

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

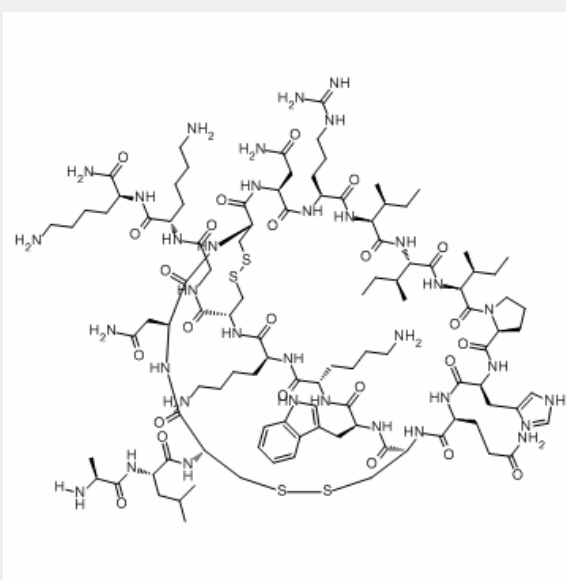
Tertiapin-Q is a highly selective blocker of **GIRK1/4** heterodimer and **ROMK1 (Kir_{1.1})**.

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 ($93.2 \pm 2.9\%$, $n=5$; $P[2]$).

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].



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