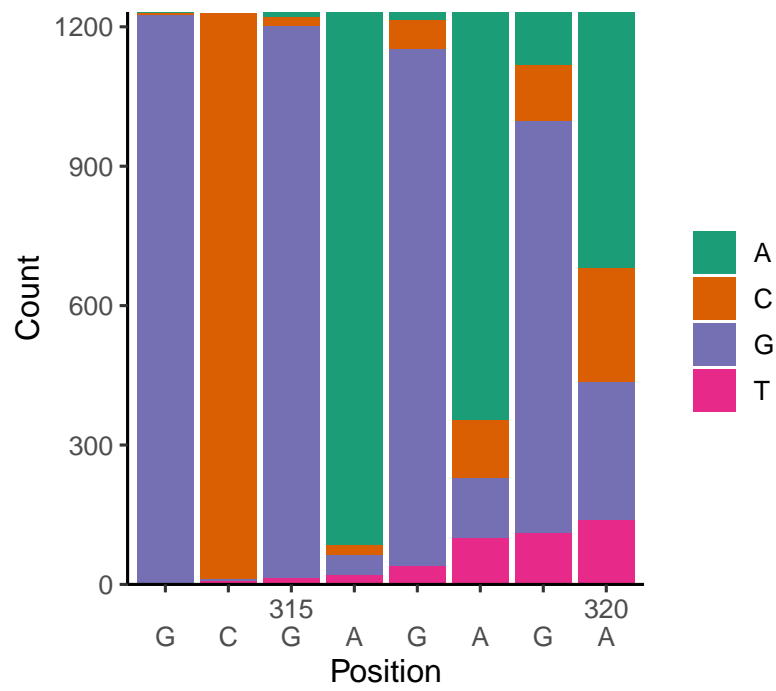
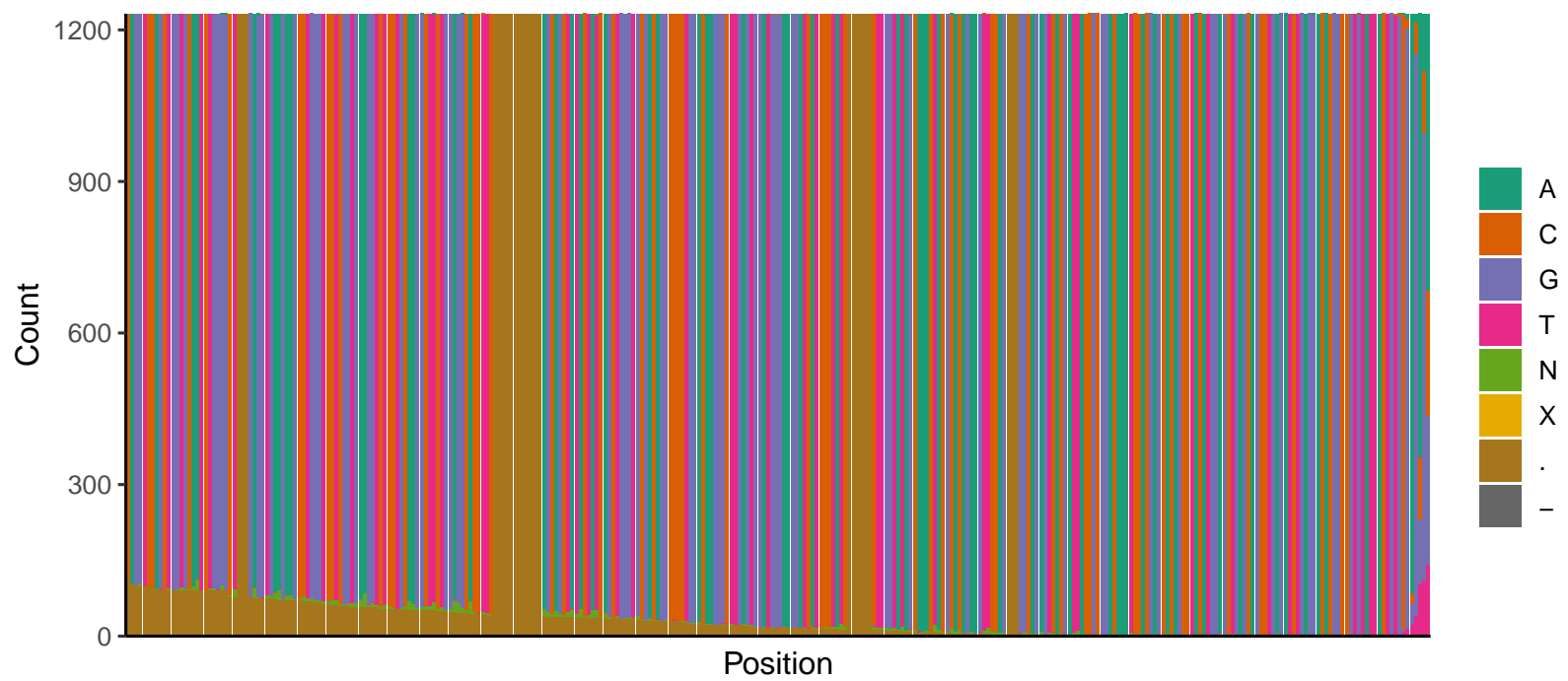


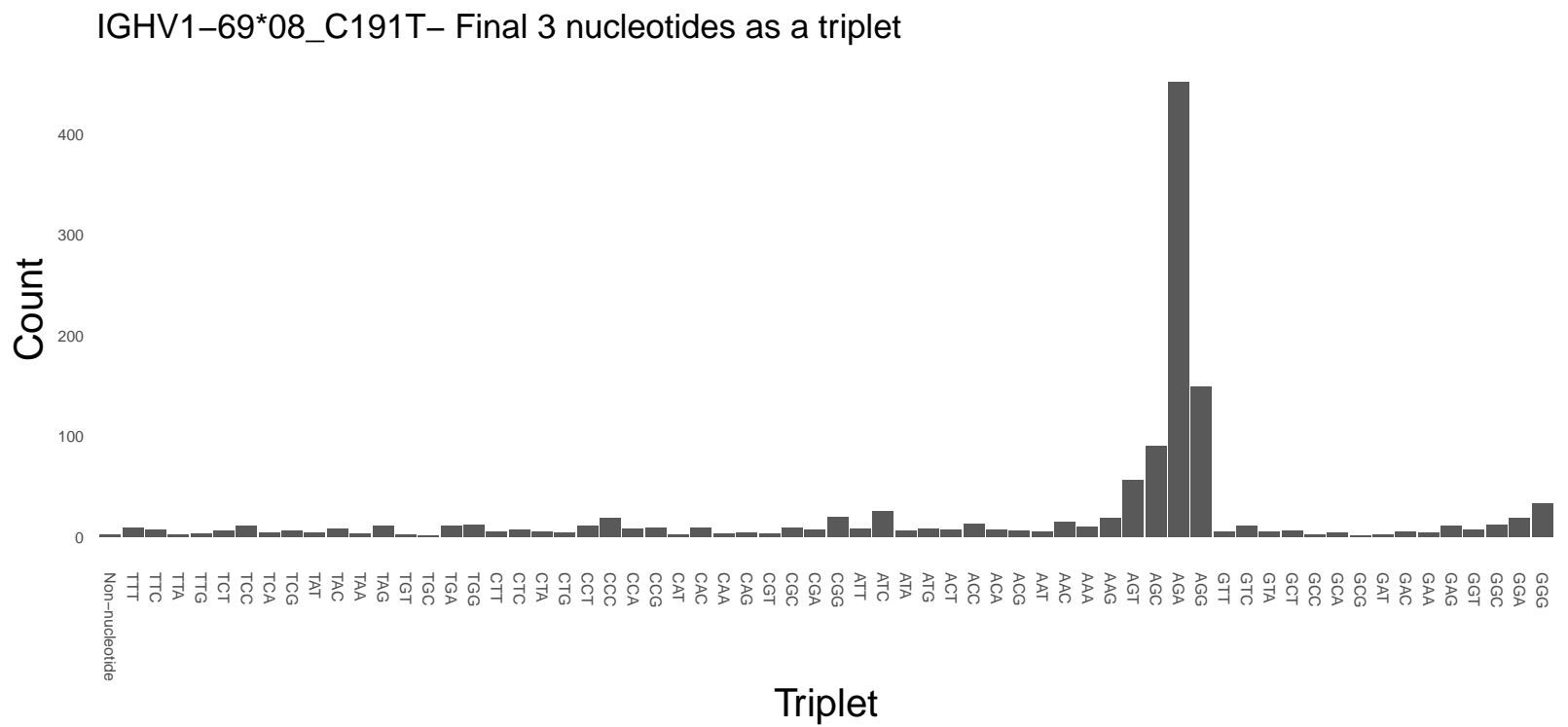
# Gene IGHV1-69\*08\_C191T



Gene IGHV1-69\*08\_C191T

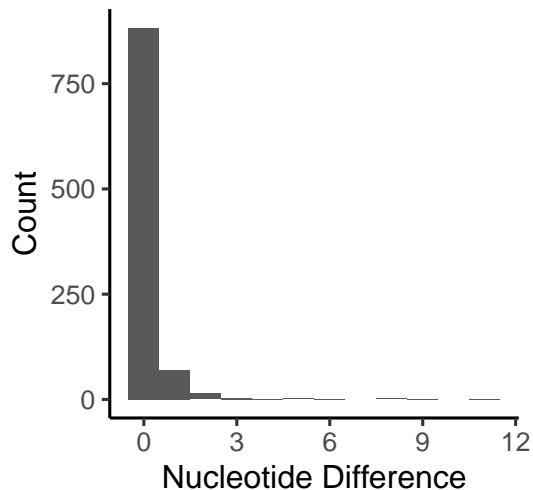


IGHV1-69\*08\_C191T- Final 3 nucleotides as a triplet



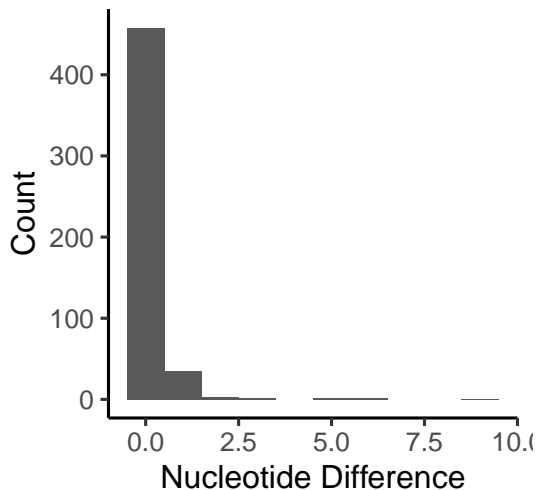
### IGHV1-2\*04

979 sequences assigned  
883 (90.2%) exact matches, in which:  
846 unique CDR3  
7 unique J



