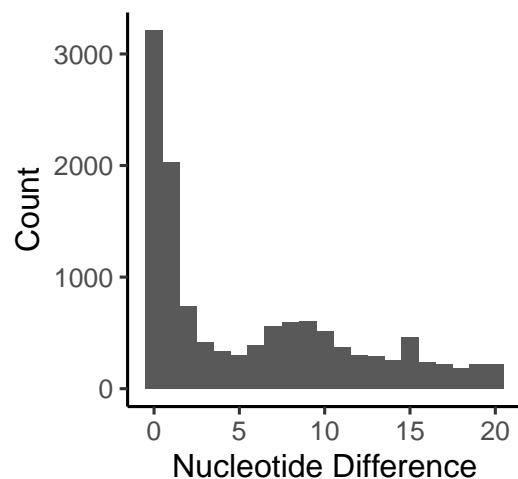


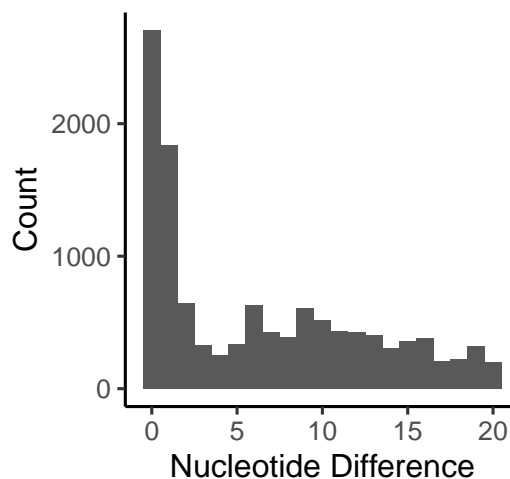
IGHV1-2*02

13865 sequences assigned
3211 (23.2%) exact matches, in which:
2938 unique CDR3
7 unique J



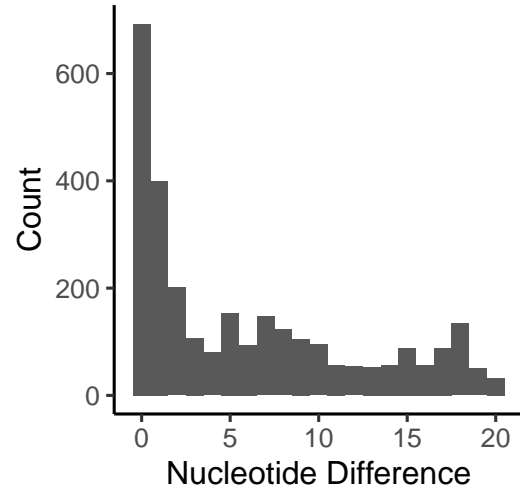
IGHV1-18*01

13504 sequences assigned
2704 (20%) exact matches, in which:
2495 unique CDR3
7 unique J



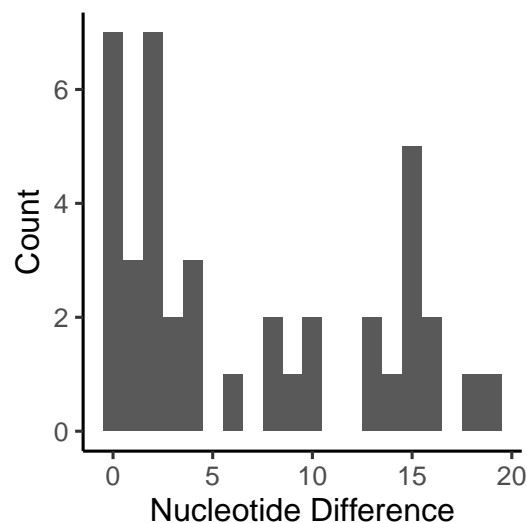
IGHV1-46*01

3159 sequences assigned
693 (21.9%) exact matches, in which:
650 unique CDR3
7 unique J



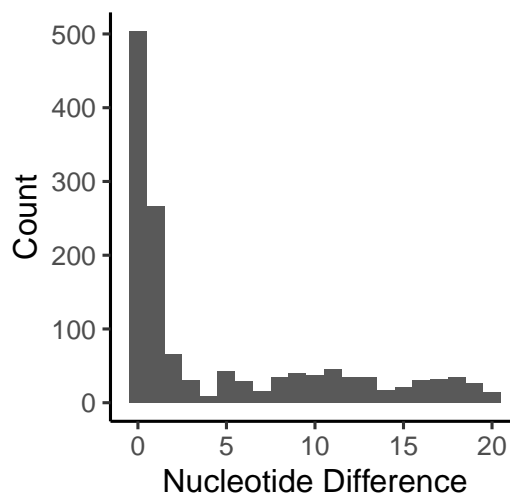
IGHV1-3*02

41 sequences assigned
7 (17.1%) exact matches, in which:
7 unique CDR3
3 unique J



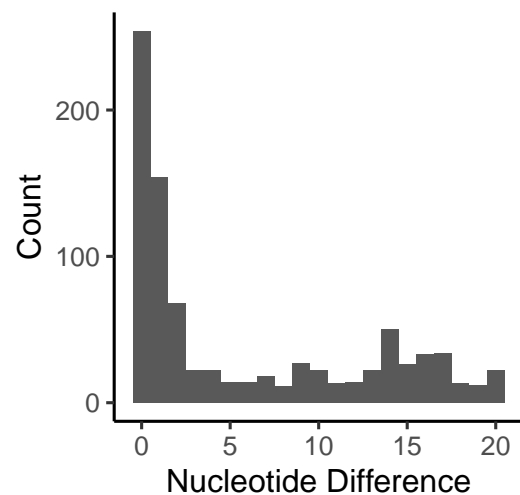
IGHV1-24*01

1528 sequences assigned
504 (33%) exact matches, in which:
472 unique CDR3
7 unique J



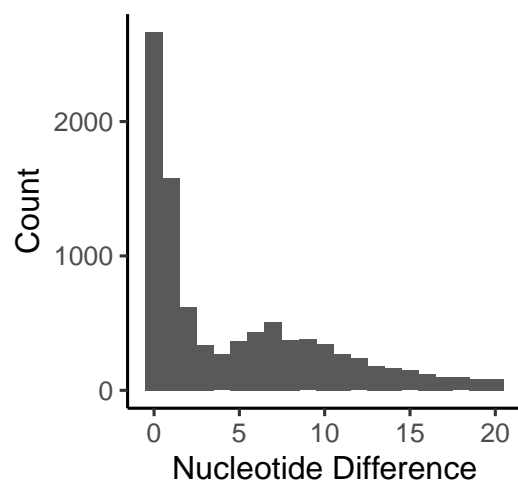
IGHV1-46*03

966 sequences assigned
254 (26.3%) exact matches, in which:
233 unique CDR3
7 unique J



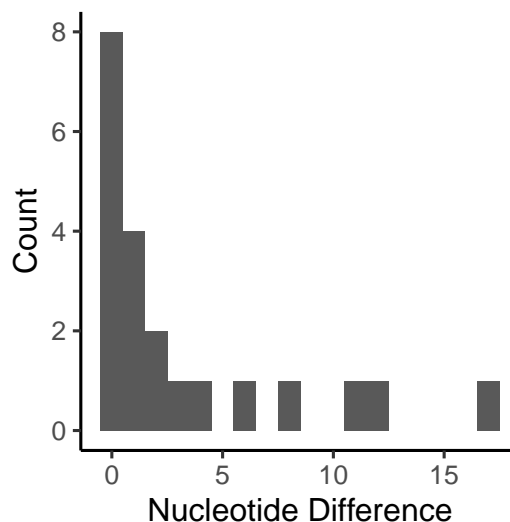
IGHV1-8*01

10019 sequences assigned
2666 (26.6%) exact matches, in which:
2500 unique CDR3
7 unique J



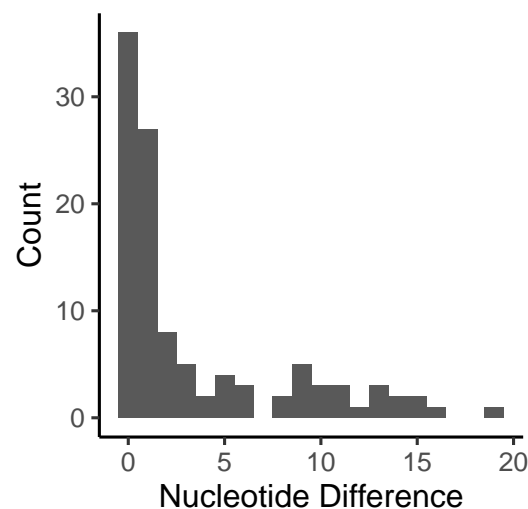
IGHV1-45*02

27 sequences assigned
8 (29.6%) exact matches, in which:
8 unique CDR3
4 unique J



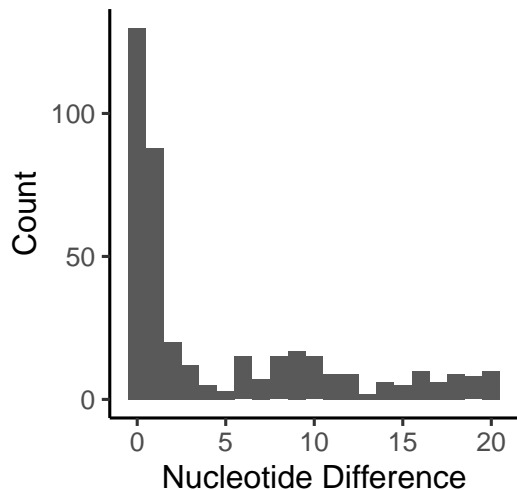
IGHV1-58*02

110 sequences assigned
36 (32.7%) exact matches, in which:
34 unique CDR3
4 unique J



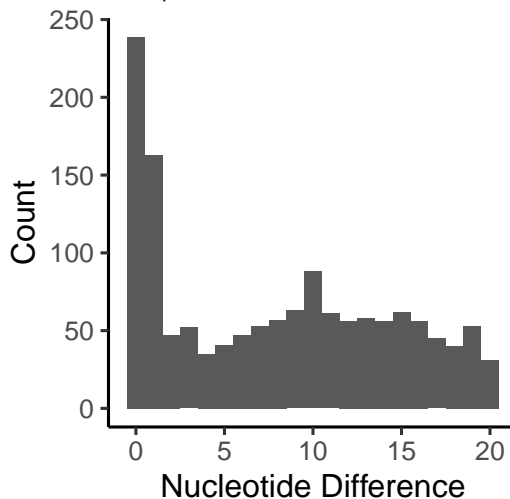
IGHV1–58*01_03

503 sequences assigned
130 (25.8%) exact matches, in which:
122 unique CDR3
7 unique J



