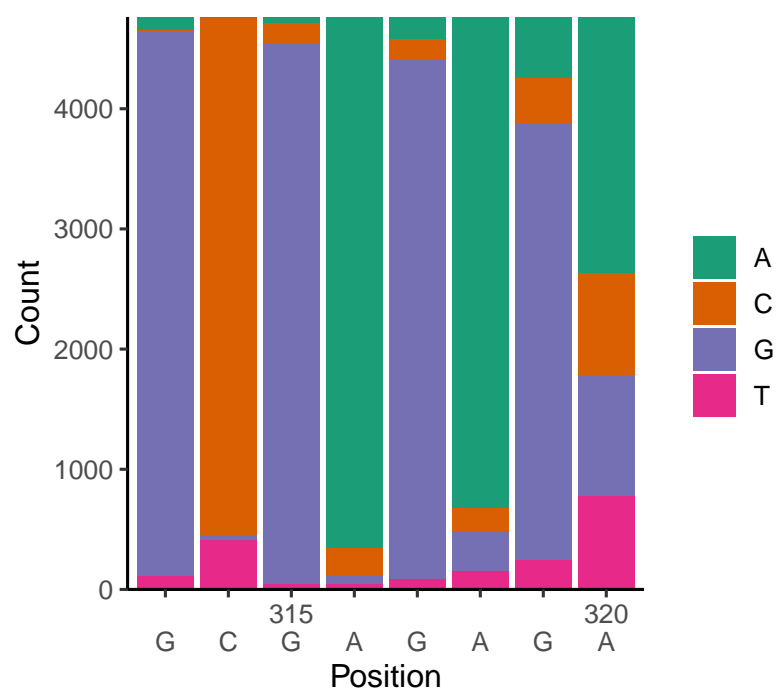
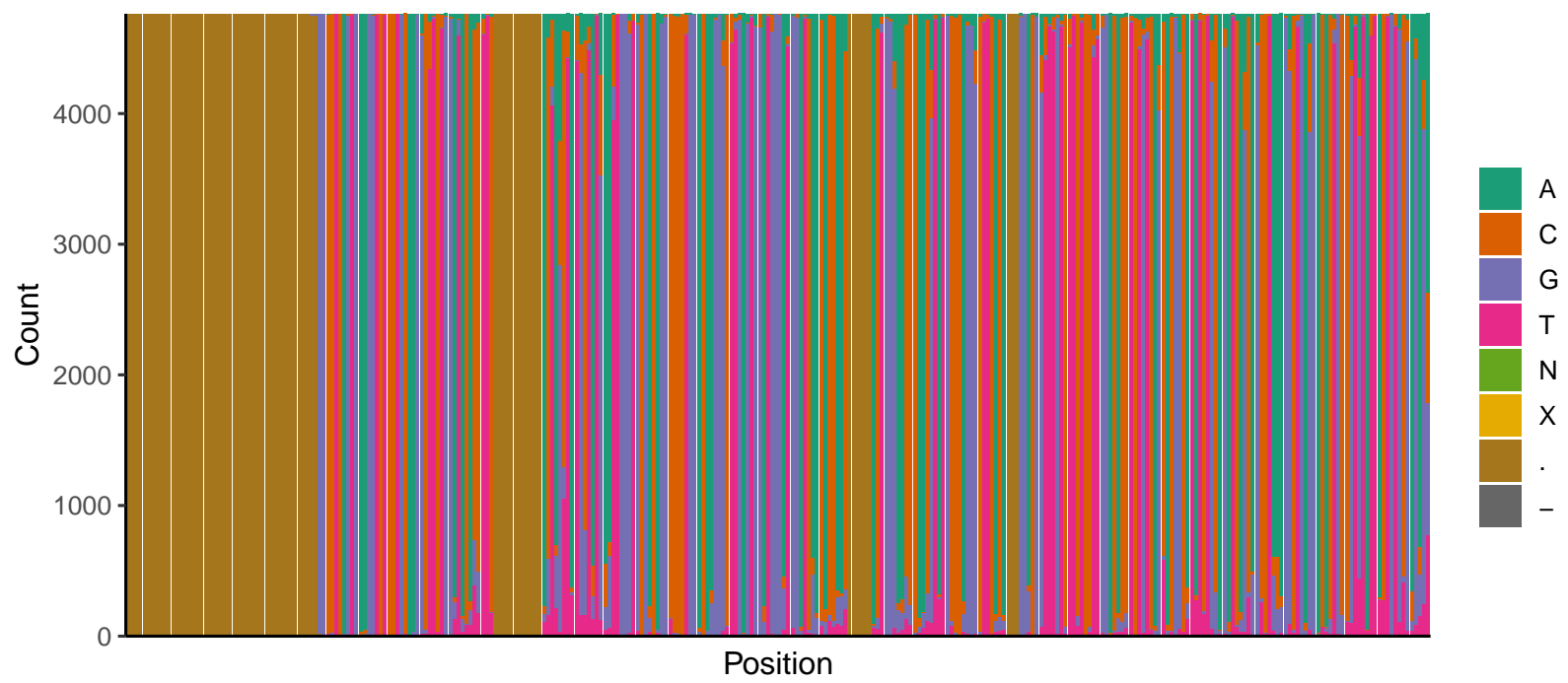


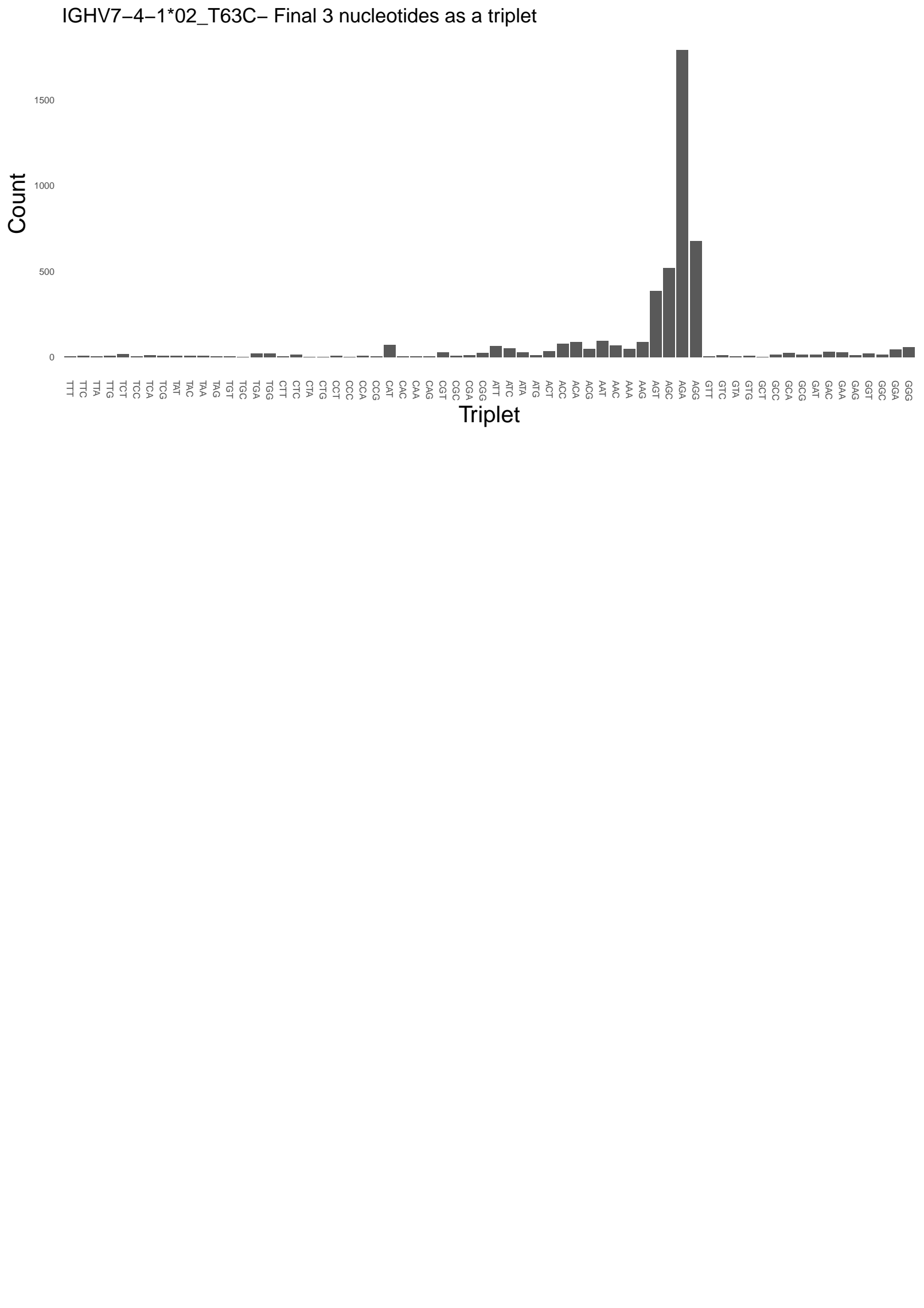
Gene IGHV7-4-1*02_T63C



Gene IGHV7-4-1*02_T63C

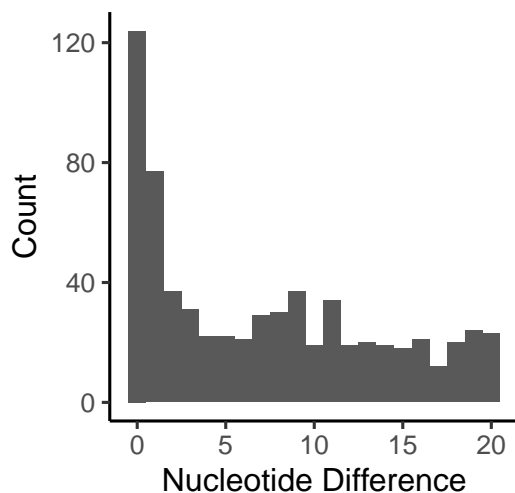


IGHV7-4-1*02_T63C- Final 3 nucleotides as a triplet



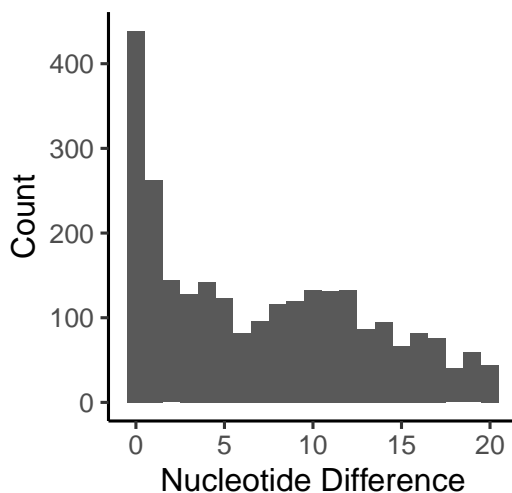
IGHV1-2*04

849 sequences assigned
124 (14.6%) exact matches, in which:
119 unique CDR3
7 unique J



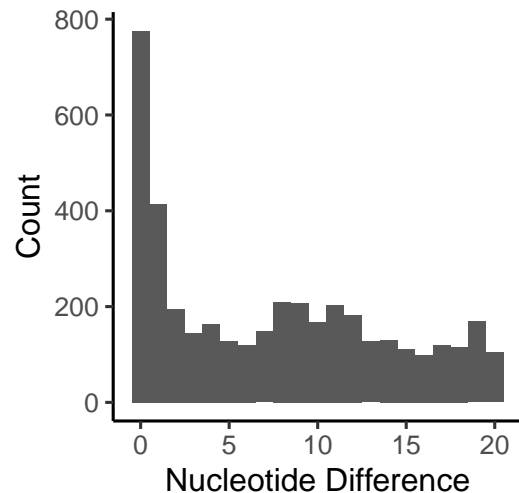
IGHV1-8*01

3000 sequences assigned
439 (14.6%) exact matches, in which:
423 unique CDR3
7 unique J



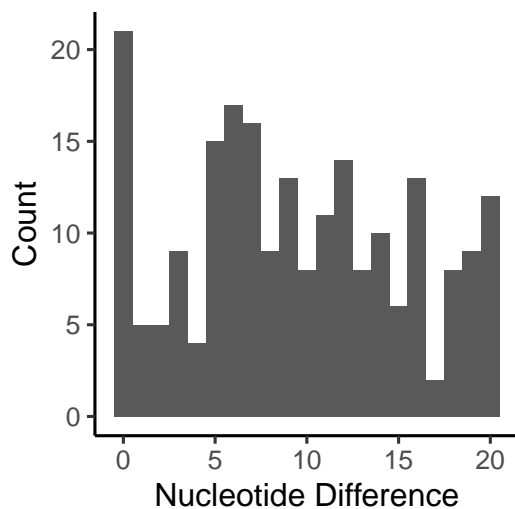
IGHV1-18*04

4836 sequences assigned
776 (16%) exact matches, in which:
749 unique CDR3
7 unique J



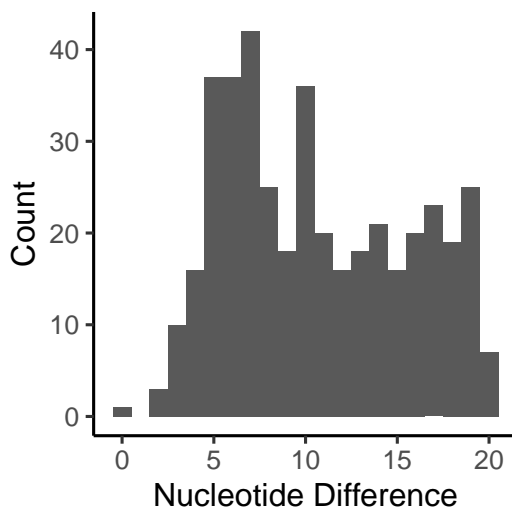
IGHV1-2*05

278 sequences assigned
21 (7.6%) exact matches, in which:
21 unique CDR3
4 unique J



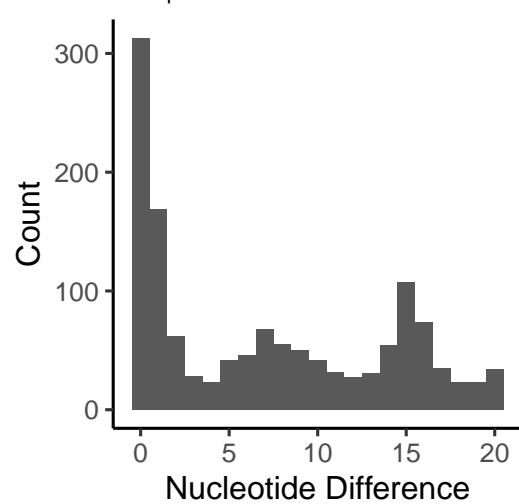
IGHV1-8*02

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



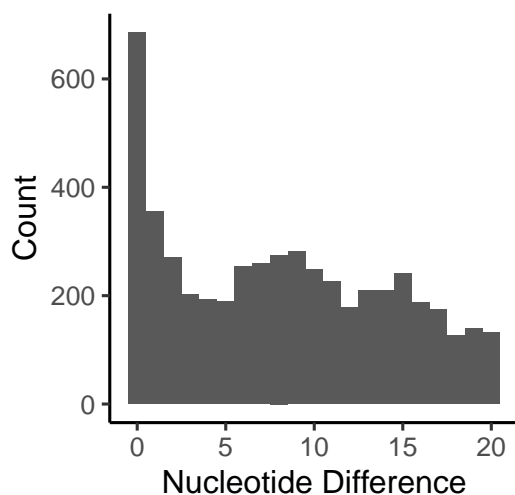
IGHV1-24*01

1562 sequences assigned
313 (20%) exact matches, in which:
307 unique CDR3
7 unique J



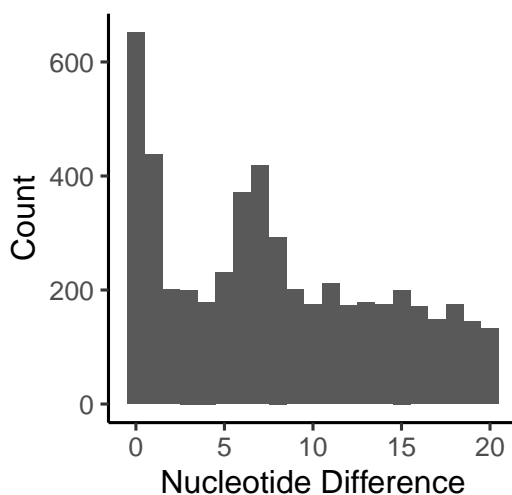
IGHV1-3*01_05

6201 sequences assigned
686 (11.1%) exact matches, in which:
667 unique CDR3
7 unique J



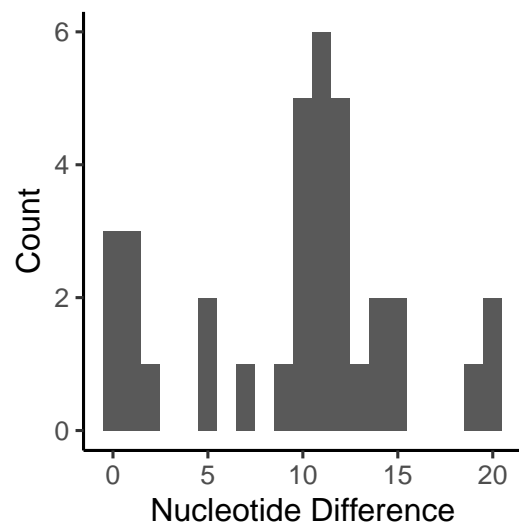
IGHV1-18*01

5967 sequences assigned
652 (10.9%) exact matches, in which:
631 unique CDR3
7 unique J



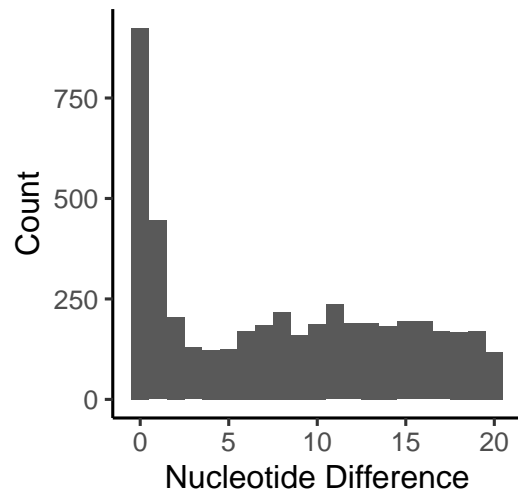
IGHV1-45*02

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



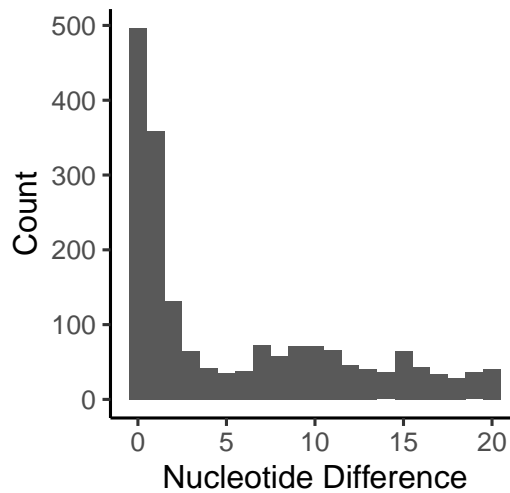
IGHV1-46*01

6038 sequences assigned
925 (15.3%) exact matches, in which:
907 unique CDR3
7 unique J



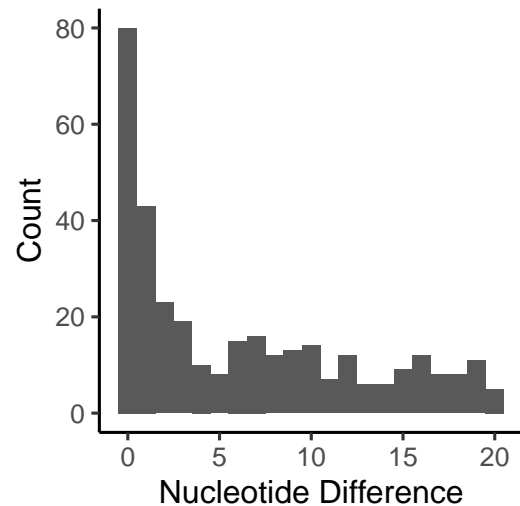
IGHV1-69*10

2327 sequences assigned
497 (21.4%) exact matches, in which:
483 unique CDR3
7 unique J



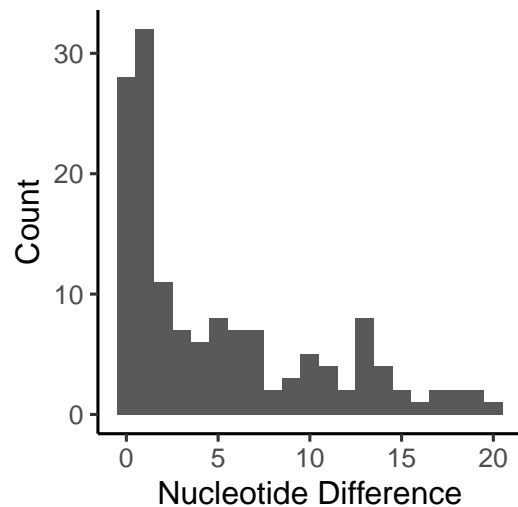
IGHV2-26*01

379 sequences assigned
80 (21.1%) exact matches, in which:
78 unique CDR3
6 unique J



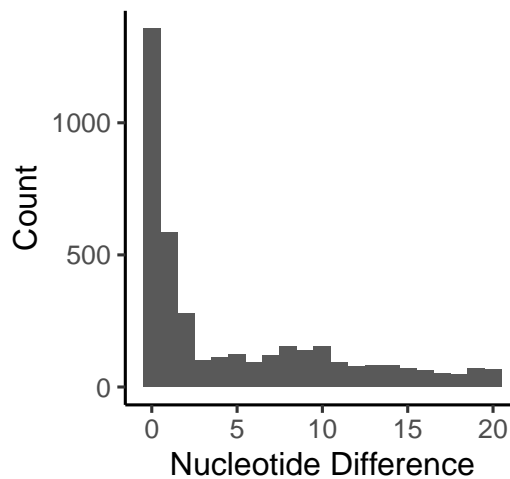
IGHV1-58*02

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



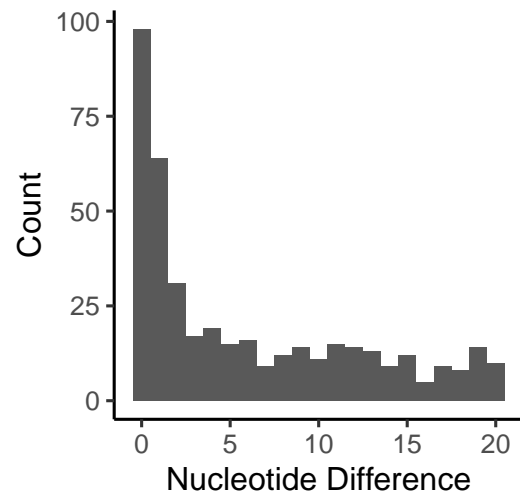
IGHV1-69*01_12_13

4464 sequences assigned
1356 (30.4%) exact matches, in which:
1331 unique CDR3
7 unique J



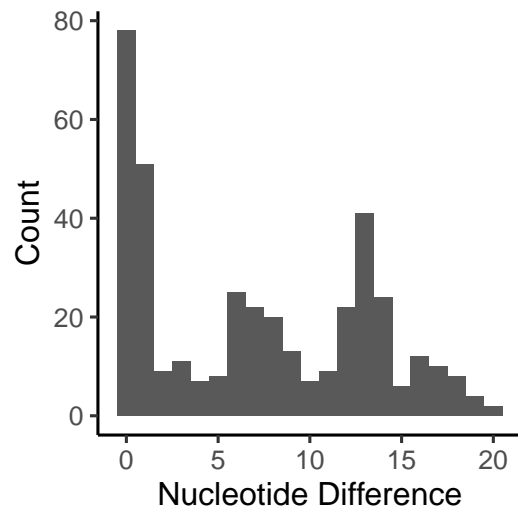
IGHV2-70*01

455 sequences assigned
98 (21.5%) exact matches, in which:
95 unique CDR3
5 unique J



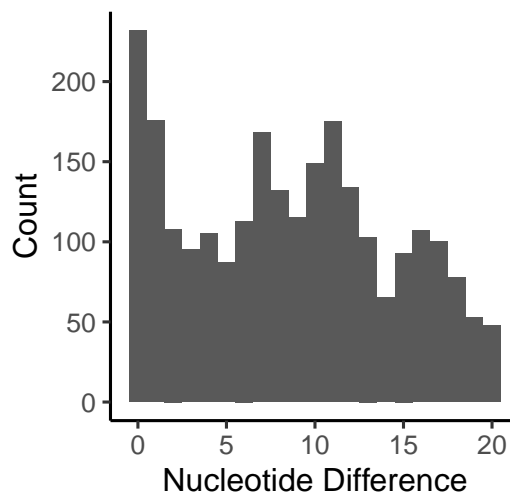
IGHV1-58*01_03

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



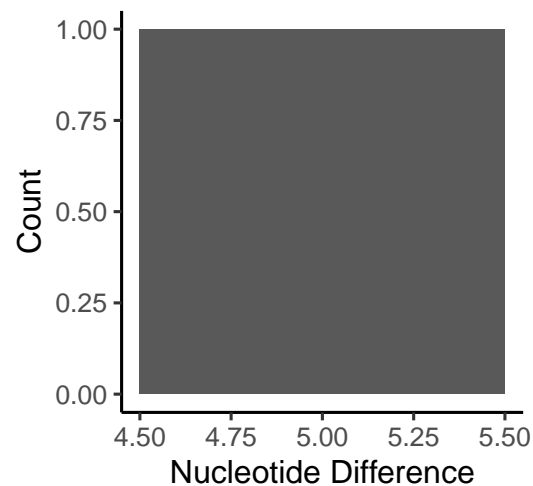
IGHV2-5*02

2715 sequences assigned
232 (8.5%) exact matches, in which:
225 unique CDR3
7 unique J



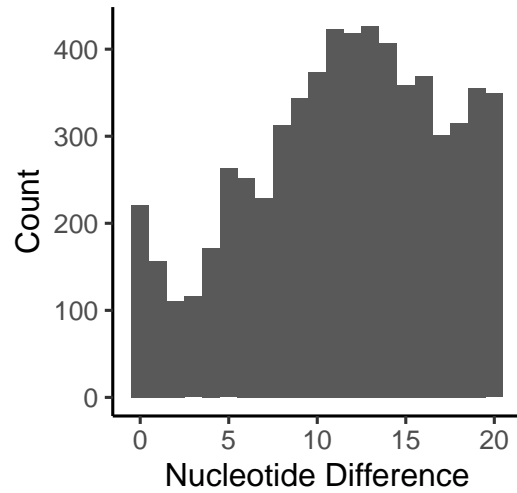
IGHV2-70D*14

1 sequences assigned
No exact matches.



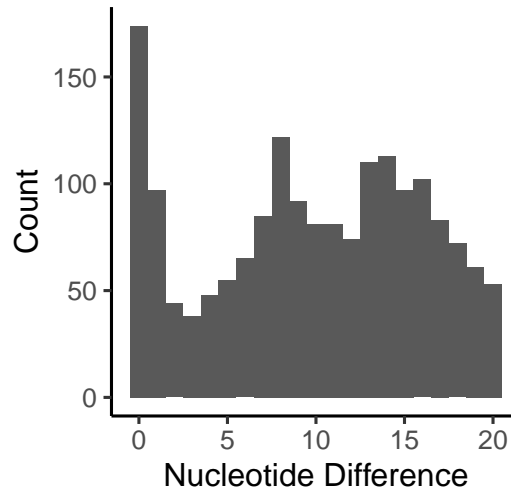
IGHV3-7*01

8404 sequences assigned
221 (2.6%) exact matches, in which:
210 unique CDR3
7 unique J



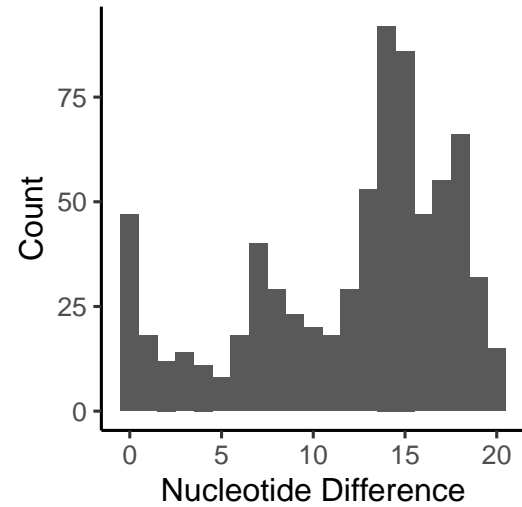
IGHV3-11*01

2469 sequences assigned
174 (7%) exact matches, in which:
171 unique CDR3
7 unique J



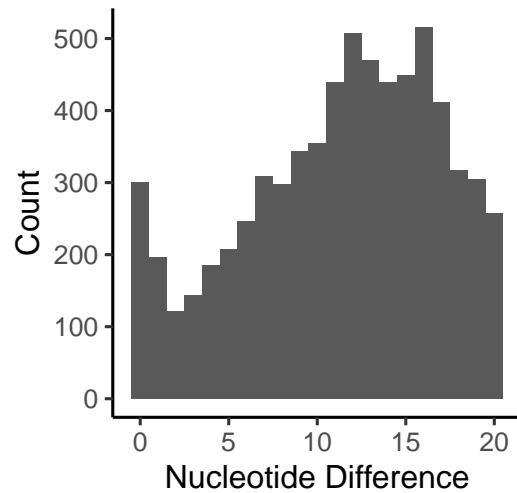
IGHV3-13*01

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



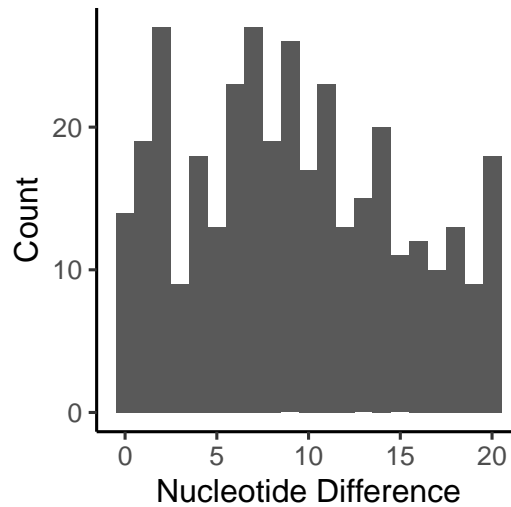
IGHV3-7*03

8690 sequences assigned
301 (3.5%) exact matches, in which:
287 unique CDR3
7 unique J



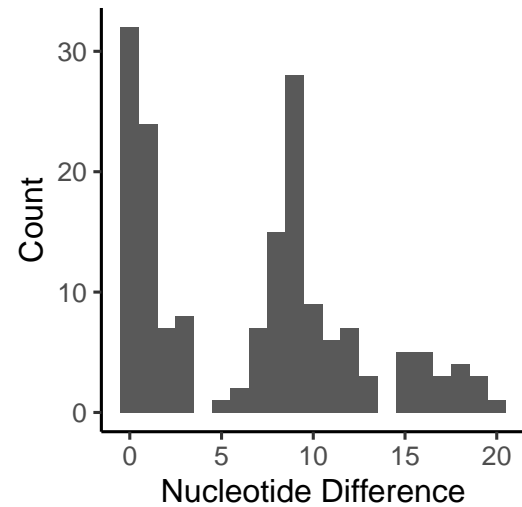
IGHV3-11*04

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



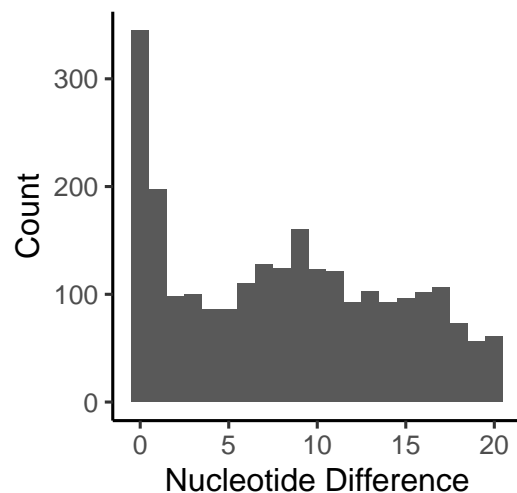
IGHV3-13*05

175 sequences assigned
32 (18.3%) exact matches, in which:
31 unique CDR3
5 unique J



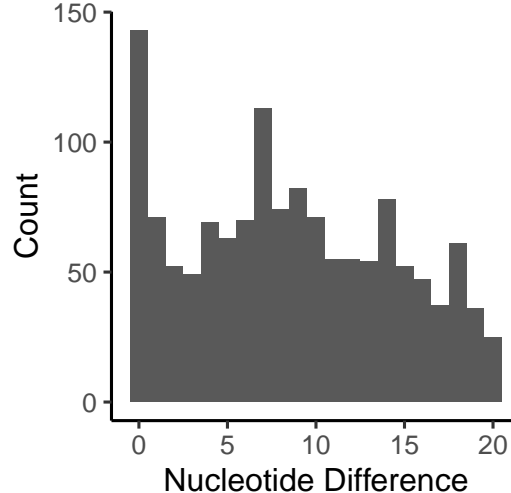
IGHV3-9*01

2771 sequences assigned
345 (12.5%) exact matches, in which:
337 unique CDR3
7 unique J



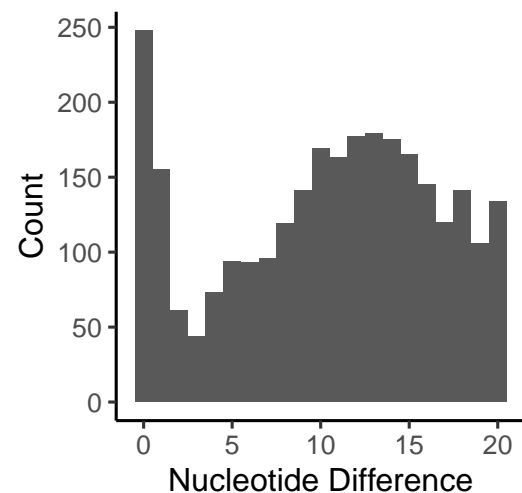
IGHV3-11*06

1645 sequences assigned
143 (8.7%) exact matches, in which:
141 unique CDR3
6 unique J



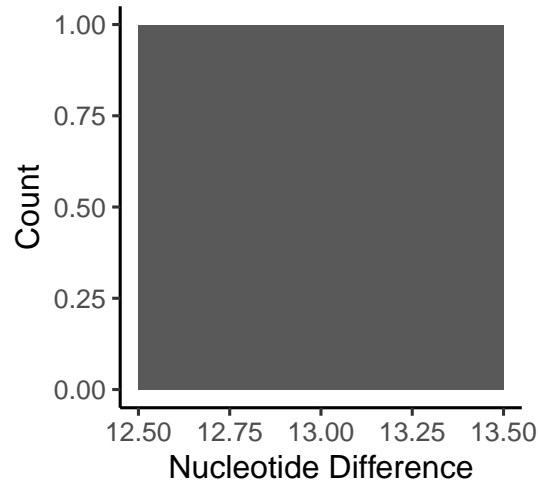
IGHV3-15*01_02

3854 sequences assigned
248 (6.4%) exact matches, in which:
242 unique CDR3
7 unique J



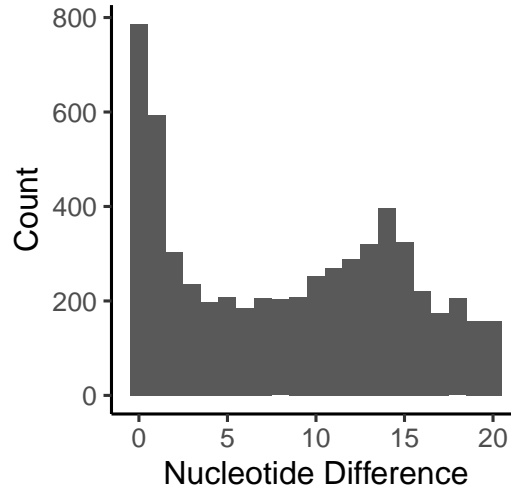
IGHV3-19*01

1 sequences assigned
No exact matches.



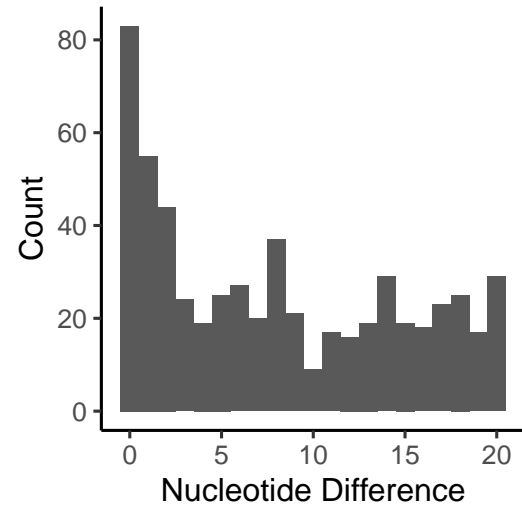
IGHV3-21*01_02

7110 sequences assigned
787 (11.1%) exact matches, in which:
736 unique CDR3
7 unique J



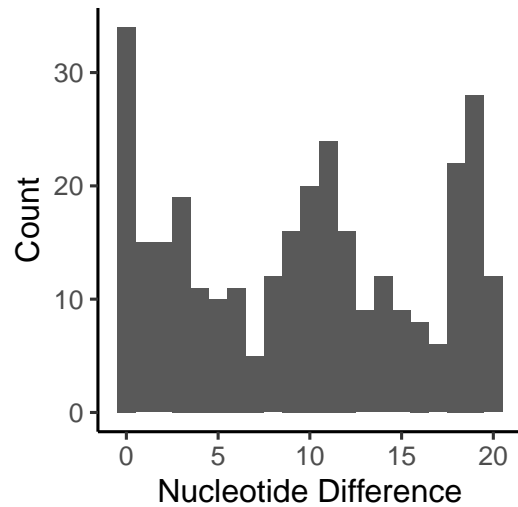
IGHV3-30*03

829 sequences assigned
83 (10%) exact matches, in which:
83 unique CDR3
7 unique J



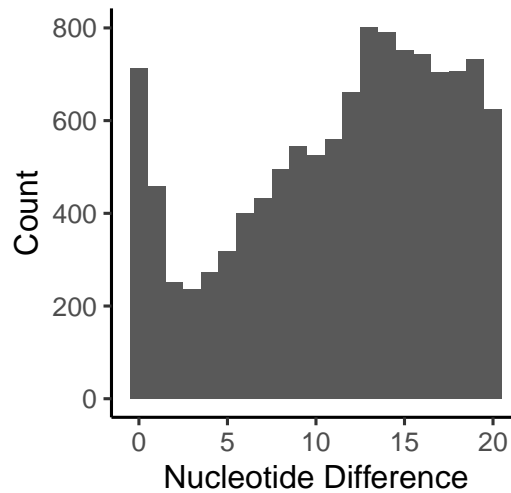
IGHV3-20*01_02

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



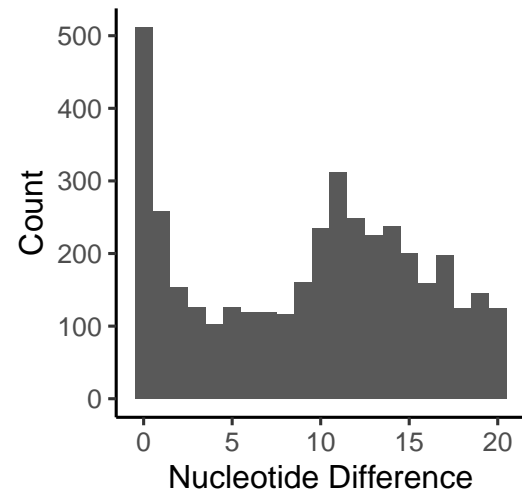
IGHV3-23*01_04

16936 sequences assigned
714 (4.2%) exact matches, in which:
700 unique CDR3
7 unique J



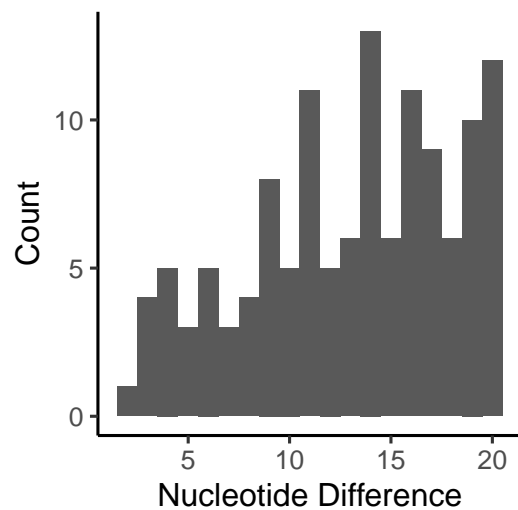
IGHV3-30*04

4929 sequences assigned
512 (10.4%) exact matches, in which:
495 unique CDR3
7 unique J



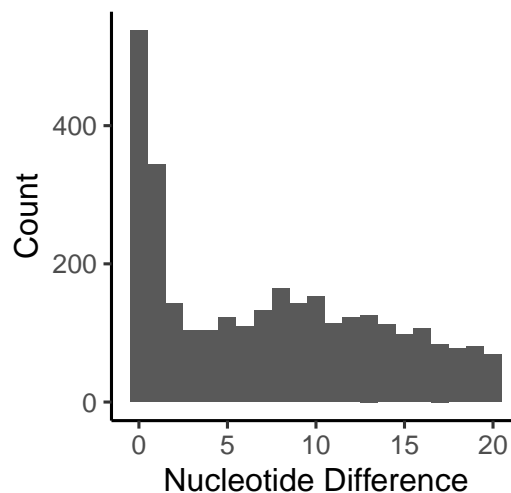
IGHV3-20*03_04

201 sequences assigned
No exact matches.



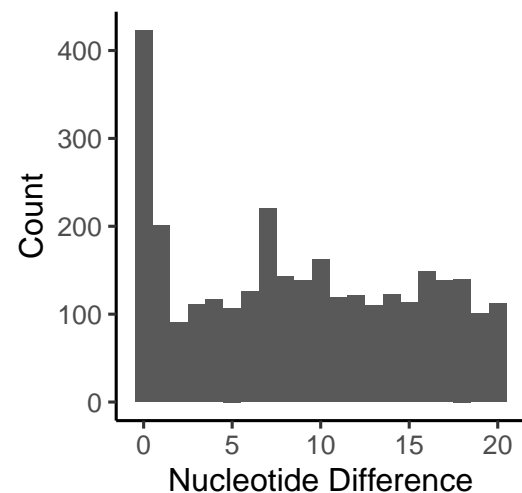
IGHV3-30-3*01

3732 sequences assigned
538 (14.4%) exact matches, in which:
520 unique CDR3
7 unique J



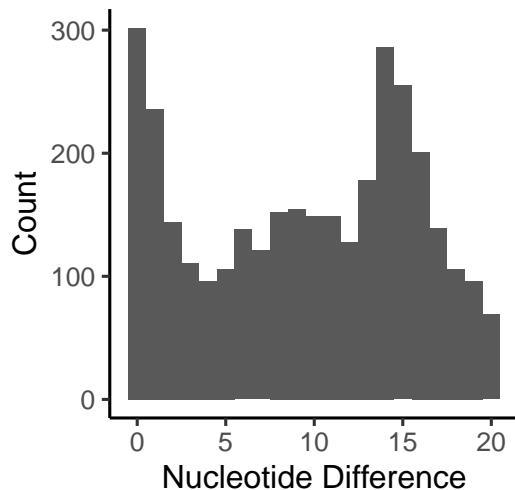
IGHV3-30*18

3751 sequences assigned
423 (11.3%) exact matches, in which:
417 unique CDR3
6 unique J



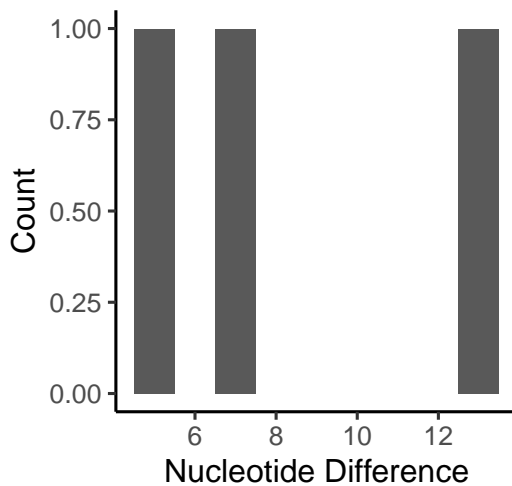
IGHV3–33*01

3936 sequences assigned
302 (7.7%) exact matches, in which:
283 unique CDR3
6 unique J



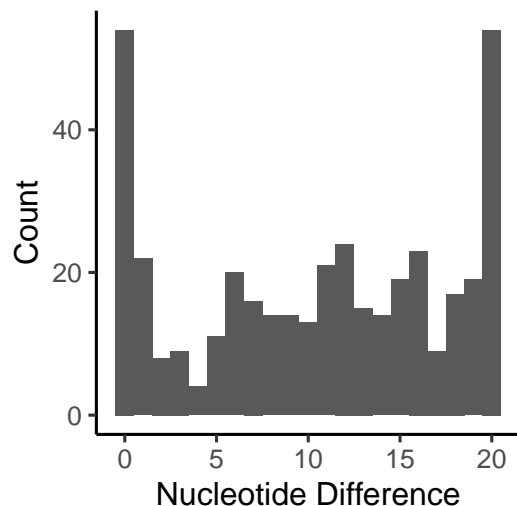
IGHV3–35*01

3 sequences assigned
No exact matches.



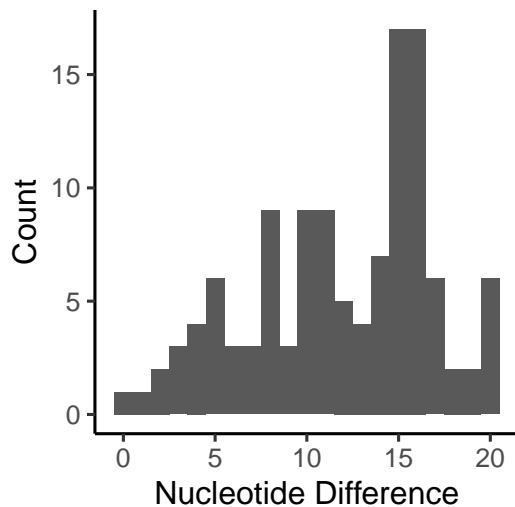
IGHV3–43*01

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



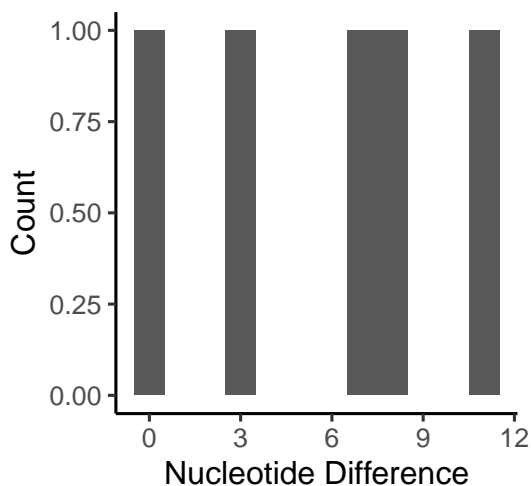
IGHV3–33*05

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



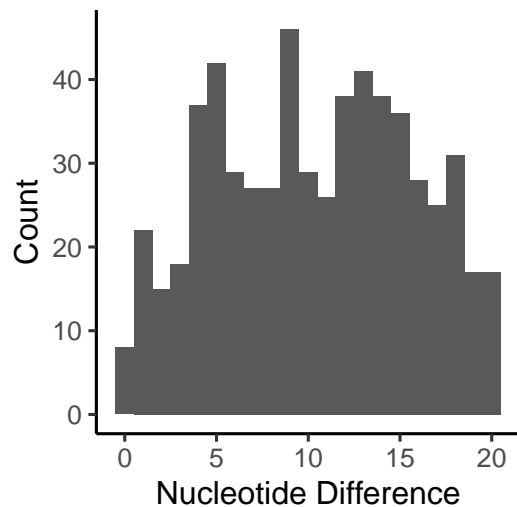
IGHV3–38–3*01

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



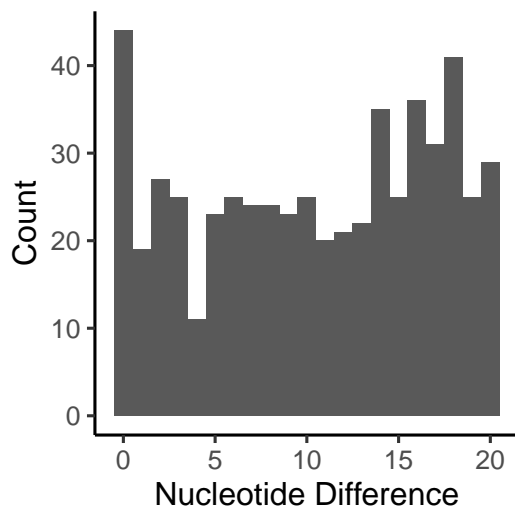
IGHV3–48*01

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



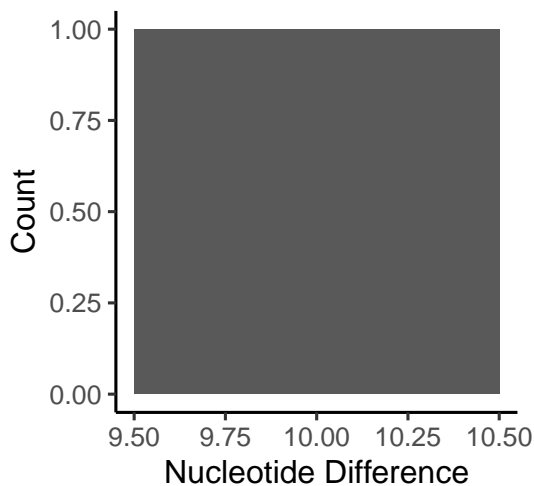
IGHV3–33*08

738 sequences assigned
44 (6%) exact matches, in which:
43 unique CDR3
5 unique J