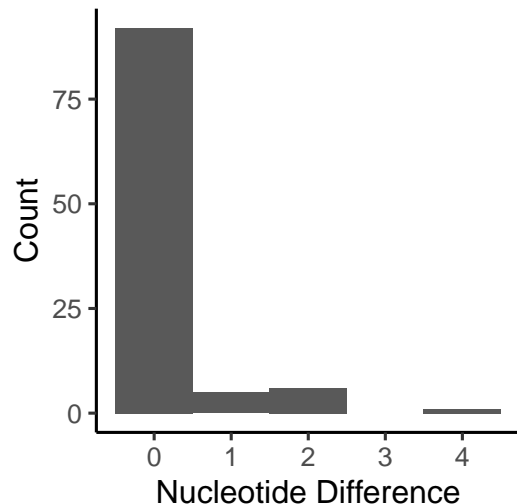
### IGHV1-24\*01

503 sequences assigned  
458 (91.1%) exact matches, in which:  
445 unique CDR3  
7 unique J



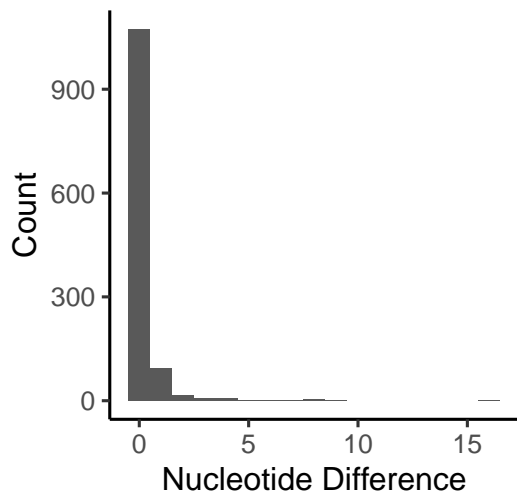
### IGHV1-58\*01

104 sequences assigned  
92 (88.5%) exact matches, in which:  
89 unique CDR3  
5 unique J



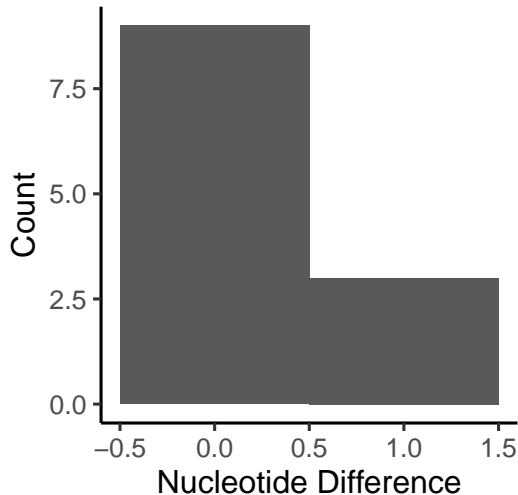
### IGHV1-3\*01

1209 sequences assigned  
1074 (88.8%) exact matches, in which:  
1034 unique CDR3  
7 unique J



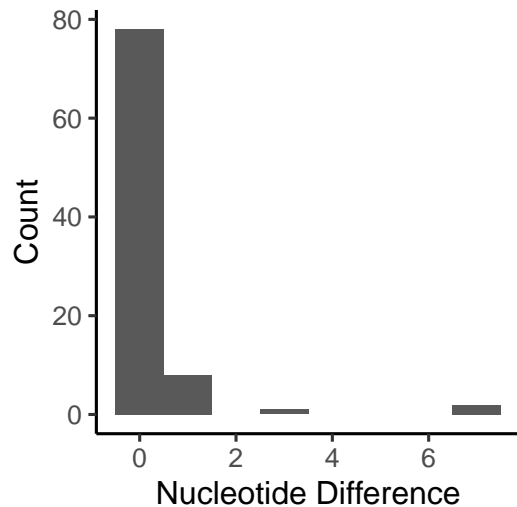
### IGHV1-45\*02

12 sequences assigned  
9 (75%) exact matches, in which:  
9 unique CDR3  
5 unique J



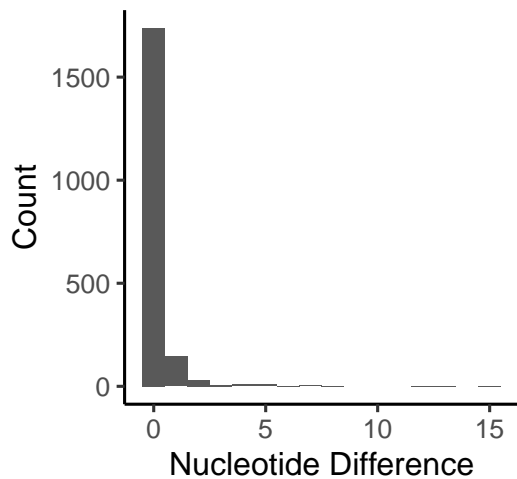
### IGHV1-58\*02

89 sequences assigned  
78 (87.6%) exact matches, in which:  
75 unique CDR3  
5 unique J



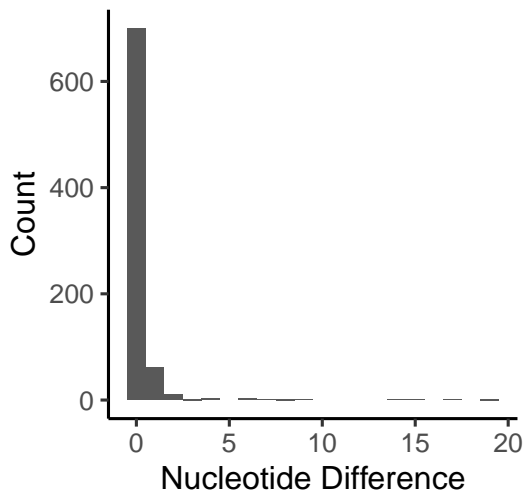
### IGHV1-18\*01

1948 sequences assigned  
1738 (89.2%) exact matches, in which:  
1673 unique CDR3  
7 unique J



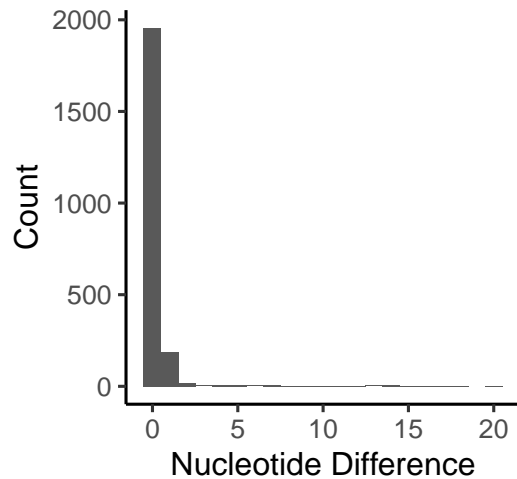
### IGHV1-46\*03

790 sequences assigned  
700 (88.6%) exact matches, in which:  
674 unique CDR3  
7 unique J



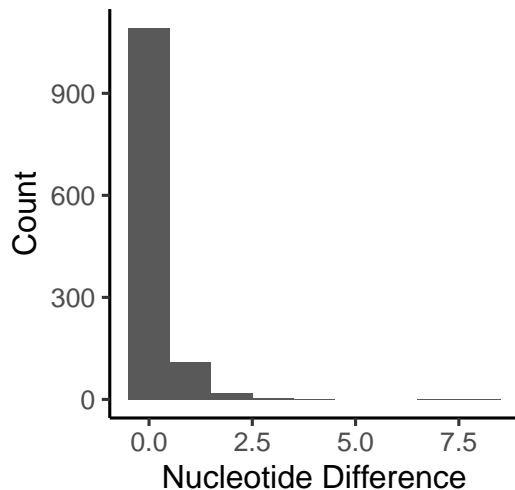
### IGHV1-69\*01

2222 sequences assigned  
1955 (88%) exact matches, in which:  
1860 unique CDR3  
7 unique J



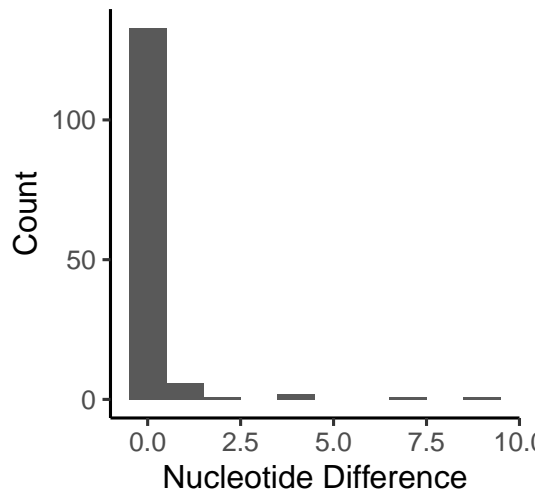
### IGHV1–69\*08\_C191T

1232 sequences assigned  
1093 (88.7%) exact matches, in which:  
1040 unique CDR3  
6 unique J



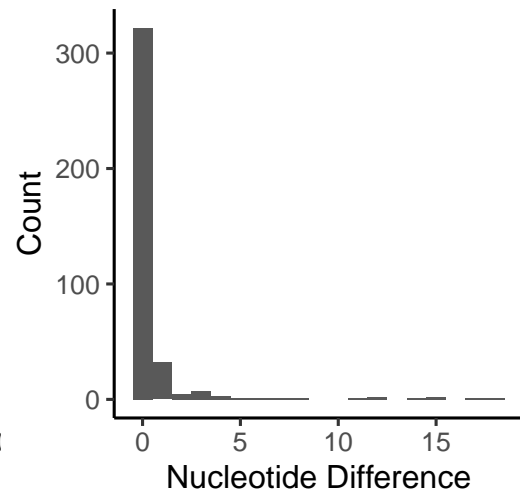
### IGHV2–70\*01

145 sequences assigned  
133 (91.7%) exact matches, in which:  
126 unique CDR3  
7 unique J



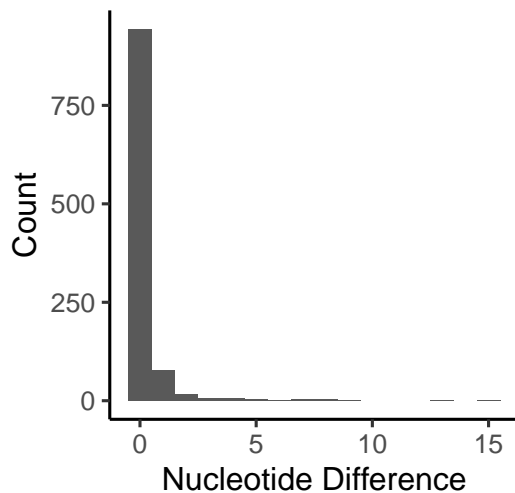
### IGHV3–7\*04

382 sequences assigned  
322 (84.3%) exact matches, in which:  
310 unique CDR3  
7 unique J



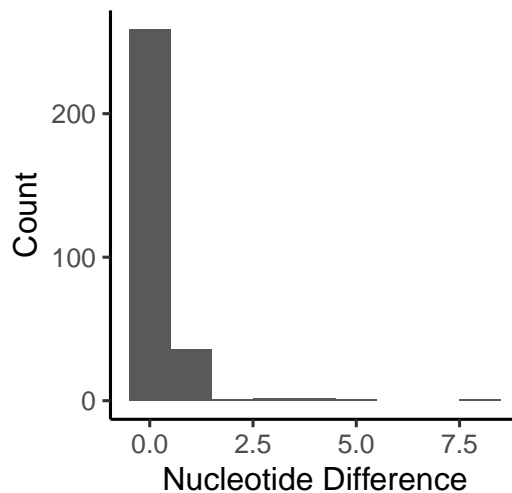
### IGHV2–5\*02

1068 sequences assigned  
944 (88.4%) exact matches, in which:  
907 unique CDR3  
7 unique J



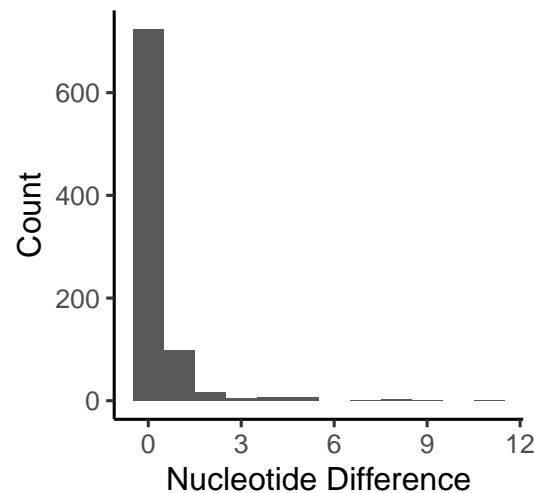
### IGHV2–70\*15

302 sequences assigned  
259 (85.8%) exact matches, in which:  
255 unique CDR3  
6 unique J



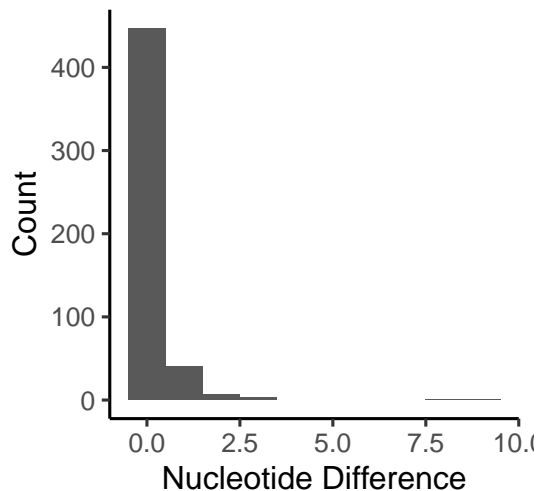
### IGHV3–11\*05

863 sequences assigned  
724 (83.9%) exact matches, in which:  
693 unique CDR3  
6 unique J



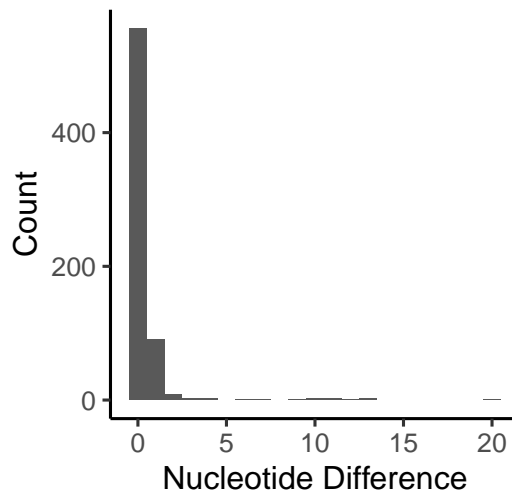
### IGHV2–26\*01

499 sequences assigned  
447 (89.6%) exact matches, in which:  
435 unique CDR3  
7 unique J



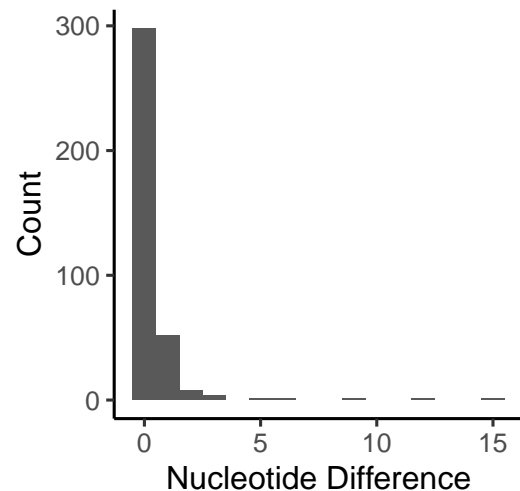
### IGHV3–7\*03

670 sequences assigned  
556 (83%) exact matches, in which:  
533 unique CDR3  
7 unique J



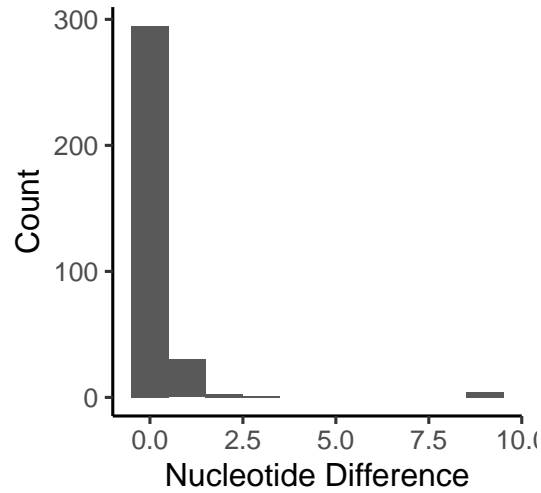
### IGHV3–11\*06

367 sequences assigned  
298 (81.2%) exact matches, in which:  
283 unique CDR3  
6 unique J



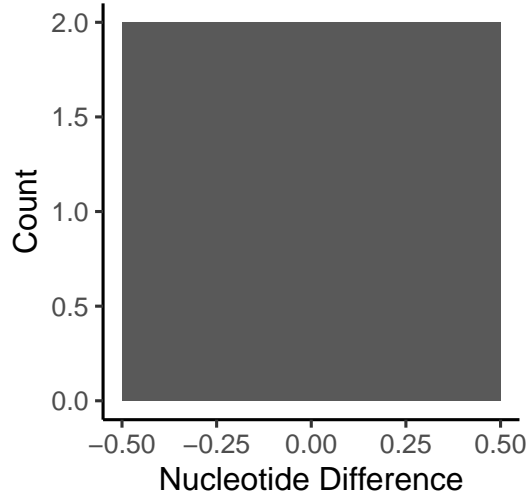
### IGHV3-13\*04

333 sequences assigned  
295 (88.6%) exact matches, in which:  
275 unique CDR3  
5 unique J



