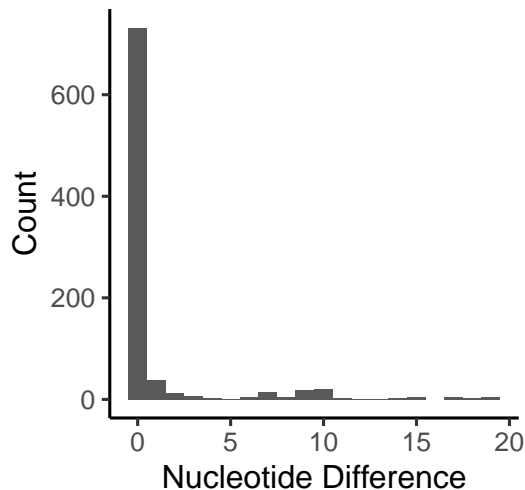


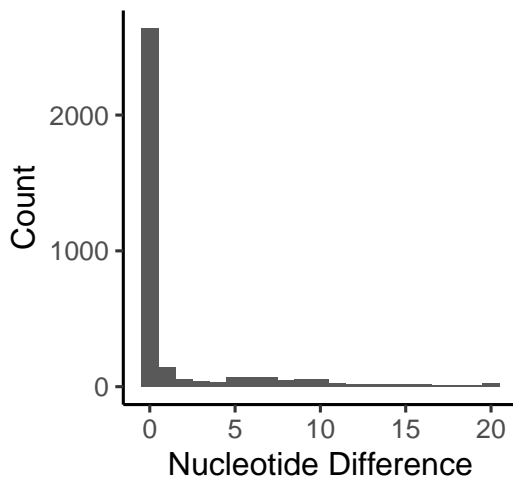
### IGHV1-2\*04

885 sequences assigned  
732 (82.7%) exact matches, in which:  
728 unique CDR3  
6 unique J



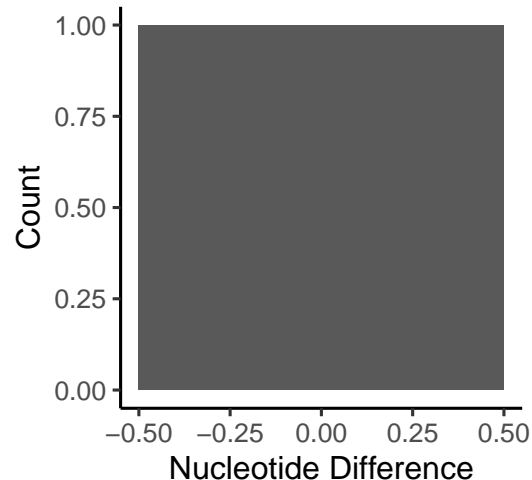
### IGHV1-8\*01

3681 sequences assigned  
2638 (71.7%) exact matches, in which:  
2617 unique CDR3  
6 unique J



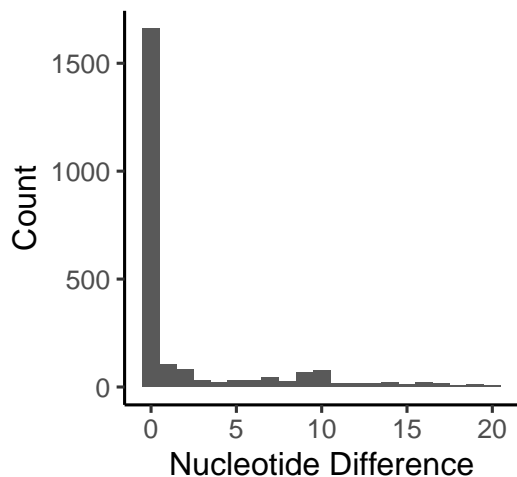
### IGHV1-45\*02

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



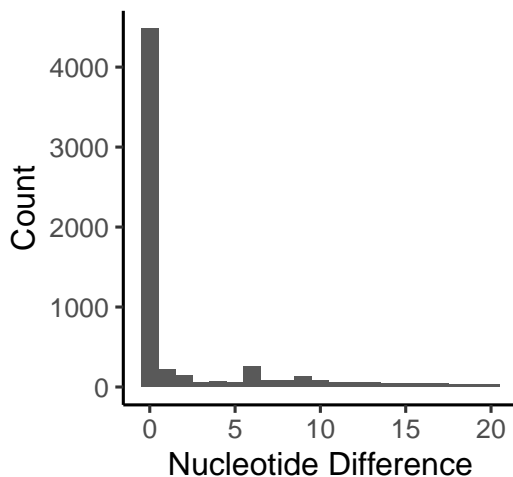
### IGHV1-2\*06

2400 sequences assigned  
1660 (69.2%) exact matches, in which:  
1642 unique CDR3  
6 unique J



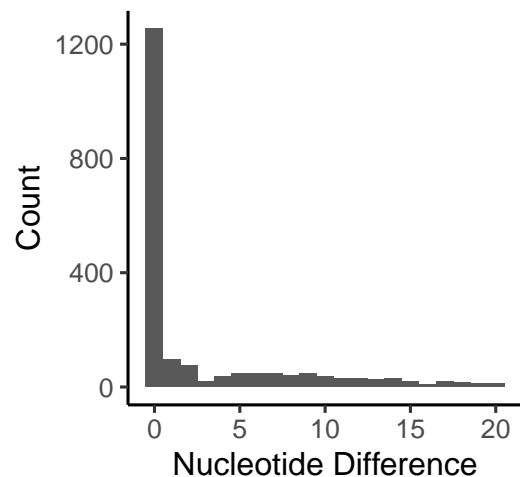
### IGHV1-18\*01

6302 sequences assigned  
4480 (71.1%) exact matches, in which:  
4426 unique CDR3  
6 unique J



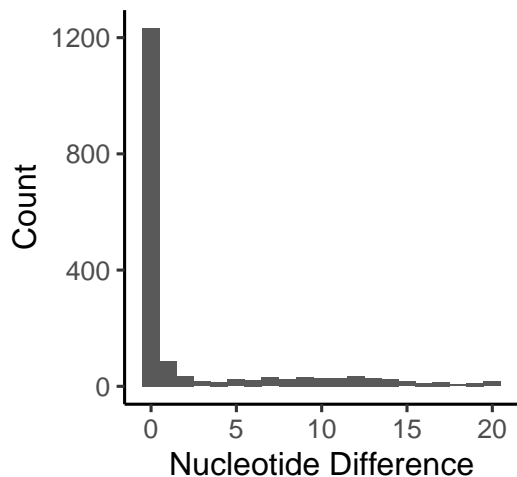
### IGHV1-46\*01

2066 sequences assigned  
1254 (60.7%) exact matches, in which:  
1244 unique CDR3  
6 unique J



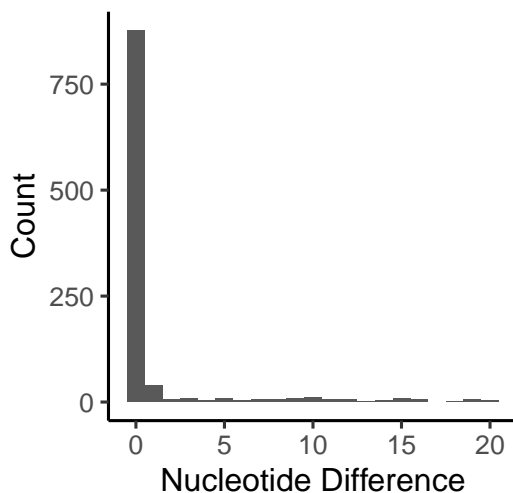
### IGHV1-3\*01\_05

1815 sequences assigned  
1233 (67.9%) exact matches, in which:  
1218 unique CDR3  
6 unique J



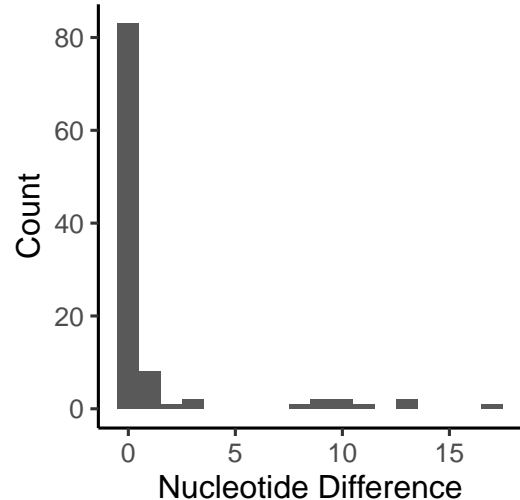
### IGHV1-24\*01

1029 sequences assigned  
877 (85.2%) exact matches, in which:  
876 unique CDR3  
6 unique J



