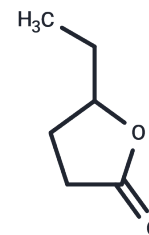


$\gamma$ -Hexalactone

## Chemical Properties

CAS No. :	695-06-7
Formula:	C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>
Molecular Weight:	114.14
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	$\gamma$ -Hexalactone ( $\gamma$ -caprolactone) belongs to the class of organic compounds known as gamma butyrolactones. Gamma butyrolactones are compounds containing a gamma butyrolactone moiety, which consists of an aliphatic five-member ring with four carbon atoms, one oxygen atom, and bears a ketone group on the carbon adjacent to the oxygen atom. Thus, Gamma-caprolactone is considered to be a fatty ester lipid molecule. Gamma-Caprolactone is a very hydrophobic molecule, practically insoluble (in water), and relatively neutral. Gamma-Caprolactone exists in all eukaryotes, ranging from yeast to humans. Outside of the human body, Gamma-caprolactone has been detected, but not quantified in, several different foods, such as potato, cereals and cereal products, pomes, alcoholic beverages, and fruits. This could make Gamma-caprolactone a potential biomarker for the consumption of these foods. 4-hydroxy-Hexanoic acid gamma-lactone is occasionally found as a volatile component of human urine. In some cases differences up to an order of magnitude are observed. 4-hydroxy-Hexanoic acid gamma-lactone has been found in the polar fraction of human blood. Biological fluids such as blood and urine have been shown to contain a large number of components, some of them volatiles (low boiling point) apparently present in all individuals, while others such are much more variable. Although some of these changes may have dietary origins, others seem to be characteristic of the individual.
Targets(IC50)	Others,Endogenous Metabolite

## Solubility Information

Solubility	DMSO: 30 mg/mL (262.84 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: 2 mg/mL (17.52 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

---

	1mg	5mg	10mg
1 mM	8.7612 mL	43.8059 mL	87.6117 mL
5 mM	1.7522 mL	8.7612 mL	17.5223 mL
10 mM	0.8761 mL	4.3806 mL	8.7612 mL
50 mM	0.1752 mL	0.8761 mL	1.7522 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

E-Nose and GC-MS Reveal a Difference in the Volatile Profiles of White- and Red-Fleshed Peach Fruit. *Sensors* (Basel). 2018 Mar 2;18(3).

Bianchi T, et al. Investigation of the aroma of commercial peach (*Prunus persica* L. Batsch) types by Proton Transfer Reaction-Mass Spectrometry (PTR-MS) and sensory analysis. *Food Res Int.* 2017 Sep;99(Pt 1):133-146.

Shangula S, et al. PON1 increases cellular DNA damage by lactone substrates. *Arch Toxicol.* 2019 Jul;93(7):2035-2043.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481