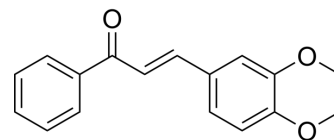


## 3,4-Dimethoxychalcone

Cat. No.:	HY-W083373A
CAS No.:	5416-71-7
Molecular Formula:	C <sub>17</sub> H <sub>16</sub> O <sub>3</sub>
Molecular Weight:	268.31
Target:	Bacterial; Autophagy
Pathway:	Anti-infection; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (372.70 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	3.7270 mL	18.6352 mL	37.2703 mL
		5 mM	0.7454 mL	3.7270 mL	7.4541 mL
	10 mM	0.3727 mL	1.8635 mL	3.7270 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 (9.32 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (9.32 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	3,4-Dimethoxychalcone is a Caloric restriction mimetics (CRMs). 3,4-Dimethoxychalcone induces the deacetylation of cytoplasmic proteins and stimulates autophagy flux. 3,4-Dimethoxychalcone can be used for cardiac and cancer diseases research <sup>[1]</sup> .
In Vitro	3,4-Dimethoxychalcone (30 μM, 8 h) induces autophagic flux in HepG2 cells and U2OS cells <sup>[1]</sup> . 3,4-Dimethoxychalcone (30 μM, 6 h) stimulates the translocation of TFEB and TFE3 to the nucleus in U2OS cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	3,4-Dimethoxychalcone (230 mg/kg for intraperitoneal injection) induces the nuclear translocation of TFEB and TFE3 of liver and heart tissues in Female C57/BL6 mice <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

---

## REFERENCES

- [1]. Okolo EN, et al. New chalcone derivatives as potential antimicrobial and antioxidant agent. Sci Rep. 2021 Nov 5;11(1):21781.
- [2]. Chen G, et al. 3,4-Dimethoxychalcone induces autophagy through activation of the transcription factors TFE3 and TFEB. EMBO Mol Med. 2019 Nov 7;11(11):e10469.
- 

**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