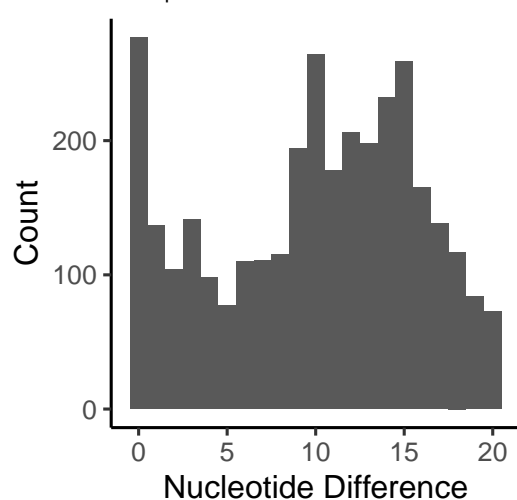
IGHV3–38*03

1 sequences assigned
No exact matches.



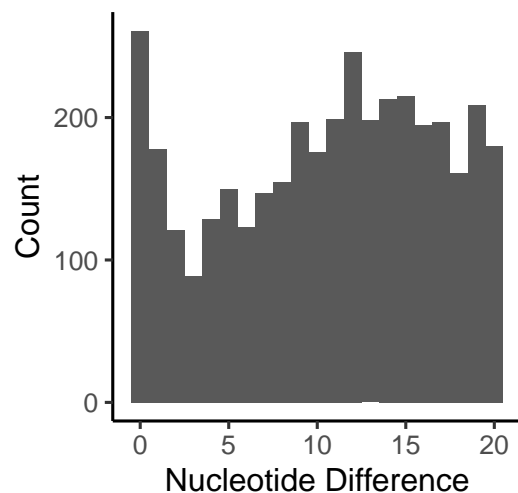
IGHV3–48*02

3813 sequences assigned
277 (7.3%) exact matches, in which:
261 unique CDR3
6 unique J



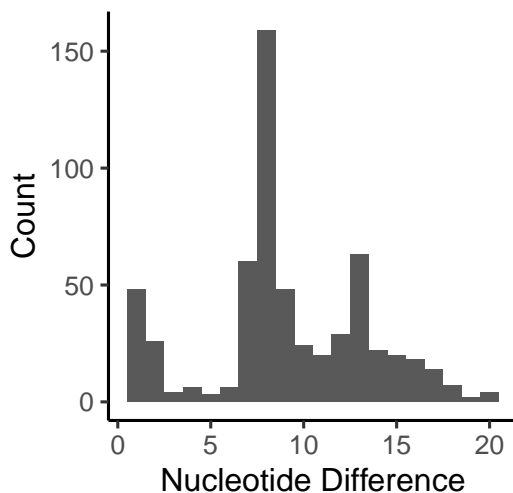
IGHV3-48*04

4832 sequences assigned
261 (5.4%) exact matches, in which:
250 unique CDR3
7 unique J



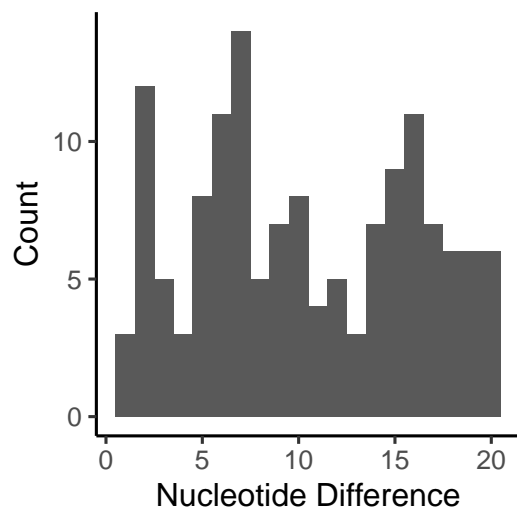
IGHV3-53*05

620 sequences assigned
No exact matches.



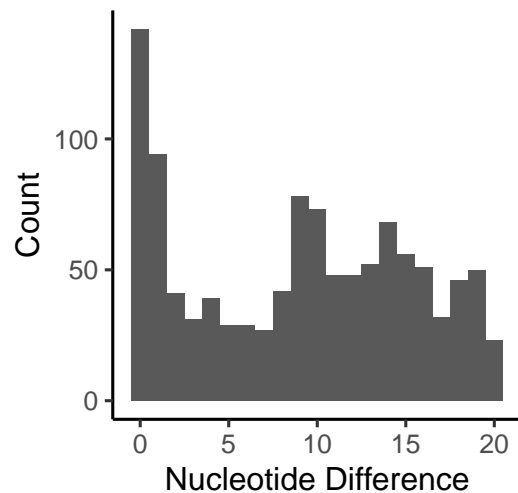
IGHV3-64*04

197 sequences assigned
No exact matches.



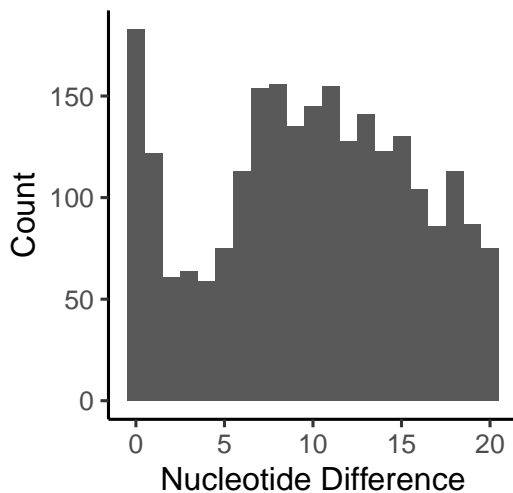
IGHV3-49*03_05

1359 sequences assigned
142 (10.4%) exact matches, in which:
133 unique CDR3
7 unique J



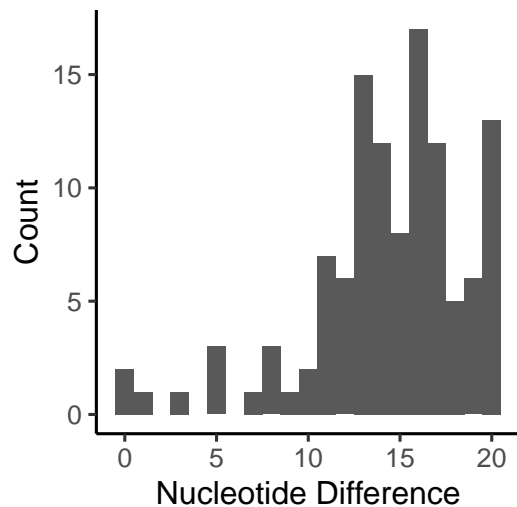
IGHV3-53*01_02

3374 sequences assigned
183 (5.4%) exact matches, in which:
176 unique CDR3
7 unique J



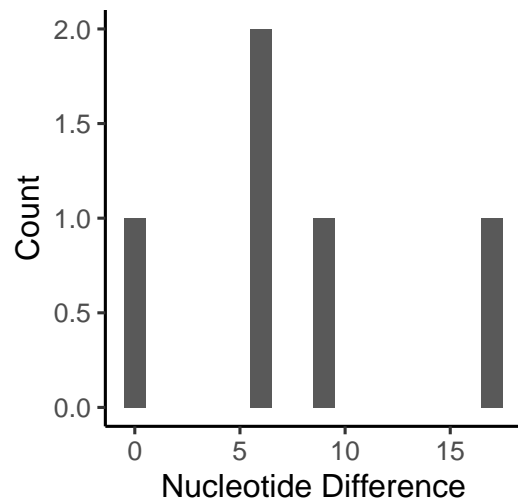
IGHV3-64*02_07

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



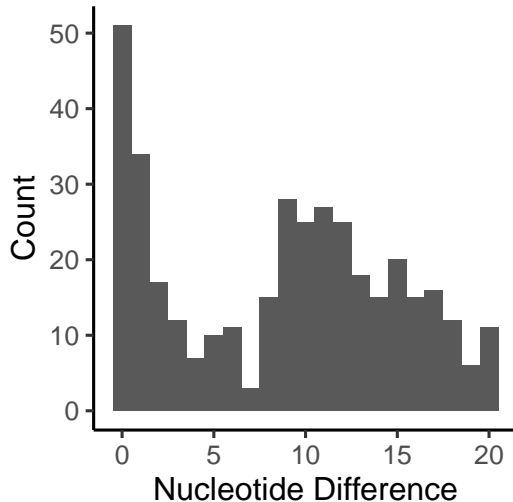
IGHV3-52*01_03

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



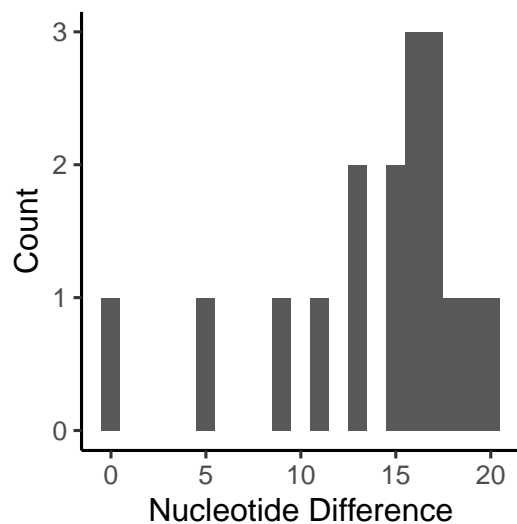
IGHV3-64*01

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



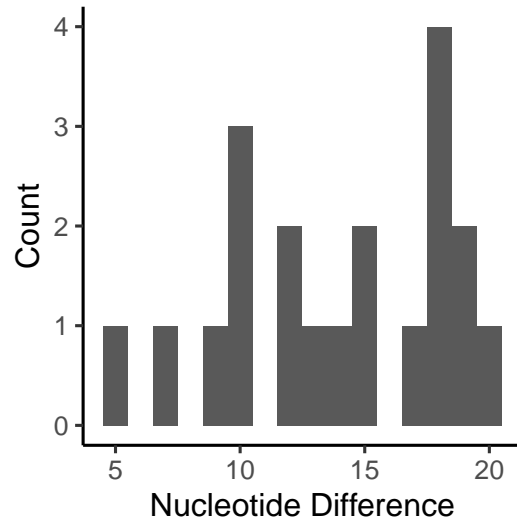
IGHV3-66*01

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



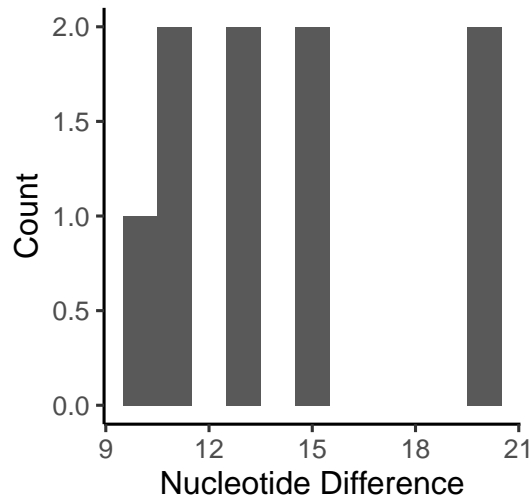
IGHV3-66*02

28 sequences assigned
No exact matches.



