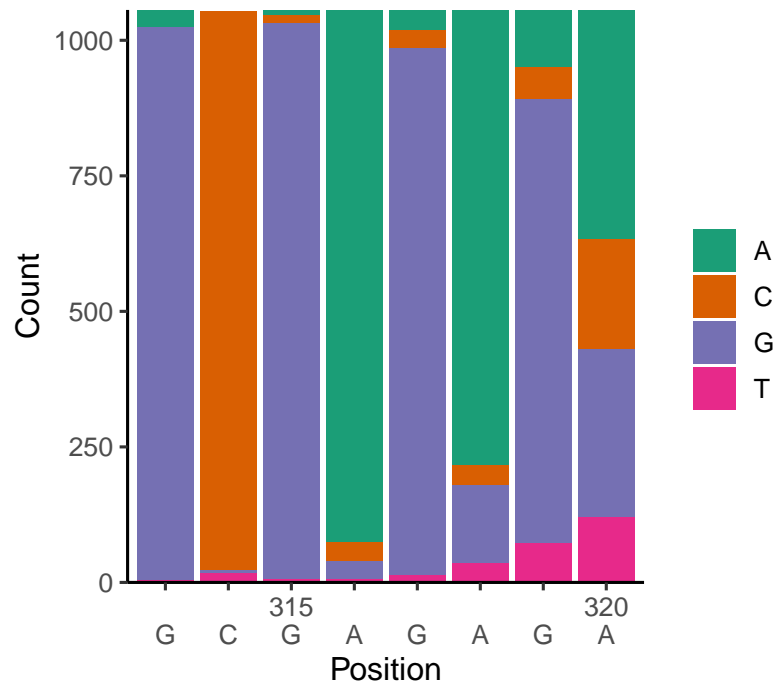
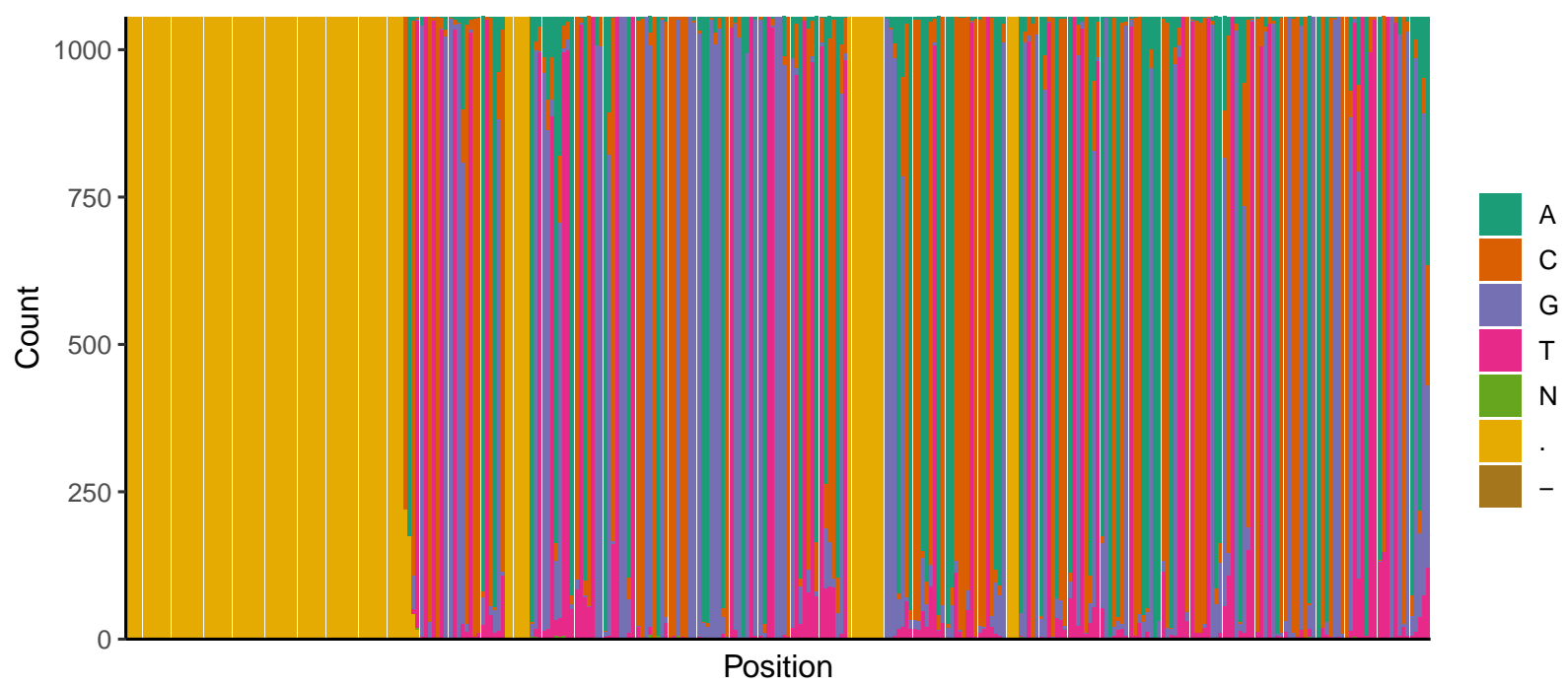


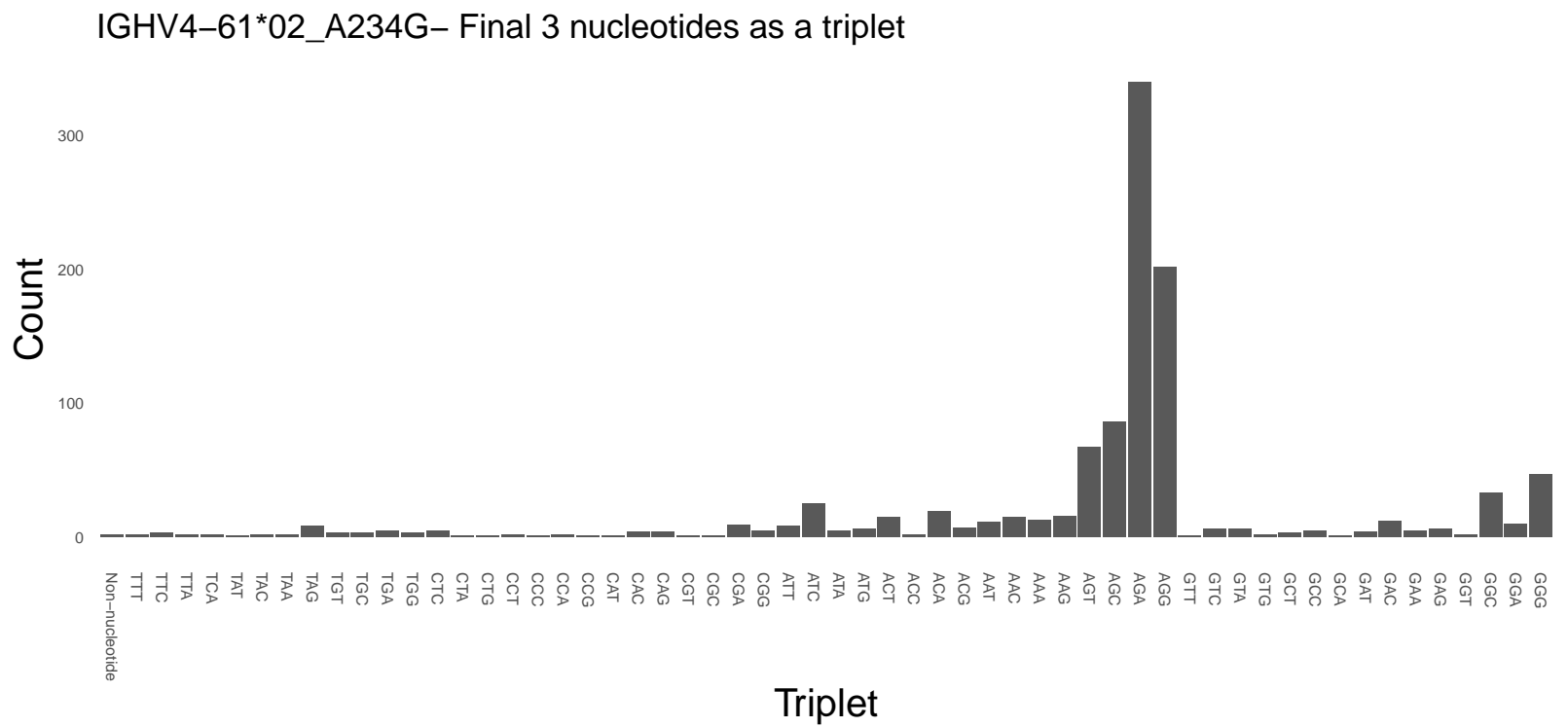
# Gene IGHV4-61\*02\_A234G



# Gene IGHV4-61\*02\_A234G

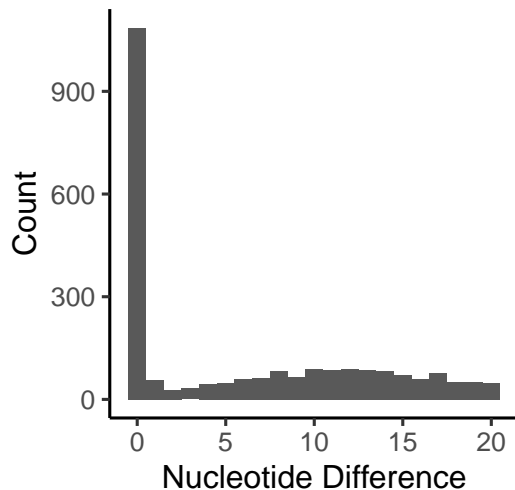


IGHV4-61\*02\_A234G- Final 3 nucleotides as a triplet



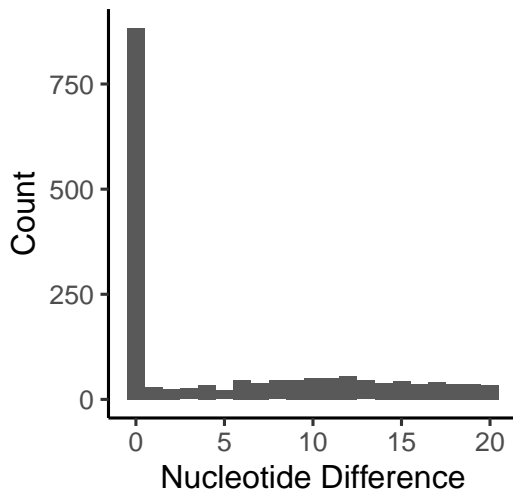
### IGHV1–2\*02

2668 sequences assigned  
1086 (40.7%) exact matches, in which:  
1083 unique CDR3  
7 unique J



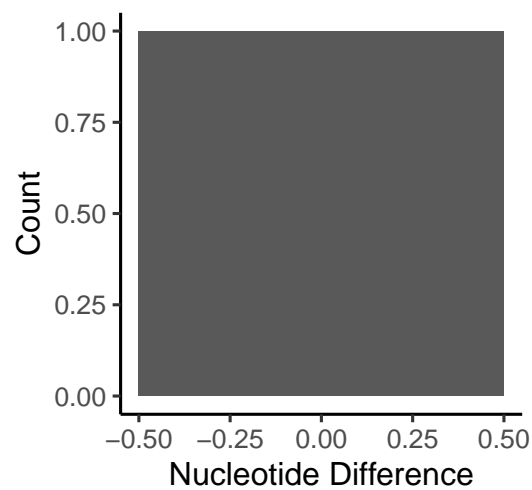
### IGHV1–18\*01

1921 sequences assigned  
884 (46%) exact matches, in which:  
880 unique CDR3  
7 unique J



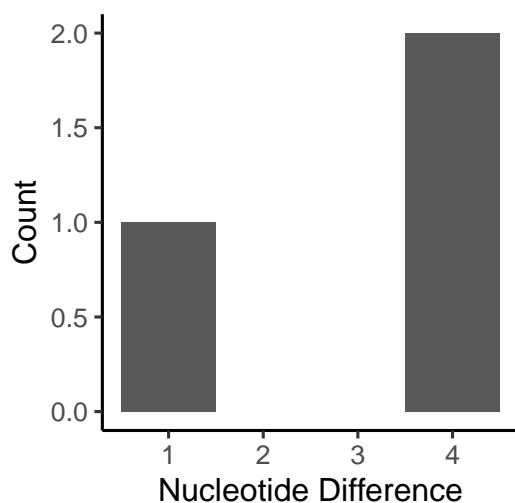
### IGHV1–45\*03

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



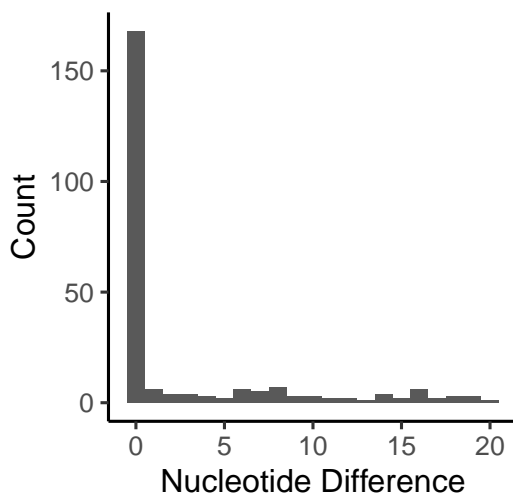
### IGHV1–3\*02

4 sequences assigned  
No exact matches.



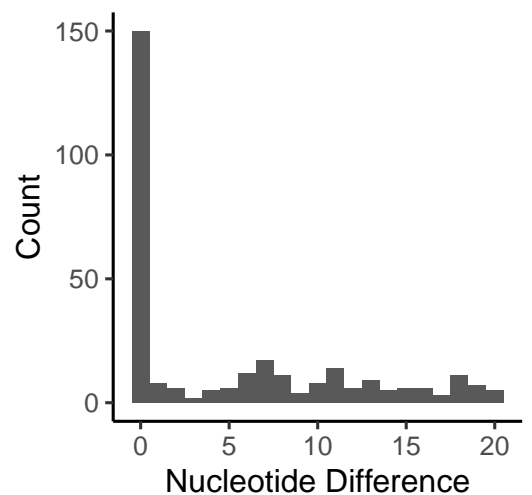
### IGHV1–24\*01

276 sequences assigned  
168 (60.9%) exact matches, in which:  
168 unique CDR3  
7 unique J



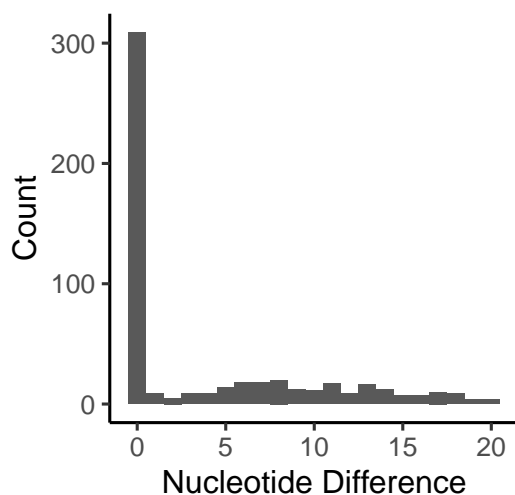
### IGHV1–46\*01

325 sequences assigned  
150 (46.2%) exact matches, in which:  
150 unique CDR3  
6 unique J



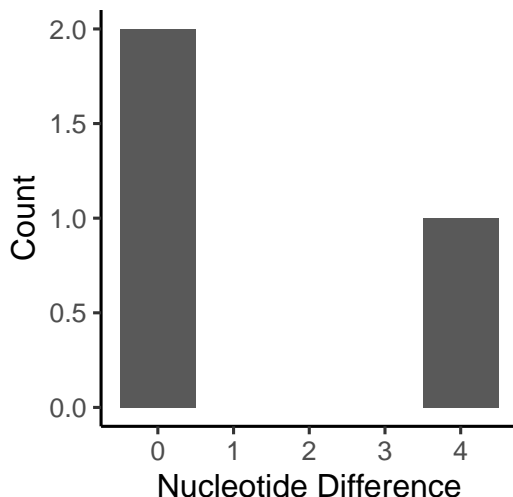
### IGHV1–8\*01

587 sequences assigned  
309 (52.6%) exact matches, in which:  
307 unique CDR3  
6 unique J



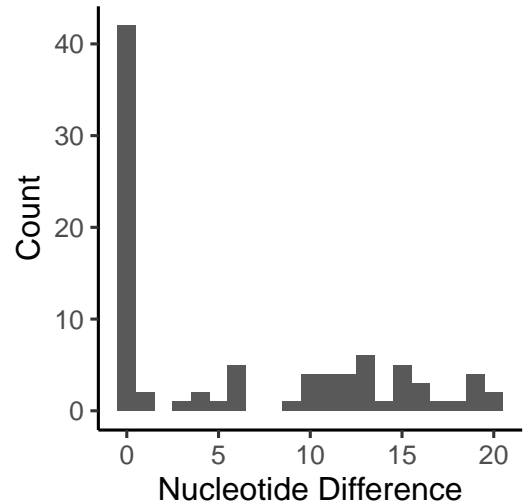
### IGHV1–45\*02

3 sequences assigned  
2 (66.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



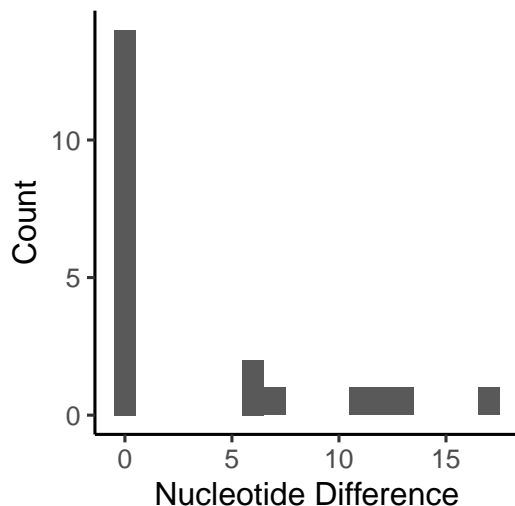
### IGHV1–46\*03

99 sequences assigned  
42 (42.4%) exact matches, in which:  
41 unique CDR3  
6 unique J



