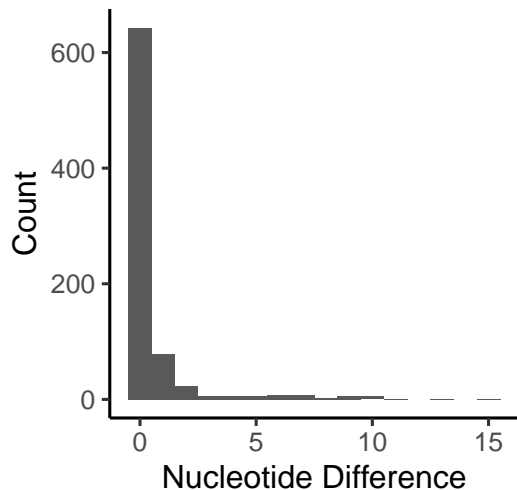


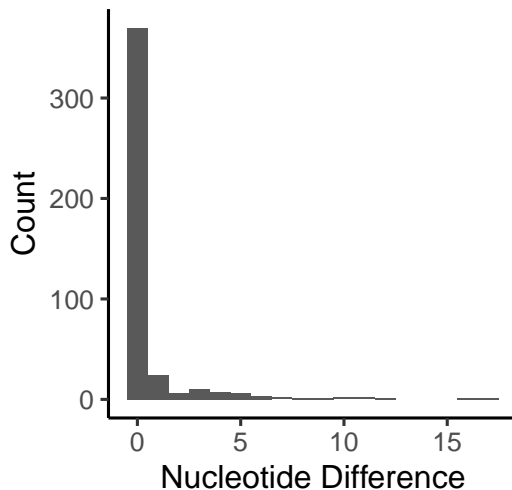
IGHV1–2*02

795 sequences assigned
643 (80.9%) exact matches, in which:
636 unique CDR3
7 unique J



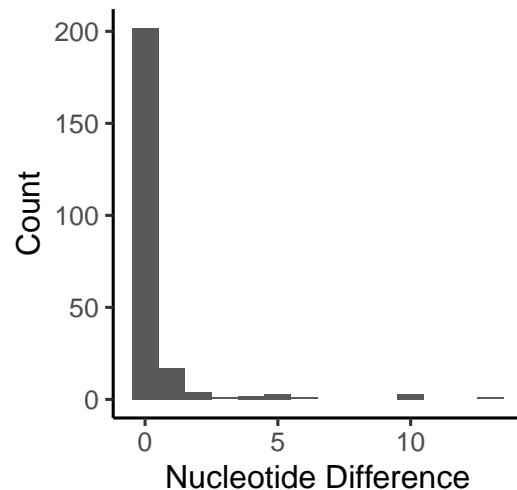
IGHV1–18*01

438 sequences assigned
370 (84.5%) exact matches, in which:
369 unique CDR3
7 unique J



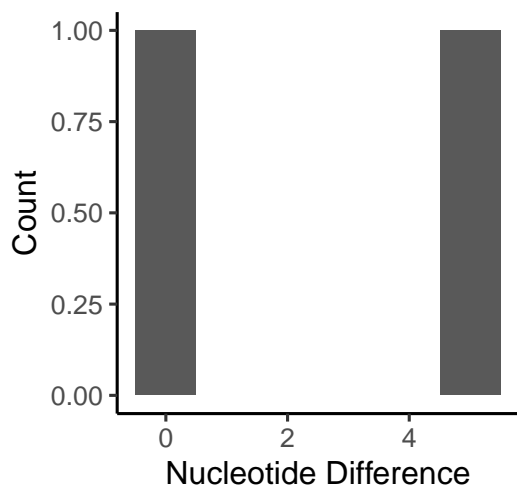
IGHV1–46*01

234 sequences assigned
202 (86.3%) exact matches, in which:
200 unique CDR3
6 unique J



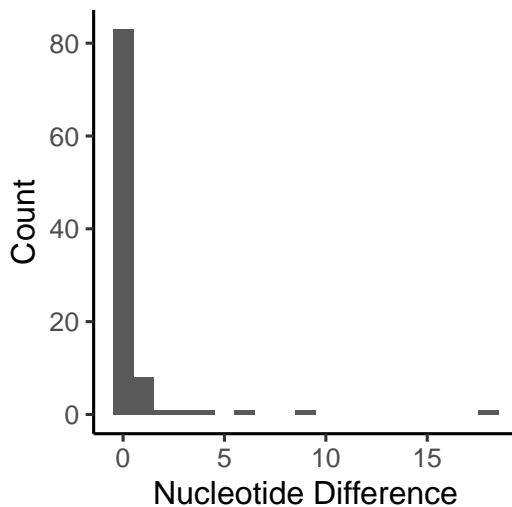
IGHV1–3*02

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



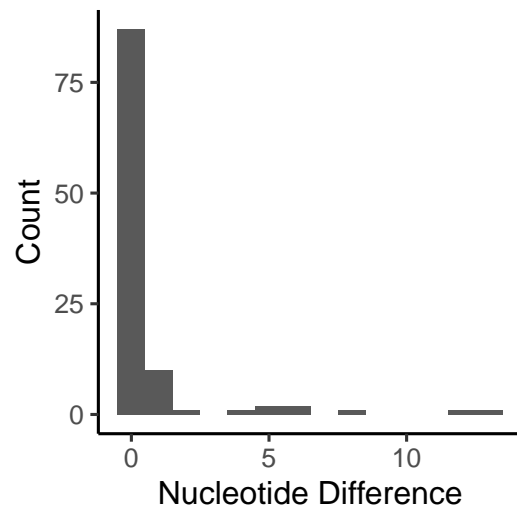
IGHV1–24*01

97 sequences assigned
83 (85.6%) exact matches, in which:
83 unique CDR3
6 unique J



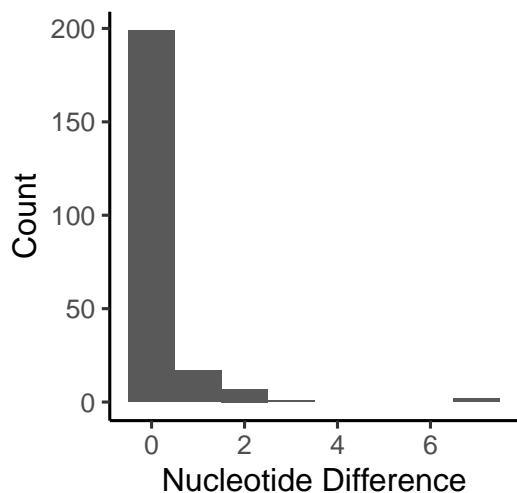
IGHV1–46*03

106 sequences assigned
87 (82.1%) exact matches, in which:
85 unique CDR3
6 unique J



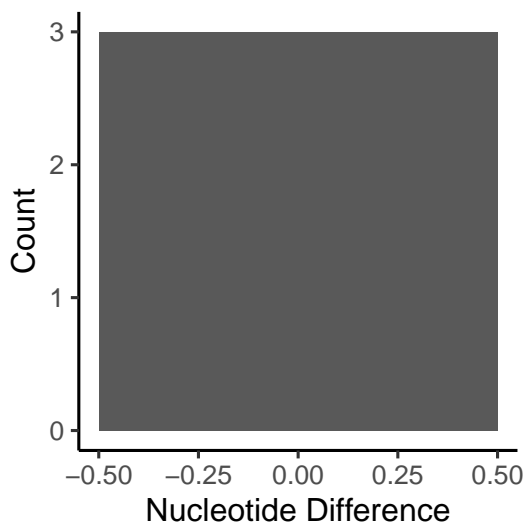
IGHV1–8*01

226 sequences assigned
199 (88.1%) exact matches, in which:
196 unique CDR3
5 unique J



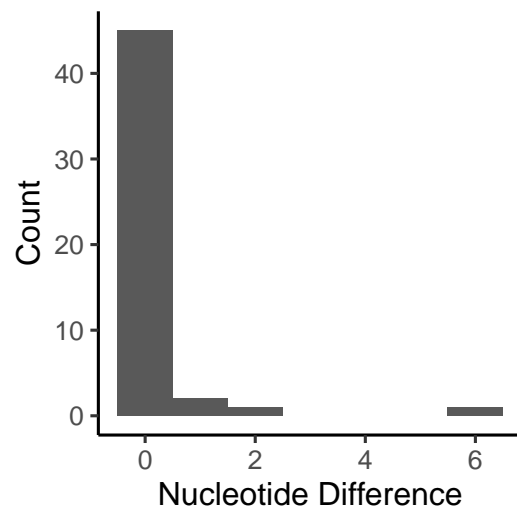
IGHV1–45*02

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



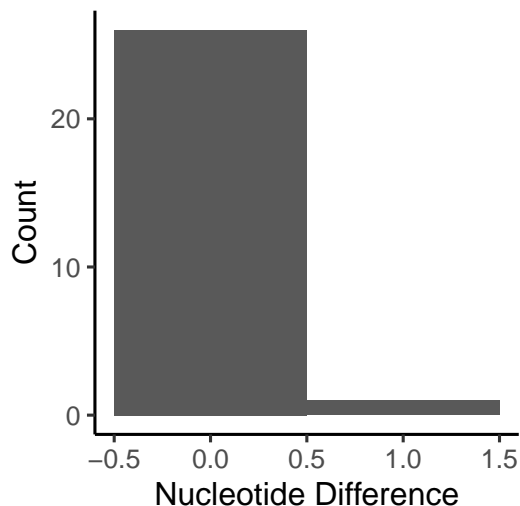
IGHV1–58*01

49 sequences assigned
45 (91.8%) exact matches, in which:
44 unique CDR3
6 unique J



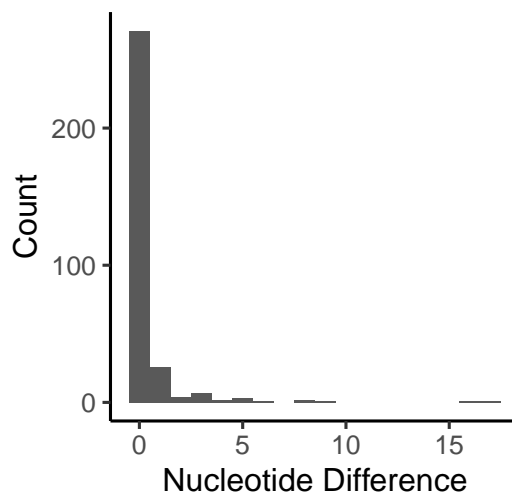
IGHV1-69-2*01

27 sequences assigned
26 (96.3%) exact matches, in which:
26 unique CDR3
7 unique J



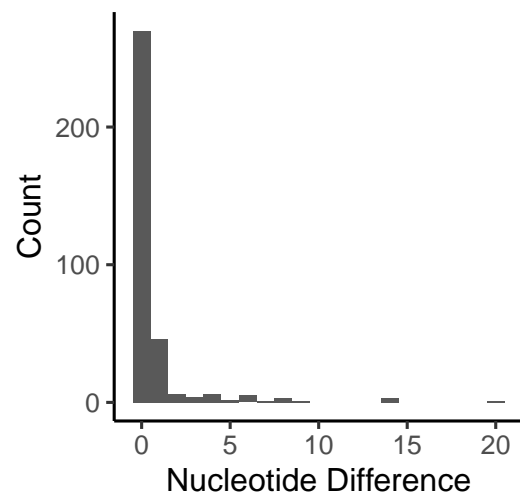
IGHV2-5*01

319 sequences assigned
271 (85%) exact matches, in which:
271 unique CDR3
7 unique J



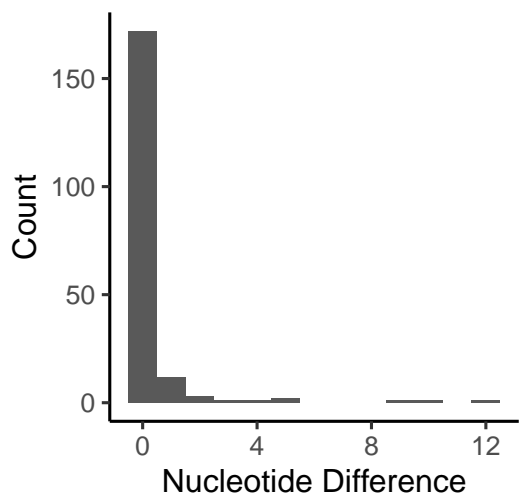
IGHV3-7*01

348 sequences assigned
270 (77.6%) exact matches, in which:
262 unique CDR3
6 unique J



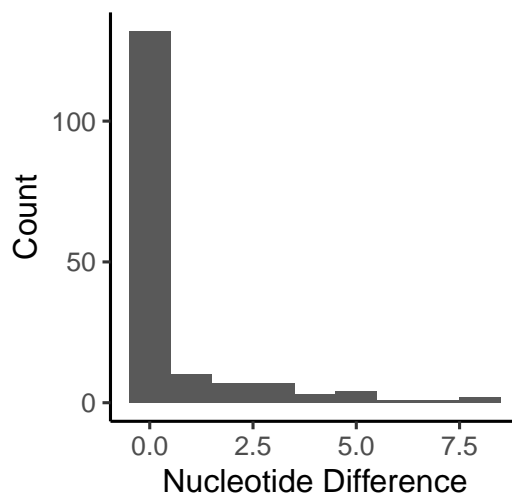
IGHV1-69*06

194 sequences assigned
172 (88.7%) exact matches, in which:
170 unique CDR3
7 unique J



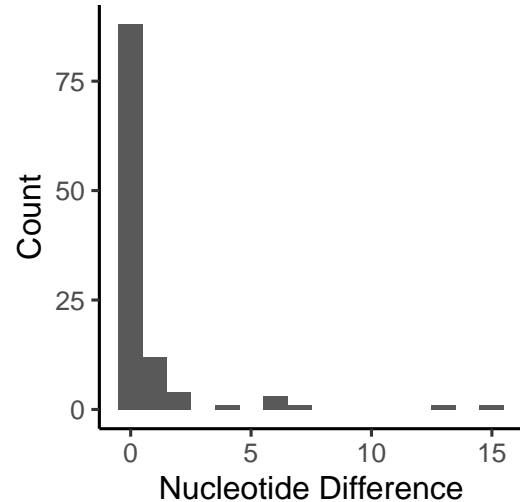
IGHV2-26*01

167 sequences assigned
132 (79%) exact matches, in which:
131 unique CDR3
6 unique J



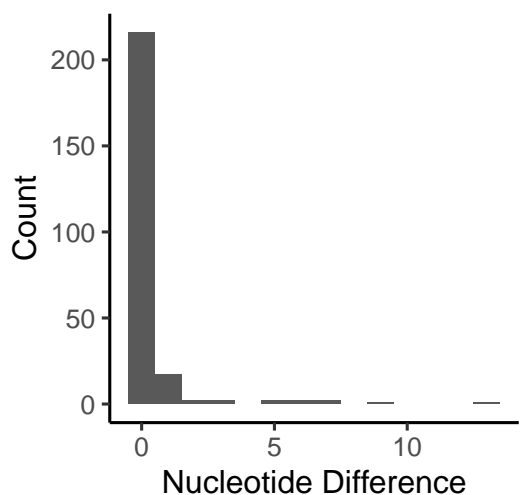
IGHV3-7*05

111 sequences assigned
88 (79.3%) exact matches, in which:
88 unique CDR3
5 unique J



