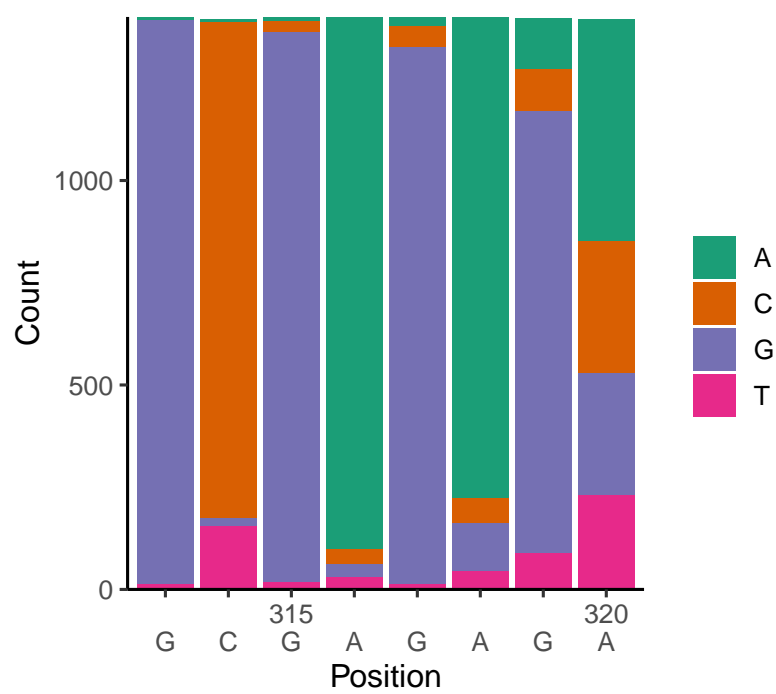
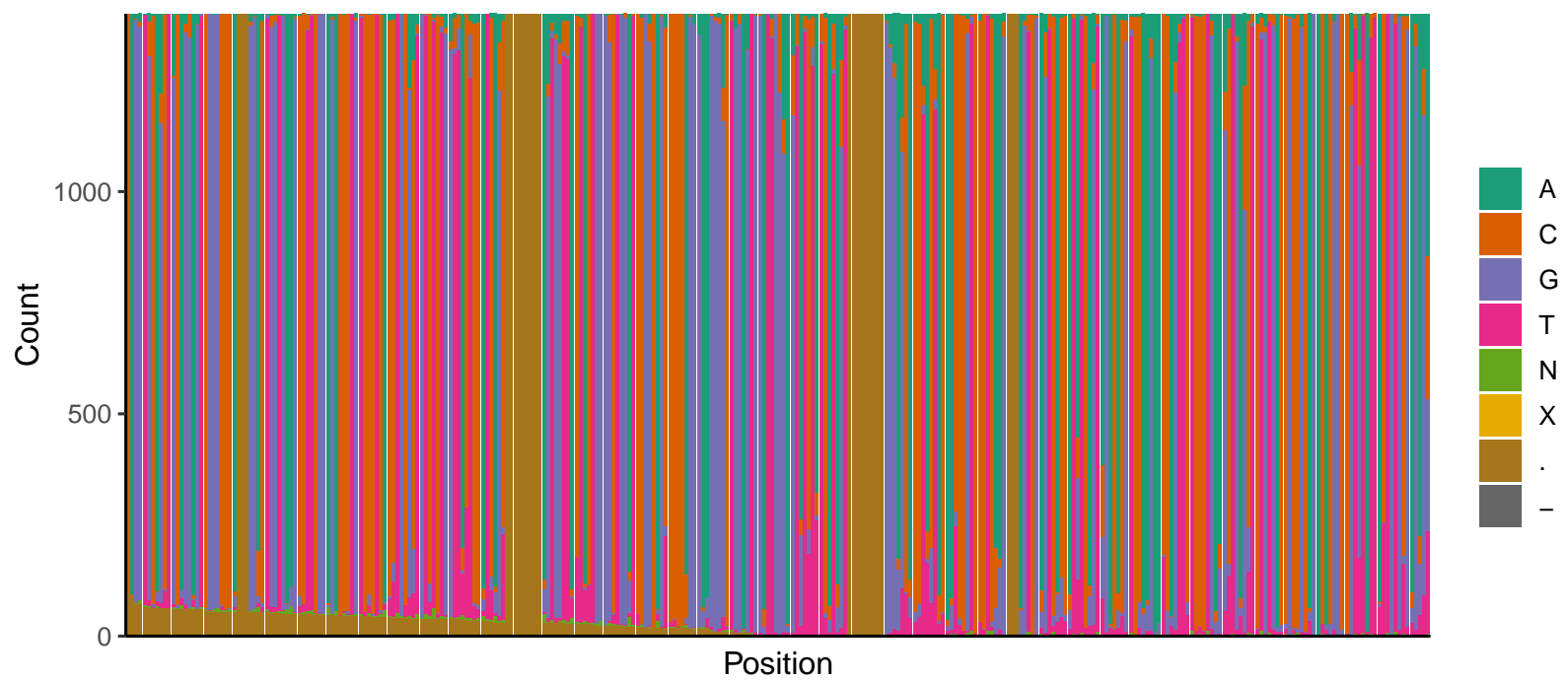


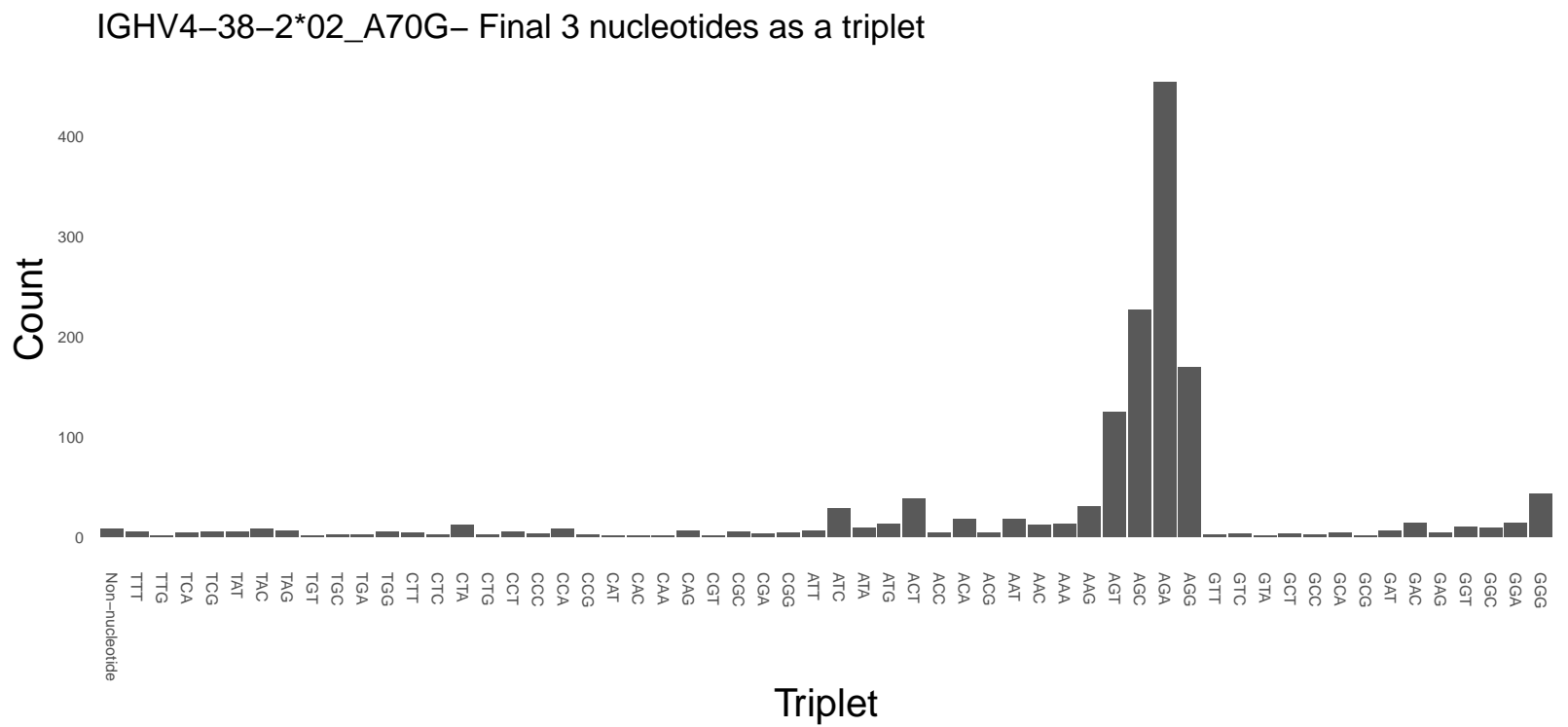
Gene IGHV4-38-2*02_A70G



Gene IGHV4-38-2*02_A70G

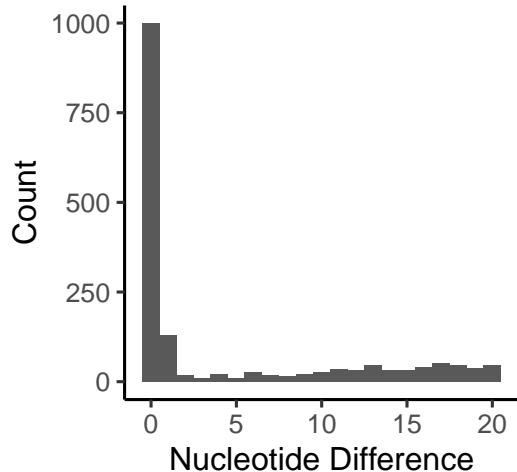


IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet



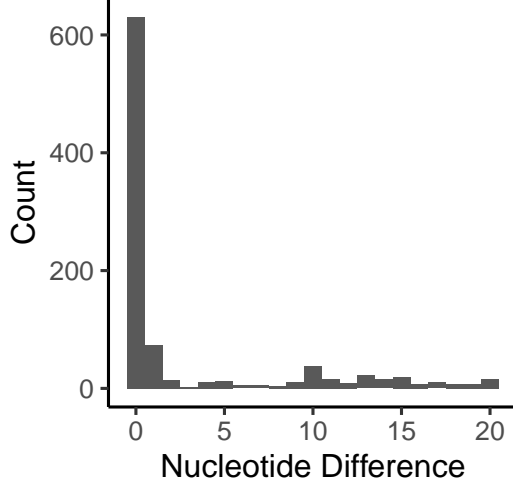
IGHV1-2*02

2377 sequences assigned
999 (42%) exact matches, in which:
969 unique CDR3
6 unique J



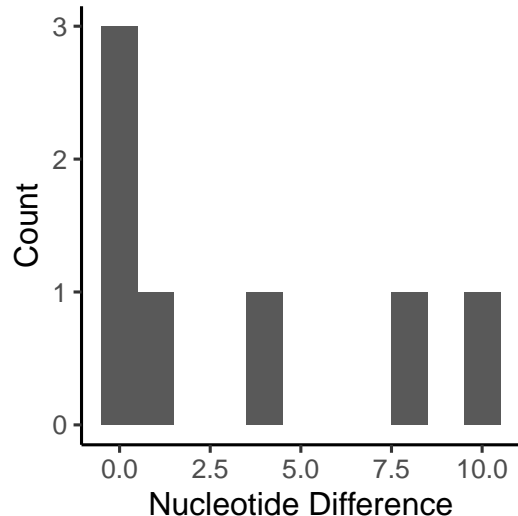
IGHV1-8*01

1195 sequences assigned
631 (52.8%) exact matches, in which:
624 unique CDR3
6 unique J



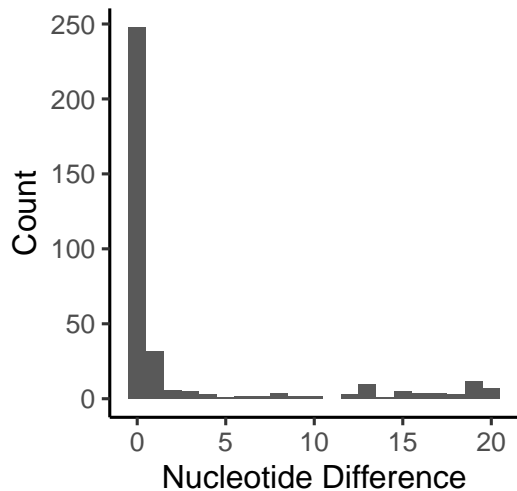
IGHV1-45*02

75 sequences assigned
3 (4%) exact matches, in which:
3 unique CDR3
2 unique J



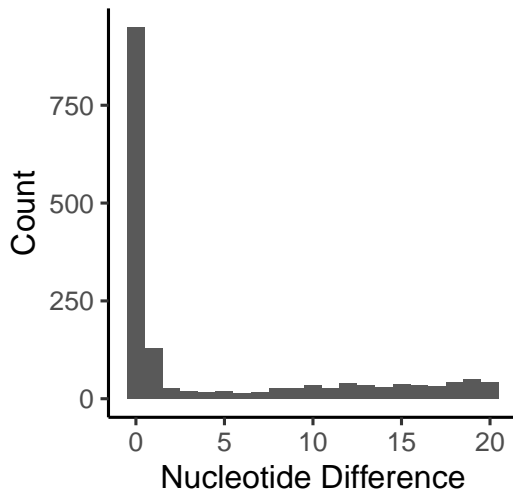
IGHV1-2*04

385 sequences assigned
248 (64.4%) exact matches, in which:
241 unique CDR3
5 unique J



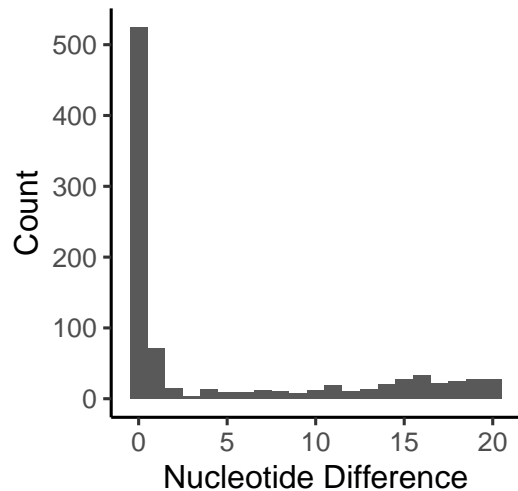
IGHV1-18*01

2259 sequences assigned
950 (42.1%) exact matches, in which:
933 unique CDR3
6 unique J



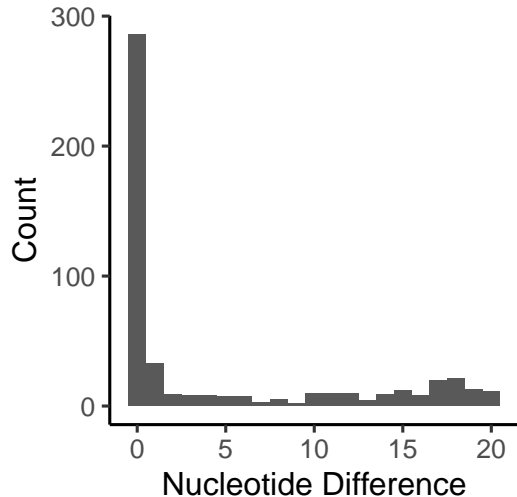
IGHV1-46*01

1512 sequences assigned
525 (34.7%) exact matches, in which:
517 unique CDR3
6 unique J



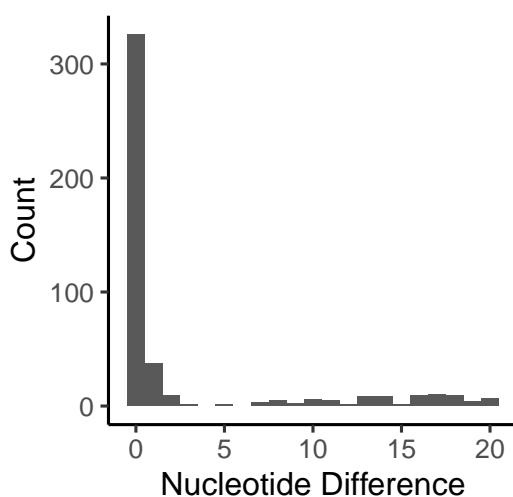
IGHV1-3*01

880 sequences assigned
286 (32.5%) exact matches, in which:
278 unique CDR3
6 unique J



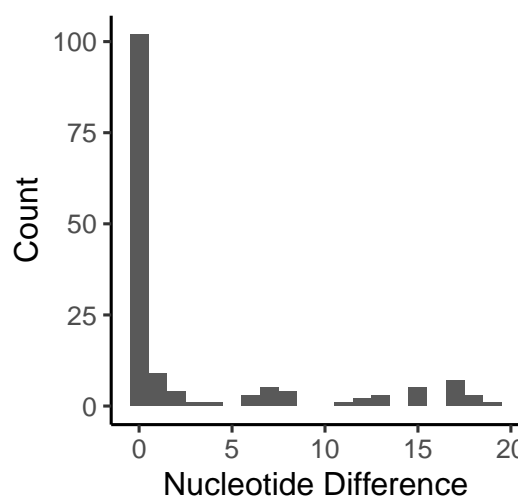
IGHV1-24*01

556 sequences assigned
326 (58.6%) exact matches, in which:
323 unique CDR3
6 unique J



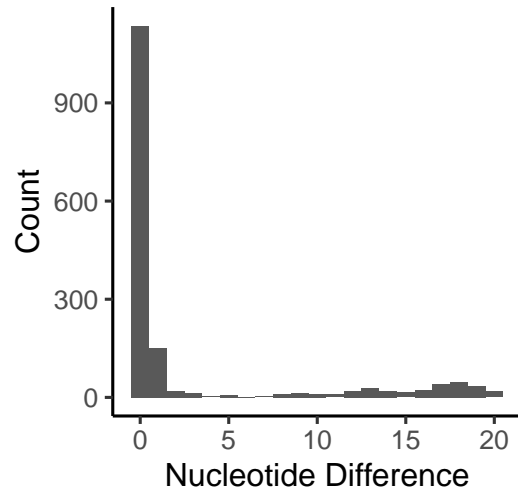
IGHV1-58*02

179 sequences assigned
102 (57%) exact matches, in which:
102 unique CDR3
6 unique J



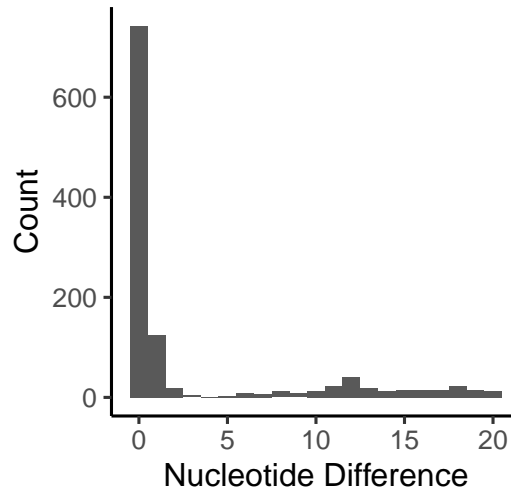
IGHV1–69*01

2020 sequences assigned
1136 (56.2%) exact matches, in which:
1120 unique CDR3
6 unique J



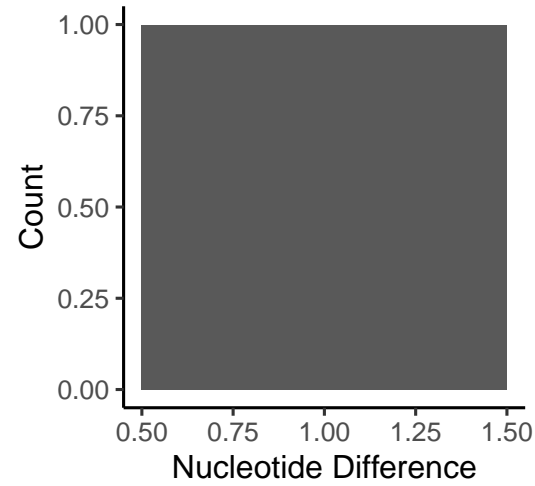
IGHV1–69*06

1470 sequences assigned
743 (50.5%) exact matches, in which:
738 unique CDR3
6 unique J



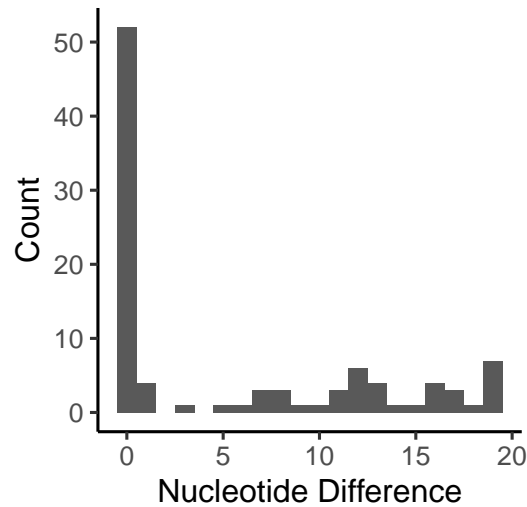
IGHV2–10*01

1 sequences assigned
No exact matches.



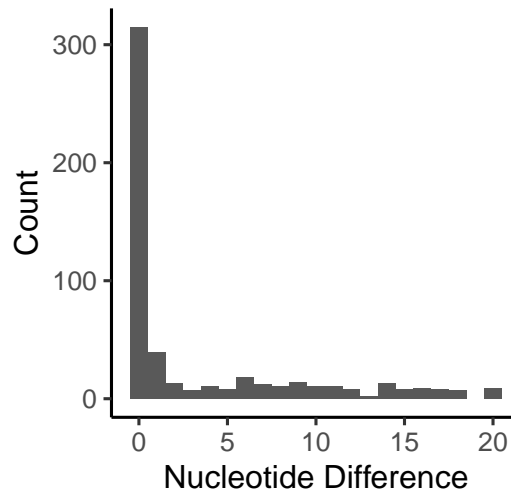
IGHV1–69–2*01

171 sequences assigned
52 (30.4%) exact matches, in which:
52 unique CDR3
4 unique J



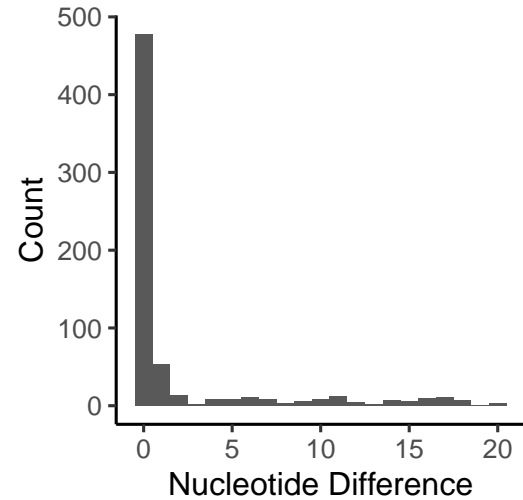
IGHV2–5*01

614 sequences assigned
315 (51.3%) exact matches, in which:
313 unique CDR3
6 unique J



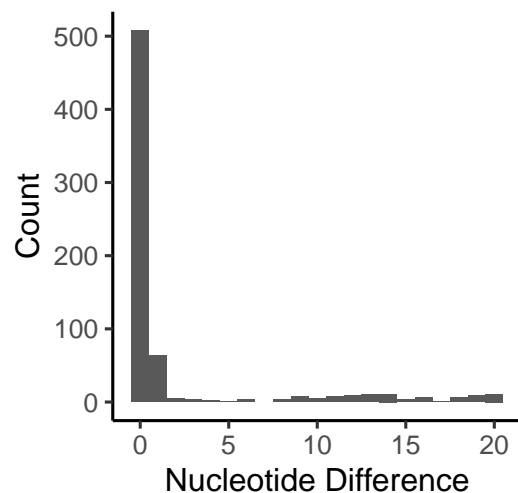
IGHV2–26*01

727 sequences assigned
478 (65.7%) exact matches, in which:
473 unique CDR3
6 unique J



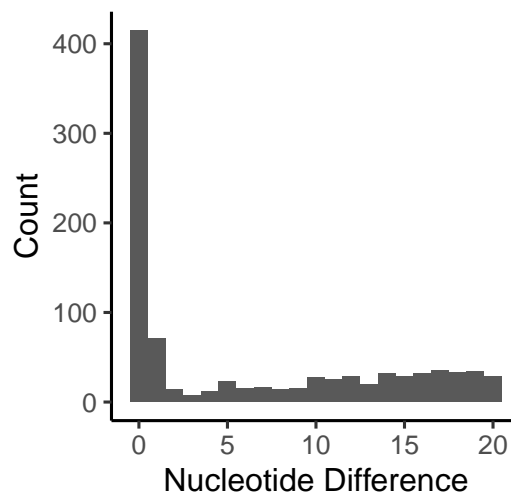
IGHV1–69*02

865 sequences assigned
508 (58.7%) exact matches, in which:
500 unique CDR3
6 unique J



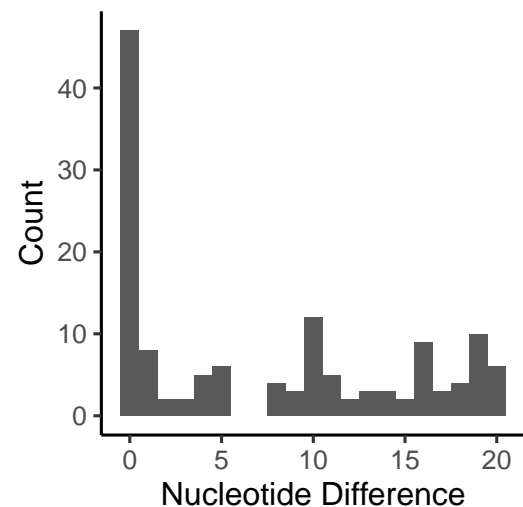
IGHV2–5*02

1177 sequences assigned
415 (35.3%) exact matches, in which:
405 unique CDR3
6 unique J



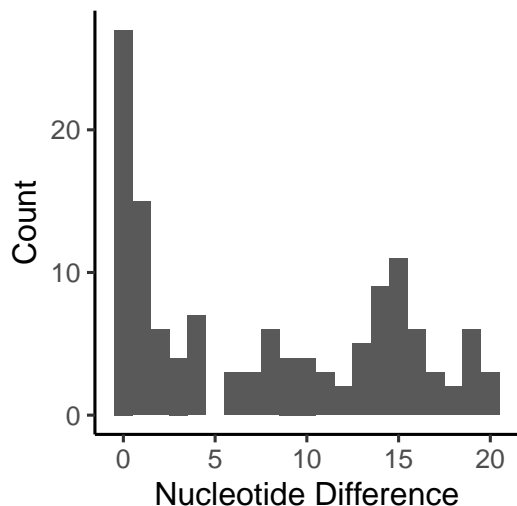
IGHV2–70*01

192 sequences assigned
47 (24.5%) exact matches, in which:
46 unique CDR3
5 unique J



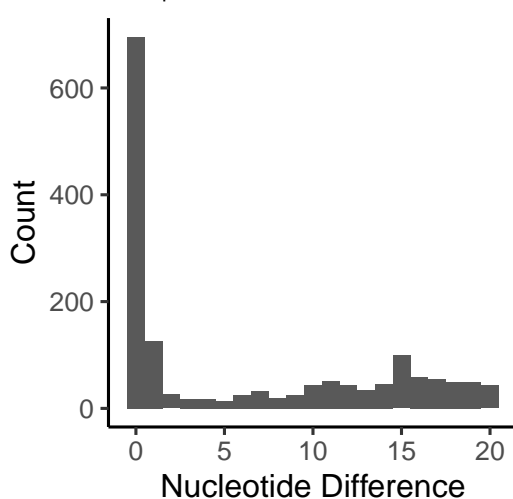
IGHV2-70*04

143 sequences assigned
27 (18.9%) exact matches, in which:
26 unique CDR3
3 unique J



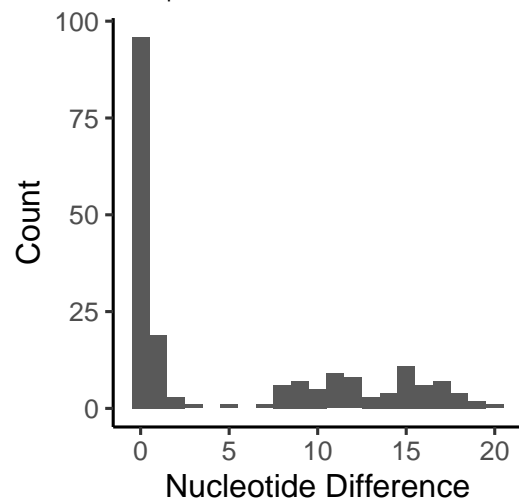
IGHV3-9*01

2048 sequences assigned
696 (34%) exact matches, in which:
633 unique CDR3
6 unique J



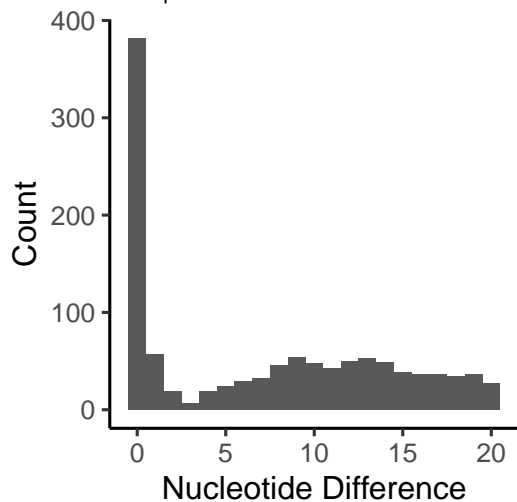
IGHV3-13*01

278 sequences assigned
96 (34.5%) exact matches, in which:
89 unique CDR3
5 unique J



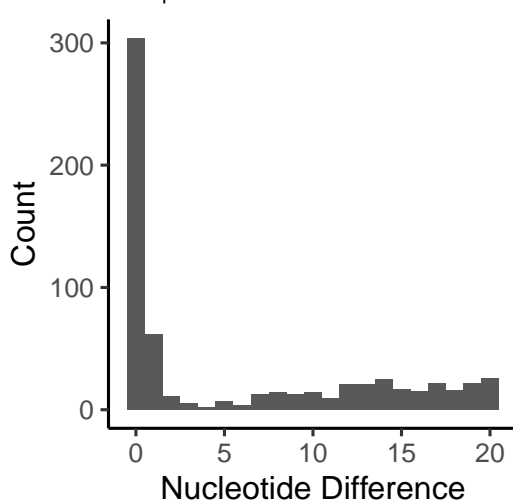
IGHV3-7*01

1544 sequences assigned
382 (24.7%) exact matches, in which:
365 unique CDR3
6 unique J



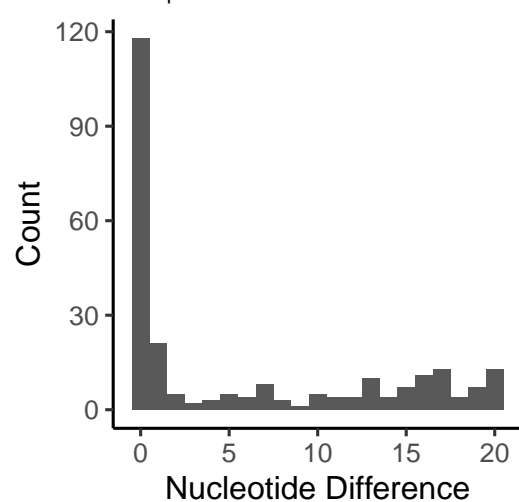
IGHV3-11*01

894 sequences assigned
304 (34%) exact matches, in which:
301 unique CDR3
6 unique J