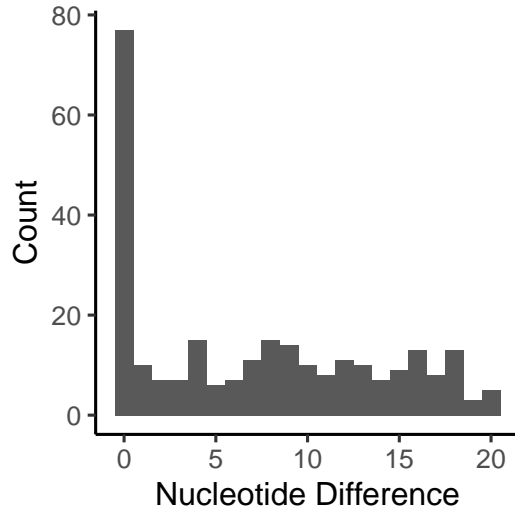
## IGHV1–58\*02

23 sequences assigned  
14 (60.9%) exact matches, in which:  
14 unique CDR3  
3 unique J



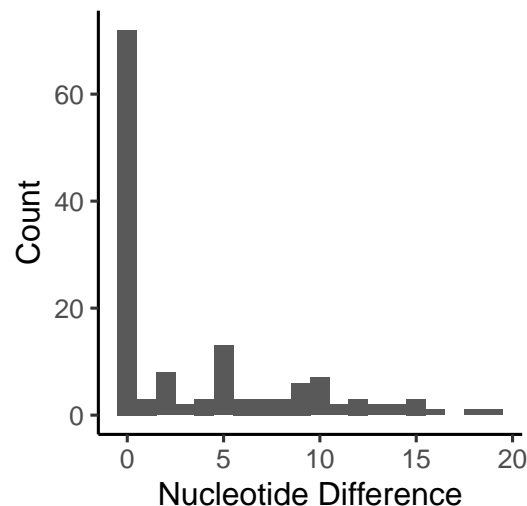
## IGHV2–5\*01

292 sequences assigned  
77 (26.4%) exact matches, in which:  
76 unique CDR3  
6 unique J



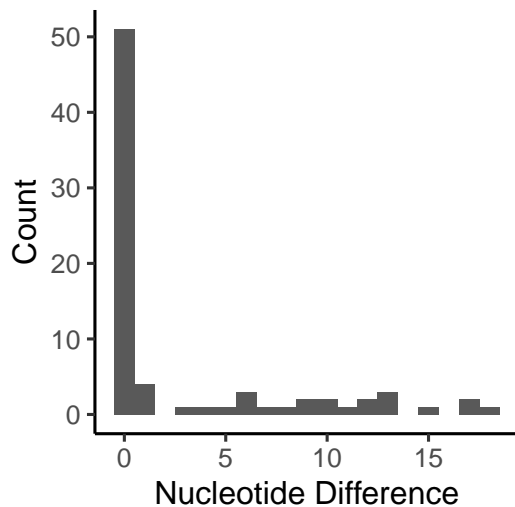
## IGHV2–70\*01

155 sequences assigned  
72 (46.5%) exact matches, in which:  
72 unique CDR3  
6 unique J



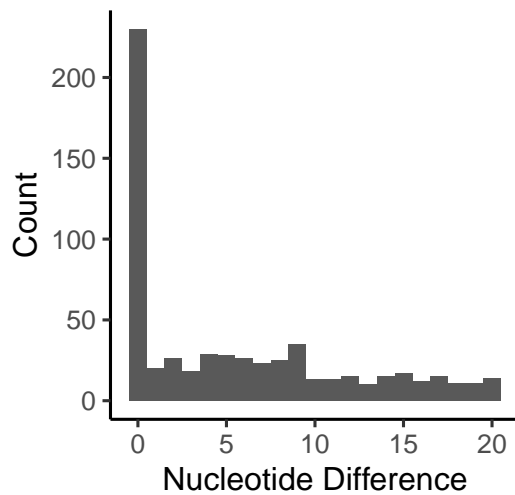
## IGHV1–58\*01\_03

85 sequences assigned  
51 (60%) exact matches, in which:  
51 unique CDR3  
5 unique J



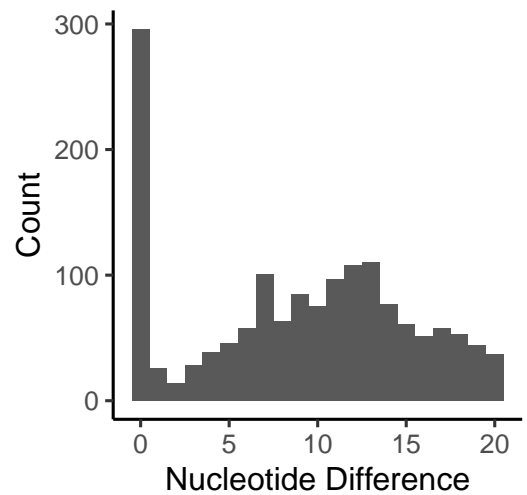
## IGHV2–5\*02

667 sequences assigned  
230 (34.5%) exact matches, in which:  
227 unique CDR3  
6 unique J



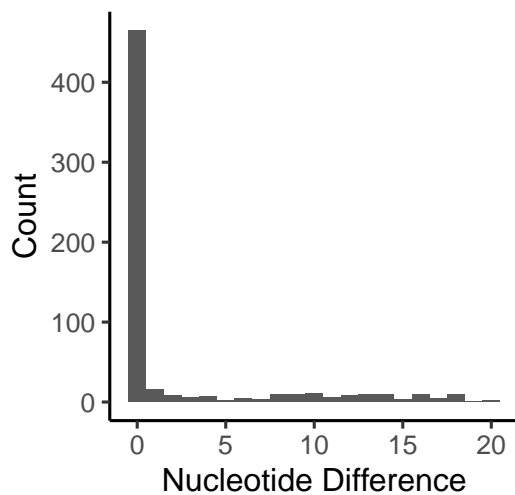
## IGHV3–7\*01

1757 sequences assigned  
296 (16.8%) exact matches, in which:  
274 unique CDR3  
6 unique J



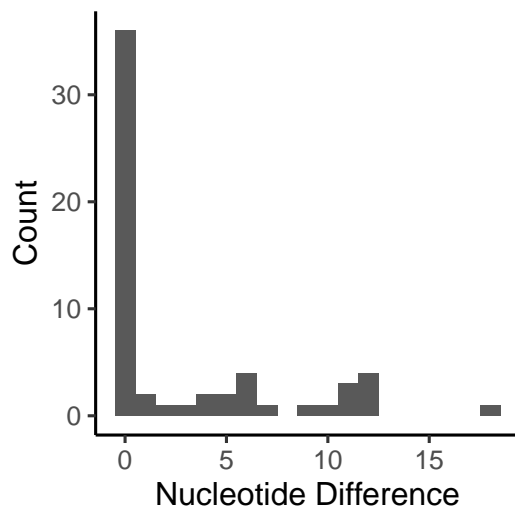
## IGHV1–69\*06\_14

677 sequences assigned  
465 (68.7%) exact matches, in which:  
465 unique CDR3  
7 unique J



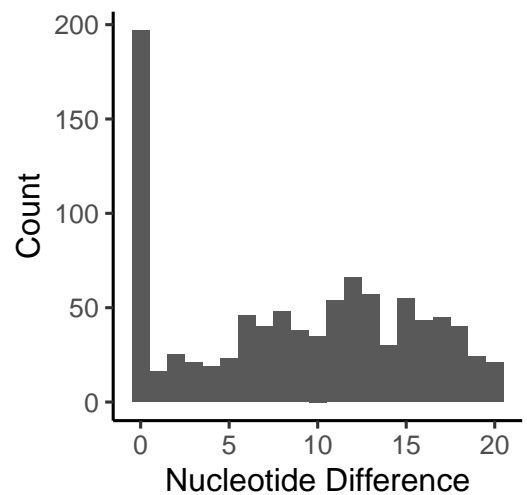
## IGHV2–26\*01

65 sequences assigned  
36 (55.4%) exact matches, in which:  
36 unique CDR3  
6 unique J



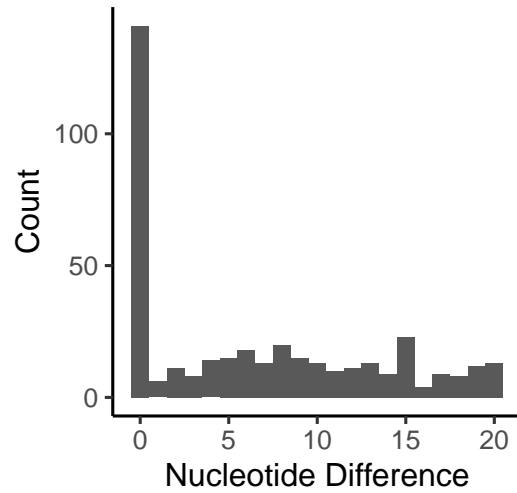
## IGHV3–7\*04

1153 sequences assigned  
197 (17.1%) exact matches, in which:  
182 unique CDR3  
6 unique J



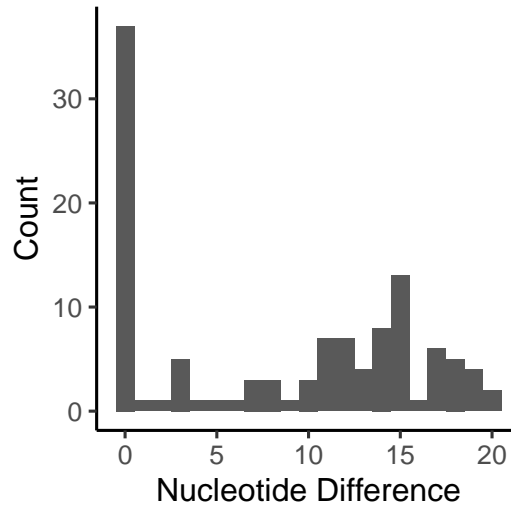
### IGHV3-9\*01

453 sequences assigned  
141 (31.1%) exact matches, in which:  
138 unique CDR3  
6 unique J



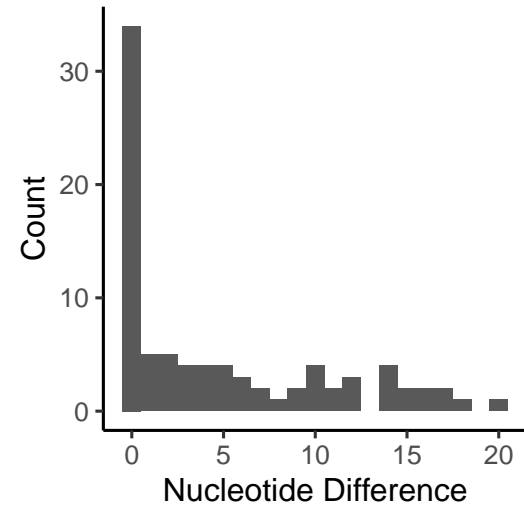
### IGHV3-13\*01

142 sequences assigned  
37 (26.1%) exact matches, in which:  
37 unique CDR3  
5 unique J



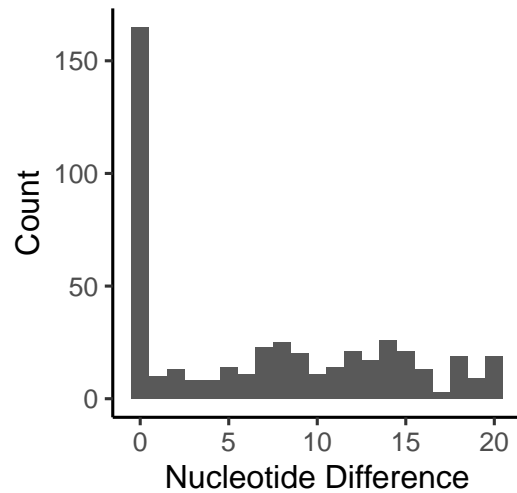
### IGHV3-20\*01\_02

98 sequences assigned  
34 (34.7%) exact matches, in which:  
33 unique CDR3  
6 unique J



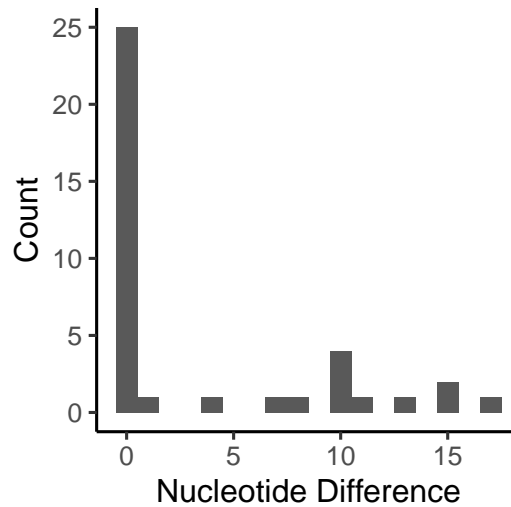
### IGHV3-11\*01

601 sequences assigned  
165 (27.5%) exact matches, in which:  
159 unique CDR3  
6 unique J



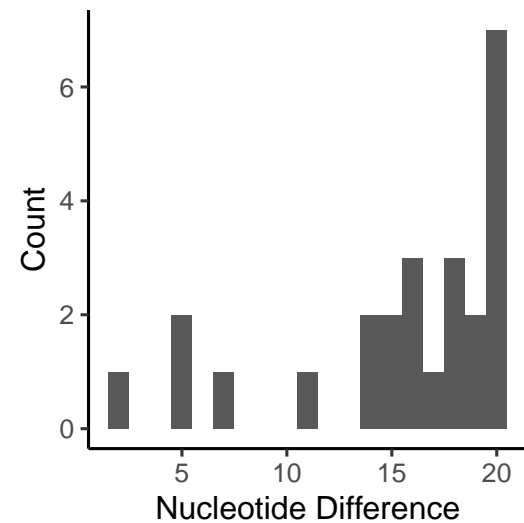
### IGHV3-13\*05

47 sequences assigned  
25 (53.2%) exact matches, in which:  
24 unique CDR3  
4 unique J



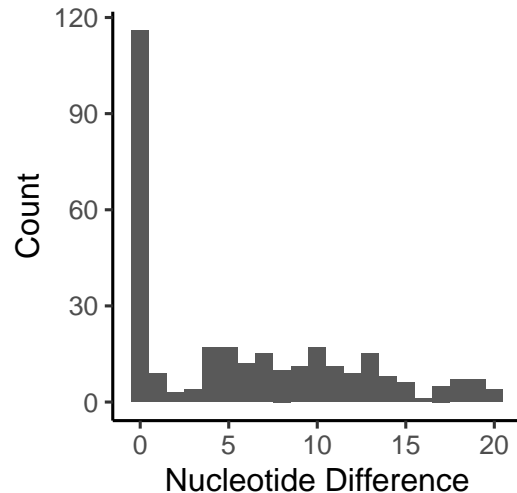
### IGHV3-20\*03\_04

112 sequences assigned  
No exact matches.



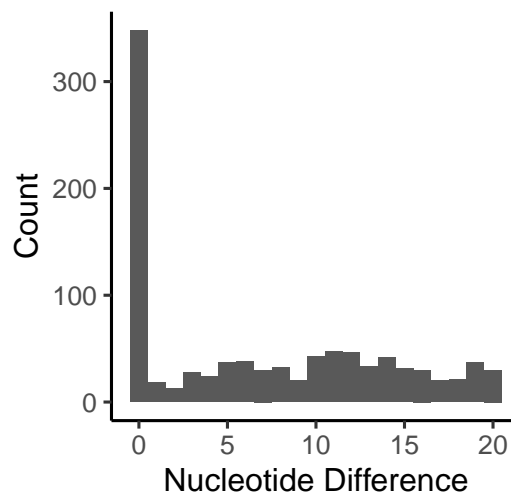
### IGHV3-11\*06

408 sequences assigned  
116 (28.4%) exact matches, in which:  
111 unique CDR3  
6 unique J



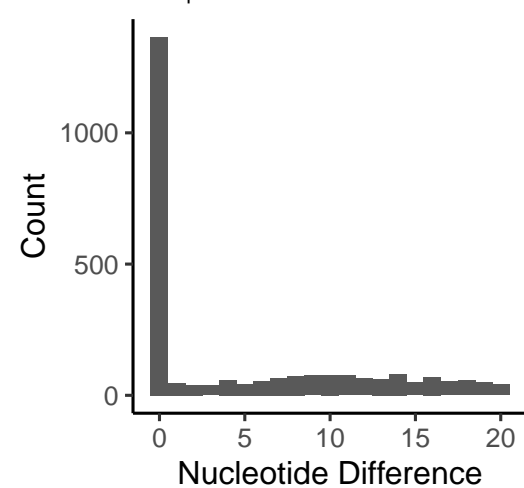
### IGHV3-15\*01\_02

1372 sequences assigned  
348 (25.4%) exact matches, in which:  
329 unique CDR3  
7 unique J



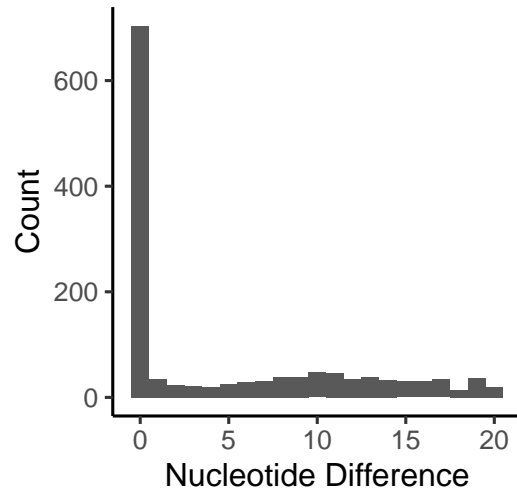
### IGHV3-21\*01\_02

2871 sequences assigned  
1365 (47.5%) exact matches, in which:  
1256 unique CDR3  
7 unique J



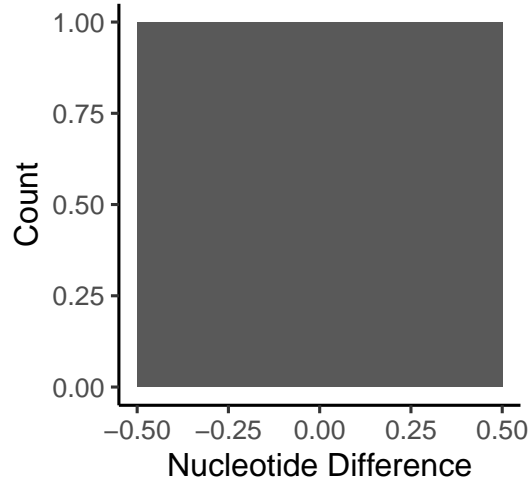
### IGHV3-30-3\*01

1535 sequences assigned  
704 (45.9%) exact matches, in which:  
685 unique CDR3  
7 unique J



