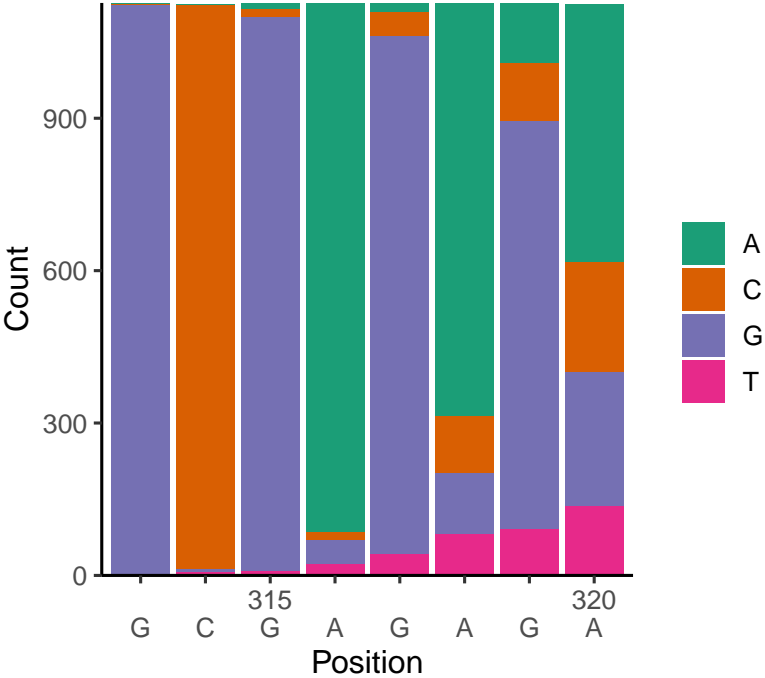


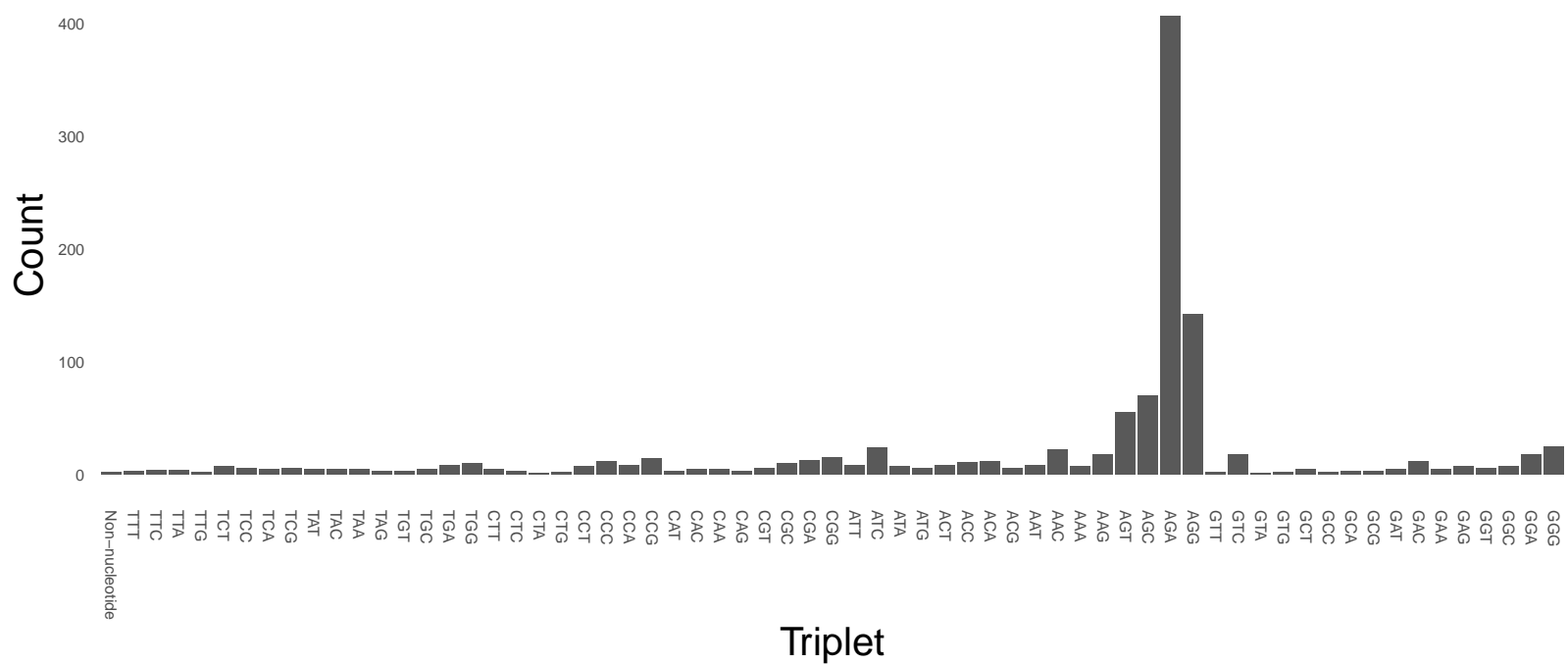
Gene IGHV1-69\*08\_C191T



Gene IGHV1-69\*08\_C191T

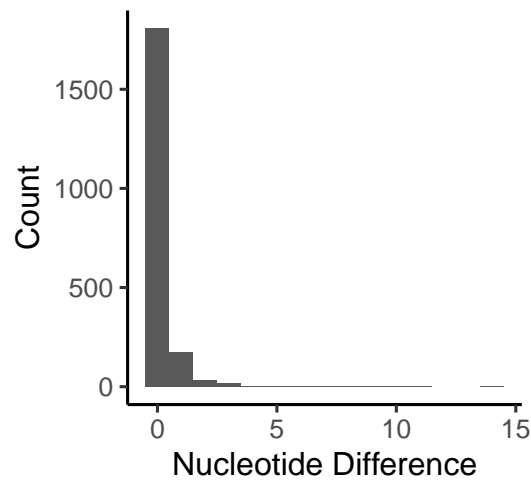


IGHV1-69\*08\_C191T- Final 3 nucleotides as a triplet



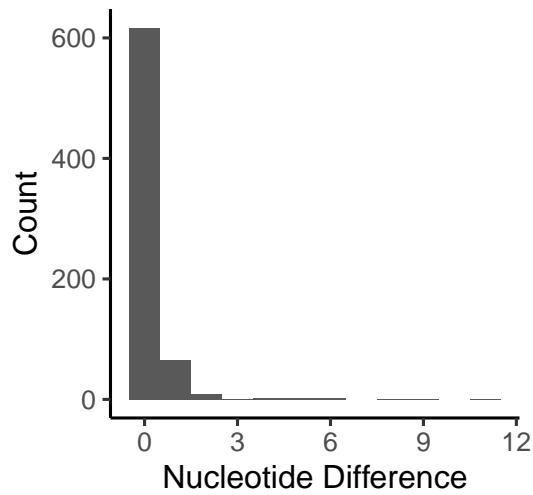
### IGHV1-2\*02

2057 sequences assigned  
1807 (87.8%) exact matches, in which:  
1754 unique CDR3  
6 unique J



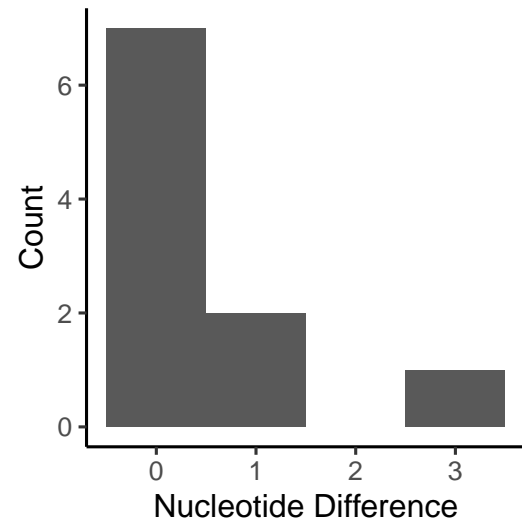
### IGHV1-18\*01

702 sequences assigned  
617 (87.9%) exact matches, in which:  
606 unique CDR3  
6 unique J



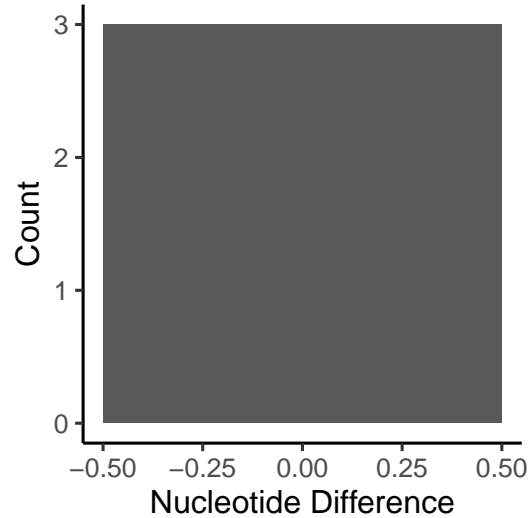
### IGHV1-45\*02

10 sequences assigned  
7 (70%) exact matches, in which:  
7 unique CDR3  
3 unique J



