

Rat Anti-Aflatoxin Monoclonal Antibody

DMABT-Z59170 Rat(Aflatoxin)

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview	Rat Anti-Aflatoxin Monoclonal Antibody
Target	Aflatoxin
Immunogen	Aflatoxin M1-BSA conjugate
Host	Rat
Isotype	IgG2b
Source	Rat
Species	N/A
Clone	3E8
conjugation	N/A
Applications	ELISA
Light chain type	unknown
Domain	ELISA: Use at an assay dependent concentration. This antibody is reactive to purified AFB1 and AF in samples obtained from cereals contaminated with fungus <i>Aspergillus flavus</i> . Therefore, this antibody can be used for construction of an AF detection kit.

PACKAGING

Format	Liquid
Buffer	0.01M PBS, pH 7.2
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Preservative	None
Size	100µg

BACKGROUND

Introduction 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.

Keywords AFB1; AFB1-AR1; Aldoketoreductase 7; Aflatoxin

REFERENCES

Parker CO & Tohill IE Development of an electrochemical immunosensor for aflatoxin M1 in milk with focus on matrix interference. Biosens Bioelectron 24:2452-7 (2009). Read more (PubMed: 19167207)