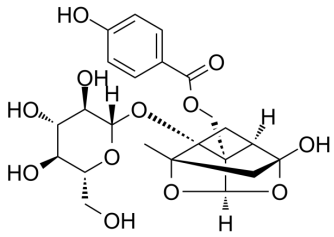
Oxypaeoniflorin

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	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (201.43 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	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

1. 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
2. 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
3. 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 monoterpene glycoside compound isolated from Paeoniae 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 μM) 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]
Dosage:	10 mg/kg, 20 mg/kg, 40 mg/kg
Administration:	Intragastrical administration; every day; for 30 days
Result:	Significantly reduced disruption of cardiac function and improved the indicators of ejection fraction (EF) and fractional shortening (FS).

CUSTOMER VALIDATION

- J Food Nutr Res. 2018, 6(1), 26-31.
- Oxid Med Cell Longev. 04 Aug 2021.
- 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.

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