

Advancing Antibody Purification With Essential Lab Equipment

The Right Tools, Right From the Start

Molecule development is used to design, engineer and optimize new therapeutic biomolecules, such as antibodies. It allows scientists to tailor each target molecule to meet the desired therapeutic and production criteria.

The molecule development process depends on efficient separation technologies to purify the target molecule for characterization and preclinical validation. Sartorius offers a complete range of solutions that solve common challenges in molecule separation workflows.

Antibody Production

Expression of an antibody in mammalian cell culture (e.g. CHO)

Featured Solution:

Ultroser G

- Semi-defined serum substitute and FCS substitute
- Batch-to-batch reproducibility; no need to batch test
- Low protein content



Clarification and Sterile Filtration

Cells are removed from antibody-containing media by microfiltration with a filter aid

Featured Solution:

Sartoclear Dynamics® Lab

- Clarify cell cultures in minutes
- Out-of-the box solution
- Fast and effortless
- No need for centrifugation

Ultrafiltration and Diafiltration

The clarified sample is concentrated and re-buffered by tangential flow filtration (TFF)

Featured Solution:

Vivaflow® SU

- More intuitive and cost-effective setup
- High performance without optimization



Purification

Antibodies are captured and polished by affinity and ion exchange chromatography

Featured Solution:

Sartobind® Rapid A Lab

- Easier, reproducible purification, system-free and without blocking
- Faster antibody capture
- Cost efficient thanks to higher yields

Ultrafiltration and Diafiltration

The purified sample is concentrated and exchanged into its final buffer formulation

Featured Solution:

Vivaspin® Turbo

- Better reagent resistance
- Shorter process times



Sterilization

Particles are removed and bioburden is eliminated by microfiltration

Featured Solution:

Minisart® High Flow

- Large effective filtration area (EFA) of 6.2 cm²
- High flow rate
- High total throughput
- Low hold-up volume

Characterization

Downstream analysis and testing of the target antibody

Featured Solution:

Octet® BLI System

- Label-free, real-time analysis in high-throughput
- Precise affinity measurement, kinetic analysis of antibody-antigen interactions
- Analyte concentration and purity determination



Unlock Instant Value

Basic tasks like filtration and purification can be time consuming and tedious. Our high-quality, innovative solutions help to streamline molecule isolation workflows:

- Reduce complexity with easier setup and fewer steps.
- Maximize process efficiency with unique technologies and product designs.
- Increase the reproducibility of your results.