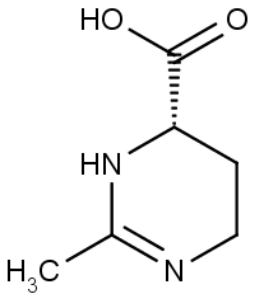
Ectoine, technical grade



Catalog No: 55459
Lot No: XXXXX
Cas No: 96702-03-3
Formula: $C_6H_{10}N_2O_2$
MW: 142.16
Supplied as: solid
Stability: stable at room temperature

Background

Ectoine (1,4,5,6-tetrahydro-2-methyl-4-pyrimidinecarboxylic acid) is a natural compound found in several species of bacteria. It is a compatible solute which serves as a protective substance by acting as an osmolyte and thus helps organisms survive extreme osmotic stress. Ectoine is found in high concentrations in halophilic microorganisms and confers resistance towards salt and temperature stress. Ectoine was first identified in the microorganism *Ectothiorhodospira halochloris*, but has since been found in a wide range of gram-negative and gram-positive bacteria. Ectoine is able to protect and stabilize proteins (0.1-1 mM), nucleic acids (0.1-10 mM) and membranes. Technical grade is not recommended for DNA protection.

Tests	**Specifications**
Appearance:	white crystalline powder
Ectoine (HPLC):	≥95%
Hydroxyectoine (HPLC):	≤5%
pH (2%, water):	6.0 – 8.0
Optical rotation $[\alpha]_{20}^{D}$:	+139 - +145
Water (K.F.):	≤0.5%
Endotoxins:	≤3000 EU/g

Usage

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