

PRODUCT INFORMATION



Ochratoxin B

Item No. 16167

CAS Registry No.: 4825-86-9

Formal Name: N-[[[(3R)-3,4-dihydro-8-hydroxy-3-methyl-1-oxo-1H-2-benzopyran-7-yl]carbonyl]-L-phenylalanine

Synonym: OTB

MF: C₂₀H₁₉NO₆

FW: 369.4

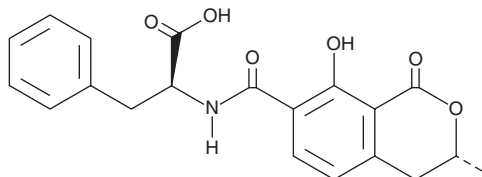
Purity: ≥98%

UV/Vis.: λ_{max}: 218, 319 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

Ochratoxin B (OTB) is supplied as a crystalline solid. A stock solution may be made by dissolving the OTB in the solvent of choice, which should be purged with an inert gas. OTB is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of OTB in these solvents is approximately 50, 15, and 10 mg/ml, respectively.

OTB is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, OTB should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. OTB has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ochratoxin B (OTB) is a mycotoxin that has been found in *Aspergillus* and is a non-chlorinated derivative of OTA (Item No. 11439).¹ Unlike OTA, OTB is not genotoxic to HepG2 cells but does inhibit cell division when used at concentrations ranging from 1 to 25 µg/ml.² It induces mortality (LC₅₀ = 700 nM) and craniofacial malformations (EC₅₀ = 200 nM) in *Xenopus* embryos.³ OTB has been found in poultry feed.⁴

References

1. Varga, J., Kevei, E., Rinyu, E., *et al.* Ochratoxin production by *Aspergillus* species. *Appl. Environ. Microbiol.* **62**(12), 4461-4464 (1996).
2. Knasmüller, S., Cavin, C., Chakraborty, A., *et al.* Structurally related mycotoxins ochratoxin A, ochratoxin B, and citrinin differ in their genotoxic activities and in their mode of action in human-derived liver (HepG2) cells: Implications for risk assessment. *Nutr. Cancer* **50**(2), 190-197 (2004).
3. O'Brien, E., Prietz, A., and Dietrich, D.R. Investigation of the teratogenic potential of ochratoxin A and B using the FETAX system. *Birth Defects Res. B Dev. Reprod. Toxicol.* **74**(5), 417-423 (2005).
4. Ezekiel, C.N., Bandyopadhyay, R., Sulyok, M., *et al.* Fungal and bacterial metabolites in commercial poultry feed from Nigeria. *Food Addit. Contam. Part A Chem. Anal. Control Expo. Risk Assess.* **29**(8), 1288-1299 (2012).

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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