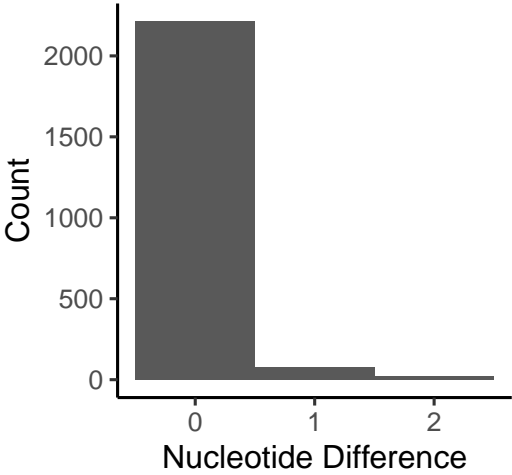


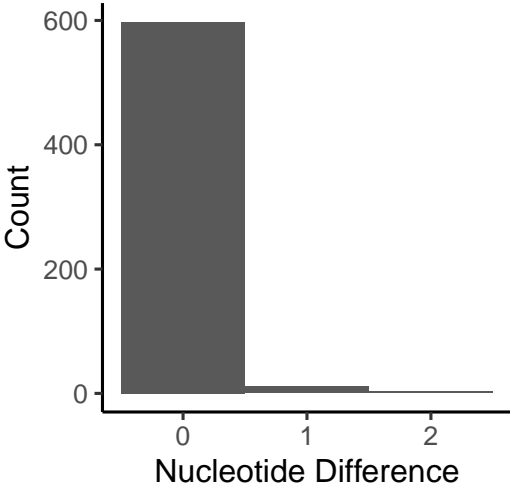
IGHV1-2\*02

2311 sequences assigned  
2213 (95.8%) exact matches, in which:  
2209 unique CDR3  
7 unique J



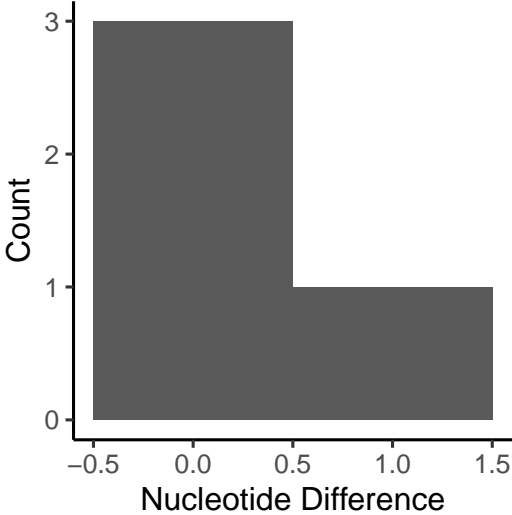
IGHV1-8\*02

612 sequences assigned  
598 (97.7%) exact matches, in which:  
597 unique CDR3  
7 unique J



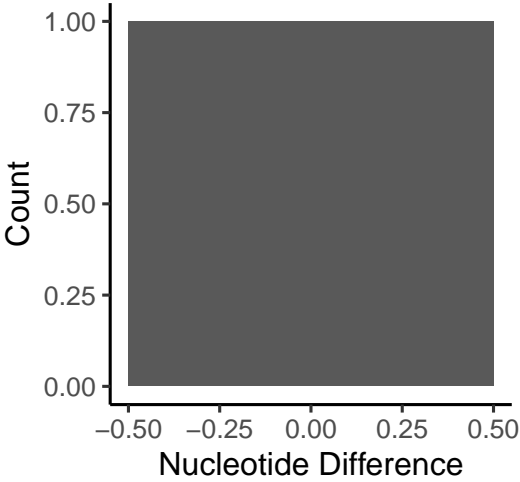
IGHV1-45\*02

4 sequences assigned  
3 (75%) exact matches, in which:  
3 unique CDR3  
3 unique J



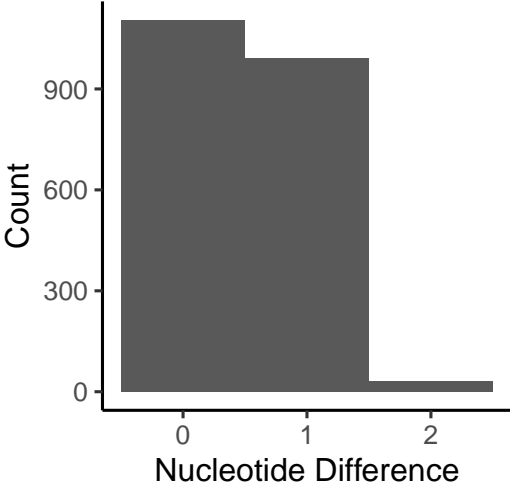
IGHV1-3\*02

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



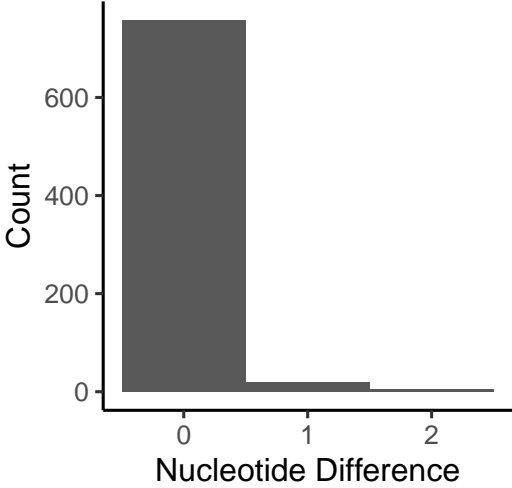
IGHV1-18\*01

2127 sequences assigned  
1105 (52%) exact matches, in which:  
1104 unique CDR3  
6 unique J



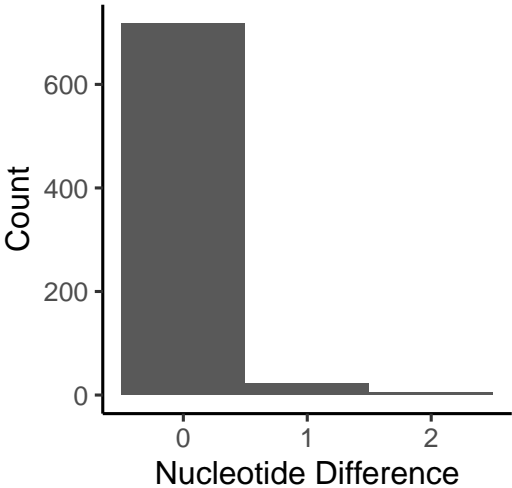
IGHV1-46\*01

783 sequences assigned  
758 (96.8%) exact matches, in which:  
758 unique CDR3  
7 unique J



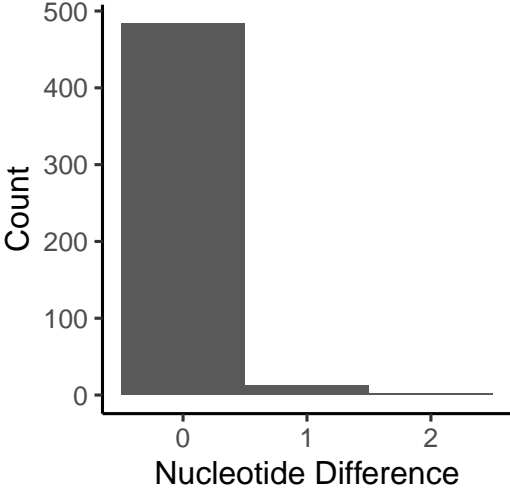
IGHV1-8\*01

745 sequences assigned  
718 (96.4%) exact matches, in which:  
718 unique CDR3  
6 unique J



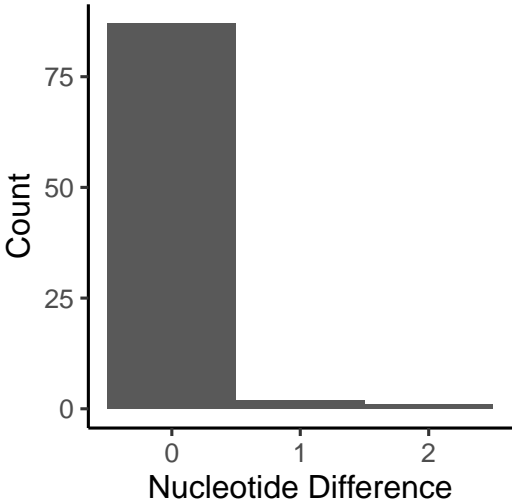
IGHV1-24\*01

498 sequences assigned  
484 (97.2%) exact matches, in which:  
483 unique CDR3  
7 unique J



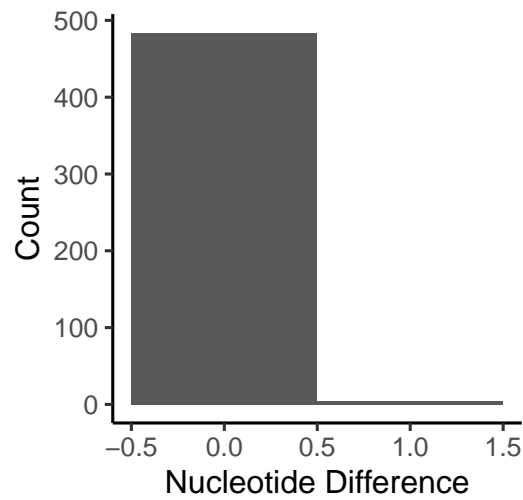
IGHV1-58\*02

90 sequences assigned  
87 (96.7%) exact matches, in which:  
87 unique CDR3  
7 unique J



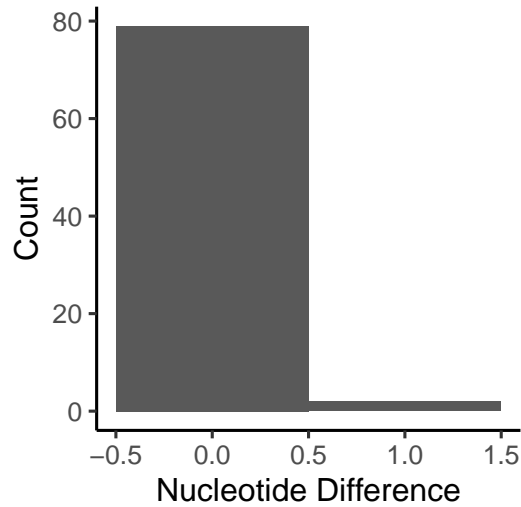
### IGHV1–69\*02

488 sequences assigned  
484 (99.2%) exact matches, in which:  
481 unique CDR3  
7 unique J



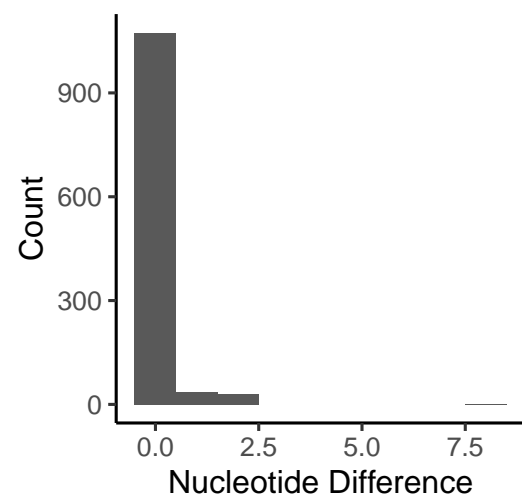
### IGHV2–26\*01

81 sequences assigned  
79 (97.5%) exact matches, in which:  
79 unique CDR3  
7 unique J



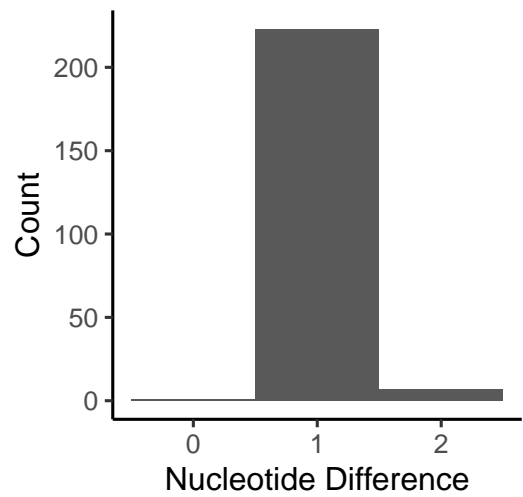
### IGHV3–7\*01

1142 sequences assigned  
1074 (94%) exact matches, in which:  
1047 unique CDR3  
7 unique J



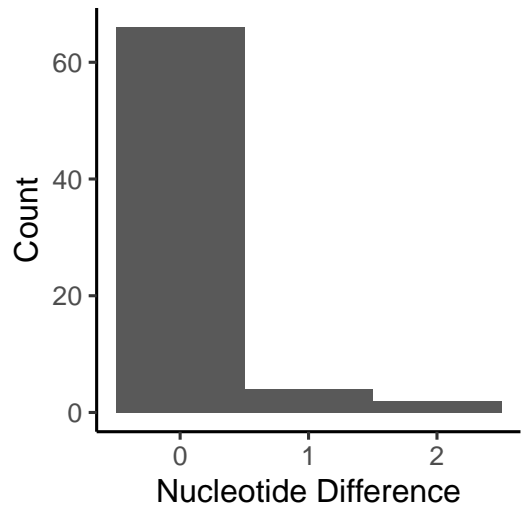
### IGHV1–69\*04\_09

231 sequences assigned  
1 (0.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



