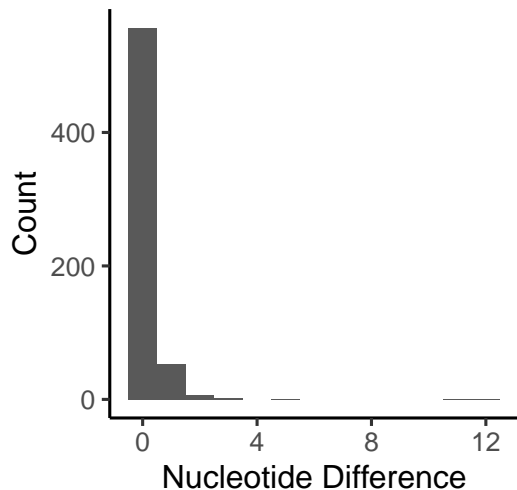


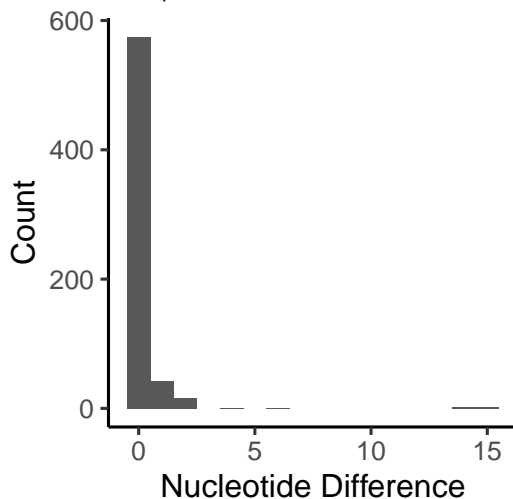
### IGHV1-2\*02

626 sequences assigned  
557 (89%) exact matches, in which:  
549 unique CDR3  
6 unique J



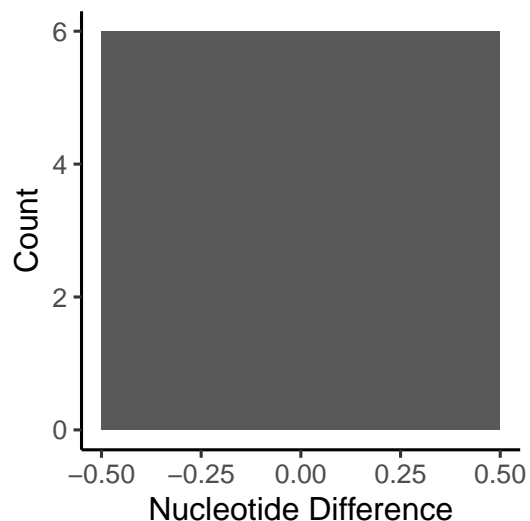
### IGHV1-8\*01

645 sequences assigned  
575 (89.1%) exact matches, in which:  
560 unique CDR3  
6 unique J



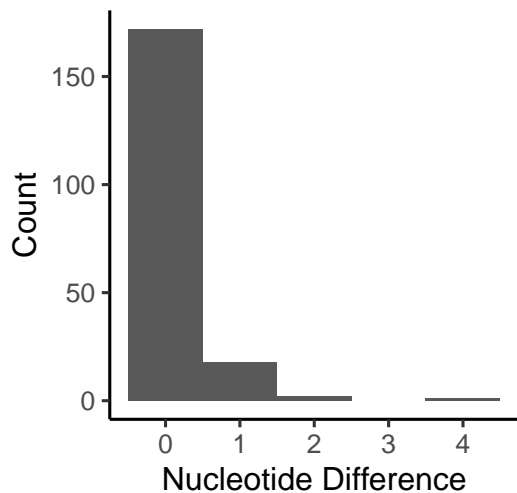
### IGHV1-45\*02

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



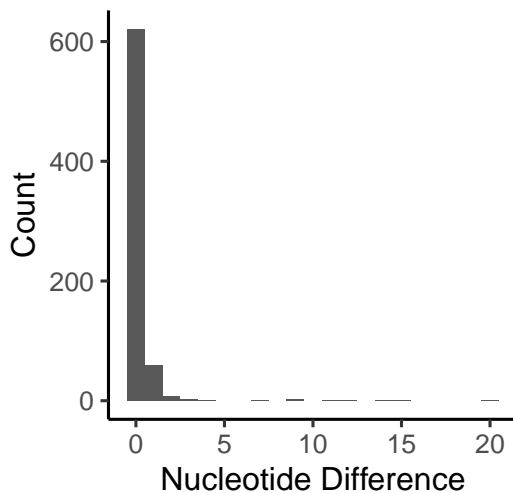
### IGHV1-2\*04

195 sequences assigned  
172 (88.2%) exact matches, in which:  
168 unique CDR3  
6 unique J



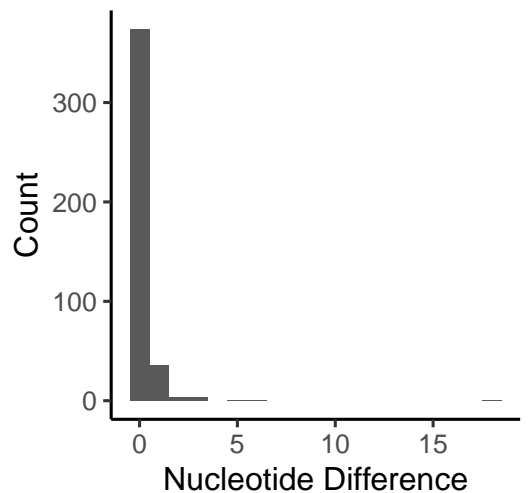
### IGHV1-18\*01

701 sequences assigned  
621 (88.6%) exact matches, in which:  
611 unique CDR3  
6 unique J



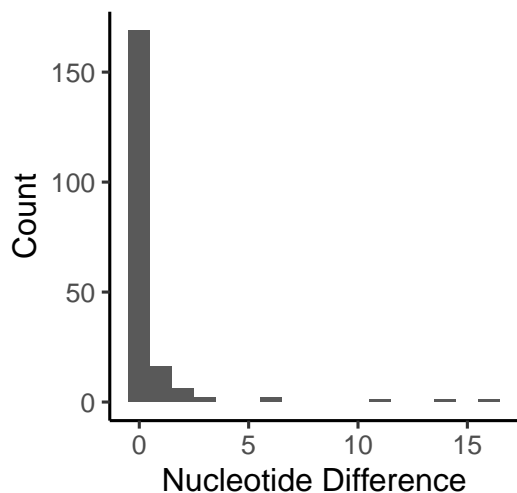
### IGHV1-46\*01

424 sequences assigned  
374 (88.2%) exact matches, in which:  
364 unique CDR3  
6 unique J



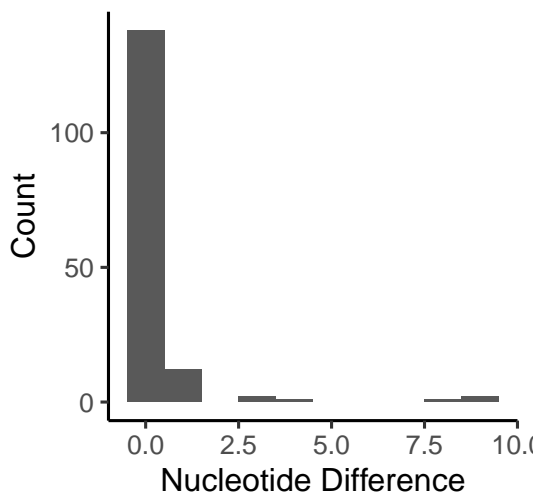
### IGHV1-3\*01

206 sequences assigned  
169 (82%) exact matches, in which:  
168 unique CDR3  
6 unique J



