

# PRODUCT INFORMATION



## Paynantheine

Item No. 21841

**CAS Registry No.:** 4697-66-9  
**Formal Name:** (αE,2S,3R,12bS)-3-ethenyl-1,2,3,4,6,7,12,12b-octahydro-8-methoxy-α-(methoxymethylene)-indolo[2,3-a]quinolizine-2-acetic acid, methyl ester

**Synonym:** (+)-Paynantheine

**MF:** C<sub>23</sub>H<sub>28</sub>N<sub>2</sub>O<sub>4</sub>

**FW:** 396.5

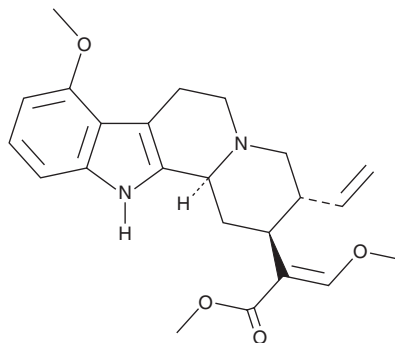
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 226, 292 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥2 years



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

### Description

Paynantheine (Item No. 21841) is an analytical reference standard that is structurally similar to known opioids. Paynantheine is an alkaloid found in *M. speciosa* (Kratom in Thai).<sup>1</sup> It has antinociceptive activity and reduces alcohol intake in rats.<sup>2,3</sup> This product is intended for research and forensic applications.

### References

1. Philipp, A.A., Wissenbach, D.K., Weber, A.A., *et al.* Metabolism studies of the kratom alkaloids mitraciliatine and isopaynantheine, diastereomers of the main alkaloids mitragynine and paynantheine, in rat and human urine using liquid chromatography-linear ion trap-mass spectrometry. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* **879(15-16)**, 1049-1055 (2011).
2. León, F., Obeng, S., Mottinelli, M., *et al.* Activity of *Mitragyna speciosa* ("Kratom") Alkaloids at Serotonin Receptors. *J. Med. Chem.* **64(18)**, 13510-13523 (2021).
3. Guttridge, A.M., Robins, M.T., Cassell, R.J., *et al.* G protein-biased kratom-alkaloids and synthetic carfentanilamide opioids as potential treatments for alcohol use disorder. *Br. J. Pharmacol.* **177(7)**, 1497-1513 (2019).

#### 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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