

C.WASH™

Plate washer and liquid dispenser
for cellular assays and bead-based
nucleic acid and protein purification





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, ELISA assays and bead-based nucleic acid and protein purification. 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-, 384- and 1536-well plates in seconds.



Unmatched washing efficiency

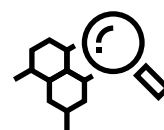
With residual volumes of $<0.1 \mu\text{L}/\text{well}$, the C.WASH drastically reduces the number of washing cycles required and results in faster and more reproducible assays.

Applications



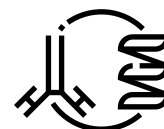
Cell-based assays

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.

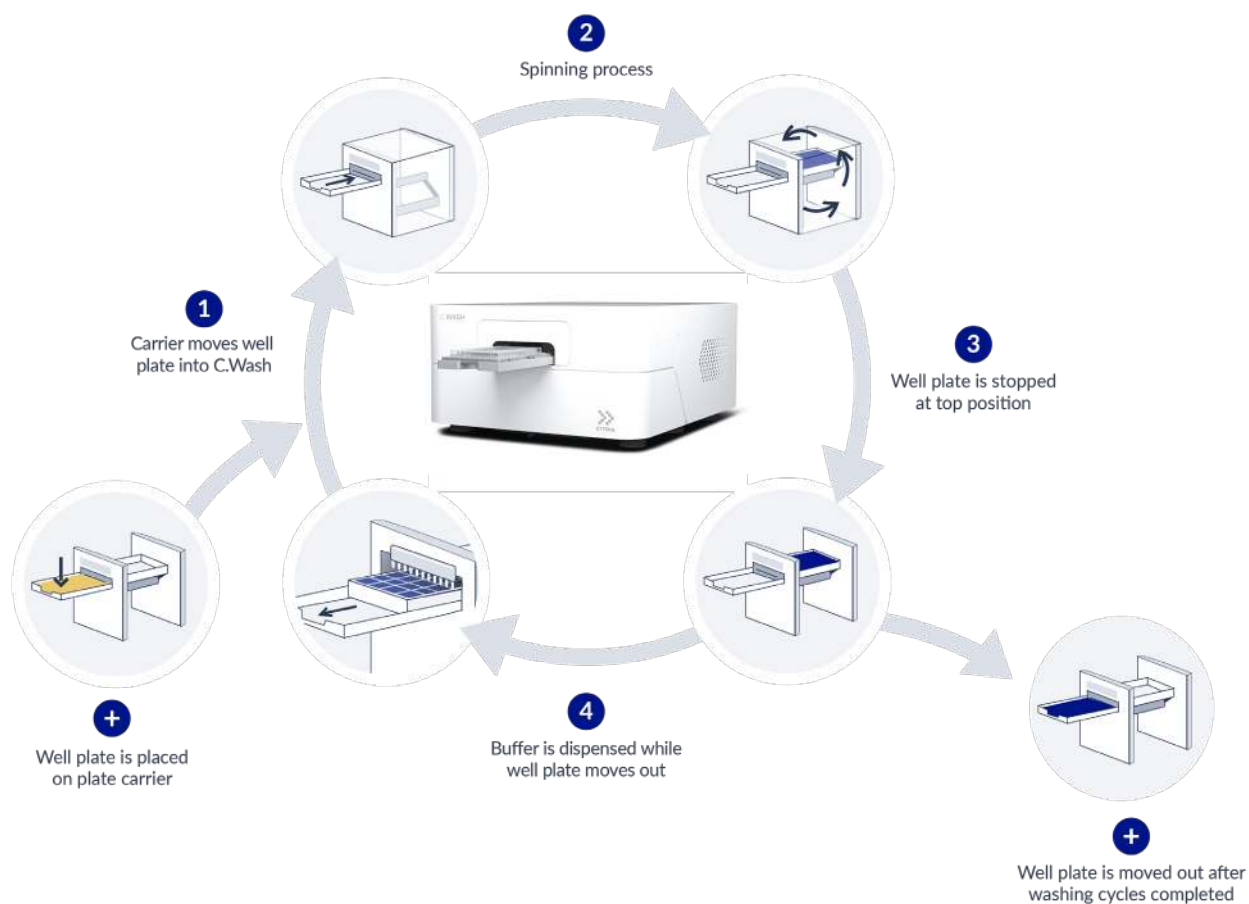


DNA purification for next-generation sequencing

Fully automated bead-based DNA purification at reduced volumes in NGS library preparation workflows.

How does the C.WASH work?