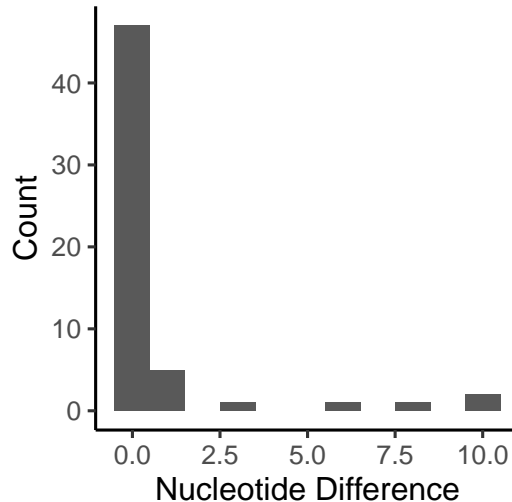
IGHV1-69*17

245 sequences assigned
216 (88.2%) exact matches, in which:
213 unique CDR3
6 unique J



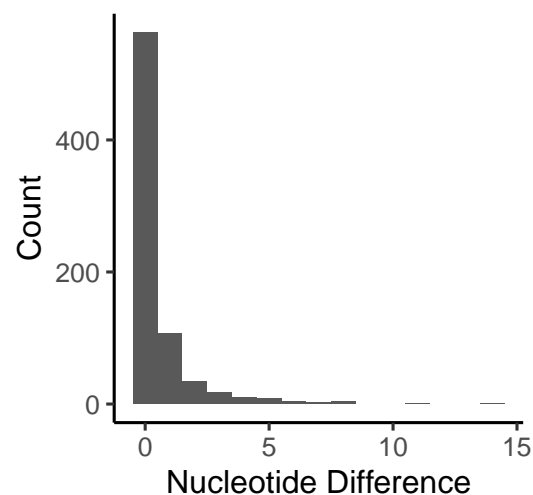
IGHV2-70*01

57 sequences assigned
47 (82.5%) exact matches, in which:
47 unique CDR3
6 unique J



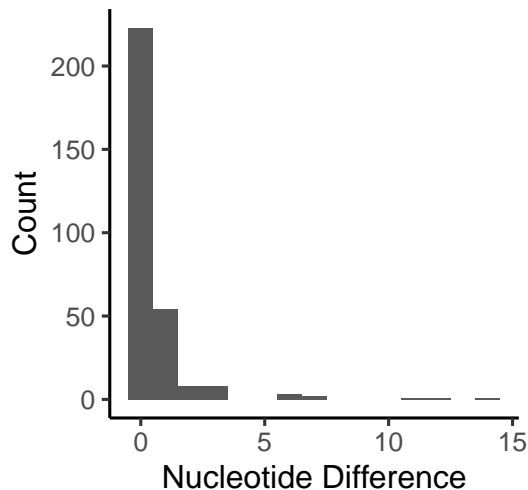
IGHV3-9*01

753 sequences assigned
563 (74.8%) exact matches, in which:
552 unique CDR3
7 unique J



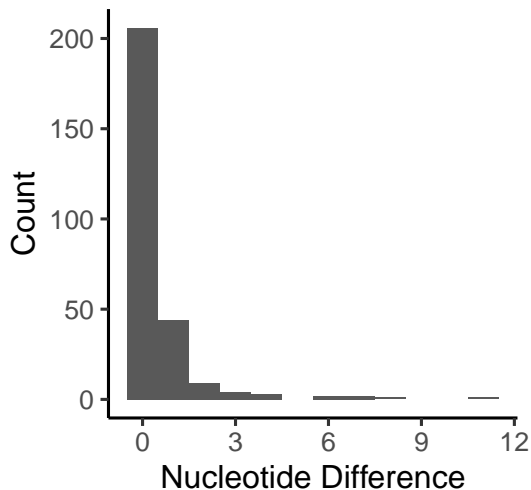
IGHV3-11*01

301 sequences assigned
223 (74.1%) exact matches, in which:
218 unique CDR3
6 unique J



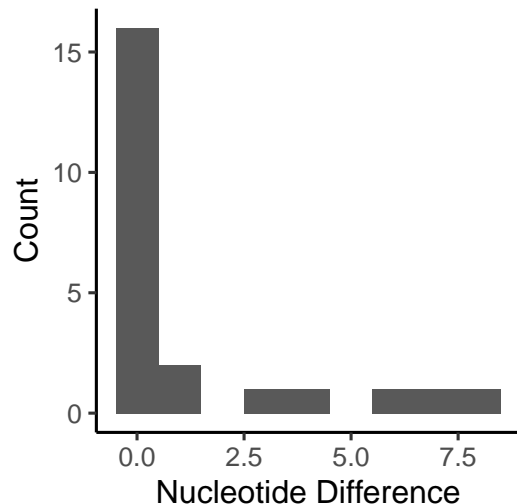
IGHV3-15*01

272 sequences assigned
206 (75.7%) exact matches, in which:
202 unique CDR3
6 unique J



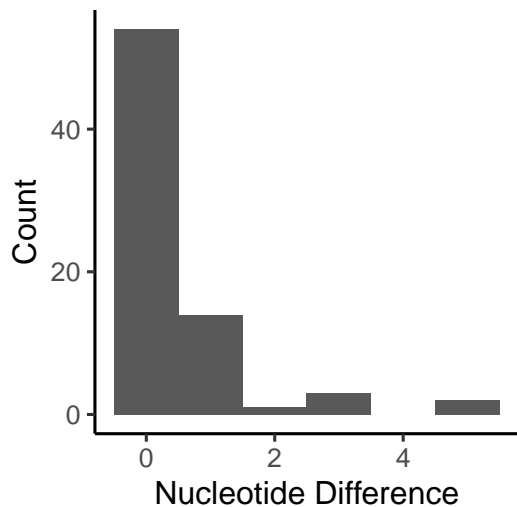
IGHV3-20*04

23 sequences assigned
16 (69.6%) exact matches, in which:
14 unique CDR3
4 unique J



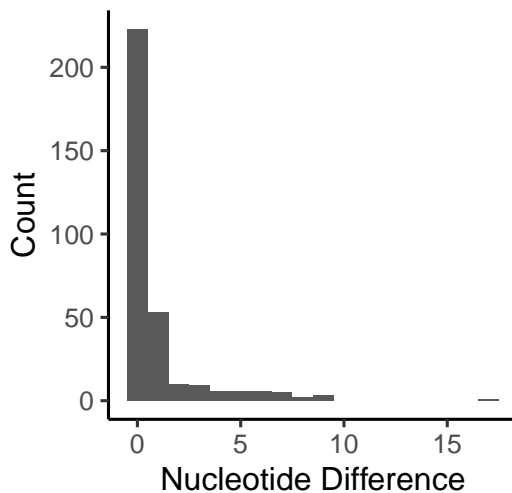
IGHV3-11*06

75 sequences assigned
54 (72%) exact matches, in which:
54 unique CDR3
5 unique J



