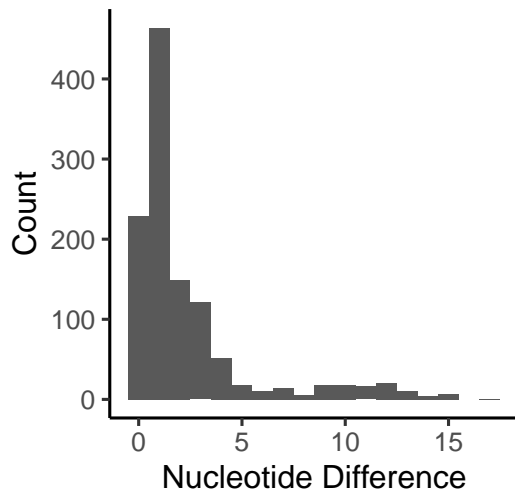


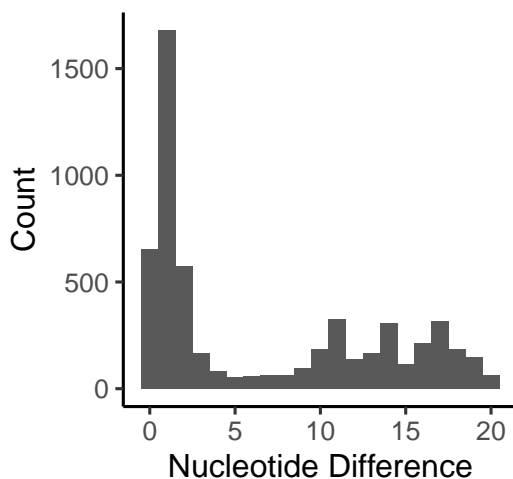
IGHV1-2*04

1162 sequences assigned
229 (19.7%) exact matches, in which:
174 unique CDR3
6 unique J



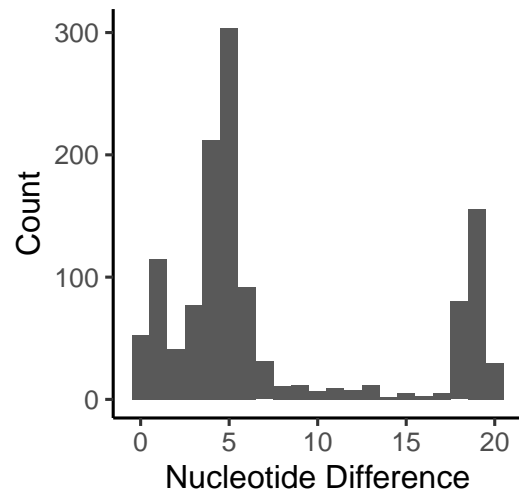
IGHV1-18*01

12585 sequences assigned
655 (5.2%) exact matches, in which:
431 unique CDR3
6 unique J



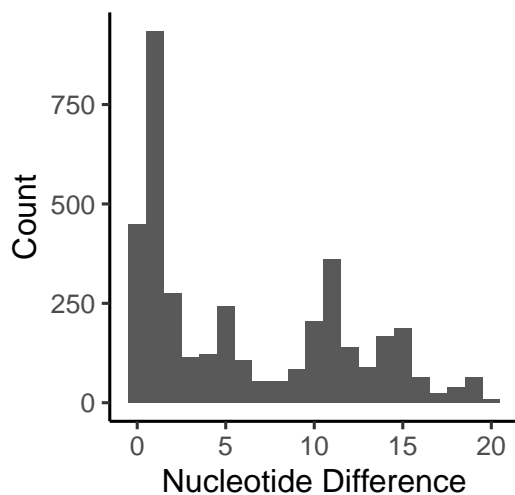
IGHV1-46*03

1398 sequences assigned
53 (3.8%) exact matches, in which:
39 unique CDR3
4 unique J



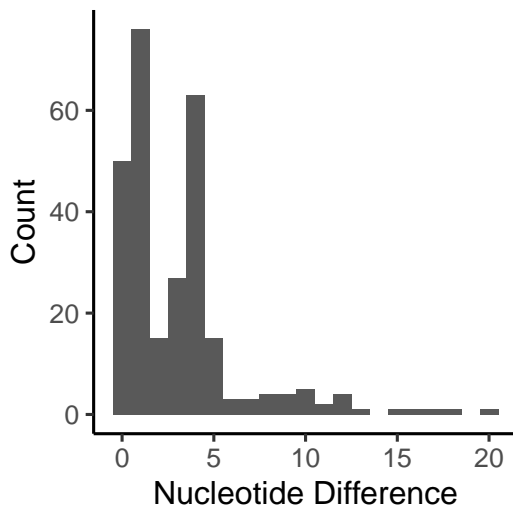
IGHV1-3*01_05

3947 sequences assigned
450 (11.4%) exact matches, in which:
223 unique CDR3
6 unique J



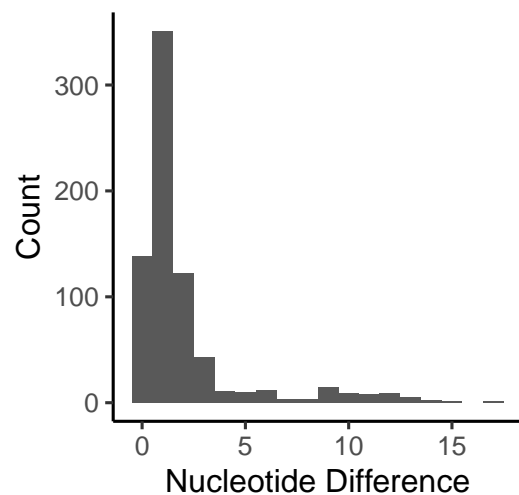
IGHV1-24*01

321 sequences assigned
50 (15.6%) exact matches, in which:
37 unique CDR3
4 unique J



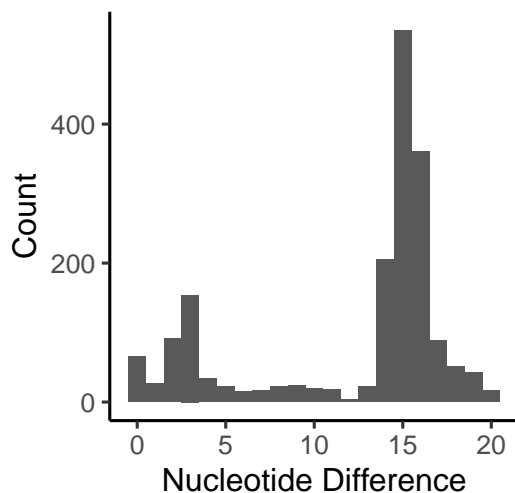
IGHV1-58*02

928 sequences assigned
138 (14.9%) exact matches, in which:
84 unique CDR3
6 unique J



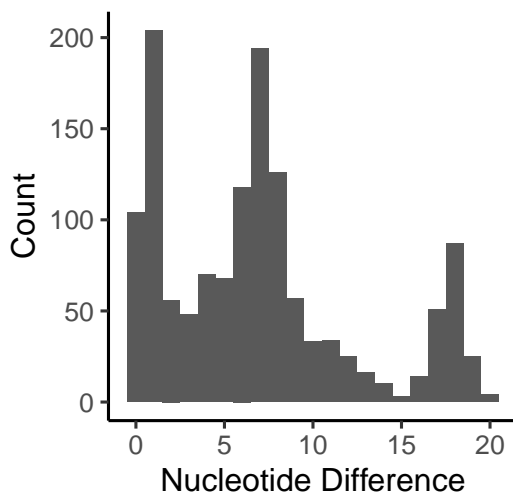
IGHV1-8*01

1885 sequences assigned
66 (3.5%) exact matches, in which:
63 unique CDR3
6 unique J



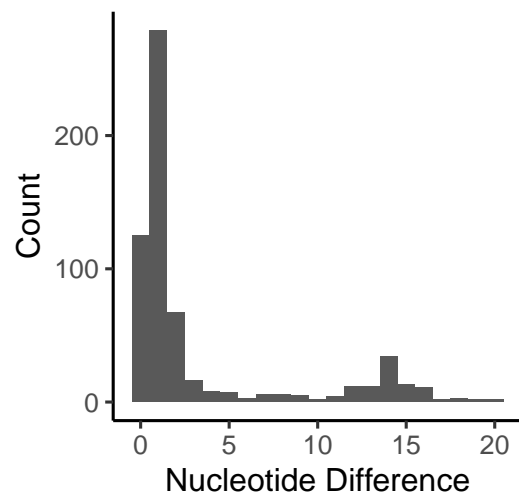
IGHV1-46*01

1368 sequences assigned
104 (7.6%) exact matches, in which:
67 unique CDR3
6 unique J



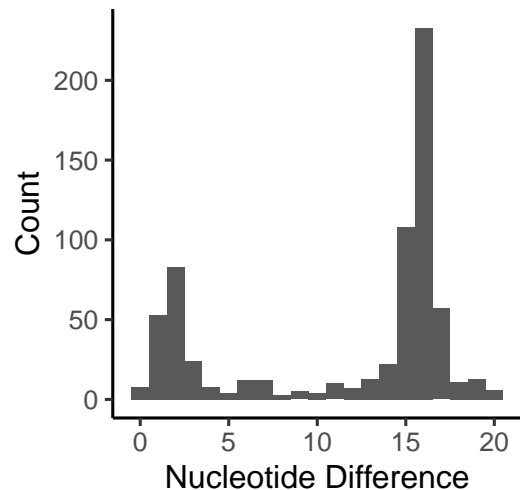
IGHV1-69*02

621 sequences assigned
125 (20.1%) exact matches, in which:
77 unique CDR3
7 unique J



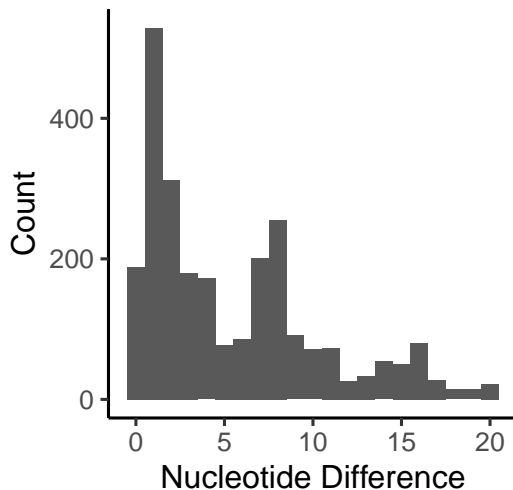
IGHV1–69*04_09

702 sequences assigned
8 (1.1%) exact matches, in which:
8 unique CDR3
3 unique J



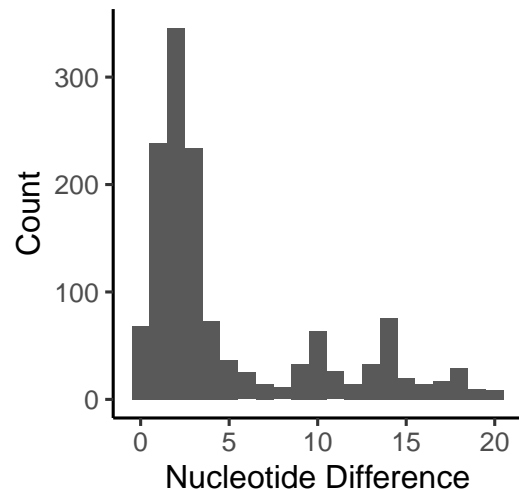
IGHV2–5*02

10389 sequences assigned
188 (1.8%) exact matches, in which:
113 unique CDR3
4 unique J



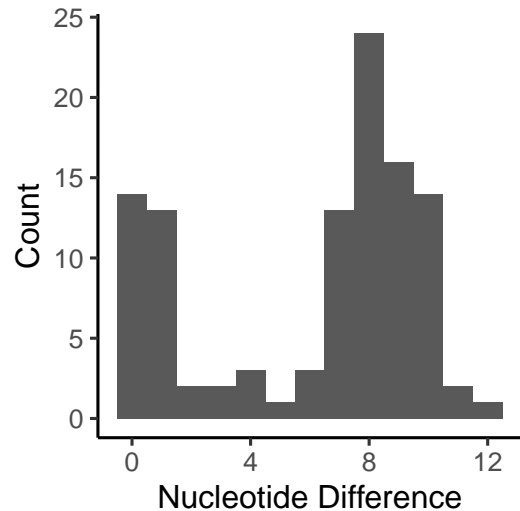
IGHV2–70*11_15

1402 sequences assigned
68 (4.9%) exact matches, in which:
36 unique CDR3
5 unique J



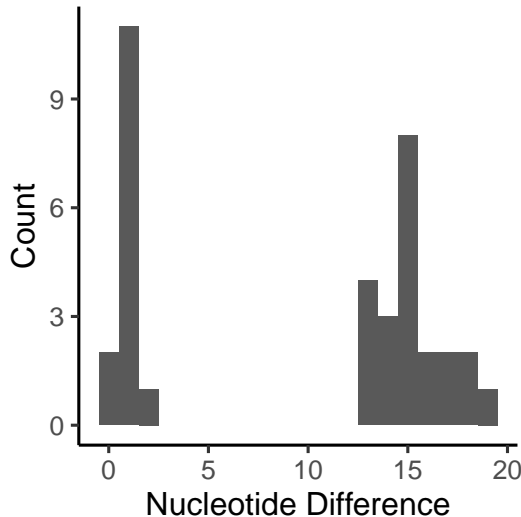
IGHV1–69*06_14

109 sequences assigned
14 (12.8%) exact matches, in which:
13 unique CDR3
3 unique J



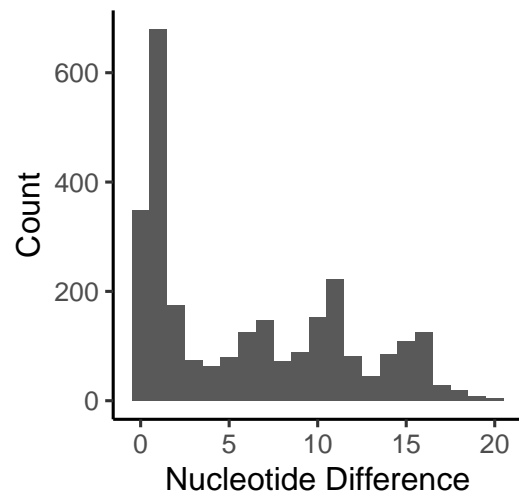
IGHV2–26*01

36 sequences assigned
2 (5.6%) exact matches, in which:
2 unique CDR3
1 unique J



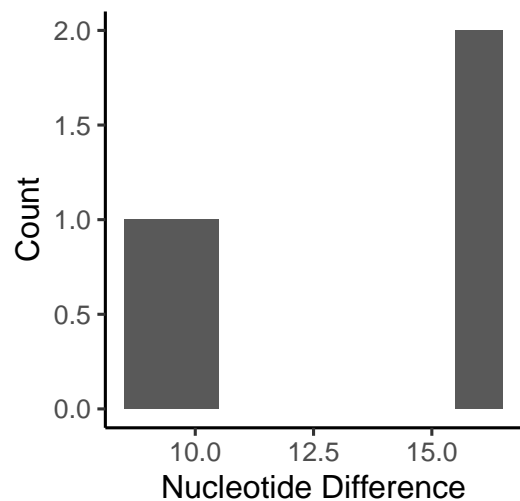
IGHV3–7*01

2749 sequences assigned
348 (12.7%) exact matches, in which:
210 unique CDR3
6 unique J



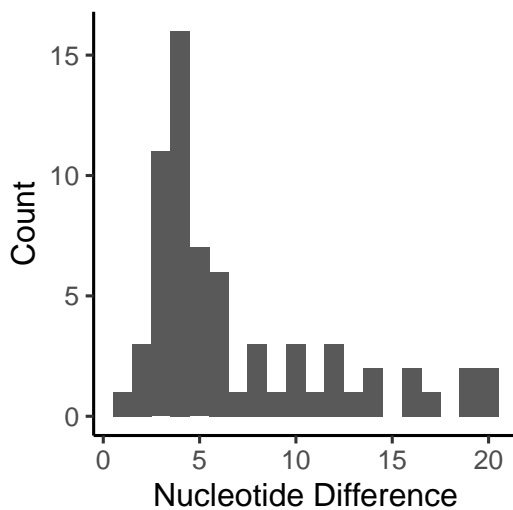
IGHV1–NL1*01

4 sequences assigned
No exact matches.



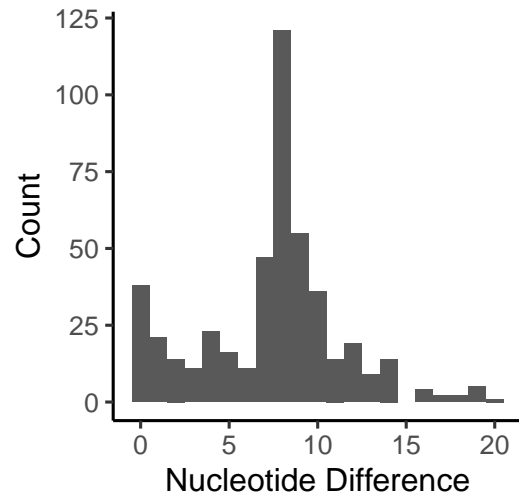
IGHV2–70*12

69 sequences assigned
No exact matches.



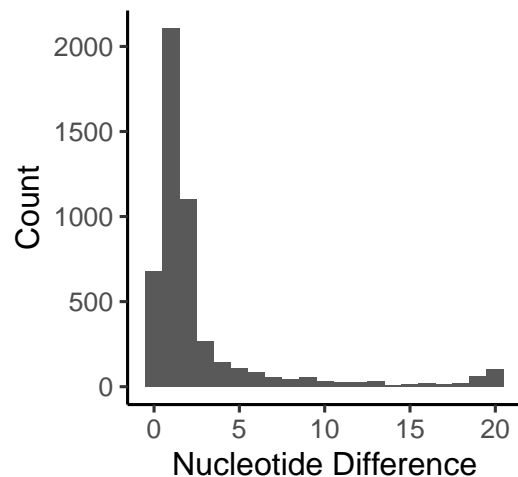
IGHV3–7*02

467 sequences assigned
38 (8.1%) exact matches, in which:
29 unique CDR3
6 unique J



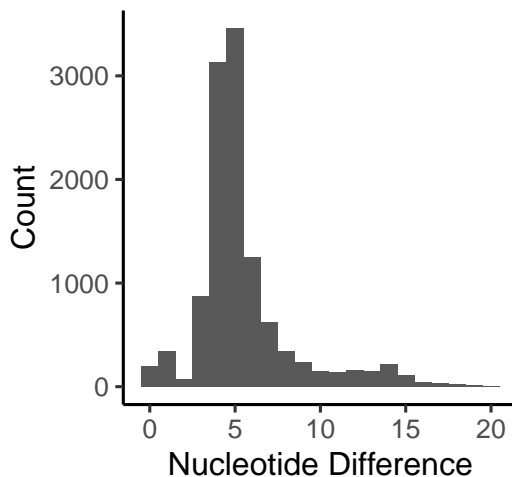
IGHV3-7*03

6061 sequences assigned
678 (11.2%) exact matches, in which:
273 unique CDR3
6 unique J



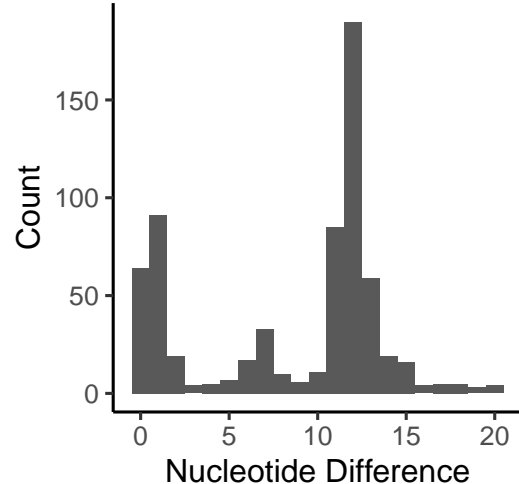
IGHV3-11*01

11653 sequences assigned
195 (1.7%) exact matches, in which:
122 unique CDR3
6 unique J



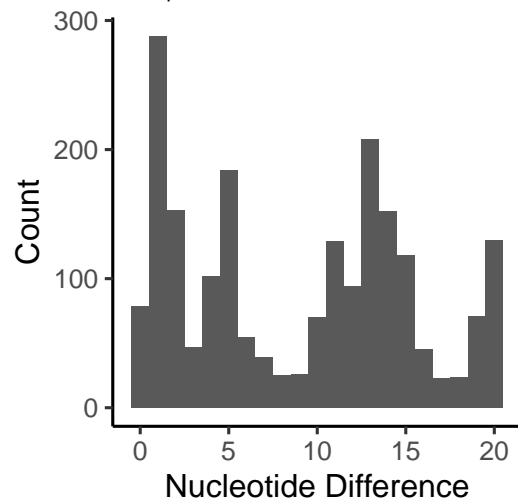
IGHV3-13*04

668 sequences assigned
64 (9.6%) exact matches, in which:
43 unique CDR3
4 unique J



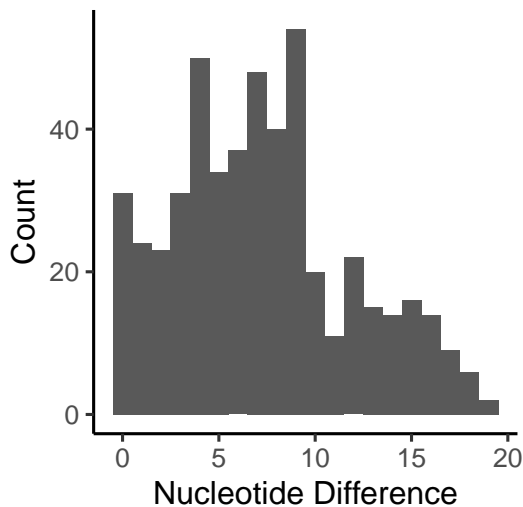
IGHV3-7*04

2109 sequences assigned
79 (3.7%) exact matches, in which:
41 unique CDR3
3 unique J



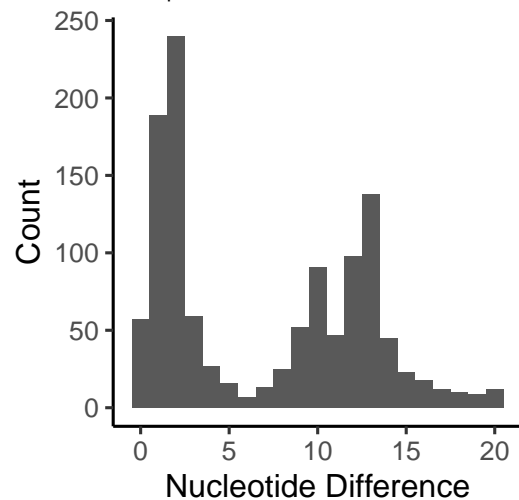
IGHV3-11*04

501 sequences assigned
31 (6.2%) exact matches, in which:
27 unique CDR3
5 unique J



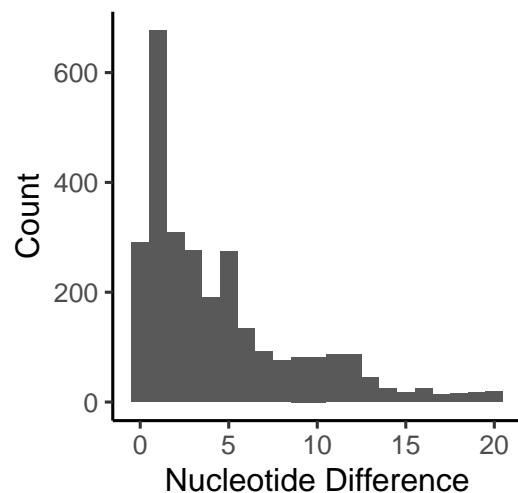
IGHV3-15*01_02

1705 sequences assigned
57 (3.3%) exact matches, in which:
36 unique CDR3
3 unique J



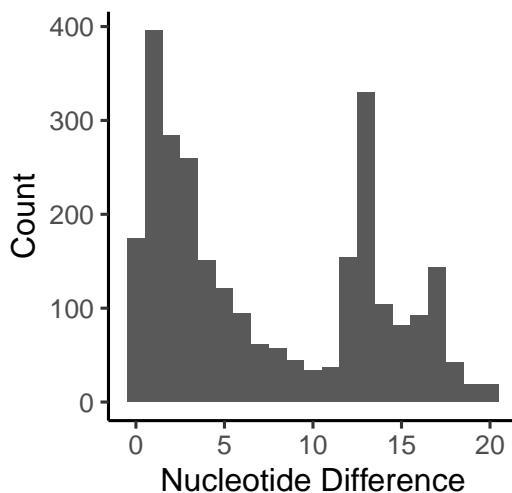
IGHV3-9*01

2870 sequences assigned
291 (10.1%) exact matches, in which:
157 unique CDR3
6 unique J



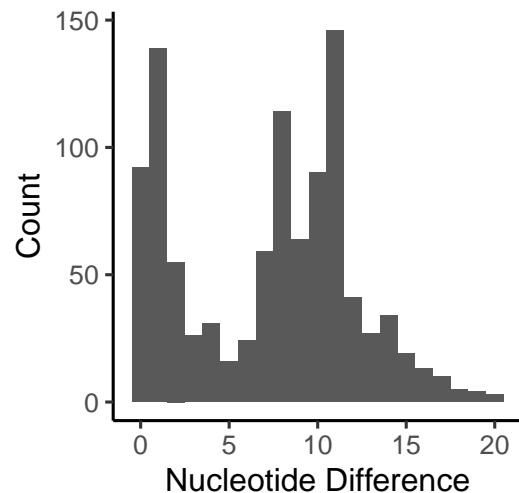
IGHV3-11*03_05

2863 sequences assigned
174 (6.1%) exact matches, in which:
108 unique CDR3
7 unique J



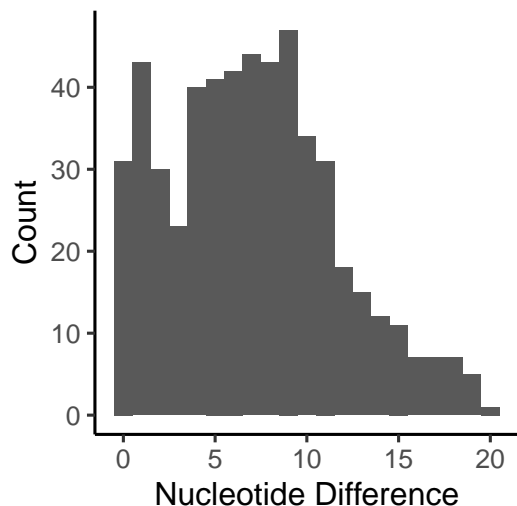
IGHV3-20*03_04

1021 sequences assigned
92 (9%) exact matches, in which:
57 unique CDR3
6 unique J



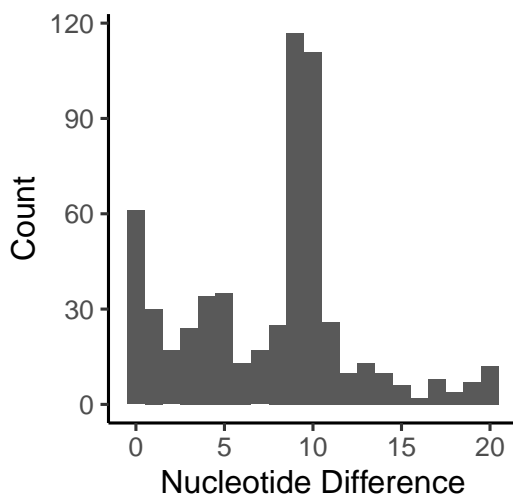
IGHV3-21*04

542 sequences assigned
31 (5.7%) exact matches, in which:
24 unique CDR3
6 unique J



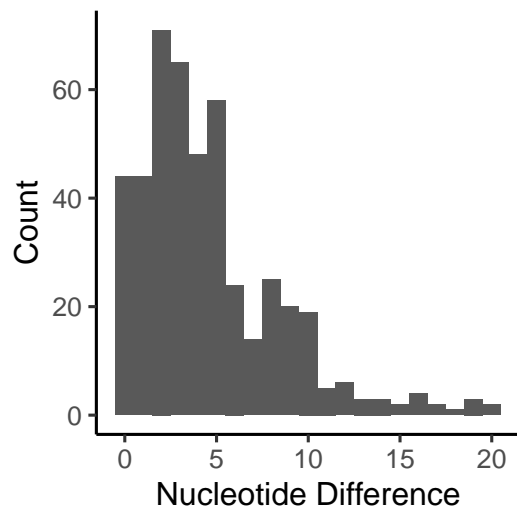
IGHV3-30*03

614 sequences assigned
61 (9.9%) exact matches, in which:
53 unique CDR3
6 unique J