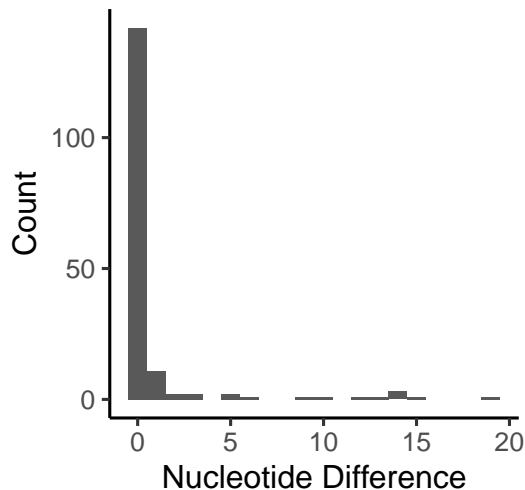
### IGHV1-58\*02

103 sequences assigned  
83 (80.6%) exact matches, in which:  
83 unique CDR3  
5 unique J



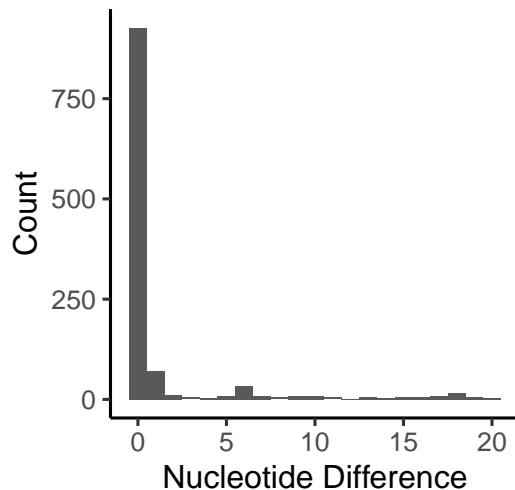
### IGHV1–58\*01\_03

174 sequences assigned  
142 (81.6%) exact matches, in which:  
142 unique CDR3  
5 unique J



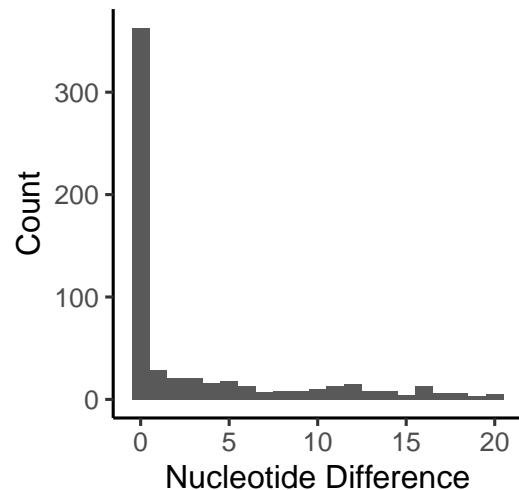
### IGHV1–69\*04\_09

1237 sequences assigned  
927 (74.9%) exact matches, in which:  
922 unique CDR3  
6 unique J



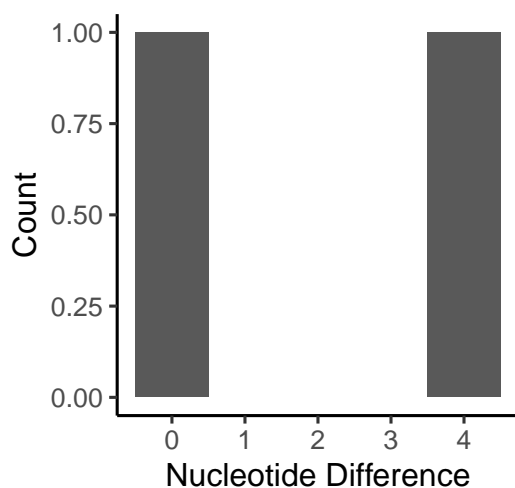
### IGHV2–5\*02

634 sequences assigned  
363 (57.3%) exact matches, in which:  
358 unique CDR3  
6 unique J



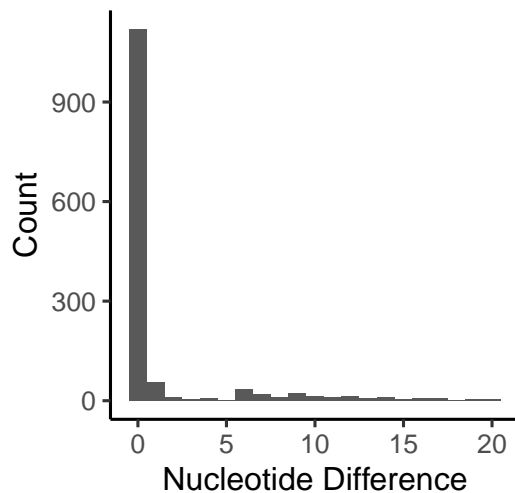
### IGHV1–69–2\*01

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



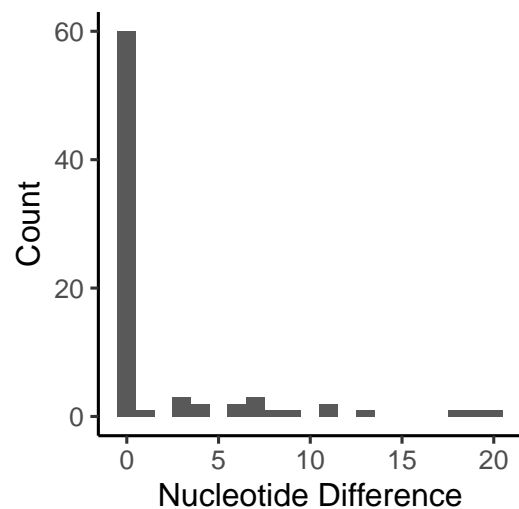
### IGHV1–69\*06\_14

1421 sequences assigned  
1120 (78.8%) exact matches, in which:  
1115 unique CDR3  
6 unique J



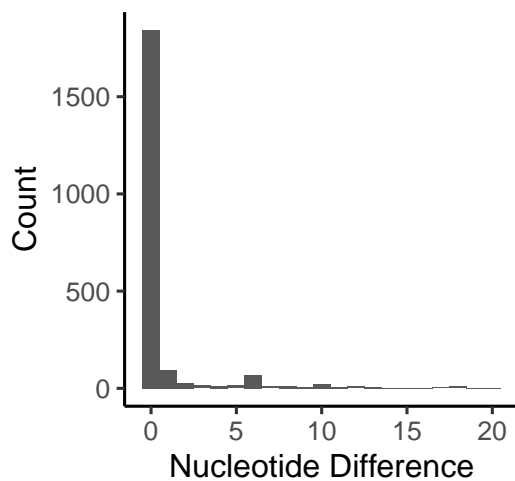
### IGHV2–26\*01

79 sequences assigned  
60 (75.9%) exact matches, in which:  
58 unique CDR3  
4 unique J



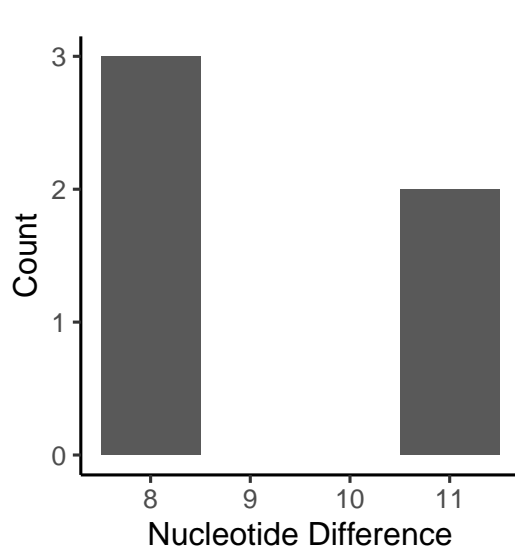
### IGHV1–69\*01\_12\_13

2223 sequences assigned  
1843 (82.9%) exact matches, in which:  
1835 unique CDR3  
6 unique J



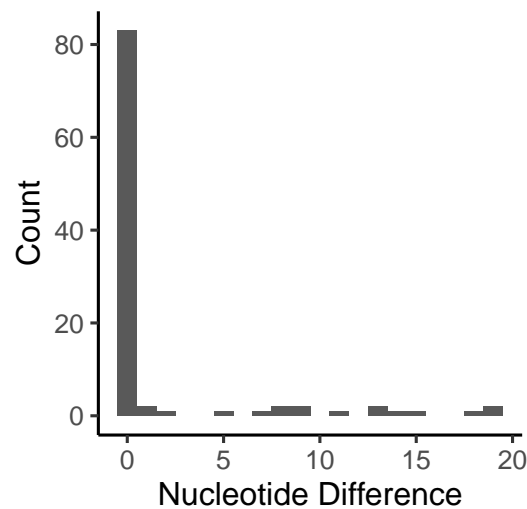
### IGHV1–NL1\*01

5 sequences assigned  
No exact matches.



