**Table S1.** Counts for interacting amino acid – base pairs with distances < 3.3Å.

| position | $b_5$ | $b_4$ | $b_3$ | $b_2$ | $b_1$ | $b_0$ | $b_5'$ | $b_4'$ | $b_3'$ | $b_2'$ | $b_1'$ | $b_0'$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $a_{-4}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_{-3}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_{-2}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_{-1}$ | 0 | 16 | 81 | 11 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| $a_1$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_2$ | 0 | 2 | 3 | 0 | 1 | 0 | 3 | 59 | 18 | 3 | 1 | 0 |
| $a_3$ | 0 | 0 | 1 | 79 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_4$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_5$ | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| $a_6$ | 0 | 0 | 0 | 13 | 58 | 8 | 0 | 2 | 1 | 14 | 0 | 0 |
| $a_7$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_8$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $a_9$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |