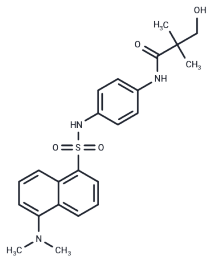
Data Sheet (Cat.No.TQ0030)

TargetMol

Tomeglovir

Chemical Properties



CAS No. : 233254-24-5

Formula: C23H27N3O4S

Molecular Weight: 441.54

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	Tomeglovir is a potent anti-CMV agent, inhibiting the processing of viral DNA-concatemers (IC50s: 0.34/0.039 μM for HCMV and MCMV).
Targets(IC50)	HCV Protease,Virus Protease
In vitro	Tomeglovir suppresses HELF and NIH 3T3 cells (CC50s: 85 μM/62.5 μM) [1]. Tomeglovir inhibits HCMV Davis and various monkey CMV strains with EC50s of 1.03 μM and < 1 μM [2].
In vivo	Tomeglovir (3, 10, 30, 100 mg/kg, p.o.) dose-dependently reduces MCMV-DNA in livers, salivary glands and kidneys of MCMV-infected NOD-SCID mice, and prolongs the survival of the mice. Tomeglovir (10, 25 and 50 mg/kg) shows antiviral activity in the hollow fiber mouse model [1]. Tomeglovir shows antiviral activity in SCID mice with MCMV, and the LD50 is >2000 mg/kg in mice and rats [2].
Cell Research	In order to evaluate drug toxicity, 96-well microtitre plates are prepared with 100 μL of EMEM/10 per well. After addition of 2 μL of 50 mM Tomeglovir stock solutions in duplicate into 198 μL in row 2, serial two-fold dilutions are made with 100 μL up to row 12 and 100 μL of a HELF, NHDF or 3T3 cell suspension (5 × 10^3 cells/mL) are added per well. Row 1 serves as an untreated cell control. After incubation for 6 days at 37°C and 5% CO2, the cells are washed once with phosphate-buffered saline (PBS), and 200 μL of a 10 μg/mL fluorescent dye solution in PBS, pH 7.2 (fluorescein diacetate) are dispensed per well. After 45 min, the fluorescence signal is measured with a Fluorskan Ascent fluorimeter (excitation filter 485 ± 11 nm, emission filter 530 ± 15 nm). The relative fluorescence units (RFUs) of treated cells are expressed as percentages of untreated cell controls and CC50 values are determined graphically [2].
Animal Research	NOD/LtSz-scid/j mice, 20-30 g body weight, are anesthetized with 0.015-0.017 mL/g body weight Avertin 2.5% (Avertin 100% consists of 10 g tribromoethyl alcohol in 10 mL tertiary amyl alcohol). After shaving and cleaning the belly aseptically, the abdomens are opened and the fibers inserted intra-abdominally. The abdomens are closed with two suture layers. Only asymptomatic animals are included in the study. Starting 1 day after transplantation, the mice are treated with the Tomeglovir at indicated dosages twice daily for four consecutive days per os. In preliminary experiments, viral peak titers are observed on day 5 under these conditions [1].

Solubility Information

Solubility	DMSO: 105 mg/mL (237.8 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2648 mL	11.324 mL	22.648 mL
5 mM	0.453 mL	2.2648 mL	4.5296 mL
10 mM	0.2265 mL	1.1324 mL	2.2648 mL
50 mM	0.0453 mL	0.2265 mL	0.453 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

Weber O, et al. Inhibition of murine cytomegalovirus and human cytomegalovirus by a novel non-nucleosidic compound in vivo. Antiviral Res. 2001 Mar;49(3):179-89.
Reefschlaeger J, et al. Novel non-nucleoside inhibitors of cytomegaloviruses (BAY 38-4766): in vitro and in vivo antiviral activity and mechanism of action. J Antimicrob Chemother. 2001 Dec;48(6):757-67.