

# C.WASH™

Plate washer and liquid dispenser for cellular assays and immunoassays (ELISA)





## Introduction

The C.WASH is used to wash microwell plates using centrifugal force, without needles or pipette tips, for the non-contact washing of cells and ELISA assays. This innovative method of plate washing improves the reproducibility of results, drives down costs, reduces timelines and maximizes overall assay efficiency.

BICO, the leading bio-convergence company, is creating the future of medicine by providing bio-medical technologies, products and services that empower researchers to work faster and smarter. Our portfolio of innovative products are trusted by more than 2,000 laboratories in over 65 countries and have been cited in more than 9,000 publications.





## Features designed for your success



### Non-contact washing

Reduce the risk of cell damage and cross-contamination while saving on pipette tips.



### Fast and automated

Fully automated liquid removal from entire 96- and 384-well plates in seconds.



### Unmatched washing efficiency

With residual volumes of  $<0.1 \mu\text{L}/\text{well}$ , the C.WASH drastically reduces the number of washing cycles required and results in faster and more reproducible assays.



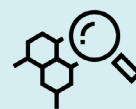


# Applications



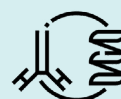
## Cell-based assays

Reduced background and lower variation improve data quality and increase Z' factors in cellular assays.



## High-throughput screening

Well-documented API and minimal maintenance for seamless integration into fully automated workflows.

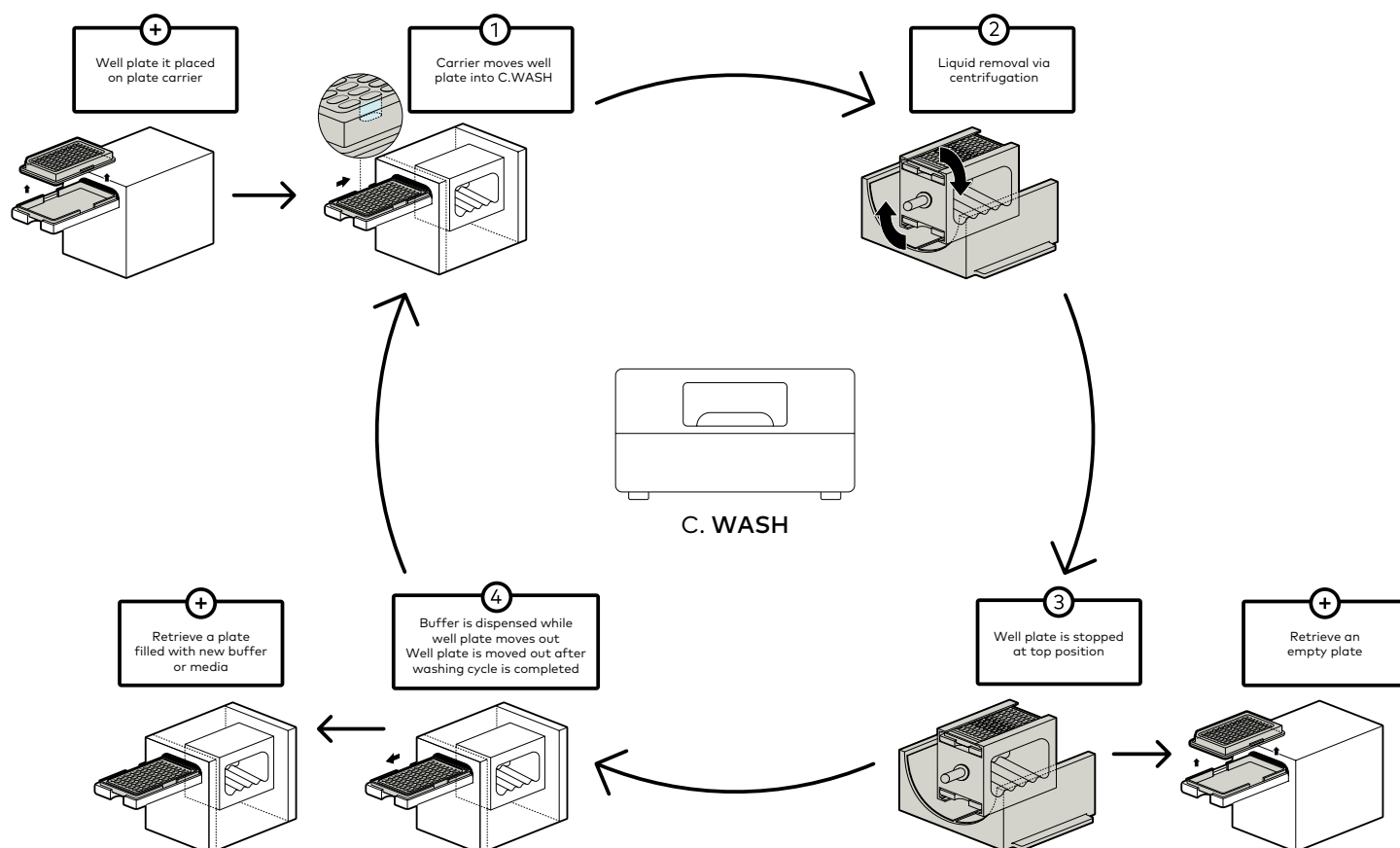


## Protein arrays and ELISA

Retain specified target molecules, while clearing out others, for more efficient assay performance.

