

Analytical Service

Testing services for:

Mycotoxins
Food allergens



At the forefront of diagnostic technology for the food and feed industries, Romer Labs operates an accredited, full-service laboratory in Tulln, Austria. We guarantee quality services by complying with ISO standards.

Romer Labs provides a portfolio for analysis in the field of **mycotoxins** and **food allergens**.



Mycotoxins

Mycotoxins are secondary metabolites of moulds, contaminating a wide range of crop plants and fruits before or after harvesting. Such contaminated crops are toxic to humans and animals, and are thus a major health issue for the consumer.



Screening Analysis

Item No.	Analysis	Method	Limit of Detection
30000781	Total Aflatoxins (B1, B2, G1, G2)	ELISA	1 µg/kg
30000833	Ochratoxin A	ELISA	1.9 µg/kg
30000907	Total Fumonisin (B1, B2, B3)	ELISA	200 µg/kg
30000918	Deoxynivalenol	ELISA	200 µg/kg
30001013	Zearalenone	ELISA	20 µg/kg
30001014	T2 Toxin	ELISA	10 µg/kg

Reference Analysis

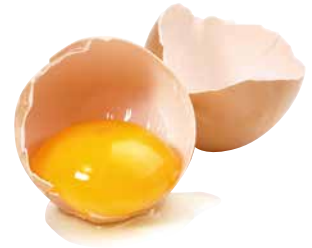
Item No.	Analysis	Method	Limit of Detection	Accr.*
30000895	Aflatoxins (B1, B2, G1, G2)	LC-MS/MS	0.5 µg/kg B1 1 µg/kg B2, G1, G2	x
	Aflatoxin B1	LC-MS/MS	0.5 µg/kg B1	x
30000896	Type A Trichothecenes (Diacetoxyscirpenol, T2 Toxin, HT2 Toxin)	LC-MS/MS	3 µg/kg DAS 10 µg/kg T2 15 µg/kg HT2	x
30000897	Type B Trichothecenes (Deoxynivalenol, Nivalenol, Acetyldeoxynivalenol)	LC-MS/MS	20 µg/kg DON, NIV 50 µg/kg AcDON	x
30000898	Type B Trichothecenes (Deoxynivalenol, Nivalenol, Acetyldeoxynivalenol) + Zearalenone	LC-MS/MS	20 µg/kg DON, NIV 5 µg/kg ZON 50 µg/kg AcDON	x
30000899	Deoxynivalenol	LC-MS/MS	20 µg/kg DON	x
30000900	Aflatoxin M1	LC-MS/MS	0.015 µg/kg M1	
30000901	Deoxynivalenol + Zearalenone	LC-MS/MS	20 µg/kg DON 4 µg/kg ZON	x
30000902	Fumonisin (B1, B2)	LC-MS/MS	10 µg/kg	x
30001247	Fumonisin (B1, B2, B3)	LC-MS/MS	10 µg/kg	x
30000903	Ergot alkaloids (Ergometrine, Ergometrinine, Ergosine, Ergosinine, Ergotamine, Ergotaminine, Ergocornine, Ergocorninine, Ergocristine, Ergocristinine, Ergocryptine, Ergocryptinine)	LC-MS/MS	~1 µg/kg	x
30000904	Ochratoxin A	LC-MS/MS	0.5 µg/kg OTA	x
30000905	Zearalenone	LC-MS/MS	5 µg/kg	x
30000893	Multimycotoxin analysis (DON, ZON, Afla B1/B2/G1/G2, OTA, FB1, FB2, FB3, T2, HT2, DAS, Nivalenol, 3-AcDON, 15-AcDON, Sterigmatocystin)	LC-MS/MS		x
30000894	Multimycotoxin analysis regulated mycotoxins (DON, ZON, Afla B1/B2/G1/G2, OTA, FB1, FB2, T2, HT2)	LC-MS/MS		x
30000906	Multimycotoxin analysis 50+ (approx. 55 analytes: aflatoxins, <i>alternaria</i> toxins, <i>aspergillus</i> toxins, A-/B-trichothecenes, enniatins, beauvericin, ergot alkaloids, fumonisins, <i>fusarium</i> metabolites, OTA, <i>penicillium</i> toxins, ZON and metabolites)	LC-MS/MS		x

* accredited according to ISO 17025



Food Allergens

Food allergies, immune responses to proteins present in food that the body mistakenly believes are harmful, are a significant health issue. Allergens are the largest single cause of global product recalls, with the major risk for food manufacturers being the potential for cross-contamination with food allergens during production processes.



Item No.	Analysis	Method	Limit of Detection	Accr.*
30001037	β-Lactoglobulin	ELISA	1.5 µg/kg	x
30001024	Casein	ELISA	0.04 mg/kg	x
30001049	Cashew	ELISA	0.2 mg/kg	
30001047	Whole egg	ELISA	0.5 mg/kg	x
30001015	Egg white	ELISA	0.05 mg/kg	x
30001029	Peanut	ELISA	0.1 mg/kg	x
30001022	Gluten with G12® Antibody	ELISA	2 mg/kg	x
30001021	Gluten with R5 Antibody	ELISA	2 mg/kg	x
30001033	Hazelnut	ELISA	0.3 mg/kg	x
30001041	Lupin	ELISA	0.2 mg/kg	
30001035	Almond	ELISA	0.2 mg/kg	x
30001017	Milk	ELISA	0.05 mg/kg	x
30001023	Pistachio	ELISA	0.13 mg/kg	x
30001040	Mustard	ELISA	1 mg/kg	x
30001043	Sesame	ELISA	0.2 mg/kg	x
30001027	Soy	ELISA	16 µg/kg	x
30001031	Walnut	ELISA	0.35 mg/kg	x
30001045	Fish	ELISA	1.4 mg/kg	
30001046	Crustacea	ELISA	0.9 µg/kg	
30000807	Lactose	HPLC	0.01 g/100 g	x

Allergen analyses in swabs, rinse water and foodstuffs with ELISA.

* accredited according to ISO 17025

Sampling and Turnaround

Analysis	Recommended Sampling Amount**	Turnaround	
Mycotoxins	0.5 – 1 kg (homogenous, finely ground)	max. 4 working days	Express analysis with results available on the next day is offered upon request (a surcharge applies, samples to be received before 10:30 am)
	1 – 2 kg (unground material)		
Lactose	250 – 500 g	max. 5 working days	
Allergens	250 – 500 g	max. 3 working days	

** The sampling procedure is crucial to obtaining representative results.

Analytical Methods

Enzyme Linked Immuno Sorbent Assay (ELISA)

ELISA is an immunological detection method by which specific antibodies bind to proteins and small molecules; this technique allows for the simultaneous measurement of multiple samples.

High Performance Liquid Chromatography (HPLC)

This chromatographic technique allows for the separation of target compounds from both simple and complex matrices. Several detectors can then be used to identify or quantify the analytes.

High Performance Liquid Chromatography – Mass Spectrometry (LC-MS/MS)

With very high degrees of selectivity and sensitivity, LC-MS/MS is the state-of-the-art-technique for the analysis of complex mixtures.