

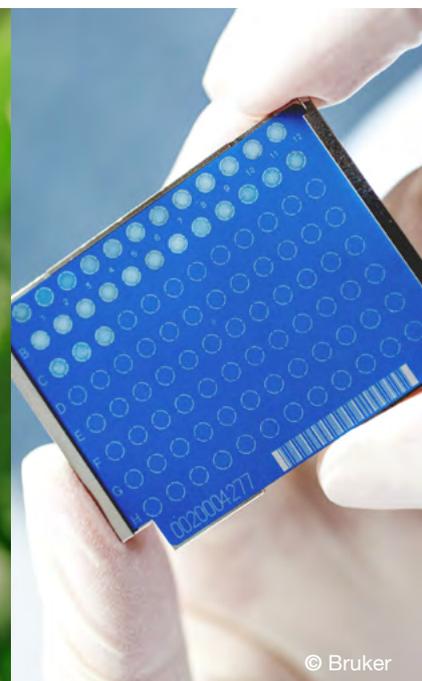
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BIOTECON Diagnostics



NEWSLETTER



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

Welcome to our newsletter

Our regular newsletters are an easy way to keep up-to-date with all our new developments and interesting scientific research in the field of rapid tests. With contributions from our in-house experts, our newsletters contain quarterly highlights, news pieces, and keep you informed of all our upcoming events and activities.

Topics:

- [**MALDI-TOF MS: A new and efficient tool in food safety laboratories**](#)
- [**NEW KITS FOR SOYA IDENTIFICATION: Our GMO family just grew bigger!**](#)
- [**MEET THE EXPERTS: Industry meeting series 2017**](#)
- [**INVITATION TO OUR ANNUAL SEMINAR: “Rapid Methods in Food Safety Analysis“**](#)
- [**UPCOMING EVENTS**](#)



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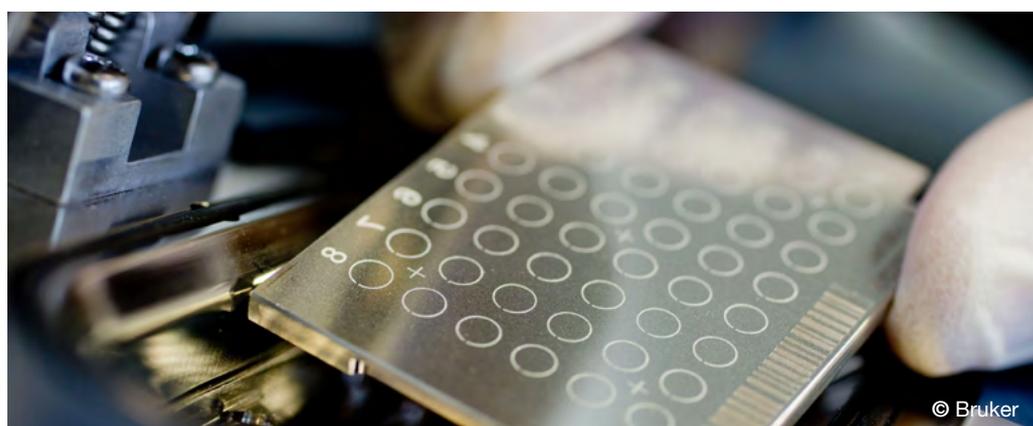
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BIOTECON Diagnostics

NEWSLETTER

MALDI-TOF MS: A new and efficient tool in food safety laboratories



BIOTECON Diagnostics is a leading company for rapid microbiological testing methods for the food, beverage and pharmaceutical industries. We develop, manufacture, and distribute **foodproof**[®], **microproof**[®] and **vetproof**[®] product lines, including automation workflows. In addition, we are strengthening our portfolio with tailor made MALDI-TOF MS solutions for the identification of currently unknown microorganisms.

