

Akuammigine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Akuammigine

Catalog No.: CFN97710

Cas No.: 642-17-1

Purity: > 98%

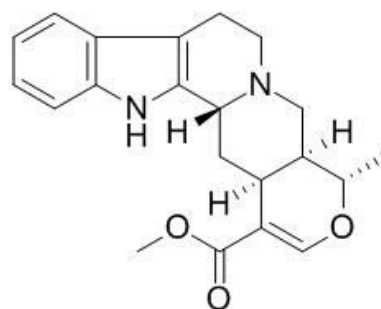
M.F: C₂₁H₂₄N₂O₃

M.W: 352.43

Physical Description: Powder

Synonyms:

Methyl (3 β ,19 α ,20 α)-19-methyl-16,17-didehydro-18-oxayohimban-16-carboxylate.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Others.

[Source]

The seeds of *Picralima nitida*.

[Biological Activity or Inhibitors]

Akuammidine, one compound isolated from the extracts of the seeds of *Picralima nitida* (fam. Apocynaceae), shows a preference for mu-opioid binding sites with K_i values of 0.6, 2.4 and 8.6 microM at mu-, delta- and kappa-opioid binding sites, respectively; the agonist actions of akuammidine in the mouse-isolated vas deferens were antagonised by naloxone and the mu-opioid receptor selective antagonist D-Phe-Cys-Tyr-D-Trp-Orn-Thr-Pen-Thr-NH₂ (CTOP) confirming an action at mu-opioid receptors.^[1]

Akuammigine competitively antagonizes the effect of noradrenaline on postsynaptic alpha-adrenoceptors, yielding pA₂ values of 4.68.^[2]

Akuammigine has in vitro antimalarial activity.^[3]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]

Mobile phase: MeOH: H₂O gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 254 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

[1] Menzies J R W, Paterson S J, Duwiejua M, *et al. Eur. J. Pharmacol.*, 1998, 350(1): 101-8.

[2] Demichel P, Roquebert J. *Brit. J. Pharmacol.*, 1984, 83(2):505–10.

[3] Chris O. Okunji, Maurice M. Iwu, Yoichiro Ito, *et al. J. Liq. Chromatogr. R. T.*, 2005, 28(5):775-83.

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