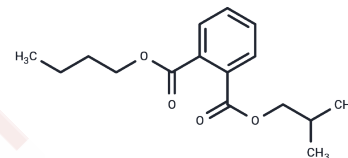


## Butyl isobutyl phthalate

## Chemical Properties

CAS No. :	17851-53-5
Formula:	C16H22O4
Molecular Weight:	278.34
Storage:	Pure form: -20°C for 3 years   In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Butyl isobutyl phthalate (ButyllsobutylPhthalate) is a non-competitive $\alpha$ -glucosidase inhibitor (IC <sub>50</sub> :38 $\mu$ M), it shows a hypoglycemic effect
Targets(IC <sub>50</sub> )	Glucosidase, glycosidase
In vivo	Butyl isobutyl phthalate (BIP) could be considered as an $\alpha$ -glucosidase inhibitor and developed as an important antidiabetes agent for type II diabetes therapy.
Animal Research	Animal Model: Streptozocin induced diabetic mice (Male Kunming mice). Dosage: 25, 50 or 100 mg/kg, Administration: Intra-gastric administration

## Solubility Information

Solubility	DMSO: 250 mg/mL (898.18 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (17.96 mM), Sonication is recommended. <i>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.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.5927 mL	17.9636 mL	35.9273 mL
5 mM	0.7185 mL	3.5927 mL	7.1855 mL
10 mM	0.3593 mL	1.7964 mL	3.5927 mL
50 mM	0.0719 mL	0.3593 mL	0.7185 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

Bu T , Liu M , Zheng L , et al.  $\alpha$ -glucosidase inhibition and the in vivo hypoglycemic effect of butyl-isobutyl-phthalate derived from the *Laminaria japonica* rhizoid[J]. *Phytotherapy Research*, 2010, 24(11).  
Huang S Y, Hsieh C W, Feng C W. In vitro neuroprotective effects and in silico evaluation of the pharmacological potential of two phenolic acids and a derivative originated from the edible red macroalga (*Bangia fuscopurpurea*). *Journal of Functional Foods*. 2024, 119: 106322.

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