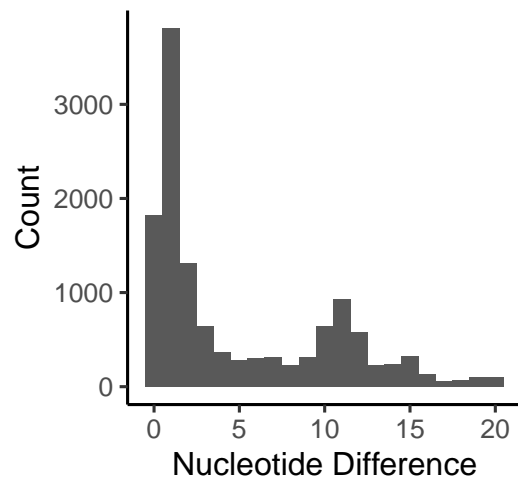


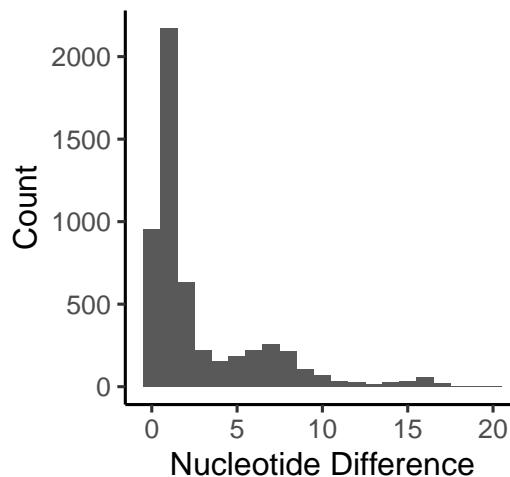
IGHV1-2*02

13120 sequences assigned
1826 (13.9%) exact matches, in which:
1255 unique CDR3
7 unique J



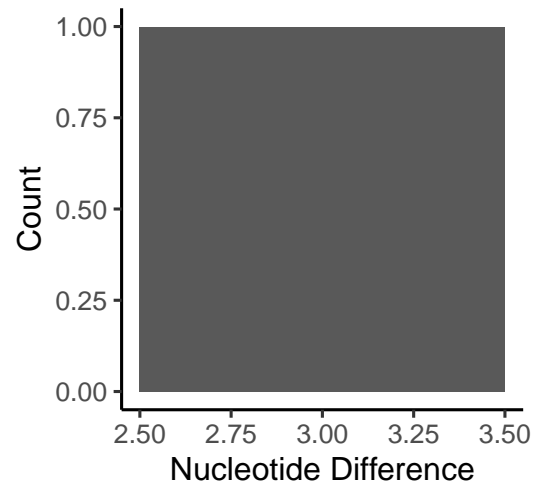
IGHV1-8*02

5438 sequences assigned
954 (17.5%) exact matches, in which:
658 unique CDR3
6 unique J



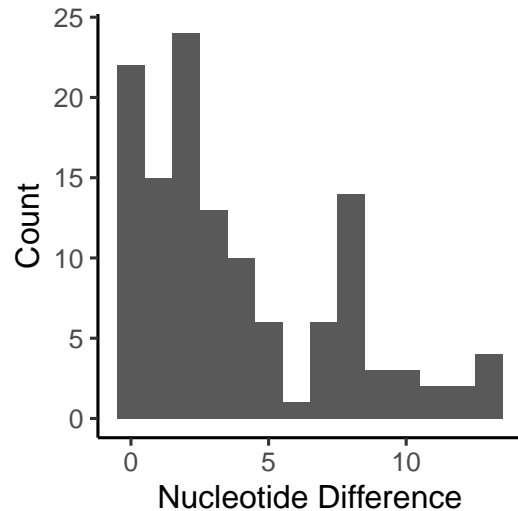
IGHV1-45*02

1 sequences assigned
No exact matches.



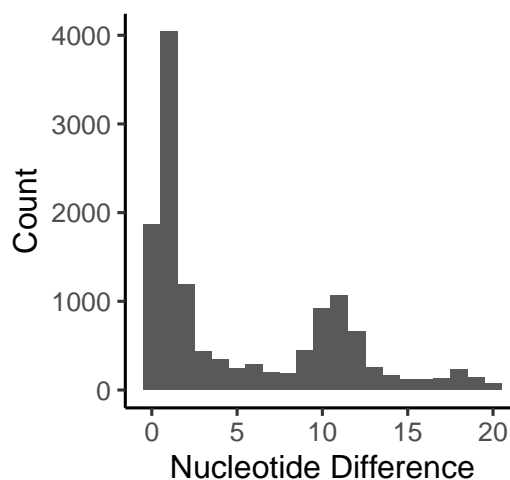
IGHV1-3*02

184 sequences assigned
22 (12%) exact matches, in which:
22 unique CDR3
4 unique J



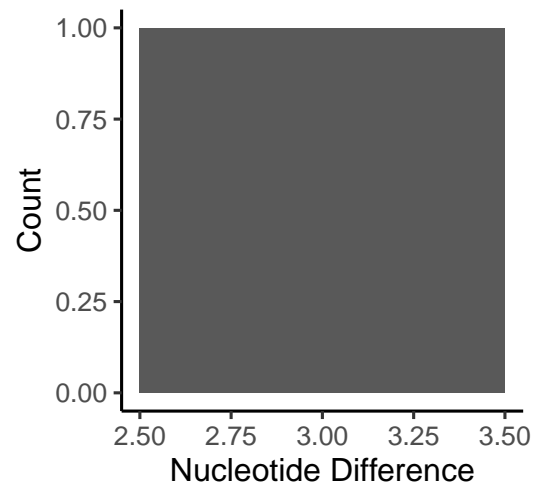
IGHV1-18*01

13839 sequences assigned
1871 (13.5%) exact matches, in which:
1291 unique CDR3
7 unique J



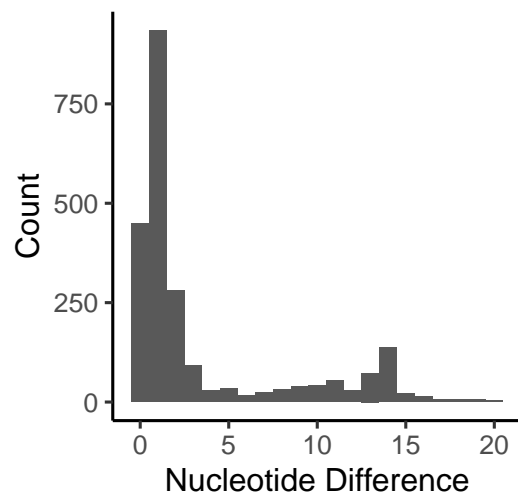
IGHV1-45*03

1 sequences assigned
No exact matches.



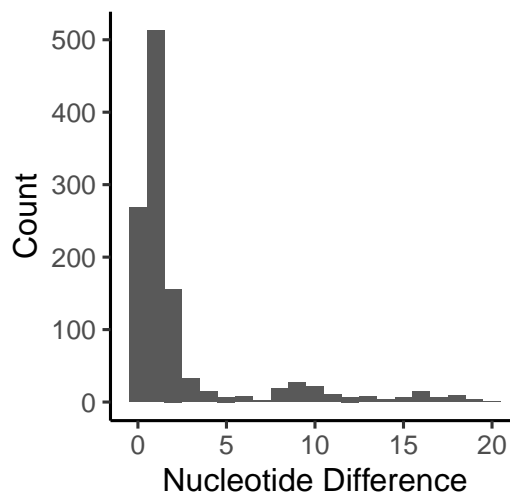
IGHV1-8*01

2513 sequences assigned
450 (17.9%) exact matches, in which:
338 unique CDR3
7 unique J



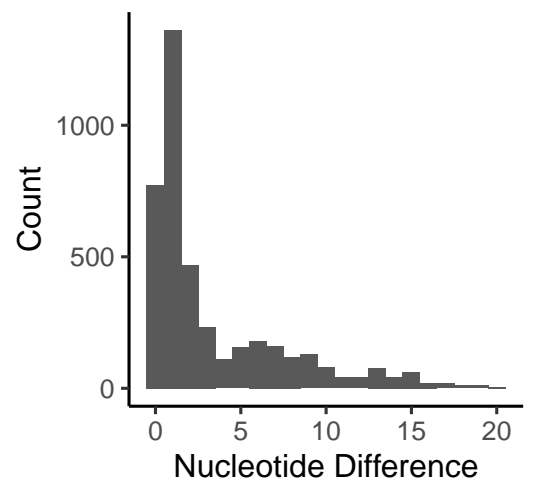
IGHV1-24*01

1140 sequences assigned
269 (23.6%) exact matches, in which:
193 unique CDR3
5 unique J



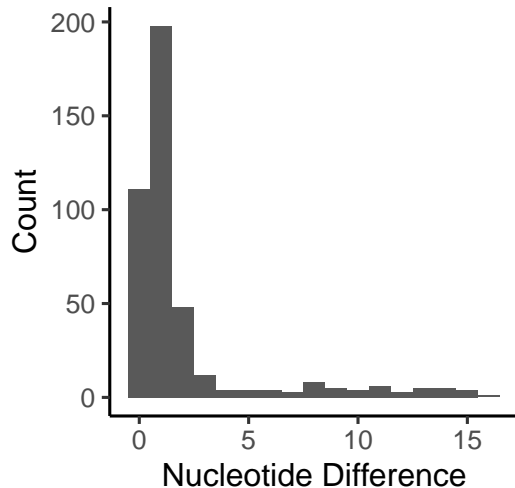
IGHV1-46*01

4131 sequences assigned
774 (18.7%) exact matches, in which:
568 unique CDR3
7 unique J



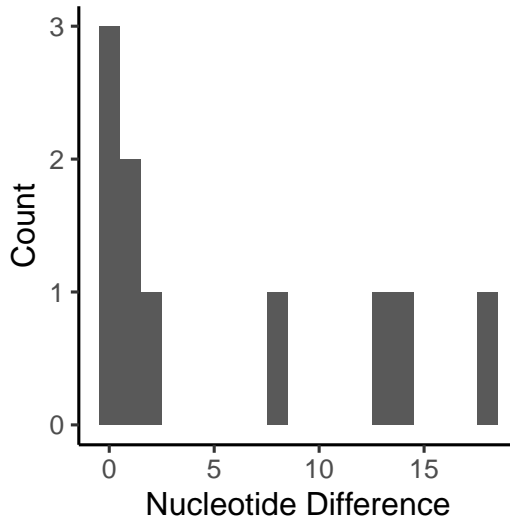
IGHV1-58*02

430 sequences assigned
111 (25.8%) exact matches, in which:
86 unique CDR3
5 unique J



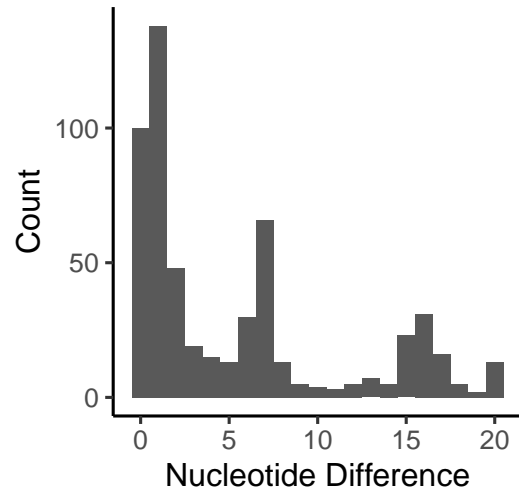
IGHV1-69D*01

10 sequences assigned
3 (30%) exact matches, in which:
3 unique CDR3
2 unique J



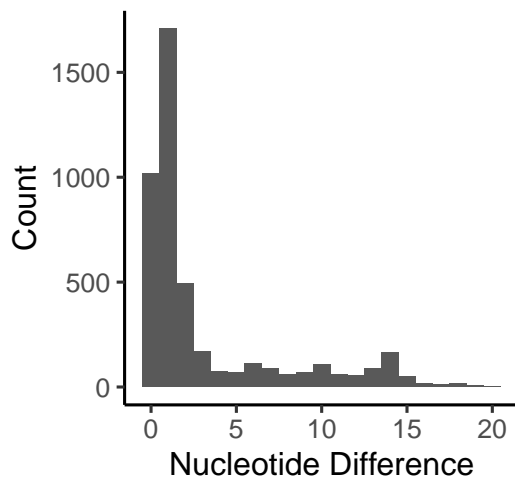
IGHV2-5*02

1128 sequences assigned
100 (8.9%) exact matches, in which:
84 unique CDR3
6 unique J



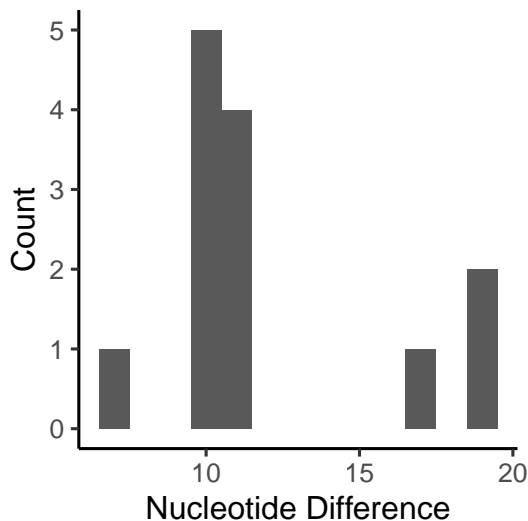
IGHV1-69*10

4449 sequences assigned
1019 (22.9%) exact matches, in which:
772 unique CDR3
7 unique J



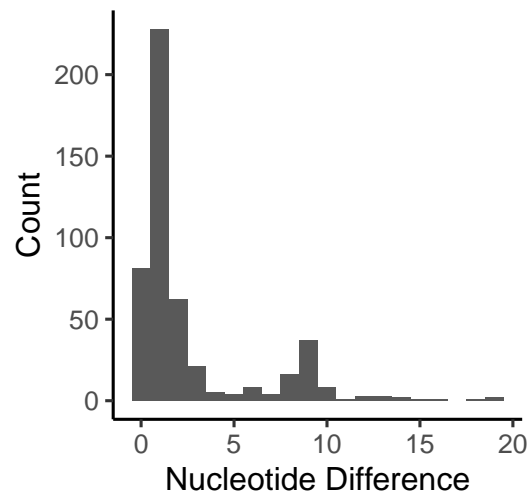
IGHV1-NL1*01

13 sequences assigned
No exact matches.



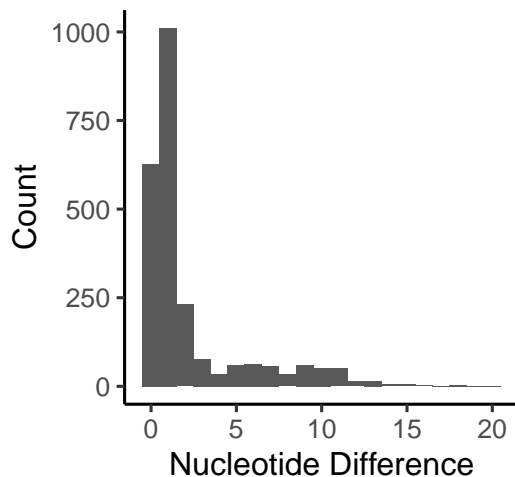
IGHV2-26*01

490 sequences assigned
81 (16.5%) exact matches, in which:
47 unique CDR3
4 unique J



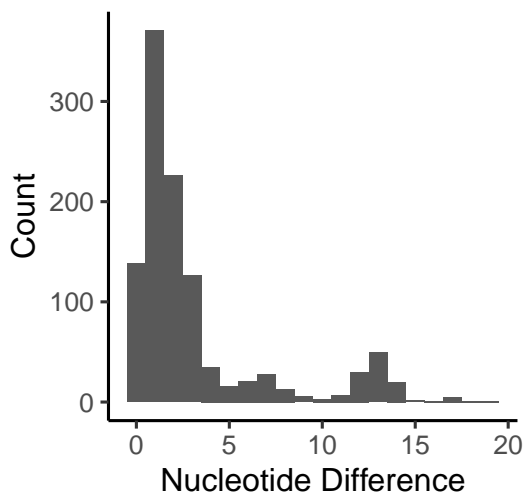
IGHV1-69*04_09

2518 sequences assigned
628 (24.9%) exact matches, in which:
490 unique CDR3
7 unique J



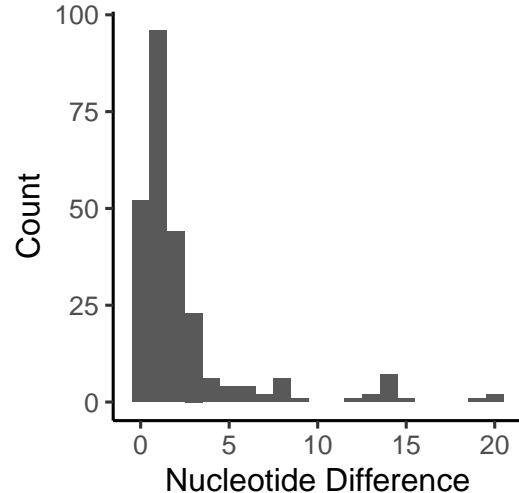
IGHV2-5*01

1105 sequences assigned
138 (12.5%) exact matches, in which:
97 unique CDR3
7 unique J



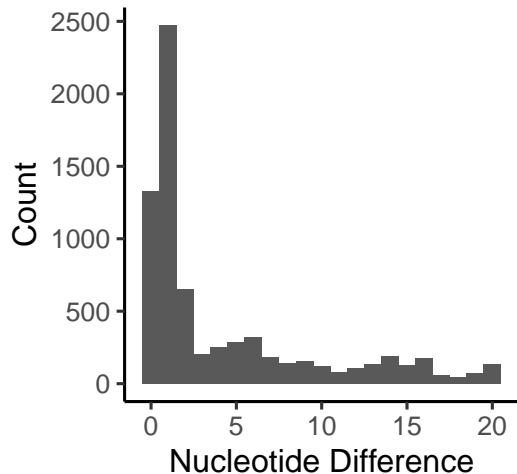
IGHV2-70*11_15

4088 sequences assigned
52 (1.3%) exact matches, in which:
41 unique CDR3
4 unique J



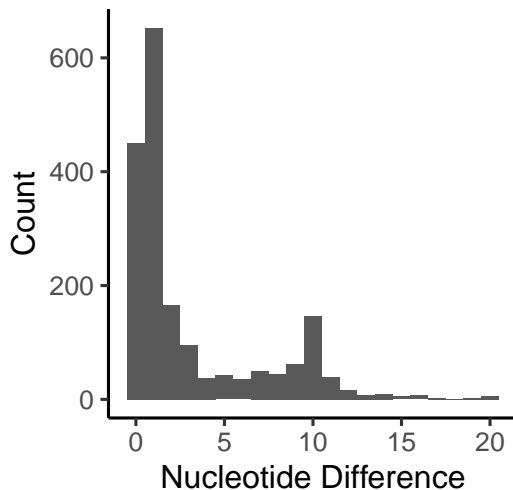
IGHV3-7*01

16327 sequences assigned
1325 (8.1%) exact matches, in which:
778 unique CDR3
7 unique J



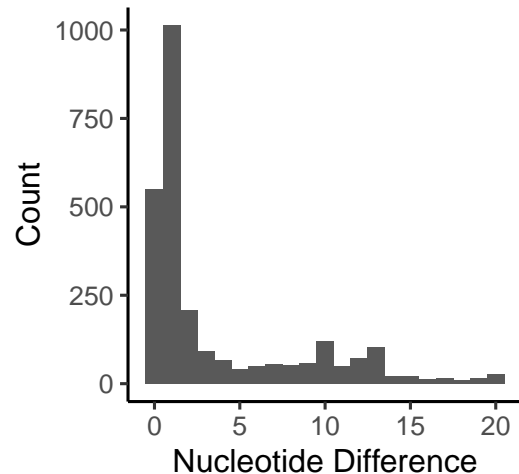
IGHV3-11*01

1906 sequences assigned
450 (23.6%) exact matches, in which:
300 unique CDR3
7 unique J



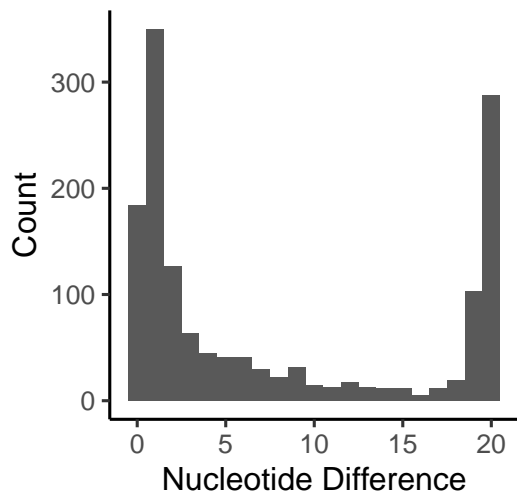
IGHV3-15*01_02

3144 sequences assigned
549 (17.5%) exact matches, in which:
311 unique CDR3
6 unique J



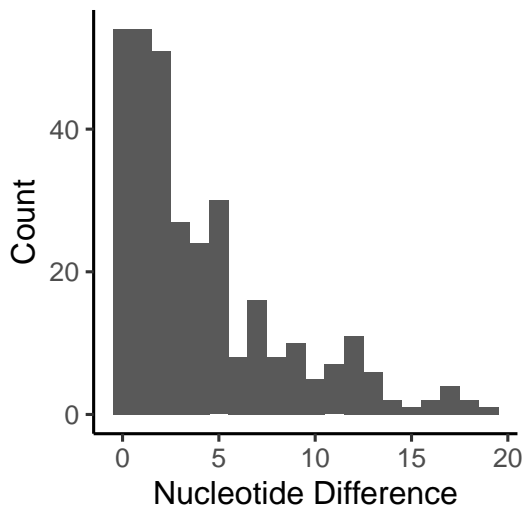
IGHV3-7*03

2440 sequences assigned
184 (7.5%) exact matches, in which:
121 unique CDR3
5 unique J



