

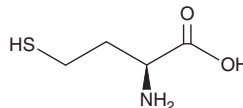
PRODUCT INFORMATION



L-Homocysteine

Item No. 30852

CAS Registry No.: 6027-13-0
Synonyms: NSC 43117, (S)-Homocysteine
MF: $C_4H_9NO_2S$
FW: 135.2
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

L-Homocysteine is supplied as a solid. Aqueous solutions of L-homocysteine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of L-homocysteine in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-Homocysteine is a thiol-containing amino acid and an isomer of DL-homocysteine (Item No. 30285).¹ It is formed *via* demethylation of methionine and acts as a precursor in the biosynthesis of methionine and cysteine.^{1,2} Hyperhomocysteinemia (HHcy), a disorder characterized by elevated L-homocysteine levels due to excessive synthesis or decreased degradation of L-homocysteine, is associated with an increased risk of cardiovascular disease and stroke.¹⁻³

References

1. Chrysant, S.G. and Chrysant, G.S. The current status of homocysteine as a risk factor for cardiovascular disease: a mini review. *Expert Rev. Cardiovasc. Ther.* **16(8)**, 559-565 (2018).
2. Moretti, R. and Caruso, P. The controversial role of homocysteine in neurology: From labs to clinical practice. *Int. J. Mol. Sci.* **20(1)**, 231 (2019).
3. Perla-kaján, J. and Jakubowski, H. Dysregulation of epigenetic mechanisms of gene expression in the pathologies of hyperhomocysteinemia. *Int. J. Mol. Sci.* **20(13)**, 3140 (2019).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/02/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM