Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Rotundine

Catalog No: tcsc8092

Available Sizes

Size: 50mg

Specifications

CAS No:
483-14-7

Formula:
$C_{21}H_{25}NO_4$

Pathway:
GPCR/G Protein;Neuronal Signaling;Neuronal Signaling;GPCR/G Protein

Target:
Dopamine Receptor;Dopamine Receptor;5-HT Receptor;5-HT Receptor

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
(-)-Tetrahydropalmatine;L-Tetrahydropalmatine

Observed Molecular Weight:
355.43

Product Description

Rotundine is an antagonist of **dopamine D1**, **D2** and **D3 receptors** with **IC_{50}**s of 166 nM, 1.4 μM and 3.3 μM, respectively. Rotundine is also an antagonist of **5-HT_{1A}** with an **IC_{50}** of 370 nM.

IC50 & Target: IC50: 166 nM (D1 receptor), 1.4 μM (D2 receptor), 3.3 μM (D3 receptor), 370 nM (5-HT_{1A})[1]

In Vivo:

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It is reported that Rotundine (l-THP) possesses a blocking effect on dopamine D_1 and D2 receptors and can inhibit physical dependence in morphine dependent mice and significantly reduce the development of the conditional place preference induced by morphine in mice. On day 1 and 7, there is no difference in locomotor counts between the Rotundine groups (6.25, 12.5, and 18.75 mg/kg) and saline group [F(3, 37)=1.360, P>0.05, F(3, 37)=0.348, P>0.05, respectively]. Locomotor counts are greatly increased in the oxycodone group compare with the saline group. Rotundine at doses of 6.25, 12.5, and 18.75 mg/kg antagonizes hyperactivity induced by oxycodone [F(4, 60)=15.76, P[2].