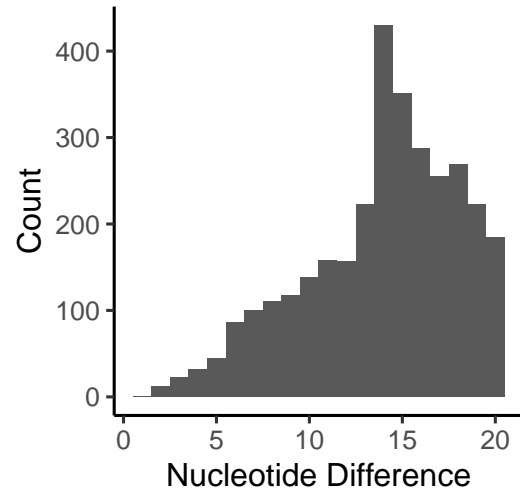
IGHV3-69-1*02

36 sequences assigned
No exact matches.



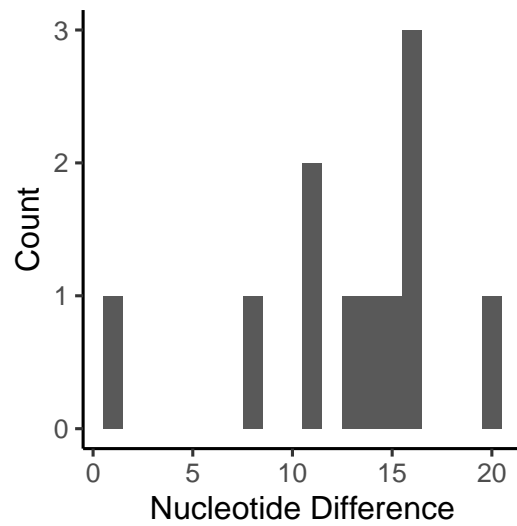
IGHV3-74*03

4669 sequences assigned
No exact matches.



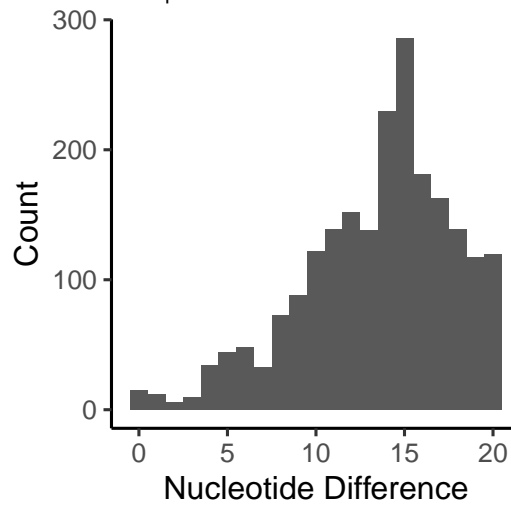
IGHV3-66*03

15 sequences assigned
No exact matches.



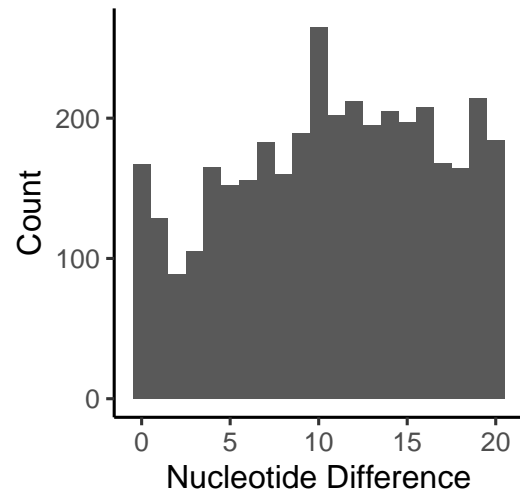
IGHV3-72*01

2928 sequences assigned
15 (0.5%) exact matches, in which:
15 unique CDR3
4 unique J



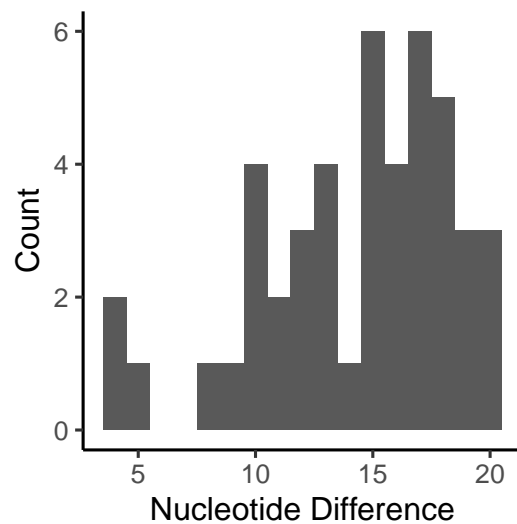
IGHV3-74*01_02

4439 sequences assigned
167 (3.8%) exact matches, in which:
156 unique CDR3
6 unique J



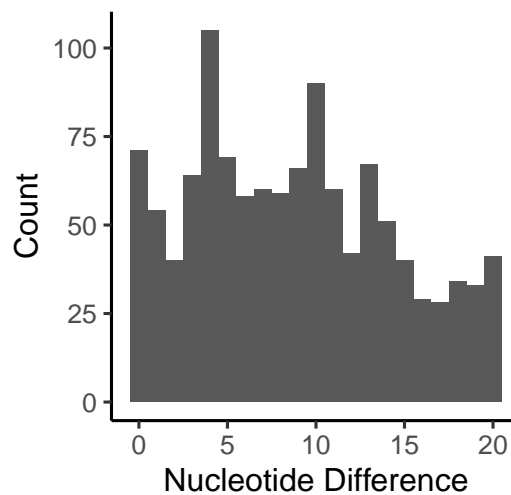
IGHV3-69-1*01

119 sequences assigned
No exact matches.



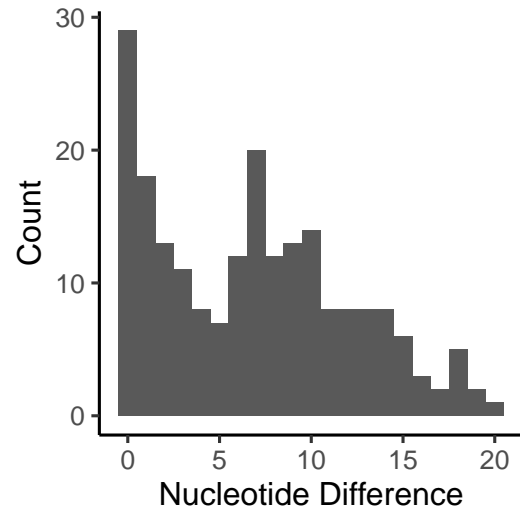
IGHV3-73*01_02

1331 sequences assigned
71 (5.3%) exact matches, in which:
70 unique CDR3
7 unique J



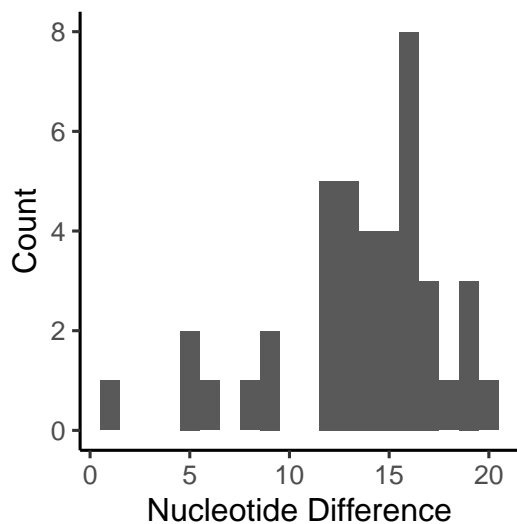
IGHV3-43D*03

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



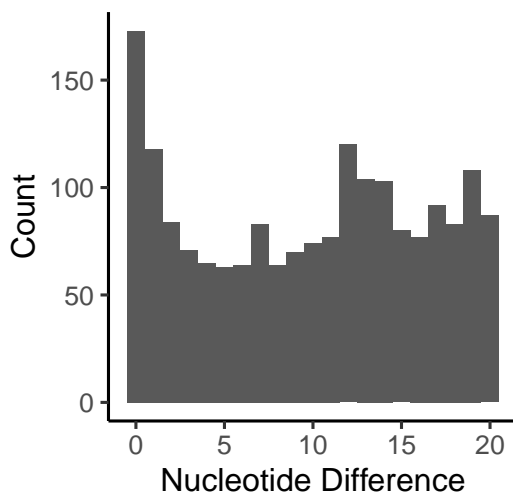
IGHV3-43D*04

73 sequences assigned
No exact matches.



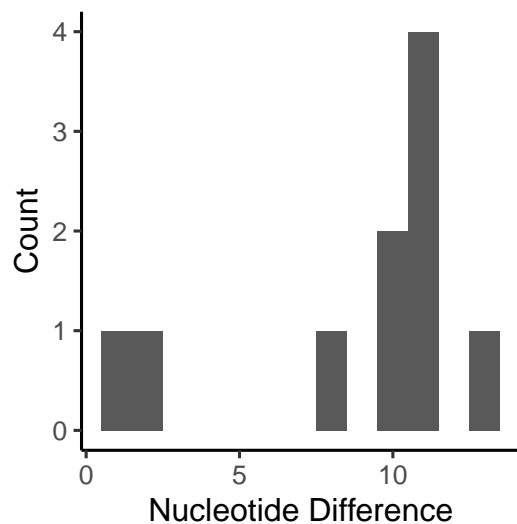
IGHV4-4*02_03

2538 sequences assigned
173 (6.8%) exact matches, in which:
169 unique CDR3
7 unique J



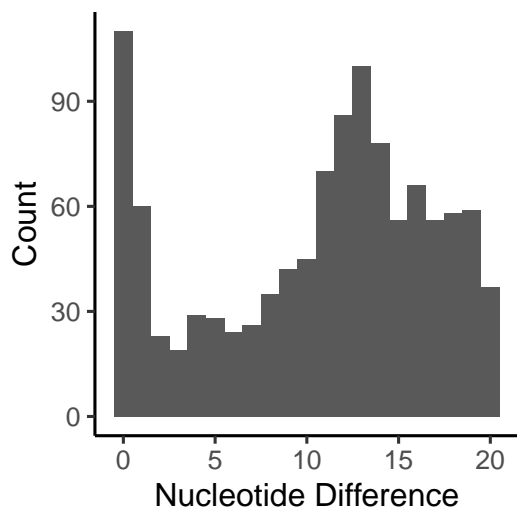
IGHV4-28*02_05

10 sequences assigned
No exact matches.



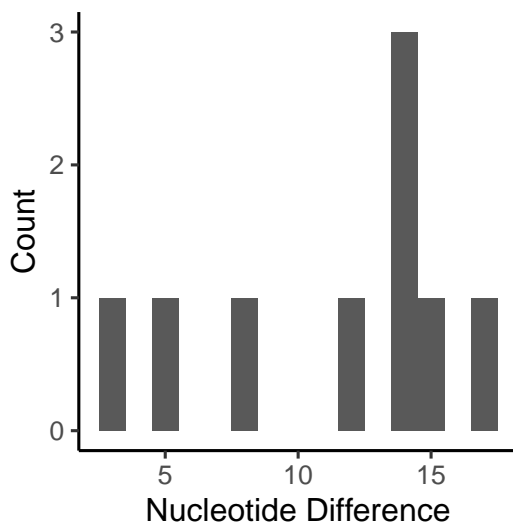
IGHV3-64D*06

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



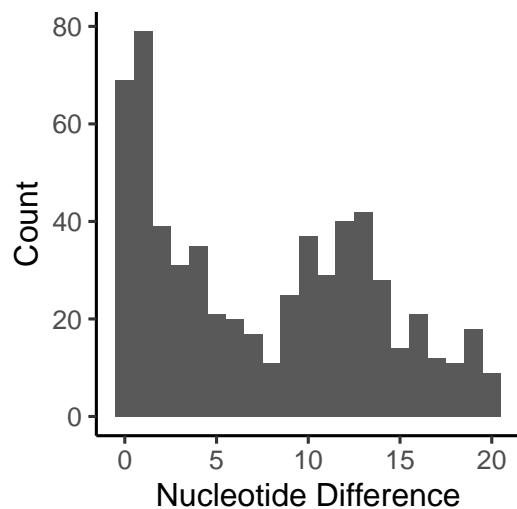
IGHV4-28*03

11 sequences assigned
No exact matches.



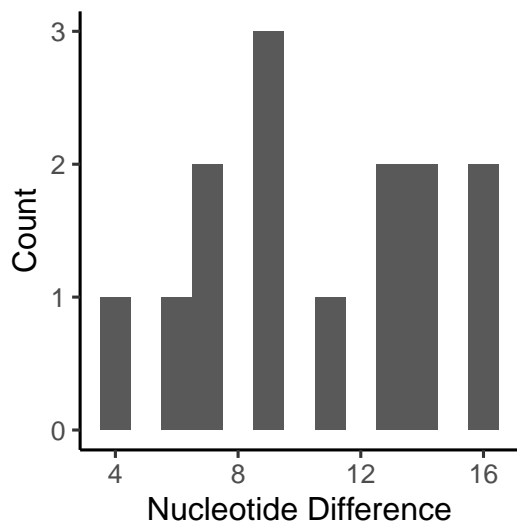
IGHV4-30-2*01

799 sequences assigned
69 (8.6%) exact matches, in which:
65 unique CDR3
5 unique J



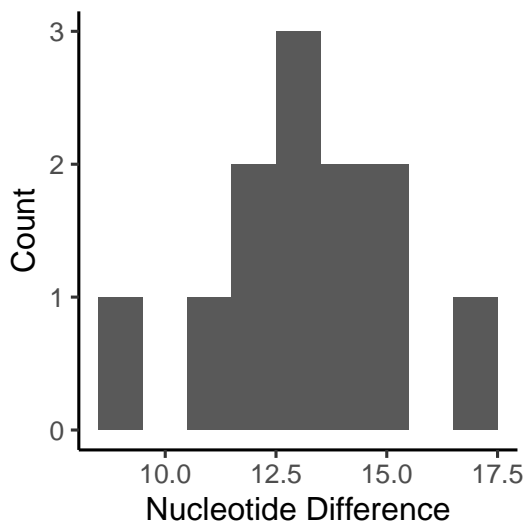
IGHV3-NL1*01

29 sequences assigned
No exact matches.



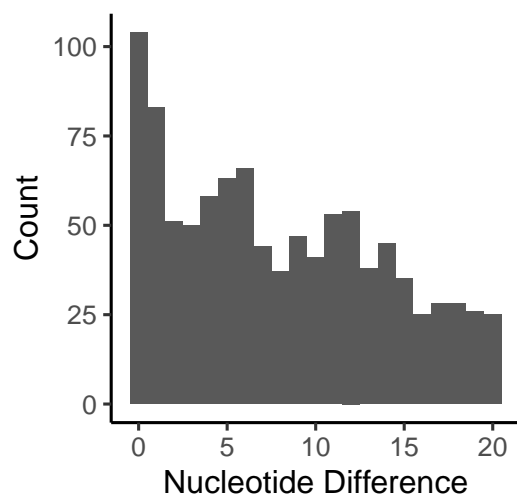
IGHV4-28*01_07

13 sequences assigned
No exact matches.



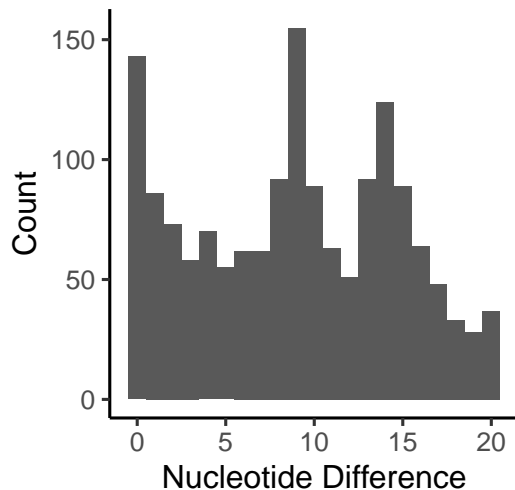
IGHV4-30-4*01

1321 sequences assigned
104 (7.9%) exact matches, in which:
101 unique CDR3
7 unique J



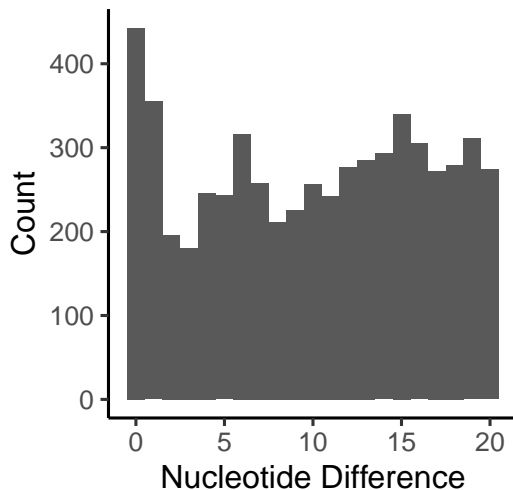
IGHV4-31*02

1954 sequences assigned
143 (7.3%) exact matches, in which:
141 unique CDR3
6 unique J



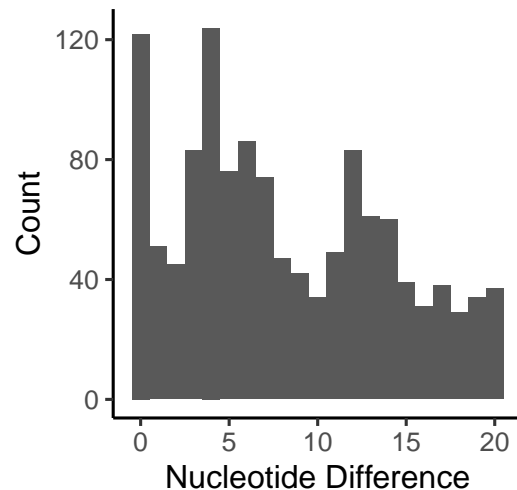
IGHV4-39*07

8035 sequences assigned
443 (5.5%) exact matches, in which:
431 unique CDR3
7 unique J



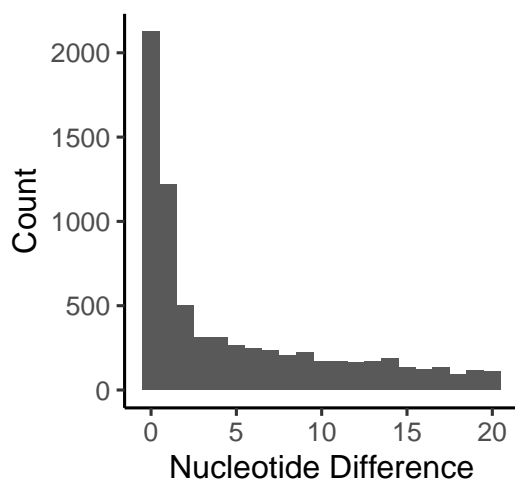
IGHV4-61*01

1614 sequences assigned
122 (7.6%) exact matches, in which:
119 unique CDR3
7 unique J



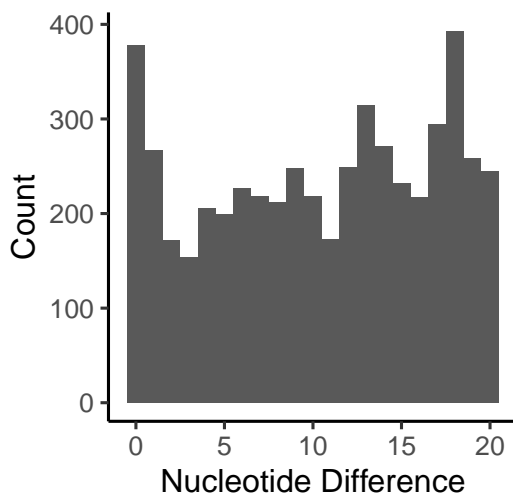
IGHV4-34*01_02

8134 sequences assigned
2125 (26.1%) exact matches, in which:
2040 unique CDR3
7 unique J



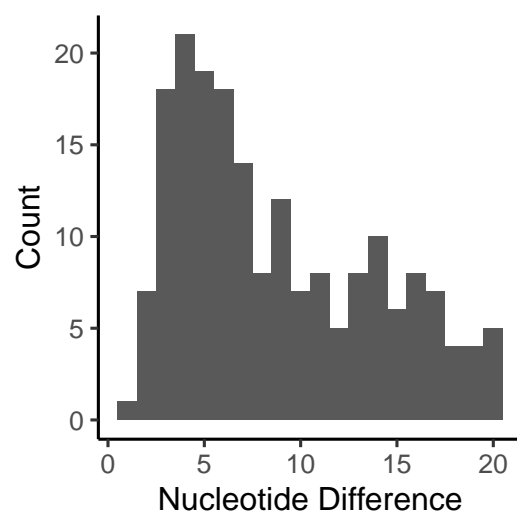
IGHV4-59*08

7148 sequences assigned
378 (5.3%) exact matches, in which:
359 unique CDR3
7 unique J



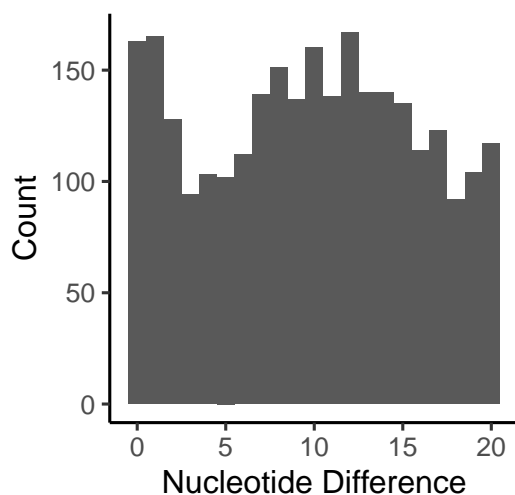
IGHV4-61*05

240 sequences assigned
No exact matches.



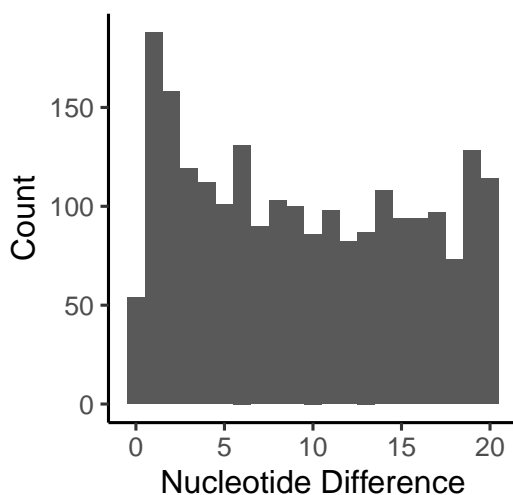
IGHV4-38-2*02

3762 sequences assigned
163 (4.3%) exact matches, in which:
157 unique CDR3
7 unique J



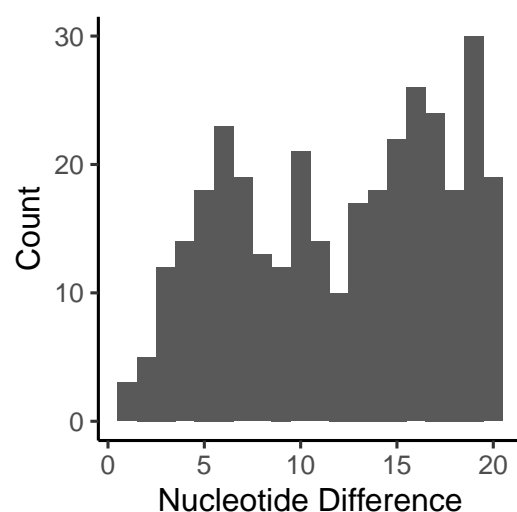
IGHV4-59*12

3342 sequences assigned
54 (1.6%) exact matches, in which:
54 unique CDR3
6 unique J



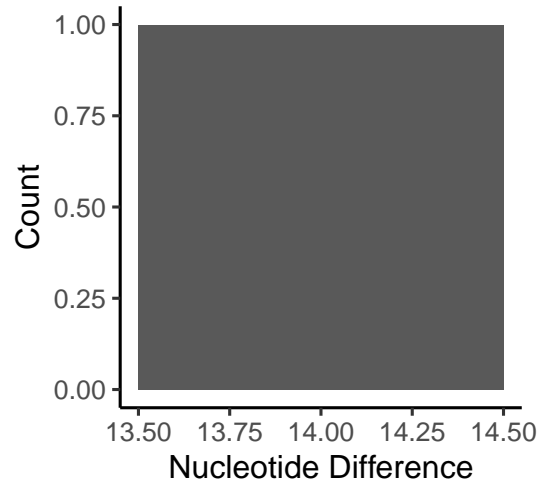
IGHV4-61*08

547 sequences assigned
No exact matches.



