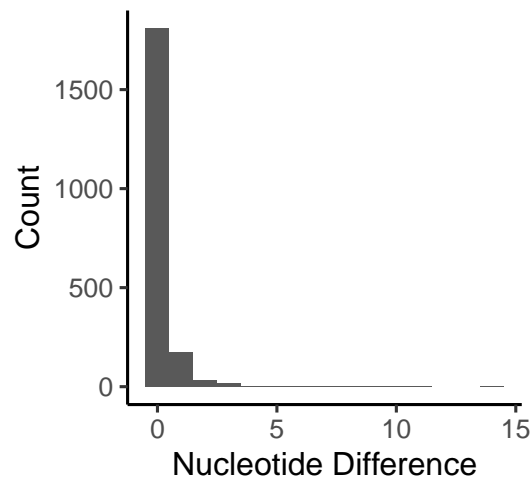


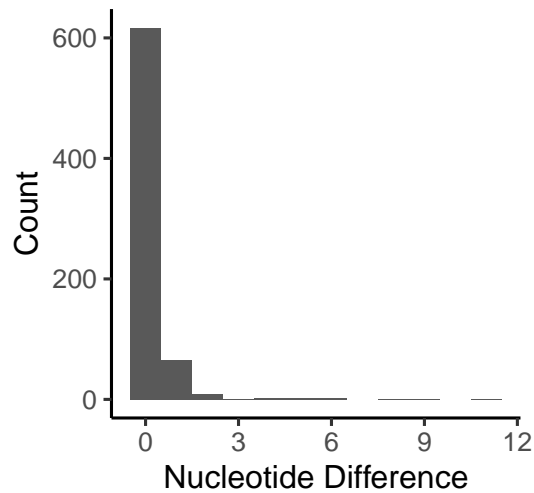
### IGHV1-2\*02

2059 sequences assigned  
1809 (87.9%) exact matches, in which:  
1756 unique CDR3  
6 unique J



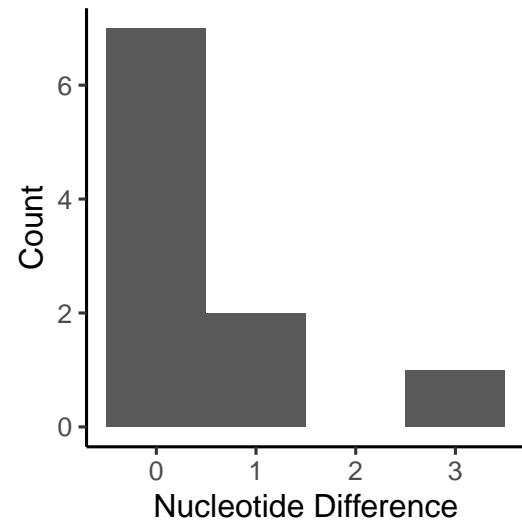
### IGHV1-18\*01

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



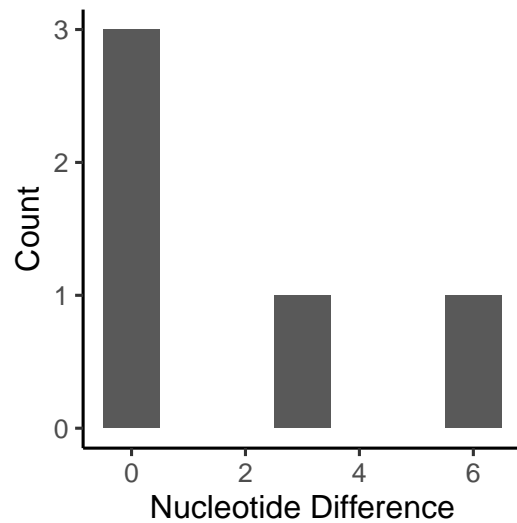
### IGHV1-45\*02

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



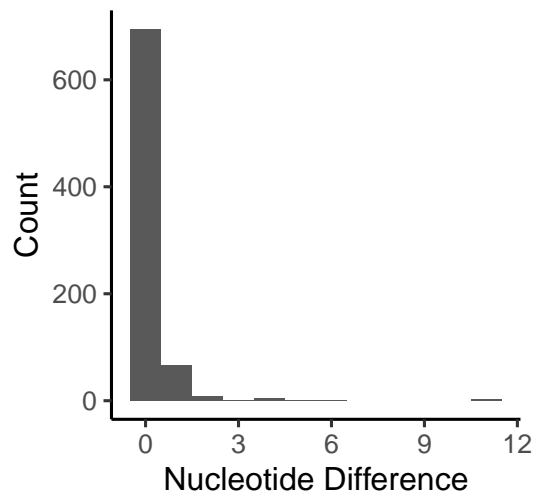
### IGHV1-3\*02

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



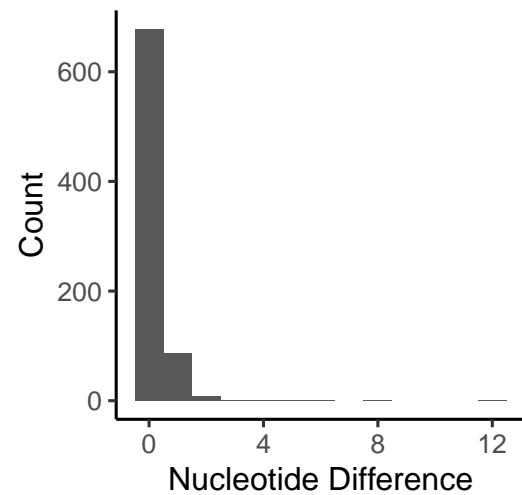
### IGHV1-18\*04

778 sequences assigned  
695 (89.3%) exact matches, in which:  
676 unique CDR3  
6 unique J



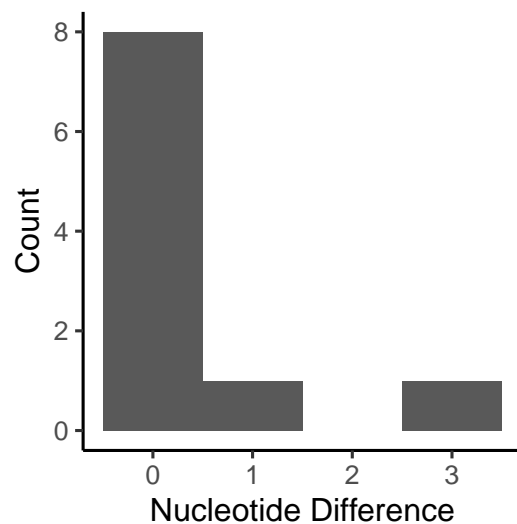
### IGHV1-46\*01

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



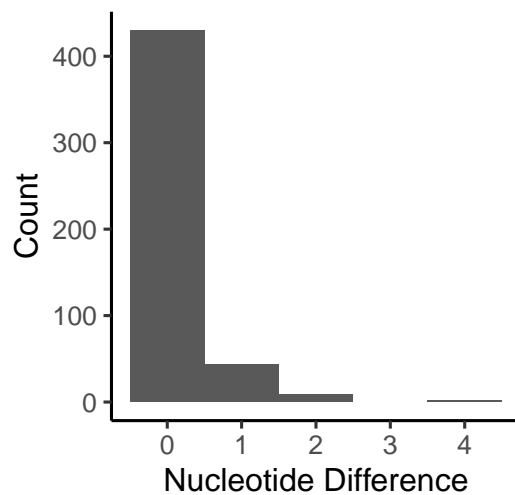
### IGHV1-8\*01

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



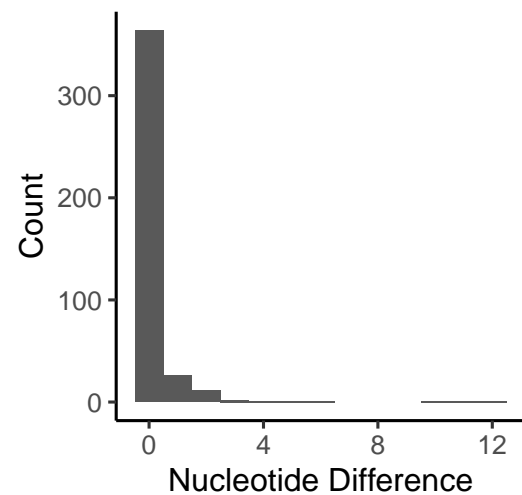
### IGHV1-24\*01

484 sequences assigned  
430 (88.8%) exact matches, in which:  
415 unique CDR3  
6 unique J



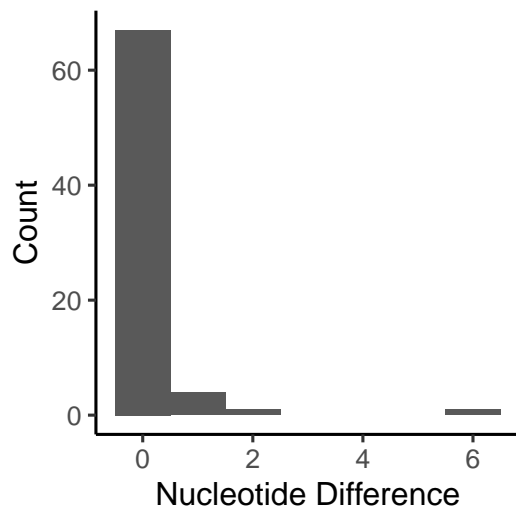
### IGHV1-46\*04

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



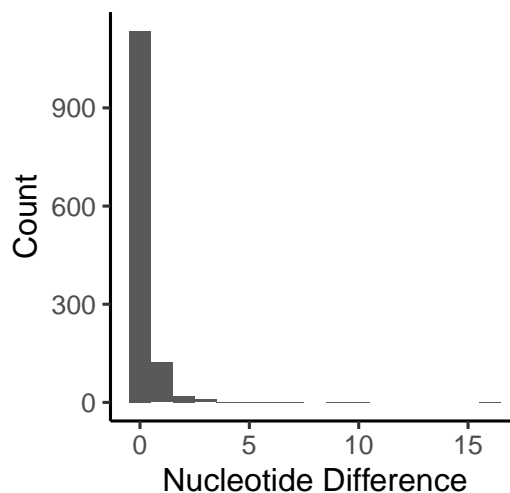
### IGHV1-58\*01

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



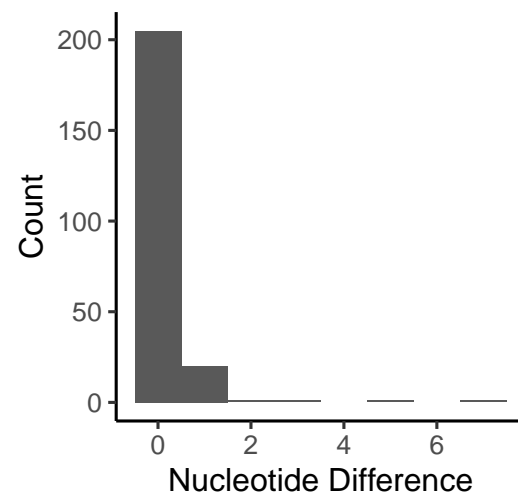
### IGHV1-69\*04

1296 sequences assigned  
1136 (87.7%) exact matches, in which:  
1089 unique CDR3  
6 unique J



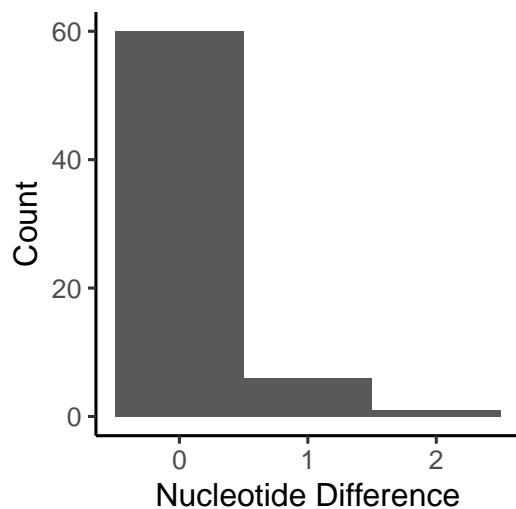
### IGHV2-5\*02

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



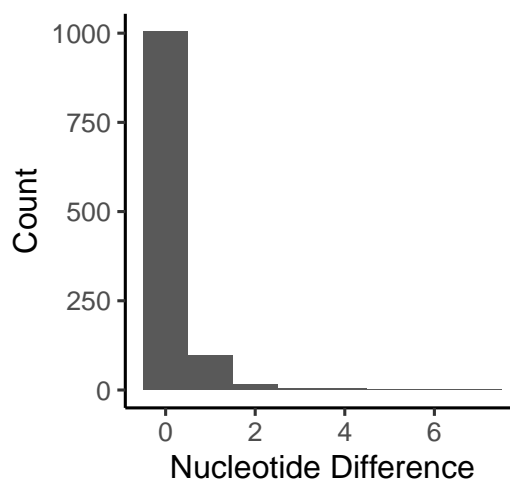
### IGHV1-58\*02

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



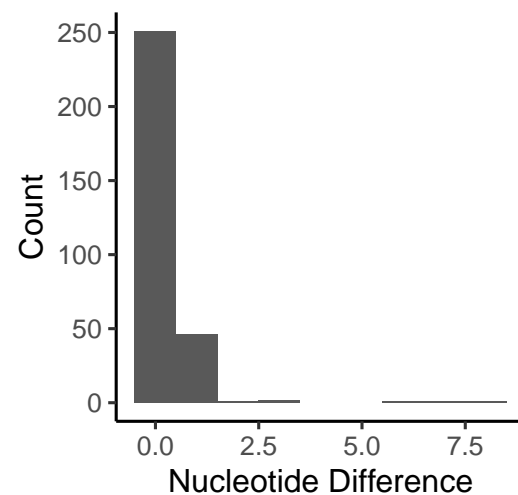
### IGHV1-69\*08\_C191T

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



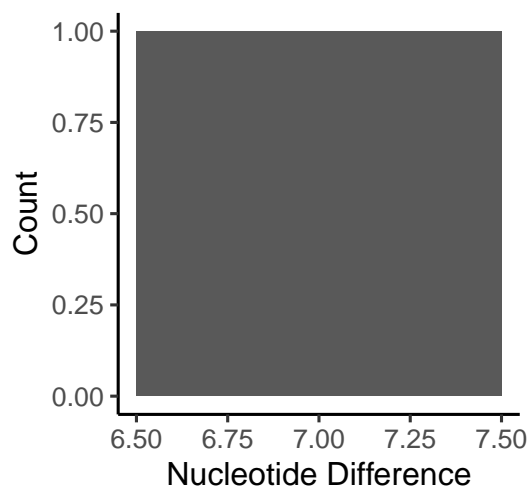
### IGHV2-26\*01

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



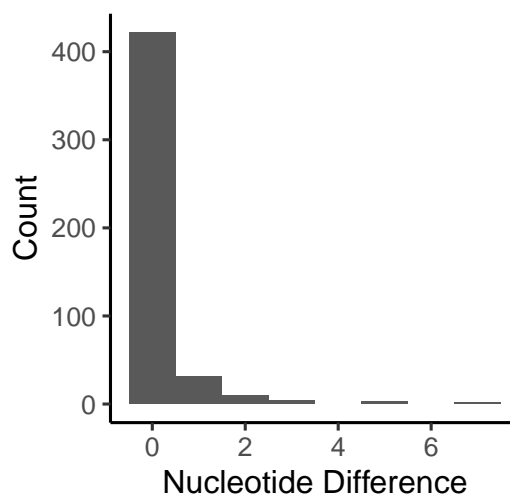
### IGHV1-68\*02

1 sequences assigned  
No exact matches.



