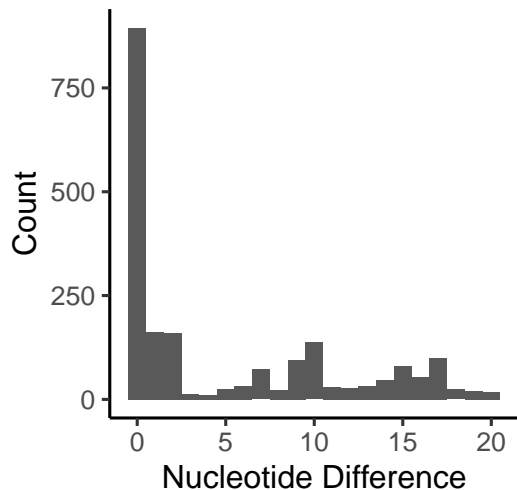


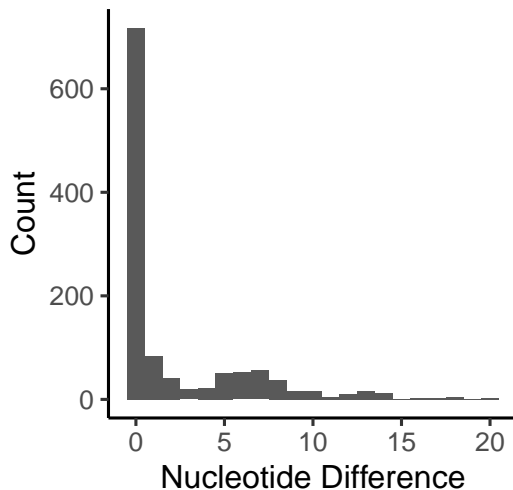
IGHV1-2*02

2276 sequences assigned
895 (39.3%) exact matches, in which:
858 unique CDR3
6 unique J



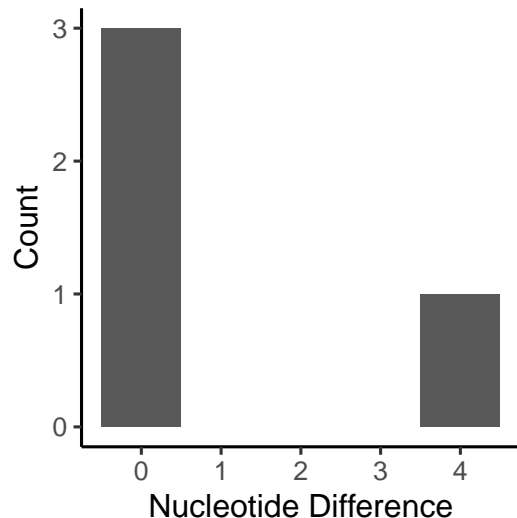
IGHV1-8*01

1264 sequences assigned
718 (56.8%) exact matches, in which:
701 unique CDR3
6 unique J



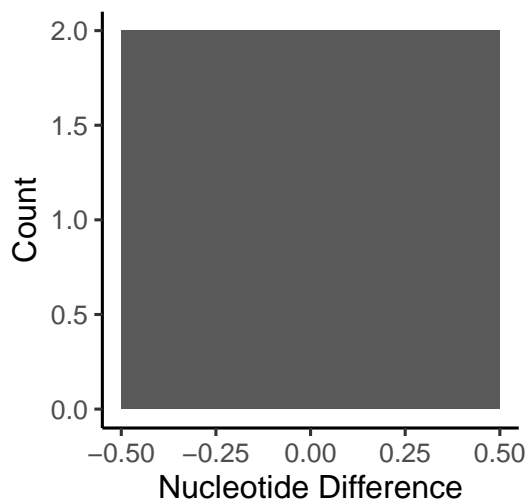
IGHV1-45*02

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



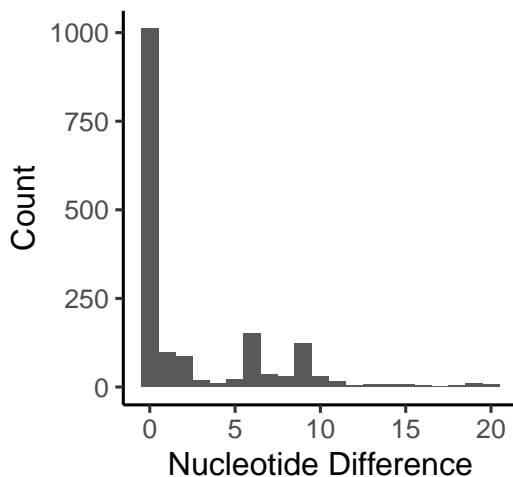
IGHV1-3*02

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



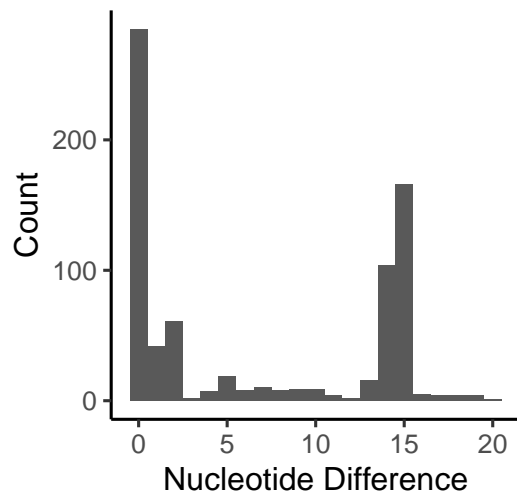
IGHV1-18*01

1720 sequences assigned
1011 (58.8%) exact matches, in which:
977 unique CDR3
6 unique J



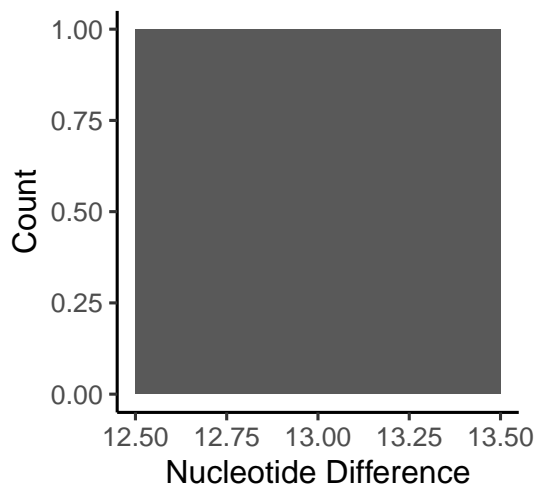
IGHV1-46*01

806 sequences assigned
285 (35.4%) exact matches, in which:
277 unique CDR3
6 unique J



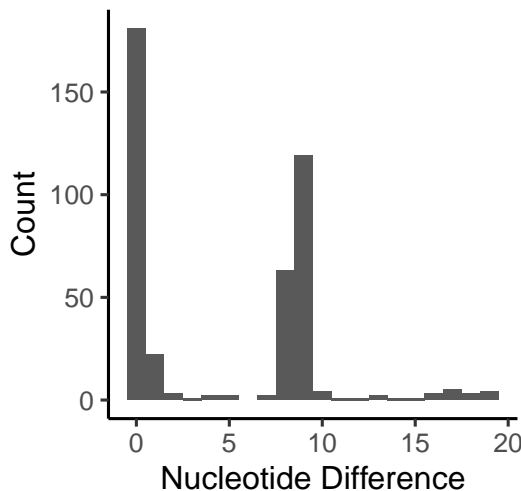
IGHV1-3*01_05

1 sequences assigned
No exact matches.