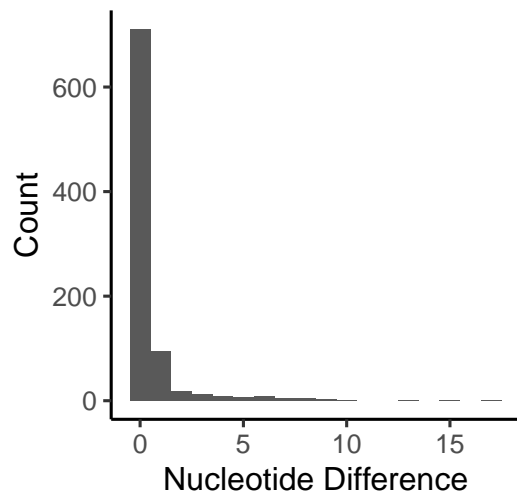
IGHV3-15*07

324 sequences assigned
223 (68.8%) exact matches, in which:
222 unique CDR3
5 unique J



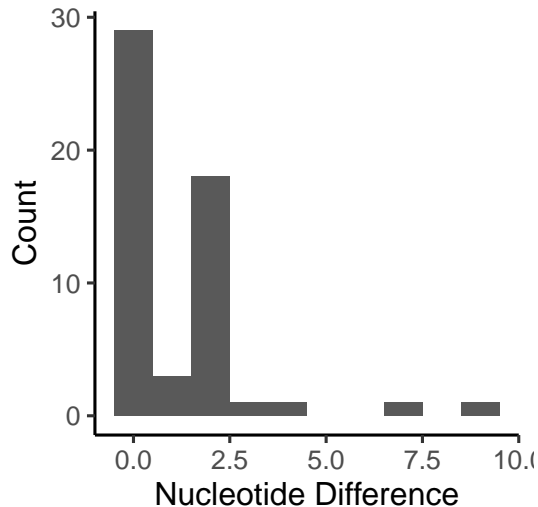
IGHV3-21*01

875 sequences assigned
711 (81.3%) exact matches, in which:
689 unique CDR3
7 unique J



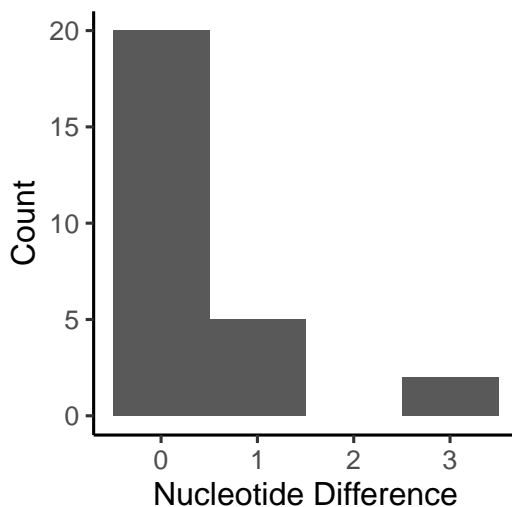
IGHV3-13*01

54 sequences assigned
29 (53.7%) exact matches, in which:
28 unique CDR3
5 unique J



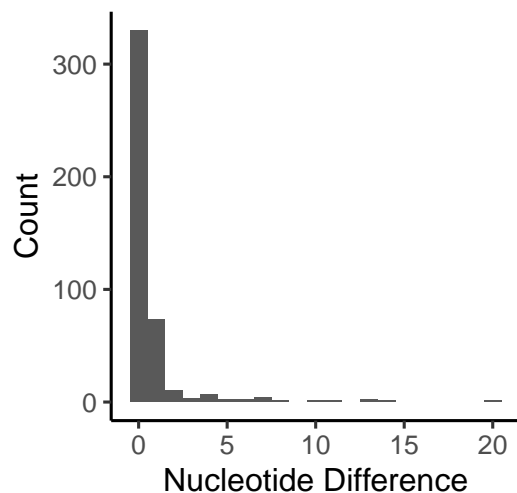
IGHV3-20*01

27 sequences assigned
20 (74.1%) exact matches, in which:
20 unique CDR3
5 unique J



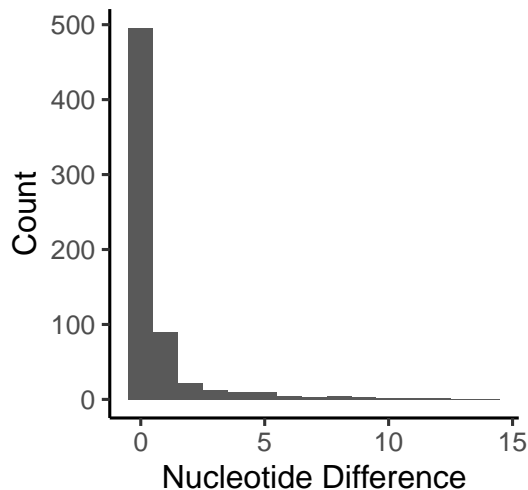
IGHV3-30-3*01

438 sequences assigned
330 (75.3%) exact matches, in which:
328 unique CDR3
6 unique J



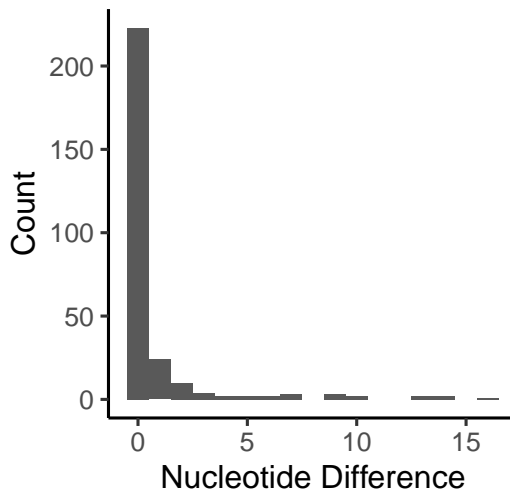
IGHV3–33*01

668 sequences assigned
496 (74.3%) exact matches, in which:
485 unique CDR3
6 unique J



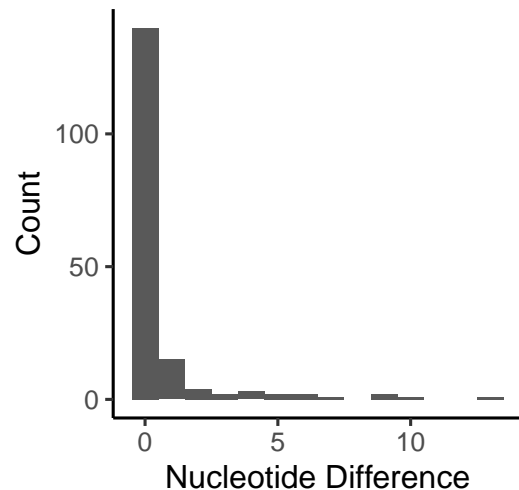
IGHV3–48*02

280 sequences assigned
223 (79.6%) exact matches, in which:
222 unique CDR3
6 unique J



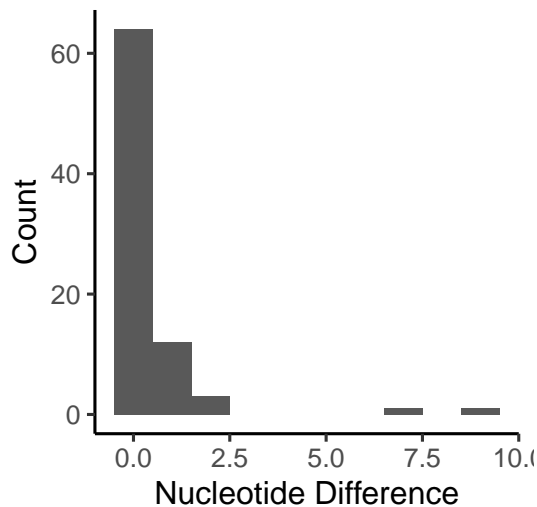
IGHV3–53*01

173 sequences assigned
140 (80.9%) exact matches, in which:
138 unique CDR3
6 unique J



