Array Tape platform

For research use only.
Not for use in diagnostic procedures.

BIOSEARCH™ TECHNOLOGIES
GENOMIC ANALYSIS BY LGC

Efficient lab solutions

The Array Tape® platform provides reproducible, quality results with flexible, high throughput systems at a lower cost per data point. Instruments of LGC, Biosearch Technologies™ are optimised for use with our revolutionary consumable, Array Tape. This flexible microplate replacement enables inline and integrated automation of an entire laboratory process. These robust systems allow scientists to focus on the data, instead of the workflow or instrumentation.

Return on investment

Reagent savings and efficient use of labor can result in a return on investment in as little as three to six months.

Save up to 90% on reagents

The most common reaction volume in Array Tape is 1.6 µL (800 nL sample and 800 nL reagents), which is 70-90% less than a typical reaction in microplates.

Offset labor costs by 60% or more

Streamline your processes, eliminate bottlenecks and make the most efficient use of your lab personnel. The inline nature of the Array Tape platform significantly reduces the need for manual plate handling and robotics. The integrated liquid handling delivers accurate and reproducible low-volume dispense of both samples and reaction mix. This automation eliminates the variability and significant time associated with manual pipetting.

"The Array Tape platform was our choice for a HTP solution based on throughput potential as well as the immediate cost-savings associated with the walk-away automation of platform instrumentation and the miniaturized reaction volumes in Array Tape."

Edwin van Zon, Technical Analyst of Biology for Rijk Zwaan

Scaleable solutions for laboratory processing

Compare the inline automation of the Array Tape platform with traditional 384-well microplates.

Instrument	Application	Plate equivalents per 8-hour shift	Data points per 8-hour shift
IntelliQube®	qPCR	12	4,608
IntelliQube with Hydrocycler²™	End-Point PCR	65	24,960
Nexar® System	End-Point PCR	400	153,600

Throughput is highly dependent on specific cycling conditions and chemistry selection. These estimates are based on 384-well arrays for Nexar and IntelliQube end-point PCR and on 768-well arrays for IntelliQube qPCR andassume a standard SNP genotyping protocol.

Markets

- Agrigenomics
- Food safety
- Animal health
- Human healthcare research
- Pharmaceutical research
- Horticulture
- Where will you take it next?

Applications currently supported

- End-Point PCR
- qPCR
- End-Point isothermal DNA amplification

Array Tape platform

Array Tape

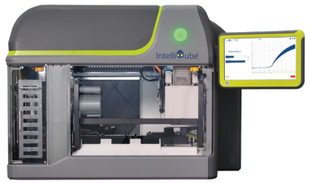
Array Tape is a continuous polymer strip, serially embossed with reaction wells in 384- and 768*-well formats. Array Tape is thin and flexible, which allows 50 to 800 arrays (equivalent to 800 microplates) to be spooled onto a single reel. Array Tape can also be modified for custom array formats, well geometries, well volume and reel lengths for specific laboratory needs.

Array Tape

IntelliQube

The IntelliQube is the first fully automated, medium to high throughput solution featuring seamless integration of liquid handling, thermal cycling, detection and data analysis in one instrument. The IntelliQube provides walk-away automation, increases lab efficiencies and produces high quality data in a variety of applications:

- Genotyping and copy number variants
- Microbial detection and quantification
- Gene expression analysis
- miRNA analysis
- Zygosity and GMO detection



IntelliQube

Nexar

The Nexar, an inline liquid handling system for sample and reagent dispense, delivers ultra-high throughput processing and decreases cost per data point. Nexar modules provide dispensing, sealing, source plate storage, incubation and sample dehydration.

Nexar

Soellex® 2.0

The Soellex 2.0 is a three-chamber water bath capable of simultaneously thermal cycling up to three spools (230,400 reaction wells) of Array Tape or up to 152 microplates (384-well) in a single process run.

Hydrocycler²

The Hydrocycler² is an off-instrument water bath that can be paired with the IntelliQube and Nexar Systems as a lower throughput alternative to the Soellex.

Soellex

Araya®

The Araya is a fluorescence detection instrument designed for automated scanning in Array Tape. The Araya processes a 384-well array in as little as 28 seconds for fast sample processing to detection. It is available as a stand-alone instrument or an inline module for the Nexar.

Intellics®

Intellics is an innovative software suite that provides streamlined data management, protocol generation and instrument monitoring. The Array Builder™ feature helps labs achieve advanced instrument operation and intelligent run optimisation. With the optional IntelliScore® upgrade, labs can score data in just a few clicks for faster data analysis.

Araya

**768-well format Array Tape only available for IntelliQube*

Collaborative services

We pride ourselves on going above and beyond to partner with our clients. Our services include:

Implementation

The pre-installation process begins with a site review, factory acceptance testing and optional Certified Operator training. The onsite installation includes site acceptance testing and end user training. Industry-leading service programmes are available following a 12-month comprehensive warranty.

Scientific support

Our expert scientific team offers a variety of services to ensure your lab gets up and running, produces reliable data, and runs efficiently. Whether you're developing new assays or want help optimising existing assays, Biosearch Technologies will be there for you.

Instrument and software optimisation

Highly specific laboratory processes and protocols may require instrument and/or software modifications. The Biosearch Technologies team is skilled at delivering optimised solutions to meet your needs.

Custom automation service

Name the automation application, and we'll put the power of Biosearch Technologies innovation to work for you. The dedicated Custom Automation Team at Biosearch Technologies delivers extensive experience in motion and movement, automated processing, integration and consumables. Areas of expertise include:

- Custom Instrumentation
- Fluid Dispense Systems
- Sample Preparation
- Optics/Detection
- Software/HMI
- Custom LIMS
- Process Line Automation/Integration
- In-Process Quality Inspection System
- Ask Us About Your Specific Need

This experience, coupled with our rapid development capabilities provides customers with a truly responsive development partner.

Integrated tools. Accelerated science.

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