

SaMag™ - 12 / 24



Automatic Nucleic Acids Extraction System from Sacace Biotechnologies



SaMag - 24TM

CE IVD

SAMAG24TM SYSTEM

The SaMag-24TM doubles the sample capacity of the SaMag-12TM with 2 independently programmable modules for purification of up to 24 samples and maximum flexibility.

It is recommended for labs with medium-high sample throughputs.

Automatic Nucleic Acids Extraction System from Sacace Biotechnologies



SaMag - 12TM

CE IVD

SAMAG12TM SYSTEM

The SaMag-12TM is a compact bench-top extractor for automated nucleic acid purification.

It is able to process 1-12 samples in parallel, recommended for labs with small-medium sample throughputs

Features and Advantages



- Fully automated high yield nucleic acid extraction with magnetic beads and PCR setup (for Sacace HCV, HBV CE-IVD marked detection kits)
- Reagent identification with on-board barcode scanners
- Pre-programmed protocols
- Flexible batch size from 1 up to 24 samples in parallel
- All required tubes, tips, plastics are inside the provided Extraction Kits
- Ready to use reagents
- Very fast extraction protocol (~40 minutes)
- Very simple operation (easy to install, operate, maintain)
- Isolation of very pure nucleic acids

Ease of use

3 EASY STEPS to purify nucleic acids from different sample materials

LOAD STEP 1

Load reagent cartridges, consumables and samples.



RUN STEP 2

Select protocol with a quick barcode scan. The SaMag instrument does the rest.



COLLECT STEP 3

At the end of the run, purified nucleic acids can be retrieved.

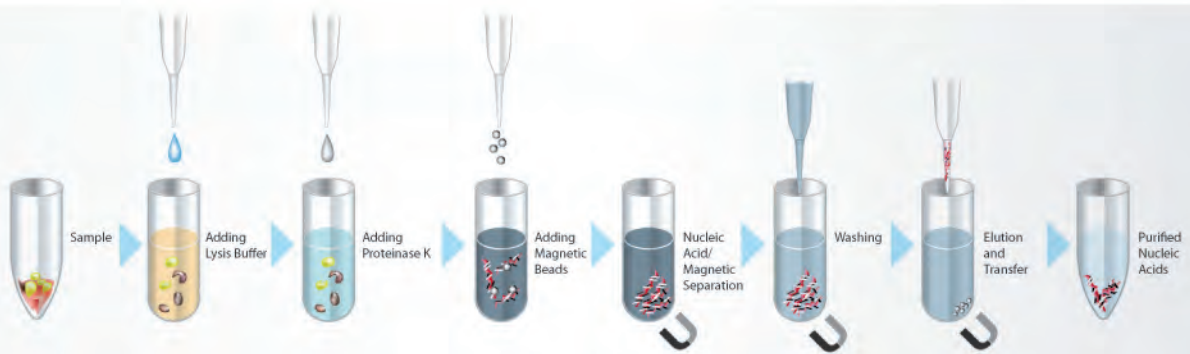


Complete solution containing everything needed for purification: prefilled, film-sealed reagent cartridges, disposable plastics, reaction and elution tubes. At the end of the process, purified nucleic acids are auto collected into 1.5 ml tubes for storage or directly into 0.2 ml PCR tubes thus including PCR setup (for example using Sacace HBV and HCV CE-IVD marked detection kits).

Overview



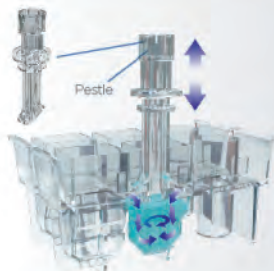
Magnetic beads extraction



Purification process includes steps of lysis, binding, washing and elution.

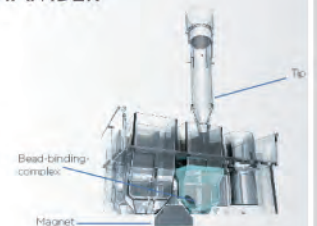
PESTLE MIXING

When required, the pestle agitates and mixes very well the liquid, avoiding clogged tips problem and ensuring good nucleic acid extraction even for highly viscous specimens.



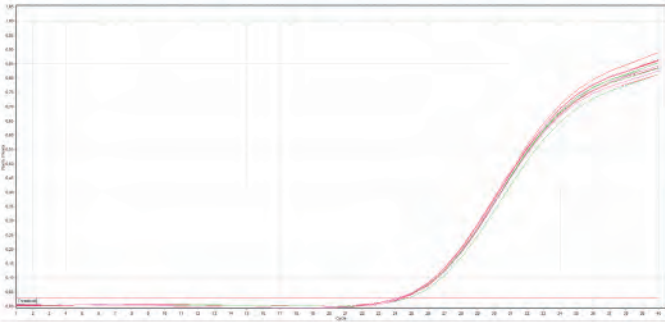
POLYGON REACTION CHAMBER

Ensure highest efficiency of lysis and elution, greatly minimizing the presence of magnetic beads and alcohol residues in the final eluted sample.



