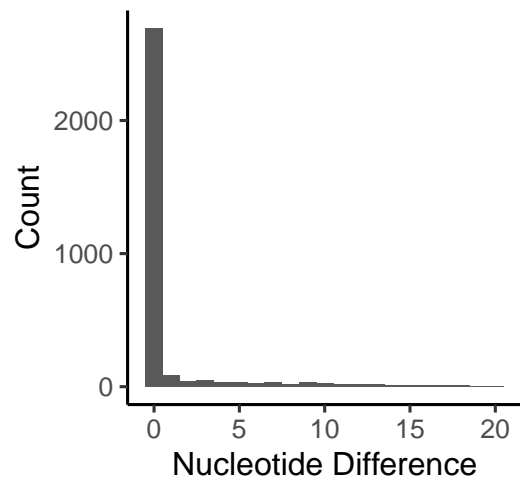


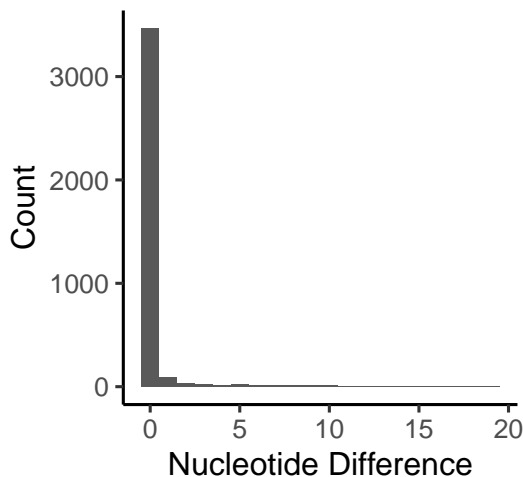
### IGHV1-2\*02

3206 sequences assigned  
2692 (84%) exact matches, in which:  
2639 unique CDR3  
6 unique J



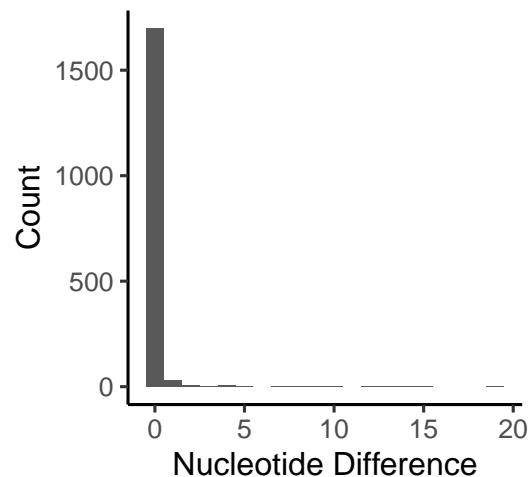
### IGHV1-8\*01

3759 sequences assigned  
3466 (92.2%) exact matches, in which:  
3395 unique CDR3  
6 unique J



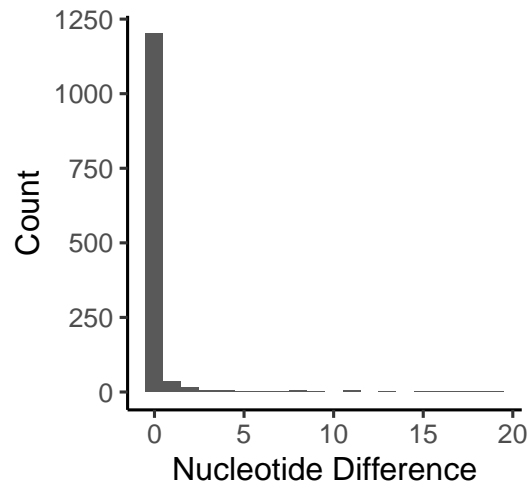
### IGHV1-24\*01

1761 sequences assigned  
1698 (96.4%) exact matches, in which:  
1677 unique CDR3  
6 unique J



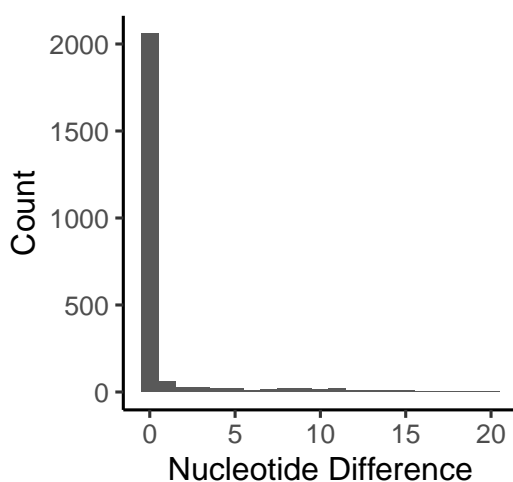
### IGHV1-2\*04

1293 sequences assigned  
1201 (92.9%) exact matches, in which:  
1185 unique CDR3  
6 unique J



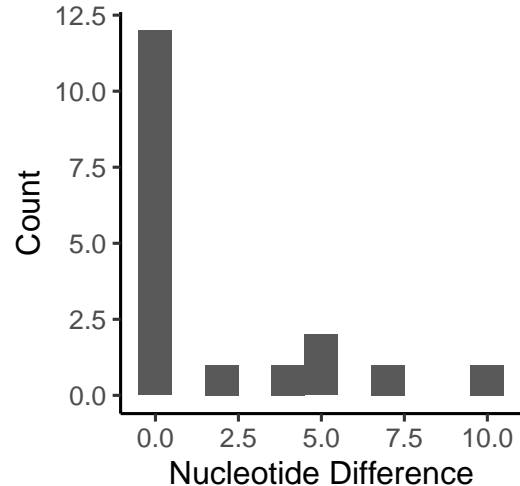
### IGHV1-18\*01

2368 sequences assigned  
2059 (87%) exact matches, in which:  
2018 unique CDR3  
6 unique J



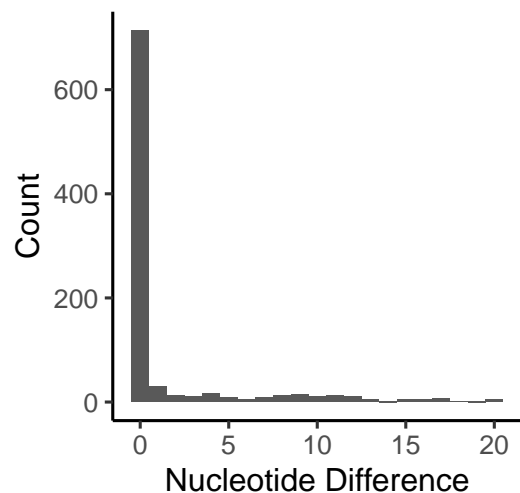
### IGHV1-45\*02

18 sequences assigned  
12 (66.7%) exact matches, in which:  
12 unique CDR3  
3 unique J



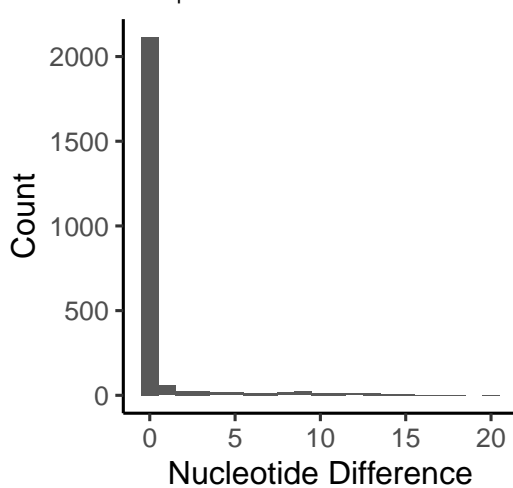
### IGHV1-3\*01\_05

895 sequences assigned  
714 (79.8%) exact matches, in which:  
709 unique CDR3  
6 unique J



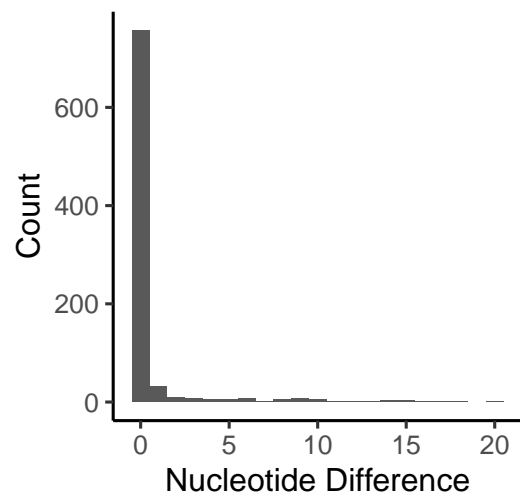
### IGHV1-18\*04

2401 sequences assigned  
2115 (88.1%) exact matches, in which:  
2071 unique CDR3  
6 unique J



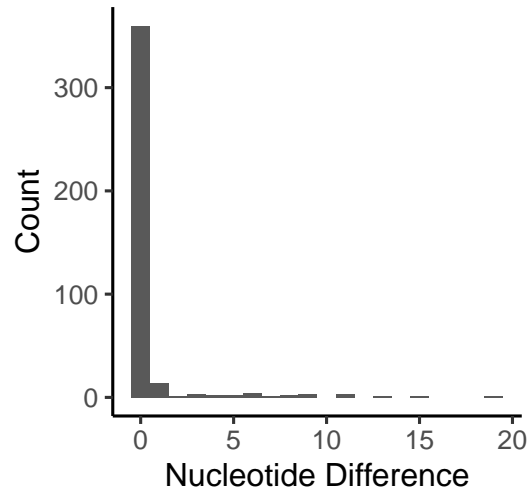
### IGHV1-46\*01

864 sequences assigned  
757 (87.6%) exact matches, in which:  
752 unique CDR3  
6 unique J



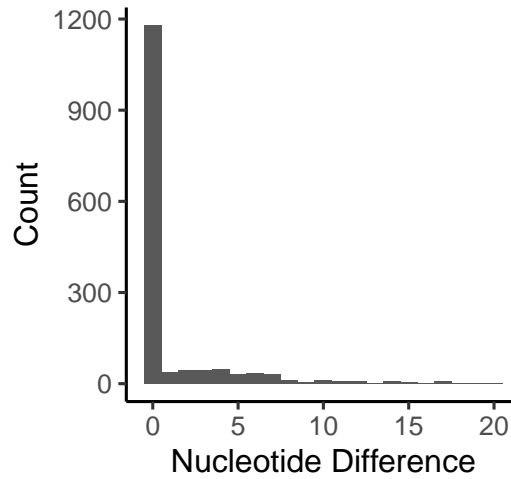
### IGHV1–46\*03

399 sequences assigned  
360 (90.2%) exact matches, in which:  
353 unique CDR3  
6 unique J



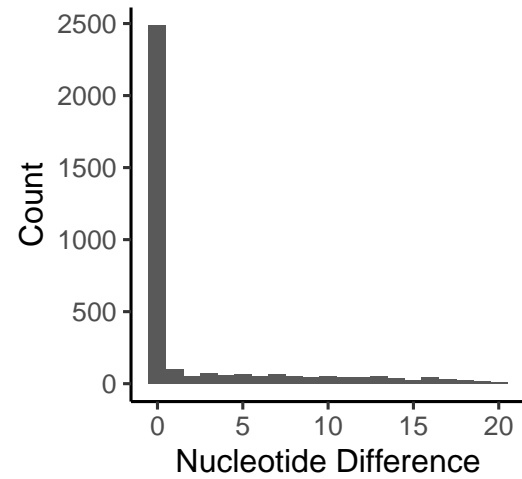
### IGHV2–5\*01

1532 sequences assigned  
1179 (77%) exact matches, in which:  
1164 unique CDR3  
6 unique J



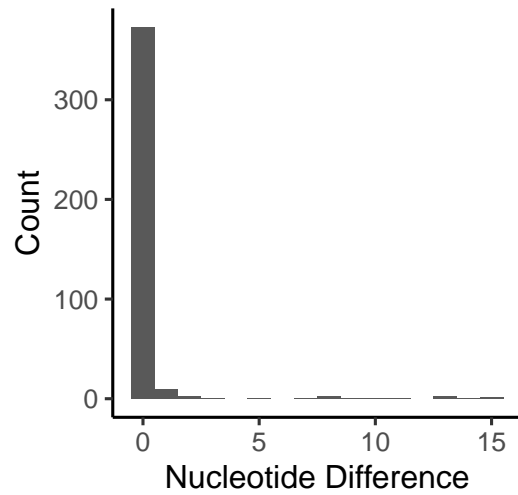
### IGHV3–7\*01

3473 sequences assigned  
2487 (71.6%) exact matches, in which:  
2326 unique CDR3  
6 unique J



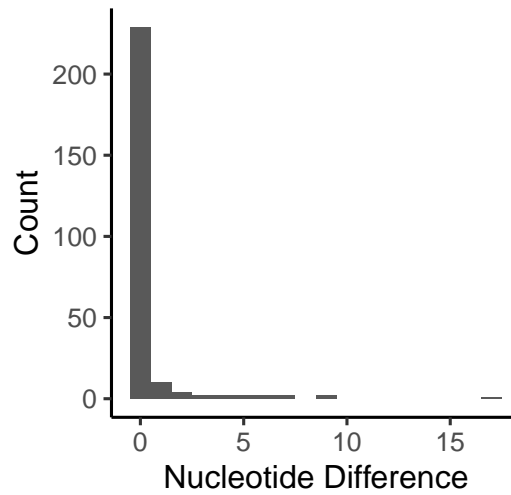
### IGHV1–58\*01\_03

401 sequences assigned  
373 (93%) exact matches, in which:  
365 unique CDR3  
6 unique J



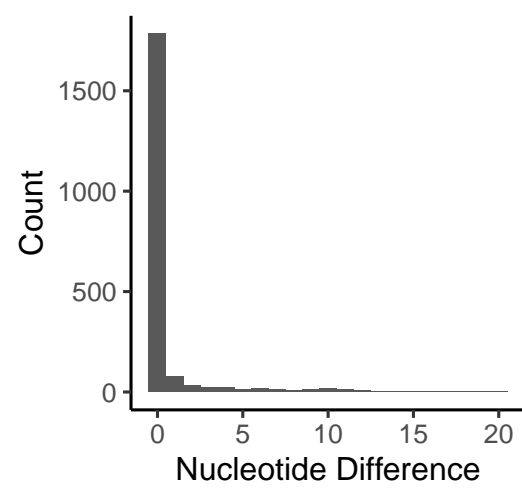
### IGHV2–26\*01

256 sequences assigned  
229 (89.5%) exact matches, in which:  
226 unique CDR3  
6 unique J



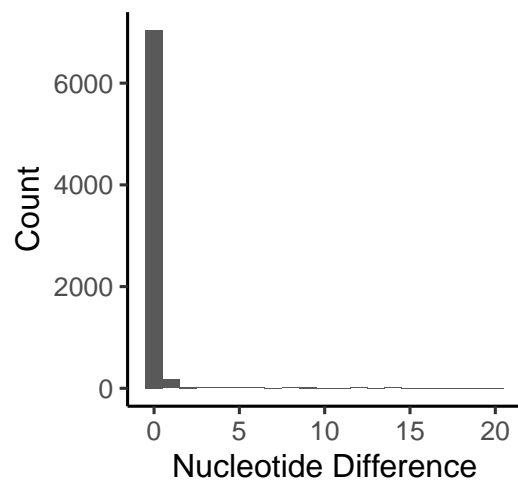
### IGHV3–9\*01

2057 sequences assigned  
1784 (86.7%) exact matches, in which:  
1713 unique CDR3  
6 unique J



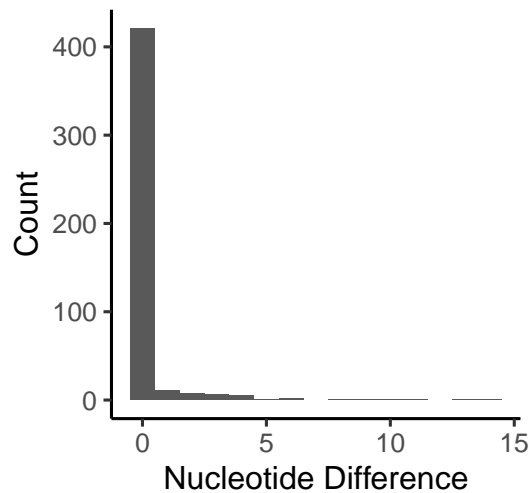
### IGHV1–69\*01\_12\_13

7474 sequences assigned  
7044 (94.2%) exact matches, in which:  
6973 unique CDR3  
6 unique J



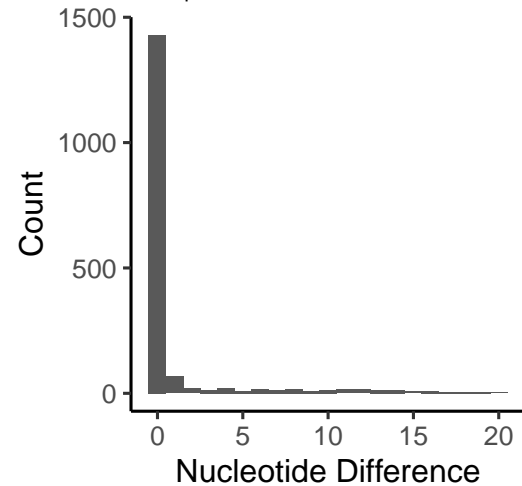
### IGHV2–70\*01

459 sequences assigned  
421 (91.7%) exact matches, in which:  
417 unique CDR3  
5 unique J



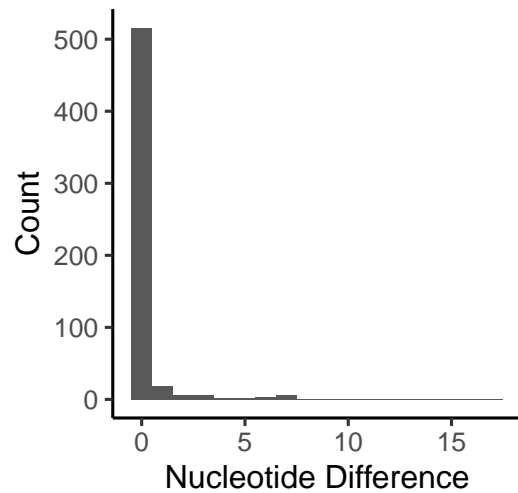
### IGHV3–11\*01

1736 sequences assigned  
1429 (82.3%) exact matches, in which:  
1358 unique CDR3  
6 unique J



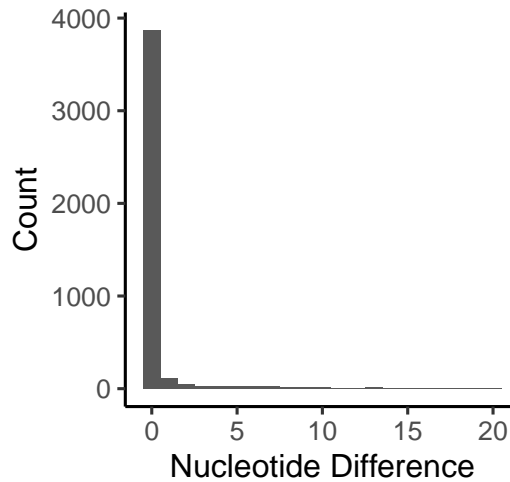
### IGHV3-13\*01

571 sequences assigned  
516 (90.4%) exact matches, in which:  
478 unique CDR3  
5 unique J



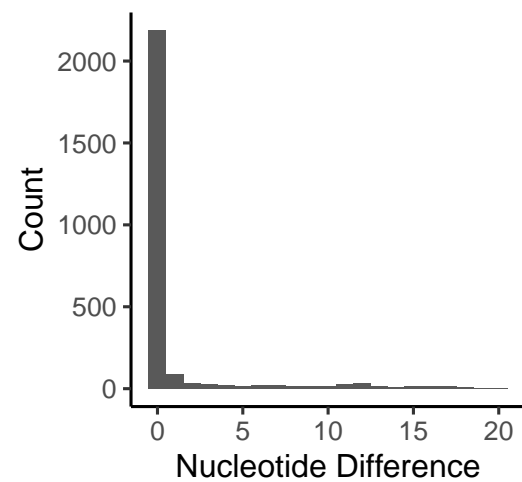
### IGHV3-21\*01\_02

4283 sequences assigned  
3867 (90.3%) exact matches, in which:  
3573 unique CDR3  
6 unique J



