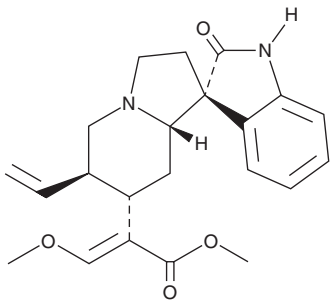
PRODUCT INFORMATION

Corynoxeine

Item No. 31403

CAS Registry No.:	630-94-4
Formal Name:	(αE,1′R,6′R,7′S,8′aS)-6′-ethenyl-1,2,2′,3′,6′,7′,8′,8′a-octahydro-α-(methoxymethylene)-2-oxo-spiro[3H-indole-3,1′(5′H)-indolizine]-7′-acetic acid, methyl ester
Synonym:	δ^{18}-Rynchophylline
MF:	$C_{22}H_{26}N_2O_4$
FW:	382.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 210, 242 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Uncaria* sp.



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

Laboratory Procedures

Corynoxeine is supplied as a solid. A stock solution may be made by dissolving the corynoxeine in the solvent of choice, which should be purged with an inert gas. Corynoxeine is soluble in the organic solvent DMSO at a concentration of approximately 3.8 mg/ml.

Description

Corynoxeine is an alkaloid that has been found in *Uncaria* and has diverse biological activities.[1-4] It inhibits LPS-induced production of nitric oxide (NO) in primary rat microglia (IC_{50} = 15.7 µM).[1] Corynoxeine (5-50 µM) inhibits PDGF-BB-induced ERK1/2 activation in, and proliferation of, rat aortic vascular smooth muscle cells (VSMCs).[2] It inhibits histamine release from LAD 2 mast cells induced by compound 48/80 (Item No. 22173) when used at concentrations ranging from 25 to 200 µM.[3] *In vivo*, corynoxeine (0.5, 2.5, and 5 mg/kg) reduces compound 48/80-induced local anaphylaxis and mast cell degranulation in mouse hind paws. Corynoxeine (30 and 100 mg/kg) also reduces methamphetamine-induced hyperlocomotion in mice.[4]

References

1. Yuan, D., Ma, B., Wu, C., *et al.* Alkaloids from the leaves of *Uncaria rhynchophylla* and their inhibitory activity on NO production in lipopolysaccharide-activated microglia. *J. Nat. Prod.* **71(7)**, 1271-1274 (2008).
2. Kim, T.-J., Lee, J.-H., Lee, J.-J., *et al.* Corynoxeine isolated from the hook of *Uncaria rhynchophylla* inhibits rat aortic vascular smooth muscle cell proliferation through the blocking of extracellular signal regulated kinase 1/2 phosphorylation. *Biol. Pharm. Bull.* **31(11)**, 2073-2078 (2008).
3. Xie, Y., Wei, D., Hu, T., *et al.* Anti-pseudo-allergic capacity of alkaloids screened from *Uncaria rhynchophylla*. *New J. Chem.* **4**, 38-45 (2020).
4. Sakakibara, I., Terabayashi, S., Kubo, M., *et al.* Effect on locomotion of indole alkaloids from the hooks of Uncaria plants. *Phytomedicine* **6(3)**, 163-168 (1999).

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