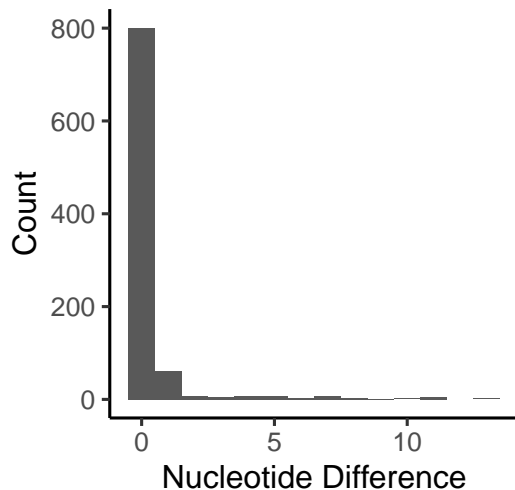


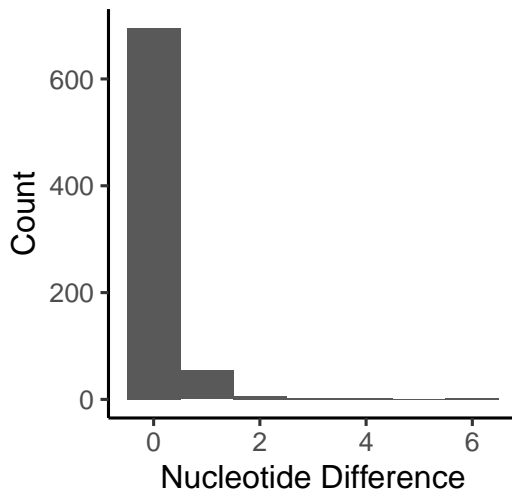
IGHV1-2*02

914 sequences assigned
801 (87.6%) exact matches, in which:
780 unique CDR3
6 unique J



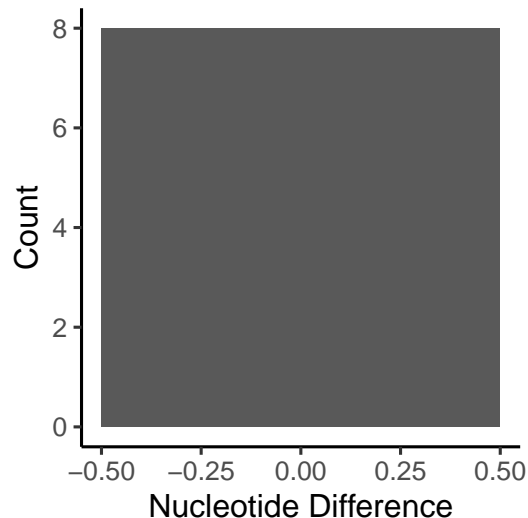
IGHV1-8*01

767 sequences assigned
696 (90.7%) exact matches, in which:
664 unique CDR3
6 unique J



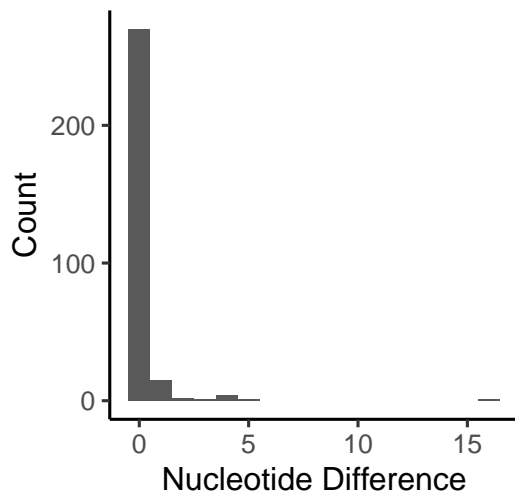
IGHV1-45*02

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



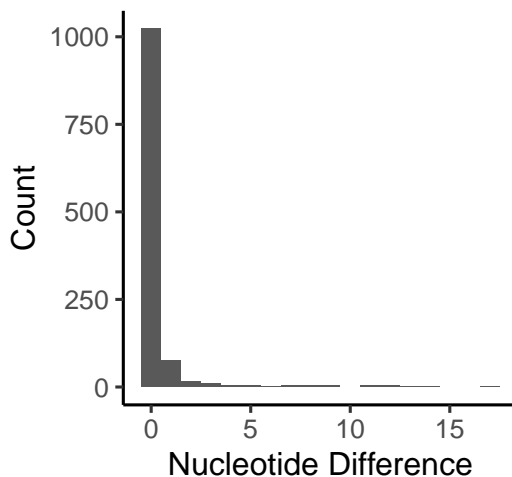
IGHV1-2*04

294 sequences assigned
270 (91.8%) exact matches, in which:
256 unique CDR3
5 unique J



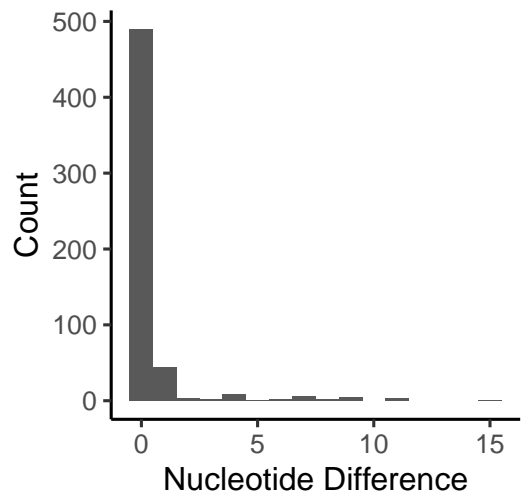
IGHV1-18*01

1154 sequences assigned
1023 (88.6%) exact matches, in which:
1002 unique CDR3
6 unique J



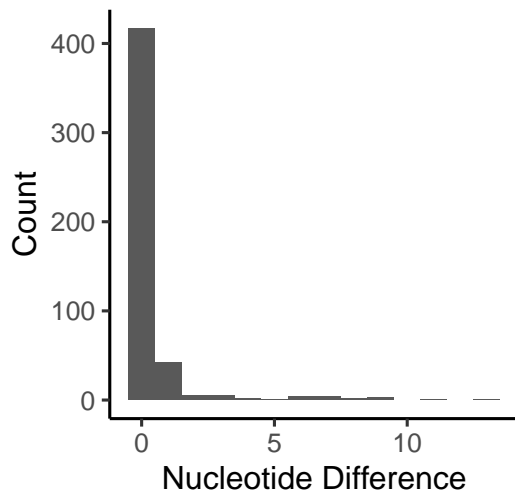
IGHV1-46*03

566 sequences assigned
490 (86.6%) exact matches, in which:
472 unique CDR3
6 unique J



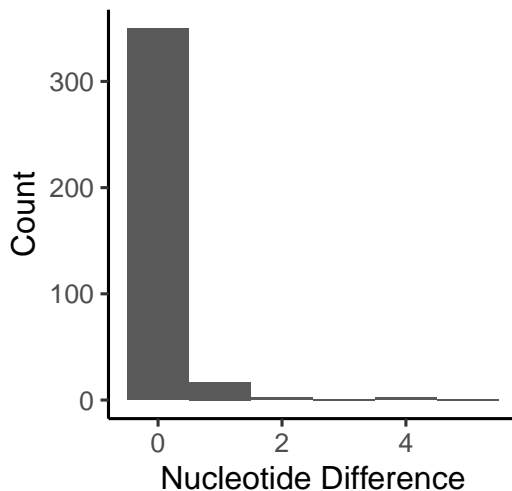
IGHV1-3*01

488 sequences assigned
417 (85.5%) exact matches, in which:
406 unique CDR3
6 unique J



