



Molecular Diagnostics

## Portfolio overview

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Bruker enables precise diagnostic solutions

Innovation with Integrity

# Bruker – the world of microorganisms

The number and range of microorganisms that can infect people and animals is constantly on the rise. It is immensely important that we comprehend how microbes cause disease and resist treatment in order to maintain global public health. To help researchers and healthcare professionals identify and analyze microorganisms swiftly and accurately, Bruker offers intuitive and robust instruments and molecular diagnostics tests. Our diagnostic solutions are sought after by clinical microbiologists across the globe.

## → Molecular diagnostics

Molecular diagnostics can significantly improve patient care and laboratory management. As an increasingly popular clinical solution due to its fast and targeted results, molecular diagnostic tests need to respond to rapidly changing requirements of laboratories and regulators. Real-time polymerase chain reaction (PCR) gathers information to provide rapid results with high sensitivity and specificity, in a culture-free workflow.

## → Clinically-driven PCR

Modern real-time PCR kits are designed to improve rapid, targeted results in clinical areas that suffer from poor culture sensitivity, or where organism growth rate has an impact on clinical care and health-economic outcomes. Results from real-time PCR are used together with clinical patient observations to provide a clearer picture of the infectious disease etiology, diagnosis and best course of treatment.

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# More than 30 years of diagnostics excellence

Ever since its foundation in the 60s, Bruker has continued to grow by integrating highly experienced molecular diagnostics companies based in Germany, Scotland, France, and, most recently Italy, with the acquisition of ELITechGroup\*. This resulted in a broadening the portfolio, offering comprehensive and streamlined PCR-based solutions to healthcare professionals in Europe, Africa, Asia, Australia and in the Americas.

The teams merged their expertise in developing cutting-edge technologies, enabling faster, more accurate diagnoses for patients worldwide. The shared vision of advancing medical research and improving patient outcomes remained at the core of the collective purpose.

Medical laboratories worldwide are using the company's different PCR-based assays and technical instruments for the detection of dangerous pathogens or hereditary diseases.

Established subsidiaries in Spain, the United Kingdom, France, South Africa and Kenya, as well as long-standing partners in the rest of the world, guarantee local service and support.

Half of the 250 employees of Bruker's Molecular Diagnostics division are scientists dedicated to research and development, production, quality management, and quality control.

The organization is ISO 13485 certified, and its products fulfill the European in vitro diagnostic guidelines.

\*ELITechGroup is now a Bruker company.  
Contact your local representative for more information. Read the press release here:





# Our technologies and workflows



# DNA•STRIP technology

This well-established technology offers exceptional sensitivity and outstanding specificity. The process allows the extraction of DNA or RNA from the specimen, its amplification, and then its detection on a membrane strip using a hybridization and alkaline phosphatase reaction.

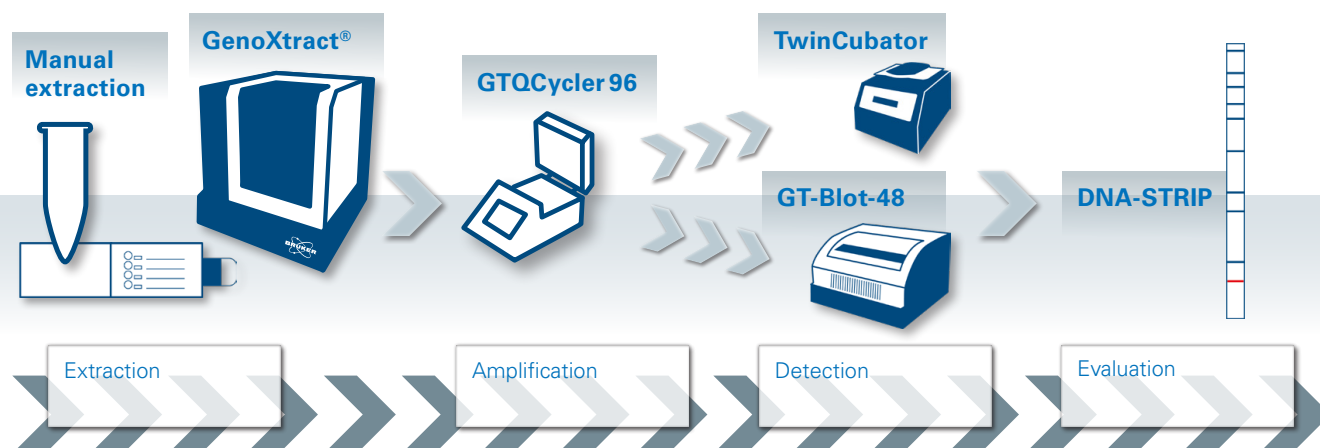
## Your benefits with the DNA•STRIP technology

