Product Name: MDL 12330A hydrochloride

Chemical Properties

Product Name: MDL 12330A hydrochloride

Cas No.: 40297-09-4

M.Wt: 377.01

Formula: C23H36N2.HCl

Chemical Name: (E)-N-((1R,2R)-2-phenylcyclopentyl)azacyclotridecan-2-imine hydrochloride

Canonical SMILES: [C@@H](CCC1)(C2=CC=CC=C2)[C@@H]1N/C3=N/CCCCCCCCCCC3.Cl

Solubility: Soluble in DMSO

Storage: Store at -20°C

General tips: For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets: Others

Pathways: Adenylate cyclase

Description:

IC50: 1.5 X 10^-5 M for histamine-stimulated adenylate cyclase [1].
RMI 12330 A is N-((cis-2-phenylcyclopentyl)azacyclotridecan-2-imine hydrochloride, which has been reported to inhibit choleratoxin-induced intestinal hypersecretion, presumably via an inhibition of mucosal adenylate cyclase.
In vitro: RMI 12330 A at the concentration of ranging from 10 uM to 5 mM the can effectively
inhibit the adenylate cyclase activity of a rat liver plasma membrane preparation. RMI 12330 A does not apply its competition on the catalytic site of the enzyme to perform its inhibitory action. The inhibition activity of RMI 12330 A upon adenylate cyclase was due to an irreversible binding with the plasma membranes [2].

Ex vivo: In the isolated work-performing heart of the guinea-pig, RMI 12330A depressed all cardiac functions with the IC50 of 1.1 X 10-6 M, including contractile force, dP/dt, dF/dt, pressures developed, stroke work and work performance. The positive inotropic response to increasing heart rate (staircase) and left atrial pressure rose became negative. Ouabain, isoprenaline and histamine, no longer had positive inotropic effects. After its depression by RMI 12330A, the cardiac function can be completely restored by increasing the perfusate calcium concentration from 2.5 mm to 4.5 and 6.5 mm [1].

Clinical trial: So far, no clinical study has been conducted.

Reference:

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.