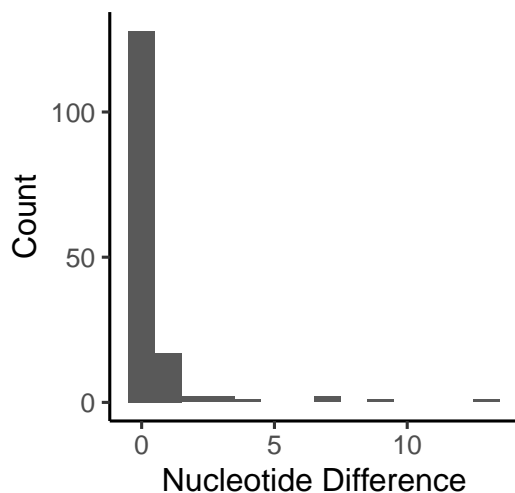


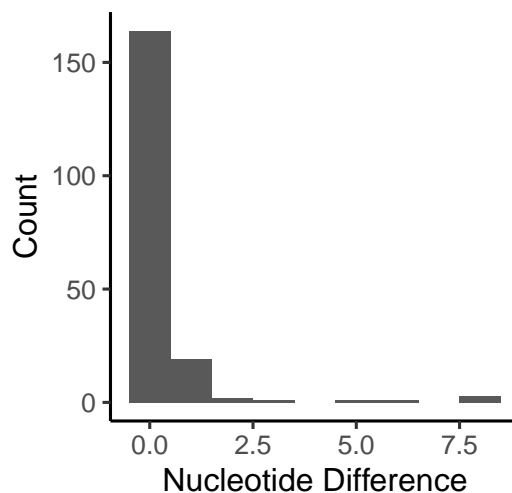
IGHV1-2*04

154 sequences assigned
128 (83.1%) exact matches, in which:
128 unique CDR3
6 unique J



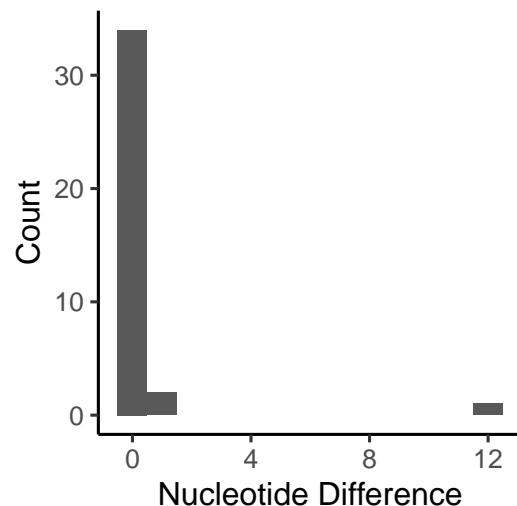
IGHV1-24*01

191 sequences assigned
164 (85.9%) exact matches, in which:
164 unique CDR3
6 unique J



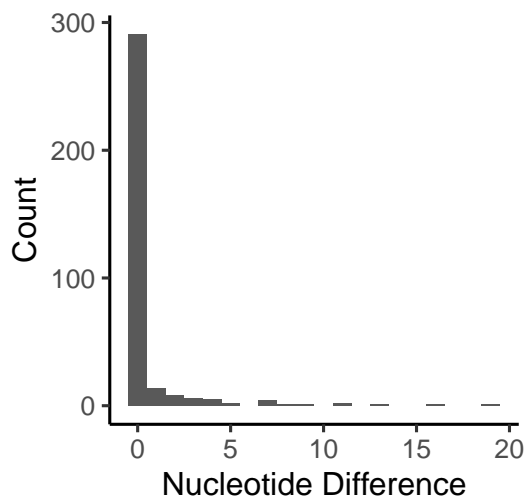
IGHV1-46*04

41 sequences assigned
34 (82.9%) exact matches, in which:
34 unique CDR3
5 unique J



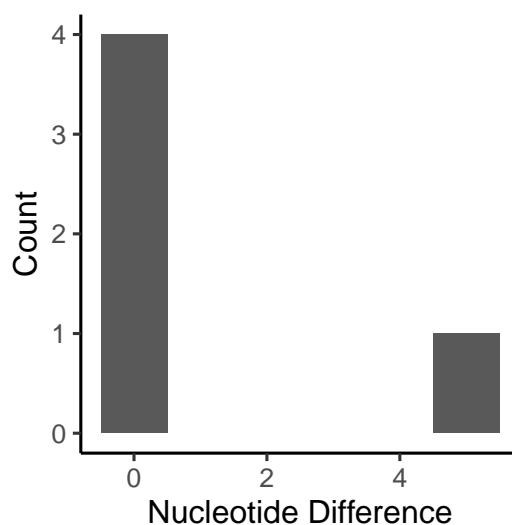
IGHV1-3*01

339 sequences assigned
291 (85.8%) exact matches, in which:
291 unique CDR3
6 unique J



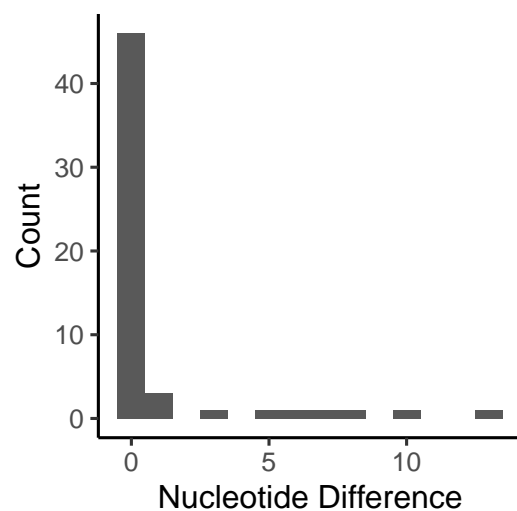
IGHV1-45*02

5 sequences assigned
4 (80%) exact matches, in which:
4 unique CDR3
2 unique J



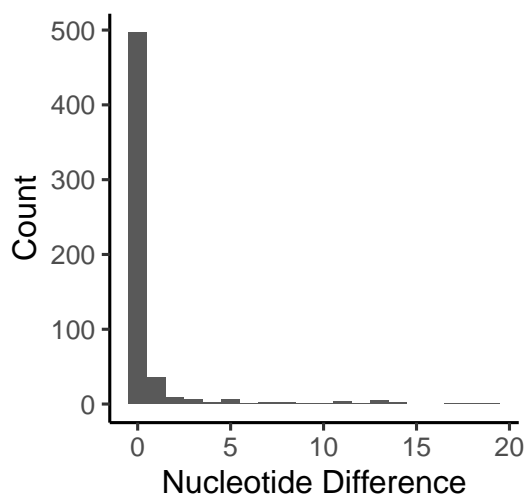
IGHV1-58*01

56 sequences assigned
46 (82.1%) exact matches, in which:
46 unique CDR3
6 unique J



