



## OTA (3C5): sc-57948

### BACKGROUND

Ochratoxin A (OTA) is a powerful toxin that mainly affects the kidneys, causing both acute and chronic lesions. It is produced in tropical regions by some species of *Aspergillus*, and by *Penicillium verrucosum*, a common storage fungus known to inhabit Canada, Europe and parts of South America. OTA has been shown to occur in various grains, cereals and other plant products, animal feeds, meats, and human tissues in countries throughout the world. Humans consume this non-ribosomal peptide synthetase mainly through contaminated pork and grain products. OTA directly promotes nephropathy, immunosuppression and renal toxicity in numerous animal species. It is rapidly absorbed throughout the entire gastrointestinal tract and has a particular high affinity for serum albumin. OTA is hydrolyzed by the intestinal microflora into nontoxic compounds and excreted in both the urine and feces. Based on its widespread occurrence, this highly carcinogenic compound appears to present a serious potential hazard for humans.

### REFERENCES

1. Marquardt, R.R., Frohlich, A. and Abramson, D. 1990. Ochratoxin A: an important western Canadian storage mycotoxin. *Can. J. Physiol. Pharmacol.* 68: 991-999.
2. Pfohl-Leszkowicz, A. and Castegnaro, M. 2005. Further arguments in favor of direct covalent binding of Ochratoxin A (OTA) after metabolic biotransformation. *Food Addit. Contam.* 22: 75-87.
3. Nehad, E.A., Farag, M.M., Kawther, M.S., Abdel-Samed, A.K. and Naguib, K. 2005. Stability of Ochratoxin A (OTA) during processing and decaffeination in commercial roasted coffee beans. *Food Addit. Contam.* 22: 761-767.
4. Dao, H.P., Mathieu, F. and Lebrihi, A. 2005. Two primer pairs to detect OTA producers by PCR method. *Int. J. Food Microbiol.* 104: 61-67.
5. Hino, K., Nagane, M., Fujioka, Y. and Shiokawa, Y. 2005. Meningeal melanocytoma associated with ipsilateral nevus of OTA presenting as intracerebral hemorrhage: case report. *Neurosurgery* 56: E1376.
6. Valero, A., Farre, J.R., Sanchis, V., Ramos, A.J. and Marín, S. 2006. Kinetics and spatial distribution of OTA in *Aspergillus carbonarius* cultures. *Food Microbiol.* 23: 753-756.
7. Jarit, G.J., Kummer, F.J., Gibber, M.J. and Egol, K.A. 2006. A mechanical evaluation of two fixation methods using cancellous screws for coronal fractures of the lateral condyle of the distal femur (OTA type 33B). *J. Orthop. Trauma* 20: 273-276.
8. Bulikowski, W., Borzecki, A., Skorupski, R., Trocka, K. and Lingas, W. 2006. Calcium concentration in the skin of male rats exposed to high doses of Ochratoxin A (OTA). *Med. Pr.* 56: 363-366.
9. Masoud, W. and Kaltoft, C.H. 2006. The effects of yeasts involved in the fermentation of *Coffea arabica* in East Africa on growth and Ochratoxin A (OTA) production by *Aspergillus ochraceus*. *Int. J. Food Microbiol.* 106: 229-234.

### SOURCE

OTA (3C5) is a mouse monoclonal antibody raised against full length Ochratoxin A conjugated to BSA.

### PRODUCT

Each vial contains 100 µl ascites containing IgG<sub>1</sub> with < 0.1% sodium azide.

### APPLICATIONS

OTA (3C5) is recommended for detection of OTA by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with OTB.

### STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.