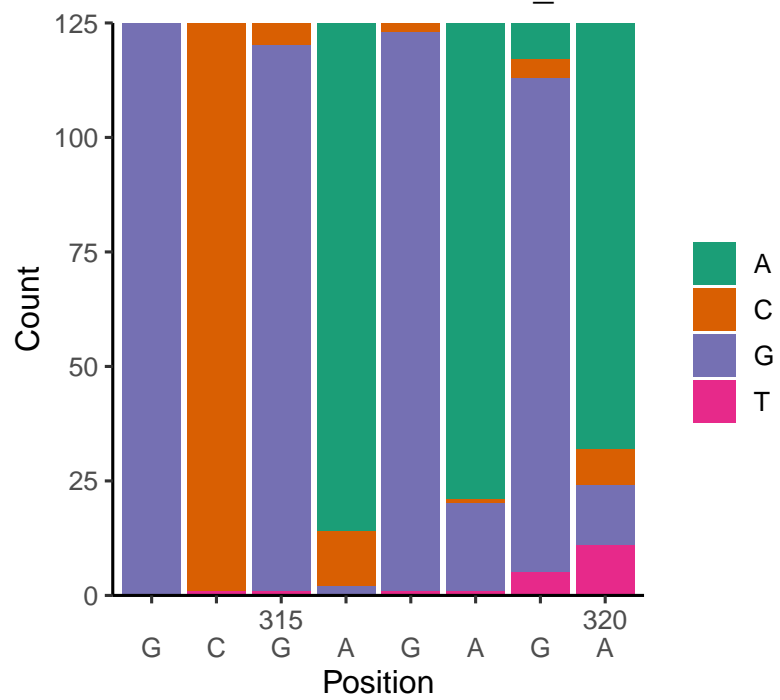
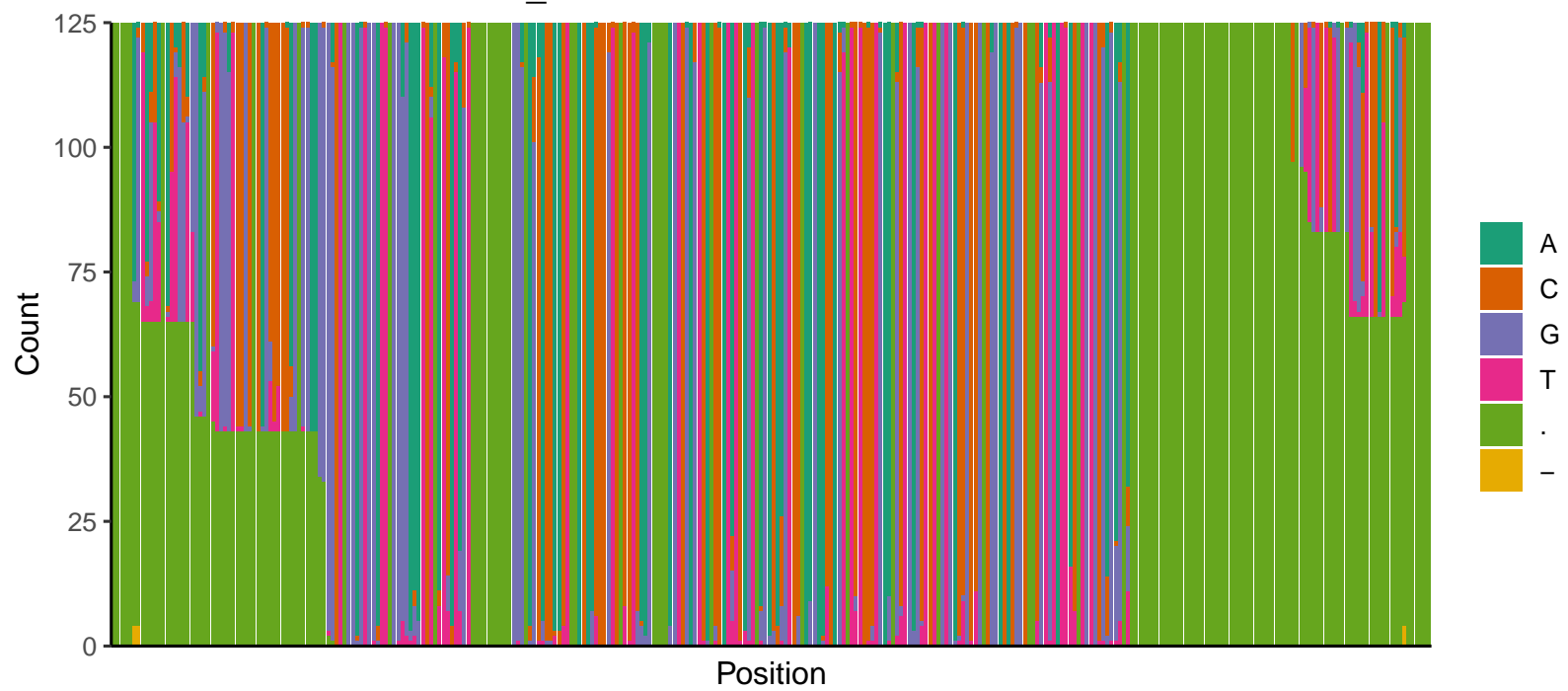


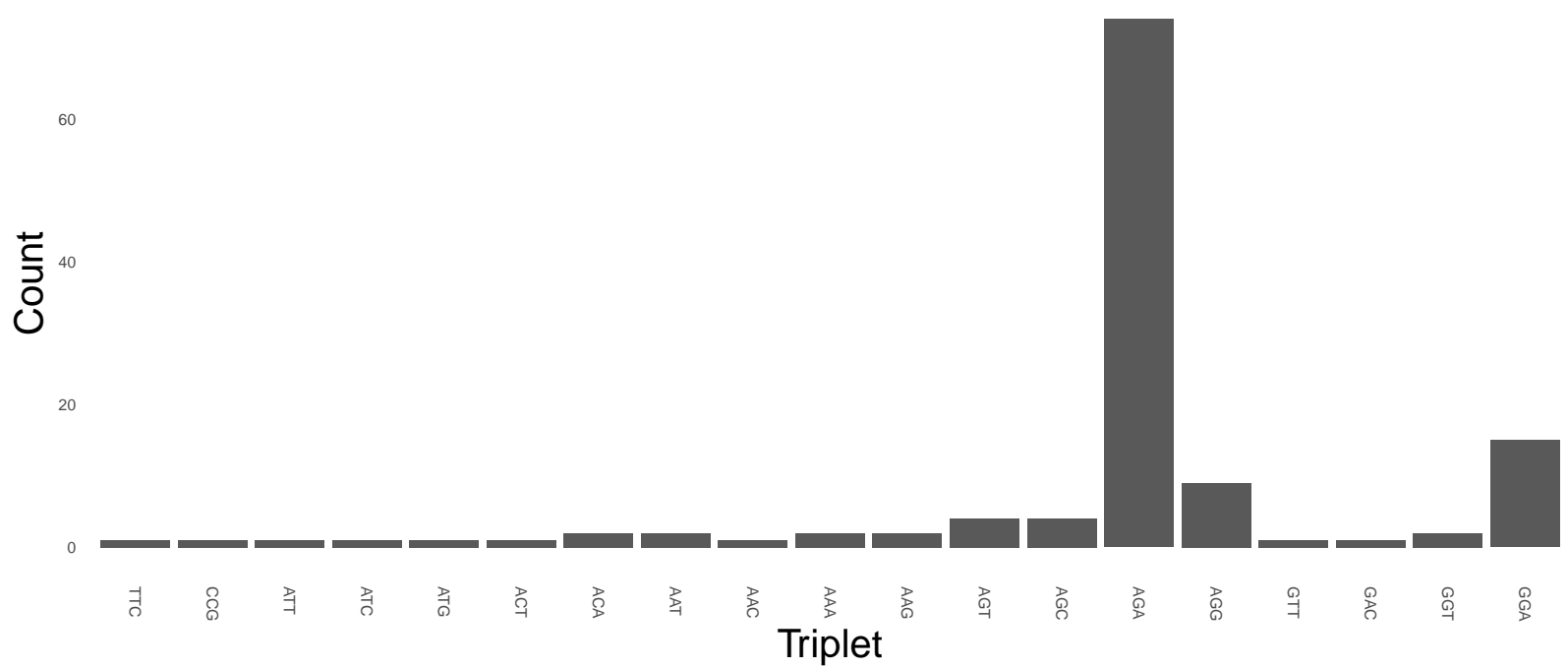
# Gene IGHV4/OR15-8\*01\_C193A



# Gene IGHV4/OR15-8\*01\_C193A

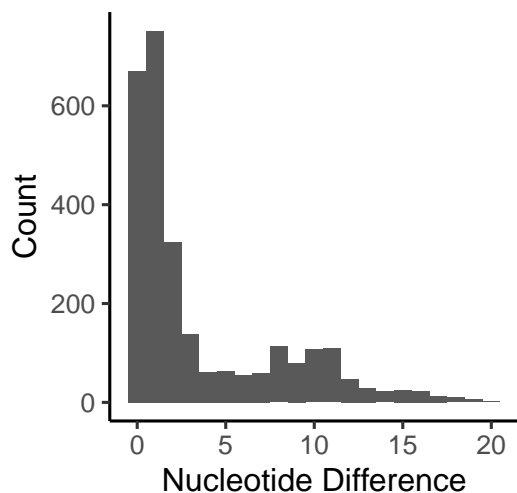


IGHV4/OR15-8\*01\_C193A- Final 3 nucleotides as a triplet



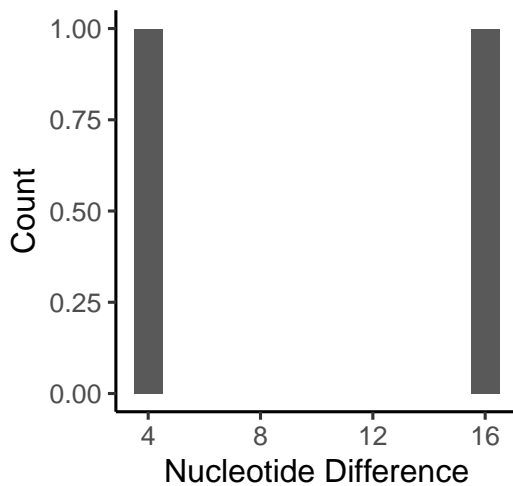
### IGHV1-2\*04

3597 sequences assigned  
670 (18.6%) exact matches, in which:  
570 unique CDR3  
6 unique J



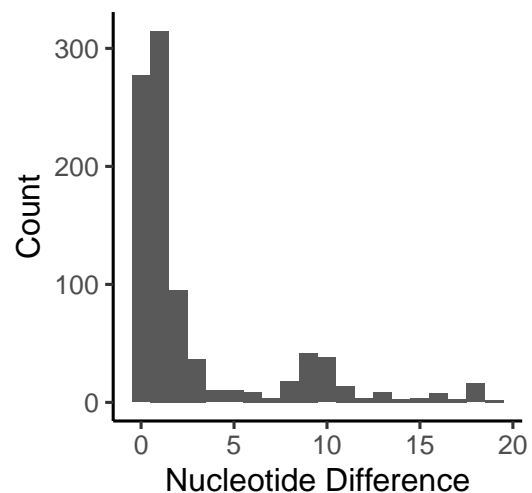
### IGHV1-8\*02

2 sequences assigned  
No exact matches.



