

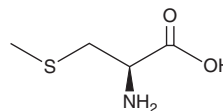
PRODUCT INFORMATION



S-methyl-L-Cysteine

Item No. 33452

CAS Registry No.:	1187-84-4
Synonyms:	S-Methylcysteine, NSC 15387, SMC, SMLC
MF:	C ₄ H ₉ NO ₂ S
FW:	135.2
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

S-methyl-L-Cysteine is supplied as a crystalline solid. A stock solution may be made by dissolving the S-methyl-L-cysteine in water. The solubility of S-methyl-L-cysteine in water is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

S-methyl-L-Cysteine is a derivative of cysteine that has been found in *A. sativum* and has diverse biological activities.¹⁻⁵ It is a substrate for methionine sulfoxide reductase A (MSRA) and decreases locomotor deficits induced by overexpression of human α -synuclein in a reactive climbing assay in a *Drosophila* model of Parkinson's disease.² S-methyl-L-Cysteine prevents exogenous cholesterol-induced increases in total cholesterol levels in serum and liver in rats with dysregulated cholesterol metabolism induced by propylthiouracil (Item No. 14069).³ It decreases plasma glucose, insulin, malondialdehyde (MDA), and TNF- α levels as well as increases glutathione (GSH) levels in rats fed a high-fructose diet when administered at a dose of 100 mg/kg.⁴ S-methyl-L-Cysteine (100 mg/kg, p.o.) reduces the number and area of hepatocellular foci containing the placental form of glutathione S-transferase (GST-P) in a rat model of diethylnitrosamine-induced hepatocarcinogenesis.⁵

References

1. Muoio, R., Casoria, P., and Menale, B. A comparative study of sulphur content of some *Allium* L. species. *Econ. Bot.* **58(2)**, 227-230 (2004).
2. Wassef, R., Haenold, R., Hansel, A., et al. Methionine sulfoxide reductase A and a dietary supplement S-methyl-L-cysteine prevent Parkinson's-like symptoms. *J. Neurosci.* **27(47)**, 12808-12816 (2007).
3. Hasimun, P., Sukandar, E.Y., Adnyana, I.K., et al. Synergistic effect of curcuminoid and S-methyl cysteine in regulation of cholesterol homeostasis. *Int. J. Pharm.* **7(2)**, 268-272 (2011).
4. Thomas, S., Senthilkumar, G.P., Sivaraman, K., et al. Effect of S-methyl-L-cysteine on oxidative stress, inflammation and insulin resistance in male Wistar rats fed with high fructose diet. *Iran. J. Med. Sci.* **40(1)**, 45-50 (2015).
5. Fukushima, S., Takada, N., Wanibuchi, H., et al. Suppression of chemical carcinogenesis by water-soluble organosulfur compounds. *J. Nutr.* **131(3s)**, 1049S-1053S (2001).

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, 02/05/2022

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