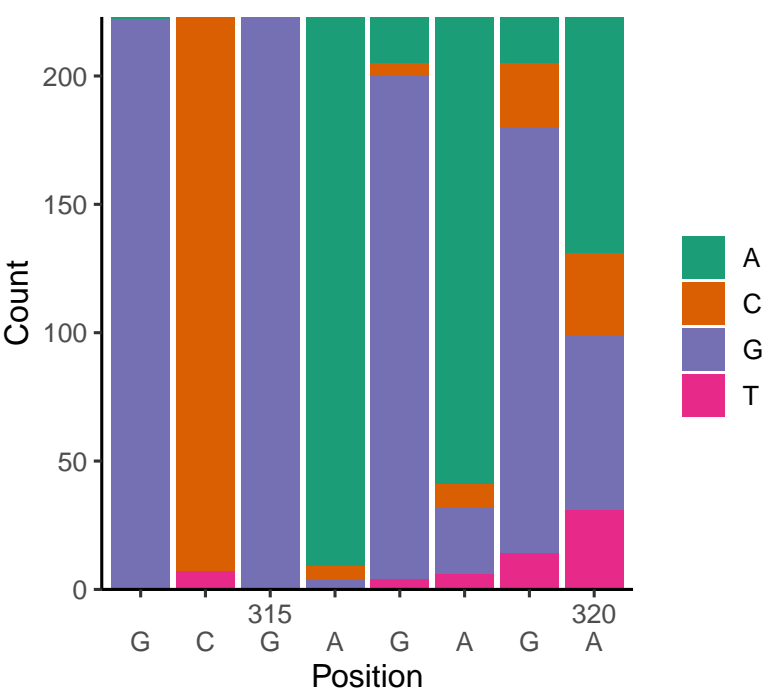


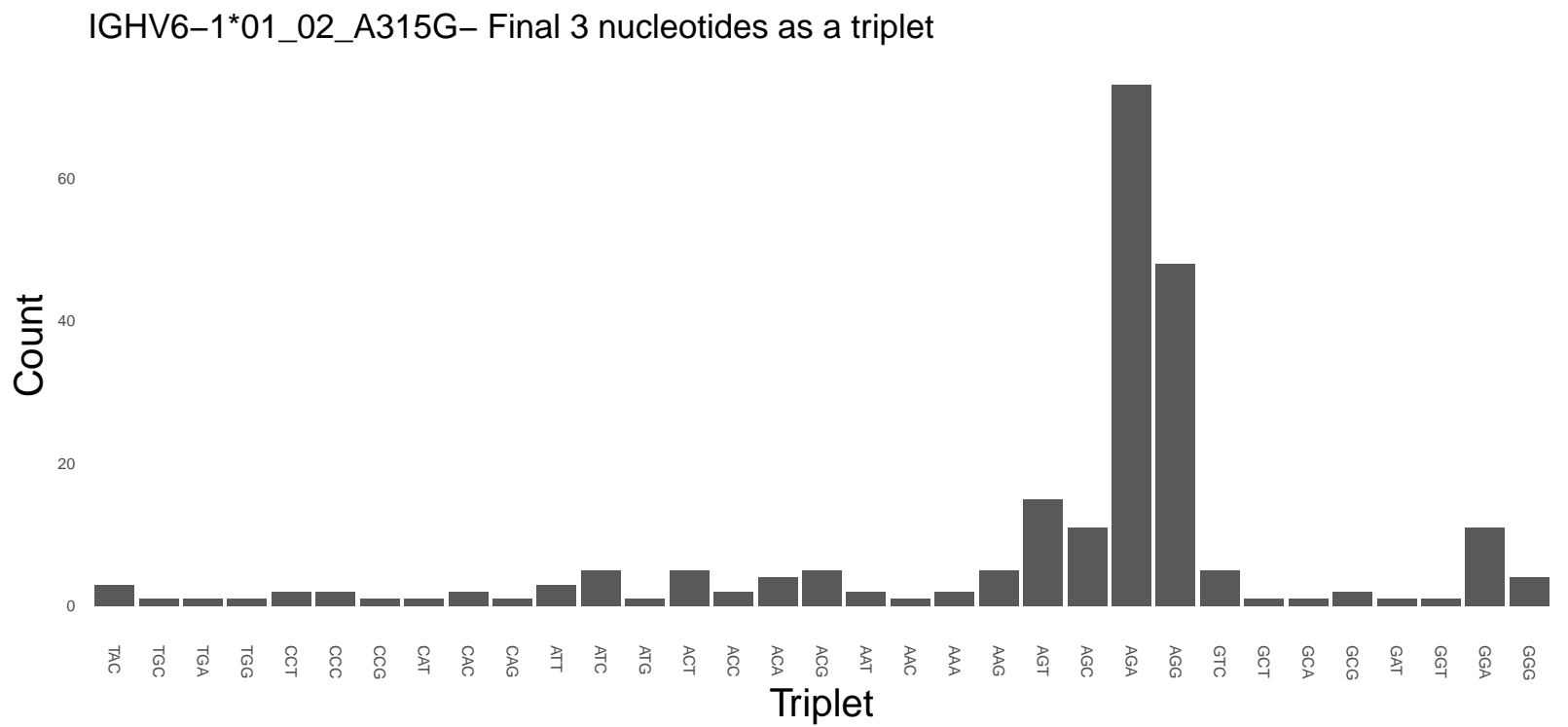
Gene IGHV6-1\*01\_02\_A315G



Gene IGHV6-1\*01\_02\_A315G

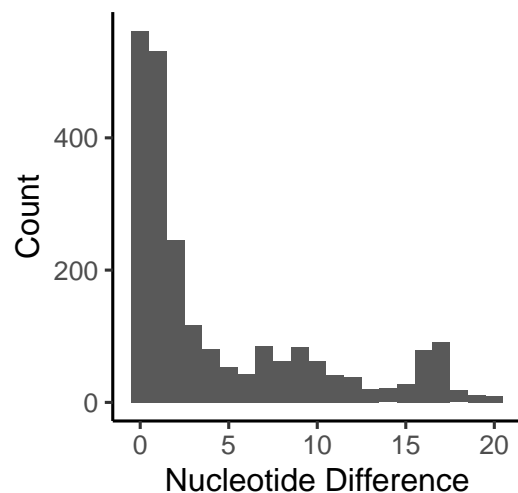


IGHV6-1\*01\_02\_A315G- Final 3 nucleotides as a triplet



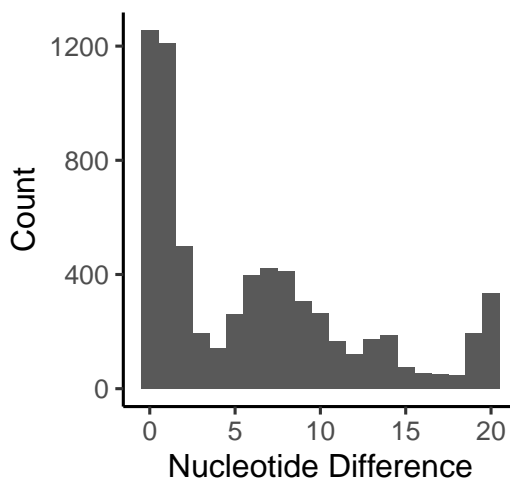
### IGHV1-2\*04

2410 sequences assigned  
562 (23.3%) exact matches, in which:  
475 unique CDR3  
7 unique J



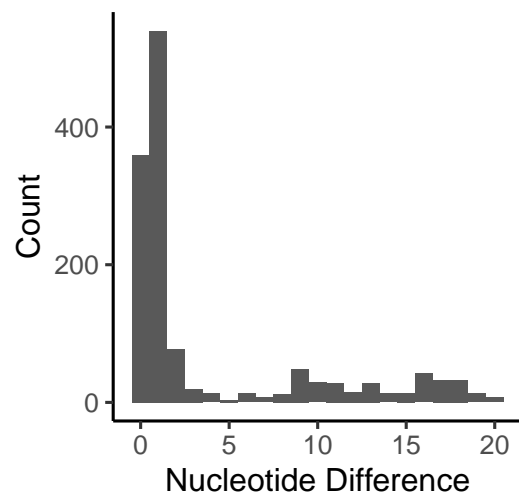
### IGHV1-8\*01

7570 sequences assigned  
1255 (16.6%) exact matches, in which:  
1059 unique CDR3  
7 unique J



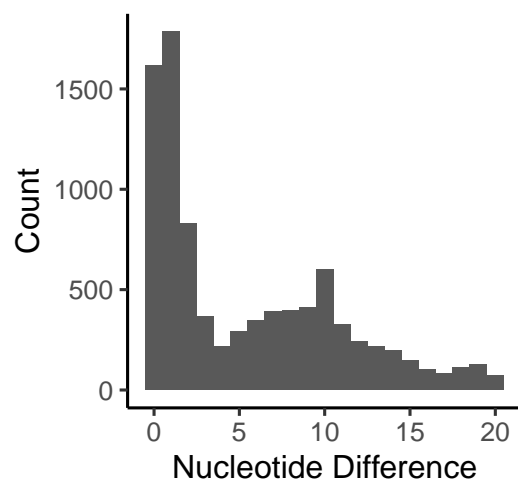
### IGHV1-24\*01

1777 sequences assigned  
359 (20.2%) exact matches, in which:  
235 unique CDR3  
7 unique J



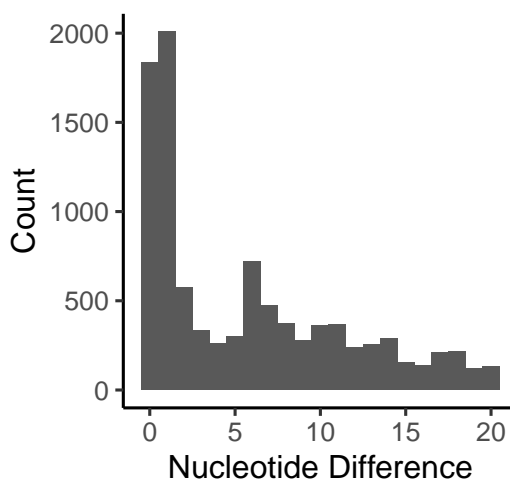
### IGHV1-2\*06

10668 sequences assigned  
1615 (15.1%) exact matches, in which:  
1264 unique CDR3  
7 unique J



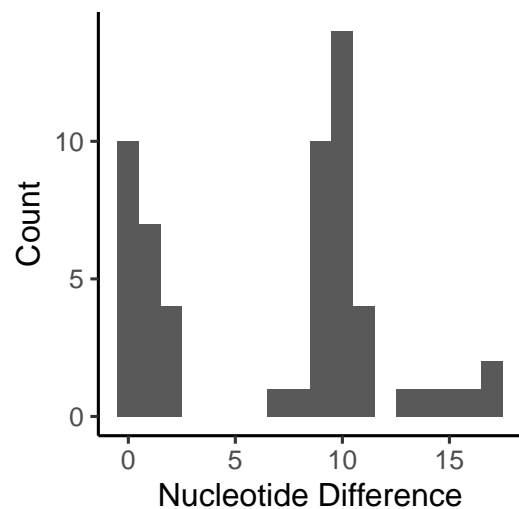
### IGHV1-18\*01

12303 sequences assigned  
1834 (14.9%) exact matches, in which:  
1486 unique CDR3  
7 unique J



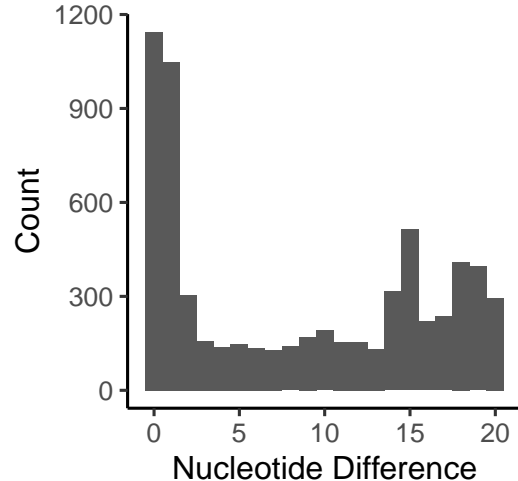
### IGHV1-45\*02

60 sequences assigned  
10 (16.7%) exact matches, in which:  
3 unique CDR3  
2 unique J