- **Reliable:** Internal controls ensure valid results and guarantee precise execution of the test.
- **Highly sensitive and specific:** The selected targets in various test systems ensure a combination of high specificity and optimal sensitivity.
- **Cost-efficient:** Processing requires only minimal technical equipment, enabling an optimized implementation in all laboratory setups and sizes.
- **User-friendly:** Unlike conventional methods, the DNA•STRIP technology offers significant time savings and seamless integration into your laboratory routine.

DNA•STRIP can be performed manually or automatically with validated assays.

The GenoType range of assays are supported by the DNA Strip technology, providing highly accurate and efficient molecular genetic analysis.

## Workflow



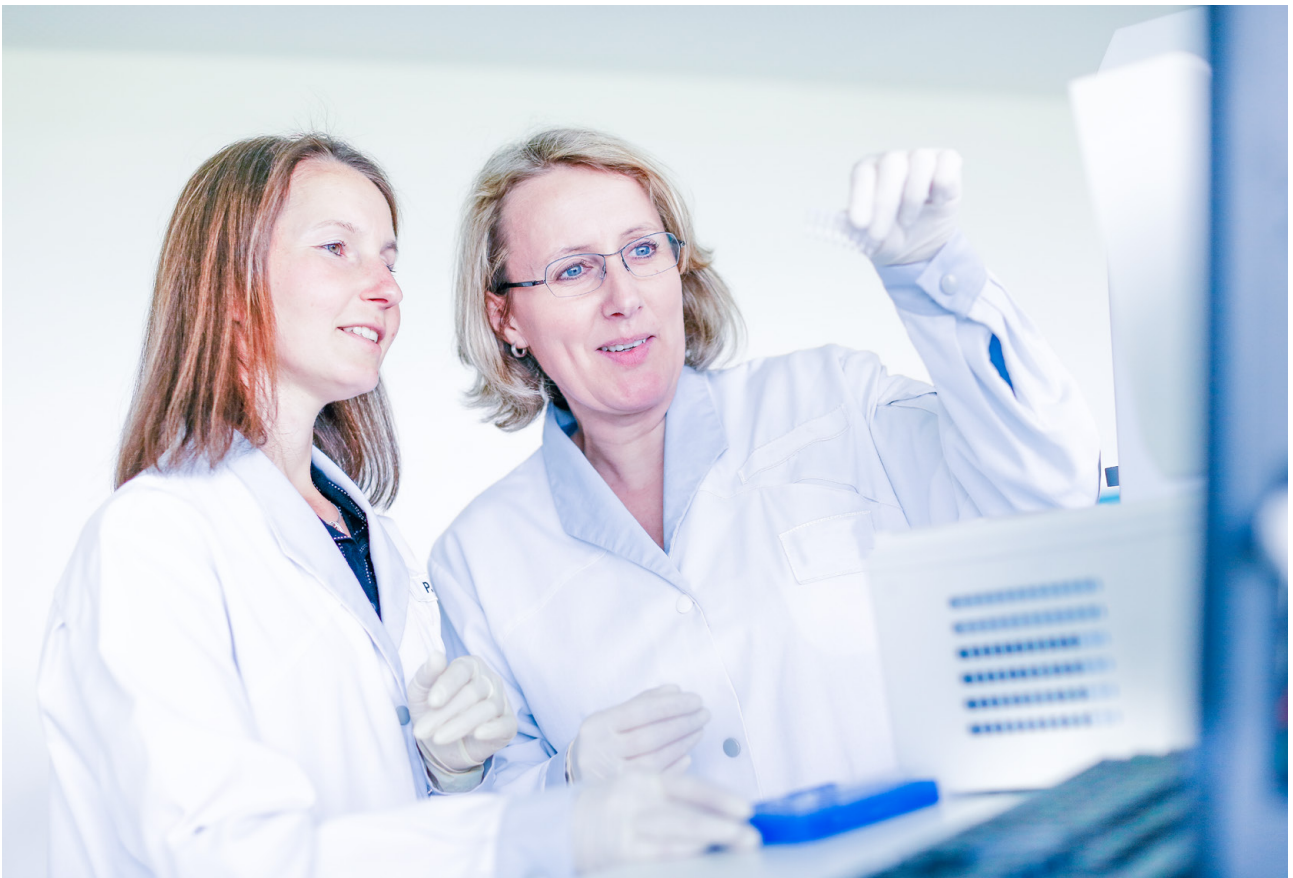
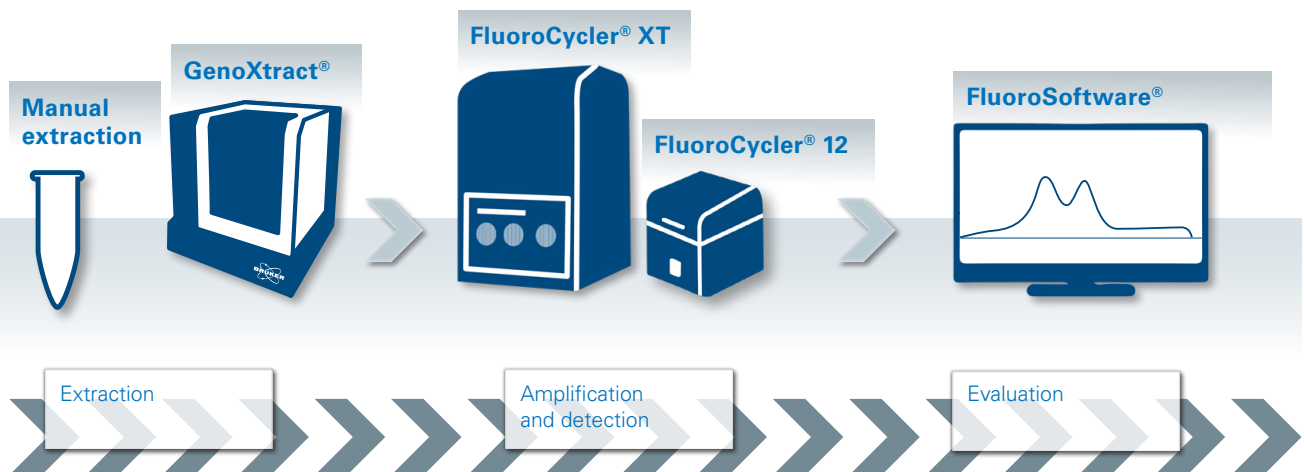