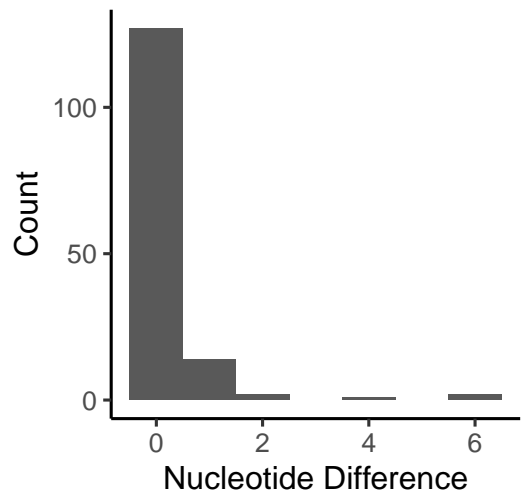
IGHV1-24*01

373 sequences assigned
350 (93.8%) exact matches, in which:
341 unique CDR3
6 unique J



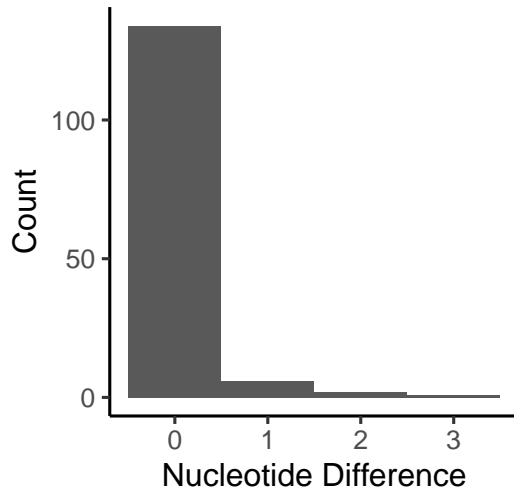
IGHV1-58*01

146 sequences assigned
127 (87%) exact matches, in which:
124 unique CDR3
6 unique J



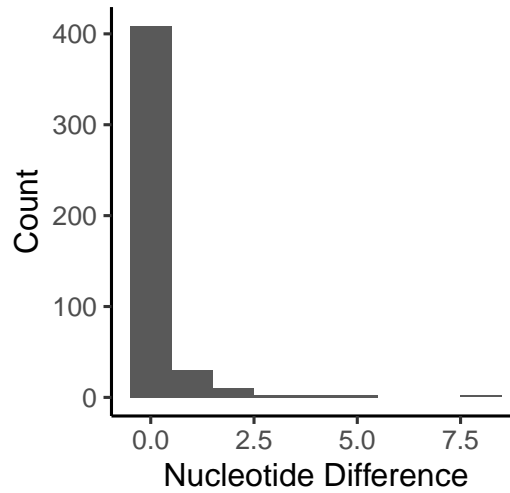
IGHV1-69-2*01

144 sequences assigned
134 (93.1%) exact matches, in which:
131 unique CDR3
5 unique J



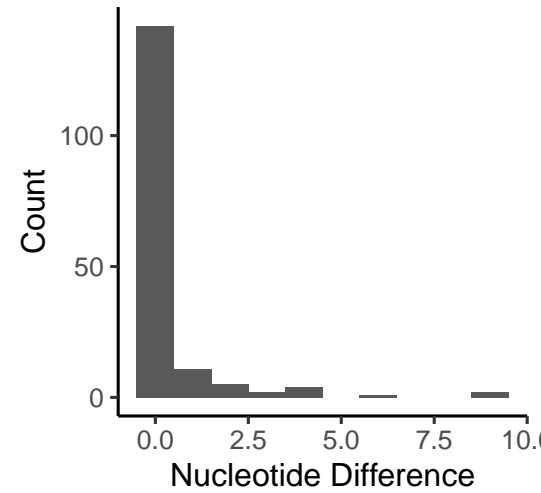
IGHV2-26*01

460 sequences assigned
409 (88.9%) exact matches, in which:
402 unique CDR3
6 unique J



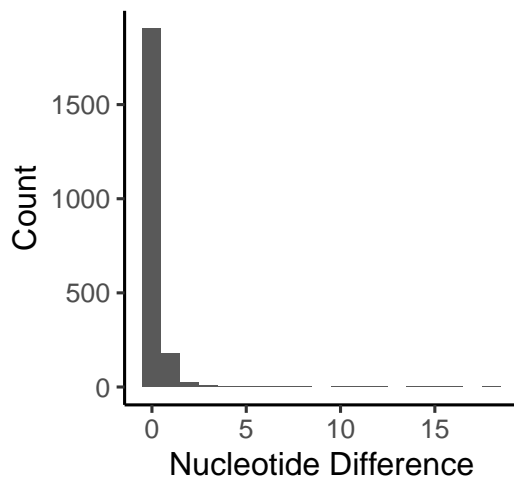
IGHV3-7*05

167 sequences assigned
142 (85%) exact matches, in which:
137 unique CDR3
5 unique J



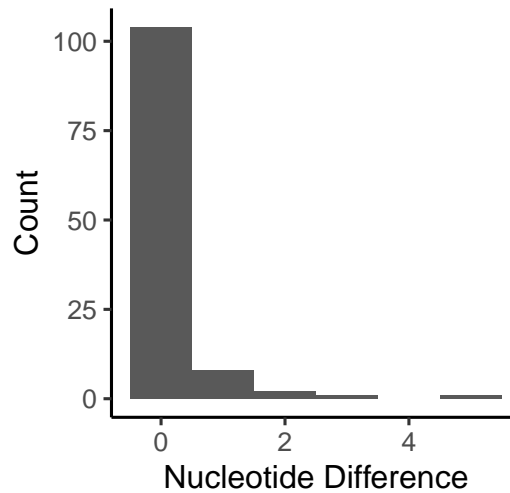
IGHV1-69*06

2139 sequences assigned
1903 (89%) exact matches, in which:
1809 unique CDR3
6 unique J



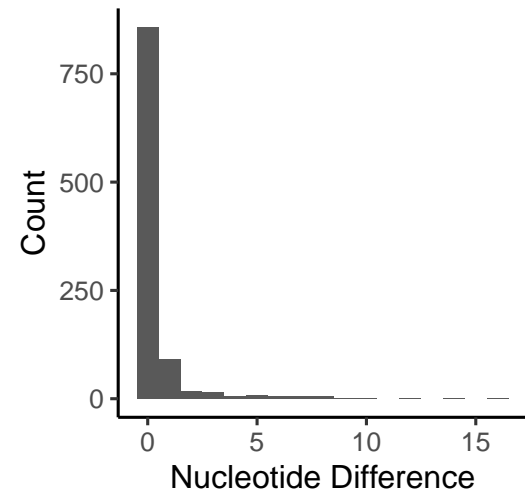
IGHV2-70*01

116 sequences assigned
104 (89.7%) exact matches, in which:
103 unique CDR3
6 unique J



