

MobiLab | Your lab to go

- All in one analysis platform
- Set includes all reagents and consumables
- Pathogen detection new defined



MobiLab | The lab to go for fast and mobile on-site diagnostics of molecularbiological pathogens



The demands for a molecular pathogen diagnostic under field conditions and the associated robust and fast analytic are increasing. Currently available pathogen detections require proof testing of samples in a qualified laboratory by trained personnel, whereby manpower, time and money are enormous. In order to reduce waiting times and to enable a low-cost sample analysis in the field, Analytik Jena has developed a device platform that meets these requirements. The overall system is very easy to use which makes the operation for laymen possible and as well reliable. Additionally pathogens can be detected on the state of the art in less than one hour with a high specificity.

Features

- Ultra modern device platform: the MobiLab
- Pathogen detection new defined
- Diversity through the elaborate product family
- On-site analysis through the mature technology
- Perfectly equipped

Ultra modern device platform: the MobiLab

The MobiLab is designed so that even non-specialists will be guided step by step through a computerized manual from beginning of the sampling to the specific pathogen detection. This can be done easily and quickly, as the MobiLab combines nucleic acid extraction, thermal mixer and *rapid*PCR cycler in an expedient way.

On the basis of an integrated high-performance battery and supply in a robust case the system allows very flexible applications – future-oriented in the field. Due to the external power supply the MobiLab can be operated indoor on a surface of a sheet of DIN A4 paper to replace an entire laboratory. On the position, where normally one labtop finds its place, now two fully equipped workplaces can be established. The overall concept offers enormous variety and is therefore suitable for different applications.

Both the robust housing and the soft-touch control panel are optimized for the outdoor use and realize an easy and thorough cleaning and disinfecting.

Pathogen detection new defined

Perfectly adapted to the MobiLab are the „ready-to-use“ kits which include all necessary reagents and consumables which are needed for different pathogens evidence. Among the vessels and materials for sampling (e.g. Swabs) reagents for nucleic acid extraction as well as PCR components in a pre-formulated and storable form are delivered. Also included are novel reaction cartridges in which the entire amplification and detection processes takes place.

Because of this closed system operating errors and contamination can be reduced to an absolute minimum. The final pathogen detection is highly sensitive and is carried out on a Lateral Flow Strip (LFS), which additionally contains a conjugate control to verify the reaction.



Diversity due elaborated product family

To meet the requirements of every user and various applications the MobiLab is available in two versions. Both devices combine an entire laboratory, including extraction, thermal mixer and PCR thermal cycler in a suitcase. Simple, robust and mobile are the key words for the entire design concept.

MobiLab One



▲ MobiLab One

If a simple Yes/No statement of a single sample or a sample pool is needed the **MobiLab One** is the right choice. With its removable it allows easy storage and building up at lowest place.



▲ Easiest handling and operation due to a computerized step by step manual on the integrated display

MobiLab Case



▲ MobiLab Case

If samples should be analyzed under field conditions or even in a wet-wet environment the **MobiLab Case** is the best system. The operation takes place by a 5.7" touchscreen and an integrated Windows CE computer. It is also possible to connect an additional device via USB port.



▲ Fast and easy mixture of the samples in the integrated thermal mixer

MobiLab Kits | Optimized Ready-to-Use kits for easiest operation including all necessary reagents and consumables

On-site analysis through the mature technology

For the first time it is now possible to isolate nucleic acids, followed by a target-specific *rapid*PCR amplification and final detection on a mobile basis. Additionally there is another highlight: the enormous time saving – typically a full run is completed in less than 60 minutes.

The MobiLab includes an integrated thermal mixer for effective sample lysis of different starting materials. The extraction of DNA or RNA is based on the patented DC technology and is realized through the binding to magnetic particles. A specially designed magnetic trap ensures rapid separating of the bound nucleic acids from other cellular components. Also located within the device is a *rapid*PCR thermal cycler in which the sequence of interest is amplified in a very short time based on the RAH-technology (Rapid Amplification and Hybridization) and then hybridized in the same reaction.



▲ "Magnet trap" – ensures the separation of the bound nucleic acids from other cell components within seconds

Optimized Ready-to-Use kits for easiest operation



▲ All inclusive. The MobiLab kits contain all necessary reagents and consumables for the nucleic acid extraction, the combined *rapid*PCR/hybridization reaction and the final detection on a storage stable Lateral Flow Strip.

Perfectly equipped

Based on the *rapid*PCR technology full pathogen detections are realized in just one hour. Consequently the MobiLab is unique in terms of flexibility and also in relation to the speed with which the results are done and allows in the case of positive samples to take first measures until the final report from the lab is available.

This offers, for example, a fast and reliable self-control by different users. Furthermore the easy processing of the protocols enables to perform different pathogen determinations without profound knowledge of molecularbiology – future orientated as on-site analysis.

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Subject to changes in design and scope of delivery
as well as further technical development!

