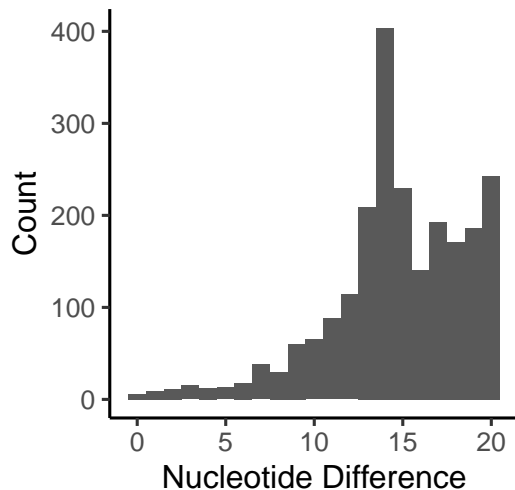


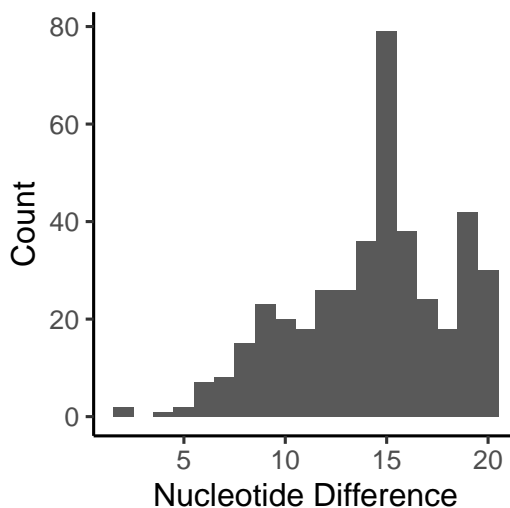
### IGHV1-2\*02

4235 sequences assigned  
6 (0.1%) exact matches, in which:  
5 unique CDR3  
2 unique J



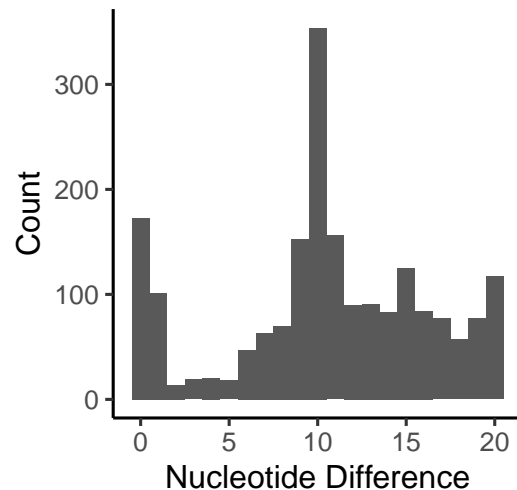
### IGHV1-3\*04

736 sequences assigned  
No exact matches.



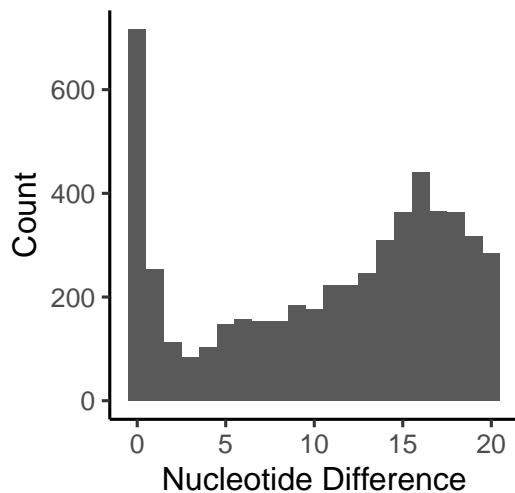
### IGHV1-24\*01

2333 sequences assigned  
173 (7.4%) exact matches, in which:  
83 unique CDR3  
5 unique J



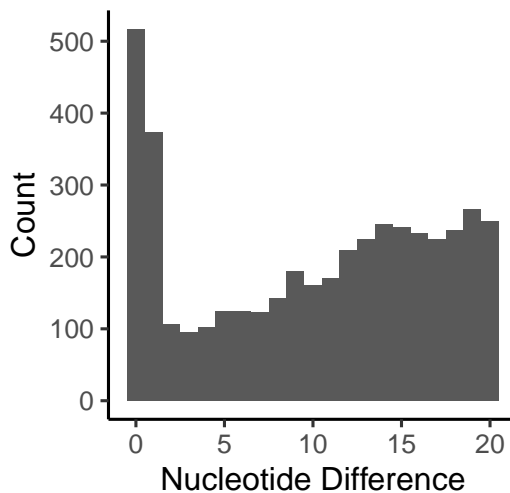
### IGHV1-2\*06

8796 sequences assigned  
717 (8.2%) exact matches, in which:  
352 unique CDR3  
6 unique J



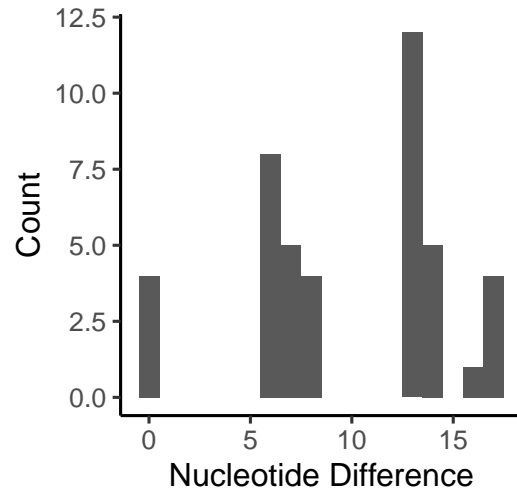
### IGHV1-8\*01

6874 sequences assigned  
517 (7.5%) exact matches, in which:  
270 unique CDR3  
6 unique J



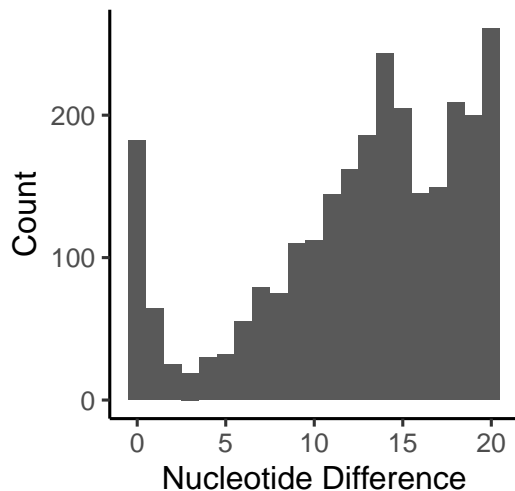
### IGHV1-45\*02

93 sequences assigned  
4 (4.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



