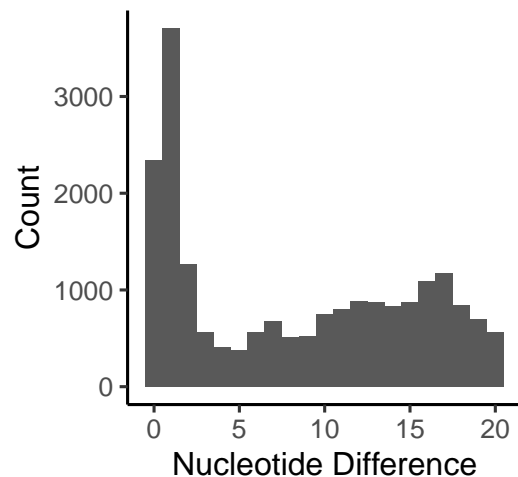


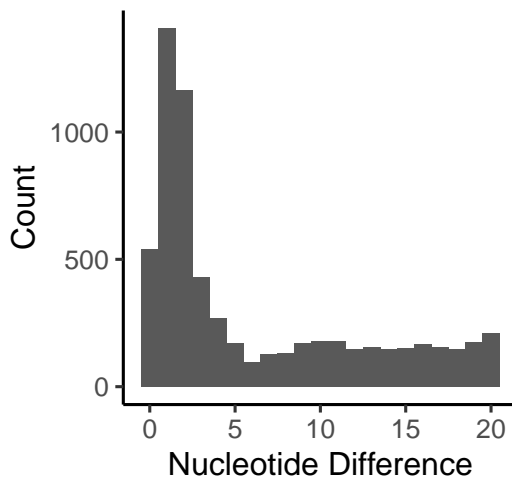
IGHV1-2*02

24962 sequences assigned
2342 (9.4%) exact matches, in which:
1607 unique CDR3
7 unique J



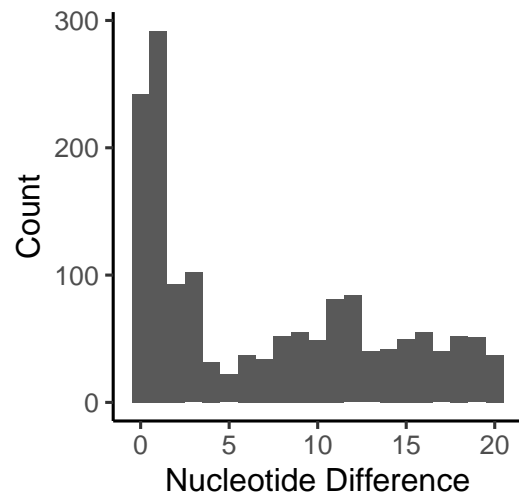
IGHV1-3*01_05

7497 sequences assigned
541 (7.2%) exact matches, in which:
400 unique CDR3
7 unique J



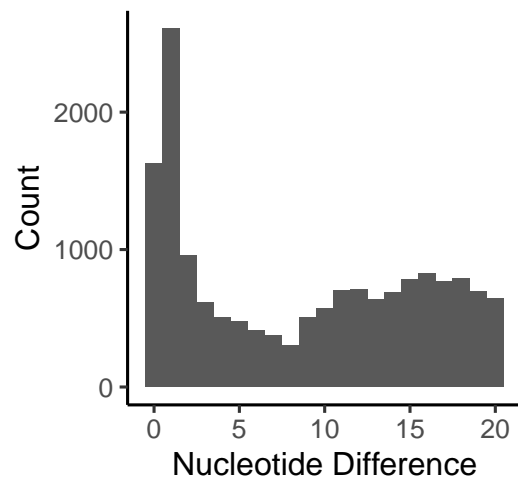
IGHV1-24*01

1663 sequences assigned
242 (14.6%) exact matches, in which:
183 unique CDR3
7 unique J



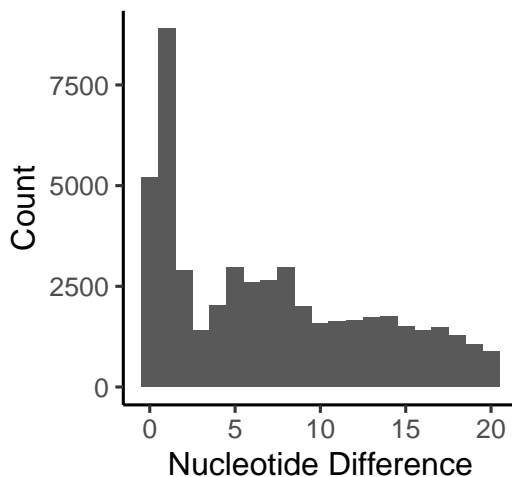
IGHV1-2*06

19857 sequences assigned
1625 (8.2%) exact matches, in which:
1089 unique CDR3
7 unique J



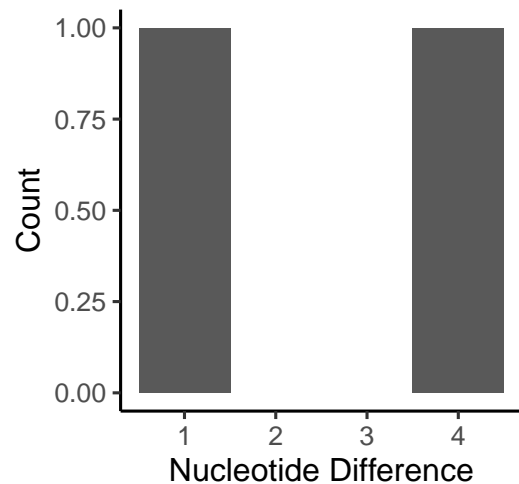
IGHV1-8*01

53713 sequences assigned
5209 (9.7%) exact matches, in which:
3360 unique CDR3
7 unique J



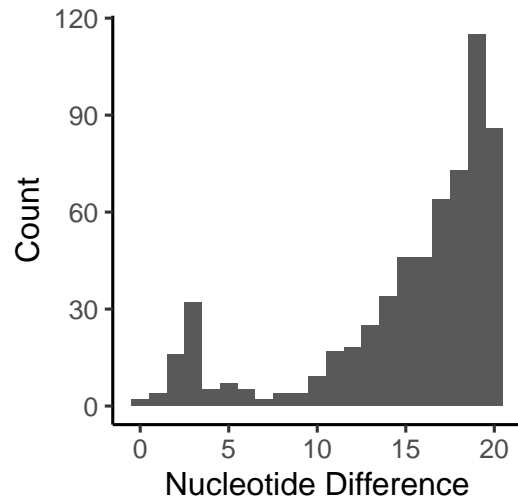
IGHV1-38-4*01

2 sequences assigned
No exact matches.



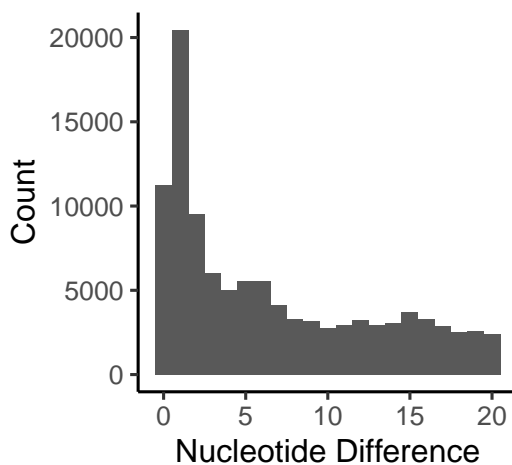
IGHV1-3*04

1240 sequences assigned
2 (0.2%) exact matches, in which:
2 unique CDR3
1 unique J



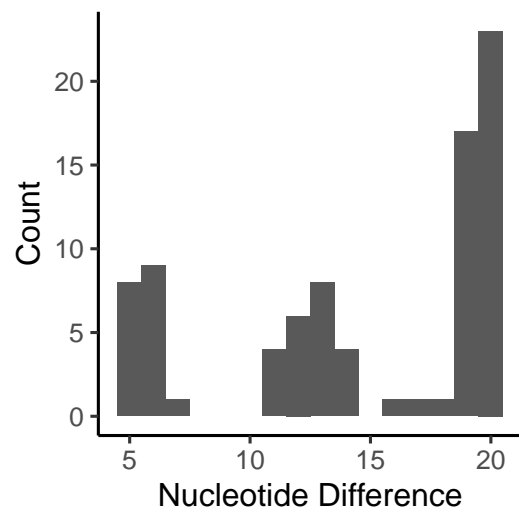
IGHV1-18*01

119089 sequences assigned
11221 (9.4%) exact matches, in which:
7247 unique CDR3
7 unique J



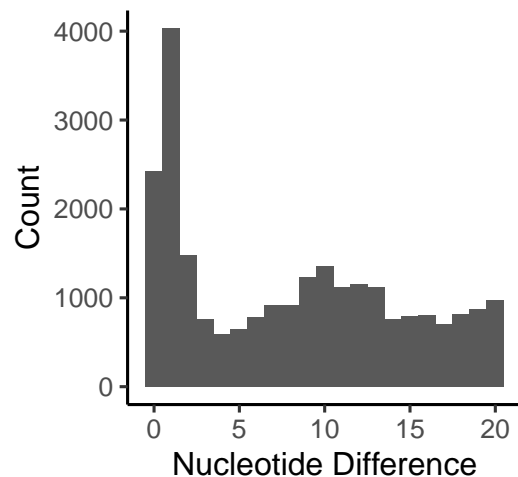
IGHV1-45*02

114 sequences assigned
No exact matches.



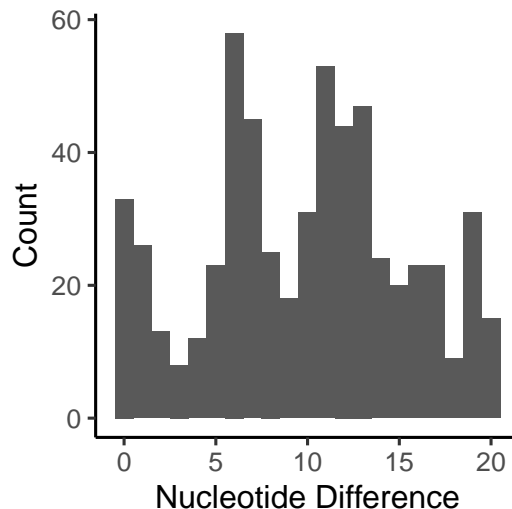
IGHV1-46*01

30452 sequences assigned
2420 (7.9%) exact matches, in which:
1665 unique CDR3
7 unique J



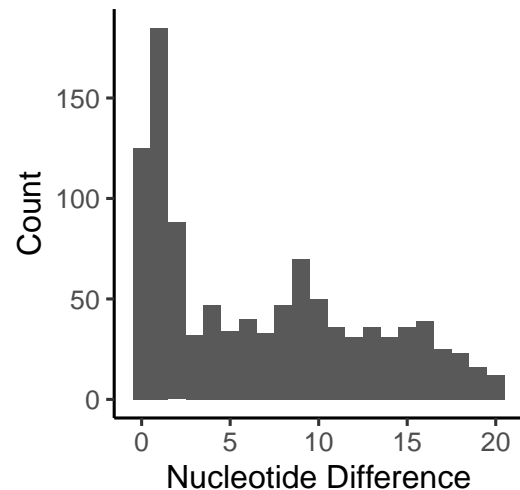
IGHV1-69-2*01

738 sequences assigned
33 (4.5%) exact matches, in which:
26 unique CDR3
5 unique J



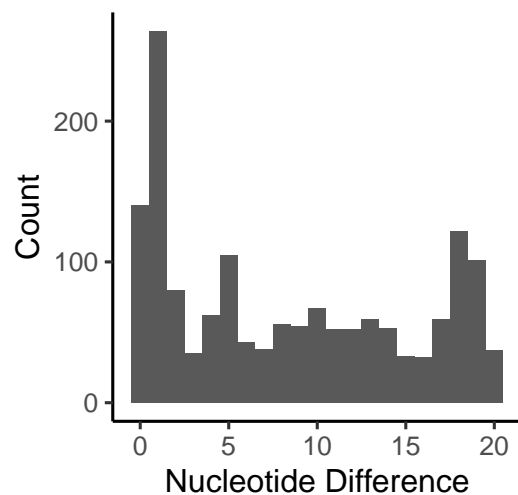
IGHV2-5*01

1091 sequences assigned
125 (11.5%) exact matches, in which:
99 unique CDR3
7 unique J



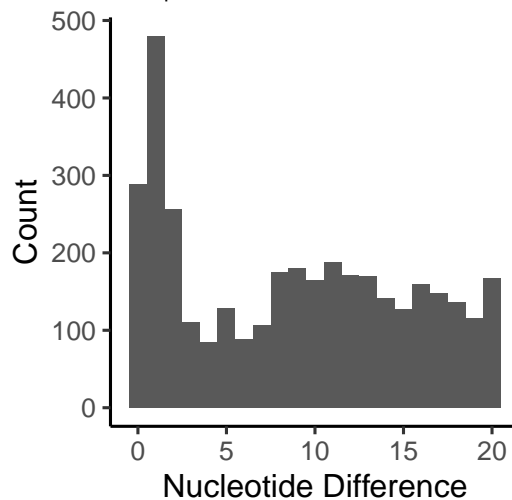
IGHV1-58*02

2250 sequences assigned
140 (6.2%) exact matches, in which:
87 unique CDR3
6 unique J



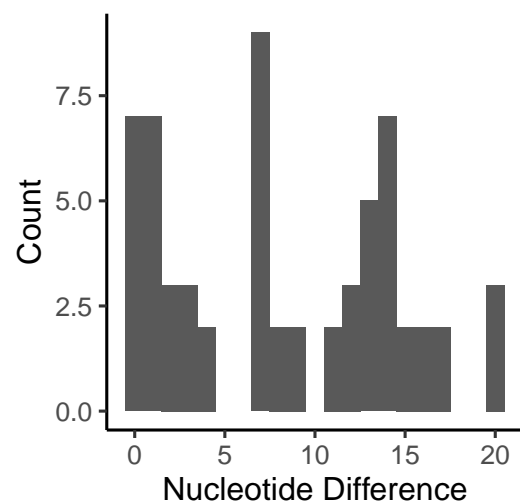
IGHV1-69*02

4907 sequences assigned
289 (5.9%) exact matches, in which:
204 unique CDR3
7 unique J



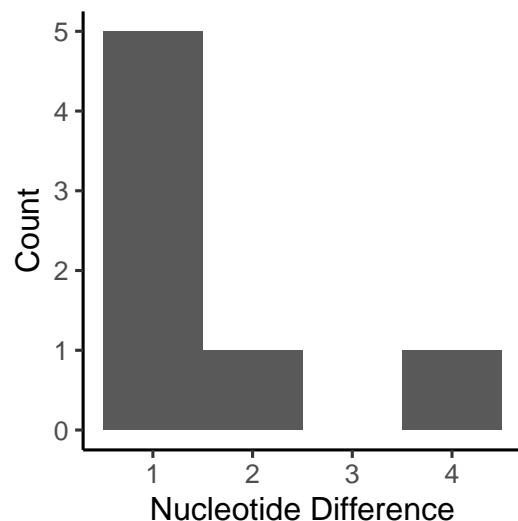
IGHV2-26*01

70 sequences assigned
7 (10%) exact matches, in which:
5 unique CDR3
3 unique J



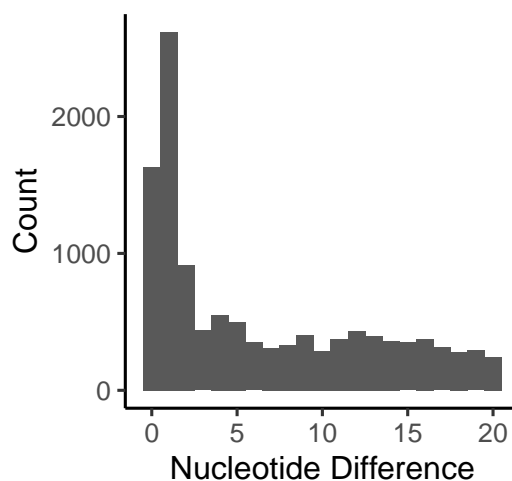
IGHV1-68*02

7 sequences assigned
No exact matches.



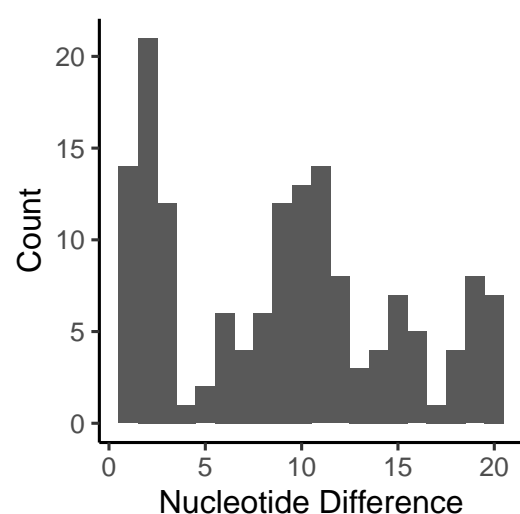
IGHV1-69*05

14248 sequences assigned
1629 (11.4%) exact matches, in which:
1106 unique CDR3
7 unique J



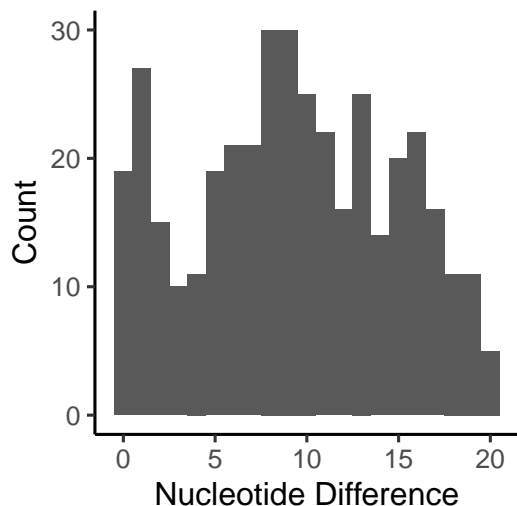
IGHV2-70*19

167 sequences assigned
No exact matches.



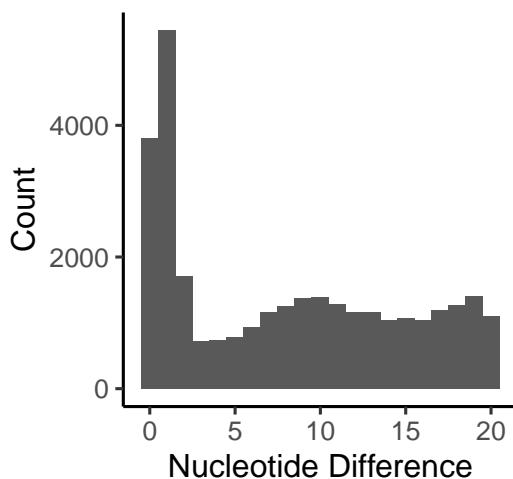
IGHV2-70*11_15

427 sequences assigned
19 (4.4%) exact matches, in which:
13 unique CDR3
3 unique J



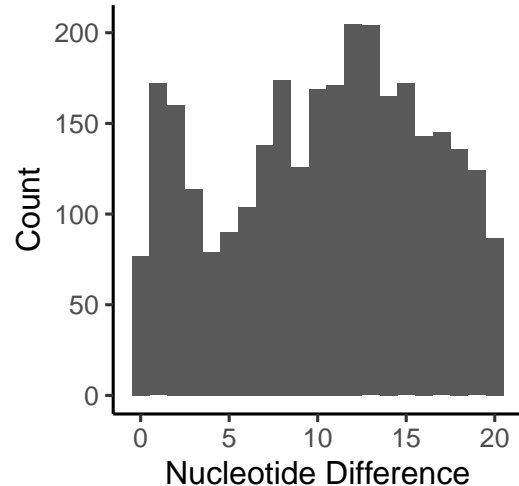
IGHV3-7*01

35474 sequences assigned
3803 (10.7%) exact matches, in which:
2517 unique CDR3
7 unique J



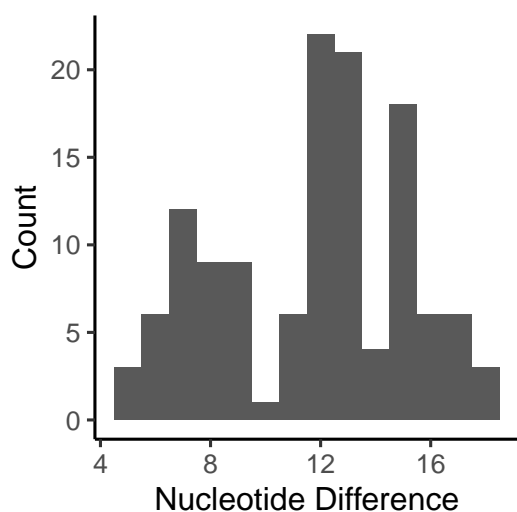
IGHV3-11*04

3430 sequences assigned
77 (2.2%) exact matches, in which:
77 unique CDR3
7 unique J



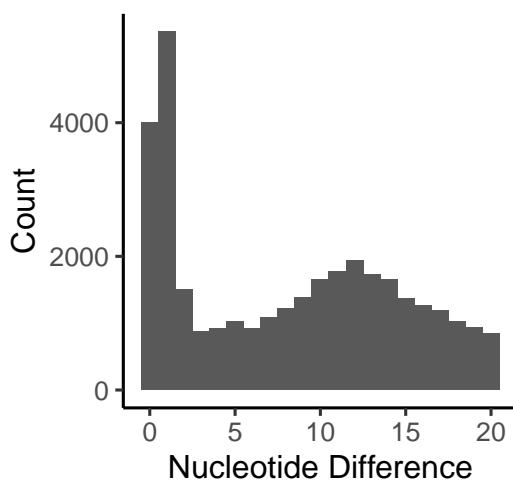
IGHV2-70*16_17

128 sequences assigned
No exact matches.



