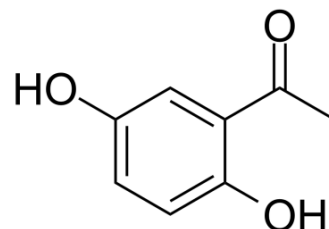


## 2,5-Dihydroxyacetophenone

<b>Cat. No.:</b>	HY-W001174		
<b>CAS No.:</b>	490-78-8		
<b>Molecular Formula:</b>	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	152.15		
<b>Target:</b>	ERK; NF-κB		
<b>Pathway:</b>	MAPK/ERK Pathway; Stem Cell/Wnt; NF-κB		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (657.25 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	6.5725 mL	32.8623 mL	65.7246 mL
		5 mM	1.3145 mL	6.5725 mL	13.1449 mL
10 mM		0.6572 mL	3.2862 mL	6.5725 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: ≥ 2.5 mg/mL (16.43 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	2,5-Dihydroxyacetophenone, isolated from Rehmanniae Radix Preparata, inhibits the production of inflammatory mediators in activated macrophages by blocking the ERK1/2 and NF-κB signaling pathways <sup>[1]</sup> .		
<b>IC<sub>50</sub> &amp; Target</b>	ERK1	ERK2	NF-κB
<b>In Vitro</b>	2,5-Dihydroxyacetophenone significantly inhibits NO production via the suppression of iNOS expression and significantly decreases levels of the pro-inflammatory cytokines TNF-α and IL-6 via the down-regulation of their mRNA expression in LPS-stimulated RAW264.7 cells. 2,5-Dihydroxyacetophenone potently inhibits the phosphorylation of extracellular signal-related kinase (ERK) 1/2 and the nuclear translocation of nuclear factor-κB (NF-κB) p65 in LPS-stimulated cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

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## REFERENCES

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[1]. Han Y, et al. 2,5-dihydroxyacetophenone isolated from *Rehmanniae Radix Preparata* inhibits inflammatory responses in lipopolysaccharide-stimulated RAW264.7 macrophages. *J Med Food*. 2012 Jun;15(6):505-10.

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

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