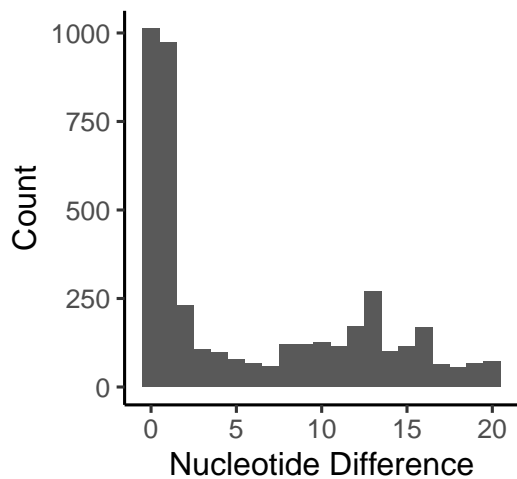
### IGHV1-24\*01

933 sequences assigned  
277 (29.7%) exact matches, in which:  
230 unique CDR3  
6 unique J



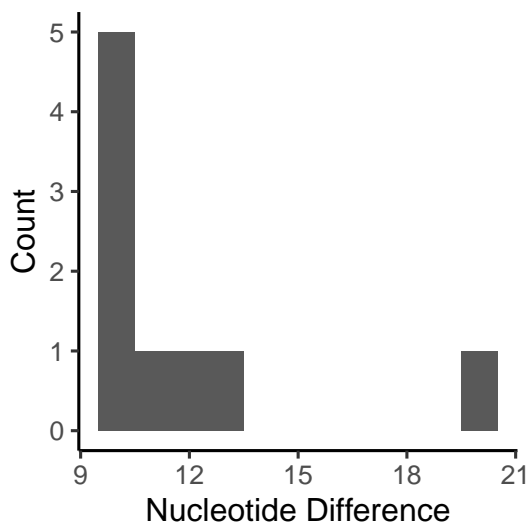
### IGHV1-3\*01\_05

4545 sequences assigned  
1012 (22.3%) exact matches, in which:  
833 unique CDR3  
6 unique J



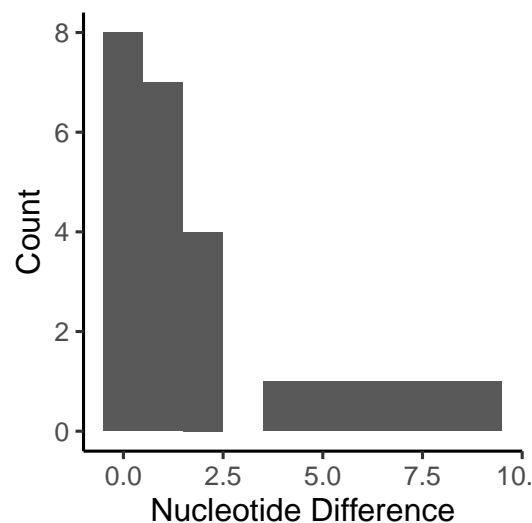
### IGHV1-8\*03

10 sequences assigned  
No exact matches.



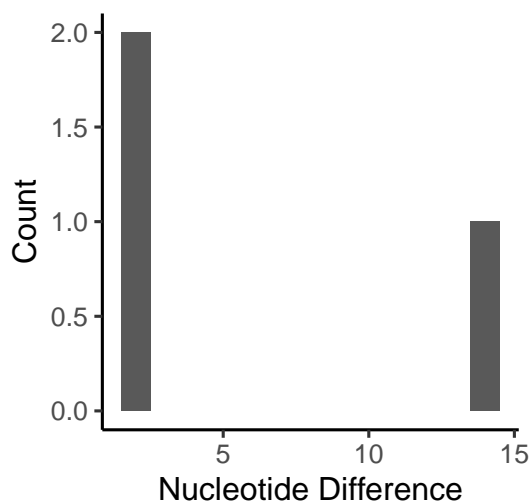
### IGHV1-45\*02

25 sequences assigned  
8 (32%) exact matches, in which:  
7 unique CDR3  
4 unique J



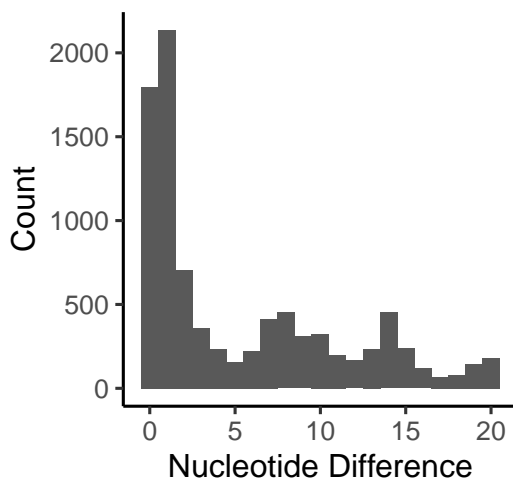
### IGHV1-8\*01

4 sequences assigned  
No exact matches.



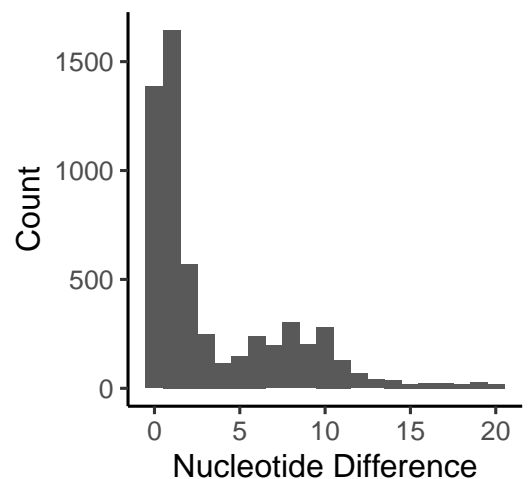
### IGHV1-18\*04

9505 sequences assigned  
1797 (18.9%) exact matches, in which:  
1461 unique CDR3  
6 unique J



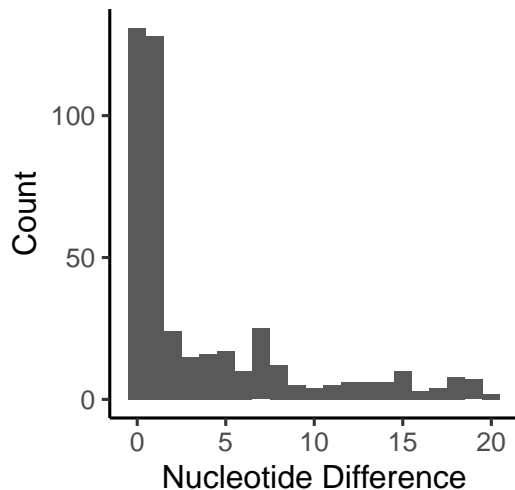
### IGHV1-46\*01

6692 sequences assigned  
1386 (20.7%) exact matches, in which:  
1142 unique CDR3  
6 unique J



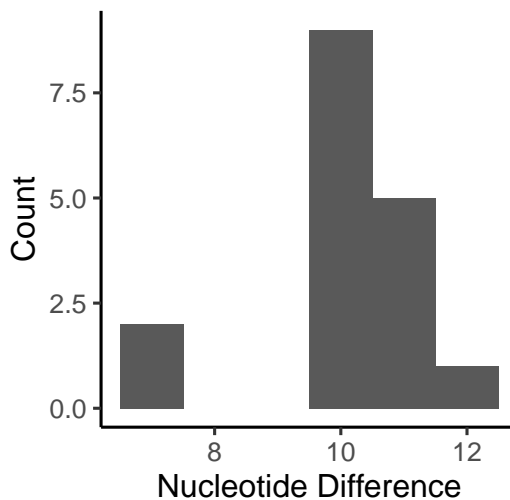
### IGHV1–58\*01\_03

447 sequences assigned  
131 (29.3%) exact matches, in which:  
104 unique CDR3  
5 unique J



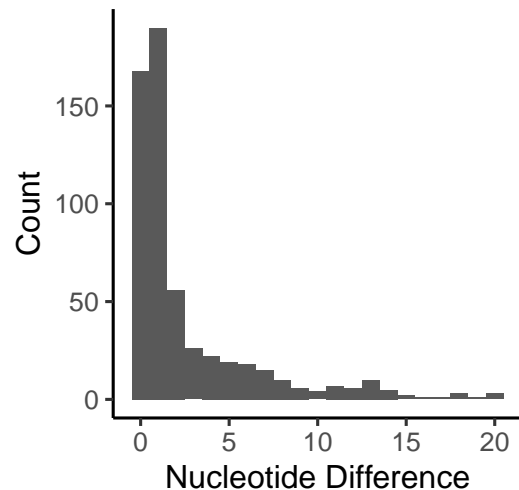
### IGHV1–NL1\*01

17 sequences assigned  
No exact matches.



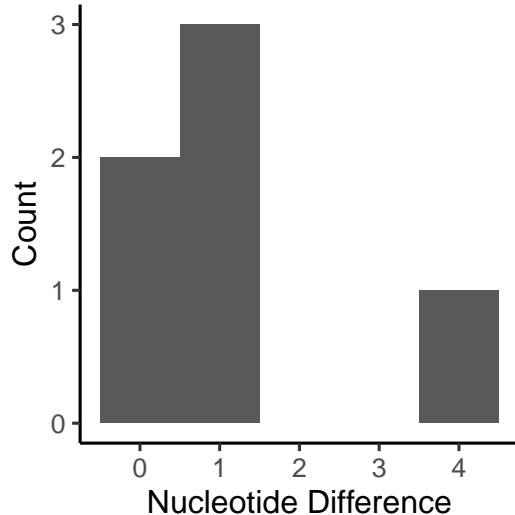
### IGHV2–70\*01

612 sequences assigned  
168 (27.5%) exact matches, in which:  
139 unique CDR3  
5 unique J



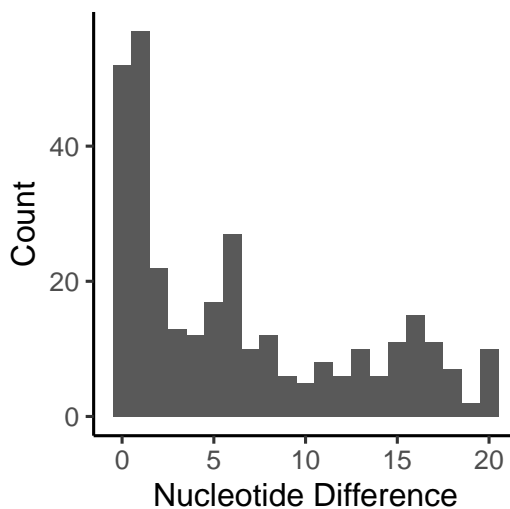
### IGHV1–68\*01

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



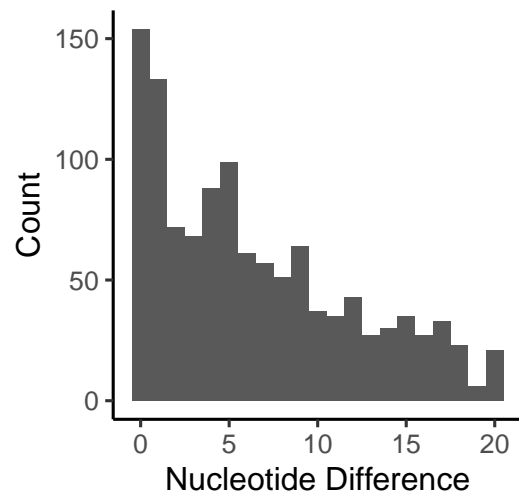
### IGHV2–5\*02

461 sequences assigned  
52 (11.3%) exact matches, in which:  
43 unique CDR3  
5 unique J



