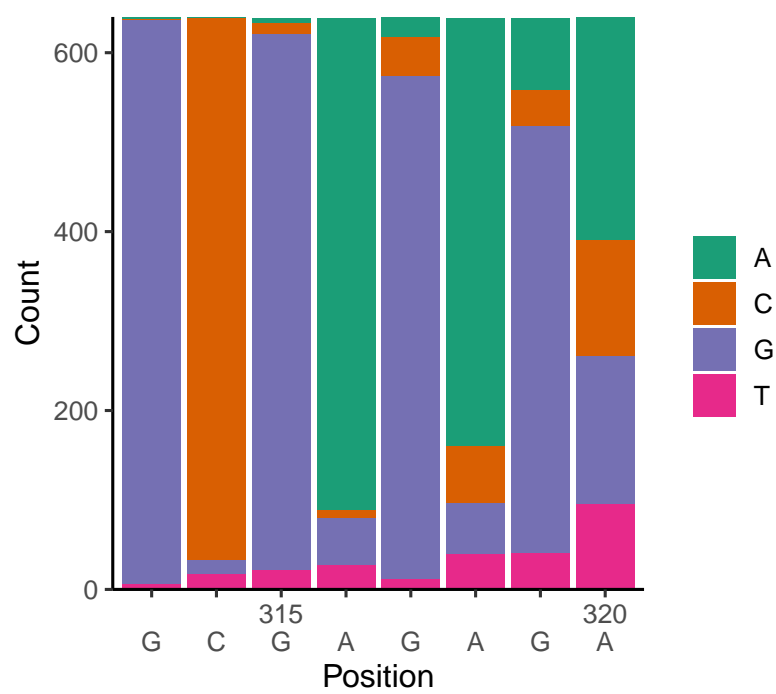
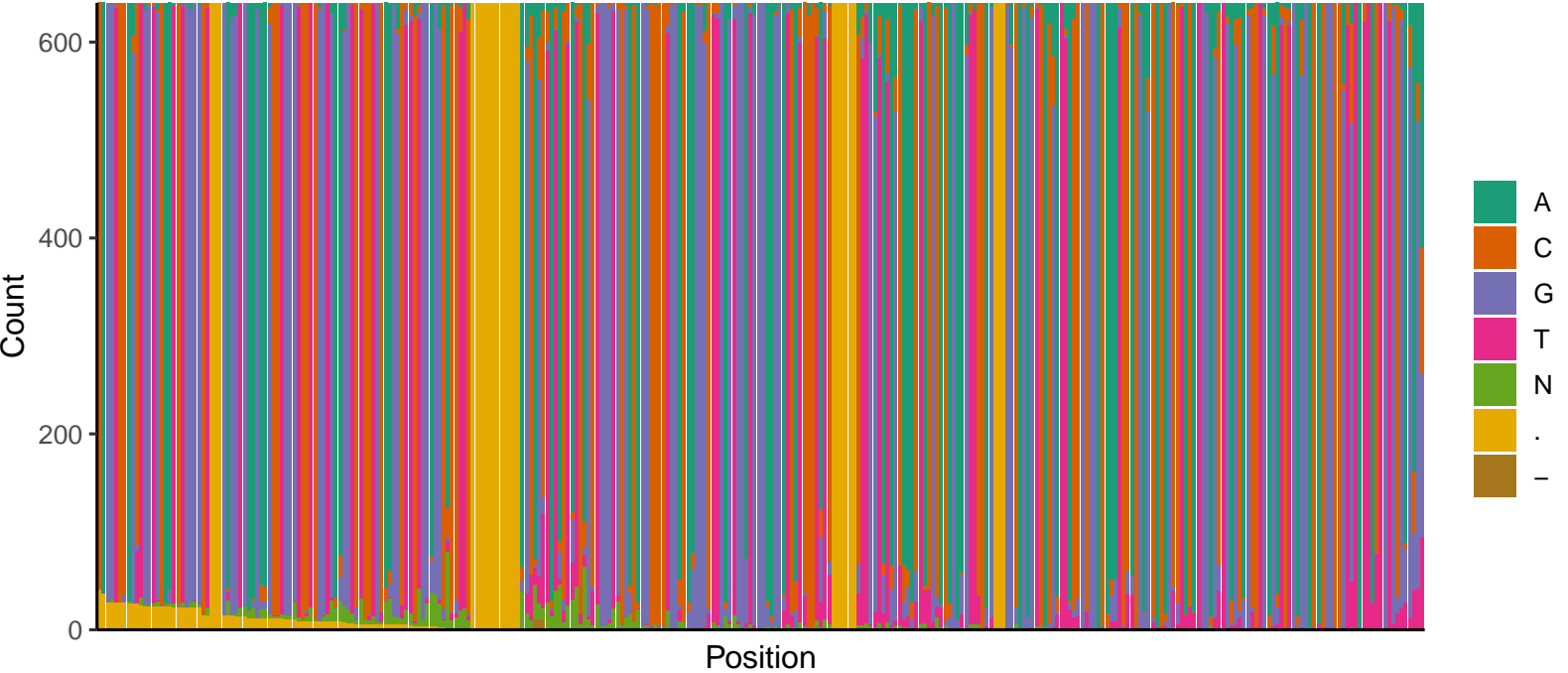


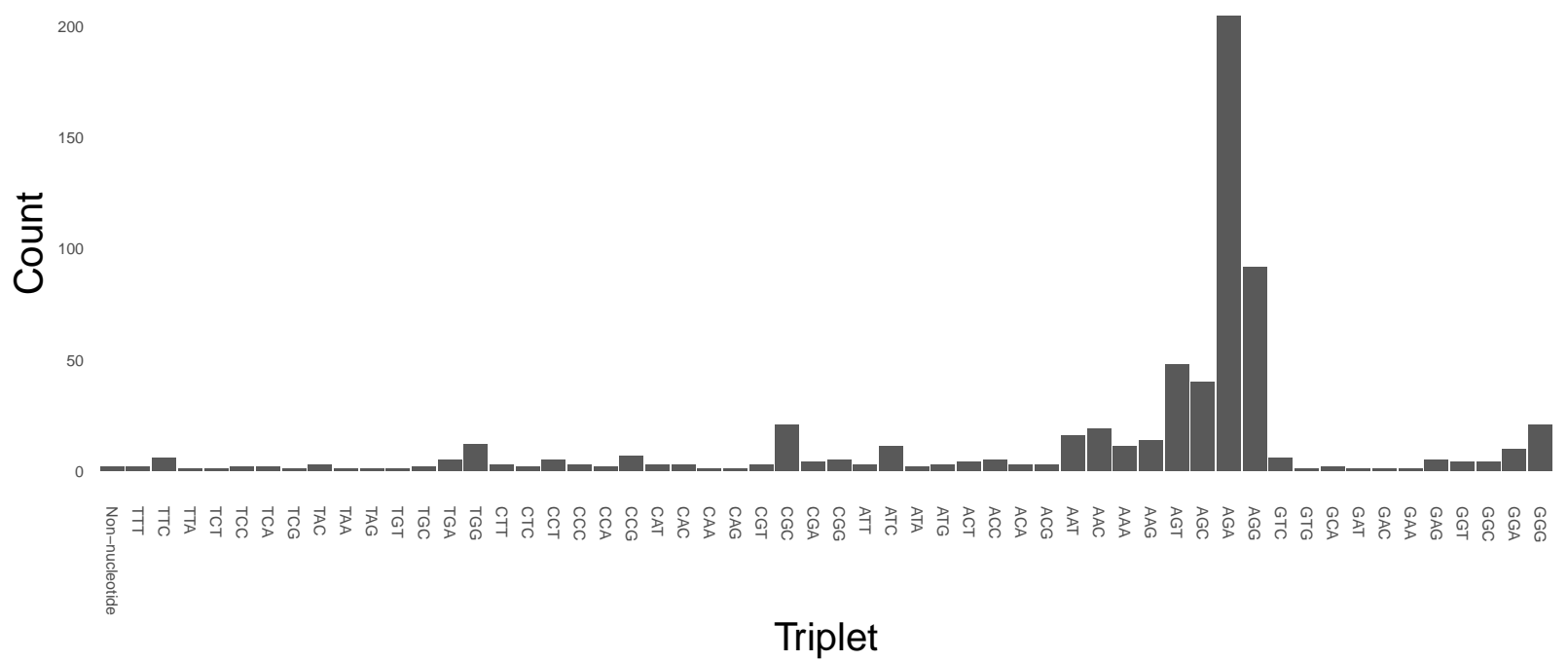
Gene IGHV1-69*08_C191T



Gene IGHV1-69*08_C191T

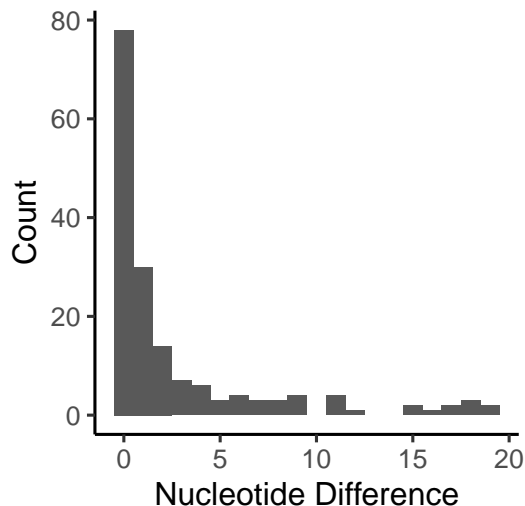


IGHV1-69*08_C191T- Final 3 nucleotides as a triplet



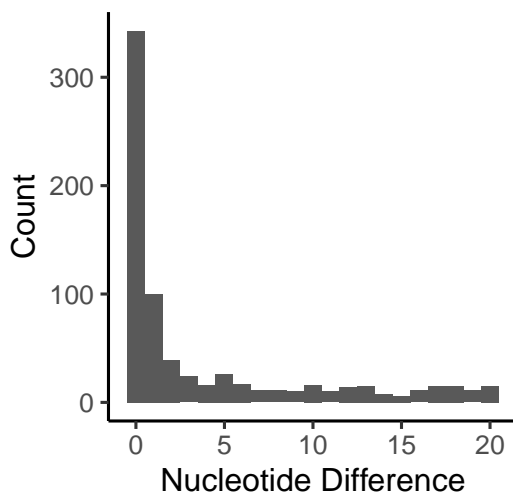
IGHV1-2*04

198 sequences assigned
78 (39.4%) exact matches, in which:
77 unique CDR3
6 unique J