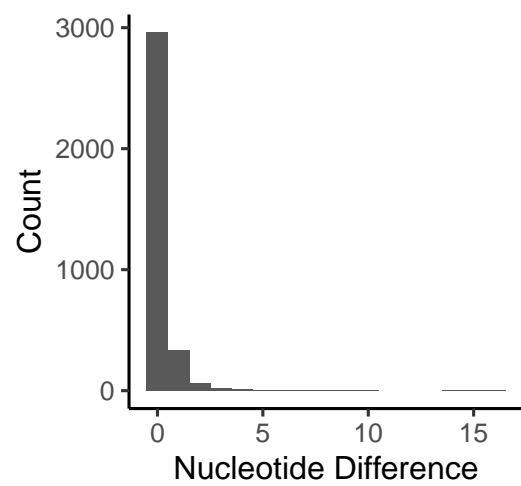
### IGHV3-19\*01

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



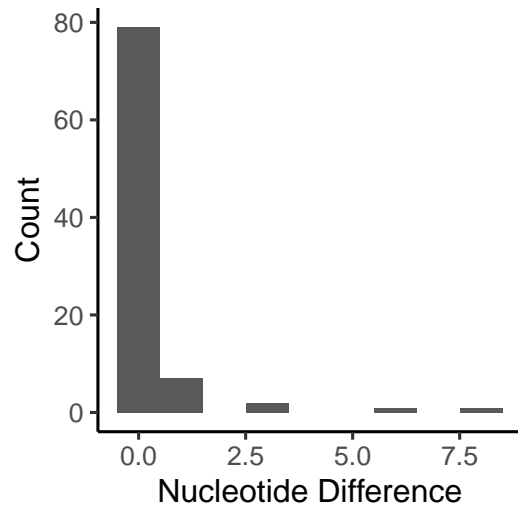
### IGHV3-21\*01

3417 sequences assigned  
2961 (86.7%) exact matches, in which:  
2754 unique CDR3  
7 unique J



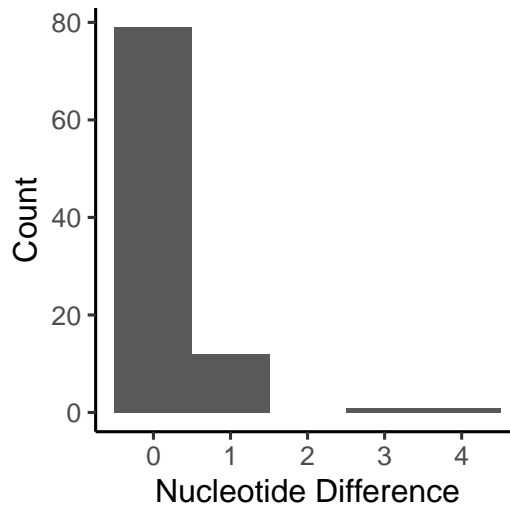
### IGHV3-13\*05

90 sequences assigned  
79 (87.8%) exact matches, in which:  
72 unique CDR3  
5 unique J



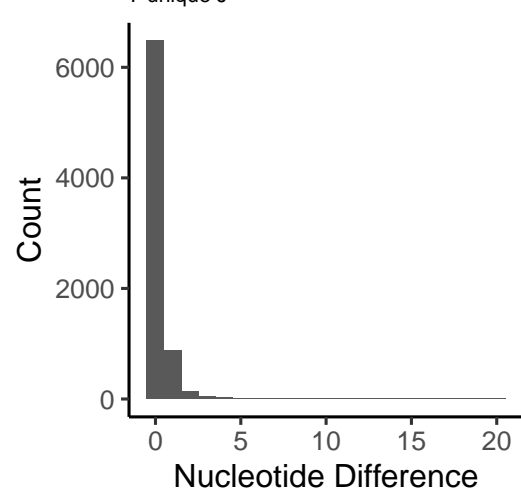
### IGHV3-20\*01

93 sequences assigned  
79 (84.9%) exact matches, in which:  
72 unique CDR3  
5 unique J



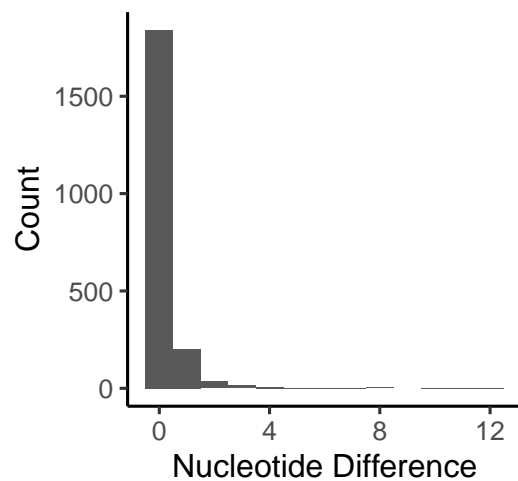
### IGHV3-23\*01

7621 sequences assigned  
6481 (85%) exact matches, in which:  
6087 unique CDR3  
7 unique J



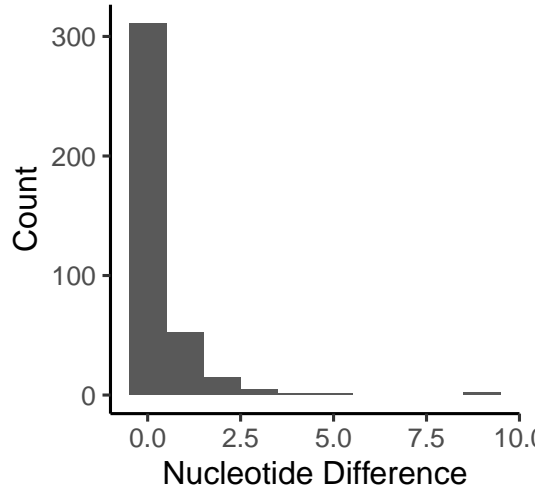
### IGHV3-15\*01

2118 sequences assigned  
1840 (86.9%) exact matches, in which:  
1743 unique CDR3  
7 unique J



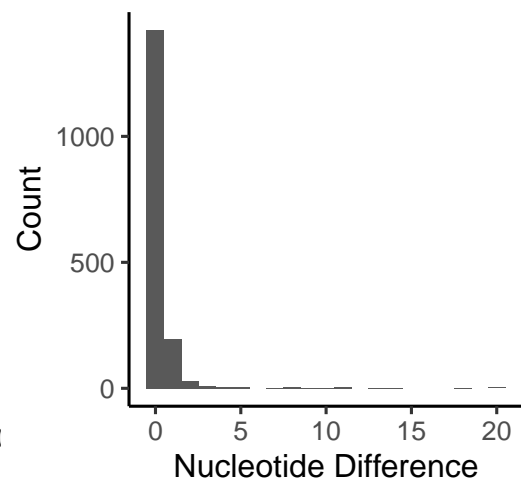
### IGHV3-20\*04

387 sequences assigned  
311 (80.4%) exact matches, in which:  
294 unique CDR3  
6 unique J



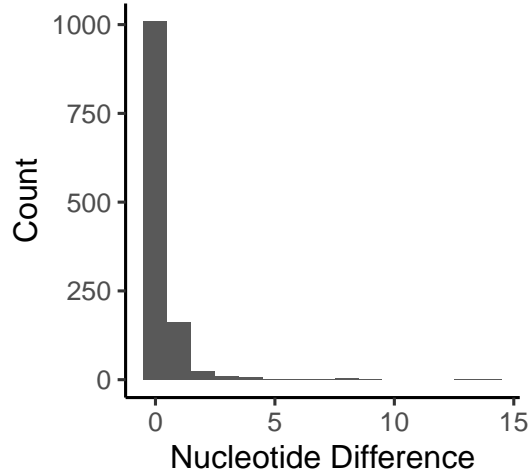
### IGHV3-30-3\*01

1689 sequences assigned  
1422 (84.2%) exact matches, in which:  
1346 unique CDR3  
7 unique J



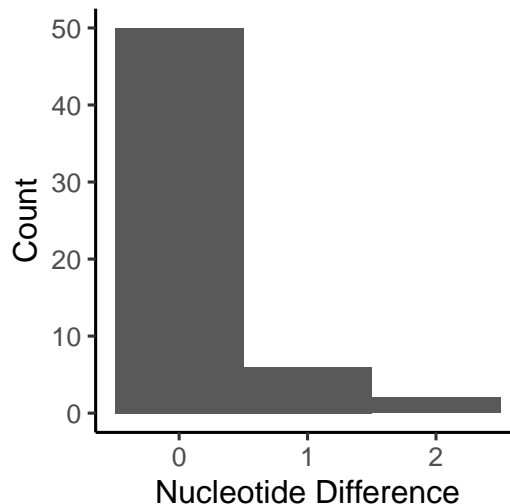
### IGHV3–30\*02

1234 sequences assigned  
1009 (81.8%) exact matches, in which:  
950 unique CDR3  
7 unique J



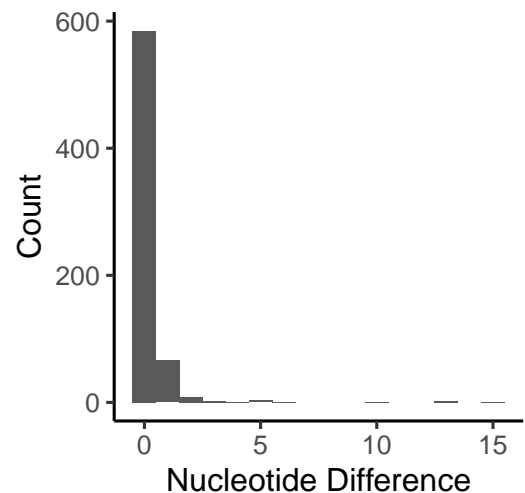
### IGHV3–43\*01

58 sequences assigned  
50 (86.2%) exact matches, in which:  
50 unique CDR3  
5 unique J



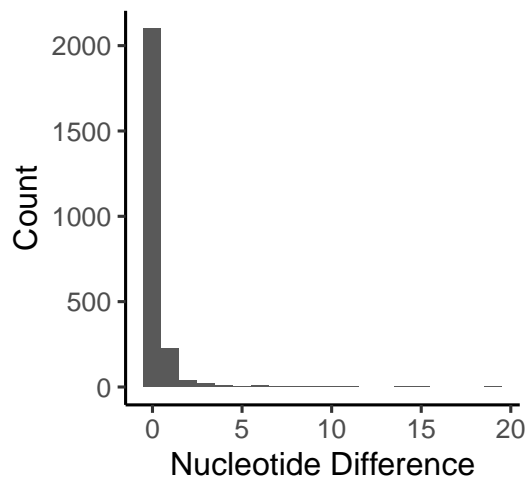
### IGHV3–48\*02

670 sequences assigned  
585 (87.3%) exact matches, in which:  
557 unique CDR3  
6 unique J



