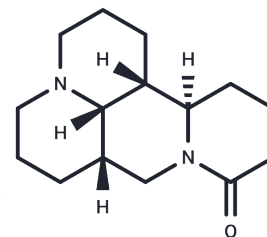


## Matrine

## Chemical Properties

CAS No. :	519-02-8
Formula:	C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O
Molecular Weight:	248.36
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	Matrine (Vegard), an alkaloid isolated from the Sophora genus, acts as a kappa opioid receptor agonist.
Targets(IC50)	Apoptosis,PTEN,Mitophagy,Ferroptosis,Opioid Receptor,Autophagy
In vitro	In human non-small cell lung cancer A549 and hepatocellular carcinoma SMMC-7721 cells, Matrine inhibits cell growth. Particularly, in A549 cells, Matrine induces apoptosis by reducing the Bcl-2 / Bax protein ratio.
In vivo	In mice, the median lethal dose (LD50) of Matrine administered via intraperitoneal injection is 157 mg/kg.

## Solubility Information

Solubility	Ethanol: 49 mg/mL (197.29 mM),Sonication is recommended. H <sub>2</sub> O: 20 mg/mL (80.53 mM),Sonication is recommended. DMSO: 45 mg/mL (181.19 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: 2 mg/mL (8.05 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

---

	1mg	5mg	10mg
1 mM	4.0264 mL	20.1321 mL	40.2641 mL
5 mM	0.8053 mL	4.0264 mL	8.0528 mL
10 mM	0.4026 mL	2.0132 mL	4.0264 mL
50 mM	0.0805 mL	0.4026 mL	0.8053 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.

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

Zhang Y, et al. Cytotechnology, 2009, 59(3), 191-200.

Higashiyama K, et al. Biol Pharm Bull, 2005, 28(5), 845-848.

Wang XY, et al. Nanfang Yike Daxue Xuebao, 2010, 30(9), 2154-2155.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481