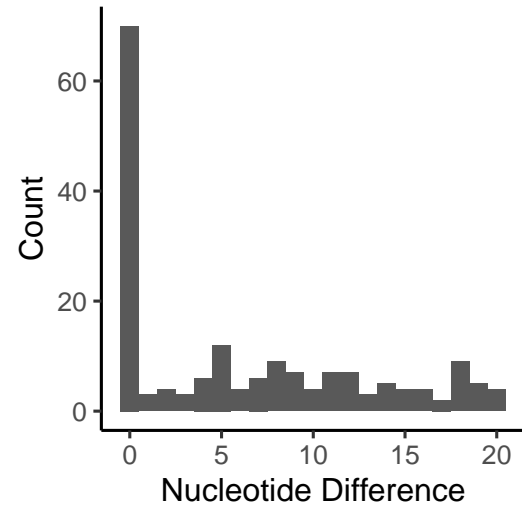
### IGHV3-47\*02

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



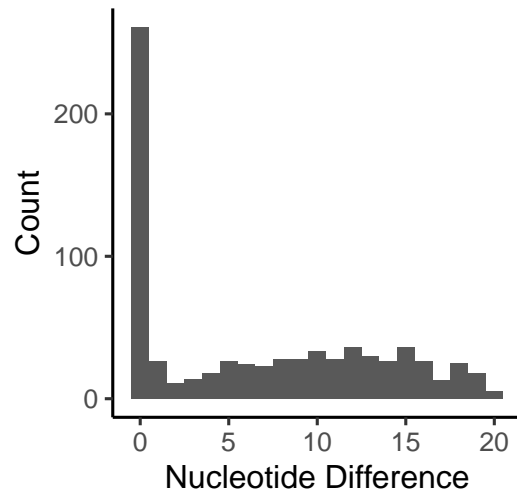
### IGHV3-49\*04

221 sequences assigned  
70 (31.7%) exact matches, in which:  
70 unique CDR3  
5 unique J



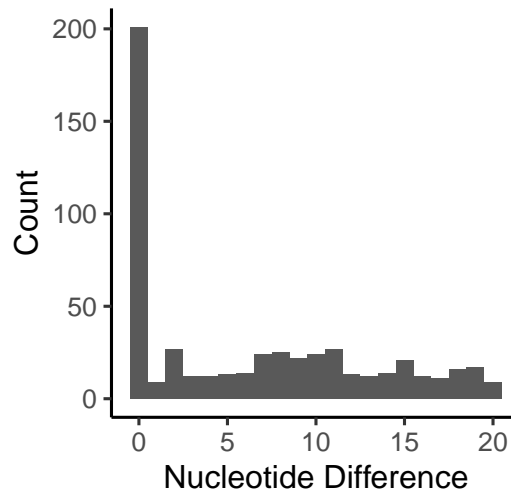
### IGHV3-33\*01

889 sequences assigned  
261 (29.4%) exact matches, in which:  
253 unique CDR3  
6 unique J



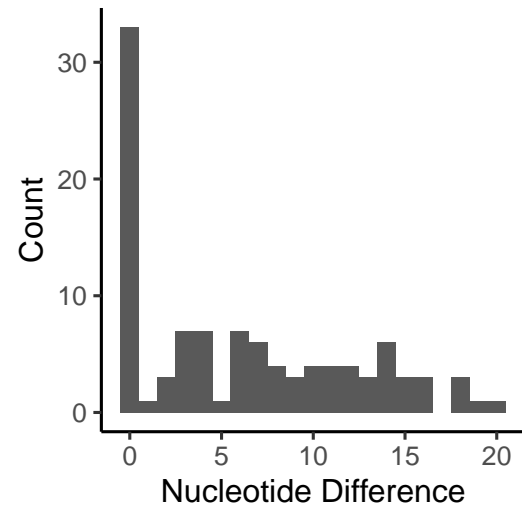
### IGHV3-48\*01

609 sequences assigned  
201 (33%) exact matches, in which:  
183 unique CDR3  
6 unique J



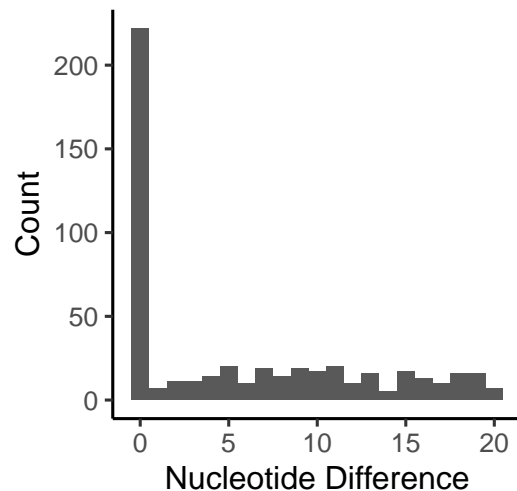
### IGHV3-49\*03\_05

122 sequences assigned  
33 (27%) exact matches, in which:  
31 unique CDR3  
5 unique J



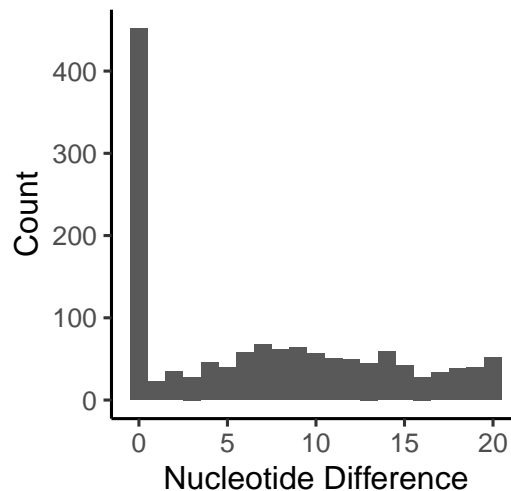
### IGHV3-43\*02

655 sequences assigned  
222 (33.9%) exact matches, in which:  
206 unique CDR3  
6 unique J



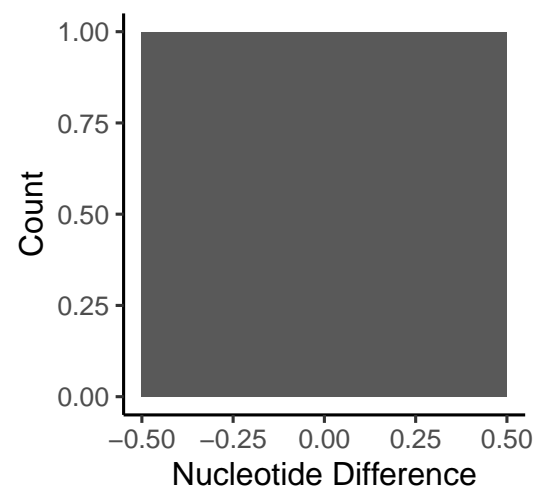
### IGHV3-48\*03

1576 sequences assigned  
452 (28.7%) exact matches, in which:  
433 unique CDR3  
6 unique J



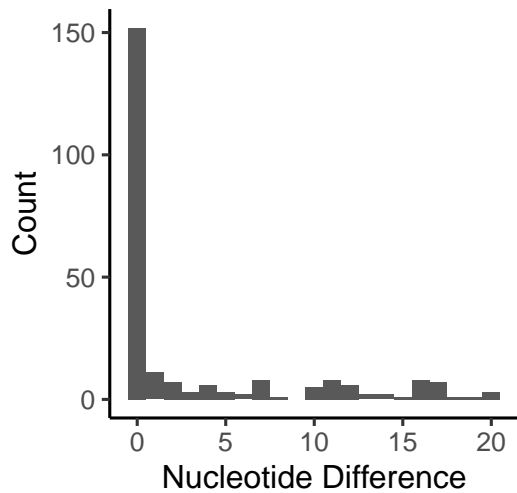
### IGHV3-52\*01\_03

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



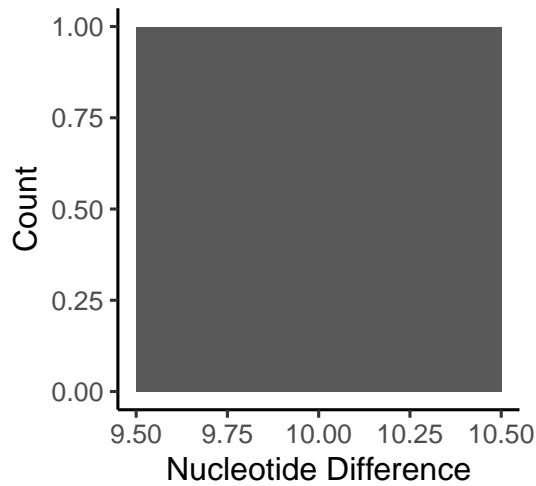
### IGHV3-53\*04

314 sequences assigned  
152 (48.4%) exact matches, in which:  
143 unique CDR3  
7 unique J



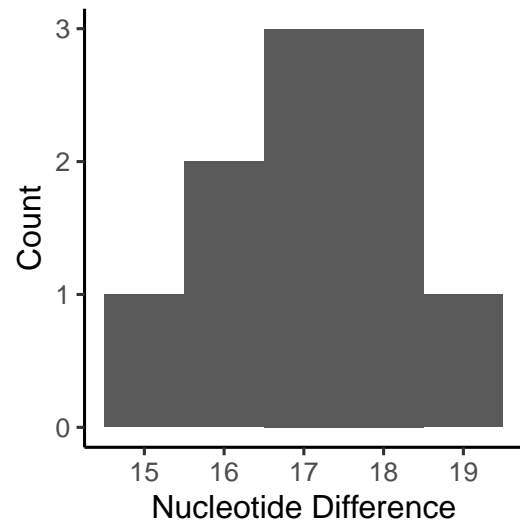
### IGHV3-66\*02

10 sequences assigned  
No exact matches.