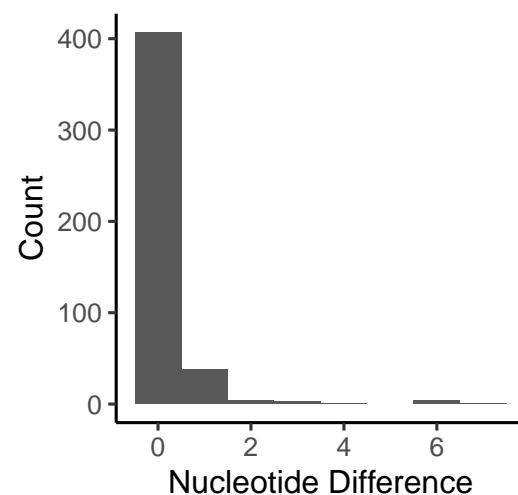
### IGHV2-5\*01

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



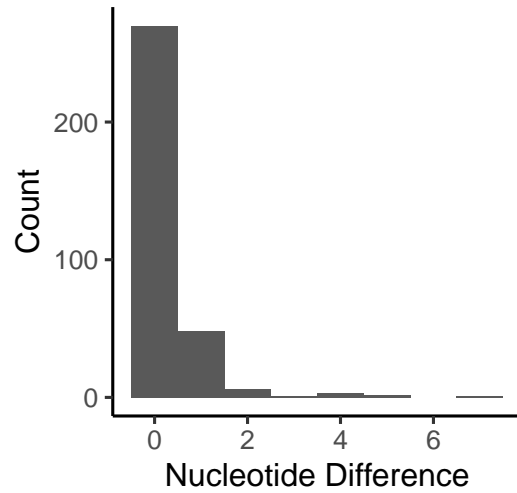
### IGHV2-70\*15

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



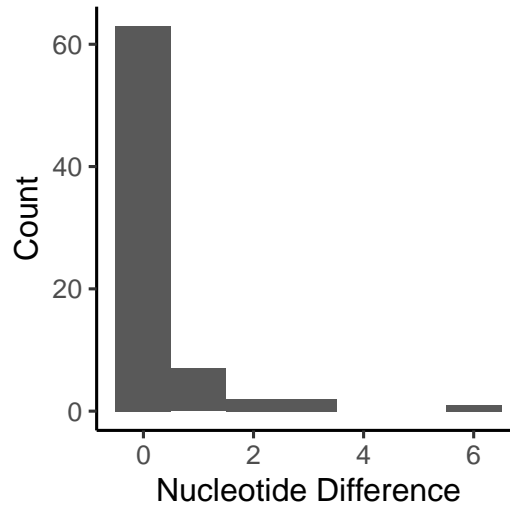
### IGHV3-7\*03

331 sequences assigned  
270 (81.6%) exact matches, in which:  
263 unique CDR3  
6 unique J



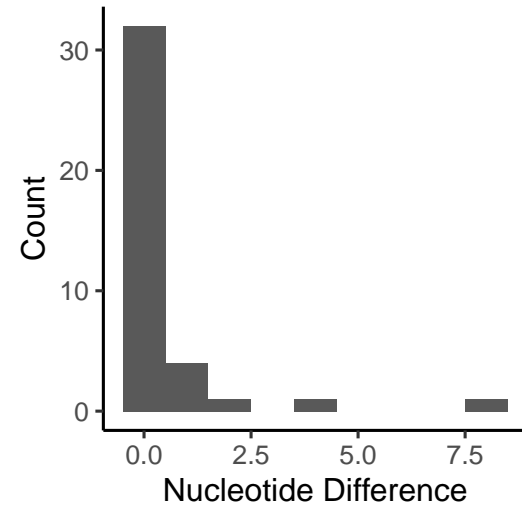
### IGHV3-13\*05

76 sequences assigned  
63 (82.9%) exact matches, in which:  
62 unique CDR3  
4 unique J



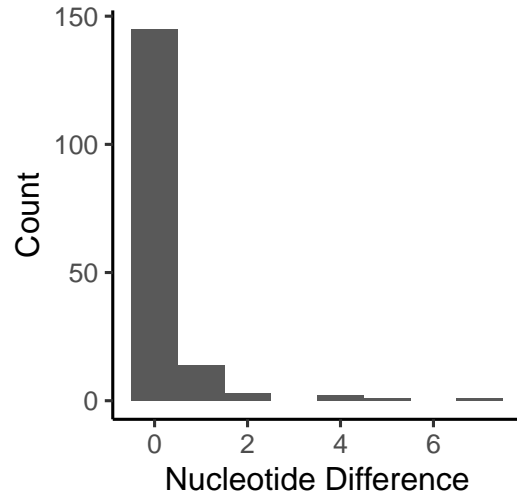
### IGHV3-20\*04

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



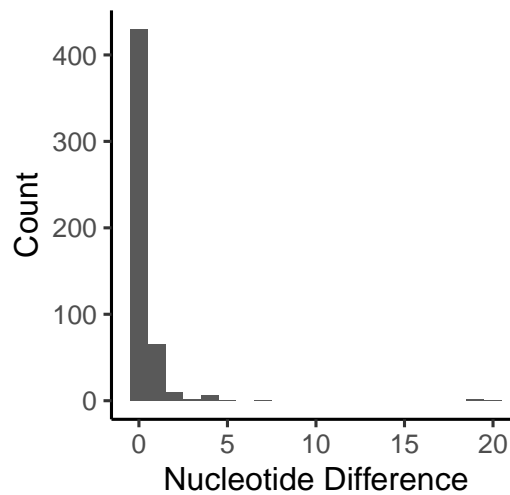
### IGHV3-7\*05

166 sequences assigned  
145 (87.3%) exact matches, in which:  
144 unique CDR3  
6 unique J



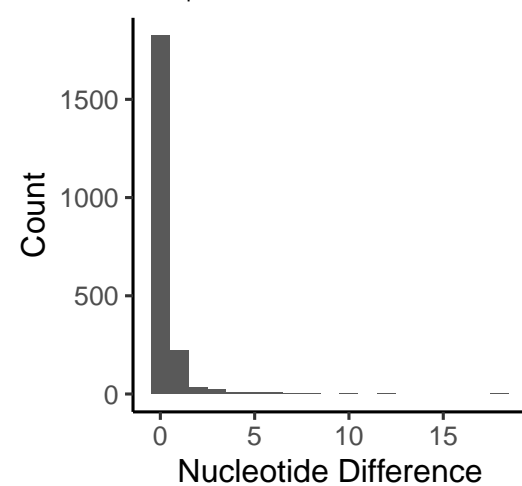
### IGHV3-15\*01

518 sequences assigned  
430 (83%) exact matches, in which:  
415 unique CDR3  
6 unique J



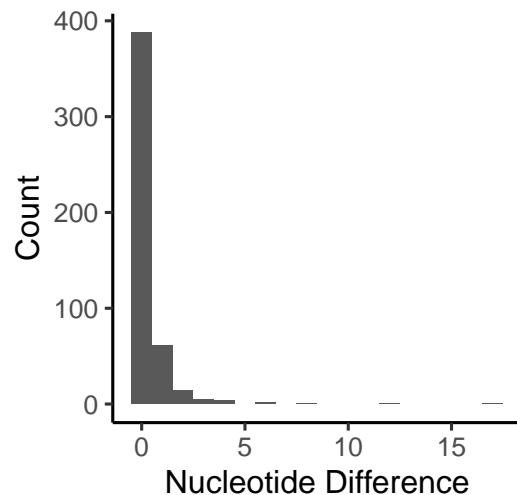
### IGHV3-21\*01

2136 sequences assigned  
1824 (85.4%) exact matches, in which:  
1761 unique CDR3  
6 unique J



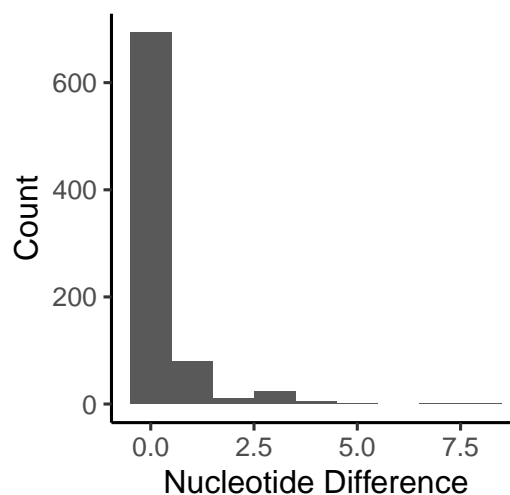
### IGHV3-11\*06

478 sequences assigned  
388 (81.2%) exact matches, in which:  
378 unique CDR3  
6 unique J



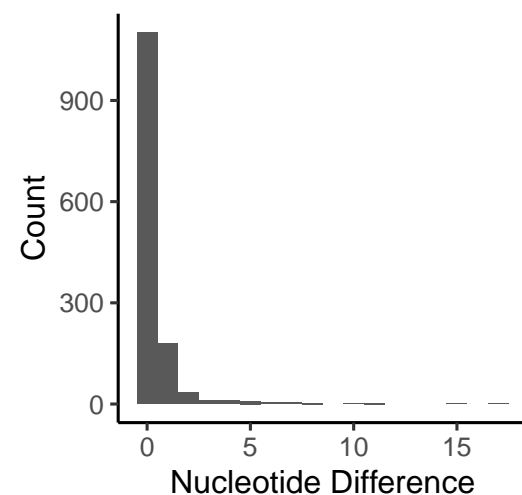
### IGHV3-15\*07

817 sequences assigned  
694 (84.9%) exact matches, in which:  
668 unique CDR3  
6 unique J



### IGHV3-23\*04

1364 sequences assigned  
1102 (80.8%) exact matches, in which:  
1057 unique CDR3  
6 unique J



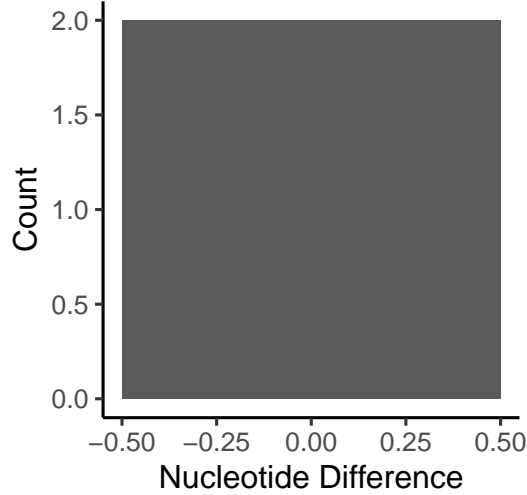
### IGHV3–25\*04

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



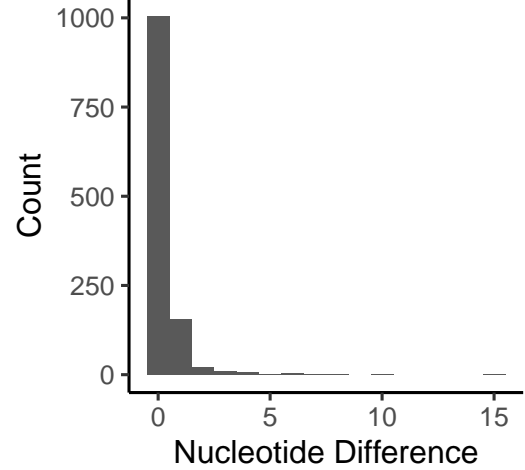
### IGHV3–35\*01

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



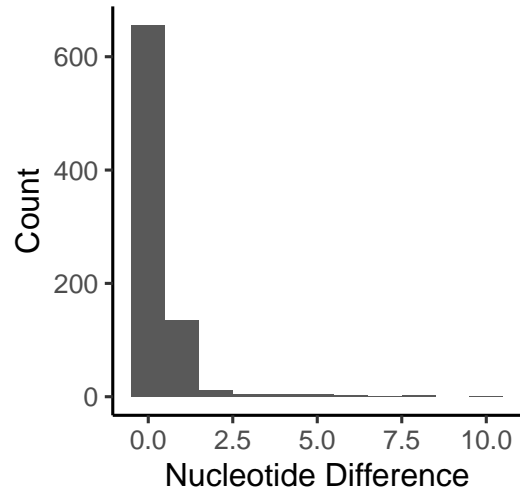
### IGHV3–48\*01

1207 sequences assigned  
1004 (83.2%) exact matches, in which:  
981 unique CDR3  
6 unique J



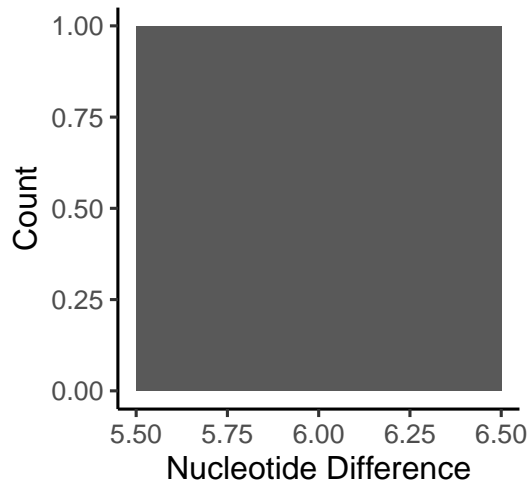
### IGHV3–33\*01

828 sequences assigned  
656 (79.2%) exact matches, in which:  
637 unique CDR3  
6 unique J



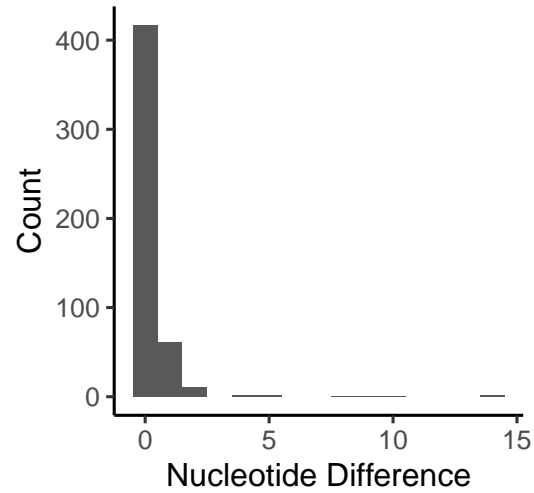
### IGHV3–41\*02

2 sequences assigned  
No exact matches.



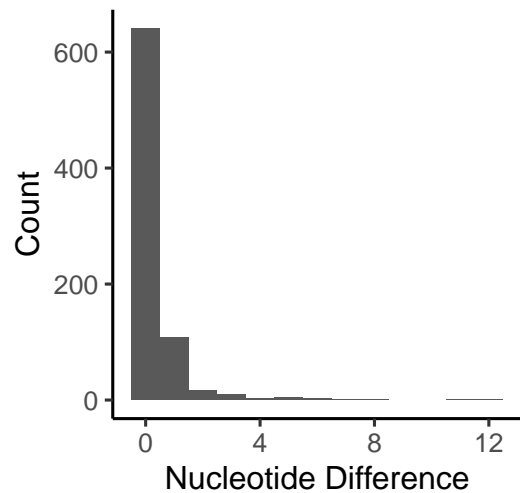
### IGHV3–49\*03

498 sequences assigned  
417 (83.7%) exact matches, in which:  
410 unique CDR3  
6 unique J



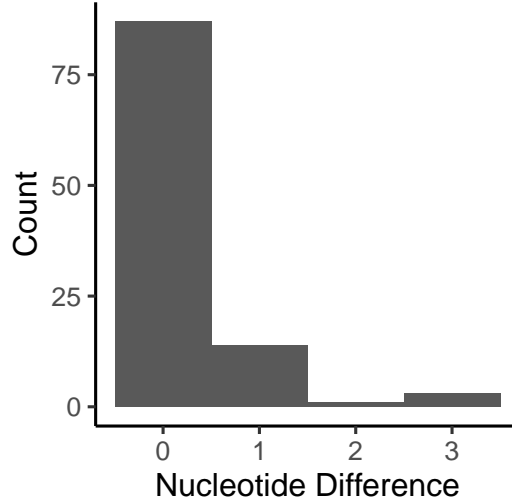
### IGHV3–33\*08

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



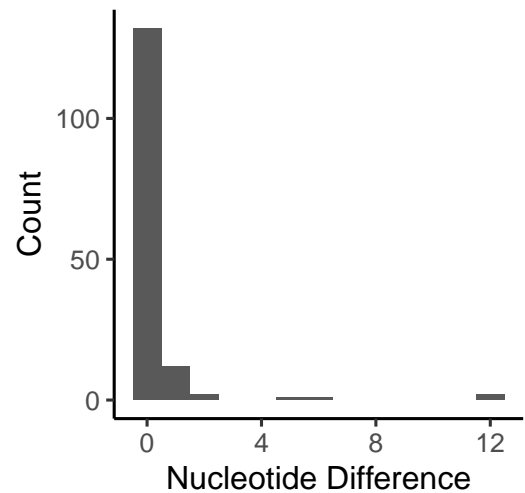
### IGHV3–43\*01

105 sequences assigned  
87 (82.9%) exact matches, in which:  
85 unique CDR3  
5 unique J



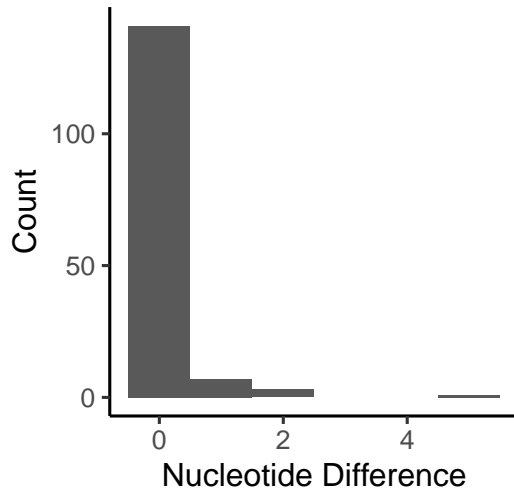
### IGHV3–53\*02

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



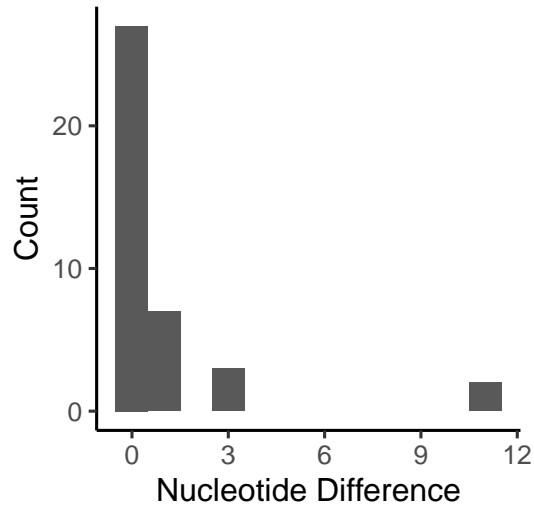
### IGHV3-53\*04

153 sequences assigned  
141 (92.2%) exact matches, in which:  
140 unique CDR3  
6 unique J



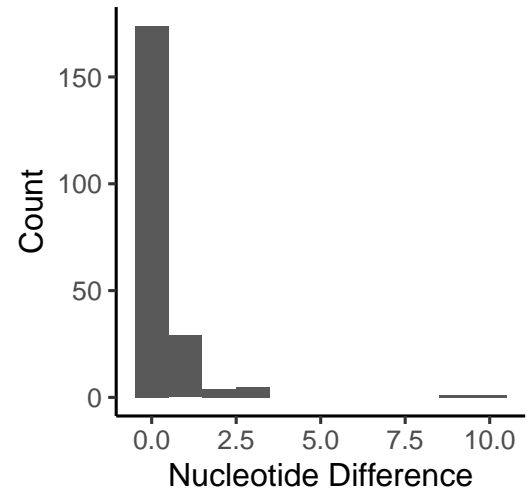
### IGHV3-72\*01

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



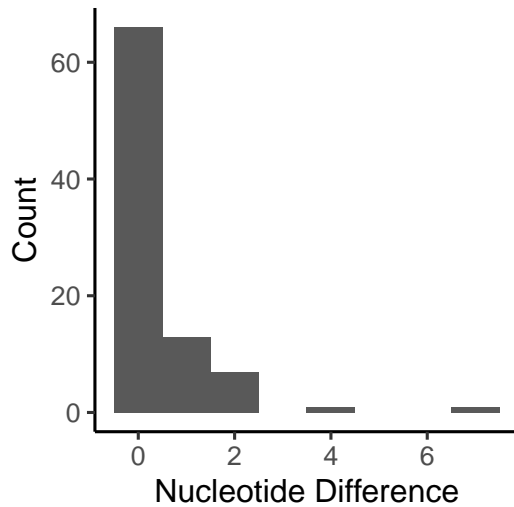
### IGHV3-64D\*06

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



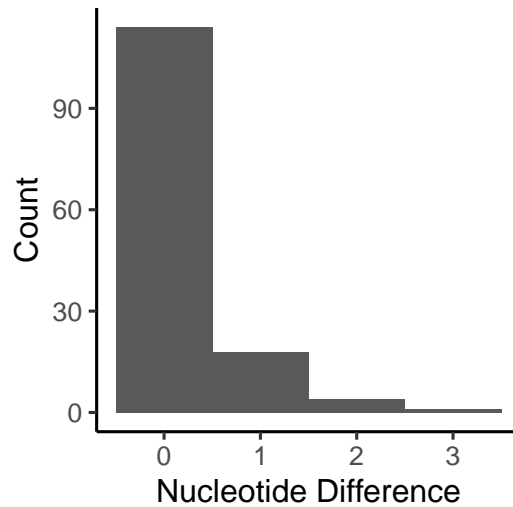
### IGHV3-64\*01

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



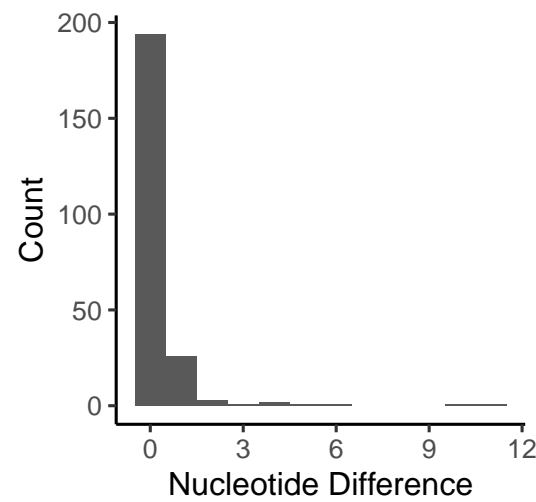
### IGHV3-73\*01

137 sequences assigned  
114 (83.2%) exact matches, in which:  
112 unique CDR3  
4 unique J



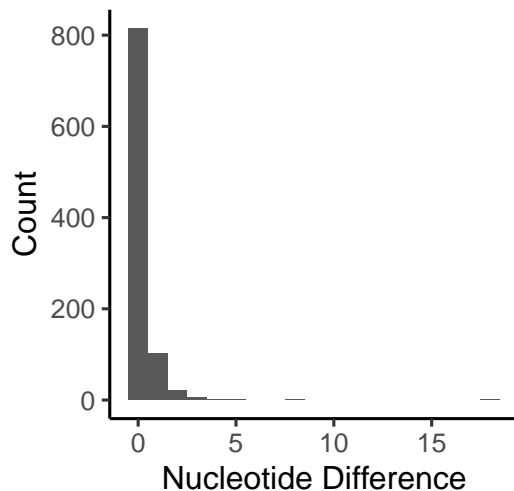
### IGHV3-64D\*08

230 sequences assigned  
194 (84.3%) exact matches, in which:  
189 unique CDR3  
6 unique J



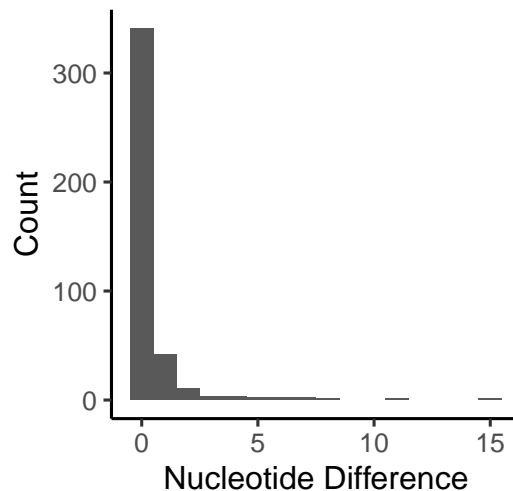
### IGHV3-66\*01

949 sequences assigned  
815 (85.9%) exact matches, in which:  
788 unique CDR3  
6 unique J



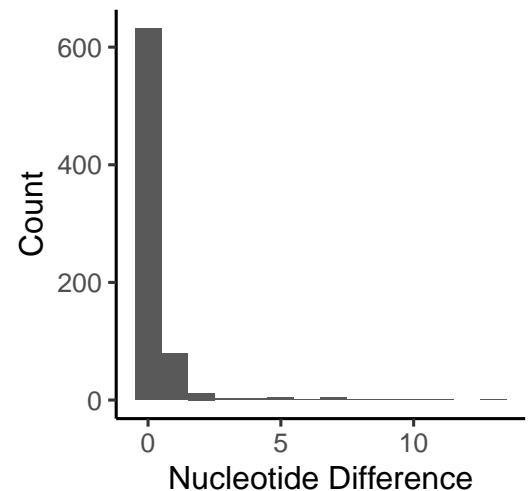
### IGHV3-74\*01

409 sequences assigned  
341 (83.4%) exact matches, in which:  
333 unique CDR3  
6 unique J



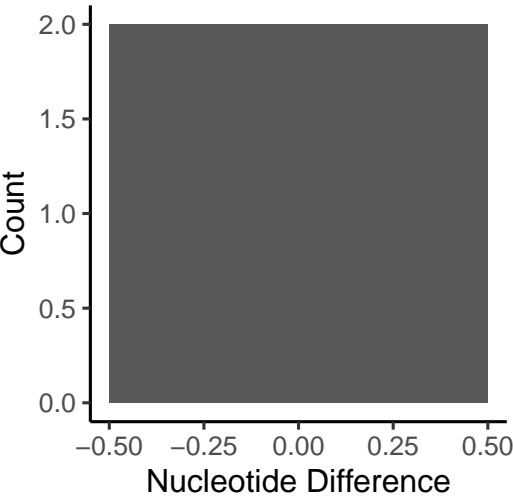
### IGHV4-4\*07

742 sequences assigned  
632 (85.2%) exact matches, in which:  
615 unique CDR3  
6 unique J



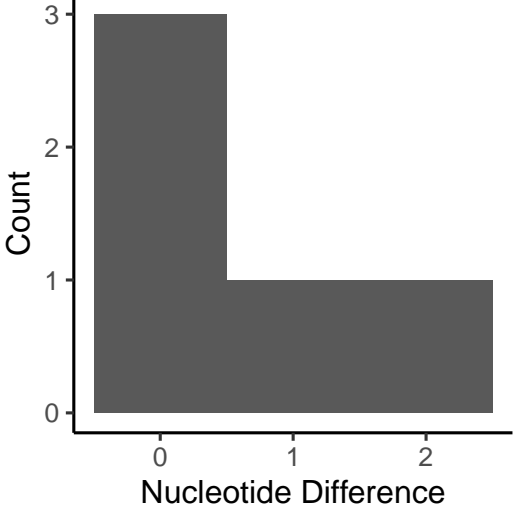
### IGHV4-28\*01

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



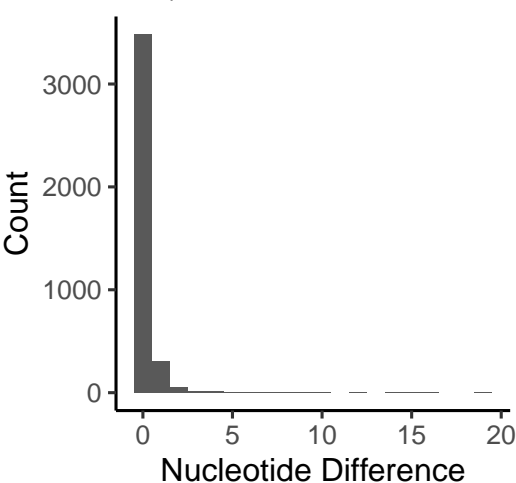
### IGHV4-28\*07

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



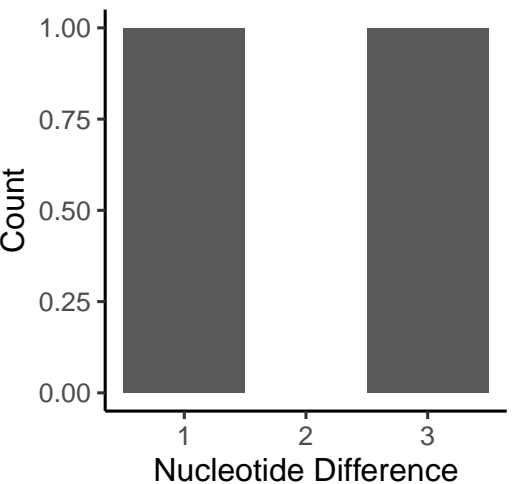
### IGHV4-34\*01

3895 sequences assigned  
3482 (89.4%) exact matches, in which:  
3361 unique CDR3  
6 unique J



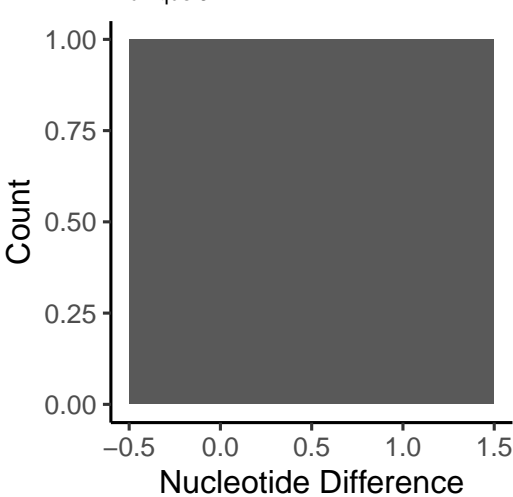
### IGHV4-28\*03

2 sequences assigned  
No exact matches.



