Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Neomycin (sulfate)

Catalog No: tcsc2584

Available Sizes

Size: 10 mM * 1 mL in Water

Size: 10g

Specifications

CAS No:
1405-10-3

Formula:
$C_{23}H_{52}N_6O_{25}S_3$

Pathway:
Membrane Transporter/Ion Channel;Anti-infection

Target:
Calcium Channel;Bacterial

Purity / Grade:
>98%

Solubility:
H2O : ≥ 31 mg/mL (34.11 mM)

Storage Instruction:
Powder -20°C for 3 years 4°C for 2 years In solvent -80°C for 6 months -20°C for 1 month

Observed Molecular Weight:
908.88

Product Description

Neomycin sulfate is an aminoglycoside antibiotic and **calcium channel** inhibitor.

In Vitro:

Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Neomycin inhibits thrombin-stimulated release of inositol 1,4,5-trisphosphate (IP_3), by selectively binding PIP_2, but does not inhibit ^{32}P incorporation into PI or initiation of DNA synthesis. Neomycin (10 μM-1 mM) induces considerable release of [^{3}H]arachidonic acid from phosphatidylinositol, phosphatidylcholine and phosphatidylethanolamine in saponin-permeabilized human platelets prelabeled with [^{3}H]arachidonic acid. Moreover, neomycin enhances arachidonic acid release induced by thrombin. Addition of neomycin (100 μM) to $^{45}Ca^{2+}$-preloaded platelets elicits $^{45}Ca^{2+}$ mobilizatioin from intracellular stores. Neomycin (0-10 mM) inhibits guanosine 5\'-[gamma-thio]triphosphate-stimulated PLD activity in digitonin-permeabilized NG108-15 cells in a concentration-dependent manner (50% inhibition at 100 μM). Neomycin similarly inhibits PLD activity present in rat brain membranes and assayed in vitro with [^{3}H]phosphatidylcholine as substrate (50% inhibition at 65 μM). Neomycin (5 mM) causes reversible reductions in the level of intracellular Ca^{2+}, but PtdIns(4,5)P2 is not required for the channel activity.