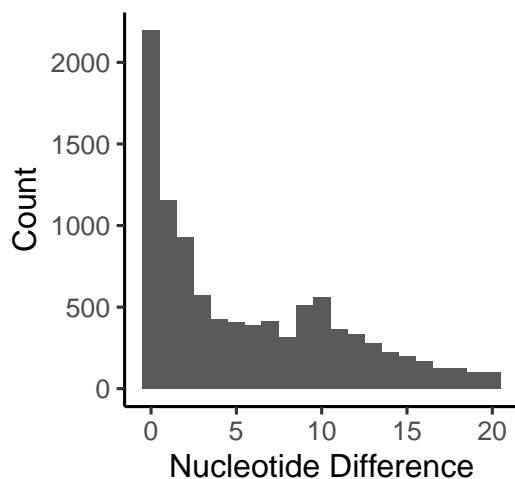


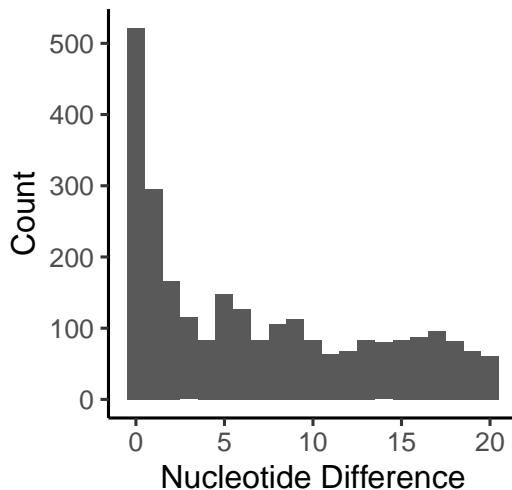
IGHV1-2*02

10269 sequences assigned
2196 (21.4%) exact matches, in which:
2077 unique CDR3
6 unique J



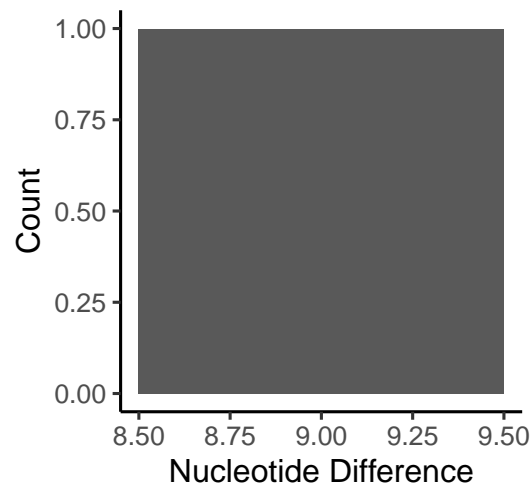
IGHV1-8*03

2851 sequences assigned
522 (18.3%) exact matches, in which:
496 unique CDR3
6 unique J



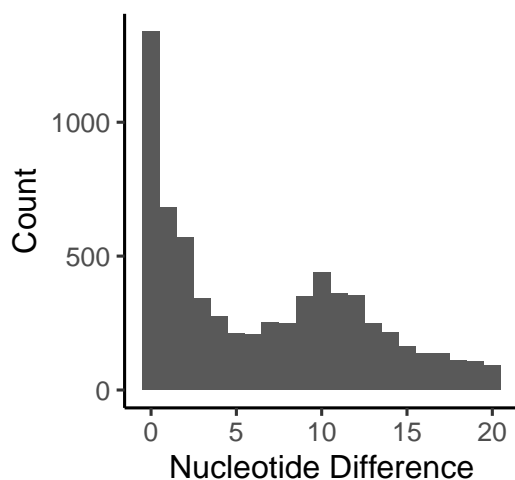
IGHV1-38-4*01

1 sequences assigned
No exact matches.



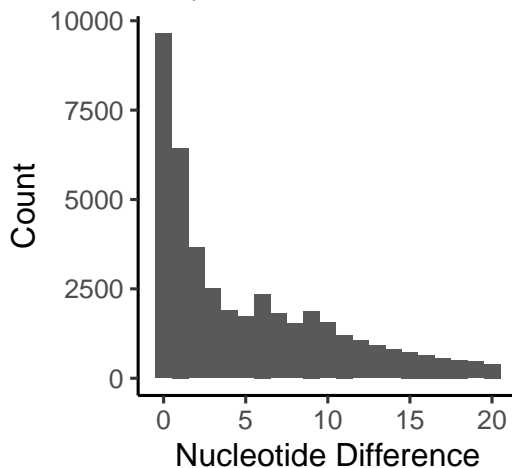
IGHV1-2*06

7207 sequences assigned
1338 (18.6%) exact matches, in which:
1293 unique CDR3
6 unique J



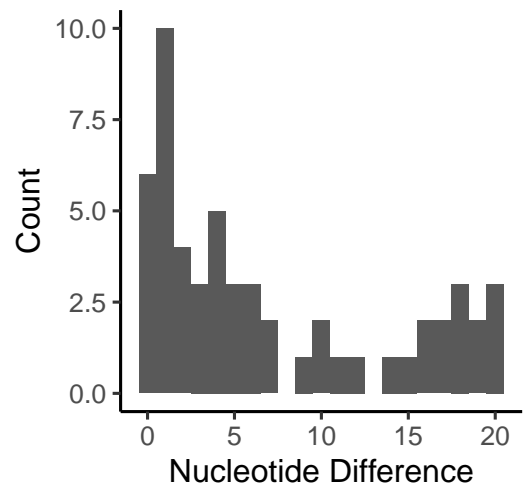
IGHV1-18*01

44844 sequences assigned
9644 (21.5%) exact matches, in which:
8640 unique CDR3
6 unique J



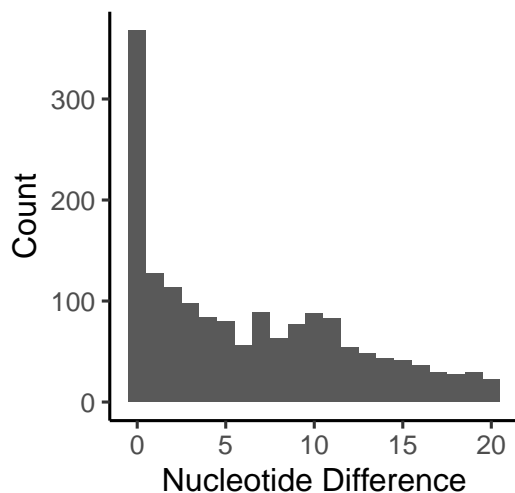
IGHV1-45*02

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



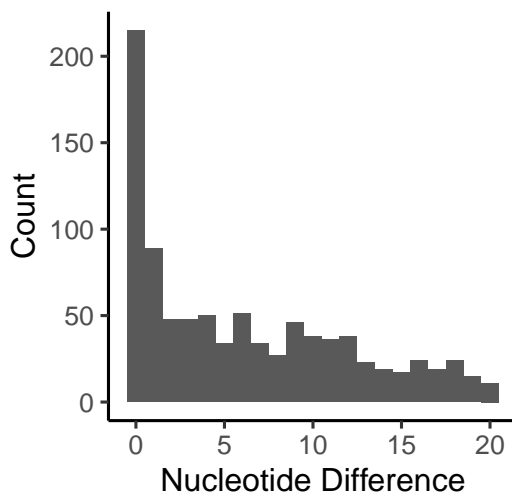
IGHV1-3*01_05

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



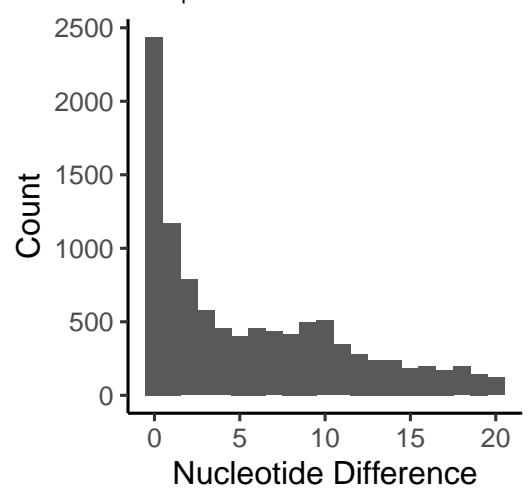
IGHV1-24*01

939 sequences assigned
215 (22.9%) exact matches, in which:
207 unique CDR3
6 unique J



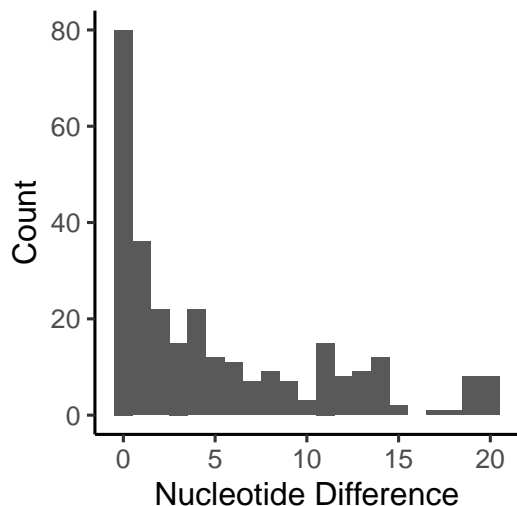
IGHV1-46*01

10948 sequences assigned
2437 (22.3%) exact matches, in which:
2301 unique CDR3
6 unique J



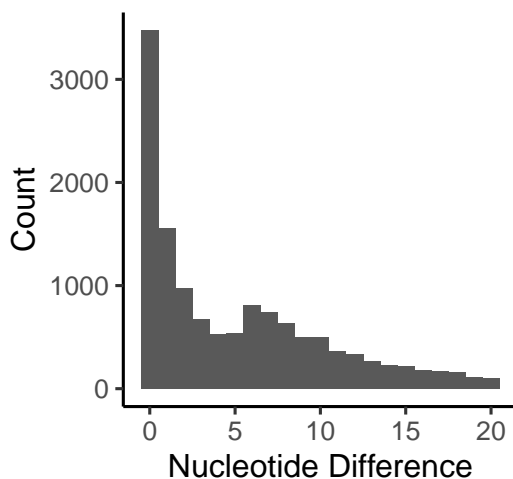
IGHV1-58*02

326 sequences assigned
80 (24.5%) exact matches, in which:
78 unique CDR3
5 unique J



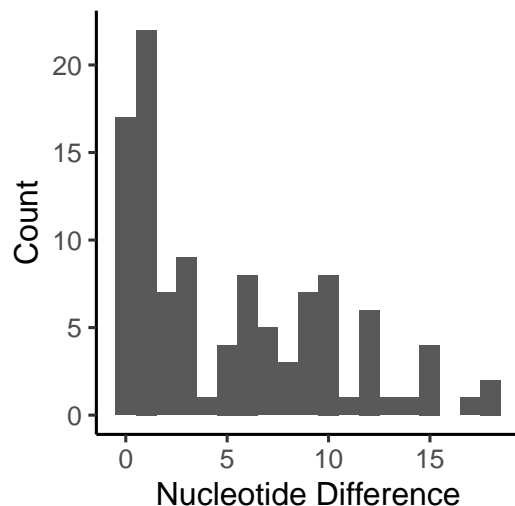
IGHV1-69*05

13663 sequences assigned
3475 (25.4%) exact matches, in which:
3324 unique CDR3
6 unique J



