



AIRPREP™

CUB

AirPrep™ CUB ACD210 and ACD220 AIR SAMPLER WITH RAPID FILTER ELUTION KIT

InnovaPrep engineers have developed a new, compact commercial version of the Bobcat Air Sampler trusted by researchers and US military since 2012.

Using the same 360° aerosol inlet design and rapid filter elution kit, the AirPrep Cub Sampler is just as efficient as the Bobcat Air Sampler for the collection and recovery of bioaerosols and particulate matter.

Two models are available –

- AirPrep Model ACD210 with internal rechargeable battery
- AirPrep Model ACD220 is plug-in only

FEATURES

- The easiest and most efficient air sampler available for virus collection.
- Created for a wide range of indoor and outdoor biomonitoring applications and since it is so affordable, multiple units can be employed to get a full view of bioburden in any location.
- Operational modes include a choice of 50, 100, or 200 LPM flowrate and four predefined single sample collection times; 30 min, 1 hour, 2 hours, or continuous for long-term monitoring.
- The ACD210 can be operated using an internal rechargeable battery for up to 8 hours or continuously using wall power.
- Recovering a sample from the dry filter takes just seconds.
- Pairs with any molecular analysis method including PCR and next-generation sequencing (NGS).
- Can be operated at very low and high temperatures - a limitation for wet cyclonic or agar-type air samplers”.

NEW AND IMPROVED FAST AND EASY FILTER ELUTION

InnovaPrep is pleased to introduce a new AirPrep Rapid Filter Elution Kit with a new fluid formulation for increased efficiency. The elution method releases particles with minimal liquid, unsurpassed efficiency and pairs perfectly with rapid analytical methods. Following aerosol collection, the filter is removed from the sampler, capped on one side, then snapped onto the sample cup; this provides a primary container for transport. To extract the captured particles from the filter, the user simply presses a canister containing the elution foam into a fitting on the elutor cap. The Wet Elution Foam is released from the elution canister evenly through the filter. The wet foam passes through the interstitial spaces for the filter to efficiently extract any captured particles. Sample of elution takes approximately 5 seconds and produces approximately 6 milliliters of liquid sample. Within seconds, the foam collapses back to a flat liquid, making it available for sample processing and analysis.

COLLECTION CAPABILITY

The AirPrep Cub uses a 52mm dry electret filter as the collection media. Electret filters are produced from dielectric polymer fibers that develop an electrical charge when air flows past them. This substantially increases the collection efficiency of the filter, allowing efficient collection of the smallest diameter viruses, which is a limitation of most competing samplers. The AirPrep Cub efficiently captures micron- and sub-micron-sized particles, including viruses, bacteria, pollen, molds and fungal spores, as well as non-biological particles from 0.01um to 10um+.

SINGLE USE FILTER KITS INCLUDE



A. Elution Fluid Canister

B. Elutor Cap

C. Filter

D. Sample Cup with Lid



SPECIFICATIONS

Models ACD210 - With Battery and ACD220 - Plug-in Only

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|--|---|
| Size Weight Dimensions | 8" x 5" x 5" and 2.5lbs. |
| Filter Material | 52mm Dry Electret Depth Filter |
| Particle Size Collection | 0.01 μm to 10 μm + |
| Flow Rate/s | 50, 100 and 200 LPM |
| Run Modes | Continuous, 2 Hour, 1 Hour, 30 Minutes |
| Power | 120W AC |
| Sample Recovery Method | Instant Wet Foam Elution |
| Elution Fluid | Either 0.15% Tween 20 25mM Tris 0.15% Tween 20 PBS |
| Single-use Rapid Filter Elution Kit Components | Filter, Sample Cup with Lid, Elutor Cap, and Elution Fluid Canister |
| Final Sample Volume | 6-7 mL |
| Analysis Methods Compatible | PCR, NGS, Culture (Bacteria, Molds) |
| Operating Temperature/Humidity Range | Operating Temperature -2°C to 60°C in Non-condensing Environments |
| Storage Temperature | 0°C to 30°C |

AirPrep Model ACD210

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|---------------------------------|--|
| Battery Type | Lithium ion, 14.4V 3350mAh @ 0.2 C Discharge, Room Temperature |
| Battery Life | 4 Hours Continuous @ 200 LPM, 20-30°C |
| Long Term Storage (Recommended) | 20-30°C, 45-85% RH, @50% Charge (>3 Months) |

MARKETS AND APPLICATIONS

- Disease monitoring
- Environmental monitoring
- Indoor air quality
- Industrial hygiene monitoring
- Metagenomics research

