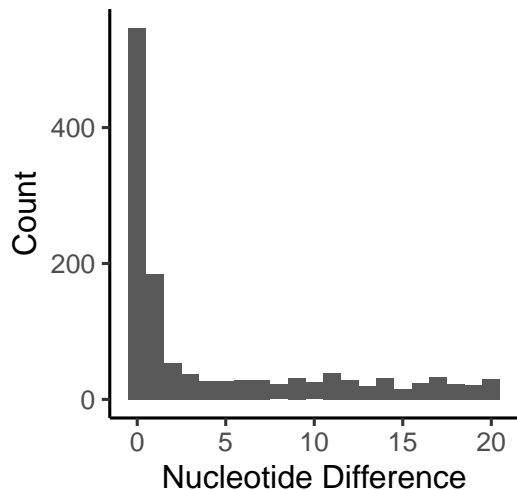


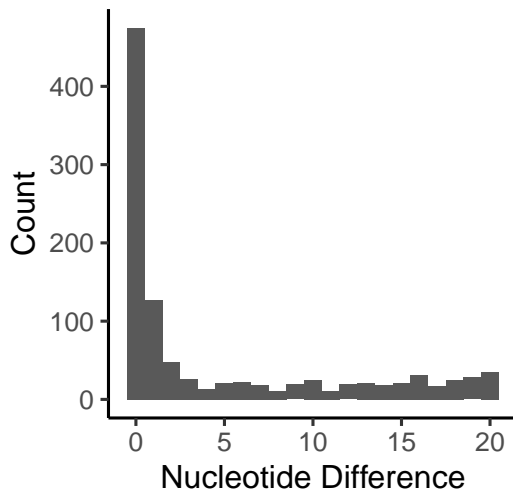
### IGHV1-2\*06

1648 sequences assigned  
547 (33.2%) exact matches, in which:  
541 unique CDR3  
6 unique J



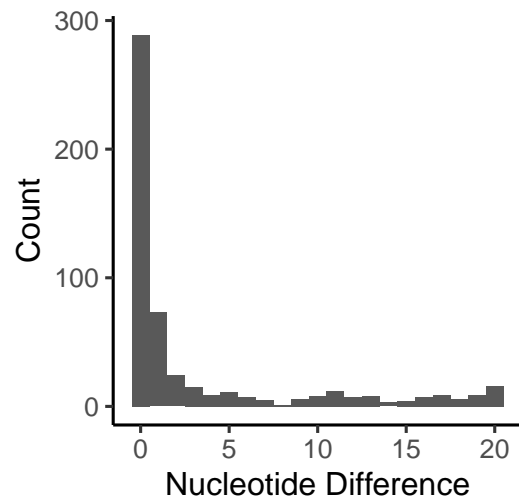
### IGHV1-18\*01

1358 sequences assigned  
475 (35%) exact matches, in which:  
470 unique CDR3  
6 unique J



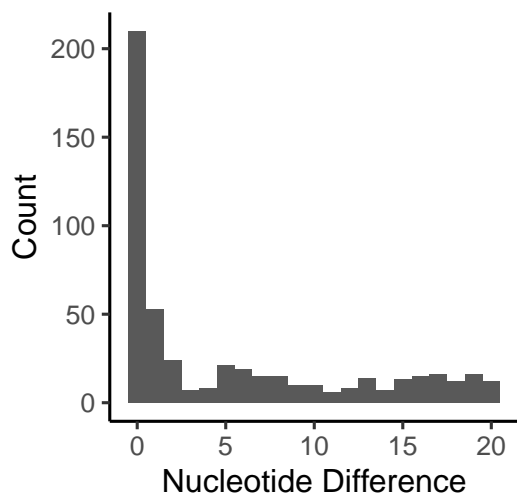
### IGHV1-46\*01

701 sequences assigned  
289 (41.2%) exact matches, in which:  
287 unique CDR3  
6 unique J



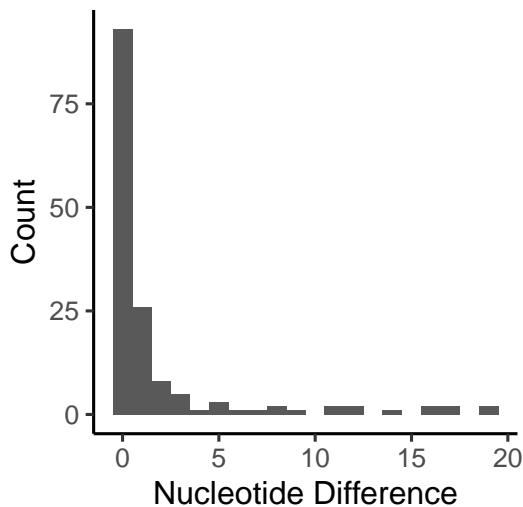
### IGHV1-3\*01

704 sequences assigned  
210 (29.8%) exact matches, in which:  
208 unique CDR3  
6 unique J



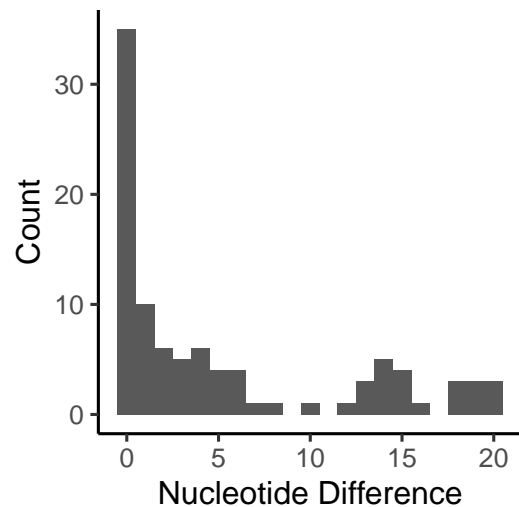
### IGHV1-24\*01

177 sequences assigned  
93 (52.5%) exact matches, in which:  
91 unique CDR3  
6 unique J



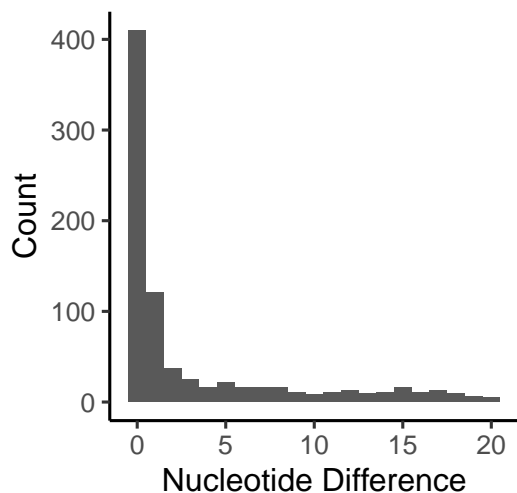
### IGHV1-58\*01

114 sequences assigned  
35 (30.7%) exact matches, in which:  
35 unique CDR3  
4 unique J



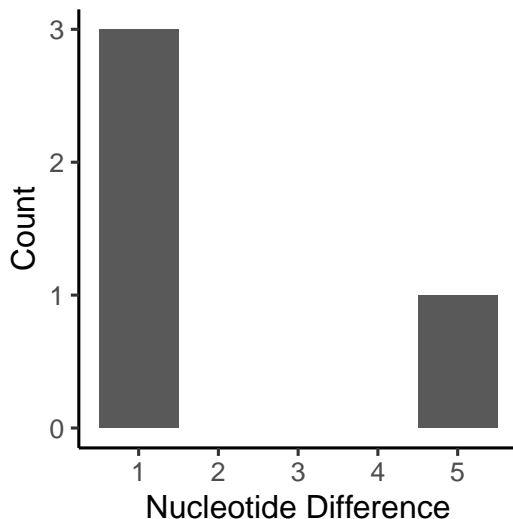
### IGHV1-8\*01

917 sequences assigned  
410 (44.7%) exact matches, in which:  
407 unique CDR3  
6 unique J



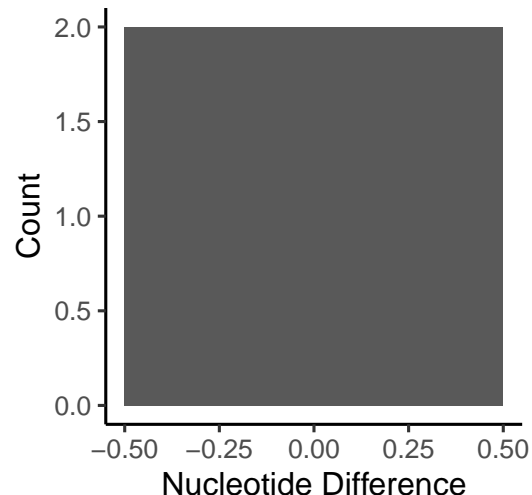
### IGHV1-45\*02

10 sequences assigned  
No exact matches.



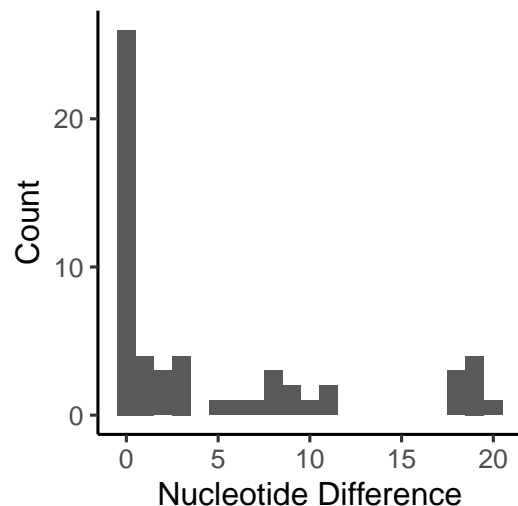
### IGHV1-68\*02

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



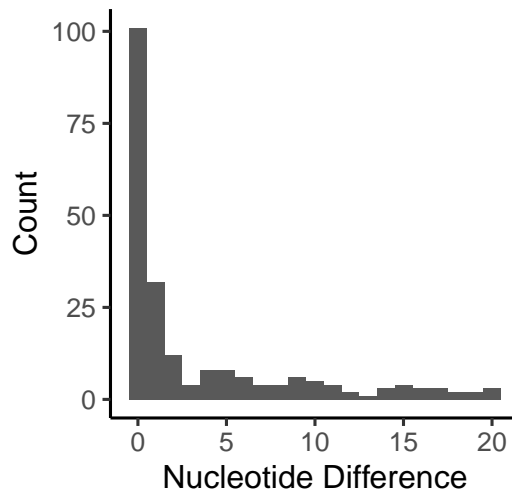
### IGHV1-69-2\*01

85 sequences assigned  
26 (30.6%) exact matches, in which:  
26 unique CDR3  
4 unique J



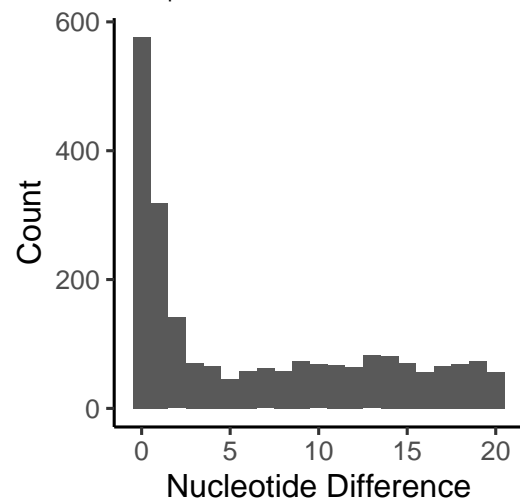
### IGHV2-26\*01

239 sequences assigned  
101 (42.3%) exact matches, in which:  
100 unique CDR3  
5 unique J



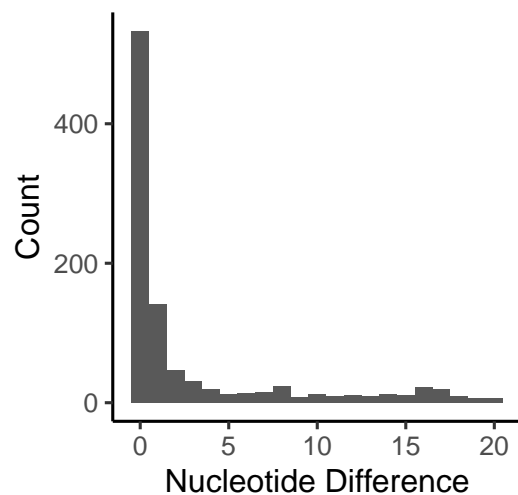
### IGHV3-9\*01

2710 sequences assigned  
577 (21.3%) exact matches, in which:  
572 unique CDR3  
6 unique J



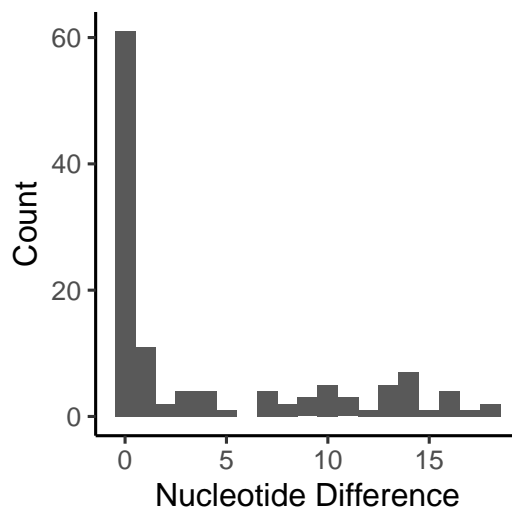
### IGHV1-69\*06

1168 sequences assigned  
533 (45.6%) exact matches, in which:  
527 unique CDR3  
6 unique J



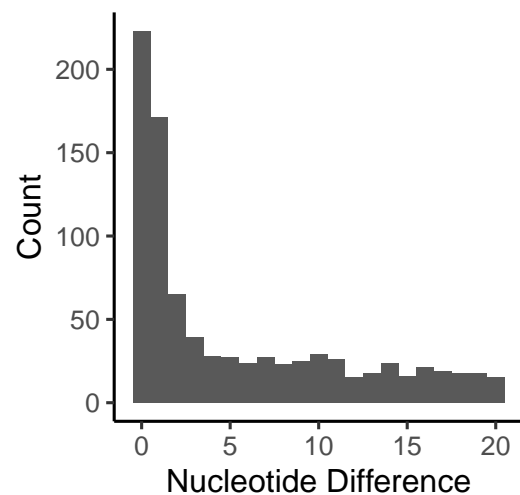
### IGHV2-70\*01

128 sequences assigned  
61 (47.7%) exact matches, in which:  
60 unique CDR3  
5 unique J



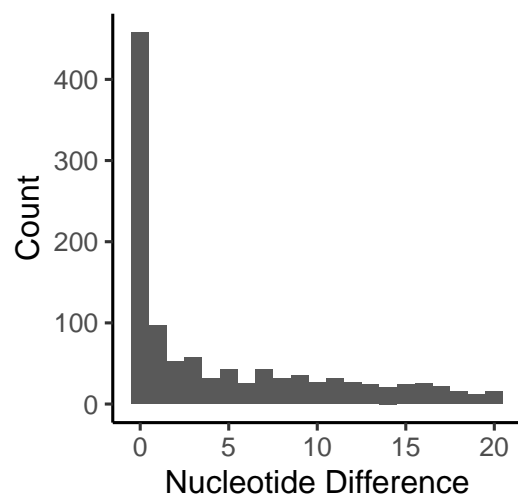
### IGHV3-11\*01

1094 sequences assigned  
223 (20.4%) exact matches, in which:  
221 unique CDR3  
6 unique J



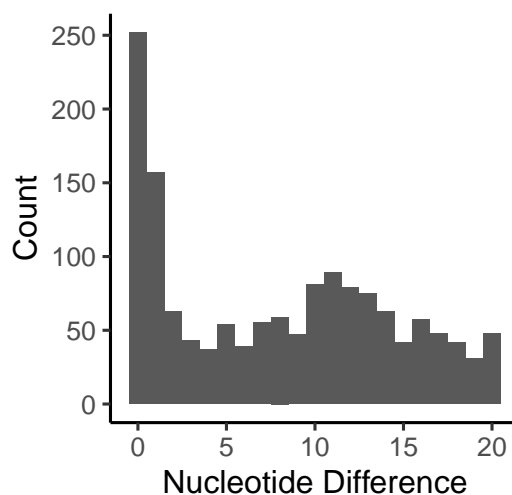
### IGHV2-5\*02

1283 sequences assigned  
458 (35.7%) exact matches, in which:  
453 unique CDR3  
6 unique J



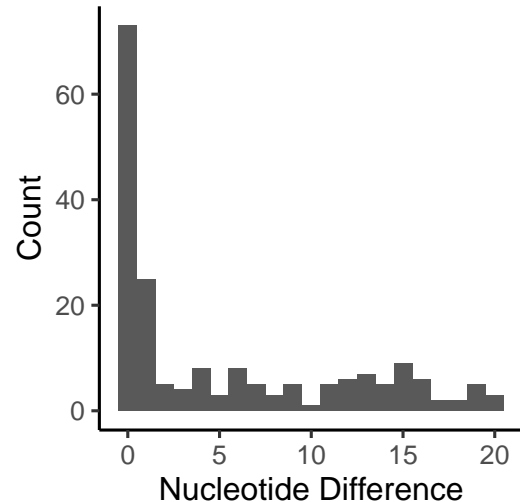
### IGHV3-7\*01

1794 sequences assigned  
252 (14%) exact matches, in which:  
249 unique CDR3  
6 unique J



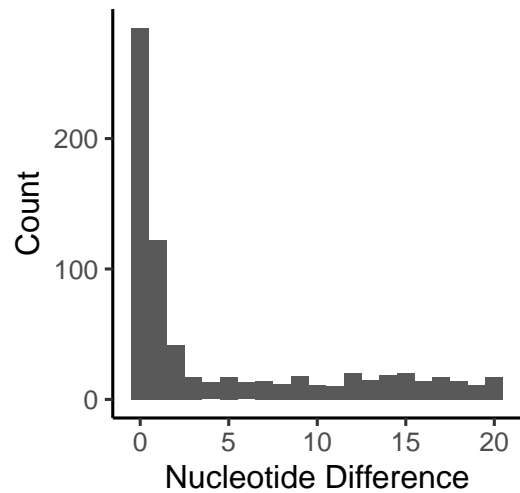
### IGHV3-13\*01

225 sequences assigned  
73 (32.4%) exact matches, in which:  
73 unique CDR3  
4 unique J



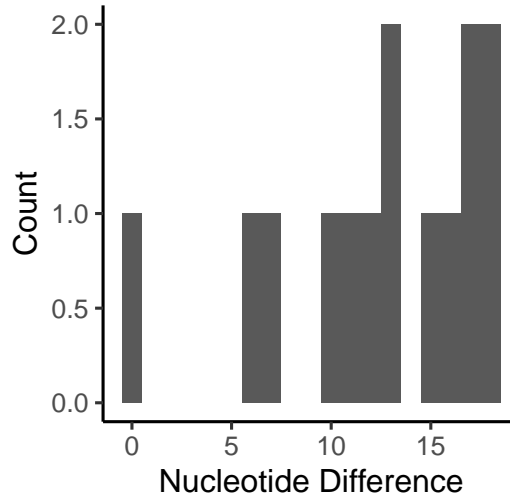
### IGHV3–15\*01

921 sequences assigned  
285 (30.9%) exact matches, in which:  
282 unique CDR3  
6 unique J



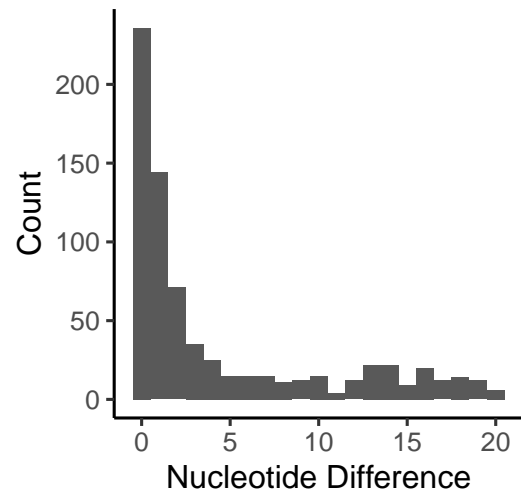
### IGHV3–20\*04

17 sequences assigned  
1 (5.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



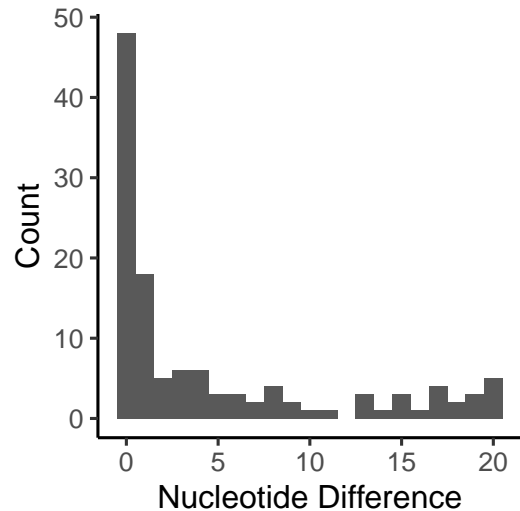
### IGHV3–30\*01

891 sequences assigned  
236 (26.5%) exact matches, in which:  
235 unique CDR3  
6 unique J



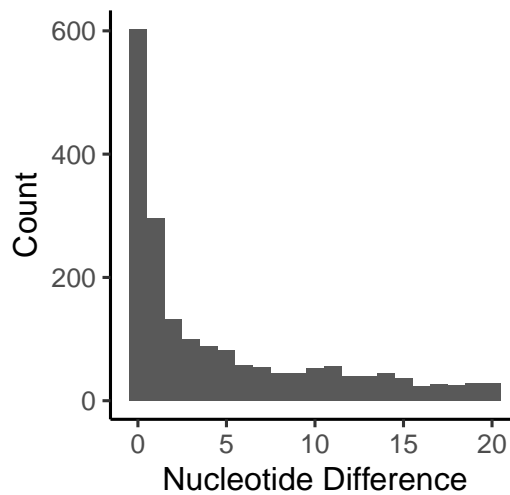
### IGHV3–15\*01\_A152G

166 sequences assigned  
48 (28.9%) exact matches, in which:  
48 unique CDR3  
4 unique J



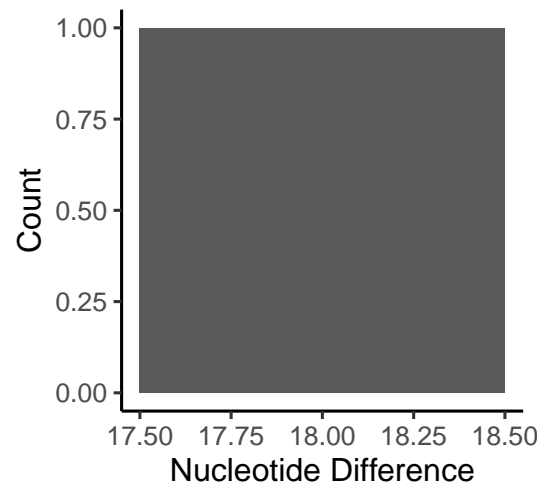
### IGHV3–21\*01

2318 sequences assigned  
603 (26%) exact matches, in which:  
600 unique CDR3  
6 unique J



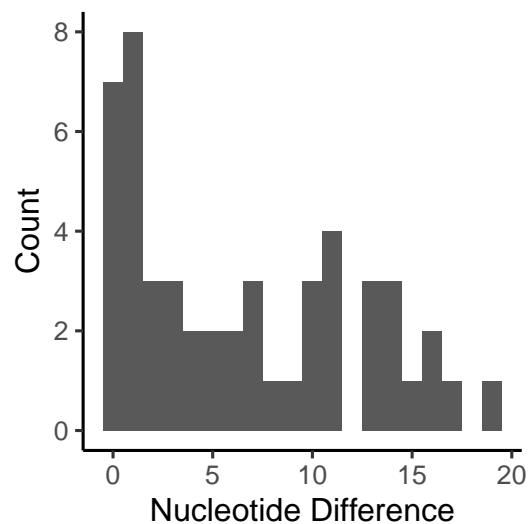
### IGHV3–30–3\*01

7 sequences assigned  
No exact matches.



