

Mouse anti-Aflatoxin B1 & B2, clone AFT14/CBL03 (Monoclonal)

Clone no. AFT14/CBL03

MONOSAN

Product name	Mouse anti-Aflatoxin B1 & B2, clone AFT14/CBL03 (Monoclonal)
Host	Mouse
Applications	ELISA, WB
Species reactivity	aspergillus
Conjugate	-
Immunogen	aflatoxin obtained from Aspergillus
Isotype	IgG2a,kappa
Clonality	Monoclonal
Clone number	AFT14/CBL03
Size	100 ug
Concentration	100 ug/ml
Format	-
Storage buffer	PBS with 0.02% sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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Additional info

AFT14 reacts with Aflatoxin B1 and B2, a 55 kDA protein secreted by *Aspergillus*. The aflatoxins are a group of closely related mycotoxins that are widely distributed in nature. The most important of the group is aflatoxin B1 (AFB1), which has a range of biological activities, including acute toxicity, teratogenicity, mutagenicity and carcinogenicity. In order for AFB1 to exert its effects, it must be converted to its reactive epoxide by the action of the mixed function mono-oxygenase enzyme systems (cytochrome P450-dependent) in the tissues (in particular, the liver) of the affected animal. This epoxide is highly reactive and can form derivatives with several cellular macromolecules, including DNA, RNA, and protein. Cytochrome p450 enzymes may additionally catalyse the hydroxylation (to AFQ1 and AFM1) and demethylation (to AFP1) of the parent AFB1 molecule, resulting in products less toxic than AFB1. Conjugation of AFB1 to glutathione (mediated by glutathione Stransferase) and its subsequent excretion is regarded as an important detoxification pathway in animals. Aflatoxins are well recognized as a cause of liver cancer, but they have additional important toxic effects. Aflatoxin B1 is a potent hepatocarcinogenic and mutagenic mycotoxin of *Aspergillus flavus*.

References

1. F S Chu and I Ueno, *Appl Environ Microbiol* 33(5): 1125–1128 (1977)
2. Groopman, JD. et al, *Proc. Natl. Acad. Sci. USA* 81: 7728-7731 (1984)
3. -
4. -
5. -

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