

AURORA THE NEW GOLD STANDARD FOR NUCLEIC ACID PURIFICATION.

Enable genomic analysis of your most challenging samples with Boreal's revolutionary new platform for nucleic acid purification and eliminate issues of low yield, persistent PCR inhibition, and limitations in high molecular weight DNA recovery.

THE MOST POWERFUL PURIFICATION SYSTEM

Boreal Genomics presents the Aurora, a revolutionary new platform for nucleic acid purification. The Aurora incorporates our proprietary SCODA electrophoretic purification technology to simultaneously purify and concentrate nucleic acids.

SCODA purification operates on physical, rather than chemical or molecular properties, and is consequently able to efficiently remove contaminants that co-extract in conventional solid-phase purification kits.

RESCUE DILUTE AND INHIBITED SAMPLES

The Aurora enables you to extract nucleic acids directly from up to 5 mL of dilute lysates and eluates, achieving exceptional recovery of trace nucleic acids. The Aurora also allows clean-up of contaminated eluates from commercial kits, rescuing previously unusable samples, and integrating seamlessly into existing workflows.

RECOVER HIGH MOLECULAR WEIGHT DNA

The Aurora concentrates and purifies nucleic acids with a non-mechanical process enabling recovery of intact DNA over 1 Mb directly from environmental and clinical samples, cellular extracts, or agarose plugs. The extracted DNA can be provided either in buffer or gel plug for subsequent cloning, archiving, or other analysis.

YOUR MOST DIFFICULT SAMPLES

Boreal provides an expanding range of protocols for a variety of samples, from DNA and RNA clean-up to complete solutions for direct extraction of nucleic acids. The instrument is operated through a simple user interface for monitoring the purification process and allowing for development of custom protocols.

For pricing, a quotation, or other inquiries contact sales@borealgenomics.com or 800.681.5644.



FIGURE 1: Aurora instrument with disposable gel cartridge.

AURORA HIGHLIGHTS

- Unparalleled nucleic acid purity
- Exceptional yield from low abundance samples
- Recover high molecular weight DNA from 50 kb to over 1 Mb into buffer or gel plug
- Length selection can be applied to remove low molecular weight DNA for sequencing prep
- Typical run times of 1 - 4 hours, depending on amount of purification required
- Sample input/output: 5 mL/ 60 uL
- Minimal sample handling simplifies your existing workflow – load sample and go

AURORA SYSTEM SPECIFICATIONS

The complete Aurora system comprises the instrument, an external chiller, and laptop all provided by Boreal Genomics.

Instrument

Weight	64 lbs	29 kg
Dimensions	20" H x 11" W x 15" D	50 cm x 28 cm x 38 cm
Power Requirement	120-240 VAC, 450 W, 50-60 Hz	

Chiller

Weight	28 lbs	12.7 kg
Dimensions	13" H x 11" W x 13" D	33 cm x 28 cm x 33 cm
Power Requirement	120-240 VAC, 700 W, 50-60 Hz	

Laptop

Weight	3.3 lbs	1.5 kg
Dimensions	10" H x 12" W x 10" D	25 cm x 30 cm x 25 cm
Power Requirement	120-240 VAC, 180 W, 50-60 Hz	

Cartridge Specifications 1 Sample

Dimensions	Microtiter plate footprint
Input Volume	5 mL
Maximum Sample Salinity	<200 uS/cm
DNA/RNA Capacity	100 ug
Output Volume	60 uL
Buffer	0.25x TBE (400 uS/cm), pH 6-8

Performance

Run Time	1 - 4 hours with sample salinity <100 uS/cm, 0.25x TBE buffer
Manual Interventions	None
Yield	>60% of available nucleic acids within size range
DNA/RNA Fragment Size	>500 nt RNA, 300 bp – 50 kb DNA, extendable up to 1Mb ¹
Contaminant Rejection	10-50,000X ²

¹ High Molecular Weight DNA above 50 kb can be recovered with longer run times, up to 30 hrs for 1 Mb DNA.

² Contaminant rejection is specified as fold-increase in the ratio of DNA to contaminant concentration. Data quoted is measured with respect to humic acids and range corresponds to run time.