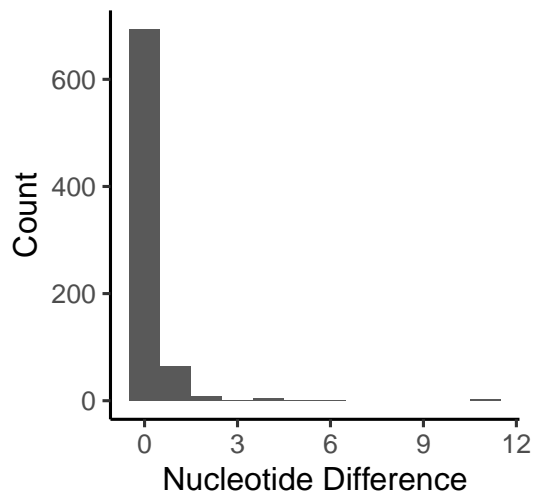
### IGHV1-3\*02

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



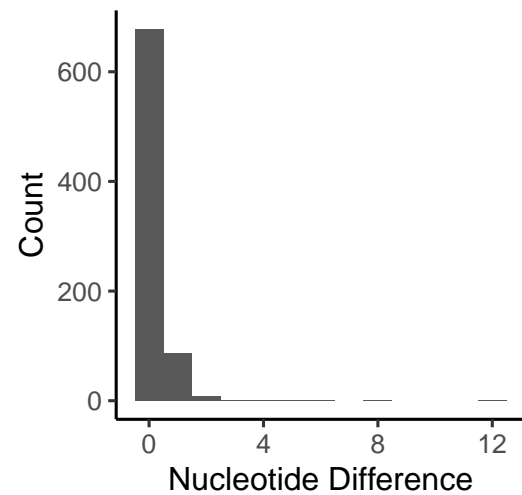
### IGHV1-18\*04

776 sequences assigned  
694 (89.4%) exact matches, in which:  
675 unique CDR3  
6 unique J



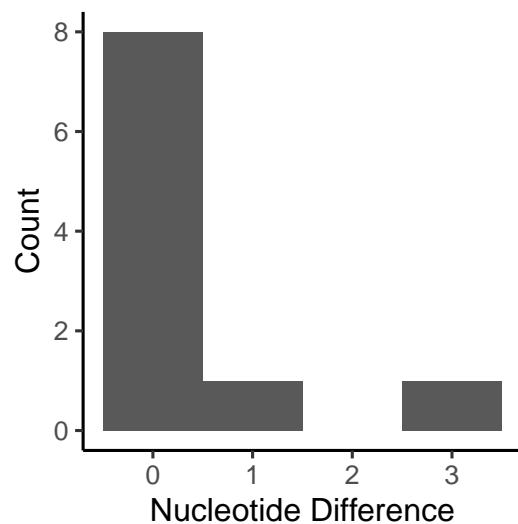
### IGHV1-46\*01

778 sequences assigned  
678 (87.1%) exact matches, in which:  
662 unique CDR3  
6 unique J



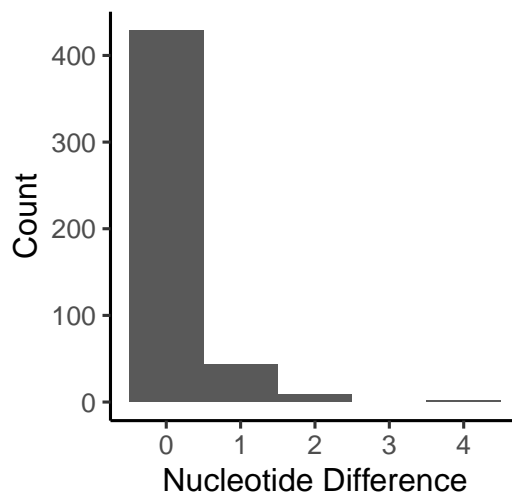
### IGHV1-8\*01

10 sequences assigned  
8 (80%) exact matches, in which:  
8 unique CDR3  
4 unique J



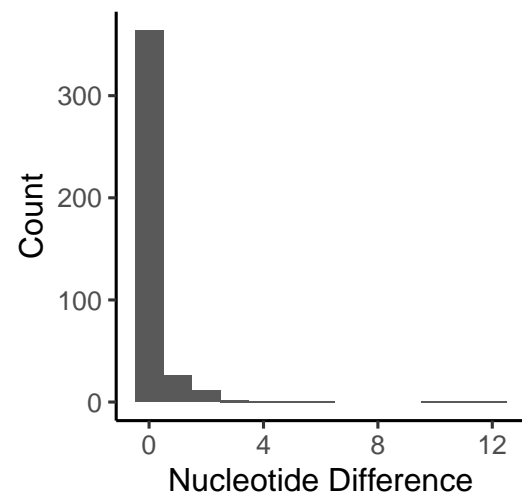
### IGHV1-24\*01

483 sequences assigned  
429 (88.8%) exact matches, in which:  
414 unique CDR3  
6 unique J



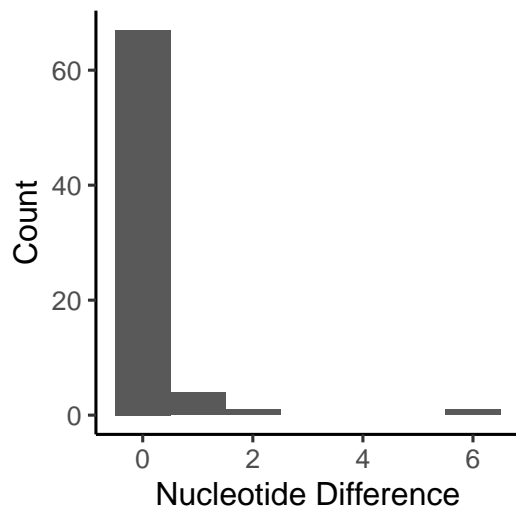
### IGHV1-46\*04

409 sequences assigned  
364 (89%) exact matches, in which:  
355 unique CDR3  
5 unique J



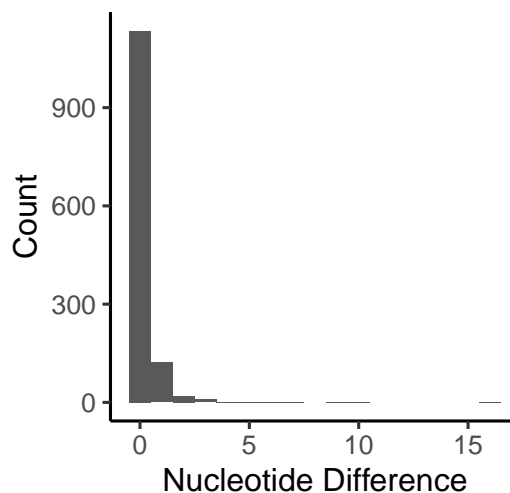
### IGHV1-58\*01

73 sequences assigned  
67 (91.8%) exact matches, in which:  
66 unique CDR3  
5 unique J



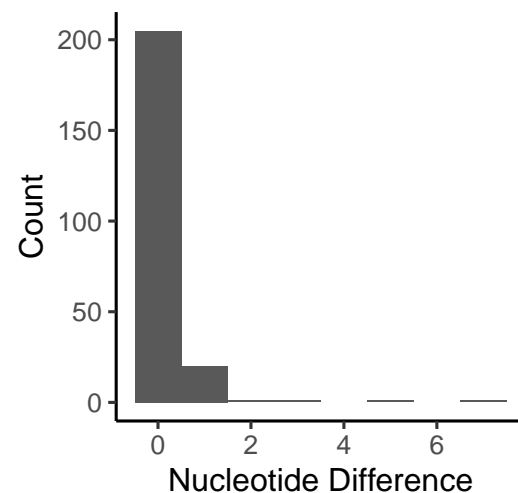
### IGHV1-69\*04

1295 sequences assigned  
1135 (87.6%) exact matches, in which:  
1088 unique CDR3  
6 unique J



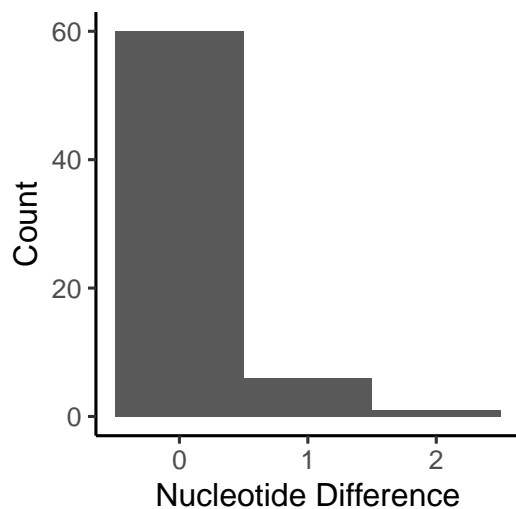
### IGHV2-5\*02

229 sequences assigned  
205 (89.5%) exact matches, in which:  
193 unique CDR3  
6 unique J



