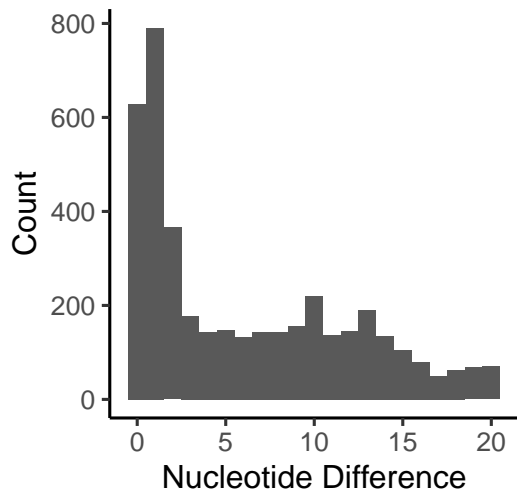


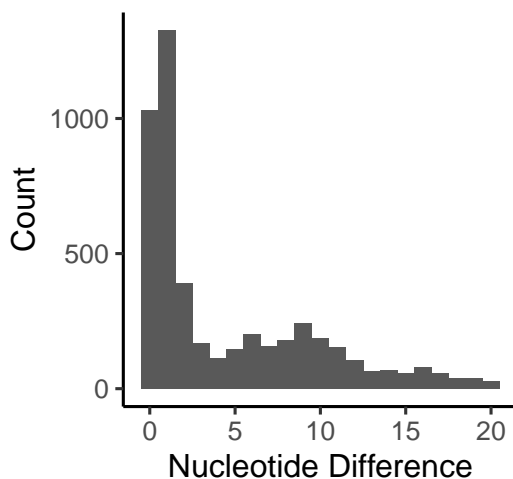
IGHV1-2*02

4571 sequences assigned
628 (13.7%) exact matches, in which:
490 unique CDR3
6 unique J



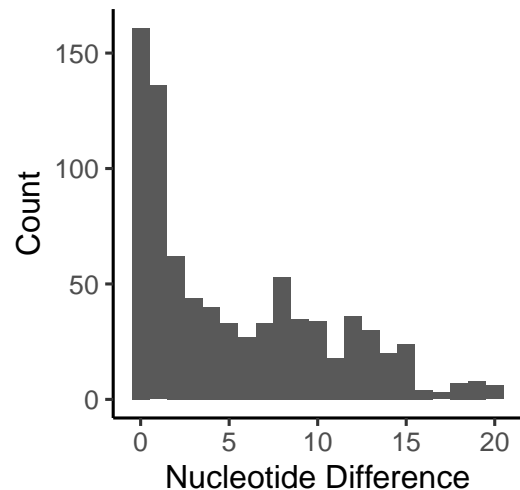
IGHV1-18*01

5145 sequences assigned
1032 (20.1%) exact matches, in which:
802 unique CDR3
6 unique J



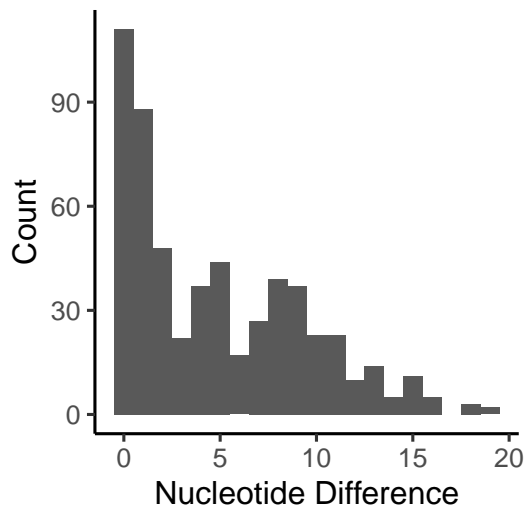
IGHV1-46*01

854 sequences assigned
161 (18.9%) exact matches, in which:
138 unique CDR3
6 unique J



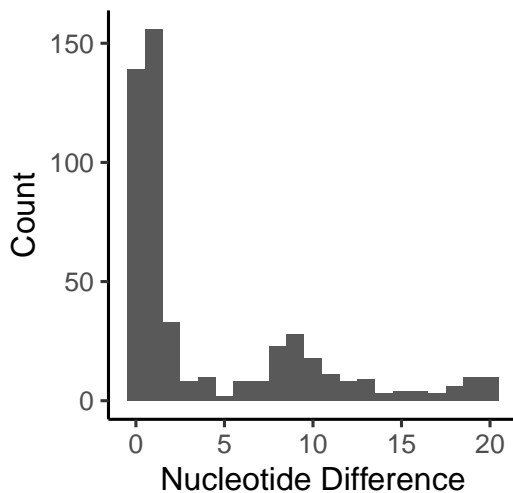
IGHV1-3*01_05

607 sequences assigned
111 (18.3%) exact matches, in which:
88 unique CDR3
5 unique J



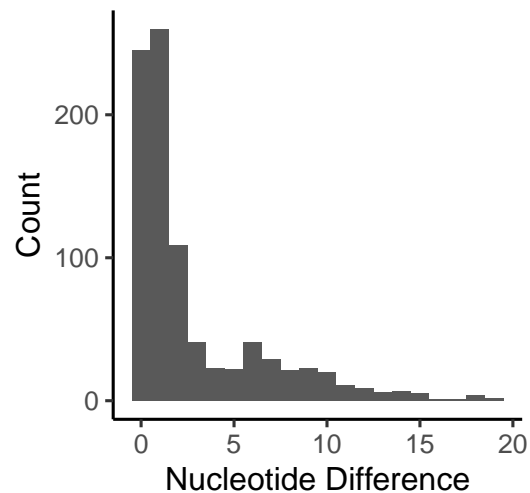
IGHV1-24*01

539 sequences assigned
139 (25.8%) exact matches, in which:
114 unique CDR3
6 unique J



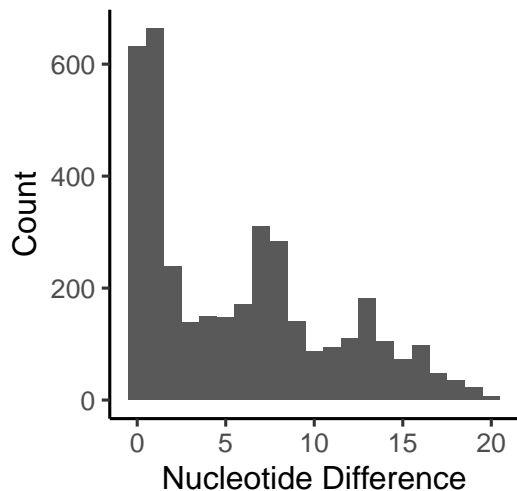
IGHV1-46*04

888 sequences assigned
245 (27.6%) exact matches, in which:
203 unique CDR3
6 unique J



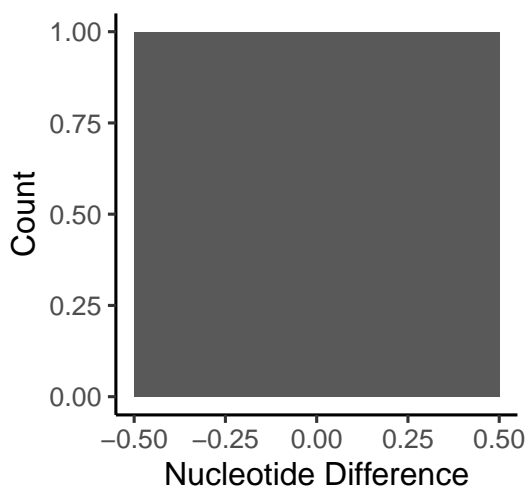
IGHV1-8*01

3770 sequences assigned
632 (16.8%) exact matches, in which:
501 unique CDR3
6 unique J



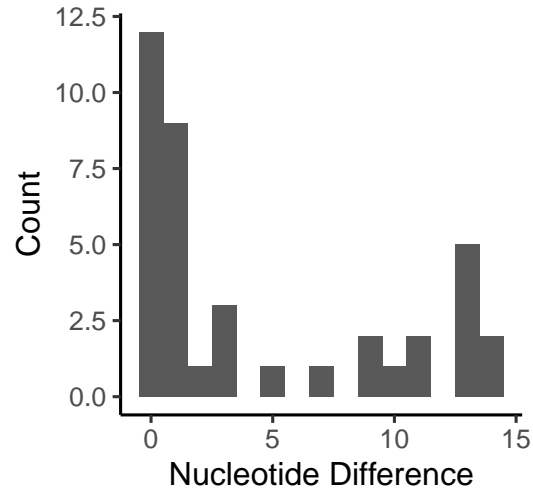
IGHV1-45*02

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



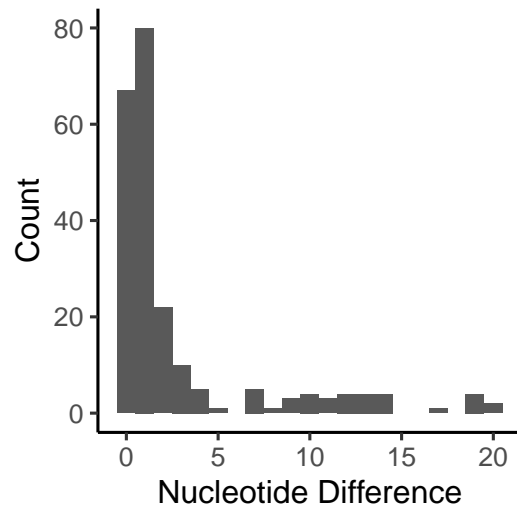
IGHV1-58*02

39 sequences assigned
12 (30.8%) exact matches, in which:
11 unique CDR3
4 unique J



