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

Clonidine (hydrochloride)

Catalog No: tcsc2509

Available Sizes

Size: 100mg

Size: 500mg

Specifications

CAS No:
4205-91-8

Formula:
$C_9H_{10}Cl_3N_3$

Pathway:
GPCR/G Protein

Target:
Adrenergic Receptor

Purity / Grade:
>98%

Solubility:
DMSO : 7.6 mg/mL (28.51 mM; Need ultrasonic and warming)

Observed Molecular Weight:
266.55

Product Description

Clonidine hydrochloride is an agonist of **α2-adrenoceptor** and potent antihypertensive agent.

In Vitro: Clonidine (0.01, 0.1 or 1 μM) significantly induces CGRP (α and β) mRNA expression in a dose-dependent manner in endothelial cells. Clonidine treatment (1 μM) for 24 h significantly increases the NO level in endothelial cells. NO pathway modulates CGRP production induced by clonidine[2].

In Vivo:

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Clonidine (50 μg/kg, i.p.) induces a significant decrease in body temperature of rat lasting 3 hr, with the maximum at 1 hr after administration. An intracerebroventricular pretreatment of rats with neutral doses of phentolamine 15 min before clonidine considerably antagonizes the clonidine-induced hypothermia[1]. Clonidine (0.003-0.05 mg/kg, i.p.) potently suppresses dopamine efflux in the prefrontal cortex induced by PCP. Pretreatment with the alpha-2A receptor antagonist (BRL-44408) prevents clonidine from suppressing PCP-induced dopamine overflow in the prefrontal cortex[3]. In DMSO-pretreated SO rats, clonidine (0.6 μg i.c.) has no effect on blood pressure. However, after central adenosine A1R blockade (DPCPX) in SO rats, clonidine significantly (P 0.05, one-way ANOVA) clonidine-evoked reduction in blood pressure in ABD rats. In DPCPX-pretreated SO rats and along with the appearance of the hypotensive response, clonidine causes a significant (P [4].