

# AutoLys M Products



CleanRoom Pure®  
No Additives



Beads / Che





**CleanRoom®  
PURE**



**LoTrace®  
DNA**



**LoTrace®  
FORENSICS**

The AutoLys M Tube is designed for midscale semi-automated applications with 2D-ID traceability. It comes as a tube in tube concept and a TubeLifter tool to ensure processing of the 24 tubes at one time by a DNA Spin-Flow purification of lysed analyte. In combination with the TubeLifter tool it ensures a fast, contamination free and reliable workflow ideal for DNA extraction from critical traces.

## General Characteristics – TreffLab AutoLys M Tube

Absolutely safe DNA extraction – even from large traces of source material (large swabs, cloth etc) – within one tube is guaranteed, thanks to:

- ▶ A special compact, wide design of the tube
- ▶ The close-fitting outer and inner tubes
- ▶ An inner membrane at the bottom of the inner tube combined with a screw cap

### Major Quality Characteristics of AutoLys M Tube are

- ▶ The AutoLys M Tube is made of special virgin polypropylene resin providing high chemical resistance and excellent surface quality to ensure maximum DNA recovery for next step of DNA analysis
- ▶ The PTFE Membrane (30 µm pore size, 2 mm thickness) of the inner tube is hydrophobic, inert and chemically stable, well suited also for applications with organic solvents (e.g. acetonitrile), acids or alkalines
- ▶ For Spin-Flow applications with a working volume of 200 to 900 µl
- ▶ For heat incubations with lysis buffers up to 90°C
- ▶ AutoLys M Tubes withstand centrifugal g forces up to 3'000 RCF («Lift Lock» position, 500 µl, 10 min)
- ▶ Microbiologically controlled production in cleanrooms class 8, ISO 14644-1
- ▶ Free of RNase, DNase, DNA (<2 pg DNA), Endotoxines (<0.001 EU/ml), PCR Inhibitors (<10 copies) or ATP (<30 RUL)
- ▶ Ready to Use (CleanRoom Pure®)
- ▶ LoTrace® DNA)
- ▶ LoTrace® Forensics)

## General Characteristics – TreffLab AutoLys M Tube, EO treated

- ▶ Treatment significantly reduces applied human DNA, RNase and DNase contaminants. EO fumigation has no impact on PCR Inhibitors or ATP (Study at company accredited ISO/IEC17025)
- ▶ Amount of applied human DNA is reduced > 3log10 fold by EO
- ▶ Optimized surface for forensic applications

EO (Ethylene Oxide)

### LoTrace® Forensics quality features the following additional characteristics:

- ▶ Ethylene Oxide processed (ISO 18385, ISO 11135)
- ▶ Low binding DNA surface
- ▶ Analyses of surface quality for each production lot
- ▶ Analysis carried out by independent Swiss laboratory accredited ISO/IEE17025 for real-time PCR
- ▶ CleanRoom Pure® production conditions
- ▶ Ready for low content DNA sample preparation/ assay

All analyses have been carried out by an independent Swiss laboratory, accredited according to ISO/IEC 17025, or by the quality department at Nolato Treff AG. Corresponding data sheets are available on request.

## LoTrace® Forensics AutoLys M Cap and Tubes *Ethylene Oxide treated*

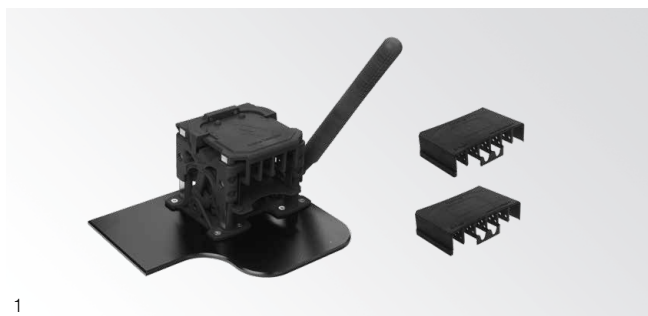


Product Description	Material	Color	Quantity	Order No.	Image No.
<b>AutoLys M Cap and Tube, 2D BC, EO sterile</b>				96.11548.9.01	1
AutoLys M Cap	PP	blue	<b>500</b> – 5 bags of 100		2
AutoLys M Tube, 2D barcode at bottom of tube	PP	clear	<b>500</b> – 5 bags of 100		3
<b>AutoLys M Cap and Tube, 2D BC, EO sterile</b>				96.11549.9.01	1
AutoLys M Cap	PP	blue	<b>250</b> – 10 bags of 25		
AutoLys M Tube, 2D barcode at bottom of tube	PP	clear	<b>250</b> – 10 bags of 25		
<b>AutoLys M Cap, EO sterile</b>	PP	blue	<b>1'000</b> – 10 bags of 100	96.11565.6.01	1
<b>AutoLys M Tube, 2D BC, EO sterile</b>	PP	clear	<b>1'000</b> – 10 bags of 100	96.11579.9.01	1
2D barcode at bottom of tube					

## AutoLys M Accessories

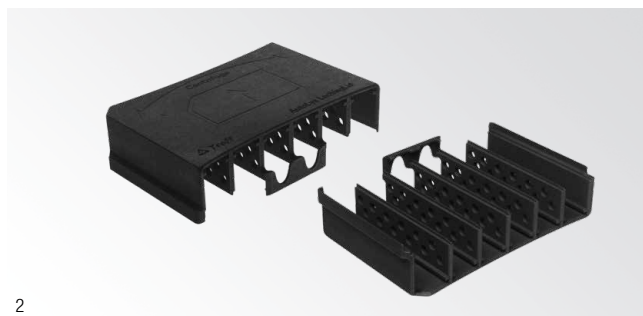
### TubeLifter Kit

The black TubeLifter, to process 24 AutoLys M Tubes at one time, is a sophisticated industrial 3D print. It features ABS characteristics and a metal bottom plate to ensure it stands safely. The included locking lids ensure the safe processing of 24 AutoLys M Tubes at one time. For working in a regulated clean environment it is Deconex® cleanable and will not rub off.



