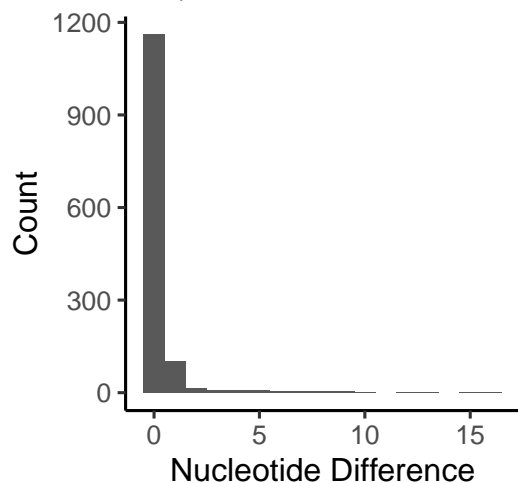


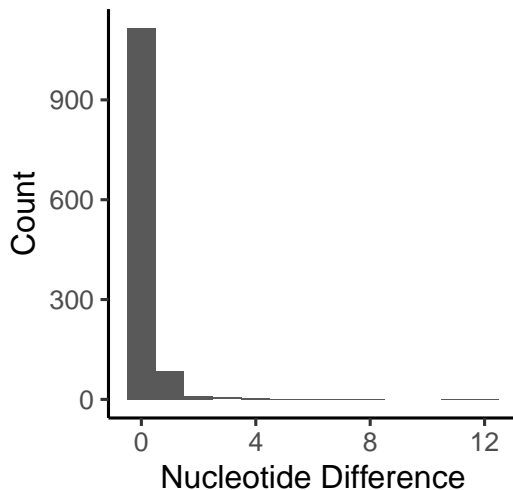
### IGHV1-2\*02

1328 sequences assigned  
1161 (87.4%) exact matches, in which:  
1111 unique CDR3  
7 unique J



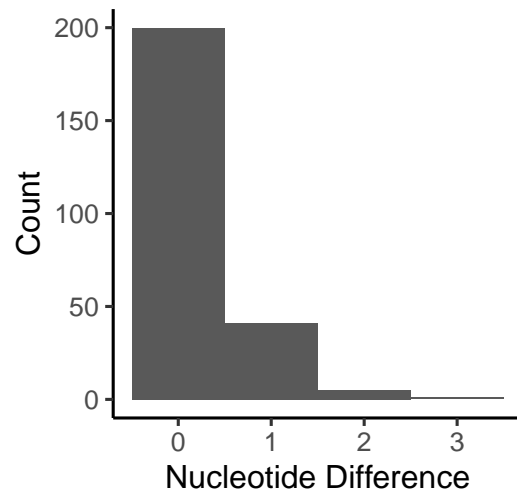
### IGHV1-8\*01

1233 sequences assigned  
1117 (90.6%) exact matches, in which:  
1066 unique CDR3  
7 unique J



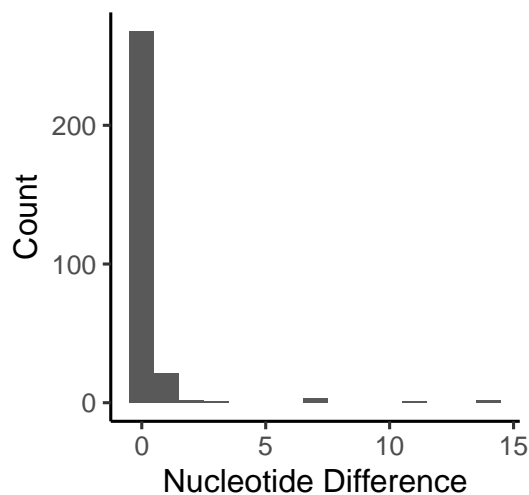
### IGHV1-24\*01

247 sequences assigned  
200 (81%) exact matches, in which:  
191 unique CDR3  
6 unique J



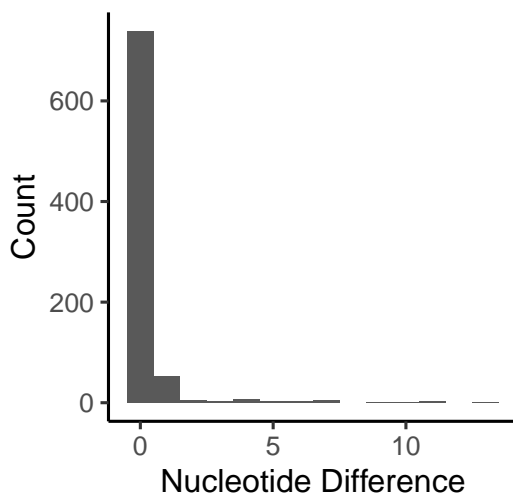
### IGHV1-2\*04

298 sequences assigned  
268 (89.9%) exact matches, in which:  
260 unique CDR3  
7 unique J



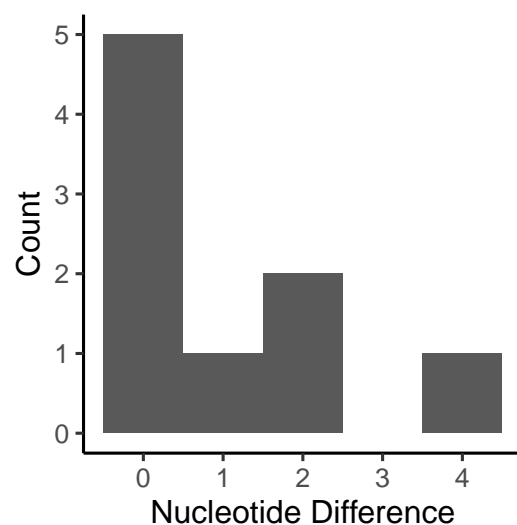
### IGHV1-18\*01

825 sequences assigned  
739 (89.6%) exact matches, in which:  
713 unique CDR3  
6 unique J



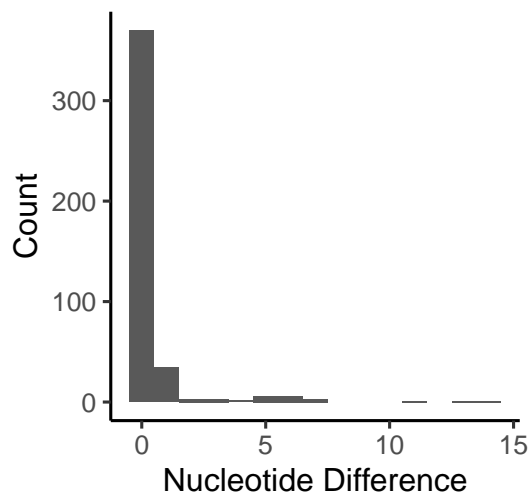
### IGHV1-45\*02

9 sequences assigned  
5 (55.6%) exact matches, in which:  
4 unique CDR3  
2 unique J



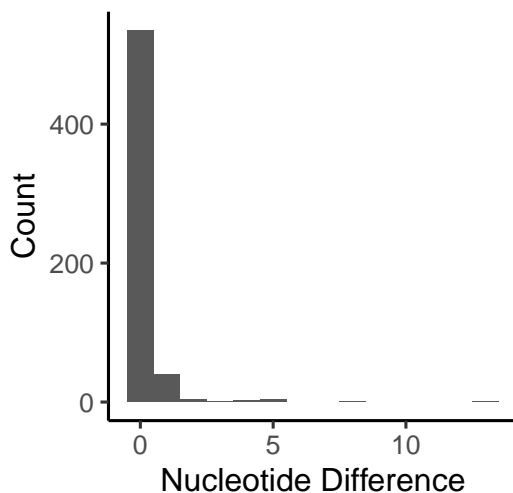
### IGHV1-3\*01

430 sequences assigned  
370 (86%) exact matches, in which:  
357 unique CDR3  
6 unique J