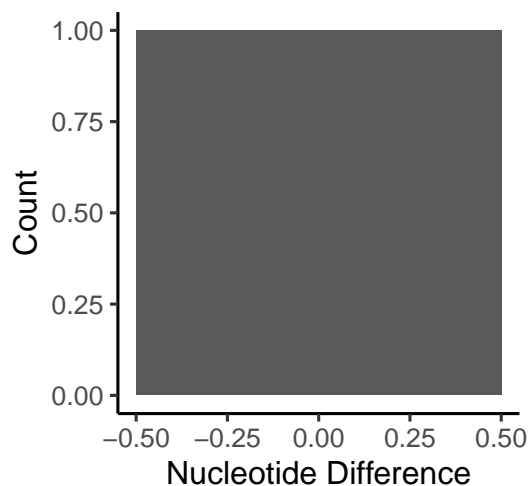
### IGHV3–30\*18

2427 sequences assigned  
2099 (86.5%) exact matches, in which:  
1992 unique CDR3  
7 unique J



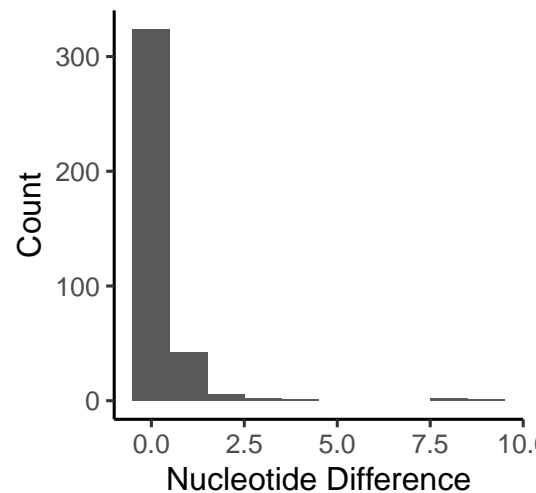
### IGHV3–47\*02

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



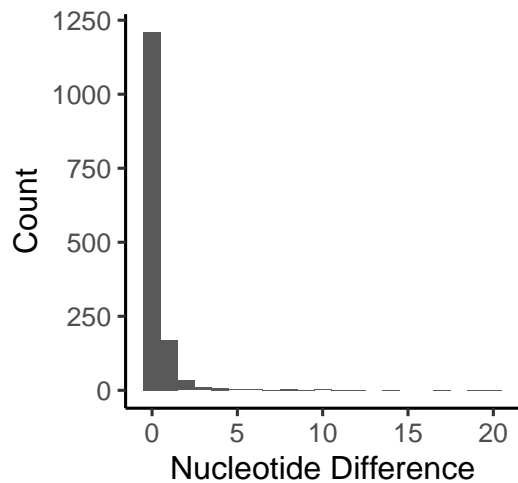
### IGHV3–49\*03

378 sequences assigned  
324 (85.7%) exact matches, in which:  
310 unique CDR3  
5 unique J



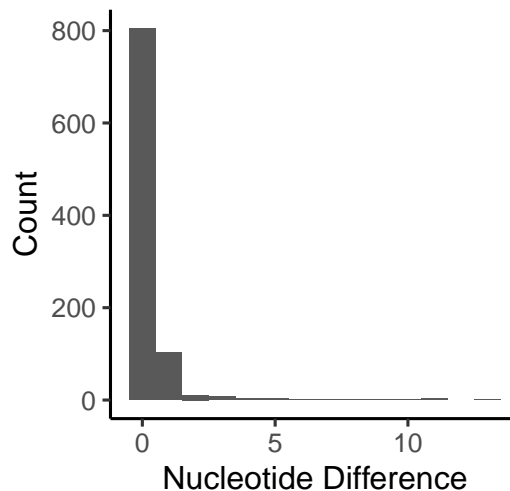
### IGHV3–33\*01

1456 sequences assigned  
1210 (83.1%) exact matches, in which:  
1146 unique CDR3  
7 unique J



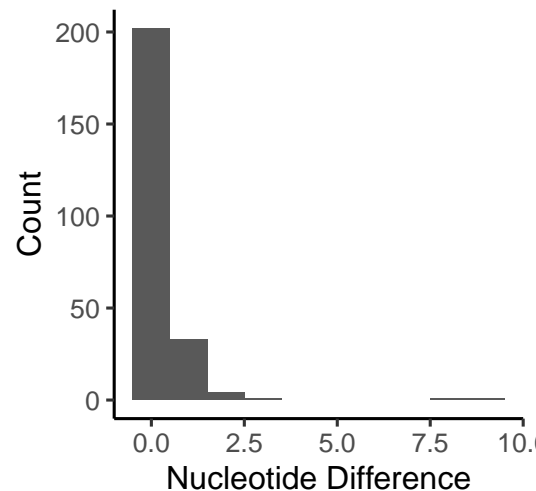
### IGHV3–48\*01

944 sequences assigned  
805 (85.3%) exact matches, in which:  
774 unique CDR3  
6 unique J



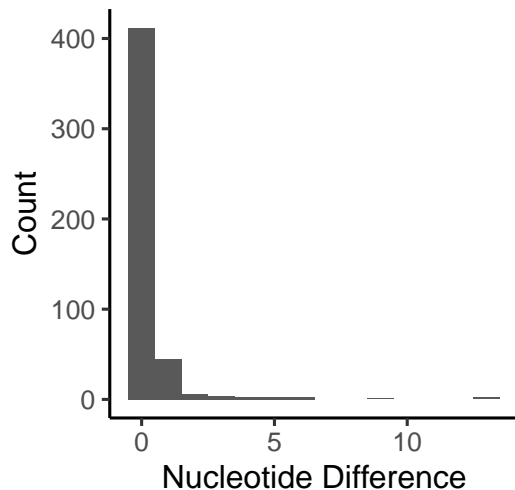
### IGHV3–49\*05

243 sequences assigned  
202 (83.1%) exact matches, in which:  
187 unique CDR3  
6 unique J



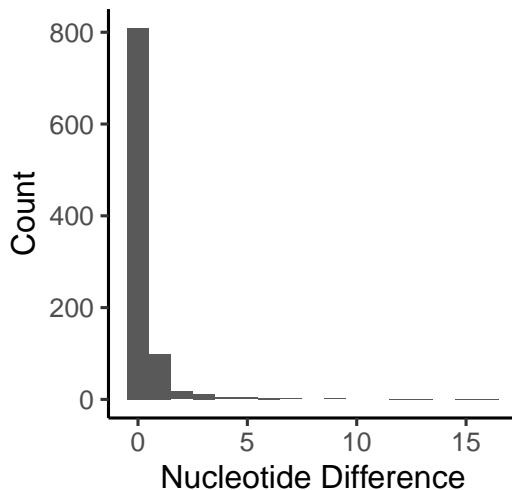
### IGHV3–53\*01

479 sequences assigned  
412 (86%) exact matches, in which:  
391 unique CDR3  
7 unique J



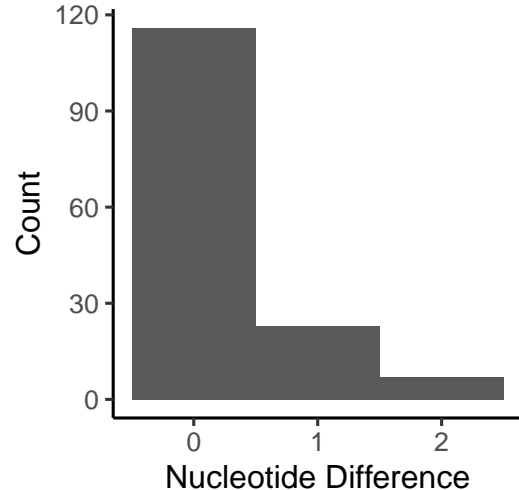
### IGHV3–66\*01

957 sequences assigned  
810 (84.6%) exact matches, in which:  
757 unique CDR3  
6 unique J



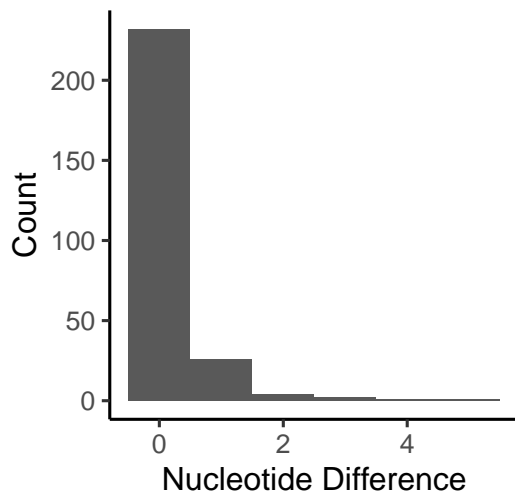
### IGHV3–73\*02

146 sequences assigned  
116 (79.5%) exact matches, in which:  
111 unique CDR3  
6 unique J



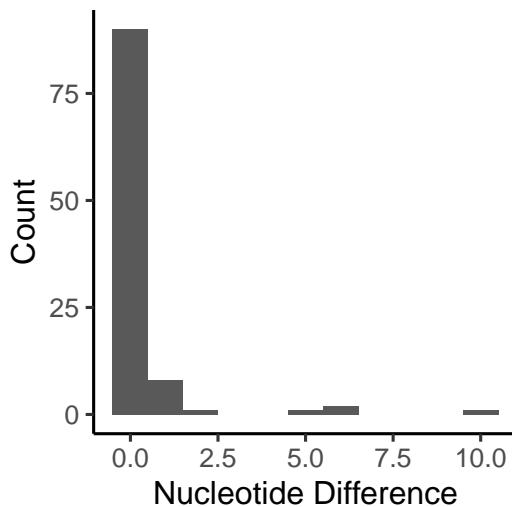
### IGHV3–53\*04

266 sequences assigned  
232 (87.2%) exact matches, in which:  
220 unique CDR3  
6 unique J



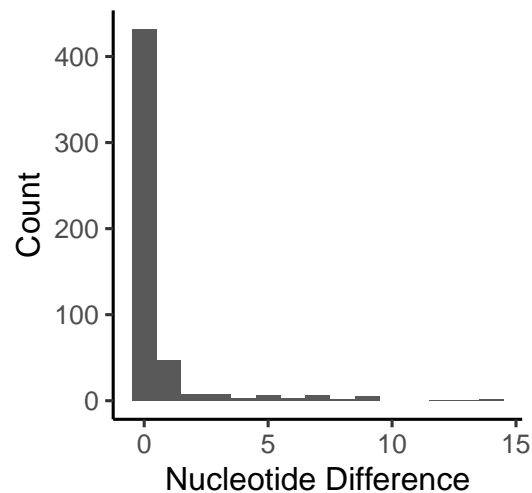
### IGHV3–72\*01

103 sequences assigned  
90 (87.4%) exact matches, in which:  
85 unique CDR3  
6 unique J



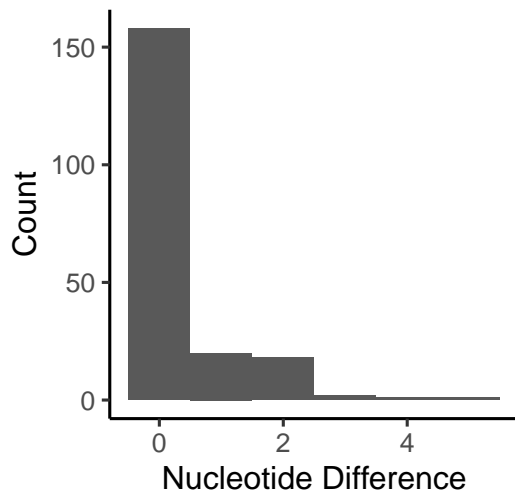
### IGHV3–74\*01

524 sequences assigned  
432 (82.4%) exact matches, in which:  
418 unique CDR3  
7 unique J



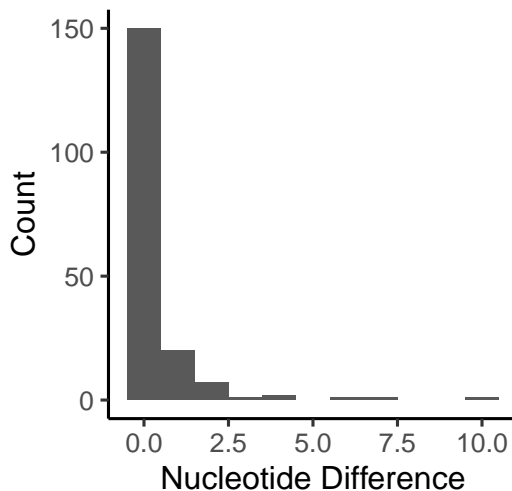
### IGHV3–64\*01

200 sequences assigned  
158 (79%) exact matches, in which:  
150 unique CDR3  
6 unique J



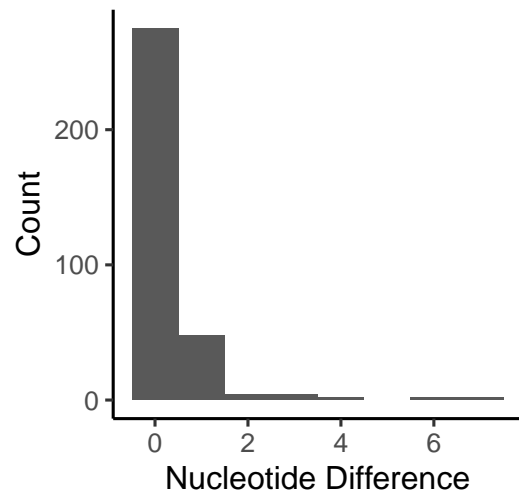
### IGHV3–73\*01

183 sequences assigned  
150 (82%) exact matches, in which:  
143 unique CDR3  
6 unique J



### IGHV3–64D\*06

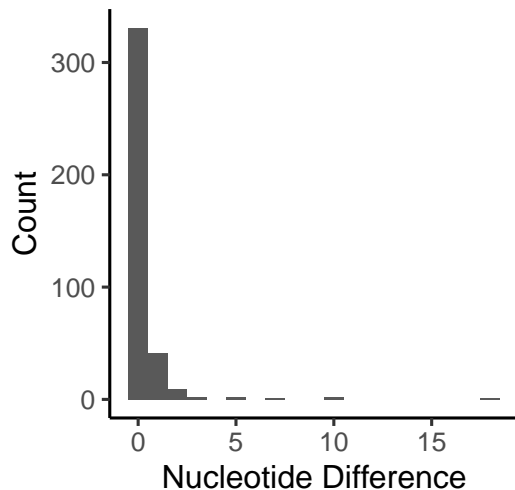
338 sequences assigned  
275 (81.4%) exact matches, in which:  
260 unique CDR3  
6 unique J





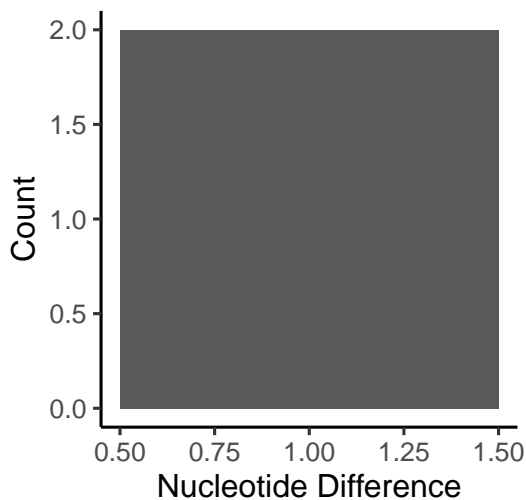
### IGHV3–64D\*09

390 sequences assigned  
331 (84.9%) exact matches, in which:  
306 unique CDR3  
6 unique J



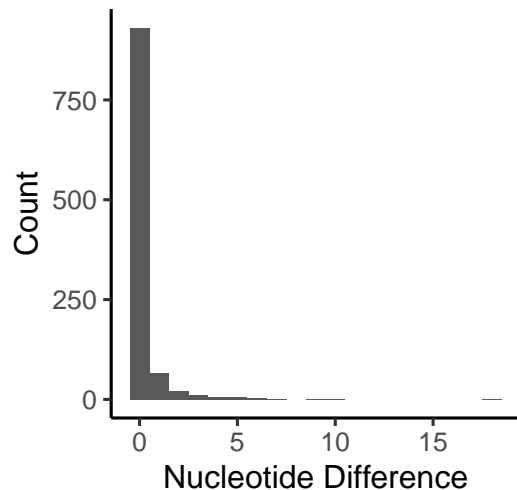
### IGHV4–28\*04

2 sequences assigned  
No exact matches.



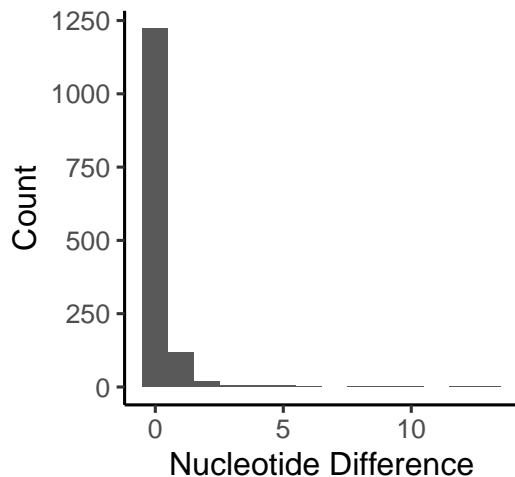
### IGHV4–31\*03

1050 sequences assigned  
931 (88.7%) exact matches, in which:  
897 unique CDR3  
6 unique J



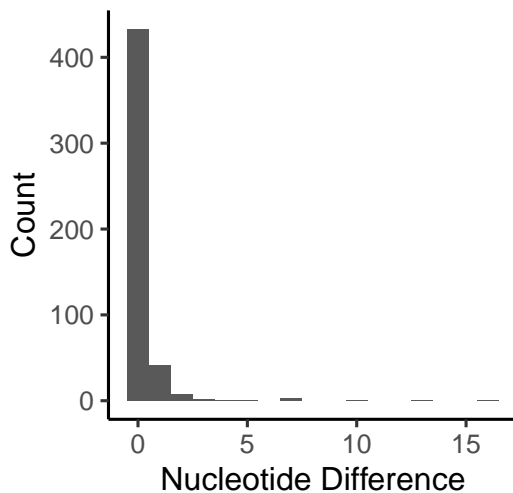
### IGHV4–4\*02

1378 sequences assigned  
1222 (88.7%) exact matches, in which:  
1186 unique CDR3  
7 unique J



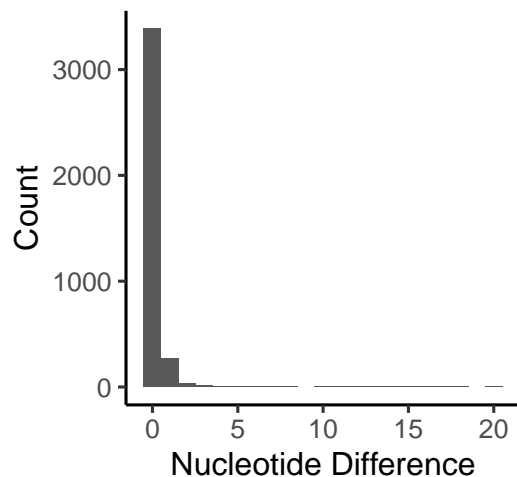
### IGHV4–30–4\*01

492 sequences assigned  
433 (88%) exact matches, in which:  
422 unique CDR3  
6 unique J



