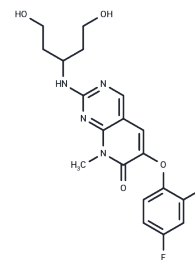


## Pamapimod

## Chemical Properties

CAS No. :	449811-01-2
Formula:	C <sub>19</sub> H <sub>20</sub> F <sub>2</sub> N <sub>4</sub> O <sub>4</sub>
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 p38 $\alpha$ and p38 $\beta$ enzymatic activity with IC <sub>50</sub> values of 0.014 $\pm$ 0.002 and 0.48 $\pm$ 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) $\alpha$ production by monocytes, interleukin (IL)-1 $\beta$ production in human whole blood, and spontaneous TNF $\alpha$ 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 TNF $\alpha$ by synovial explants from RA patients. LPS- and TNF $\alpha$ -stimulated production of TNF $\alpha$ and IL-6 in rodents also was inhibited by pamapimod[1].

## Solubility Information

Solubility	H <sub>2</sub> O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 27 mg/mL (66.44 mM),Sonication is recommended. DMSO: 45 mg/mL (110.73 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	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

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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.

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