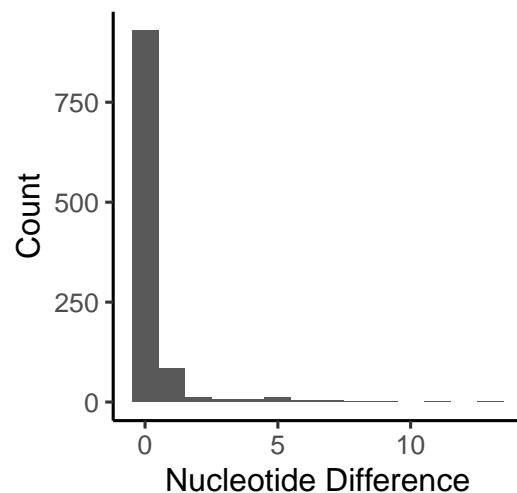
### IGHV1-18\*04

587 sequences assigned  
535 (91.1%) exact matches, in which:  
522 unique CDR3  
6 unique J



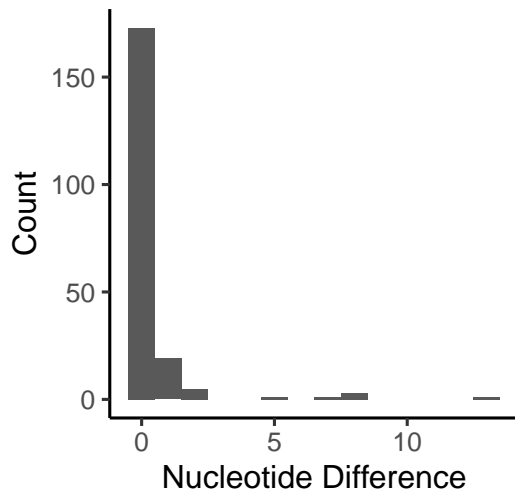
### IGHV1-46\*01

1062 sequences assigned  
930 (87.6%) exact matches, in which:  
887 unique CDR3  
7 unique J



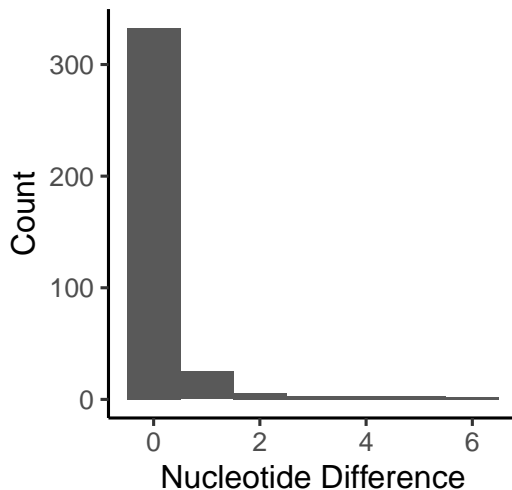
### IGHV1–58\*01

205 sequences assigned  
173 (84.4%) exact matches, in which:  
166 unique CDR3  
7 unique J



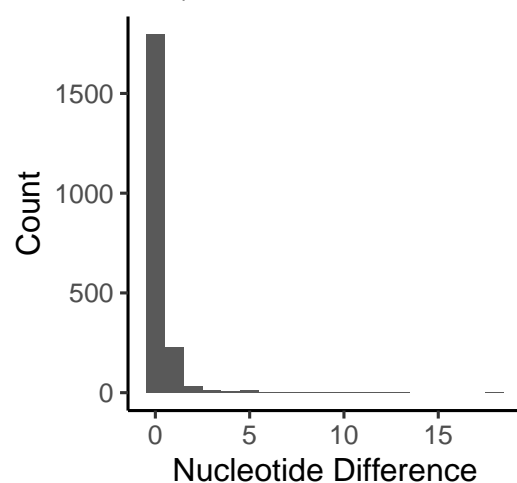
### IGHV2–26\*01

375 sequences assigned  
333 (88.8%) exact matches, in which:  
323 unique CDR3  
7 unique J



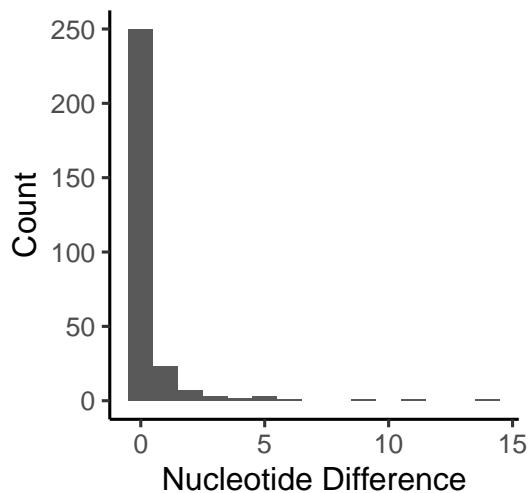
### IGHV3–9\*01

2117 sequences assigned  
1796 (84.8%) exact matches, in which:  
1694 unique CDR3  
7 unique J



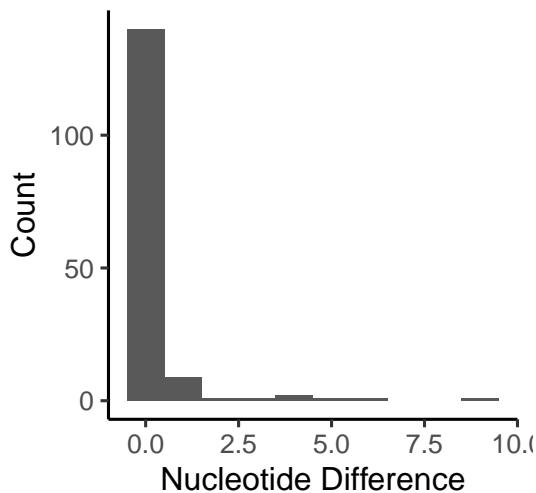
### IGHV2–5\*01

292 sequences assigned  
250 (85.6%) exact matches, in which:  
246 unique CDR3  
6 unique J



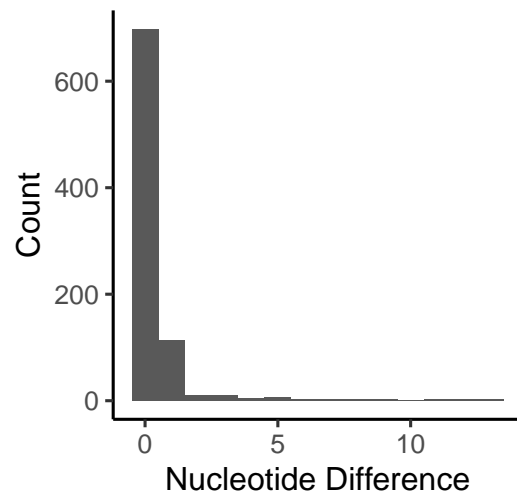
### IGHV2–70\*01

156 sequences assigned  
140 (89.7%) exact matches, in which:  
138 unique CDR3  
7 unique J



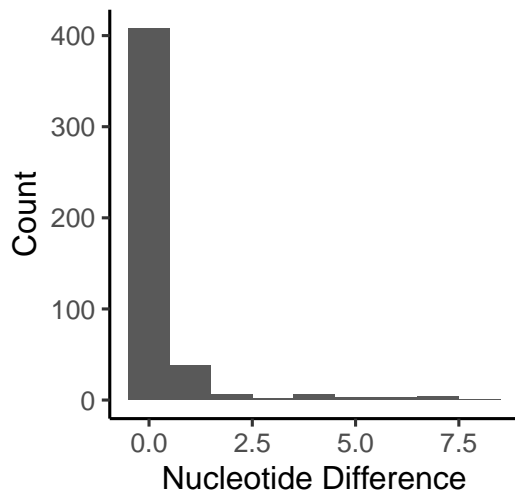
### IGHV3–11\*01

858 sequences assigned  
698 (81.4%) exact matches, in which:  
672 unique CDR3  
7 unique J



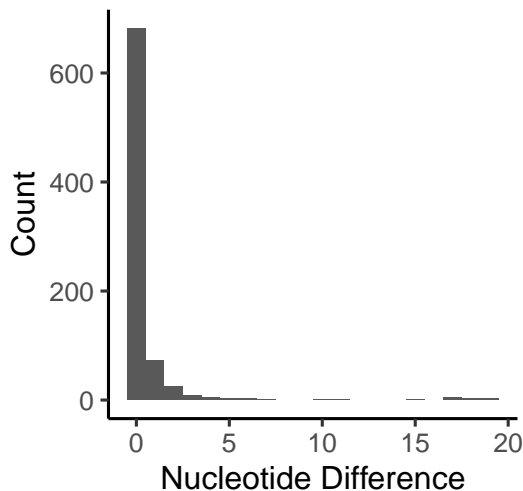
### IGHV2–5\*02

471 sequences assigned  
408 (86.6%) exact matches, in which:  
400 unique CDR3  
6 unique J



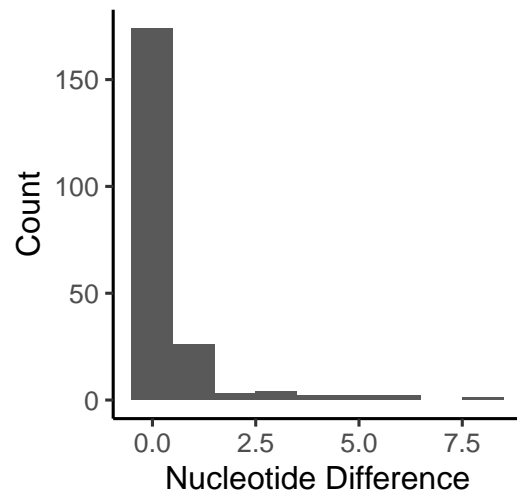
### IGHV3–7\*01

816 sequences assigned  
682 (83.6%) exact matches, in which:  
655 unique CDR3  
7 unique J



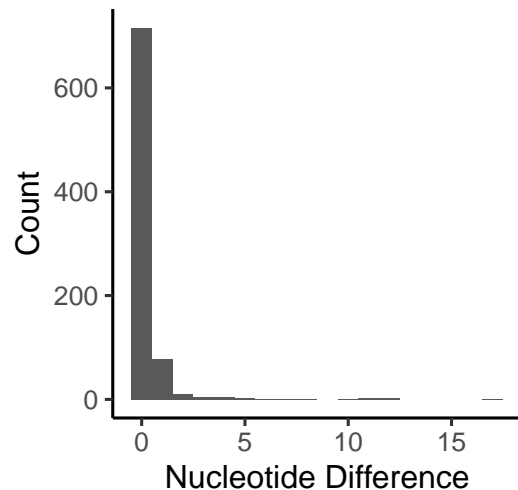
### IGHV3–13\*01

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



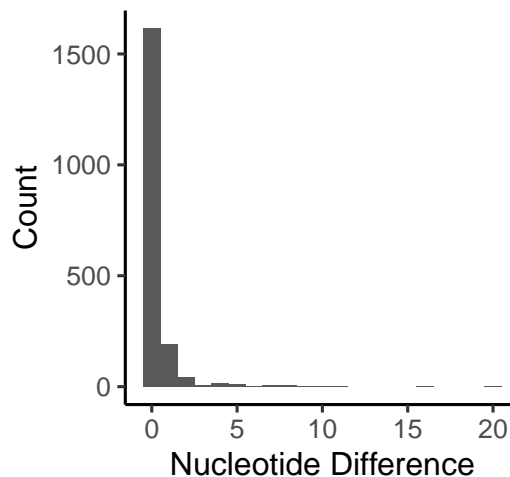
### IGHV3–15\*01

825 sequences assigned  
716 (86.8%) exact matches, in which:  
685 unique CDR3  
7 unique J



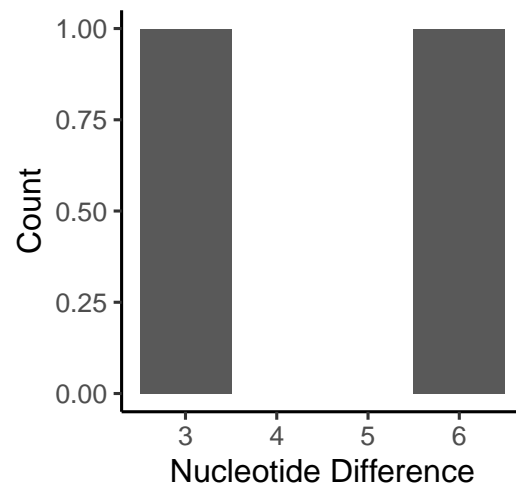
### IGHV3–21\*01

1906 sequences assigned  
1615 (84.7%) exact matches, in which:  
1535 unique CDR3  
7 unique J



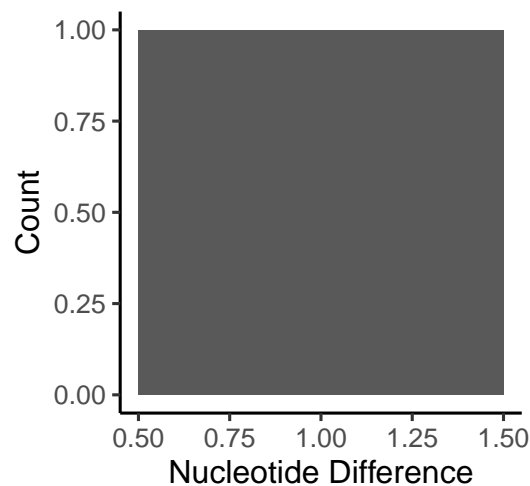
### IGHV3–41\*02

2 sequences assigned  
No exact matches.



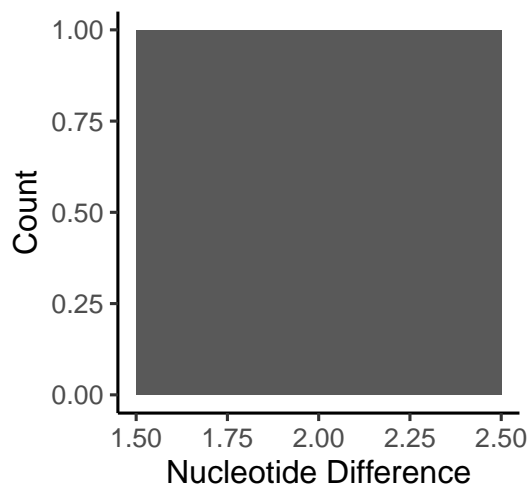
### IGHV3–19\*01

1 sequences assigned  
No exact matches.



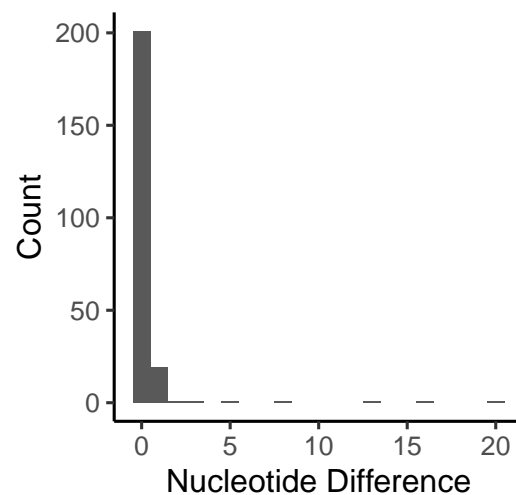
### IGHV3–30–3\*02

1 sequences assigned  
No exact matches.