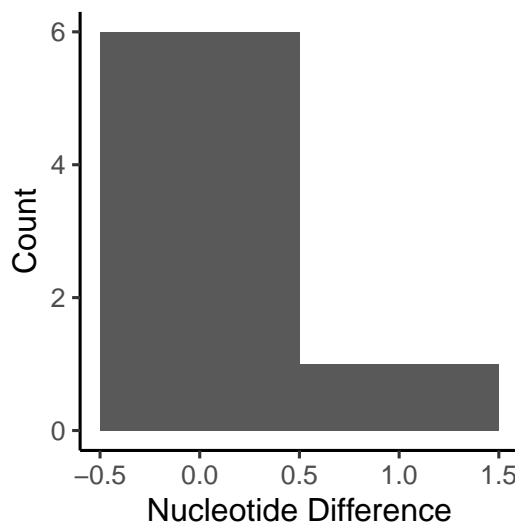
### IGHV4–34\*01

3767 sequences assigned  
3386 (89.9%) exact matches, in which:  
3185 unique CDR3  
7 unique J



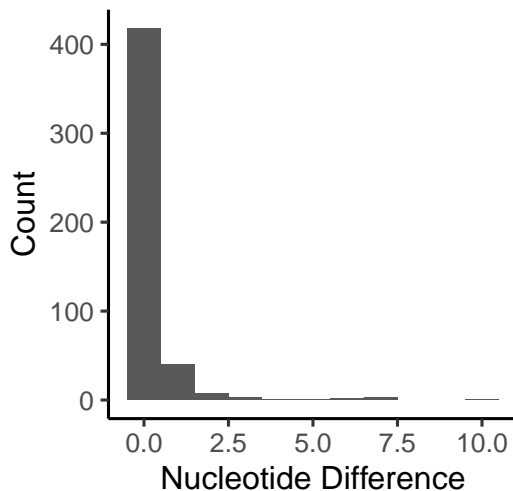
### IGHV4–28\*01

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



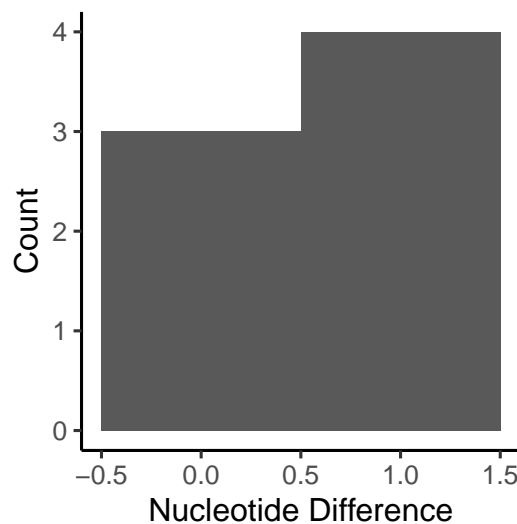
### IGHV4–30–2\*01

476 sequences assigned  
418 (87.8%) exact matches, in which:  
399 unique CDR3  
6 unique J



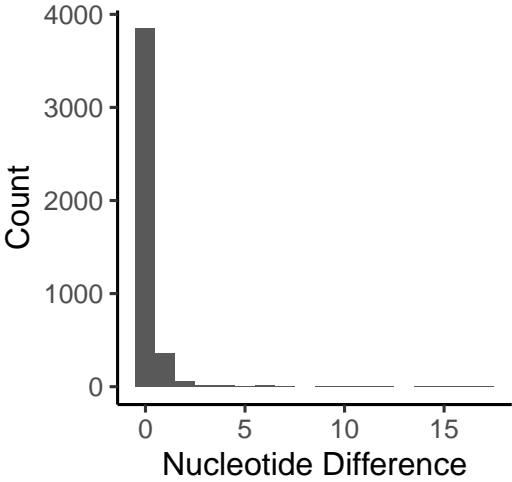
### IGHV4–38–2\*02

7 sequences assigned  
3 (42.9%) exact matches, in which:  
3 unique CDR3  
1 unique J



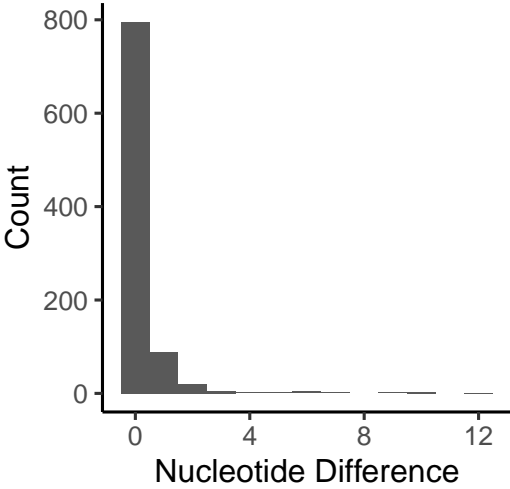
IGHV4–39\*01

4358 sequences assigned  
3849 (88.3%) exact matches, in which:  
3634 unique CDR3  
7 unique J



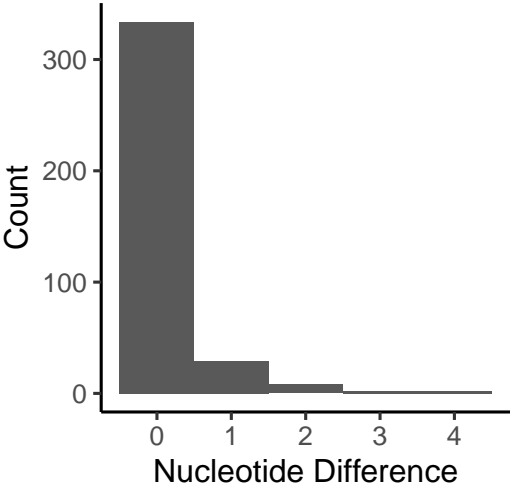
IGHV4–59\*08

925 sequences assigned  
796 (86.1%) exact matches, in which:  
765 unique CDR3  
7 unique J



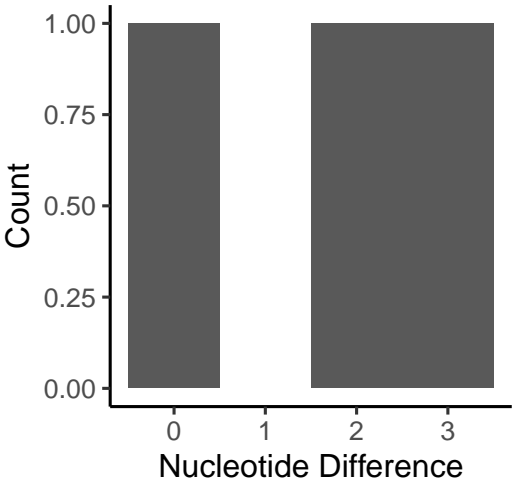
IGHV5–10–1\*01

375 sequences assigned  
334 (89.1%) exact matches, in which:  
324 unique CDR3  
6 unique J



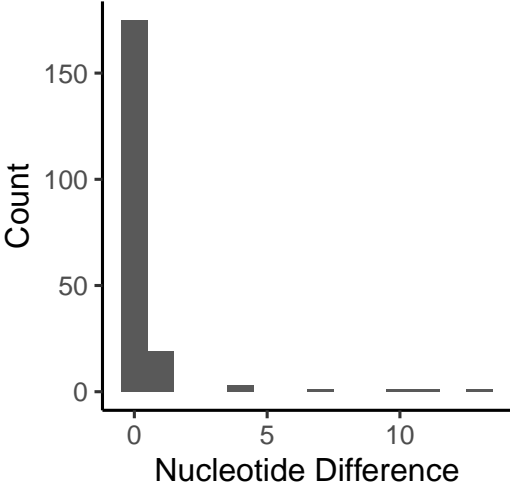
IGHV4–55\*01

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



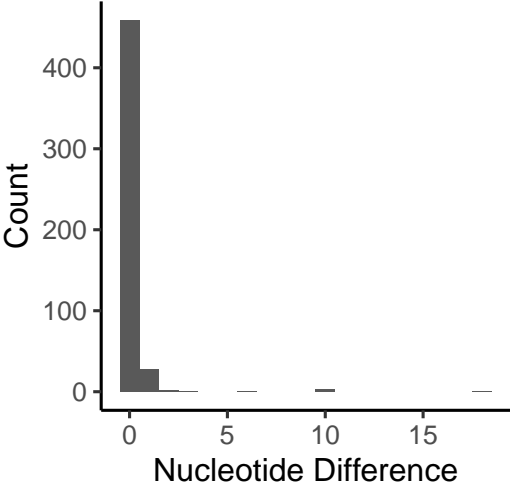
IGHV4–61\*01

201 sequences assigned  
175 (87.1%) exact matches, in which:  
172 unique CDR3  
5 unique J



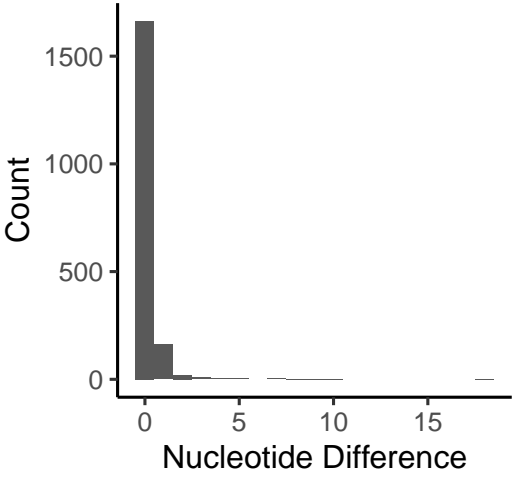
IGHV5–10–1\*03

495 sequences assigned  
459 (92.7%) exact matches, in which:  
447 unique CDR3  
7 unique J



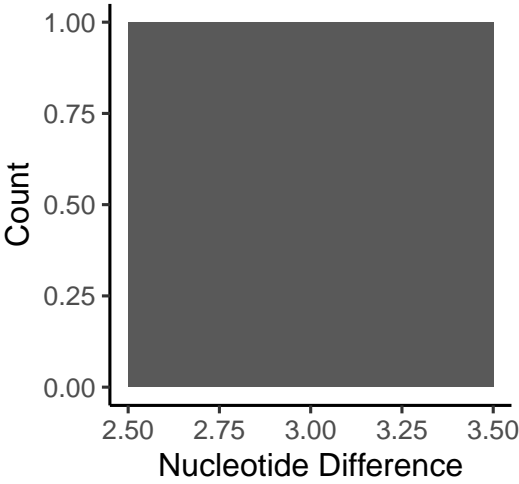
IGHV4–59\*01

1871 sequences assigned  
1663 (88.9%) exact matches, in which:  
1605 unique CDR3  
7 unique J



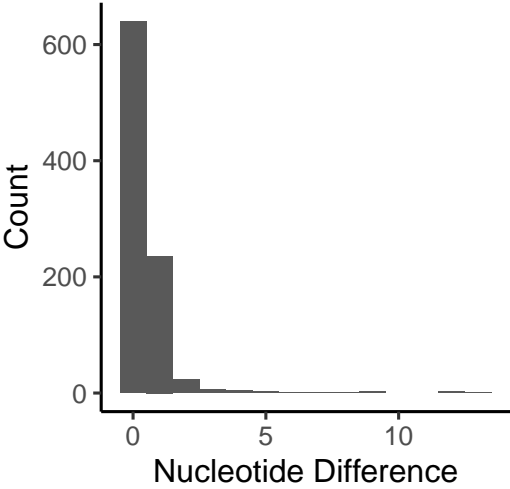
IGHV1/OR15–3\*01

1 sequences assigned  
No exact matches.



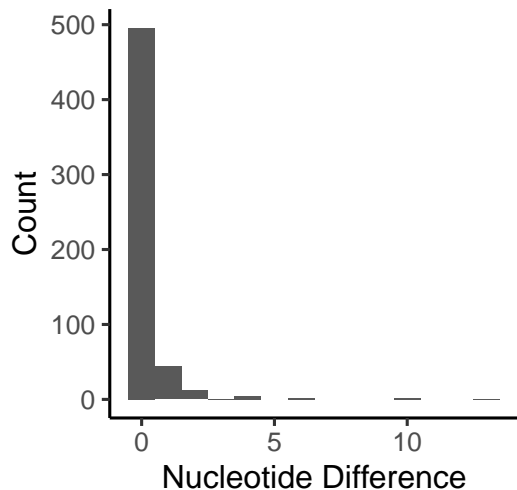
IGHV5–51\*01

924 sequences assigned  
640 (69.3%) exact matches, in which:  
620 unique CDR3  
7 unique J



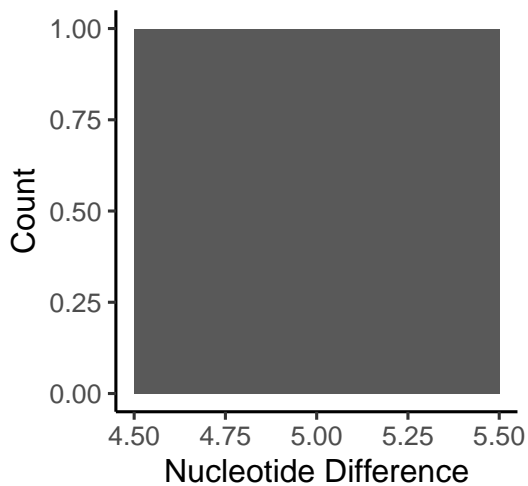
### IGHV5–51\*03

564 sequences assigned  
496 (87.9%) exact matches, in which:  
476 unique CDR3  
6 unique J



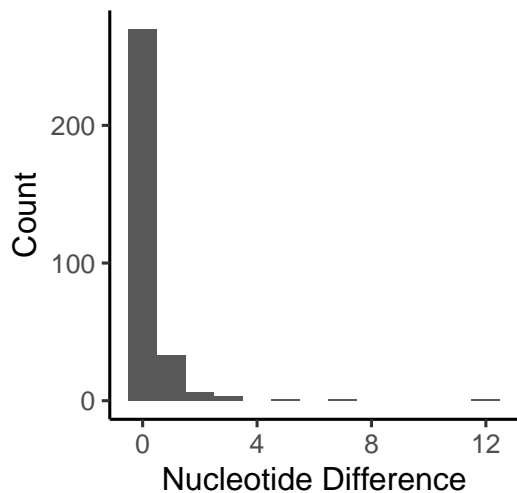
### IGHV3/OR16–15\*02

1 sequences assigned  
No exact matches.



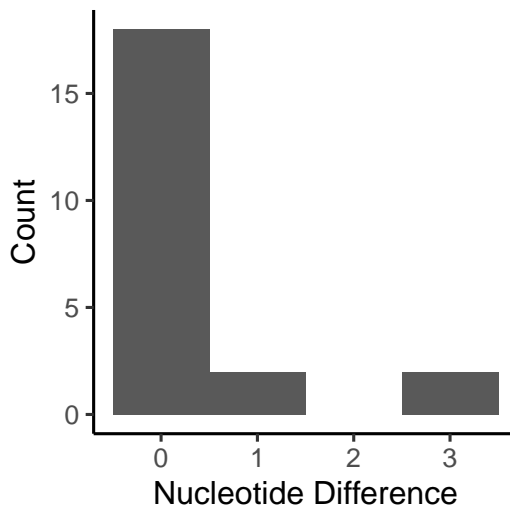
### IGHV6–1\*01

315 sequences assigned  
270 (85.7%) exact matches, in which:  
261 unique CDR3  
6 unique J



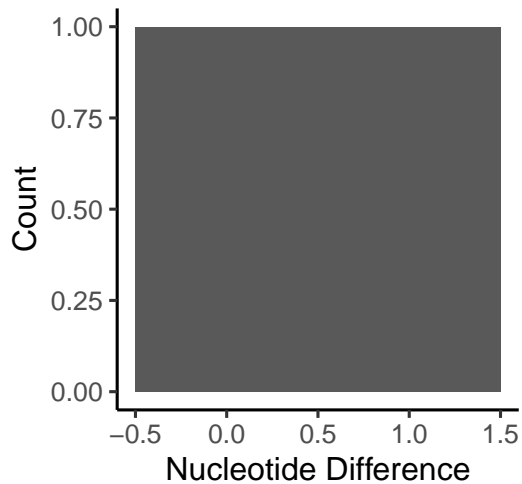
### IGHV7–4–1\*01

22 sequences assigned  
18 (81.8%) exact matches, in which:  
17 unique CDR3  
6 unique J

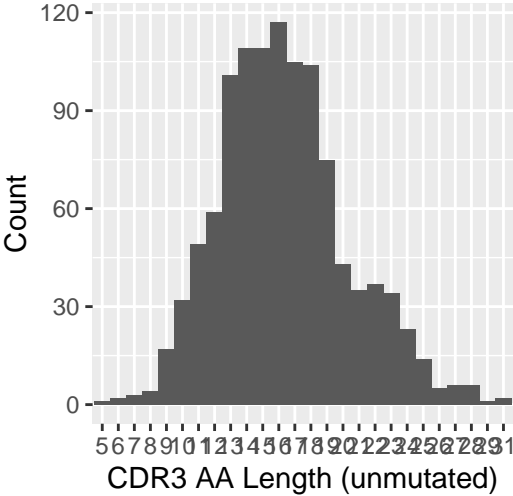


### IGHV3/OR16–6\*02

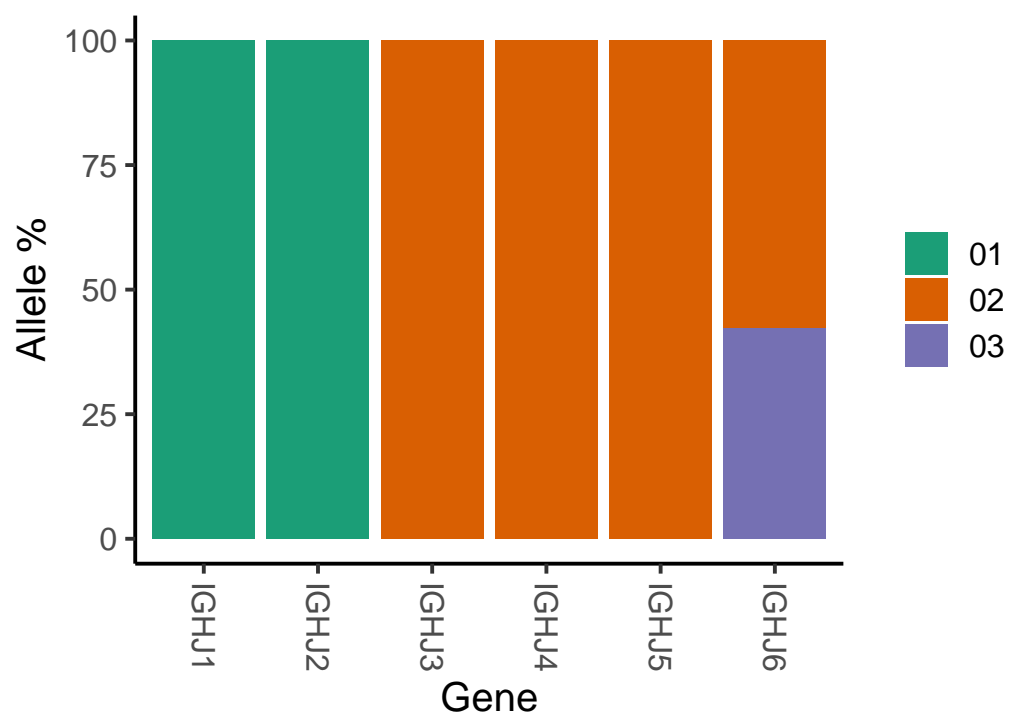
2 sequences assigned  
1 (50%) exact matches, in which:  
1 unique CDR3  
1 unique J



IGHV1-69\*08\_C191T



Allele Usage



Sequence Count by IGHJ6 allele usage