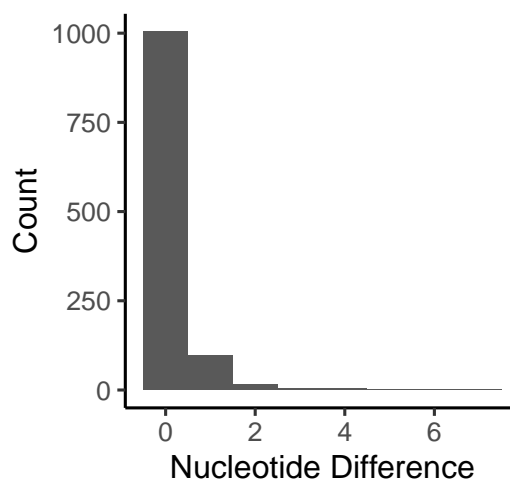
### IGHV1-58\*02

67 sequences assigned  
60 (89.6%) exact matches, in which:  
58 unique CDR3  
5 unique J



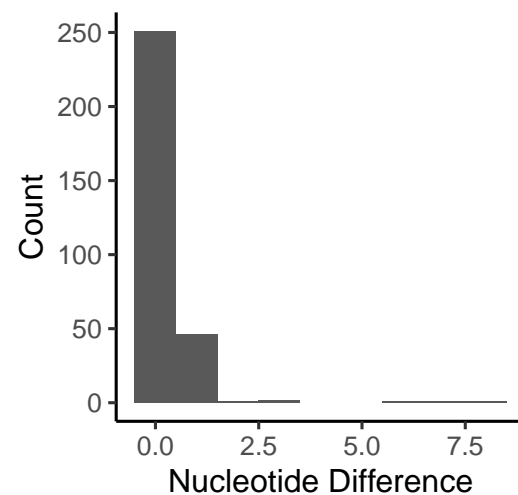
### IGHV1-69\*08\_C191T

1127 sequences assigned  
1004 (89.1%) exact matches, in which:  
972 unique CDR3  
6 unique J



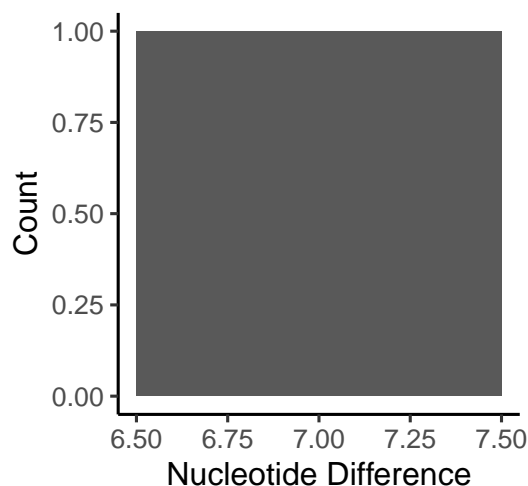
### IGHV2-26\*01

303 sequences assigned  
251 (82.8%) exact matches, in which:  
241 unique CDR3  
6 unique J



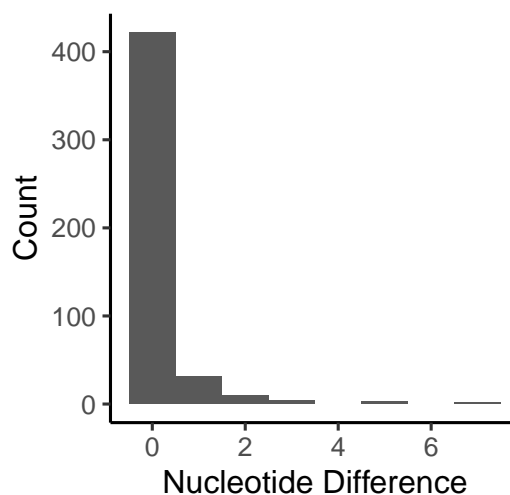
### IGHV1-68\*02

1 sequences assigned  
No exact matches.



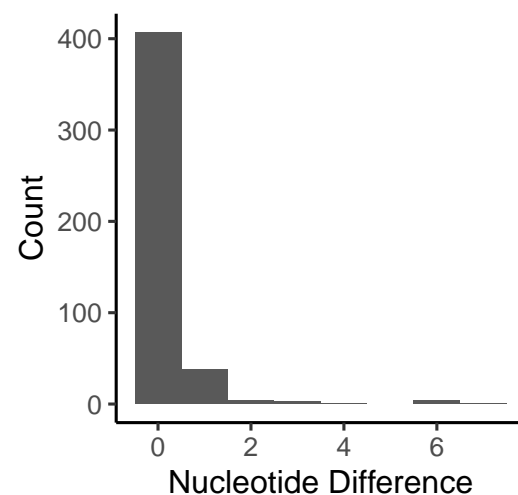
### IGHV2-5\*01

472 sequences assigned  
422 (89.4%) exact matches, in which:  
404 unique CDR3  
6 unique J



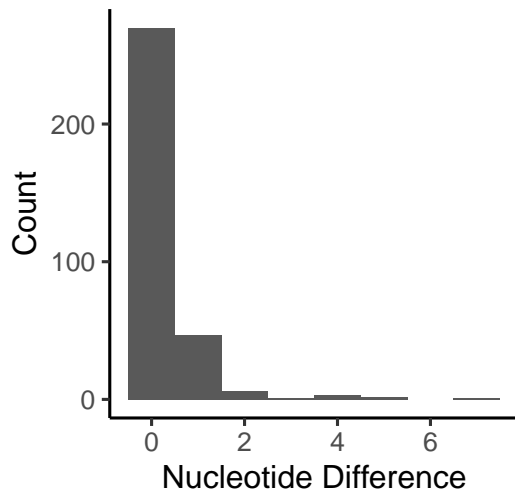
### IGHV2-70\*15

458 sequences assigned  
407 (88.9%) exact matches, in which:  
398 unique CDR3  
6 unique J



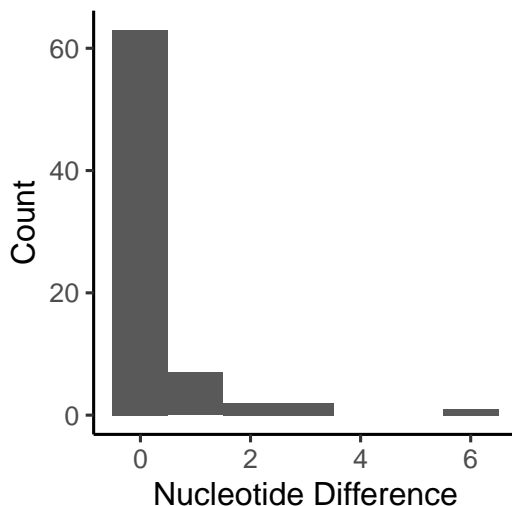
### IGHV3-7\*03

330 sequences assigned  
270 (81.8%) exact matches, in which:  
263 unique CDR3  
6 unique J



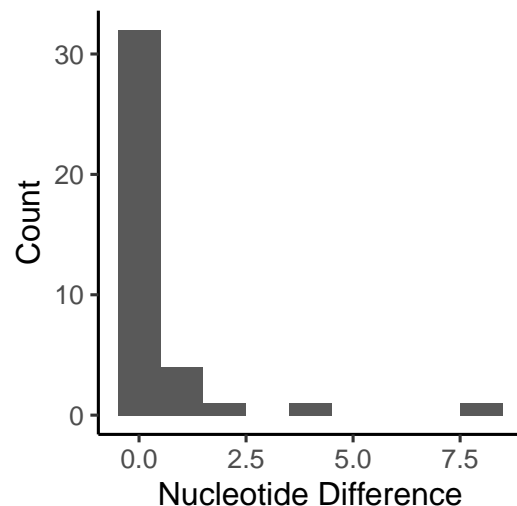
### IGHV3-13\*05

75 sequences assigned  
63 (84%) exact matches, in which:  
62 unique CDR3  
4 unique J



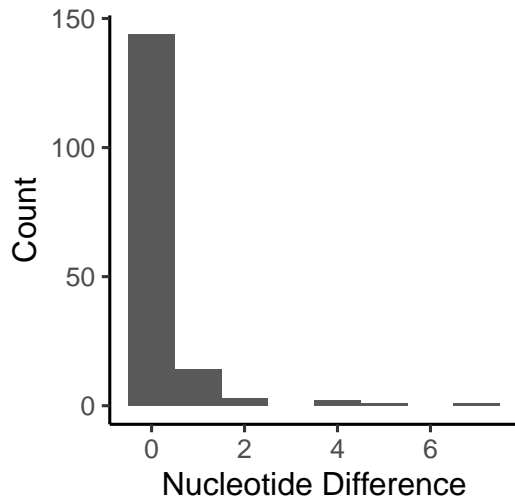
### IGHV3-20\*04

39 sequences assigned  
32 (82.1%) exact matches, in which:  
31 unique CDR3  
4 unique J