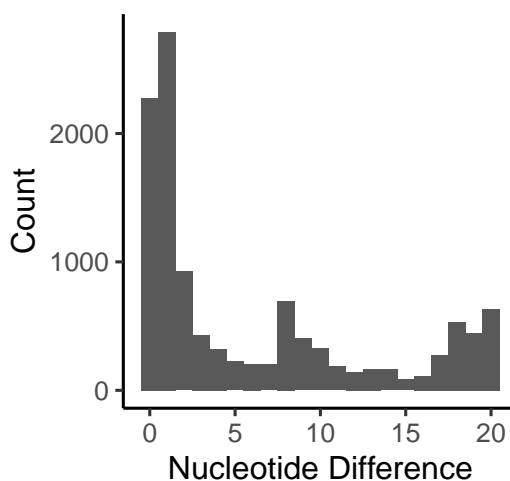
### IGHV1-3\*01\_05

8303 sequences assigned  
1144 (13.8%) exact matches, in which:  
877 unique CDR3  
7 unique J



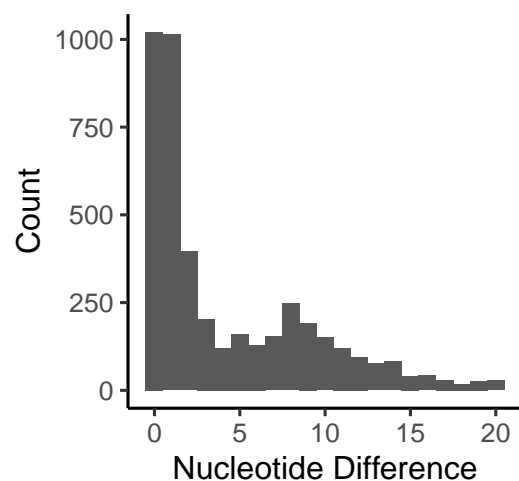
### IGHV1-18\*04

12333 sequences assigned  
2275 (18.4%) exact matches, in which:  
1778 unique CDR3  
7 unique J



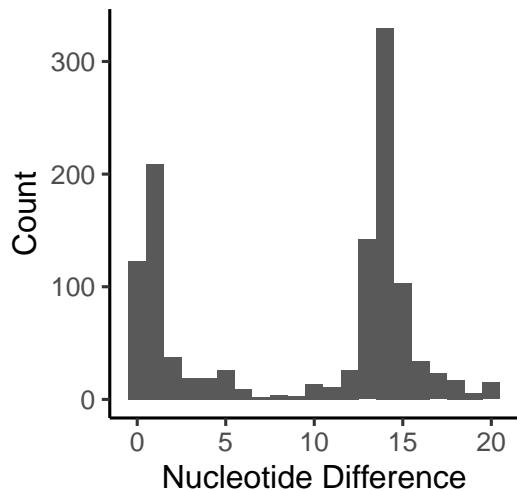
### IGHV1-46\*01

4554 sequences assigned  
1021 (22.4%) exact matches, in which:  
871 unique CDR3  
7 unique J



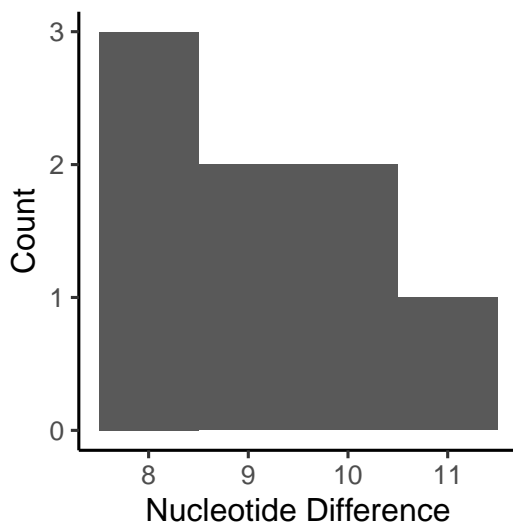
### IGHV1–58\*01\_03

1194 sequences assigned  
123 (10.3%) exact matches, in which:  
83 unique CDR3  
6 unique J



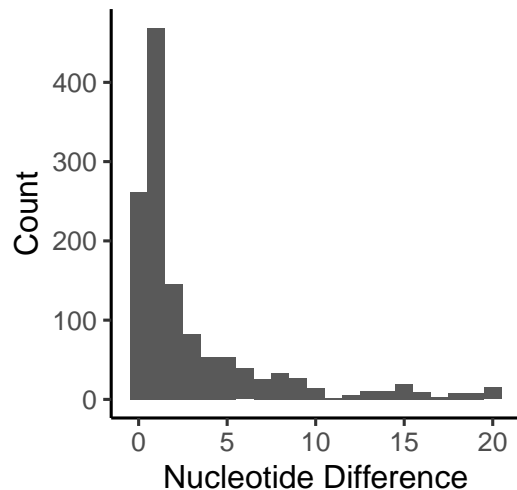
### IGHV1–NL1\*01

8 sequences assigned  
No exact matches.



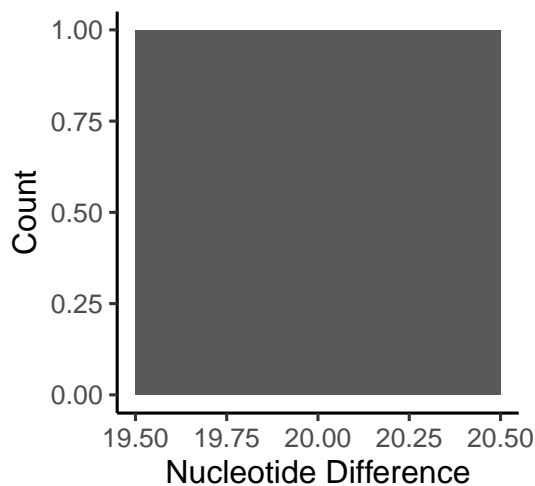
### IGHV2–70\*01

1308 sequences assigned  
262 (20%) exact matches, in which:  
172 unique CDR3  
6 unique J



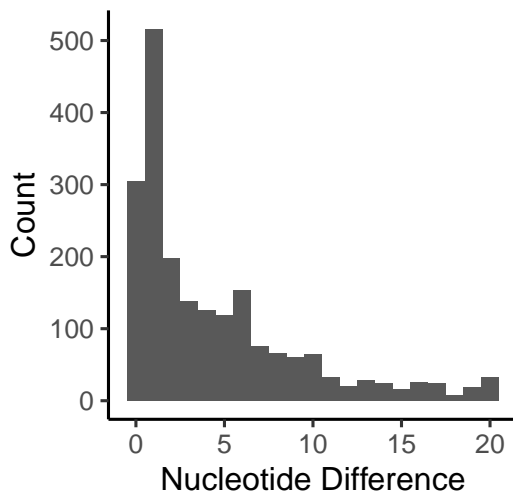
### IGHV1–69–2\*01

2 sequences assigned  
No exact matches.



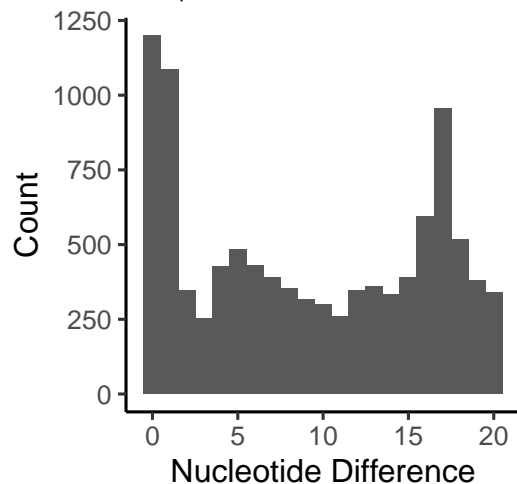
### IGHV2–5\*02

3367 sequences assigned  
304 (9%) exact matches, in which:  
232 unique CDR3  
7 unique J



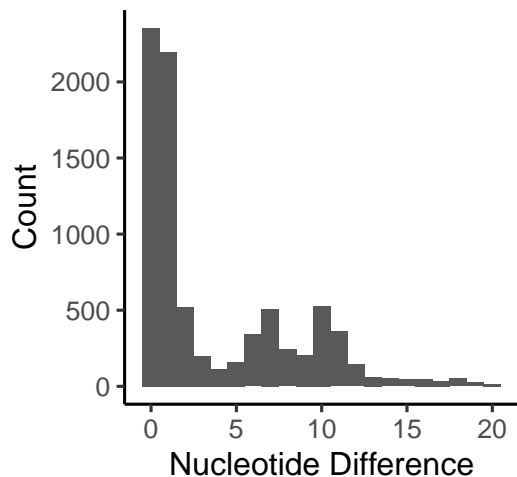
### IGHV3–7\*01

11363 sequences assigned  
1199 (10.6%) exact matches, in which:  
866 unique CDR3  
7 unique J



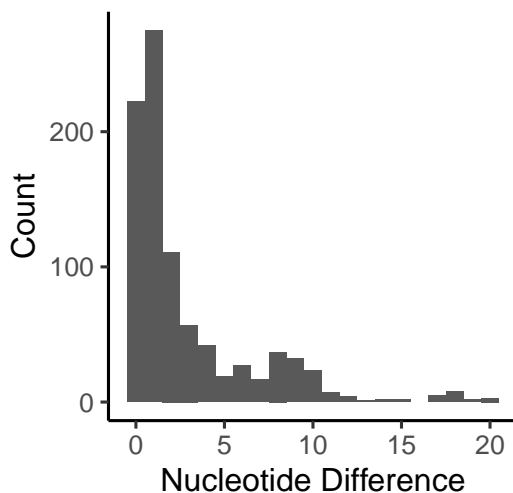
### IGHV1–69\*01\_12\_13

8571 sequences assigned  
2354 (27.5%) exact matches, in which:  
1955 unique CDR3  
7 unique J



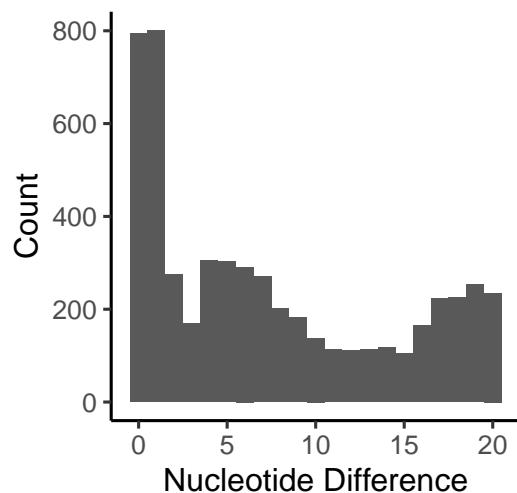
### IGHV2–26\*01

956 sequences assigned  
222 (23.2%) exact matches, in which:  
177 unique CDR3  
7 unique J



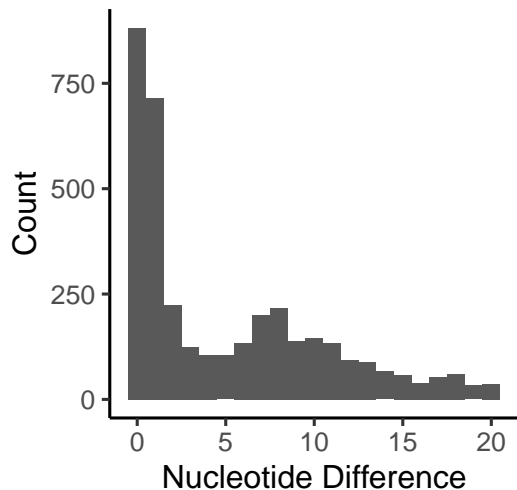
### IGHV3–7\*03

10409 sequences assigned  
794 (7.6%) exact matches, in which:  
530 unique CDR3  
7 unique J



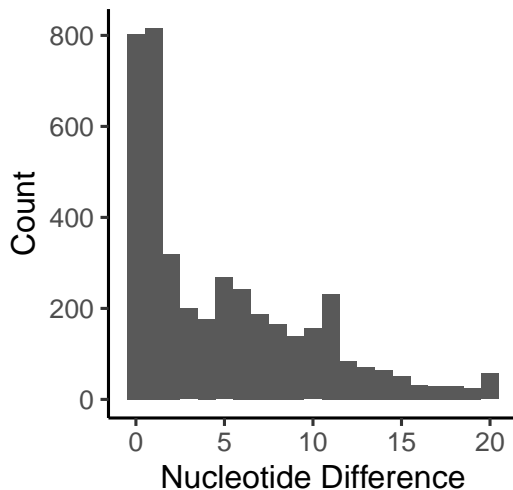
### IGHV3-9\*01

3777 sequences assigned  
882 (23.4%) exact matches, in which:  
529 unique CDR3  
7 unique J



