PROTEIN FLUIDICS

# The Pu·MA System

**Low-Volume Automated ELISAs**

**Tackle the 3Rs**

**Automated "Hands-off" Workflow**

## Automated ELISAs on your benchtop

The Pu·MA System runs validated assays for immunology, oncology, cellular stress, inflammation, and metabolic disease research. It is designed for applications where samples are limited such as small animal studies. The Pu·MA System fits seamlessly into your current laboratory workflow. Your assay reagents are loaded into a Pu·MA System Flowchip, the system then automatically executes the assay protocol and your results are read by any standard plate reader.

## Pu·MA System benefits

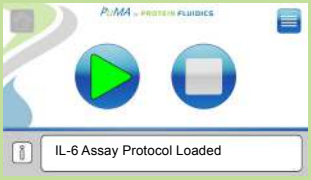
- Reduces sample and reagent volumes to 10–20 µl
- Shortens total assay time from 2 days to less than 3 hours
- Validated immunoassays for small animal research
- Eliminates need for pre-configured plates
- Open platform for single or multi-analyte assays

## Complete assay workflow

Pu·MA Flowchips

Load Reagents

Place Plate in System

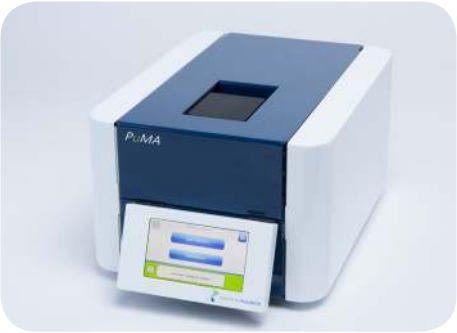



Run Your Assay

Read Absorbance

The adaption of existing ELISA kits and/or antibody pairs is straightforward. Reagent dispensing is done with common pipettors and tips. Assay buffers that optimize fluid transfer are provided for any required dilutions. Blocking solutions, wash buffers, and substrates are also provided. The system is touchscreen-driven with a very intuitive interface. Protein Fluidics Support is always available to answer any questions.

## Pu•MA System

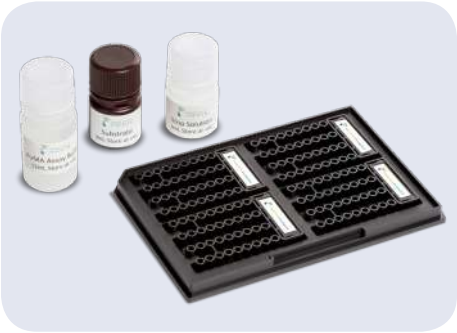



- Compact benchtop system
- Easy top-loading of flowchips
- Precision pneumatic control

## Software

- Touchscreen-driven interface
- Preloaded assay protocols
- Simple Select and Run operation

## Reagents & Flowchips



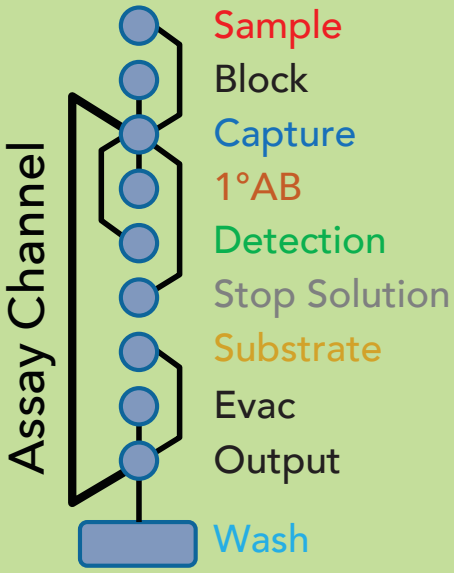
- Validated immunoassays
- Open platform for existing Ab pairs
- Works with standard pipettors & tips

## Pu•MA system specifications

| System | Specification | Description |
|---|---|---|
| Performance | Samples per run | 4–32 samples |
| | Processing time | 1–3 hours |
| | Reagent volumes | 10–20 µl |
| Size and Weight | Dimensions (W x D x H) | 12 x 14 x 8 in (30 x 35 x 20 cm) |
| | Weight | 25 lbs. (11.4 kg) |
| Environmental | Temperature | 18-37°C |
| | Relatiuve humidity | 15–75% (non-condensing) |
| | Elevation | 0–10,000 feet |
| Electrical | Input voltage | 12 VDC |
| | Current | 3.3 A |
| | Power (max) | 40 W |

## How it works

The Pu•MA Flowchip and System uses valve-less fluidic switching (VLFS) to precisely control fluid movement in a flowchip. The assay takes place in a microfluidic "Assay Channel" that reduces both incubation times and reagent volumes. Preloaded protocols execute all fluid transfer and incubation steps.

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