G.PURE

Automated, reproducible, and tip-less
DNA purification.

CYTENA
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The G.PURE is an automated system for nucleic acid purification in high-throughput Next Generation Sequencing (NGS) and PCR workflows. It utilizes centrifugal liquid evacuation technology, reducing costs and time while improving data quality. Compatible with PCR microplates, it enables efficient purification using magnetic beads, without the need for numerous pipette tips. The G.PURE was designed to automate DNA cleanup, nucleic acid isolation, and size selection, providing high-quality results in molecular biology labs. Its non-contact liquid handling and compatibility with common NGS library protocols make it suitable for high-throughput NGS and single-cell sequencing applications.

Features designed for your success

Non contact bead cleanup

G.PURE revolutionizes DNA cleanup with its centrifugal technology, ensuring minimal DNA carry-over and contamination. By employing non-contact liquid removal and dispensing, G.PURE sets a new standard for precision and reliability in nucleic acid purification. Say goodbye to worries about compromised data quality and embrace the power of G.PURE for pristine results in your genetic research.

Consistent sample preparation

Achieve precise control over ethanol evaporation with G.PURE. Maintain consistent drying of beads across all samples, avoiding issues of beads being too dry or having excessive residual ethanol. This leads to improved library quality. Customize the drying step using G.PURE's protocol editor for optimal results.

Fast and automated

Experience the speed of DNA cleanup like never before with G.PURE. In just 2 minutes, remove the beads supernatant, perform 2 ethanol washes, all without using a single pipette tip. Whether you're working with a 96-well or 384-well plate format, G.PURE delivers rapid and efficient results.

Applications

DNA Purification

Ferromagnetic beads have become the gold standard for DNA cleanup in molecular biology applications such as next-generation sequencing (NGS), polymerase chain reaction (PCR), quantitative PCR (qPCR), droplet digital PCR (ddPCR), and other amplification and genotyping techniques. Their effectiveness in nucleic acid isolation and purification, including DNA, RNA, plasmids, and mitochondrial DNA, is widely recognized. Furthermore, ferromagnetic beads are highly valuable for size selection, allowing researchers to isolate specific DNA fragments based on their size range. The G.PURE's compatibility with ferromagnetic bead-based protocols makes it an ideal solution for nucleic acid purification and size selection.

