

EN6

## Chemical Properties

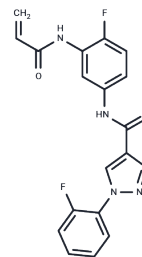
CAS No. : 1808714-73-9

Formula: C<sub>19</sub>H<sub>14</sub>F<sub>2</sub>N<sub>4</sub>O<sub>2</sub>

Molecular Weight: 368.34

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	EN6-mediated ATP6V1A modification decouples the v-ATPase from the Rags, leading to inhibition of mTORC1 signaling, increased lysosomal acidification and activation of autophagy. EN6 clears TDP-43 aggregates, a causative agent in frontotemporal dementia, in a lysosome-dependent manner. EN6 is a small-molecule in vivo activator of autophagy that covalently targets cysteine 277 in the ATP6V1A subunit of the lysosomal the vacuolar H <sup>+</sup> ATPase (v-ATPase).
Targets(IC50)	Proton pump, Autophagy

## Solubility Information

Solubility	DMSO: 5.43 mg/mL (14.74 mM), Sonication is recommended. Ethanol: 1.1 mg/mL (2.99 mM), Sonication and heating to 60°C are recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 0.55 mg/mL (1.49 mM), Solution. <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	2.7149 mL	13.5744 mL	27.1488 mL
5 mM	0.543 mL	2.7149 mL	5.4298 mL
10 mM	0.2715 mL	1.3574 mL	2.7149 mL
50 mM	0.0543 mL	0.2715 mL	0.543 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

Chung CY, et al. Covalent targeting of the vacuolar H<sup>+</sup>-ATPase activates autophagy via mTORC1 inhibition. Nat Chem Biol. 2019 Aug;15(8):776-785.

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