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Products In Action - Thermo Fisher Scientific

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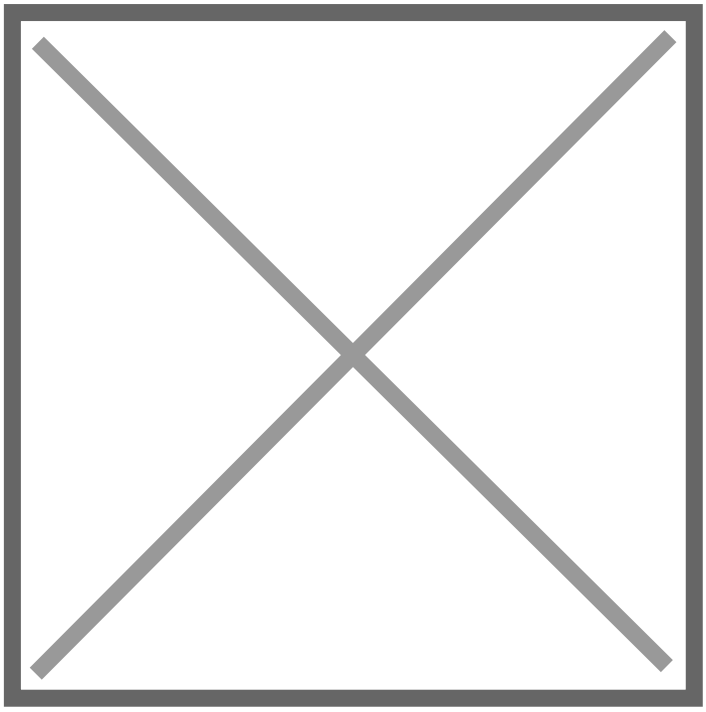
Thermo Fisher Scientific is an American provisioner of scientific instrumentation, reagents and consumables, and software and services to healthcare, life science, and other laboratories in academia, government, and industry. Here is a glimpse of new products being offered by the company!



Gibco CTS Rotea Counterflow Centrifugation System.



A closed cell processing system for cell therapy manufacturing

The Gibco CTS Rotea Counterflow Centrifugation System offers exceptional cell recovery, flexible input and output volume capability, and high-throughput rate. The compact footprint, process flexibility, and sterile single-use kit allows the system to seamlessly scale with your process, from research through clinical manufacturing.

Key product features:

- Process flexibility—user-programmable software that enables to create and optimize a broad range of protocols for cell separation, washing, and concentration
- High cell recovery and viability—gentle processing enables >95% cell recovery while maintaining cell viability
- Low output volumes—proprietary technology can deliver as little as 5 mL of concentrate
- Research through commercial manufacturing—the closed single-use kit enables sterile processing, and an OPC-UA interface enables connectivity to a 21 CFR Part 11–compliant system. Click here



OmniPATH COVID-19 Total Antibody ELISA Test

Thermo Fisher Scientific further expands COVID-19 tests portfolio with two new antibody tests, Thermo Scientific OmniPATH COVID-19 Total Antibody ELISA test, and the Thermo Scientific EliA SARS-CoV-2-Sp1 IgG test.

OmniPATH COVID-19 Total Antibody ELISA Test is an enzyme-linked immunosorbent assay (ELISA) intended for qualitative detection of total antibodies (including immunoglobulin M (IgM), immunoglobulin A (IgA) and immunoglobulin G (IgG) to SARS-CoV-2 in human serum. This is on open ELISA platform that detects antibodies to the receptor binding

domain (RBD) of the S1 subunit of the spike (S) protein. This assay offers 100% sensitivity and specificity in symptomatic patients - 15 days post-symptom onset, as well as high sensitivity (83.1%) after 8 days. Additionally, the Thermo Scientific EliA SARS-CoV-2-Sp1 IgG Test is a fluoro-enzyme immuno assay (FEIA) based quantitative measurement IgG antibodies to the SARS-CoV-2 spike (S) protein S1 receptor binding domain (RBD), with all of the benefits of Thermo Scientific™ EliA™ test technology on the fully automated Thermo Scientific™ Phadia™ 250 laboratory system.

