

Sartoclear Dynamics[®] Lab P15

For simultaneous clarification and sterile filtration of 15 mL mammalian cell cultures in a single 1-minute step

Benefits

Takes the pain out of protein harvesting: Sartoclear Dynamics[®] Lab P15 saves you valuable time and helps recover your intact protein quickly and reproducibly for the next process step



Product Information

Sartoclear Dynamics[®] Lab P15 is designed for simultaneous clarification and sterile filtration of up to 15 mL of γ -mammalian cell culture solution in one step to prepare for subsequent protein harvesting. This convenient kit combines a syringe pre-filled with a filter aid for clarification and an integrated 0.2 μ m polyethersulfone filter for sterile filtration.

High Filtration Performance

Sartoclear Dynamics® Lab P15 has been designed for all mammalian cell cultures, such as CHO, HEK, hybridoma and many others, with cell densities of 20×10^6 and higher.

Functional Principle Explained

Inspired by the plasma industry, Sartoclear Dynamics® Lab is based on the principle of body feed filtration using diatomaceous earth (DE) as a filter aid. DE is a highly porous, insoluble material used as a spacer between solid particles. While these particulate solids are entrapped in a cake that builds up on the filter, liquid along with the dissolved target substances can easily flow through this filter cake by passing through the porous structure of the DE particles.

Optimized Design for Faster Protein Harvesting

The 20 mL syringe, pre-filled with 0.5 g DE, eliminates the need for an additional centrifugation step for clarifying your cell culture solution at the harvest step prior to sterile filtration. A filling tube facilitates aspiration of the cell culture into the 20 mL syringe from any culture vessel, for example, Ambr® 15 bioreactors. As a result, your clarified cell culture liquid will be available faster for subsequent protein sample purification and concentration by downstream processing.

The sterile filter included in the kit contains a $0.2 \mu\text{m}$ polyethersulfone membrane and a prefilter made of 100% high-purity quartz: The choice of these materials, along with the larger surface area of the filter, enables filtration at high flow rates using minimal manual pressure. Each filter is individually packaged and sterile.



Technical Specifications

Typical Results

Cell Type	Cell Density	Viability	Mab Concentration before Filtration	Mab Concentration after Filtration	Recovery Rate
CHO DG44	16 × 10 ⁶ cells/mL	78%	6.02 g/L	5.77 g/L	96%
CHO DG44	38 × 10 ⁵ cells/mL	48%	0.43 g/L	0.43 g/L	100%

DE Syringe

Syringe material	Syringe barrel and plunger rod: polypropylene Stopper: latex-free elastomer
Syringe cap	Polyamide
Filling tube material	Polypropylene
Filter aid	0.5 g highly pure diatomaceous earth (Celpure® C300 - pharmaceutical-grade)*

* Celpure® is a trademark of Advanced Minerals

Sterile Filter

Housing material	Polycarbonate
Prefilter material	100 % high-purity quartz, binder-free
Filter material	0.2 µm polyethersulfone
Filter diameter	61 mm
Filtration area	20 cm ²
Connector inlet	Female Luer-Lock
Connector outlet	Male Luer-Lock
Hold-up volume	Approx. 2.5 mL
Housing burst pressure	> 5 bar 72.5 psi
Sterilization	EO sterilization

Ordering information


Order Number	Description
SDLP-0015--C	6 × 20 mL syringes, pre-filled with 0.5 g DE, including caps and filling tubes 6 x sterile filters

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