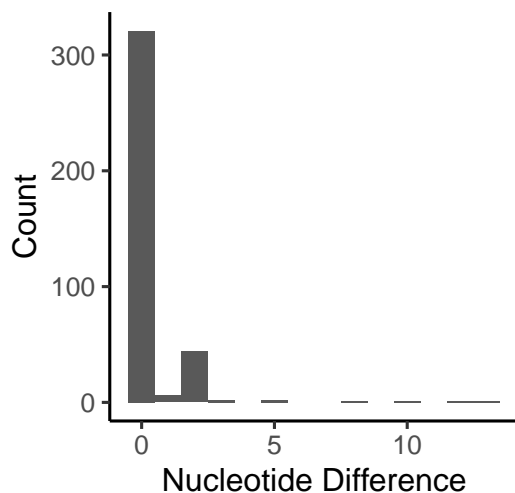


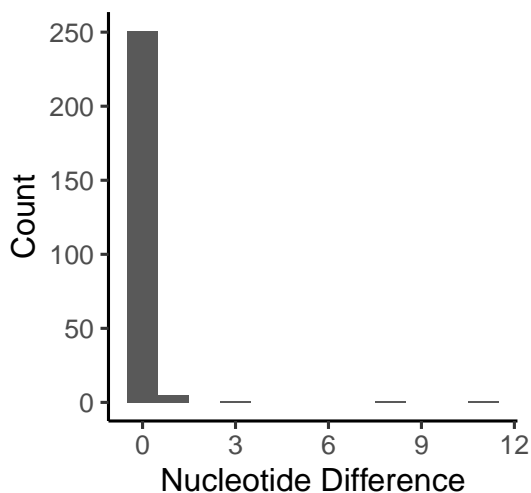
IGHV1-2*06

381 sequences assigned
321 (84.3%) exact matches, in which:
321 unique CDR3
7 unique J



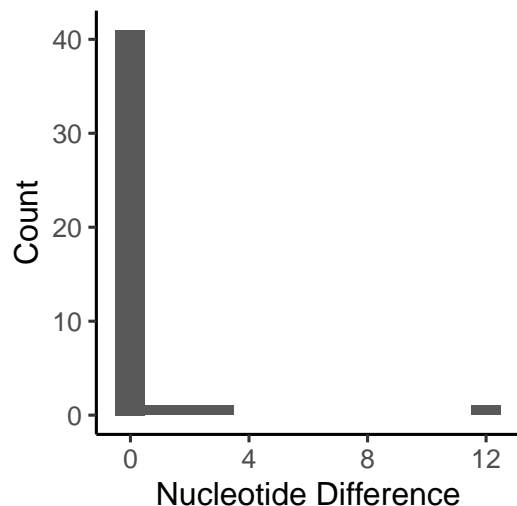
IGHV1-18*04

259 sequences assigned
251 (96.9%) exact matches, in which:
251 unique CDR3
7 unique J



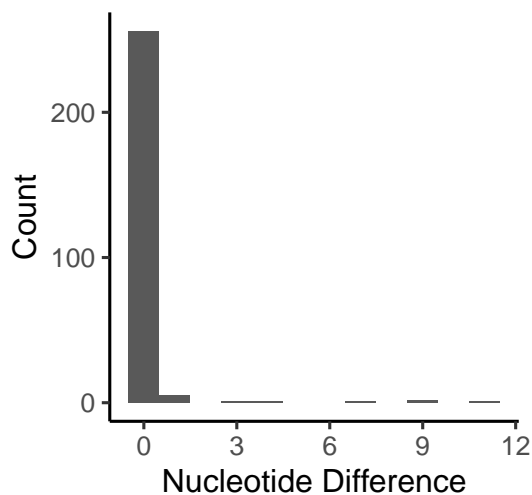
IGHV1-46*04

45 sequences assigned
41 (91.1%) exact matches, in which:
41 unique CDR3
4 unique J



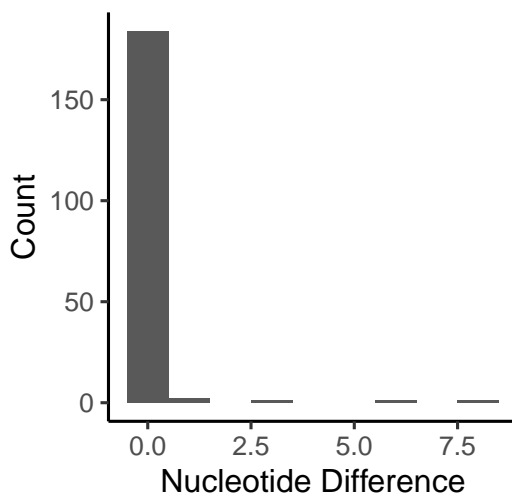
IGHV1-3*01

270 sequences assigned
256 (94.8%) exact matches, in which:
256 unique CDR3
7 unique J



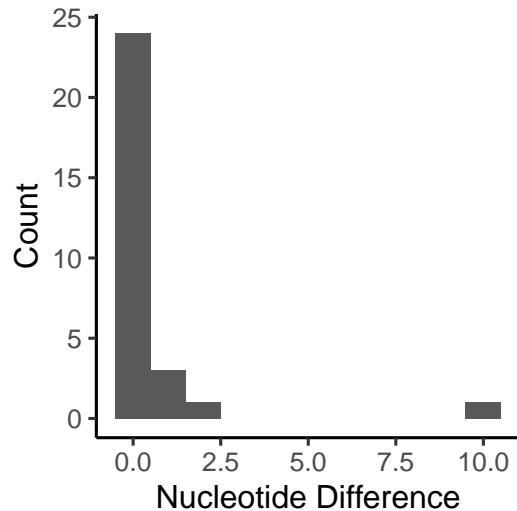
IGHV1-24*01

189 sequences assigned
184 (97.4%) exact matches, in which:
184 unique CDR3
7 unique J



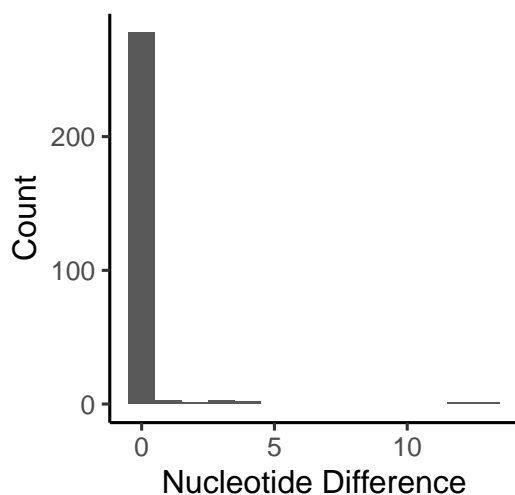
IGHV1-58*01

30 sequences assigned
24 (80%) exact matches, in which:
24 unique CDR3
5 unique J