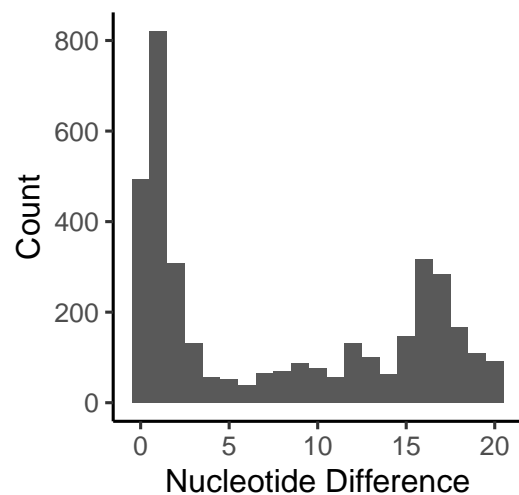
IGHV3-9*01

38536 sequences assigned
4004 (10.4%) exact matches, in which:
2668 unique CDR3
7 unique J



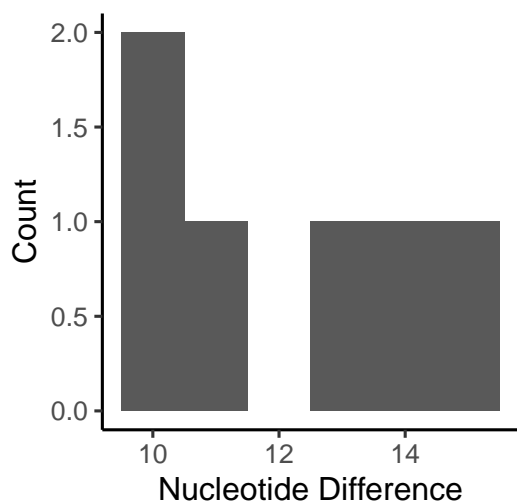
IGHV3-13*01

3942 sequences assigned
494 (12.5%) exact matches, in which:
310 unique CDR3
7 unique J



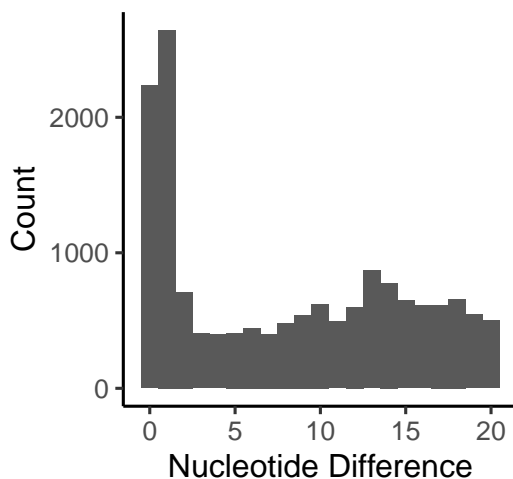
IGHV2-70D*04

8 sequences assigned
No exact matches.



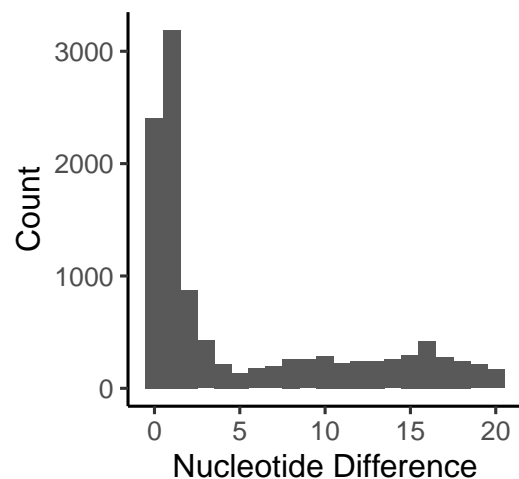
IGHV3-11*01

17864 sequences assigned
2236 (12.5%) exact matches, in which:
1555 unique CDR3
7 unique J



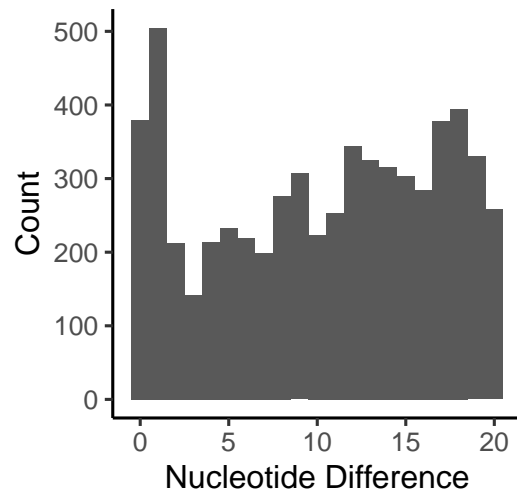
IGHV3-15*01_02

12394 sequences assigned
2408 (19.4%) exact matches, in which:
1639 unique CDR3
7 unique J



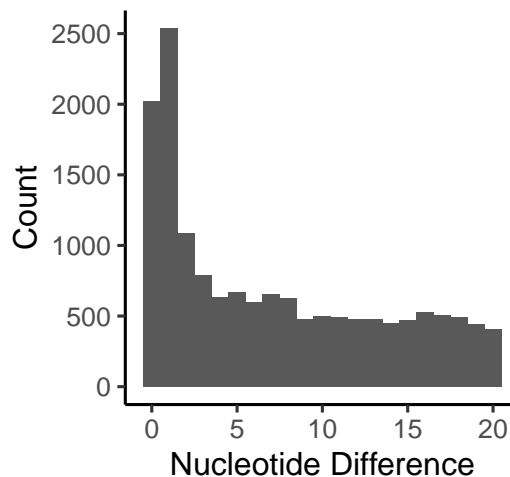
IGHV3-20*03_04

7131 sequences assigned
380 (5.3%) exact matches, in which:
258 unique CDR3
7 unique J



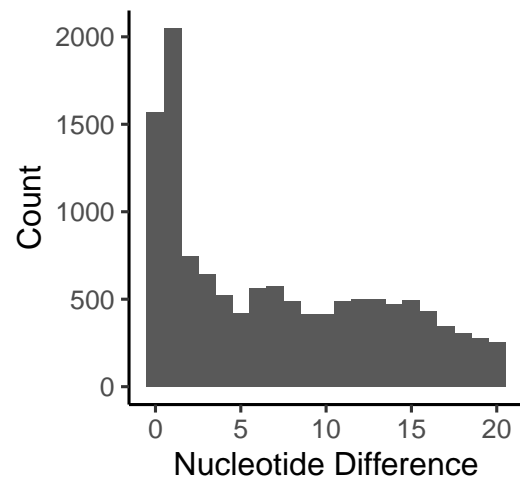
IGHV3-21*01_02

17210 sequences assigned
2019 (11.7%) exact matches, in which:
1423 unique CDR3
7 unique J



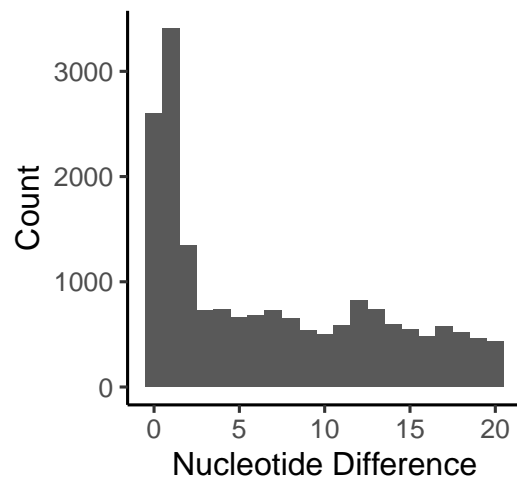
IGHV3-33*06

13656 sequences assigned
1567 (11.5%) exact matches, in which:
915 unique CDR3
7 unique J



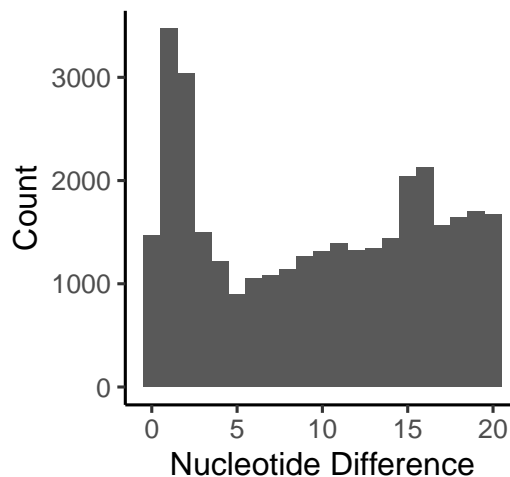
IGHV3-21*03

20145 sequences assigned
2602 (12.9%) exact matches, in which:
1683 unique CDR3
7 unique J



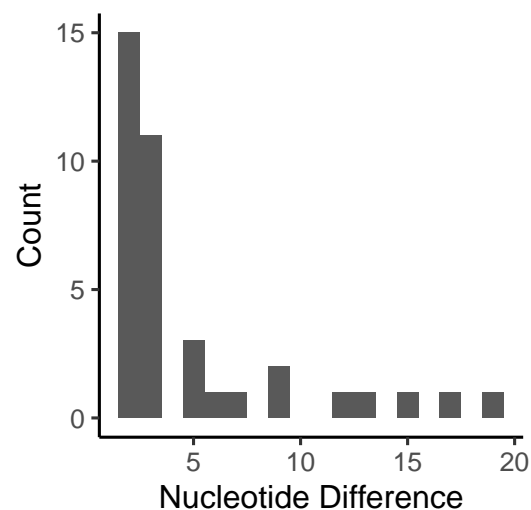
IGHV3-23*03

42675 sequences assigned
1466 (3.4%) exact matches, in which:
1025 unique CDR3
7 unique J



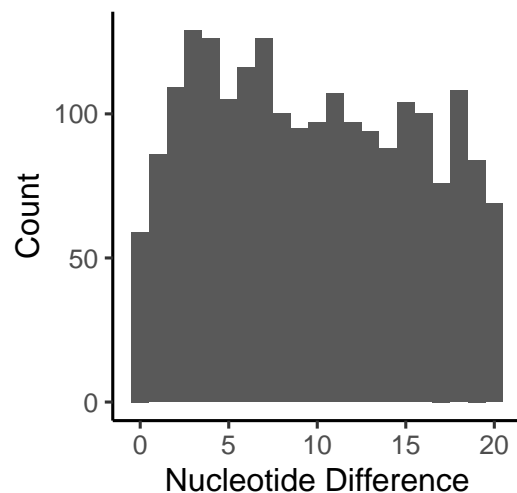
IGHV3-35*01

41 sequences assigned
No exact matches.