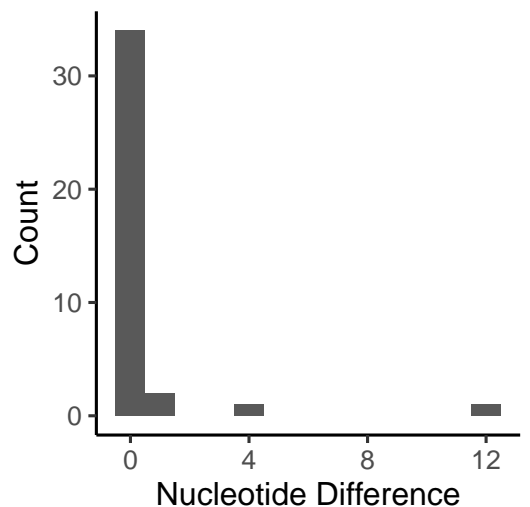
### IGHV1-24\*01

156 sequences assigned  
138 (88.5%) exact matches, in which:  
136 unique CDR3  
5 unique J



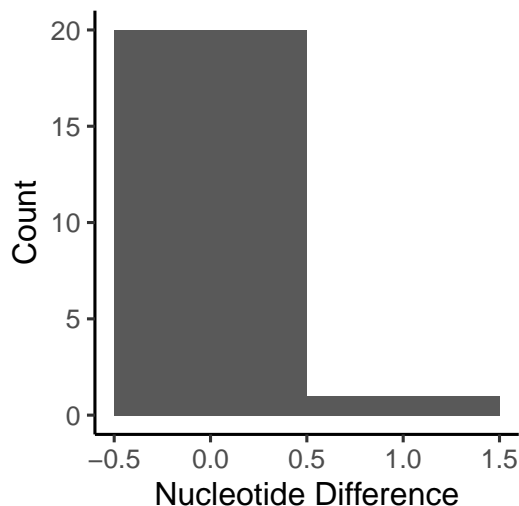
### IGHV1-58\*01

38 sequences assigned  
34 (89.5%) exact matches, in which:  
34 unique CDR3  
5 unique J



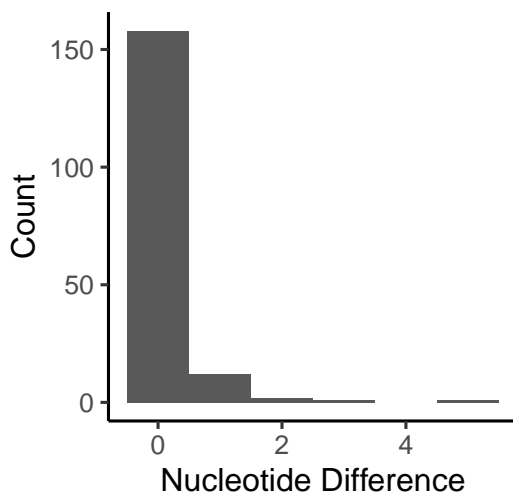
### IGHV1-58\*02

21 sequences assigned  
20 (95.2%) exact matches, in which:  
20 unique CDR3  
5 unique J



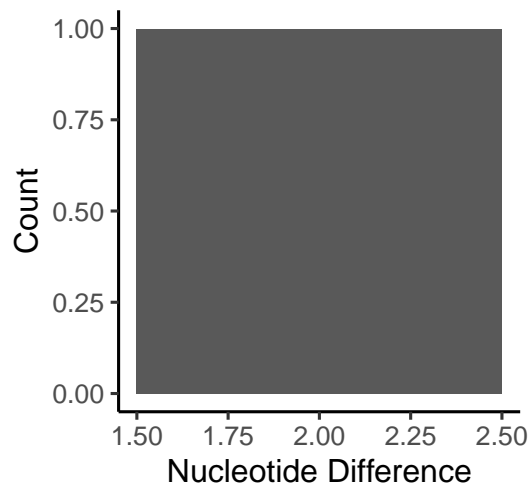
### IGHV2-26\*01

176 sequences assigned  
158 (89.8%) exact matches, in which:  
155 unique CDR3  
6 unique J



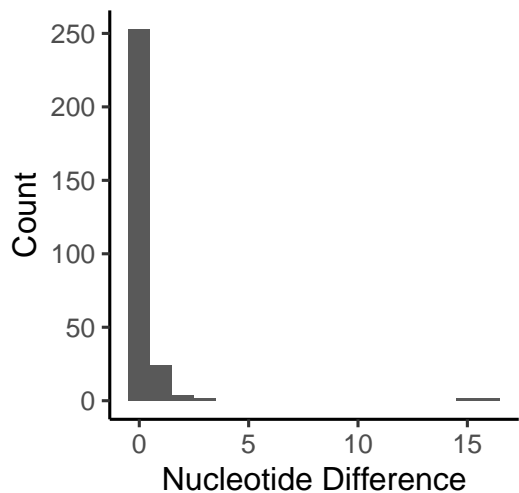
### IGHV2-70D\*04

1 sequences assigned  
No exact matches.



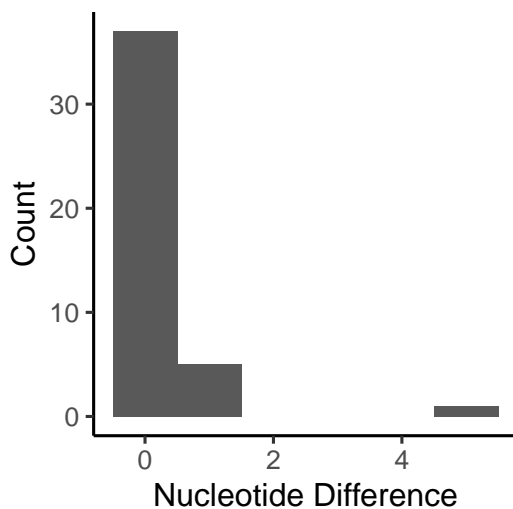
### IGHV1-69\*08\_C191T

288 sequences assigned  
253 (87.8%) exact matches, in which:  
247 unique CDR3  
6 unique J



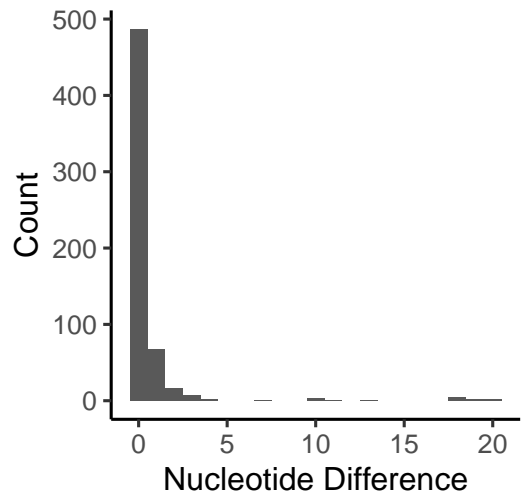
### IGHV2-70\*01

43 sequences assigned  
37 (86%) exact matches, in which:  
37 unique CDR3  
4 unique J



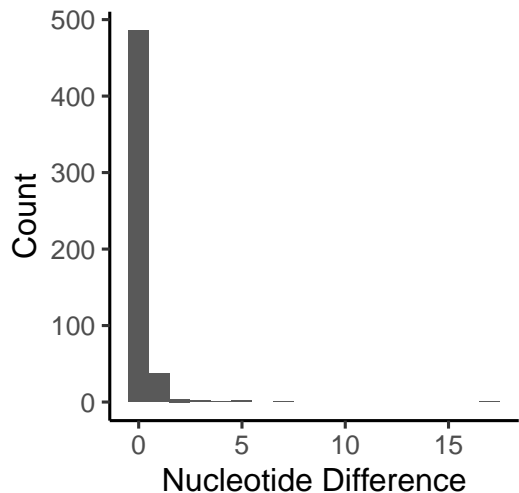
### IGHV3-7\*01

604 sequences assigned  
487 (80.6%) exact matches, in which:  
471 unique CDR3  
6 unique J



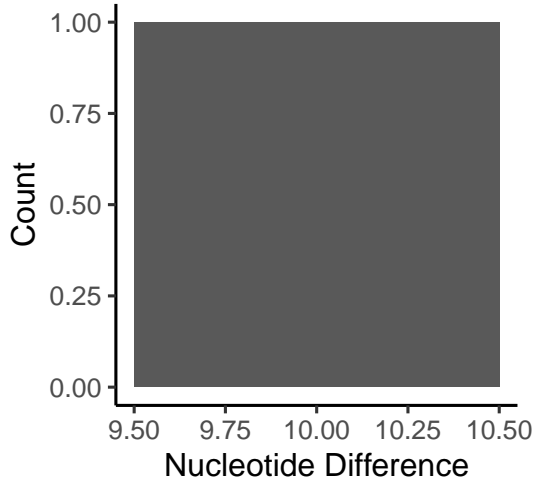
### IGHV2-5\*02

535 sequences assigned  
486 (90.8%) exact matches, in which:  
478 unique CDR3  
6 unique J



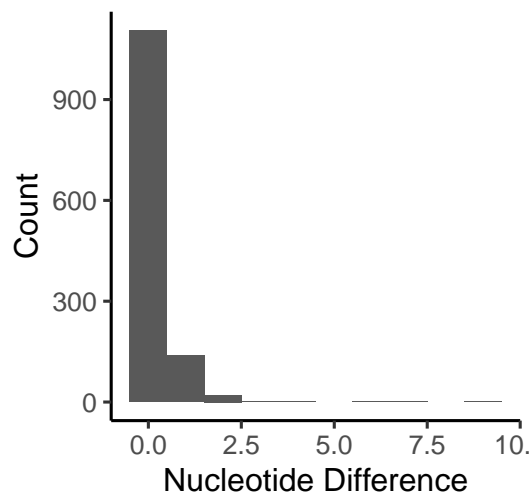
### IGHV2-70\*12

1 sequences assigned  
No exact matches.



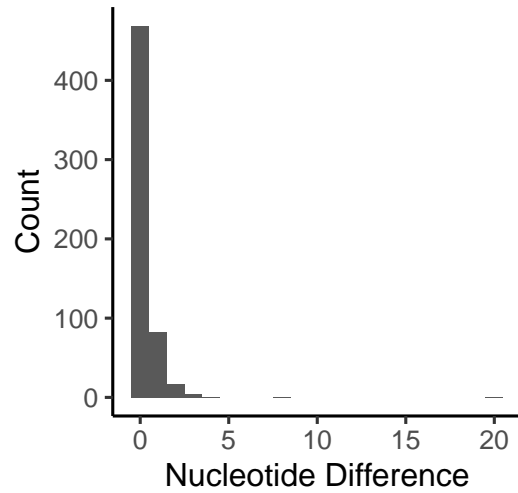
### IGHV3-9\*01

1280 sequences assigned  
1106 (86.4%) exact matches, in which:  
1058 unique CDR3  
6 unique J



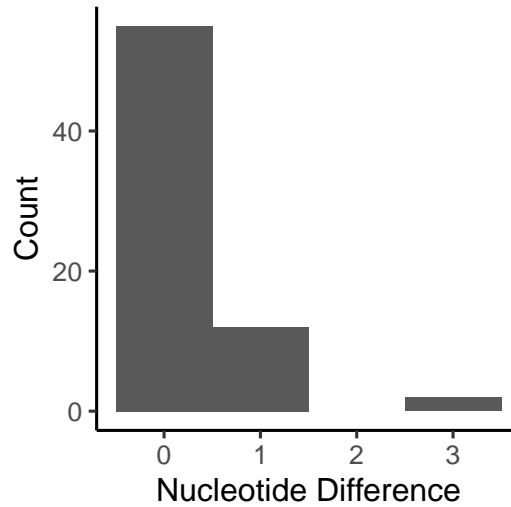
### IGHV3-11\*01

576 sequences assigned  
469 (81.4%) exact matches, in which:  
458 unique CDR3  
6 unique J



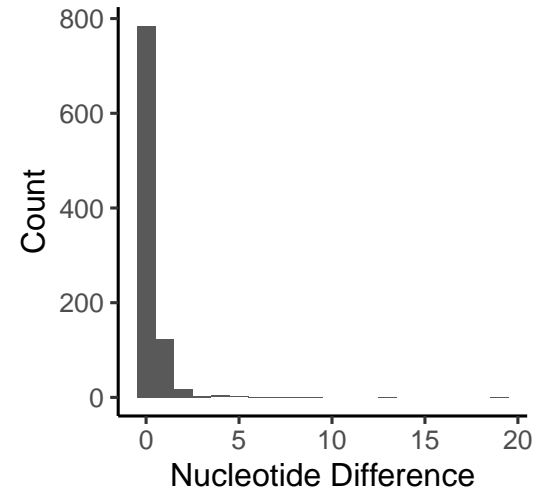
### IGHV3-20\*01

69 sequences assigned  
55 (79.7%) exact matches, in which:  
50 unique CDR3  
5 unique J



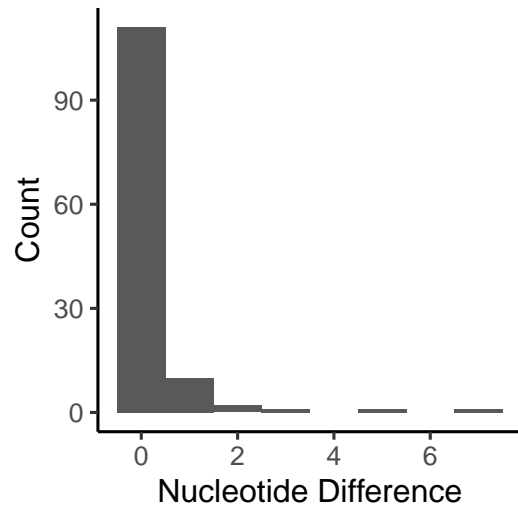
### IGHV3-33\*01

952 sequences assigned  
785 (82.5%) exact matches, in which:  
752 unique CDR3  
6 unique J