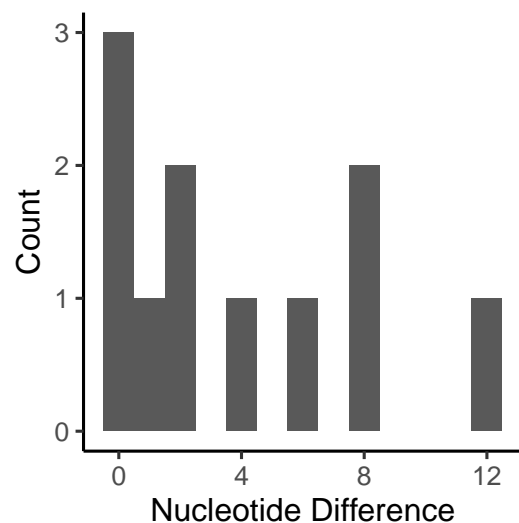
IGHV3-11*04

338 sequences assigned
54 (16%) exact matches, in which:
50 unique CDR3
6 unique J



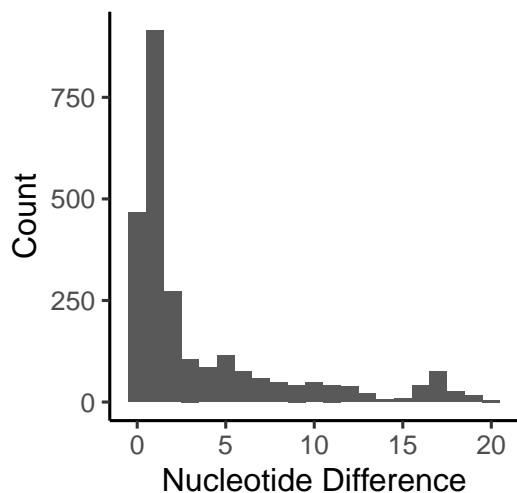
IGHV3-19*01

11 sequences assigned
3 (27.3%) exact matches, in which:
3 unique CDR3
1 unique J



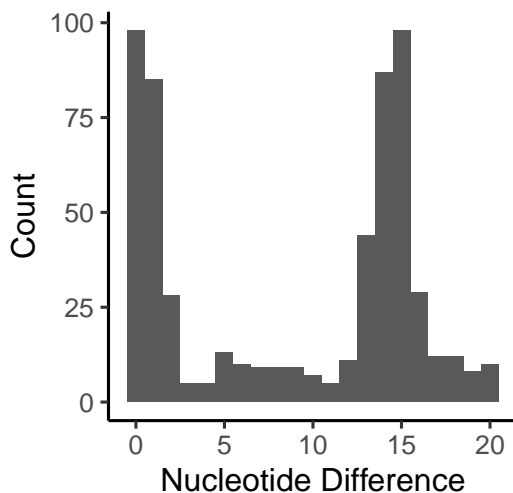
IGHV3-9*01

5016 sequences assigned
467 (9.3%) exact matches, in which:
286 unique CDR3
7 unique J



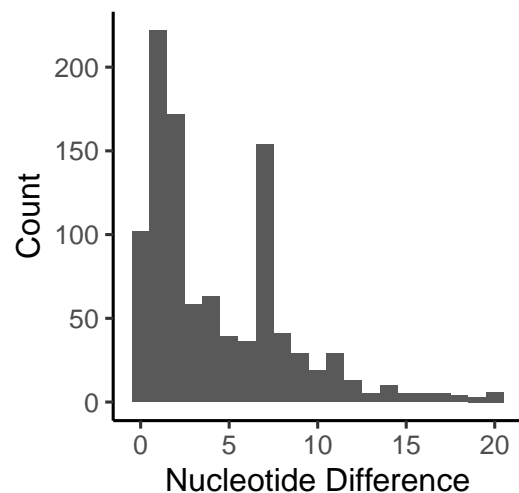
IGHV3-13*01

709 sequences assigned
98 (13.8%) exact matches, in which:
74 unique CDR3
7 unique J



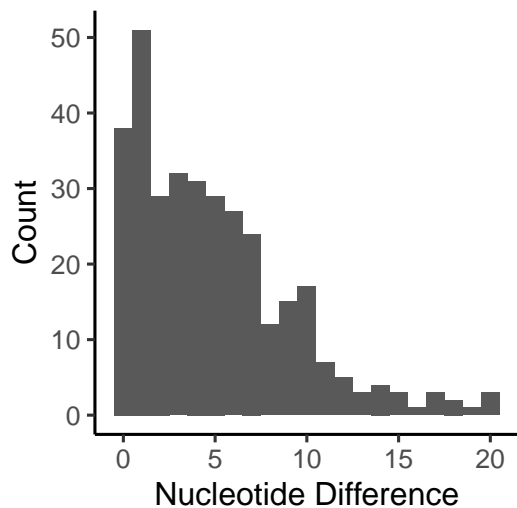
IGHV3-20*03_04

6432 sequences assigned
102 (1.6%) exact matches, in which:
64 unique CDR3
5 unique J



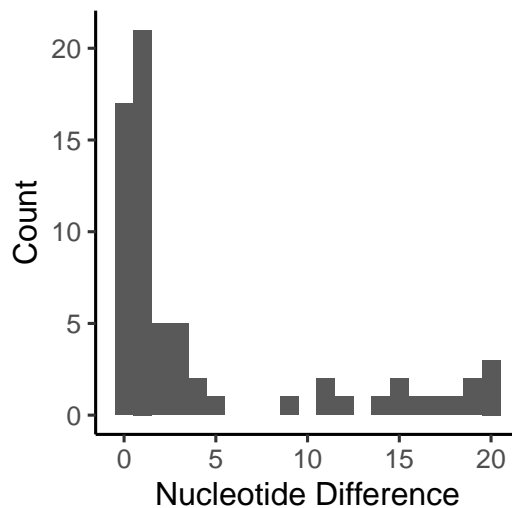
IGHV3-21*04

353 sequences assigned
38 (10.8%) exact matches, in which:
35 unique CDR3
7 unique J



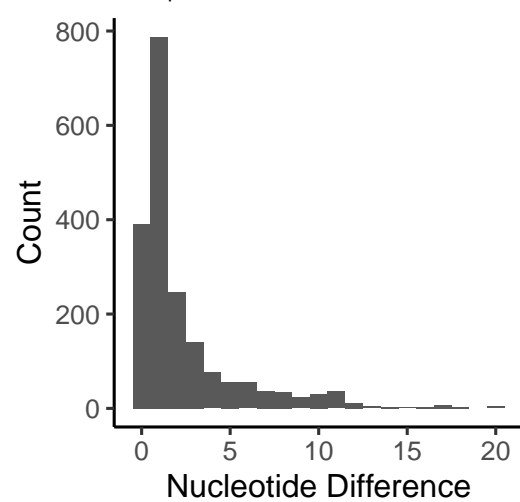
IGHV3-30-5*01

92 sequences assigned
17 (18.5%) exact matches, in which:
10 unique CDR3
2 unique J



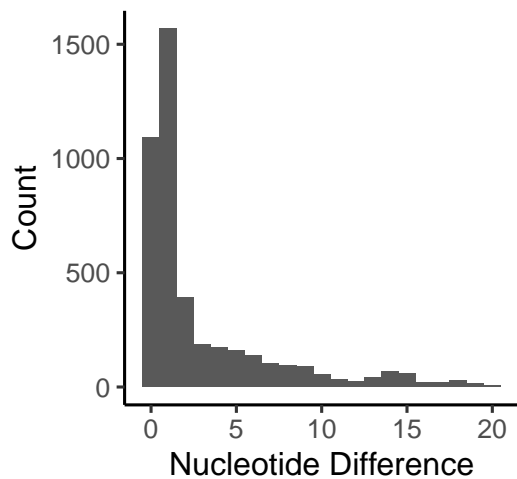
IGHV3-33*06

2039 sequences assigned
391 (19.2%) exact matches, in which:
207 unique CDR3
6 unique J



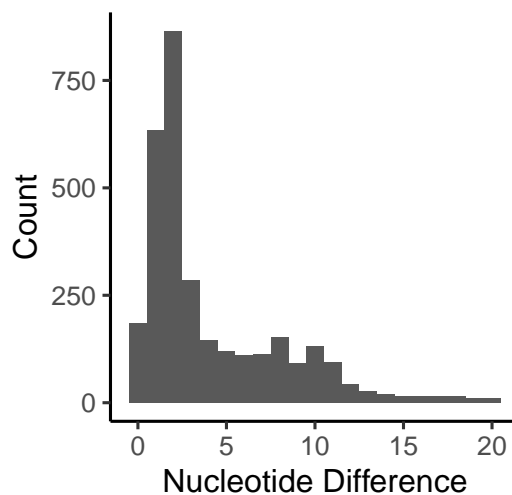
IGHV3-21*01_02

4518 sequences assigned
1093 (24.2%) exact matches, in which:
654 unique CDR3
7 unique J



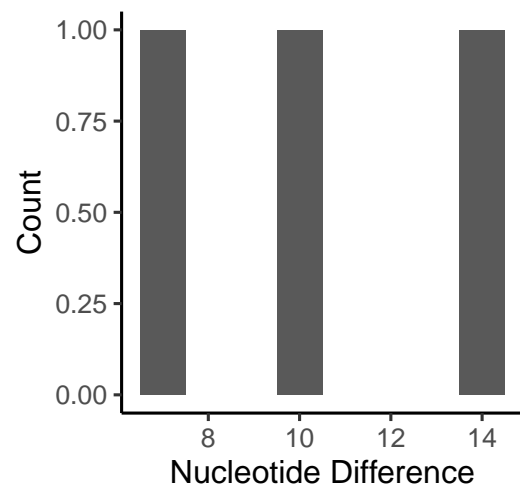
IGHV3-33*01

5032 sequences assigned
186 (3.7%) exact matches, in which:
145 unique CDR3
7 unique J



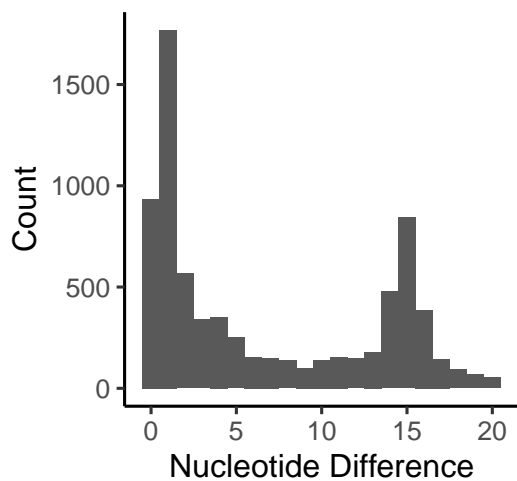
IGHV3-35*01

3 sequences assigned
No exact matches.



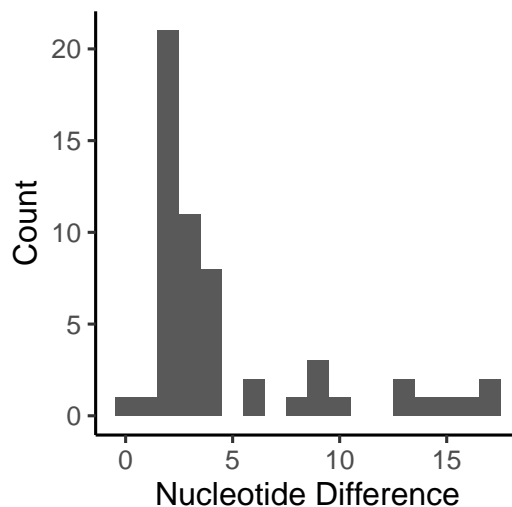
IGHV3-23*03

11445 sequences assigned
936 (8.2%) exact matches, in which:
542 unique CDR3
7 unique J



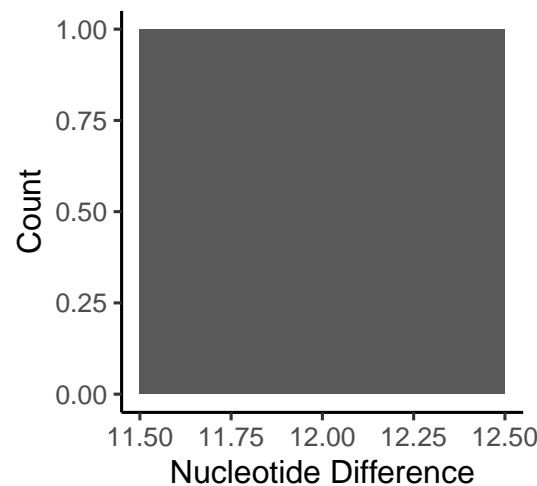
IGHV3-33*05

57 sequences assigned
1 (1.8%) exact matches, in which:
1 unique CDR3
1 unique J



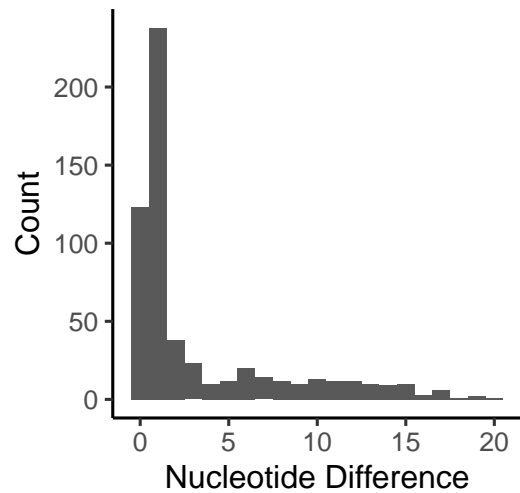
IGHV3-38-3*01

1 sequences assigned
No exact matches.



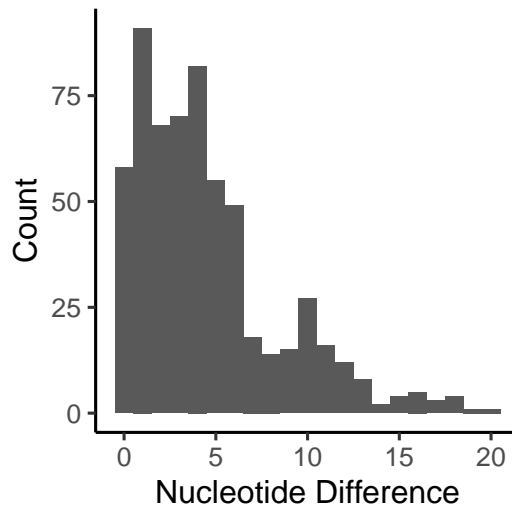
IGHV3-43*02

623 sequences assigned
123 (19.7%) exact matches, in which:
73 unique CDR3
5 unique J



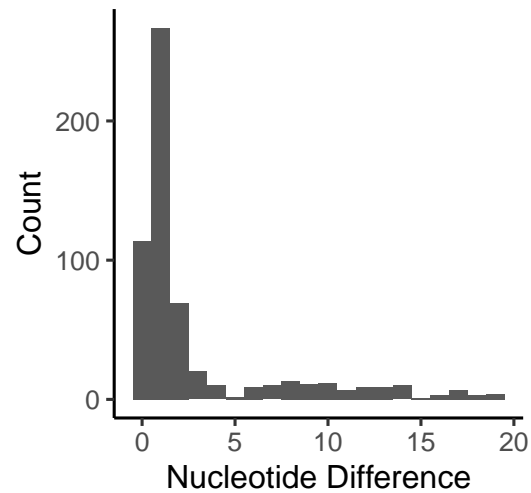
IGHV3-48*01

612 sequences assigned
58 (9.5%) exact matches, in which:
52 unique CDR3
7 unique J



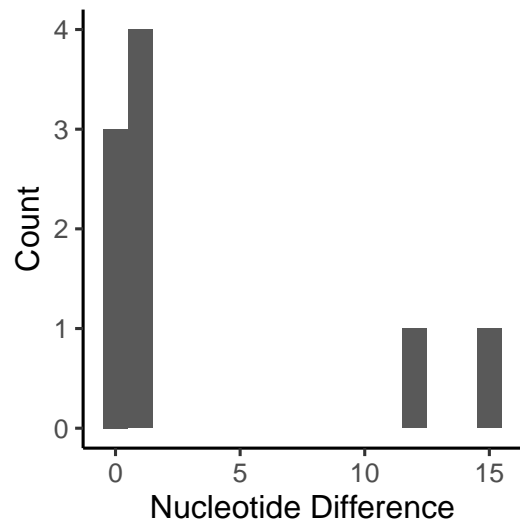
IGHV3-49*04

599 sequences assigned
114 (19%) exact matches, in which:
65 unique CDR3
6 unique J



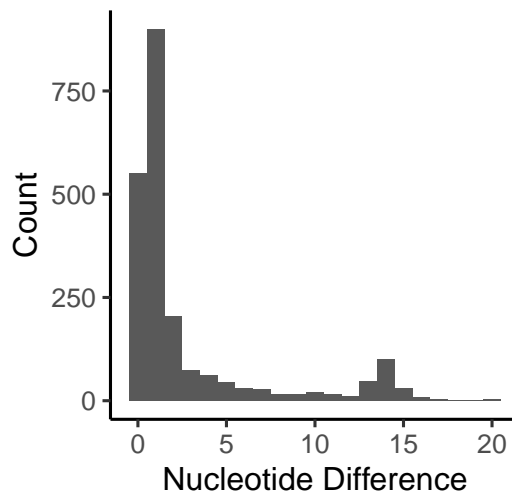
IGHV3-47*01

9 sequences assigned
3 (33.3%) exact matches, in which:
2 unique CDR3
2 unique J



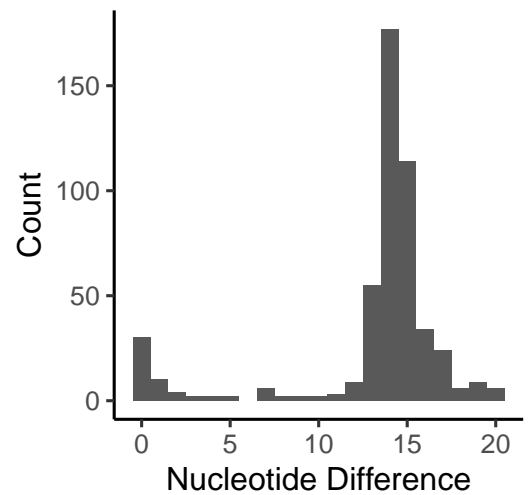
IGHV3-48*02

2231 sequences assigned
551 (24.7%) exact matches, in which:
310 unique CDR3
6 unique J



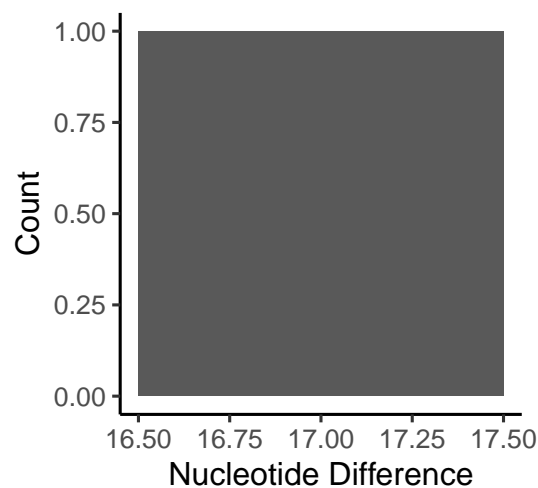
IGHV3-49*03_05

511 sequences assigned
30 (5.9%) exact matches, in which:
23 unique CDR3
5 unique J



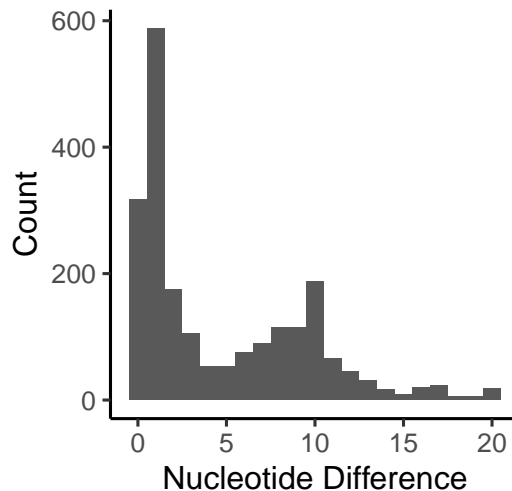
IGHV3-47*02

1 sequences assigned
No exact matches.



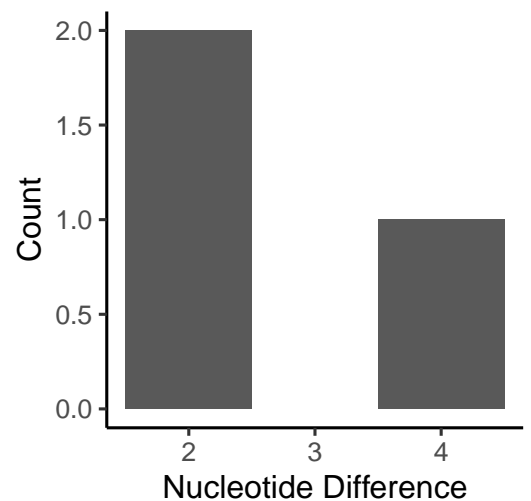
IGHV3-48*03

3092 sequences assigned
317 (10.3%) exact matches, in which:
192 unique CDR3
5 unique J



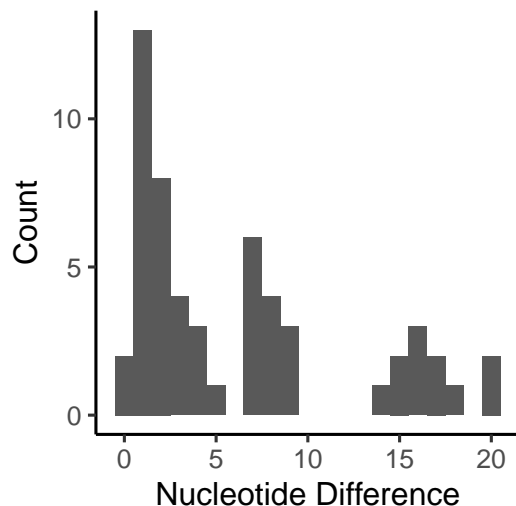
IGHV3-52*01_03

3 sequences assigned
No exact matches.



