

# 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

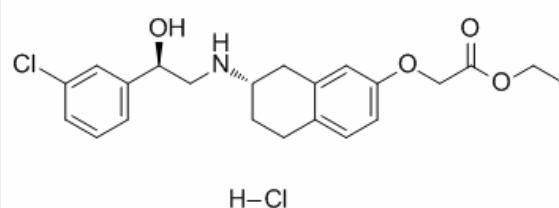
## Product Description

Amibegron hydrochloride is a selective **β3-adrenoceptor** agonist, with an **EC<sub>50</sub>** 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)<sup>[1]</sup>, 1.2 μM (β2-adrenoceptor, from cerebellum), 4.6 μM (β1-adrenoceptor1, from cortex)<sup>[2]</sup>

**In Vitro:** Amibegron hydrochloride (SR 58611A) is a selective  $\beta$ -adrenoceptor agonist, with an  $EC_{50}$  of 3.5 nM for  $\beta$ -adrenoceptor in rat colon, and 499 nM in rat uterus<sup>[1]</sup>. Amibegron hydrochloride (SR 58611A) shows little effect on  $\beta_1$ - and  $\beta_2$ -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  $\mu$ M, respectively; exhibits no effect on 5-HT<sub>1A</sub>, 5-HT<sub>2</sub>, MAO-A and MAO-B ( $IC_{50} > 10 \mu$ M)<sup>[2]</sup>.

**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<sup>[2]</sup>. 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<sup>[3]</sup>.



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