# FluoroType® technology

– with highest sensitivity and maximum specificity

Our fluorescence-based PCR test systems guarantee rapid and valid results for efficient diagnostics in your laboratory. Nucleic acids are extracted from sample materials in a first step, followed by amplification and detection using fluorescence-labeled probes. Amplification and detection are carried out with the FluoroCycler® XT or FluoroCycler® 12.

## Workflow



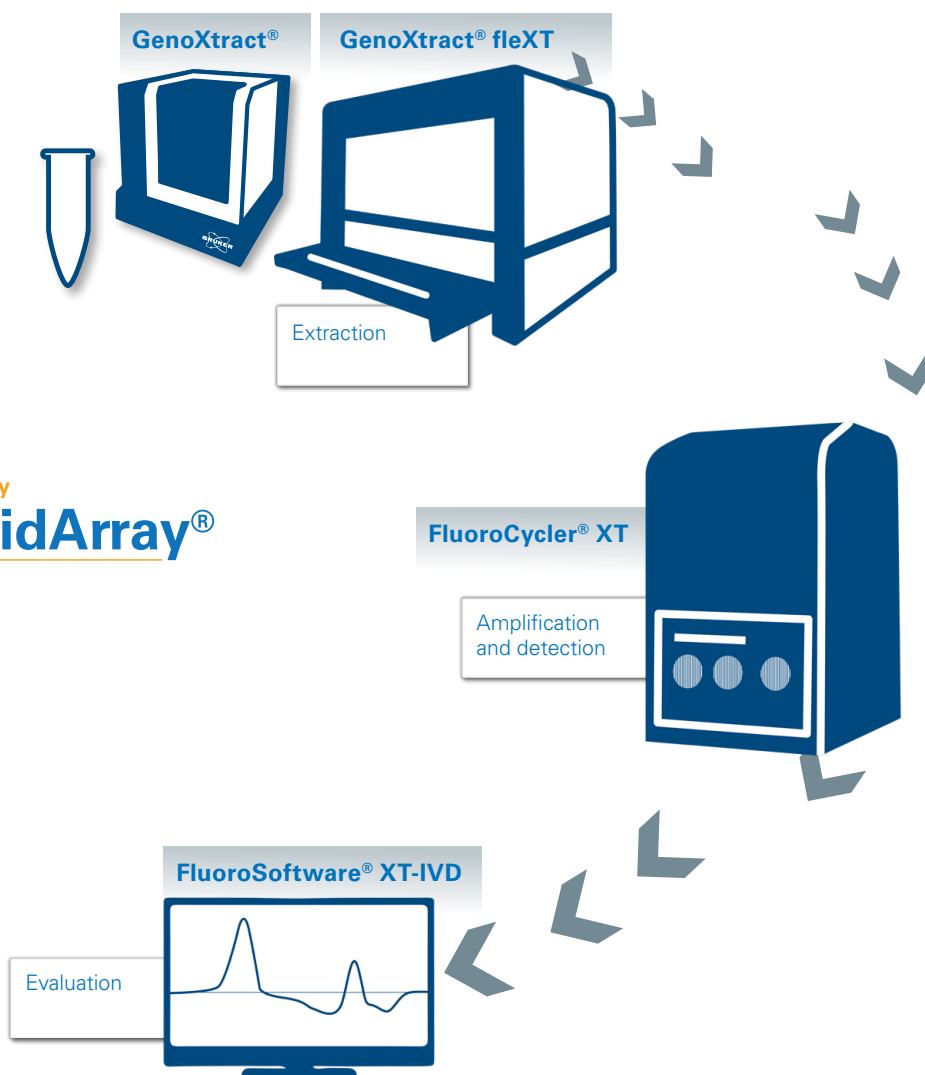
# LiquidArray® technology

## Next generation multiplexing

LiquidArray technology brings next generation multiplexing to the routine clinical microbiology laboratory. Performed in a familiar PCR workflow, using innovative probe and thermocycling technologies, together with user-guided software, LiquidArray is easy to implement in the daily routine. End-to-end workflows are offered with compatible nucleic acid extraction from patient sample to results at a glance. By providing comprehensive coverage, laboratories can

streamline their diagnostic processes by replacing multiple tests with one. The power of LiquidArray has been applied to infectious disease diagnostics in the areas of mycobacteria and drug resistance detection as well as syndromic panels for sexually-transmitted, and gastrointestinal infections.

- Replace multiple tests with one
- Familiar PCR workflow
- Results at a glance



Powered by  
**LiquidArray®**



# Manual and automated extraction kits





	Kit size	Part number
<b>Kits for manual extraction</b>		
GenoLyse® VER 1.0	96	H-51610
SpheroLyse VER 1.0	96	H-51796
FluoroLyse VER 1.0	96	H-51696
GENO•CARD	96	G00196
<b>Kits for automated extraction</b>		
<b>Cartridges for GenoXtract®</b>		
GXT Blood Extraction Kit VER 2.0	96	12.07.02
GXT NA Extraction Kit V 1.0	96	12.08.02
X2 Cartridge VER 1.0	96	12.02.02
<b>Extraction kits for GenoXtract® fleXT</b>		
GXT96 X2 Extraction Kit VER 1.0	960	520960
GXT96 X3 Extraction Kit VER 1.0	960	550960



# Comprehensive diagnostic solution

- **Mycobacteria**
- **Gastrointestinal**
- **HIV & HBV**
- **Sexually Transmitted Infections**
- **Fungal Infections**
- **Respiratory Diseases**
- **Antimicrobial Resistance**
- **Human Genetics**
- **Dental**