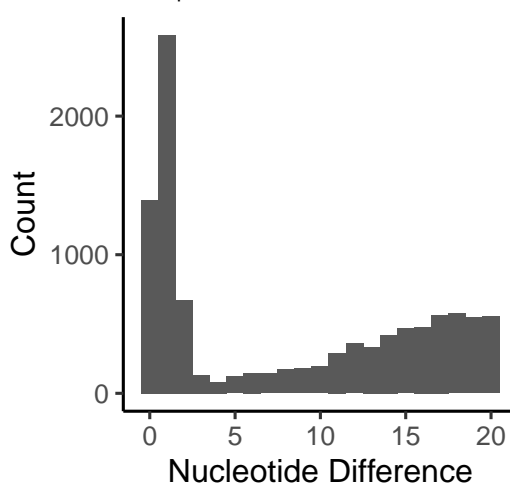
### IGHV1-3\*01

3772 sequences assigned  
182 (4.8%) exact matches, in which:  
99 unique CDR3  
5 unique J



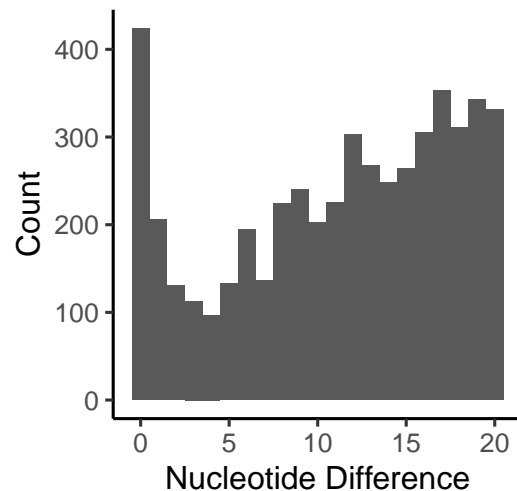
### IGHV1-18\*01

14583 sequences assigned  
1395 (9.6%) exact matches, in which:  
507 unique CDR3  
5 unique J



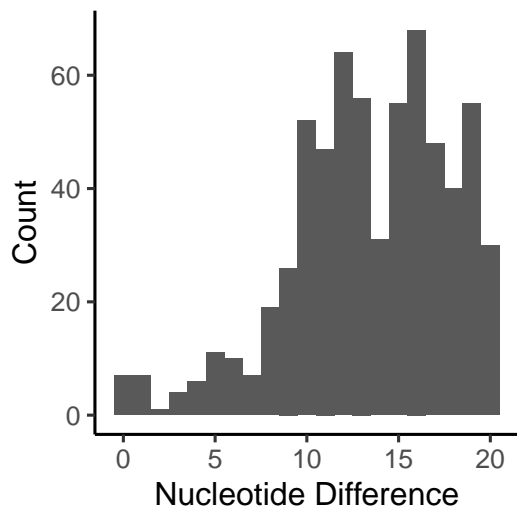
### IGHV1-46\*01

9035 sequences assigned  
424 (4.7%) exact matches, in which:  
238 unique CDR3  
6 unique J



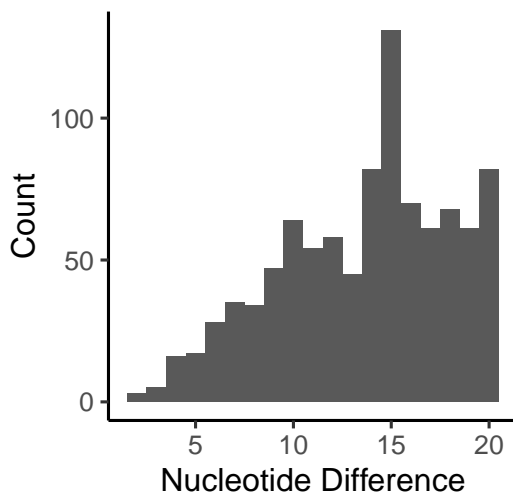
### IGHV1-46\*03

1554 sequences assigned  
7 (0.5%) exact matches, in which:  
3 unique CDR3  
2 unique J



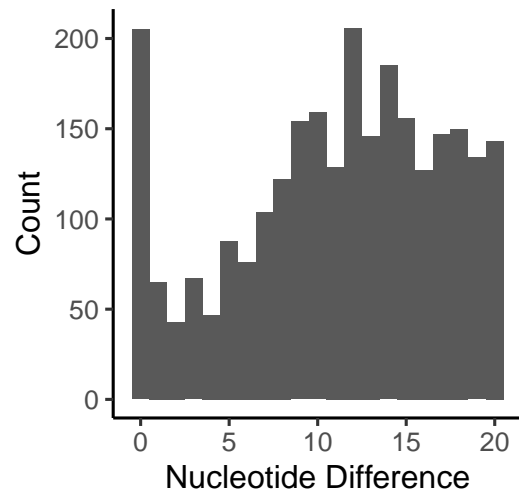
### IGHV2-5\*02

1542 sequences assigned  
No exact matches.



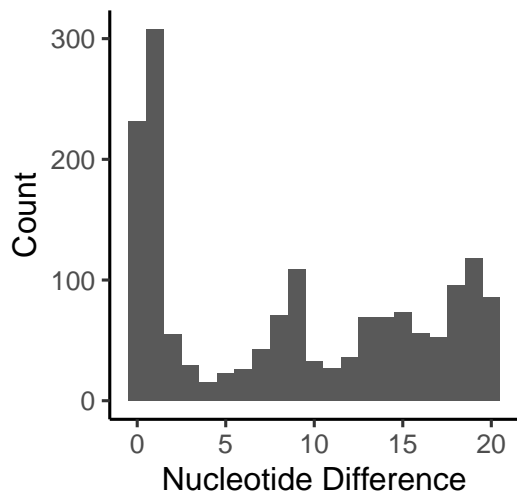
### IGHV3-7\*01

3400 sequences assigned  
205 (6%) exact matches, in which:  
125 unique CDR3  
6 unique J



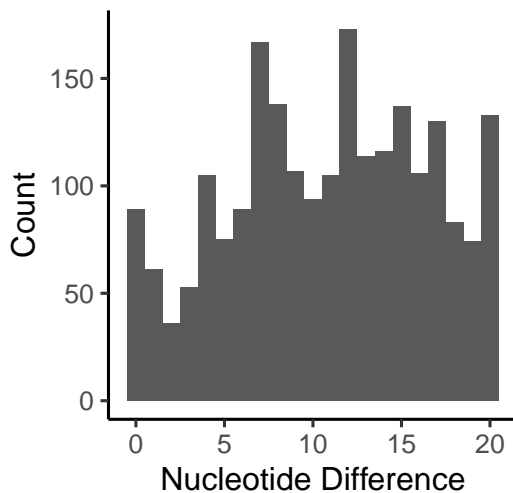
### IGHV1-58\*01

2699 sequences assigned  
232 (8.6%) exact matches, in which:  
108 unique CDR3  
6 unique J



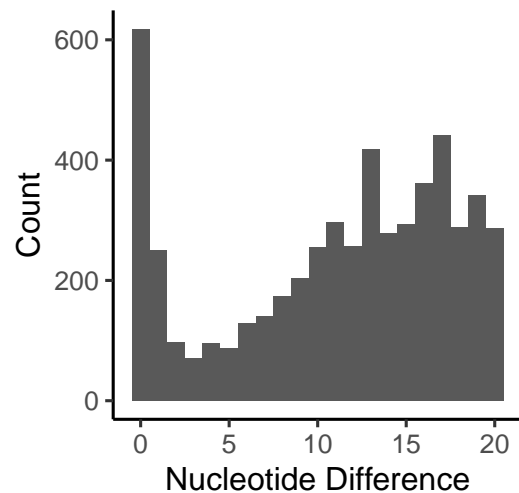
### IGHV2-26\*01

2704 sequences assigned  
89 (3.3%) exact matches, in which:  
66 unique CDR3  
5 unique J



