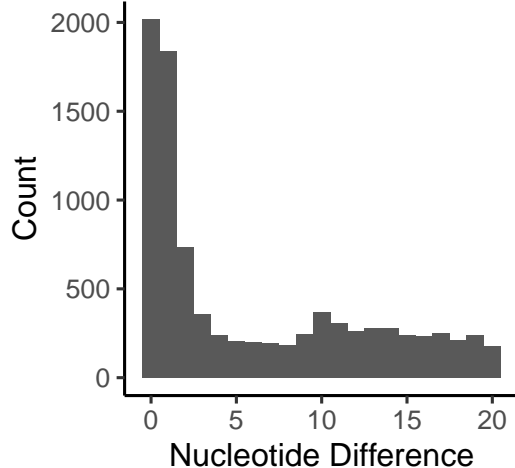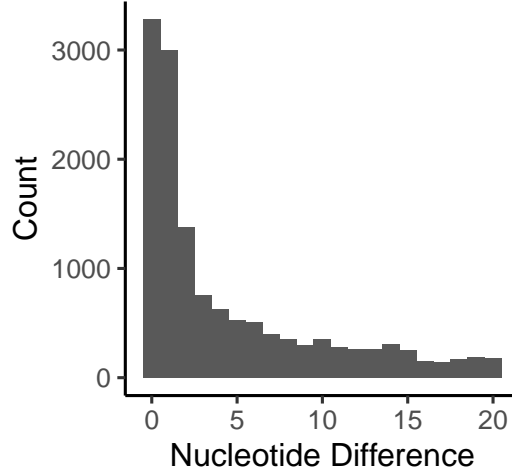## IGHV1−2*02

10670 sequences assigned
2017 (18.9%) exact matches, in which:
1681 unique CDR3
6 unique J

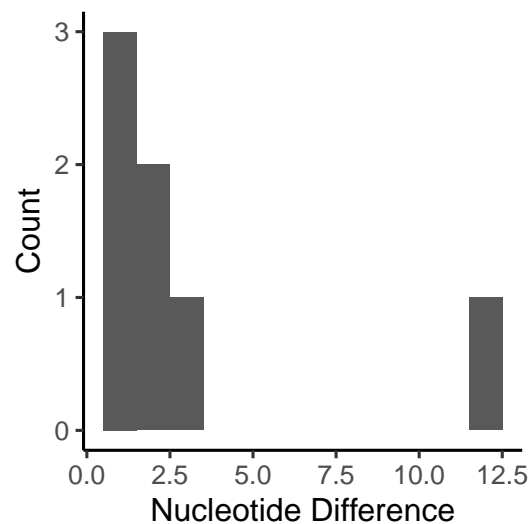## IGHV1−8*01

14728 sequences assigned
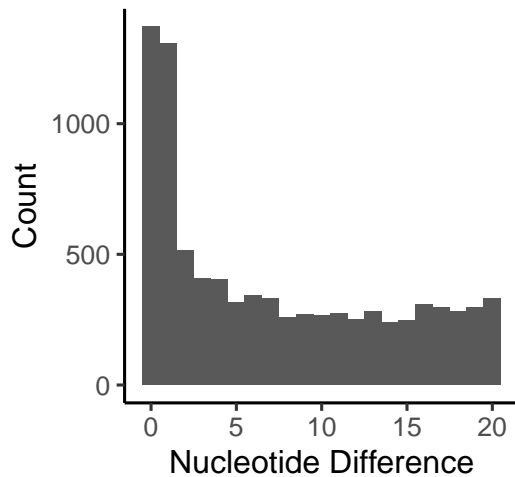3280 (22.3%) exact matches, in which:
2717 unique CDR3
6 unique J
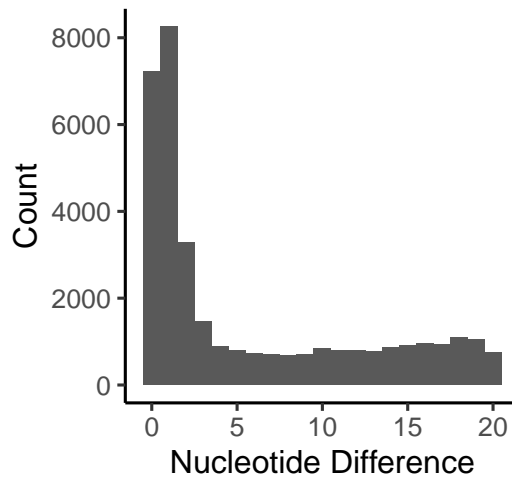
IGHV1−45*02

10 sequences assigned
No exact matches.

IGHV1−2*06

9620 sequences assigned
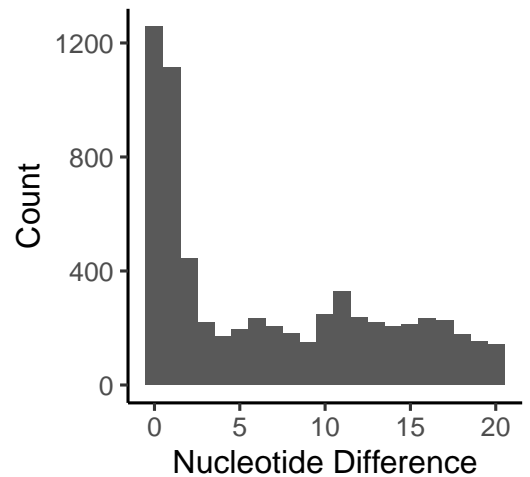1371 (14.3%) exact matches, in which:
1121 unique CDR3
6 unique J

IGHV1−18*01

39761 sequences assigned
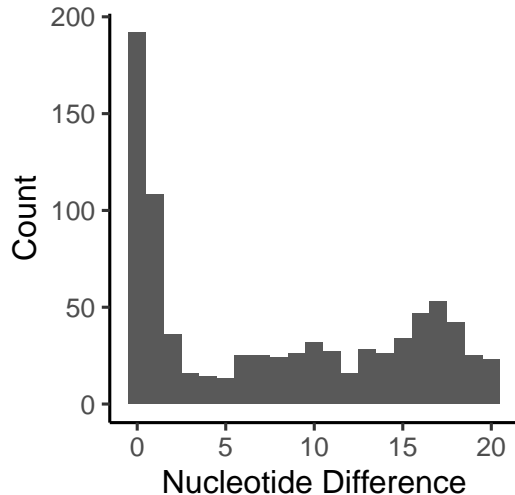7221 (18.2%) exact matches, in which:
5674 unique CDR3
6 unique J

IGHV1−46*01

7749 sequences assigned
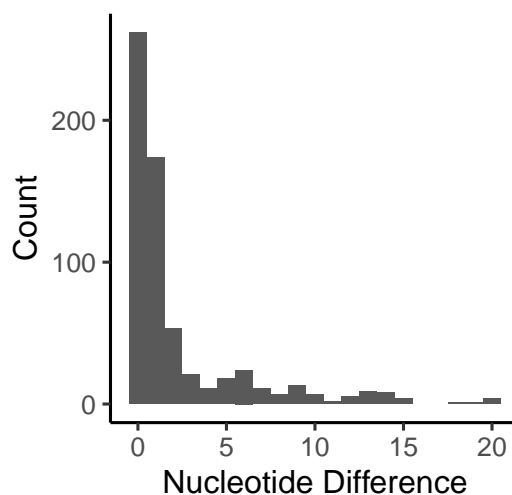1257 (16.2%) exact matches, in which:
1049 unique CDR3
6 unique J

IGHV1−3*01_05

1136 sequences assigned
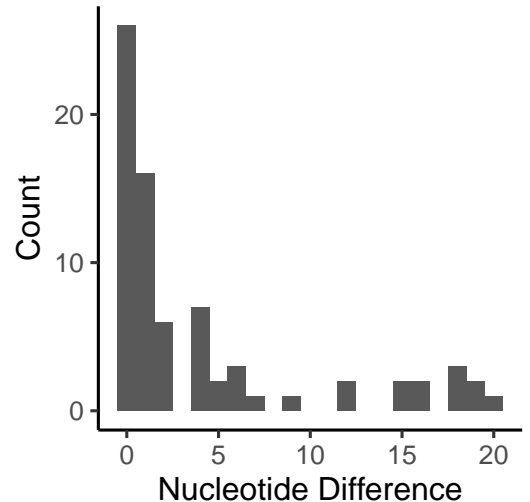192 (16.9%) exact matches, in which:
169 unique CDR3
6 unique J

IGHV1−24*01

659 sequences assigned
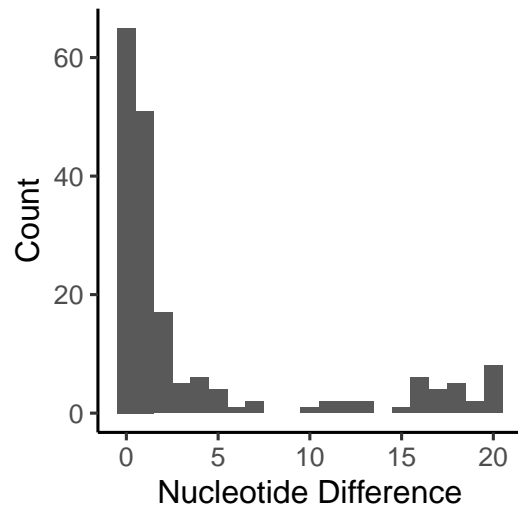262 (39.8%) exact matches, in which:
229 unique CDR3
6 unique J

