PRODUCT INFORMATION



Kuwanon C

Item No. 33421

CAS Registry No.:	62949-79-5	
Formal Name:	2-(2,4-dihydroxyphenyl)-5,7-	
	dihydroxy-3,8-bis(3-methyl-2-buten-	
	1-yl)-4H-1-benzopyran-4-one	
Synonym:	Mulberrin	НООН
MF:	$C_{25}H_{26}O_{6}$	
FW:	422.5	UH OH
Purity:	≥98%	
UV/Vis.:	λ _{max} : 264 nm	
Supplied as:	A crystalline solid	
Storage:	-20°C	Ö L
Stability:	≥4 years	- OH
Item Origin:	Plant/Morus root	
Information represents	s the product specifications. Batch specific analy	tical results are provided on each certificate of analysis.

Laboratory Procedures

Kuwanon C is supplied as a crystalline solid. A stock solution may be made by dissolving the kuwanon C in the solvent of choice, which should be purged with an inert gas. Kuwanon C is soluble in DMSO.

Description

Kuwanon C is a prenylated flavone originally isolated from M. alba that has diverse biological activities, including antioxidant, antibacterial, antiproliferative, and neuroprotective properties.¹ It scavenges DPPH (Item No. 14805) radicals in a cell-free assay (EC₅₀ = 72.99 μ g/ml).² It is active against *E. coli*, *S. typhimurium*, S. epidermis, and S. aureus (MICs = 10, 25, 6.25, and 6.25 µg/ml, respectively) and inhibits the growth of P388 mouse lymphoma cancer cells ($IC_{50} = 14 \ \mu g/ml$).^{3,4} Kuwanon C (30 mg/kg) improves motor coordination in a rotarod test and decreases neuronal loss in the substantia nigra pars compacta in a mouse model of MPTP-induced Parkinson's disease.⁵

References

- 1. Nomura, T., Fukai, T., and Katayanagi, M. Kuwanon A, B, C and oxydihydromorusin, four new flavones from the root bark of the cultivated mulberry tree (Morus alba L.). Chem. Pharm. Bull. 25(3), 529-532 (1977).
- 2. Mazimba, O., Majinda, R.R.T., and Motlhanka, D. Antioxidant and antibacterial constituents from Morus nigra. Afr. J. Pharma. Pharmaco. 5(6), 751-754 (2011).
- 3. Sohn, H.-Y., Son, K.H., Kwon, C.-S., et al. Antimicrobial and cytotoxic activity of 18 prenylated flavonoids isolated from medicinal plants: Morus alba L., Morus mongolica Schneider, Broussnetia papyrifera (L.) Vent, Sophora flavescens Ait and Echinosophora koreensis Nakai. Phytomedicine 11(7-8), 666-672 (2004).
- 4. Ferlinahayati, Syah, Y.M., Juliawaty, L.D., et al. Phenolic constituents from the wood of Morus australis with cytotoxic activity. Z. Naturforsch. C. J. Biosci. 63(1-2), 35-39 (2008).
- 5. Cao, W., Dong, Y., Zhao, W., et al. Mulberrin attenuates 1-methyl-4-phenyl-1,2,3,6- tetrahydropyridine (MPTP)-induced Parkinson's disease by promoting Wnt/ β -catenin signaling pathway. J. Chem. Neuroanat. 98, 63-70 (2019).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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