

- C T A T T G A C G T A A C A T

| | | | | | | | | | | | | | | | | |
|---|-----|-----|-----|-----|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| - | 0 | -3 | -6 | -9 | -12 | -15 | -18 | -21 | -24 | -27 | -30 | -33 | -36 | -39 | -42 | -45 |
| C | -3 | 4 | 1 | -2 | -5 | -8 | -11 | -14 | -17 | -20 | -23 | -26 | -29 | -32 | -35 | -38 |
| T | -6 | 1 | 8 | 5 | 2 | -1 | -4 | -7 | -10 | -13 | -16 | -19 | -22 | -25 | -28 | -31 |
| A | -9 | -2 | 5 | 12 | 9 | 6 | 3 | 0 | -3 | -6 | -9 | -12 | -15 | -18 | -21 | -24 |
| T | -12 | -5 | 2 | 9 | 16 | 13 | 10 | 7 | 4 | 1 | -2 | -5 | -8 | -11 | -14 | -17 |
| T | -15 | -8 | -1 | 6 | 13 | 20 | 17 | 14 | 11 | 8 | 5 | 2 | -1 | -4 | -7 | -10 |
| G | -18 | -11 | -4 | 3 | 10 | 17 | 24 | 21 | 18 | 15 | 12 | 9 | 6 | 3 | 0 | -3 |
| A | -21 | -14 | -7 | 0 | 7 | 14 | 21 | 28 | 25 | 22 | 19 | 16 | 13 | 10 | 7 | 4 |
| A | -24 | -17 | -10 | -3 | 4 | 11 | 18 | 25 | 27 | 24 | 21 | 23 | 20 | 17 | 14 | 11 |
| C | -27 | -20 | -13 | -6 | 1 | 8 | 15 | 22 | 29 | 26 | 23 | 20 | 22 | 24 | 21 | 18 |
| A | -30 | -23 | -16 | -9 | -2 | 5 | 12 | 19 | 26 | 28 | 25 | 27 | 24 | 21 | 28 | 25 |
| T | -33 | -26 | -19 | -12 | -5 | 2 | 9 | 16 | 23 | 25 | 32 | 29 | 26 | 23 | 25 | 32 |

gap = -3

Match = 4

Mismatch = -1

Local Alignment

| | - | C | T | A | T | T | G | A | C | G | T | A | A | C | A | T |
|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 4 | 1 | 0 |
| T | 0 | 1 | 8 | 5 | 4 | 4 | 1 | 0 | 1 | 3 | 5 | 2 | 0 | 1 | 3 | 5 |
| A | 0 | 0 | 5 | 12 | 9 | 6 | 3 | 5 | 2 | 0 | 2 | 8 | 6 | 3 | 5 | 2 |
| T | 0 | 0 | 4 | 9 | 16 | 13 | 10 | 7 | 4 | 1 | 4 | 5 | 7 | 5 | 2 | 9 |
| T | 0 | 0 | 4 | 6 | 13 | 20 | 17 | 14 | 11 | 8 | 5 | 3 | 4 | 6 | 4 | 6 |
| G | 0 | 0 | 1 | 3 | 10 | 17 | 24 | 21 | 18 | 15 | 12 | 9 | 6 | 3 | 5 | 3 |
| A | 0 | 0 | 0 | 5 | 7 | 14 | 21 | 28 | 25 | 22 | 19 | 16 | 13 | 10 | 7 | 4 |
| A | 0 | 0 | 0 | 4 | 4 | 11 | 18 | 25 | 27 | 24 | 21 | 23 | 20 | 17 | 14 | 11 |
| C | 0 | 4 | 1 | 1 | 3 | 8 | 15 | 22 | 29 | 26 | 23 | 20 | 22 | 24 | 21 | 18 |
| A | 0 | 0 | 3 | 5 | 2 | 5 | 12 | 19 | 26 | 28 | 25 | 27 | 24 | 21 | 28 | 25 |
| T | 0 | 0 | 4 | 2 | 9 | 6 | 9 | 16 | 23 | 25 | 32 | 29 | 26 | 23 | 25 | 32 |