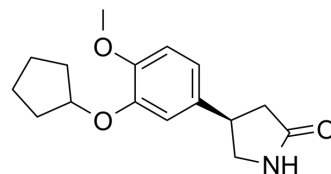


## (R)-(-)-Rolipram

<b>Cat. No.:</b>	HY-16900A		
<b>CAS No.:</b>	85416-75-7		
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>21</sub> NO <sub>3</sub>		
<b>Molecular Weight:</b>	275.34		
<b>Target:</b>	Phosphodiesterase (PDE)		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (363.19 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.6319 mL	18.1594 mL	36.3187 mL
	5 mM	0.7264 mL	3.6319 mL	7.2637 mL
	10 mM	0.3632 mL	1.8159 mL	3.6319 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (9.08 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (9.08 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (9.08 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

(R)-(-)-Rolipram is the R-enantiomer of Rolipram. Rolipram is a selective inhibitor of phosphodiesterases PDE4 with IC<sub>50</sub> of 3 nM, 130 nM and 240 nM for PDE4A, PDE4B, and PDE4D, respectively.

#### In Vitro

The increase of cAMP synthesis with the adenylate cyclase activator forskolin or the decrease of cAMP hydrolysis by the phosphodiesterase inhibitors Isobutylmethylxanthine (IBMX) and (R)-(-)-Rolipram (MedChem Express) suppresses caspase-1 cleavage and IL-1β secretion in a dose-dependent manner<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Immunity. 2016 Oct 18;45(4):944.
- Patent. US20180263995A1.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Guo C, et al. Bile Acids Control Inflammation and Metabolic Disorder through Inhibition of NLRP3 Inflammasome. Immunity. 2016 Oct 18;45(4):944.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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