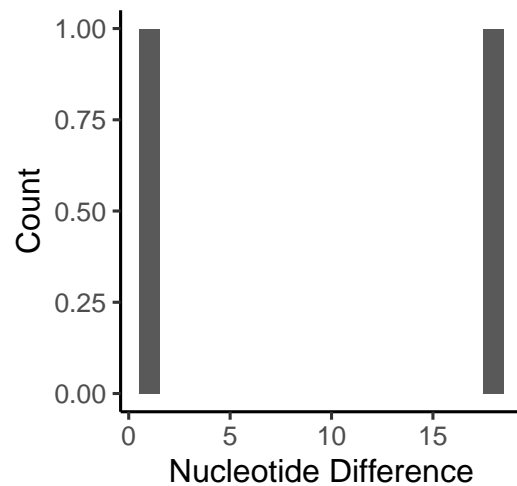
IGHV2–5*01

1682 sequences assigned
239 (14.2%) exact matches, in which:
231 unique CDR3
7 unique J



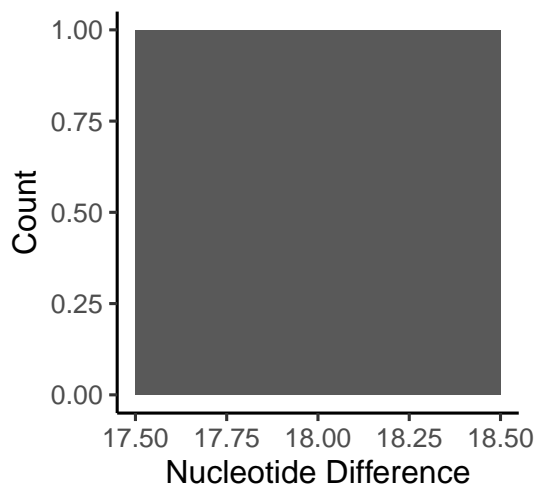
IGHV2–70D*04

2 sequences assigned
No exact matches.



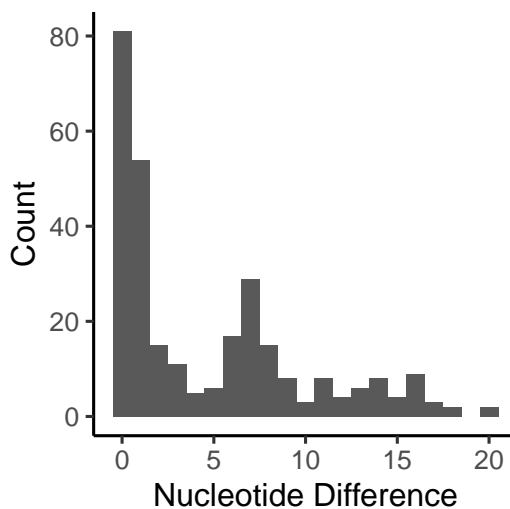
IGHV1–69–2*01

2 sequences assigned
No exact matches.



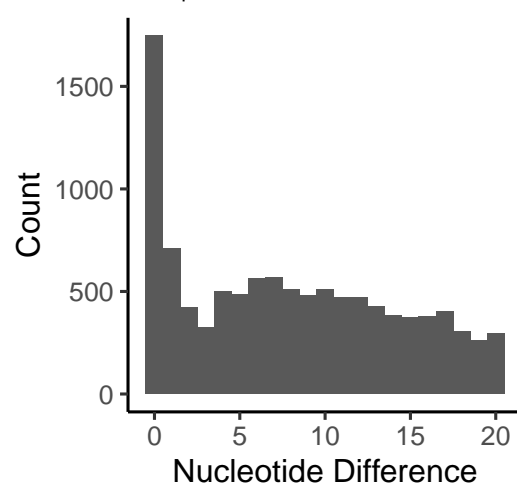
IGHV2–26*01

308 sequences assigned
81 (26.3%) exact matches, in which:
79 unique CDR3
6 unique J



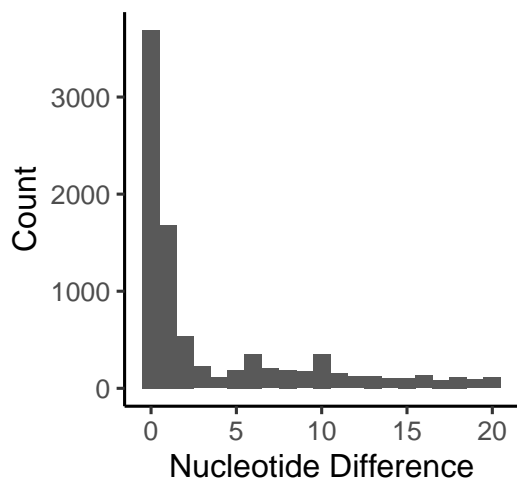
IGHV3–7*01

12241 sequences assigned
1747 (14.3%) exact matches, in which:
1319 unique CDR3
7 unique J



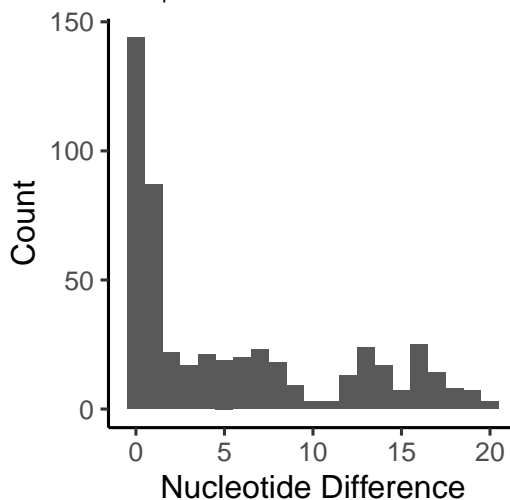
IGHV1–69*01_12_13

10652 sequences assigned
3690 (34.6%) exact matches, in which:
3537 unique CDR3
7 unique J



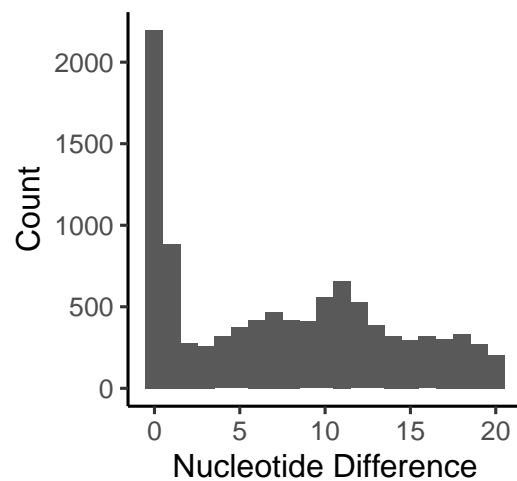
IGHV2–70*01

543 sequences assigned
144 (26.5%) exact matches, in which:
135 unique CDR3
7 unique J



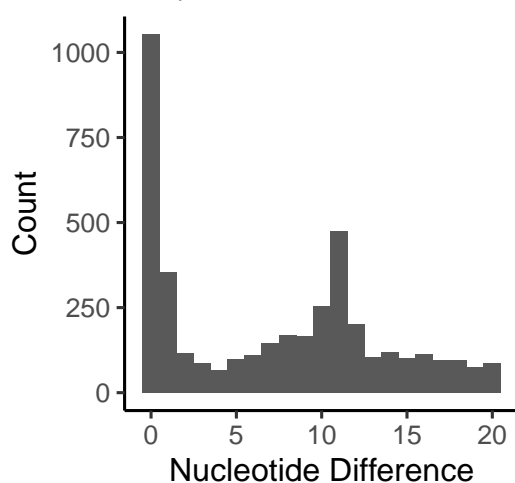
IGHV3–9*01

12061 sequences assigned
2197 (18.2%) exact matches, in which:
1504 unique CDR3
7 unique J



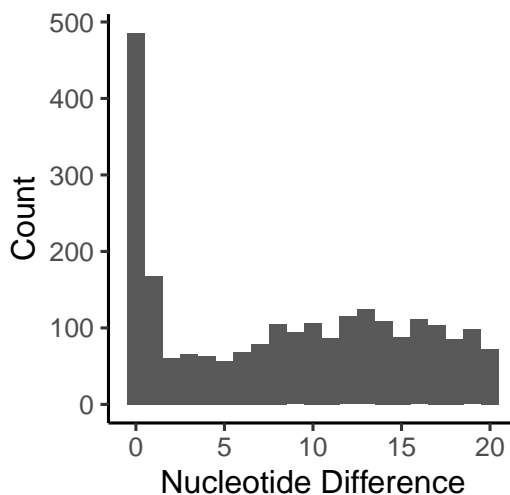
IGHV3-11*01

4745 sequences assigned
1053 (22.2%) exact matches, in which:
800 unique CDR3
7 unique J



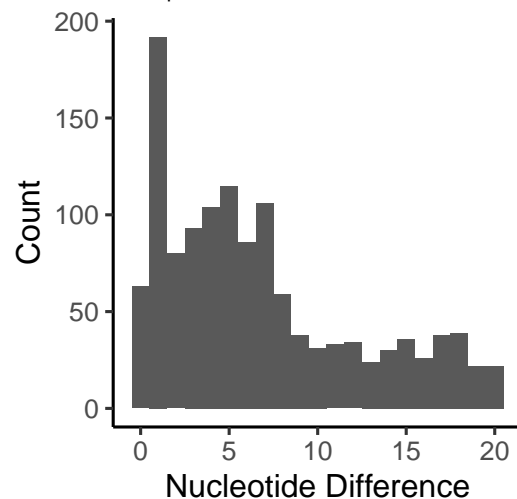
IGHV3-15*01_02

3274 sequences assigned
486 (14.8%) exact matches, in which:
343 unique CDR3
7 unique J



