

## Automated System for Magnetic Bead-Based Purification



**DNA**



**RNA**



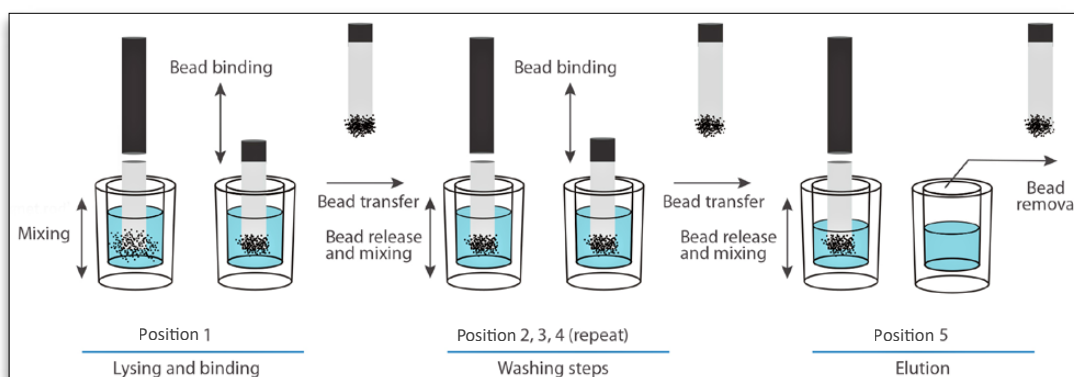
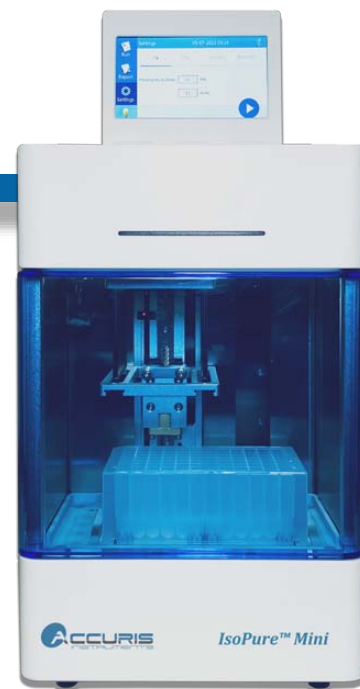
**Protein**

**Hands off  
processing of  
up to 16  
samples**



- *Fast, reliable, & reproducible results*
- *Compatible with all popular magnetic bead kits*
- *Compact (8 x 10 in footprint)*
- *Process up to 16 samples*
- *Android app & PC software for programming*
- *Sample volume 50uL - 1000uL*

Magnetic bead-based purification has become a preferred method for isolating DNA, RNA, and other target molecules from a variety of biological sample types. The quality and quantity of the extracted molecules can be significantly higher than other methods, such as spin columns, while the cost per sample can be lower. The **IsoPure™ Mini** from Accuris Instruments is a compact, automated purification system that improves efficiency and reproducibility using the magnetic bead-based method. Capable of processing up to 16 samples at one time, the instrument is easy to set up, program, and operate. Mixing, magnetic bead transfer, washing, and elution steps are performed automatically, saving valuable hands-on time. The purification process can be completed within 10 to 60 minutes depending on the type of reagent kit used and the complexity of the program.



**Typical Purification Process**

## Programming via Android™ App or PC Software

Creating a protocol is simple using the IsoPure app or PC software, both are included on a USB flash drive with each instrument. Mixing speed, sample temperature, and magnetization parameters can be all be programmed. Protocols created using the IsoPure app can be transferred to the instrument via Bluetooth connection. Protocols created using the PC software can be transferred to the instrument via USB connection. In addition, both the IsoPure app and PC software can generate a protocol-specific QR code for instant transfer.



Create programs using any Android device, transfer via bluetooth

## QR code Scanning System

A handheld scanner is included with each IsoPure Mini, adding a convenient and fast method for loading a protocol onto the instrument. After creating or opening a protocol on a companion Android device or a connected PC, an option is available for displaying a QR code. Simply scan the QR code to instantly transfer the protocol. QR codes are also available in kit instruction manuals for instant loading of optimized protocol.



