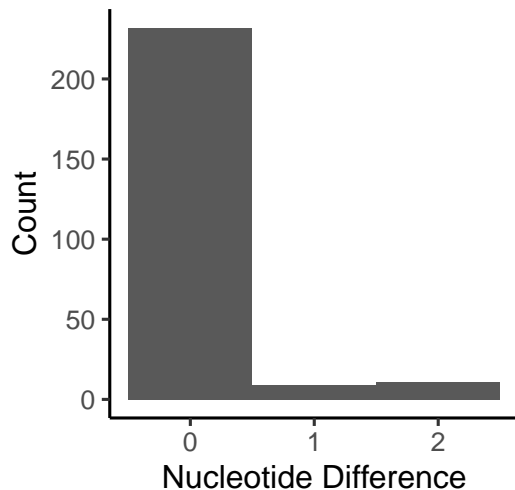


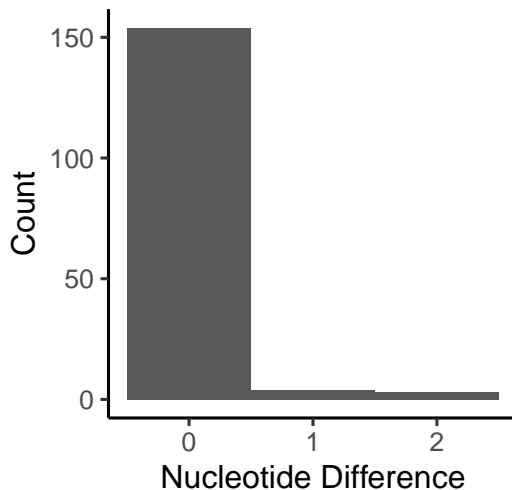
IGHV1-2*02

252 sequences assigned
232 (92.1%) exact matches, in which:
232 unique CDR3
6 unique J



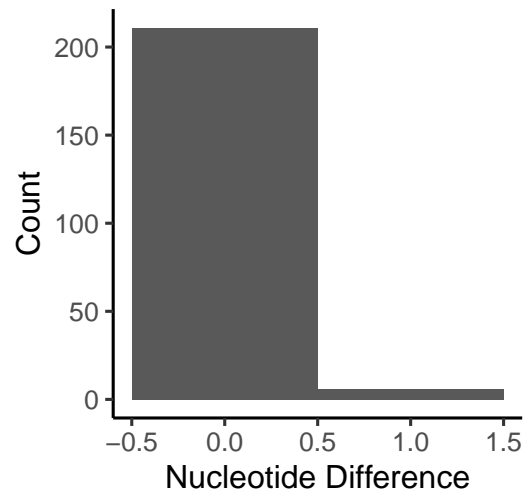
IGHV1-8*01

161 sequences assigned
154 (95.7%) exact matches, in which:
153 unique CDR3
5 unique J



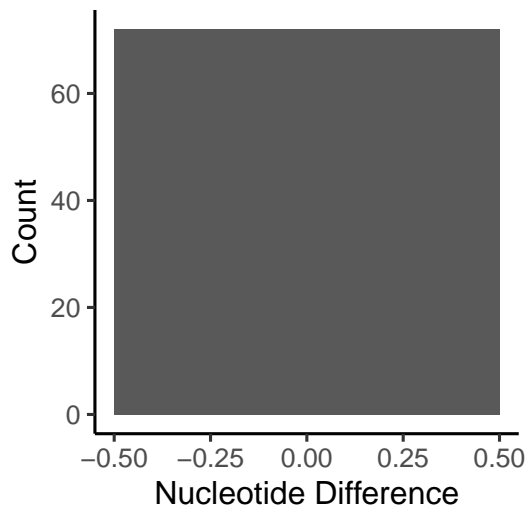
IGHV1-24*01

217 sequences assigned
211 (97.2%) exact matches, in which:
211 unique CDR3
6 unique J



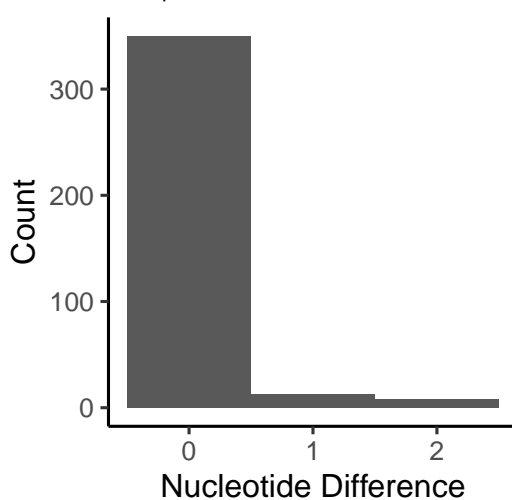
IGHV1-2*04

72 sequences assigned
72 (100%) exact matches, in which:
72 unique CDR3
5 unique J



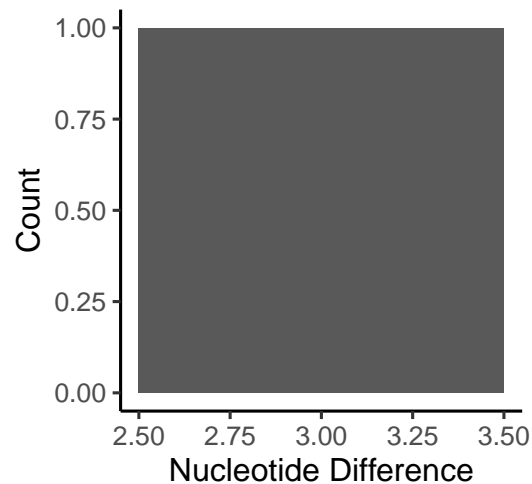
IGHV1-18*01

371 sequences assigned
350 (94.3%) exact matches, in which:
350 unique CDR3
6 unique J



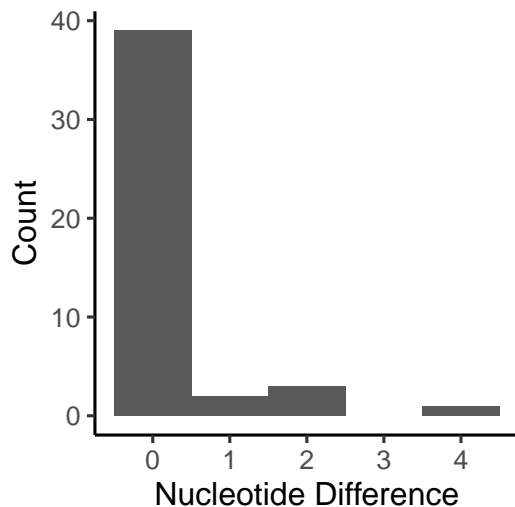
IGHV1-38-4*01

1 sequences assigned
No exact matches.