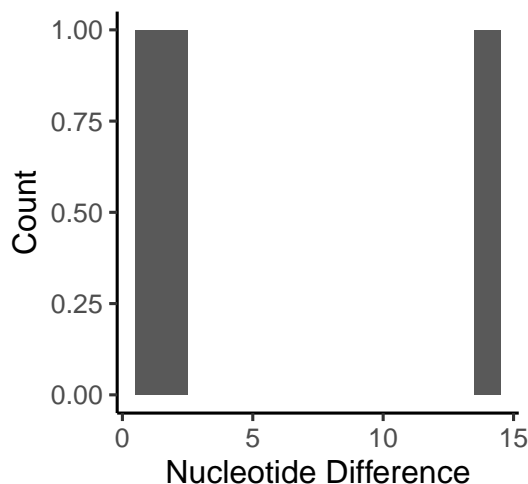
IGHV2-5*01

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



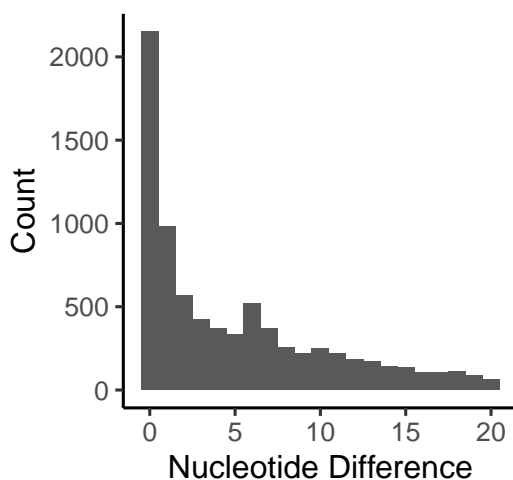
IGHV1-68*02_03

3 sequences assigned
No exact matches.



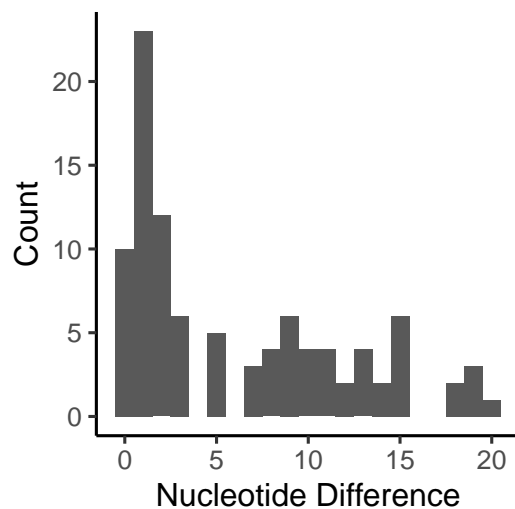
IGHV1-69*01_12_13

8164 sequences assigned
2151 (26.3%) exact matches, in which:
2064 unique CDR3
6 unique J



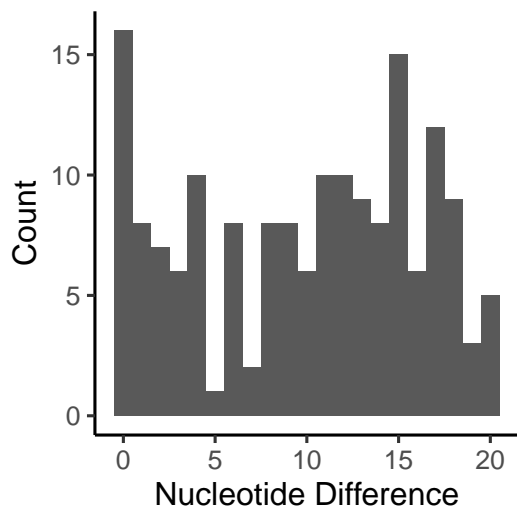
IGHV2-5*02

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



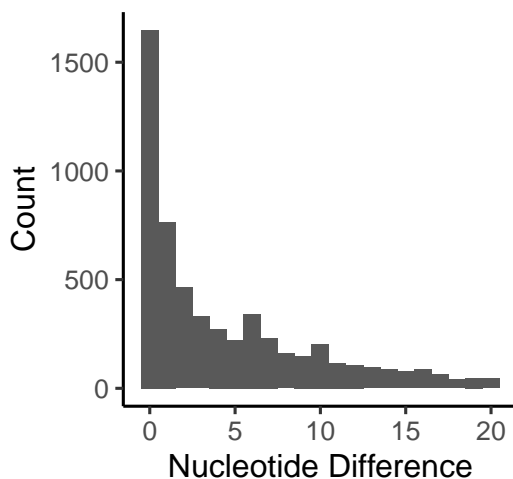
IGHV1-69-2*01

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



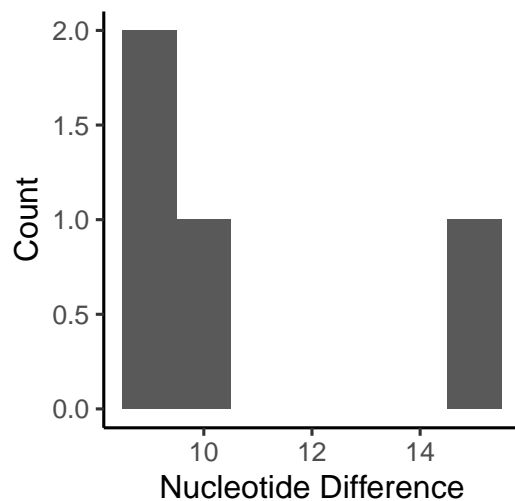
IGHV1-69*15_18

5808 sequences assigned
1648 (28.4%) exact matches, in which:
1588 unique CDR3
6 unique J



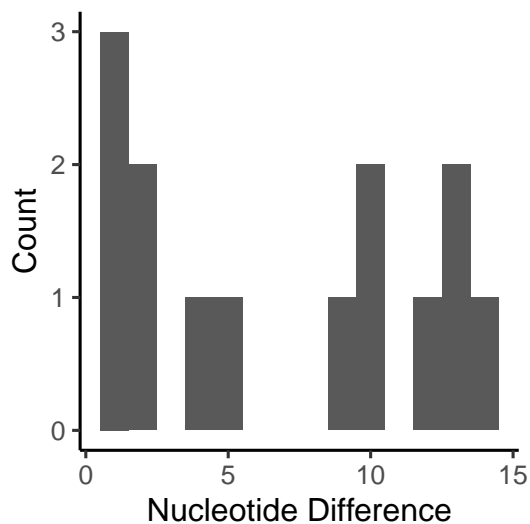
IGHV2-26*01

5 sequences assigned
No exact matches.



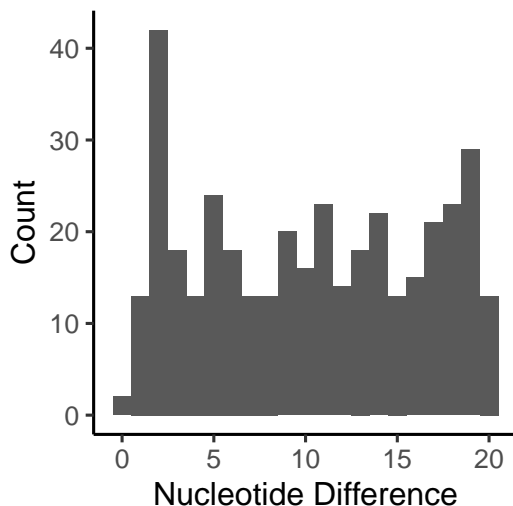
IGHV2-70*20

14 sequences assigned
No exact matches.



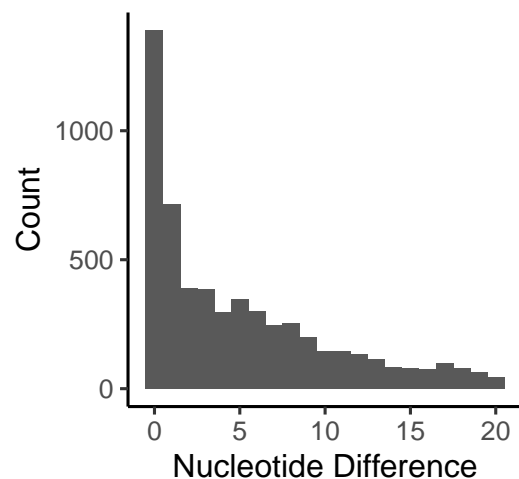
IGHV3-9*01

433 sequences assigned
2 (0.5%) exact matches, in which:
2 unique CDR3
1 unique J



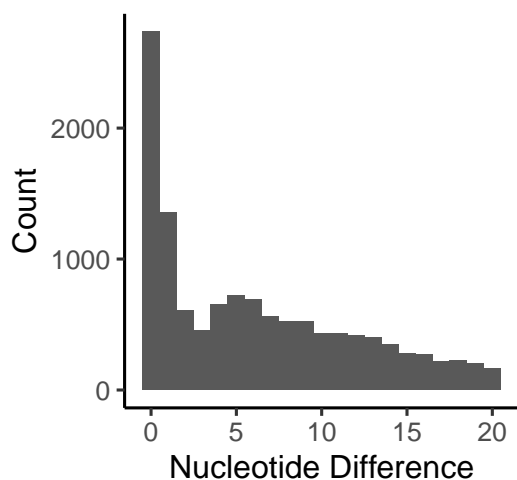
IGHV3-11*06

5842 sequences assigned
1389 (23.8%) exact matches, in which:
1321 unique CDR3
6 unique J



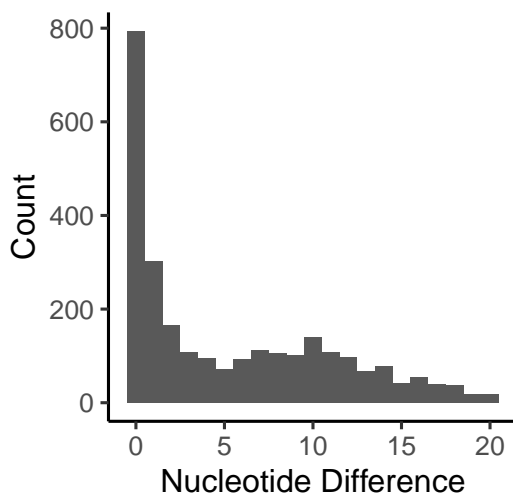
IGHV3-7*01

12866 sequences assigned
2736 (21.3%) exact matches, in which:
2615 unique CDR3
6 unique J



