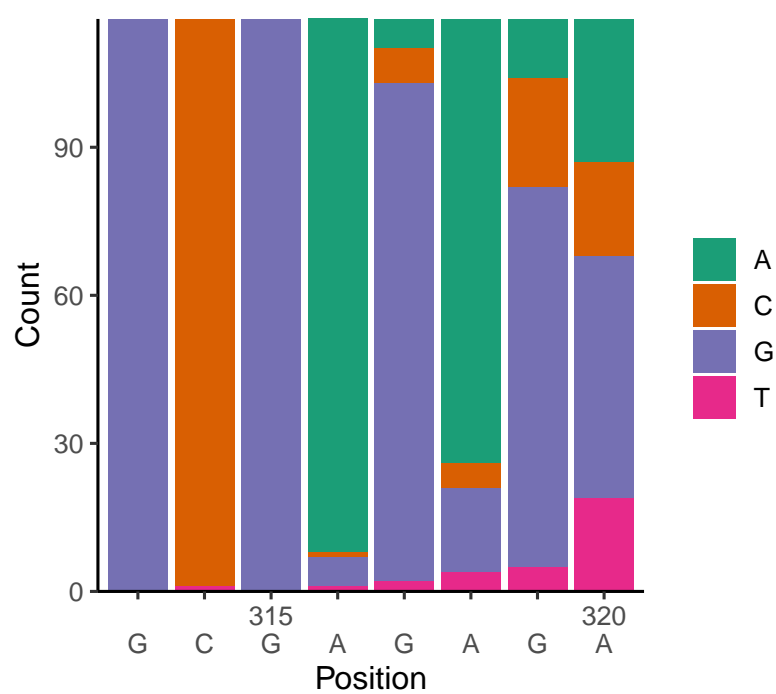


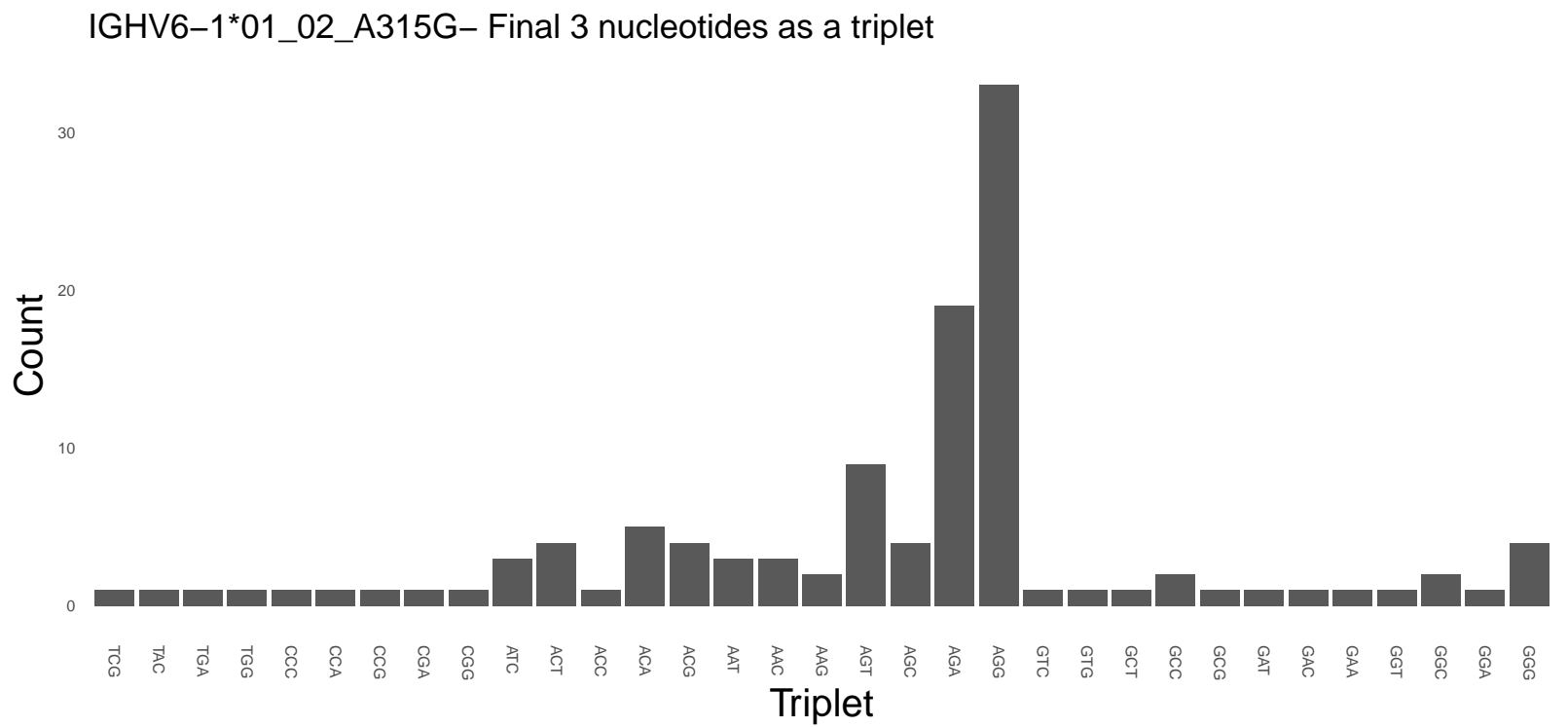
Gene IGHV6-1\*01\_02\_A315G



Gene IGHV6-1\*01\_02\_A315G

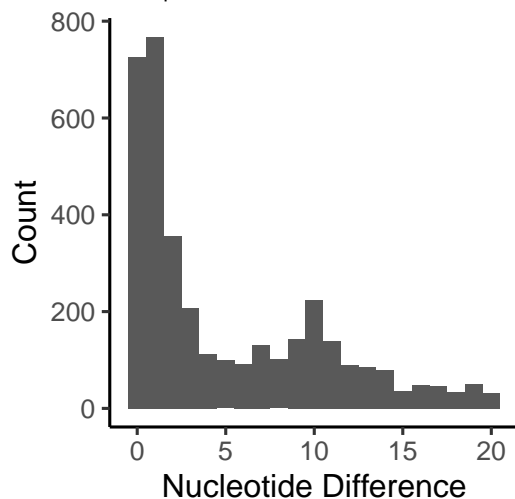


IGHV6-1\*01\_02\_A315G- Final 3 nucleotides as a triplet



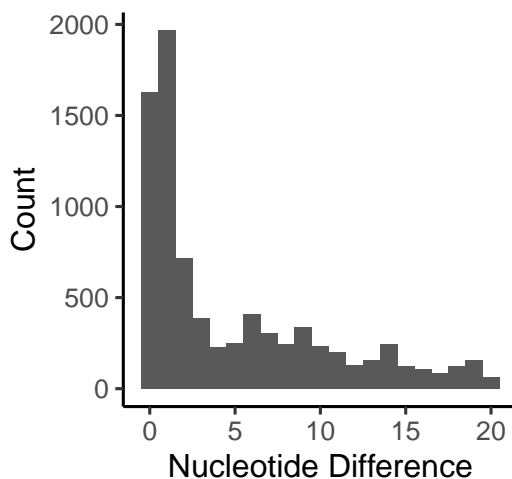
### IGHV1-2\*02

3847 sequences assigned  
726 (18.9%) exact matches, in which:  
596 unique CDR3  
6 unique J



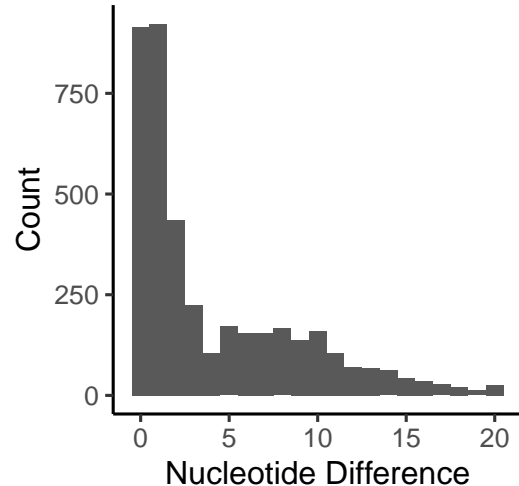
### IGHV1-18\*01

8706 sequences assigned  
1627 (18.7%) exact matches, in which:  
1304 unique CDR3  
6 unique J



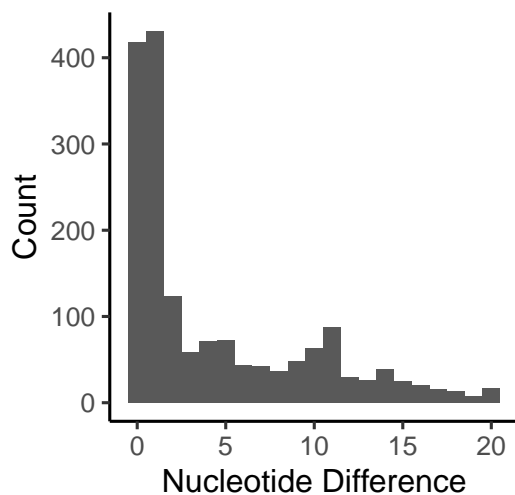
### IGHV1-46\*01

4476 sequences assigned  
914 (20.4%) exact matches, in which:  
771 unique CDR3  
6 unique J



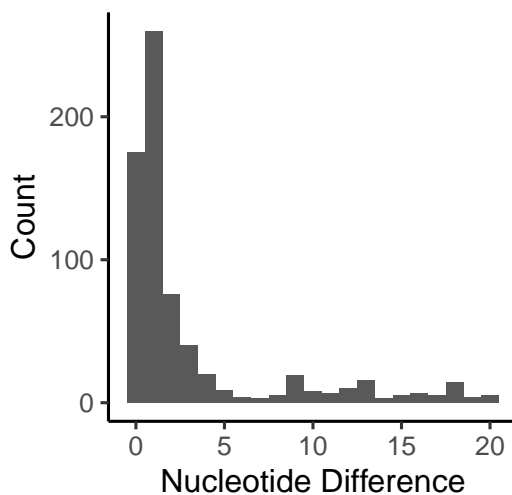
### IGHV1-3\*01\_05

1830 sequences assigned  
418 (22.8%) exact matches, in which:  
350 unique CDR3  
6 unique J



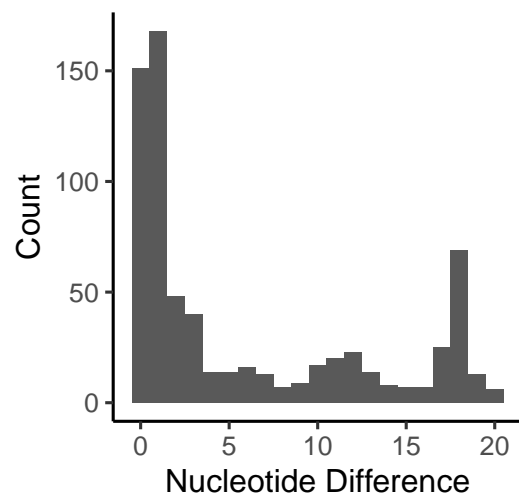
### IGHV1-24\*01

718 sequences assigned  
175 (24.4%) exact matches, in which:  
137 unique CDR3  
6 unique J



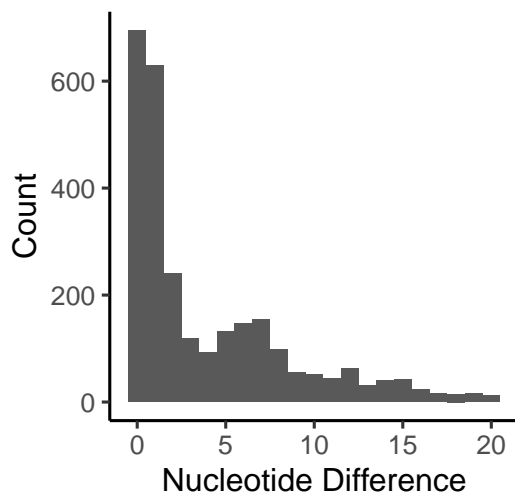
### IGHV1-58\*01\_03

858 sequences assigned  
151 (17.6%) exact matches, in which:  
128 unique CDR3  
5 unique J