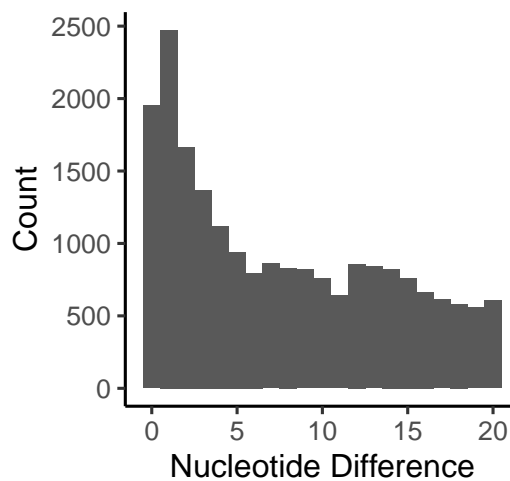
IGHV3-21*04

2560 sequences assigned
59 (2.3%) exact matches, in which:
59 unique CDR3
6 unique J



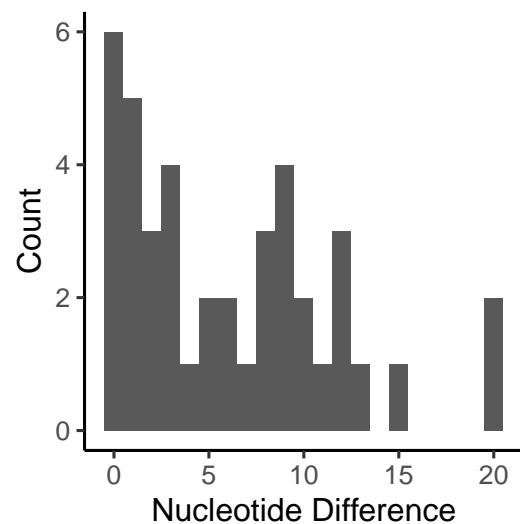
IGHV3-33*01

22494 sequences assigned
1951 (8.7%) exact matches, in which:
1325 unique CDR3
7 unique J



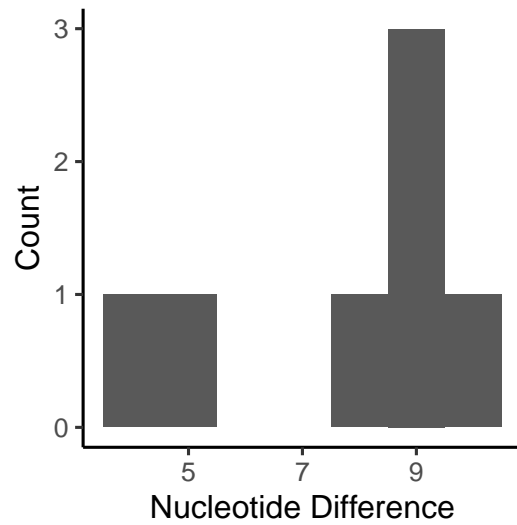
IGHV3-38-3*01

41 sequences assigned
6 (14.6%) exact matches, in which:
6 unique CDR3
3 unique J



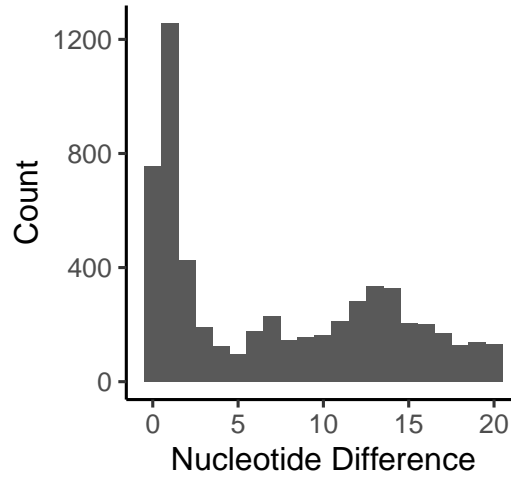
IGHV3-38*03

8 sequences assigned
No exact matches.



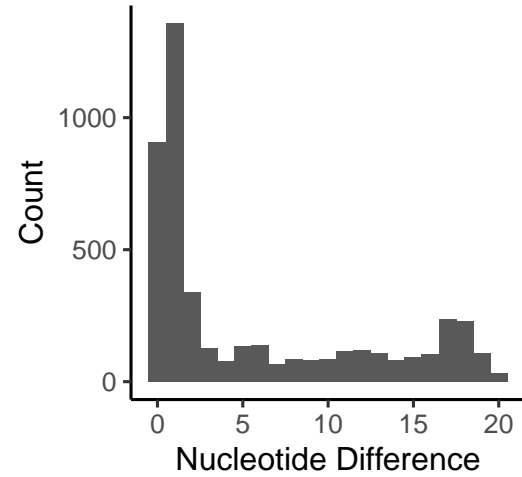
IGHV3-49*04

7043 sequences assigned
754 (10.7%) exact matches, in which:
462 unique CDR3
7 unique J



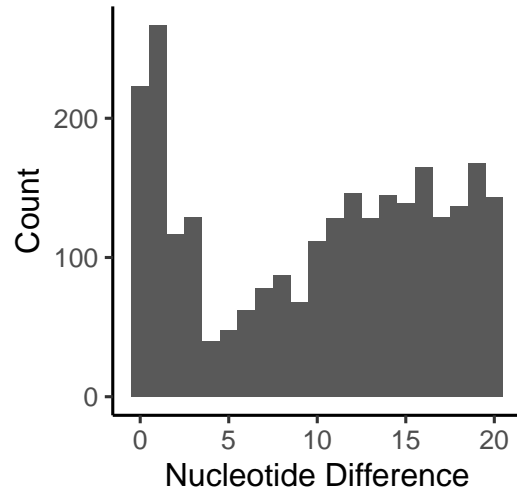
IGHV3-53*04

5063 sequences assigned
909 (18%) exact matches, in which:
569 unique CDR3
7 unique J



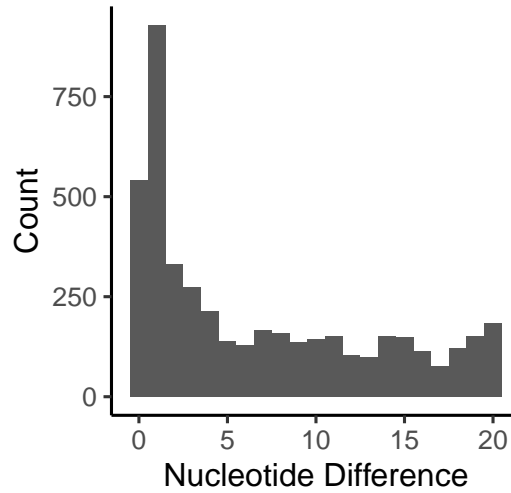
IGHV3-43*01

3376 sequences assigned
223 (6.6%) exact matches, in which:
172 unique CDR3
6 unique J



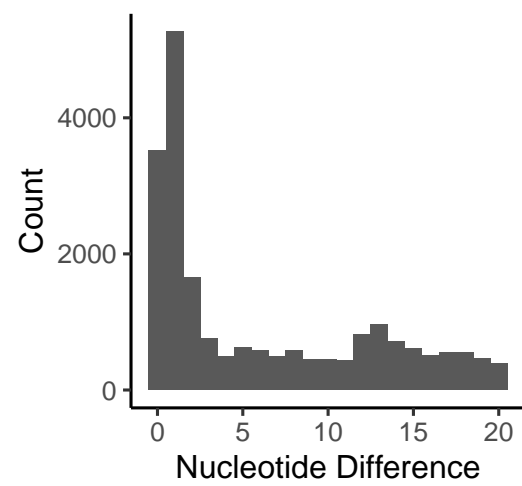
IGHV3-49*03_05

5114 sequences assigned
542 (10.6%) exact matches, in which:
347 unique CDR3
7 unique J



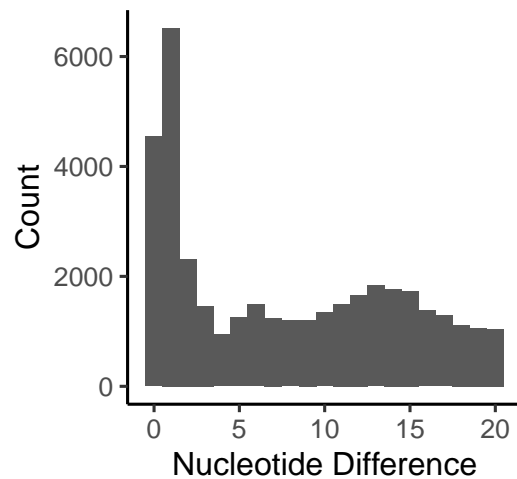
IGHV3-53*05

23863 sequences assigned
3527 (14.8%) exact matches, in which:
2258 unique CDR3
7 unique J



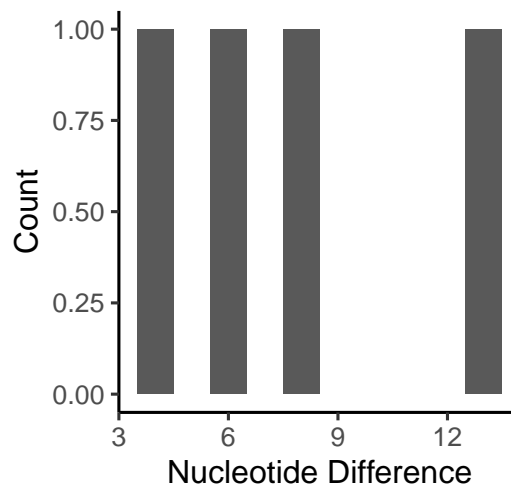
IGHV3-48*03

42925 sequences assigned
4547 (10.6%) exact matches, in which:
2938 unique CDR3
7 unique J



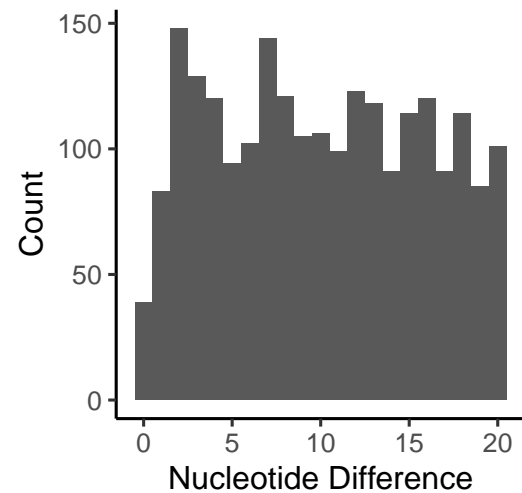
IGHV3-52*01_03

4 sequences assigned
No exact matches.



