

RBN012759

## Chemical Properties

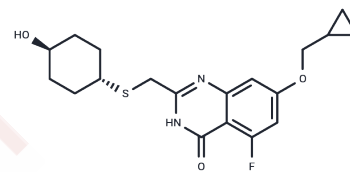
CAS No. : 2360851-29-0

Formula: C19H23FN2O3S

Molecular Weight: 378.46

Storage: Store at low temperature, Keep away from moisture  
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	RBN012759 inhibits PARP14 protein with an IC50 value of 0.003 $\mu$ M and is more than 300-fold selective over all PARP family members.[2]
Targets(IC50)	PARP
In vitro	<p><b>METHODS:</b> B cells were treated with RBN012759 (1 or 0.33 <math>\mu</math>M ) and added once daily. Cultures were harvested and counted on day 5 and the supernatant was collected for ELISA.</p> <p><b>RESULTS</b> RBN012759 induced a decrease in IgE. [1]</p> <p><b>METHODS:</b> RBN012759 (0.001-10 <math>\mu</math>M) was tested in IFN-<math>\gamma</math> stimulated human primary macrophages and RAW264.7 cells to observe the effect of RBN012759 on the expression of PARP14 protein in vitro.</p> <p><b>RESULTS</b> The EC50 value (half-maximal effect concentration) observed in RAW264.7 cells was 10 <math>\mu</math>M, and in human macrophages it was 8 <math>\mu</math>M, indicating that RBN012759 showed effective inhibition of the target PARP14 within these concentration ranges. [2]</p>
In vivo	<p><b>METHODS:</b> RBN012759 (500 mg/kg,i.g) twice daily. Investigators collected plasma samples 2 hours after the last dose (i.e., after the penultimate dose) and on the last day to determine plasma levels of RBN012759 using liquid chromatography-mass spectrometry.</p> <p><b>RESULTS</b> RBN012759 was effective in reducing allergen-induced IgE (immunoglobulin E) overproduction and mucus overproduction. treatment with RBN012759 resulted in a decrease in overall mucus scores in lung tissue, while the number of inflammatory cells recovered from bronchoalveolar lavage fluid (BALF) and the proportion of eosinophils recovered were significantly reduced in the bronchial-alveolar lavage fluid (BALF) of RBN012759-treated mice. were significantly reduced. [1]</p> <p><b>METHODS:</b> RBN012759 was tested in a C57BL/6 mouse model by oral administration (BID) at doses of 300 mg/kg and 500 mg/kg for 7 days.</p> <p><b>RESULTS</b> The 500 mg/kg group showed an increase in PARP14 protein levels, while the 300 mg/kg group did not, indicating that RBN012759 can effectively and specifically target PARP14 in vivo at higher doses. [2]</p>

## Solubility Information

## A DRUG SCREENING EXPERT

Solubility	DMSO: 150 mg/mL (396.34 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6423 mL	13.2114 mL	26.4229 mL
5 mM	0.5285 mL	2.6423 mL	5.2846 mL
10 mM	0.2642 mL	1.3211 mL	2.6423 mL
50 mM	0.0528 mL	0.2642 mL	0.5285 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

- Eddie AM, et al. Selective Pharmaceutical Inhibition of PARP14 Mitigates Allergen-Induced IgE and Mucus Overproduction in a Mouse Model of Pulmonary Allergic Response. *Immunohorizons*. 2022 Jul 11;6(7):432-446.
- Schenkel LB, et al. A potent and selective PARP14 inhibitor decreases protumor macrophage gene expression and elicits inflammatory responses in tumor explants. *Cell Chem Biol*. 2021 Aug 19;28(8):1158-1168.

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