Scanning QR code from app

## Protocol Optimization

Accuris Instruments has partnered with leading magnetic bead kit manufacturers to develop and optimize protocols for specific applications. To request protocols for specific kits, or for assistance in optimization, please contact the IsoPure™ Technical Support Team at [info@accuris-usa.com](mailto:info@accuris-usa.com).

## Sample Temperature Control

Heating sample mixtures during the lysis and elution steps can significantly improve results. Heating strips on the sample platform can be precisely set to any temperature between ambient +5°C to 120°C. Both deep well plates and 6-well reagent vessels fit into the contoured heating strips for efficient heat transfer. Two cooling fans maintain ambient temperature inside the housing and temperature of the heating strips.

## Connection Ports

The IsoPure Mini can store up to 100 program files in internal memory. These can be transferred between instruments or to a computer for storage or sharing. Simply insert the included flash drive to export the selected files. Internal protocol management can be done via the instrument touch screen, or by using the included mouse.

## UV Sterilization

An ultraviolet sterilization lamp (UVC) inside the processing chamber provides effective elimination of most bacterial, viral and stray genomic DNA contaminants. This additional safeguard reduces the possibility of contamination and downstream amplification of unwanted targets.

## Touch-Screen Control Panel

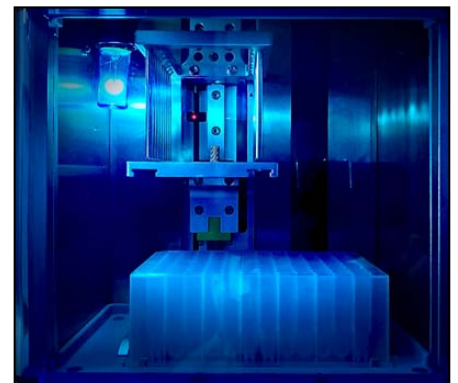
The control panel on top of the IsoPure Mini allows for quick selection of stored protocols and instrument control. To execute a protocol, select it from the file list, insert a prepared sample plate (or 6-well reagent vessel) and tip combs, and press the start button. Run parameters and operating status are displayed during sample processing.



Heating strips for lysis & elution



Ports for Mouse, Scanner, Storage and Transfer



UV Sterilization



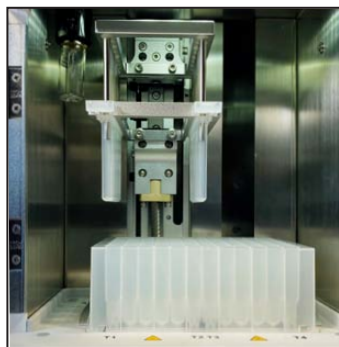
Touch screen control panel



## IsoPure™ Consumables

Accuris offers magnetic tip combs, deep well plates, and 6-well sample strips designed to fit the IsoPure Mini. Produced using virgin polypropylene and packaged in a sterile environment, these consumables are guaranteed to be contaminant-free. The 8-place magnetic tip combs lock into position inside the instruments processing chamber. There are 2 options for sample vessels: 96 deep-well plates can be used for processing up to 16 samples. For 8 or fewer samples, 6-well sample strips can be used, and these are loaded onto the included aluminum rack. These sample strips reduce waste and lower consumable costs when only a few samples need to be processed.

Accuris Instruments is a division of Benchmark Scientific, Inc.



**Deep-well plate for processing up to 16 samples**



**6-well sample strips loaded in aluminum rack**



**AP1096-DWP**  
96 deep well plate



**AP1016-ASR**  
Aluminum rack



**AP1016-6W**  
6-well sample strip



**AP1016-MC**  
8-place tip comb

## Specifications

Display	4.3 inch-color touch screen
Capacity / sample volume	16 samples / 50µL to 1000µL
Magnetic bead recovery rate	>95%
Lysis temperature range	Ambient +5°C to 120°C
Elution temperature range	Ambient +5°C to 120°C
Mixing speed	Variable, 10 levels
Programming control	Bluetooth-enabled android device(not included)
Program memory	100 programs (internal memory)
Communication ports	USB for mouse, file storage & transfer
Internal lighting	LED
Contamination control	UV lamp (3W, 253.7nm UVC wavelength)
Program Transfer	Bluetooth, QR scanner, USB flash drive
Dimensions	7.9 x 10.2 x 11.8 in. (20 x 26 x 30 cm)
Weight	7.0 kg / 15.4 lbs
Electrical input	Universal 120 to 240VAC
Warranty	2 years

## Ordering Information

Cat No.	Description
AP1016*	IsoPure™ Mini, Automated Purification System, 120V - 240V input
AP1096-DWP	96 deep well plates for IsoPure™, pack of 50
AP1016-MC	8-place magnetic tip comb, pack of 50
AP1016-6W	6-well sample strips, pack of 100
AP1016-TAB	Android tablet preloaded with IsoPure™ app

\* Use part number AP1016-E to indicate 240V input and specify required plug type.

