

# ISO 17034

## (Certified) Reference Materials

Biopure™ ISO 17034 Reference Materials fulfill all criteria that ISO 17025-accredited labs require for reference materials, including metrological traceability, stability and homogeneity.

### What are ISO 17034 (Certified) Reference Materials?

Many labs, especially those with or aspiring to an ISO 17025-accreditation, need to demonstrate that the reference materials (RMs) they use meet minimum standards for traceability, stability and homogeneity. Furthermore, the degree of uncertainty must be clearly stated and the characterization of the RMs must be fully transparent.

ISO 17034 Certified Reference Materials (CRMs) are fully metrologically traceable in that their measurements of concentration and uncertainty relate to certified materials available on the market through an unbroken chain of comparisons with stated uncertainties; CRMs are furthermore well characterized by several competent analytical labs. This ensures that the certified value with uncertainty can be calculated with a high degree of reliability.

In the case of some mycotoxins, certified materials typically used to ensure such a high level of traceability are not available. Although these materials undergo the same rigorous process of characterization according to ISO 17034, they cannot be considered certified; these are simply called “ISO 17034 Reference Materials.”

Romer Labs offers ISO 17034 CRMs for the mycotoxins aflatoxin B1, aflatoxin B2, aflatoxin G1, aflatoxin G2, deoxynivalenol, zearalenone and ochratoxin A. ISO 17034 RMs include T-2 toxin, HT-2 toxin, nivalenol, fumonisin B1, fumonisin B2 and patulin.

All (certified) reference materials are available in 5 mL and 1 mL volumes.



### Features and Benefits

- Certificate as stipulated by ISO 17034
- Purity of raw material assessed by accredited quantitative NMR method
- Proof of traceability/trueness
- Stated uncertainty
- Full transparency of production process
- Full transparency of product characterization
- Tested for homogeneity
- Tested for long-term and short-term stability

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## (Certified) Reference Materials

### Ordering Information

Item	Description	Volume	Item No.
Aflatoxin B1 (CRM)	2 µg/mL in acetonitrile	5 mL	10006701
Aflatoxin B1 (CRM)	2 µg/mL in acetonitrile	1 mL	10006702
Aflatoxin B2 (CRM)	0.5 µg/mL in acetonitrile	5 mL	10006703
Aflatoxin B2 (CRM)	0.5 µg/mL in acetonitrile	1 mL	10006704
Aflatoxin G1 (CRM)	2 µg/mL in acetonitrile	5 mL	10006705
Aflatoxin G1 (CRM)	2 µg/mL in acetonitrile	1 mL	10006706
Aflatoxin G2 (CRM)	0.5 µg/mL in acetonitrile	5 mL	10006707
Aflatoxin G2 (CRM)	0.5 µg/mL in acetonitrile	1 mL	10006708
T-2 Toxin (RM)	100 µg/mL in acetonitrile	5 mL	10006709
T-2-Toxin (RM)	100 µg/mL in acetonitrile	1 mL	10006710
HT-2 Toxin (RM)	100 µg/mL in acetonitrile	5 mL	10006711
HT-2 Toxin (RM)	100 µg/mL in acetonitrile	1 mL	10006712
Nivalenol (RM)	100 µg/mL in acetonitrile	5 mL	10006713
Nivalenol (RM)	100 µg/mL in acetonitrile	1 mL	10006714
Deoxynivalenol (CRM)	100 µg/mL in acetonitrile	5 mL	10006715
Deoxynivalenol (CRM)	100 µg/mL in acetonitrile	1 mL	10006716
Zearalenone (CRM)	100 µg/mL in acetonitrile	5 mL	10006717
Zearalenone (CRM)	100 µg/mL in acetonitrile	1 mL	10006718
Ochratoxin A (CRM)	10 µg/mL in acetonitrile	5 mL	10006719
Ochratoxin A (CRM)	10 µg/mL in acetonitrile	1 mL	10006720
Fumonisin B1 (RM)	50 µg/mL in acetonitrile/water	5 mL	10006723
Fumonisin B1 (RM)	50 µg/mL in acetonitrile/water	1 mL	10006721
Fumonisin B2 (RM)	50 µg/mL in acetonitrile/water	5 mL	10006722
Fumonisin B2 (RM)	50 µg/mL in acetonitrile/water	1 mL	10006724
Patulin (RM)	100 µg/mL in acetonitrile	5 mL	10007040
Patulin (RM)	100 µg/mL in acetonitrile	1 mL	10007041