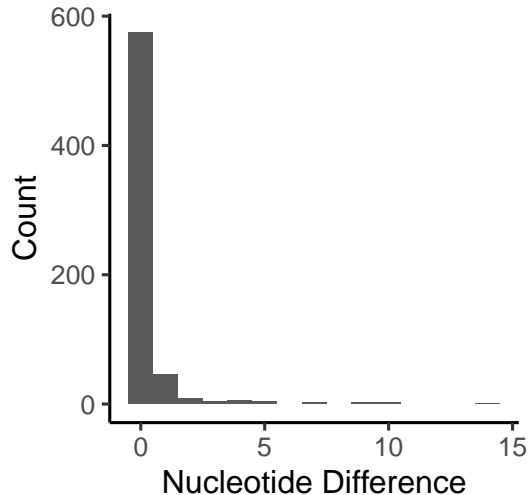
IGHV3-9*01

1019 sequences assigned
858 (84.2%) exact matches, in which:
823 unique CDR3
6 unique J



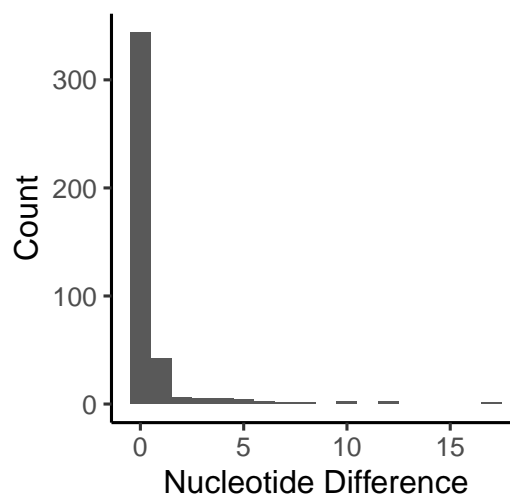
IGHV2-5*01

652 sequences assigned
575 (88.2%) exact matches, in which:
561 unique CDR3
6 unique J



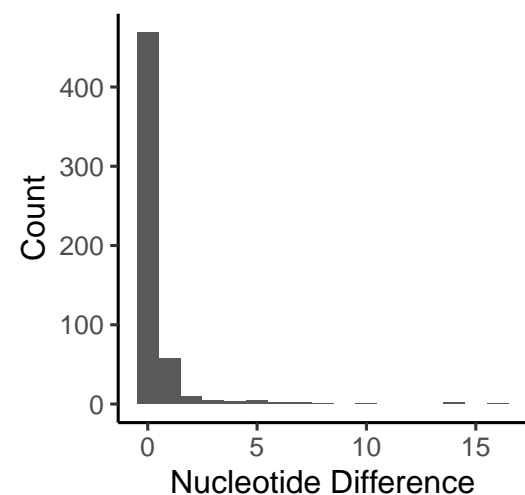
IGHV3-7*01

415 sequences assigned
344 (82.9%) exact matches, in which:
332 unique CDR3
6 unique J



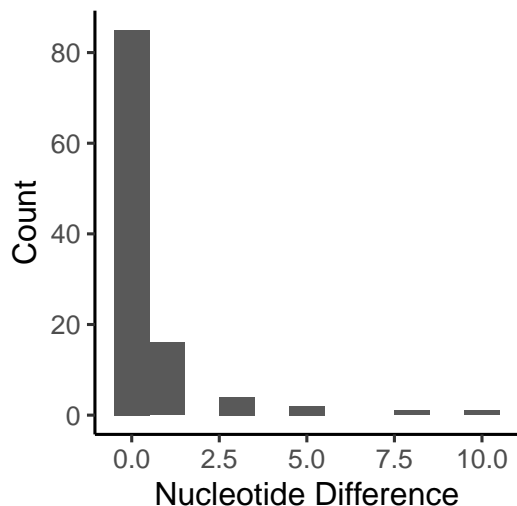
IGHV3-11*01

557 sequences assigned
469 (84.2%) exact matches, in which:
455 unique CDR3
6 unique J



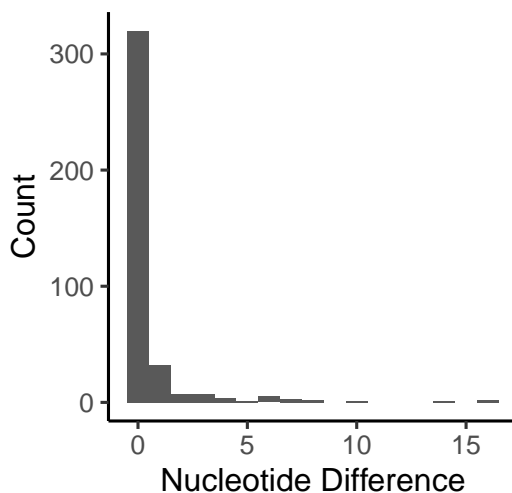
IGHV3-11*06

109 sequences assigned
85 (78%) exact matches, in which:
84 unique CDR3
6 unique J



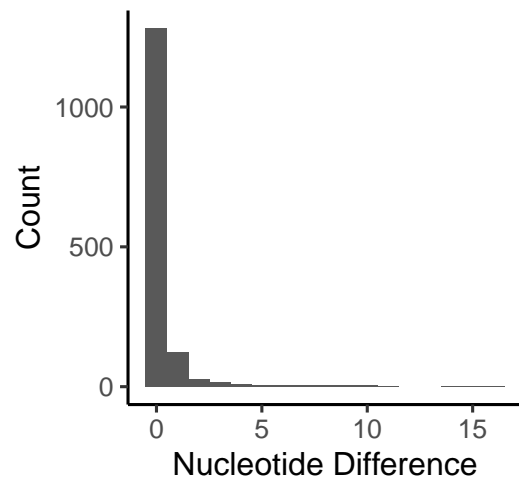
IGHV3-15*07

386 sequences assigned
320 (82.9%) exact matches, in which:
311 unique CDR3
6 unique J



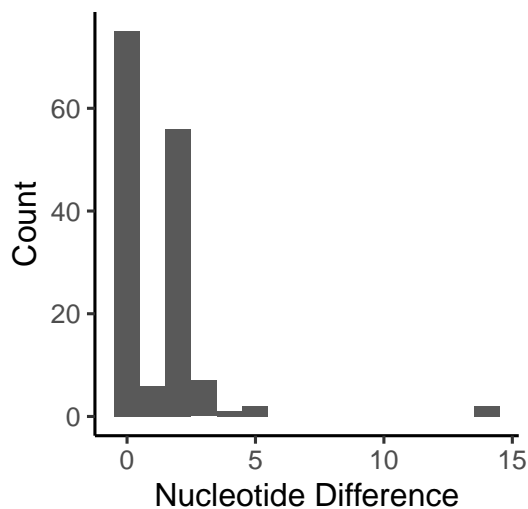
IGHV3-21*01

1493 sequences assigned
1281 (85.8%) exact matches, in which:
1227 unique CDR3
6 unique J



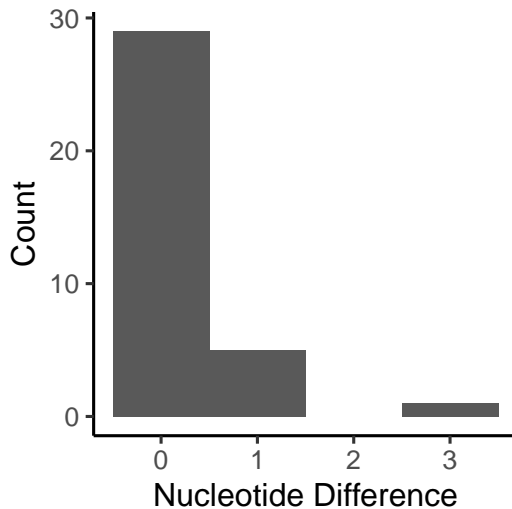
IGHV3-13*01

149 sequences assigned
75 (50.3%) exact matches, in which:
73 unique CDR3
5 unique J



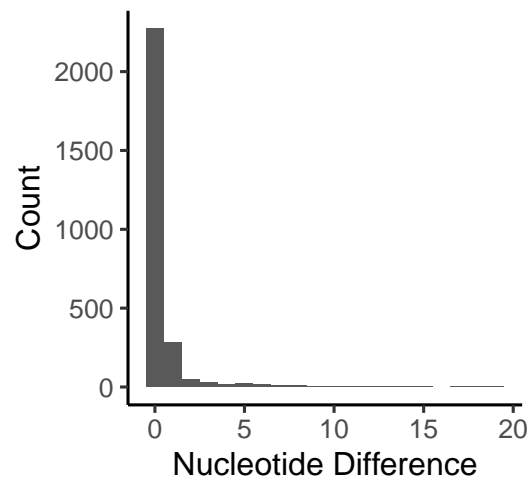
IGHV3-20*01

35 sequences assigned
29 (82.9%) exact matches, in which:
28 unique CDR3
5 unique J



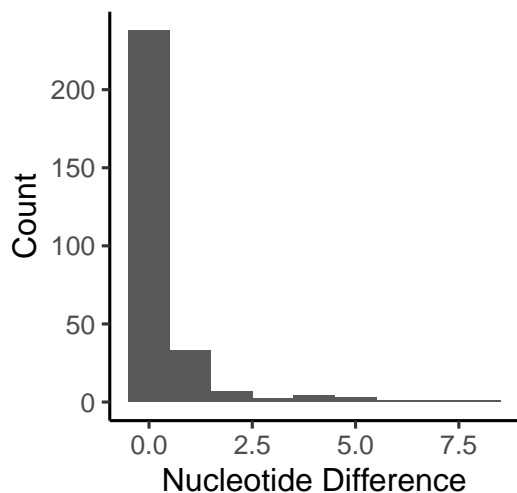
IGHV3-30-3*01

2730 sequences assigned
2272 (83.2%) exact matches, in which:
2170 unique CDR3
6 unique J



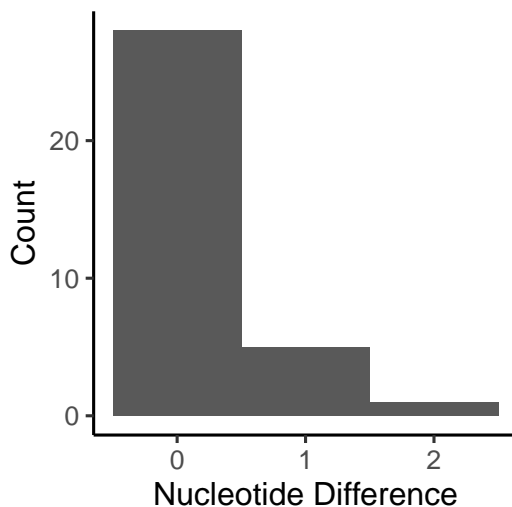
IGHV3-15*01

290 sequences assigned
238 (82.1%) exact matches, in which:
235 unique CDR3
6 unique J



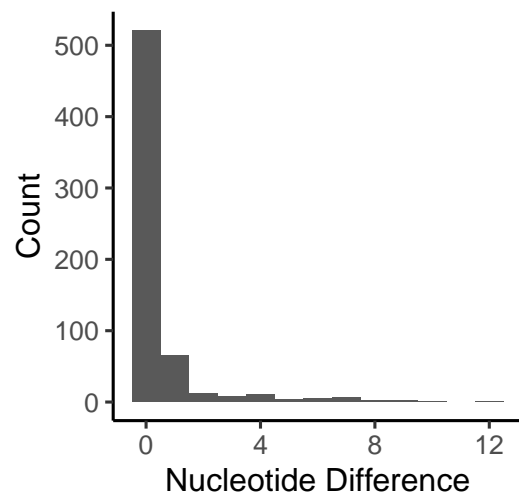
IGHV3-20*04

34 sequences assigned
28 (82.4%) exact matches, in which:
28 unique CDR3
4 unique J



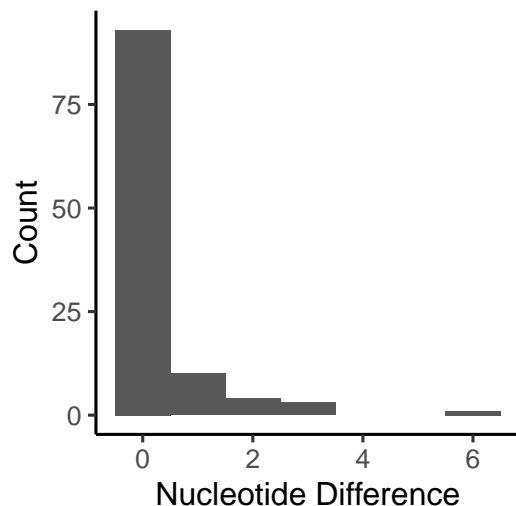
IGHV3-33*01

640 sequences assigned
521 (81.4%) exact matches, in which:
498 unique CDR3
6 unique J



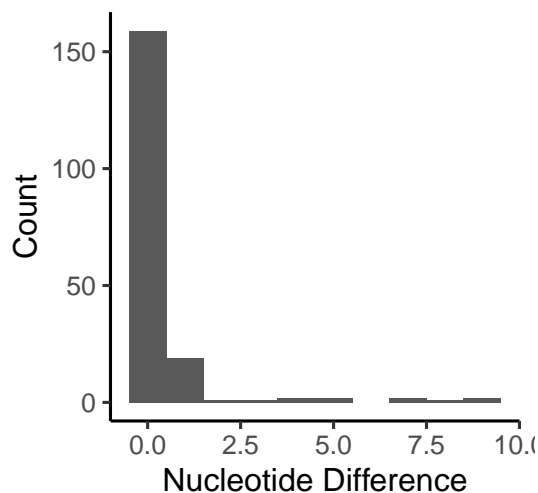
IGHV3-43*01

111 sequences assigned
93 (83.8%) exact matches, in which:
89 unique CDR3
6 unique J



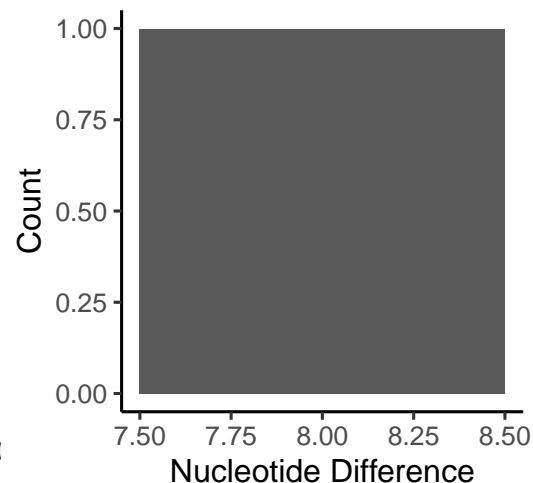
IGHV3-53*02

190 sequences assigned
159 (83.7%) exact matches, in which:
155 unique CDR3
6 unique J



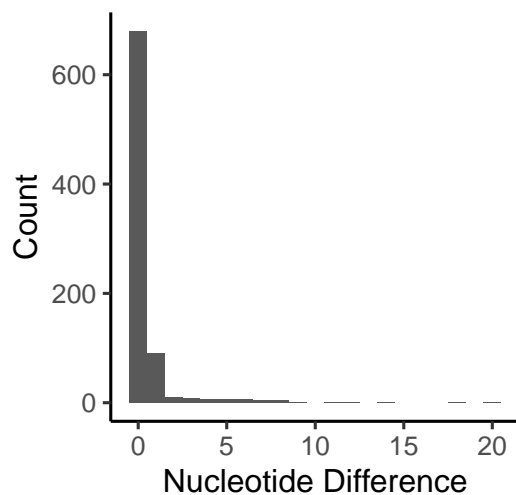
IGHV3-66*01

1 sequences assigned
No exact matches.



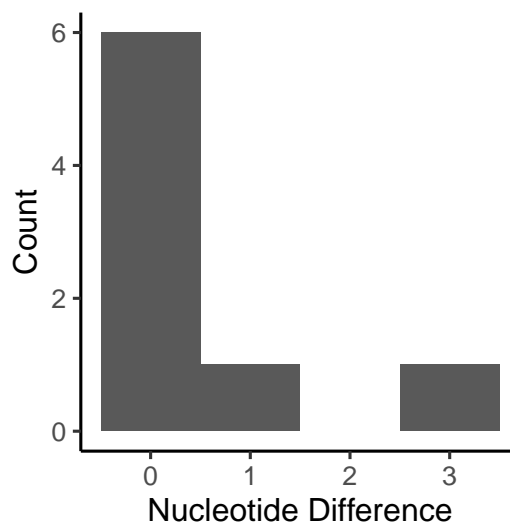
IGHV3-48*01

823 sequences assigned
680 (82.6%) exact matches, in which:
648 unique CDR3
6 unique J



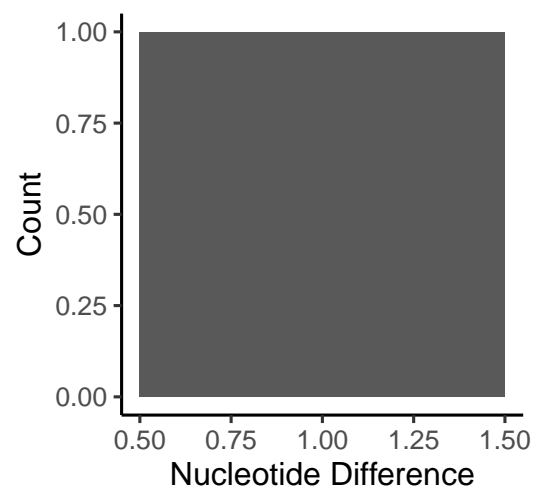
IGHV3-64*02

8 sequences assigned
6 (75%) exact matches, in which:
6 unique CDR3
2 unique J



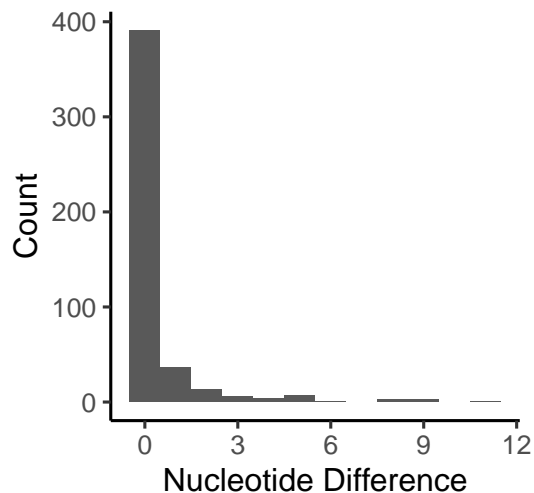
IGHV3-66*04

1 sequences assigned
No exact matches.



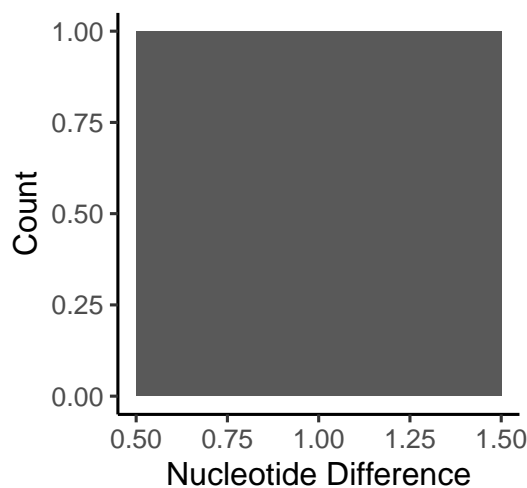
IGHV3-49*03

465 sequences assigned
391 (84.1%) exact matches, in which:
373 unique CDR3
6 unique J



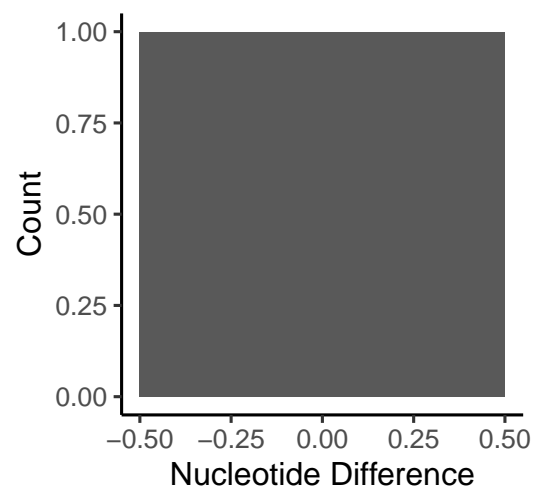
IGHV3-64*05

1 sequences assigned
No exact matches.



