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Product Name: Matrine Revision Date: 01/10/2021

Product Data Sheet

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Matrine

Cat. No.:	A3583		
CAS No.:	519-02-8		
Formula:	C15H24N2O		
M.Wt:	248.36 HWWWWW WH		
Synonyms:	Sophocarpidine;Matridin-15-one;Vegard;α-Ma		
	trine		
Target:	Apoptosis		
Pathway:	Apoptosis Inducers		
Storage:	Store at -20°C		
	DEP		
Solvent & Solubility			

Solvent & Solubility

	\geq 12.42 mg/mL in DMSO; \geq 47.2 mg/mL in EtOH; \geq 50.3 mg/mL in H2O with gentle warming and ultrase					
In Vitro	Preparing Stock Solutions	Mass Solvent Concentration	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	0.402 <mark>6 mL</mark>	2.0132 mL	4.0264 mL	

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

Biological Activity

Shortsummary	Alkaloid found in Sophora plant		
IC ₅₀ & Target			
In Vitro	Cell Viability Assay		
	Cell Line:	MNK45 gastric cancer cell line	
	Preparation method:	Soluble in water, ethanol, chloroform, toluene, and benzene. General tips for	
		obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes	
		and/or shake it in the ultrasonic bath for a while. Stock solution can be stored	
		below -20°C for several months.	

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	Reacting conditions:	0.05, 0.10, 0.25, and 0.50 mg/ml for 48 h			
	Applications:	Matrine showed a dose-dependent inhibition of the growth of MKN45 cells a			
		the concentration needed for 50% inhibition of growth of MKN45 cells was 0.5			
		mg/ml. It was also found that after matrine treatment at 0.05, 0.1, 0.25, and			
		0.50 mg/ml, the IKKa, IjBa, IjBb, phospho-IjBa proteins levels in MKN45 cells			
	a10	were significantly higher than those in control cells. In addition, the p-ERK			
	OELoneneur	protein expression level in low dose matrine-treated MKN45 cells was			
	and the contract	significantly higher than that in high dose matrine-treated MKN45 cells.			
	Animal experiment	a Brite			
	Animal models:	Adult male BALB/c mice			
	Dosage form:	25, 50 or 100 mg/kg, i.p.			
	Applications:	Treatment with matrine could significantly reduce LPS-induced mouse de			
		the accumulative mortalities during 3 days in high dose of matrine (100 mg/kg)			
		treatment groups (55%) was significantly lower than that in LPS groups (80%).			
In Vivo	BIO	However, no protection was observed when mice received matrine treatment at			
	PErson	dose of 25 mg/kg and 50 mg/kg. Matrine treatment could also significantly			
	Alterna	improve the lung injury, such as pulmonary edema, infiltration of inflammatory			
		cells in the lung tissues and alveoli, and alveolar damage. There was no			
		obvious change in lung structure in control and matrine groups.			
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility r			
		slightly differ with the theoretical value. This is caused by an experimental			
		system error and it is normal.			

Product Citations



See more customer validations on www.apexbt.com.

References

[1]. Luo C, et al. Inhibition of matrine against gastric cancer cell line MNK45 growth and its anti-tumor mechanism. Mol Biol Rep. 2012 May;39(5):5459-64.

[2]. Zhang B, et al. Antiinflammatory effects of matrine in LPS-induced acute lung injury in mice. Eur J Pharm Sci. 2011 Dec 18;44(5):573-9.

Caution

FOR RESEARCH PURPOSES ONLY.

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NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

APEN

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet. APEABIO

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