

IITZ-01

## Chemical Properties

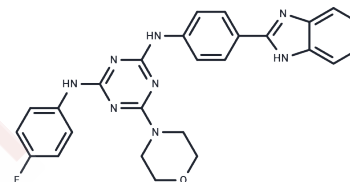
CAS No. : 1807988-47-1

Formula: C<sub>26</sub>H<sub>23</sub>FN<sub>8</sub>O

Molecular Weight: 482.51

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	IITZ-01 is potent autophagy inhibitor with single-agent anticancer activity (IC <sub>50</sub> of 2.62 μM for PI3Kγ.)
Targets(IC <sub>50</sub> )	Apoptosis, Autophagy, PI3K
In vitro	IITZ-01 enhances autophagosomes formation as indicated by increased expression of LC3-II levels time- and dose-dependently in triple-negative breast cancer (TNBC) cell lines (MDA-MB-231 and MDA-MB-453). IITZ-01 also demonstrates potent autophagy inhibitory activity in other breast, lung, and colon cancer cells.

## Solubility Information

Solubility	DMSO: 150 mg/mL (310.87 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: 4 mg/mL (8.29 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	2.0725 mL	10.3625 mL	20.725 mL
5 mM	0.4145 mL	2.0725 mL	4.145 mL
10 mM	0.2072 mL	1.0362 mL	2.0725 mL
50 mM	0.0414 mL	0.2072 mL	0.4145 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

Guntuku L, Gangasani JK, Thummuri D, et al. IITZ-01, a novel potent lysosomotropic autophagy inhibitor, has single-agent antitumor efficacy in triple-negative breast cancer in vitro and in vivo[J]. *Oncogene*. 2019 Jan;38(4):581-595.  
Huang Q, Ru Y, Luo Y, et al. Identification of a targeted ACSL4 inhibitor to treat ferroptosis-related diseases. *Science Advances*. 2024, 10(13): eadk1200.

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