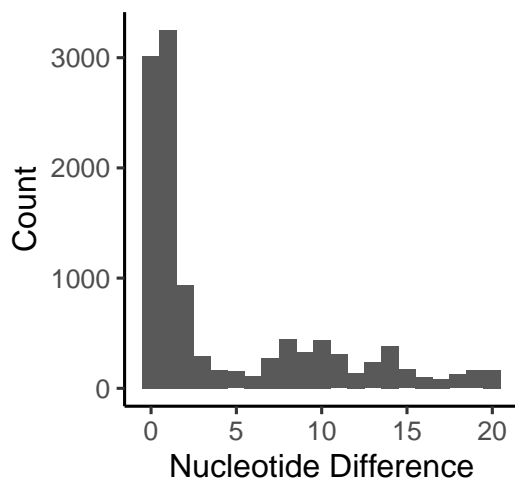
### IGHV3–7\*01

1288 sequences assigned  
154 (12%) exact matches, in which:  
142 unique CDR3  
6 unique J



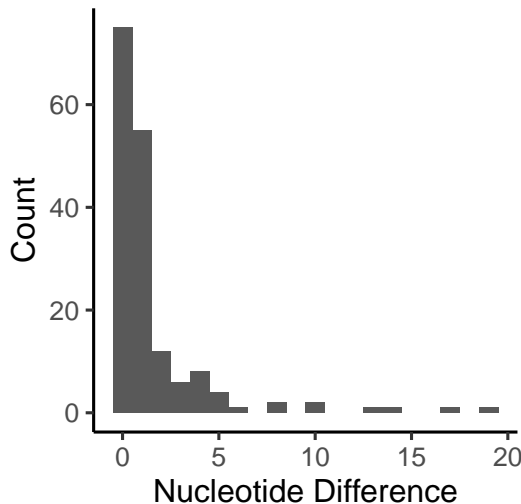
### IGHV1–69\*01\_12\_13

13252 sequences assigned  
3013 (22.7%) exact matches, in which:  
2605 unique CDR3  
6 unique J



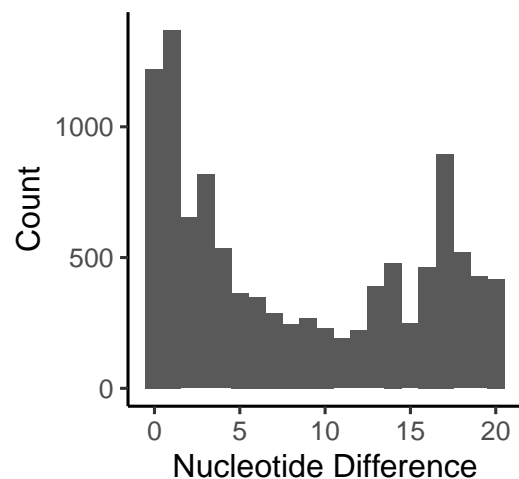
### IGHV2–26\*01

172 sequences assigned  
75 (43.6%) exact matches, in which:  
66 unique CDR3  
5 unique J



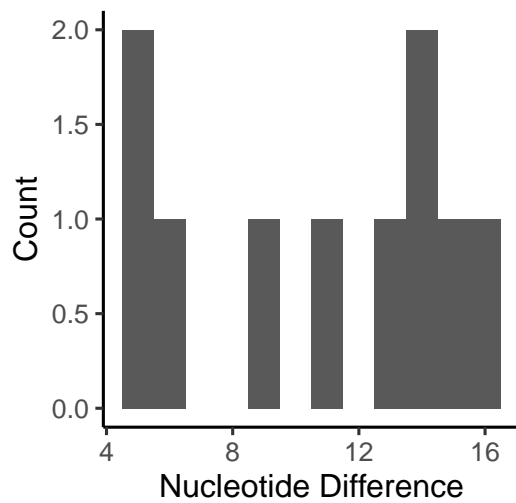
### IGHV3–7\*03

14848 sequences assigned  
1222 (8.2%) exact matches, in which:  
756 unique CDR3  
6 unique J



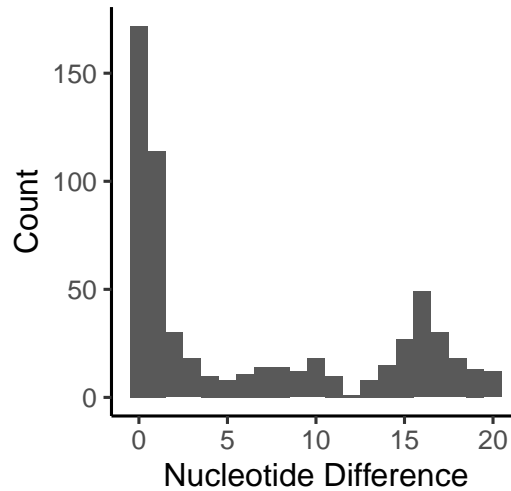
### IGHV3-9\*01

10 sequences assigned  
No exact matches.



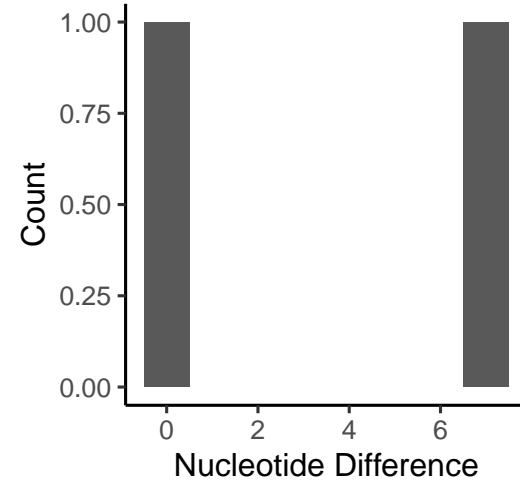
### IGHV3-13\*04

691 sequences assigned  
172 (24.9%) exact matches, in which:  
111 unique CDR3  
5 unique J



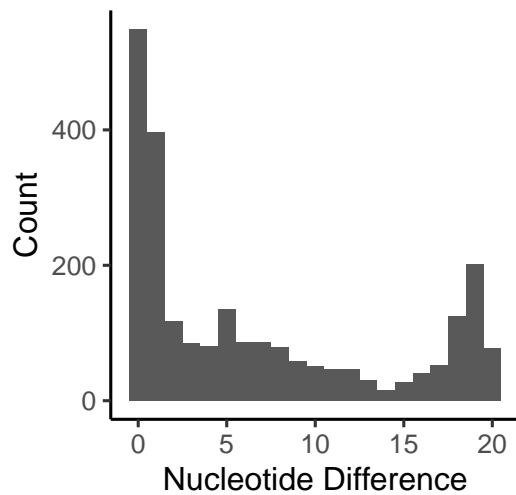
### IGHV3-19\*01

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



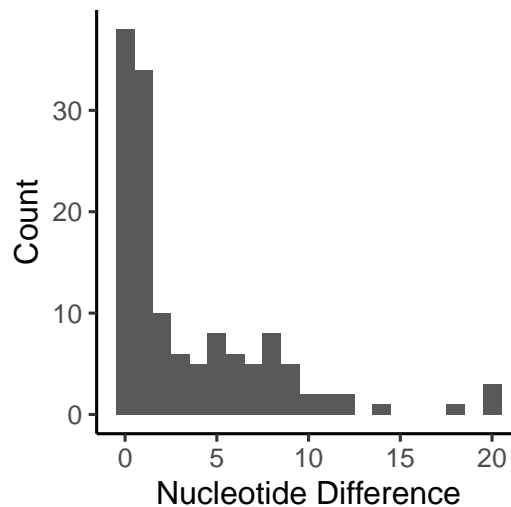
### IGHV3-11\*06

3211 sequences assigned  
549 (17.1%) exact matches, in which:  
365 unique CDR3  
6 unique J



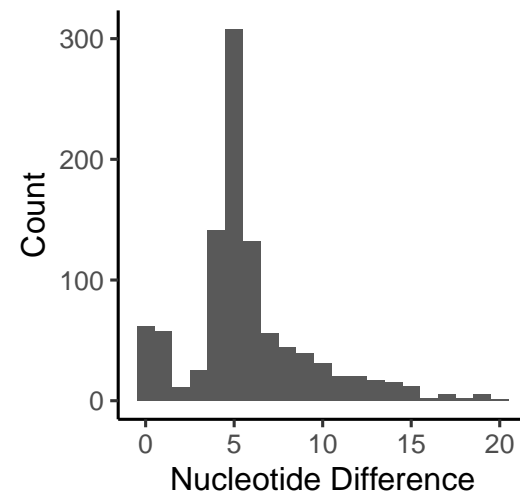
### IGHV3-13\*05

155 sequences assigned  
38 (24.5%) exact matches, in which:  
24 unique CDR3  
5 unique J



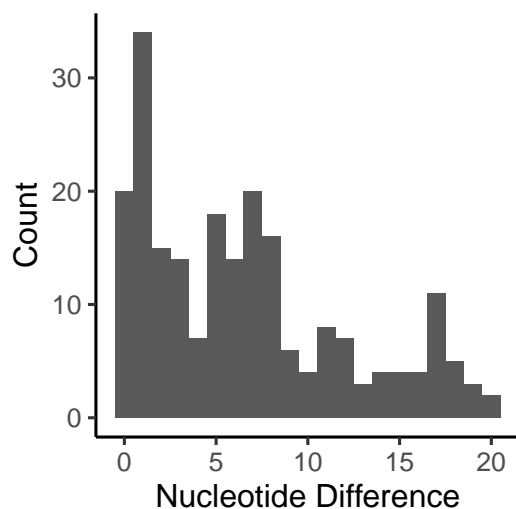
### IGHV3-20\*01\_02

1010 sequences assigned  
62 (6.1%) exact matches, in which:  
39 unique CDR3  
5 unique J



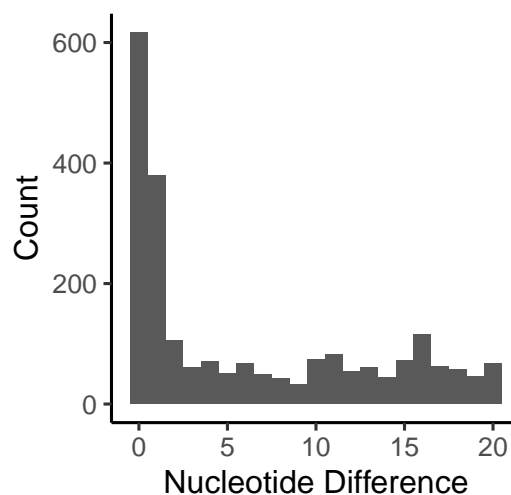
### IGHV3-11\*03\_05

253 sequences assigned  
20 (7.9%) exact matches, in which:  
20 unique CDR3  
5 unique J



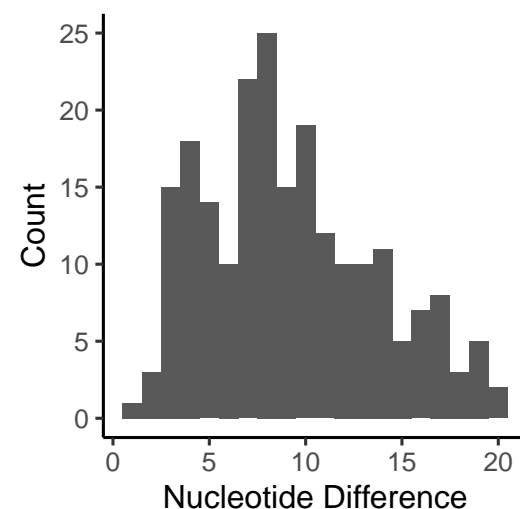
### IGHV3-15\*01\_02

3261 sequences assigned  
617 (18.9%) exact matches, in which:  
376 unique CDR3  
6 unique J



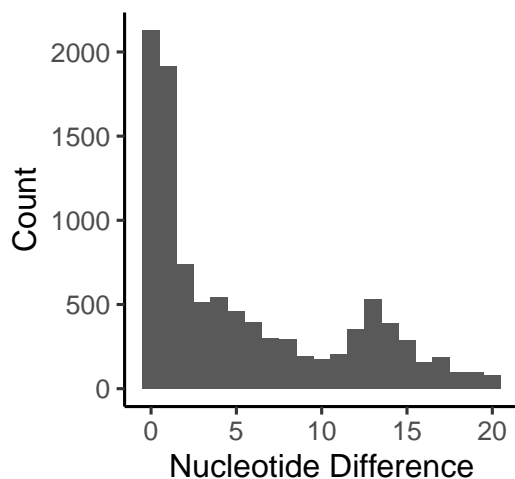
### IGHV3-20\*03\_04

239 sequences assigned  
No exact matches.



