PRODUCT INFORMATION



Isobavachalcone

Item No. 19873

CAS Registry No.:	20784-50-3	
Formal Name:	(2E)-1-[2,4-dihydroxy-3-(3-	
	methyl-2-buten-1-yl)phenyl]-3-(4-	ОН
	hydroxyphenyl)-2-propen-1-one	
Synonym:	Corylifolinin, IBC	
MF:	$C_{20}H_{20}O_4$	
FW:	324.4	
Purity:	≥98%	
UV/Vis.:	λ _{may} : 369 nm	
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis		

Laboratory Procedures

Isobavachalcone (IBC) is supplied as a crystalline solid. A stock solution may be made by dissolving the IBC in the solvent of choice, which should be purged with an inert gas. IBC is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of IBC in these solvents is approximately 30 mg/ml.

IBC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IBC should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. IBC has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

IBC is a chalcone and flavonoid originally isolated from P. corylifolia and has diverse biological activities.^{1,2} It is active against C. albicans and C. neoformans (IC₅₀s = 3 and 7 µg/ml, respectively), as well as T. rubrum and M. audouinii (MIC = $1.2 \mu g/ml$ for both).¹ IBC is active against various Bacillus, Streptococcus, and Proteus species, as well as K. pneumoniae, P. aeruginosa, S. typhi, M. morganii, E. aerogenes, C. freundii, and E. cloacae (MICs = 4.9-39.1 μg/ml). It induces mitochondrial-mediated apoptosis in IMR-32 and NB-39 human neuroblastoma cells and inhibits the proliferation of OVCAR-8 ovarian, PC3 prostate, MCF-7 breast, and A549 lung cancer cell lines. IBC (50 mg/kg) reduces dopaminergic neuronal cell death and increases the stay time in the rotarod test in a mouse model of MPTP-induced Parkinson's disease.²

References

- 1. Kuete V. and Sandjo, L.P. Isobavachalcone: An overview. Chin. J. Integr. Med. 18(7), 543-547 (2012).
- 2. Jing, H., Wang, S., Wang, M., et al. Isobavachalcone attenuates MPTP-induced Parkinson's disease in mice by inhibition of microglial activation through NF-κB pathway. PLoS One 12(1), e0169560 (2017).

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

SAFFTY 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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