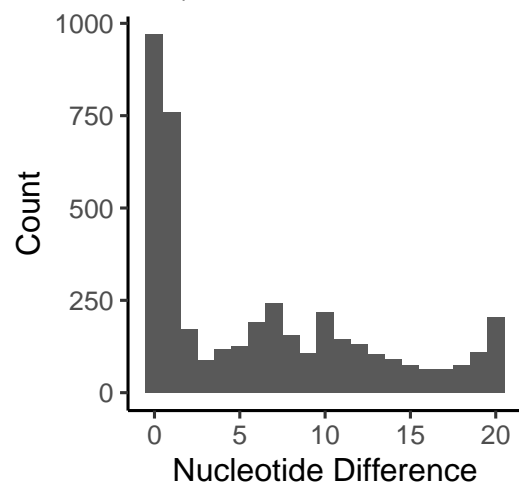
### IGHV3-11\*06

4363 sequences assigned  
803 (18.4%) exact matches, in which:  
540 unique CDR3  
7 unique J



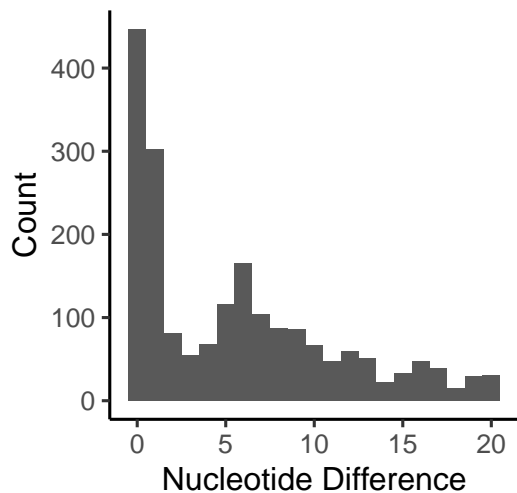
### IGHV3-15\*01\_02

4727 sequences assigned  
970 (20.5%) exact matches, in which:  
558 unique CDR3  
7 unique J



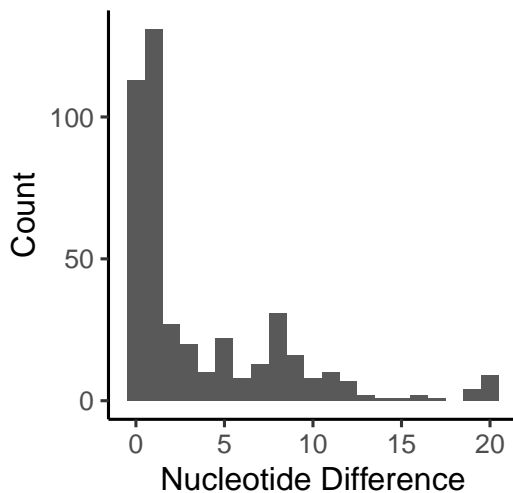
### IGHV3-11\*01

2836 sequences assigned  
447 (15.8%) exact matches, in which:  
313 unique CDR3  
7 unique J



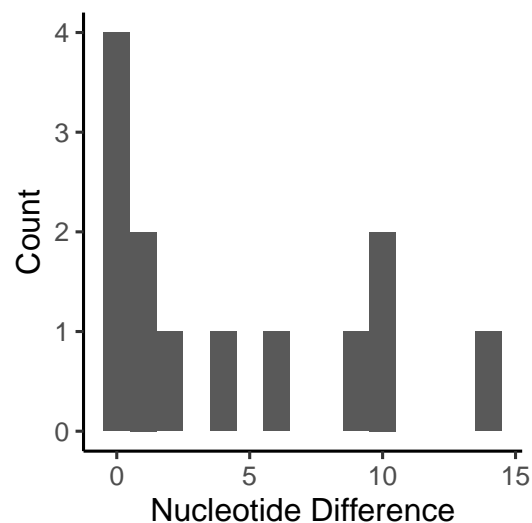
### IGHV3-13\*01

464 sequences assigned  
113 (24.4%) exact matches, in which:  
60 unique CDR3  
6 unique J



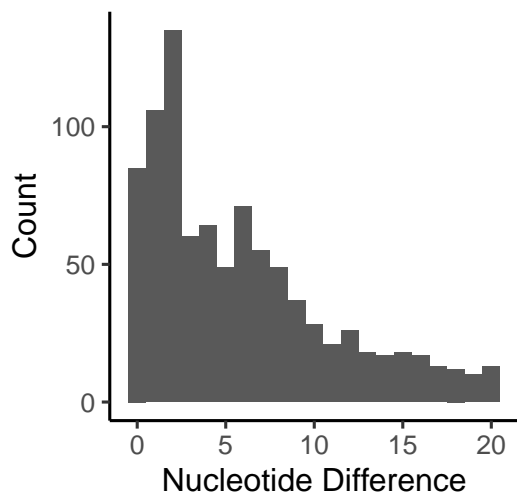
### IGHV3-19\*01

13 sequences assigned  
4 (30.8%) exact matches, in which:  
3 unique CDR3  
3 unique J



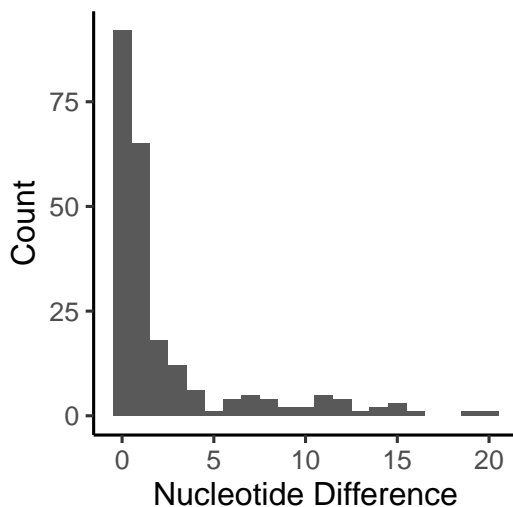
### IGHV3-11\*04

971 sequences assigned  
85 (8.8%) exact matches, in which:  
84 unique CDR3  
7 unique J



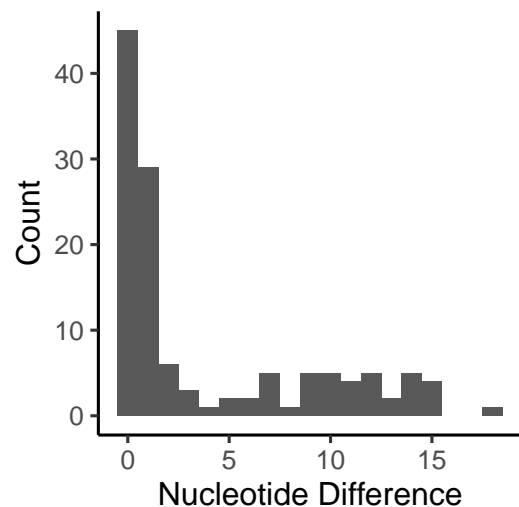
### IGHV3-13\*05

750 sequences assigned  
92 (12.3%) exact matches, in which:  
46 unique CDR3  
5 unique J



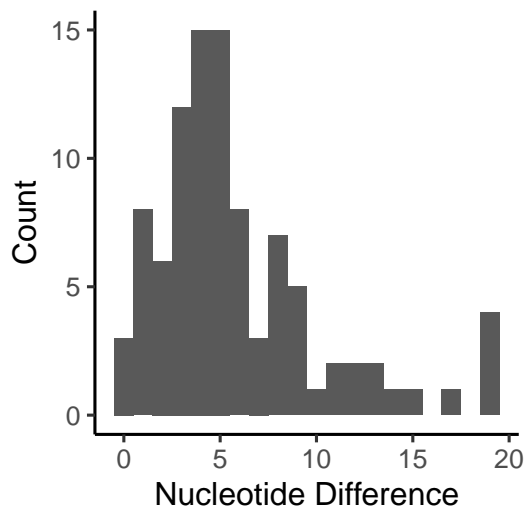
### IGHV3-20\*01\_02

125 sequences assigned  
45 (36%) exact matches, in which:  
30 unique CDR3  
4 unique J



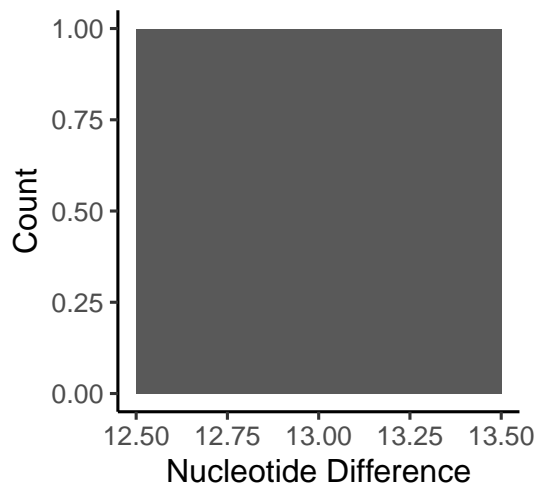
### IGHV3-20\*03\_04

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



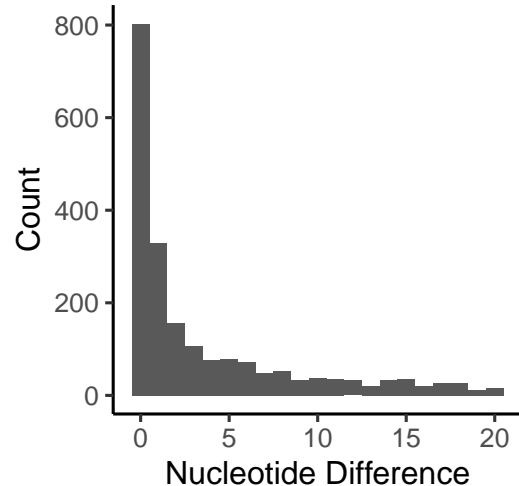
### IGHV3-22\*01\_02

1 sequences assigned  
No exact matches.



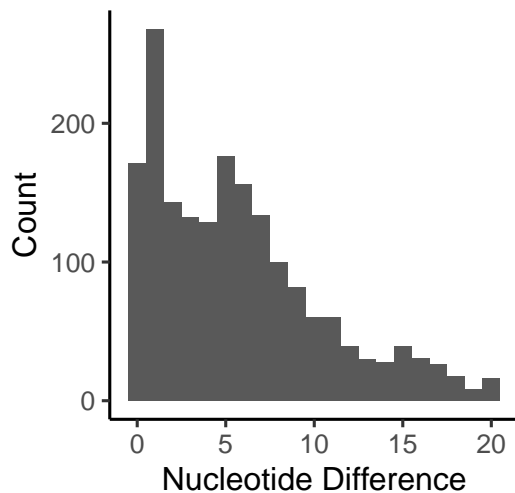
### IGHV3-30\*03

2165 sequences assigned  
803 (37.1%) exact matches, in which:  
675 unique CDR3  
7 unique J



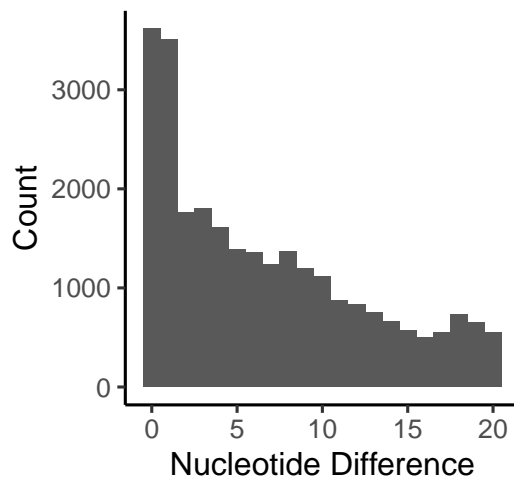
### IGHV3-21\*04

1973 sequences assigned  
171 (8.7%) exact matches, in which:  
147 unique CDR3  
7 unique J



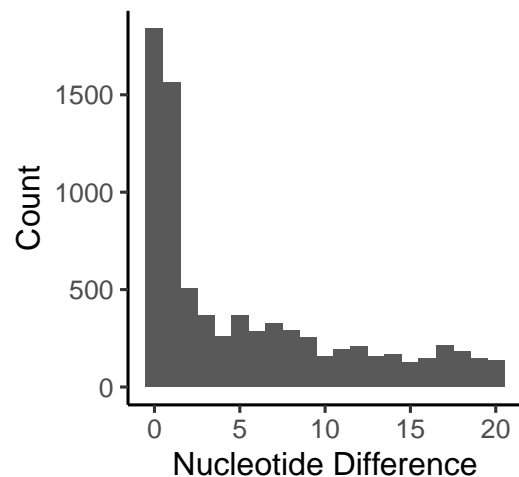
### IGHV3-23\*01\_04

30681 sequences assigned  
3616 (11.8%) exact matches, in which:  
2095 unique CDR3  
7 unique J



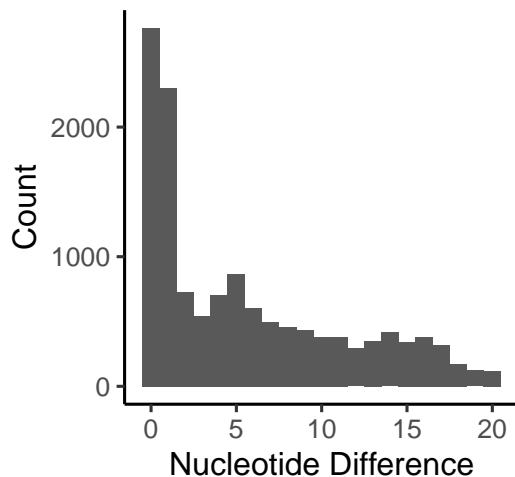
### IGHV3-30\*18

8263 sequences assigned  
1839 (22.3%) exact matches, in which:  
1056 unique CDR3  
7 unique J



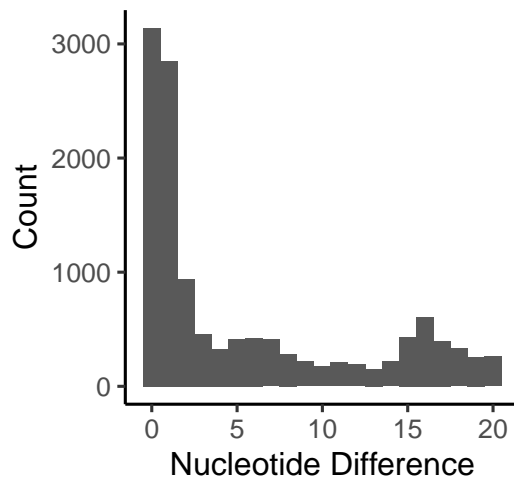
### IGHV3-21\*01\_02

14605 sequences assigned  
2764 (18.9%) exact matches, in which:  
1751 unique CDR3  
7 unique J



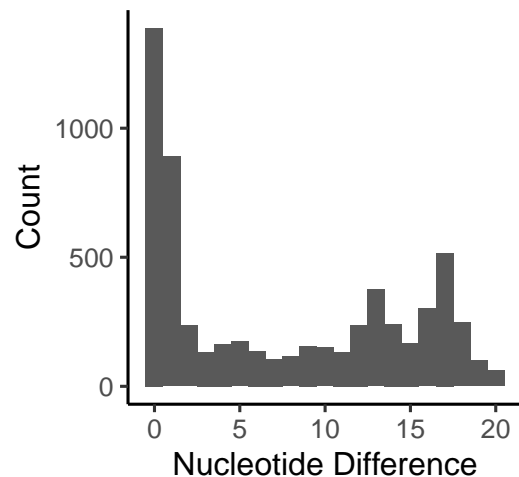
### IGHV3-30-3\*01

14296 sequences assigned  
3139 (22%) exact matches, in which:  
1844 unique CDR3  
7 unique J



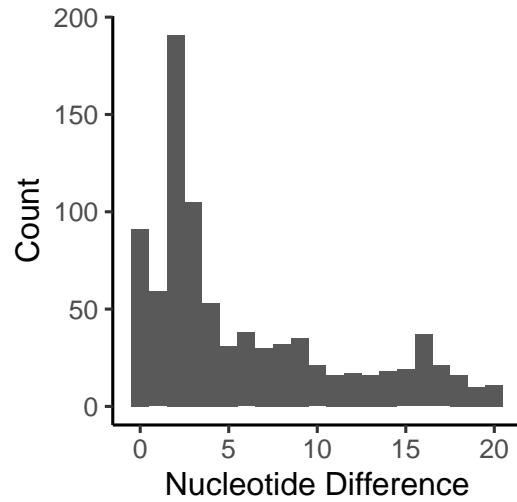
### IGHV3-33\*01

8146 sequences assigned  
1388 (17%) exact matches, in which:  
926 unique CDR3  
7 unique J



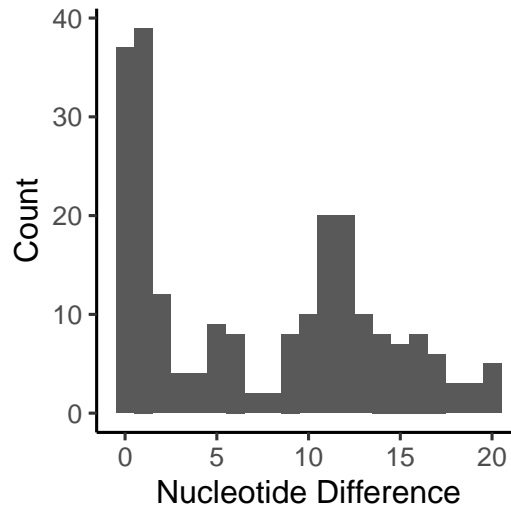
### IGHV3-33\*06

965 sequences assigned  
91 (9.4%) exact matches, in which:  
88 unique CDR3  
7 unique J



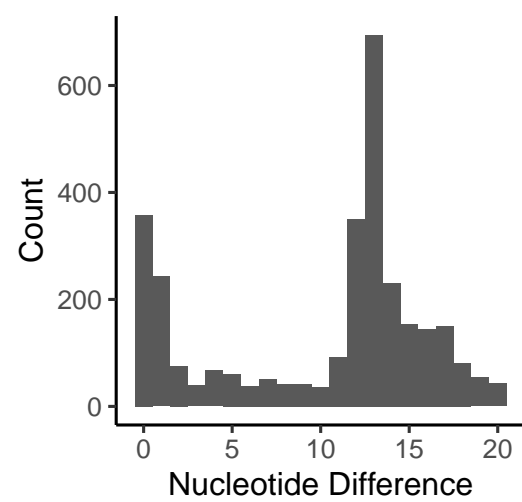
### IGHV3-43\*01

254 sequences assigned  
37 (14.6%) exact matches, in which:  
26 unique CDR3  
5 unique J



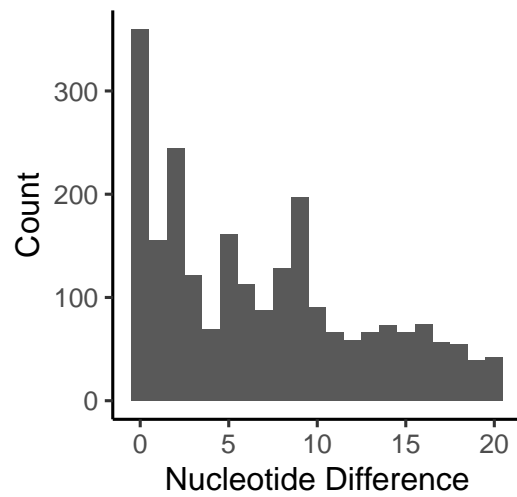
### IGHV3-48\*02

3280 sequences assigned  
358 (10.9%) exact matches, in which:  
243 unique CDR3  
7 unique J



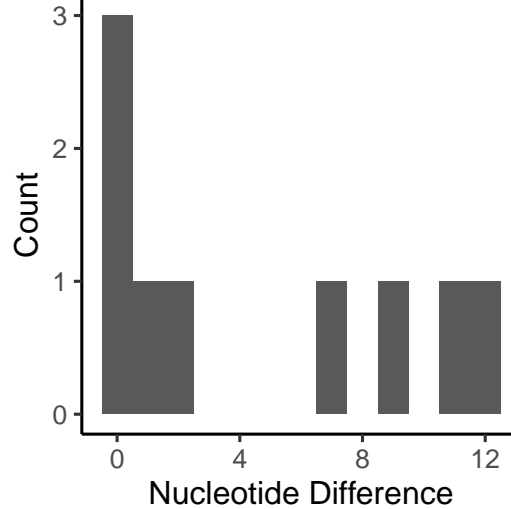
### IGHV3-33\*08

2553 sequences assigned  
360 (14.1%) exact matches, in which:  
285 unique CDR3  
7 unique J



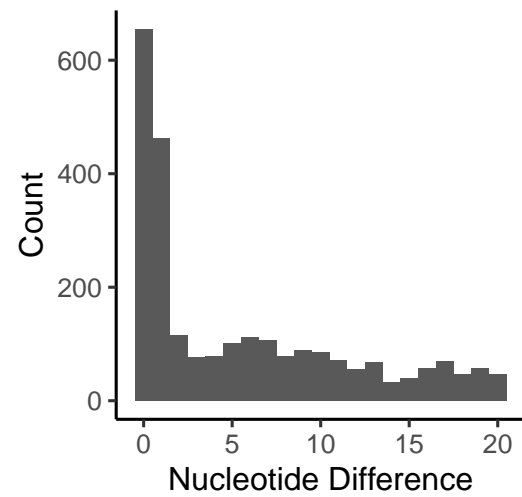
### IGHV3-47\*02

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



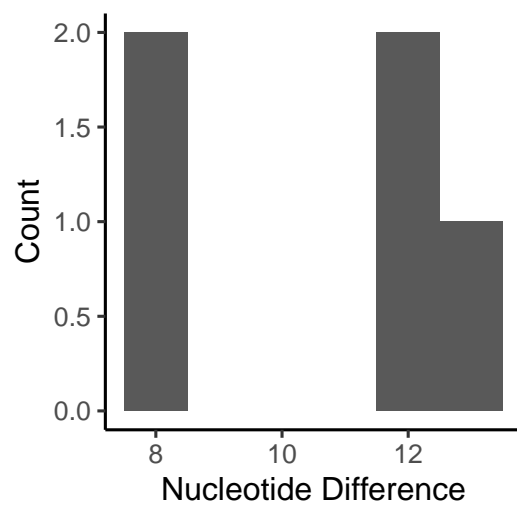
### IGHV3-48\*03

2890 sequences assigned  
655 (22.7%) exact matches, in which:  
422 unique CDR3  
7 unique J



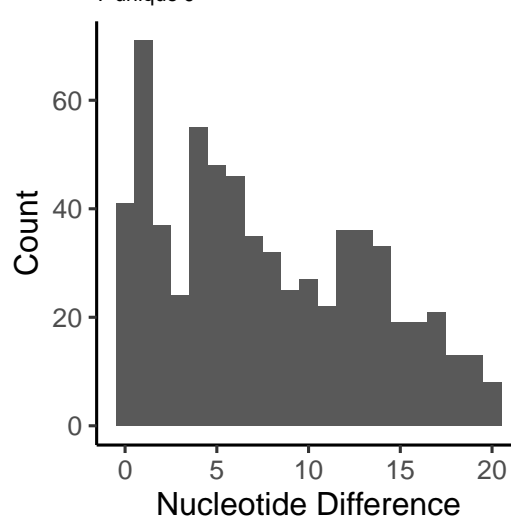
### IGHV3-35\*01

5 sequences assigned  
No exact matches.



