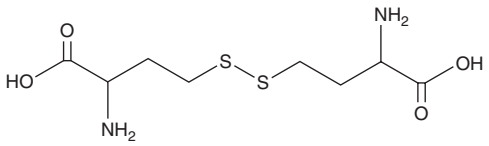
PRODUCT INFORMATION

DL-Homocystine

Item No. 36223

CAS Registry No.: 462-10-2
Formal Name: 4,4′-dithio*bis*[2-amino-butanoic acid]
Synonyms: NSC 11337, NSC 43122
MF: $C_8H_{16}N_2O_4S_2$
FW: 268.4
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

DL-Homocystine is supplied as a solid. A stock solution may be made by dissolving the DL-homocystine in the solvent of choice, which should be purged with an inert gas. DL-Homocystine is soluble in 1N HCl at a concentration of approximately 10 mg/ml.

Description

DL-Homocystine is an oxidized dimeric form of homocysteine (Item No. 30285). It inhibits CDNB-induced L-cystine (Item No. 31727) 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]

References

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).

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