

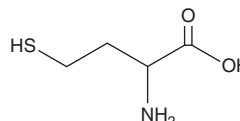
# PRODUCT INFORMATION



## DL-Homocysteine

Item No. 30285

**CAS Registry No.:** 454-29-5  
**Synonym:** NSC 206252  
**MF:** C<sub>4</sub>H<sub>9</sub>NO<sub>2</sub>S  
**FW:** 135.2  
**Purity:** ≥90%  
**Supplied as:** A crystalline 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-Homocysteine is supplied as a crystalline solid. Aqueous solutions of DL-homocysteine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DL-homocysteine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

DL-Homocysteine is a thiol-containing amino acid derived from methionine.<sup>1</sup> It inhibits vasodilation of precontracted isolated guinea pig pulmonary artery rings induced by acetylcholine (ACh) and enhances potassium chloride- and phenylephrine-induced contraction of isolated guinea pig pulmonary artery rings.<sup>2</sup> DL-Homocysteine (200 μM) inhibits endothelium-dependent ACh-induced vasodilation in the vascular bed of isolated perfused rat pancreas.<sup>3</sup> Elevated plasma levels of DL-homocysteine are positively correlated with occlusive arterial diseases and atherosclerosis.<sup>1,2</sup>

### References

1. Pushpakumar, S., Kundu, S., and Sen, U. Endothelial dysfunction: The link between homocysteine and hydrogen sulfide. *Curr. Med. Chem.* **21(32)**, 3662-3672 (2014).
2. Tasatargil, A., Sadan, G., and Karasu, E. Homocysteine-induced changes in vascular reactivity of guinea-pig pulmonary arteries: Role of the oxidative stress and poly (ADP-ribose) polymerase activation. *Pulm. Pharmacol. Ther.* **20(3)**, 265-272 (2007).
3. Quéré, I., Hillaire-Buys, D., Brunschwig, C., *et al.* Effects of homocysteine on acetylcholine- and adenosine-induced vasodilatation of pancreatic vascular bed in rats. *Br. J. Pharmacol.* **122(2)**, 351-357 (1997).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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