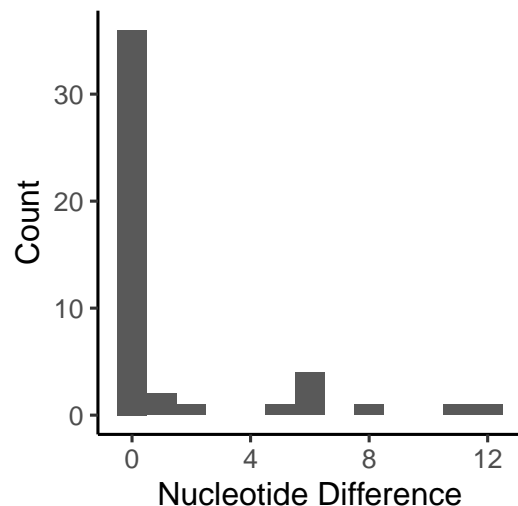
IGHV3-69-1*01

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



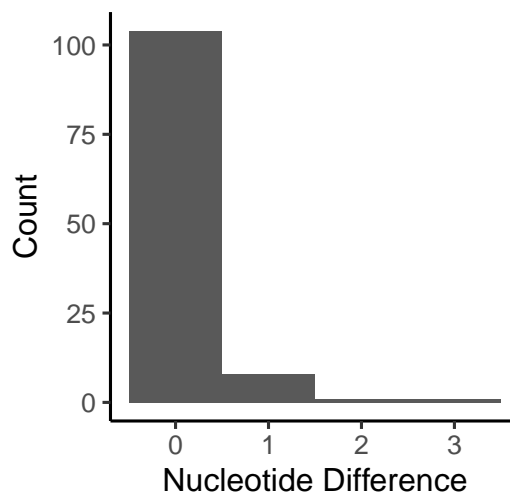
IGHV3-72*01

49 sequences assigned
36 (73.5%) exact matches, in which:
33 unique CDR3
4 unique J



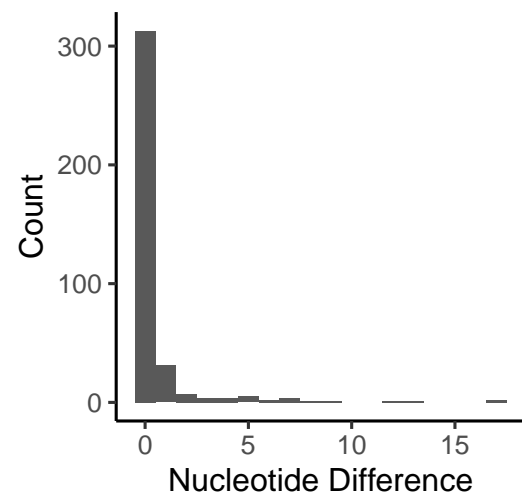
IGHV3-43D*03

114 sequences assigned
104 (91.2%) exact matches, in which:
103 unique CDR3
5 unique J



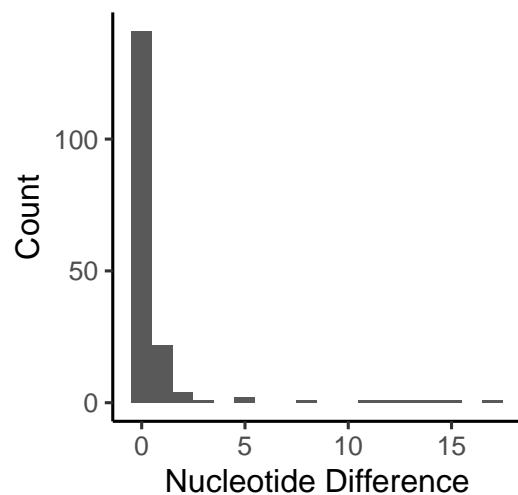
IGHV4-4*07

377 sequences assigned
313 (83%) exact matches, in which:
311 unique CDR3
6 unique J



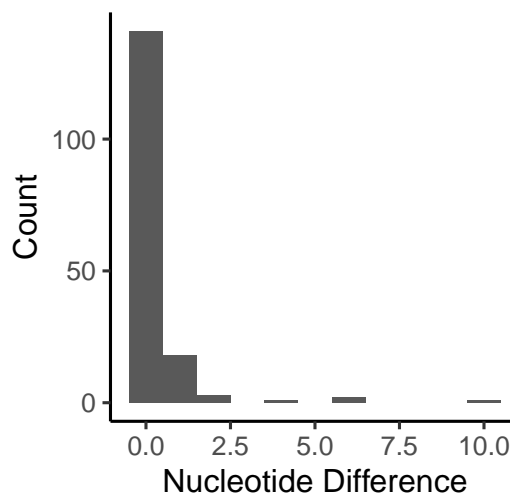
IGHV3-73*02

177 sequences assigned
141 (79.7%) exact matches, in which:
137 unique CDR3
6 unique J



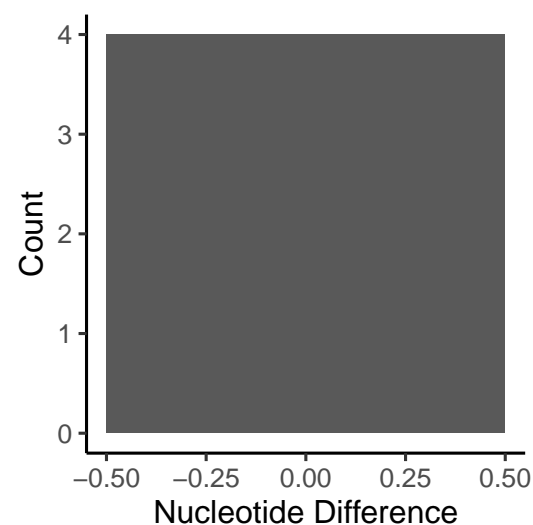
IGHV3-64D*08

166 sequences assigned
141 (84.9%) exact matches, in which:
135 unique CDR3
6 unique J



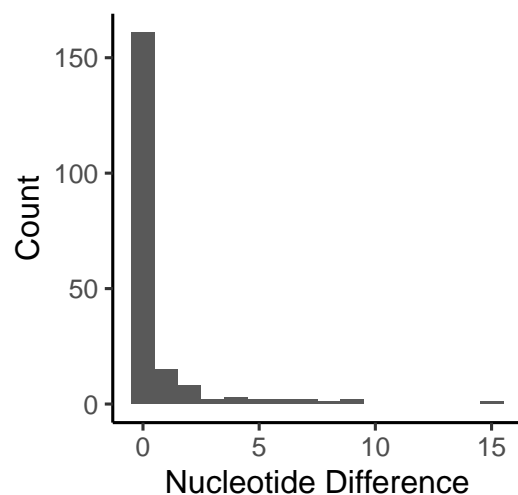
IGHV4-28*01

4 sequences assigned
4 (100%) exact matches, in which:
4 unique CDR3
4 unique J



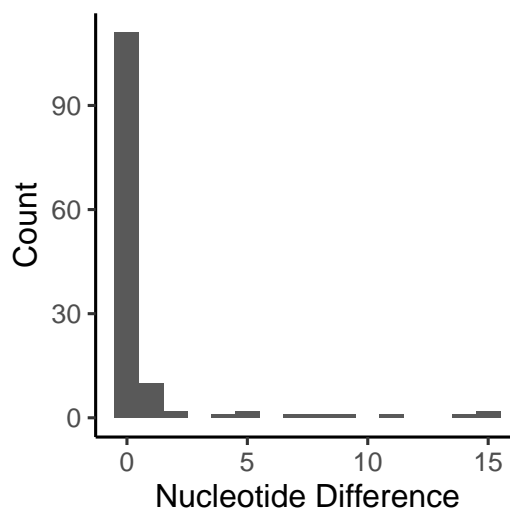
IGHV3-74*01

199 sequences assigned
161 (80.9%) exact matches, in which:
159 unique CDR3
6 unique J



