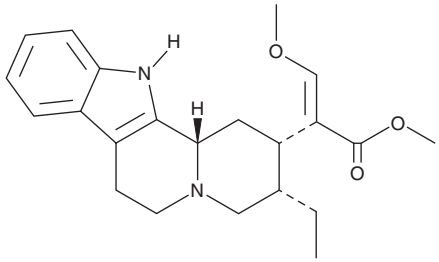
PRODUCT INFORMATION

Corynantheidine

Item No. 37859

CAS Registry No.:	23407-35-4
Formal Name:	(αE,2S,3S,12bS)-3-ethyl-1,2,3,4,6,7,12,12b-octahydro-α-(methoxymethylene)-indolo[2,3-a] quinolizine-2-acetic acid, methyl ester
Synonyms:	(-)-Corynantheidine, 9-demethoxy Mitragynine
MF:	$C_{22}H_{28}N_2O_3$
FW:	368.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 227 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Corynantheidine is supplied as a crystalline solid. A stock solution may be made by dissolving the corynantheidinein the solvent of choice, which should be purged with an inert gas. Corynantheidine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of corynantheidinein in these solvents is approximately 2 and 1 mg/ml, respectively.

Description

Corynantheidine is an alkaloid that has been found in *M. speciosa* (Kratom in Thai) and has antinociceptive activity.[1,2] It is a partial agonist of the μ-opioid receptor that lacks β-arrestin recruitment activity.[1]Corynantheidine selectively binds to μ-opioid receptors over κ- and δ-opioid receptors (K_is = 57.1, 385.4, and 172 nM, respectively, for the mouse receptors) and is selective for the μ-opioid receptor (EC_{50} = 104.24 nM) over the κ- and δ-opioid receptors, for which it has no activity, in [^{35}S]GTPγS assays. It also binds to α_{1D}- and α_{2A}-adrenergic receptors and NMDA receptors (K_is = 41, 74, and 83 nM, respectively, for the human receptors), among others.[1,2] Corynantheidine (10-100 nmol, i.c.v.) increases the latency to tail withdrawal in the tail-flick test in mice.[1]

References

1. Chakraborty, S., Uprety, R., Daibani, A.E., *et al.* Kratom alkaloids as probes for opioid receptor function: Pharmacological characterization of minor indole and oxindole alkaloids from kratom. *ACS Chem. Neurosci.* **12(14),** 2661-2678 (2021).
2. Obeng, S., Kamble, S.H., Reeves, M.E., *et al.* Investigation of the adrenergic and opioid binding affinities, metabolic stability, plasma protein binding properties, and functional effects of selected indole-based kratom alkaloids. *J. Med. Chem.* **63(1),** 433-439 (2020).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM