

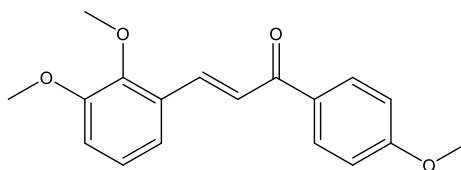
Catalog # 10-5574

L6H21

CAS# 24533-47-9

(2E)-3-(2,3-Dimethoxyphenyl)-1-(4-methoxyphenyl)-2-propen-1-one; (E)-2,3-dimethoxy-4'-methoxychalcone

Lot # S106185



L6H21 binds to MD-2 (myeloid differentiation protein-2, $K_d=33.3 \mu\text{M}$) and blocks its interaction with TLR4 (toll-like receptor 4) in LPS-stimulated cells, inhibiting TNF α and IL-6 production.¹ Attenuates disease progression in a high-fat diet (HFD) induced NASH mouse model.² Inhibits obesity-induced cardiomyopathy and fibrosis.³ Reduces ethanol plus LPS-induced liver injury via inhibition of NLRP3 inflammasome activation.⁴ Provides cardioprotective effects⁵ and protects against cognitive impairment and brain pathologies in HFD prediabetic rats⁶. Cell permeable. Active *in vivo*.

References/Citations:

- 1) Wang *et al.* (2015), *MD-2 as the target of a novel small molecule, L6H21, in the attenuation of LPS-induced inflammatory response and sepsis*; Br. J. Pharmacol., **172** 4391
- 2) Zhang *et al.* (2018), *Inhibition of MD1-dependent inflammation attenuates the progression of non-alcoholic fatty liver disease*; J. Cell. Mol. Med., **22** 936
- 3) Fang *et al.* (2018), *Inhibition of myeloid differentiation factor-2 attenuates obesity-induced cardiomyopathy and fibrosis*; Biochim. Biophys. Acta Mol. Basis Dis., **1864** 252
- 4) Kong *et al.* (2019), *Chalcone Derivative L6H21 Reduces EtOH + LPS-Induced Liver Injury Through Inhibition of NLRP3 Inflammasome Activation*; Alcohol Clin. Exp. Res., **43** 1662
- 5) Sumneang *et al.* (2022), *Inhibition of myeloid differentiation factor-2 attenuates cardiometabolic impairments via reducing cardiac mitochondrial dysfunction, inflammation, apoptosis and ferroptosis in prediabetic rats*; Biochim. Biophys. Acta Mol. Basis Dis., **1868** 166301
- 6) Oo *et al.* (2021), *L6H21 protects against cognitive impairment and brain pathologies via toll-like receptor 4-myeloid differentiation factor 2 signalling in prediabetic rats*; Br. J. Pharmacol., doi:10.1111/bph.15741 Epub ahead of print

PHYSICAL DATA

Molecular Weight:	298.34
Molecular Formula:	C ₁₈ H ₁₈ O ₄
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (60 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.