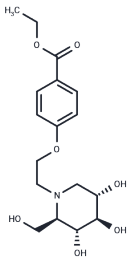
Data Sheet (Cat.No.T15215)

TargetMol

Emiglitate

Chemical Properties



CAS No. : 80879-63-6

Formula: C17H25NO7

Molecular Weight: 355.38

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Emiglitate is a selective and competitive α-glucoside hydrolase inhibitor.
Targets(IC50)	Others
In vitro	Emiglitate inhibits the glucose-stimulated insulin release in parallel. It also has an inhibitory effect on the activities of acid glucan-1,4-α-glucosidase and acid α-glucosidase. The CO-induced amplification of the glucose-stimulated insulin release as well as of the increased activities of the acid α-glucoside hydrolases are abrogated by emiglitate. Which showed the same levels as in the absence of CO. The CO-induced rise in the activities of acid phosphatase and acid N-acetyl-β-D-glucosaminidase is not appreciably affected by emiglitate. The activities of acid phosphatase and N-acetyl-β-D-glucosaminidase tend to increase in the presence of the α-glucoside hydrolase inhibitor [1].
In vivo	Emiglitate in the amount of 5 mg/kg b.wt. does not induce significant changes either of glycogen concentrations or at the EM-level. Emiglitate causes a significant, dose-dependent increase of hepatic glycogen concentrations, in fasted rats. The increase in hepatic glycogen is due to lysosomal storage of glycogen only [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8139 mL	14.0694 mL	28.1389 mL
5 mM	0.5628 mL	2.8139 mL	5.6278 mL
10 mM	0.2814 mL	1.4069 mL	2.8139 mL
50 mM	0.0563 mL	0.2814 mL	0.5628 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.

Reference

Mosén H, et al. Nitric oxide inhibits, and carbon monoxide activates, islet acid alpha-glucoside hydrolase activitiesin parallel with glucose-stimulated insulin secretion. J Endocrinol. 2006 Sep;190(3):681-93.
Lembcke B, et al. Lysosomal storage of glycogen as a sequel of alpha-glucosidase inhibition by the absorbed deoxynojirimycin derivative emiglitate (BAYo1248). A drug-induced pattern of hepatic glycogen storage mimicking Pompe's disease (glycogenosis type II). Res Exp Med (Berl). 1991;191(6):389-404.