

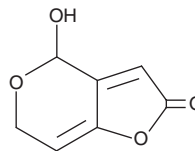
PRODUCT INFORMATION



Patulin

Item No. 11346

CAS Registry No.: 149-29-1
Formal Name: 4-hydroxy-4H-furo[3,2-c]pyran-2(6H)-one
Synonyms: Clairformin, Expansin, Mycoin C, NSC 8120, NSC 32951, Penicidin, Terinin
MF: C₇H₆O₄
FW: 154.1
Purity: ≥98%
UV/Vis.: λ_{max}: 275 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Patulin is supplied as a crystalline solid. A stock solution may be made by dissolving the patulin in the solvent of choice, which should be purged with an inert gas. Patulin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of patulin in these solvents is approximately 13, 10, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of patulin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of patulin in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Patulin is a mycotoxin originally isolated from *P. griseofulvum*.¹ It is lethal to rodents (LD₅₀ = 29-55 mg/kg) and poultry (LD₅₀ = 170 mg/kg), as well as induces convulsions, dyspnea, pulmonary edema and ulceration, and gastrointestinal distension in rats, mice, chickens, and hamsters. Patulin is embryotoxic in chick eggs when used at concentrations ranging from 2.35 to 68.7 µg/egg and induces hypoplasia of the mesencephalon and telencephalon, hyperplasia of the mandibular process, and growth retardation in rat embryos. It has been found in *Penicillium*-infected apple crops.

Reference

1. Puel, O., Galtier, P., and Oswald, I.P. Biosynthesis and toxicological effects of patulin. *Toxins* **2(4)**, 613-631 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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