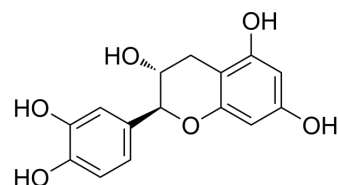


## (-)-Catechin

<b>Cat. No.:</b>	HY-N0898A
<b>CAS No.:</b>	18829-70-4
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>14</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	290.27
<b>Target:</b>	COX
<b>Pathway:</b>	Immunology/Inflammation
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 125 mg/mL (430.63 mM; ultrasonic and warming and heat to 60°C)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		3.4451 mL	17.2253 mL	34.4507 mL
		<b>5 mM</b>		0.6890 mL	3.4451 mL	6.8901 mL
<b>10 mM</b>		0.3445 mL	1.7225 mL	3.4451 mL		
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (7.17 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (7.17 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.17 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	(-)-Catechin is Catechin's one kind of different structure. Catechin inhibitory enzyme-1 (COX-1), IC <sub>50</sub> ≈ 1.4 μM. (-)-Catechin promotes hBM-MSC adipose cell differentiation, increases fat cell differentiation, and PPARγ level <sup>[1][2]</sup> .
<b>In Vitro</b>	(-)-catechin (10 μM; a 2-day cycle for 12 days in total) induces adipocyte differentiation of human bone marrow mesenchymal stem cells (hBM-MSC), increases adiponectin levels, and increased PPARγ transcription <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

---

## REFERENCES

---

- [1]. Waffo-Téguo P, et al. Potential cancer-chemopreventive activities of wine stilbenoids and flavans extracted from grape (*Vitis vinifera*) cell cultures. *Nutr Cancer*. 2001;40(2):173-9.
- [2]. Shin DW, et al. (-)-Catechin promotes adipocyte differentiation in human bone marrow mesenchymal stem cells through PPAR gamma transactivation. *Biochem Pharmacol*. 2009 Jan 1;77(1):125-33.
- 

**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](mailto:tech@MedChemExpress.com)

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