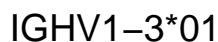
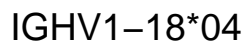


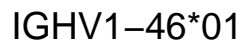
412 sequences assigned  
79 (19.2%) exact matches, in which:  
79 unique CDR3  
6 unique J



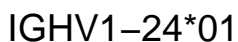
416 sequences assigned  
78 (18.8%) exact matches, in which:  
76 unique CDR3  
7 unique J



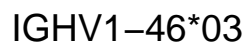
738 sequences assigned  
197 (26.7%) exact matches, in which:  
190 unique CDR3  
7 unique J



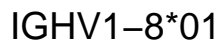
343 sequences assigned  
91 (26.5%) exact matches, in which:  
91 unique CDR3  
5 unique J



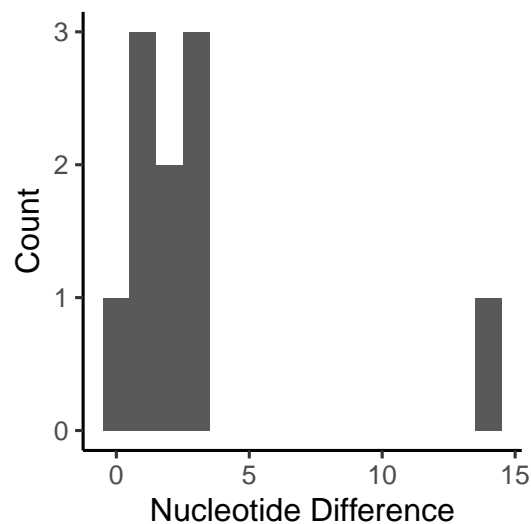
109 sequences assigned  
54 (49.5%) exact matches, in which:  
54 unique CDR3  
6 unique J



205 sequences assigned  
59 (28.8%) exact matches, in which:  
57 unique CDR3  
6 unique J

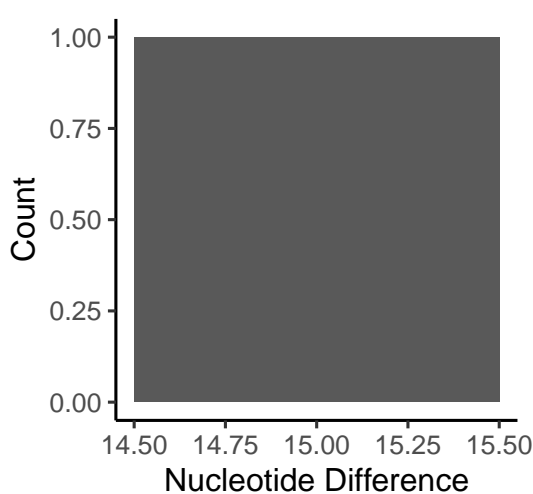


11 sequences assigned  
1 (9.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



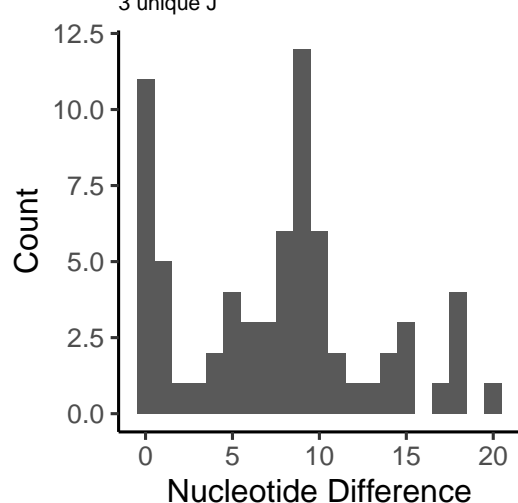
IGHV1-45\*02

1 sequences assigned  
No exact matches.



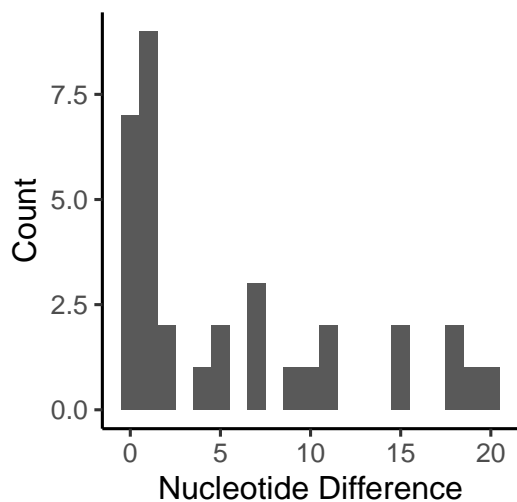
IGHV1-58\*01

82 sequences assigned  
11 (13.4%) exact matches, in which:  
11 unique CDR3  
3 unique J



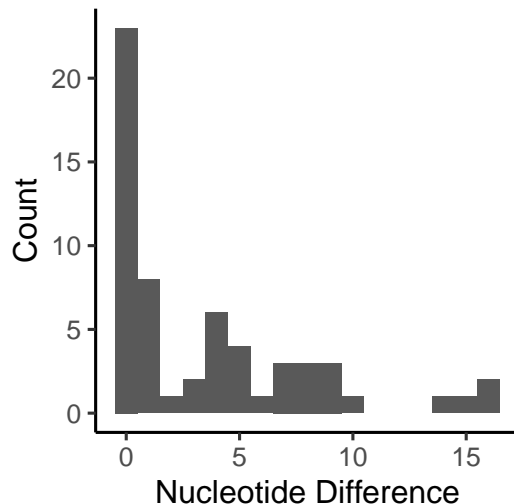
### IGHV1-58\*02

35 sequences assigned  
7 (20%) exact matches, in which:  
5 unique CDR3  
3 unique J



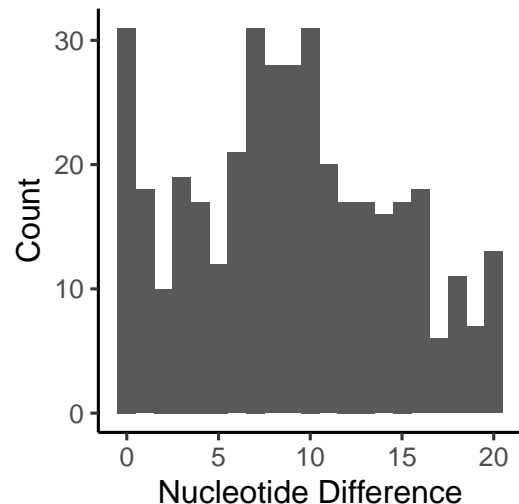
### IGHV2-70\*01

63 sequences assigned  
23 (36.5%) exact matches, in which:  
23 unique CDR3  
5 unique J



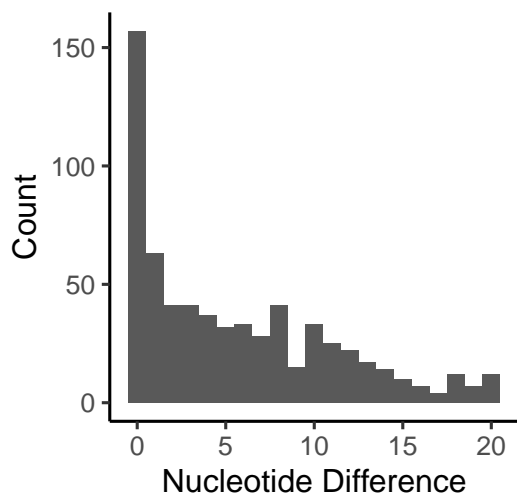
### IGHV3-7\*05

454 sequences assigned  
31 (6.8%) exact matches, in which:  
31 unique CDR3  
5 unique J



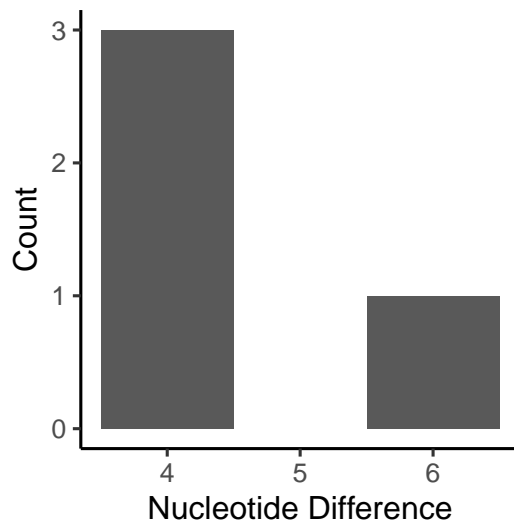
### IGHV2-5\*02

725 sequences assigned  
157 (21.7%) exact matches, in which:  
157 unique CDR3  
7 unique J