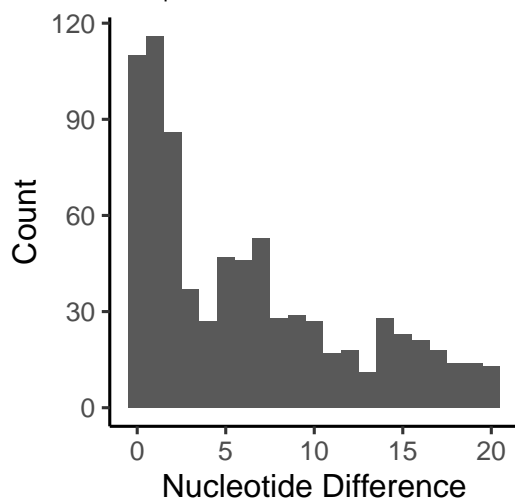
IGHV3-21*04

1461 sequences assigned
63 (4.3%) exact matches, in which:
63 unique CDR3
5 unique J



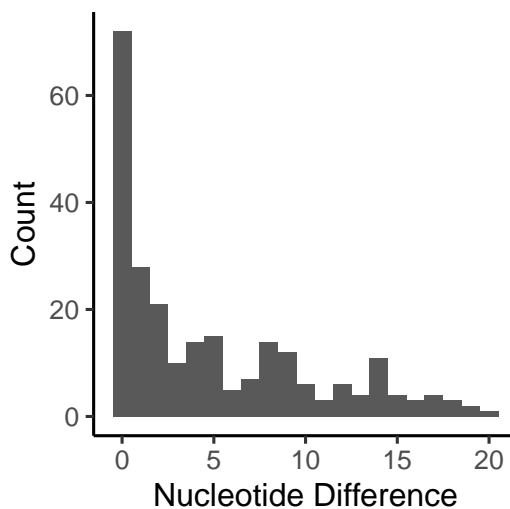
IGHV3-11*04

884 sequences assigned
110 (12.4%) exact matches, in which:
109 unique CDR3
6 unique J



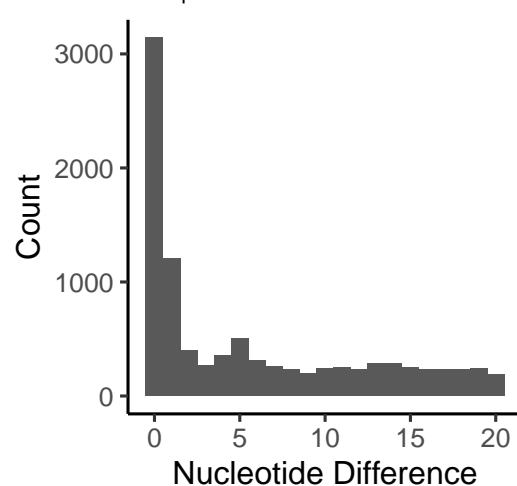
IGHV3-20*01_02

314 sequences assigned
72 (22.9%) exact matches, in which:
48 unique CDR3
6 unique J



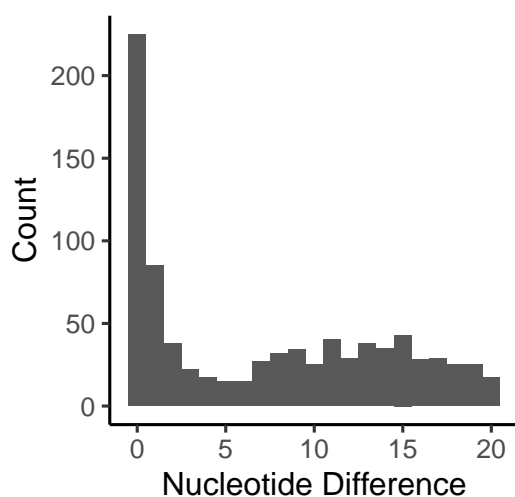
IGHV3-21*01_02

11286 sequences assigned
3142 (27.8%) exact matches, in which:
2278 unique CDR3
7 unique J



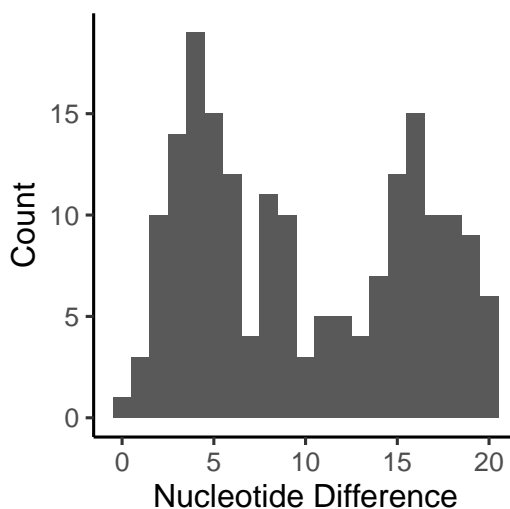
IGHV3-13*01

1056 sequences assigned
225 (21.3%) exact matches, in which:
155 unique CDR3
6 unique J



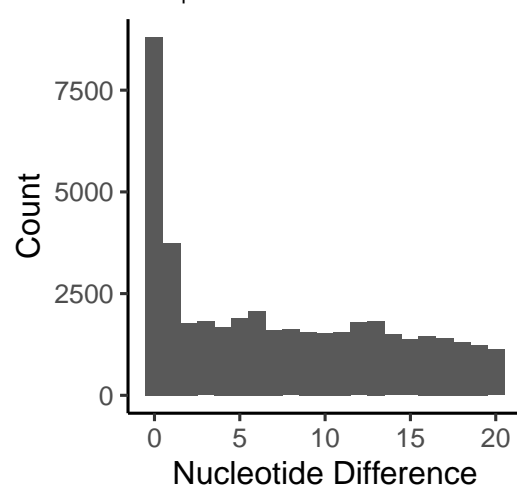
IGHV3-20*03_04

335 sequences assigned
1 (0.3%) exact matches, in which:
1 unique CDR3
1 unique J



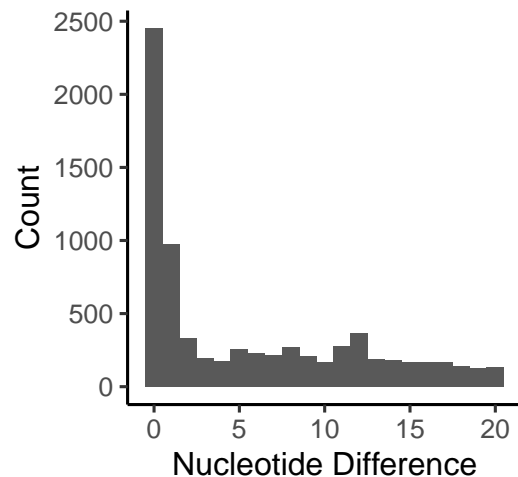
IGHV3-23*01_04

52167 sequences assigned
8806 (16.9%) exact matches, in which:
6005 unique CDR3
7 unique J



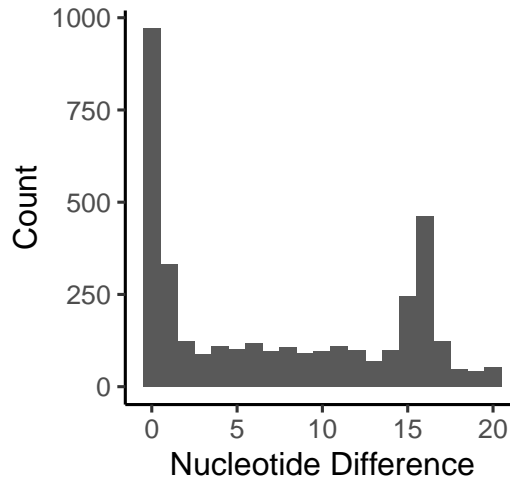
IGHV3-30-3*01

8189 sequences assigned
2451 (29.9%) exact matches, in which:
1776 unique CDR3
7 unique J



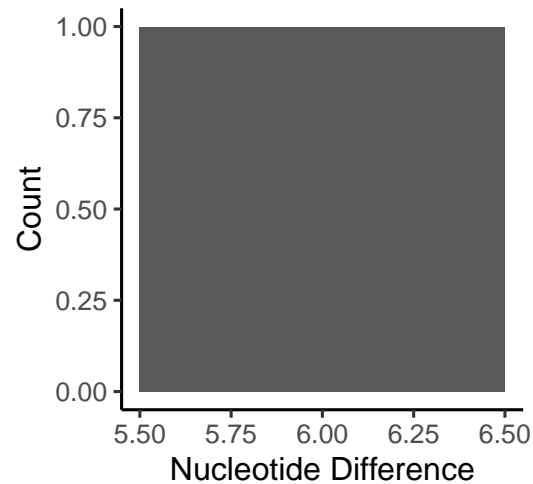
IGHV3-33*01

4261 sequences assigned
971 (22.8%) exact matches, in which:
737 unique CDR3
7 unique J



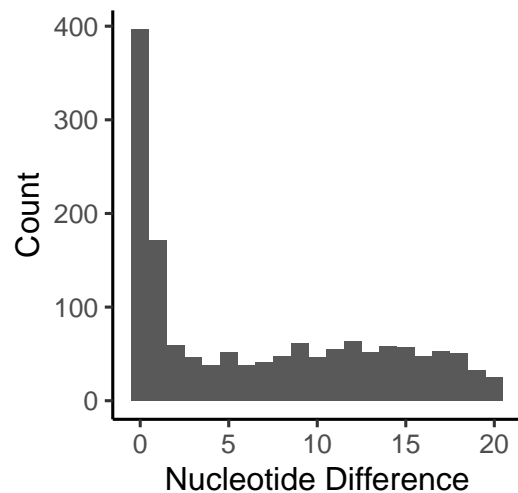
IGHV3-35*01

1 sequences assigned
No exact matches.



