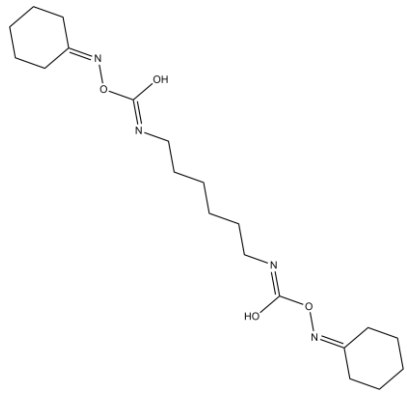
Product Data Sheet

Chemical Properties



Product Name: RHC 80267

Cas No.: 83654-05-1

M.Wt: 394.51

Formula: C20H34N4O4

Chemical Name: cyclohexanone O-((E)-((6-((E)-(((cyclohexylideneamino)oxy)(hydroxy)methylene)amino)hexyl)imino)(hydroxy)methyl) oxime

Canonical SMILES: O/C(O/N=C1CCCCC/1)=N\CCCCCC/N=C(O/N=C2CCCCC/2)\O

Solubility: Soluble in DMSO > 10 mM

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 : Apoptosis

Pathways: PC-PLC

Description:

RHC 80267 is a potent and selective inhibitor of diacylglycerol lipase [1].
Diacylglycerol lipase is a key enzyme in the biosynthesis of the endocannabinoid 2-arachidonoylglycerol and catalyzes the hydrolysis of diacylglycerol.
RHC 80267 is a potent and selective diacylglycerol lipase inhibitor. RHC 80267 inhibited canine

platelet diglyceride lipase with IC50 value of 4 μM. RHC 80267 inhibited diacylglycerol lipase released from rat and dog platelets. Also, RHC 80267 induced diglyceride accumulation and inhibited fatty acid accumulation [1]. In smooth muscle isolated from the guinea-pig gastric antrum, RHC-80267 (0.3-1 μM) increased slow potential frequency and reduced the refractory period for slow potentials generation evoked by depolarizing stimuli from 8 s to 5 s. Also, RHC-80267 enhanced the frequency of slow potentials increased by acetylcholine (ACh). RHC 80267 increased diacylglycerol accumulation, which then activated PKC. PKC was involved in regulating the frequency of slow potentials [2]. In rat mesenteric artery contracted with either KCl or noradrenaline, RHC-80267 (0.1-10 μM) enhanced acetylcholine-evoked relaxation. In brain homogenate, RHC-80267 inhibited cholinesterase activity with IC50 value of 4 μM in a concentration-dependent way. These results suggested that the enhancement of acetylcholine-evoked responses by RHC-80267 was caused by the inhibition of the cholinesterase activity [3].

***Reference**:*

[1]. Sutherland CA, Amin D. Relative activities of rat and dog platelet phospholipase A2 and diglyceride lipase. Selective inhibition of diglyceride lipase by RHC 80267. J Biol Chem, 1982, 257(23): 14006-14010.

[2]. Suzuki H, Kito Y, Fukuta H, et al. Effects of RHC-80267, an inhibitor of diacylglycerol lipase, on excitation of circular smooth muscle of the guinea-pig gastric antrum. J Smooth Muscle Res, 2002, 38(6): 153-164.

[3]. Ghisdal P, Vandenberg G, Hamaide MC, et al. The diacylglycerol lipase inhibitor RHC-80267 potentiates the relaxation to acetylcholine in rat mesenteric artery by anti-cholinesterase action. Eur J Pharmacol, 2005, 517(1-2): 97-102.

Caution

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.

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