CRM = ISO 17034 Certified Reference Material

RM = ISO 17034 Reference Material



# Quality Control Materials

Romer Labs Quality Control Materials (QCM) are corn and wheat materials that are naturally contaminated with a variety of mycotoxins, available at different contamination levels.

## Ensuring precision and reliability in mycotoxin analysis

Quality Control Materials are ideal for validating methods, conducting periodic accuracy checks of accredited analytical methods, and serving as positive control materials in various assays. Each batch is rigorously characterized using an ISO 17025 accredited LC-MS/MS method. Certificates of analysis are provided with every batch to ensure the highest quality and accuracy.

## Wide range of toxins for comprehensive analysis

Romer Labs QCMs are available for a broad spectrum of mycotoxins, including total aflatoxin, deoxynivalenol, fumonisin, zearalenone, T-2, and HT-2 toxins. These are offered either as single or multi-toxin materials to meet diverse testing needs.



## Features and Benefits

### Naturally contaminated materials

A realistic testing matrix enhances the accuracy of mycotoxin testing.

### ISO 17025 accredited LC-MS/MS characterization

Ensures reliable quality through rigorous testing and characterization of each batch.

### Stability and homogeneity tested materials

Promotes uniform and dependable test results by ensuring consistent composition and stability over time, thus reducing potential errors and variability in testing.



# Quality Control Materials

The materials are packaged either into stable amber plastic bottles with a tamper-proof cap or in resealable foil pouches in amounts of 100 g each.

## Ordering Information

Material	Concentration [ $\mu\text{g}/\text{kg}$ ]	Item No.
Blank		
Blank wheat	< Limit of Detection	10003611
Aflatoxin		
Aflatoxins in corn, low level	Afla B1: $4.8 \pm 1.9 \mu\text{g}/\text{kg}$ Afla B2: $< 1 \mu\text{g}/\text{kg}$ Afla G1: $< 1 \mu\text{g}/\text{kg}$ Afla G2: $< 1 \mu\text{g}/\text{kg}$	10007113
Deoxynivalenol		
Deoxynivalenol in corn, high level	$2000 \pm 600 \mu\text{g}/\text{kg}$	10007115
Zearalenone		
Zearalenone in corn, low level	$62 \pm 17 \mu\text{g}/\text{kg}$	10003624
Multitoxin		
Afla, DON, ZON and FUM in corn, mid level	Aflatoxins: $6.0 \pm 2.5 \mu\text{g}/\text{kg}$ Deoxynivalenol: $900 \pm 200 \mu\text{g}/\text{kg}$ Fumonisin: $2600 \pm 600 \mu\text{g}/\text{kg}$ Zearalenone: $103.4 \pm 37.5 \mu\text{g}/\text{kg}$	10007114
DON, T-2/HT-2 and OTA in wheat, low level	Deoxynivalenol: $1000 \pm 300 \mu\text{g}/\text{kg}$ T-2 toxin: $35.2 \pm 16.3 \mu\text{g}/\text{kg}$ HT-2 toxin: $38.0 \pm 12.7 \mu\text{g}/\text{kg}$ Ochratoxin A: $6.0 \pm 3 \mu\text{g}/\text{kg}$	10007116

Note: These products represent naturally contaminated materials and have a limited supply.  
Subsequent product batches might have slightly different concentrations.