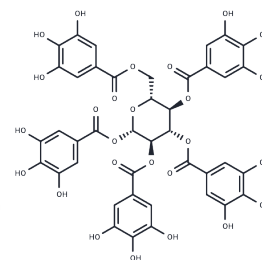


## Pentagalloylglucose

## Chemical Properties

CAS No. :	14937-32-7
Formula:	C41H32O26
Molecular Weight:	940.68
Appearance:	no data available
Storage:	store at low temperature, keep away from direct sunlight
	Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	1, 2, 3, 4, 6-Pentagalloylglucose (Penta-O-galloyl-β-D-glucose) and gallic acid from Pistacia lentiscus have antimutagenic and antioxidant activities. 2. 1, 2, 3, 4, 6-Penta-O-galloyl-beta-D-glucose (PGG) possesses potent anti-proliferative and anti-invasive effects, it also has inhibition of inducible nitric oxide synthase and cyclooxygenase-2 activity. 3. PGG may serve as a model for the development of new types of anti-diabetic and anti-metabolic syndrome therapeutics. 4. 1, 2, 3, 4, 6-Penta-O-galloyl-β-D-glucose has vasodilatory and anti-inflammatory effects, it dilates vascular smooth muscle and suppresses the vascular inflammatory process via endothelium-dependent nitric oxide (NO)/cGMP signaling. 5. 1, 2, 3, 4, 6-Penta-O-galloyl-beta-D-glucose can decrease the level of extracellular hepatitis B virus (HBV) (IC <sub>50</sub> , 1. microg/ml) in a dose-dependent manner, it also can reduce the HBsAg level by 25% at a concentration of 4 microg/ml; the gallate structure of PGG may play a critical role in the inhibition of anti-HBV activity, suggests that PGG could be a candidate for developing an anti-HBV agent. 6. 1, 2, 3, 4, 6-Penta-O-galloyl-β-D-glucose has anti-parasitic activity, displays an EC <sub>50</sub> value of 67 μM, at least 6.6-fold more effective than the standard drug benznidazole against trypomastigote forms of T. cruzi.
Targets(IC <sub>50</sub> )	Influenza Virus

## Solubility Information

Solubility	5% DMSO+95% Saline: 5 mg/mL (5.32 mM), Solution. DMSO: 50 mg/mL (53.15 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0631 mL	5.3153 mL	10.6306 mL
5 mM	0.2126 mL	1.0631 mL	2.1261 mL
10 mM	0.1063 mL	0.5315 mL	1.0631 mL
50 mM	0.0213 mL	0.1063 mL	0.2126 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

- Abdelwahed A, et al. Study of antimutagenic and antioxidant activities of gallic acid and 1,2,3,4,6-pentagalloylglucose from *Pistacia lentiscus*. Confirmation by microarray expression profiling. *Chem Biol Interact.* 2007 Jan 5;165(1):1-13.
- Hwang Y H, Jang S A, Kim T, et al. Anti-osteoporotic and Anti-adipogenic Effects of *Rhus chinensis* Nutgalls in Ovariectomized Mice Fed with a High-fat Diet. *Planta Medica.* 2019, 85(14/15): 1128-1135
- Kang DG, et al. Vasodilatory and anti-inflammatory effects of the 1,2,3,4,6-penta-O-galloyl-beta-D-glucose (PGG) via a nitric oxide-cGMP pathway. *Eur J Pharmacol.* 2005 Nov 7;524(1-3):111-9.
- Hwang Y H, Jang S A, Kim T, et al. Anti-osteoporotic and Anti-adipogenic Effects of *Rhus chinensis* Nutgalls in Ovariectomized Mice Fed with a High-fat Diet[J]. *Planta medica.* 2019.

**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: 36 Washington Street, Wellesley Hills, MA 02481