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

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

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Cabergoline is an ergot derived-dopamine D_2-like receptor agonist that has high affinity for **D_2**, **D_3**, and **5-HT_{2B}** receptors (**K_i**=0.7, 1.5, and 1.2, respectively).

IC50 & Target: Ki: 0.7 (Dopamine D_2 receptor), 1.5 (Dopamine D_3 receptor), 1.2 (5-HT_{2B} receptor)[1]

In Vitro: Cabergoline acts as a potent agonist of D_2, D_3 and 5-HT_{2B} receptors. Pretreatment with Cabergoline inhibits H_2O_2-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 H_2O_2 incubation. The detection of apoptotic nuclear condensation suggested that Cabergoline prevents apoptotic cell death following H_2O_2 exposure[1].

In Vivo: Cabergoline has a longer elimination half-life (63 to 109 h) compared with other D_2-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 occurr 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].