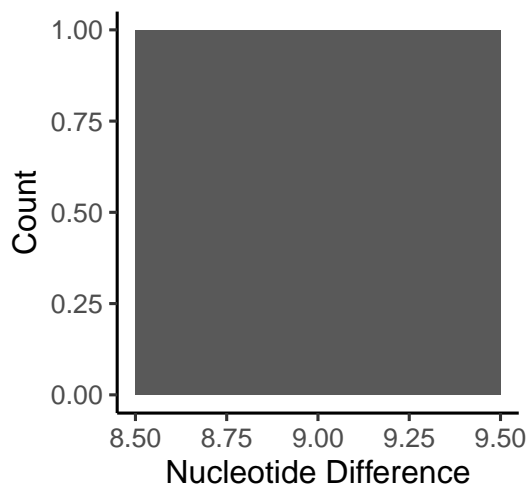
IGHV3-11*04

840 sequences assigned
126 (15%) exact matches, in which:
118 unique CDR3
7 unique J



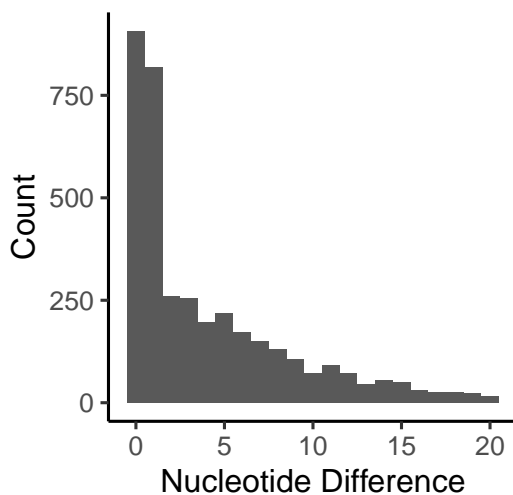
IGHV2-70D*04

1 sequences assigned
No exact matches.



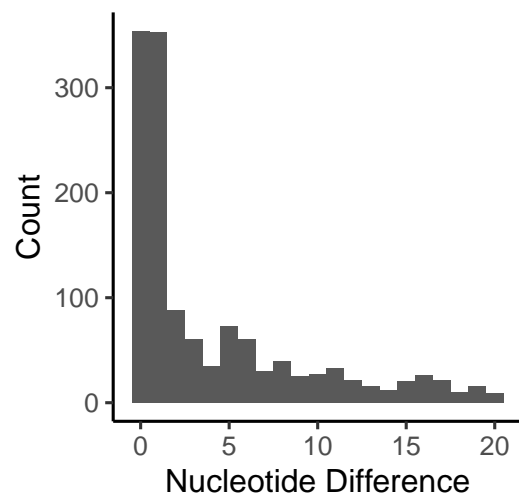
IGHV3-9*01

3908 sequences assigned
907 (23.2%) exact matches, in which:
542 unique CDR3
7 unique J



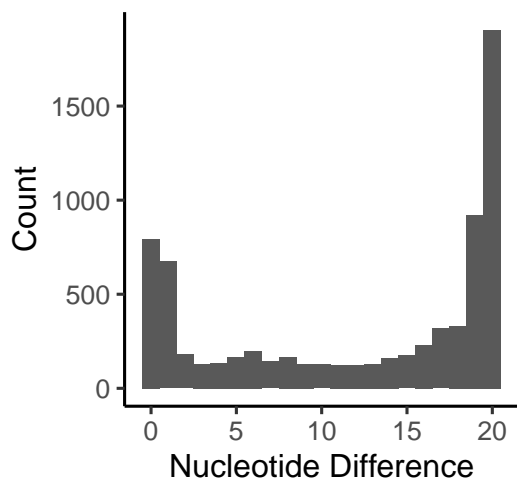
IGHV3-11*06

1401 sequences assigned
354 (25.3%) exact matches, in which:
241 unique CDR3
6 unique J



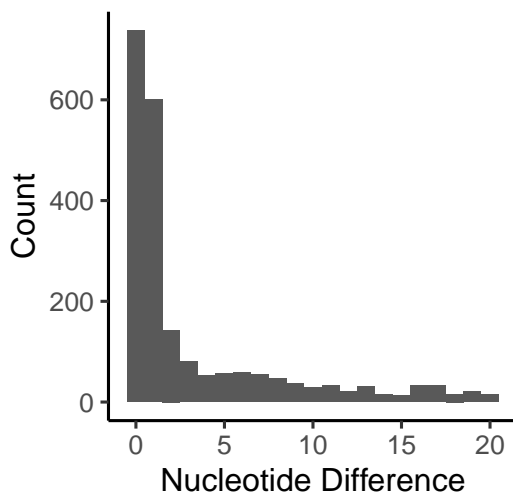
IGHV3-7*01

9845 sequences assigned
793 (8.1%) exact matches, in which:
547 unique CDR3
7 unique J



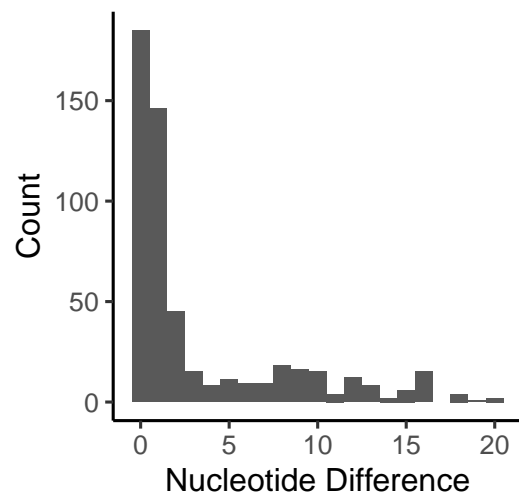
IGHV3-11*01

2320 sequences assigned
738 (31.8%) exact matches, in which:
472 unique CDR3
7 unique J



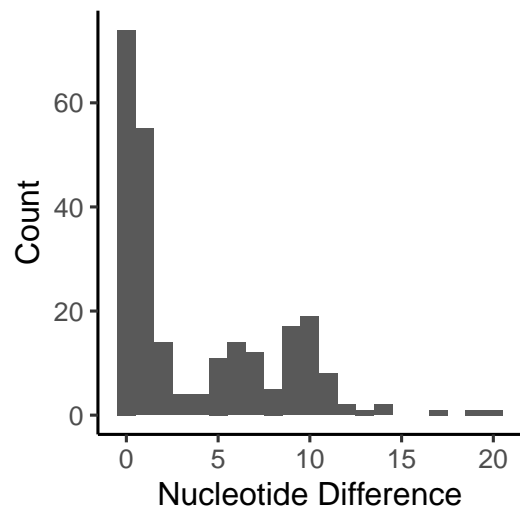
IGHV3-13*01

556 sequences assigned
185 (33.3%) exact matches, in which:
124 unique CDR3
6 unique J



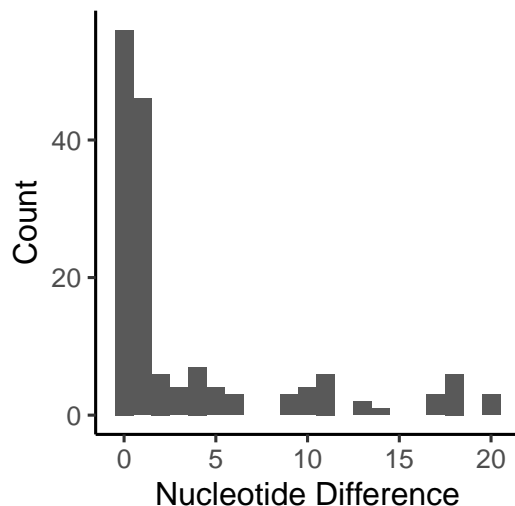
IGHV3-13*05

245 sequences assigned
74 (30.2%) exact matches, in which:
51 unique CDR3
6 unique J



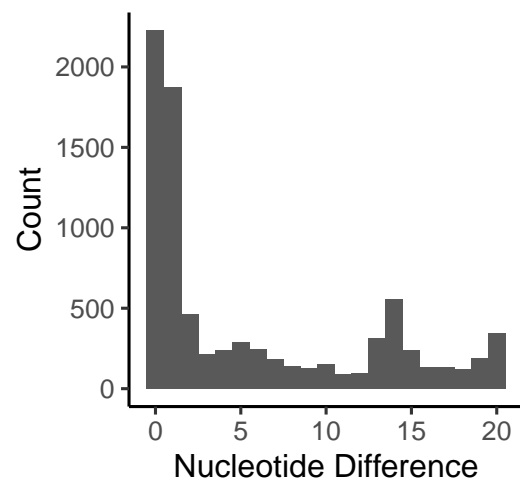
IGHV3-20*01_02

163 sequences assigned
56 (34.4%) exact matches, in which:
33 unique CDR3
4 unique J



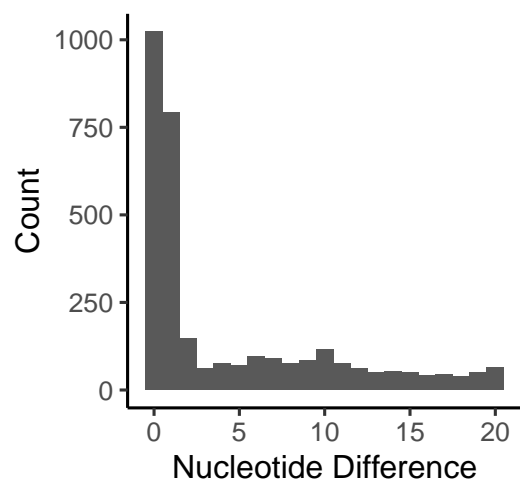
IGHV3-21*01_02

10548 sequences assigned
2227 (21.1%) exact matches, in which:
1369 unique CDR3
7 unique J



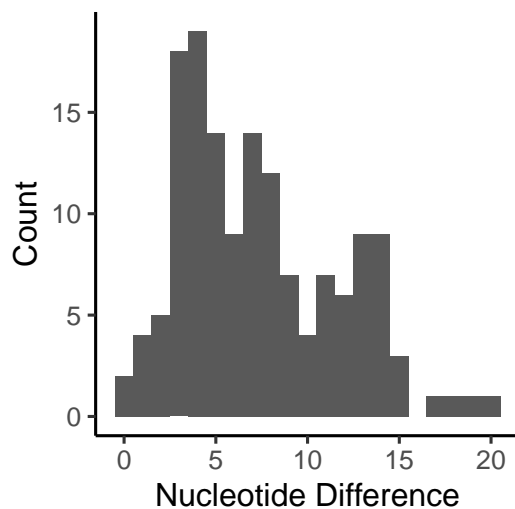
IGHV3-15*01_02

5183 sequences assigned
1023 (19.7%) exact matches, in which:
621 unique CDR3
7 unique J



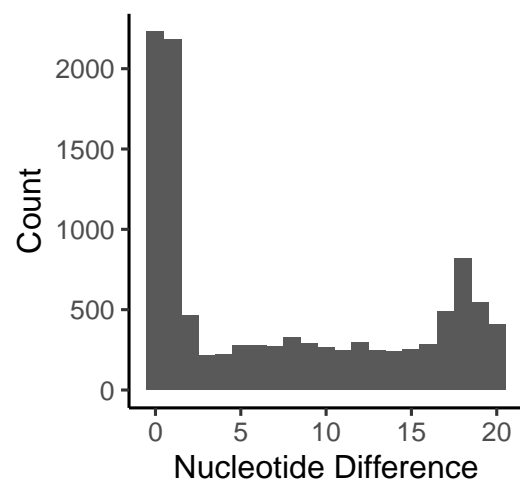
IGHV3-20*03_04

157 sequences assigned
2 (1.3%) exact matches, in which:
2 unique CDR3
2 unique J



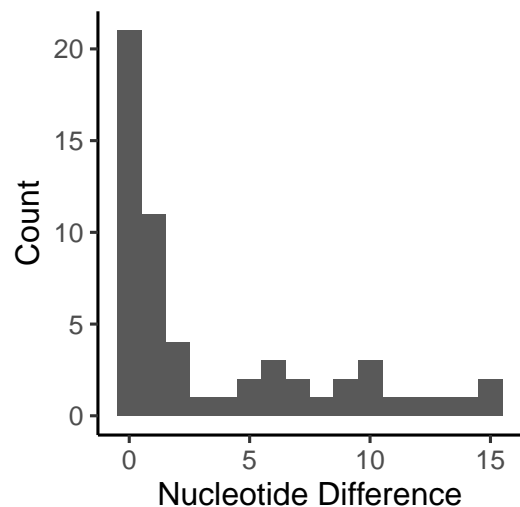
IGHV3-23*01_04

14796 sequences assigned
2230 (15.1%) exact matches, in which:
1303 unique CDR3
7 unique J



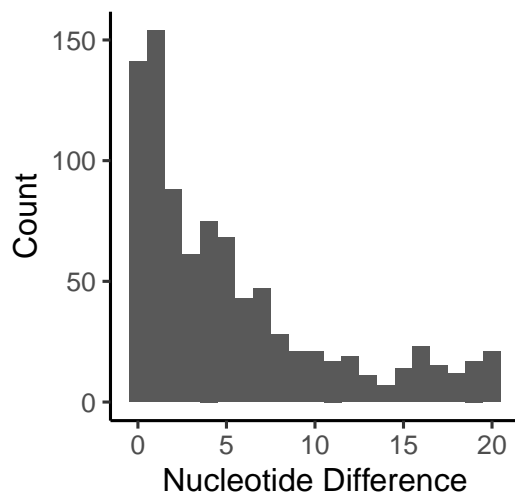
IGHV3-19*01

57 sequences assigned
21 (36.8%) exact matches, in which:
17 unique CDR3
4 unique J



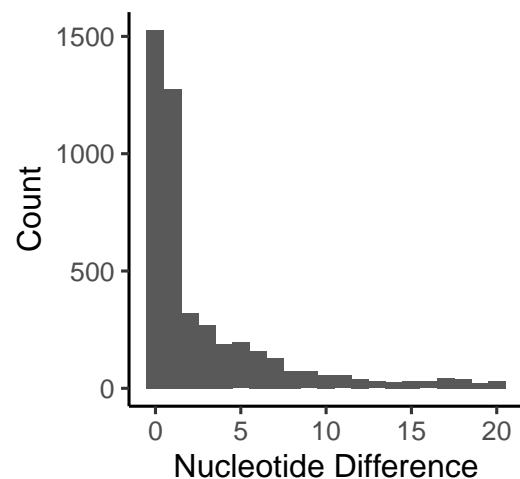
IGHV3-21*04

1000 sequences assigned
141 (14.1%) exact matches, in which:
128 unique CDR3
6 unique J



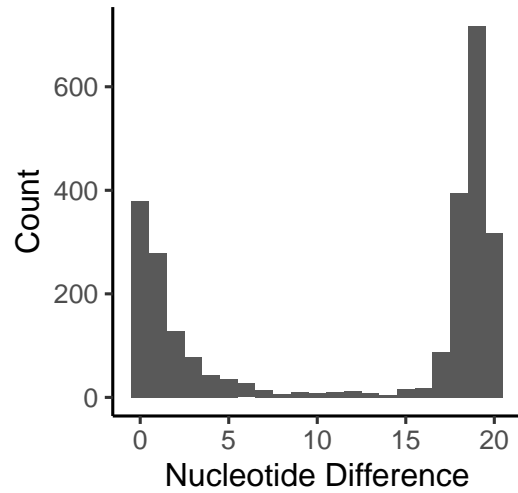
IGHV3-30-3*01

4911 sequences assigned
1527 (31.1%) exact matches, in which:
1037 unique CDR3
7 unique J



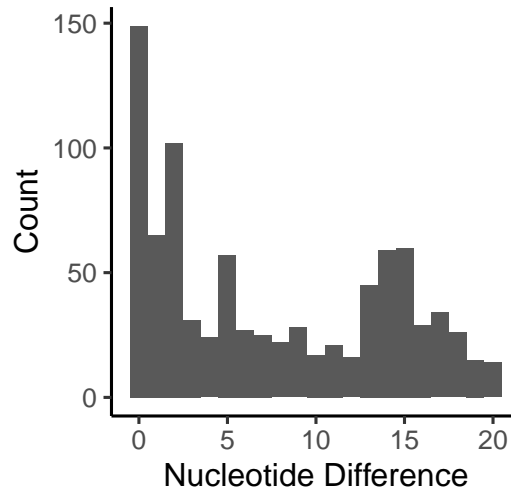
IGHV3–30*03

2984 sequences assigned
379 (12.7%) exact matches, in which:
345 unique CDR3
7 unique J



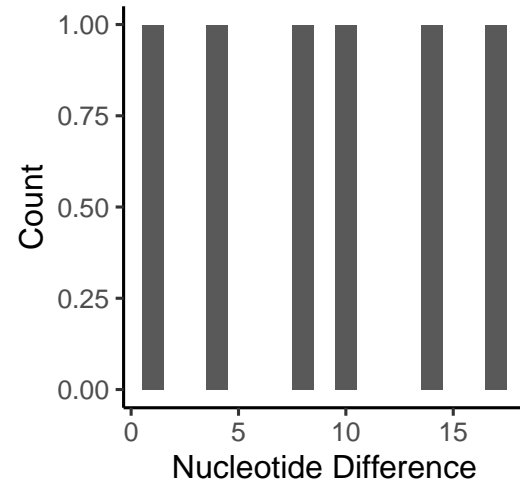
IGHV3–33*08

1048 sequences assigned
149 (14.2%) exact matches, in which:
104 unique CDR3
6 unique J



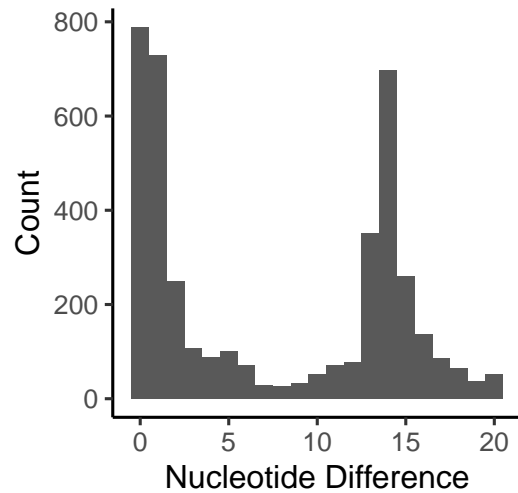
IGHV3–47*02

6 sequences assigned
No exact matches.



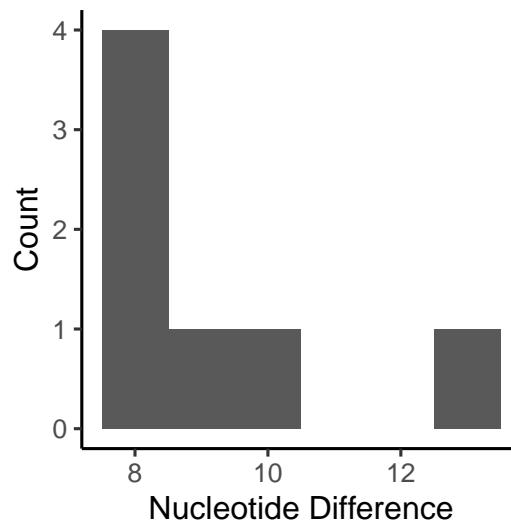
IGHV3–33*01

5619 sequences assigned
789 (14%) exact matches, in which:
525 unique CDR3
7 unique J



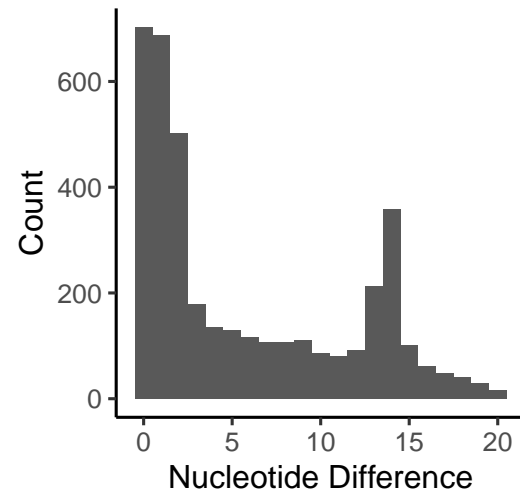
IGHV3–35*01

7 sequences assigned
No exact matches.



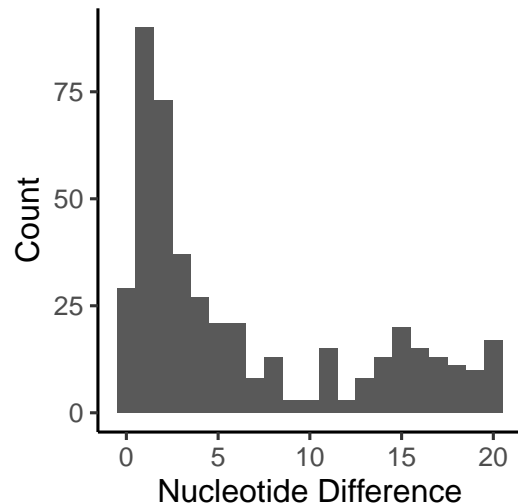
IGHV3–48*01

6398 sequences assigned
703 (11%) exact matches, in which:
468 unique CDR3
7 unique J



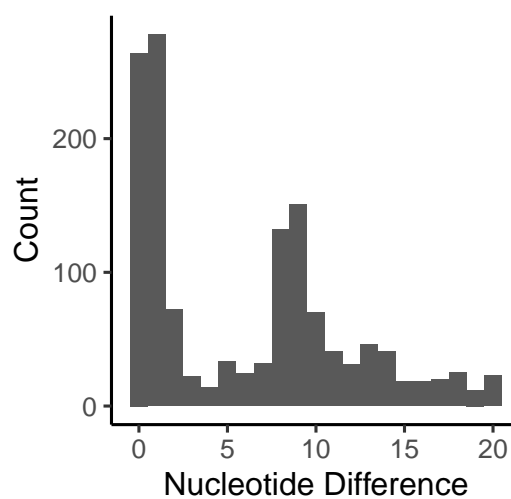
IGHV3–33*06

502 sequences assigned
29 (5.8%) exact matches, in which:
27 unique CDR3
6 unique J



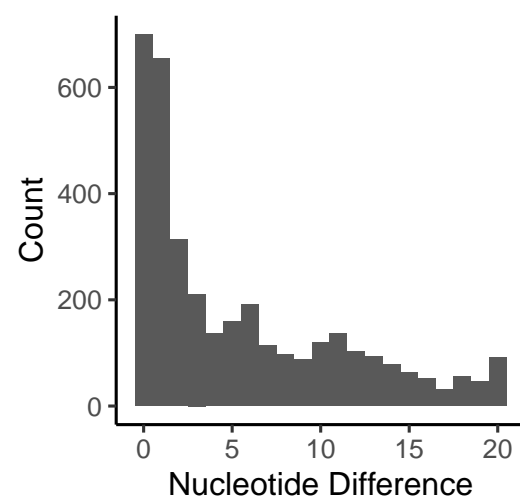
IGHV3–43*02

2396 sequences assigned
264 (11%) exact matches, in which:
145 unique CDR3
6 unique J



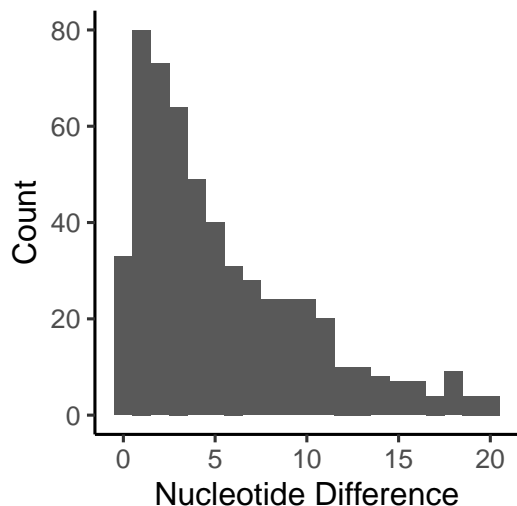
IGHV3–48*03

5611 sequences assigned
700 (12.5%) exact matches, in which:
437 unique CDR3
6 unique J



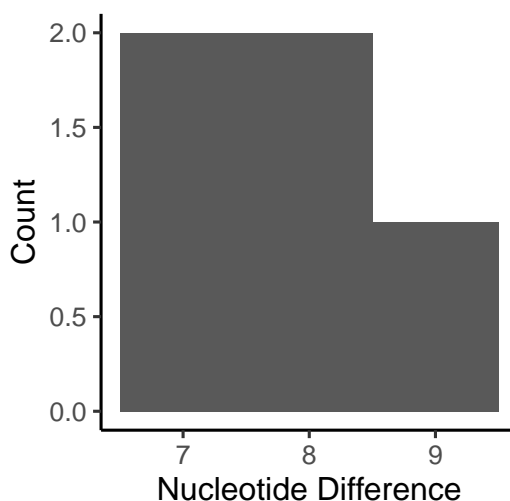
IGHV3-48*04

642 sequences assigned
33 (5.1%) exact matches, in which:
33 unique CDR3
5 unique J



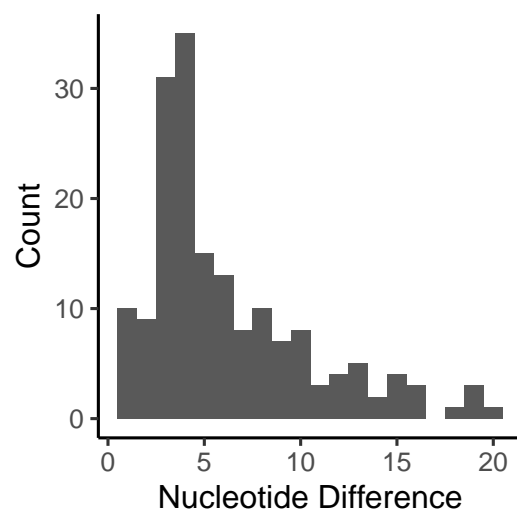
IGHV3-52*02

5 sequences assigned
No exact matches.



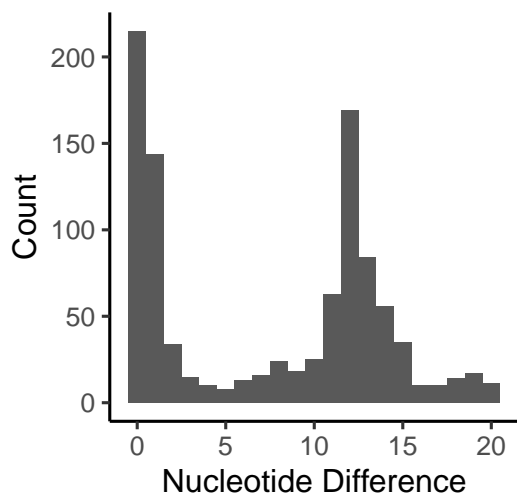
IGHV3-53*01_02

188 sequences assigned
No exact matches.



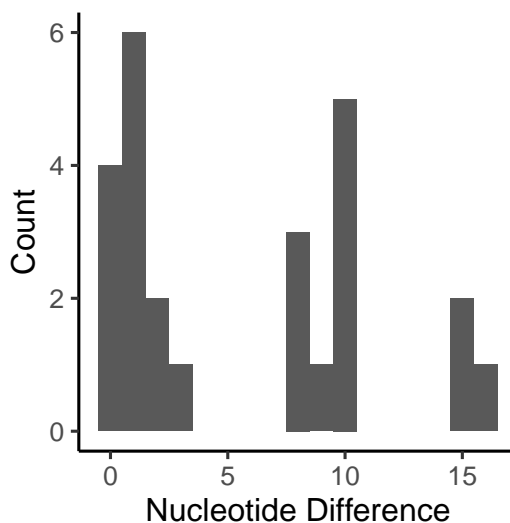
IGHV3-49*04

1079 sequences assigned
215 (19.9%) exact matches, in which:
133 unique CDR3
5 unique J



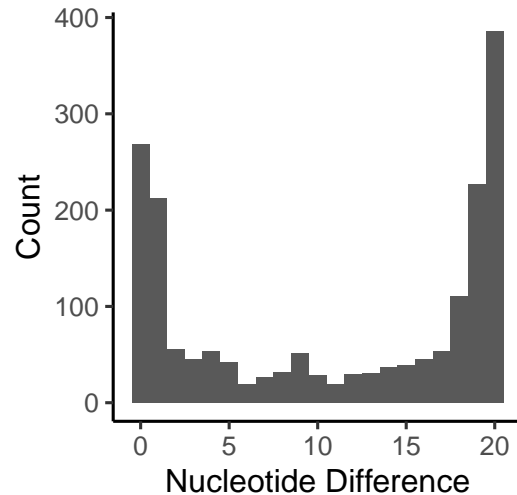
IGHV3-52*01_03

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



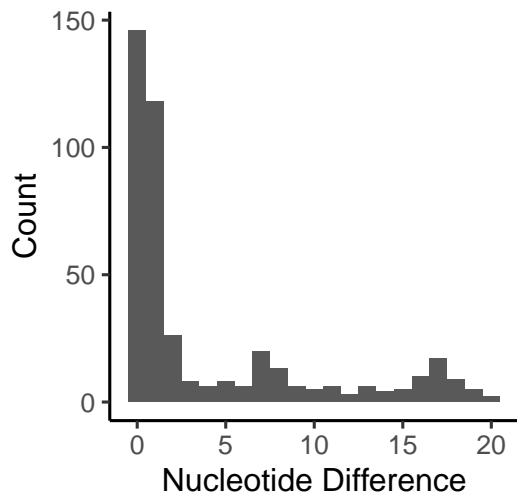
IGHV3-64*01

5474 sequences assigned
268 (4.9%) exact matches, in which:
172 unique CDR3
6 unique J



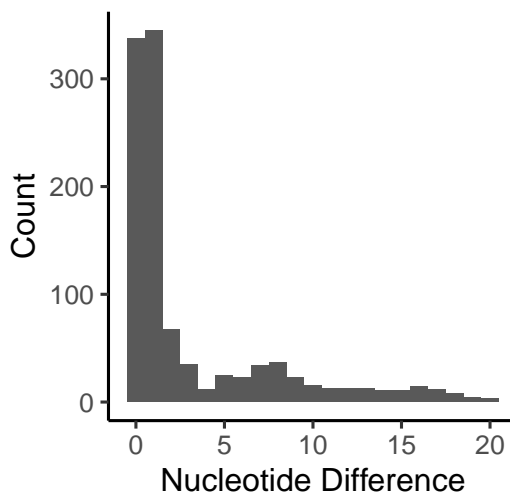
IGHV3-49*03_05

561 sequences assigned
146 (26%) exact matches, in which:
91 unique CDR3
7 unique J



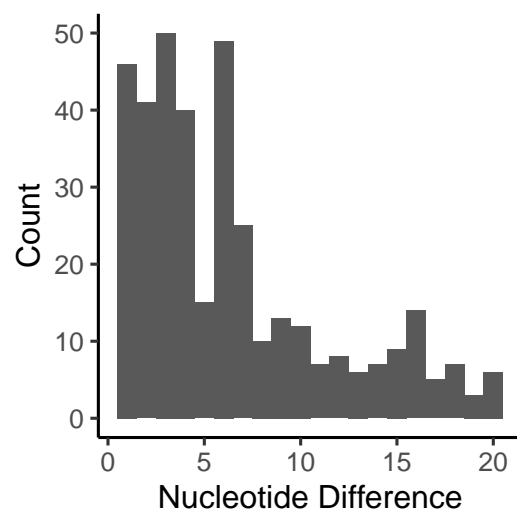
IGHV3-53*04

1089 sequences assigned
337 (30.9%) exact matches, in which:
222 unique CDR3
7 unique J



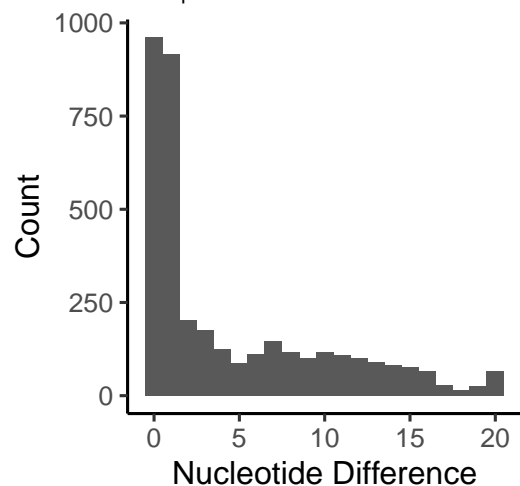
IGHV3-64*04

569 sequences assigned
No exact matches.



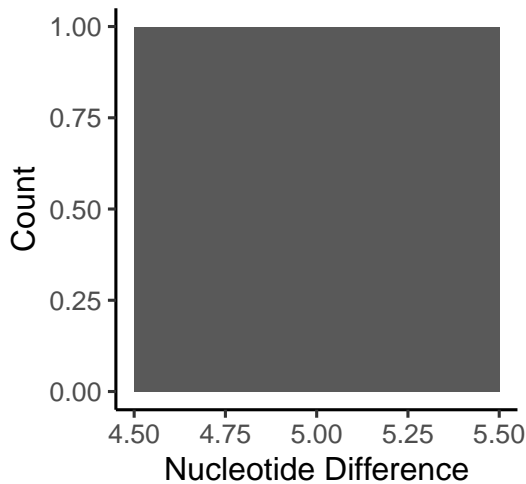
IGHV3-66*01

4626 sequences assigned
961 (20.8%) exact matches, in which:
647 unique CDR3
7 unique J



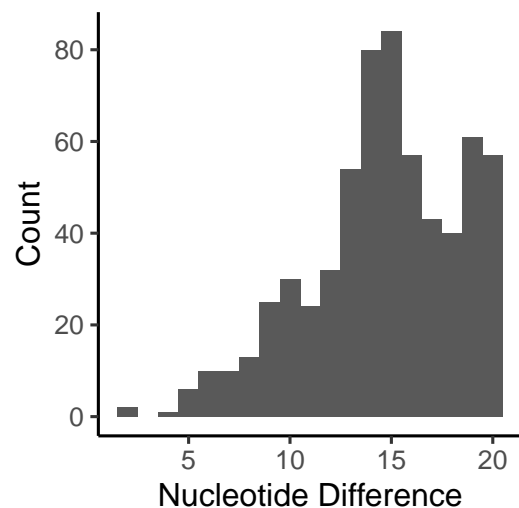
IGHV3-71*03

1 sequences assigned
No exact matches.



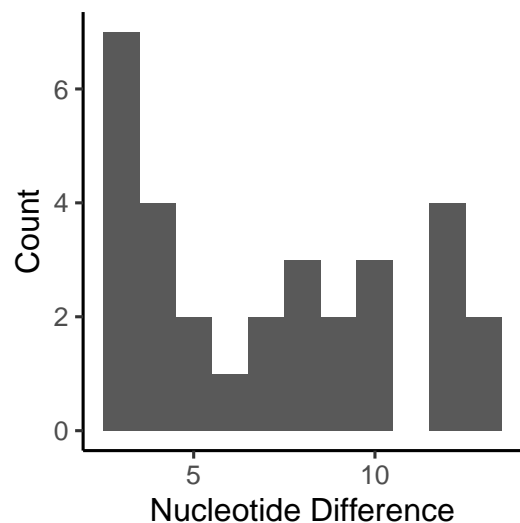
IGHV3-74*03

4043 sequences assigned
No exact matches.



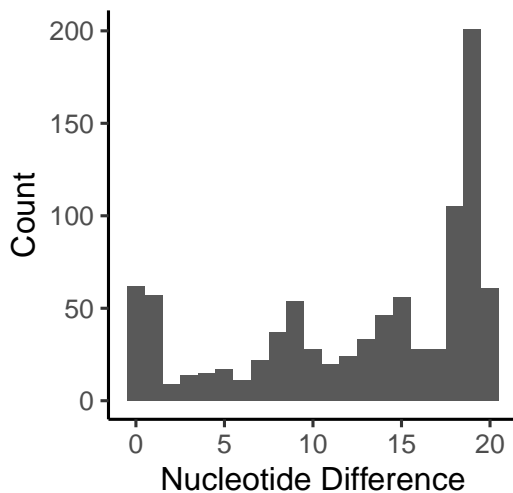
IGHV3-69-1*01

37 sequences assigned
No exact matches.



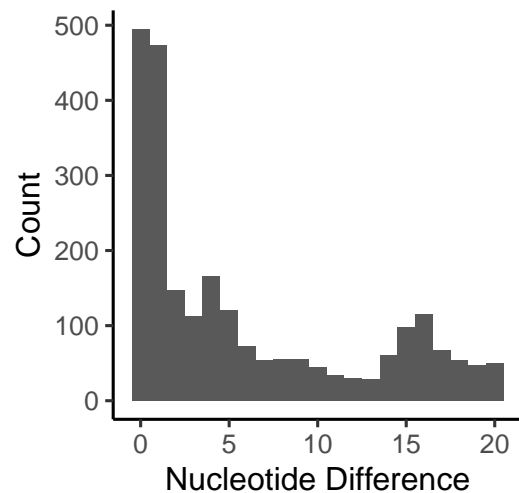
IGHV3-72*01

1146 sequences assigned
62 (5.4%) exact matches, in which:
38 unique CDR3
6 unique J



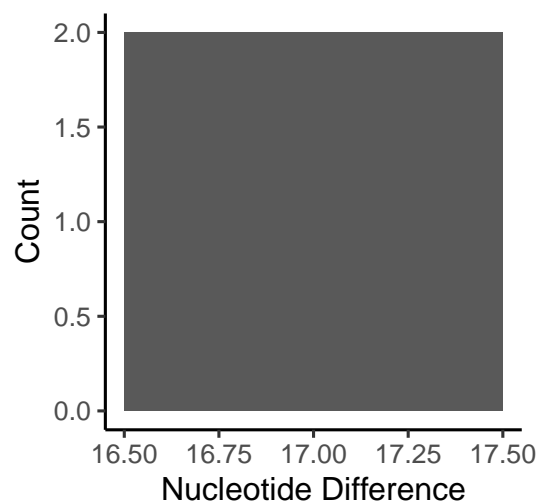
IGHV3-74*01_02

2954 sequences assigned
495 (16.8%) exact matches, in which:
326 unique CDR3
7 unique J



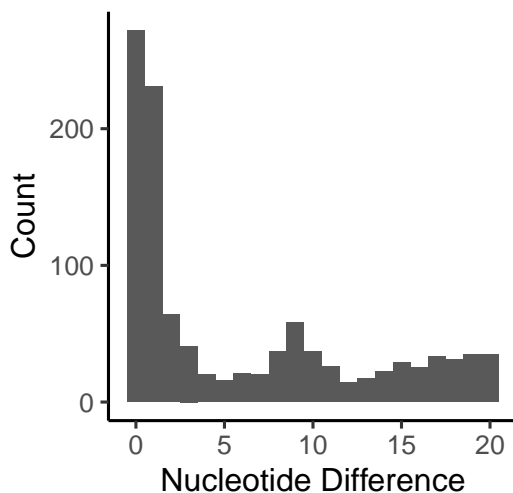
IGHV3-69-1*02

10 sequences assigned
No exact matches.



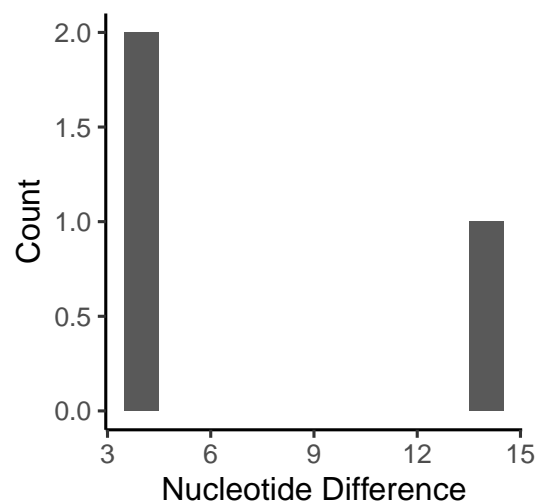
IGHV3-73*01_02

1547 sequences assigned
272 (17.6%) exact matches, in which:
161 unique CDR3
7 unique J



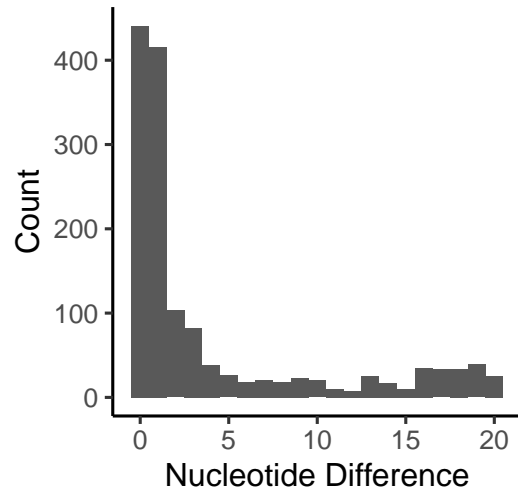
IGHV3-43D*04

3 sequences assigned
No exact matches.



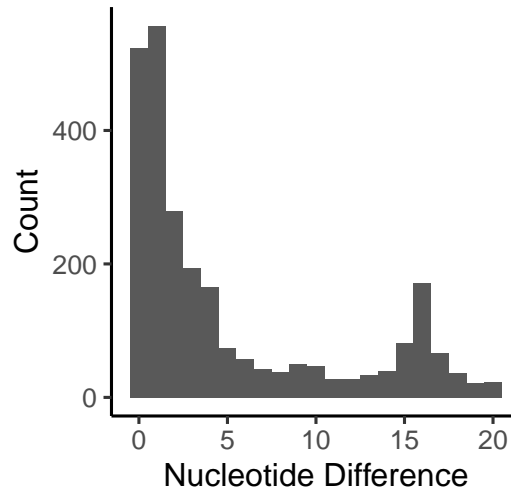
IGHV3-64D*06

3501 sequences assigned
441 (12.6%) exact matches, in which:
244 unique CDR3
7 unique J



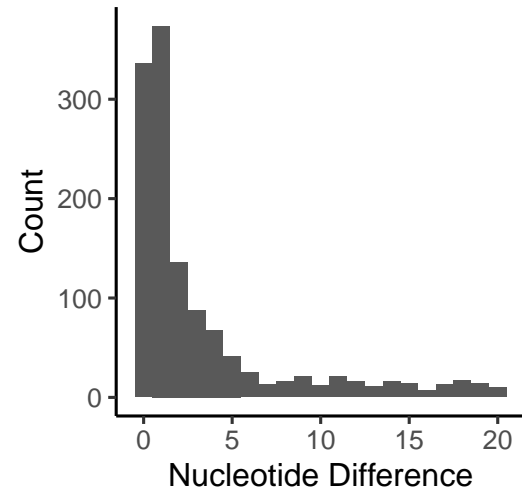
IGHV4-4*02_03

2909 sequences assigned
524 (18%) exact matches, in which:
414 unique CDR3
7 unique J



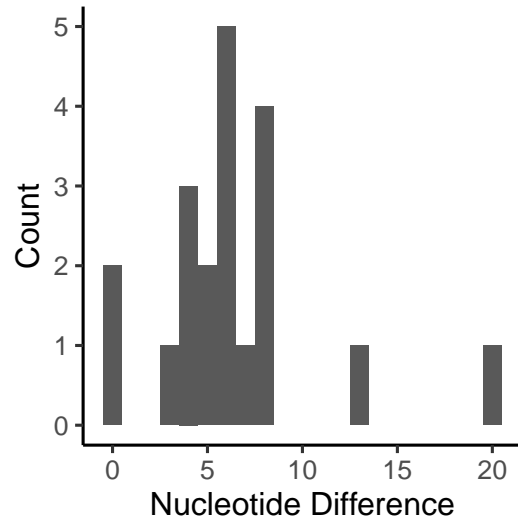
IGHV4-30-4*01

2508 sequences assigned
336 (13.4%) exact matches, in which:
270 unique CDR3
7 unique J



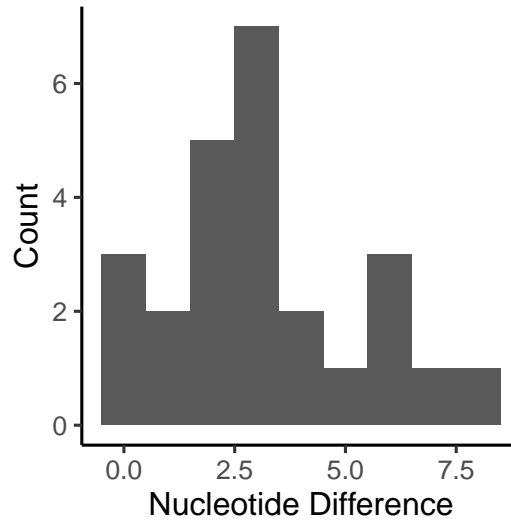
IGHV3-NL1*01

29 sequences assigned
2 (6.9%) exact matches, in which:
2 unique CDR3
2 unique J



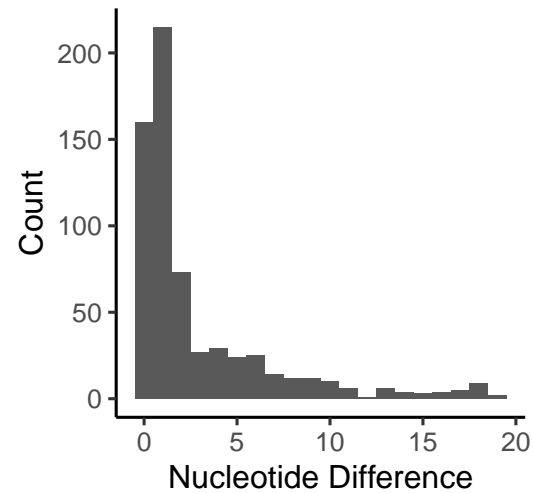
IGHV4-28*03

26 sequences assigned
3 (11.5%) exact matches, in which:
3 unique CDR3
2 unique J



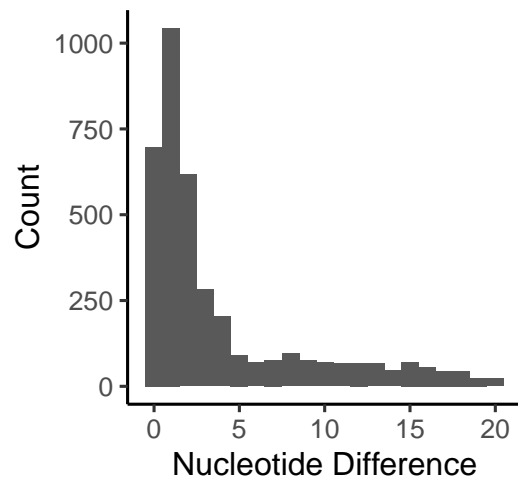
IGHV4-30-2*01

691 sequences assigned
160 (23.2%) exact matches, in which:
94 unique CDR3
5 unique J



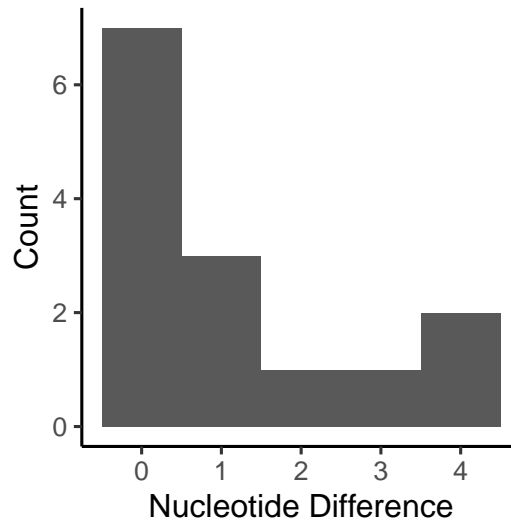
IGHV4-4*07

4007 sequences assigned
698 (17.4%) exact matches, in which:
564 unique CDR3
7 unique J



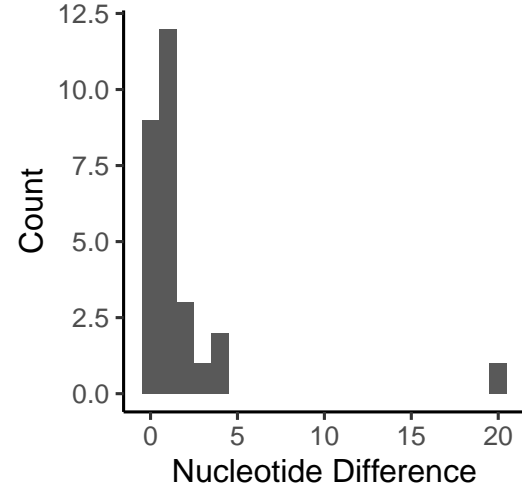
IGHV4-28*01_07

14 sequences assigned
7 (50%) exact matches, in which:
4 unique CDR3
2 unique J



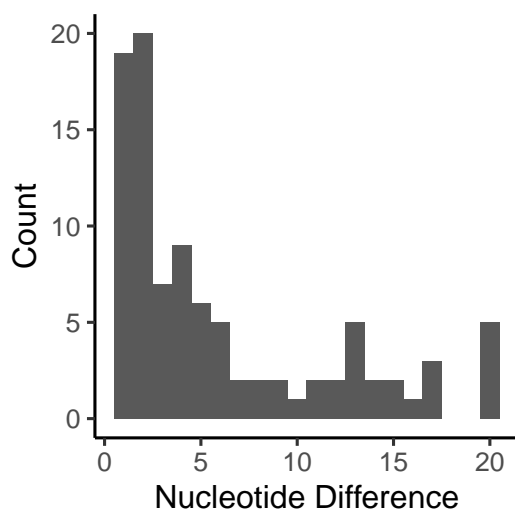
IGHV4-30-2*02

28 sequences assigned
9 (32.1%) exact matches, in which:
9 unique CDR3
4 unique J