	Technology	Kit size	Part number
<b>Mycobacteria</b>			
<b>MTB</b>			
FluoroType® MTBDR VER 2.0	LiquidArray®	124/96*	H-62896
LiquidArray® MTB-XDR VER 1.0	LiquidArray®	64/56**	1880018
FluoroType® MTB VER 1.0	FluoroType®	96	H-61196
GenoType MTBDRplus VER 2.0	DNA•STRIP	12	304A
GenoType MTBDRplus VER 2.0	DNA•STRIP	96	30496A
GenoType MTBDRsl VER 2.0	DNA•STRIP	12	317A
GenoType MTBDRsl VER 2.0	DNA•STRIP	96	31796A
GenoType MTBC VER 1.X	DNA•STRIP	12	H-301
<b>NTM</b>			
FluoroType® Mycobacteria VER 1.0	LiquidArray®	48	1880017
GenoType CMdirect VER 1.0	DNA•STRIP	12	H-295
GenoType Mycobacterium CM VER 2.0	DNA•STRIP	12	299A
GenoType Mycobacterium CM VER 2.0	DNA•STRIP	96	29996A
GenoType Mycobacterium AS VER 1.0	DNA•STRIP	12	H-298
GenoType NTM-DR VER 1.0	DNA•STRIP	12	29712
<b>Leprosy</b>			
GenoType LepraeDR VER 1.0	DNA•STRIP	12	H-320

\*124 tests with FluoroLyse or GenoXtract®, 96 tests with GenoXtract® fleXT

\*\*64 tests with FluoroLyse, 56 tests with GenoXtract® fleXT

	Technology	Kit size	Part number
<b>Gastrointestinal</b>			
LiquidArray® Gastrointestinal	LiquidArray®	72*/48**	1896297
GenoType Enterococcus	DNA•STRIP	12	H-888
GenoType HelicoDR	DNA•STRIP	12	H-337
<b>HIV &amp; HBV</b>			
GENERIC HIV CHARGE VIRALE	FluoroType®	220	TR001-250IC
GENERIC HIV CHARGE VIRALE	FluoroType®	440	TR001-440IC
GENERIC HIV-1 VIRAL LOAD VER 2.0 [coming soon]	FluoroType®	192	TR001.2-192
GENERIC HBV VIRAL LOAD VER 2.0	FluoroType®	220	TR004.2-250IC
<b>Sexually transmitted infections</b>			
FluoroType® STI VER 1.0	LiquidArray®	72*/48**	1877362
FluoroType® CT VER 1.0	FluoroType®	96	H-61096
FluoroType® NG VER 1.0	FluoroType®	96	H-61496
FluoroType® HSV VER 1.0	FluoroType®	24	H-61224
<b>Fungal infections</b>			
Fungiplex® Aspergillus IVD Real-Time PCR Kit	FluoroType®	100	1849974
Fungiplex® Aspergillus Azole-R IVD Real-Time PCR Kit	FluoroType®	25	1858553
Fungiplex® Candida IVD Real-Time PCR Kit	FluoroType®	100	1849973
Fungiplex® Pneumocystis IVD Real-Time PCR Kit	FluoroType®	100	1877740
Fungiplex® Mucorales RUO Real-Time PCR Kit***	FluoroType®	50	1871051
Fungiplex® Candida Auris RUO Real-Time PCR Kit***	FluoroType®	50	1860224
Fungiplex® Universal RUO Real-Time PCR Kit***	FluoroType®	50	1858554
<b>Respiratory diseases</b>			
FluoroType® SARS-CoV-2/Flu/RSV	FluoroType®	96	1880015

\*GenoXtract®

\*\*GenoXtract® fleXT

\*\*\*For Research Use Only. Not for use in clinical diagnostic procedures.



	Technology	Kit size	Part number
<b>Antimicrobial Resistance</b>			
FluoroType® MRSA-VER 3.0	FluoroType®	96	62596
GenoType MRSA-VER 3.0	DNA•STRIP	12	H-30512
<b>Human genetics</b>			
<b>Thrombophilia</b>			
FluoroType® Factor V VER 1.0	FluoroType®	96	H-60396
FluoroType® Factor II VER 1.0	FluoroType®	96	H-60296
FluoroType® MTHFR C677T VER 1.0	FluoroType®	24	H-60024
ThromboType® VER 2.0	DNA•STRIP	12	H-241
ThromboType® VER 2.0	DNA•STRIP	96	24196
ThromboType® <i>plus</i> VER 3.0	DNA•STRIP	12	H-341
GenoType MTHFR VER 3.0	DNA•STRIP	12	H-252
GenoType PAI-1 VER 2.0	DNA•STRIP	12	222
GenoType CVD VER 1.0	DNA•STRIP	12	H-33512
<b>Hereditary hemochromatosis</b>			
FluoroType® HH C282Y VER 1.0	FluoroType®	24	H-60624
FluoroType® HH H63D VER 1.0	FluoroType®	24	H-60724
GenoType HH VER 2.0	DNA•STRIP	12	H-245