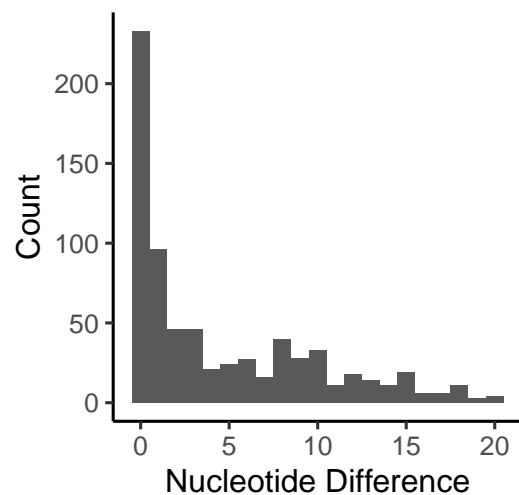
IGHV3-9*03

2710 sequences assigned
794 (29.3%) exact matches, in which:
743 unique CDR3
6 unique J



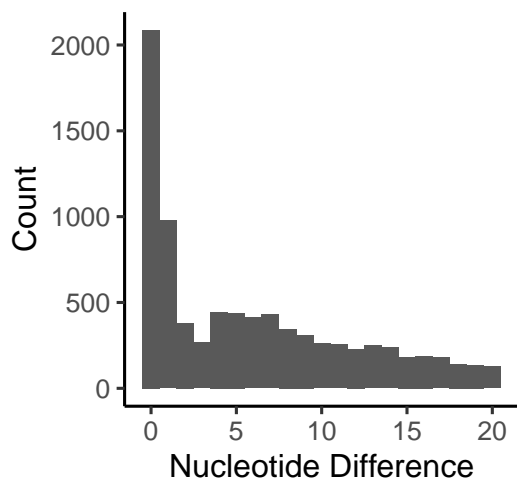
IGHV3-13*05

739 sequences assigned
233 (31.5%) exact matches, in which:
218 unique CDR3
6 unique J



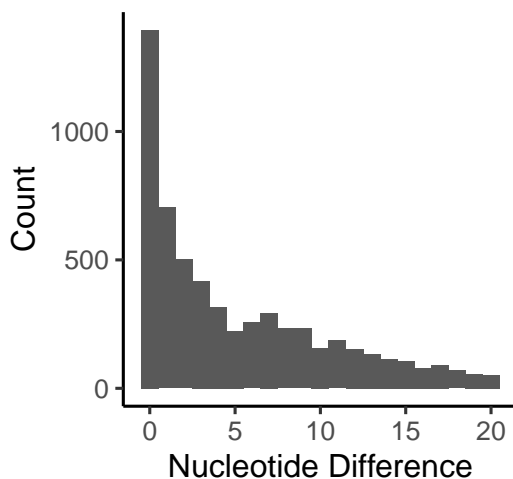
IGHV3-7*03

8726 sequences assigned
2087 (23.9%) exact matches, in which:
1994 unique CDR3
6 unique J



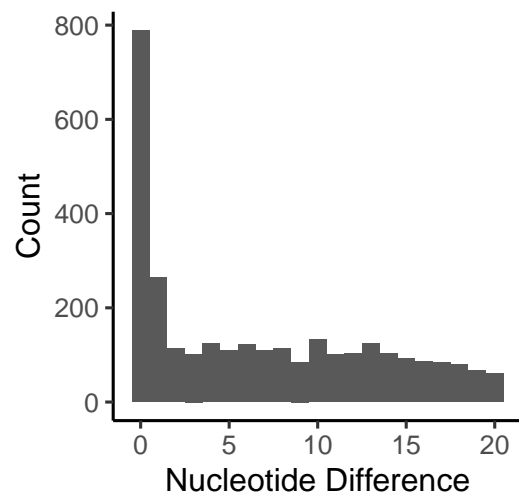
IGHV3-11*04

5971 sequences assigned
1395 (23.4%) exact matches, in which:
1326 unique CDR3
6 unique J



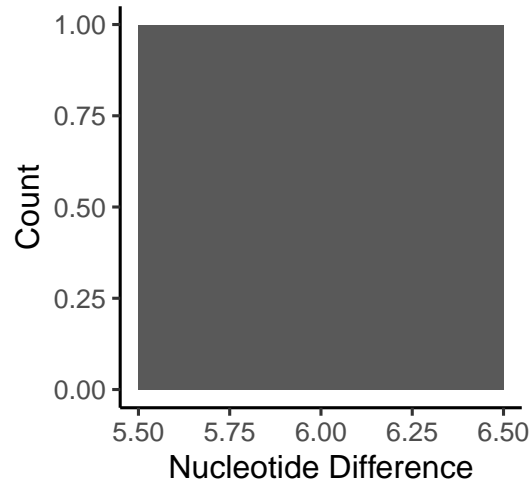
IGHV3-15*01_02

3408 sequences assigned
789 (23.2%) exact matches, in which:
770 unique CDR3
6 unique J



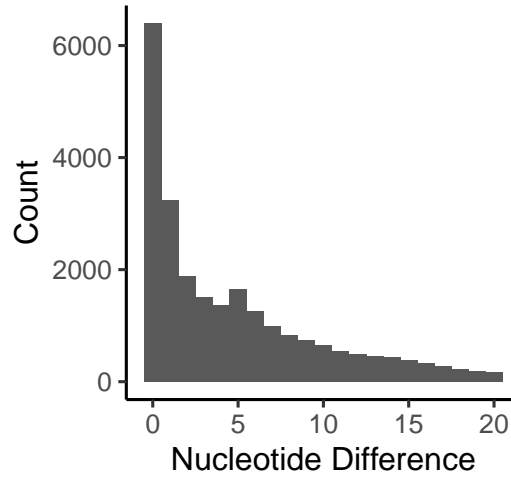
IGHV3-19*01

1 sequences assigned
No exact matches.



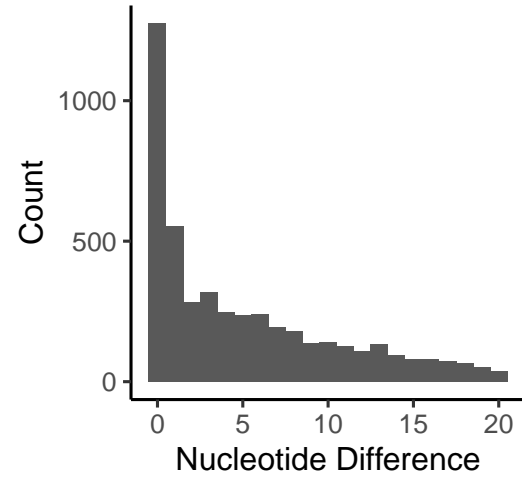
IGHV3-21*01_02

24736 sequences assigned
6395 (25.9%) exact matches, in which:
5987 unique CDR3
6 unique J



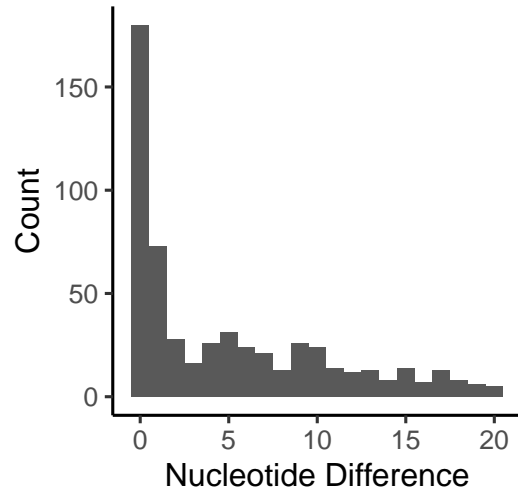
IGHV3-30-5*01

4819 sequences assigned
1275 (26.5%) exact matches, in which:
1218 unique CDR3
6 unique J



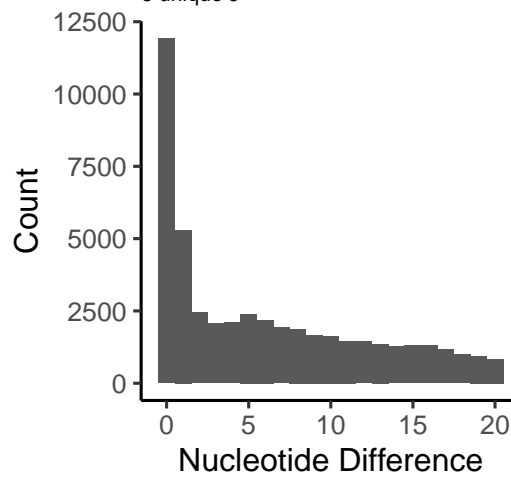
IGHV3-20*01_02

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



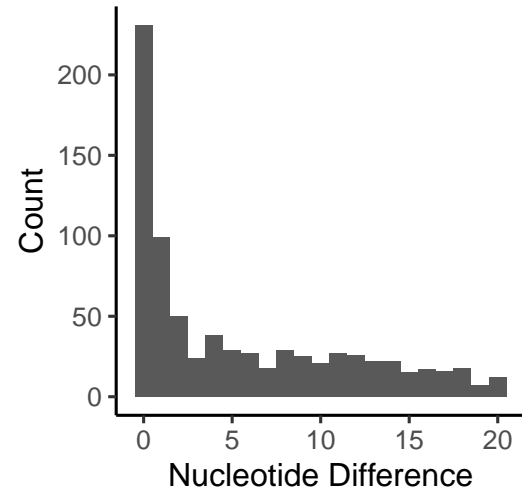
IGHV3-23*01_04

52419 sequences assigned
11921 (22.7%) exact matches, in which:
11185 unique CDR3
6 unique J



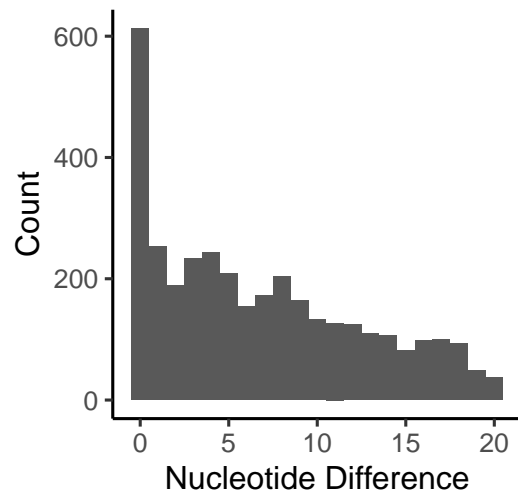
IGHV3-30*03

832 sequences assigned
231 (27.8%) exact matches, in which:
229 unique CDR3
6 unique J



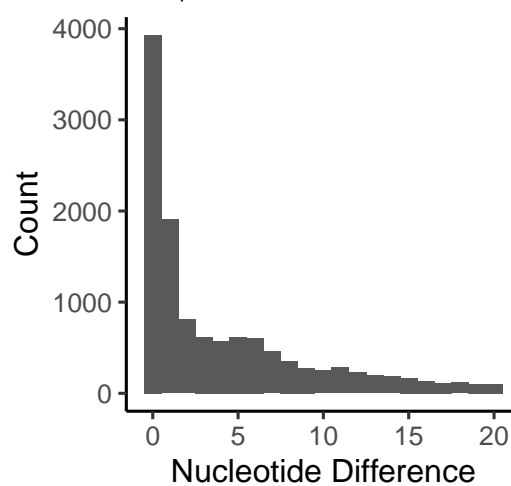
IGHV3-20*03_04

3606 sequences assigned
613 (17%) exact matches, in which:
584 unique CDR3
6 unique J