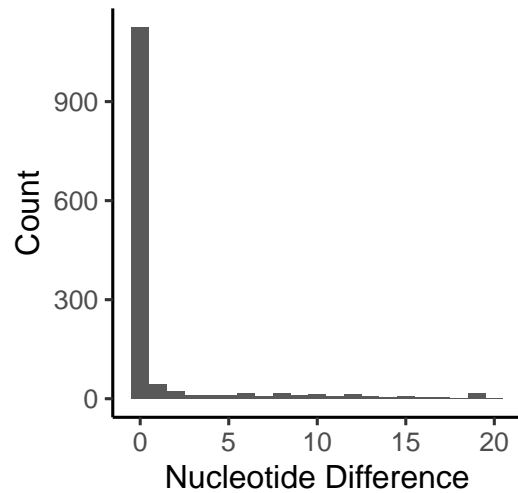
### IGHV3-33\*01

2613 sequences assigned  
2187 (83.7%) exact matches, in which:  
2092 unique CDR3  
6 unique J



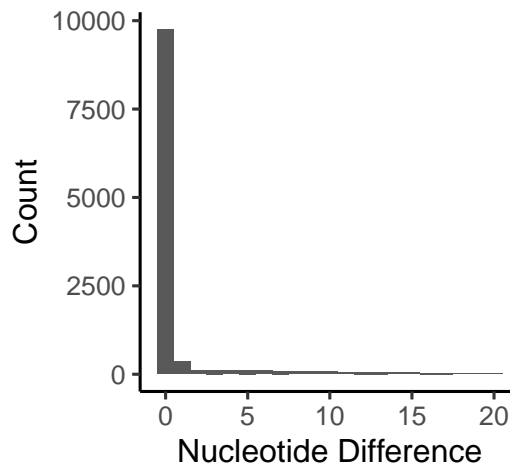
### IGHV3-15\*01\_02

1379 sequences assigned  
1126 (81.7%) exact matches, in which:  
1066 unique CDR3  
6 unique J



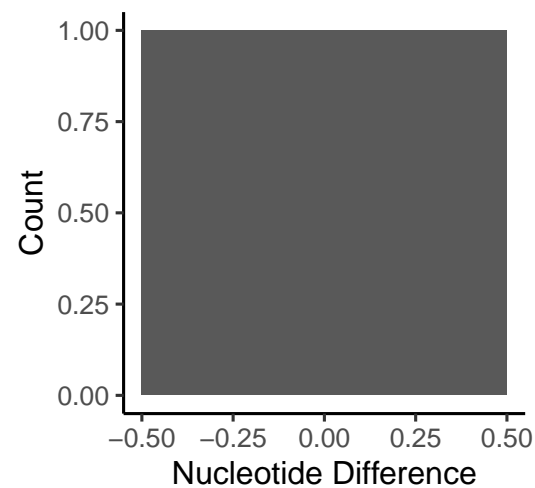
### IGHV3-23\*01\_04

11474 sequences assigned  
9751 (85%) exact matches, in which:  
8998 unique CDR3  
6 unique J



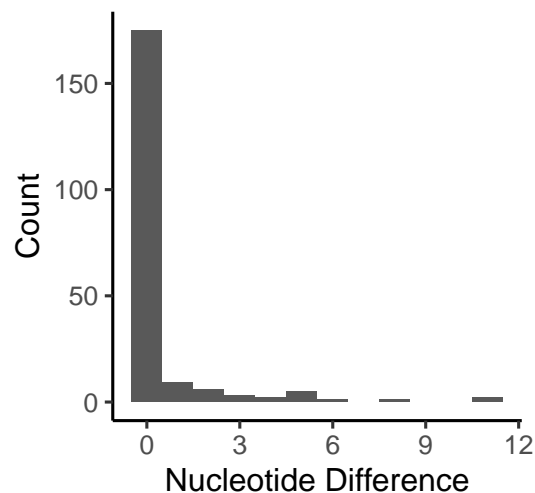
### IGHV3-35\*01

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



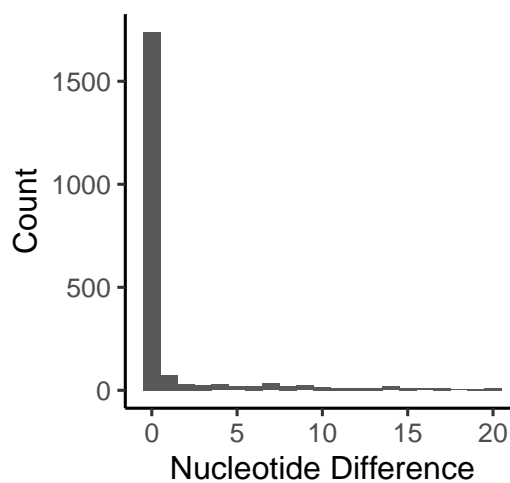
### IGHV3-20\*01\_02

206 sequences assigned  
175 (85%) exact matches, in which:  
164 unique CDR3  
5 unique J



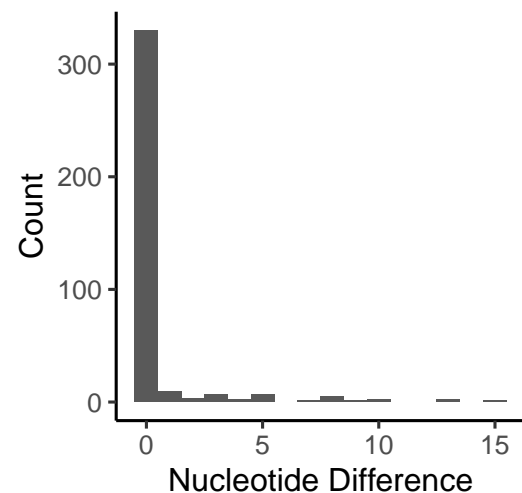
### IGHV3-30-3\*01

2159 sequences assigned  
1739 (80.5%) exact matches, in which:  
1667 unique CDR3  
6 unique J



