



Aflatoxin M1, B1 (AFM1, AFB1)

Catalog number

A0925-01C

Supplier

United States Biological

Aflatoxin is a potent carcinogen. The fungus, genus *Aspergillus*, that secretes aflatoxin enters the plant usually through the wounds left by an insect pest, since most plants have a hard outer layer that acts as a barrier to fungi. Once inside the plant, the fungus can reach all parts of the plant, including its seeds. Aflatoxin is a serious cause of illness and death in developing countries which have fewer food safety regulations. Some plant scientists are trying to develop transgenic corn with a gene for an enzyme which breaks down aflatoxin. Aflatoxin is listed as a possible carcinogen, and has been shown to cause liver damage, some of which may be cumulative, in many mammals that ingest sufficient quantities of it, though tolerance seems to vary by species. In most species, aflatoxin cannot be detected in the liver 14 days after it has been withdrawn from the animals diet, though some of its effects may still be present. Animals affected by aflatoxicosis show reduced feed intake, and even mortality, if sufficient amounts of aflatoxin are ingested for a sufficient period of time. Sensitivity, however, seems to vary not only by species, but also by individual animals.

Applications

Suitable for use in ELISA. Other applications not tested.

Recommended Dilution

Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. For long-term storage and to avoid repeated freezing and thawing, aliquot and add glycerol (40-50%). Freeze at -20°C. Aliquots are stable for at least 12 months at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Immunogen

Aflatoxin M1-BSA conjugate

Formulation

Lyophilized from a solution in 0.01M PBS, pH7.2

Purity

Purified by Protein G affinity chromatography.

Specificity

Reactive to Aflatoxin M1 (AFM1) and Aflatoxin B1 (AFB1), but not reactive to BSA and other irrelevant antigens by ELISA. Similarly, a competitive binding assay using AFM1 as binding competitor to compete with AFM1-BSA-125I showed that AFM1 can effectively inhibit the binding of the above 4 monoclonals to AFM1-BSA-125I and the inhibition degree corresponded to the amounts of AFM1 used.

**Product Type**

Mab

Isotype

IgG2b,k

Grade

Affinity Purified

Applications

E

Storage

-20°C