

# **Mycotoxin Screening Solutions**

The term "mycotoxin" describes a family of toxic secondary metabolites produced by moulds. Studies estimate that mycotoxins affect more than 25% of the world's food, and the issues caused by these contaminants is extremely important for livestock as well.

Animals fed with feed containing mycotoxins not only suffer but trigger a domino-effect resulting in great economic losses across the whole livestock industry. These compounds have reportedly been associated with various human and animal diseases and are a well-established threat to grains and other commodities.

Mycotoxins concern not only grains, coffee, cocoa, wine and spices, but are also relevant to the dairy industry, in particular for the presence of aflatoxin M1. Furthermore, concern has been growing since new toxins and isoforms, namely masked mycotoxins, were discovered in recent years.

#### **ELISA Kits**

Our company provides a comprehensive portfolio of ELISA test kits to suit all needs for the reliable and effective **mycotoxin analysis in cereals, grains, feed, wine, fruits, spices and nuts,** as well as its internationally renowned ELISA kits for aflatoxin M1 in milk and dairy products.

#### **Automation**

The ELISA kits are suitable to be run on automatic platforms and have been validated for implementation on the Bolt<sup>™</sup> ELISA analyzer.

#### Immunoaffinity Columns

An extensive portfolio of mycotoxin immunoaffinity columns is available for the majority of regulated substances. The **SENSIColumn IACs are simple and reliable sample purification solutions,** applicable to various matrices.

#### I'screen Quantitative ELISA Test Kits

High sensitivity, selectivity, accuracy and precision are the key features of the l'screen test kits. The quantitative immunoassay **I**'screen AFLA M1 milk has been granted AOAC Research Institute **Performance Tested Methods<sup>SM</sup> status** (AOAC Certificate No. 072002) for the analysis of aflatoxin M1 in raw bovine whole milk, skimmed milk and powdered milk.



Product Name	Target	Article Number	Applications	Assay time	LOD
l' <i>screen</i> AFLA M1 Milk AOAC approved	Aflatoxin M1	96 det. cod. HU0040001 192 det. cod. HU0040041	Raw whole milk Skim milk Powdered milk	75 minutes	0.005 ppb
l' <i>screen</i> AFLA M1	Aflatoxin M1	96 det. cod. HU0040002 192 det. cod. HU0040042	Raw whole milk, Skim milk, Powdered milk, Pasteurized milk, UHT milk, Cheese, Firm Cheese, Yoghurt, Mozzarella cheese	75 minutes	0.005 ppb
l'screen AFLA	Aflatoxin B and G	48 det. cod. HU0040039	Cereals, spices, dried fruits, nuts	50 minutes	0.5-1.25 ppb

#### **B ZERO®** Quantitative ELISA Test Kits

*B ZERO*<sup>®</sup> ELISA kits are fast, sensitive, reliable **test kits with One Single Calibrator** to be run per session. The quantitative results are obtained by means of a virtual master-curve that is set for each batch by the producer and allows accurate and precise results throughout the kit's whole shelf-life. The fact that physical standards do not need to be run each session allows dramatic savings and makes this line **the most cost-efficient option for mycotoxins testing**.

Product Name	Target	Article Number	Sample preparation	Assay time	LOD
<i>B ZERO</i> <sup>®</sup> H2AFLA	Total B and G Afla- toxins	48 det. cod. HU0040064	Water	10 minutes	2.5 ppb
<i>B ZERO</i> <sup>®</sup> AFLA B1	Aflatoxin B1	48 det. cod. HU0040025	Methanol-water	15 minutes	1 ppb
B ZERO <sup>®</sup> DON v2	Deoxynivalenol	48 det. cod. HU0040028	Methanol-water	20 minutes	40-120 ppb
B ZERO <sup>®</sup> H2DON	Deoxynivalenol	48 det. cod. HU0040038	Water	20 minutes	200 ppb
<i>B ZERO</i> <sup>®</sup> ZEA	Zearalenone	48 det. cod. HU0040027	Methanol-water	20 minutes	10 ppb
B ZERO <sup>®</sup> FUMO	Fumonisins	48 det. cod. HU0040034	Methanol-water	20 minutes	750 ppb
B ZERO <sup>®</sup> OCHRA	Ochratoxin A	48 det. cod. HU0040035	Methanol-water	20 minutes	2 ppb
B ZERO <sup>®</sup> T2	T2 and HT2 toxins	48 det. cod. HU0040036	Methanol-water	20 minutes	25 ppb
<i>B ZERO</i> <sup>®</sup> AFLA M1	Aflatoxin M1	96 det. cod. HU0040003 48 det. cod. HU0040023 192 det. cod. HU0040043	None	30 minutes	0.01 ppb
<i>B ZERO</i> <sup>®</sup> AFLA M1 500	Aflatoxin M1	96 det. cod. HU0040091	None	30 minutes	0.025 ppb

#### Celer® Quantitative ELISA Test Kits

*Celer*<sup>®</sup> is a harmonised platform of rapid, reliable, accurate and sensitive test kits with a common sample preparation that enables smart and flexible organisation, including for multi-mycotoxins analysis. The kits are easy to use and support the analyst reliably each session.

