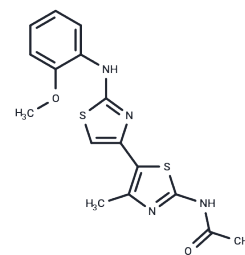


JNJ0966

Chemical Properties

CAS No. : 315705-75-0
 Formula: C₁₆H₁₆N₄O₂S₂
 Molecular Weight: 360.45
 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	JNJ0966 is a highly selective [MMP-9 zymogen] inhibitor with an IC ₅₀ of 440 nM.
Targets(IC ₅₀)	MMP
In vitro	The activations of proMMP-1, proMMP-2, and proMMP-3 are not significantly different in the presence or absence of 10 μM JNJ0966, whereas proMMP-9 activation by trypsin is significantly attenuated by JNJ0966. The addition of JNJ0966 to the reaction results in a significant reduction in fully processed MMP-9 and an apparent accumulation of the intermediate species[1].
In vivo	JNJ0966 demonstrated effectiveness in alleviating the severity of disease in a mouse model of experimental autoimmune encephalomyelitis. Its effectiveness is dose-dependent, showing plasma and brain concentrations of 77.5±31.1 ng/mL (215 nM) and 481.6±162.5 ng/g (~1336 nM) at a 10-mg/kg dose, and 293.6±118.4 ng/mL (815 nM) in plasma and 1394.0±649.1 ng/g (~3867 nM) in the brain at a 30-mg/kg dose, respectively. Moreover, JNJ0966 exhibits a preference for accumulation in the brain, evidenced by brain/plasma ratios of 6.2 at the 10 mg/kg dose and 4.7 at the 30 mg/kg dose.

Solubility Information

Solubility	DMSO: 150 mg/mL (416.15 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (9.16 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	2.7743 mL	13.8715 mL	27.7431 mL
5 mM	0.5549 mL	2.7743 mL	5.5486 mL
10 mM	0.2774 mL	1.3872 mL	2.7743 mL
50 mM	0.0555 mL	0.2774 mL	0.5549 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

Scannevin RH, et al. Discovery of a highly selective chemical inhibitor of matrix metalloproteinase-9 (MMP-9) that allosterically inhibits zymogen activation. *J Biol Chem.* 2017 Oct 27;292(43):17963-17974.

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