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.
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
- 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® cycler (e.g. PikoReal 24, CFX96, ABI 7500)

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