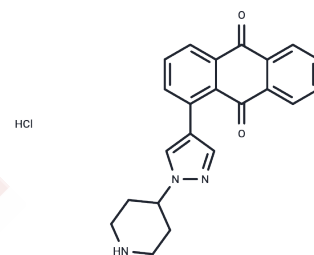


## PDK4-IN-1 hydrochloride

### Chemical Properties

CAS No. :	2310262-11-2
Formula:	C <sub>22</sub> H <sub>20</sub> ClN <sub>3</sub> O <sub>2</sub>
Molecular Weight:	393.87
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	PDK4-IN-1 hydrochloride, an anthraquinone derivative, is a potent and orally active inhibitor of pyruvate dehydrogenase kinase 4 (PDK4) with an IC <sub>50</sub> value of 84 nM.
Targets(IC <sub>50</sub> )	Apoptosis,PDK,Dehydrogenase
In vitro	PDK4-IN-1 hydrochloride treatment significantly impedes the proliferation of human colon cancer cell lines, HCT116 and RKO. The colony formation efficiency in HCT116 and RKO cells is significantly reduced after treatment of PDK4-IN-1[1]. PDK4-IN-1 (Compound 8c; 10-50 μM; 24 hours; HCT116 and RKO cells) treatment dose-dependently increased apoptosis. PDK4-IN-1 decreases the expression of BCL-xL and increases the expression of BAX. Cleavage of PARP1 and caspase 3 are increased by PDK4-IN-1[1].
In vivo	PDK4-IN-1 (C57BL/6J mice) treatment significantly improves glucose tolerance[1]. Pre-incubation with PDK4-IN-1 (compound 8c) dose-dependently inhibits the release of β-hexosaminidase from IgE/antigen-activated BMMCs,

### Solubility Information

Solubility	DMSO: 145 mg/mL (368.14 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 (10.16 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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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.5389 mL	12.6945 mL	25.3891 mL
5 mM	0.5078 mL	2.5389 mL	5.0778 mL
10 mM	0.2539 mL	1.2695 mL	2.5389 mL
50 mM	0.0508 mL	0.2539 mL	0.5078 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

Lee D, et al. Discovery of Novel Pyruvate Dehydrogenase Kinase 4 Inhibitors for Potential Oral Treatment of Metabolic Diseases. J Med Chem. 2019 Jan 24;62(2):575-588.

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