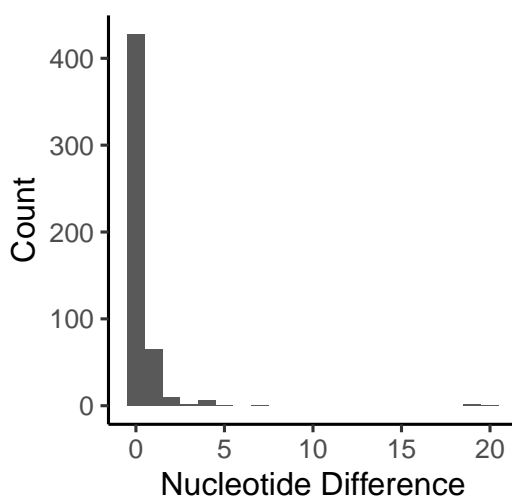
### IGHV3-7\*05

165 sequences assigned  
144 (87.3%) exact matches, in which:  
143 unique CDR3  
6 unique J



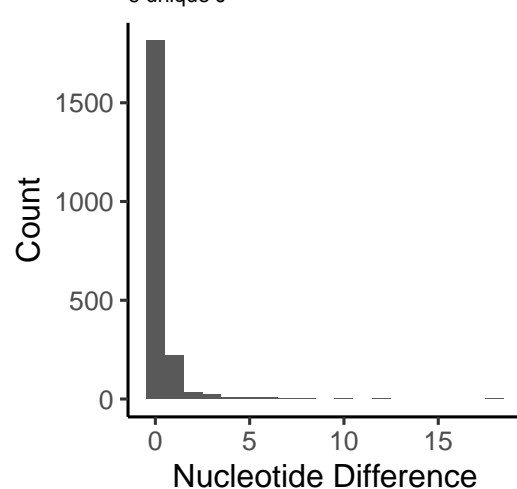
### IGHV3-15\*01

516 sequences assigned  
428 (82.9%) exact matches, in which:  
413 unique CDR3  
6 unique J



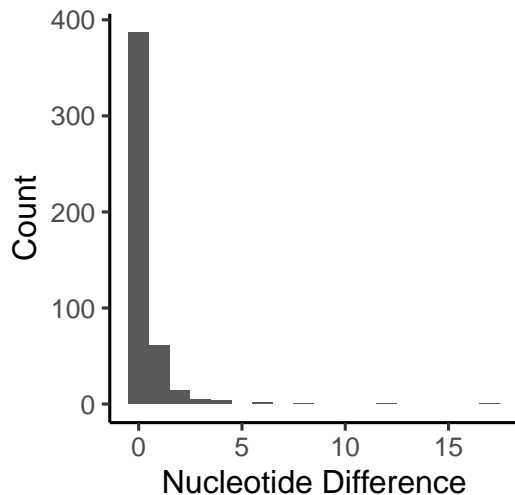
### IGHV3-21\*01

2125 sequences assigned  
1814 (85.4%) exact matches, in which:  
1752 unique CDR3  
6 unique J



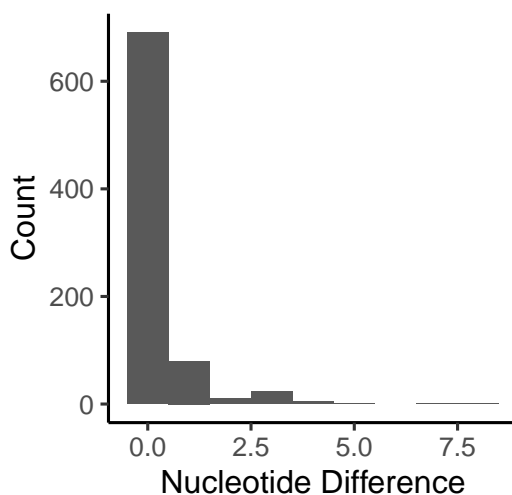
### IGHV3-11\*06

477 sequences assigned  
387 (81.1%) exact matches, in which:  
377 unique CDR3  
6 unique J



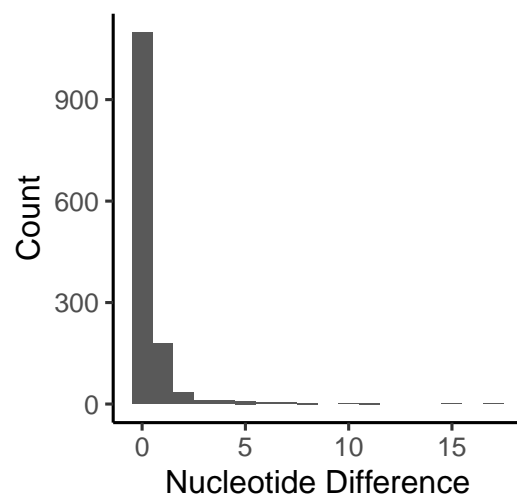
### IGHV3-15\*07

813 sequences assigned  
691 (85%) exact matches, in which:  
666 unique CDR3  
6 unique J



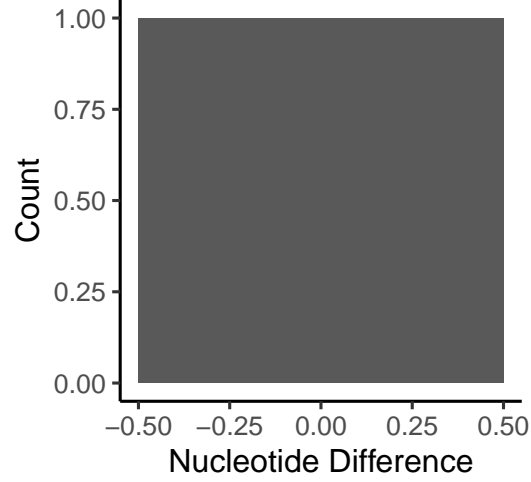
### IGHV3-23\*04

1359 sequences assigned  
1099 (80.9%) exact matches, in which:  
1054 unique CDR3  
6 unique J



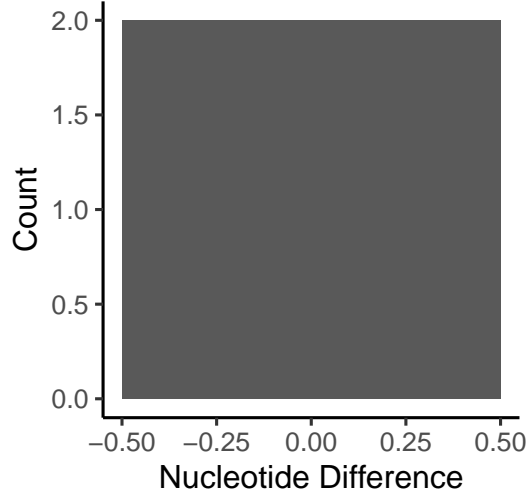
### IGHV3-25\*04

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



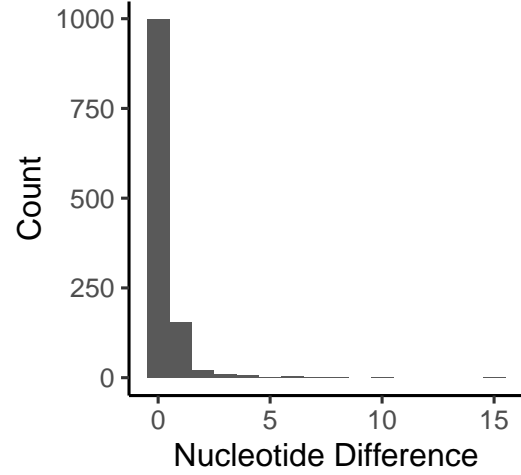
### IGHV3-35\*01

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



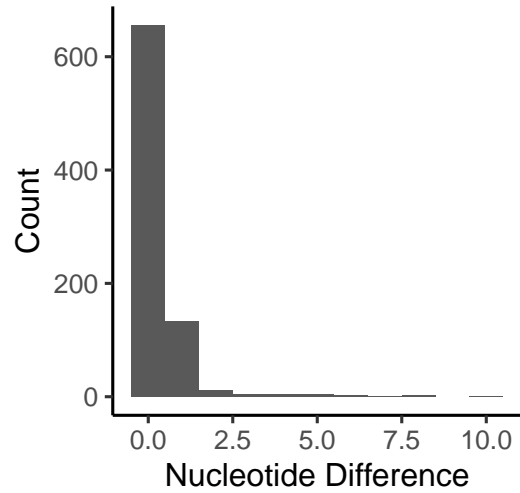
### IGHV3-48\*01

1200 sequences assigned  
998 (83.2%) exact matches, in which:  
975 unique CDR3  
6 unique J