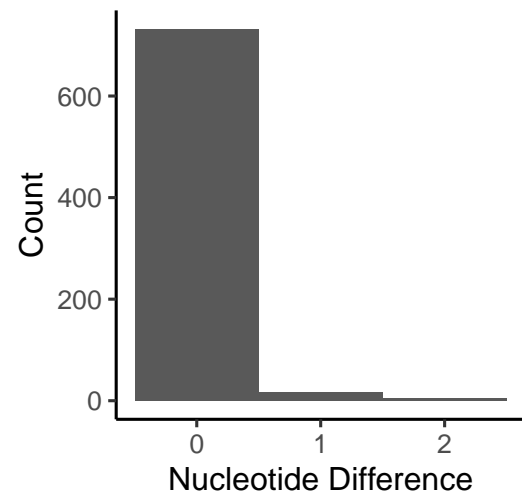
### IGHV2–70\*11\_15

72 sequences assigned  
66 (91.7%) exact matches, in which:  
66 unique CDR3  
5 unique J



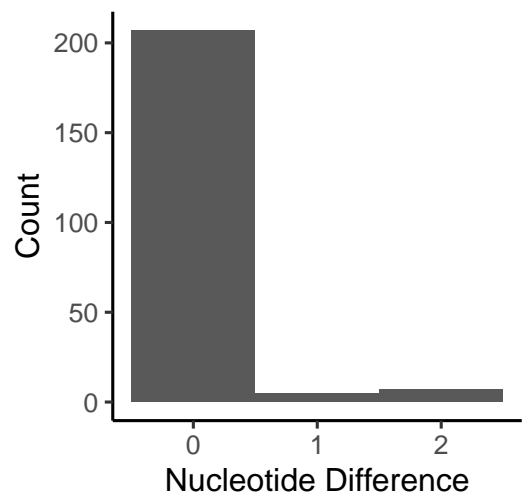
### IGHV3–9\*01

754 sequences assigned  
732 (97.1%) exact matches, in which:  
724 unique CDR3  
7 unique J



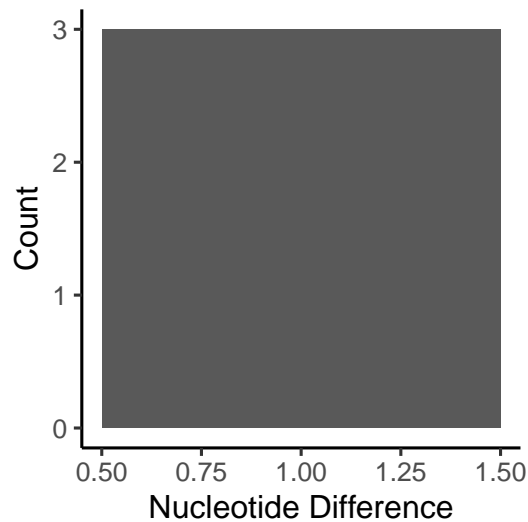
### IGHV2–5\*01

219 sequences assigned  
207 (94.5%) exact matches, in which:  
207 unique CDR3  
6 unique J



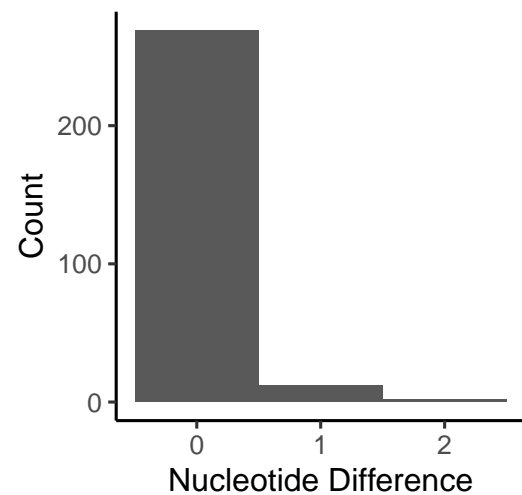
### IGHV2–70D\*04

3 sequences assigned  
No exact matches.



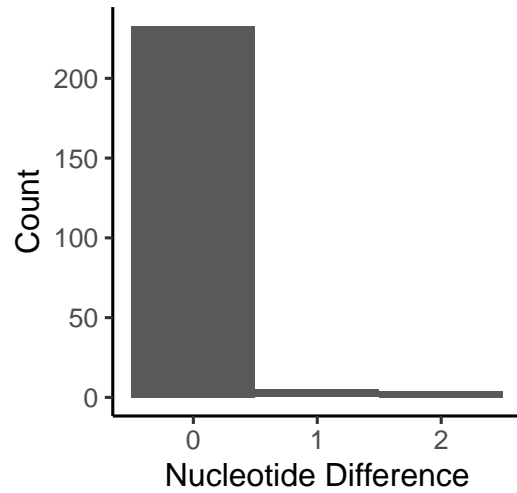
### IGHV3–11\*01

283 sequences assigned  
269 (95.1%) exact matches, in which:  
263 unique CDR3  
6 unique J



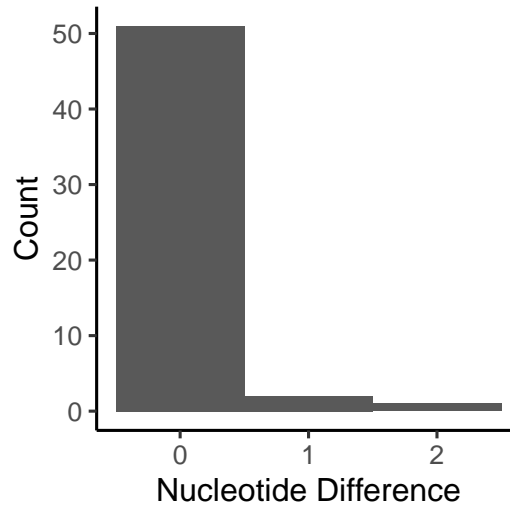
### IGHV3-11\*04

242 sequences assigned  
233 (96.3%) exact matches, in which:  
233 unique CDR3  
6 unique J



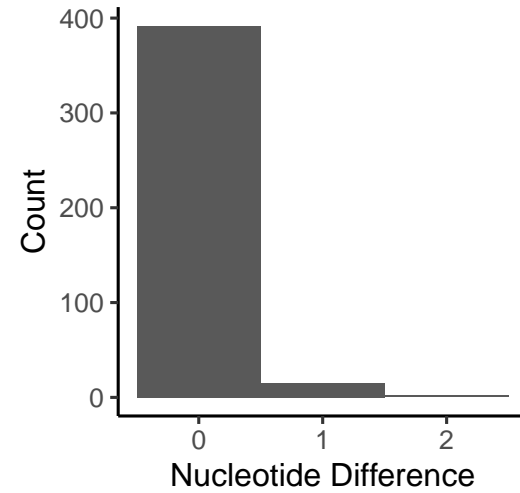
### IGHV3-20\*01\_02

54 sequences assigned  
51 (94.4%) exact matches, in which:  
49 unique CDR3  
6 unique J



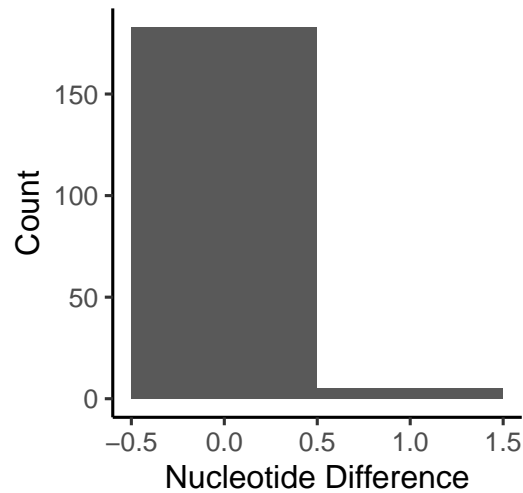
### IGHV3-33\*01

409 sequences assigned  
392 (95.8%) exact matches, in which:  
386 unique CDR3  
6 unique J



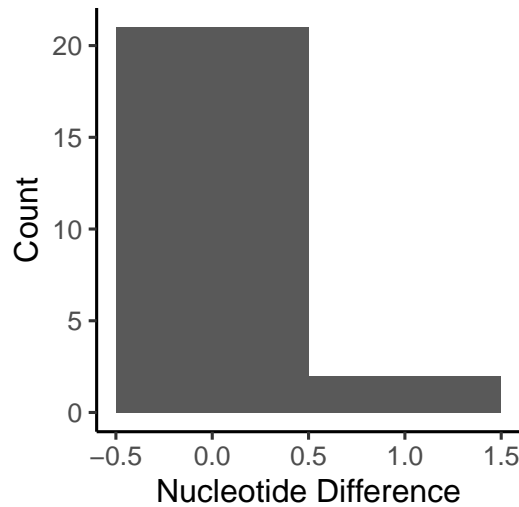
### IGHV3-13\*01

188 sequences assigned  
183 (97.3%) exact matches, in which:  
181 unique CDR3  
7 unique J



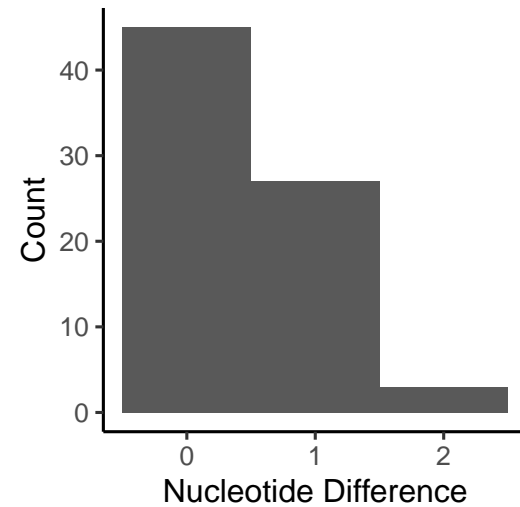
### IGHV3-20\*03\_04

23 sequences assigned  
21 (91.3%) exact matches, in which:  
21 unique CDR3  
4 unique J



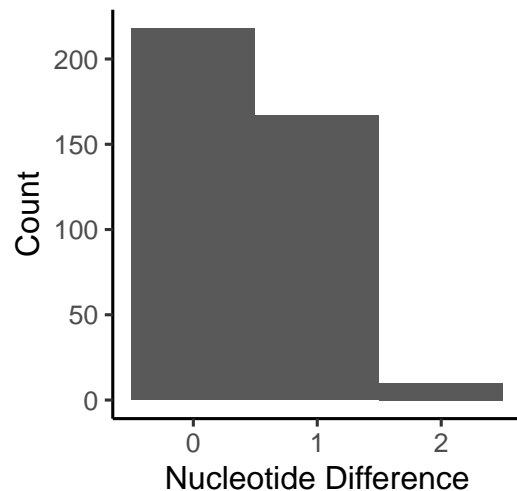
### IGHV3-43\*01

75 sequences assigned  
45 (60%) exact matches, in which:  
45 unique CDR3  
6 unique J



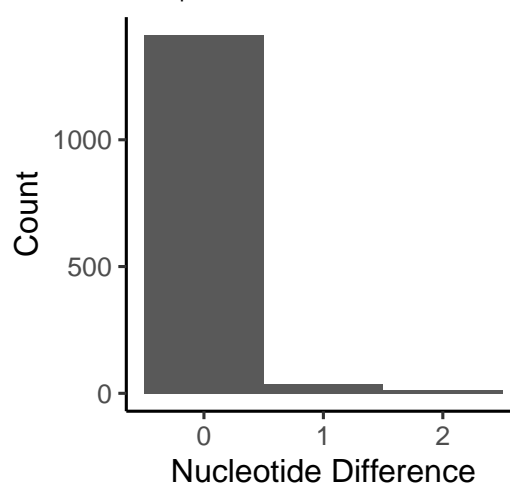
### IGHV3-15\*01\_02

395 sequences assigned  
218 (55.2%) exact matches, in which:  
216 unique CDR3  
5 unique J



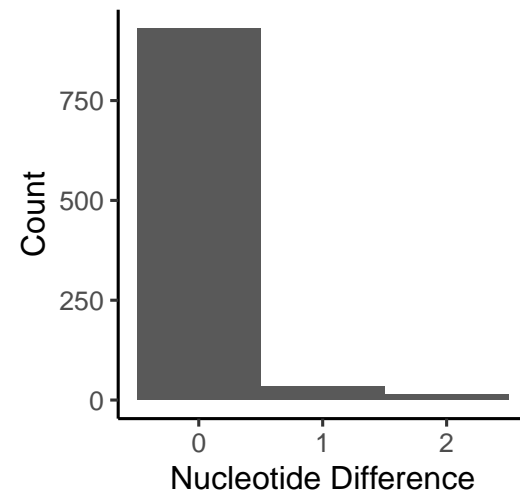
### IGHV3-21\*01\_02

1463 sequences assigned  
1413 (96.6%) exact matches, in which:  
1380 unique CDR3  
7 unique J



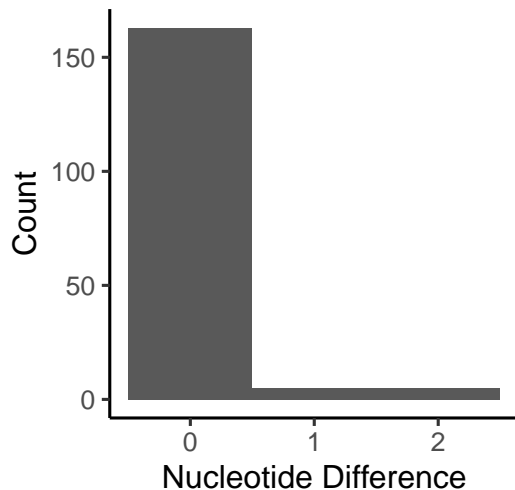
### IGHV3-48\*02

978 sequences assigned  
931 (95.2%) exact matches, in which:  
917 unique CDR3  
7 unique J