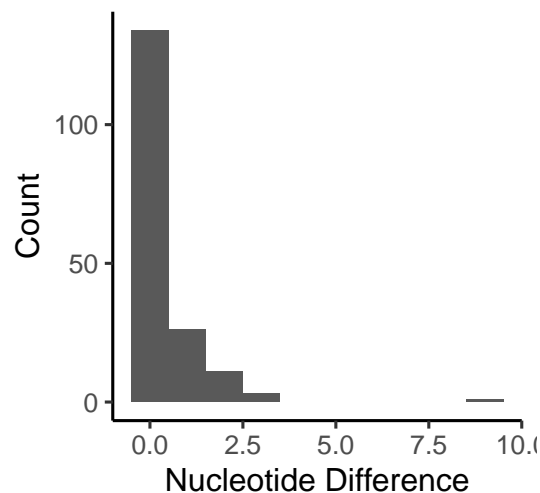
### IGHV3–43\*01

229 sequences assigned  
201 (87.8%) exact matches, in which:  
190 unique CDR3  
7 unique J



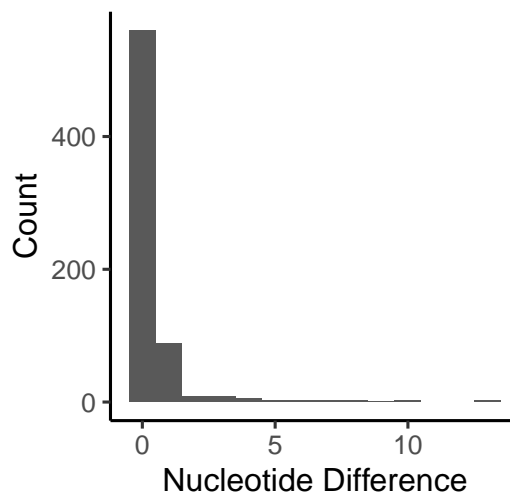
### IGHV3–20\*01

175 sequences assigned  
134 (76.6%) exact matches, in which:  
128 unique CDR3  
6 unique J



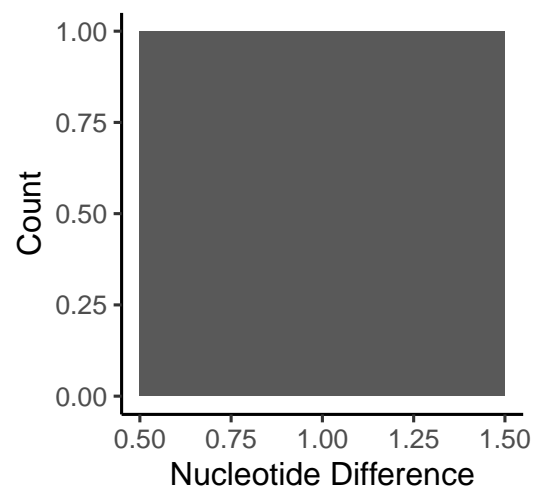
### IGHV3–33\*01

691 sequences assigned  
560 (81%) exact matches, in which:  
543 unique CDR3  
6 unique J



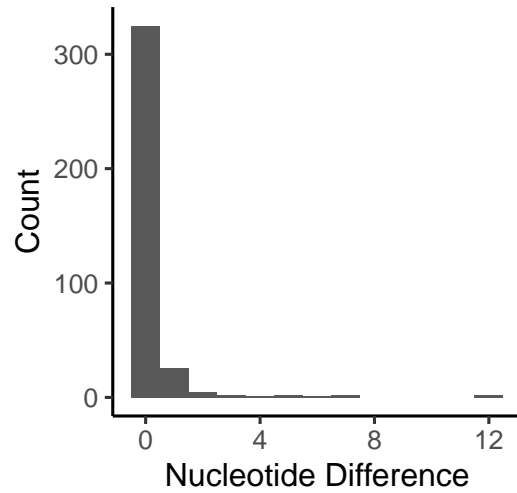
### IGHV3–47\*01

1 sequences assigned  
No exact matches.



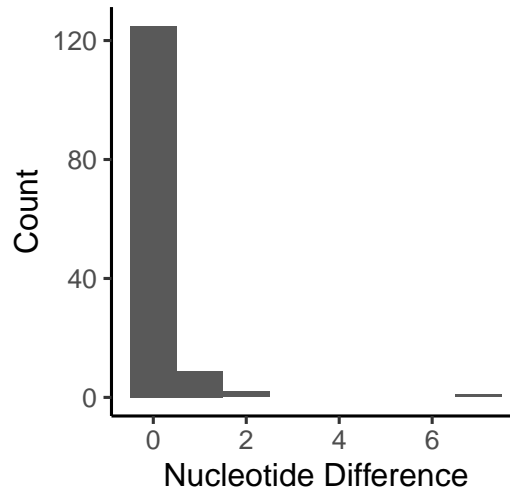
### IGHV3-48\*02

366 sequences assigned  
325 (88.8%) exact matches, in which:  
309 unique CDR3  
6 unique J



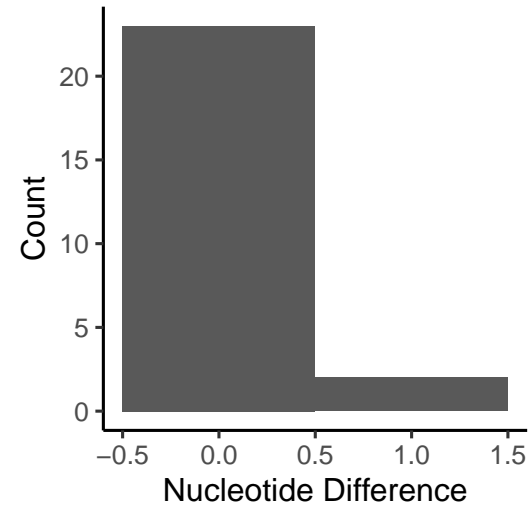
### IGHV3-49\*05

137 sequences assigned  
125 (91.2%) exact matches, in which:  
121 unique CDR3  
6 unique J



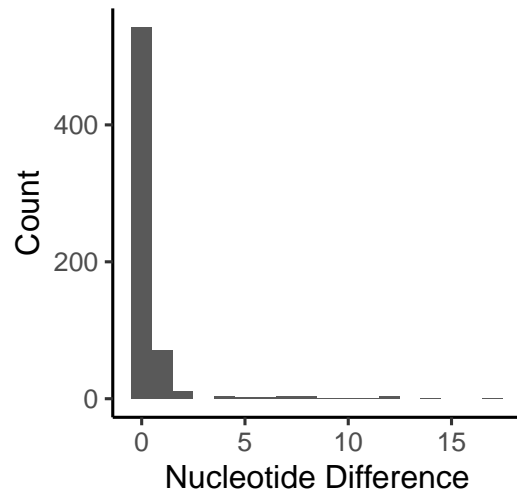
### IGHV3-64\*02

25 sequences assigned  
23 (92%) exact matches, in which:  
22 unique CDR3  
6 unique J



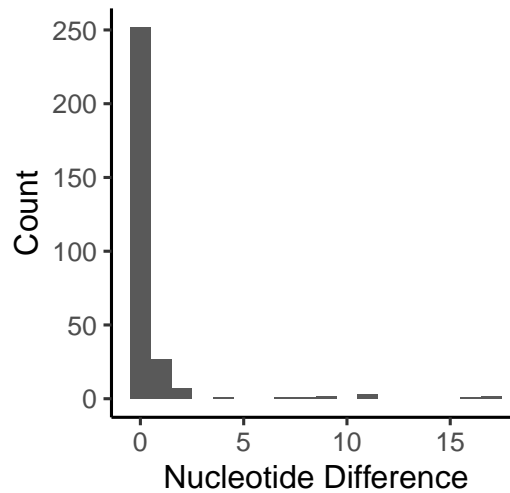
### IGHV3-48\*04

648 sequences assigned  
543 (83.8%) exact matches, in which:  
527 unique CDR3  
7 unique J