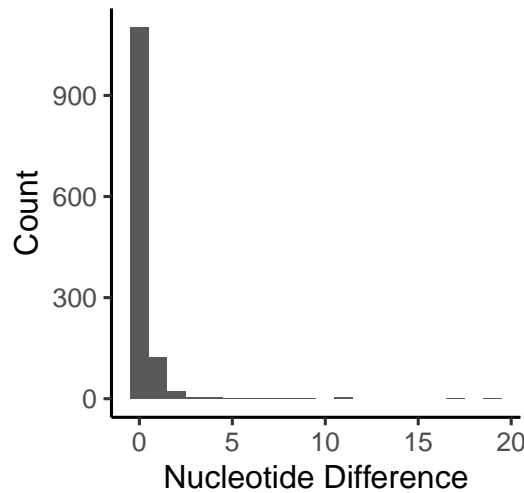
### IGHV3-13\*01

126 sequences assigned  
111 (88.1%) exact matches, in which:  
110 unique CDR3  
5 unique J



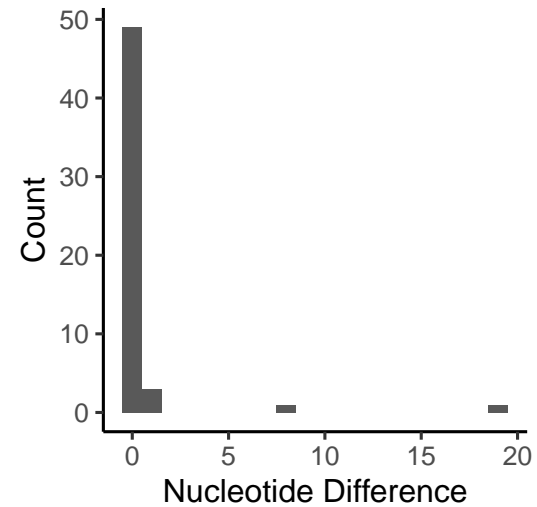
### IGHV3-21\*01

1266 sequences assigned  
1103 (87.1%) exact matches, in which:  
1059 unique CDR3  
6 unique J



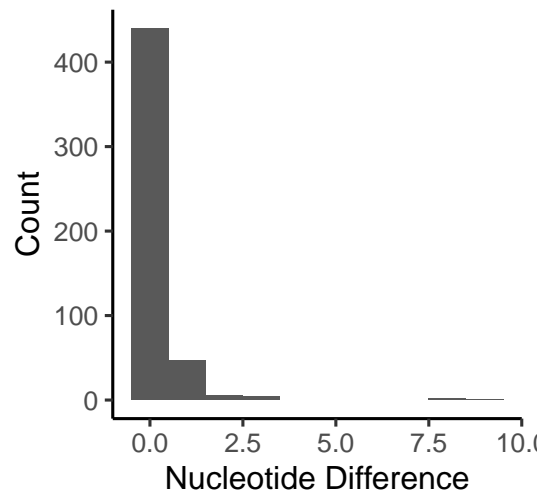
### IGHV3-43\*01

57 sequences assigned  
49 (86%) exact matches, in which:  
46 unique CDR3  
5 unique J



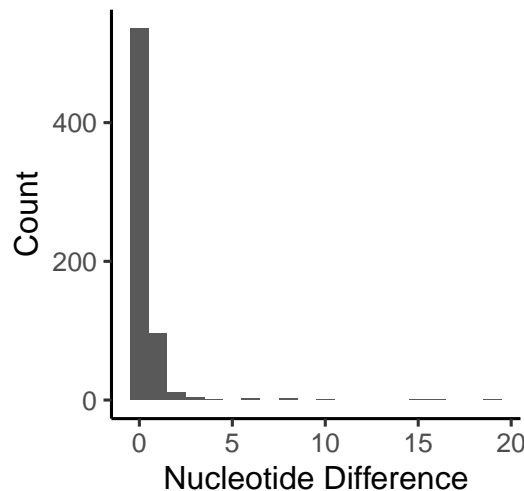
### IGHV3-15\*01

502 sequences assigned  
440 (87.6%) exact matches, in which:  
427 unique CDR3  
6 unique J



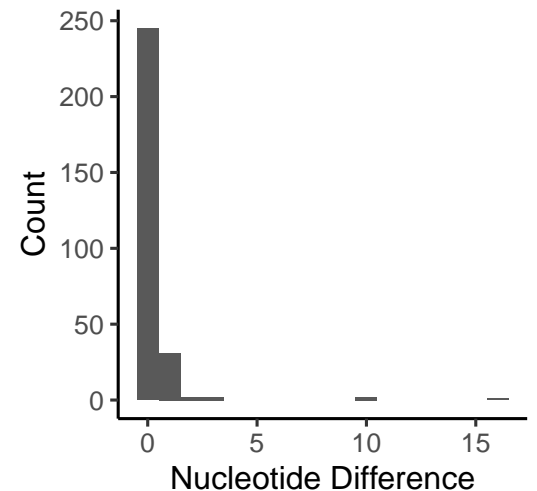
### IGHV3-30-3\*01

656 sequences assigned  
536 (81.7%) exact matches, in which:  
521 unique CDR3  
6 unique J



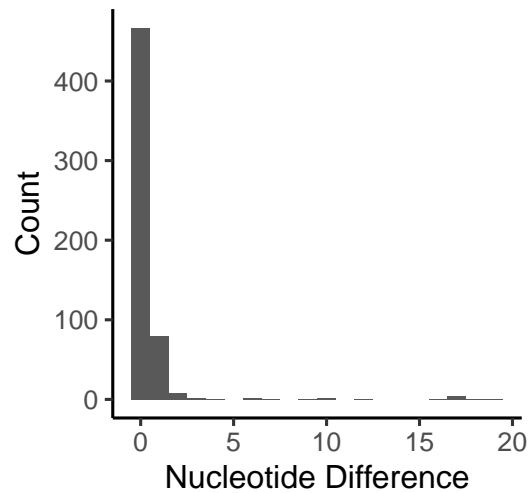
### IGHV3-48\*02

287 sequences assigned  
245 (85.4%) exact matches, in which:  
238 unique CDR3  
6 unique J



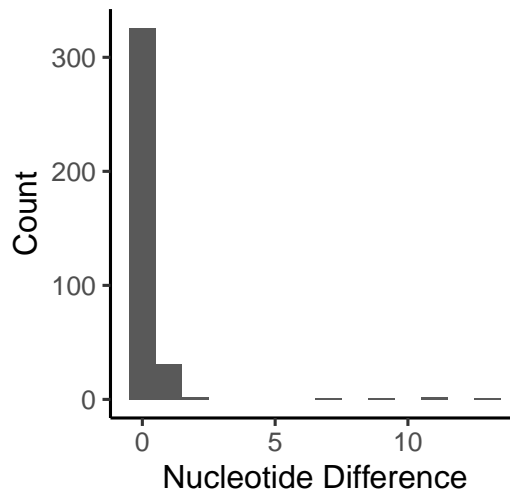
### IGHV3-48\*03

572 sequences assigned  
467 (81.6%) exact matches, in which:  
453 unique CDR3  
6 unique J



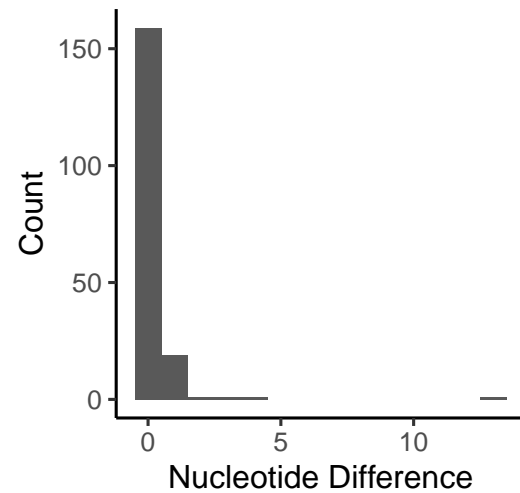
### IGHV3-53\*01

367 sequences assigned  
326 (88.8%) exact matches, in which:  
317 unique CDR3  
6 unique J