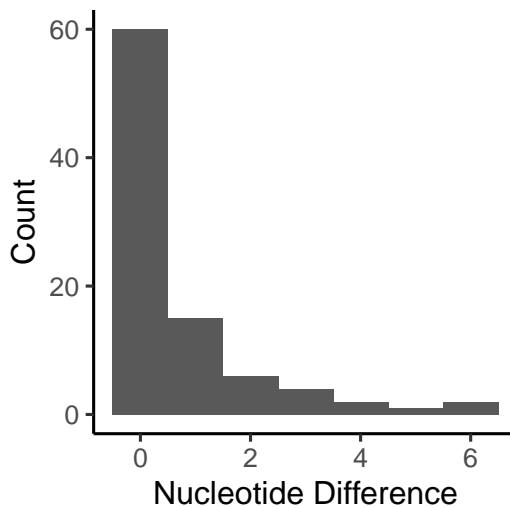
IGHV3–43*01

81 sequences assigned
64 (79%) exact matches, in which:
64 unique CDR3
7 unique J



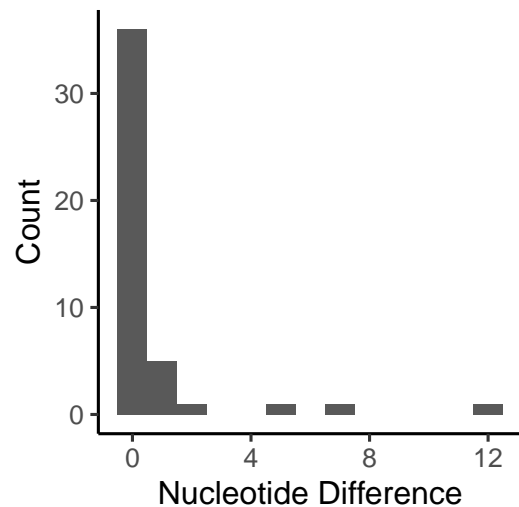
IGHV3–49*03

90 sequences assigned
60 (66.7%) exact matches, in which:
59 unique CDR3
5 unique J



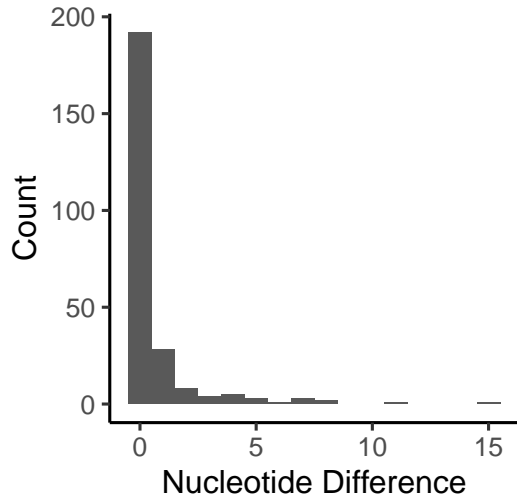
IGHV3–53*02

45 sequences assigned
36 (80%) exact matches, in which:
36 unique CDR3
5 unique J



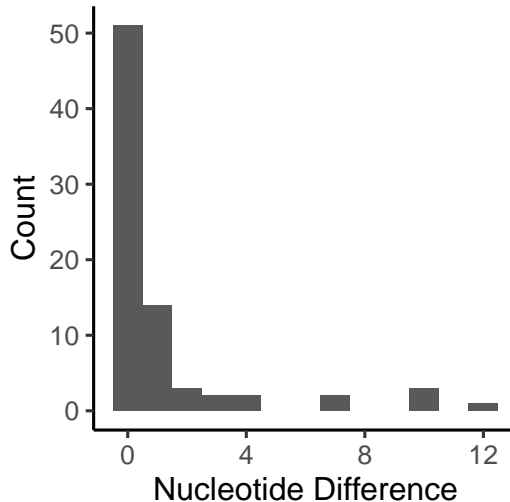
IGHV3–48*01

248 sequences assigned
192 (77.4%) exact matches, in which:
190 unique CDR3
7 unique J



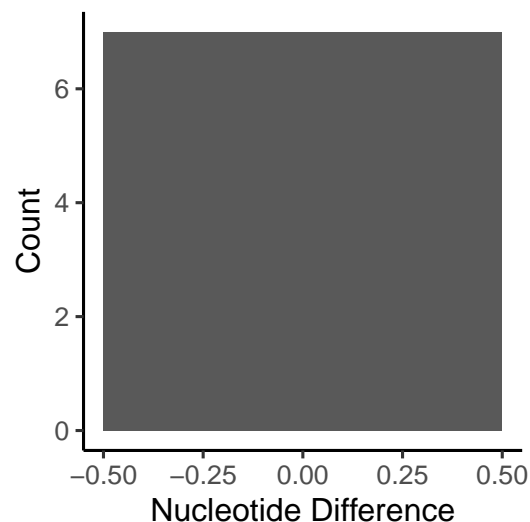
IGHV3–49*05

78 sequences assigned
51 (65.4%) exact matches, in which:
50 unique CDR3
5 unique J



IGHV3–64*02

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



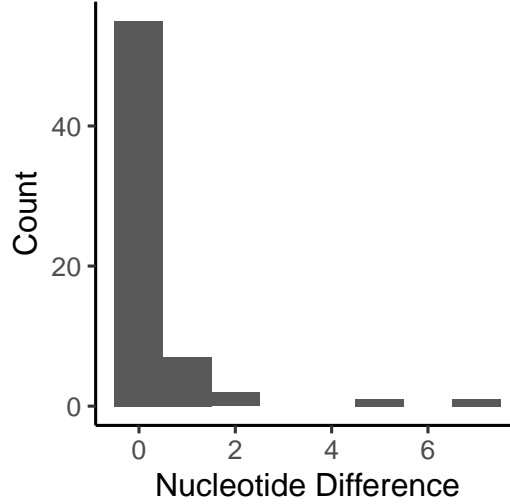
IGHV3-66*03

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



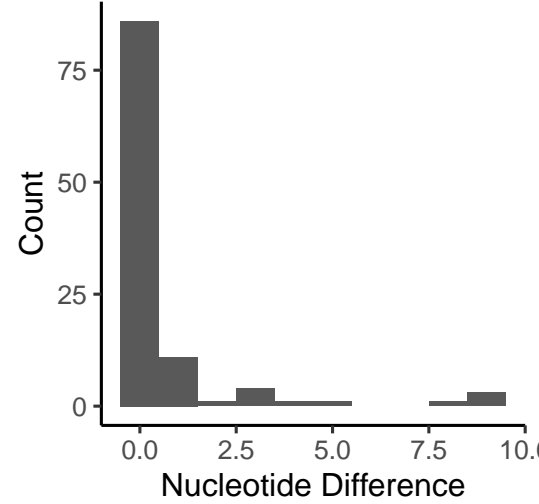
IGHV3-73*02

66 sequences assigned
55 (83.3%) exact matches, in which:
55 unique CDR3
6 unique J



