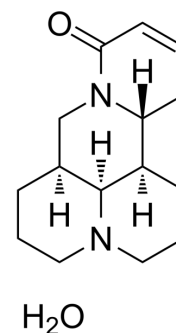


## Sophocarpine monohydrate

<b>Cat. No.:</b>	HY-N0103A		
<b>CAS No.:</b>	145572-44-7		
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	264.36		
<b>Target:</b>	Autophagy; Apoptosis; PI3K; Akt; Influenza Virus		
<b>Pathway:</b>	Autophagy; Apoptosis; PI3K/Akt/mTOR; Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (378.27 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.7827 mL	18.9134 mL	37.8267 mL
	5 mM	0.7565 mL	3.7827 mL	7.5653 mL
	10 mM	0.3783 mL	1.8913 mL	3.7827 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (9.46 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (9.46 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (9.46 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Sophocarpine (monohydrate) is one of the significant alkaloid extracted from the traditional herb medicine *Sophora flavescens* which has many pharmacological properties such as anti-virus, anti-tumor, anti-inflammatory. Sophocarpine (monohydrate) significantly inhibits the growth of gastric cancer (GC) cells through multiple mechanisms such as induction of autophagy, activation of cell apoptosis and down-regulation of cell survival PI3K/AKT signaling pathway. Sophocarpine (monohydrate) has been demonstrated to have anti-tumor activity in various cancer cells, including hepatocellular carcinoma, prostate cancer and colorectal cancer<sup>[1]</sup>.

## CUSTOMER VALIDATION

- J Ethnopharmacol. 2021 Nov 2;114796.
- Eur J Pharmacol. 2023 May 3;950:175745.
- Sci Rep. 2024 Jan 3;14(1):428.
- Molecules. 2022, 27(22), 7868
- PeerJ. 2022 Sep 16;10:e14042.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Huang Y, et al. Sophocarpine inhibits the growth of gastric cancer cells via autophagy and apoptosis. Front Biosci (Landmark Ed). 2019 Mar 1;24:616-627.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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