MALDI time of flight mass spectrometry or briefly MALDI-TOF MS has been used for over 30 years in academic and industrial markets. In addition, the identification of microorganisms with MALDI has become broadly accepted in many laboratories as the next generation microbial identification standard. Thanks to a straightforward and across industry segments focused continuous improvement process, many MALDI systems are now implemented in food and beverage quality control laboratories. Around the year 1996, several independent working scientists have shown that the analysis of freshly grown microorganisms with MALDI-TOF MS delivers reproducible and typical protein profiles or fingerprints and draw attention to its potential to identify microorganisms in seconds or minutes. The development of robust, easy to use benchtop mass spectrometer devices, standardized sample preparation protocols and most important a well-defined, stringently controlled reference database to match against, paved the way for using MALDI-TOF MS as new microbial identification tool. BIOTECON Diagnostics offers from now on in selected countries full MALDI-TOF MS equipment, know-how and individual tailor-made solutions.

- ▶ Key aspects and features of the bench-top MALDI-TOF MS are:
 - Fast and reliable identifications
 - Easy to handle hardware and software
 - Space saving, simple to install bench-top instrument
 - Silent, with low energy consumption
 - Low consumable costs
 - Simple sample preparation protocols (automation option)



© Bruker

microflex LT/SH

Compact linear-mode bench-top MALDI-TOF system

Device Specification:

LxWxH:
510 x 680 x 1093 mm

Weight:
84 kg

Temp-Range:
10 - 30 °C

Power:
110/220 Volt

Self-cleaning MALDI Ion source

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BIOTECON Diagnostics

NEWSLETTER

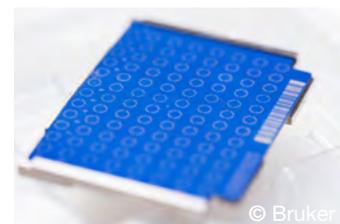


The illustration of the complete workflow summarizes directly the advantages of MALDI TOF MS analytics: accurate time to results in minutes

Usually the identification process starts with a simple transfer of a small amount of freshly grown colonies onto a standard steel MALDI target plate, followed by an automated acquisition of “proteotypic” fingerprint and subsequent bioinformatics pattern profiling. Based on this easy workflow and fast data generation, identifications are literally done in minutes or seconds and enable quality control to monitor raw materials and processed food components at critical control points almost at real time in order to minimize bacterial contaminations along the complete food chain and finally before product release.

Currently, the reference data base contains more than 7000 entries and helps to identify over 2500 different species. Recent studies in the food and beverage industry clearly showed a significant positive impact after the extension of the database with relevant and specific, not yet included type strains. For example, several QC labs in the dairy sector are now able to correctly identify contaminations after we added roundabout 300 specific and dairy relevant strains (*Bacillus* spp., *Cronobacter* spp., *Campylobacter* spp., etc.). Further on, preliminary validation results from two dairy laboratories are confirming higher positive identification rates and an increased overall scoring level, after the implementation of our extended dairy database version. Conversely, the number of “no identification” events dropped clearly.

In summary MALDI-TOF systems deliver fast, accurate identification results complementing PCR results or helping to improve and accelerate the complete food chain controlling process.



Disposable MALDI target with 96 spot format inclusive barcode (traceability)

For further information on the instrument or database solutions visit our [website](#) or contact [Dr. Gerold Schwarz](#).

**AVAILABLE:
Now**

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BIOTECON Diagnostics

NEWSLETTER

New Kits for Soya Identification: Our GMO family just grew bigger!



With 4 new kits for identification of the important events A5547-127, MON87705, FG72 and DP356043, BIOTECON Diagnostics underlines its leadership position in the field of GMO analytics. The kits are available as liquid assays in 96 reactions format:

- NEW** RDK 100 46 **foodproof**[®] GMO A5547-127 Soya Identification Kit
- NEW** RDK 100 47 **foodproof**[®] GMO MON87705 Soya Identification Kit
- NEW** RDK 100 48 **foodproof**[®] GMO FG72 Soya Identification Kit
- NEW** RDK 100 49 **foodproof**[®] GMO DP356043 Soya Identification Kit

BIOTECON Diagnostics assays for GMO Screening, quantification and identification offer highest sensitivity and flexibility, while being accurately repetitious and easy-to-use.

- **Unique designed assays** enable screening for 8 different GMO target elements
- Additional multiplex detection and identification assays for **8 soya events** are closing the gap
- In combination, more than **95 % of genetically modified plants are detected**
- **Automatable** with KingFisher Flex and Magnetic Preparation Kit III
- **Primer and probes in accordance** with ISO 21569, ISO 21570, ISO 21571 and the German Food Law § 64 LFGB

Unique features, surpassing old school methods: Lyophilized assays

- **Pre-filled reaction mix**, just add DNA sample preparation
- **Easy storage** at 2 - 8 °C – **easy transportation** at room temperature
- No more **cooling chain** challenges
- **Less pipetting**: reduced risk of cross-contamination
- **Higher sensitivity**: Up to 25 µl sample volume instead of 5 µl
- All **controls are integrated** in the kit (positive, negative, and internal control)
- 96-well plate in 8-strip format for easy sampling
- Compatible with all relevant real-time PCR cyclers



BIOTECON Diagnostics

NEWSLETTER

High security against false-positive results: Uracil-N-Glycosylase (UNG)

- Prevent carryover contamination
- Cleaves DNA at any site where a deoxyuridylate residue has been incorporated
- Residual products from previous PCR amplifications will be digested
- True DNA templates will not be affected



NEW GMO MULTIPLEX LYOKITS FOR SCREENING FOR NON-MARKER GM SOYA AND MAIZE

In the past the combined detection of the cauliflower mosaic virus (CaMV) 35S promoter and NOS terminator of the nopaline synthase gene of *Agrobacterium tumefaciens* gave a good certainty concerning the presence or absence of GMO in a sample. However, the development of new GMO events, that do neither contain P-35S nor T-NOS, already outdated this approach. BIOTECON Diagnostics has developed a sophisticated screening assay system, screening for 8 different elements. But even with this approach, certain non-marker events like MON87708 or MON87769 are not detected. To close the gap, BIOTECON Diagnostics offers the **foodproof® GMO Soya Identification 1 LyoKit** (Order No. R 602 24) and **foodproof® GMO Soya Identification 2 LyoKit** (Order No. R 602 25), which detect and identify 4 soya events in one multiplex reaction, respectively. The **foodproof® GMO Maize Identification 1 LyoKit** (RDK 100 36), identifying DAS-40278-9, LY038 and VCO-01981-5, broadens the range.

With the **foodproof®** GMO product line, BIOTECON Diagnostics offers a wide range of easy and reliable assays for the detection, identification and quantification of GMO. The **foodproof® GMO Screening Kits** facilitate a fast, safe and easy detection in food samples, and the **foodproof® GMO Quantification Kits** provide a precise and sensitive

Find out more about our broad [GMO product](#) range.

Contact: [Dr. Ivo Meier-Wiedenbach](#)

AVAILABLE:
Now



Meet the Experts: Industry meeting series 2017



In February 2017 and beginning of April 2017 BIOTECON Diagnostics conducted two industry-dedicated meeting „Current topics and trends of diagnostic methods a) for brewers and b) in the dairy sector“ on the peninsula Hermannswerder in Potsdam.

Our company experts talked about state-of-the art molecular techniques, advantages and disadvantages of rapid test methods and discussed the demand and opportunities at the local customer sites.

The seminars were very informative for both sides and the feedback was very positive.



Our **Confectionery Day** will take place from **12 June (p.m.) till 13**. We would like to invite you to learn more about rapid molecular microbiological methods for detection of *Salmonella*, *Enterobacteriaceae*, Yeasts and Molds, and more...



Our second summer meeting 2017 is the **Seafood Day**. It will take place from **22 June (p.m.) till 23**. We would like to invite you to learn more about rapid molecular microbiological methods for detection of Norovirus and Hepatitis A virus, *Vibrio*, *Salmonella*, *E. coli*, and more.

Both English-speaking seminars will take place on the beautiful peninsula Hermannswerder in Potsdam.

Save your place! If you are interested please contact us a.s.a.p.

Contact: [Olaf Degen](#)



BIOTECON Diagnostics

NEWSLETTER

Invitation to our Annual Seminar “Rapid Methods in Food Safety Analysis“



SAVE THE DATE: September 19 – 22, 2017

We are looking forward to welcome our customers and partners in September 2017!

SEMINAR „RAPID METHODS IN FOOD SAFETY ANALYSIS“, 21 SEPTEMBER 2017

BIOTECON Diagnostics organizes for the fourth time the seminar “**Rapid Methods in Food Safety Analysis**”. This scientific seminar is a great opportunity to hear about new trends and methods in food safety. Well-known experts working in this area share their knowledge and views. Key issues in 2017 will be *Salmonella*, *Cronobacter*, Hepatitis A and E virus, GMO, MALDI-TOF MS and insights into hygiene in poultry farms.

