

Cabergoline

Catalog No: tcsc2804



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

81409-90-7

Formula:

$C_{26}H_{37}N_5O_2$

Pathway:

GPCR/G Protein;Neuronal Signaling;Autophagy

Target:

Dopamine Receptor;Dopamine Receptor;Autophagy

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 33 mg/mL (73.07 mM)

Alternative Names:

FCE-21336

Observed Molecular Weight:

451.6

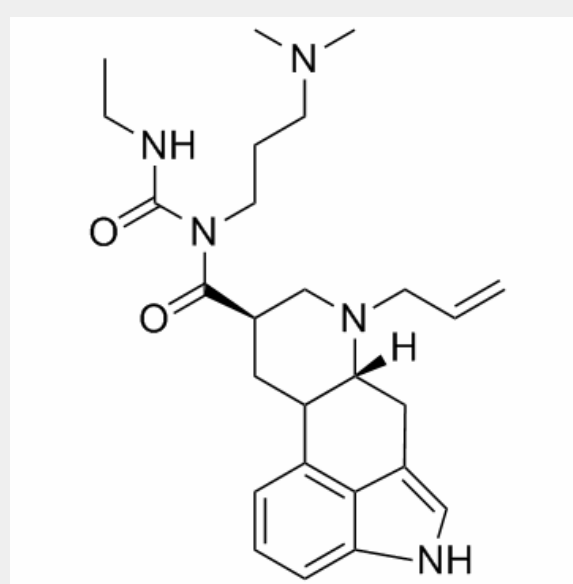
Product Description

Cabergoline is an ergot derived-dopamine D₂-like receptor agonist that has high affinity for **D₂**, **D₃**, and **5-HT_{2B}** receptors (**K_i**=0.7, 1.5, and 1.2, respectively).

IC50 & Target: K_i: 0.7 (Dopamine D₂ receptor), 1.5 (Dopamine D₃ receptor), 1.2 (5-HT_{2B} receptor)^[1]

In Vitro: Cabergoline acts as a potent agonist of D₂, D₃ and 5-HT_{2B} receptors. Pretreatment with Cabergoline inhibits H₂O₂-induced neuronal cell death in a dose-dependent manner. In the following experiments, 10 μM of Cabergoline is used to investigate its neuroprotective effects. MAP2 staining reveals that Cabergoline significantly suppresses the loss of neurons caused by H₂O₂ incubation. The detection of apoptotic nuclear condensation suggested that Cabergoline prevents apoptotic cell death following H₂O₂ exposure^[1].

In Vivo: Cabergoline has a longer elimination half-life (63 to 109 h) compared with other D₂-like receptor agonists, both a long-lasting clinical effect following single-dose administration, and an improvement in the quality of life of patients with chronic diseases are expected^[1]. The most significant reduction in rapid eye movement (REM) sleep bout number occurred during the light phase, in which Cabergoline-injected female handled mice has 67.3% less REM sleep bouts ($F_{(1,11)}=12.892$, $P=0.004$) than Cabergoline-injected females that are restrained, although the greatest number in reduction of REM sleep bouts occur during the dark phase (82.3% fewer REM sleep bouts; $F_{(1,11)}=3.667$, $P=0.082$). In male mice, Cabergoline reduces baseline Prolactin (PRL) levels (98.5%; $F_{(1,6)}=13.192$, $P=0.011$) from 5.8 ± 1.3 to 0.08 ng/mL within 2 hours of injection. After a 7-day recovery period, PRL levels return to values that are not different from baseline (5.0 ± 0.60 ng/mL; $F_{(1,6)}=0.715$, $P=0.43$)^[2].



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