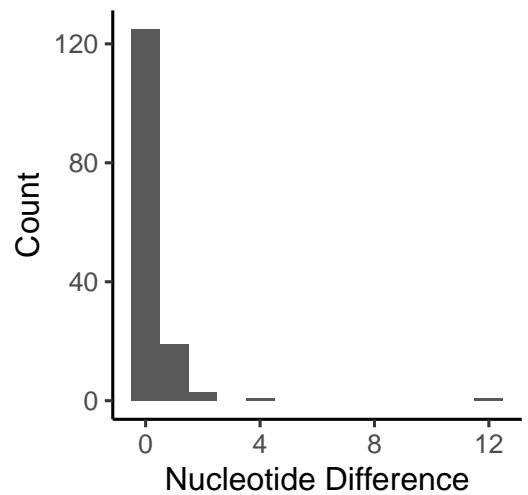
### IGHV3-66\*02

183 sequences assigned  
159 (86.9%) exact matches, in which:  
155 unique CDR3  
6 unique J



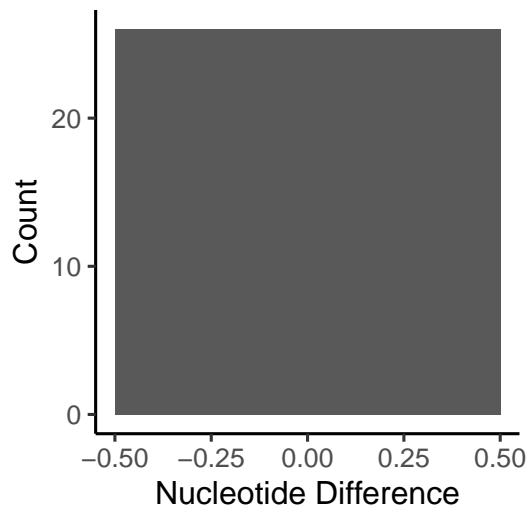
### IGHV3-49\*04

154 sequences assigned  
125 (81.2%) exact matches, in which:  
122 unique CDR3  
6 unique J



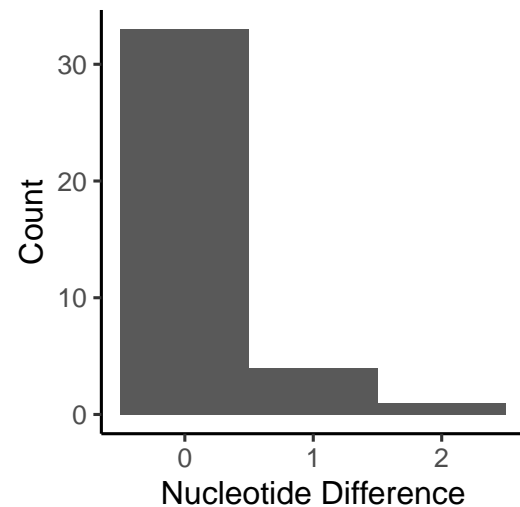
### IGHV3-64\*01

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



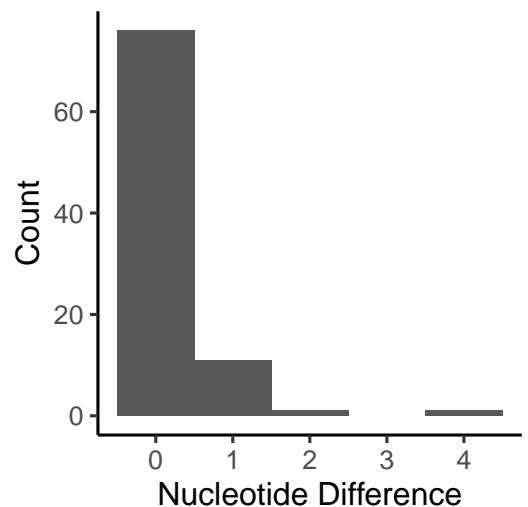
### IGHV3-72\*01

38 sequences assigned  
33 (86.8%) exact matches, in which:  
31 unique CDR3  
5 unique J



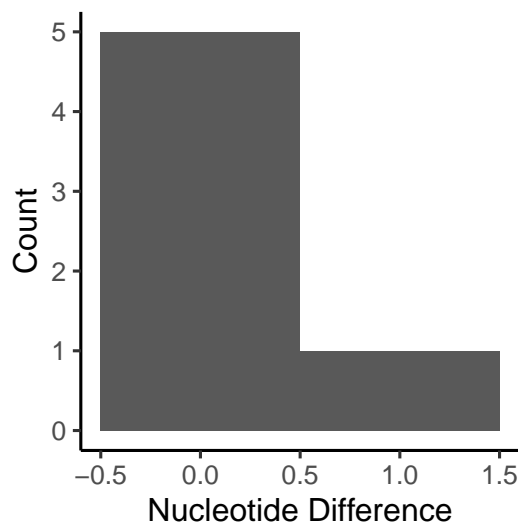
### IGHV3-49\*05

89 sequences assigned  
76 (85.4%) exact matches, in which:  
71 unique CDR3  
5 unique J



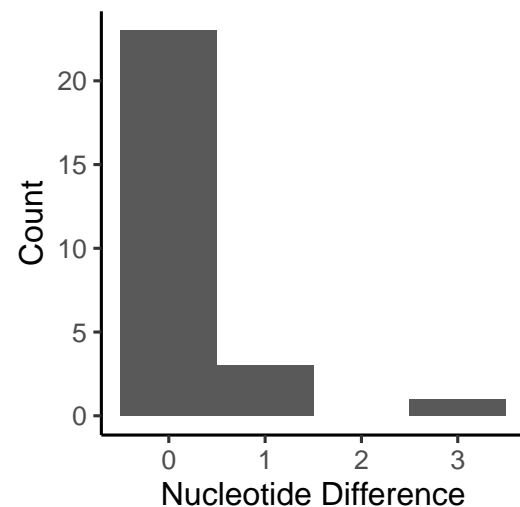
### IGHV3-64\*02

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



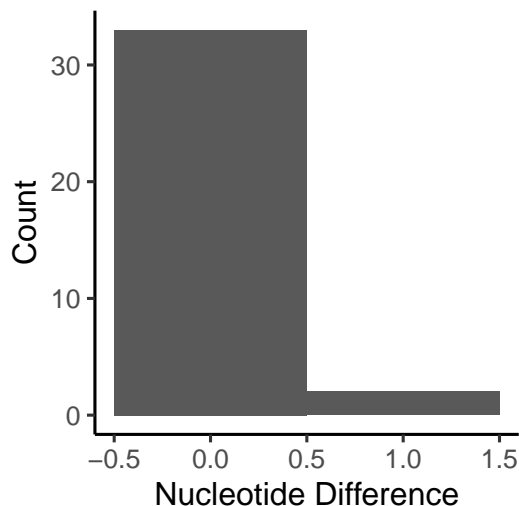
### IGHV3-73\*01

27 sequences assigned  
23 (85.2%) exact matches, in which:  
23 unique CDR3  
3 unique J