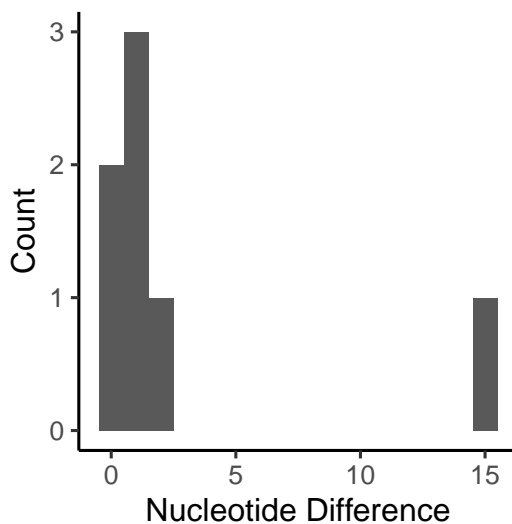
### IGHV1-8\*01

2844 sequences assigned  
695 (24.4%) exact matches, in which:  
611 unique CDR3  
6 unique J



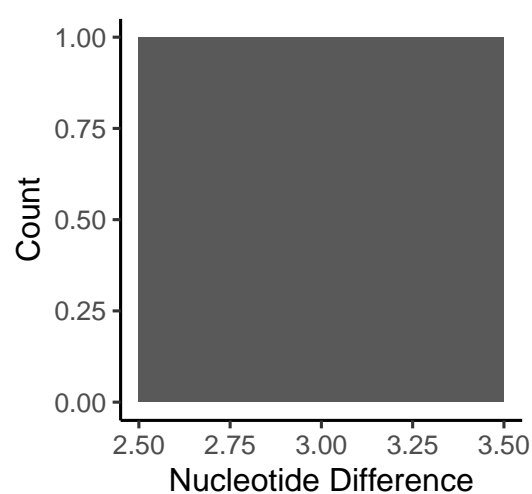
### IGHV1-45\*02

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



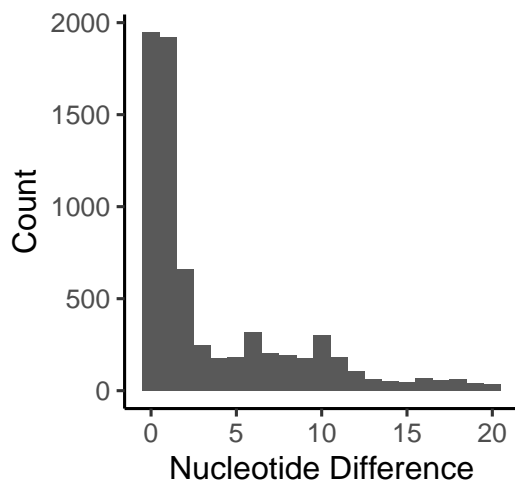
### IGHV1-68\*01

1 sequences assigned  
No exact matches.



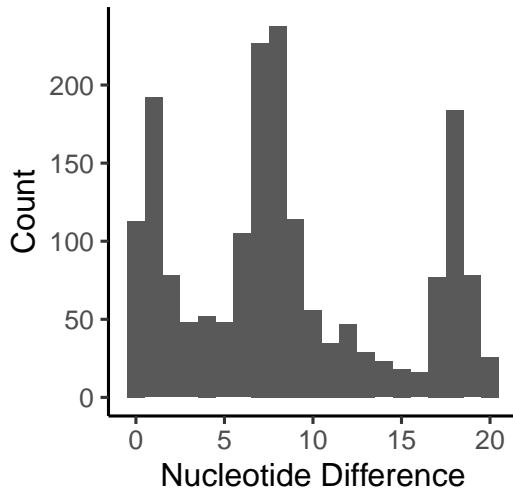
### IGHV1-69\*01\_12\_13

7785 sequences assigned  
1947 (25%) exact matches, in which:  
1673 unique CDR3  
6 unique J



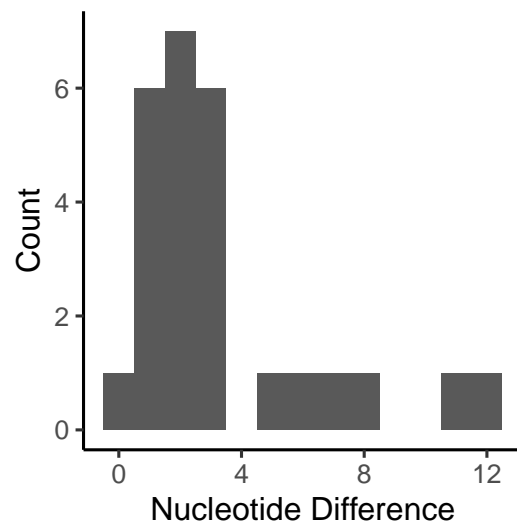
### IGHV2-5\*02

1871 sequences assigned  
113 (6%) exact matches, in which:  
92 unique CDR3  
5 unique J



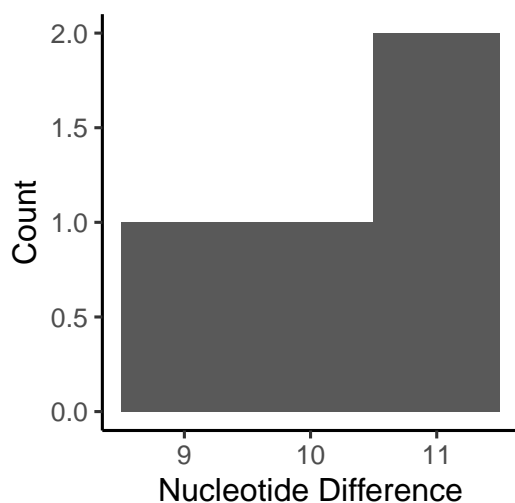
### IGHV2-70\*12

149 sequences assigned  
1 (0.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



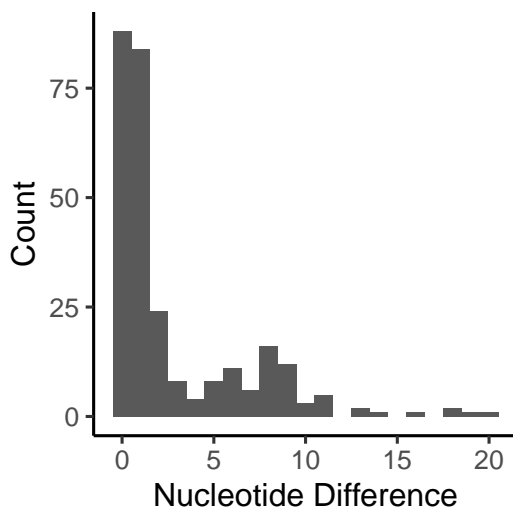
### IGHV1-NL1\*01

4 sequences assigned  
No exact matches.



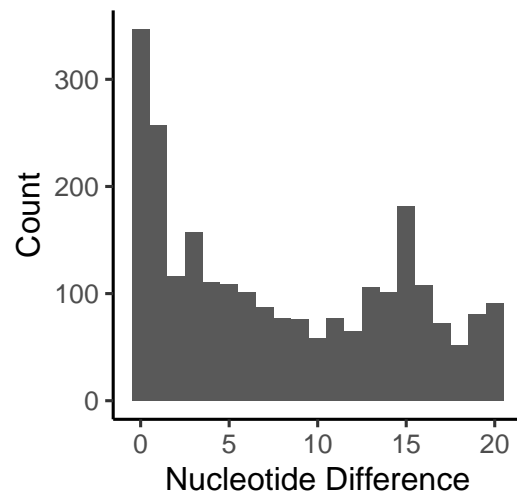
### IGHV2-26\*01

545 sequences assigned  
88 (16.1%) exact matches, in which:  
71 unique CDR3  
4 unique J



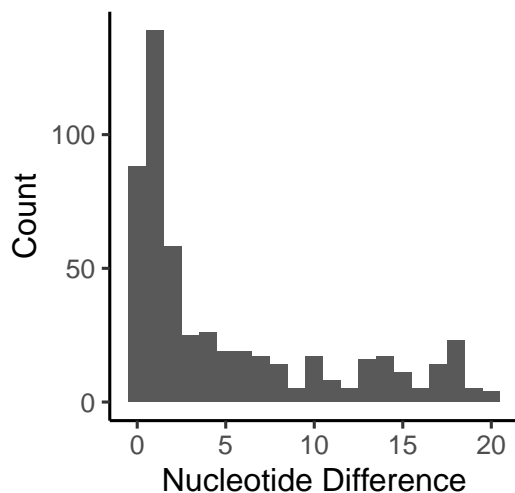
### IGHV3-7\*01

2977 sequences assigned  
347 (11.7%) exact matches, in which:  
241 unique CDR3  
6 unique J



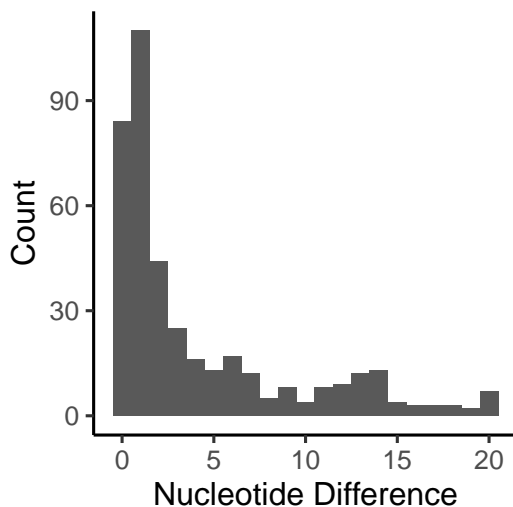
### IGHV2-5\*01

623 sequences assigned  
88 (14.1%) exact matches, in which:  
72 unique CDR3  
5 unique J



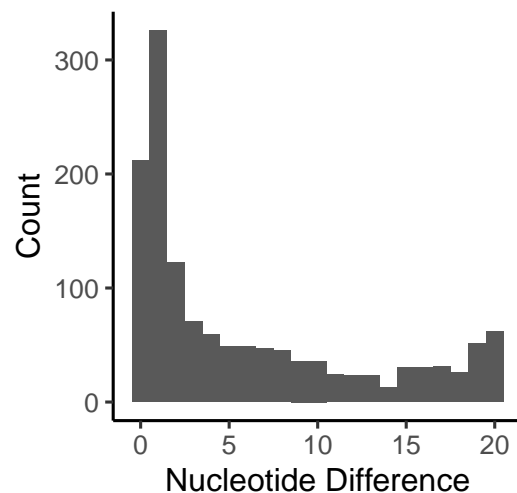
### IGHV2-70\*01

619 sequences assigned  
84 (13.6%) exact matches, in which:  
66 unique CDR3  
4 unique J



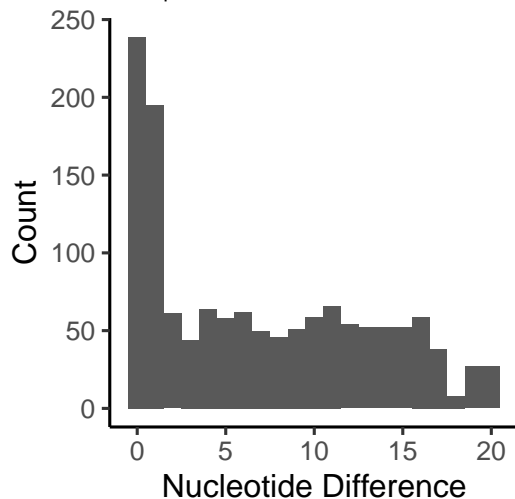
### IGHV3-7\*03

1744 sequences assigned  
212 (12.2%) exact matches, in which:  
142 unique CDR3  
6 unique J



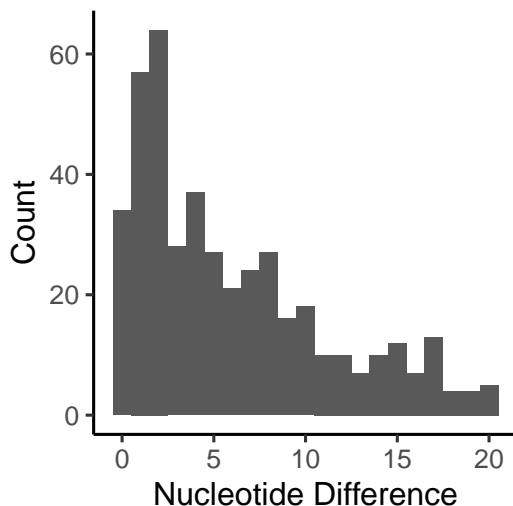
### IGHV3-7\*05

2242 sequences assigned  
239 (10.7%) exact matches, in which:  
174 unique CDR3  
6 unique J



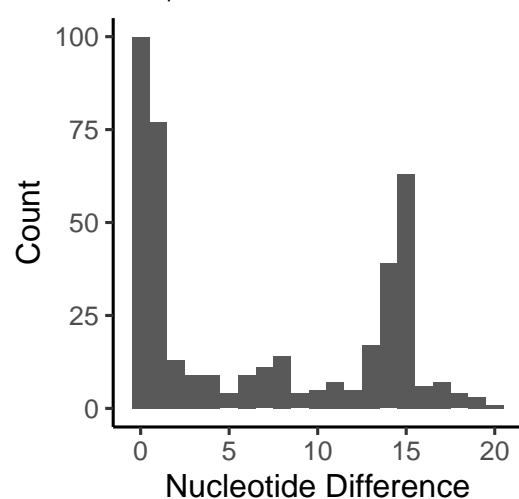
### IGHV3-11\*04

445 sequences assigned  
34 (7.6%) exact matches, in which:  
33 unique CDR3  
5 unique J



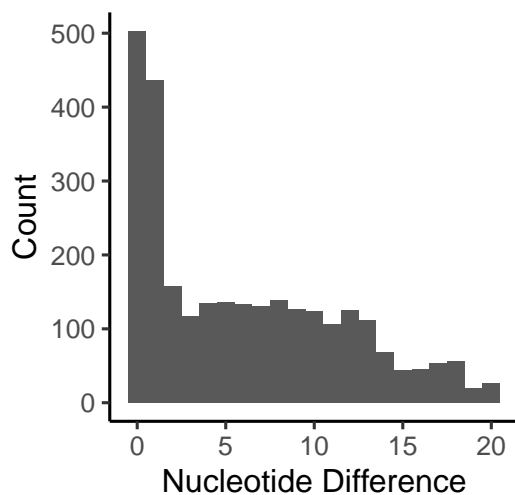
### IGHV3-13\*04

497 sequences assigned  
100 (20.1%) exact matches, in which:  
57 unique CDR3  
4 unique J



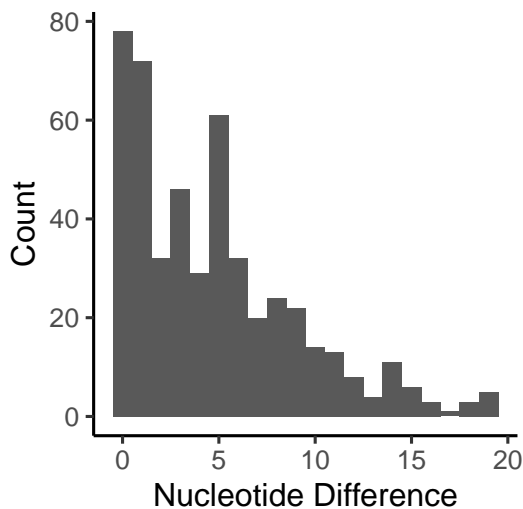
### IGHV3-9\*01

3026 sequences assigned  
503 (16.6%) exact matches, in which:  
285 unique CDR3  
6 unique J



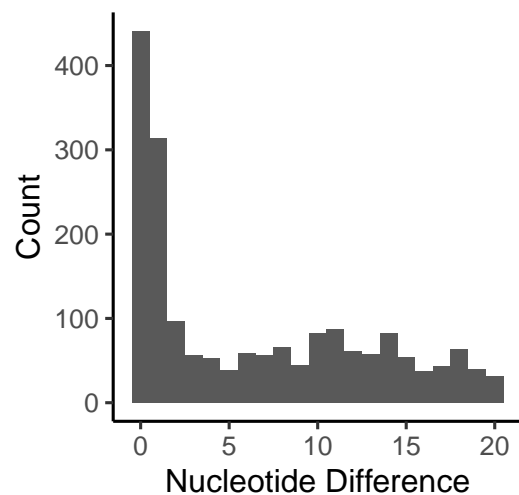
### IGHV3-11\*06

495 sequences assigned  
78 (15.8%) exact matches, in which:  
72 unique CDR3  
6 unique J



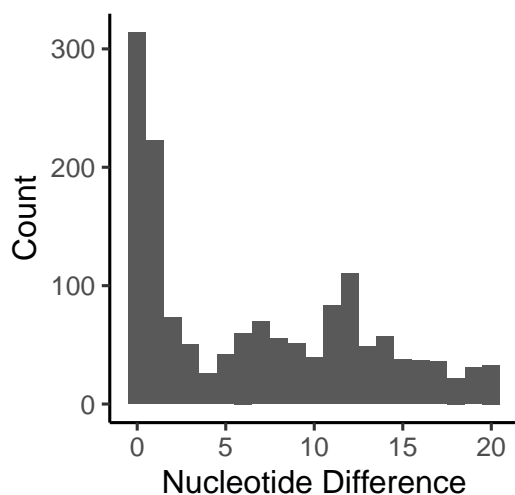
### IGHV3-15\*01\_02

3423 sequences assigned  
441 (12.9%) exact matches, in which:  
263 unique CDR3  
6 unique J



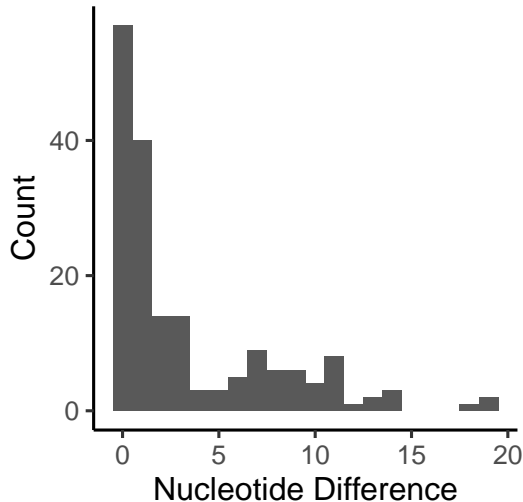
### IGHV3-11\*01

1682 sequences assigned  
314 (18.7%) exact matches, in which:  
208 unique CDR3  
6 unique J



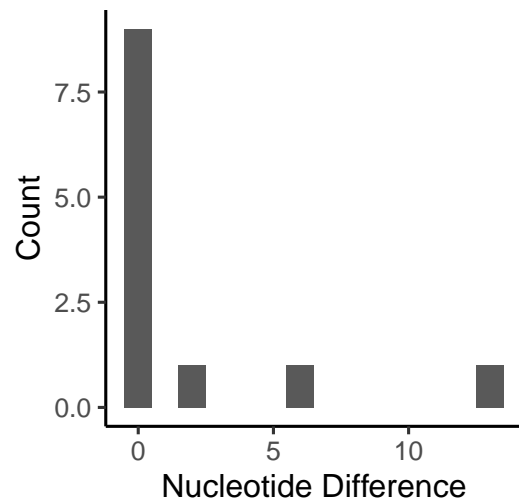
### IGHV3-13\*01

181 sequences assigned  
57 (31.5%) exact matches, in which:  
39 unique CDR3  
5 unique J



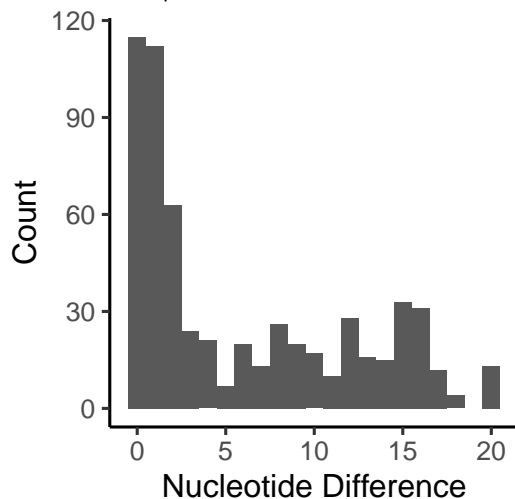
### IGHV3-19\*01

12 sequences assigned  
9 (75%) exact matches, in which:  
8 unique CDR3  
2 unique J



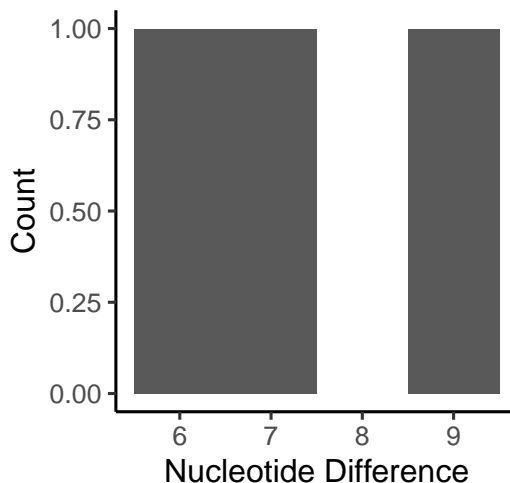
### IGHV3-20\*03\_04

793 sequences assigned  
115 (14.5%) exact matches, in which:  
70 unique CDR3  
5 unique J



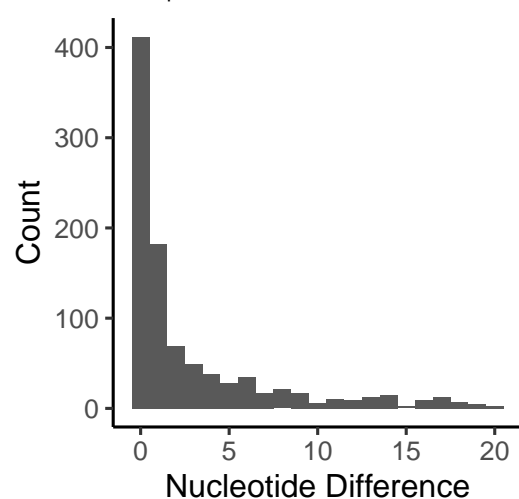
### IGHV3-22\*01\_02

4 sequences assigned  
No exact matches.



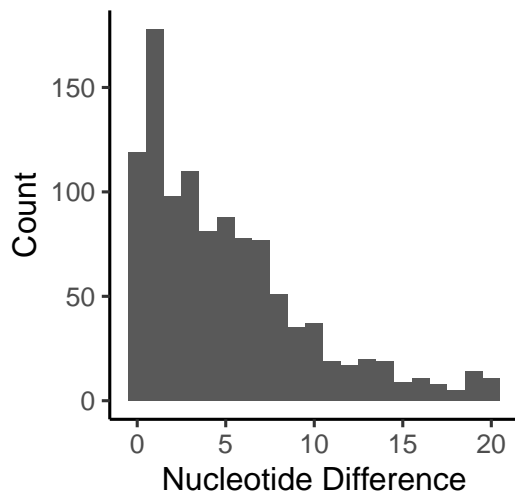
### IGHV3-30\*03

1070 sequences assigned  
412 (38.5%) exact matches, in which:  
354 unique CDR3  
6 unique J



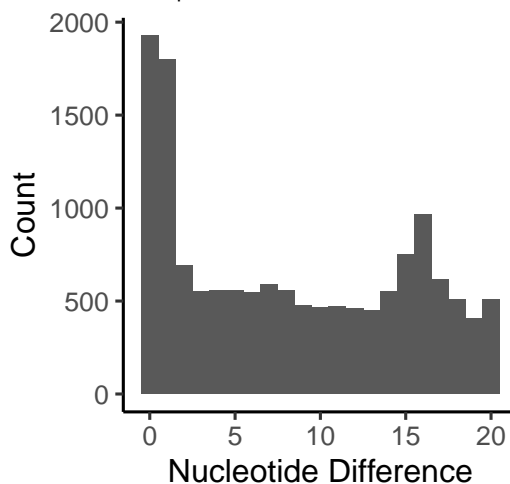
### IGHV3-21\*04

1226 sequences assigned  
119 (9.7%) exact matches, in which:  
104 unique CDR3  
5 unique J



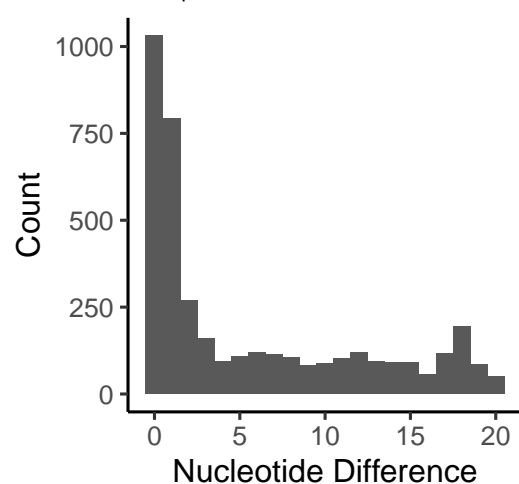
### IGHV3-23\*01\_04

19731 sequences assigned  
1927 (9.8%) exact matches, in which:  
1156 unique CDR3  
6 unique J



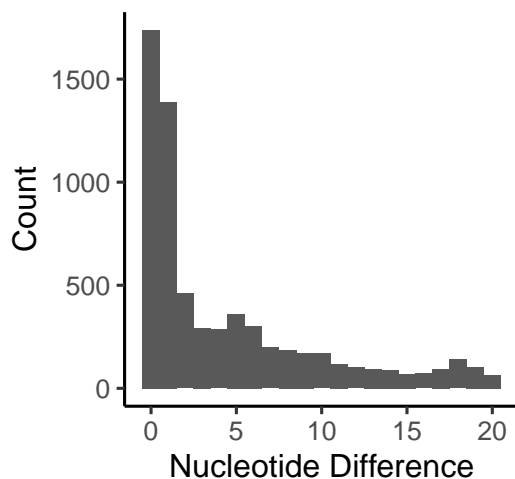
### IGHV3-30\*18

4743 sequences assigned  
1031 (21.7%) exact matches, in which:  
609 unique CDR3  
6 unique J



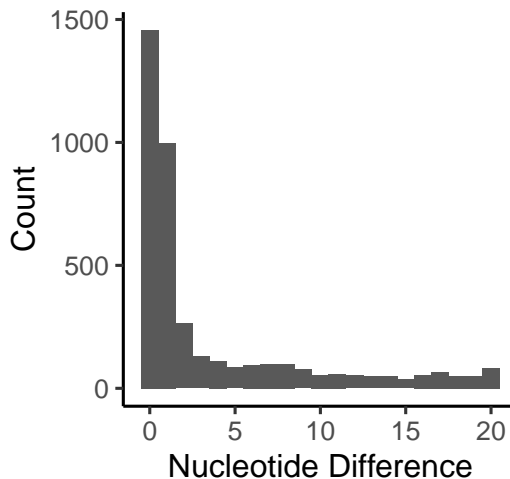
### IGHV3-21\*01\_02

9103 sequences assigned  
1738 (19.1%) exact matches, in which:  
1115 unique CDR3  
6 unique J



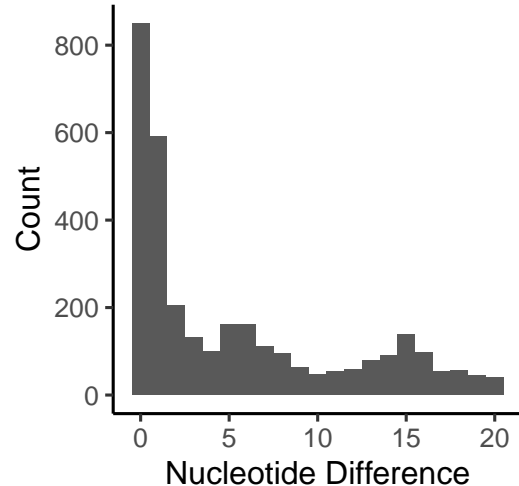
### IGHV3-30-3\*01

4572 sequences assigned  
1457 (31.9%) exact matches, in which:  
914 unique CDR3  
6 unique J



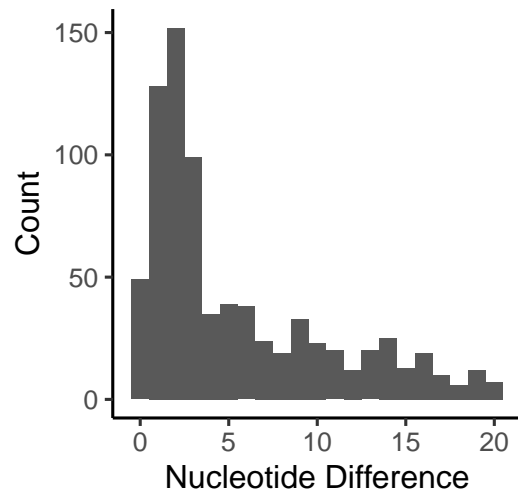
### IGHV3-33\*01

3502 sequences assigned  
850 (24.3%) exact matches, in which:  
555 unique CDR3  
6 unique J



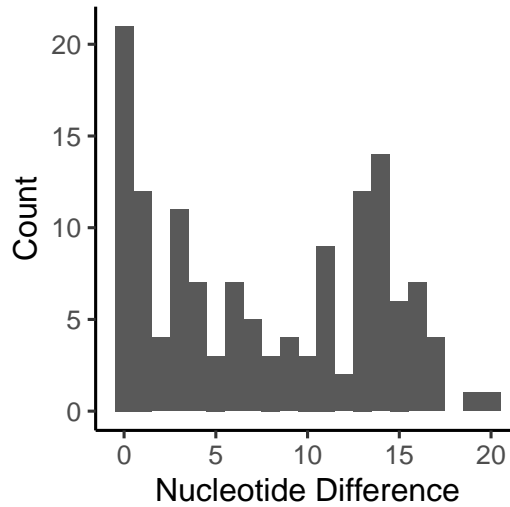
### IGHV3–33\*06

813 sequences assigned  
49 (6%) exact matches, in which:  
48 unique CDR3  
5 unique J



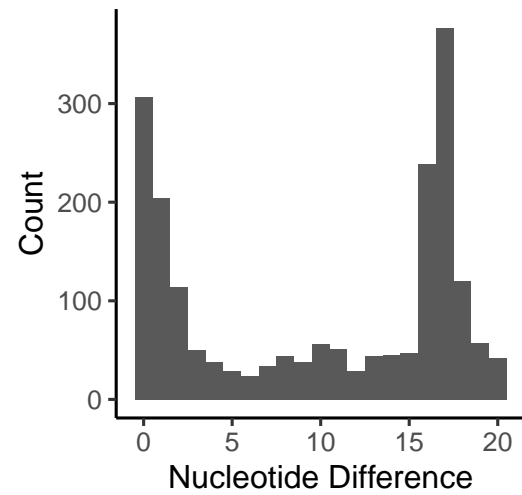
### IGHV3–43\*01

445 sequences assigned  
21 (4.7%) exact matches, in which:  
13 unique CDR3  
2 unique J



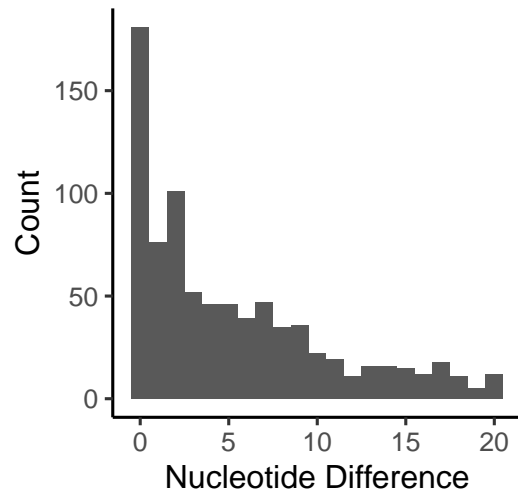
### IGHV3–48\*02

2654 sequences assigned  
307 (11.6%) exact matches, in which:  
185 unique CDR3  
6 unique J



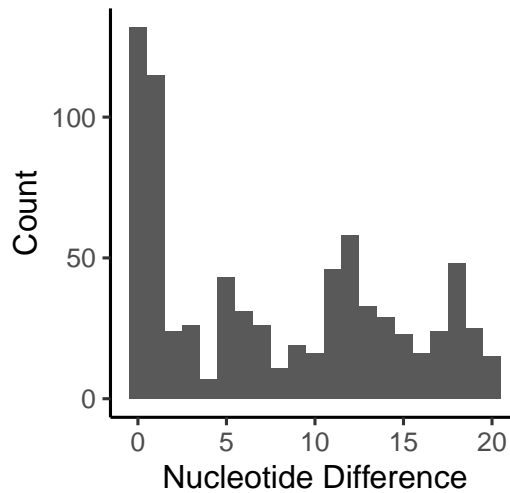
### IGHV3–33\*08

857 sequences assigned  
181 (21.1%) exact matches, in which:  
147 unique CDR3  
6 unique J



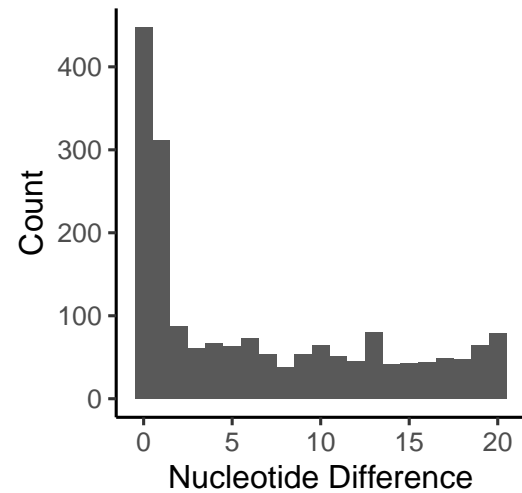
### IGHV3–43\*02

1053 sequences assigned  
132 (12.5%) exact matches, in which:  
76 unique CDR3  
5 unique J



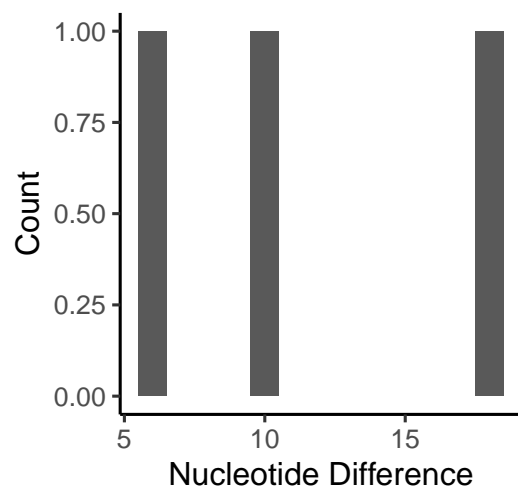
### IGHV3–48\*03

2471 sequences assigned  
448 (18.1%) exact matches, in which:  
275 unique CDR3  
6 unique J



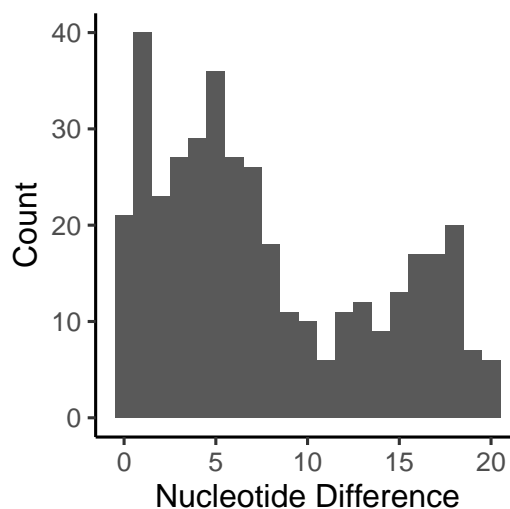
### IGHV3–35\*01

3 sequences assigned  
No exact matches.



