

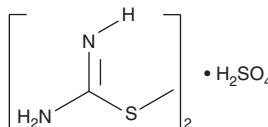
PRODUCT INFORMATION



S-methyl Isothiourea (hemisulfate)

Item No. 81300

CAS Registry No.: 867-44-7
Formal Name: methyl carbamimidothioate, hemisulfate
Synonym: SMIT
MF: $2[C_2H_6N_2S] \cdot H_2SO_4$
FW: 278.4
Purity: $\geq 98\%$
Supplied as: A crystalline 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

S-methyl Isothiourea (SMIT) is supplied as a crystalline solid. SMIT is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of SMIT be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of SMIT in PBS, pH 7.2, is approximately 14 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

SMIT is a potent non-selective inhibitor of NOS isoforms *in vitro* but may lack good *in vivo* efficacy due to poor cellular penetration. The K_i values are 120, 200, and 160 nM using purified human iNOS, eNOS, and nNOS, respectively.¹

Reference

1. Garvey, E.P., Oplinger, J.A., Tanoury, G.J., *et al.* Potent and selective inhibition of human nitric oxide synthases. Inhibition by non-amino acid isothioureas. *J. Biol. Chem.* **269**, 26669-26676 (1994).

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.

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