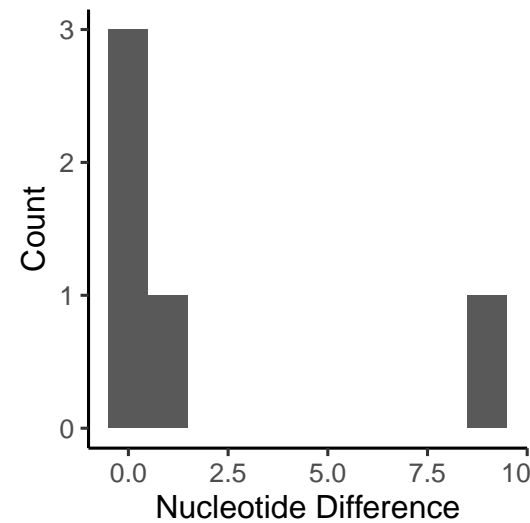
### IGHV3-53\*01

298 sequences assigned  
252 (84.6%) exact matches, in which:  
242 unique CDR3  
7 unique J



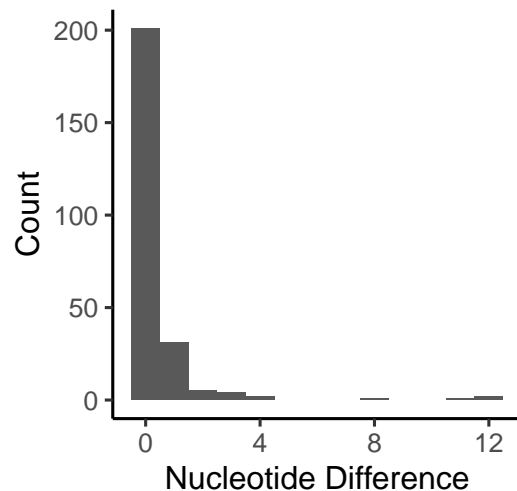
### IGHV3-66\*03

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



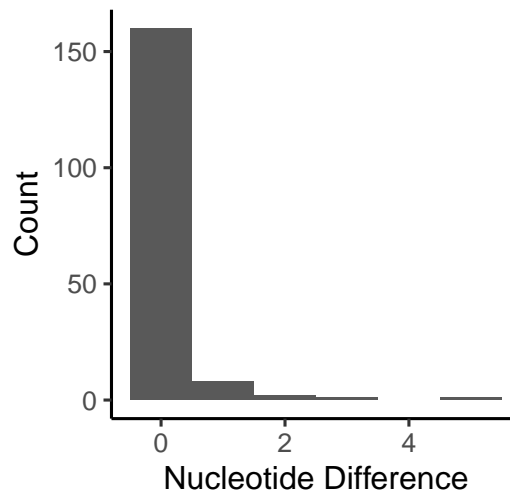
### IGHV3-49\*03

247 sequences assigned  
201 (81.4%) exact matches, in which:  
191 unique CDR3  
6 unique J



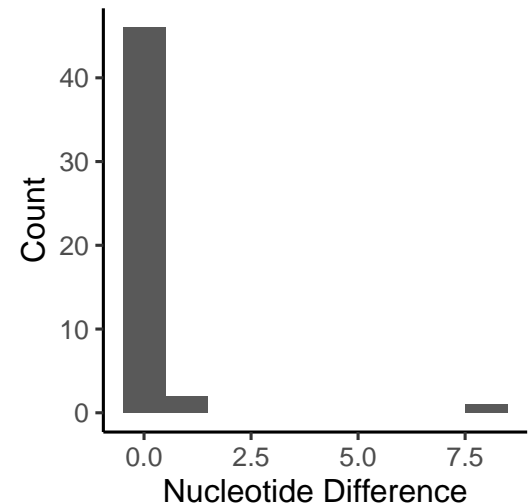
### IGHV3-53\*04

172 sequences assigned  
160 (93%) exact matches, in which:  
149 unique CDR3  
5 unique J



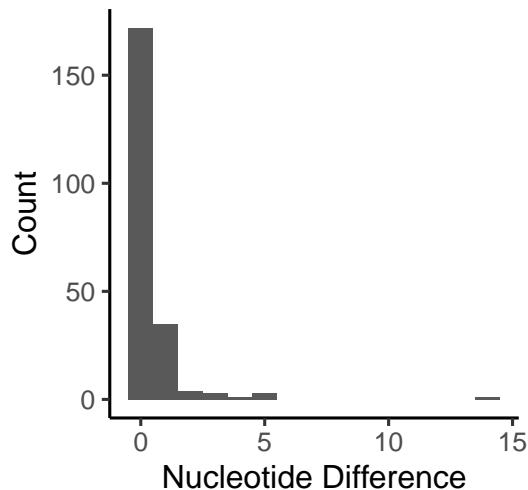
### IGHV3-72\*01

49 sequences assigned  
46 (93.9%) exact matches, in which:  
44 unique CDR3  
6 unique J



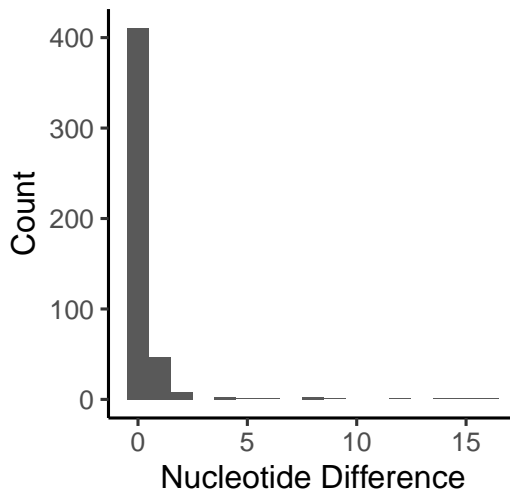
### IGHV3–73\*02

219 sequences assigned  
172 (78.5%) exact matches, in which:  
159 unique CDR3  
6 unique J



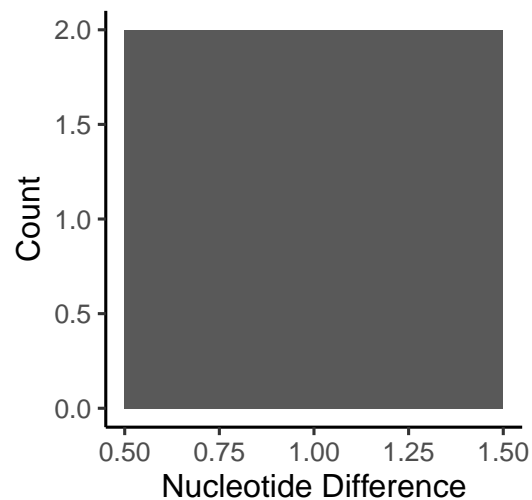
### IGHV4–4\*02

480 sequences assigned  
411 (85.6%) exact matches, in which:  
401 unique CDR3  
7 unique J



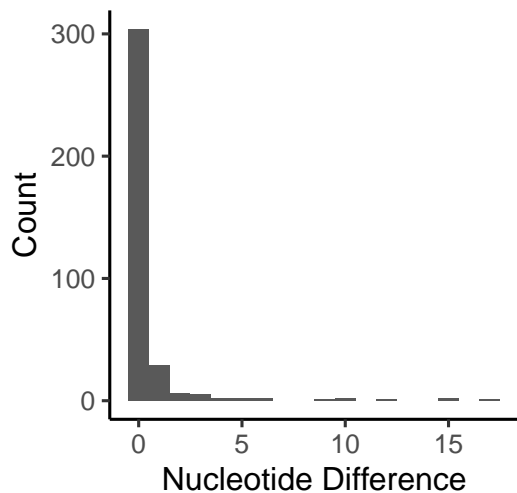
### IGHV4–28\*04

2 sequences assigned  
No exact matches.



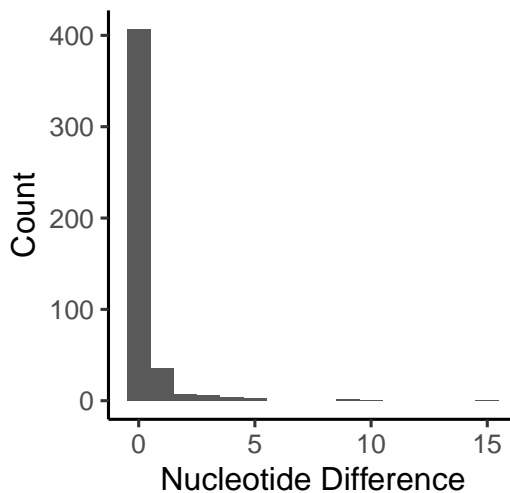
### IGHV3–74\*01

359 sequences assigned  
304 (84.7%) exact matches, in which:  
289 unique CDR3  
7 unique J



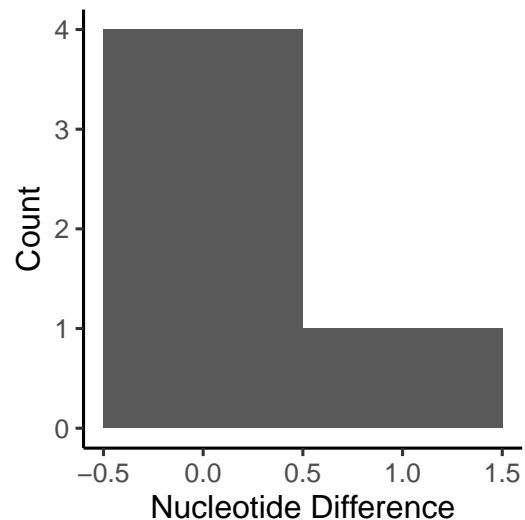
### IGHV4–4\*07

467 sequences assigned  
407 (87.2%) exact matches, in which:  
395 unique CDR3  
7 unique J



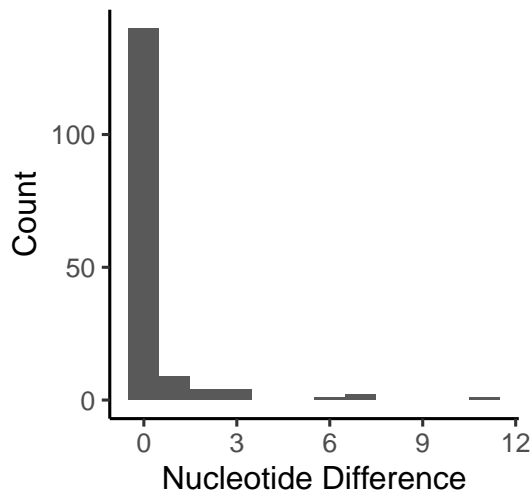
### IGHV4–28\*07

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



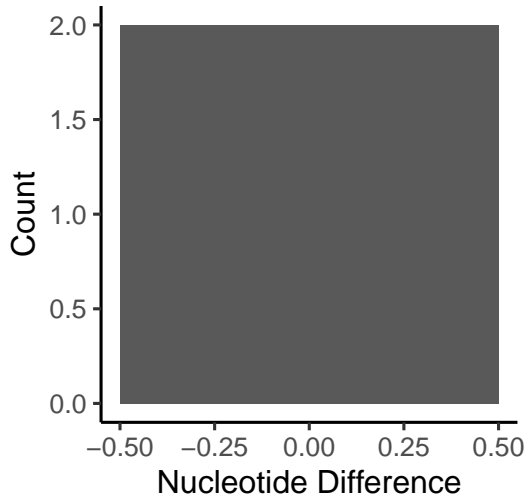
### IGHV3–43D\*03

161 sequences assigned  
140 (87%) exact matches, in which:  
134 unique CDR3  
6 unique J



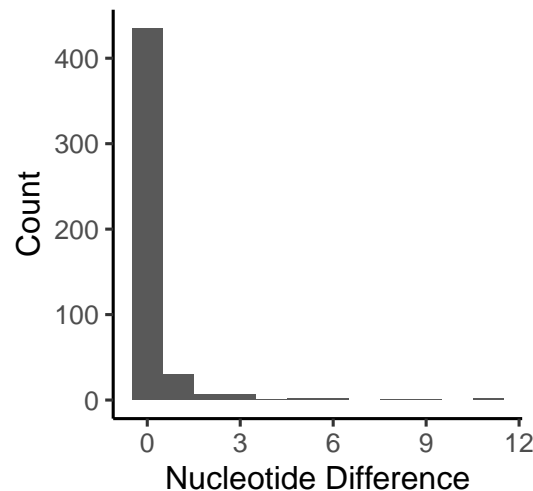
### IGHV4–28\*01

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



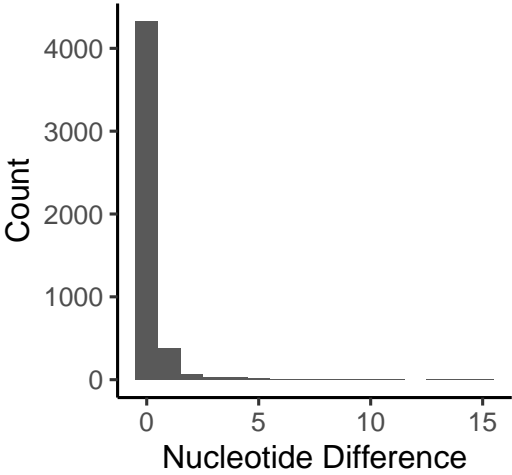
### IGHV4–31\*03

490 sequences assigned  
435 (88.8%) exact matches, in which:  
418 unique CDR3  
6 unique J



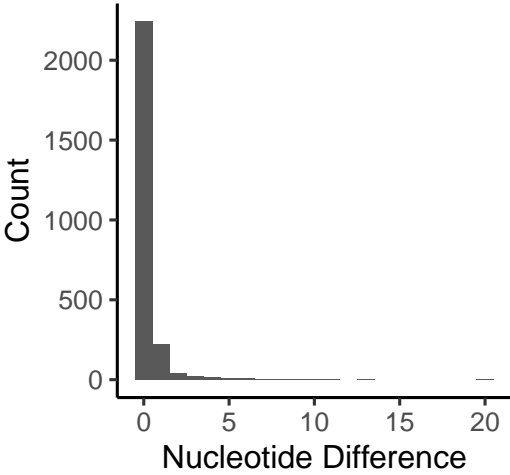
IGHV4-34\*01

4875 sequences assigned  
4325 (88.7%) exact matches, in which:  
4104 unique CDR3  
7 unique J



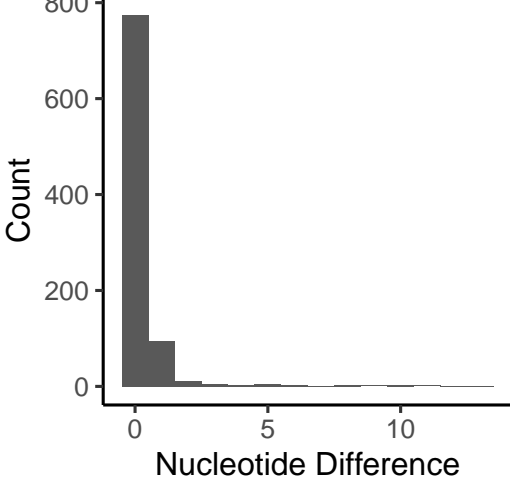
IGHV4-39\*07

2592 sequences assigned  
2243 (86.5%) exact matches, in which:  
2115 unique CDR3  
7 unique J



