

# Ropivacaine hydrochloride

Catalog No: tcsc0013146



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

98717-15-8

**Formula:**

$C_{17}H_{27}ClN_2O$

**Pathway:**

Membrane Transporter/Ion Channel

**Target:**

Potassium Channel

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Observed Molecular Weight:**

310.86

## Product Description

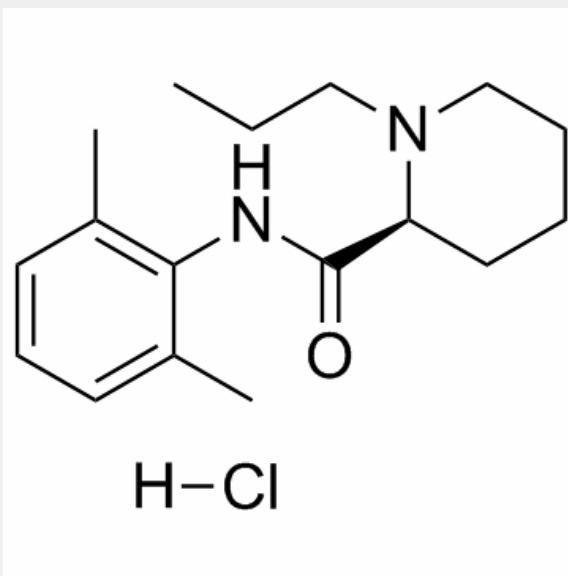
Ropivacaine hydrochloride is an inhibitor of **K<sub>2P</sub>** (two-pore domain potassium channel) **TREK-1** with an **IC<sub>50</sub>** of 402.7 μM.

IC50 & Target: IC50: 402.7 μM (K<sub>2P</sub> TREK-1)<sup>[1]</sup>

**In Vitro:** Ropivacaine hydrochloride shows reversible inhibition of TREK-1 channels in a concentration-dependent manner. The half-maximal inhibitory concentrations (IC<sub>50</sub>) of Ropivacaine hydrochloride is 402.7±31.8 μM.. Hill coefficient is 0.89 for Ropivacaine

hydrochloride<sup>[1]</sup>.

***In Vivo:*** Epidural injections of Ropivacaine hydrochloride (60, 180 and 600 µg) produce immediate and reversible motor paralysis. The motor blockade effect is dose-dependent, with paralysis duration of 4.6, 14.6 and 29.5 mins, respectively. Epidural Ropivacaine hydrochloride sustained release suspension also produces significant blockade of mechanical allodynia and thermal hyperalgesia by 59.5% and 70.9%, respectively (P[2]).



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