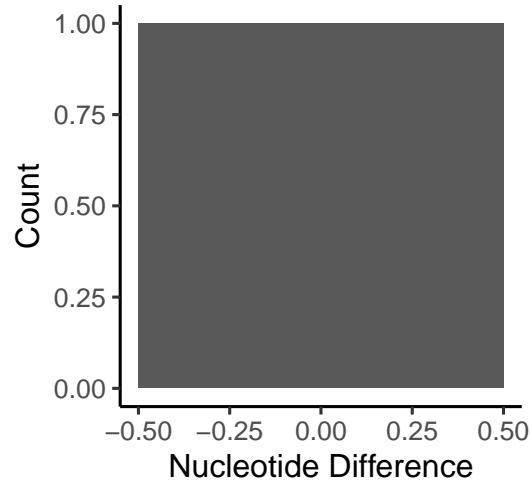
IGHV3-64D*08

108 sequences assigned
86 (79.6%) exact matches, in which:
85 unique CDR3
5 unique J



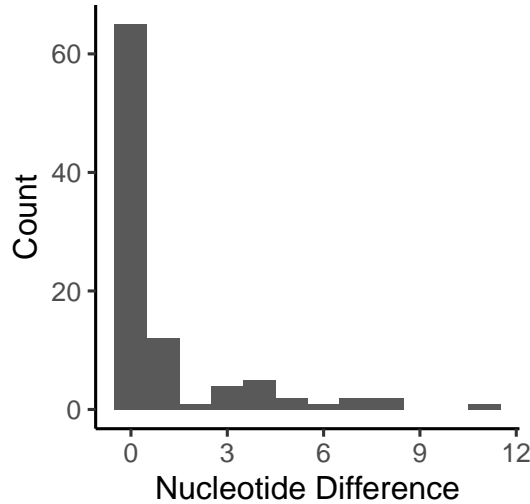
IGHV3-69-1*01

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



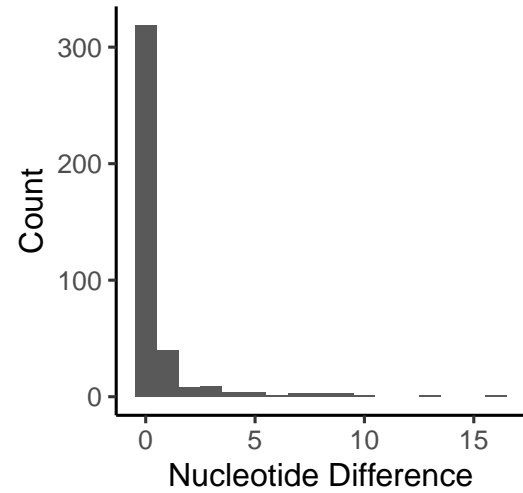
IGHV3-74*01

95 sequences assigned
65 (68.4%) exact matches, in which:
64 unique CDR3
6 unique J



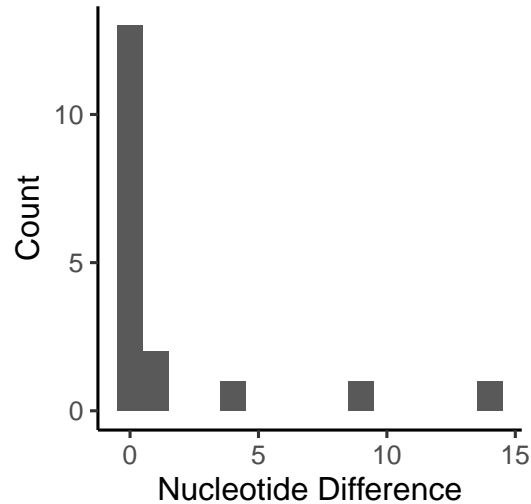
IGHV4-4*07

397 sequences assigned
319 (80.4%) exact matches, in which:
318 unique CDR3
6 unique J



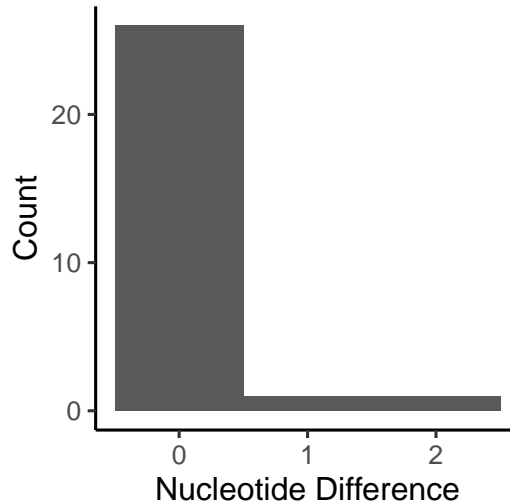
IGHV3-72*01

18 sequences assigned
13 (72.2%) exact matches, in which:
13 unique CDR3
5 unique J



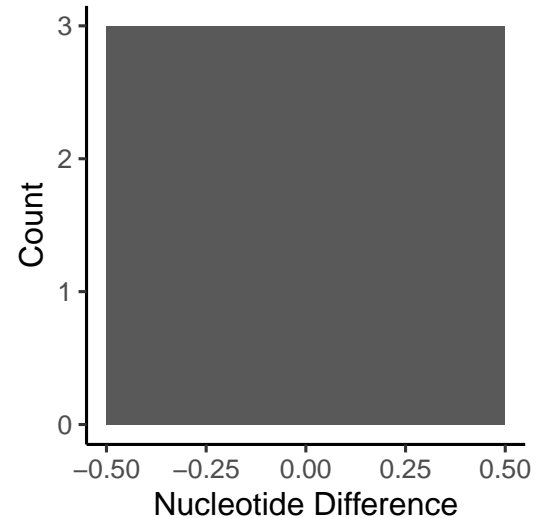
IGHV3-43D*03

28 sequences assigned
26 (92.9%) exact matches, in which:
26 unique CDR3
4 unique J



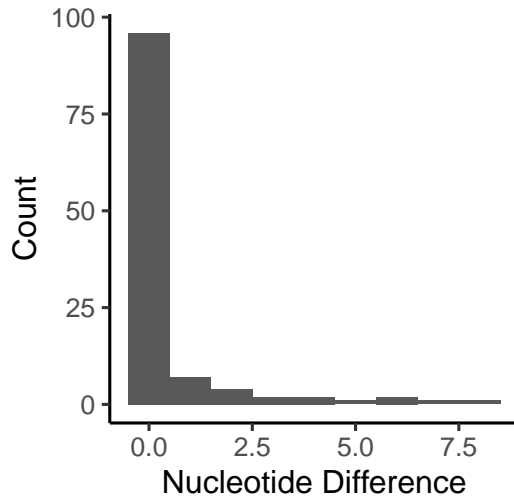
IGHV4-28*01

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



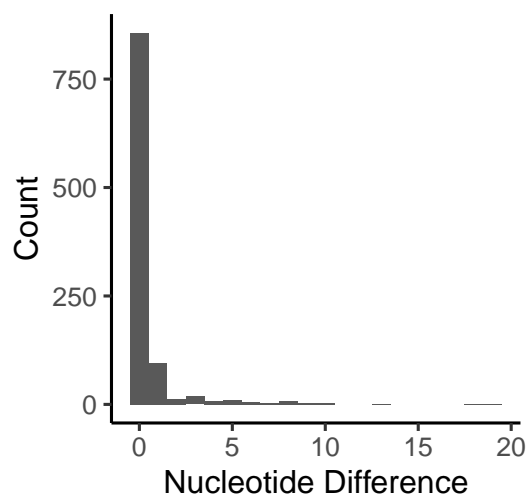
IGHV4-30-2*01

116 sequences assigned
96 (82.8%) exact matches, in which:
96 unique CDR3
7 unique J



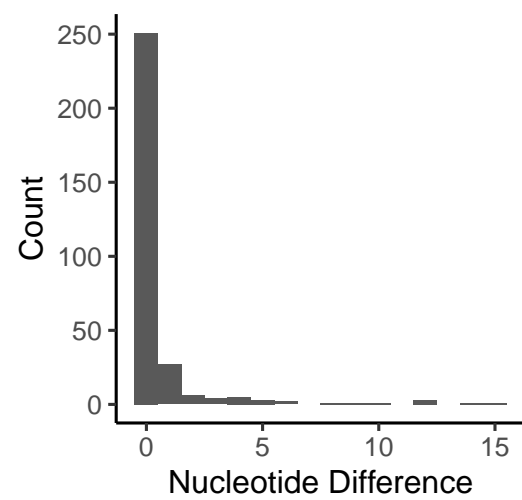
IGHV4-34*01

1031 sequences assigned
857 (83.1%) exact matches, in which:
848 unique CDR3
7 unique J



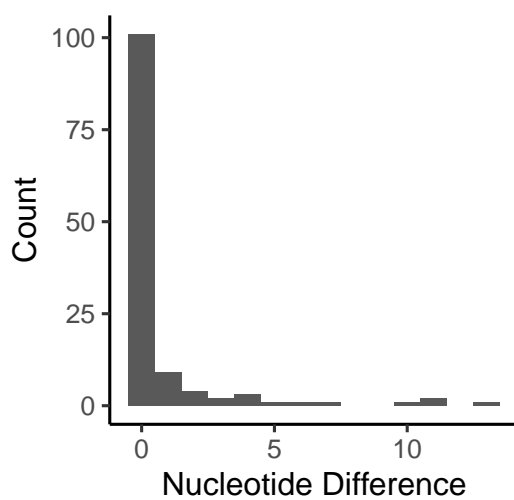
IGHV4-59*01

306 sequences assigned
251 (82%) exact matches, in which:
250 unique CDR3
7 unique J



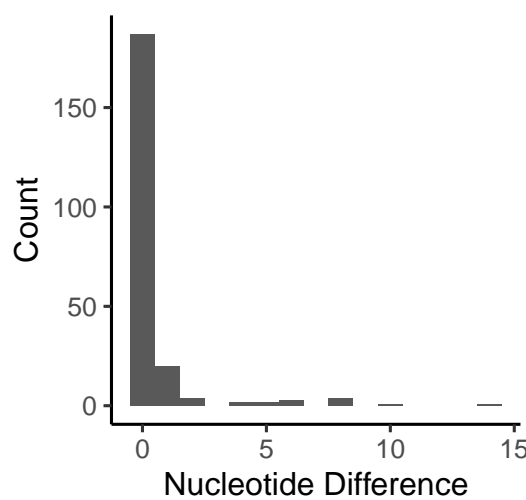
IGHV4-30-4*01

126 sequences assigned
101 (80.2%) exact matches, in which:
100 unique CDR3
5 unique J



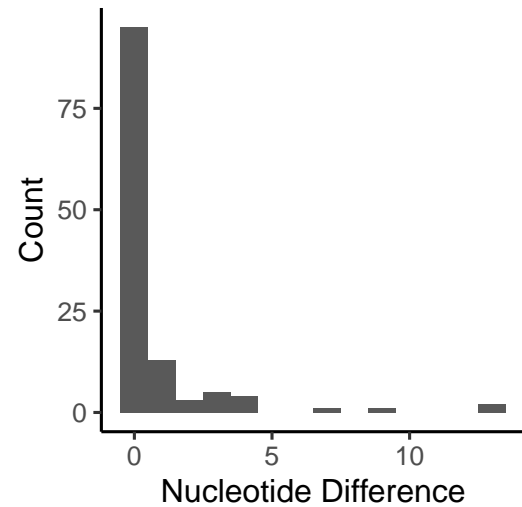
IGHV4-38-2*02

224 sequences assigned
187 (83.5%) exact matches, in which:
187 unique CDR3
6 unique J



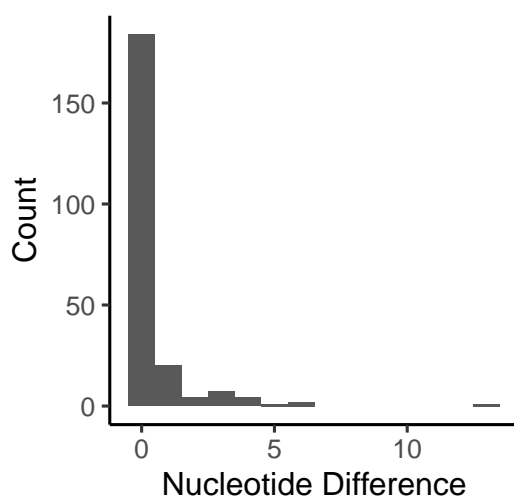
IGHV4-61*01

124 sequences assigned
95 (76.6%) exact matches, in which:
95 unique CDR3
6 unique J



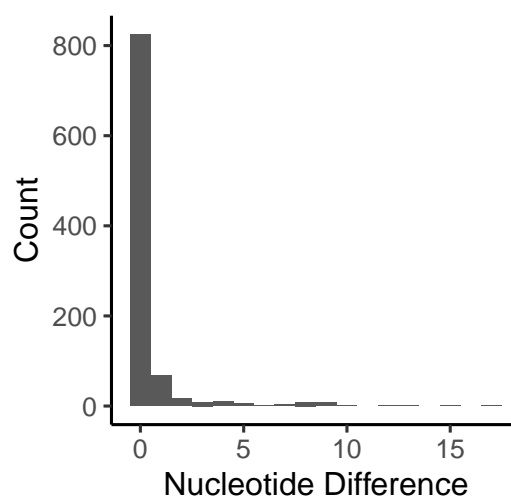
IGHV4-31*03

223 sequences assigned
184 (82.5%) exact matches, in which:
184 unique CDR3
6 unique J



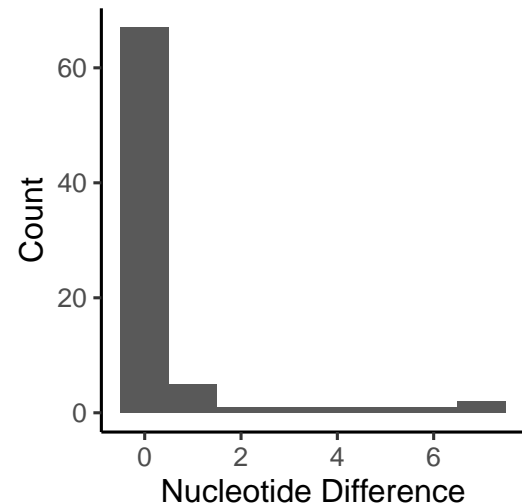
IGHV4-39*01

964 sequences assigned
825 (85.6%) exact matches, in which:
817 unique CDR3
7 unique J



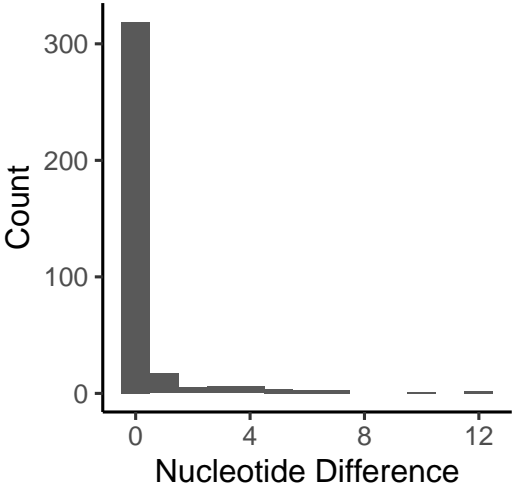
IGHV5-10-1*03

79 sequences assigned
67 (84.8%) exact matches, in which:
67 unique CDR3
5 unique J