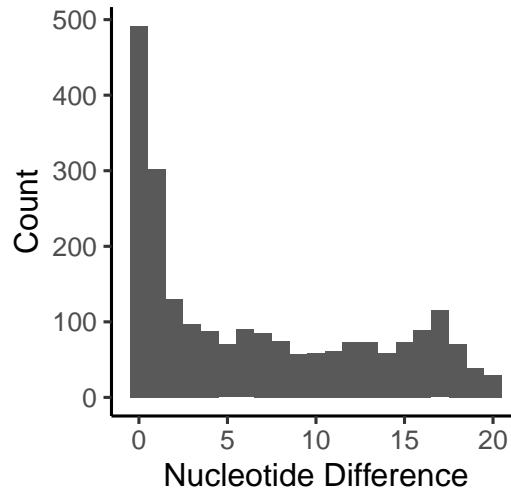
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



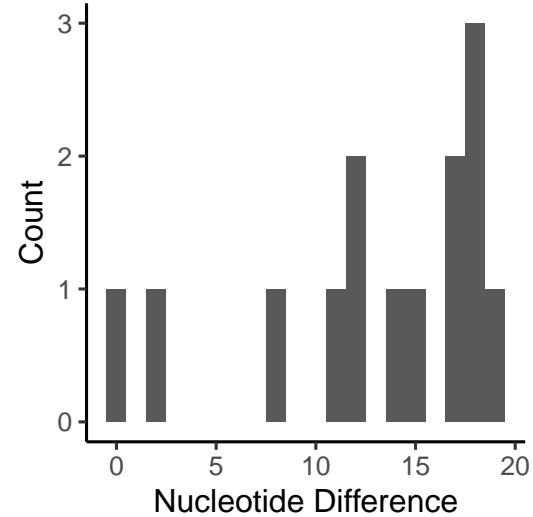
IGHV5-10-1*01_03

2446 sequences assigned
492 (20.1%) exact matches, in which:
476 unique CDR3
7 unique J



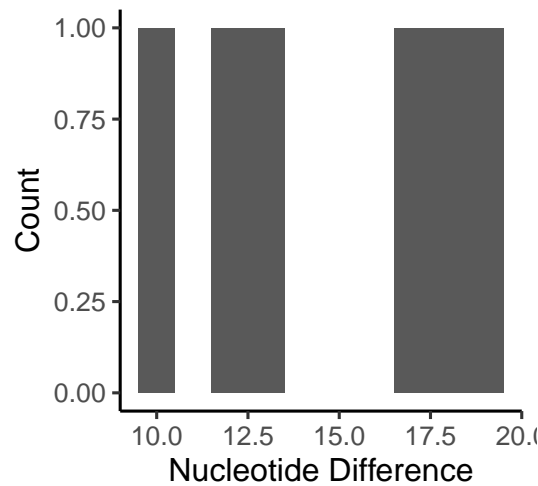
IGHV5-51*07

15 sequences assigned
1 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J



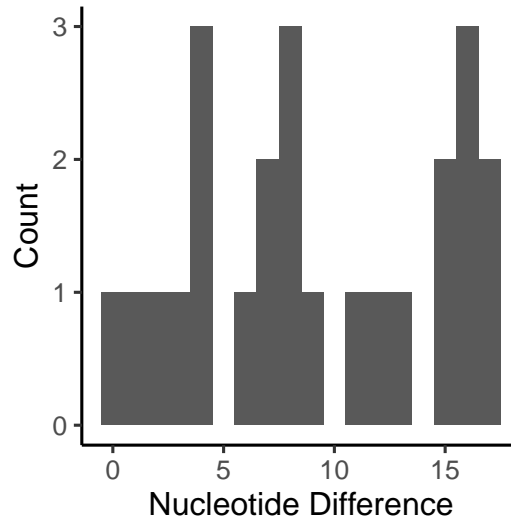
IGHV4/OR15-8*01

14 sequences assigned
No exact matches.



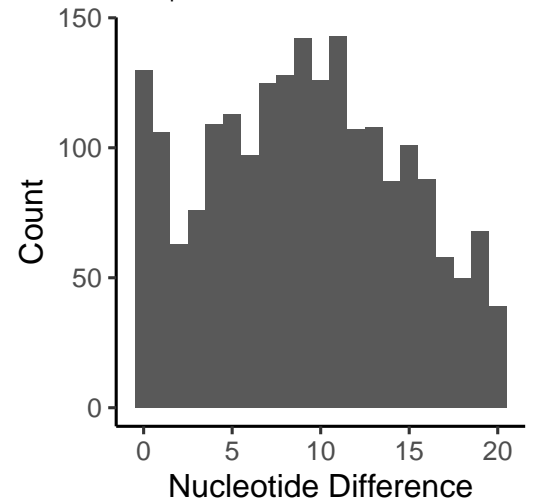
IGHV5-51*04

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



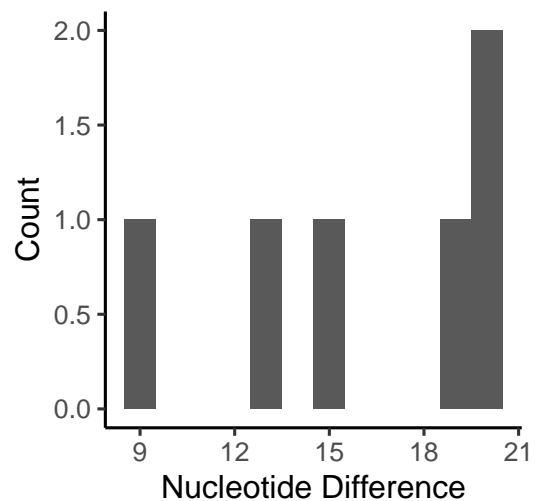
IGHV6-1*01_02

2212 sequences assigned
130 (5.9%) exact matches, in which:
128 unique CDR3
7 unique J



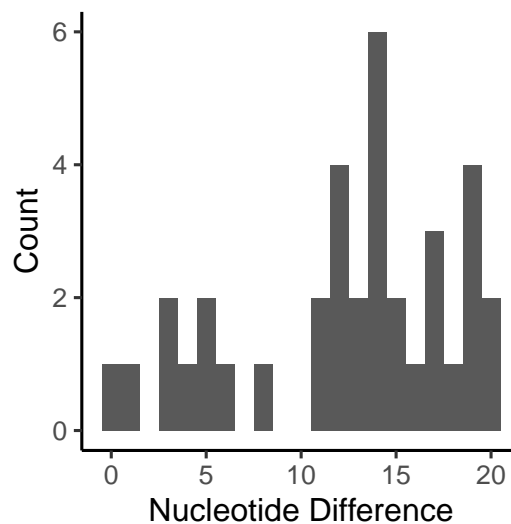
IGHV4/OR15-8*02

32 sequences assigned
No exact matches.



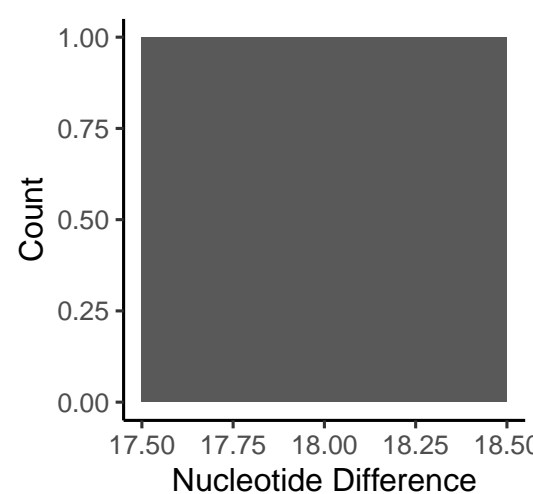
IGHV5-51*06

44 sequences assigned
1 (2.3%) exact matches, in which:
1 unique CDR3
1 unique J



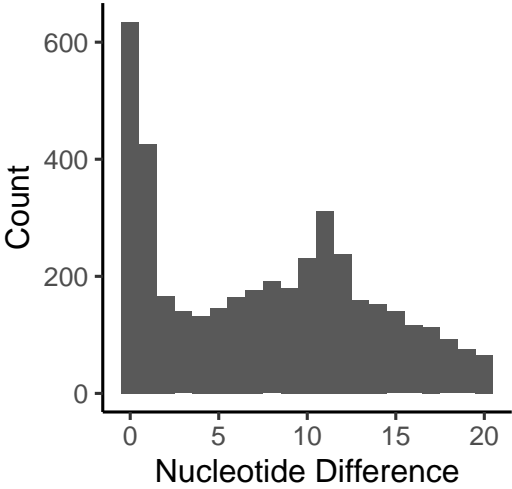
IGHV3/OR16-6*02

1 sequences assigned
No exact matches.

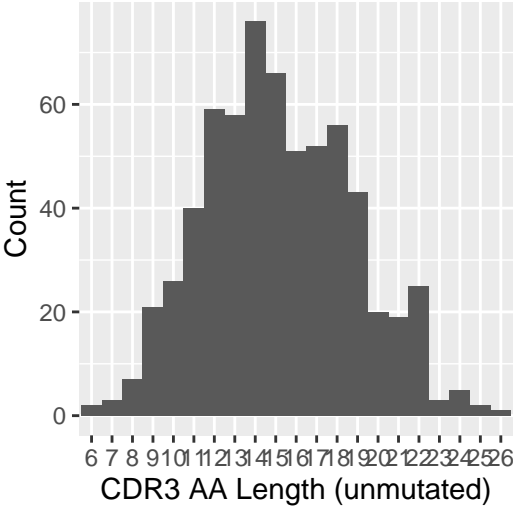


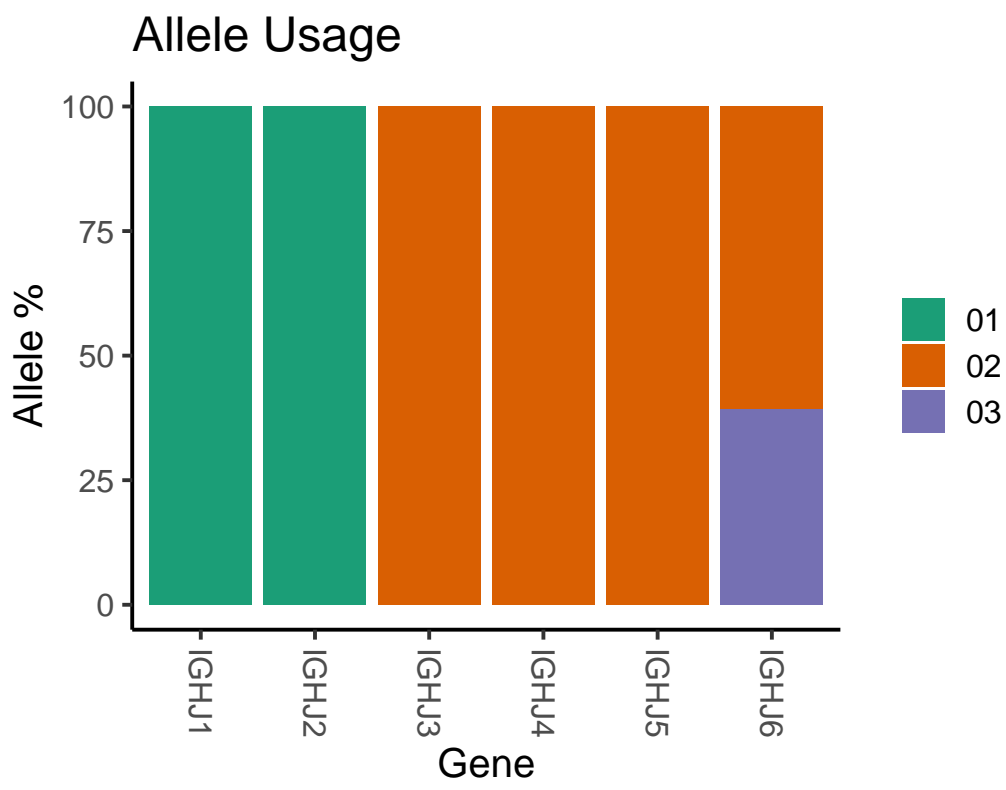
IGHV7-4-1*02_T63C

4764 sequences assigned
635 (13.3%) exact matches, in which:
618 unique CDR3
7 unique J



IGHV7-4-1*02_T63C





Sequence Count by IGHJ6 allele usage

