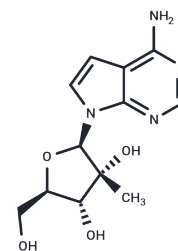


MK-0608

Chemical Properties

CAS No. : 443642-29-3
 Formula: C₁₂H₁₆N₄O₄
 Molecular Weight: 280.28
 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	MK-0608 is an orally bioavailable HCV replication inhibitor in vitro (EC ₅₀ = 0.3 μM and EC ₉₀ = 1.3 μM in the subgenomic-replicon assay).
Targets (IC ₅₀)	HCV Protease
In vivo	MK-0608 inhibits viral RNA replication in the subgenomic HCV genotype 1b replicon, with a 50% effective concentration (EC ₅₀) of 0.3 μM (EC ₉₀ = 1.3 μM). A robust antiviral effect on the administration of MK-0608 to HCV-infected chimpanzees.
Animal Research	MK-0608 was administered to HCV-infected chimpanzees, resulting in dose- and time-dependent decreases in plasma viral loads. In separate experiments, chimpanzees dosed for 7 days with MK-0608 at 0.2 and 2 mg per kg of body weight per day by intravenous administration experienced average reductions in viral load of 1.0 and >5 log ₁₀ IU/ml, respectively. Two other HCV-infected chimpanzees received daily doses of 1 mg MK-0608 per kg via oral administration. After 37 days of oral dosing, one chimpanzee with a high starting viral load experienced a reduction in viral load of 4.6 log ₁₀ , and the viral load in the other chimpanzee fell below the limit of quantification (LOQ) of the HCV TaqMan assay (20 IU/ml). Importantly, viral load remained below the LOQ throughout the duration of dosing and for at least 12 days after dosing ended.

Solubility Information

Solubility	DMSO: 27.5 mg/mL (98.12 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: 2 mg/mL (7.14 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5679 mL	17.8393 mL	35.6786 mL
5 mM	0.7136 mL	3.5679 mL	7.1357 mL
10 mM	0.3568 mL	1.7839 mL	3.5679 mL
50 mM	0.0714 mL	0.3568 mL	0.7136 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

Carroll SS, et al. Robust antiviral efficacy upon administration of a nucleoside analog to hepatitis C virus-infected chimpanzees. *Antimicrob Agents Chemother.* 2009 Mar;53(3):926-34.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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