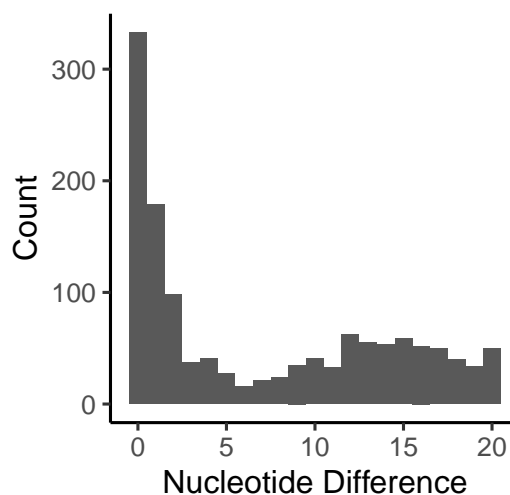
### IGHV3–20\*01

53 sequences assigned  
7 (13.2%) exact matches, in which:  
7 unique CDR3  
3 unique J



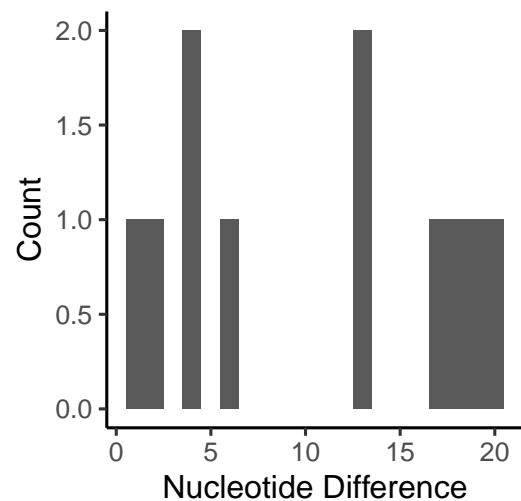
### IGHV3–23\*04

1748 sequences assigned  
333 (19.1%) exact matches, in which:  
333 unique CDR3  
6 unique J



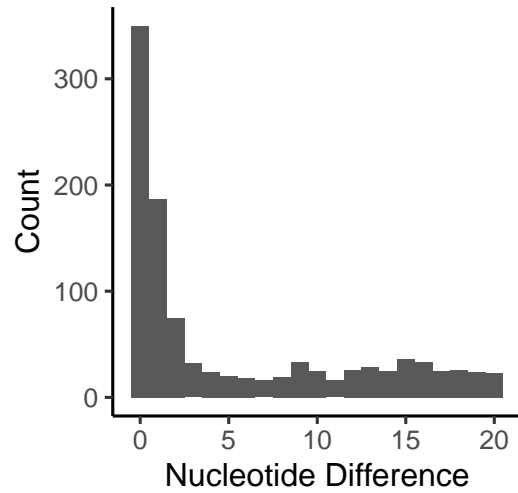
### IGHV3–30–3\*03

39 sequences assigned  
No exact matches.



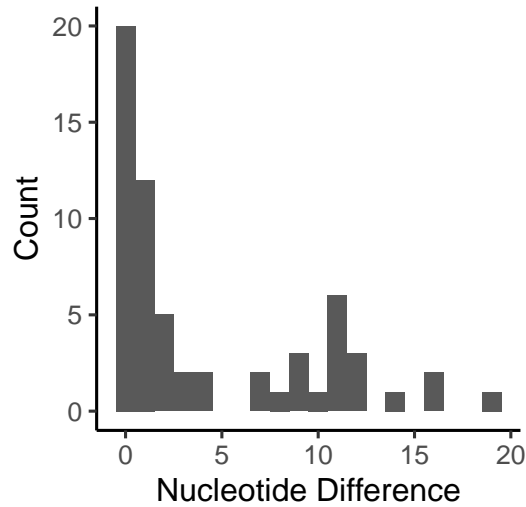
### IGHV3–33\*01

1262 sequences assigned  
350 (27.7%) exact matches, in which:  
348 unique CDR3  
6 unique J



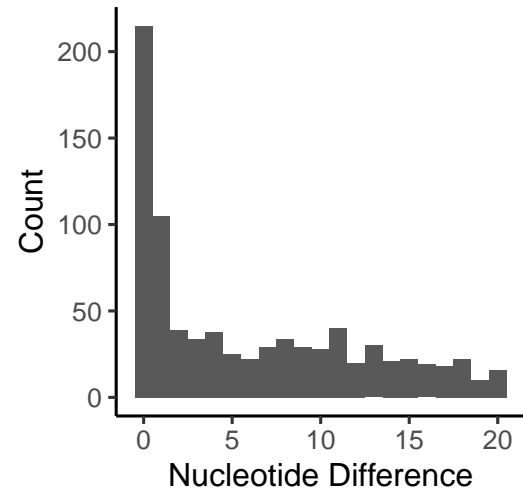
### IGHV3–43\*01

70 sequences assigned  
20 (28.6%) exact matches, in which:  
19 unique CDR3  
3 unique J



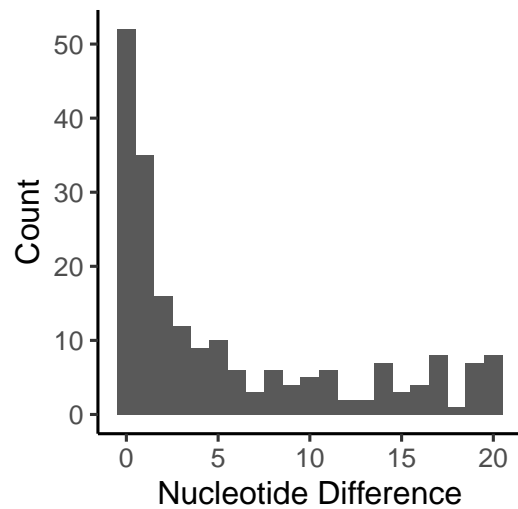
### IGHV3–48\*03

965 sequences assigned  
215 (22.3%) exact matches, in which:  
215 unique CDR3  
6 unique J



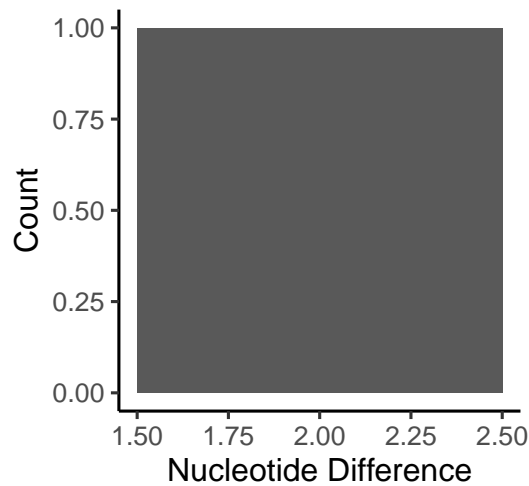
### IGHV3–33\*01\_A152G

246 sequences assigned  
52 (21.1%) exact matches, in which:  
52 unique CDR3  
5 unique J



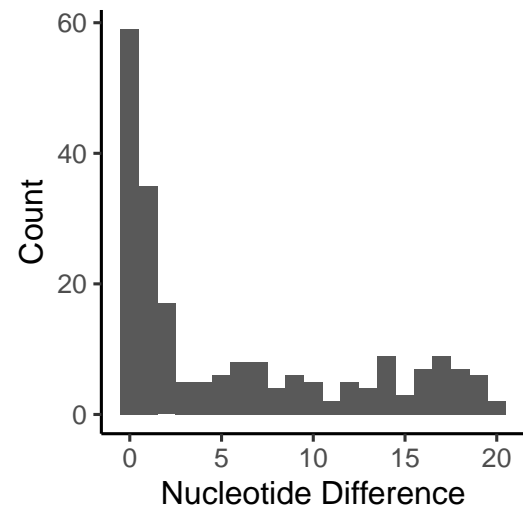
### IGHV3–47\*02

2 sequences assigned  
No exact matches.