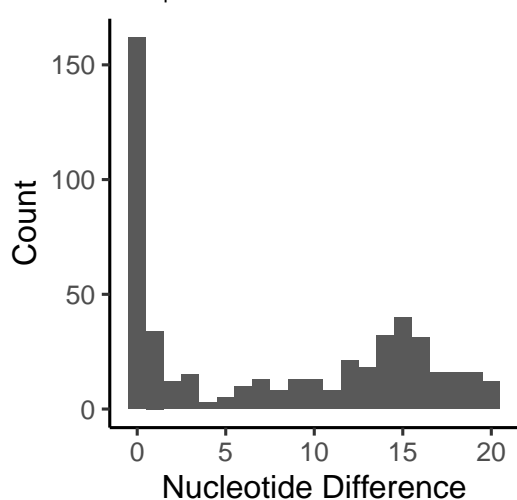
IGHV3-13*04

315 sequences assigned
118 (37.5%) exact matches, in which:
116 unique CDR3
5 unique J



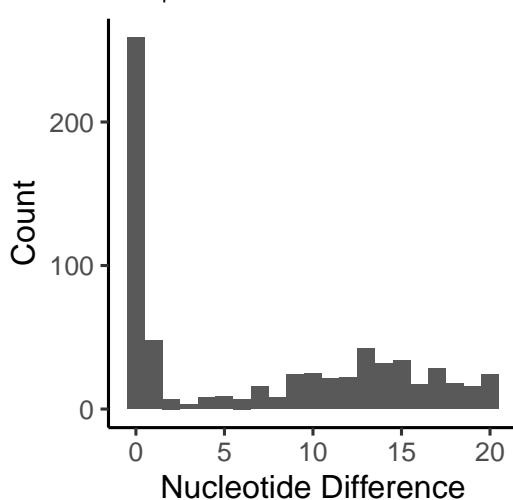
IGHV3-7*04

636 sequences assigned
162 (25.5%) exact matches, in which:
154 unique CDR3
6 unique J



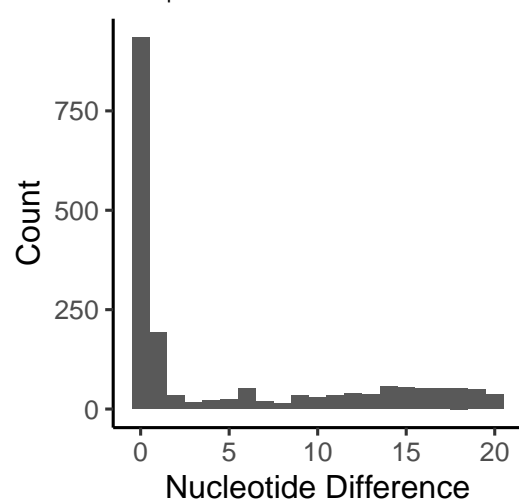
IGHV3-11*05

862 sequences assigned
259 (30%) exact matches, in which:
250 unique CDR3
6 unique J



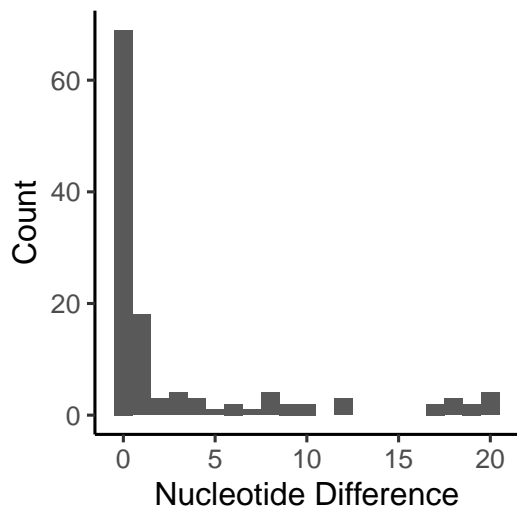
IGHV3-15*01

2551 sequences assigned
935 (36.7%) exact matches, in which:
874 unique CDR3
6 unique J



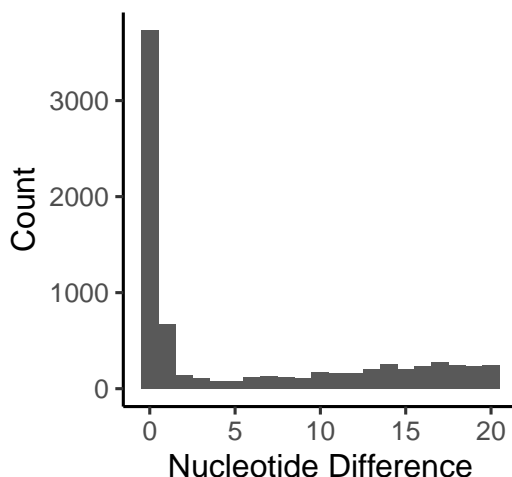
IGHV3-20*01

143 sequences assigned
69 (48.3%) exact matches, in which:
63 unique CDR3
6 unique J



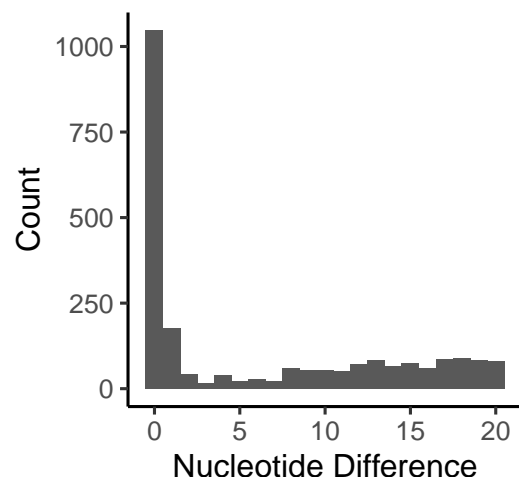
IGHV3-23*01

11645 sequences assigned
3731 (32%) exact matches, in which:
3562 unique CDR3
6 unique J



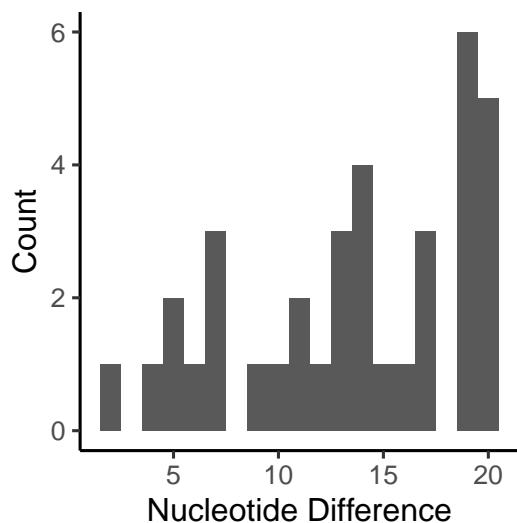
IGHV3-30*18

3240 sequences assigned
1047 (32.3%) exact matches, in which:
1008 unique CDR3
6 unique J



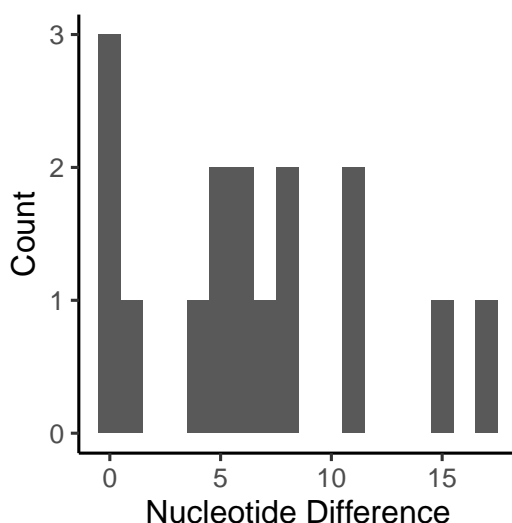
IGHV3-20*04

83 sequences assigned
No exact matches.



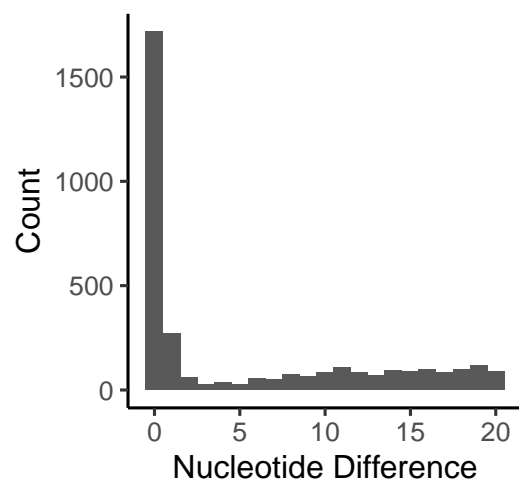
IGHV3-30-3*01

42 sequences assigned
3 (7.1%) exact matches, in which:
3 unique CDR3
1 unique J



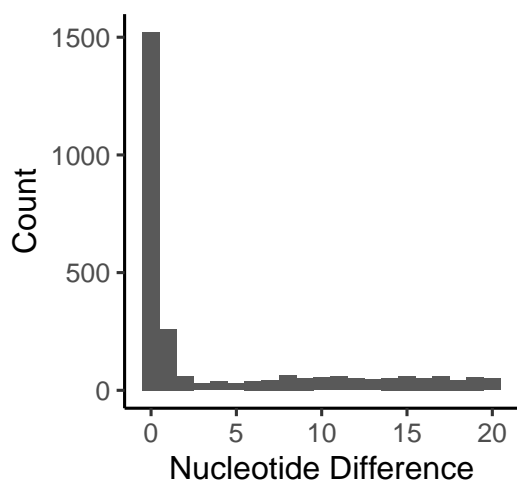
IGHV3-33*01

4533 sequences assigned
1717 (37.9%) exact matches, in which:
1668 unique CDR3
6 unique J



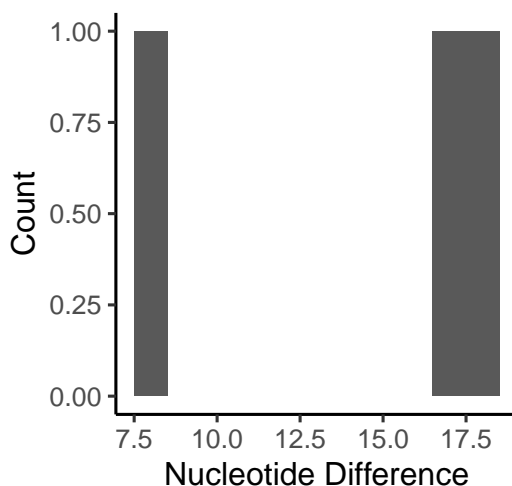
IGHV3-21*01

3549 sequences assigned
1522 (42.9%) exact matches, in which:
1438 unique CDR3
6 unique J



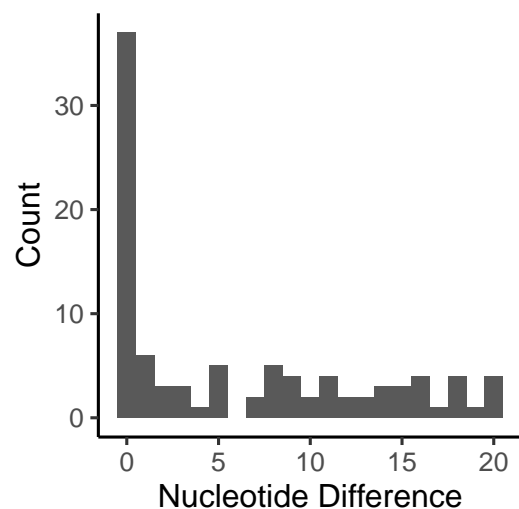
IGHV3-30-3*02

5 sequences assigned
No exact matches.



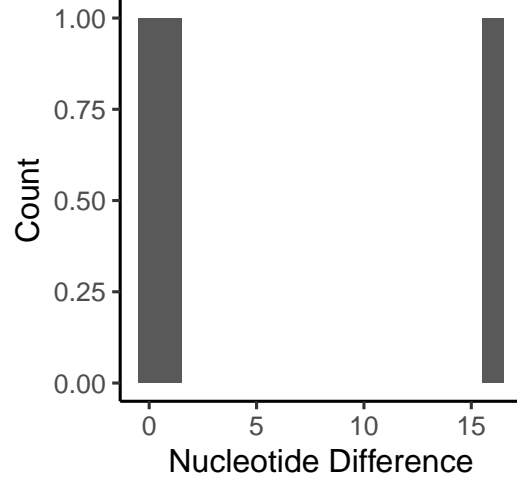
IGHV3-43*01

148 sequences assigned
37 (25%) exact matches, in which:
37 unique CDR3
4 unique J



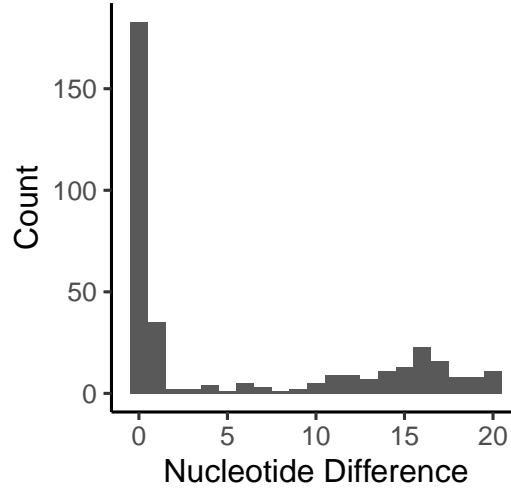
IGHV3-47*02

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



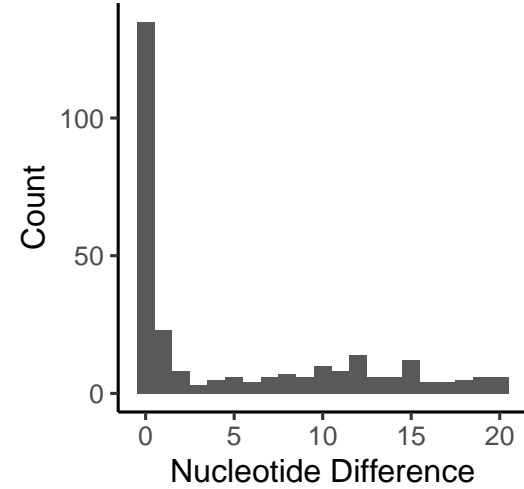
IGHV3-49*03

461 sequences assigned
183 (39.7%) exact matches, in which:
178 unique CDR3
6 unique J



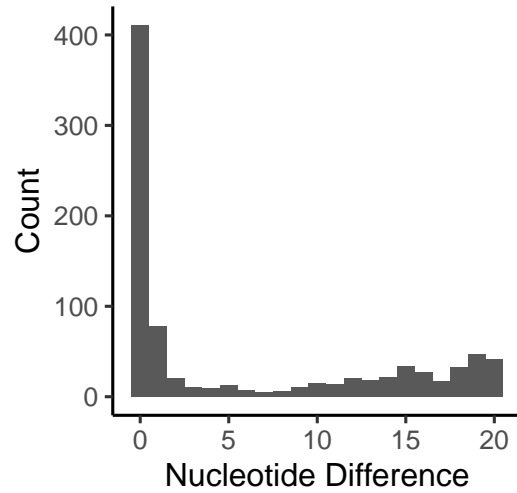
IGHV3-53*02

396 sequences assigned
135 (34.1%) exact matches, in which:
134 unique CDR3
6 unique J



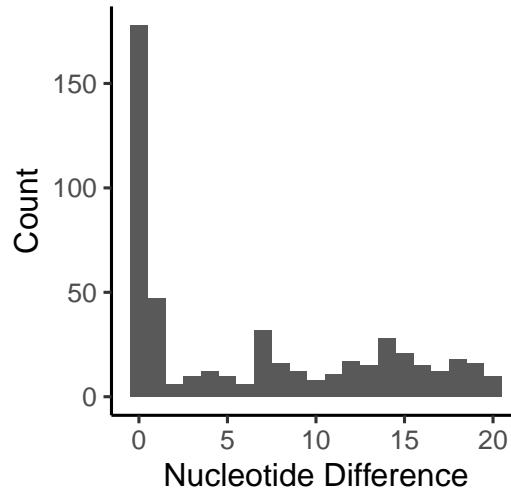
IGHV3-48*02

1200 sequences assigned
411 (34.2%) exact matches, in which:
387 unique CDR3
6 unique J



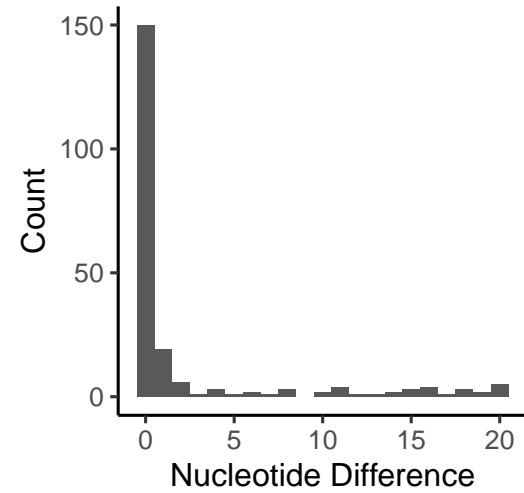
IGHV3-49*04

742 sequences assigned
178 (24%) exact matches, in which:
157 unique CDR3
5 unique J



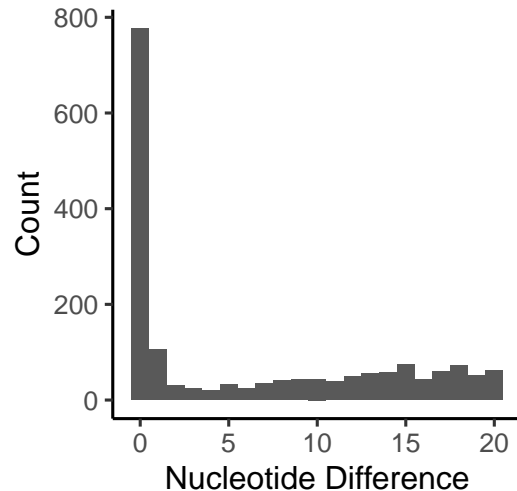
IGHV3-53*04

292 sequences assigned
150 (51.4%) exact matches, in which:
149 unique CDR3
5 unique J



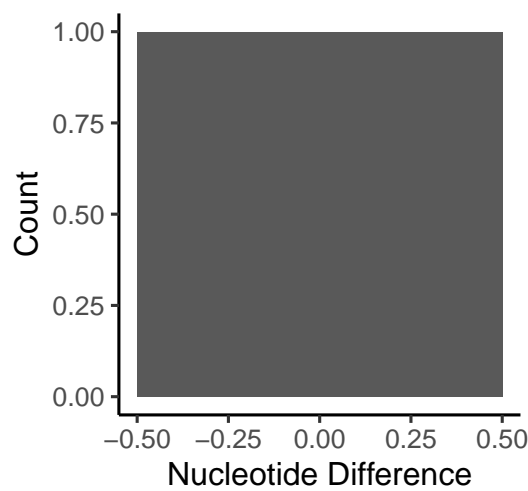
IGHV3-48*03

2313 sequences assigned
777 (33.6%) exact matches, in which:
734 unique CDR3
6 unique J



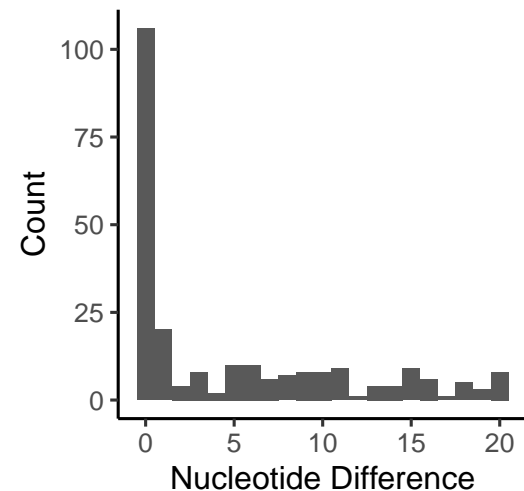
IGHV3-52*01

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



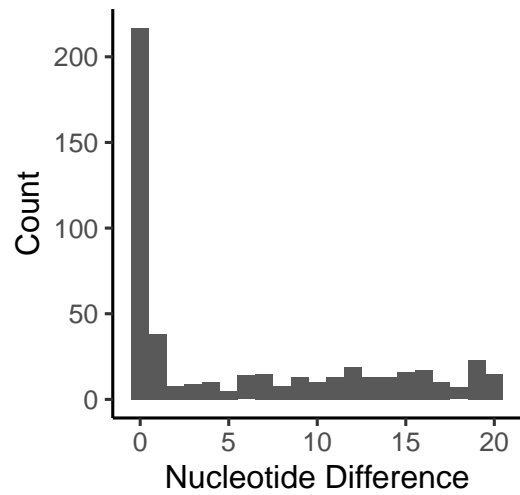
IGHV3-64*01

316 sequences assigned
106 (33.5%) exact matches, in which:
104 unique CDR3
6 unique J



