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Tertiapin-Q

Catalog No: tcsc0029213

Available Sizes

Size: 1mg

Size: 5mg

Specifications

CAS No:
910044-56-3

Formula:
$C_{106}H_{175}N_{35}O_{24}S_4$

Pathway:
Membrane Transporter/Ion Channel

Target:
Potassium Channel

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
2452

Product Description

Tertiapin-Q is a highly selective blocker of **GIRK1/4** heterodimer and **ROMK1** (**$Kir_{1.1}$**).

IC50 & Target: Potassium channel[1]

In Vitro: Tertiapin-Q is a highly selective blocker of G protein-coupled inwardly rectifying potassium (GIRK1/4) heterodimer and renal outer medullary potassium channel (ROMK1, $Kir_{1.1}$)[1]. Tertiapin-Q is a potent and selective blocker for $Kir_{1.1}$ renal outer

medullary potassium, $Kir_{3.1}$-$Kir_{3.4}$ channels and calcium activated large conductance potassium channels (big potassium channels). The somatostatin (SS-14)-activated current is almost completely blocked (93.2±2.9%, n=5; P[2].

In Vivo: Tertiapin-Q is a muscarinic acetylcholine receptor-operated K^+ current ($I_{K,Ach}$) blocker. After the cessation of rapid atrial pacing, the atrial effective refractory period (AERP) is unchanged during the experimental period in the rapid atrial pacing (RAP) rabbits (n=6). Bepridil (1 mg/kg, n=5 for each group), Amiodarone (10 mg/kg, n=5 for each group), Vernakalant (3 mg/kg, n=5 for each group), Ranolazine (10 mg/kg, n=6 for each group) or Tertiapin-Q (0.03 mg/kg, n=5 for each group) on the AERP in the control and RAP rabbits. Tertiapin-Q significantly prolongs the AERP at each pacing cycle length both in the control and RAP rabbits. The extents of prolonging effect of Tertiapin-Q on the AERP in the RAP rabbits are greater than those in the control animals[3].