

A T C A T C G T A T C C A T C C C T A T C C A T C C C T  
 T C A T C C C T A T C G C T T C C A T C T G C T T C A  
 A T C T T C A T C C G T A T C T G C T T C C A T C T G C T  
 C C A T T T C A T C C G T A T C  
 G C T T C C A T C C C T A T C G C  
 T C A T C C A T C C C T A T C T G C T T C C A T C T G C T



**BIOTECON** Diagnostics

**foodproof®**

## GMO Screening LyoKits

Hydrolysis Probes



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

Worldwide cultivation of genetically modified organisms (GMO) is constantly rising. Transgenic crops are grown on more than 190 million hectares in countries such as the USA, Brazil, Argentina, India and Canada. Many countries have implemented legislations for the use, cultivation and labeling of GMOs, including the European Union (EU). According to EU law, foods, feed and additives with more than 0.9% relative amount of GMO must be labeled. Thus, reliable methods for GMO screening, identification and quantification are required.

The **foodproof®** GMO Screening LyoKits 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:** 3 h to result with < 60 min of hands-on time.

**Safe:** Prevention of carry-over contamination using Uracil-N-Glycosylase. Internal amplification control as inhibition control included.

**Sensitive:** LyoKits Limit of Detection (LOD) 0.01% relative GMO content or 1 target copy/μl.

**Comprehensive:** 8 screening targets for minimum effort and maximum coverage.

**Convenient lyophilized kit format:** Easy pipetting, low risk of contaminations, easy storage, higher sensitivity.

**According official methods:** The assays comply with ISO 21569 and the German Food Law § 64 LFGB.

#### Best Specificity

##### 100% Inclusivity

- Validated with reference material
- Detection of > 95% of all approved genetically modified plants

##### Controls Included

- Positive and negative controls
- Plant Detection LyoKit to check DNA quality
- Uracil-N-Glycosylase

#### Matrices

For food and feed products. Compatible with all relevant food matrices like tofu, fruit yoghurt, rice waffle, fat, vegetable burger, soya drink, flour, cracker, salt sticks and barbecue sauce.

A T C A T C G T A T C C A T C C C T A T C C A T C C C T  
T C A T C C C T A T C G C T T C C A T C T G C T T C A  
A T C T T C A T C C G T A T C T G C T T C C A T C T G C T  
C C A T T T C A T C C G T A T C  
G C T T C C A T C C C T A T C G C  
T C A T C C A T C C C T A T C T G C T T C C A T C T G C T



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## Workflow



## GMO Screening Kits

- R 602 17 **foodproof®** GMO Screening 1 LyoKit (5' Nuclease), 96 reactions  
Targets: 35S, NOS, FMV
- R 602 18 **foodproof®** GMO Screening 2 LyoKit (5' Nuclease), 96 reactions  
Targets: bar, P-35S-pat, CTP2-CP4-EPSPS, P-NOS-nptII, P-35S-nptII
- R 602 21 **foodproof®** Plant Detection LyoKit (5' Nuclease), 96 reactions  
DNA quality and process control: detection of plant DNA
- R 302 17 **foodproof®** GMO Screening Kit (5' Nuclease), 2x 64 reactions  
Targets: 35S, NOS, bar, FMV; with process control (plant DNA detection)

## GMO Identification Kits

Multiplex identification LyoKits for soya and maize events not covered by screening.

- R 602 24 **foodproof®** GMO Soya Identification 1 LyoKit, 96 reactions  
Targets: DAS-44406-6, MON87701, MON87708, MON87769
- R 602 25 **foodproof®** GMO Soya Identification 2 LyoKit, 96 reactions  
Targets: BPS-CV127-9, DP-305423-1, DAS-68416-4, DAS-81419-2
- R 602 46 **foodproof®** GMO Maize Identification 1 LyoKit, 96 reactions  
Targets: DAS-40278-9, LY038, VCO-01981-5

More Identification and Quantification Kits can be found on our website.

## Specific DNA Extraction Kits

- S 400 06.1 **foodproof®** Sample Preparation Kit III - high quality column purification
- S 400 13.1 L **foodproof®** Magnetic Preparation Kit III - automated purification

## DNA Extraction

- Simple and easy protocols, manually or automated
- High quality clean-up of DNA from raw or processed materials
- Special protocols for highly processed samples (low DNA content)
- Validated combination of DNA extraction and PCR detection

## Instrument Compatibility

- LightCycler®
- 5'Nuclease / TaqMan® cyclers (e.g. PikoReal 24, CFX96, ABI 7500)

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