

Catalog # 10-2097 Patulin

CAS# 149-29-1 Clavacin, Mycoin, Penicidin, Terinin, NSC8120 4-Hydroxy-4H-furo[3,2-c]pyran-2(6H)-one Lot # X101437



A mycotoxin found in contaminated fruits. Increases ROS generation and oxidative stress in cells which is mediated by p53.¹ Displays cytotoxic effects on a variety of cell lines.² Causes damage to several organs including liver and kidney in laboratory animals.³ Triggers NRF2-mediated survival mechanisms in kidney cells.⁴ Induces apoptosis through a ROS-mediated ER stress pathway.⁵

- 1) Jin et al. (2016), p53 activation contributes to patulin-induced nephrotoxicity via modulation of reactive oxygen species generation; Sci. Rep., **6** 24455
- 2) Zouaoui et al. (2016), Cytotoxic effects induced by patulin, sterigmatocystin and beauvericin on CHO-K1 cells; Food Chem. Toxicol., **89** 92
- *3)* Boussabbeh *et al.* (2016), *Tissue oxidative stress induced by patulin and protective effect of crocin;* Neurotoxicology, **53** 343
- 4) Pillay et al. (2015), Patulin triggers NRF2-meditated survival mechanisms in kidney cells; Toxicon, 99 1
- 5) Boussabbeh et al. (2015), Patulin induces apoptosis through ROS-mediated endoplasmic reticulum stress pathway; Toxicol. Sci., **144** 328

PHYSICAL DATA

Molecular Weight:	154.12
Molecular Formula:	C7H6O4
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 10 mg/ml) or Ethanol (up to 10 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in
	DMSO or ethanol may be stored at -20°C for up to 1 month.

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