

## 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 NFκappaB. It also acts as a cofactor 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

<b>Form</b>	Solid
<b>CAS No.</b>	1077-28-7
<b>Molecular Formula</b>	C <sub>8</sub> H <sub>14</sub> O <sub>2</sub> S <sub>2</sub>
<b>Molecular Weight</b>	206.32
<b>Purity</b>	≥95%
<b>Melting Point</b>	160 to 165°C
<b>Boiling Point</b>	362.5°C
<b>Solubility</b>	Solubility Soluble in ethanol or methanol
<b>Refractive Index</b>	~1.75 (Predicted)