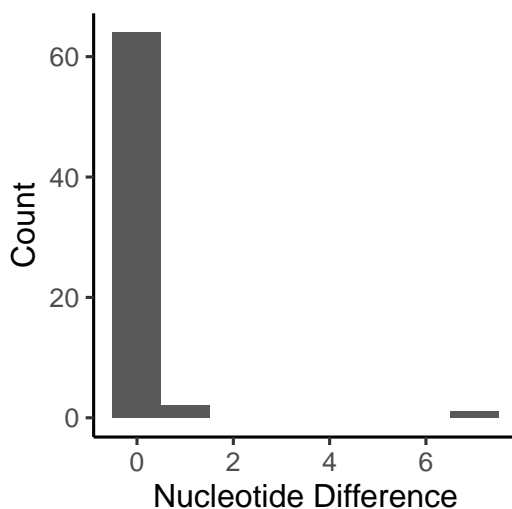
IGHV1-18*01

289 sequences assigned
278 (96.2%) exact matches, in which:
278 unique CDR3
7 unique J



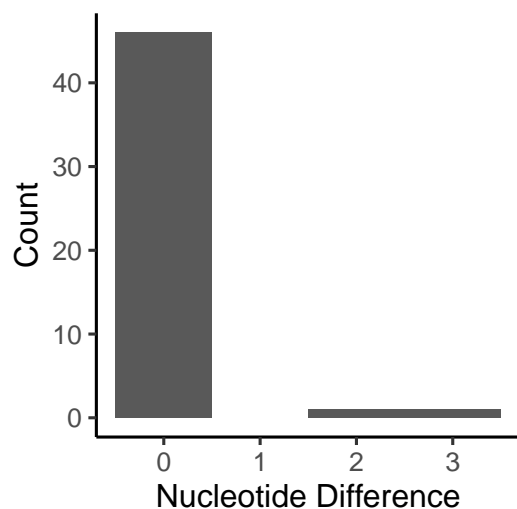
IGHV1-46*01

67 sequences assigned
64 (95.5%) exact matches, in which:
64 unique CDR3
5 unique J



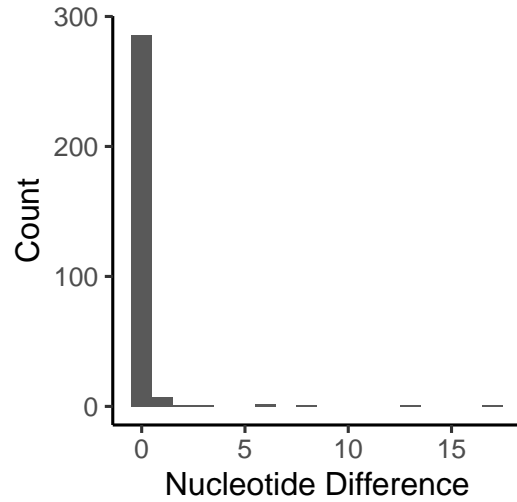
IGHV1-69-2*01

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



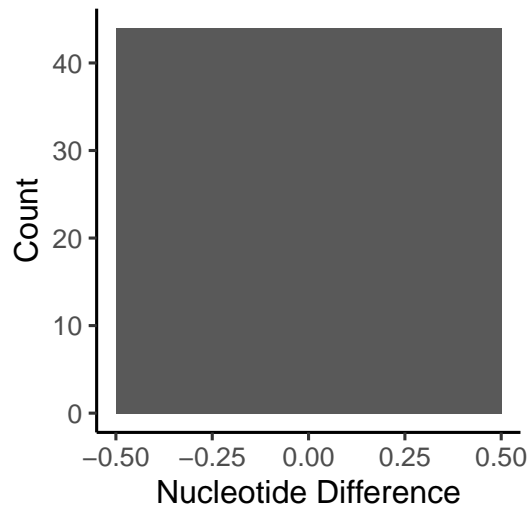
IGHV1–69*06

300 sequences assigned
286 (95.3%) exact matches, in which:
286 unique CDR3
7 unique J



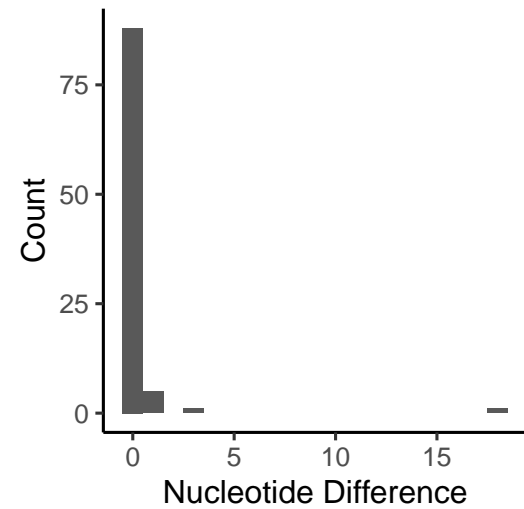
IGHV2–70*01

44 sequences assigned
44 (100%) exact matches, in which:
44 unique CDR3
7 unique J



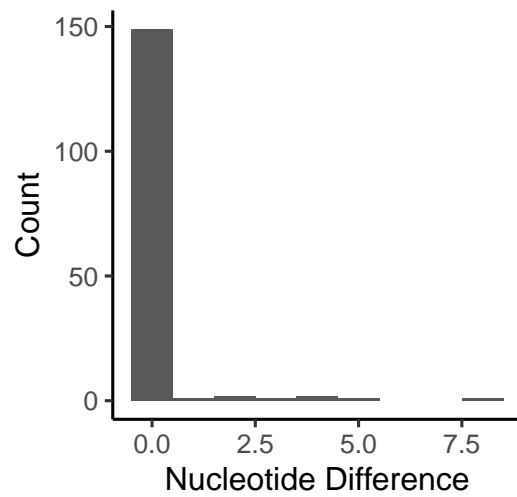
IGHV3–11*06

95 sequences assigned
88 (92.6%) exact matches, in which:
88 unique CDR3
6 unique J