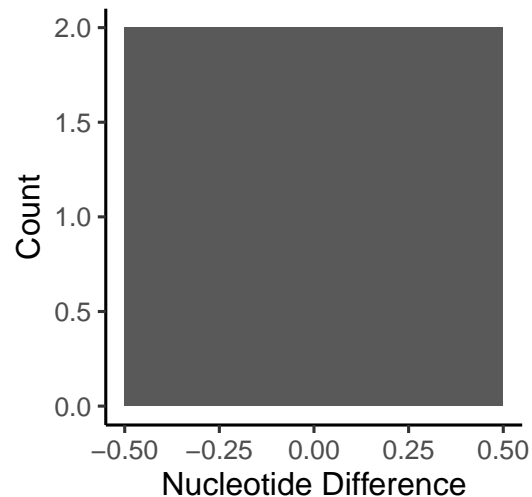
### IGHV2-70D\*04

4 sequences assigned  
No exact matches.



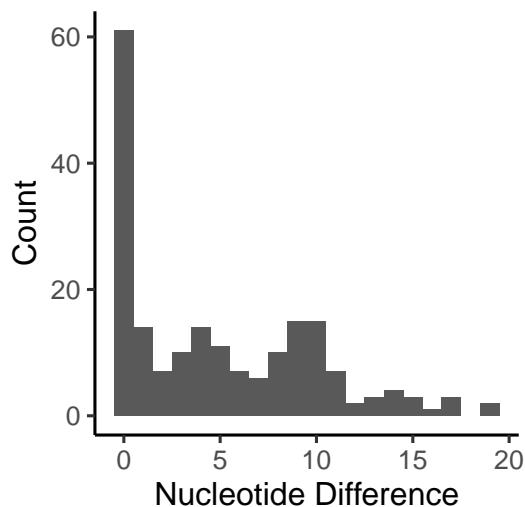
### IGHV3-9\*01

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



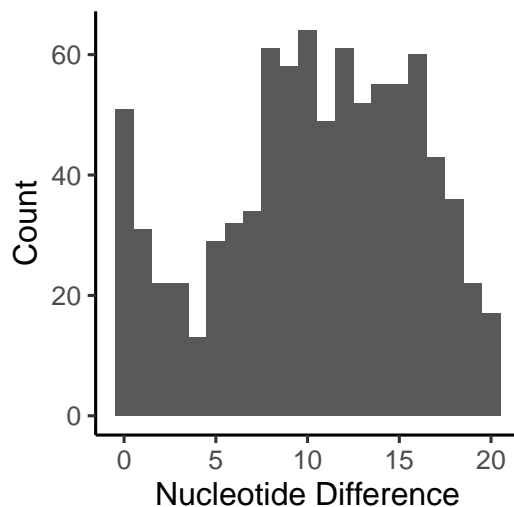
### IGHV2-26\*01

200 sequences assigned  
61 (30.5%) exact matches, in which:  
60 unique CDR3  
6 unique J



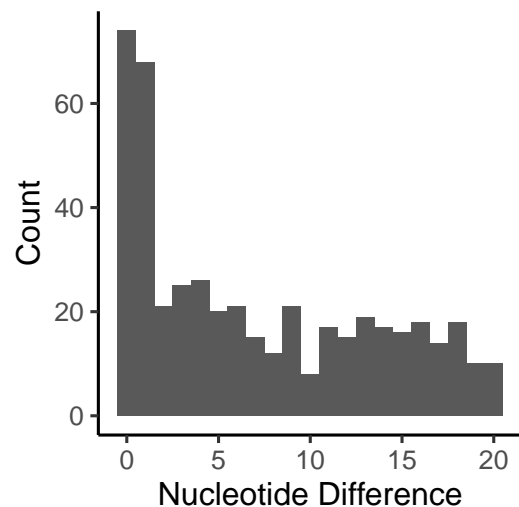
### IGHV3-7\*03

1024 sequences assigned  
51 (5%) exact matches, in which:  
51 unique CDR3  
4 unique J



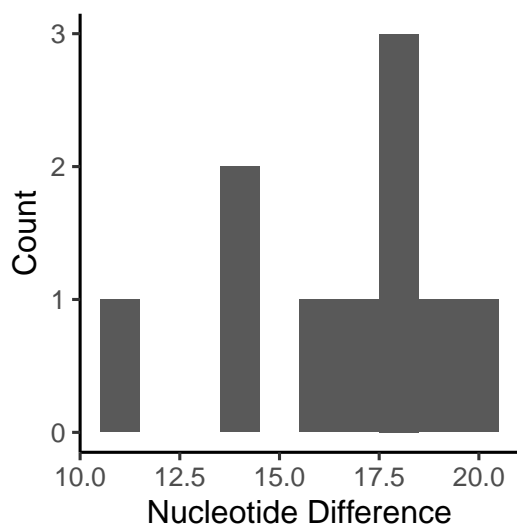
### IGHV3-11\*06

569 sequences assigned  
74 (13%) exact matches, in which:  
73 unique CDR3  
6 unique J



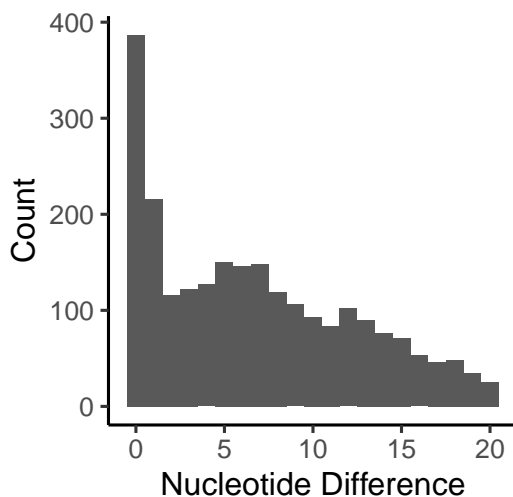
### IGHV3-13\*01

18 sequences assigned  
No exact matches.



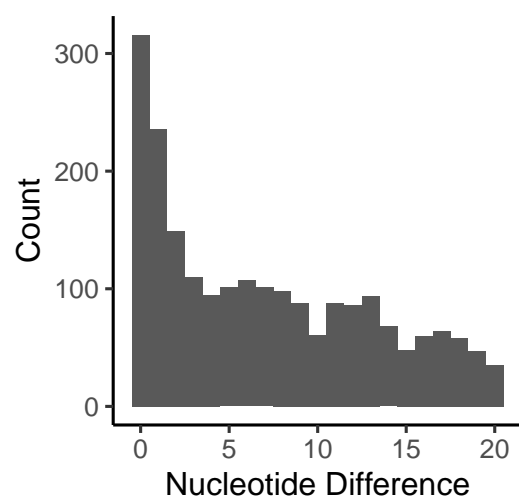
### IGHV3-21\*01

2720 sequences assigned  
387 (14.2%) exact matches, in which:  
382 unique CDR3  
7 unique J



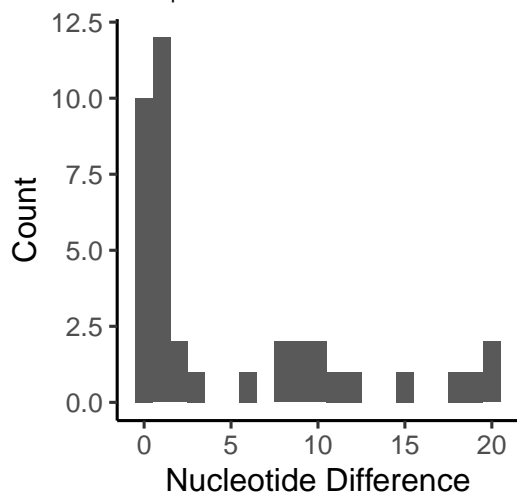
### IGHV3-33\*01

2463 sequences assigned  
316 (12.8%) exact matches, in which:  
312 unique CDR3  
7 unique J



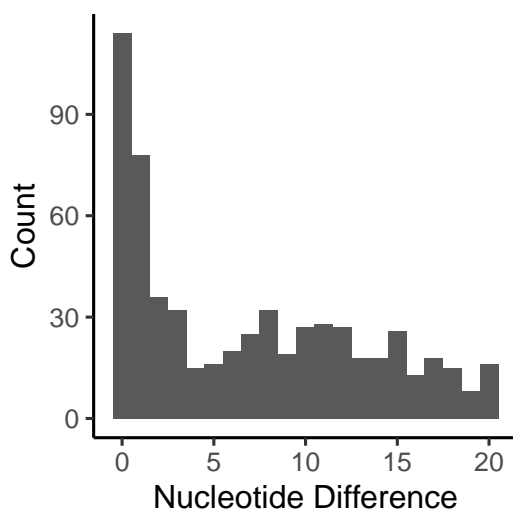
### IGHV3-13\*05

45 sequences assigned  
10 (22.2%) exact matches, in which:  
10 unique CDR3  
5 unique J



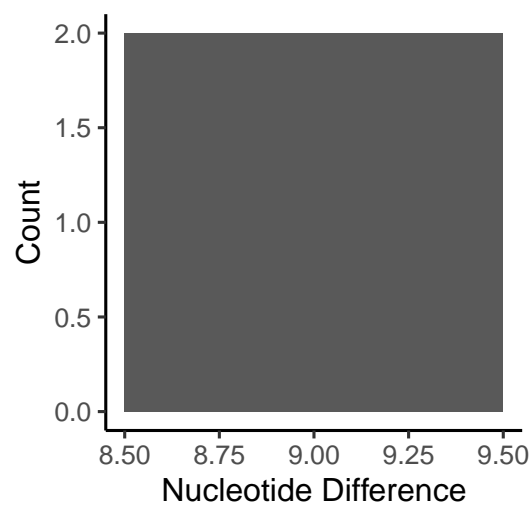
### IGHV3-30-3\*01

714 sequences assigned  
114 (16%) exact matches, in which:  
110 unique CDR3  
6 unique J



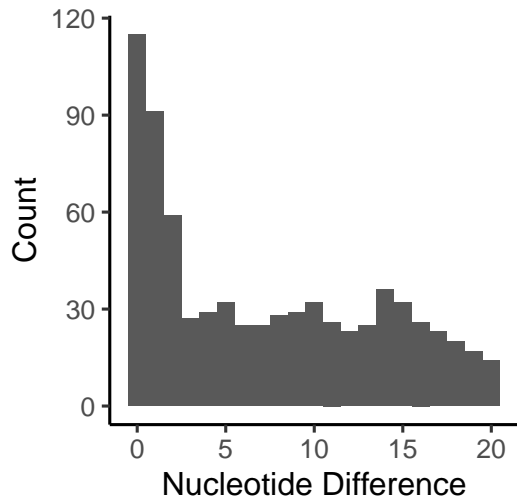
### IGHV3-38\*01

2 sequences assigned  
No exact matches.



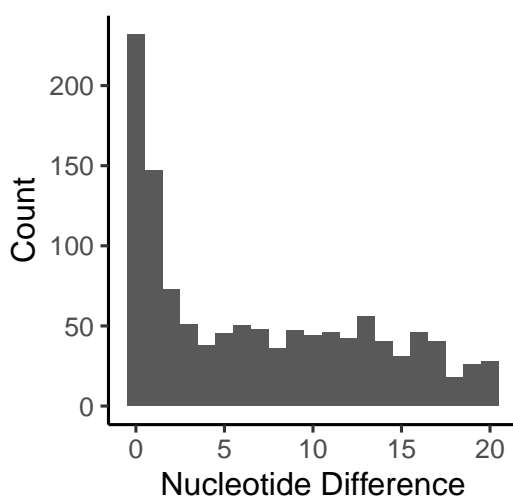
### IGHV3-15\*01

1016 sequences assigned  
115 (11.3%) exact matches, in which:  
115 unique CDR3  
7 unique J



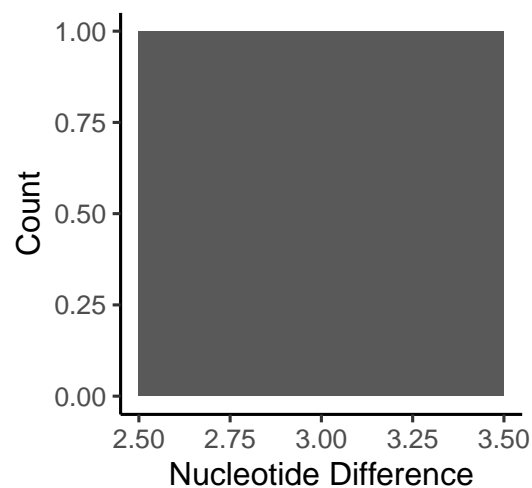
### IGHV3-30\*03

1477 sequences assigned  
232 (15.7%) exact matches, in which:  
229 unique CDR3  
6 unique J



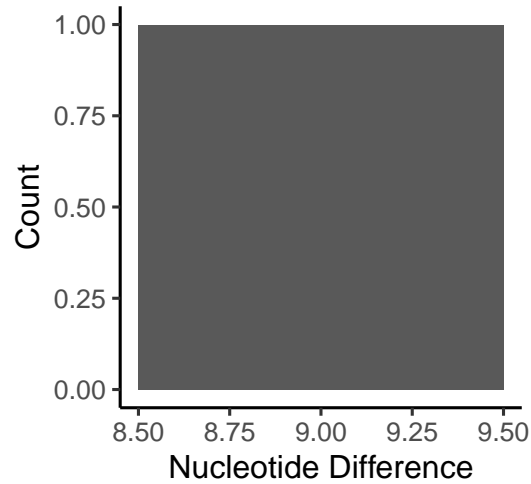
### IGHV3-38-3\*01

1 sequences assigned  
No exact matches.



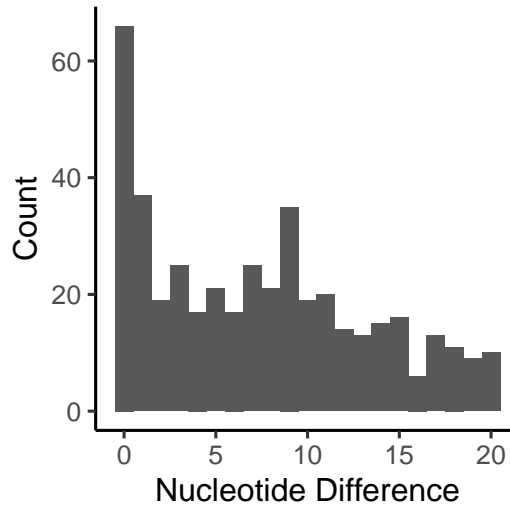
### IGHV3-41\*02

1 sequences assigned  
No exact matches.



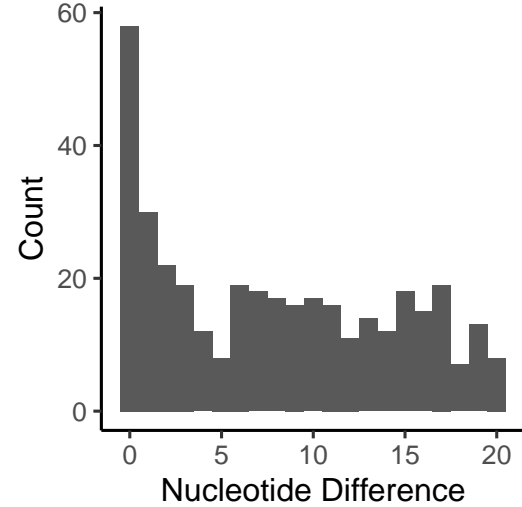
### IGHV3-48\*02

520 sequences assigned  
66 (12.7%) exact matches, in which:  
63 unique CDR3  
4 unique J



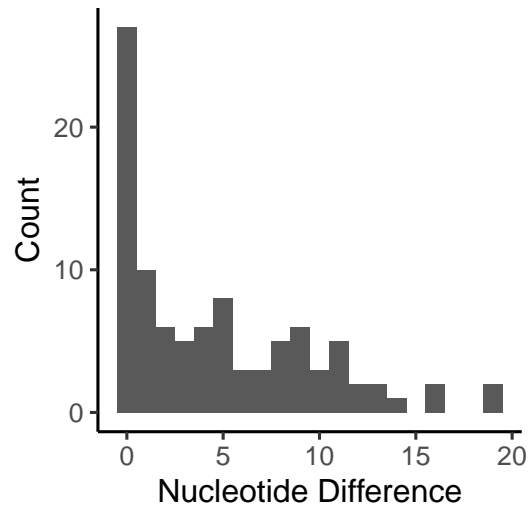
### IGHV3-53\*01

425 sequences assigned  
58 (13.6%) exact matches, in which:  
58 unique CDR3  
5 unique J



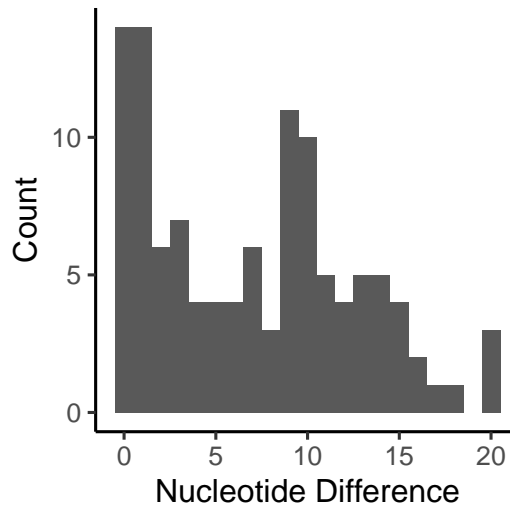
### IGHV3-43\*01

123 sequences assigned  
27 (22%) exact matches, in which:  
27 unique CDR3  
6 unique J



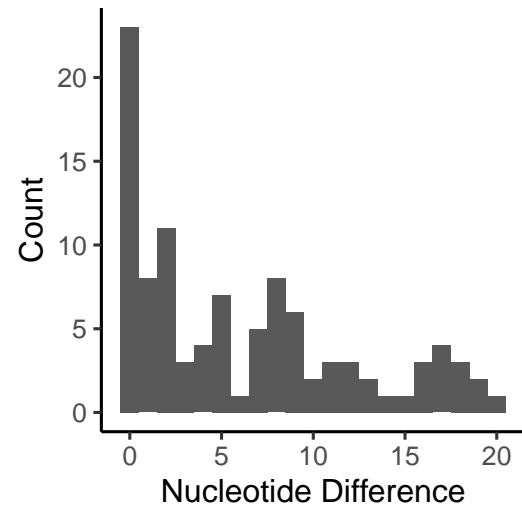
### IGHV3-49\*03

146 sequences assigned  
14 (9.6%) exact matches, in which:  
14 unique CDR3  
3 unique J



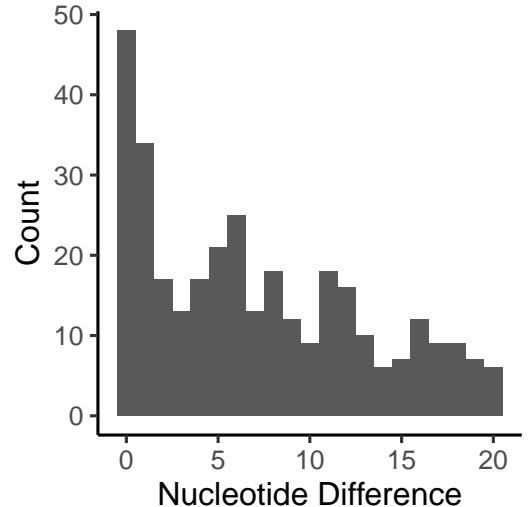
### IGHV3-53\*02

124 sequences assigned  
23 (18.5%) exact matches, in which:  
23 unique CDR3  
5 unique J



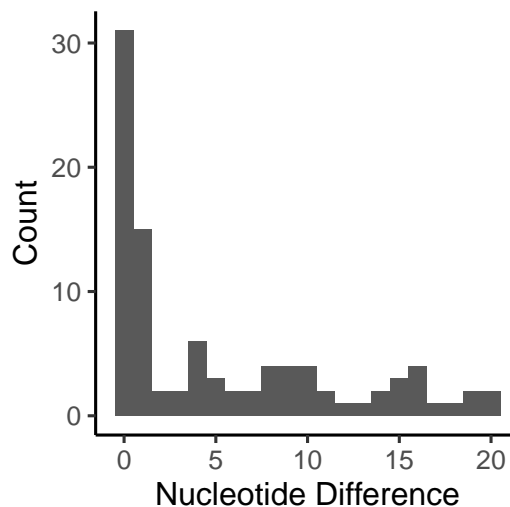
### IGHV3-48\*01

371 sequences assigned  
48 (12.9%) exact matches, in which:  
48 unique CDR3  
5 unique J



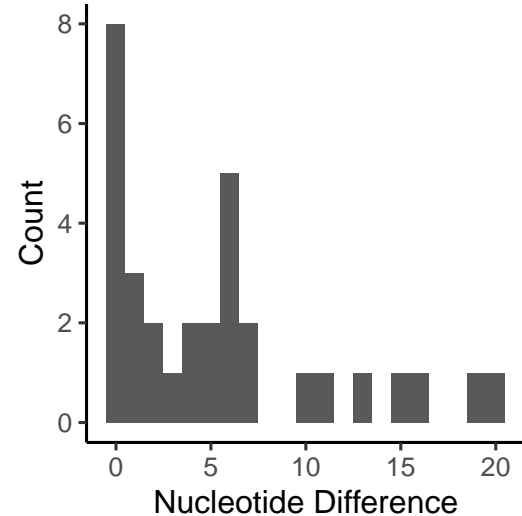
### IGHV3-49\*05

101 sequences assigned  
31 (30.7%) exact matches, in which:  
31 unique CDR3  
5 unique J



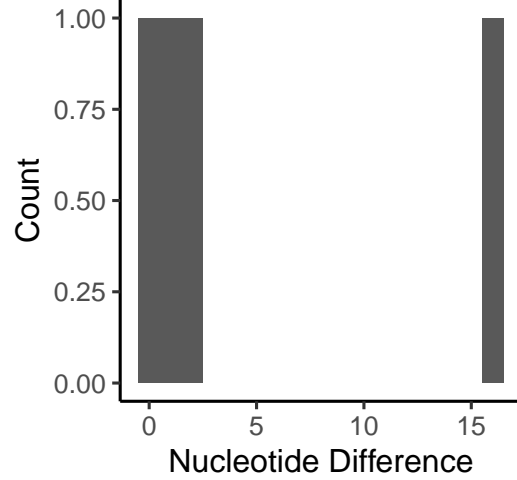
### IGHV3-64\*01

34 sequences assigned  
8 (23.5%) exact matches, in which:  
8 unique CDR3  
4 unique J



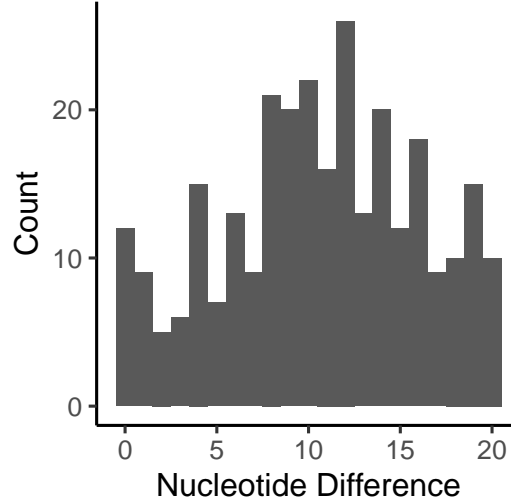
### IGHV3-64\*02

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



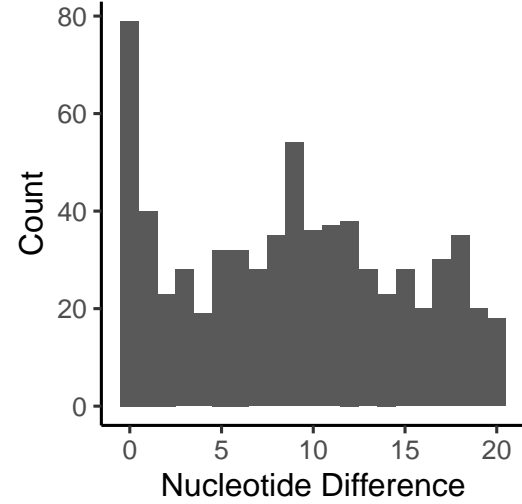
### IGHV3-72\*01

348 sequences assigned  
12 (3.4%) exact matches, in which:  
12 unique CDR3  
5 unique J