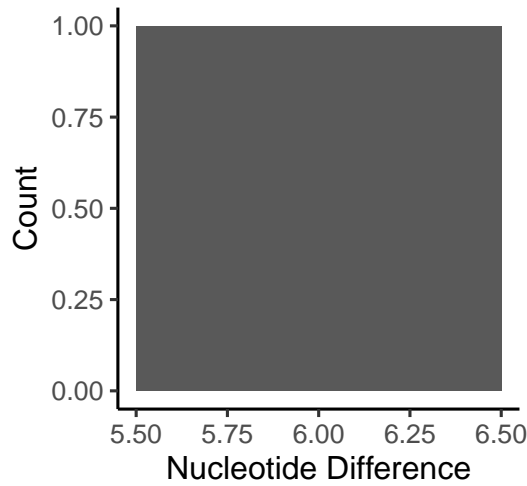
### IGHV3-33\*01

827 sequences assigned  
656 (79.3%) exact matches, in which:  
637 unique CDR3  
6 unique J



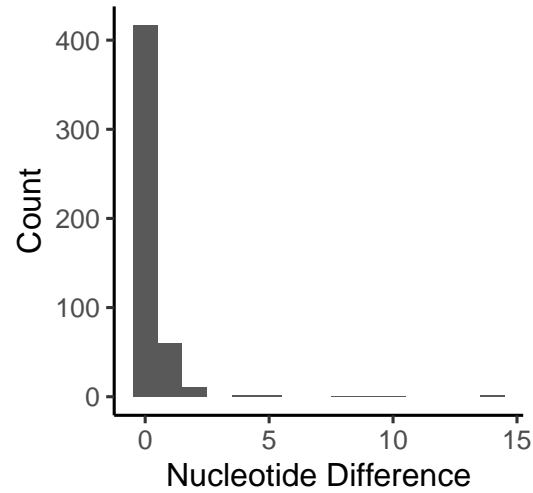
### IGHV3-41\*02

2 sequences assigned  
No exact matches.



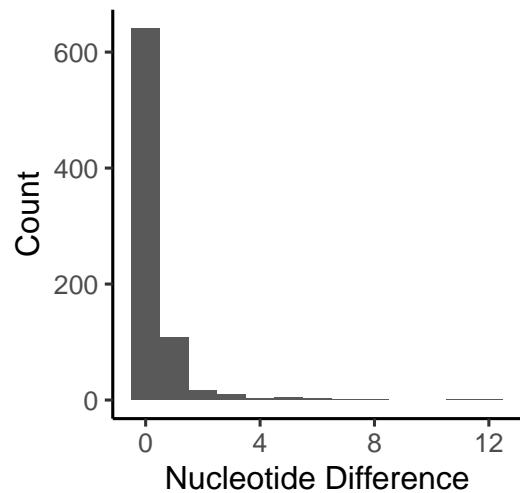
### IGHV3-49\*03

497 sequences assigned  
417 (83.9%) exact matches, in which:  
410 unique CDR3  
6 unique J



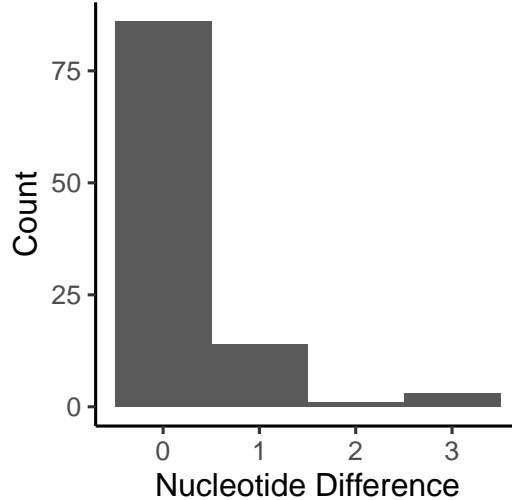
### IGHV3-33\*08

790 sequences assigned  
641 (81.1%) exact matches, in which:  
627 unique CDR3  
6 unique J



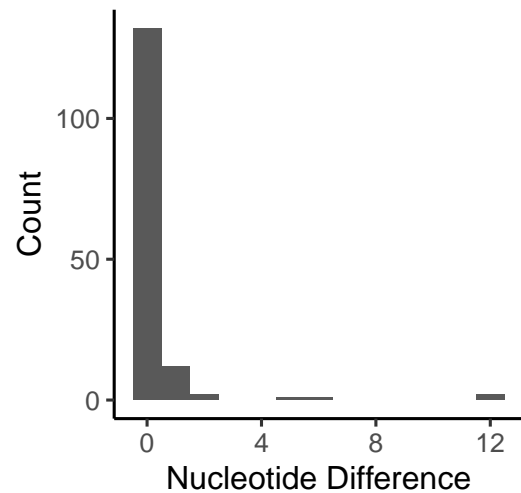
### IGHV3-43\*01

104 sequences assigned  
86 (82.7%) exact matches, in which:  
84 unique CDR3  
5 unique J



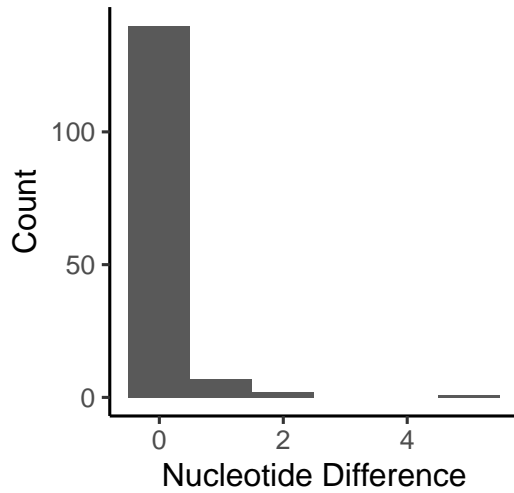
### IGHV3-53\*02

150 sequences assigned  
132 (88%) exact matches, in which:  
129 unique CDR3  
6 unique J



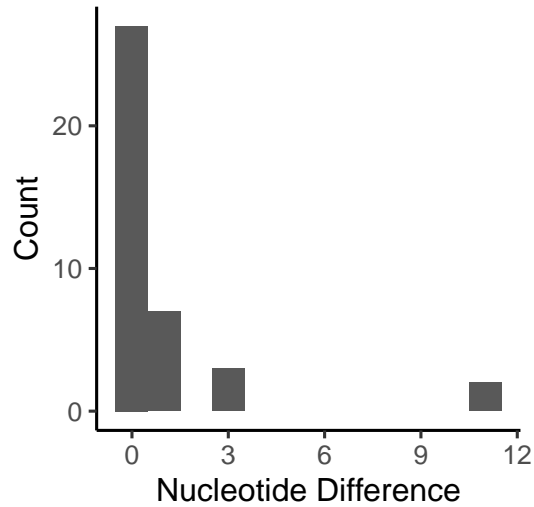
### IGHV3-53\*04

151 sequences assigned  
140 (92.7%) exact matches, in which:  
139 unique CDR3  
6 unique J



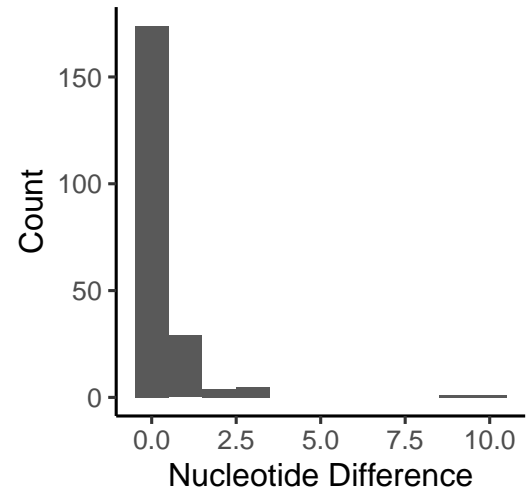
### IGHV3-72\*01

39 sequences assigned  
27 (69.2%) exact matches, in which:  
27 unique CDR3  
5 unique J



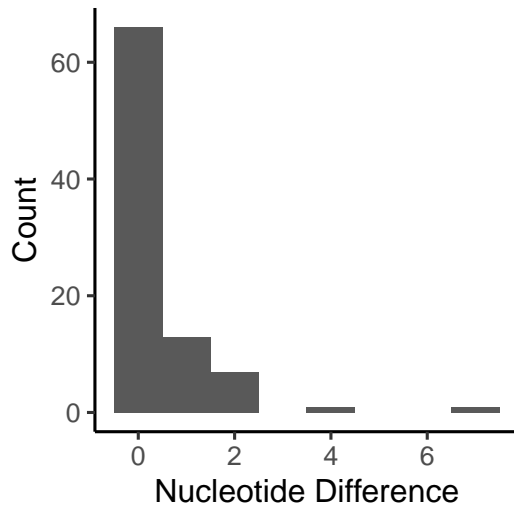
### IGHV3-64D\*06

214 sequences assigned  
174 (81.3%) exact matches, in which:  
169 unique CDR3  
5 unique J



