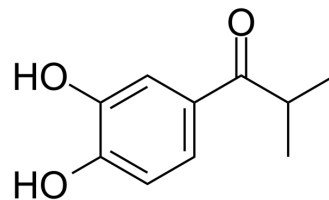


U-0521

Cat. No.:	HY-121949		
CAS No.:	5466-89-7		
Molecular Formula:	C ₁₀ H ₁₂ O ₃		
Molecular Weight:	180.2		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (554.94 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
		Concentration			
		1 mM	5.5494 mL	27.7469 mL	55.4939 mL
		5 mM	1.1099 mL	5.5494 mL	11.0988 mL
10 mM	0.5549 mL	2.7747 mL	5.5494 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 (13.87 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (13.87 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (13.87 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	U-0521 is the inhibitor of the catechol-O-methyltransferase (COMT). U-0521 has the potential for the research of Parkinson's disease ^[1] .
IC ₅₀ & Target	COMT ^[1]
In Vitro	U-0521 inhibits RBC COMT activity in a dose-dependent manner with an IC ₅₀ of 6 x10 ⁻⁶ M ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

U-0521 (i.p.; 0-250 mg/kg; 10 min) inhibits COMT activity in a dose-dependent manner. 50% inhibition of enzyme activity is obtained at 90 mg/kg and maximum inhibition of 90% is obtained at 250 mg/kg^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley rats (180-250 g) ^[1]
Dosage:	0-250 mg/kg
Administration:	i.p.; 10 min
Result:	Inhibited COMT activity in a dose-dependent manner. 50% inhibition of enzyme activity was obtained at 90mg/kg and maximum inhibition of 90% was obtained at 250 mg/kg.

REFERENCES

[1]. Reches A, et al. Effect of 3',4'-dihydroxy-2-methyl-propriophenone (U-0521) on catechol-O-methyltransferase activity and on DOPA accumulation in rat red blood cells and corpus striatum. *Biochem Pharmacol.* 1982;31(21):3415-3418.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA