

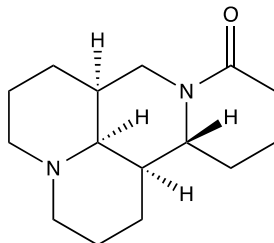
**Catalog # 10-4612**

**Matrine**

CAS# 519-02-8

(7aS,13aR,13bR,13cS)-Dodecahydro-1H,5H,10H-dipyrido[2,1-f:3',2',1'-ij][1,6]naphthyridin-10-one

Lot # FBA4146



Matrine is a natural product found in the plant *Sophora flavescens*. It has been found to possess myriad biological activities including a positive inotropic effect<sup>1,2</sup>, reduced glucose intolerance and hepatic steatosis in a mouse model via activation of HSP72<sup>3</sup>, various anti-cancer effects<sup>4,5,6</sup>. Matrine has also recently been shown to induce RIP3-dependent necroptosis in cholangiocarcinoma cells.<sup>7</sup>

- 1) Zhou *et al.* (2008), *Inotropic effects and mechanisms of matrine, a main alkaloid from Sophora flavescens AIT*; Biol.Pharm.Bull. **31** 2057
- 2) Zhou *et al.* (2014), *The alkaloid matrine of the root of Sophora flavescens prevents arrhythmogenic effect of ouabain*; Phytomedicine **21** 931
- 3) Zheng *et al.* (2015), *Identification of matrine as a promising novel drug for hepatic steatosis and glucose intolerance with HSP72 as an upstream target*; Br.J.Pharmacol. **172** 4303
- 4) Li *et al.* (2010), *Therapeutic effects of matrine on primary and metastatic breast cancer*; Am.J.Chin.Med. **38** 1115
- 5) Li *et al.* (2015), *Matrine inhibited proliferation and increased apoptosis in human breast cancer MCF-7 cells via upregulation of Bax and downregulation of Bcl-2*; Int.J.Clin.Exp.Pathol. **8** 14793
- 6) Zhou *et al.* (2014), *Matrine induces caspase-independent program cell death in hepatocellular carcinoma through bid-mediated nuclear translocation of apoptosis inducing factor*; Mol.Cancer **13** Issue 59
- 7) Xu *et al.* (2017), *Matrine induces RIP3-dependent necroptosis in cholangiocarcinoma cells*; Cell Death Discov. **23** 16096

**PHYSICAL DATA**

Molecular Weight:	248.36
Molecular Formula:	C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	Water (>25mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in water may be stored at -20°C for up to 3 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**