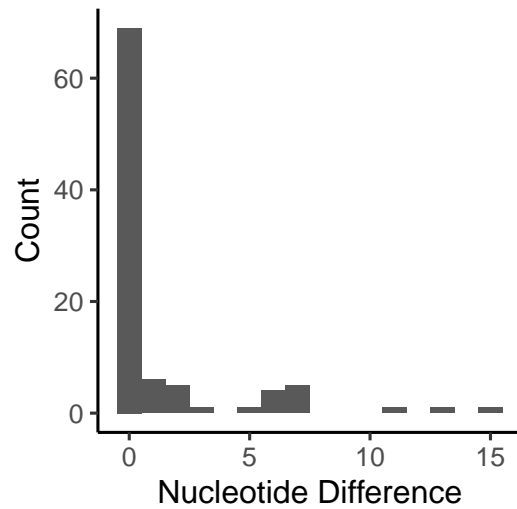
### IGHV2–70\*01

107 sequences assigned  
83 (77.6%) exact matches, in which:  
83 unique CDR3  
5 unique J



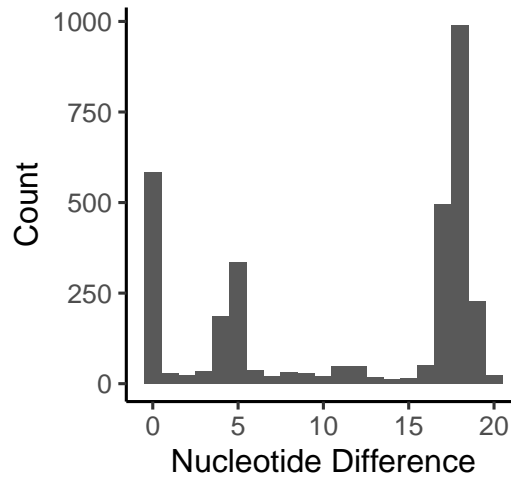
## IGHV2-70\*11\_15

95 sequences assigned  
69 (72.6%) exact matches, in which:  
66 unique CDR3  
4 unique J



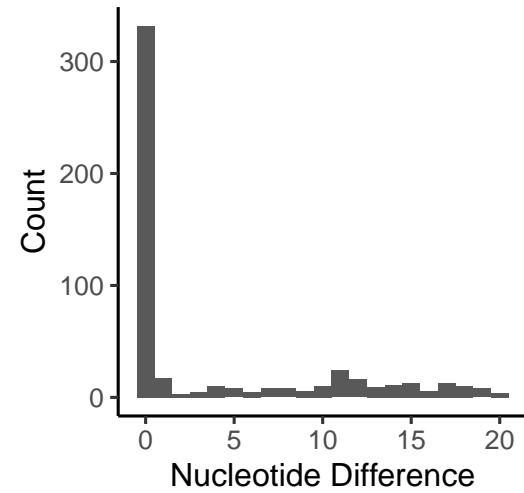
## IGHV3-11\*01

3343 sequences assigned  
585 (17.5%) exact matches, in which:  
489 unique CDR3  
6 unique J



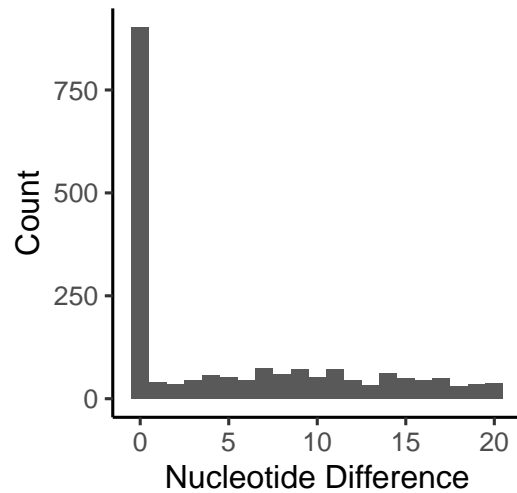
## IGHV3-15\*01\_02

562 sequences assigned  
332 (59.1%) exact matches, in which:  
277 unique CDR3  
6 unique J



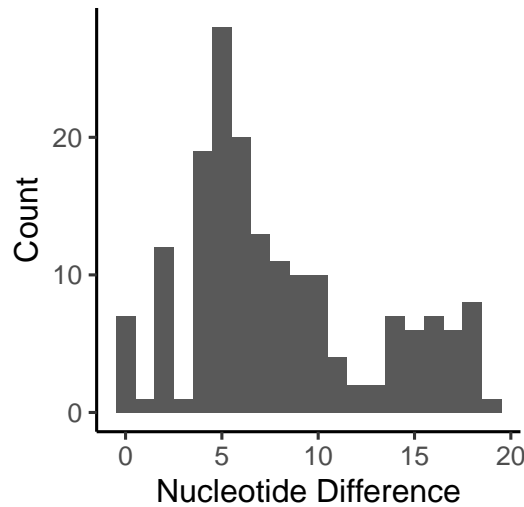
## IGHV3-7\*01

2065 sequences assigned  
903 (43.7%) exact matches, in which:  
731 unique CDR3  
6 unique J



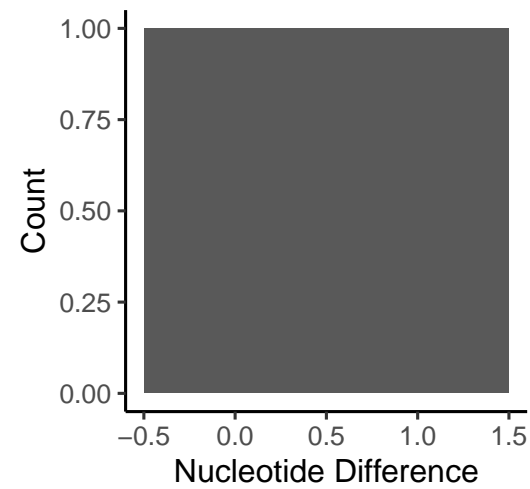
## IGHV3-11\*04

183 sequences assigned  
7 (3.8%) exact matches, in which:  
7 unique CDR3  
3 unique J



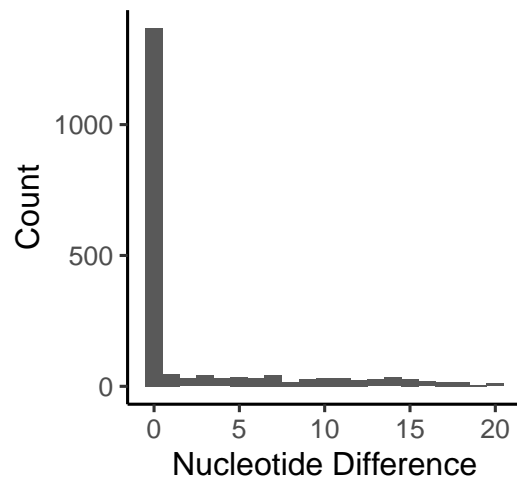
## IGHV3-19\*01

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



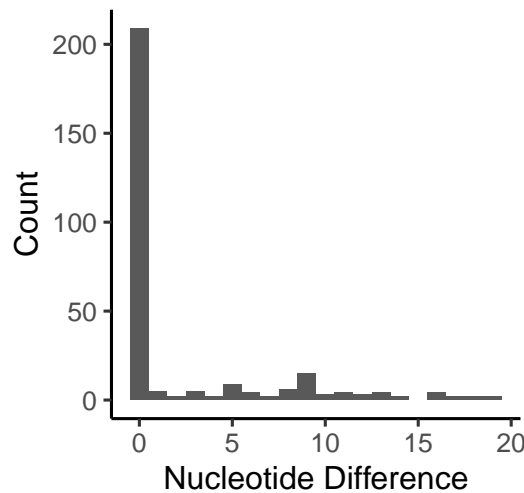
## IGHV3-9\*01

2000 sequences assigned  
1369 (68.5%) exact matches, in which:  
1103 unique CDR3  
6 unique J