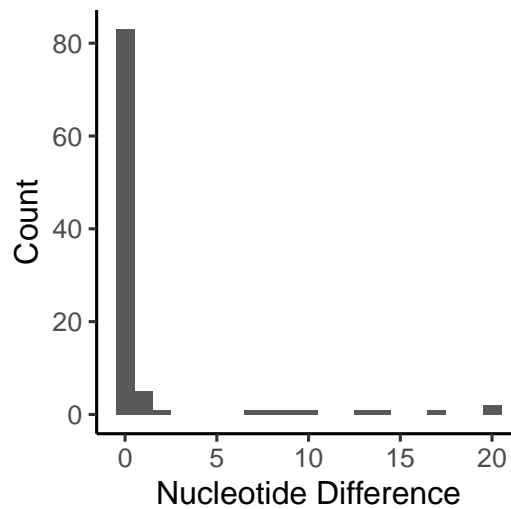
IGHV2–5*02

157 sequences assigned
149 (94.9%) exact matches, in which:
149 unique CDR3
6 unique J



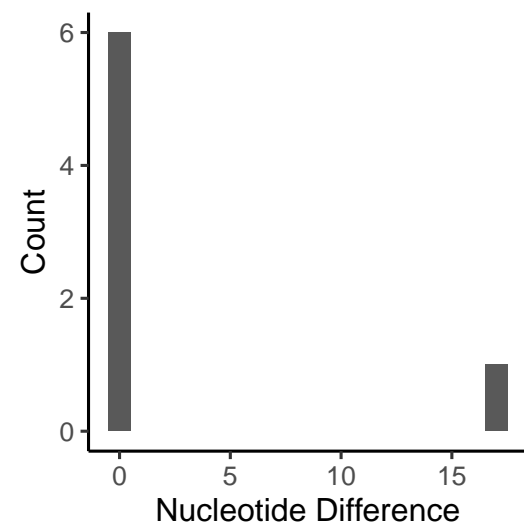
IGHV3–7*01

98 sequences assigned
83 (84.7%) exact matches, in which:
83 unique CDR3
5 unique J



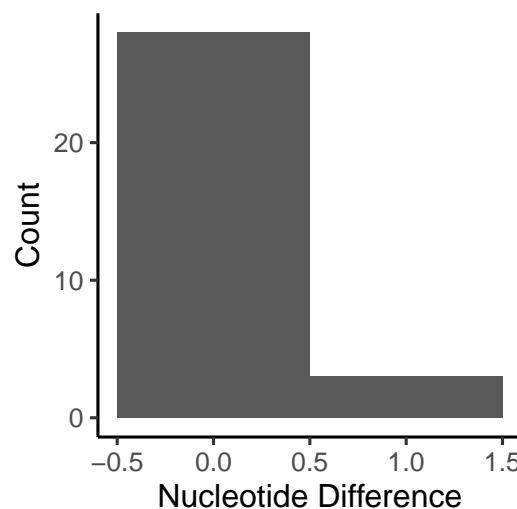
IGHV3–13*05

7 sequences assigned
6 (85.7%) exact matches, in which:
6 unique CDR3
4 unique J



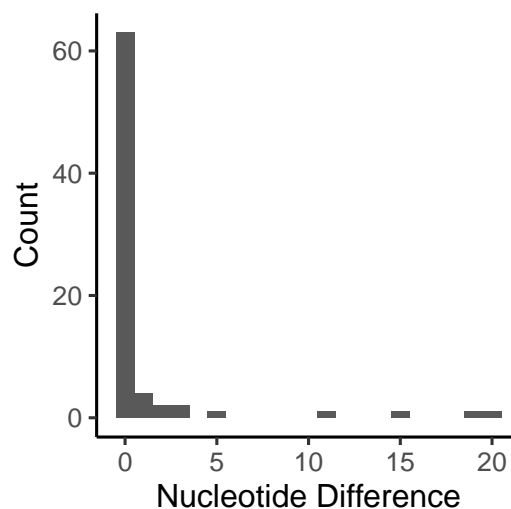
IGHV2–26*01

31 sequences assigned
28 (90.3%) exact matches, in which:
28 unique CDR3
5 unique J



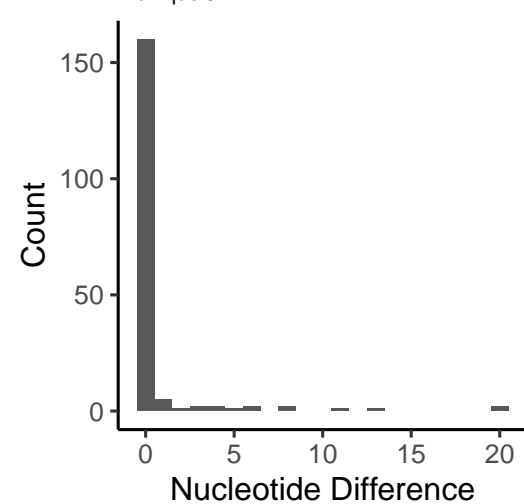
IGHV3–7*03

79 sequences assigned
63 (79.7%) exact matches, in which:
63 unique CDR3
5 unique J



IGHV3–15*01

181 sequences assigned
160 (88.4%) exact matches, in which:
160 unique CDR3
7 unique J



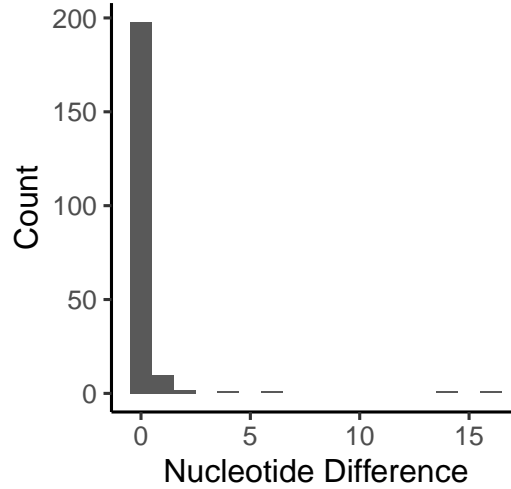
IGHV3-20*01

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



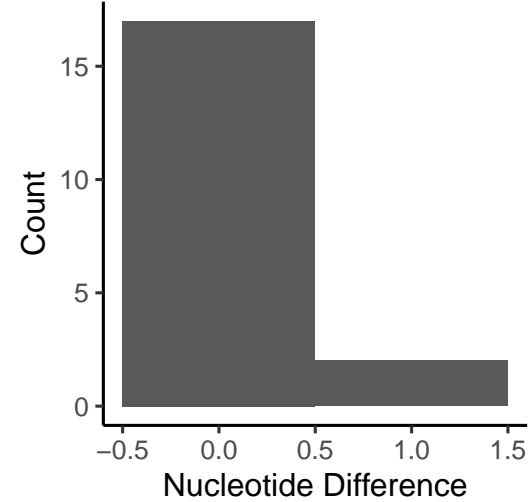
IGHV3-30-3*01

215 sequences assigned
198 (92.1%) exact matches, in which:
198 unique CDR3
7 unique J



