# **PRODUCT** INFORMATION



L-(+)-Cystathionine

Item No. 16061

CAS Registry No.:	56-88-2		
Formal Name:	S-[(2R)-2-amino-2-carboxyethyl]-		
	L-homocysteine	0	NHa
MF:	$C_7H_{14}N_2O_4S$	Ŭ o S	ЦÉ ОН
FW:	222.3	но	
Purity:	≥98%	NHa	Ö
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

L-(+)-Cystathionine is supplied as a crystalline solid. A stock solution may be made by dissolving the L-(+)-cystathionine in the solvent of choice, which should be purged with an inert gas. L-(+)-Cystathionine is soluble in the organic solvent 1N HCl at a concentration of approximately 10 mg/ml.

## Description

L-(+)-Cystathionine is a dipeptide formed by serine and homocysteine. Transsulfuration of methionine yields homocysteine, which combines with serine to form this precursor of cysteine.<sup>1,2</sup> L-(+)-Cystathionine is largely expressed in the mammalian brain and deficiency can indicate the presence of metabolic disorders such as cystathioninuria.3

## References

- 1. Steegborn, C., Clausen, T., Sondermann, P., et al. Kinetics and inhibition of recombinant human cystathionine γ-lyase. Toward the rational control of transsulfuration. J. Biol. Chem. 274(18), 12675-12684 (1999).
- 2. Finkelstein, J.D. The metabolism of homocysteine: Pathways and regulation. Eur. J. Pediatr. 157(Suppl 2), S40-S44 (1998).
- 3. Nishi, T., Tanaka, K., Tanaka, Y., et al. Accumulation of L-cystathionine by an Escherichia coli mutant deficient in cystathionine beta-lyase. J. Biosci. Bioeng. 94(2), 178-181 (2002).

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, 10/07/2022

# 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