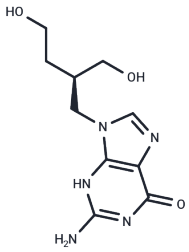
Data Sheet (Cat.No.T28234)

TargetMol

Omaciclovir

Chemical Properties



CAS No. : 124265-89-0

Formula: C10H15N5O3

Molecular Weight: 253.26

Storage: Store at low temperature
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	Omaciclovir (ABT-091) is a selective herpesvirus herpesvirus replication inhibitor and a nucleoside analog with antiviral activity for the study of herpesvirus infections.
Targets(IC50)	HSV
In vitro	Omaciclovir is a nucleoside analog with inhibitory activity in vitro against varicella-zoster virus (VZV), herpes simplex virus types 1 and 2 (HSV-1 and HSV-2), Epstein-Barr virus, and human herpesvirus 6. Additionally, Omaciclovir demonstrates significant antiviral activity against various human herpesviruses, with half-maximal effective concentrations (EC50) of EC50=0.72μM, EC50=0.62μM, EC50=0.015μM, EC50=0.048μM, EC50=0.047μM, EC50=0.035μM, and EC50=0.016μM in MRC-5 VZV-32, MRC-5 Molly, MeWo VZV-32, MeWo Molly, MeWo Emily, MeWo VZ11, and MeWo VZ30, respectively. [1]
In vivo	Omaciclovir has also shown efficacy in monkeys infected with simian varicella virus. [1]

Solubility Information

Solubility	DMSO: 200 mg/mL (789.7 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (19.74 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9485 mL	19.7426 mL	39.4851 mL
5 mM	0.7897 mL	3.9485 mL	7.897 mL
10 mM	0.3949 mL	1.9743 mL	3.9485 mL
50 mM	0.079 mL	0.3949 mL	0.7897 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

Ng TI, et al. Selection and characterization of varicella-zoster virus variants resistant to (R)-9-[4-hydroxy-2-(hydroxymethy)butyl]guanine. Antimicrob Agents Chemother. 2001 Jun;45(6):1629-36.

Yao K, Hoest C, Rashti F, Schott TC, Jacobson S. Effect of (r)-9-[4-hydroxy-2-(hydroxymethyl)butyl]guanine (H2G) and AZT-lipid-PFA on human herpesvirus-6B infected cells. J Clin Virol. 2009 Sep;46(1):10-4. doi: 10.1016/j.jcv.2009.05.014. PubMed PMID: 19524486.

Neyts J, Andrei G, De Clercq E. The antiherpesvirus activity of H2G [(R)-9-[4-hydroxy-2-(hydroxymethyl)butyl] guanine] is markedly enhanced by the novel immunosuppressive agent mycophenolate mofetil. Antimicrob Agents Chemother. 1998 Dec;42(12):3285-9. PubMed PMID: 9835529; PubMed Central PMCID: PMC106037.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481