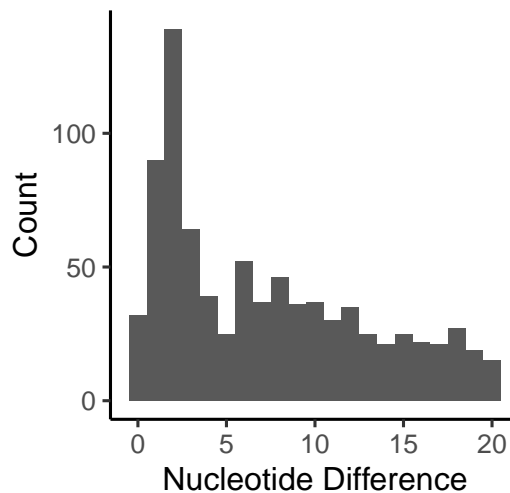
IGHV3-30*03

2015 sequences assigned
397 (19.7%) exact matches, in which:
376 unique CDR3
7 unique J



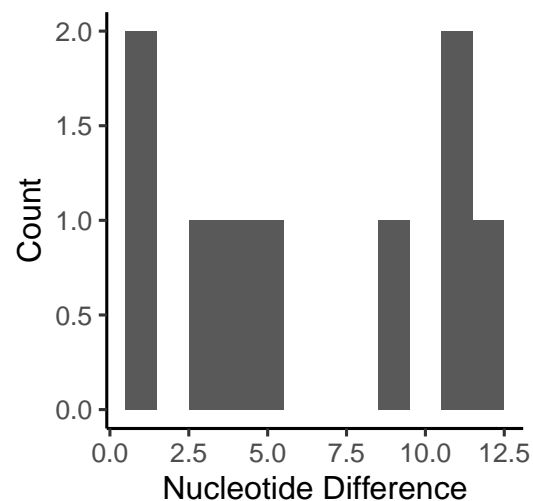
IGHV3-33*06

945 sequences assigned
32 (3.4%) exact matches, in which:
32 unique CDR3
6 unique J



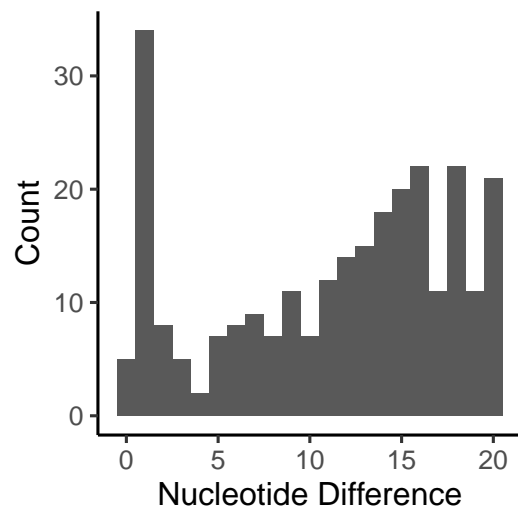
IGHV3-38-3*01

9 sequences assigned
No exact matches.



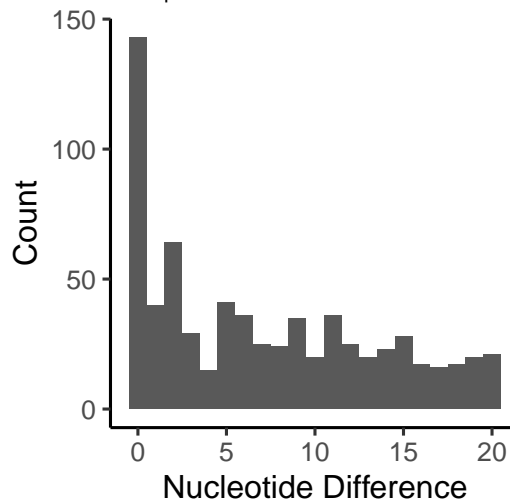
IGHV3-30*04

578 sequences assigned
5 (0.9%) exact matches, in which:
5 unique CDR3
3 unique J



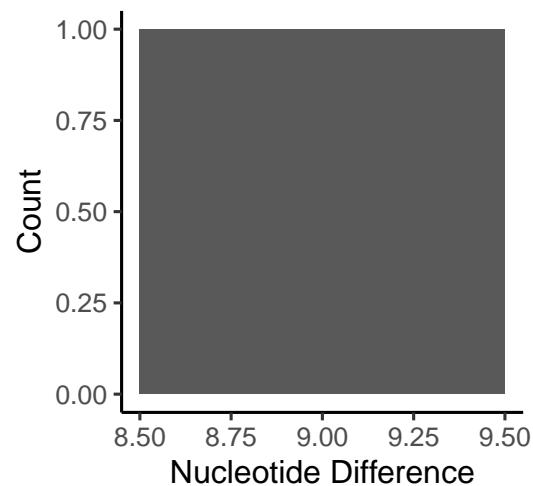
IGHV3-33*08

883 sequences assigned
143 (16.2%) exact matches, in which:
134 unique CDR3
6 unique J



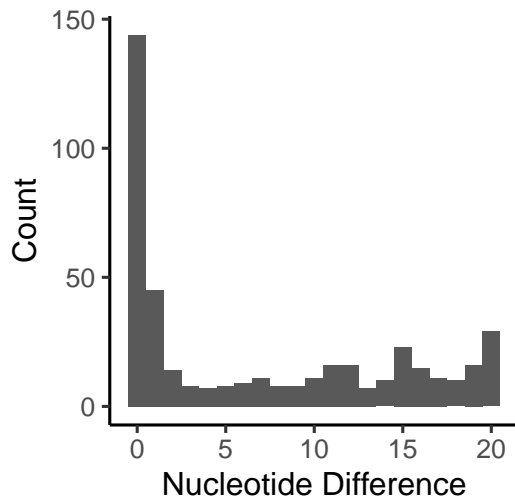
IGHV3-38*03

1 sequences assigned
No exact matches.



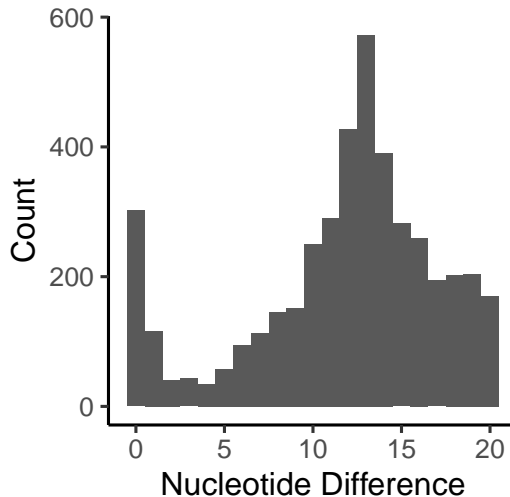
IGHV3-43*01

572 sequences assigned
144 (25.2%) exact matches, in which:
99 unique CDR3
7 unique J



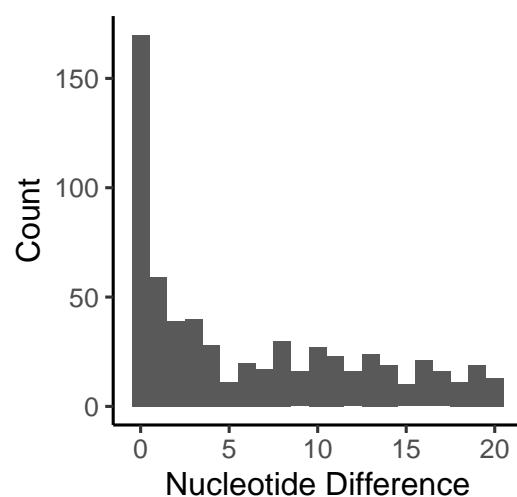
IGHV3-49*03_05

5086 sequences assigned
302 (5.9%) exact matches, in which:
222 unique CDR3
7 unique J



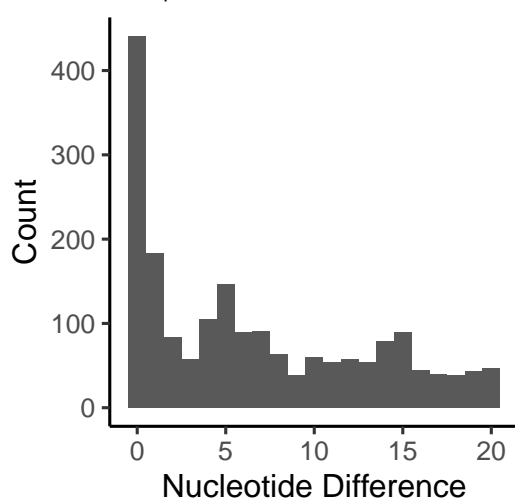
IGHV3-53*01_02

703 sequences assigned
170 (24.2%) exact matches, in which:
129 unique CDR3
7 unique J



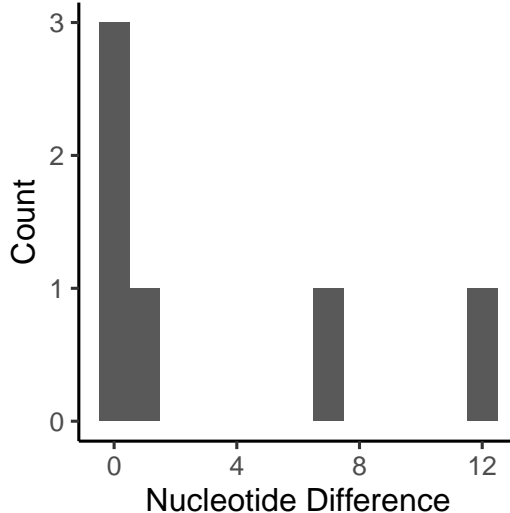
IGHV3-48*01

2256 sequences assigned
441 (19.5%) exact matches, in which:
325 unique CDR3
7 unique J



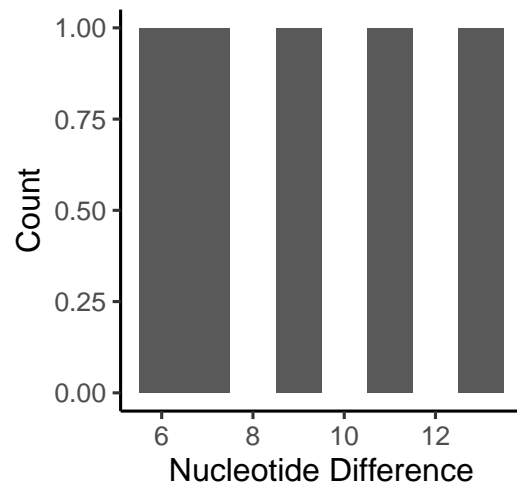
IGHV3-52*02

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



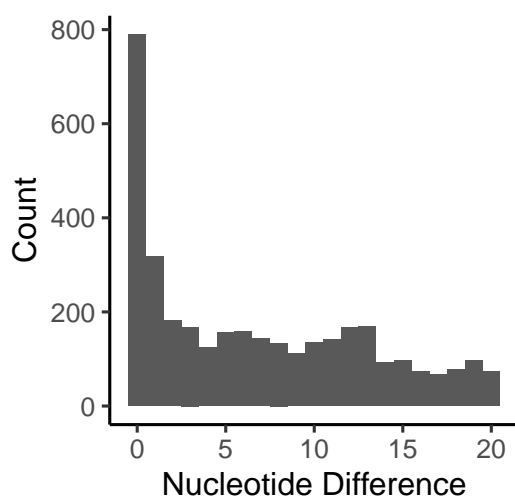
IGHV3-64*04

7 sequences assigned
No exact matches.