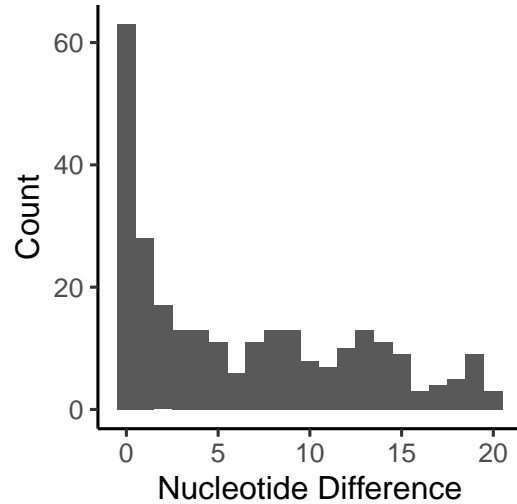
### IGHV3-74\*01

849 sequences assigned  
79 (9.3%) exact matches, in which:  
79 unique CDR3  
6 unique J



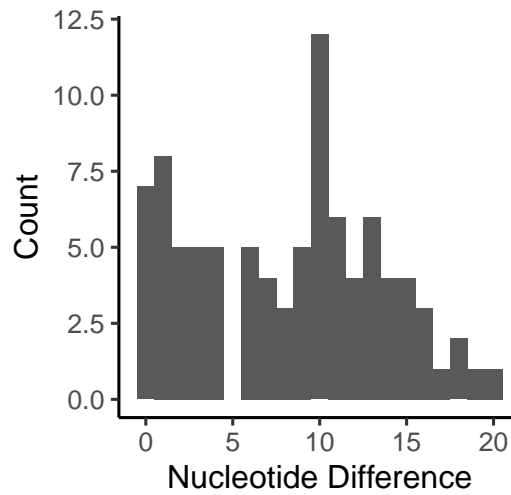
### IGHV3-66\*02

319 sequences assigned  
63 (19.7%) exact matches, in which:  
61 unique CDR3  
5 unique J



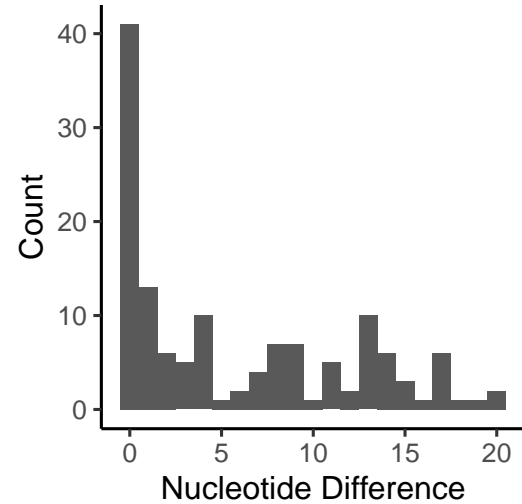
### IGHV3-73\*01

117 sequences assigned  
7 (6%) exact matches, in which:  
7 unique CDR3  
4 unique J



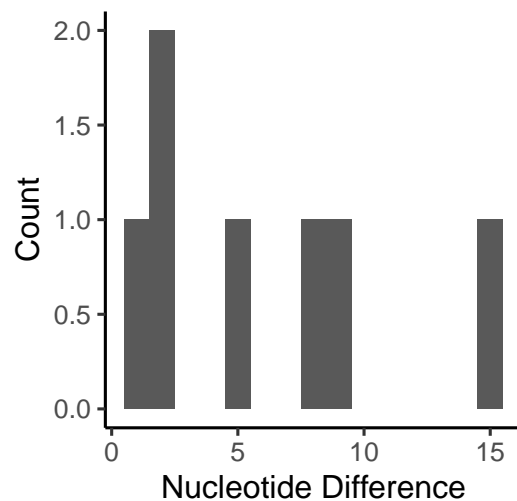
### IGHV3-64D\*06

165 sequences assigned  
41 (24.8%) exact matches, in which:  
41 unique CDR3  
4 unique J



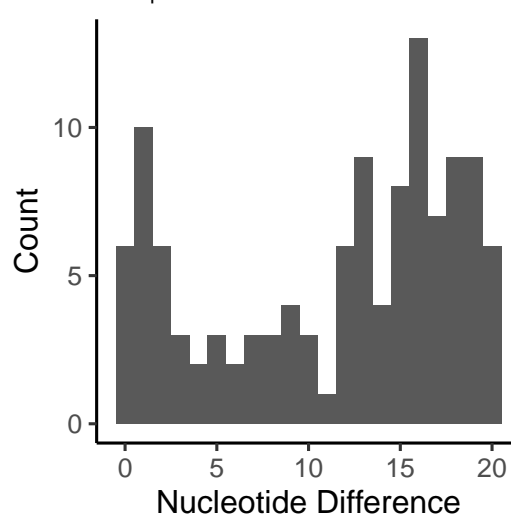
### IGHV3-69-1\*02

13 sequences assigned  
No exact matches.



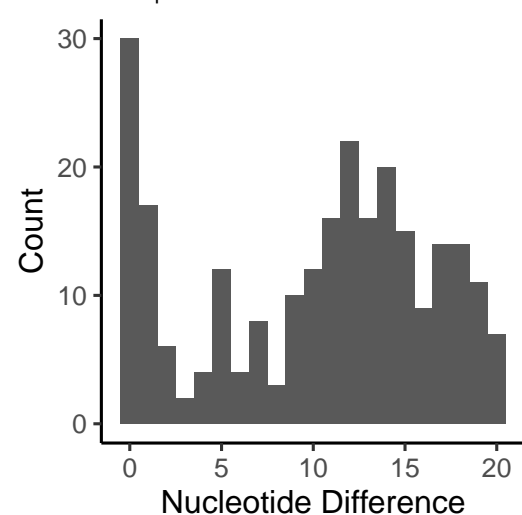
### IGHV3-73\*02

166 sequences assigned  
6 (3.6%) exact matches, in which:  
6 unique CDR3  
3 unique J



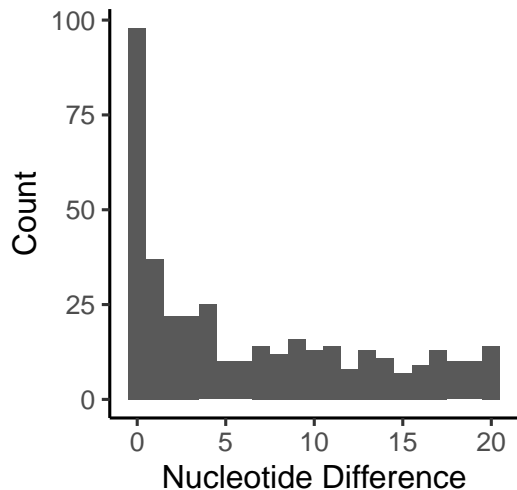
### IGHV3-64D\*08

315 sequences assigned  
30 (9.5%) exact matches, in which:  
30 unique CDR3  
4 unique J



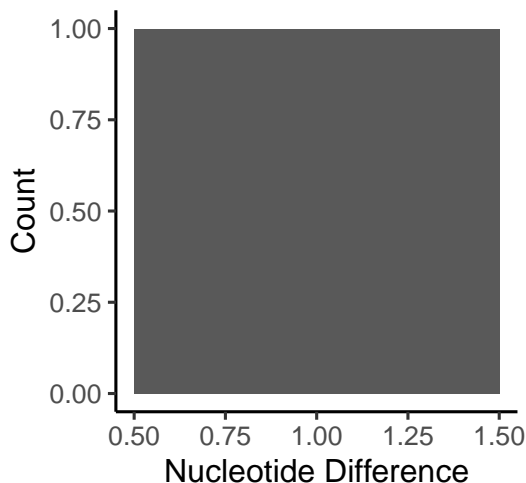
### IGHV4-4\*02

470 sequences assigned  
98 (20.9%) exact matches, in which:  
97 unique CDR3  
5 unique J



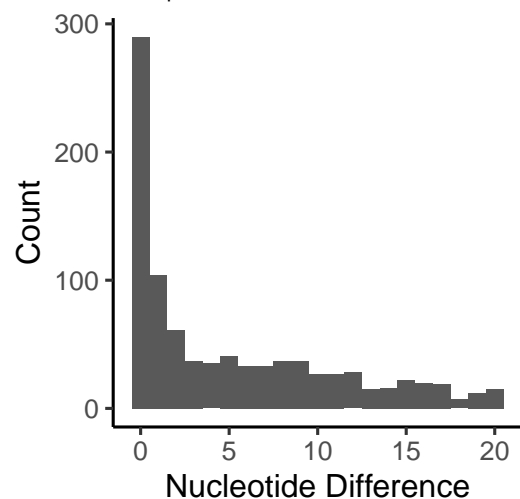
### IGHV4-28\*04

1 sequences assigned  
No exact matches.



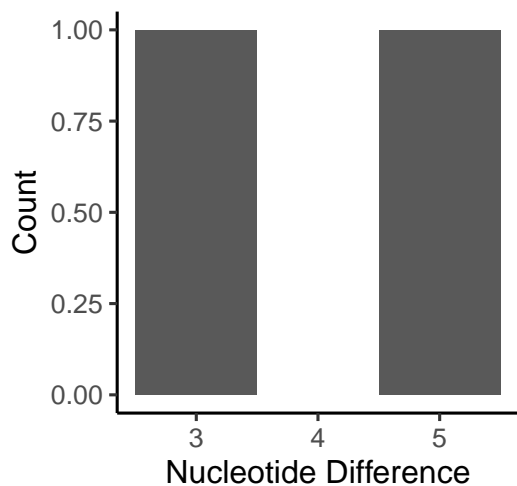
### IGHV4-31\*03

1040 sequences assigned  
290 (27.9%) exact matches, in which:  
289 unique CDR3  
7 unique J



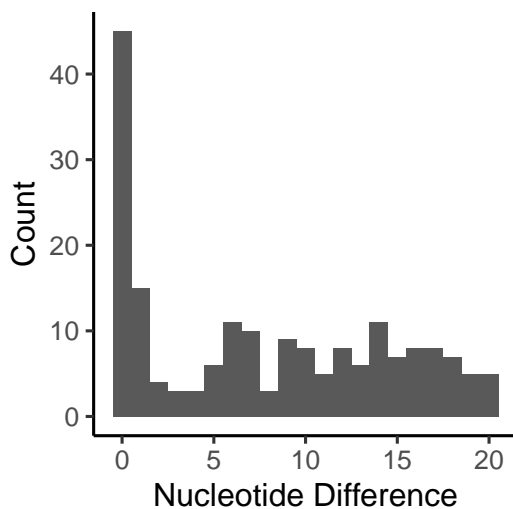
### IGHV4-28\*01

2 sequences assigned  
No exact matches.



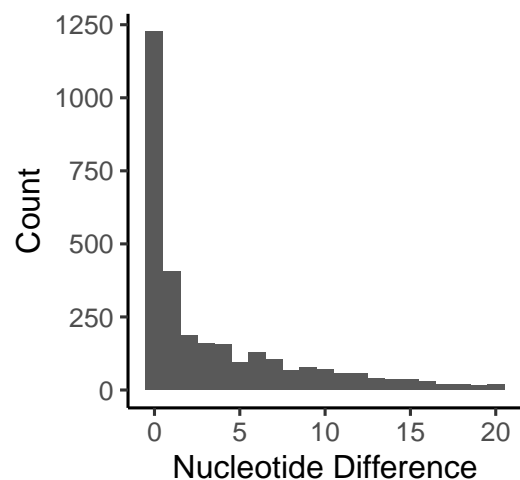
### IGHV4-30-2\*01

217 sequences assigned  
45 (20.7%) exact matches, in which:  
44 unique CDR3  
5 unique J



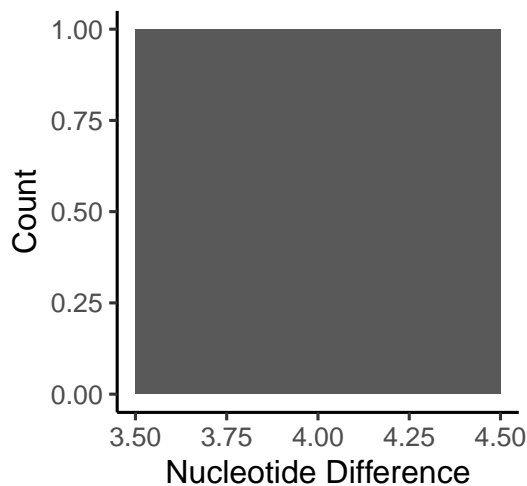
### IGHV4-34\*01

3197 sequences assigned  
1226 (38.3%) exact matches, in which:  
1215 unique CDR3  
7 unique J



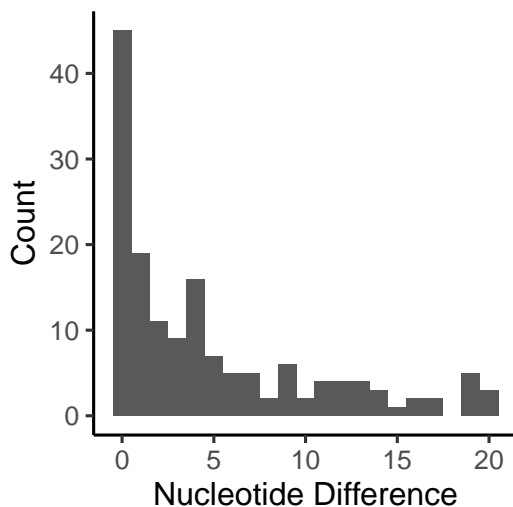
### IGHV4-28\*03

1 sequences assigned  
No exact matches.



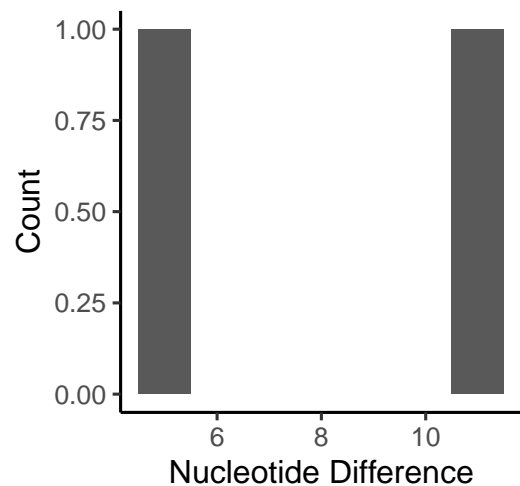
### IGHV4-30-4\*01

175 sequences assigned  
45 (25.7%) exact matches, in which:  
45 unique CDR3  
5 unique J



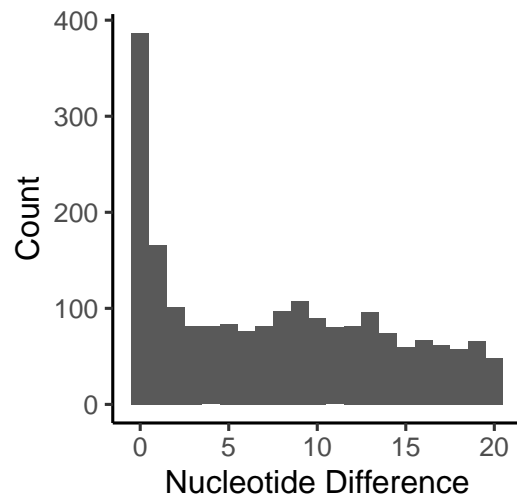
### IGHV4-38-2\*01

2 sequences assigned  
No exact matches.