### IGHV3–49\*04

272 sequences assigned  
59 (21.7%) exact matches, in which:  
59 unique CDR3  
5 unique J



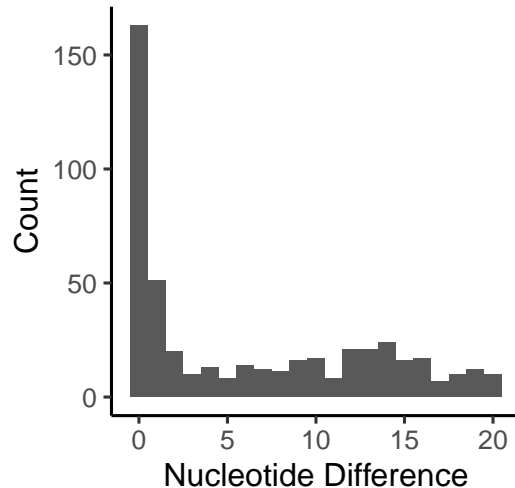
### IGHV3–35\*01

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



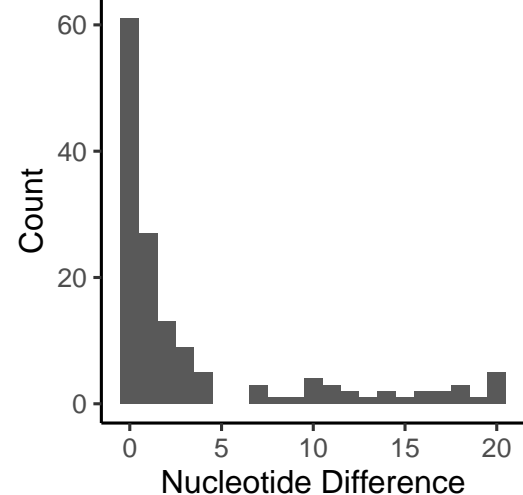
### IGHV3–48\*02

583 sequences assigned  
163 (28%) exact matches, in which:  
159 unique CDR3  
6 unique J



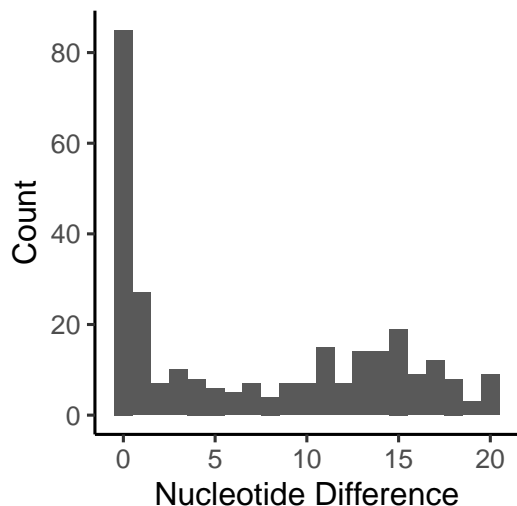
### IGHV3–49\*05

176 sequences assigned  
61 (34.7%) exact matches, in which:  
61 unique CDR3  
4 unique J



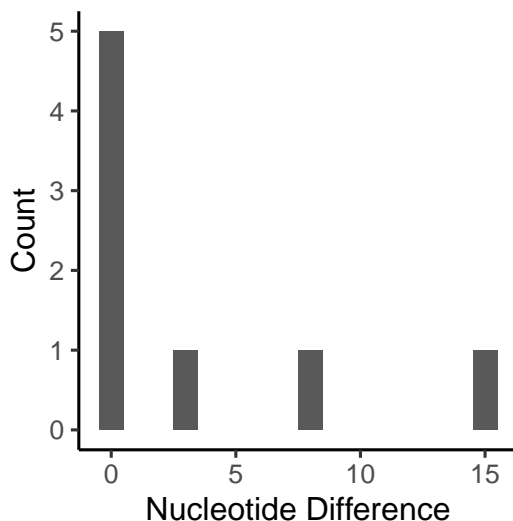
### IGHV3-53\*01

368 sequences assigned  
85 (23.1%) exact matches, in which:  
84 unique CDR3  
6 unique J



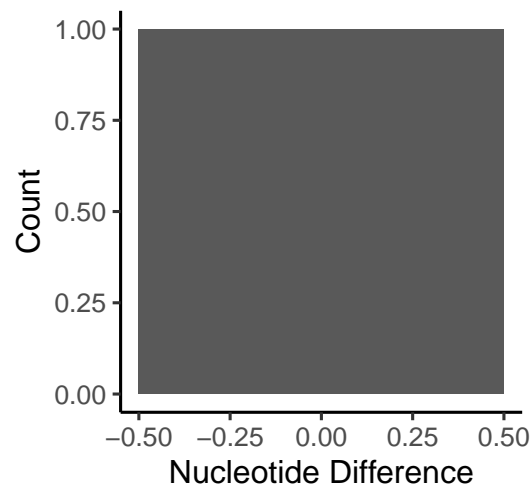
### IGHV3-64\*02

8 sequences assigned  
5 (62.5%) exact matches, in which:  
5 unique CDR3  
2 unique J



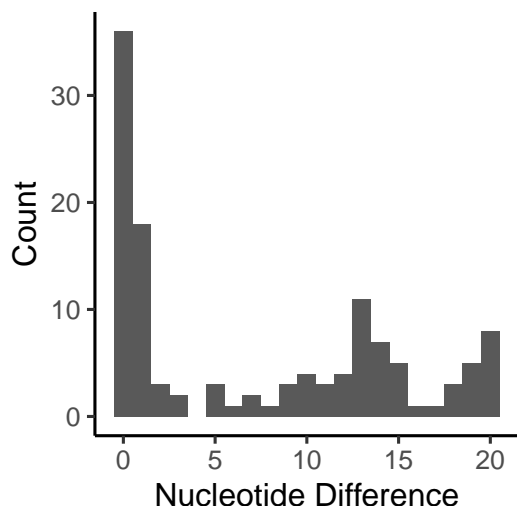
### IGHV3-69-1\*01

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



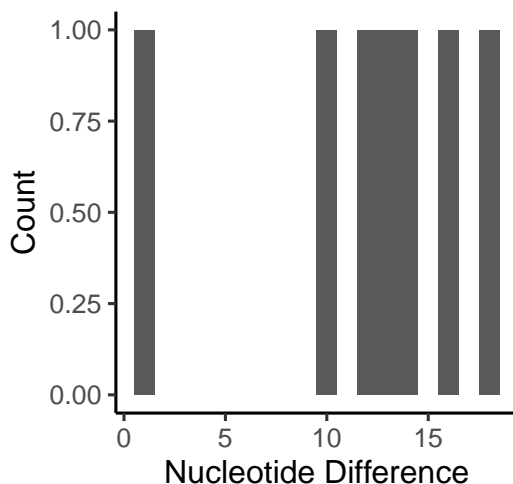
### IGHV3-53\*02

174 sequences assigned  
36 (20.7%) exact matches, in which:  
36 unique CDR3  
6 unique J



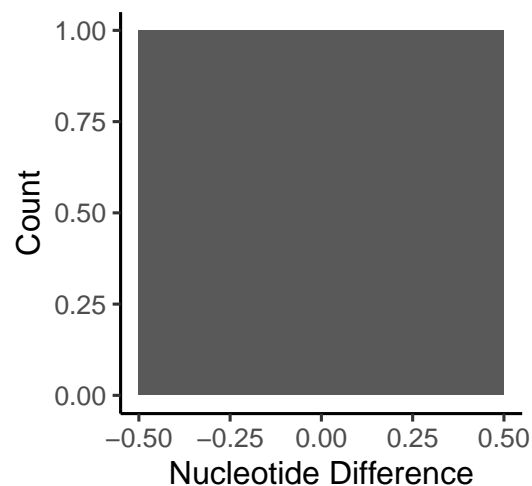
### IGHV3-66\*03

7 sequences assigned  
No exact matches.