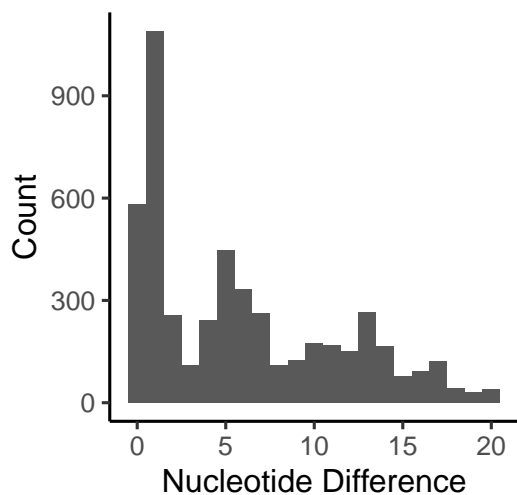
IGHV3-33*06

477 sequences assigned
44 (9.2%) exact matches, in which:
37 unique CDR3
6 unique J



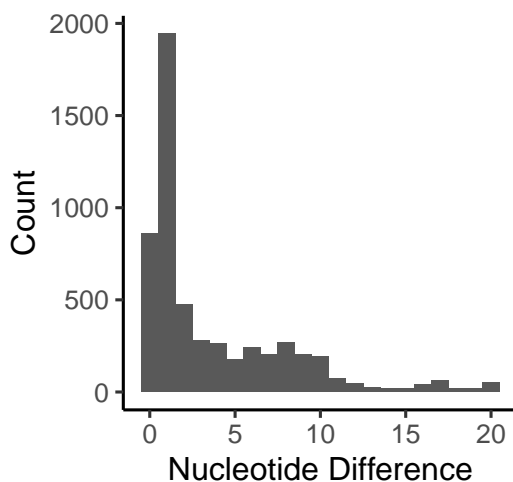
IGHV3-21*01_02

5045 sequences assigned
583 (11.6%) exact matches, in which:
352 unique CDR3
6 unique J



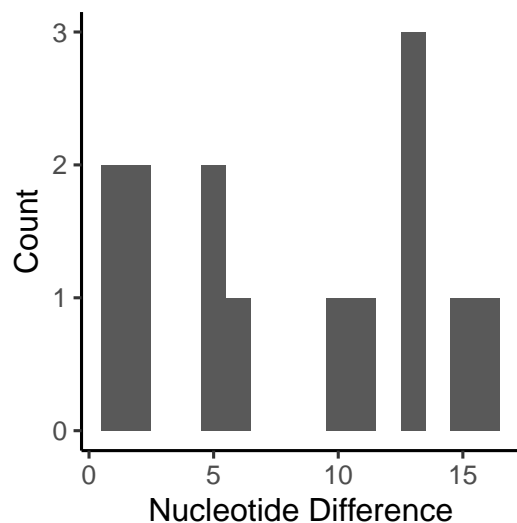
IGHV3-33*01

5780 sequences assigned
862 (14.9%) exact matches, in which:
463 unique CDR3
7 unique J



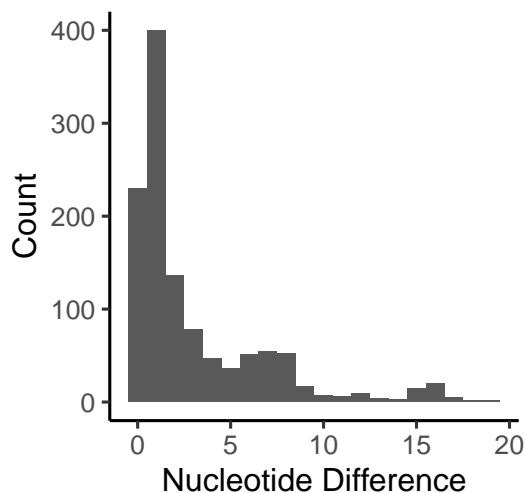
IGHV3-43*01

14 sequences assigned
No exact matches.



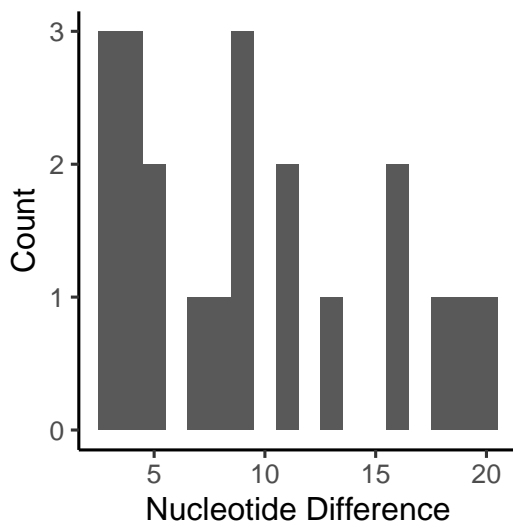
IGHV3-30-3*01

1277 sequences assigned
230 (18%) exact matches, in which:
148 unique CDR3
6 unique J



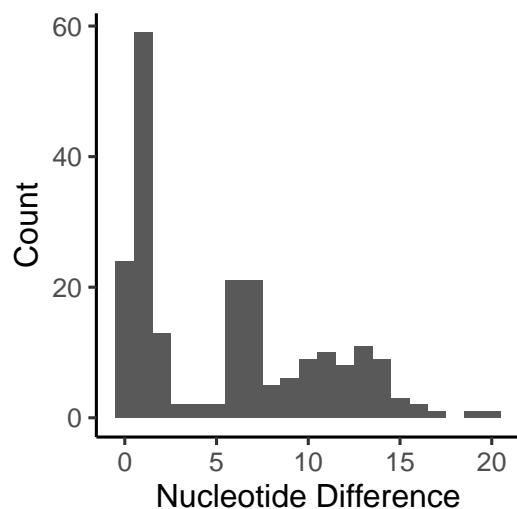
IGHV3-33*05

32 sequences assigned
No exact matches.



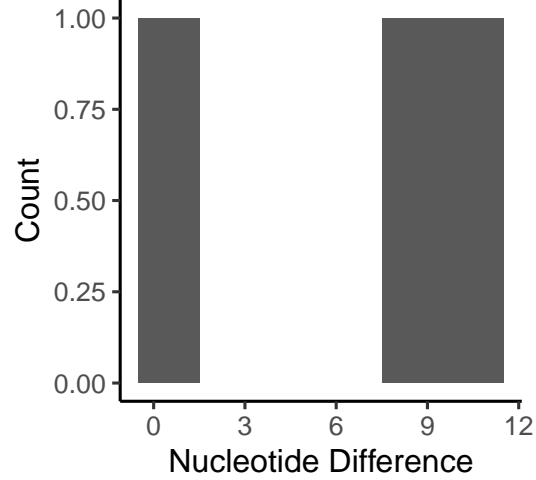
IGHV3-43*02

210 sequences assigned
24 (11.4%) exact matches, in which:
14 unique CDR3
2 unique J



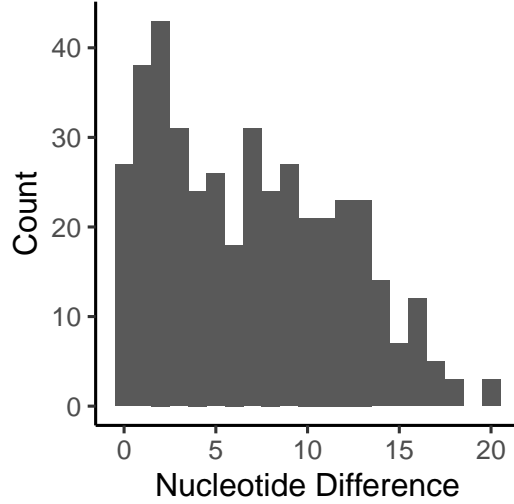
IGHV3-47*02

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



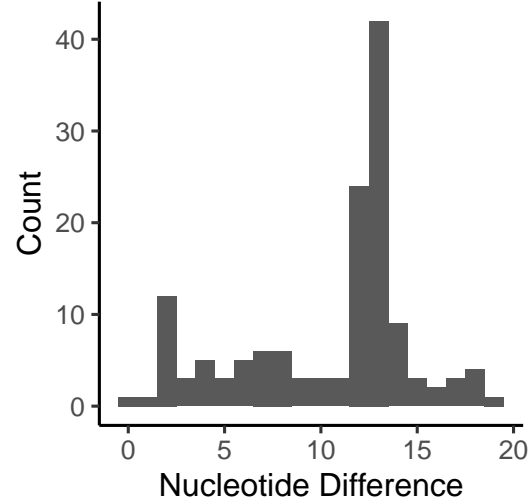
IGHV3-48*04

431 sequences assigned
27 (6.3%) exact matches, in which:
21 unique CDR3
5 unique J