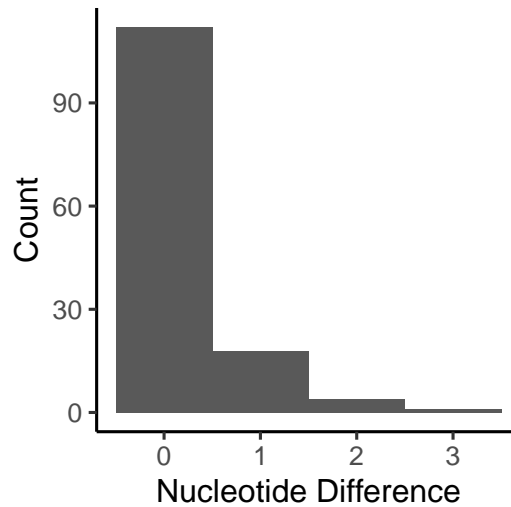
### IGHV3-64\*01

88 sequences assigned  
66 (75%) exact matches, in which:  
64 unique CDR3  
6 unique J



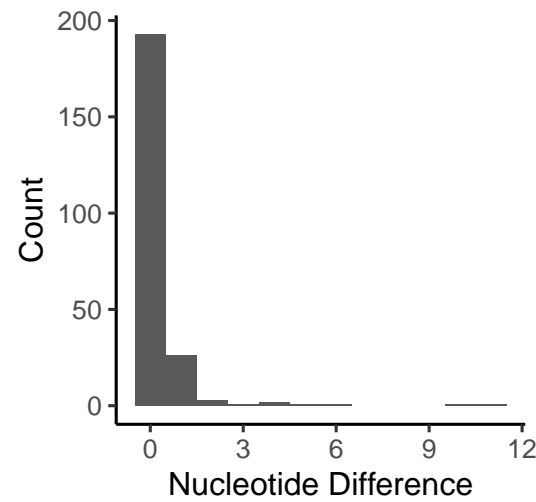
### IGHV3-73\*01

135 sequences assigned  
112 (83%) exact matches, in which:  
110 unique CDR3  
4 unique J



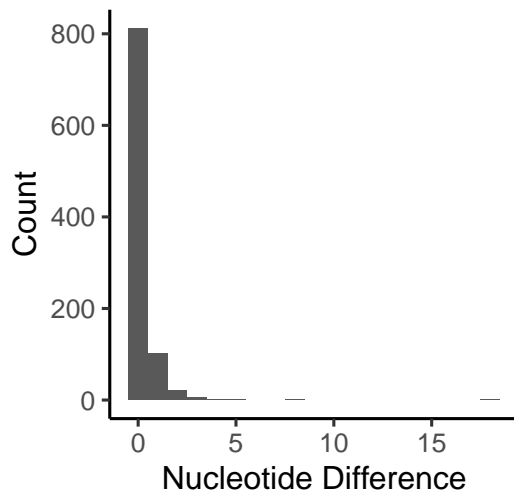
### IGHV3-64D\*08

229 sequences assigned  
193 (84.3%) exact matches, in which:  
188 unique CDR3  
6 unique J



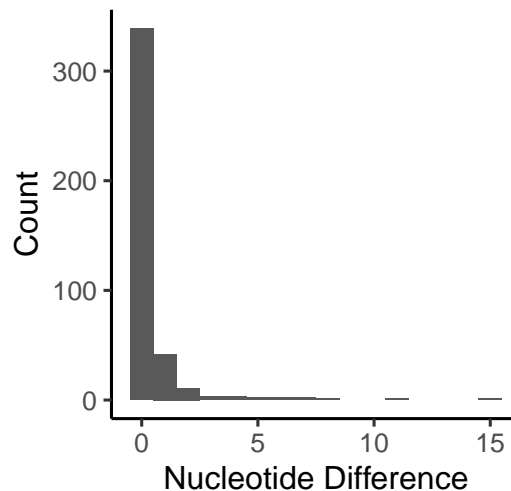
### IGHV3-66\*01

946 sequences assigned  
812 (85.8%) exact matches, in which:  
785 unique CDR3  
6 unique J



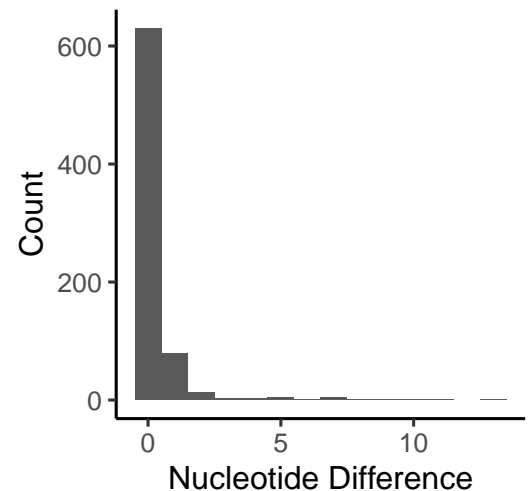
### IGHV3-74\*01

407 sequences assigned  
339 (83.3%) exact matches, in which:  
331 unique CDR3  
6 unique J



### IGHV4-4\*07

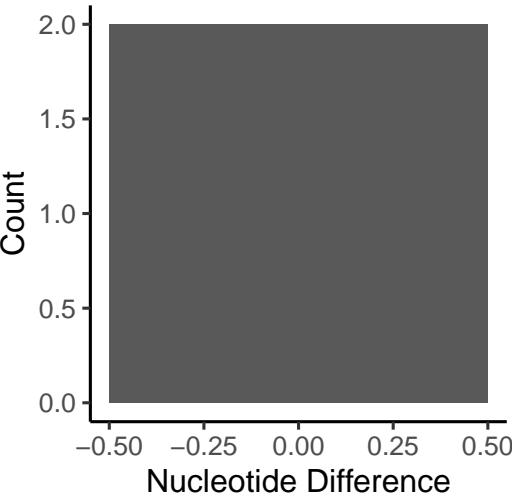
740 sequences assigned  
630 (85.1%) exact matches, in which:  
613 unique CDR3  
6 unique J





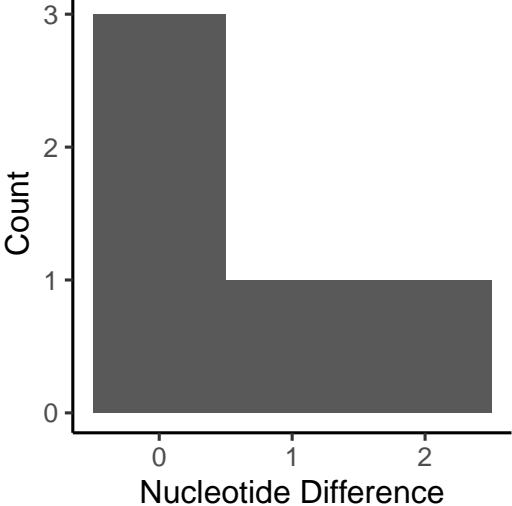
### IGHV4-28\*01

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



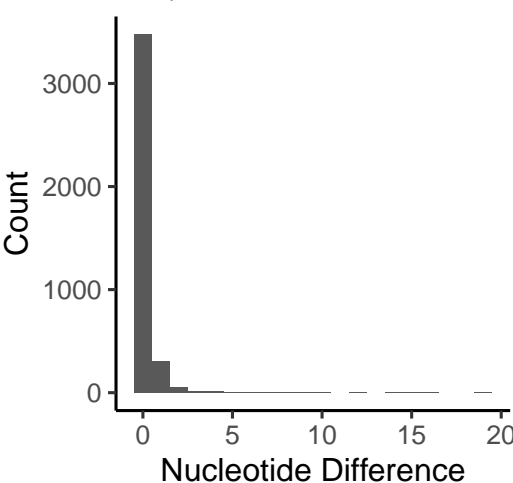
### IGHV4-28\*07

5 sequences assigned  
3 (60%) exact matches, in which:  
3 unique CDR3  
3 unique J



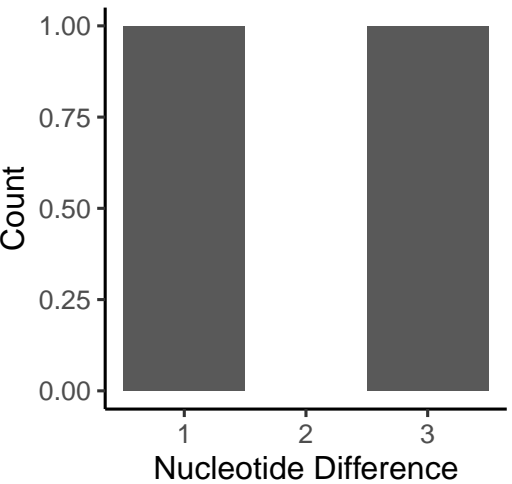
### IGHV4-34\*01

3888 sequences assigned  
3476 (89.4%) exact matches, in which:  
3355 unique CDR3  
6 unique J



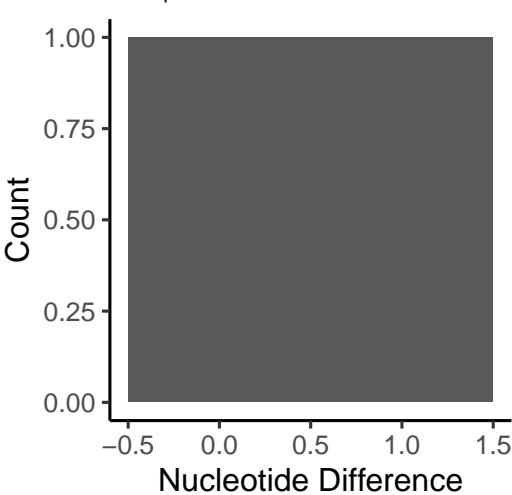
### IGHV4-28\*03

2 sequences assigned  
No exact matches.



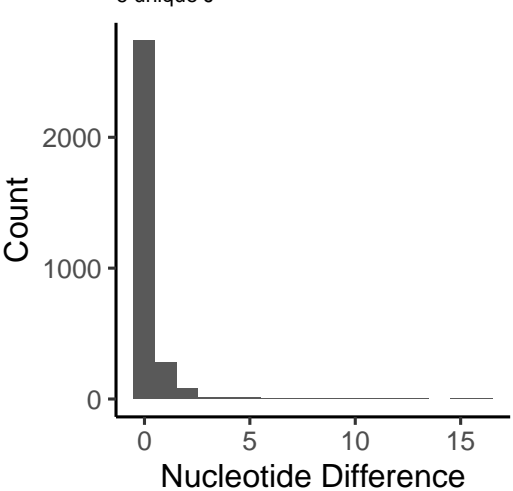
### IGHV4-30-2\*03

2 sequences assigned  
1 (50%) exact matches, in which:  
1 unique CDR3  
1 unique J



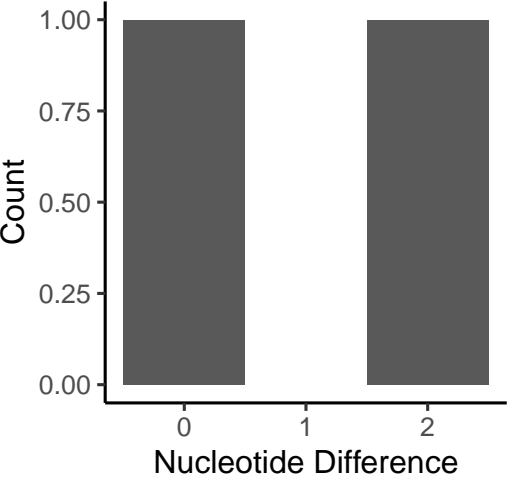
### IGHV4-39\*01

3148 sequences assigned  
2738 (87%) exact matches, in which:  
2610 unique CDR3  
6 unique J



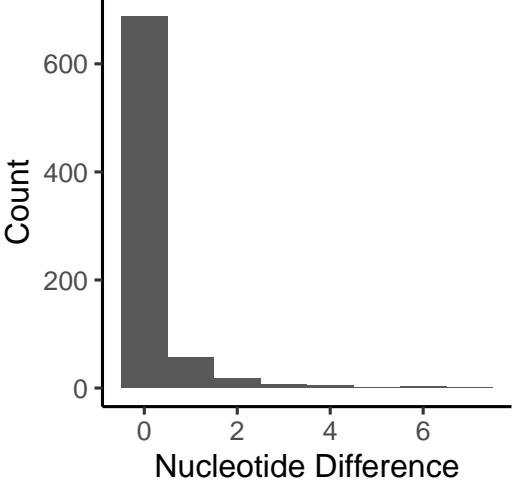
### IGHV4-28\*04

2 sequences assigned  
1 (50%) exact matches, in which:  
1 unique CDR3  
1 unique J



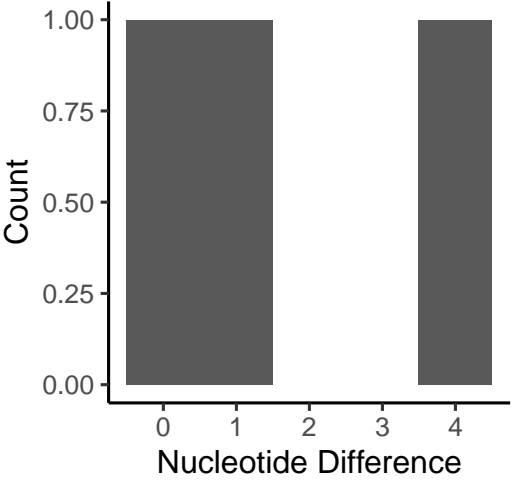
### IGHV4-31\*03

776 sequences assigned  
688 (88.7%) exact matches, in which:  
670 unique CDR3  
6 unique J



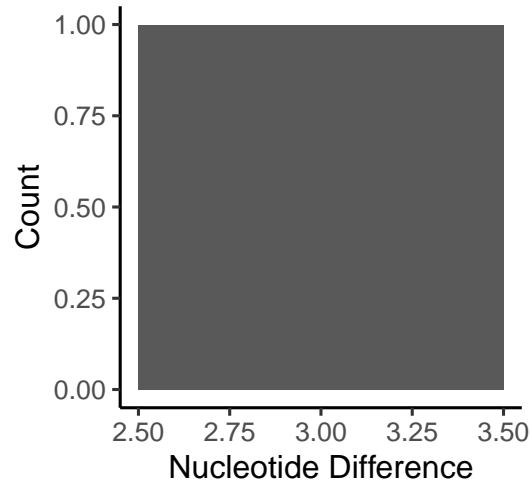
### IGHV4-55\*01

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



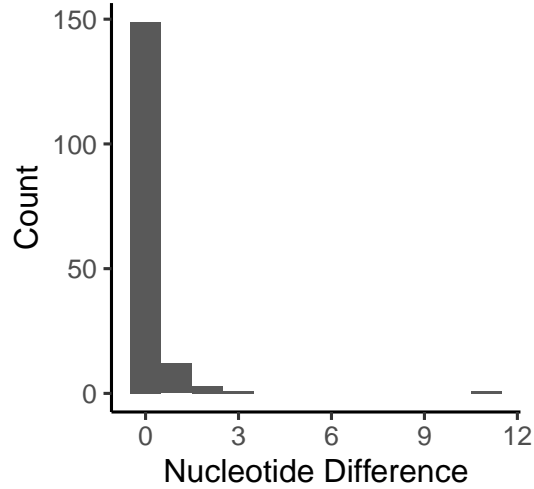
### IGHV4–55\*08

1 sequences assigned  
No exact matches.



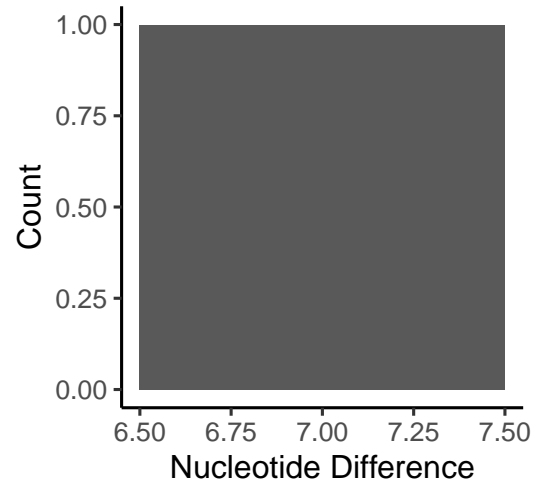
### IGHV4–61\*01

167 sequences assigned  
149 (89.2%) exact matches, in which:  
149 unique CDR3  
5 unique J



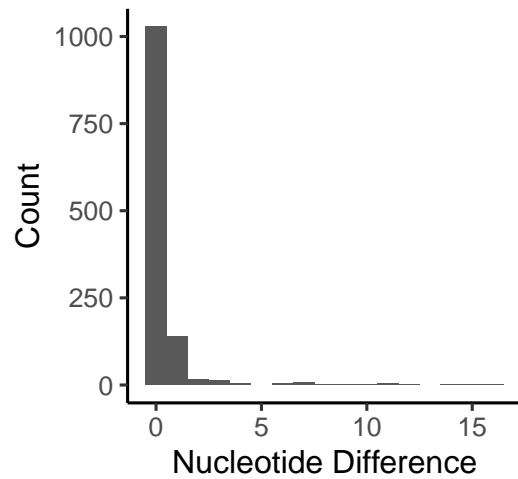
### IGHV4/OR15–8\*02

1 sequences assigned  
No exact matches.



