

Table S1.

Chi Square calculations for experiment in Figure 2D

Degrees of freedom = (columns - 1) * (rows - 1)

Null hypothesis | data before and after Dre are derived from the same distribution

Chi Square table - Position 2

| position2 actual | before | plus Dre |
|--------------------|---------|----------|
| A | 4 | 1 |
| T | 7 | 7 |
| G | 8 | 41 |
| C | 5 | 33 |
| position2 expected | before | plus Dre |
| A | 1.13208 | 3.867925 |
| T | 3.16981 | 10.83019 |
| G | 11.0943 | 37.90566 |
| C | 8.60377 | 29.39623 |
| twosided | | |
| P value | 0.00036 | |
| ChiStat | 18.4415 | |
| Degrees | 3 | |

Chi Square table - Position 3

| position3 actual | before | plus Dre |
|--------------------|----------|----------|
| A | 3 | 12 |
| T | 4 | 19 |
| G | 10 | 32 |
| C | 7 | 19 |
| position3 expected | before | plus Dre |
| A | 3.396226 | 11.60377 |
| T | 5.207547 | 17.79245 |
| G | 9.509434 | 32.49057 |
| C | 5.886792 | 20.11321 |
| twosided | | |
| P value | 0.86694 | |
| ChiStat | 0.726559 | |
| Degrees | 3 | |

Chi Square table - Position 6

| position6 actual | before | plus Dre |
|--------------------|---------|----------|
| A | 5 | 14 |
| T | 4 | 23 |
| G | 12 | 26 |
| C | 3 | 19 |
| position6 expected | before | plus Dre |
| A | 4.30189 | 14.69811 |
| T | 6.11321 | 20.88679 |
| G | 8.60377 | 29.39623 |
| C | 4.98113 | 17.01887 |
| twosided | | |
| P value | 0.279 | |
| ChiStat | 3.8423 | |
| Degrees | 3 | |

Chi Square table - Position 7

| position7 actual | before | plus Dre |
|--------------------|----------|----------|
| A | 6 | 19 |
| T | 10 | 12 |
| G | 5 | 40 |
| C | 3 | 11 |
| position7 expected | before | plus Dre |
| A | 5.660377 | 19.33962 |
| T | 4.981132 | 17.01887 |
| G | 10.18868 | 34.81132 |
| C | 3.169811 | 10.83019 |
| twosided | | |
| P value | 0.018644 | |
| ChiStat | 9.990819 | |
| Degrees | 3 | |