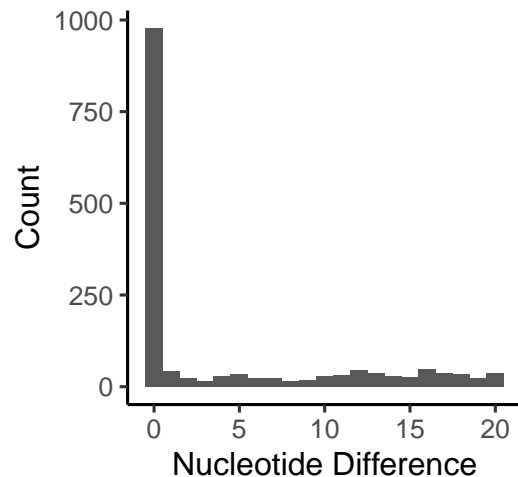


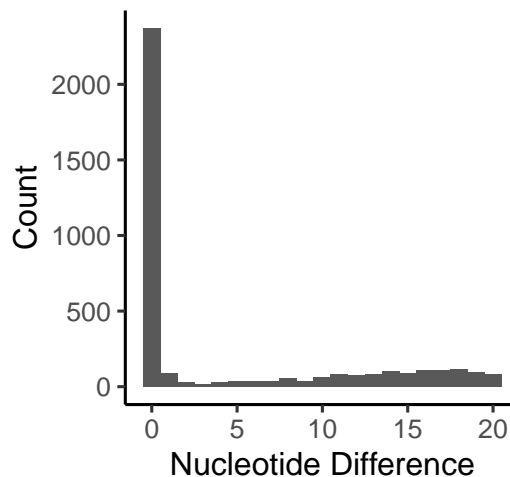
### IGHV1-2\*04

1764 sequences assigned  
977 (55.4%) exact matches, in which:  
809 unique CDR3  
6 unique J



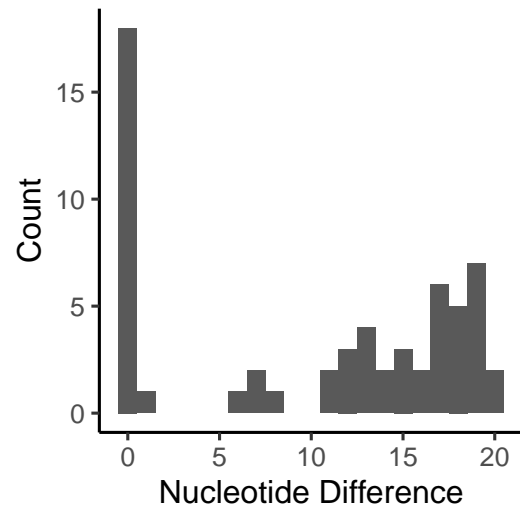
### IGHV1-18\*01

4513 sequences assigned  
2370 (52.5%) exact matches, in which:  
1928 unique CDR3  
6 unique J



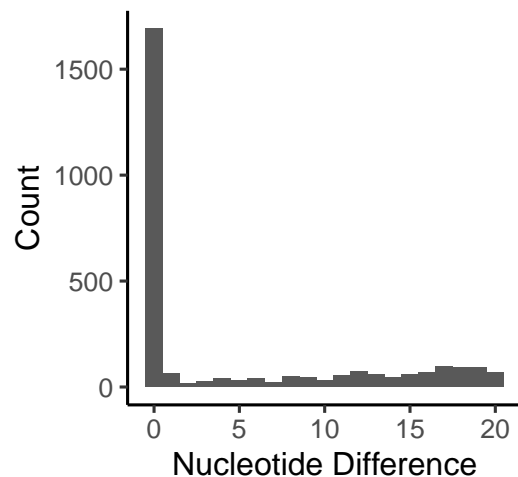
### IGHV1-45\*02

154 sequences assigned  
18 (11.7%) exact matches, in which:  
14 unique CDR3  
5 unique J



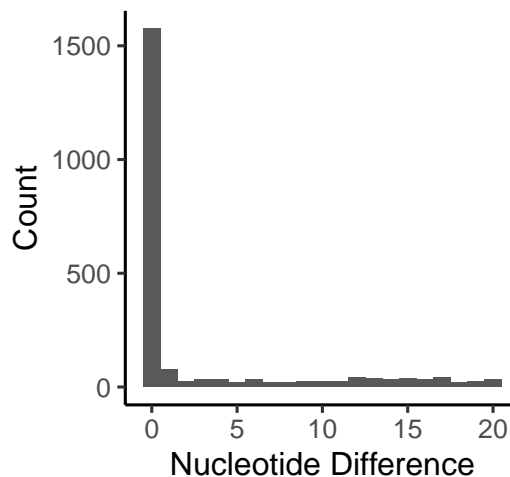
### IGHV1-3\*01

3554 sequences assigned  
1691 (47.6%) exact matches, in which:  
1431 unique CDR3  
6 unique J



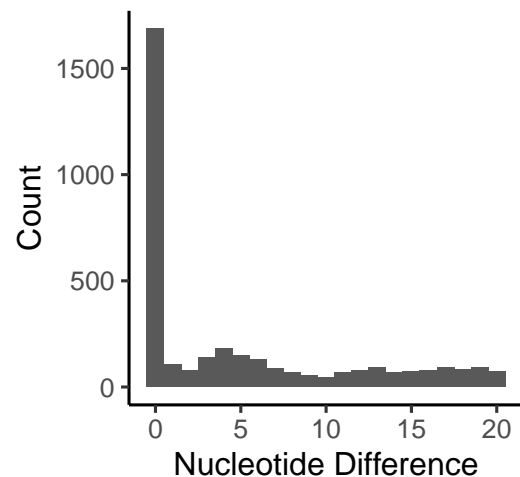
### IGHV1-18\*04

2511 sequences assigned  
1575 (62.7%) exact matches, in which:  
1283 unique CDR3  
6 unique J



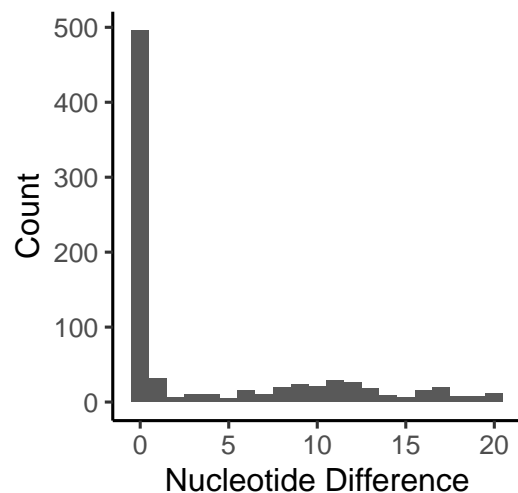
### IGHV1-46\*01

4410 sequences assigned  
1687 (38.3%) exact matches, in which:  
1311 unique CDR3  
6 unique J