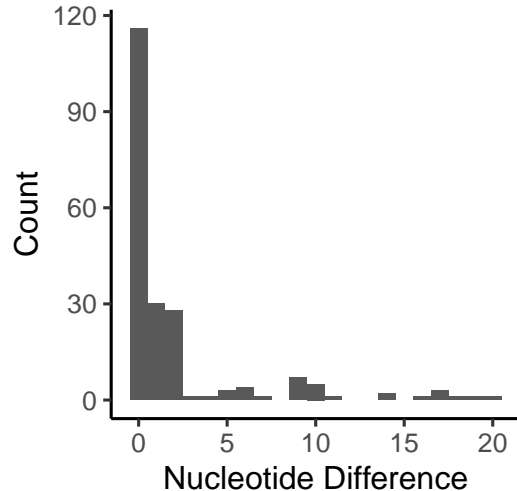
IGHV1-24*01

424 sequences assigned
181 (42.7%) exact matches, in which:
174 unique CDR3
6 unique J



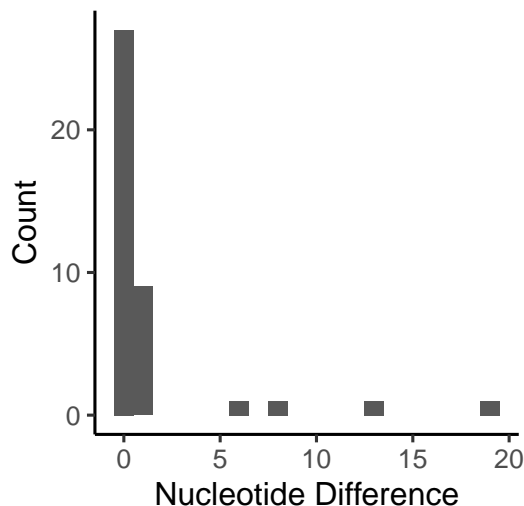
IGHV1-46*03

283 sequences assigned
116 (41%) exact matches, in which:
112 unique CDR3
5 unique J



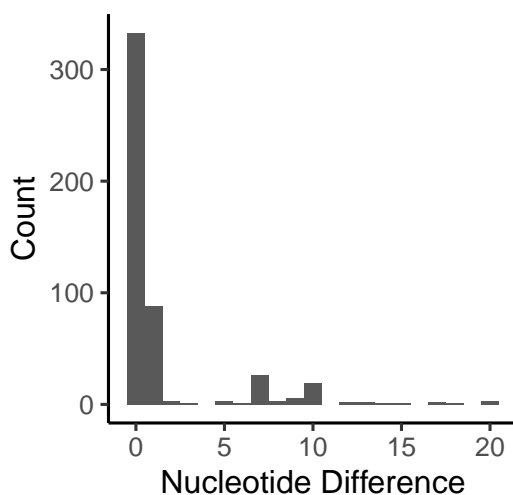
IGHV1-58*02

41 sequences assigned
27 (65.9%) exact matches, in which:
26 unique CDR3
5 unique J



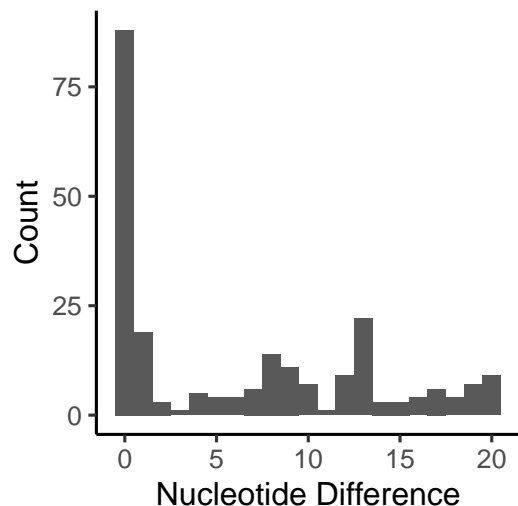
IGHV1-69*04_09_G112A

506 sequences assigned
333 (65.8%) exact matches, in which:
329 unique CDR3
6 unique J



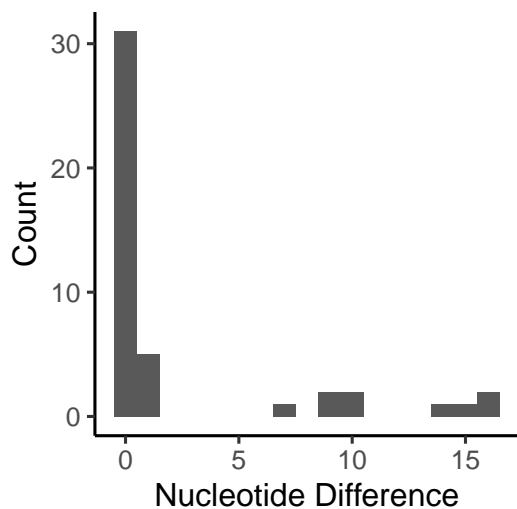
IGHV2-5*02

440 sequences assigned
88 (20%) exact matches, in which:
84 unique CDR3
5 unique J



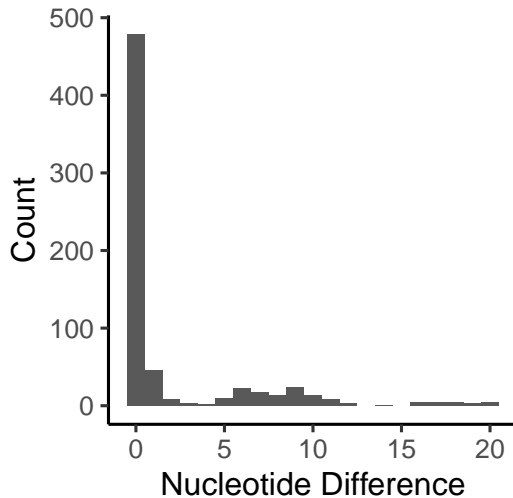
IGHV1-58*01_03

46 sequences assigned
31 (67.4%) exact matches, in which:
31 unique CDR3
5 unique J



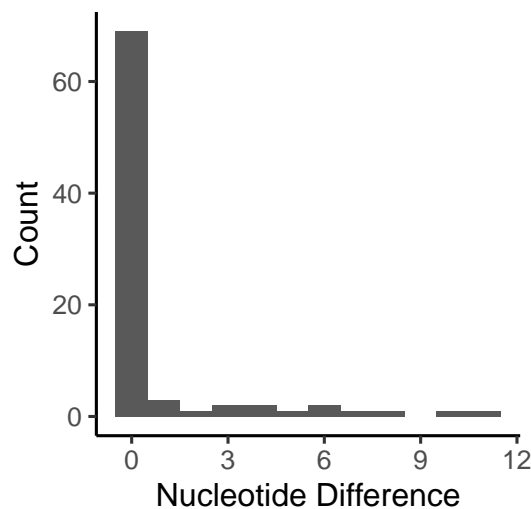
IGHV1-69*06_14

674 sequences assigned
479 (71.1%) exact matches, in which:
466 unique CDR3
6 unique J



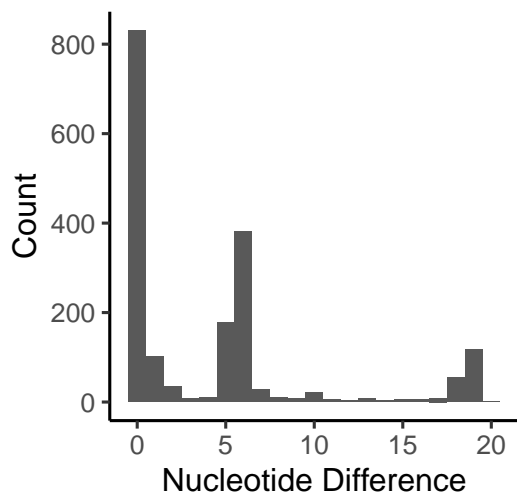
IGHV2-26*01

85 sequences assigned
69 (81.2%) exact matches, in which:
66 unique CDR3
5 unique J



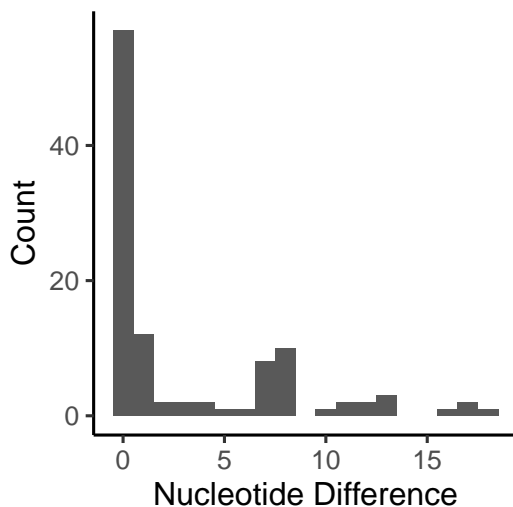
IGHV1-69*01_12_13

1837 sequences assigned
831 (45.2%) exact matches, in which:
817 unique CDR3
6 unique J



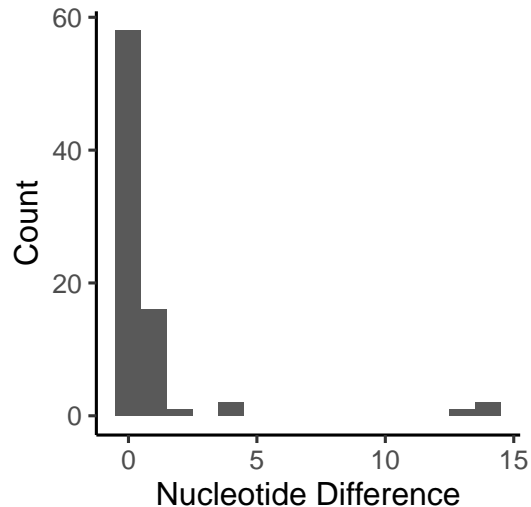
IGHV2-5*01

111 sequences assigned
57 (51.4%) exact matches, in which:
55 unique CDR3
5 unique J



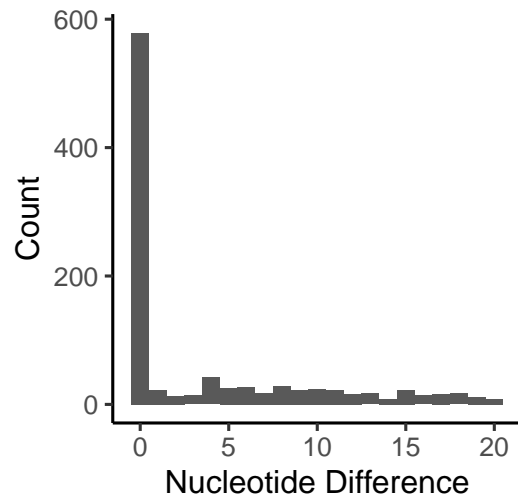
IGHV2-70*01

81 sequences assigned
58 (71.6%) exact matches, in which:
57 unique CDR3
5 unique J



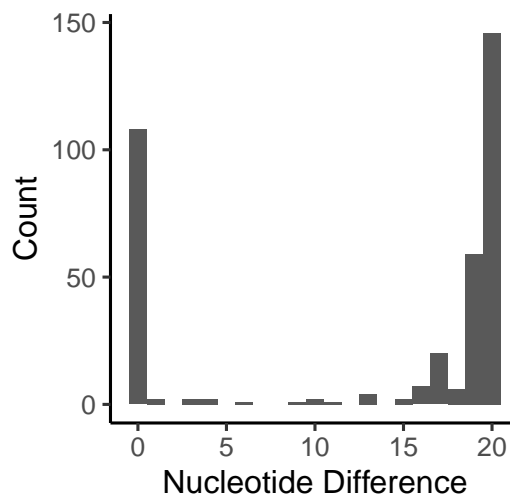
IGHV3-7*01

1005 sequences assigned
579 (57.6%) exact matches, in which:
363 unique CDR3
6 unique J



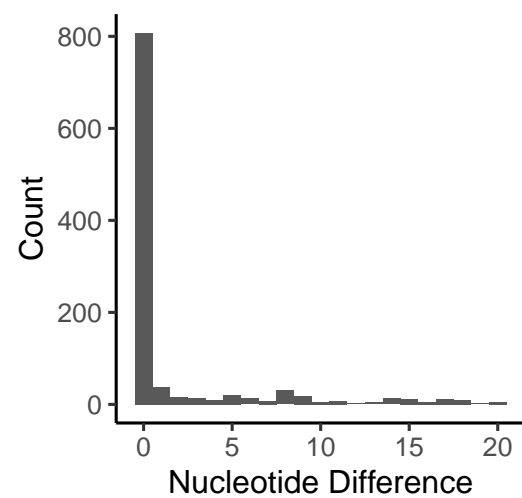
IGHV3-13*01

397 sequences assigned
108 (27.2%) exact matches, in which:
63 unique CDR3
5 unique J



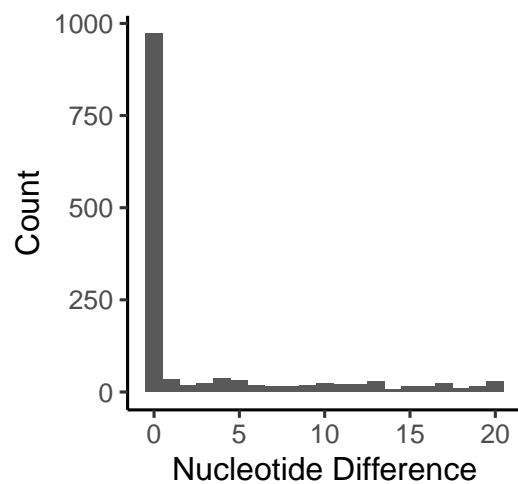
IGHV3-21*01_02

1160 sequences assigned
808 (69.7%) exact matches, in which:
493 unique CDR3
6 unique J