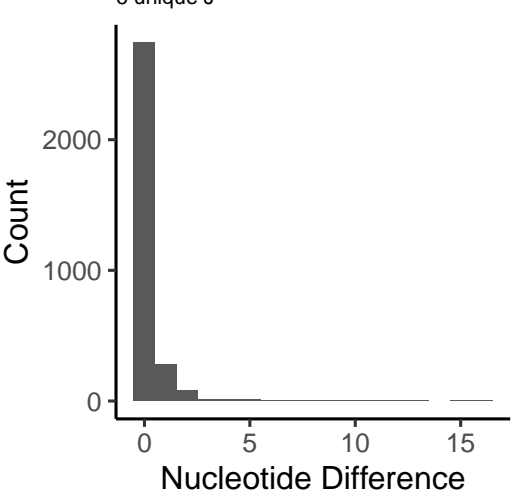
### IGHV4-30-2\*03

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



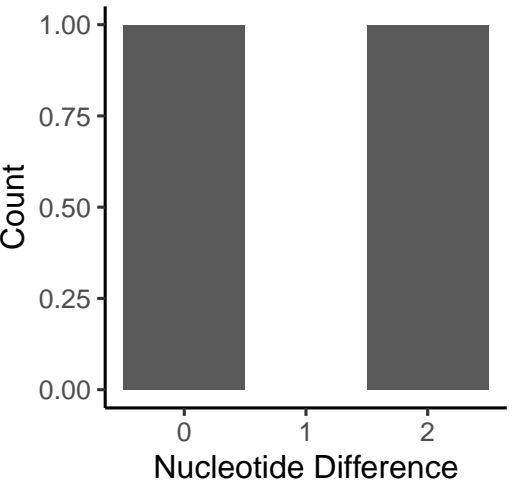
### IGHV4-39\*01

3152 sequences assigned  
2742 (87%) exact matches, in which:  
2614 unique CDR3  
6 unique J



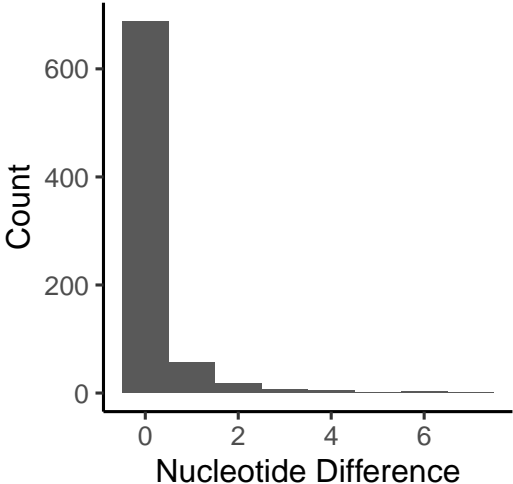
### IGHV4-28\*04

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



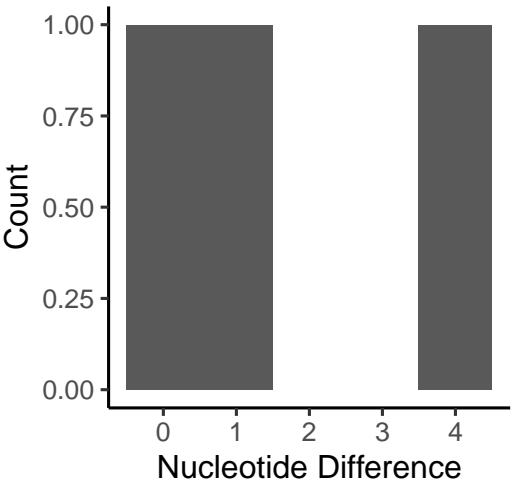
### IGHV4-31\*03

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



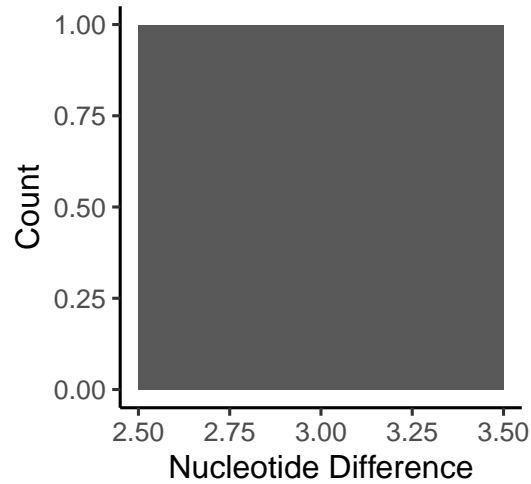
### IGHV4-55\*01

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



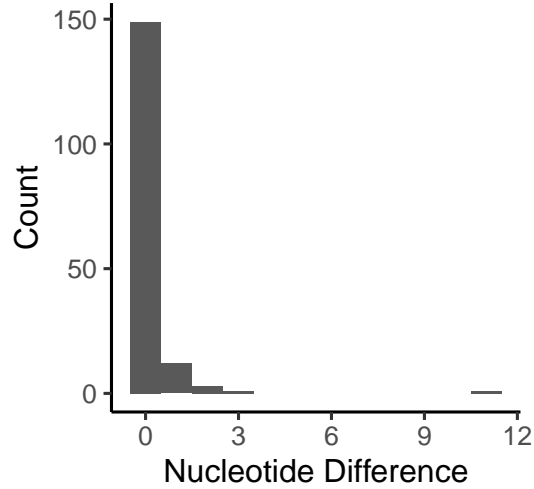
### IGHV4-55\*08

1 sequences assigned  
No exact matches.



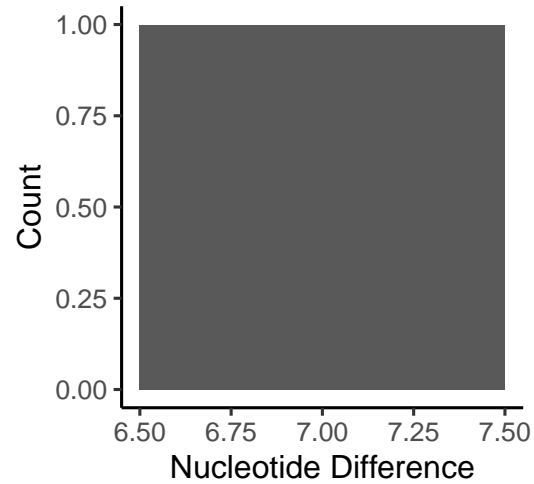
### IGHV4-61\*01

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



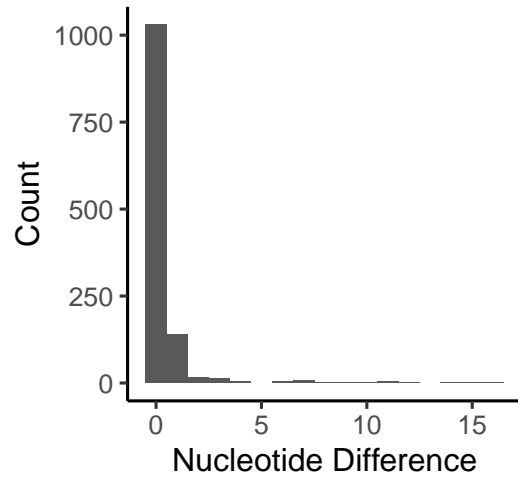
### IGHV4/OR15-8\*02

1 sequences assigned  
No exact matches.