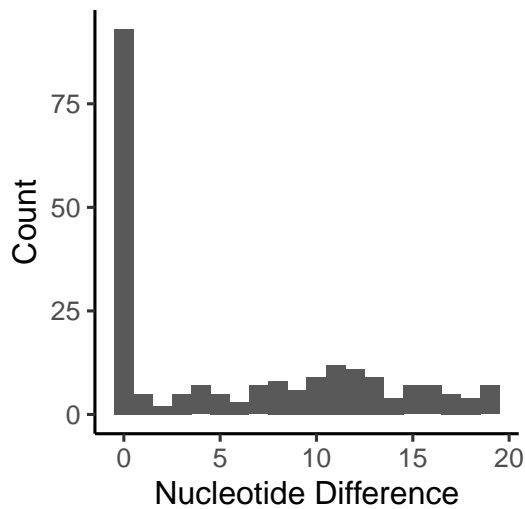
### IGHV3-69-1\*01

19 sequences assigned  
No exact matches.



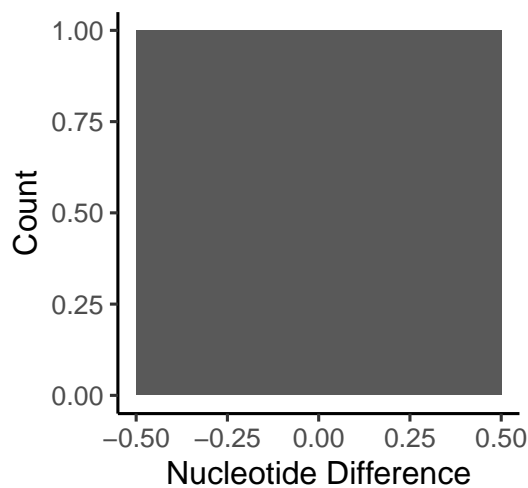
### IGHV3-53\*01\_02

238 sequences assigned  
93 (39.1%) exact matches, in which:  
85 unique CDR3  
5 unique J



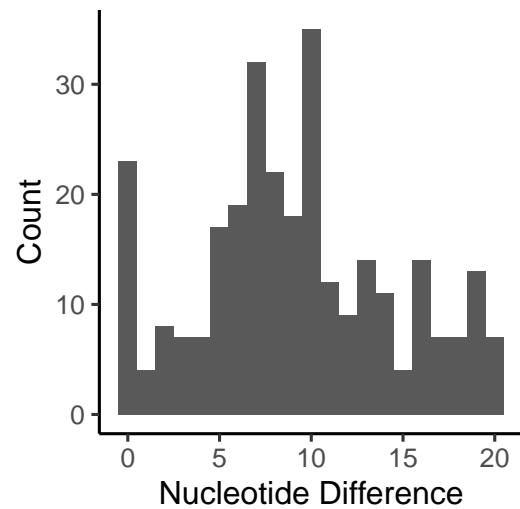
### IGHV3-66\*03

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



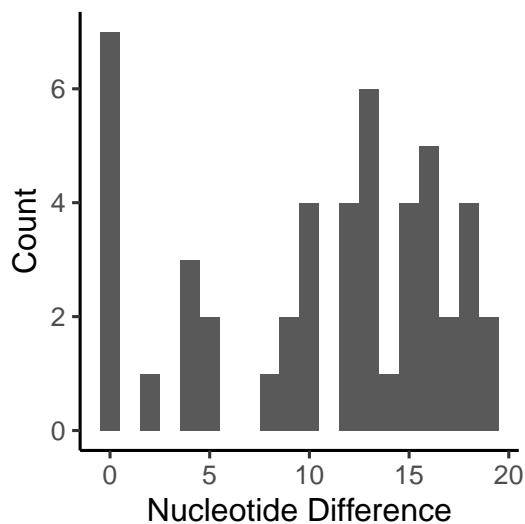
### IGHV3-72\*01

340 sequences assigned  
23 (6.8%) exact matches, in which:  
22 unique CDR3  
6 unique J



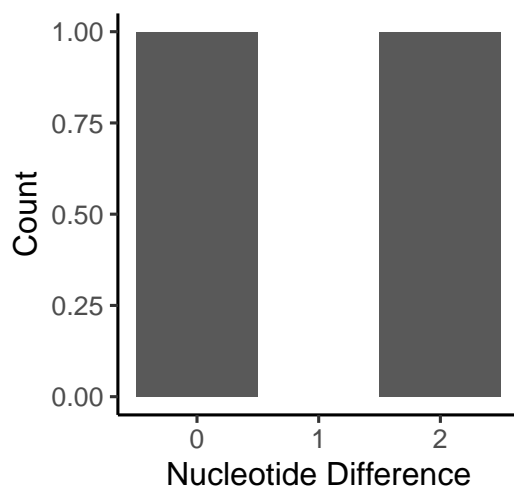
### IGHV3-64\*02\_07

52 sequences assigned  
7 (13.5%) exact matches, in which:  
7 unique CDR3  
3 unique J



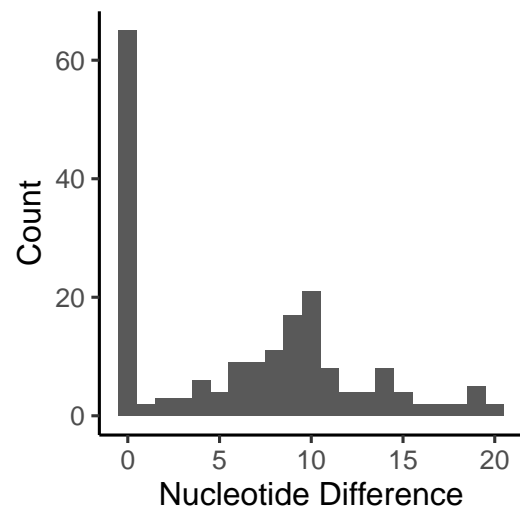
### IGHV3-66\*04

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



### IGHV3-73\*01\_02

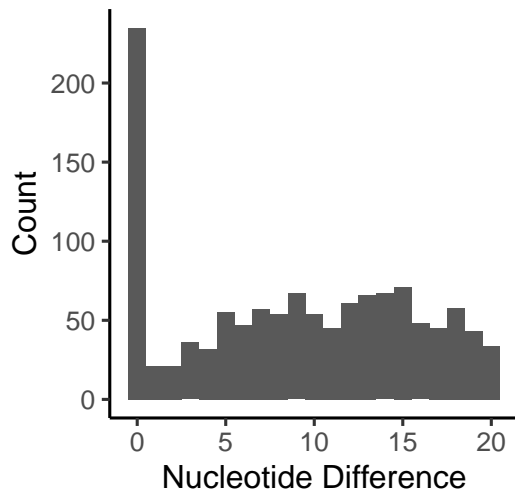
220 sequences assigned  
65 (29.5%) exact matches, in which:  
63 unique CDR3  
6 unique J





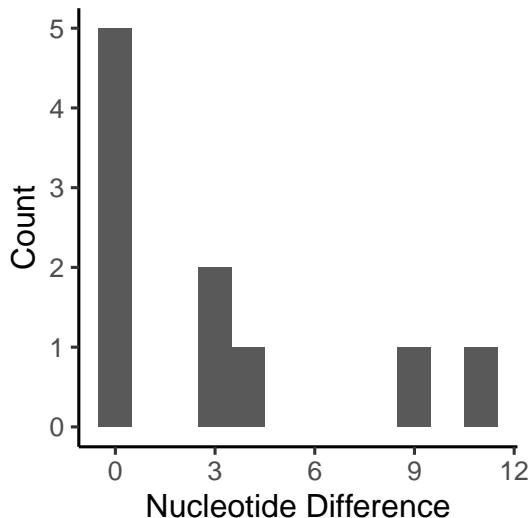
### IGHV3-74\*01\_02

1522 sequences assigned  
235 (15.4%) exact matches, in which:  
210 unique CDR3  
7 unique J



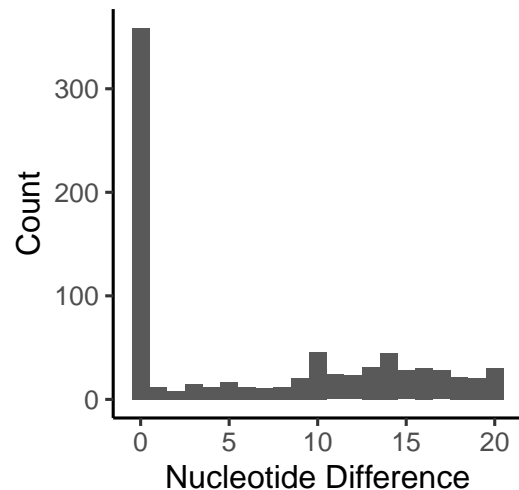
### IGHV4-28\*01\_07

11 sequences assigned  
5 (45.5%) exact matches, in which:  
5 unique CDR3  
3 unique J