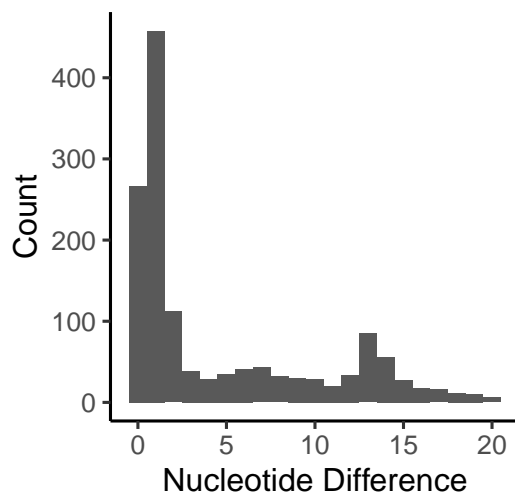
IGHV3-53*05

58 sequences assigned
2 (3.4%) exact matches, in which:
2 unique CDR3
1 unique J



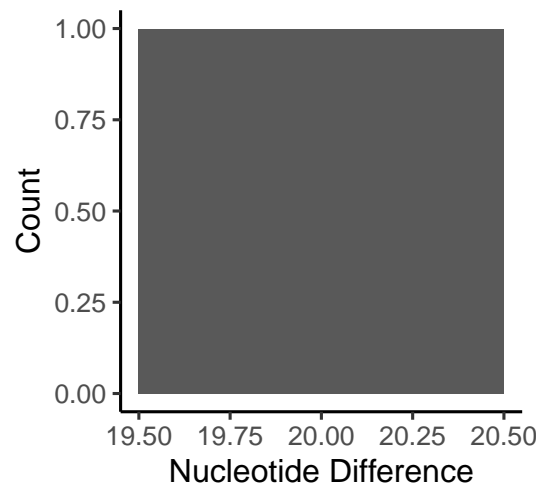
IGHV3-66*01

1628 sequences assigned
267 (16.4%) exact matches, in which:
171 unique CDR3
7 unique J



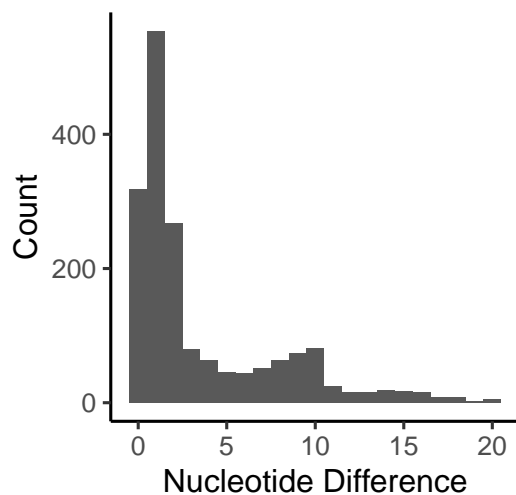
IGHV3-69-1*02

8 sequences assigned
No exact matches.



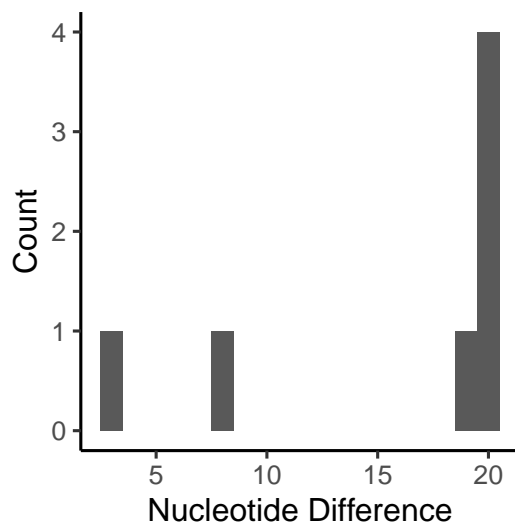
IGHV3-53*01_02

2093 sequences assigned
318 (15.2%) exact matches, in which:
206 unique CDR3
7 unique J



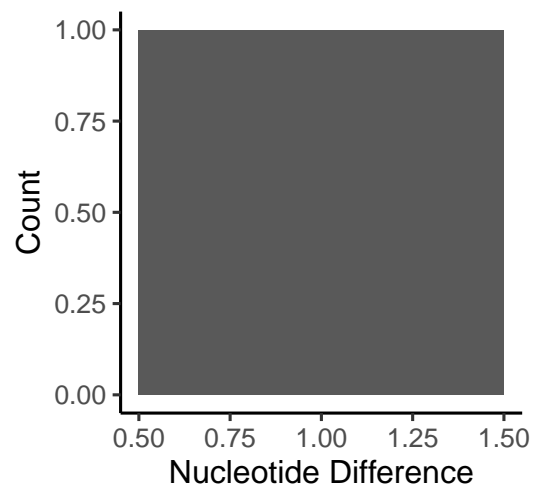
IGHV3-66*03

10 sequences assigned
No exact matches.



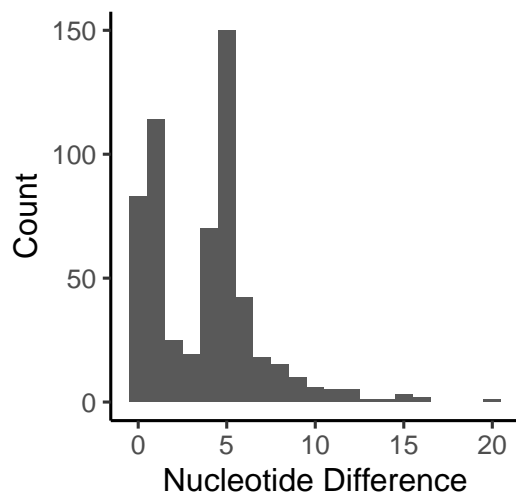
IGHV3-71*02

1 sequences assigned
No exact matches.



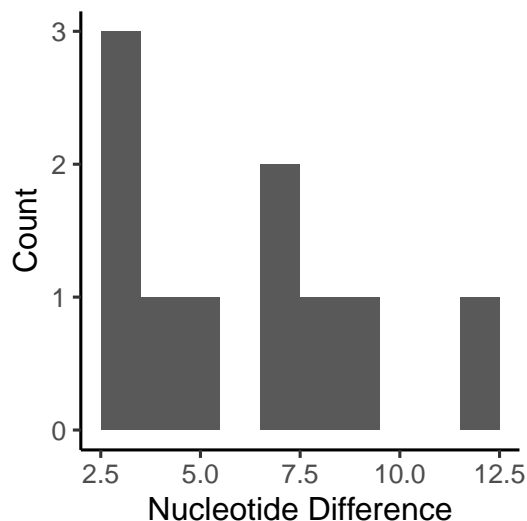
IGHV3-64*01

578 sequences assigned
83 (14.4%) exact matches, in which:
51 unique CDR3
5 unique J



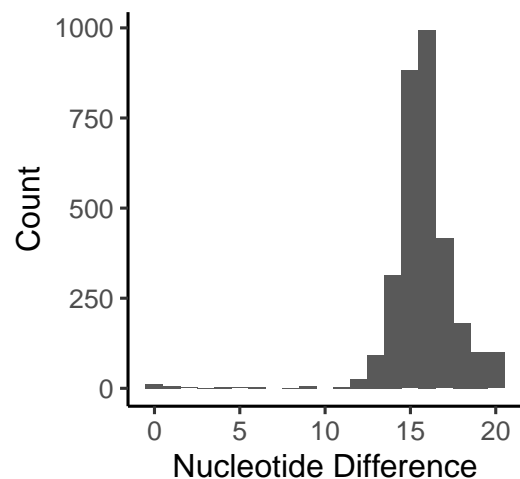
IGHV3-69-1*01

13 sequences assigned
No exact matches.



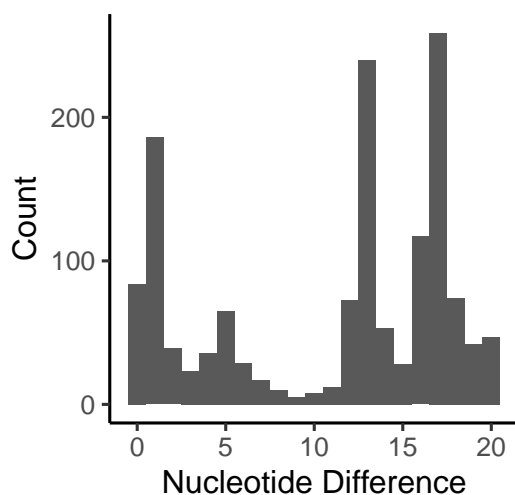
IGHV3-72*01

3693 sequences assigned
12 (0.3%) exact matches, in which:
9 unique CDR3
4 unique J



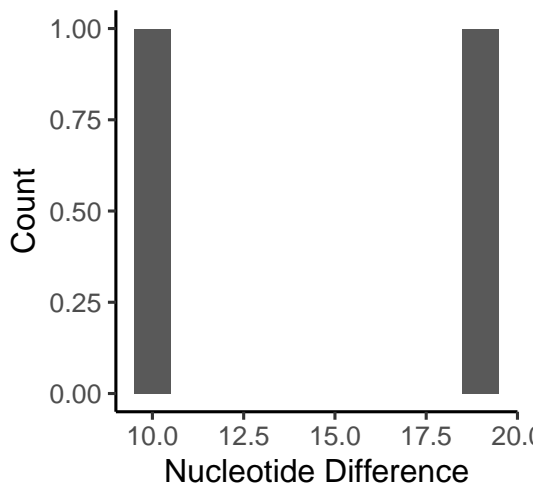
IGHV3-73*01_02

1960 sequences assigned
84 (4.3%) exact matches, in which:
45 unique CDR3
5 unique J



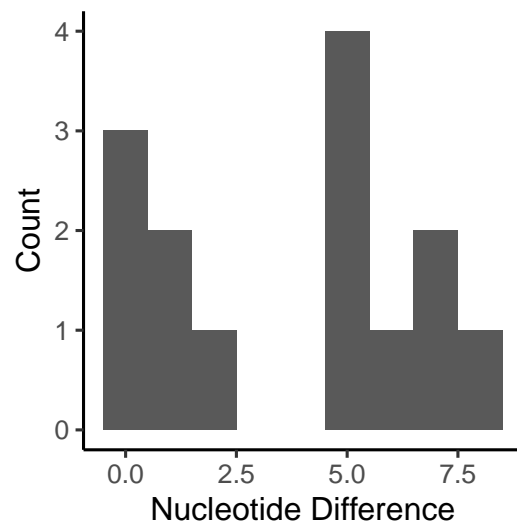
IGHV3-64D*06

14 sequences assigned
No exact matches.