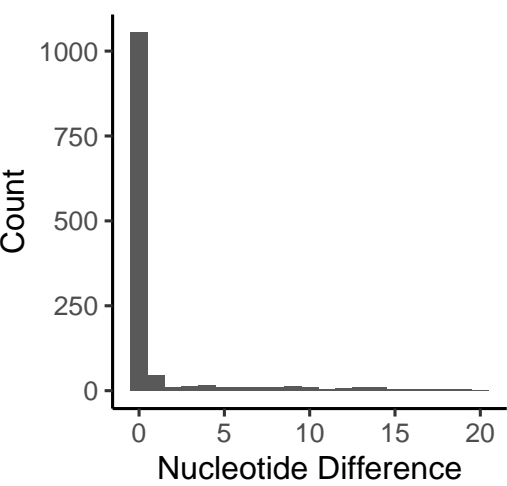
### IGHV3-43\*01

370 sequences assigned  
330 (89.2%) exact matches, in which:  
306 unique CDR3  
6 unique J



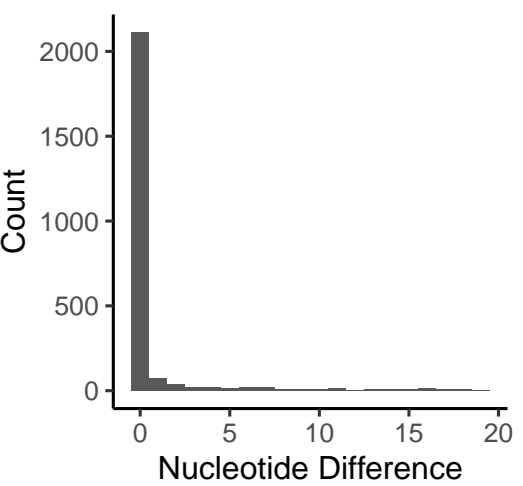
IGHV3-48\*01

1268 sequences assigned  
1055 (83.2%) exact matches, in which:  
977 unique CDR3  
6 unique J



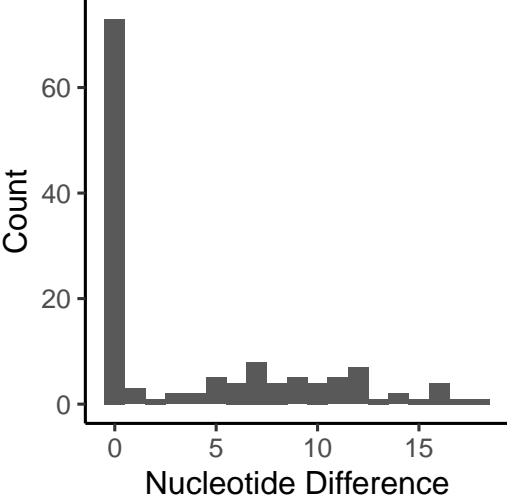
IGHV3-53\*01\_02

2425 sequences assigned  
2112 (87.1%) exact matches, in which:  
1942 unique CDR3  
6 unique J



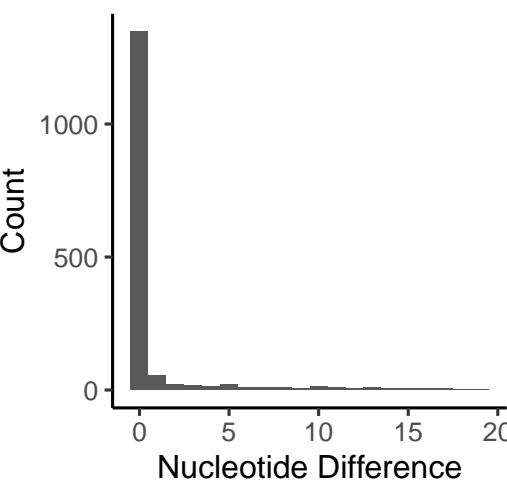
IGHV3-72\*01

133 sequences assigned  
73 (54.9%) exact matches, in which:  
67 unique CDR3  
6 unique J



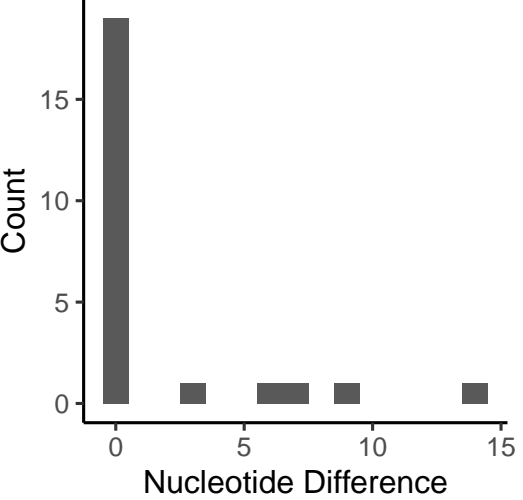
IGHV3-48\*02

1582 sequences assigned  
1347 (85.1%) exact matches, in which:  
1243 unique CDR3  
6 unique J



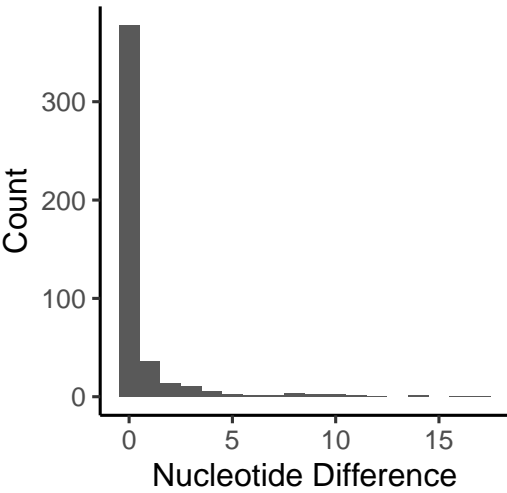
IGHV3-64\*02\_07

24 sequences assigned  
19 (79.2%) exact matches, in which:  
18 unique CDR3  
5 unique J



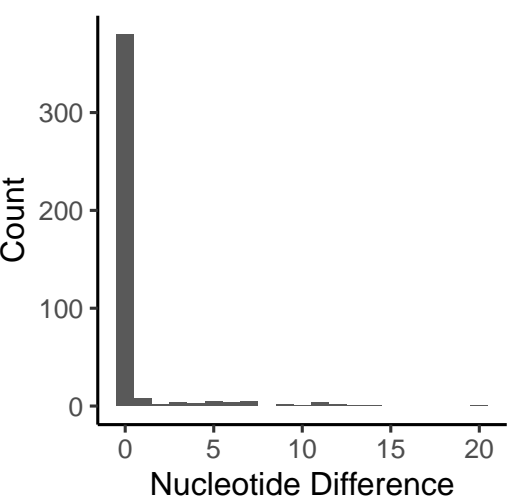
IGHV3-73\*01\_02

469 sequences assigned  
378 (80.6%) exact matches, in which:  
321 unique CDR3  
6 unique J



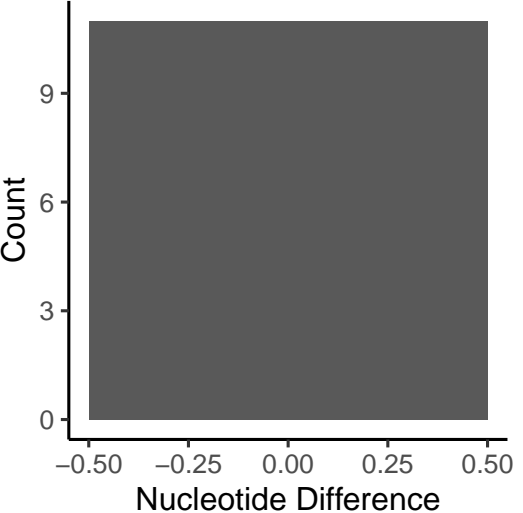
IGHV3-49\*03\_05

423 sequences assigned  
380 (89.8%) exact matches, in which:  
368 unique CDR3  
6 unique J



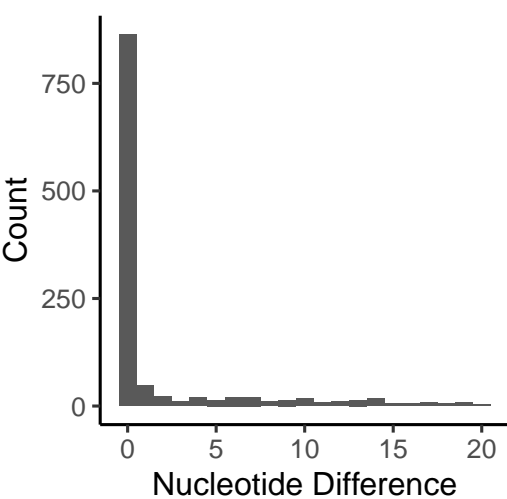
IGHV3-66\*03

11 sequences assigned  
11 (100%) exact matches, in which:  
11 unique CDR3  
2 unique J



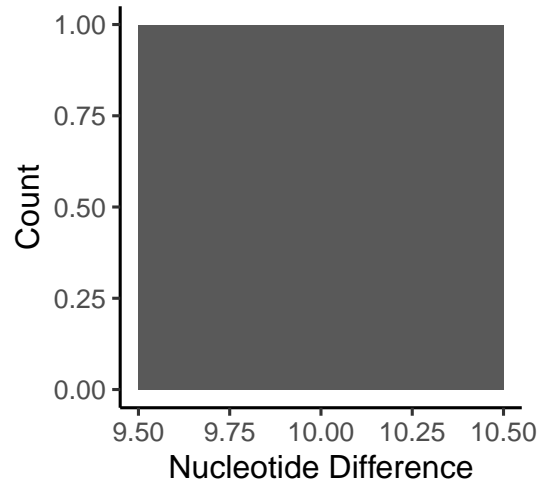
IGHV3-74\*01\_02

1164 sequences assigned  
864 (74.2%) exact matches, in which:  
812 unique CDR3  
6 unique J



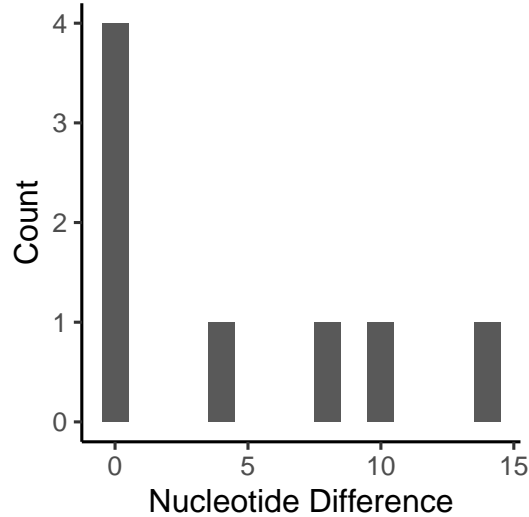
### IGHV3–NL1\*01

1 sequences assigned  
No exact matches.



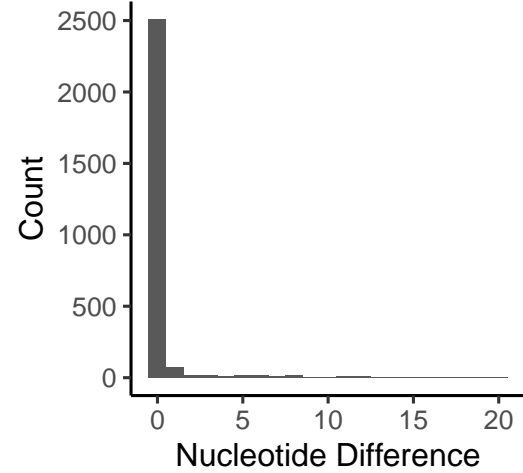
### IGHV4–28\*01\_07

8 sequences assigned  
4 (50%) exact matches, in which:  
4 unique CDR3  
2 unique J



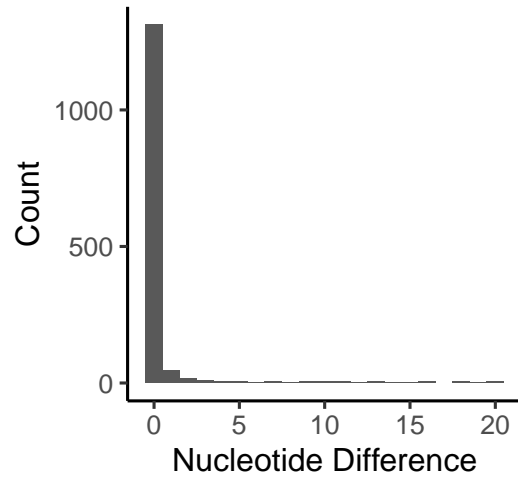
### IGHV4–31\*02

2764 sequences assigned  
2508 (90.7%) exact matches, in which:  
2413 unique CDR3  
6 unique J



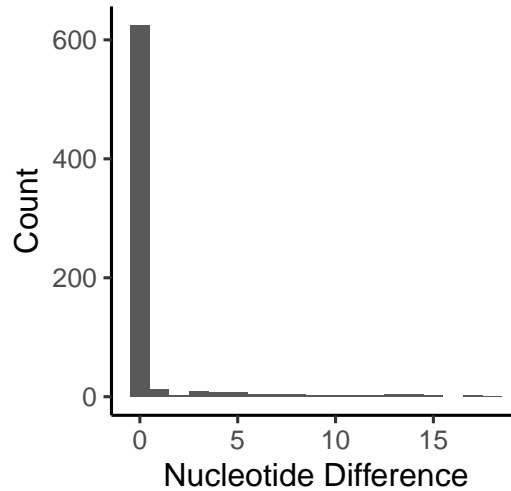
### IGHV4–4\*07

1450 sequences assigned  
1312 (90.5%) exact matches, in which:  
1219 unique CDR3  
6 unique J