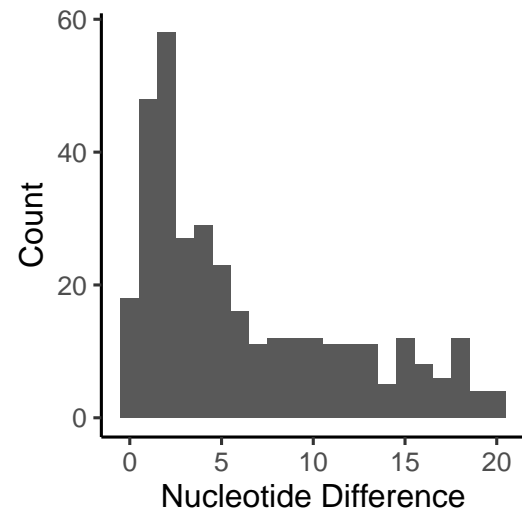
### IGHV3–48\*01

428 sequences assigned  
21 (4.9%) exact matches, in which:  
20 unique CDR3  
3 unique J



### IGHV3–48\*04

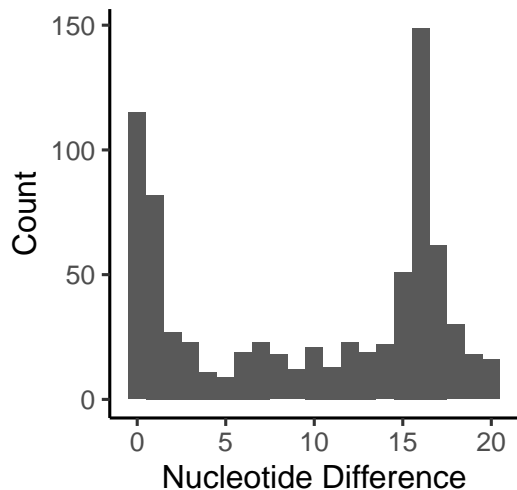
377 sequences assigned  
18 (4.8%) exact matches, in which:  
18 unique CDR3  
5 unique J





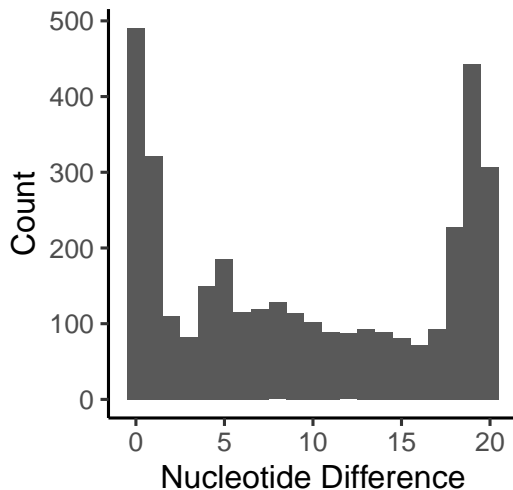
### IGHV3-49\*04

956 sequences assigned  
115 (12%) exact matches, in which:  
74 unique CDR3  
4 unique J



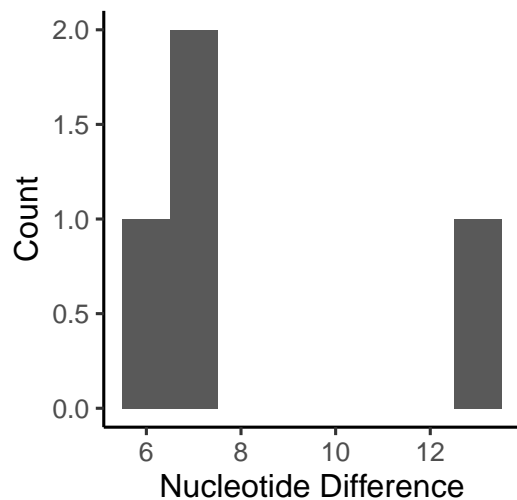
### IGHV3-53\*01\_02

4481 sequences assigned  
491 (11%) exact matches, in which:  
327 unique CDR3  
6 unique J



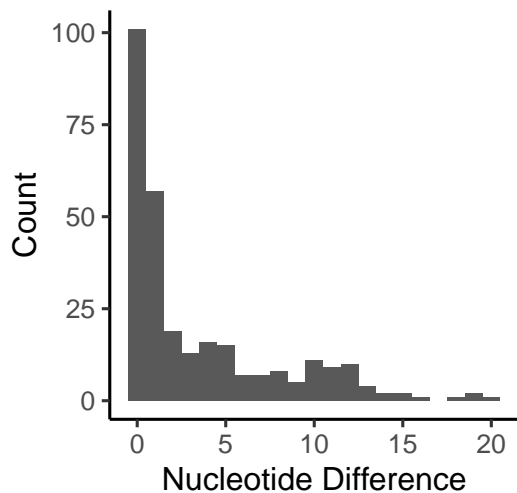
### IGHV3-66\*02

4 sequences assigned  
No exact matches.



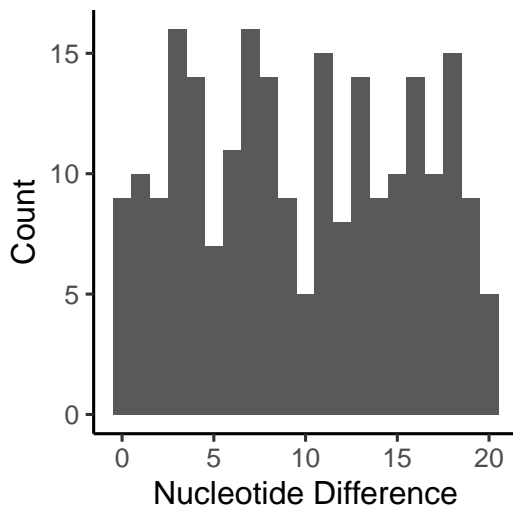
### IGHV3-49\*03\_05

297 sequences assigned  
101 (34%) exact matches, in which:  
57 unique CDR3  
5 unique J



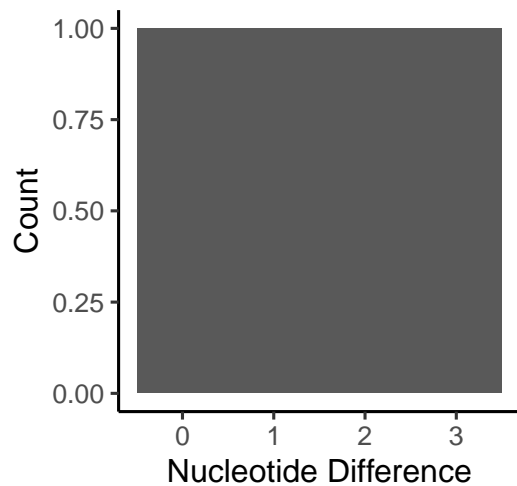
### IGHV3-64\*04

280 sequences assigned  
9 (3.2%) exact matches, in which:  
9 unique CDR3  
3 unique J



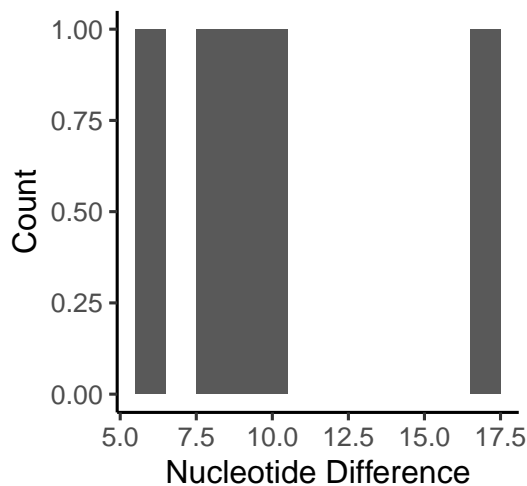
### IGHV3-66\*03

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



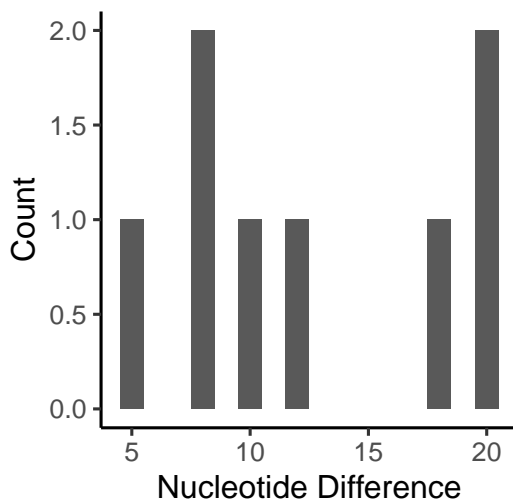
### IGHV3-52\*01\_03

5 sequences assigned  
No exact matches.



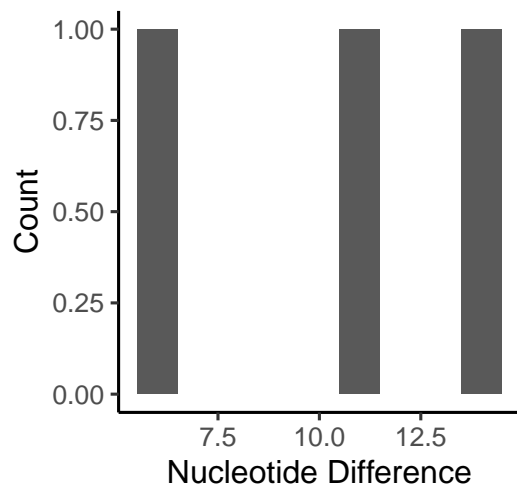
### IGHV3-66\*01

9 sequences assigned  
No exact matches.



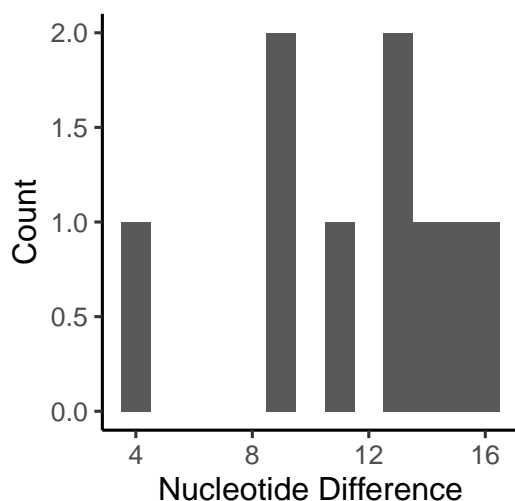
### IGHV3-66\*04

5 sequences assigned  
No exact matches.



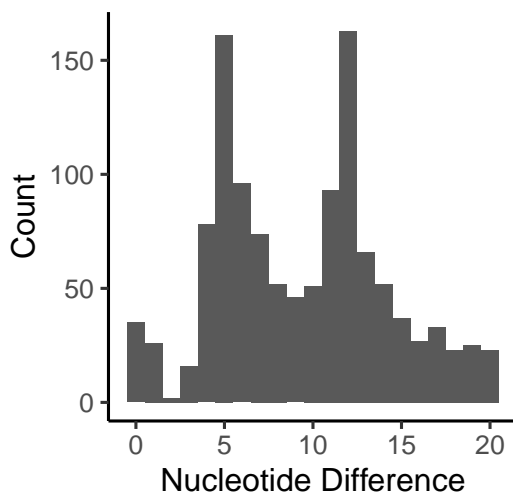
### IGHV3-69-1\*01

13 sequences assigned  
No exact matches.



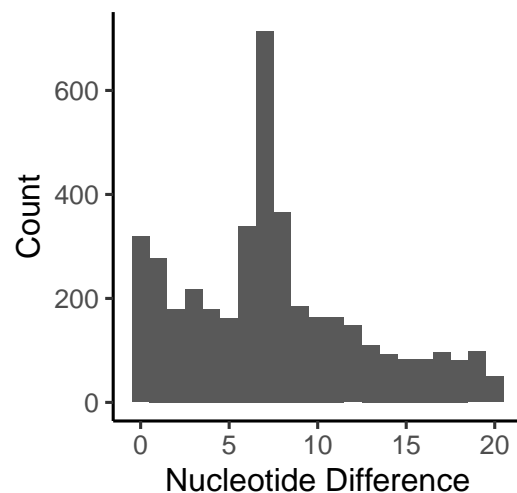
### IGHV3-72\*01

1544 sequences assigned  
35 (2.3%) exact matches, in which:  
22 unique CDR3  
4 unique J



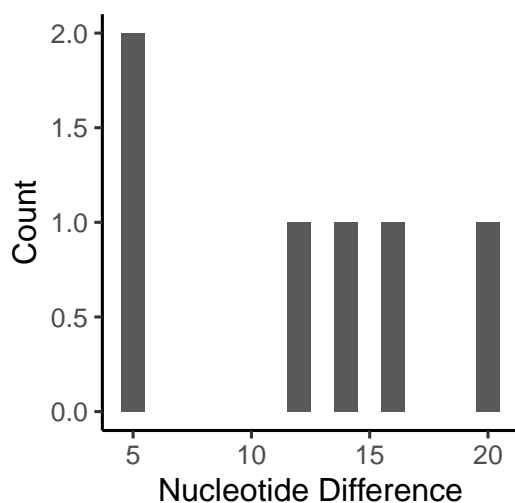
### IGHV3-74\*01\_02

4536 sequences assigned  
319 (7%) exact matches, in which:  
218 unique CDR3  
6 unique J



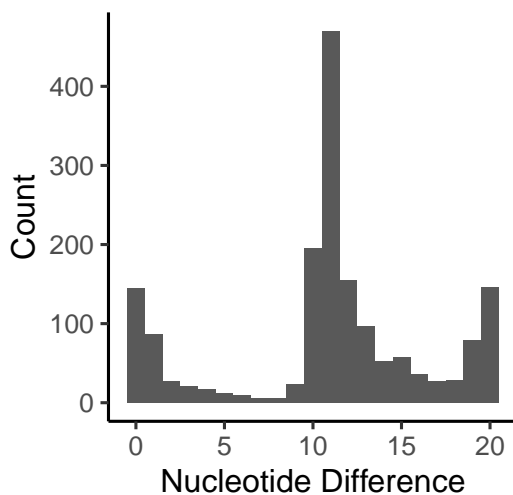
### IGHV3-69-1\*02

11 sequences assigned  
No exact matches.



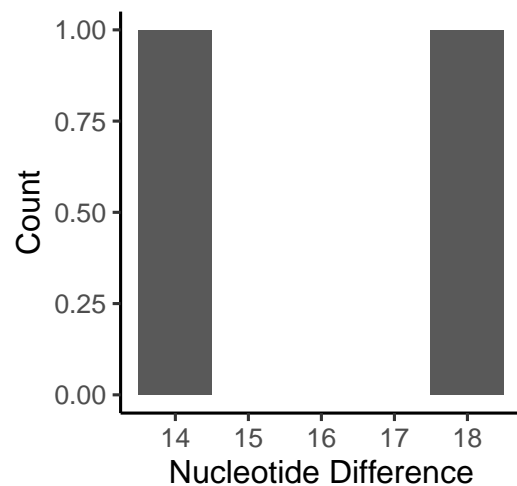
### IGHV3-73\*01\_02

1866 sequences assigned  
145 (7.8%) exact matches, in which:  
88 unique CDR3  
5 unique J



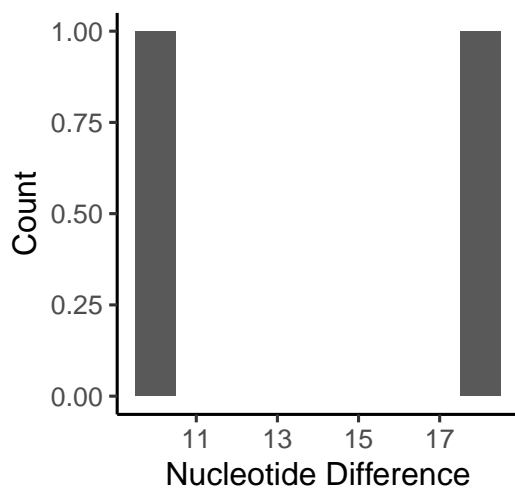
### IGHV3-43D\*04

2 sequences assigned  
No exact matches.



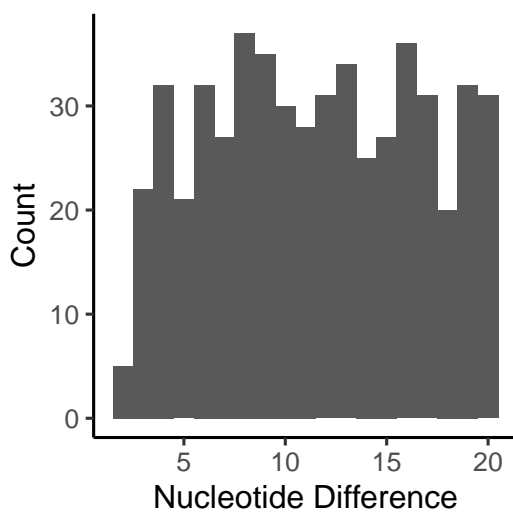
### IGHV3-71\*01\_04

2 sequences assigned  
No exact matches.



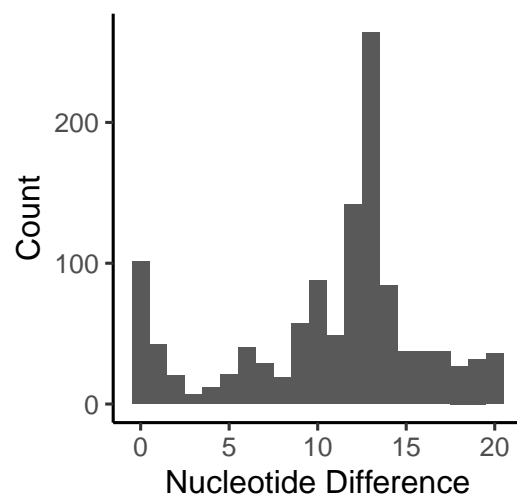
### IGHV3-74\*03

985 sequences assigned  
No exact matches.



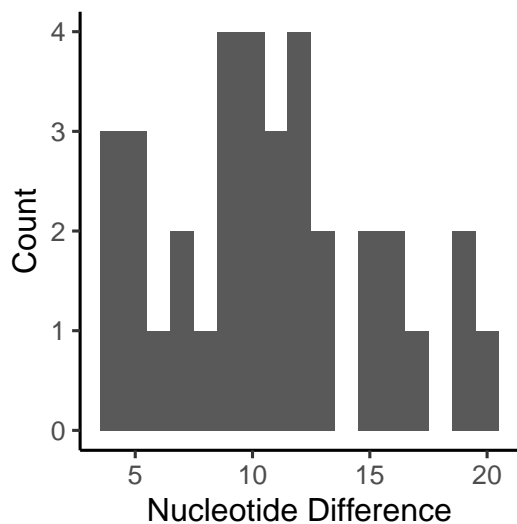
### IGHV3-64D\*09

1382 sequences assigned  
101 (7.3%) exact matches, in which:  
60 unique CDR3  
4 unique J



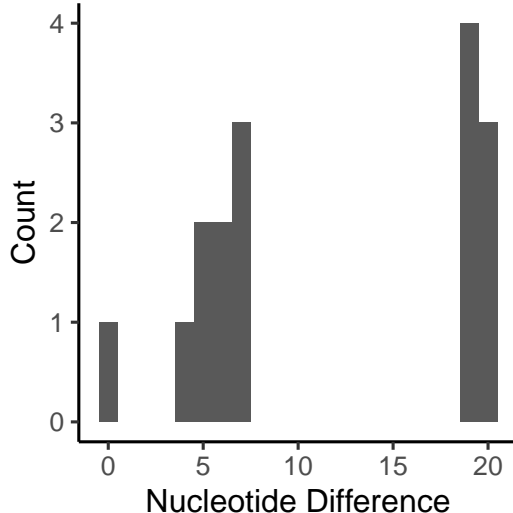
### IGHV3–NL1\*01

42 sequences assigned  
No exact matches.



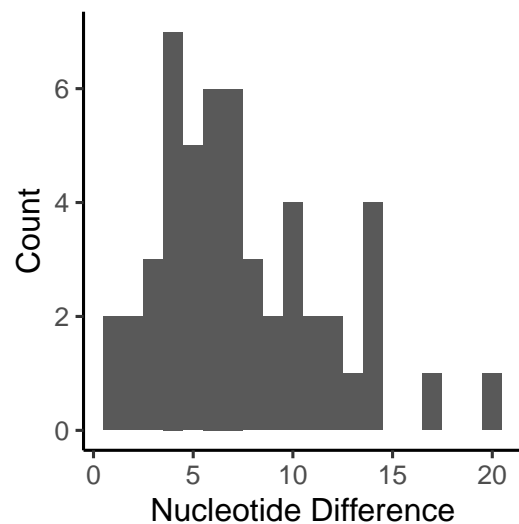
### IGHV4–28\*01\_07

19 sequences assigned  
1 (5.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



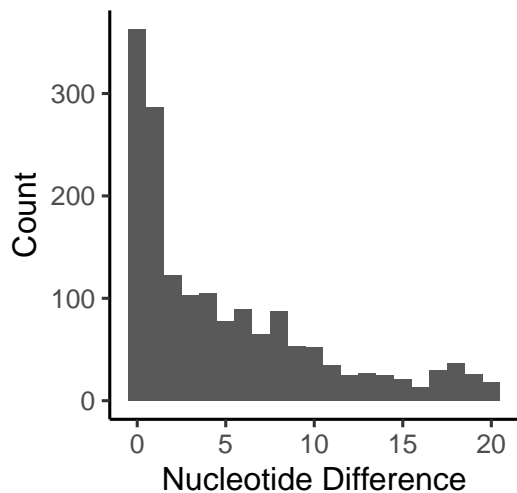
### IGHV4–30–2\*03

531 sequences assigned  
No exact matches.



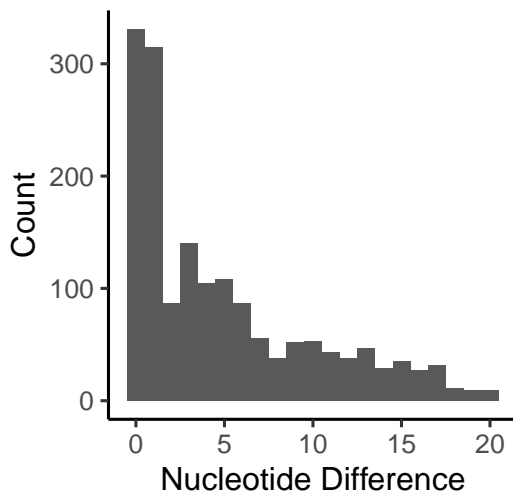
### IGHV4–4\*07

2239 sequences assigned  
363 (16.2%) exact matches, in which:  
316 unique CDR3  
6 unique J



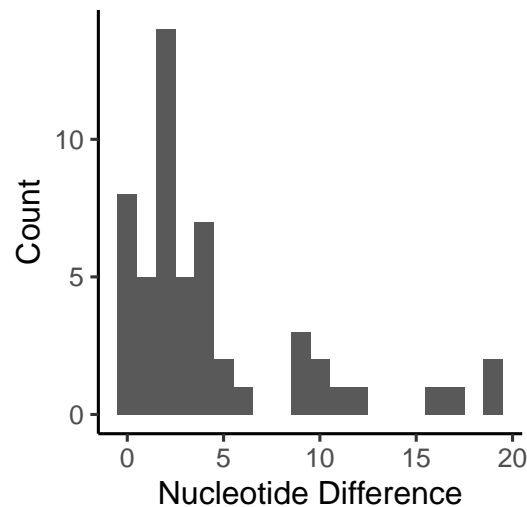
### IGHV4–30–4\*01

1835 sequences assigned  
331 (18%) exact matches, in which:  
265 unique CDR3  
6 unique J



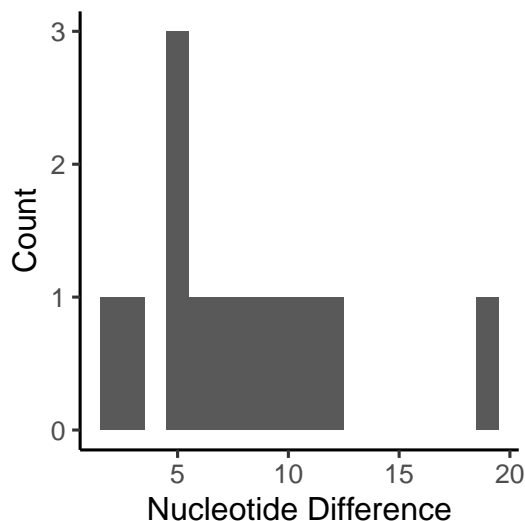
### IGHV4–30–2\*05

54 sequences assigned  
8 (14.8%) exact matches, in which:  
8 unique CDR3  
4 unique J



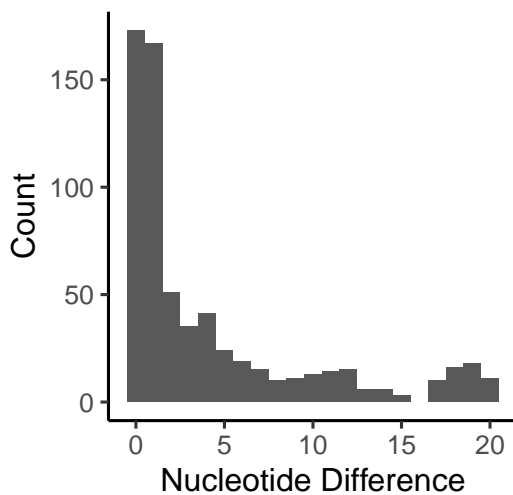
### IGHV4–28\*03

13 sequences assigned  
No exact matches.