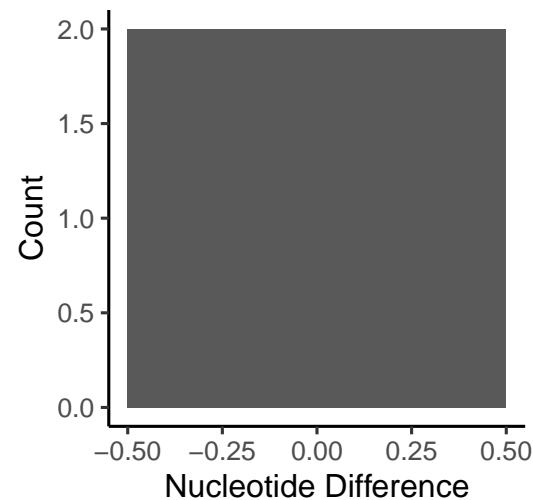
IGHV4-4*02

133 sequences assigned
111 (83.5%) exact matches, in which:
105 unique CDR3
6 unique J



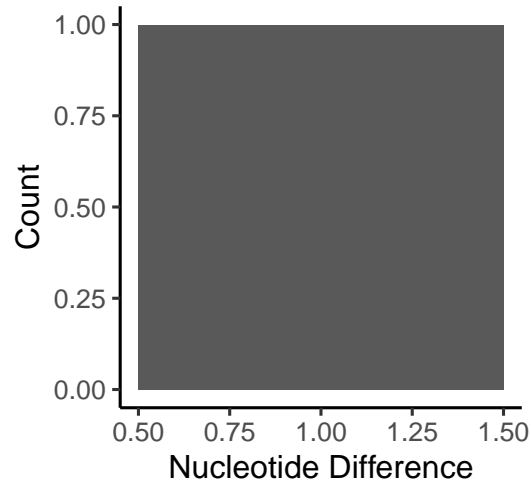
IGHV4-28*03

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



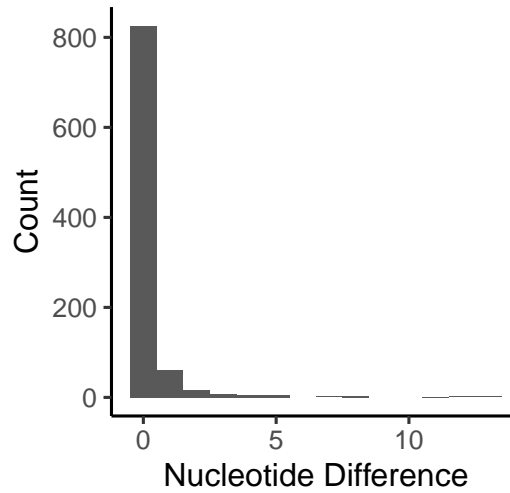
IGHV4-28*06

1 sequences assigned
No exact matches.



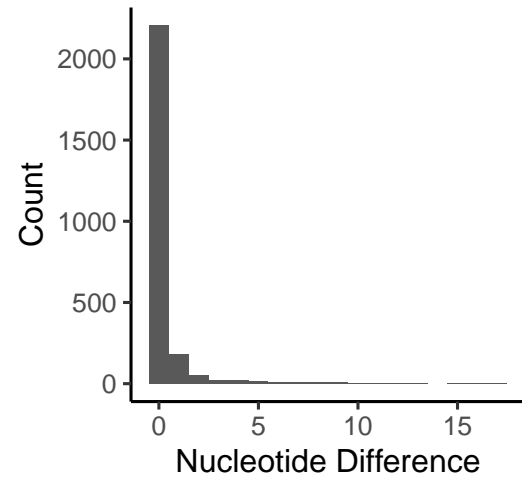
IGHV4-31*03

935 sequences assigned
826 (88.3%) exact matches, in which:
794 unique CDR3
6 unique J



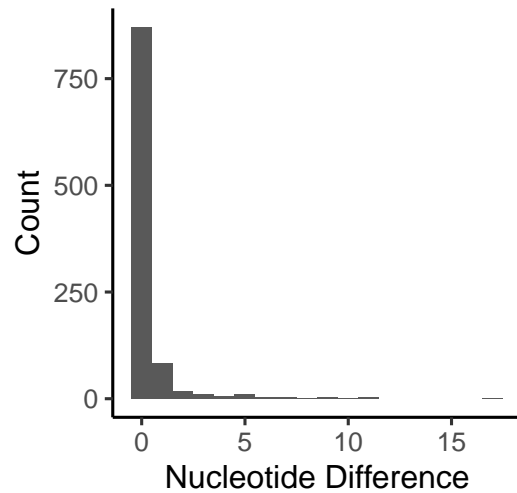
IGHV4-39*01

2550 sequences assigned
2206 (86.5%) exact matches, in which:
2111 unique CDR3
6 unique J



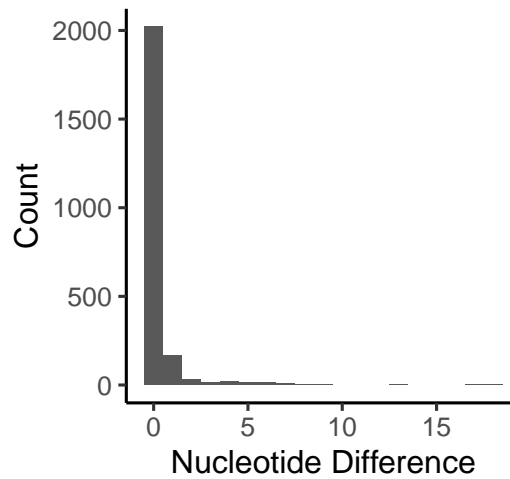
IGHV4-30-4*01

1016 sequences assigned
871 (85.7%) exact matches, in which:
848 unique CDR3
6 unique J



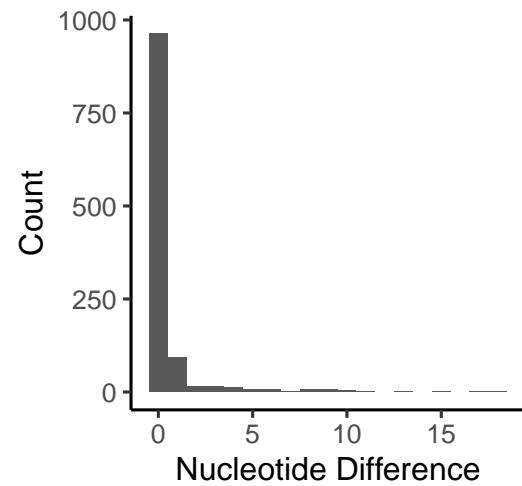
IGHV4-34*01

2294 sequences assigned
2021 (88.1%) exact matches, in which:
1923 unique CDR3
6 unique J



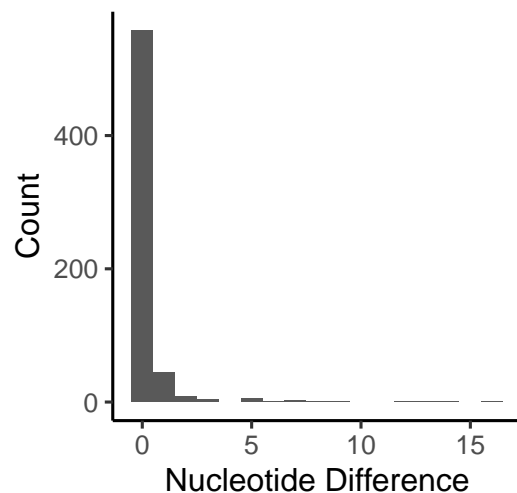
IGHV4-59*01

1138 sequences assigned
963 (84.6%) exact matches, in which:
941 unique CDR3
6 unique J



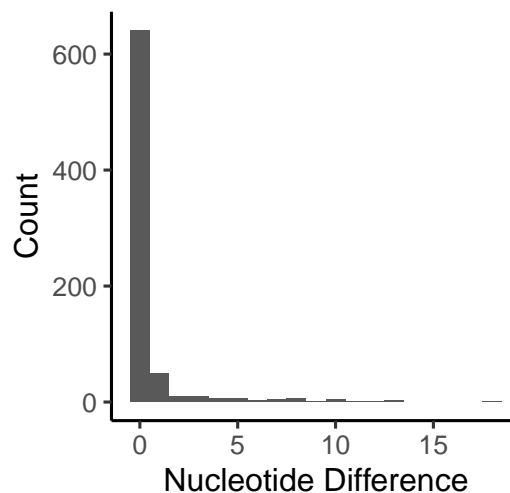
IGHV4-30-2*01

630 sequences assigned
558 (88.6%) exact matches, in which:
533 unique CDR3
6 unique J



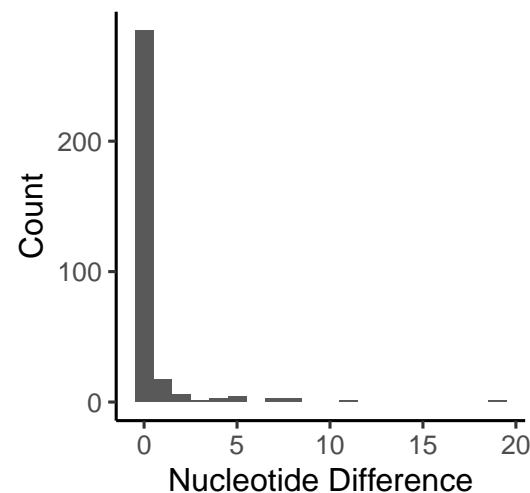
IGHV4-38-2*02

745 sequences assigned
641 (86%) exact matches, in which:
619 unique CDR3
6 unique J



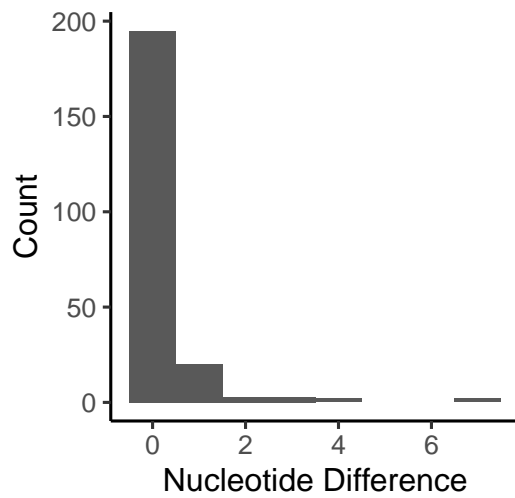
IGHV4-61*01

324 sequences assigned
285 (88%) exact matches, in which:
278 unique CDR3
6 unique J



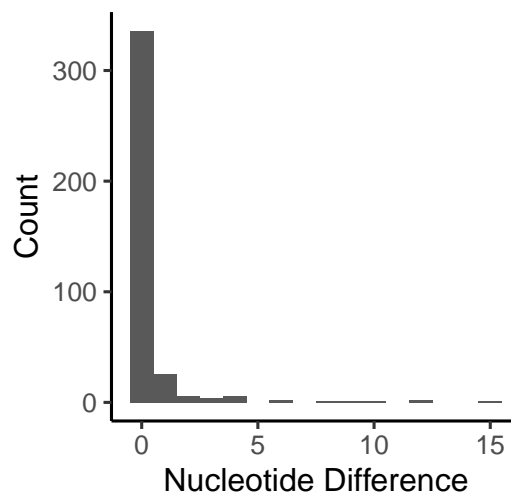
IGHV5-10-1*03

225 sequences assigned
195 (86.7%) exact matches, in which:
189 unique CDR3
5 unique J



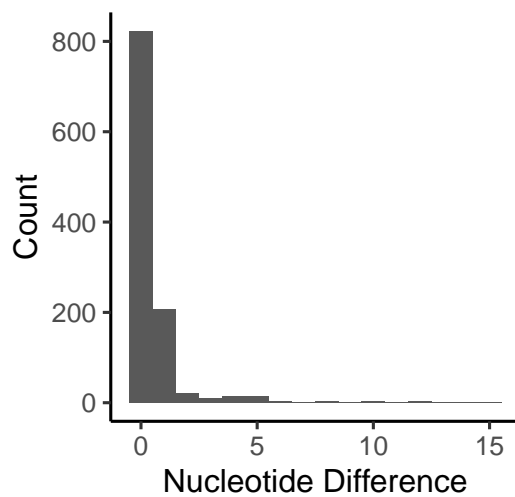
IGHV6-1*01

386 sequences assigned
336 (87%) exact matches, in which:
325 unique CDR3
6 unique J



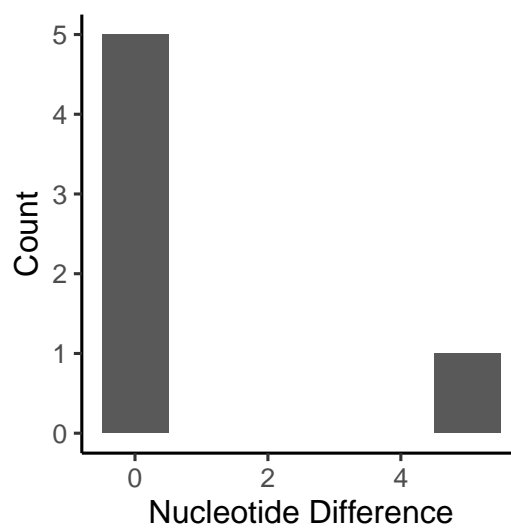
IGHV5-51*01

1112 sequences assigned
823 (74%) exact matches, in which:
795 unique CDR3
6 unique J



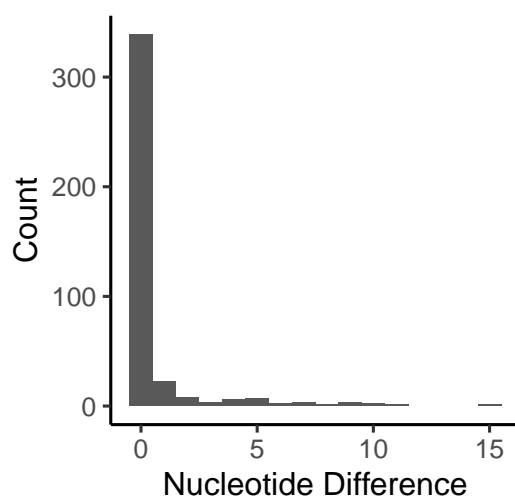
IGHV7-4-1*01

6 sequences assigned
5 (83.3%) exact matches, in which:
5 unique CDR3
2 unique J



IGHV5-51*03

398 sequences assigned
339 (85.2%) exact matches, in which:
325 unique CDR3
6 unique J



Allele Usage



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