



Laboratory equipment

Setting up a gene therapy development or production laboratory



LABORATORY EQUIPMENT FOR GENE THERAPY DEVELOPMENT AND PRODUCTION

Our lab equipment can help meet your GMP needs in and out of the cleanroom

Scientists around the world recognize Thermo Scientific™ lab equipment for its high quality and industry-leading innovation. We offer a comprehensive product portfolio to support you at each step of your workflow—from vector construction to production, purification, characterization, and fulfillment.

Lab equipment for bacterial culture and plasmid production

When developing your gene therapies in the research and development phase, or producing plasmids for downstream administration, the following lab equipment can help you achieve your advanced therapy goals:



Benchtop orbital shakers

Thermo Scientific™ Solaris™ Incubated and Refrigerated Shakers have high compatibility with good lab practice/good manufacturing practice (GLP/GMP) operations, including vector construction and plasmid production procedures. Thermo Scientific™ Solaris™ Open Air models are specially engineered to help support operation on the bench, and for added flexibility, inside lab equipment such as environmental chambers, incubators, and lab refrigerators. Thermo Scientific™ Solaris™ 2000 open air shakers are independently certified for ISO Class 5 cleanrooms.



Stackable controlled-temperature shakers

Stack up to three Thermo Scientific™ MaxQ™ 8000 Incubated Stackable Shakers. These shakers contain a HEPA filter that ensures the air inside the chamber remains clean and reduces cross-contamination, and they feature a slide-out platform that provides convenient 100% sample access.



Microbiological incubators

Ensure outstanding sample safety with Thermo Scientific™ Heratherm™ Advanced Protocol Security Microbiological Incubators. These incubators include a unique 140°C certified decontamination routine, lockable incubator door with alarm for restricted access, and automatic over- and under-temperature alarms. A range of sizes are available, from benchtop to double-door floor-standing models.



Superspeed centrifuges

Achieve high-throughput sample processing, up to 6 L capacity, and speeds up to 100,605 x g, with the Thermo Scientific™ Sorvall™ LYNX 6000 Superspeed Centrifuge. It features powerful technologies, including Thermo Scientific™ Auto-Lock™ Rotor Exchange, which offers immediate rotor detection and programming, and is compatible with ergonomic Thermo Scientific™ Fiberlite™ Carbon Fiber Rotors. This equipment is designed for consistent results and maximum uptime.

Lab equipment for mammalian cell culture and virus production and purification

For large-scale gene therapy manufacturing, the following lab equipment offers unique features that promote successful production in a GMP environment.



Ultracentrifuges

With speeds up to 802,010 x g, Thermo Scientific™ Sorvall™ WX+ Ultracentrifuges deliver the performance required for fast, advanced separations. The centrifuges offer an intuitive touchscreen interface with access control, automatic tube balancing, and a large range of rotors, including lightweight and fatigue-resistant Fiberlite rotors.



Bioprocessing centrifugation system

Convert your centrifuge to a closed system with this next-generation accessory: a single-use, sterilized bioprocess container (BPC). The Thermo Scientific™ CentriPAK™ BPC system fits with the Thermo Scientific™ Sorvall™ BIOS 16 Centrifuge. Together, they can maximize your sample security and minimize process time by helping reduce cross-contamination risks, eliminating post-use cleaning steps, and enabling high-efficiency, high-throughput harvesting while adhering to all bioprocessing quality standards.



CO₂ incubators, CTS Series

Thermo Scientific™ Forma™ Steri-Cult™ CO₂ Incubators, CTS™ Series provide excellent protection for high-value cultures, including for vector production. With two model sizes, 232 L (8.2 cu. ft.) and 322 L (11.4 cu. ft.), the stackable incubators are suited for high-volume culturing. Features include proven sterilization across 12 logarithmic units, in-chamber HEPA filtration, active humidification system, and compatibility with common GMP facility protocols.



Biological safety cabinets (BSCs), CTS Series

The Thermo Scientific™ Herasafe™ 2030i Biological Safety Cabinet, CTS™ Series, is designed to help maximize sample protection and user safety while emphasizing containment, comfort, and convenience. Equipped with smart self-monitoring safety features, an intuitive touchscreen, and built-in connectivity, this BSC is available with a complete documentation package and compliance services.

Products for a GMP quality control lab

The following Thermo Scientific™ laboratory products help ensure that your gene therapy product has all of the desired attributes, including safety, quality, purity, and efficacy:

- Aquanex™ Ultrapure Tap to Type I/II Water Purification System
- CO₂ incubators
- General purpose centrifuges
- Herasafe 2030i Biological Safety Cabinet
- Environmental chambers
- F1 pipettes and tips
- Microcentrifuges
- Nalgene™ biohazardous waste containers
- Nalgene™ labware
- Orion™ Versa Star Pro™ benchtop pH meter
- Orion™ ROSS™ pH electrodes and solutions
- Solaris™ benchtop shakers
- TSX™ Series refrigerators and freezers

Products for storage and transportation

Once production is complete, the journey from lab to patient begins. Thermo Scientific™ laboratory products for short- and long-term storage can help ensure therapies are safely frozen, stored, and thawed at their ideal temperatures when they are ready for use.

- Arctic Express™ dual storage systems
- CryoExtra™ high-efficiency cryogenic storage systems
- CryoMed™ freezers with OPC UA™, General Purpose
- CryoPlus™ storage systems
- Environmental chambers
- Nalgene™ and Nunc™ sample storage equipment and consumables
- Smart-Tracker™ wireless datalogging module
- TSX Series high-performance -20°C manual defrost freezers
- TSX Series high-performance lab refrigerators
- TSX Universal Series ultra-low temperature (ULT) freezers



The Thermo Scientific™ Smart-Vue™ Pro Wireless Data Monitoring Solution offers secure data logging for continuous sample monitoring in conformance with 21 CFR Part 11 regulations.

Learn more at thermofisher.com/ctlabproducts

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