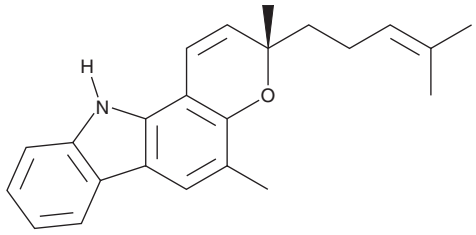
PRODUCT INFORMATION

Mahanimbine

Item No. 30897

CAS Registry No.:	21104-28-9
Formal Name:	(3S)-3,11-dihydro-3,5-dimethyl-3-(4-methyl-3-penten-1-yl)-pyrano[3,2-a]carbazole
MF:	$C_{23}H_{25}NO$
FW:	331.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 239, 289 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Murraya koenigii*



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

Laboratory Procedures

Mahanimbine is supplied as a solid. A stock solution may be made by dissolving the mahanimbine in the solvent of choice, which should be purged with an inert gas. Mahanimbine is soluble in the organic solvent DMSO at a concentration of approximately 10 mM.

Description

Mahanimbine is a carbazole alkaloid that has been found in *M. koenigii* and has diverse biological activities.[1-3] It is active against *S. aureus* and *S. pyogenes* (MIC_{100} = 50 µg/ml for both).[1] Mahanimbine induces cell cycle arrest at the G_0/G_1 phase and apoptosis in Capan-2 and SW1190 cancer cells when used at a concentration of 7 µM, as well as inhibits proliferation in Capan-2, SW1190, BxPC-3, CFPAC-1, and HPAF-II cancer cells (IC_{50}s = 3.5, 3.5, 16, 64, and 32 µM, respectively).[2] It decreases body weight gain without affecting food intake and reduces increases in plasma total cholesterol and triglyceride levels in a rat model of high-fat diet-induced obesity when administered orally at a dose of 30 mg/kg.[3]

References

1. Ramsewak, R.S., Nair, M.G., Strasburg, G.M., *et al.* Biologically active carbazole alkaloids from *Murraya koenigii*. *J. Agric. Food Chem.* **47(2)**, 444-447 (1999).
2. Pei, C., He, Q., Liang, S., *et al.* Mahanimbine exerts anticancer effects on human pancreatic cancer cells by triggering cell cycle arrest, apoptosis, and modulation of AKT/mammalian target of rapamycin (mTOR) and signal transducer and activator of transcription 3 (STAT3) signalling pathways. *Med. Sci. Monit.* **24**, 6975-6983 (2018).
3. Birari, R., Javia, V., and Bhutani, K.K. Antiobesity and lipid lowering effects of *Murraya koenigii* (L.) spreng leaves extracts and mahanimbine on high fat diet induced obese rats. *Fitoterapia* **81(8)**, 1129-1133 (2010).

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