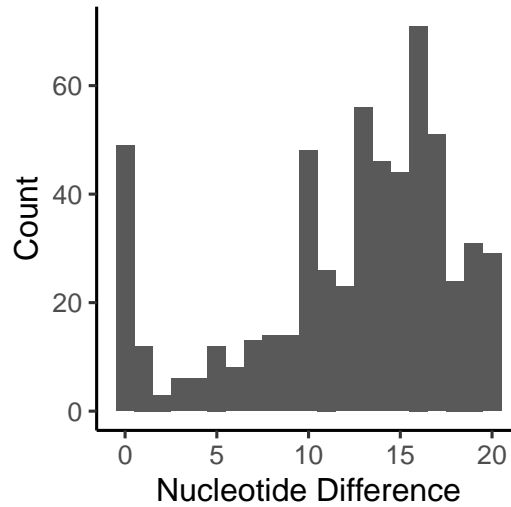
IGHV3–66*02

604 sequences assigned
217 (35.9%) exact matches, in which:
215 unique CDR3
6 unique J



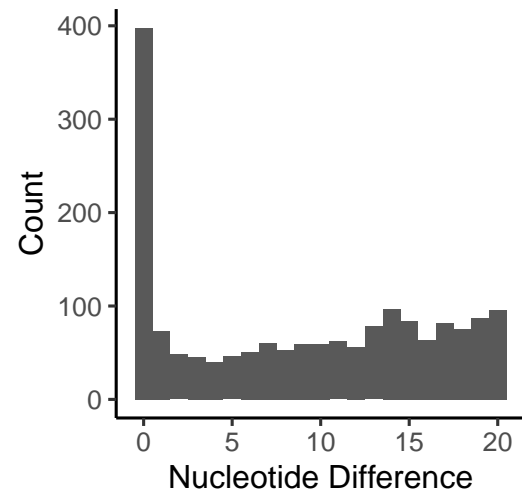
IGHV3–72*01

921 sequences assigned
49 (5.3%) exact matches, in which:
46 unique CDR3
4 unique J



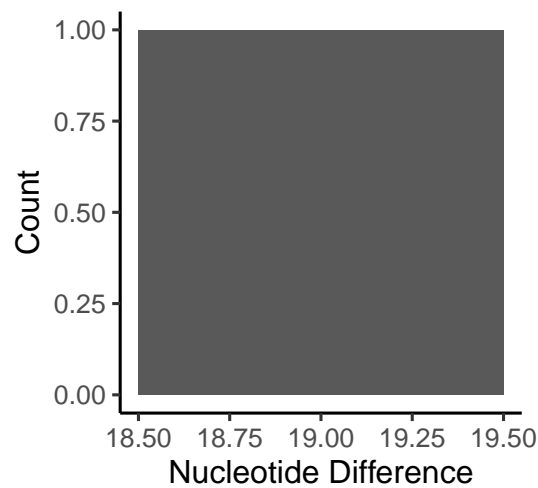
IGHV3–74*01

2482 sequences assigned
398 (16%) exact matches, in which:
366 unique CDR3
6 unique J



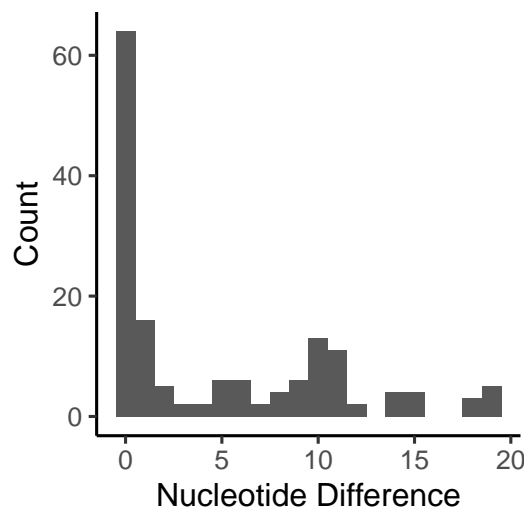
IGHV3–69–1*02

5 sequences assigned
No exact matches.



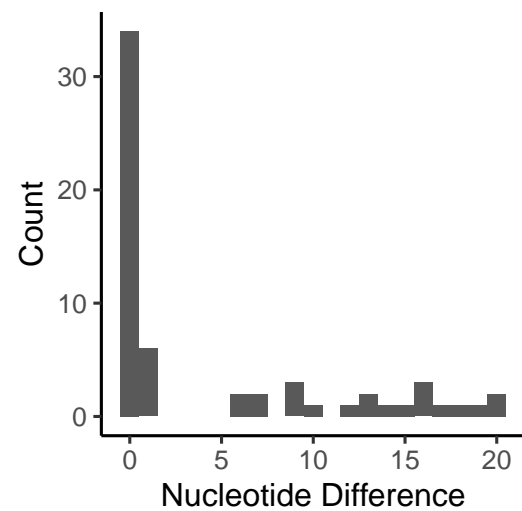
IGHV3–73*01

189 sequences assigned
64 (33.9%) exact matches, in which:
60 unique CDR3
5 unique J



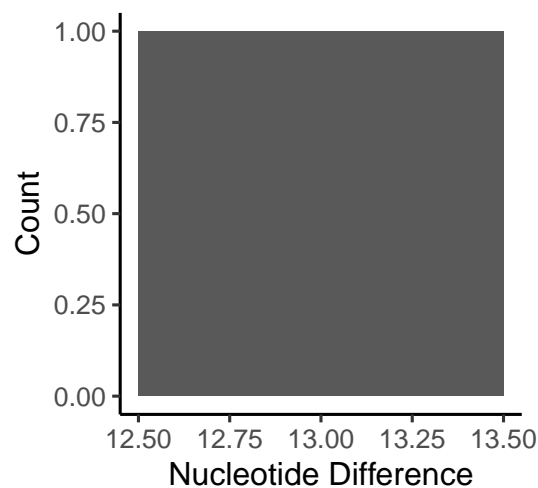
IGHV3–43D*04

73 sequences assigned
34 (46.6%) exact matches, in which:
33 unique CDR3
3 unique J



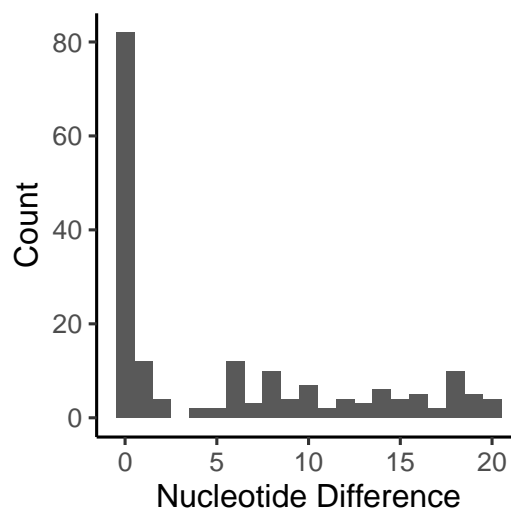
IGHV3–71*01

1 sequences assigned
No exact matches.



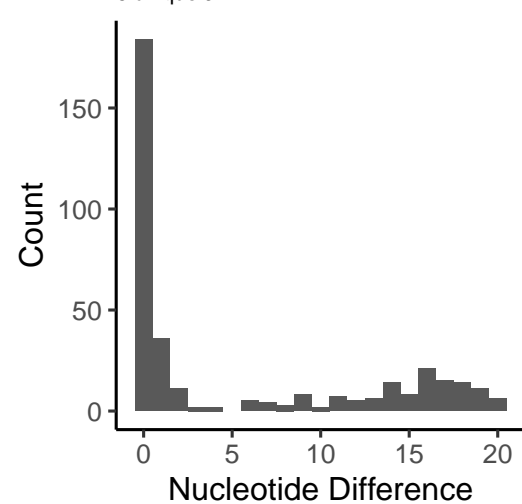
IGHV3–73*02

288 sequences assigned
82 (28.5%) exact matches, in which:
79 unique CDR3
5 unique J



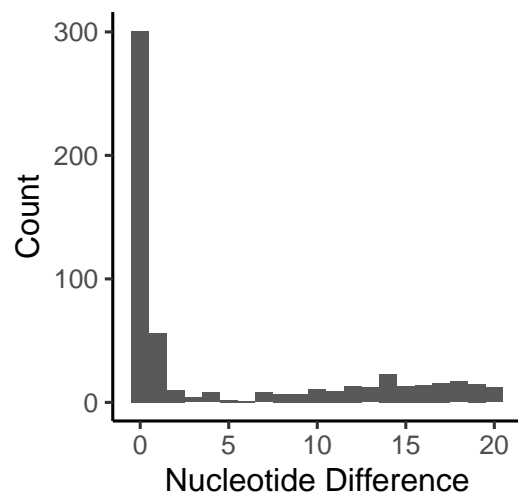
IGHV3–64D*06

632 sequences assigned
184 (29.1%) exact matches, in which:
170 unique CDR3
6 unique J



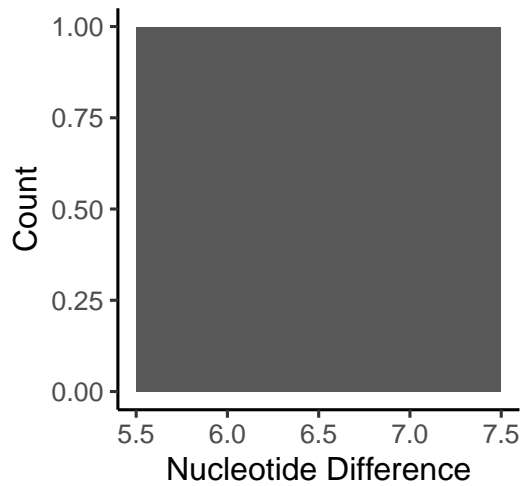
IGHV4-4*02

707 sequences assigned
301 (42.6%) exact matches, in which:
283 unique CDR3
6 unique J



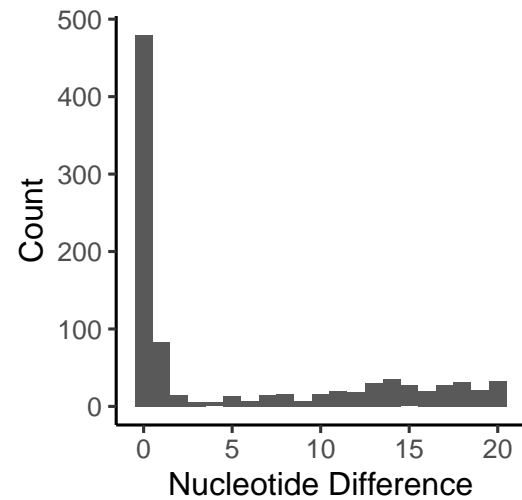
IGHV4-30-4*01

14 sequences assigned
No exact matches.



