

Cycloheximide

 Catalog No:
 54646

 Lot No:
 XXXXX

 Cas No:
 66-81-9

 Formula:
 C15H23NO4

 MW:
 281.35

 Supplied as:
 solid

Stability: stable at room temperature

Background

Cycloheximide is an inhibitor of protein biosynthesis in eukaryotic organisms, produced by the bacterium *Streptomyces griseus*. Cycloheximide exerts its effect by interfering with the translocation step in protein synthesis thus blocking translational elongation. Since cycloheximide is an effective inhibitor of protein biosynthesis in eukaryotes only, it may be used to distinguish between proteins translated in the mitochondria and proteins translated in the cytosol. mRNA translated in cytosol or ER from mRNA derived from the nucleus will not be expressed in the presence of cycloheximide. Conversely, translation using mitochondrial ribosomes is unaffected by cycloheximide, and mitochondrial genes will continue to be expressed. Cycloheximide treatment also provides the ability to observe the half-life of a protein without confounding contributions from transcription or translation.

Tests Specifications

Appearance: white to faintly beige powder

Assay (HPLC): ≥98% α 20°C/D; 1 %, CHCl₃: -26° - -32°

Usage

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