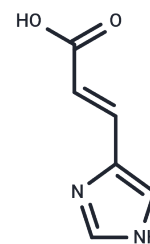


Urocanic acid

Chemical Properties

CAS No. :	104-98-3
Formula:	C ₆ H ₆ N ₂ O ₂
Molecular Weight:	138.12
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Urocanic acid (4-Imidazoleacrylic acid), synthesized in the epidermis, functions as a primary absorber of ultraviolet (UV) radiation in mammalian skin.
Targets(IC50)	Endogenous Metabolite
In vitro	Urocanic acid is produced in the upper epidermal layers through the breakdown of filaggrin– a histidine-rich filament protein generated following the caspase-14-mediated cleavage of profilaggrin–by proteinases into its constituent amino acids[1].

Solubility Information

Solubility	DMSO: 10 mg/mL (72.4 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: 1 mg/mL (7.24 mM),Sonication is recommended. <i>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.</i>

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

Gibbs NK, et al. Recent advances in urocanic acid photochemistry, photobiology and photoimmunology. Photochem Photobiol Sci. 2008 Jun;7(6):655-67.

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