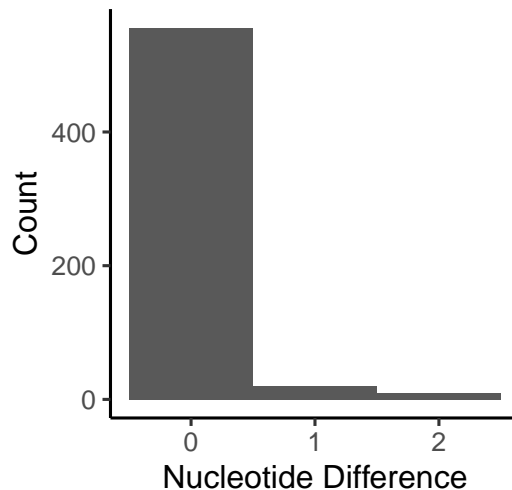
### IGHV3-49\*03\_05

173 sequences assigned  
163 (94.2%) exact matches, in which:  
163 unique CDR3  
7 unique J



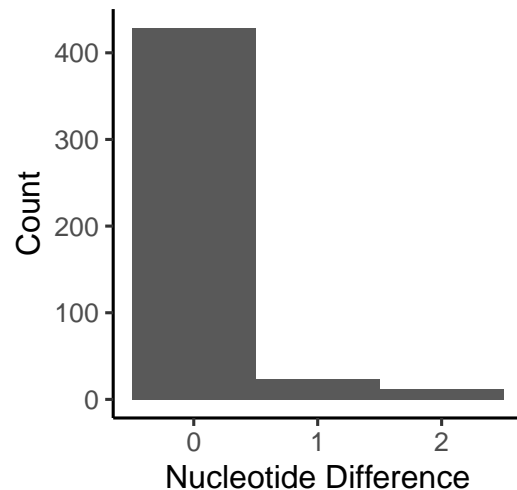
### IGHV3-66\*02

586 sequences assigned  
556 (94.9%) exact matches, in which:  
542 unique CDR3  
7 unique J



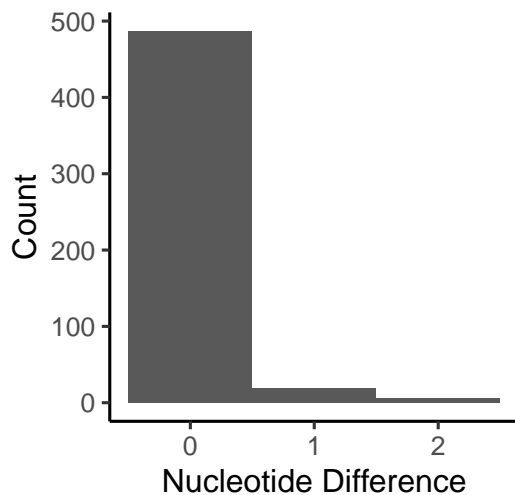
### IGHV3-74\*01\_02

465 sequences assigned  
429 (92.3%) exact matches, in which:  
420 unique CDR3  
7 unique J



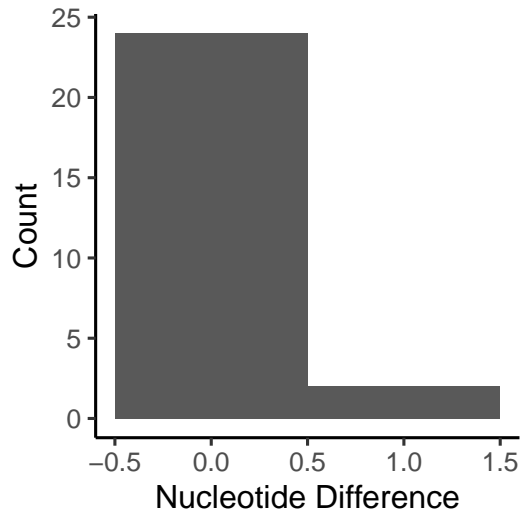
### IGHV3-53\*01\_02

512 sequences assigned  
487 (95.1%) exact matches, in which:  
480 unique CDR3  
7 unique J



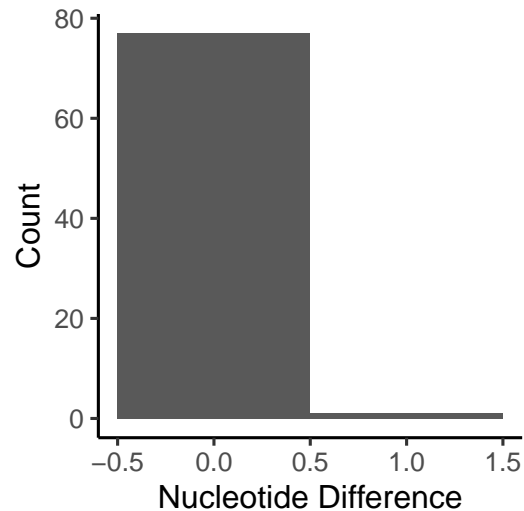
### IGHV3-72\*01

26 sequences assigned  
24 (92.3%) exact matches, in which:  
22 unique CDR3  
5 unique J



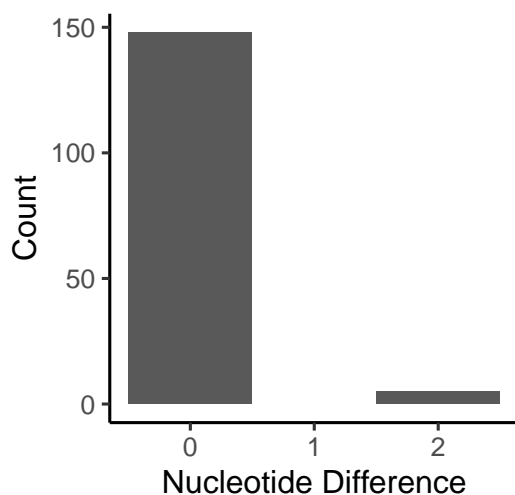
### IGHV3-43D\*03

78 sequences assigned  
77 (98.7%) exact matches, in which:  
77 unique CDR3  
6 unique J