IGHV1−58*02

88 sequences assigned
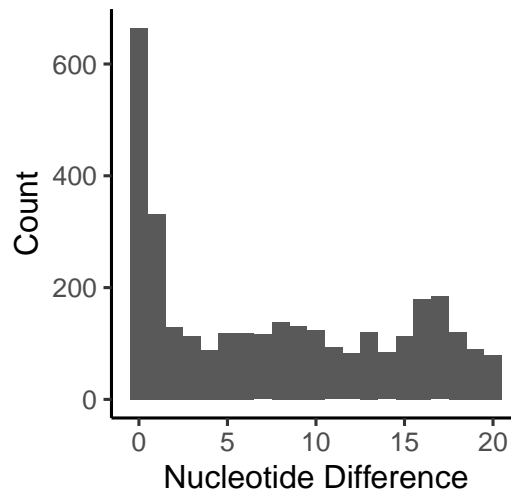26 (29.5%) exact matches, in which:
21 unique CDR3
5 unique J

IGHV1−58*01_03

240 sequences assigned
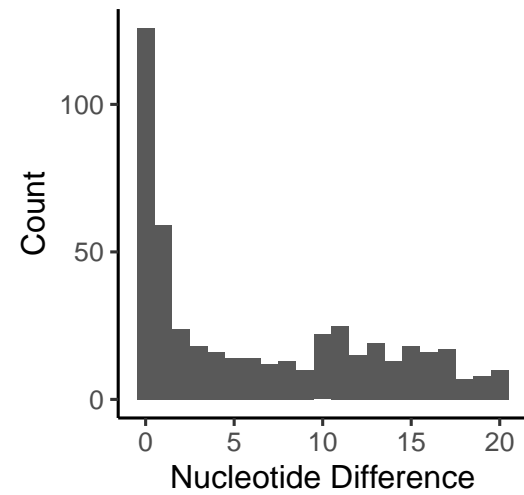65 (27.1%) exact matches, in which:
61 unique CDR3
5 unique J

IGHV2−5*02

3703 sequences assigned
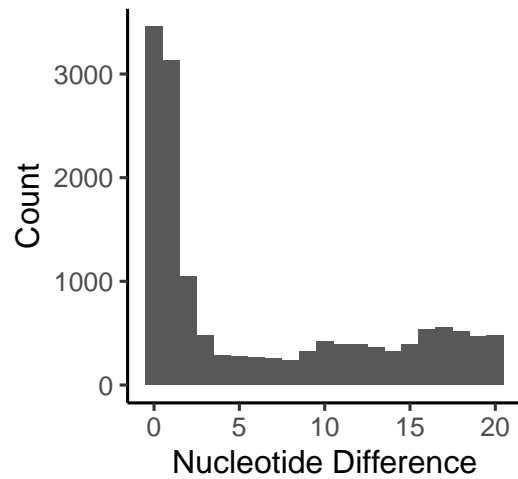665 (18%) exact matches, in which:
587 unique CDR3
6 unique J

IGHV2−70*11_15

514 sequences assigned
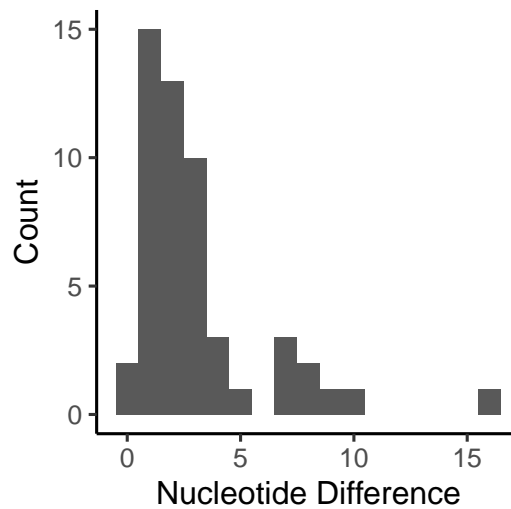126 (24.5%) exact matches, in which:
115 unique CDR3
6 unique J

IGHV1−69*01_12_13

17756 sequences assigned
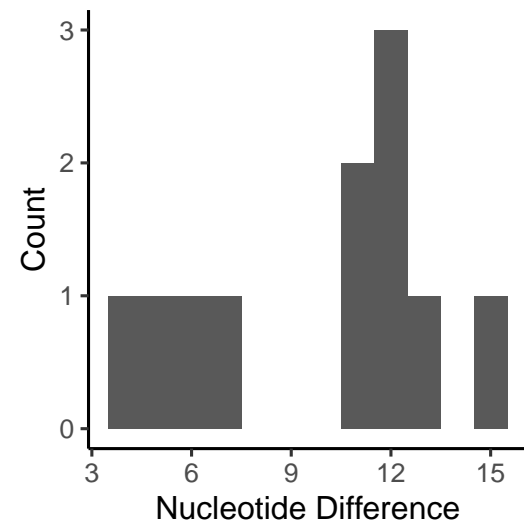3456 (19.5%) exact matches, in which:
2862 unique CDR3
6 unique J

IGHV2−26*01

63 sequences assigned
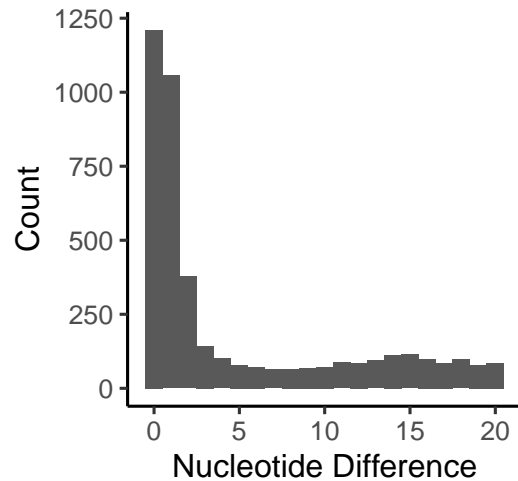2 (3.2%) exact matches, in which:
2 unique CDR3
2 unique J
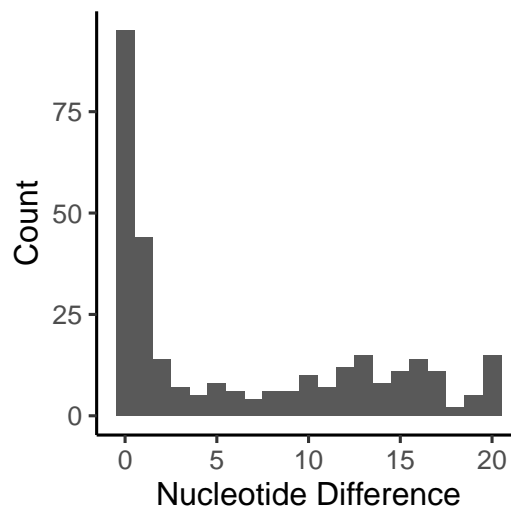
IGHV2−70D*04

11 sequences assigned
No exact matches.

IGHV1−69*04_09

5065 sequences assigned
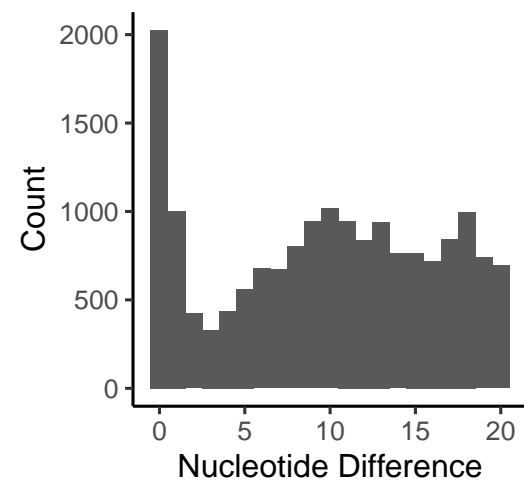1210 (23.9%) exact matches, in which:
1015 unique CDR3
6 unique J

IGHV2−70*01

364 sequences assigned
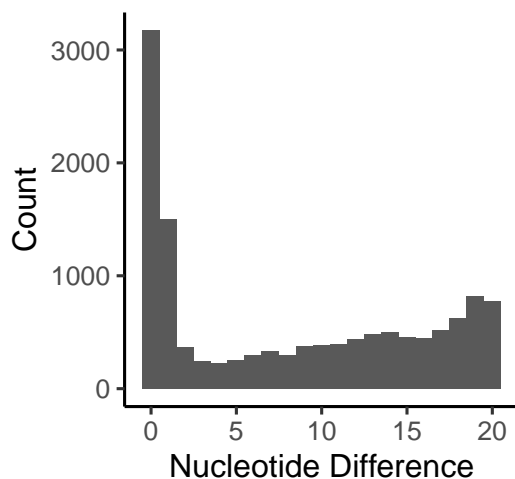95 (26.1%) exact matches, in which:
87 unique CDR3
5 unique J

IGHV3−7*01

19328 sequences assigned
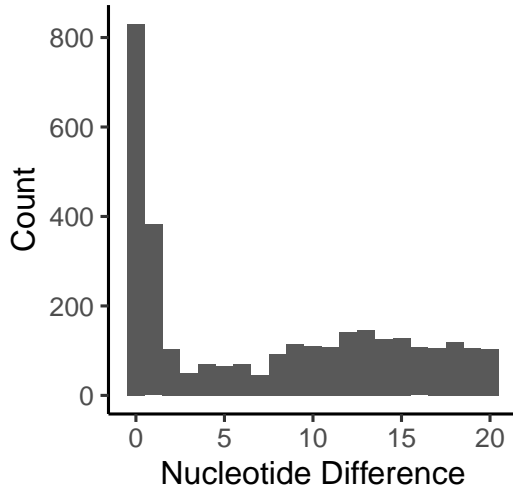2026 (10.5%) exact matches, in which:
1798 unique CDR3
6 unique J

IGHV3−9*01

15990 sequences assigned
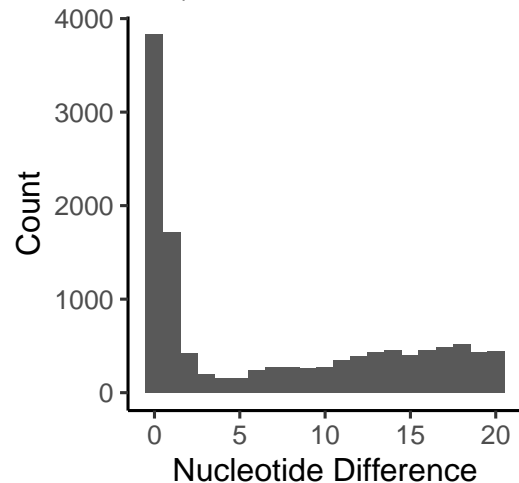3173 (19.8%) exact matches, in which:
2809 unique CDR3
6 unique J

IGHV3−15*01_02

3750 sequences assigned
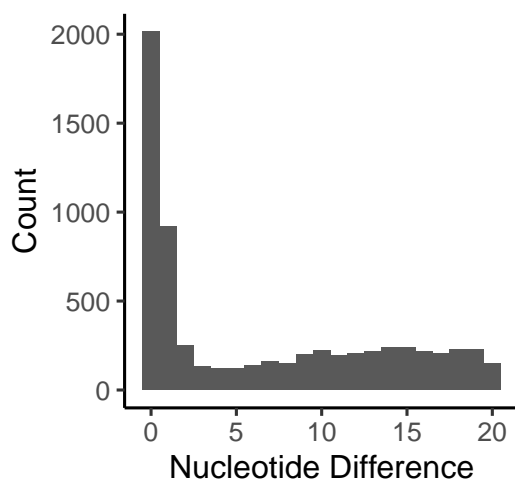831 (22.2%) exact matches, in which:
754 unique CDR3
6 unique J

IGHV3−21*01_02

16806 sequences assigned
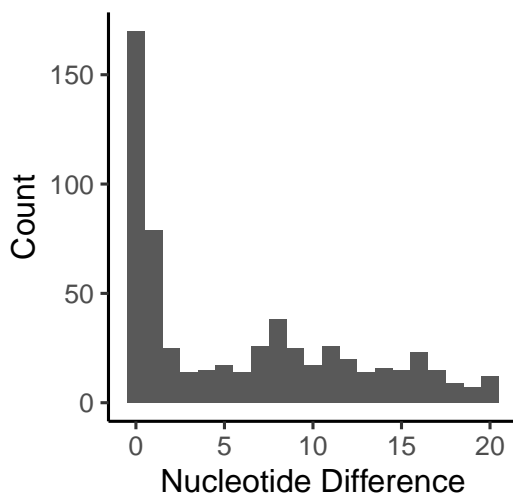3831 (22.8%) exact matches, in which:
3325 unique CDR3
6 unique J

IGHV3−11*01

8200 sequences assigned
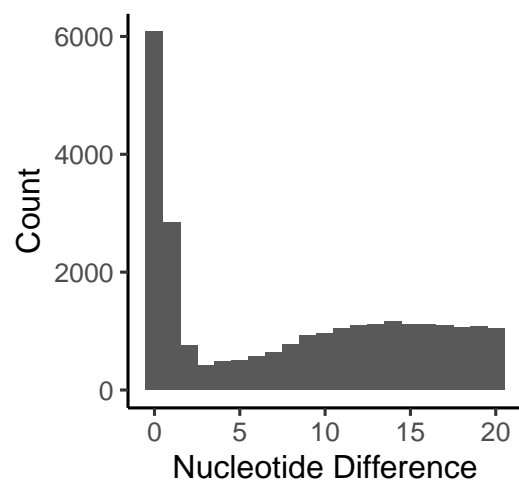2014 (24.6%) exact matches, in which:
1794 unique CDR3
6 unique J

IGHV3−20*01_02

668 sequences assigned
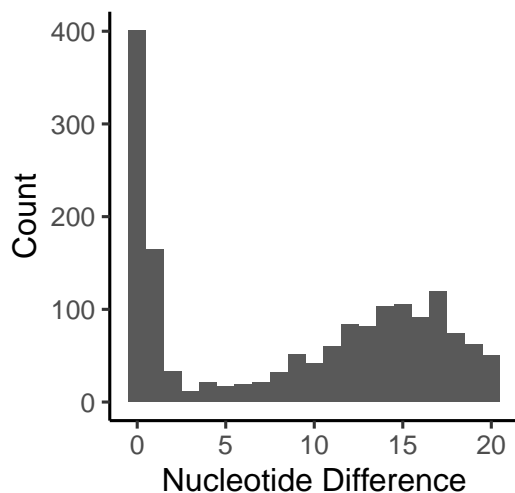170 (25.4%) exact matches, in which:
153 unique CDR3
5 unique J

IGHV3−23*01_04

33383 sequences assigned
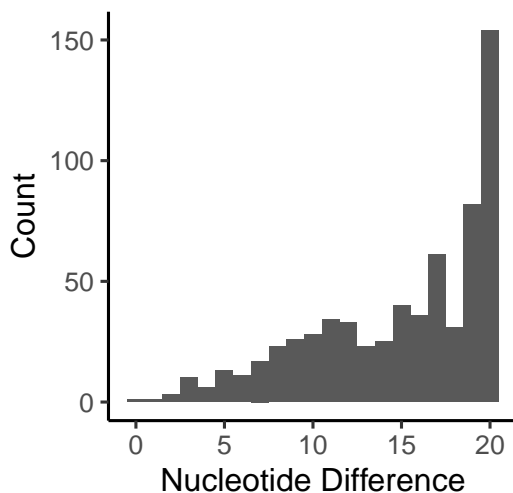6080 (18.2%) exact matches, in which:
5341 unique CDR3
6 unique J

IGHV3−13*01

2004 sequences assigned
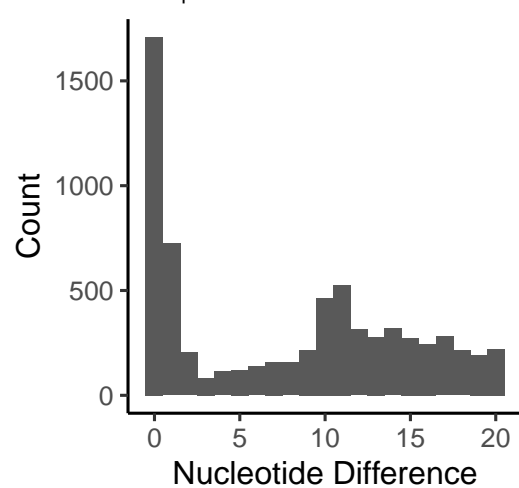401 (20%) exact matches, in which:
341 unique CDR3
5 unique J

IGHV3−20*03_04

1399 sequences assigned
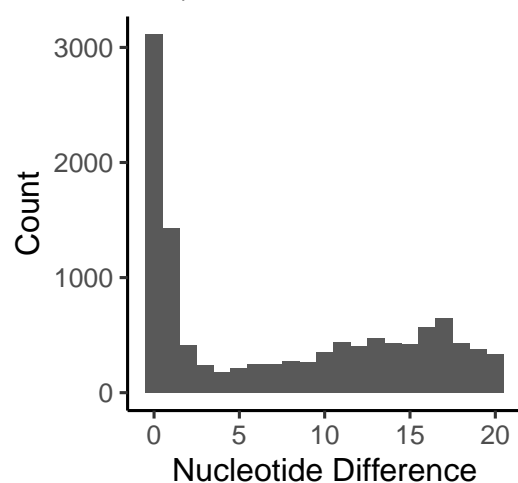1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J