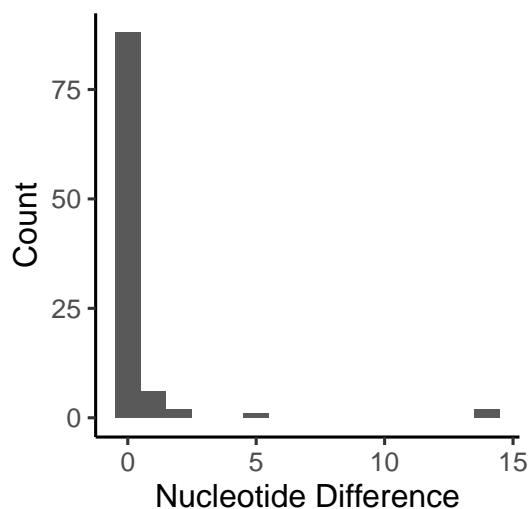
IGHV1-18*04

579 sequences assigned
497 (85.8%) exact matches, in which:
496 unique CDR3
6 unique J



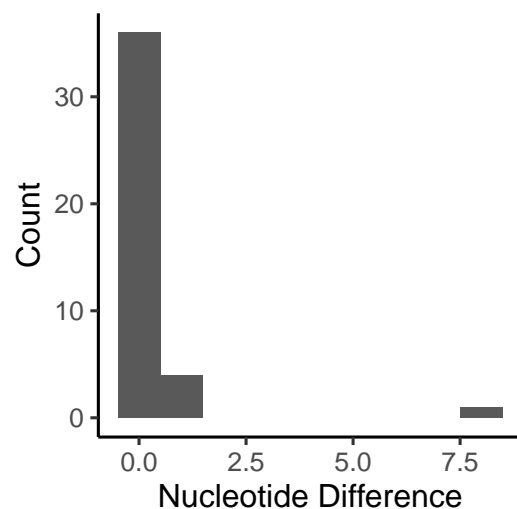
IGHV1-46*01

100 sequences assigned
88 (88%) exact matches, in which:
88 unique CDR3
6 unique J



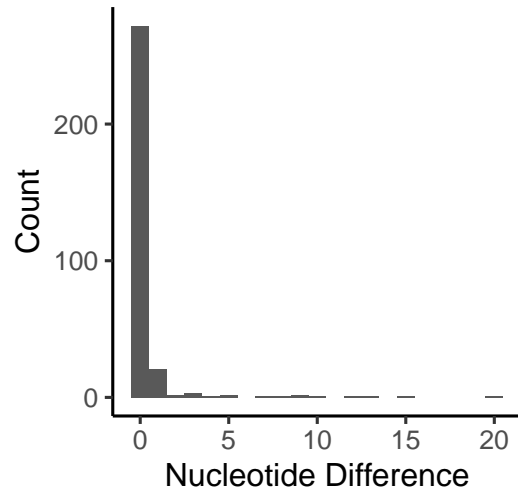
IGHV1-69-2*01

41 sequences assigned
36 (87.8%) exact matches, in which:
36 unique CDR3
5 unique J



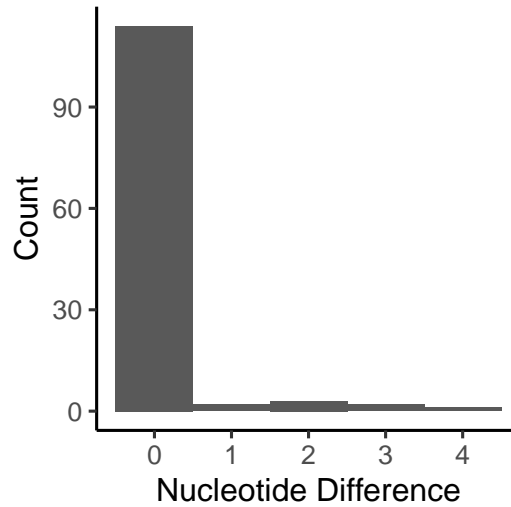
IGHV1–69*06

310 sequences assigned
272 (87.7%) exact matches, in which:
272 unique CDR3
6 unique J



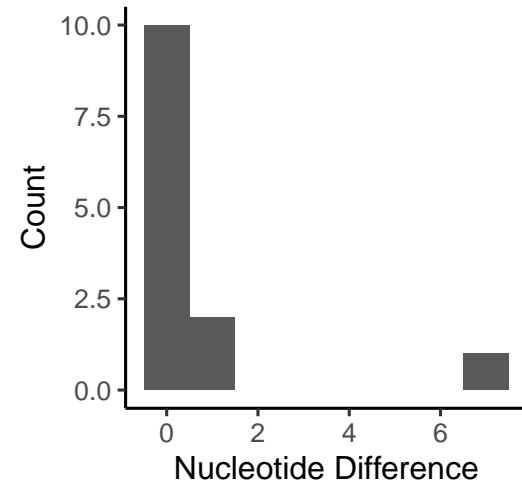
IGHV2–70*01

122 sequences assigned
114 (93.4%) exact matches, in which:
114 unique CDR3
6 unique J



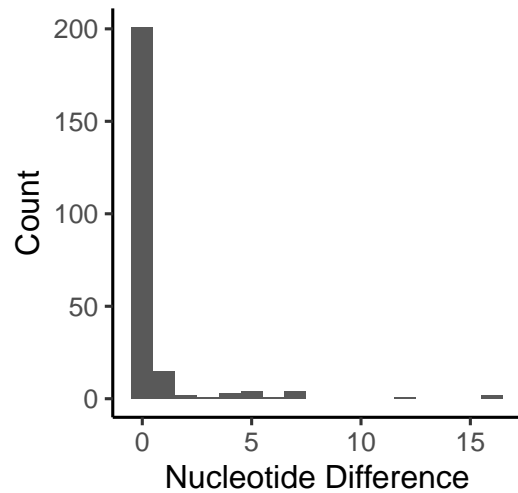
IGHV3–13*05

13 sequences assigned
10 (76.9%) exact matches, in which:
10 unique CDR3
4 unique J



