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# **bCUBE<sup>®</sup>2 starter kit**

From raw material to final result



## **Hyris Ltd**

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### WARNING AND PRECAUTIONS

Do not use for any other than the intended use of the instrument. This instrument is designed to be used by personnel trained to follow the usual molecular biology precautions.

### WARRANTY AND RESPONSIBILITIES

Hyris Ltd guarantees the buyer exclusively concerning the quality of the components used to produce the instrument. Hyris Ltd is not responsible and cannot anyway be considered responsible or jointly responsible for possible direct and indirect damages resulting from the utilization of the instrument by the user. The user consciously and under his/her own responsibilities decides the purposes of usage of the instrument and uses it the way he/she considers most suitable in order to reach his/her goals and/or objectives.

Hyris is not responsible for the data resulting from the use of the instrument, for the utilization that the user independently decides to make of it or for the direct or indirect damages possibly resulting from the disclosure or transmission of the data themselves to third parties under any form or circumstance. This clause is automatically accepted by the user when purchasing the instrument.

The patent for performing PCR and Real-Time PCR is held by Hoffmann-La Roche. Authorization to use PCR and Real-Time PCR can be obtained on licence from Hoffmann-La Roche. Other reagents may need a licence from additional patent holders. The product and information included in the Kits consist of the assembled instrument and user manual. The licence and authorisation for PCR, Real-Time PCR and other reagents use are not included in the Kits. The user is responsible for setting prefixed goals, choosing whether or not to perform the PCR, Real-Time PCR and isothermal reaction and to apply for register his/her own licence.

The instrument is not approved for human diagnostics. Services supply, quality control or any other application that is not exclusively an internal company's research requires a specific licence from relevant patent holders.

The instruments have been internally tested by our quality control. Any responsibility is waived if the warranty of quality control does not refer to the specific instrument being purchased. The user is personally responsible for data that he/she will obtain and/or he/she will supply to third parties using these instruments. Once the sealed package is opened the user accepts all the above conditions without exception

## bCUBE®2 starter kit

The starter kit includes one bCUBE 2.0 unit plus all the reagents, disposable and additional equipment for easy and fast DNA/RNA analysis through Real-Time PCR, from raw material to final result, with all the support and training.

### Get easy your sample homogenization

- Vortex, disposable beads and micro-pestles for homogenization of your raw material will be provided.
- According to the nature of your sample, Hyris will suggest you the more suitable method.
- Moreover, Hyris will provide you with a full training and technical support for the correct and reliable manipulation of your raw material.



### High performance and portability with compact lab equipment

- High-performance and compact minicentrifuge and thermal block for portable, easy, and reliable nucleic acid purification for subsequent analysis in Real-Time PCR will be provided.
- Due to the reduced dimensions and weight of the equipment included in the starter kit, you'll be able to perform your job in the field with the same performance as a traditional analysis laboratory.



### Specific reagents for sample preparation

- According to samples nature and subsequent analysis, a specific sample prep kit will be available.
- The kit will include all the necessary reagents and disposables for the specific preparation of your sample.
- The sample prep kit will allow you to prepare your sample for subsequent analysis in Real-Time PCR.



### Specific reagents for sample analysis in Real-Time PCR

- According to the Real-Time PCR analysis you are interested in, a specific bKIT will be available.
- The bKIT will allow you to perform the specific amplification of the target of your interest in Real-Time PCR
- The bKIT contains all the reagents and instruction manual to perform the analysis correctly and reliably.
- The bKITs are specifically developed to be used on the bCUBE® device, but can be used also on a traditional laboratory thermal cycler.



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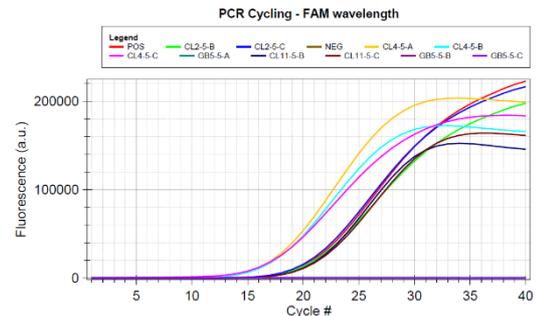
**bCUBE®**

- One bCUBE 2.0 unit is provided with the starter kit
- Portable, fast DNA/RNA amplification and detection
- Robust, Compact, Lightweight for “in the field” operation
- High precision thermal control
- Performing Isothermal Amplification, Real Time PCR and Melting Curves
- Simultaneous multi wavelength detection
- Enhanced connectivity: WiFi, Ethernet, Bluetooth
- bDATA® service features cloud storage as well as remote control and monitoring



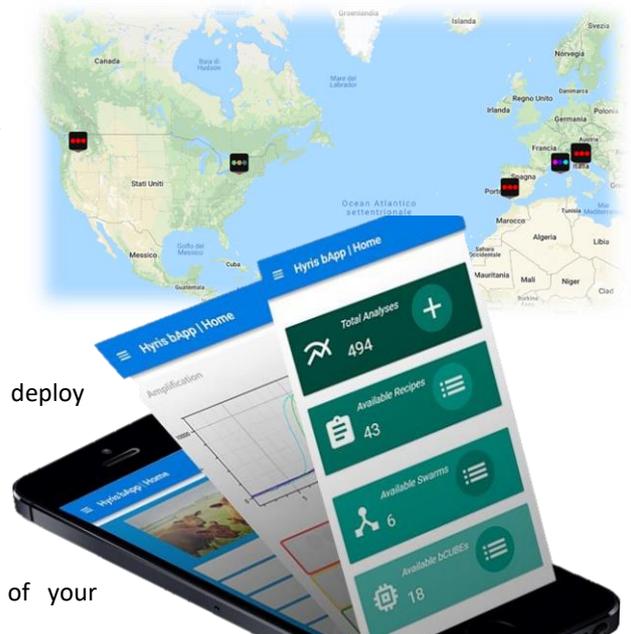
**Real Time DNA/RNA amplification and detection**

- Detection in less than 15 minutes for Isothermal amplification
- Automatic results interpretation
- Auto-adaptive thermal control that sweeps from very fast (thermal cycling) to very slow ramps (melting curves)
- High speed detection enables high resolution melting curves (sampling < 0.05°C)
- Wireless and wired connectivity for maximum flexibility



**Get Connected with bAPP**

- Smart analysis portability with Hyris bAPP
- Wireless bCUBE® control enables “in the field” bio-molecular detection
- Link each sample with photographs and GPS tags
- Start your analysis with a few touches, no need to be an expert
- Watch the detection progress in Real-Time
- Compatible with Smartphones, Tablets, PCs/Notebooks
- Runs on all Operating Systems: Windows, Linux, MacOS/iOS, Android
- Share your analyses worldwide with bDATA® cloud service
- Organize your bCUBEs in Swarms, and deploy them wherever you need
- Analyse your data, using filters and statistical tools
- Monitor and control your bCUBEs remotely
- Check the status and the position of your machines on a map



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# bCUBE®

## Technical Specs

<b>Dimensions</b>	100 x 100 x 120 mm
<b>Weight</b>	1.15 kg
<b>User Interface</b>	bAPP (Multi-Platform) / bPANEL (Windows PC)
<b>Communication Interfaces</b>	WiFi, Ethernet, Bluetooth
<b>Sample number</b>	16 samples on standard cartridge, up to 49 on custom cartridges
<b>Sample volume</b>	10 to 30 µl (16 wells cartridge) *
<b>Light source</b>	High brightness LEDs – 2 wavelengths
<b>Excitation wavelengths</b>	472 and 530 nm **
<b>Optical Detection</b>	High resolution, low noise CMOS Camera (5MP)
<b>Acquisition time</b>	< 1s – Total time for all samples
<b>Detected wavelengths</b>	572 nm and 524 nm **
<b>Thermal Block</b>	Peltier module for heating and cooling
<b>Temperature sensor</b>	High precision NTC resistor
<b>Temperature resolution</b>	< 0.05 °C
<b>Temperature uniformity</b>	± 0.1 °C
<b>Temperature control range</b>	20 – 99 °C
<b>Temperature ramp</b>	Up to 1.5 °C/s
<b>Power supply</b>	12 V – DC
<b>Power consumption</b>	Max 60W

\* Actual sample volume required may depend on the specific analytical kit.

\*\* Custom optical design possible upon request, up to four wavelengths capability.