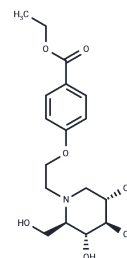


## Emiglitate

## Chemical Properties

CAS No. :	80879-63-6
Formula:	C <sub>17</sub> H <sub>25</sub> N <sub>1</sub> O <sub>7</sub>
Molecular Weight:	355.38
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	Emiglitate is a selective and competitive $\alpha$ -glucosidase inhibitor.
Targets(IC50)	Others, glycosidase
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- $\alpha$ -glucosidase and acid $\alpha$ -glucosidase. The CO-induced amplification of the glucose-stimulated insulin release as well as of the increased activities of the acid $\alpha$ -glucosidase 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- $\beta$ -D-glucosaminidase is not appreciably affected by emiglitate. The activities of acid phosphatase and N-acetyl- $\beta$ -D-glucosaminidase tend to increase in the presence of the $\alpha$ -glucosidase 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

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	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

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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

- Mosén H, et al. Nitric oxide inhibits, and carbon monoxide activates, islet acid alpha-glucoside hydrolase activities in 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.

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