



Mycotoxins and Biotoxins

Eurofins offers comprehensive analyses

Mycotoxins are toxic secondary metabolites produced by fungi. Several hundred of such substances have been identified to date. Biotoxins are natural poisons produced by living organisms such as bacteria, plants, and fungi. Both mycotoxins and biotoxins can cause acute or chronic toxic effects in humans and animals even at low concentrations.

Eurofins offers a comprehensive risk-oriented mycotoxin and biotoxin testing portfolio. This includes screening and confirmatory methods for all regulated and a range of additional mycotoxins and biotoxins. It is complemented by sampling services and special devices to homogenise large sample quantities.

Our Portfolio

Our portfolio covers a large range of confirmatory and screening methods for all common food and feed matrices including the following substances:

Regulated mycotoxins

- Aflatoxins B₁, B₂, G₁, G₂, M₁
- Ochratoxin A (OTA)
- Deoxynivalenol (DON)
- Zearalenone
- Fumonisin B₁, B₂, B₃
- T-2 / HT-2 toxin
- Citrinin
- Patulin
- Ergot alkaloids

Further mycotoxins

- Alternaria toxins
- Beauvericin
- Enniatins A, A₁, B, B₁
- 3- and 15-Acetyldeoxynivalenol
- Nivalenol
- Sterigmatocystin
- Fusarenone X
- Diacetoxyscirpenol
- Others

Plant toxins

- Opium alkaloids (Morphin and Codein)
- Tropane alkaloids
- Pyrrolizidine alkaloids
- Quinolizidine alkaloids

Biotoxins

- Cereulide and others

Sampling

Often, mycotoxins and plant toxins are inhomogeneously distributed in a lot. Therefore, only by means of representative sampling food and feed commodities can be assessed correctly. Eurofins has set up a global control network of the supply chain. This includes sampling and inspection services in compliance with European or local food and feed law.

Methods & Instruments

Sample preparation

- Dry grinding
- Wet grinding / slurry preparation
- Up to 100 kg of sample

Sample clean-up

- Sample preparation robots
- Automatic clean-up systems for immuno-affinity columns (ASPEC)

Measuring techniques

- HPLC-FLD
- LC-MS/MS systems
- Online-2D-SPE-HPLC-FLD
- High-resolution LC-MS

Quality & Services

Eurofins laboratories are accredited according to DIN EN ISO/IEC 17025:2018 and regularly take part in proficiency tests of the applied methods.

Additional services

- Express service on request
- Sample registration, tracking and test reports online (EOL)
- Method development and research projects on demand
- Sampling & inspection services

Of course, Eurofins also offers the analysis of selected mycotoxins and plant toxins under GMP.