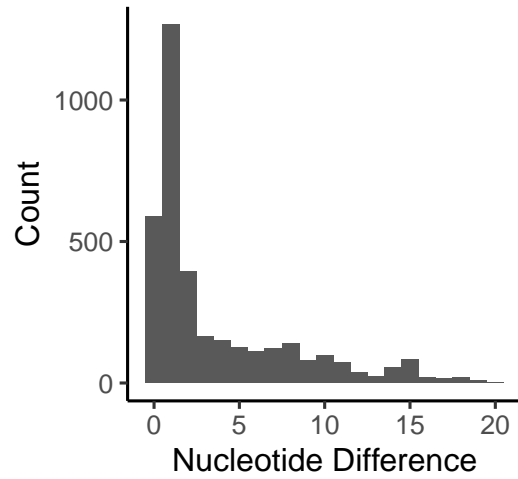
IGHV3-53*05

150 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



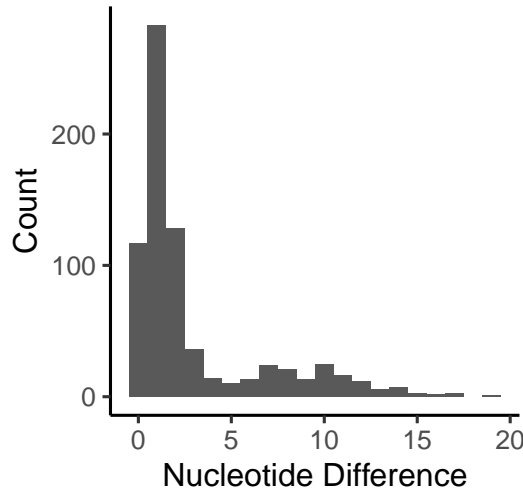
IGHV3-48*01

3844 sequences assigned
589 (15.3%) exact matches, in which:
302 unique CDR3
7 unique J



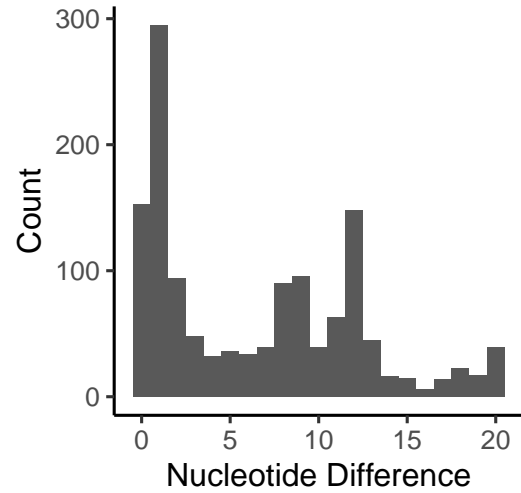
IGHV3-49*04

734 sequences assigned
117 (15.9%) exact matches, in which:
62 unique CDR3
3 unique J



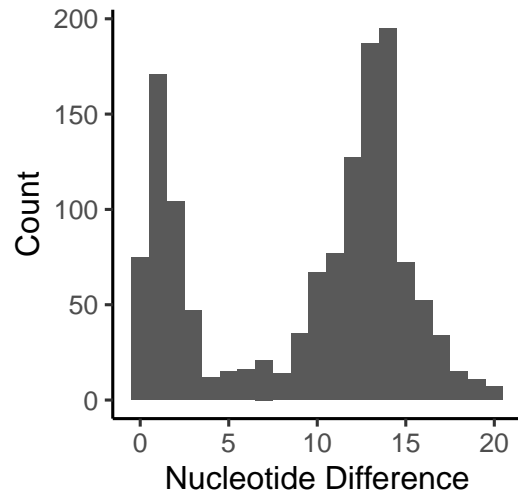
IGHV3-53*01_02

1665 sequences assigned
153 (9.2%) exact matches, in which:
92 unique CDR3
6 unique J



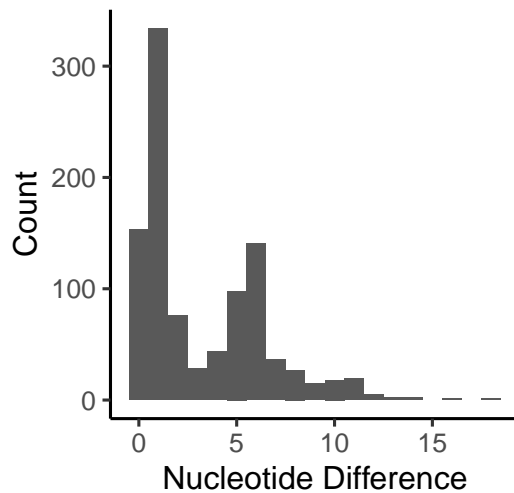
IGHV3-48*03

1376 sequences assigned
75 (5.5%) exact matches, in which:
49 unique CDR3
5 unique J



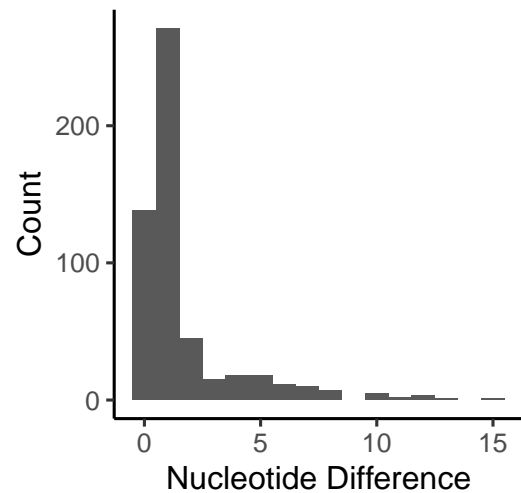
IGHV3-49*03_05

1004 sequences assigned
153 (15.2%) exact matches, in which:
87 unique CDR3
4 unique J



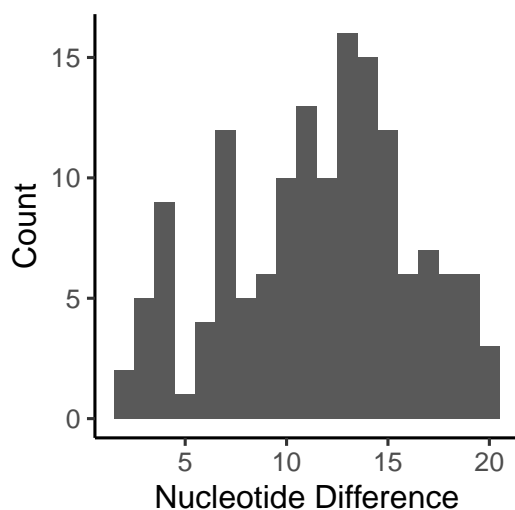
IGHV3-64*01

545 sequences assigned
138 (25.3%) exact matches, in which:
84 unique CDR3
5 unique J



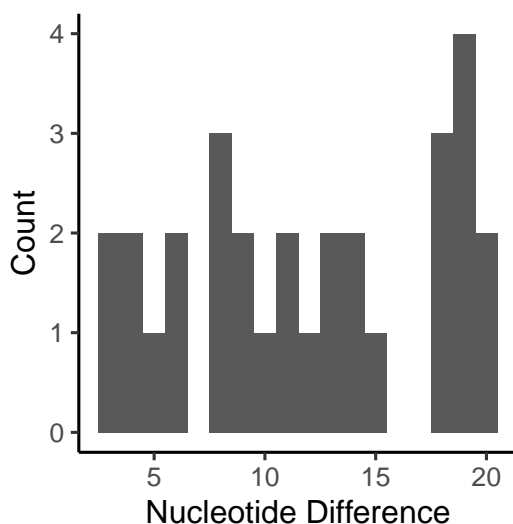
IGHV3-64*04

184 sequences assigned
No exact matches.



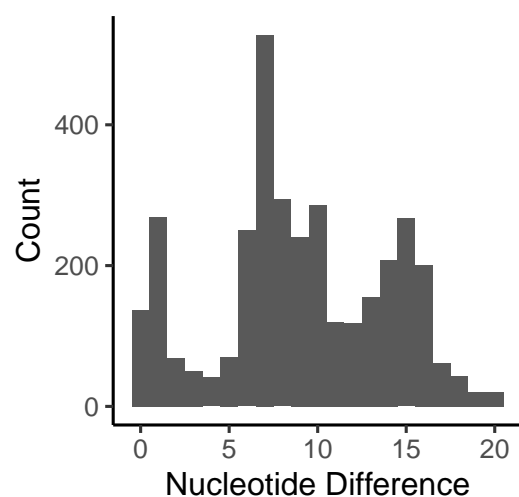
IGHV3-69-1*01

33 sequences assigned
No exact matches.



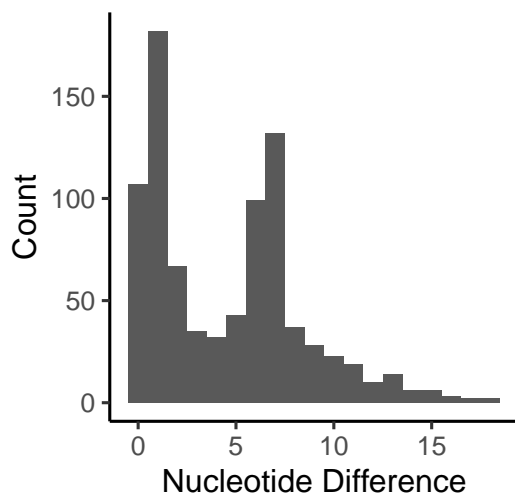
IGHV3-74*01_02

3752 sequences assigned
137 (3.7%) exact matches, in which:
86 unique CDR3
6 unique J



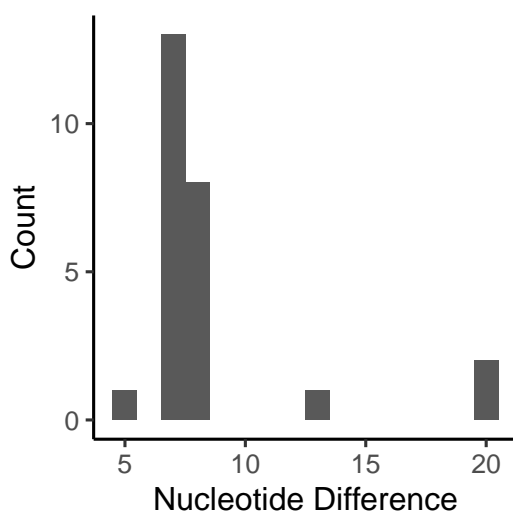
IGHV3-66*01

852 sequences assigned
107 (12.6%) exact matches, in which:
71 unique CDR3
7 unique J



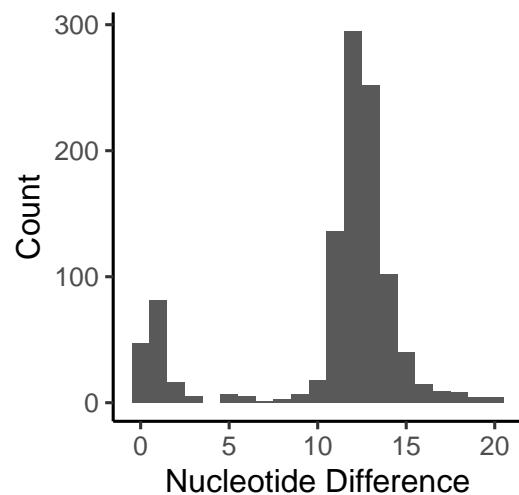
IGHV3-72*01

114 sequences assigned
No exact matches.