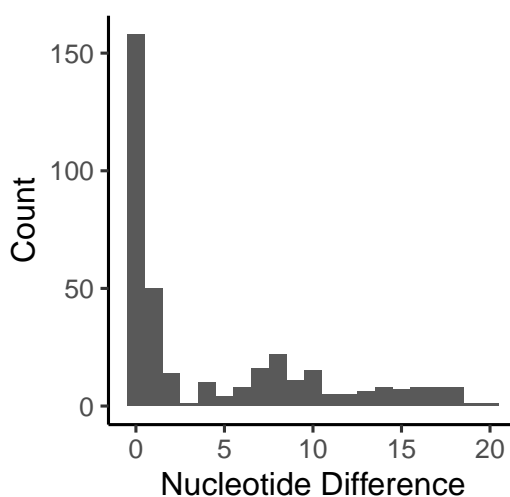
IGHV3-48*04

4420 sequences assigned
790 (17.9%) exact matches, in which:
614 unique CDR3
7 unique J



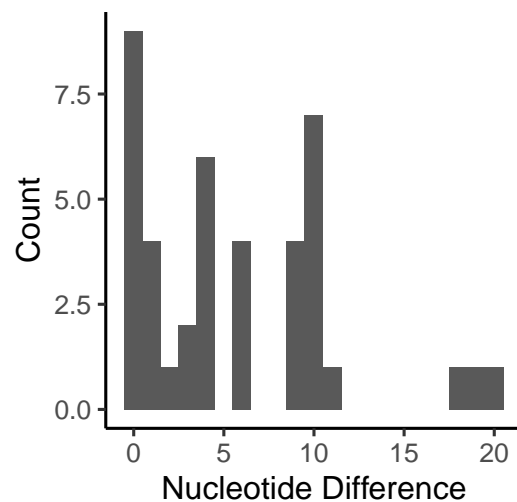
IGHV3-53*04

497 sequences assigned
158 (31.8%) exact matches, in which:
112 unique CDR3
6 unique J



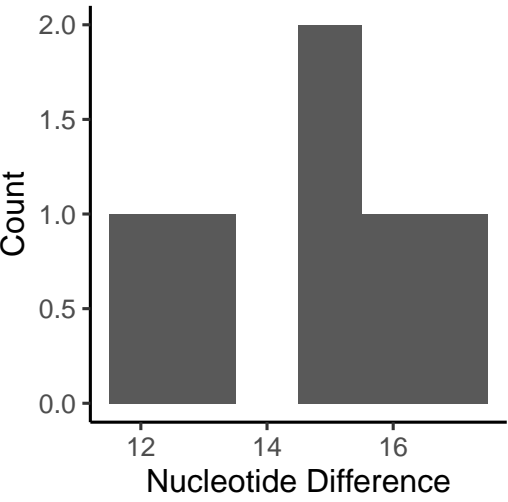
IGHV3-64*02_07

47 sequences assigned
9 (19.1%) exact matches, in which:
8 unique CDR3
3 unique J



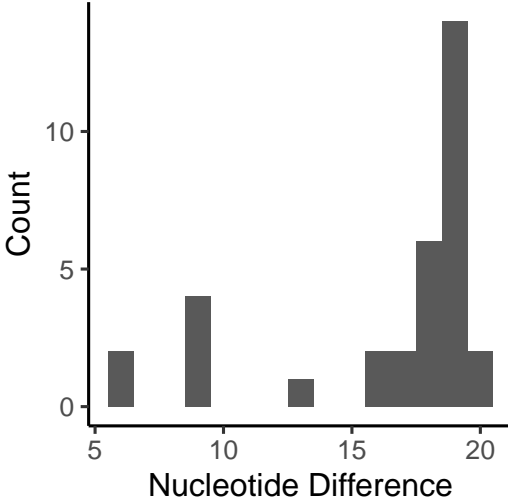
IGHV3-66*01

11 sequences assigned
No exact matches.



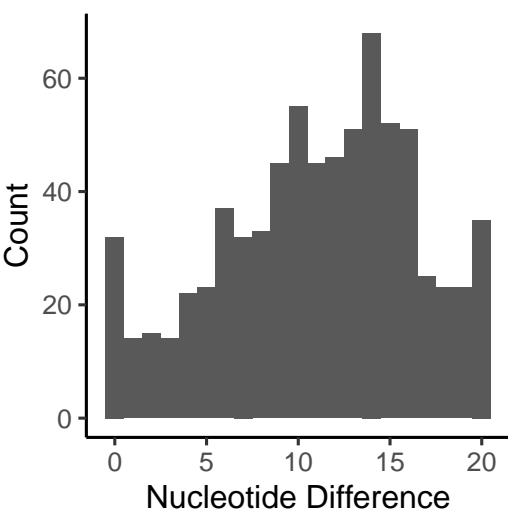
IGHV3-69-1*01

55 sequences assigned
No exact matches.



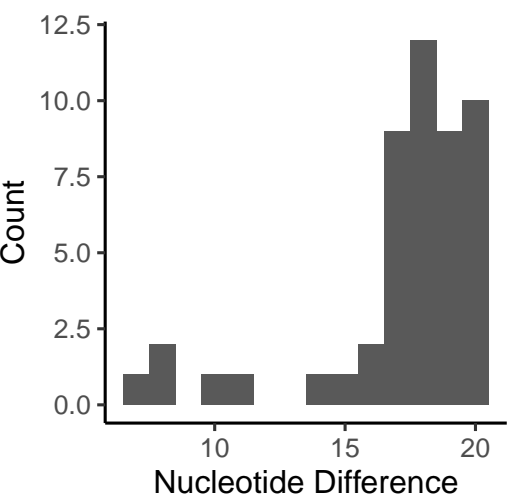
IGHV3-72*01

912 sequences assigned
32 (3.5%) exact matches, in which:
23 unique CDR3
5 unique J



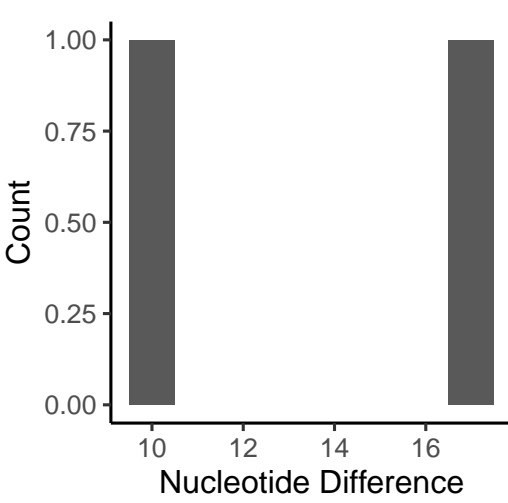
IGHV3-66*02

63 sequences assigned
No exact matches.



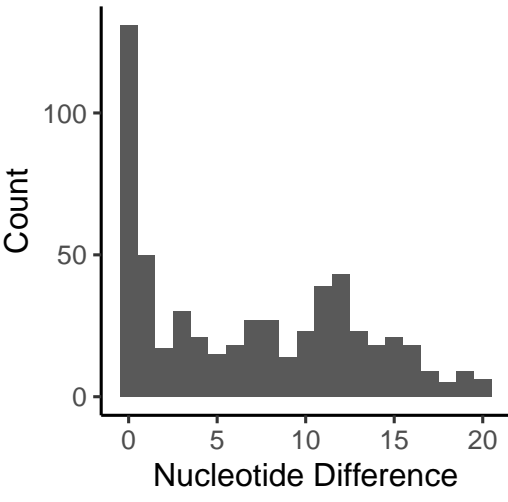
IGHV3-69-1*02

24 sequences assigned
No exact matches.



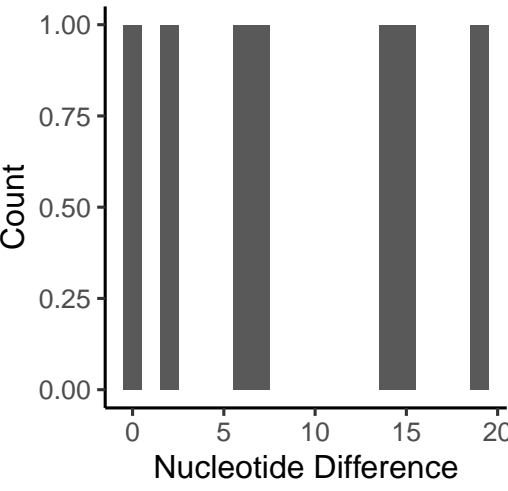
IGHV3-73*01_02

674 sequences assigned
131 (19.4%) exact matches, in which:
95 unique CDR3
7 unique J



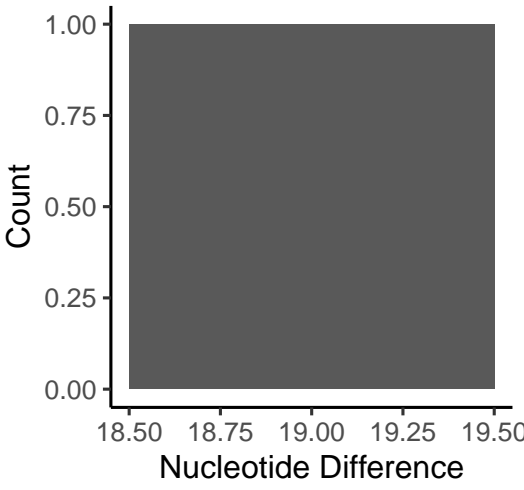
IGHV3-66*03

11 sequences assigned
1 (9.1%) exact matches, in which:
1 unique CDR3
1 unique J



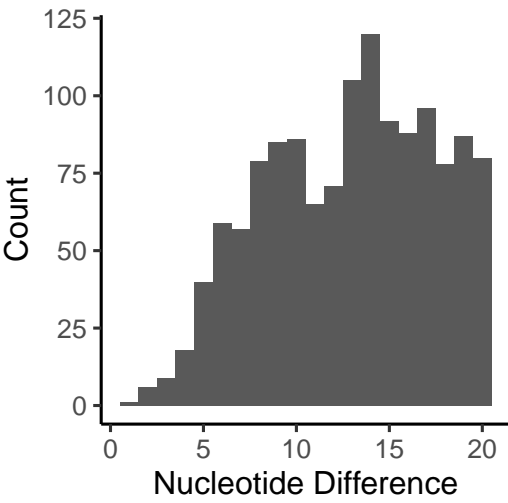
IGHV3-71*01_04

4 sequences assigned
No exact matches.



