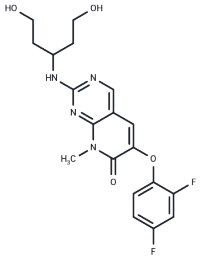
Data Sheet (Cat.No.T6927)

TargetMol

Pamapimod

Chemical Properties



CAS No. : 449811-01-2

Formula: C19H20F2N4O4

Molecular Weight: 406.38

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	Pamapimod (R1503) (R-1503, Ro4402257) is a novel, selective inhibitor of p38 mitogen-activated protein kinase. It inhibits p38α and p38β enzymatic activity with IC50 values of 0.014±0.002 and 0.48± 0.04 microM, respectively with no activity against p38delta or p38 gamma isoforms.
Targets(IC50)	Autophagy,p38 MAPK
In vitro	Pamapimod inhibited p38, but inhibition of JNK was not detected. Pamapimod also inhibited lipopolysaccharide (LPS)-stimulated tumor necrosis factor (TNF) α production by monocytes, interleukin (IL)-1β production in human whole blood, and spontaneous TNFα production by synovial explants from RA patients[1].
In vivo	In murine collagen-induced arthritis, pamapimod reduced Clinicalal signs of inflammation and bone loss at 50 mg/kg or greater. In a rat model of hyperalgesia, pamapimod increased tolerance to pressure in a dose-dependent manner, suggesting an important role of p38 in pain associated with inflammation. Pamapimod suppresses spontaneous production of TNFα by synovial explants from RA patients. LPS- and TNFα-stimulated production of TNFα and IL-6 in rodents also was inhibited by pamapimod[1].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 27 mg/mL (66.44 mM),Sonication is recommended. DMSO: 150 mg/mL (369.11 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (24.61 mM),Solution. *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	2.4608 mL	12.3038 mL	24.6075 mL
5 mM	0.4922 mL	2.4608 mL	4.9215 mL
10 mM	0.2461 mL	1.2304 mL	2.4608 mL
50 mM	0.0492 mL	0.2461 mL	0.4922 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

Hill RJ, et al. J Pharmacol Exp Ther. 2008, 327(3):610-9.