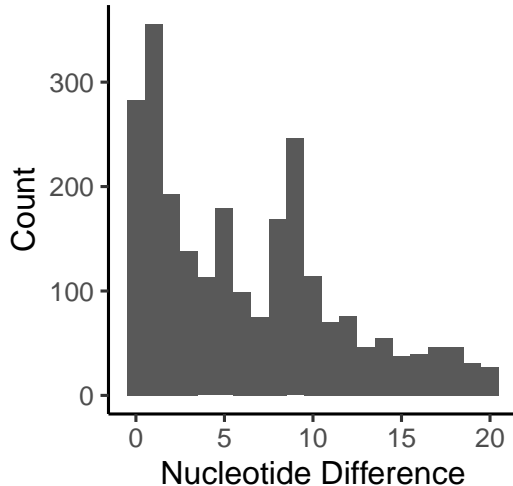
### IGHV3-21\*01\_02

10474 sequences assigned  
2128 (20.3%) exact matches, in which:  
1326 unique CDR3  
6 unique J



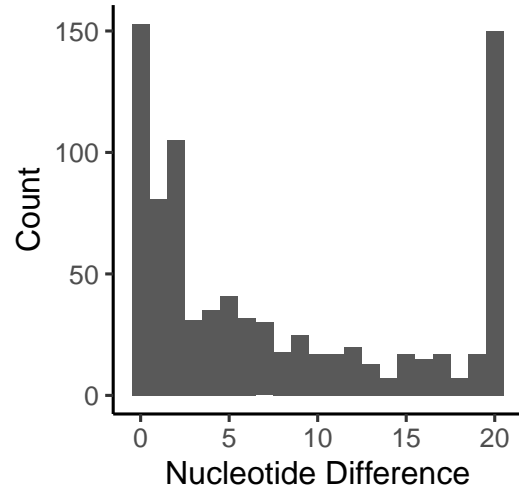
### IGHV3-30\*03

2931 sequences assigned  
283 (9.7%) exact matches, in which:  
261 unique CDR3  
5 unique J



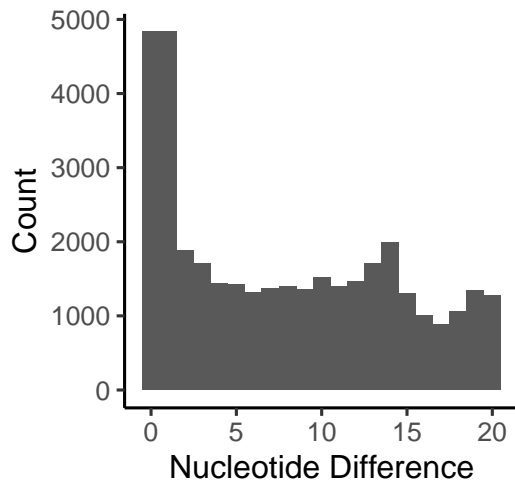
### IGHV3-33\*08

1520 sequences assigned  
153 (10.1%) exact matches, in which:  
126 unique CDR3  
6 unique J



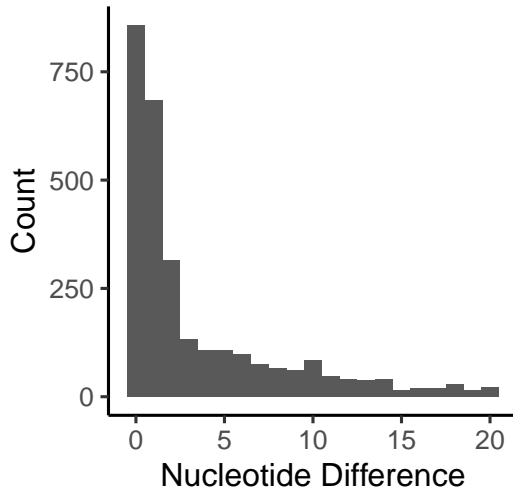
### IGHV3-23\*01\_04

42171 sequences assigned  
4832 (11.5%) exact matches, in which:  
2765 unique CDR3  
6 unique J



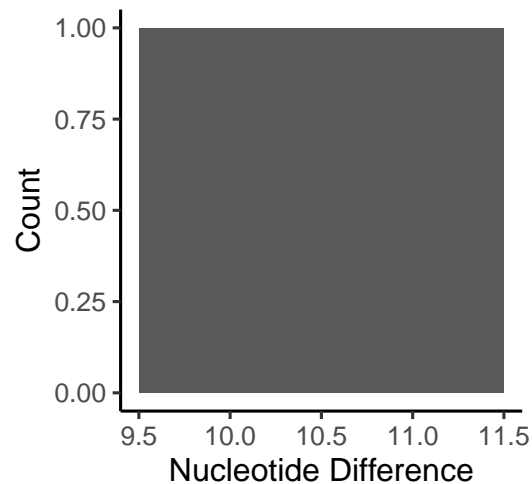
### IGHV3-33\*01

3311 sequences assigned  
858 (25.9%) exact matches, in which:  
596 unique CDR3  
6 unique J



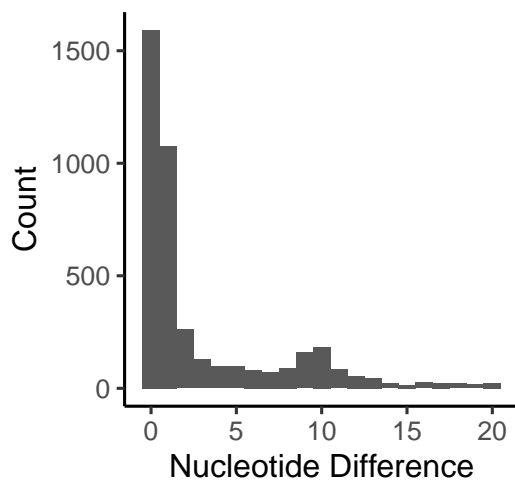
### IGHV3-35\*01

2 sequences assigned  
No exact matches.



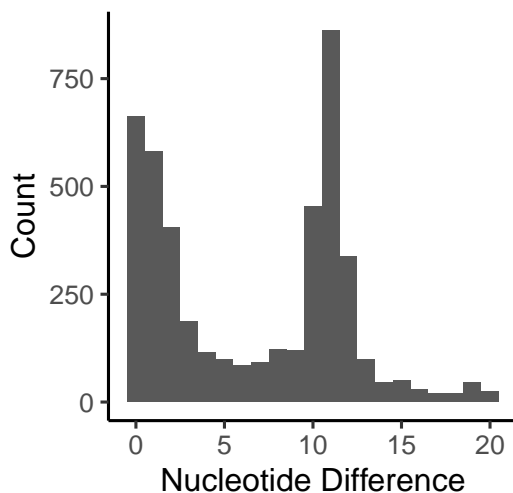
### IGHV3-30-3\*01

4549 sequences assigned  
1592 (35%) exact matches, in which:  
1083 unique CDR3  
6 unique J



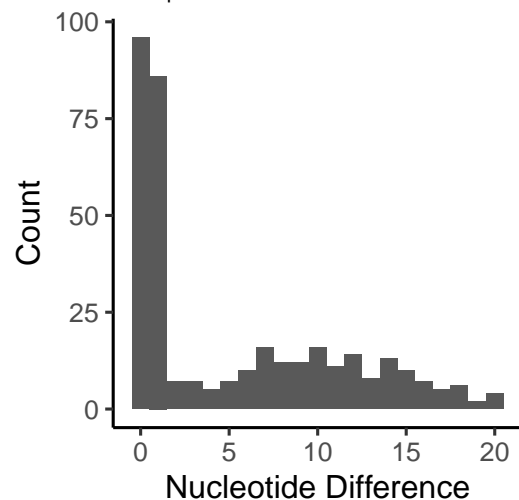
### IGHV3-33\*06

5423 sequences assigned  
662 (12.2%) exact matches, in which:  
414 unique CDR3  
6 unique J



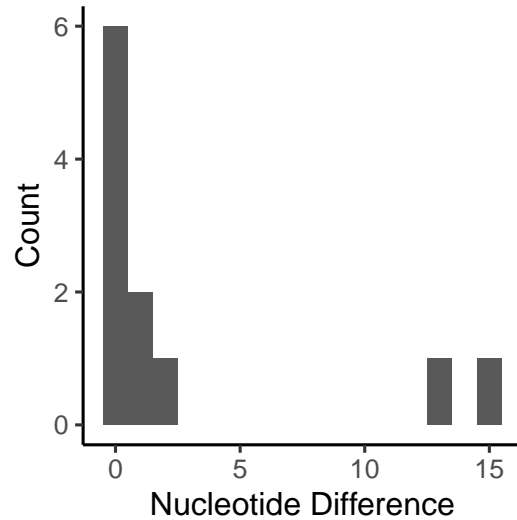
### IGHV3-43\*01

398 sequences assigned  
96 (24.1%) exact matches, in which:  
52 unique CDR3  
3 unique J



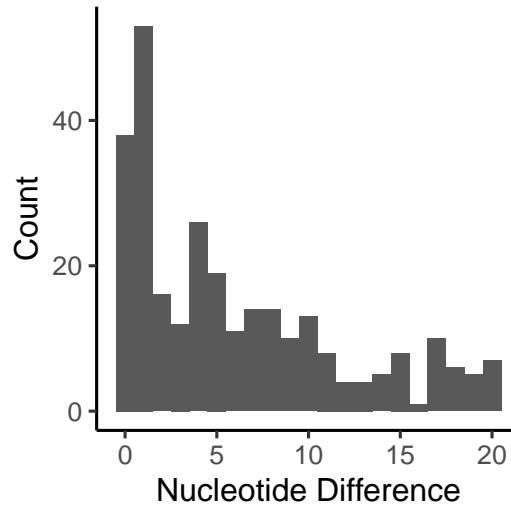
### IGHV3-47\*02

11 sequences assigned  
6 (54.5%) exact matches, in which:  
5 unique CDR3  
1 unique J