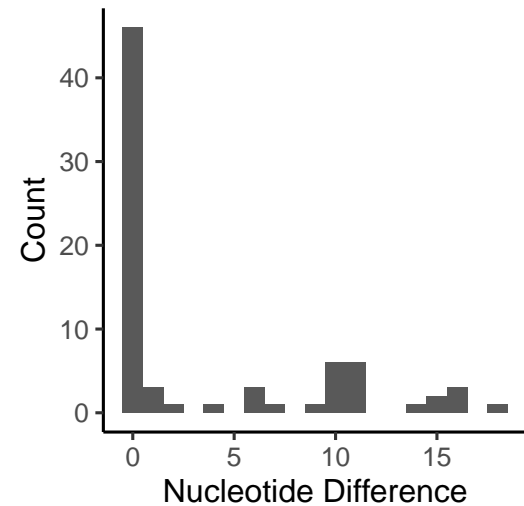
## IGHV3-13\*01

299 sequences assigned  
209 (69.9%) exact matches, in which:  
162 unique CDR3  
6 unique J



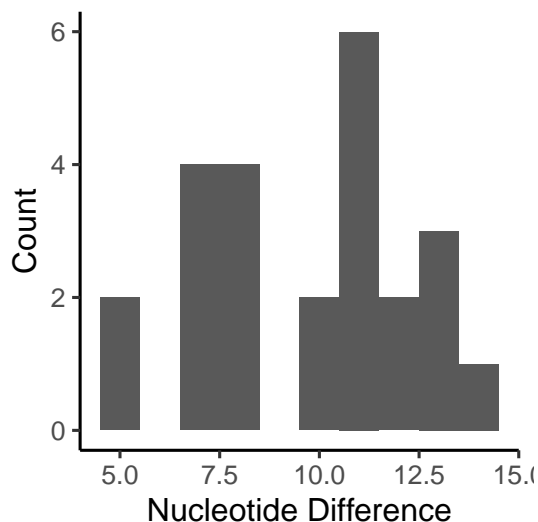
## IGHV3-20\*01\_02

77 sequences assigned  
46 (59.7%) exact matches, in which:  
39 unique CDR3  
5 unique J



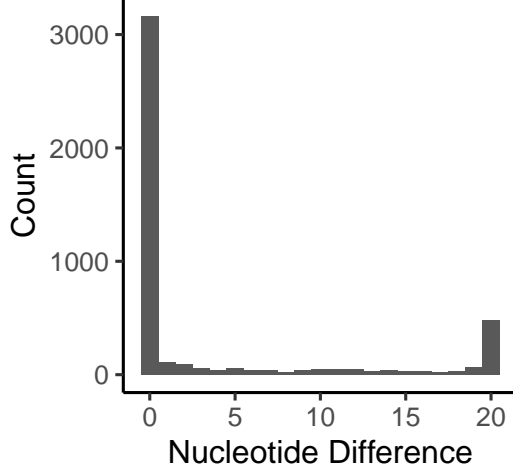
### IGHV3-20\*03\_04

27 sequences assigned  
No exact matches.



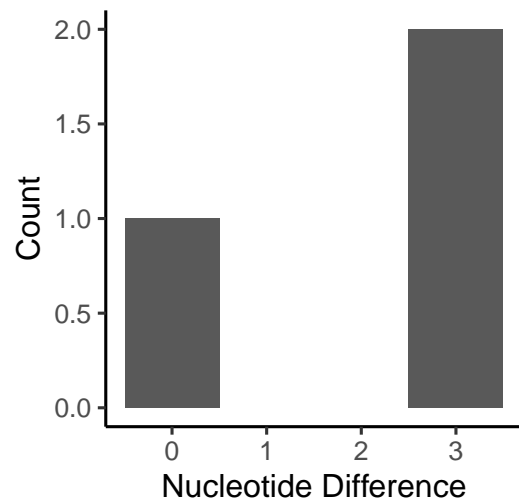
### IGHV3-30-3\*01

5651 sequences assigned  
3160 (55.9%) exact matches, in which:  
2576 unique CDR3  
6 unique J



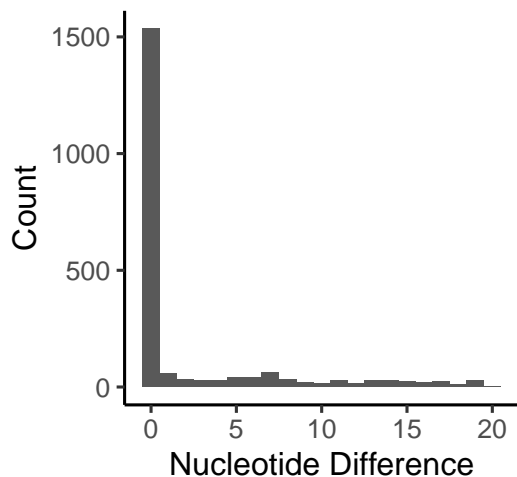
### IGHV3-47\*01

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



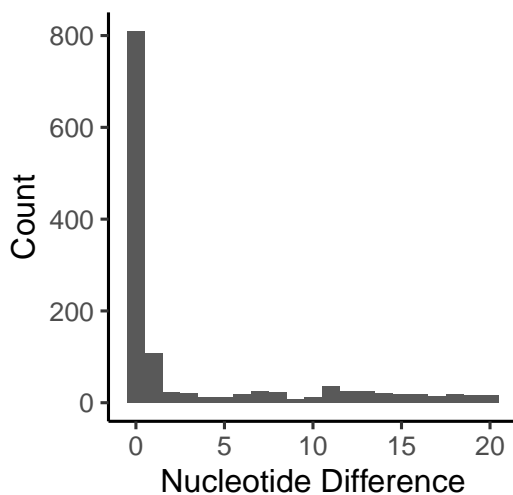
### IGHV3-21\*01\_02

2178 sequences assigned  
1535 (70.5%) exact matches, in which:  
1226 unique CDR3  
6 unique J



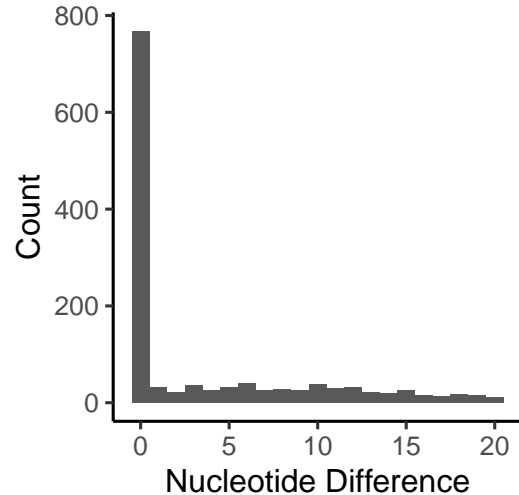
### IGHV3-33\*01

1423 sequences assigned  
810 (56.9%) exact matches, in which:  
684 unique CDR3  
6 unique J



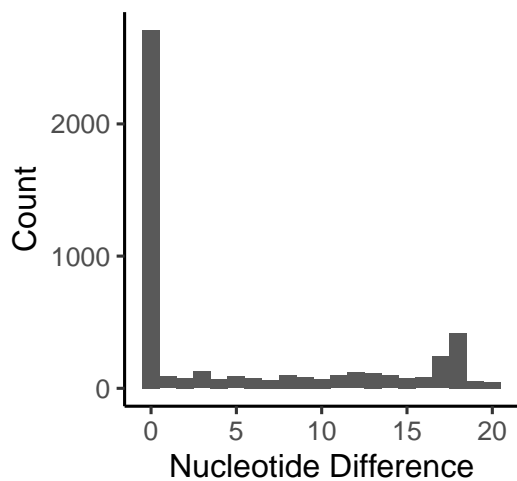
### IGHV3-48\*03

1350 sequences assigned  
768 (56.9%) exact matches, in which:  
643 unique CDR3  
6 unique J



