

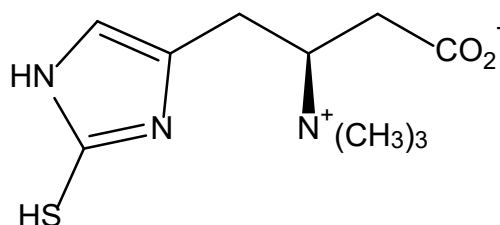
**Catalog # 10-3012**

**L-Ergothioneine**

CAS# 497-30-3

( $\alpha$ -S)- $\alpha$ -Carboxy-2,3-dihydro-N,N,N-trimethyl-2-thioxo-1H-imidazole-4-ethanaminium inner salt  
2-Mercaptohistidine betaine; NSC-7175

Lot # X101768



Naturally occurring ubiquitous antioxidant which is found in many cells at concentrations up to 2 mM<sup>1</sup>. Rescues PC12 cells from  $\beta$ -amyloid-induced apoptotic cell death<sup>2</sup>. Protects against cisplatin-induced neuronal injury and enhances cognition in a mouse model<sup>3</sup>. Interferes with endothelial cell senescence<sup>4</sup>.

- 1) Cheah and Halliwell (2012), *Ergothioneine: antioxidant potential, physiological function and role in disease*; Biochim. Biophys. Acta, **1822** 784
- 2) Jang *et al.* (2004), *Ergothioneine rescues PC12 cells from beta-amyloid-induced apoptotic death*; Free Radic. Biol. Med., **36** 288
- 3) Song *et al.* (2010), *Ergothioneine protects against neuronal injury induced by cisplatin both invitro and in vivo*; Food Chem. Toxicol. **48** 3492
- 4) D'Onofrio *et al.* (2016), *Ergothioneine oxidation in the protection against high-glucose induced endothelial senescence: Involvement of SIRT1 and SIRT6*; Free Radic. Biol. Med., **96** 211

**PHYSICAL DATA**

Molecular Weight:	229.31
Molecular Formula:	C <sub>9</sub> H <sub>16</sub> N <sub>3</sub> O <sub>2</sub> S
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	Water (up to 10 mg/ml)
Physical Description:	White or off-white solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 1 year from the date of purchase. Solutions in distilled water may be stored at -20°C for not more than 1 day.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**