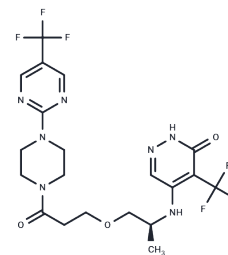


RBN-2397

## Chemical Properties

CAS No. : 2381037-82-5  
 Formula: C<sub>20</sub>H<sub>23</sub>F<sub>6</sub>N<sub>7</sub>O<sub>3</sub>  
 Molecular Weight: 523.43  
 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	RBN-2397 is a potent, selective and orally active across species NAD <sup>+</sup> competitive PARP7 inhibitor with IC <sub>50</sub> less than 3 nM.
Targets(IC <sub>50</sub> )	PARP
In vitro	Inhibition of PARP7 with RBN-2397 can potently inhibit the growth of cancer cells and restore interferon signaling, effectively releasing the brake cancer uses to hide from the immune system and suppress both innate and adaptive immune mechanisms. RBN-2397 inhibits cells proliferation (IC <sub>50</sub> value of 20 nM in NCI-H1373 lung cancer cells), shows a restoration of type I IFN response by an increase in STAT1 phosphorylation as a dose-dependent manner in NCI-H1373 human lung cancer cells, and inhibits cell MARYlation in a cell biochemical assay with an EC <sub>50</sub> value of 1 nM[2].
In vivo	RBN-2397 oral administration induces tumor-specific adaptive immune memory in CT26 syngeneic model with durable complete responses in CT26 tumor-bearing BALB/c mice. RBN-2397 oral administration causes complete regressions at the dose 100 mg/kg and exerts a dose-dependent effects on tumor growth at dose levels of ≥30 mg/kg. The half-life (t <sub>1/2</sub> ) of RBN-2397 in vivo is 325 mins[2].

## Solubility Information

Solubility	DMSO: 250 mg/mL (477.62 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (9.55 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

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	1mg	5mg	10mg
1 mM	1.9105 mL	9.5524 mL	19.1048 mL
5 mM	0.3821 mL	1.9105 mL	3.821 mL
10 mM	0.191 mL	0.9552 mL	1.9105 mL
50 mM	0.0382 mL	0.191 mL	0.3821 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

Melissa Vasbinder, et al. RBN-2397: A First-in-Class PARP7 Inhibitor Targeting a Newly Discovered Cancer Vulnerability in Stress-Signaling Pathways.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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