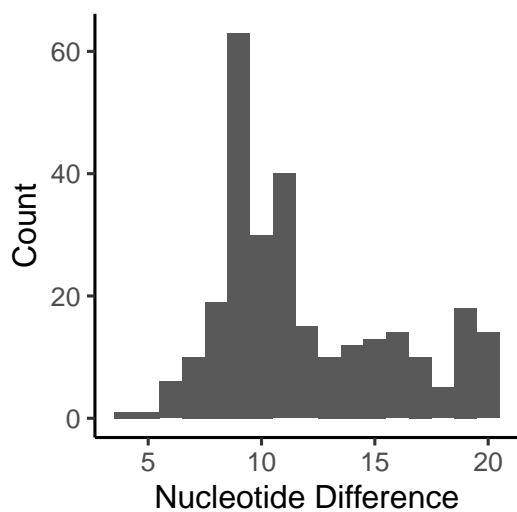
### IGHV3-9\*01

7144 sequences assigned  
618 (8.7%) exact matches, in which:  
336 unique CDR3  
6 unique J



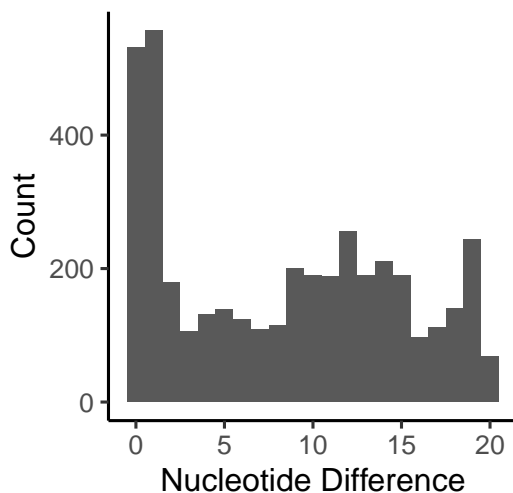
### IGHV2-5\*01

303 sequences assigned  
No exact matches.



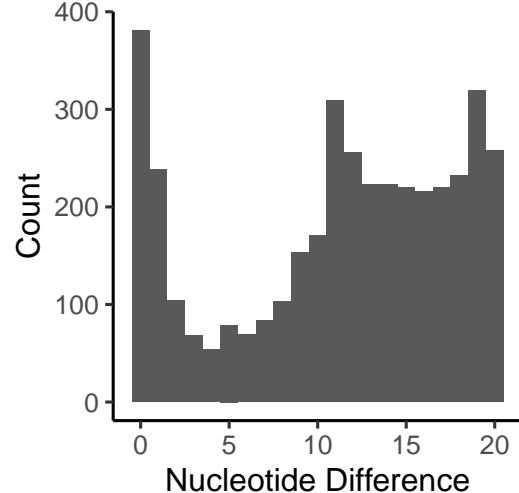
### IGHV2-70\*01

4476 sequences assigned  
531 (11.9%) exact matches, in which:  
291 unique CDR3  
5 unique J



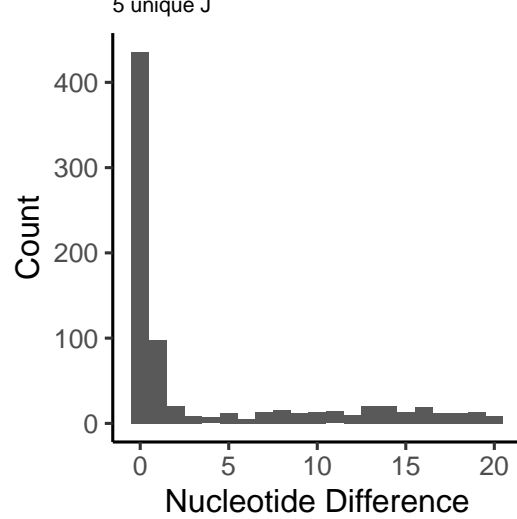
### IGHV3-11\*01

5818 sequences assigned  
381 (6.5%) exact matches, in which:  
189 unique CDR3  
6 unique J



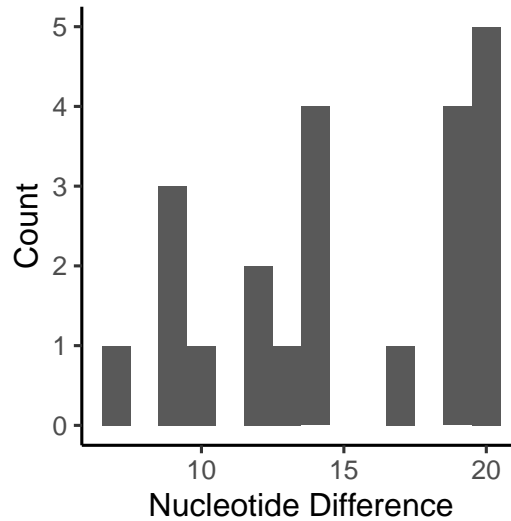
### IGHV3-13\*01

909 sequences assigned  
436 (48%) exact matches, in which:  
215 unique CDR3  
5 unique J



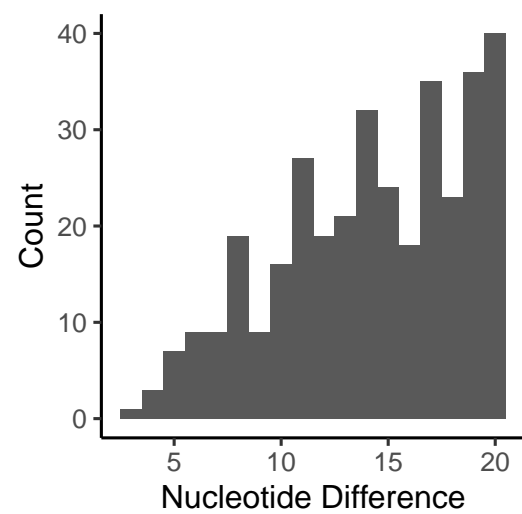
### IGHV3-20\*04

49 sequences assigned  
No exact matches.



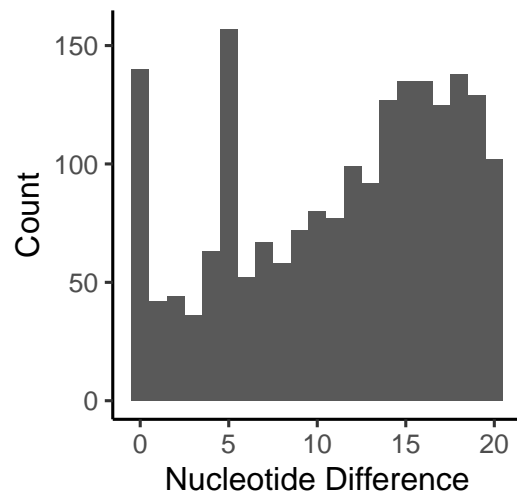
### IGHV3-30-3\*03

700 sequences assigned  
No exact matches.



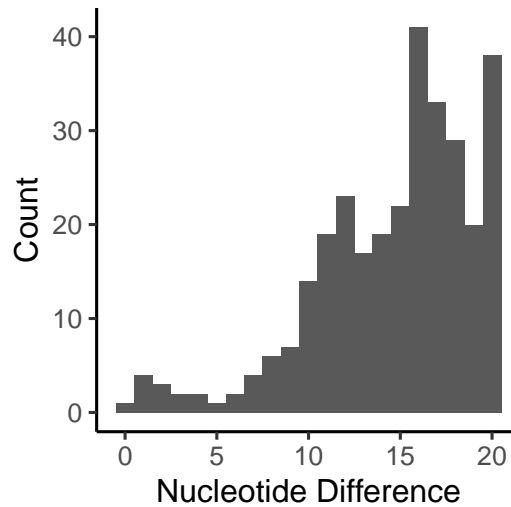
### IGHV3-15\*01

2918 sequences assigned  
140 (4.8%) exact matches, in which:  
89 unique CDR3  
6 unique J



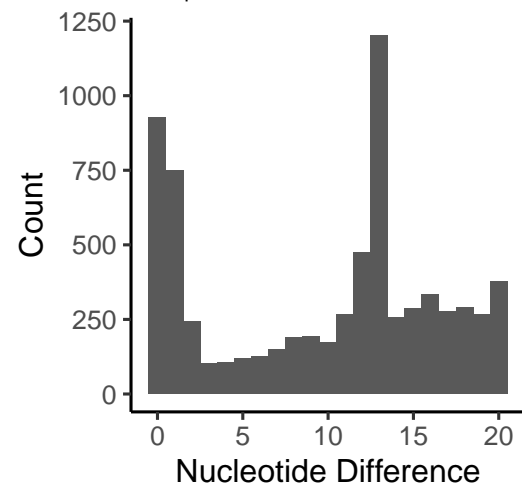
### IGHV3-21\*06

585 sequences assigned  
1 (0.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



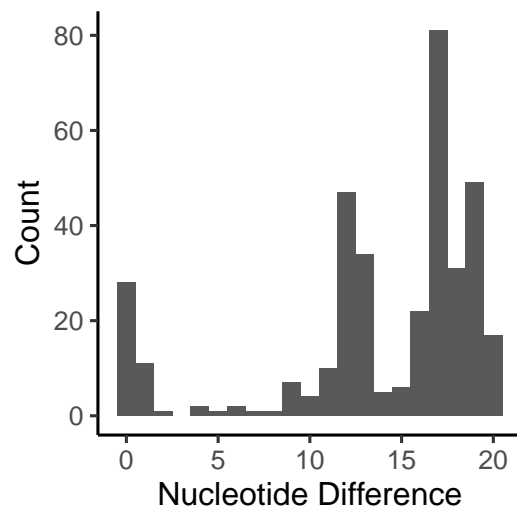
### IGHV3-33\*01

8609 sequences assigned  
928 (10.8%) exact matches, in which:  
444 unique CDR3  
6 unique J



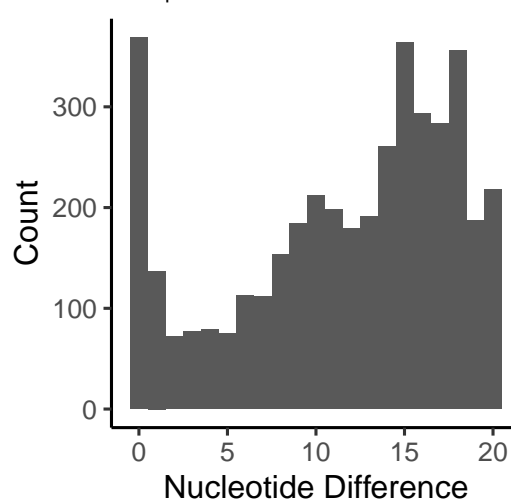
### IGHV3-20\*01

393 sequences assigned  
28 (7.1%) exact matches, in which:  
17 unique CDR3  
4 unique J



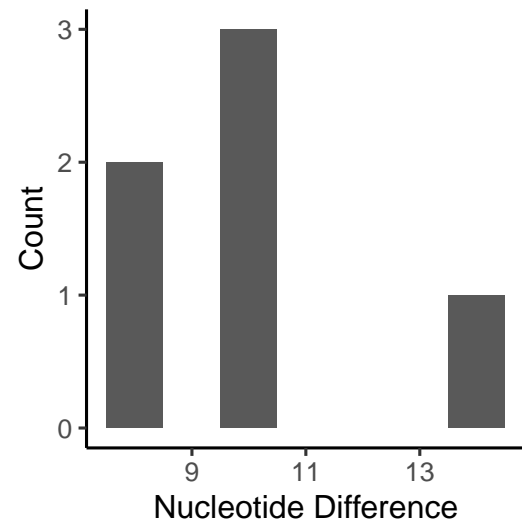
### IGHV3-30-3\*01

6279 sequences assigned  
369 (5.9%) exact matches, in which:  
211 unique CDR3  
6 unique J



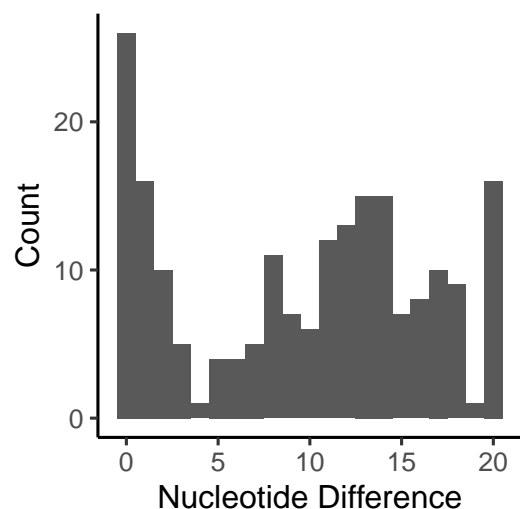
### IGHV3-35\*01

6 sequences assigned  
No exact matches.



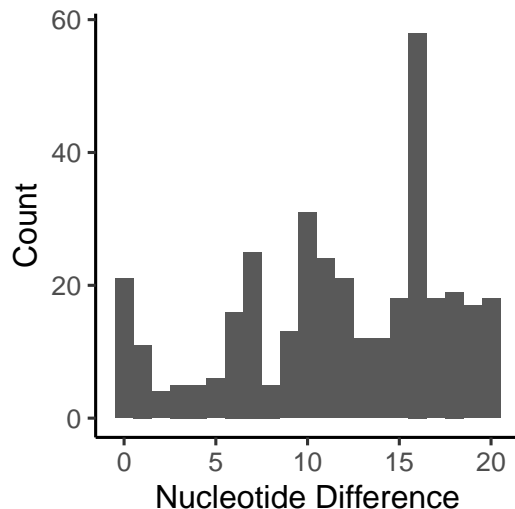
### IGHV3-43\*01

336 sequences assigned  
26 (7.7%) exact matches, in which:  
14 unique CDR3  
3 unique J