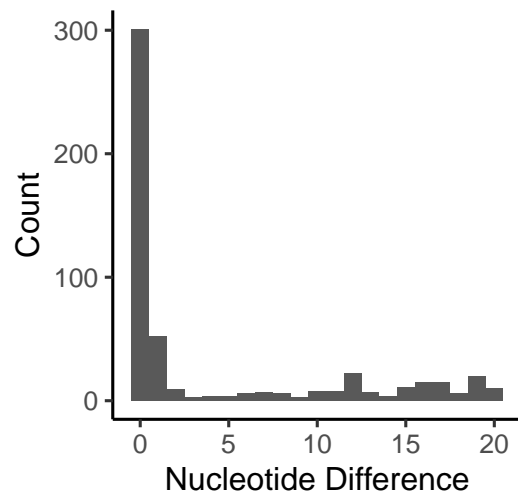
IGHV4-38-2*02_A70G

1400 sequences assigned
480 (34.3%) exact matches, in which:
465 unique CDR3
6 unique J



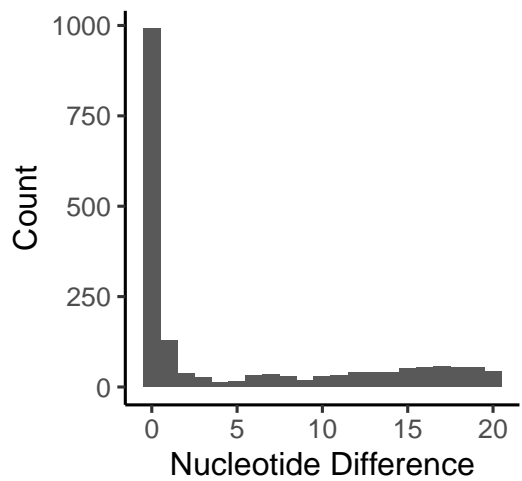
IGHV4-4*07

668 sequences assigned
301 (45.1%) exact matches, in which:
297 unique CDR3
6 unique J



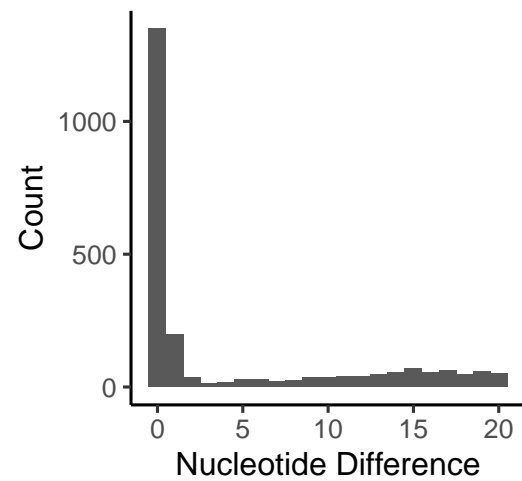
IGHV4-31*03

2424 sequences assigned
991 (40.9%) exact matches, in which:
971 unique CDR3
6 unique J



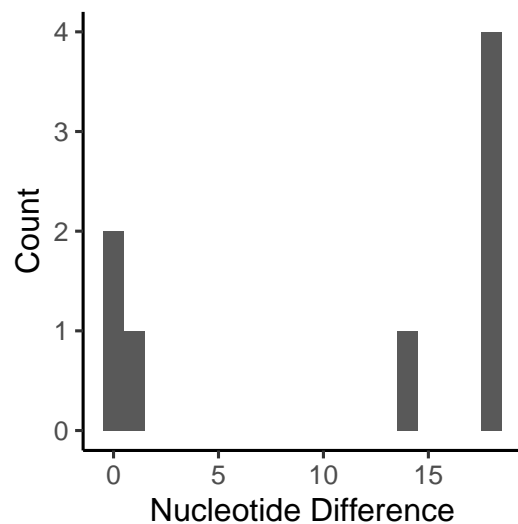
IGHV4-39*01

3392 sequences assigned
1349 (39.8%) exact matches, in which:
1304 unique CDR3
6 unique J



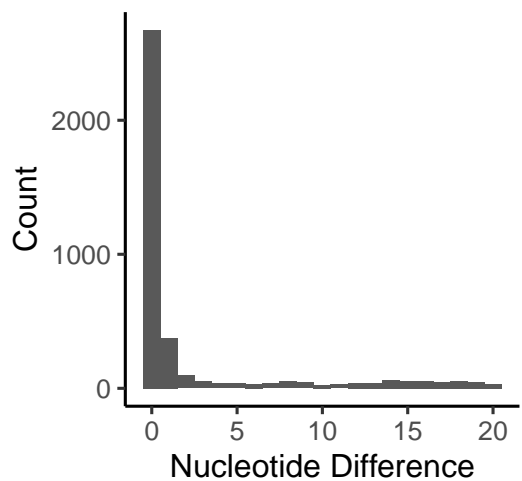
IGHV4-28*01

10 sequences assigned
2 (20%) exact matches, in which:
2 unique CDR3
2 unique J



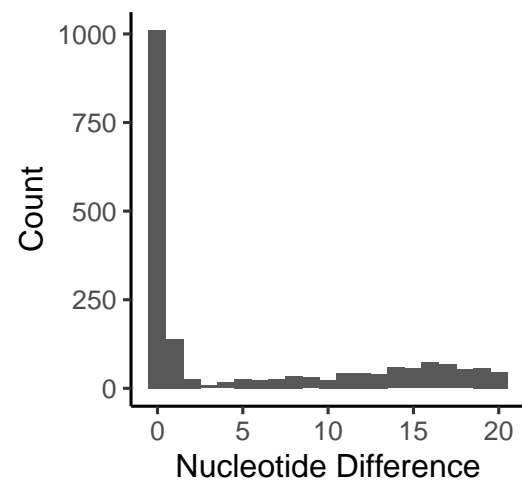
IGHV4-34*01

4468 sequences assigned
2673 (59.8%) exact matches, in which:
2636 unique CDR3
6 unique J



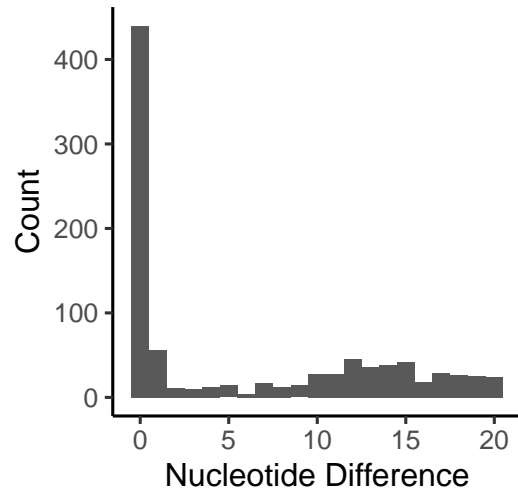
IGHV4-59*01

2667 sequences assigned
1011 (37.9%) exact matches, in which:
987 unique CDR3
6 unique J



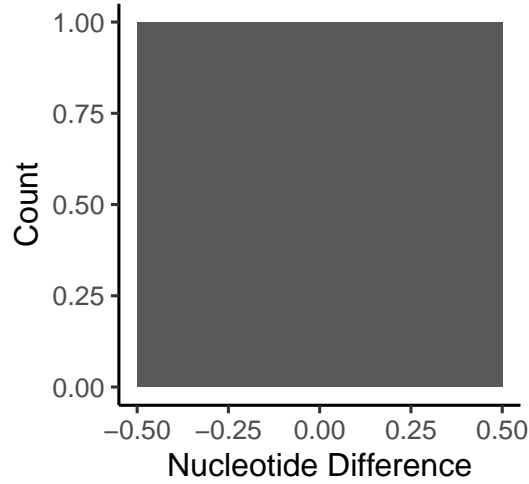
IGHV4–59*08

1327 sequences assigned
440 (33.2%) exact matches, in which:
434 unique CDR3
6 unique J



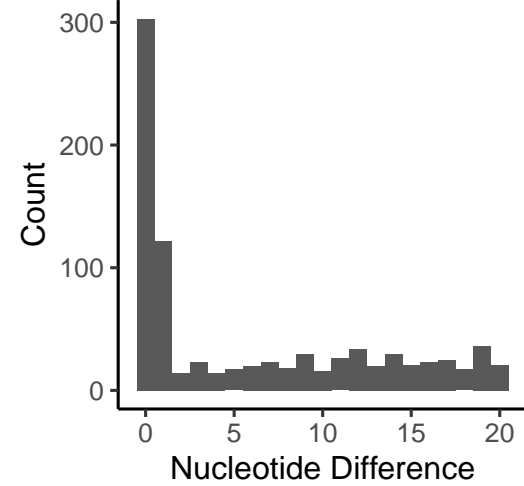
IGHV1/OR15–4*01

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



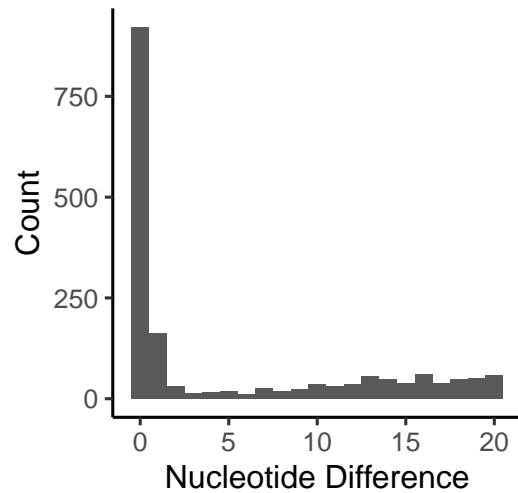
IGHV5–51*01

1211 sequences assigned
303 (25%) exact matches, in which:
294 unique CDR3
6 unique J



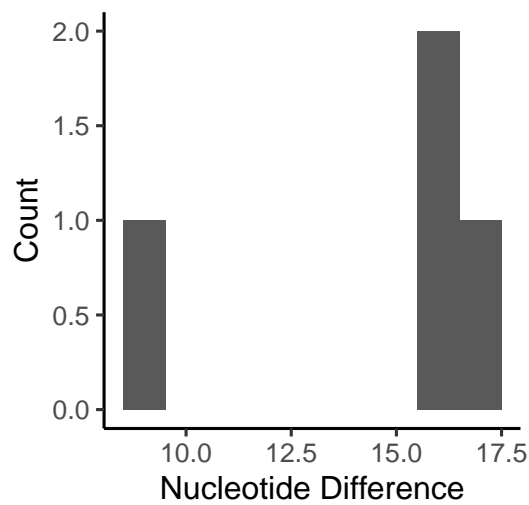
IGHV4–61*02

2410 sequences assigned
922 (38.3%) exact matches, in which:
907 unique CDR3
6 unique J



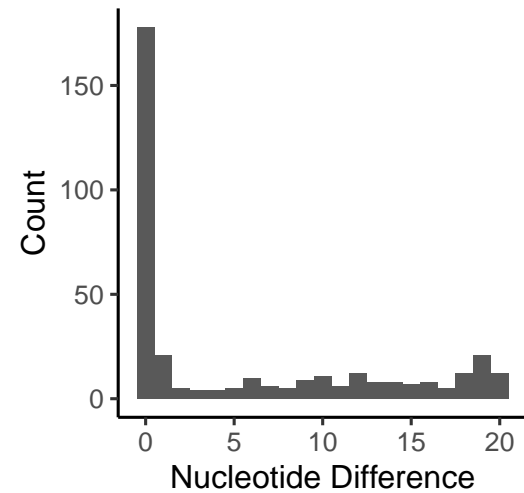
IGHV4/OR15–8*02

10 sequences assigned
No exact matches.



