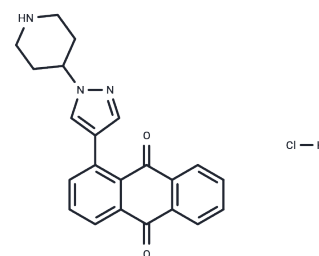


PDK4-IN-1 hydrochloride

Chemical Properties

CAS No. :	2310262-11-2
Formula:	C ₂₂ H ₂₀ ClN ₃ O ₂
Molecular Weight:	393.87
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	PDK4-IN-1 hydrochloride is an anthraquinone derivative and a potent and orally active inhibitor of pyruvate dehydrogenase kinase 4 (PDK4, IC ₅₀ value = 84 nM).
Targets(IC ₅₀)	Apoptosis,PDK
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: 125 mg/mL (317.36 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
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

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.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481