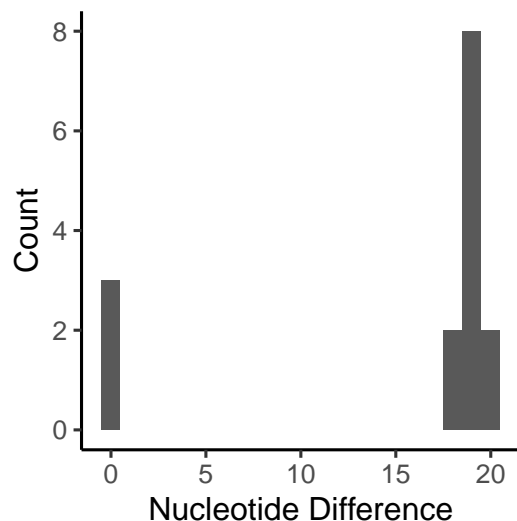
IGHV1-8*01

854 sequences assigned
343 (40.2%) exact matches, in which:
342 unique CDR3
7 unique J



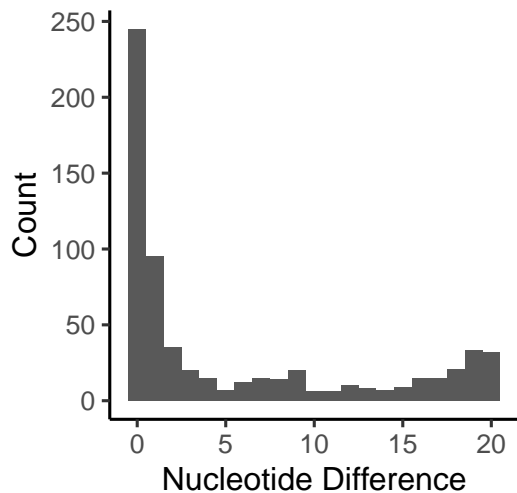
IGHV1-45*02

19 sequences assigned
3 (15.8%) exact matches, in which:
3 unique CDR3
3 unique J



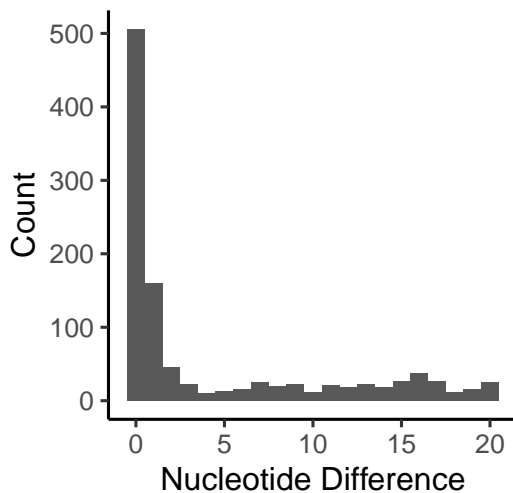
IGHV1-2*06

899 sequences assigned
245 (27.3%) exact matches, in which:
244 unique CDR3
7 unique J



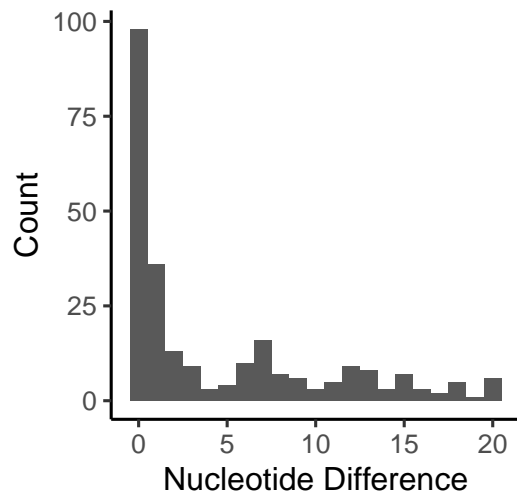
IGHV1-18*01

1460 sequences assigned
506 (34.7%) exact matches, in which:
504 unique CDR3
7 unique J



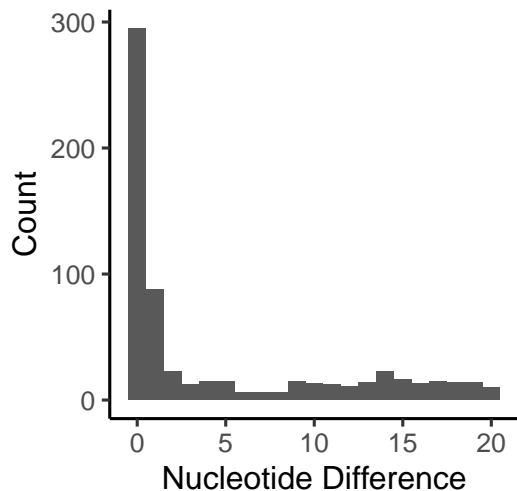
IGHV1-46*01

407 sequences assigned
98 (24.1%) exact matches, in which:
98 unique CDR3
6 unique J



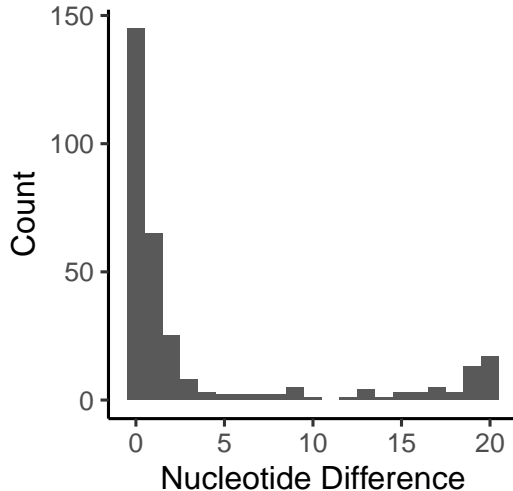
IGHV1-3*01

886 sequences assigned
295 (33.3%) exact matches, in which:
295 unique CDR3
7 unique J



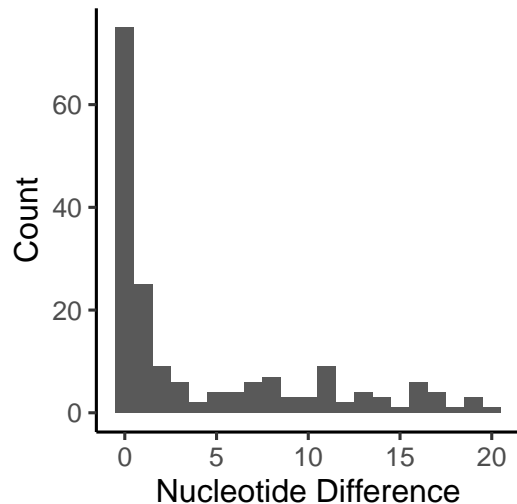
IGHV1-24*01

376 sequences assigned
145 (38.6%) exact matches, in which:
144 unique CDR3
7 unique J



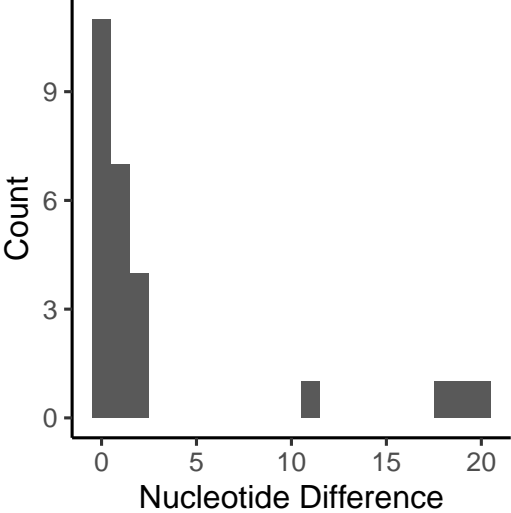
IGHV1-46*03

250 sequences assigned
75 (30%) exact matches, in which:
75 unique CDR3
5 unique J



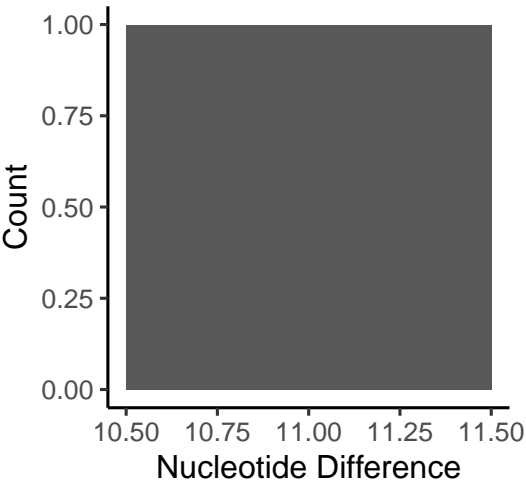
IGHV1-58*02

30 sequences assigned
11 (36.7%) exact matches, in which:
11 unique CDR3
3 unique J



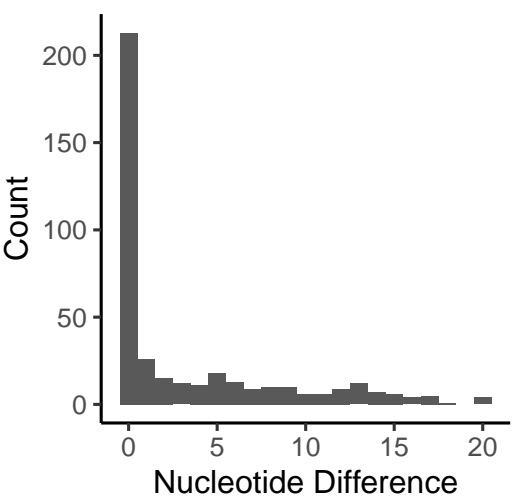
IGHV1-NL1*01

1 sequences assigned
No exact matches.