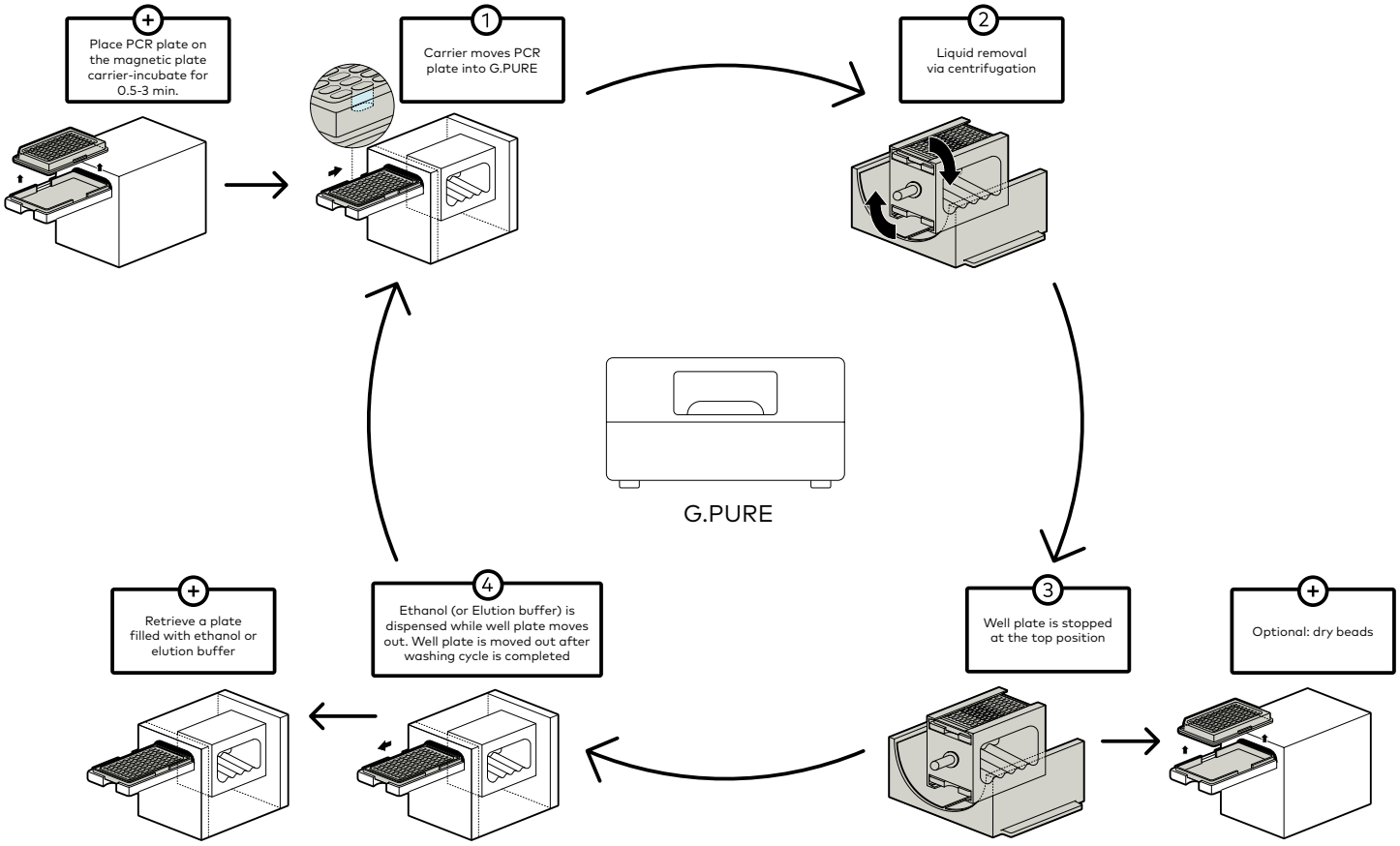
Single cell sequencing

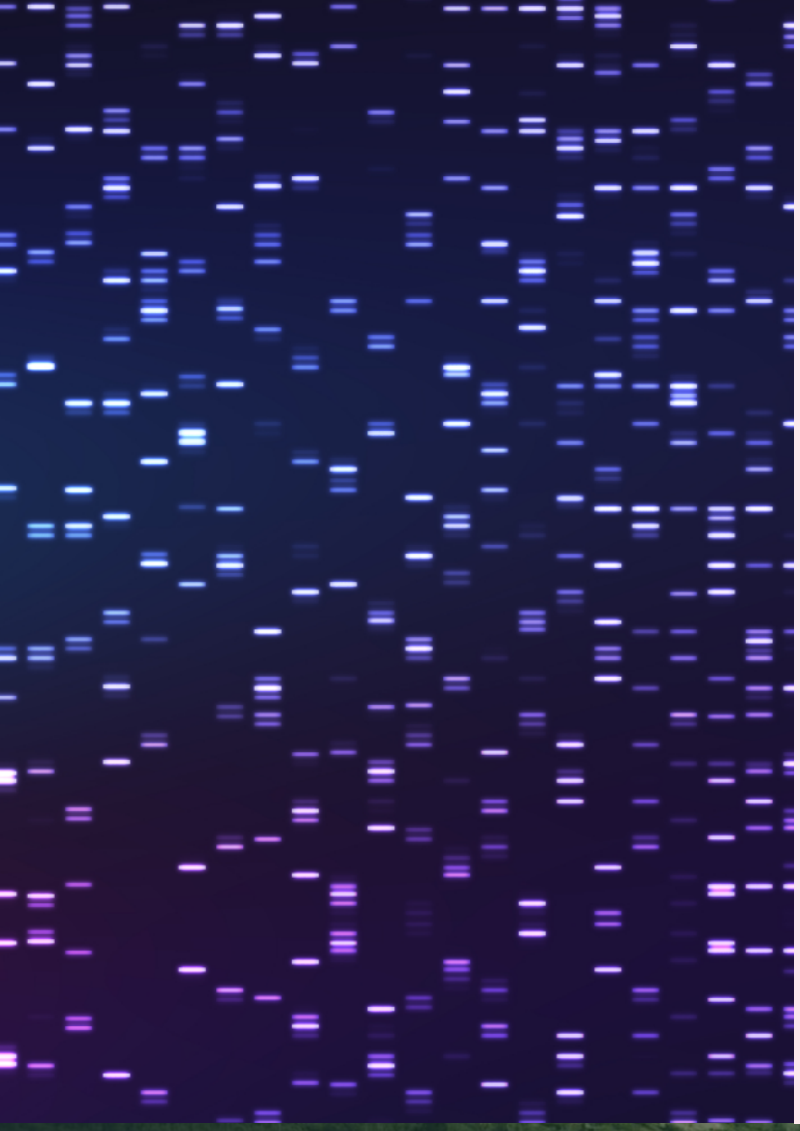
The increasing popularity of single-cell sequencing and the reduced cost of high-throughput sequencing have led to a significant rise in the number of samples requiring processing. The G.PURE is designed to meet these demands, offering automation and compatibility to handle larger sample volumes efficiently, notably on the 384-format.

Protein isolation

Beyond nucleic acid applications, ferromagnetic beads also play a crucial role in protein purification. They enable the capture and isolation of target proteins from complex samples. The G.PURE's compatibility with ferromagnetic bead-based protocols extends its utility to protein purification workflows, ensuring streamlined and reliable protein isolation.

How does the G.PURE work?





Streamlined user interface

Unlock a seamless workflow experience with the user-friendly software of the G.PURE, providing step-by-step guidance throughout your protocol. Customize your protocols to your preferences, whether it is setting pause time for controlled bead settling, preserving reagents by skipping columns, or adjusting the acceleration and deceleration of centrifugation. This level of flexibility empowers you to optimize every aspect of your workflow, ensuring optimal results for your research.

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

The green revolution

Join BICO's Green Label initiative with the G.PURE, an instrument designed to help laboratories reduce their carbon footprint. By integrating the G.PURE, you can make a positive impact and minimize plastic waste through tipless washing, while also accelerating workflows. Say goodbye to excessive pipette and liquid handler tip usage, and embrace the eco-friendly practices enabled by the G.PURE. Make a change in your lab today for a greener tomorrow.

Technical specifications

Plate compatibility	PCR plate **low-profile** (height up to 16.1 mm) 96-well plates (skirted, semi-skirted, unskirted) 384-well PCR plates
Centrifugal liquid removal	1 to 80g
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
Bead separation time	Powerful magnets allows completion within a time frame of 30 seconds on 96-format and 3 minutes on 384-format
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	385 x 600 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

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

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