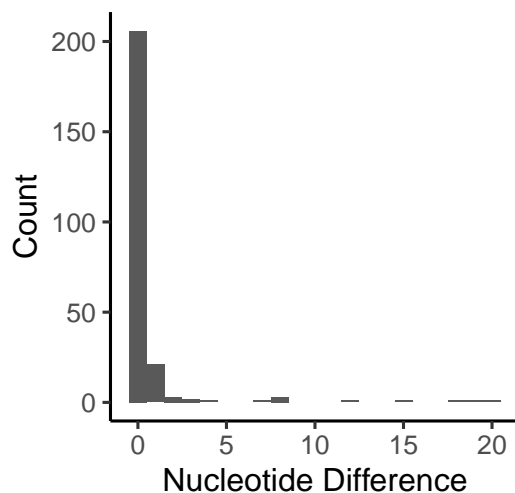
### IGHV3-73\*02

35 sequences assigned  
33 (94.3%) exact matches, in which:  
31 unique CDR3  
6 unique J



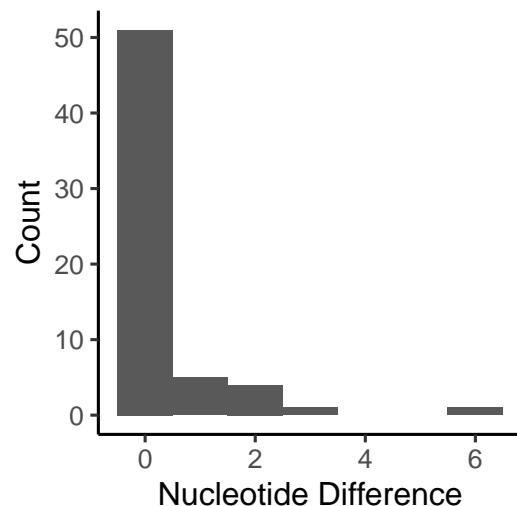
### IGHV4-4\*02

247 sequences assigned  
206 (83.4%) exact matches, in which:  
204 unique CDR3  
6 unique J



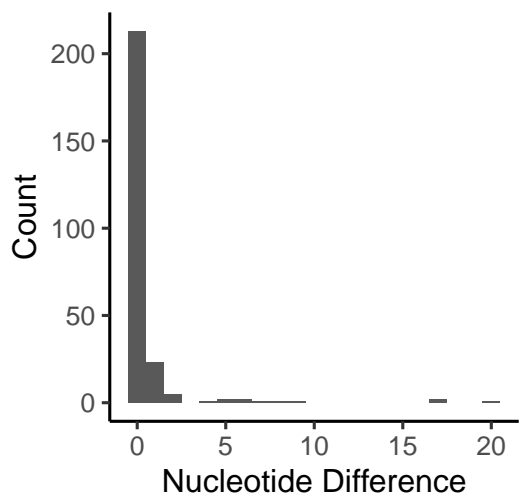
### IGHV4-30-2\*01

62 sequences assigned  
51 (82.3%) exact matches, in which:  
51 unique CDR3  
6 unique J



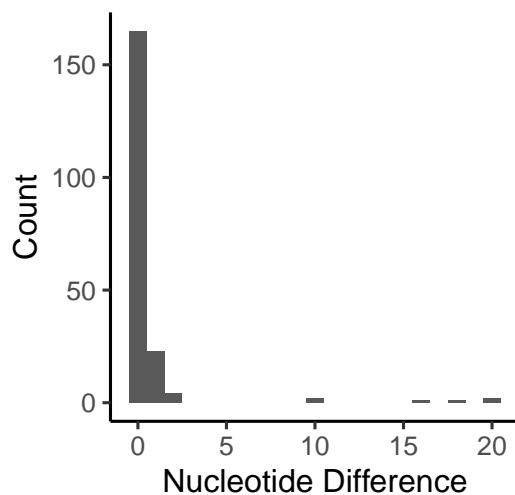
### IGHV3-74\*01

253 sequences assigned  
213 (84.2%) exact matches, in which:  
203 unique CDR3  
6 unique J



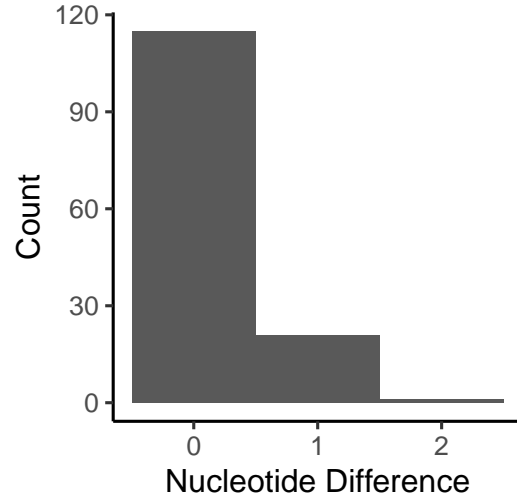
### IGHV4-4\*07

202 sequences assigned  
165 (81.7%) exact matches, in which:  
162 unique CDR3  
6 unique J



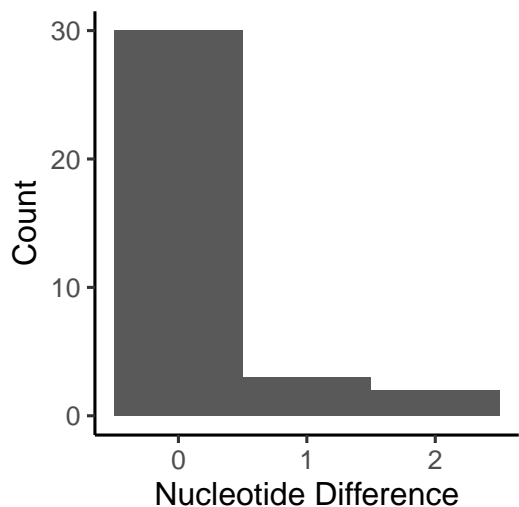
### IGHV4-30-4\*01

140 sequences assigned  
115 (82.1%) exact matches, in which:  
114 unique CDR3  
5 unique J



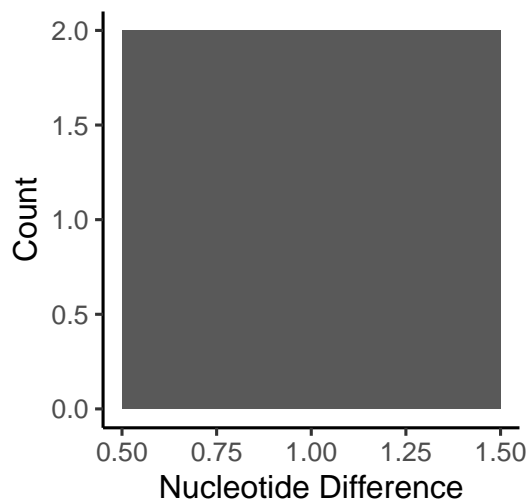
### IGHV3-43D\*04

35 sequences assigned  
30 (85.7%) exact matches, in which:  
29 unique CDR3  
3 unique J



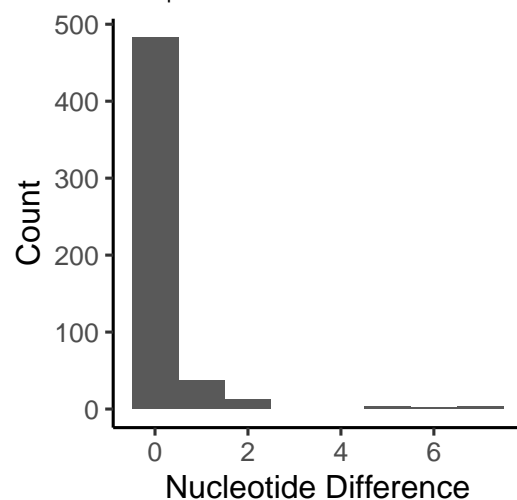
### IGHV4-28\*01

2 sequences assigned  
No exact matches.



