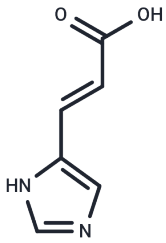
Data Sheet (Cat.No.T37547)

TargetMol

trans-Urocanic Acid

Chemical Properties



CAS No. : 3465-72-3

Formula: C6H6N2O2

Molecular Weight: 138.12

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	trans-Urocanic Acid ((E)-Urocanic acid), a compound predominantly distributed in the hippocampus and prefrontal cortex, is an isomer of cis-UCA, an epidermal UV-protectant, which enhances the stability of tenofovir eplerenomide in long-acting HIV applications. trans-Urocanic acid potently modulates immune trans-urocanic acid effectively modulates immune function, inhibits human natural killer cell activity in vitro, and can be used in Alzheimer's disease research.
Targets(IC50)	Others,Endogenous Metabolite
In vitro	In primary human keratinocytes, trans-Urocanic acid (100 μg/mL; 24 hours) reduces cell proliferation and viability[2].

Solubility Information

Solubility	PBS (pH 7.2): 0.3 mg/mL (2.17 mM),Sonication is recommended. DMSO: 15 mg/mL (108.6 mM),Sonication is recommended. DMF: 3 mg/mL (21.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (14.48 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.2401 mL	36.2004 mL	72.4008 mL
5 mM	1.448 mL	7.2401 mL	14.4802 mL
10 mM	0.724 mL	3.620 mL	7.2401 mL
50 mM	0.1448 mL	0.724 mL	1.448 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

J Uksila, et al. Trans-urocanic acid, a natural epidermal constituent, inhibits human natural killer cell activity in vitro. Exp Dermatol. 1994 Apr;3(2):61-5.

Kazuyo Kaneko, et al. cis-Urocanic acid enhances prostaglandin E2 release and apoptotic cell death via reactive oxygen species in human keratinocytes. J Invest Dermatol. 2011 Jun;131(6):1262-71.