

Analytical Service

Romer Labs US

Testing services for:

Mycotoxins

Food allergens

Melamine

Genetically modified organisms (GMO)



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

Romer Labs US provides a wide portfolio of analyses in the field of **mycotoxins, food allergens, genetically modified organisms (GMO)** and **melamine**.



Mycotoxins

Mycotoxins are secondary metabolites of molds, 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 major health issue for the consumer.



Item Number	Name	Methodology	Accr.*
30000859	Aflatoxins (B1, B2, G1, G2)	LC-MS/MS	x
30000799	Aflatoxin M1	LC-MS/MS	
30000800	Citrinin	TLC	
30000801	Cyclopiazonic Acid	LC-MS/MS	
30000862	Deoxynivalenol + Acetyldeoxynivalenol	LC-MS/MS	x
30000863	Fumonisin (B1, B2, B3)	LC-MS/MS	x
30000808	Moniliformin	TLC	
30000869	Ochratoxin A	LC-MS/MS	x
30000821	Patulin	HPLC-UV	
30000822	Sterigmatocystin	TLC	
30000884	Zearalenone	LC-MS/MS	x
30000872	Mycotoxin Screen (Aflatoxins, Fumonisin, Ochratoxin A, Zearalenone, Trichs A, Trichs B)	LC-MS/MS	x
30000875	5-Toxin Screen (Customers choice of 5-toxins)	LC-MS/MS	x
30000878	4-Toxin Screen (Customers choice of 4-toxins)	LC-MS/MS	x
30000881	3-Toxin Screen (Customers choice of 3-toxins)	LC-MS/MS	x
30000889	Type A Trichs Screen (T2, HT2, Neosolaniol, DAS)	LC-MS/MS	x
30000892	Type B Trichs Screen (DON, AcetylDON, Nivalenol, Fusarenon X)	LC-MS/MS	x
30000852	Melamine	LC-MS/MS	
30000855	Melamine, Ammeline, Ammelide, Cyanuric Acid	LC-MS/MS	
30000779	Multimycotoxinanalysis 50+ (approx. 55 analytes: aflatoxins, <i>alternaria</i> toxins, <i>aspergillus</i> toxins, A-/Btrichothecenes, enniatins, beauvericin, ergot alkaloids, fumonisin, <i>fusarium</i> metabolites, OTA, <i>penicillium</i> toxins, ZON and metabolites)	LC-MS/MS	

* accredited according to ISO 17025

** This is the item number for 5 days turnaround time. When requesting the mycotoxin analysis please specify the turnaround time on the sample submission form.



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 Number	Analyte	Methodology	Limit of Detection	Limit of Quantification	Accr.*
30000928	Almond	ELISA	0.2 ppm	0.4 ppm	x
30000931	BLG	ELISA	1.5 ppb	10 ppb	x
30000937	Casein	ELISA	0.04 ppm	0.2 ppm	x
30000946	Cashew	ELISA	0.2 ppm	2.0 ppm	x
30000943	Crustacea	ELISA	0.9 ppb	20 ppb	x
30000949	Egg white	ELISA	0.05 ppm	0.4 ppm	x
30000949	Egg	ELISA	0.5 ppm	1.0 ppm	x
30000952	Fish	ELISA	1.4 ppm	4.0 ppm	x
30000955	Gluten (G12)	ELISA	2.0 ppm	4.0 ppm	x
30000990	Gluten (R5)	ELISA	3.0 ppm	5.0 ppm	x
30000960	Hazelnut	ELISA	0.3 ppm	1.0 ppm	x
30000964	Lupin	ELISA	0.2 ppm	2.0 ppm	x
30000968	Macadamia	ELISA	1.0 ppm	1.0 ppm	x
30000974	Mustard	ELISA	1.0 ppm	2.0 ppm	x
30000987	Peanut	ELISA	0.1 ppm	1.0 ppm	x
30000981	Pistachio	ELISA	0.13 ppm	1.0 ppm	x
30000993	Sesame	ELISA	0.2 ppm	2.0 ppm	x
30000996	Soy	ELISA	16.0 ppb	40.0 ppb	x
30000999	Total Milk	ELISA	0.05 ppm	0.4 ppm	x
30001002	Walnut	ELISA	0.35 ppm	2.0 ppm	x
30000984	Pine Nut	ELISA	0.7 ppm	1.5 ppm	
30000971	Mollusks	ELISA	1.7 ppb	10 ppb	
30000978	Pecan	ELISA	1.0 ppm	2.0 ppm	
30000967	Lysozyme	ELISA	2.0 ppb	25.0 ppb	x
30000977	Ovalbumin	ELISA	4.0 ppb	25.0 ppb	x

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Genetically Modified Organisms (GMO)

Plants of vital importance to agriculture are often genetically modified by the insertion of foreign DNA material into their DNA sequence, resulting in the expression of novel traits, typically herbicide tolerance or insect resistance.

Item Number	Name	Methodology
30001005 **	Corn Comb (incl. CP4 EPSPS, Cry1A, Cry3Bb, Cry1f, PAT, Cry34Ab1, Vip3A)	LFD
30001005 **	Soy Comb (incl. CP4 EPSPS, PAT)	LFD

** When requesting GMO analysis please specify the GMO trait for analysis on the sample submission form.

Samples and Turnaround Time

Analysis	Recommended Sampling Amount **	Turnaround
Mycotoxins	500 g (homogenous, finely ground)	same day, 1 day, 3 days or 5 days
Allergens	25 g	1 day, 3 days or 5 days
GMO	1 kg	5 days

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

Analytical Methods

Lateral Flow Device (LFD)

LFDs, also known as strip tests, are immunochromatographical detection devices that use specific antibodies coupled to colloidal gold to bind to proteins and molecules.

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.

Thin Layer Chromatography (TLC)

TLC is a chromatographic technique for separation and detection of mycotoxins using a thin stationary phase supported by an inert backing.

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.

For further inquiries or additional information please contact laboratory staff at lab.romerlabsus@dsm.com.