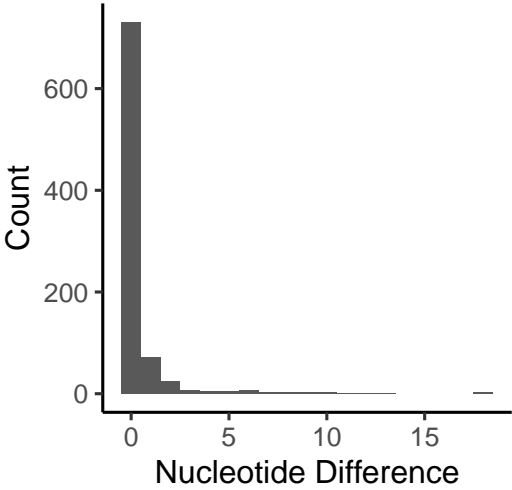
IGHV4-59\*01

911 sequences assigned  
775 (85.1%) exact matches, in which:  
756 unique CDR3  
7 unique J



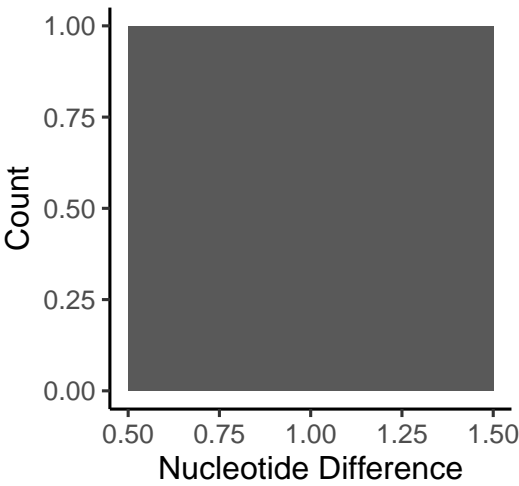
IGHV4-38-2\*02

863 sequences assigned  
731 (84.7%) exact matches, in which:  
693 unique CDR3  
6 unique J



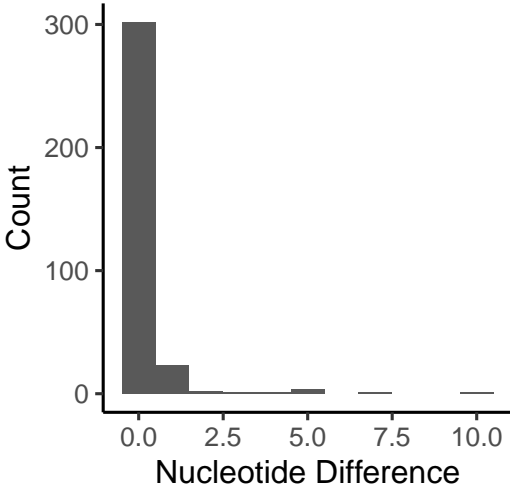
IGHV4-55\*08

1 sequences assigned  
No exact matches.



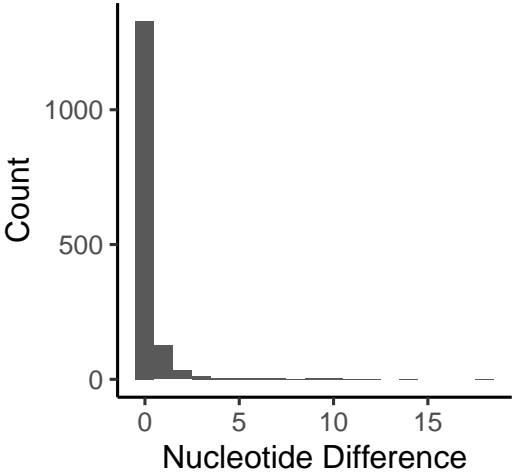
IGHV4-61\*01

335 sequences assigned  
302 (90.1%) exact matches, in which:  
294 unique CDR3  
7 unique J



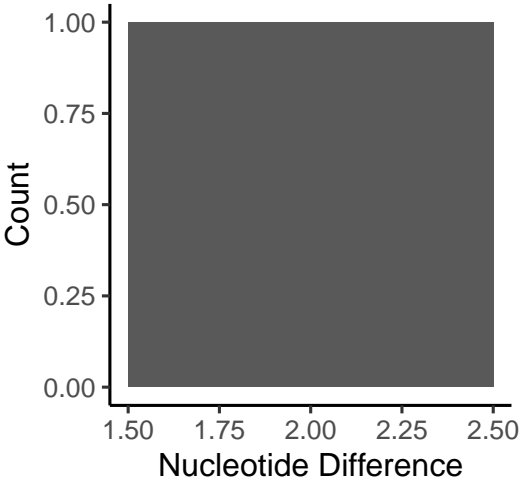
IGHV4-39\*01

1535 sequences assigned  
1329 (86.6%) exact matches, in which:  
1259 unique CDR3  
6 unique J



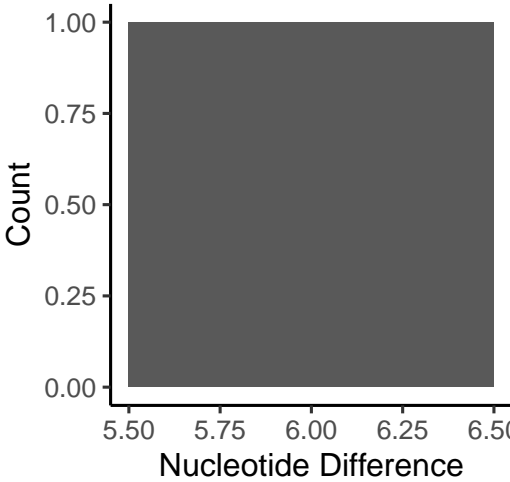
IGHV4-55\*09

1 sequences assigned  
No exact matches.



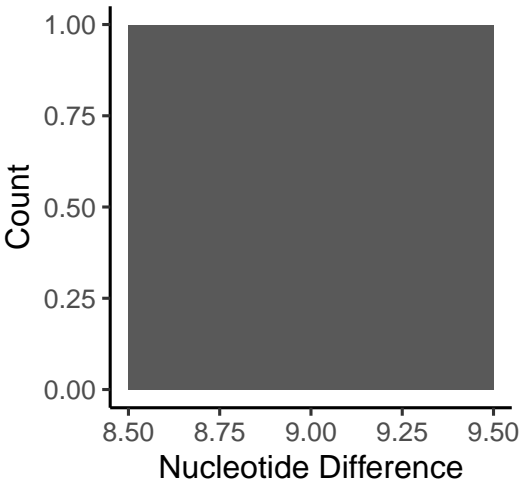
IGHV1/OR15-4\*01

1 sequences assigned  
No exact matches.



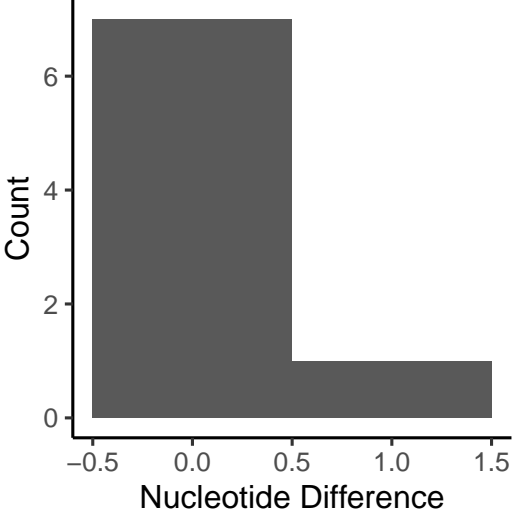
IGHV5-10-1\*02

1 sequences assigned  
No exact matches.