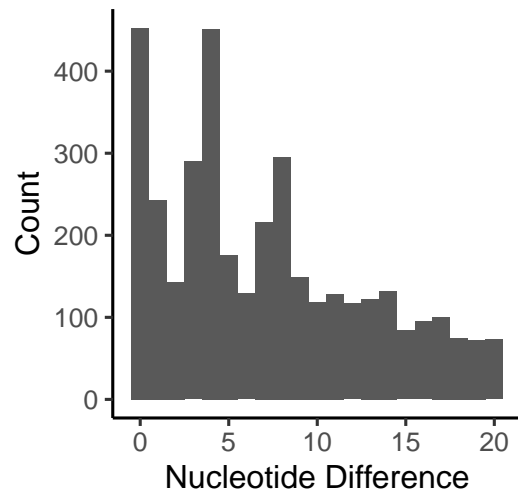
IGHV3-74*03

2028 sequences assigned
No exact matches.



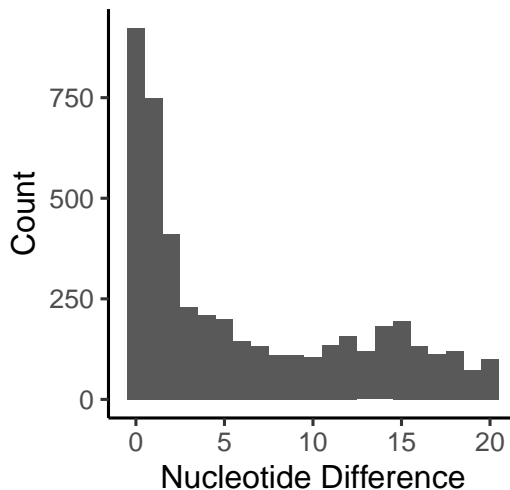
IGHV3-74*01_02

4028 sequences assigned
453 (11.2%) exact matches, in which:
322 unique CDR3
7 unique J



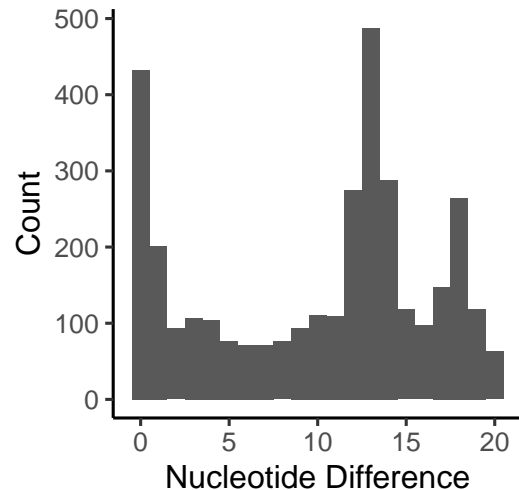
IGHV4-4*07

5495 sequences assigned
924 (16.8%) exact matches, in which:
867 unique CDR3
7 unique J



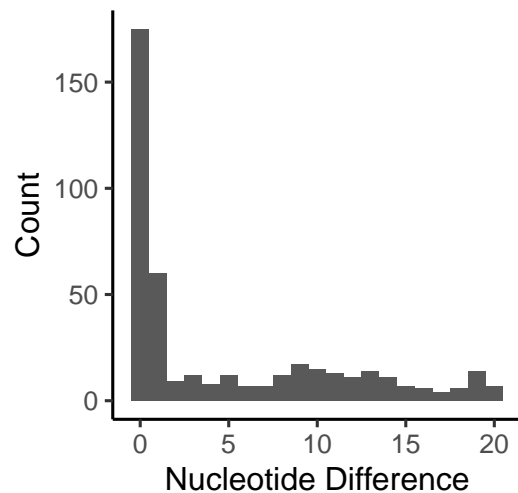
IGHV4-30-4*01

4647 sequences assigned
432 (9.3%) exact matches, in which:
403 unique CDR3
7 unique J



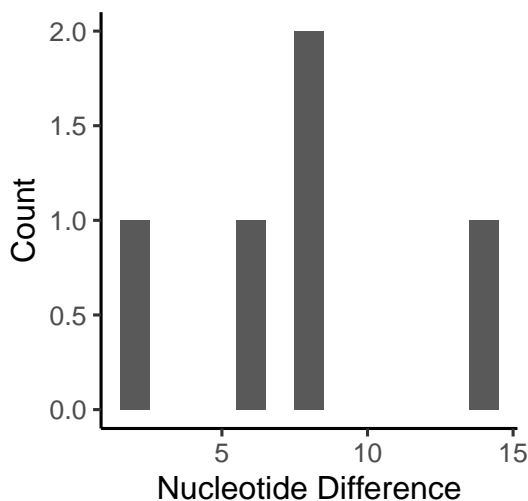
IGHV3-43D*03

537 sequences assigned
175 (32.6%) exact matches, in which:
119 unique CDR3
6 unique J



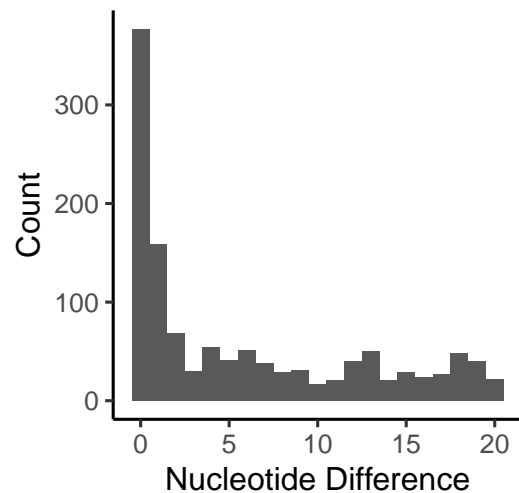
IGHV4-28*03

8 sequences assigned
No exact matches.



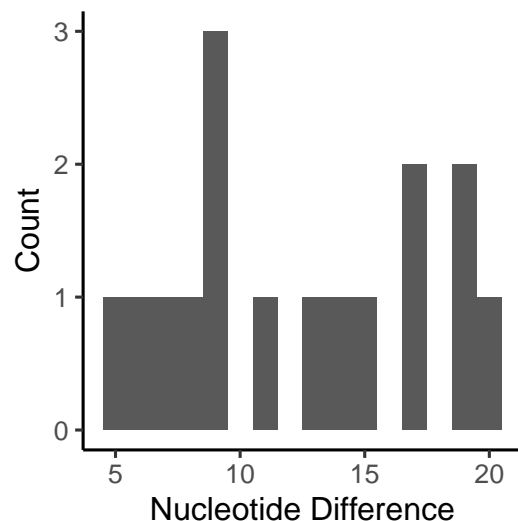
IGHV4-30-2*01

1517 sequences assigned
377 (24.9%) exact matches, in which:
303 unique CDR3
7 unique J



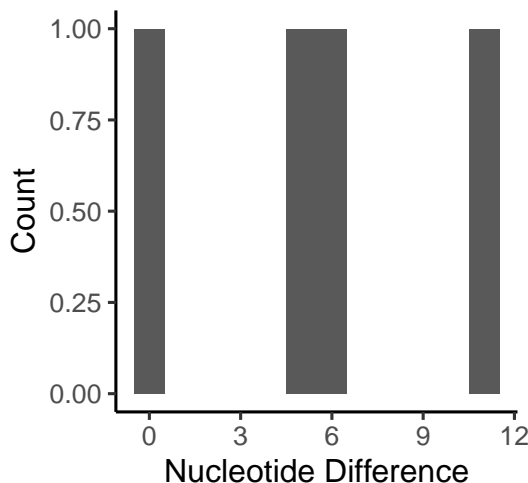
IGHV3-NL1*01

41 sequences assigned
No exact matches.



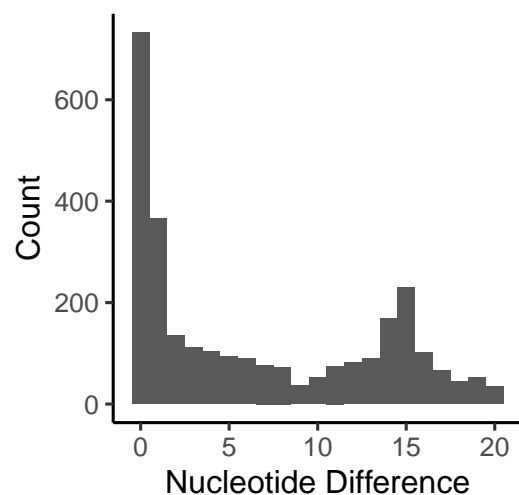
IGHV4-28*01_07

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



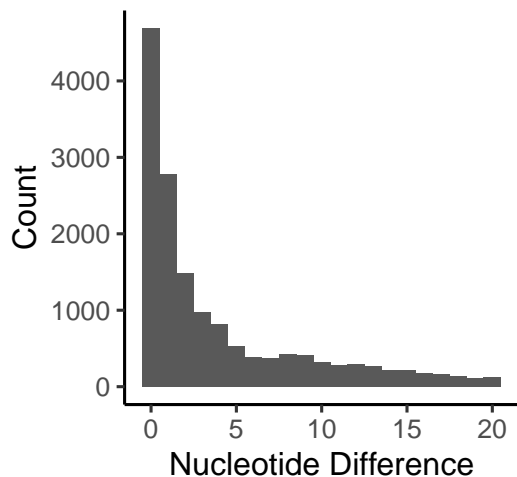
IGHV4-31*02

3182 sequences assigned
733 (23%) exact matches, in which:
677 unique CDR3
7 unique J



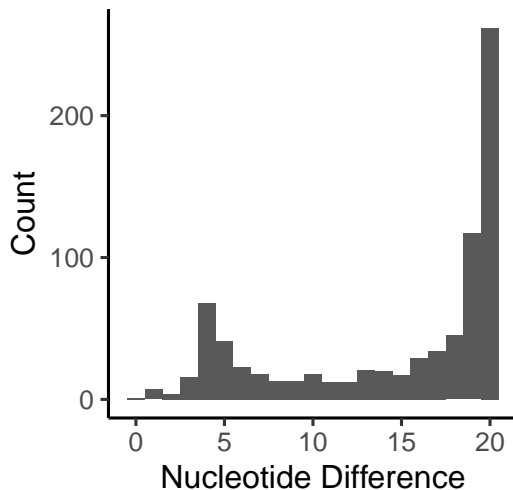
IGHV4-34*01_02

16141 sequences assigned
4687 (29%) exact matches, in which:
4208 unique CDR3
7 unique J



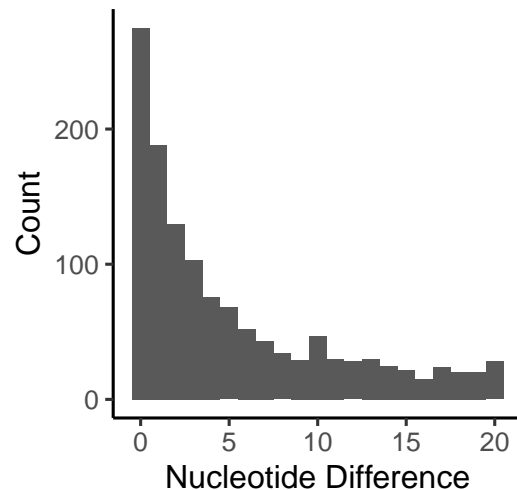
IGHV4-59*02

3735 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



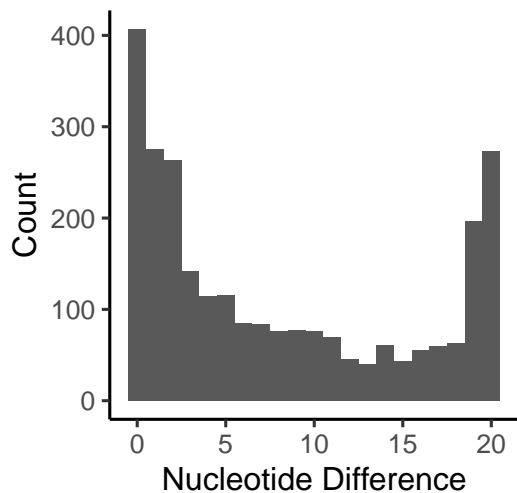
IGHV4-61*01

1466 sequences assigned
275 (18.8%) exact matches, in which:
261 unique CDR3
7 unique J



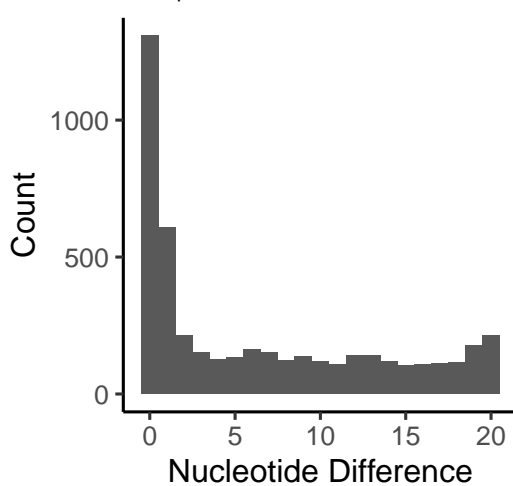
IGHV4-38-2*02

3058 sequences assigned
407 (13.3%) exact matches, in which:
384 unique CDR3
7 unique J



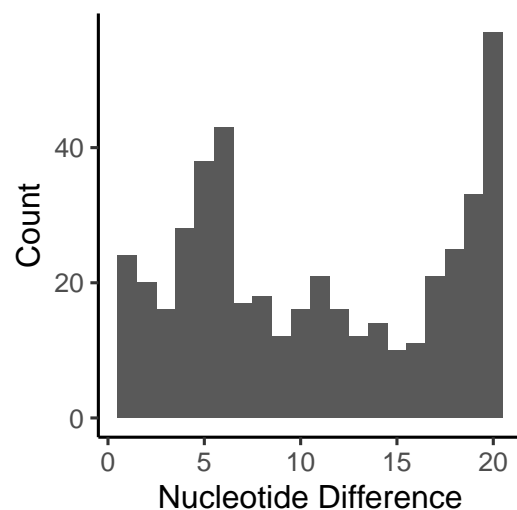
IGHV4-59*01_07

5211 sequences assigned
1308 (25.1%) exact matches, in which:
1232 unique CDR3
7 unique J



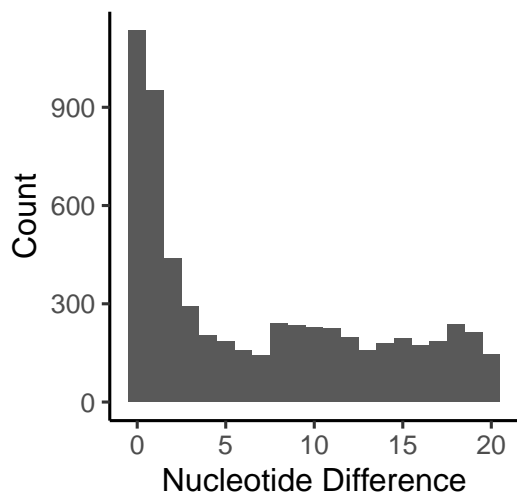
IGHV4-61*08

2221 sequences assigned
No exact matches.



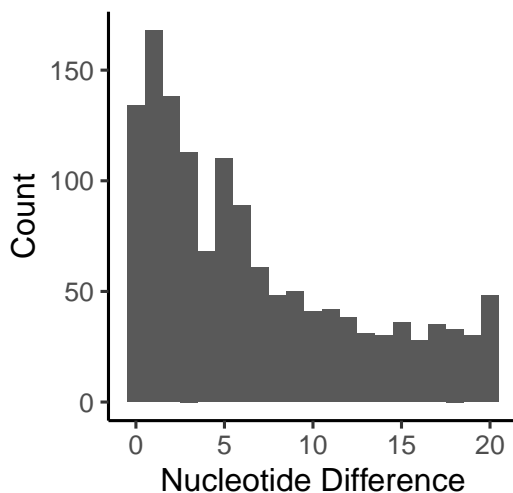
IGHV4-39*07

7859 sequences assigned
1135 (14.4%) exact matches, in which:
1042 unique CDR3
7 unique J



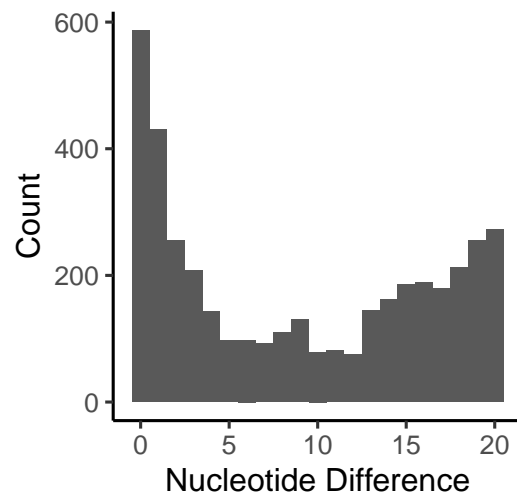
IGHV4-59*12

1706 sequences assigned
134 (7.9%) exact matches, in which:
134 unique CDR3
7 unique J



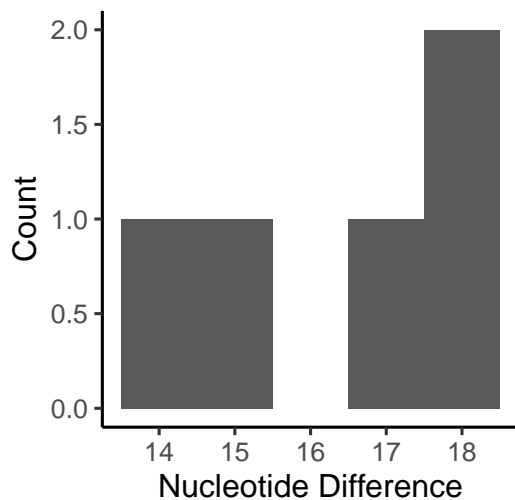
IGHV4-61*02_A234G

5709 sequences assigned
587 (10.3%) exact matches, in which:
557 unique CDR3
7 unique J



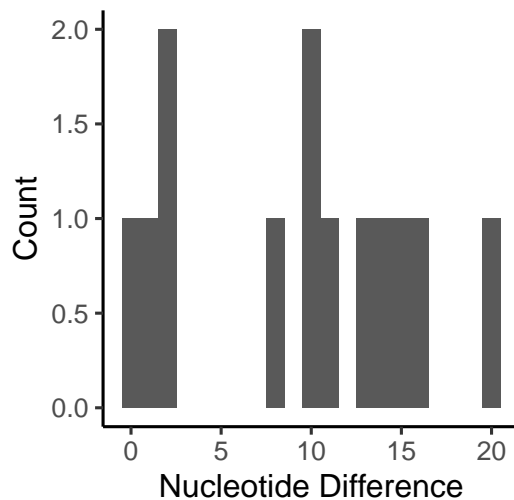
IGHV1/OR15–2*02_03

9 sequences assigned
No exact matches.



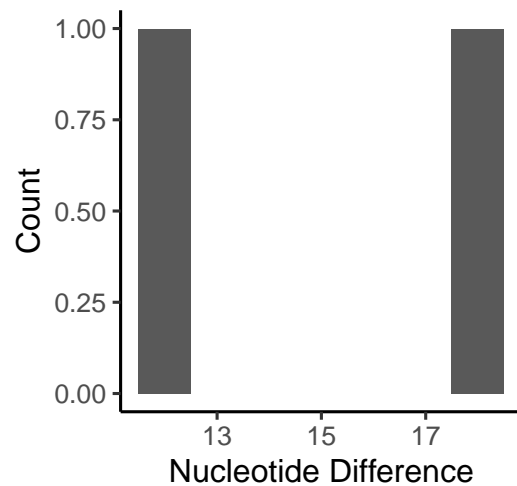
IGHV5–51*06

16 sequences assigned
1 (6.2%) exact matches, in which:
1 unique CDR3
1 unique J



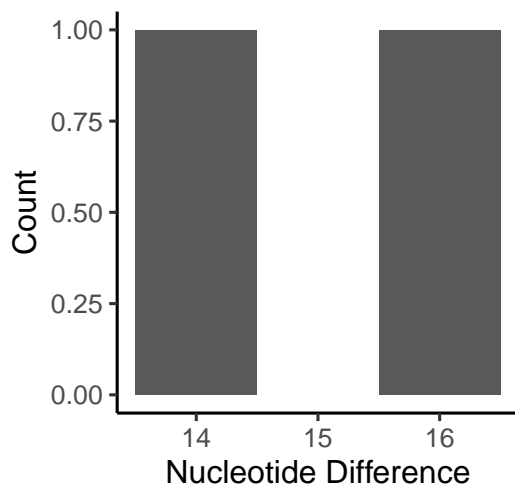
IGHV3/OR16–13*01

2 sequences assigned
No exact matches.



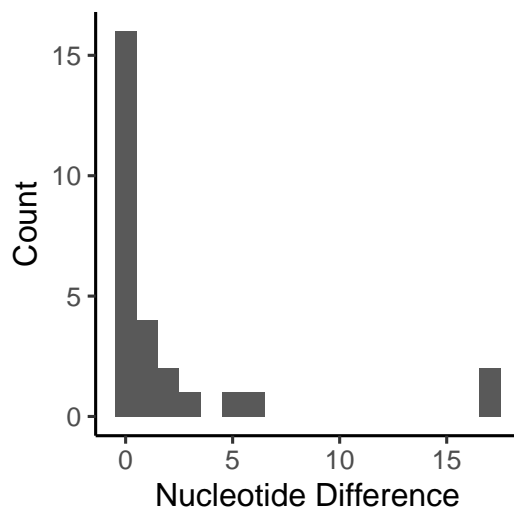
IGHV4/OR15–8*01

5 sequences assigned
No exact matches.



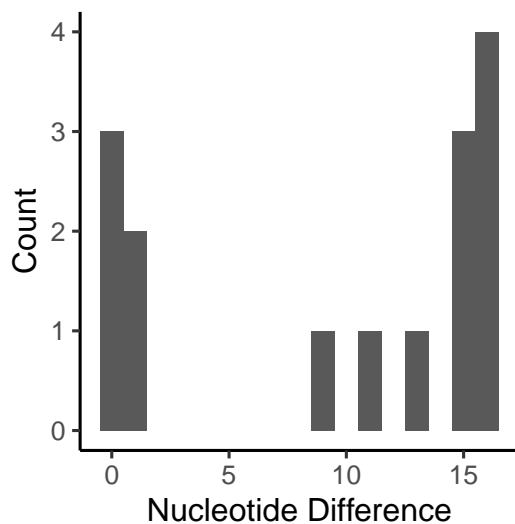
IGHV5–51*07

30 sequences assigned
16 (53.3%) exact matches, in which:
16 unique CDR3
4 unique J



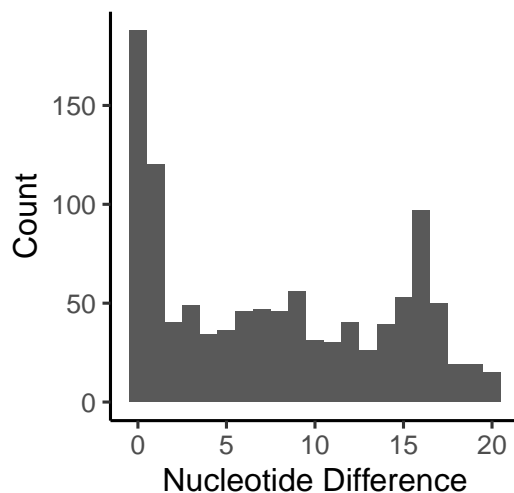
IGHV5–51*04

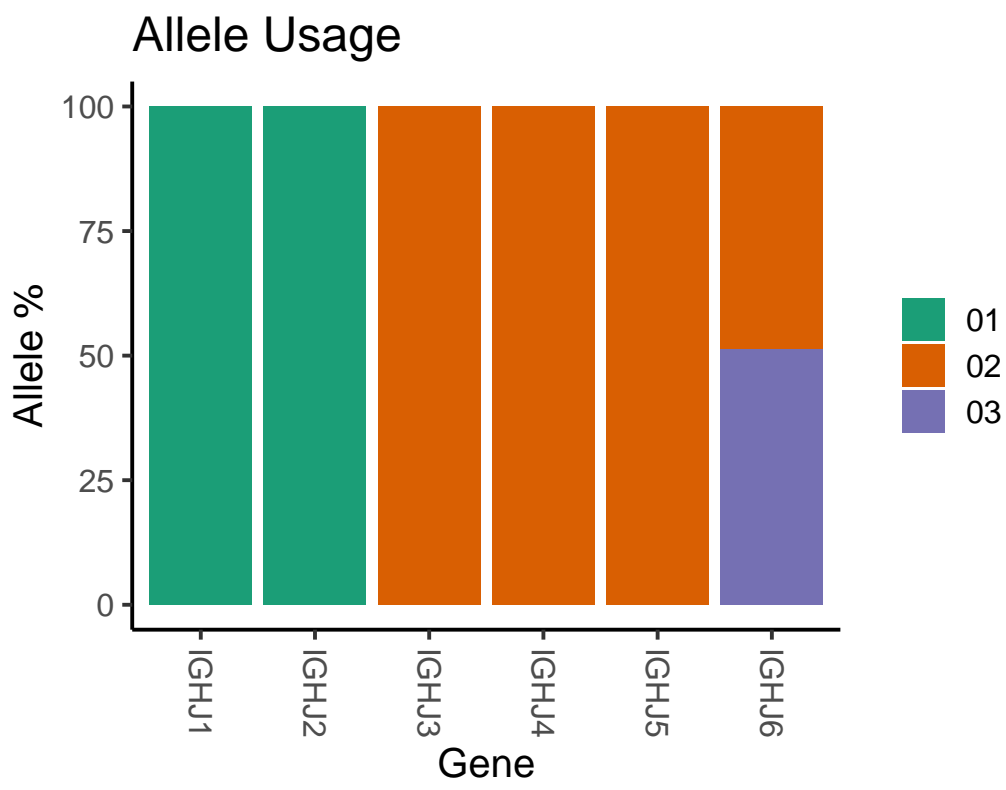
15 sequences assigned
3 (20%) exact matches, in which:
3 unique CDR3
1 unique J



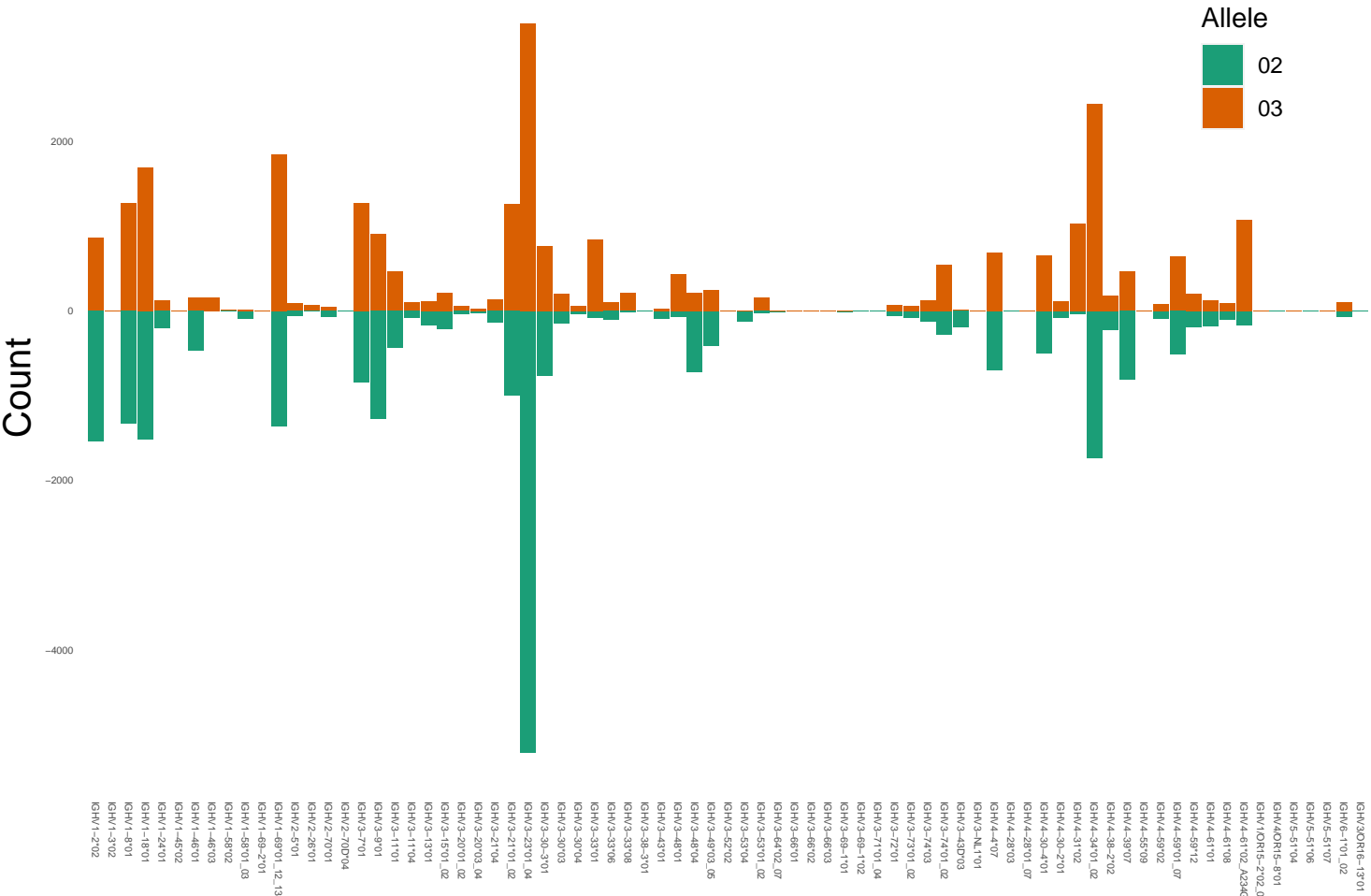
IGHV6–1*01_02

1121 sequences assigned
188 (16.8%) exact matches, in which:
178 unique CDR3
7 unique J





Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.