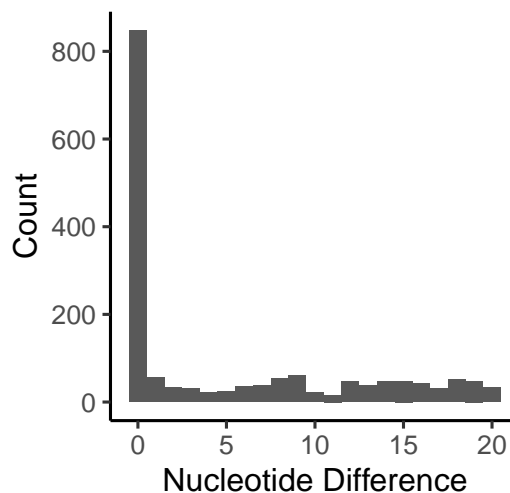
### IGHV1-8\*01

911 sequences assigned  
496 (54.4%) exact matches, in which:  
410 unique CDR3  
6 unique J



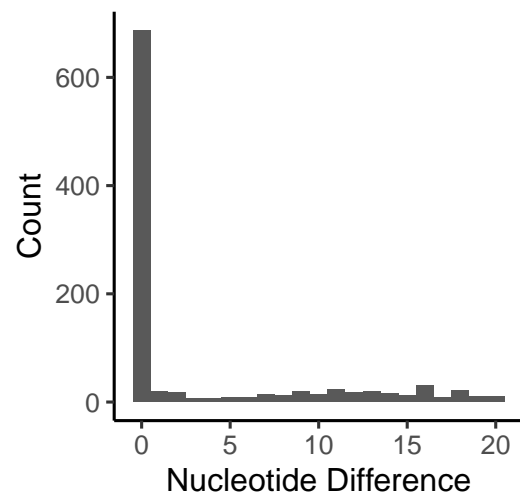
### IGHV1-24\*01

2047 sequences assigned  
848 (41.4%) exact matches, in which:  
710 unique CDR3  
6 unique J



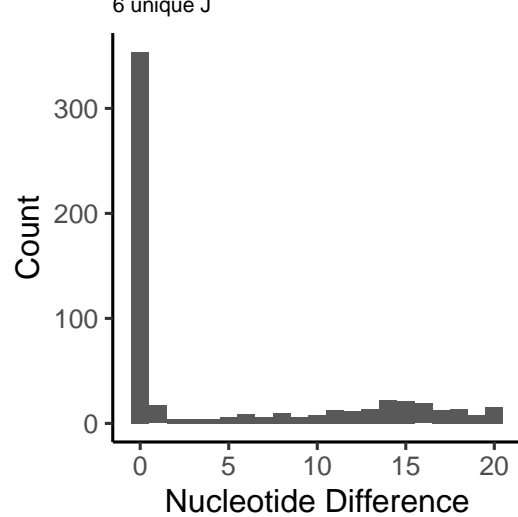
### IGHV1-46\*03

1097 sequences assigned  
687 (62.6%) exact matches, in which:  
556 unique CDR3  
6 unique J



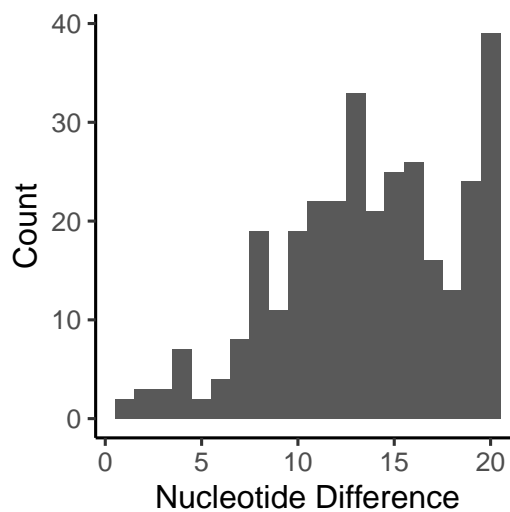
### IGHV1–58\*01

666 sequences assigned  
354 (53.2%) exact matches, in which:  
260 unique CDR3  
6 unique J



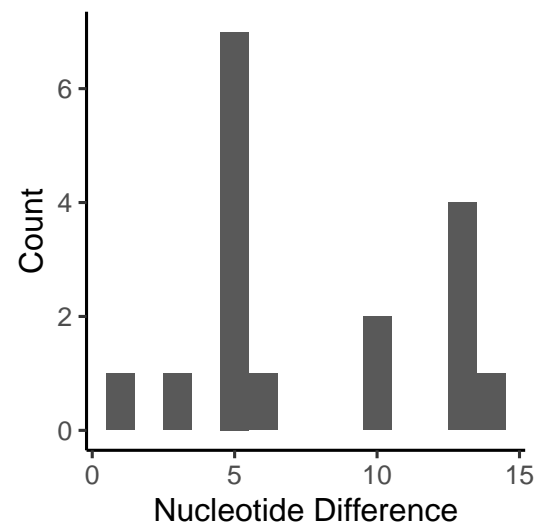
### IGHV2–5\*02

517 sequences assigned  
No exact matches.



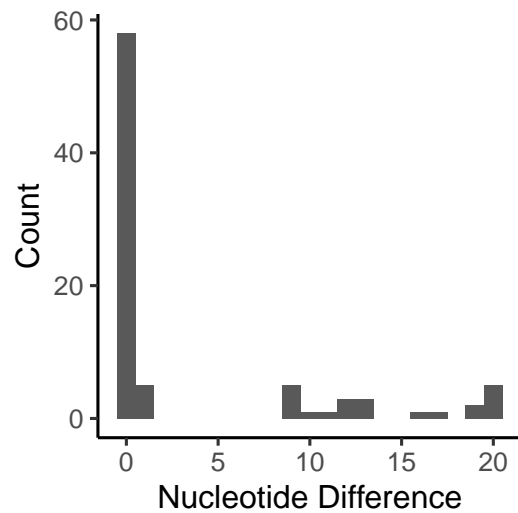
### IGHV2–70D\*04

18 sequences assigned  
No exact matches.



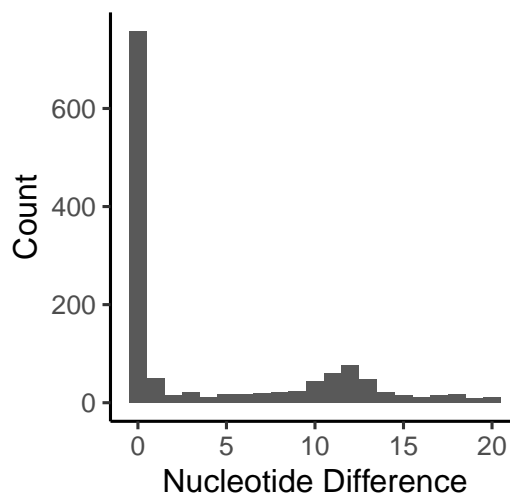
### IGHV1–58\*02

137 sequences assigned  
58 (42.3%) exact matches, in which:  
50 unique CDR3  
5 unique J



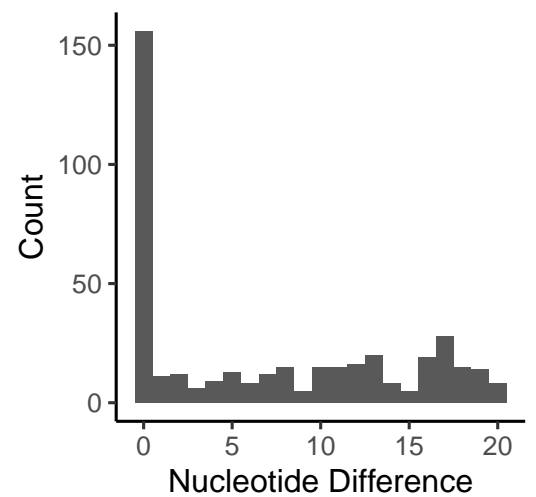
### IGHV2–26\*01

1368 sequences assigned  
758 (55.4%) exact matches, in which:  
640 unique CDR3  
6 unique J



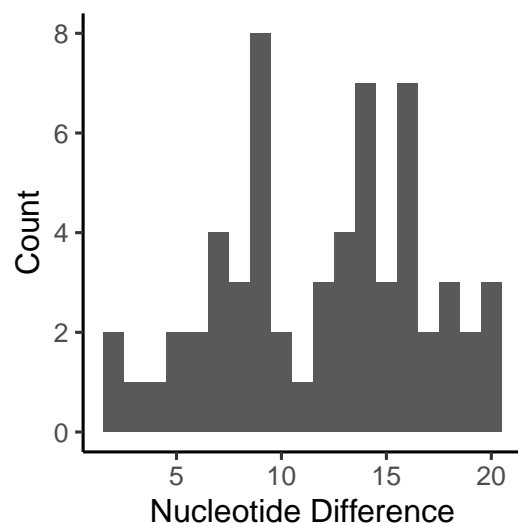
### IGHV3–7\*01

484 sequences assigned  
156 (32.2%) exact matches, in which:  
145 unique CDR3  
4 unique J



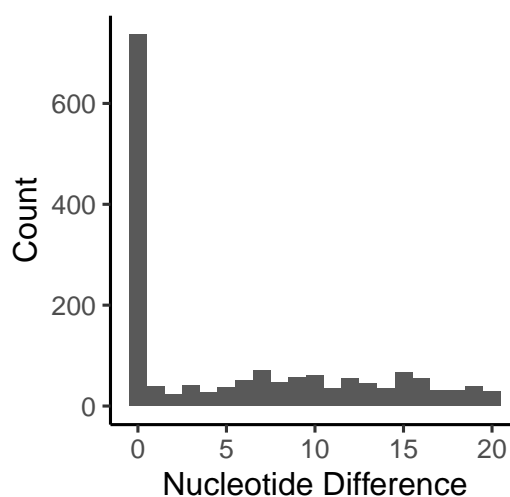
### IGHV2–5\*01

131 sequences assigned  
No exact matches.



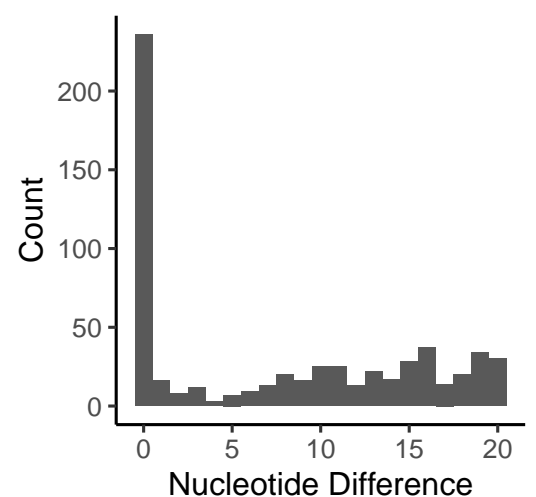
### IGHV2–70\*01

1825 sequences assigned  
737 (40.4%) exact matches, in which:  
554 unique CDR3  
5 unique J

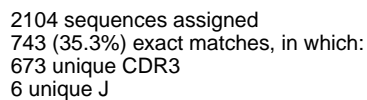


### IGHV3–7\*03

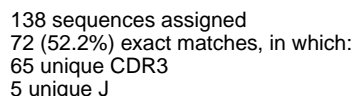
732 sequences assigned  
236 (32.2%) exact matches, in which:  
219 unique CDR3  
6 unique J



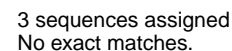
2104 sequences assigned  
743 (35.3%) exact matches, in which:  
673 unique CDR3  
6 unique J



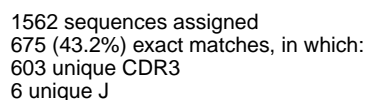
138 sequences assigned  
72 (52.2%) exact matches, in which:  
65 unique CDR3  
5 unique J



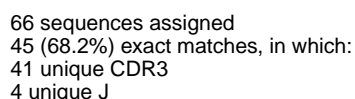
3 sequences assigned  
No exact matches.



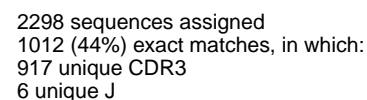
1562 sequences assigned  
675 (43.2%) exact matches, in which:  
603 unique CDR3  
6 unique J



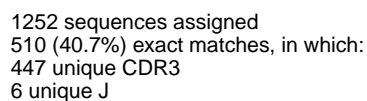
66 sequences assigned  
45 (68.2%) exact matches, in which:  
41 unique CDR3  
4 unique J



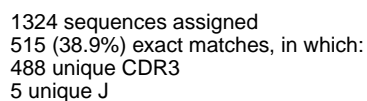
2298 sequences assigned  
1012 (44%) exact matches, in which:  
917 unique CDR3  
6 unique J



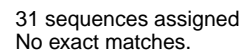
1252 sequences assigned  
510 (40.7%) exact matches, in which:  
447 unique CDR3  
6 unique J



1324 sequences assigned  
515 (38.9%) exact matches, in which:  
488 unique CDR3  
5 unique J

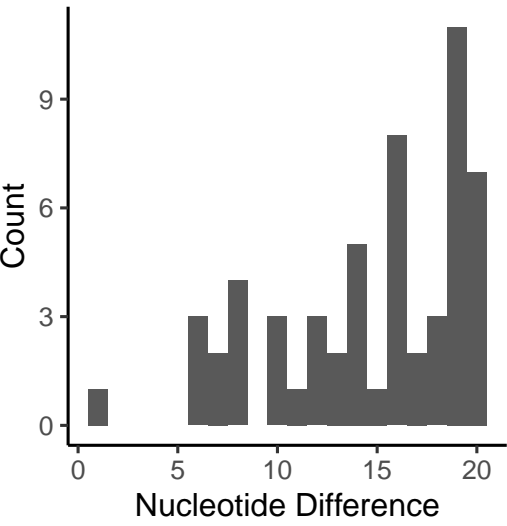


31 sequences assigned  
No exact matches.



