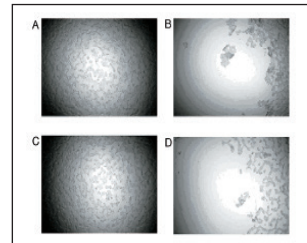


405™ LS Washer

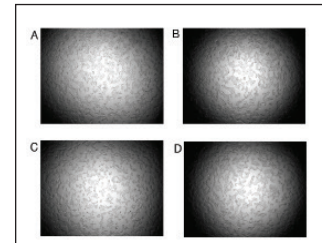
The 405™ LS Microplate Washer is the fifth generation BioTek washer, known for superior performance and reliability for washing protocols ranging from gentle cell washing to vigorous ELISAs. It features the patented Verify™ technology, which runs an automated QC check for manifold tube blockage, and visually reports any failed wells. The patented Ultrasonic Advantage™ can then be used to automatically and thoroughly clean the aspirate and dispense manifold. All 405 LS models provide excellent performance for ELISA and cell-based assays and can be configured with biomagnetic separation and vacuum filtration modules for full plate washing of magnetic and polystyrene bead-based assays such as Luminex® xMAP®.

Programming the 405 LS is easy through its simple interface, but for those who prefer the advantages of running instruments via computer control, the 405 LS can be controlled with BioTek's optional Liquid Handling Control™ Software. The optional BioStack™ is available for walk-away automation of up to 50 microplates.

Enhanced Cell Washing:



Before (A/C) and after (B/D) washing two wells containing HEK cells using a standard dispense rate.



Before (A/C) and after (B/D) washing two wells containing HEK cells using a 405 Select LS low flow dispense rate.

Features:

- Automated internal 4-buffer switching
- Quick change manifold designs
- 96- and 384-well microplates
- Quick menu for priming, washing and maintenance
- Predefined sample methods for easy operation
- Magnetic and polystyrene bead assays, along with conventional ELISAs
- Super low rates provide gentle dispense for non-disruptive cell washing
- Patented Ultrasonic Advantage™ and Verify™ clog detection automate system maintenance and verification
- Multiple diagnostic sensors provide complete protection during unattended operation
- BioStack™ Microplate Stacker for up to 50 plates
- BioSpa™ 8 Automated Incubator compatible for assay automation



Typical Applications:

- ELISAs
- MSD assays
- HCS immune cytochemistry
- FLIPR® Ca²⁺ flux
- Cell-based assays
- Magnetic and polystyrene bead processing (gene expression assays, cytokine assays)
- ELISPOT assays

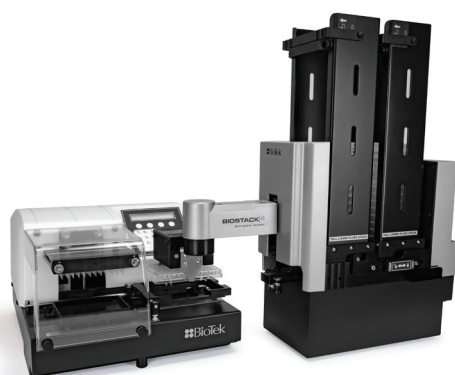
Configurations:

Several configurations are available for 96- or 96- and 384-well washing. Other options including automated buffer switching, Ultrasonic Advantage and Verify are available for configuration.

See Web Site for complete list of configurations and descriptions.

Optional Accessories:

- Dispense/Waste Systems – choice of 4L or 10L bottles and standard, high flow or direct drain vacuum pumps
- Magnets – choice of 96- or 384-well formats and flat or ring immobilization patterns
- Vacuum Filtration Module
- Product Qualification Package
- Liquid Handling Control™ PC Software
- BioStack™ Microplate Stacker
- BioSpa™ 8 Automated Incubator



405 LS interfaces with BioStack for automated multiple plate processing.



The 405™ LS is Luminex® xMAP® approved. Luminex® and xMAP® are registered trademarks of Luminex Corporation.

Technical Details:

General

| | |
|-------------------|--|
| Microplate types: | 96- and 384-well Low profile and standard height Solid and filter bottom (filter pore sizes 0.45 µm to 1.2 µm) |
| Separation: | Biomagnetic separation, vacuum filtration (optional) |
| Onboard software: | Create, edit or run multiple protocols |
| Software: | LHC2 pc software LHC2 Secure for 21 CFR Part 11 compliance (option) SiLA Compliant driver (option) |
| Automation: | BioStack and 3 rd party automation compatible BioSpa™ 8 Automated Incubator compatible |

Washing

| | |
|---------------------|---|
| Manifold types: | 96-well washing: 96-tube (8x12) manifold 96-/384-well washing: Dual-Action™ 96-tube (8x12) 384-well washing: Dual-Action™ 192-tube (16x12) |
| Washing speed: | 96-wells, 300 µL/well, 3 cycles; <30 seconds 384-wells, 100 µL/well, 3 cycles: <80 seconds 384-wells, 400 µL/well, 1 cycle: <20 seconds |
| Volume range: | 25 – 3,000 µL/well, in 1 µL increments |
| Buffer selection: | Automated internal switching of up to 4 wash buffers (option) |
| Flow rates: | High flow to low flow Optimized rates for cell assays |
| Wash cycles: | 1 – 250 |
| Dispense precision: | <3% CV: 300 µL/well (96-well washing) <4% CV: 80 µL/well (384-well washing) |
| Residual volume: | <2 µL/well (96- & 384-well plates) 96-tube manifold for 96 wells 192-tube manifold for 384 wells |
| Shaking: | Programmable up to 60 minutes Slow, medium, fast or variable |
| Soak time: | Programmable, up to 60 min. |

Physical Characteristics

| | |
|-------------|---|
| Power: | 100 – 240 Volts AC 50/60 Hz |
| Dimensions: | 17"D x 14"W x 10"H (43.2 x 35.6 x 25.4 cm) |
| Weight: | With internal buffer switching – 36 lbs (16.5 kg) Without internal buffer switching – 30 lbs (13.5 kg) |

Regulatory

Configurations for *In Vitro* Diagnostic use are available. CE and TUV marked, RoHS compliant.

Technical details are subject to change.



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