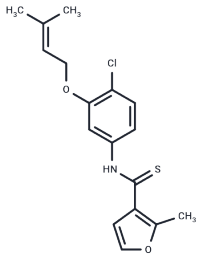
Data Sheet (Cat.No.T29037)

TargetMol

UC-781

Chemical Properties



CAS No. : 178870-32-1

Formula: C17H18ClNO2S

Molecular Weight: 335.85

Storage: 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	UC-781 (NSC-675186) is a potent and selective inhibitor of human immunodeficiency virus HIV-1 non-nucleoside reverse transcriptase (NNRTI) I with a C50 value of 5 nM.UC-781 exhibits both antiviral activity and drug resistance.UC-781 is in a stable state, and is unaffected by lower pH or varying temperatures.
Targets(IC50)	Antiviral,HIV Protease
In vitro	UC-781 (0.05, 0.2, and 0.5 % UC-781 supplemented gel; 10 days) is released from the gel formulation and clears HIV-1 from CEM cells [1]. UC-781 (3.75 -30 μM) inhibits the growth of Bacillus cereus (approximately 50%).[1] UC-781 inhibits HIV-1 (IIIB) activity in CEM T cells (EC50=6 nM; IC50=23 nM). UC-781 inhibits HIV activity in monocyte-derived dendritic cells (MO-DCs) and autologous CD4+ T cells with EC50 values of 550 nM and 1588 nM, respectively.[2] UC-781 (1000 nM; 24 h) effectively prevents or blocks HIV infection of monocyte-derived dendritic cells and autologous CD4+ T cells.[2] UC-781 (0.001-1000 μM; 2 h) inhibits viral transfer and infection of cervical explants with HIV-1BaL.[4]
In vivo	UC-781 (100 μl 5% UC-781 supplemented gel; intravaginally; once daily for 10 days; Female rabbit) is released from the gel formulation, exhibiting low toxicity to normal tissues in female rabbits with no significant increase in inflammatory cells.[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9775 mL	14.8876 mL	29.7752 mL
5 mM	0.5955 mL	2.9775 mL	5.955 mL
10 mM	0.2978 mL	1.4888 mL	2.9775 mL
50 mM	0.0596 mL	0.2978 mL	0.5955 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

Balzarini J, et al. Preclinical studies on thiocarboxanilide UC-781 as a virucidal agent. AIDS. 1998;12(10):1129-1138.

Van Herrewege Y, et al. In vitro evaluation of nonnucleoside reverse transcriptase inhibitors UC-781 and TMC120-R147681 as human immunodeficiency virus microbicides. Antimicrob Agents Chemother. 2004;48(1):337-339.

Balzarini J, et al. Highly favorable antiviral activity and resistance profile of the novel thiocarboxanilide pentenyloxy ether derivatives UC-781 and UC-82 as inhibitors of human immunodeficiency virus type 1 replication. Mol Pharmacol. 1996;50(2):394-401.

Fletcher P, et al. The nonnucleoside reverse transcriptase inhibitor UC-781 inhibits human immunodeficiency virus type 1 infection of human cervical tissue and dissemination by migratory cells. J Virol. 2005;79(17):11179-11186.