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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_{2P}** (two-pore domain potassium channel) **TREK-1** with an **IC_{50}** of 402.7 μM.

IC50 & Target: IC50: 402.7 μM (K_{2P} TREK-1)[1]

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

hydrochloride[1].

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].