SANTA CRUZ BIOTECHNOLOGY, INC.

Aflatoxin B1/B2 (3501): sc-58087



BACKGROUND

Aflatoxin is a naturally occurring mycotoxin produced by two types of mold: *Aspergillus flavus* and *Aspergillus parasiticus*. *Aspergillus flavus* is common and most often found when certain grains are grown under stressful conditions such as drought. The mold occurs in soil, decaying vegetation and in hay and grains undergoing microbiological deterioration. It invades all types of organic substrates whenever and wherever the conditions are favorable for growth, specifically high moisture content and high temperature. At least 13 different types of Aflatoxin are produced in nature and Aflatoxin B1 is considered the most toxic. While the presence of *Aspergillus flavus* does not necessarily indicate harmful levels of Aflatoxin, it is a warning that Aflatoxin may be produced.

REFERENCES

- 1. Egner, P.A., Muñoz, A. and Kensler, T.W. 2003. Chemoprevention with chlorophyllin in individuals exposed to dietary Aflatoxin. Mutat. Res. 523-524: 209-216.
- Montero, R., Serrano, L., Davila, V.M., Ito, A. and Plancarte, A. 2003. Infection of rats with *Taenia taeniaeformis* metacestodes increases hepatic CYP450, induces the activity of CYP1A1, CYP2B1 and COH isoforms and increases the genotoxicity of the procarcinogens benzo[a]pyrene, cyclophosphamide and Aflatoxin B1. Mutagenesis 18: 211-216.
- Tedesco, D., Steidler, S., Galletti, S., Tameni, M., Sonzogni, O. and Ravarotto, L. 2004. Efficacy of silymarin-phospholipid complex in reducing the toxicity of Aflatoxin B1 in broiler chicks. Poult. Sci. 83: 1839-1843.
- Rasooli, I. and Owlia, P. 2005. Chemoprevention by thyme oils of Aspergillus parasiticus growth and Aflatoxin production. Phytochemistry 66: 2851-2856.
- Szkudelska, K., Drzymala, H., Szkudelski, T., Bukowska, K. and Nogowski, L. 2005. Lack of the effect of mycotoxins-Aflatoxin B1 and ochratoxin A on some functions of rat adipocytes. Toxicol. In Vitr. 19: 771-777.
- Sayed, H.A., El Ayyat, A., El Dusoki, H., Zoheiry, M., Mohamed, S., Hassan, M., El Assaly, N., Awad, A., El Ansary, M., Saad, A. and El Karim, A.A. 2005. A cross sectional study of hepatitis B, C, some trace elements, heavy metals, Aflatoxin B1 and schistosomiasis in a rural population, Egypt. J. Egypt. Public Health Assoc. 80: 355-388.
- Bradshaw, R.E., Jin, H., Morgan, B.S., Schwelm, A., Teddy, O.R., Young, C.A. and Zhang, S. 2006. A polyketide synthase gene required for biosynthesis of the Aflatoxin-like toxin, dothistromin. Mycopathologia 161: 283-294.
- 8. Ghitakou, S., Koutras, K., Kanellou, E. and Markaki, P. 2006. Study of Aflatoxin B1 and ochratoxin A production by natural microflora and *Aspergillus parasiticus* in black and green olives of Greek origin. Food Microbiol. 23: 612-621.
- Kaaya, A.N. and Kyamuhangire, W. 2006. The effect of storage time and agroecological zone on mold incidence and Aflatoxin contamination of maize from traders in Uganda. Int. J. Food Microbiol. 110: 217-223.

SOURCE

Aflatoxin B1/B2 (3501) is a mouse monoclonal antibody raised against aflatoxin of *Aspergillus flavus* origin.

PRODUCT

Each vial contains 100 $\mu g~lgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Aflatoxin B1/B2 (3501) is recommended for detection of B1 and B2 aflatoxins of *Aspergillus flavus* origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Aflatoxin B1/B2: 55 kDa.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.