

# Sibutramine (hydrochloride monohydrate) Catalog No: tcsc2857

Available Sizes

Size: 10mg

Size: 50mg

Specifications

**CAS No:** 125494-59-9

Formula: C<sub>17</sub>H<sub>29</sub>Cl<sub>2</sub>NO

Pathway: Neuronal Signaling;Membrane Transporter/Ion Channel

### **Target:**

Serotonin Transporter; Potassium Channel

#### **Purity / Grade:**

>98%

## Solubility:

DMSO

#### **Alternative Names:**

BTS 54-524 hydrochloride monohydrate

#### **Observed Molecular Weight:**

334.32

## **Product Description**

Sibutramine hydrochloride monohydrate is a novel **5-HT** (**serotonin**) and noradrenaline reuptake inhibitor (SNRI). The  $IC_{50}$  for Sibutramine block of voltage-gated K<sup>+</sup> channel ( $K_{v}$ )**4.3** is 17.3  $\mu$ M.

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IC50 & Target: 5-HT (serotonin) reuptake<sup>[1]</sup>

## IC50: 17.3 μM (K<sub>V</sub>4.3) <sup>[2]</sup>

*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<sup>[1]</sup>. Sibutramine causes the concentration-dependent block of the  $K_V 1.3$  and  $K_V 3.1$  currents with IC<sub>50</sub>s of 3.7 and 32.7  $\mu$ M, respectively. The steady-state currents of  $K_V 1.3$  and  $K_V 3.1$  are decreased by Sibutramine in a concentration-dependent manner with IC<sub>50</sub>s of 3.7±0.7 (n=6) and 32.7±5.0  $\mu$ M (n=5), respectively<sup>[2]</sup>.

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