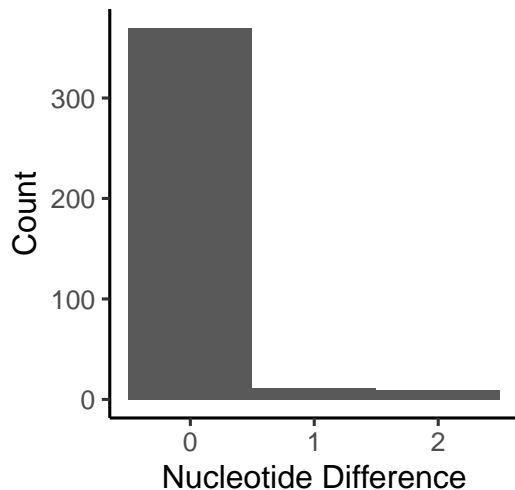


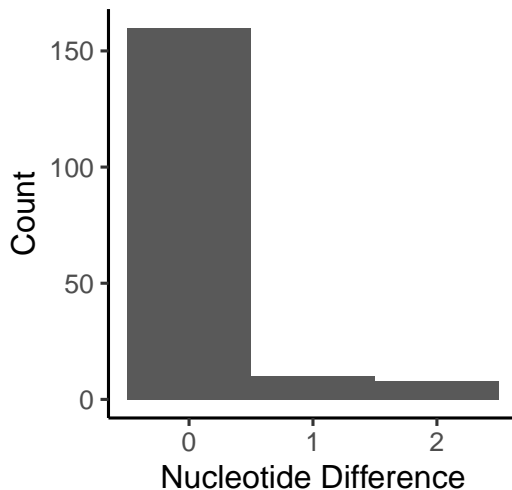
IGHV1-2*02

390 sequences assigned
370 (94.9%) exact matches, in which:
368 unique CDR3
7 unique J



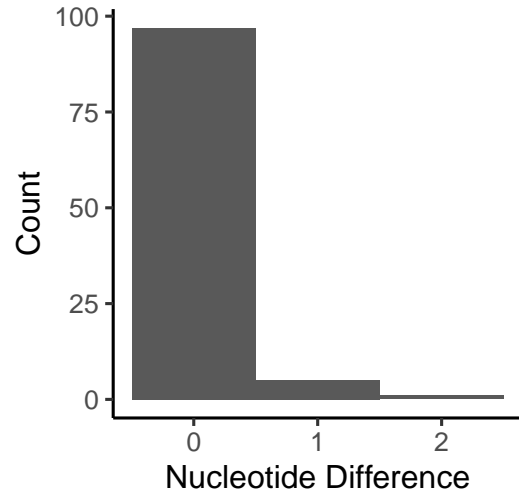
IGHV1-8*01

178 sequences assigned
160 (89.9%) exact matches, in which:
160 unique CDR3
6 unique J



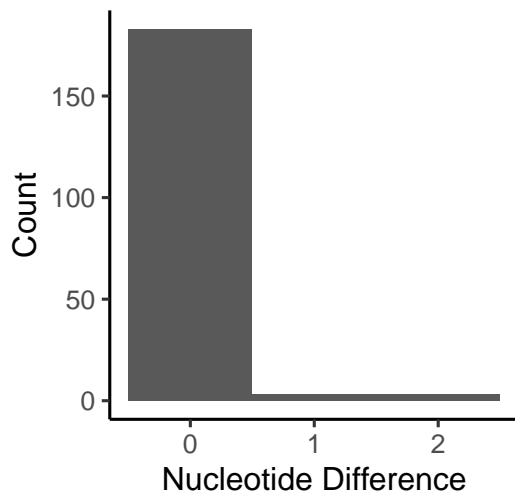
IGHV1-46*01

103 sequences assigned
97 (94.2%) exact matches, in which:
97 unique CDR3
6 unique J



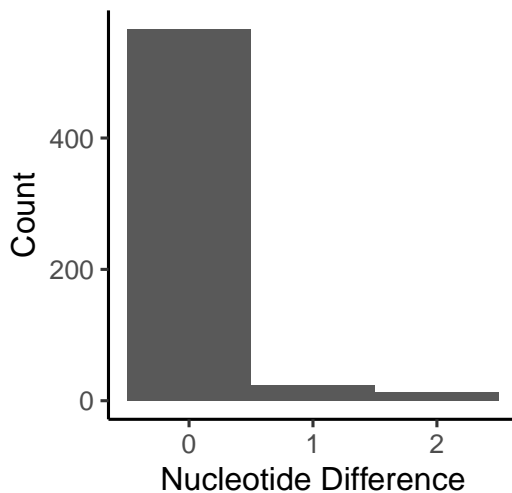
IGHV1-2*04

189 sequences assigned
183 (96.8%) exact matches, in which:
181 unique CDR3
6 unique J



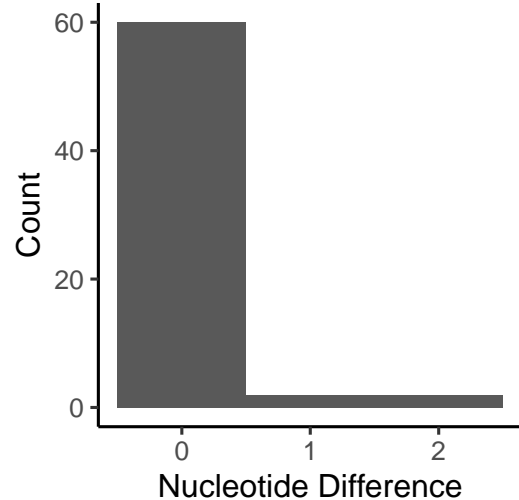
IGHV1-18*01

602 sequences assigned
566 (94%) exact matches, in which:
563 unique CDR3
7 unique J



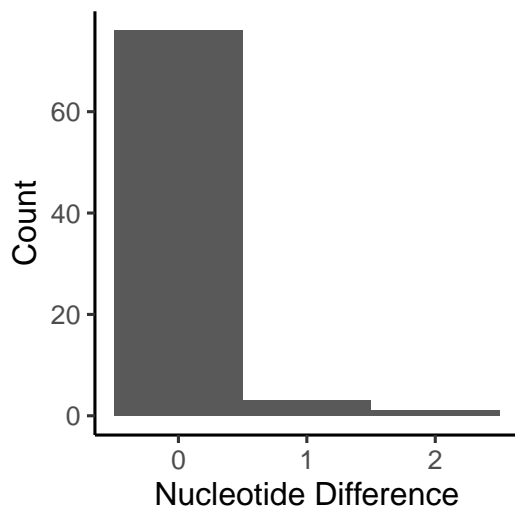
IGHV1-46*03

64 sequences assigned
60 (93.8%) exact matches, in which:
60 unique CDR3
5 unique J



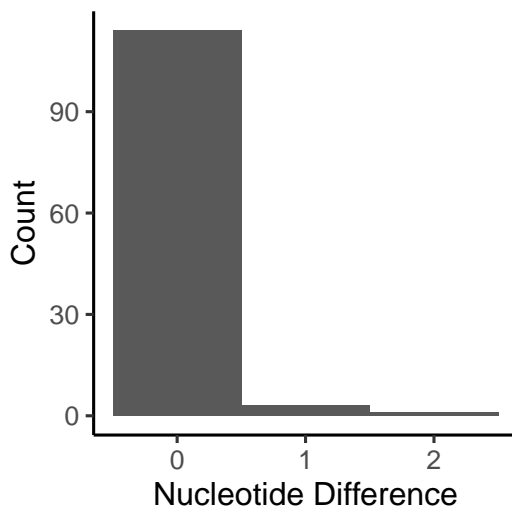
IGHV1-3*01_05

80 sequences assigned
76 (95%) exact matches, in which:
76 unique CDR3
4 unique J



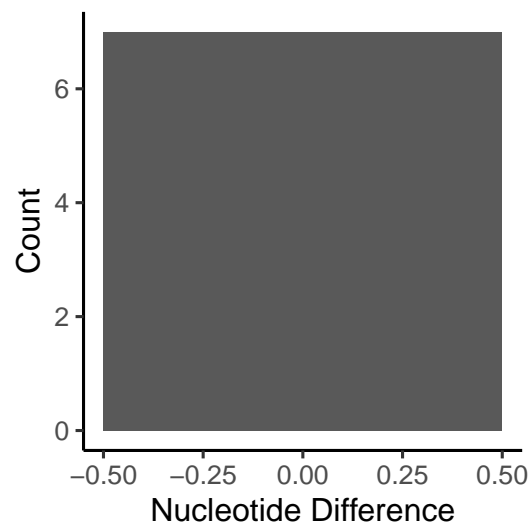
IGHV1-24*01

118 sequences assigned
114 (96.6%) exact matches, in which:
113 unique CDR3
7 unique J



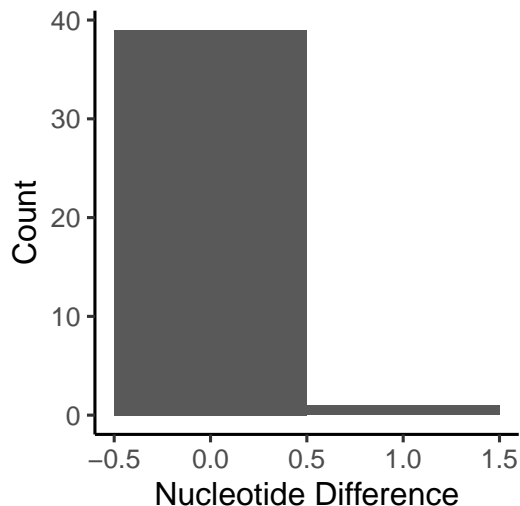
IGHV1-58*02

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



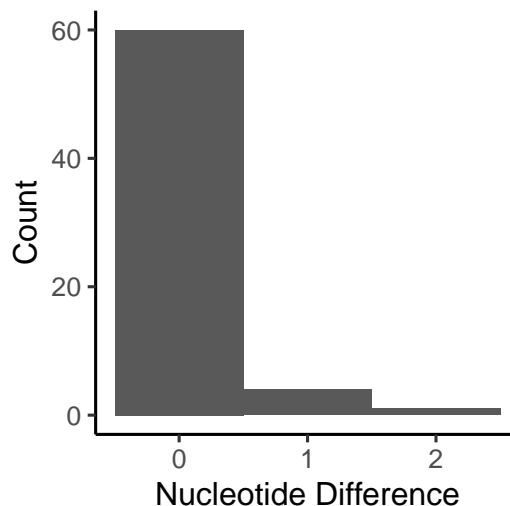
IGHV1–58*01_03

40 sequences assigned
39 (97.5%) exact matches, in which:
39 unique CDR3
4 unique J



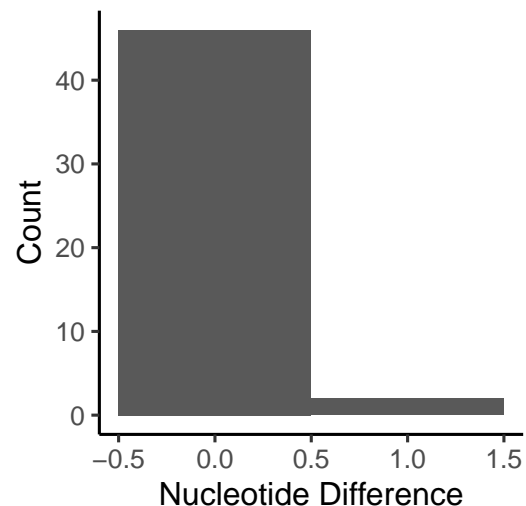
IGHV2–5*01

65 sequences assigned
60 (92.3%) exact matches, in which:
60 unique CDR3
5 unique J



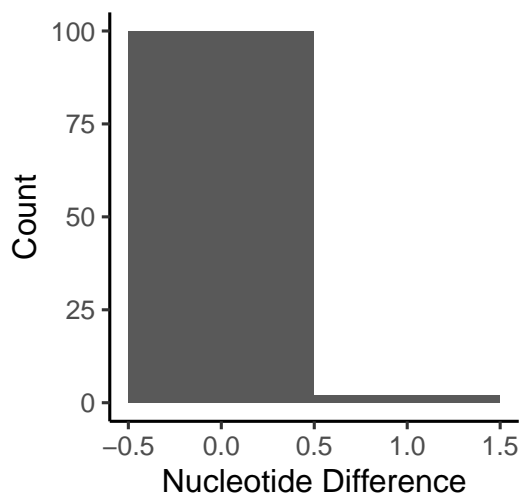
IGHV2–70*01

48 sequences assigned
46 (95.8%) exact matches, in which:
46 unique CDR3
5 unique J



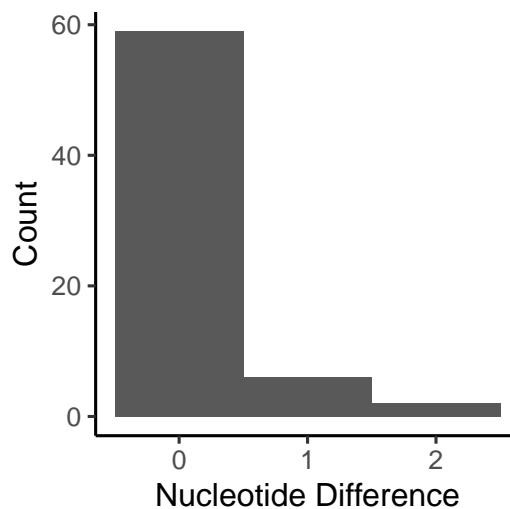
IGHV1–69*02

102 sequences assigned
100 (98%) exact matches, in which:
100 unique CDR3
5 unique J



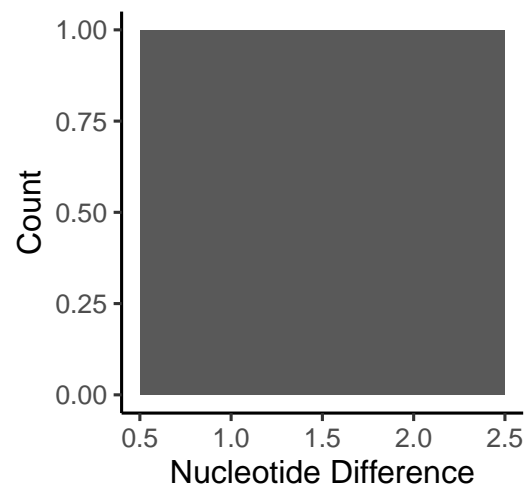
IGHV2–5*02

67 sequences assigned
59 (88.1%) exact matches, in which:
58 unique CDR3
5 unique J



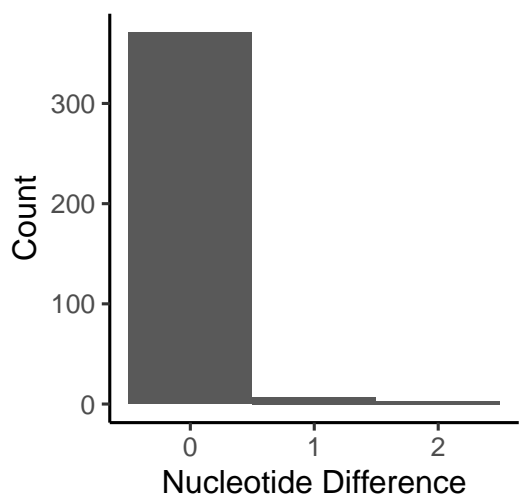
IGHV2–70D*04

2 sequences assigned
No exact matches.



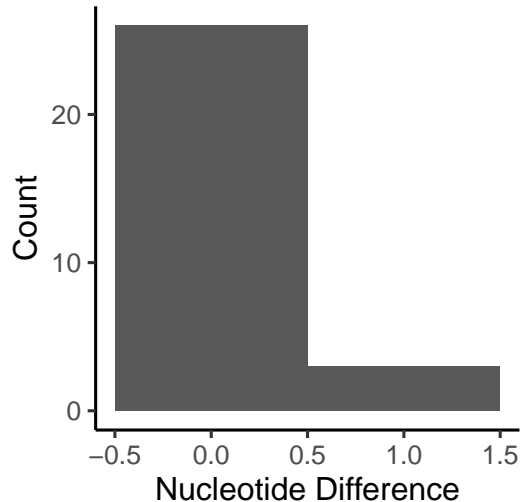
IGHV1–69*01_12_13

381 sequences assigned
371 (97.4%) exact matches, in which:
371 unique CDR3
6 unique J



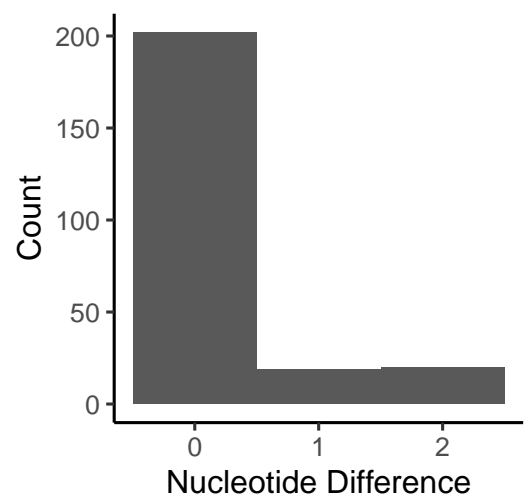
IGHV2–26*01

29 sequences assigned
26 (89.7%) exact matches, in which:
26 unique CDR3
6 unique J



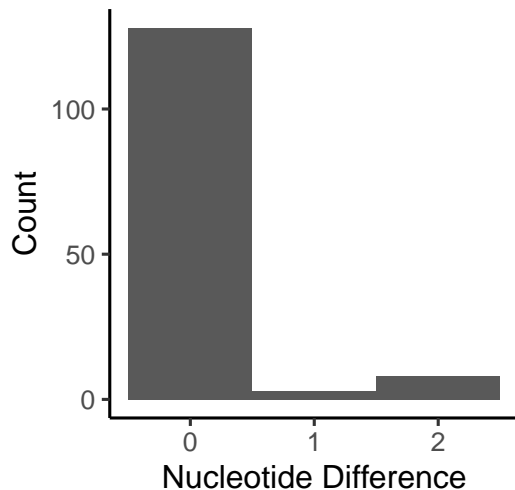
IGHV3–7*03

241 sequences assigned
202 (83.8%) exact matches, in which:
196 unique CDR3
6 unique J



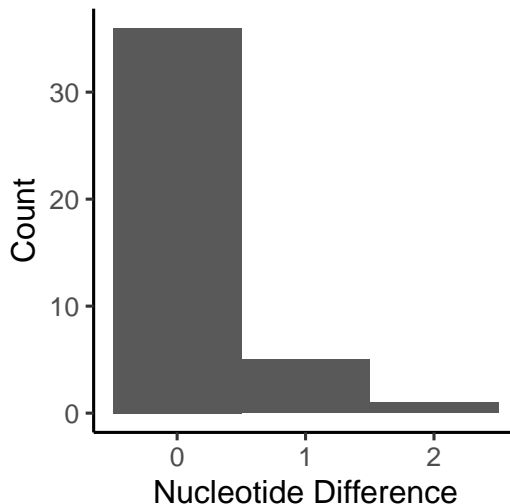
IGHV3-9*01

139 sequences assigned
128 (92.1%) exact matches, in which:
128 unique CDR3
6 unique J



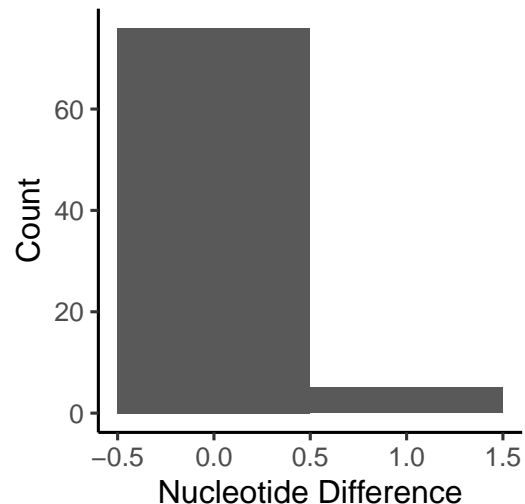
IGHV3-13*04

42 sequences assigned
36 (85.7%) exact matches, in which:
35 unique CDR3
5 unique J



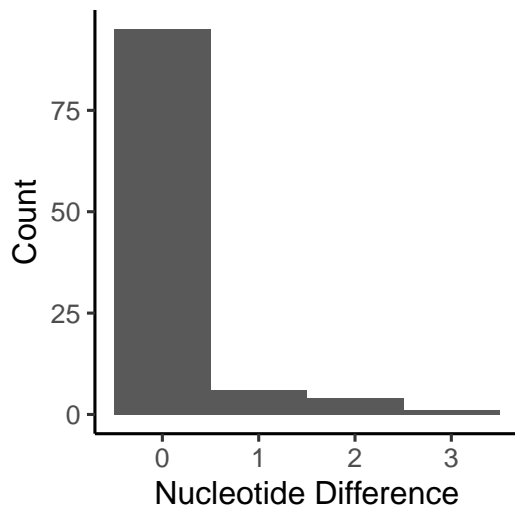
IGHV3-20*03_04

81 sequences assigned
76 (93.8%) exact matches, in which:
75 unique CDR3
5 unique J



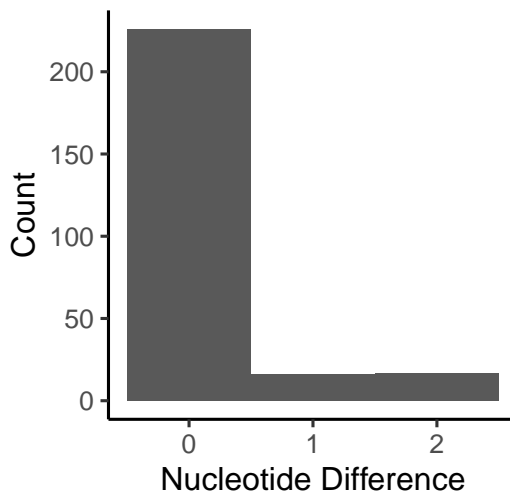
IGHV3-11*01

106 sequences assigned
95 (89.6%) exact matches, in which:
93 unique CDR3
5 unique J



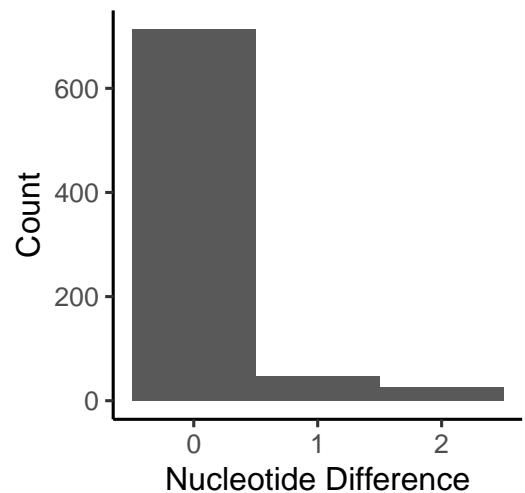
IGHV3-15*01_02

259 sequences assigned
226 (87.3%) exact matches, in which:
222 unique CDR3
7 unique J



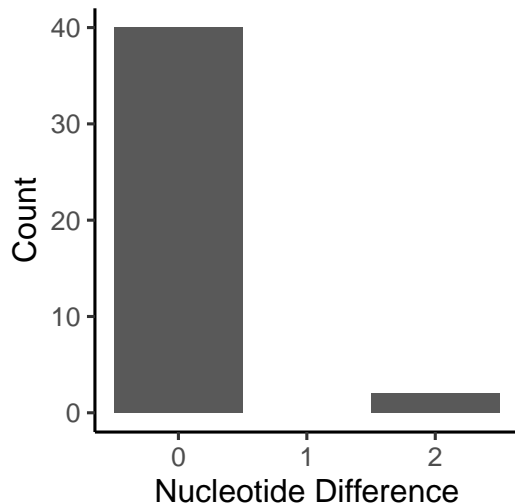
IGHV3-21*01_02

788 sequences assigned
714 (90.6%) exact matches, in which:
703 unique CDR3
7 unique J



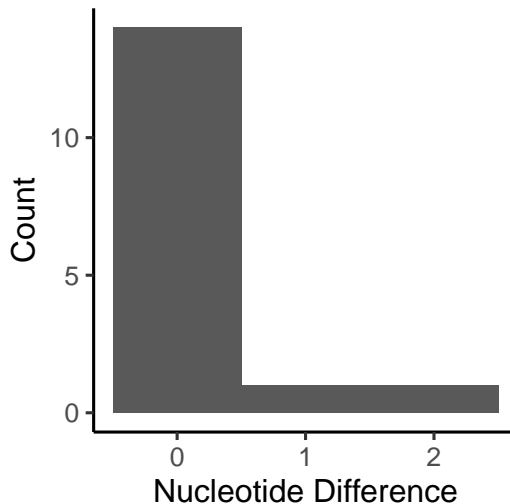
IGHV3-13*01

42 sequences assigned
40 (95.2%) exact matches, in which:
40 unique CDR3
5 unique J



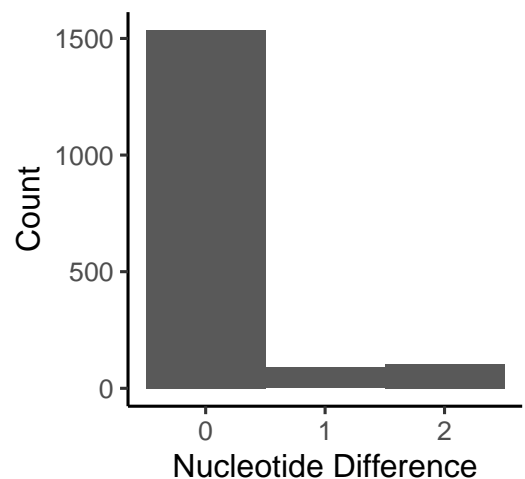
IGHV3-20*01_02

16 sequences assigned
14 (87.5%) exact matches, in which:
14 unique CDR3
5 unique J



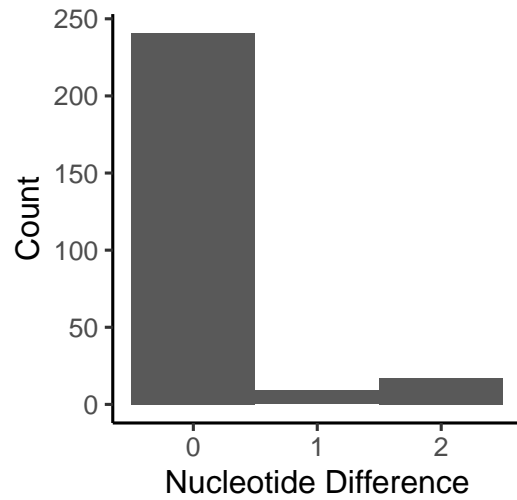
IGHV3-23*01_04

1731 sequences assigned
1536 (88.7%) exact matches, in which:
1509 unique CDR3
7 unique J



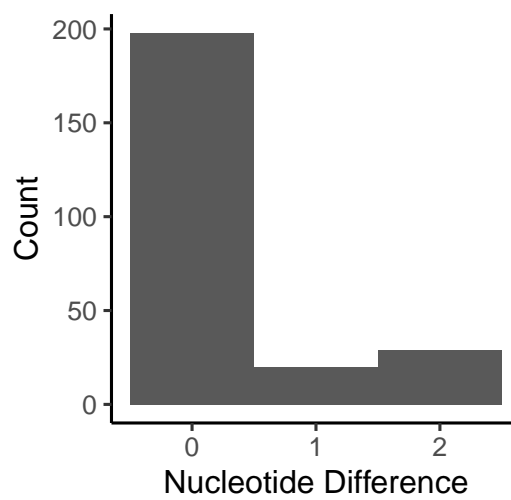
IGHV3–33*01

267 sequences assigned
241 (90.3%) exact matches, in which:
230 unique CDR3
6 unique J



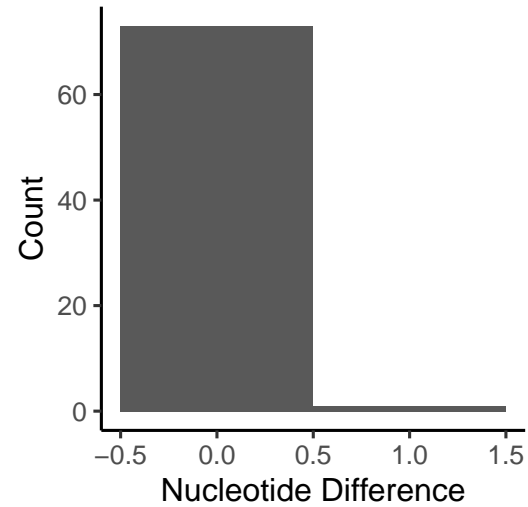
IGHV3–48*03

247 sequences assigned
198 (80.2%) exact matches, in which:
194 unique CDR3
6 unique J



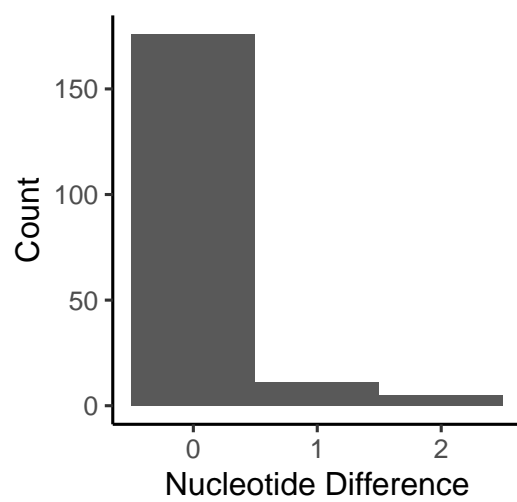
IGHV3–53*04

74 sequences assigned
73 (98.6%) exact matches, in which:
72 unique CDR3
6 unique J



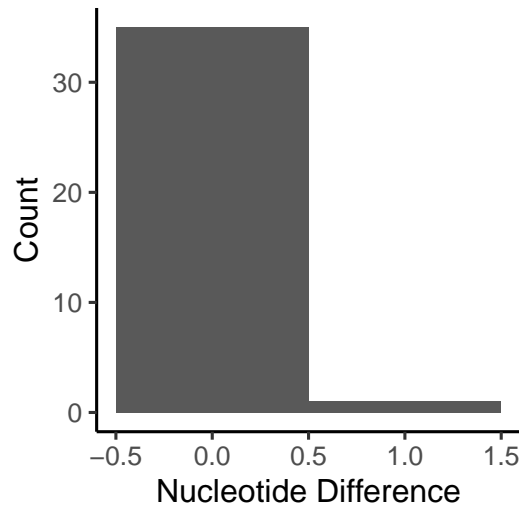
IGHV3–43*02

192 sequences assigned
176 (91.7%) exact matches, in which:
172 unique CDR3
6 unique J



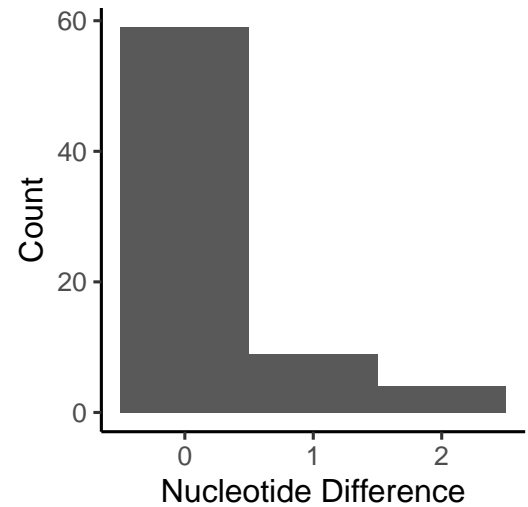
IGHV3–49*04

36 sequences assigned
35 (97.2%) exact matches, in which:
35 unique CDR3
4 unique J



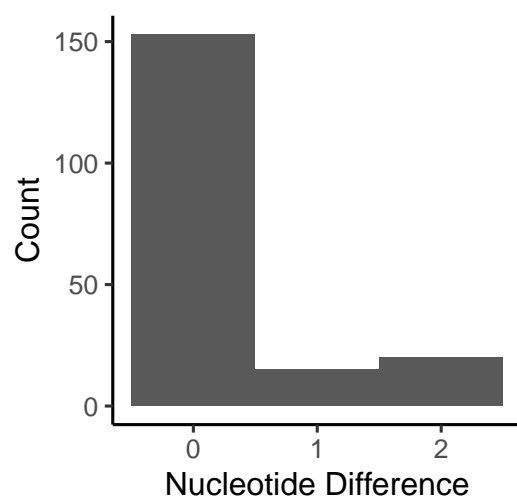
IGHV3–53*01_02

72 sequences assigned
59 (81.9%) exact matches, in which:
58 unique CDR3
5 unique J



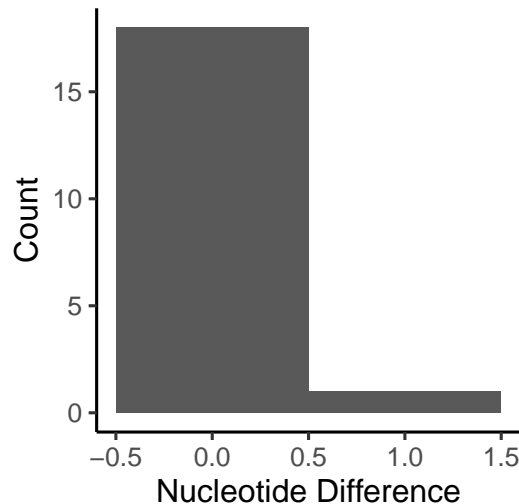
IGHV3–48*01

188 sequences assigned
153 (81.4%) exact matches, in which:
149 unique CDR3
6 unique J



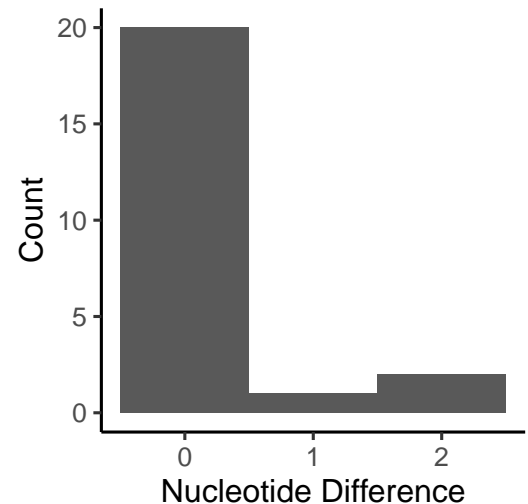
IGHV3–49*03_05

19 sequences assigned
18 (94.7%) exact matches, in which:
18 unique CDR3
4 unique J



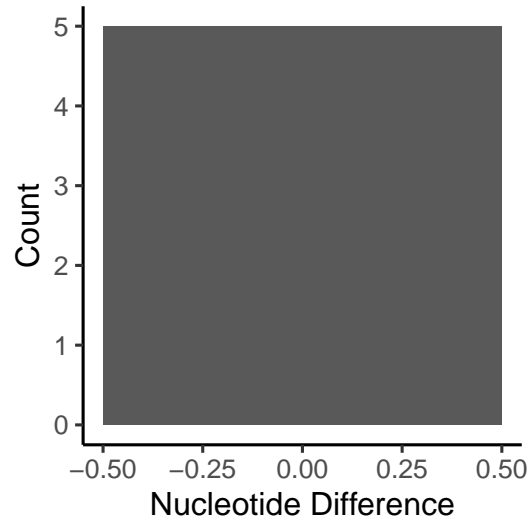
IGHV3–64*01

23 sequences assigned
20 (87%) exact matches, in which:
20 unique CDR3
5 unique J



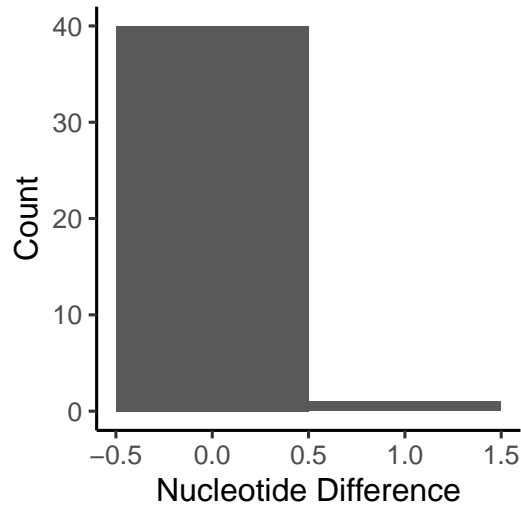
IGHV3-64*02_07

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



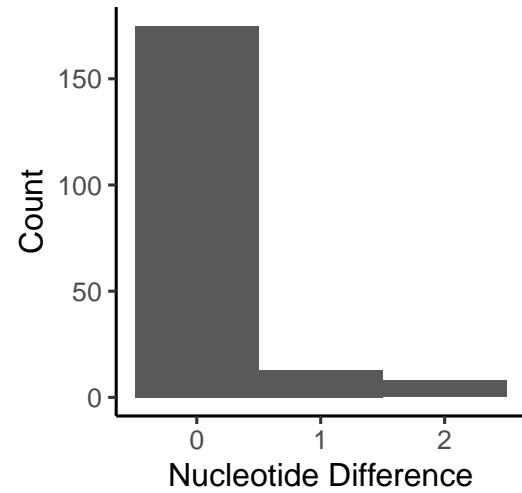
IGHV3-73*01_02

41 sequences assigned
40 (97.6%) exact matches, in which:
39 unique CDR3
6 unique J



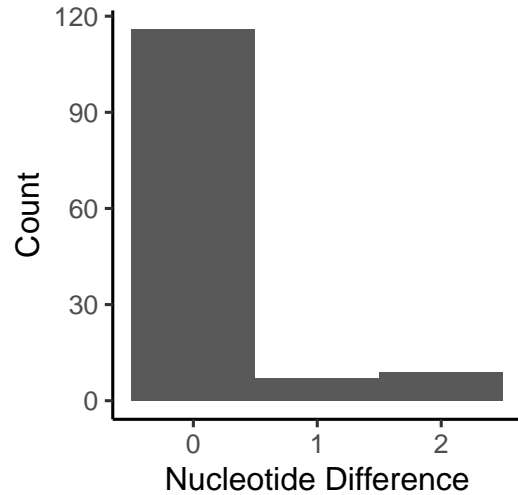
IGHV4-4*07

196 sequences assigned
175 (89.3%) exact matches, in which:
173 unique CDR3
7 unique J



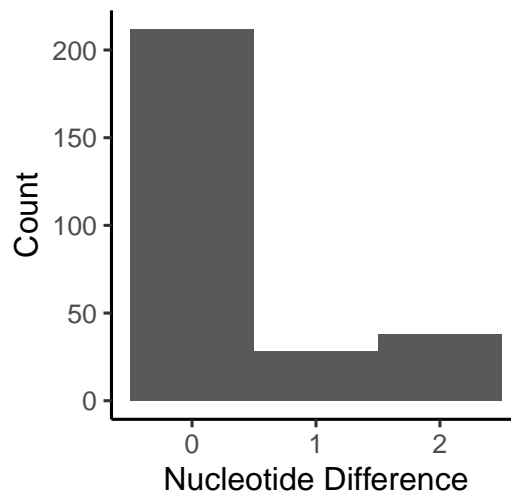
IGHV3-66*02

132 sequences assigned
116 (87.9%) exact matches, in which:
112 unique CDR3
7 unique J



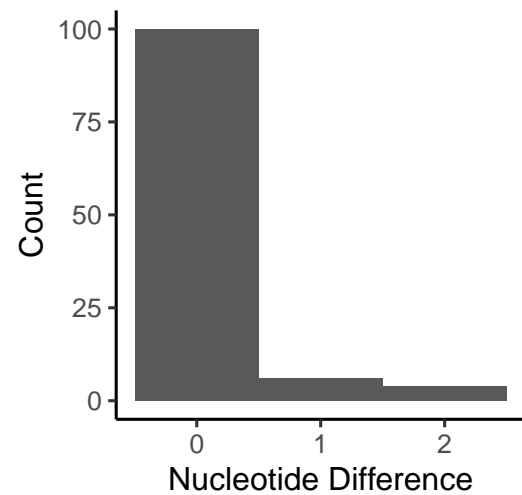
IGHV3-74*01_02

278 sequences assigned
212 (76.3%) exact matches, in which:
203 unique CDR3
7 unique J



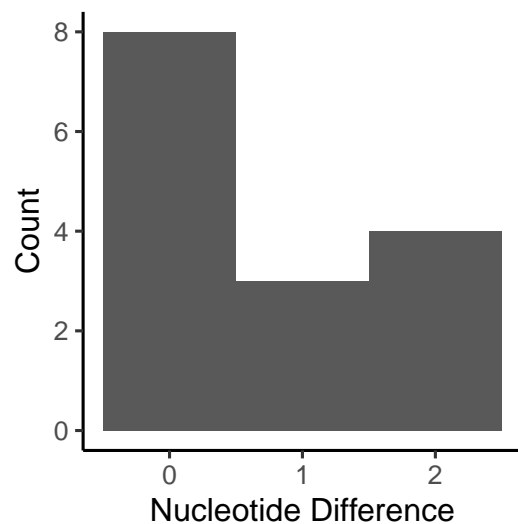
IGHV4-4*02_03

110 sequences assigned
100 (90.9%) exact matches, in which:
100 unique CDR3
6 unique J



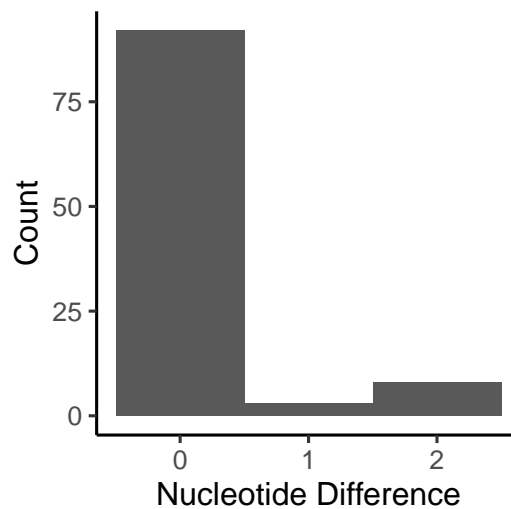
IGHV3-72*01

15 sequences assigned
8 (53.3%) exact matches, in which:
8 unique CDR3
4 unique J



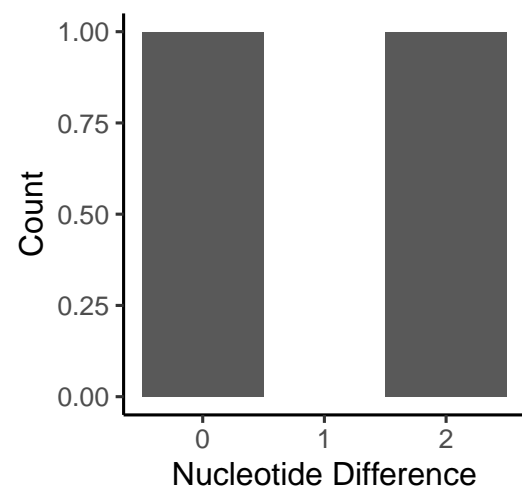
IGHV3-64D*06

103 sequences assigned
92 (89.3%) exact matches, in which:
87 unique CDR3
5 unique J



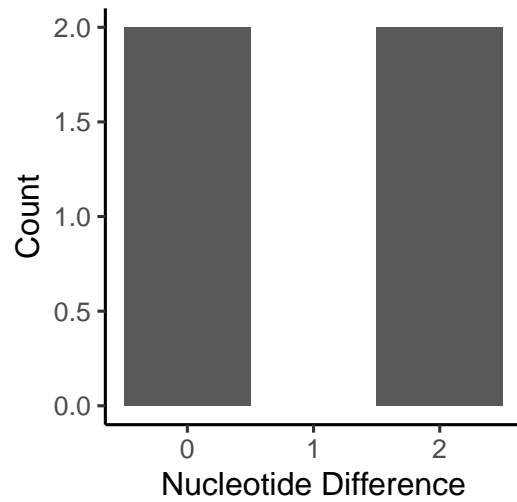
IGHV4-28*01_07

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



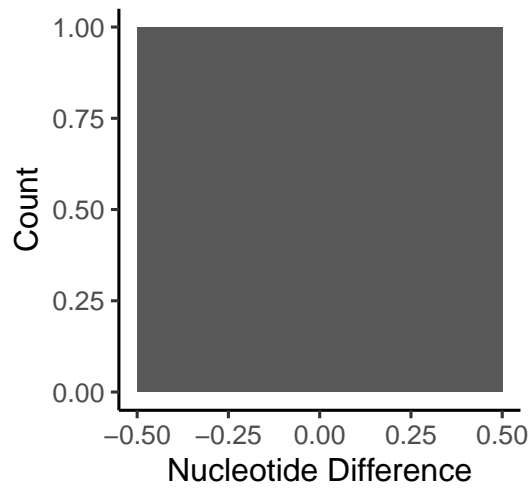
IGHV4-28*02_05

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



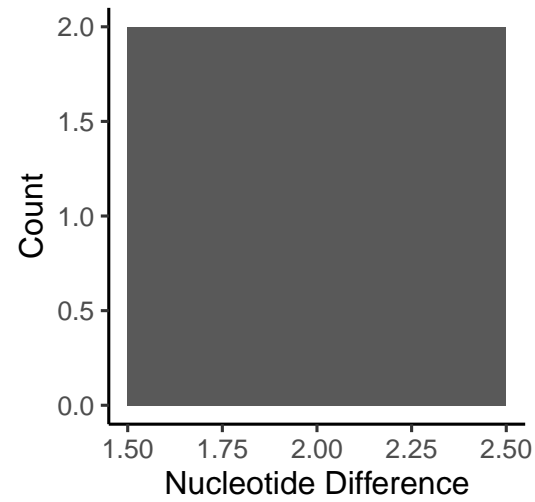
IGHV4-38-2*02

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



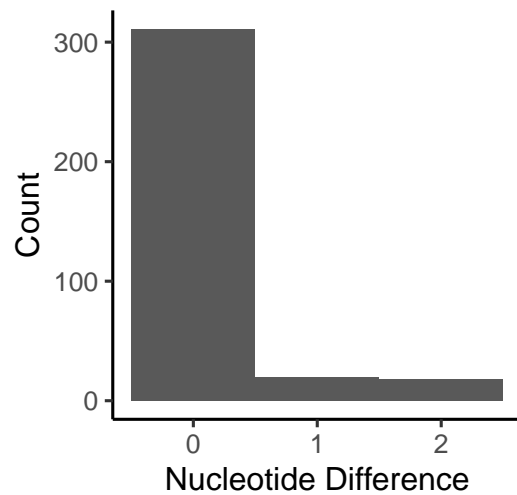
IGHV4-59*03

2 sequences assigned
No exact matches.



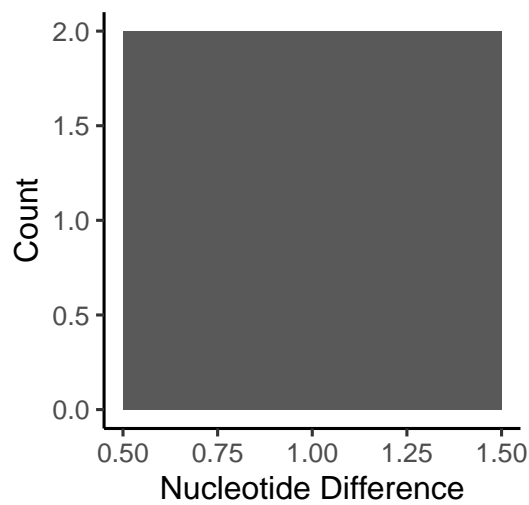
IGHV4-31*02

349 sequences assigned
311 (89.1%) exact matches, in which:
309 unique CDR3
6 unique J



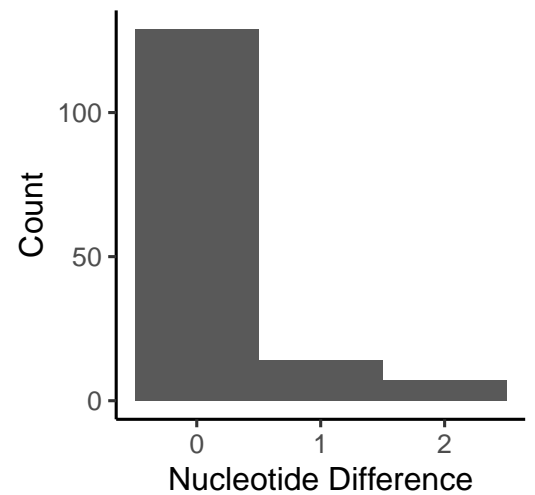
IGHV4-39*02

2 sequences assigned
No exact matches.



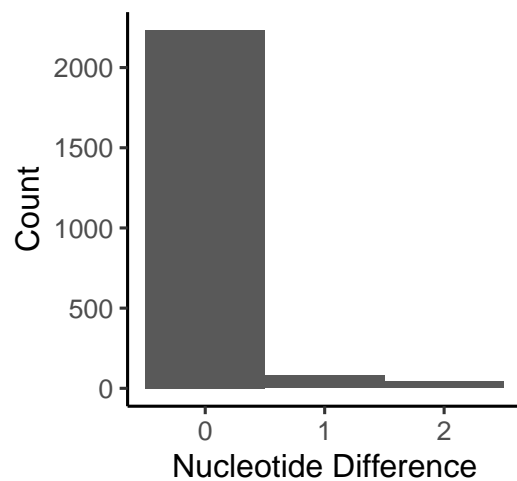
IGHV4-61*01

150 sequences assigned
129 (86%) exact matches, in which:
127 unique CDR3
6 unique J



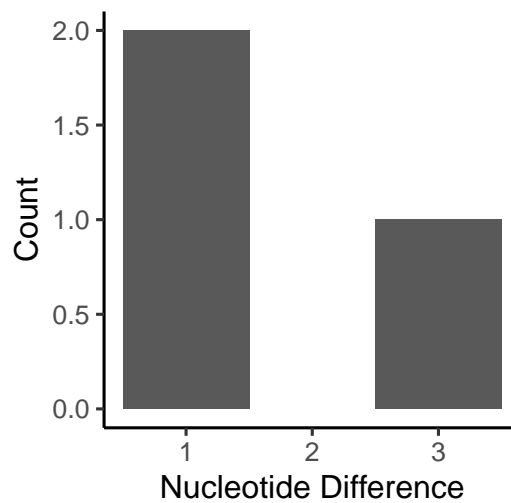
IGHV4-34*01_02

2356 sequences assigned
2234 (94.8%) exact matches, in which:
2200 unique CDR3
7 unique J



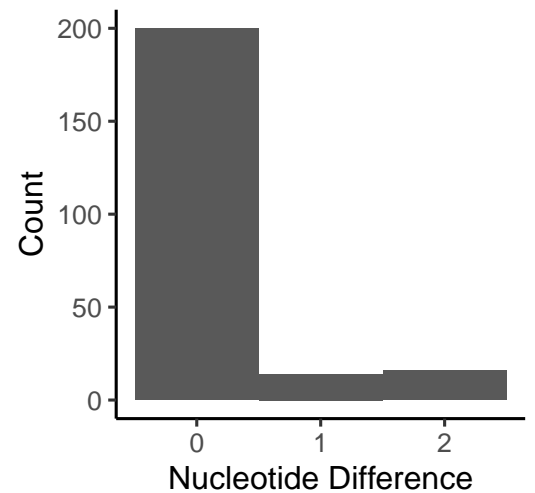
IGHV4-59*02

3 sequences assigned
No exact matches.



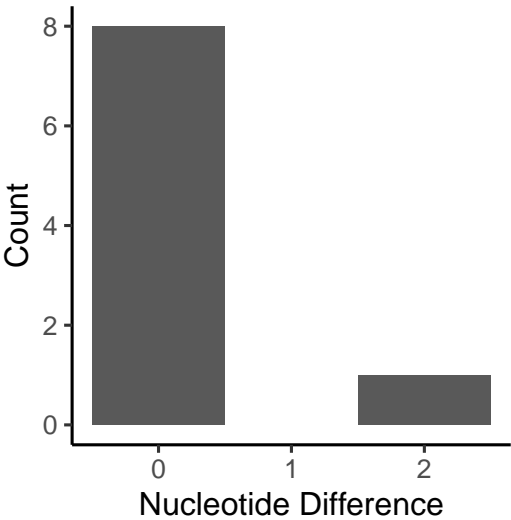
IGHV4-61*02

230 sequences assigned
200 (87%) exact matches, in which:
197 unique CDR3
5 unique J