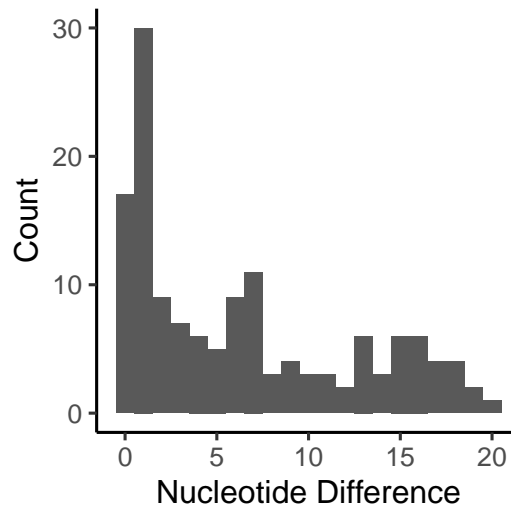
IGHV1-58*01_03

220 sequences assigned
67 (30.5%) exact matches, in which:
53 unique CDR3
4 unique J



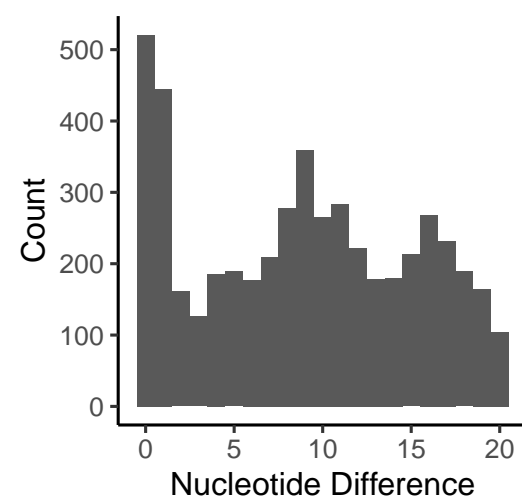
IGHV2-5*02

165 sequences assigned
17 (10.3%) exact matches, in which:
12 unique CDR3
5 unique J



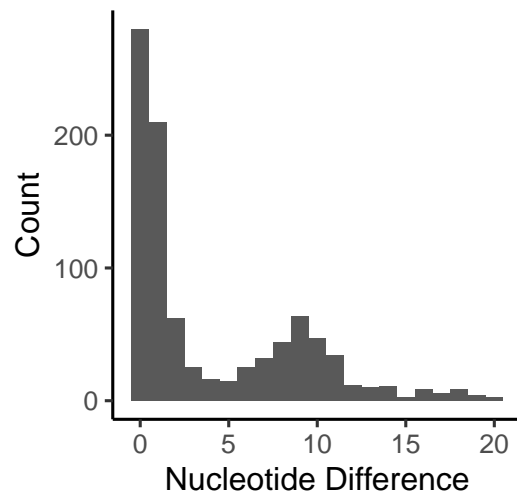
IGHV3-7*01

6095 sequences assigned
521 (8.5%) exact matches, in which:
351 unique CDR3
6 unique J



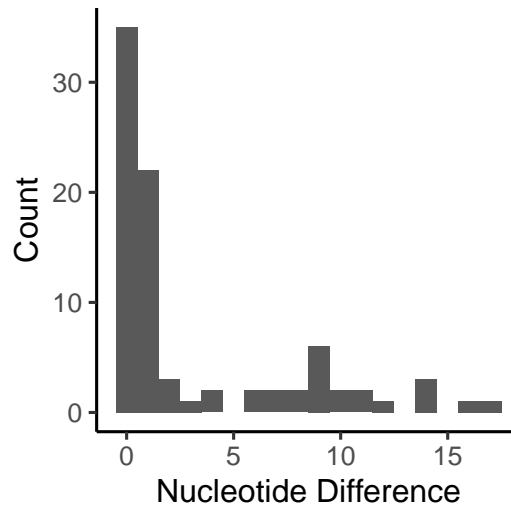
IGHV1-69*06_14

978 sequences assigned
280 (28.6%) exact matches, in which:
246 unique CDR3
6 unique J



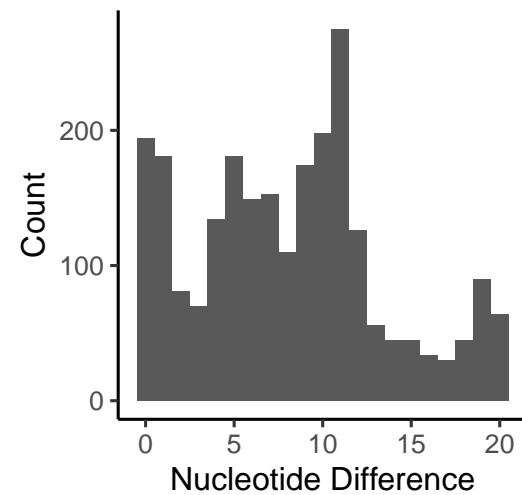
IGHV2-26*01

87 sequences assigned
35 (40.2%) exact matches, in which:
30 unique CDR3
5 unique J



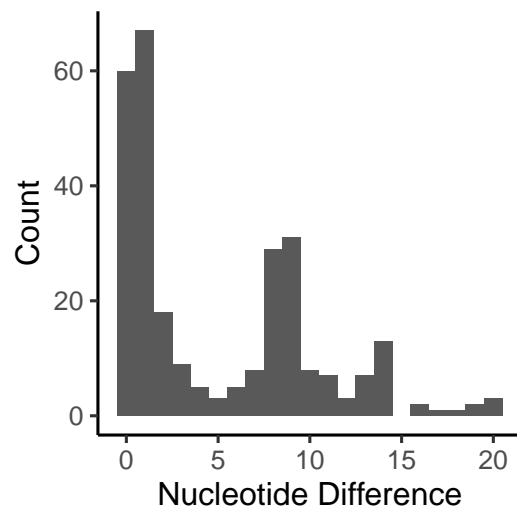
IGHV3-7*03

2576 sequences assigned
194 (7.5%) exact matches, in which:
135 unique CDR3
5 unique J



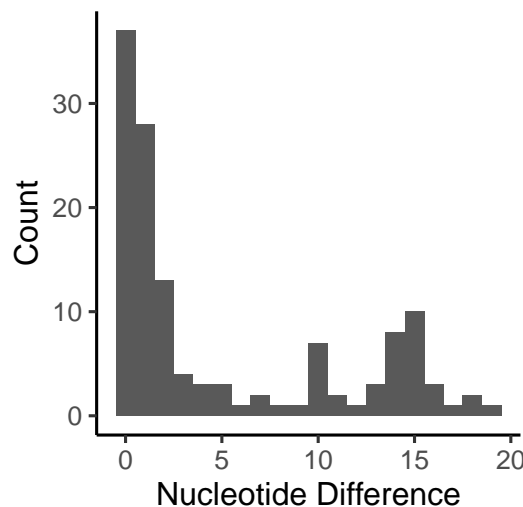
IGHV2-5*01

306 sequences assigned
60 (19.6%) exact matches, in which:
44 unique CDR3
4 unique J



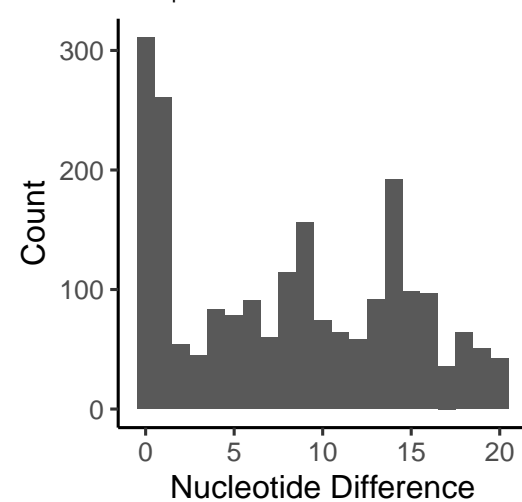
IGHV2-70*01

142 sequences assigned
37 (26.1%) exact matches, in which:
33 unique CDR3
5 unique J



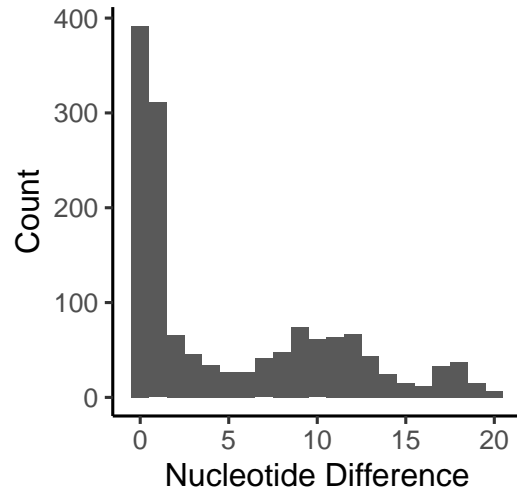
IGHV3-9*01

2439 sequences assigned
311 (12.8%) exact matches, in which:
188 unique CDR3
6 unique J



