



## Cefixime Trihydrate

A cephalosporin, broad-spectrum antibiotic

An effective third-generation cephalosporin antibiotic is cefixime trihydrate powder. It is commonly used in microbiology. This broad-spectrum antibiotic works well against a variety of Gram-positive and Gram-negative microorganisms.

Cefixime trihydrate works by preventing the synthesis of bacterial cell walls. It accomplishes this by binding itself particularly to penicillin-binding proteins (PBPs) found in the cell walls of bacteria. These PBPs are vital enzymes involved in the synthesis of the cell wall. Cefixime trihydrate prevents peptidoglycan formation, which is an essential part of the bacterial cell wall, by blocking PBPs. This eventually prevents the correct assembly of the cell wall, which results in cell death.

Cat. Number	AS-2004
CAS Number	125110-14-7
Additional CAS	79350-37-1
MDL Number	MFCD03788802
PubChem	310269478
Molecular Weight	453.45 g/mol
Molecular Formula	C <sub>16</sub> H <sub>15</sub> N <sub>5</sub> O <sub>7</sub> S <sub>2</sub>
Storage Temperature	20°C
Form and Color	Powder to crystalline powder, White to light yellow
Purity (HPLC)	Min. 95%
Water content	9 – 12%
FT-IR Spectrum	Corresponds to reference spectrum.
Heavy metals	Max. 20 ppm
Synonym	(6R,7R)-7-[[[(2Z)-2-(2-Amino-4-thiazolyl)-2- [(carboxymethoxy)imino]acetyl]amino]-3-ethenyl-8-oxo- 5-thia-1-azabicyclo[4.2.0]oct-2-ene- 2-carboxylic acid