Creative Enzymes®

α-Lipoic Acid

Cat. No. COEC-041

Lot. No. (See product label)

Introduction

Description	α-Lipoic Acid is a metabolic antioxidant that regulates NFκB signal transduction and can protect against oxidative injury. The exogenous compound is reduced intracellularly by enzymes. Its reduced form is involved in radical scavenging, recycling of other antioxidants, accelerating GSH synthesis, and regulating transcription factor activity, specifically NFkappaB. It also acts as a conenzyme that is required for the activity of pyruvate dehydrogenase and glycine decarboxylase, among other enzyme complexes. Studies show that it can prevent a decrease in the renal antioxidant defense system and prevent the increase of lipid peroxidation, platinum content and plasma creatinine concentrations. In other studies, lipoic acid decreased the phagocytosis of myelin by macrophages, acting as a non-specific scavenger of reactive oxygen species (ROS).
Applications	A metabolic antioxidant that regulates NF-κB signal transduction
Synonyms	DL-Thioctic Acid; DL-6,8-Dithiooctanoic acid; 1,2-Dithiolane-3-valeric acid

Product Information

Form	Solid
CAS No.	1077-28-7
Molecular Formula	C8H14O2S2
Molecular Weight	206.32
Purity	≥95%
Melting Point	160 to 165°C
Boiling Point	362.5°C
Solubility	Solubility Soluble in ethanol or methanol
Refractive Index	~1.75 (Predicted)