# How does the C.WASH work?

Enables gentle liquid removal from well plates by centrifugal forces.



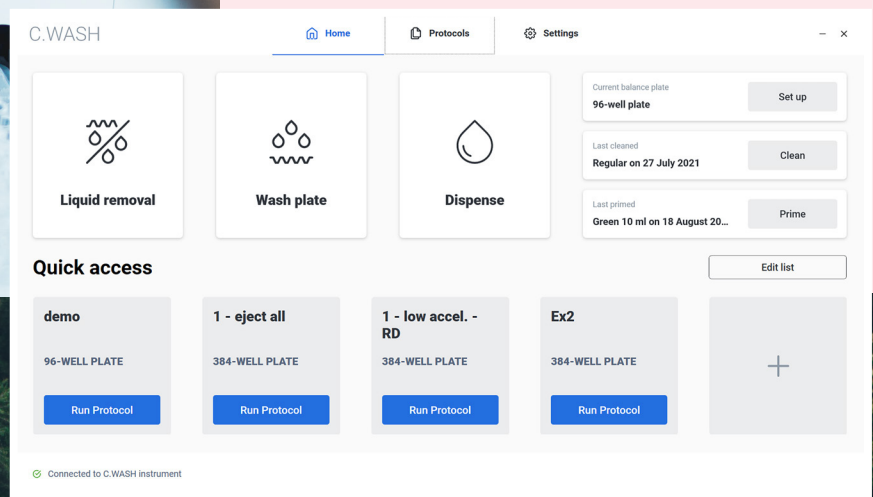




## Streamlined user interface

The C.WASH software was designed with ease of use in mind, and its automation saves valuable time. With an intuitive design and quick access tabs, the C.WASH ensures that you are as efficient as possible.

The well-documented communication via SiLA2 interface allows an integration with APIs and is compatible with third-party control software.



## The green revolution

The C.WASH is part of BICO's Green Label initiative to provide laboratories with sustainable instruments that help reduce their carbon footprint. Make a change in your lab by introducing the C.WASH and its ability to miniaturize assays, reduce plastic waste through tipless washing and speed up workflows.





# Technical specifications

Liquid Removal	
Plate compatibility (format)	96,384
Plate compatibility (height)	14.4 mm
Residual volume	< 0.1 µL per well for all plate formats
Centrifugal forces	5 to 3500 rpm (~400g)
Standard Dispenser (Membrane Pump & Electromechanical Valve)	
Dispense head	8-needle, 16-needle
Liquid inputs	Auto switching (internal) for up to 4 liquid input channels
Dispensing accuracy & precision (standard dispenser)	< 5% CV @300 µL across the plate, < 3% CV @300 µL
Adjustable dispense pressure	-
Deadvolume internal (tube volume)	8 ml
Deadvolume (liquid switch/priming)	4 ml
Volume range standard dispenser	8-needle dispense head: > 10 µL 16-needle dispense head: > 5µL
Dispense speed - 96-well (50µl)	16 seconds
Dispense speed - 384-well (25µl)	21 seconds
Washing Speed	
Processing speed 96-well 1 wash cycle	≤ 47 seconds
Processing speed 96-well 2 wash cycles	≤ 81 seconds
Processing speed 384-well 1 wash cycle	≤ 52 seconds
Processing speed 384-well 2 wash cycles	≤ 85 seconds
Liquid Waste System	
Active Pump for rapid liquid removal from wash drum	
Misc	
User interface	Touchpad (included)
Automation	SiLA2 interface is compatible with third-party integration
Washing efficiency	> 99.5% after 1 wash cycle, > 99.99% after 2 wash cycles
Dimensions (W x D x H)	385 x 600 x 205 mm
Weight	25 kg



# We create the future of health.



## CYTENA, A BICO COMPANY

CYTENA is a leading provider of high-precision instruments for isolating, dispensing, imaging, analyzing and handling biological cells. The company continues to build on the success of the single-cell dispensing technology it patented as a spin-off from the University of Freiburg, Germany, in 2014. Today, as part of BICO, the world's leading bio convergence company, CYTENA's award-winning devices are still manufactured in Germany and used at prestigious academic and pharmaceutical labs around the world to automate workflows in numerous application areas, including stable cell line development, single-cell omics, high-throughput screening and drug discovery. CYTENA's breakthrough innovations for the lab combine advanced automation, state-of-the-art software engineering and the latest insights in cell biology to maximize efficiencies in the life sciences and create the future of health. Learn more at [www.cytena.com](http://www.cytena.com)

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