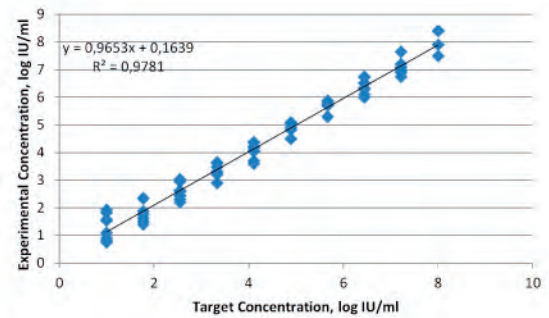
Performance

HIGH STABILITY AND REPRODUCIBILITY



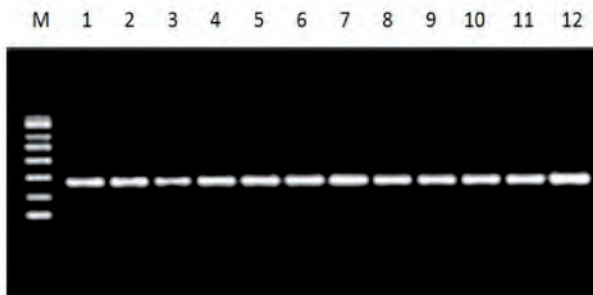
Twenty replicates were performed on SaMag™ nucleic acid purification system. The Real-Time qPCR data shows very high reproducibility.

LINEARITY



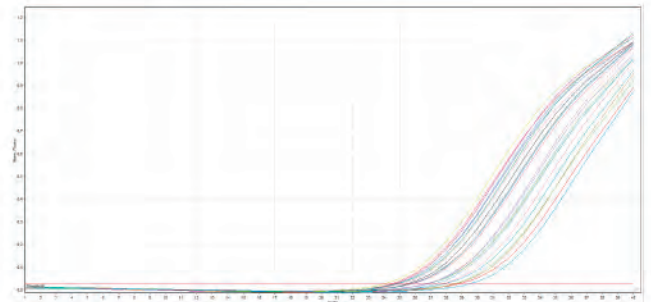
A dilution series (from 8,00 log IU/ml to 1,00 log IU/ml) of an HCV RNA synthetic quantitative standard calibrated against the 4th WHO International HCV RNA Standard was extracted with SaMag™ system and tested using Real Time PCR, showing extremely wide linear range.

CONSISTENT YIELD



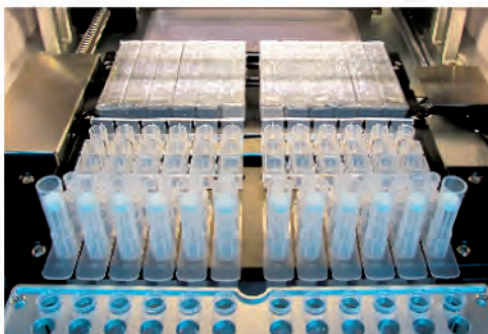
Genomic DNA extracted from human whole blood samples. Electrophoresis image shows high consistency and reproducibility on extraction results.

SENSITIVITY



Real Time PCR used to calculate sensitivity of SaMag™ Viral Nucleic Acid extraction kit. Results show excellent sensitivity of 15 IU/ml that can be detected when using Sacace HBV CE-IVD marked detection kit.

Complete Automation: performing PCR setup



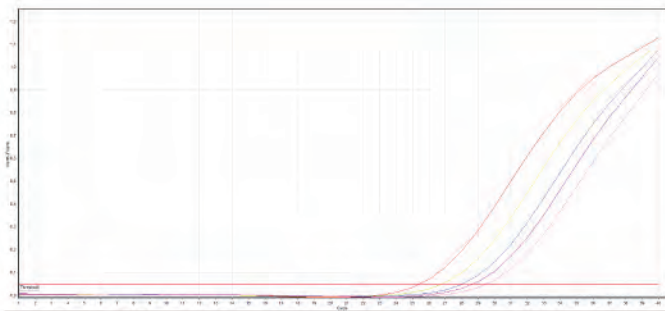
PERFORMING PCR SETUP

Using a dedicated sample rack, it is possible to automate not only the extraction process but also the PCR setup phase. The eluted product is auto collected in 0.2 ml PCR tubes already containing lyophilized PCR reagents and ready to be transferred into Real Time instrument to perform amplification (valid when using Sacace HBV and HCV CE-IVD marked detection kits).

SaMag Viral Nucleic Acids Extraction kit

INTENDED USE

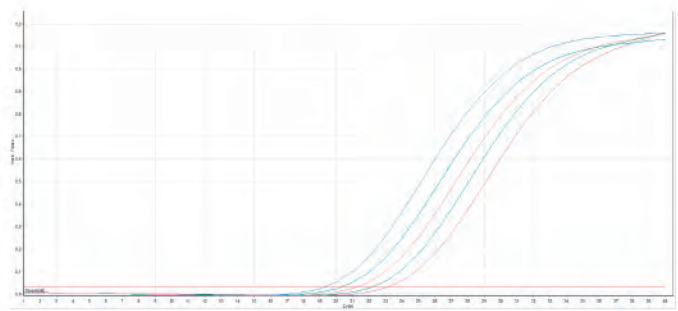
SaMag Viral Nucleic Acid Extraction Kit is used with the SaMag-12 or SaMag-24 instruments for extraction of Viral DNA or RNA from human biological specimens such as serum, plasma, and other cell-free fluids.