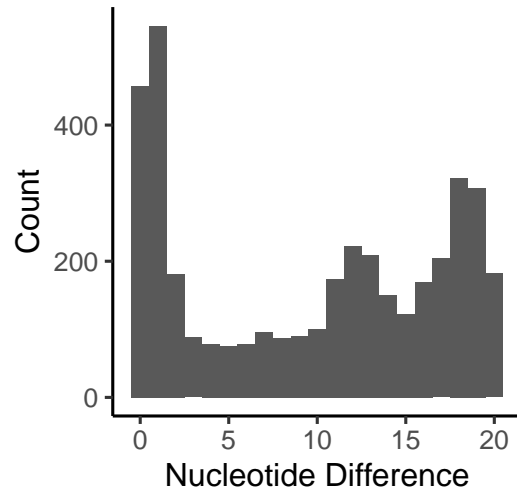
IGHV3-53*01_02

2781 sequences assigned
39 (1.4%) exact matches, in which:
38 unique CDR3
5 unique J



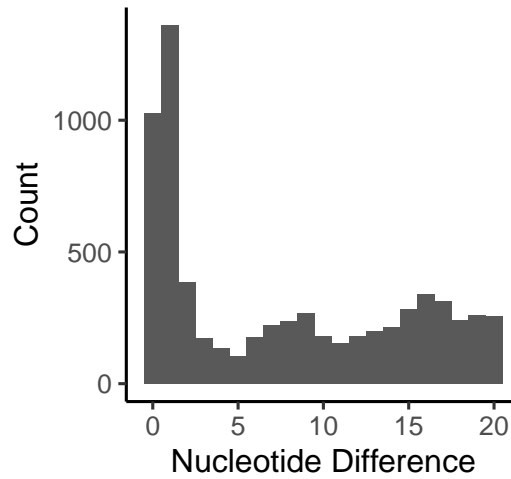
IGHV3-64*01

4663 sequences assigned
457 (9.8%) exact matches, in which:
314 unique CDR3
7 unique J



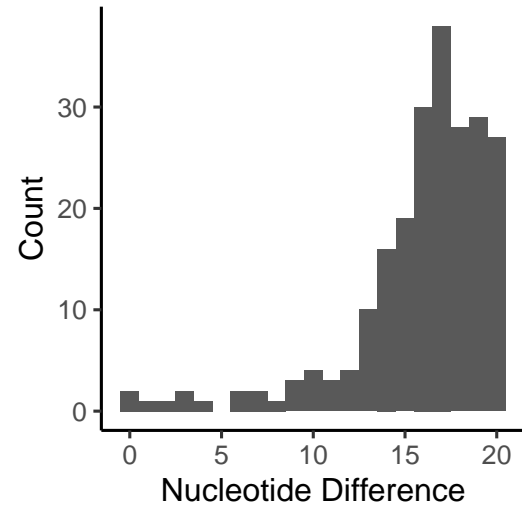
IGHV3-66*02

8221 sequences assigned
1026 (12.5%) exact matches, in which:
677 unique CDR3
7 unique J



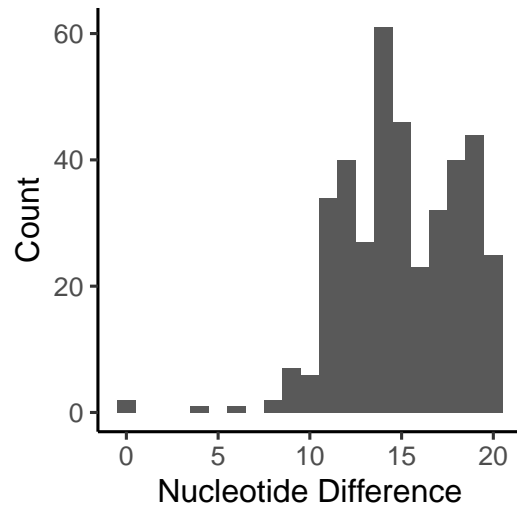
IGHV3-69-1*02

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



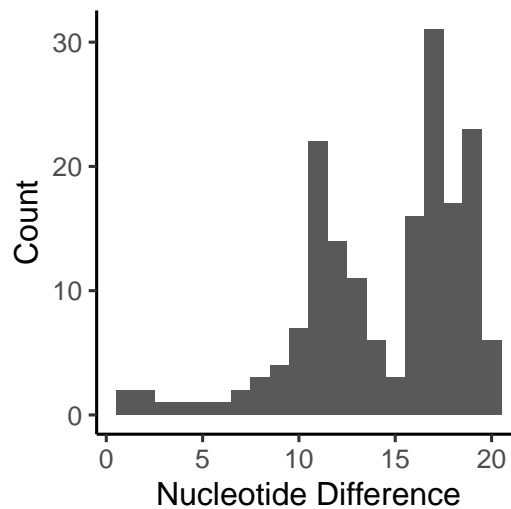
IGHV3-64*02_07

632 sequences assigned
2 (0.3%) exact matches, in which:
2 unique CDR3
1 unique J



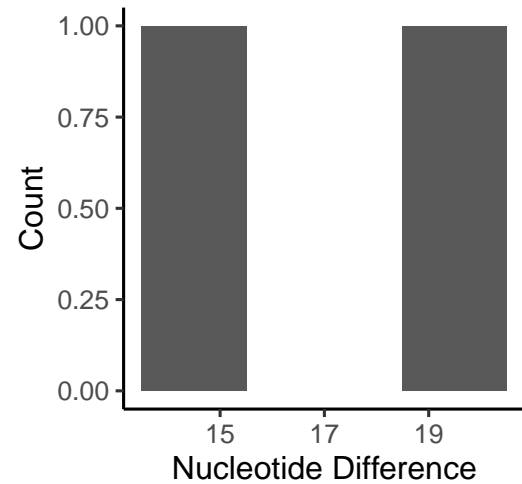
IGHV3-66*03

240 sequences assigned
No exact matches.



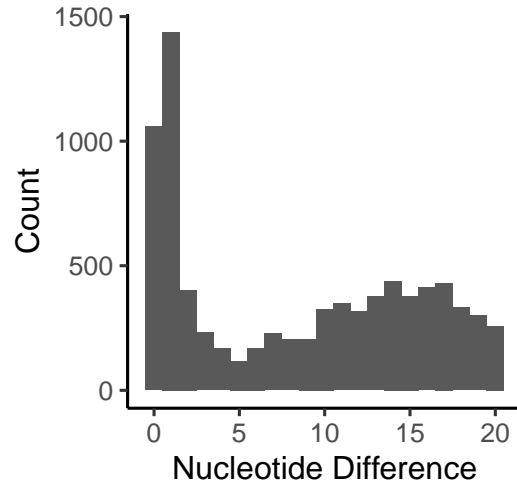
IGHV3-71*01_04

23 sequences assigned
No exact matches.



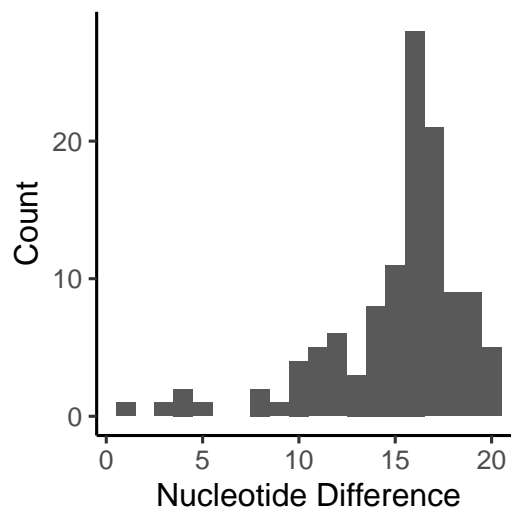
IGHV3-66*01

10243 sequences assigned
1059 (10.3%) exact matches, in which:
702 unique CDR3
7 unique J



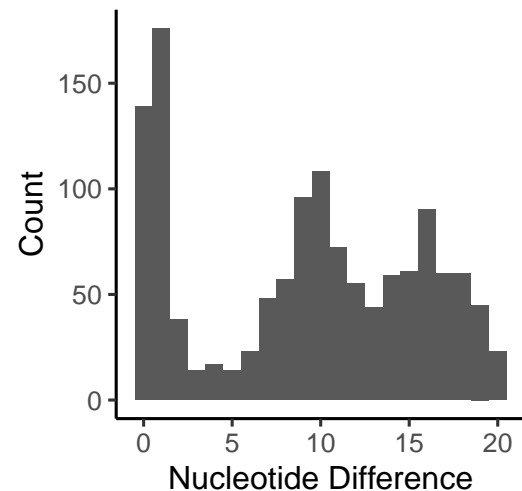
IGHV3-69-1*01

184 sequences assigned
No exact matches.



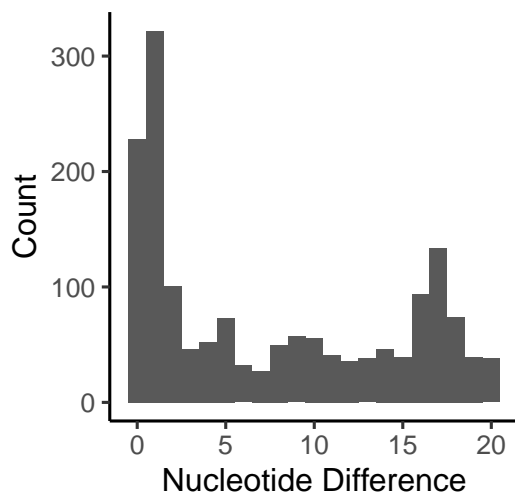
IGHV3-72*01

1926 sequences assigned
139 (7.2%) exact matches, in which:
102 unique CDR3
4 unique J



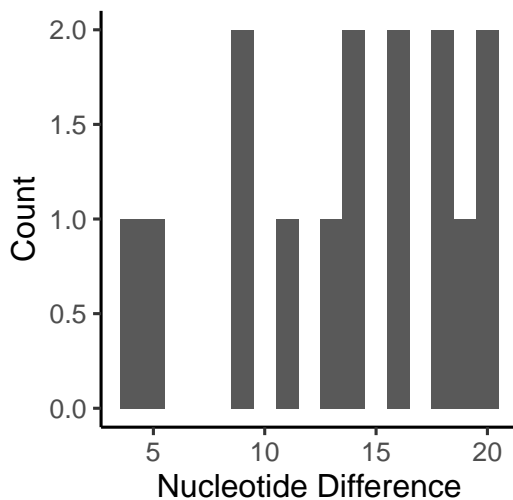
IGHV3-73*01_02

1936 sequences assigned
228 (11.8%) exact matches, in which:
155 unique CDR3
6 unique J



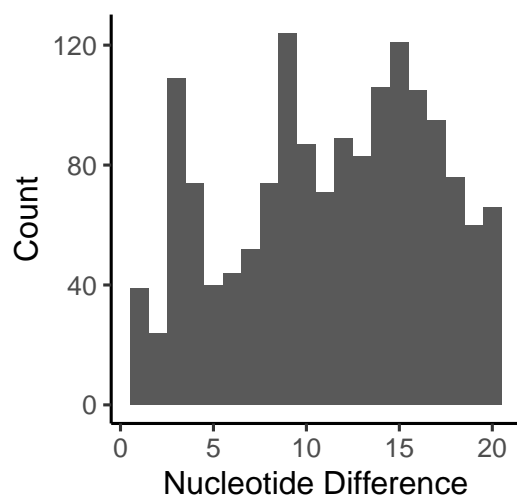
IGHV3-64D*06

17 sequences assigned
No exact matches.