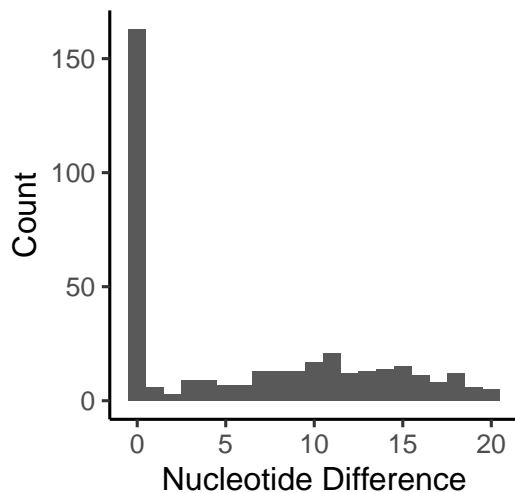
### IGHV4-31\*03\_04

963 sequences assigned  
359 (37.3%) exact matches, in which:  
354 unique CDR3  
7 unique J



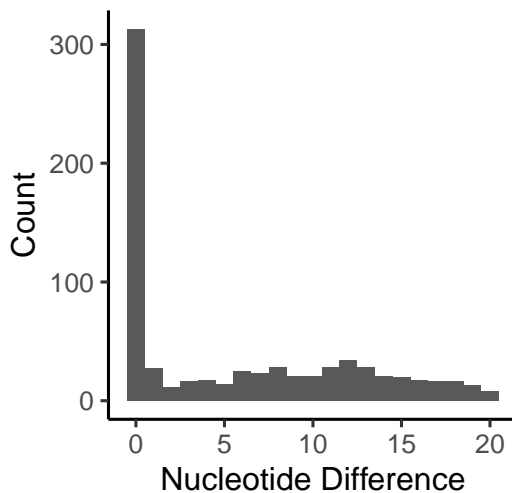
### IGHV3-64D\*06

426 sequences assigned  
163 (38.3%) exact matches, in which:  
153 unique CDR3  
6 unique J



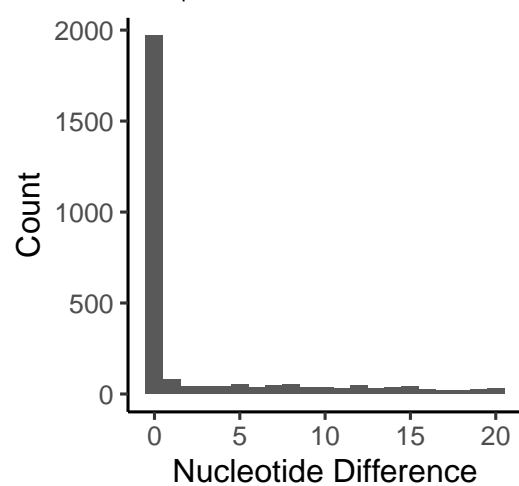
### IGHV4-30-4\*01

878 sequences assigned  
313 (35.6%) exact matches, in which:  
300 unique CDR3  
7 unique J



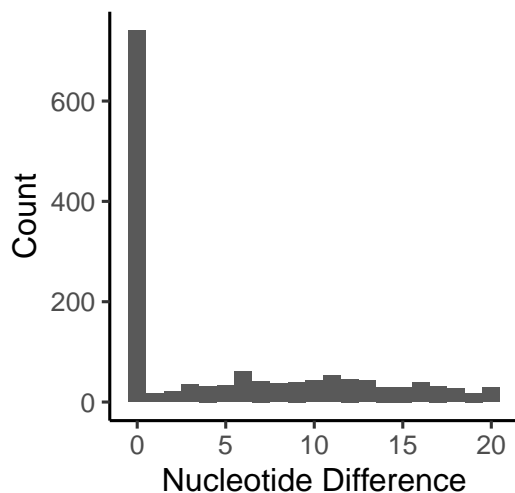
### IGHV4-34\*01\_02

2890 sequences assigned  
1969 (68.1%) exact matches, in which:  
1820 unique CDR3  
7 unique J



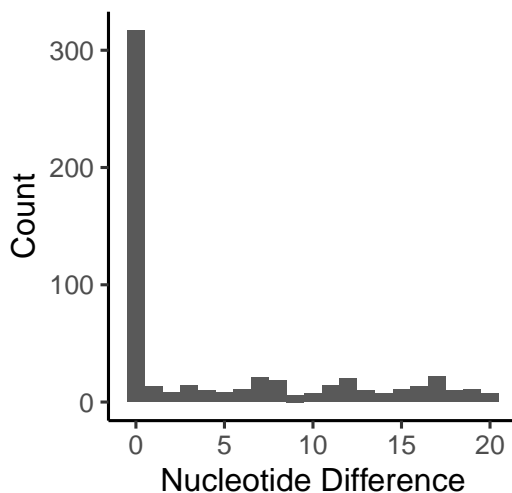
### IGHV4-4\*07

1598 sequences assigned  
741 (46.4%) exact matches, in which:  
696 unique CDR3  
7 unique J



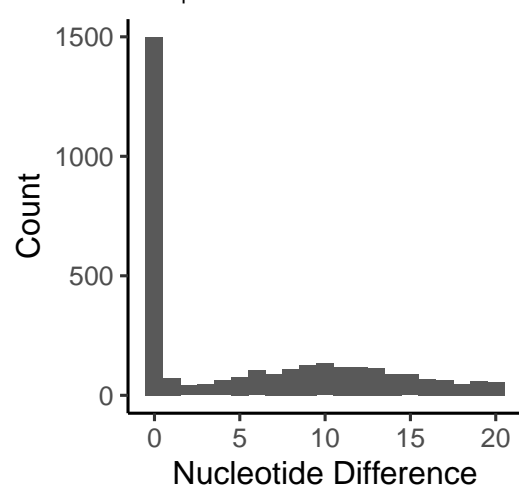
### IGHV4-30-2\*01

731 sequences assigned  
317 (43.4%) exact matches, in which:  
301 unique CDR3  
7 unique J



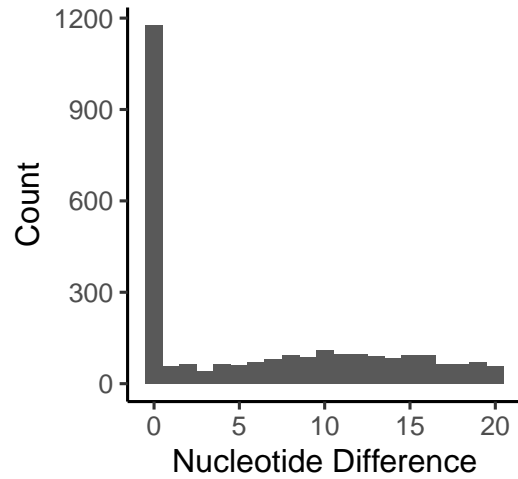
### IGHV4-39\*01\_05

3703 sequences assigned  
1499 (40.5%) exact matches, in which:  
1423 unique CDR3  
7 unique J



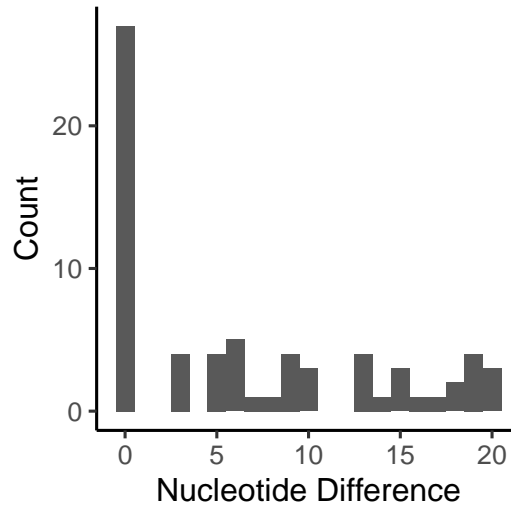
### IGHV4-59\*01\_07

3148 sequences assigned  
1176 (37.4%) exact matches, in which:  
1124 unique CDR3  
7 unique J



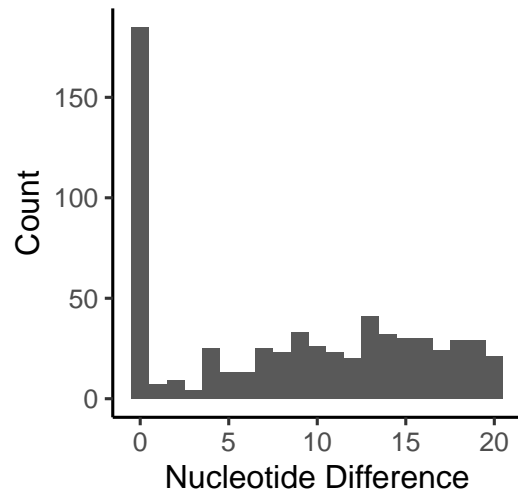
### IGHV5-10-1\*01\_03

106 sequences assigned  
27 (25.5%) exact matches, in which:  
27 unique CDR3  
4 unique J



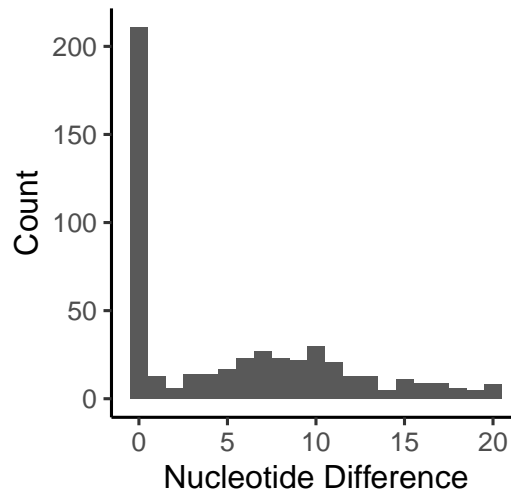
### IGHV4-61\*01

768 sequences assigned  
185 (24.1%) exact matches, in which:  
175 unique CDR3  
6 unique J



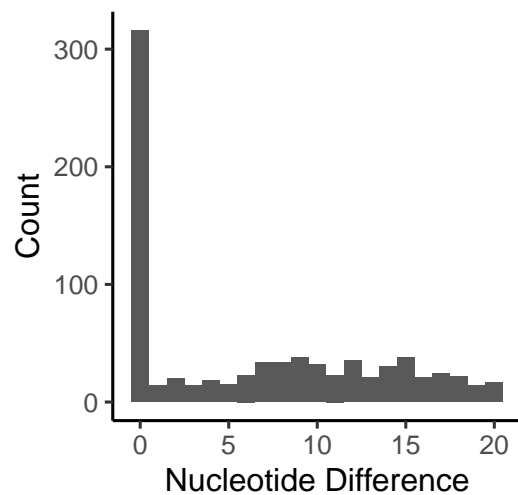
### IGHV5-51\*01\_03

549 sequences assigned  
211 (38.4%) exact matches, in which:  
211 unique CDR3  
7 unique J



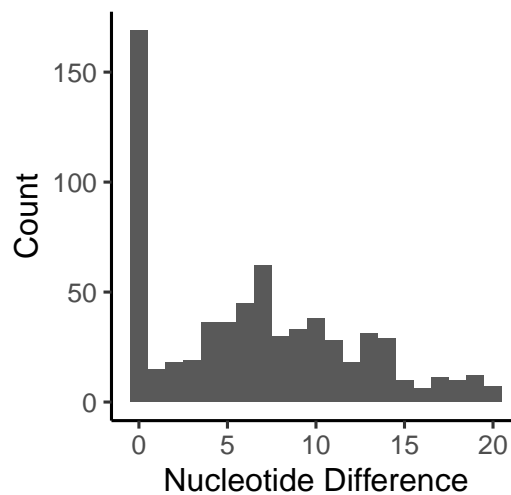
### IGHV4-61\*02\_A234G

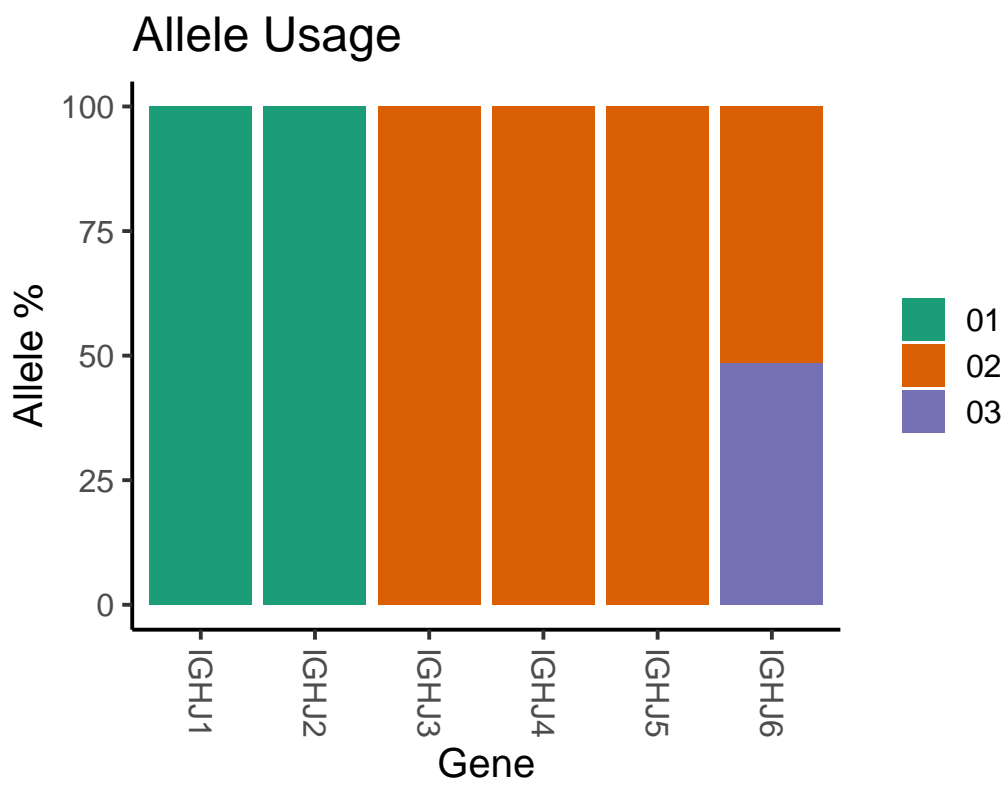
1056 sequences assigned  
316 (29.9%) exact matches, in which:  
307 unique CDR3  
7 unique J



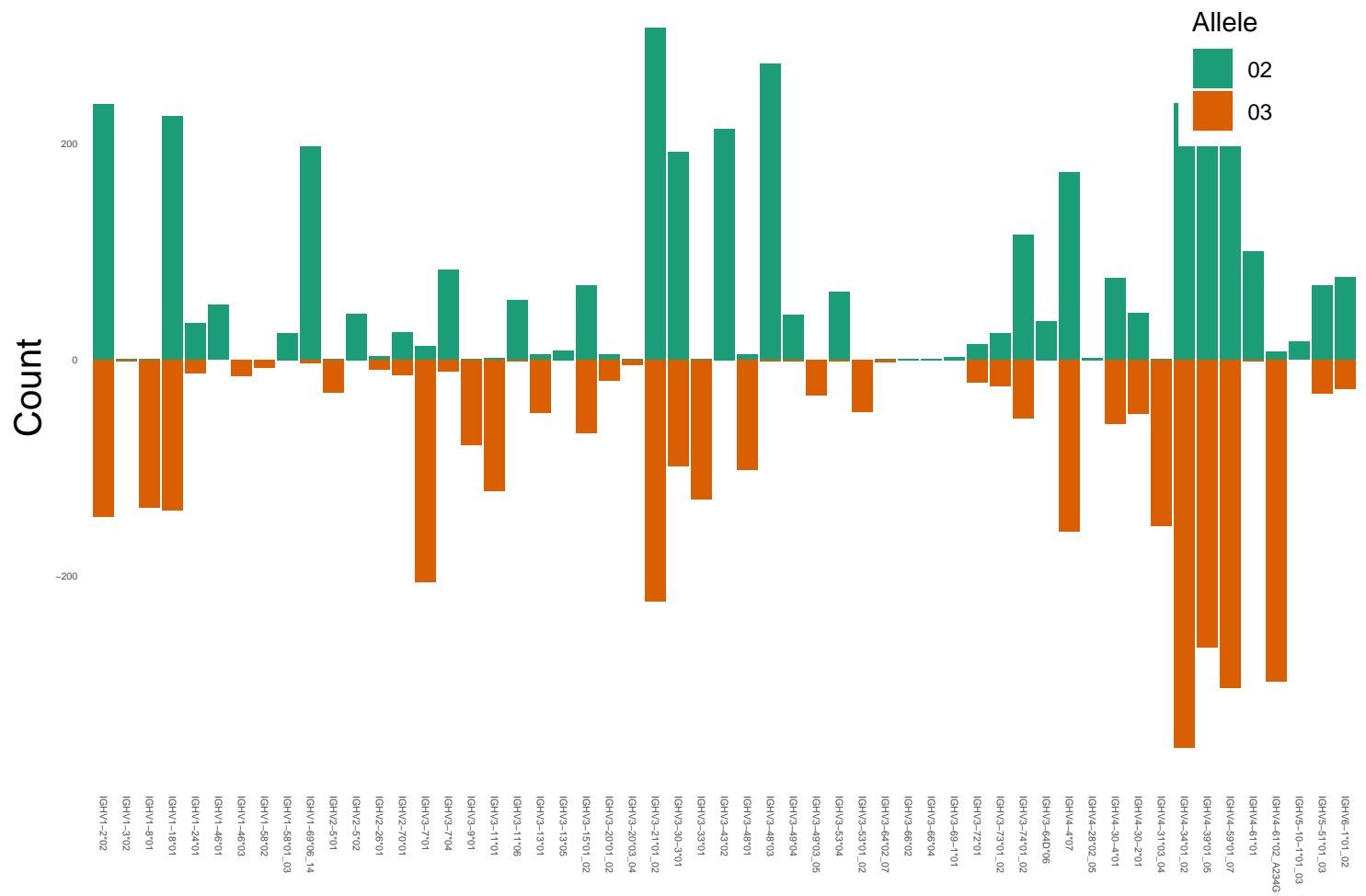
### IGHV6-1\*01\_02

690 sequences assigned  
169 (24.5%) exact matches, in which:  
169 unique CDR3  
7 unique J





## Sequence Count byIGHJ6 allele usage



Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

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Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

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Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV1-69\*04\_09\_G112AIGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88A are not listed in the genotype and will be ignored.

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Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

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