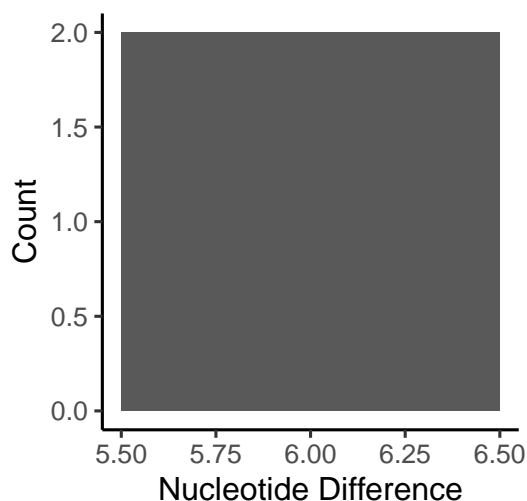
### IGHV3-71\*03

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



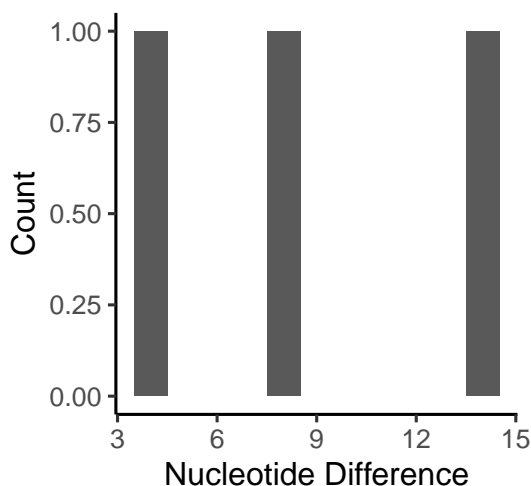
### IGHV3-62\*04

2 sequences assigned  
No exact matches.



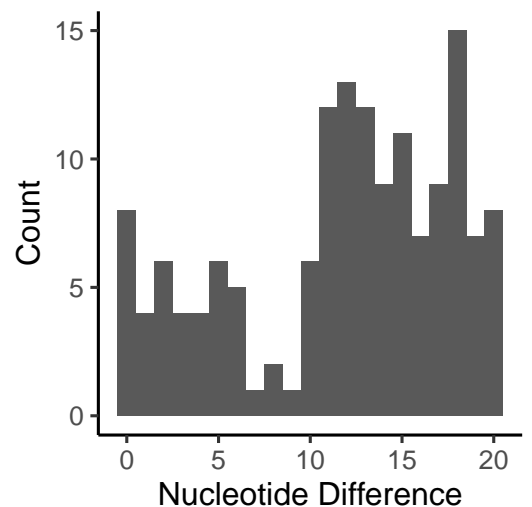
### IGHV3-66\*04

3 sequences assigned  
No exact matches.



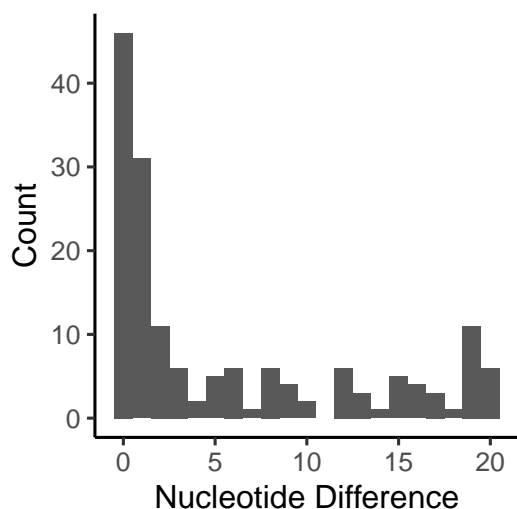
### IGHV3-72\*01

215 sequences assigned  
8 (3.7%) exact matches, in which:  
8 unique CDR3  
4 unique J



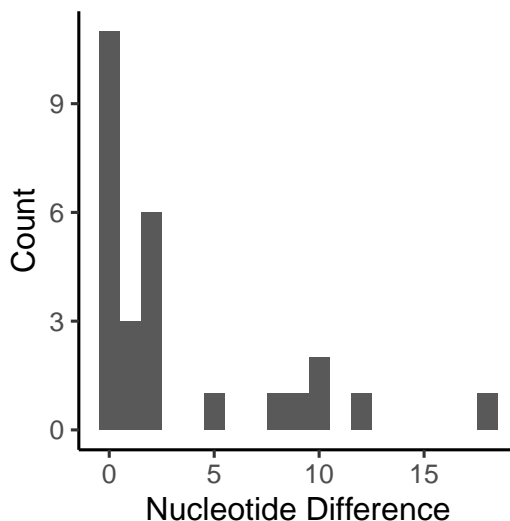
### IGHV3-73\*02

185 sequences assigned  
46 (24.9%) exact matches, in which:  
45 unique CDR3  
5 unique J



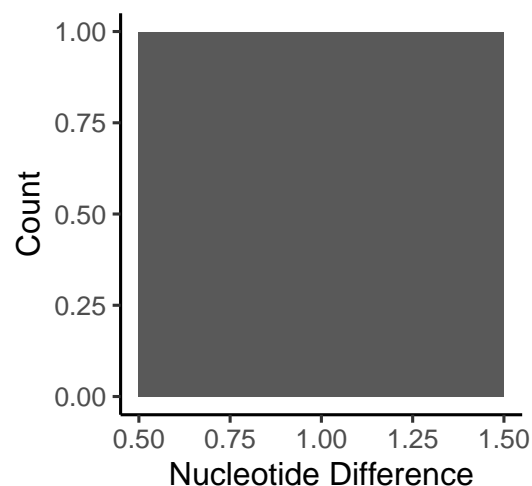
### IGHV3-43D\*04

28 sequences assigned  
11 (39.3%) exact matches, in which:  
11 unique CDR3  
3 unique J



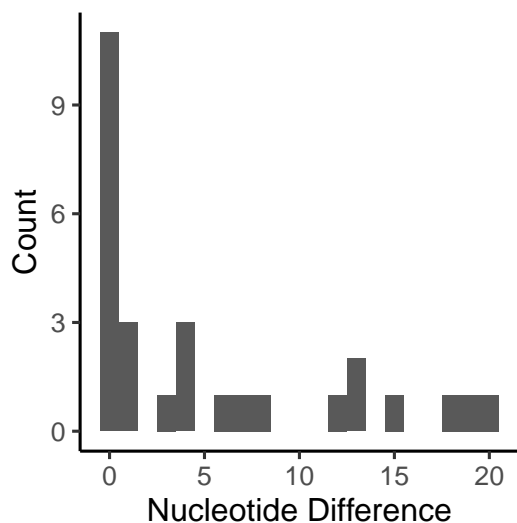
### IGHV4-28\*04

1 sequences assigned  
No exact matches.



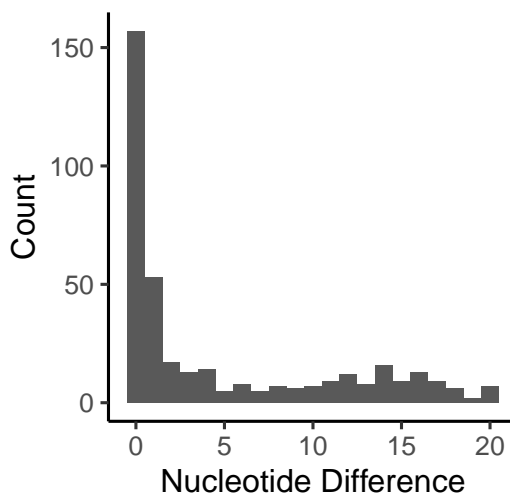
### IGHV3-73\*02\_A152G

35 sequences assigned  
11 (31.4%) exact matches, in which:  
11 unique CDR3  
4 unique J



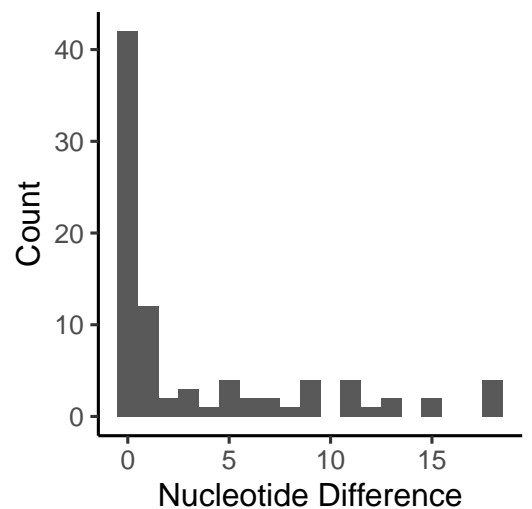
### IGHV4-4\*02

494 sequences assigned  
157 (31.8%) exact matches, in which:  
156 unique CDR3  
6 unique J



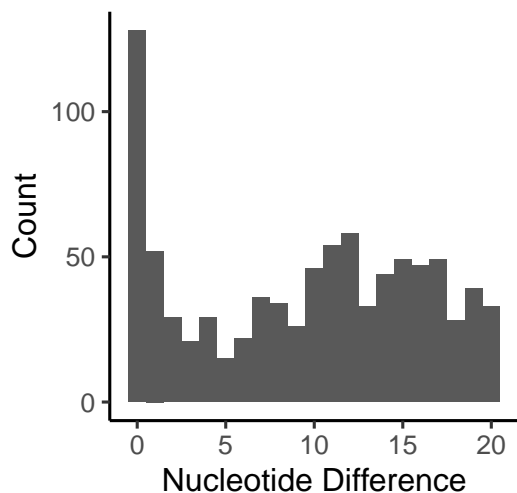
### IGHV4-31\*01

92 sequences assigned  
42 (45.7%) exact matches, in which:  
42 unique CDR3  
5 unique J



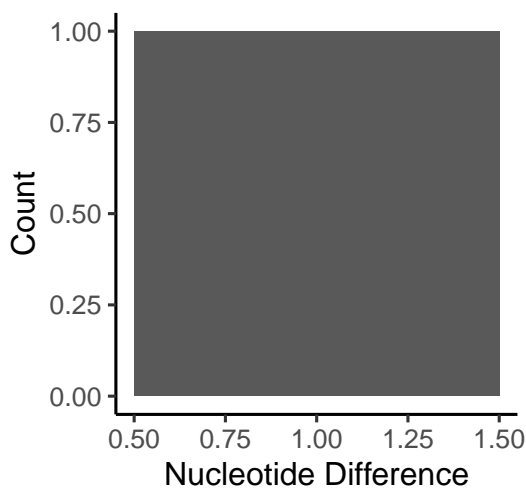
### IGHV3-74\*01

1219 sequences assigned  
128 (10.5%) exact matches, in which:  
127 unique CDR3  
6 unique J



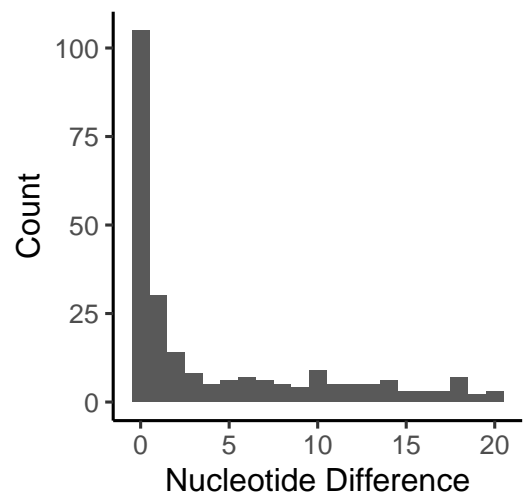
### IGHV4-28\*01

1 sequences assigned  
No exact matches.



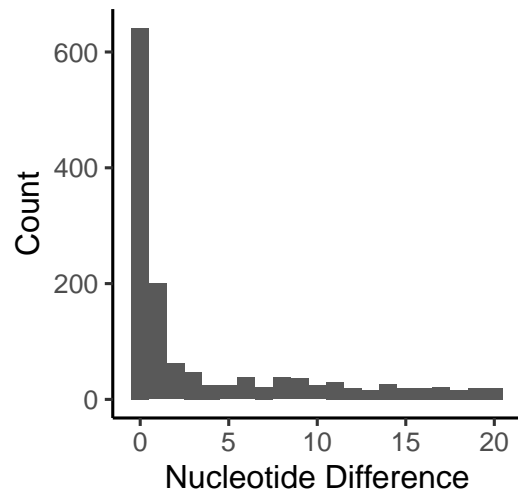
### IGHV4-31\*03

303 sequences assigned  
105 (34.7%) exact matches, in which:  
105 unique CDR3  
5 unique J



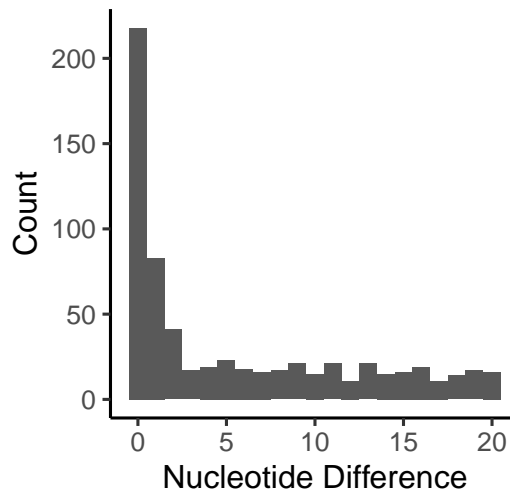
### IGHV4–34\*01

1547 sequences assigned  
642 (41.5%) exact matches, in which:  
636 unique CDR3  
6 unique J



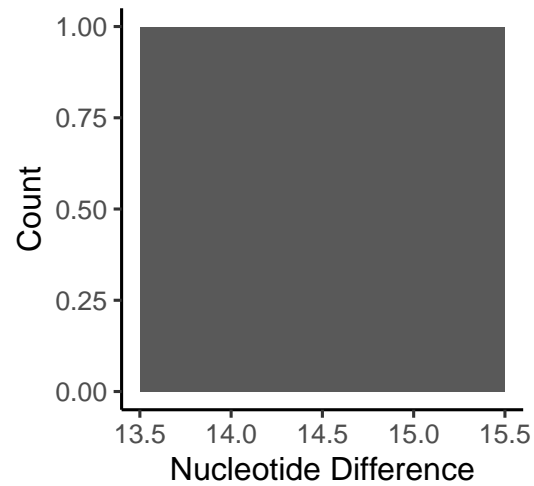
### IGHV4–59\*01

811 sequences assigned  
218 (26.9%) exact matches, in which:  
215 unique CDR3  
6 unique J



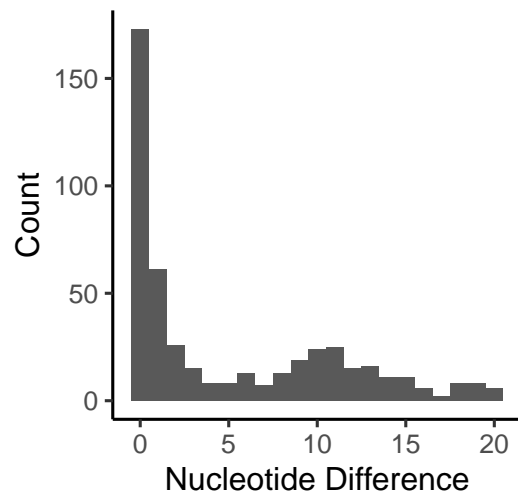
### IGHV1/OR15–1\*04

4 sequences assigned  
No exact matches.



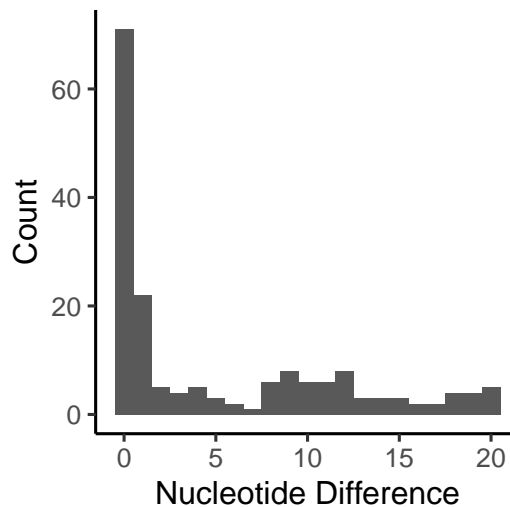
### IGHV4–38–2\*02\_A70G

565 sequences assigned  
173 (30.6%) exact matches, in which:  
173 unique CDR3  
6 unique J



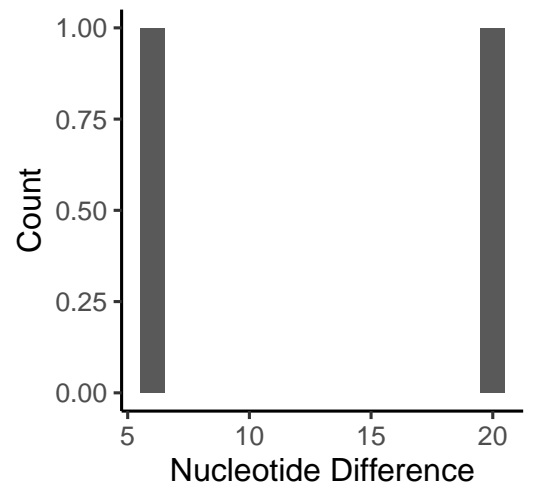
### IGHV4–61\*01

279 sequences assigned  
71 (25.4%) exact matches, in which:  
71 unique CDR3  
6 unique J



