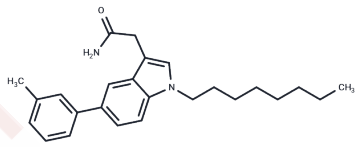
# Data Sheet (Cat.No.T36082)

TargetMol

## Cysmethynil

### Chemical Properties



CAS No. : 851636-83-4

Formula: C25H32N2O

Molecular Weight: 376.53

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Cysmethynil is an indole-based time-dependent inhibitor of Icmt with antitumour activity and inhibitory effects on RAS membrane-binding and EGF signalling.Cysmethynil induces cell cycle arrest in G1 phase and induces cellular autophagy, and can be used for the study of solid tumours. |
| Targets(IC50) | Autophagy,Transferase,Ras |
| In vitro | Mouse embryonic fibroblasts grown in medium containing 8% serum were treated with concentrations of 15, 20, or 30 μM of Cysmethynil. The medium and drug were changed daily, and cell growth was monitored for 6 days,The results showed that treatment with Cysmethynil led to dose-dependent inhibition of growth in wild-type cells, while Icmt-/- cells were largely unaffected[1]. |
| In vivo | Cysmethynil(20 mg/kg; intraperitoneal injection; three times per week; 2 weeks) used alone or in combination with Paclitaxel/Doxorubicin) significantly inhibits tumor growth. In a xenograft mouse model, Cysmethynil sensitizes cervical cancer cells to chemotherapy drugs[3]. |

### Solubility Information

| | |
|---|---|
| Solubility | DMF: 3.3 mg/mL (8.76 mM),Sonication is recommended.<br>DMSO: 2 mg/mL (5.31 mM),Sonication is recommended.<br>Ethanol: 20 mg/mL (53.12 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.6558 mL | 13.2792 mL | 26.5583 mL |
| 5 mM | 0.5312 mL | 2.6558 mL | 5.3117 mL |
| 10 mM | 0.2656 mL | 1.3279 mL | 2.6558 mL |
| 50 mM | 0.0531 mL | 0.2656 mL | 0.5312 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Winter-Vann AM, et al. A small-molecule inhibitor of isoprenylcysteine carboxyl methyltransferase with antitumor activity in cancer cells. Proc Natl Acad Sci U S A. 2005 Mar 22;102(12):4336-41.
Wang M, et al. A small molecule inhibitor of isoprenylcysteine carboxymethyltransferase induces autophagic cell death in PC3 prostate cancer cells. J Biol Chem. 2008 Jul 4;283(27):18678-84.
Pan Q, et al. Inhibition of isoprenylcysteine carboxylmethyltransferase sensitizes common chemotherapies in cervical cancer via Ras-dependent pathway. Biomed Pharmacother. 2018 Mar;99:169-175.
Zhu C, et al. Targeting KRAS mutant cancers: from druggable therapy to drug resistance. Mol Cancer. 2022 Aug 4; 21(1):159.