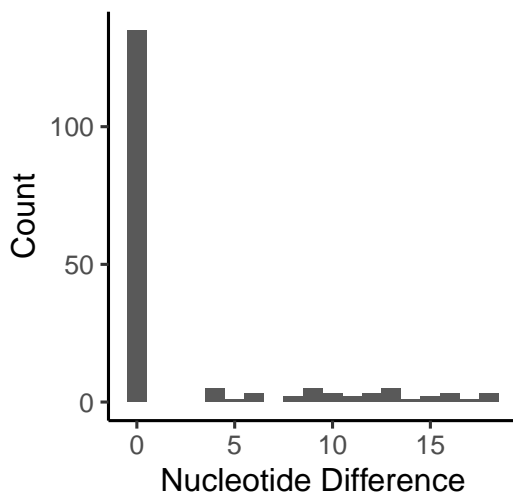
### IGHV3-23\*01\_04

5290 sequences assigned  
2710 (51.2%) exact matches, in which:  
2180 unique CDR3  
6 unique J



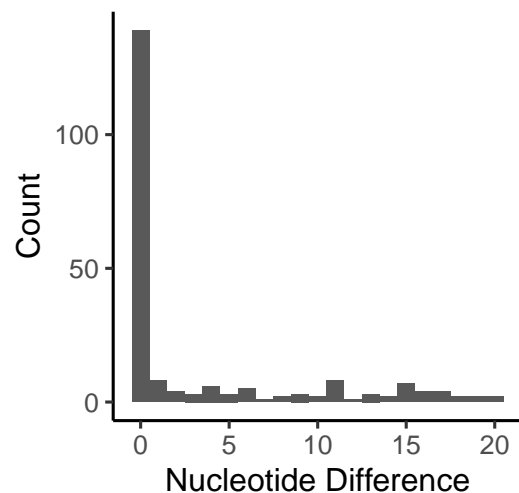
### IGHV3-43\*02

193 sequences assigned  
135 (69.9%) exact matches, in which:  
112 unique CDR3  
6 unique J



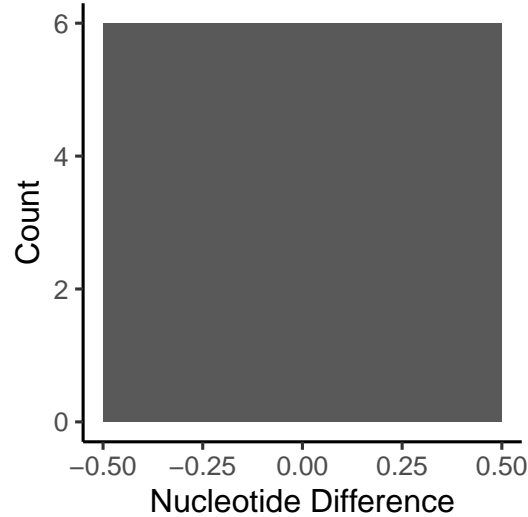
### IGHV3-49\*04

225 sequences assigned  
139 (61.8%) exact matches, in which:  
123 unique CDR3  
5 unique J



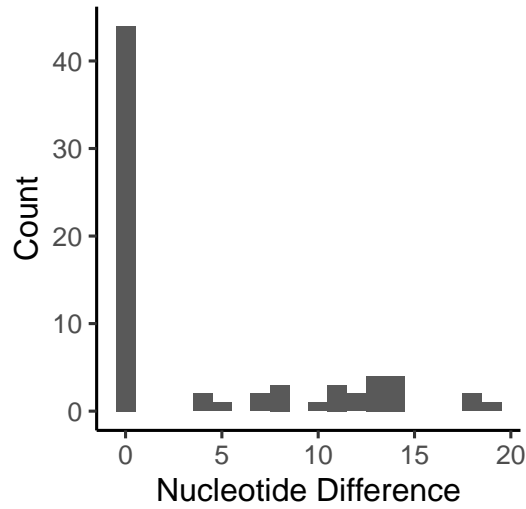
### IGHV3-52\*01\_03

6 sequences assigned  
6 (100%) exact matches, in which:  
3 unique CDR3  
3 unique J



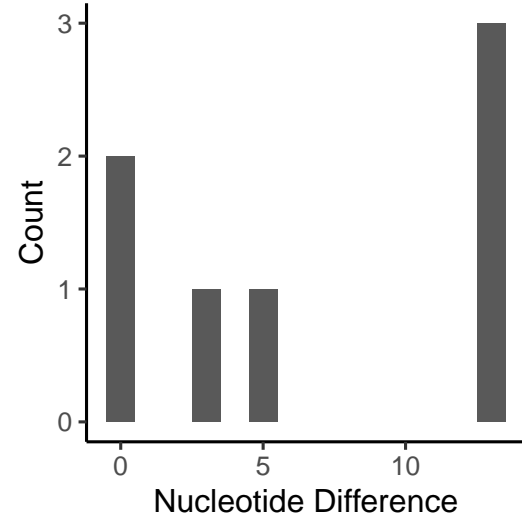
### IGHV3-64\*01

89 sequences assigned  
44 (49.4%) exact matches, in which:  
37 unique CDR3  
5 unique J



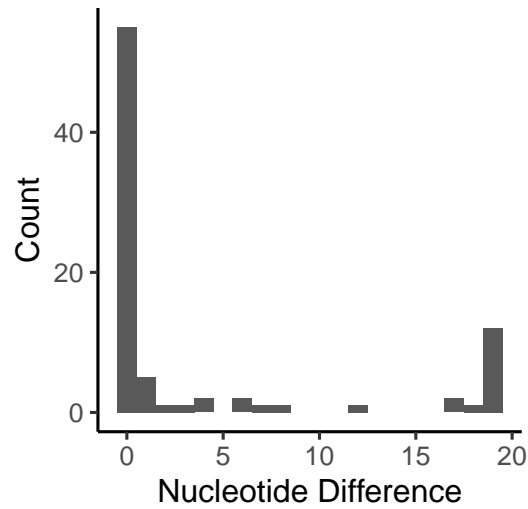
### IGHV3-69-1\*01

7 sequences assigned  
2 (28.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



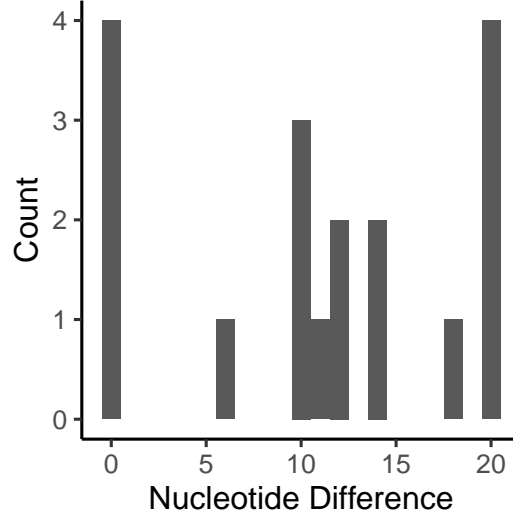
### IGHV3-53\*04

90 sequences assigned  
55 (61.1%) exact matches, in which:  
45 unique CDR3  
5 unique J



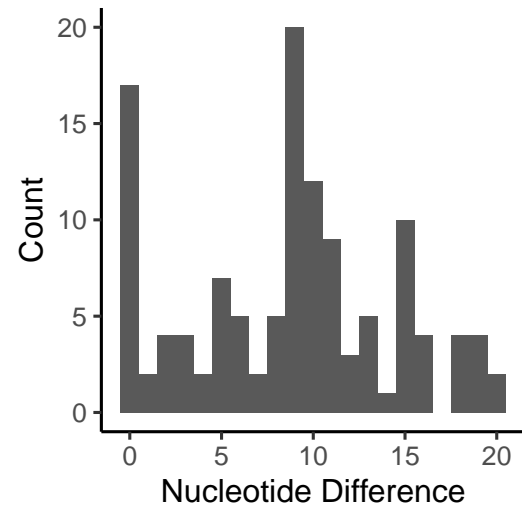
### IGHV3-64\*02\_07

29 sequences assigned  
4 (13.8%) exact matches, in which:  
3 unique CDR3  
1 unique J



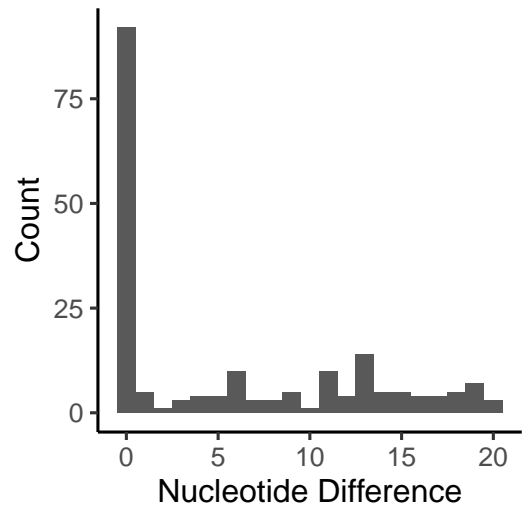
### IGHV3-72\*01

153 sequences assigned  
17 (11.1%) exact matches, in which:  
15 unique CDR3  
3 unique J



