

ARIES®

Frequently Asked Questions

Welcome to the New Way to Work

1. Can I run xTAG® assays on this instrument (e.g., xTAG® Respiratory Viral Panel (RVP), Gastrointestinal Pathogen Panel (GPP), and Cystic Fibrosis Panels)?

No, this is a real-time PCR system, and is not capable of bead-based detection.

2. How many targets can it detect? How many channels?

The system is capable of using six different channels and fluorescent dyes. The assay design dictates the number of analytes that are tested. A typical number for this system is three to four targets. The current assay design includes a Sample Processing Control (SPC) in addition to the target analytes.

3. How much do ARIES® Systems weigh? What are the dimensions for each system?

ARIES® System:

Weight = 134 lb (60 kg)

Dimensions = 15.4 in. x 24.1 in. x 37.4 in.
(39.1 cm x 61.2 cm x 95.0 cm)

ARIES® M1 System:

Weight = 78.5 lb (35.6 kg)

Dimensions = 15.4 in. x 24.1 in. x 25.4 in.
(39.1 cm x 61.2 cm x 64.5 cm)

4. Do the systems use a standard plug?

Yes. ARIES® Systems utilize a switching power supply, 110 VAC and 220 VAC, appropriate for your region.

5. Do they have a temperature sensor?

Yes, they do have temperature sensors. If a system overheats, the instrument run will abort.

6. Do they have a liquid sensor?

No, they do not have a liquid sensor. Please reference the package insert for the specific assay you are using for the recommended input volumes.

7. How long can the instruments and samples sit after the run?

There is no intervention required after a run is complete. The samples can stay in the instruments indefinitely, until you are ready to perform the next run.

8. How long do the systems take to startup and shut down?

The systems perform a robust self-check test at startup. Without a magazine, this test takes 2.5 minutes, and 5 minutes with the magazine. Shut down time is about the same.

9. What assays will be available for ARIES® Systems?

We intend to have a broad IVD menu that complements our existing multiplex panels. Please see the Luminex website for a complete list of available products. In addition, the systems are open platforms that can be used to develop your own custom assays.

10. What are the package sizes for the ARIES® products?

The kit box dimensions are 12.75 in. (W) x 7 in. (H) x 6.75 in. (D). Each kit includes 24 fully integrated cassettes that automate extraction and amplification steps. UDP (user-defined protocol) tools include extraction cassettes, master mix, and PCR tubes. ARIES® MultiCode® Ready Mix for user-defined assays is configured in trays of 12 vials.

11. What are the storage and shipping conditions of kits and extraction cassettes?

The kits ship refrigerated (2° to 8°C) on cold packs and can be stored at room temperature (15° to 30°C).

12. Can I run expired reagents/cassettes?

Luminex does not recommend using cassettes, kits, or reagents beyond their expiration date.

13. What is the expected shelf life of each of the products?

Shelf life will vary. Always check the expiration date on the kit box, cassettes, and any associated reagent containers.

14. What controls are included and what is their purpose?

The Sample Processing Control is designed to verify proper specimen lysis and nucleic acid extraction, to identify PCR inhibition, if any, and verify proper function of the extraction system and real-time instrument.

15. What are the sample input volumes for your assays?

Refer to the assay package insert. Typical range is from 200-400 µl for assays.

16. Can cassettes be used for extraction only?

ARIES® Systems may also be used as sample concentrators when used with available extraction cassettes. The extraction cassettes can also be used for assay development.

17. What are the benefits of Random Access vs. Random Batch?

The benefit of a Random Batch approach is less hands-on time and interaction with the system, versus a Random Access system, where each sample is processed individually. With the Random Batch approach, the system automatically scans multiple samples at once and begins a run, reducing the total test initialization time and improving workflow efficiencies relative to Random Access.

18. Can I add a sample while it is running?

You cannot add a sample to the magazine that is already running, but if the second module is not running on an ARIES® System, you can add a sample to the other magazine and start a new run. An ARIES® M1 unit can also be reserved specifically for STAT testing purposes.

19. How much hands-on time is required?

There are no manual processing steps, aside from pipetting the sample into the cassette. Some assays may require minimal hands-on time due to sample type and/or cassette assembly if using extraction cassettes.

20. Can you tell us more about how the sample prep works in an ARIES® cassette?

The sample prep chemistry is considered proprietary. The ARIES® Extraction Cassette contains a combination of lysis and extraction reagents designed to rupture cells, extract nucleic acid, and remove inhibitors via magnetic particles. The eluted nucleic acid is ready for PCR, and can be used for applications on ARIES® Systems or another PCR amplification/detection system.

21. How does your nucleic acid extraction perform compared to other common methods?

Please see the "ARIES® Extraction Cassette Efficiency" chart below.

ARIES® Extraction Cassette Efficiency

Sample Matrix	ARIES® Relative Extraction Efficiency* (%)	Nucleic Acid Purity (A ₂₈₀ /A ₂₆₀)
Universal Transport Media (UTM)	160	> 1.7
Cerebrospinal Fluid (CSF)	290	> 1.7
Plasma	400	> 1.7
Urine	220	> 1.7
Bronchoalveolar Lavage (BAL)	200	> 1.7

*Compared to a commercially available automated extraction system.

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22. What is required for installation? Will you offer installation assistance?

To install an ARIES® System, you will only need to set the system on the lab bench and plug it in. To ensure proper function, we require onsite Field Service Engineer (FSE) installation, including IQ/OQ/PQ services.

23. What is required for system maintenance?

Annual preventative maintenance is required by a licensed Luminex FSE. The internal Sample Processing Control specific to an ARIES assay cassette removes the need for calibration verifications. Routine usage of external assay positive and negative controls will also ensure proper functionality on a daily basis. Please see the Operation Manual for routine maintenance.

25. How can ARIES® Systems be configured to work with a laboratory information system (LIS)?

ARIES® Systems can be configured as uni- or bidirectional with an LIS. The systems can interface with an LIS using HL7 or CSV. Please note that exporting and printing from an LIS requires your validation.

Luminex
complexity simplified.

To learn more, please visit: www.luminexcorp.com/ARIES

For In Vitro Diagnostic Use. Products are region specific and may not be approved in some countries/regions. Please contact Luminex at support@luminexcorp.com to obtain the appropriate product information for your country of residence. ARIES Systems are class 1(I) laser products. Validation of the LIS compatibility must be performed by the end user.

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