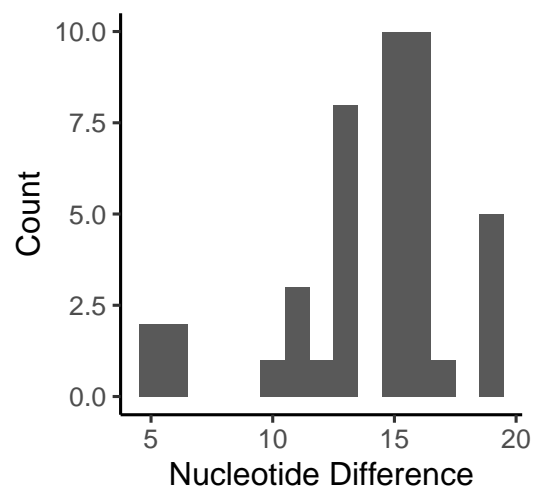
### IGHV3-49\*03

480 sequences assigned  
21 (4.4%) exact matches, in which:  
12 unique CDR3  
3 unique J



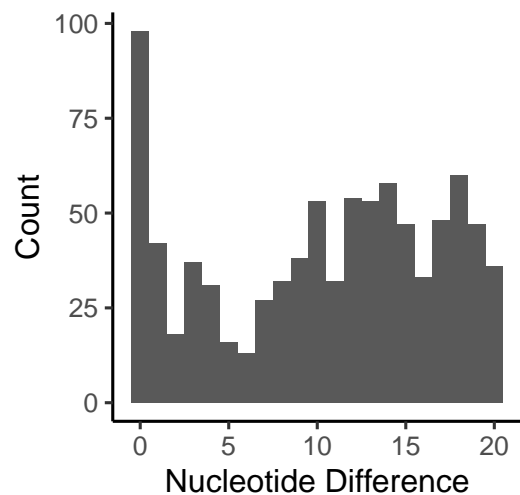
### IGHV3-64\*02

45 sequences assigned  
No exact matches.



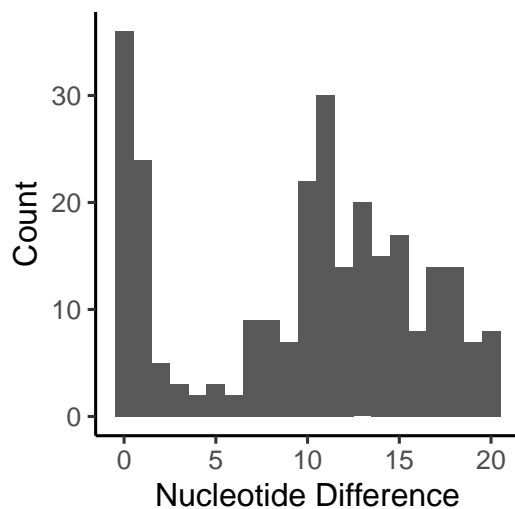
### IGHV3-48\*01

1214 sequences assigned  
98 (8.1%) exact matches, in which:  
66 unique CDR3  
6 unique J



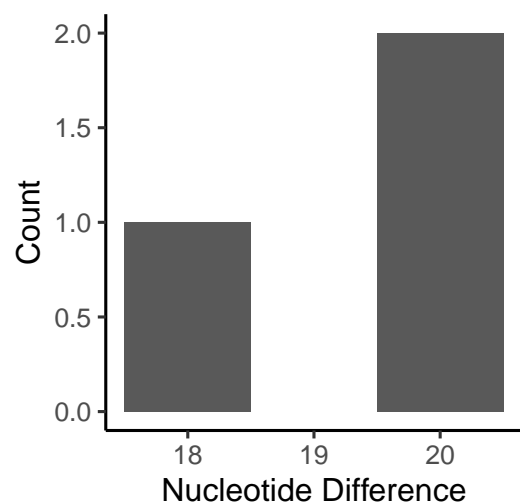
### IGHV3-49\*05

450 sequences assigned  
36 (8%) exact matches, in which:  
18 unique CDR3  
4 unique J



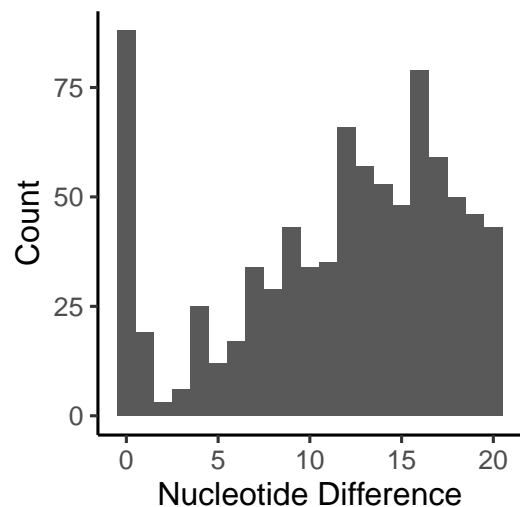
### IGHV3-64\*07

20 sequences assigned  
No exact matches.



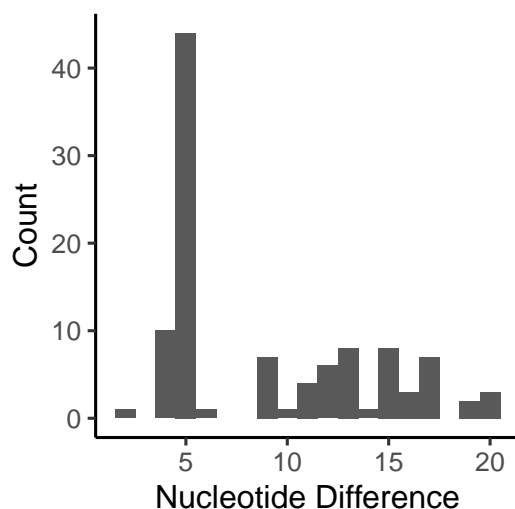
### IGHV3-48\*02

1421 sequences assigned  
88 (6.2%) exact matches, in which:  
60 unique CDR3  
5 unique J



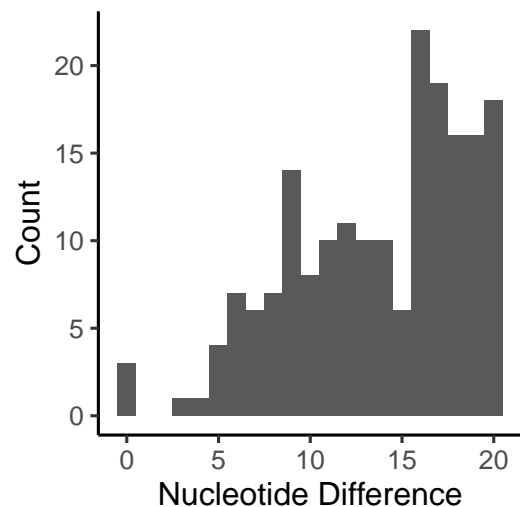
### IGHV3-64\*01

133 sequences assigned  
No exact matches.



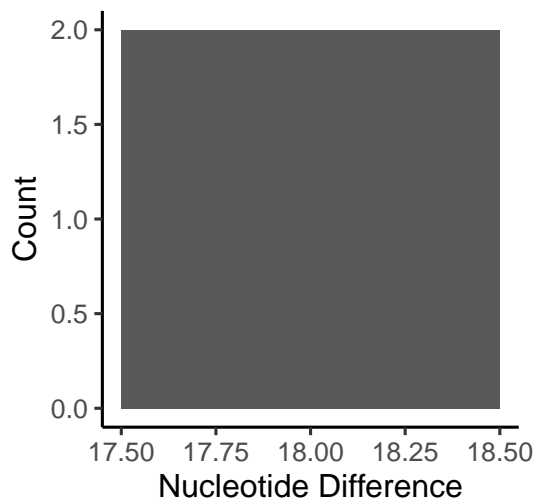
### IGHV3-66\*02

402 sequences assigned  
3 (0.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



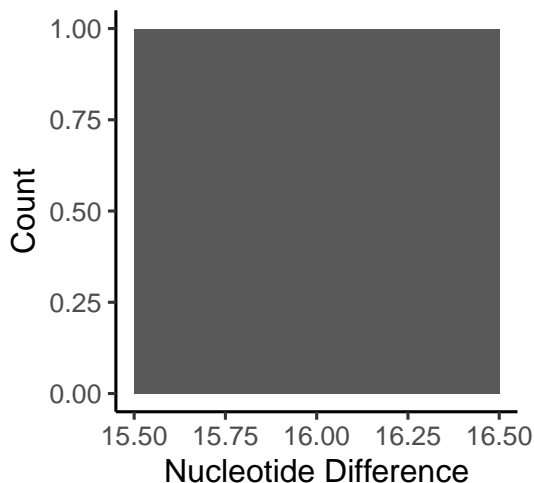
### IGHV3-69-1\*01

3 sequences assigned  
No exact matches.



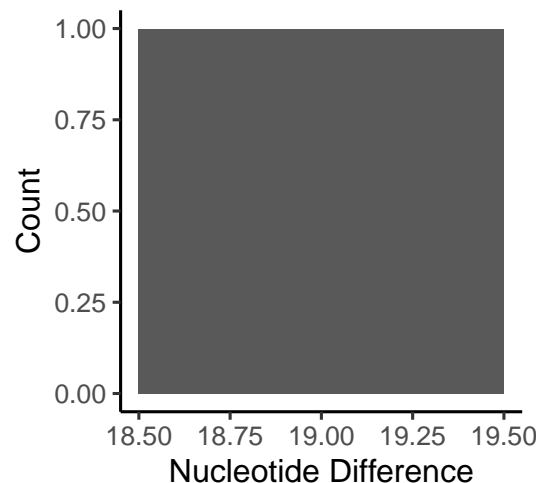
### IGHV3-73\*01

1 sequences assigned  
No exact matches.



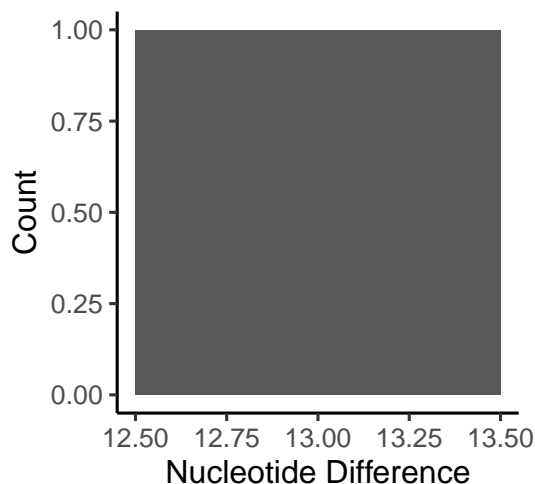
### IGHV3-NL1\*01

1 sequences assigned  
No exact matches.



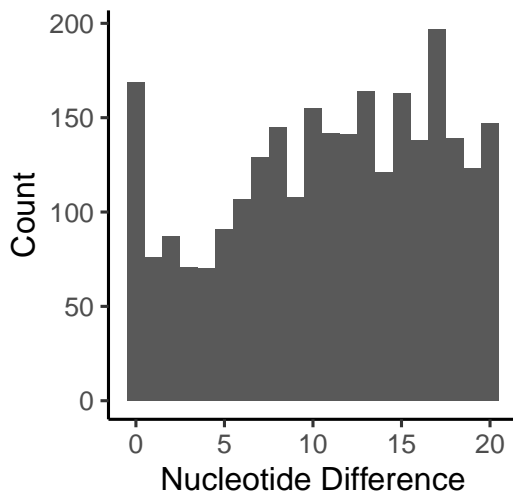
### IGHV3-69-1\*02

1 sequences assigned  
No exact matches.



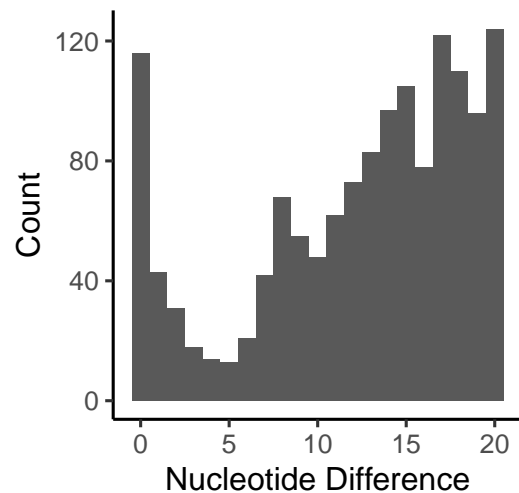
### IGHV3-74\*01

3959 sequences assigned  
169 (4.3%) exact matches, in which:  
90 unique CDR3  
6 unique J



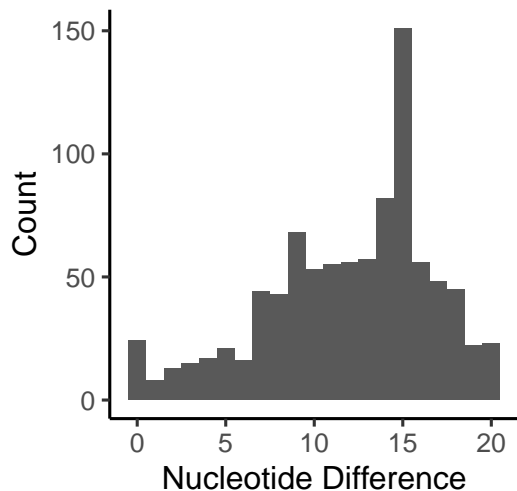
### IGHV4-4\*02

2354 sequences assigned  
116 (4.9%) exact matches, in which:  
99 unique CDR3  
5 unique J



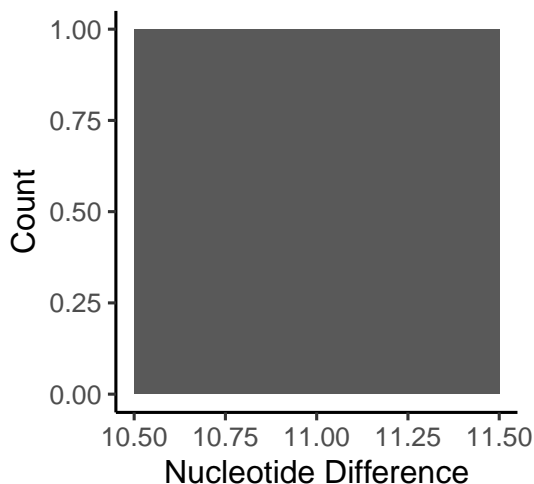
### IGHV3-72\*01

1103 sequences assigned  
24 (2.2%) exact matches, in which:  
13 unique CDR3  
4 unique J



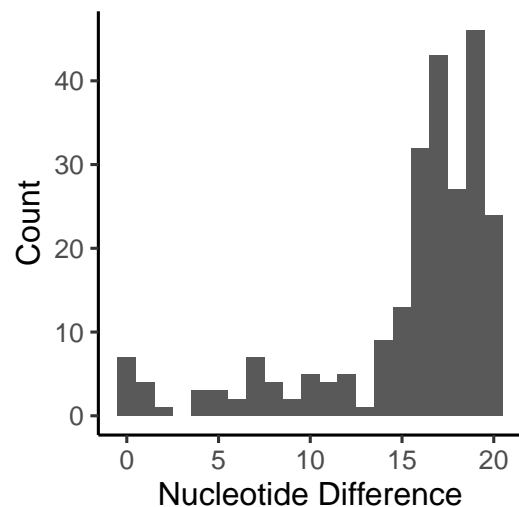
### IGHV3-43D\*03

1 sequences assigned  
No exact matches.



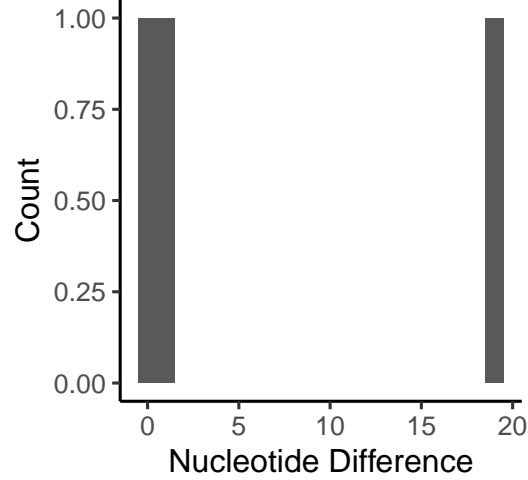
### IGHV4-4\*07

535 sequences assigned  
7 (1.3%) exact matches, in which:  
6 unique CDR3  
3 unique J



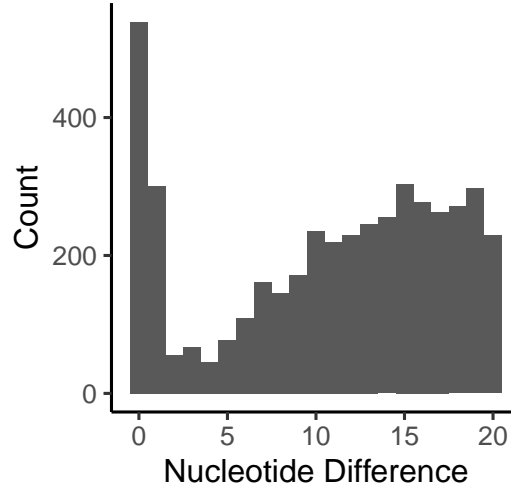
### IGHV4–28\*03

4 sequences assigned  
1 (25%) exact matches, in which:  
1 unique CDR3  
1 unique J



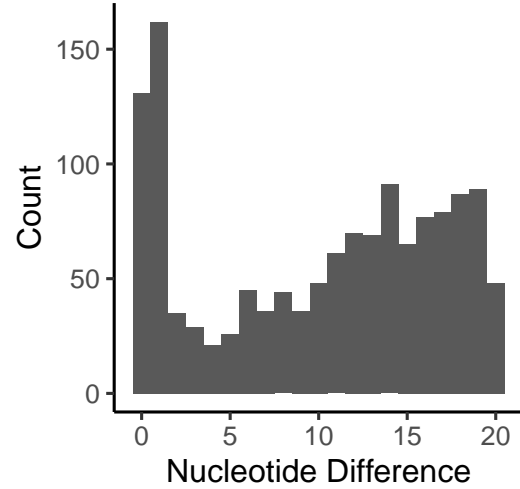
### IGHV4–31\*03

6037 sequences assigned  
539 (8.9%) exact matches, in which:  
329 unique CDR3  
6 unique J



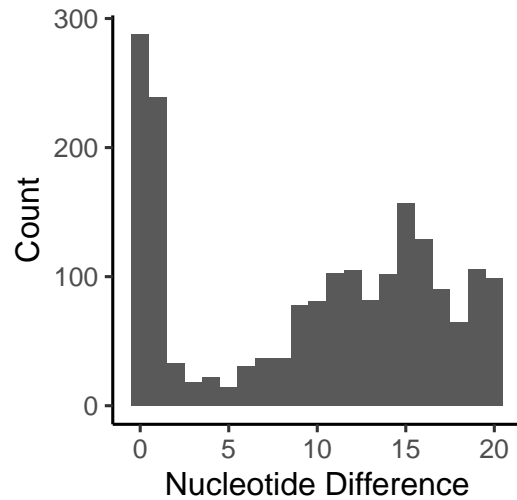
### IGHV4–61\*01

1996 sequences assigned  
131 (6.6%) exact matches, in which:  
81 unique CDR3  
5 unique J



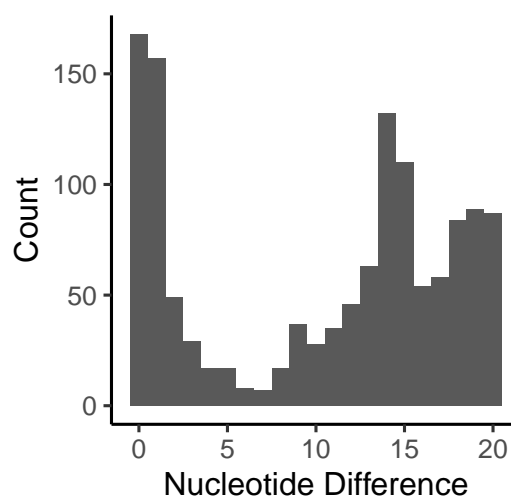
### IGHV4–30–4\*01

2511 sequences assigned  
288 (11.5%) exact matches, in which:  
163 unique CDR3  
5 unique J



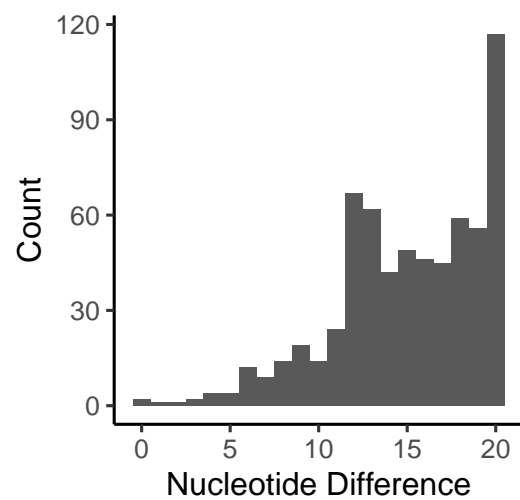
### IGHV4–39\*01

2729 sequences assigned  
168 (6.2%) exact matches, in which:  
145 unique CDR3  
6 unique J