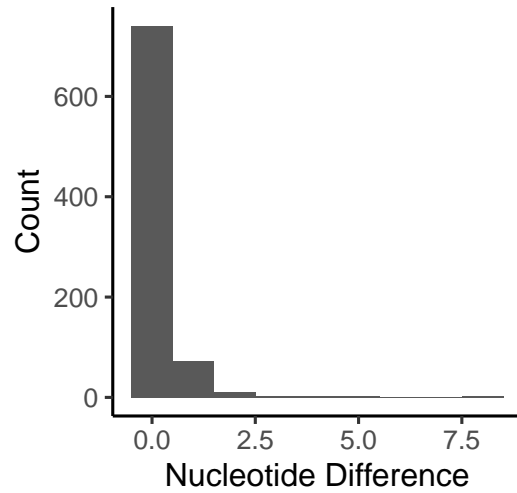
### IGHV4-31\*03

540 sequences assigned  
483 (89.4%) exact matches, in which:  
475 unique CDR3  
6 unique J



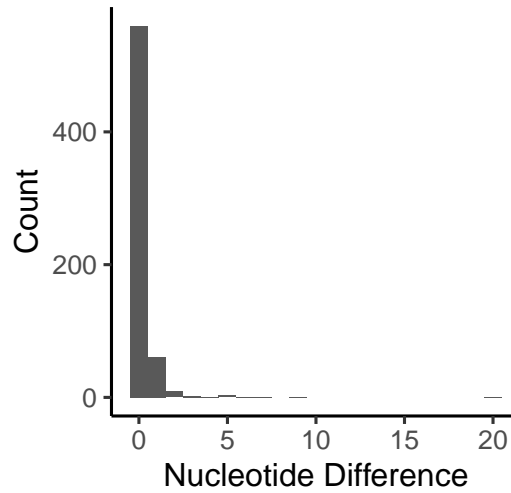
### IGHV4–34\*01

838 sequences assigned  
741 (88.4%) exact matches, in which:  
725 unique CDR3  
6 unique J



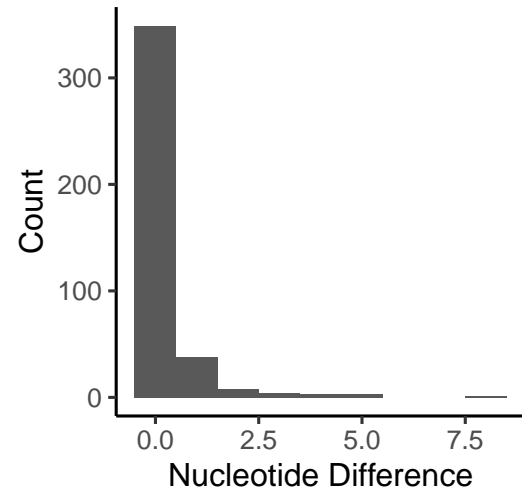
### IGHV4–39\*01

640 sequences assigned  
560 (87.5%) exact matches, in which:  
551 unique CDR3  
6 unique J



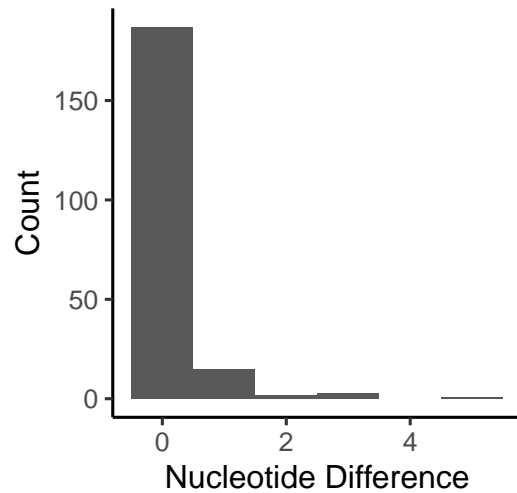
### IGHV4–61\*02

408 sequences assigned  
349 (85.5%) exact matches, in which:  
343 unique CDR3  
6 unique J



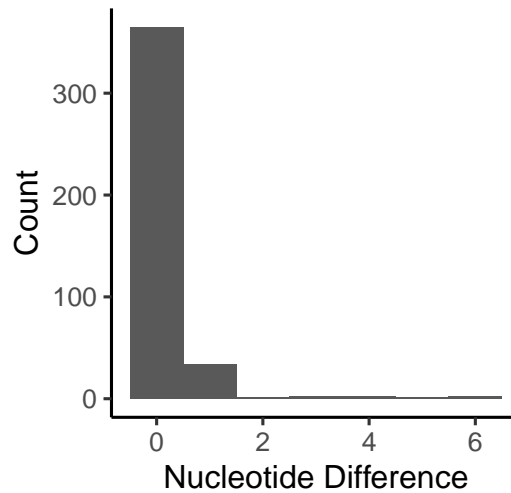
### IGHV4–38–2\*01

208 sequences assigned  
187 (89.9%) exact matches, in which:  
184 unique CDR3  
6 unique J



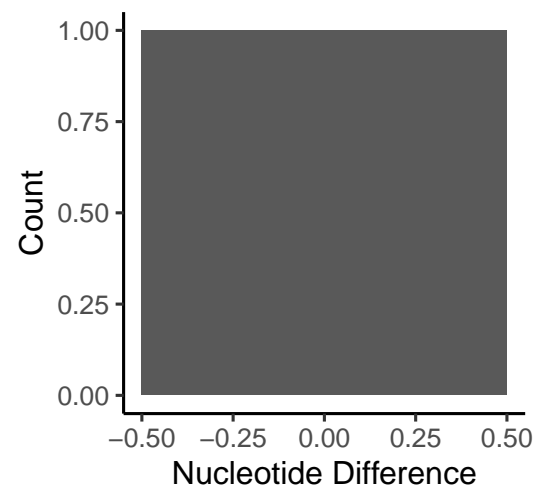
### IGHV4–59\*01

413 sequences assigned  
365 (88.4%) exact matches, in which:  
358 unique CDR3  
6 unique J