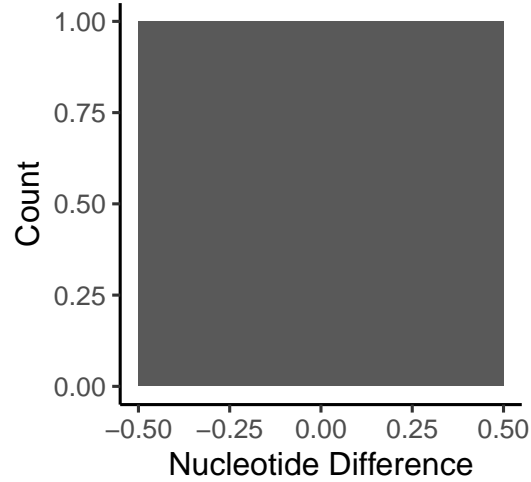
IGHV3-43*01

19 sequences assigned
17 (89.5%) exact matches, in which:
17 unique CDR3
4 unique J



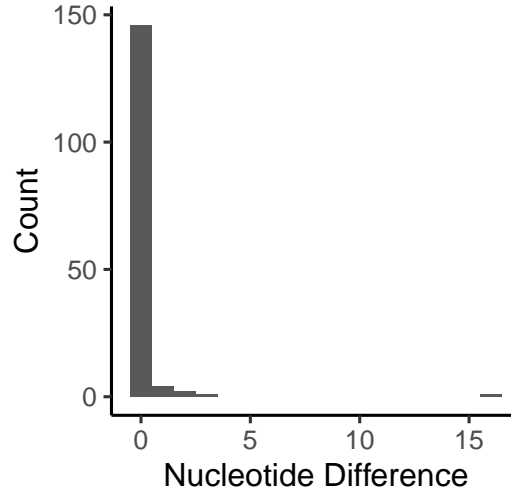
IGHV3-20*02

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



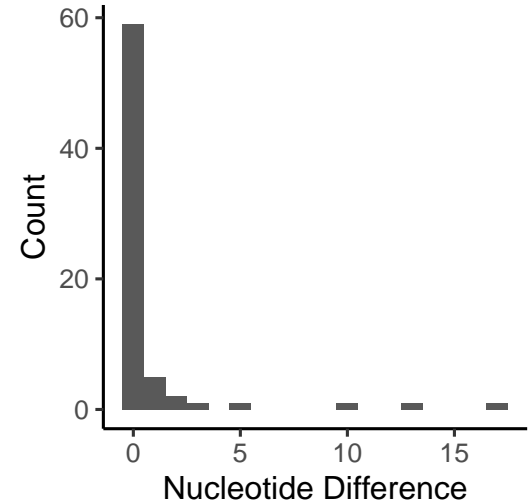
IGHV3-33*01

155 sequences assigned
146 (94.2%) exact matches, in which:
146 unique CDR3
6 unique J



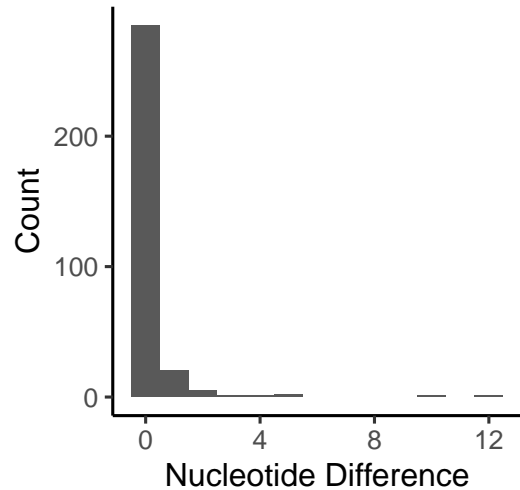
IGHV3-48*01

73 sequences assigned
59 (80.8%) exact matches, in which:
59 unique CDR3
5 unique J



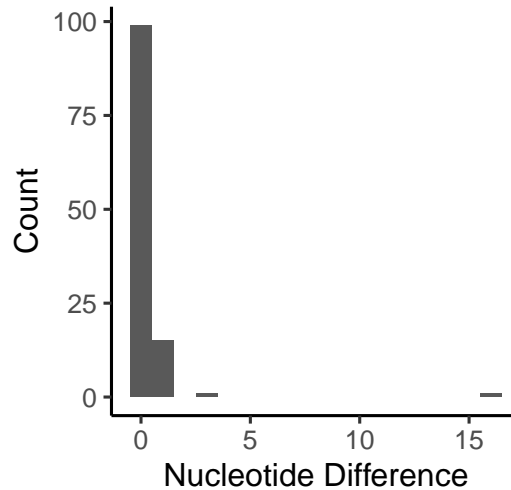
IGHV3-21*01

316 sequences assigned
285 (90.2%) exact matches, in which:
285 unique CDR3
7 unique J



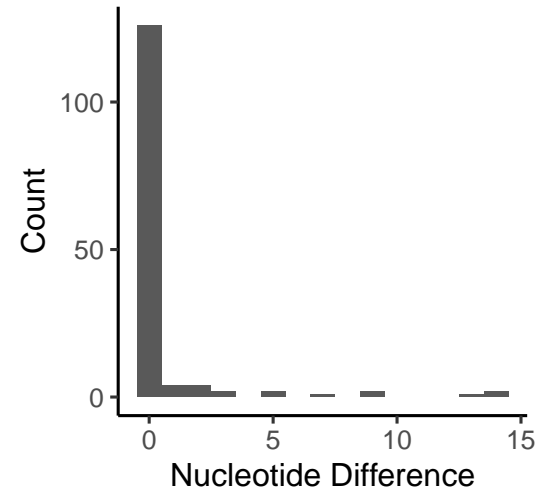
IGHV3-33*08

116 sequences assigned
99 (85.3%) exact matches, in which:
99 unique CDR3
6 unique J



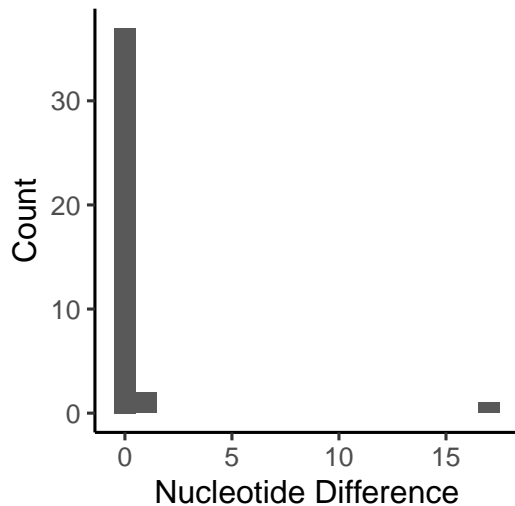
IGHV3-48*03

144 sequences assigned
126 (87.5%) exact matches, in which:
126 unique CDR3
6 unique J



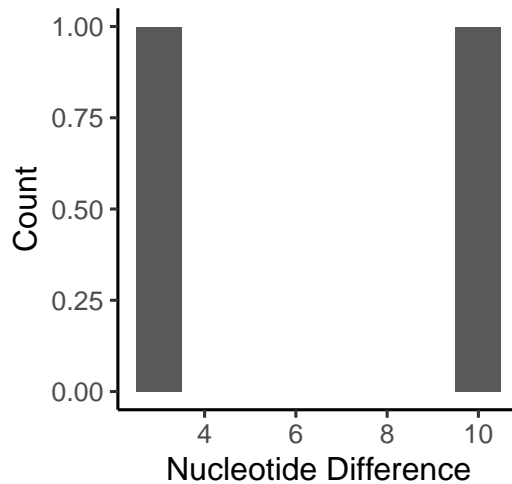
IGHV3-49*03

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



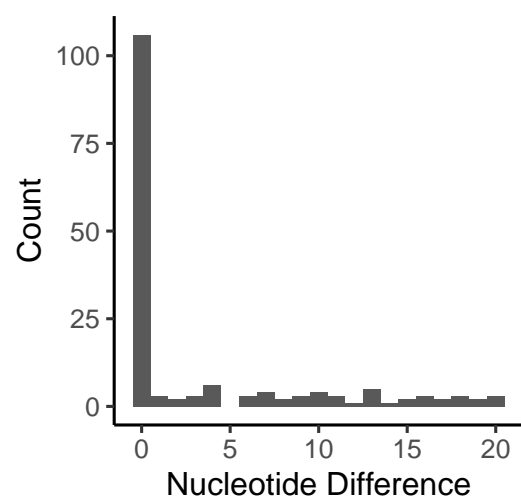
IGHV3-64*02

2 sequences assigned
No exact matches.



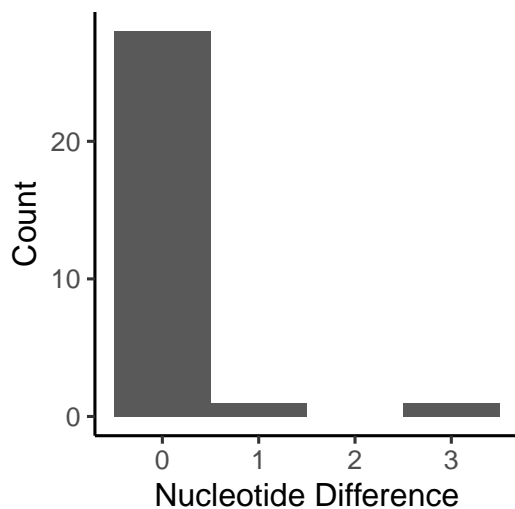
IGHV3-74*01

168 sequences assigned
106 (63.1%) exact matches, in which:
106 unique CDR3
6 unique J



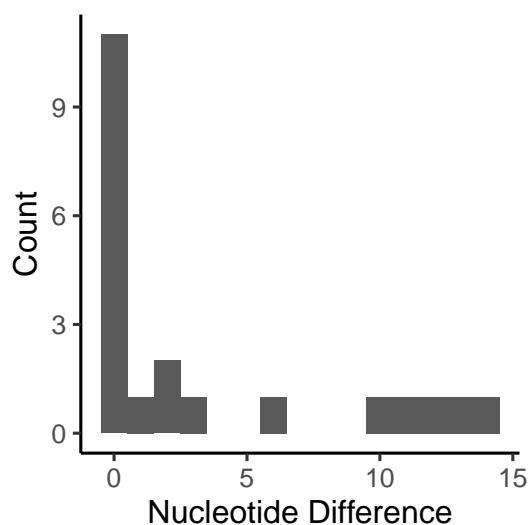
IGHV3-49*04

30 sequences assigned
28 (93.3%) exact matches, in which:
28 unique CDR3
4 unique J



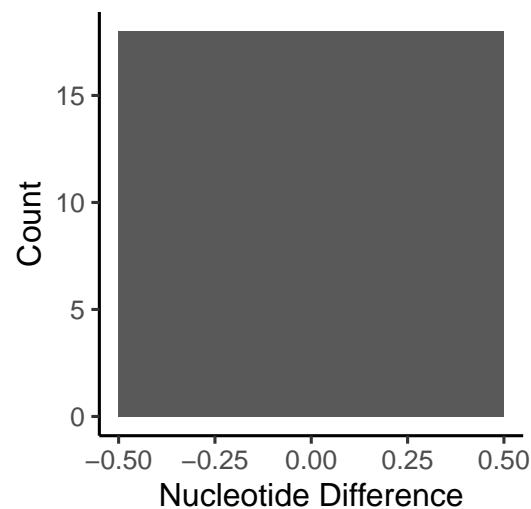
IGHV3-72*01

21 sequences assigned
11 (52.4%) exact matches, in which:
11 unique CDR3
5 unique J



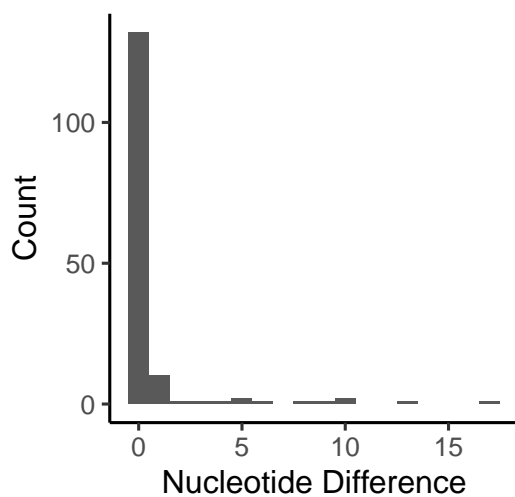
IGHV3-43D*04

18 sequences assigned
18 (100%) exact matches, in which:
18 unique CDR3
2 unique J



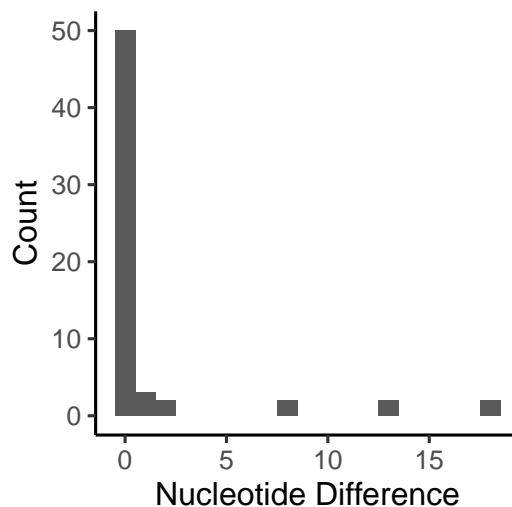
IGHV3-53*02

155 sequences assigned
132 (85.2%) exact matches, in which:
132 unique CDR3
7 unique J



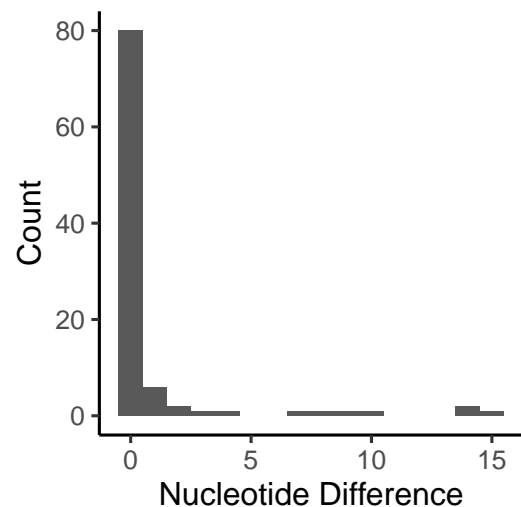
IGHV3-73*02

65 sequences assigned
50 (76.9%) exact matches, in which:
50 unique CDR3
6 unique J



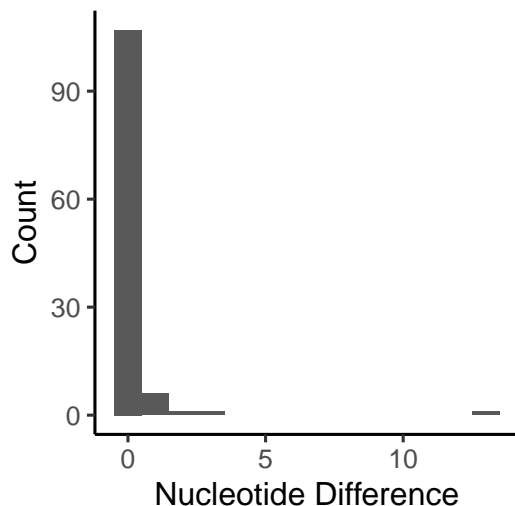
IGHV3-64D*06

99 sequences assigned
80 (80.8%) exact matches, in which:
80 unique CDR3
6 unique J



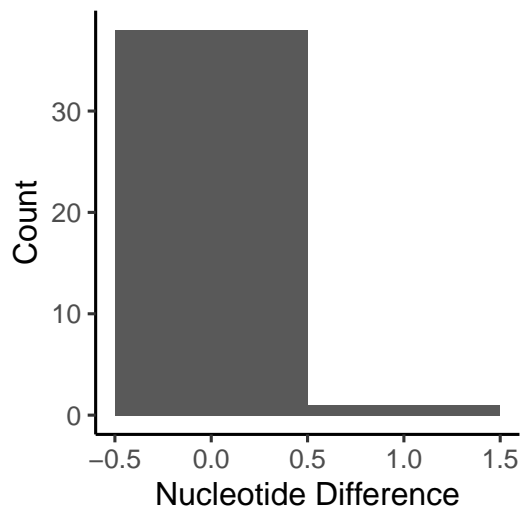
IGHV4-4*02

116 sequences assigned
107 (92.2%) exact matches, in which:
107 unique CDR3
6 unique J



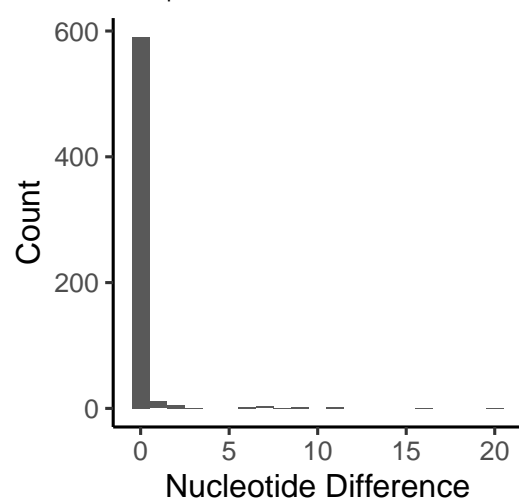
IGHV4-30-2*01

39 sequences assigned
38 (97.4%) exact matches, in which:
38 unique CDR3
5 unique J



IGHV4-34*01

626 sequences assigned
591 (94.4%) exact matches, in which:
591 unique CDR3
7 unique J



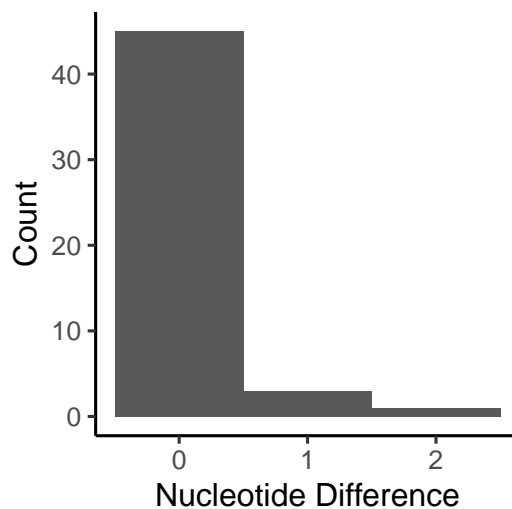
IGHV4-28*01

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



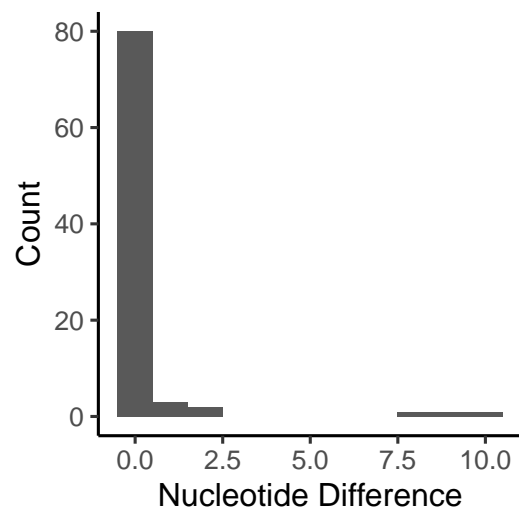
IGHV4-30-4*01

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



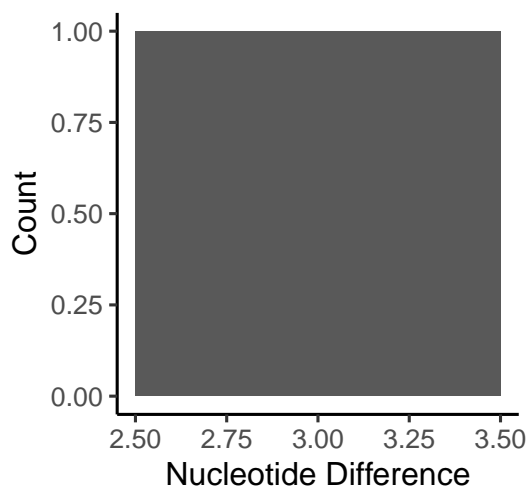
IGHV4-38-2*01

88 sequences assigned
80 (90.9%) exact matches, in which:
80 unique CDR3
5 unique J



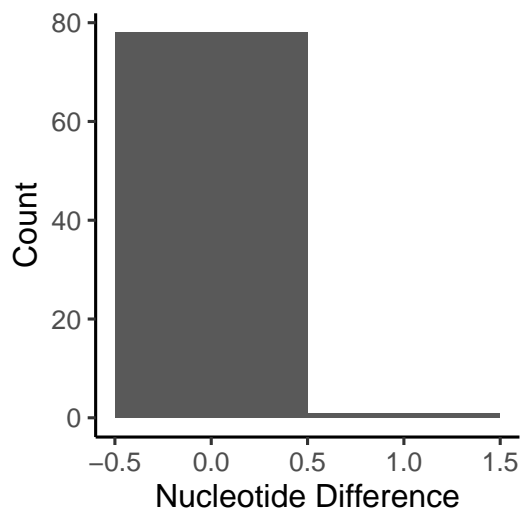
IGHV4-28*07

1 sequences assigned
No exact matches.



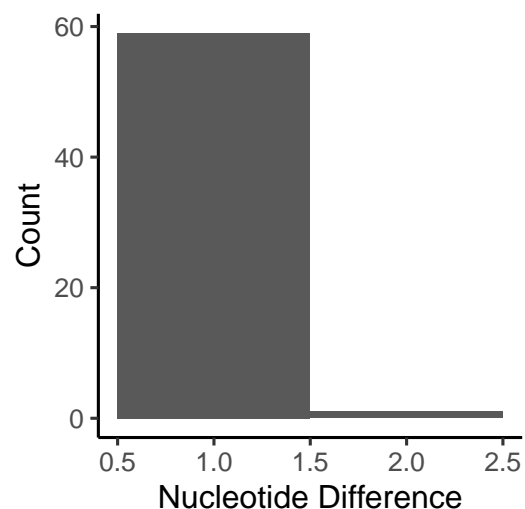
IGHV4-31*03

79 sequences assigned
78 (98.7%) exact matches, in which:
78 unique CDR3
5 unique J



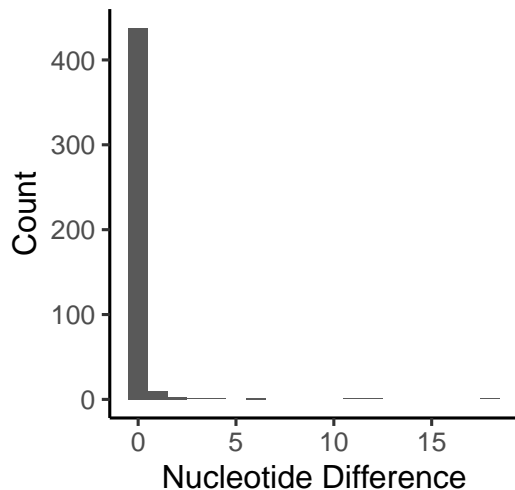
IGHV4-38-2*02

60 sequences assigned
No exact matches.



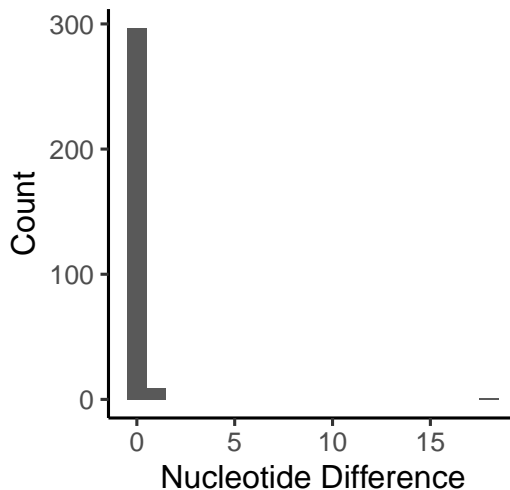
IGHV4-39*01

458 sequences assigned
438 (95.6%) exact matches, in which:
438 unique CDR3
7 unique J



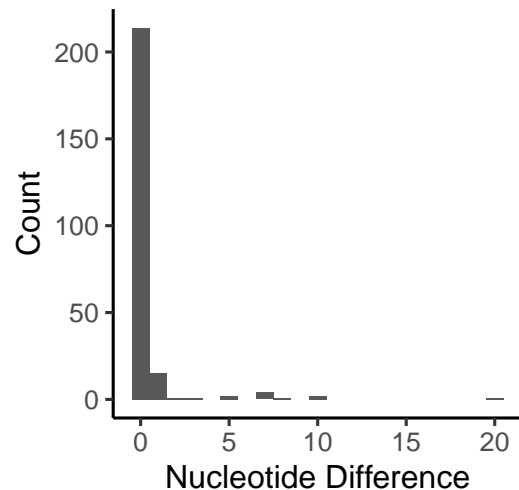
IGHV5-10-1*03

308 sequences assigned
297 (96.4%) exact matches, in which:
297 unique CDR3
6 unique J