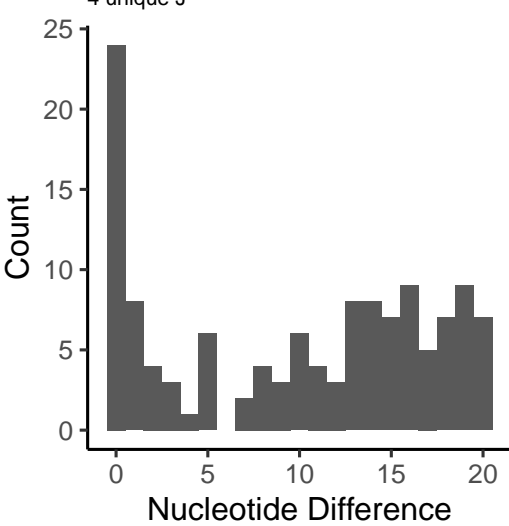
IGHV3-30-3\*03

109 sequences assigned  
No exact matches.



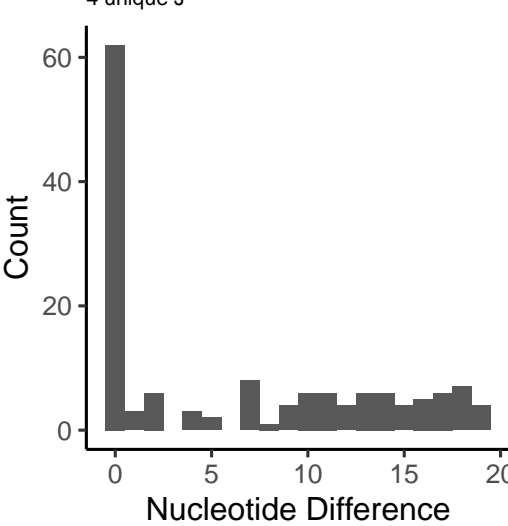
IGHV3-43\*01

200 sequences assigned  
24 (12%) exact matches, in which:  
20 unique CDR3  
4 unique J



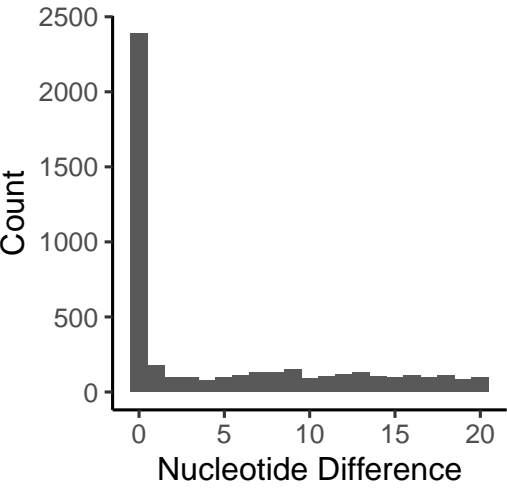
IGHV3-49\*04

235 sequences assigned  
62 (26.4%) exact matches, in which:  
55 unique CDR3  
4 unique J



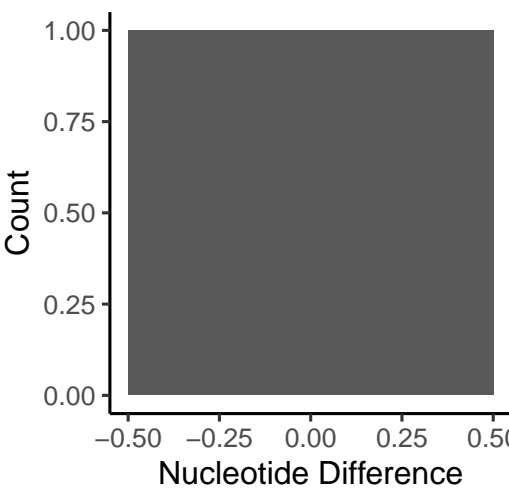
IGHV3-33\*01

5378 sequences assigned  
2387 (44.4%) exact matches, in which:  
2120 unique CDR3  
6 unique J



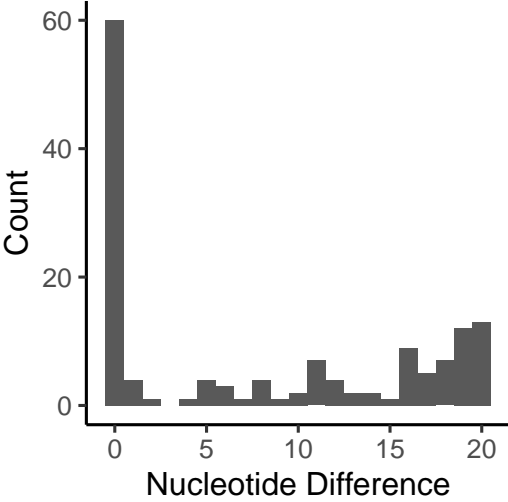
IGHV3-47\*02

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



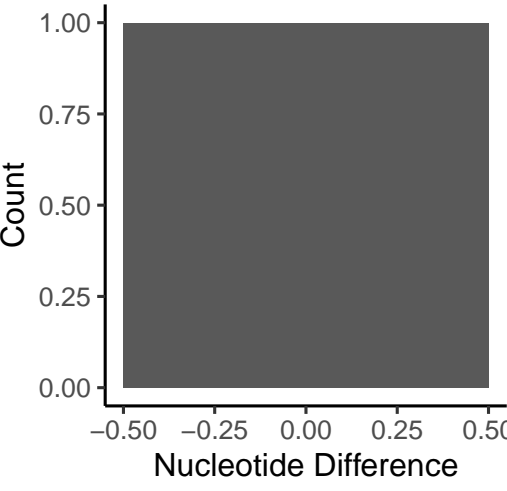
IGHV3-49\*05

211 sequences assigned  
60 (28.4%) exact matches, in which:  
55 unique CDR3  
5 unique J



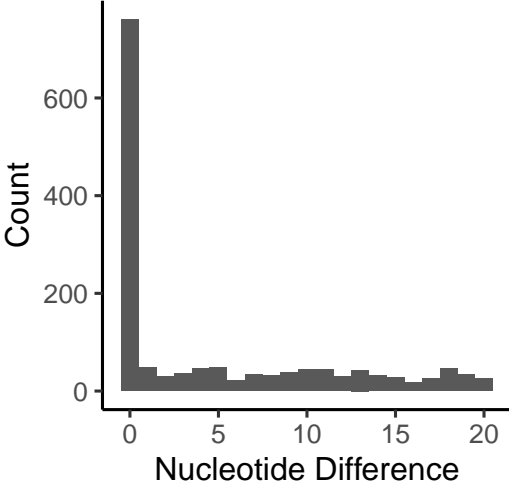
IGHV3-35\*01

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



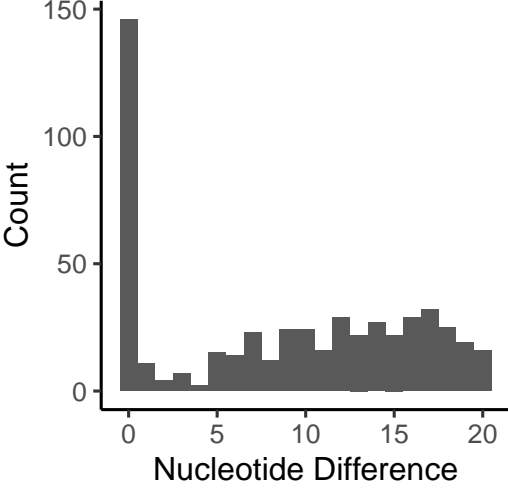
IGHV3-48\*02

1723 sequences assigned  
761 (44.2%) exact matches, in which:  
691 unique CDR3  
6 unique J



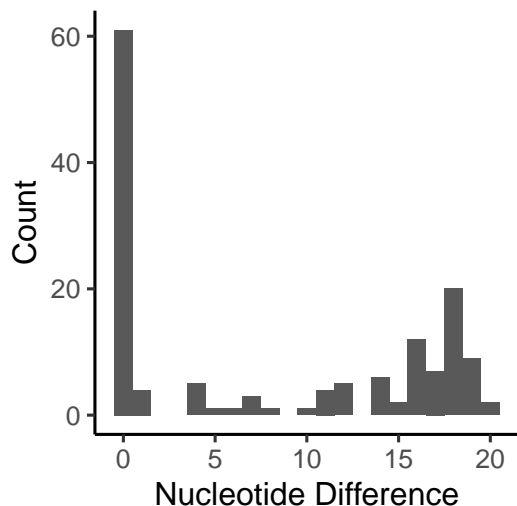
IGHV3-53\*01

704 sequences assigned  
146 (20.7%) exact matches, in which:  
136 unique CDR3  
6 unique J



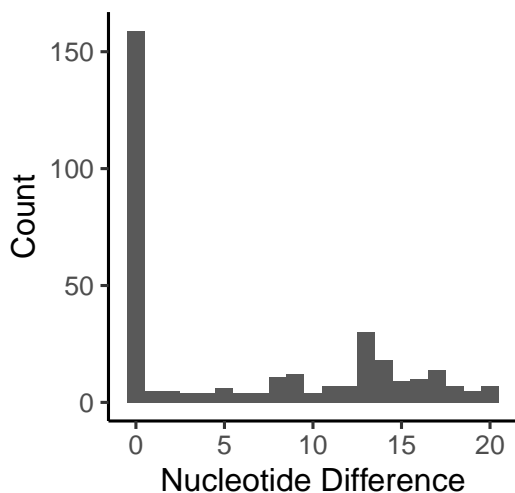
### IGHV3-53\*04

160 sequences assigned  
61 (38.1%) exact matches, in which:  
54 unique CDR3  
5 unique J



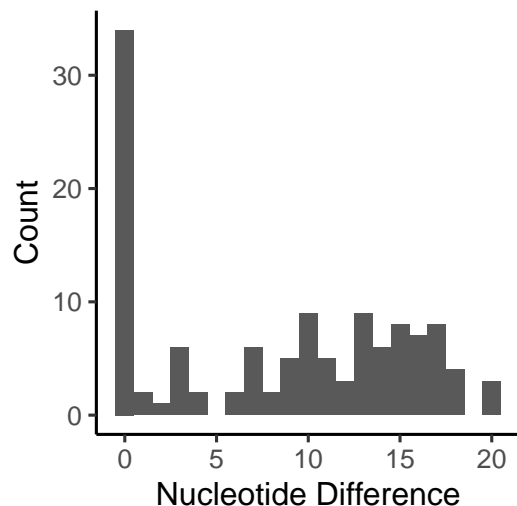
### IGHV3-66\*02

453 sequences assigned  
159 (35.1%) exact matches, in which:  
145 unique CDR3  
6 unique J



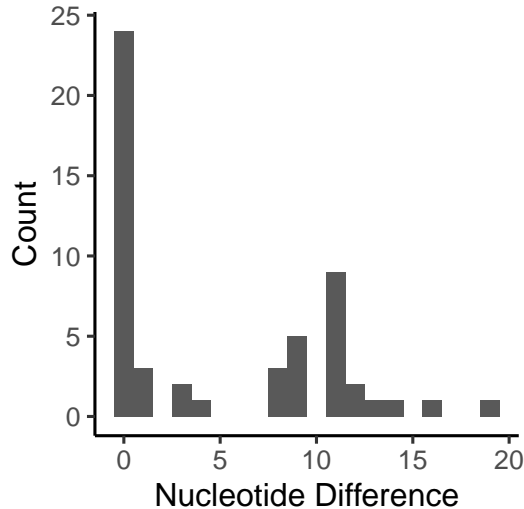
### IGHV3-73\*01

178 sequences assigned  
34 (19.1%) exact matches, in which:  
32 unique CDR3  
4 unique J



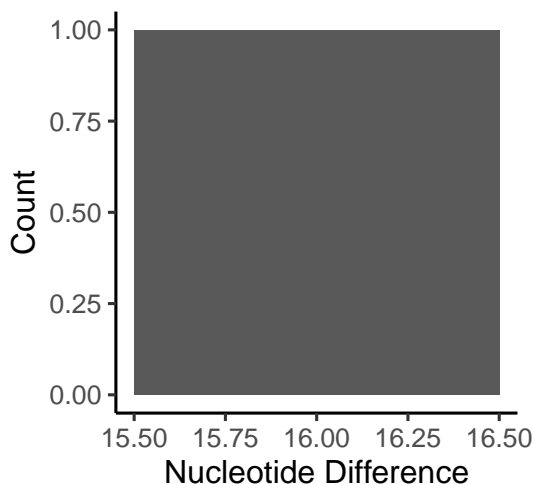
### IGHV3-64\*01

55 sequences assigned  
24 (43.6%) exact matches, in which:  
22 unique CDR3  
5 unique J



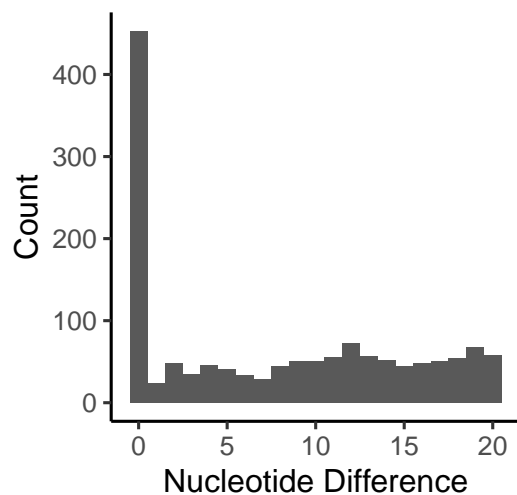
### IGHV3-69-1\*02

1 sequences assigned  
No exact matches.