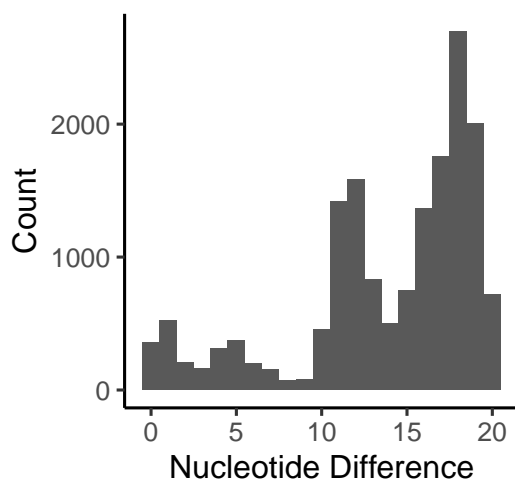
IGHV4-28*03

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



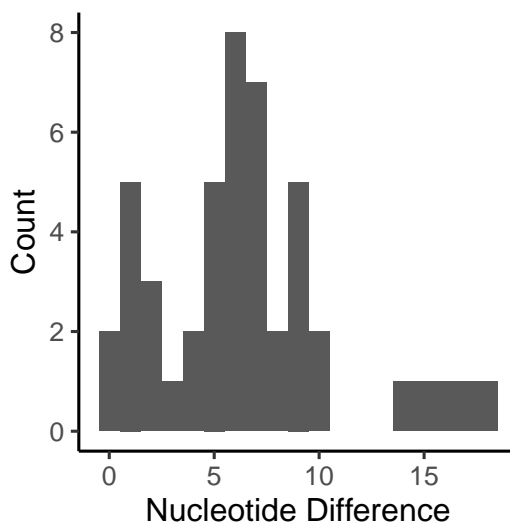
IGHV3-74*01_02

19423 sequences assigned
354 (1.8%) exact matches, in which:
228 unique CDR3
6 unique J



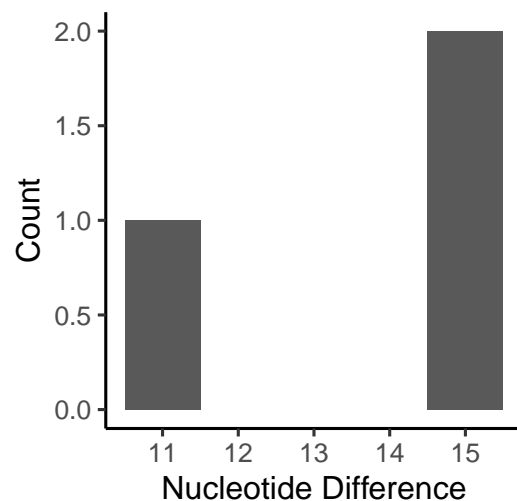
IGHV3-NL1*01

64 sequences assigned
2 (3.1%) exact matches, in which:
2 unique CDR3
1 unique J



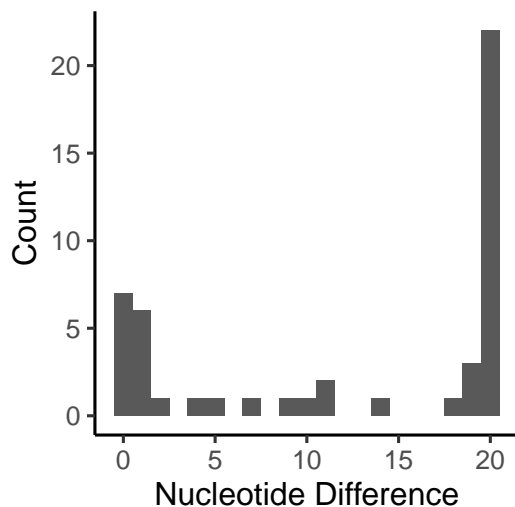
IGHV4-30-2*03

16 sequences assigned
No exact matches.



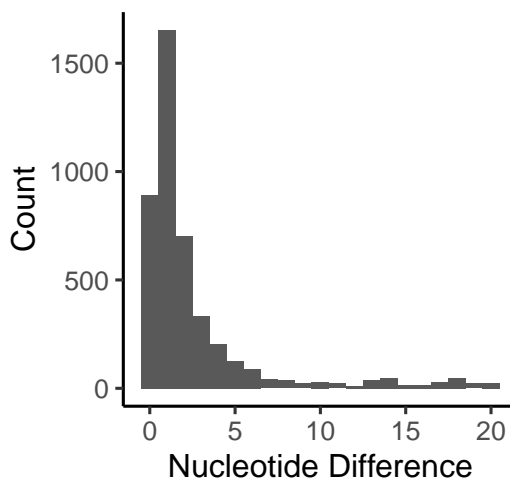
IGHV3-43D*03

463 sequences assigned
7 (1.5%) exact matches, in which:
5 unique CDR3
3 unique J



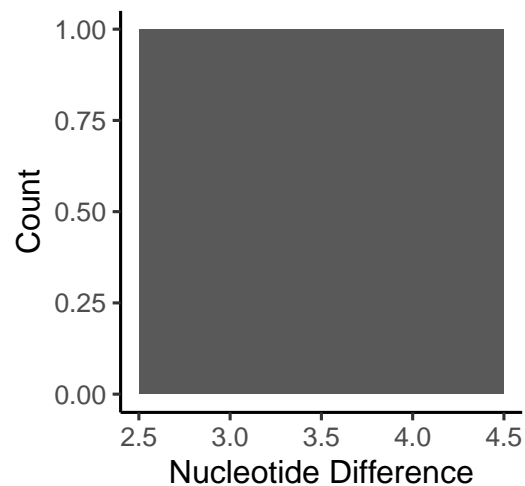
IGHV4-4*07

7879 sequences assigned
892 (11.3%) exact matches, in which:
631 unique CDR3
7 unique J



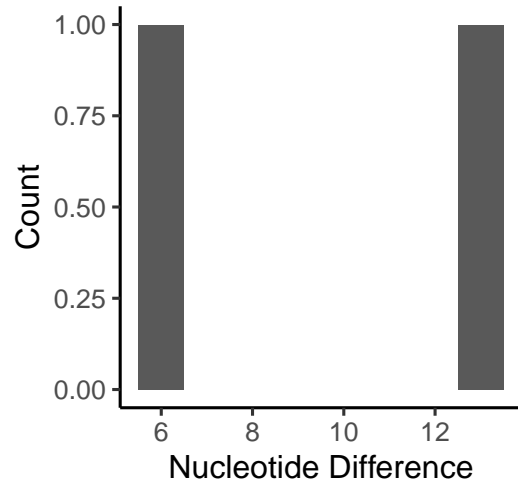
IGHV4-30-2*04

3 sequences assigned
No exact matches.



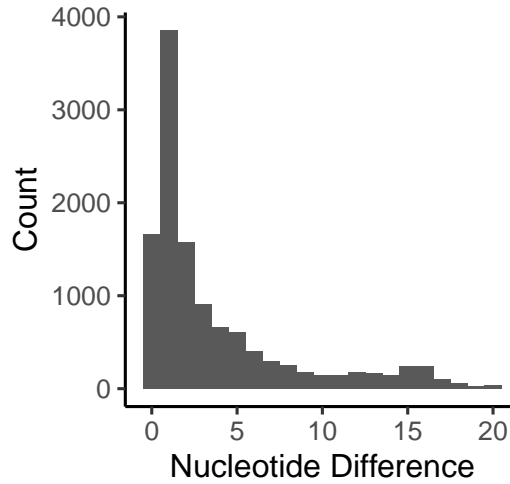
IGHV4-30-4*07

2 sequences assigned
No exact matches.



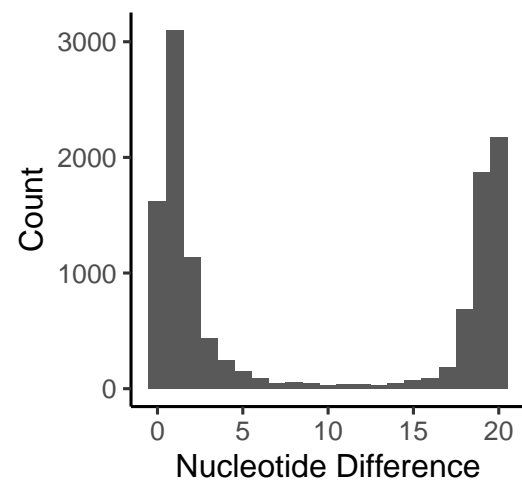
IGHV4-34*01_02

14496 sequences assigned
1663 (11.5%) exact matches, in which:
980 unique CDR3
6 unique J



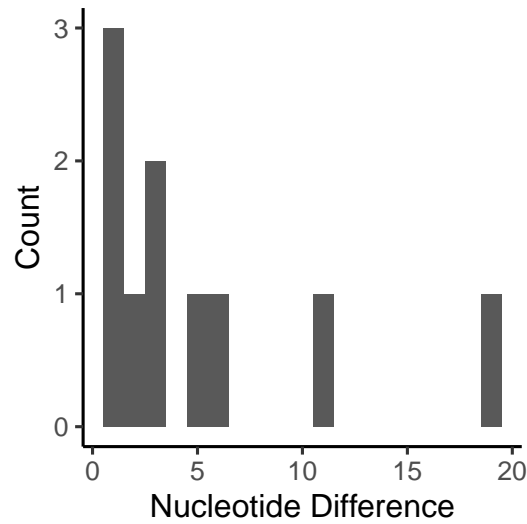
IGHV4-39*01_05

24423 sequences assigned
1623 (6.6%) exact matches, in which:
1060 unique CDR3
7 unique J



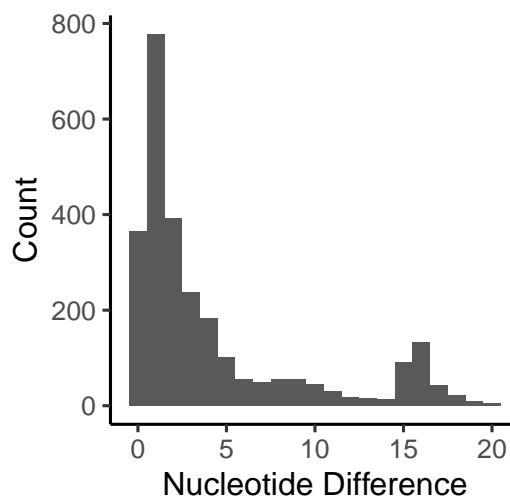
IGHV4-30-4*08

25 sequences assigned
No exact matches.



