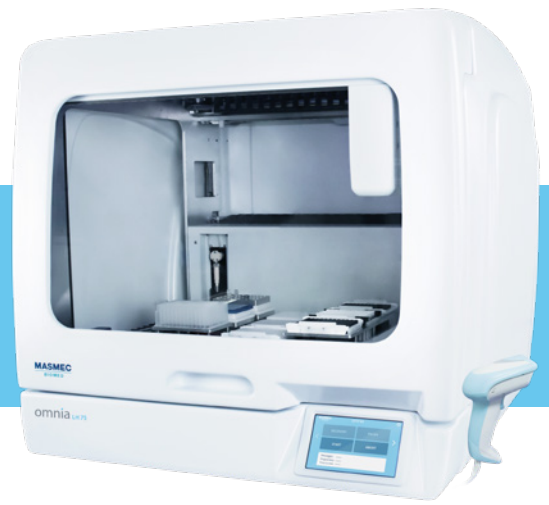


omnia LH 75

Omnia LH 75 is the workstation of the Omnia family for nucleic acid extraction and purification and PCR setup.

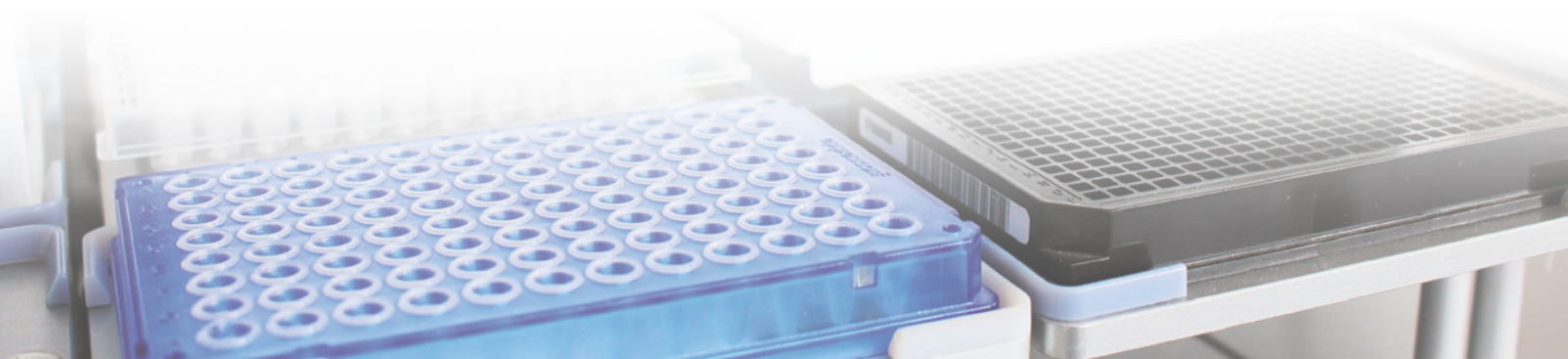


TECHNICAL SPECIFICATIONS

- **Pipetting channels:** up to 4 pipetting channels (with disposable tips), pipetting volume range 1 μ l to 1000 μ l, precision CV \leq 0.2% at full stroke, liquid level detection
- **Magnetic tool:** 8/16 or 12/24 parallel magnets, suitable for all magnetic beads
- **Integrated devices:** thermoshaker (RT to 95° C, 100 rpm to 2000 rpm), heating/cooling unit (4° to 70° C), custom adapters, others on request
- **Traceability:** 2 barcode scanners (integrated and external), internal database, plate mapping, output files for the most common thermal cyclers
- **User-friendly Framework software:** internal control system and remote monitoring through HMI software and a built-in touchscreen
- **Safety and decontamination tools:** easy-to-clean deck, UV-lamp (254 nm), removable waste bin, filter tips, disposable components
- **Open platform:** customisable layout to suit the specific protocol
- **Size (W x D x H):** 916 x 789 x 848 mm
- **Certification:** CE-IVD

SBS-COMPLIANT DECK LAYOUT

1. Barcode scanners (integrated and external)
2. Rack for eluate stocking
3. Reagent and sample input racks
4. Heating/cooling unit
5. Thermoshaker
6. Customisable position
7. PCR setup position
8. Washing plate
9. Tips
10. Covers for magnets
11. Waste bin



OPERATING SPECIFICATIONS

NA extraction and purification protocols; PCR, RT-PCR, qPCR setup

Input sample types	<ul style="list-style-type: none"> Blood, serum, plasma, saliva, urine, and other body fluids; stool; swabs; fresh/frozen/FFPE tissue; plant and agri-food samples Previously extracted DNA or RNA (for PCR setup)
Extraction method	Magnetic beads
Reagents	Several commercial kits
Processing time	Less than 50 min. for plate setup (including mix preparation and aliquoting)
Processing capacity	Up to 24 samples
Purity and yield	A260/280 ratio DNA: 1.7-1.9, RNA: 1.9-2.1
Operating volumes	<ul style="list-style-type: none"> Minimisation of dead volumes according to consumables Customisation of starting volume and elution volume
Compatibility with consumables	With different plates or strips according to thermal cyclers
Connectivity	<ul style="list-style-type: none"> Bidirectional interface with the hospital laboratory information system Connection to the most common thermal cyclers for Real-Time PCR plate design
Assay flexibility	Other liquid handling protocols (e.g. aliquoting, serial dilution)

PERFORMANCE

Reproducibility and precision

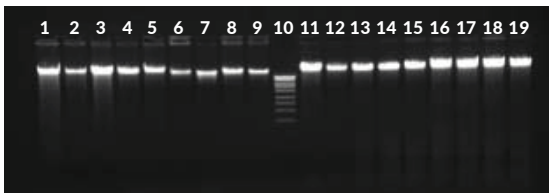


Fig. 1
Agarose gel electrophoresis of genomic DNA extracted from whole blood samples in manual (lane 1-9) and automated mode (lane 11-19).

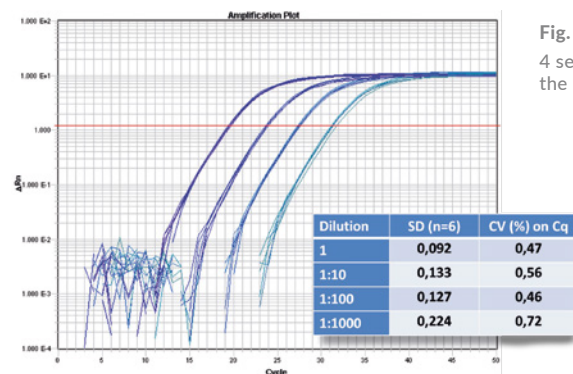


Fig. 2
4 serial dilutions of the same sample.

AUTOMATED PROTOCOLS

Blood genetic diseases <ul style="list-style-type: none"> Coagulation Hemochromatosis Hemoglobinopathies Thalassemias 	Genetic diseases <ul style="list-style-type: none"> Cystic fibrosis Chromosomal anomalies Drug resistance 	Oncological diseases <ul style="list-style-type: none"> Lung cancer Colorectal cancer Pancreatic cancer Follicular cancer Melanoma
Microbiology <ul style="list-style-type: none"> CMV HCV HBV Chlamydia trachomatis SARS-CoV-2 	Intolerances <ul style="list-style-type: none"> Lactose Gluten 	Others <ul style="list-style-type: none"> Cardiomyopathies Metabolic diseases Immunological compatibility