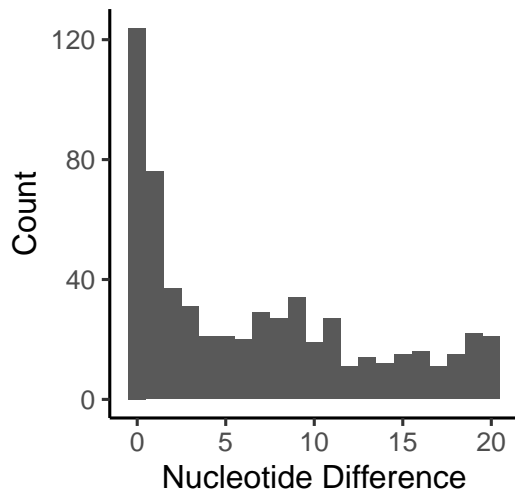


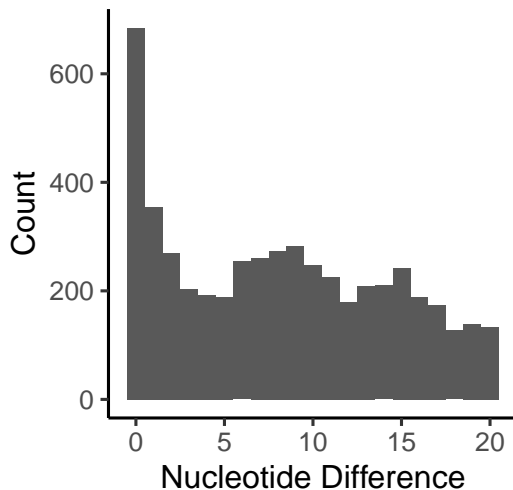
IGHV1-2*04

794 sequences assigned
124 (15.6%) exact matches, in which:
119 unique CDR3
7 unique J



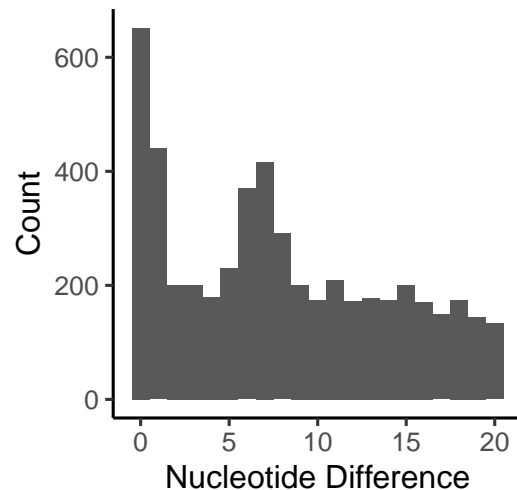
IGHV1-3*01_05

6199 sequences assigned
685 (11.1%) exact matches, in which:
666 unique CDR3
7 unique J



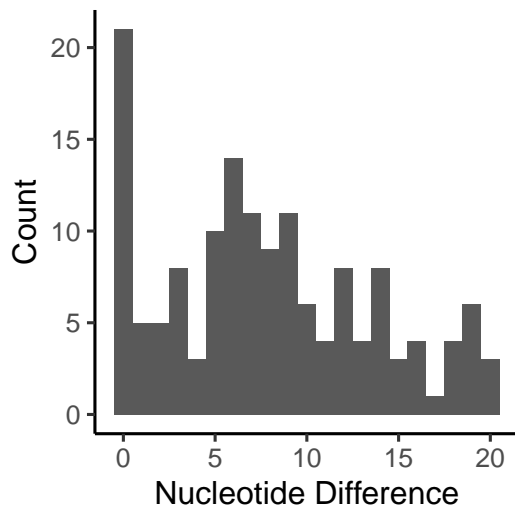
IGHV1-18*01

5962 sequences assigned
652 (10.9%) exact matches, in which:
631 unique CDR3
7 unique J



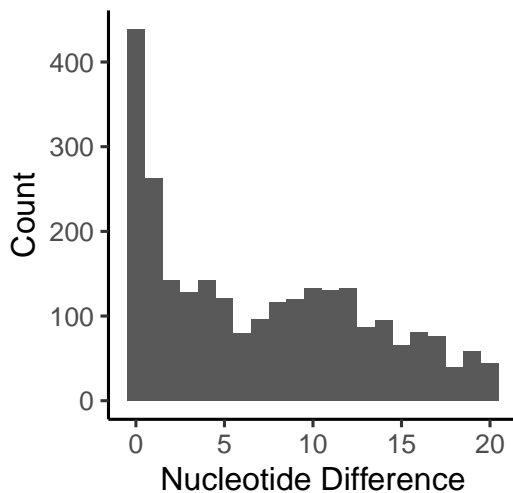
IGHV1-2*05

153 sequences assigned
21 (13.7%) exact matches, in which:
21 unique CDR3
4 unique J



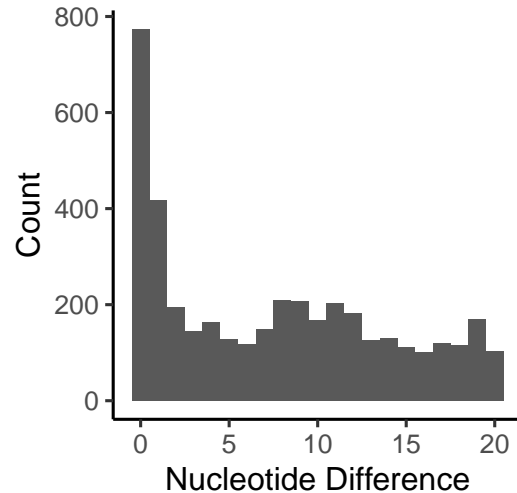
IGHV1-8*01

2990 sequences assigned
439 (14.7%) exact matches, in which:
423 unique CDR3
7 unique J



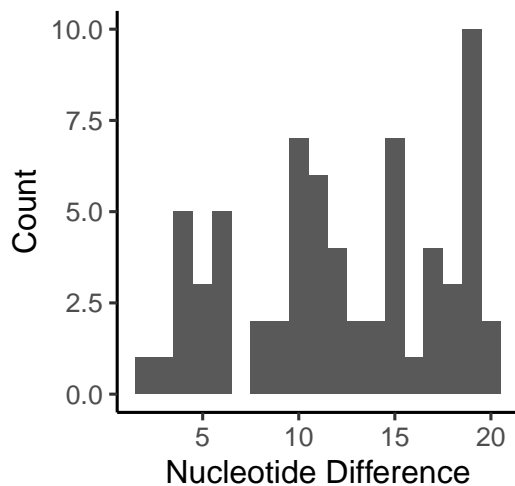
IGHV1-18*04

4831 sequences assigned
774 (16%) exact matches, in which:
747 unique CDR3
7 unique J



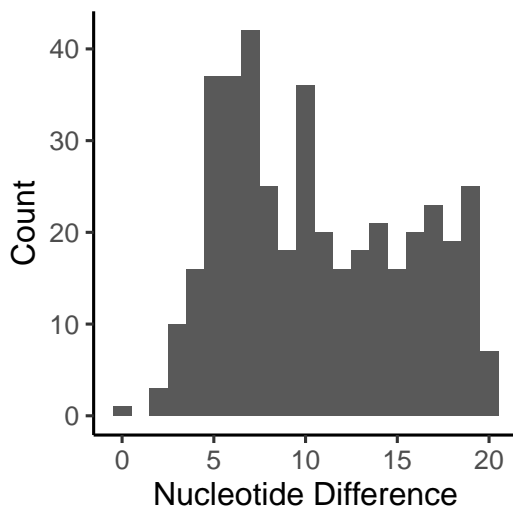
IGHV1-2*06

104 sequences assigned
No exact matches.



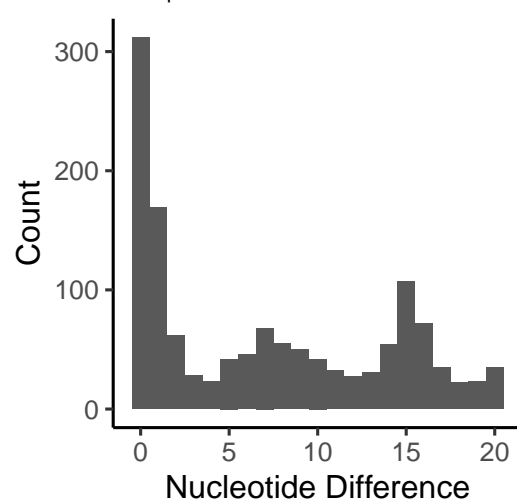
IGHV1-8*02

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



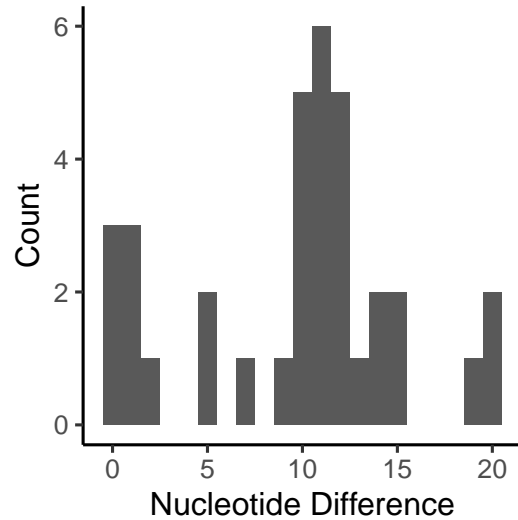
IGHV1-24*01

1559 sequences assigned
312 (20%) exact matches, in which:
306 unique CDR3
7 unique J



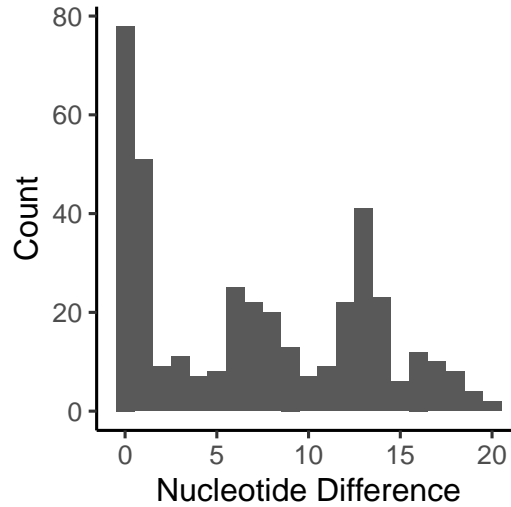
IGHV1-45*02

41 sequences assigned
3 (7.3%) exact matches, in which:
3 unique CDR3
1 unique J



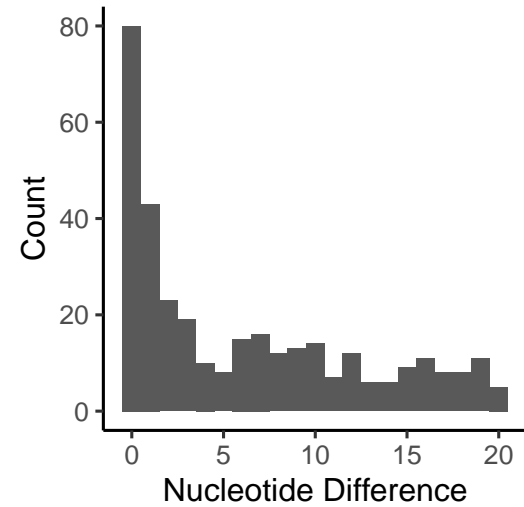
IGHV1-58*01_03

428 sequences assigned
78 (18.2%) exact matches, in which:
77 unique CDR3
7 unique J



