abcam

Product datasheet

Anti-Aflatoxin B1 antibody [AFA-1] ab1017

Overview

Product name	Anti-Aflatoxin B1 antibody [AFA-1]
Description	Mouse monoclonal [AFA-1] to Aflatoxin B1
Host species	Mouse
Tested applications	**Suitable for:** ELISA
Species reactivity	**Reacts with:** Species independent
Immunogen	Chemical/ Small Molecule corresponding to Aflatoxin B1. Purified Aflatoxin B1
General notes	This product was changed from ascites to tissue culture supernatant on 5th December 2019. Lot numbers higher than GR285242 are from tissue culture supernatant. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.40 Constituent: 100% PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	AFA-1
Isotype	IgG2a

Applications

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab1017 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.

Target

Relevance

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. 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.

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