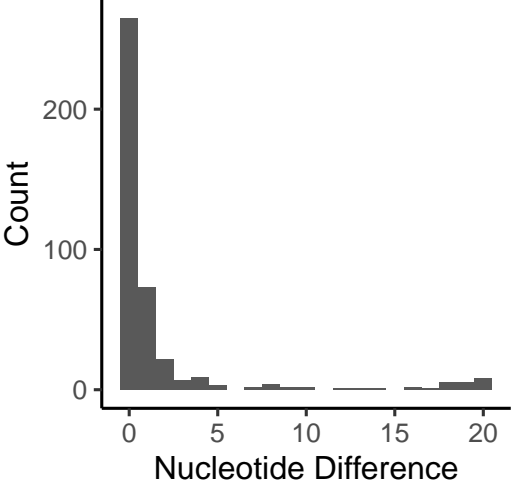
IGHV2-70*15

431 sequences assigned
213 (49.4%) exact matches, in which:
213 unique CDR3
7 unique J



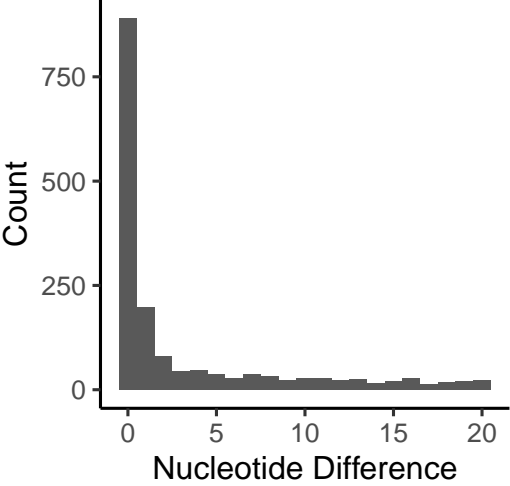
IGHV1-69*09

466 sequences assigned
265 (56.9%) exact matches, in which:
264 unique CDR3
6 unique J



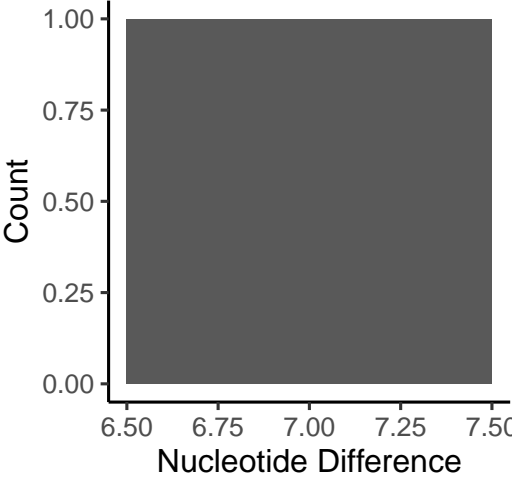
IGHV2-5*02

1854 sequences assigned
891 (48.1%) exact matches, in which:
887 unique CDR3
7 unique J



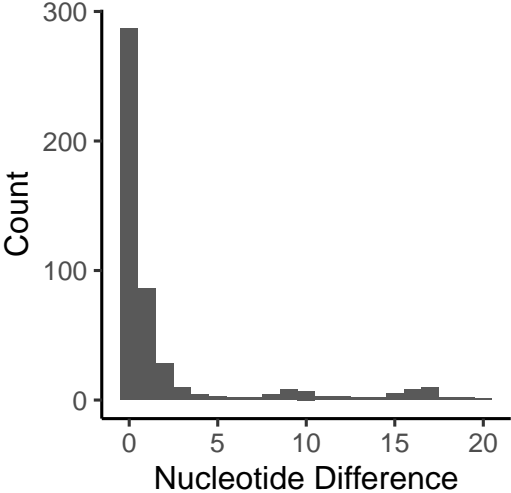
IGHV2-70D*04

1 sequences assigned
No exact matches.



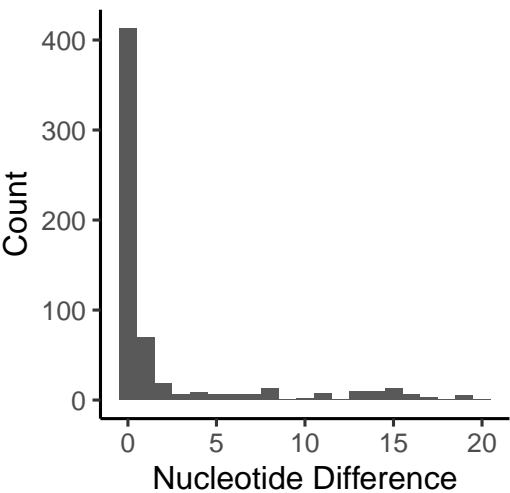
IGHV1-69*08_C191T

640 sequences assigned
287 (44.8%) exact matches, in which:
285 unique CDR3
6 unique J



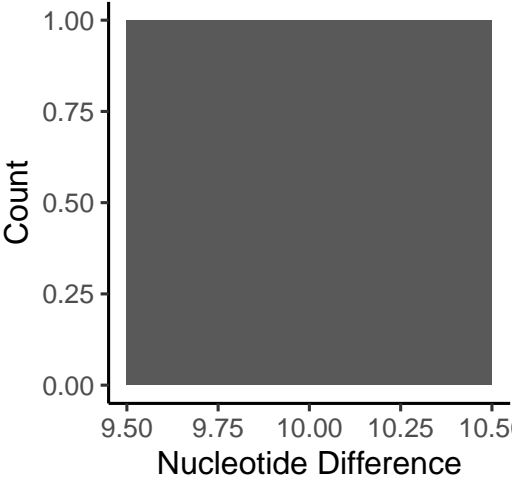
IGHV2-26*01

657 sequences assigned
413 (62.9%) exact matches, in which:
411 unique CDR3
6 unique J



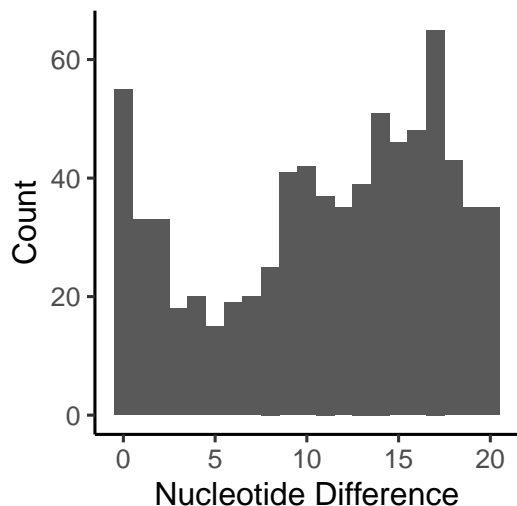
IGHV2-70D*14

1 sequences assigned
No exact matches.



