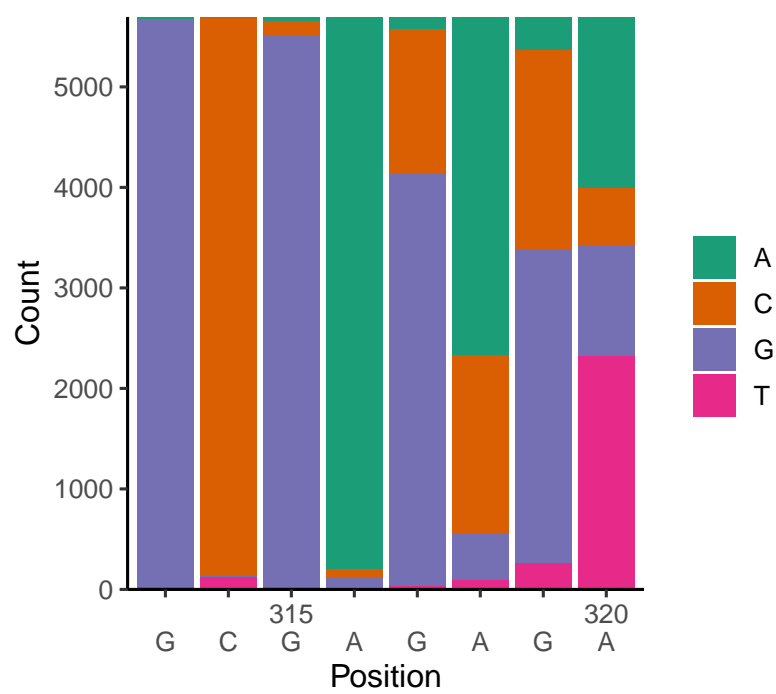
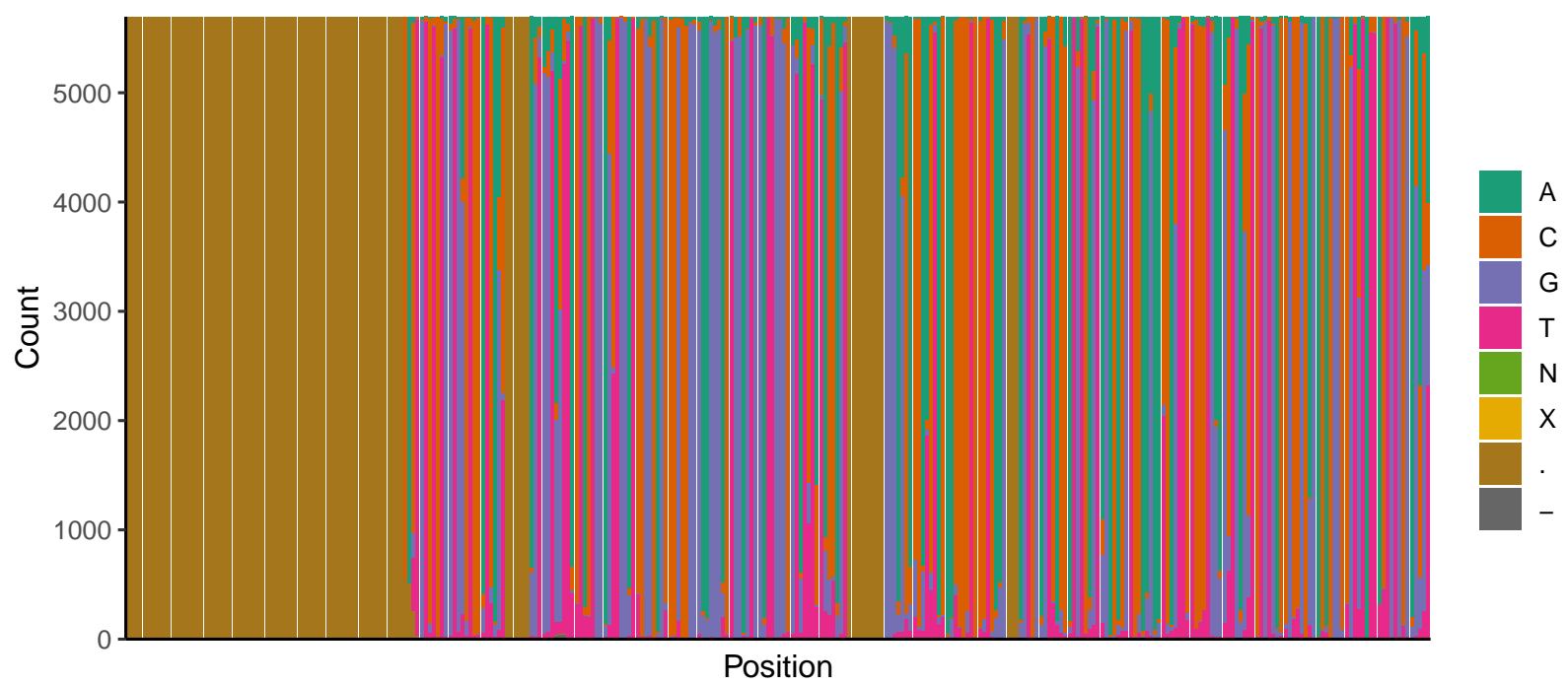


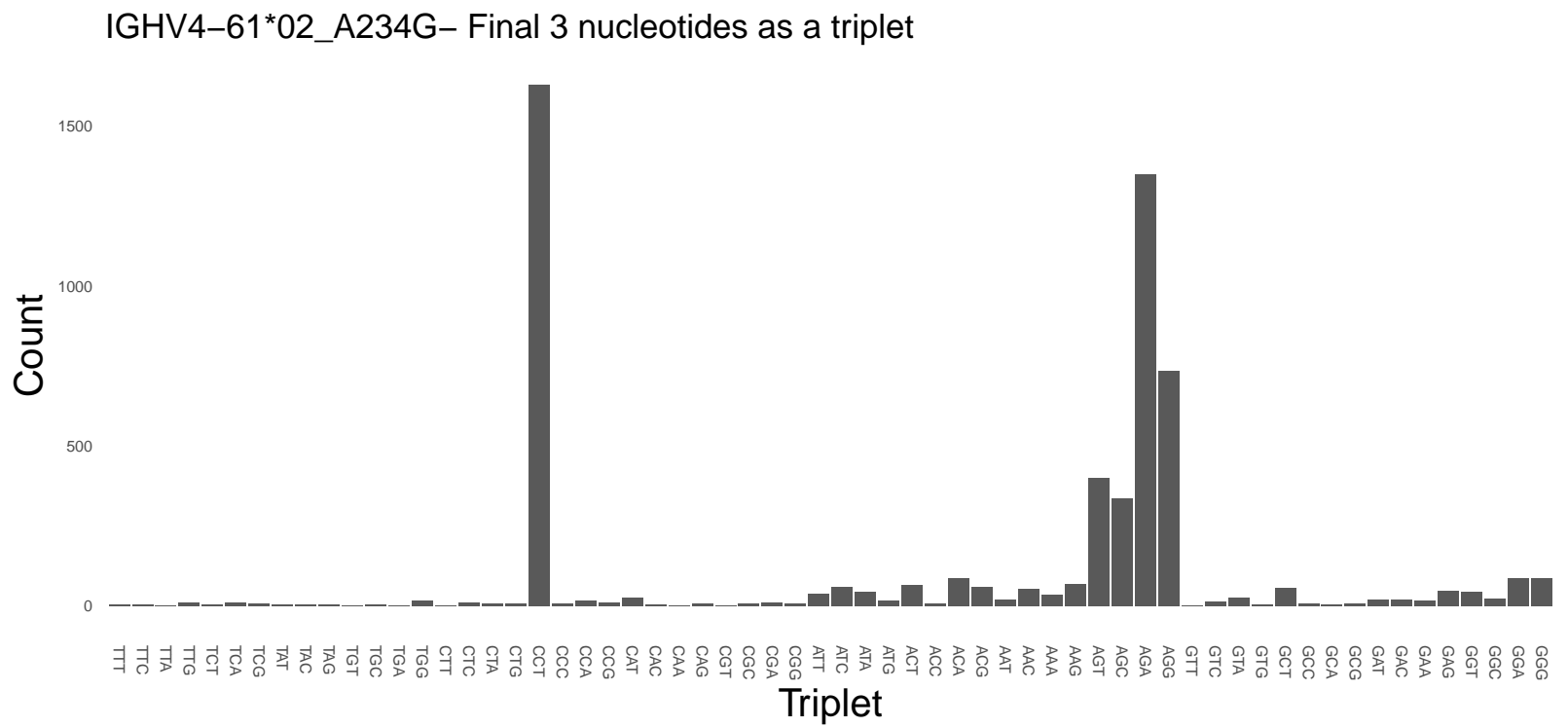
Gene IGHV4-61*02_A234G



Gene IGHV4-61*02_A234G

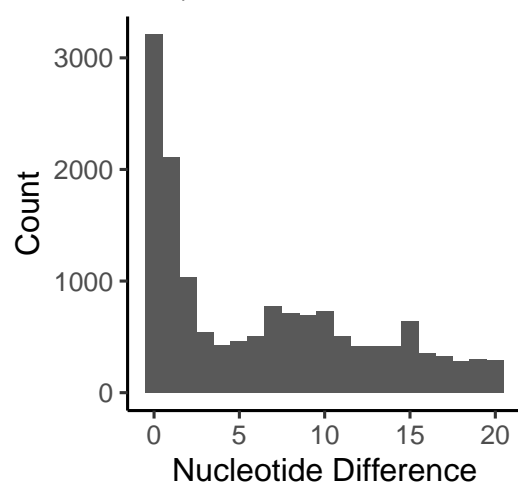


IGHV4-61*02_A234G- Final 3 nucleotides as a triplet



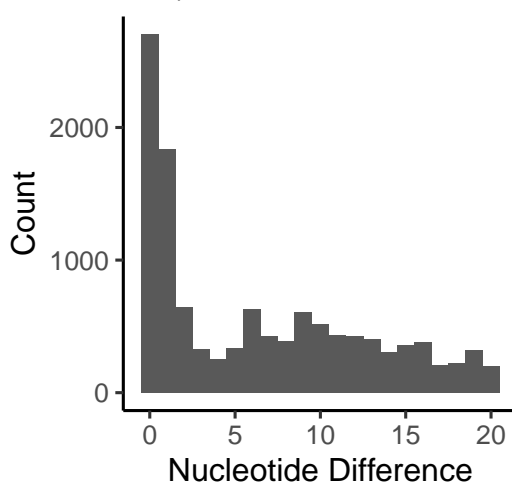
IGHV1-2*02

17254 sequences assigned
3210 (18.6%) exact matches, in which:
2938 unique CDR3
7 unique J



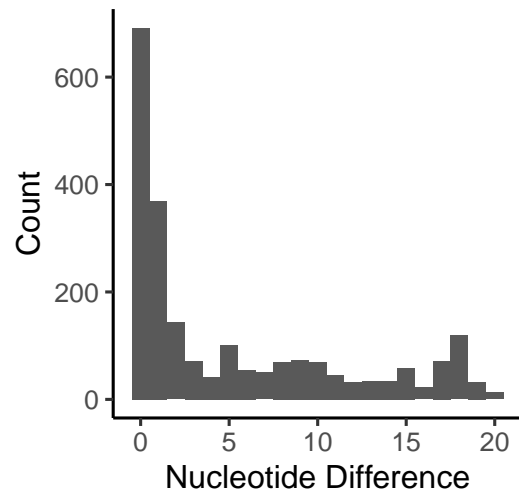
IGHV1-18*01

13494 sequences assigned
2702 (20%) exact matches, in which:
2495 unique CDR3
7 unique J



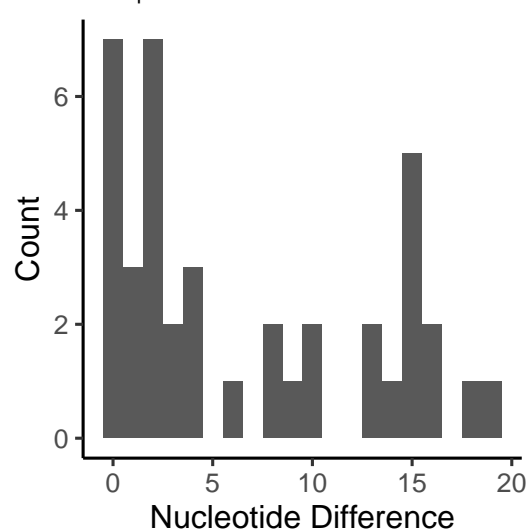
IGHV1-46*01

2332 sequences assigned
692 (29.7%) exact matches, in which:
650 unique CDR3
7 unique J



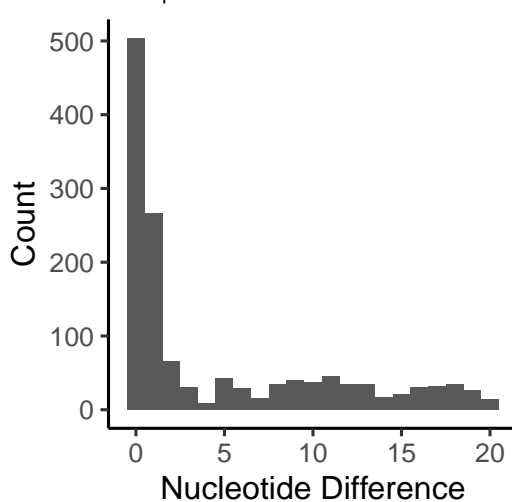
IGHV1-3*02

41 sequences assigned
7 (17.1%) exact matches, in which:
7 unique CDR3
3 unique J



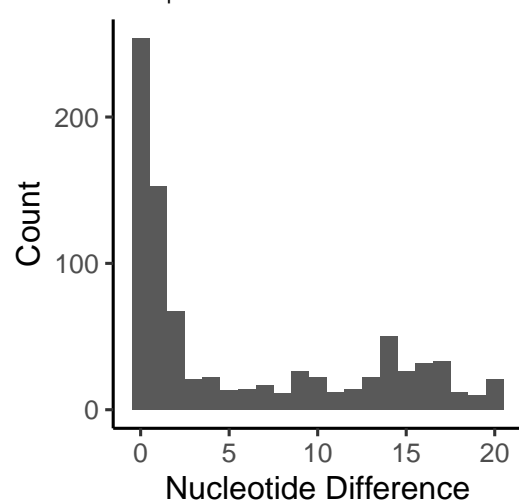
IGHV1-24*01

1528 sequences assigned
504 (33%) exact matches, in which:
472 unique CDR3
7 unique J



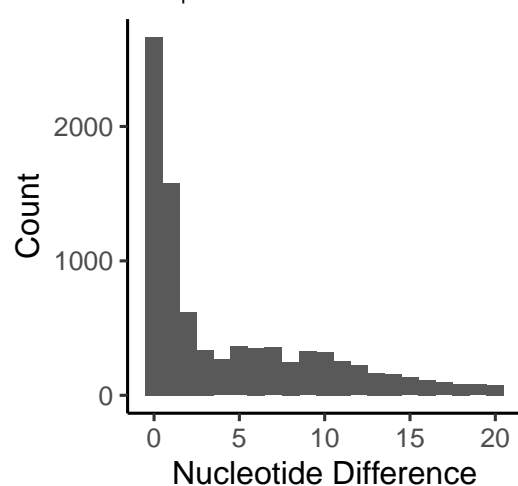
IGHV1-46*03

925 sequences assigned
254 (27.5%) exact matches, in which:
233 unique CDR3
7 unique J



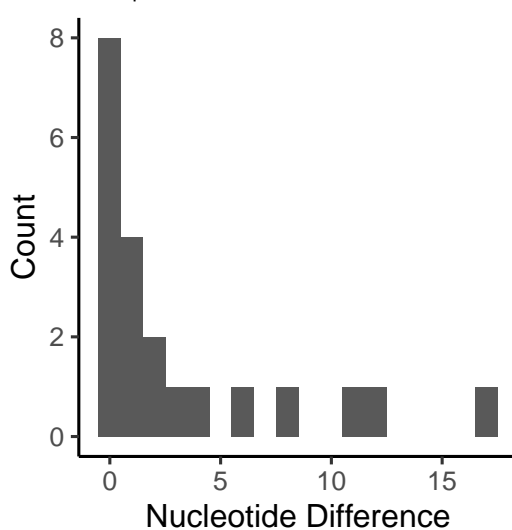
IGHV1-8*01

9432 sequences assigned
2665 (28.3%) exact matches, in which:
2500 unique CDR3
7 unique J



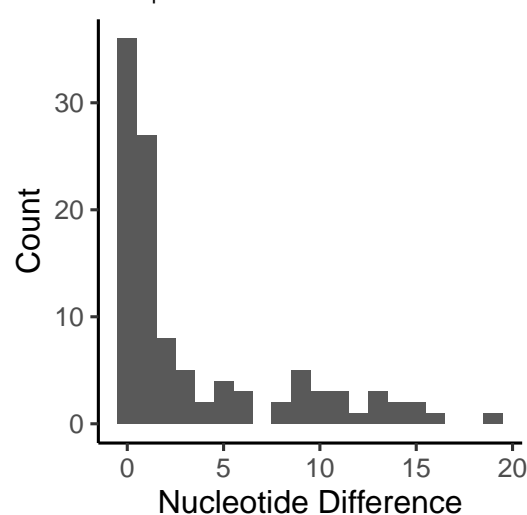
IGHV1-45*02

27 sequences assigned
8 (29.6%) exact matches, in which:
8 unique CDR3
4 unique J



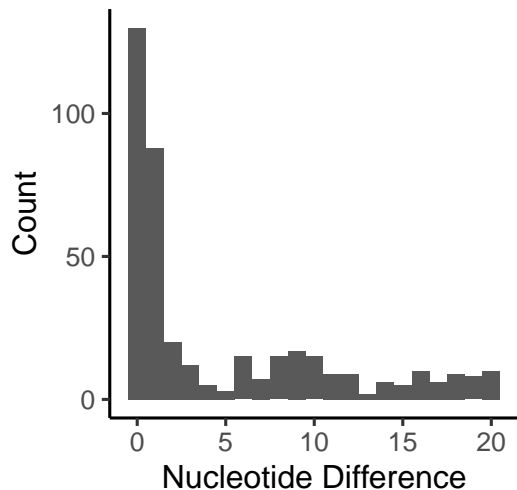
IGHV1-58*02

110 sequences assigned
36 (32.7%) exact matches, in which:
34 unique CDR3
4 unique J



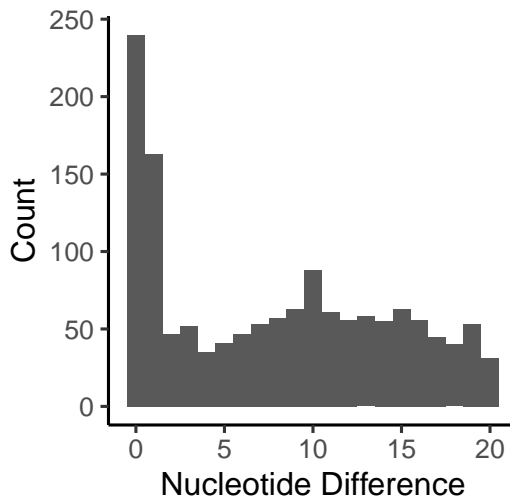
IGHV1–58*01_03

503 sequences assigned
130 (25.8%) exact matches, in which:
122 unique CDR3
7 unique J



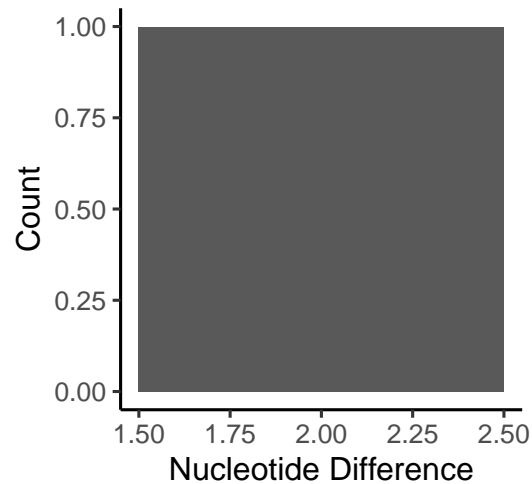
IGHV2–5*01

1683 sequences assigned
240 (14.3%) exact matches, in which:
232 unique CDR3
7 unique J



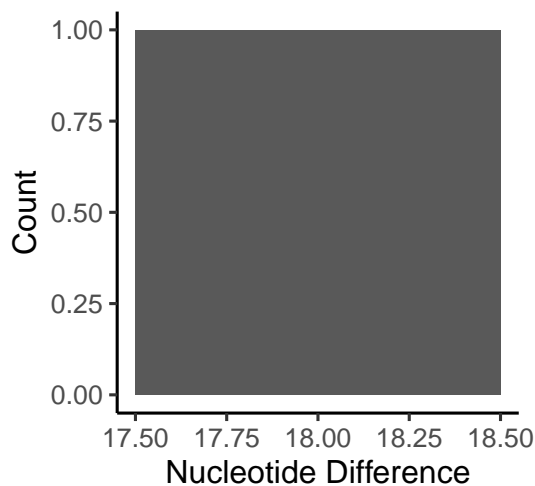
IGHV2–70D*14

1 sequences assigned
No exact matches.



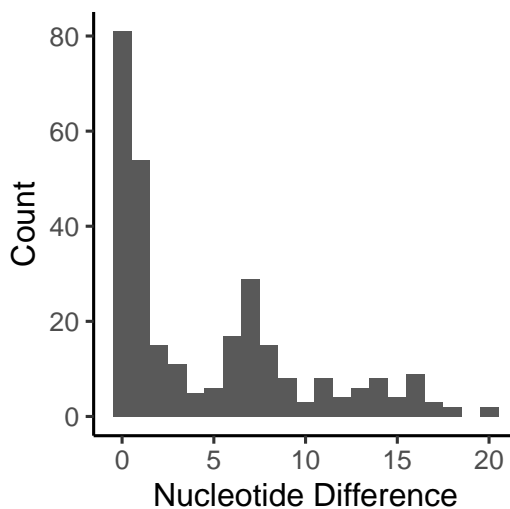
IGHV1–69–2*01

2 sequences assigned
No exact matches.



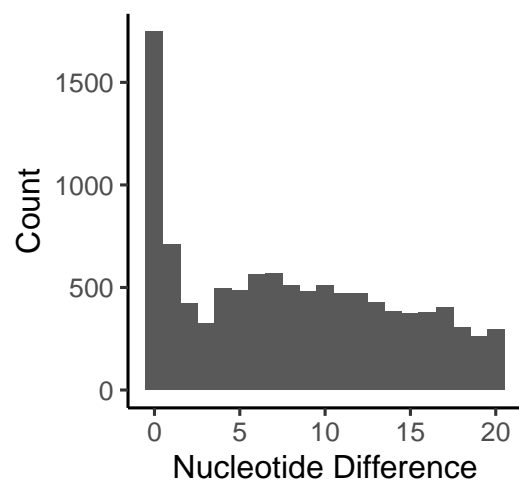
IGHV2–26*01

308 sequences assigned
81 (26.3%) exact matches, in which:
79 unique CDR3
6 unique J



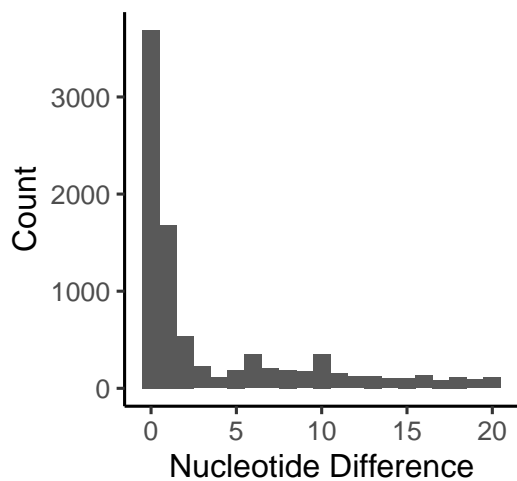
IGHV3–7*01

12231 sequences assigned
1747 (14.3%) exact matches, in which:
1319 unique CDR3
7 unique J



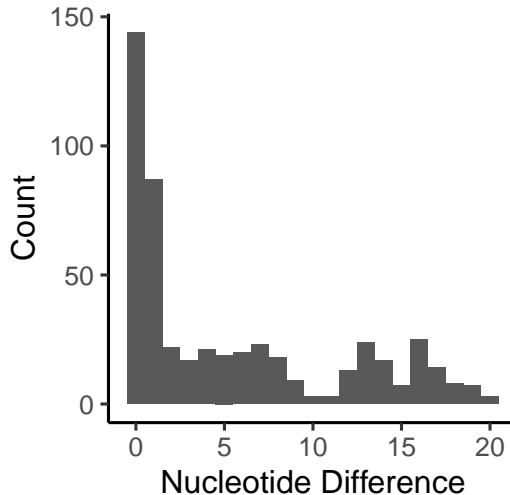
IGHV1–69*01_12_13

10649 sequences assigned
3689 (34.6%) exact matches, in which:
3536 unique CDR3
7 unique J



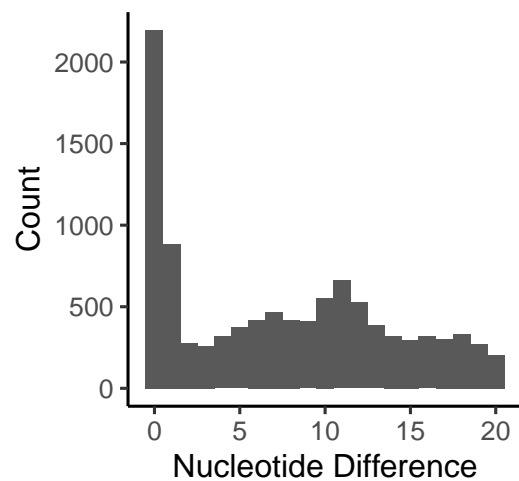
IGHV2–70*01

542 sequences assigned
144 (26.6%) exact matches, in which:
135 unique CDR3
7 unique J



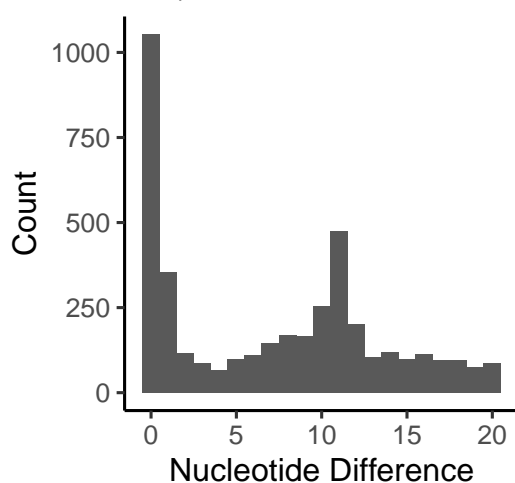
IGHV3–9*01

12058 sequences assigned
2196 (18.2%) exact matches, in which:
1504 unique CDR3
7 unique J



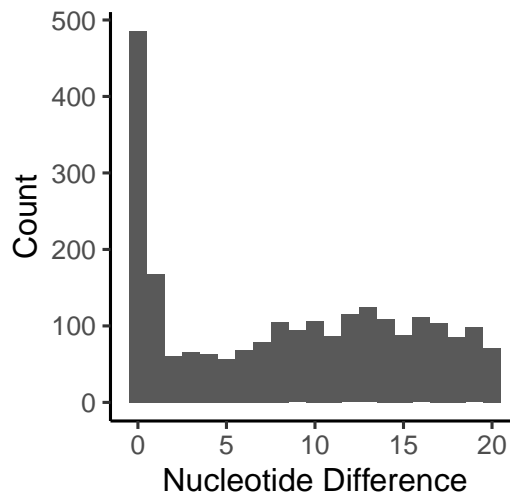
IGHV3-11*01

4742 sequences assigned
1053 (22.2%) exact matches, in which:
800 unique CDR3
7 unique J



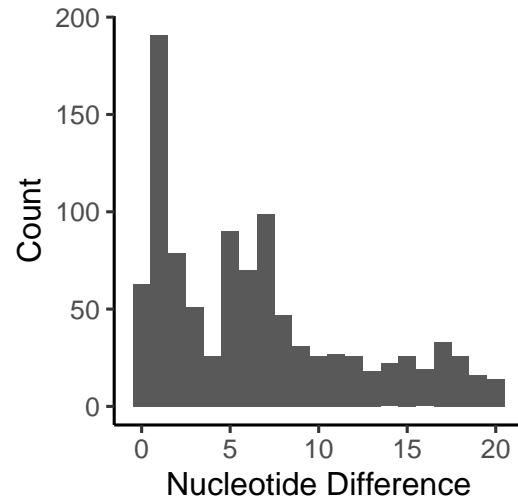
IGHV3-15*01_02

3273 sequences assigned
486 (14.8%) exact matches, in which:
343 unique CDR3
7 unique J



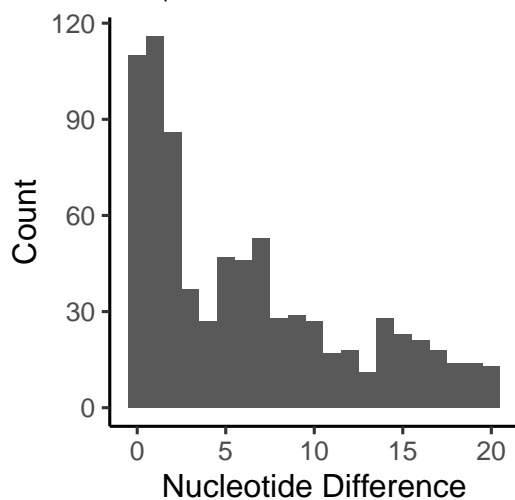
IGHV3-21*04

1134 sequences assigned
63 (5.6%) exact matches, in which:
63 unique CDR3
5 unique J



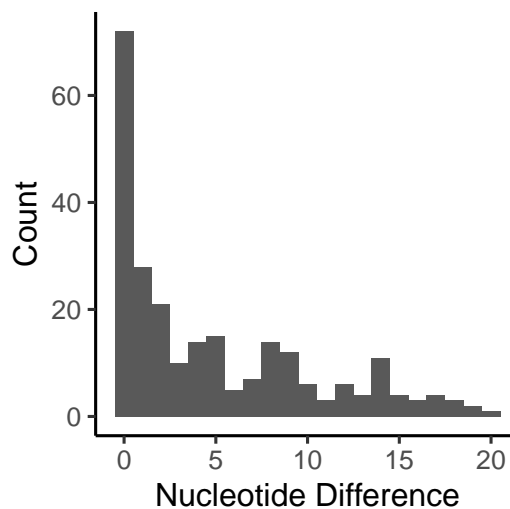
IGHV3-11*04

884 sequences assigned
110 (12.4%) exact matches, in which:
109 unique CDR3
6 unique J



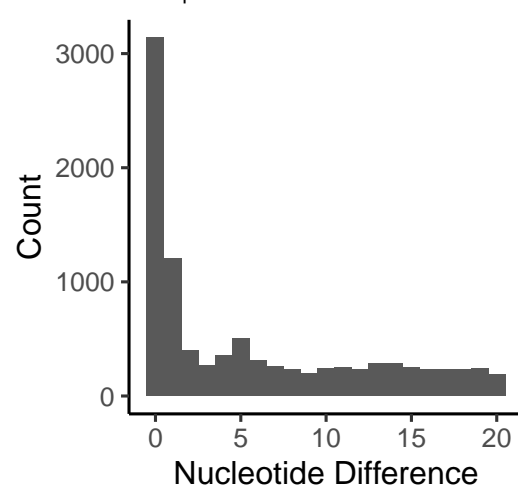
IGHV3-20*01_02

314 sequences assigned
72 (22.9%) exact matches, in which:
48 unique CDR3
6 unique J



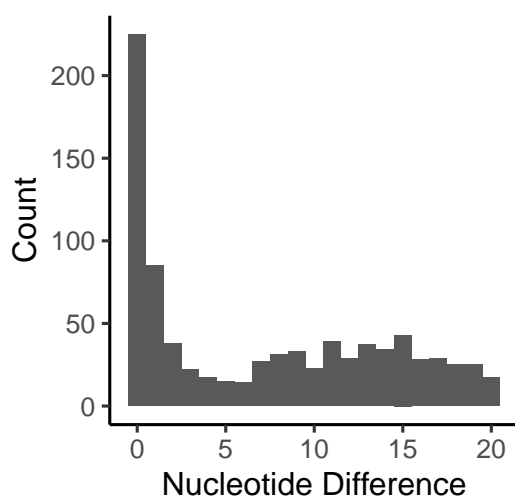
IGHV3-21*01_02

11269 sequences assigned
3139 (27.9%) exact matches, in which:
2777 unique CDR3
7 unique J



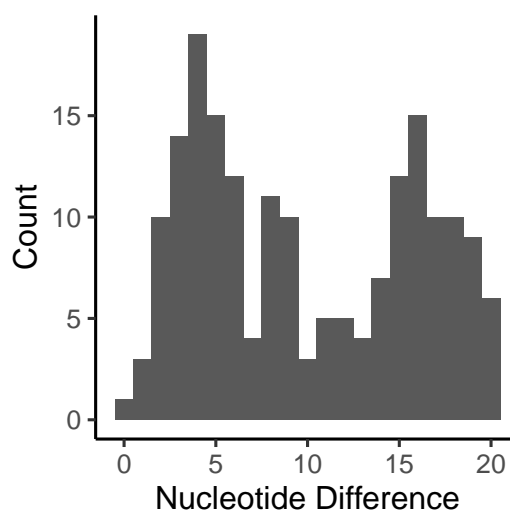
IGHV3-13*01

1048 sequences assigned
225 (21.5%) exact matches, in which:
155 unique CDR3
6 unique J



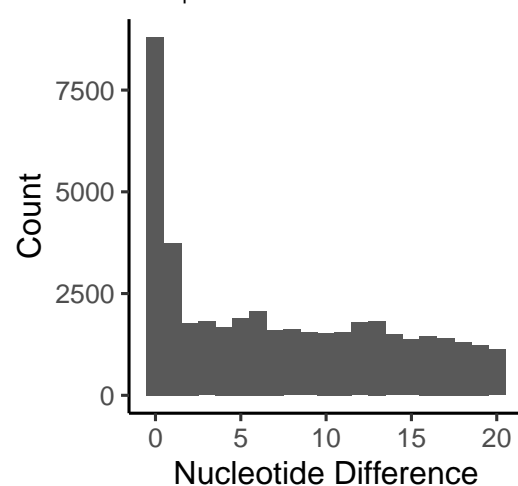
IGHV3-20*03_04

335 sequences assigned
1 (0.3%) exact matches, in which:
1 unique CDR3
1 unique J



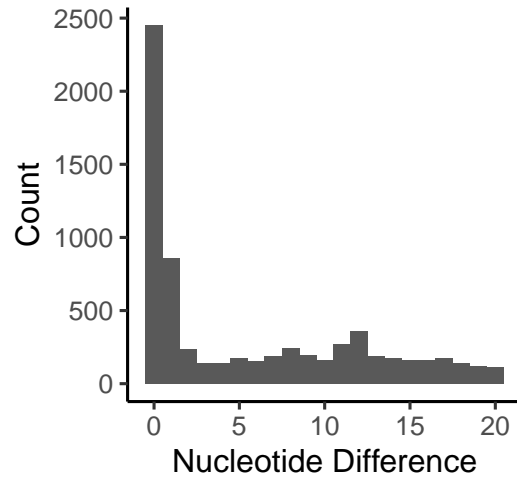
IGHV3-23*01_04

52144 sequences assigned
8803 (16.9%) exact matches, in which:
6004 unique CDR3
7 unique J



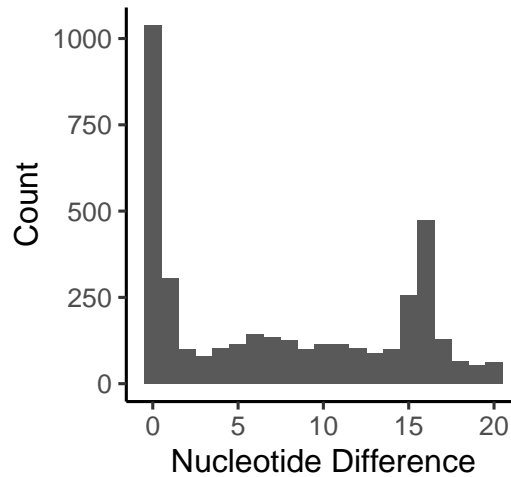
IGHV3-30-3*01

7721 sequences assigned
2450 (31.7%) exact matches, in which:
1776 unique CDR3
7 unique J



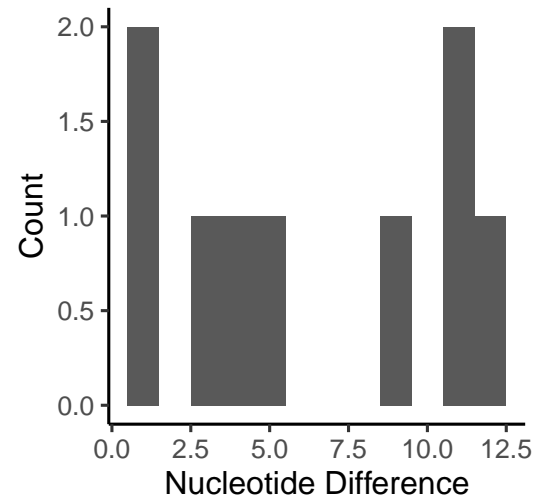
IGHV3-33*01

4442 sequences assigned
1038 (23.4%) exact matches, in which:
794 unique CDR3
7 unique J



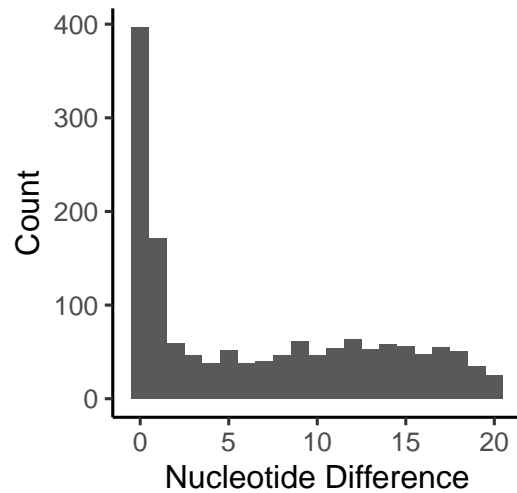
IGHV3-38-3*01

9 sequences assigned
No exact matches.



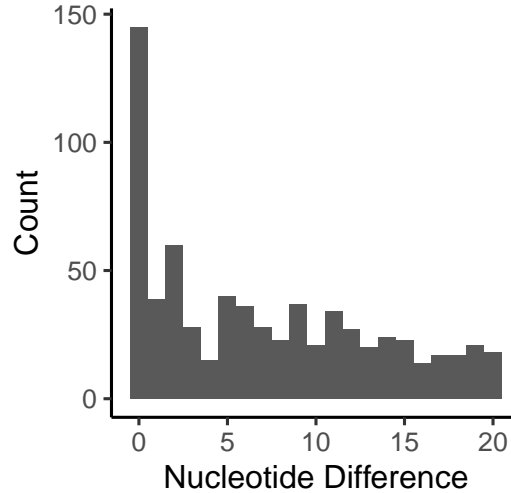
IGHV3-30*03

2002 sequences assigned
397 (19.8%) exact matches, in which:
376 unique CDR3
7 unique J



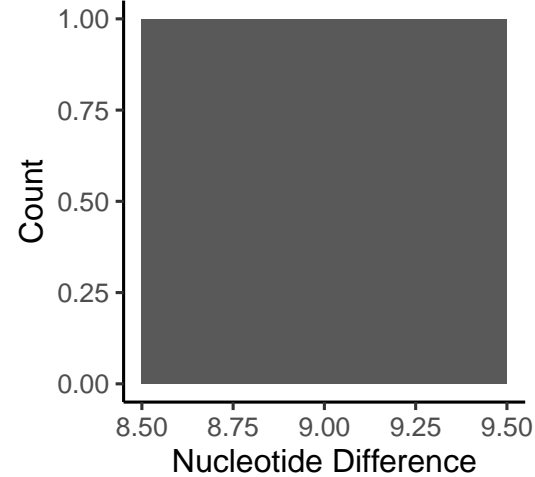
IGHV3-33*08

838 sequences assigned
145 (17.3%) exact matches, in which:
136 unique CDR3
6 unique J



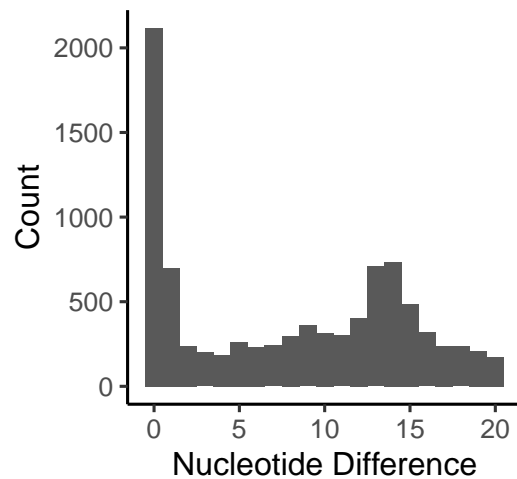
IGHV3-38*03

1 sequences assigned
No exact matches.



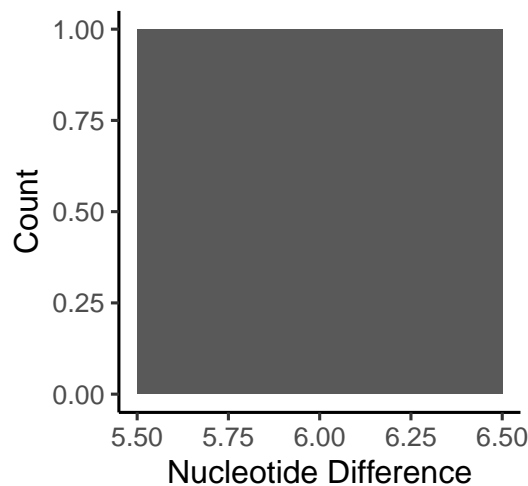
IGHV3-30*18

10561 sequences assigned
2117 (20%) exact matches, in which:
1512 unique CDR3
7 unique J



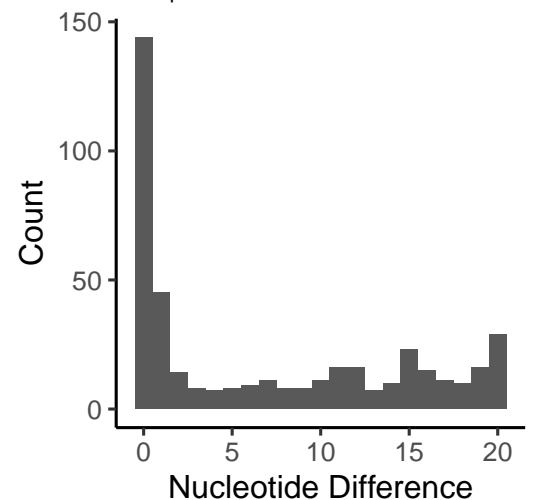
IGHV3-35*01

1 sequences assigned
No exact matches.



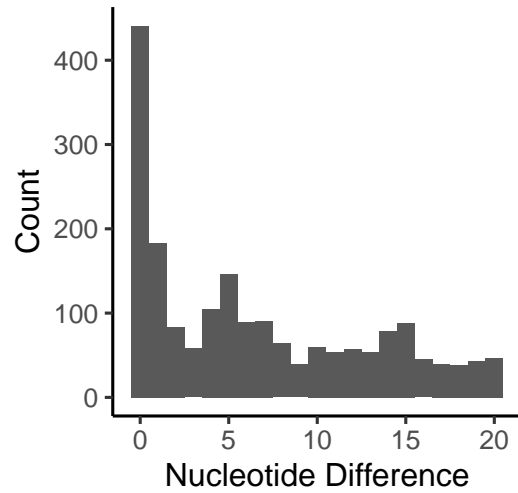
IGHV3-43*01

572 sequences assigned
144 (25.2%) exact matches, in which:
99 unique CDR3
7 unique J



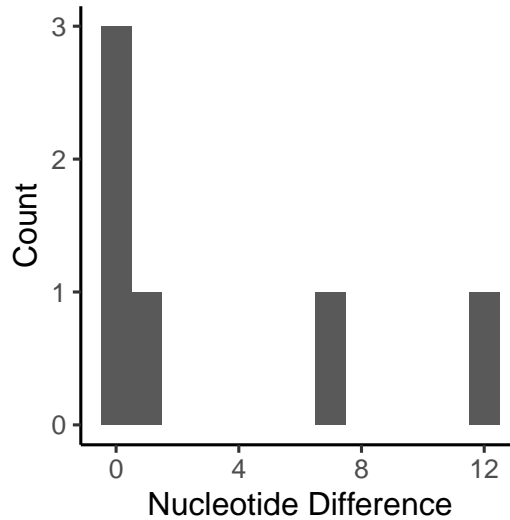
IGHV3-48*01

2255 sequences assigned
441 (19.6%) exact matches, in which:
325 unique CDR3
7 unique J



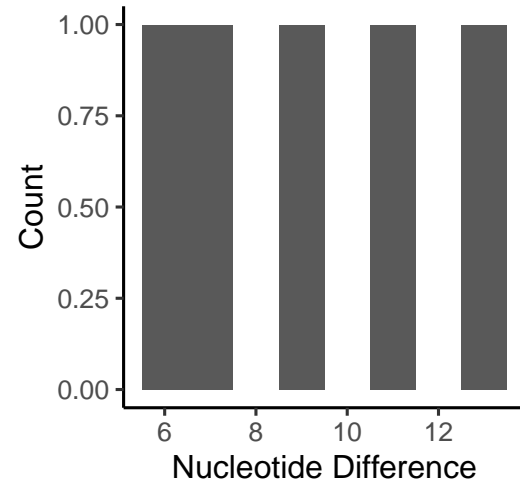
IGHV3-52*02

6 sequences assigned
3 (50%) exact matches, in which:
2 unique CDR3
1 unique J



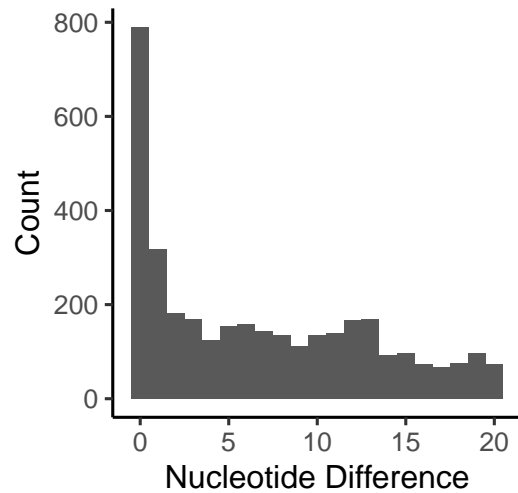
IGHV3-64*04

7 sequences assigned
No exact matches.



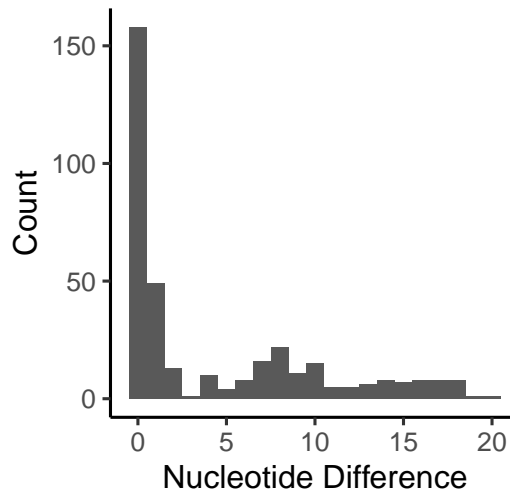
IGHV3-48*04

4411 sequences assigned
790 (17.9%) exact matches, in which:
614 unique CDR3
7 unique J



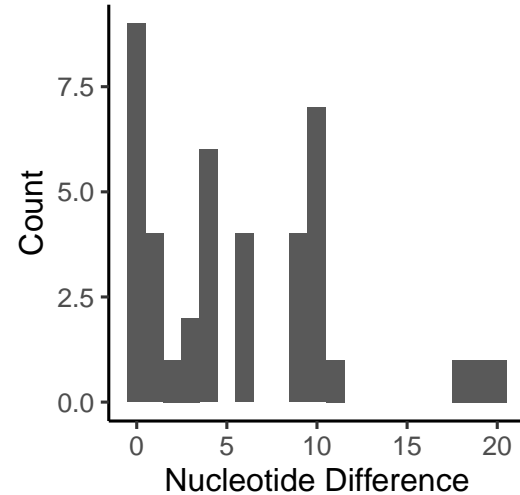
IGHV3-53*04

495 sequences assigned
158 (31.9%) exact matches, in which:
112 unique CDR3
6 unique J



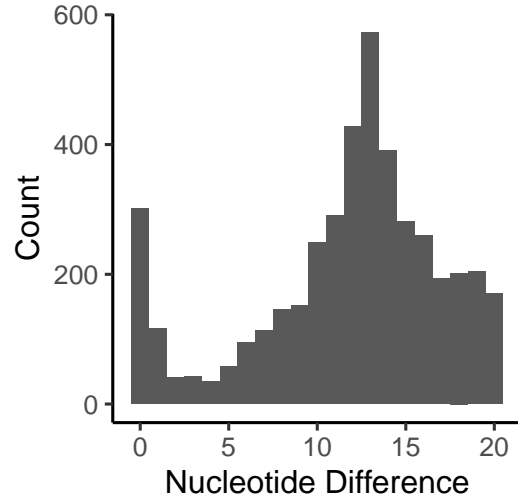
IGHV3-64*02_07

47 sequences assigned
9 (19.1%) exact matches, in which:
8 unique CDR3
3 unique J



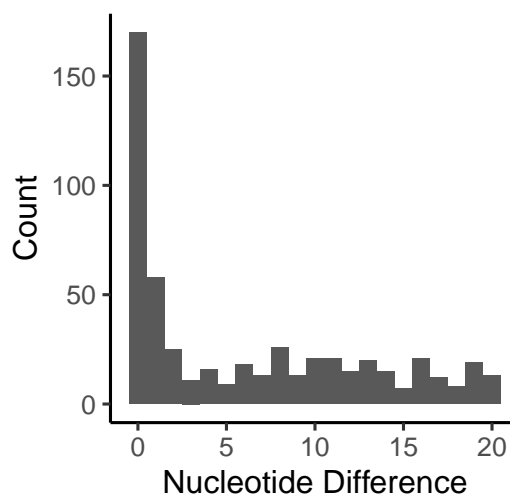
IGHV3-49*03_05

5084 sequences assigned
302 (5.9%) exact matches, in which:
222 unique CDR3
7 unique J



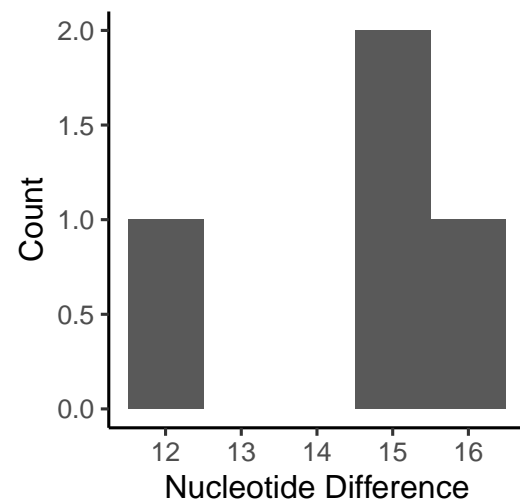
IGHV3-53*01_02

597 sequences assigned
170 (28.5%) exact matches, in which:
129 unique CDR3
7 unique J



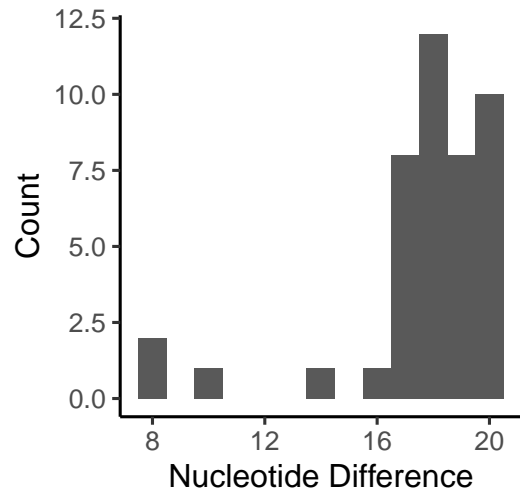
IGHV3-66*01

4 sequences assigned
No exact matches.



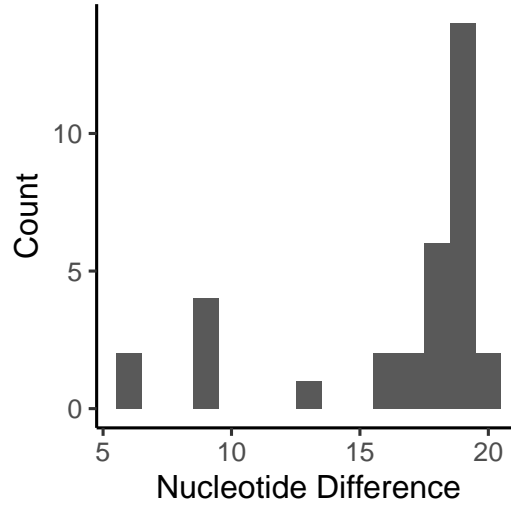
IGHV3-66*02

56 sequences assigned
No exact matches.



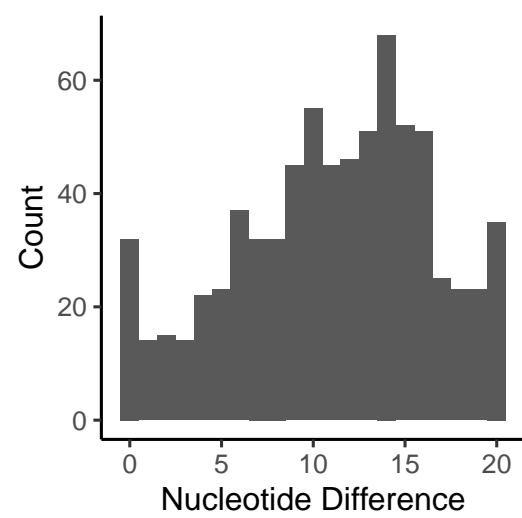
IGHV3-69-1*01

55 sequences assigned
No exact matches.



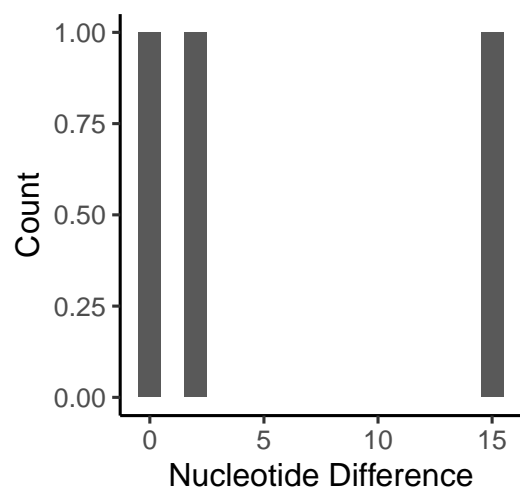
IGHV3-72*01

911 sequences assigned
32 (3.5%) exact matches, in which:
23 unique CDR3
5 unique J



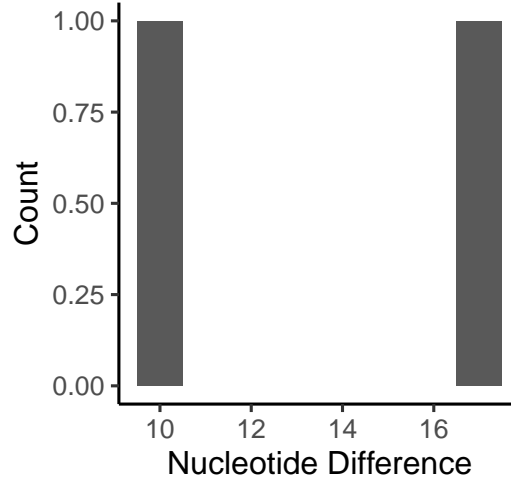
IGHV3-66*03

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



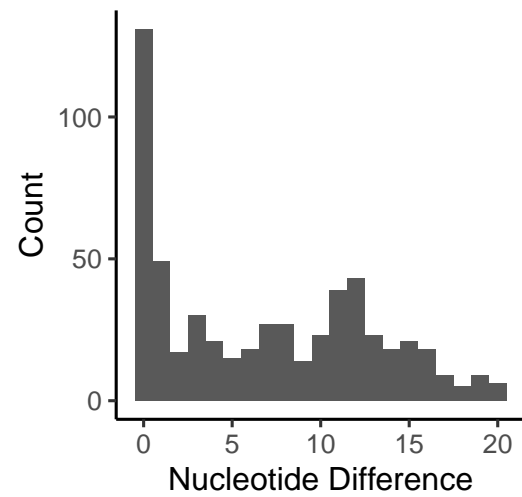
IGHV3-69-1*02

24 sequences assigned
No exact matches.



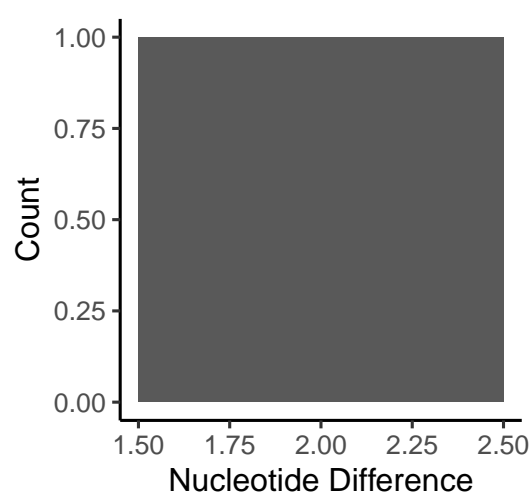
IGHV3-73*01_02

673 sequences assigned
131 (19.5%) exact matches, in which:
95 unique CDR3
7 unique J



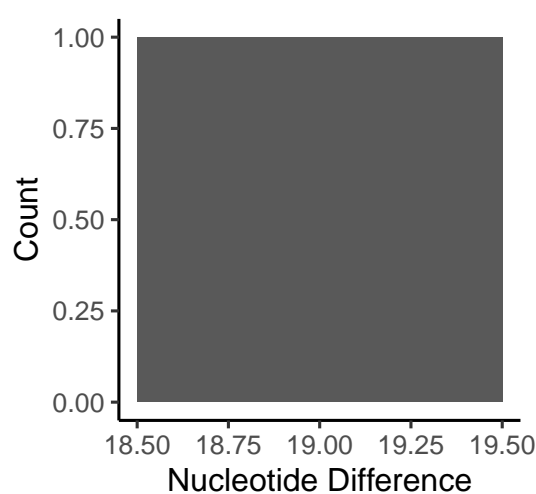
IGHV3-66*04

3 sequences assigned
No exact matches.



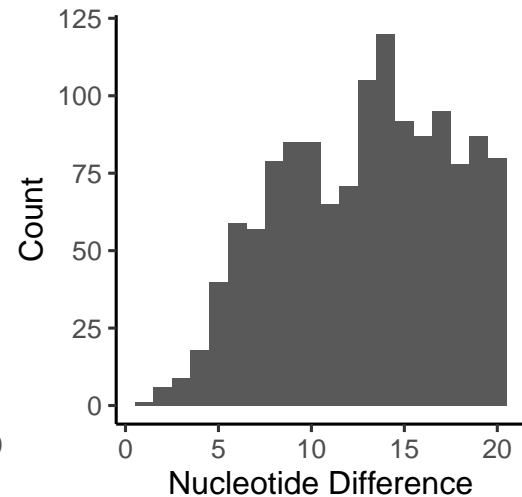
IGHV3-71*01_04

4 sequences assigned
No exact matches.



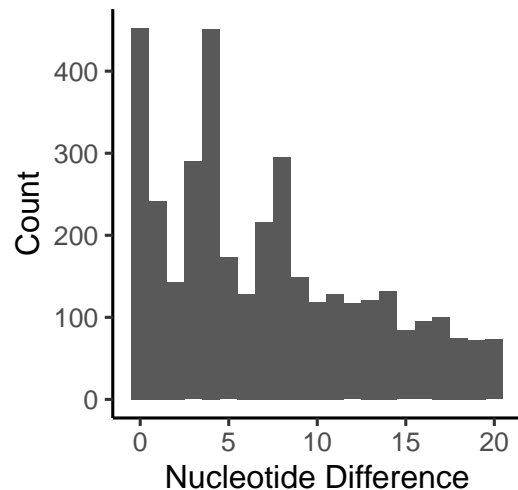
IGHV3-74*03

2025 sequences assigned
No exact matches.



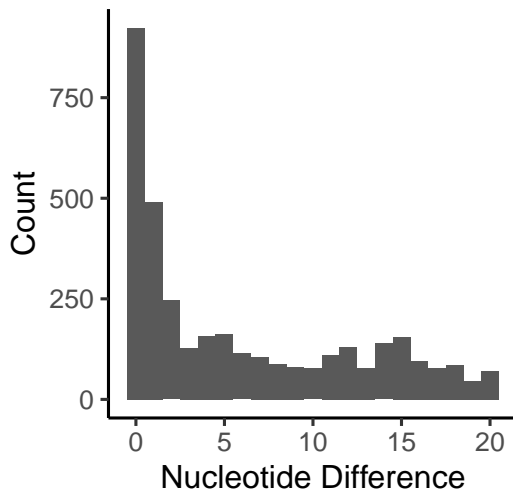
IGHV3-74*01_02

4022 sequences assigned
453 (11.3%) exact matches, in which:
322 unique CDR3
7 unique J



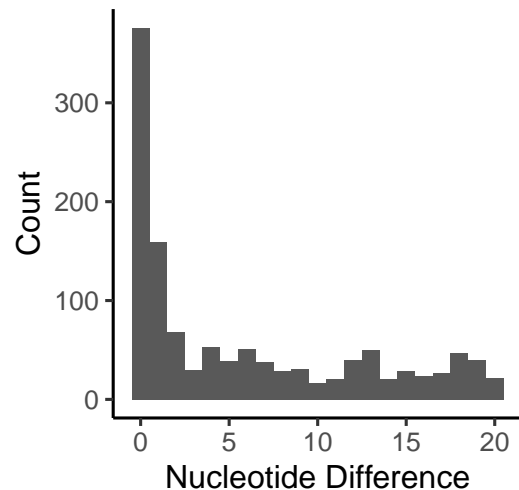
IGHV4-4*07

4211 sequences assigned
924 (21.9%) exact matches, in which:
867 unique CDR3
7 unique J



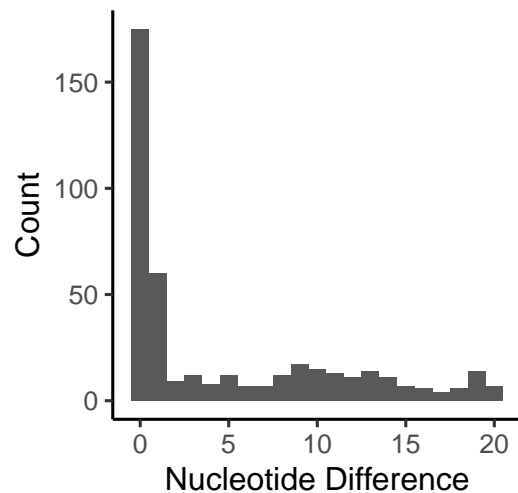
IGHV4-30-2*01

1512 sequences assigned
376 (24.9%) exact matches, in which:
303 unique CDR3
7 unique J



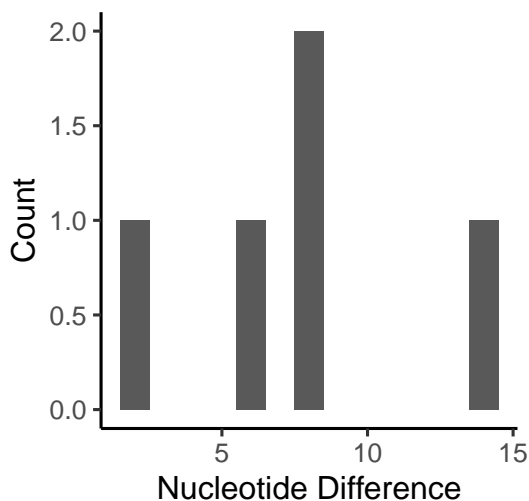
IGHV3-43D*03

537 sequences assigned
175 (32.6%) exact matches, in which:
119 unique CDR3
6 unique J



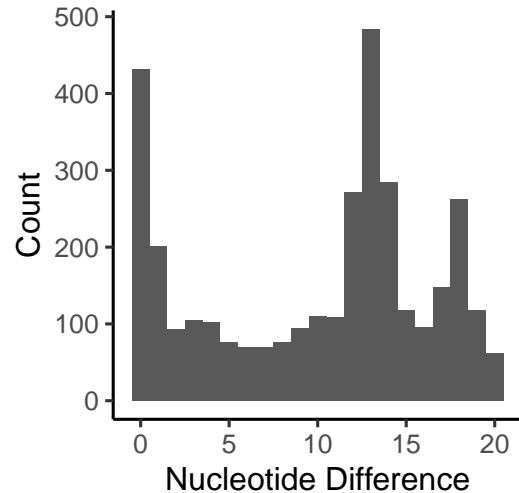
IGHV4-28*03

7 sequences assigned
No exact matches.