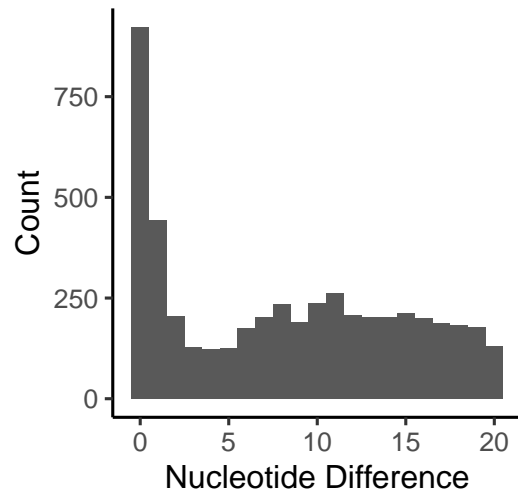
IGHV2-26*01

378 sequences assigned
80 (21.2%) exact matches, in which:
78 unique CDR3
6 unique J



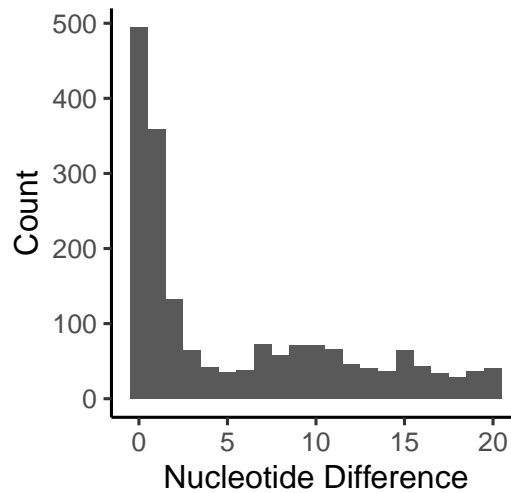
IGHV1-46*01

6394 sequences assigned
923 (14.4%) exact matches, in which:
905 unique CDR3
7 unique J



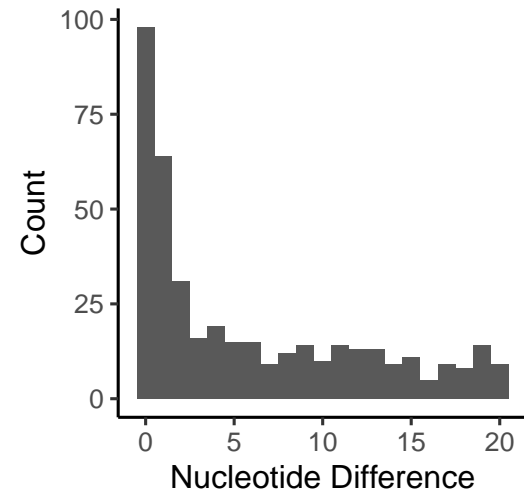
IGHV1-69*10

2325 sequences assigned
495 (21.3%) exact matches, in which:
481 unique CDR3
7 unique J



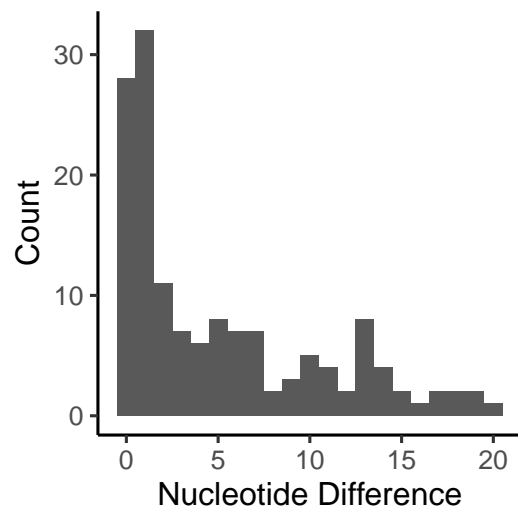
IGHV2-70*01

448 sequences assigned
98 (21.9%) exact matches, in which:
95 unique CDR3
5 unique J



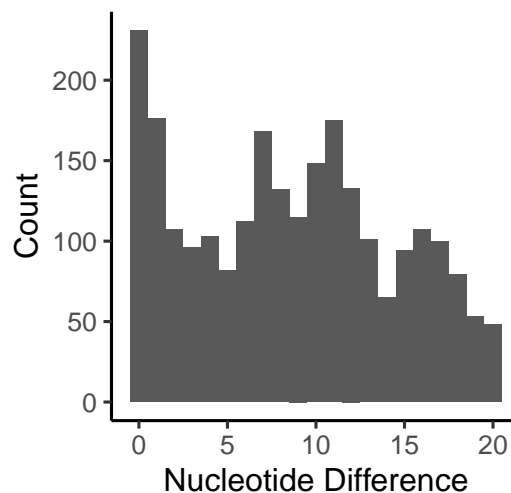
IGHV1-58*02

155 sequences assigned
28 (18.1%) exact matches, in which:
28 unique CDR3
5 unique J



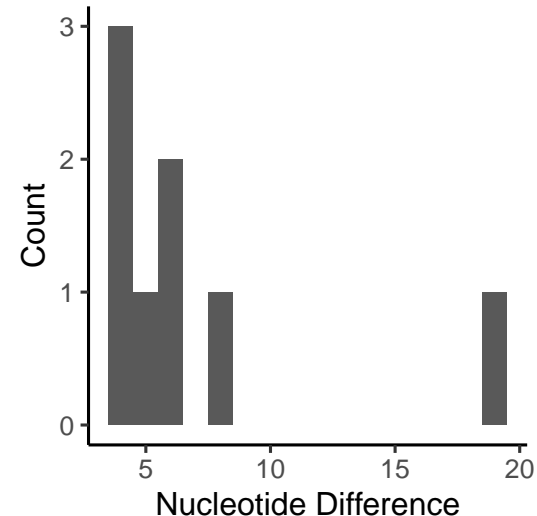
IGHV2-5*02

2705 sequences assigned
231 (8.5%) exact matches, in which:
224 unique CDR3
7 unique J



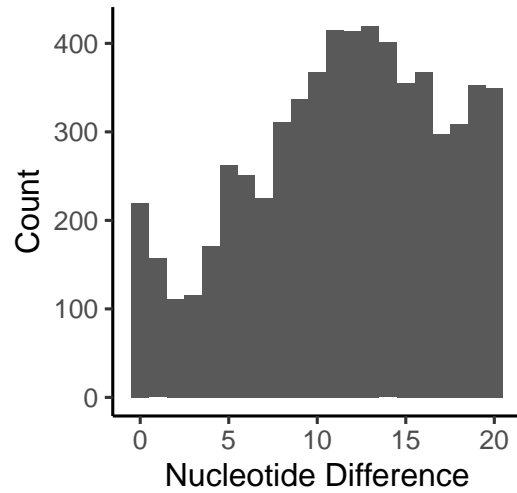
IGHV2-70D*04

8 sequences assigned
No exact matches.



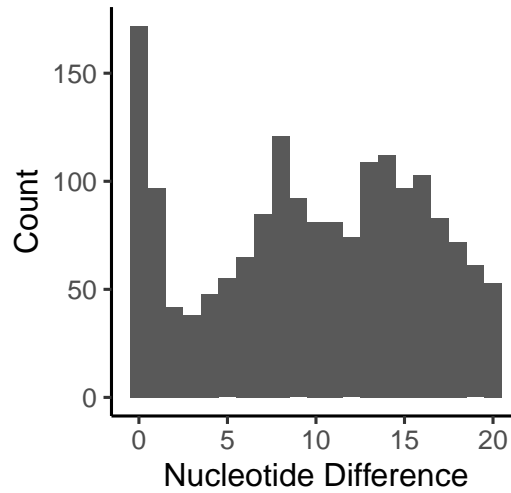
IGHV3-7*01

8339 sequences assigned
220 (2.6%) exact matches, in which:
209 unique CDR3
7 unique J



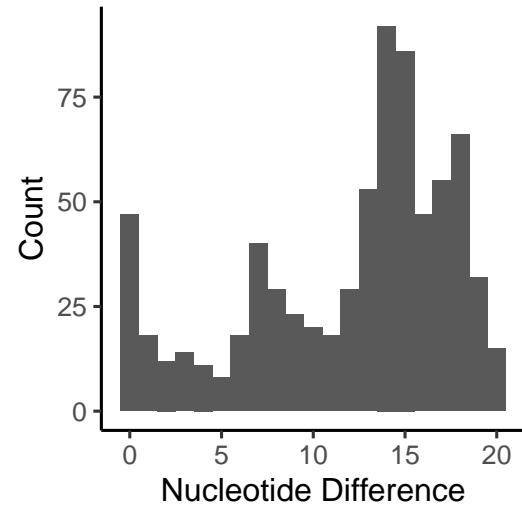
IGHV3-11*01

2469 sequences assigned
172 (7%) exact matches, in which:
169 unique CDR3
7 unique J



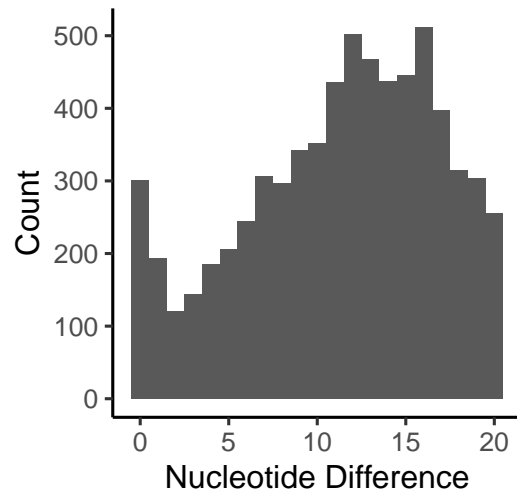
IGHV3-13*01

871 sequences assigned
47 (5.4%) exact matches, in which:
44 unique CDR3
7 unique J



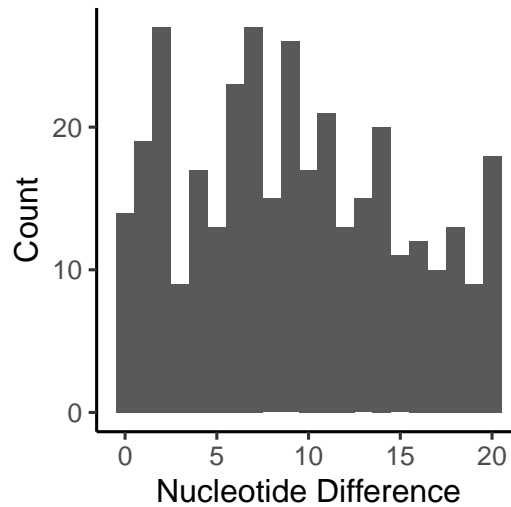
IGHV3-7*03

8626 sequences assigned
301 (3.5%) exact matches, in which:
287 unique CDR3
7 unique J



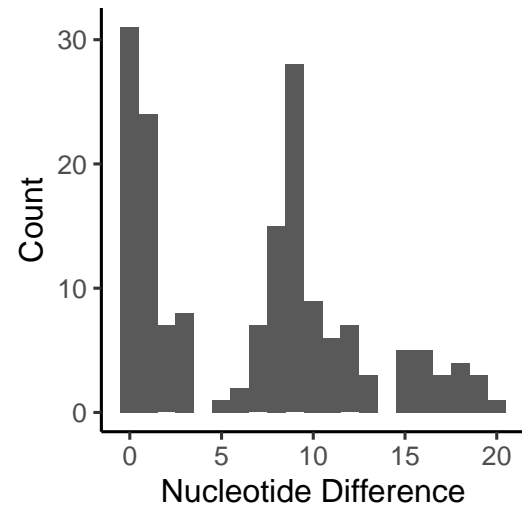
IGHV3-11*04

407 sequences assigned
14 (3.4%) exact matches, in which:
14 unique CDR3
4 unique J



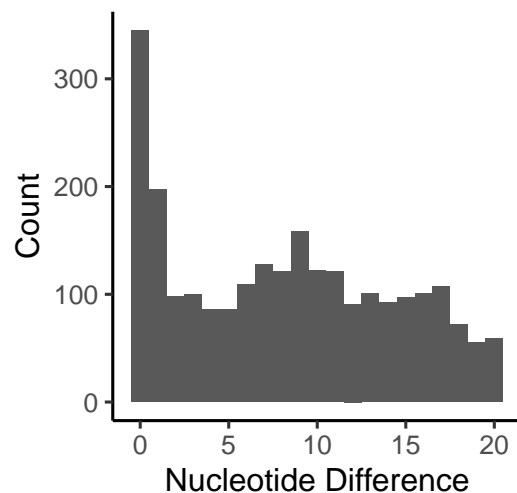
IGHV3-13*05

174 sequences assigned
31 (17.8%) exact matches, in which:
30 unique CDR3
5 unique J



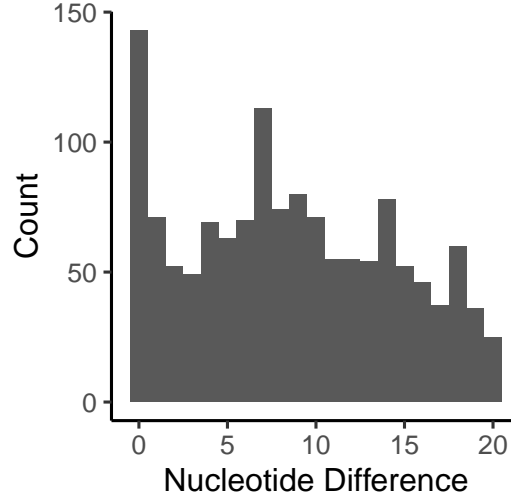
IGHV3-9*01

2755 sequences assigned
345 (12.5%) exact matches, in which:
337 unique CDR3
7 unique J



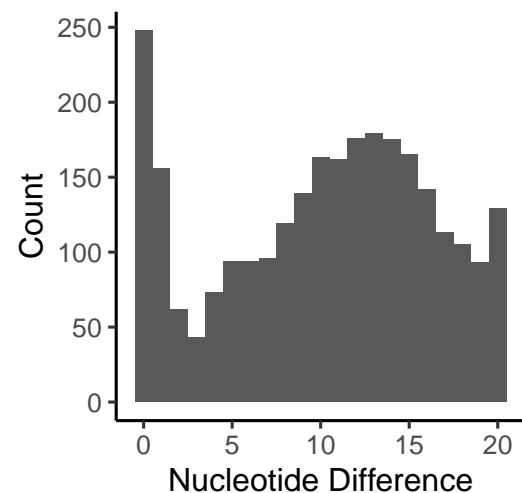
IGHV3-11*06

1641 sequences assigned
143 (8.7%) exact matches, in which:
141 unique CDR3
6 unique J



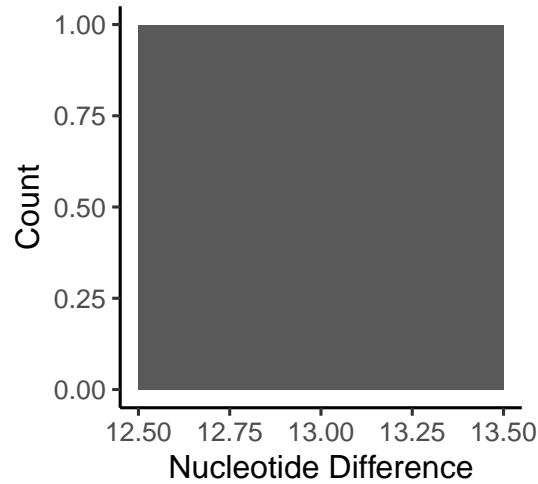
IGHV3-15*01_02

3776 sequences assigned
248 (6.6%) exact matches, in which:
242 unique CDR3
7 unique J



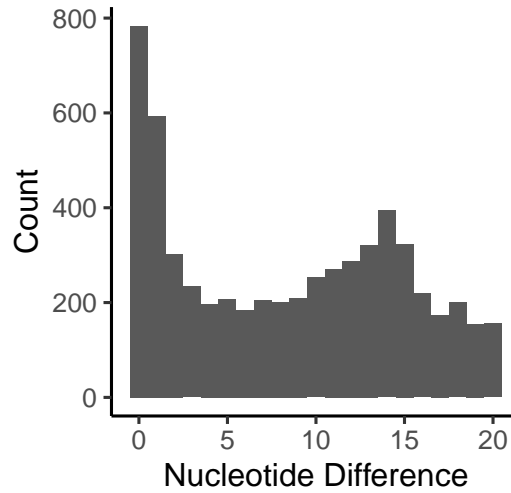
IGHV3-19*01

1 sequences assigned
No exact matches.



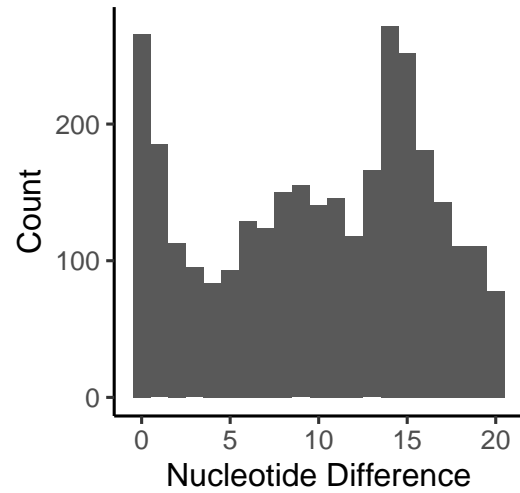
IGHV3-21*01_02

7083 sequences assigned
784 (11.1%) exact matches, in which:
733 unique CDR3
7 unique J



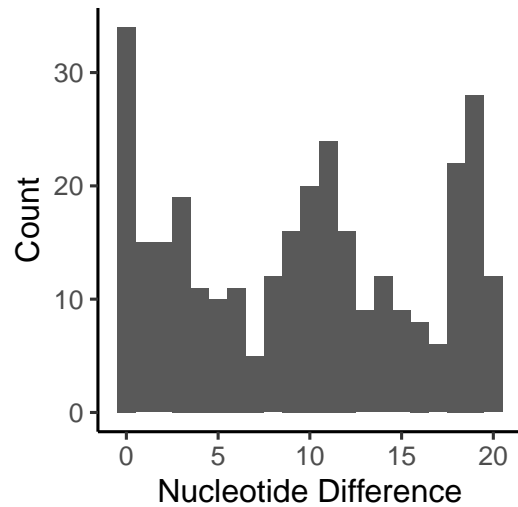
IGHV3-33*01

3760 sequences assigned
266 (7.1%) exact matches, in which:
254 unique CDR3
6 unique J



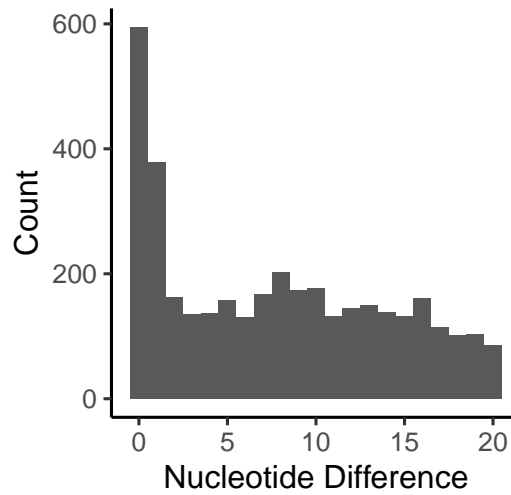
IGHV3-20*01_02

430 sequences assigned
34 (7.9%) exact matches, in which:
32 unique CDR3
5 unique J



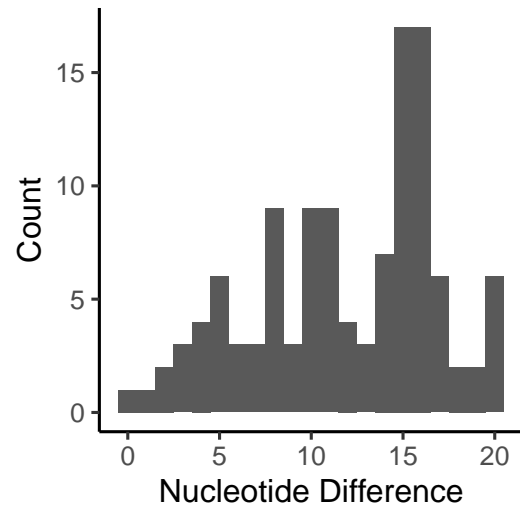
IGHV3-30-3*01

4546 sequences assigned
595 (13.1%) exact matches, in which:
576 unique CDR3
7 unique J



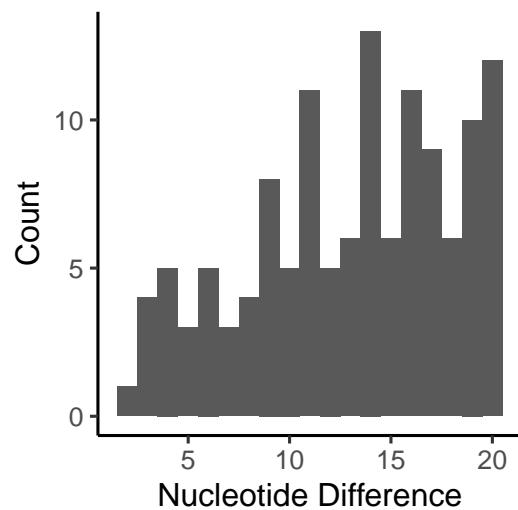
IGHV3-33*05

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



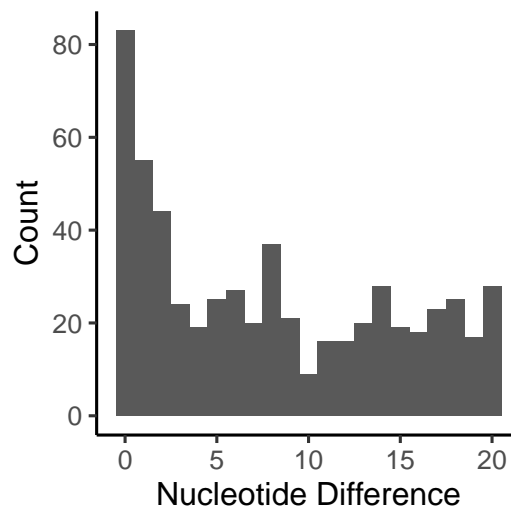
IGHV3-20*03_04

201 sequences assigned
No exact matches.



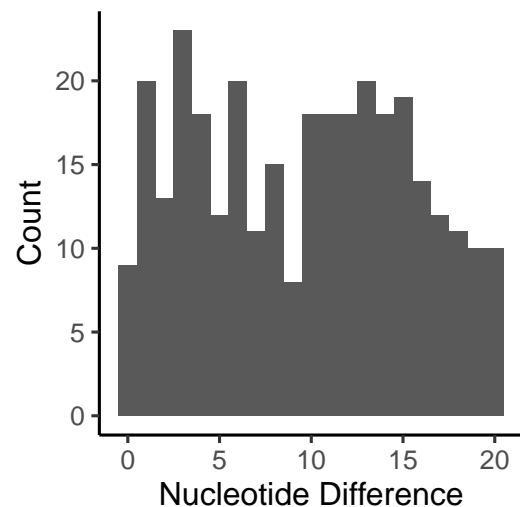
IGHV3-30*03

842 sequences assigned
83 (9.9%) exact matches, in which:
83 unique CDR3
7 unique J



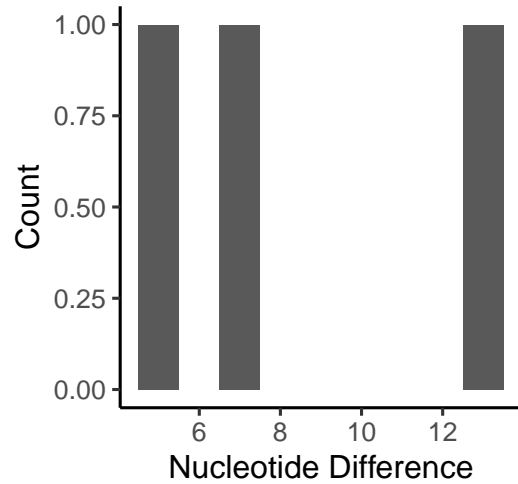
IGHV3-33*06

420 sequences assigned
9 (2.1%) exact matches, in which:
9 unique CDR3
3 unique J



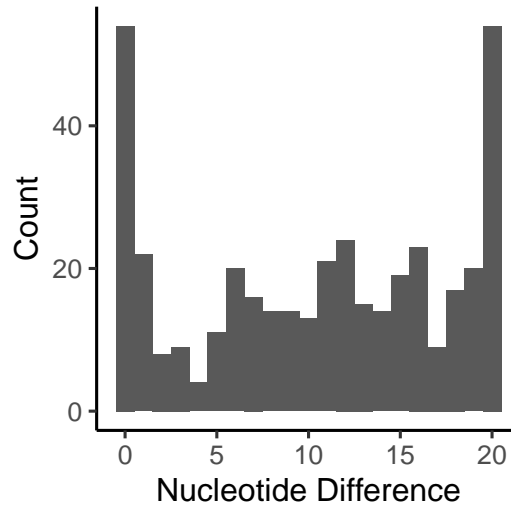
IGHV3-35*01

3 sequences assigned
No exact matches.



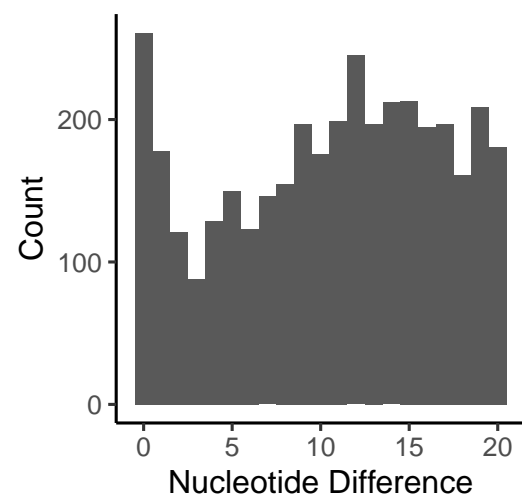
IGHV3-43*01

609 sequences assigned
54 (8.9%) exact matches, in which:
52 unique CDR3
6 unique J



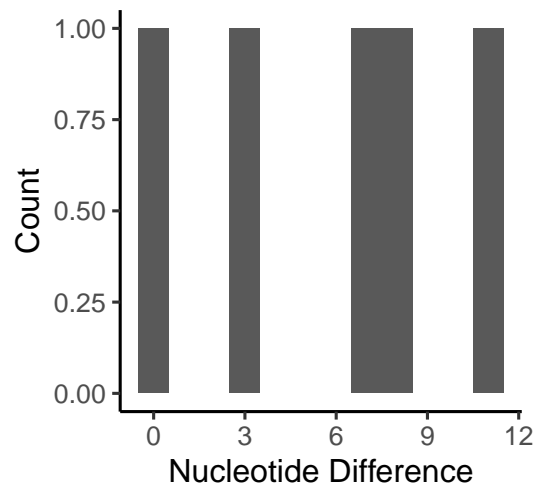
IGHV3-48*04

4811 sequences assigned
261 (5.4%) exact matches, in which:
250 unique CDR3
7 unique J



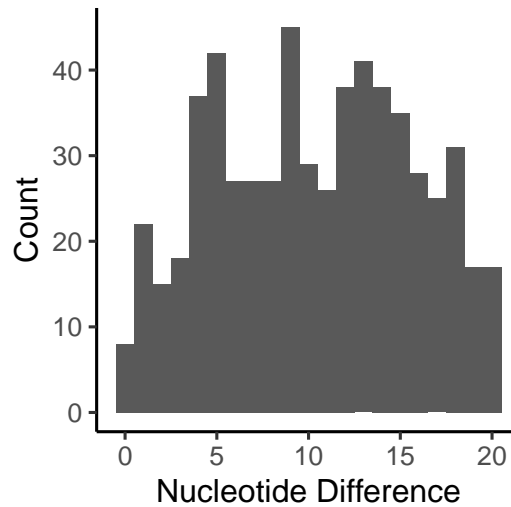
IGHV3-38-3*01

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



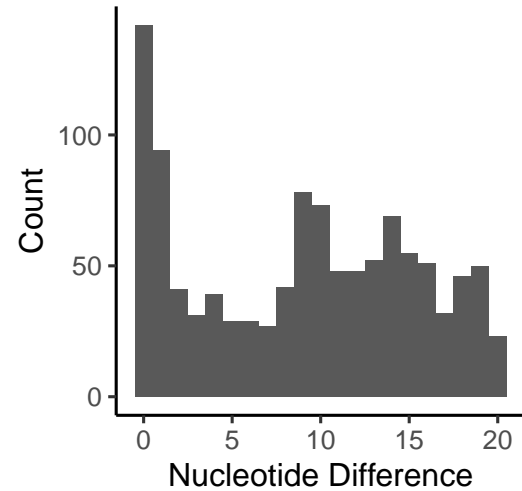
IGHV3-48*01

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



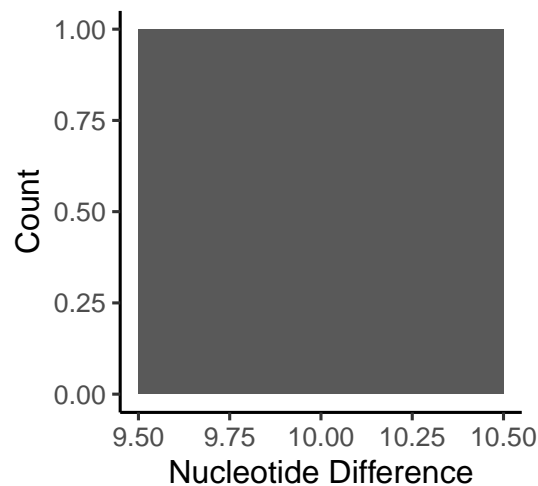
IGHV3-49*03_05

1358 sequences assigned
142 (10.5%) exact matches, in which:
133 unique CDR3
7 unique J



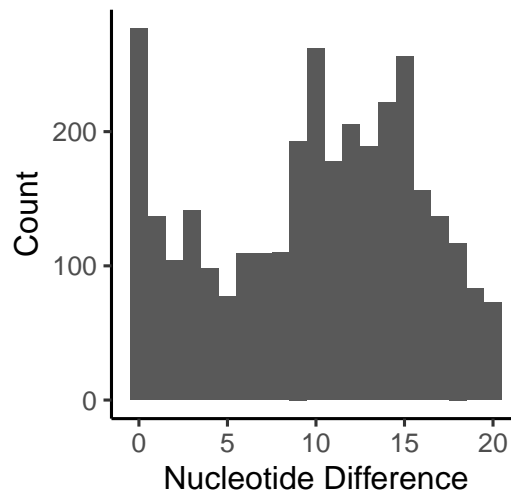
IGHV3-38*03

1 sequences assigned
No exact matches.



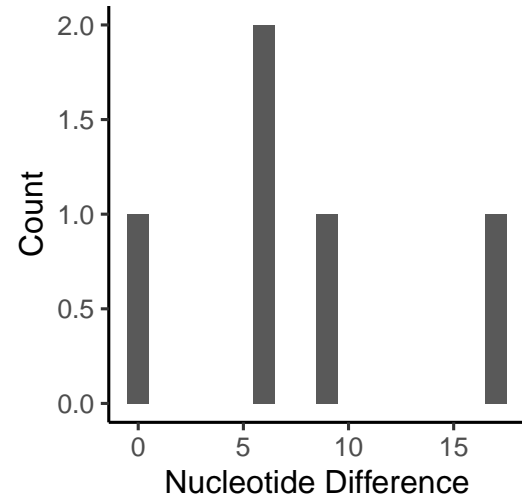
IGHV3-48*02

3766 sequences assigned
277 (7.4%) exact matches, in which:
261 unique CDR3
6 unique J



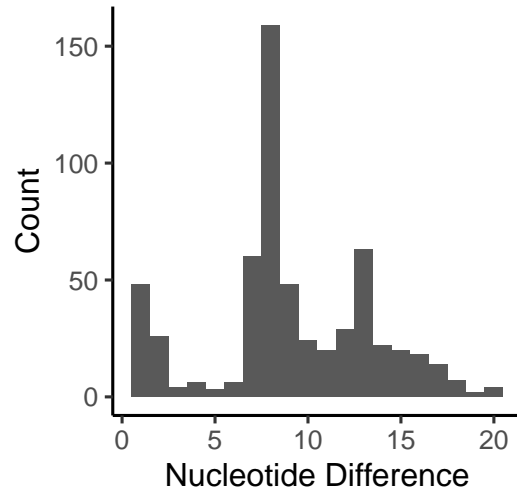
IGHV3-52*01_03

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



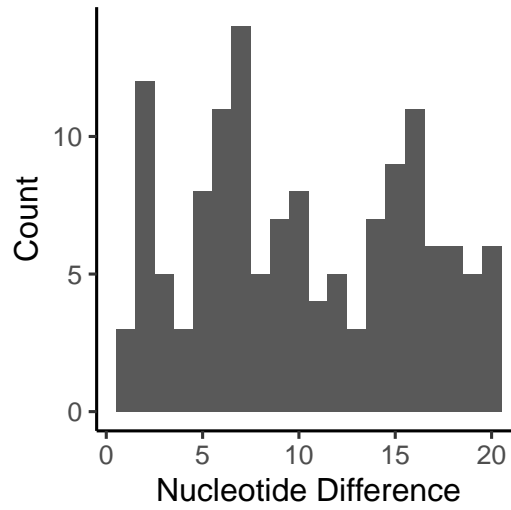
IGHV3-53*05

620 sequences assigned
No exact matches.



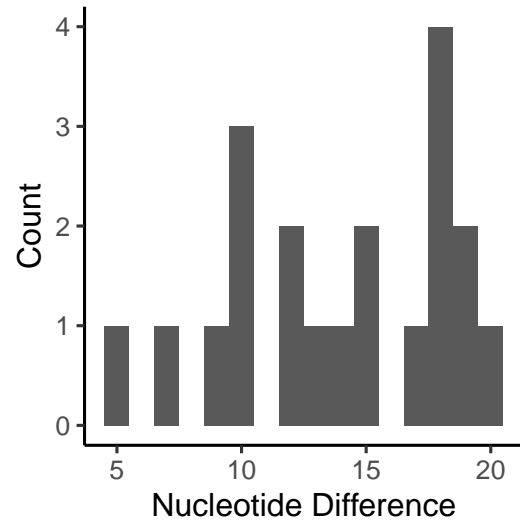
IGHV3-64*04

194 sequences assigned
No exact matches.



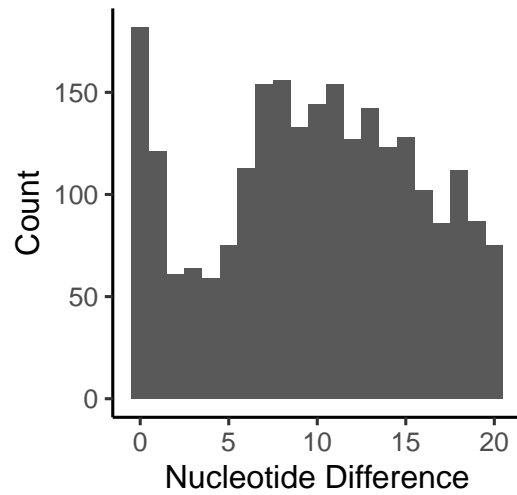
IGHV3-66*02

28 sequences assigned
No exact matches.



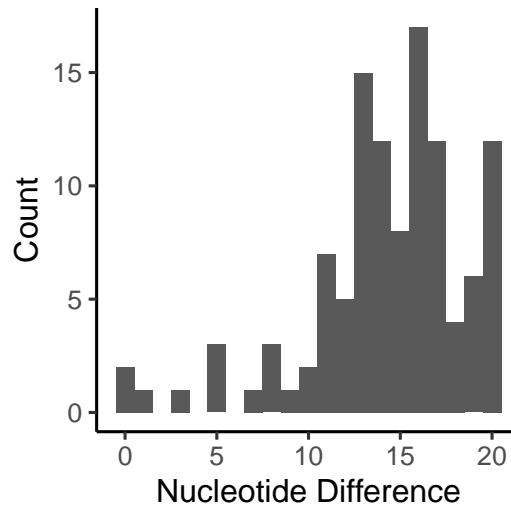
IGHV3-53*01_02

3361 sequences assigned
182 (5.4%) exact matches, in which:
175 unique CDR3
7 unique J



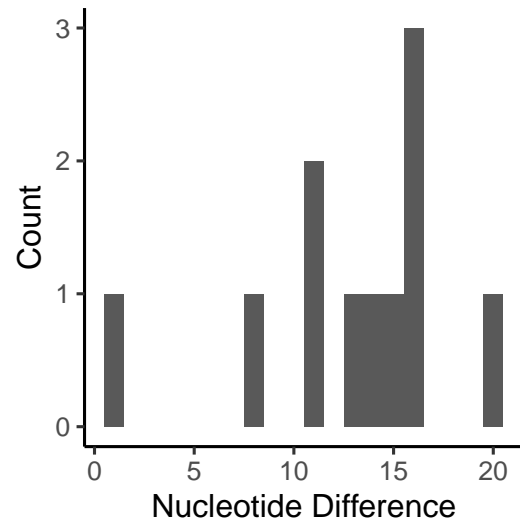
IGHV3-64*02_07

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



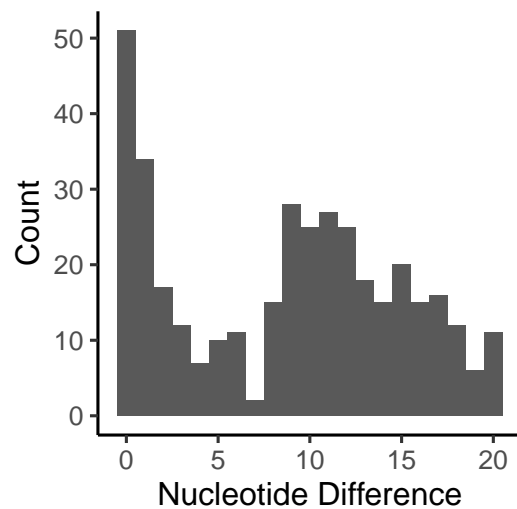
IGHV3-66*03

15 sequences assigned
No exact matches.



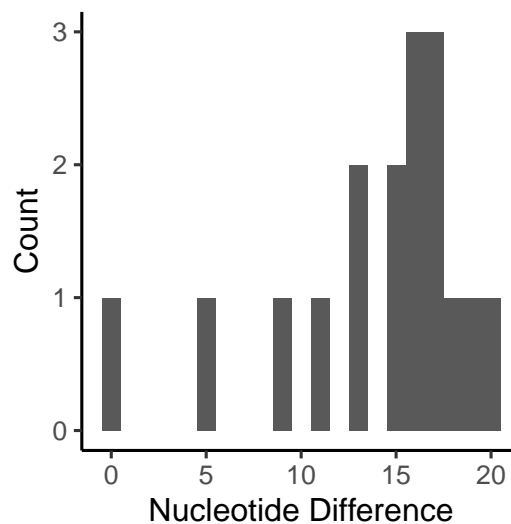
IGHV3-64*01

508 sequences assigned
51 (10%) exact matches, in which:
49 unique CDR3
6 unique J



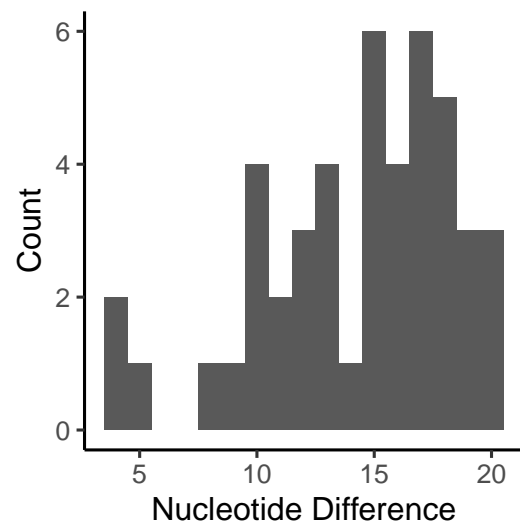
IGHV3-66*01

22 sequences assigned
1 (4.5%) exact matches, in which:
1 unique CDR3
1 unique J



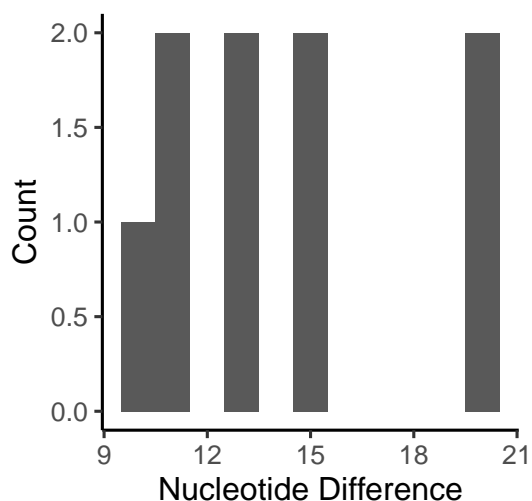
IGHV3-69-1*01

117 sequences assigned
No exact matches.



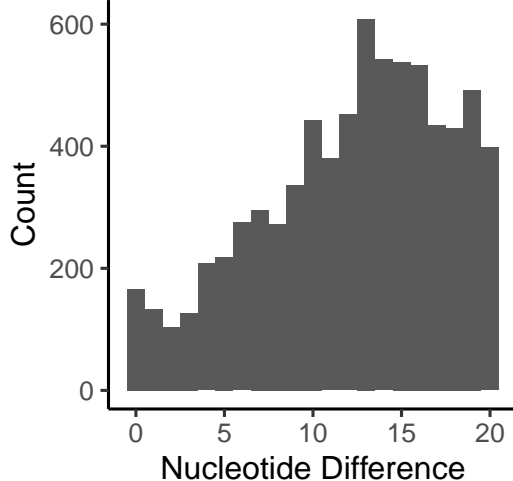
IGHV3-69-1*02

36 sequences assigned
No exact matches.



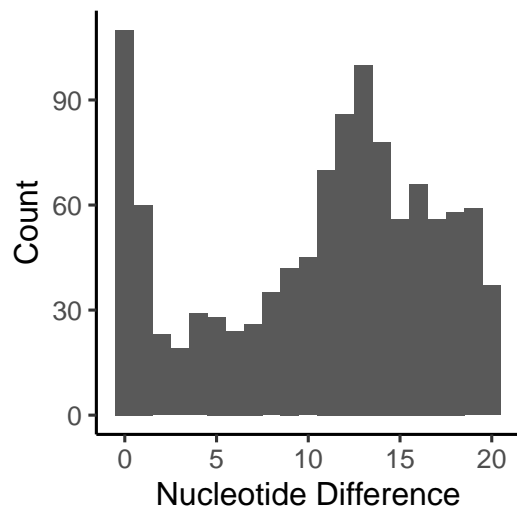
IGHV3-74*01_02

9884 sequences assigned
166 (1.7%) exact matches, in which:
155 unique CDR3
6 unique J



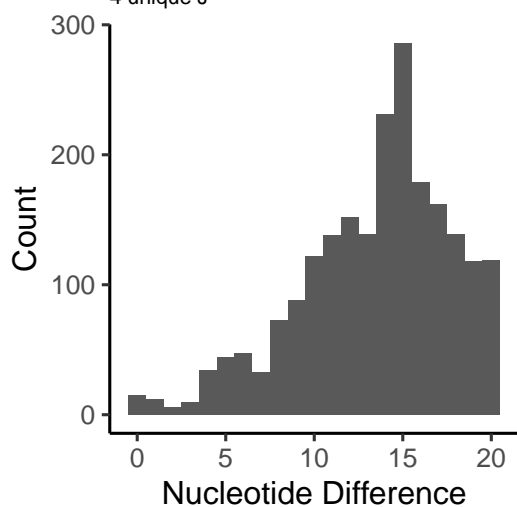
IGHV3-64D*06

1633 sequences assigned
110 (6.7%) exact matches, in which:
108 unique CDR3
7 unique J



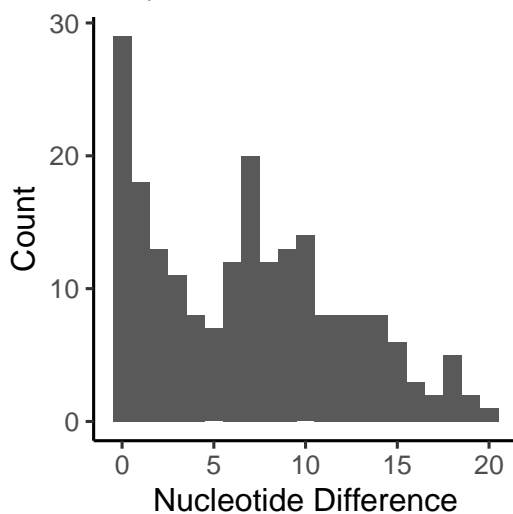
IGHV3-72*01

2927 sequences assigned
15 (0.5%) exact matches, in which:
15 unique CDR3
4 unique J



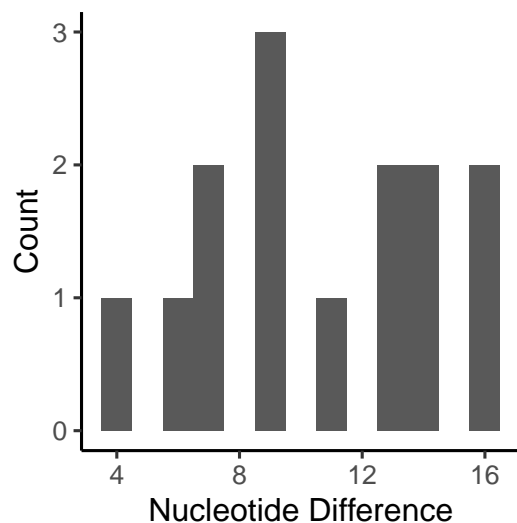
IGHV3-43D*03

219 sequences assigned
29 (13.2%) exact matches, in which:
27 unique CDR3
4 unique J



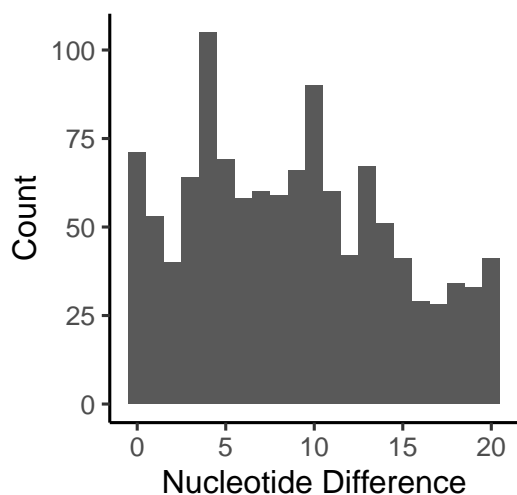
IGHV3-NL1*01

29 sequences assigned
No exact matches.



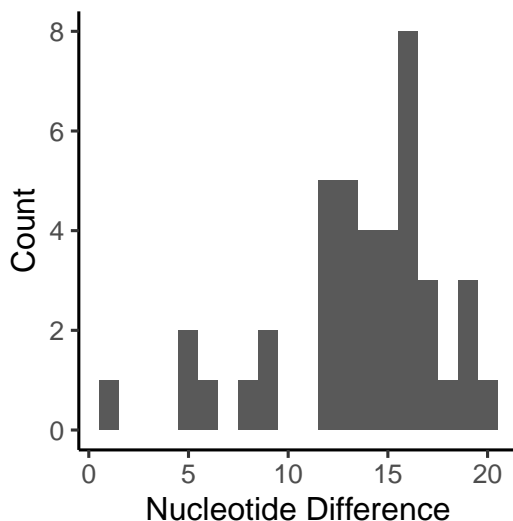
IGHV3-73*01_02

1330 sequences assigned
71 (5.3%) exact matches, in which:
70 unique CDR3
7 unique J



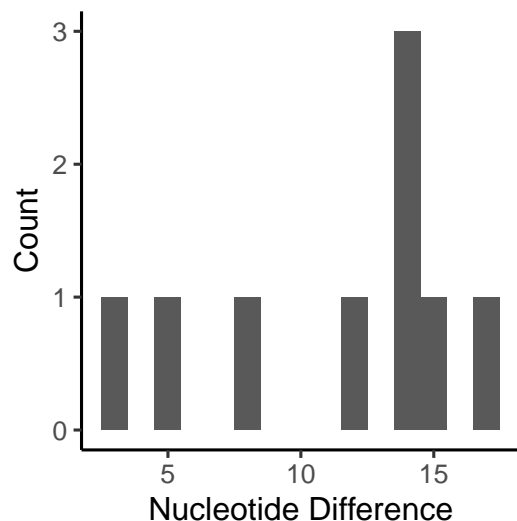
IGHV3-43D*04

73 sequences assigned
No exact matches.



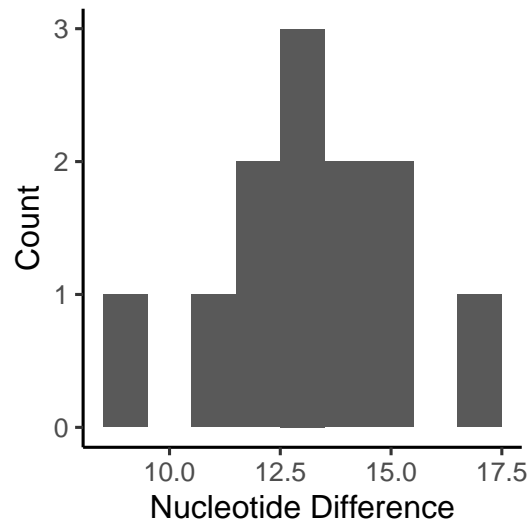
IGHV4-28*03

10 sequences assigned
No exact matches.



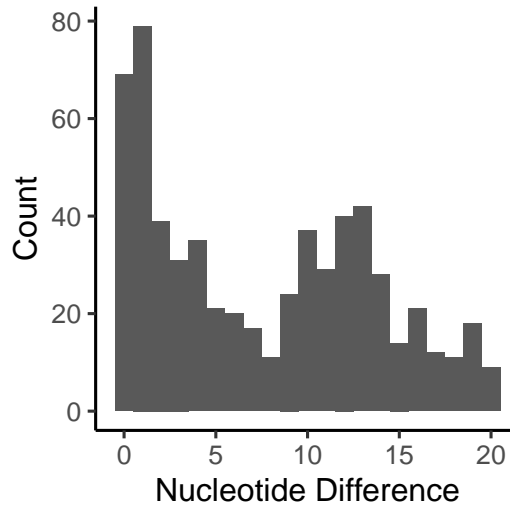
IGHV4-28*01_07

13 sequences assigned
No exact matches.



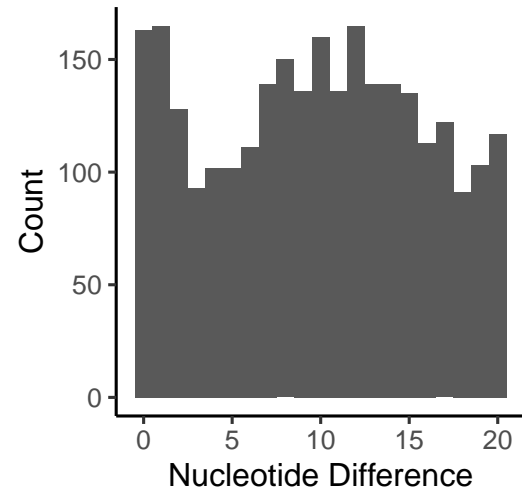
IGHV4-30-2*01

795 sequences assigned
69 (8.7%) exact matches, in which:
65 unique CDR3
5 unique J



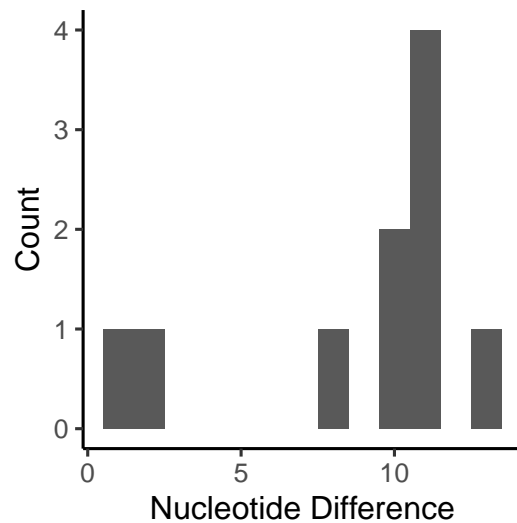
IGHV4-38-2*02

3728 sequences assigned
163 (4.4%) exact matches, in which:
157 unique CDR3
7 unique J



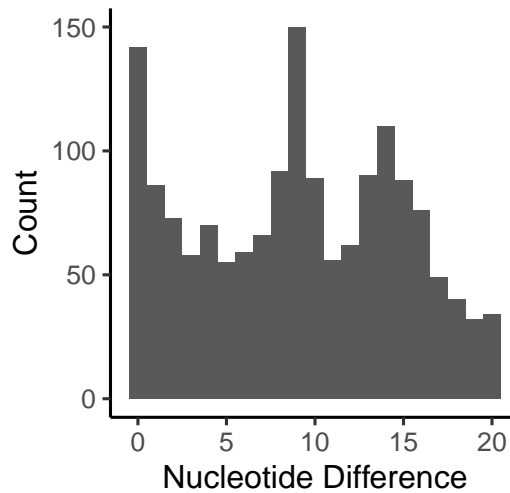
IGHV4-28*02_05

10 sequences assigned
No exact matches.