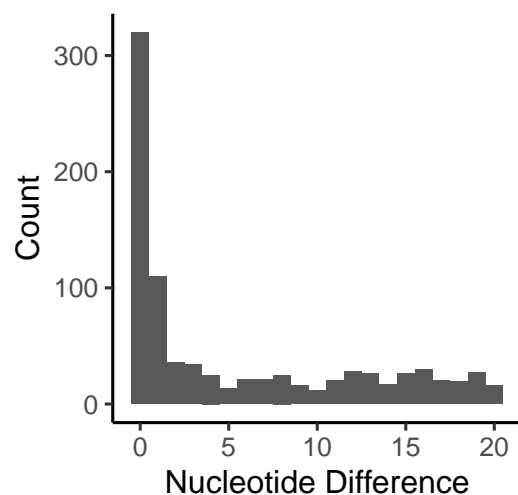
### IGHV4/OR15–8\*02

3 sequences assigned  
No exact matches.



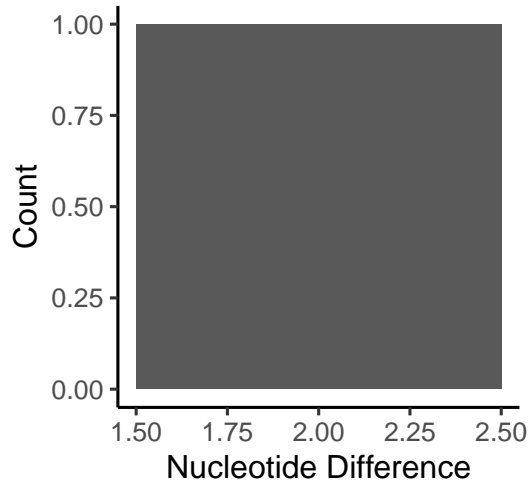
### IGHV4–39\*01

1142 sequences assigned  
320 (28%) exact matches, in which:  
317 unique CDR3  
5 unique J



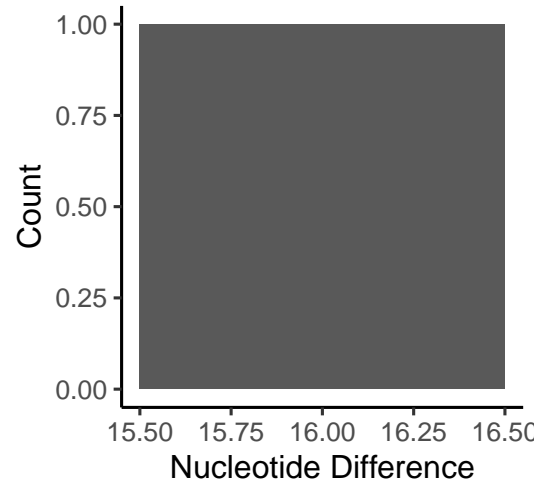
### IGHV1/OR15–1\*03

1 sequences assigned  
No exact matches.



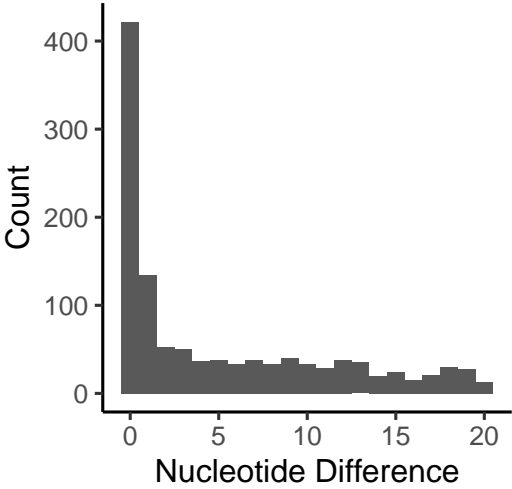
### IGHV5–10–1\*01

1 sequences assigned  
No exact matches.



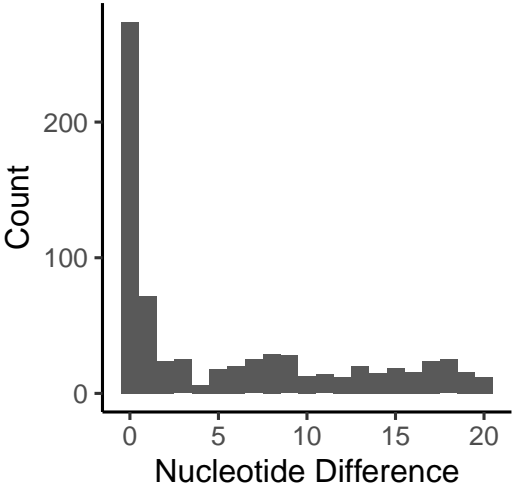
IGHV5-51\*01

1324 sequences assigned  
422 (31.9%) exact matches, in which:  
420 unique CDR3  
6 unique J



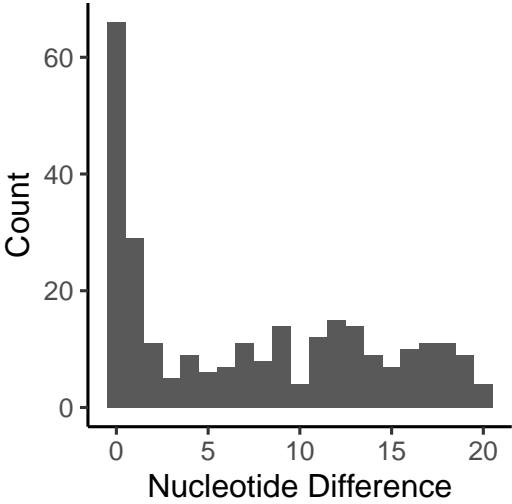
IGHV7-4-1\*02

860 sequences assigned  
274 (31.9%) exact matches, in which:  
271 unique CDR3  
6 unique J



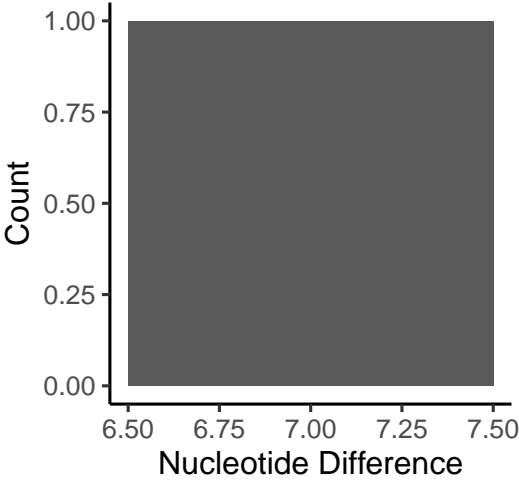
IGHV6-1\*01

306 sequences assigned  
66 (21.6%) exact matches, in which:  
66 unique CDR3  
5 unique J



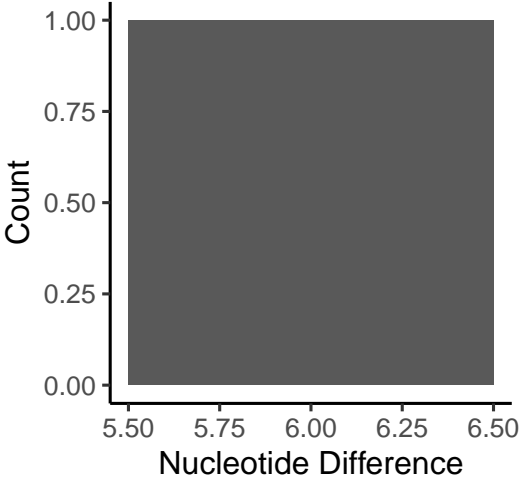
IGHV7-81\*01

1 sequences assigned  
No exact matches.



IGHV3/OR16-9\*01

1 sequences assigned  
No exact matches.







Warning – no inferred sequences found.