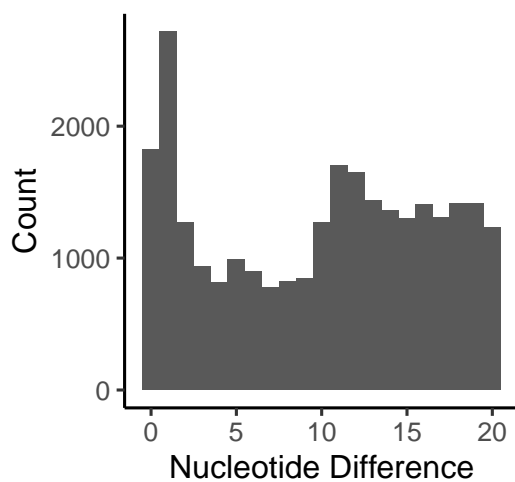
IGHV4-4*08

2088 sequences assigned
No exact matches.



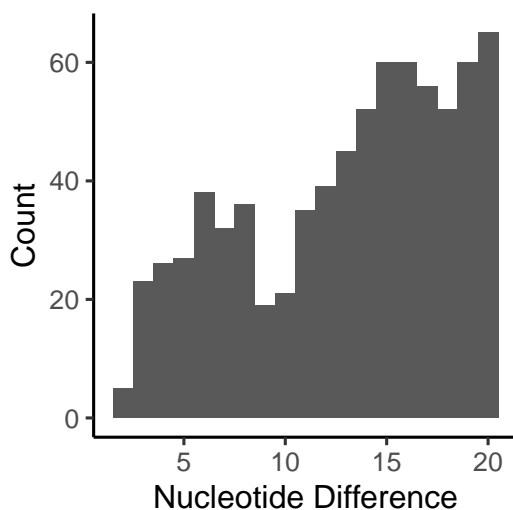
IGHV3-74*01_02

34233 sequences assigned
1825 (5.3%) exact matches, in which:
1191 unique CDR3
7 unique J



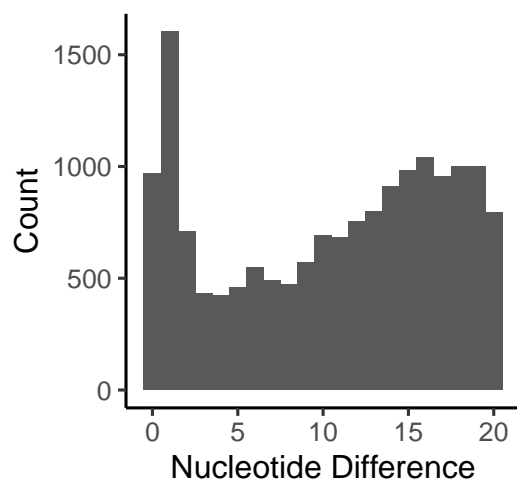
IGHV3-NL1*01

1077 sequences assigned
No exact matches.



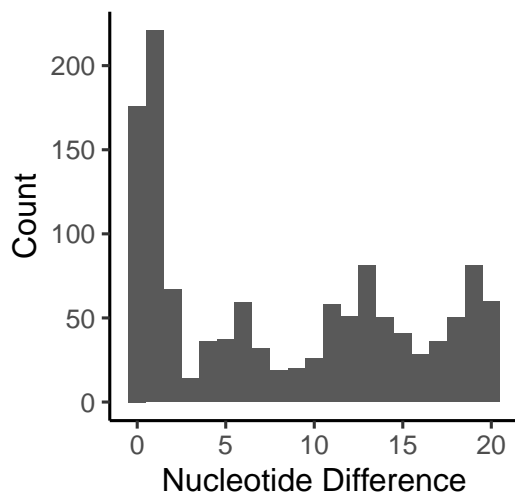
IGHV4-4*02_03

20581 sequences assigned
968 (4.7%) exact matches, in which:
612 unique CDR3
7 unique J



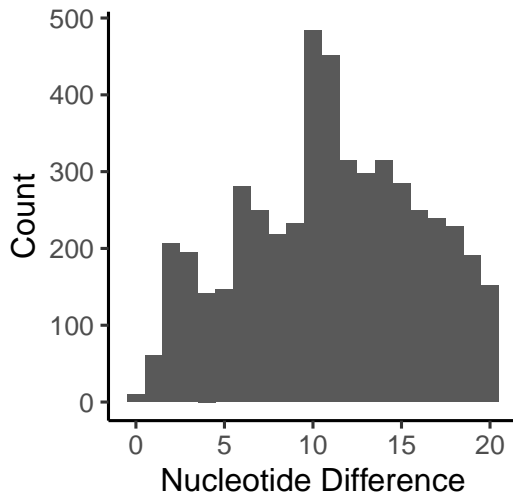
IGHV3-43D*03

1394 sequences assigned
176 (12.6%) exact matches, in which:
124 unique CDR3
7 unique J



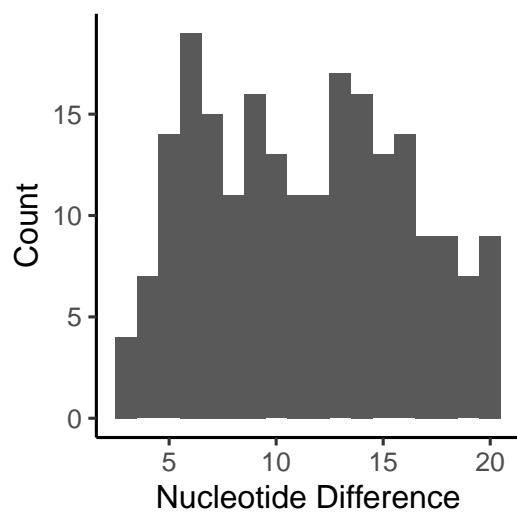
IGHV4-4*07

5645 sequences assigned
10 (0.2%) exact matches, in which:
10 unique CDR3
5 unique J



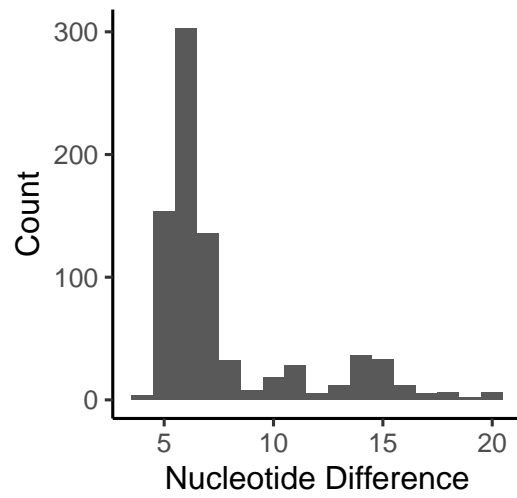
IGHV4-28*03

260 sequences assigned
No exact matches.



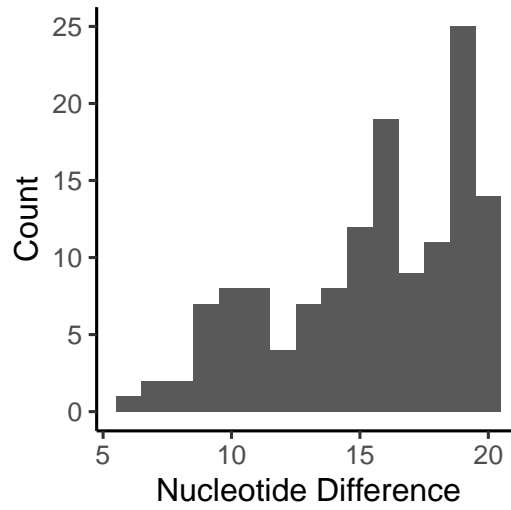
IGHV4-28*01_07

856 sequences assigned
No exact matches.



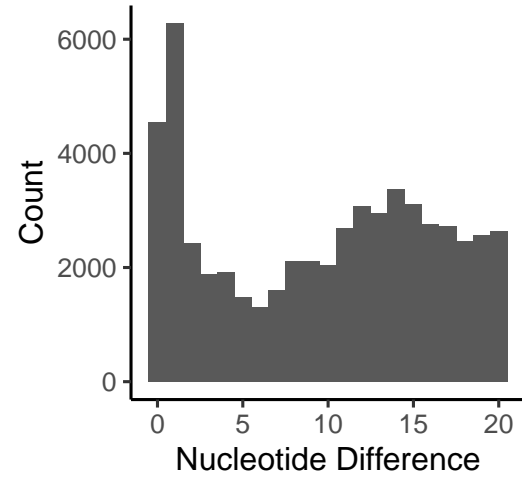
IGHV4-30-4*01

238 sequences assigned
No exact matches.



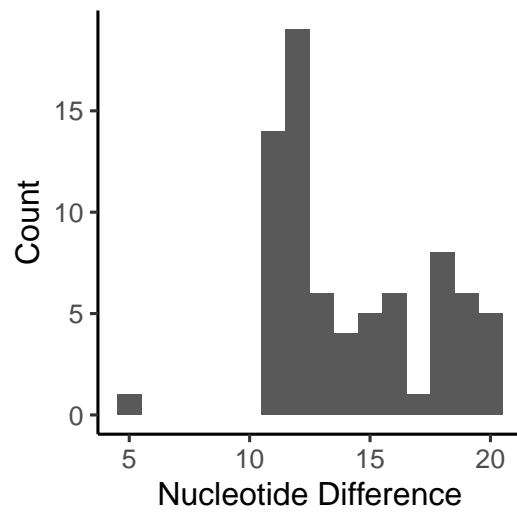
IGHV4-31*03_04

69835 sequences assigned
4552 (6.5%) exact matches, in which:
2916 unique CDR3
7 unique J



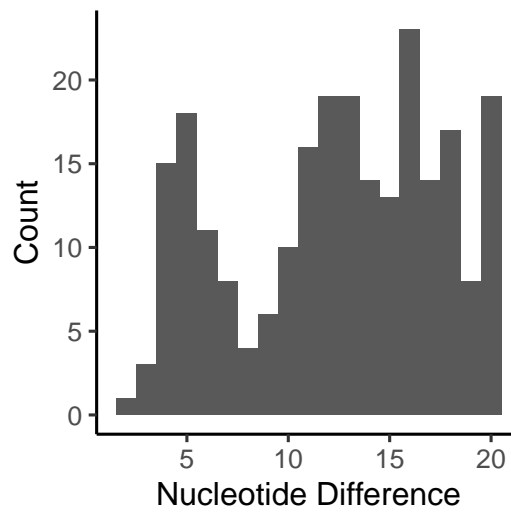
IGHV4-28*02_05

109 sequences assigned
No exact matches.



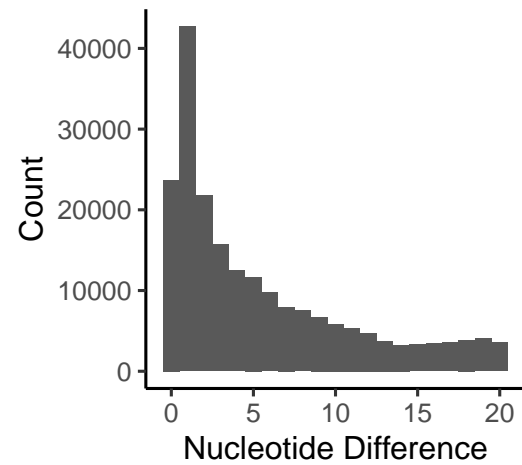
IGHV4-30-4*07

330 sequences assigned
No exact matches.