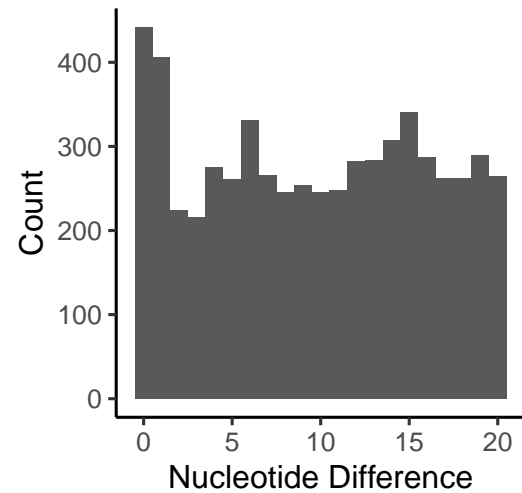
IGHV4-31*03_04

1960 sequences assigned
142 (7.2%) exact matches, in which:
140 unique CDR3
6 unique J



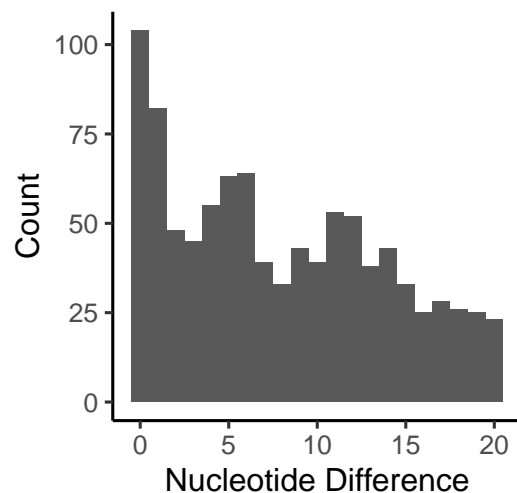
IGHV4-39*07

8178 sequences assigned
442 (5.4%) exact matches, in which:
430 unique CDR3
7 unique J



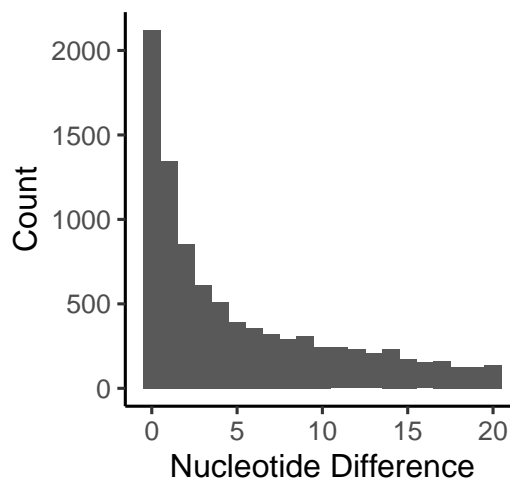
IGHV4-30-4*01

1262 sequences assigned
104 (8.2%) exact matches, in which:
101 unique CDR3
7 unique J



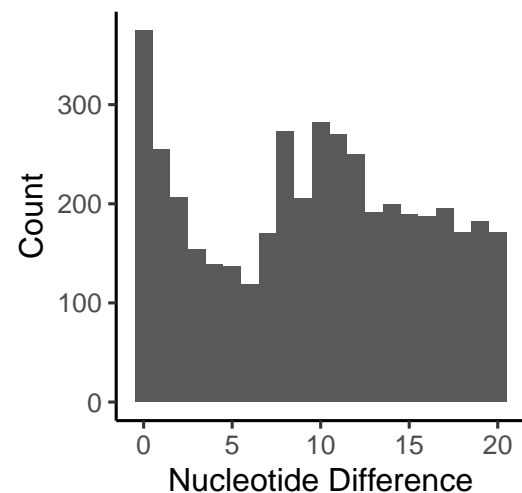
IGHV4-34*01_02

10234 sequences assigned
2121 (20.7%) exact matches, in which:
2036 unique CDR3
7 unique J



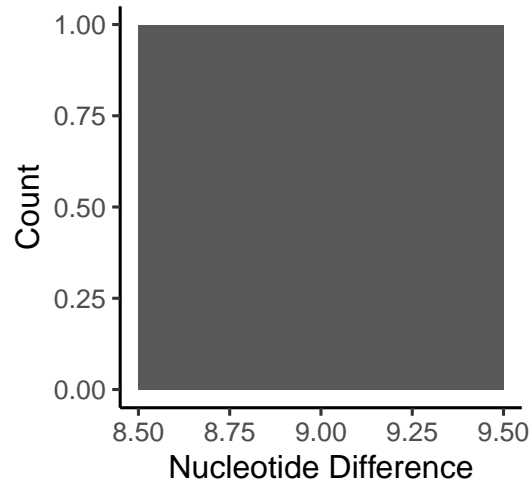
IGHV4-39*01_05

6446 sequences assigned
375 (5.8%) exact matches, in which:
364 unique CDR3
7 unique J



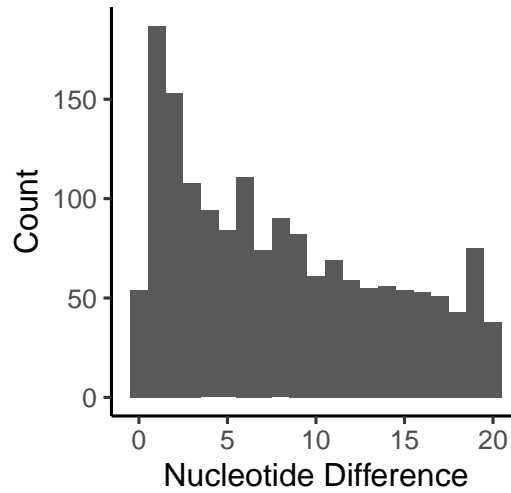
IGHV4-55*02_04_08

1 sequences assigned
No exact matches.



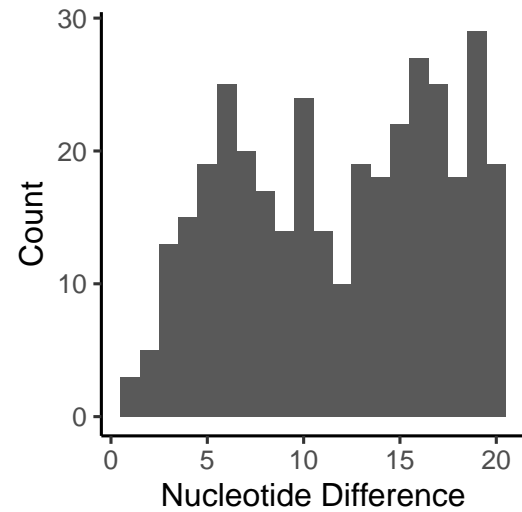
IGHV4-59*12

2062 sequences assigned
54 (2.6%) exact matches, in which:
54 unique CDR3
6 unique J



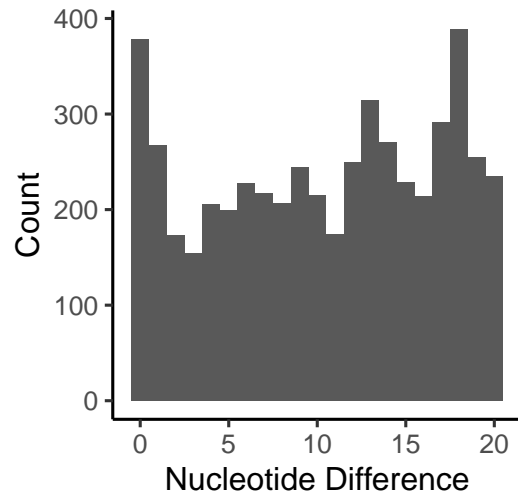
IGHV4-61*08

566 sequences assigned
No exact matches.



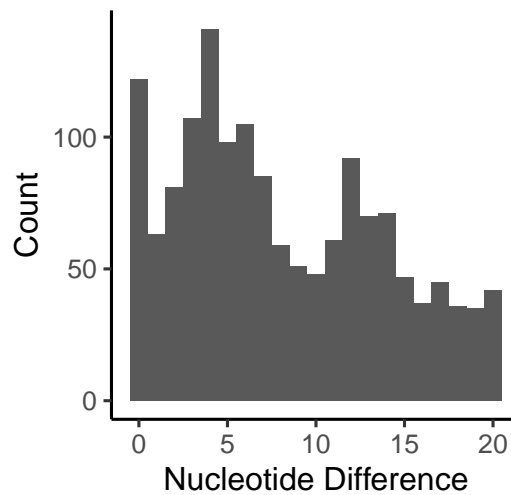
IGHV4-59*08

7004 sequences assigned
378 (5.4%) exact matches, in which:
359 unique CDR3
7 unique J



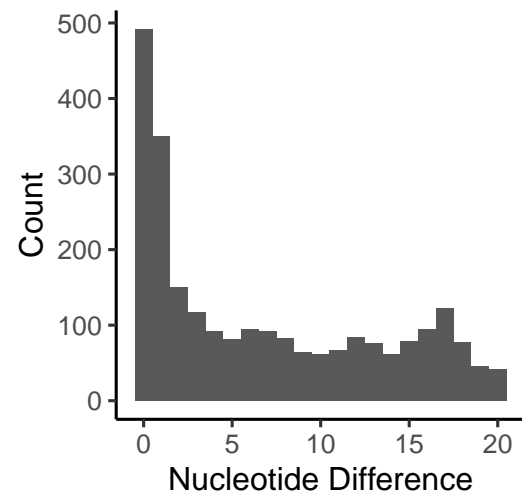
IGHV4-61*01

1958 sequences assigned
122 (6.2%) exact matches, in which:
119 unique CDR3
7 unique J



