

CERTIFICATE OF ANALYSIS

ERM[®] - BF423b

DRIED MAIZE POWDER		
	Mass Fraction	
	Certified value ¹⁾ [g/kg]	Uncertainty ²⁾ [g/kg]
MIR604 maize	1.0	-0.3 ; +1.0
<p>1) The certified value is based on the mass fraction of dried non-genetically modified powder and dried genetically modified powder mixed and corrected for their respective MIR604 purity and the water content. The certified value is traceable to the SI.</p> <p>2) The certified uncertainty provides the expanded uncertainty estimated in accordance with the Guide to the Expression of Uncertainty in Measurement (GUM) with a coverage factor $k = 2$, corresponding to a level of confidence of about 95 %. The expanded uncertainty for ERM-BF423b covers the interval from 0.7 to 2.0 g/kg.</p>		

This certificate is valid for 12 months after purchase.

Sales date:

The minimum amount of sample to be used is 100 mg.

NOTE

European Reference Material ERM[®]-BF423b was produced and certified under the responsibility of the IRMM according to the principles laid down in the technical guidelines of the European Reference Materials[®] co-operation agreement between BAM-IRMM-LGC. Information on these guidelines is available on the internet (<http://www.erm-crm.org>).

Accepted as an ERM[®], Geel, March 2006

Signed: _____



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DESCRIPTION OF THE SAMPLE

ERM-BF423b is part of a set of four maize powder CRMs containing different mass fractions of genetically modified (GM) MIR604 maize. The set of CRMs (ERM-BF423a, ERM-BF423b, ERM-BF423c and ERM-BF423d) was produced and certified under the responsibility of the Institute for Reference Materials and Measurements of the European Commission's Directorate General Joint Research Centre (EC-DG JRC-IRMM). ERM-BF423b is available in glass bottles containing approximately 1 g of maize powder closed under argon atmosphere. This reference material has been produced from whole kernels of non-modified maize and MIR604 maize of seed quality delivered by Syngenta Protection AG (Basel, CH). According to Commission Regulation (EC) No 65/2004 the event MIR604 maize received the unique identifier SYN-IR604-5.

ANALYTICAL METHOD USED FOR CERTIFICATION

Gravimetical preparation confirmed by real-time Polymerase Chain Reaction (rt-PCR).

PARTICIPANTS

EC-DG JRC-IRMM, Geel, BE

SAFETY INFORMATION

not applicable

INSTRUCTIONS FOR USE

CRM ERM-BF423b is intended to be used for the quality control or calibration of methods for the quantification of the MIR604 maize mass fraction in food and feed.

During certification a significant difference concerning the DNA mass precipitating in ethanol between the non-GM and GM maize powder has been observed. Using DNA-based quantification techniques like rt-PCR may therefore lead to 20 % higher values for the quantity of DNA extracted from MIR604 maize compared to the quantity of DNA extracted from the non-GMO maize. Consequently the GM DNA fraction determined in relative haploid genome copy numbers may lead to up to 20 % higher values in comparison to the real mass fraction.

STORAGE

Bottles should be stored dry and in the dark at maximum 4 °C.

However, the European Commission cannot be held responsible for changes that happen during storage of the material at the customer's premises, especially of opened samples.

LEGAL NOTICE

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NOTE

A detailed technical report is available on www.erm-crm.org. A paper copy can be obtained from IRMM on request.

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