

The PuMA System



Accelerate your
bioresearch

Unlock your day

Hands-off ELISA

Miniaturized ELISAs on your benchtop

The PuMA System is a practical and affordable benchtop instrument that runs ELISA assays using your own antibodies, or pre-coated flowchips in a streamlined workflow. The PuMA platform has been designed to fit seamlessly into your current laboratory workflow. Your assay reagents are loaded into a PuMA Flowchip, the PuMA System executes a hands-off assay protocol and your results are read by any standard plate reader.

PuMA System benefits

- Shortens total assay time from 2 days to less than 3 hours
- Reduces sample and reagent volumes to 10-20 μ l
- Wells positioned on 384-well plate spacing
- Runs assays with your existing antibody pairs
- Frees up your time with "hands-off" processing

Complete assay workflow



PuMA Flowchips



Load Reagents



Place Plate in System



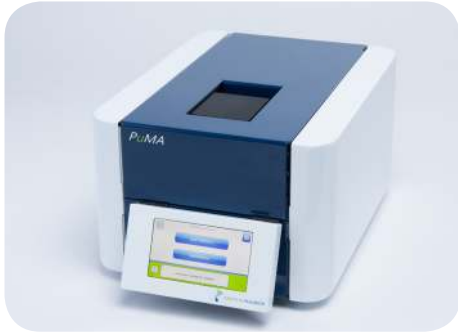
Run Your Assay



Read Absorbance

The adaption of existing ELISA kits and/or antibody pairs is straightforward. Reagent dispensing is done with common pipetting systems. 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.

PuMA System



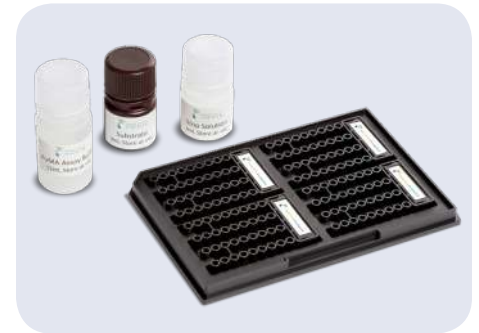
- Compact benchtop system
- Easy top-loading of flowchips
- Precision pneumatic control

PuMA Software



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

Reagents & Flowchips



- PuMA Flowchips with Active Coat
- "SBS Standard" well locations
- Optimized buffers and reagents

PuMA system specifications

System	Specification	Description
Performance	Samples per run	1-16 samples
	Processing time	1-3 hours
	Reagent volumes	10-20 μ l
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	18-28°C
	Relative 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 PuMA 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.

