IRIS

RESEARCH USE ONLY · R&D



MULTIPLEX LABEL-FREE KINETICS

IRIS MX-200

High sensitivity and real-time binding kinetics
on a single benchtop instrument — for R&D and RUO assays.

COMING Q4 2026 · SUCCESSOR TO MX-104

A complementary platform to SPR and BLI

The MX-200 uses the Interferometric Reflectance Imaging Sensor (IRIS) to measure molecular binding in real time, directly from a multiplex chip. It belongs alongside your SPR and BLI workflows — adding wide multiplexing, imaging-based readout, without a reference channel or bulk-effect correction, so you get more information from every sample.
IRIS technology generates experimental data that better fits the binding of molecules. This results in better data!

4–100+
biomarkers measured
in a single multiplexed run

Best Fit
of experimental data
for meaningful measurements

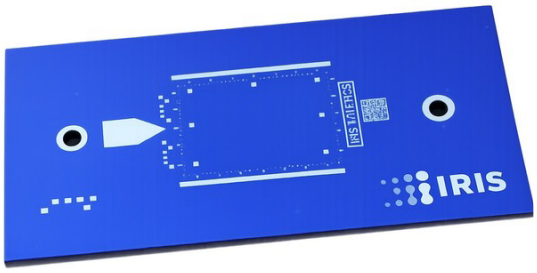
Real-time
kinetics + endpoint
ka / kd / KD and quantitation

No reference
channel required
shot-noise-limited averaging

Interferometric detection, done simply

IRIS reads binding as a change in reflected light — no plasmonic resonance, no fragile fiber tips. This enables direct thicknest change measurement as molecules bind o each other.

1. **Capture molecules attached on a silicon chip**
   Probes are arrayed as spots on an optically layered Si/SiO2 chip. Each spot captures one target.
2. **Mass changes the optical path**
   As analyte binds, the film's optical thickness grows. More binding means a larger, measurable shift.
3. **Imaging camera reads every spot - live**
   Interference of light reflected from the layered surface is imaged across the whole array at once.
4. **Real-time, high-precision signal**
   Shot-noise-limited operation and signal averaging give clean kinetics — no reference channel needed.



The IRIS chip — a robust, mass-produced consumable that hosts up to 100+ probe spots on a single surface.

How MX-200 complements SPR and BLI

	IRIS MX-200	SPR	BLI
Readout principle	**Interferometric imaging**	Plasmon resonance	Bio-layer interferometry
Multiplexing	**Up to 100+ spots**	Limited channels	Up to 8–16
Bulk / reference correction	**Not required**	Reference channel	Reference sensor
Spatial / array imaging	**Whole-array image**	No	No
Single-molecule sensitivity	**Yes (digital mode)**	No	No
Complex samples	**Serum / whole blood**	Sensitive to bulk	Sensitive to bulk

Add it to your biophysics toolkit.

Use MX-200 for multiplex profiling of single samples, and reserve SPR/BLI for screening large number of samples. One sample at a time, but with more answers and better kinetics parameters determination.

Built for R&D and RUO workflows

From routine binding characterization to single-molecule detection in complex matrices.

Binding kinetics
Association / dissociation constants (ka, kd, KD) from real-time traces.

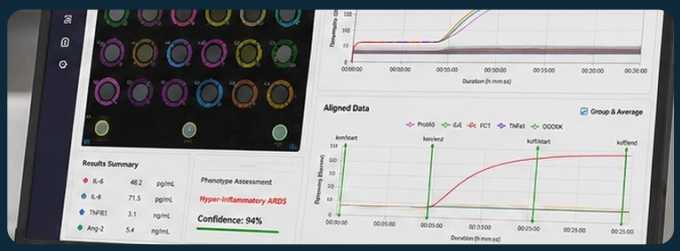
Antibody & protein characterization
Rank candidates, confirm activity, and compare lots side by side.

Epitope binning & pairing
Multiplexed competition across many probes in one run.

Concentration & quantitation
Endpoint and kinetic quantitation across a wide dynamic range.

Single-molecule “digital” detection
Attomolar sensitivity in serum or whole blood, no amplification.

Biological nanoparticles
Count and characterize virions, EVs, and bacteria on-chip.

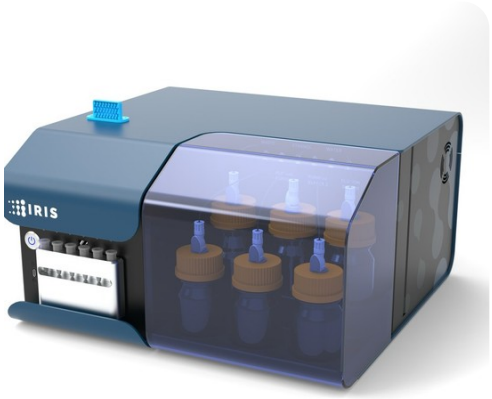


One workspace, from raw data to result

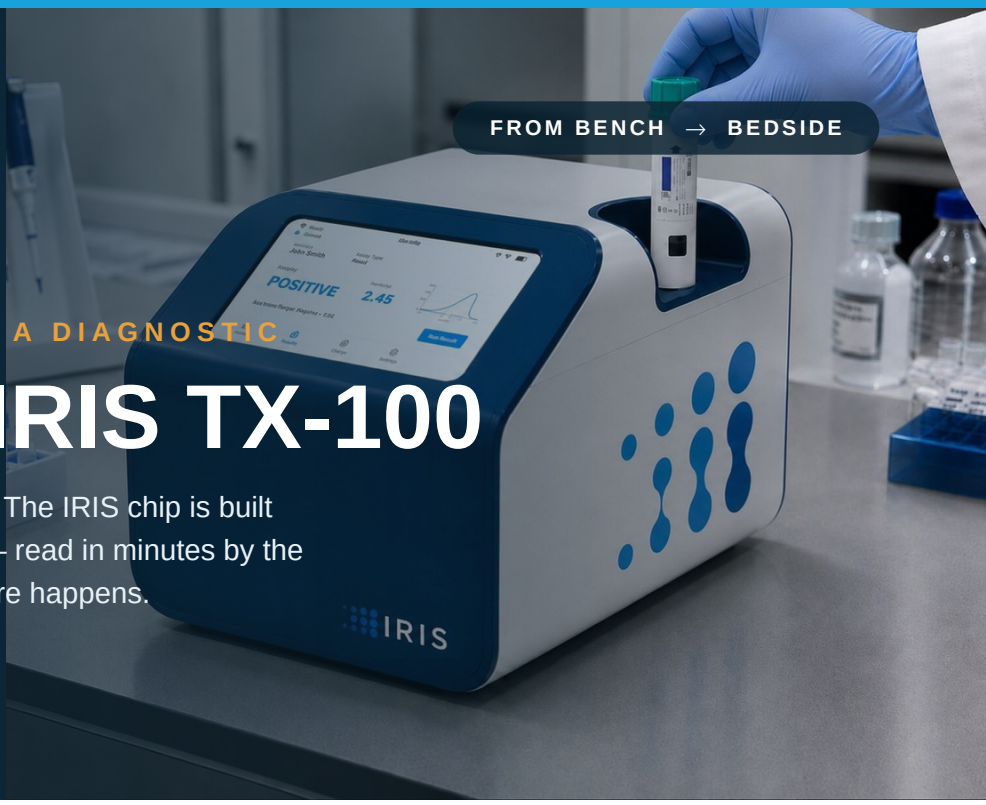
- Live spot imaging of the full array during binding
- Real-time and aligned kinetic traces with curve fitting
- Group, average, and export — ready for your analysis

MX-200 at a glance

Detection	Label-free interferometric reflectance imaging
Multiplex	Up to 100+ probe spots per chip
Modes	Real-time kinetics + endpoint quantitation
Samples	Buffer, serum, plasma, whole blood
Sensitivity	pg-scale to single-molecule (digital mode)
Fluidics	Integrated on-board buffers & automation
Format	Compact benchtop with on-instrument software
Availability	Q4 2026 · Research Use Only



IRIS



THE SAME IRIS CHIP · NOW A DIAGNOSTIC

Introducing IRIS TX-100

Precision diagnostics at the point of care. The IRIS chip is built into a single-use, vacutainer-sized tube — read in minutes by the compact TX-100 analyzer, right where care happens.

COMING 2027 · IN DEVELOPMENT

Central-lab depth, rapid-test speed

The TX-100 brings the multiplex, label-free kinetics of the MX platform to the clinic. A single drop of blood goes into a disposable tube cartridge; the analyzer measures many biomarkers in real time and translates the pattern into an actionable phenotype — no central lab, no long turnaround.

~10 min
to actionable result

25 µL
single drop of blood

4–100+
biomarkers per test

Real-time
kinetic + endpoint



Single-use tube cartridge — the IRIS chip inside a familiar, vacutainer-sized format.

First application: critical-care phenotyping

Starting with Acute Respiratory Distress Syndrome (ARDS), the TX-100 is designed to identify a patient's inflammatory phenotype at the bedside — helping clinicians match treatment to biology in minutes instead of hours. The same platform extends to sepsis, cardiac, and neuro panels.

One technology, two platforms

MX-200 — multiplex biosensor for R&D and RUO. TX-100 — single-use diagnostic test for the point of care.

IRIS TX-100 is in development. Not available for sale. Not for use in diagnostic procedures.
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