MAIKOARRAY
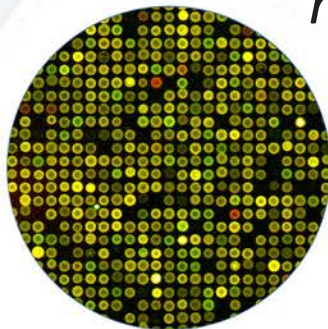
Fluorescence scanners
dedicated to multiple
microarray
applications

MAIKOARRAY

MaikoScan®
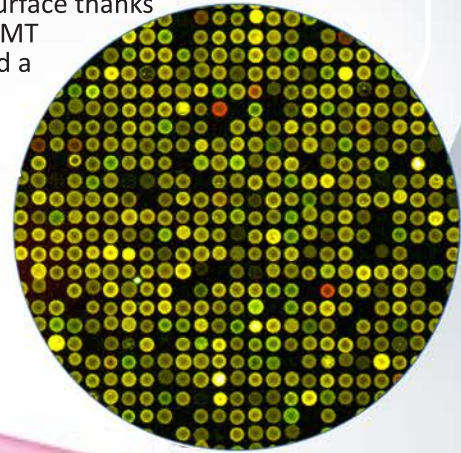Microarray Scanners

MaikoScan®
Microarray Scanners
A complete range of microarray scanners which combine quality, resolution and reliability

MaikoScan®

Microarray Scanners provide uniform scanning across the whole microarray surface thanks to confocal PMT detection and a real-time autofocus system

MaikoScan®

Microarray Scanners provide users with an open platform capable of scanning all standard slides whatever the substrate: glass, plastic, coated glass, and more.

Fields

Basic research

Functional genomics
aCGH for gene copy-number variation testing
Gene expression microarrays
DNA methylation assays

Proteomics
Antibody arrays
Peptide arrays
Functional protein arrays
Reverse Phase Protein Arrays (RPPA)

Clinical research

Standard tool for evaluating DNA duplications and deletions in an individual.
Cytogenetics
Disease biomarker validation
Disease stratification

Industry

Perfect for applications in the food and pharmaceutical industries.
Food contaminant identification
Pharmacogenomics and Personalized medicine

Aplications

High density arrays

Through both reducing the size of spots and bringing them closer together, microarrays can now contain several million spots. **Innopsys''92 MaikoScan® scanner** with single slide or AutoLoader capabilities provides users with the highest resolution on the market, thus being the most suitable for reading high density slides such as HD2, HD4 or 4x180K slides.

Low & medium density arrays

BAC arrays, protein arrays or oligonucleotide arrays with spots larger than 40 µ'ECm are considered to be low or medium density arrays.
The **MaikoScan® 710** range of scanners (single slide and **AutoLoader** version) is the most suitable for reading low and medium density arrays and ensures **precision** and **reliability** of results.

Special slides

The substrate type and surface chemistry used for manufacturing microarrays vary according to each field of application and each manufacturer. **Innopsys scanners are completely open to different microarray supports** (plastic or glass slides, etc.) and surface chemistries (nitrocellulose, opaque slides, mirror slides, etc.).

Protein microarrays

To diminish background signals due to autofluorescence from supports such as nitrocellulose, one can use the **MaikoScan®** to read medium or low density protein arrays at the near infrared channel. Decreasing background signals leads to higher signal-to-noise-ratios (SNR) and hence better sensitivity.

A complete range of microarray scanners

MaikoScan®

The **MaikoScan®** is a high resolution 2-colour fluorescence scanner. It is capable of scanning a microarray with a resolution of 1 µ'B5m/pixel and very high image quality, thus being the **most precise on the market.** Characterised by simplicity of use, a competitive price and high performance, **MaikoScan® is the ideal tool for routine high-density microarray use**.

High resolution, Performance, Precision

Technical specifications

RESOLUTION (μ'B5m/pixel)
1-40

LASER EXCITATION WAVELENGTH (2 laser diodes)
532 nm ●
635 nm ●

COMPATIBLE FLUOROPHORES
Cy3, Alexa 546, Alexa 555
Cy5, Alexa 647, Alexa 660

LOADER CAPACITY
1 slide

DIMENSIONS (L x D x H)
304 x 460 x 397 mm3
11.8" x 18.0" x 15.5"

WEIGHT
17 kg (37.5 lbs)

DETECTION TYPE
Real-time confocal with 2 photomultipliers (PMT)

LASER POWER
Two adjustable laser powers

PMT GAIN
Linear from 0 to 100 %

FOCUS
Real-time autofocus
Manual focus: offset adjustment 300 μ'B5m range, 1 μ'B5m increment

SLIDE SIZE
Compatible with all standard microscope slides: 25 x 75 mm2 / 1" x 3"

SCANNING AREA
Adjustable up to 22 x 74 mm2

SCANNING SPEED
From 10 to 35 lines/second (Limited to 20 lines/second for 1 μ'B5m/pixel scans)
Total time: 3.5 minutes per slide at a resolution of 10 μ'B5m/pixel for a simultaneous two-color acquisition
AL models: 100 minutes for 24 slides

DYNAMIC RANGE
> 104 in normal mode or > 106 in dynamic extension mode

UNIFORMITY
< 5% CV

BARCODE READER
Automatic barcode reading

INTERFACE
Ethernet interface

IMAGE FORMAT
TIFF (16-bit and 20-bit in dynamic extension mode)

POWER SUPPLY
~ 100-240 VAC, 1.2 A, 50-60 Hz

MAPIX SOFTWARE
Auto-PMT settings, Auto gridding and auto-flagging, Batch mode, Quality control module, Image analysis, Data normalization (global and Lowess Smooth), Standard files format, Powerful plug-in capabilities.

MaikoScan®
How can it be
SO GOOD
and yet so affordable?
TRY IT!

MAIKOARRAY