

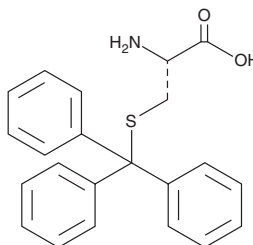
PRODUCT INFORMATION



S-trityl-L-Cysteine

Item No. 23236

CAS Registry No.: 2799-07-7
Formal Name: S-(triphenylmethyl)-L-cysteine
Synonym: NSC 83265
MF: C₂₂H₂₁NO₂S
FW: 363.5
Purity: ≥98%
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

S-trityl-L-Cysteine is supplied as a crystalline solid. A stock solution may be made by dissolving the S-trityl-L-cysteine in the solvent of choice. S-trityl-L-Cysteine is soluble in the organic solvent methanol, which should be purged with an inert gas. The solubility of S-trityl-L-cysteine in methanol is approximately 1 mg/ml. S-trityl-L-Cysteine is also slightly soluble in DMSO.

Description

S-trityl-L-Cysteine is a non-natural amino acid and an inhibitor of Eg5, also known as KSP and Kif11, a mitotic kinesin necessary for mitotic spindle formation.¹ S-trityl-L-Cysteine inhibits the ATPase activity of Eg5 in basal and microtubule-stimulated states (IC₅₀s = 1,000 and 140 nM, respectively).² It is selective for Eg5 over nine other human kinesins in an enzyme-coupled assay.¹ It reversibly inhibits Eg5-driven microtubule sliding velocity with an IC₅₀ value of 500 nM using *X. laevis* recombinant Eg5. It induces cell cycle arrest in HeLa cells (IC₅₀ = 700 nM), reversibly halting the cell cycle in the mitotic phase by inhibiting the separation of duplicated chromosomes and preventing bipolar spindle formation. S-trityl-L-Cysteine inhibits the growth of cancer cells *in vitro* when tested against the National Cancer Institute (NCI) 60 human cancer cell line panel (average GI₅₀ = 1.3 μM) and in mouse xenograft models.¹

References

1. Skoufias, D.A., DeBonis, S., Saoudi, Y., *et al.* S-Trityl-L-cysteine is a reversible, tight binding inhibitor of the human kinesin Eg5 that specifically blocks mitotic progression. *J. Biol. Chem.* **281(26)**, 17559-17569 (2006).
2. DeBonis, S., Skoufias, D.A., Lebeau, L., *et al.* *In vitro* screening for inhibitors of the human mitotic kinesin Eg5 with antimetabolic and antitumor activities. *Mol. Cancer Ther.* **3(9)**, 1079-1090 (2004).

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, 12/22/2022

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