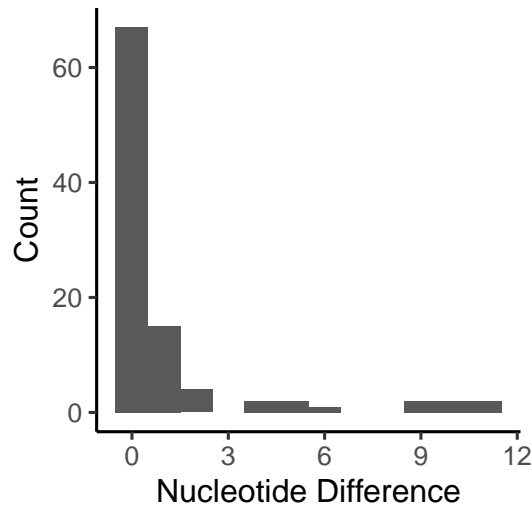
IGHV2–5*02

235 sequences assigned
201 (85.5%) exact matches, in which:
201 unique CDR3
6 unique J



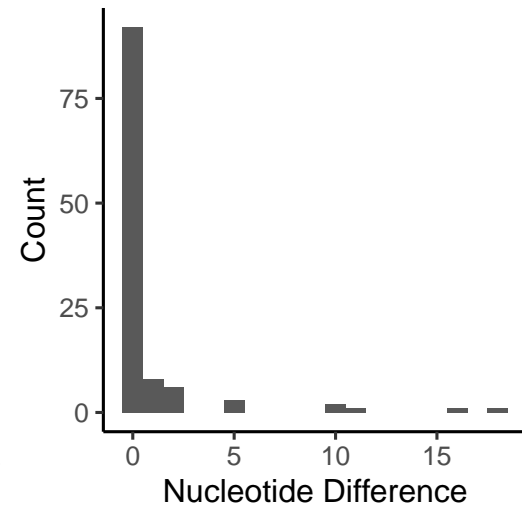
IGHV3–7*03

98 sequences assigned
67 (68.4%) exact matches, in which:
67 unique CDR3
5 unique J



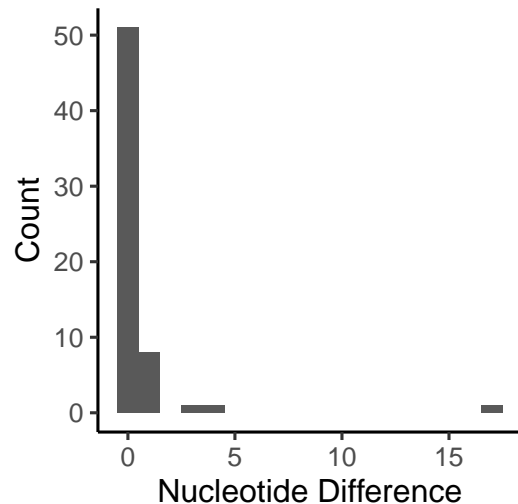
IGHV3–15*01

114 sequences assigned
92 (80.7%) exact matches, in which:
92 unique CDR3
5 unique J



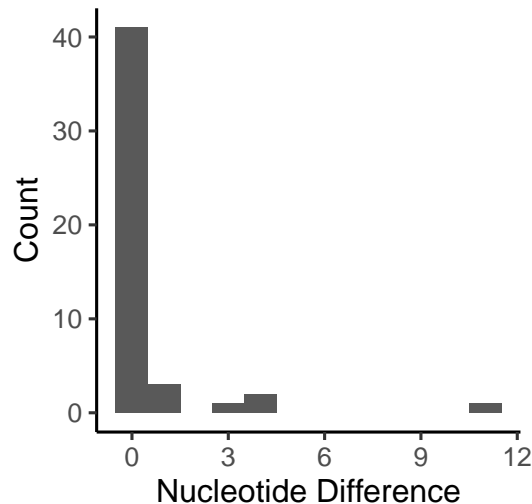
IGHV2–26*01

62 sequences assigned
51 (82.3%) exact matches, in which:
51 unique CDR3
6 unique J



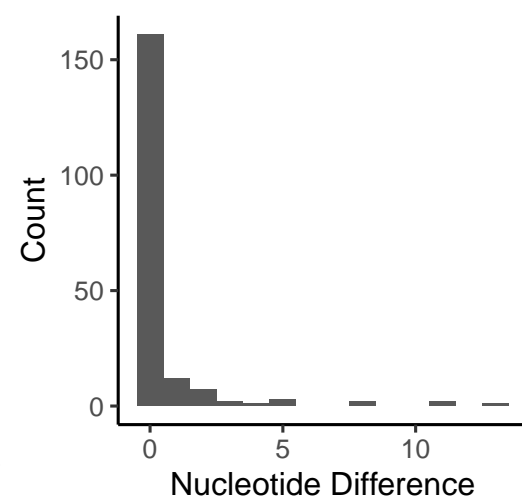
IGHV3–11*06

48 sequences assigned
41 (85.4%) exact matches, in which:
41 unique CDR3
5 unique J



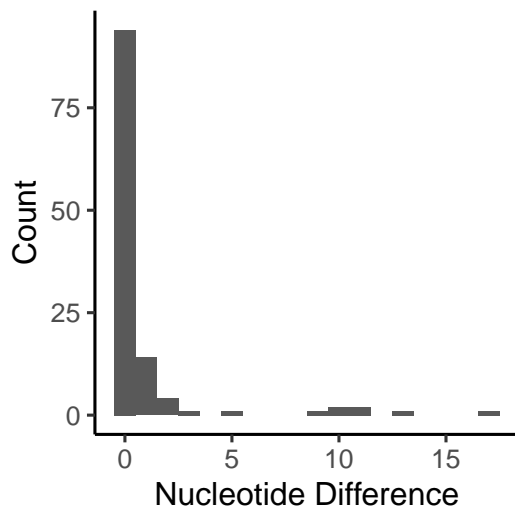
IGHV3–21*01

192 sequences assigned
161 (83.9%) exact matches, in which:
161 unique CDR3
6 unique J



