

Certificate of Analysis

Product Name: S-Trityl-L-cysteine

Catalog No.: 2191

Batch No.: 1

CAS Number: 2799-07-7

IUPAC Name: S-(Triphenylmethyl)-L-cysteine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{21}NO_2S \cdot \frac{1}{4}H_2O$

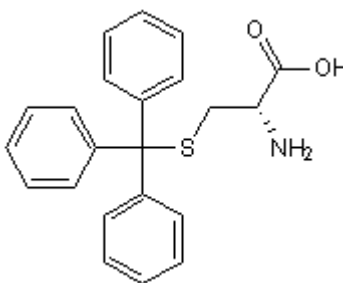
Batch Molecular Weight: 367.97

Physical Appearance: White solid

Solubility: DMSO to 50 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: $R_f = 0.74$ (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])

¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	71.81	5.89	3.81
Found	72.19	5.99	3.62

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Description:

Potent, cell-permeable, selective inhibitor of mitotic kinesin Eg5, a protein required for establishing and maintaining a bipolar spindle. Inhibits basal ATPase activity ($IC_{50} = 1 \text{ mM}$) and microtubule-activated ATPase activity of Eg5 ($IC_{50} = 140 \text{ nM}$). Induces mitotic arrest in HeLa cells with an IC_{50} of 700 nM. Displays antitumor activity.

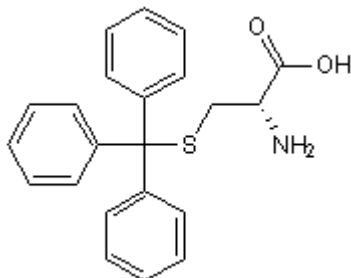
Physical and Chemical Properties:

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Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

DeBonis et al (2004) *In vitro* screening for inhibitors of the human mitotic kinesin Eg5 with antimitotic and antitumour activities. *Mol.Cancer Ther.* **3** 1079. PMID: 15367702.

Brier et al (2004) Identification of the protein binding region of S-trityl-L-cysteine, a new potent inhibitor of mitotic kinesin Eg5. *Biochemistry* **43** 13072. PMID: 15476401.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956