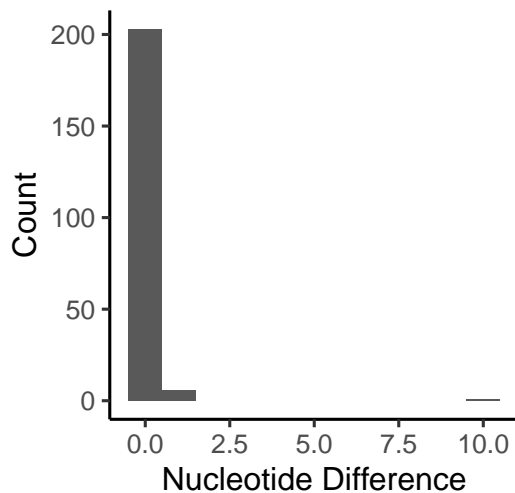
IGHV7-4-1*02

241 sequences assigned
214 (88.8%) exact matches, in which:
214 unique CDR3
6 unique J



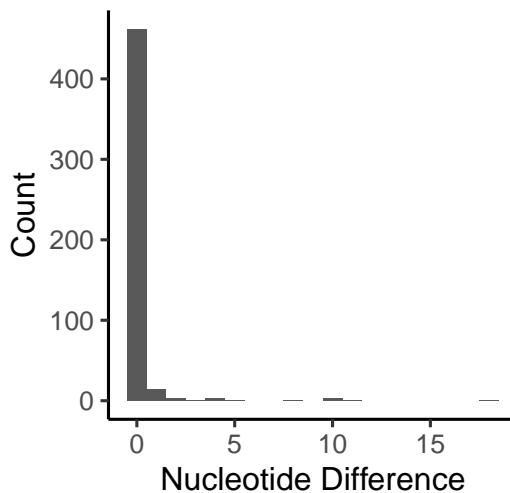
IGHV4-59*01

210 sequences assigned
203 (96.7%) exact matches, in which:
203 unique CDR3
7 unique J



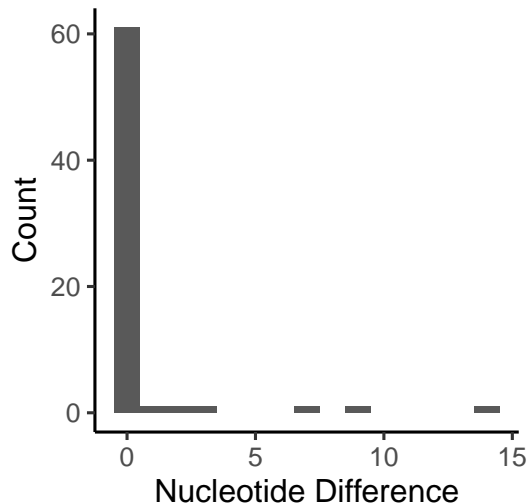
IGHV5-51*01

492 sequences assigned
462 (93.9%) exact matches, in which:
462 unique CDR3
7 unique J



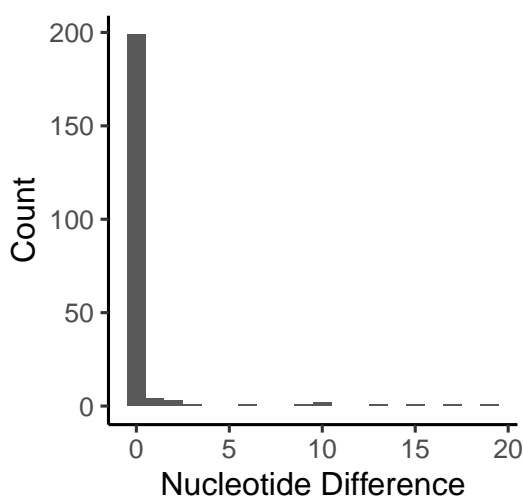
IGHV4-61*01

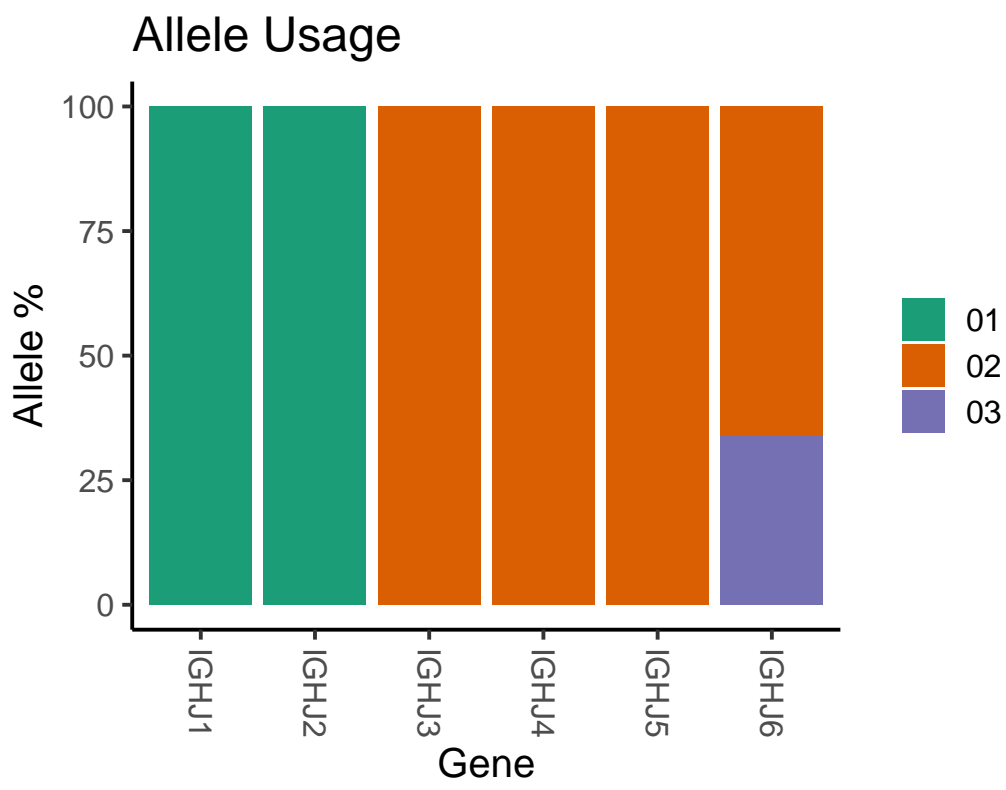
67 sequences assigned
61 (91%) exact matches, in which:
61 unique CDR3
6 unique J



IGHV6-1*01

215 sequences assigned
199 (92.6%) exact matches, in which:
199 unique CDR3
7 unique J





Sequence Count by IGHJ6 allele usage



[illegible]