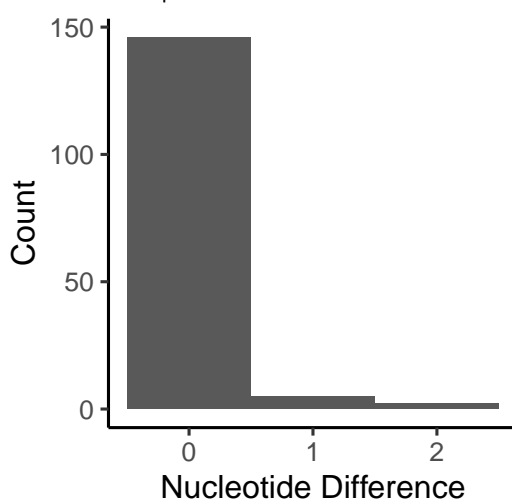
IGHV1-3*01_05

45 sequences assigned
39 (86.7%) exact matches, in which:
39 unique CDR3
6 unique J



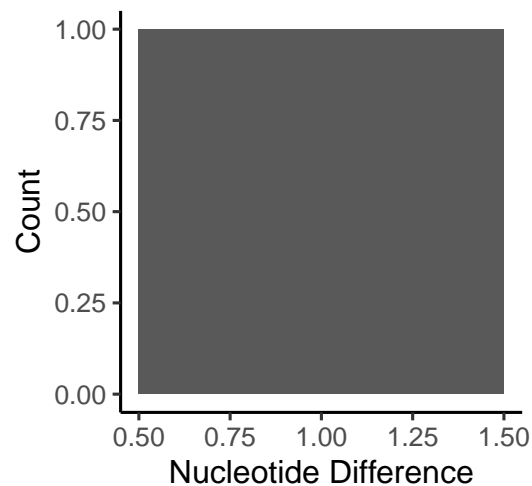
IGHV1-18*04

153 sequences assigned
146 (95.4%) exact matches, in which:
146 unique CDR3
6 unique J



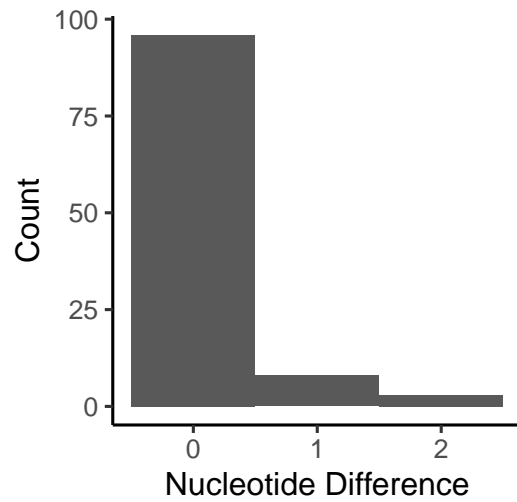
IGHV1-45*02

1 sequences assigned
No exact matches.



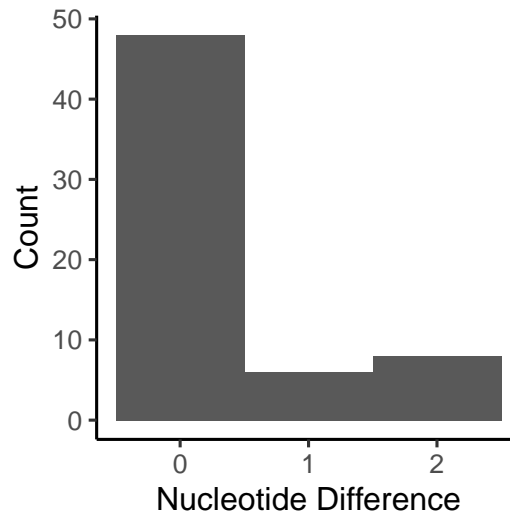
IGHV1-46*01

107 sequences assigned
96 (89.7%) exact matches, in which:
96 unique CDR3
6 unique J



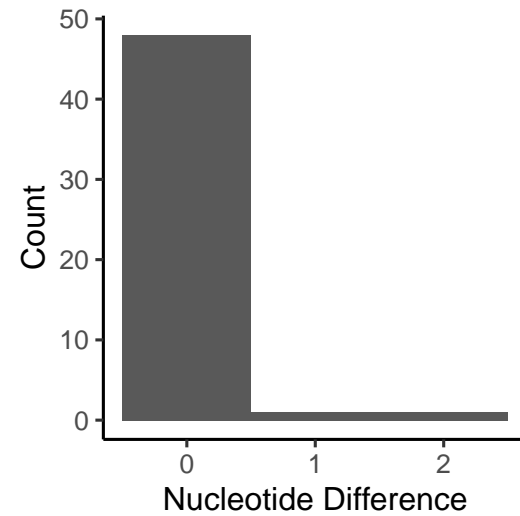
IGHV2-5*01

62 sequences assigned
48 (77.4%) exact matches, in which:
48 unique CDR3
5 unique J



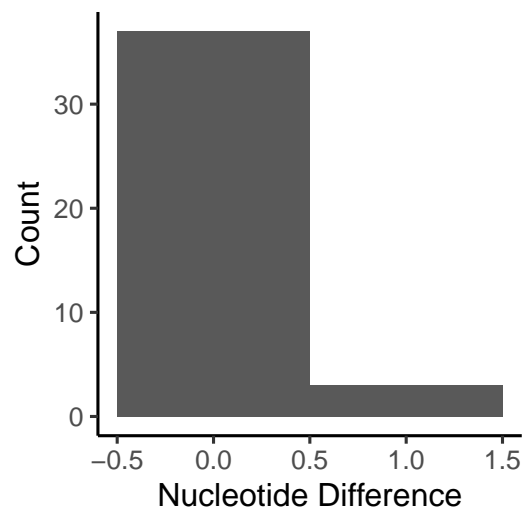
IGHV2-70*01

50 sequences assigned
48 (96%) exact matches, in which:
47 unique CDR3
4 unique J



