

Sibutramine (hydrochloride)

Catalog No: tcsc2856



Available Sizes

Size: 10mg

Size: 50mg



Specifications

CAS No:

84485-00-7

Formula:

$C_{17}H_{27}Cl_2N$

Pathway:

Neuronal Signaling; Membrane Transporter/Ion Channel

Target:

Serotonin Transporter; Potassium Channel

Purity / Grade:

>98%

Solubility:

DMSO: ≥ 57 mg/mL

Alternative Names:

BTS 54-524

Observed Molecular Weight:

316.31

Product Description

Sibutramine hydrochloride is a novel **5-HT (serotonin)** and noradrenaline reuptake inhibitor (SNRI). The **IC₅₀** for Sibutramine block of voltage-gated K⁺ channel (**K_v4.3**) is 17.3 μ M.

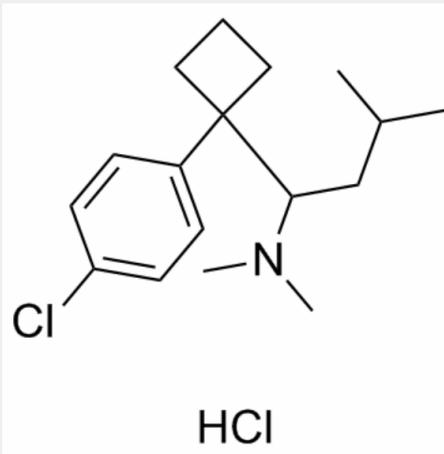
IC50 & Target: 5-HT (serotonin) reuptake^[1]

IC50: 17.3 μ M ($K_v4.3$)^[2]

In Vitro: Sibutramine is a novel 5-HT (serotonin) and noradrenaline reuptake inhibitor (SNRI). Sibutramine reduces the food intake of rodents and this effect is partially or completely reversed by pretreating with 5-HT or noradrenaline antagonists, indicating that both neurotransmitters are involved in sibutramine's hypophagic effect^[1]. Sibutramine causes the concentration-dependent block of the $K_v1.3$ and $K_v3.1$ currents with IC_{50} s of 3.7 and 32.7 μ M, respectively. The steady-state currents of $K_v1.3$ and $K_v3.1$ are decreased by Sibutramine in a concentration-dependent manner with IC_{50} s of 3.7 ± 0.7 (n=6) and 32.7 ± 5.0 μ M (n=5), respectively^[2].

In Vivo: Sibutramine (SIB) (5 mg/kg ip), which blocks the reuptake of both 5-hydroxytryptamine (5-HT) and noradrenaline (NA), also requires ARC pro-opiomelanocortin (POMC) neurons to achieve its appetitive effects in male and female mice. Sibutramine (5 mg/kg) suppresses 3-hour dark cycle food intake to a comparable extent in young adult and middle-aged male and female POMC-EGFP mice^[3]. In normal Wistar rats, 3 mg/kg Sibutramine produces a marked (~30%) inhibition of food intake on the first day of dosing.

Consistent with published data, the effects of Sibutramine on food intake diminished with time, although cumulative food intake over the 9-day study is significantly (P[4]).



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