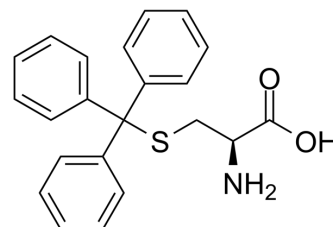


S-Trityl-L-cysteine

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-W011102 | | |
| CAS No.: | 2799-07-7 | | |
| Molecular Formula: | C ₂₂ H ₂₁ NO ₂ S | | |
| Molecular Weight: | 363.47 | | |
| Target: | Kinesin; Apoptosis | | |
| Pathway: | Cell Cycle/DNA Damage; Cytoskeleton; Apoptosis | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

| | | | | |
|---|--|--------------------------|------------|------------|
| In Vitro | DMSO : 25 mg/mL (68.78 mM; Need ultrasonic) | | | |
| | | Solvent Concentration | Mass | |
| | | | 1 mg | 5 mg |
| | | | 10 mg | |
| Preparing Stock Solutions | 1 mM | 2.7513 mL | 13.7563 mL | 27.5126 mL |
| | 5 mM | 0.5503 mL | 2.7513 mL | 5.5025 mL |
| | 10 mM | 0.2751 mL | 1.3756 mL | 2.7513 mL |
| Please refer to the solubility information to select the appropriate solvent. | | | | |
| In Vivo | <ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1 mg/mL (2.75 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (2.75 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (2.75 mM); Clear solution | | | |

BIOLOGICAL ACTIVITY

| | |
|-------------------------------------|---|
| Description | S-Trityl-L-cysteine (NSC 83265) is a selective and allosteric kinesin Eg5 inhibitor with an IC ₅₀ of 1 μM for the inhibition of basal ATPase activity and 140 nM for the microtubule-activated ATPase activity. S-Trityl-L-cysteine has antitumor activities [1][2]. |
| IC₅₀ & Target | Eg5 |
| In Vitro | S-Trityl-L-cysteine binds to a unique pocket in the Eg5 motor domain formed by secondary structural elements (helix |

a2/loop L5/helix a3)^[1].

S-Trityl-L-cysteine (1-20 μ M; for 72 h) could mediate cell apoptosis, as well as cell cycle arrest, in a dose-dependent manner.

S-Trityl-L-cysteine-mediated apoptosis and cell cycle arrest were triggered by activation of the mitogen-activated protein kinase and nuclear factor kB signaling pathways^[1].

S-Trityl-L-cysteine induces mitotic arrest in HeLa cells (IC50 of 700 nM) with characteristic monoastral spindles^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wei Wu, et al. S-trityl-L-cysteine, a novel Eg5 inhibitor, is a potent chemotherapeutic strategy in neuroblastoma. *Oncol Lett.* 2018 Jul;16(1):1023-1030.

[2]. Salvatore DeBonis, et al. In vitro screening for inhibitors of the human mitotic kinesin Eg5 with antimitotic and antitumor activities. *Mol Cancer Ther.* 2004 Sep;3(9):1079-90.

Caution: Product has not been fully validated for medical applications. For research use only.

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