## Also available from Accuris Instruments



### IsoPure™ 96

- Process up to 96 samples in deep-well plates
- Compatible with all popular magnetic bead kits
- Touch screen panel for on-board programming & operation
- 8 position carousel with 2 heating blocks
- Sample volume 50µL-1000uL

## Automated System for Magnetic Bead-Based Purification



**DNA**

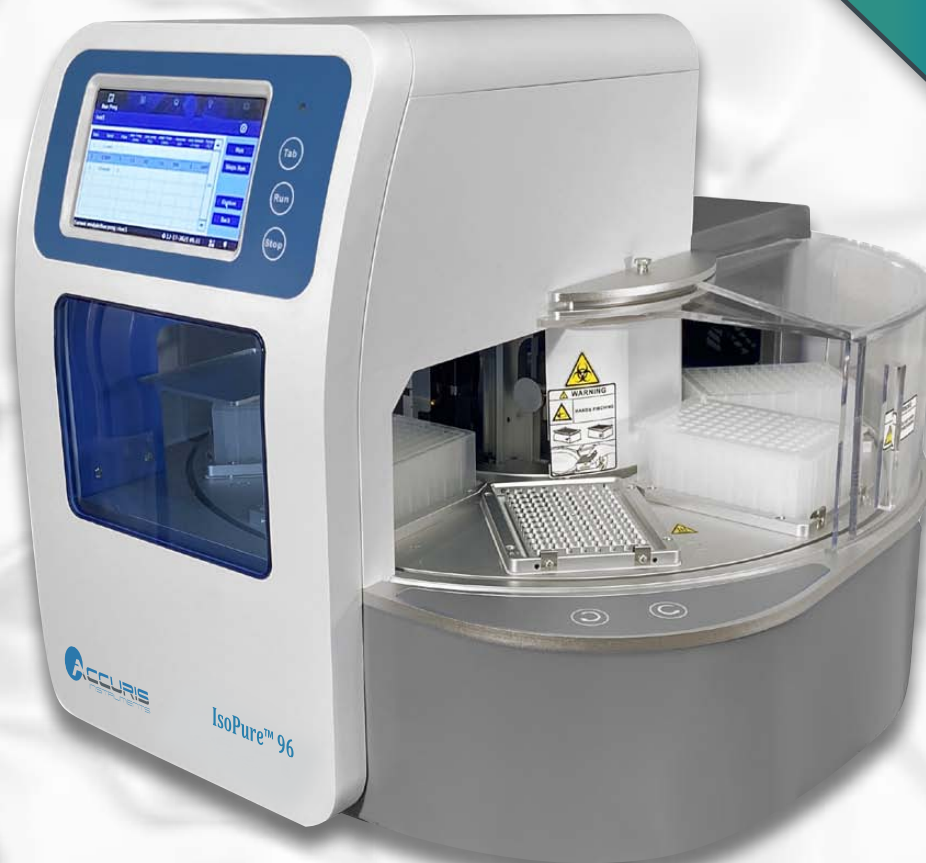


**RNA**

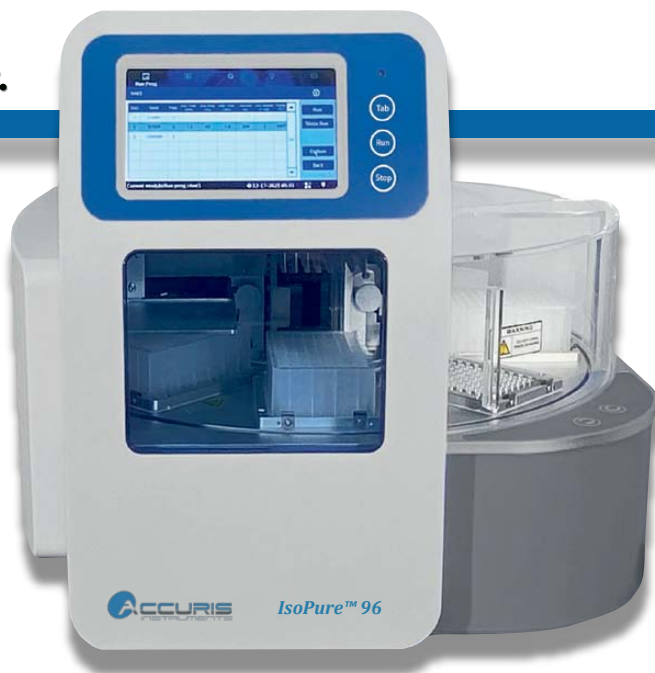


**Protein**

**Hands off  
processing of  
up to 96  
samples**



- *Compatible with all popular magnetic bead kits*
- *Touch screen panel for on-board programming & operation*
- *Process up to 96 samples in deep-well plates*
- *8-position carousel with 2 heating blocks*
- *Sample volume 50µL - 1000µL*



The **IsoPure™ 96** from Accuris Instruments is a high throughput, automated system that improves the efficiency and reproducibility of magnetic bead-based purification protocols. Capable of processing up to 96 samples at one time, the instrument is easy to set up and program. Mixing, magnetic bead transfer, washing, and elution steps are performed automatically. The purification process can be completed within 10 to 60 minutes depending on the type of reagent kit used and complexity of the program.

## Programming

The IsoPure 96 can be programmed by using the color touch screen or the included mouse. After a protocol has been created, the instrument will calculate and display the estimated time for each step and the total time.

Typical step settings include:

### Tip Comb Loading and Unloading

Automate tip comb loading and unloading by designating the respective plate positions in the script.

### Mixing

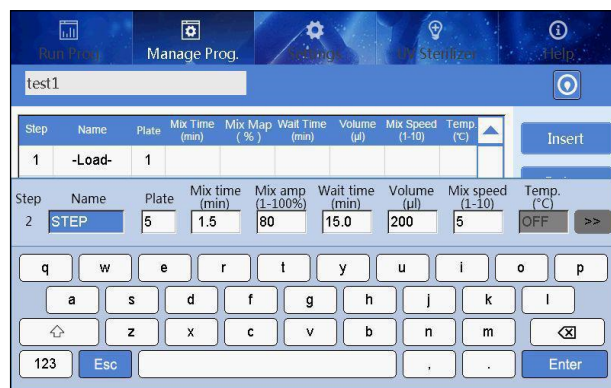
Parameters for mixing time, speed, and amplitude can be programmed for each step of the protocol.

### Temperature Control

Heating of the sample mixture during the lysis and elution steps significantly improves the purity and yield of the target molecule. The IsoPure 96 is equipped with 2 heating blocks on the plate carousel that can be precisely set to temperatures from ambient + 5°C to 120°C. IsoPure deep well plates fit into the heating blocks for efficient heat transfer. A cooling fan inside the processing chamber maintains the ambient operating temperature to ensure consistent results.

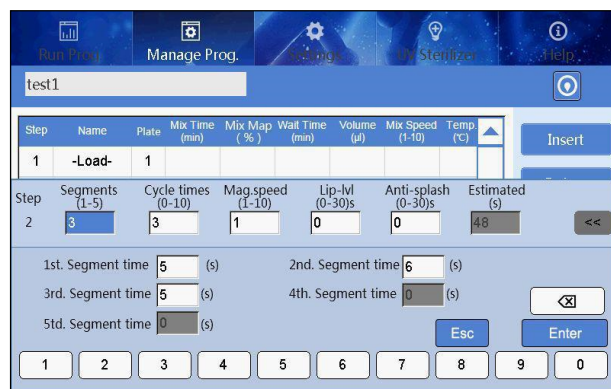
### Bead Collection and Release

The complete collection of magnetic beads from sample mixtures is crucial for maximizing the yield of purified analytes. The IsoPure software offers full control of magnetic parameters to ensure cleaner extractions. General settings allow control of magnet speed, position, repeat collection cycles, etc, to guarantee consistent yields.