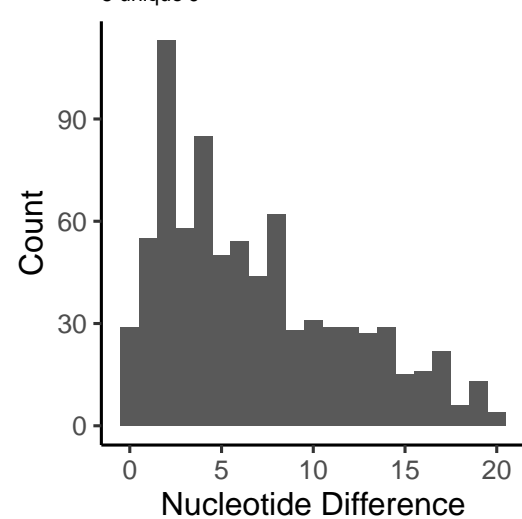
### IGHV3-48\*01

691 sequences assigned  
41 (5.9%) exact matches, in which:  
41 unique CDR3  
7 unique J



### IGHV3-48\*04

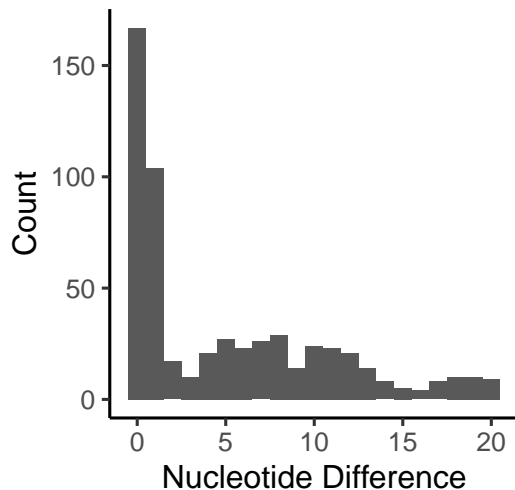
839 sequences assigned  
29 (3.5%) exact matches, in which:  
29 unique CDR3  
5 unique J





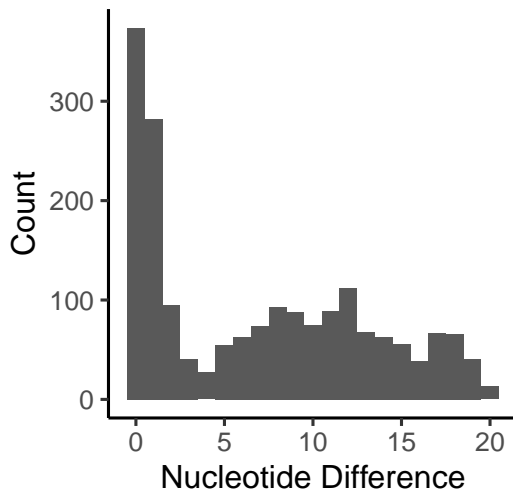
### IGHV3-49\*04

1135 sequences assigned  
167 (14.7%) exact matches, in which:  
107 unique CDR3  
7 unique J



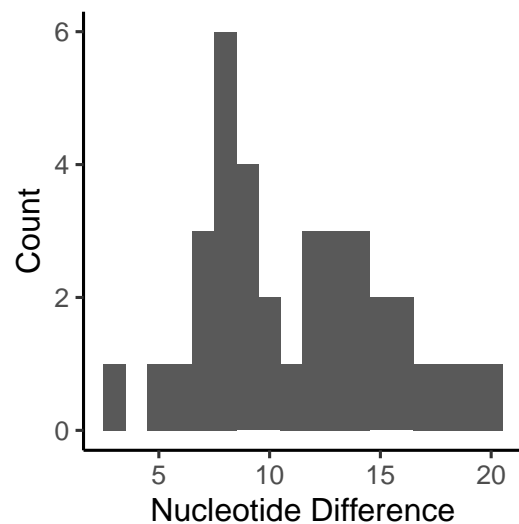
### IGHV3-53\*01\_02

2280 sequences assigned  
374 (16.4%) exact matches, in which:  
235 unique CDR3  
7 unique J



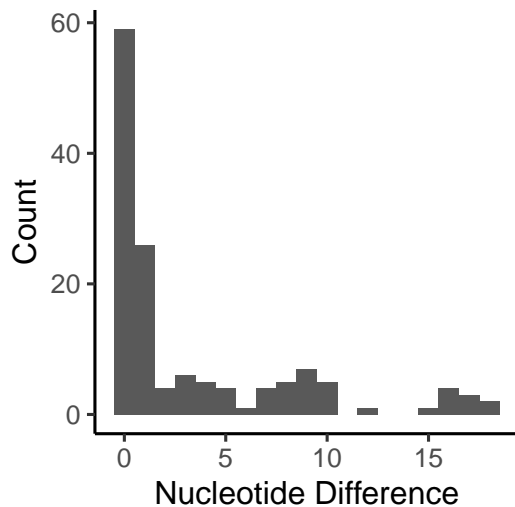
### IGHV3-66\*01

41 sequences assigned  
No exact matches.



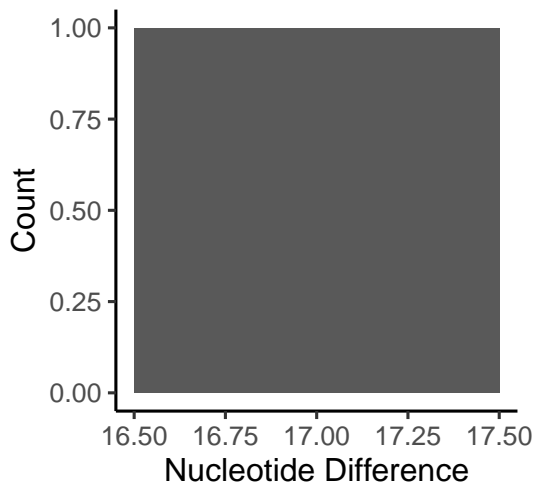
### IGHV3-49\*03\_05

293 sequences assigned  
59 (20.1%) exact matches, in which:  
44 unique CDR3  
5 unique J



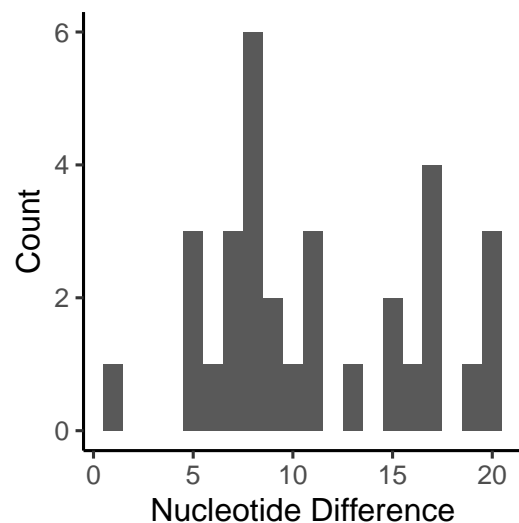
### IGHV3-64\*05

9 sequences assigned  
No exact matches.



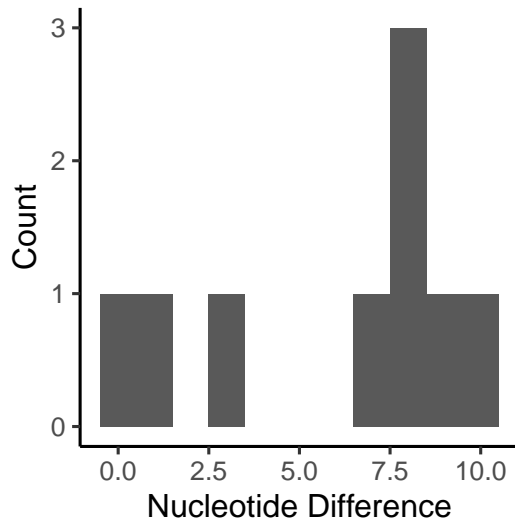
### IGHV3-66\*02

40 sequences assigned  
No exact matches.



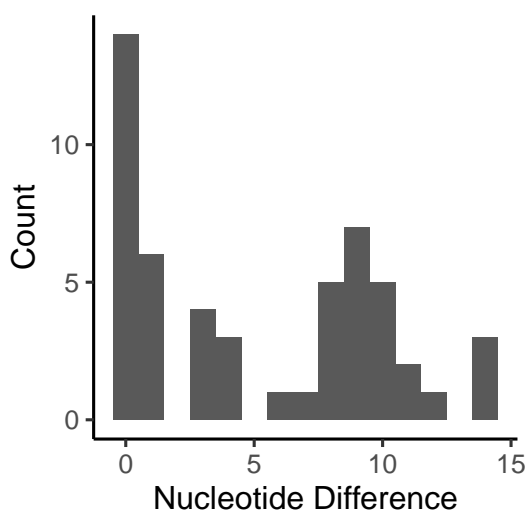
### IGHV3-52\*01\_03

9 sequences assigned  
1 (11.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



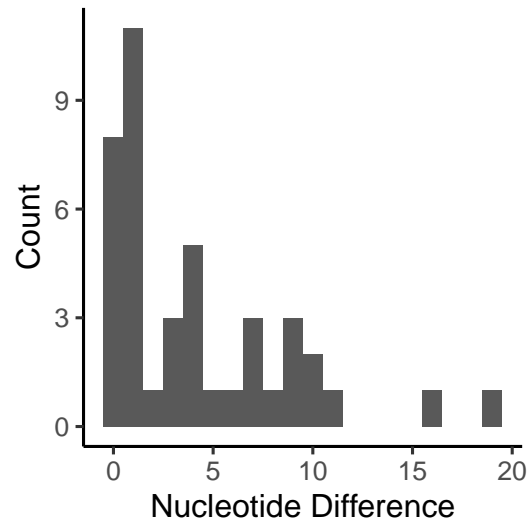
### IGHV3-64\*02\_07

52 sequences assigned  
14 (26.9%) exact matches, in which:  
9 unique CDR3  
3 unique J



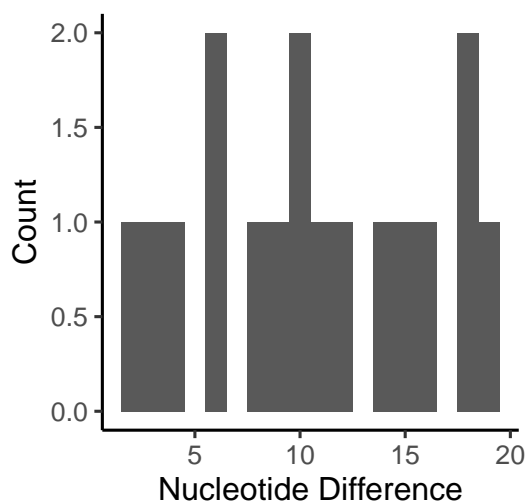
### IGHV3-66\*03

44 sequences assigned  
8 (18.2%) exact matches, in which:  
8 unique CDR3  
4 unique J



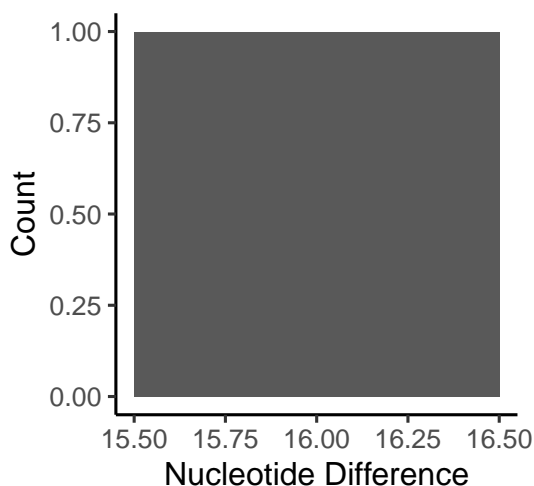
### IGHV3-66\*04

22 sequences assigned  
No exact matches.



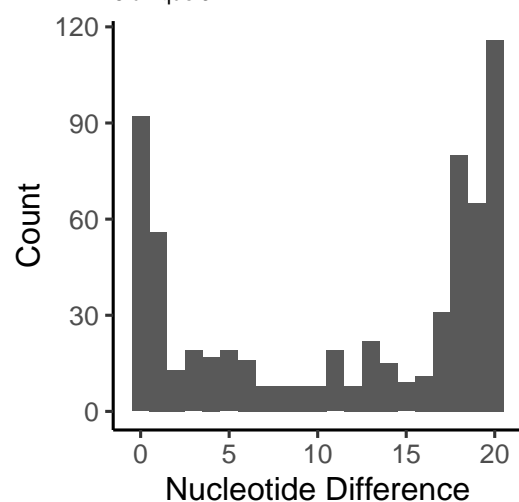
### IGHV3-71\*03

1 sequences assigned  
No exact matches.



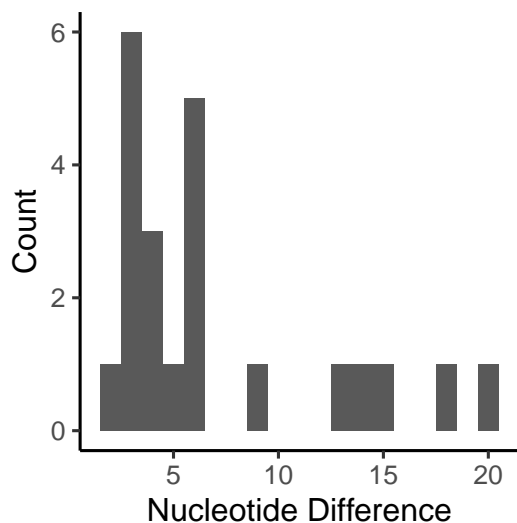
### IGHV3-73\*01\_02

778 sequences assigned  
92 (11.8%) exact matches, in which:  
58 unique CDR3  
6 unique J



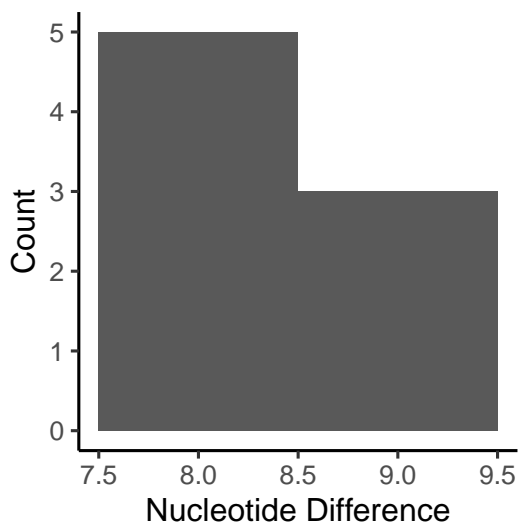
### IGHV3-69-1\*01

24 sequences assigned  
No exact matches.