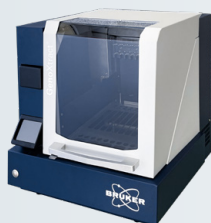
	Technology	Kit size	Part number
<b>Human genetics</b>			
<b>Food intolerance</b>			
FluoroType® LCT VER 1.0	FluoroType®	24	H-60424
GenoType LCT VER 1.0	DNA•STRIP	12	H-261
GenoType SugarTol VER 1.0	DNA•STRIP	12	H-26212
<b>Others</b>			
FluoroType® HLA-B27 VER 1.0	FluoroType®	96	H-60896
GenoType ApoE VER 1.0	DNA•STRIP	12	H-350
<b>Dental</b>			
micro-IDent® plus11 VER 1.0	DNA•STRIP	96	23396
micro-IDent® VER 2.0	DNA•STRIP	96	H-23296
micro-IDent® Sampling sets	DNA•STRIP	1	1876658
GenoType IL-1 VER 1.0	DNA•STRIP	12	H-5001



# Instruments

Our range of instruments encompasses specialized systems designed for various PCR technologies, some featuring advanced high-tech components, while others rely on proven foolproof methods. With our suite of instruments, we provide users with a variety of solutions for both manual sample handling and high-throughput, real-time (qPCR) multiplexing settings, all integrated into a seamless workflow.

## DNA extraction



**GenoXtract®**  
Part No. 8.31.01

Compact extraction device  
for up to 12 samples



**GenoXtract® fleXT**  
Part No. 1883774

Automated extraction and  
PCR set-up for 12-96 samples

## Amplification & Detection



**FluoroCycler® 12**  
Part No. 7027001-S

Compact, modular PCR  
cycler for up to 12 samples



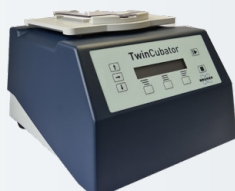
**FluoroCycler® XT**  
Part No. H-2017

High-performance real-time 96-well  
PCR cycle. Supports the multiplexing  
LiquidArray® technology



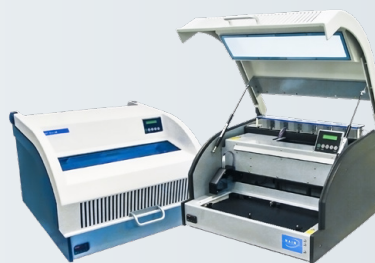
**GTQ-Cycler 96**  
Part No. 7024007

Stand-alone cycle for up  
to 96 samples



**TwinCubator**  
Part No. 7025009


Hybridization device for  
up to 12 samples



**GT-Blot 48**  
Part No. 1003/1

Hybridization device for  
2 to 48 samples

FluoroType®, FluoroCycler®, GenoXtract®, FluoroSoftware®, LiquidArray®, Fungiplex®, ThromboType®, Micro-IDent® and GenoLyse® are registered trademarks for the Bruker corporate group.

LiquidArray® Gastrointestinal, LiquidArray® MTB-XDR VER 1.0, FluoroType® MTBDR VER 2.0, FluoroType® STI VER 1.0, FluoroType® HLA-B27 VER 1.0, FluoroType® CT VER 1.0 and GENERIC HBV VIRAL LOAD VER 2.0 are 

GENERIC HIV CHARGE VIRALE is 


Fungiplex® Candida Auris RUO Real-Time PCR Kit, Fungiplex® Universal RUO Real-Time PCR Kit and Fungiplex® Mucorales RUO Real-Time PCR Kit are . For Research Use Only. Not for use in clinical diagnostic procedures.

If not mentioned above all other IVD products are 

FluoroType®, FluoroCycler®, GenoXtract®, FluoroSoftware®, LiquidArray®, ThromboType®, GenoLyse® and GENERIC HBV VIRAL LOAD VER 2.0:

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