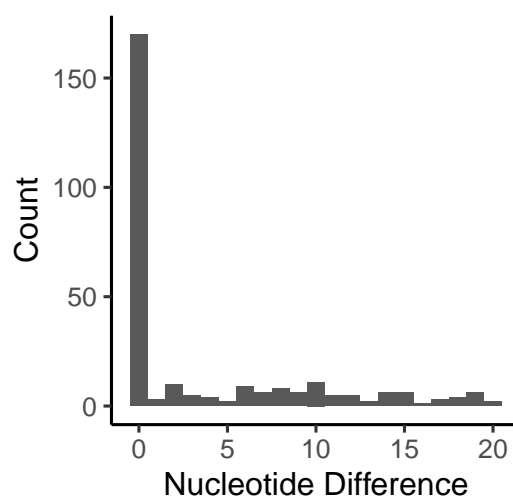
### IGHV3-53\*01\_02

245 sequences assigned  
92 (37.6%) exact matches, in which:  
75 unique CDR3  
6 unique J



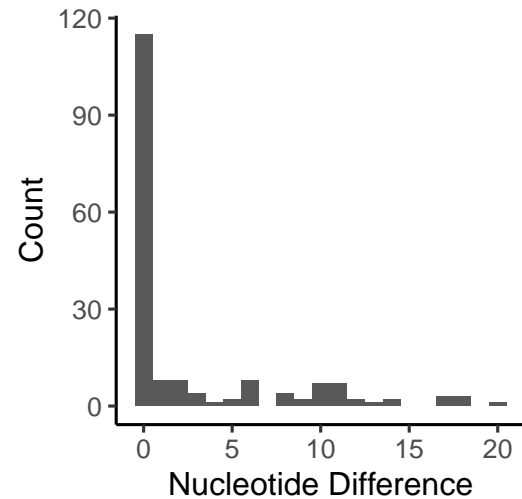
### IGHV3-66\*01

335 sequences assigned  
170 (50.7%) exact matches, in which:  
137 unique CDR3  
5 unique J



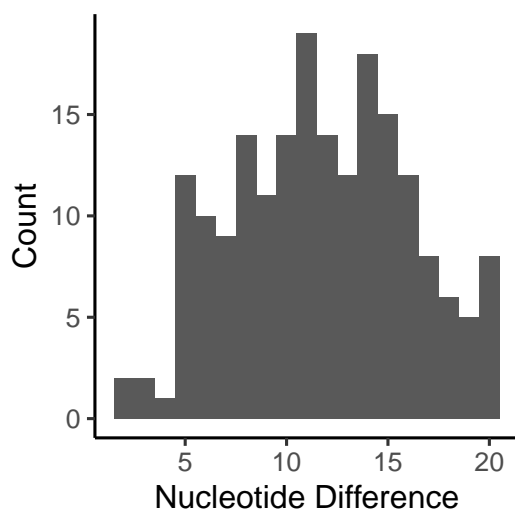
### IGHV3-73\*01\_02

182 sequences assigned  
115 (63.2%) exact matches, in which:  
96 unique CDR3  
5 unique J



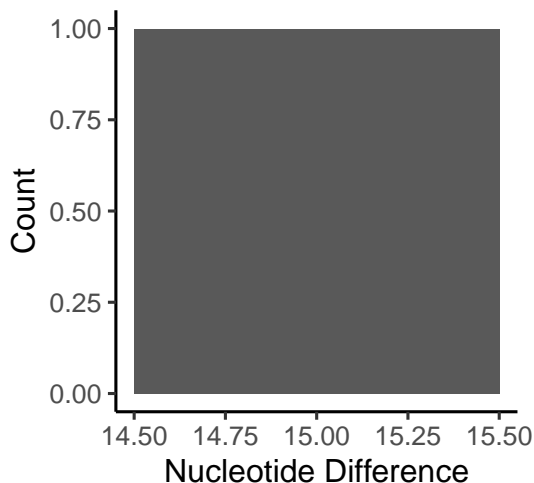
### IGHV3-74\*03

247 sequences assigned  
No exact matches.



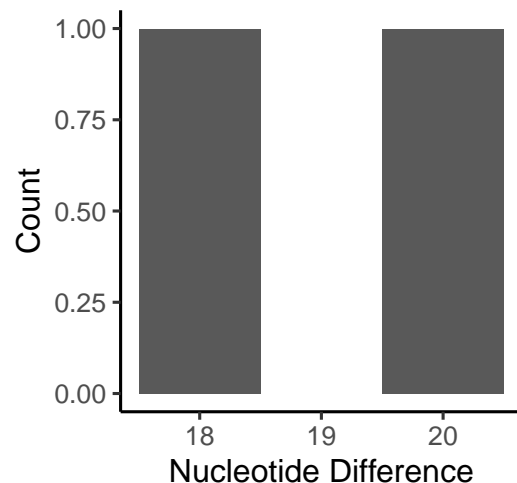
### IGHV3-64D\*08

3 sequences assigned  
No exact matches.



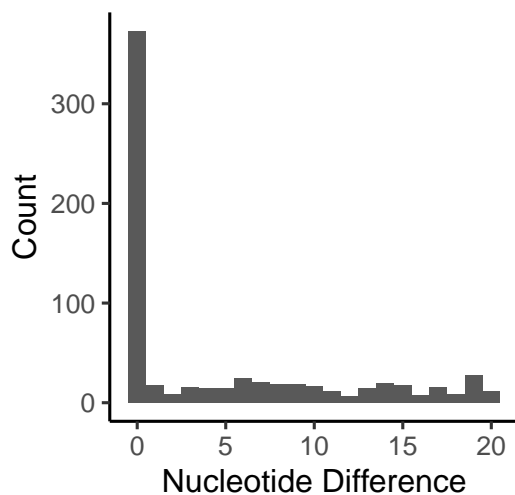
### IGHV4-28\*02\_05

5 sequences assigned  
No exact matches.



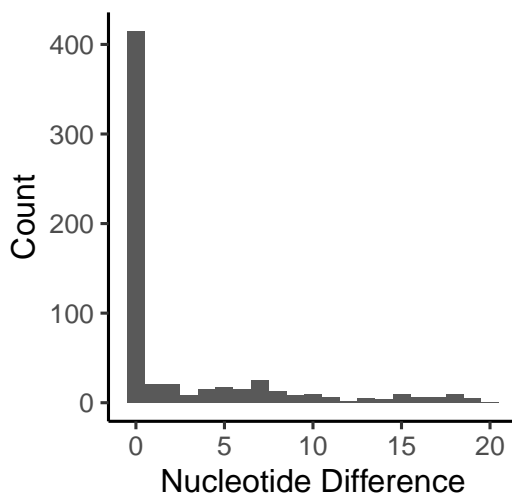
### IGHV3-74\*01\_02

747 sequences assigned  
373 (49.9%) exact matches, in which:  
291 unique CDR3  
6 unique J



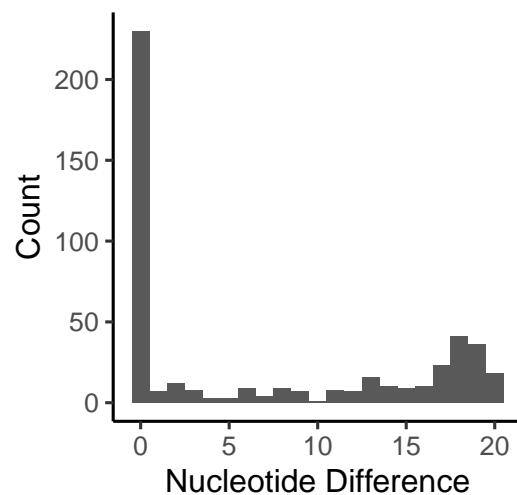
### IGHV4-4\*02\_03

646 sequences assigned  
415 (64.2%) exact matches, in which:  
392 unique CDR3  
6 unique J



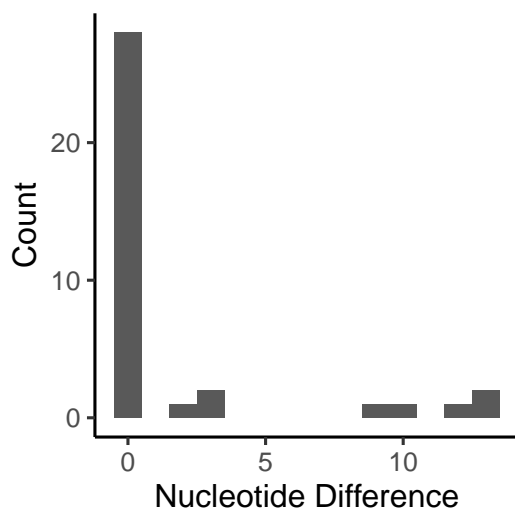
### IGHV4-30-2\*01

561 sequences assigned  
230 (41%) exact matches, in which:  
213 unique CDR3  
5 unique J



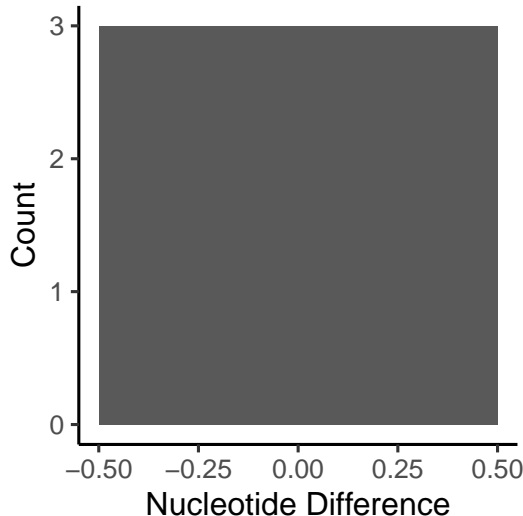
### IGHV3-43D\*04

36 sequences assigned  
28 (77.8%) exact matches, in which:  
25 unique CDR3  
4 unique J



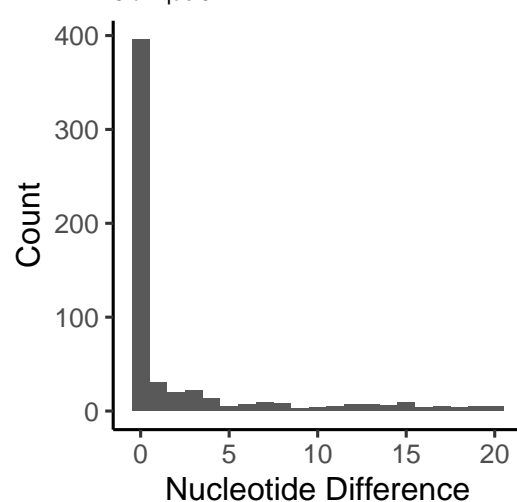
### IGHV4-28\*01\_07

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



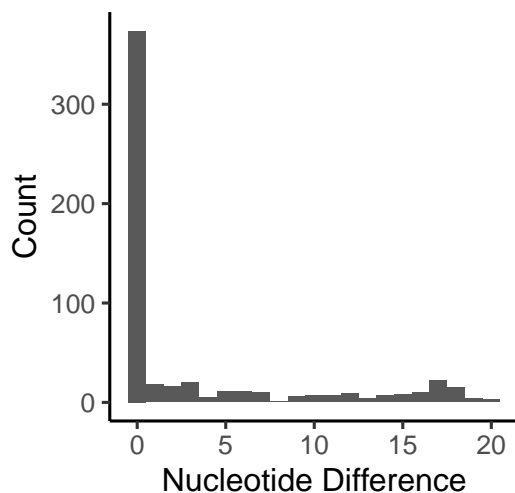
### IGHV4-30-4\*01

979 sequences assigned  
396 (40.4%) exact matches, in which:  
385 unique CDR3  
6 unique J



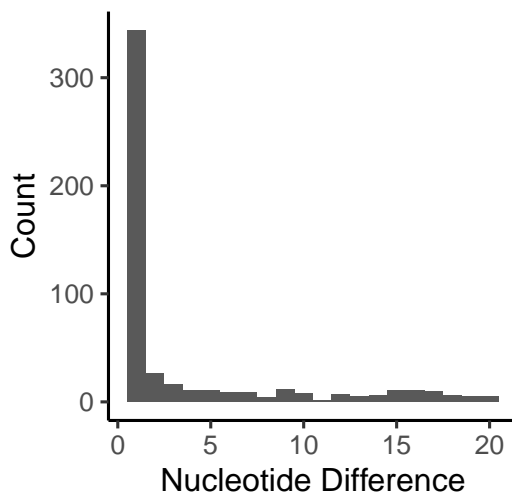
### IGHV4–31\*02

653 sequences assigned  
374 (57.3%) exact matches, in which:  
364 unique CDR3  
6 unique J



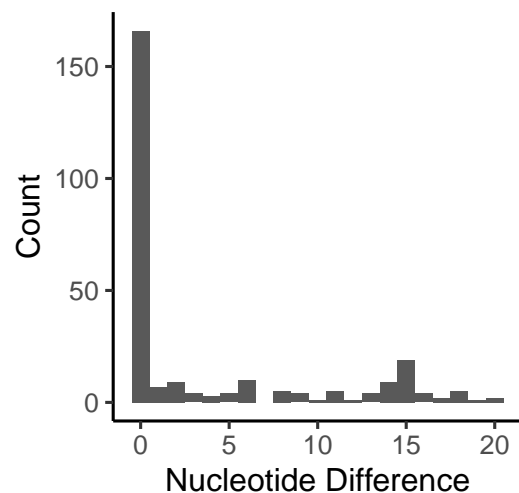
### IGHV4–39\*02

561 sequences assigned  
No exact matches.



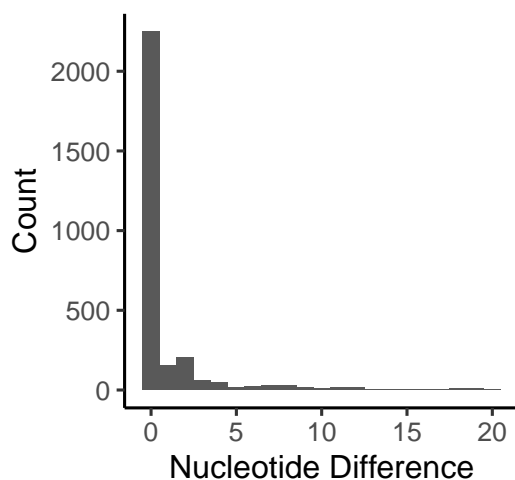
### IGHV4–61\*01

294 sequences assigned  
166 (56.5%) exact matches, in which:  
166 unique CDR3  
6 unique J



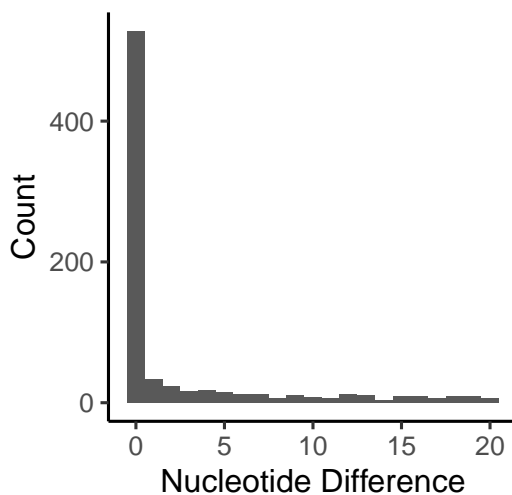
### IGHV4–34\*01\_02

2971 sequences assigned  
2248 (75.7%) exact matches, in which:  
2206 unique CDR3  
6 unique J



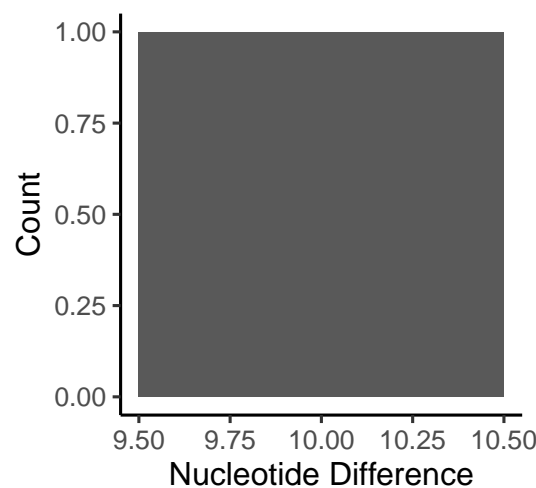
### IGHV4–59\*08

800 sequences assigned  
528 (66%) exact matches, in which:  
520 unique CDR3  
6 unique J