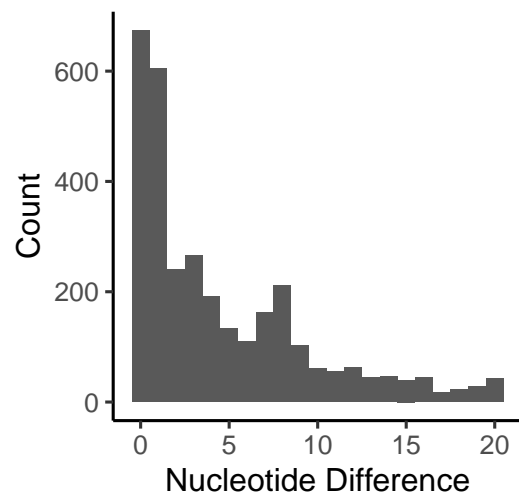
### IGHV4–30–2\*01

721 sequences assigned  
173 (24%) exact matches, in which:  
110 unique CDR3  
6 unique J



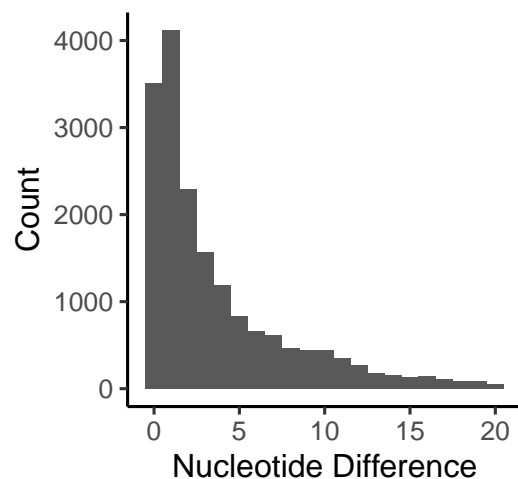
### IGHV4–31\*02

3862 sequences assigned  
674 (17.5%) exact matches, in which:  
577 unique CDR3  
6 unique J



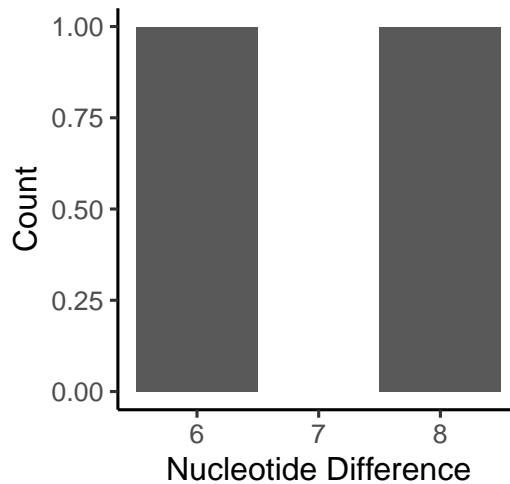
### IGHV4-34\*01\_02

18995 sequences assigned  
3510 (18.5%) exact matches, in which:  
2545 unique CDR3  
6 unique J



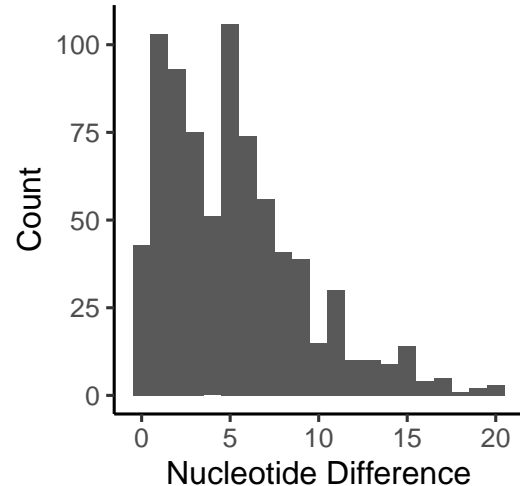
### IGHV4-55\*09

2 sequences assigned  
No exact matches.



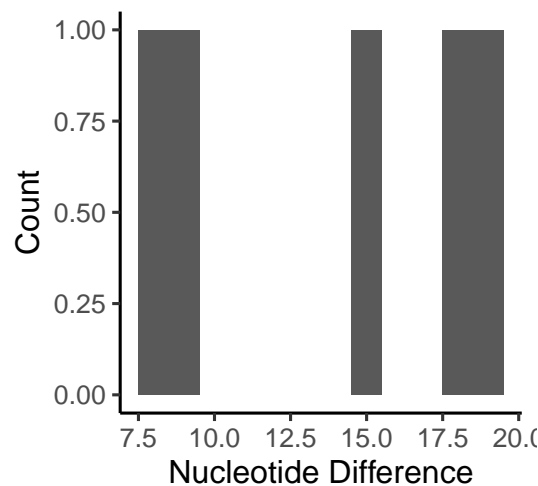
### IGHV4-59\*12

808 sequences assigned  
43 (5.3%) exact matches, in which:  
43 unique CDR3  
5 unique J



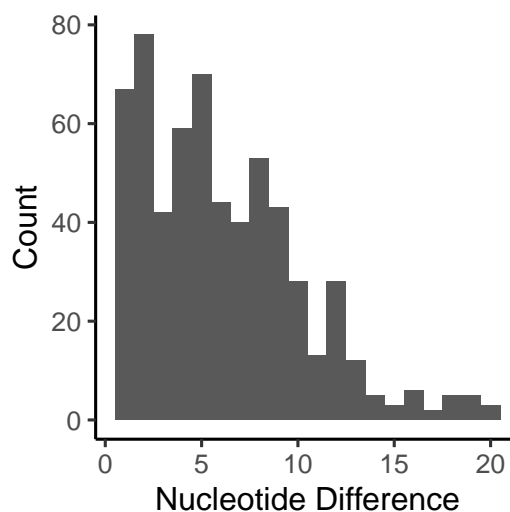
### IGHV4-38-2\*02

15 sequences assigned  
No exact matches.



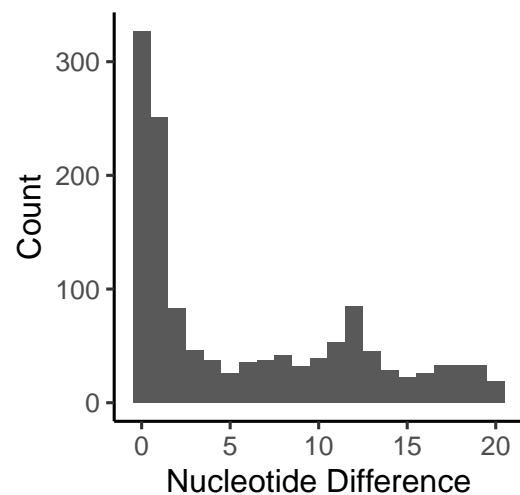
### IGHV4-59\*08

641 sequences assigned  
No exact matches.



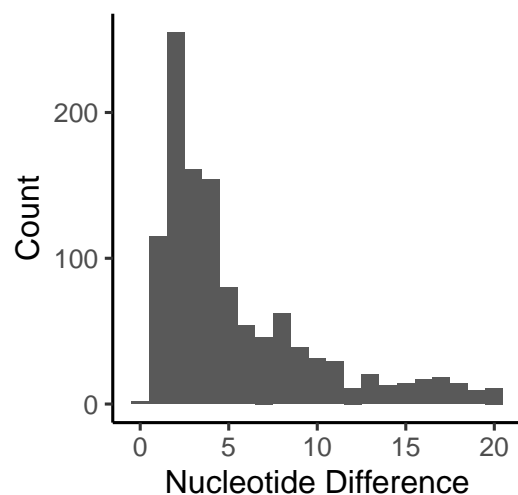
### IGHV4-61\*01

1759 sequences assigned  
327 (18.6%) exact matches, in which:  
296 unique CDR3  
6 unique J



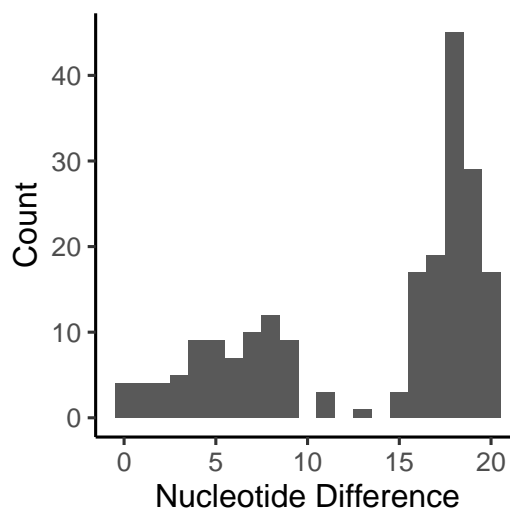
### IGHV4-39\*07

1592 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



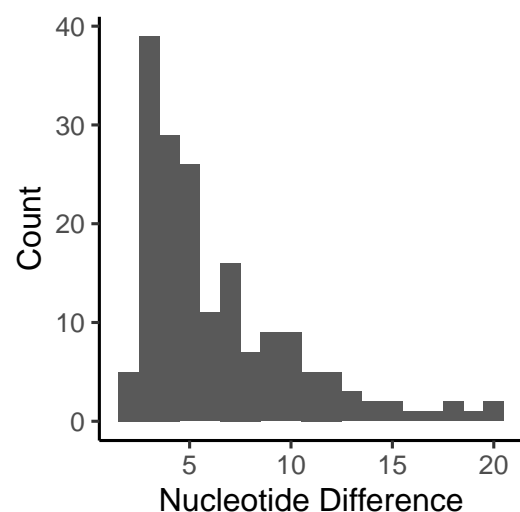
### IGHV4-59\*11

303 sequences assigned  
4 (1.3%) exact matches, in which:  
4 unique CDR3  
3 unique J



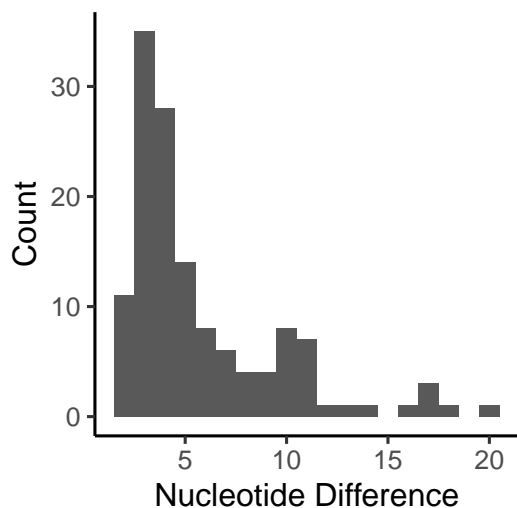
### IGHV4-61\*02

283 sequences assigned  
No exact matches.



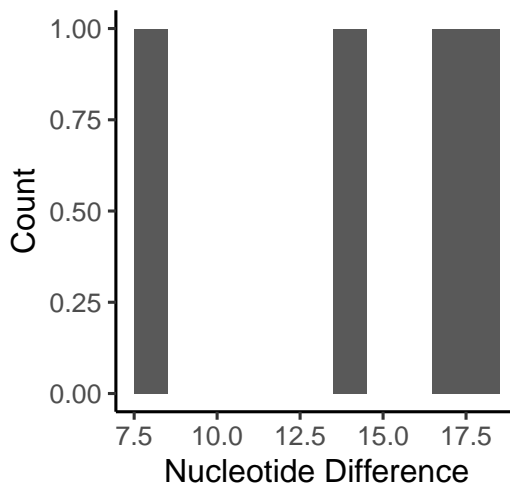
### IGHV4–61\*05

138 sequences assigned  
No exact matches.



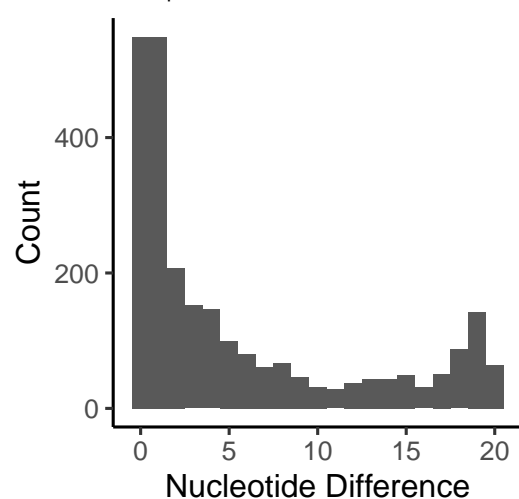
### IGHV1/OR15–3\*02

4 sequences assigned  
No exact matches.