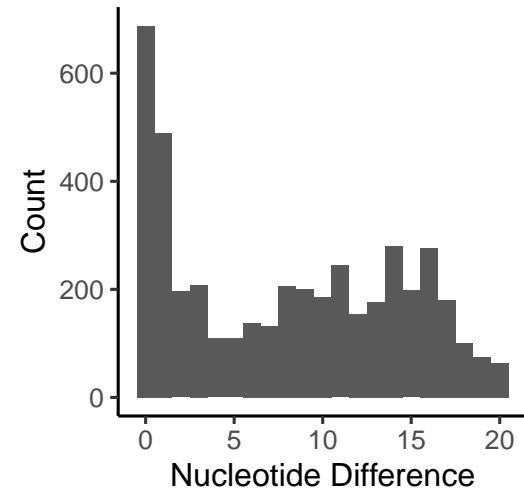
### IGHV3-48\*04

329 sequences assigned  
38 (11.6%) exact matches, in which:  
38 unique CDR3  
5 unique J



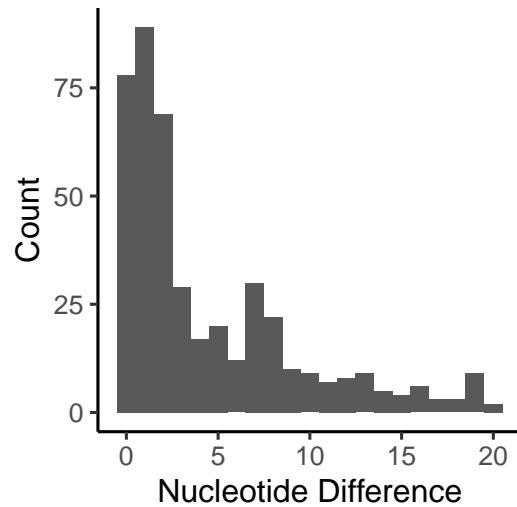
### IGHV3-53\*01\_02

5757 sequences assigned  
688 (12%) exact matches, in which:  
447 unique CDR3  
6 unique J



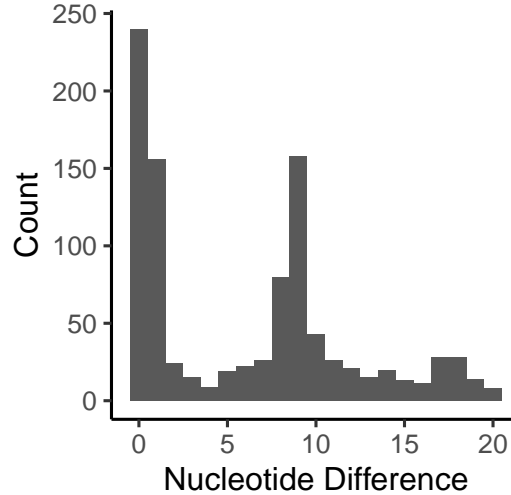
### IGHV3-48\*01

468 sequences assigned  
78 (16.7%) exact matches, in which:  
75 unique CDR3  
4 unique J



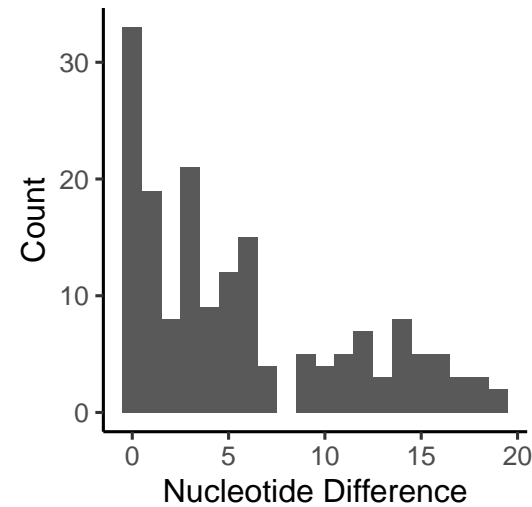
### IGHV3-49\*03\_05

1117 sequences assigned  
240 (21.5%) exact matches, in which:  
145 unique CDR3  
4 unique J



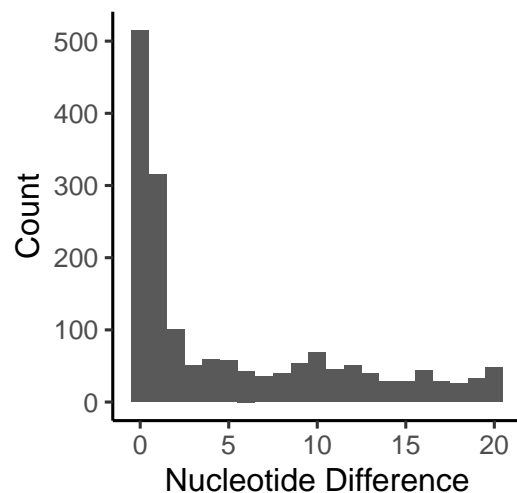
### IGHV3-64\*04

171 sequences assigned  
33 (19.3%) exact matches, in which:  
33 unique CDR3  
3 unique J



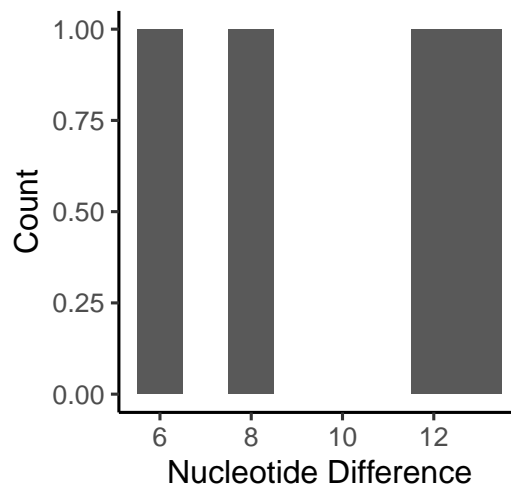
### IGHV3-48\*02

2257 sequences assigned  
515 (22.8%) exact matches, in which:  
321 unique CDR3  
6 unique J



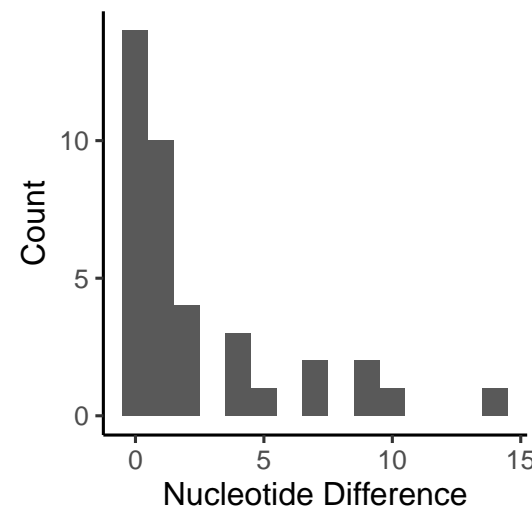
### IGHV3-52\*01\_03

4 sequences assigned  
No exact matches.



### IGHV3-64\*02\_07

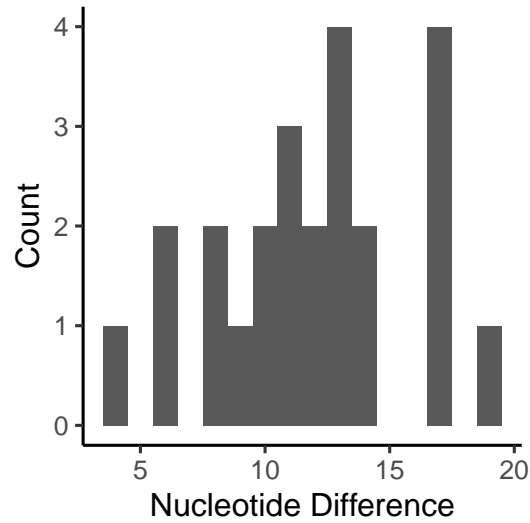
49 sequences assigned  
14 (28.6%) exact matches, in which:  
7 unique CDR3  
3 unique J





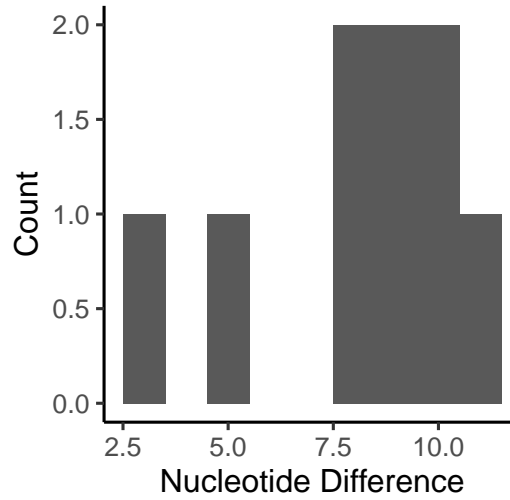
### IGHV3-66\*01

33 sequences assigned  
No exact matches.



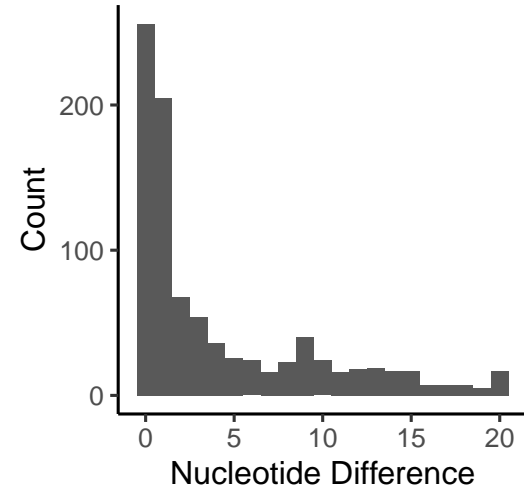
### IGHV3-66\*04

13 sequences assigned  
No exact matches.



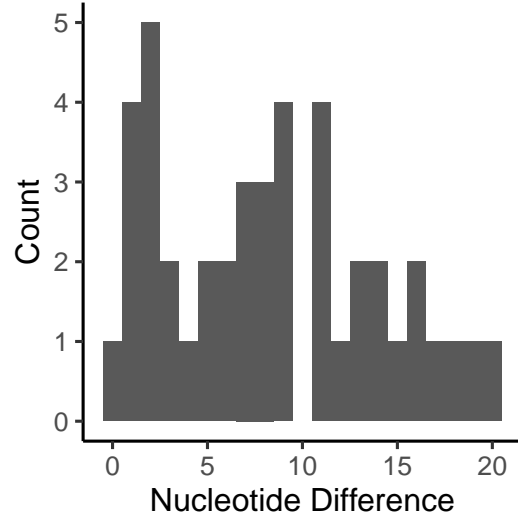
### IGHV3-73\*01\_02

1204 sequences assigned  
256 (21.3%) exact matches, in which:  
158 unique CDR3  
6 unique J



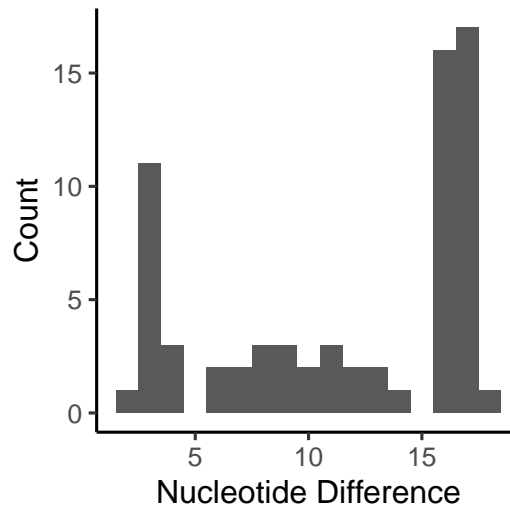
### IGHV3-66\*02

64 sequences assigned  
1 (1.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



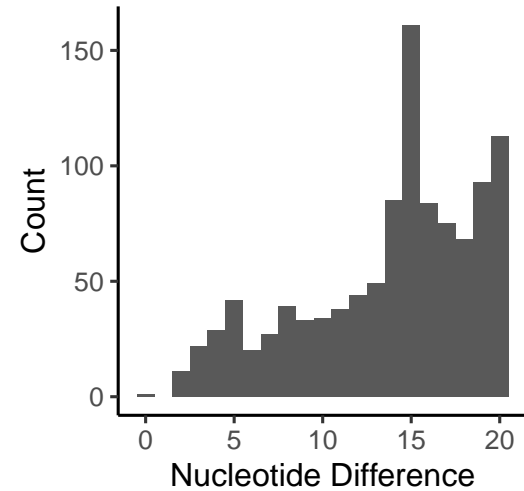
### IGHV3-69-1\*01

74 sequences assigned  
No exact matches.