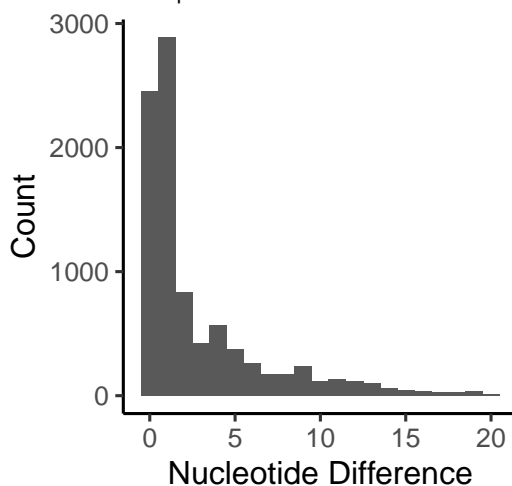
IGHV4-30-2*03

112 sequences assigned
No exact matches.



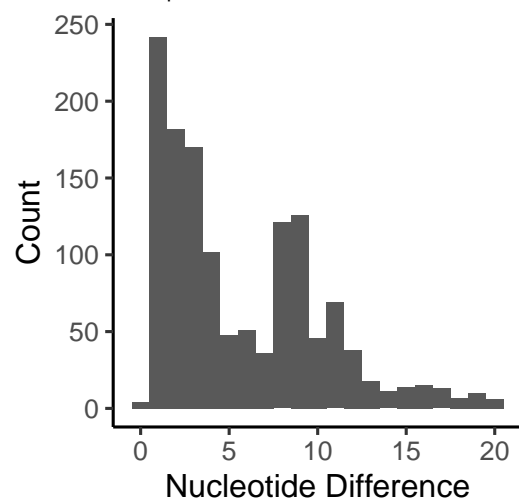
IGHV4-34*01_02

9286 sequences assigned
2457 (26.5%) exact matches, in which:
1821 unique CDR3
7 unique J



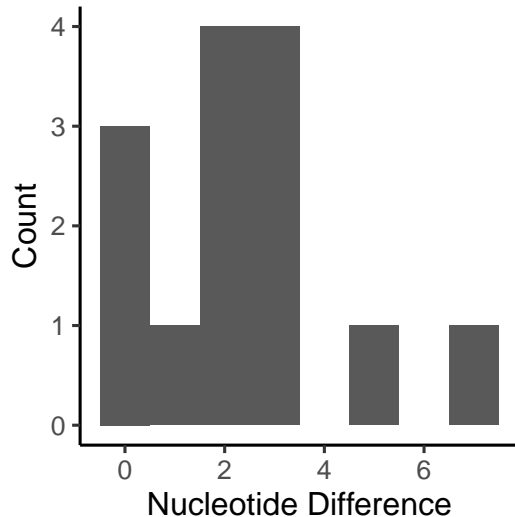
IGHV4-39*07

3285 sequences assigned
4 (0.1%) exact matches, in which:
4 unique CDR3
3 unique J



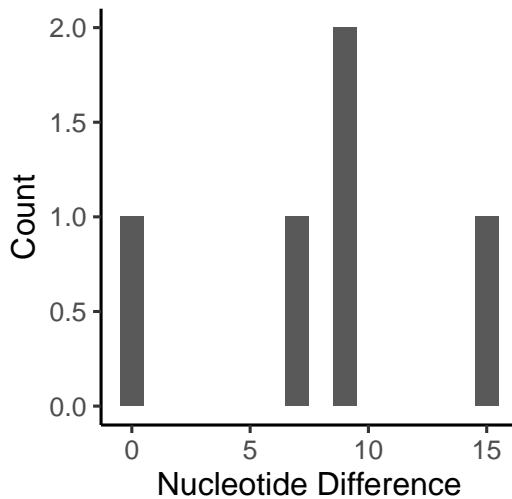
IGHV4-30-2*04

14 sequences assigned
3 (21.4%) exact matches, in which:
3 unique CDR3
3 unique J



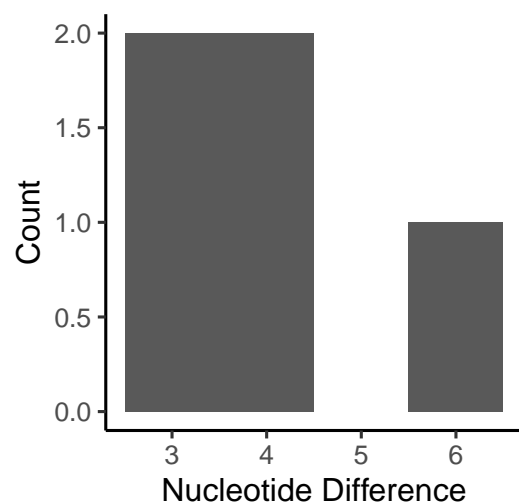
IGHV4-38-2*01

13 sequences assigned
1 (7.7%) exact matches, in which:
1 unique CDR3
1 unique J



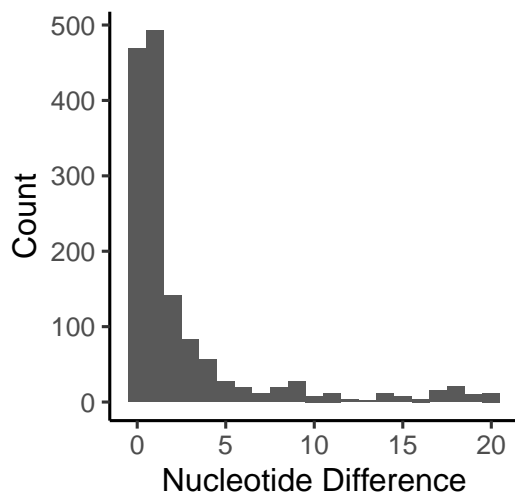
IGHV4-55*09

5 sequences assigned
No exact matches.



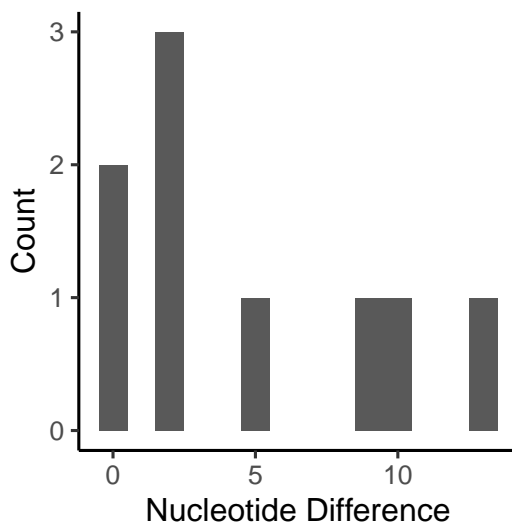
IGHV4-31*02

1666 sequences assigned
469 (28.2%) exact matches, in which:
391 unique CDR3
7 unique J



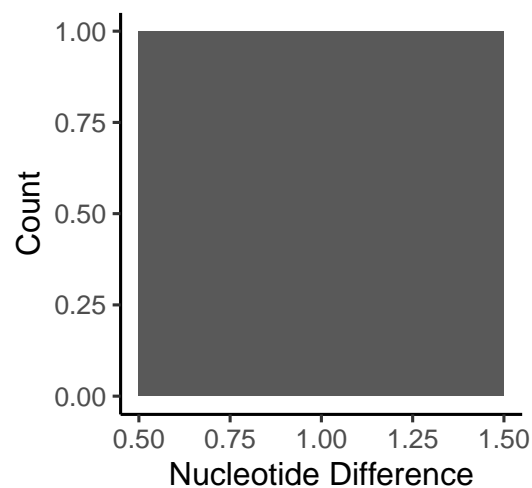
IGHV4-38-2*02

10 sequences assigned
2 (20%) exact matches, in which:
2 unique CDR3
2 unique J



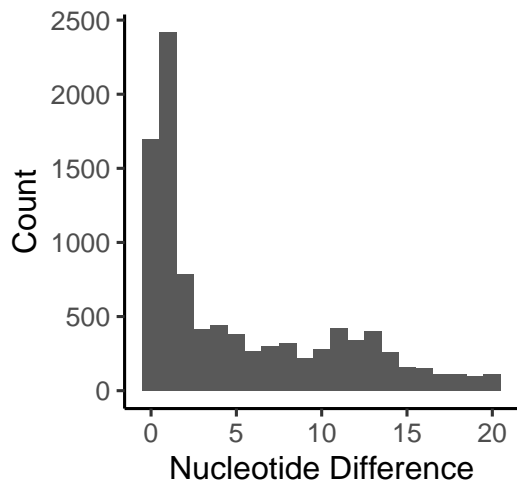
IGHV4-55*02_04_08

1 sequences assigned
No exact matches.