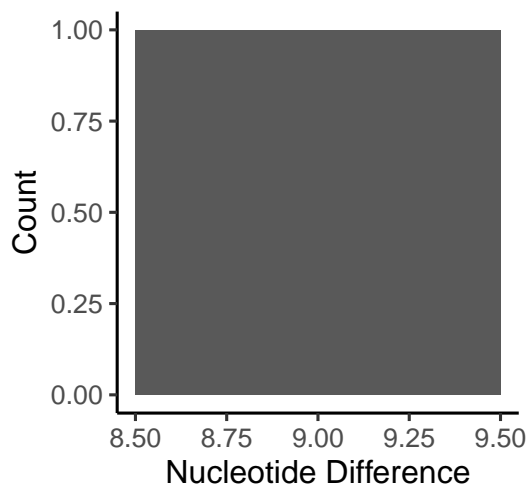
### IGHV5–10–1\*01\_03

2935 sequences assigned  
549 (18.7%) exact matches, in which:  
381 unique CDR3  
6 unique J



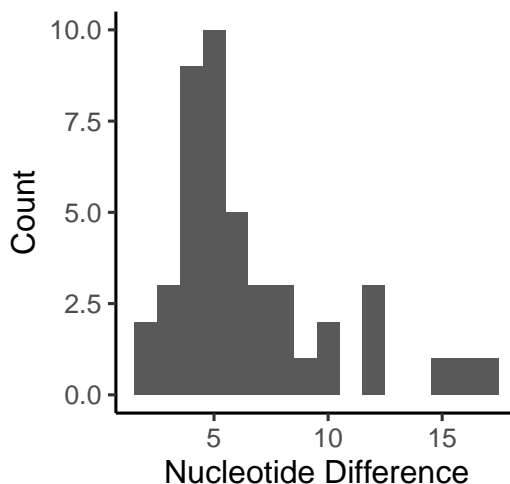
### IGHV1/OR15–1\*04

1 sequences assigned  
No exact matches.



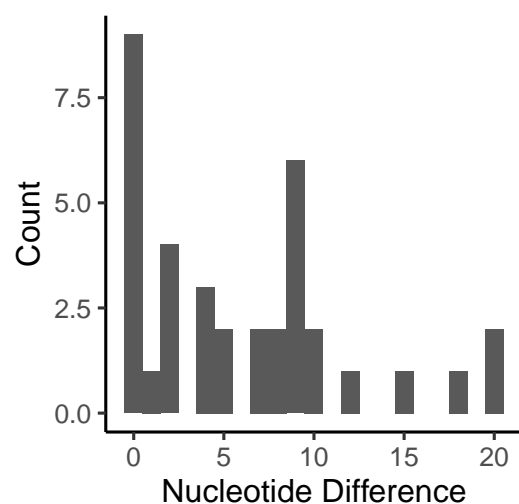
### IGHV4/OR15–8\*01

47 sequences assigned  
No exact matches.



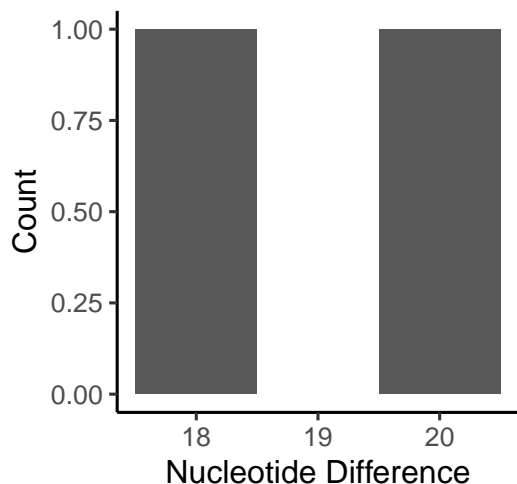
### IGHV5–51\*04

45 sequences assigned  
9 (20%) exact matches, in which:  
9 unique CDR3  
3 unique J



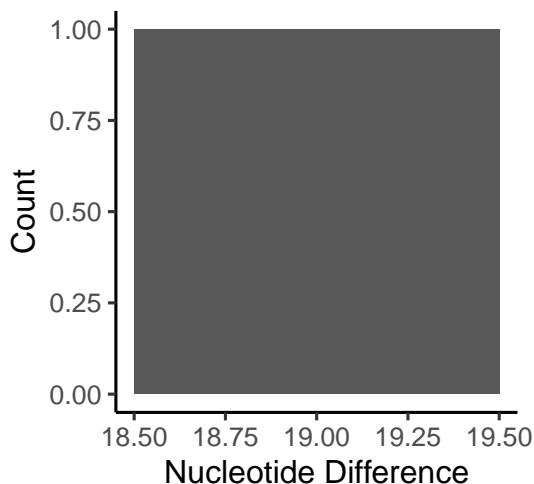
### IGHV1/OR15–2\*02\_03

12 sequences assigned  
No exact matches.



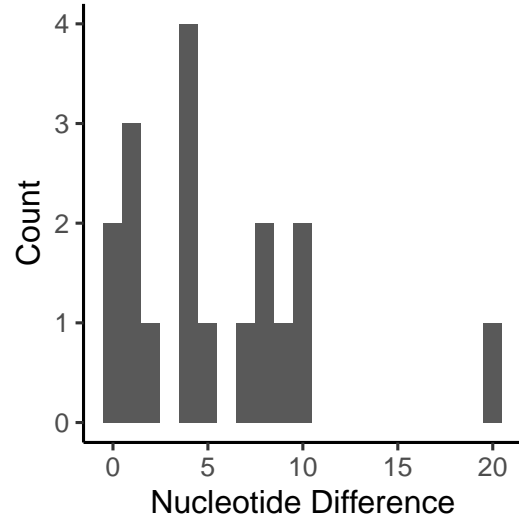
### IGHV1/OR15–9\*01

1 sequences assigned  
No exact matches.



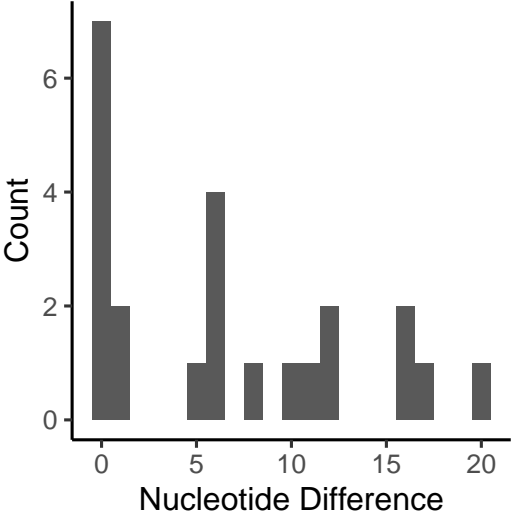
### IGHV5–51\*06

21 sequences assigned  
2 (9.5%) exact matches, in which:  
2 unique CDR3  
2 unique J



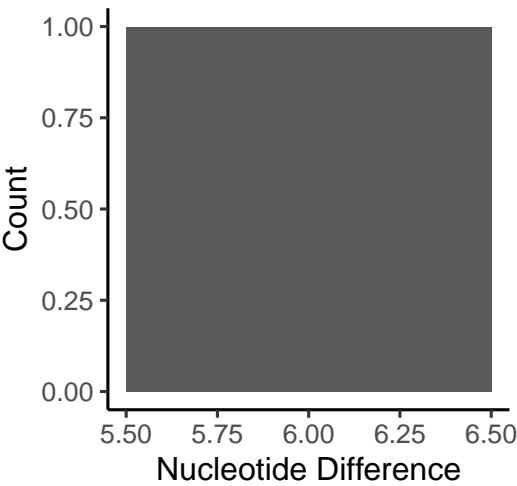
IGHV5-51\*07

31 sequences assigned  
7 (22.6%) exact matches, in which:  
7 unique CDR3  
5 unique J



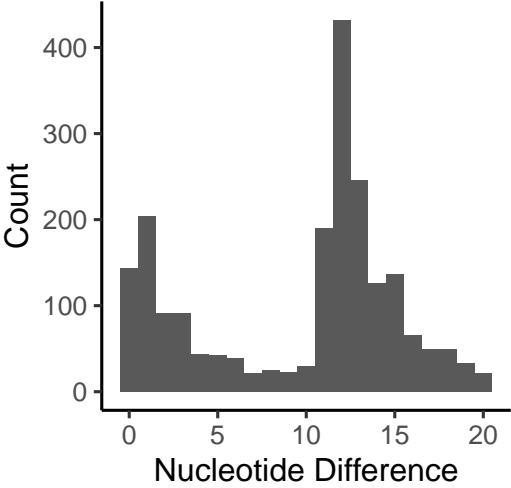
IGHV3/OR16-6\*02

1 sequences assigned  
No exact matches.



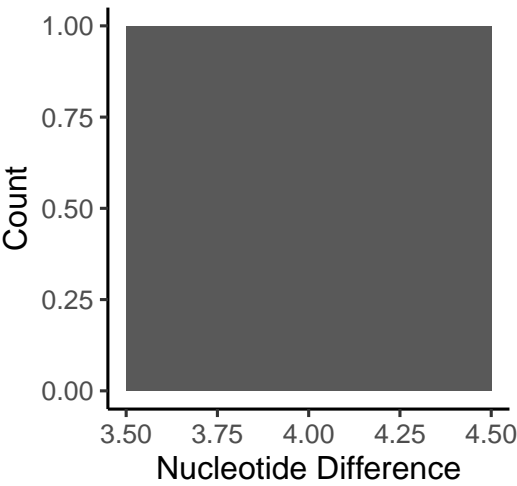
IGHV6-1\*01\_02

2179 sequences assigned  
144 (6.6%) exact matches, in which:  
123 unique CDR3  
5 unique J



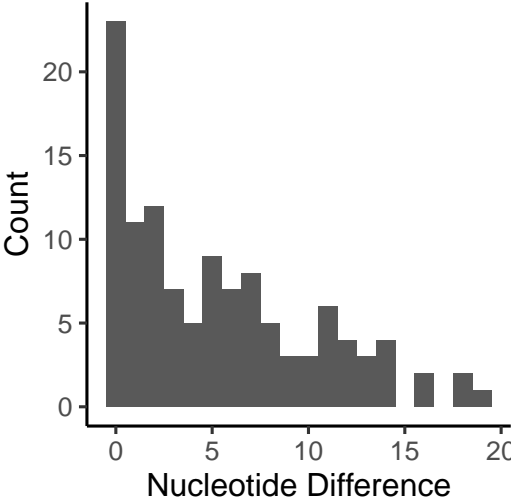
IGHV3/OR16-10\*01\_03

2 sequences assigned  
No exact matches.



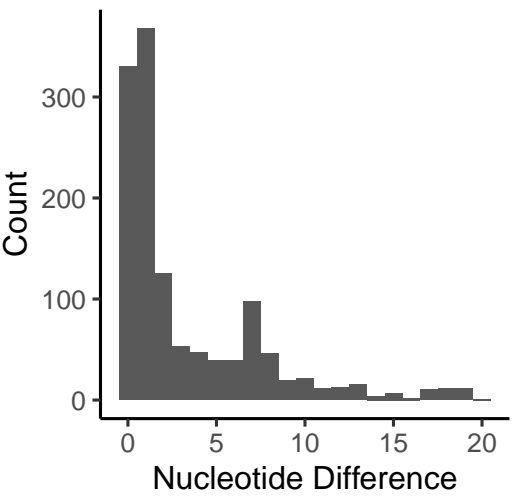
IGHV6-1\*01\_02\_A315G

116 sequences assigned  
23 (19.8%) exact matches, in which:  
23 unique CDR3  
5 unique J

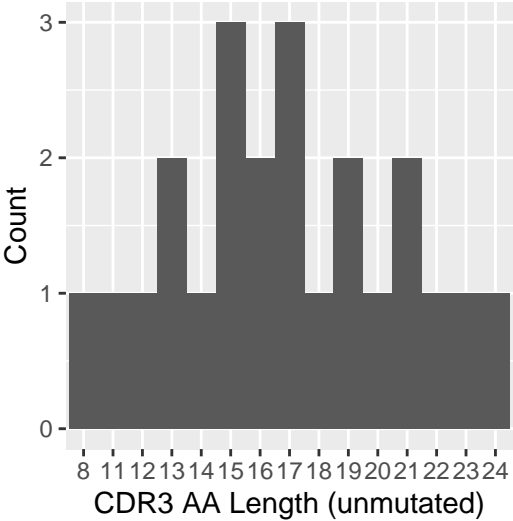


IGHV7-4-1\*02

1441 sequences assigned  
330 (22.9%) exact matches, in which:  
246 unique CDR3  
6 unique J



IGHV6-1\*01\_02\_A315G



Allele Usage