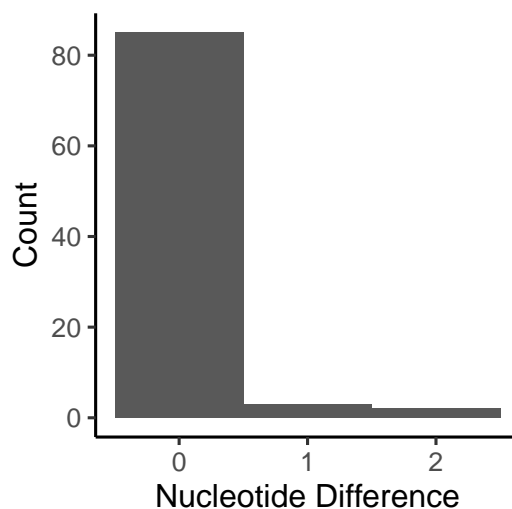
### IGHV3-64\*01

153 sequences assigned  
148 (96.7%) exact matches, in which:  
141 unique CDR3  
7 unique J



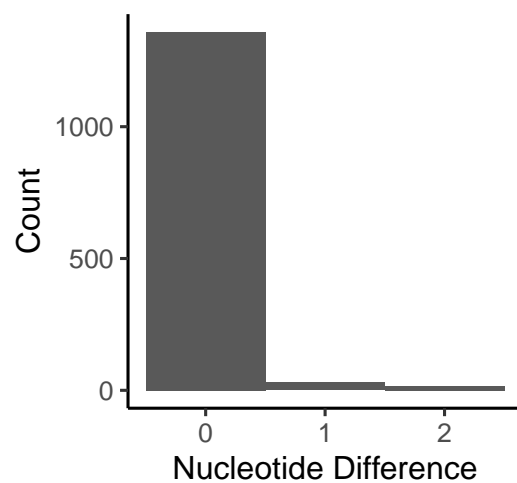
### IGHV3-73\*01\_02

90 sequences assigned  
85 (94.4%) exact matches, in which:  
85 unique CDR3  
6 unique J



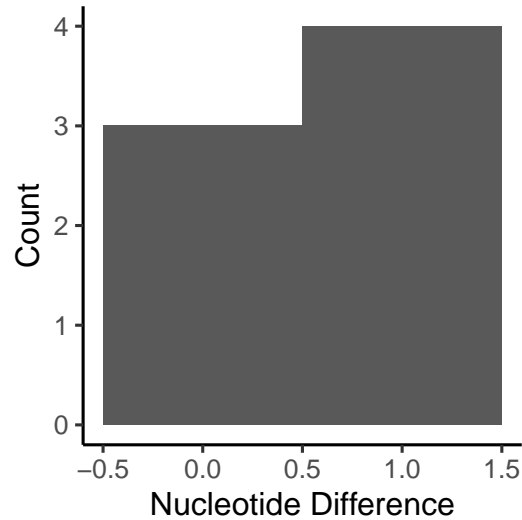
### IGHV4-4\*07

1405 sequences assigned  
1359 (96.7%) exact matches, in which:  
1341 unique CDR3  
7 unique J



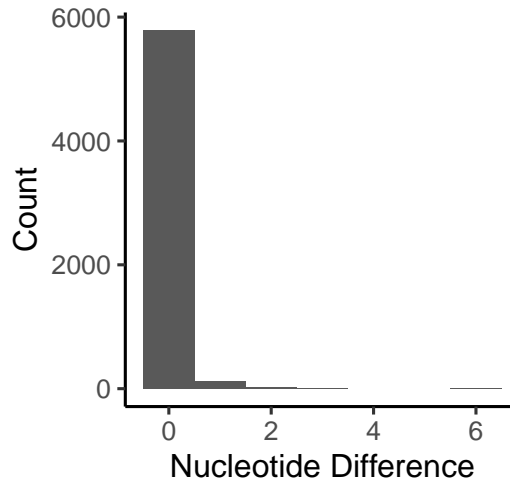
### IGHV4-28\*01\_07

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



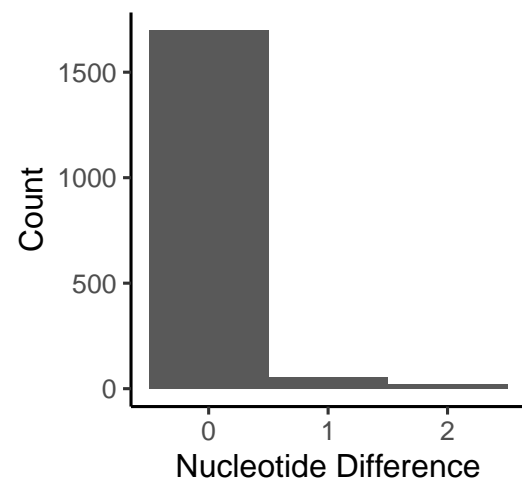
### IGHV4-34\*01\_02

5939 sequences assigned  
5785 (97.4%) exact matches, in which:  
5623 unique CDR3  
7 unique J



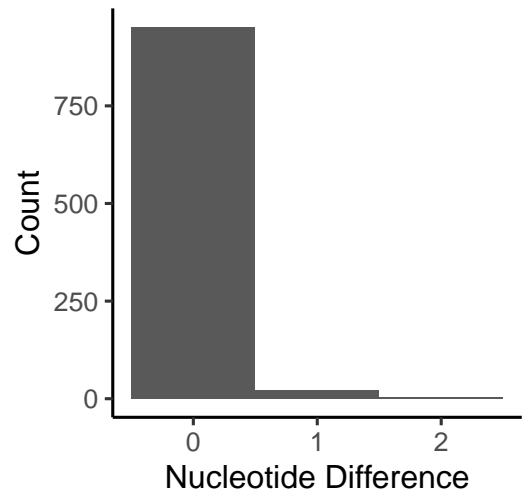
### IGHV4-39\*01\_05

1773 sequences assigned  
1698 (95.8%) exact matches, in which:  
1665 unique CDR3  
7 unique J



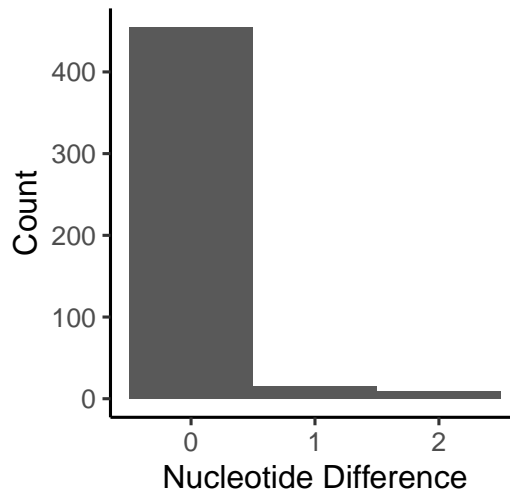
### IGHV4-30-2\*01

977 sequences assigned  
952 (97.4%) exact matches, in which:  
929 unique CDR3  
6 unique J