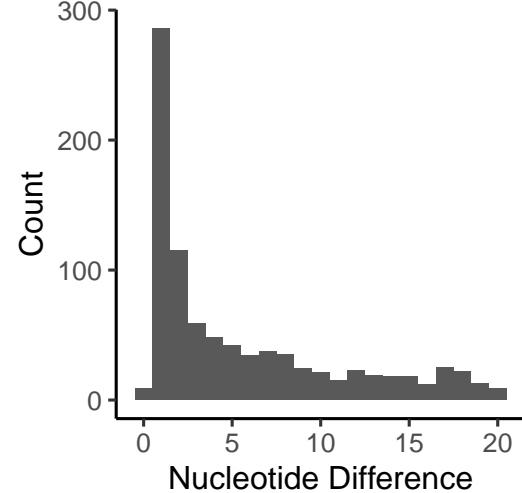
IGHV3-30-3*01

12541 sequences assigned
3930 (31.3%) exact matches, in which:
3749 unique CDR3
6 unique J



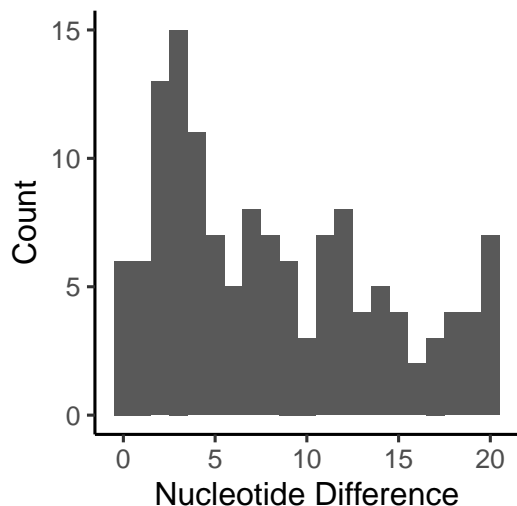
IGHV3-30*19

918 sequences assigned
9 (1%) exact matches, in which:
9 unique CDR3
3 unique J



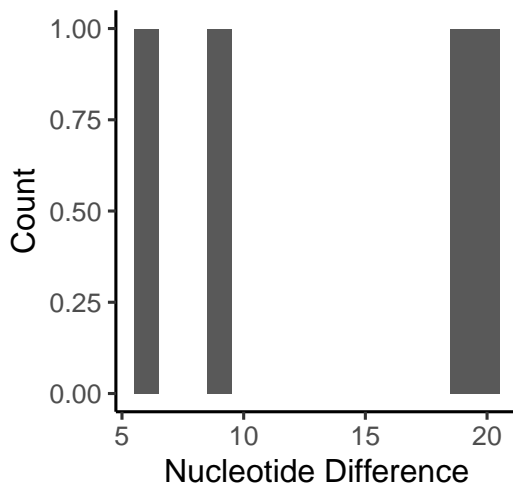
IGHV3-33*05

156 sequences assigned
6 (3.8%) exact matches, in which:
6 unique CDR3
3 unique J



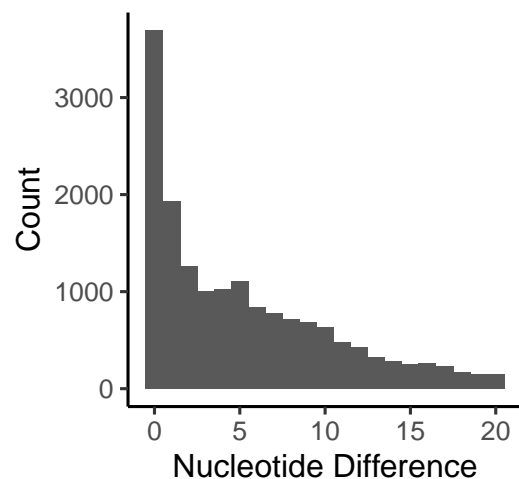
IGHV3-38*03

5 sequences assigned
No exact matches.



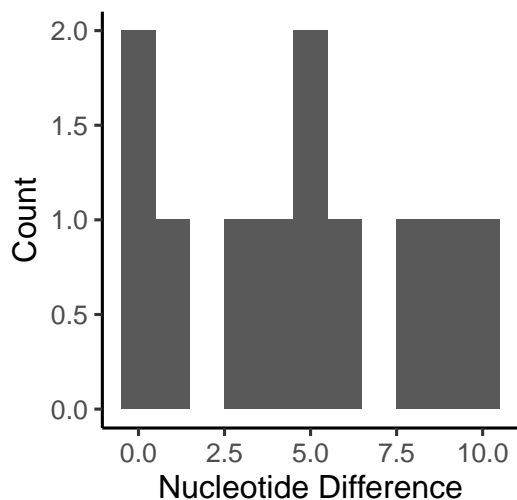
IGHV3-48*01

17150 sequences assigned
3692 (21.5%) exact matches, in which:
3515 unique CDR3
6 unique J



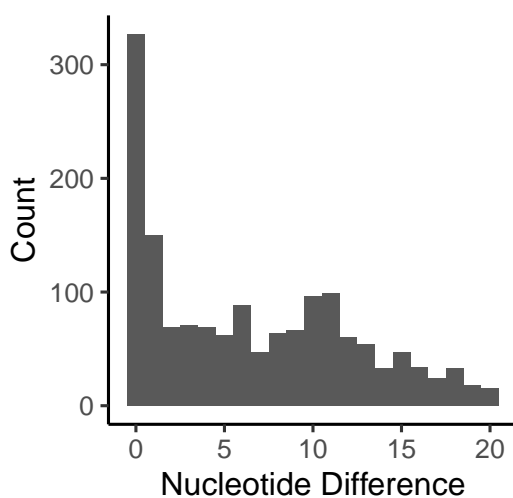
IGHV3-35*01

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



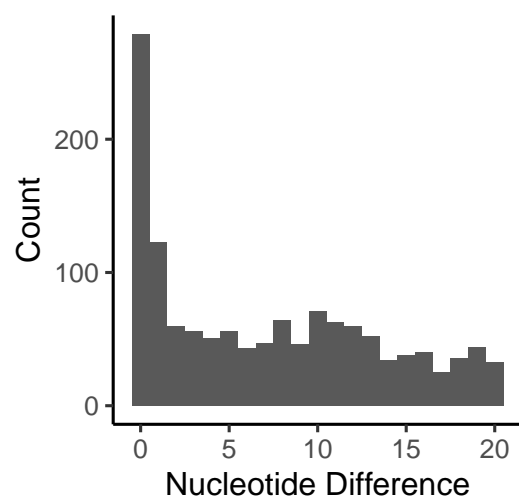
IGHV3-43*01

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



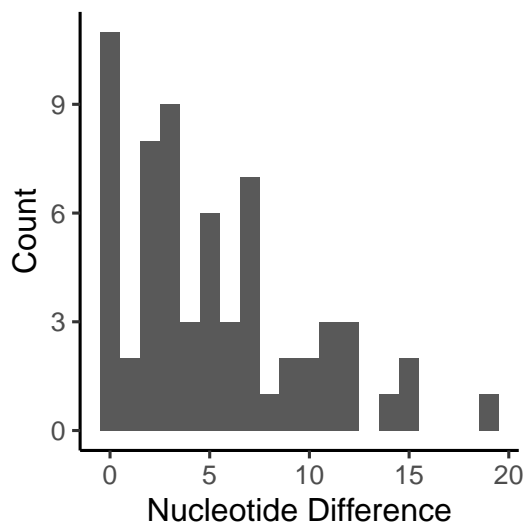
IGHV3-49*04

1455 sequences assigned
279 (19.2%) exact matches, in which:
266 unique CDR3
6 unique J



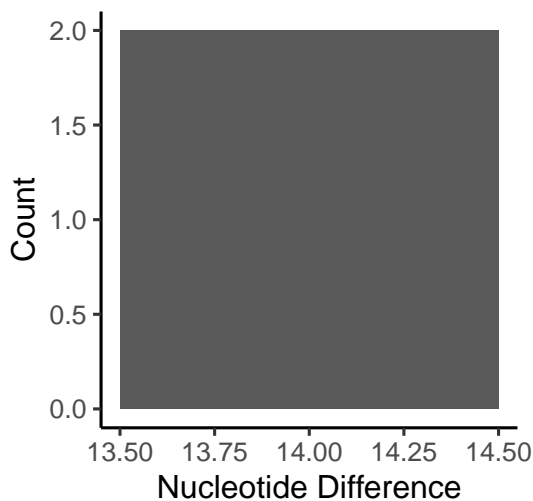
IGHV3-38-3*01

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



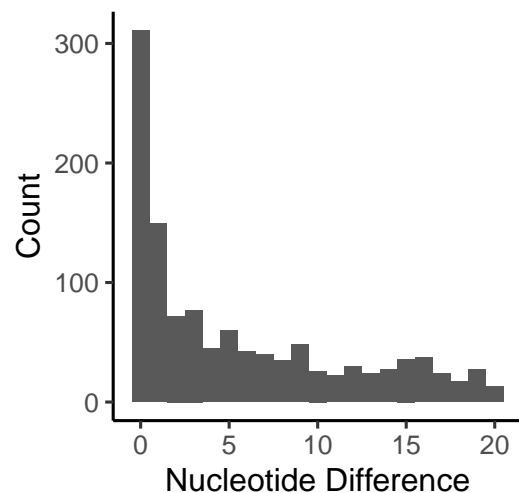
IGHV3-47*02

2 sequences assigned
No exact matches.