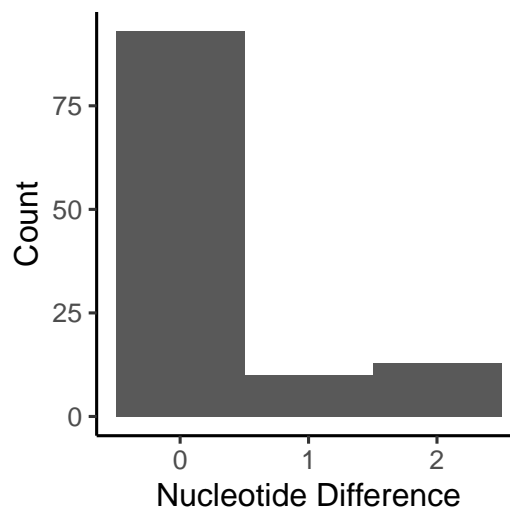
IGHV1-58*01_03

40 sequences assigned
37 (92.5%) exact matches, in which:
37 unique CDR3
6 unique J



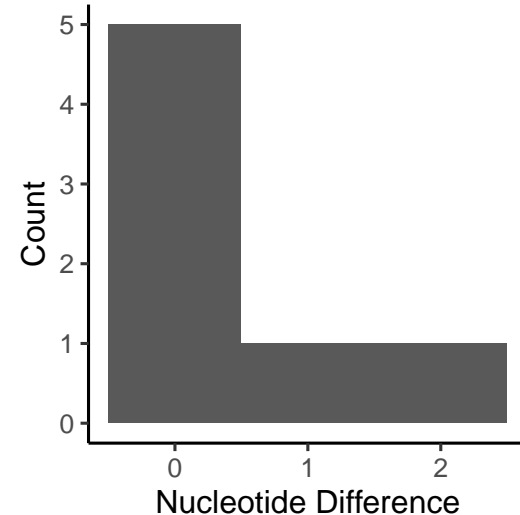
IGHV2-5*02

116 sequences assigned
93 (80.2%) exact matches, in which:
93 unique CDR3
6 unique J



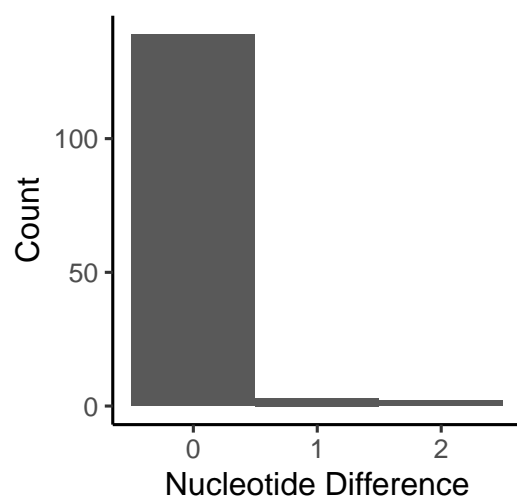
IGHV2-70D*04

7 sequences assigned
5 (71.4%) exact matches, in which:
5 unique CDR3
2 unique J



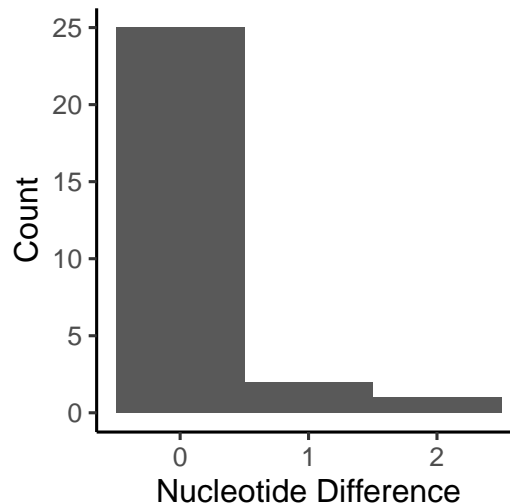
IGHV1-69*06_14

144 sequences assigned
139 (96.5%) exact matches, in which:
139 unique CDR3
6 unique J



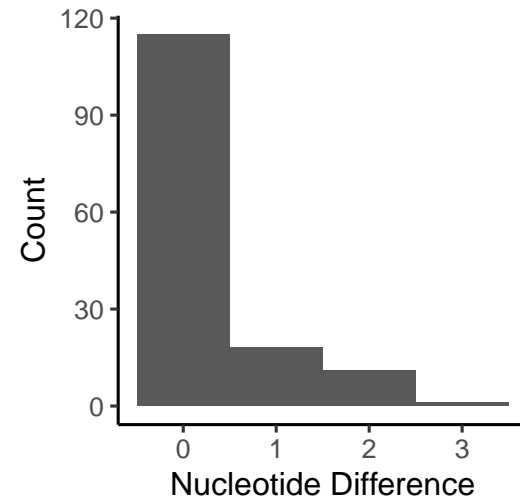
IGHV2-26*01

28 sequences assigned
25 (89.3%) exact matches, in which:
25 unique CDR3
4 unique J



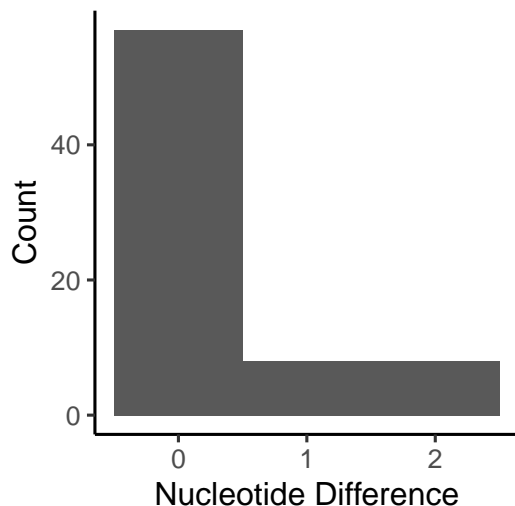
IGHV3-7*01

145 sequences assigned
115 (79.3%) exact matches, in which:
113 unique CDR3
6 unique J