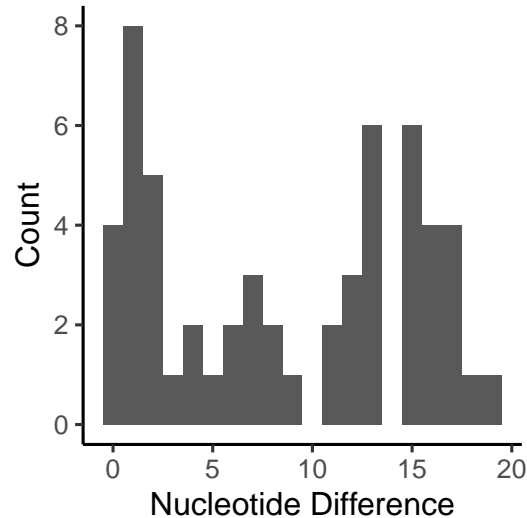
### IGHV3-74\*03

2011 sequences assigned  
1 (0%) exact matches, in which:  
1 unique CDR3  
1 unique J



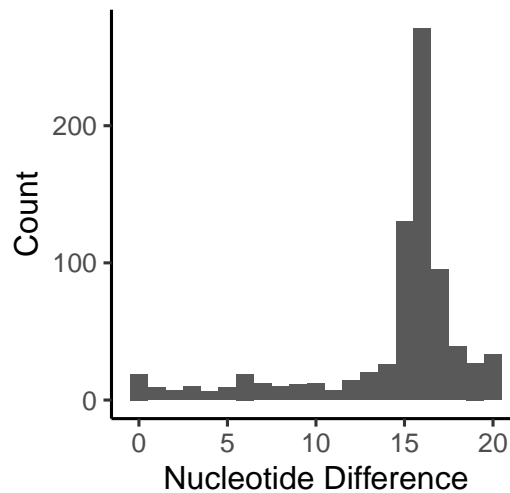
### IGHV3-66\*03

61 sequences assigned  
4 (6.6%) exact matches, in which:  
4 unique CDR3  
4 unique J



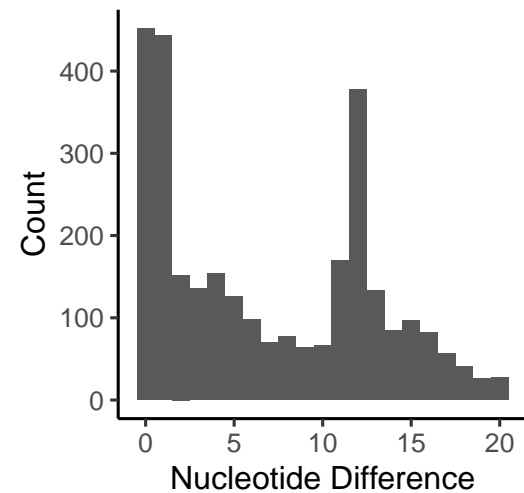
### IGHV3-72\*01

862 sequences assigned  
19 (2.2%) exact matches, in which:  
12 unique CDR3  
2 unique J



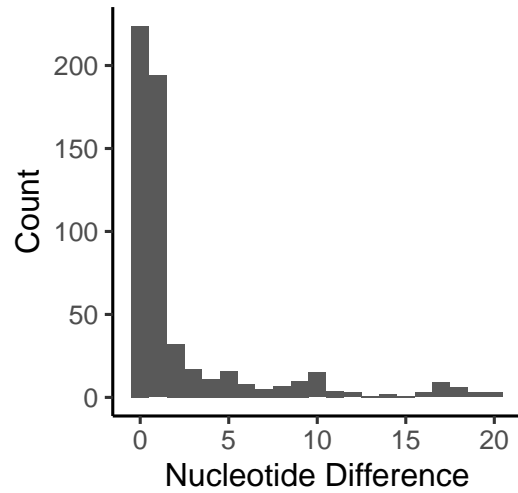
### IGHV3-74\*01\_02

3689 sequences assigned  
452 (12.3%) exact matches, in which:  
296 unique CDR3  
6 unique J



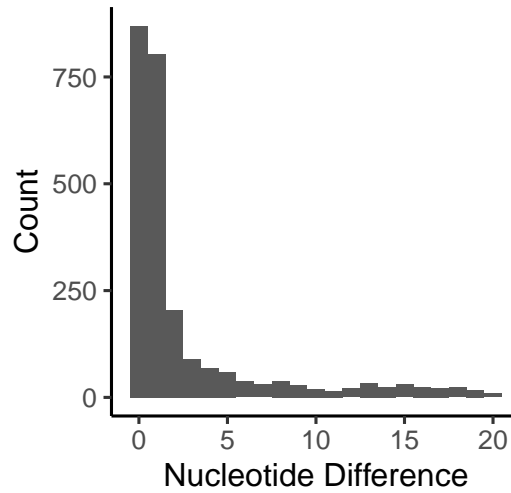
### IGHV3-64D\*06

580 sequences assigned  
224 (38.6%) exact matches, in which:  
110 unique CDR3  
6 unique J



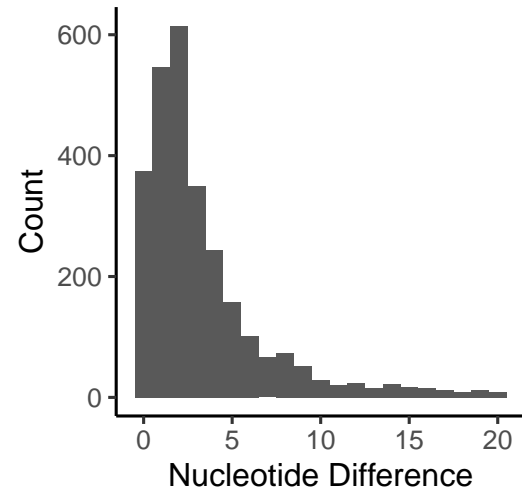
### IGHV4-4\*02\_03

3189 sequences assigned  
870 (27.3%) exact matches, in which:  
663 unique CDR3  
6 unique J



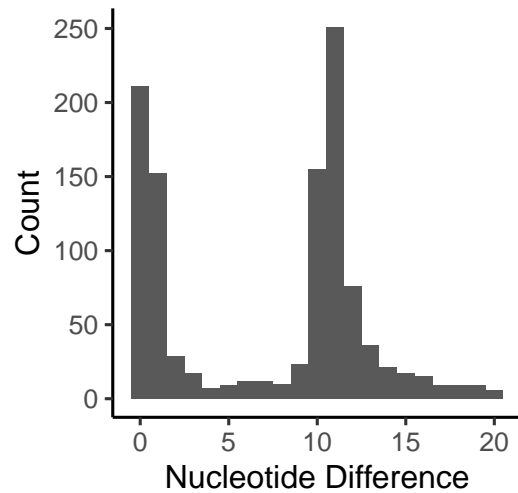
### IGHV4-30-4\*01

3212 sequences assigned  
374 (11.6%) exact matches, in which:  
299 unique CDR3  
6 unique J



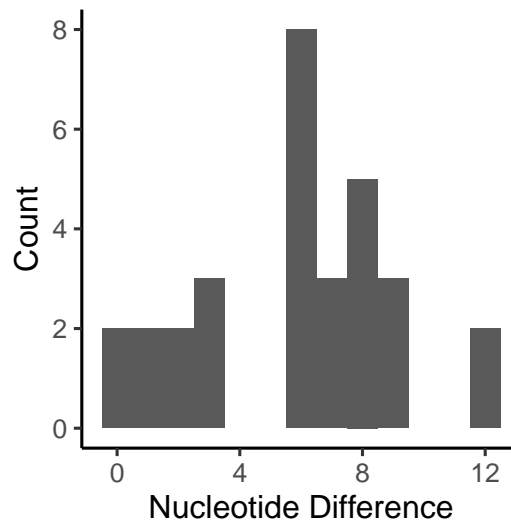
### IGHV3-64D\*09

1114 sequences assigned  
211 (18.9%) exact matches, in which:  
105 unique CDR3  
5 unique J



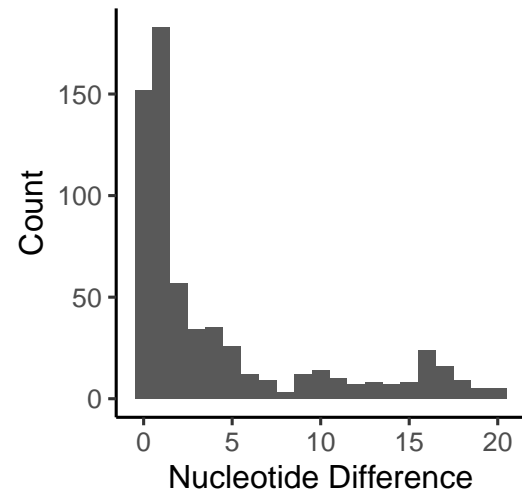
### IGHV4-28\*03

32 sequences assigned  
2 (6.2%) exact matches, in which:  
2 unique CDR3  
2 unique J



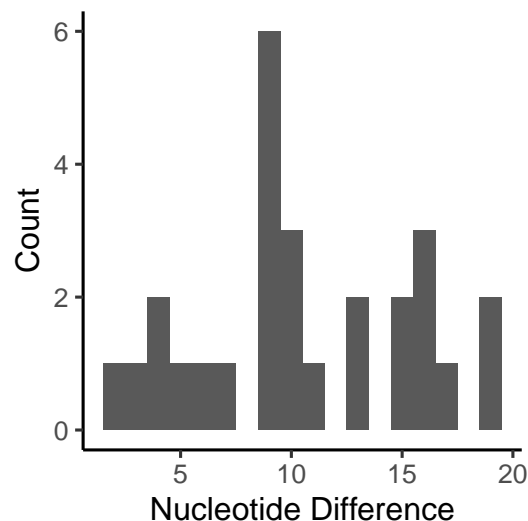
### IGHV4-30-2\*01

661 sequences assigned  
152 (23%) exact matches, in which:  
97 unique CDR3  
6 unique J



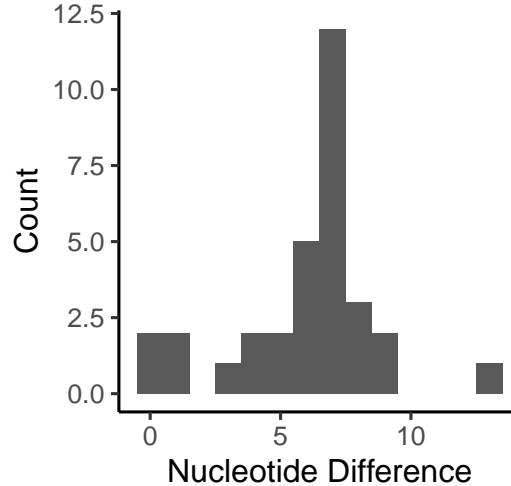
### IGHV3-NL1\*01

35 sequences assigned  
No exact matches.