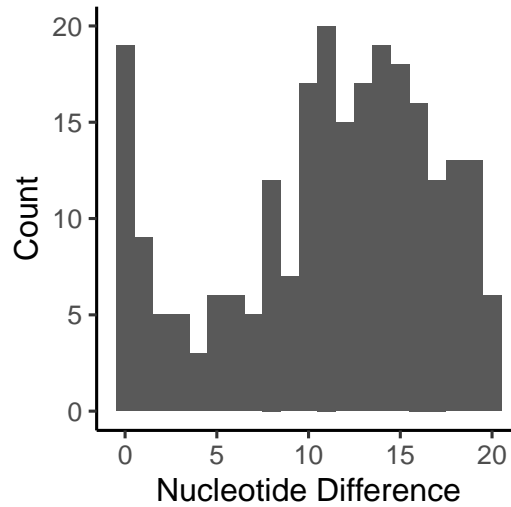
### IGHV4-39\*01

2562 sequences assigned  
387 (15.1%) exact matches, in which:  
384 unique CDR3  
7 unique J



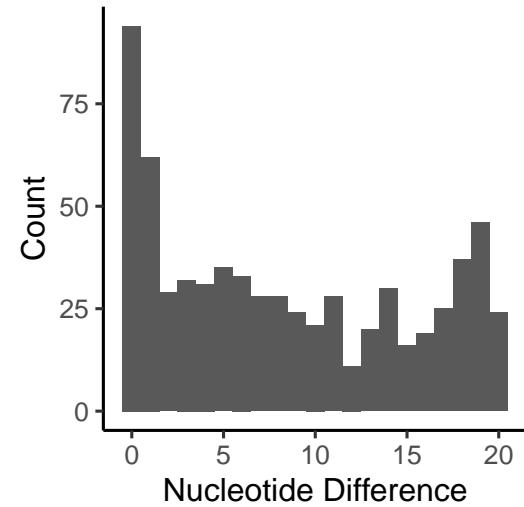
### IGHV4-61\*01

273 sequences assigned  
19 (7%) exact matches, in which:  
19 unique CDR3  
4 unique J



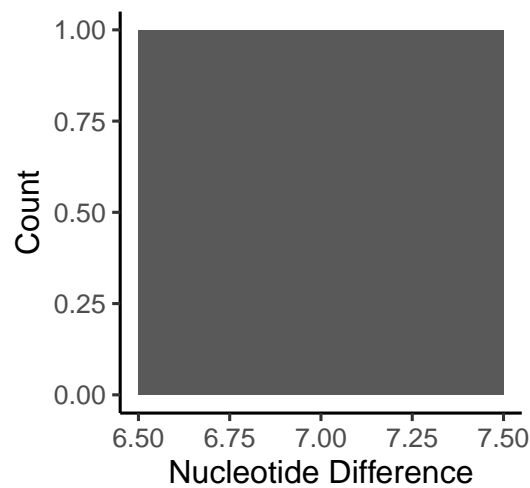
### IGHV5-51\*01

849 sequences assigned  
94 (11.1%) exact matches, in which:  
94 unique CDR3  
6 unique J



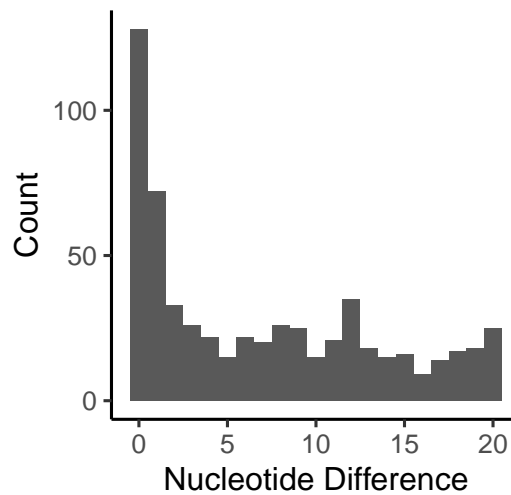
### IGHV4-55\*08

1 sequences assigned  
No exact matches.



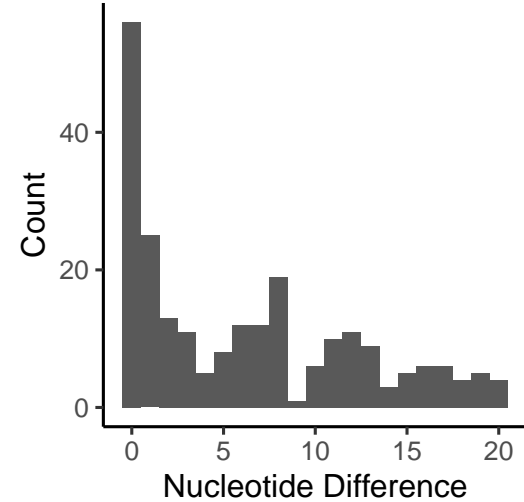
### IGHV4-61\*02

737 sequences assigned  
128 (17.4%) exact matches, in which:  
124 unique CDR3  
6 unique J



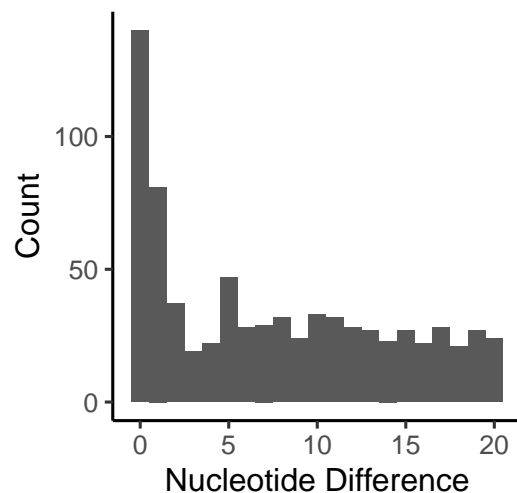
### IGHV5-51\*03

258 sequences assigned  
56 (21.7%) exact matches, in which:  
56 unique CDR3  
6 unique J



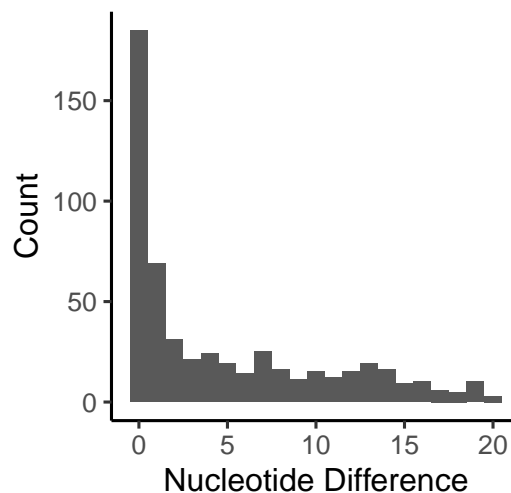
### IGHV4-59\*01

864 sequences assigned  
140 (16.2%) exact matches, in which:  
139 unique CDR3  
7 unique J



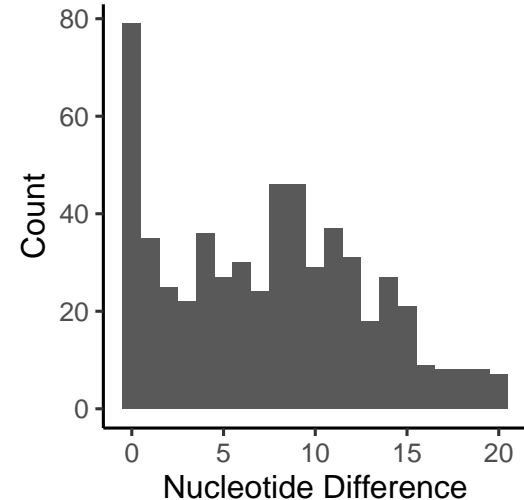
### IGHV5-10-1\*03

590 sequences assigned  
185 (31.4%) exact matches, in which:  
184 unique CDR3  
7 unique J