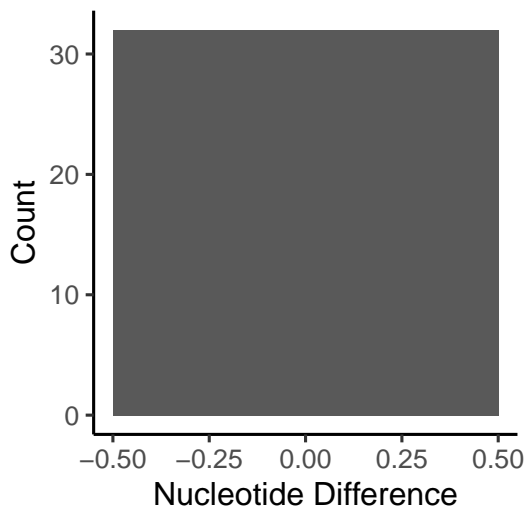
IGHV3-7*04

73 sequences assigned
57 (78.1%) exact matches, in which:
57 unique CDR3
6 unique J



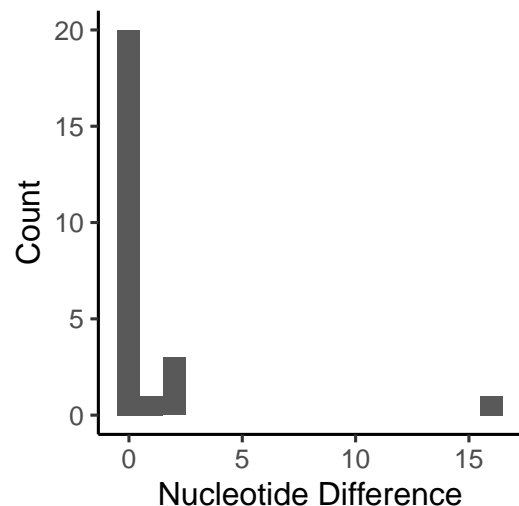
IGHV3-11*06

32 sequences assigned
32 (100%) exact matches, in which:
31 unique CDR3
5 unique J



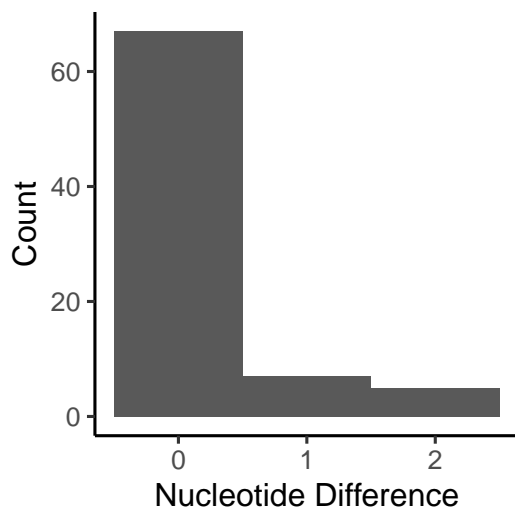
IGHV3-13*04

25 sequences assigned
20 (80%) exact matches, in which:
20 unique CDR3
5 unique J



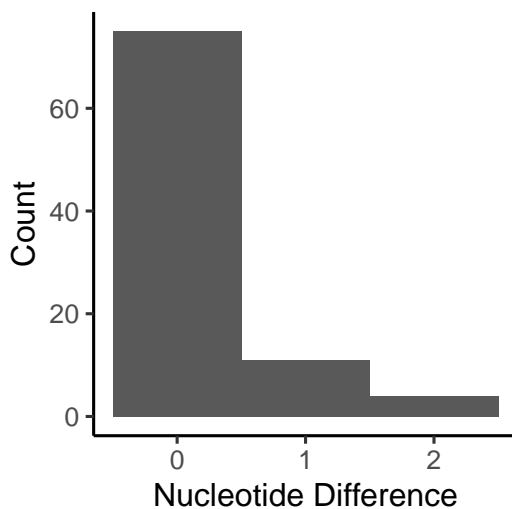
IGHV3-9*01

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



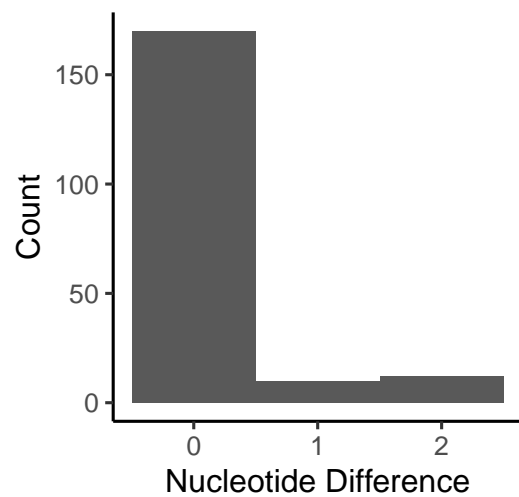
IGHV3-11*03_05

90 sequences assigned
75 (83.3%) exact matches, in which:
74 unique CDR3
5 unique J



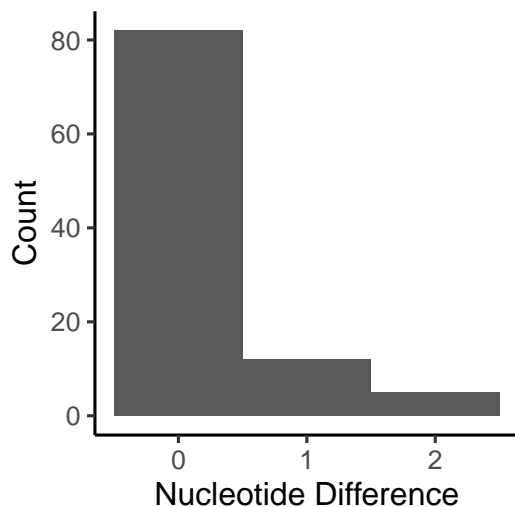
IGHV3-15*01_02

192 sequences assigned
170 (88.5%) exact matches, in which:
167 unique CDR3
6 unique J



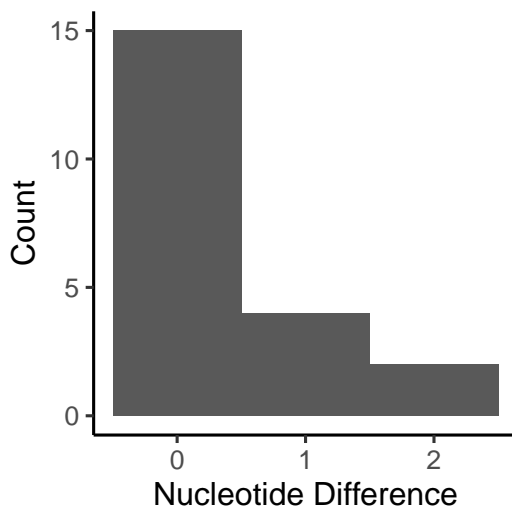
IGHV3-11*01

99 sequences assigned
82 (82.8%) exact matches, in which:
80 unique CDR3
5 unique J



