



TOTAL AFLATOXINS ELISA (5121AFT)

General

Aflatoxins (Aflatoxins B₁, B₂, G₁, G₂) are a group of structurally related toxic compounds produced by *Aspergillus* moulds. For aflatoxins maximum levels (MLs) are established legally in Europe. The MLs for aflatoxins B₁ in most of the foodstuffs for direct human consumption vary from 2 to 12 ppb. However, for processed cereal-based foods, baby foods as well as for dietary foods for special medical purposes the ML for Aflatoxin B₁ is set at 0.1 ppb.

The **Total Aflatoxins ELISA** is a competitive enzyme immunoassay based on antibodies directed against aflatoxin.

Kit characteristics

Microtiter plate:

96 Wells
12 x 8 Breakapart

Antibody cross-reactivity:

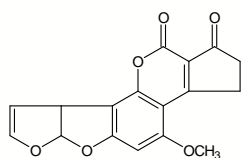
Aflatoxin B ₁	100%
Aflatoxin B ₂	112%
Aflatoxin G ₁	69%
Aflatoxin G ₂	15%
Aflatoxin M ₁	16%

Conjugate:

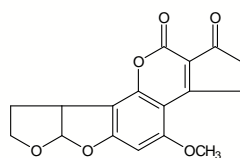
Aflatoxin-HRP stabilized

Standard range:

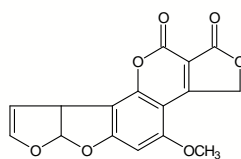
0, 0.00625, 0.0125, 0.025, 0.05, 0.1 and 0.2 ng/ml



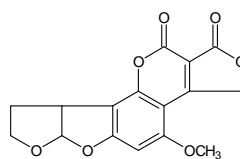
AFLATOXIN B₁



AFLATOXIN B₂



AFLATOXIN G₁



AFLATOXIN G₂

Chemical structures aflatoxins

Assay characteristics

Matrices

Infant food
Brown rice
Un-processed cereals
Processed cereals
Red pepper
Liver
Serum
Feed
Nuts

LOD (ppb)

0.016
0.2
0.3
0.2
1.0
0.05
0.025
0.4
0.2

The Limit of detection (LOD) is calculated as: Xn+3SD and is determined under optimal conditions.

Sample preparation

For the matrices mentioned above fast and efficient methods are included in the kit manual.

Procedure

Antibody, conjugate and standard/sample are pipetted into the wells and incubated for one hour at 37°C. After a washing procedure ready-to-use substrate is added and incubated for 30 minutes at 20°C - 25°C. The reaction is stopped and the absorbance is read in a spectrophotometer at 450 nm.

EuroProxima's user-friendly software converts the measured optical density into the concentration of the metabolite in the starting material.