
Product Data Sheet

Product Name: DL-Homocystine

Cat. No.: GC35877

Chemical Properties

Cas. No. 870-93-9

SMILES N[C@H](C(O)=O)CCSSCC[C@H](N)C(O)=O.N[C@@H](C(O)=O)CCSSCC[C@@H](N)C(O)=O

Formula C₈H₁₆N₂O₄S₂

M.Wt 268.35

Solubility Water: 10 mg/mL (37.26 mM; ultrasonic and adjust pH to 11 with NaOH); DMSO: < 1 mg/mL (insoluble or slightly soluble); Water: < 0.1 mg/mL (insoluble) Store Storage 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**

DL-Homocystine is an oxidized dimeric form of homocysteine . It inhibits CDNB-induced L-cystine transport into isolated human erythrocytes by 75% when used at a concentration of 2.5 mM.¹ DL-Homocystine increases the number of circulating endothelial cells and permeability of the pulmonary microcirculation and decreases the number of circulating platelets, as well as activates venostatic thrombosis induced by bowel loop ligation in a rat model of homocystinemia, an inborn error of metabolism characterized by a deficiency in cystathionine β-synthase (CBS) that is associated with thrombosis and atherosclerosis.²

1.Ohtsuka, Y., Kondo, T., and Kawakami, Y.Oxidative stresses induced the cystine transport activity in human erythrocytes *Biochem. Biophys. Res. Commun.*155(1)160-166(1988) 2.Hladovec, J.Experimental homocystinemia, endothelial lesions and thrombosis *Blood Vessels*16(4)202-205(1979)

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

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