

i : 0 1 2 3 4 5 6 7 8 9

Ax : 0 0 0 1 1 1 1 1 0

X : A C C A T T C T A - - C

Y : A C G - - - - T G T T C

Ay : 0 0 0 1 1 1 1 1

j : 0 1 2 3 4 5 6 7

The diagram illustrates a sequence alignment between two sequences, Ax and Ay. The sequences are represented as rows of characters, with indices i and j shown above and below the rows respectively. The alignment is visualized using colored boxes: a red box highlights the region from index 4 to 8 of both sequences, and a green box highlights the region from index 5 to 6 of both sequences. The characters in the red box are '11111' for Ax and 'TTCTA' for X, while the characters in the green box are '11' for Ax and 'CT' for X. The characters in the green box are 'G' for Y and '-' for Y. The characters in the red box are '000' for Ay and '11111' for Ay.