Short review

Influence and effect of osmolytes in biopharmaceutical formulations

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Influence and effect of osmolytes in biopharmaceutical formulations.

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Graphical Abstract

Abstract

Osmolytes are small organic molecules accumulated by cells in response to environmental stresses. They are represented by amino acids, sugars, polyols, tertiary sulphonium and quaternary ammonium compounds. These molecules present a protective behaviour and favour the equilibrium of macromolecules towards the native form, preventing denaturation and promoting the folding of unfolded proteins. Protein formulations due to their biological character require greater care during the manufacturing process, shelf-life and administration of the drug, as variations in these