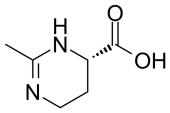
# **Product** Data Sheet

## **Ectoine**

Cat. No.: HY-107784 CAS No.: 96702-03-3 Molecular Formula:  $C_6 H_{10} N_2 O_2$ Molecular Weight: 142.16 Target: Bacterial Pathway: Anti-infection

Storage: 4°C, protect from light

\* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



#### **SOLVENT & SOLUBILITY**

In Vitro

H<sub>2</sub>O: 250 mg/mL (1758.58 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	7.0343 mL	35.1716 mL	70.3433 mL
	5 mM	1.4069 mL	7.0343 mL	14.0687 mL
	10 mM	0.7034 mL	3.5172 mL	7.0343 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS

Solubility: 100 mg/mL (703.43 mM); Clear solution; Need ultrasonic

### **BIOLOGICAL ACTIVITY**

Description	Ectoine is a natural cell protectant, an amino acid derivate produced by bacteria living under extremely harsh environmental conditions. Ectoine serves as an osmoregulatory compatible solute, increasing the hydration of the skin surface and stabilizing lipid layers, which is useful in skincare. Ectoine demonstrates a good safety profile for the treatment of allergic rhinitis <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	$Bacterial^{[1]}$
In Vitro	Ectoine (0-5% (w/v); 0-24 h; human erythrocytes) protects the cells from damage caused by SDS treatment <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **REFERENCES**

1]. Graf R, et, al. The multifund	ctional role of ectoine as a natural cell protectant. Clin Dermatol. 2008 Jul-Aug;26(4):326-33.	
	Caution: Product has not been fully validated for medical applications. For research use only.	
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