IGHV3−30−3*01

8974 sequences assigned
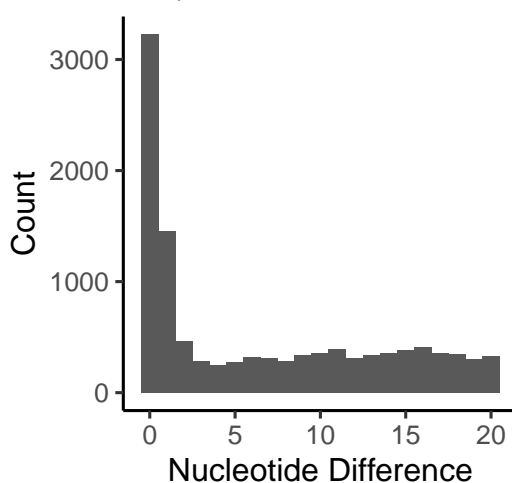1709 (19%) exact matches, in which:
1560 unique CDR3
6 unique J

IGHV3–33*01

14540 sequences assigned
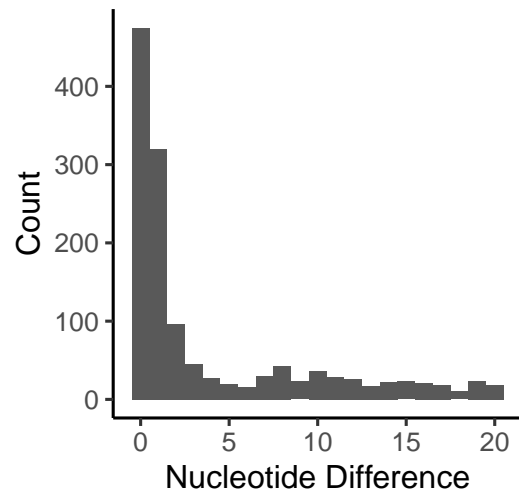3113 (21.4%) exact matches, in which:
2404 unique CDR3
6 unique J

IGHV3–48*03

13316 sequences assigned
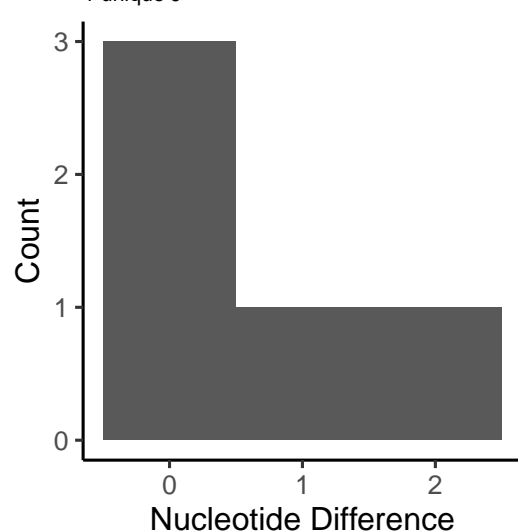3226 (24.2%) exact matches, in which:
2862 unique CDR3
6 unique J

IGHV3–53*04

1553 sequences assigned
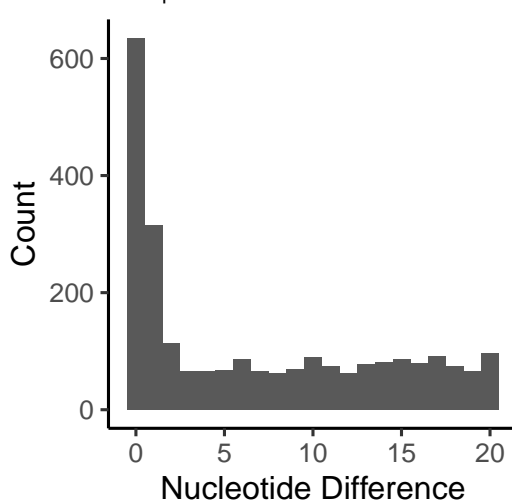475 (30.6%) exact matches, in which:
394 unique CDR3
6 unique J

IGHV3–35*01

5 sequences assigned
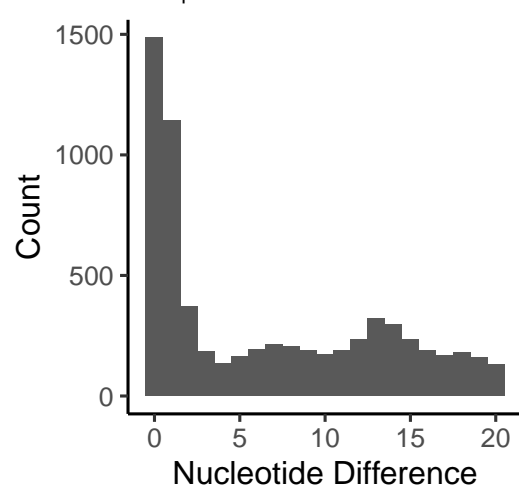3 (60%) exact matches, in which:
2 unique CDR3
1 unique J

IGHV3–49*04

3275 sequences assigned
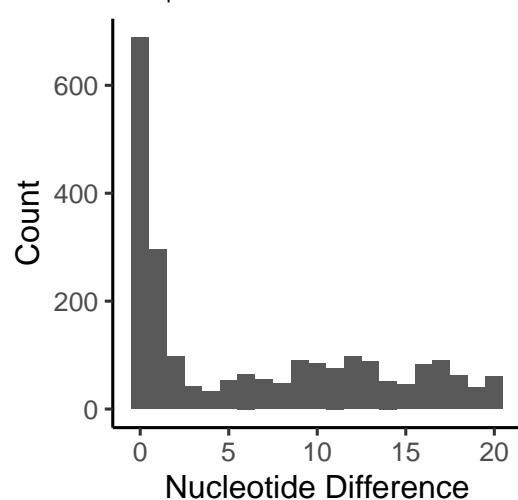635 (19.4%) exact matches, in which:
579 unique CDR3
6 unique J

IGHV3–53*01_02

8721 sequences assigned
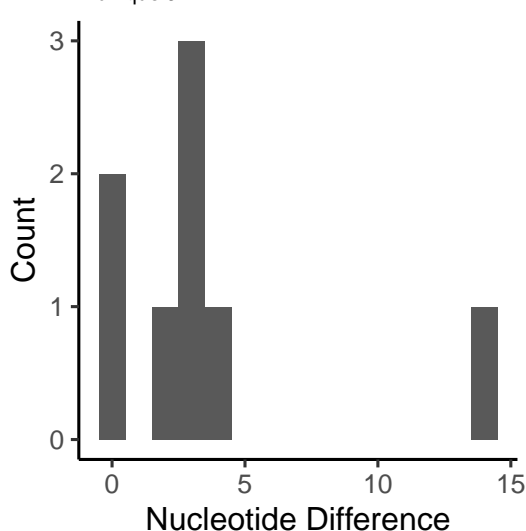1486 (17%) exact matches, in which:
1214 unique CDR3
6 unique J

IGHV3–43*02

2668 sequences assigned
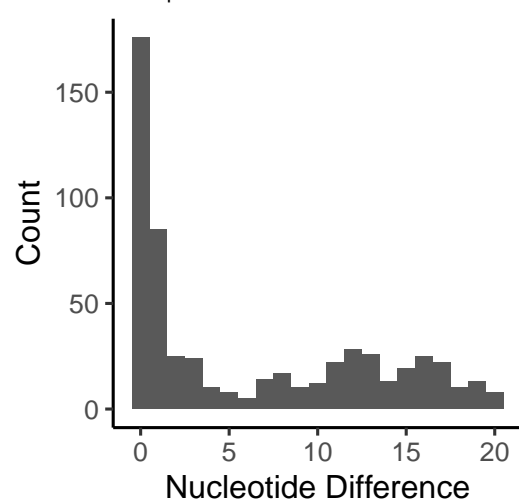689 (25.8%) exact matches, in which:
617 unique CDR3
6 unique J

IGHV3–52*01_03

8 sequences assigned
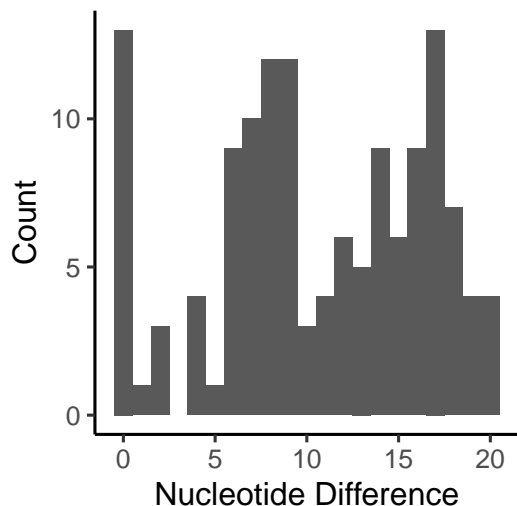2 (25%) exact matches, in which:
2 unique CDR3
2 unique J