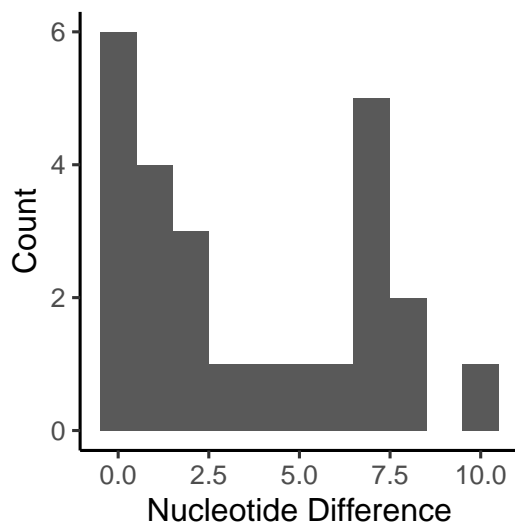
IGHV3-64D*06

2019 sequences assigned
47 (2.3%) exact matches, in which:
29 unique CDR3
4 unique J



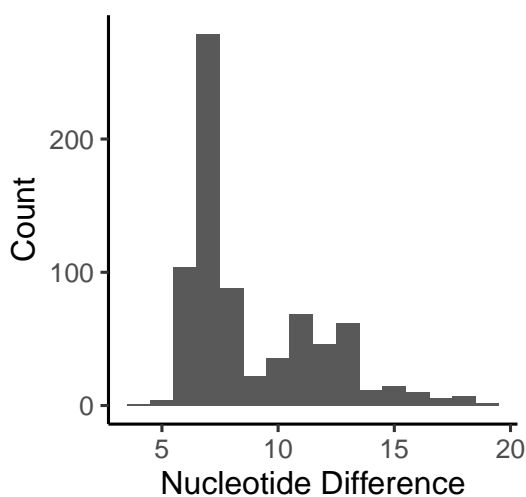
IGHV3-66*04

28 sequences assigned
6 (21.4%) exact matches, in which:
5 unique CDR3
3 unique J



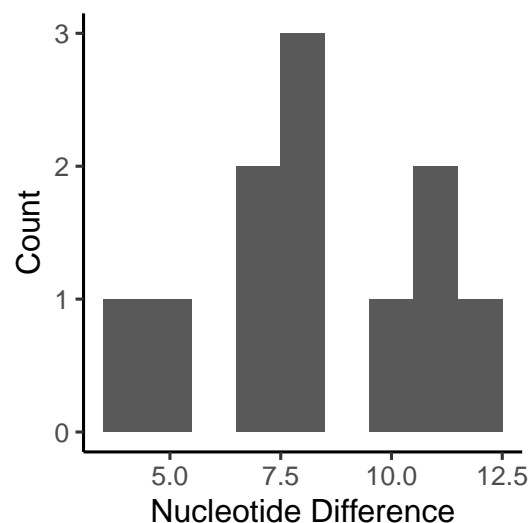
IGHV3-73*01_02

789 sequences assigned
No exact matches.



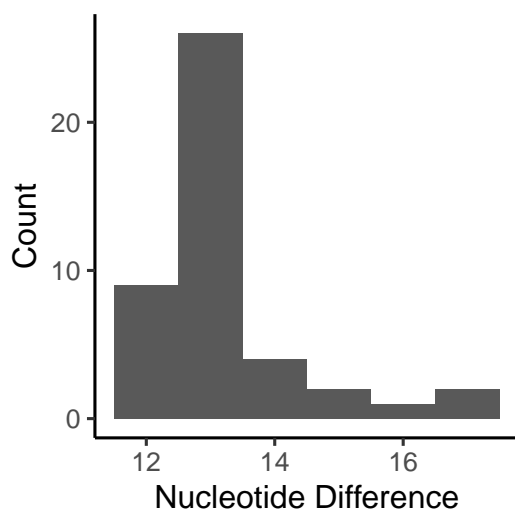
IGHV3-NL1*01

12 sequences assigned
No exact matches.



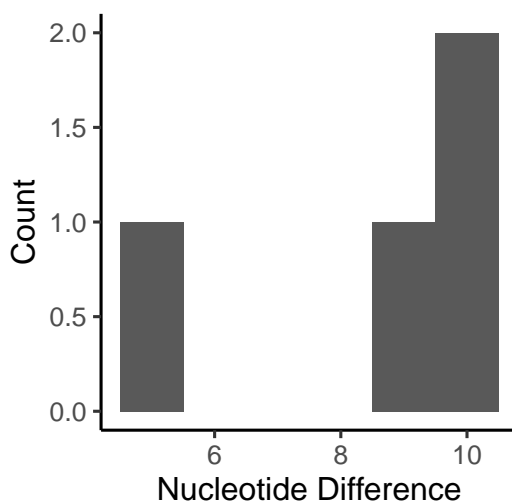
IGHV4-28*03

44 sequences assigned
No exact matches.



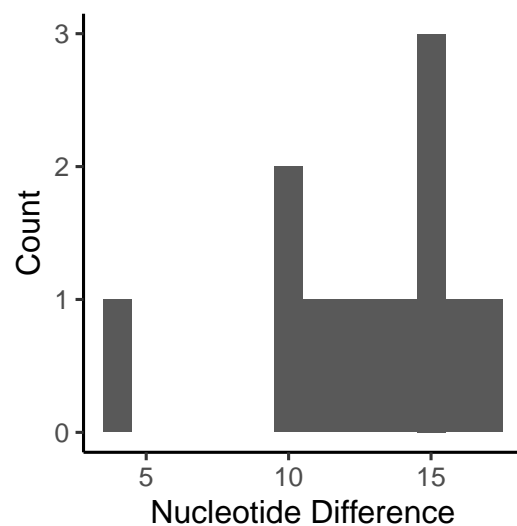
IGHV4-30-2*04

4 sequences assigned
No exact matches.



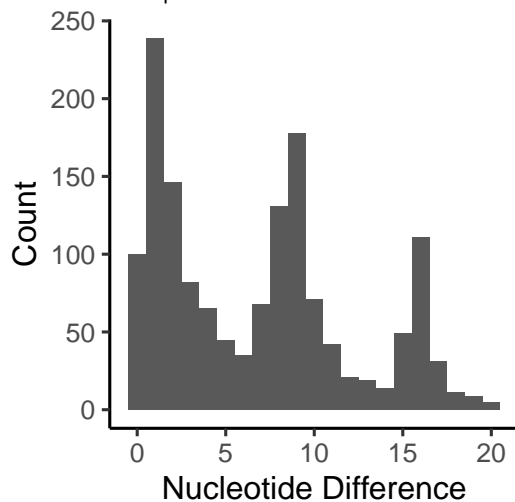
IGHV4-38-2*02

12 sequences assigned
No exact matches.



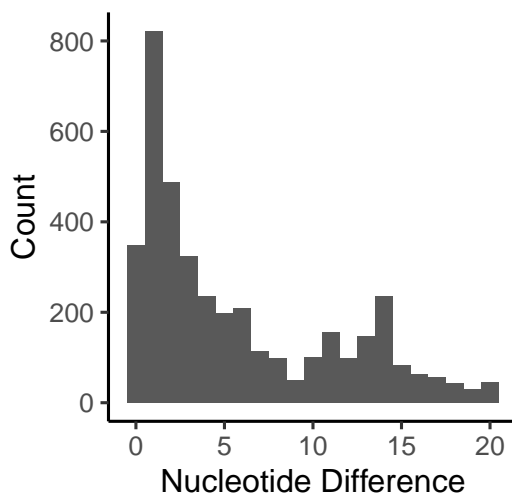
IGHV4-30-4*01

1493 sequences assigned
100 (6.7%) exact matches, in which:
63 unique CDR3
7 unique J



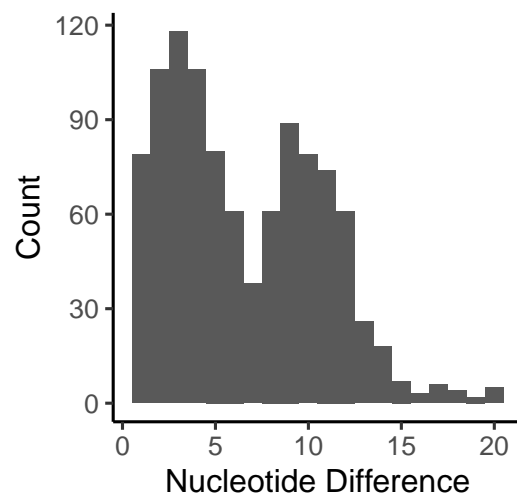
IGHV4-31*03_04

8227 sequences assigned
348 (4.2%) exact matches, in which:
232 unique CDR3
7 unique J



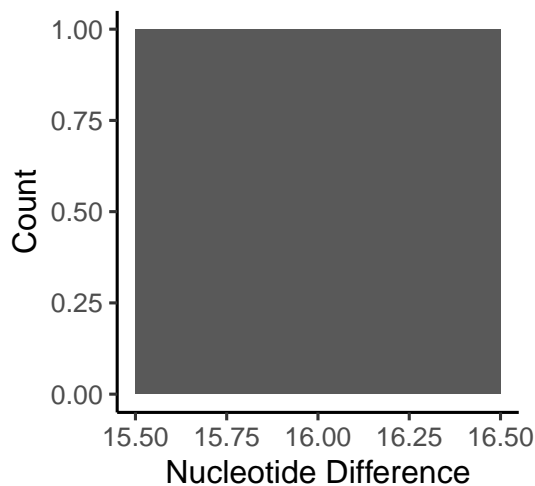
IGHV4-39*07

1041 sequences assigned
No exact matches.