### TreffLab LockingLid for 24 AutoLys M Tubes

This industrial 3D print features ABS characteristics, which are used for the fixation of AutoLys M Tubes during centrifugation. For working in a regulated cleanroom environment it is Deconex® cleanable and will not rub off.



Product Description	Material	Color	Quantity	Order No.	Image No.
<b>TubeLifter Kit for AutoLys M</b>				96.11558.0.01	1
TubeLifter for 24 AutoLys M Tubes, Deconex® resistant	PA-HF SLS/ «ABS»	black	<b>1</b> pcs		
LockingLid for AutoLys M Tubes, Deconex® resistant	with metal base plate	black	<b>2</b> pcs		
Application brochure including video-link to application video on Youtube	PA-HF SLS/ «ABS»				
<b>LockingLid for AutoLys M Tubes, Deconex® resistant</b>	PA-HF SLS/ «ABS»	black	<b>2</b> pcs	96.11557.0.01	2



## Thermoblock for 24 AutoLys M Tubes

The Thermoblock for 24 AutoLys M Tubes is compatible with Eppendorf Thermomixer® comfort / ThermoStat plus™



1

## AutoLys M Rack for 24 AutoLys M Tubes

This specially-designed rack is used to transport and centrifuge 24 AutoLys M Tubes at one time. In combination with LockingLid Nolato Treff AG recommends that a centrifugal force of more than 3000g not be surpassed.



2

Product Description	Material	Color	Quantity	Order No.	Image No.
<b>Thermoblock for AutoLys M Tubes</b> Thermoblock for 24 AutoLys M Tubes, Adapter for Eppendorf Thermomixer® comfort/ ThermoStat plus™, Starlab Mixer HC Assembly instruction	AL, PP	blue/grey	1 pcs	96.11560.0.01	1
<b>Rack for 24 AutoLys M Tubes</b>	PC	grey	20 – 2 bags of 10 20 – 4 bags of 5	96.11559.0.01 96.11559.0.02	2

## Additional Accessories



1



2

Product Description	Material	Color	Quantity	Order No.	Image No.
<b>Opening Pliers AutoLys M</b> Opening Pliers, Manual  Application instruction	metal and plastic handle	black/blue	1 pcs	96.11639.6.00	1
<b>AutoLys M Starter Kit</b> Thermoblock for 24 AutoLys M Tubes, Adapter for Eppendorf Thermomixer® comfort/ThermoStat plus™ and assembly instruction	AL, PP	blue/grey	1 pcs	96.11572.0.01	2
Rack for 24 AutoLys M Tubes	PC	grey	1 pcs		
AutoLys M Cap, EO sterile	PP	blue	100 – 1 bag of 100		
AutoLys M Tube, 2D BC, EO sterile 2D barcode at bottom of tube	PP	clear	100 – 1 bag of 100		

### ▶ **Good to Know for Forensic Analytics in Plastic Containers**

The use of plastic containers in DNA trace-analysis for forensic assays is challenging. Possible interactions between the sample and the plastic containers are well known. Nucleic acid can be lost through adhesion at the plastic surface as well as enzyme-free cleavage of small DNA through interaction with the plastic surface. Hence, the sample is lost for further analysis. It is extremely important to prevent plastic wall interaction when examining rare DNA sequences or smallest amounts of DNA traces. The use of conventional plastic containers can cause a significant loss of sensitivity in DNA analysis. It may result in a waste of time and the loss of DNA. In the case of criminal proceedings, this can seriously hinder the correct identification of a suspect.

### ▶ **AutoLys M tube-in-tube 2D marked «LoTrace® Forensics»**

Suited for different purification methods

### ▶ **User Examples**

#### **AutoLys M – Magnetic Beads**

- Put trace carrier into AutoLys M tube
- Ad 500 µl lysis buffer incl. guanidinium hydrochloride and Proteinase K
- Incubate 30 min at 56 °C
- Spin 2 min at 2000 g RCF
- Discard trace carrier with «basket»
- Lysate ready for DNA purification
- Ad 300 µl Isopropanol to lysate
- Ad 15 µl magnetic beads
- «Wash» twice
- Evaporate remaining buffer
- Release DNA with 100 µl elution buffer, 70 °C
- Separate magnetic beads from DNA solution
- DNA solution ready for next step

#### **AutoLys M – Chelex**

- Put trace on cotton swab into AutoLys M tube
- Add 170 µL Chelex Suspension plus 10 µl Proteinase K
- Incubate at 37 °C for 15 min
- Incubate at 85 °C for 5 min
- Spin 30 sec 1000g RCF followed by 3 min at 2000 g RCF
- Discard trace carrier with «basket»
- DNA Solution ready for next step

#### **Autolys M – Proteinase K**

- Put trace carrier into AutoLys M tube
- Ad 400 µl lysis buffer incl. 10 µl proteinase K
- Incubate «over night» at 56 °C
- Spin for 10 min at 4000 g RCF
- DNA Solution ready for next step





## **Nolato Treff AG**

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