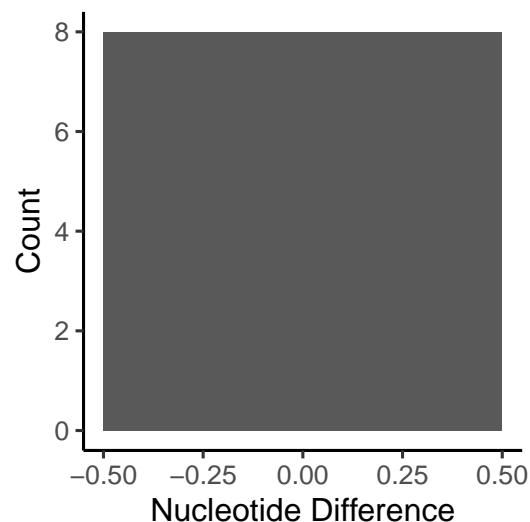
IGHV3-13*01

21 sequences assigned
15 (71.4%) exact matches, in which:
14 unique CDR3
3 unique J



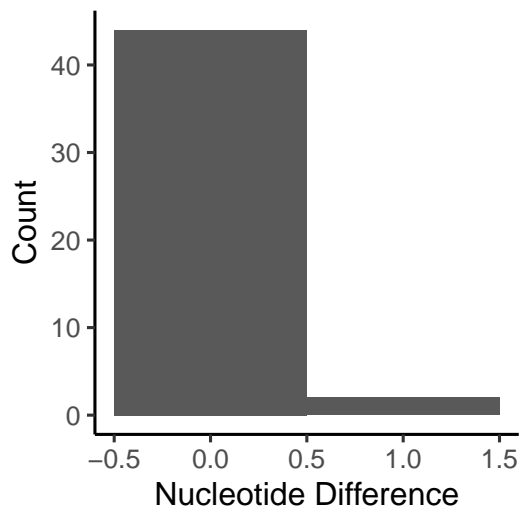
IGHV3-20*01_02

8 sequences assigned
8 (100%) exact matches, in which:
8 unique CDR3
3 unique J



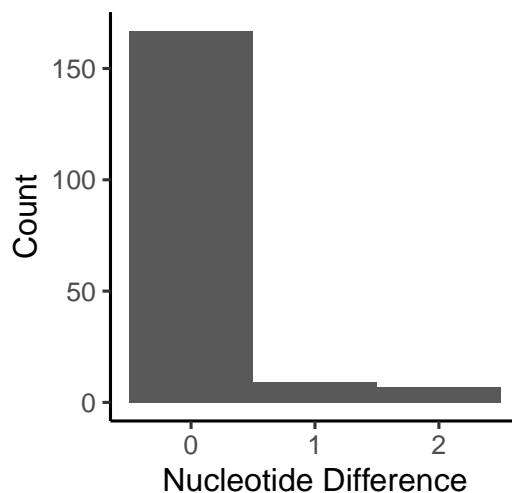
IGHV3-20*03_04

46 sequences assigned
44 (95.7%) exact matches, in which:
44 unique CDR3
5 unique J



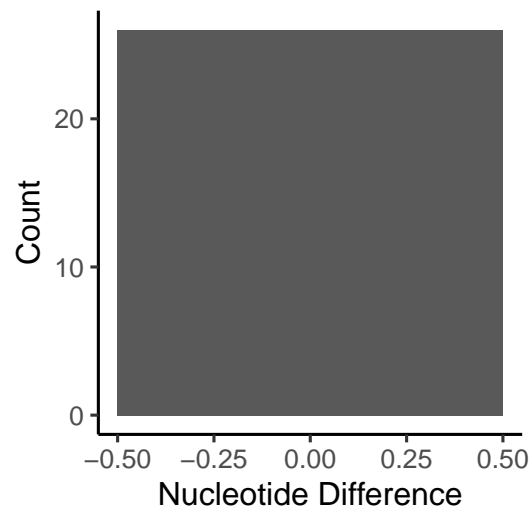
IGHV3-33*01

183 sequences assigned
167 (91.3%) exact matches, in which:
165 unique CDR3
6 unique J



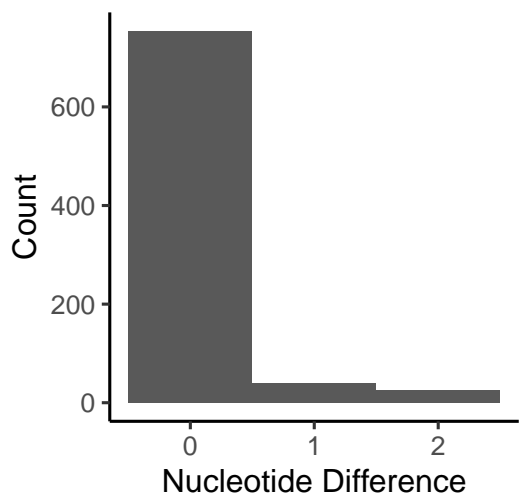
IGHV3-49*03_05

26 sequences assigned
26 (100%) exact matches, in which:
26 unique CDR3
5 unique J



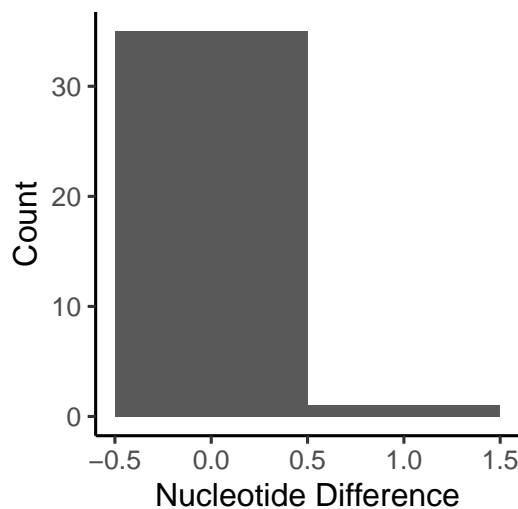
IGHV3-21*01_02

819 sequences assigned
754 (92.1%) exact matches, in which:
736 unique CDR3
6 unique J



