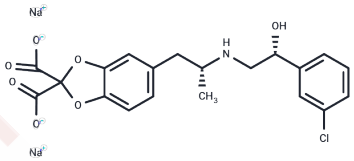
Data Sheet (Cat.No.T10830)

TargetMol

CL 316243

Chemical Properties



CAS No. : 138908-40-4

Formula: C20H18ClNNa2O7

Molecular Weight: 465.79

Storage: Keep away from moisture
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	CL316243 is a highly potent selective agonist of β3-adrenoceptor, with a EC50 of 3 nM. CL316243 is an effective stimulant of adipocyte lipolysis and increases brown adipose tissue thermogenesis and metabolic rate. CL316243 has the potential for the treatment obesity, diabetes and urge urinary incontinence.
Targets(IC50)	Adrenergic Receptor
In vitro	**METHODS**: We treated rat adipocytes with CL (0.001 - 1 μM) and examined MAPK activation. **RESULTS** Treatment of cells with CL for 15 min activated MAPK, but the increase in MAPK activation was not obvious when treated with 1 nM CL, and disappeared when the concentration of CL was increased to 1 μM. [2]
In vivo	**METHODS**: The relaxant effects of different concentrations of CL316243 (0.25-100 g/kg) on the rat lower esophageal sphincter (LES) were recorded before and after continuous infusion of L748337 (0.5 g kg1 min1). **RESULTS** CL316243 had a significant, long-term and dose-dependent inhibitory effect on LESP, with little effect on heart rate and mean arterial pressure. [1]

Solubility Information

Solubility	DMSO: 10 mg/mL (21.47 mM),Sonication is recommended. H2O: 100 mg/mL (214.69 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1469 mL	10.7345 mL	21.4689 mL
5 mM	0.4294 mL	2.1469 mL	4.2938 mL
10 mM	0.2147 mL	1.0734 mL	2.1469 mL
50 mM	0.0429 mL	0.2147 mL	0.4294 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

Dimarino M, et al. Beta3 adrenergic stimulation inhibits the opossum lower esophageal sphincter. Gastroenterology. 2002 Nov;123(5):1508-15.

Ohsaka Y, et al. Adipose cells induce phospho-Thr-172 AMPK production by epinephrine or CL316243 in mouse 3T3-L1 adipocytes or MAPK activation and G protein-associated PI3K responses induced by CL316243 or aluminum fluoride in rat white adipocytes. Folia Biol (Praha). 2014;60(4):168-79.