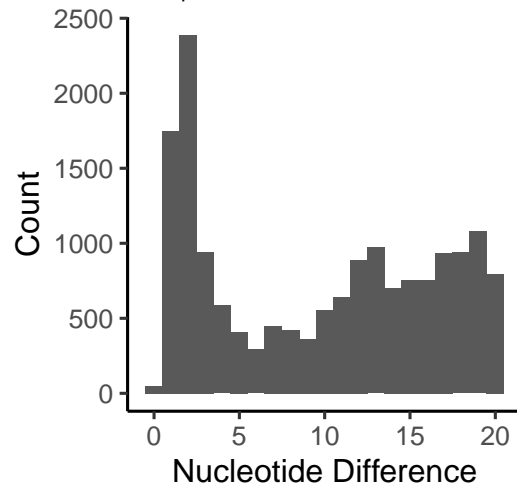
IGHV4-34*01_02

219796 sequences assigned
23681 (10.8%) exact matches, in which:
13917 unique CDR3
7 unique J



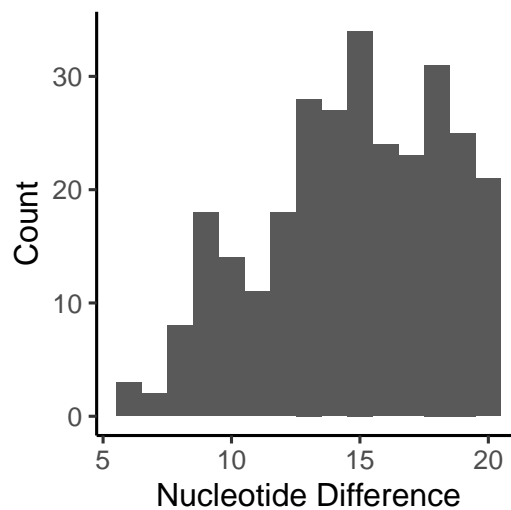
IGHV4-30-2*01

19089 sequences assigned
48 (0.3%) exact matches, in which:
48 unique CDR3
7 unique J



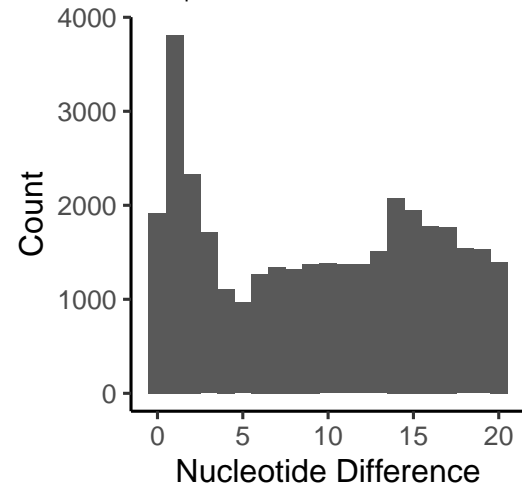
IGHV4-30-4*08

411 sequences assigned
No exact matches.



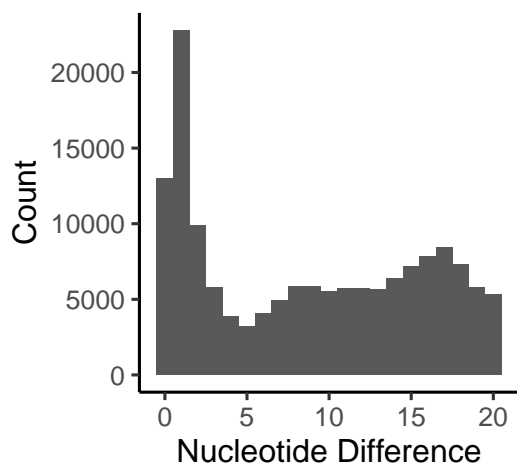
IGHV4-38-2*02

41638 sequences assigned
1919 (4.6%) exact matches, in which:
1241 unique CDR3
7 unique J



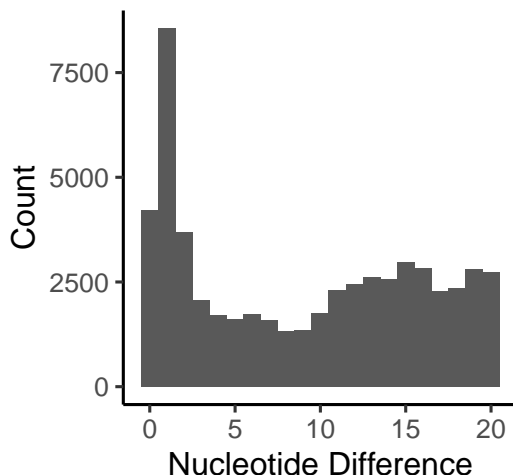
IGHV4–39*07

186904 sequences assigned
13010 (7%) exact matches, in which:
7892 unique CDR3
7 unique J



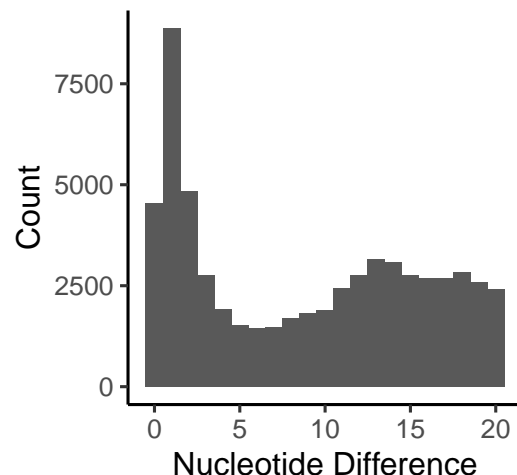
IGHV4–59*08

77527 sequences assigned
4216 (5.4%) exact matches, in which:
2517 unique CDR3
7 unique J



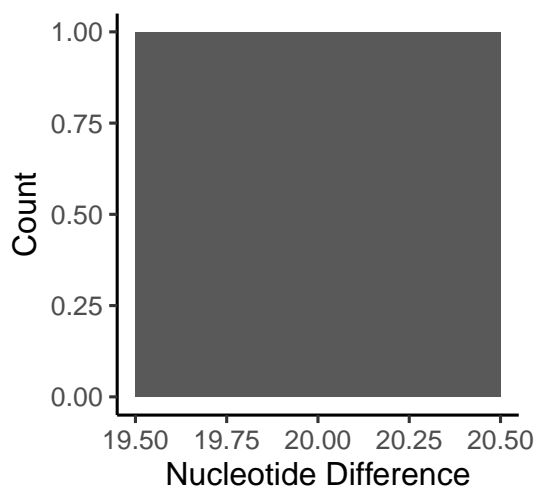
IGHV4–61*02

73546 sequences assigned
4532 (6.2%) exact matches, in which:
2833 unique CDR3
7 unique J



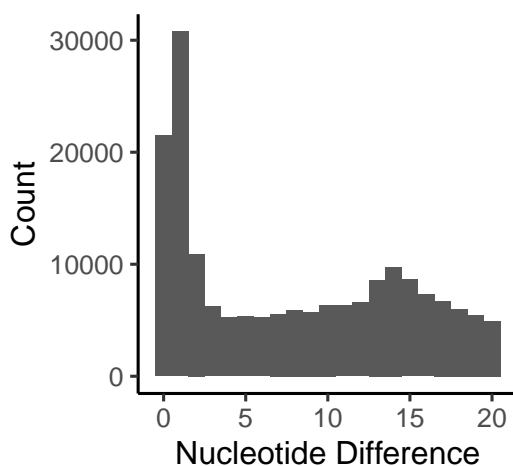
IGHV4–55*09

4 sequences assigned
No exact matches.



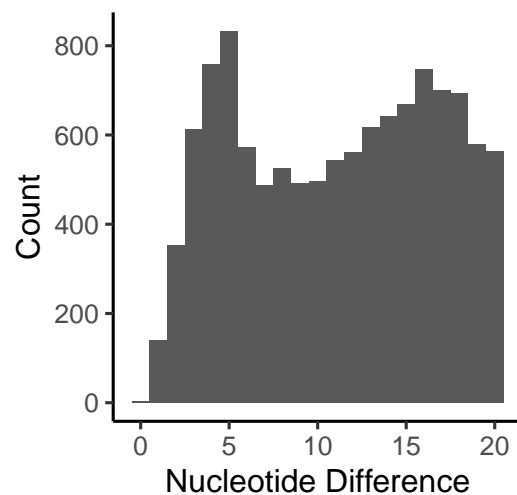
IGHV4–59*01_07

209417 sequences assigned
21474 (10.3%) exact matches, in which:
13188 unique CDR3
7 unique J



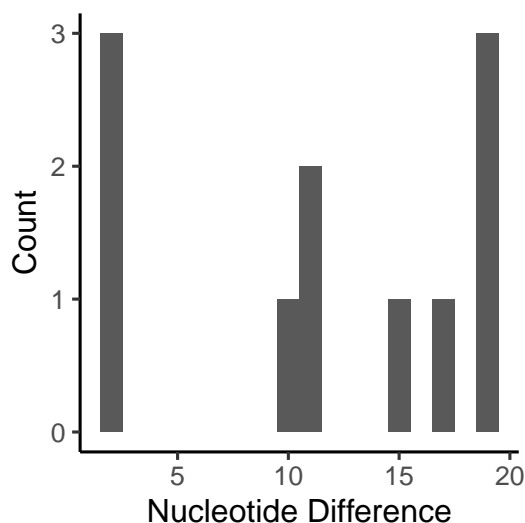
IGHV4–61*08

14805 sequences assigned
4 (0%) exact matches, in which:
4 unique CDR3
3 unique J



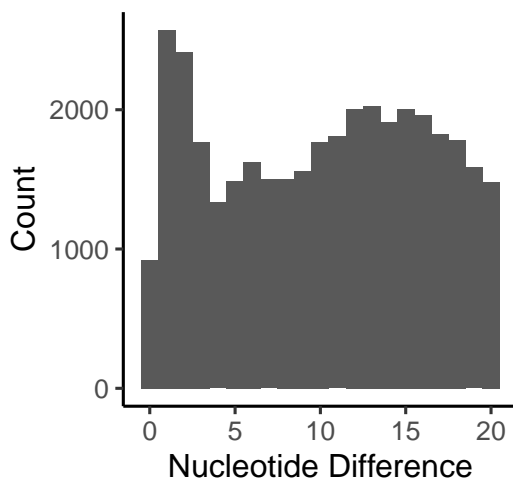
IGHV4–55*02_04_08

17 sequences assigned
No exact matches.



