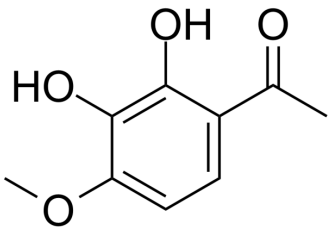
2,3-Dihydroxy-4-methoxyacetophenone

Cat. No.:	HY-N7509		
CAS No.:	708-53-2		
Molecular Formula:	$C_9H_{10}O_4$		
Molecular Weight:	182.17		
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 (548.94 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	5.4894 mL	27.4469 mL	54.8938 mL
	5 mM	1.0979 mL	5.4894 mL	10.9788 mL
	10 mM	0.5489 mL	2.7447 mL	5.4894 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 (13.72 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (13.72 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (13.72 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2,3-Dihydroxy-4-methoxyacetophenone is a neuroprotective compound from Cynenchum paniculatum. 2,3-Dihydroxy-4-methoxyacetophenone improves cognitive function and may has the potential for the treatment of Alzheimer's disease research[1].

In Vitro

2,3-Dihydroxy-4-methoxyacetophenone protects HT22 cells on glutamate induced cell-death in a dose-dependent manner (EC_{50}=10.94 μM). 2,3-Dihydroxy-4-methoxyacetophenone inhibits [Ca^{2+}] accumulation in HT22 cells and has antioxidantive activity[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	2,3-dihydroxy-4-methoxyacetophenone (50mg/kg; po) improves the impairment of spatial memory induced by scopolamine [1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jin Bae Weon, et al. The Ameliorating Effects of 2,3-dihydroxy-4-methoxyacetophenone on Scopolamine-Induced Memory Impairment in Mice and Its Neuroprotective Activity. Bioorg Med Chem Lett. 2013 Dec 15;23(24):6732-6.

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