IGHV3–64*01

616 sequences assigned
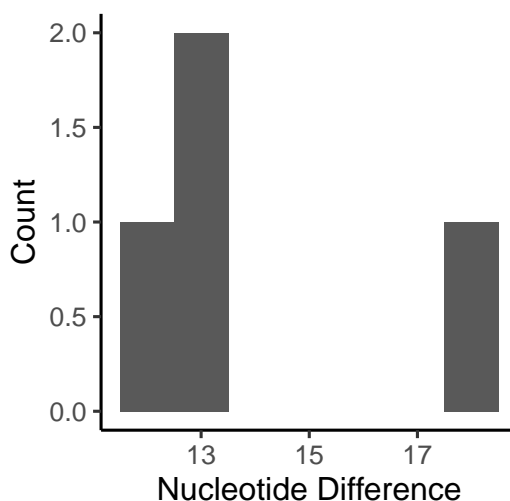176 (28.6%) exact matches, in which:
156 unique CDR3
6 unique J

IGHV3-64*02_07

246 sequences assigned
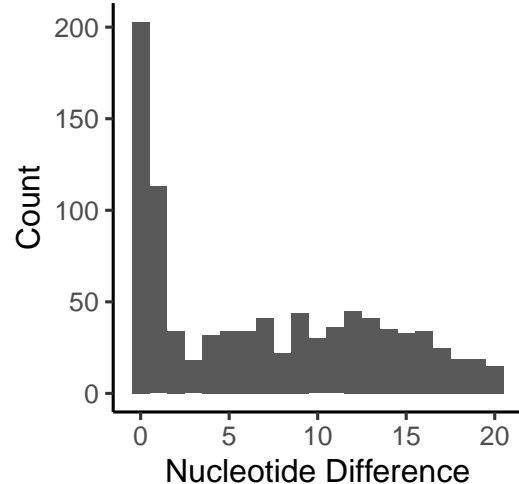13 (5.3%) exact matches, in which:
11 unique CDR3
4 unique J
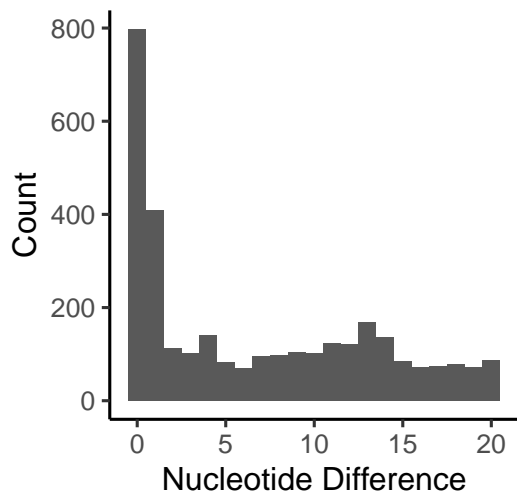
IGHV3-69-1*02

19 sequences assigned
No exact matches.

IGHV3-73*01_02

1013 sequences assigned
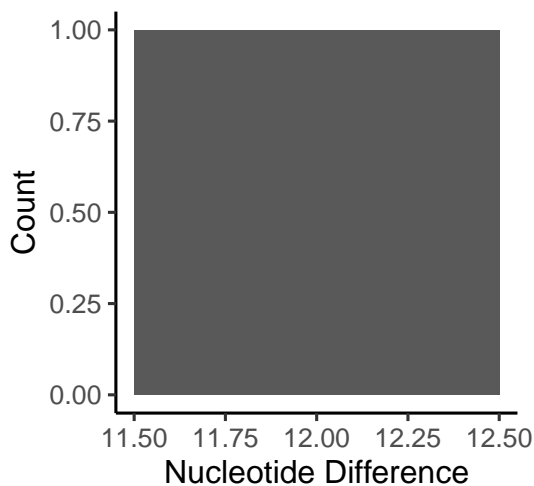203 (20%) exact matches, in which:
179 unique CDR3
6 unique J

IGHV3-66*01

3761 sequences assigned
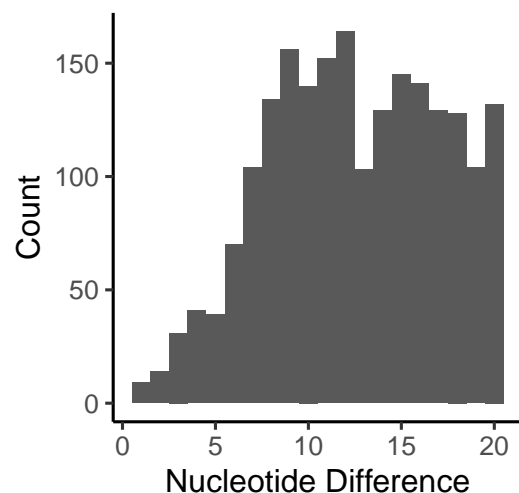798 (21.2%) exact matches, in which:
700 unique CDR3
6 unique J
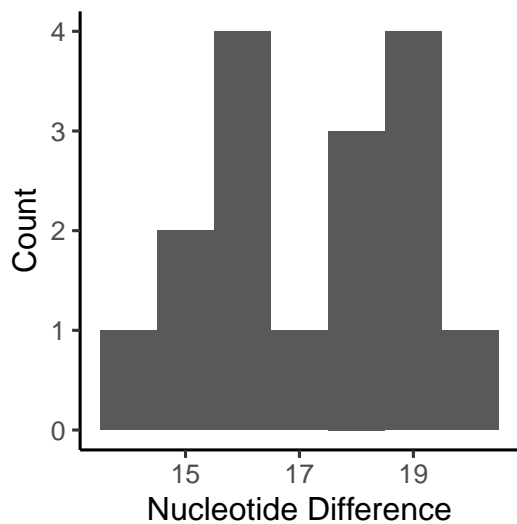
IGHV3-71*01_04

2 sequences assigned
No exact matches.
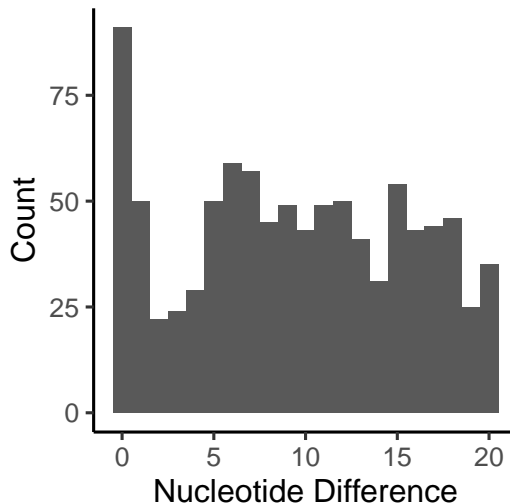
IGHV3-74*03

2762 sequences assigned
No exact matches.
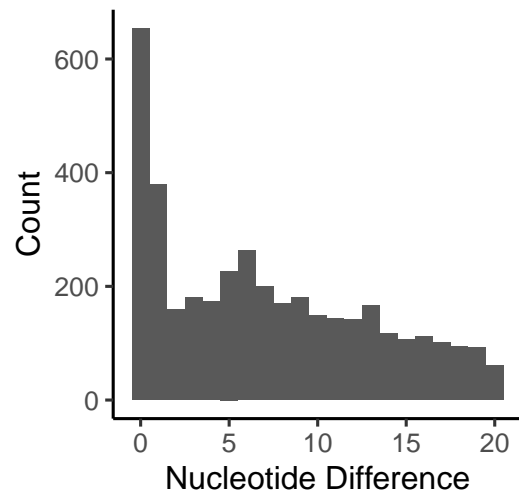
IGHV3-69-1*01

24 sequences assigned
No exact matches.

IGHV3-72*01

1120 sequences assigned
91 (8.1%) exact matches, in which:
82 unique CDR3
6 unique J
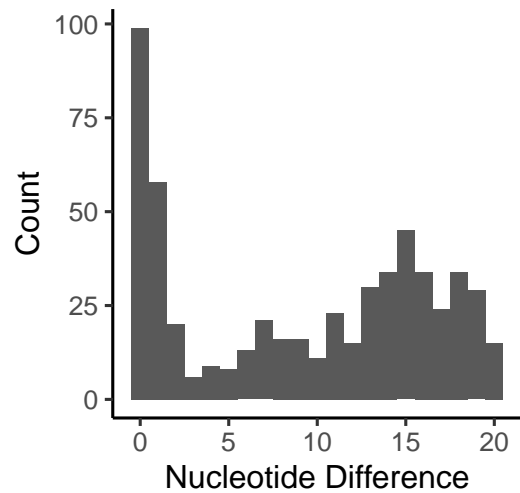
IGHV3-74*01_02

4223 sequences assigned
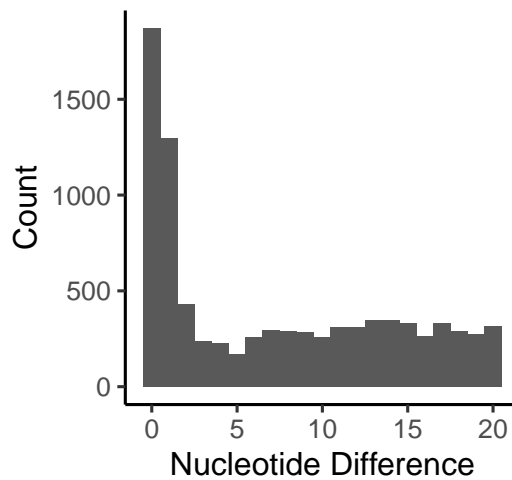654 (15.5%) exact matches, in which:
572 unique CDR3
6 unique J

IGHV3−43D*04

602 sequences assigned
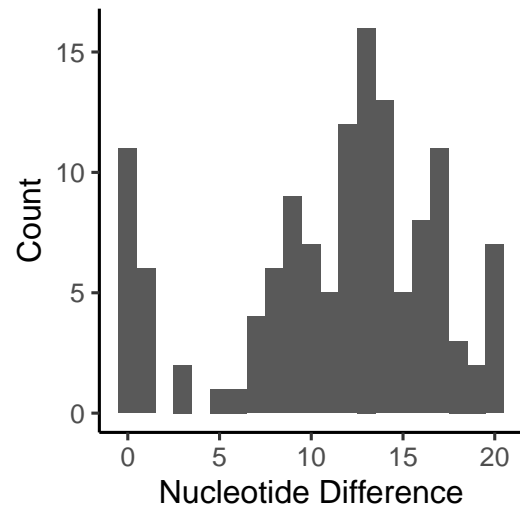99 (16.4%) exact matches, in which:
87 unique CDR3
5 unique J

IGHV4−4*07

11619 sequences assigned
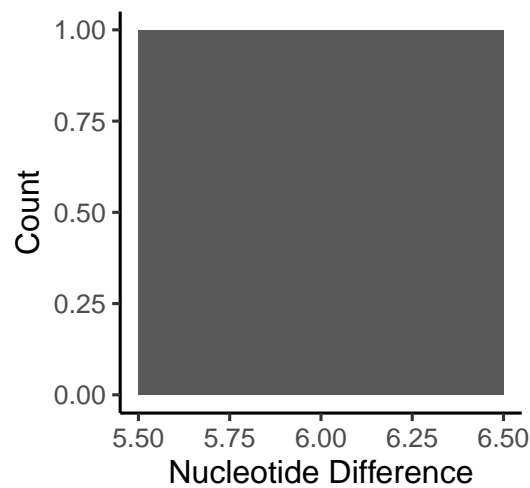1870 (16.1%) exact matches, in which:
1383 unique CDR3
6 unique J

IGHV4−28*01_07

143 sequences assigned
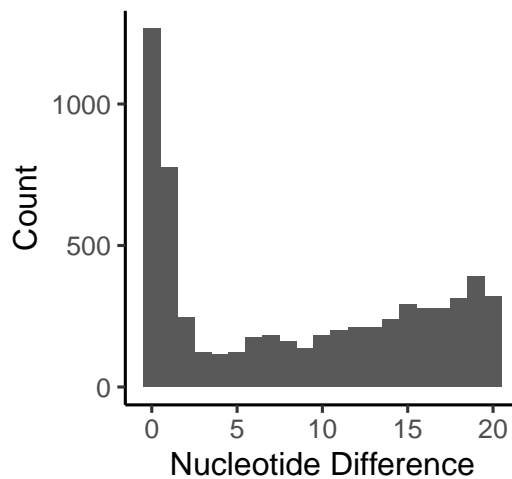11 (7.7%) exact matches, in which:
7 unique CDR3
3 unique J
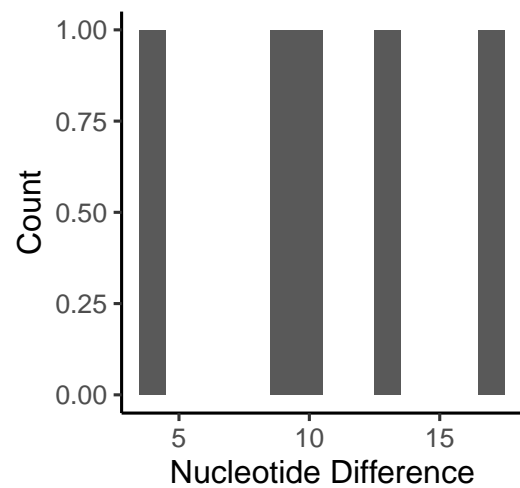
IGHV3−64D*06

1 sequences assigned
No exact matches.

IGHV4−4*02_03

8199 sequences assigned
1266 (15.4%) exact matches, in which:
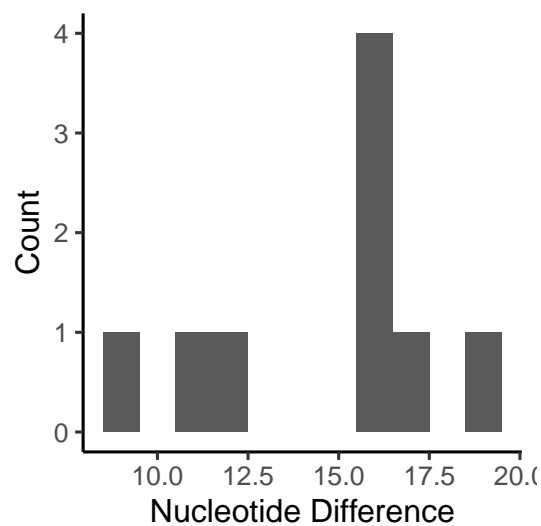952 unique CDR3
6 unique J
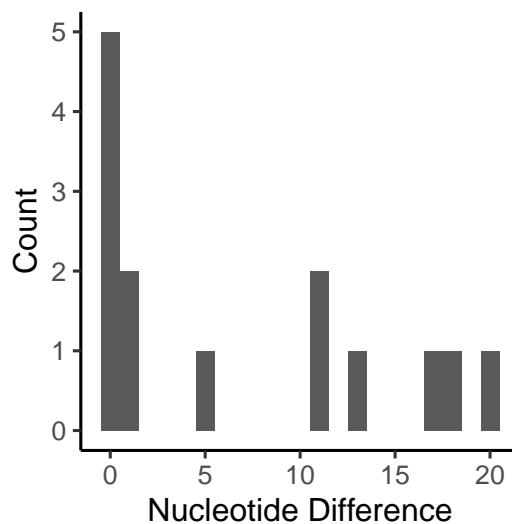
IGHV4−28*02_05

7 sequences assigned
No exact matches.

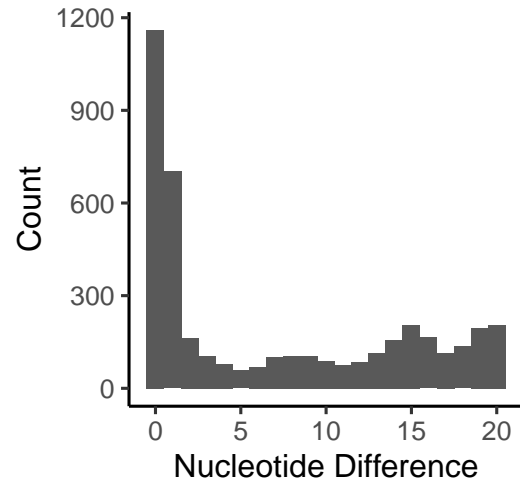**IGHV3−NL1*01**

40 sequences assigned
No exact matches.

IGHV4−28*03

19 sequences assigned
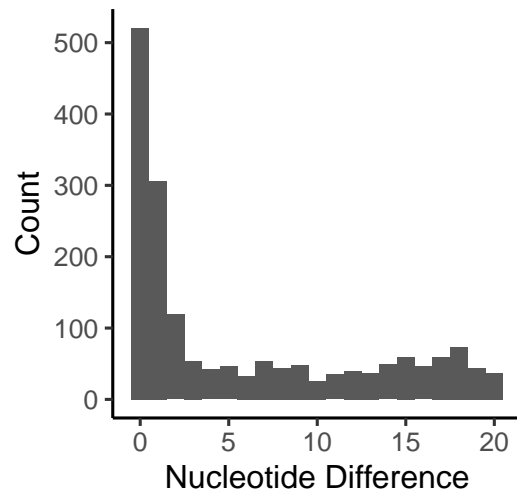5 (26.3%) exact matches, in which:
3 unique CDR3
2 unique J

IGHV4−30−4*01

5478 sequences assigned
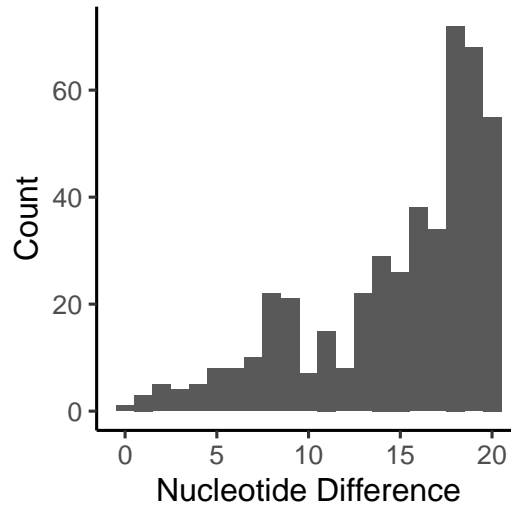1160 (21.2%) exact matches, in which:
866 unique CDR3
6 unique J