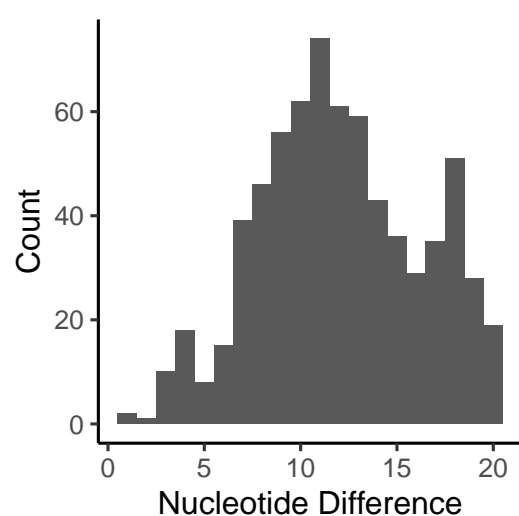
### IGHV3-71\*01\_04

9 sequences assigned  
No exact matches.



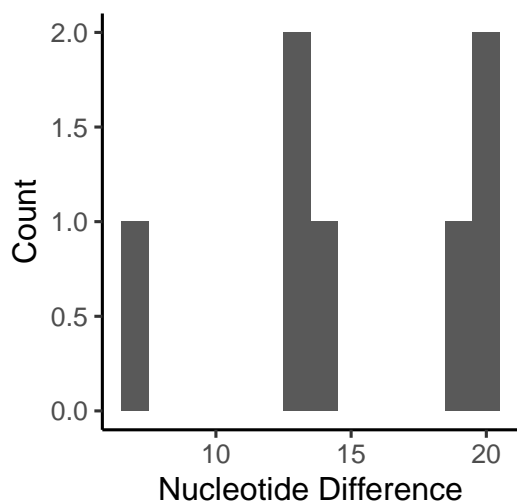
### IGHV3-74\*03

1184 sequences assigned  
No exact matches.



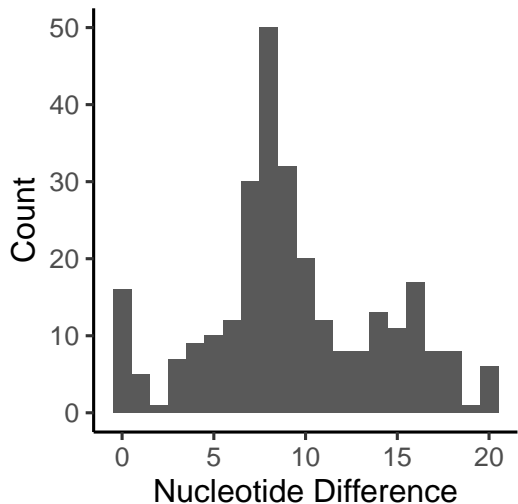
### IGHV3-69-1\*02

11 sequences assigned  
No exact matches.



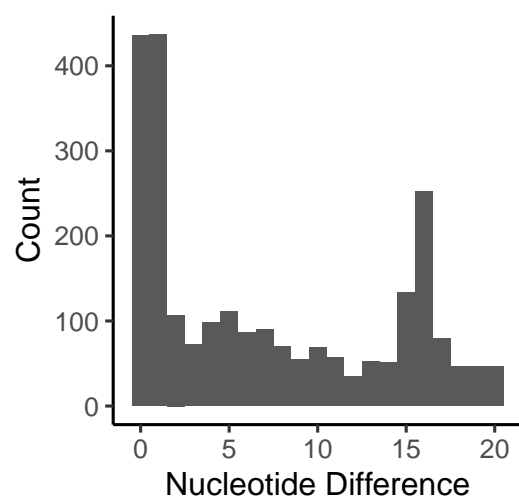
### IGHV3-72\*01

292 sequences assigned  
16 (5.5%) exact matches, in which:  
9 unique CDR3  
4 unique J



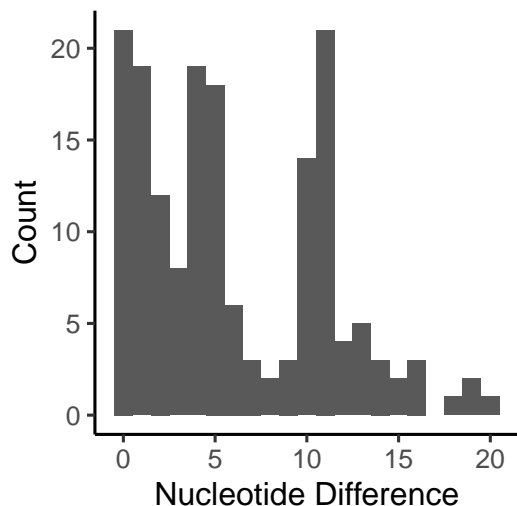
### IGHV3-74\*01\_02

2595 sequences assigned  
436 (16.8%) exact matches, in which:  
295 unique CDR3  
7 unique J



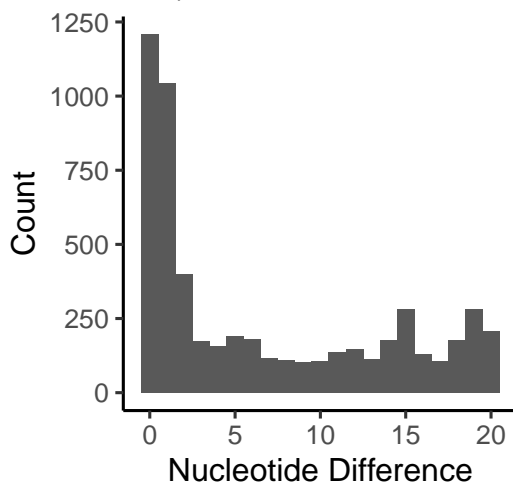
### IGHV3-43D\*04

172 sequences assigned  
21 (12.2%) exact matches, in which:  
14 unique CDR3  
3 unique J



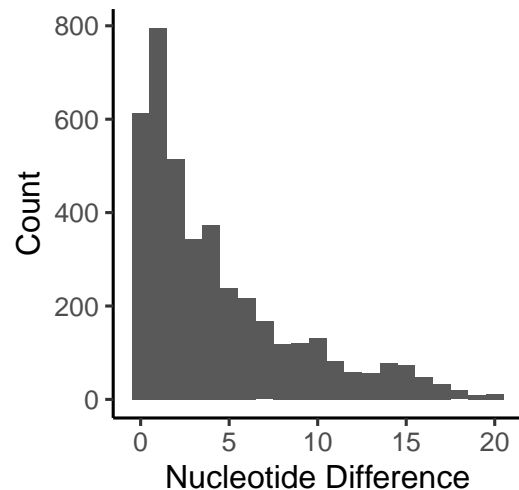
### IGHV4-4\*02\_03

6162 sequences assigned  
1208 (19.6%) exact matches, in which:  
853 unique CDR3  
7 unique J



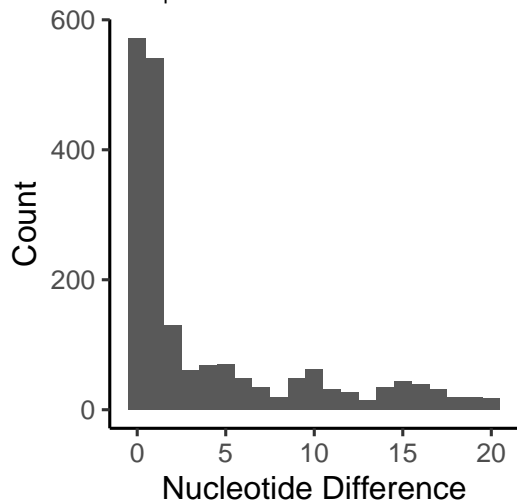
### IGHV4-30-2\*01

4256 sequences assigned  
613 (14.4%) exact matches, in which:  
414 unique CDR3  
7 unique J



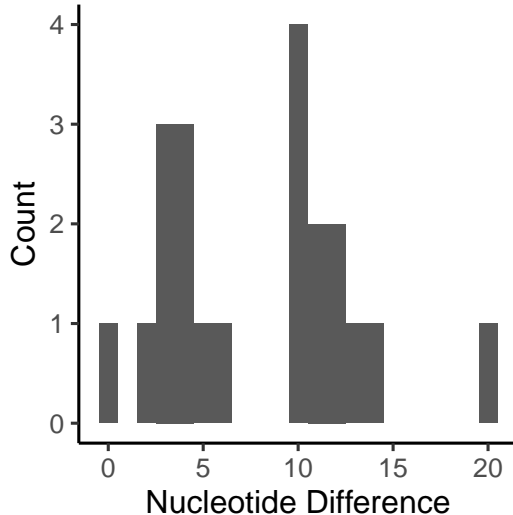
### IGHV3-64D\*06

1979 sequences assigned  
572 (28.9%) exact matches, in which:  
262 unique CDR3  
7 unique J



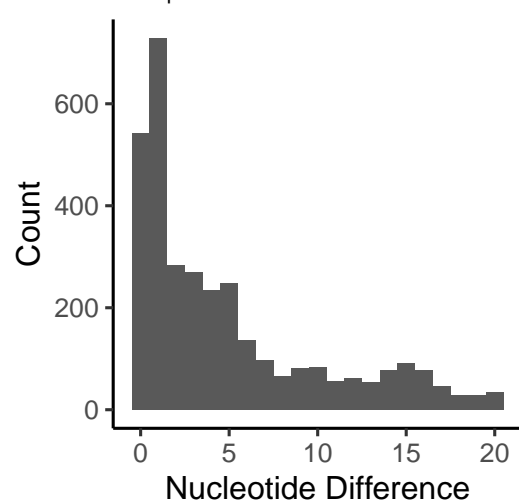
### IGHV4-28\*03

28 sequences assigned  
1 (3.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



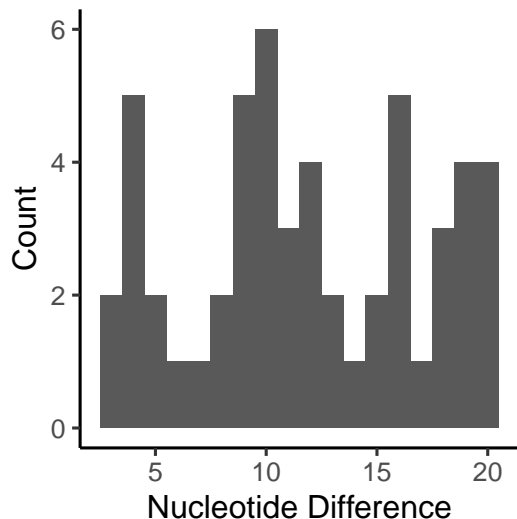
### IGHV4-30-4\*01

3839 sequences assigned  
542 (14.1%) exact matches, in which:  
366 unique CDR3  
7 unique J



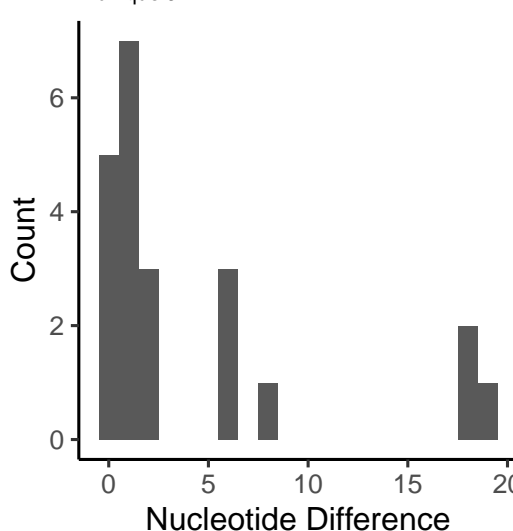
### IGHV3-NL1\*01

73 sequences assigned  
No exact matches.