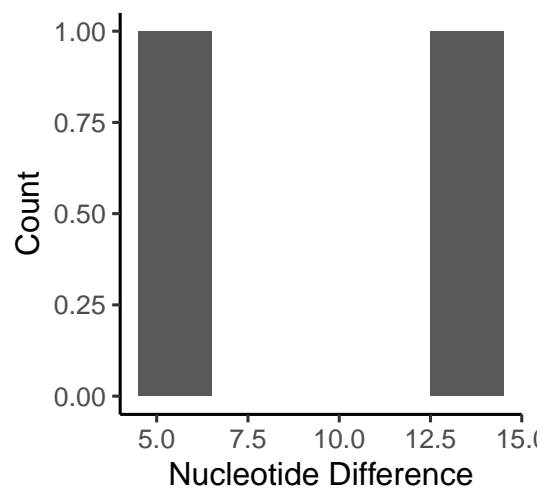
IGHV5–51*03

604 sequences assigned
178 (29.5%) exact matches, in which:
175 unique CDR3
6 unique J



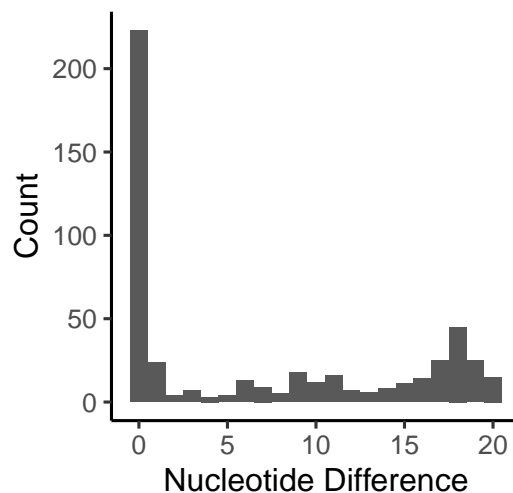
IGHV1/OR15–1*04

5 sequences assigned
No exact matches.



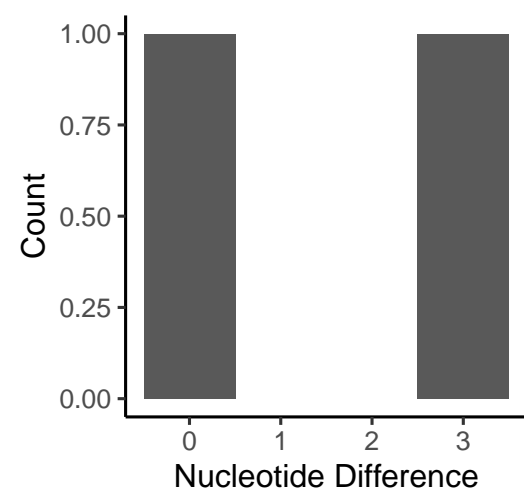
IGHV5–10–1*01

674 sequences assigned
223 (33.1%) exact matches, in which:
213 unique CDR3
6 unique J



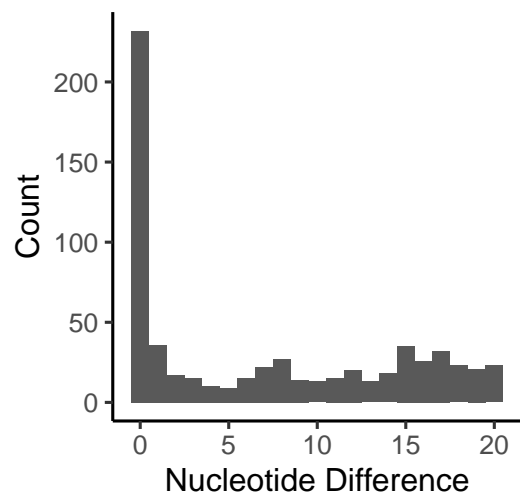
IGHV5–78*01

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



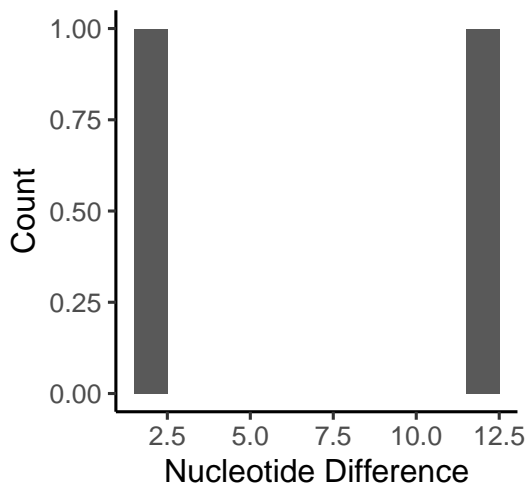
IGHV6-1*01

710 sequences assigned
232 (32.7%) exact matches, in which:
231 unique CDR3
5 unique J



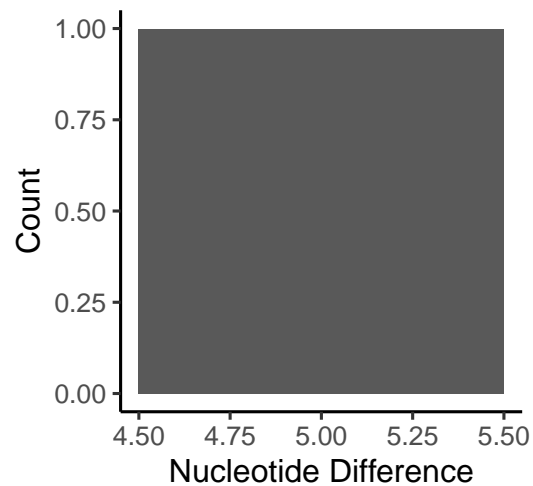
IGHV3/OR16-9*01

2 sequences assigned
No exact matches.



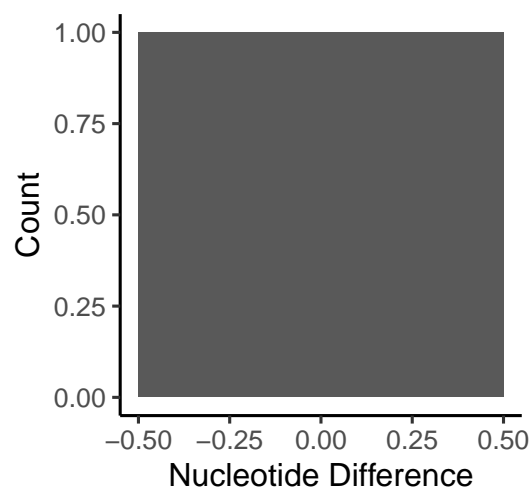
IGHV7-81*01

1 sequences assigned
No exact matches.



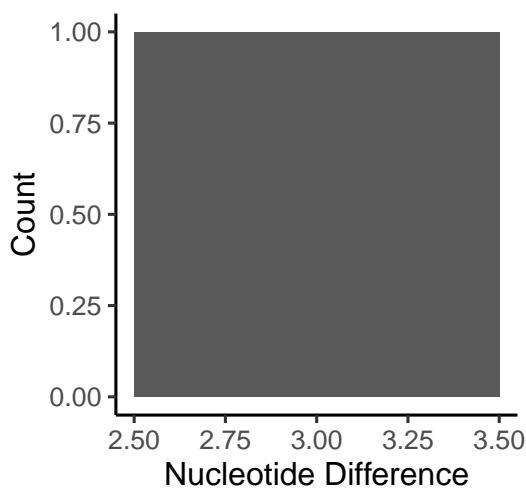
IGHV3/OR16-6*02

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



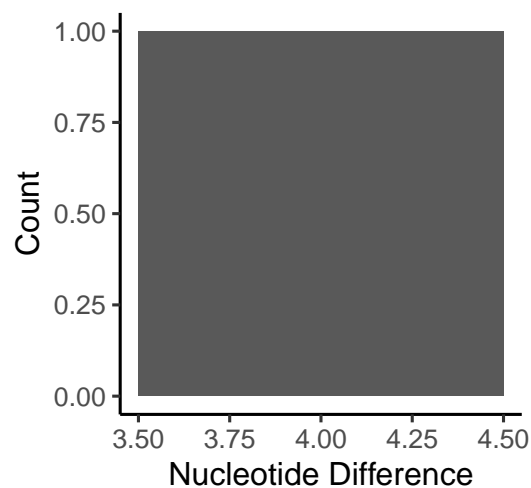
IGHV3/OR16-12*01

1 sequences assigned
No exact matches.



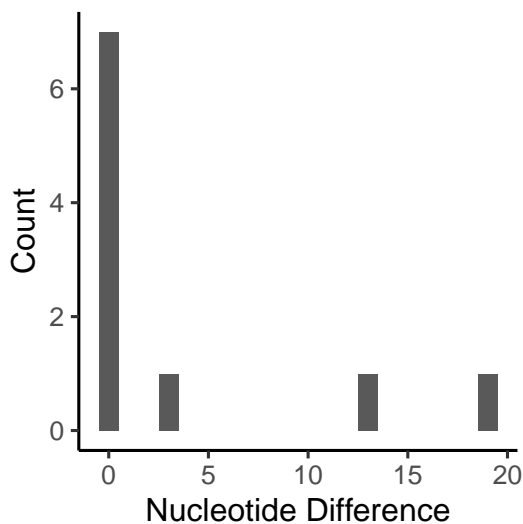
IGHV3/OR16-8*01

1 sequences assigned
No exact matches.



IGHV7-4-1*01

11 sequences assigned
7 (63.6%) exact matches, in which:
7 unique CDR3
2 unique J



IGHV4-38-2*02_A70G