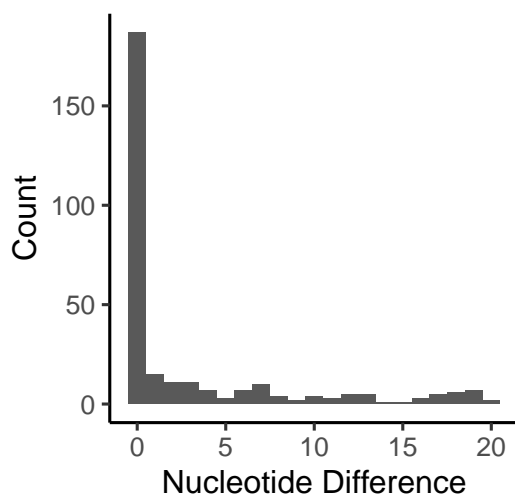
### IGHV1/OR15–3\*02

1 sequences assigned  
No exact matches.



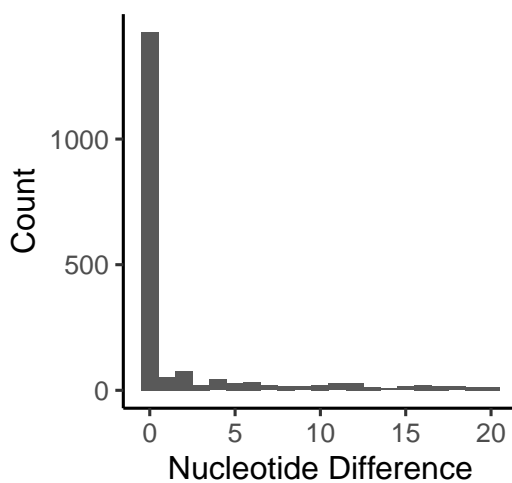
### IGHV4–38–2\*02\_A70G

330 sequences assigned  
187 (56.7%) exact matches, in which:  
184 unique CDR3  
6 unique J



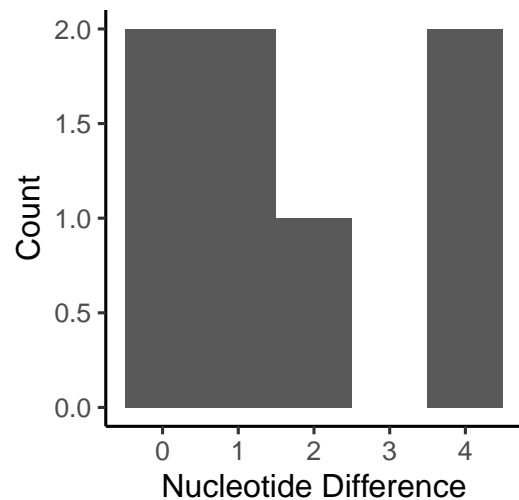
### IGHV4–59\*02\_G88A

1991 sequences assigned  
1426 (71.6%) exact matches, in which:  
1418 unique CDR3  
6 unique J



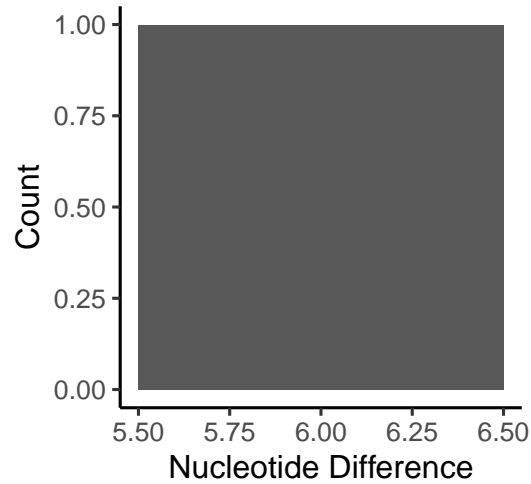
### IGHV4/OR15–8\*01

8 sequences assigned  
2 (25%) exact matches, in which:  
1 unique CDR3  
1 unique J



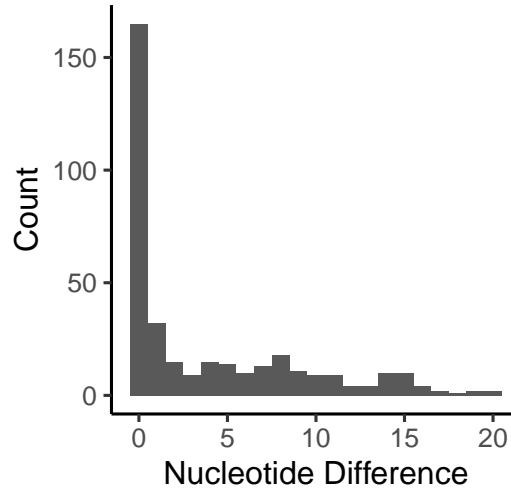
### IGHV5-10-1\*01\_03

1 sequences assigned  
No exact matches.



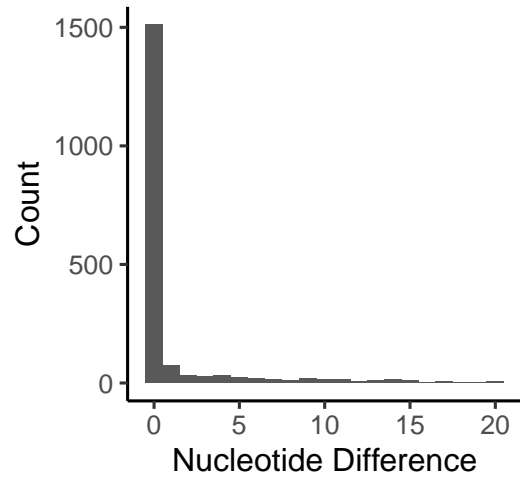
### IGHV6-1\*01\_02

372 sequences assigned  
165 (44.4%) exact matches, in which:  
165 unique CDR3  
5 unique J



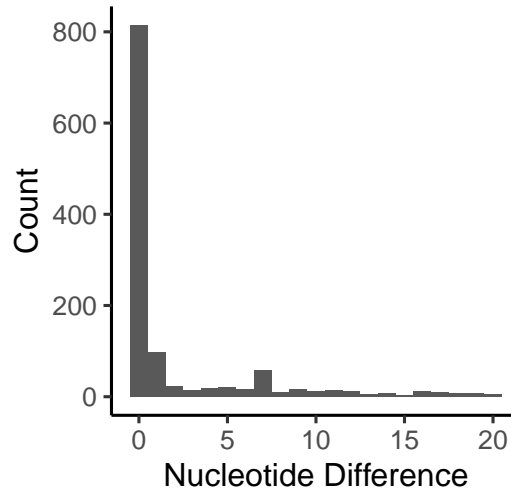
### IGHV5-51\*07\_A128G

1880 sequences assigned  
1511 (80.4%) exact matches, in which:  
1331 unique CDR3  
6 unique J



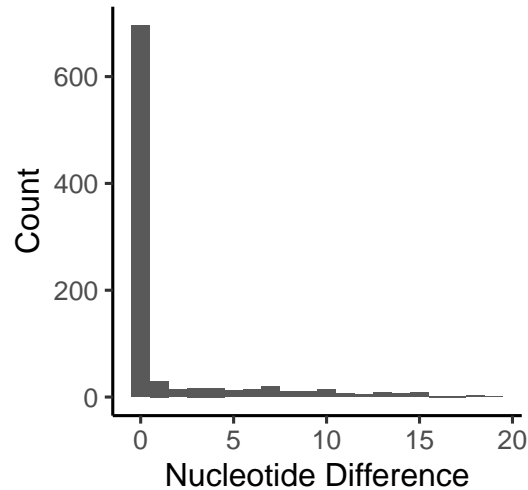
### IGHV7-4-1\*02

1217 sequences assigned  
815 (67%) exact matches, in which:  
808 unique CDR3  
6 unique J



### IGHV5-51\*07\_A128G\_A263T

919 sequences assigned  
696 (75.7%) exact matches, in which:  
616 unique CDR3  
6 unique J







Warning – no inferred sequences found.