WORKSHOPS, 22 SEPTEMBER 2017

On the following day BIOTECON Diagnostics offers four different workshops showing practical performance. The focus of this workshops is to demonstrate the opportunity for hands-on experience in the lab under the supervision of instructors. Best strategies and practices for effective sample preparation and generation of high-quality data will be recommended.

Topics of the Workshops in 2017 are: Viruses in food and water, GMO, Automation solutions in the PCR lab for *Salmonella/Listeria* and MALDI-TOF MS.

We will send you the final program and the link for online registration for the seminar and workshops soon.

All our distributors worldwide are cordially invited to the annual meeting 2017 in Potsdam, Germany. **The Annual Distributor Meeting will take place on 19 – 20 September 2017.**

During the two days of this meeting we will inform you about our latest kit developments as well as discuss new business strategies. Furthermore a dinner in Potsdam will bring you the opportunity for an exchange of ideas.

You've got questions or want further information? Please contact our marketing & sales assistant, [Dr. Constanze Klopffleisch](#).

We are looking forward to welcome you in Potsdam and spend some inspiring time together for discussion and exchange!

Preliminary Seminar Program:

Salmonella - “modern approaches for detection and characterization”
Prof. Stephan Hühn-Lindenbein
(Beuth University of Applied Sciences Berlin, Germany)

“Hepatitis A and E virus in food - relevance, methods for detection and determination of infectivity”
Dr. Reimar Johné
(Federal Institute for Risk Assessment Berlin, Germany)

“MALDI-TOF-MS-fingerprinting – an innovative tool for species identification to detect food fraud in official food control”
Dr. Christine Wind
(CVUA Freiburg, Germany)

“A current review on different aspects of *Cronobacter* spp.”
Prof. Dr. Roger Stephan
(UZH Zurich, Switzerland)

“Quantification of GM food and feed derived from oilseed rape”
Dr. Antje Dietz-Pfeilstetter
(Julius Kühn-Institute Braunschweig, Germany)

“Vaccination- the key to *Salmonella* control in poultry”
Dr. Daniel Windhorst
(IDT Biologika Dessau, Germany)

Preliminary Workshop Topics:

- #1: GMO
- #2: Viruses in food and water
- #3: Automation solutions in the PCR lab for *Salmonella/Listeria*
- #4: MALDI-TOF MS



Upcoming Events

Join us at the upcoming events to share insights and best practices with colleagues, connect and form new collaborations and discover new product launches.

Event	Date and Location	Contact
May 2017		
BIOTECHNICA - LABVOLUTION	16th - 18th May 2017 in Hannover, Germany	Alois Schneiderbauer, Dr. Ralf Hensick, André Olthoff
June 2017		
Spoilers in Food 2017	28th - 30th June 2017 in Quimper, France	Benjamin Junge, Dr. Gido Murra
July 2017		
IAFP 2017	9th - 12th July 2017 in Tampa, USA	Olaf Degen
Brasil Brau 2017	26th – 28th July 2017 in Sao Paulo, Brasil	Alberto Skinfill
September 2017		
AOAC 131st Annual Meeting and Exposition	24th - 27th September 2017 in Altanta, USA	Dr. Ivo Meier-Wiedenbach
October 2017		
MBAA Annual Conference 2017	12th – 14th October 2017 in Altanta, USA	Juliane Kuklinski, Markus Fandke

May 16-18, 2017 in Hannover, Germany

Meet us at the LABVOLUTION/BIOTECHNICA

HALL 19, BOOTH C18/1

We invite you to Dr. Ivo Meier-Wiedenbach's talk "Automated DNA Preparation and PCR Setup for High-Throughput Food and Feed Analysis" at the Labuser Forum (Convention area hall 19/20, Room Casablanca) on May 18th at 11:15 am.

LAB VOLUTION

EUROPEAN UNION European Regional Development Fund

Save you free ticket now! – please contact [Dr. Constanze Klopffleisch](#). Also do not hesitate to contact us in advance for a personal conversation.

LABVOLUTION

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