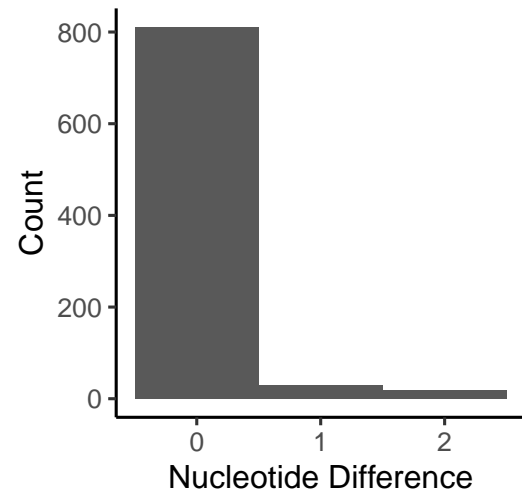
### IGHV4-38-2\*02

479 sequences assigned  
455 (95%) exact matches, in which:  
445 unique CDR3  
6 unique J



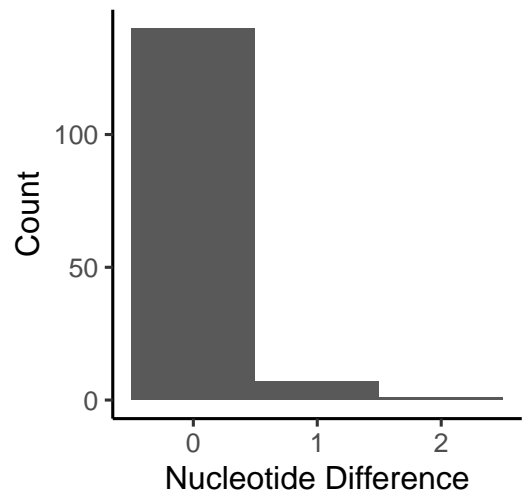
### IGHV4-59\*08

859 sequences assigned  
811 (94.4%) exact matches, in which:  
795 unique CDR3  
7 unique J



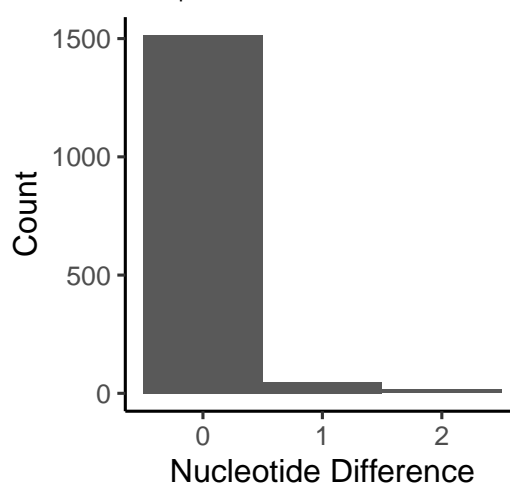
### IGHV4-30-4\*07

148 sequences assigned  
140 (94.6%) exact matches, in which:  
140 unique CDR3  
6 unique J



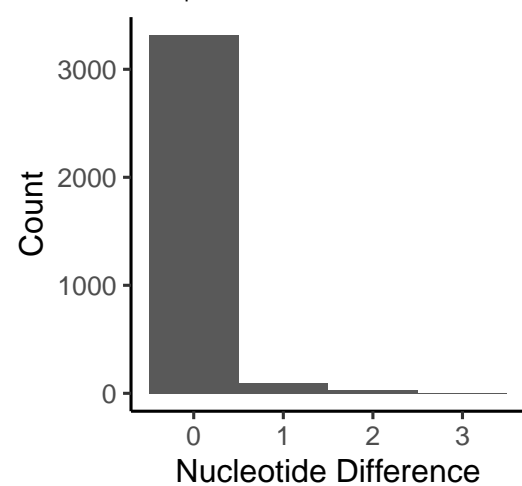
### IGHV4-39\*07

1579 sequences assigned  
1515 (95.9%) exact matches, in which:  
1497 unique CDR3  
7 unique J



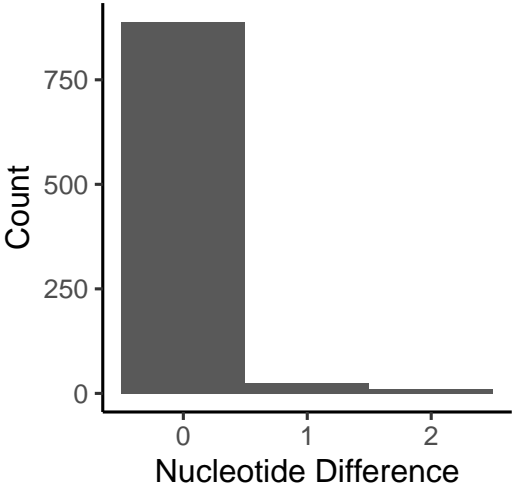
### IGHV4-59\*01\_07

3443 sequences assigned  
3317 (96.3%) exact matches, in which:  
3259 unique CDR3  
7 unique J



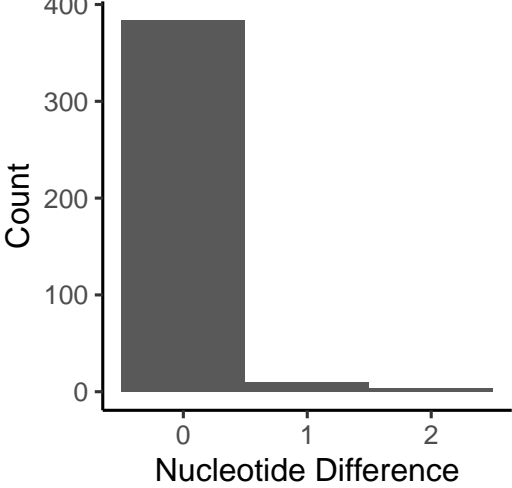
IGHV4–61\*02

923 sequences assigned  
889 (96.3%) exact matches, in which:  
882 unique CDR3  
6 unique J