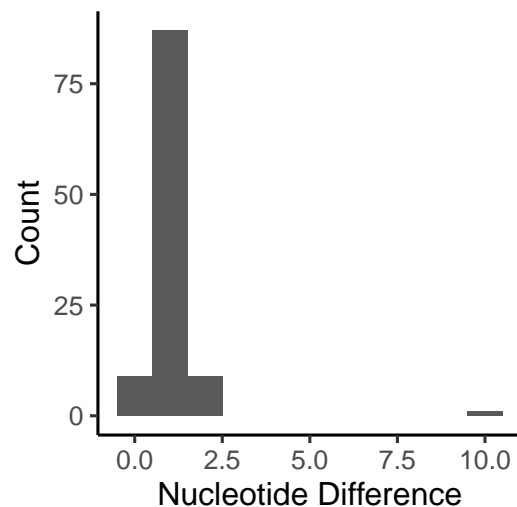
### IGHV1/OR15–4\*01

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



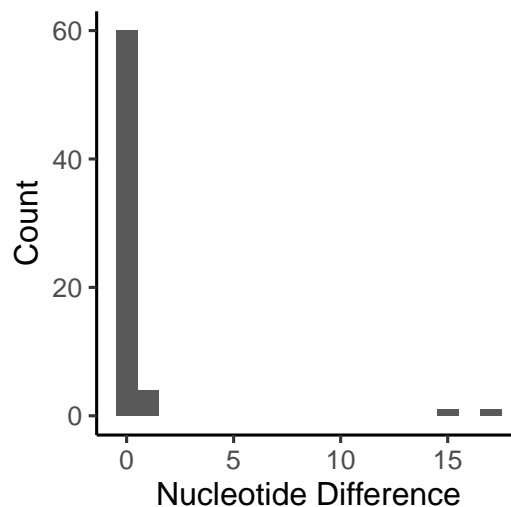
### IGHV4–38–2\*02

106 sequences assigned  
9 (8.5%) exact matches, in which:  
9 unique CDR3  
4 unique J



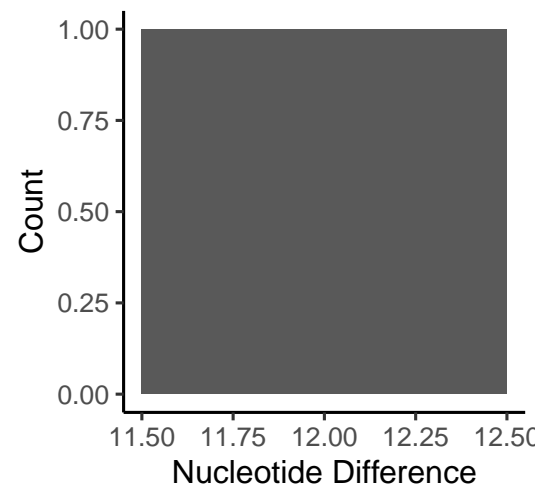
### IGHV4–61\*01

66 sequences assigned  
60 (90.9%) exact matches, in which:  
60 unique CDR3  
5 unique J



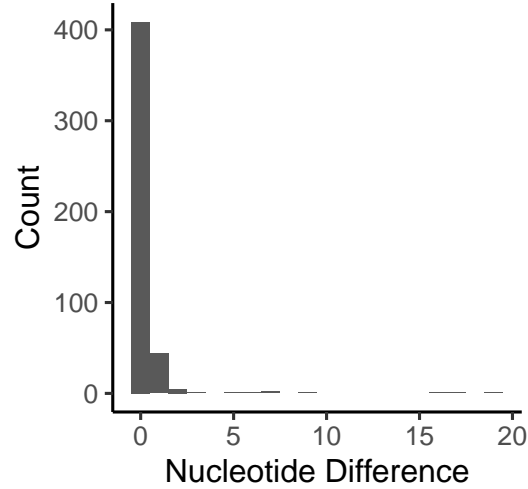
### IGHV1/OR15–9\*01

1 sequences assigned  
No exact matches.



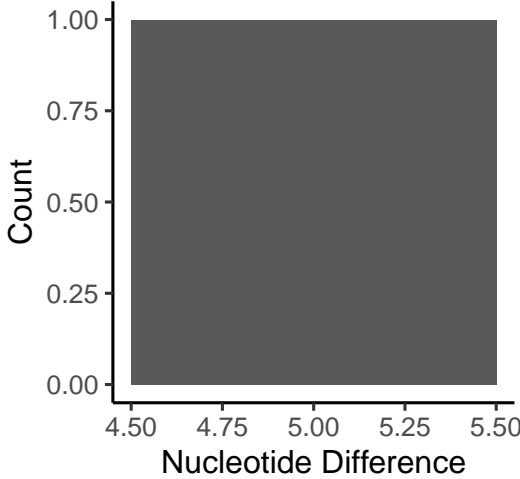
IGHV5–51\*01

467 sequences assigned  
409 (87.6%) exact matches, in which:  
400 unique CDR3  
6 unique J



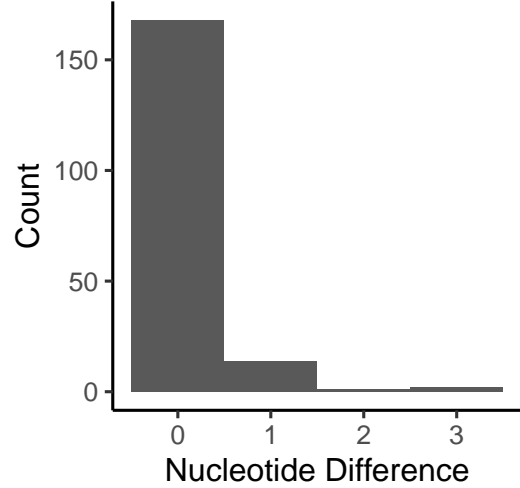
IGHV3/OR16–15\*02

1 sequences assigned  
No exact matches.



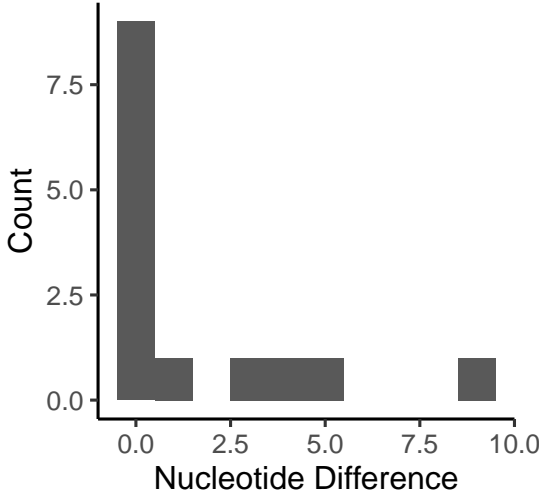
IGHV6–1\*01

185 sequences assigned  
168 (90.8%) exact matches, in which:  
165 unique CDR3  
6 unique J



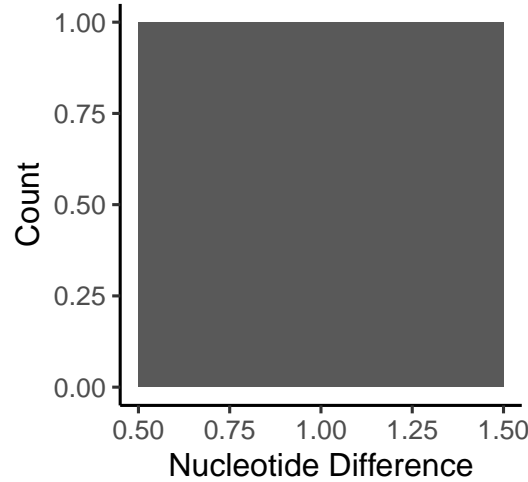
IGHV7–4–1\*01

14 sequences assigned  
9 (64.3%) exact matches, in which:  
9 unique CDR3  
3 unique J



IGHV3/OR16–12\*01

1 sequences assigned  
No exact matches.







Warning – no inferred sequences found.