

FIRST ANALYSER FOR BACTERIAL CULTURE AND THE SUSCEPTIBILITY TESTING IN HUMAN BIOLOGICAL FLUIDS AND URINE

The extreme flexibility of HB&L is the answer to the most varied needs of modern microbiology laboratory

HB&L is the first analyzer able to perform bacterial culture, RAA test and susceptibility testing on samples such as **urine, sterile** or **non sterile** fluids and other **biological samples**.



Using the patented technology based on **light scattering** it is able to detect the presence of bacteria and their drug resistance in a few hours with **high sensitivity and specificity**.

HB&L monitors the growth phases of bacteria from the inoculum step into specific culture broths providing **real time growth curves** and **quantitative bacterial count results** in CFU/ml.

All the samples are incubated on board at **37°C** and **only live bacteria are detected** while interference from non replicating substances such as erythrocytes, leucocytes, dead cells and salts present in the sample are eliminated during the initial zero reading.

Broth turbidity level is detected by **McFarland Monitor** and, as the sample reaches the **0.5 McFarland**, a visual and audible alert advises that the bacterial culture is ready to be tested for a customized antibiotic panel without awaiting the end of the analysis and avoiding further dilution steps.

The **HB&L** supports a **bi-directional interface** for sample data communication and result transmission.

The **software flexibility** of the **HB&L** allows **different tests to be performed simultaneously**; each reading unit position is independent from the others and can be set according to sample type, incubation time, test profile, analytical protocol and cut-off.

Two HB&L models are available, one version with 120 sample positions and a 60 position "light" version for reduced workload.

New applications for the **direct susceptibility testing from positive blood culture samples** and MDRO screening are now available.

TESTS AND APPLICATIONS

	Urine culture	3 hours, cutoff 30.000 CFU/ml
	Residual Antimicrobial Activity (RAA) test	Simultaneously to the culture test
	Human Biological Liquid Bacterial Culture	6 hours, cutoff <50 CFU/ml
	Bacteria Culture on special sample	6 hours, cutoff <50 CFU/ml
	MRSA culture screening	6,5 hours
	MDRO culture screening	6,5 hours
	Susceptibility testing with customized antibiotic panel for:	3 hours
	<ul style="list-style-type: none"> Urine Human Biological Liquids Positive Blood Culture Isolated Colonies 	



CE MARKED



Windows™ operating System

 HB&L Code SI 190.300
HB&L Light Code SI 190.300L

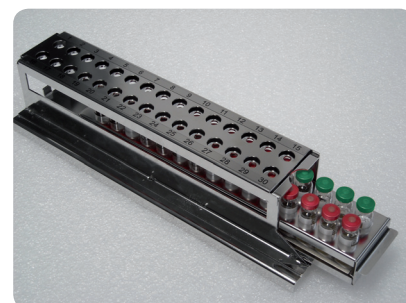

CUSTOMIZABLE PROTOCOLS WITH DIFFERENT INCUBATION TIMES AND CUT-OFFS

INCUBATION TIME (min)	FAST PROTOCOL (URINE ONLY) THRESHOLD (CFU/ml)	STANDARD PROTOCOL (URINE or HBL) THRESHOLD (CFU/ml)
70	1.000.000	20.000.000
80	500.000	12.000.000
110	100.000	2.000.000
120	DEFAULT 50.000	1.000.000
140	15.000	300.000
145	10.000	200.000
160	-	100.000
180	-	DEFAULT for URINE 30.000
190	-	15.000
235	-	1000
275	-	100
290	-	50
290-360	-	DEFAULT for HBL <50

Windows is a Microsoft trademark

FEATURES

- Light Scattering Technology
- Quantitative results expressed in CFU/ml
- Susceptibility testing with customised antibiotic panel
- Real time detection of bacterial growth curves
- Integrated turbidimeter with McFarland Monitor
- Single sample management with customised analysis profile: incubation time, analytical protocol, cut-off
- Continuous loading
- Automatic result reading and reporting
- Integrated thermal printer
- External Barcode-reader
- LIS bidirectional interface
- 37°C incubation
- Dedicated area for lyophilized bacteria reconstitution
- User-friendly software
- Customized reports
- Database for epidemiological studies
- Connection to Alfred 60 for increased capacity



Rack for manual sample inoculation Code SI190815

NEW KITS FOR THE RAPID SCREENING OF MULTI DRUG RESISTANT ORGANISMS

Alifax developed a new line of products for the rapid screening of the MDRO as methicillin-resistant *Staphylococcus aureus* (HB&L MRSA KIT), Extended-Spectrum β -Lactamase producing bacteria (HB&L ESBL KIT) and Carbapenemase-producing Enterobacteriaceae (HB&L CARBA KIT) from classical swab or in combination with the new PenOK Swab®. Through the Light scattering technology it is possible to detect MDRO presence in only 6 hours thus actively supporting surveillance programs.



NEW APPLICATIONS FOR HB&L™ CULTURE KIT SI 405.901

HB&L™ CULTURE KIT has been validated also for Central Venous Catheter tips (1). Other applications as cornea, organs and tissues transplantation culture are under validation.

1 - C. Fontana et al., "Improved diagnosis of central venous catheter-related bloodstream infections using the HB&L UROQUATTRO™ system" (Exp. Med. and Surg. Dep., "Tor Vergata" University of Rome, Italy) Eur J Clin Microbiol Infect Dis., 2012 Jun 27

ALFRED 60^{AST} - HB&L CONNECTION

Following sample inoculation into the vials through Alfred 60^{AST}, all vials can be transferred to one or more HB&L along with the growth curve data allowing continuous analysis.

By integrating the 2 systems it is possible to analyze up to 180 samples in 5 hours.



Dispensing procedure	Dispensing time
60 Urine cultures	50 minutes
30 Urine cultures + 30 RAA tests	40 minutes
180 Urine cultures	150 minutes
90 Urine cultures + 90 RAA tests	120 minutes



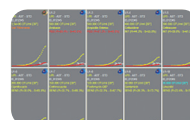
SAMPLE DISPENSING
on to ALFRED 60



VIAL TRANSFER
by mechanical tool from ALFRED 60 to HB&L



DATA TRANSFER
by serial connection from ALFRED 60 to HB&L



ANALYSIS CONTINUED
on HB&L

HB&L - Technical Features
Power supply: 230VAC \pm 10% or 115 VAC \pm 10 %
Power consumption: 150 W

Frequency: 50 or 60 \pm 2 Hz
Room operating temperature: +10-30 °C

Size: 540x650x640
Weight: 65 Kg (55 Kg HB&L Light)