

## Protopine

## Chemical Properties

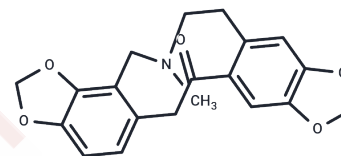
CAS No. : 130-86-9

Formula: C<sub>20</sub>H<sub>19</sub>NO<sub>5</sub>

Molecular Weight: 353.37

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	Protopine (Fumarine) is a benzylisoquinoline alkaloid. It has been found to inhibit histamine H1 receptors and platelet aggregation, and acts as an analgesic.
Targets(IC50)	Reactive Oxygen Species, Platelet aggregation, Histamine Receptor, Cholinesterase (ChE)
Kinase Assay	HT1080 cells are seeded in 24-well plates (2×10 <sup>4</sup> cells per well) and treated with Dorsomorphin in the presence or absence of glucose or 10 mM 2DG for 2 h. HT1080 cells that overexpressed the wild-type and dominant negative AMPKα1 are prepared by transfecting plasmid DNA (pAMPKα1-wt, pAMPKα1-D168A and pcFlag as a control) in 6-well plates, seeding in 24-well plate and treating with UPR inhibitors. Cells are lysed with cell lysis buffer (20 mM Tris-HCl, pH 7.5, 250 mM NaCl, 10% glycerol, 0.5% NP-40, 1 mM EDTA, 1 mM EGTA, 0.2 mM PMSF, 1 μg/mL pepstatin, 0.5 μg/mL leupeptin, 5 mM NaF, 2 mM Na <sub>3</sub> VO <sub>4</sub> , 2 mM β-glycerophosphate, 1 mM DTT). Relative AMPK kinase activity (mean±SD of duplicate determinations) to control sample (vehicle or pcFlag under normal growth conditions) is determined using the CycLex AMPK kinase assay kit[2].

## Solubility Information

Solubility	DMSO: 13.08 mg/mL (37.02 mM), Sonication is recommended. Chloroform 1:15: Soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.83 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	2.8299 mL	14.1495 mL	28.299 mL
5 mM	0.566 mL	2.8299 mL	5.6598 mL
10 mM	0.283 mL	1.4149 mL	2.8299 mL
50 mM	0.0566 mL	0.283 mL	0.566 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

Saeed SA, et al. Pharmacol Res. 1997 Jul;36(1):1-7.

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