

PATULIN

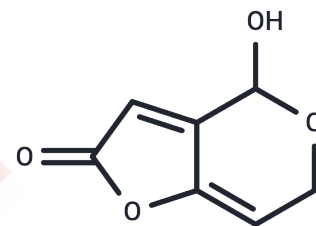
Chemical Properties

CAS No. : 149-29-1

Formula: C₇H₆O₄

Molecular Weight: 154.12

Storage: Store at low temperature, Keep away from direct sunlight
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	Patulin (Claviform) is a mycotoxin produced by a variety of molds commonly found in rotting apples, including Aspergillus and Penicillium.
Targets(IC50)	Apoptosis, Antibacterial, Antibiotic, Autophagy
In vitro	The World Health Organization considers patulin cytotoxic and established a safety level of patulin in apple juice at 50 µM. At 100-200 µM, patulin can directly increase intracellular oxidative stress in HEK293 and HL-60 cells.
In vivo	The oral LD50 value of patulin ranges between 29 and 55 mg/kg body weight in rodents and 170 mg/kg body weight in poultry.

Solubility Information

Solubility	H ₂ O: 100 mg/mL (648.85 mM), Sonication is recommended. DMSO: <1 mg/mL, Ethanol: <1 mg/mL, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.4885 mL	32.4423 mL	64.8845 mL
5 mM	1.2977 mL	6.4885 mL	12.9769 mL
10 mM	0.6488 mL	3.2442 mL	6.4885 mL
50 mM	0.1298 mL	0.6488 mL	1.2977 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

- Puel, O., Galtier, P., and Oswald, I.P. Biosynthesis and toxicological effects of patulin. *Toxins* 2(4) 613-631 (2010)
- Liu, B., Wu, T., Yu, F., et al. Induction of oxidative stress response by the mycotoxin patulin in mammalian cells. *Toxicol Sci* 95(2) 340-347 (2007)
- Liu, B., et al.: *Toxicol. Appl. Pharmacol.*, 191, 255 (2003)

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