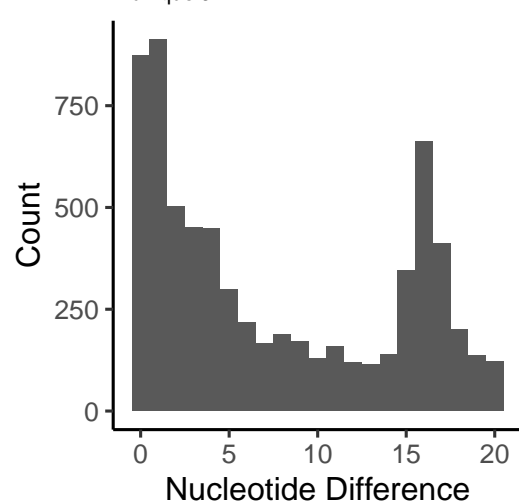
### IGHV4-28\*01\_07

23 sequences assigned  
5 (21.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



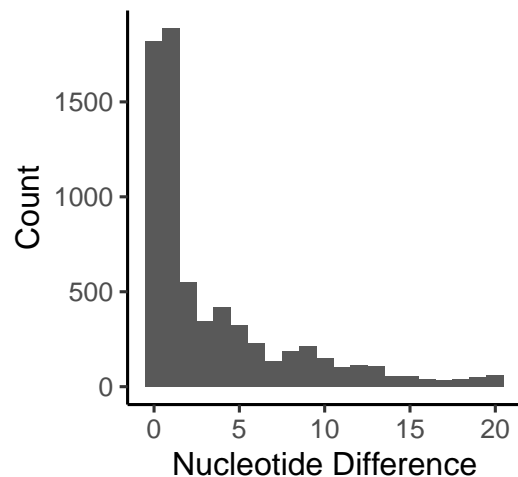
### IGHV4-31\*02

8259 sequences assigned  
873 (10.6%) exact matches, in which:  
667 unique CDR3  
7 unique J



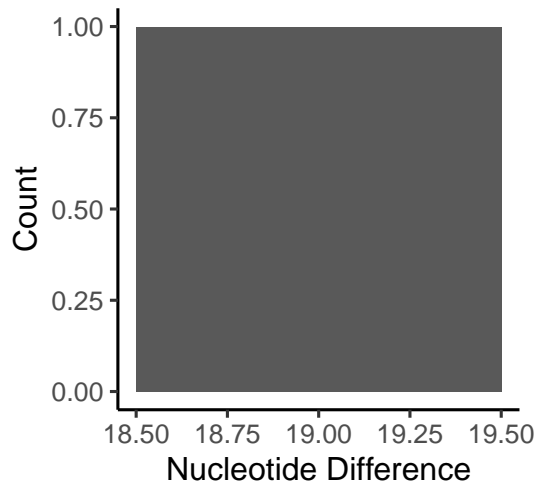
### IGHV4-34\*01\_02

10214 sequences assigned  
1818 (17.8%) exact matches, in which:  
1224 unique CDR3  
7 unique J



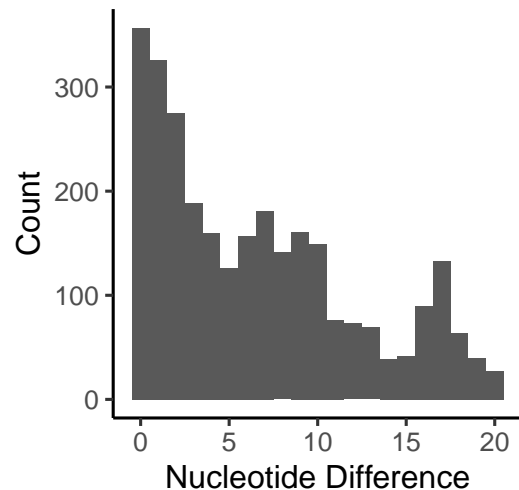
### IGHV4-55\*09

2 sequences assigned  
No exact matches.



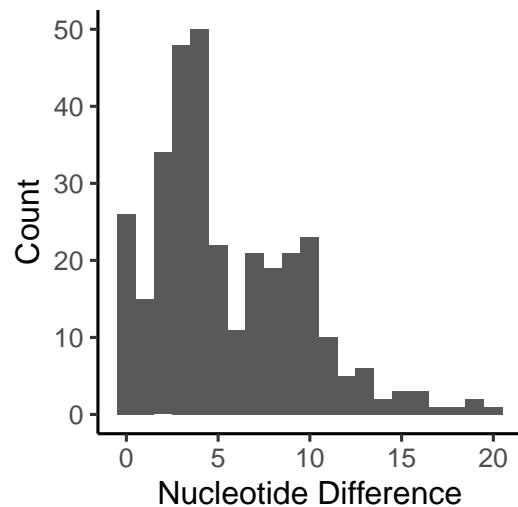
### IGHV4-61\*01

3107 sequences assigned  
357 (11.5%) exact matches, in which:  
301 unique CDR3  
7 unique J



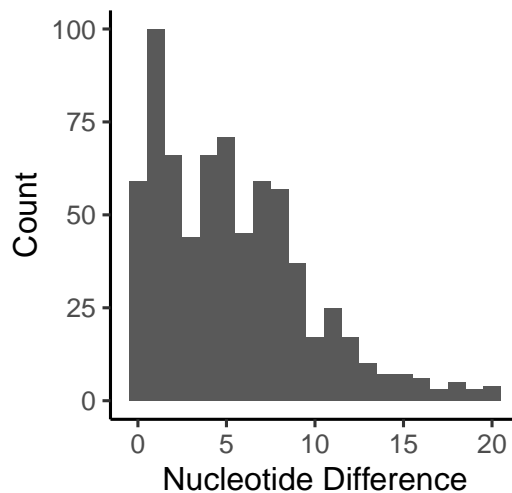
### IGHV4-38-2\*02

397 sequences assigned  
26 (6.5%) exact matches, in which:  
26 unique CDR3  
6 unique J



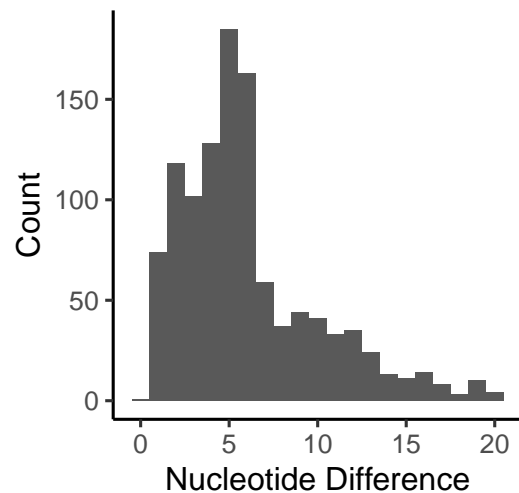
### IGHV4-59\*08

747 sequences assigned  
59 (7.9%) exact matches, in which:  
57 unique CDR3  
7 unique J



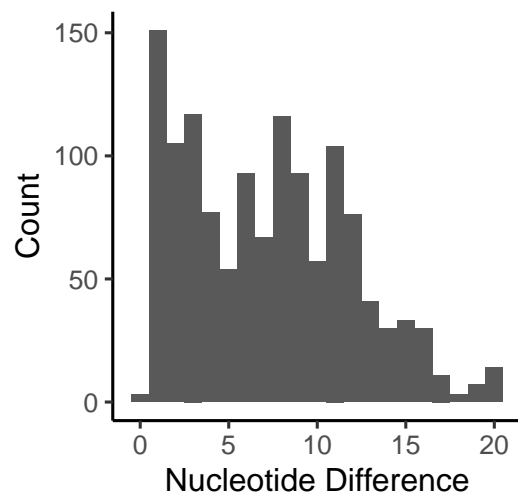
### IGHV4-61\*08

1167 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



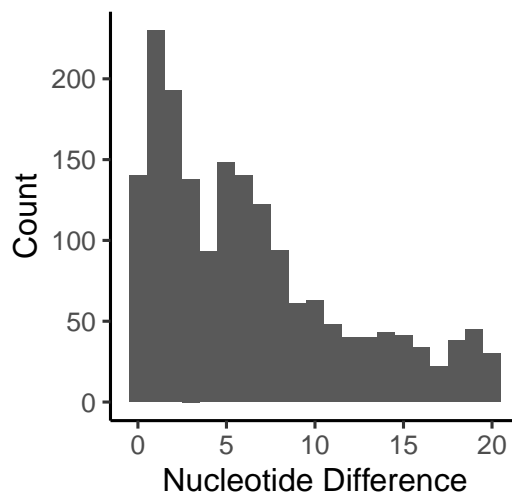
### IGHV4-39\*07

1430 sequences assigned  
3 (0.2%) exact matches, in which:  
3 unique CDR3  
3 unique J



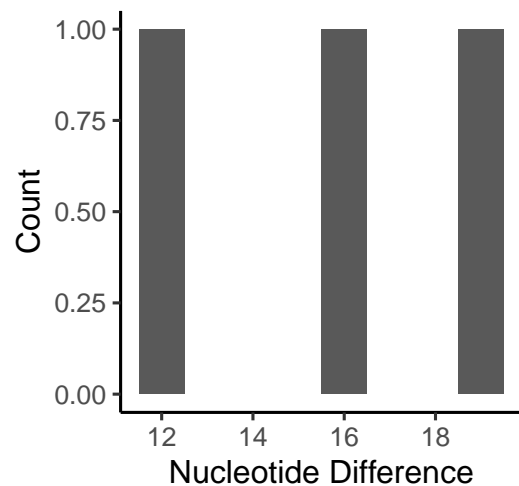
### IGHV4-59\*12

2300 sequences assigned  
140 (6.1%) exact matches, in which:  
135 unique CDR3  
7 unique J



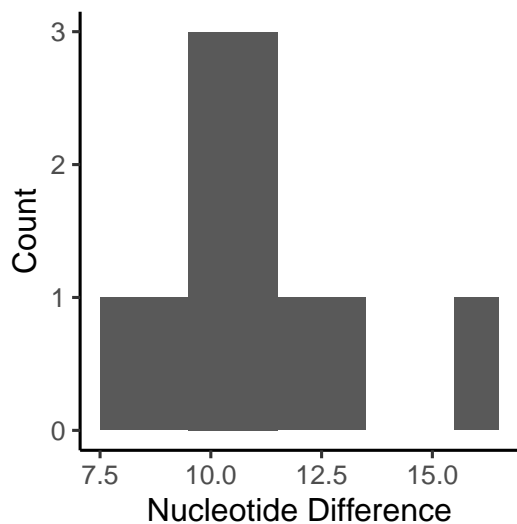
### IGHV1/OR15-2\*02\_03

3 sequences assigned  
No exact matches.



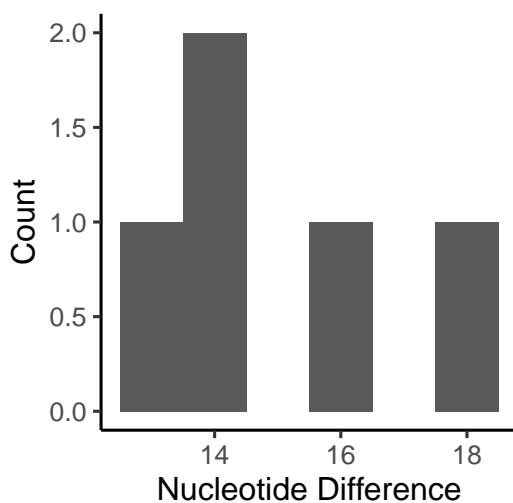
### IGHV1/OR15-3\*02

22 sequences assigned  
No exact matches.



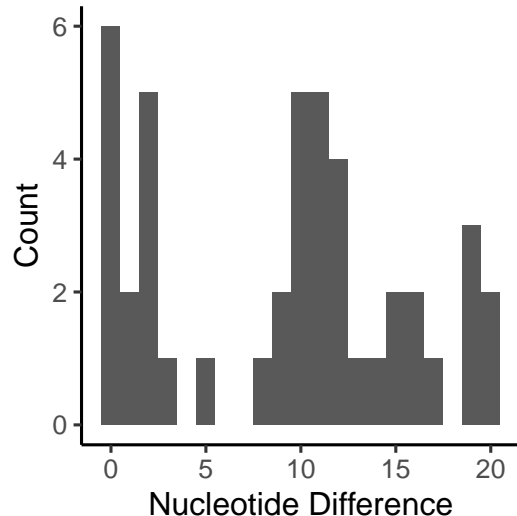
### IGHV4/OR15-8\*02

30 sequences assigned  
No exact matches.