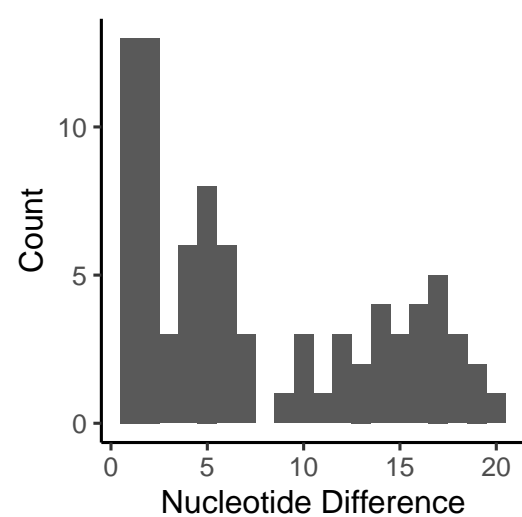
### IGHV4-28\*01\_07

33 sequences assigned  
2 (6.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



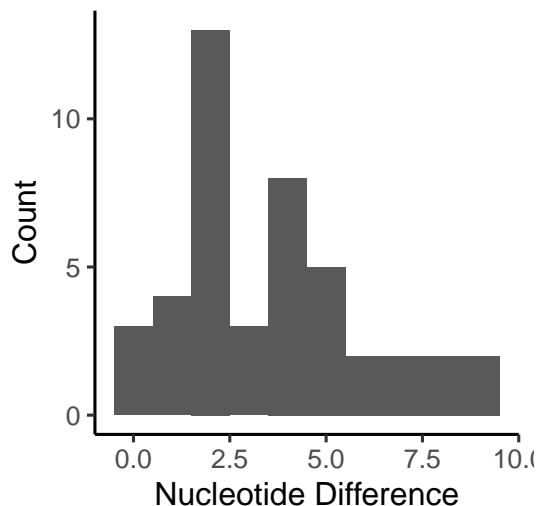
### IGHV4-30-2\*03

109 sequences assigned  
No exact matches.



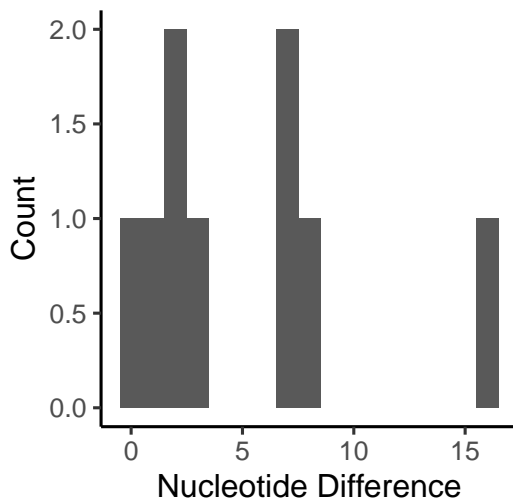
### IGHV4-30-2\*05

44 sequences assigned  
3 (6.8%) exact matches, in which:  
3 unique CDR3  
2 unique J



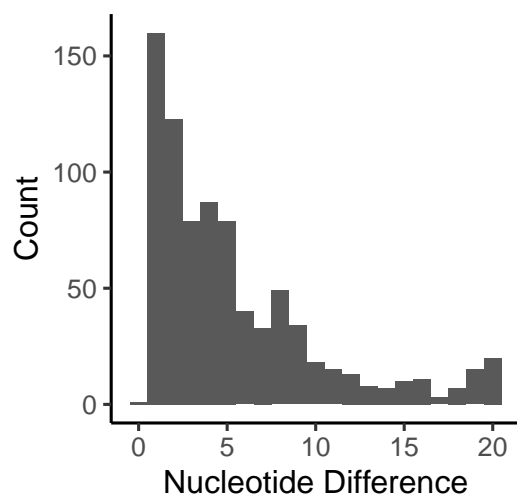
### IGHV4-38-2\*02

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



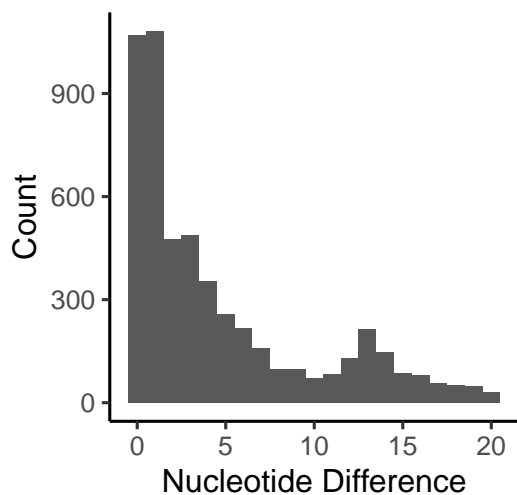
### IGHV4-59\*08

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



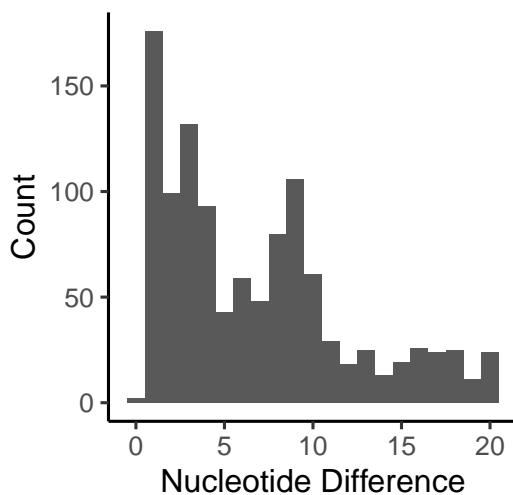
### IGHV4-31\*02

5852 sequences assigned  
1069 (18.3%) exact matches, in which:  
890 unique CDR3  
6 unique J



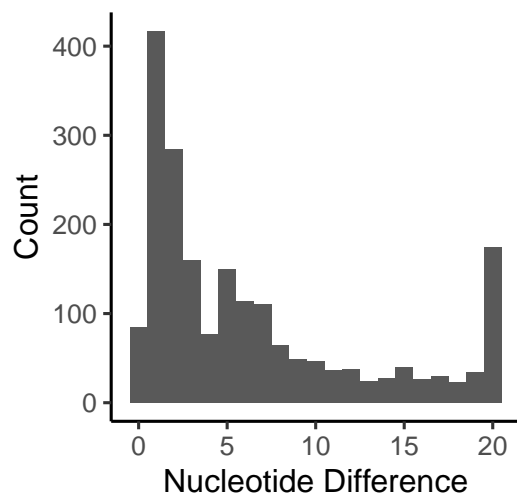
### IGHV4-39\*07

1261 sequences assigned  
2 (0.2%) exact matches, in which:  
2 unique CDR3  
1 unique J



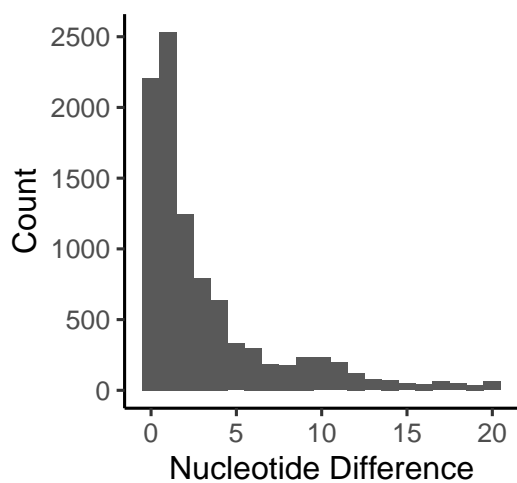
### IGHV4-59\*12

3019 sequences assigned  
85 (2.8%) exact matches, in which:  
85 unique CDR3  
5 unique J



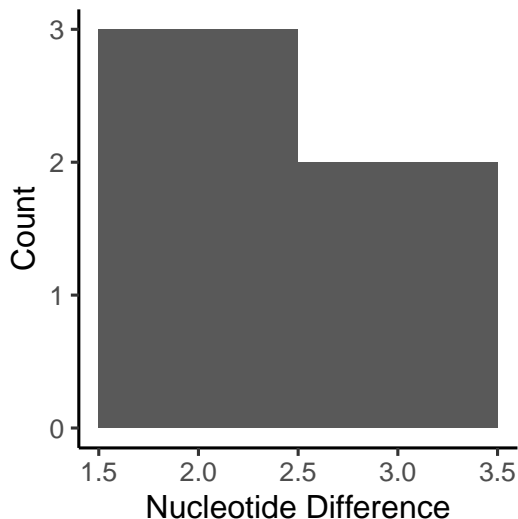
### IGHV4-34\*01\_02

10728 sequences assigned  
2206 (20.6%) exact matches, in which:  
1646 unique CDR3  
6 unique J



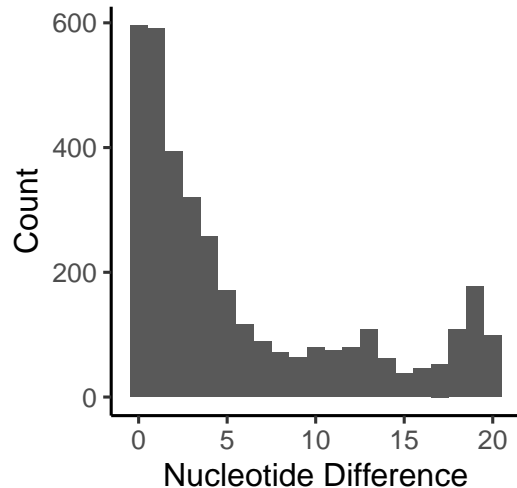
### IGHV4-55\*09

5 sequences assigned  
No exact matches.



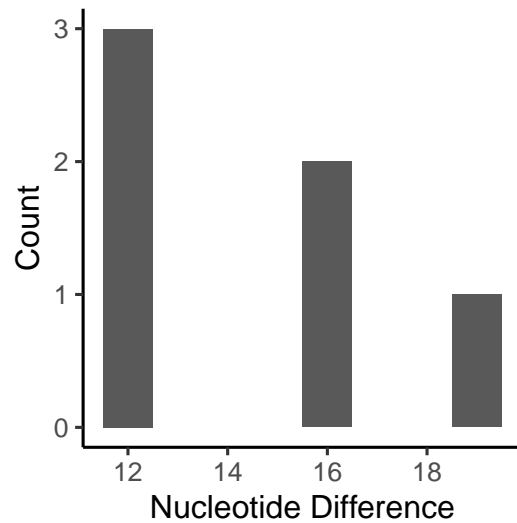
### IGHV4-61\*01

4788 sequences assigned  
596 (12.4%) exact matches, in which:  
533 unique CDR3  
6 unique J



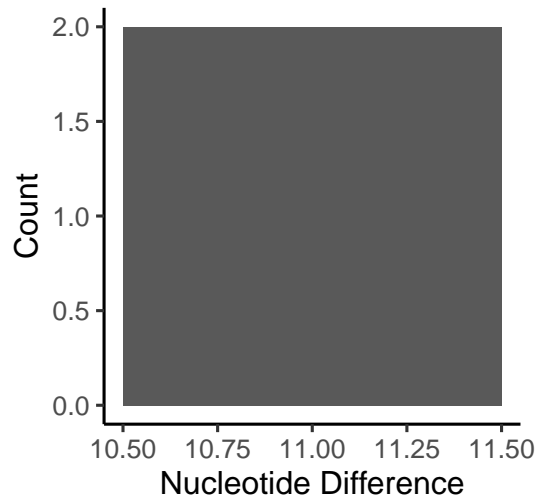
### IGHV1/OR15-2\*02\_03

6 sequences assigned  
No exact matches.