Product Name	Target	Article Number	Sample preparation	Assay time	LOD
Celer® AFLA B1	Aflatoxin B1	96 det. cod. HU0040004 192 det. cod. HU0040044	Methanol-water	15 minutes	1 ppb
Celer® AFLA	Total B and G Afla- toxins	96 det. cod. HU0040011 192 det. cod. HU0040051	Methanol-water	15 minutes	2 ppb
Celer <sup>®</sup> DON v3	Deoxynivalenol	96 det. cod. HU0040009 192 det. cod. HU0040049	Methanol-water	20 minutes	40-120 ppb
Celer® ZEA	Zearalenone	96 det. cod. HU0040006 192 det. cod. HU0040046	Methanol-water	20 minutes	10 ppb
Celer® FUMO	Fumonisins	96 det. cod. HU0040012 192 det. cod. HU0040052	Methanol-water	20 minutes	750 ppb
Celer® OCHRA	Ochratoxin A	96 det. cod. HU0040013 192 det. cod. HU0040063	Methanol-water	20 minutes	2 ppb
Celer <sup>®</sup> T2	T2 and HT2 toxins	96 det. cod. HU0040010 192 det. cod. HU0040050	Methanol-water	20 minutes	25 ppb
Celer <sup>®</sup> AFLA M1 500	Aflatoxin M1	96 det. cod. HU0040081	None	30 minutes	0.025 ppb

#### **Available Kits on Automated Platform**

Multiple mycotoxin assays can also be run by automatic analysers and have been validated for the BOLT<sup>™</sup>, a compact, user-friendly ELISA robot that can lead to considerable savings.

- Intuitive User Interface
- Space Saving Device
- Low Consumable Costs
- High Precision Syringes
- Competitive Pricing

## Solvent-free Quantitative ELISA Test Kits

**One single methanol-water extraction** is an advantage for multiple mycotoxins analysis, but is useless if risk management focuses on only one or a few molecules. The novel H2Myco line is a solvent-free option for a wide range of matrices.

Product Name	Target	Article Number	Sample preparation	Assay time	LOD
H2AFLA	Total B and G Afla- toxins	96 det. cod. HU0040055	Buffer	10 minutes	2.5 ppb
H2DON	Deoxynivalenol	96 det. cod. HU0040017	Water	20 minutes	200 ppb

The BOLT<sup>™</sup>



Fully-automated 1-plate ELISA Analyzer

## Patulin ELISA Kit NEW!

The rapid quantitative Patulin ELISA (enzyme-linked immunosorbent assay) 96 micro-well test kits help identify patulin contamination in juice production on-site and can benefit juice companies by saving time and costs for the quality and fast control of products through the entire juice production/food chain supporting informed decision-making.

Product Name	Article Number	Applications	Test Kit Range
Patulin ELISA 96-test kit	500106	Apple juice, apple cider, apple sauce and orange juice	7.00 ppb to 300 ppb

Additional products (if needed): Standard & Control Set, Derivatization Set

### SENSIColumn Immunoaffinity Columns

Product Name	Article Number
SENSI <i>Column</i> IAC Aflatoxin total	EFAF3105
SENSI <i>Column</i> IAC Aflatoxin M1	EFAFM3115
SENSI <i>Column</i> IAC Ochratoxin	EFOT3125
SENSI <i>Column</i> IAC Ochratoxin SMART	EFOTS3125
SENSI <i>Column</i> IAC Zearalenone	EFZE3155
SENSI <i>Column</i> IAC Zearalenone SMART	EFZES3155
SENSI <i>Column</i> IAC Deoxynivalenol	EFDO3135
SENSI <i>Column</i> IAC Fumonisins	EFFU3145

Product Name	Article Number
SENSI <i>Column</i> IAC T2/HT2	EFTE3165
SENSIColumn IAC Combi Afla+Ochra	EFCA3215
SENSI <i>Column</i> IAC Combi Afla+Ochra+Zeara	EFCZ3225
SENSI <i>Column</i> IAC Combi Deoxynivalenol+Zearalenone	EFCD3235
SENSI <i>Column</i> IAC Combi AOZDFT all in one for LC-MS/MS	EFCM3265
SENSI <i>Column</i> IAC Ergot Alkaloids	EFLS3275

## **Key Benefits of the IACs**

- Excellent flow behaviour
- Highly specific purification with monoclonal antibodies
- Availability of specific columns and 'combi' columns for mycotoxin groups
- Wide range of application for various matrices
- Multi-analyte IACs for LC-MS/MS application
- Long shelf-life
- Fast (15-30 mins)