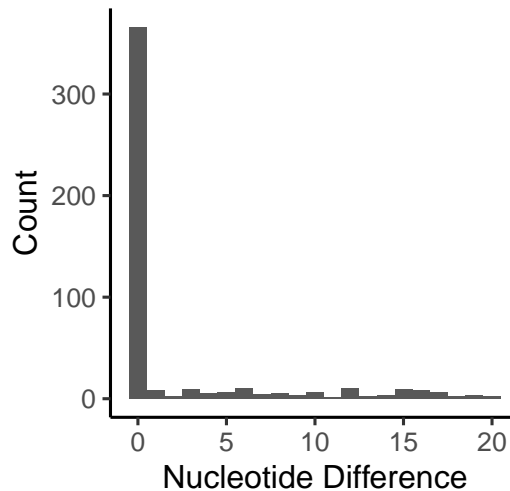
IGHV3-9*01

1576 sequences assigned
972 (61.7%) exact matches, in which:
577 unique CDR3
6 unique J



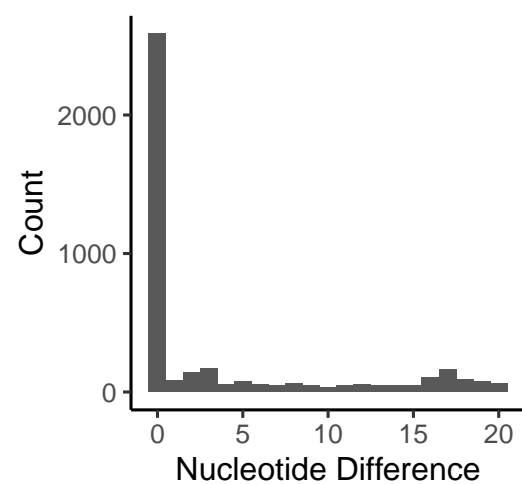
IGHV3-15*01_02

791 sequences assigned
366 (46.3%) exact matches, in which:
232 unique CDR3
6 unique J



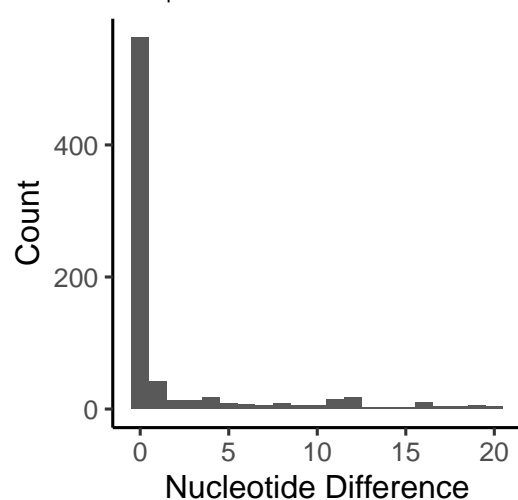
IGHV3-23*01_04

5022 sequences assigned
2587 (51.5%) exact matches, in which:
1489 unique CDR3
6 unique J



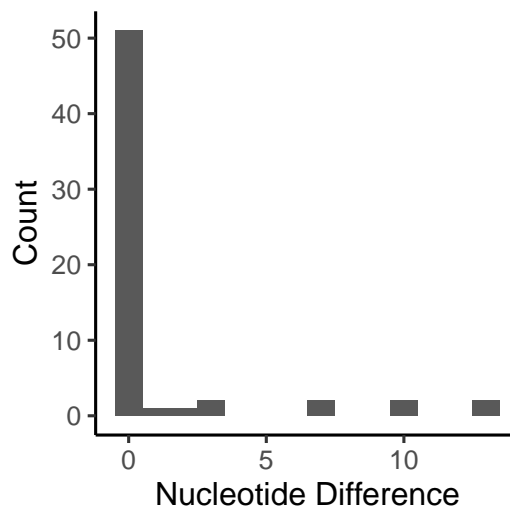
IGHV3-11*01

855 sequences assigned
563 (65.8%) exact matches, in which:
343 unique CDR3
6 unique J



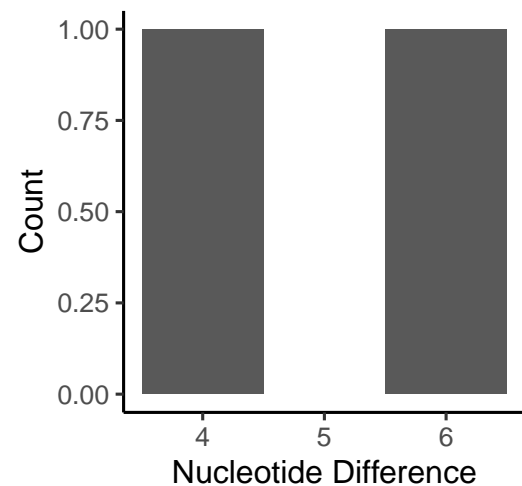
IGHV3-20*01_02

73 sequences assigned
51 (69.9%) exact matches, in which:
33 unique CDR3
5 unique J



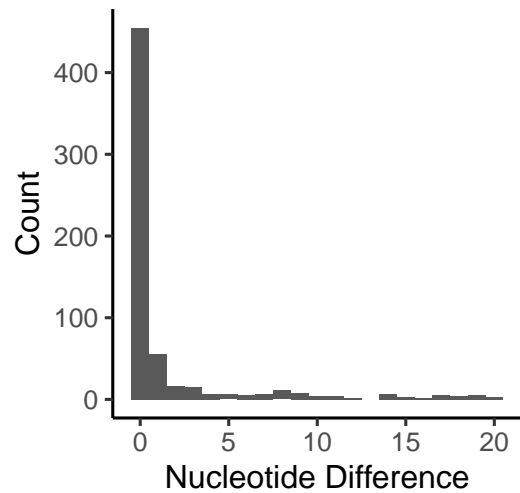
IGHV3-30-3*01

4 sequences assigned
No exact matches.



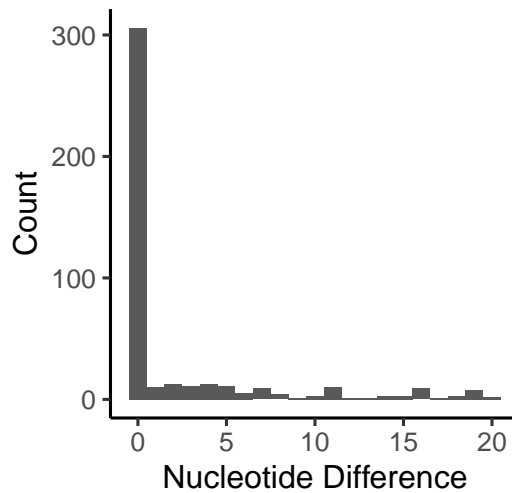
IGHV3–33*01

643 sequences assigned
455 (70.8%) exact matches, in which:
294 unique CDR3
6 unique J



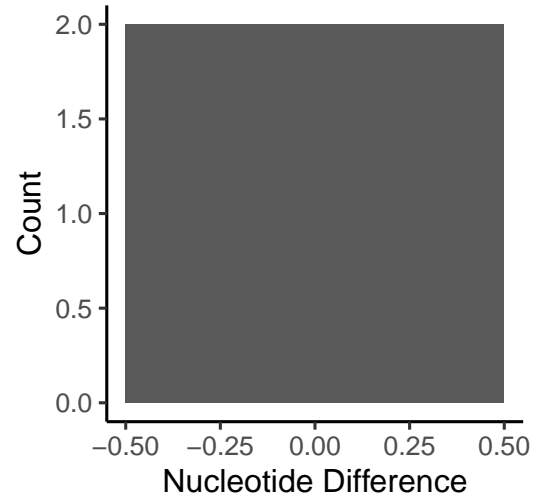
IGHV3–48*01

447 sequences assigned
306 (68.5%) exact matches, in which:
182 unique CDR3
6 unique J



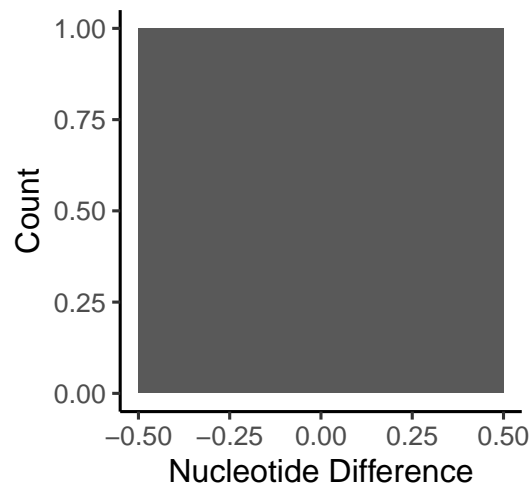
IGHV3–52*02

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



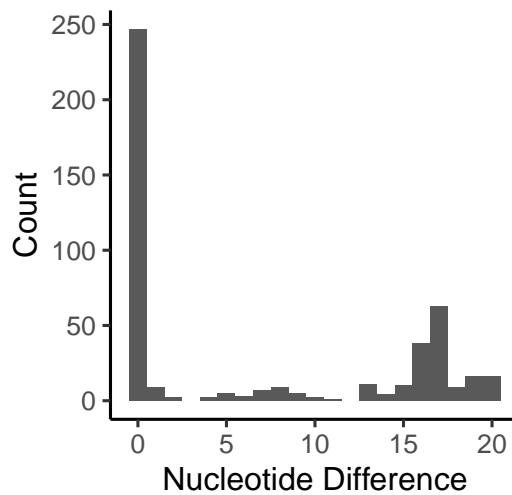
IGHV3–38*02

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



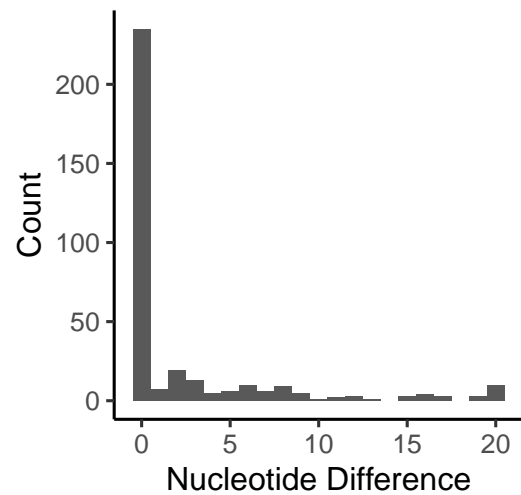
IGHV3–48*02

517 sequences assigned
247 (47.8%) exact matches, in which:
152 unique CDR3
6 unique J



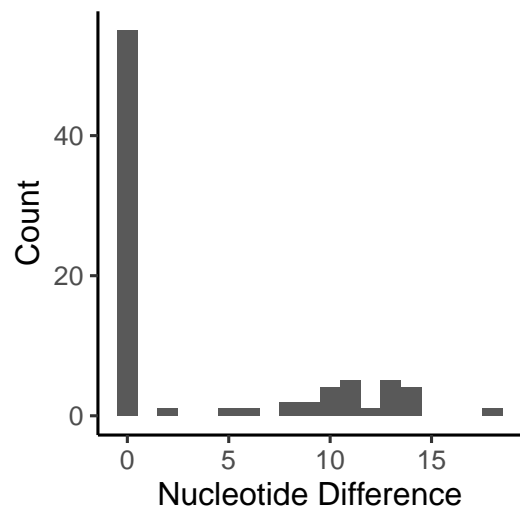
IGHV3–53*01_02

425 sequences assigned
235 (55.3%) exact matches, in which:
146 unique CDR3
6 unique J



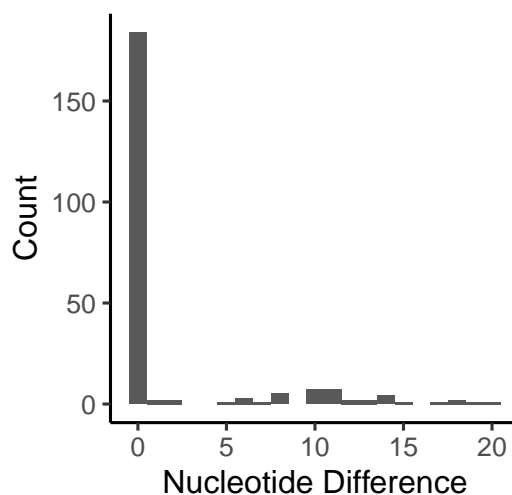
IGHV3–43*01

87 sequences assigned
55 (63.2%) exact matches, in which:
34 unique CDR3
4 unique J



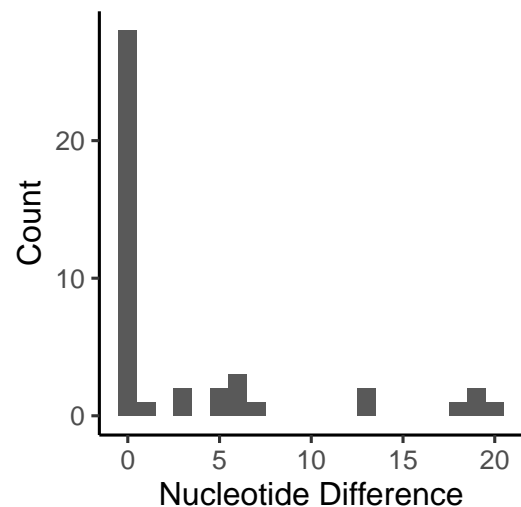
IGHV3–49*03_05

495 sequences assigned
184 (37.2%) exact matches, in which:
111 unique CDR3
6 unique J