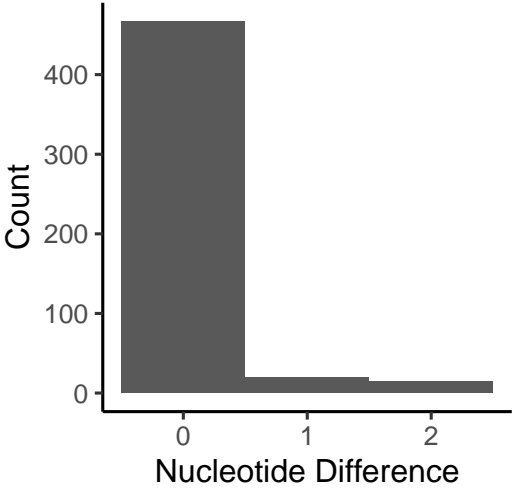
IGHV5–51\*01\_03

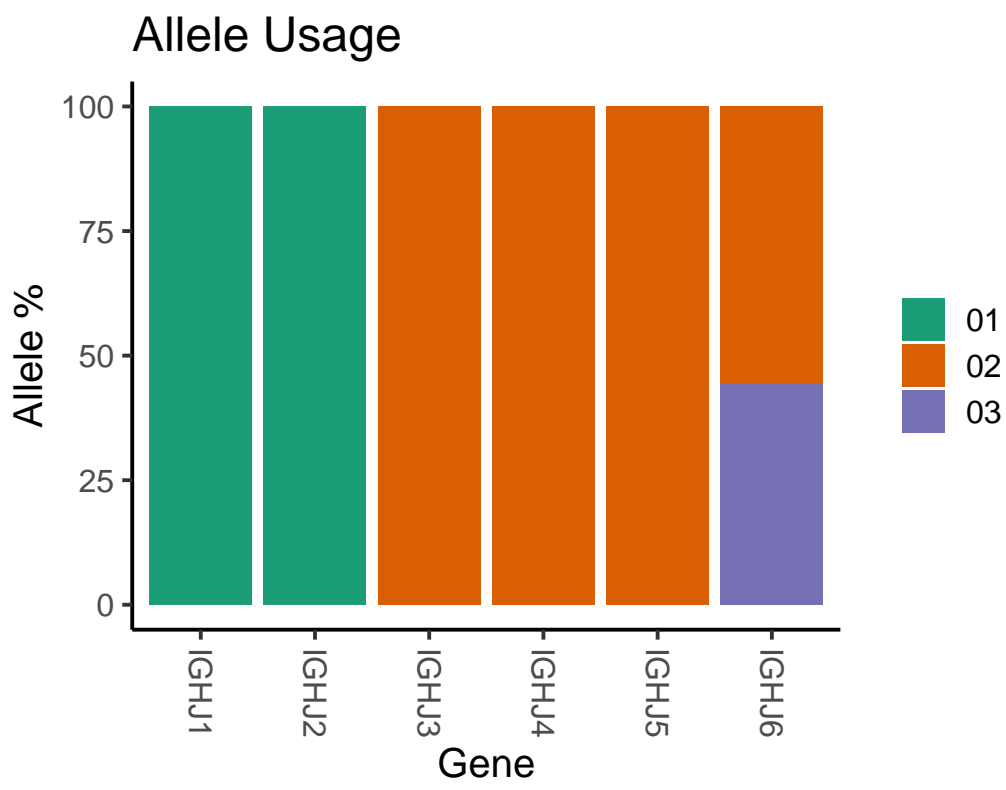
398 sequences assigned  
384 (96.5%) exact matches, in which:  
384 unique CDR3  
7 unique J



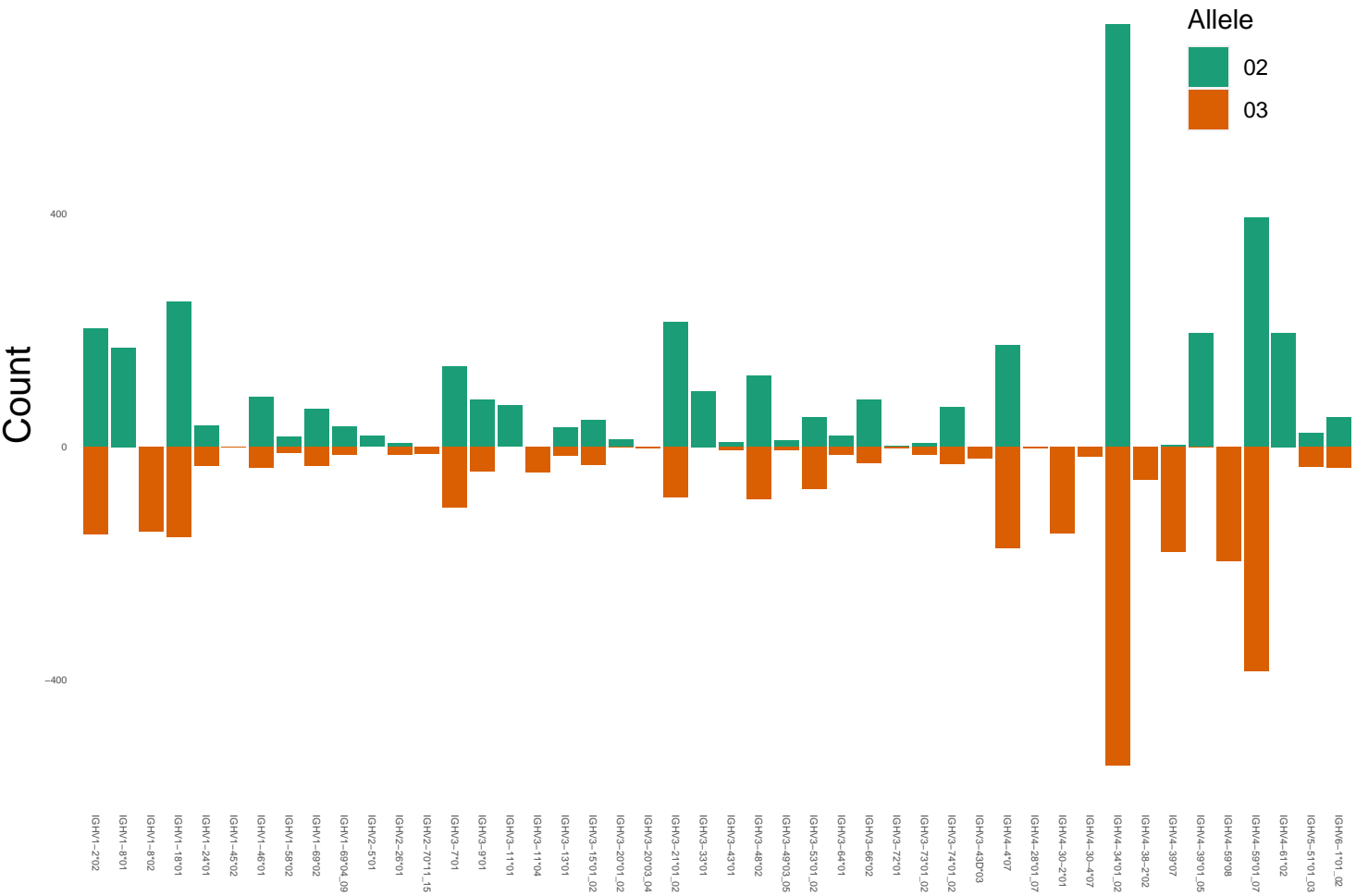
IGHV6–1\*01\_02

500 sequences assigned  
467 (93.4%) exact matches, in which:  
466 unique CDR3  
7 unique J





Sequence Count by IGHJ6 allele usage





Warning – no inferred sequences found.

Novel sequence(s)IGHV4–39\*02\_C258GIGHV4–59\*02\_G88AIGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

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.

Novel sequence(s)IGHV5–51\*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.

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

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–39\*02\_C258GIGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

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.

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.