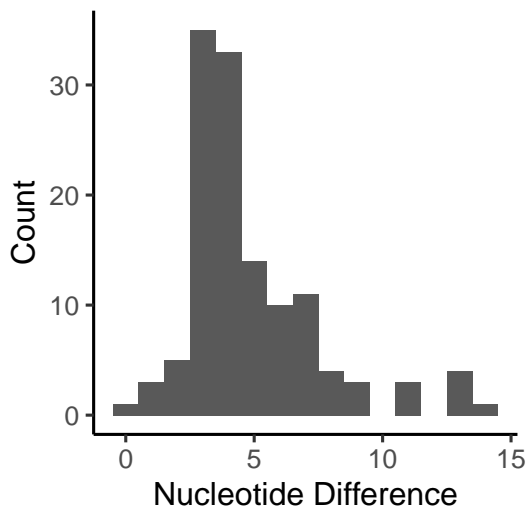
IGHV4-59*08

14720 sequences assigned
1694 (11.5%) exact matches, in which:
1272 unique CDR3
7 unique J



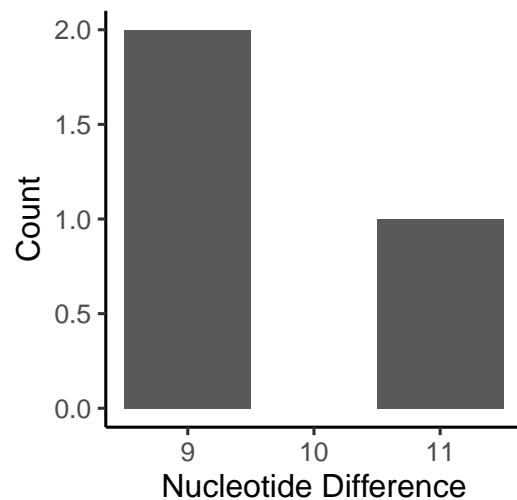
IGHV4-61*02

128 sequences assigned
1 (0.8%) exact matches, in which:
1 unique CDR3
1 unique J



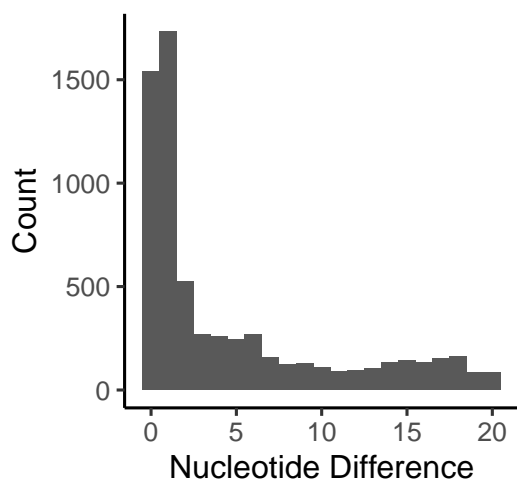
IGHV1/OR15-3*02

3 sequences assigned
No exact matches.



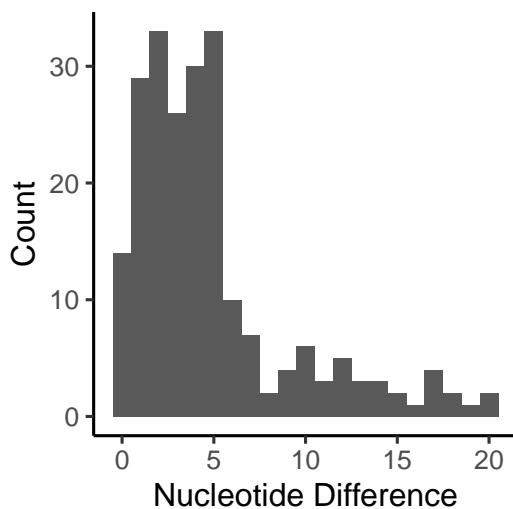
IGHV4-59*01_07

8606 sequences assigned
1539 (17.9%) exact matches, in which:
1230 unique CDR3
7 unique J



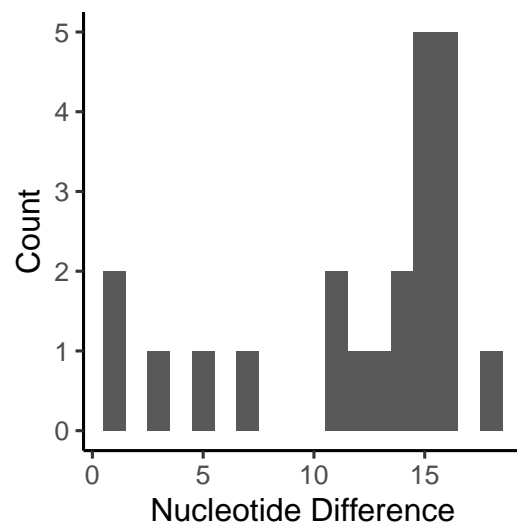
IGHV4-61*08

272 sequences assigned
14 (5.1%) exact matches, in which:
13 unique CDR3
4 unique J



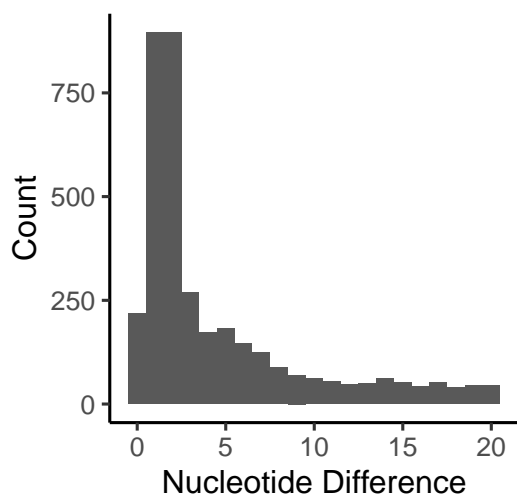
IGHV4/OR15-8*01

25 sequences assigned
No exact matches.



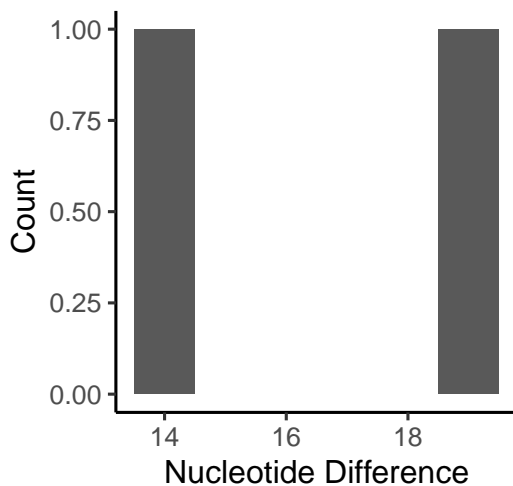
IGHV4-59*12

4259 sequences assigned
218 (5.1%) exact matches, in which:
203 unique CDR3
7 unique J



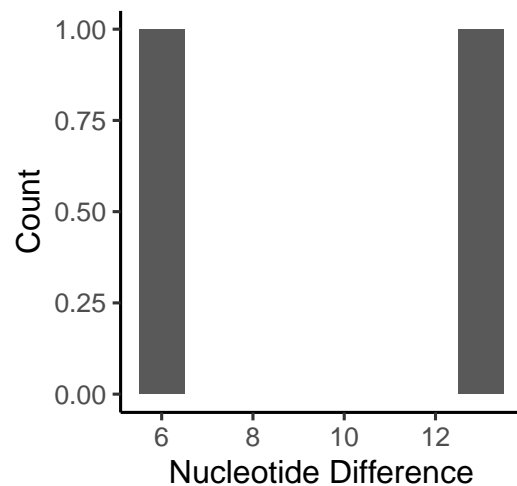
IGHV1/OR15-2*02_03

2 sequences assigned
No exact matches.



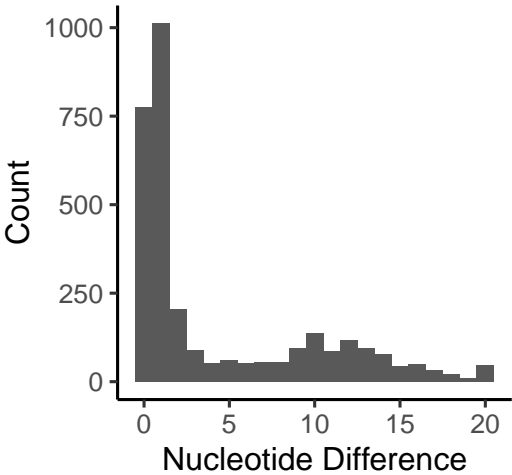
IGHV4/OR15-8*02

4 sequences assigned
No exact matches.



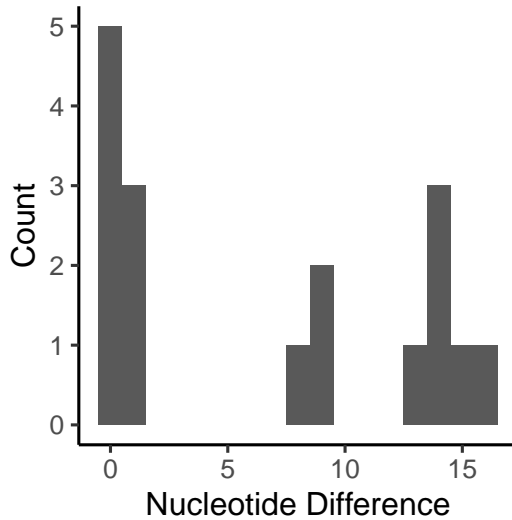
IGHV5-10-1*01_03

3434 sequences assigned
775 (22.6%) exact matches, in which:
521 unique CDR3
7 unique J



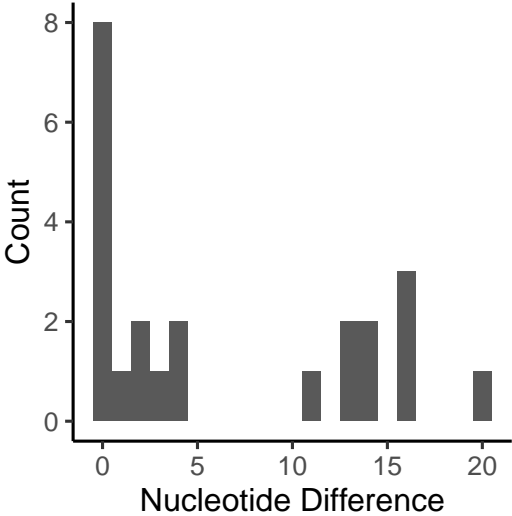
IGHV5-51*07

22 sequences assigned
5 (22.7%) exact matches, in which:
5 unique CDR3
3 unique J