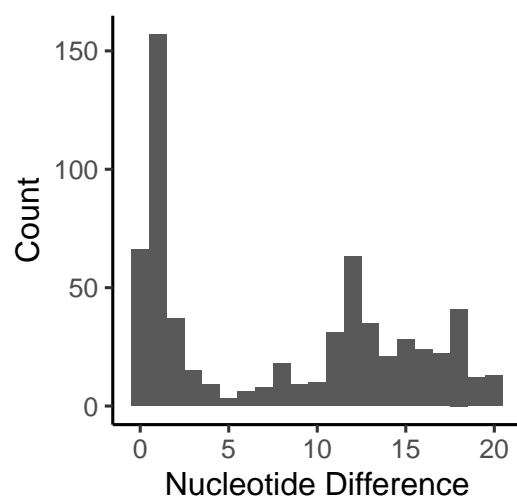
### IGHV4–61\*02

1414 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
1 unique J



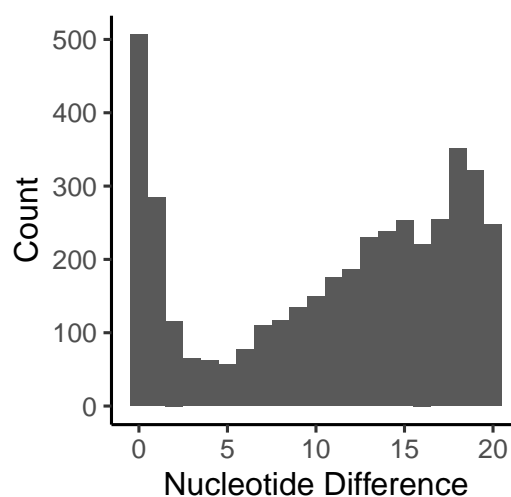
### IGHV4–30–2\*01

825 sequences assigned  
66 (8%) exact matches, in which:  
30 unique CDR3  
5 unique J



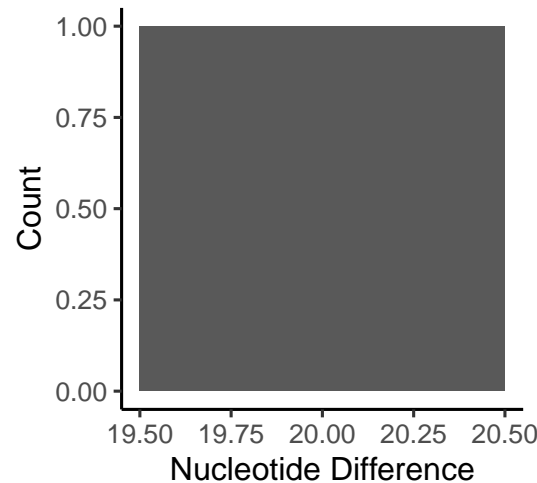
### IGHV4–59\*01

6376 sequences assigned  
507 (8%) exact matches, in which:  
314 unique CDR3  
6 unique J



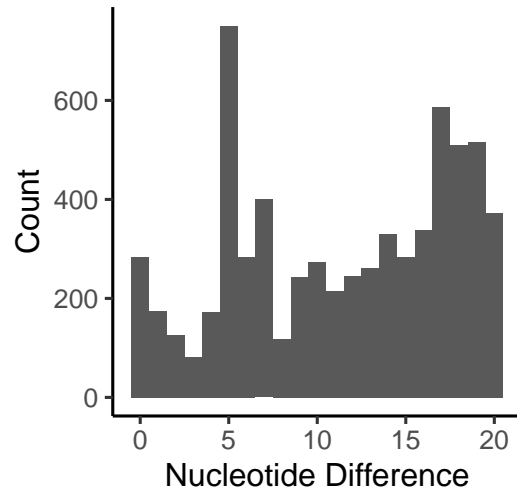
### IGHV1/OR15–1\*04

3 sequences assigned  
No exact matches.



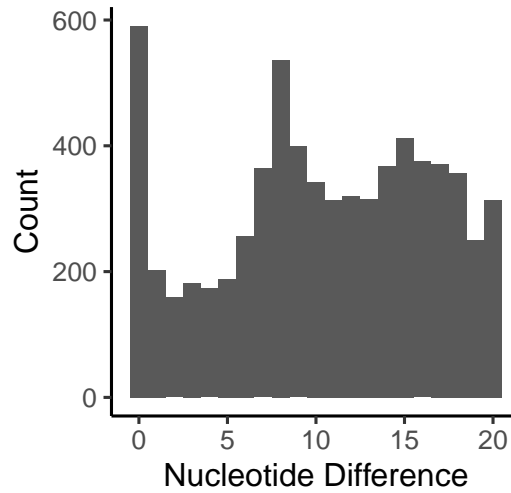
### IGHV5-51\*01

8363 sequences assigned  
283 (3.4%) exact matches, in which:  
144 unique CDR3  
6 unique J



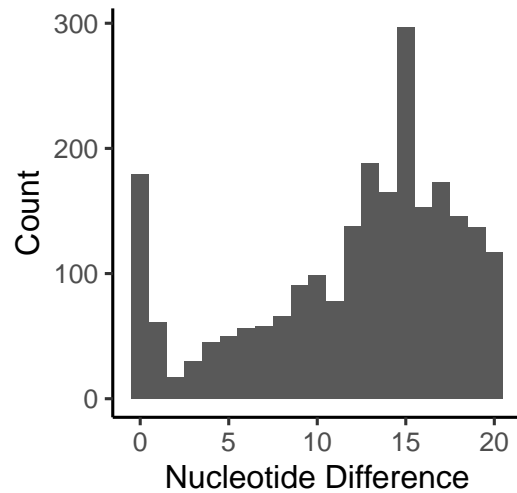
### IGHV7-4-1\*02

9142 sequences assigned  
591 (6.5%) exact matches, in which:  
303 unique CDR3  
6 unique J



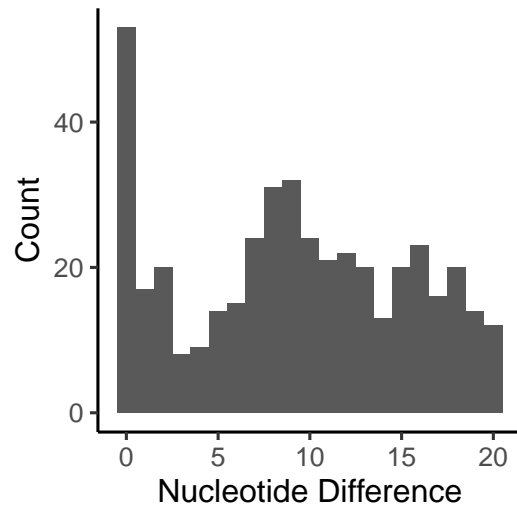
### IGHV5-51\*03

3376 sequences assigned  
179 (5.3%) exact matches, in which:  
81 unique CDR3  
6 unique J



### IGHV6-1\*01

520 sequences assigned  
53 (10.2%) exact matches, in which:  
29 unique CDR3  
5 unique J







[illegible]