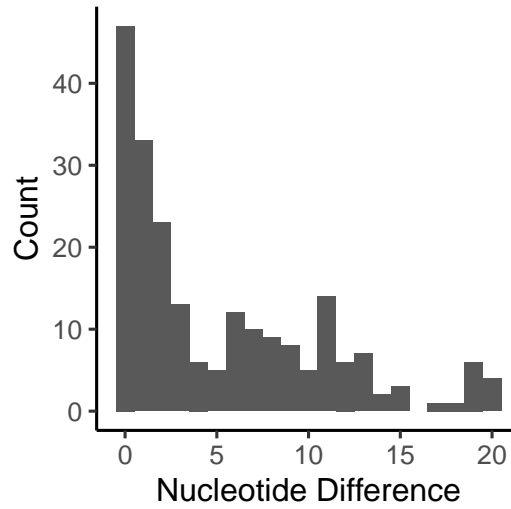
IGHV3-11*01

1487 sequences assigned
392 (26.4%) exact matches, in which:
237 unique CDR3
5 unique J



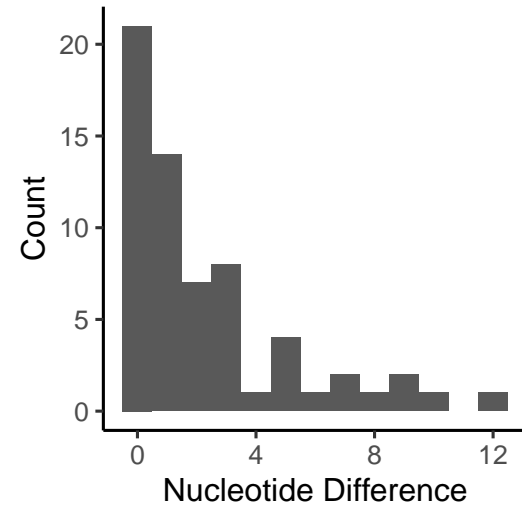
IGHV3-13*01

331 sequences assigned
47 (14.2%) exact matches, in which:
31 unique CDR3
5 unique J



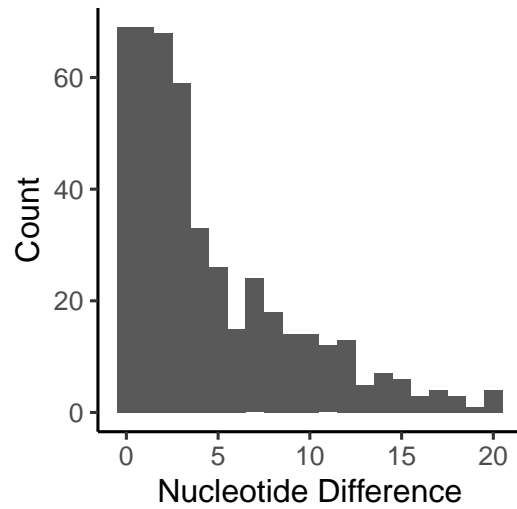
IGHV3-20*01_02

79 sequences assigned
21 (26.6%) exact matches, in which:
11 unique CDR3
4 unique J



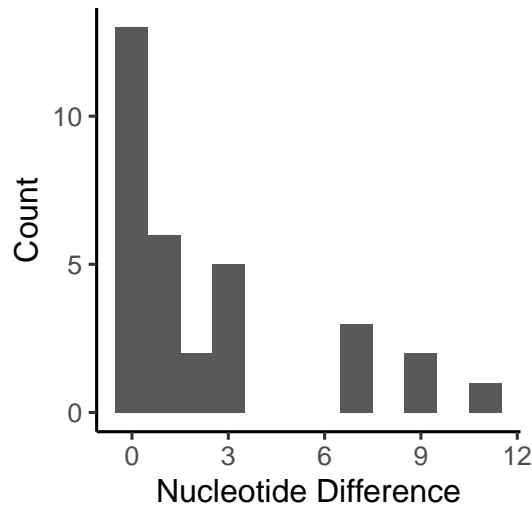
IGHV3-11*04

471 sequences assigned
69 (14.6%) exact matches, in which:
67 unique CDR3
6 unique J



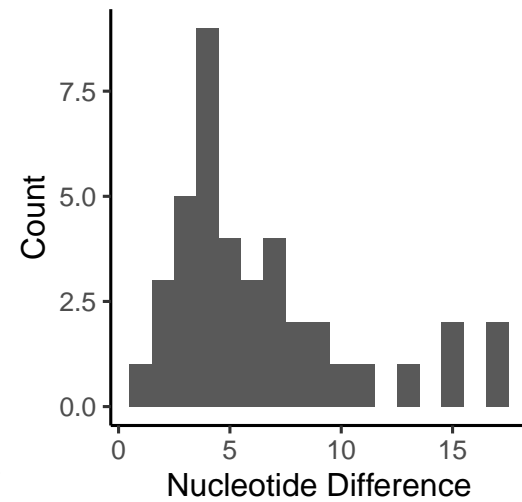
IGHV3-13*05

32 sequences assigned
13 (40.6%) exact matches, in which:
8 unique CDR3
5 unique J



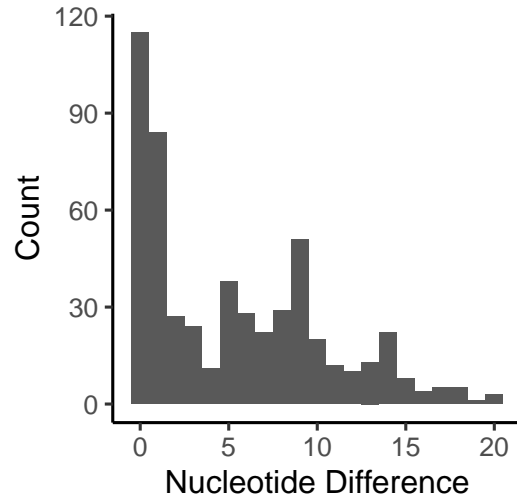
IGHV3-20*03_04

50 sequences assigned
No exact matches.



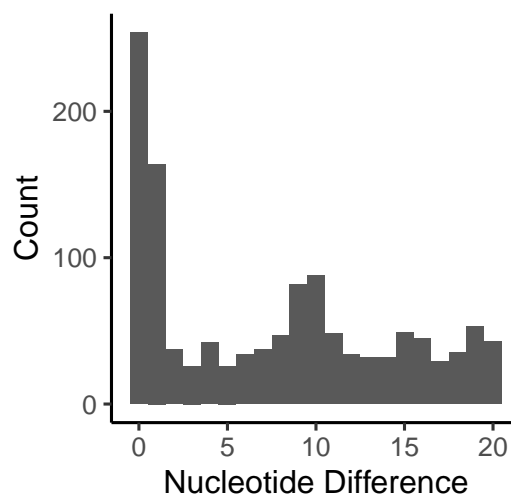
IGHV3-11*06

542 sequences assigned
115 (21.2%) exact matches, in which:
86 unique CDR3
5 unique J



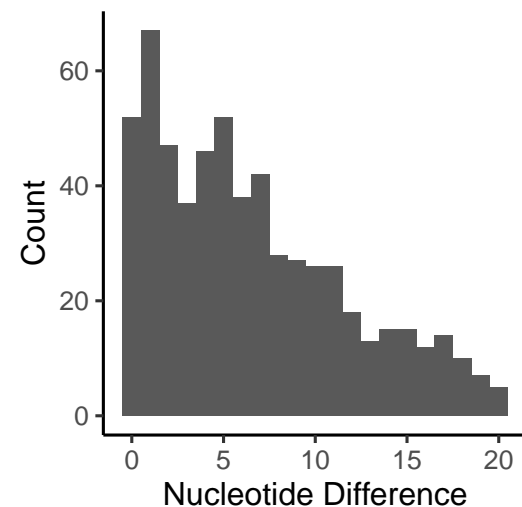
IGHV3-15*01_02

1427 sequences assigned
254 (17.8%) exact matches, in which:
154 unique CDR3
5 unique J



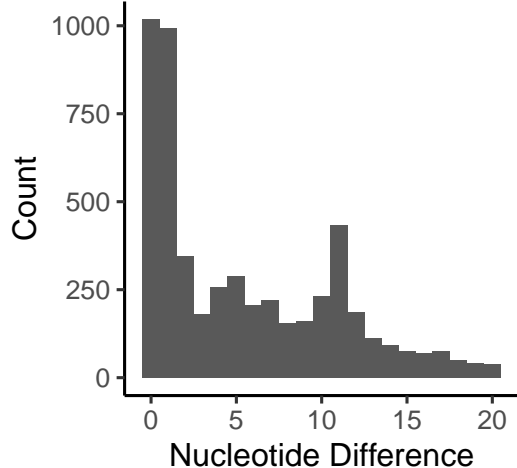
IGHV3-21*04

627 sequences assigned
52 (8.3%) exact matches, in which:
46 unique CDR3
4 unique J



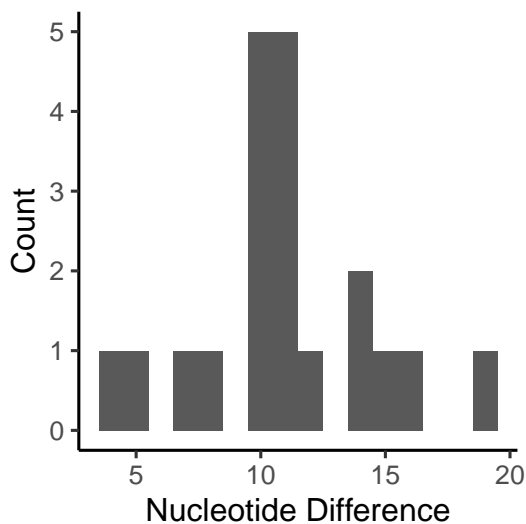
IGHV3-21*01_02

5424 sequences assigned
1018 (18.8%) exact matches, in which:
630 unique CDR3
6 unique J



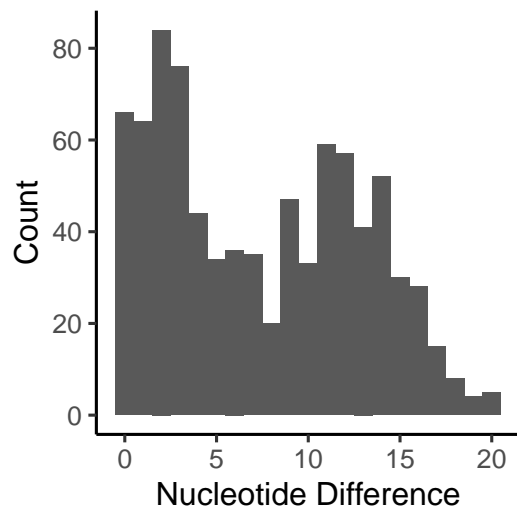
IGHV3-30-5*01

45 sequences assigned
No exact matches.



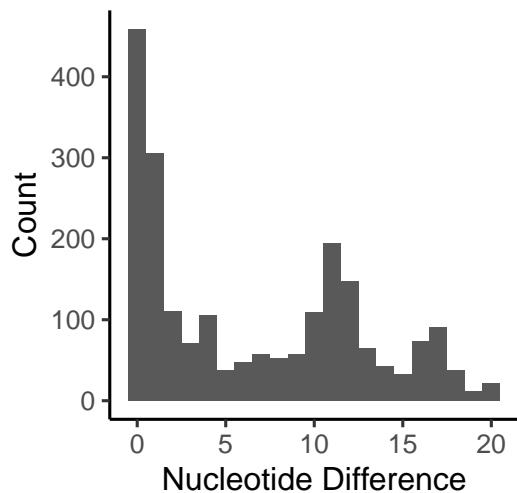
IGHV3-30*07

881 sequences assigned
66 (7.5%) exact matches, in which:
64 unique CDR3
6 unique J



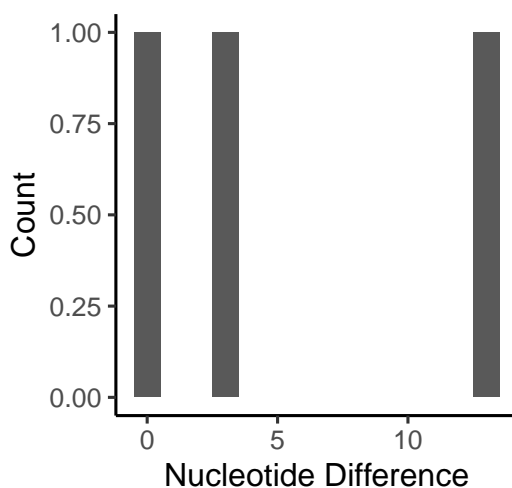
IGHV3-30*01

2198 sequences assigned
459 (20.9%) exact matches, in which:
296 unique CDR3
6 unique J



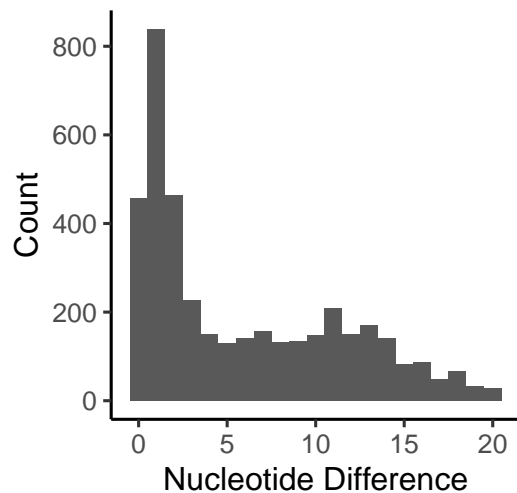
IGHV3-30-5*02

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



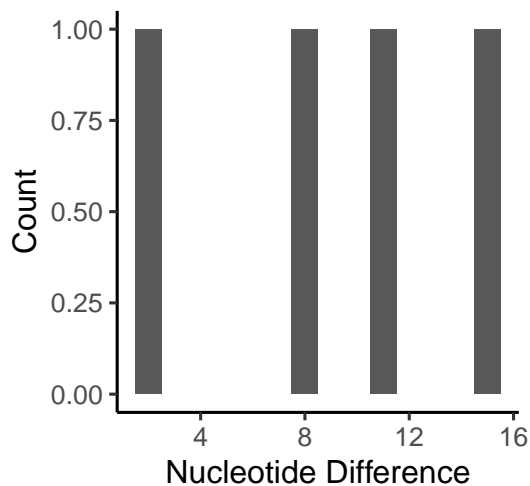
IGHV3-33*01

4180 sequences assigned
457 (10.9%) exact matches, in which:
289 unique CDR3
6 unique J



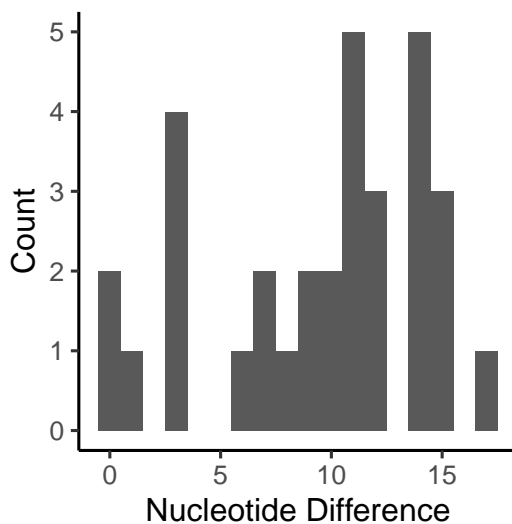
IGHV3-30-3*01

19 sequences assigned
No exact matches.



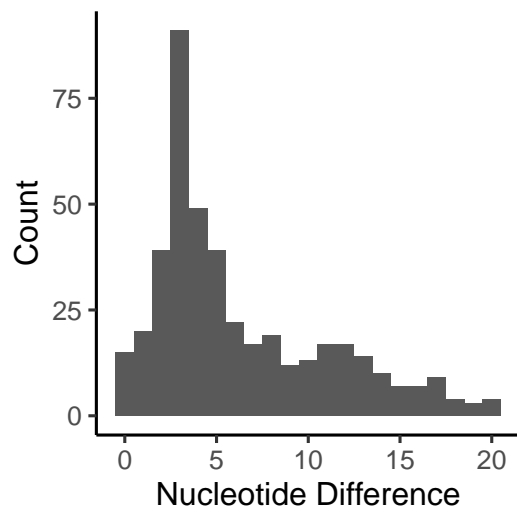
IGHV3-30-3*03

37 sequences assigned
2 (5.4%) exact matches, in which:
2 unique CDR3
2 unique J



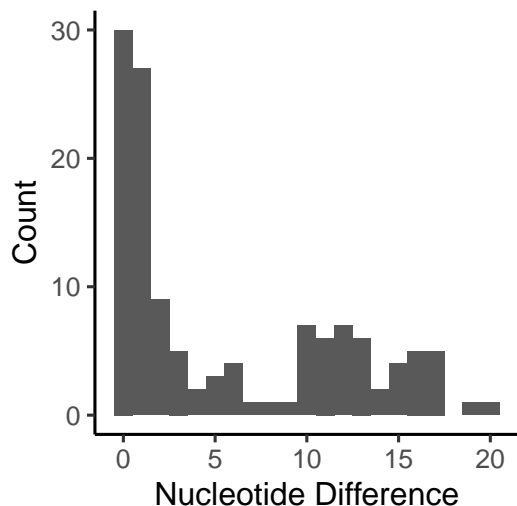
IGHV3-33*06

439 sequences assigned
15 (3.4%) exact matches, in which:
15 unique CDR3
3 unique J



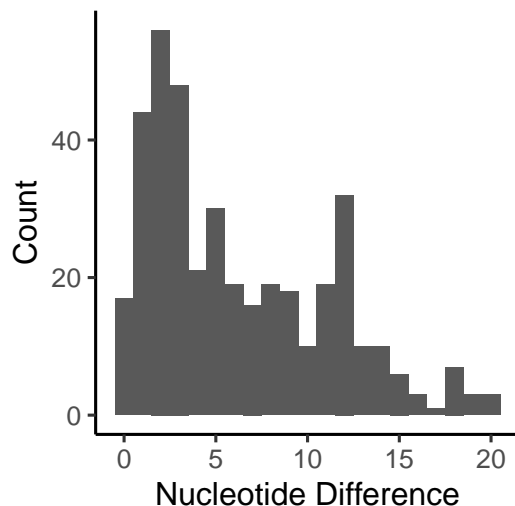
IGHV3-43*01

140 sequences assigned
30 (21.4%) exact matches, in which:
16 unique CDR3
3 unique J



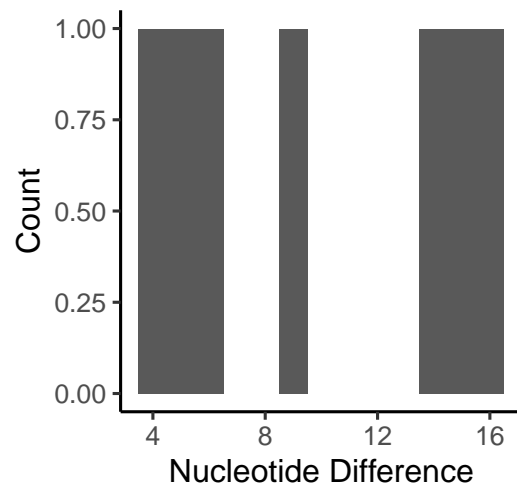
IGHV3-48*04

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



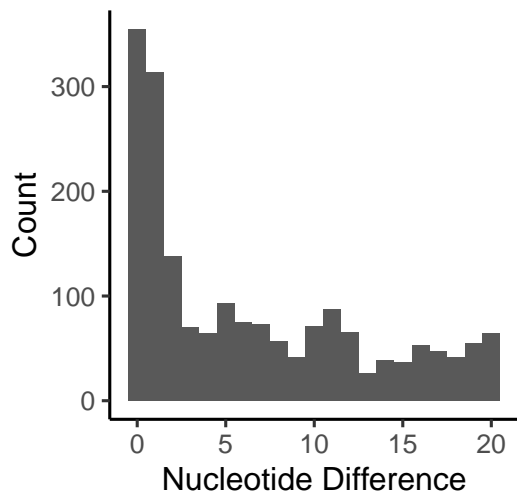
IGHV3-52*01_03

7 sequences assigned
No exact matches.



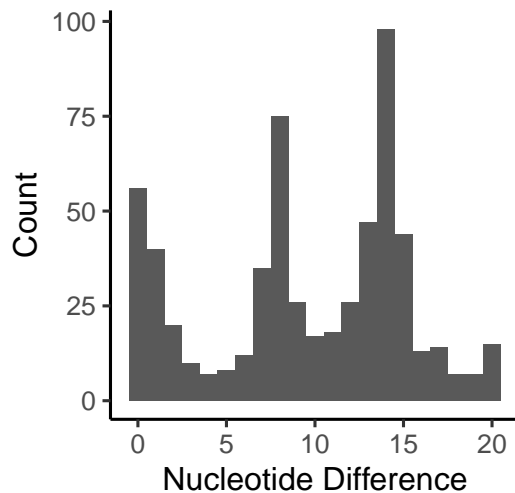
IGHV3-48*01

2090 sequences assigned
355 (17%) exact matches, in which:
227 unique CDR3
6 unique J



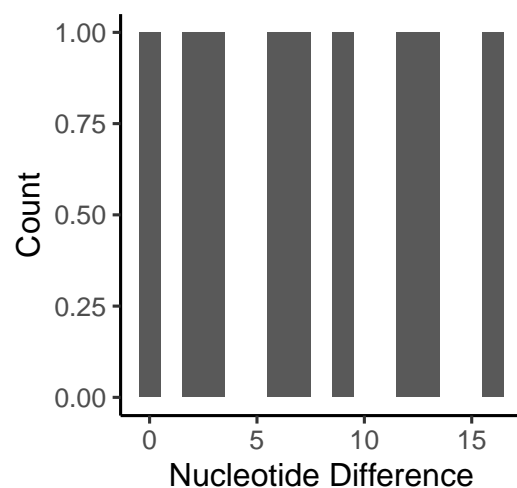
IGHV3-49*04

667 sequences assigned
56 (8.4%) exact matches, in which:
39 unique CDR3
6 unique J



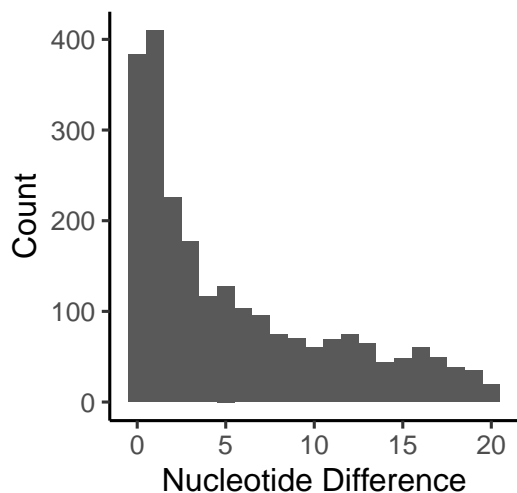
IGHV3-53*05

10 sequences assigned
1 (10%) exact matches, in which:
1 unique CDR3
1 unique J



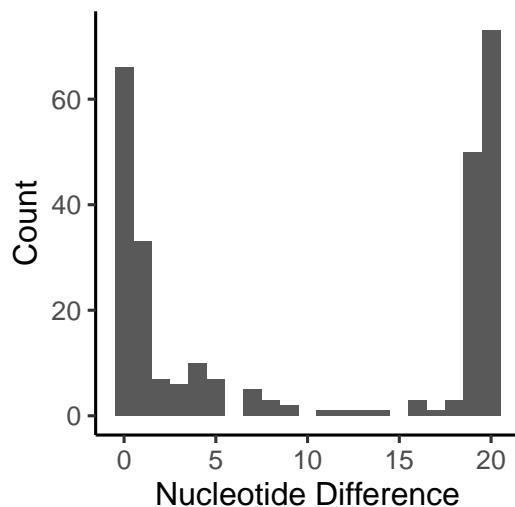
IGHV3-48*03

2465 sequences assigned
383 (15.5%) exact matches, in which:
245 unique CDR3
6 unique J



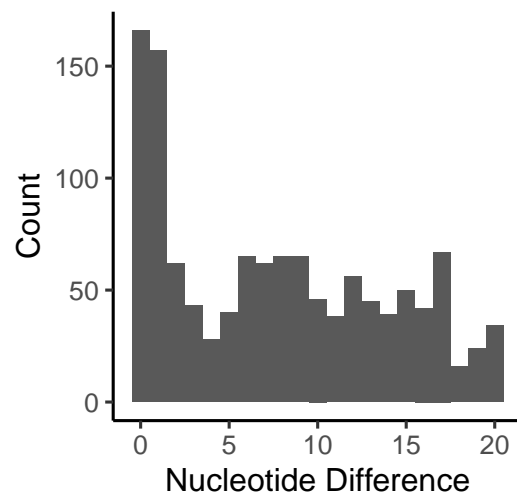
IGHV3-49*03_05

480 sequences assigned
66 (13.8%) exact matches, in which:
40 unique CDR3
4 unique J



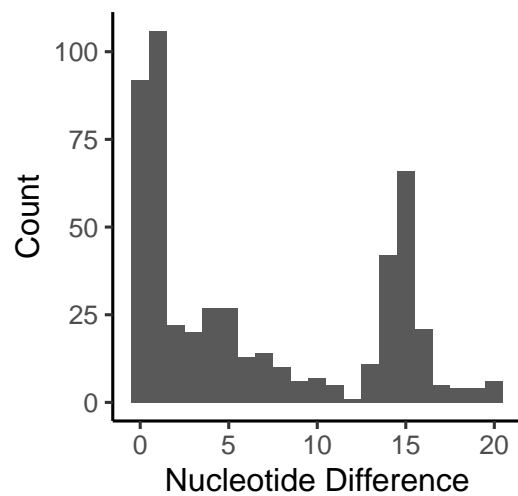
IGHV3-53*01_02

1384 sequences assigned
166 (12%) exact matches, in which:
107 unique CDR3
5 unique J



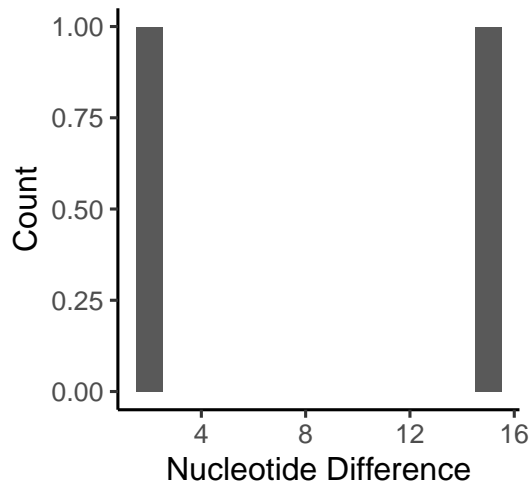
IGHV3-64*01

767 sequences assigned
92 (12%) exact matches, in which:
53 unique CDR3
5 unique J



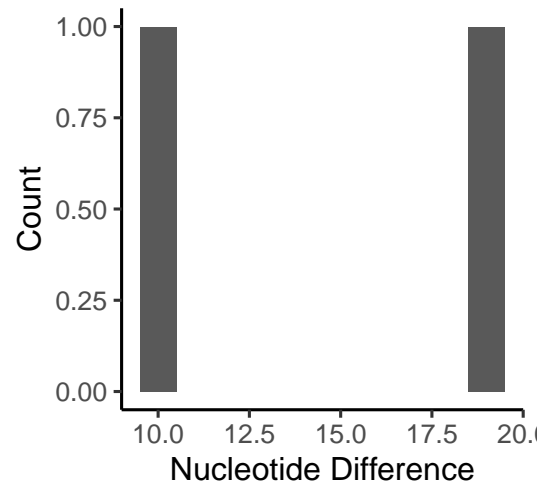
IGHV3-66*03

2 sequences assigned
No exact matches.



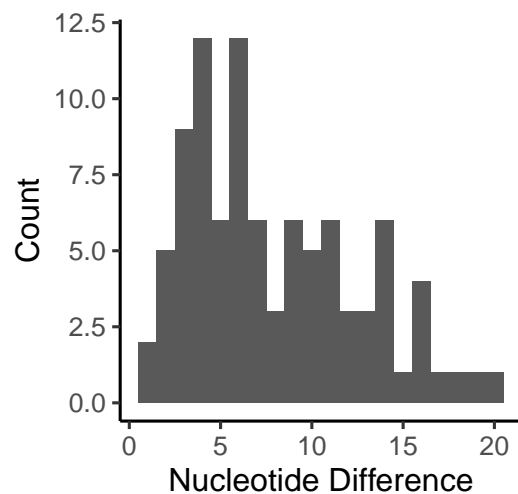
IGHV3-71*01_04

3 sequences assigned
No exact matches.



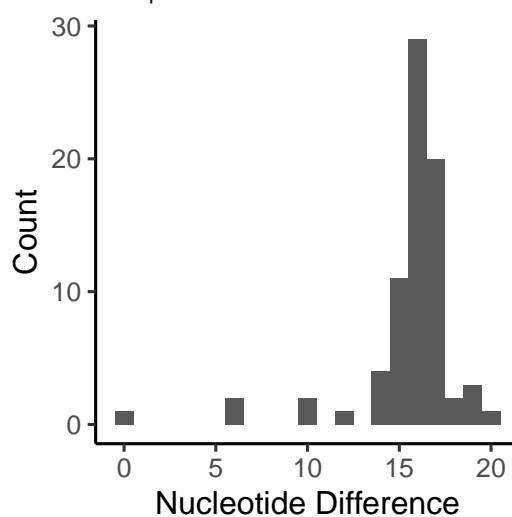
IGHV3-64*04

95 sequences assigned
No exact matches.



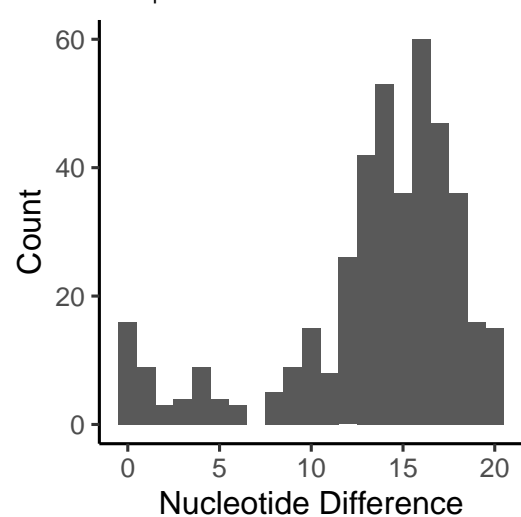
IGHV3-69-1*01

79 sequences assigned
1 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



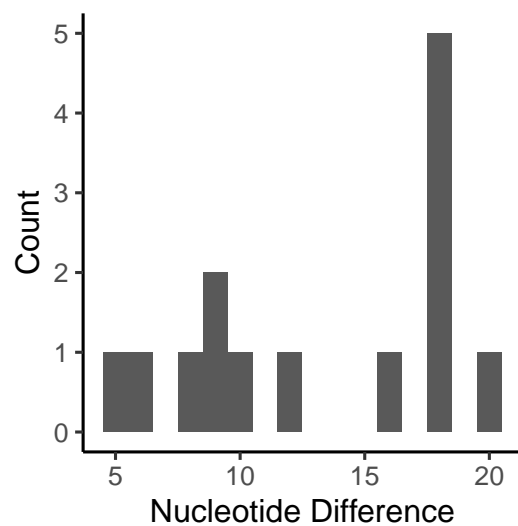
IGHV3-72*01

448 sequences assigned
16 (3.6%) exact matches, in which:
9 unique CDR3
3 unique J



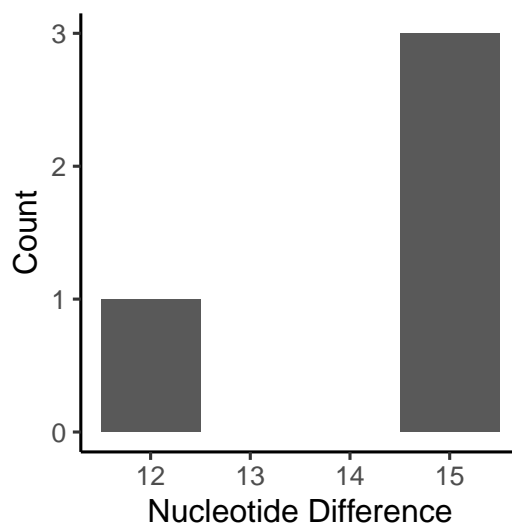
IGHV3-66*01

19 sequences assigned
No exact matches.



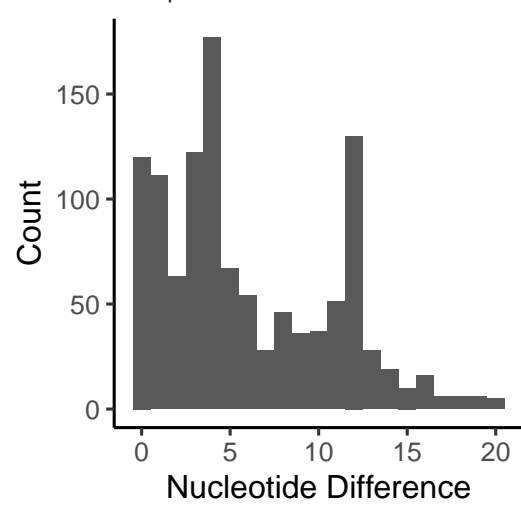
IGHV3-69-1*02

12 sequences assigned
No exact matches.



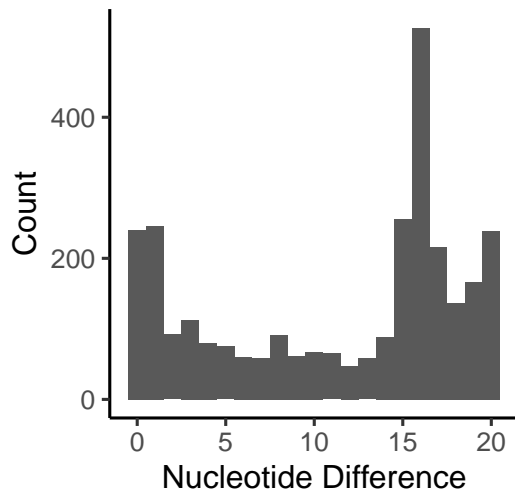
IGHV3-73*01_02

1150 sequences assigned
120 (10.4%) exact matches, in which:
75 unique CDR3
6 unique J



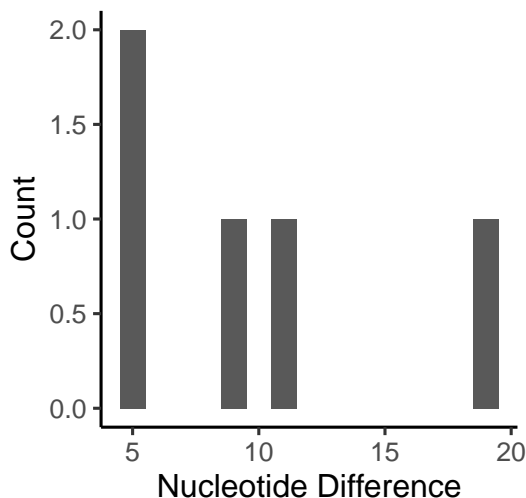
IGHV3-74*01_02

4714 sequences assigned
240 (5.1%) exact matches, in which:
157 unique CDR3
6 unique J



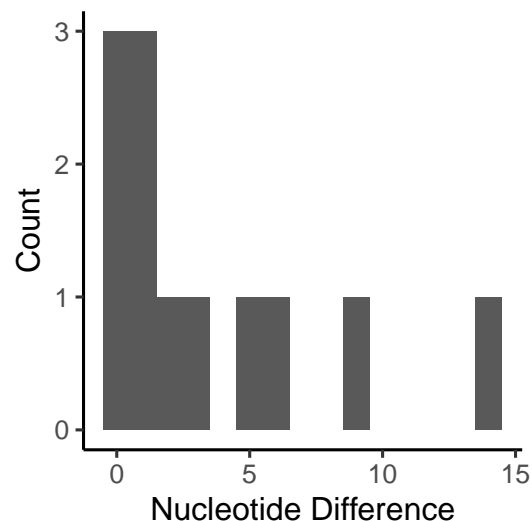
IGHV3-NL1*01

6 sequences assigned
No exact matches.



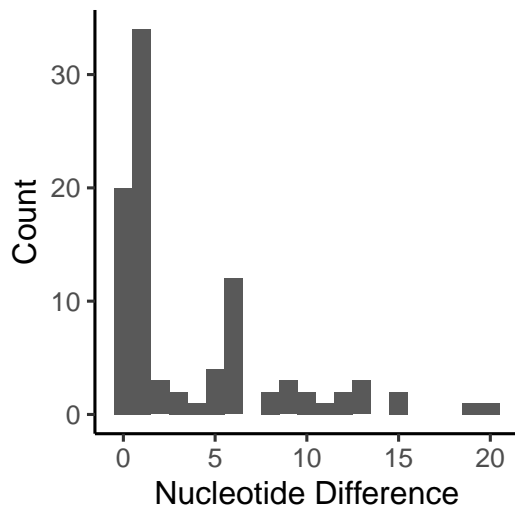
IGHV4-28*01_07

13 sequences assigned
3 (23.1%) exact matches, in which:
1 unique CDR3
1 unique J



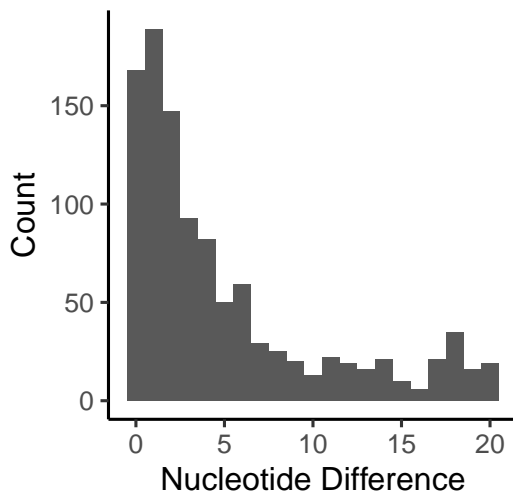
IGHV3-43D*04

93 sequences assigned
20 (21.5%) exact matches, in which:
12 unique CDR3
3 unique J



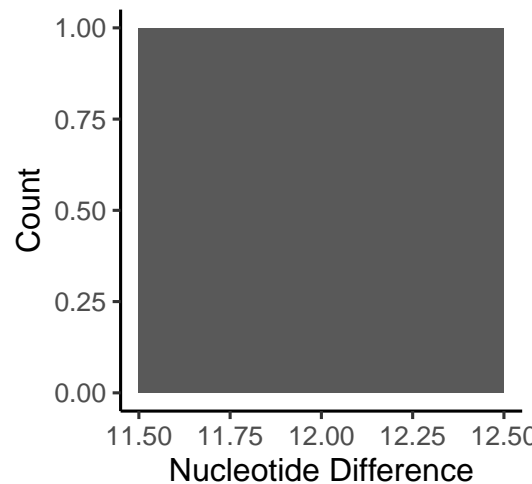
IGHV4-4*07

1204 sequences assigned
168 (14%) exact matches, in which:
147 unique CDR3
6 unique J



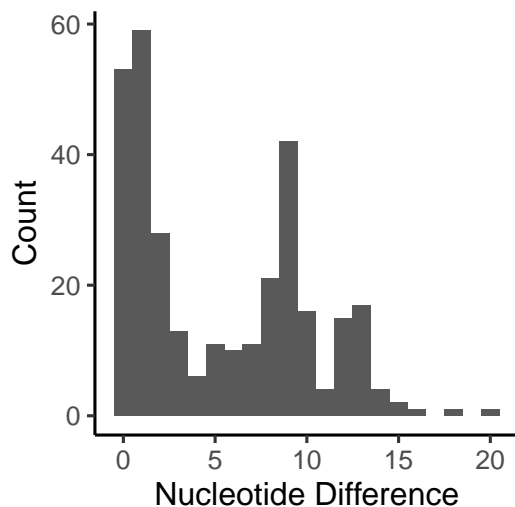
IGHV4-30-2*03

3 sequences assigned
No exact matches.



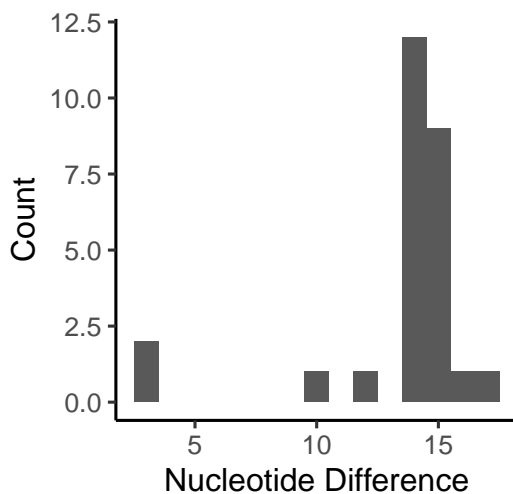
IGHV3-64D*06

321 sequences assigned
53 (16.5%) exact matches, in which:
26 unique CDR3
5 unique J



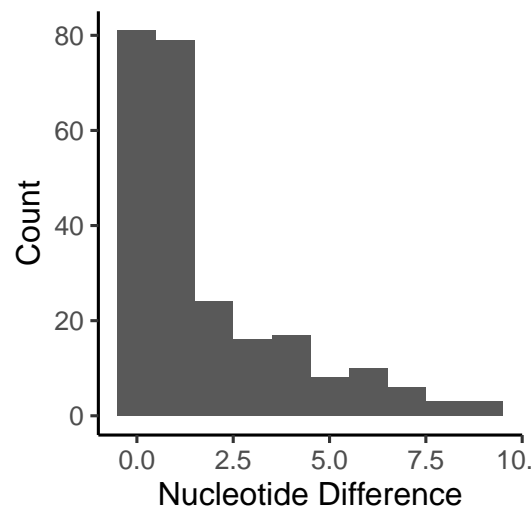
IGHV4-28*03

29 sequences assigned
No exact matches.



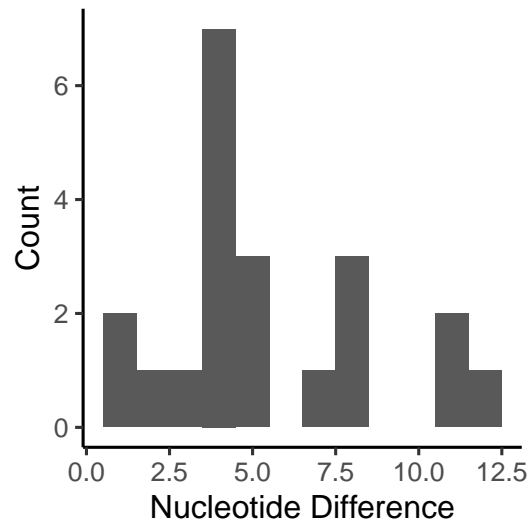
IGHV4-31*01

247 sequences assigned
81 (32.8%) exact matches, in which:
68 unique CDR3
6 unique J



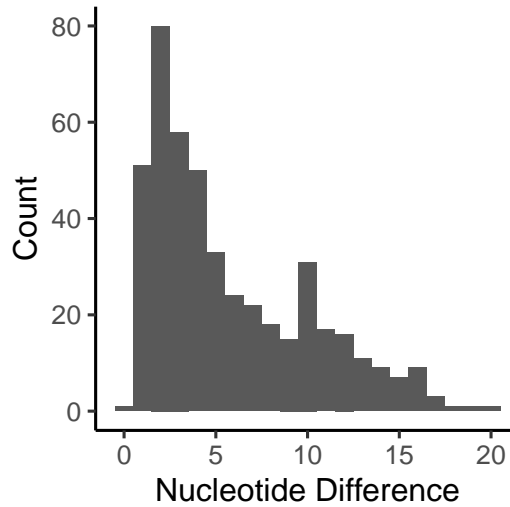
IGHV4-31*03_04

35 sequences assigned
No exact matches.



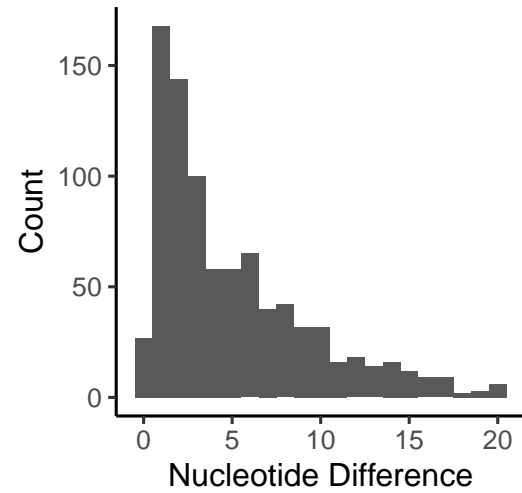
IGHV4-39*07

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



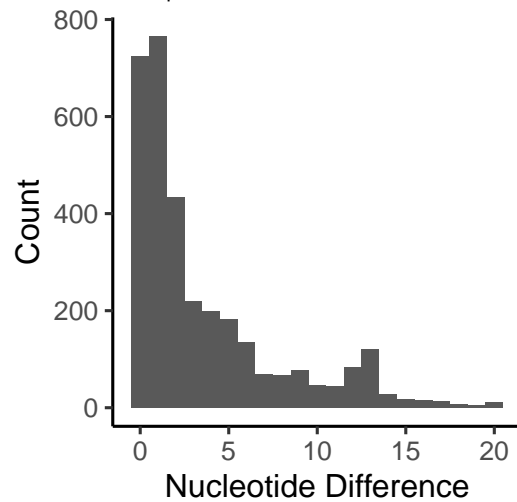
IGHV4-59*12

885 sequences assigned
27 (3.1%) exact matches, in which:
27 unique CDR3
5 unique J



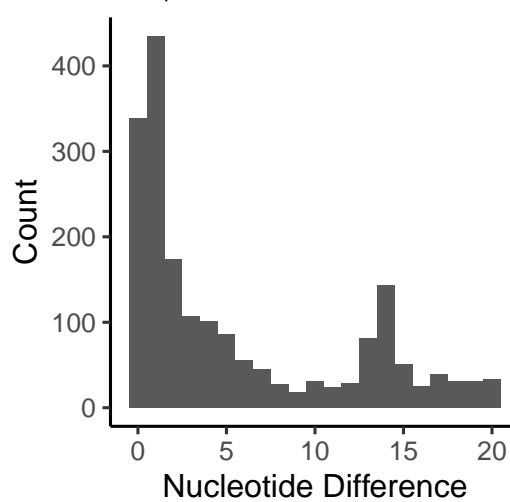
IGHV4-34*01_02

3458 sequences assigned
725 (21%) exact matches, in which:
592 unique CDR3
6 unique J



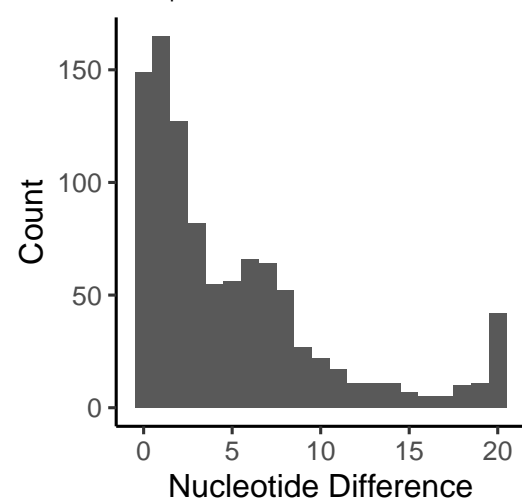
IGHV4-39*01_05

2127 sequences assigned
339 (15.9%) exact matches, in which:
254 unique CDR3
6 unique J



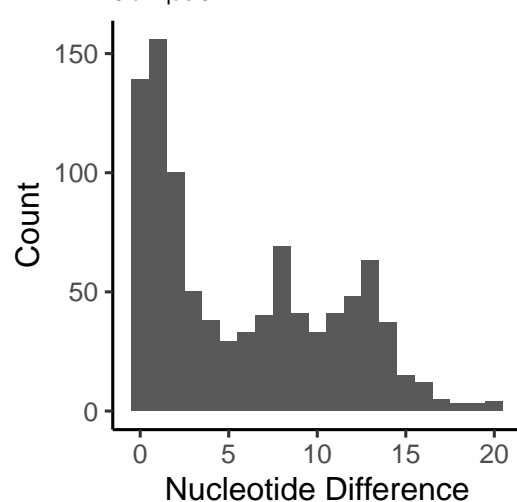
IGHV4-61*01

1523 sequences assigned
149 (9.8%) exact matches, in which:
129 unique CDR3
5 unique J



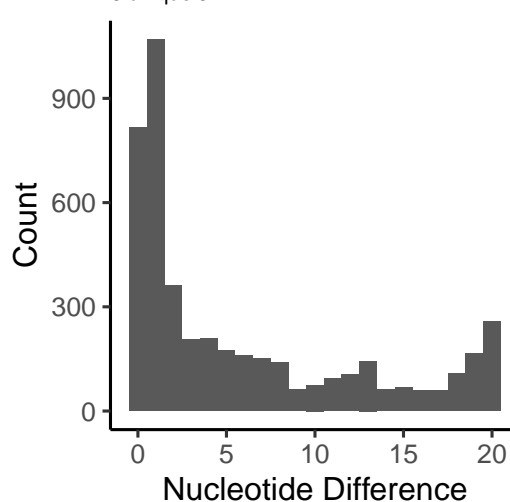
IGHV4-38-2*01

976 sequences assigned
139 (14.2%) exact matches, in which:
109 unique CDR3
6 unique J



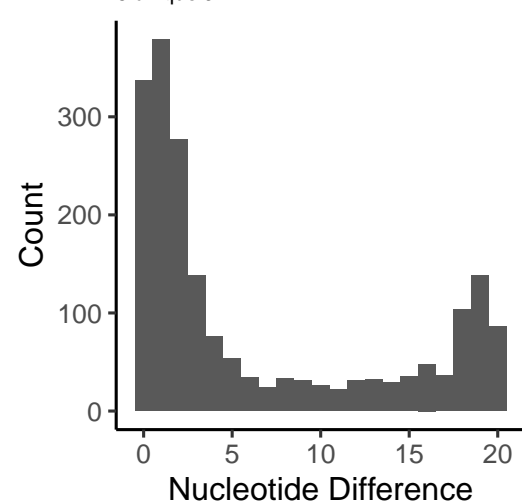
IGHV4-59*01_07

5960 sequences assigned
817 (13.7%) exact matches, in which:
611 unique CDR3
6 unique J



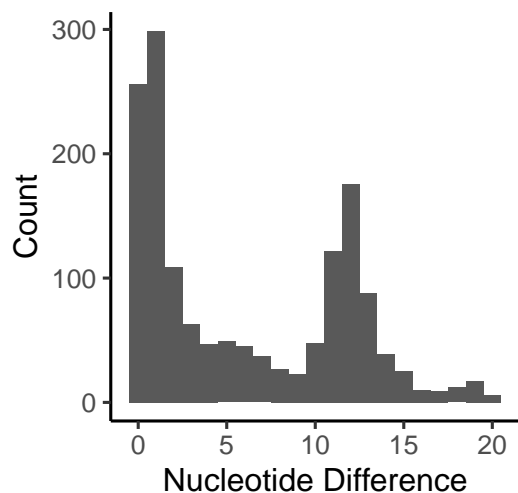
IGHV4-61*02

2446 sequences assigned
337 (13.8%) exact matches, in which:
291 unique CDR3
6 unique J



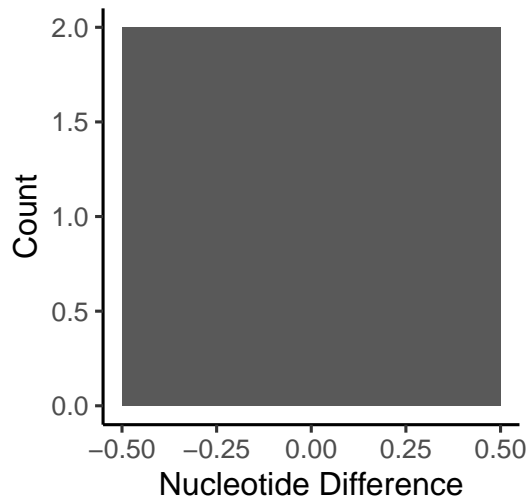
IGHV5-10-1*01_03

1527 sequences assigned
256 (16.8%) exact matches, in which:
170 unique CDR3
6 unique J



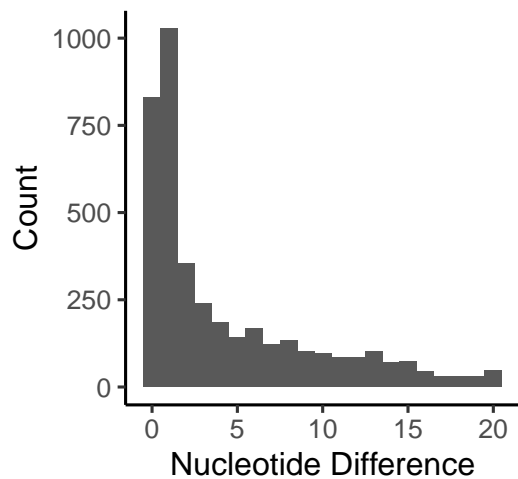
IGHV7-4-1*01

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
1 unique J



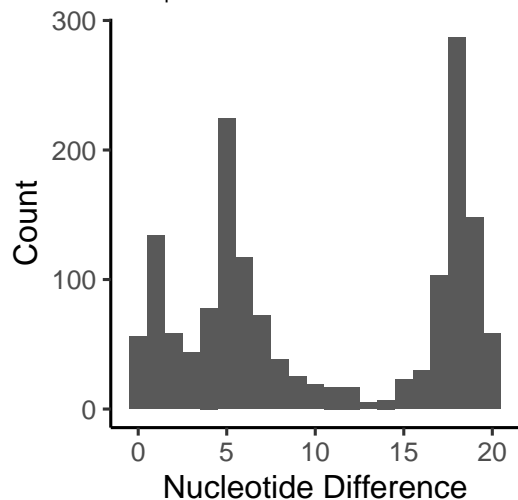
IGHV5-51*01_03

4313 sequences assigned
830 (19.2%) exact matches, in which:
484 unique CDR3
6 unique J



IGHV6-1*01_02

1652 sequences assigned
56 (3.4%) exact matches, in which:
45 unique CDR3
5 unique J





Novel sequence(s) IGHV1-69*01_12_13_G238A IGHV3-48*03_T303G 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) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

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

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.