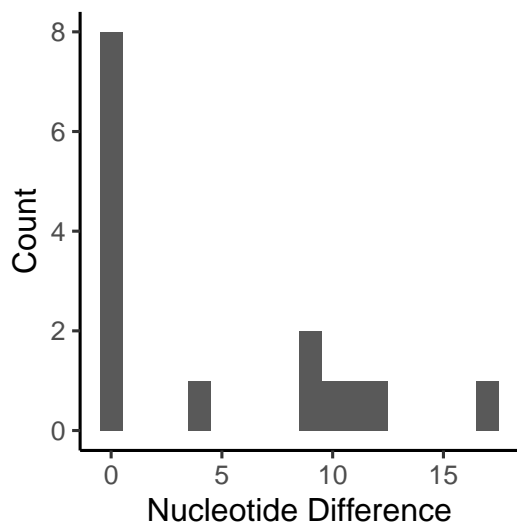
### IGHV3-74\*01

1921 sequences assigned  
453 (23.6%) exact matches, in which:  
419 unique CDR3  
6 unique J



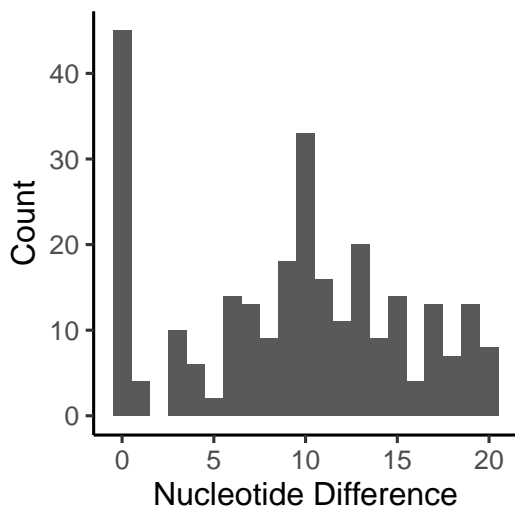
### IGHV3-64\*02

16 sequences assigned  
8 (50%) exact matches, in which:  
8 unique CDR3  
3 unique J



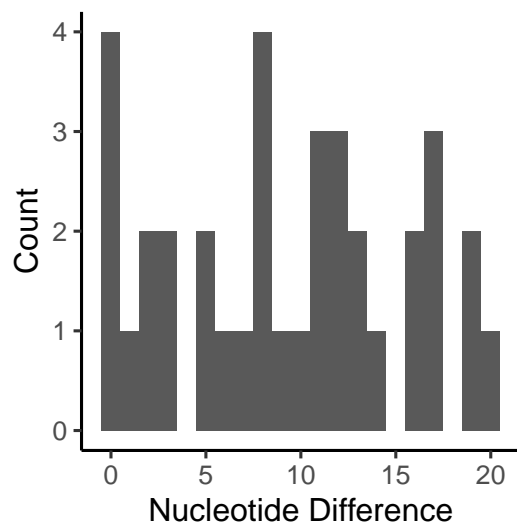
### IGHV3-72\*01

308 sequences assigned  
45 (14.6%) exact matches, in which:  
33 unique CDR3  
4 unique J



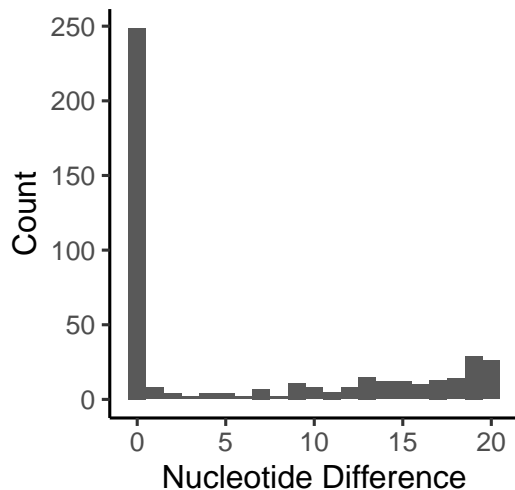
### IGHV3-43D\*03

47 sequences assigned  
4 (8.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



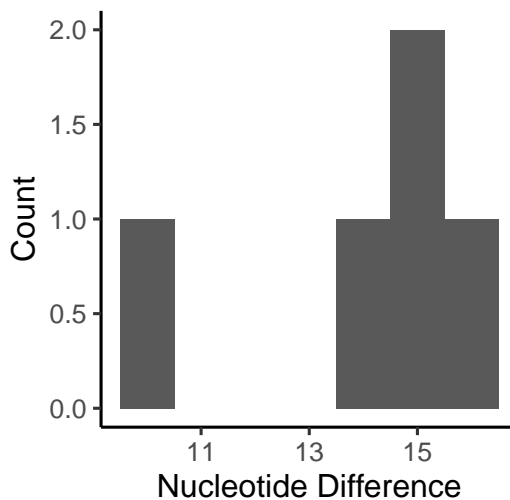
### IGHV3-64D\*06

571 sequences assigned  
249 (43.6%) exact matches, in which:  
224 unique CDR3  
6 unique J



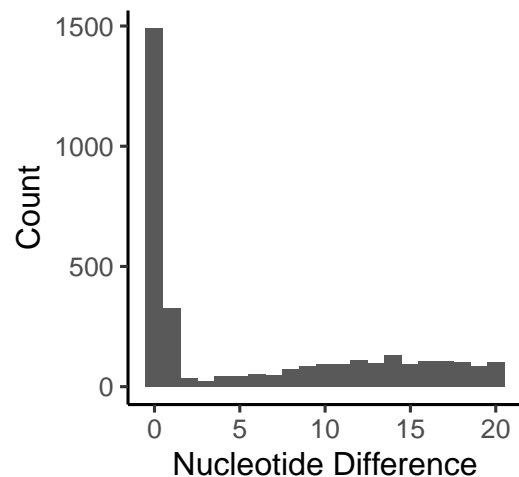
### IGHV4-30-4\*01

12 sequences assigned  
No exact matches.