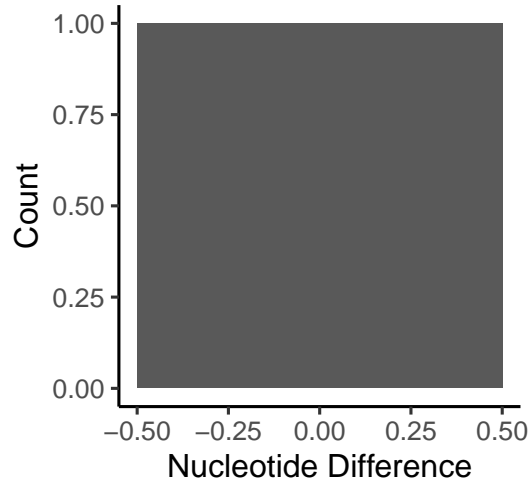
### IGHV4–59\*01

1222 sequences assigned  
1028 (84.1%) exact matches, in which:  
1006 unique CDR3  
6 unique J



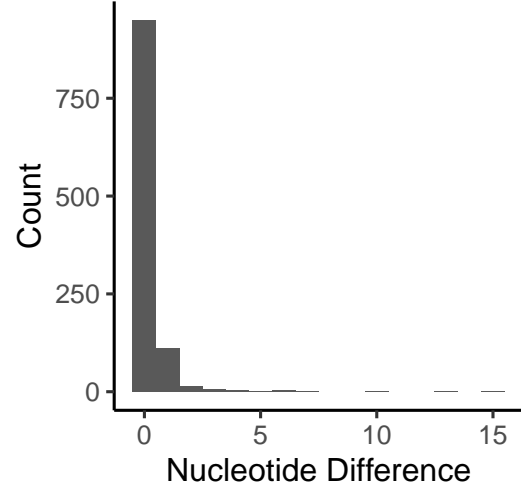
### IGHV1/OR15–1\*02

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



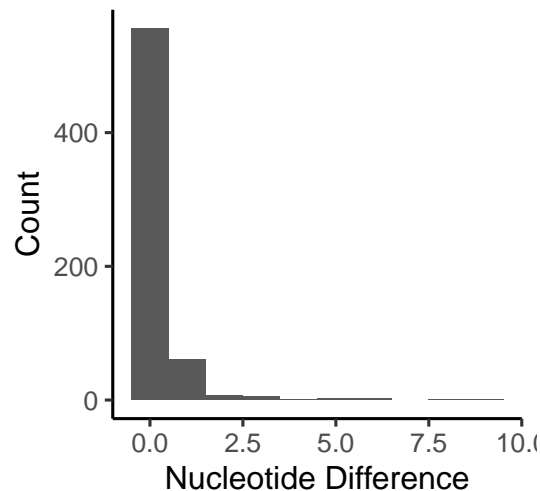
### IGHV5–10–1\*03

1099 sequences assigned  
950 (86.4%) exact matches, in which:  
914 unique CDR3  
6 unique J



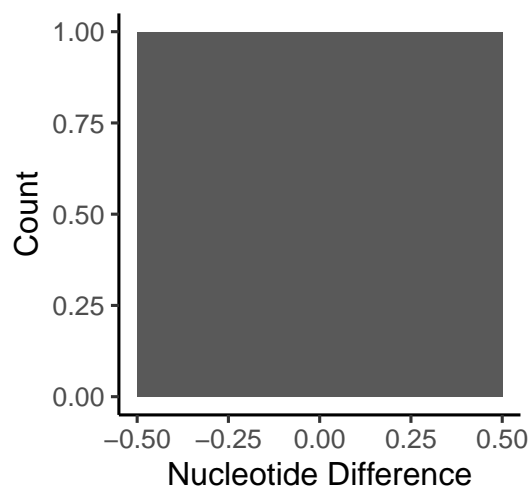
### IGHV4–59\*08

635 sequences assigned  
556 (87.6%) exact matches, in which:  
544 unique CDR3  
6 unique J



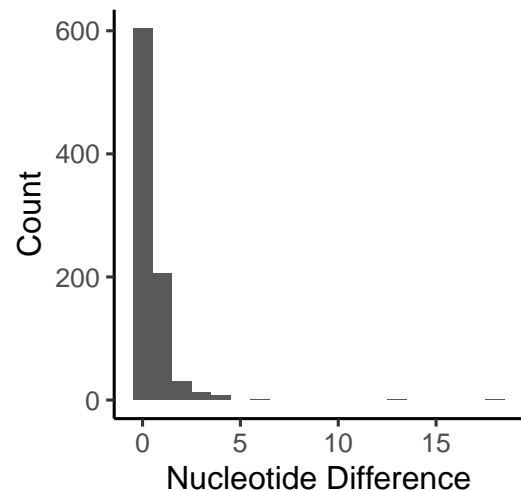
### IGHV1/OR15–2\*01

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



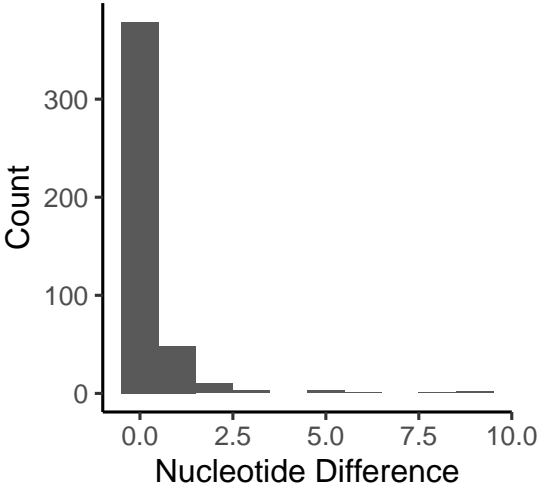
### IGHV5–51\*01

863 sequences assigned  
604 (70%) exact matches, in which:  
585 unique CDR3  
6 unique J



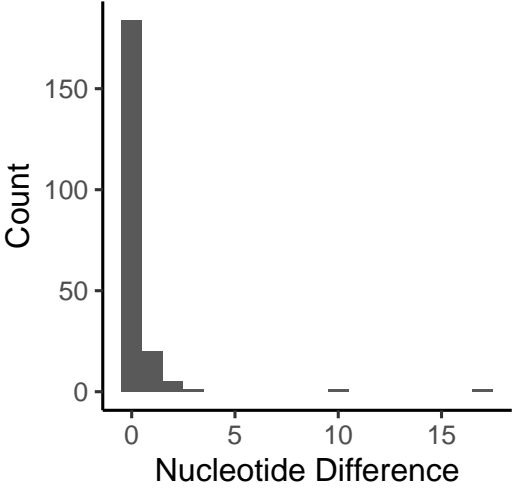
IGHV5–51\*03

447 sequences assigned  
379 (84.8%) exact matches, in which:  
369 unique CDR3  
6 unique J



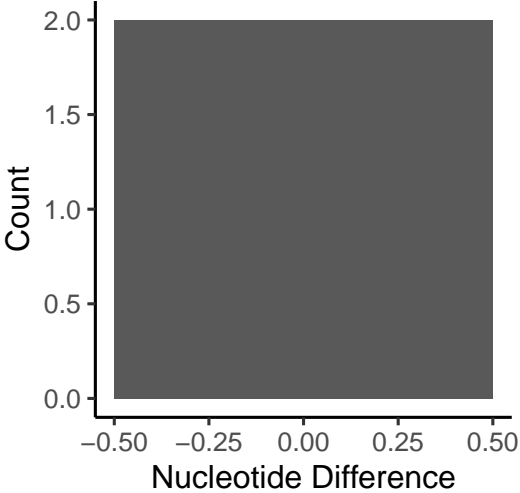
IGHV6–1\*01

212 sequences assigned  
184 (86.8%) exact matches, in which:  
176 unique CDR3  
6 unique J

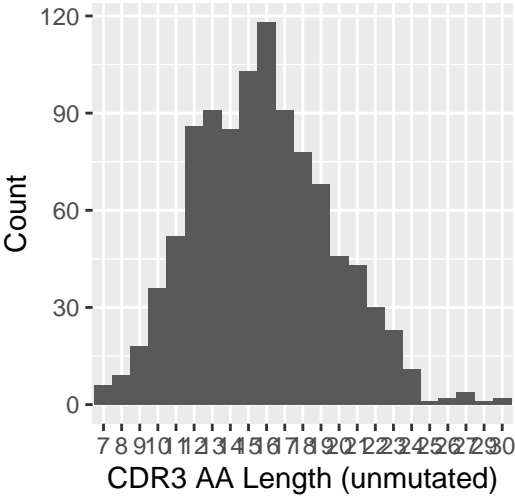


IGHV7–81\*01

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



IGHV1-69\*08\_C191T





[illegible]