MicroCheck™ Beverage Monitor

Instructions for Use

Introduction

Important

Read these instructions carefully before using the products.

Intended use

The products are intended for research use only, and shall not be used in any clinical or *in vitro* procedures for diagnostic purposes.

Background

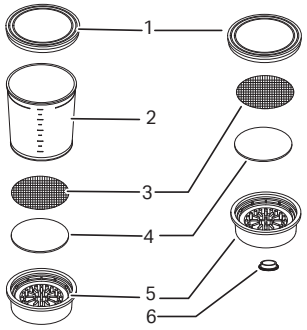
MicroCheck™ Beverage Monitor is a disposable filter unit designed to recover and culture microorganisms from aqueous fluids or solids that will completely dissolve in buffer solutions. The flexible cylinder design allows easy access to retrieve the membrane filter for submersion in broth media or plating onto an agar surface or broth-soaked pad. It is suitable for testing a variety of aqueous samples such as flavorings, syrups, finished beverages and the water used in their manufacture.

Technical information

Technical data

Support pad	Cellulose
Cylinder and base	Polypropylene
Funnel cover	Polystyrene
Plug	Polyethylene
Funnel adapter	Polyethylene
Membrane diameter	47 mm (1.86 inch)
Filter media:	• ME25 mixed cellulose esters (mce) membrane, white • GN6 mixed cellulose esters (mce)membrane, white • Metricel™ Black modified polyethersulfone (pes) membrane, black
Maximum vacuum:	635 mm Hg (25 in. Hg) (Vacuum Use Only)
Effective filtration area:	13.46 cm^2
Dimensions (H×W):	7.6 × 6.1 cm (3.0 × 2.4 inch)
Sterilization:	Gamma irradiated

The following illustration shows the parts of the filter unit.

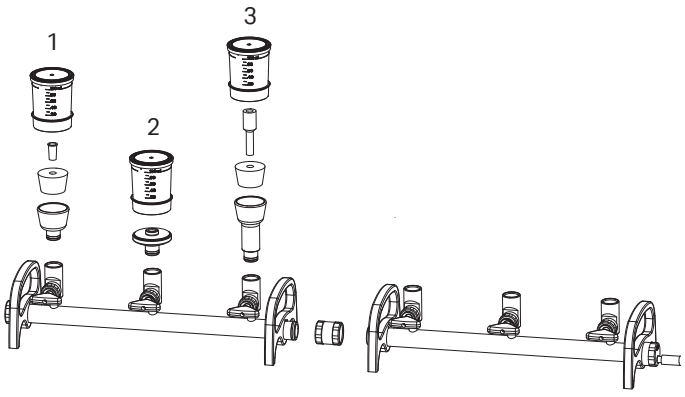


Part	Description
1	Funnel cover
2	Funnel cylinder
3	Membrane
4	Cellulose absorbent pad
5	Funnel base
6	Plug

Instructions for use

Filter the sample

Step	Action
1	Remove the filter unit from the box. Place the filter unit onto the manifold with the applicable adapter assembly as shown below.



Option	Adapter assembly
1	Standard adapter with no. 8 stopper
2	MicroFunnel™ adapter
3	Elongated adapter with no. 8 stopper and auto-clavable adapter

2	Remove the funnel cover without touching the inner surface.
3	*(Optional)* Rinse the inside walls of the funnel and wet out the membrane surface.

Step	Action
4	Replace the cover and turn on the vacuum pump to draw rinse fluid through. Turn off the vacuum pump.
5	Remove the funnel cover without touching the inner surface and pour the sample into the funnel. Replace the cover.
6	Turn on the vacuum pump for 30 to 40 seconds and draw the sample through the filter.
7	Filter the entire sample first, then rinse the inside walls of the funnel with sterile buffer.
8	Turn off the vacuum pump.

Culture the sample

There are three methods to culture a sample:

- Method A: Remove the membrane and culture the samples on a separate Petri dish.
- Method B: Top load media and culture the samples on the base of the funnel converted into a Petri dish.
- Method C: Bottom load media and culture the samples on the base of the funnel converted into a Petri dish.

Method A

Follow the steps below to remove a membrane and culture the sample on a Petri dish.

Step	Action
1	Hold the filter unit with one hand and gently squeeze the funnel cylinder near the top with the other hand.
2	Remove the funnel cylinder carefully from the base.
3	Dip the tips of a stainless steel forceps into alcohol and flame to sterilize, and allow to cool before handling the membrane filter.
4	Insert the sterilized forceps and remove the membrane from the base leaving behind the support pad.
5	Place the membrane filter on a prepared Petri dish/absorbent pad combination soaked with broth.
6	Transfer the Petri dish to an incubator, and incubate the Petri dish inverted at the specified temperature and time.
7	Count the colonies using your standard procedure.
8	Discard the Petri dish following national and local guidelines for disposal of biohazardous material.

Method B

Follow the steps below to top load media and culture the samples on the base of the funnel converted into a Petri dish.

Step	Action
1	Add media over the surface of the membrane and allow the liquid to be drawn in by residual or momentary vacuum.
2	Remove the filter unit from the manifold, and cap the media port with the supplied plug.
3	Remove the cover and squeeze the funnel gently to separate the cylinder from the base.
4	Disengage the cylinder, and transfer the cover to the base.
5	Discard the funnel cylinder. *Result:* The base is converted into a Petri dish.
6	Follow steps 6-8 from Method A.

Method C

Follow the steps below to bottom load media and culture the samples on the base of the funnel converted into a Petri dish.

Step	Action
1	Remove the filter unit from the manifold.
2	Slowly add media through the bottom port while rotating the filter unit.
3	Cap the media port with the supplied plug.
4	Remove the cover and squeeze the funnel gently to separate the cylinder from the base.
5	Disengage the cylinder, and transfer the cover to the base.
6	Discard the funnel cylinder. *Result:* The base is converted into a Petri dish.
7	Follow steps 6-8 from Method A.

Ordering information

Product code	Description[1]	Qty./Pkg.
4761ME	ME25 mce membrane, gridded, white gridded 0.45 µm 100 mL	50
4761	GN6 mce membrane, white gridded, 0.45 µm 100 mL	50
4763	Metricel Black pes membrane, black gridded, 0.45 µm 100 mL	50
4764	Metricel Black pes membrane, black gridded, 0.8 µm 100 mL	50

[1] All membranes listed below are gamma irradiated.

Related products

Product code	Description	Qty./Pkg.
4889	Place Manifold (quantity 3), including valves (quantity 3), end cap (quantity 1), and hose barb cap (quantity 1)	1 set
4701	Autoclavable funnel adapter	3
82728	No. 8 Rubber stopper	1
4890	MicroFunnel filter funnel adapter	3
4892	Standard adapter	3
4959	Elongated standard adapter	3

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