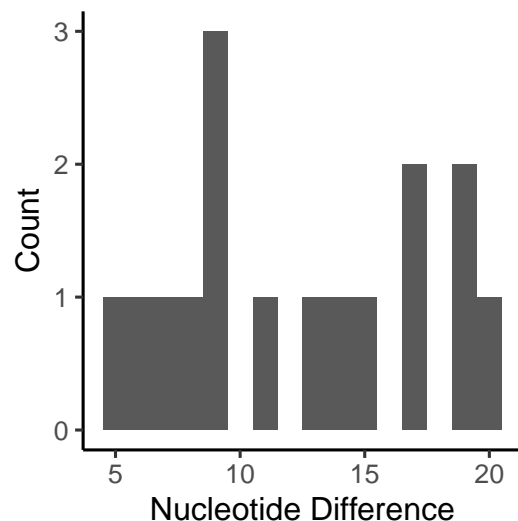
IGHV4-30-4*01

4621 sequences assigned
432 (9.3%) exact matches, in which:
403 unique CDR3
7 unique J



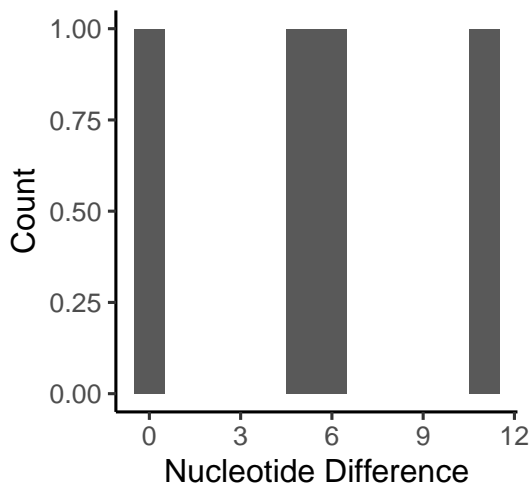
IGHV3-NL1*01

42 sequences assigned
No exact matches.



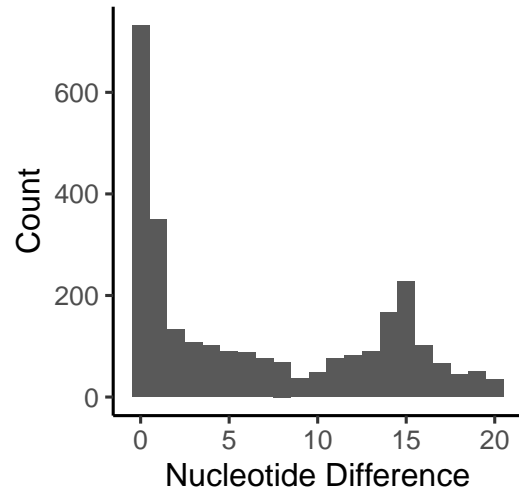
IGHV4-28*01_07

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



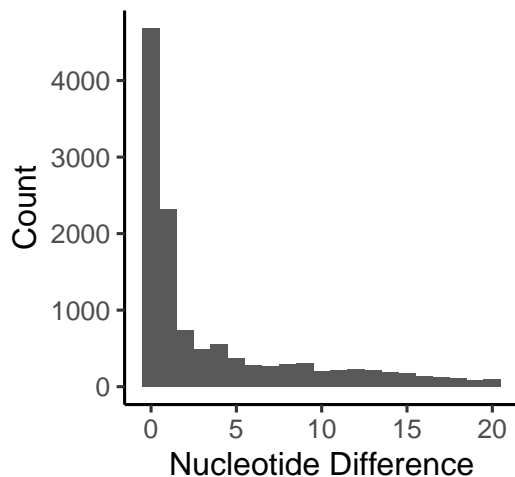
IGHV4-31*02

3129 sequences assigned
732 (23.4%) exact matches, in which:
677 unique CDR3
7 unique J



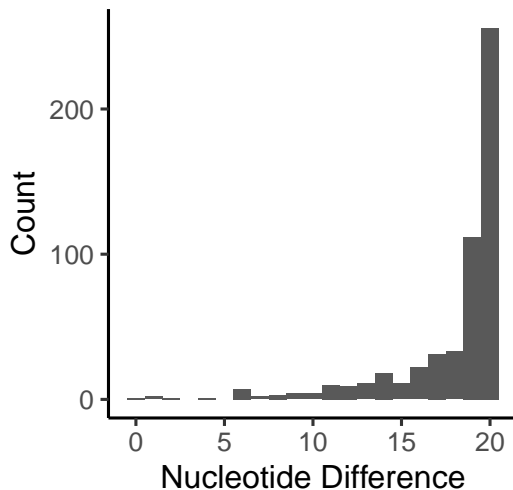
IGHV4-34*01_02

12860 sequences assigned
4681 (36.4%) exact matches, in which:
4205 unique CDR3
7 unique J



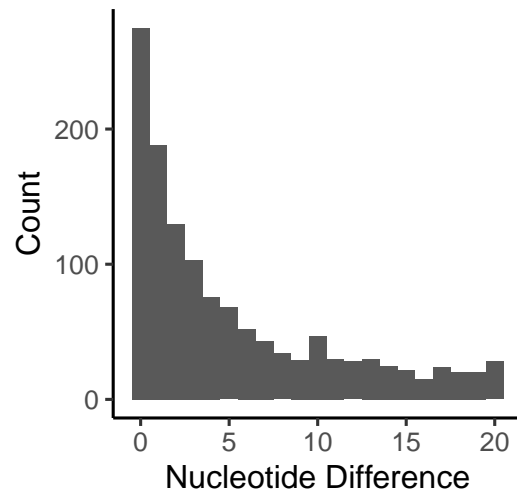
IGHV4-59*02

3398 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



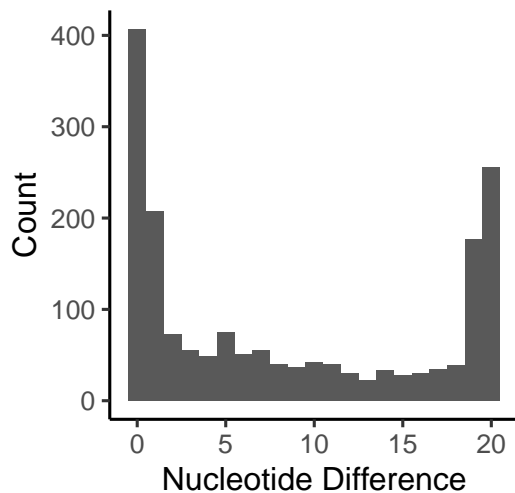
IGHV4-61*01

1466 sequences assigned
275 (18.8%) exact matches, in which:
261 unique CDR3
7 unique J



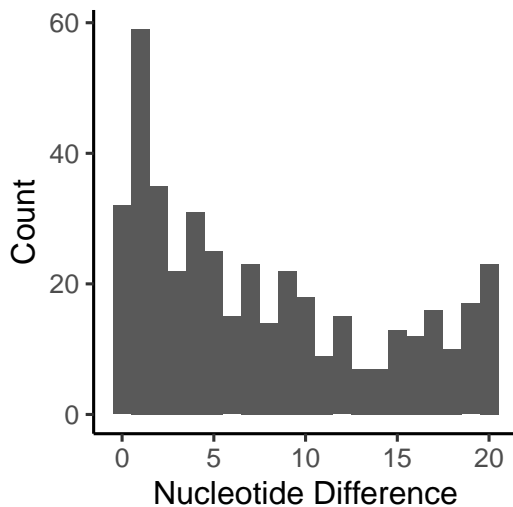
IGHV4-38-2*02

2133 sequences assigned
407 (19.1%) exact matches, in which:
384 unique CDR3
7 unique J



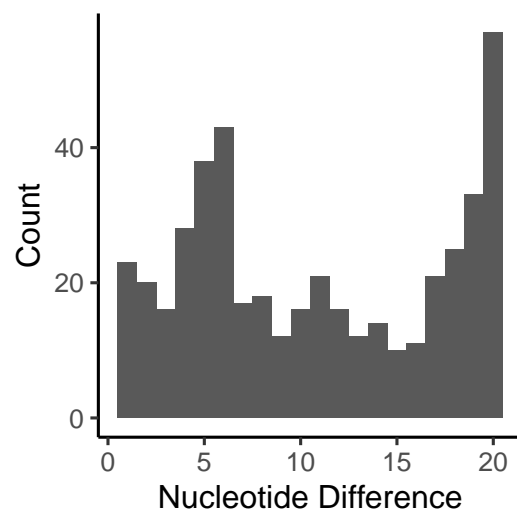
IGHV4-59*08

581 sequences assigned
32 (5.5%) exact matches, in which:
32 unique CDR3
5 unique J



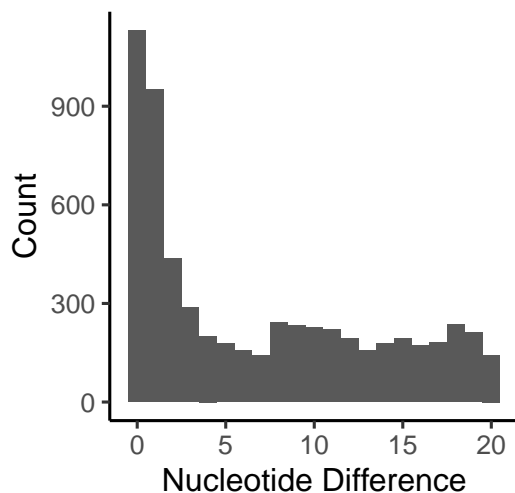
IGHV4-61*08

2219 sequences assigned
No exact matches.



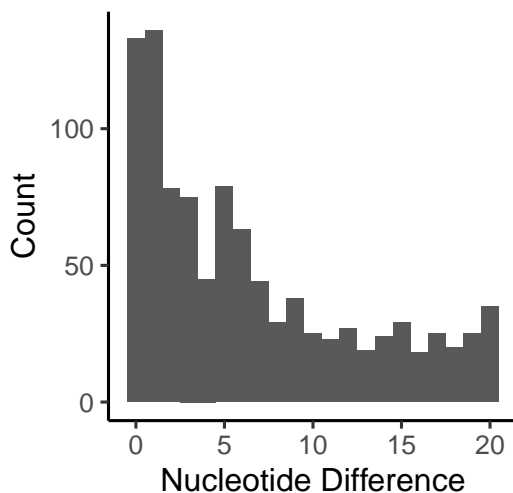
IGHV4-39*07

7805 sequences assigned
1131 (14.5%) exact matches, in which:
1039 unique CDR3
7 unique J



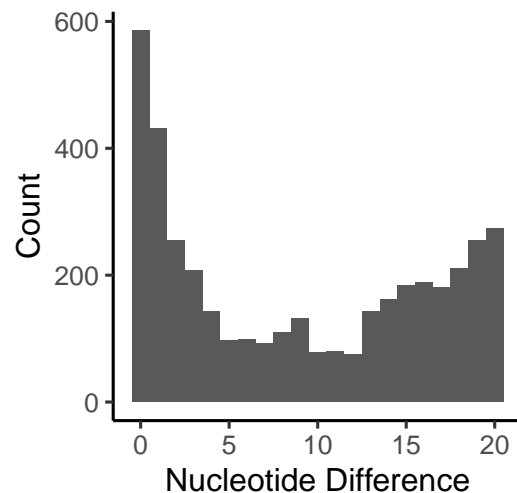
IGHV4-59*12

1209 sequences assigned
133 (11%) exact matches, in which:
133 unique CDR3
7 unique J



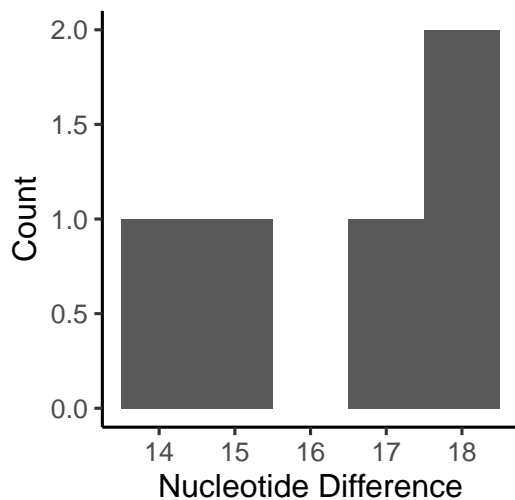
IGHV4-61*02_A234G

5696 sequences assigned
586 (10.3%) exact matches, in which:
556 unique CDR3
7 unique J



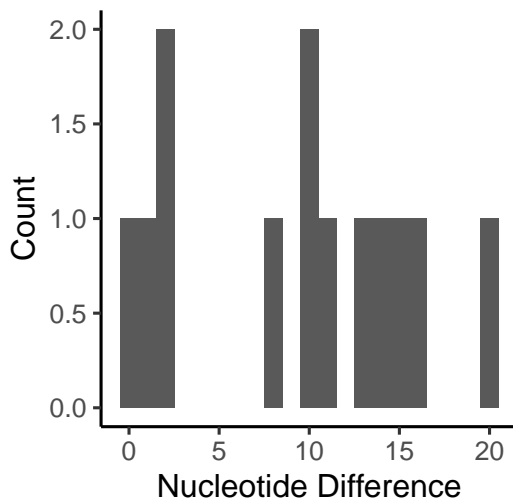
IGHV1/OR15–2*02_03

9 sequences assigned
No exact matches.



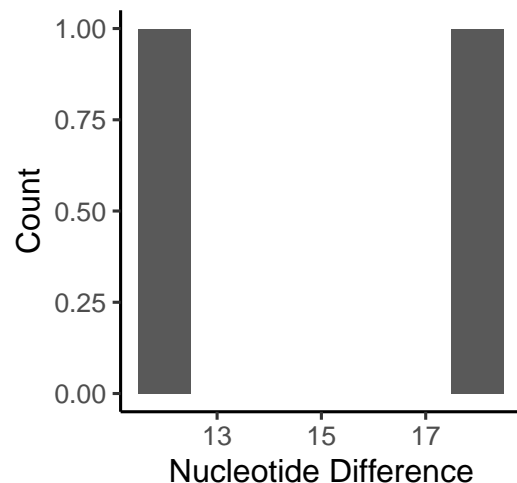
IGHV5–51*06

16 sequences assigned
1 (6.2%) exact matches, in which:
1 unique CDR3
1 unique J



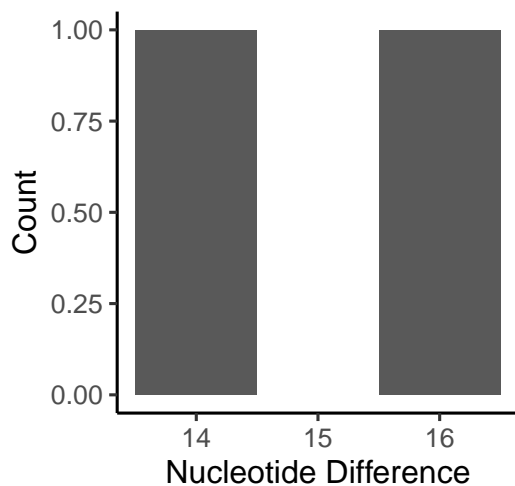
IGHV3/OR16–13*01

2 sequences assigned
No exact matches.



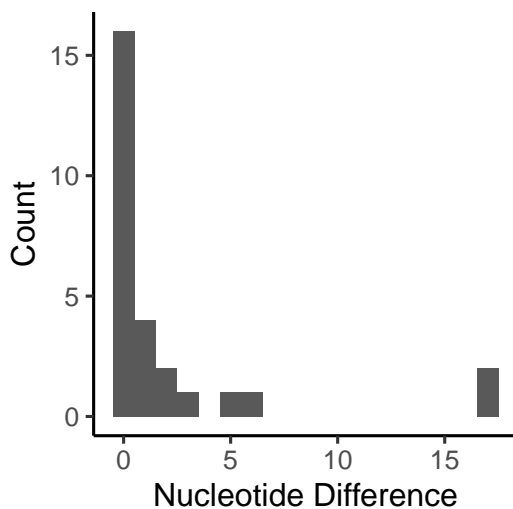
IGHV4/OR15–8*01

5 sequences assigned
No exact matches.



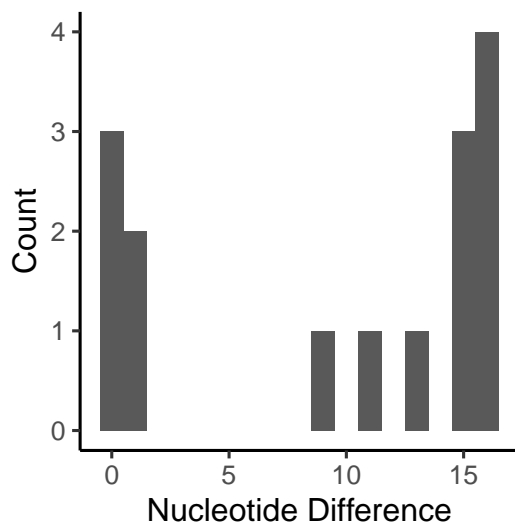
IGHV5–51*07

30 sequences assigned
16 (53.3%) exact matches, in which:
16 unique CDR3
4 unique J



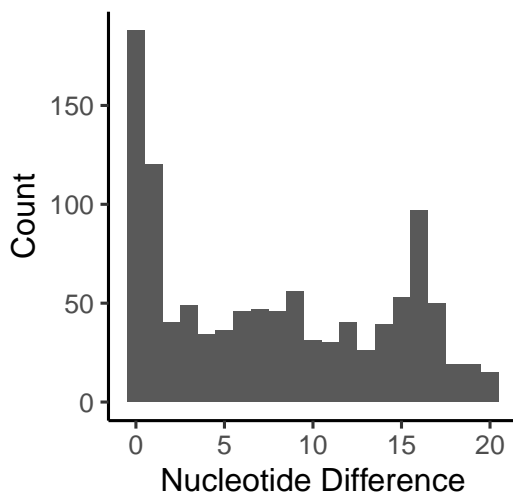
IGHV5–51*04

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

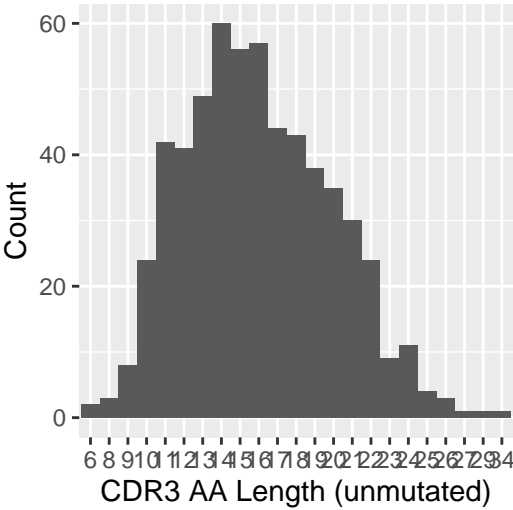


IGHV6–1*01_02

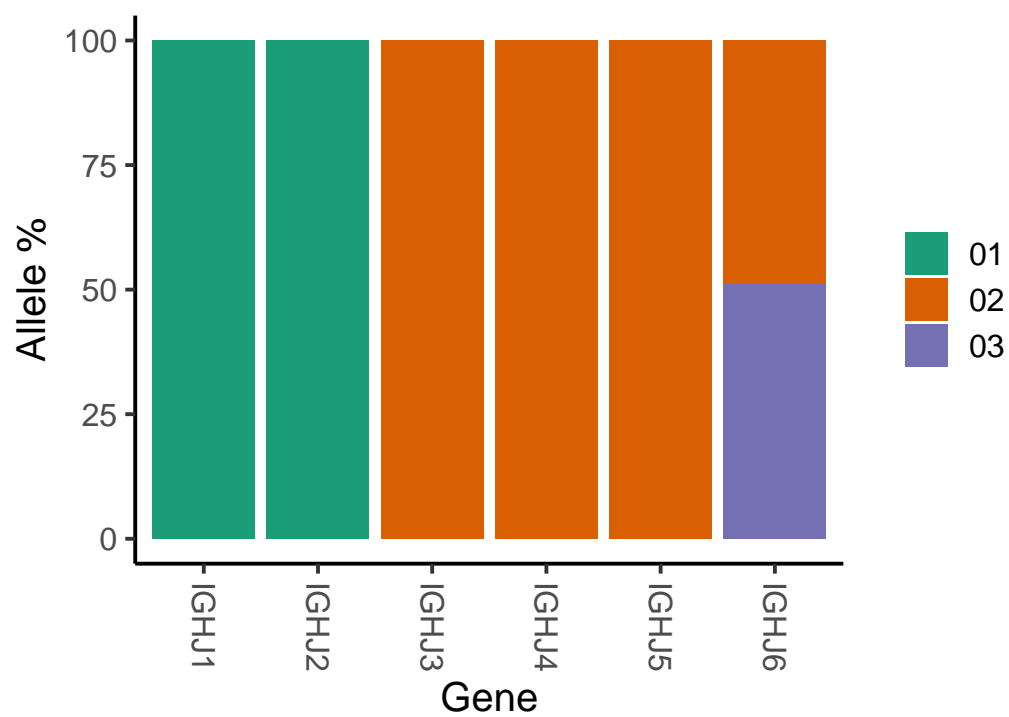
1121 sequences assigned
188 (16.8%) exact matches, in which:
178 unique CDR3
7 unique J



IGHV4-61*02_A234G



Allele Usage



Sequence Count by IGHJ6 allele usage

