

Zoledronic acid, Antiproliferative and apoptotic

Catalog	Unit
TBI4512-25MG	25 mg
TBI4512-100MG	100 mg

Product Details

Formal Name: [1-Hydroxy-2-(1H-imidazol-1-yl)ethane-1,1-diyl]bis(phosphonic acid)

Alternate Names: CGP 42446; Zoledronate

Molecular Formula: C₅H₁₀N₂O₇P₂

Formula Weight: 272.10

CAS Number: 118072-93-8

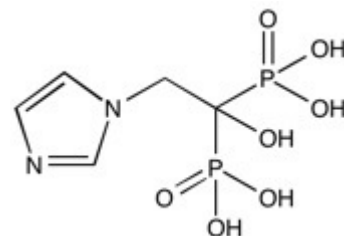
Purity: >98%

Formulation: powder

Solubility: Soluble in Water (up to 2 mg/ml) or in DMSO (10 mg/ml).

Storage: -20°C

Stability: ≥ 2 years.



Applications

Antiproliferative and apoptotic

Functions

Inhibits farnesyl diphosphate synthase, reducing protein prenylation, inducing osteoclast apoptosis, and inhibiting bone resorption (IC₅₀ = 20 nM). Reduces adhesion molecules on bone marrow stromal cells and blocks angiogenesis through inhibition of endothelial progenitor cell differentiation. Clinically useful treatment for osteoporosis and metastatic breast, prostate, and other cancers.

Application Procedures

First dissolved in Water (up to 2 mg/ml) or in DMSO (10 mg/ml), then diluted to aqueous buffer. Solutions in distilled water may be stored at -20° for up to 2 months.

For research use only.