

PI3K $\delta$ -IN-15

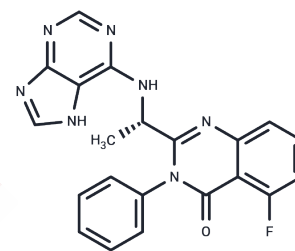
## Chemical Properties

CAS No. : 1146702-54-6

Formula: C<sub>21</sub>H<sub>16</sub>N<sub>7</sub>O

Molecular Weight: 401.4

Storage: Store at low temperature, Keep away from direct sunlight, 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	PI3K $\delta$ -IN-15 is a selective PI3K $\delta$ inhibitor that inhibits PI3K $\delta$ more than 30-fold more effectively than PI3K $\gamma$ , PI3K $\beta$ , and PI3K $\alpha$ .
Targets(IC <sub>50</sub> )	Autophagy, PI3K
In vitro	PI3K $\delta$ -IN-15 exhibited excellent efficiencies with sub-nanomolar functional potency when compared with the reference PI3K $\delta$ inhibitor. PI3K $\delta$ IC <sub>50</sub> = 0.5 nM, PI3K $\gamma$ IC <sub>50</sub> = 15.3 nM, PI3K $\beta$ IC <sub>50</sub> = 145 nM, and PI3K $\alpha$ IC <sub>50</sub> = 152 nM. [1]

## Solubility Information

Solubility	DMSO: 25 mg/mL (62.28 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: 2 mg/mL (4.98 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

	1mg	5mg	10mg
1 mM	2.4913 mL	12.4564 mL	24.9128 mL
5 mM	0.4983 mL	2.4913 mL	4.9826 mL
10 mM	0.2491 mL	1.2456 mL	2.4913 mL
50 mM	0.0498 mL	0.2491 mL	0.4983 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

- Kim YS, et al. Synthesis and biological evaluation of novel purinyl quinazolinone derivatives as PI3K $\delta$ -specific inhibitors for the treatment of hematologic malignancies. *Bioorg Med Chem.* 2021 Sep 1;45:116312.
- Zhang X, Dai Q, Shan J, et al. Inhibition of phosphoinositide-3 kinases  $\gamma/\delta$  ameliorates pulmonary granuloma by rescuing Treg function in a sarcoidosis model. *Experimental and Therapeutic Medicine.* 2023, 25(5): 1-11.
- Zhang S, Shan J, Jie Y, et al. Inhibition of PI3K p110 $\delta$  rebalanced Th17/Treg and reduced macrophages pyroptosis in LPS-induced sepsis. *Molecular Immunology.* 2024, 170: 110-118.
- Sarah E M Herman , Amber L Gordon, Amy J Wagner, et al. Phosphatidylinositol 3-kinase- $\delta$  inhibitor CAL-101 shows promising preclinical activity in chronic lymphocytic leukemia by antagonizing intrinsic and extrinsic cellular survival signals. *Blood.* 2010 Sep 23;116(12):2078-88.

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

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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