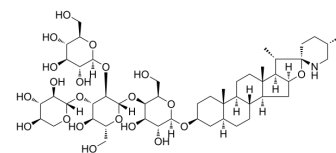


Tomatine

Cat. No.:	HY-N2166		
CAS No.:	17406-45-0		
Molecular Formula:	C ₅₀ H ₈₃ NO ₂₁		
Molecular Weight:	1034.19		
Target:	Proteasome; Apoptosis		
Pathway:	Metabolic Enzyme/Protease; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 66.67 mg/mL (64.47 mM; ultrasonic and warming and heat to 60°C)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM		0.9669 mL	4.8347 mL	9.6694 mL
		5 mM		0.1934 mL	0.9669 mL	1.9339 mL
10 mM			0.0967 mL	0.4835 mL	0.9669 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (2.42 mM); Clear solution Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (2.01 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (2.01 mM); Clear solution 					

BIOLOGICAL ACTIVITY

Description	Tomatine is a glycoalkaloid, found in the tomato plant (<i>Lycopersicon esculentum</i> Mill.). Tomatine elicits neurotoxicity in RIP1 kinase and caspase-independent manner. Tomatine promotes the upregulation of nuclear apoptosis inducing factor (AIF) in neuroblastoma cells. Tomatine also inhibits 20S proteasome activity ^[1] .
In Vitro	Tomatine inhibits gastric carcinoma cell line (AGS), neuroblastoma cell line (SH-SY5Y) and non-small cell lung cancer cell line (A549) with IC ₅₀ s of 2 μM, 1.6 μM and 1.1 μM, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. da Silva DC, et al. Neurotoxicity of the steroidal alkaloids tomatine and tomatidine is RIP1 kinase- and caspase-independent and involves the eIF2 α branch of the endoplasmic reticulum. *J Steroid Biochem Mol Biol.* 2017 Jul;171:178-186.

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

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