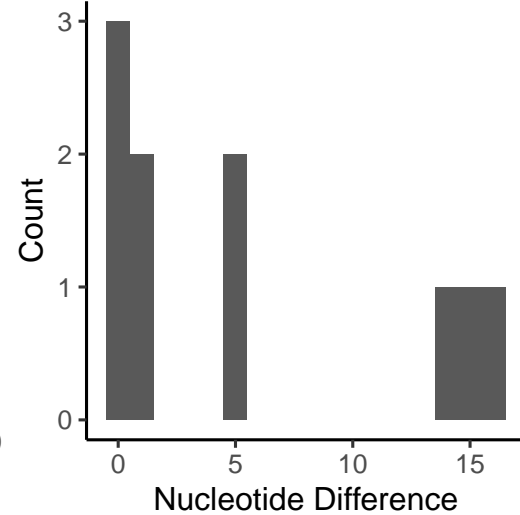
### IGHV1/OR15-9\*01

2 sequences assigned  
No exact matches.



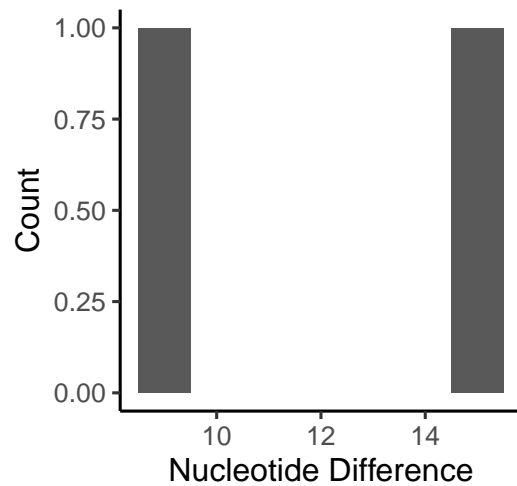
### IGHV5-51\*06

12 sequences assigned  
3 (25%) exact matches, in which:  
3 unique CDR3  
3 unique J



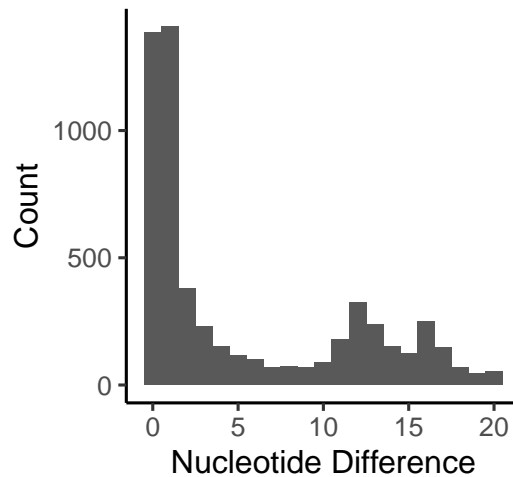
### IGHV1/OR15-3\*02

2 sequences assigned  
No exact matches.



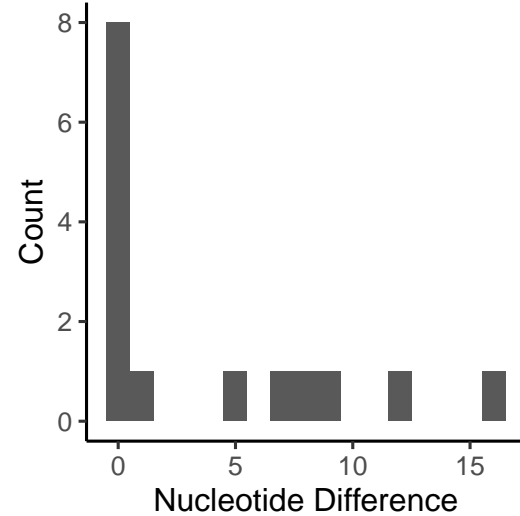
### IGHV5-10-1\*01\_03

5976 sequences assigned  
1384 (23.2%) exact matches, in which:  
876 unique CDR3  
6 unique J



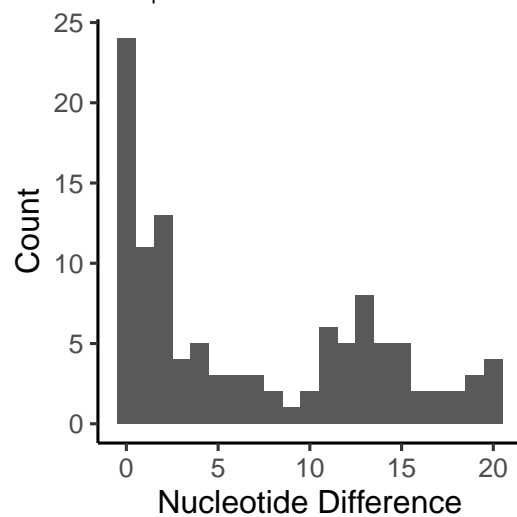
### IGHV5-51\*07

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



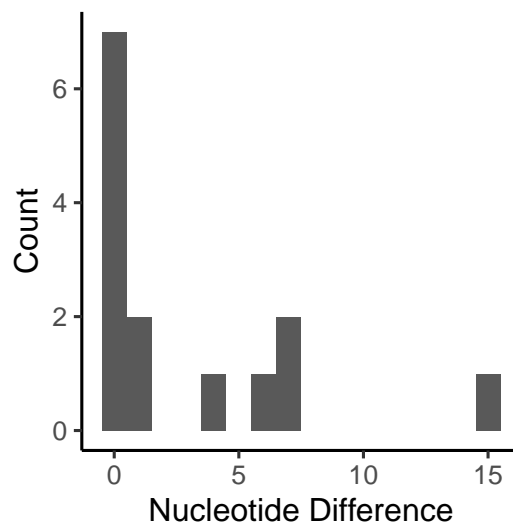
### IGHV4/OR15-8\*01\_C193/

125 sequences assigned  
24 (19.2%) exact matches, in which:  
19 unique CDR3  
4 unique J



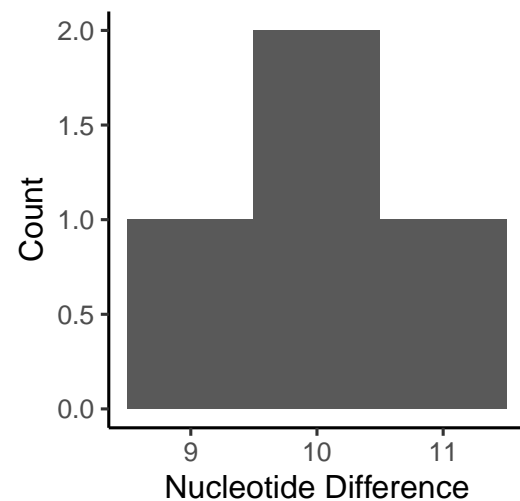
### IGHV5-51\*04

17 sequences assigned  
7 (41.2%) exact matches, in which:  
7 unique CDR3  
3 unique J



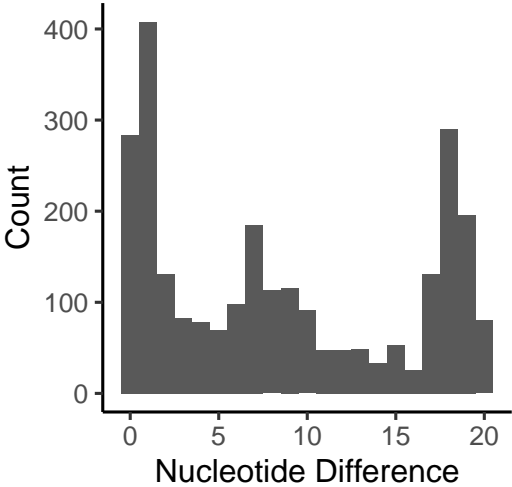
### IGHV5-78\*01

4 sequences assigned  
No exact matches.



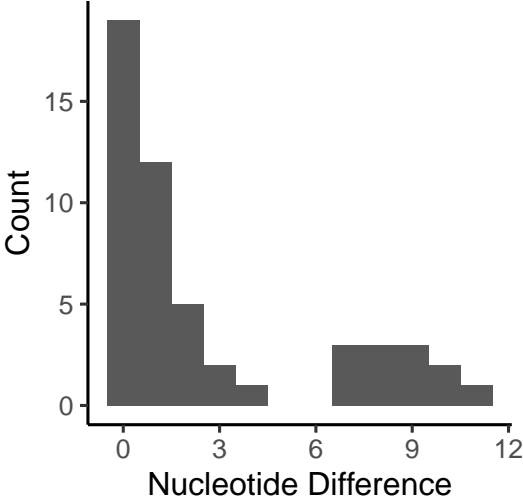
IGHV6-1\*01\_02

2898 sequences assigned  
284 (9.8%) exact matches, in which:  
248 unique CDR3  
6 unique J



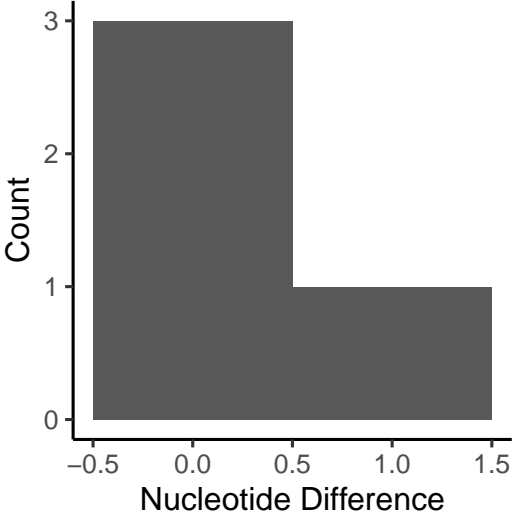
IGHV7-4-1\*01

51 sequences assigned  
19 (37.3%) exact matches, in which:  
17 unique CDR3  
4 unique J

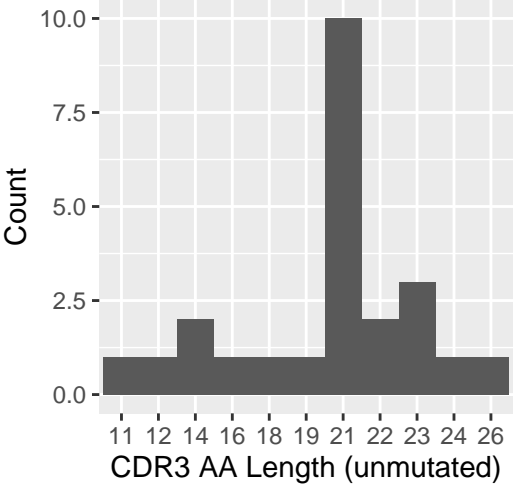


IGHV7-4-1\*02

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



IGHV4/OR15-8\*01\_C193A





[illegible]