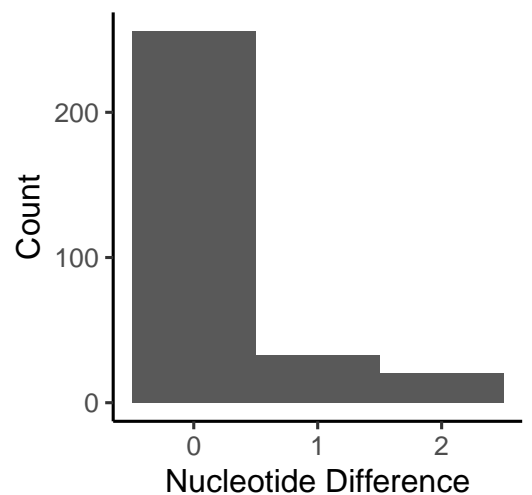
IGHV3-43*01

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



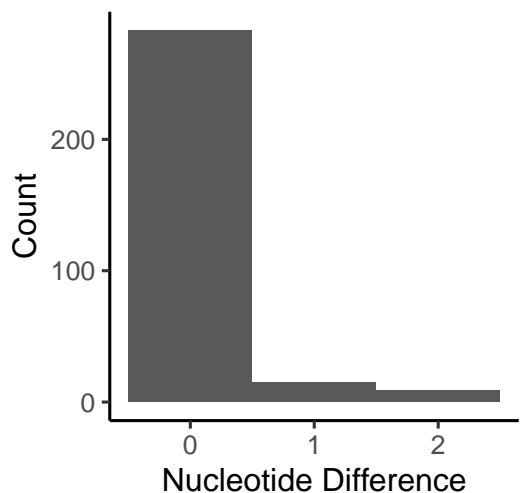
IGHV3-53*01_02

309 sequences assigned
256 (82.8%) exact matches, in which:
248 unique CDR3
6 unique J



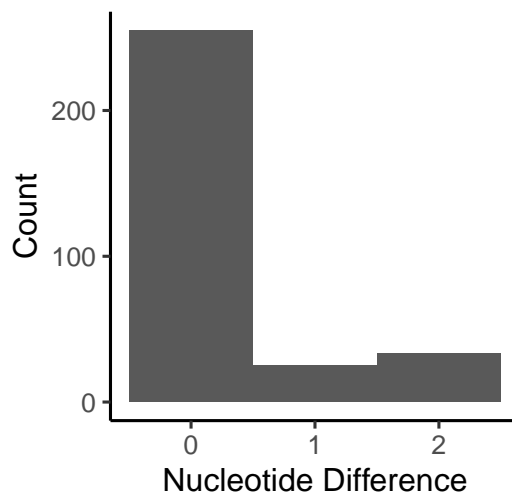
IGHV3-30-3*01

307 sequences assigned
283 (92.2%) exact matches, in which:
278 unique CDR3
6 unique J



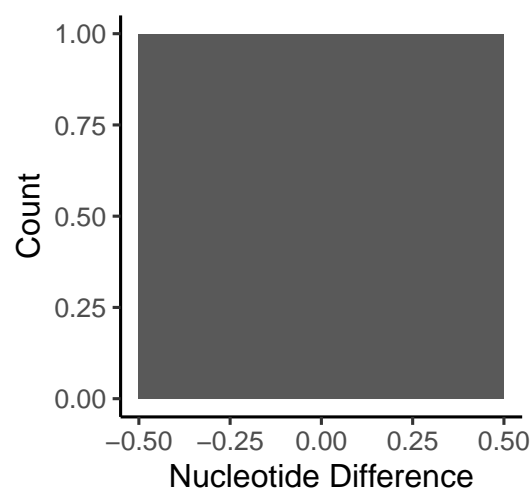
IGHV3-48*02

313 sequences assigned
255 (81.5%) exact matches, in which:
251 unique CDR3
6 unique J



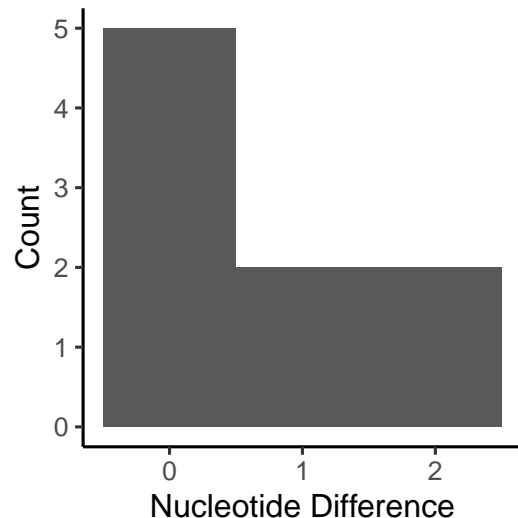
IGHV3-64*02_07

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



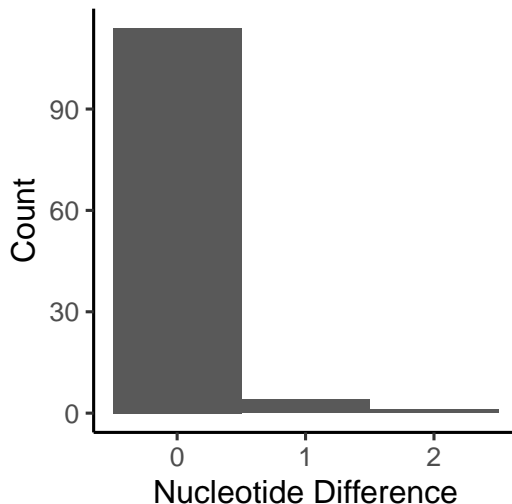
IGHV3-72*01

9 sequences assigned
5 (55.6%) exact matches, in which:
5 unique CDR3
2 unique J



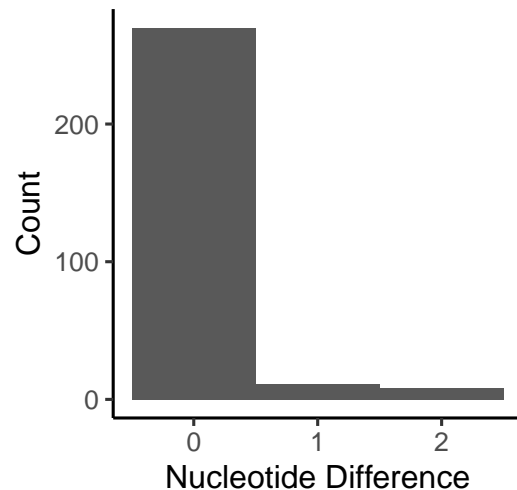
IGHV3-64D*06

119 sequences assigned
114 (95.8%) exact matches, in which:
113 unique CDR3
6 unique J



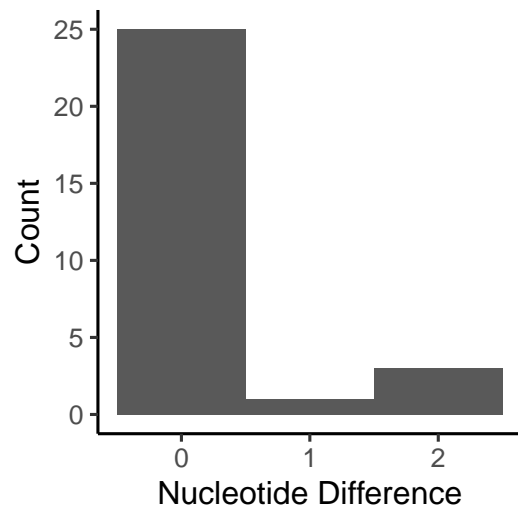
IGHV4-31*03_04

289 sequences assigned
270 (93.4%) exact matches, in which:
266 unique CDR3
6 unique J



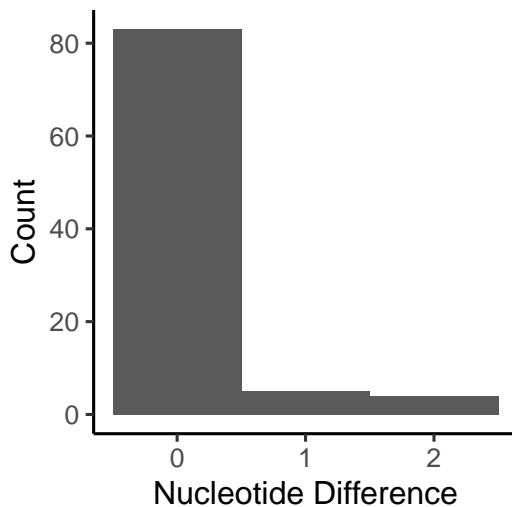
IGHV3-73*01_02

29 sequences assigned
25 (86.2%) exact matches, in which:
25 unique CDR3
4 unique J



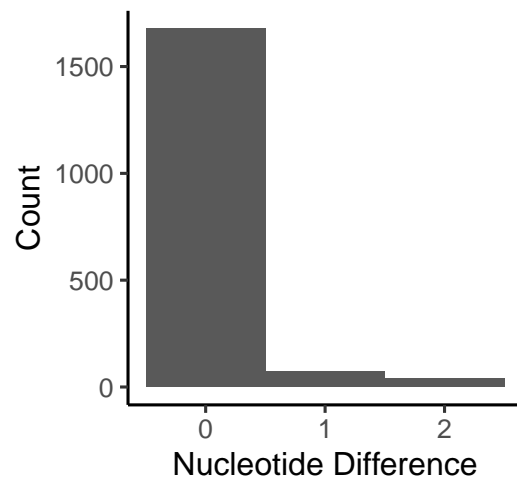
IGHV4-30-4*01

92 sequences assigned
83 (90.2%) exact matches, in which:
82 unique CDR3
6 unique J



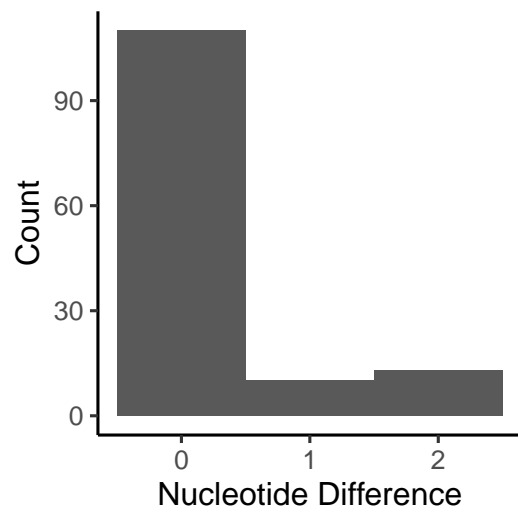
IGHV4-34*01_02

1790 sequences assigned
1677 (93.7%) exact matches, in which:
1628 unique CDR3
6 unique J



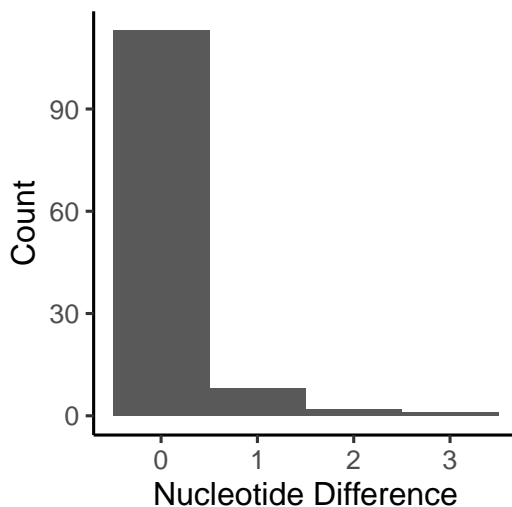
IGHV3-74*01_02

133 sequences assigned
110 (82.7%) exact matches, in which:
107 unique CDR3
6 unique J



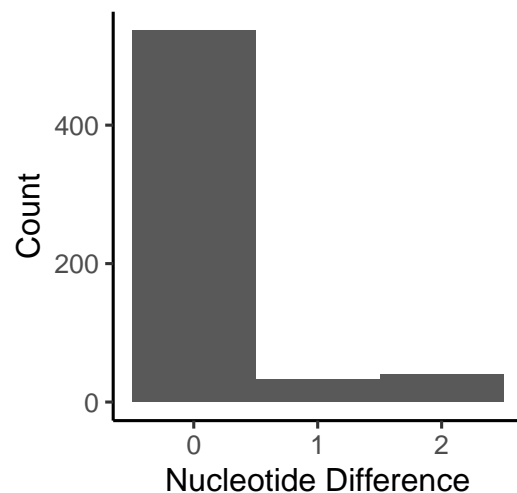
IGHV4-30-2*01

124 sequences assigned
113 (91.1%) exact matches, in which:
109 unique CDR3
6 unique J



