

Quick Start Guide

Air Sampling with 47 mm Gelatine Membrane Filters and Sample Preparation for Molecular Microbial/Viral Detection

I. Air Sampling

II. Membrane Transfer and Solution



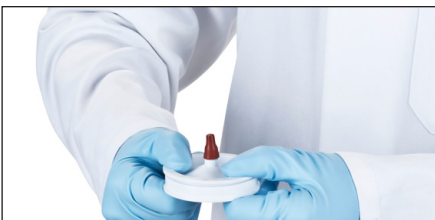
Use the 1ZAD--0025 adaptor to switch from a bayonet to TriClamp connector. Place the sealing ring (7EDSCV0003) on the adaptor & the 47 mm filter holder (1ZAD--0026) on the ring. Tighten the connection with the clamp (SB-18-00-0194). Place the 47 mm filter on the sample head using forceps, secure with the cover ring.



Set the flowrate to 10 or 20 L/min & choose the desired volume. To adjust the settings please follow the instructions in the MD8 manual.



For touch-free membrane retrieval, storage and processing use Microsart®@solve. Microsart®@solve consists of a cap with an in-built glue ring and a base with an inlet /outlet. For membrane transfer use the capping unit. Alternatively, carefully transfer the membrane into a Ø 50 mm Petri dish, using a pair of forceps.



Close the Microsart®@solve housing with its base. Close the sample inlet/outlet with the sealing plug. Dissolve the membrane or store as required.



Add 1.7 mL of appropriate solvent (e.g. water, buffer, transfer medium) into the inlet of Microsart®@solve, mix and incubate 10 min at 37°C (e.g. thermal incubator, heating plate) to dissolve the membrane. Alternatively, dissolve the membrane for 10 min at 37°C with at least 1,7 mL solvent in a Ø 50 mm Petri dish.



For sample recovery from Microsart®@solve, attach a DNase-/RNase-/PCR inhibitor-free 2 mL screw cap collection tube (e.g. 2.0 mL SC Micro Tube DNA LB, Sarstedt 72.694.700) to the outlet. Place the Microsart®@solve unit with attached collection tube into a suitable adapter.

III. Nucleid Acid Extraction and Detection



Sartorius adapter 1Z--0007 can be used for swing-out rotors with round centrifuge buckets that are suitable for 250 ml Nalgene bottles. For Sigma buckets 13450, the adapter 13654 for 500 - 750 ml bottles (max. Ø 85 x 130/173 mm can be used). For swing-out rotors with rectangular Sigma buckets 13180, we recommend the Sigma adapter 90672.



Centrifuge one minute at ≥ 3000 g to transfer the dissolved sample into the collection tube. Proceed with subsequent nucleic acid extraction and microbial detection by (q)PCR. Note that the sample might have to be dissolved again for 10 min at 37°C after storage.



Required Products at a Glance

| Product Name and Description | Order Number |
|---|-----------------|
| Gelatine Filter, 47 mm, sterile, 50 pieces | 12602-47----ALK |
| Gelatine Filter, 47 mm, sterile, 100 pieces | 12602-47----ALN |
| Microsart®@solve, 20 pieces | 1Z---0006 |
| Centrifuge Adapter circular, 2 pieces | 1Z---0007 |
| MD8 Airport | 16757 |
| 47 mm MD8 Filter holder | 1ZAD--0026 |
| Clamp for TriClamp connection | SB-18-00-0194 |
| Sealing for TriClamp connection | 7EDSCV0003 |
| Adaptor MD8 from Bayonet to TriClamp | 1ZAD--0025 |

For customized centrifuge adapters and support contact: PCR@Sartorius.com