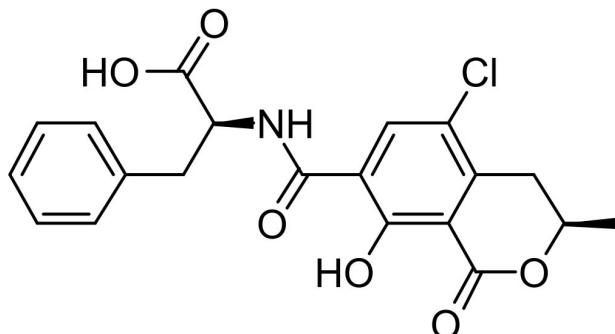


## Ochratoxin A

Code No.: BIA-O1195

Pack sizes.: 1mg, 5mg



Synonyms:

-

## Specifications

CAS #	: 303-47-9
Molecular Formula	: C <sub>20</sub> H <sub>18</sub> ClNO <sub>6</sub>
Molecular Weight	: 403.8
Source	: -
Appearance	: <b>Pale yellow solid</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.</b>

## Application Notes

Ochratoxin A is a chlorinated benzopyran coupled to phenylalanine, produced by several *Aspergillus* and *Penicillium* sp. associated with food spoilage. Ochratoxins are widely distributed in the environment and are known to be nephrotoxic, teratogenic and possibly carcinogenic. Ochratoxin A may act by inducing DNA strand breaks, sister chromatid exchanges, DNA adduct formation, or reactive oxygen but the mechanism of action as a toxin is not yet resolved. At the molecular level, ochratoxin A specifically inhibits NK cell activity, increases growth of transplantable tumor cells in mice, increases apoptosis, activates c-Jun N terminal kinase in human kidney epithelial cells, and blocks metaphase/anaphase transition. It also inhibits plasminogen activator inhibitor-2 production by human blood mononuclear cells.

## References

1. Mycotoxins. Part II. The constitution of ochratoxins A, B, and C, metabolites of *Aspergillus ochraceus* Wilh. Van der Merwe K. J. et al., J.C.S. 1965, 7083.
2. Ochratoxin A inhibits the production of tissue factor and plasminogen activator inhibitor-2 by human blood mononuclear cells: Another potential mechanism of immune-suppression. Rossiello M.R et al., Tox. Appl. Pharmacol. 2008, 229, 227.
3. Ochratoxin A: Apoptosis and aberrant exit from mitosis due to perturbation of microtubule dynamics?

