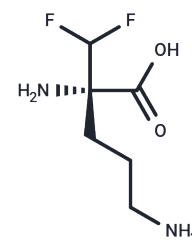


L-Eflornithine

Chemical Properties

CAS No. : 66640-93-5
Formula: C₆H₁₂F₂N₂O₂
Molecular Weight: 182.17
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	L-Eflornithine is an irreversible ornithine decarboxylase (ODC) inhibitor with a KD of 1.3±0.3 μM, and a Kinact of 0.15±0.03 min ⁻¹ . L-Eflornithine is an enantiomer of
Targets(IC50)	Others
In vitro	Treatment of human colon tumour-derived HCT116 cells with either L-Eflornithine or D-Eflornithine decreases the cellular polyamine contents in a concentration-dependent manner. The enantiomers display different potencies in vitro, with the L-enantiomer having up to a 20-fold higher affinity for the target enzyme ornithine decarboxylase. The L-Eflornithine also appears to be more potent in cultured T.brucei gambiense parasites. Eflornithine is an inhibitor of ODC, the first enzyme in eukaryotic polyamine biosynthesis. Both enantiomers of Eflornithine irreversibly inactivate ODC. Both Eflornithine enantiomers suppress ODC activity in a time- and concentration-dependent manner. The inhibitor dissociation constant (KD) values for the formation of enzyme-inhibitor complexes are 28.3±3.4, 1.3±0.3 and 2.2±0.4 μM respectively for D-Eflornithine, L-Eflornithine and Eflornithine. The inhibitor inactivation constants (Kinact) for the irreversible step were 0.25±0.03, 0.15±0.03 and 0.15±0.03 min ⁻¹ respectively for D-Eflornithine, L-Eflornithine and Eflornithine.
In vivo	The typical oral clearances for L-Eflornithine and D-eflornithine are 17.4 and 8.23 liters/hour, respectively. Despite L-Eflornithine being the more potent form, it is found in significantly lower concentrations in both plasma and cerebrospinal fluid (CSF) compared to D-Eflornithine. On average, plasma concentrations of L-Eflornithine are 52% of those found for the D-enantiomer.

A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.4894 mL	27.4469 mL	54.8938 mL
5 mM	1.0979 mL	5.4894 mL	10.9788 mL
10 mM	0.5489 mL	2.7447 mL	5.4894 mL
50 mM	0.1098 mL	0.5489 mL	1.0979 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Mastrodomenico V, LoMascolo N J, Cruz-Pulido Y E, et al. Polyamine-Linked Cholesterol Incorporation in Rift Valley Fever Virus Particles Promotes Infectivity. ACS Infectious Diseases. 2022

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481