

# Bioaerosol Samplers

## Liquid Based

### ADVANTAGES

- ☑ Three tangential nozzles eject particles at an angle to the inner wall, reducing particle bounce and preserving microorganism integrity.
- ☑ Swirling liquid collection method minimizes re-aerosolization and gently entrains bioaerosols to preserve viability.
- ☑ For highest efficiency, use with non-evaporating collection liquids that have a higher viscosity than water, such as ViaTrap® mineral oil.‡
- ☑ When used with ViaTrap, collection efficiency stays constant over an 8-hour sampling period.
- ☑ Complete glass construction allows easy cleaning, sterilizing, autoclaving, and reuse.
- ☑ Samples are suitable for five different analyses. *See above left.*

### APPLICATIONS

- Indoor air quality investigations
- Hospitals and veterinary clinics
- Agricultural dust studies
- Research
- Public building investigations
- Food handling industry
- Pulp and paper mills and wastewater treatment plants

<b>V</b> Video	<b>P</b> PowerPoint	<b>W</b> Webinar	<b>S</b> Sampling Solution
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## BioSampler

### Collects Bioaerosols into Liquid for Maximum Viability

- Ideal for airborne bacteria, fungi, pollen, viruses, endotoxins, mycotoxins, and other fragments
- Constructed of quality glass — autoclavable
- Collection method ensures high rate of microorganism viability
- Extends sample time to over 8 hours with ViaTrap liquid
- Overcomes sampling problems with impinger samplers
- Inlet limits collection of particles to those that would pass through the human nose

The BioSampler® is a highly efficient glass collection device used with a high-volume sonic flow pump to trap airborne microorganisms for analysis. Externally, BioSampler resembles an All-Glass Impinger (AGI-30); internally, BioSampler is specially designed to reduce particle bounce and maintain maximum viability.

Sample Time:	Up to 8 hours
Sample Rate:	Sonic flow through BioSampler nozzles (12.5 L/min)
Sample Pump:	BioLite
Sample Media:	Non-evaporating liquids, ViaTrap <sup>‡</sup> recommended
Tubing:	1/4-inch ID and 3/8-inch ID



### Biosampler Analysis Options

- **Growth Culture** quantifies/characterizes airborne bacteria and fungi.
- **Microscopic** enumerates total airborne bacteria and fungi (provides limited identification).
- **Biochemical Assay** quantifies biological compounds based on reaction to a chemical.
- **Immunoassay** quantifies airborne allergens based on antibodies binding to a specific target antigen.
- **Polymerase Chain Reaction (PCR)** identifies bioaerosols by screening for a specific genus or species. May require sterile water as collection liquid; check with laboratory.

For a list of microbiological laboratories, visit [skcinc.com/lab](http://skcinc.com/lab).

Description		Cat. No.	Qty.
<b>BioSampler</b> , three-piece glass including inlet section, outlet section, and collection vessel ( <i>bottom — does not include ground joint cap</i> )	20 ml	225-9595	ea
	20 ml	225-9595K4	4
	Inlet and outlet sections are a matched set	5 ml	225-9593
<b>BioSampler Collection Vessel</b> (bottom) and ground joint cap, for transporting samples	20 ml	225-9596	ea
	5 ml	225-9596A	ea
<b>BioSampler Mini Kit</b> includes 1 BioSampler, two 20-ml collection vessels (bottoms) with caps, 1 BioSampler case with mounting rod, and 1 ViaTrap <sup>‡</sup> (120 ml)		225-9597	ea
<b>ViaTrap Collection Media</b> , <sup>‡</sup> special mineral oil for bioaerosol sampling	120 ml	225-9598A	ea
	500 ml	225-9598	ea
	950 ml	225-9599	ea
<b>Glass Trap</b> , to protect pump, for area sampling, can be used with or without sorbent, <i>see p. 70 for sorbent Cat. No. 225-22-02</i>		225-22	ea

‡ May not be suitable for PCR analysis; check with laboratory

### Complete BioSampler System Efficient Collection of Bacteria, Fungi, and Viruses

- Includes all equipment and media for bioaerosol sampling
- Portable sonic flow pump
  - Maintains  $\geq 15$  inches mercury downstream pressure
  - No additional critical orifice needed when used with BioSampler
  - Includes protective housing with handle, vacuum gauge, and valve
- Mounting rod secures BioSampler to case

#### Sampling with the BioSampler

The BioSampler is operated with a sonic flow pump, such as the BioLite<sup>+</sup>, that can maintain  $\geq 15$  inches mercury or 0.5 of an atmosphere of downstream pressure in the system. The BioSampler's three nozzles act as critical (sonic) orifices, each permitting 4.2 L/min of ambient air to pass through for a total flow rate of approximately 12.5 L/min.



The Deluxe BioSampler System includes everything you need for liquid-based airborne microorganism sampling.

#### BioLite<sup>+</sup> Sample Pump



The portable BioLite<sup>+</sup> Sample Pump is ideal for use with the BioSampler. BioLite<sup>+</sup> provides non-compensated airflow up to 62 L/min or sonic flow. The BioSampler acts as a critical orifice for sonic flow without additional orifices. BioLite<sup>+</sup> features mounting points on either side, allowing two BioSamplers to be attached and operated concurrently at a total flow rate of 25 L/min at 15 inches Hg back pressure.

#### BioLite<sup>+</sup> Sample Pump

Includes protective housing with handle, vacuum gauge, and valve, supplied without orifices or rotameter, AC operation only, weighs 16 pounds (7.25 kg)

Cat. No. 228-9615..... 115 V  
Cat. No. 228-9620..... 230 V

Description	SKC Inc. Cat. No. 115 V	SKC Ltd. Cat. No. 230 V
<b>Deluxe BioSampler System</b> includes 1 BioSampler, 2 additional 20-ml collection vessels with caps, 1 case with mounting rod, 1 ViaTrap* (120 ml), 1 BioLite <sup>+</sup> pump, tubing/adapters, and rotameter	228-9615KD	228-9620KBD
<b>Basic BioSampler System</b> includes 1 BioSampler, 1 additional 20-ml collection vessel with cap, 1 mounting bracket, 1 BioLite <sup>+</sup> pump, tubing/adapters, and rotameter	228-9615K	228-9620KB

\* May not be suitable for PCR analysis; check with the laboratory

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**MORE INFORMATION**

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