

Product Data Sheet

Product Name: thio-Miltefosine

Cat. No.: GC45042

Chemical Properties

Cas. No. 943022-11-5

SMILES CCCCCCCCCCCCCCCCSP(=O)(O)OCC[N](C)(C)C

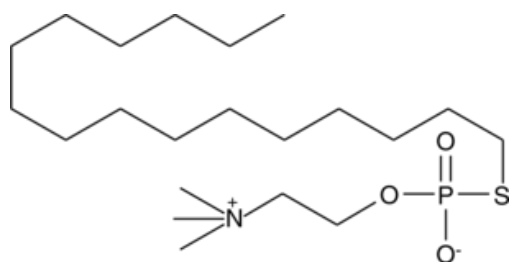
Formula C₂₁H₄₆NO₃PS M.Wt 423.6

Solubility DMF: .05 mg/ml, DMSO: .5 mg/ml, Ethanol: 1 mg/ml, PBS (pH 7.2): 1 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

thio-Miltefosine is a sulfur-containing derivative of miltefosine. Miltefosine is an inhibitor of phosphocholine cytidylyl transferase (CTP) and has antimetastatic properties. At concentrations of 3 and 25 µM, miltefosine inhibits proliferation of HaCaT cells (immortalized human keratinocyte cell line) by 50% and 94%, respectively. The mechanism of action of miltefosine is not well established, but the antiproliferative effect may be mediated by an increase in cellular ceramide which results in apoptosis. Treatment of cells with 25 µM miltefosine results in a 53% increase in ceramide concentration relative to control. Miltefosine is more than 90% effective in eradicating visceral infections of Leishmania species (kala azar), although the mechanism of this antiprotozoal activity is also poorly understood. The pharmacology of thio-miltefosine has not been published.

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

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