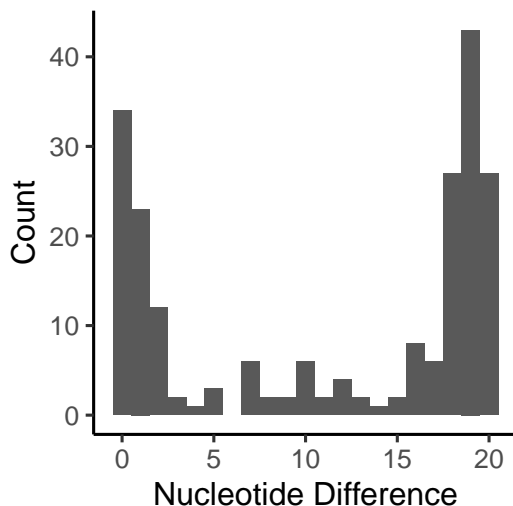
IGHV3-7*01

928 sequences assigned
55 (5.9%) exact matches, in which:
54 unique CDR3
6 unique J



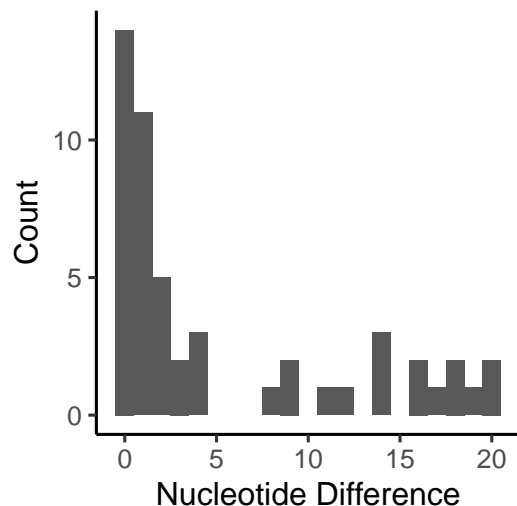
IGHV3-13*01

266 sequences assigned
34 (12.8%) exact matches, in which:
34 unique CDR3
5 unique J



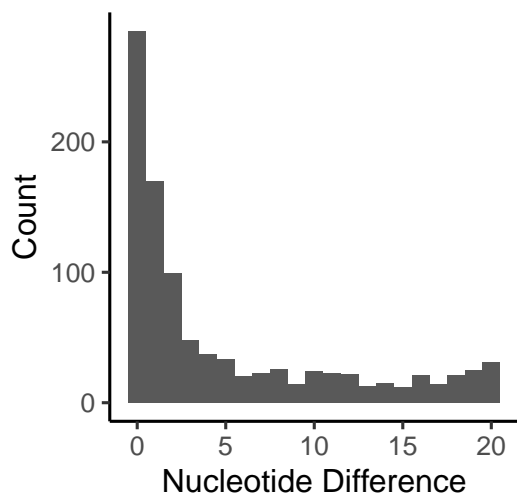
IGHV3-20*01

60 sequences assigned
14 (23.3%) exact matches, in which:
14 unique CDR3
4 unique J



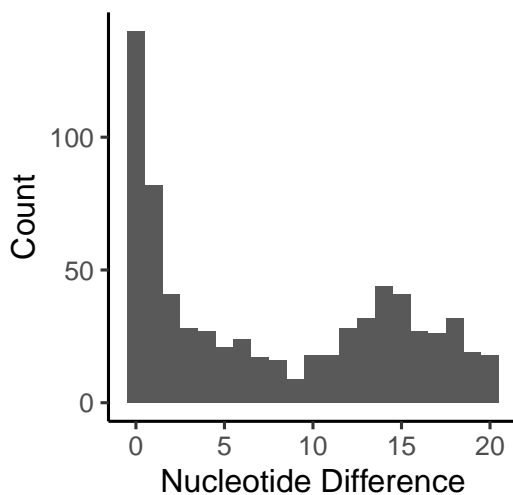
IGHV3-9*01

1393 sequences assigned
285 (20.5%) exact matches, in which:
280 unique CDR3
7 unique J



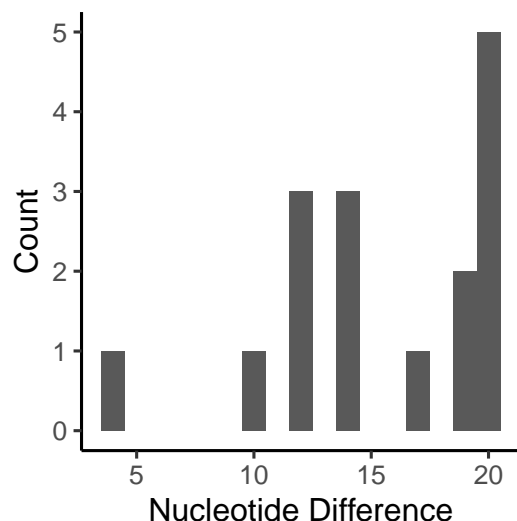
IGHV3-15*01

1037 sequences assigned
140 (13.5%) exact matches, in which:
138 unique CDR3
7 unique J



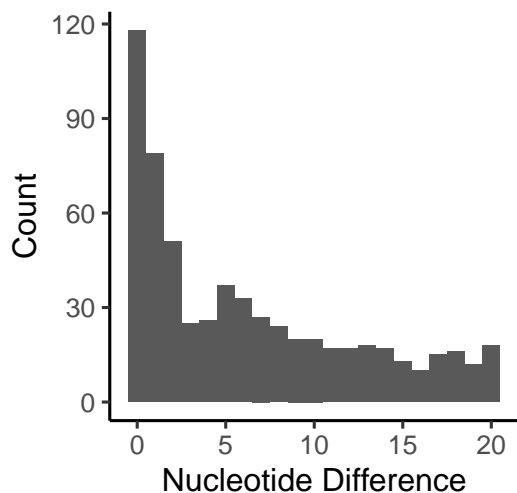
IGHV3-20*04

39 sequences assigned
No exact matches.



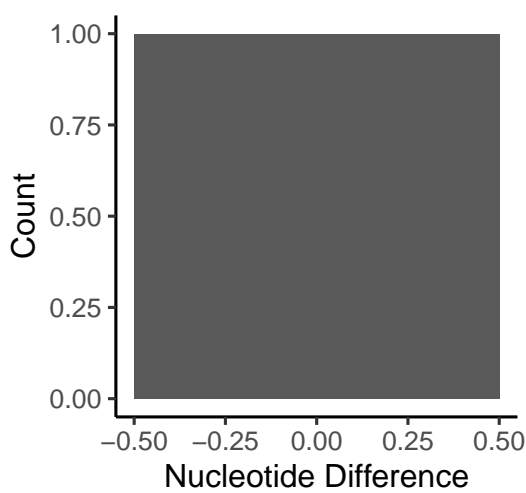
IGHV3-11*01

884 sequences assigned
118 (13.3%) exact matches, in which:
117 unique CDR3
7 unique J



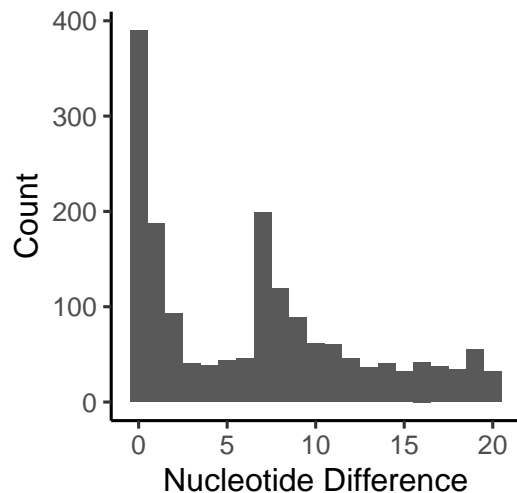
IGHV3-19*01

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



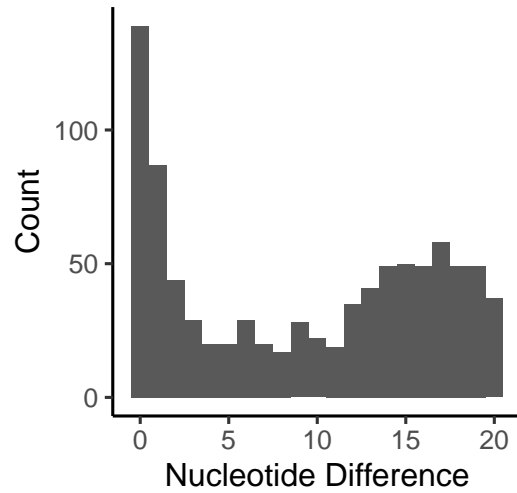
IGHV3-21*01

2270 sequences assigned
390 (17.2%) exact matches, in which:
388 unique CDR3
7 unique J



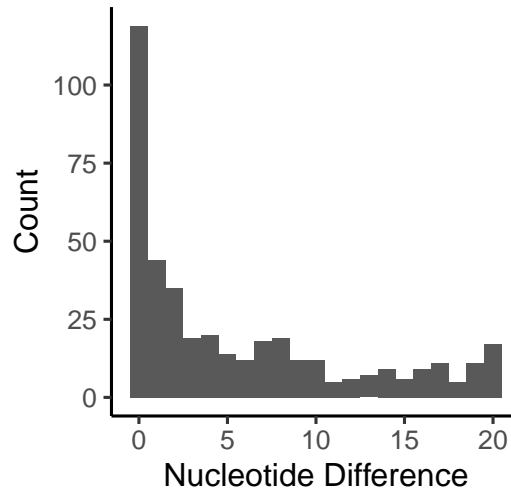
IGHV3-23*04

1246 sequences assigned
139 (11.2%) exact matches, in which:
139 unique CDR3
6 unique J



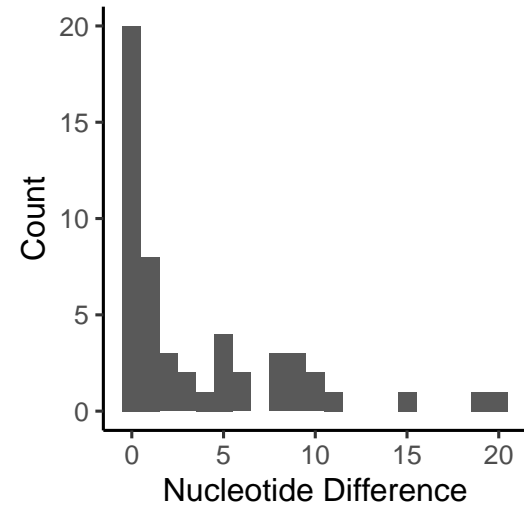
IGHV3-33*01

622 sequences assigned
119 (19.1%) exact matches, in which:
119 unique CDR3
6 unique J



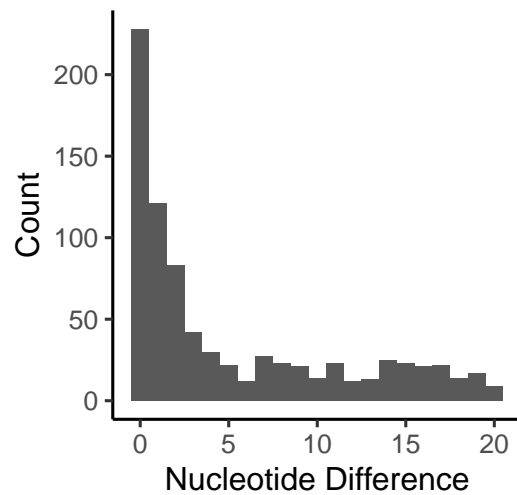
IGHV3-43*01

102 sequences assigned
20 (19.6%) exact matches, in which:
20 unique CDR3
3 unique J



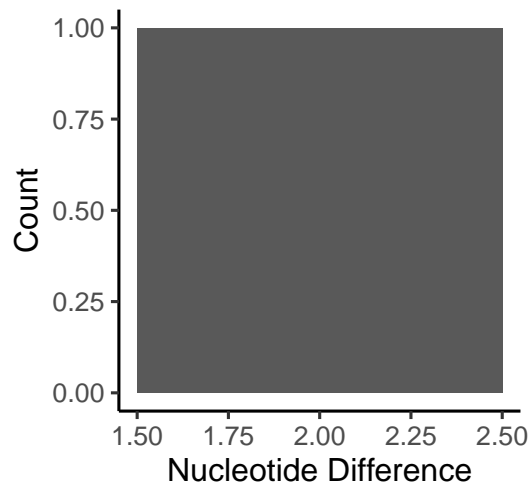
IGHV3-30-3*01

1132 sequences assigned
228 (20.1%) exact matches, in which:
227 unique CDR3
6 unique J



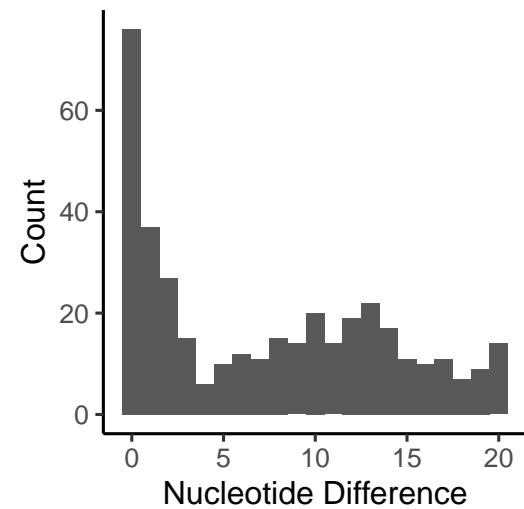
IGHV3-35*01

1 sequences assigned
No exact matches.



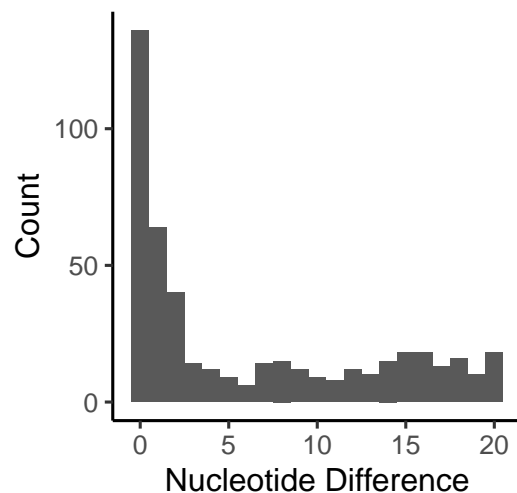
IGHV3-48*02

526 sequences assigned
76 (14.4%) exact matches, in which:
76 unique CDR3
5 unique J



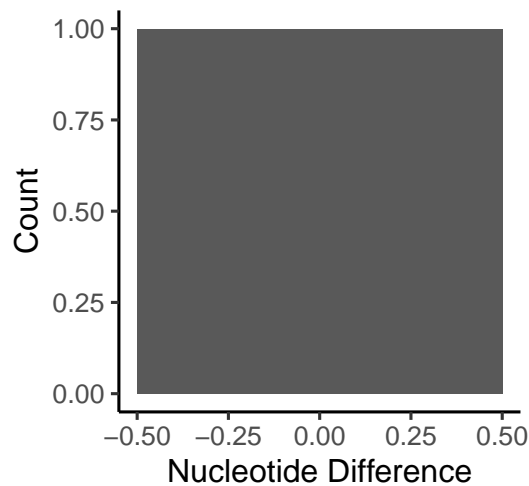
IGHV3-30*01

663 sequences assigned
136 (20.5%) exact matches, in which:
136 unique CDR3
5 unique J



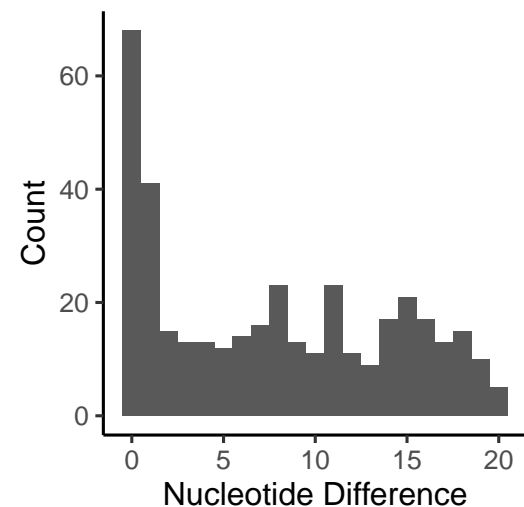
IGHV3-38-3*01

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



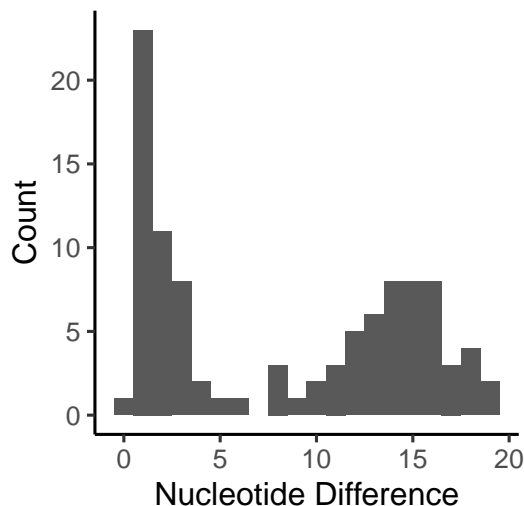
IGHV3-48*04

478 sequences assigned
68 (14.2%) exact matches, in which:
67 unique CDR3
5 unique J



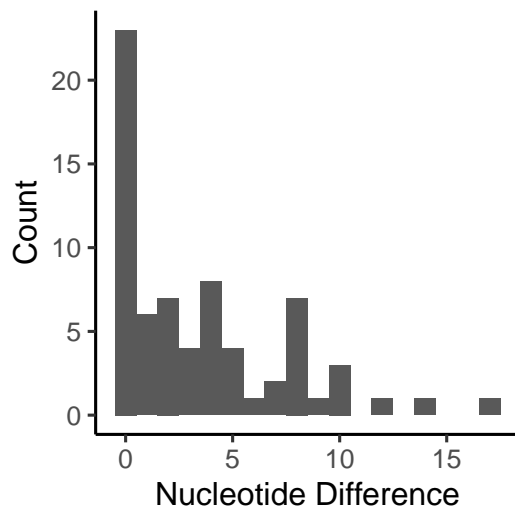
IGHV3-49*03

192 sequences assigned
1 (0.5%) exact matches, in which:
1 unique CDR3
1 unique J



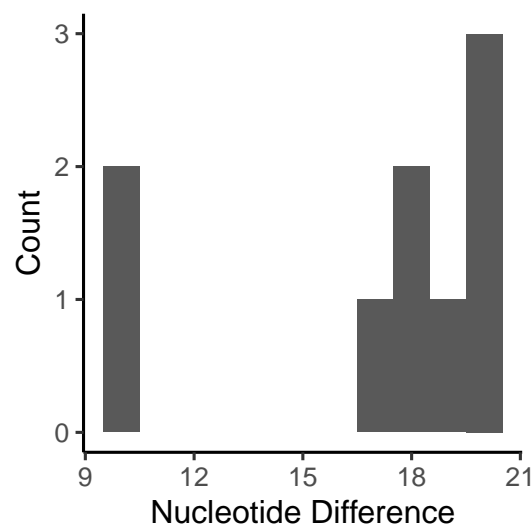
IGHV3-64*01

111 sequences assigned
23 (20.7%) exact matches, in which:
23 unique CDR3
5 unique J



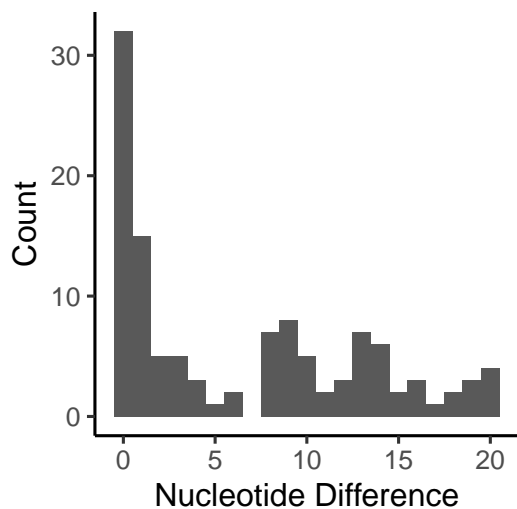
IGHV3-69-1*01

18 sequences assigned
No exact matches.