400 μ l of plasma was spiked with serial-diluted Hepatitis C Virus (in range of 5000-50 IU/ μ l) extracted and amplified with Real Time PCR, proving the excellent sensitivity and linearity of isolation procedure.

APPLICATION

Nucleic acids extracted from SaMag Viral Nucleic Acid Extraction kit can be used in a number of downstream application including: PCR, qPCR, Sequencing(NGS), Microarray, RFLP, Southern Blot Analysis.

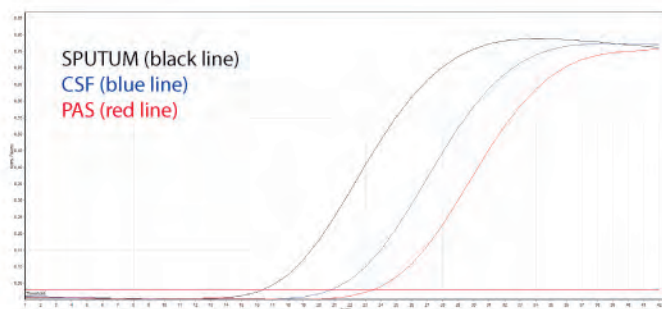


400 μ l of plasma was spiked with serial-diluted Hepatitis B Virus (in range of 5000-50 IU/ μ l) extracted and amplified with Real Time PCR, proving the excellent sensitivity and linearity of isolation procedure.

SaMag MTB DNA Extraction Kit

INTENDED USE

SaMag™ TB DNA Extraction Kit is used with the SaMag-12™ or SaMag-24™ instruments for extraction of genomic DNA of *Mycobacteria* spp. (e.g. *Mycobacterium tuberculosis*) from different specimen types.



APPLICATION

Nucleic acids extracted from SaMag™ TB DNA Extraction kit can be used in a number of downstream application including: PCR, qPCR, Sequencing(NGS), Microarray, RFLP, Southern Blot Analysis.

Using SaMag™ TB DNA Extraction kit to isolate DNA from clinical specimens (sputum, CSF and PAS). 100 ml sample used for extraction and collect 100 μ l eluate. Analysis was performed by real-time qPCR (IS6110 detection). Even in the cell-free body fluid (CSF) and blood contaminated sample(PAS), the TB DNA can be detected after extraction, proving the excellent sensitivity of isolation procedure.

Technical specifications

Extraction Method:	Magnetic Beads Extraction Technology
Extraction Steps:	Sample binding, washing and elution
Throughput	1 to 12 samples per run (SaMag-12™) 1 to 24 samples per run (SaMag-24™)
Display:	LCD (20 characters x 4 lines)
Heat Block Temperature:	Room Temperature to 65 °C
Dimensions:	SaMag-12™ (48 cm W x 70 cm D x 52 cm H) SaMag-24™ (100 cm W x 70 cm D x 52 cm H)
Weight:	43 kg (SaMag-12™)
Operating temperature:	15-30°C
Operating Relative Humidity	30-80% (non-condensing)
Electrical Requirements:	110-240V 50/60Hz

Extraction kits reagents (to use with SaMag™ system)

PRODUCT	CAT.	TYPE	COMPOSITION	DESCRIPTION
SaMag™ Viral Nucleic Acid Extraction Kit	SM003	CE IVD	1 kit (48 extractions) including all plastic disposables	For extraction of viral nucleic acids from plasma, serum or cell-free body fluids
SaMag™ Viral RNA Extraction Kit	SM012	CE IVD	1 kit (48 extractions) including all plastic disposables	For extraction of viral RNA from plasma, serum or cell-free body fluids
SaMag™ STD DNA Extraction Kit	SM007	CE IVD	1 kit (48 extractions) including all plastic disposables	For extraction of STD DNA (for ex. Chlamydia trachomatis, Neisseria gonorrhoeae, Human Papilloma Virus...etc.) from swabs, urine, seminal liquid
SaMag™ TB DNA Extraction Kit	SM008	CE IVD	1 kit (48 extractions) including all plastic disposables	For extraction of Mycobacterium tuberculosis DNA from clinical specimen or culture
SaMag™ Tissue DNA Extraction Kit	SM004	CE IVD	1 kit (48 extractions) including all plastic disposables	For extraction of genomic DNA from a variety of tissues
SaMag™ Blood DNA Extraction Kit	SM001	CE IVD	1 kit (48 extractions) including all plastic disposables	For extraction of genomic DNA from whole blood, peripheral blood mononuclear cells or buffy coat
SaMag™ FFPE DNA Extraction Kit	SM009	CE IVD	1 kit (48 extractions) including all plastic disposables	For extraction of genomic DNA from FFPE samples