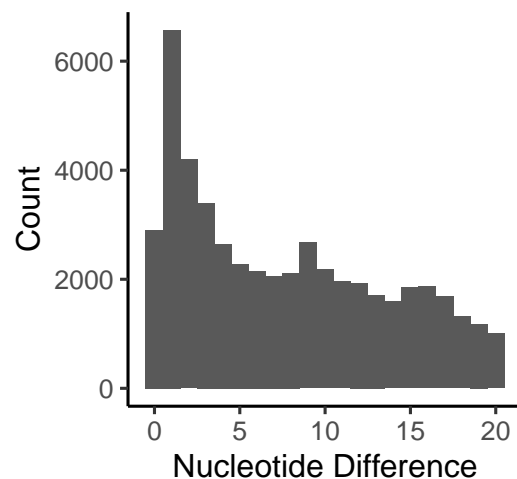
IGHV4–59*12

44551 sequences assigned
920 (2.1%) exact matches, in which:
769 unique CDR3
7 unique J



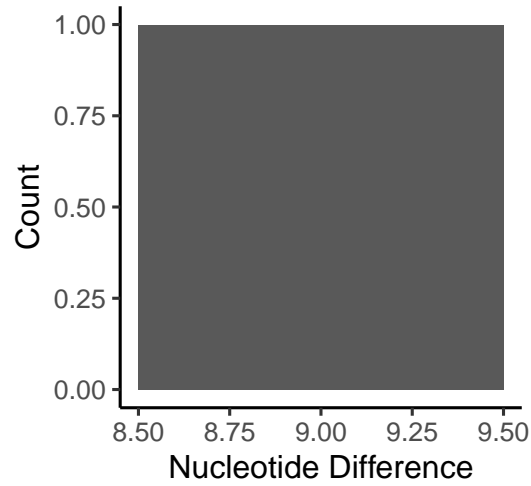
IGHV5–51*01_03

56948 sequences assigned
2905 (5.1%) exact matches, in which:
1846 unique CDR3
7 unique J



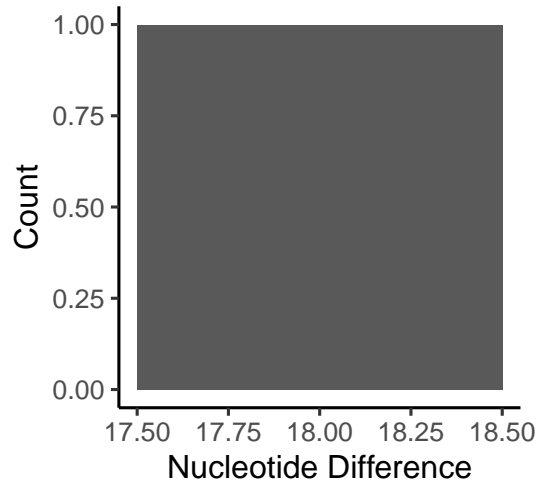
IGHV5-78*01

1 sequences assigned
No exact matches.



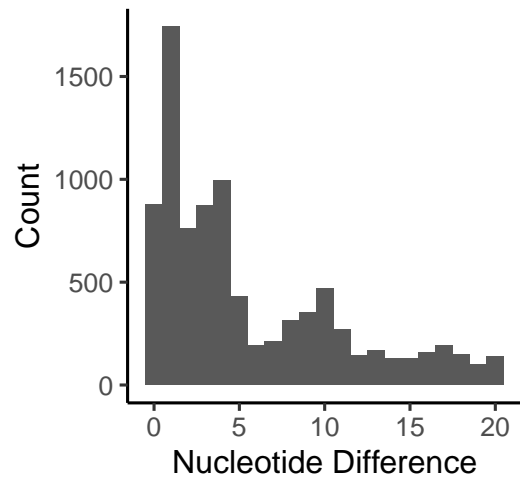
IGHV7-81*01

63 sequences assigned
No exact matches.



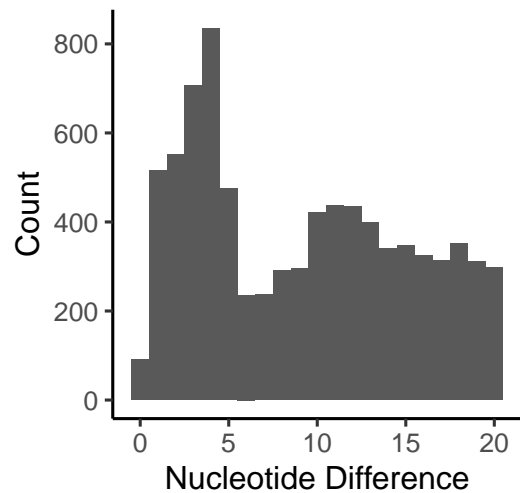
IGHV6-1*01_02

9404 sequences assigned
879 (9.3%) exact matches, in which:
547 unique CDR3
7 unique J

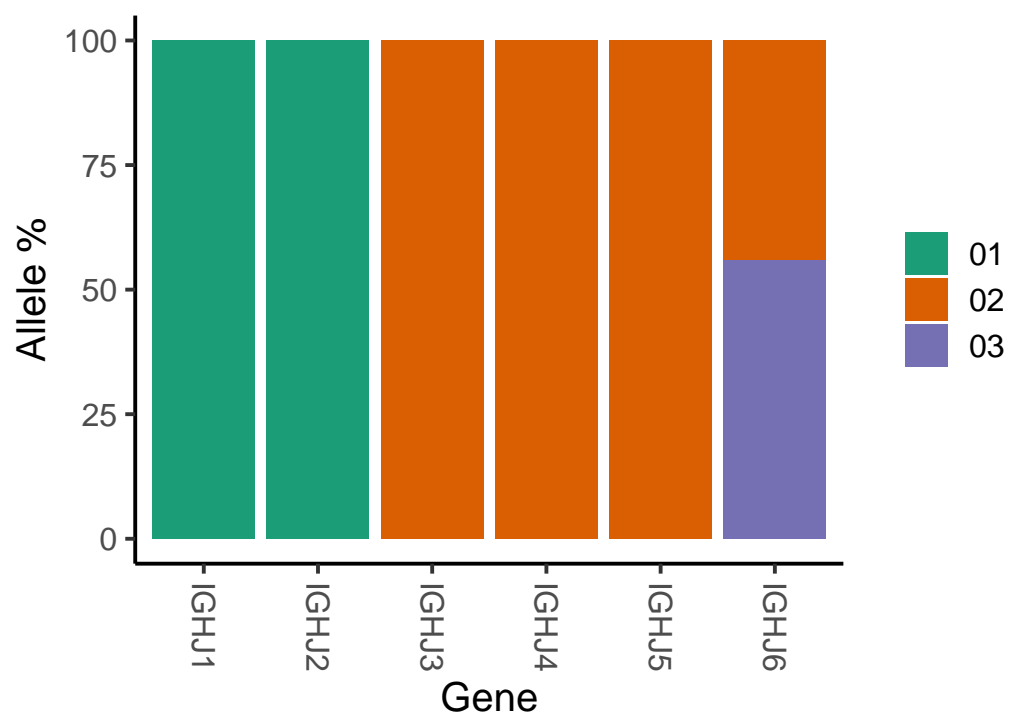


IGHV7-4-1*02

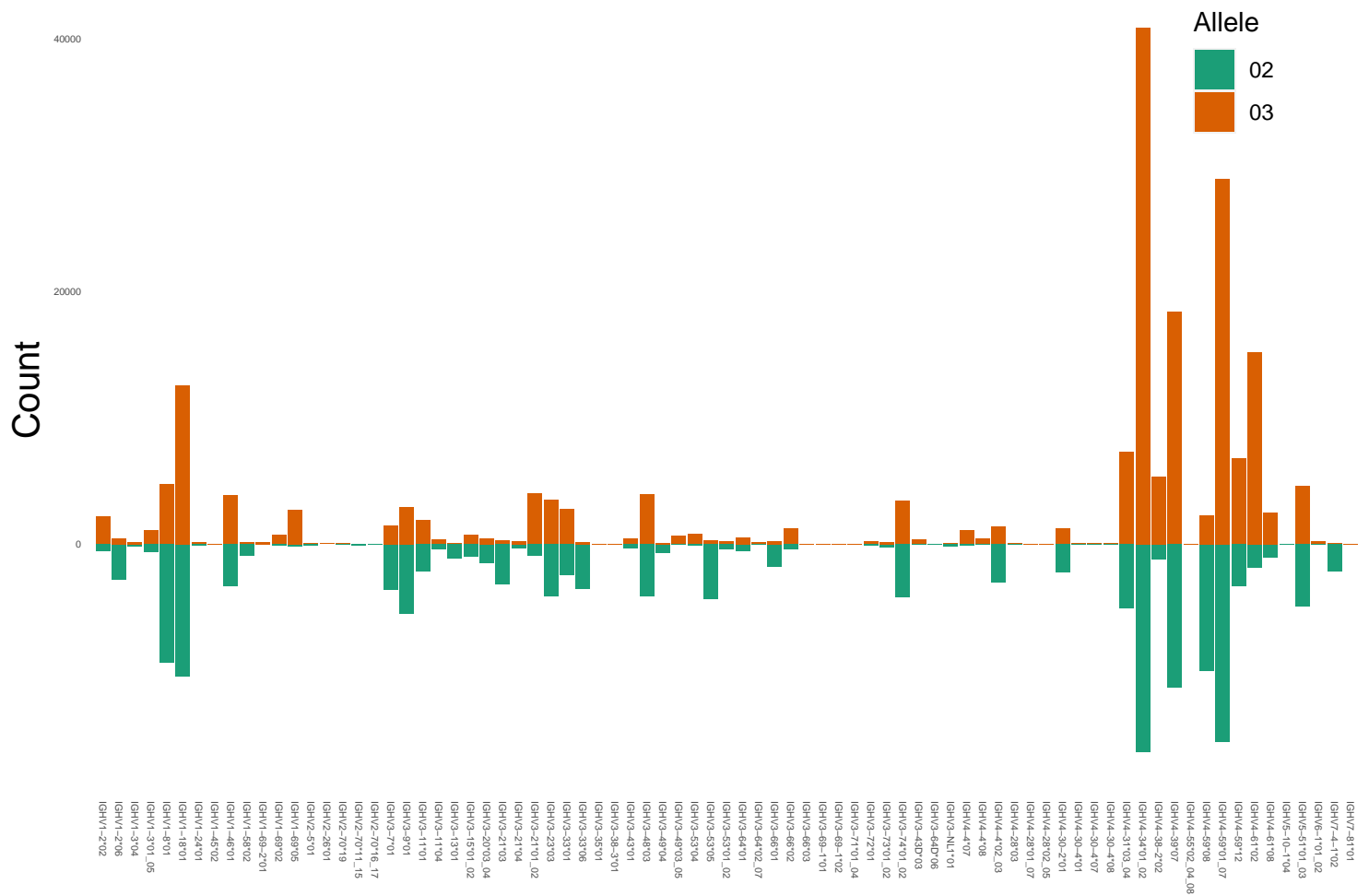
11757 sequences assigned
92 (0.8%) exact matches, in which:
83 unique CDR3
6 unique J



Allele Usage



Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning:IGHV4–31*02,IGHV4–31*03_04 have identical germline sequences.

Warning – no inferred sequences found.

Novel sequence(s)IGHV3–30*02_T201C are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV1–3*01_05_C134AIGHV4–59*02_G88A are not listed in the genotype and will be ignored.