

Product Data Sheet

Product Name: Stavudine (d4T)

Cat. No.: GC12830

Chemical Properties

Cas. No. 3056-17-5

Chemical Name 1-[(2R,5S)-5-(hydroxymethyl)-2,5-dihydrofuran-2-yl]-5-methylpyrimidine-2,4-dione

SMILES CC1=CN(C(=O)NC1=O)C2C=CC(O2)CO

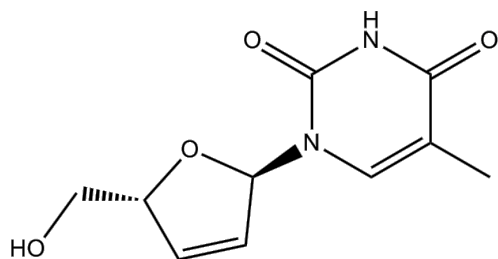
Formula C10H12N2O4 M.Wt 224.21

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, Ethanol: 10 mg/ml, PBS (pH 7.2): 10 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

SB-271046 is a potent, selective and orally active antagonist of 5-HT₆ receptor (pK_i = 8.9 in HeLa cell in vitro)

5-HT receptor is a G-protein coupled receptor for 5-hydroxytryptamine (serotonin) that found in nerve systems. It also functions as receptor for various alkaloids and psychoactive substances.

In native brain tissue, SB-271046 exhibits high affinity for human recombinant 5-HT₆ receptors and 5-HT₆ receptors. SB-271046 has a 200 fold greater selectivity over all other 5-HT receptors subtypes

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

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tested. [1]

In rat MEST (maximal electroshock seizure threshold) test, SB-271046 increases the seizure threshold over a wide range of dose with a minimum effective dose of 40.1 mg kg⁻¹ p.o. and maximum effect at 4 h post-dose. [1] In rat Morris water maze that measuring behavior acquisition and retention, galanthamine and SB-271046 combined treatment reverses the scopolamine- or MK-801-induced learning impairments. [2]

References:

1. Routledge C, Bromidge SM, Moss SF et al. Characterization of SB-271046: a potent, selective and orally active 5-HT (6) receptor antagonist. Br J Pharmacol. 2000 Aug; 130(7):1606-12.
2. Marcos B, Chuang TT, Gil-Bea FJ, Ramirez MJ. Effects of 5-HT₆ receptor antagonism and cholinesterase inhibition in models of cognitive impairment in the rat. Br J Pharmacol. 2008 Oct;155(3):434-40.

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