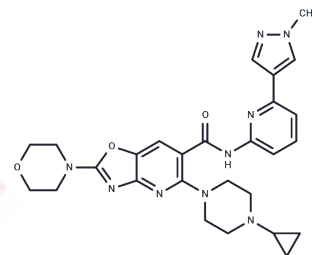


## IRAK4-IN-28

## Chemical Properties

CAS No. :	2952532-92-0
Formula:	C <sub>27</sub> H <sub>31</sub> N <sub>9</sub> O <sub>3</sub>
Molecular Weight:	529.59
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	IRAK4-IN-28 (compound 42), an orally-active IRAK4 inhibitor (IC <sub>50</sub> =8.9 nM), exhibits strong binding affinity with a K <sub>d</sub> of 0.58 nM for the target enzyme. It is utilized for research purposes in the study of inflammation and autoimmune diseases [1].
Targets(IC <sub>50</sub> )	IRAK
In vitro	IRAK4-IN-28 does not inhibit cytochrome P450 enzymes CYP1A2, CYP2D6, CYP3A4, and hERG, indicating favorable safety and 'drug-like' properties [1]. However, it inhibits CYP2C9 and CYP2C19 with IC <sub>50</sub> values of 12 μM and 2.7 μM, respectively [1]. It also exhibits high plasma protein binding in humans and rats (99.8% and 97.2%, respectively) [1]. Furthermore, IRAK4-IN-28 (1 h) dose-dependently suppresses LPS-induced TNF-α and IL-6 expression at mRNA and protein levels [1].
In vivo	IRAK4-IN-28 (compound 42) exhibits favorable pharmacokinetic data in a rat model, with an oral bioavailability utilization rate of 68% [1]. A single oral dose of IRAK4-IN-28 at 50 or 100 mg/ml significantly reduces LPS-induced TNF-α and IL-6 cytokine release in a mouse model [1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8883 mL	9.4413 mL	18.8825 mL
5 mM	0.3777 mL	1.8883 mL	3.7765 mL
10 mM	0.1888 mL	0.9441 mL	1.8883 mL
50 mM	0.0378 mL	0.1888 mL	0.3777 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.

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

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