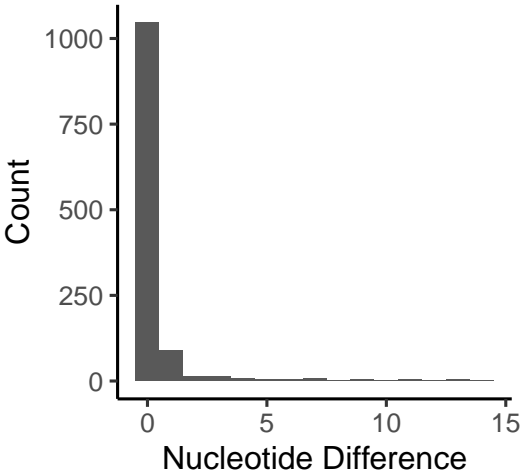
IGHV7-4-1\*01

8 sequences assigned  
7 (87.5%) exact matches, in which:  
7 unique CDR3  
4 unique J



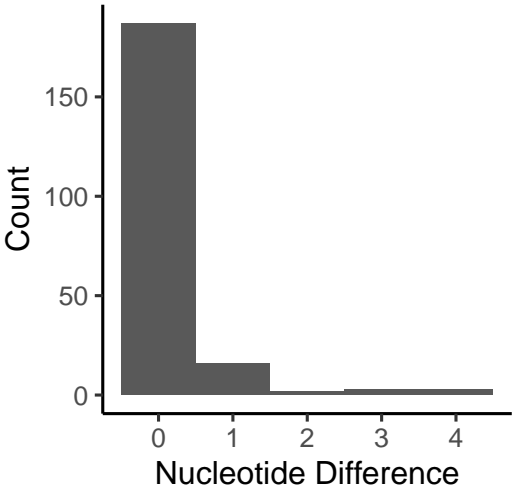
IGHV5-51\*01

1196 sequences assigned  
1046 (87.5%) exact matches, in which:  
1002 unique CDR3  
7 unique J

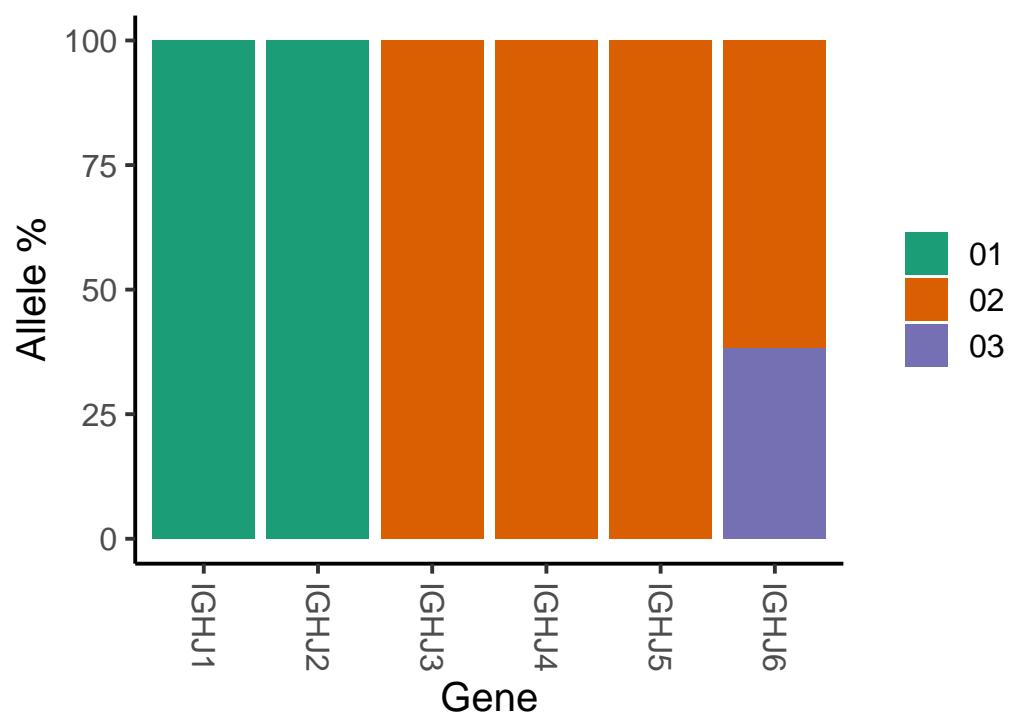


IGHV6-1\*01

211 sequences assigned  
187 (88.6%) exact matches, in which:  
177 unique CDR3  
6 unique J

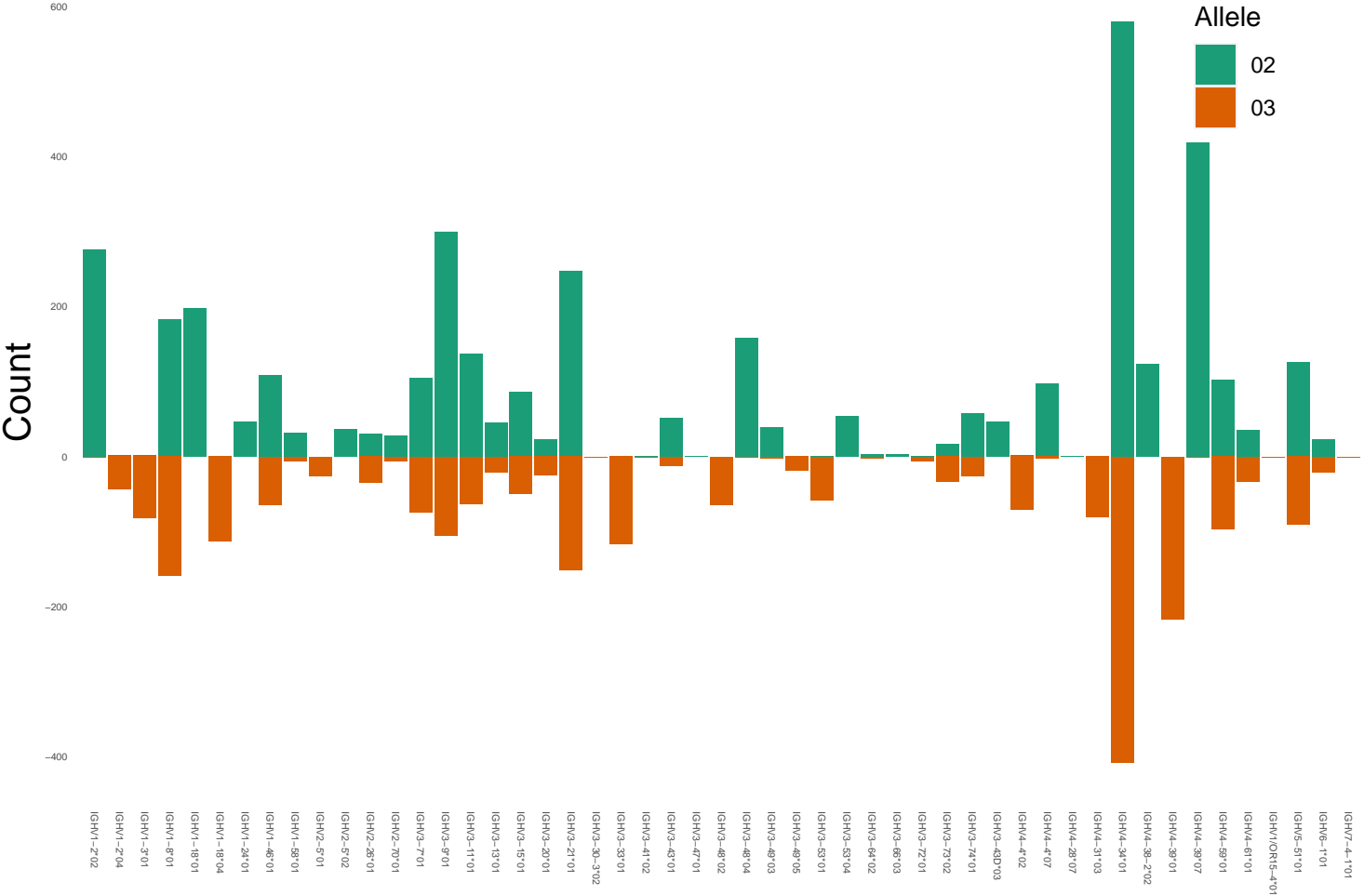


Allele Usage





Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.