

Product Data Sheet

Product Name: Tiopronin

Cat. No.: GC40555

Chemical Properties

Cas. No. 1953-02-2

SMILES OC(CNC(C(S)C)=O)=O

Formula C₅H₉NO₃S

M.Wt 163.2

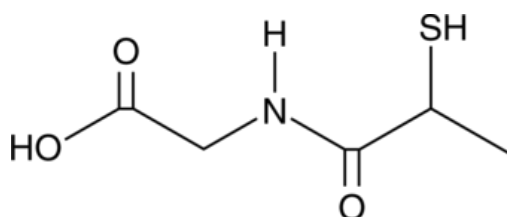
Solubility Water : 100 mg/mL (612.78 mM;
Need ultrasonic) DMSO : ≥ 100
mg/mL (612.78 mM)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Tiopronin is an antioxidant that has diverse biological activities. It reduces free radical production by murine macrophages and granulocytes in vitro in a dose-dependent manner. Tiopronin induces expression of hypoxia-inducible factor 1 α (HIF-1 α) and increases VEGF secretion in human colon carcinoma cells. Rectal administration (500 μ L of a 10 mM solution) reduces myeloperoxidase activity and reduces pro-inflammatory cytokine production in the colon in a rat model of colitis. Tiopronin (80-320 mg/kg per day) reduces the incidence of cleft palate in fetuses born to female mice treated with teratogenic methylmercury chloride. Tiopronin (100 mg/kg) reduces heme oxygenase 1 mRNA expression, lipid peroxidation, and transverse aortic constriction in a mouse model of cardiac

Caution: Product has not been fully validated for medical applications. For research use only.

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hypertrophy. Tiopronin (20 mg/kg) is hepatoprotective, increasing activity of the antioxidant enzymes superoxide dismutase and glutathione peroxidase and reversing hepatocyte degeneration in a rat model of high-fat diet-induced non-alcoholic steatohepatitis.

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