IGHV4−30−2*01

2302 sequences assigned
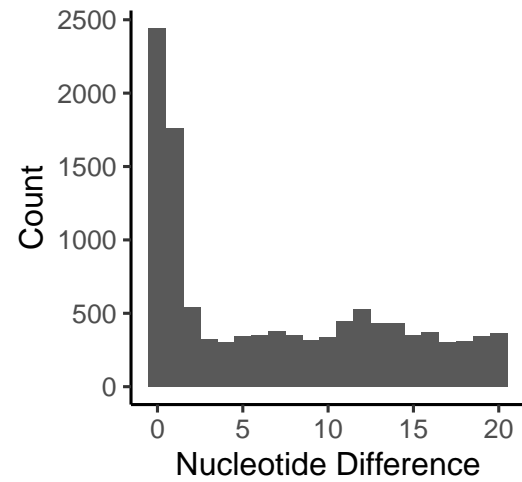521 (22.6%) exact matches, in which:
384 unique CDR3
6 unique J

IGHV4−38−2*02

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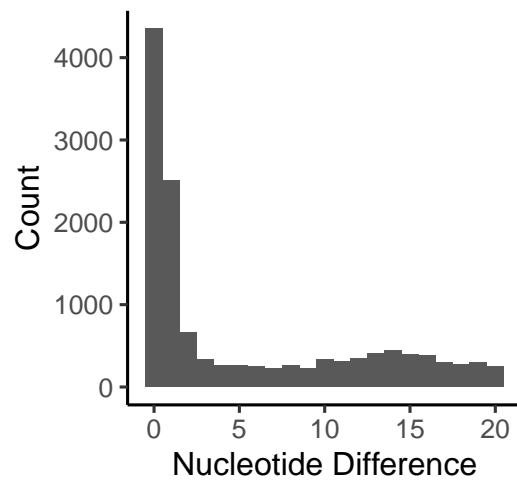1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J

IGHV4−59*08

14357 sequences assigned
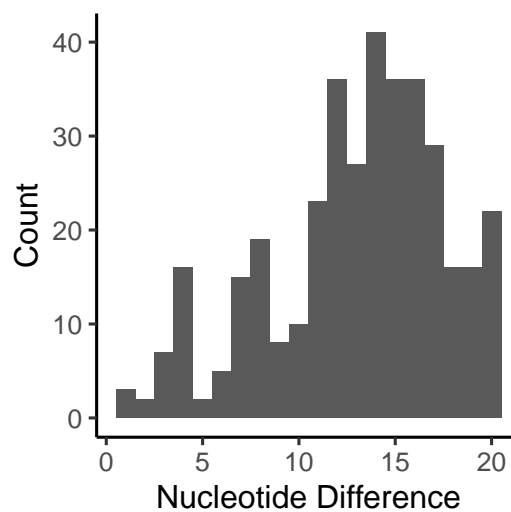2441 (17%) exact matches, in which:
1760 unique CDR3
6 unique J

IGHV4−31*02

15588 sequences assigned
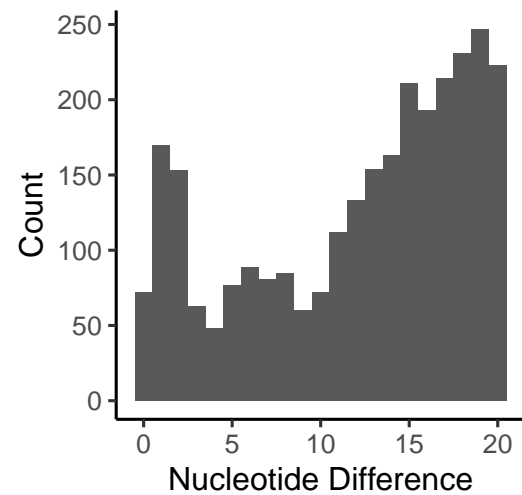4351 (27.9%) exact matches, in which:
3246 unique CDR3
6 unique J
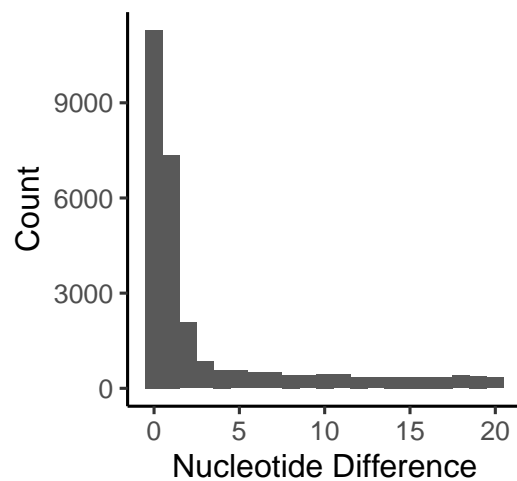
IGHV4−39*02

662 sequences assigned
No exact matches.

IGHV4−59*12

5616 sequences assigned
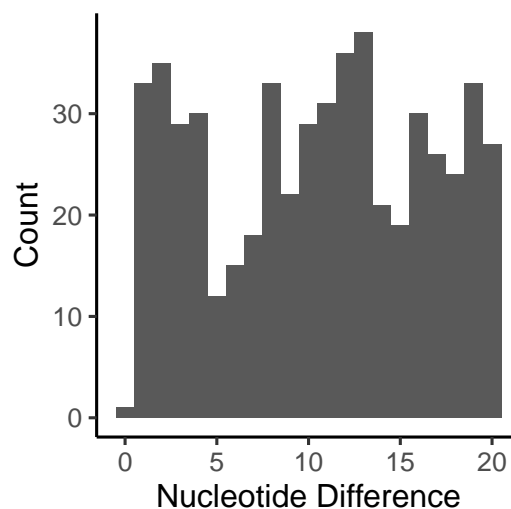72 (1.3%) exact matches, in which:
69 unique CDR3
6 unique J

IGHV4−34*01_02

32241 sequences assigned
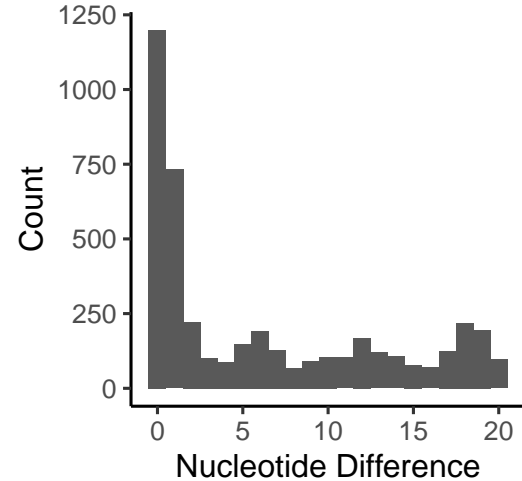11293 (35%) exact matches, in which:
8486 unique CDR3
6 unique J

IGHV4−39*07

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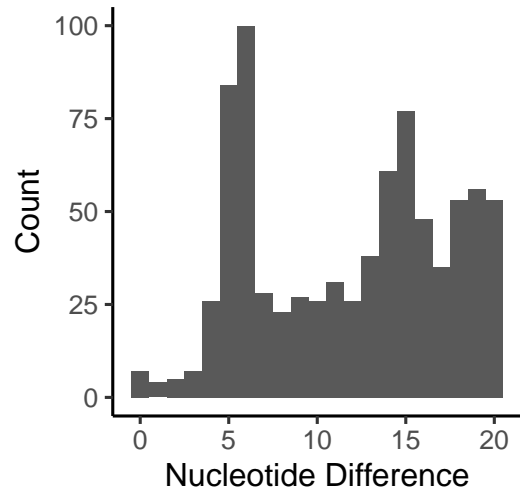1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J

IGHV4−61*01

5065 sequences assigned
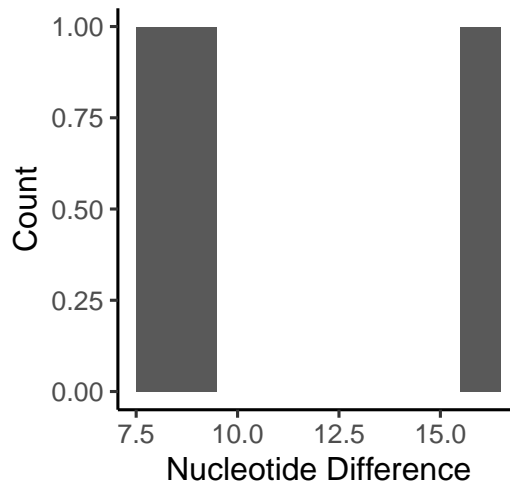1199 (23.7%) exact matches, in which:
880 unique CDR3
6 unique J

IGHV4−61*08

1455 sequences assigned
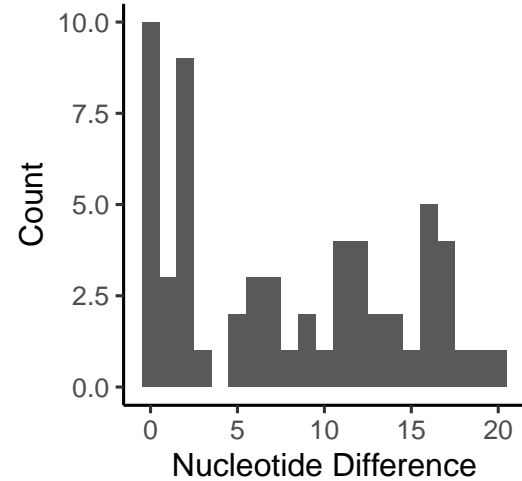7 (0.5%) exact matches, in which:
7 unique CDR3
4 unique J

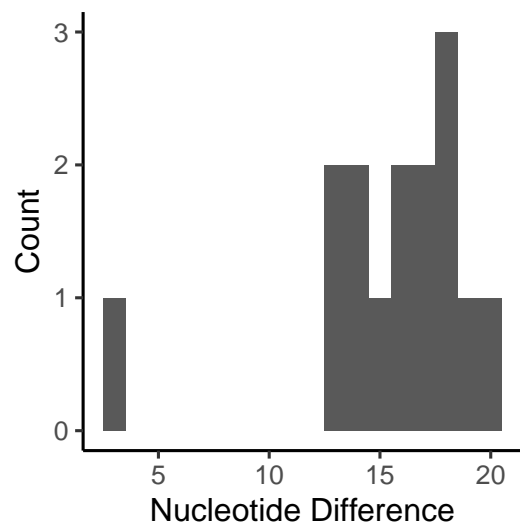## IGHV5−10−1*01_03

7 sequences assigned
No exact matches.

IGHV5−51*07

70 sequences assigned
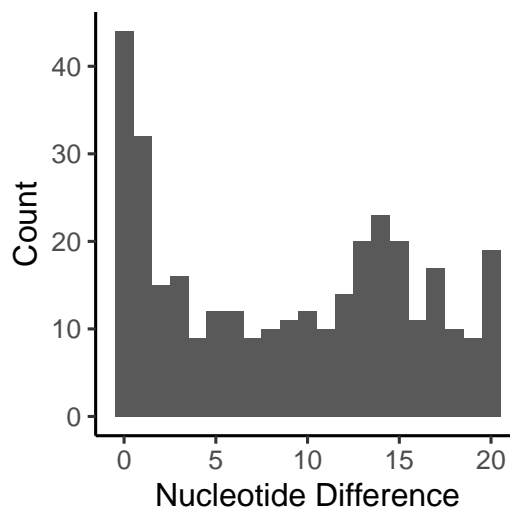10 (14.3%) exact matches, in which:
10 unique CDR3
2 unique J

IGHV4/OR15−8*01

118 sequences assigned
No exact matches.
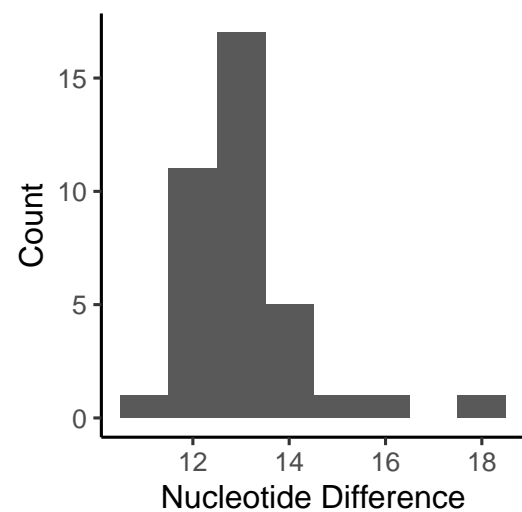
IGHV5−51*04

638 sequences assigned
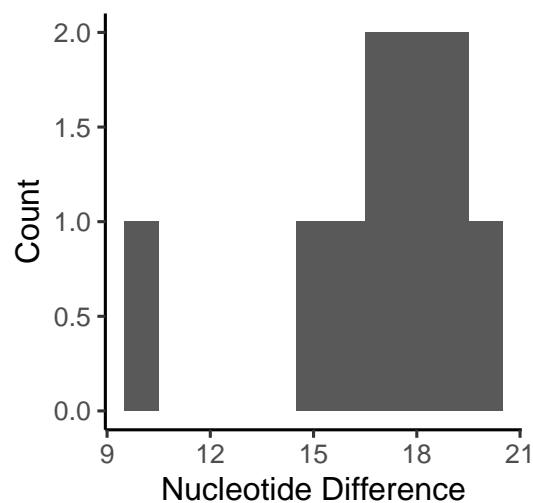44 (6.9%) exact matches, in which:
43 unique CDR3
5 unique J
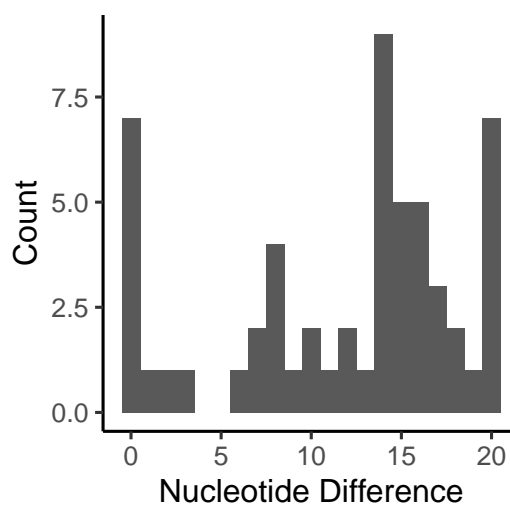
IGHV5−78*01

37 sequences assigned
No exact matches.

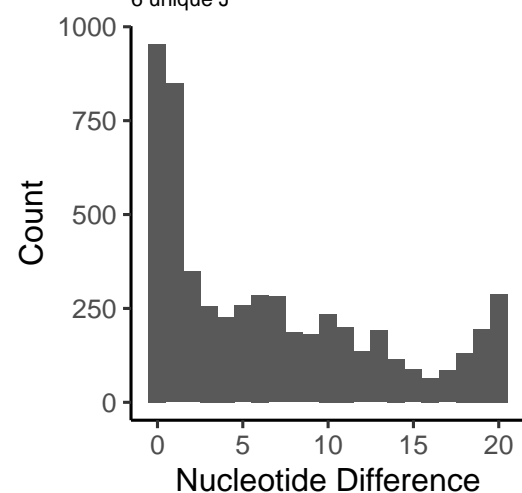## IGHV4/OR15−8*02

109 sequences assigned
No exact matches.

IGHV5−51*06

133 sequences assigned
7 (5.3%) exact matches, in which:
7 unique CDR3
4 unique J

IGHV6−1*01_02

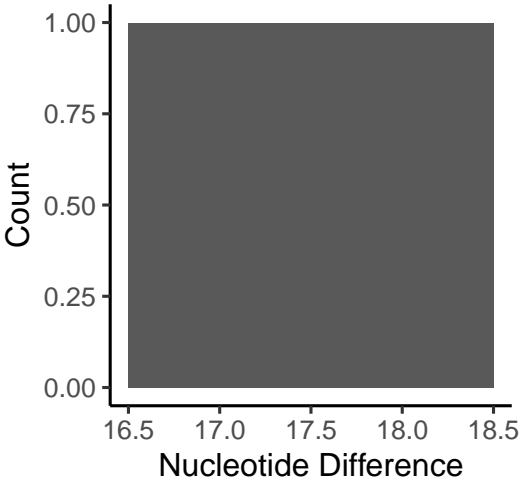6448 sequences assigned
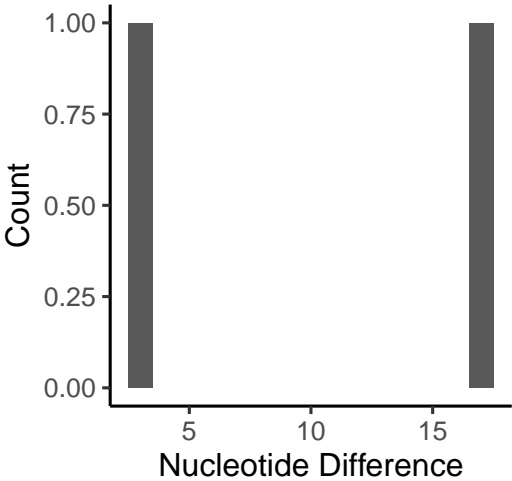954 (14.8%) exact matches, in which:
752 unique CDR3
6 unique J

IGHV3/OR16−13*01

2 sequences assigned
No exact matches.

IGHV7−4−1*02

4 sequences assigned
No exact matches.

Allele Usage

Warning – no inferred sequences found.

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