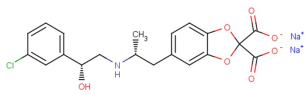
Data Sheet (Cat.No.T10830)

TargetMol
A DRUG SCREENING EXPERT

CL 316243

Chemical Properties



CAS No.:	138908-40-4
Formula:	C20H18ClNNa2O7
Molecular Weight:	465.79
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	CL316243 is a highly potent selective agonist of β3-adrenoceptor (EC50: 3 nM) but is an extremely poor to β1/2- receptors. CL316243 is an effective stimulant of adipocyte lipolysis and increases brown adipose tissue thermogenesis and metabolic rate.
Targets(IC_{50})	β3-adrenoceptor: (EC50)3 nM
In vitro	CL 316243 displays binding affinities with IC50 values of 1 μM and 0.6 μM for rat soleus muscle and rat heart respectively [1]. CL 316243 inhibits spontaneously contracting, isolated rat detrusor strips in a concentration-dependent manner with a mean concentration inhibiting 50% of the maximal response of 2.65 nM [3].
In vivo	CL316243 disodium (subcutaneously injection; 0.1 mg/kg/day; once a day; 1 week) elevates the mRNA and protein expression levels of BAT in UCP1 [2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.147 mL	10.734 mL	21.469 mL
5 mM	0.429 mL	2.147 mL	4.294 mL
10 mM	0.215 mL	1.073 mL	2.147 mL
50 mM	0.043 mL	0.215 mL	0.429 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Bloom JD, et al. Disodium (R,R)-5-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]-amino] propyl]-1,3-benzodioxole-2,2-dicarboxylate (CL 316,243). A potent beta-adrenergic agonist virtually specific for beta 3 receptors. A promising antidiabetic and antiobesity agent.J Med Chem. 1992 Aug 7;35(16):3081-4.

2. Shin W, et al. Impaired adrenergic agonist-dependent beige adipocyte induction in obese mice.J Vet Med Sci. 2019 Jun 6;81(6):799-807.

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