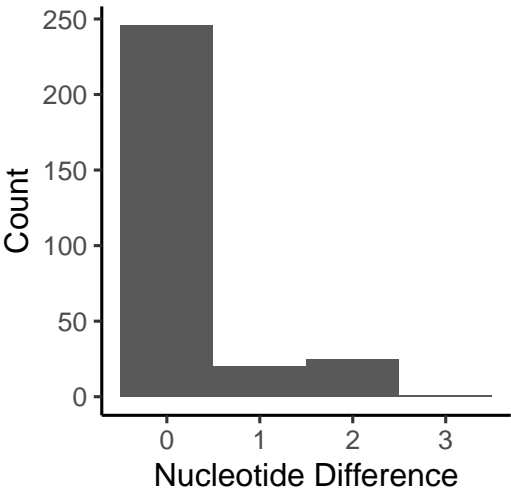
IGHV5-10-1*01_03

9 sequences assigned
8 (88.9%) exact matches, in which:
8 unique CDR3
4 unique J



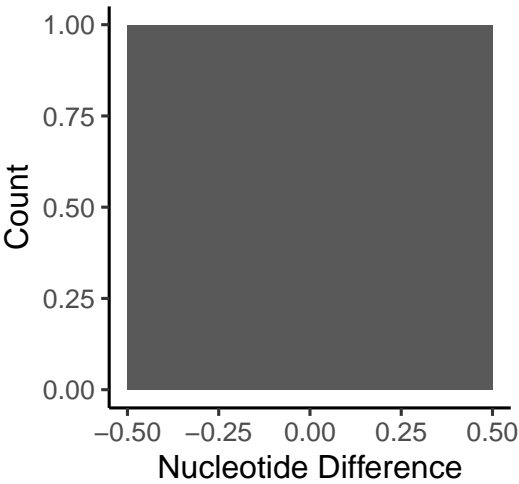
IGHV6-1*01_02

292 sequences assigned
246 (84.2%) exact matches, in which:
243 unique CDR3
6 unique J

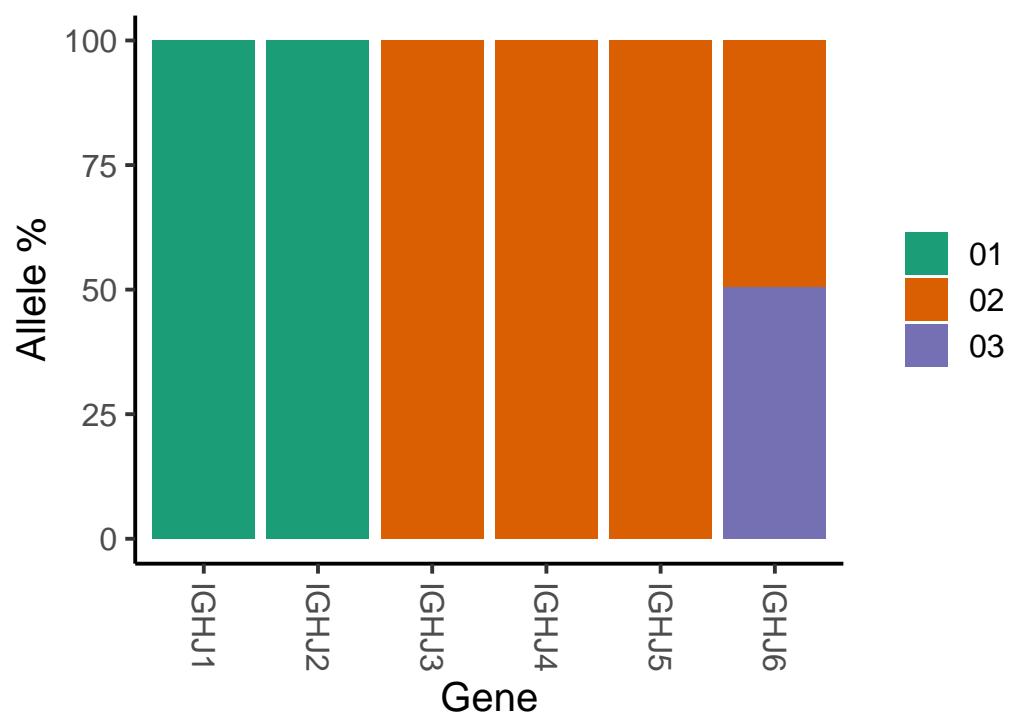


IGHV7-4-1*01

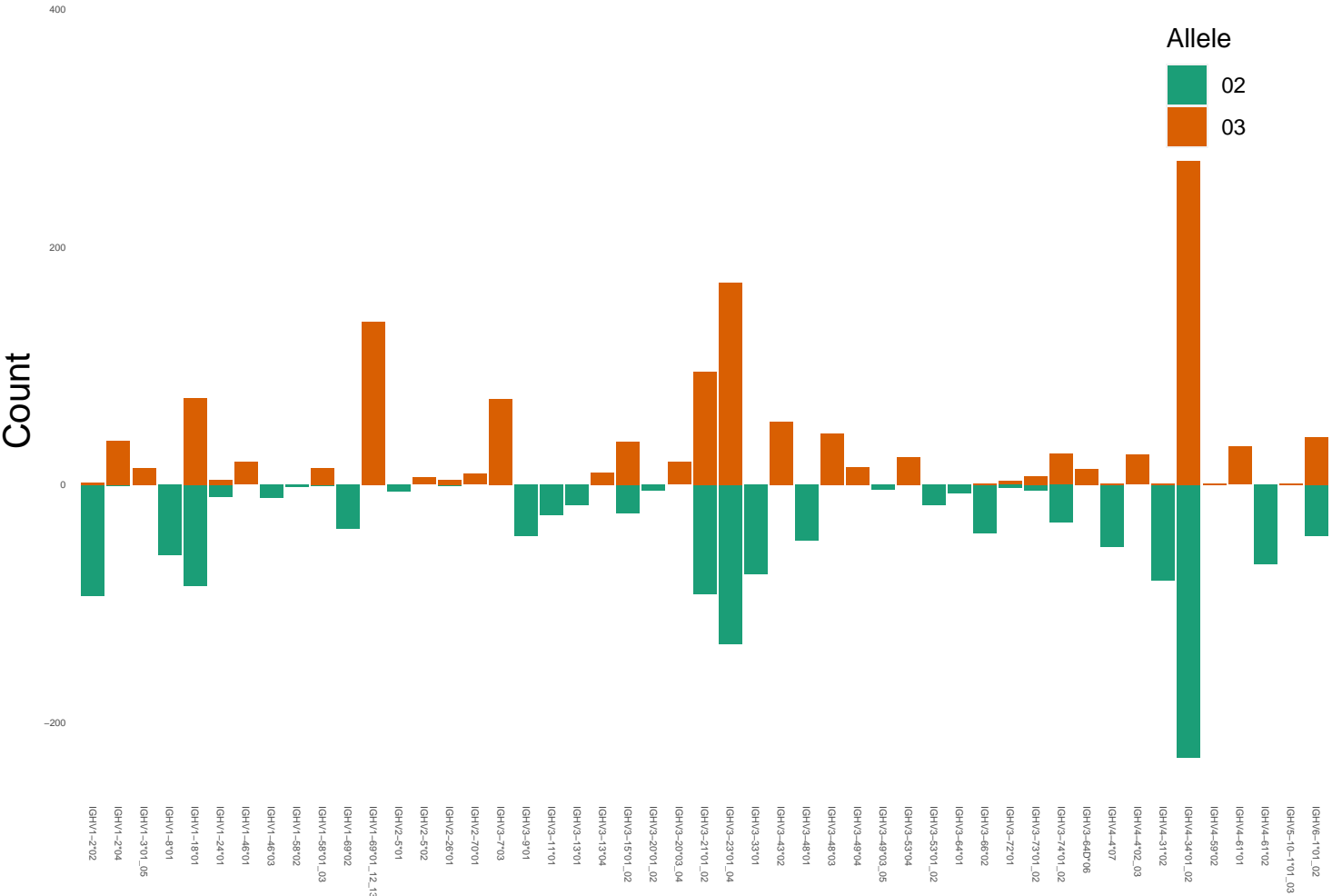
1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]