

Microsart® Geneprep

Concentration and DNA extraction kit
for liquids ≥ 100 ml

User Benefits

Microsart® Geneprep combines ...

- maximal recovery rate
- results within 4 h
- maximal convenience and safety for the user
- flexibility for subsequent analysis



Product Information

Instead of labor-intensive and unreliable flushing or washing of membrane filters, this new DNA extraction kit for liquid samples is fast and efficient. It can be combined with any PCR or DNA-based detection assay. Compared to traditional growth based detection methods this kit will save a lot of time.

Working Principle

Drinking water, water from cooling systems, cultivation broth, beverages, bathing or pool water, waste water or any other filterable sample can be used as starting material. At first, the microbe-containing sample is filtered onto a membrane filter and dissolved in a specific solution. The retained and now concentrated microbes are lysed to access the microbial DNA. With a highly effective DNA precipitation protocol, the DNA is isolated afterwards. Now, the DNA is ready to use for quantitative real-time PCR analysis, conventional PCR or any other DNA-based assay.

Application

Whenever there is a need to detect microorganisms in a high volume sample that is filterable, Microsart® Geneprep offers the perfect solution. Almost any volume can be processed without the risk of losing sensitivity due to ineffective filter washing or elution steps. The kit delivers ready to analyze DNA extracts for quantitative real-time PCR analysis – for example for the detection of *Legionella species*, *Pseudomonas aeruginosa* or *Escherichia coli*. Other DNA-based assays can be used as well.

For this reason, the Microsart® Geneprep kit is an universal tool for microbiological QC labs or industrial sites testing liquid environmental, beverage or pharma samples as well as universities or R&D departments for many different problems and applications, even for those we have not thought of yet!

Technical Data

Each kit contains reagents for 20 filtrations and DNA extractions. The kit components are stored until use at room temperature (18 to 25°C). Rehydrated Carrier RNA has to be stored in aliquots at -18°C.

Kit Component	Quantity
Label Information	20 extractions Order No. SMB95-2004
Microsart® @filter	20
Microsart® @solve	20
Membrane Solvent	20 × 800 µl (Glass Vials)
Lysis Buffer	20 × 500 µl (Plastic Tubes)
Separation Paste	20 × prefilled in Plastic Tubes
1.5 ml Reaction Tube	20
Carrier RNA	2 Plastic Tubes (lyophilized)
RNA Rehydration Buffer	1 Plastic Tube
Isopropanol	14 ml
70% Ethanol	14 ml
DNA Rehydration Solution	2 × 1.5 ml (Plastic Tubes)
Manual (Instructions for use)	1

User-supplied equipment and material

- PCR thermocycler (according the PCR kit requirements)
- PCR tubes (for your PCR thermocycler)
- PCR kit
- Micropipettes and filter tips (10, 100 and 1000 µl), i.e. Sartorius Tacta and SafetySpace filter tips
- Vortex mixer
- Rack for 1.5/2 ml tubes
- Microsart® Combi.jet filtration manifold and Microsart® Base Supports (Sartorius, Order No. 16848-CJ and 1ZU---0002 for each filtration position.)
- Pump (i.e. Microsart® e.jet pump plus power supply and tubing, Sartorius; Order No. 166MP-4)
- Thermal shaker for 1.5/2 ml tubes
- Micro centrifuge for 1.5/2 ml tubes (e.g. Centrisart A14, Sartorius, Order No. A-14-1EU or A-14-1US with the appropriate rotor for 2 ml tubes)
- At least 1 reaction tube adapter for 2 ml tubes for the thermal shaker, Sartorius; Order No. 1Z---0005 (5 tubes per adapter; custom adapters can be supplied)
- At least two centrifuge adapters Sigma 90672 and buckets Sigma 13180 plus one universal centrifuge incl. rotor (Sartorius Centrifuge G-16 or G16C plus Rotor YCSR-S2B); Alternatively custom products (adapters) can be supplied. Please contact us: PCR@Sartorius.com

Ordering Information

Description	Quantity	Order No.
Microsart® Geneprep	20 extractions	SMB95-2004

Related Products distributed by Minerva Biolabs (Berlin, Germany)

AquaScreen® <i>Escherichia coli</i>	25 qPCR reactions	34-7025
AquaScreen® <i>Pseudomonas aeruginosa</i>	25 qPCR reactions	34-6025
AquaScreen® <i>Legionella species</i>	25 qPCR reactions	33-2025
AquaScreen® <i>Legionella pneumophila</i>	25 qPCR reactions	34-2025



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