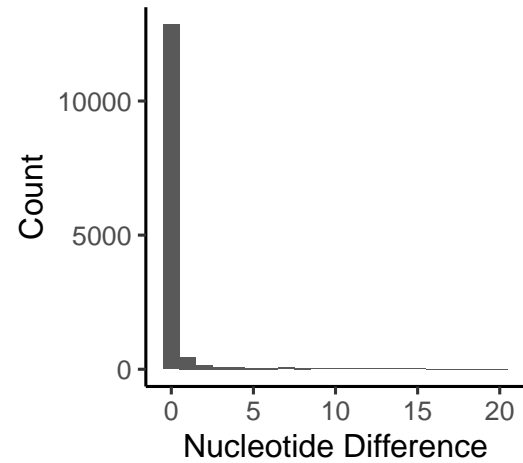
### IGHV4–30–4\*01

700 sequences assigned  
625 (89.3%) exact matches, in which:  
603 unique CDR3  
6 unique J



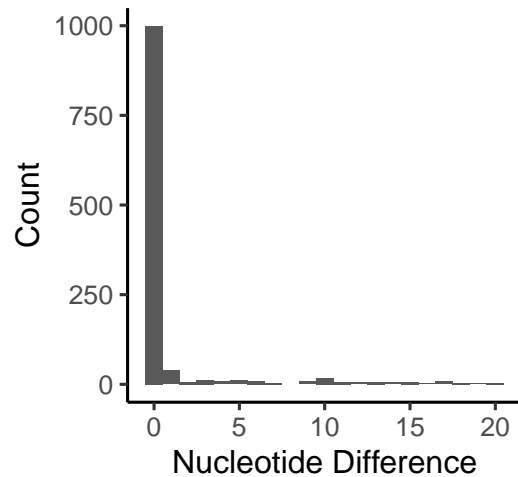
### IGHV4–34\*01\_02

14089 sequences assigned  
12853 (91.2%) exact matches, in which:  
11791 unique CDR3  
6 unique J



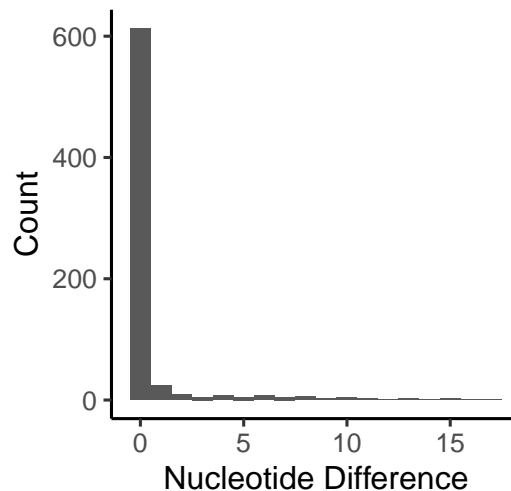
### IGHV4–4\*02\_03

1174 sequences assigned  
999 (85.1%) exact matches, in which:  
948 unique CDR3  
6 unique J



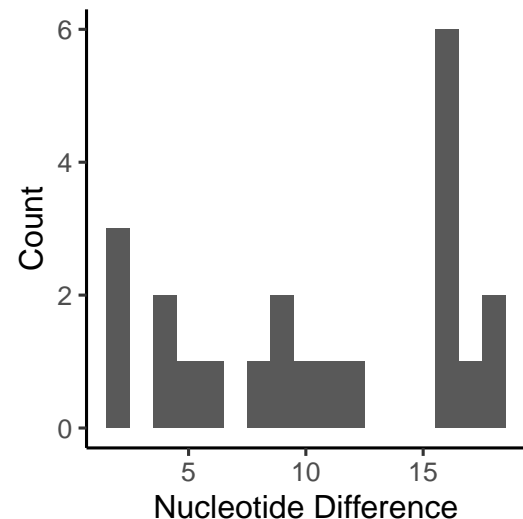
### IGHV4–30–2\*01

702 sequences assigned  
613 (87.3%) exact matches, in which:  
560 unique CDR3  
6 unique J



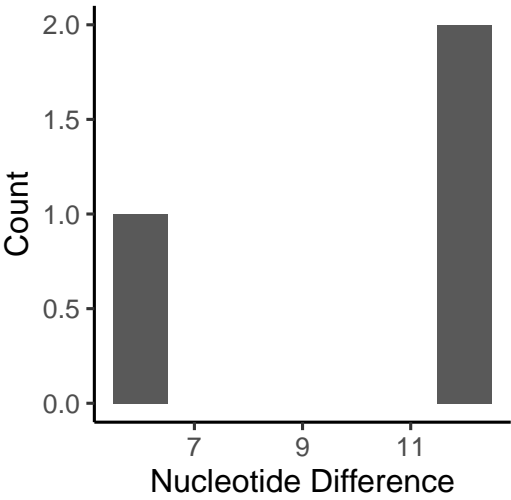
### IGHV4–39\*02

23 sequences assigned  
No exact matches.



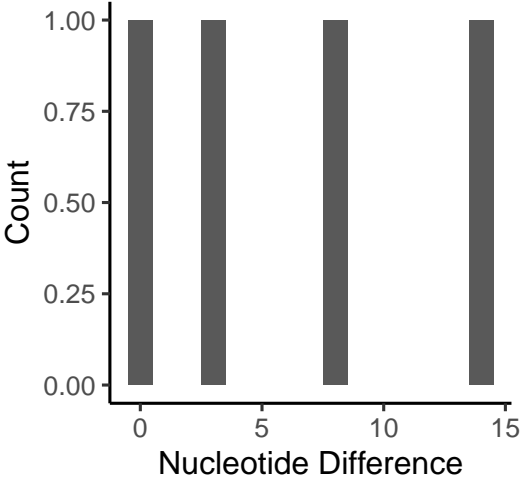
IGHV4-59\*02

4 sequences assigned  
No exact matches.