HyPerforma DynaDrive Single-Use Bioreactor



A next-level innovation in single-use bioreactors with unmatched design, scalability, and performance. The Thermo Scientific HyPerforma DynaDrive Single-Use Bioreactor (S.U.B.) is the latest innovation in single-use bioreactors, continuing the success of the robust HyPerforma bioreactors first launched in 2006 and updated in 2013. This HyPerforma DynaDrive S.U.B. helps ensure optimal cell culture performance across all scales and increased cell densities.

Performance:

Improved turndown ratio:

- Uniquely designed to allow mixing at very low volumes
- 10:1 for the 50 L S.U.B. and 20:1 for the 500 L S.U.B.
- Seed directly from flasks into S.U.B.

Optimized for modern cell culture processes, accommodating high power input per volume (PIV) and volumetric mass transfer performance (measured by kLa)

- Easily capable of supporting viable cell densities of >100 million cells/mL
- Scaled PIV and kLa for various terminal volumes
- Characterized linear kLa performance

Considerable savings in CAPEX and OPEX due to reduced seed-train and scale-up processes

- Reduced steps, labor and documentation required for the seed train processes
- Minimized contamination risks
- Improved facility footprint space utilization

Bold hardware design:

- Ergonomic unit design for easy, consistent, and reliable BPC loading and deployment
- Cutouts in hardware allow for unique customization and ease of use/access to ports
- New cubical geometry and design improves mixing by providing baffles in corners and better BPC fit
- Lower probe cutouts on vessel for accurate sensing of pH, DO, and temperature
- Bottom-jacketed vessel for better heat transfer and temperature control at lower volumes



Thermo Scientific™ Multidrop™ Pico 1 and 8 Digital Dispensers

Multidrop™ Pico 1 and 8 Digital Dispensers offers enhanced dispensing precision with volumes between 11pL to 10uL in any well, eliminating the need for manual dilution while providing significant cost and waste reductions. It is designed to enable assay miniaturization, boost productivity, and improve accuracy of results making them ideal for a broad array of low-volume applications such as qPCR, dose response curves, drug screening assays and ELISA.

Glacios™ Cryo- Transmission Electron Microscope



The new Thermo Scientific™ Glacios™ Cryo Transmission Electron Microscope (Cryo-TEM) delivers a complete and affordable Cryo-EM solution to a broad range of scientists. It features 200 kV XFEG optics, the industry-leading autoloader (cryogenic sample manipulation robot) and the same innovative automation for ease of use as on the Krios G3i Cryo-TEM. The Glacios Cryo-TEM bundles all this into a small footprint that simplifies installation. The designed-in connectivity ensures a robust and contamination-free pathway throughout the entire workflow, from sample preparation and optimization to image acquisition and data processing. The Glacios Cryo-TEM can used in a single particle analysis (SPA) workflow for pre-screening of sample quality before transferring to the Krios Cryo-TEM for ultimate-resolution SPA data acquisition. Furthermore, the Glacios Cryo-TEM can also be configured with a Direct Electron Detector and/or Volta Phase Plate to be a complete standalone SPA data acquisition solution.

Versa Rx Checkweigher for Pharmaceutical Applications



The Thermo Scientific™ Versa Rx Pharmaceutical Checkweigher is specifically designed to meet pharmaceutical Good Manufacturing Practice (GMP) standards, while delivering the highest level of accuracy and reliability. Optional validation packages and 21 CFR Part 11 compliance are also available.

TruScan™ GP Handheld Raman Analyzer



The Thermo Scientific™ TruScan™ GP Analyzer provides quick, easy to use raw material identification and finished product inspection to screen out counterfeit substances and reduce supply chain risk. Building on the proven capability of our flagship Thermo Scientific™ TruScan™ RM Analyzer, the TruScan GP Analyzer is designed to provide cost-effective material quality control to pharmaceutical manufacturers and chemical companies in emerging global markets.