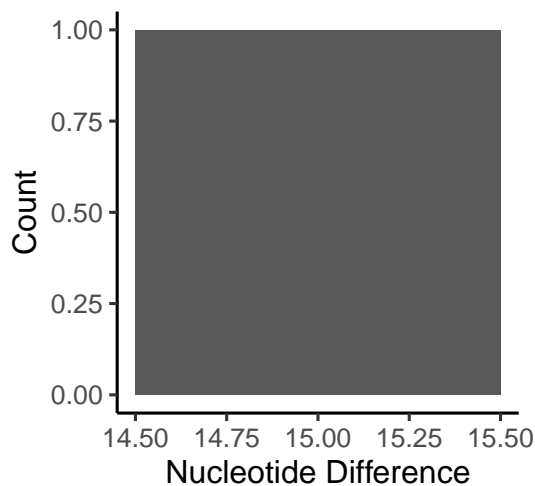
### IGHV5-51\*04

60 sequences assigned  
6 (10%) exact matches, in which:  
6 unique CDR3  
2 unique J



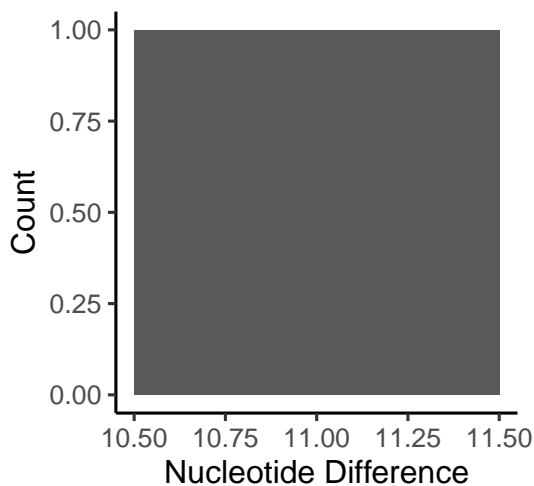
### IGHV1/OR15-4\*01

1 sequences assigned  
No exact matches.



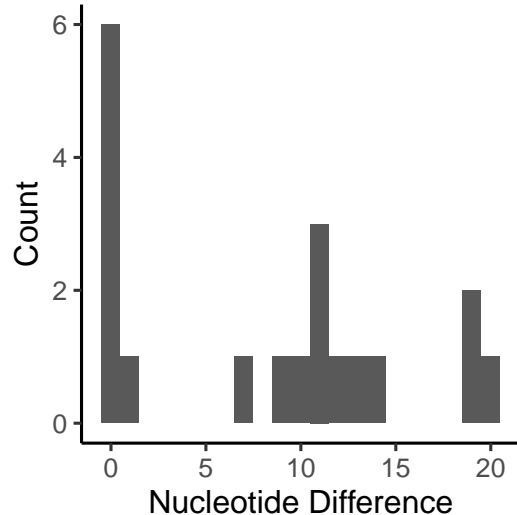
### IGHV1/OR15-9\*01

1 sequences assigned  
No exact matches.



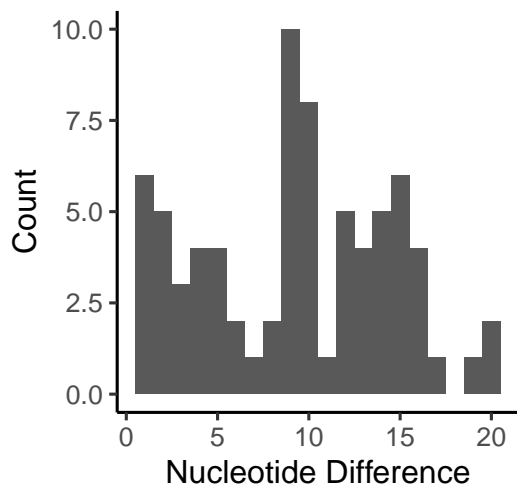
### IGHV5-51\*06

23 sequences assigned  
6 (26.1%) exact matches, in which:  
6 unique CDR3  
5 unique J



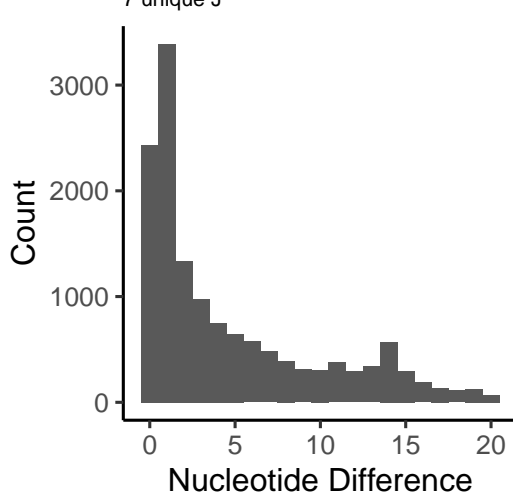
### IGHV4/OR15-8\*01

79 sequences assigned  
No exact matches.



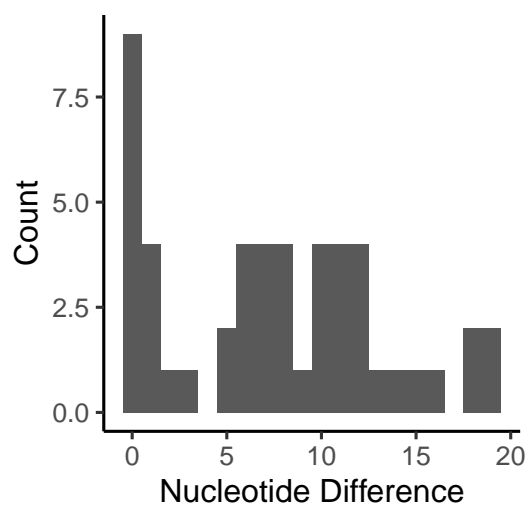
### IGHV5-10-1\*01\_03

14268 sequences assigned  
2434 (17.1%) exact matches, in which:  
1343 unique CDR3  
7 unique J



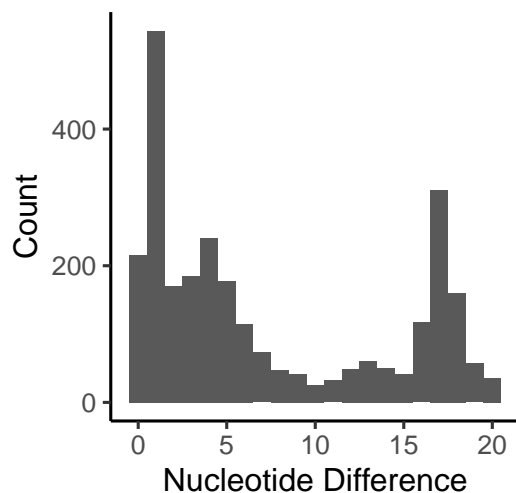
### IGHV5-51\*07

56 sequences assigned  
9 (16.1%) exact matches, in which:  
9 unique CDR3  
5 unique J



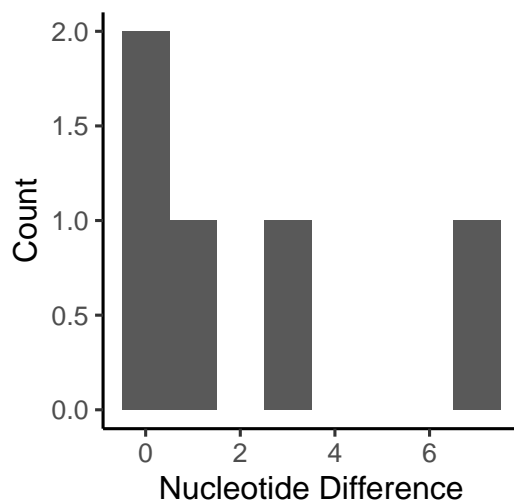
## IGHV6-1\*01\_02

2850 sequences assigned  
216 (7.6%) exact matches, in which:  
168 unique CDR3  
6 unique J



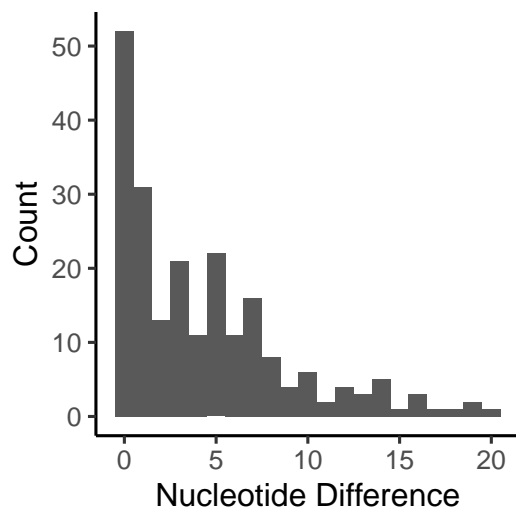
## IGHV7-81\*01

5 sequences assigned  
2 (40%) exact matches, in which:  
2 unique CDR3  
2 unique J



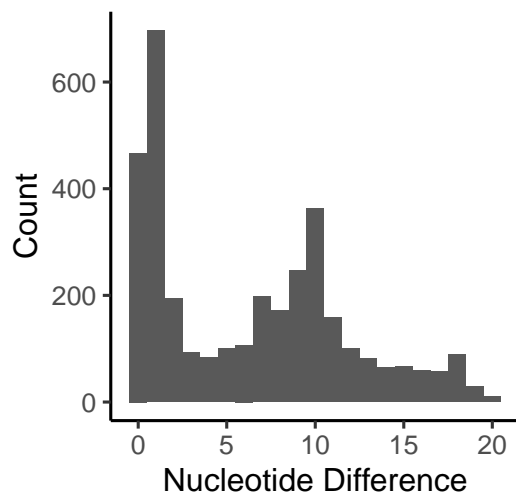
## IGHV6-1\*01\_02\_A315G

223 sequences assigned  
52 (23.3%) exact matches, in which:  
52 unique CDR3  
7 unique J

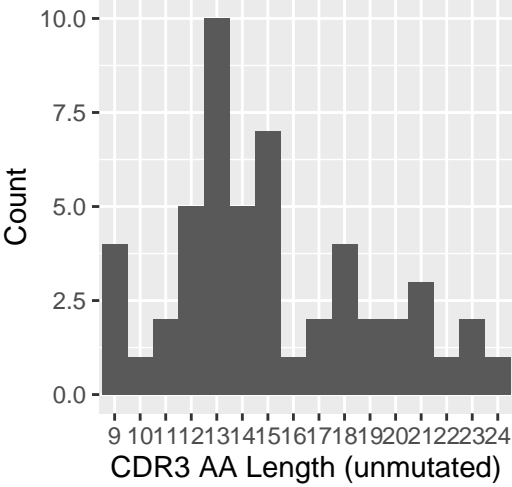


## IGHV7-4-1\*02

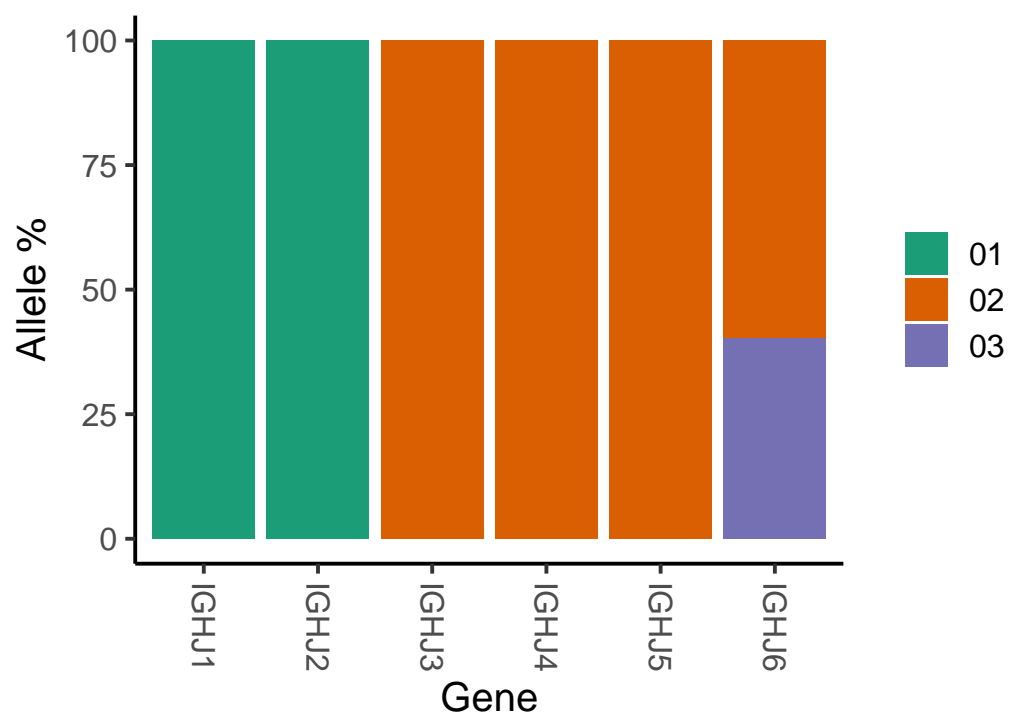
3623 sequences assigned  
467 (12.9%) exact matches, in which:  
360 unique CDR3  
7 unique J



IGHV6-1\*01\_02\_A315G



Allele Usage





Sequence Count by IGHJ6 allele usage