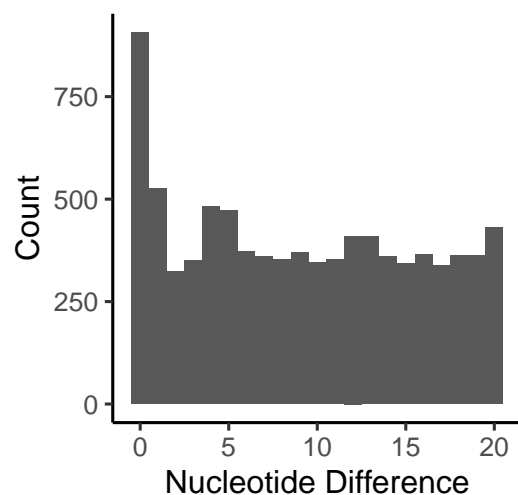
IGHV5-10-1*01_03

2678 sequences assigned
492 (18.4%) exact matches, in which:
476 unique CDR3
7 unique J



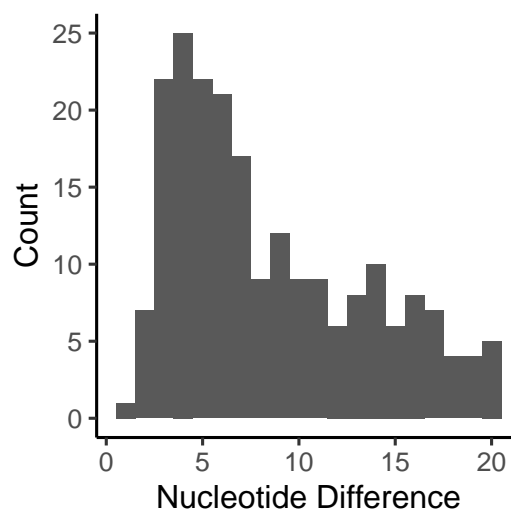
IGHV4-59*01_07

11075 sequences assigned
907 (8.2%) exact matches, in which:
878 unique CDR3
7 unique J



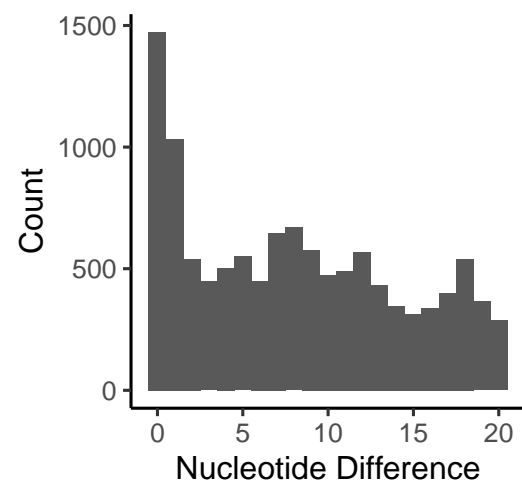
IGHV4-61*05

262 sequences assigned
No exact matches.



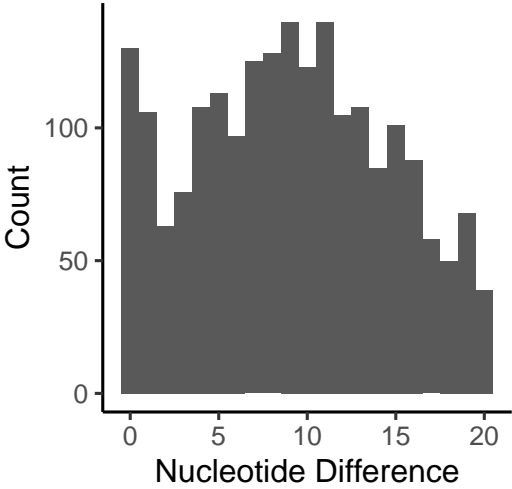
IGHV5-51*01_03

13083 sequences assigned
1473 (11.3%) exact matches, in which:
1396 unique CDR3
7 unique J



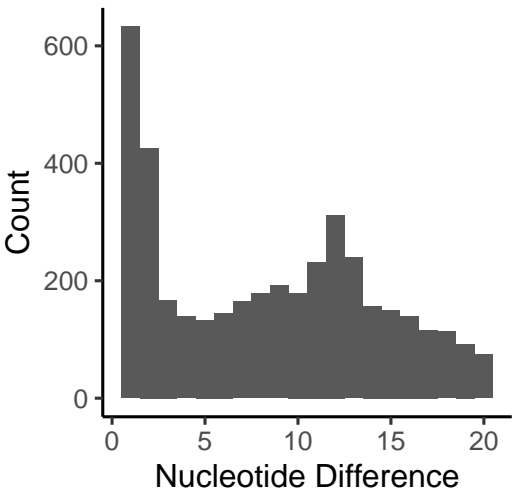
IGHV6-1*01_02

2196 sequences assigned
130 (5.9%) exact matches, in which:
128 unique CDR3
7 unique J

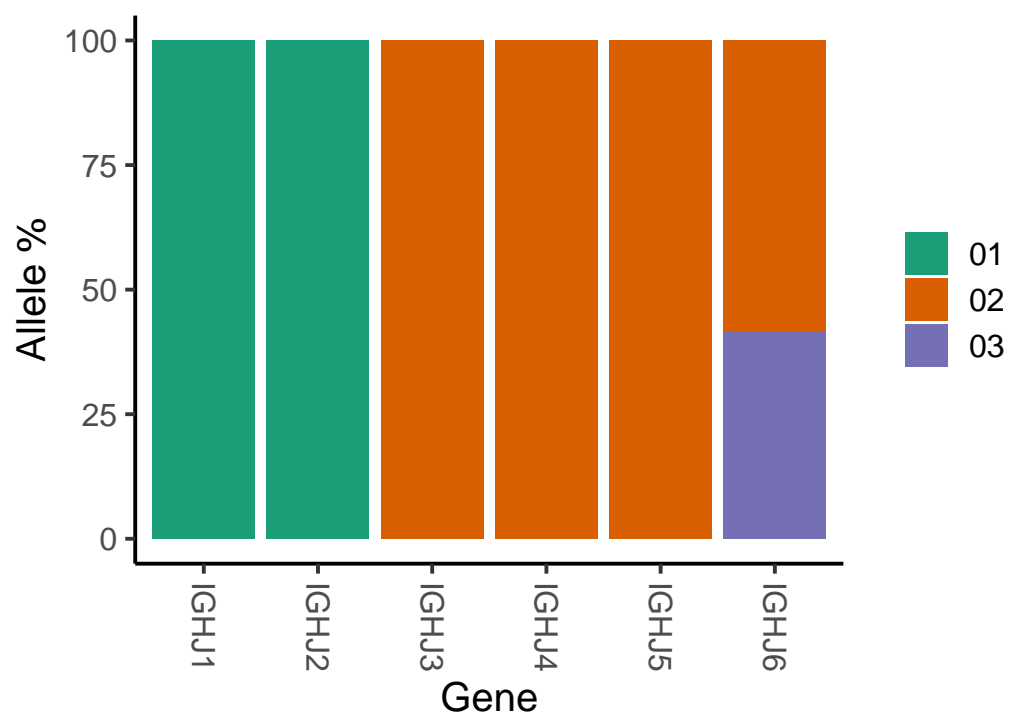


IGHV7-4-1*02

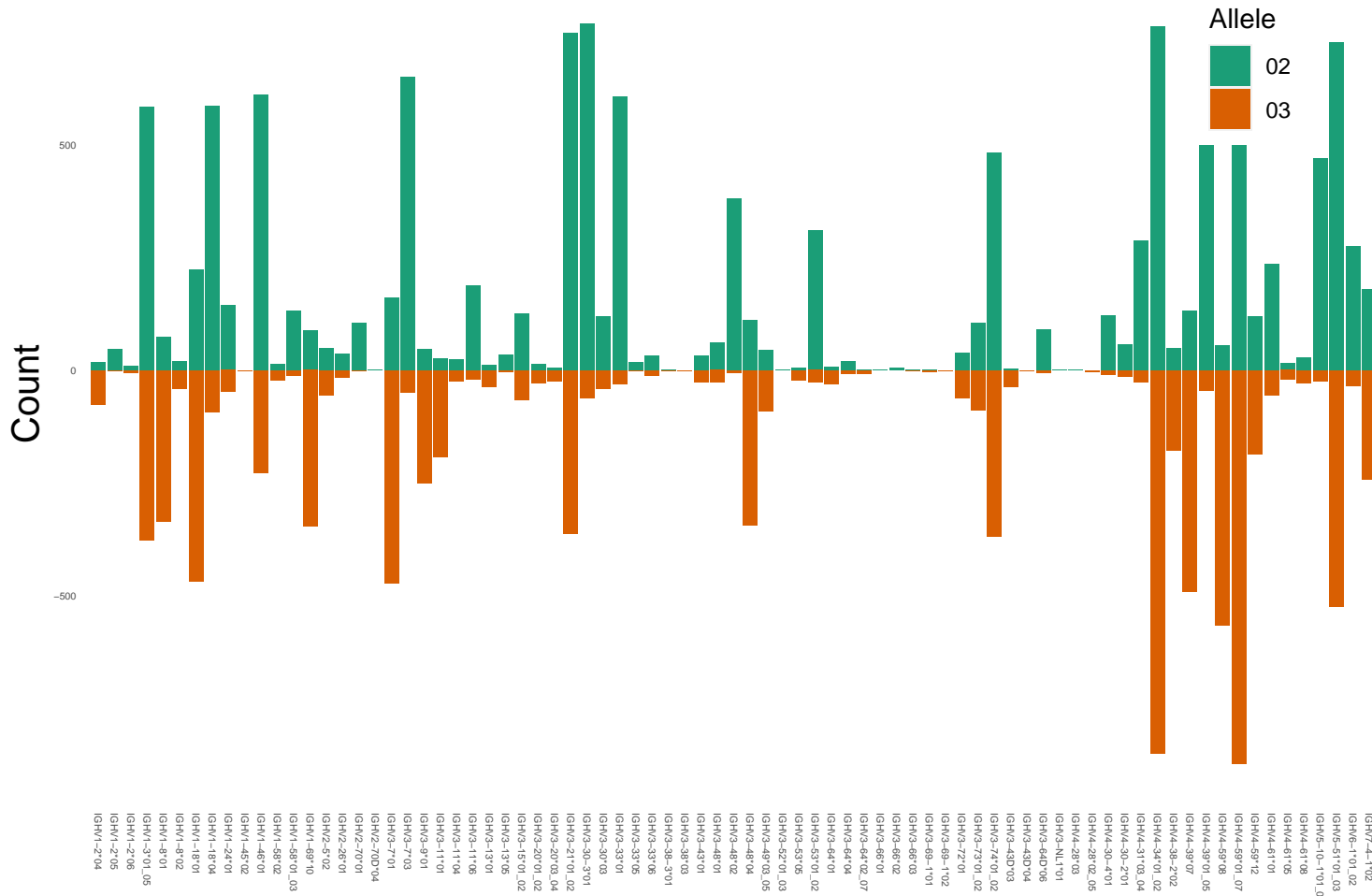
4758 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



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

Warning – no inferred sequences found.

Novel sequence(s) IGHV5-51*07_A128G 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.

Novel sequence(s) IGHV7-4-1*02_T63C are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV7-4-1*02_T63C are not listed in the genotype and will be ignored.