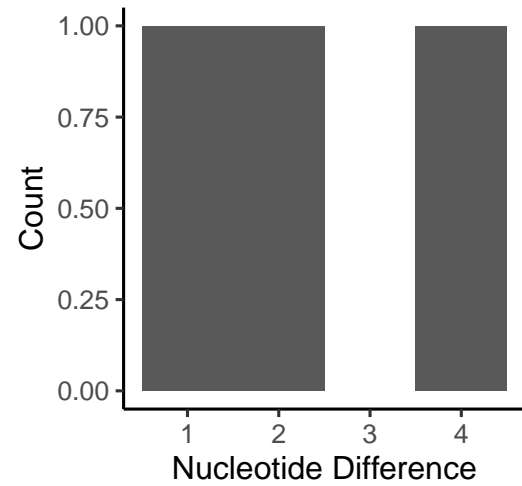
IGHV4-38-2*02

2753 sequences assigned
365 (13.3%) exact matches, in which:
257 unique CDR3
6 unique J



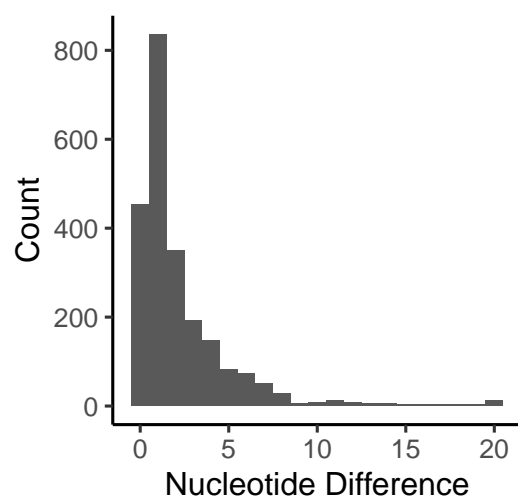
IGHV4-55*01_05

3 sequences assigned
No exact matches.



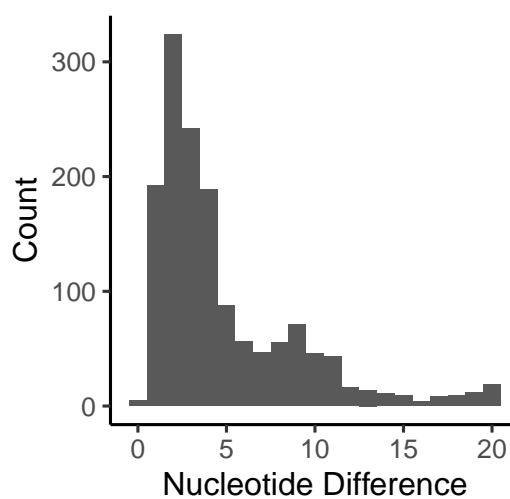
IGHV4-31*03_04

5417 sequences assigned
453 (8.4%) exact matches, in which:
310 unique CDR3
7 unique J



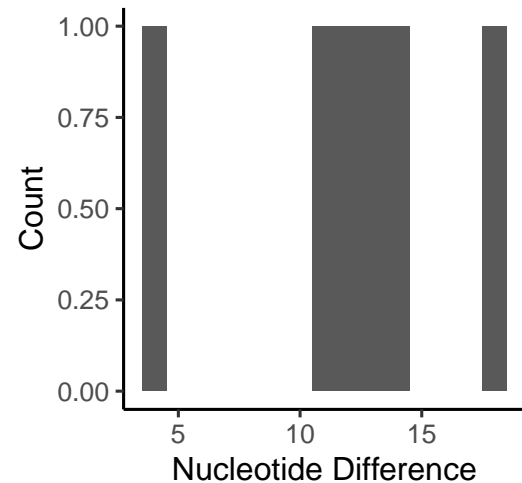
IGHV4-39*07

1579 sequences assigned
5 (0.3%) exact matches, in which:
5 unique CDR3
3 unique J



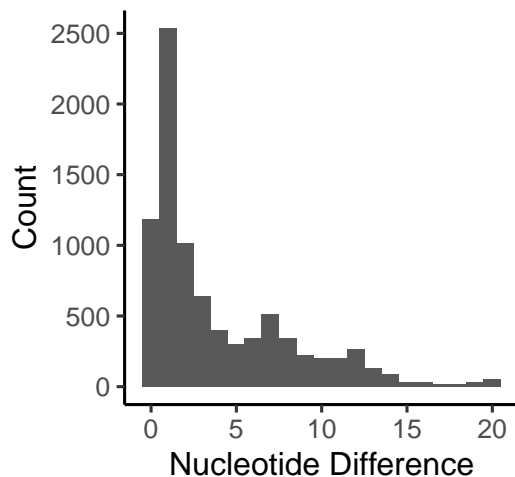
IGHV4-55*02_04_08

17 sequences assigned
No exact matches.



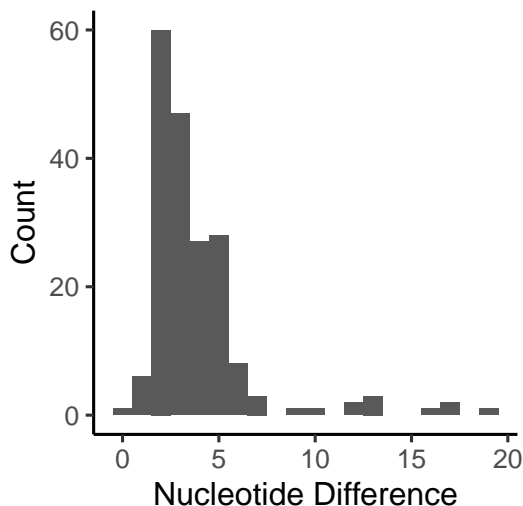
IGHV4-59*08

9311 sequences assigned
1185 (12.7%) exact matches, in which:
789 unique CDR3
7 unique J



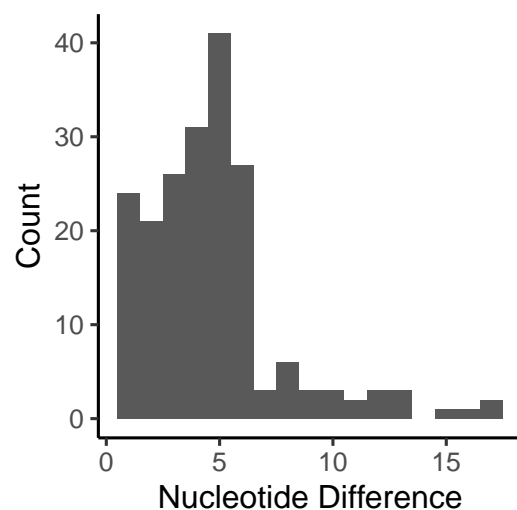
IGHV4-61*01

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



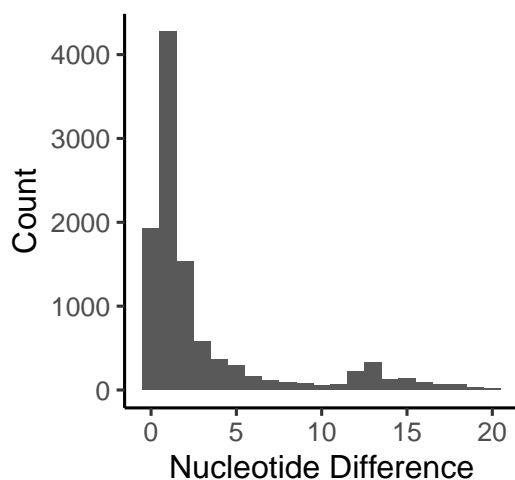
IGHV4-61*08

198 sequences assigned
No exact matches.



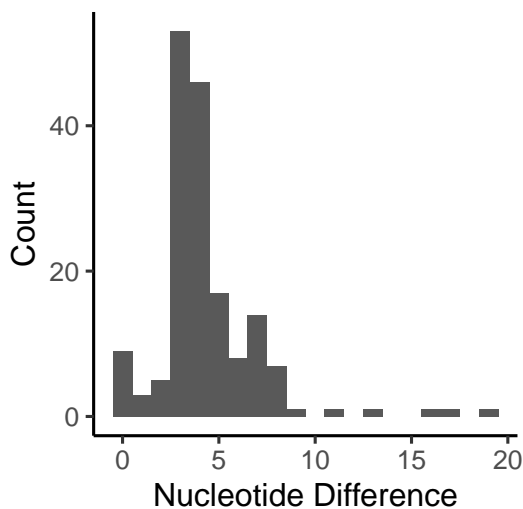
IGHV4-59*01_07

11032 sequences assigned
1921 (17.4%) exact matches, in which:
1234 unique CDR3
7 unique J



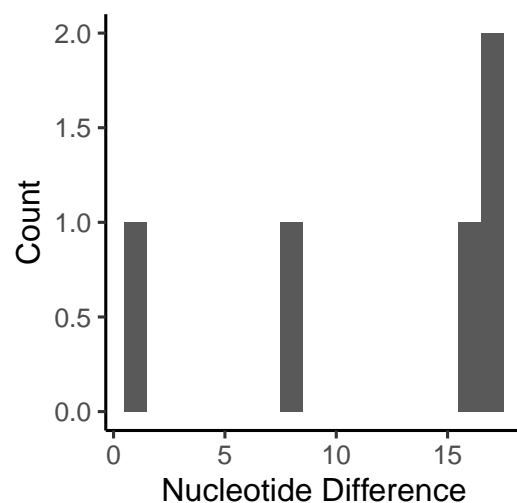
IGHV4-61*02

184 sequences assigned
9 (4.9%) exact matches, in which:
8 unique CDR3
3 unique J



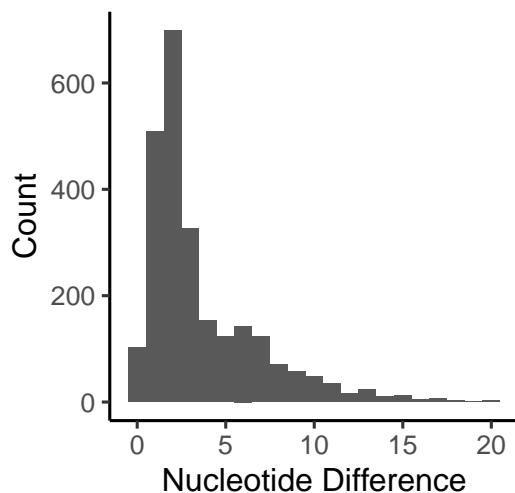
IGHV5-10-1*01_03

5 sequences assigned
No exact matches.



