

Product Data Sheet

Product Name: Cysmethynil

Cat. No.: GC43354

Chemical Properties

Cas. No. 851636-83-4

SMILES CCCCCCCCN1C2=CC=C(C3=CC(C)=CC=C3)C=C2C(CC(N)=O)=C1

Formula C₂₅H₃₂N₂O M.Wt 376.5

Solubility DMF: 3.3 mg/ml, DMSO: 5 mg/ml, Ethanol: 20 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Post-translational protein prenylation is a 3-step process that occurs at the C-terminus of a number of proteins involved in cell growth control and oncogenesis. Isoprenylcysteine carboxyl methyltransferase (Icmt) catalyzes the methylation of C-terminal prenylcysteine residues, the last step in this process. Cysmethynil is an indole-based, time-dependent inhibitor of Icmt (IC₅₀ = adenosylmethionine (K_i = 0.14 μM for the final complex). It does not inhibit other enzymes in the prenylation pathway (farnesyltransferase, geranylgeranyltransferase type I, and Rce1) at

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

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concentrations up to 50 μM , or related methyltransferases. Treatment of cancer cells results in a dose-dependent decrease in Ras carboxymethylation, mislocalization of Ras, and impaired signaling through Ras pathways. Treatment of PC3 prostate cancer cells with 25 μM cysmethynil resulted in decreased mTOR signaling, accumulation of cells in the G1 phase, and autophagy-mediated cell death.

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