



Anti-Aflatoxin monoclonal antibody, clone BFA-3 (DMAB2947)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Monoclonal Antibody to Aflatoxin
Specificity	Recognizes aflatoxin B1. Cross-reactivity with other aflatoxins has not been tested.
Immunogen	Purified aflatoxin B1
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	N/A
Clone	BFA-3
Affinity Constant	Not determined
Purification	Protein G chromatography
Conjugate	Unconjugated
Applications	Suitable for use at 5ug/ml in immunoassays to identify aflatoxin B1. Dilute in PBS or medium which is identical to that used in the assay system. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.
Format	Purified, Liquid
Concentration	1mg/ml (OD280nm)
Size	0.5 mg

Buffer	PBS, pH 7.4
Preservative	None
Storage	Store at -20°C to -70°C. Aliquot to avoid multiple freeze/thaw cycles.

BACKGROUND

Introduction	<p>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 S-transferase) and its subsequent excretion is regarded as an important detoxification pathway in animals.</p>
Keywords	AFB1; AFB1-AR1; Aldoketoreductase 7; Aflatoxin