

KAIROPLEX™ SYSTEM · DUAL-MODE MULTIPLEX ANALYZER

Bead-based multiplexing (and cell mode), with picogram sensitivity at a low cost.

Meet the **kairoPLEX™ System** — an intelligent, **dual-mode** analyzer combining high-plex bead-based protein analysis and native cell analysis on one compact benchtop. Built to bring advanced multiplex workflows beyond the core lab and onto more research benches.



1–100 plex
up to 1000 plex option

≥5.5 log
DYNAMIC RANGE

30 min
PER 96-WELL PLATE

≤50 MESF
PE SENSITIVITY

19 kg
COMPACT BENCHTOP

2 modes
BEAD + CELL ANALYSIS

WHAT MAKES IT DIFFERENT

No specialist required

Guided analysis tools streamline bead classification, curve fitting and QC — reducing the expertise and hands-on analysis traditionally required for multiplex workflows.

Multi-mode, high sensitivity, low cost. One platform.

Bead-based (and cell based in development), with wide dynamic range sensitivity — expanding the biology you can measure at a cost effective solution.

High plex. Lower barrier.

A compact benchtop platform designed to bring high-plex biomarker analysis beyond centralized core facilities and within reach of more research labs.

High-plex bead
protein panels

+

Compact, easy-to-use
platform

+

Automation-ready
workflow

→

More biology per sample,
beyond the core lab

More biology. One benchtop.

High-plex protein multiplexing, low cost, and automation-ready workflows — brought together in one compact platform.

The Intelligent Multiplex Platform

Bead-based multiplexing meets potential native cell analysis.

HOW IT COMPARES — BY PLATFORM CATEGORY

	kairoPLEX™ system	Bead-based suspension arrays	Plate-based ECL / imaging	Cartridge-based automated
High-plex bead analysis	100-plex <i>(1000-plex with 3-laser upgrade)</i>	High	Low to mid	Low
Native cell analysis	In development	Not available	Not available	Not available
Format	19 kg compact benchtop	Benchtop to large	Reader + plate handling	Benchtop
Automation readiness	96- & 384-well · stackable · API-ready	Varies by system	Plate-handling dependent	Fixed cartridge format
Analysis workflow	Guided classification, curve-fit & QC	Analyst-driven	Analyst-driven	Automated, fixed menu
Platform economics	Compact platform, accessible entry	Varies widely	Higher capital and per-plate cost	Low capital, higher per-test

BUILT FOR WORKFLOWS INCLUDING

- Cytokine & biomarker panels
- Immunogenicity / ADA
- Targeted proteomics & biomarker discovery
- Cell analysis + multiplex protein profiling
- Translational & CRO workflows
- 384-well / automated screening
- Custom multiplex panel development

THE INTELLIGENT WORKFLOW — IN DEVELOPMENT

- Guided analysis

Automated bead classification, curve fitting and QC tools streamline routine multiplex analysis.
- Run monitoring

Calibration and run-quality monitoring help identify issues and support consistent acquisition.
- Wide dynamic range

Low picogram to high microgram level sensitivity from protein to cell-based detection on a single sample.
- Automation connectivity

API-ready architecture supports integration into automated and high-throughput laboratory workflows.

AT A GLANCE

DETECTION Flow-based, modern optics	MODES Bead multiplex + (cell)	MULTIPLEXING 1-100 plex <i>(up to 1000 plex with 3-laser option)</i>
DYNAMIC RANGE ≥5.5 logs	PLATE FORMATS 96- & 384-well	SENSITIVITY ≤50 MESF (PE)
FOOTPRINT 19 kg · compact benchtop	AUTOMATION Stackable · API-ready	ASSAYS Encoded suspension beads

See where kairoPLEX fits in **your** lab

We'll walk through the platform architecture, the initial panel roadmap and the dual-mode workflow — and where it fits alongside what you already run.

Janette Phi · janette@kaironexus.bio | Nick Wilson · nick@kaironexus.bio



*Advisors in strategy.
Partners in execution.*

kairoPLEX™ is a Kaironexus Innovations product concept under evaluation for commercialization. Specifications and capabilities are preliminary and subject to validation. The platform architecture is designed to support up to 100 encoded bead regions; initial commercial panels are targeted at approximately 50-70 analytes, and multiplex assay performance has not yet been independently validated. Guided-analysis and workflow-intelligence features are in development. For Research Use Only — not for use in diagnostic procedures. All third-party trademarks are the property of their respective owners.