Web: www.taiclone.com
Tel: +886-2-2735-9682
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Amibegron hydrochloride

Catalog No: tcsc0025298

Available Sizes

Size: 5mg

Specifications

CAS No:
121524-09-2

Formula:
$C_{22}H_{27}Cl_2NO_4$

Pathway:
GPCR/G Protein

Target:
Adrenergic Receptor

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
SR 58611A

Observed Molecular Weight:
440.36

Product Description

Amibegron hydrochloride is a selective **β3-adrenoceptor** agonist, with an **EC_{50}** of 3.5 nM for **β-adrenoceptor** in rat colon; Amibegron hydrochloride has anxiolytic and antidepressant activity.

IC50 & Target: EC50: 3.5 nM (β-adrenoceptor, from rat colon), 499 nM (β-adrenoceptor, from rat uterus)[1], 1.2 μM (β2-adrenoceptor, from cerebellum), 4.6 μM (β1-adrenoceptor1, from cortex)[2]

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In Vitro: Amibegron hydrochloride (SR 58611A) is a selective β-adrenoceptor agonist, with an EC_{50} of 3.5 nM for β-adrenoceptor in rat colon, and 499 nM in rat uterus[1]. Amibegron hydrochloride (SR 58611A) shows little effect on β1- and β2-adrenoceptors, 5-HT uptake, noradrenaline (NA) uptake, and dopamine (DA) uptake from rat brain tissue, with IC_{50}s of 4.6 and 1.2, 0.58, 2.5 and 3.2 μM, respectively; exhibits no effect on 5-HT1A, 5-HT2, MAO-A and MAO-B (IC_{50} > 10 μM)[2].

In Vivo: Amibegron hydrochloride (SR 58611A, 0.1 to 0.3 mg/kg, i.p.) potentiates the toxicity produced by yohimbine in mice. Amibegron hydrochloride (0.6 and 2 mg/kg, i.p.) is also active in the learned helplessness model of antidepressant-like activity in rats. However, Amibegron hydrochloride exhibits no effect on the spontaneous locomotor activity of mice at up to 10 mg/kg and of rats at up tp 30 mg/kg[2]. Amibegron hydrochloride (3 and 10 mg/kg, p.o.) increases the synthesis of 5-HT and tryptophan (Trp) levels in several rodent brain areas such as cortex, hippocampus, hypothalamus, striatum. In addition, Amibegron hydrochloride (10 mg/kg, p.o.) promotes the release of 5-HT in rat prefrontal cortex. Systemic (3 mg/kg, i.v.) or chronic administration of SR58611A (10 mg/kg, p.o.) does not affect the activity of serotonergic neurons in the rat dorsal raphe nucleus[3].