

PRODUCT INFORMATION



Nimbolide

Item No. 19230

CAS Registry No.: 25990-37-8
Formal Name: 8-(3-furanyl)-
2aR,5aR,6S,6aR,8R,9,9aR,10aS,
10bR,10cR-decahydro-2a,5a,6a,7-
tetramethyl-2,5-dioxo-2H,5H-
cyclopenta[d']naphtho[1,8-bc:2,3-b']
difuran-6-acetic acid, methyl ester

Synonym: NSC 309909

MF: C₂₇H₃₀O₇

FW: 466.5

Purity: ≥97%

UV/Vis.: λ_{max}: 213 nm

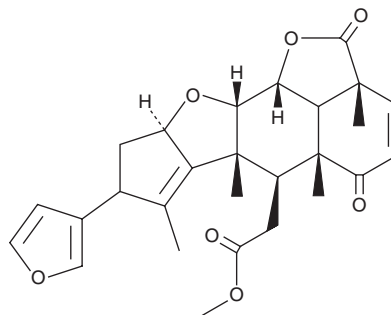
Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years

Special Conditions: Store in desiccating conditions

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



Laboratory Procedures

Nimbolide is supplied as a crystalline solid. A stock solution may be made by dissolving the nimbolide in the solvent of choice. Nimbolide is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of nimbolide in these solvents is approximately 11 and 12 mg/ml, respectively.

Nimbolide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, nimbolide should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Nimbolide has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nimbolide is a terpenoid lactone first isolated from *A. indica* (Neem tree) that demonstrates antimalarial and anticancer effects in experimental models.¹ It inhibits pancreatic cancer cell growth and metastasis by inducing the excessive generation of ROS, reducing PI3K/Akt/mTOR and ERK signaling, and upregulating the pro-apoptotic proteins Bax, caspase-3, and PARP.¹

Reference

1. Subramani, R., Gonzalez, E., Arumugam, A., *et al.* Nimbolide inhibits pancreatic cancer growth and metastasis through ROS-mediated apoptosis and inhibition of epithelial-to-mesenchymal transition. *Sci. Rep.* 6, 19819 (2016).

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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