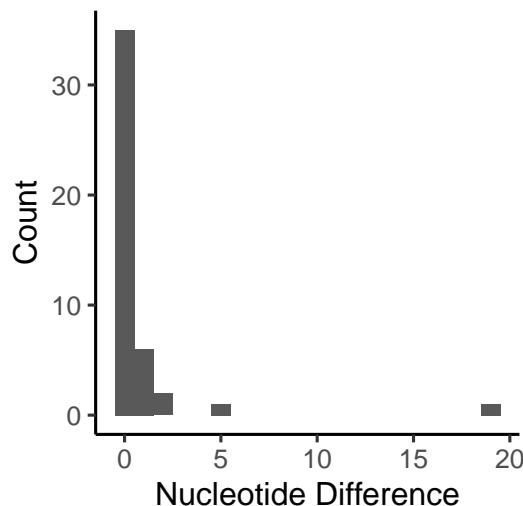
IGHV3-30-3*01

121 sequences assigned
94 (77.7%) exact matches, in which:
93 unique CDR3
5 unique J



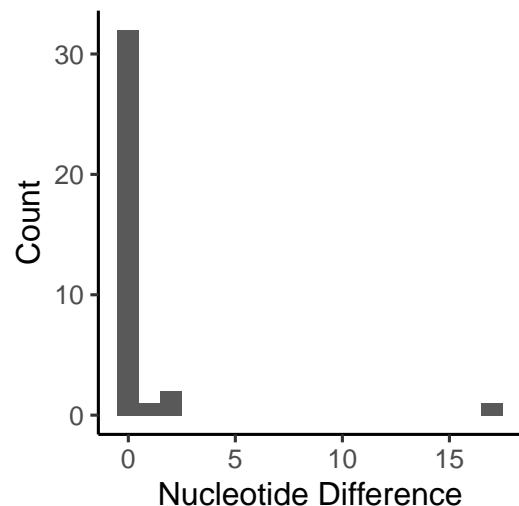
IGHV3-48*01

45 sequences assigned
35 (77.8%) exact matches, in which:
35 unique CDR3
5 unique J



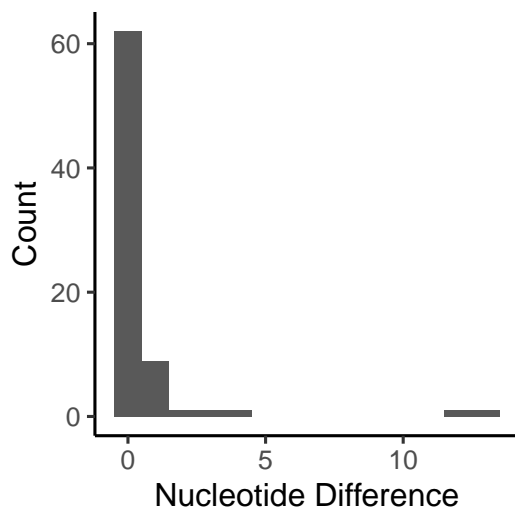
IGHV3-49*05

36 sequences assigned
32 (88.9%) exact matches, in which:
32 unique CDR3
5 unique J



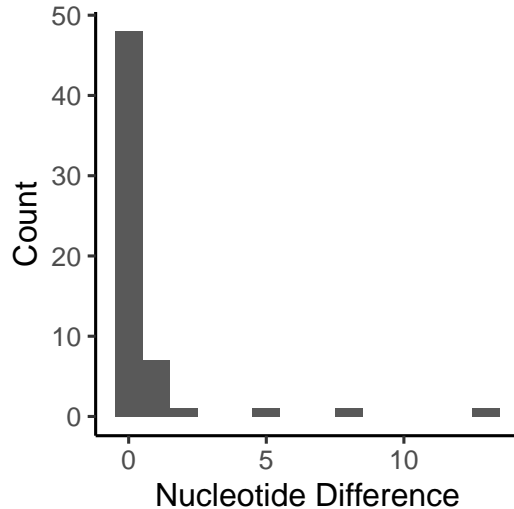
IGHV3-33*08

76 sequences assigned
62 (81.6%) exact matches, in which:
62 unique CDR3
6 unique J



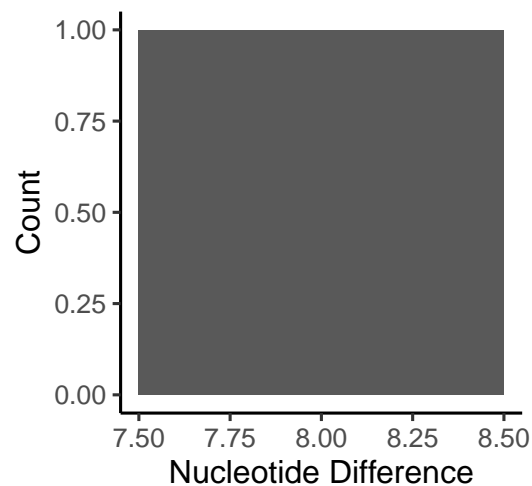
IGHV3-48*02

60 sequences assigned
48 (80%) exact matches, in which:
48 unique CDR3
6 unique J



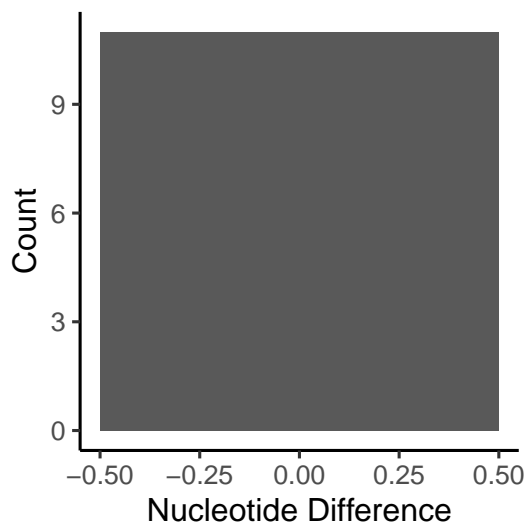
IGHV3-52*01

1 sequences assigned
No exact matches.



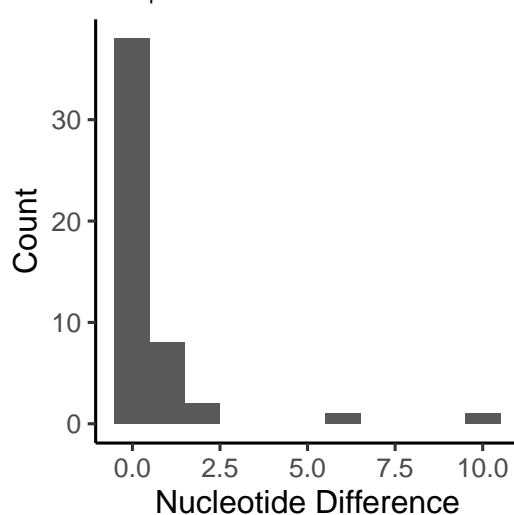
IGHV3-43*01

11 sequences assigned
11 (100%) exact matches, in which:
11 unique CDR3
3 unique J



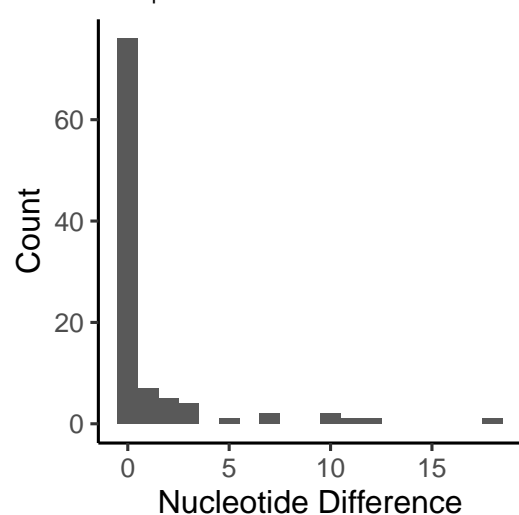
IGHV3-49*03

50 sequences assigned
38 (76%) exact matches, in which:
38 unique CDR3
6 unique J



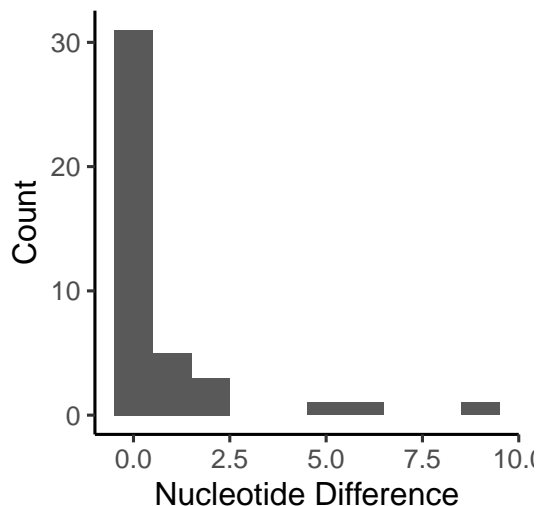
IGHV3-53*01

102 sequences assigned
76 (74.5%) exact matches, in which:
76 unique CDR3
6 unique J



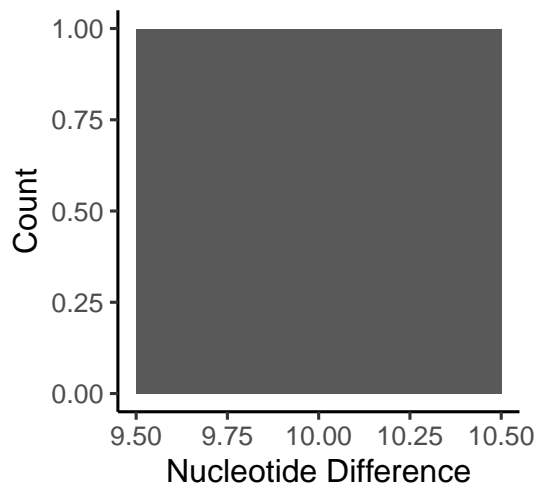
IGHV3-53*02

43 sequences assigned
31 (72.1%) exact matches, in which:
31 unique CDR3
5 unique J



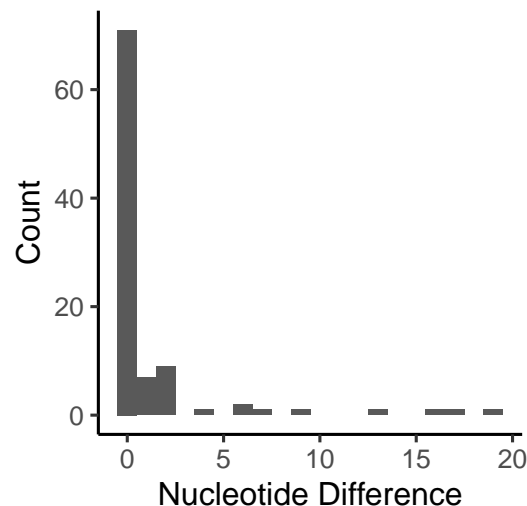
IGHV3-69-1*01

1 sequences assigned
No exact matches.



IGHV3-74*01

96 sequences assigned
71 (74%) exact matches, in which:
71 unique CDR3
6 unique J



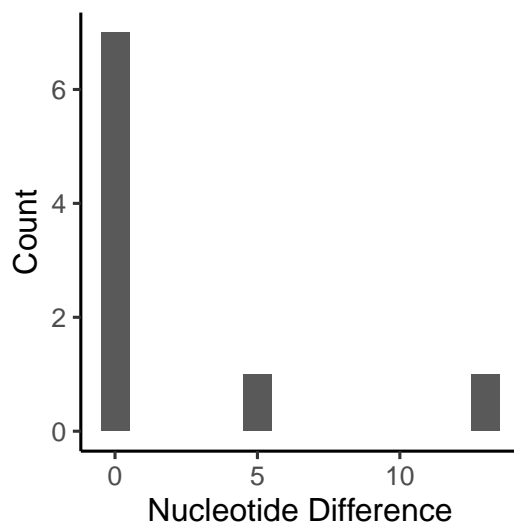
IGHV3-64*02

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



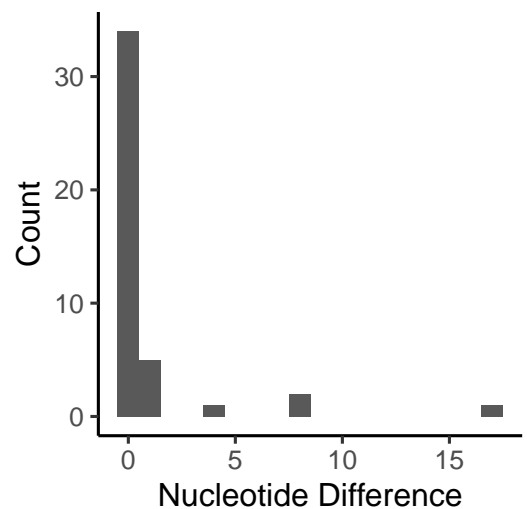
IGHV3-72*01

9 sequences assigned
7 (77.8%) exact matches, in which:
7 unique CDR3
2 unique J



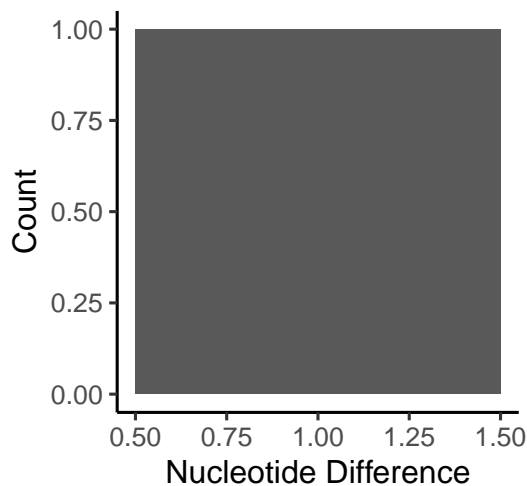
IGHV3-64D*06

43 sequences assigned
34 (79.1%) exact matches, in which:
34 unique CDR3
5 unique J



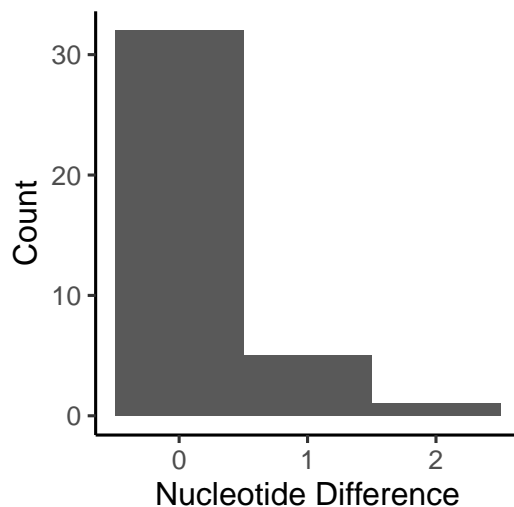
IGHV3-66*03

1 sequences assigned
No exact matches.



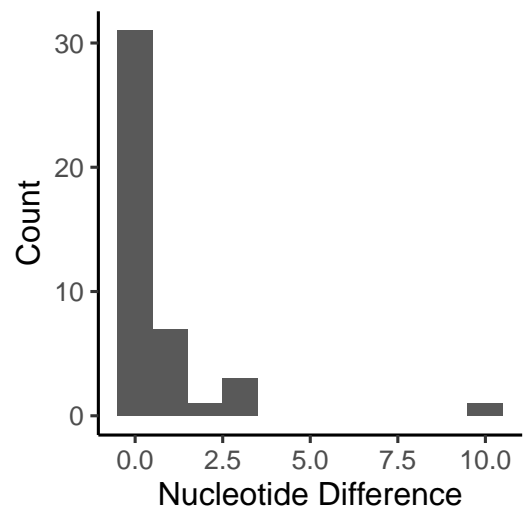
IGHV3-73*02

38 sequences assigned
32 (84.2%) exact matches, in which:
32 unique CDR3
5 unique J



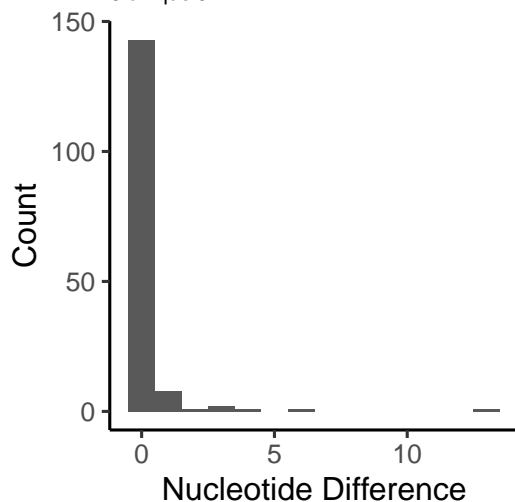
IGHV3-64D*09

44 sequences assigned
31 (70.5%) exact matches, in which:
31 unique CDR3
5 unique J



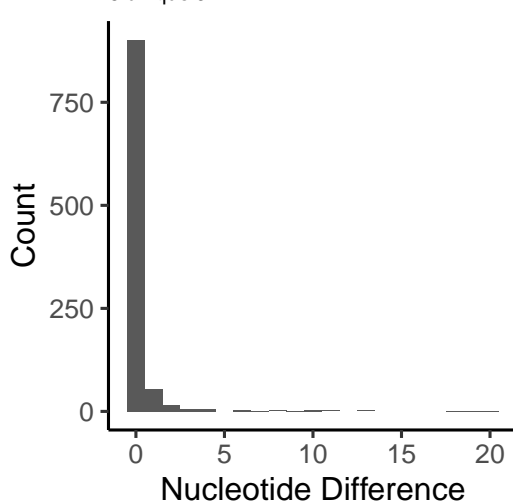
IGHV4-4*02

160 sequences assigned
143 (89.4%) exact matches, in which:
143 unique CDR3
6 unique J



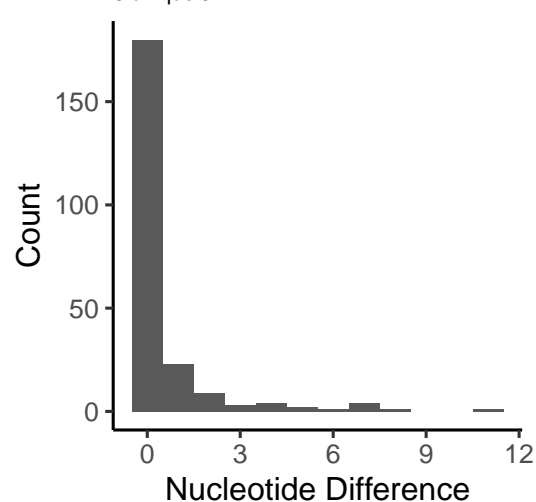
IGHV4-34*01

1011 sequences assigned
902 (89.2%) exact matches, in which:
902 unique CDR3
6 unique J



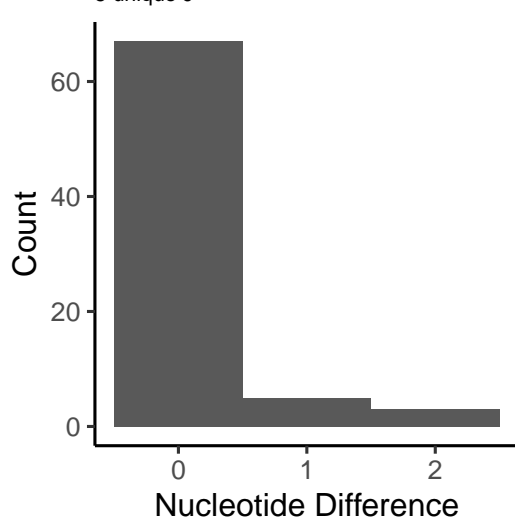
IGHV4-59*01

229 sequences assigned
180 (78.6%) exact matches, in which:
180 unique CDR3
6 unique J



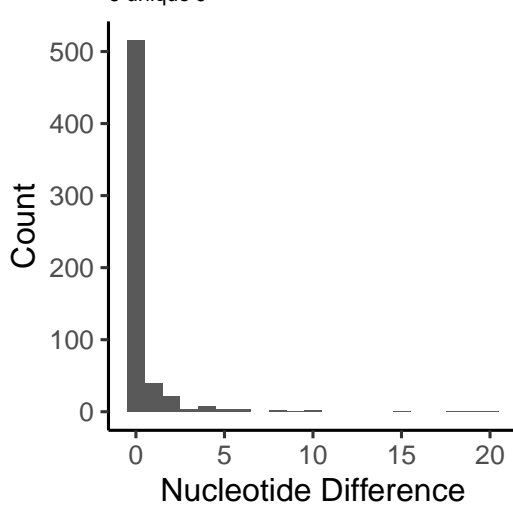
IGHV4-30-4*01

75 sequences assigned
67 (89.3%) exact matches, in which:
67 unique CDR3
5 unique J



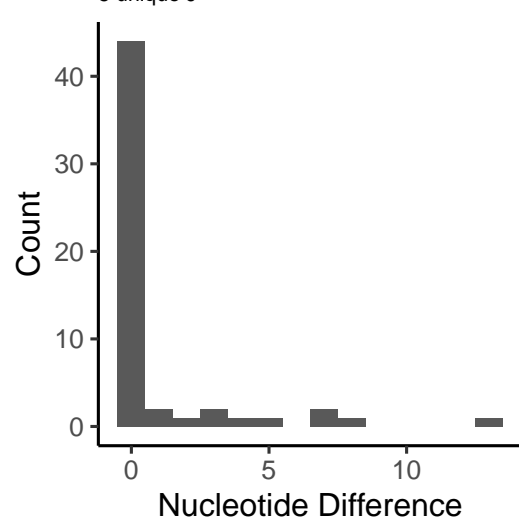
IGHV4-39*01

605 sequences assigned
516 (85.3%) exact matches, in which:
516 unique CDR3
6 unique J



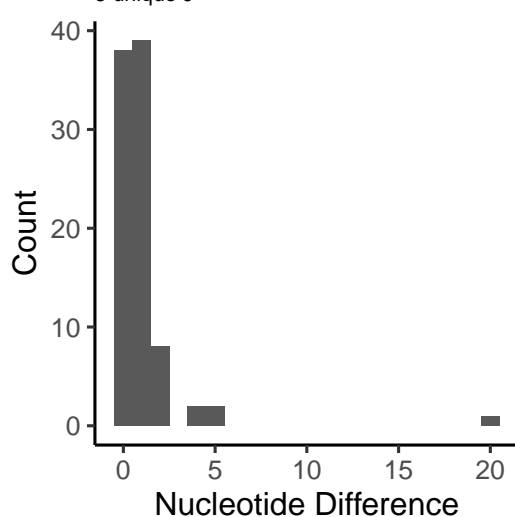
IGHV4-61*01

55 sequences assigned
44 (80%) exact matches, in which:
44 unique CDR3
5 unique J



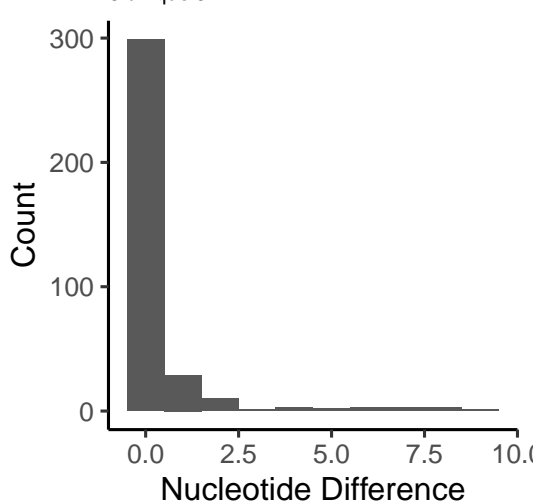
IGHV4-30-2*01

90 sequences assigned
38 (42.2%) exact matches, in which:
38 unique CDR3
5 unique J



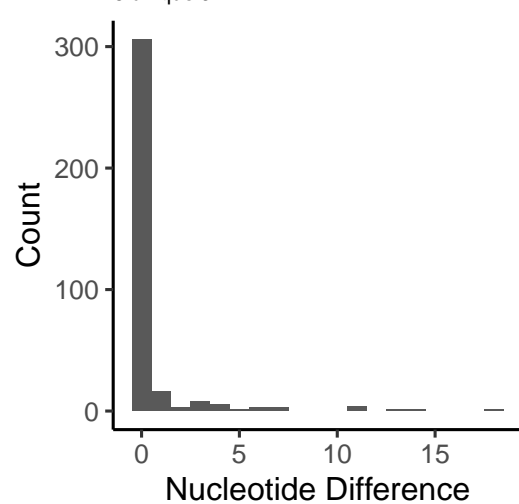
IGHV4-39*07

355 sequences assigned
299 (84.2%) exact matches, in which:
299 unique CDR3
6 unique J



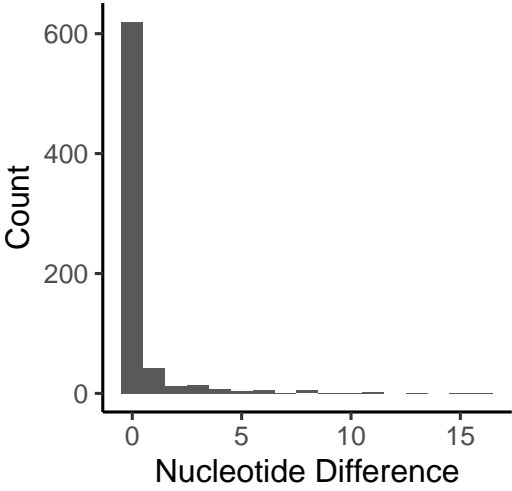
IGHV5-10-1*03

352 sequences assigned
306 (86.9%) exact matches, in which:
305 unique CDR3
6 unique J



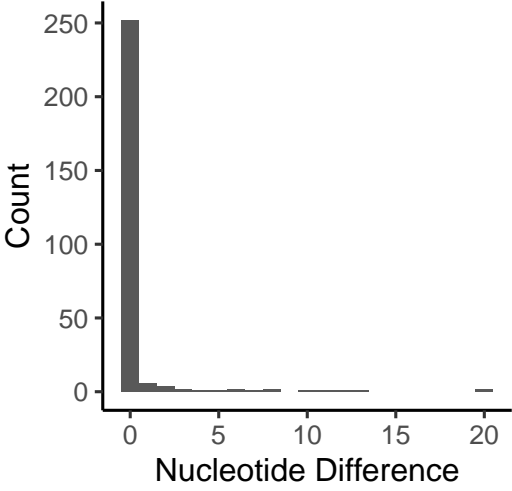
IGHV5–51*01

721 sequences assigned
620 (86%) exact matches, in which:
619 unique CDR3
6 unique J



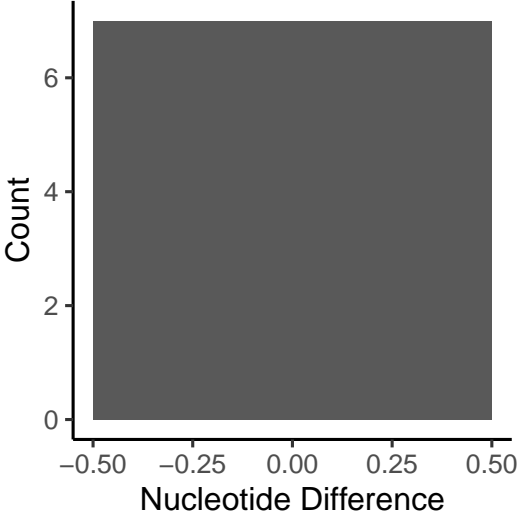
IGHV6–1*01

278 sequences assigned
252 (90.6%) exact matches, in which:
252 unique CDR3
6 unique J

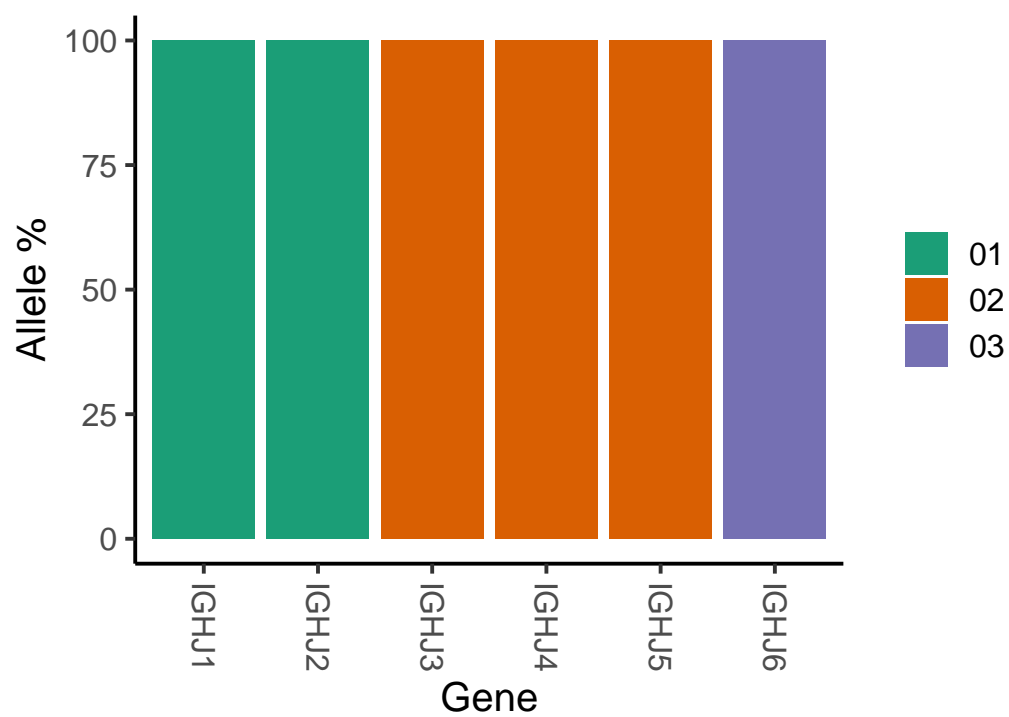


IGHV7–4–1*01

7 sequences assigned
7 (100%) exact matches, in which:
7 unique CDR3
4 unique J



Allele Usage



[illegible]