

# Zoledronic acid (monohydrate)

Catalog No: tcsc2975



## Available Sizes

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

165800-06-6

**Formula:**

$C_5H_{12}N_2O_8P_2$

**Pathway:**

Autophagy

**Target:**

Autophagy

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O : 1 mg/mL (3.45 mM; Need ultrasonic); H<sub>2</sub>O : 14.29 mg/mL (49.26 mM; ultrasonic and adjust pH to 8 with NaOH)

**Alternative Names:**

Zoledronate monohydrate;CGP 42446 monohydrate;CGP42446A monohydrate;ZOL 446 monohydrate

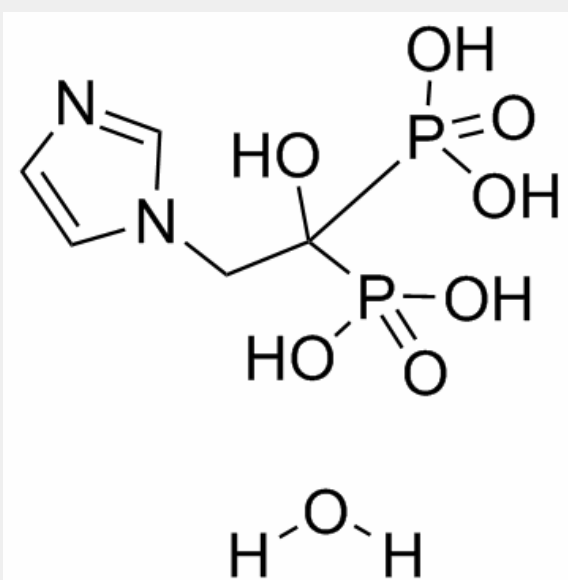
**Observed Molecular Weight:**

290.1

## Product Description

Zoledronic acid monohydrate is a third-generation, nitrogen-containing bisphosphonate, inhibits osteoclast-mediated bone resorption, and also has antitumor activity.

***In Vitro:*** Zoledronic acid monohydrate induces apoptosis in HGF and HaCaT cells at 0.5  $\mu\text{M}$ , and causes cell death at 1-5  $\mu\text{M}$ <sup>[1]</sup>. Zoledronic Acid (50, 100  $\mu\text{M}$ ) causes dose- and time-dependent apoptosis in CNE-2Z cells after treatment for 24, 48, and 72 h. Zoledronic Acid (50  $\mu\text{M}$ ) also increases the level of ROS, which is supposed to mediate  $\text{Cl}^-$  currents activation in CNE-2Z cells. Furthermore, the apoptosis and chloride currents induced by Zoledronic Acid can be blocked by knocking down  $\text{ClC-3}$  protein expression<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!