In the molecule of a peptide, the amino acid residue on one end has an amine group on the alpha carbon. This amino acid residue is called the N-terminal of the peptide. The amino acid residue on the other end has a carboxylic acid group on the alpha carbon. This amino acid is called the C-terminal.

eg:

When the structure of a peptide is drawn horizontally, by convention, the N-terminal is placed on the left and the C-terminal on the right.

The convention is important because the amino acid sequence of peptides is often shown using the symbols of the constituent amino acids.

eg:

\[ \text{Ala} \rightarrow \text{Val} \rightarrow \text{Cys} \]
\[ \text{Cys} \rightarrow \text{Val} \rightarrow \text{Ala} \]

The above peptide molecules have the same number of amino acid residues (3) and the same amino residues (alanine, cysteine, and valine), but they represent two different peptides.

Contributors

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