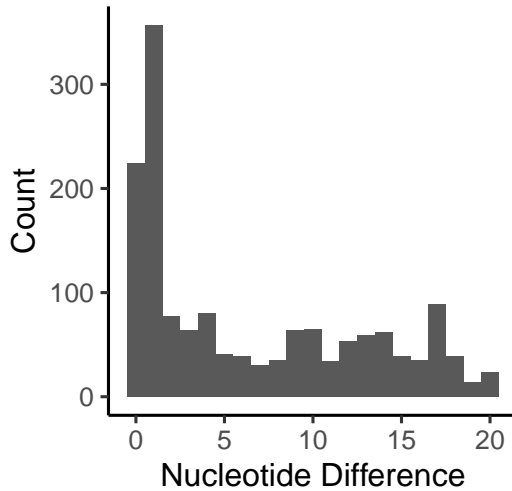
IGHV5-51*04

30 sequences assigned
8 (26.7%) exact matches, in which:
8 unique CDR3
5 unique J



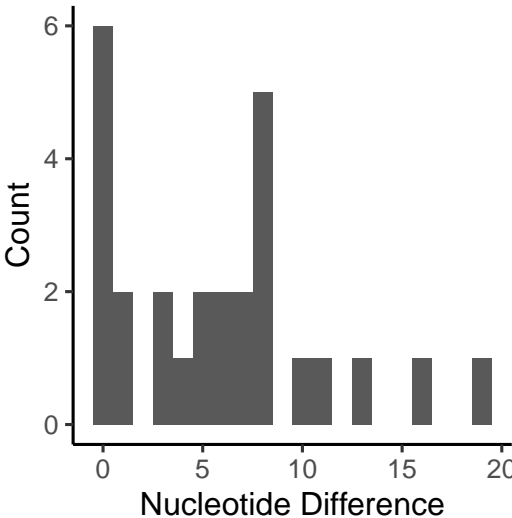
IGHV6-1*01_02

1655 sequences assigned
224 (13.5%) exact matches, in which:
179 unique CDR3
7 unique J



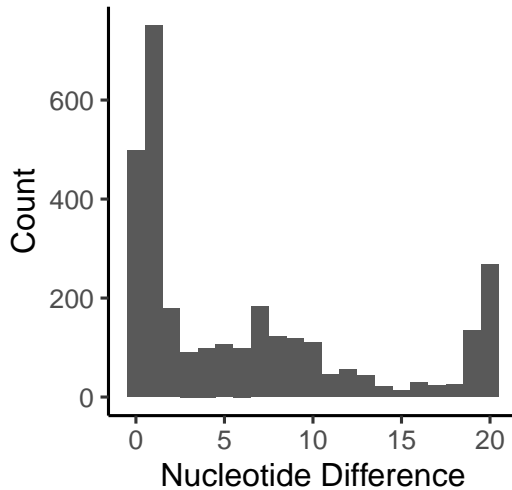
IGHV5-51*06

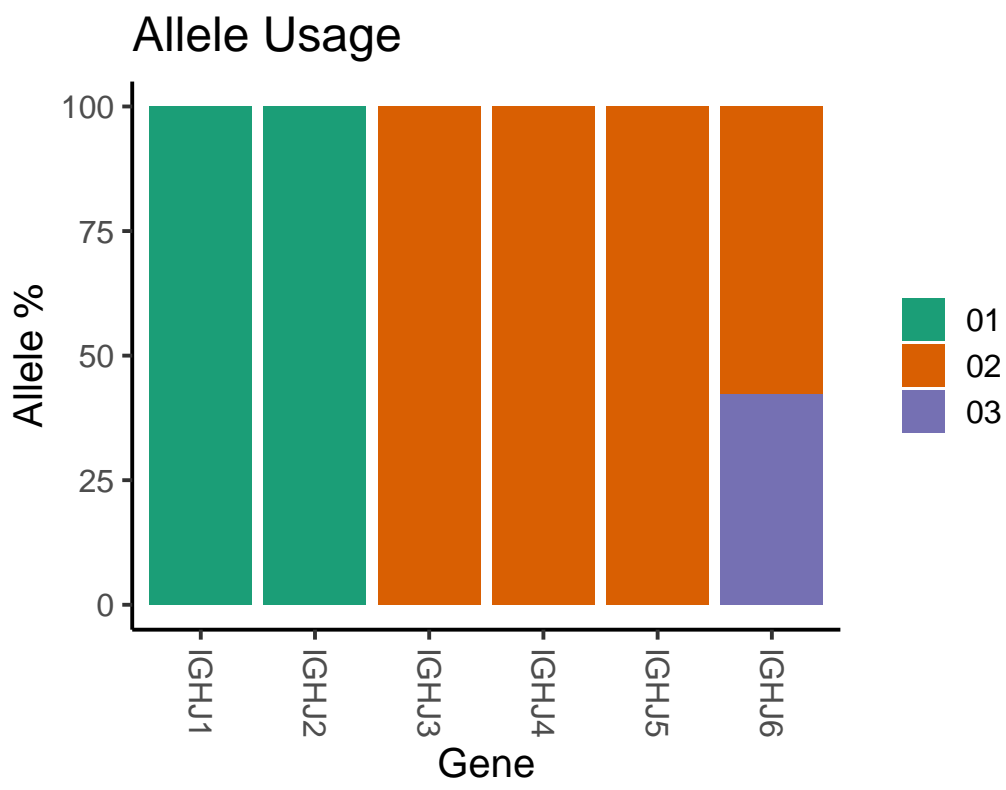
36 sequences assigned
6 (16.7%) exact matches, in which:
6 unique CDR3
3 unique J



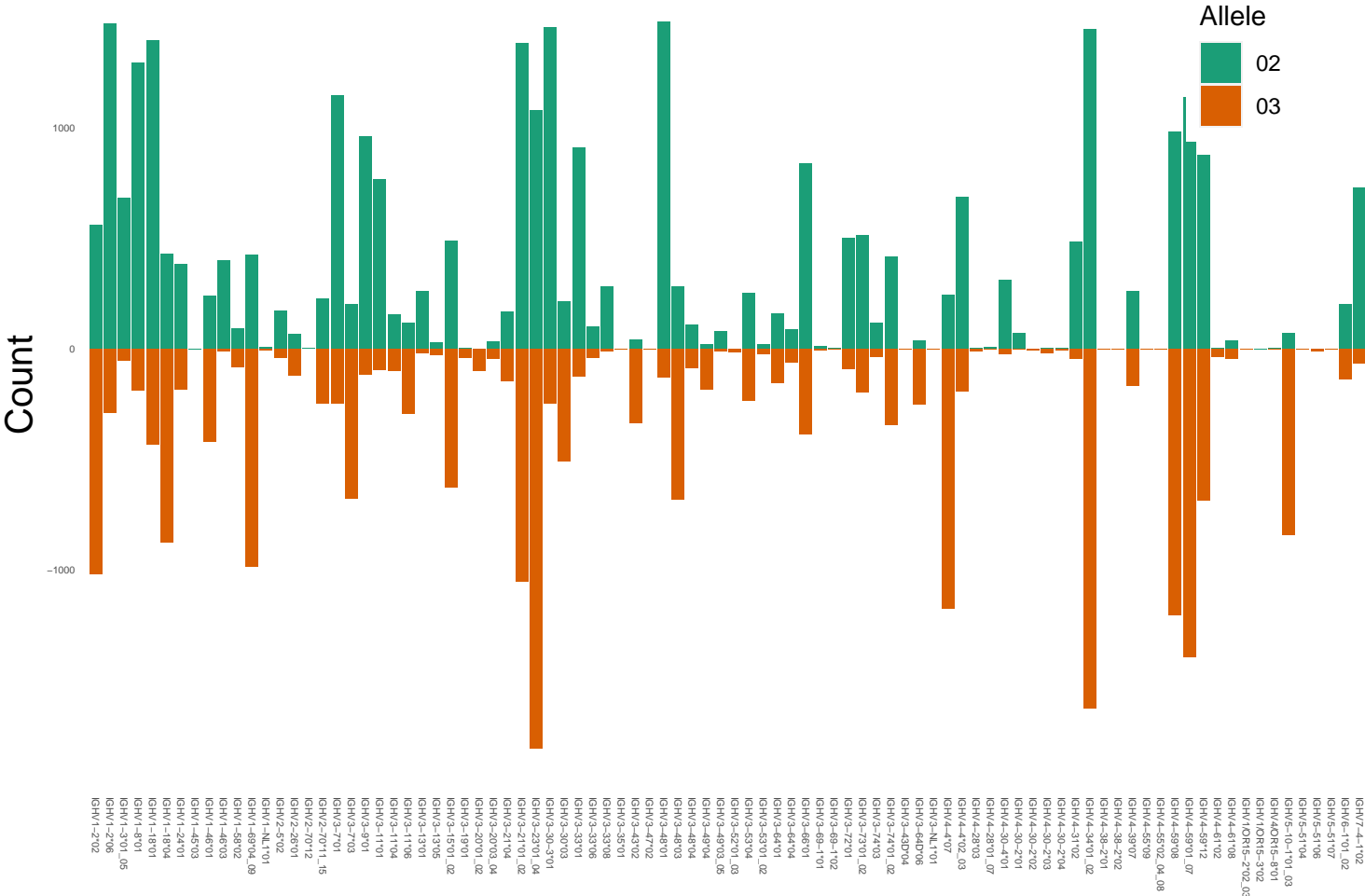
IGHV7-4-1*02

4085 sequences assigned
498 (12.2%) exact matches, in which:
377 unique CDR3
7 unique J





Sequence Count by IGHJ6 allele usage



[illegible]