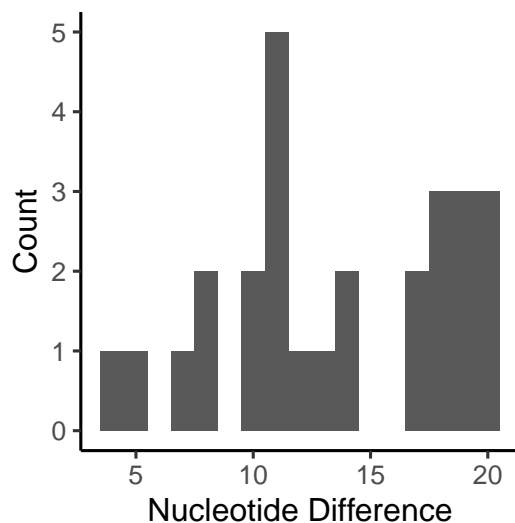
IGHV3-49*04

170 sequences assigned
32 (18.8%) exact matches, in which:
31 unique CDR3
4 unique J



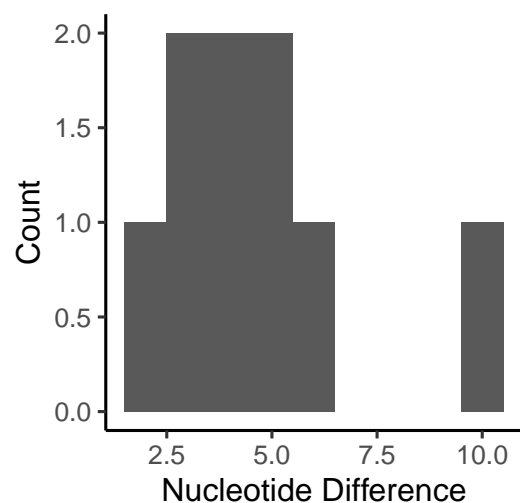
IGHV3-64*07

46 sequences assigned
No exact matches.



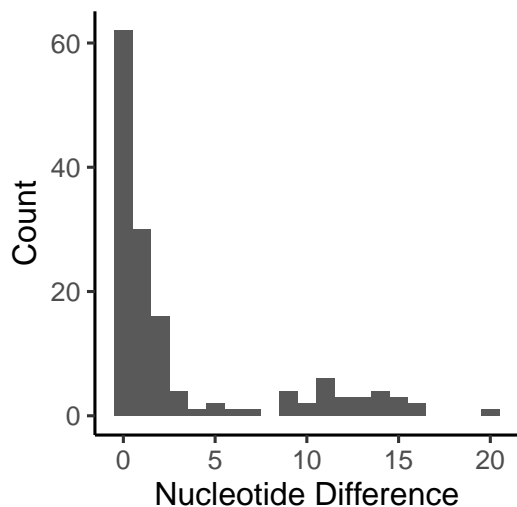
IGHV3-69-1*02

17 sequences assigned
No exact matches.



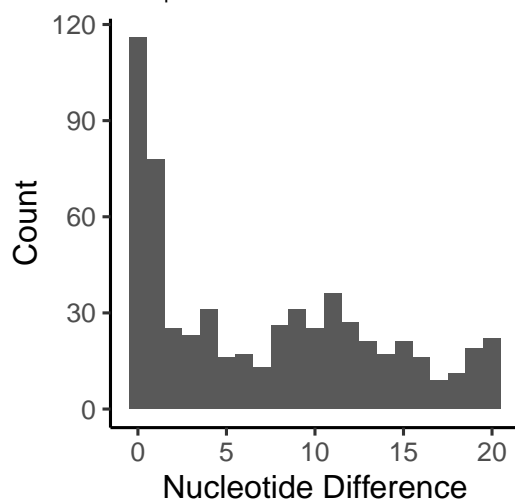
IGHV3-53*04

192 sequences assigned
62 (32.3%) exact matches, in which:
62 unique CDR3
6 unique J



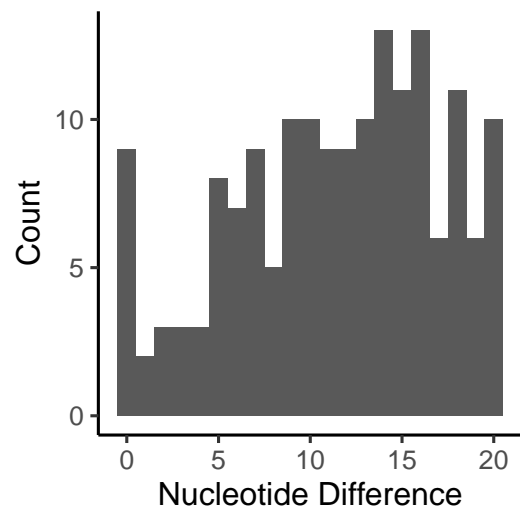
IGHV3-66*01

851 sequences assigned
116 (13.6%) exact matches, in which:
116 unique CDR3
7 unique J



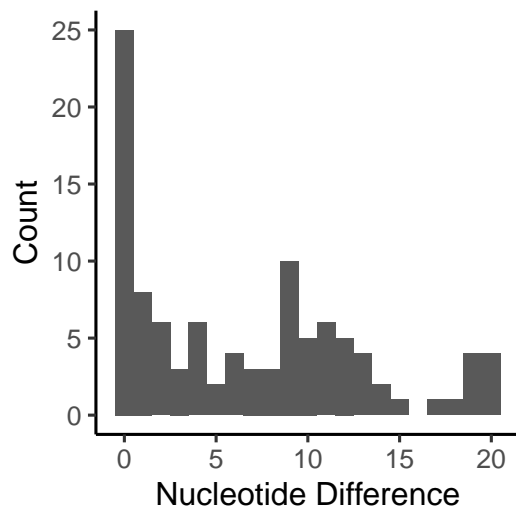
IGHV3-72*01

235 sequences assigned
9 (3.8%) exact matches, in which:
9 unique CDR3
4 unique J



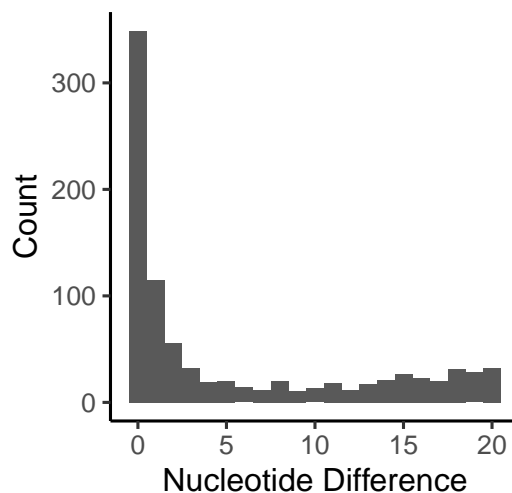
IGHV3-73*01

118 sequences assigned
25 (21.2%) exact matches, in which:
23 unique CDR3
6 unique J



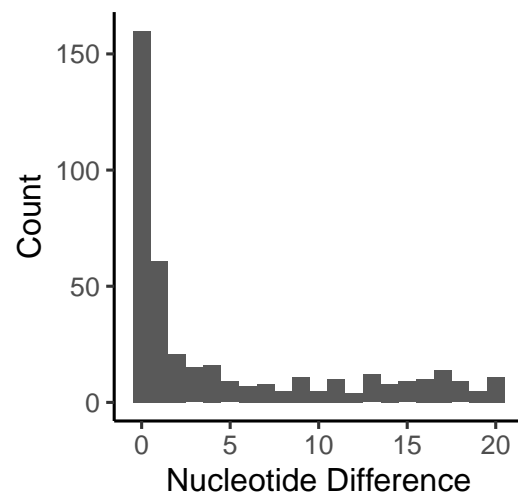
IGHV4-4*02

1153 sequences assigned
349 (30.3%) exact matches, in which:
348 unique CDR3
7 unique J



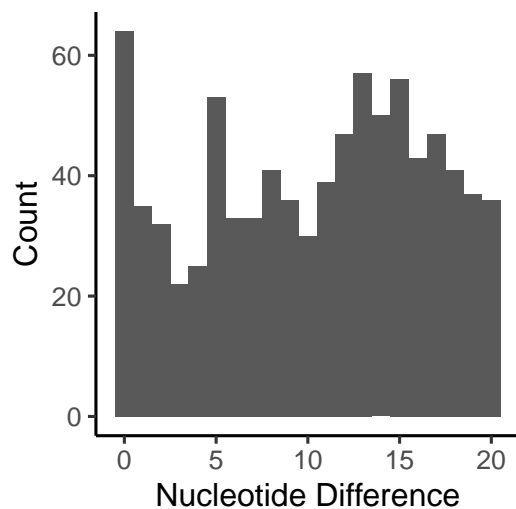
IGHV4-30-4*01

587 sequences assigned
160 (27.3%) exact matches, in which:
159 unique CDR3
6 unique J



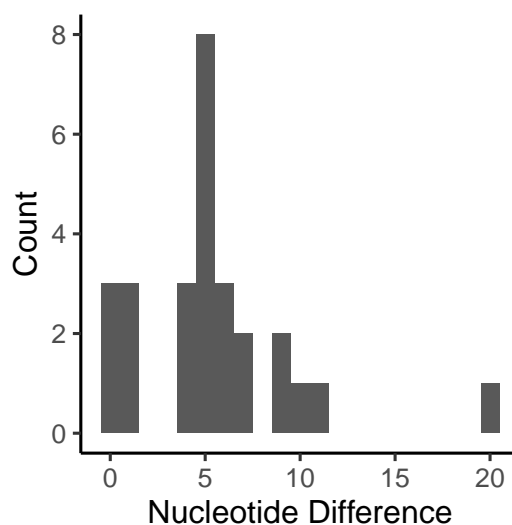
IGHV3-74*01

1096 sequences assigned
64 (5.8%) exact matches, in which:
61 unique CDR3
6 unique J



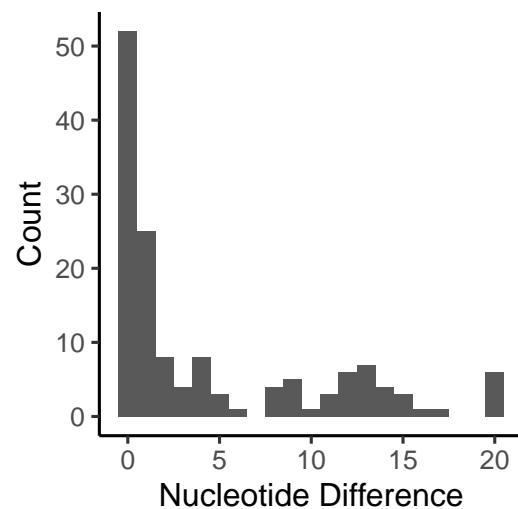
IGHV4-28*02

31 sequences assigned
3 (9.7%) exact matches, in which:
3 unique CDR3
2 unique J



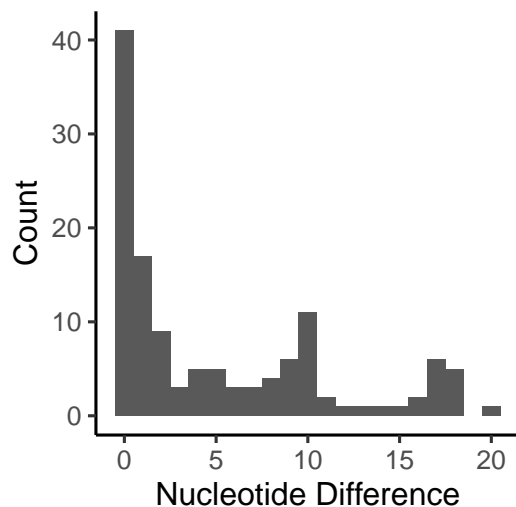
IGHV4-31*01

191 sequences assigned
52 (27.2%) exact matches, in which:
50 unique CDR3
6 unique J



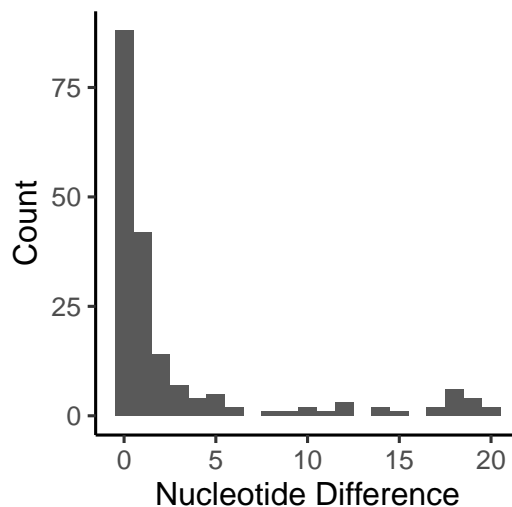
IGHV3-43D*03

175 sequences assigned
41 (23.4%) exact matches, in which:
41 unique CDR3
5 unique J



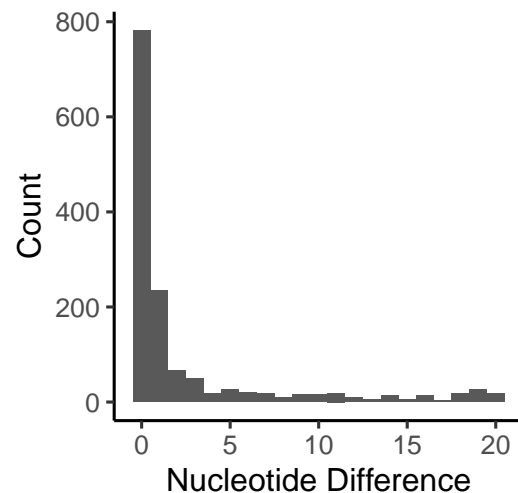
IGHV4-30-2*01

219 sequences assigned
88 (40.2%) exact matches, in which:
87 unique CDR3
7 unique J



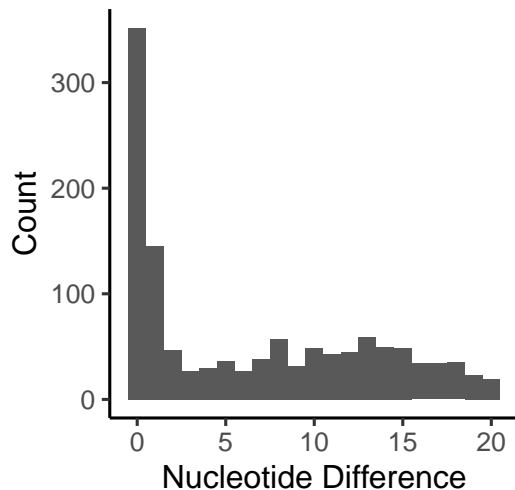
IGHV4-34*01

1625 sequences assigned
782 (48.1%) exact matches, in which:
780 unique CDR3
7 unique J



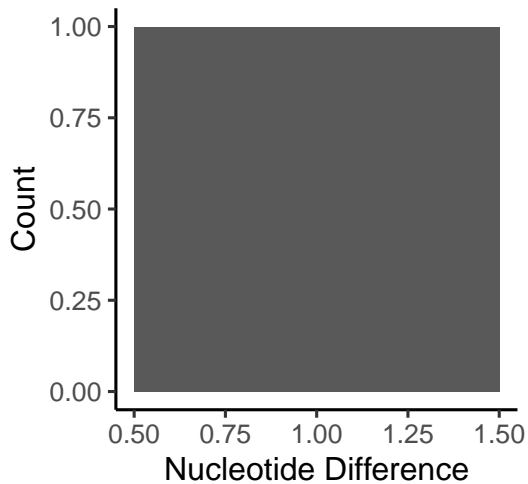
IGHV4-38-2*02

1547 sequences assigned
352 (22.8%) exact matches, in which:
350 unique CDR3
6 unique J



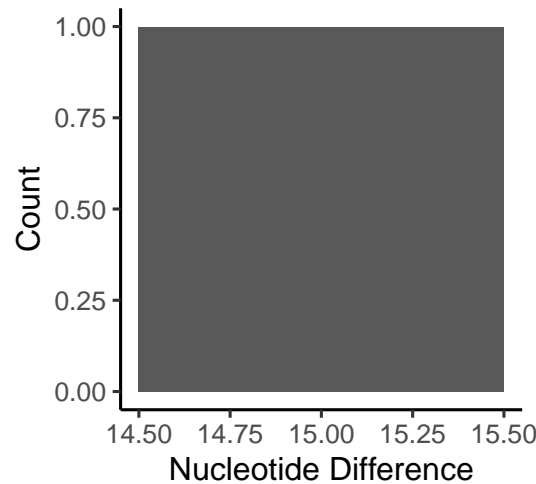
IGHV4-55*02

1 sequences assigned
No exact matches.



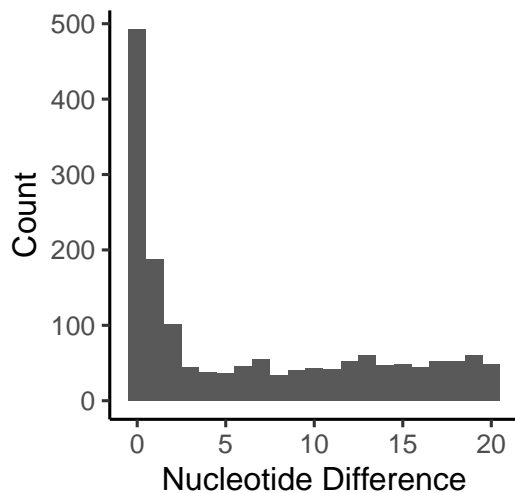
IGHV4-61*01

1 sequences assigned
No exact matches.



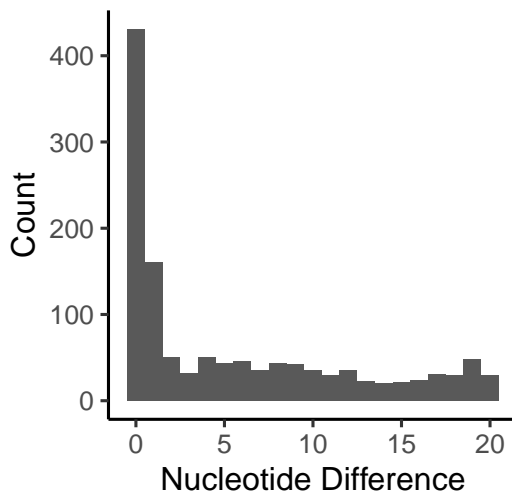
IGHV4-39*01

2229 sequences assigned
493 (22.1%) exact matches, in which:
488 unique CDR3
6 unique J



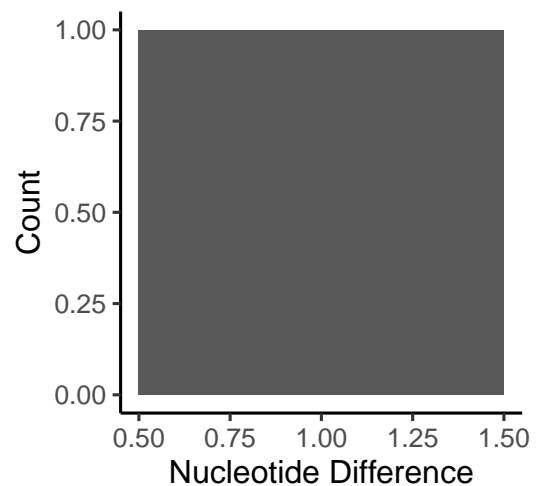
IGHV4-59*01

1575 sequences assigned
431 (27.4%) exact matches, in which:
431 unique CDR3
7 unique J



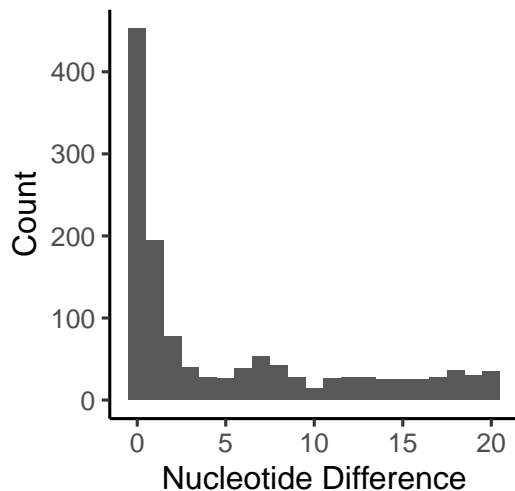
IGHV4-61*03

1 sequences assigned
No exact matches.



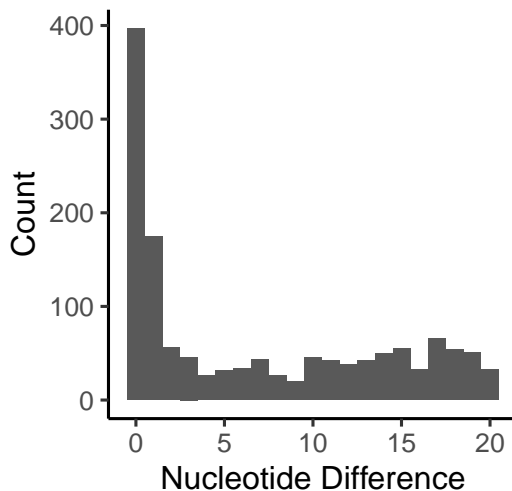
IGHV4-39*07

1753 sequences assigned
453 (25.8%) exact matches, in which:
452 unique CDR3
6 unique J



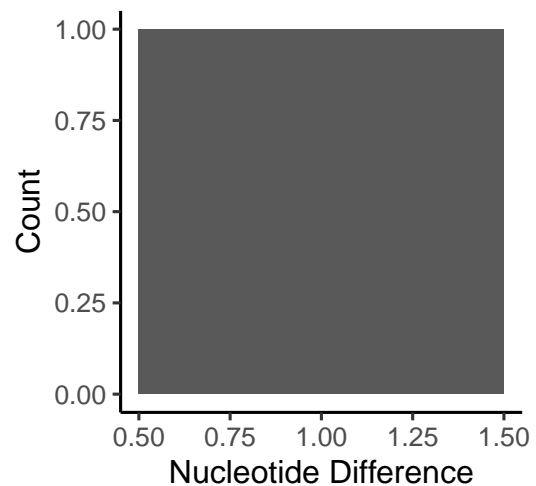
IGHV4-59*08

1703 sequences assigned
397 (23.3%) exact matches, in which:
393 unique CDR3
7 unique J



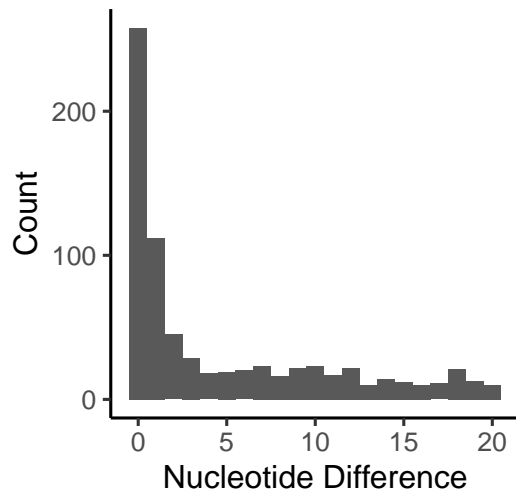
IGHV4-61*08

1 sequences assigned
No exact matches.



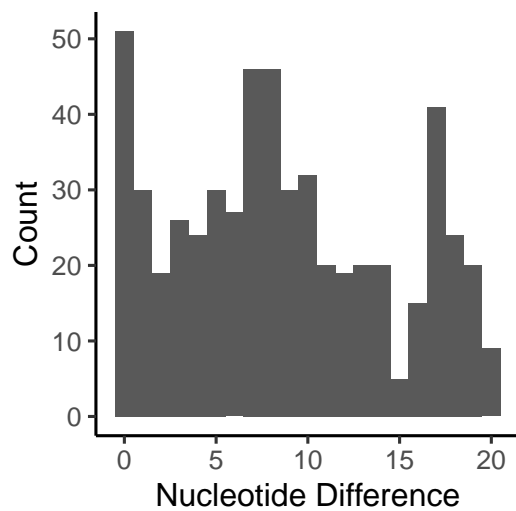
IGHV5–51*01

873 sequences assigned
258 (29.6%) exact matches, in which:
256 unique CDR3
7 unique J



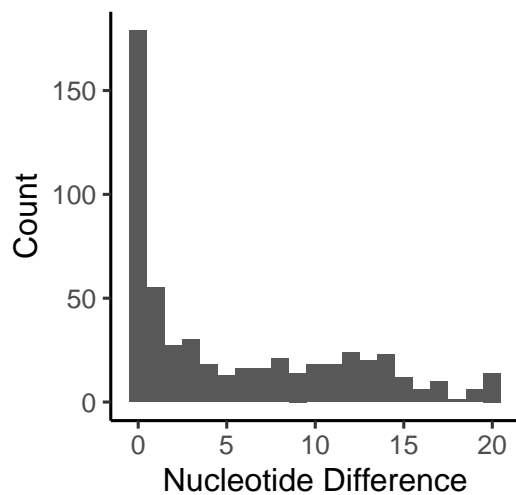
IGHV6–1*01

640 sequences assigned
51 (8%) exact matches, in which:
50 unique CDR3
5 unique J

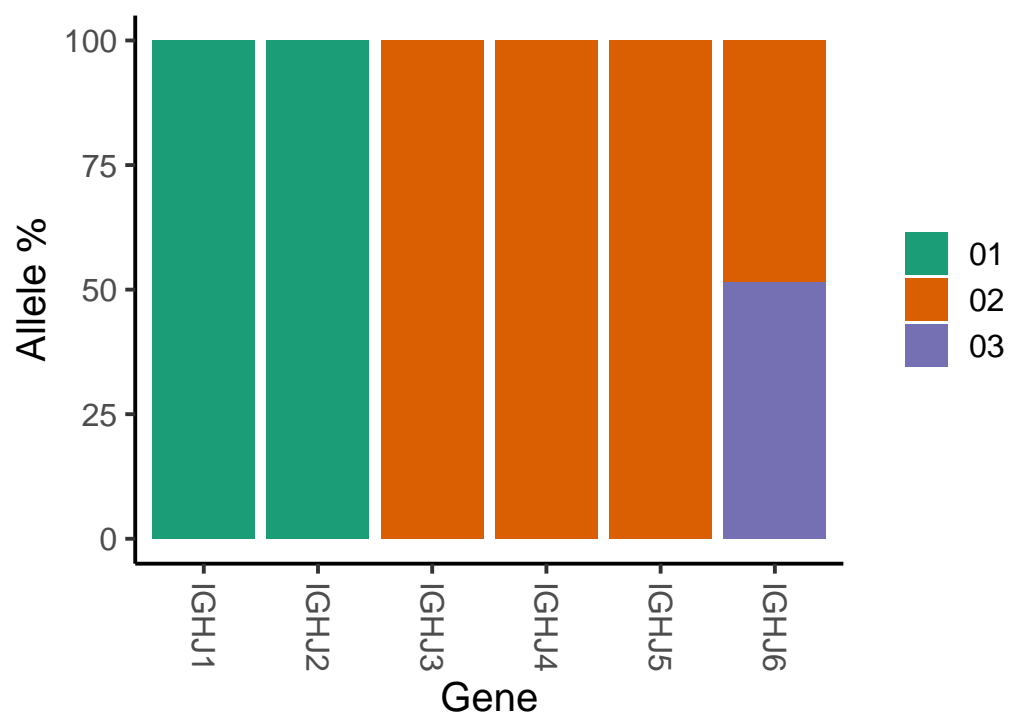


IGHV7–4–1*02

646 sequences assigned
179 (27.7%) exact matches, in which:
179 unique CDR3
6 unique J



Allele Usage



Sequence Count byIGHJ6 allele usage