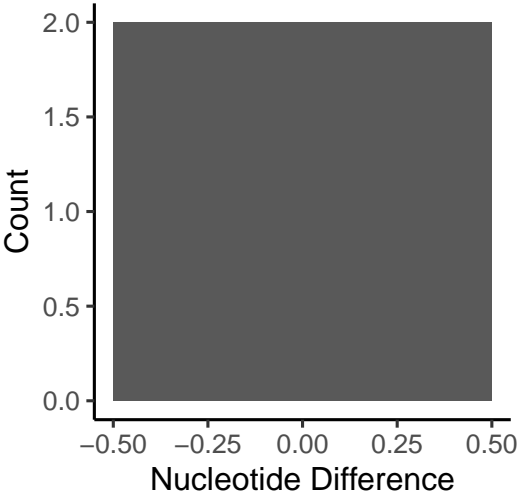
### IGHV6-1\*01

604 sequences assigned  
79 (13.1%) exact matches, in which:  
78 unique CDR3  
5 unique J



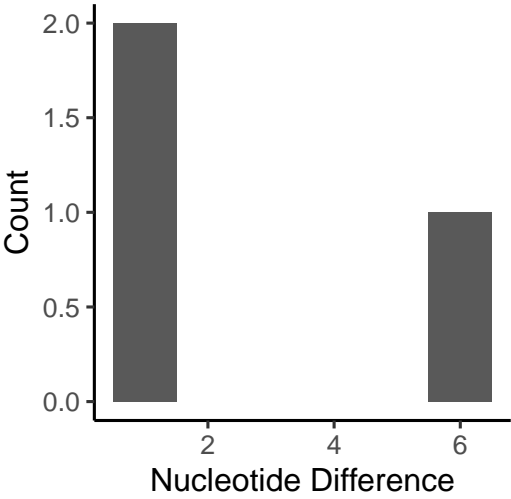
IGHV7-4-1\*01

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



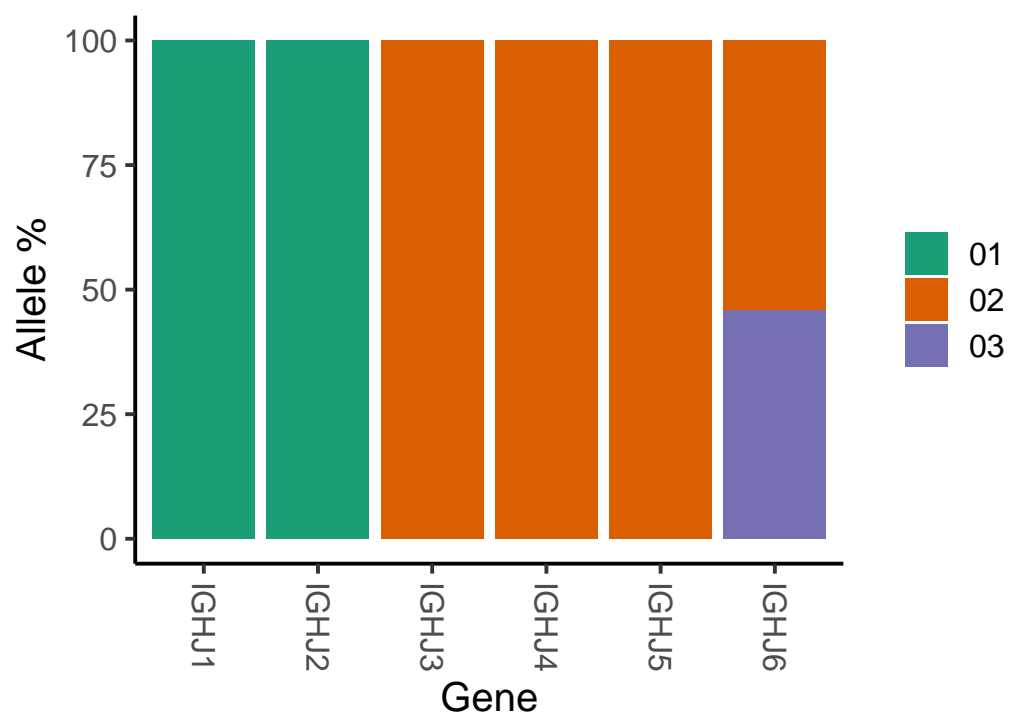
IGHV7-4-1\*02

3 sequences assigned  
No exact matches.

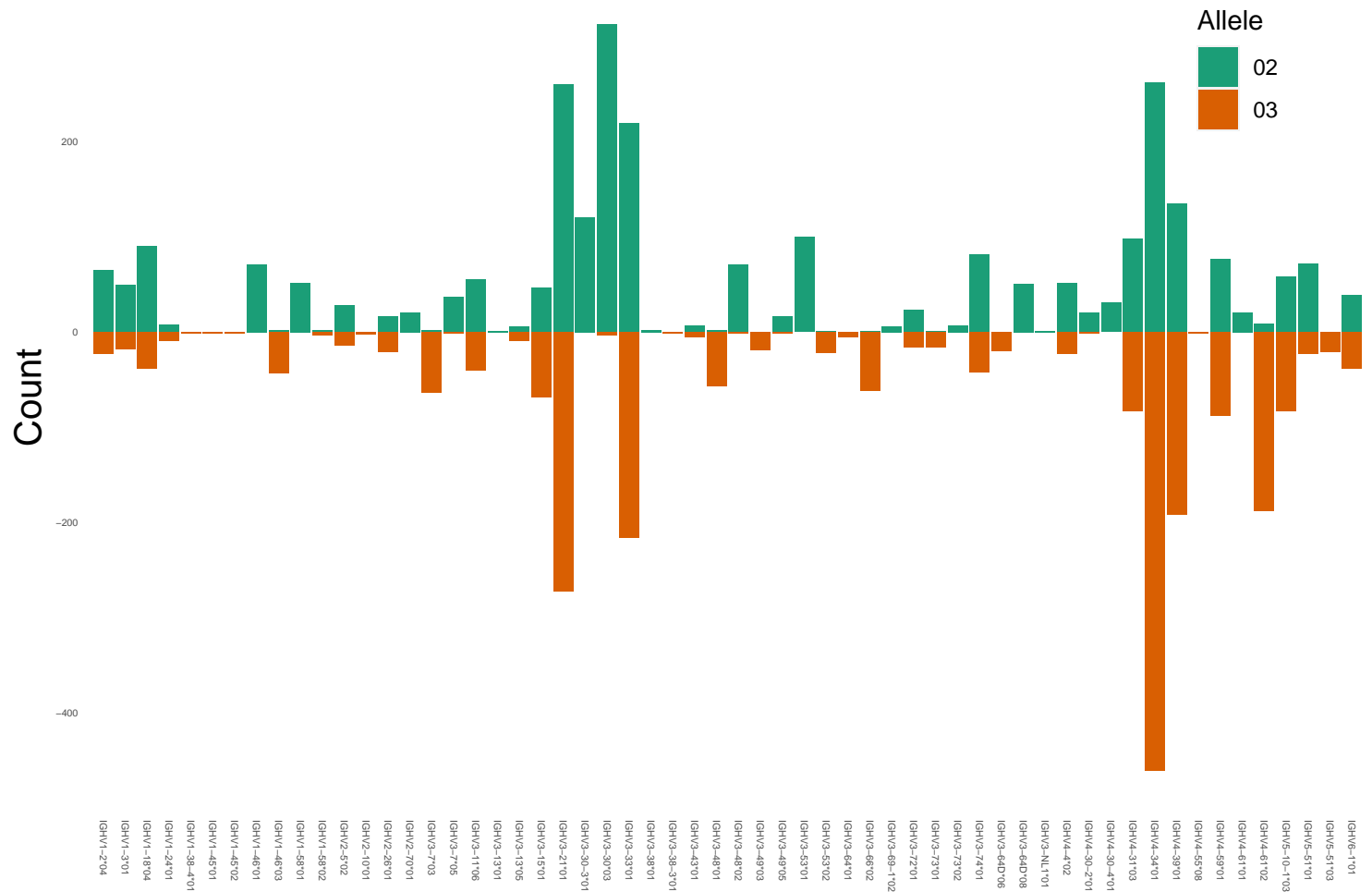




Allele Usage



## Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.