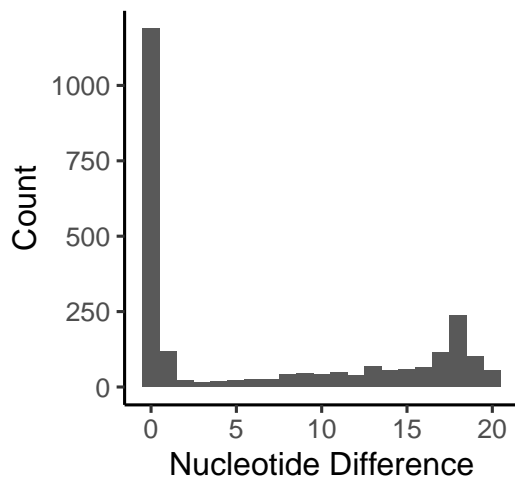
### IGHV4-31\*03

4066 sequences assigned  
1490 (36.6%) exact matches, in which:  
1442 unique CDR3  
6 unique J



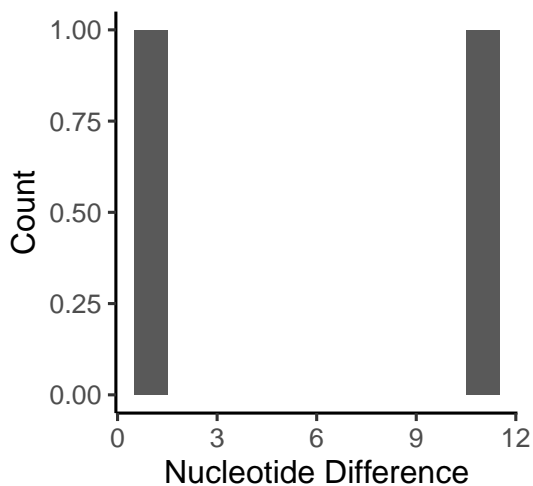
### IGHV4-4\*02

2795 sequences assigned  
1188 (42.5%) exact matches, in which:  
1147 unique CDR3  
6 unique J



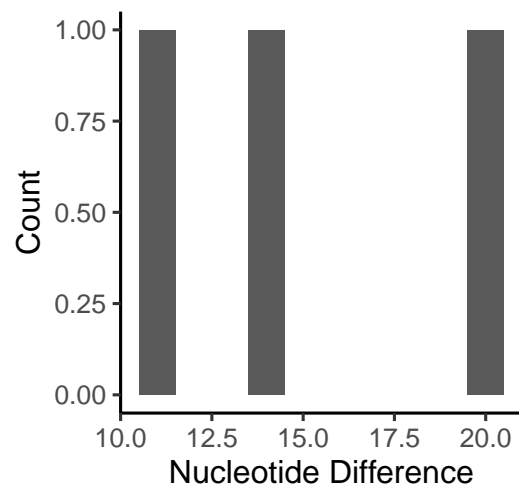
### IGHV4-30-2\*01

3 sequences assigned  
No exact matches.



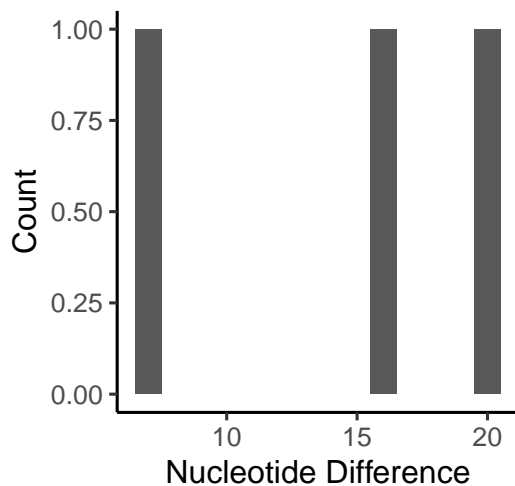
### IGHV4-38-2\*02

6 sequences assigned  
No exact matches.



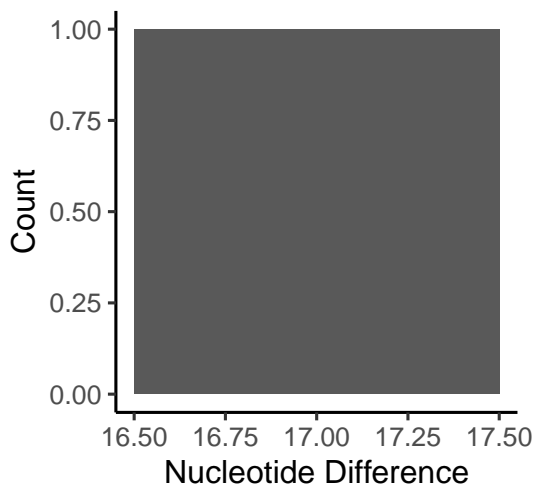
### IGHV4-28\*03

3 sequences assigned  
No exact matches.



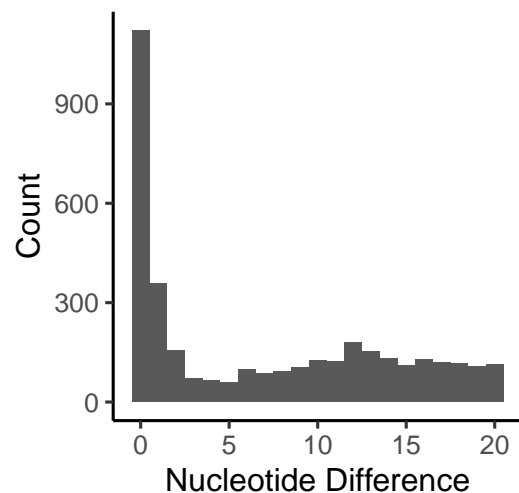
### IGHV4-30-4\*08

3 sequences assigned  
No exact matches.



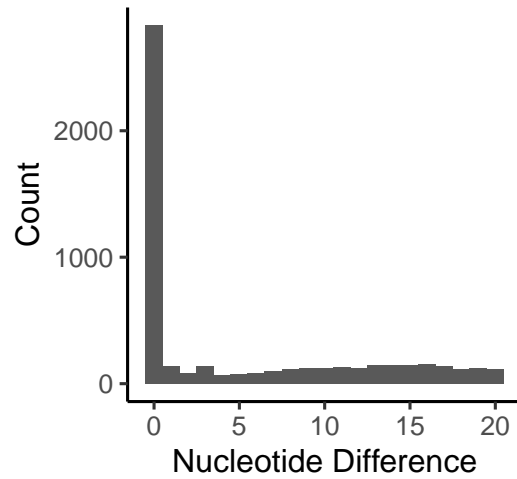
### IGHV4-39\*01

4767 sequences assigned  
1122 (23.5%) exact matches, in which:  
1100 unique CDR3  
6 unique J



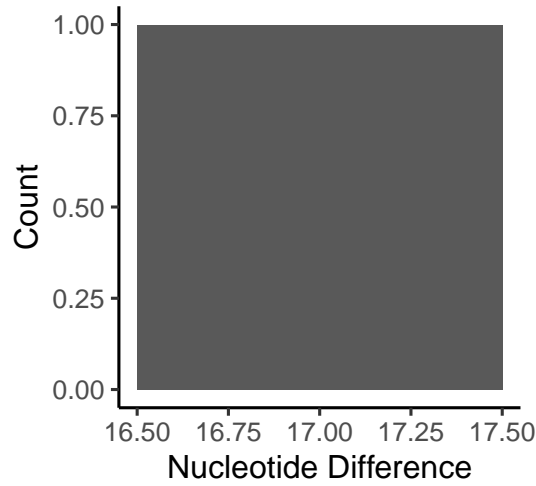
### IGHV4–59\*01

6201 sequences assigned  
2833 (45.7%) exact matches, in which:  
2730 unique CDR3  
6 unique J



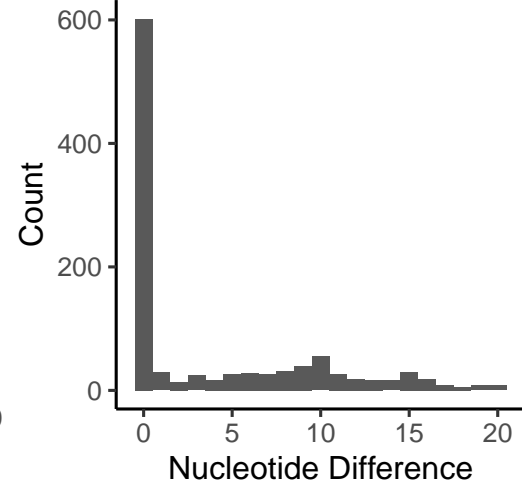
### IGHV4/OR15–8\*02

2 sequences assigned  
No exact matches.



