LIQUID HANDLING

ELx405™ Select Deep Well Washer

BioTek's deep well microplate washer aspirates and dispenses into 96- and 384-well plates ≤50 mm in height. ANSI/SBS standard microplates are also accommodated, resulting in a total solution for all of a laboratory's solid bottom microplate washing needs.

The ELx405™ Select Deep Well Microplate Washer is a robot compatible, full plate washer incorporating BioTek's patented Dual-Action™ manifold with independent filling and evacuation control for precise overfill washing and overflow protection.

Available low-flow rates and angled dispensing make the ELx405 particularly useful in cell-based assays. With optional patented Ultrasonic AdvantageTM, BioTek washers are the only products available today with built in ultrasonic cleaners able to automatically prime with cleaning solution, sonicate tubes to remove any protein or salt crystal build up and re-prime with rinse or wash buffer leaving the instrument clean and ready for its next wash.



Features:

- Washes microplates ≤50 mm in height
- 96- and 384-well formats
- Optional cell washing with gentle, low-flow rates and 20° angled dispense tubes
- Patented Dual-Action[™] manifold for independent dispense and aspiration control
- Available automatic 1-to-4 wash buffer switching
- Optional patented Ultrasonic Advantage[™] built in ultrasonic cleaner for manifold self-maintenance
- Biomagnetic separation ready
- Software control from onboard keypad or Liquid Handling Control™ PC Software
- 21 CFR Part 11 compliance with LHC™ Secure Software
- BioStack™ Microplate Stacker compatibility for standard height plates



Assays:

Typical Applications:

Deep Well Plates

- Plasmid DNA purification
- Serum/plasma sample preparation
- Cell signaling phospho flow setup for flow cytometry
- Hematopoietic progenitor cell enumeration
- Cell culture bacterial, yeast and mammalian cells grown in suspension

Standard Height Plates

- ELISAs
- MSD assays
- HCS immune cytochemistry
- FLIPR® Ca²⁺ flux
- Cell-based assays
- Magnetic bead assays such as gene expression and cytokine panels
- ELISPOT assays



The ELx405™ Select Deep Well Washer aspirates and dispenses into full size 96- and 384-well blocks with unattended operation.

Configurations:

Configurations	Part #	96- /384- well	Deep well	Cell wash	Wash buffer switch	Ultrasonic Advan- tage	Biomag sep
ELx405™ Select	ELX405UD	•	•				•
	ELX405USD	•	•			•	•
	ELX405UVD	•	•		•		•
	ELX405UVSD	•	•		•	•	•
	ELX405UCWD	•	•	•			•
	ELX405UCWSD	•	•	•		•	•
	ELX405UCWVD	•	•	•	•		•
	ELX405UCWVSD	•	•	•	•	•	•

Optional Accessories:

- Dispense/Waste Systems choice of 4L or 10L bottles and standard or high flow* vacuum pumps
- Direct Drain Waste System
- Product Qualification Package
- BioStack™ Microplate Stacker
- Liquid Handling Control™ PC Software
- Magnets choice of 96- or 384-well formats

Dual-Action™ and Ultrasonic Advantage™ are patented under US 5,951,783 and EP 2 093 572 B2 respectively.

FLIPR® is a registered trademark of Molecular Devices.



Specifications:

ELISA
Cell-based assays (configuration dependent)

Magnetic beadMultiplex assaysBead-based ELISA

Microplate types: 96- and 384-well

Low profile and standard height

Deep well up to 50 mm

Magnet: Choice of high strength, flat or ring designs

96- and 384-well formats

Onboard software: 2x24 character backlit LCD display

Software: Optional LHC™ PC Software for wash

protocol programming and execution

Manifold type: 96-/384-well washing -

Dual-Action™ 96-tube (8x12)

Washing speed: 96-well (96-tube manifold) -

<30 sec: 3 asp./disp. cycles, 300 µL/well

Fluid delivery: Internal positive displacement pump

Volume range: $50 - 3,000 \mu L/well$

Buffer selection: Optional switching of up to 4 wash buffers

Wash cycles: 1-10Dispense precision: $\leq 3\%$ CV
Residual volume: $\leq 2 \mu L/well$

Shaking: User-programmable speeds and timing

Soak time: 1 – 600 seconds

Power: 100 – 240 Volts AC. 50/60 Hz

Dimensions: Depth: 17" (43.2 cm)

Width: 14" (35.6 cm) Height: 11" (27.9 cm)

Weight: 30 lbs (13.5 kg)

Regulatory

 $\ensuremath{\mathit{In Vitro}}$ Diagnostic use configurations available. CE and TUV marked, RoHS compliant.

*High flow vacuum pump recommended for 384-well washing with buffers not containing surfacant.



The ELx405 is Luminex® xMAP® approved.
xMAP® is a registered trademark of Luminex Corporation.

Performance values represent the average observed factory test values. Specifications subject to change.