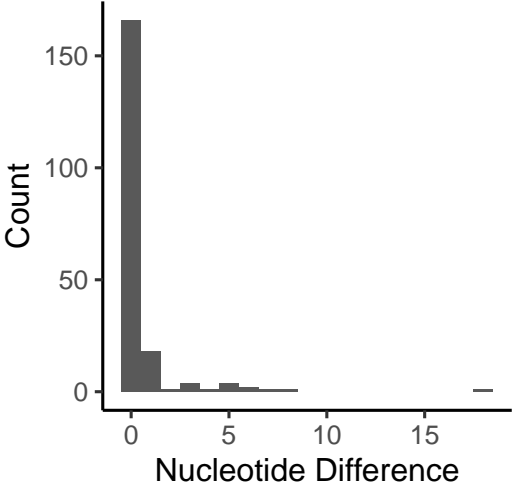
IGHV5–51*01

366 sequences assigned
319 (87.2%) exact matches, in which:
317 unique CDR3
7 unique J

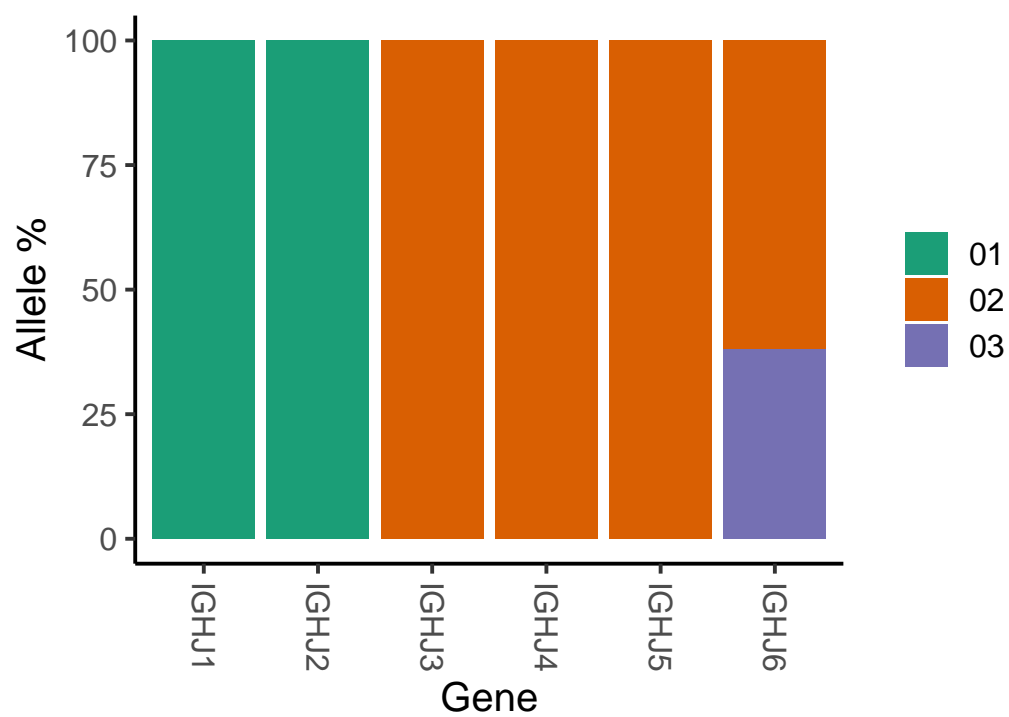


IGHV6–1*01

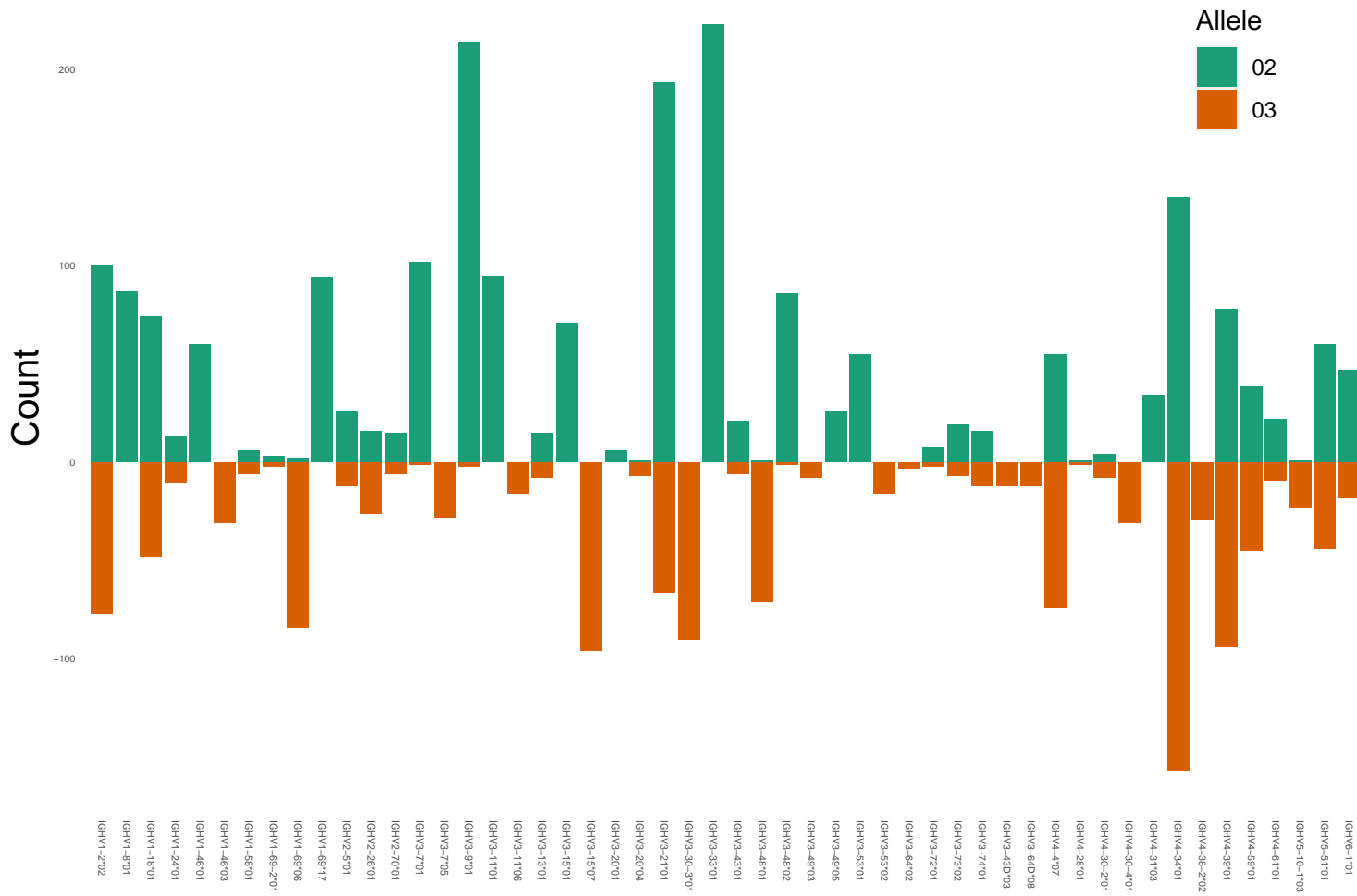
199 sequences assigned
166 (83.4%) exact matches, in which:
161 unique CDR3
6 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]