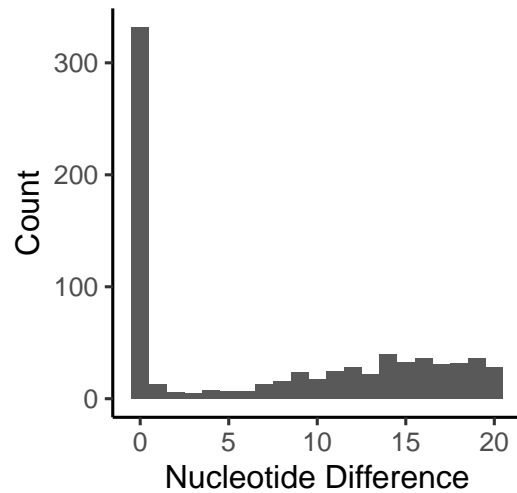
### IGHV6–1\*01

1088 sequences assigned  
602 (55.3%) exact matches, in which:  
502 unique CDR3  
6 unique J



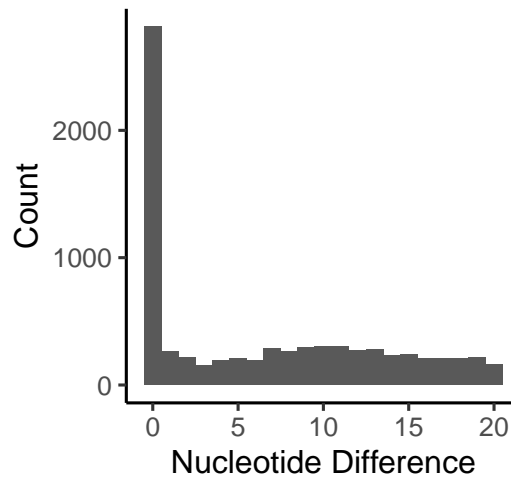
### IGHV4–61\*01

1047 sequences assigned  
332 (31.7%) exact matches, in which:  
324 unique CDR3  
6 unique J



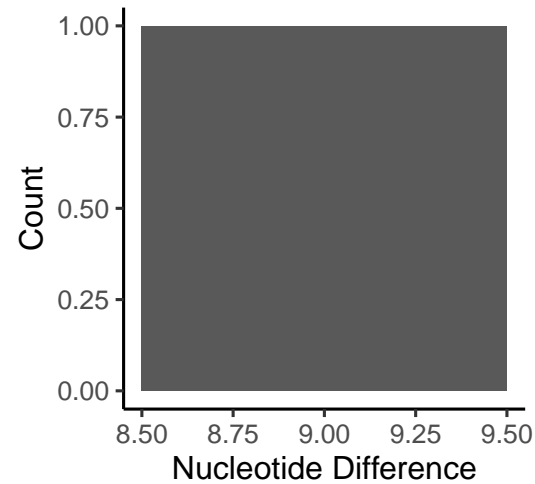
### IGHV5–51\*01

8573 sequences assigned  
2814 (32.8%) exact matches, in which:  
2376 unique CDR3  
6 unique J



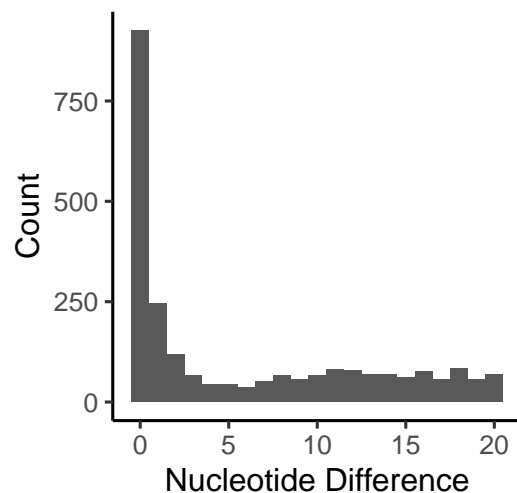
### IGHV3/OR16–9\*01

1 sequences assigned  
No exact matches.



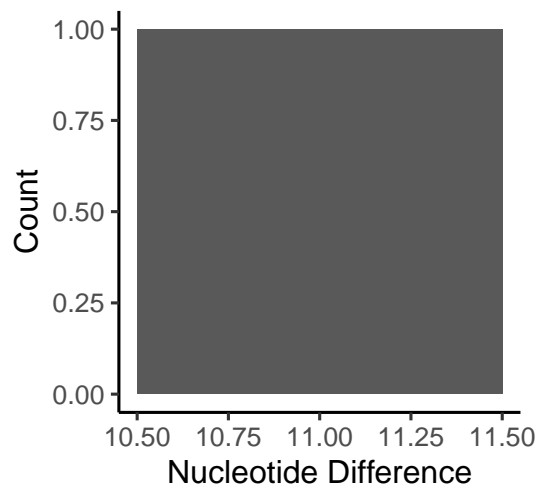
### IGHV4–61\*02

2849 sequences assigned  
926 (32.5%) exact matches, in which:  
906 unique CDR3  
6 unique J



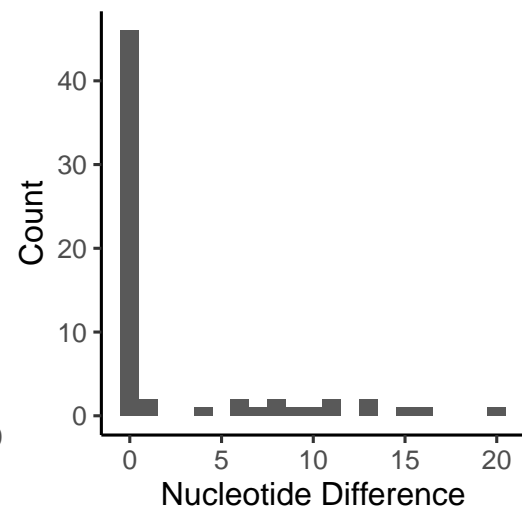
### IGHV5–78\*01

1 sequences assigned  
No exact matches.



### IGHV7–4–1\*01

65 sequences assigned  
46 (70.8%) exact matches, in which:  
38 unique CDR3  
5 unique J







Warning – no inferred sequences found.