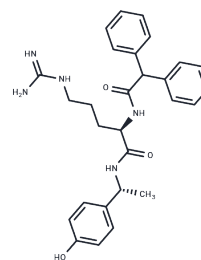


Y1 receptor antagonist 1

Chemical Properties

CAS No. : 221697-09-2
 Formula: C₂₈H₃₃N₅O₃
 Molecular Weight: 487.59
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Y1 receptor antagonist 1 (H 409-22 isomer) is the active isomer of H-409/22, a neuropeptide Y (NPY) Y1 receptor antagonist that dose-dependently antagonizes the vascular response to exogenous and endogenous NPY in pigs. Lagodeoxycholic acid (H 409-22 isomer) is the active isomer of H-409/22, an antagonist of neuropeptide Y (NPY) Y1 receptor.
Targets(IC50)	Neurokinin receptor, Neuropeptide Y Receptor
In vivo	24 wild-type male Wistar rats were injected with Y1 receptor antagonist 1 (1×10 ⁻⁴ M, dissolved in hyaluronic acid (HA)) into the tibial intramedullary area. Y1 receptor antagonist 1 may have the ability to regulate local bone mineral density (BMD) and bone formation potential. Y1 receptor antagonist 1 causes new bone formation in trabecular bone when applied topically [1]; Y1 receptor antagonist 1 (100-200 nmol) is dissolved in sterile water and infused with 5-7 μl of saline 15 minutes before use. The volume of Y1 receptor antagonist 1 was infused into guinea pigs. Among them, a dose of 200 nmol of Y1 receptor antagonist 1 was able to inhibit the feeding response to NPY, while a lower dose of H 409/22 was ineffective, and Y1 receptor antagonist 1 had a moderate stimulating effect on feeding [2]; 82 evaluable male patients were enrolled in a randomized, double-blind, two-way crossover study, low-dose (6.7 μg/kg/min; n=59) and high-dose (13.3 μg/kg/min; n=23) Y1 receptor antagonist Y1 receptor antagonist 1 can attenuate the increase in blood pressure during exercise but does not affect exercise-induced ischemic parameters in patients with coronary artery disease when infused for 2 hours or placebo [3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0509 mL	10.2545 mL	20.509 mL
5 mM	0.4102 mL	2.0509 mL	4.1018 mL
10 mM	0.2051 mL	1.0255 mL	2.0509 mL
50 mM	0.041 mL	0.2051 mL	0.4102 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Çevik MÖ, et al. Neuropeptide Y1 receptor antagonist but not neuropeptide Y itself increased bone mineral density when locally injected with hyaluronic acid in male Wistar rats. *Turk J Med Sci.* 2020 Aug 26;50(5):1454-1460.

Lecklin A, et al. Receptor subtypes Y1 and Y5 mediate neuropeptide Y induced feeding in the guinea-pig. *Br J Pharmacol.* 2002 Apr;135(8):2029-37.

Gullestad L, et al. The effect of a neuropeptide Y Y1 receptor antagonist in patients with angina pectoris. *Eur Heart J.* 2003 Jun;24(12):1120-7.

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