



LKT Laboratories, Inc.

Nobiletin

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Product Information

Product ID N5605

CAS No. 478-01-3

Chemical Name

Synonym

Formula $C_{21}H_{22}O_8$

Formula Wt. 402.39

Melting Point

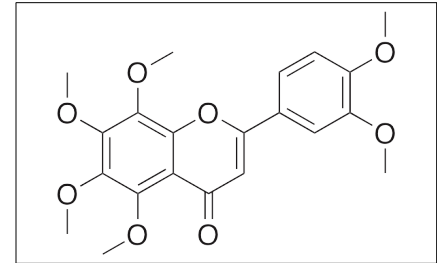
Purity $\geq 97\%$

Solubility

Store Temp Ambient

Ship Temp Ambient

Description Nobiletin is a polymethoxylated flavone derived from the peel of citrus fruits. Nobiletin displays anti-inflammatory, anticancer, antioxidative, neuroprotective, cognition enhancing, antidepressant, and anti-obesity properties. In vitro, Nobiletin decreases iNOS expression and levels of NO and also inhibits NF- κ B activity. In a variety of cancer cell lines, Nobiletin induces cell cycle arrest and inhibits cellular proliferation through several mechanisms, including inhibition of Ras and MAPK/ERK signaling, downregulation of Bcl-2 and COX-2 levels, upregulation of Bax and caspase-3 expression, and downregulation of matrix metalloproteinase 2 and CXCR4 expression. In aged mice and animal models of Alzheimer's disease, nobiletin increased glutathione peroxidase and superoxide dismutase activity and decreased phosphorylation of tau, attenuating learning and memory impairments. In other animal models, this compound displays potential use as an antidepressant, attenuating stress-induced deficits in BDNF, TrkB, and synapsin I in the hippocampus. Additionally, nobiletin displays anti-obesity effects in vivo, increasing levels of PPAR α/γ , GLUT4, adiponectin, fatty acid synthase, and other enzymes, resulting in decreased body weight gain in overweight animals. Nobiletin may act as a positive allosteric modulator at AMPA receptors by increasing phosphorylation of the GluR1 subunit.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
N5605	5 mg	\$68.30
N5605	25 mg	\$126.00
N5605	100 mg	\$393.80

References Yoshigai E, Machida T, Okuyama T, et al. Citrus nobiletin suppresses inducible nitric oxide synthase gene expression in interleukin-1 β -treated hepatocytes. *Biochem Biophys Res Commun*. 2013 Sep 13;439(1):54-9. PMID: 23958298.

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Baek SH, Kim SM, Nam D, et al. Antimetastatic effect of nobiletin through the down-regulation of CXC chemokine receptor type 4 and matrix metalloproteinase-9. *Pharm Biol*. 2012 Oct;50(10):1210-8. PMID: 22853317.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.