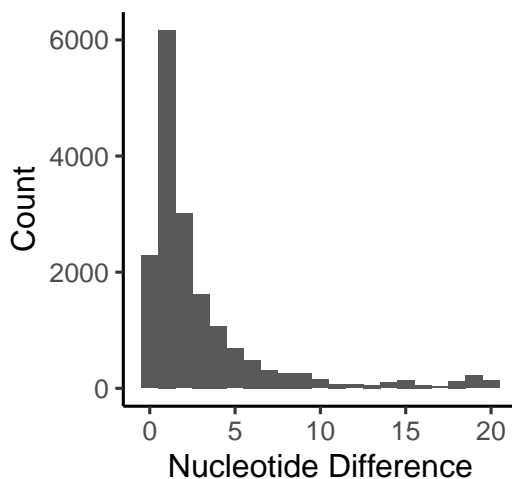
IGHV4-30-2*03

1 sequences assigned
No exact matches.



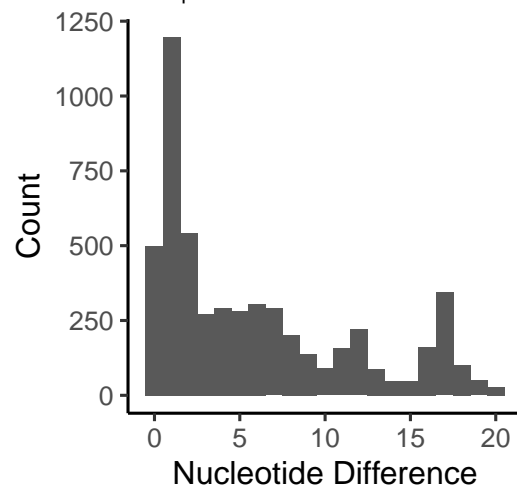
IGHV4-34*01_02

17543 sequences assigned
2287 (13%) exact matches, in which:
1280 unique CDR3
7 unique J



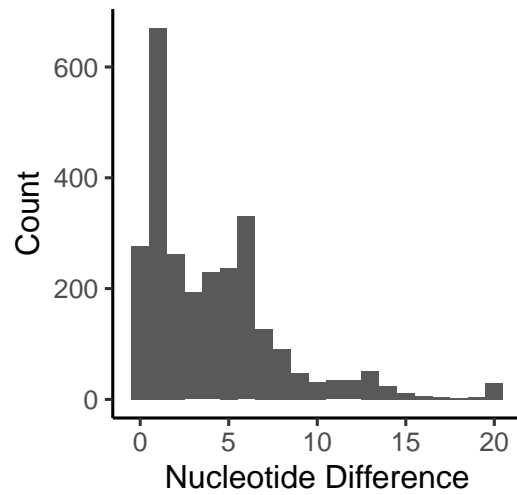
IGHV4-39*01_05

5808 sequences assigned
499 (8.6%) exact matches, in which:
307 unique CDR3
7 unique J



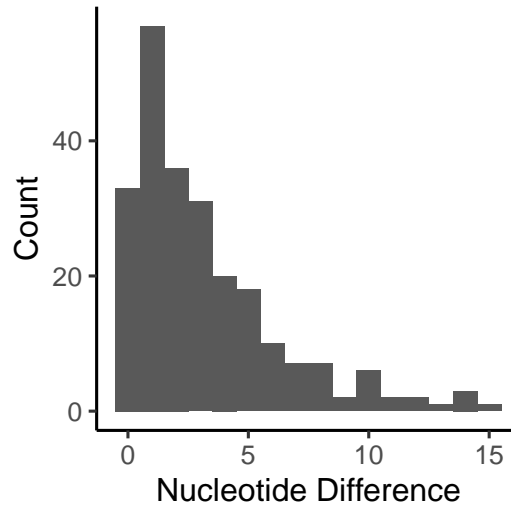
IGHV4–59*08

3574 sequences assigned
277 (7.8%) exact matches, in which:
173 unique CDR3
7 unique J



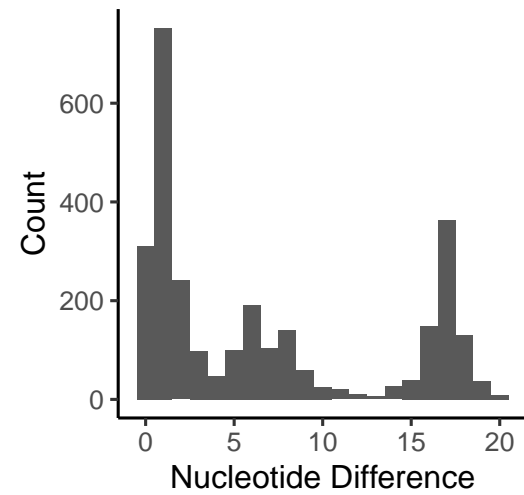
IGHV4–61*01

238 sequences assigned
33 (13.9%) exact matches, in which:
25 unique CDR3
5 unique J



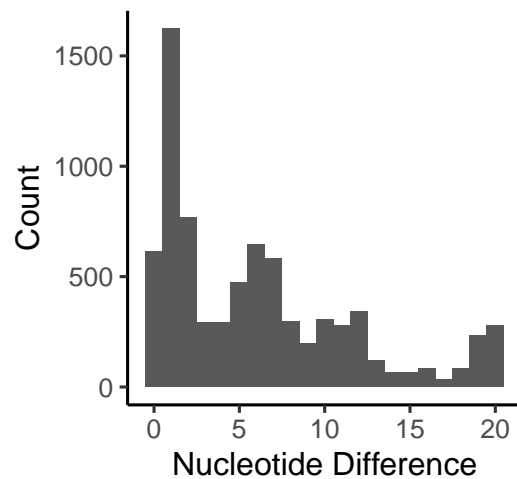
IGHV5–10–1*01_03

2937 sequences assigned
311 (10.6%) exact matches, in which:
165 unique CDR3
6 unique J



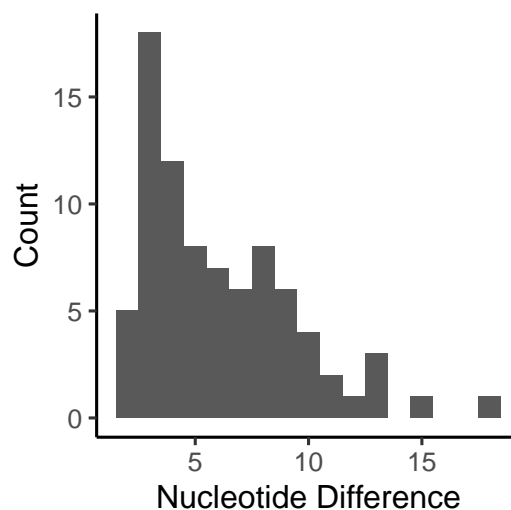
IGHV4–59*01_07

8157 sequences assigned
614 (7.5%) exact matches, in which:
353 unique CDR3
7 unique J



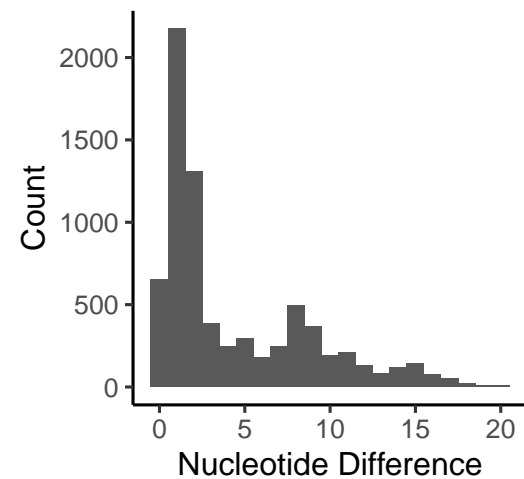
IGHV4–61*05

85 sequences assigned
No exact matches.



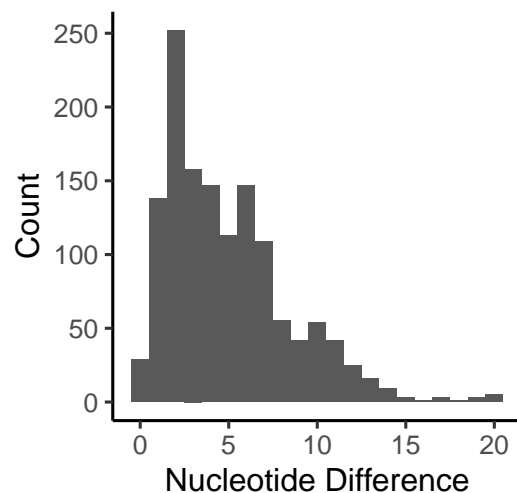
IGHV5–51*01_03

8368 sequences assigned
650 (7.8%) exact matches, in which:
337 unique CDR3
6 unique J



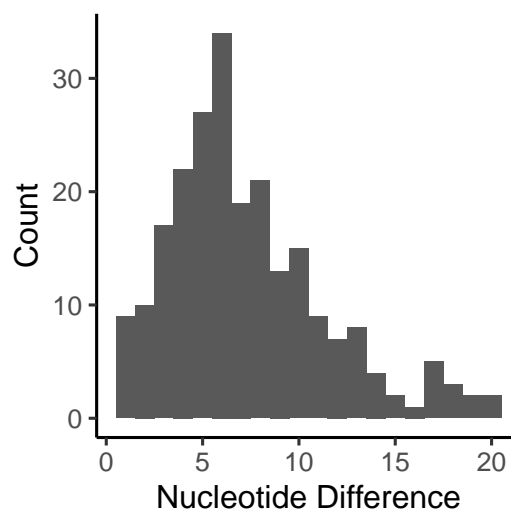
IGHV4–59*12

1532 sequences assigned
29 (1.9%) exact matches, in which:
25 unique CDR3
6 unique J



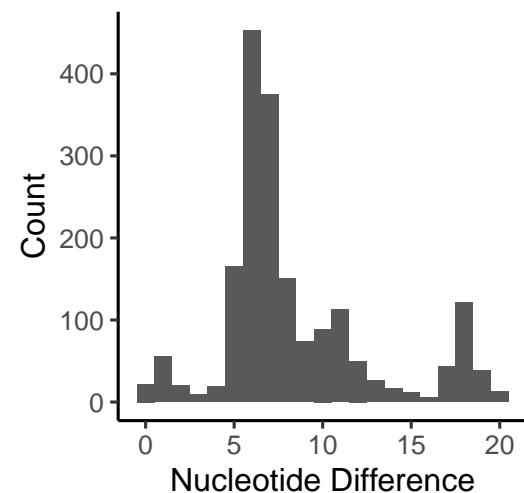
IGHV4–61*08

243 sequences assigned
No exact matches.



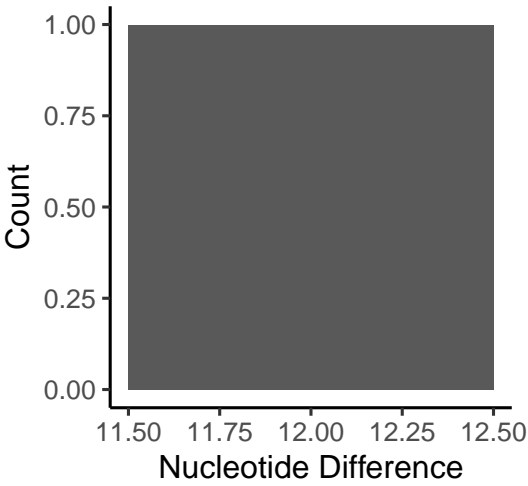
IGHV6–1*01_02

1892 sequences assigned
22 (1.2%) exact matches, in which:
17 unique CDR3
4 unique J

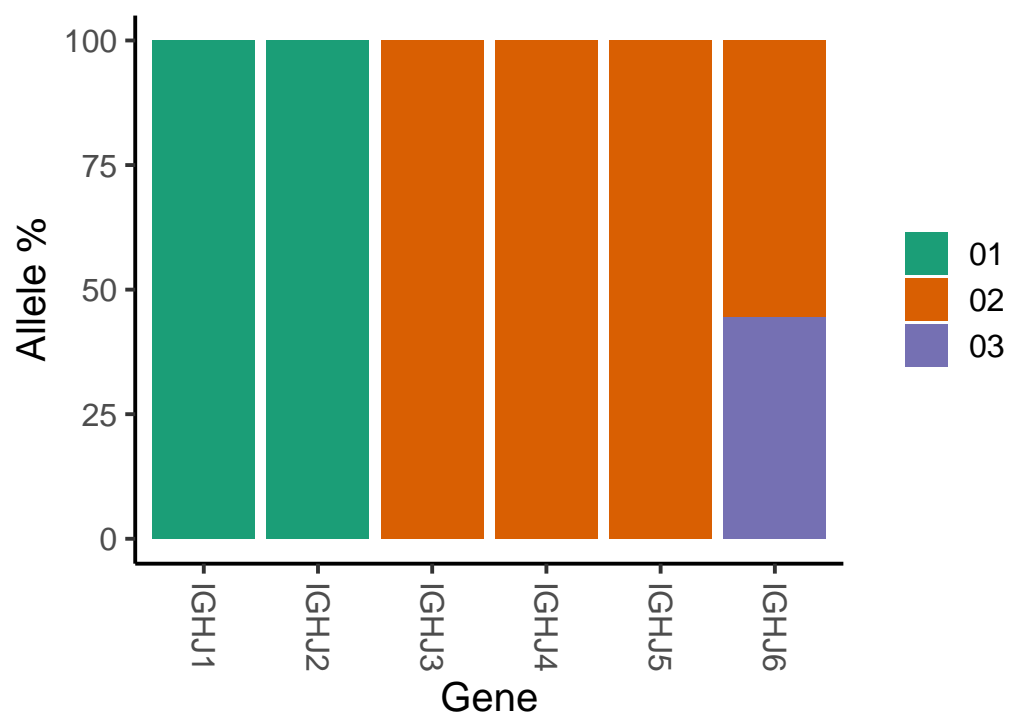


IGHV7-4-1*02

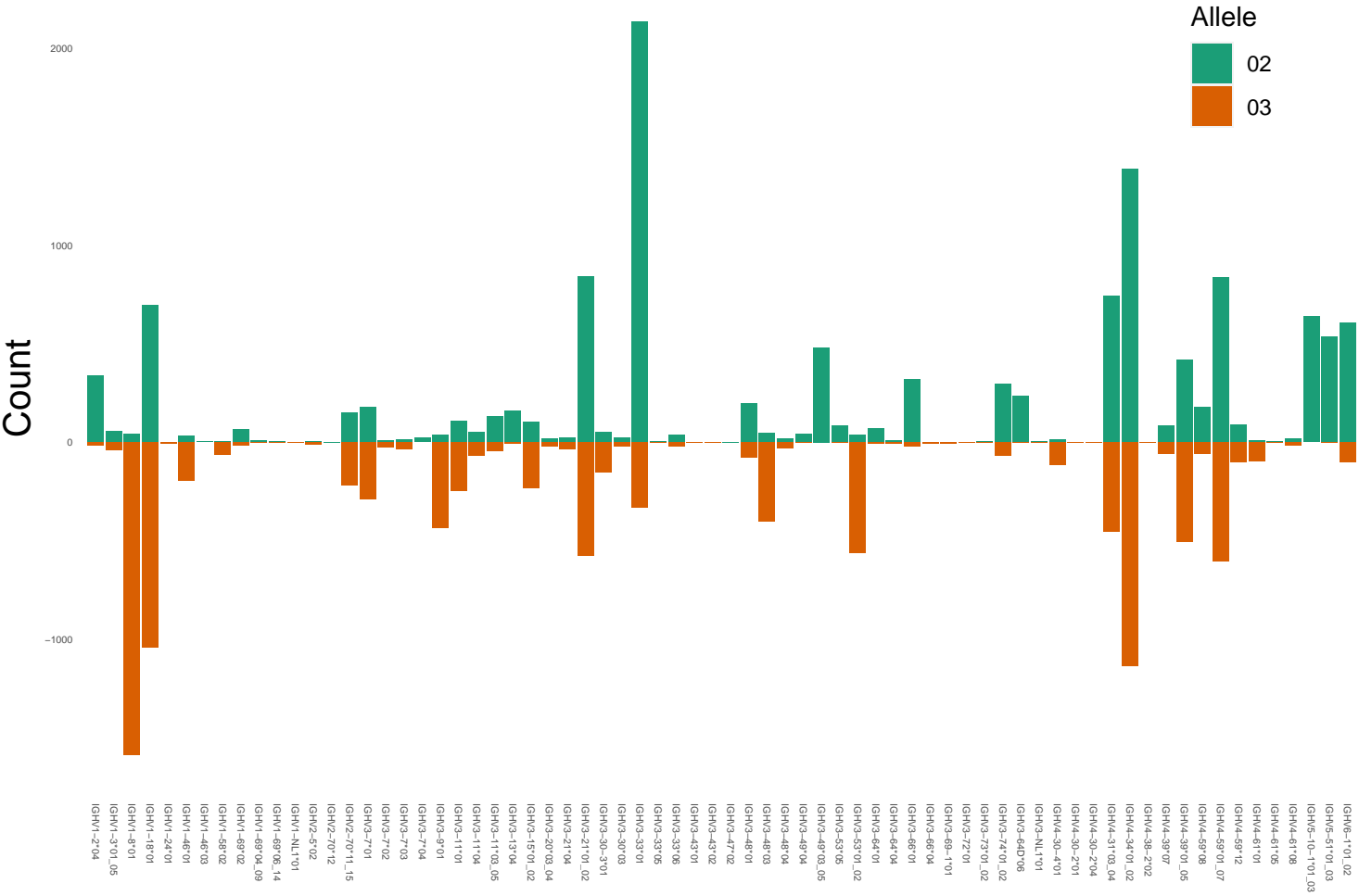
1 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



Novel sequence(s) IGHV3-30-3*01_T288C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-30*03_T288C 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.

Warning - no inferred sequences found.

Novel sequence(s) IGHV3-33*01_G75C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-33*01_G75C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-30*03_T288C IGHV4-59*02_G88A IGHV5-51*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_G112A IGHV4-59*02_G88A IGHV5-10-1*01_03_T258C IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Novel sequence(s) IGHV1-69*08_C191T IGHV3-48*03_T303G IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Warning - no inferred sequences found.