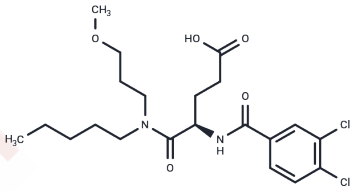
Data Sheet (Cat.No.T15105)

TargetMol

Dexloxiglumide

Chemical Properties



CAS No. : 119817-90-2

Formula: C21H30Cl2N2O5

Molecular Weight: 461.38

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	Dexloxiglumide is an orally active and selective cholecystokinin type A (CCKA) receptor antagonist and the pharmacologically active enantiomer of Loxiglumide, effectively inhibiting smooth muscle contractions induced by cholecystokinin-octapeptide (CCK-8), while displaying moderate, polarized, concentration-dependent, and pH-dependent Caco-2 permeability and increasing uptake of the MRP1 substrate fluorescein. Dexloxiglumide supports the mechanistic studies of gastrointestinal disorders and tumor-related smooth muscle and transporter biology.
Targets(IC50)	Cholecystokinin Receptor
In vitro	In ex vivo studies utilizing human isolated gallbladder, Dexloxiglumide stimulated P-gp ATPase activity at concentrations > 17.3 μM, increased fluorescein uptake by 4-fold at 433 μM indicating MRP1 inhibition [1].
In vivo	In rat models, intravenous administration of Dexloxiglumide dose-dependently inhibited the delay in gastric emptying induced by CCK-8, with an ID50 of 1.14 mg/kg. The compound demonstrated selectivity for the CCK1 receptor, as it did not affect pentagastrin-induced acid secretion, a process mediated by CCK2 (CCK-B) receptors, even at doses that fully blocked CCK1-mediated motility effects [1].

Solubility Information

Solubility	DMSO: 40 mg/mL (86.7 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (5.42 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1674 mL	10.8371 mL	21.6741 mL
5 mM	0.4335 mL	2.1674 mL	4.3348 mL
10 mM	0.2167 mL	1.0837 mL	2.1674 mL
50 mM	0.0433 mL	0.2167 mL	0.4335 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

Scarpignato C, et al. Effect of dexloxiglumide and spiroglumide, two new CCK-receptor antagonists, on gastric emptying and secretion in the rat: evaluation of their receptor selectivity in vivo. Aliment Pharmacol Ther. 1996 Jun;10(3):411-9.
Maselli MA, et al. CCK1 receptor antagonist, dexloxiglumide: effects on human isolated gallbladder. Potential clinical applications. Minerva Gastroenterol Dietol. 2003 Sep;49(3):211-6.
Tolle-Sander, S. , et al. , (2003). Characterization of dexloxiglumide in vitro biopharmaceutical properties and active transport. Journal of pharmaceutical sciences, 92(10), 1968-1980.