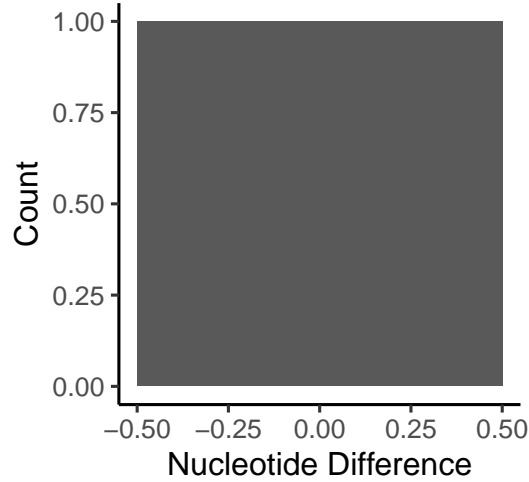
### IGHV4-59\*01

1224 sequences assigned  
1030 (84.2%) exact matches, in which:  
1008 unique CDR3  
6 unique J



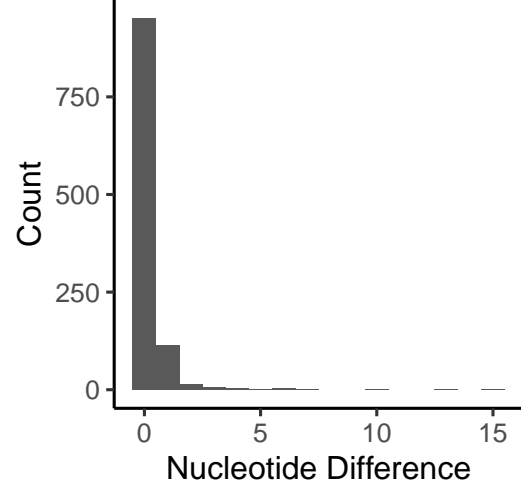
### IGHV1/OR15-1\*02

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



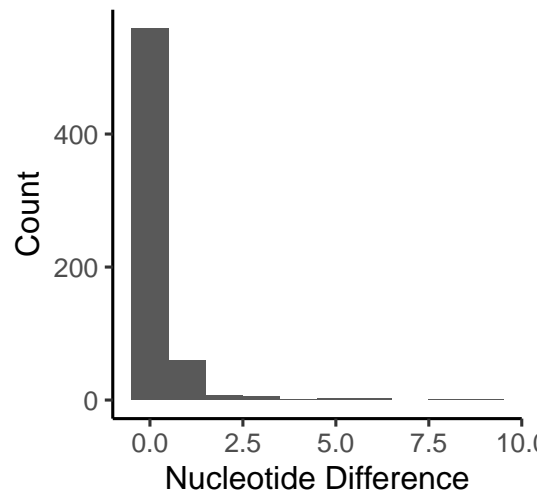
### IGHV5-10-1\*03

1102 sequences assigned  
952 (86.4%) exact matches, in which:  
916 unique CDR3  
6 unique J



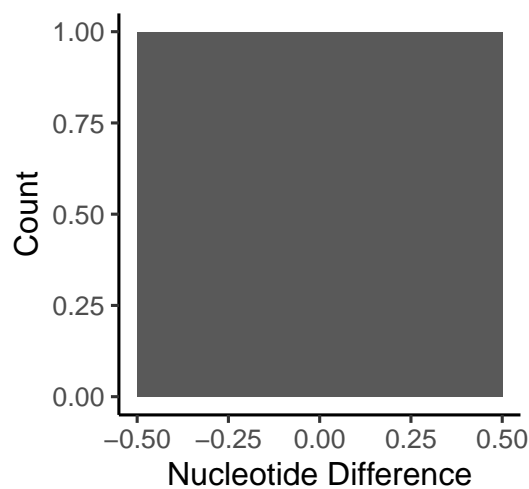
### IGHV4-59\*08

638 sequences assigned  
559 (87.6%) exact matches, in which:  
547 unique CDR3  
6 unique J



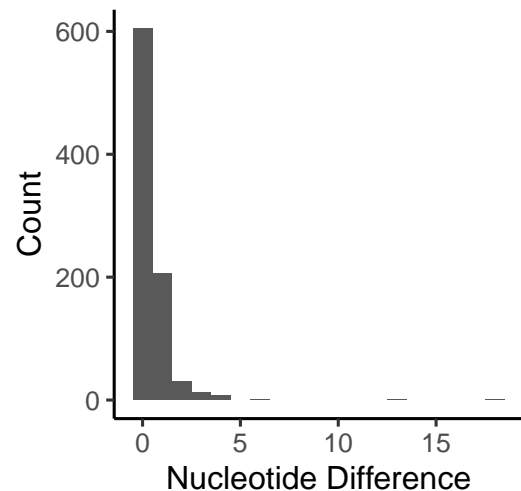
### IGHV1/OR15-2\*01

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



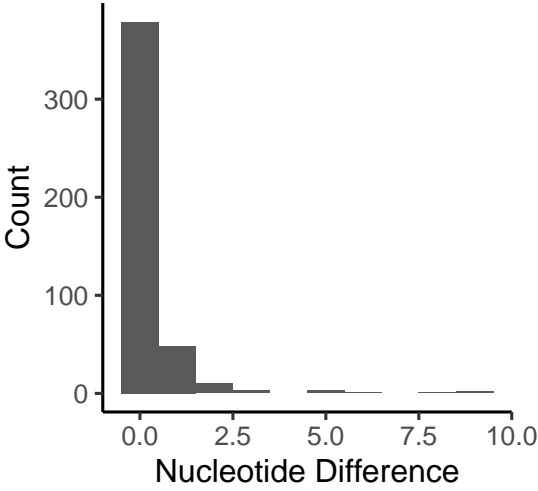
### IGHV5-51\*01

864 sequences assigned  
605 (70%) exact matches, in which:  
586 unique CDR3  
6 unique J



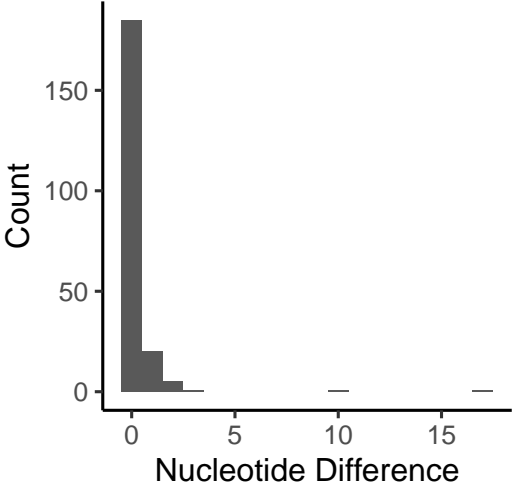
IGHV5–51\*03

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



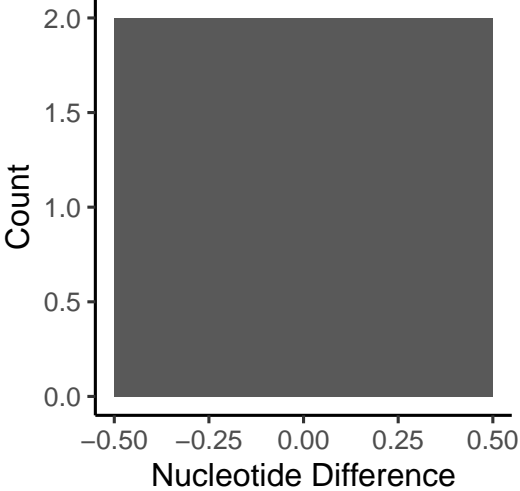
IGHV6–1\*01

213 sequences assigned  
185 (86.9%) exact matches, in which:  
177 unique CDR3  
6 unique J



IGHV7–81\*01

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







Warning – no inferred sequences found.