

Agilent BioTek EL406 Washer Dispenser

Product description



The Agilent BioTek EL406 washer dispenser offers fast, full plate washing along with three reagent dispensers in one, compact instrument. Its multiple capabilities include washing and dispensing for standard assays, plus biomagnetic separation and vacuum filtration protocols. The Agilent BioTek Dual-Action manifold optimizes washing for loosely adherent cell monolayers, while the patented Ultrasonic Advantage helps prevent blockages in the manifold tubes before washing, to reduce assay failure. Syringe pump and peristaltic pump dispensers each offer unique advantages, and the EL406 offers both, along with superior plate washing, on a single platform – making the EL406 an efficient solution for your laboratory.

EL406 is easily integrated to the Agilent BioTek BioSpa 8 automated incubator to automate critical sample preparation steps like media exchange in a fully-automated imaging workflow including Agilent BioTek cell imaging multimode readers. The Agilent BioTek BioStack microplate stacker and third party automation compatibility adds to the unique versatility of the EL406.

Features

- Fast microplate washing and dispensing
- Up to three reagent dispensers
- 96-, 384- and 1536-well microplates
- Magnetic and polystyrene bead assays
- ELISAs and cell-based assays
- Filtration-to-waste processes
- Built-in ultrasonic cleaner
- Automated switching of up to four wash buffers or reagents
- BioSpa 8 automated incubator compatible for assay automation
- BioStack compatible – to automate processes for up to 50 plates

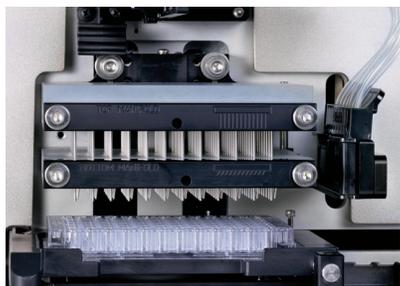


Figure 1. For 96- and 384-well washing, the Agilent BioTek Dual-Action 96- and 192-tube manifolds provide independent control of aspirate and dispense functions for precise control of all washing parameters.

Configurations

- 96-well washer with 1, 2 or 3 reagent dispensers
- 384-well washer with 1 or 3 reagent dispensers
- 96-/384-well washer with 1 or 3 reagent dispensers
- 1536-well washer with 2 or 3 reagent dispensers
- 384-/1536-well washer with 3 reagent dispensers
- 96-/384-/1536-well washer with 3 reagent dispensers

Optional accessories

- Magnet adapter kit
- Magnets – choice of 96- or 384-well formats and immobilization patterns
- Vacuum filtration module
- Cassettes for peristaltic pump dispenser
- Automatic reagent switching for 2 syringe pump dispensers
- Waste system – many options available
- Product qualification package
- BioStack microplate stacker
- BioSpa 8 automated incubator
- Liquid Handling Control (LHC) PC software



Figure 2. Agilent BioTek EL406 washer integrated with Agilent BioSpa 8 automated incubator and Agilent BioTek Cytation cell imaging multimode reader.

Technical details

General	
Microplate Types	96-, 384- and 1536-well Low profile and standard height Solid and filter bottom (option)
Onboard Software	Biomagnetic separation, vacuum filtration (optional)
Software (Computer Control)	Create, edit or run multiple protocols
Separation	LHC2 PC software LHC2 Secure for 21 CFR Part 11 compliance (option) SILA Compliant driver (option)
Shaking	Programmable up to 60 minutes Slow, medium, fast or variable
Soaking	Programmable up to 60 minutes
Ultrasonic Advantage	Standard on most configurations
Automation	BioStack microplate stacker and 3 rd party automation compatible BioSpa 8 automated incubator compatible
Sterilization	Autoclavable or chemical (configuration dependent)

Washing	
Manifold Types	96-tube manifold for 96- and 384-well washing 192-tube manifold for faster 384-well washing 32-tube manifold for 1536-well washing
Volume Range	3 - 3,000 μ L/well, in 1 μ L increments
Wash Cycles	1 - 250
Buffer/Reagent Selection	Auto switching module for up to 4 buffers (option)
Supply Bottle	4 L or 10 L (optional)
Dispense Accuracy	\leq 3%
Dispense Precision	< 3% CV (configuration dependent)
Residual Volume	\leq 2 μ L/well
Wash Speed	96 wells, 300 μ L/well, 96-tube manifold: 13 seconds 384 wells, 100 μ L/well, 192-tube manifold: 17 seconds 1536 wells, 10 μ L/wells, two 32-tube manifolds: 36 seconds
Flow Rates	High to low flow, optimizable for cell assays
Dispensing – Peristaltic pump (multi-channel)	
Manifold Types	8-tip cassette with plastic 316 stainless steel tubes or sapphire-jeweled 316 stainless steel tubes
Fluid Delivery	1 peristaltic pump
Dispense Speed	96 wells, 10 μ L /well: 8 seconds 384 wells, 5 μ L /well: 12 seconds 1536 wells, 1 μ L /well: 27 seconds
Volume Range	500 nL - 3,000 μ L/well, selectable in 1 μ L increments
Flow Rates	User-programmable rates from high to low Optimized rates for cell assays
Dispense Performance	1 μ L cassette: Dispense accuracy: \pm 5% at 1 μ L Dispense precision: \leq 5% CV at 1 μ L < 10% CV at 500 nL 5 μ L cassette: Dispense accuracy: \pm 2.0% at 5 μ L Dispense precision: \leq 2.5% CV at 5 μ L 10 μ L cassette: Dispense accuracy: \pm 2.0% at 10 μ L Dispense precision: \leq 2.0% CV at 10 μ L
Sterilization	Autoclave, chemical
Dispensing – Syringe pump	
Dispense Speed	20 μ L /well, 96 wells, 1 x 16 tubes: 5.25 seconds 20 μ L /well, 384 wells, 1 x 16 tubes: 14 seconds 3 μ L /well, 1536 wells, 2 x 32 tubes: 7 seconds
Volume Range	3 - 3,000 μ L/well, selectable in 1 μ L increments
Minimum Prime Volume	12 mL
Flow Rates	User-programmable rates from high to low
Dispense Accuracy	\pm 1 μ L at 5 μ L \pm 1 μ L at 20 μ L \pm 1% at 100 μ L
Dispense Precision	\leq 5% CV at 5 μ L \leq 2.5% CV at 20 μ L \leq 1% CV at 100 μ L
Supply Bottle	1 L or 2 L
Physical characteristics	
Power	0 – 240 Volts AC. 50/60 Hz
Weight	32 lbs (14.5 kg)
Dimensions	18" D x 16.5" W x 12.5" H (46 x 42 x 32 cm)

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