

# PRODUCT INFORMATION



## Nimbin

Item No. 29884

CAS Registry No.: 5945-86-8

Formal Name: (2R,3aR,4aS,5R,5aR,6R,9aR,10S,10aR)-5-(acetyloxy)-2-(3-furanyl)-3,3a,4a,5,5a,6,9,9a,10,10a-decahydro-6-(methoxycarbonyl)-1,6,9a,10a-tetramethyl-9-oxo-2H-cyclopenta[b]naphtho[2,3-d]furan-10-acetic acid, methyl ester

MF:  $C_{30}H_{36}O_9$

FW: 540.6

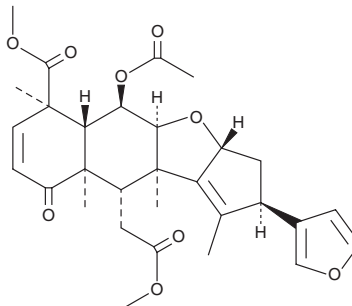
Purity:  $\geq 98\%$

Supplied as: A solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years

Item Origin: Synthetic



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

### Laboratory Procedures

Nimbin is supplied as a solid. A stock solution may be made by dissolving the nimbin in the solvent of choice, which should be purged with an inert gas. Nimbin is slightly soluble in chloroform and ethyl acetate.

### Description

Nimbin is a limonoid that has been found in neem seeds and has diverse biological activities.<sup>1-3</sup> It inhibits the growth of the plant pathogenic fungus *D. oryzae* by 64.8% when used at a concentration of 1,000 ppm.<sup>1</sup> Nimbin (0.02-2,000  $\mu\text{M}$ ) has antifeedant activity against *S. littoralis* in a choice test.<sup>2</sup> It decreases melanin content to 20.9% of control, without affecting viability, in B16 murine melanoma cells when used at a concentration of 25  $\mu\text{g}/\text{ml}$ .<sup>3</sup> Nimbin inhibits activation of Epstein-Barr virus early antigen (EBV-EA) induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) in Raji cells ( $\text{IC}_{50}$  = 499 mol ratio/32 pmol TPA).

### References

1. Govindachari, T.R., Suresh, G., Gopalakrishnan, G., *et al.* Identification of antifungal compounds from the seed oil of *Azadirachta indica*. *Phytoparasitica* **26**(1), 109-116 (1998).
2. Aerts, R.J. and Modue Luntz, A.J. Feeding deterrence and toxicity of neem triterpenoids. *J. Chem. Ecol.* **23**(9), 2117-2132 (1997).
3. Akihisa, T., Noto, T., Takahashi, A., *et al.* Melanogenesis inhibitory, anti-inflammatory, and chemopreventive effects of limonoids from the seeds of *Azadirachta indica* A. juss. (neem). *J. Oleo. Sci.* **58**(11), 581-594 (2009).

#### 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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