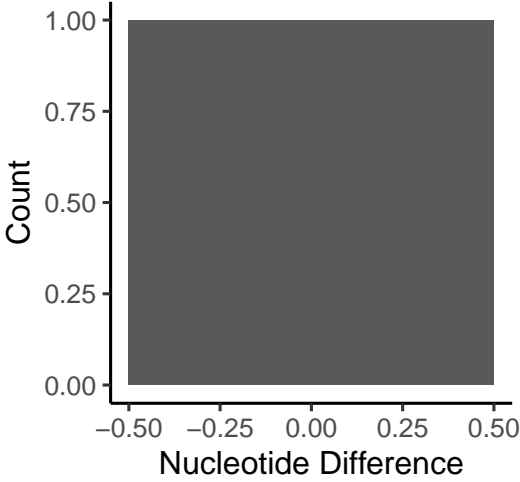
IGHV4-59\*13

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



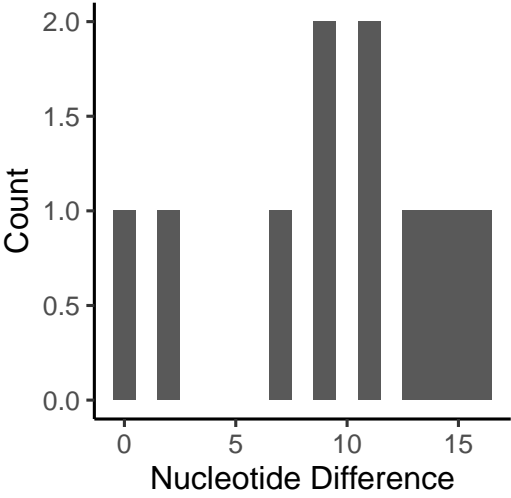
IGHV5-51\*07

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



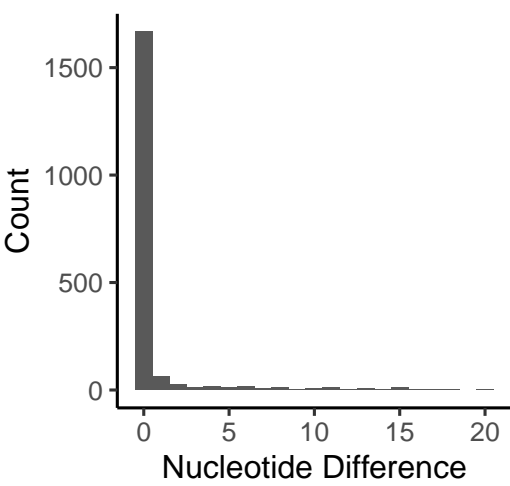
IGHV4-59\*11

12 sequences assigned  
1 (8.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



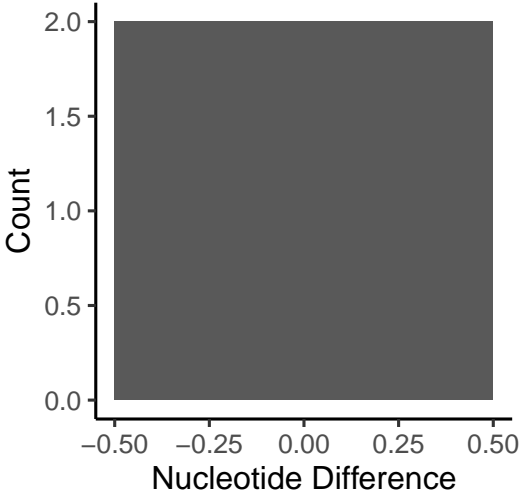
IGHV4-61\*01

1882 sequences assigned  
1667 (88.6%) exact matches, in which:  
1566 unique CDR3  
6 unique J



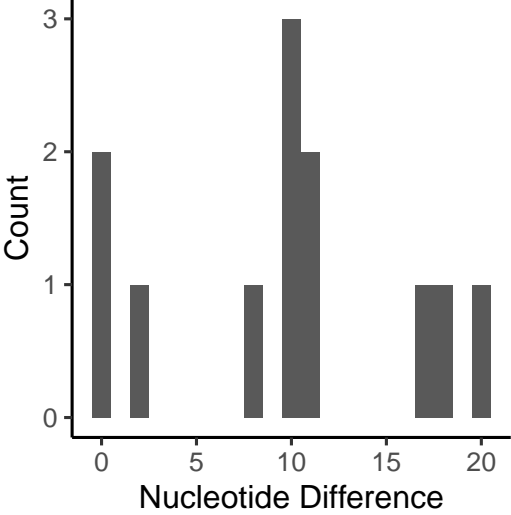
IGHV5-51\*01\_03

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



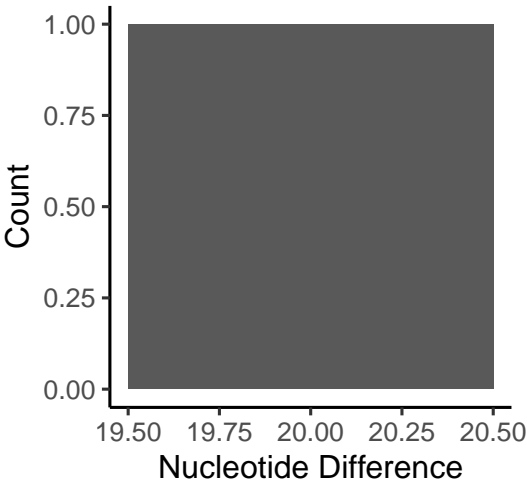
IGHV4-59\*12

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



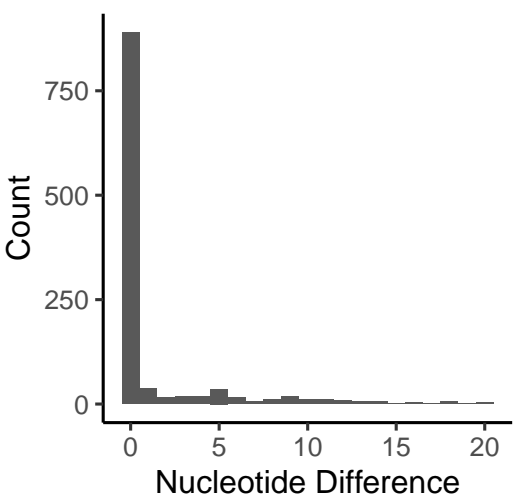
IGHV4/OR15-8\*02

1 sequences assigned  
No exact matches.



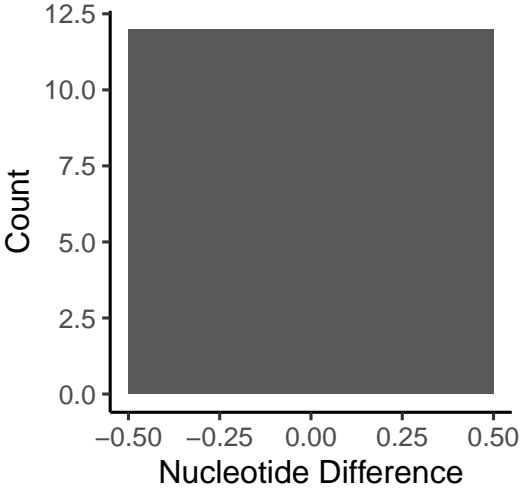
IGHV6-1\*01\_02

1130 sequences assigned  
890 (78.8%) exact matches, in which:  
859 unique CDR3  
6 unique J



IGHV7-4-1\*01

12 sequences assigned  
12 (100%) exact matches, in which:  
12 unique CDR3  
4 unique J







Warning – no inferred sequences found.