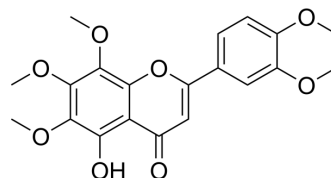


## 5-O-Demethylnobiletin

Cat. No.:	HY-N1942
CAS No.:	2174-59-6
Molecular Formula:	C <sub>20</sub> H <sub>20</sub> O <sub>8</sub>
Molecular Weight:	388.37
Target:	Lipoxygenase; Leukotriene Receptor
Pathway:	Metabolic Enzyme/Protease; GPCR/G Protein
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (64.37 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	2.5749 mL	12.8743 mL	25.7486 mL
		5 mM	0.5150 mL	2.5749 mL	5.1497 mL
	10 mM	0.2575 mL	1.2874 mL	2.5749 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 (6.44 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.44 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	5-O-Demethylnobiletin (5-Demethylnobiletin), a polymethoxyflavone isolated from Citrus jambhiri Lush., is a direct inhibition of 5-LOX (IC <sub>50</sub> =0.1 μM), without affecting the expression of COX-2. 5-O-Demethylnobiletin (5-Demethylnobiletin) has anti-inflammatory activity, inhibits leukotriene B (4)(LTB <sub>4</sub> ) formation in rat neutrophils and elastase release in human neutrophils with an IC <sub>50</sub> of 0.35 μM <sup>[1]</sup> .	
IC <sub>50</sub> & Target	LTC <sub>4</sub> 0.35 μM (IC <sub>50</sub> )	5-LOX 0.1 μM (IC <sub>50</sub> )
In Vitro	5-O-Demethylnobiletin (5-demethylnobiletin) promotes neuritogenesis through the activation of MAPK/ERK-, PKC-, and PKA-dependent signaling pathways <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

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## CUSTOMER VALIDATION

- Int J Mol Sci. 2021, 22(3), 1083.

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## REFERENCES

- [1]. Bas E, et al. Anti-inflammatory activity of 5-O-demethylnobiletin, a polymethoxyflavone isolated from *Sideritis tragoriganum*. *Planta Med.* 2006 Feb;72(2):136-42.
- [2]. Chiu SP, et al. Neurotrophic action of 5-hydroxylated polymethoxyflavones: 5-demethylnobiletin and gardenin A stimulate neuritogenesis in PC12 cells. *J Agric Food Chem.* 2013 Oct 2;61(39):9453-63.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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