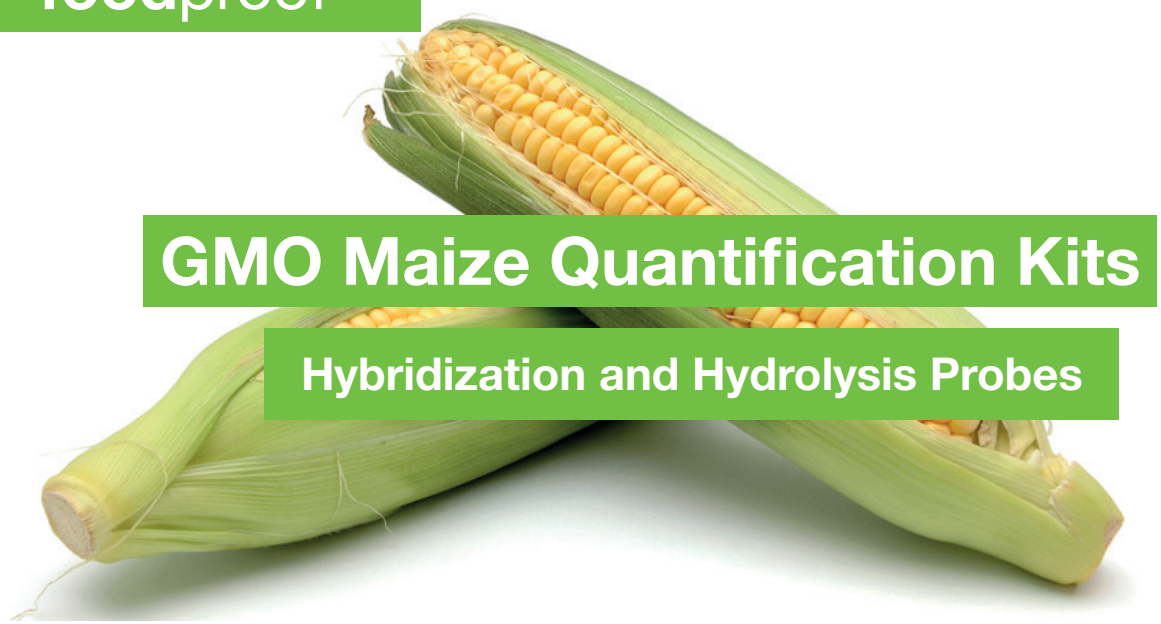
BIOTECON Diagnostics

foodproof®



GMO Maize Quantification Kits

Hybridization and Hydrolysis Probes

For safer food – BIOTECON Diagnostics – simply builds up trust!

Maize (*Zea mays*) is one of the most important agricultural crops worldwide. The role of genetically modified maize plants is increasing steadily. Common genetically modified sorts of maize (e.g. Bt11, Bt176, MON810, MON863) contain the 35S promoter of the Cauliflower Mosaic Virus (CaMV). According to EU law, foods and additives with more than 0.9% relative amount of genetically modified organisms must be labelled as GMO products. Other countries have similar regulations, e.g. Switzerland (1%), Brazil (1%) or Japan (5%). Consequently, there is a need for a fast and reliable quantification system.

The **food**proof® **GMO Maize Quantification Kits** are based on the real-time PCR technology, which is well-established in the food industry as a highly sensitive and specific detection method.

Fast: 2 h to result with < 50 min of hands-on time

Safe: Prevention of false-positive results and carry-over contamination by using Uracil-N-Glycosylase

Sensitive: Validated to detect ≥ 0.1% relative GMO content

Easy: Convenient, complete solution including DNA extraction and real-time PCR analysis

Experienced: Manufacturer of PCR-based rapid tests for the food industry since 1998 with an ISO 17025 accredited service lab

Licensed: Fully licensed technology

Best Specificity

Safe Detection

- *cryIA*(b) gene fragment of Bt176 maize or
- 35S promoter sequence of CaMV (Cauliflower Mosaic Virus)

Reference Gene

- Specific gene (invertase *ivr1* or starch synthase *zSSIIb*) as reference for relative quantification and as control for DNA integrity

Quantification Options

- by using external standards
- by using LightCycler® Relative Quantification Software

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Workflow

Start
Homogenized Food Sample

40 min
DNA Extraction

10 min
PCR Set-up

60 or 100* min
PCR run

10 min
Analysis

120 or 160* min Total

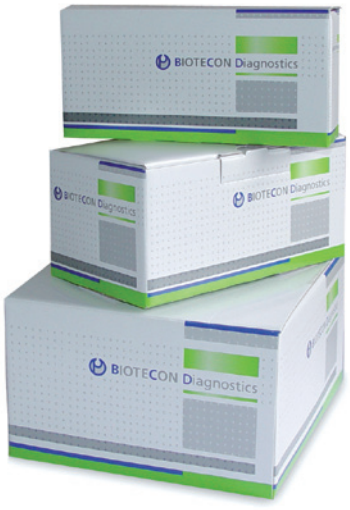
* 5‘ Nuclease PCR run

GMO Maize Quantification Kits

R 302 16 **food**proof® GMO Bt176 Maize Quantification Kit (5‘ Nuclease)
R 302 29 **food**proof® GMO 35S Maize Quantification Kit (5‘ Nuclease)

Matrix-Specific DNA Extraction Kits

S 400 06 **food**proof® Sample Preparation Kit III
S 400 13 L **food**proof® Magnetic Preparation Kit III



Storage at -15 °C to -25 °C
128 Reactions with a final volume of 20 or 25 µl

DNA Extraction (max. 40 min)

foodproof®
Sample Preparation Kit III
enables the extraction of plant DNA from matrices

Instrument Compatibility

- LightCycler® 1.x, 2.0
- 5‘ Nuclease / TaqMan® cycler (e.g. LC 480, Mx3005P, CFX 96, ABI7500)

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