

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

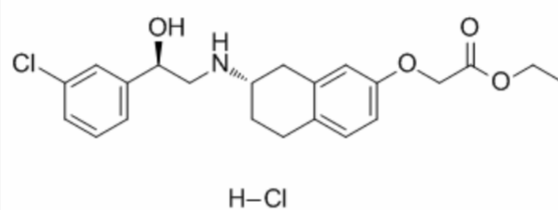
Product Description

Amibegron hydrochloride is a selective **β3-adrenoceptor** agonist, with an **EC₅₀** 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]

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 β_1 - and β_2 -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 μ M, respectively; exhibits no effect on 5-HT_{1A}, 5-HT₂, MAO-A and MAO-B ($IC_{50} > 10 \mu$ M)^[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 to 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].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!