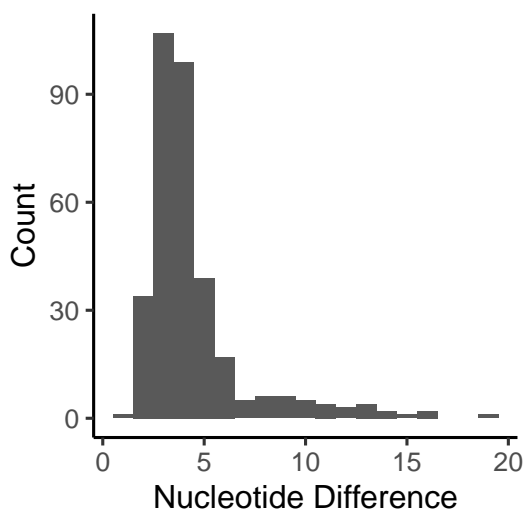
IGHV4-59*12

2527 sequences assigned
103 (4.1%) exact matches, in which:
98 unique CDR3
6 unique J



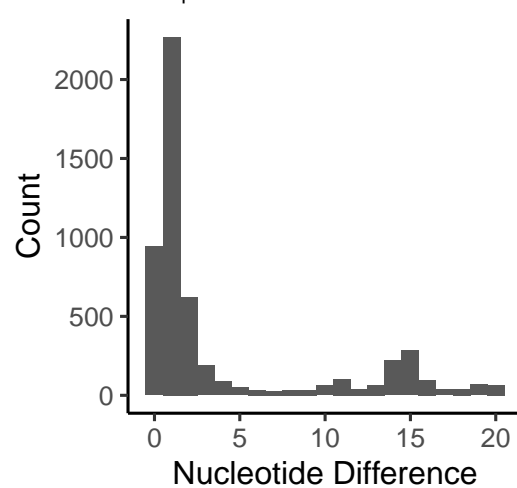
IGHV4-61*05

356 sequences assigned
No exact matches.



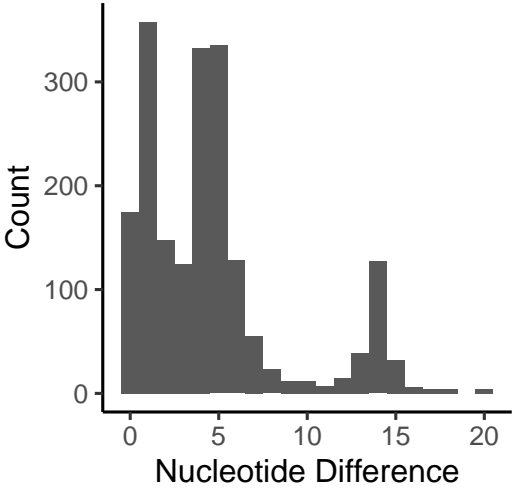
IGHV5-51*01_03

5498 sequences assigned
942 (17.1%) exact matches, in which:
500 unique CDR3
7 unique J



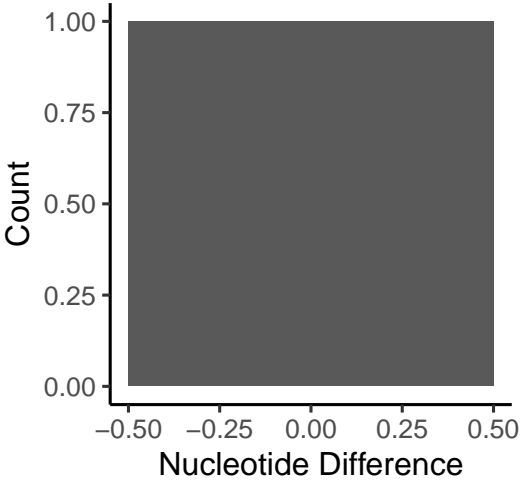
IGHV6-1*01_02

1955 sequences assigned
175 (9%) exact matches, in which:
130 unique CDR3
6 unique J



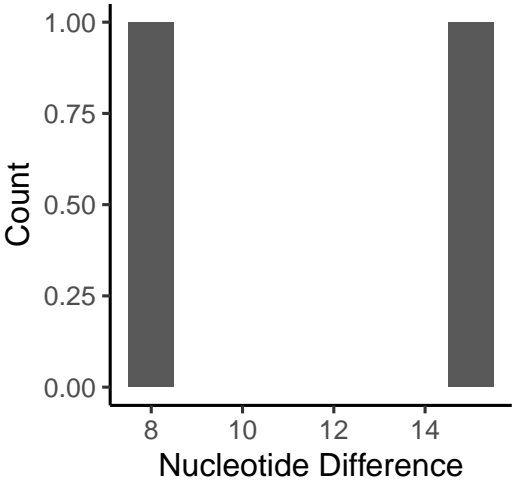
IGHV7-4-1*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J

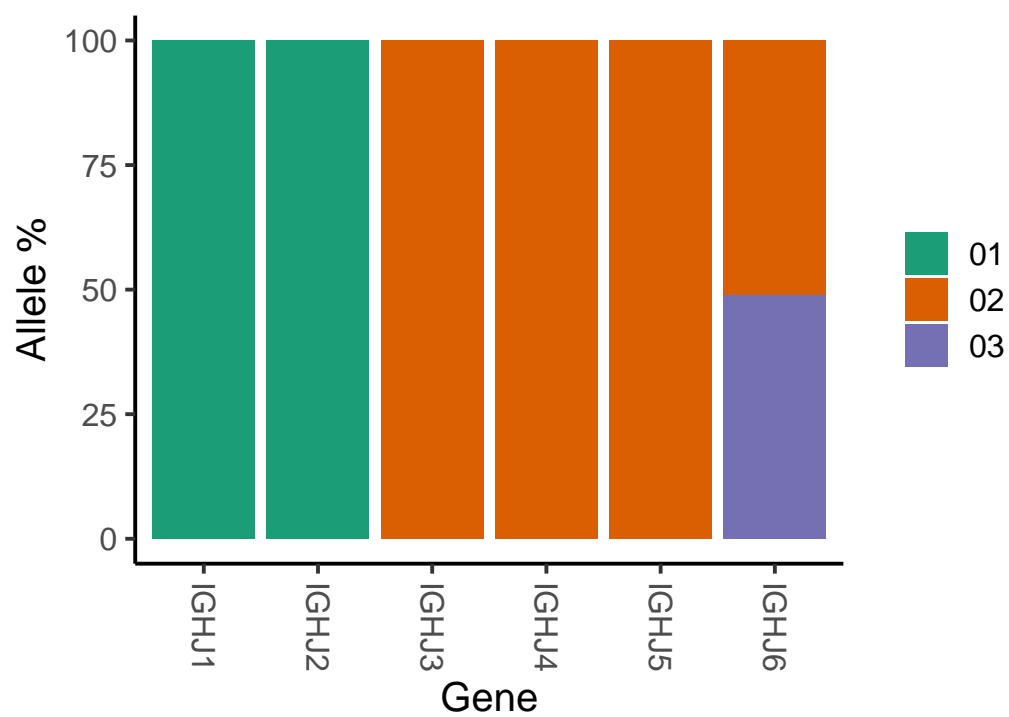


IGHV7-4-1*02

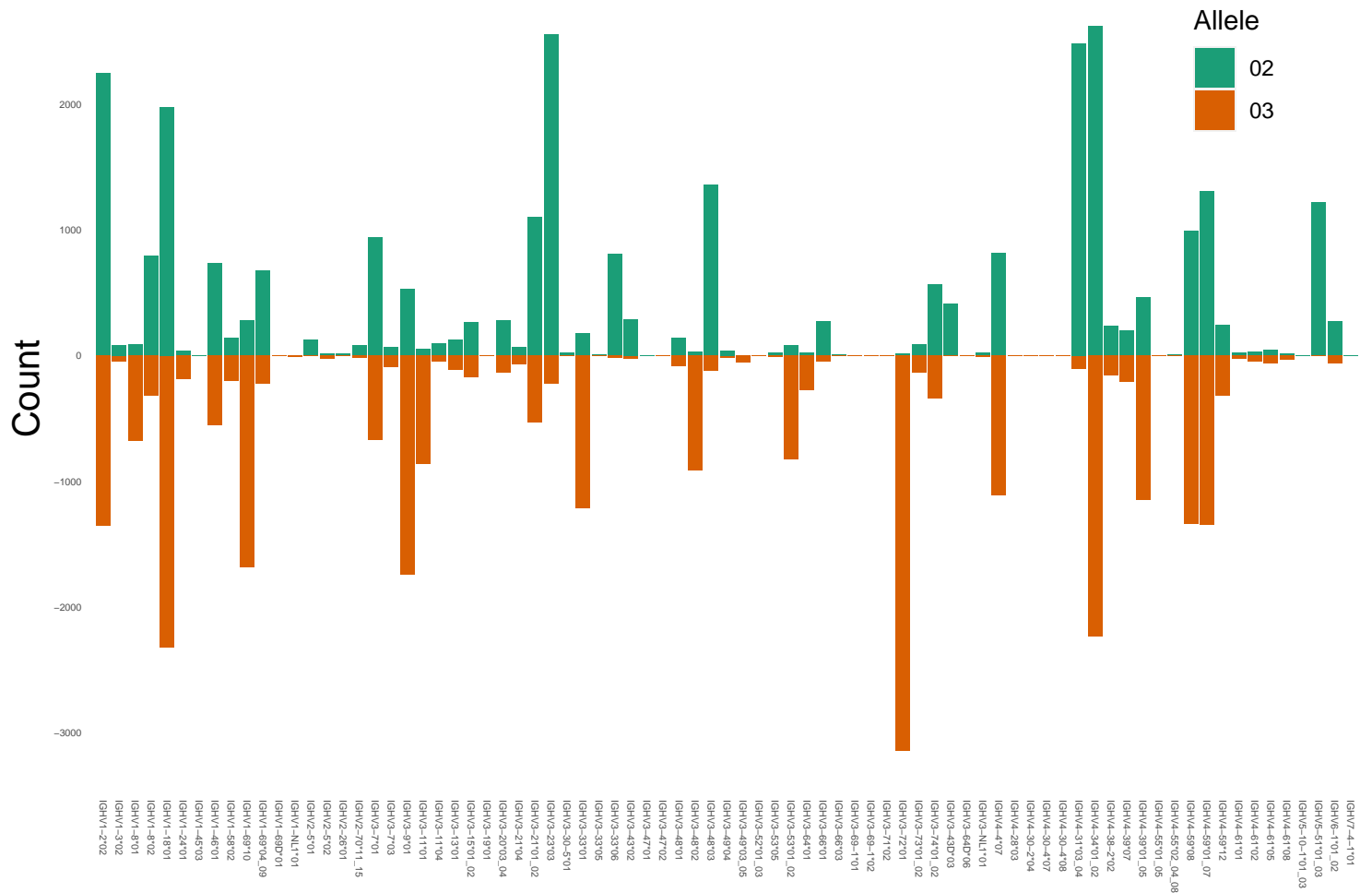
2 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s)IGHV3–33*01_G75CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–33*01_G75CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30*03_T288CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s)IGHV1–69*04_09_G112AIGHV4–59*02_G88AIGHV5–10–1*01_03_T258CIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV1–69*08_C191TIGHV3–48*03_T303GIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s)IGHV3–30*03_T288CIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

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

Novel sequence(s)IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV1–69*04_09_G112A are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.