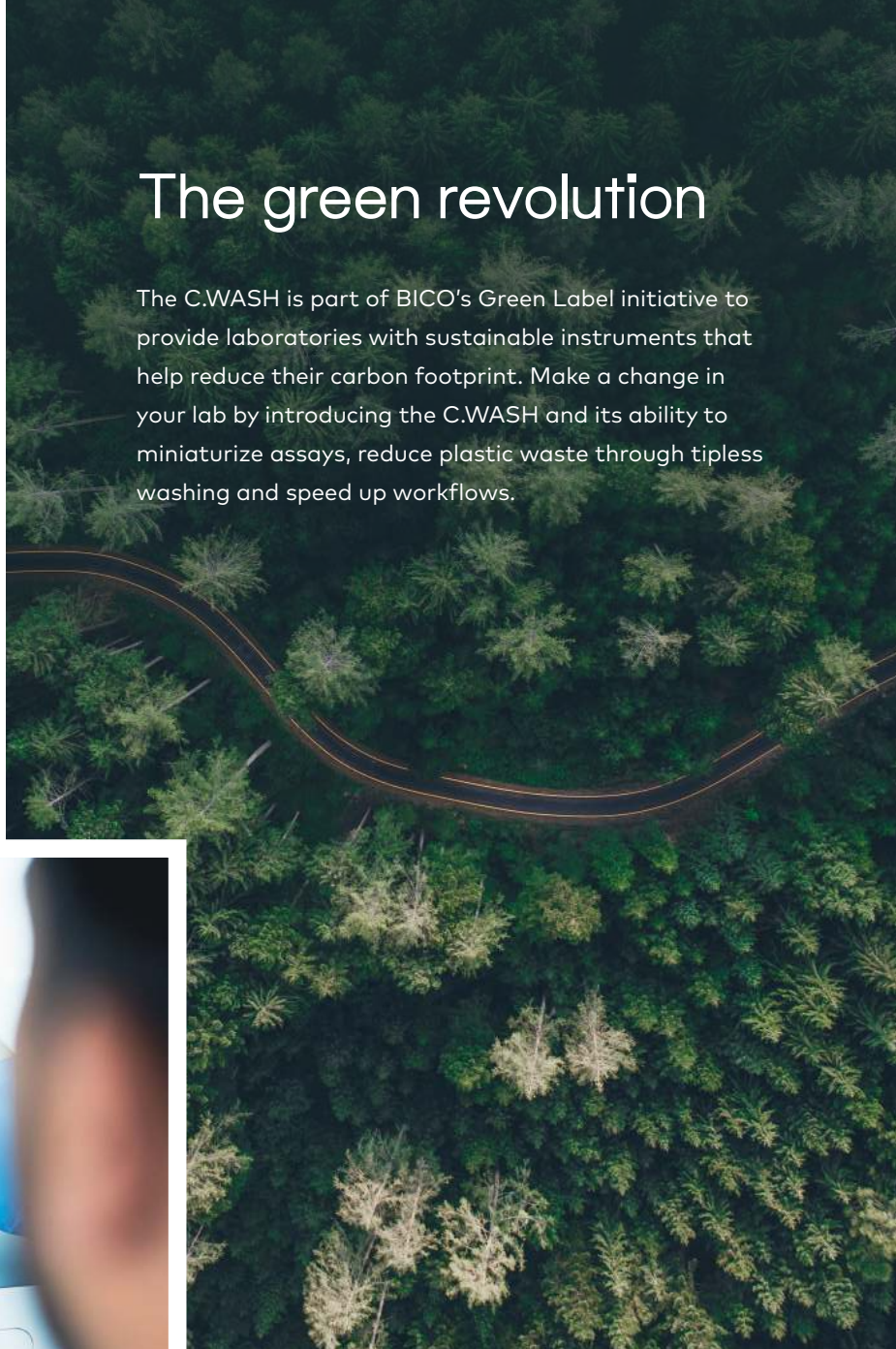
Enables gentle liquid removal from well plates by centrifugal forces.





The green revolution

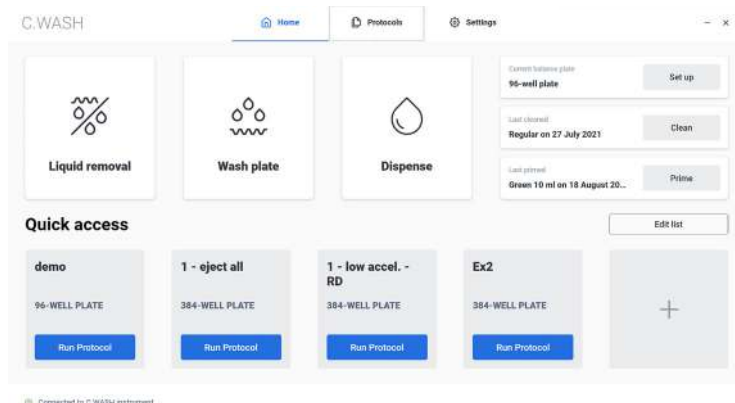
The C.WASH is part of BICO's Green Label initiative to provide laboratories with sustainable instruments that help reduce their carbon footprint. Make a change in your lab by introducing the C.WASH and its ability to miniaturize assays, reduce plastic waste through tipless washing and speed up workflows.



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.



Technical specifications

Plate compatibility	Any SBS format up to 15.2 mm high, dispensing into 96-, 384 and 1536-well plates
Centrifugal liquid removal	5 to 3500 rpm (~400g)
Dispense head	8-needle and 16-needle for 96- and 384-well plates
Residual volume	<0.1 µL per well for all plate formats
User Interface	Touchpad (included)
Software	User-friendly software on Microsoft Surface or Windows PC
Automation	SiLA2 interface is compatible with third-party integration
Dispensing accuracy & precision	<5% @300 µL across the plate, <3% (CV) @300 µL
Washing efficiency	>99.5% after 1 wash cycle >99.99% after 2 wash cycles
Processing Speed	96-well 1 wash cycle ≤47 seconds 96-well 2 wash cycles ≤81 seconds 384-well 1 wash cycle ≤52 seconds 384-well 2 wash cycles ≤85 seconds
Dimensions & Weight	365 x 585 x 205 mm (W x D x H) 25 kg
Liquid inputs	Auto switching (internal) for up to 4 liquid input channels
Volume range	8-needle dispense head: >10 µL 16-needle dispense head: >5µL



CYTENA, A BICO COMPANY

CYTENA spun off from the University of Freiburg, Germany, in 2014 with its patented single-cell dispensing technology. Today, as part of BICO, the world's leading bioconvergence company, CYTENA continues building on that groundbreaking technology to develop high-precision instruments for isolating, dispensing, imaging and handling biological cells. Its award-winning devices are 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.