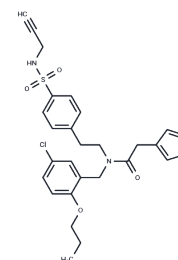


YQ128

## Chemical Properties

CAS No. : 2454246-18-3  
 Formula: C<sub>27</sub>H<sub>29</sub>ClN<sub>2</sub>O<sub>4</sub>S<sub>2</sub>  
 Molecular Weight: 545.11  
 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	YQ128 is a potent and selective second-generation NLRP3 (NOD-like receptor P3) inflammasome inhibitor with an IC <sub>50</sub> of 0.30 μM and exhibits significant anti-inflammatory activity.
Targets(IC <sub>50</sub> )	NOD-like Receptor (NLR),NOD,IL Receptor,Interleukin
In vitro	The release of IL-1β from peritoneal macrophages upon LPS/ATP challenge(IC <sub>50</sub> of 1.59 μM) dose dependently suppressed by YQ128 (0.3-100 μM; 30 mins).
In vivo	YQ128 (oral; 20 mg/kg) shows delayed gastrointestinal absorption with a t <sub>max</sub> and c <sub>max</sub> of 12 h and 73 ng/mL, respectively. YQ128 exhibits extensive extravascular distribution with a large steady-state volume of distribution (V <sub>dss</sub> ) of 8.5 L/kg and rapid total clearance (CL <sub>tot</sub> ) of 41 mL/min/kg. In C57BL/6 mice, YQ128 (10 mg/kg) has been shown to trigger IL-1β production in a NLRP3- dependent manner .

## Solubility Information

Solubility	DMSO: 248 mg/mL (454.95 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 (9.17 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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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.8345 mL	9.1725 mL	18.3449 mL
5 mM	0.3669 mL	1.8345 mL	3.669 mL
10 mM	0.1834 mL	0.9172 mL	1.8345 mL
50 mM	0.0367 mL	0.1834 mL	0.3669 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

1. Jiang Y, et al. Discovery of Second-Generation NLRP3 Inflammasome Inhibitors: Design, Synthesis, and Biological Characterization. *J Med Chem*. 2019 Oct 31.

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

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Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481