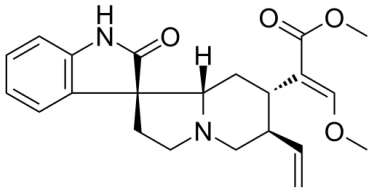
Data Sheet

Product Name:	Isocorynoxeine
Cat. No.:	CS-3806
CAS No.:	51014-29-0
Molecular Formula:	C22H26N2O4
Molecular Weight:	382.45
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : 50 mg/mL (130.74 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Isocorynoxeine, an isorhynchophylline-related alkaloid, exhibits a dose-dependent inhibition of **5-HT$_{2A}$** receptor-mediated current response with an **IC$_{50}$** of 72.4 μM. IC50 & Target: IC50: 72.4 μM (5-HT$_{2A}$ receptor)[1] **In Vitro:** Isocorynoxeine inhibits 5-HT$_{2A}$ receptor-mediated 5-HT currents. Isocorynoxeine prefer to interact with 5-HT$_{2A}$ receptors rather than with 5-HT$_{2C}$ receptors in the brain.Isocorynoxeine exhibits less potent inhibitory activity (with IC$_{50}$ values of > 100 μM) against the 5-HT$_{2C}$ receptor-mediated response than the 5-HT$_{2A}$ receptor-mediated response in oocytes. Isocorynoxeine dose-dependently and competitively inhibits 5-HT-evoked currents in Xenopus oocytes expressing 5-HT$_{2A}$ receptors, but has less of a suppressive effect on those in oocytes expressing 5-HT$_{2C}$ receptors[1]. **In Vivo:** The effects of Rhynchophylline, Corynoxeine, and Isocorynoxeine, isorhynchophylline-related alkaloids present are tested in Uncaria species, on 5-MeO-DMT-induced head-twitch behaviour in reserpinized mice. Neither Rhynchophylline [H=1.369, P=0.504] nor Corynoxeine [H=0.242, P=0.886] affects the behaviour, while Isocorynoxeine significantly attenuates it at 30 mg/kg (i.p.) [H=7.582, P<0.01][1].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: [1]Mice[1]

Male ICR mice are pretreated with Reserpine (5 mg/kg, i.p.) 3 h before the start of the experiments. Rhynchophylline (RHY), Corynoxeine (COX), **Isocorynoxeine (ICOX, 10 and 30 mg/kg)** or vehicle is injected **i.p.** 30 min before 5-MeO-DMT[1].

References:

[1]. Matsumoto K, et al. Suppressive effects of isorhynchophylline on 5-HT2A receptor function in the brain: behavioural and electrophysiological studies. Eur J Pharmacol. 2005 Jul 11;517(3):191-9.

CAIndexNames:

Spiro[3H-indole-3,1'(5'H)-indolizine]-7'-acetic acid, 6'-ethenyl-1,2,2',3',6',7',8',8'a-octahydro-α-(methoxymethylene)-2-oxo-, methyl ester, (α E,1'S,6'R,7'S,8'aS)-

SMILES:

O=C(NC1=C2C=CC=C1)[C@@]32[C@@](C[C@H](/C(C(OC)=O)=C\OC)[C@@H](C=C)C4)([H])N4CC3

Caution: Product has not been fully validated for medical applications. For research use only.

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