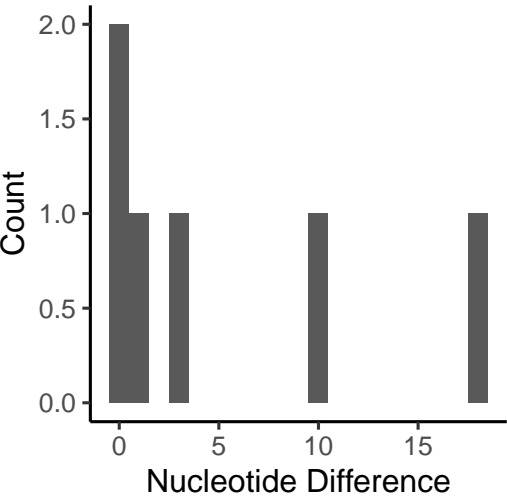
IGHV3-49*03_05

1223 sequences assigned
311 (25.4%) exact matches, in which:
305 unique CDR3
6 unique J



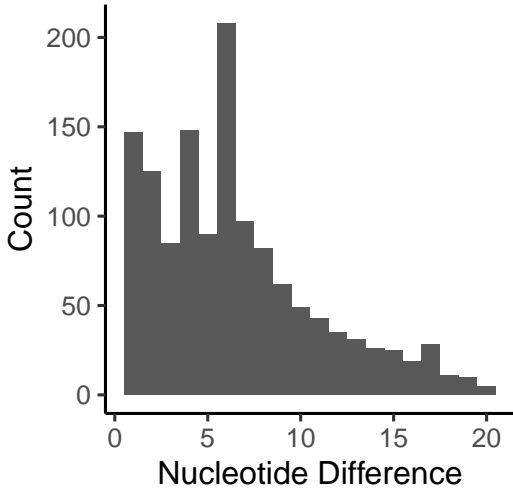
IGHV3-52*01_03

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



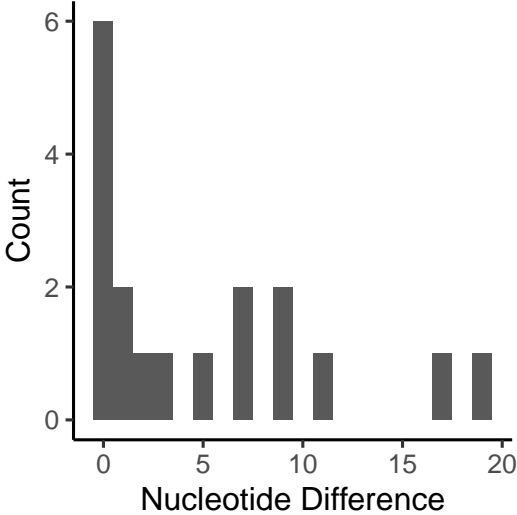
IGHV3-64*04

1370 sequences assigned
No exact matches.



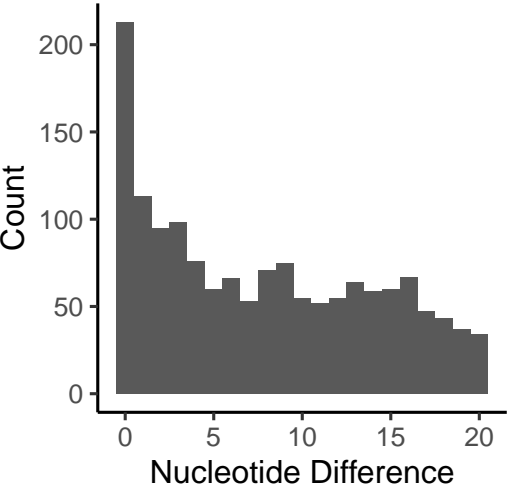
IGHV3-69-1*02

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



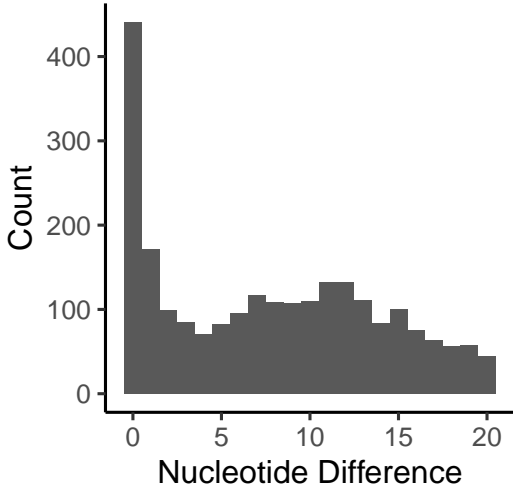
IGHV3-53*01_02

1601 sequences assigned
213 (13.3%) exact matches, in which:
203 unique CDR3
6 unique J



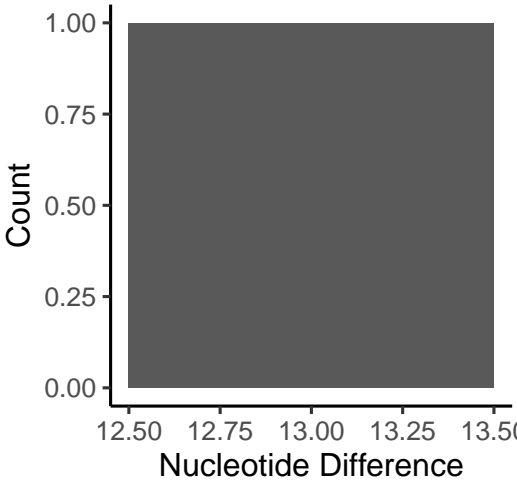
IGHV3-66*02

2603 sequences assigned
441 (16.9%) exact matches, in which:
423 unique CDR3
6 unique J



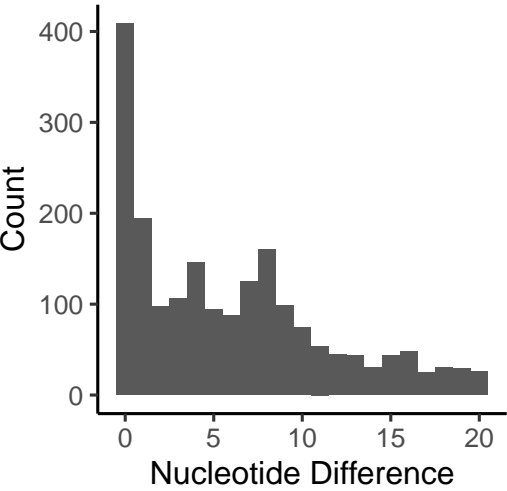
IGHV3-71*03

5 sequences assigned
No exact matches.



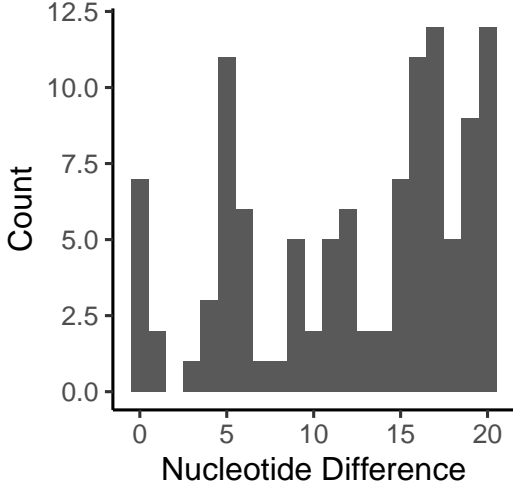
IGHV3-64*01

2083 sequences assigned
409 (19.6%) exact matches, in which:
388 unique CDR3
6 unique J



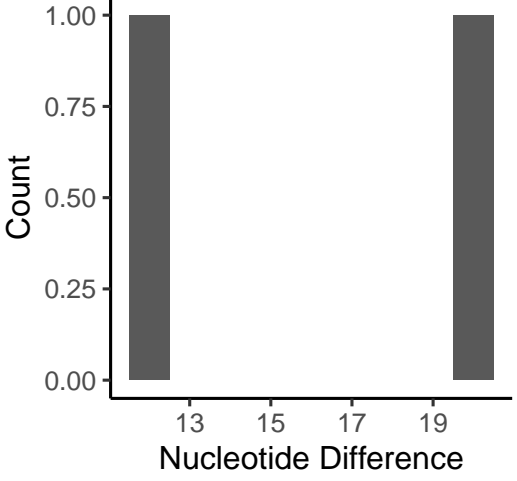
IGHV3-69-1*01

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



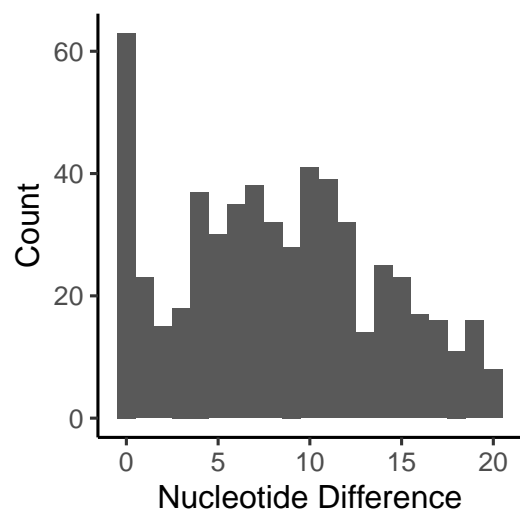
IGHV3-71*01_04

5 sequences assigned
No exact matches.



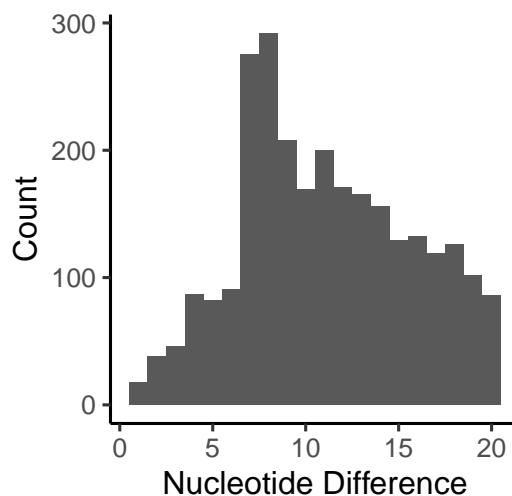
IGHV3-72*01

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



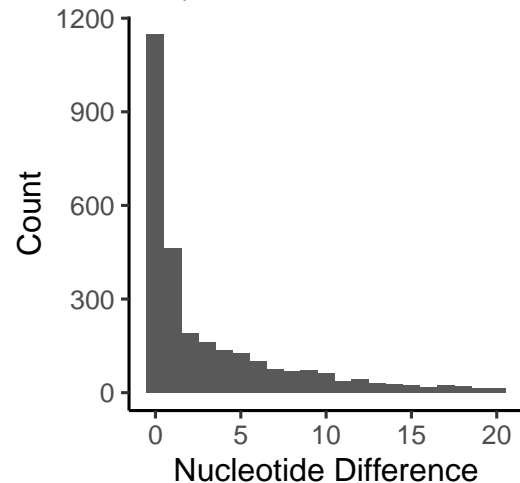
IGHV3-74*03

3067 sequences assigned
No exact matches.



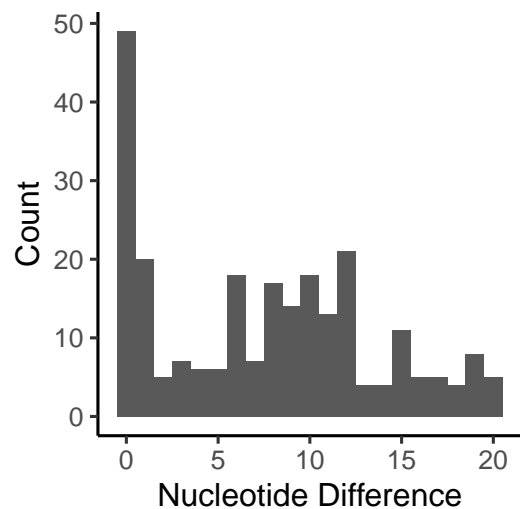
IGHV3-64D*06

2913 sequences assigned
1148 (39.4%) exact matches, in which:
1036 unique CDR3
6 unique J



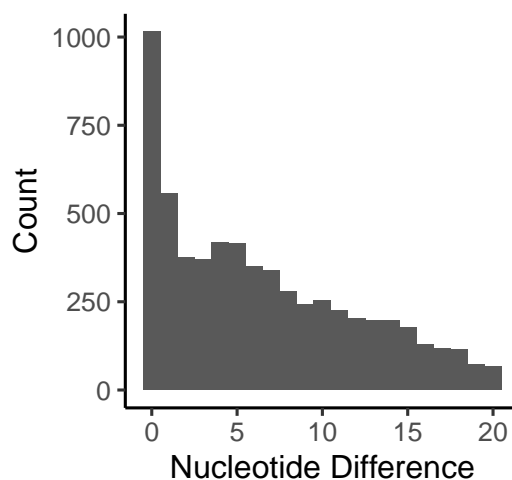
IGHV3-72*01_T186C

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



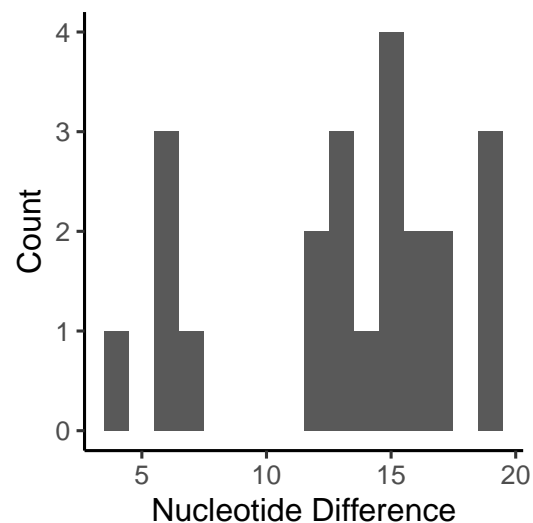
IGHV3-74*01_02

6302 sequences assigned
1015 (16.1%) exact matches, in which:
943 unique CDR3
6 unique J



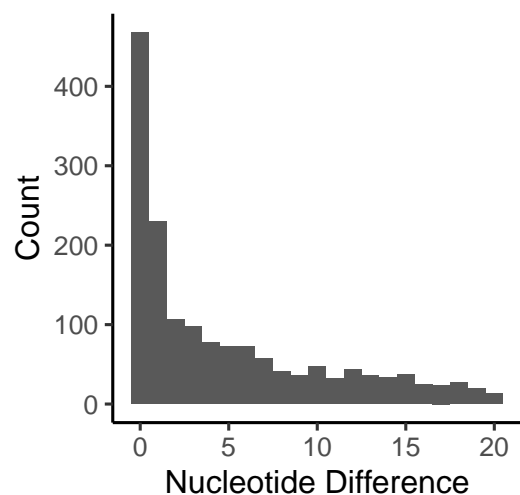
IGHV3-64D*08

57 sequences assigned
No exact matches.



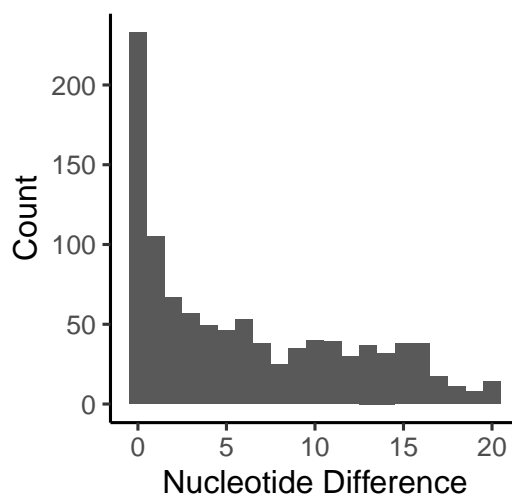
IGHV3-73*01_02

1706 sequences assigned
468 (27.4%) exact matches, in which:
446 unique CDR3
6 unique J



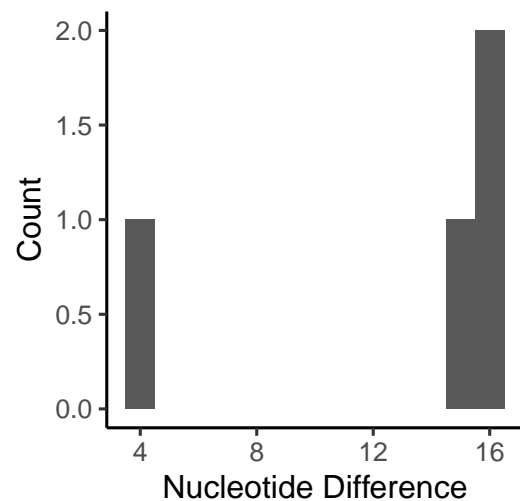
IGHV3-43D*03

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



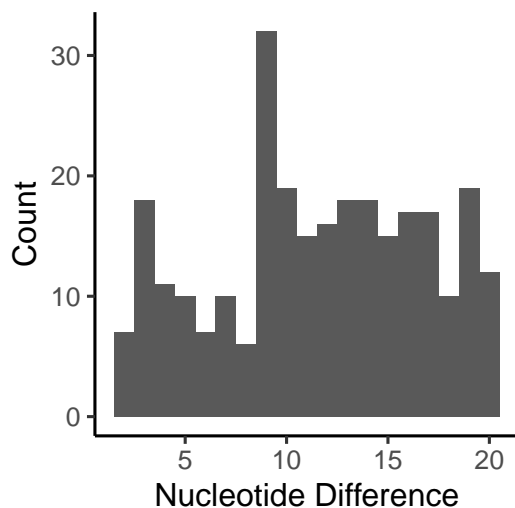
IGHV3-64D*09

5 sequences assigned
No exact matches.



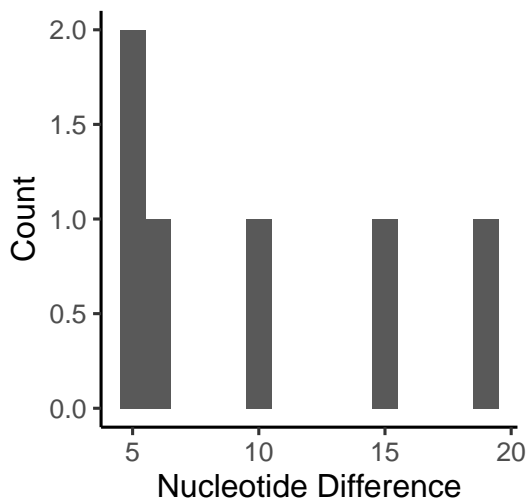
IGHV3–NL1*01

345 sequences assigned
No exact matches.



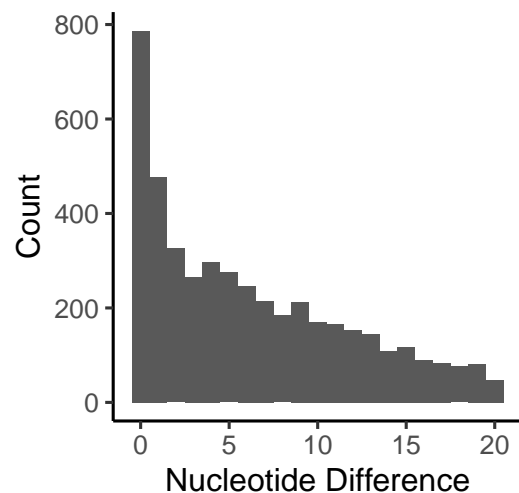
IGHV4–28*03

10 sequences assigned
No exact matches.



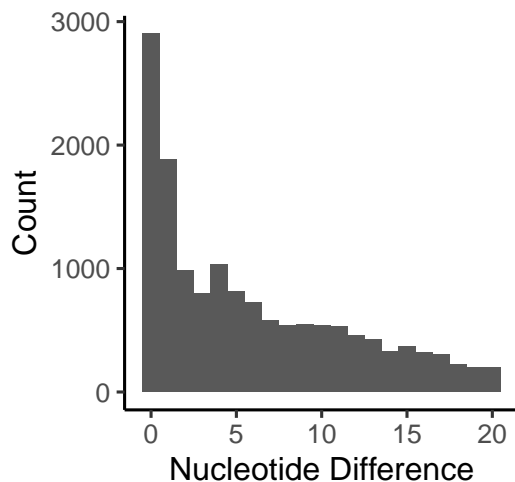
IGHV4–30–4*08

4836 sequences assigned
787 (16.3%) exact matches, in which:
713 unique CDR3
6 unique J



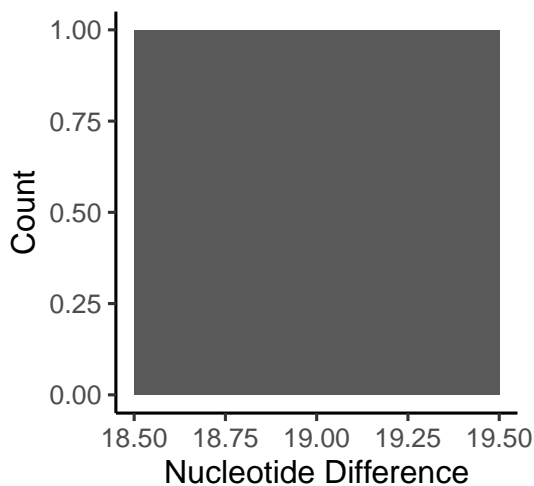
IGHV4–4*09

15528 sequences assigned
2902 (18.7%) exact matches, in which:
2520 unique CDR3
6 unique J



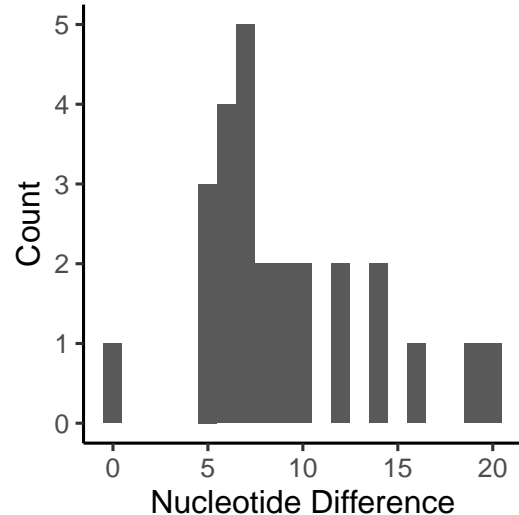
IGHV4–28*01_07

3 sequences assigned
No exact matches.



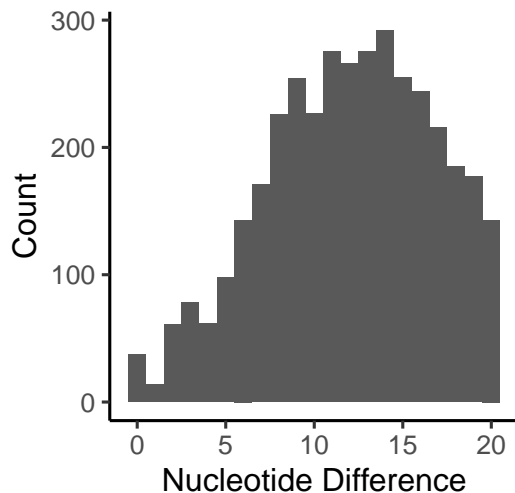
IGHV4–31*02

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



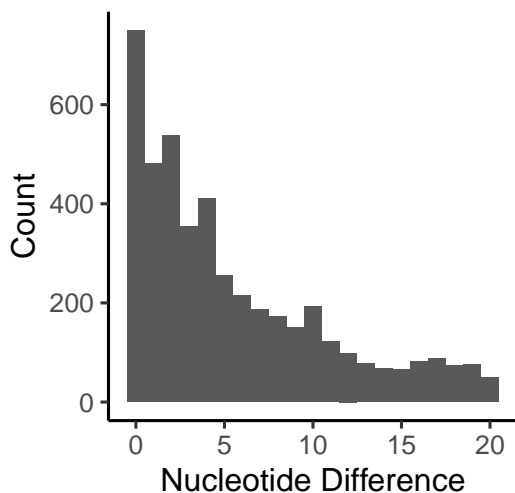
IGHV4–4*02_03

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



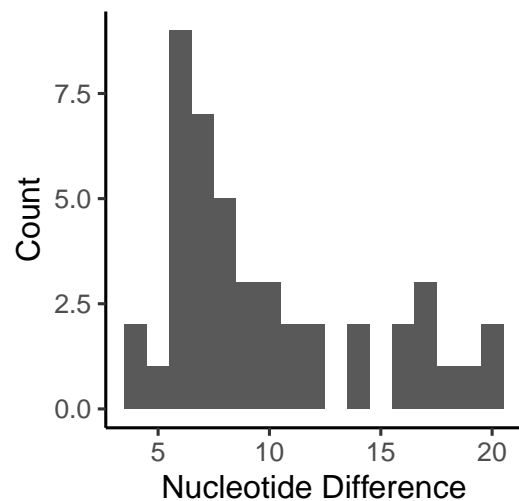
IGHV4–30–2*01

4656 sequences assigned
750 (16.1%) exact matches, in which:
667 unique CDR3
6 unique J



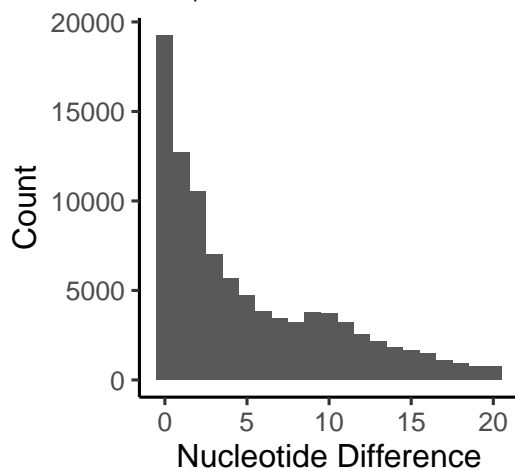
IGHV4–31*11

50 sequences assigned
No exact matches.



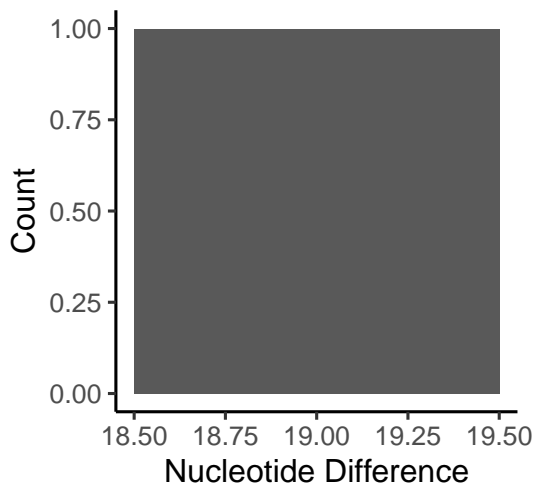
IGHV4-34*01_02

98594 sequences assigned
19262 (19.5%) exact matches, in which:
16212 unique CDR3
6 unique J



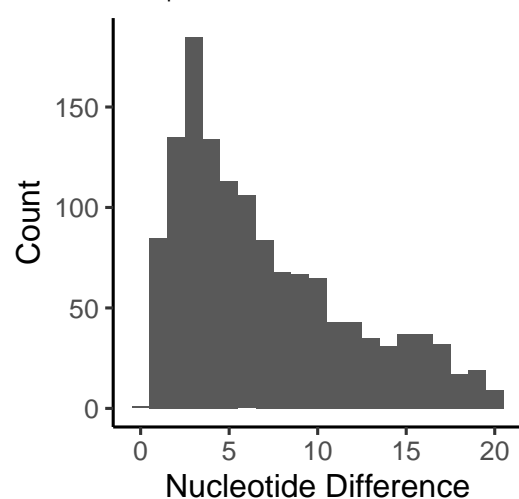
IGHV4-55*09

2 sequences assigned
No exact matches.



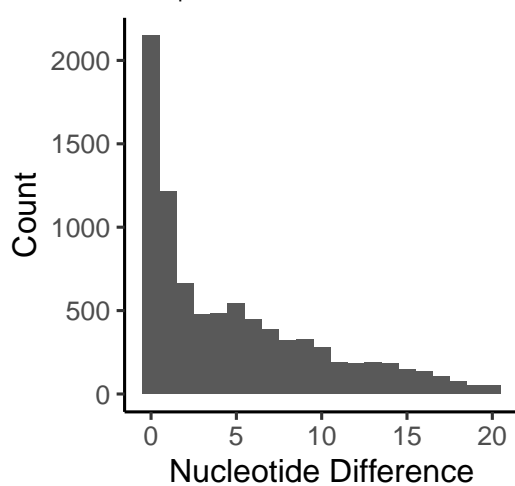
IGHV4-61*01

1398 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



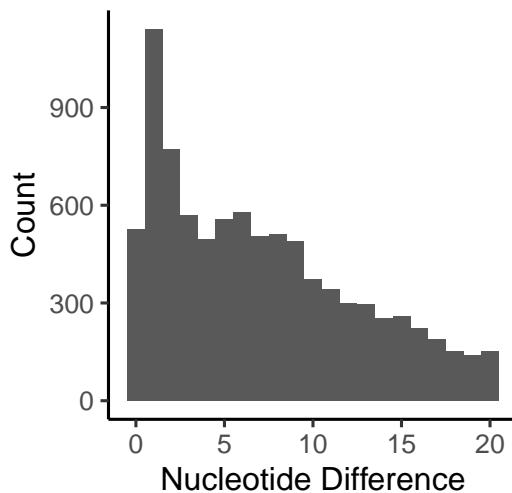
IGHV4-38-2*02

8900 sequences assigned
2148 (24.1%) exact matches, in which:
1880 unique CDR3
6 unique J



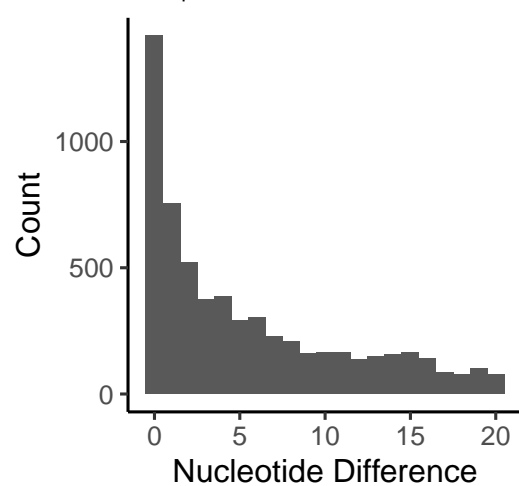
IGHV4-59*08

9394 sequences assigned
526 (5.6%) exact matches, in which:
516 unique CDR3
6 unique J



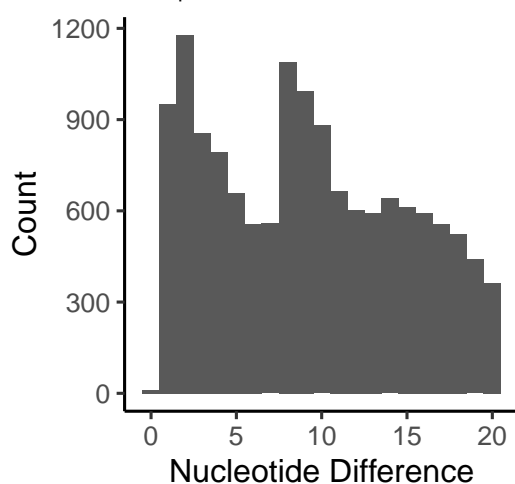
IGHV4-61*02

6352 sequences assigned
1419 (22.3%) exact matches, in which:
1241 unique CDR3
6 unique J



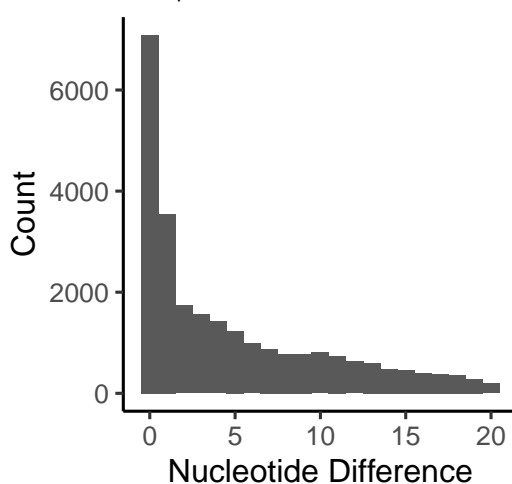
IGHV4-39*07

15970 sequences assigned
11 (0.1%) exact matches, in which:
11 unique CDR3
2 unique J



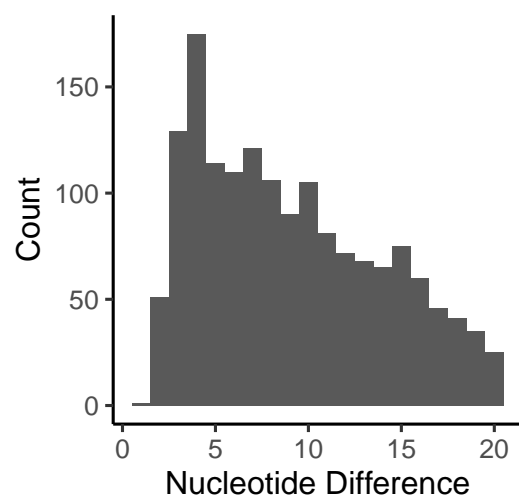
IGHV4-59*11

26371 sequences assigned
7087 (26.9%) exact matches, in which:
6057 unique CDR3
6 unique J



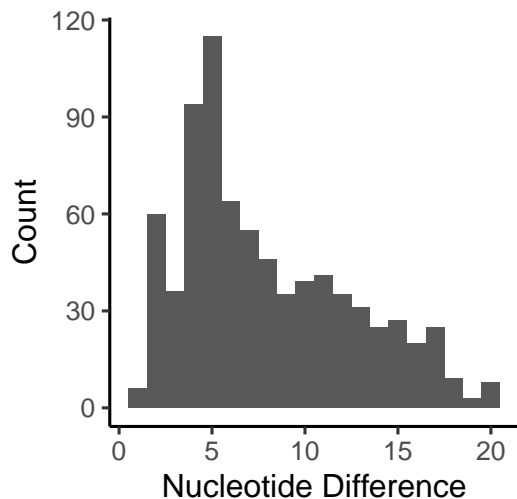
IGHV4-61*05

1665 sequences assigned
No exact matches.



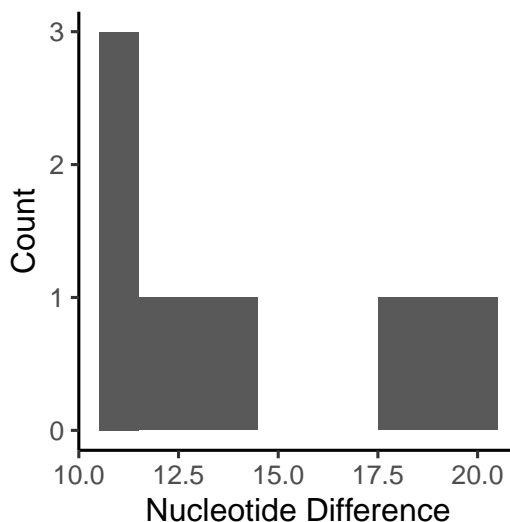
IGHV4-61*08

800 sequences assigned
No exact matches.



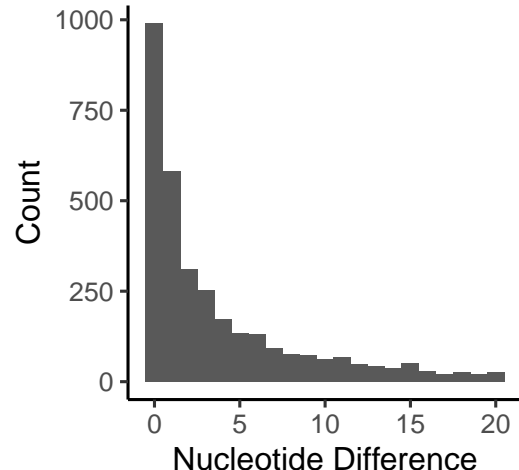
IGHV1/OR15-3*02

10 sequences assigned
No exact matches.



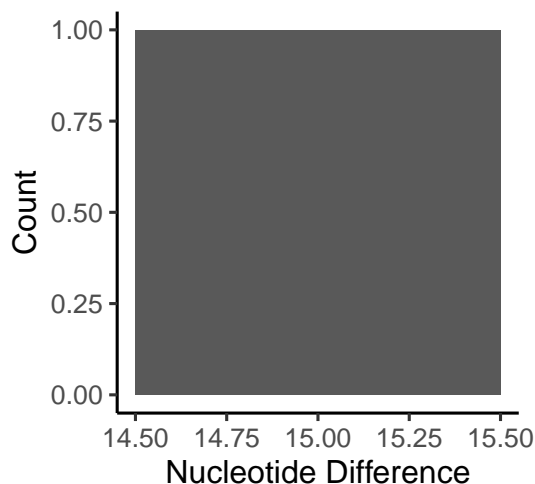
IGHV5-10-1*01_03

3306 sequences assigned
990 (29.9%) exact matches, in which:
949 unique CDR3
6 unique J



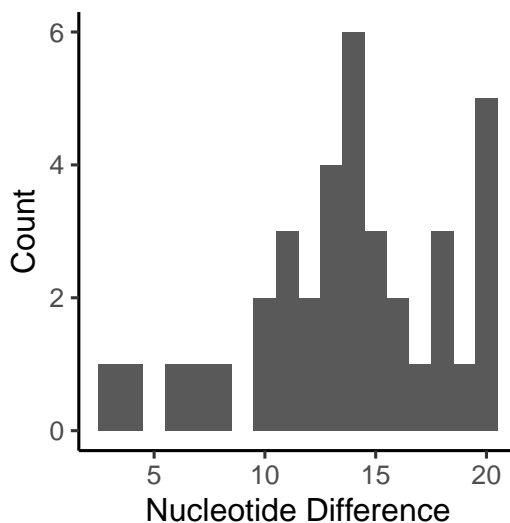
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



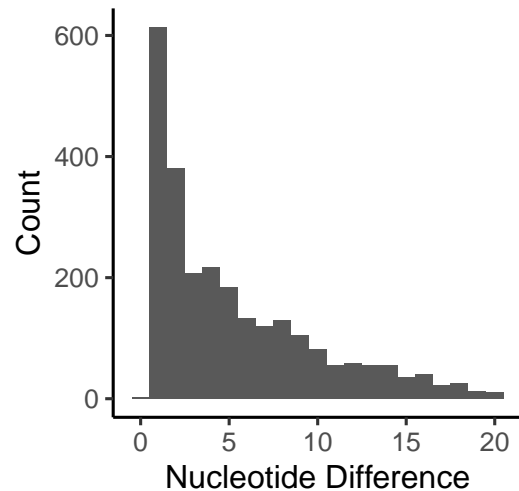
IGHV4/OR15-8*01

54 sequences assigned
No exact matches.



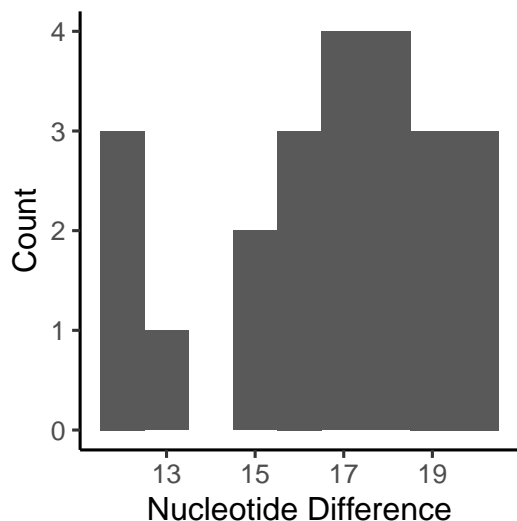
IGHV5-51*07

2640 sequences assigned
3 (0.1%) exact matches, in which:
3 unique CDR3
1 unique J



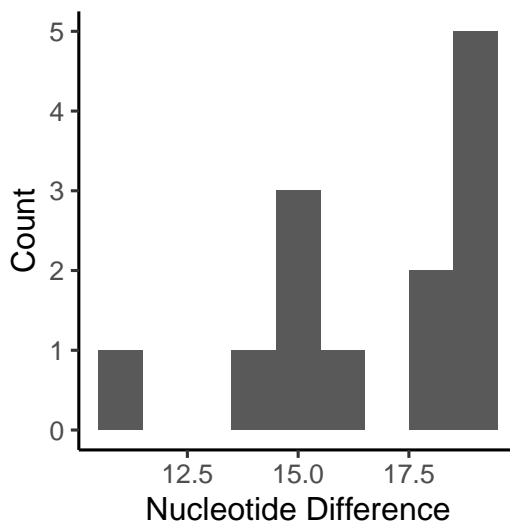
IGHV1/OR15-2*02_03

28 sequences assigned
No exact matches.



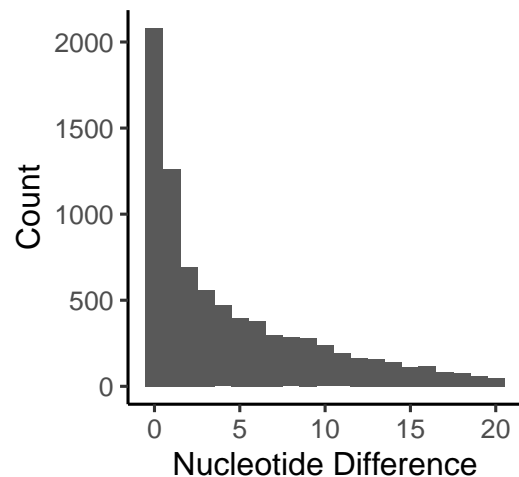
IGHV4/OR15-8*02

23 sequences assigned
No exact matches.



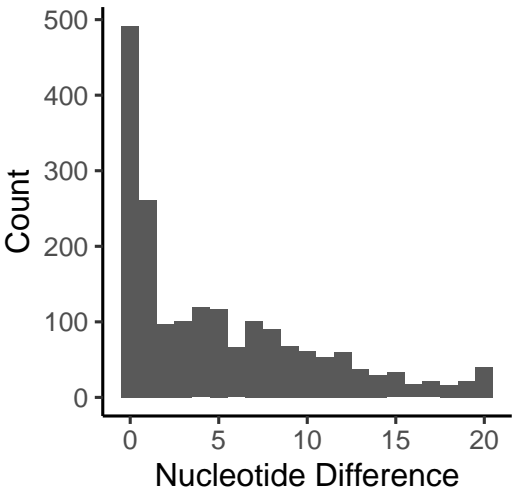
IGHV5-51*01_03

8275 sequences assigned
2081 (25.1%) exact matches, in which:
1959 unique CDR3
6 unique J



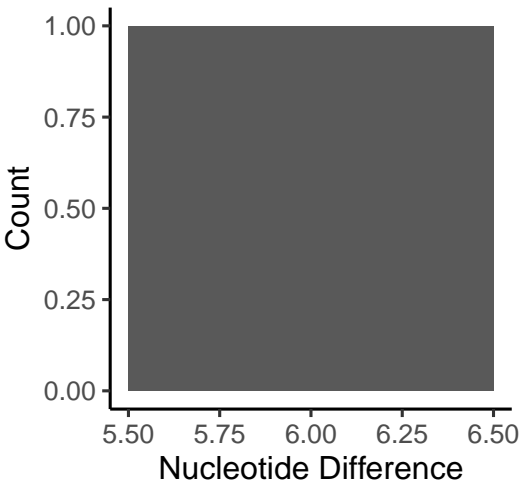
IGHV6-1*01_02

1945 sequences assigned
492 (25.3%) exact matches, in which:
454 unique CDR3
6 unique J



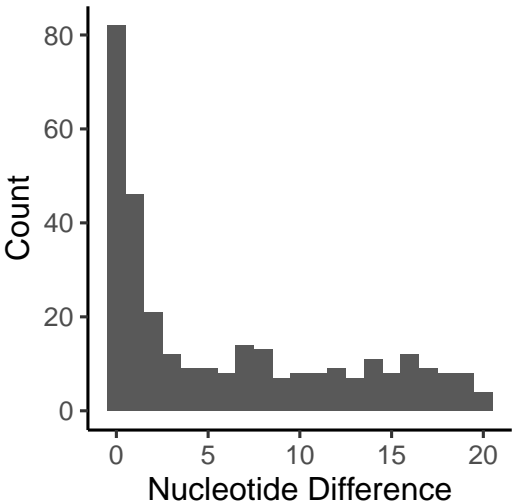
IGHV3/OR16-13*01

2 sequences assigned
No exact matches.



IGHV7-4-1*02

351 sequences assigned
82 (23.4%) exact matches, in which:
82 unique CDR3
5 unique J





Warning – no inferred sequences found.