Step	Name	Plate	Mix Time (min)	Mix Map (%)	Wait Time (min)	Volume (μl)	Mix Speed (1-10)	Temp (°C)
1	-Load-	1						
2	STEP	5	1.5	80	15.0	200	5	OFF

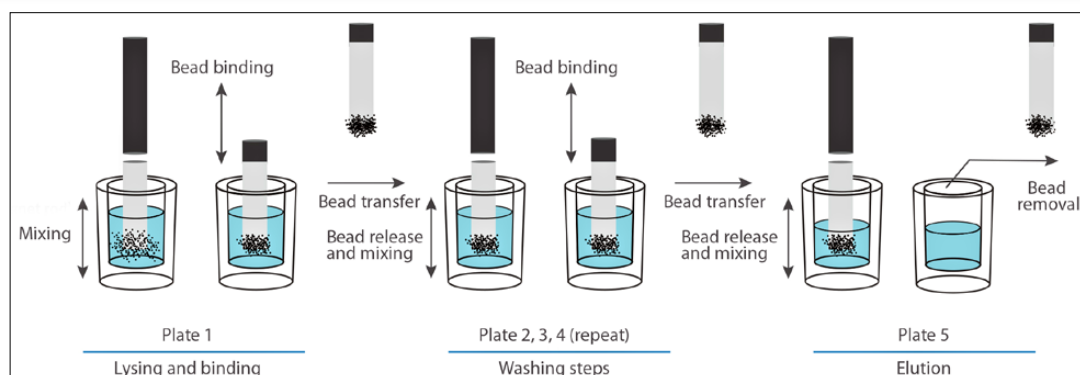
**Mixing Parameters & Temperature Setting**



Step	Segments (1-5)	Cycle times (0-10)	Mag. speed (1-10)	Lip-lvl (0-30)s	Anti-splash (0-30)s	Estimated (s)
2	3	3	1	0	0	48

**Bead Collection Parameters**





**Typical Purification Process**

### Protocol Optimization

Accuris Instruments has partnered with leading magnetic bead kit manufacturers to develop and optimize protocols for specific applications. To request protocols for specific kits, or for assistance in optimization, please contact the IsoPure Technical Support Team at [info@accuris-usa.com](mailto:info@accuris-usa.com).

### Built-in UV Sterilization

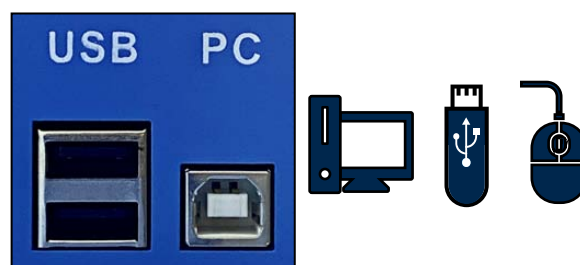
An ultraviolet sterilization lamp (UVC) inside the processing chamber provides effective elimination of most bacterial, viral, and stray genomic DNA contaminants. This additional safeguard reduces the possibility of unwanted DNA/RNA contamination of critical samples that could be amplified downstream in a PCR detection assay. UV sterilization time can be adjusted based on specific program requirements to ensure a sterile environment prior to purification.



**UV Sterilization**

### Connection Ports

The IsoPure 96 can store up to 100 program files which can be transferred between instruments, or to a computer for storage or sharing. Simply insert the included flash drive to export the selected files. Programming control can be done via the touch screen, or by using the included mouse. A PC can also be connected for remote programming.



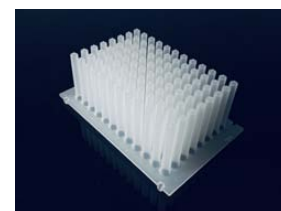
**Ports for Mouse, PC Connection, Storage and Transfer**

### IsoPure™ Consumables

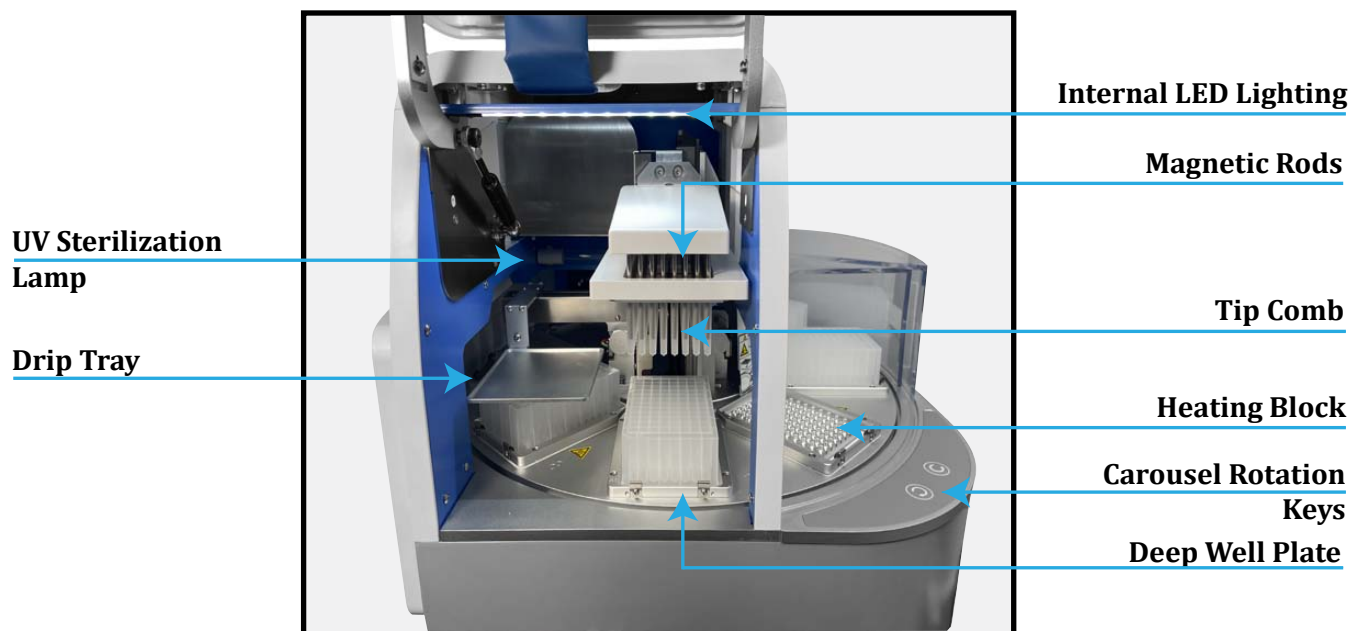
Accuris offers high-quality deep well plates and magnetic tip combs designed to fit the IsoPure 96. Produced using virgin polypropylene and packaged in a sterile facility, these consumables are guaranteed to be contaminant-free. The IsoPure 96 also accepts industry-standard 96 deep well plates and tip combs designed for high throughput purification systems.



**Deep-Well Plate**  
Cat #: AP1096-DWP



**Tip Comb**  
Cat #: AP1096-TC



## Specifications

Capacity / sample volume	96 samples / 50µL to 1000µL
Display	7.0 inch-color touch screen
Plate positions	8 plate positions
Lysis temperature range	Ambient +5°C to 120°C
Elution temperature range	Ambient +5°C to 120°C
Mixing speed	Variable, 10 levels
Programming control	Touch screen/mouse or PC connection
Program memory	100 programs
Communication ports	USB, LAN, & PC
Magnetic bead recovery rate	>95%
Internal lighting	LED
Contamination control	UV sterilization, lamp included (3W, 253.7nm)
Dimensions	21.6 x 24.4 x 18.9 in. (55 x 62 x 48 cm)
Weight	54 kg / 119 lbs
Electrical input	Universal 120 to 240VAC
Warranty	2 years

## Ordering Information

Cat No.	Description
AP1096*	IsoPure™ 96, Automated Purification System, 120V - 240V input
AP1096-DWP	96 deep well plates for IsoPure™, pack of 50
AP1096-TC	Tip Comb for IsoPure™ 96, pack of 50

\* Use part number AP1096-E to indicate 240V input and specify required plug type.

## Also available from Accuris Instruments



### IsoPure™ Mini

- Process up to 16 samples
- Compact (8 x 10 in. footprint)
- Intuitive app programming
- Sample volume 50µL - 1000µL
- Fast, reliable, & reproducible results



### SmartReader™ UV-Vis

- Intuitive 10 inch color touch screen control panel
- Accepts both 96 & 394-well plates
- Monochromator-based system
- Stand-alone design