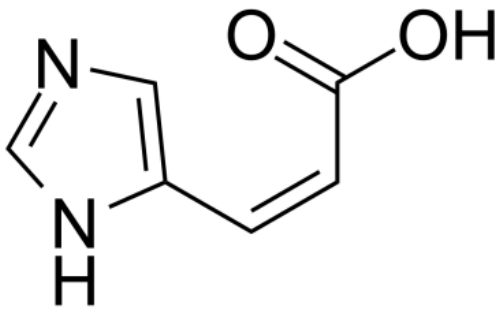
Product Data Sheet

Product Name: cis-Urocanic acid
Cat. No.: GC38753

Chemical Properties

Cas. No.	7699-35-6		
SMILES	O=C(O)/C=C\C1=CN=CN1		
Formula	$C_6H_6N_2O_2$	M.Wt	138.12
Solubility	H_2O : 50 mg/mL (362.00 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

cis-Urocanic acid is a 5-HT2A receptor agonist. cis-Urocanic acid binds to 5-HT receptor with relatively high affinity (Kd=4.6 nM). cis-Urocanic acid is an immune modulator that induces immunosuppression by binding to the 5-HT2A receptor[1].

Treatment with 100 µg/mL cis-Urocanic acid (cis-UCA) completely suppresses IL-6 and IL-8

secretion, decreases caspase-3 activity, and improves cell viability against UV-B irradiation. No significant effects on IL-6 or IL-8 secretion, caspase-3 activity, or viability of the non-irradiated cells are observed with 100 µg/mL cis-Urocanic acid in both cell types. The 5000 µg/mL concentration is toxic[1]. Cell Viability Assay[1] Cell Line: Human corneal epithelial cells (HCE-2) and human conjunctival epithelial cells (HCECs)

[1]. Walterscheid JP, et al. Cis-urocanic acid, a sunlight-induced immunosuppressive factor, activates immune suppression via the 5-HT2A receptor. Proc Natl Acad Sci U S A. 2006 Nov 14;103(46):17420-5. [2]. Viiri J, et al. Cis-urocanic acid suppresses UV-B-induced interleukin-6 and -8 secretion and cytotoxicity in human corneal and conjunctival epithelial cells in vitro. Mol Vis. 2009 Sep 8;15:1799-805.

Caution: Product has not been fully validated for medical applications. For research use only.
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