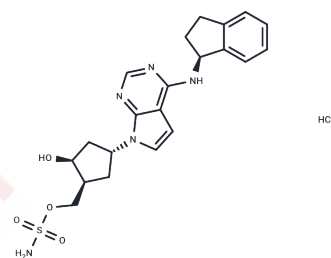


## Pevonedistat hydrochloride

## Chemical Properties

CAS No. :	1160295-21-5
Formula:	C <sub>21</sub> H <sub>26</sub> ClN <sub>5</sub> O <sub>4</sub> S
Molecular Weight:	479.98
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	Pevonedistat hydrochloride (MLN4924 hydrochloride) is a selective and potent NEDD8 activating enzyme inhibitor (IC <sub>50</sub> : 4.7 nM) that induces apoptosis and cell cycle inhibition in cancer cells, and is used in the study of acute myeloid leukemia (AML) and myelodysplastic syndromes (MDS). Pelubiprofen has been used in the study of AML and MDS.)
Targets(IC <sub>50</sub> )	Apoptosis, NEDD8
In vitro	<b>METHODS:</b> To determine the effects of Pevonedistat hydrochloride on cell viability and clonogenic survival in four gastric cancer cell lines, cells were treated with different concentrations of Pevonedistat hydrochloride (0.01-4 μM) for 72 hours, followed by viability assays based on the ATP-lite assay. <b>RESULTS:</b> Three of the gastric cancer cell lines were more sensitive to the growth inhibitory effects of Pevonedistat hydrochloride than GES-1 cells [3].
In vivo	<b>METHODS:</b> To investigate the mechanism and therapeutic effects of Pevonedistat hydrochloride as an effective and selective NAE inhibitor. <b>RESULTS:</b> Pevonedistat hydrochloride disrupted cullin-RING ligase-mediated protein turnover, leading to apoptosis in human tumor cells and inhibition of human tumor xenograft growth in mice[1].

## Solubility Information

Solubility	DMSO: 80 mg/mL (166.67 mM), Sonication is recommended. H <sub>2</sub> O: 8 mg/mL (16.67 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: 3.3 mg/mL (6.88 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	2.0834 mL	10.4171 mL	20.8342 mL
5 mM	0.4167 mL	2.0834 mL	4.1668 mL
10 mM	0.2083 mL	1.0417 mL	2.0834 mL
50 mM	0.0417 mL	0.2083 mL	0.4167 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

Soucy TA, et al. An inhibitor of NEDD8-activating enzyme as a new approach to treat cancer. *Nature*. 2009 Apr 9; 458(7239):732-6.

J. Claire Godbersen, et al. The Nedd8-Activating Enzyme Inhibitor MLN4924 Thwarts Microenvironment-Driven NF- $\kappa$ B Activation and Induces Apoptosis in Chronic Lymphocytic Leukemia B Cells.

Lan H, et al. Neddylation inhibitor MLN4924 suppresses growth and migration of human gastric cancer cells. *Sci Rep*. 2016 Apr 11;6:24218.

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