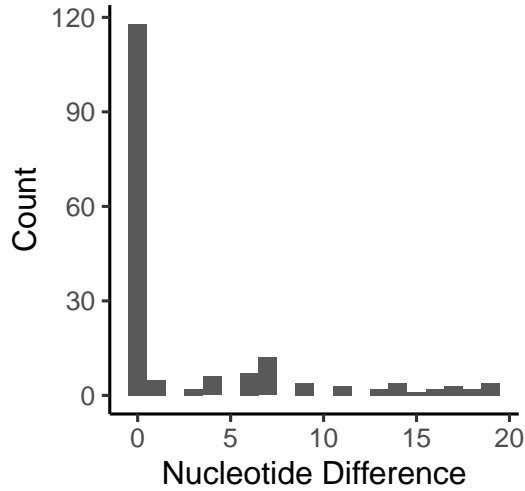
IGHV3–64*01

43 sequences assigned
28 (65.1%) exact matches, in which:
18 unique CDR3
4 unique J



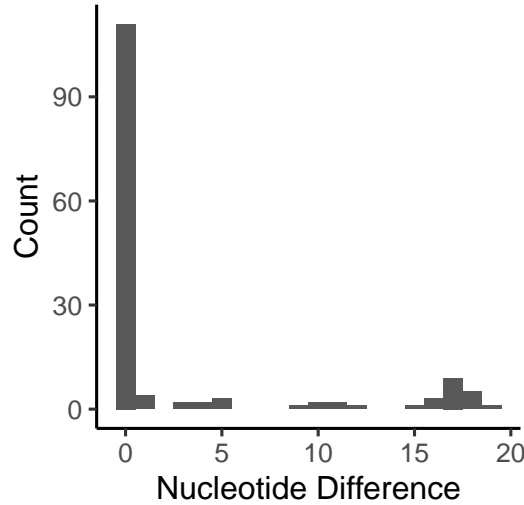
IGHV3-66*02

196 sequences assigned
118 (60.2%) exact matches, in which:
71 unique CDR3
5 unique J



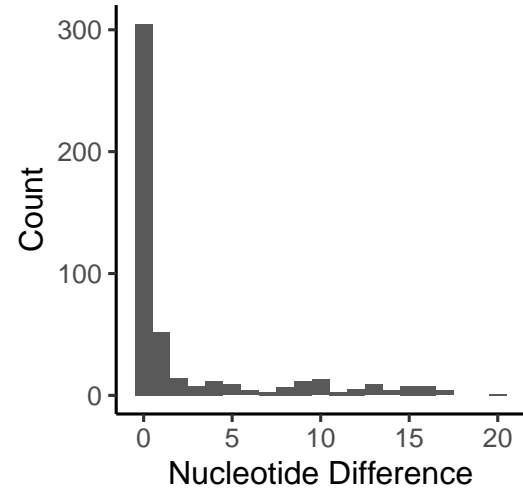
IGHV3-73*01_02

150 sequences assigned
111 (74%) exact matches, in which:
67 unique CDR3
5 unique J



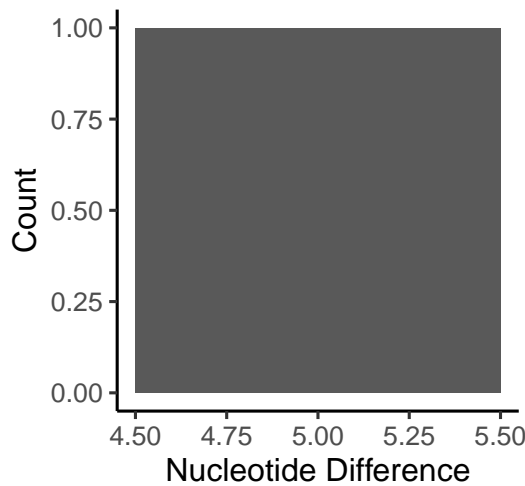
IGHV4-4*07

535 sequences assigned
305 (57%) exact matches, in which:
294 unique CDR3
6 unique J



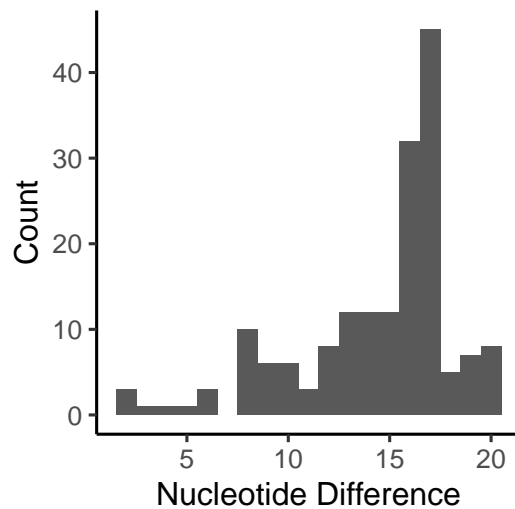
IGHV3-69-1*01

1 sequences assigned
No exact matches.



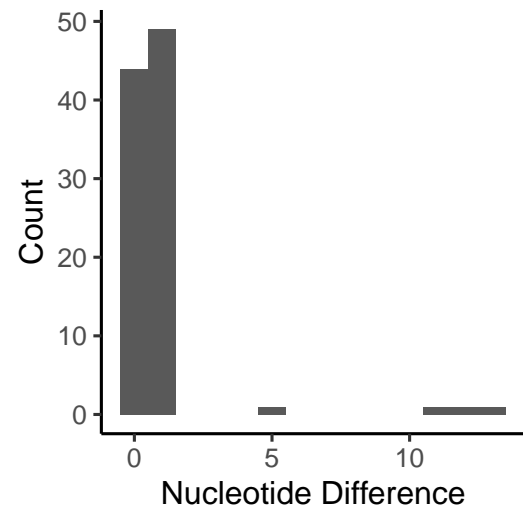
IGHV3-74*03

298 sequences assigned
No exact matches.



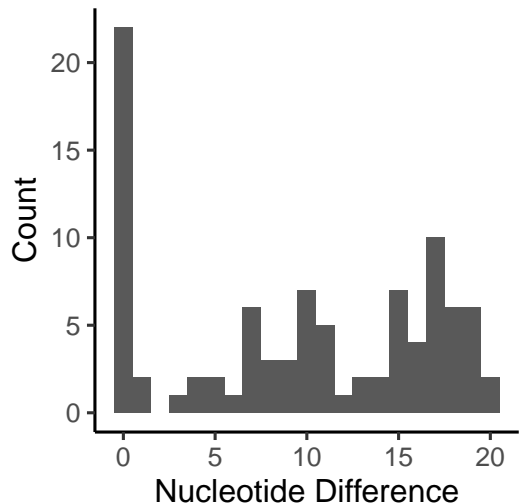
IGHV4-4*07_C288T

98 sequences assigned
44 (44.9%) exact matches, in which:
44 unique CDR3
6 unique J



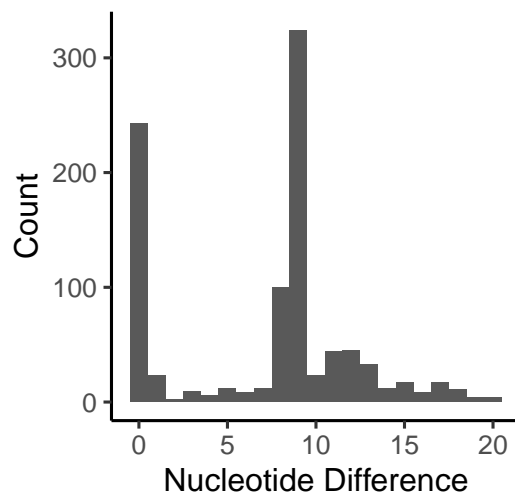
IGHV3-72*01

98 sequences assigned
22 (22.4%) exact matches, in which:
13 unique CDR3
5 unique J



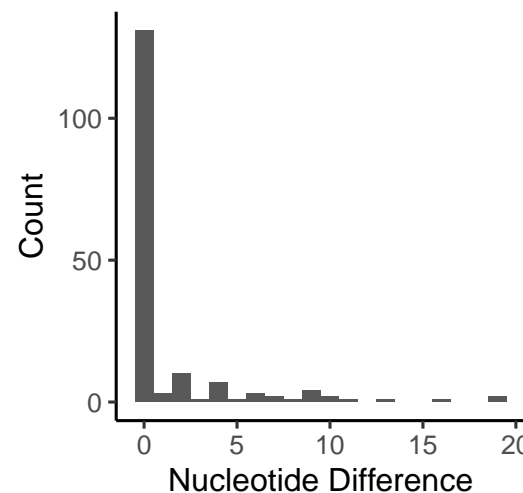
IGHV3-74*01_02

1056 sequences assigned
243 (23%) exact matches, in which:
140 unique CDR3
6 unique J



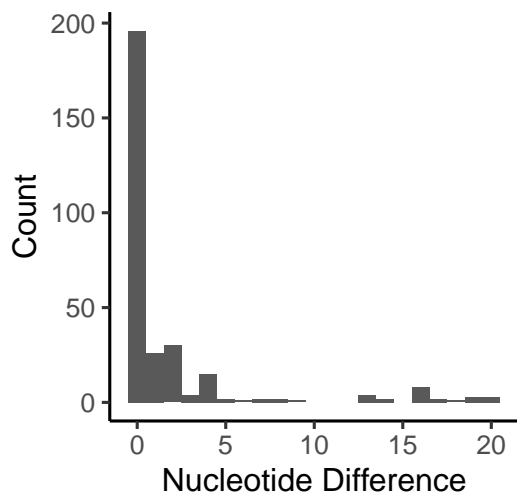
IGHV4-4*07_G234A_G234S

175 sequences assigned
131 (74.9%) exact matches, in which:
130 unique CDR3
6 unique J



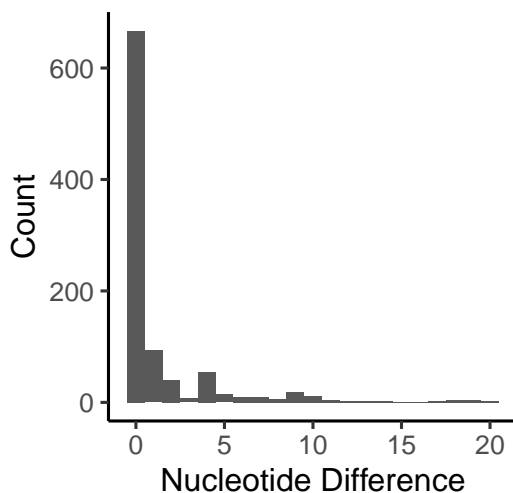
IGHV4-30-2*01

308 sequences assigned
196 (63.6%) exact matches, in which:
146 unique CDR3
6 unique J



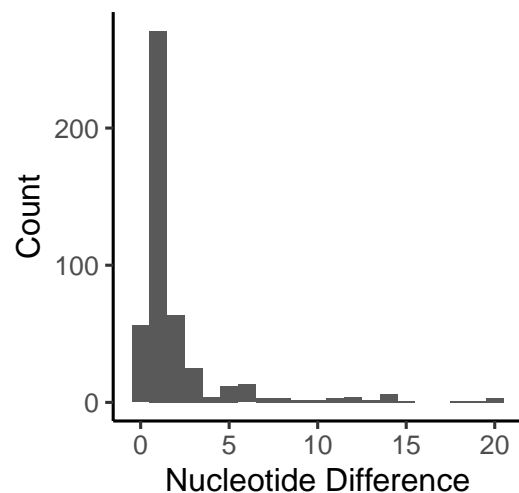
IGHV4-34*01_02

976 sequences assigned
667 (68.3%) exact matches, in which:
594 unique CDR3
6 unique J



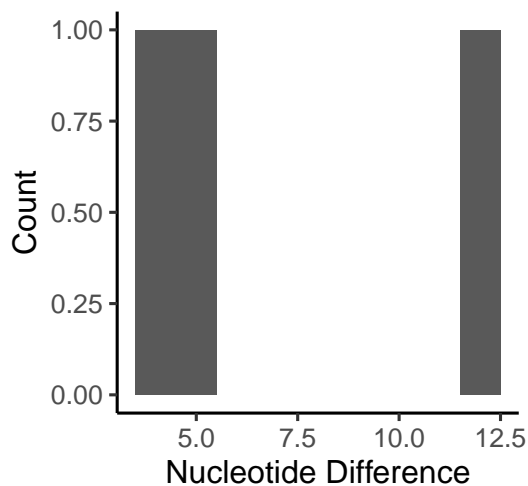
IGHV4-59*12

478 sequences assigned
56 (11.7%) exact matches, in which:
56 unique CDR3
5 unique J



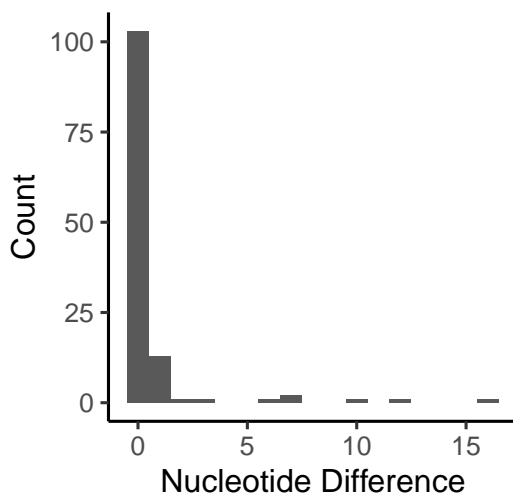
IGHV4-30-4*07

3 sequences assigned
No exact matches.



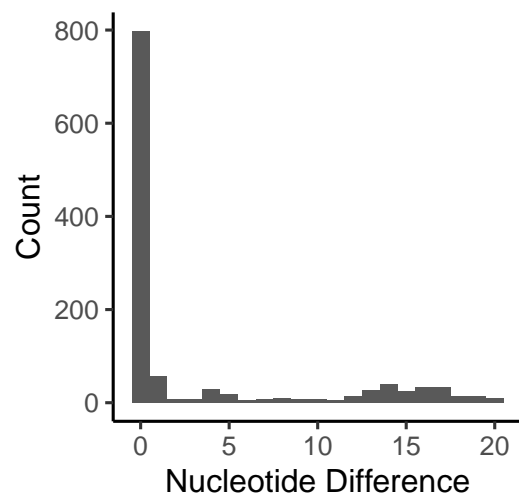
IGHV4-34*01_02_C288T

124 sequences assigned
103 (83.1%) exact matches, in which:
103 unique CDR3
5 unique J



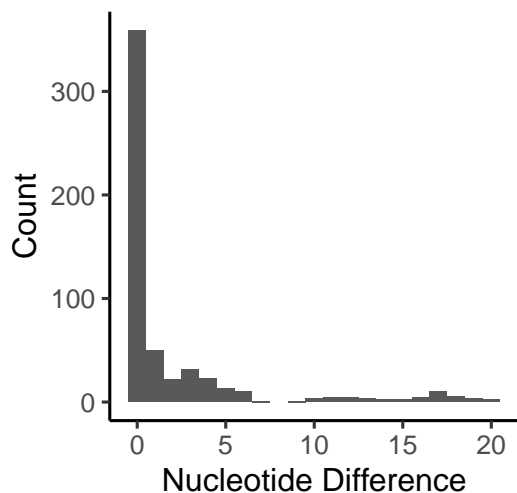
IGHV4-59*02_G88A

1363 sequences assigned
798 (58.5%) exact matches, in which:
770 unique CDR3
6 unique J



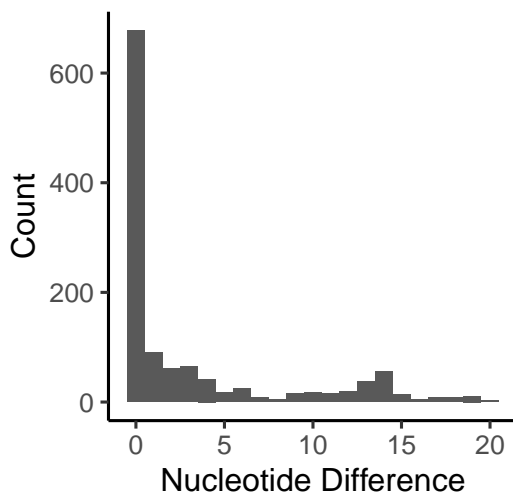
IGHV4-31*02

596 sequences assigned
359 (60.2%) exact matches, in which:
347 unique CDR3
6 unique J



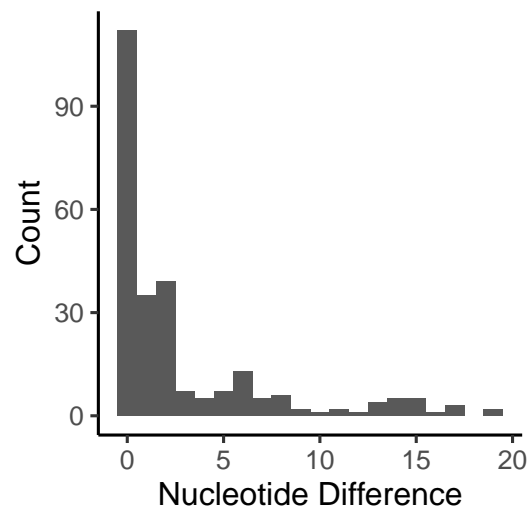
IGHV4-39*02_C258G

1334 sequences assigned
678 (50.8%) exact matches, in which:
617 unique CDR3
6 unique J



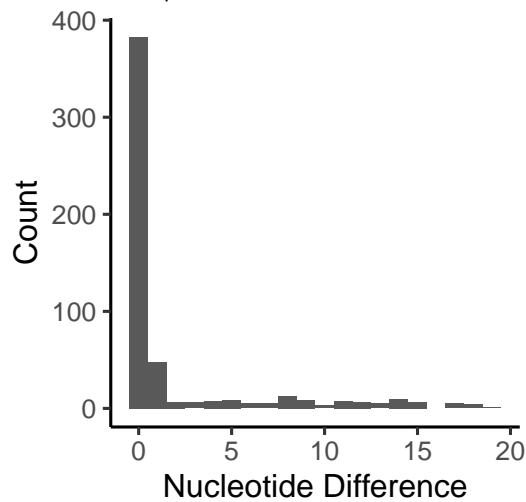
IGHV4-61*01

262 sequences assigned
112 (42.7%) exact matches, in which:
111 unique CDR3
6 unique J



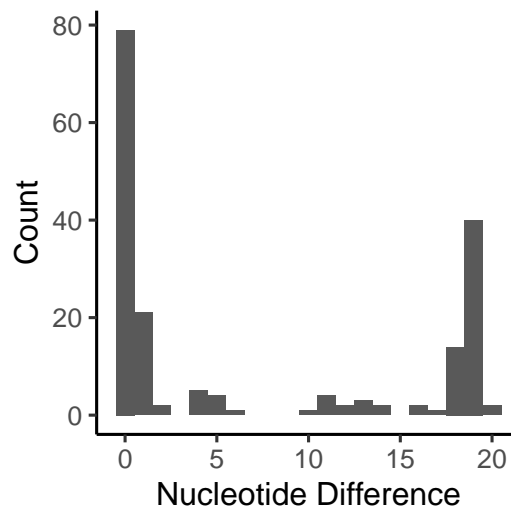
IGHV4–61*02

904 sequences assigned
383 (42.4%) exact matches, in which:
370 unique CDR3
6 unique J



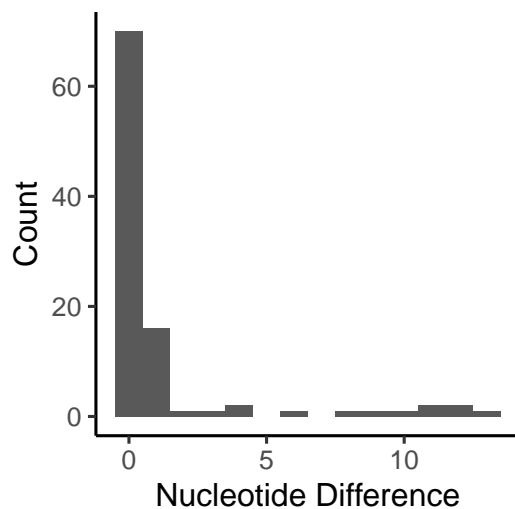
IGHV6–1*01_02

186 sequences assigned
79 (42.5%) exact matches, in which:
78 unique CDR3
6 unique J



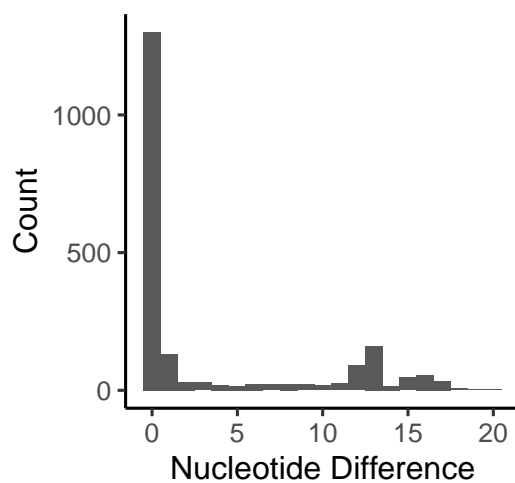
IGHV4–61*02_A234G_A291G

105 sequences assigned
70 (66.7%) exact matches, in which:
69 unique CDR3
6 unique J



IGHV5–51*07_A128G

2115 sequences assigned
1301 (61.5%) exact matches, in which:
740 unique CDR3
6 unique J





Warning – no inferred sequences found.