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

Catharanthine

Catalog No: tcsc2757

Available Sizes

Size: 50mg

Size: 100mg

Specifications

CAS No:
2468-21-5

Formula:
$C_{21}H_{24}N_2O_2$

Pathway:
Neuronal Signaling;Membrane Transporter/Ion Channel

Target:
nAChR;nAChR

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
(+)-3,4-Didehydrocoronaridine

Observed Molecular Weight:
336.43

Product Description

Catharanthine inhibits nicotinic receptor mediated diaphragm contractions with IC50 of 59.6 μM.

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Target: nAChR

Catharanthine evokes a concentration-dependent attenuation of carbachol responses in the rat ileum preparation, producing rightward curve displacements and decreases in maximal agonist responses. The mixture of serpentine, plus ajmalicine and catharanthine reveals a concentration-dependent inhibitory effect of acethylcholinesterase (AchE), with an IC50 at ca. 2.25 μg/Ml [1]. Catharanthine can induce the self-association of tubulin into linear indefinite polymers with an efficacy that is 75% that of vinblastine or vincristine. Catharanthine binds to tubulin alpha-beta dimer with binding constant of 2.8 mM [2]. Catharanthine stimulates release of amylase from pancreatic fragments and to cause extensive degranulation of pancreatic acinar cells with accumulation of membrane material in the Golgi region. Catharanthine induces a delayed release of Ca2+ from prelabeled pancreatic fragments as compared to bethanechol [3]. Catharanthine inhibits epibatidine-induced Ca(2+) influx in TE671-α, -β, -γ, -δ cells in a noncompetitive manner with similar potencies IC50 of 17 mM-25 mM. Catharanthine inhibits [3H]TCP binding to the desensitized Torpedo AChR with higher affinity compared to the resting AChR. Catharanthine enhances [3H]cytisine binding to resting but activatable Torpedo AChRs, suggesting desensitizing properties [4].