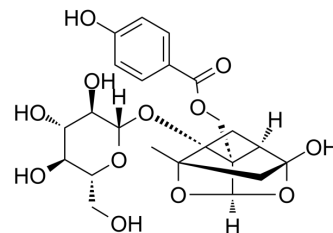


Oxypaeoniflorin

Cat. No.:	HY-N0748		
CAS No.:	39011-91-1		
Molecular Formula:	C ₂₃ H ₂₈ O ₁₂		
Molecular Weight:	496.46		
Target:	Others		
Pathway:	Others		
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 : 100 mg/mL (201.43 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.0143 mL	10.0713 mL	20.1426 mL
		5 mM	0.4029 mL	2.0143 mL	4.0285 mL
10 mM		0.2014 mL	1.0071 mL	2.0143 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 >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.04 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.04 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.04 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Oxypaeoniflorin, an anti-oxidant, is a monoterpenoid glycoside compound isolated from <i>Paoniae</i> species. Oxypaeoniflorin has neuroprotective and anti-inflammatory effects ^{[1][2]} .
In Vitro	Oxypaeoniflorin (OPA; 0.1-10 μM; 8 hours) obviously reversed the hypoxia/reoxygenation (H/R)-induced decrease in cell activity and increase in apoptosis of H9c2 cells. Oxypaeoniflorin inhibits apoptosis by activating the Sirt1 (silent information regulator factor 2 related enzyme 1)/Foxo1 (forkhead transcription factor FKHR) signaling pathway in myocardial tissues and H9c2 cells ^[1] .

Oxypaeoniflorin (0-30 μ M) attenuates inflammatory effects via regulation of the toll-like receptor (TLR), extracellular signal-related kinase (ERK) and p38 mitogen-activated protein (MAP) kinases signaling pathways in LPS-stimulated RAW264.7 cells [2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Oxypaeoniflorin (OPA; 10-40 mg/kg; intragastrical administration; every day; for 30 days) treatment significantly reduces disruption of cardiac function and improves the indicators of ejection fraction (EF) and fractional shortening (FS).

Oxypaeoniflorin significantly reduces the release of myocardial infarction-related factors, such as the creatine kinase (CK-MB), cardiac troponin I (cTnI) and cardiac troponin T (cTnT)^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL/6 male mice (6-8 weeks of age, 20-25 g) bearing myocardial ischemia/reperfusion (MI/R) injury ^[1]
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Dosage:	10 mg/kg, 20 mg/kg, 40 mg/kg
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Administration:	Intragastrical administration; every day; for 30 days
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Result:	Significantly reduced disruption of cardiac function and improved the indicators of ejection fraction (EF) and fractional shortening (FS).
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CUSTOMER VALIDATION

- Oxid Med Cell Longev. 04 Aug 2021.
- J Food Nutr Res. 2018, 6(1), 26-31.
- Journal of the Korean Society of Food Science and Nutrition. 2017.9, 46(9):1091-1096.

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REFERENCES

[1]. Feng C, et al. Pharmacokinetic properties of paeoniflorin, albiflorin and oxypaeoniflorin after oral gavage of extracts of Radix Paeoniae Rubra and Radix Paeoniae Alba in rats. J Ethnopharmacol. 2010 Jul 20;130(2):407-13.

[2]. Kai Wang, et al. Oxypaeoniflorin improves myocardial ischemia/reperfusion injury by activating the Sirt1/Foxo1 signaling pathway. Acta Biochim Pol. 2020 Jun 18;67(2):239-245.

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

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