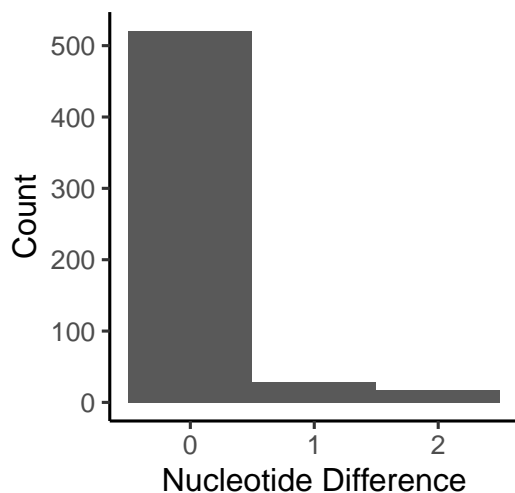
IGHV4-39*01_05

609 sequences assigned
537 (88.2%) exact matches, in which:
527 unique CDR3
6 unique J



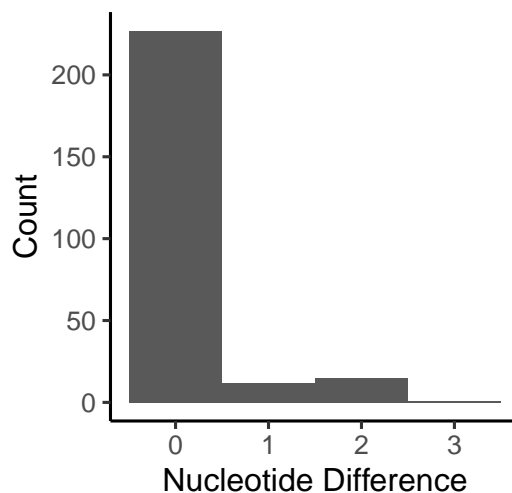
IGHV4-59*01_07

567 sequences assigned
521 (91.9%) exact matches, in which:
512 unique CDR3
6 unique J



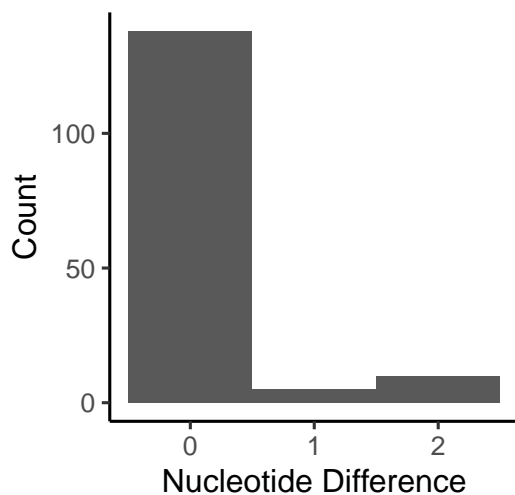
IGHV5-51*01_03

255 sequences assigned
227 (89%) exact matches, in which:
227 unique CDR3
6 unique J



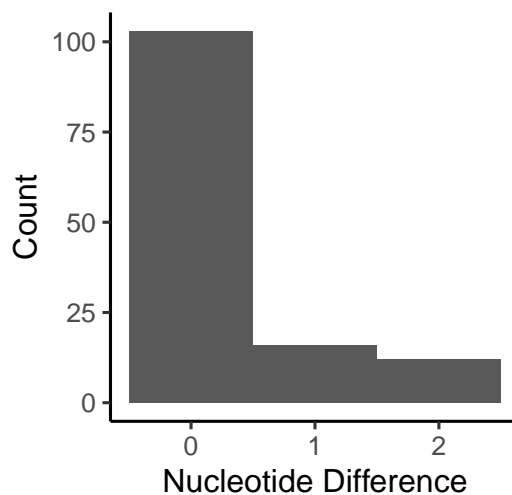
IGHV4-61*01

153 sequences assigned
138 (90.2%) exact matches, in which:
137 unique CDR3
6 unique J



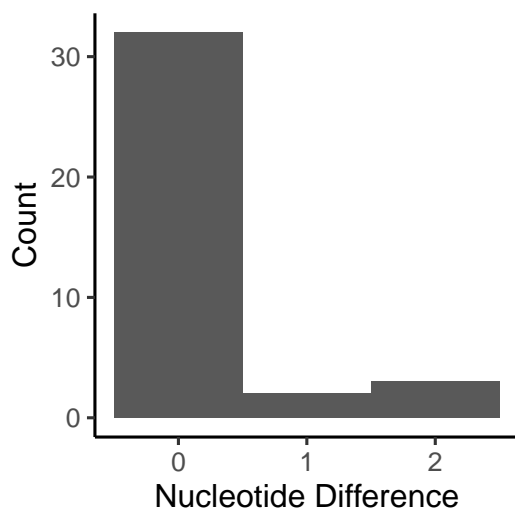
IGHV6-1*01_02

131 sequences assigned
103 (78.6%) exact matches, in which:
103 unique CDR3
5 unique J



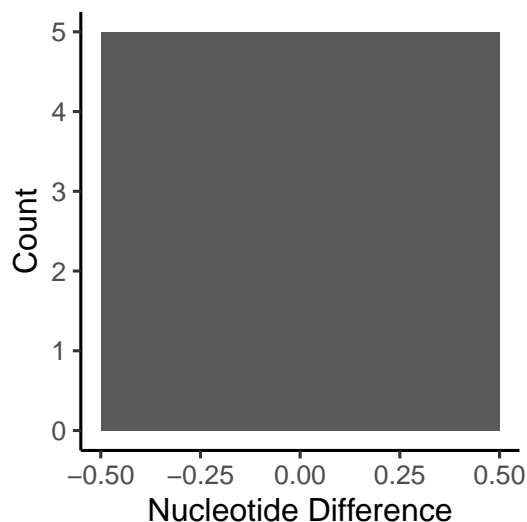
IGHV5-10-1*01_03

37 sequences assigned
32 (86.5%) exact matches, in which:
32 unique CDR3
5 unique J



IGHV7-4-1*01

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





Novel sequence(s)IGHV4-59*02_G88AIGHV5-51*07_A128G are not listed in the genotype and will be ignored.