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
Specificity | This antibody recognizes Aflatoxin B1. The cross reactivity with other Aflatoxins has not been verified yet.

Tested applications

Suitable for: ELISA

Species reactivity

Reacts with: Species independent

Immunogen

Purified Aflatoxin B1

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 | PBS, pH7.2
Purity | Ascites
Purification notes | Purified from ascites.
Clonality | Monoclonal
Clone number | AFA-1
Isotype | IgG2a

Applications

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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA</td>
<td></td>
<td>Use a concentration of 5 µg/ml.</td>
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</table>
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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